Errata

Title & Document Type: 3586A/B/C Selective Level Meter Service Manual - Volume 1

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HP References in this Manual

This manual may contain references to HP or Hewlett-Packard. Please note that Hewlett-Packard's former test and measurement, semiconductor products and chemical analysis businesses are now part of Agilent Technologies. We have made no changes to this manual copy. The HP XXXX referred to in this document is now the Agilent XXXX. For example, model number HP8648A is now model number Agilent 8648A.

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Agilent Technologies

SERVICE MANUAL

SELECTIVE LEVEL METER

3586A/B/C

VOLUME I

Performance Tests
Adjustments
Replaceable Parts
Manual Changes

HEWLETT PACKARD

HEWLETT PACKARD

SERVICE MANUAL

MODEL 3586A/B/C SELECTIVE LEVEL METER

(Including Options 001, 002, 003, and 004)

VOLUME I

IMPORTANT NOTICE

This manual applies to all instruments. Earlier versions of the 3586A/B/C, however, may differ in design and appearance from the instruments this revision documents directly. Changes that have been made to the instrument and which affect the instrument's documentation are identified by the delta (Δ) symbol. The "numbered" Δ refers the reader to the corresponding numbered Δ in the backdating section (Section VII) in Volume I of the 3586A/B/C Service Manual.

WARNING

To prevent potential fire or shock hazard, do not expose equipment to rain or moisture.

This service manual contains no operating information. For Sections I to III (Operation), see the 3586A/B/C Operating Manual (Part No. 03586-90012, Microfiche Part No. 03586-90062).

Manual Part No. 03586-90002
Microfiche Part No. 03586-90052

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SECTION IV
PERFORMANCE TESTS

4-1. INTRODUCTION.

4-2. The performance test procedures in this section should be used to verify the specifications for the 3586A/B/C as given in Section I of the operating manual and Section VIII of the service manual. All of the tests are done without opening the cabinet.

4-3. EQUIPMENT REQUIRED.

4-4. Equipment required for the performance tests is listed in Table 4-9. Equipment with specifications that meet or exceed those of the recommended equipment may be substituted. Remember to keep cables as short as possible, especially when using high frequencies.

4-5. TEST RECORD.

4-6. Results from the performance tests may be recorded in the Test Record found at the end of Section IV. Listed in the Test Record are the performance limits for each parameter tested. The Test Record may be copied without permission from -hp- and used for periodic testing or troubleshooting.

4-7. CALIBRATION CYCLE.

4-8. These performance tests should be done every year and after repairs to assure proper operation of the instrument.

4-9. PERFORMANCE TESTS.

4-10. Each performance test is independent of the others. A brief description, followed by performance specifications and a list of required equipment, precedes the procedures for each test. A significant amount of time is required to follow the performance tests through to completion. The tests listed in the Table of Contents which are preceded by an asterisk (*), contain procedures which can be abbreviated and still provide an accurate measure of the instrument's performance.

4-11. For the most part, each test begins by initializing the 3586A/B/C. This consists, simply, of setting up the instrument to the state it is in immediately after turn-on and auto-cal. Initializing the instrument can be done by entering all the appropriate functions manually or by

pressing [RECALL] , [0] .

The instrument should not, however, be turned off and on because of the required stabilizing time of 20 minutes. The initialized state consists of:

AUTO-CAL	ON
RANGE	10dB
FULL SCALE	AUTO

UNIT	dBm
ENTRY FREQUENCY SSB CHANNEL	CARRIER
CHANNEL	↗1
COUNTER	OFF
MEASUREMENT	LO DIST
TERMINATION	75Ω (Rev. A Controller ROMs) 10kΩ (Rev. B Controller ROMs)
BANDWIDTH	3100Hz,2000Hz, or 1740Hz
entered frequency	1MHz

NOTE

Most of the performance tests require that the 3586 have the "75Ω" input termination impedance selected. If the instrument has Rev. B controller ROM's installed (as indicated by the instrument initializing in the 10kΩ termination impedance), the operator must manually select the 75Ω impedance each time after pressing RECALL, 0.

4-12. Initializing the -hp-3335A can be done similarly by

pressing [RECALL] , [0]

providing the zero register is unchanged from the time of power cycling.

4-13. Center Frequency Accuracy.

4-14. This test checks the accuracy of the 10MHz Reference Output of the 3586A/B/C. Of course, using a sufficiently accurate counter to measure the frequency of this output is a valid method. However, in the case where no such counter is available, the following procedure is equally valid.

Specifications:

Frequency	9,999,900Hz to 10,000,100Hz

Equipment Required:

Oscilloscope	-hp-180A/1808A/1821A
Frequency Reference ("oven")	-hp- 3335A opt. 001
(3)25Ω .1% Resistors (see Figure 4-9)	-hp- Part No. 0698-8011

Procedure:

a. Use the power combiner illustrated in Figure 4-9 to combine the output of the Frequency Reference (10MHz oven output on rear panel of the -hp- 3335A opt. 001) to the 10MHz output of the 3586A/B/C. Connect the output of the combiner to the vertical input of the oscilloscope.

b. When summing two frequencies together, they will "beat" at a rate corresponding to the difference of the two frequencies. This beating can be seen on the oscilloscope as an amplitude variation of the composite signal; this is caused by the two signals (which should be close in frequency) moving in and out of phase with one another.

c. Adjust the time base of the scope so that about one period of the beat frequency can be seen. Adjust the trigger of the scope so that the beating period is not moving across the display.

d. The period of this "beating" should be no less than 10 milliseconds.

4-15. Counter Sensitivity & Accuracy.

4-16. This test assures accurate counter readings for the specified minimum sensitivity.

Specifications:

Sensitivity	−100dBm
Accuracy	−1.0Hz to +1.0Hz

Equipment:

Synthesizer/Level Generator	-hp- 3335A
Attenuator (capable of 20dB attenuation)	-hp- 355D
(3) 75Ω Coaxial BNC cables	hp- Part No. 11652-60014
Adapter (see Table 4-1)	
Minimum Loss Pad (50Ω to 75Ω)	-hp- 11852A (pad)
	1250-1536 (adaptor) 1250-1473 (adaptor)

Procedure:

a. Initialize both instruments by

pressing [RECALL] , [0]

b. Connect the 10MHz output of the 3586A/B/C to the reference input of the Synthesizer/Level Generator.

c. Connect the 50Ω output of the 3335A to the input of the attenuator, and the output of the attenuator to the 75Ω input of the 3586A/B/C using the appropriate adaptor (see Table 4-1) as needed. Use 75Ω cables.

d. Set the attenuator to −20dB.

e. Set the Synthesizer/Level Generator to 1MHz at −72dBm.

f. Decrement the output level of the Synthesizer/Level Generator by steps of about 0.1dB until the 3586A/B/C reads a level of −100.0dBm.

g. Turn on the counter of the 3586A/B/C. Make sure the counter is reading a frequency anywhere from 999,999.0Hz to 1,000,001.0Hz.

4-17. Return Loss.

4-18. This test verifies that the return loss for each input of the 3586A/B/C is within its specified limits.

Specifications:

50Ω, 75Ω inputs	
50Hz to 32.5MHz	30dB
124Ω input, 10kHz to 5MHz	30dB
150Ω, 135Ω input, 10kHz to 1MHz	30dB
600Ω input, 50Hz to 108kHz	25dB

Equipment Required:

Synthesizer/Level Generator	-hp- 3325A
Synthesizer/Level Generator	-hp- 3335A
(2)50Ω to 75Ω Minimum Loss Pad	-hp- 11852A (pad) 1250-1473 (adaptor) 1250-1536 (adaptor)
Spectrum Analyzer	-hp- 141T/8553B/8552B
50Ω Directional Bridge (3586C only)	-hp- 8721A(standard)
75Ω Directional Bridge	-hp- 8721A opt. 008
124Ω Directional Bridge (3586B only)	-hp- Part No. 5061-1136
124Ω Directional Bridge (3586B with opt. 001)	-hp- Part No. 5061-1137
150Ω Directional Bridge (3586A only)	-hp- Part No. 5061-1135
Digital Multimeter	-hp- 3455A opt. 001
Mini-WECO to (f)BNC adapter (3586B Standard)	-hp- Part No. 1250-0556
(2)BNC "T"	-hp- Part No. 1250-0781
Large-WECO to (f)BNC adapter (3596B opt. 001 only)	-hp- 1250-0591
600Ω feedthrough (see Figure 4-1c)	
Siemens 1.6/5.6 to (f)BNC adapter (3586A with opt. 001 only)	W&G Part No. S230
(2) 75Ω coaxial BNC cables	-hp- Part No. 11652-60013
(m)BNC to (m) BNC adapter	-hp- 1250-1288
(2) (m)BNC to single banana jack	Pomona, Part No. 3430-0
(m) 1/4" phone to (f) BNC adapter	-hp- Part No. 1251-3759

Procedure:

a. Connect the equipment as shown in Figure 4-1a. Attach a (m)BNC to (m)BNC adapter to the "LOAD" terminal of the 75Ω Directional Bridge. To this adapter, attach an appropriate adapter as shown in Table 4-1.

Table 4-1. 75Ω Input Adapters.

Model	Adapter
3586A with opt. 001	Siemens 1.6/5.6 to (f)BNC (W & G, Part No. S230)
3586B without opt. 001	Mini-WECO to (f)BNC (-hp- Part No. 1250-0556)
3586B with opt. 001	Large-WECO to (f)BNC (-hp- Part No. 1250-0591)

b. Initialize the 3586A/B/C/ by

pressing RECALL 0 .

Turn the Cal off.

c. Set the output of the Synthesizer/Level Generator to 1MHz at 0dBm.

d. Set up the Spectrum Analyzer so that the scale is .1MHz/division, and the reference is −10dB on a 10dB/div. log scale. On an -hp- 141T/8553B/8552B, this corresponds to the controls set as follows:

Bandwidth	10kHz
Scan width	.1MHz/Div.
Input Atten	0dB
Scan time	2msec/Div.
Log reference	−10dB
Video filter	OFF
Trigger	INT

The storage capability is not needed yet.

e. Tune the Spectrum Analyzer to a center frequency of 1MHz.

f. Since the 75Ω Bridge is not connected to the input of the 3586A/B/C, the reflected signal can be used to set a reference level on the Spectrum Analyzer. With the 1MHz signal in the center of the screen, adjust the reference level so that the signal coincides with the top of the scale.

g. Connect the "LOAD" terminal of the 75Ω bridge to the 75Ω input of the 3586A/B/C. The signal should have lowered to at least 30dB below the top of the scale.

h. Repeat steps c through g tuning the Synthesizer/Level Generator and the Spectrum Analyzer to 32.5MHz.

i. If testing a 3586C, repeat steps a through h switching the 3586C to its 50Ω input and using the 50Ω Directional Bridge. Also, the Minimum Loss Pads should be removed and the 75Ω cables replaced with 50Ω cables (-hp- 11170B).

NOTE

Steps j. through p. apply to the 3586A only. For a 3586B, proceed to step q. For a 3586C, proceed with step aa.

j. Replace the 75Ω Directional Bridge with the 150Ω Directional Bridge, leaving the bridge disconnected from the 3586A.

k. Tune the Synthesizer/Level Generator and the Spectrum Analyzer to 1MHz.

l. Adjust the reference level on the Spectrum Analyzer so that the signal is at the top of the scale.

m. Insert the "LOAD" terminals of the 150Ω Directional Bridge into the 150Ω input of the 3586A; select the 150Ω input. The level of the signal should have lowered by at least 30dB.

n. Tune the Synthesizer/Level Generator to 10kHz. Unplug the 150Ω bridge from the 3586A. Readjust the Spectrum Analyzer so that the controls are set as follows:

Bandwidth	.3kHz
Scan Width	5kHz/Div.
Input Atten	0dB
Scan time	.1sec/Div.
Log Reference	−10dB
Video Filter	OFF
Trigger	INT

Storage should be on for this test.

o. Tune the Spectrum Analyzer to just above zero hertz, such that a display as shown in Figure 4-2 is obtained. The first signal (from the left) is an image spur from the input signal (10kHz). The second spur is L.O. feedthrough of the Spectrum Analyzer. The third signal is the actual 10kHz; the reference level should be adjusted so that this signal is even with the top of the scale. The last two, small spurs are the second and third order harmonics of 10kHz.

p. Plug the 150Ω bridge into the 150Ω input of the 3586A. The 10kHz signal should have lowered by at least 30dB.

NOTE

Steps q through z apply to the 3586B only. For a 3586A or 3586C, proceed to step aa.

q. Replace the 75Ω Directional Bridge with the 124Ω Directional Bridge leaving the bridge disconnected from the 3586B.

r. Tune the Synthesizer/Level Generator and the Spectrum Analyzer to 5MHz.

s. Adjust the reference level of the Spectrum Analyzer so that the signal is at the top of the scale.

t. Insert the "LOAD" terminal of the 124Ω bridge into the 124Ω input of the 3586B; select the 124Ω input. The level of the signal should have lowered by at least 30dB.

u. Tune the Synthesizer/Level Generator to 10kHz; unplug the 124Ω bridge from the 3586B.

v. Perform the Spectrum Analyzer set-up procedures as listed in step n; perform step o.

w. Plug the 124Ω bridge into the 3586B. The signal should have lowered by at least 30dB.

x. Disconnect the bridge from the 3586B. Insert a mini-WECO to (f)BNC adapter (use a large-WECO to (f)BNC for an opt. 001) into the top jack of the 124Ω input. Insert a 1/4" phone plug to (f)BNC adapter into the top jack of the 135Ω input. Connect a (m)BNC to single banana jack adapter to each of these adapters. Measure the resistance between these two banana jacks using the digital multimeter.

NOTE

This measurement is made with the "2 Wire" function and ".1k" range selected on the 3455A.

y. The resistance should be from 19.9Ω to 21.31Ω (DMM tolerances included). The 124Ω and 135Ω inputs are interactive. Since the return loss of the 124Ω input has been measured, the return loss of the 135Ω input can be verified with a simple resistance check.

z. Repeat steps x and y reinserting the adapters into the lower balanced jacks of the 124Ω and 135Ω inputs.

aa. Connect the equipment as shown in Figure 4-1b. It is not necessary to have the -hp- 3586A/B/C turned on for this test.

bb. Tune the -hp- 3325A to 50Hz at +7dBm. Measure and record the ac voltage at point A. This will be defined as: V_A.

cc. Measure and record the ac voltage at point B; this is V_B.

dd. Calculate the return loss using the following formula:

$$\text{Return Loss} = -20 \log \frac{2V_B - V_A}{V_A}$$

ee. Repeat steps bb through dd for a frequency of 108kHz.

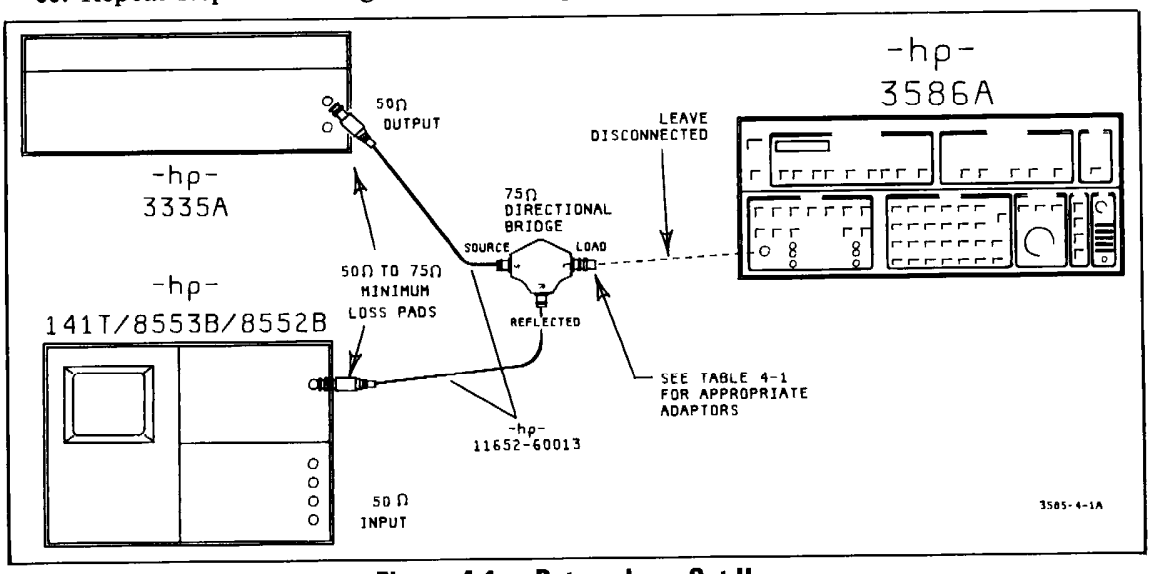


Figure 4-1a. Return Loss Set-Up.

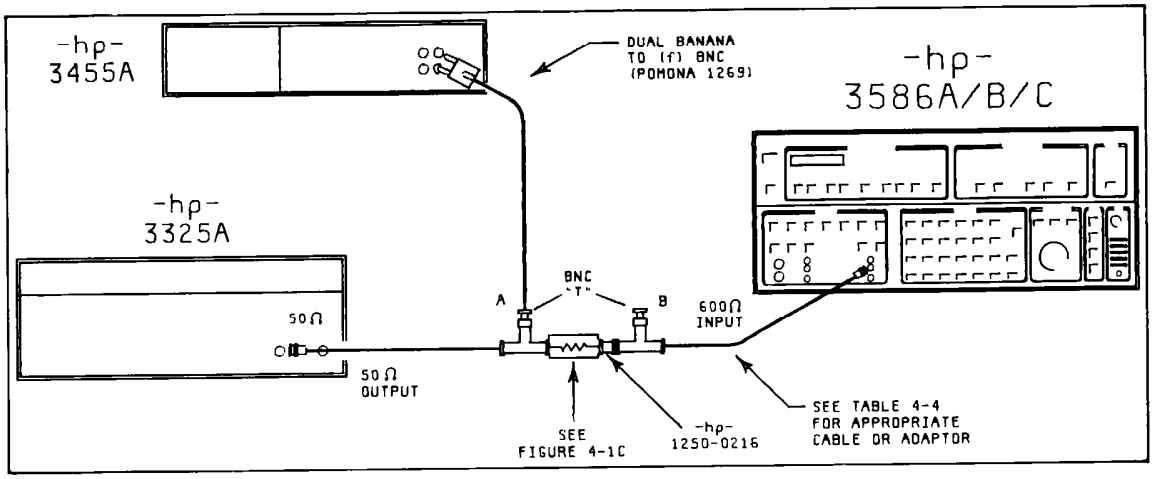


Figure 4-1b. Return Loss Set-Up (600Ω).

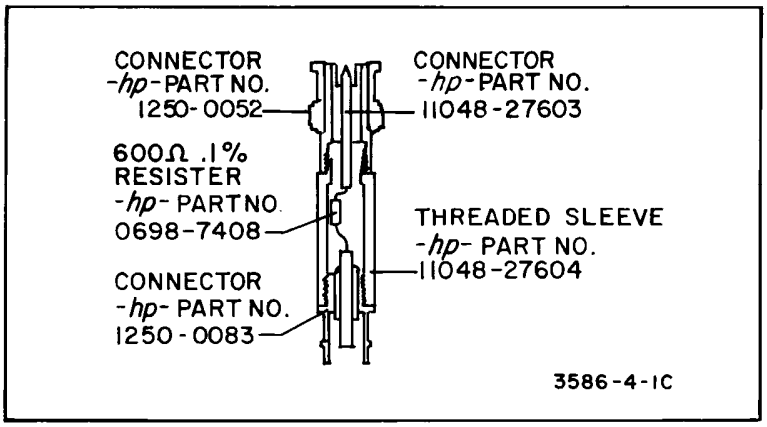


Figure 4-1c. 600Ω .1% Feedthrough.

4-19. Balance.

4-20. The purpose of this test is to ensure that the balanced inputs of the 3586A/B/C are balanced to within their specified limits.

Specifications:

124Ω, 10kHz to 10MHz	−36dB
135Ω, 150Ω, 10kHz to 1MHz	−36dB
600Ω, 50Hz to 108kHz	−40dB

Equipment Required:

Synthesizer/Level Generator	-hp- 3325A
124Ω Balance testing apparatus (see Figure 4-5), 3586B only	
135Ω Balance testing apparatus (see Figure 4-5), 3486B only	
150Ω Balance testing apparatus (see Figure 4-4), 3486A only	
600Ω Balance testing apparatus (see Figure 4-4)	
(2) — 75Ω BNC coaxial cables	-hp- Part No. 11652-60014
(2) — 75Ω BNC coaxial cables	-hp- Part No. 11652-60012
Cable with a Siemens 3-prong plug and a male BNC (3586A only)	W&G K164
Male WECO 310 to female BNC adapter (3586B only)	-hp- Part No. 1251-3757
Dual banana plug to female BNC adapter (3586C only)	-hp- Part No. 1251-2277
(3) — Mini-WECO plug to female BNC adapter (3586A without option 001)	-hp- Part No. 1250-0556
(3) — large WECO plug to female BNC adapter (3586B w/option 001 only)	-hp- Part No. 1250-0591
(2) — 1/4" phone plug to female BNC adapter (3586B only)	-hp- Part No. 1251-3759
Male Siemens 1.6/5.6 to female BNC adapter (3586A with option 001 only)	W&G S230
50Ω to 75Ω Minimum Loss Pad	-hp- 11852A (pad) 1250-1473 (adaptor) 1250-1536 (adaptor)

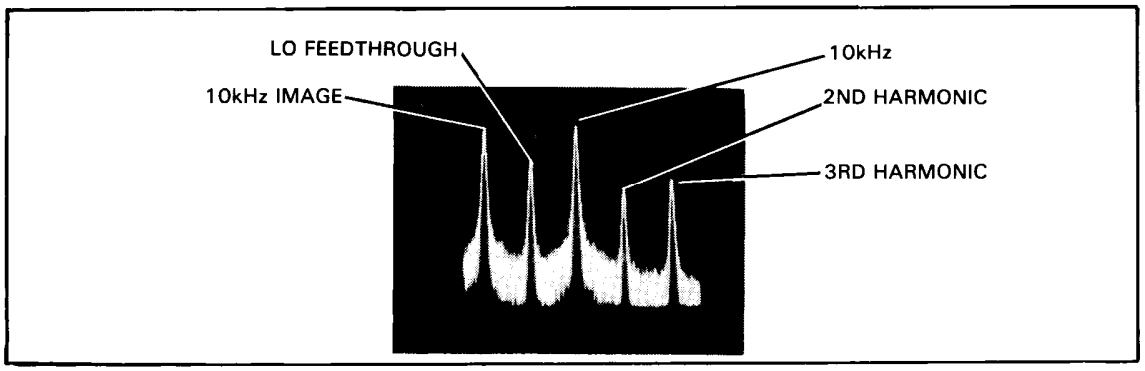


Figure 4-2. 10kHz And Friends As Viewed From An -hp-141T/8553B/8552B.

Procedure:

a. Connect the equipment as shown in Figure 4-3, using the cables and adapters as indicated in Table 4-2.

Table 4-2. 75Ω Input And 600Ω Input Cables And Adapters.

NOTE

The Siemen's 3-prong to male BNC cable must be modified so that the two conductors of the BNC plug correspond to the two balanced lines of the Siemen's 3-prong plug; the balanced lines of the Siemen's 3-prong are the 12mm spaced plugs. An optional cable assembly can consist of two single banana plugs on one end and a male BNC on the other end.

Model Number	Cables For 75Ω Input	Cables For 600Ω Input
3586A without option 001	75Ω BNC coaxial cable (-hp- Part No. 11652-60012)	Cable with Siemens 3-prong and male BNC (W&G Part No. K164)
3586A with option 001	75Ω BNC coaxial cable (-hp- 11652-60012), Siemens 1.6/5.6 to (f)BNC adapter (W&G Part No. S230)	Cable with Siemens 3-prong and male BNC (W&G Part No. K164)
3586B without option 001	75Ω BNC coaxial cable (-hp- Part No. 11652-60012), Mini-WECO plug to (f)BNC adapter (-hp- Part No. 1250-0556)	75Ω BNC coaxial cable (-hp- Part No. 11652-60012), WE-310 plug to (f)BNC adapter (-hp- Part No. 1251-3757)
3586B with option 001	75Ω BNC coaxial cable (-hp- Part No. 11652-60012), large WECO plug to (f)BNC adapter (-hp- Part No. 1250-0591)	75Ω BNC coaxial cable (-hp- Part No. 11652-60012, WE-310 plug to (f)BNC adapter (-hp- Part No. 1251-3757)
3586C	75Ω BNC coaxial cable (-hp- Part No. 11652-60012)	75Ω BNC coaxial cable (-hp- Part No. 11652-60012), dual banana plug to (f) BNC adapter (-hp- Part No. 1251-2277)

b. Initialize the 3586A/B/C by pressing [RECALL] , [0] .

c. Set the output of the Synthesizer/Level generator to 50Hz at +10dBm.

d. Select the 20Hz bandwidth of the 3586A/B/C. Tune the 3586A/B/C to 50Hz. Select the 10kΩ||50pF input. Press the AVErage key.

e. Press [RDNG→ OFFSET] , and turn the OFFSET on.

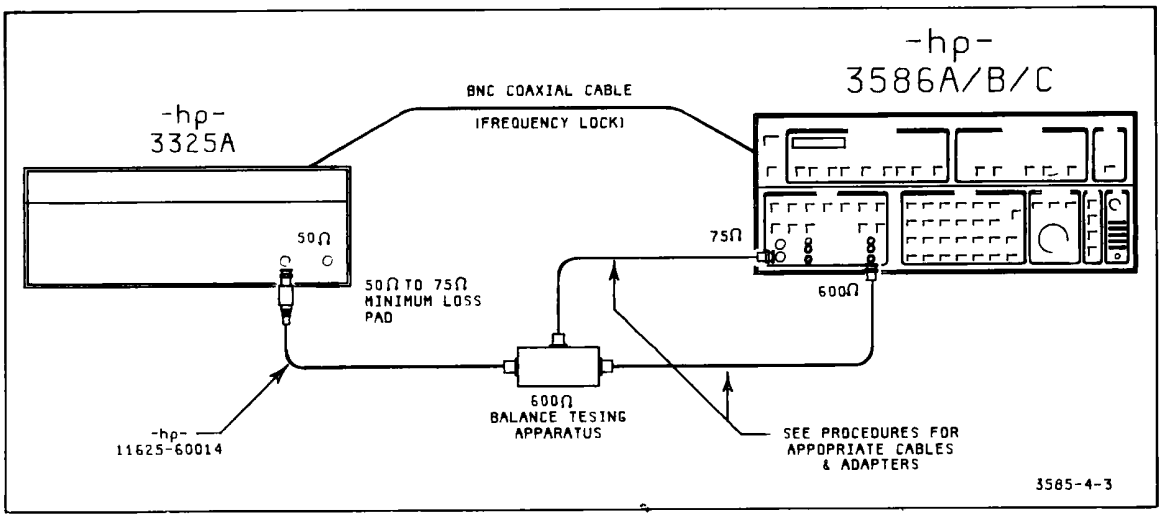
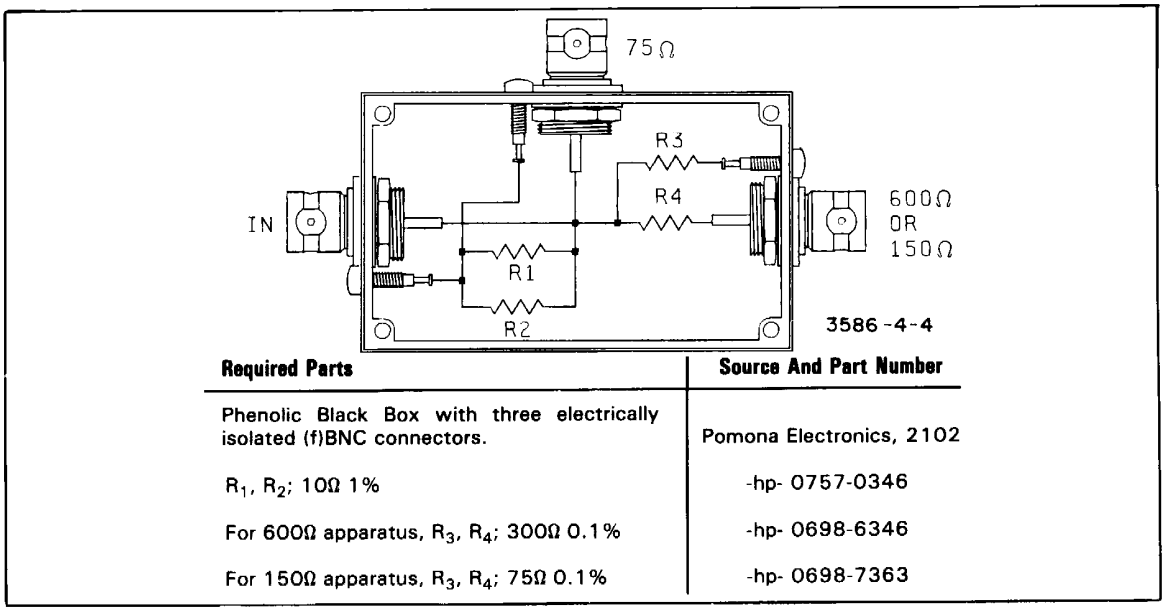


Figure 4-3. Initial Equipment Set-Up For Balance Testing.



Required Parts	Source And Part Number
Phenolic Black Box with three electrically isolated (f)BNC connectors.	Pomona Electronics, 2102
R_1, R_2; 10Ω 1%	-hp- 0757-0346
For 600Ω apparatus, R_3, R_4; 300Ω 0.1%	-hp- 0698-6346
For 150Ω apparatus, R_3, R_4; 75Ω 0.1%	-hp- 0698-7363

Figure 4-4. 600Ω and 150Ω Balance Testing Apparatus.

f. Disconnect the cable from the 75Ω input. Select the 600Ω input. The reading of 3586A/B/C should be less than or equal to −40dBm0.

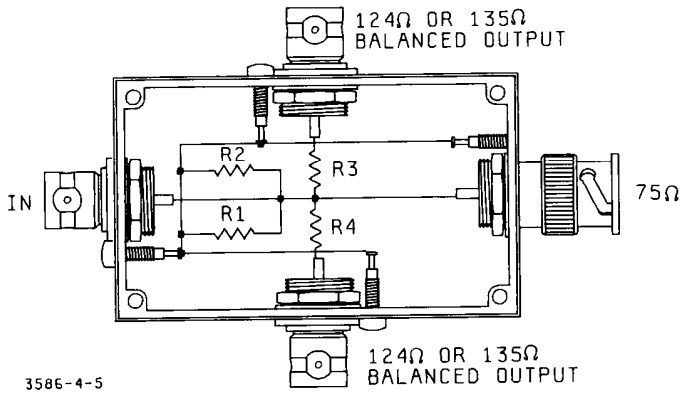
g. Repeat steps c through f for a frequency of 100kHz.

NOTE

Steps h through k apply only to Model -hp- 3586A. For an -hp- 3586B, procede to step l.

h. From the previous test set-up, replace the 600Ω balance testing apparatus with the 150Ω balance testing apparatus (Figure 4-4). Unplug the Siemens 3-prong from the 600Ω input and plug it into the 150Ω input. Reconnect the 75Ω output of the balance testing apparatus to the 75Ω input of the 3586A.

i. Set the output of the synthesizer/level generator to 10kHz at a level of +10dBm. Tune the 3586A to 10kHz. Select the 10kΩ||50pF input.



Required Parts	Source And Part Number
Shielded Black Box with three grounded (f)BNC connectors and one (m)BNC	Pomona Electronics, 3234
R_1, R_2; 10Ω 1%	-hp- 0757-0346
For 124Ω apparatus R_3, R_4; 62Ω 0.1%	-hp- 0698-6800
For 135Ω apparatus R_3, R_4; 67.3Ω 0.25%	-hp- 0698-8558

Figure 4-5. 124Ω and 135Ω Balance Testing Apparatus.

j. Press RDNG→ OFFSET, and turn the OFFSET on. Disconnect the cable from the 75Ω input. Select the 150Ω input.

The level reading on the 3586A should be less than or equal to −36dBm0.

k. Repeat steps i and j for a frequency of 1MHz.

NOTE

The remaining steps apply to the Model -hp- 3586B only.

l. Plug the male BNC of the 124Ω balance testing apparatus into the female BNC receptacle of the adapter in the 75Ω input of the -hp- 3586B.

m. Connect the 75Ω output of the Synthesizer/Level Generator to the input of the 124Ω testing apparatus using a 75Ω cable.

n. Connect each output of the testing apparatus to one side of the 124Ω balanced input using a 75Ω BNC coaxial cable and the appropriate adapter shown in Table 4-3.

NOTE

It is of extreme importance to the accuracy of this test to use cables of matched length for the 124 ohm input during the 10MHz balance measurement. If possible, measure the capacitance of a group of cables and select the two with the closest capacitance measurements for use with the output of the balanced testing apparatus.

Table 4-3. 75Ω Input Adapters.

Model	Adapter
3586B without option 001	Mini-WECO plug to (f)BNC (-hp- Part No. 1251-0556)
3586B with option 001	Large-WECO plug to (f)BNC (-hp- Part No. 1251-0591)

o. Set the output of the Synthesizer/Level Generator to 10kHz at +10dBm. Tone the 3586B to 10kHz.

p. Select the 124Ω || 50pF input. Press RDNG→ OFFSET , and turn the OFFSET on.

q. Select the 124Ω input. Remove the 124Ω balance testing apparatus from the 75Ω input. The level reading should be less than or equal to −36dBm0.

r. Reverse the connectors to the 124 ohm input. The level reading should be less than or equal to −36dBm0. If this reading or the reading from step q is out of spec, and the readings differ by 2dB or more, change one or both of the 75 ohm cables going to the 124 ohm input and repeat steps o through r. This step assures that the instrument will not fail because of capacitance mismatch of the two 75 ohm cables coming from the balance testing apparatus.

s. Repeat steps o through r for a frequency of 10MHz.

t. Replace the 124Ω balance testing apparatus with the 135Ω balance testing apparatus. Unplug the two cables from the 124Ω input and plug them into the 135Ω input using the 1/4" phone plug to (f)BNC adapters (-hp- Part No. 1251-3759).

u. Repeat steps o through q using frequencies of 10kHz and 1MHz, and the 135Ω input.

4-21. * Amplitude Accuracy.

4-22. The purpose of this test is to check the amplitude accuracy of the 3586A/B/C within its specified limits. The first step of the procedure involves the construction of precision matching pads for use with the balanced inputs. The remaining steps comprise the actual test procedure. Fundamentally, the test consists of measuring the power level of the "test signal" at 1kHz using an -hp- 3455A voltmeter, and measuring the dc output of a thermal converter which has the *same* "test signal" as an input. The test signal frequency is then varied in steps and its amplitude adjusted (and recorded) at each step such that the dc output of the thermal converter remains constant. Thus, a sufficiently flat "test signal" can be produced at certain frequencies and used to check the amplitude accuracy of the 3586A/B/C. At each frequency, the amplitude can be attenuated (with known accuracy) and measured by the 3586A/B/C to check its accuracy at different levels. To check the amplitude accuracy at higher levels, a +27dB amplifier is added.

NOTE

If the 3586A/B/C is meeting its Return Loss specification, the technician may choose to follow only those procedures for testing the amplitude accuracy at the 75Ω input. If the instrument is meeting its amplitude accuracy specification for the 75Ω input, the technician can be reasonably certain that the

other inputs (124Ω, 135Ω, 150Ω, 600Ω) are meeting their specification as well. Hence, further testing is probably not required.

Specifications: (10dB auto range, low distortion, after calibration)

75Ω, 50Ω

− 80dBm to +20dBm	
200Hz to 20kHz	±0.40dB
20kHz to 18MHz	±0.20dB
18MHz to 32.5MHz	±0.25dB
−100dBm to −80dBm	
200Hz to 20kHz	±0.95dB
20kHz to 32.5MHz	±0.75dB

124Ω

− 80dBm to +20dBm	
4kHz to 10kHz	±0.60dB
10kHz to 50kHz	±0.50dB
50kHz to 5MHz	±0.35dB
5MHz to 10MHz	±0.50dB
−100dB to −80dBm	
10kHz to 50kHz	±1.00dB
50kHz to 5MHz	±0.75dB
5MHz to 10MHz	±1.00dB

135Ω, 150Ω

− 80dBm to +20dBm	
50kHz to 1MHz	±0.35dB
10kHz to 50kHz	±0.50dB
4kHz to 10kHz	±0.60dB
−100dBm to −80dBm	
50kHz to 1MHz	±0.75dB
10kHz to 50kHz	±1.00dB

600Ω

100Hz to 108kHz	
− 80dBm to +20dBm	±0.35dB
−100dBm to −80dBm	±0.75dB

Equipment Required:

Synthesizer/Level Generator (with Cal sheet for attenuator)	-hp- 3335A(Special)K06
Attenuator, with Cal sheet	-hp- 355D
75Ω, .5 volt thermal converter, with cal sheet	-hp- 11051A opt. 003
Digital Multimeter	-hp- 3455A
50Ω/75Ω Minimum Loss Pad	-hp- 11852A (pad) 1250-1473 (adaptor) 1250-1536 (adaptor)
50Ω, 1 volt thermal converter, with cal sheet	-hp- 11050A opt. 002
50Ω, 0.1% Resistor	0699-0064

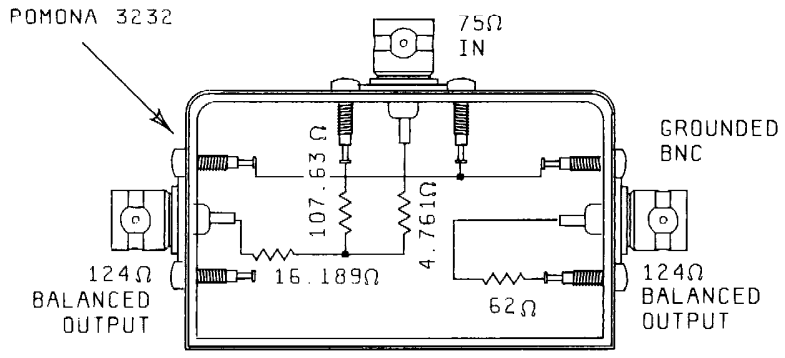
75Ω to Balanced Matching Pads (see step a and Figures 4-6a through 4-6d)	
Cables and Adapters (see Table 4-4)	
50Ω Coaxial BNC Cable	-hp- 11170C
(3) — 50Ω Coaxial BNC Cables	-hp- 11170A
15dB gain, +27dBm output, .5MHz to 30MHz, RF amplifier	Q-Bit, QB-188-LH-BNC with supply and case
75Ω, .1% Resistor	-hp- 0698-7363

NOTE

Keep cables as short as possible. The 20Hz Bandwidth should be selected throughout this test.

Procedure:

a. In Figures 4-6a through 4-6d are illustrated the 75Ω to balanced matching pads for testing the amplitude accuracy of the balanced inputs. Each consists of a shielded box with some configuration of BNC connectors and precision resistors. The value of each resistor in the pad is listed in the left column of the chart for each pad. The resistors must have a tolerance of ± 0.1%. The resistors are "built" by connecting the 1% resistor in parallel with the ten-turn potentiometer as indicated in the center column of each chart. After the resistors are soldered in place in the shielded box, each ten-turn pot should be adjusted so that the total resistance of the parallel combination is within the specified tolerance as shown in the right column of the chart. A four-wire resistance measurement should be used to monitor the resistance of each parallel combination while it is being adjusted within its tolerance. The values of the resistors should be checked periodically to ensure proper calibration of these precision matching pads.

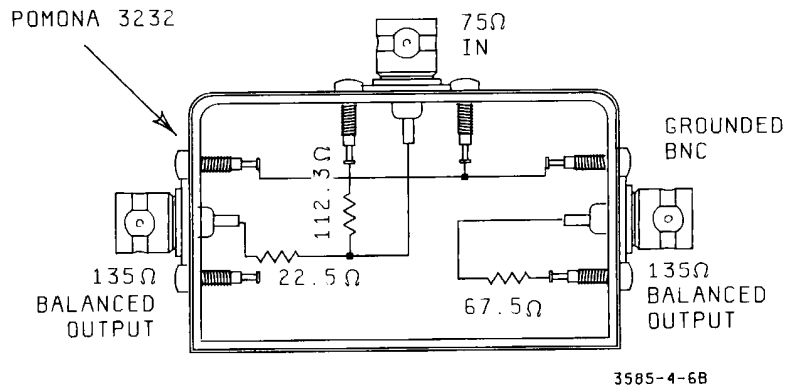


Resistor Needed	Parallel Combination -hp- Part Numbers	Tolerance to Adjust Within (ohms)
4.761Ω	10Ω 1% || 20Ω ten-turn 0757-0346, 2100-3315	4.756 to 4.766
16.189Ω	20Ω 1% || 200Ω 0757-0384, 2100-3095	16.173 to 16.205
107.63Ω	211Ω 1% || 2kΩ ten-turn 0757-0403, 2100-3109	107.52 to 107.74
62.00Ω	68.1Ω 1% || 1kΩ ten-turn 0757-0397, 2100-3154	61.938 to 62.062

Figure 4-6a. 75Ω to 124Ω Matching Pad.

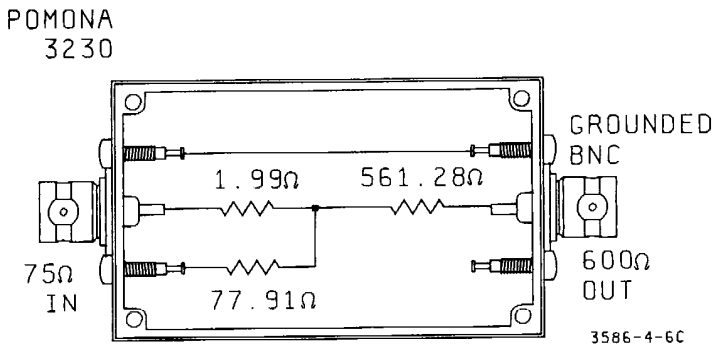
NOTE

See -hp- 3455A Operating and Service Manual (-hp- Part No. 03455-90002), Section III, Paragraph 3-10 and Figure 3-2 for information on making four-wire resistance measurements.



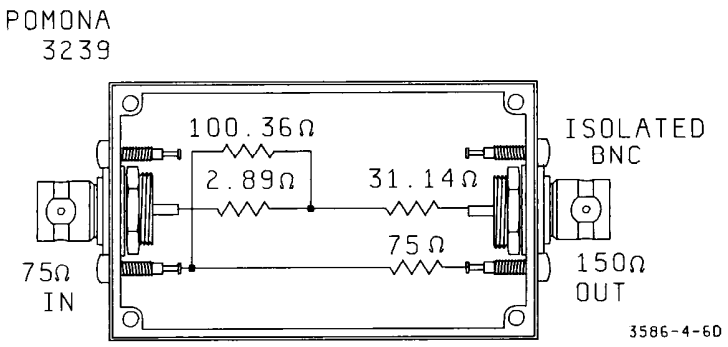
Resistor Needed	Parallel Combination -hp- Part Numbers	Tolerance To Adjust Within (ohms)
22.50Ω	24.3Ω 1% || 500Ω ten-turn 0757-0386, 2100-3123	22.478 to 22.523
112.30Ω	121Ω 1% || 2kΩ ten-turn 0757-0403, 2100-3109	112.19 to 112.41
67.50Ω	75Ω 1% || 1kΩ ten-turn 0757-0398, 2100-3154	67.433 to 67.568

Figure 4-6b. 75Ω to 135Ω Matching Pad.



Resistor Needed	Parallel Combination -hp- Part Numbers	Tolerance To Adjust Within (ohms)
1.99Ω	10Ω 1% || 10Ω ten-turn 0757-0346, 2100-3164	1.988 to 1.992
561.28Ω	619Ω 1% || 10kΩ ten-turn 0757-0418, 2100-3103	560.72 to 561.84
77.91Ω	110Ω 1% || 500Ω ten-turn 0757-0402, 2100-3123	77.832 to 77.988

Figure 4-6c. 75Ω To 600Ω Matching Pad.



Resistor Needed	Parallel Combination -hp- Part Numbers	Tolerance To Adjust Within (ohms)
2.89Ω	10Ω 1% || 10Ω ten-turn 0757-0346, 2100-3164	2.887 to 2.893
31.14Ω	36.5Ω 1% || 500Ω ten-turn 0757-0390, 2100-3123	31.109 to 31.171
100.36Ω	110Ω 1% || 2kΩ ten-turn 0757-0402, 2100-3109	100.26 to 100.46
75.00Ω	82.5Ω 1% || 2kΩ ten-turn 0757-0399, 2100-3109	74.925 to 75.075

Figure 4-6d. 75Ω to 150Ω Matching Pad.

b. Connect the equipment as shown in Figure 4-6e. Set the -hp- 3335A output to 10.00dBm and 1kHz.

c. Measure the RMS voltage of the 1kHz test signal across 75Ω termination (-hp- Part No. 0698-7363) using the -hp- 3455A multimeter. The voltage should be about 0.45V RMS. Since this voltage is across a known load (75 ohms), the power dissipated can be precisely calculated using this formula:

$$P = 10 \log \frac{V^2}{.075} \qquad (4\text{-}1)$$

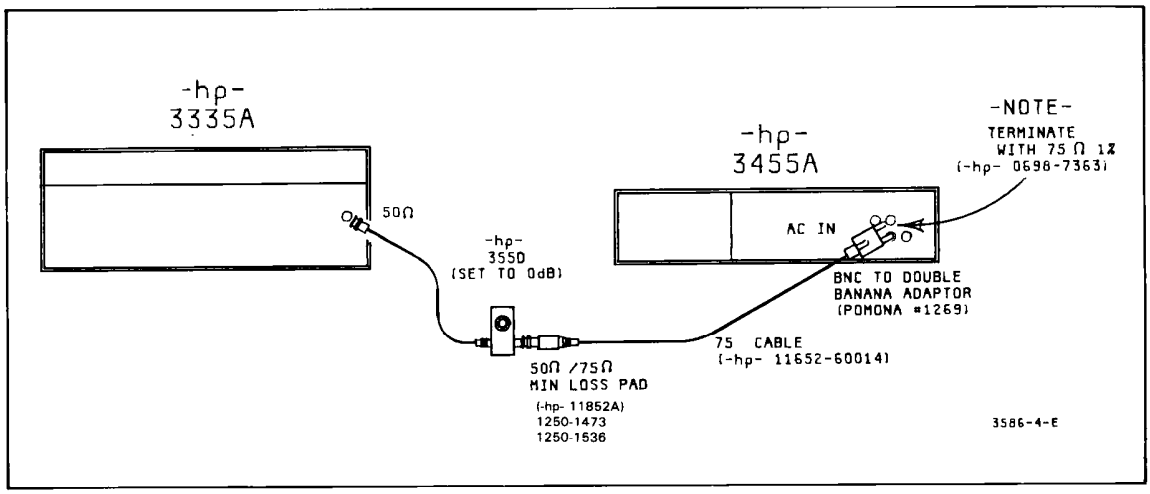


Figure 4-6e. Absolute AC-Power Measurement For 75Ω.

P is power is dBm and V is the measured ac RMS voltage across 75ohms. Use this formula to calculate power to three decimal places. Record the calculated power (space is provided in the Test Record for convenience).

d. Set up the equipment as shown in Figure 4-6f.

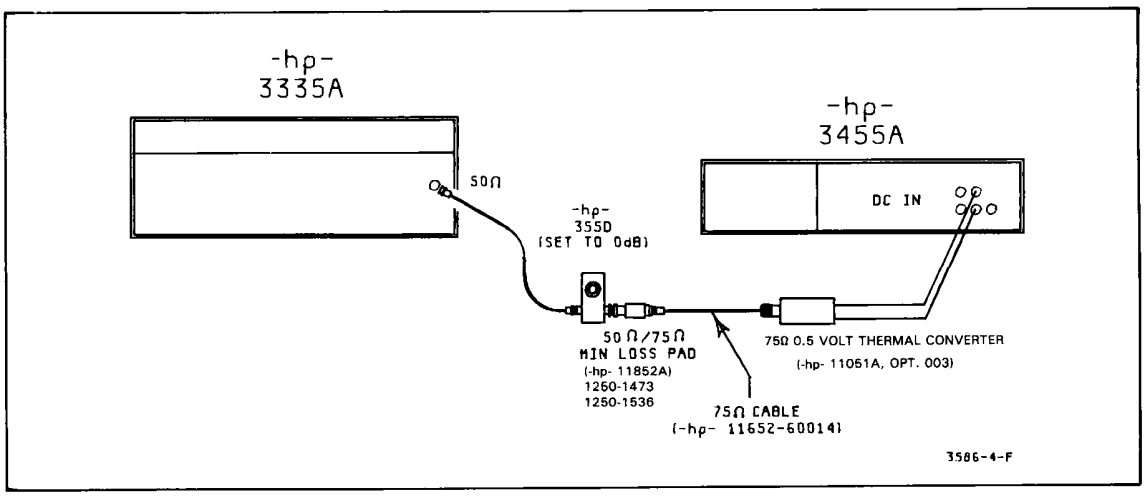


Figure 4-6f. Flatness Measurement For 75Ω.

e. Measure the dc output of the thermal converter (-hp- 11051A option 003) to microvolt resolution with the -hp- 3455A Multimeter. Record this voltage (Vth) in the Test Record.

f. Change the frequency of the -hp- 3335A to 1MHz. Increment or decrement the amplitude of the -hp- 3335A by 0.01dB until the dc output of the thermal converter is as close as possible to Vth. Record the level setting of the -hp- 3335A in the Test Record, column 2, for 1MHz.

g. Repeat step f for the remaining frequencies shown in column 1: 3MHz, 10MHz, and 30MHz.

h. The thermal converter calibration report can be used to eliminate the error caused by any non-linear responses of the thermal converter. The calibration report indicates % Error for various frequencies. This percentage corresponds to the percent increase or decrease of the input voltage referenced to 1kHz required to produce a constant dc output at other frequencies. A positive percentage means an increase is required; a negative percentage means a decrease is required. The % Error of voltage must be converted to dB error; the following formula is useful for this:

$$\text{Thermal Converter Error (dB)} = 20 \log \left(\frac{\% \text{ Error}}{100} + 1 \right) \qquad (4\text{-}2)$$

Calculate the dB error (from the % Error on the calibration report) at 1MHz, 3MHz, 10MHz, and 30MHz. Record the dB errors in column 3 in the Test Record.

i. The numbers in column 3 represent a portion (due to thermal converter unflatness) of the amplitude increase needed to keep the thermal converter output constant. Because of this, these errors need to be subtracted from the numbers in column 2, and written in column 4. Column 4 shows the levels at which the -hp- 3335A produces a flat (±0.04dB) test signal

from the 75 ohm coaxial cable. Subtract the numbers in column 3 from the numbers in column 2 and record the results in column 4. Power P (from step c) can now be produced at various frequencies by setting the -hp- 3335A to the levels listed in column 4.

j. Set up the equipment as shown in Figure 4-6g. Tune the -hp- 3335A to 1kHz at 10dBm. On the -hp- 3335A, set the amplitude increment to 2.00dB. Initialize the -hp- 3586A/B/C by pressing RECALL, 0. Select the 20Hz Bandwidth. Select the 75Ω input.

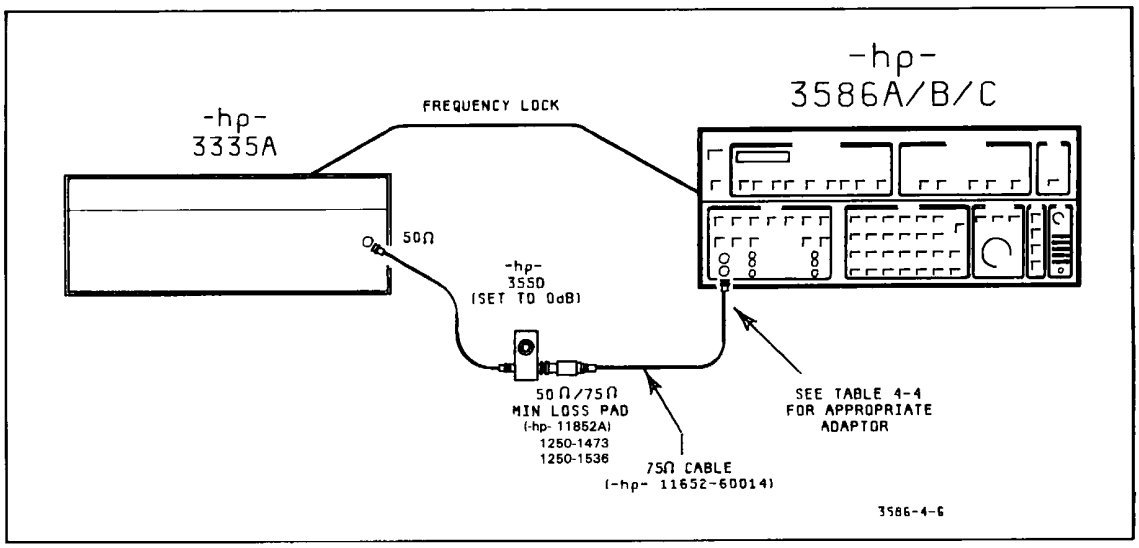


Figure 4-6g. Amplitude Accuracy Measurement For 75Ω.

NOTE

The amplitude limits that the -hp- 3586A/B/C must measure within are a function of the following:

1. *Power P (the known power level of the test signal).*

2. *The error of the attenuator step that is used during thermal converter measurement.*

3. *The specification for the -hp- 3586A/B/C.*

4. *The attenuator step being used and its associated error.*

5. *The accuracy to which the test signal is known (0.04dB).*

Power P is used to calculate another power level i.e., the power that would be produced if no attenuator steps were switched on in the -hp- 3335A during thermal converter measurements. These power levels are represented in the Test Record as P with a frequency subscript; they are then used in calculating the test limits. The formulae for calculating these subscripted power levels are found in the Test Record.

The actual test limits are calculated as follows:

P_{xxxHz} – *(spec – 0.04dB)-attenuator step(dB)-step error(dB)* ≤

-hp- 3586A/B/C level reading ≤

P_{xxxHx} + *(spec – 0.04dB)-attenuator step(dB)-step error(dB)*

Combined in the Test Record are: the specifications, the accuracy of the test signal (0.04dB), and the attenuator step. The step error for each attenuator step in the Test Record must be filled-in according to the results in the calibration report for the -hp- 3335A attenuator.

k. Tune the -hp- 3586A/B/C to 1kHz and measure the level of the test signal.The first reading should be recorded in the top space of the Test Record for 75 ohms, 1kHz. Note that this reading corresponds to the -hp- 3335A's attenuator being set to its 2dB step. Level readings should be made for the remaining attenuator steps in the Test Record for 75 ohms, 1kHz. To make the next level reading, simply decrement the output of the -hp- 3335A by exactly 2.00dB using the decrement (down arrow) key. Repeat this process of decrementing the level of the test signal by appropriate amounts until all the levels in the Test Record for 75 ohms, 1kHz have been measured. To complete the last measurement in this list, as well as some to follow, it will be necessary to insert 40dB of attenuation using the -hp- 355D. (Whenever using the 355D attenuator, be sure to subtract its calibration error from the test limits in the Test Record.)

NOTE

It is of extreme importance to the accuracy of this performance test to deviate from the levels in column 4 by exactly 2.00dB steps when making level measurements. The unflatness of the -hp- 3335A has been accounted for by the use of a thermal converter in steps c through i. If the level of the -hp- 3335A is changed in steps of other than 2.00dB, then an error due to unflatness will be introduced into the test signal. If the level of the -hp- 3335A is changed only in 2.00dB steps, then the only error introduced will be from attenuator error; this error is compensated for by including attenuator step errors in the test limits for each level measurement.

l. Each test limit must be calculated using power P, and the -hp- 3335A attenuator step error for each step. The signed step error for each attenuation and frequency required is shown on the calibration report for the -hp- 3335A attenuator (special option K06). Space is provided in the test record to insert the step errors that correspond to the proper attenuator steps. P, as well as the 2dB step error at 1kHz, is used to calculate P_{1kHz}. Calculate all of the test limits.

m. Make sure all the readings (from step k) are within their specified test limits as indicated in the Test Record.

n. Tune the -hp- 3335A to 1MHz and set the amplitude to the level shown for 1MHz in column 4 of the Test Record.

o. Repeat steps k through m for 75 ohms 1MHz.

p. Repeat step n for 3MHz.

q. Repeat steps k through m for 75 ohms 3MHz.

r. Repeat step n for 10MHz.

s. Repeat steps k through m for 75 ohms 10MHz.

t. Repeat step n for 30MHz.

u. Repeat steps k through m for 75 ohms, 30MHz.

v. Select the 600 ohm input. Unplug the 75Ω coaxial BNC cable from the 75 ohm coaxial BNC cable from the 75 ohm input of the -hp- 3586A/B/C; connect it to the 75 ohm input of the 75 ohm to 600 ohm matching pad (Figure 4-6c). Connect the 600 ohm side of the matching pad to the 600 ohm input of the -hp-3586A/B/C using an appropriate cable or adapter as shown in Table 4-4.

Table 4-4. Amplitude Accuracy Test Cables.

Model	75Ω	124Ω	135Ω or 150Ω	600Ω
3586A	75ΩBNC Coaxial Cable (-hp- Part No. 11652-60014)		Cable with Siemens 3-prong and (m) BNC (W&G Part No. K164)	Cable with Siemans 3-prong and (m) BNC (W&G Part No. K164)
3586A w/001	75ΩBNC Coaxial Cable (-hp- Part No. 11652-60014), Siemens 1.6/5.6 to (f)BNC adapter (W&G Part No. S230)			
3586B	75ΩBNC Coaxial Cable (hp- Part No. 11652-60014), Mini-WECO plug to f(BNC) adapter (-hp- Part No. 1250-0556)	Two(2) 75ΩBNC Coaxial Cables (-hp- Part No. 11652-60012), two (2) Mini-WECO plug to (f)BNC adapters (-hp- Part No. 1250-0556)	Two(2) 75ΩBNC Coaxial Cables (-hp- Part No. 11652-60012), two (2) 1/4" phone plug to (f)BNC adapters (-hp- Part No. 1251-3759)	WECO 310 plut to (f) BNC adapter (-hp- Part No. 1251-3757) (m) BNC to (m) BNC adapter. (-hp- Part No. 1250-1288)
3586B 001	75ΩBNC Coaxial Cable (-hp- Part No. 11652-60014), large-WECO plug to (f)BNC adapters (-hp- Part No. 1250-0591)	Two(2) 75ΩBNC Coaxial Cables (-hp- Part No. 11652-60012), two(2) large - WECO plug to (f)BNC adapters (-hp- Part No. 1250-0591)		
3586C	75ΩBNC Coaxial Cable (-hp- Part No. 11652-60014)			Dual banana plug to (f)BNC adapter (-hp- Part No. 1251-2277) (m) BNC to (m) BNC adapter (-hp- Part No. 1250-1288)

NOTE

The Siemens 3-prong to male BNC cable must be modified so that two conductors of the BNC plug correspond to the two balanced lines of the Siemens 3-prong plug; the balanced lines of the Siemens 3-prong are the 12mm spaced plugs. An optional cable assembly can consist of two single banana plugs at one end and a male BNC at the other end.

w. Tune the -hp- 3335A to 1kHz, at 10.00dBm.

x. Repeat steps k through m for 600 ohms, 1kHz.

NOTE

The testing for 600 ohms begins at −11dBm instead of +4dBm because of the 15.00dB loss of the 75 ohm to 600 ohm matching pad added to the system.

NOTE

Steps y through bb apply to the -hp- 3586A and -hp- 3586B only. For the -hp- 3586C, proceed with step ii.

y. Disconnect the 75 ohm coaxial BNC cable from the input to the 75 ohm to 600 ohm matching pad. Disconnect the cable or adapter from the 600 ohm input of the -hp- 3586A/B. Connect the 75 ohm cable to the input of the 75 ohm/150 ohm or 75 ohm/135 ohm matching pad (whichever is appropriate). See Figures 4-6b and 4-6d for illustrations of these pads. Connect the output (135 ohm or 150 ohm) of the matching pad to the appropriate input of the -hp- 3586A/B using the appropriate cables and adapters as shown in Table 4-4.

z. Select the 135 ohm or 150 ohm input.

aa. Tune the -hp- 3335A to 1MHz at the level shown in column 4 of the Test Record.

bb. Repeat steps k through m for 135 ohm, or 150 ohm at 1MHz.

NOTE

Steps cc through hh apply to the -hp- 3586B only. For -hp- 3586A, proceed with step mm. For -hp- 3586C, proceed with step ii.

cc. Disconnect the 75 ohm coaxial BNC cable from the input to the 75 ohm to 135 ohm matching pad. Disconnect the cables and adapter from the 135 ohm input of the -hp- 3586B. Connect the 75 ohm cable to the input of the 75 ohm to 124 ohm matching pad (see Figure 4-6a). Connect the output of the matching pad to the 124 ohm input of the -hp- 3586B using appropriate cables and adapters as shown in Table 4-4.

dd. Select the 124 ohm input.

ee. The -hp- 3335A should be set to 1MHz and at the level shown in column 4 of the Test Record.

ff. Repeat steps k through m for 124 ohm, 1MHz.

gg. Repeat steps ee and ff for 3MHz.

hh. Repeat steps ee and ff for 10MHz.

NOTE

Steps ii through ll apply to the -hp- 3586C only. For -hp- 3586A/B, proceed with step mm.

ii. Connect the equipment as shown in Figure 4-6h. Set the -hp- 3335A output to 1kHz at 12.50dBm. Repeat step c using the 50 ohm termination, making sure that the measured voltage is about 0.95V RMS, and calculating Pc using the following equation:

$$Pc = 10 \log \frac{V^2}{.050}$$

Record this power (Pc) in the space in the Test Record provided.

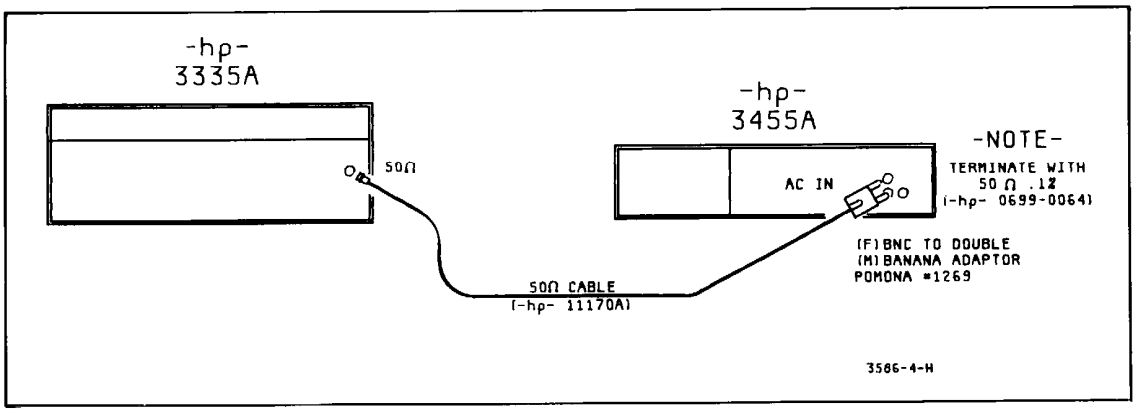


Figure 4-6h. Absolute AC Power Measurement For 50Ω.

jj. Set up the equipment as shown in Figure 4-6i. Repeat step e, using the 50 ohm thermal converter and recording voltage Vthc. Repeat step f, using Vthc and column 2c. Repeat step g for column 1c. Repeat step h, recording the dB errors in column 3c. Repeat step i for columns 1c, 2c, 3c, and 4c. Power Pc (from step ii) can now be produced at various frequencies by setting the -hp- 3335A to the levels listed in column 4c.

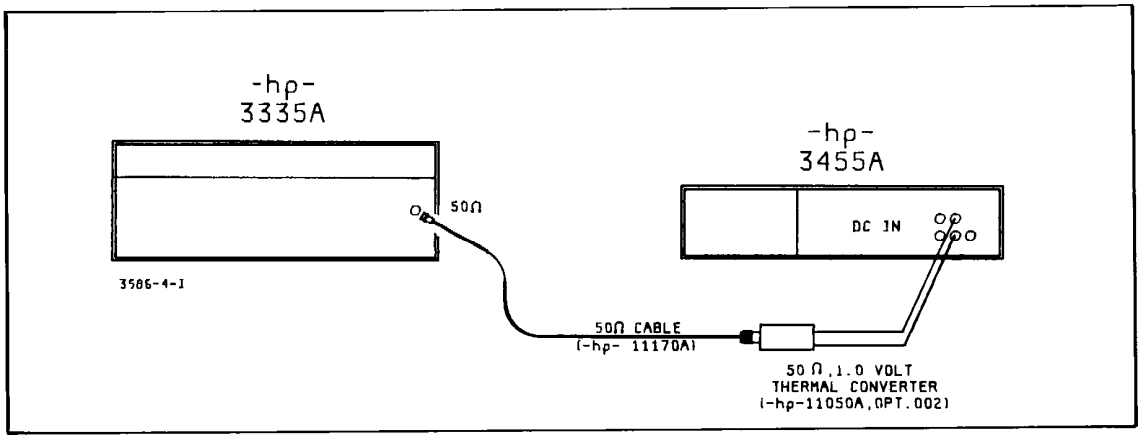


Figure 4-6i. Flatness Measurement For 50Ω.

kk. Set up the equipment as shown in Figure 4-6j. Tune the -hp- 3335A to 1kHz at the level indicated in column 4c for 1kHz. Tune the -hp- 3586C to 1kHz. The level reading should be within (or equal to) the specified test limits as indicated in Test Record. Record the level reading.

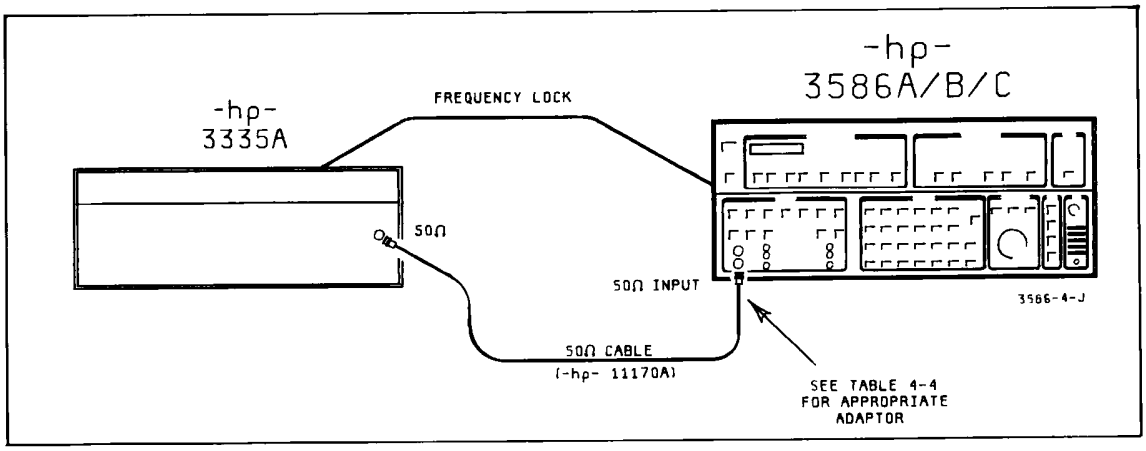


Figure 4-6j. Amplitude Accuracy Measurement For 50Ω.

ll. Repeat the measurement made in step kk for the remaining frequencies in column 1c. This concludes the testing of the 50 ohm input for the -hp- 3586C.

mm. Set up the equipment as shown in Figure 4-6f with the exception of inserting a power amplifier (Q-Bit model number QB-188-LH, with case and power supply) between the -hp- 3335A and 50 ohm/75ohm Minimum Loss Pad. Before turning on the power of the amplifier, *MAKE CERTAIN* that the -hp- 3335A is set to a level of −6.00dBm.

CAUTION

Permanent damage to the thermal converter may occur if its input voltage exceeds 0.5 volts RMS. The -hp- 3335A must be set to −6.00dBm in order for the output of the 50 ohm/75 ohm Minimum Loss Pad to be no greater than +4dBm (worst case); this corresponds to about 0.45 volts RMS.

nn. Tune the -hp- 3335A to 1MHz. Monitor the dc voltage (to microvolt resolution) from the thermal converter output using the -hp- 3455A. Adjust the output of the -hp- 3335A until the dc voltage is as close as possible to Vth. Record the amplitude of the -hp- 3335A in column 6. If the output of the -hp- 3335A exceeds −4.99dBm during this adjustment, subtract 2dB from the attenuator steps in the test records for 1MHz, +4dBm to +20dBm, and change the equation for P_{1MHz} to read as follows:

$$P_{1MHz} = P + 18dB + (16dB \text{ step error for } 1MHz)$$

oo. Repeat step nn for the remaining frequencies in column 5: 3MHz, 10MHz, and 30MHz.

pp. As before, use equation 4-2 to calculate the dB error (given % error) of the thermal converter at the various frequencies. Record them in column 7.

qq. Subtract the entries in column 7 from the entries in column 6; record the results in column 8. This column represents the amplitudes the -hp- 3335A must be set at to produce a flat test signal (given the present equipment arrangement).

rr. Set up the equipment as shown in Figure 4-6g with the exception mentioned in step mm, i.e., leave the amplifier connected between the -hp- 3335A and the Minimum Loss Pad.

ss. Tune the -hp- 3335A and the -hp- 3586A/B/C to 1MHz. Set the level of the -hp-3335A to the level in column 8 corresponding to 1MHz. Record the level reading of the -hp-3586A/B/C.

tt. Repeat step ss for the remaining attenuator steps shown in the Test Record for 75 ohm, 1MHz, +4dBm to +20dBm. Refer to step k and the note following it when adjusting the level of the -hp- 3335A - always use *ONLY* 2dB deviations from the levels listed in column 8.

uu. Repeat steps ss and tt for frequencies of 3MHz, 10MHz and 30MHz.

vv. The total step errors of the -hp- 3335A attenuator, as well as power P, must be used when calculating the test limits as described previously in step 1. Make sure the level readings are within their specified test limits. This concludes the amplitude accuracy testing for the 75 ohm input.

NOTE

The following steps apply to the -hp- 3586A and the -hp-3586B only.

ww. Disconnect the 75 ohm cable from the 75 ohm input of the -hp- 3586A/B and connect it to the input of the 75 ohm-to-135 ohm or 75 ohm-to-150 ohm matching pad, whichever is appropriate. Use the cables in Table 4-4. Select the corresponding input.

xx. Repeat steps ss and tt for the 135 ohm or 150 ohm input. Repeat step vv for the 135 ohm or 150 ohm input.

NOTE

The following steps apply to the -hp- 3586B only.

zz. Replace the 135 ohm matching pad with the 124 ohm matching pad and connect it to the 124 ohm input of the -hp- 3586B using the cables in Table 4-4. Select the 124 ohm input.

aaa. Repeat steps ss and tt for the 124 ohm input, at 1MHz, 3MHz and 10MHz.

bbb. Repeat step vv for the 124 ohm input.

4-23. Half-Power Bandwidths (−3dB).

4-24. This test varifies the half-power bandwidths of all the IF filters in the 3586A/B/C/

Specifications:

−3dB Bandwidths (all filters)	±10%

Procedure:

a. Initialize the 3586A/B/C by pressing [RECALL] , [0] .

b. Turn off the AUTO CAL ● .

c. Initialize the internal 1MHz oscillator by

pressing RECALL , . , CNTR→ FREQ , 7 .

d. Press RDNG→ OFFSET and turn the OFFSET on.

e. Tune the frequency above and below 1MHz to find the frequencies at which the level reads −3dBm0.

f. The difference of these two frequencies is the half-power bandwidth of the bandwidth selected. The half-power bandwidth should be within ±10% of the value of the selected bandwidth.

g. Repeat steps a-f with the remaining selectable bandwidths. Table 4-5 shows the selectable bandwidths for the 3586A/B/C.

Table 4-5. 3586A/B/C Selectable Bandwidths.

Instrument	Selectable Bandwidths
3586A	20Hz, 400Hz, 1740Hz (3100Hz replaces 1740Hz in Option 003)
3586B	20Hz, 400Hz, 2000Hz (1740Hz replaces 2000Hz in Option 002) (3100Hz replaces 2000Hz in Option 003)
3586C	20Hz, 400Hz, 3100Hz

4-25. Pass-Band Flatness.

4-26. This test checks the flatness of the IF filters to within a specified frequency range.

Specifications:

Pass Band Flatness (±0.3dB)	Minimum Range From Center Frequency
3100Hz	−1000Hz to 1000Hz
2000Hz	−650Hz to 650Hz
1740Hz	−550Hz to 550Hz
400Hz	−50Hz to 50Hz
20Hz	−3Hz to 3Hz

Procedure:

a. Initialize the instrument by pressing RECALL , 0 .

b. Turn off the AUTO CAL ● .

c. Initialize the 1MHz source by

pressing [RECALL] , [.] [CNTR→ FREQ] , [7] .

d. Press [RDNG→ OFFSET] , and turn on the OFFSET.

e. Slowly tune the frequency above and below 1MHz to the first frequencies at which the level reading reaches +0.30dBm0 or −0.30dBm0.

f. Subtract 1MHz from each of the two frequencies. These two numbers represent the range at which the selected bandwidth is flat to within 0.30dB. Make sure this range meets or exceeds the specified minimum range for the selected bandwidth (see specifications).

g. Repeat Steps a-f for the remaining bandwidths.

4-27. 400Hz Filter Shape.

4-28. This test checks the 60dB bandwidth of the 400Hz filter.

Specifications:

400Hz Bandwidths	Maximum Range
60dBm0 Rejection	−1100Hz to 1100Hz

Procedure:

a. Initialize the 3586A/B/C by pressing [RECALL] , [0] .

b. Turn off the [AUTO CAL ●] .

c. Initialize the 1MHz internal source by

pressing [RECALL] , [.] , [CNTR→ FREQ] , [7] .

d. Press [RDNG→ OFFSET] , and turn on the OFFSET.

e. Select the 400Hz Bandwidth.

f. Tune the frequency above and below 1MHz to find the two frequencies at which the level reading becomes −60dBm0.

g. Subtract 1MHz from each of these frequencies. These two numbers represent the range for 60dB of rejection for the 400Hz bandwidth. Make sure these numbers are equal to or within the maximum specified range (see specifications).

4-29. Pilot (20Hz) Filter Bandwidths.

4-30. This test verifies the 30dB and 60dB bandwidths of the 20Hz IF filter.

Specifications:

Pilot Filter (20Hz) Shape	Maximum Range
30dBm0 Rejection	−45Hz to 45Hz
60dBm0 Rejection	−90Hz to 90Hz

Procedure:

a. Initialize the 3586A/B/C by pressing [RECALL] , [0] .

b. Turn off the [AUTO CAL ●] .

c. Initialize the 1MHz internal source by pressing [RECALL] , [.] , [CNTR→ FREQ] , [7] .

d. Press [RDNG→ OFFSET] and turn on the [OFFSET ●] .

e. Select the 20Hz bandwidth.

f. Tune the frequency above and below 1MHz to the two frequencies where the level reads −30dBm0.

g. Subtract 1MHz from these two frequencies. These two numbers represent the maximum allowable range for 30dB of rejection for the 20Hz filter.

h. Make sure these numbers are equal to or within the maximum specified range (see specifications).

i. Repeat steps f and g for 60dB of rejection.

4-31. Carrier Frequency Rejection.

4-32. This test verifies the carrier frequency rejection of the 3100Hz, 2000Hz or 1740Hz IF filter.

Specifications:

Carrier Rejection

3100Hz (±1850Hz)	−60dB
2000Hz (±1500Hz)	−60dB
1740Hz (±1350Hz)	−60dB

Equipment Required:

Synthesizer/Level Generator	-hp- 3335A
(2) 75Ω BNC Coaxial Cables	-hp- Part No. 11652-60014
Adapter (See Table 4-1)	
50Ω to 75Ω Minimum Loss Pad	-hp- 11852A (pad)
	1250-1473 (adaptor)
	1250-1536 (adaptor)

Procedure:

a. Initialize the 3586A/B/C by pressing [RECALL] , [0] .

b. Connect the 10MHz output from the rear panel of the 3586A/B/C to the Reference Input of the Synthesizer/Level Generator using a 75Ω cable.

c. Connect the 50Ω side of the Minimum Loss Pad to the 50Ω output of the Synthesizer/Level Generator. Connect the 75Ω side of the Minimum Loss Pad to the 75Ω input of the 3586A/B/C using a 75Ω cable.

d. Set the output of the Synthesizer/Level Generator to 1MHz at 0dBm.

e. Press [RDNG→ OFFSET] and turn the OFFSET [●] on.

f. Select the widest bandwidth for the 3586A/B/C.

g. Enter a frequency step in accordance with Table 4-6. This step will depend upon what model is being tested (see Table 4-5).

Table 4-6. Carrier Rejection Test Step Frequencies.

Bandwidth	Step Frequency
3100Hz	1850Hz
2000Hz	1500Hz
1740Hz	1350Hz

h. Step the frequency one step above and below 1MHz and make sure the average level reading is −60dBm0 or lower for each of these two frequencies. This tests the Carrier Frequency Rejection.

4-33. Adjacent Channel Rejection.

4-34. This test verifies the adjacent channel rejection of the 3100Hz, 2000Hz, or 1740Hz IF filter.
Specifications:

Adjacent Channel Rejection

3100Hz (±2850Hz)	−75dBm0
2000Hz (±2500Hz)	−75dBm0
1740Hz (±2350Hz)	−75dBm0

Equipment Required:

Synthesizer/Level Generator	-hp- 3335A
(2) 75Ω Coaxial BNC cables	-hp- Part No. 11652-60014
Adapter (see Table 4-1)	
50Ω to 75Ω Minimum Loss Pad	-hp- 11852A (pad) 1250-1473 (adaptor) 1250-1536 (adaptor)

Procedure:

a. Connect the 3586A/B/C and the Synthesizer/Level Generator as described in the Carrier Frequency Rejection performance test.

b. Initialize the 3586A/B/C by pressing [RECALL] , [0] .

c. Set the output of the Synthesizer/Level Generator to 1MHz at 0dBm.

d. Press [RDNG→ OFFSET] and turn the OFFSET [●] on.

e. Select the widest bandwidth on the 3586A/B/C.

f. Enter a step frequency in accordance to Table 4-7. This step will depend upon what model is being tested (see Table 4-5).

Table 4-7. Adjacent Channel Rejection Test Step Frequencies.

Bandwidth	Step Frequency
3100Hz	2850Hz
2000Hz	2500Hz
1740Hz	2350Hz

g. Step the frequency one step above and below 1MHz and make sure the average level reading is −75dBm0 or lower for each of these two frequencies. This tests the Adjacent Channel Rejection.

4-35. * Residual Noise.

4-36. This performance test verifies the noise level of the inputs of the 3586A/B/C to be within their specified limits.

NOTE

The technician may choose to limit the noise level testing to only the 75Ω input. If the 3586A/B/C is meeting its noise floor specification at this input, the technician can be reasonably certain that the other inputs (124Ω, 135Ω, 150Ω, 600Ω) are meeting their specification as well. Hence, further testing is probably not required.

Specifications:

NOTE

The noise floor for the 3586C is not specified for its 50Ω input.

75Ω, 100kHz to 32.5MHz	
1740Hz, 200Hz, or 3100Hz Bandwidth	−116dB (−114dBm for the 3586C)
400Hz, 20Hz Bandwidth	−120dBm
75Ω, 600Ω, 2kHz to 100kHz	
all Bandwidths	−105dBm
124Ω, 100kHz to 10MHz	
1740Hz, 2000Hz, or 3100Hz Bandwidths	−116dBm
400Hz, 20Hz Bandwidths	−120dBm
135Ω, 150Ω, 100kHz to 1MHz	
1740Hz, 2000Hz, or 3100Hz Bandwidths	−116dBm
400Hz, 20Hz Bandwidths	−120dBm
124Ω, 135Ω, 150Ω, 10kHz to 100kHz	
all Bandwidths	−105dB

Procedure:

a. Initialize the 3586A/B/C by pressing [RECALL] , [0] . Select the 75Ω input.

b. Enter a frequency of 32.495MHz. The level reading should be no greater than −116dBm (−114dBm for a 3586C).

c. Select the 400Hz and 20Hz Bandwidths. The level reading at each of these Bandwidths should be no greater than −120dBm.

d. (Model -hp- 3586B only.) Enter a frequency of 9.995MHz. Select the 124Ω input. Select the widest Bandwidth. The level should be no greater than −116dBm.

e. Repeat step c.

f. (Models -hp- 3586A and -hp- 3586B only.) Enter a frequency of 0.995MHz. Select the 135Ω or 150Ω input. Select the widest Bandwidth. The level should be no greater than −116dBm.

g. Repeat step c.

h. Enter a frequency of 8.01kHz. Select the 75Ω input. Select the widest Bandwidth. The level should be no greater than −105dBm.

i. Repeat step h for the 400Hz and 20Hz Bandwidths.

j. Repeat steps h and i for the 124Ω, 135Ω, 150Ω, and 600Ω inputs.

4-37. Residual Spurious Responses.

4-38. This test checks the level of residual spurs that may be generated by signals of various frequencies found in the 3586A/B/C.

Specifications:

Spurs 350Hz and above ≤ −115dBm (−110dBm for a 3586C)
Spurs below 350Hz ≤ −100dBm (−95dBm for a 3586C)

Procedure:

a. Initialize the 3586A/B/C by pressing [RECALL] , [0] .

b. Select the 20Hz Bandwidth. Select the 75Ω input.

c. Tune the 3586A/B/C to the frequencies shown in Table 4-8a. The level reading should be less than or equal to −115dBm at each frequency.

Table 4-8a. Residual Spurs 350Hz and Above.

	Frequencies To Check for Spurs
If using 60Hz AC power sources	360Hz 420Hz
If using 50Hz AC power sources	350Hz 400Hz
All instruments	100kHz 200kHz 300kHz 400kHz 10MHz 20MHz 30MHz

d. Tune the 3586A/B/C to the frequencies shown in Table 4-8b. The level reading should be less than or equal to −100dBm at each frequency.

Table 4-8b. Residual Spurs Below 350Hz.

	Frequencies To Check for Spurs
If using 60Hz AC power sources	60Hz 120Hz 180Hz 240Hz 300Hz
If using 50Hz AC power sources	50Hz 100Hz 250Hz 200Hz 250Hz 300Hz

4-39. Spurious Responses With Input.

4-40. The purpose of this test is to check that spurious responses, from various causes, which could be present with certain input signals, are below their specified limits.

Specifications:

	db Below Full Scale Carrier
Input images (100-132MHz)	−80dBc
IF (49.968750MHz)	−80dBc
Non-Harmonic (> 1600Hz)	−80dBc
(300Hz-1600Hz)	−75dBc

Equipment Needed:

Synthesizer/Level Generator	-hp- 3335A
(2) 75Ω BNC Coaxial Cables	-hp- Part No. 11652-60014
50Ω to 75Ω Minimum Loss Pad	-hp- 11852A (pad) 1250-1473 (adaptor) 1250-1536 (adaptor)
Frequency Doubler	-hp- 10515A
Adapter (see Table 4-1)	

Procedure:

NOTE

The following group of steps tests for Input Images. The output frequency of the 3335A is doubled; this provides the image frequencies. The 3586A/B/C is then tuned to the image frequency minus 100MHz.

a. Connect the 10MHz (reference) output of the 3586A/B/C to the reference input of the 3335A. Connect the 50Ω side of the Minimum Loss Pad to the 50Ω output of the 3335A. Connect the frequency doubler to the 75Ω side of the pad and the output of the frequency doubler to the 75Ω input of the 3586A/B/C. Use an adapter as indicated in Table 4-1.

b. Initialize the 3586A/B/C by pressing [RECALL] , [0] . Select 75Ω termination.

c. Set the output of the 3335A to 15MHz at a level of +10dBm.

d. Tune the 3586A/B/C to 30MHz; select the 20Hz bandwidth.

e. Press RDNG→ OFFSET . Turn the OFFSET ● ON.

f. Set the frequency of the 3335A to 50.5MHz.

g. Tune the 3586A/B/C to 1MHz. The level reading should be less than or equal to −80dBm0 (this number includes the error of the frequency doubler).

h. Set the frequency of the 3335A to 65MHz.

i. Tune the 3586A/B/C to 30MHz. The level reading should be less than or equal to −80dBm0.

NOTE

The following group of steps tests for IF images.

j. Disconnect the frequency doubler from the pad and connect the 75Ω side of the pad to the 75Ω input of the 3586A/B/C using a 75Ω cable.

k. Set the output of the 3335A to 1.03125MHz at a level of 5.7dBm.

l. Turn off the OFFSET ● .

m. Tune the 3586A/B/C to 1MHz. The level reading should be less than or equal to −80dBm.

n. Set the frequency of the 3335A to 30.03125MHz.

o. Tune the 3586A/B/C to 30MHz. The level reading should be less than or equal to −80dBm.

p. Set the frequency of the 3335A to 32001350Hz.

q. Tune the 3586A/B/C to 31999850Hz. The level reading should be less than or equal to −75dBm.

r. Set the frequency of the 3335A to 32090000.1Hz.

s. Tune the 3586A/B/C to 31990000.1Hz. The level reading should be less than or equal to −80dBm.

4-41. * Harmonic Distortion.

4-42. This test assures that the second and third order harmonic distortion is within its specified limits.

NOTE

The technician may choose to limit the harmonic distortion test to only the 75Ω input. If the 3586A/B/C is meeting its harmonic distortion specification at this input, the technician can be reasonably certain that the other inputs (124Ω, 135Ω, 150Ω, 600Ω) are meeting their specification as well. Hence, further testing is probably not required.

Specifications:

	From Full Scale
3586A/B, all inputs	−70dB
3586C, all inputs	−75dB
>4kHz on 75Ω and 600Ω inputs, Low Dist Mode	

Equipment Required:

Synthesizer/Level Generator	-hp- 3335A
100kHz low-pass, 48dB/octave filter, 75Ω input and output	Allen Avionics (custom made)
10MHz low-pass, 48dB/octave filter, 75Ω input and output	Allen Avionics (custom made)
(1) 50Ω coaxial BNC cables	-hp- Part No. 11170A
(2) 75Ω coaxial BNC cables	-hp- Part No. 11652-60012
75Ω to 124Ω matching pad (3586B), see Figure 4-6	
75Ω to 135Ω matching pad (3486B), see Figure 4-6	
75Ω to 150Ω matching pad (3586A), see Figure 4-6	
75Ω to 600Ω matching pad, see Figure 4-6	
Adapters and Cables (see Table 4-4)	
50Ω to 75Ω Minimum Loss Pad	-hp- 11852A (pad) 1250-1473 (adaptor) 1250-1536 (adaptor)

NOTE

The following steps test for Non-Harmonically related images.

Procedure:

a. Connect the equipment as shown in Figure 4-7 using the 100kHz low-pass filter.

b. Initialize the 3586A/B/C by pressing [RECALL] , [0] . Select the 75Ω input.

c. Tune the frequency of the 3586A/B/C to 100kHz. Select the 100dB Range.

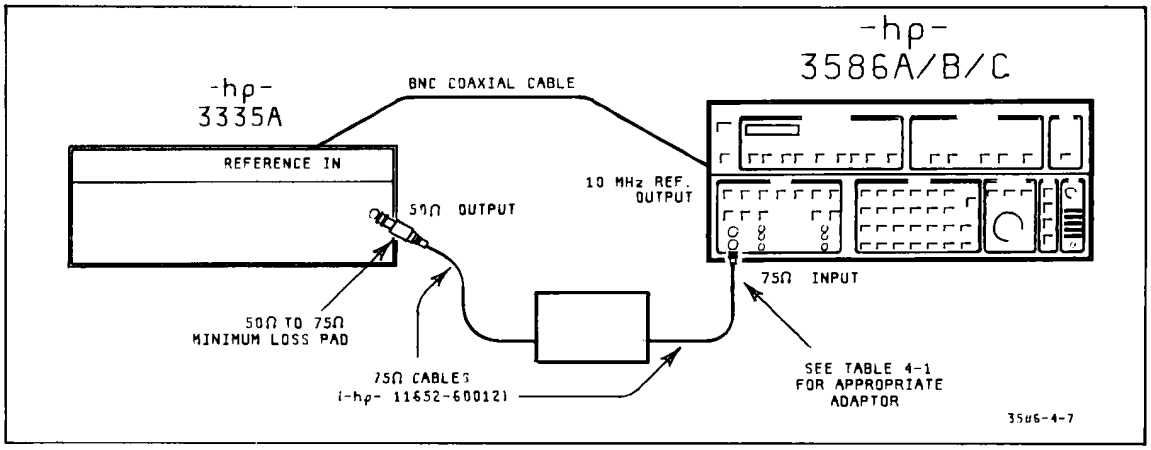


Figure 4-7. Harmonic Distortion Test Set-Up.

d. Select the 20Hz Bandwidth. Select Entry mode. Enter OdBm full Scale.

e. Set the output of the Synthesizer/Level Generator to 100kHz at a level such that the 3586A/B/C reads a level of 0dBm.

f. Tune the 3586A/B/C to 200kHz. The level reading should be less than or equal to −70dBm (75dBm for a 3586C).

g. Tune the 3586A/B/C to 300kHz. The level reading should be less than or equal to −70dBm (−75dBm for 3586C).

h. Replace the 100kHz filter with the 10MHz low-pass filter.

i. Tune the 3586A/B/C to 10MHz.

j. Set the output of the Synthesizer/Level Generator to 10MHz at a level such that the 3586A/B/C reads a level of 0dBm.

k. Tune the 3586A/B/C to 20MHz. The level reading should be less than or equal to −70dBm (−75dBm for a 3586C).

l. Tune the 3586A/B/C to 30MHz. The level reading should be less than or equal to −70dBm (−75dBm for a 3586C).

m. Disconnect the 75Ω BNC cable from the input of the 3586A/B/C and connect it to the input of the 75Ω unbalanced to 600Ω balanced matching pad. Connect the output of this pad to the 600Ω input of 3586A/B/C using a cable or adapter with the appropriate connectors shown in Table 4-4.

n. Replace the 10MHz filter with the 100kHz low-pass filter.

o. Tune the 3586A/B/C to 100kHz. Enter a −10dBm Full Scale.

p. Set the output of the Synthesizer/Level Generator to 100kHz at a level such that the 3486 reads −10dBm.

Press RDNG→ OFFSET , and turn the OFFSET on.

q. Tune the 3586A/B/C to 200kHz. The level reading should be less than or equal to −70dBm (−75dBm for a 3586C).

r. Tune the 3586A/B/C to 300kHz. The level reading should be less than or equal to −70dBm (−75dBm for a 3586C).

NOTE

The remaining steps apply to the 3586A and the 3586B only.

s. Disconnect the 75Ω cable from the 600Ω input of the 3586A/B/C and connect it to the 135Ω or 150Ω input using the appropriate Matching Pad and cable shown in Table 4-4.

t. Tune the 3586A/B to 100kHz. Turn OFFSET ● off.

u. Set the output of the Synthesizer/Level Generator to 100kHz at a level of such that the 3586 reads −10dBm.

Press RDNG→ OFFSET and turn the OFFSET ● on.

v. Tune the 3586A/B to 200kHz. The level reading should be less than or equal to −70dBm.

w. Tune the 3586A/B to 300kHz. The level reading should be less than or equal to −70dBm.

NOTE

The remaining steps apply to the 3586B only.

x. Replace the 100kHz filter with the 10MHz low-pass filter.

y. Replace the 75Ω to 135Ω pad with the 75Ω to 124Ω pad, using a cable with the appropriate adapters shown in Table 4-4.

aa. Tune the 3586B to 10MHz. Turn the OFFSET off.

bb. Set the output of the Synthesizer/Level Generator to 10MHz at a level such that the 3586 reads −10dBm.

Press RDNG→ OFFSET and turn the OFFSET ● on.

cc. Tune the 3586B to 20MHz. The level reading should be less than or equal to −70dBm.

dd. Tune the 3586B to 30MHz. The level reading should be less than or equal to −70dBm.

4-43. * Intermodulation Distortion.

4-44. The purpose of this test is to verify that the second and third order intermodulation distortion of the 3586A/B/C is within its specified limits. This is accomplished by combining two frequencies (f_1 and f_2), and measuring the level with the 3586A/B/C tuned to $f_1 - f_2$, $f_1 + f_2$, $2f_1 - f_2$, and $2f_2 - f_1$. Of course, only those frequencies which are possible to tune to are checked.

NOTE

The technician may choose to limit the intermodulation distortion testing to only the 75Ω input. If the 3586A/B/C is meeting its IM distortion specification at this input, the technician can be reasonably certain that the other inputs (124Ω, 135Ω, 150Ω, 600Ω) are meeting their specification as well. Hence, further testing is probably not required.

Specifications:

2nd and 3rd order, in band;

Separation 7kHz to 1MHz: either tone ≥ 10MHz, 70dB below full scale
Separation 7kHz to 1MHz: either tone < 10MHz, 75dB below full scale (78dB for the 3586C)

Equipment Required:

Synthesizer/Level Generator	-hp- 3325A
Synthesizer/Level Generator	-hp- 3335A
75Ω unbalanced to 124Ω matching pad (3586A), see Figure 4-6	
75Ω unbalanced to 135Ω matching pad (3586B), see Figure 4-6	
75Ω unbalanced to 150Ω matching pad (3586A), see Figure 4-6	
75Ω unbalanced to 600Ω matching pad, see Figure 4-6	
Cables and Adapters (see Table 4-4)	
(2) 50Ω to 75Ω minimum loss pads	-hp- 11852A (pad) 1250-1473 (adaptor) 1250-1536 (adaptor)
BNC "T"	-hp- 1250-0781
(2) 50Ω coaxial cables	-hp- Part No. 11170A
(3) 75Ω coaxial cables	-hp- Part No. 11652-60012
Power Combiner (see Figure 4-9).	

Procedure:

a. Connect the equipment as shown in the Figure 4-8.

b. Initialize the 3586A/B/C by pressing [RECALL] , [0] . Select the 20Hz Band width. Select an Entry Mode, Full Scale of 0dBm. Select the 100dB Range, and the 75Ω input.

c. Set the output of the 3325A to 8MHz at a level of +8.7dBm.

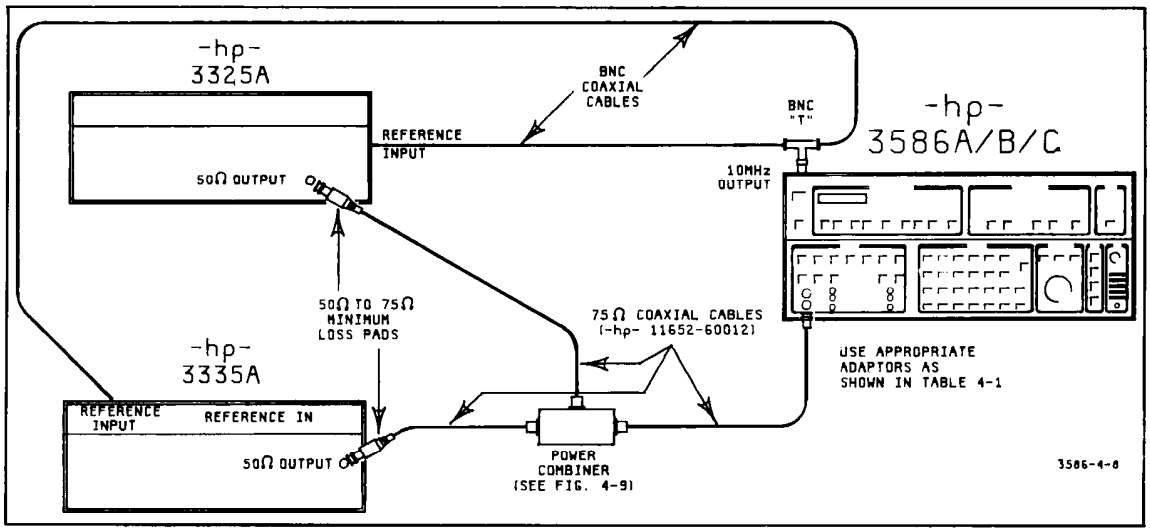


Figure 4-8. Intermodulation Distortion Test Set-Up.

d. Set the output of the 3335A to 9MHz at a level of +8.7dBm.

e. Since the 3586A/B/C is already tuned to 1MHz, the level reading represents the second order IM distortion. The reading should be less than or equal to −75dBm (−78dBm for a 3586C). Tune the 3586A/B/C to 17MHz. The level reading represents the other second order IM distortion. The level reading should be less than or equal to −75dBm (−78dBm for 3586C).

f. Tune the 3586A/B/C to 10MHz. The level reading represents one of the third order IM distortions. The level should be less than or equal to −75dBm (−78dBm for a 3586C).

g. Tune the 3586A/B/C to 7MHz. The level reading represents the other third order IM distortion. This level reading should be less than or equal to −75dBm (−78dBm for a 3586C).

h. Change the frequency output of the 3325A to 20.993MHz. Change the frequency output of the 3335A to 21MHz.

i. Tune the 3586A/B/C to 7kHz, 21.007MHz, and finally 20.986MHz. The level reading at each of these frequencies should be less than or equal to −70dBm.

j. Disconnect the 75Ω BNC cable from the 75Ω input to the 3586A/B/C and connect it to the input of the 75Ω to 600Ω matching pad. Connect the output of this pad to the 600Ω input of the 3586A/B/C using a cable with the appropriate connectors as shown in Table 4-4.

k. Select the 600Ω Input. Select the widest Bandwidth.

l. Set the frequency output of the 3325A to 100kHz and the frequency of the 3335A to 99.800kHz. Tune the 3586A/B/C to 99.900kHz. The amplitudes of the 3335 and the 3325 should be +8.7dBm. Set the Full Scale of the 3586A/B/C to −15dBm.

Press [RDNG→ OFFSET] and turn the [OFFSET ●] ON .

This step assures the two sources to be of equal amplitude and of a level such that a reference level of 0dBm is established after the pad has been added to the test set-up.

m. Set the frequency of the 3335A to 200Hz. Select the 20Hz Bandwidth.

n. Tune the 3586A/B/C to 99.8kHz, 100.2kHz, and 199.8kHz. The level reading at each of these frequencies should be less than or equal to −75dBm (−78dBm for a 3586C).

o. Set the frequency of the 3335A to 93kHz. Select the 20Hz bandwidth.

p. Tune the 3586A/B/C to 7kHz, 107kHz, 193kHz, and 86kHz. The level at each of these frequencies should be less than or equal to −70dBm.

NOTE

The following steps apply to the 3586A and the 3586B only.

q. Replace the 75Ω to 600Ω pad with the appropriate pad for the 135Ω or 150Ω input and cable as shown in Table 4-4.

r. Select the 150Ω or 135Ω input. Select the widest Bandwidth.

s. Set the frequency of the 3325 to 1MHz, and the frequency of the 3335A to 0.9998MHz. Tune the 3586A/B to 0.9999MHz. The amplitudes of the 3335A and the 3325A should be set to +6.7dBm (+5.7dBm when testing a 3586B). Set the Full Scale of the 3586A/B to −10dBm.

Press [RDNG→ OFFSET] and turn the OFFSET [●] on.

t. Set the frequency of the 3335A to 10kHz. Select the 20Hz Bandwidth.

u. Tune the 3586A/B to 990kHz, 1.01MHz, and 1.99MHz. The level reading at each of these frequencies should be less than or equal to −75dBm.

v. Set the frequency of the 3335A to 993kHz. Select the 20Hz bandwidth.

w. Tune the 3586A/B to 7kHz, 1.993MHz, 1.007MHz, and 986kHz. The level reading at each frequency should be less than or equal to −70dBm.

NOTE

The following steps apply to the 3586B only.

x. Replace the 75Ω to 135Ω pad with the 75Ω to 124Ω pad using a cable with the appropriate adapters as shown in Table 4-4.

y. Select the 124Ω. Select the widest bandwidth.

z. Set the frequency of the 3325A to 9MHz and the frequency of the 3335A to 9.0002MHz. Tune the 3586B to 9.0001MHz. The amplitudes of the 3335A and the 3325A should be set to +5.7dBm. Set the Full Scale of the 3586B to −10dBm.

Press [RDNG→ OFFSET] and turn the OFFSET [●] on.

aa. Set the 3335A to 8MHz. Select the 20Hz Bandwidth.

bb. Tune the 3586B to 1MHz, 17MHz, 10MHz, and 7MHz. The level at each of these frequencies should be less than or equal to −75dBm.

cc. Set the 3325A to 9MHz. Set the 3335A to 8.993MHz. Select the 20Hz bandwidth.

dd. Tune the 3586B to 7kHz, 17.993MHz, 9.007MHz, and 8.986MHz. The level reading at each of these frequencies should be less than or equal to −70dBm.

4-45. IF Rejection.

4-46. This test verifies the rejection of the IF frequencies (50MHz and 15625Hz) in the 3586A/B/C

Specifications:

50MHz	−60dBm
15625Hz	−80dBm

Equipment:

Synthesizer/Level Generator	-hp- 3335A
75Ω Coaxial BNC Cable	-hp- Part No. 11652-60014
Adapter (see Table 4-1)	
50Ω to 75Ω Minimum Loss Pad	-hp- 11852A (pad)
	1250-1473 (adaptor)
	1250-1536 (adaptor)

Procedure:

a. Initialize both instruments by pressing RECALL , 0 .

b. Connect the 50Ω side of the Minimum Loss Pad to the 50Ω output of the Synthesizer/Level Generator. Connect the 75Ω side of the pad to the 75Ω input of the 3586A/B/C using the 75Ω cable. Use an appropriate adapter as shown in Table 4-1.

c. Set the output of the Synthesizer/Level Generator to 50MHz at 5.7dBm.

d. Enter a FULL SCALE of 0dBm on the 3586A/B/C. Select the 100dB range.

e. The level reading should be −60dBm or lower.

f. Set the frequency of the Synthesizer/Level Generator to 15625Hz.

g. The level reading on the 3586A/B/C should be no higher than −80dBm.

4-47. Wideband Power Flatness.

4-48. The purpose of this test is to check the wideband power flatness of the 3586A/B/C through its specified range.

Specification:

(100dB Auto, AVE on)	
20kHz to 10MHz	−1.0dB to +1.0dB
200Hz to 32MHz	−2.0dB to +2.0dB

Equipment Required:

Synthesizer/Level Generator	-hp- 3335A
Synthesizer/Level Generator	-hp- 3325A
(5) 75Ω Coaxial BNC cables	-hp- 11652-60014(2)
(3) 25Ω 0.1% Resistors (see Figure 4-9)	-hp- Part No. 0698-8011
BNC Tee	-hp- Part No. 1250-0781
(2) 50Ω to 75Ω Minimum Loss Pads	-hp- 11852A (pad) 1250-1473 (adaptor) 1250-1536 (adaptor)

Procedure:

a. Connect the equipment as shown in Figure 4-10.

b. Initialize the 3586A/B/C by pressing [RECALL] , [0] .

c. Press [WIDE BAND] on the 3586A/B/C, Press [AVE] .

d. Set the output of the 3325A to 20kHz at a level of +8.7dBm.

e. Set the output of the 3335A to 30kHz at a level of +8.7dBm.

f. Press [RDNG→ OFFSET] and turn the [OFFSET] on.

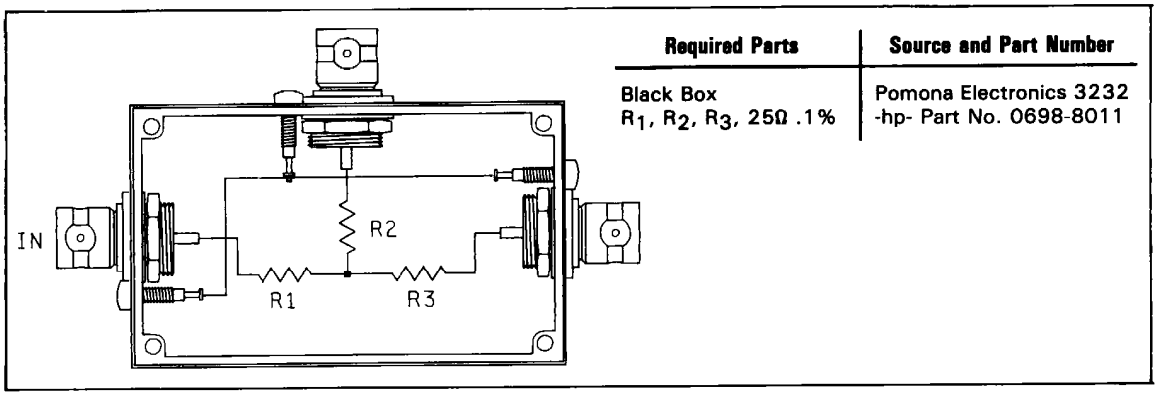
g. Change the frequency of the 3335A to 10MHz. The level reading on the 3586A/B/C should be between −0.8dBm0 and +0.8dBm0.*

h. Change the frequency of the 3325A to 200Hz, and the frequency of the 3335A to 1kHz.

i. Press [RDNG→ OFFSET] .

j. Change the frequency of the 3335A to 32MHz. The level reading on the 3586A/B/C should be between −1.8dBm0 and +1.8dBm0.

k. Repeat steps d through j, setting the amplitude of the two sources to −36.3dBm.



Required Parts	Source and Part Number
Black Box R_1, R_2, R_3, 25Ω .1%	Pomona Electronics 3232 -hp- Part No. 0698-8011

Figure 4-9. Power Combiner.

*0.2dB is subtracted from the spec to account for test system unflatness.

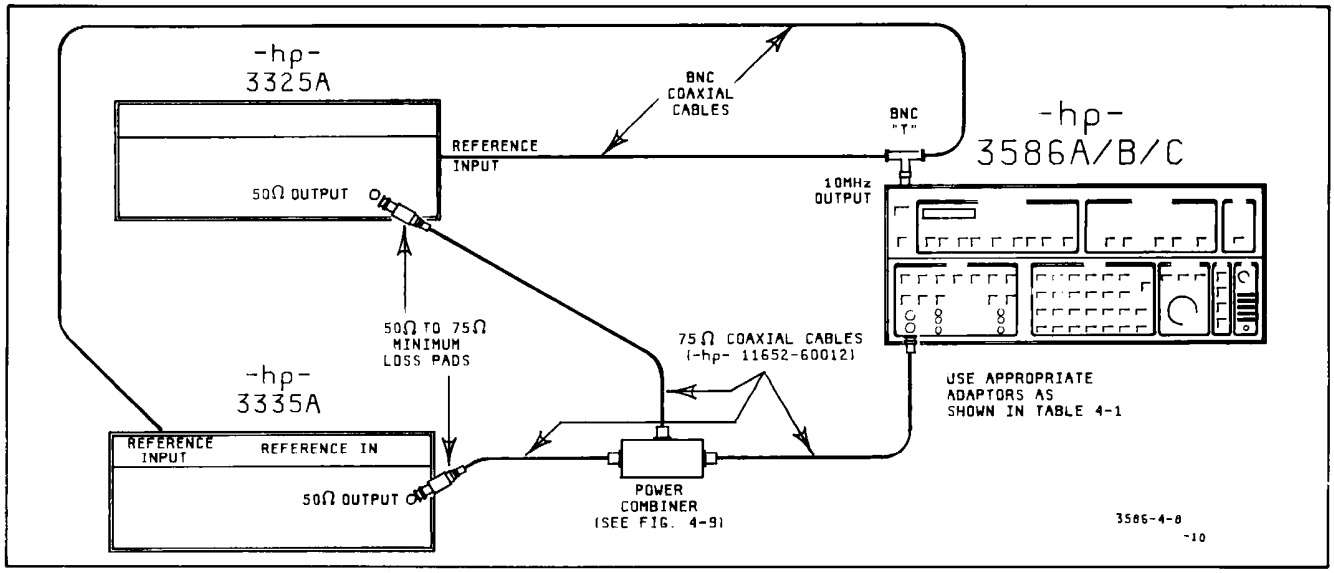


Figure 4-10. Wideband Power Accuracy Test Set-Up.

4-49. Tracking Output Test ("f_0 0-32MHz" on Rear Panel).

4-50. Testing the Tracking Output consists of measuring its absolute level and flatness using the 75Ω input to the 3586A/B/C. This is possible because these two sections of the instrument operate independently.

Specifications:

Level 0dBm at 10kHz	−0.50dB to 0.50dB
Flatness 200Hz to 32.5MHz (referenced at 10kHz)	−0.50dB to 0.50dB

Equipment Required:

75Ω Coaxial BNC Cable	-hp- Part No. 11652-60114
Adapter (see Table 4-1)	

Procedure:

a. Connect the 75Ω input to the Tracking Output labeled "$f_0$0 −32MHz" on the rear panel using the 75Ω cable.

b. Initialize the instrument by pressing [RECALL] , [0] . Select the 75Ω input.

c. Select the 20Hz Bandwidth. Turn the AVErage ON.

d. Enter a frequency of 10kHz. The level should read from −0.50dBm to +0.50dBm.

e. Press [RDNG→ OFFSET] and turn the [OFFSET] on.

f. Enter a frequency of 200Hz. The level should read from −0.50dBm0 to +0.50dBm0.

g. Repeat step f for frequencies of 500kHz and 32.5MHz.

4-51. Phase Jitter Accuracy (Option 003 only).

4-52. Phase jitter accuracy is measured by summing two precision sources, 100Hz and 20dB apart, and measuring phase jitter generated by them.

Specifications:

For a tone ≤ 30db below Full Scale or −65dBm whichever is greater	±(10% + 5°p-p)

Equipment Required:

Synthesizer/Level Generator	-hp- 3335A
Synthesizer/Level Generator	-hp- 3325A
(5) 75Ω Coaxial BNC Cables	-hp- Part No. 11652-60014(2)
(3) 25Ω .1% Resistors (see Figure 4-9)	-hp- Part No. 0698-8011

Procedure:

a. Connect the equipment as shown in Figure 4-10 (see Paragraph 4-48).

b. Initialize the 3586A/B by pressing [RECALL] , [0] .

c. Set the output of the 3325A to 11004Hz at a level of −56dBm.

d. Set the output of the 3335A to 11104Hz at a level of −76dBm.

e. Select 100dB range. Tune the 3586A/B to 10kHz.

f. Press ϕ JITTER . The reading of phase jitter should be from 10°p-p to 13°p-p.

NOTE

Step g applies only to those instruments which have "4-300Hz" silk screened under the "WTD 3100Hz" key.

g. Press the "WTD 3100Hz" key (4-300Hz ϕ JITTER). The reading of phase jitter should be from 10° p-p to 13° p-p.

4-53. Residual Phase Jitter (Option 003 only).

4-54. This test involves inputing a single frequency of very low phase jitter into the 3586A/B. Residual phase jitter of the instrument is then measured by reading phase jitter.

Specifications:

For a tone ≤ 35dB below full scale or −65dBm whichever is greater	0 to 0.5° p-p

Equipment Required:

Synthesizer/Level Generator	-hp- 3335A
(2) 50Ω BNC Coaxial Cable	-hp- Part No. 11170A
Adapter (see Table 4-1)	
50Ω to 75Ω Minimum Loss Pad	-hp- 11852A (pad) 1250-1473 (adaptor) 1250-1536 (adaptor)

Procedure:

a. Connect the 10MHz (reference) output of the 3586A/B to the reference input of the Synthesizer/Level Generator using a BNC coaxial cable.

b. Connect the 50Ω side of the Minimum Loss Pad to the 50Ω output of the Synthesizer/Level Generator. Connect the 75Ω side of the pad to the 75Ω input of the 3586A/B using a 75Ω cable and adapter (see Table 4-1).

c. Initialize the 3586A/B by pressing [RECALL] , [0]. Select the 75Ω input.

d. Set the output of the Synthesizer/Level Generator to 50kHz at −59.8dBm.

e. Enter a FULL-SCALE of −30dBm into the 3586A/B. Select the 100dB Range.

f. Enter a frequency of 48996Hz into the 3586A/B.

g. Press "ϕ Jitter" and read the residual phase jitter; it should be less than or equal to 0.5° p-p.

h. Set the output of the Synthesizer/Level Generator to 2MHz at −59.8dBm.

i. Enter a frequency of 1998996Hz into the 3586A/B.

j. The phase jitter reading should be less than or equal to 0.5° p-p.

4-55. WTD Filter (Option 003 only).

4-56. The purpose of this test is to check the calibration of the WTD filter at its calibration frequency.

Specifications:

After calibration at 800Hz for 3586A, or at 1004Hz for 3586B	−0.5dB to +0.5dB

Equipment:

Synthesizer/Level Generator	-hp- 3335A
(2) 50Ω Coaxial BNC Cables	-hp- Part No. 11170A
Adapter (see Table 4-1)	
50Ω to 75Ω Minimum Loss Pad	-hp- 11852A (pad) 1250-1473 (adaptor) 1250-1536 (adaptor)

Procedure:

a. Connect the equipment as in the previous test (see Paragraph 4-54, steps a and b).

b. Initialize the 3586A/B by pressing [RECALL] , [0] .

c. Set the Synthesizer/Level Generator output to 999154Hz (998950Hz for testing a 3586A) at a level of 5.8dBm.

d. Press [RDNG→ OFFSET] , and turn the OFFSET on.

e. Press [WTD 3100Hz ●] to switch in the WTD filter. The 3586A/B should read a level from −0.5dBm0 to +0.50dBm0.

4-57. Notch Filter (Option 003 only).

4-58. This test confirms the performance of the notch filter by measuring the relative level of a tone after the notch filter is switched in.

Specifications:

995 to 1025Hz	at least 50dB rejection

Equipment Required:

Synthesizer/Level Generator	-hp- 3335A
(2) 75Ω Coaxial BNC cables	-hp- Part No. 11652-60014
Adapter (see Table 4-1)	
50Ω to 75Ω Minimum Loss Pad	-hp- 11852A (pad) 1250-1473 (adaptor) 1250-1536 (adaptor)

Procedure:

a. Initialize the 3586A/B by pressing [RECALL] , [0] .

b. Connect the equipment as in the previous test (see Paragraph 4-54, steps a and b).

c. Set the output of the Synthesizer/Level Generator to 1001010Hz at a level of 5.8dBm.

d. Enter a [FULL SCALE] of 0dBm into the 3586A/B. Select the [100dB ●] Range.

e. Press [1010 Hz ●] for the SSB Channel measurement. ([TONE 1004 Hz ●] for a 3586B.)

f. Select the WTD 3100Hz bandwidth.

g. Press RDNG→ OFFSET and turn on the OFFSET

h. By switching to NOISE/TONE, the instrument reads the level of the tone after being rejected by the notch filter.

i. The level reading should be less than −50dBm0.

j. Enter a FREQ STEP of 15Hz and step the entry frequency 15Hz above and below 1MHz checking that the level is still reading less than −50dBm0 at each of these frequencies. (For a 3586B, step 9Hz below and 21Hz above.)

4-59. Impulse Noise (Option 003 only).

4-60. The purpose of this test is to insure that the impulse noise counting rate as well as the accuracy of the threshold are within their specified limits.

Specifications:

Counting Rate	
3586A	458 to 504 counts/minute
3586B	400 to 442 counts/minute
Threshold accuracy (1700 tone applied 1dB above and below −80dB threshold)	
threshold + 1dBm	> 1 count
threshold − 1dBm	≤ 1 count

Equipment Required:

Synthesizer/Level Generator	-hp- 3335A
(2) 75Ω coaxial BNC cables	-hp- Part No. 11652-60014
Adapter (see Table 4-1)	
50Ω to 75Ω Minimum Loss Pad	-hp- 11852A (pad) 1250-1473 (adaptor) 1250-1536 (adaptor)

Procedure:

a. Connect the equipment as Figure 4-10.

b. Initialize the 3586A/B by pressing RECALL, 0.

c. Set the output of the Synthesizer/Level Generator (-hp- 3335A) to 1001700Hz at a level of −69.3dBm (−72.3dBm for testing a 3586B).

d. Set the output of the -hp- 3325A to 2MHz at −21.3dBm.

e. Set the threshold level for the 3586A/B to −80dBm.

f. Set the impulse measurement time to 1 minute.

g. Press 

, 

. The instrument should have counted, at the most, one count.

h. Increase the output level of the Synthesizer/Level Generator (-hp- 3335A) by 2dB.

i. Press 

again. The instrument should now be counting. At the end of the 1 minute measurement interval, the instrument should have read from 400 to 442 counts (458 to 504 counts for a 3586A).

Table 4-9. Recommended Test Equipment.

Equipment	Critical Specifications	Application*	Recommended -hp- Model No.
Synthesizer/Level Generator	200Hz→65MHz, +10dBm→−80dBm, 00.01dB level resolution, frequency stability of less than 1×10^{-7}/year, calibrated attenuator.	P,A,R	3335A opt. 001 (special) K06
Synthesizer/Level Generator	40Hz→21MHz, +10dBm→−45dBm, frequency stability of less than 5×10^{-6}/year.	P,A,R	3325A
Oscilloscope	100MHz BW	P,A,R	180A/1808A/1821A
Spectrum Analyzer	1kHz→32.5MHz, 60dB dynamic range.	P	141T/8553B/8552B
	1dB/Div Vertical Scale	A,R	3585A
Digital Multimeter	±0.1mV AC accuracy at 0.45V VRMS and 1kHz, ±10μV DC accuracy at 6mV, ±0.05Ω accuracy at 20Ω.	P,A,R	3455A opt. 001
RF Voltmeter		R	411A
RF Amplifier	+27dBm output, 15dB gain .5MHz to 32.5MHz.	P,A	Q-Bit, QB-188-LH-BNC with case and supply. Available from: Q-Bit P.O. Box 2208 Melbourne, Florida 32901
Signature Analyzer		R	5004A
100kHz Low Pass Filter	≥48dB/Octave Roll-off, 75Ω input and output.	P	Available from: Allen Avionics 224E. 2nd St. Mineola, NY 11501
10MHz Low Pass Filter	≥48dB/Octave Roll-off, 75Ω input and output.	P	
Attenuator (Calibrated)	±0.03db with Cal. Sheet	P	355D
50ΩDirectional Bridge	≥30dB Return Loss ≥40dB Directivity	P	8721A
75Ω Directional Bridge	≥30db Return Loss ≥40dB Directivity	P	8721A opt. 008
124Ω Return Loss Coupler (3586B Standard)		P	Part No. 5061-1136
124Ω Return Loss Coupler (3586B opt. 001)		P	Part No. 5061-1137
150Ω Return Loss Coupler		P	Part No. 5061-1135
75Ω .5V Thermal Converter	Must include Calibration sheet	P	11051A, opt. 003
(2) BNC "T"		P	1250-0781
(m) BNC to (m) BNC adapter		P	1250-0216
75Ω Resistor	0.1%	P	0698-7363
50Ω Resistor	0.1%	P	0699-0064

Table 4.9 Recommended Test Equipment Cont'd.

Equipment	Critical Specifications	Application*	Recommended -hp- Model No.
50Ω 1V Thermal Converter	Must include Calibration sheet	P	11050A, opt. 002
Frequency Doubler		P	10515A
(2) 50Ω/75Ω Minimum Loss Pads	50Hz to 32.5MHz, 30dB return loss.	P	11852A Pad 1250-1473 Adapter 1250-1536 Adapter
75Ω to balanced 124Ω matching pad, consisting of:		P	
10ΩResistor	1%		0757-0346
20Ω Resistor	1%		0757-0384
121Ω Resistor	1%		0757-0403
68.1Ω Resistor	1%		0757-0397
20Ω Ten-Turn Potentiometer			2100-3315
200Ω Ten-Turn Potentiometer			2100-3095
2kΩ Ten-Turn Potentiometer			2100-3109
1kΩ Ten-Turn Potentiometer			2100-3154
Enclosure	Three (f) BNC, grounded		Pomona 3232
75Ω to Balanced 135Ω matching pad, consisting of:		P	
24.3Ω Resistor	1%		0757-0386
121Ω Resistor	1%		0757-0403
75Ω Resistor	1%		0757-0398
500Ω Ten-Turn Potentiometer			2100-3123
2kΩ Ten-Turn Potentiometer			2100-3109
1kΩ Ten-Turn Potentiometer			2100-3154
Enclosure	Three (f) BNC, grounded		Pomona 3232
75Ω to balanced 600Ω matching pad consisting of:		P	
10Ω Resistor	1%		0757-0346
619Ω Resistor	1%		0757-0418
110Ω Resistor	1%		0757-0402
10Ω Ten-Turn Potentiometer			2100-3164
10kΩ Ten-Turn Potentiometer			2100-3103
500Ω Ten-Turn Potentiometer			2100-3123
Enclosure	Two (f) BNC, grounded		Pomona 3230
75Ω to balanced 150Ω matching pad consisting of:			
10Ω Resistor	1%		0757-0346
36.5Ω Resistor	1%		0757-0390
110Ω Resistor	1%		0757-0402
82.5Ω Resistor	1%		0757-0399
10Ω Ten-Turn Potentiometer			2100-3164
500Ω Ten-Turn Potentometer			2100-3123
(2) 2kΩ Ten-Turn Potentiometer			2100-3109
Enclosure	Two (f) BNC, isolated		Pomona 3239
Power Combiner Consisting of:	75Ω	P	
(3) 25Ω Resistors	0.1%		0698-8011
Enclosure	Three (f) BNC, grounded		Pomona 3232
124Ω Balance Testing Apparatus, consisting of:		P	
(2) 10Ω Resistors	1%		0757-0346
(2) 62Ω Resistors	0.1%		0698-6800
Enclosure	Three (f) BNC, one (m) BNC, grounded		Pomona 3234
135Ω Balance Testing Apparatus consisting of:		P	
(2) 10Ω Resistors	1%		0757-0346
(2) 67.3Ω Resistors	0.25%		0698-8558
Enclosure	Three (f) BNC, one (m) BNC, grounded		Pomona 3234

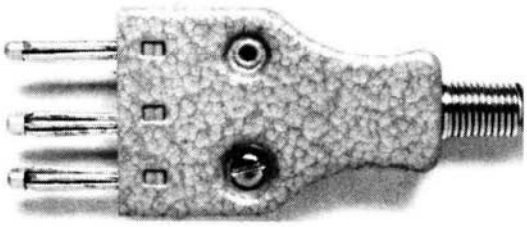
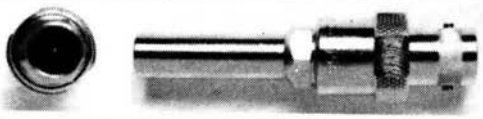
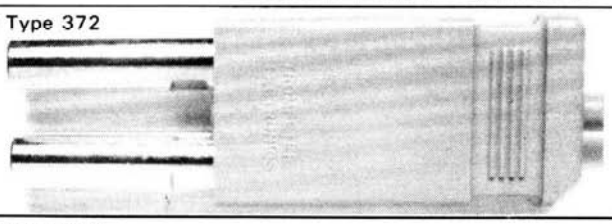
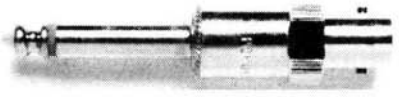
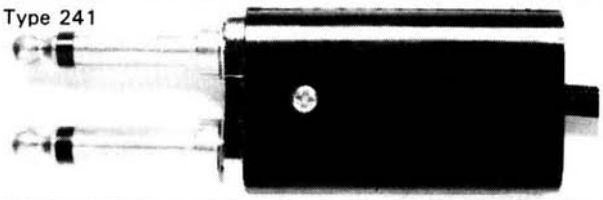
Table 4-9. Recommended Test Equipment Cont'd.

Equipment	Critical Specifications	Application	Recommended -hp- Model No.
600Ω Balance Testing Apparatus consisting of:			
(2) 10Ω Resistors	1%		0757-0346
(2) 300Ω Resistors	0.1%		0698-6346
Enclosure	Three (f) BNC, isolated		Pomona 2102
150Ω Balance Testing Apparatus, consisting of:		P	
(2) 10Ω Resistors	1%		0757-0346
(2) 75Ω Resistors	0.1%		0698-7363
Enclosure	Three (f) BNC, isolated		Pomona 2102 Available from: Pomona Electronics P.O. Box 2767 Pomona, CA 91766
600Ω Feedthrough, consisting of:			
600Ω Resistor	0.1%		0698-7408
Connector	BNC		1250-0052
Connector	BNC		11048-27603
Connector	BNC		1250-0083
Threaded Sleeve	BNC		11048-27604
(3) 75Ω BNC Coaxial Cables	3'	P	11652-60014
(2) 75Ω BNC Coaxial Cables	2'	P	11652-60013
(3) 75Ω BNC Coaxial Cables	1'	P	11652-60012
(3) 50Ω BNC Coaxial Cables	1'	P	11170A
Siemens 3-prong to (m) BNC Cable (must be modified, see Table 4-4) (3586A only)**		P,A,R	W & G, k164
Siemens 1.6/5.6mm to (f) BNC Adapter (3586A opt 001 only)**		P,A,R	W & G, s230 Available from: W & G Instruments Inc. 119 Naylon Ave. Livingston, NJ 07039
(2) (m) BNC to single Banana jack adapter		P	Pomona 3430-0
(3) Mini-Weco to (f) BNC adapter (3586B standard)**		P	1250-0556
(3) Large-Weco to (f) BNC adapter (3586B opt. 001)**		P	1250-0591
(2) 1/4" Phone Plug to (f) BNC adapter (3586B)**		P	1251-3759
Weco 310 plug to (f) BNC adapter (3586B)**		P	1251-3757
Dual Banana to (f) BNC adapter (3586C)		P	1251-2277

* P-Performance Tests; A-Adjustments; R-Repair.

**See Table 4-10.

Table 4-10. BNC Adapters.

ADAPTER DESC.		
Siemans 3-prong to (M) BNC Cable (must be modified)	Siemans 3-Prong 	Available From: W&G Instruments, Inc., 119 Naylon Avenue, Livingston, N.J. 07039
Siemans 1.6/5.6mm to (F) BNC Adapter	Siemans 1.6/5.6mm Model S230 	Available From: W&G Instruments, Inc. 119 Naylon Avenue, Livingston, N.J. 07039
Mini-Weco to (F) BNC Adapter	(2) WECO Type 440 or 	WECO Type 440 -hp- P/N 1250-0556
	(1) WECO Type 443 	WECO Type 443 Available From: Trompeter Electronics 8936 Comanche Ave., Chatsworth, CA. 91311
Large-Weco to (F) BNC Adapter	(2) WECO Type 358 or 	WECO Type 358 -hp- P/N 1250-0591
	(1) WECO Type 372 	WECO Type 372 Available From: Trompeter Electronics 8936 Comanche Ave., Chatsworth, CA. 91311
¼" Phone Plug to (F) BNC Adapter	(2) WECO Type 347 or 	WECO Type 347 -hp- P/N 1251-3759
	(1) WECO Type 241 	WECO Type 241 Available From: Pomona Electronics, 1500 East Ninth St., Pomona, CA. 91766
WECO 310 Plug to (F) BNC Adapter	WECO Type 310 	-hp- P/N 1251-3757

PERFORMANCE TEST RECORD

HEWLETT-PACKARD MODEL 3586A/B/C

SELECTIVE LEVEL METER

SERIAL NO._____

Tests Performed By_____

Date_____

CENTER FREQUENCY ACCURACY (4-13)

"Beating" period = _____ms ≥ 10 milliseconds

COUNTER SENSITIVITY AND ACCURACY (4-15)

-hp- 3586A/B/C

Min	Counter Reading	Max
999 999.0Hz	_____ Hz	1 000 001.0Hz

RETURN LOSS (4-17)

	Frequency	Min	Return Loss
75Ω	1MHz	30dB	_____dB
	32.5MHz	30dB	_____dB
50Ω	1MHz	30dB	_____dB
	32.5MHz	30dB	_____dB
150Ω	1MHz	30dB	_____dB
	10kHz	30dB	_____dB
124Ω	5MHz	30dB	_____dB
	10kHz	30dB	_____dB

	Min	Resistance	Max
135Ω	19.9Ω	_____ Ω	21.31Ω
	19.9Ω	_____ Ω	21.31Ω

	Frequency	Min	Return Loss
600Ω	50Hz	25dB	_____dB
	108kHz	25dB	_____dB

BALANCE (4-19)

	Frequency	Balance Reading	Max
600Ω	50Hz	_____ dBm0	−40dBm0
	108kHz	_____ dBm0	−40dBm0
150Ω	10kHz	_____ dBm0	−36dBm0
	1MHz	_____ dBm0	−36dBm0
124Ω	10kHz	_____ dBm0	−36dBm0
	10MHz	_____ dBm0	−36dBm0
135Ω	10kHz	_____ dBm0	−36dBm0
	1MHz	_____ dBm0	−36dBm0

AMPLITUDE ACCURACY (4-21)

$$P = 10 \log \frac{V^2}{.075} = \_\_\_\_\_ \text{dBm.}$$

$$V_{th} = \_\_\_\_\_ \text{volts.}$$

Column 1 Frequency	Column 2 -hp- 3335A Setting To Produce V_{th}	Column 3 Thermal Converter Error	Column 4 -hp- 3335A Setting To Produce Flat Test Signal (Column 2-Column 3)
1kHz	10.0dBm	0dB	10.00dBm
1MHz	_____ dBm	_____ dB	_____ dBm
3MHz	_____ dBm	_____ dB	_____ dBm
10MHz	_____ dBm	_____ dB	_____ dBm
30MHz	_____ dBm	_____ dB	_____ dBm

P_{1kHz} = P + 2dB + (2dB step error for 1kHz)

P_{1MHz} = P + 2dB + (2dB step error for 1MHz)

P_{3MHz} = P + 2dB + (2dB step error for 3MHz)

P_{10MHz} = P + 2dB + (2dB step error for 10MHz)

P_{30MHz} = P + 2dB + (2dB step error for 30MHz)

75 ohms, 1kHz, +4dBm to −100dBm

-hp- 3335A Attenuator Step	Min. Step Error	-hp- 3586A/B/C Level Reading	Max. Step Error
2dB	P_{1kHz} − 2.36dB − (_____)	_____ dBm	P_{1kHz} − 1.64dB − (_____)
4dB	P_{1kHz} − 4.36dB − (_____)	_____ dBm	P_{1kHz} − 3.64dB − (_____)
6dB	P_{1kHz} − 6.36dB − (_____)	_____ dBm	P_{1kHz} − 5.64dB − (_____)
8dB	P_{1kHz} − 8.36dB − (_____)	_____ dBm	P_{1kHz} − 7.64dB − (_____)
10dB	P_{1kHz} − 10.36dB − (_____)	_____ dBm	P_{1kHz} − 9.64dB − (_____)
20dB	P_{1kHz} − 20.36dB − (_____)	_____ dBm	P_{1kHz} − 19.64dB − (_____)
30dB	P_{1kHz} − 30.36dB − (_____)	_____ dBm	P_{1kHz} − 29.64dB − (_____)
40dB	P_{1kHz} − 40.36dB − (_____)	_____ dBm	P_{1kHz} − 39.64dB − (_____)
50dB	P_{1kHz} − 50.36dB − (_____)	_____ dBm	P_{1kHz} − 49.64dB − (_____)
60dB	P_{1kHz} − 60.36dB − (_____)	_____ dBm	P_{1kHz} − 59.64dB − (_____)
70dB	P_{1kHz} − 70.36dB − (_____)	_____ dBm	P_{1kHz} − 69.64dB − (_____)
**66dB	P_{1kHz} − 106.91dB − (_____)	_____ dBm	P_{1kHz} − 105.09dB − (_____)

**Insert 40dB of attenuation using the -hp- 355D. Be sure to subtract its error from the test limits.

75 ohms, 1MHz, +4dBm to −100dBm

-hp- 3335A Attenuator Step	Min.	Step Error	-hp- 3586A/B/C Level Reading	Max.	Step Error
2dB	P_{1MHz} − 2.16dB − (_____)		_____ dBm	P_{1MHz} − 1.84dB − (_____)	
4dB	P_{1MHz} − 4.16dB − (_____)		_____ dBm	P_{1MHz} − 3.84dB − (_____)	
6dB	P_{1MHz} − 6.16dB − (_____)		_____ dBm	P_{1MHz} − 5.84dB − (_____)	
8dB	P_{1MHz} − 8.16dB − (_____)		_____ dBm	P_{1MHz} − 7.84dB − (_____)	
10dB	P_{1MHz} − 10.16dB − (_____)		_____ dBm	P_{1MHz} − 9.84dB − (_____)	
20dB	P_{1MHz} − 20.16dB − (_____)		_____ dBm	P_{1MHz} − 19.84dB − (_____)	
30dB	P_{1MHz} − 30.16dB − (_____)		_____ dBm	P_{1MHz} − 29.84dB − (_____)	
40dB	P_{1MHz} − 40.16dB − (_____)		_____ dBm	P_{1MHz} − 39.84dB − (_____)	
50dB	P_{1MHz} − 50.16dB − (_____)		_____ dBm	P_{1MHz} − 49.84dB − (_____)	
60dB	P_{1MHz} − 60.16dB − (_____)		_____ dBm	P_{1MHz} − 59.84dB − (_____)	
70dB	P_{1MHz} − 70.16dB − (_____)		_____ dBm	P_{1MHz} − 69.84dB − (_____)	
**66dB	P_{1MHz} − 106.71dB − (_____)		_____ dBm	P_{1MHz} − 105.29dB − (_____)	

**Insert 40dB of attenuation using the -hp- 355D. Be sure to subtract its error from the test limits.

75 ohms, 3MHz, +4dBm to −100dBm

-hp- 3335A Attenuator Step	Min.	Step Error	-hp- 3586A/B/C Level Reading	Max.	Step Error
2dB	P_{3MHz} − 2.16dB − (_____)		_____ dBm	P_{3MHz} − 1.84dB − (_____)	
4dB	P_{3MHz} − 4.16dB − (_____)		_____ dBm	P_{3MHz} − 3.84dB − (_____)	
6dB	P_{3MHz} − 6.16dB − (_____)		_____ dBm	P_{3MHz} − 5.84dB − (_____)	
8dB	P_{3MHz} − 8.16dB − (_____)		_____ dBm	P_{3MHz} − 7.84dB − (_____)	
10dB	P_{3MHz} − 10.16dB − (_____)		_____ dBm	P_{3MHz} − 9.84dB − (_____)	
20dB	P_{3MHz} − 20.16dB − (_____)		_____ dBm	P_{3MHz} − 19.84dB − (_____)	
30dB	P_{3MHz} − 30.16dB − (_____)		_____ dBm	P_{3MHz} − 29.84dB − (_____)	
40dB	P_{3MHz} − 40.16dB − (_____)		_____ dBm	P_{3MHz} − 39.84dB − (_____)	
50dB	P_{3MHz} − 50.16dB − (_____)		_____ dBm	P_{3MHz} − 49.84dB − (_____)	
60dB	P_{3MHz} − 60.16dB − (_____)		_____ dBm	P_{3MHz} − 59.84dB − (_____)	
70dB	P_{3MHz} − 70.16dB − (_____)		_____ dBm	P_{3MHz} − 69.84dB − (_____)	
**66dB	P_{3MHz} − 106.71dB − (_____)		_____ dBm	P_{1MHz} − 105.29dB − (_____)	

**Insert 40dB of attenuation using the -hp- 355D. Be sure to subtract its error from the test limits.

75 ohms, 10MHz, +4dBm to −100dBm

-hp- 3335A Attenuator

Step	Min.	Step Error	-hp- 3586A/B/C Level Reading	Max.	Step Error
2dB	P_{10MHz} − 2.16dB − (_____)		_____ dBm	P_{10MHz} − 1.84dB − (_____)	
4dB	P_{10MHz} − 4.16dB − (_____)		_____ dBm	P_{10MHz} − 3.84dB − (_____)	
6dB	P_{10MHz} − 6.16dB − (_____)		_____ dBm	P_{10MHz} − 5.84dB − (_____)	
8dB	P_{10MHz} − 8.16dB − (_____)		_____ dBm	P_{10MHz} − 7.84dB − (_____)	
10dB	P_{10MHz} − 10.16dB − (_____)		_____ dBm	P_{10MHz} − 9.84dB − (_____)	
20dB	P_{10MHz} − 20.16dB − (_____)		_____ dBm	P_{10MHz} − 19.84dB − (_____)	
30dB	P_{10MHz} − 30.16dB − (_____)		_____ dBm	P_{10MHz} − 29.84dB − (_____)	
40dB	P_{10MHz} − 40.16dB − (_____)		_____ dBm	P_{10MHz} − 39.84dB − (_____)	
50dB	P_{10MHz} − 50.16dB − (_____)		_____ dBm	P_{10MHz} − 49.84dB − (_____)	
60dB	P_{10MHz} − 60.16dB − (_____)		_____ dBm	P_{10MHz} − 59.84dB − (_____)	
70dB	P_{10MHz} − 70.16dB − (_____)		_____ dBm	P_{10MHz} − 69.84dB − (_____)	
**66dB	P_{10MHz} − 106.71dB − (_____)		_____ dBm	P_{10MHz} − 105.29dB − (_____)	

**Insert 40dB of attenuation using the -hp- 355D. Be sure to subtract its error from the test limits.

75 ohms, 30MHz, +4dBm to −100dBm

-hp- 3335A Attenuator

Step	Min.	Step Error	-hp- 3586A/B/C Level Reading	Max.	Step Error
2dB	P_{30MHz} − 2.21dB − (_____)		_____ dBm	P_{10MHz} − 1.79dB − (_____)	
4dB	P_{30MHz} − 4.21dB − (_____)		_____ dBm	P_{30MHz} − 3.79dB − (_____)	
6dB	P_{30MHz} − 6.21dB − (_____)		_____ dBm	P_{30MHz} − 5.79dB − (_____)	
8dB	P_{30MHz} − 8.21dB − (_____)		_____ dBm	P_{30MHz} − 7.79dB − (_____)	
10dB	P_{30MHz} − 10.21dB − (_____)		_____ dBm	P_{30MHz} − 9.79dB − (_____)	
20dB	P_{30MHz} − 20.21dB − (_____)		_____ dBm	P_{30MHz} − 19.79dB − (_____)	
30dB	P_{30MHz} − 30.21dB − (_____)		_____ dBm	P_{30MHz} − 29.79dB − (_____)	
40dB	P_{30MHz} − 40.21dB − (_____)		_____ dBm	P_{30MHz} − 39.79dB − (_____)	
50dB	P_{30MHz} − 50.21dB − (_____)		_____ dBm	P_{30MHz} − 49.79dB − (_____)	
60dB	P_{30MHz} − 60.21dB − (_____)		_____ dBm	P_{30MHz} − 59.79dB − (_____)	
70dB	P_{30MHz} − 70.21dB − (_____)		_____ dBm	P_{30MHz} − 69.79dB − (_____)	
**66dB	P_{30MHz} − 106.71dB − (_____)		_____ dBm	P_{30MHz} − 105.29dB − (_____)	

**Insert 40dB of attenuation using the -hp- 355D. Be sure to subtract its error from the test limits.

600 ohms, 1kHz, −11dBm to −100dBm

-hp- 3335A Attenuator Step	Min.	Step Error	-hp- 3586A/B/C Level Reading	Max.	Step Error
2dB	P_{1kHz} − 17.31dB − (_____)		_____ dBm	P_{1kHz} − 16.69dB − (_____)	
4dB	P_{1kHz} − 19.31dB − (_____)		_____ dBm	P_{1kHz} − 18.69dB − (_____)	
6dB	P_{1kHz} − 21.31dB − (_____)		_____ dBm	P_{1kHz} − 20.69dB − (_____)	
8dB	P_{1kHz} − 23.31dB − (_____)		_____ dBm	P_{1kHz} − 22.69dB − (_____)	
10dB	P_{1kHz} − 25.31dB − (_____)		_____ dBm	P_{1kHz} − 24.69dB − (_____)	
20dB	P_{1kHz} − 35.31dB − (_____)		_____ dBm	P_{1kHz} − 34.69dB − (_____)	
30dB	P_{1kHz} − 45.31dB − (_____)		_____ dBm	P_{1kHz} − 44.69dB − (_____)	
40dB	P_{1kHz} − 55.31dB − (_____)		_____ dBm	P_{1kHz} − 54.69dB − (_____)	
50dB	P_{1kHz} − 65.31dB − (_____)		_____ dBm	P_{1kHz} − 64.69dB − (_____)	
60dB	P_{1kHz} − 75.31dB − (_____)		_____ dBm	P_{1kHz} − 74.69dB − (_____)	
70dB	P_{1kHz} − 85.31dB − (_____)		_____ dBm	P_{1kHz} − 84.69dB − (_____)	
**50dB	P_{1kHz} − 105.71dB − (_____)		_____ dBm	P_{1kHz} − 104.29dB − (_____)	

**Insert 40dB of attenuation using the -hp- 355D. Be sure to subtract its error from the test limits.

150 ohms, 1MHz, −4dBm to −100dBm

-hp- 3335A Attenuator Step	Min.	Step Error	-hp- 3586A Level Reading	Max.	Step Error
2dB	P_{1MHz} − 10.31dB − (_____)		_____ dBm	P_{1MHz} − 9.69dB − (_____)	
4dB	P_{1MHz} − 12.31dB − (_____)		_____ dBm	P_{1MHz} − 11.69dB − (_____)	
6dB	P_{1MHz} − 14.31dB − (_____)		_____ dBm	P_{1MHz} − 13.69dB − (_____)	
8dB	P_{1MHz} − 16.31dB − (_____)		_____ dBm	P_{1MHz} − 15.69dB − (_____)	
10dB	P_{1MHz} − 18.31dB − (_____)		_____ dBm	P_{1MHz} − 17.69dB − (_____)	
20dB	P_{1MHz} − 28.31dB − (_____)		_____ dBm	P_{1MHz} − 27.69dB − (_____)	
30dB	P_{1MHz} − 38.31dB − (_____)		_____ dBm	P_{1MHz} − 37.69dB − (_____)	
40dB	P_{1MHz} − 48.31dB − (_____)		_____ dBm	P_{1MHz} − 47.69dB − (_____)	
50dB	P_{1MHz} − 58.31dB − (_____)		_____ dBm	P_{1MHz} − 57.69dB − (_____)	
60dB	P_{1MHz} − 68.31dB − (_____)		_____ dBm	P_{1MHz} − 67.69dB − (_____)	
70dB	P_{1MHz} − 78.31dB − (_____)		_____ dBm	P_{1MHz} − 77.69dB − (_____)	
98dB	P_{1MHz} − 106.71dB − (_____)		_____ dBm	P_{1MHz} − 105.29dB − (_____)	

135 ohms, 1MHz, −3dBm to −99dBm

-hp- 3335A Attenuator Step	Min.	Step Error	-hp- 3586B Level Reading	Max.	Step Error
2dB	P_{1MHz} − 9.31dB − (_____)		_____ dBm	P_{1MHz} − 8.69dB − (_____)	
4dB	P_{1MHz} − 11.31dB − (_____)		_____ dBm	P_{1MHz} − 10.69dB − (_____)	
6dB	P_{1MHz} − 13.31dB − (_____)		_____ dBm	P_{1MHz} − 12.69dB − (_____)	
8dB	P_{1MHz} − 15.31dB − (_____)		_____ dBm	P_{1MHz} − 14.69dB − (_____)	
10dB	P_{1MHz} − 17.31dB − (_____)		_____ dBm	P_{1MHz} − 16.69dB − (_____)	
20dB	P_{1MHz} − 27.31dB − (_____)		_____ dBm	P_{1MHz} − 26.69dB − (_____)	
30dB	P_{1MHz} − 37.31dB − (_____)		_____ dBm	P_{1MHz} − 36.69dB − (_____)	
40dB	P_{1MHz} − 47.31dB − (_____)		_____ dBm	P_{1MHz} − 46.69dB − (_____)	
50dB	P_{1MHz} − 57.31dB − (_____)		_____ dBm	P_{1MHz} − 56.69dB − (_____)	
60dB	P_{1MHz} − 67.31dB − (_____)		_____ dBm	P_{1MHz} − 66.69dB − (_____)	
70dB	P_{1MHz} − 77.31dB − (_____)		_____ dBm	P_{1MHz} − 76.69dB − (_____)	
98dB	P_{1MHz} − 105.71dB − (_____)		_____ dBm	P_{1MHz} − 104.29dB-(_____)	

124 ohms, 1MHz, −3dBm to −99dBm

-hp- 3335A Attenuator Step	Min.	Step Error	-hp- 3586B Level Reading	Max.	Step Error
2dB	P_{1MHz} − 9.31dB − (_____)		_____ dBm	P_{1MHz} − 8.69dB − (_____)	
4dB	P_{1MHz} − 11.31dB − (_____)		_____ dBm	P_{1MHz} − 10.69dB − (_____)	
6dB	P_{1MHz} − 13.31dB − (_____)		_____ dBm	P_{1MHz} − 12.69dB − (_____)	
8dB	P_{1MHz} − 15.31dB − (_____)		_____ dBm	P_{1MHz} − 14.69dB − (_____)	
10dB	P_{1MHz} − 17.31dB − (_____)		_____ dBm	P_{1MHz} − 16.69dB − (_____)	
20dB	P_{1MHz} − 27.31dB − (_____)		_____ dBm	P_{1MHz} − 26.69dB − (_____)	
30dB	P_{1MHz} − 37.31dB − (_____)		_____ dBm	P_{1MHz} − 36.69dB − (_____)	
40dB	P_{1MHz} − 47.31dB − (_____)		_____ dBm	P_{1MHz} − 46.69dB − (_____)	
50dB	P_{1MHz} − 57.31dB − (_____)		_____ dBm	P_{1MHz} − 56.69dB − (_____)	
60dB	P_{1MHz} − 67.31dB − (_____)		_____ dBm	P_{1MHz} − 66.69dB − (_____)	
70dB	P_{1MHz} − 77.31dB − (_____)		_____ dBm	P_{1MHz} − 76.69dB − (_____)	
98dB	P_{1MHz} − 105.71dB − (_____)		_____ dBm	P_{1MHz} − 104.29dB − (_____)	

124 ohms, 3MHz, −3dBm to −99dBm

-hp- 3335A Attenuator Step	Min.	Step Error	-hp- 3586B Level Reading	.Max.	Step Error
2dB	P_{3MHz} − 9.31dB − (_____)		_____ dBm	P_{3MHz} − 8.69dB − (_____)	
4dB	P_{3MHz} − 11.31dB − (_____)		_____ dBm	P_{3MHz} − 10.69dB − (_____)	
6dB	P_{3MHz} − 13.31dB − (_____)		_____ dBm	P_{3MHz} − 12.69dB − (_____)	
8dB	P_{3MHz} − 15.31dB − (_____)		_____ dBm	P_{3MHz} − 14.69dB − (_____)	
10dB	P_{3MHz} − 17.31dB − (_____)		_____ dBm	P_{3MHz} − 16.69dB − (_____)	
20dB	P_{3MHz} − 27.31dB − (_____)		_____ dBm	P_{3MHz} − 26.69dB − (_____)	
30dB	P_{3MHz} − 37.31dB − (_____)		_____ dBm	P_{3MHz} − 36.69dB − (_____)	
40dB	P_{3MHz} − 47.31dB − (_____)		_____ dBm	P_{3MHz} − 46.69dB − (_____)	
50dB	P_{3MHz} − 57.31dB − (_____)		_____ dBm	P_{3MHz} − 56.69dB − (_____)	
60dB	P_{3MHz} − 67.31dB − (_____)		_____ dBm	P_{3MHz} − 66.69dB − (_____)	
70dB	P_{3MHz} − 77.31dB − (_____)		_____ dBm	P_{3MHz} − 76.69dB − (_____)	
98dB	P_{3MHz} − 105.71dB − (_____)		_____ dBm	P_{3MHz} − 104.29dB − (_____)	

124 ohms, 10MHz, −3dBm to −99dBm

-hp- 3335A Attenuator Step	Min.	Step Error	-hp- 3586B Level Reading	Max.	Step Error
2dB	P_{10MHz} − 9.46dB − (_____)		_____ dBm	P_{10MHz} − 8.54dB − (_____)	
4dB	P_{10MHz} − 11.46dB − (_____)		_____ dBm	P_{10MHz} − 10.54dB − (_____)	
6dB	P_{10MHz} − 13.46dB − (_____)		_____ dBm	P_{10MHz} − 12.54dB − (_____)	
8dB	P_{10MHz} − 15.46dB − (_____)		_____ dBm	P_{10MHz} − 14.54dB − (_____)	
10dB	P_{10MHz} − 17.46dB − (_____)		_____ dBm	P_{10MHz} − 16.54dB − (_____)	
20dB	P_{10MHz} − 27.46dB − (_____)		_____ dBm	P_{10MHz} − 26.54dB − (_____)	
30dB	P_{10MHz} − 37.46dB − (_____)		_____ dBm	P_{10MHz} − 36.54dB − (_____)	
40dB	P_{10MHz} − 47.46dB − (_____)		_____ dBm	P_{10MHz} − 46.54dB − (_____)	
50dB	P_{10MHz} − 57.46dB − (_____)		_____ dBm	P_{10MHz} − 56.54dB − (_____)	
60dB	P_{10MHz} − 67.46dB − (_____)		_____ dBm	P_{10MHz} − 66.54dB − (_____)	
70dB	P_{10MHz} − 77.46dB − (_____)		_____ dBm	P_{10MHz} − 76.54dB − (_____)	
98dB	P_{10MHz} − 105.96dB − (_____)		_____ dBm	P_{10MHz} − 104.04dB − (_____)	

$$Pc = 10 \log \frac{V^2}{.05} = \_\_\_\_\_ dBm.$$

$$V_{thc} = \_\_\_\_\_ volts.$$

Column 1c Frequency	Column 2c -hp- 3335A Setting To Produce V_{thc}	Column 3c Thermal Converter Error	Column 4c -hp- 3335A Setting To Produce Flat Test Signal (Column 2-Column 3)
1kHz	12.50dBm	0dB	12.50dBm
1MHz	_____ dBm	_____ dB	_____ dBm
3MHz	_____ dBm	_____ dB	_____ dBm
10MHz	_____ dBm	_____ dB	_____ dBm
30MHz	_____ dBm	_____ dB	_____ dBm

50 ohm, 12.50dBm

Frequency	Min.	-hp- 3586C Level Reading	Max.
1kHz	Pc – 0.37dB	_____ dBm	Pc + 0.37dB
1MHz	Pc – 0.17dB	_____ dBm	Pc + 0.17dB
MHz	Pc – 0.17dB	_____ dBm	Pc + 0.17dB
10MHz	Pc – 0.17dB	_____ dBm	Pc + 0.17dB
30MHz	Pc – 0.22dB	_____ dBm	Pc + 0.22dB

Column 5 Frequency	Column 6 -hp- 3335A Setting To Produce V_{th}	Column 7 Thermal Converter Error	Column 8 -hp- 3335A Setting To Produce Flat Test Signal (Column 2-Column 3)
1MHz	_____ dBm	_____ dB	_____ dBm
3MHz	_____ dBm	_____ dB	_____ dBm
10MHz	_____ dBm	_____ dB	_____ dBm
30MHz	_____ dBm	_____ dB	_____ dBm

P_{1MHz} = P + 18dB + (18dB step error for 1MHz)

P_{3MHz} = P + 18dB + (18dB step error for 3MHz)

P_{10MHz} = P + 18dB + (18dB step error for 10MHz)

P_{30MHz} = P + 18dB + (18dB step error for 30MHz)

75 ohms, 1MHz, +4dBm to +20dBm

-hp- 3335A Attenuator Step	Min.	-hp- 3586A/B/C Level Reading	Max.
18dB	P_{1MHz} – 18.16dB – (_____)	_____ dBm	P_{1MHz} – 17.84dB – (_____)
10dB	P_{1MHz} – 10.16dB – (_____)	_____ dBm	P_{1MHz} – 9.84dB – (_____)
6dB	P_{1MHz} – 6.16dB – (_____)	_____ dBm	P_{1MHz} – 5.84dB – (_____)
2dB	P_{1MHz} – 2.16dB – (_____)	_____ dBm	P_{1MHz} – 1.84dB – (_____)

75 ohms, 3MHz, +4dBm to +20dBm

-hp- 3335A Attenuator Step	Min.	-hp- 3586A/B/C Level Reading	Max.
18dB	P_{3MHz} – 18.16dB – (_____)	_____ dBm	P_{3MHz} – 17.84dB – (_____)
10dB	P_{3MHz} – 10.16dB – (_____)	_____ dBm	P_{3MHz} – 9.84dB – (_____)
6dB	P_{3MHz} – 6.16dB – (_____)	_____ dBm	P_{3MHz} – 5.84dB – (_____)
2dB	P_{3MHz} – 2.16dB – (_____)	_____ dBm	P_{3MHz} – 1.84dB – (_____)

75 ohms, 10MHz, +4dBm to +20dBm

-hp- 3335A Attenuator Step	Min.	-hp- 3586A/B/C Level Reading	Max.
18dB	P_{10MHz} – 18.16dB – (_____)	_____ dBm	P_{10MHz} – 17.84dB – (_____)
10dB	P_{10MHz} – 10.16dB – (_____)	_____ dBm	P_{10MHz} – 9.84dB – (_____)
6dB	P_{10MHz} – 6.16dB – (_____)	_____ dBm	P_{10MHz} – 5.84dB – (_____)
2dB	P_{10MHz} – 2.16dB – (_____)	_____ dBm	P_{10MHz} – 1.84dB – (_____)

75 ohms, 30MHz, +4dBm to +20dBm

-hp- 3335A Attenuator Step	Min.	-hp- 3586A/B/C Level Reading	Max.
18dB	P_{30MHz} – 18.21dB – (_____)	_____ dBm	P_{30MHz} – 17.79dB – (_____)
10dB	P_{30MHz} – 10.21dB – (_____)	_____ dBm	P_{30MHz} – 9.79dB – (_____)
6dB	P_{30MHz} – 6.21dB – (_____)	_____ dBm	P_{30MHz} – 5.79dB – (_____)
2dB	P_{30MHz} – 2.21dB – (_____)	_____ dBm	P_{30MHz} – 1.79dB – (_____)

150 ohms, 1MHz, −4dBm to +12dBm

-hp- 3335A Attenuator Step	Min.	-hp- 3586A Level Reading	Max.
18dB	P_{1MHz} − 26.31dB − (_____)	_____ dBm	P_{1MHz} − 25.69dB − (_____)
10dB	P_{1MHz} − 18.31dB − (_____)	_____ dBm	P_{1MHz} − 17.69dB − (_____)
6dB	P_{1MHz} − 14.31dB − (_____)	_____ dBm	P_{1MHz} − 13.69dB − (_____)
2dB	P_{1MHz} − 10.31dB − (_____)	_____ dBm	P_{1MHz} − 9.69dB − (_____)

135 ohms, 1MHz, −3dBm to +13dBm

-hp- 3335A Attenuator Step	Min.	-hp- 3586B Level Reading	Max.
18dB	P_{1MHz} − 25.31dB − (_____)	_____ dBm	P_{1MHz} − 24.69dB − (_____)
10dB	P_{1MHz} − 17.31dB − (_____)	_____ dBm	P_{1MHz} − 16.69dB − (_____)
6dB	P_{1MHz} − 13.31dB − (_____)	_____ dBm	P_{1MHz} − 12.69dB − (_____)
2dB	P_{1MHz} − 9.31dB − (_____)	_____ dBm	P_{1MHz} − 8.69dB − (_____)

124 ohms, 1MHz, −3dBm to +13dBm

-hp- 3335A Attenuator Step	Min.	-hp- 3586B Level Reading	Max.
18dB	P_{1MHz} − 25.31dB − (_____)	_____ dBm	P_{1MHz} − 24.69dB − (_____)
10dB	P_{1MHz} − 17.31dB − (_____)	_____ dBm	P_{1MHz} − 16.69dB − (_____)
6dB	P_{1MHz} − 13.31dB − (_____)	_____ dBm	P_{1MHz} − 12.69dB − (_____)
2dB	P_{1MHz} − 9.31dB − (_____)	_____ dBm	P_{1MHz} − 8.69dB − (_____)

124 ohms, 3MHz, −3dBm to +13dBm

-hp- 3335A Attenuator Step	Min.	-hp- 3586B Level Reading	Max.
18dB	P_{3MHz} − 25.31dB − (_____)	_____ dBm	P_{3MHz} − 24.69dB − (_____)
10dB	P_{3MHz} − 17.31dB − (_____)	_____ dBm	P_{3MHz} − 16.69dB − (_____)
6dB	P_{3MHz} − 13.31dB − (_____)	_____ dBm	P_{3MHz} − 12.69dB − (_____)
2dB	P_{3MHz} − 9.31dB − (_____)	_____ dBm	P_{3MHz} − 8.69dB − (_____)

124 ohms, 10MHz, −3dBm to +13dBm

-hp- 3335A Attenuator Step	Min.	-hp- 3586B Level Reading	Max.
18dB	P_{10MHz} − 25.46dB − (_____)	_____ dBm	P_{10MHz} − 24.54dB − (_____)
10dB	P_{10MHz} − 17.46dB − (_____)	_____ dBm	P_{10MHz} − 16.54dB − (_____)
6dB	P_{10MHz} − 13.46dB − (_____)	_____ dBm	P_{10MHz} − 12.54dB − (_____)
2dB	P_{10MHz} − 9.46dB − (_____)	_____ dBm	P_{10MHz} − 8.54dB − (_____)

HALF-POWER BANDWIDTHS (4-23)

Bandwidth	Min (Hz)	−3dB Bandwidth	Max (Hz)
20Hz	18	_____ Hz	22
400Hz	360	_____ Hz	440
1740Hz	1566	_____ Hz	1914
2000Hz	1800	_____ Hz	2200
3100Hz	2790	_____ Hz	3410

PASS BAND FLATNESS (4-25)

Bandwidth	Below	Minimum Range	Above
20Hz	_____ Hz	−3Hz to 3Hz	_____ Hz
400Hz	_____ Hz	−50Hz to 50Hz	_____ Hz
1740Hz	_____ Hz	−550Hz to 550Hz	_____ Hz
2000Hz	_____ Hz	−650Hz to 650Hz	_____ Hz
3100Hz	_____ Hz	−1000Hz to 1000Hz	_____ Hz

400Hz FILTER SHAPE (4-27)

Maximum Range

Measured Range

Below Above

−1100Hz _____ Hz to _____ Hz 1100Hz

PILOT FILTER (20Hz) SHAPE (4-29)

Maximum Range

Measured Range

Below Above

Rejection					
30dB	−45Hz	_____ Hz	to	_____ Hz	45Hz
60dB	−90Hz	_____ Hz	to	_____ Hz	90Hz

CARRIER REJECTION (4-31)

Bandwidth	Below 1MHz Reading	Above 1MHz Reading	Max Level Reading
3100Hz, 2000Hz, or 1740Hz	_____ dBm0	_____ dBm0	– 60dBm0

ADJACENT CHANNEL REJECTION (4-33)

Bandwidth	Below 1MHz Reading	Above 1MHz Reading	Max Level Reading
3100Hz, 2000Hz, or 1740Hz	_____ dBm0	_____ dBm0	– 75dBm0

RESIDUAL NOISE (4-35)

	Bandwidth	Noise	Max Noise
75Ω, 32.495MHz	Widest	_____ dBm	– 116dBm*
	400Hz	_____ dBm	– 120dBm
	20Hz	_____ dBm	– 120dBm
124Ω, 9.995MHz	Widest	_____ dBm	– 116dBm
	400Hz	_____ dBm	– 120dBm
	20Hz	_____ dBm	– 120dBm
135Ω, 150Ω, 0.995MHz	Widest	_____ dBm	– 116dBm
	400Hz	_____ dBm	– 120dBm
	20Hz	_____ dBm	– 120dBm

* – 114dBm for a 3586C.

75Ω, 8.01kHz	Widest	_____ dBm	– 105dBm
	400Hz	_____ dBm	– 105dBm
	20Hz	_____ dBm	– 105dBm
124Ω, 8.01kHz	Widest	_____ dBm	– 105dBm
	400Hz	_____ dBm	– 105dBm
	20Hz	_____ dBm	– 105dBm
135Ω, 8.01kHz	Widest	_____ dBm	– 105dBm
	400Hz	_____ dBm	– 105dBm
	20Hz	_____ dBm	– 105dBm

150Ω, 8.01kHz	Widest	_____ dBm	– 105dBm
	400Hz	_____ dBm	– 105dBm
	20Hz	_____ dBm	– 105dBm
600Ω, 8.01kHz	Widest	_____ dBm	– 105dBm
	400Hz	_____ dBm	– 105dBm
	20Hz	_____ dBm	– 105dBm

RESIDUAL SPURIOUS RESPONSES (4-37)

Frequency	Level Reading	Max
300Hz	_____ dBm	– 100dBm
360Hz, 350Hz	_____ dBm	– 115dBm*
420Hz, 400Hz	_____ dBm	– 115dBm*
100kHz	_____ dBm	– 115dBm*
200kHz	_____ dBm	– 115dBm*
300kHz	_____ dBm	– 115dBm*
400kHz	_____ dBm	– 115dBm*
10MHz	_____ dBm	– 115dBm*
20MHz	_____ dBm	– 115dBm*
30MHz	_____ dBm	– 115dBm*
60Hz, 50Hz	_____ dBm	– 100dBm**
120Hz, 100Hz	_____ dBm	– 100dBm**
180Hz, 250Hz	_____ dBm	– 100dBm**
240Hz, 200Hz	_____ dBm	– 100dBm**
250Hz	_____ dBm	– 100dBm**

* – 110dBm for 3586C
** – 95dBm for 3586C

SPURIOUS RESPONSES WITH INPUT (4-39)

Input Images	Level Reading	Max
1MHz	_____ dBm	– 80dBm
30MHz	_____ dBm	– 80dBm
IF Images		
1MHz	_____ dBm	– 80dBm
30MHz	_____ dBm	– 80dBm
Non-Harmonically Related Images		
31999850Hz	_____ dBm	– 75dBm
31990000.1Hz	_____ dBm	– 80dBm

HARMONIC DISTORTION (4-41)

	Harmonic	Level Reading	Max
75Ω	200kHz (2nd)	_____ dBm	−70dBm*
	300kHz (3rd)	_____ dBm	−70dBm*
	20MHz (2nd)	_____ dBm	−70dBm*
	30MHz (3rd)	_____ dBm	−70dBm*
600Ω	200kHz (2nd)	_____ dBm	−70dBm*
	300kHz (3rd)	_____ dBm	−70dBm*
150Ω, 135Ω	200kHz (2nd)	_____ dBm	−70dBm
	300kHz (3rd)	_____ dBm	−70dBm
124Ω	20MHz (2nd)	_____ dBm	−70dBm
	30MHz (3rd)	_____ dBm	−70dBm

* −75dBm for 3586C

INTERMODULATION DISTORTION (4-43)

	Level Reading	Max
75Ω, Δ = 1MHz		
1MHz	_____ dBm	−75dBm*
17MHz	_____ dBm	−75dBm*
10MHz	_____ dBm	−75dBm*
7MHz	_____ dBm	−75dBm*
75Ω, Δ = 7kHz		
7kHz	_____ dBm	−70dBm
21.007MHz	_____ dBm	−70dBm
20.986MHz	_____ dBm	−70dBm
600Ω, Δ = 99.8kHz		
99.8kHz	_____ dBm	−75dBm*
100.2kHz	_____ dBm	−75dBm*
199.8kHz	_____ dBm	−75dBm*
600Ω, Δ = 7kHz		
7kHz	_____ dBm	−70dBm
107kHz	_____ dBm	−70dBm
193kHz	_____ dBm	−70dBm
86kHz	_____ dBm	−70dBm

150Ω, 135Ω, Δ = 990kHz

990kHz	_____ dBm	– 75dBm*
1.01MHz	_____ dBm	– 75dBm*
1.99MHz	_____ dBm	– 75dBm*

150Ω, 135Ω, Δ = 7kHz

7kHz	_____ dBm	– 70dBm
1.993MHz	_____ dBm	– 70dBm
1.007MHz	_____ dBm	– 70dBm
986kHz	_____ dBm	– 70dBm

124Ω, Δ = 1MHz

1MHz	_____ dBm	– 75dBm*
17MHz	_____ dBm	– 75dBm*
10MHz	_____ dBm	– 75dBm*
7MHz	_____ dBm	– 75dBm*

124Ω, Δ = 7kHz

7kHz	_____ dBm	– 70dBm
17.993MHz	_____ dBm	– 70dBm
9.007MHz	_____ dBm	– 70dBm
8.986MHz	_____ dBm	– 70dBm

* – 78dBm for a 3586C

IF REJECTION (4-45)

IF Frequency	Level Reading	Max
50MHz	_____ dBm	– 60dBm
15625Hz	_____ dBm	– 80dBm

WIDE BAND POWER FLATNESS (4-47)

Frequencies	Min	Level Reading	Max
20kHz and 10MHz	– 0.8dBm0	_____ dBm0	+ 0.8dBm0
200Hz and 32MHz	– 1.8dBm0	_____ dBm0	+ 1.8dBm0
20kHz and 10MHz	– 0.8dBm0	_____ dBm0	+ 0.8dBm0
200Hz and 32MHz	– 1.8dBm0	_____ dBm0	+ 1.8dBm0

TRACKING OUTPUT TEST (4-49)

	Min	Level Reading	Max
Absolute level	−0.50dBm	_____ dBm	+0.50dBm
Flatness, 200Hz	−0.50dBm0	_____ dBm0	+0.50dBm0
500kHz	−0.50dBm0	_____ dBm0	+0.50dBm0
32.5MHz	−0.50dBm0	_____ dBm0	+0.50dBm0

PHASE JITTER ACCURACY (OPT. 003 ONLY) (4-51)

Min	ϕ Jitter Reading	Max
10° p-p	_____ °p-p	13° p-p

RESIDUAL PHASE JITTER (OPT. 003 ONLY) (4-53)

Frequency	Residual Phase Jitter	Max
48996Hz	_____ °p-p	0.5° p-p
1998996Hz	_____ °p-p	0.5° p-p

WTD FILTER (OPT. 003 ONLY) (4-55)

Min	Level Reading	Max
−0.50dBm0	_____ dBm0	+0.50dBm0

NOTCH FILTER (OPT. 003 ONLY) (4-57)

SSB Channel Frequency	Level Reading	Max
1010Hz	_____ dBm0	−50dBm0
995Hz	_____ dBm0	−50dBm0
1025Hz	_____ dBm0	−50dBm0

IMPULSE NOISE (4-59)

1700Hz Tone	Min	Counts/Min	Max
Threshold − 1dB	0	_____	1
Threshold + 1dB (A)	458	_____	504
Threshold + 1dB (B)	400	_____	442

WARNING

Maintenance described herein is performed with power supplied to the instrument, and protective covers removed. Such maintenance should be performed only by service-trained personnel who are aware of the hazards involved (for example, fire and electrical shock). Where maintenance can be performed without power applied, the power should be removed.

Table of Contents

SECTION V
ADJUSTMENTS

5-1. INTRODUCTION.

5-2. This section consists of the adjustment procedures for the -hp- 3586A/B/C. Appropriate adjustments will be necessary after repair of the instrument and/or replacement of components. These procedures may also be followed for periodic maintenance or if the instrument has failed a performance test. See Figure 5-6 for adjustment locations.

5-3. A80 POWER SUPPLIES.

a. Connect the 3455A to A80TP1 (+12 volts); configure it to measure dc.

b. Check that the +12, −12, and +5 volt green L.E.D.'s are on.

c. Adjust A80R15 such that the 3455A reads from +11.990 volts dc to +12.010 volts dc.

d. Check that A80TP2 is −12 volts dc ±30mV.

e. Check that A80TP3 is +5.250 volts dc ±100mV.

f. If either d or e are false, then repeat Steps c through e as necessary.

5-4. A40 FREQUENCY REFERENCE ADJUSTMENT.

a. Allow at least 10 minutes after instrument turn-on for the A40 Frequency Reference Assembly to stabilize.

b. Put the A40 board on two 15 pin extender boards.

c. Disconnect the red cable from A40J1.

d. Connect a frequency counter to A40J6.

e. Short A40TP4 to A40TP5. Adjust A40R78 for a frequency reading on the counter of 50.000000MHz ±10Hz.

f. Remove the short between A40TP4 & A40TP5. Install the A40 board in its position and reconnect the red cable to A40J1.

5-5. FRACTIONAL N LOOP ADJUSTMENTS.

NOTE

Adjust the A40 Frequency Reference Assembly (if necessary) before making adjustments of the Fractional N Loop.

a. A31 Fractional-N VCO Adjustments.

1. Place A31 on a 15 pin extender board.

2. Connect an oscilloscope probe (10:1) to A32TP2.

3. Tune the 3586 to 1.9999999MHz. Enter a FREQ STEP of 0.2Hz.

4. Measure and record the DC voltage at the junction of A31CR2 and A31R2.

5. Connect a DC voltmeter to A31TP3.

6. Adjust A31L4 so that the DC voltmeter reading is within ±0.02V of the reading recorded in Step 4.

7. Step the 3586 tuned frequency up by 0.2Hz to 2.0000001MHz.

8. Adjust A31R4 for a DC voltmeter reading of 0V ± 0.02V at A31TP3.

b. A32 Fractional-N Phase Detector Adjustments.

1. Put the A32 assembly on a 22 pin extender board.

2. Tune the 3586 to 9.97kHz. Disable the 3586 Autocalibration.

3. Set the spectrum analyzer to:

Center Frequency	=	39.8994MHz
Frequency Span	=	2kHz
Resolution BW	=	30Hz
Video BW	=	100Hz

4. Connect the "20-40MHz" test point, A31TP1, to the 50Ω input of the spectrum analyzer. Adjust the level controls of the spectrum analyzer so the largest signal component (the carrier) is at full scale on the spectrum analyzer display.

5. After the spectrum analyzer has made 2 complete sweeps, reduce its Video BW to 3Hz.

6. Adjust A32R51 (API 1) to null the first sideband below the carrier (this sideband is 300Hz below the carrier). This sideband should be at least 72dB below the carrier.

7. Set the spectrum analyzer to the conditions of step (3).

NOTE

If using the 3585A Spectrum Analyzer, it is useful to make an offset measurement from the carrier, followed by use of manual sweep at the sideband.

8. Tune the 3586 to 9.997kHz.

9. After the spectrum analyzer has made two complete sweeps, reduce its Video BW to 3Hz.

10. Adjust A32R54 (API 2) to null the first sideband below the carrier (this sideband is 300Hz below the carrier). This sideband should be at least 72dB below the carrier. (If using a 3585A Spectrum Analyzer, refer to the note in Step 7.)

11. Set the spectrum analyzer to the conditions of step (3).

12. Tune the 3586 to 9999.9Hz.

13. After the spectrum analyzer has made two complete sweeps, reduce its Video BW to 3Hz.

14. Adjust A32R61 (API 4) to null the first sideband below the carrier (this sideband is 1kHz below the carrier). This sideband should be at least 72dB below the carrier. (If using a 3585A Spectrum Analyzer, refer to the note in Step 7).

15. Put the A32 Assembly in its place in the card nest, with the 8 screws holding it in place.

16. Tune the 3586 to 1.999970MHz.

17. Set the spectrum analyzer to:

Center Frequency	=	19.9994MHz
Frequency Span	=	2kHz
Video BW	=	100Hz
Resolution BW	=	30Hz

18. After the spectrum analyzer has made two complete sweeps, reduce its Video BW to 10Hz.

19. Measure the highest spur below the carrier; it should be at least 72dB below the carrier. If it is not, adjust A32R51 (API 1) until it is. (If using a 3585A Spectrum Analyzer, refer to the note in Step 7). If this adjustment is necessary, recheck Steps 2 through 6 and readjust the spur to a level at least 72dB below the carrier if necessary; then recheck steps 15 through 19 and readjust the spurs to a level at least 68dB below the carrier.

5-6. STEP & SUM LOOP ADJUSTMENTS.

NOTE

Make any necessary adjustments to the Fractional N Loop (A31 & A32 assembles) and the Frequency Reference (A40) assembly before adjusting the Step & Sum Loop.

NOTE

The four varicaps on the A50 & A51 assemblies (A50 CR1, CR2 and A51CR1,CR2) are a matched set. If one of these two pairs of varicaps or one of the two boards are replaced, it will be necessary to replace the set of four varicaps (Part No. 0122-0098) and readjust both the A50 & A51 assemblies.

NOTE

The following adjustment is performed with A50 on an extender board.

a. Step Loop (A50) Adjustments.

NOTE

Steps 1 through 5 make the VCO Frequency Adjustment.

1. Set A50S1 to the "T" (test) position.
2. Connect a frequency counter to A50J2.
3. Center the positions of A50R45 (FLATNESS) & A50R46 (GAIN).
4. Adjust A50L5 (FREQ) for a counter indication of 54.0MHz ± 0.1MHz.
5. Set A50S1 to the "N" (normal) position.

NOTE

Steps 6 through 12 make the VCO Flatness Adjustment.

NOTE

Move cable W11 from A50J1 to A50J2 for the following adjustment.

6. Connect the power meter to A50J1.
7. Tune the 3586 to 31.0MHz and enter a FREQ STEP of 30.0MHz (CAL off).
8. With the 3586 tuned to 31.0MHz (A50J1 will be at 84.0MHz), adjust A50R46 (Gain) for a reading of −6.0dBm ± 1dB on the power meter.
9. Step the tuned frequency of the 3586 down to 1.0MHz (A50J1 will be at 54.0MHz). Adjust A50R45 (Flatness) for a reading of −6.0dBm ± 1dB on the power meter.
10. Step the tuned frequency of the 3586 back up to 31.0MHz.
11. Repeat Steps 8 and 9 until both conditions are met.
12. Repeat Steps 1 through 5 if necessary.

NOTE

The following adjustment is performed with A51 on an extender board.

b. Sum Loop VCO (A51) Adjustments.

NOTE

The four varicaps on the A50 & A51 assemblies (A50 CR1, CR2 and A51CR1, CR2) are a matched set. If one of these two pairs of varicaps or one of the two boards are replaced, it will be necessary to replace the set of four varicaps (Part No. 0122-0098) and readjust both the A50 & A51 assemblies.

NOTE

Steps 1 through 4 make the VCO Frequency Adjustment.

1. Center the positions of A51R55 (flatness) and A51R56 (gain). Set A51S1 to the "T" (test) position.
2. Connect a frequency counter to A51J2.
3. Adjust A51L8 for a counter reading of 52.0MHz ± 0.1MHz.
4. Return A51S1 to the "N" (normal) position.

NOTE

Steps 5 through 11 make the VCO Flatness Adjustment.

5. Connect the power meter to A51J1. Connect A51J2 to A52J2.
6. Tune the 3586 to 32.0MHz (A51J1 will be at 82.0MHz). Enter a FREQ STEP of 30.0MHz.
7. Adjust A51R56 (Gain) for a reading of −6.0dBm ± 1dB on the power meter.
8. Step the tuned frequency of the 3586 down to 2.0MHz (A51J2 will be at 52.0MHz).
9. Adjust A51R55 (Flatness) for a reading of −6.0dBm ± 1dB on the power meter.
10. Repeat Steps 7 through 9 until both conditions are met.
11. Repeat Steps 1 through 4 if necessary.
12. Connect A51J1 to A52J2.

c. Sum Phase Detector (A53) Adjustments.

1. Tune the 3586 to 27.990MHz. Enter a FREQ STEP of 26.0MHz.

2. Connect a DC voltmeter to A53TP2 (TRACKING).

3. Adjust A53R13 (OFFSET) for a DC voltmeter reading of 0.0V ± 0.05V.

4. Step the tuned frequency of the 3586 down to 1.990MHz.

5. Adjust A53R3 (GAIN) for a DC voltmeter reading of 0.0V ± 0.05V.

6. Repeat Steps 1 through 5 until both conditions are met.

7. With the 3586 tuned to 1.990MHz, enter a FREQ STEP of 2.0MHz.

8. Step the tuned frequency of the 3586 in 2.0MHz increments from 1.990MHz to 27.990MHz. The reading of the DC voltmeter (A53TP2) should be 0.0V ± 0.2V at each step. After Steps 1 through 5 are first performed, A53R13 (OFFSET) may be adjusted (if necessary) so that the DC voltage at A53TP2 is 0.0V ± 0.2V at each 2MHz step.

5-7. SECOND LOCAL OSCILLATOR (A11) ADJUSTMENTS.

NOTE

Make any necessary adjustments to the Frequency Reference Assembly (A40) before adjusting the Second L.O. Specifically, verify the 50MHz at A40J6 is ±10Hz with no external reference.

a. Connect a DC voltmeter to A11TP2.

b. Adjust A11L22 so the DC voltage at A11TP2 is −1.80V ± 0.2V. (The "UNLOCK" light should be off.)

5-8. A22 A/D CONVERTER.

NOTE

Steps a through f adjust the counter VCO.

a. Place A22 board on an extender board and remove the A21 board.

b. With the 3335A, apply 15625Hz at -30dBm across edge connector pins A8 (IF input) and A13 (ground) of the A22 board. (As an alternative, it may be more convenient to apply 15625Hz to C1 on the lead closest to the edge connector contacts.)

c. Apply approximately -1V to A22U7 pin 4 with respect to ground. This can be furnished by a power supply such as the -hp- 6213A.

d. Connect the oscilloscope to A22TP3. The scope should be adjusted so that it is dc-coupled, and the display (with no input) is vertically centered on the scale.

e. Adjust A22R6 such that the square wave is centered with respect to ground.

f. Disconnect the 3335A and the oscilloscope.

NOTE

Steps g through m adjust the Amplitude Display.

g. On the 3586A/B/C, press: RECALL, • , RDNG→OFFSET, 5.

h. Connect the 3455A across A22TP1 and A22TP2.

i. Adjust A22R21 so the front panel measurement reads the same as that of the 3455A ± 3 counts.

j. Apply −0.5 volts dc to A22 pin A2 with respect to A22 pin A3 (ground).

k. Repeat Step i.

l. Repeat Step c.

m. Repeat Steps i through l until no further adjustment is necessary. Remember to place the A22 board back into the instrument after the adjustment is completed.

5-9. A21 LOGGER AND IF GAIN.

NOTE

The A21 board must be allowed to warm up for 10 to 15 minutes.

NOTE

Steps a through d adjust the Mixer Balance.

a. Remove the A20 board from the instrument and replace it with an extender board. Put the A21 board on an extender.

b. Connect a scope to A21TP6.

c. Adjust A21R44 (MIXER BAL) for minimum AC on the scope.

d. Disconnect the scope.

NOTE

Steps e through l adjust the 10dB range.

e. Connect the -hp- 3335A 50Ω output (no termination) across edge connector pins 21 (A or B) and 22 (ground) of A21. Monitor the AC voltage of the 3335A using an -hp- 3455A. (As an alternative, it may be easier to connect the 3335A to the bottom lead of R2 instead of pin 21.)

f. Set the output of the 3335A to 15625Hz at +10.95dBm. Step the output amplitude of the 3335 by 0.01dB until the 3455A reads 1.581 volts ac.

g. On the -hp- 3586A/B/C, select ENTRY 10 and enter a full scale of +20dBm. Press MEAS CONT. Turn CAL off. Press RECALL, •, CNTR→FREQ, O.

h. Adjust A21R23 (10dB offset) such that the 3586A/B/C reads a level from +19.99dBm to +20.01dBm.

i. Step the amplitude of the 3335 down by 10dB.

j. Adjust A21R19 (10dB gain) such that the 3586A/B/C reads a level from +9.99dBm to +10.01dBm.

k. Step the amplitude of the 3335 up by 10dB.

l. Repeat Steps h through k until no further adjustment is necessary.

NOTE

Steps m through u adjust the 100dB Range.

m. Set the amplitude of the 3335A such that the 3586A/B/C reads +20.00dBm (±.01dB).

n. Enter an amplitude step of 60dB into the 3335A.

o. On the 3586A/B/C, select ENTRY 100 and press: RECALL, • , CNTR→FREQ , 2.

p. Adjust A21R25 (100dB offset) such that the 3586A/B/C reads a level from +19.99dBm to +20.01dBm.

q. Step the amplitude of the 3335A down by 60dB.

r. Adjust A21R28 (100dB gain) such that the 3586A/B/C reads a level from −39.99dBm to −40.01dBm.

s. Step the amplitude of the 3335A up by 60dB.

t. Repeat Steps p through s until no further adjustment is needed.

u. Repeat Steps f through t until no further adjustment is needed.

NOTE

Steps v through aa adjust the Meter calibration.

v. Connect the 3455A to the meter output on the rear panel; configure it to read dc volts.

w. Select ENTRY 10 on the 3586A/B/C. Given the equipment set-up for the preceding steps, adjust the 3335A amplitude so that the 3586A/B/C reads from +19.99dBm to +20.01dBm.

x. Adjust A21R96 (METER ØdB CAL) such that the 3455A reads from −0.001Vdc to +0.001Vdc.

y. This represents a full scale reading; the meter should be at zero.

z. Adjust the meter's mechanical zero if necessary.

aa. Disconnect the 3335A from the extender board, remove the extender board, and place A20 and A21 back into the instrument.

5-10. A20, A10 BANDWIDTH FILTER ADJUSTMENTS.

NOTE

Before making any bandwidth adjustments, adjust A21R44 (MIXER BAL) per paragraph 5-9.

a. Bandwidth Adjustments Set-up.

1. Place A10 and A20 on extender boards. Remove the jumper wire (A10J1) from A10TP1.

2. Connect the 3585A tracking generator output across edge connector pins A12 and A11 (ground) of 03586-66510.

3. Set the 3586A/B/C to ENTRY 100.

NOTE

Follow Steps 4-16 for 3100Hz bandwidth adjustment procedures, 17-27 for 2000Hz bandwidth adjustment procedures, and 28-38 for 1740Hz bandwidth adjustment procedures.

3100Hz BW-03586-66523

4. On the 3585A, set:

Center Frequency	15.849kHz
Span	4000Hz
RBW	30Hz
VBW	100Hz

5. Connect the 3585A 1MΩ input to A20TP12. Adjust A20L51 for a null on the 3585 display.

6. Connect the 3585A to A20TP13. Set the 3585A center frequency to 20.593kHz. Adjust A20L52 for a null on the display.

7. Set the center frequency to 12.883kHz. Adjust A20L53 for a null on the display.

8. Connect the 3585A to A20TP14. Connect a jumper between TP12 and TP13. Set the 3585A center frequency to 18.350kHz and adjust A20L54 for a null on the display.

9. Set the center frequency to 13.505kHz and adjust A20L55 for a null on the display.

10. Connect the 3585A to A20TP15. Connect a jumper between TP12 and TP14. Set the center frequency to 17.742kHz and adjust A20L56 for a null on the display.

11. Set the center frequency to 13.734kHz and adjust A20L57 for a null on the display.

12. Connect the 3585A to A20TP16. Connect the jumper between TP12 and TP15. Set the center frequency to 17.516kHz and adjust L58 for a null on the display.

13. Set the center frequency to 13.816kHz and adjust L59 for a null on the display.

14. Connect the 3585A to A20J2. Connect the jumper between TP12 and TP16. Set the center frequency to 17.434kHz and adjust A20L60 for a null on the display.

15. Set the center frequency to 9.968kHz and adjust A20L61 for a null on the display.

16. Disconnect the jumper and proceed to Step b.

    2000Hz BW - 03586-66520

17. On the 3585A, set:

Center Frequency	19.702kHz
Span	4000Hz
RBW	30Hz
VBW	100Hz

18. Connect the 3585A 1MΩ input to A20TP12. Adjust A20L51 for a null on the 3585A display.

19. Connect the 3585A to A20TP13. Set the 3585A center frequency to 17.122kHz and adjust A20L52 for a null on the display.

20. Set the center frequency to 14.124kHz and adjust A20L53 for a null on the display.

21. Connect the 3585A to A20TP14. Connect a jumper between TP12 and TP13. Set the 3585A center frequency to 17.240kHz and adjust A20L54 for a null.

22. Set the center frequency to 13.968kHz and adjust A20L55 for a null.

23. Connect the 3585A to A20TP15. Connect the jumper between TP12 and TP14. Set the center frequency to 17.651kHz and adjust A20L56 for a null.

24. Set the center frequency to 13.327kHz and adjust A20L57 for a null.

25. Connect the 3585A to A20J2. Connect the jumper between TP12 and TP15. Set the center frequency to 19.685kHz and adjust A20L58 for a null.

26. Set the center frequency to 15.736kHz. Connect the jumper between TP12 and TP9 and adjust for a null.

27. Disconnect the jumper and proceed to Step b.

1740Hz Bandwidth - 03586-66524

28. On the 3585A, set:

Center Frequency	19.106kHz
Span	4000Hz
RBW	30Hz
VBW	100Hz

29. Connect the 3585A 1MΩ input to A20TP12. Adjust A20L51 for a null on the 3585A display.

30. Connect the 3585A to A20TP13. Set the 3585A center frequency to 16.985kHz. Adjust A20L52 for a null on the display.

31. Set the center frequency to 14.275kHz. and adjust A20L53 for a null.

32. Connect the 3585A to A20TP14. Connect a jumper between TP12 and TP13. Set the 3585A center frequency to 17.105kHz and adjust A20L54 for a null.

33. Set the center frequency to 14.138kHz and adjust A20L55 for a null.

34. Connect the 3585A to A20TP15. Connect the jumper between TP12 and TP14. Set the center frequency to 17.587kHz and adjust A20L56 for a null.

35. Set the center frequency to 13.594kHz and adjust A20L57 for a null.

36. Connect the 3585A to A20J2. Connect the jumper between TP12 and TP15. Set the center frequency to 18.911kHz and adjust A20L58 for a null.

37 Set the center frequency to 15.738kHz. Connect the jumper between TP12 and TP9. Adjust A20L59 for a null.

38. Disconnect the jumper and proceed to Step b.

b. 3100Hz, 2000Hz, 1740Hz Flatness Adjust.

1. Using a 10:1 probe, connect the 3585A (via the 1MΩ input) to A20TP11.

2. Set the 3585A controls as follows:

a. Press:	"MANUAL"
b. Range	−5dB
c. db/div	2dB
d. Center Frequency	15.625kHz
e. Frequency Span	3kHz
f. RBW	100Hz
g. VBW	100Hz
h. Sweep Time	2 sec
i. Impedance	1MΩ
j. AUTO RANGE	(off)
k. REF LVL TRACK	(on)
l. Press:	"CONT"
m. Press:	"REF LVL"

n. Adjust Continuous Entry knob to center display

o. Press:"MANUAL"; enter 14.425kHz (3100Hz BW) 14.825kHz (2000Hz BW) 14.900kHz (1740Hz BW)

p. Press: "OFFSET"; "Enter Offset"

q. Press "MANUAL"; enter 16.825kHz (3100Hz BW) 16.425kHz (2000Hz BW) 16.350kHz (1740Hz BW)

r. Press:	"CONT"
s. Press:	"SAVE"; "1"

NOTE

The 3585A must be internally set for a gain 10 times greater than displayed at 2dB/div. All amplitudes need to be divided by 10.

c. Adjust A20L91 (Lower Band Edge Flatness) and A20L92 (Upper Band Edge Flatness) for the shape as shown in Figure 5-1.

d. Adjust A20L51 and A20L59 (A20L61 for 03586-66523) for the flatness limit given for the corresponding bandwidth below. Figure 5-1 shows how the filter shape should look when the flatness is adjusted to within the specified limits.

3100Hz: ±0.3dB ±1200Hz from Center Frequency

2000Hz: ±0.3dB ± 800Hz from Center Frequency

1740Hz: ±0.3dB ± 725Hz from Center Frequency

NOTE

The oscillogram shown in Figure 5-1 is from an instrument with a 3100Hz bandwidth. The filter shape is the same for all bandwidths.

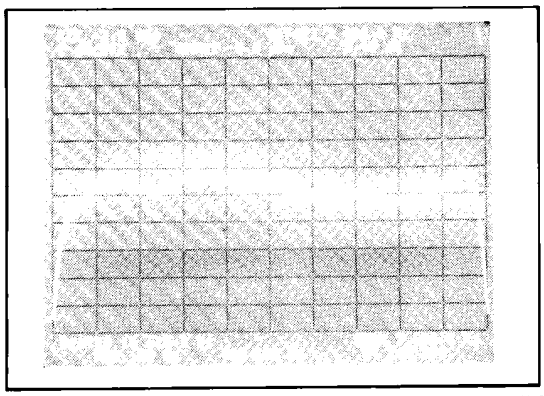


Figure 5-1. Flatness Adjust (±0.3dB).

e. **3100Hz, 2000Hz, 1740Hz 3dB Bandwidth Checks.**

f. On the 3585A, press "RECALL", "1" to restore the instrument parameters stored in Step b-2. To this setup, make the following changes:

dB/div	1dB
Frequency Span	4kHz
Sweep Time	2.8s
Press:	"Enter Offset"
Press:	"Offset"
Set the marker to the center frequency (15.625kHz)	
Press:	"Offset"
Press:	"Enter Offset"

g. Turn the Continuous Entry knob to the left until the offset reads approximately −3dB.
Press "Enter Offset".

h. Turn the Continuous Entry knob to the right until the offset reads approximately 0dB. Note the offset frequency and insure that it falls within the limit corresponding to the bandwidth given below. Figure 5-2 shows how the filter shape should look when the 3dB bandwidth is within the specified limits.

3dB Bandwidth 3100Hz:

2945Hz to 3255Hz

3dB Bandwidth 2000Hz:

1900Hz to 2100Hz

3dB Bandwidth 1740Hz:

1653Hz to 1827Hz

NOTE

The oscillogram shown in Figure 5-2 is from an instrument with a 3100Hz bandwidth.

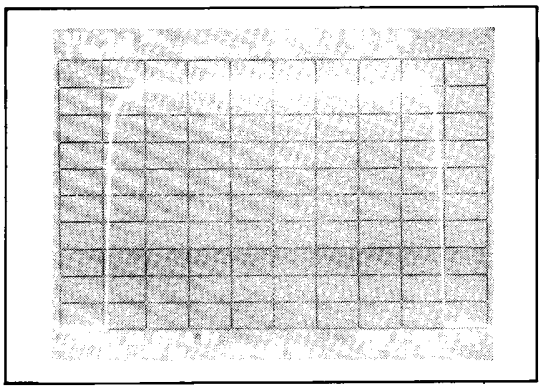


Figure 5-2. 3dB Bandwidth Check.

i. 3100Hz, 2000Hz, 1740Hz 65 and 80dB Point Check.

j. On the 3585A, set the following controls:

Frequency Span	6kHz
RBW	30Hz

Set the marker to the center frequency (15.625kHz)

Press:	"Offset"
Press:	"Enter Offset"
db/div	10

k. Turn the Continuous Offset Adjust to the frequency limits given for the corresponding bandwidth. Insure that the offset amplitude falls below the level specified.

3100Hz Bandwidth:

Offset Amplitude must be below −65dB for 3100Hz ±1850Hz
Offset Amplitude must be below −80dB for 3100Hz ±2850Hz

2000Hz Bandwidth:

Offset Amplitude must be below −65dB for 2000Hz ±1500Hz
Offset Amplitude must be below −80dB for 2000Hz ±2500Hz

1740Hz Bandwidth:

Offset Amplitude must be below −65dB for 1740Hz ±1350Hz
Offset Amplitude must be below −80dB for 1740Hz ±2350Hz

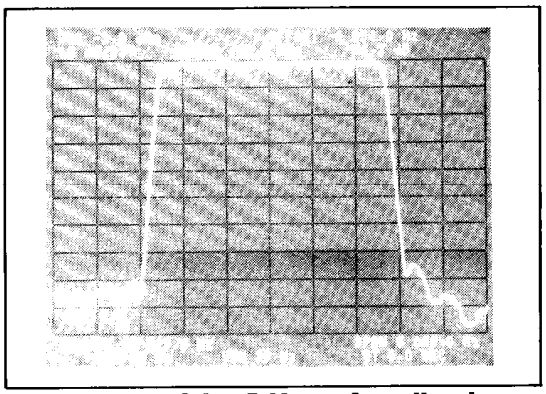


Figure 5-3A. Offset Amplitude Below -65dB (3100Hz BW).

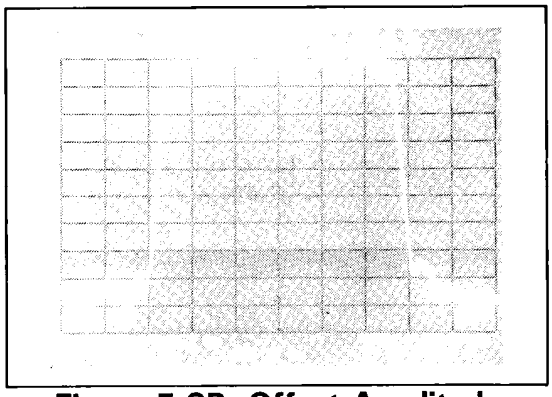


Figure 5-3B. Offset Amplitude Below -80dB (3100Hz BW).

l. **20Hz Bandwidth Adjustment.**

m. Connect the 3585A 1MΩ input to A20TP4 using a 10:1 probe.

n. Set the 3585A as follows:

Press:	"Instr Preset"
Tracking Generator Amplitude	Full Clockwise (0dBm)
Center Frequency	15.625kHz
Frequency Span	2.5kHz
Marker	15.625kHz
Input	1MΩ
Auto Range	OFF
Range	−5dB
REF LVL	−7dBm
Sweep Time	12sec
Press:	"Save"; "1"

o. Short out the lower set of crystals (Y1/Y2).

p. Adjust the Continuous Entry knob until the marker is at 16.1kHz. Press "Man Sweep".

q. Adjust A20C42 for a minimum level on the 3585A display.

r. Move the short to the upper set of crystals (Y3/Y4).

s. Press "Cont". Wait one (1) sweep and press "Manual".

t. Adjust A20C32 for a minimum level on the 3585A display.

u. Press "CONT". Remove the short from the crystals.

v. Set the 3585A as follows:

Press:	"Instr Preset"
Press:	"Recall"; "1"
Frequency Span	25Hz
Reference Level	−14dBm
dB/div	2
RBW	10Hz
VBW	100Hz
Sweep Time	12.8sec
Press:	"Manual" enter 15.620kHz
Press:	"Enter Offset"
Press:	"Offset"
Press:	"Manual" enter 15.630kHz
Press:	'Cont"
Press:	"Ref Lvl"

NOTE

The 3585A must be internally set for a gain 10 times greater than displayed a 2dB/div. All amplitudes need to be divided by 10.

w. Turn the Continuous Entry knob to center the display on the screen.

x. Adjust A20R35 (20Hz Ripple) and A20R40 (20Hz Tilt) for a flat top (see Figure 5-4A).

y. Set dB/div to 1dB and measure the bandwidth using the procedures found in Steps g and h.

1. If the bandwidth is too wide, set the marker to the center frequency, press "Manual" and adjust A20R35 to move the marker up. Press "Cont" and retest.

2. If the bandwidth is too narrow, set the marker to the center frequency, press "Manual" and adjust A20R35 to move the marker down. Press "Cont" and retest.

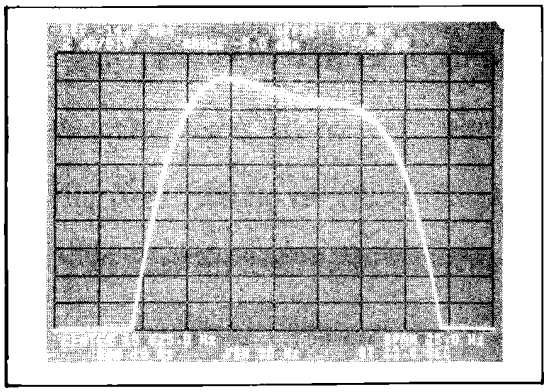


Figure 5-4A. 20Hz Bandwidth Adjustment (±0.3dB ±5Hz from CF).

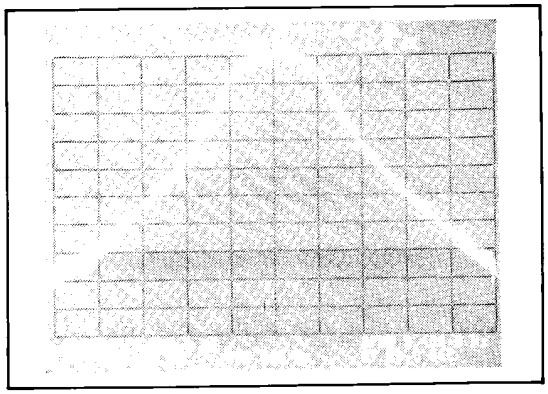


Figure 5-4B.

z. Set the 3585A as follows:

Press:	"Recall"; "1"
Frequency Span	200Hz
Sweep Time	20sec
Wait 1 full sweep	
Press:	"MKR→REF LVL"
dB/div	10
Set marker to center frequency	
Press	"Enter Offset"
Press	"Offset"

aa. Adjust the Continuous Entry knob for a frequency offset of ±35Hz. The dB offset must be more negative than −30dB.

bb. Adjust the Continuous Entry knob for a frequency offset of ±80Hz. The dB offset must be more negative than −60dB. (See Figure 5-4B.)

cc. Wax the A20 filter coils and place the A20 board back into the instrument.

dd. 400Hz Bandwidth Adjustment.

ee. Connect the 3585A 1MΩ input to the right side of A10C101 using a 10:1 probe.

ff. Set the 3585A as follows:

Press:	"Instr Preset"
Tracking Generator Amplitude Full Clockwise (0dBm)	
Center Frequency	14.242kHz
Frequency Span	2kHz
Input	1MΩ
Auto Range	Off
Range	−25dBm
Reference Level	−30dBm
Sweep Manual	

gg. Select the 400Hz bandwidth on the 3586A/B/C.

hh. Adjust A10L101 for a null.

ii. Move the 10:1 probe to A10TP2. Place a shorting strip between the right side of A10C101 and TP1.

jj. Set the center frequency on the 3585A to 17.324kHz. Adjust A10L102 for a null.

kk. Set the center frequency of the 3585A to 14.4kHz and adjust A10L103 for a null.

ll. Move the 10:1 probe to TP3. Connect the short between A10C101 and TP2.

mm. Set the center frequency to 16.795kHz and adjust A10L104 for a null. Remove the short.

nn. Filter Shape and 3dB Points.

oo. Set the 3585A as follows:

Press "Instr Preset"

Center Frequency	15.625kHz
Frequency Span	800Hz
Input	1MΩ
Auto Range	Off
Range	−5dB
dB/div	1dB
RBW	100Hz
VBW	300Hz
Sweep Time	5sec
Press:	"MKR→REF LVL"
Press:	"Offset"
Press:	"Enter Offset"

pp. Turn the Continuous Entry knob until the marker is over −200Hz. Press: "Enter Offset".

qq. Turn the Continuous Entry knob until the marker is at +400Hz. Adjust as necessary, A10L101, A10L102, A10L103, and A10L104 for a waveform with a rounded top, markers approximately −3dB from the reference, and 3dB points 400Hz ±20Hz apart. (See Figure 5-5.)

rr. Set the 3585A as follows:

Frequency Span	250Hz
dB/div	2dB
Press	"Offset"
Turn Continuous Entry knob to 15.625kHz	
Press	"Offset"
Press	"Enter Offset"

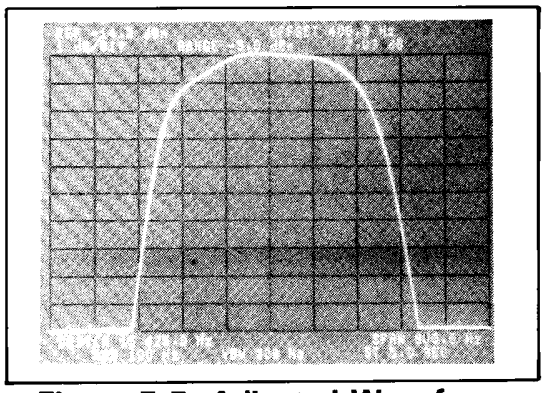


Figure 5-5. Adjusted Waveform - Filter Shape and 3dB Points.

ss. Adjust the Continuous Entry knob to ±75Hz. The offset amplitude must not change more than .3dB (3dB ÷ 10).

tt. Set the 3585A as follows:

db/div	1dB
Frequency Span	500Hz
Sweep Time	10sec

Verify the 3dB bandwidth using the procedures found in Steps g and h.

uu. 60dB Points.

vv. Set the 3585A as follows:

dB/div	10dB
Frequency Span	2.4kHz
Press:	"Offset"

Turn Continuous Entry knob to 15.625kHz

Press:	"Offset"
Press:	"Enter Offset"

ww. Turn the Continuous Entry knob ±1000Hz. The offset amplitude must be more negative than −60dB.

xx. Wax all coils on the A10 board. Place A10 back into the instrument.

5-11. A20 BANDWIDTH GAIN.

a. 3100Hz, 2000Hz, or 1740Hz Bandwidth Gain.

1. Disconnect jumper A10J1 from A10TP1.

2. Place A10 and A20 on extender boards. Connect the 3335A 50Ω output to A10 - edge connector pin 12. Also to this pin connect a 3455A configured to measure ac volts.

3. Set the 3586A/B/C to: ENTRY 10, +20dBm full scale. Press: MEAS CONT, RECALL,•, CNTR→FREQ, 0. Select either the 3100/2000/1740 Hz bandwidth according to instsrument model and option.

4. Set the 3335A to 15625Hz; adjust its amplitude such that the 3455A reads 502m Vrms.

5. Adjust A20R95 such that the 3586A/B/C reads from 19.99dBm to 20.01dBm.

b. 20Hz Bandwidth Gain.

1. Select 20Hz bandwidth.

2. Adjust A20R24 such that the 3586A/B/C reads from 19.99dBm to 20.01dBm.

c. 400Hz Bandwidth Gain.

1. Select the 400Hz bandwidth.

2. Adjust A10R105 such that the 3586A/B/C reads from 19.99dBm to 20.01dBm.

d. Reconnect jumper A10J1 to A10TP1.

5-12. A5 50MHz REJECTION.

a. Connect the 50Ω output of the 3335A to the 50Ω input of the 8553B Spectrum Analyzer. Set the 3335A to 50MHz at −58dBm.

b. Set the 8553B to:

Center Frequency	50MHz
Log. Reference Level	−58dBm
Scan Width	1kHz
Input Attenuator	0dB
Video Bandwidth	1Hz
Scan Time	20msec
Video Filter	10kHz

c. Adjust the log reference for a full scale of −58dBm.

d. Connect 3335A 50Ω output, through a 15dB, 50Ω attenuator (-hp- 355D), to A5J1.

NOTE

Use shortest cables possible.

e. Place A5 on an extender.

f. Insert the negative side of A5C76 into the hole marked "TEST". Connect this side of the capacitor to the 50Ω input of the 8553B using a very short cable.

g. Adjust A5C61 so that 50MHz is below −80dBm.

h. Disconnect the cables from the 8553B. Return A5C76 to its normal postion.

5-13. A5 LOW-PASS FILTER FLATNESS.

a. Connect the 3585A tracking generator output to a 15dB attenuator (e.g. -hp- 355D set at 15dB) using a 50Ω cable. Connect the attenuator output to the 3585A 75Ω input using a 75Ω cable and BNC barrel.

b. Set the 3585A as follows:

Press:	"Instr Preset"
Auto Range	Off
Range	−15dBm
Start Frequency	100Hz
Stop Frequency	35MHz
Sweep Time	.2sec
dB/div	10dB
Press:	"Cont"
Press:	"Ref Lvl"

c. Adjust the 3585A tracking generator level for −18dBm (3586A/B) (−23dBm 3586C).

d. Set the 3585A as follows:

dB/div	.2dB
set the marker to 32.515MHz	
Press:	"Marker"
Press:	"Ref Lvl"
adjust the Continuous Entry knob to center the display	
Press:	"Store A→B"
Press:	"A-B"
Press:	"View B"

e. Set A5C76 to the "Test" position.

f. Using the same 50Ω cable as in Step a, connect the tracking generator output through the 15dB pad used in Step a to A5J1. Connect the 75Ω cable from the 3585A input to the negative side of A5C76.

g. On the 3585A, press "Ref Lvl" and center the display.

h. Using A5R50, A5C53, A5C56, A5C59, A5C63, and A5C65, adjust for a display that is as flat as possible (±.25dBm).

i. Return A5C76 to its normal position and place A5 back into the instrument.

5-14. A5, A10 50MHz CRYSTAL FILTER.

a. Remove A11 (2nd L.O.).

b. Connect A51J2 to XA11, edge connector pins A13 and B13.

c. Place A10 and A5 on extender boards and set A10R19 and A10C24 to their "number 2" position.

d. Set the 3585A as follows:

Press:	"Instr Preset"
Auto Range	Off
Range	−5dB
Center Frequency	10MHz
Frequency Span	100kHz
RBW	1kHz
Sweep Time	1sec
Ref Level	−18dBm

e. Connect the tracking generator output through a 15dB pad (e.g., -hp- 355D set to 15dB) to the 3585A 50Ω input and adjust for a −18dBm (−23dBm 3586C) tracking generator level.

f. Disconnect the cable from the 3585A 50Ω input and connect the tracking generator output (still with the pad) to A5J1.

g. Turn the 3586 off. Connect an -hp- 1120A high impedance probe (ac coupled, dc offset (off)) to the 3585A 50Ω input and to the right side of A10L40.

h. Turn the 3586 back on.

i. Set the 3586 as follows:

Press:	"Recall 0"
select	ENTRY 100
Frequency	10MHz

j. Adjust A5L25 for a peak on the 3585A display.

k. Press: "MKR→REF LVL and wait one sweep.

l. Set the 3585A as follows:

Press:	"Offset"
Press:	"Enter Offset"
set marker to +31200Hz	

m. Adjust A5C23 to a minimum more negative than −50dB.

First Stage 50MHz Flatness Adjust

n. Set the 3585A as follows:

Frequency Span	11kHz
dB/div	.2
Sweep Time	3 sec
Press:	"Ref Lvl"
Press:	"Save"; "1"

o. Adjust reference level as needed for an on screen display.

p. Adjust A5L21 and A5R24 for ±.05dB flatness at ±2kHz from the center frequency (10MHz).

NOTE

If R24 is not sufficiently adjusting the flatness, A5R23 may need to be padded; see Table 5-4.

q. Place A5 back into the instrument and return A10R19 and A10C24 to their "number 1" position.

Second Stage 50MHz Crystal Filter Adjust

r. Set the 3585A as follows:

Offset	Off
dB/div	10dB
Frequency Span	100kHz
Marker	10MHz
Reference Level	−5dB

s. Adjust A10L24 for a peak on the 3585A display.

t. Press: "MKR→REF LVL."

u. Remove the 15dB pad from between the 3585A and 3586A/B/C.

v. Set the 3585A as follows:

Press:	"Offset"
Press:	"Enter Offset"
set the marker to	+31200Hz
Range	−20dBm

w. Adjust A10C22 for a minimum more negative than −90dB.

x. Place the 15dB pad back between the 3585A (tracking generator output) and 3586A/B/C.

50MHz Flatness

y. On the 3585A, press "Recall 1", press "Ref Lvl", and adjust as necessary for an on screen display.

z. Adjust A10L20 and A10R24 for a flatness of ±0.05dB at the center frequency (10MHz) ±1.8kHz.

NOTE

If R24 is not sufficiently adjusting the flatness, A10R23 may need to be padded; see Table 5-4.

aa. Place A11 and A10 back into the instrument.

Table 5-4. A5R23, A10R23 Padding Resistor List.

	Resistance (Ω)	-hp- Part Number	
↑	324	0698-4450	
	348	0698-3445	
Decrease Gain	374	0698-4452	
	402	0698-4453	
	422	0698-3447	A5R23
	453	0698-3510	
Increase Gain	475	0698-0415	
	499	0698-4123	A10R23
	523	0698-4454	
	549	0698-4456	
↓	576	0698-4457	

5-15. A10 MIXER GAIN ADJUST.

a. Connect the output (50Ω) of the 3335A to A5J1. Set the 3335A to 1MHz, −18dBm for a 3586A/B or −23dBm for a 3586C.

b. Connect a 3455A to A10TP1, configured to read ac volts.

c. Set the 3586 to 1MHz, ENTRY 100, 3100Hz, +20dBm full scale, SSB CARRIER, USB.

d. Adjust A10R43 for 502mVrms on the 3455A.

5-16. A5 LO REJECTION.

a. On the 3586A/B/C, select ENTRY 100, tune to ØHz, enter a full scale of ØdBm.

b. Adjust A5R4 for a reading below −25dBm from full scale.

5-17. A2 INPUT AMPLIFIER & A1 INPUT MULTIPLEXER ADJUSTMENTS.

a. A2 10.5 Volt Regulator Adjustment.

1. Connect a DC voltmeter to the test point on the A2 board marked "−10".

2. Adjust A2R105 for a DC voltmeter reading of −10.5V ±0.01V.

b. 75Ω Return Loss.

CAUTION

It will be necessary to remove the front panel for return loss adjustments. See paragraph 8-A-77 for removal procedures. Do not remove or install the A1 board with the POWER switch in the ON postion.

1. Connect the "SOURCE" port of the 75Ω directional bridge to the tracking generator output of the spectrum analyzer (use a 50Ω/75Ω matching pad if needed). Connect the "REFLECTED" port of the 75Ω directional bridge to the 75Ω input of the spectrum analyzer. Use 75Ω cables. Set the spectrum analyzer range to −10dBm.

2. Set the 3586 to ENTRY 100 and to a full scale setting of −20.0dBm. Put 3586 into the WIDEBAND mode.

3. With the "LOAD" port of the directional bridge open, adjust the spectrum analyzer for a sweep of 0-32.5MHz. The generator level should be set at 0dBm.

NOTE

Since the input level to the 3586 is approximately −6dBm, while its FULL SCALE is −20.0dBm, the 3586 will display an "OVLD" (overload) condition. Proceed with the adjustment and ignore the overload.

Note the level of the spectrum analyzer swept display (the "open circuit level").

4. Connect the "LOAD" port of the 75Ω directional bridge directly to the 75Ω input of the 3586, without using a cable.

5. 3586A&B: Adjust the 3586 for a minimum level swept display on the spectrum analyzer (best return loss). The display should be at least 36dB below the "open circuit level" of Step 3. This adjustment should be made by adjusting A1L1 for

a minimum display and by adjusting the position and/or length of the wire from the input connector to the A1 board. If it is required to replace this wire as part of a repair, the length of the replacement wire should match that of the original wire.

3586C: Adjust the 3586 for a minimum level swept display on the spectrum analyzer (best return loss). The display should be at least 36dB below the "open circuit level" of Step 3. This adjustment should be made by adjusting A1L1 and A1L2 for a minimum display. A1L2 is the adjustment with greater affect on return loss and should be adjusted first. The position of the wire from the input connector to the A1 board may also affect return loss.

6. Record the level of the swept display by storing this display in the "B" register of the spectrum analyzer (STORE A→B).

7. On the 3586, enter RECALL, •, CNTR→FREQ, 1. This inserts the −40dBm calibration signal into the signal measurement path, and connects the "Calibration Cycle Termination" to the 3586 input.

8. Adjust A1C2 for a swept display of minimum level on the spectrum analyzer, at least 25dB below the "open circuit level".

9. On the 3586, enter RECALL, •, RDNG→OFFSET, 1. (This returns the input signal and connects the normal termination to the 3586 input.)

10. Set the 3586's FULL SCALE to −15.0dBm. (The overload condition will continue.)

11. Adjust A2C7 for the best match possible of the present swept display and the display of Step 6 (the display recorded in register B of the spectrum analyzer). This makes the 3586's input impedance the same for any gain setting of the input amplifier. (The different gains are accessed by setting the FULL SCALE level of the 3586.)

c. Input Amplifier Flatness Adjustment.

1. On the 3586, enter RECALL, 0. Set the spectrum analyzer for a 0 to 32.5MHz sweep, at 1dB/DIV., with a range of −25.0dBm.

2. Connect the 50Ω output of the tracking generator to the 10dB and 1dB step attenuators. Set the attenuators to 38dB of attenuation. Connect the output of the attenuators through a 50Ω/75Ω matching pad and a 75Ω cable to the 75Ω input of the spectrum analyzer.

3. Adjust the spectrum analyzer's reference level control for a swept display whose level is centered on the spectrum analyzer's display. Store this swept display in the spectrum analyzer's register B (STORE A→B). This stored display represents the frequency response of the tracking generator, the attenuators, and the spectrum analyzer itself. This frequency response of the equipment can later be nulled out when adjusting the input amplifier's flatness.

4. Set the attenuators to 55dB. Connect the attenuator output through the matching pad and 75Ω cable to the 75Ω input of the 3586.

5. Connect A2J3 (the input amplifier output) to the 50Ω input of the spectrum analyzer. Use the "A-B" display mode of the spectrum analyzer to null out the equipment's own frequency response, leaving only the frequency response of the input amplifier itself.

6. Set the 3586's FULL SCALE to −35.0dBm. Adjust A2C32 for a swept display that is as flat as possible, to ±0.8dB from the level at the center of the display.

7. Move the frequency-center point of the swept display to the center of the spectrum analyzer display by adjusting the reference level control of the spectrum analyzer.

8. Set the 3586's FULL SCALE to −30.0dBm. Set the attenuators to 50dB. Adjust A2C33 for a swept display that is as flat as possible, to ±0.8dB from the level at the center of the display.

9. Set the 3586's FULL SCALE to −15.0dBm. Set the attenuators to 35dB. Adjust A2C4 for a swept display that is as flat as possible, to ±0.8dB from the level at the center of the display.

10. Set the 3586's FULL SCALE to +5.0dBm. Set the attenuators to 15dB. Adjust A2C5 and A2R5 for a swept display that is as flat as possible, to ±0.8dB from the level at the center of the display.

11. Repeat Steps 4 through 10 as needed.

5-18. A1, A2 FREQUENCY RESPONSE (BALANCED INPUTS).

NOTE

Steps a through j adjust the frequency response of the 124Ω, 135Ω or 150Ω input.

a. Connect the tracking output of the 3585A (via a 50Ω/75Ω minimum loss pad) to the 75Ω input of the 3586A/B.

b. Connect A2J3 to the 3585A 50Ω input.

c. Set the 3585A to the following settings:

Entry Range	100dB
Full Scale	−5dBm
Start Freq.	1kHz
Stop Freq.	10MHz
dB/DIV.	1dB

d. Set the Reference Level on the 3585A to an even number (in dB).

e. On the 3585A, press: Store A, A-B, View B off.

f. Decrease the Reference Level by the following amount:

124Ω	150Ω
7dB	8dB

g. Connect the minimum loss pad to the input of the appropriate matching pad (see Figure 4-6 in Section IV).

h. Connect the output of the matching pad to the appropriate input of the 3586A/B. Set the 3586 to ENTRY 100, −5dBm full scale. Set CAL off.

i. Make the following adjustments:

124Ω: A1R15, L12, L13 for center line ±.08dB.
150Ω: A1R15, L12 for center line ±.08dB.

j. Remove the matching pad.

NOTE

Steps k through r adjust the 600Ω input frequency response.

k. Repeat Steps a and b.

l. Set the 3585A to: Stop Freq. 100kHz, Start Freq. 1kHz, 1dB/DIV.

m. Repeat Steps d and e.

n. Decrease the Reference Level by 15dB.

o. Repeat Steps g and h for the 600Ω matching pad and input.

p. Select the 600Ω input.

q. Adjust A1C22 (600Ω RESPONSE) for center line flatness ±.13dB (3586A/B). For a 3586C, adjust A1C22 and A1R28 (600Ω GAIN) for center line flatness ±.13dB.

r. Remove the matching pad.

NOTE

Steps s through bb adjust the Balanced 124Ω input (3586B only).

s. Connect the 3585A tracking generator to the unbalanced input of the 124Ω Balance Testing Apparatus (see Figure 4-5 in Section IV) and also to the 75Ω input of the 3586 using a BNC Tee connector.

t. Connect the balanced output of the test fixture to the 124Ω balanced input of the 3586B.

u. Connect the 3585A 50Ω input to A2J3 on the 3586.

v. Set the 3585A controls as follows:

Auto Range	OFF
Range	−10dB
Ref Level	−10dBm
dB/DIV	10dB
Start Freq.	10kHz
Stop Freq.	10MHz

w. Select the 10kΩ||50pF termination impedance for the 3586B.

x. On the 3586B, select ENTRY 100, Full Scale = +5dBm, CAL off.

y. On the 3585A, select:
STORE A
A—B
VIEW B off

z. Adjust the 3585A sweep for 1cm from the top of the display.

aa. Adjust A1C10 for a minimum level.

bb. The measured result should be less than −38dB.

5-19. INTERMODULATION DISTORTION ADJUSTMENT.

a. Set one synthesizer to 32.15MHz at +1.0dBm on its 50Ω output. Set the second synthesizer to 32.0MHz at +1.0dBm on its 50Ω output. Connect the output of the second synthesizer to the frequency doubler.

b. Connect each synthesizer's output (via 50Ω/75Ω pads) to the inputs of the combiner (see Figure 4-9). Connect the output of the combiner to the 75Ω input of the 3586. Set the FULL SCALE of the 3586 to −10.0dBm in ENTRY 100, CAL off.

c. Connect A2J3 to the 50Ω input of the spectrum analyzer. Set the spectrum analyzer to a center frequency of 32.075MHz, a frequency span of 500kHz, 10dB/DIV., resolution BW = 300Hz, and video BW = 1kHz.

d. Using the spectrum analyzer in the MANUAL SWEEP mode to measure the 32.0MHz and 32.15MHz responses, adjust the levels of the synthesizers until both responses are −16.0dBm (−21dBm for 3586C). The 3586 may show an overload condition; this is normal.

e. Set the spectrum analyzer to a center frequency of 150kHz, a frequency span of 1kHz, a resolution BW = 10Hz, and video BW = 30Hz. Use the MANUAL SWEEP of the spectrum analyzer to measure the level of the 150kHz response.

f. Adjust A2R12 for a minimum level of the 150kHz response.

5-20. A4 BROADBAND POWER/OVERLOAD/CALIBRATION ADJUSTMENTS.

a. Calibrator Adjustments.

1. Connect the 75Ω output of the Synthesizer/Level Generator to the 75Ω input of the 3586. Keep the cable as short as possible.

2. Set the level generator as follows:

Frequency:	1.234MHz
Frequency Step:	31.0MHz
Level:	−37.00dBm
Level Step:	45.0dB

3. Enter RECALL, 0 on the 3586 to initialize the instrument. Tune the 3586 to 1.234MHz and enter a FREQ STEP of 31.0MHz. Turn the AVE function on. Select AUTO 10, CAL off, 3100Hz.

4. Adjust A4R134 (CAL −40dBm) for a 3586 level reading of [−37.00dBm ±0.01dB minus any cable loss]. (A typical loss in a short piece of 75Ω coaxial cable at this frequency would be 0.01 or 0.02dB. Adapt the 3586 level reading to your particular cable loss). Turn the AUTO CAL off, then on.

NOTE

Front panel reading will change only after AUTO-CAL is cycled.

5. Repeat the adjustment of Step 4, followed by an AUTO CAL off/on, until no further adjustment is necessary.

6. Step the level generator's amplitude up to +8.00dBm.

7. Adjust A4R136 (CAL −20dBm) for a 3586 level reading of [+8.00dBm ±0.01dB minus any cable loss]. (A typical loss in a short piece of 75Ω coaxial cable at this frequency would be 0.01 or 0.02dB. Adapt the 3586 level reading to your particular cable loss). Turn the AUTO CAL off, then on.

8. Repeat the adjustment of Step 7, followed by an AUTO CAL off/on, until no further adjustment is necessary.

9. Step the level generator's amplitude down to -37.00dBm.

10. Repeat Steps 4 to 8 until no further adjustment is necessary.

11. Step the level generator's frequency and the 3586's frequency up to 32.234MHz. Step the level generator's amplitude up to +8.00dBm.

12. Adjust A4L106 (CAL FLATNESS −20dBm) for a 3586 level reading of [+8.00dBm ±0.01dB minus any cable loss]. (A typical loss in a short piece of 75Ω coaxial cable at this frequency would be 0.07 or 0.08dB. Adapt the 3586 level reading to your particular cable loss). Turn the AUTO CAL off, then on.

NOTE

Front panel reading will change only after AUTO-CAL is cycled.

13. Repeat the adjustment of Step 12, followed by an AUTO CAL off/on, until no further adjustment is necessary.

14. Step the level generator's amplitude down to -37.00dBm.

15. Adjust A4C113 (CAL FLATNESS −40dBm) for a 3586 level reading of [−37.00dBm ±0.01dB minus any cable losses]. (A typical loss in a short piece of 75Ω coaxial cable at this frequency would be 0.07 or 0.08dB. Adapt the 3586 level reading to your particular cable loss). Turn the AUTO CAL off, then on.

16. Repeat the adjustment of Step 15, followed by an AUTO CAL off/on, until no further adjustment is needed.

17. Repeat Steps 11 through 16 as necessary.

b. Broadband Power Adjustments.

1. Set the level generator as follows:

FREQ	=	1.0023MHz
FREQ STEP	=	1.0MHz
LEVEL	=	−35.0dBm
AMPLITUDE STEP	=	20.0dB

Connect the 75Ω output of the level generator to the 75Ω input of the 3586.

2. On the 3586, do the following:

(a) Enter RECALL, 0.
(b) Turn the AUTO CAL off.
(c) Enter RECALL, • (decimal point), CNTR→FREQ, 0.
(d) Select ENTRY 100.
(e) Enter a FULL SCALE of −30.0dBm.
(f) Turn the WIDEBAND mode on.
(g) Turn the AVE function on.
(h) Enter RECALL, • (decimal point), CNTR→FREQ, 2.

3. Adjust A4R29 (BBP OFFSET) for a reading on the 3586 of −35.00dBm ±0.1dB.

4. Step the level generator's amplitude down to −55.0dBm.

5. Adjust A4R30 (BBP GAIN) for a reading on the 3586 of −55.00dBm ±0.1dB.

6. Return the level generator's amplitude to −35dBm.

7. Step the frequency of the level generator down to 2.30kHz.

8. Set the level generator's amplitude to −35dBm at its 50Ω output. Connect the level generator's output to pin A11 of the A4 assembly (bottom side of A4R19).

9. Note and record the front panel reading of the 3586.

10. Set the level generator to −35dBm at 30.0023MHz.

11. Adjust A4R24 (BBP FLATNESS) so the front panel reading of the 3586 is the same as in Step 9.

12. Repeat Steps 7 through 11 as necessary until no further adjustment of A4R24 is required.

13. Repeat Steps 1 through 6 as necessary.

5-21. A15 TRACKING OUTPUT ADJUSTMENT.

NOTE

Make any necessary adjustments to the Sum & Step Loop before adjusting the A15 assembly.

a. Tune the 3586 to 10.0kHz. Connect the tracking output on the rear panel ("F_o0-32MHz") to the 75Ω input of the 3586.

b. Adjust A15R3 (Mixer Balance) to maximize the level reading of the 3586.

5-22. A70 IMPAIRMENTS (OPTION 003 ONLY).

NOTE

Steps a through s adjust the notch filter.

a. Connect the 75Ω output of the 3335A to the 75Ω input of the 3586A/B.

b. On the 3586A/B press Noise/Demod, select the WTD filter, select AUTO 10, turn the offset on, and enter a frequency of 1MHz.

c. Set the 3335A to 1001000Hz at 0dBm.

d. On the 3586A/B, press RDNG→OFFSET.

e. Press Noise/Tone.

f. Adjust A70 R33 (Notch 2) for a minimum 3586A/B/ Level reading; the reading should be below −55dBm.

g. Tune the 3335A to 1001010Hz. On the 3586A/B press: Noise/Demod, RDNG→OFFSET, Noise/Tone.

h. Adjust A70 R40 (Notch 1) for a minimum level reading i.e. below −55dBm.

i. Tune the 3335A to 1001017Hz. On the 3586A/B/, press: Noise/Demod, RDNG→OFFSET, Noise/Tone.

j. Adjust A70 R45 (Notch 3) for a minimum level reading i.e. below −55dBm.

k. Tune the 3335A to 1001182Hz. On the 3586A/B, press: Noise/Demod, RDNG→OFFSET,Noise/Tone.

l. The level reading should be greater than −2.5dBm.

m. Tune the 3335A to 1000862Hz. On the 3586A/B, press: Noise/Demod RDNG→OFFSET, Noise/Tone.

n. The level reading should be greater than −2.5dBm.

o. Tune the 3335A to 1000995Hz.

p. On the 3586A/B, press: Noise/Demod, RDNG→OFFSET, Noise/Tone.

q. The level reading should be less than −55dBm.

r. Increase the frequency of the 3335A by 5Hz.

s. If the frequency of the 3335A is less than 1001030Hz, then proceed with Steps p to r. When 1001030Hz is reached, the adjustment is completed.

NOTE

Steps t through aa adjust the "Logger".

t. After putting the A70 board on extenders, connect the 3455A to A70 TP8. The voltmeter should be configured to measure ac.

u. Connect the 75Ω output of the 3335A to the 75Ω input of the 3586A/B. Set the 3335A to 0dBm. For a 3586A, set the 3335A to 1000800Hz; for a 3586B, 1001000Hz.

v. On the 3586A/B, select the 75Ω input and the 100dB range (using ENTRY 100), and turn off the AUTO CAL. Press: RECALL,•, CNTR→FREQ, 0. Enter a full scale of 0dBm. Select the SSB Channel Carrier, and the upper sideband (⟋). Press Noise/Demod, and the WTD Bandwidth. Press: RECALL,•, CNTR→FREQ, 2.

w. Adjust the output amplitude of the 3335A until the 3455 reads 0.750 Vac.

x. Adjust A70 R70 (Logger offset) such that the 3586A/B reads a level from −0.05dBm to +0.05dBm.

y. Decrease the amplitude of the 3335A by 60dB.

z. Adjust A70 R72 (Logger gain) for a level reading from −59.9dBm to −60.1dBm.

aa. Increase the 3335A amplitude by 60dB. Repeat Steps x through z until no further adjustment is needed.

NOTE

Steps bb through kk adjust the Impulse Noise.

NOTE

Steps bb through dd apply only to those instruments with revision C or earlier A70 boards. For revision D boards, continue with Step ee.

bb. Connect the 3455A to A70 TP5.

cc. The voltmeter should be configured to measure dc.

dd. Adjust A70R102 (DAC) such that the 3455A reads +5.9VDC (±.1V) (pertains to both the 3586A and 3586B).

ee. Set the 3335A to 1002000Hz at 0dBm.

ff. The 3335A 75Ω output should be connected to the 3586A/B 75Ω input.

gg. On the 3586A/B, enter a frequency of 1MHz. Select the 100dB range and carrier upper sideband (⌐). Enter a full scale of 0dBm. Press Impulse. Enter a threshold of −20dBm and a time of .3 min.

hh. Connect a 5328A to A70 TP3.

ii. Set the counter to: Period A with a Time Resolution to 100μSEC.

jj. Adjust A70 R97 such that the counter reads from 142 to 144 msec (for a 3586B) or from 124 to 126 msec (for a 3586A).

kk. Press START on the 3586A/B. The Impulse Noise reading should be from 202 to 212 counts (for a 3586B) or from 231 to 241 counts (for a 3586A).

NOTE

Steps 11 through ww adjust the Phase Jitter. All instruments must be phase-locked for phase jitter adjustments.

ll. Combine the 50Ω outputs of the 3335A and the 3325A (via 50Ω/75Ω pads) using a power combiner (see Figure 4-9); connect the output of the combiner to the 75Ω input of the 3586A/B.

mm. Set the 3335A to 1001150Hz at −20dBm with a step frequency of 130Hz.

nn. Set the 3325A to 1001000Hz at 0dBm.

oo. On the 3586A/B, Select ENTRY 100, enter a full scale of 0dBm and a frequency of 1MHz. Select the carrier upper sideband mode, and 3100Hz bandwidth, and Ø Jitter. Turn the average on. Press: RECALL, •, CNTR→FREQ, 2.

pp. If E2.3 is shown in the Measurement display, then adjust A70R181 (VFD FREQ ADJ) very slowly until a reading is obtained.

qq. Adjust A70 R146 (Ø jitter gain) for a phase jitter display from 11.4°p-p to 11.6°p-p.

rr. Step the 3335A down 130Hz.

ss. Adjust A70 R133 (Ø jitter 20Hz) for a phase jitter reading from 11.2°p-p to 11.4°p-p.

NOTE

For instruments with revision C or earlier A70 boards, skip Steps tt and uu and continue with Step vv.

tt. Press the "WTD 3100Hz" key (4-300Hz frequency band) in the Bandwidth block on the 3586 front panel. Adjust A70R125 (4Hz ϕJITTER) for a phase jitter reading from 11.0° p-p to 11.2° p-p.

uu. Press the "3100Hz" key (20-300Hz frequency band) on the 3586 front panel.

vv. Set the 3335A to 1001300Hz. The 3586A should have a phase jitter reading from 10°p-p to 13°p-p.

ww. Disconnect the combiner and the 3325A. Connect the 3335A 75Ω output to the 75Ω input of the 3586A/B.

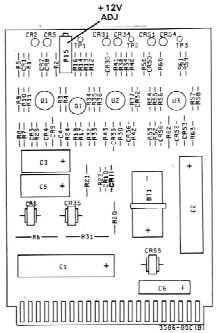
xx. Set the 3335A to 1000960Hz at 0dBm.

yy. Slowly adjust A70 R181 clockwise until E2.3 is displayed.

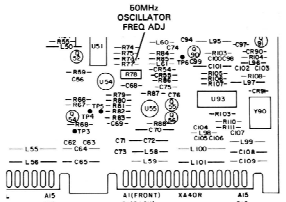
5-23. A16 10MHz FREQUENCY REFERENCE ADJUSTMENTS (OPTION 004 ONLY).

a. With the oven cold, adjust A16R7 so that the DC voltage at A16TP2 is equal to the DC voltage at A16TP1 + 0.3V (TP2 = TP1 + 0.3V).

b. After the oven has warmed up and stabilized (when the red LED on the A16 board has gone off), adjust the frequency of the oven oscillator to 10.000000MHz ± 1Hz. The frequency is adjusted with the screw adjustment on the oven itself. This may be checked with a counter at the "10MHz OVEN" output on the rear panel, or by means of the method shown in Paragraph 4-13. With either method, the frequency source used as a standard or as the reference for the counter should have a stability of better than 1×10^{-8}/year.



A80
hp Part No. 03586-66580



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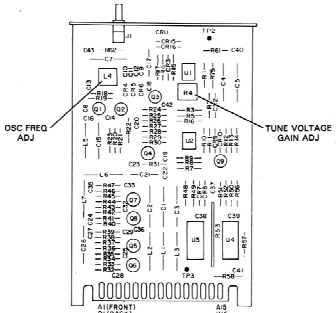
Rev A



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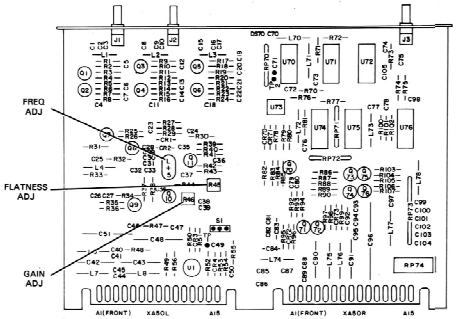

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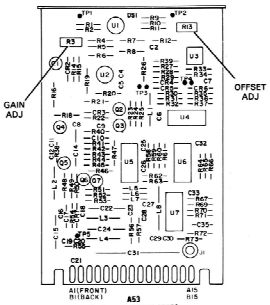

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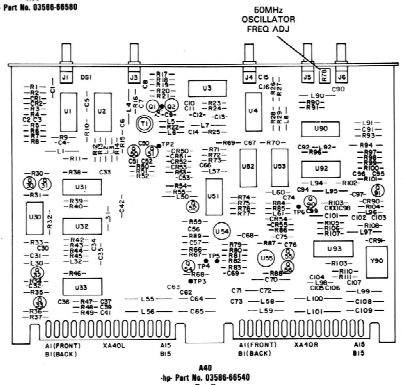

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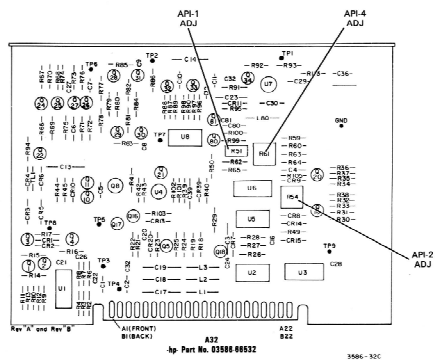
Rev B



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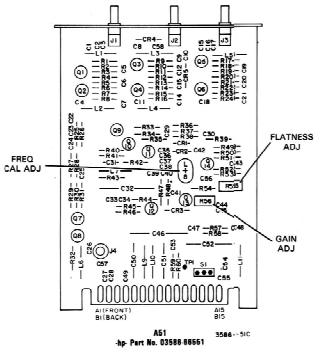

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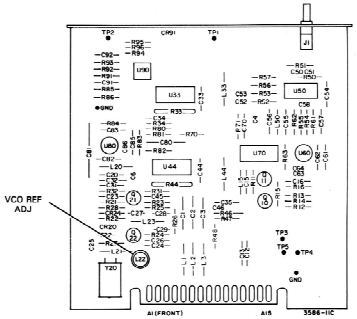
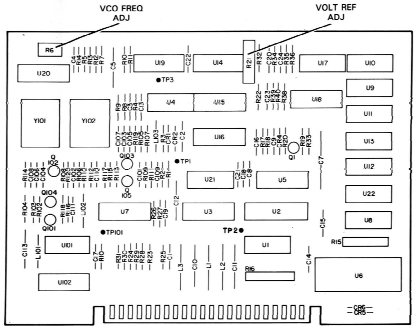
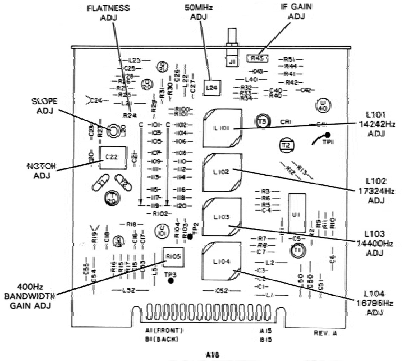
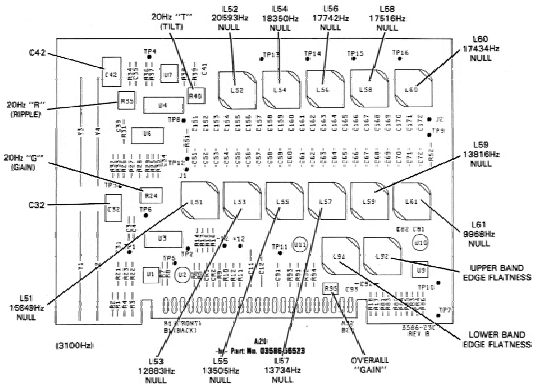


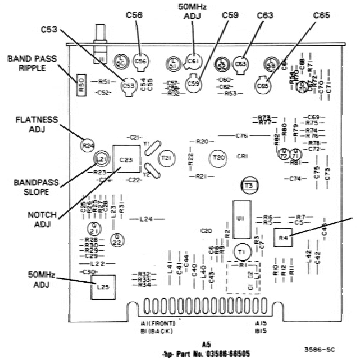
A11
hp Part No. 03586-66511

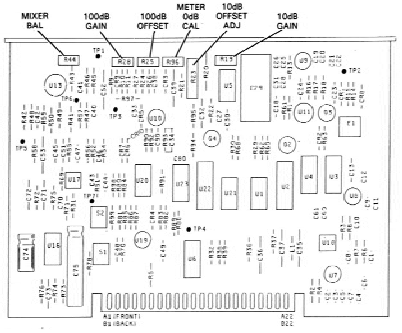
Figure 5-6. Adjustment Locations.

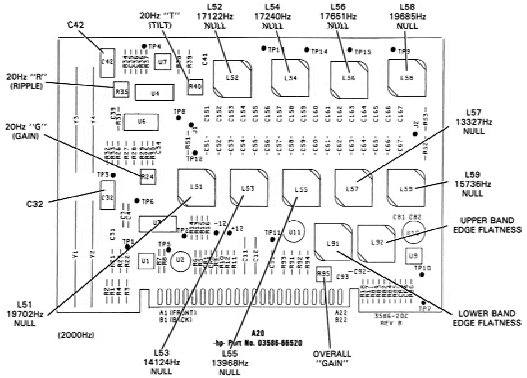












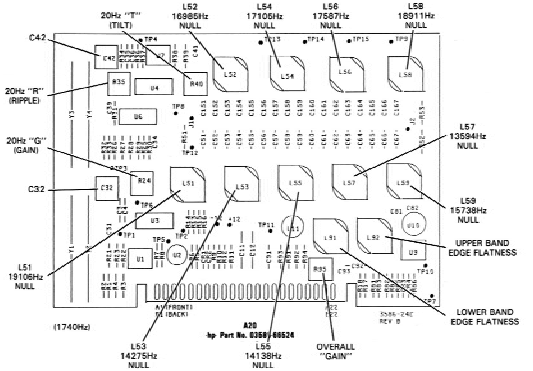
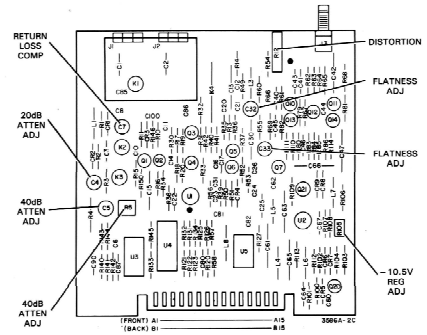
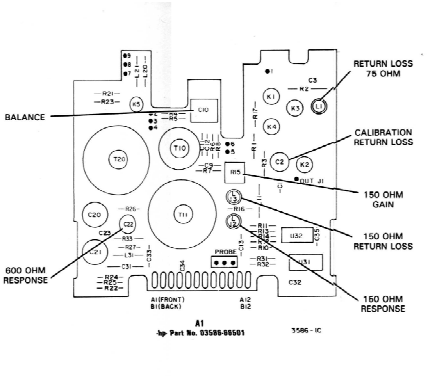
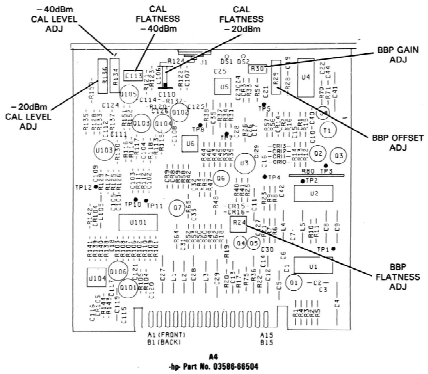
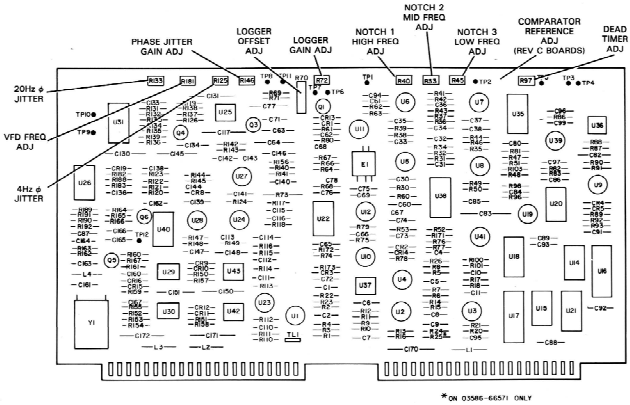


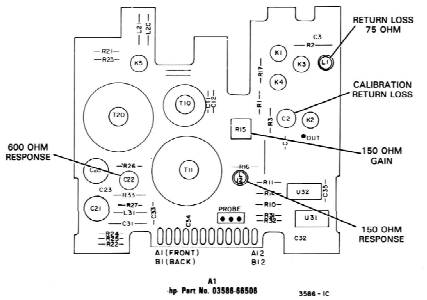
Figure 5-6. Adjustment Locations (Cont'd).

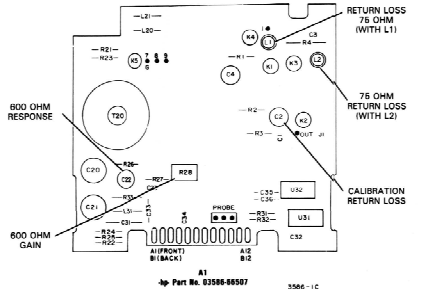


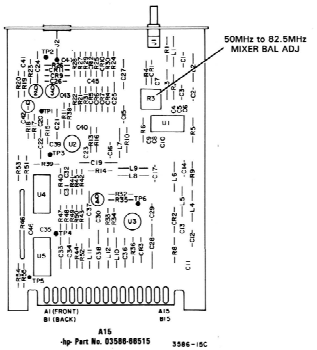












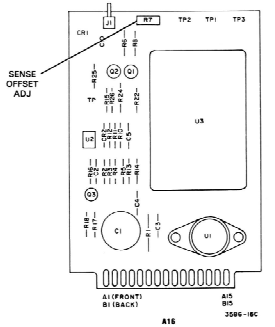


Figure 5-6. Adjustment Locations (Cont'd).

Table of Contents

SECTION VI
REPLACEABLE PARTS

6-1. INTRODUCTION.

6-2. This section contains information for ordering replacement parts. Table 6-3 lists the parts in alphameric order of their reference designators and provides the following information:

a. -hp- Part Number.

b. Total quantity used in the instrument (Qty column). The total quantity of a part is given the first time the part number appears.

c. Description of the part. (See Table 6-1 for abbreviations.)

d. Typical manufacturer of the part in a five-digit code. (See Table 6-2 for list of manufacturers).

e. Manufacturer's part number.

6-3. Chassis Mounted and Miscellaneous Parts.

6-4. Chassis mounted components, cable assemblies, mechanical parts and miscellaneous parts not having reference designators are listed near the end of Table 6-3.

6-5. ORDERING INFORMATION.

6-6. To obtain replacement parts, address your order or inquiry to the nearest Hewlett-Packard Sales and Service Office. Identify parts by their -hp- Part Numbers or, if not listed, include a description of the part which covers function and location within the instrument. Also include the instrument model and serial number.

6-7. DIRECT MAIL ORDER SYSTEM.

6-8. Within the USA, Hewlett-Packard can supply parts through a direct mail order system. Advantages of using the system are as follows:

a. Direct ordering and shipment from the -hp- Parts Center in Mountain View, California.

b. No maximum or minimum on any mail order (there is a minimum order amount for parts ordered through a local -hp- office when the orders require billing and invoicing).

c. Prepaid transportation (there is a small handling charge for each order).

d. No invoices — to provide these advantages, a check or money order must accompany each order.

6-9. Mail order forms and specific ordering information is available through your local -hp- office. Addresses and phone numbers are located at the back of this manual.

6-10. SPARE PARTS SERVICE KIT.

6-11. Hewlett-Packard offers a Spare Parts Service Kit for the 3586A/B/C (-hp- Part Number 03586-68701). The kit consists of a group of selected replacement parts and components for this instrument which can change in content and which therefore are not listed in this manual. A current list of the contents for the Customer Service Kit may be obtained on request and the kit itself may be ordered through your nearest Hewlett-Packard office.

Table 6-1. Standard Abbreviations.

ABBREVIATIONS

Ag	silver	Hz	hertz (cycle(s) per second)	NPO	negative positive zero (zero temperature coefficient)	sl	slide
Al	aluminum	ID	inside diameter	ns	nanosecond(s) = 10^{-9} seconds	SPDT	single-pole double-throw
A	ampere(s)	impg	impregnated	nsr	not separately replaceable	SPST	single-pole single-throw
Au	gold	incd	incandescent			Ta	tantalum
C	capacitor	ins	insulation(ed)	Ω	ohm(s)	TC	temperature coefficient
cer	ceramic			obd	order by description	TiO_2	titanium dioxide
coef	coefficient	kΩ	kilohm(s) = 10^{+3} ohms	OD	outside diameter	tog	toggle
com	common	kHz	kilohertz = 10^{+3} hertz			tol	tolerance
comp	composition			p	peak	trim	trimmer
conn	connection	L	inductor	pA	picoampere(s)	TSTR	transistor
		lin	linear taper	pc	printed circuit		
dep	deposited	log	logarithmic taper	pF	picofarad(s) 10^{-12} farads	V	volt(s)
DPDT	double pole double-throw			piv	peak inverse voltage	vacw	alternating current working voltage
DPST	double-pole single-throw	mA	milliampere(s) = 10^{-3} amperes	p/o	part of	var	variable
		MHZ	megahertz = 10^{+6} hertz	pos	position(s)	vdcw	direct current working voltage
elect	electrolytic	MΩ	megohm(s) = 10^{+6} ohms	poly	polystyrene		
encap	encapsulated	met flm	metal film	pot	potentiometer	W	watt(s)
		mfr	manufacturer	p-p	peak-to-peak	w/	with
F	farad(s)	ms	millisecond	ppm	parts per million	wiv	working inverse voltage
FET	field effect transistor	mtg	mounting	prec	precision (temperature coefficient, long term stability and/or tolerance)	w/o	without
fxd	fixed	mV	millivolt(s) = 10^{-3} volts			ww	wirewound
		μF	microfarad(s)				
GaAs	gallium arsenide	μs	microsecond(s)	R	resistor		
GHz	gigahertz = 10^{+9} hertz	μV	microvolt(s) = 10^{-6} volts	Rh	rhodium		
gd	guard(ed)	my	Mylar ®	rms	root-mean-square	*	optimum value selected at factory, average value shown (part may be omitted)
Ge	germanium			rot	rotary	**	no standard type number assigned selected or special type
grid	ground(ed)	nA	nanoampere(s) = 10^{-9} amperes				
		NC	normally closed	Se	selenium		
H	henry(ies)	Ne	neon	sect	section(s)	®	Dupont de Nemours
Hg	mercury	NO	normally open	Si	silicon		

DESIGNATORS

A	assembly	FL	filter	Q	transistor	TS	terminal strip
B	motor	HR	heater	QCR	transistor diode	U	microcircuit
BT	battery	IC	integrated circuit	RPI	resistor(pack)	V	vacuum tube, neon bulb, photocell, etc.
C	capacitor	J	jack	RT	thermistor	W	cable
CR	diode or thyristor	K	relay	S	switch	X	socket
DL	delay line	L	inductor	T	transformer	XDS	lampholder
DS	lamp	M	meter	TB	terminal board	XF	fuseholder
E	misc electronic part	MP	mechanical part	TC	thermocouple	Y	crystal
F	fuse	P	plug	TP	test point	Z	network

6-12. MECHANICAL PARTS.

6-13. An illustrated exploded drawing of the main parts of the instrument cabinet is included following Table 6-3. (See Figure 6-1.)

6-14. METRIC HARDWARE.

6-15. Most of the 3586 hardware (screws, nuts, etc.) are metric. Designation of a metric screw is done in the following manner. Where M3x.5x20PH is the designation for a metric screw:

M = metric
3 = 3mm (width of screw including threads)
.5 = .5mm (distance between threads, called "pitch")
20 = 20mm (length of screw)
PH = pan head (FH = flat head)

Table 6-2. Code List Of Manufacturers.

Manufacturer No.	Manufacturer Name	Address
H9027	Schurter A G H	Luzern, SW
01121	Allen-Bradley Co	Milwaukee, WI 53204
01295	Texas Instr Inc Semicond Cmpnt Div	Dallas, TX 75222
01928	RCA Corp Solid State Div	Somerville, NJ 08876
02111	Spectrol Electronics Corp	City of Ind, CA 91745
03888	KDI Pyrofilm Corp	Whippany, NJ 07981
04713	Motorola Semiconductor Products	Phoenix, AZ 85062
06665	Precision Monolithics Inc	Santa Clara, CA 95050
07263	Fairchild Semiconductor Div	Mountain View, CA 94042
07716	TRW Inc Burlington Div	Burlington, IA 52601
07933	Raytheon Co Semiconductor Div HQ	Mountain View, CA 94040
11236	Cts of Berne Inc	Berne, IN 46711
18178	Vactec Inc	Maryland Hgts, NO 63043
18324	Signetics Corp	Sunnyvale, CA 94086
19701	Mepco/Electra Corp	Mineral Wells, TX 76067
20932	Emcon Div ITW	San Diego, CA 92129
23936	Pamotor Div William J Purdy	Burlingame, CA 94010
24046	Transitron Electronic Corp	Wakefield, MA 01880
24355	Analog Devices Inc	Norwood, MA 02062
24546	Corning Glass Works (Bradford)	Bradford, PA 16701
26654	Varadyne Inc	Santa Monica, CA 90404
27014	National Semiconductor Corp	Santa Clara, CA 95051
28480	Hewlett-Packard Co Corporate HQ	Palo Alto, CA 94304
32997	Bourns Inc Trimpot Prod Div	Riverside, CA 92507
34371	Harris Semicon Div Harris-Intertype	Melbourne, FL 32901
50088	Mostek Corp	Carrollton, TX 75006
51642	Centre Engineering Inc	State College, PA 16801
52763	Stettner-Trush Inc	Cazenovia, NY 13035
54294	Cutler-Hammer-Inc Shallcross Mfg Co	Selma, NC 27576
56289	Sprague Electric Co	North Adams, MA 01247
72136	Electro Motive Corp Sub IEC	Willimantic, CT 06226
73138	Beckman Instruments Inc Helipot Div	Fullerton, CA 92634
74970	Johnson E F Co	Waseca, MN 56093
75042	TRW Inc Philadelphia Div	Philadelphia, PA 19108
75915	Littelfuse Inc	Des Plaines, IL 60016
82389	Switchcraft Inc	Chicago, IL 60630
91637	Dale Electronics Inc	Columbus, NE 68601

6-16. A metric nut that would fit a M3x.5x20PH screw would have a M3x.5 designation since that is all that is necessary to describe its pertinent dimensions.

6-17. The few exceptions to the "all-metric" configuration are listed in Table 6-4. Part numbers for metric screws and nuts are listed in Table 6-5.

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A1	03586-66501**	3	1	INPUT MULTIPLEXER (3586B) **DOES NOT INCLUDE ALUMINUM BOX, COVER, OR BOX-MOUNTED CONNECTORS UNDER THIS NUMBER.	28480	03586-66501
A1C1	0160-2199	2	2	CAPACITOR-FXD 30PF +-5% 300VDC MICA	28480	0160-2199
A1C2	0121-0114	5	1	CAPACITOR-V TRMR-CER 7-25PF 350V PC-MTG	52763	304322 7/25PF N300
A1C3	0160-2199	2		CAPACITOR-FXD 30PF +-5% 300VDC MICA	28480	0160-2199
A1C9	0160-0128	3	4	CAPACITOR-FXD 2.2UF +-20% 50VDC CER	28480	0160-0128
A1C10	0121-0162	3	1	CAPACITOR-V TRMR-ATR 1.2-3.5PF 350V	08590	10-1326-25004-910
A1C11	0160-0128	3		CAPACITOR-FXD 2.2UF +-20% 50VDC CER	28480	0160-0128
A1C12	0160-0128	3		CAPACITOR-FXD 2.2UF +-20% 50VDC CER	28480	0160-0128
A1C13	0160-0938	3	1	CAPACITOR-FXD 1000PF +-5% 100VDC MICA	28480	0160-0938
A1C20	0180-2735	4	2	CAPACITOR-FXD 100UF+100-10% 63VDC AL	28480	0180-2735
A1C21	0180-2735	4		CAPACITOR-FXD 100UF+100-10% 63VDC AL	28480	0180-2735
A1C22	0121-0178	1	1	CAPACITOR-V TRMR-CER 15-60PF 200V	52763	304322 15/60PF N1500
A1C23	0140-0197	4	1	CAPACITOR-FXD 180PF +-5% 300VDC MICA	72136	DM15F181J0300WV1CR
A1C31	0180-0228	6	1	CAPACITOR-FXD 22UF+-10% 15VDC TA	56289	150D226X9015B2
A1C32	0160-0134	1	1	CAPACITOR-FXD 220PF +-5% 300VDC MICA	28480	0160-0134
A1C33	0160-0128	3		CAPACITOR-FXD 2.2UF +-20% 50VDC CER	28480	0160-0128
A1C34	0160-0576	5	1	CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A1C35	0160-3879	7	1	CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A1J1	1250-1637	3	1	CONNECTOR-RF SM-SNP M SGL-HOLE-FR 75-OHM	28480	1250-1637
A1J2	1251-3192	1	1	CONNECTOR 3-PIN M POST TYPE	28480	1251-3192
A1J3	1250-1116	3	2	CONNECTOR-MINI WECO (3586B STANDARD)	28480	1250-1116
A1J3	1250-1053	7	2	CONNECTOR-WECO (3586B OPTION 001)	28480	1250-1053
A1J4	1251-5790	9	2	CONNECTOR-WECO 310	82389	M-114B
A1J5	1251-5790	9		CONNECTOR-WECO 310	82389	M-114B
A1J6	1250-1116	3		CONNECTOR-MINI WECO (3586B STANDARD)	28480	1250-1116
A1J6	1250-1053	7		CONNECTOR-WECO (3586B OPTION 001)	28480	1250-1053
A1K1	0490-1318	4	5	RELAY 2C 12VDC-COIL .5A 28VDC	28480	0490-1318
A1K2	0490-1318	4		RELAY 2C 12VDC-COIL .5A 28VDC	28480	0490-1318
A1K3	0490-1318	4		RELAY 2C 12VDC-COIL .5A 28VDC	28480	0490-1318
A1K4	0490-1318	4		RELAY 2C 12VDC-COIL .5A 28VDC	28480	0490-1318
A1K5	0490-1318	4		RELAY 2C 12VDC-COIL .5A 28VDC	28480	0490-1318
A1L1	9140-0422	7	1	INDUCTOR-FIXED #28 AWG, 7-1/2 TURNS	28480	9140-0422
A1L11	9100-1625	0	1	INDUCTOR RF-CH-MLD 33UH 5% .166DX.385LG	28480	9100-1625
A1L12	9100-3294	3	1	INDUCTOR; VAR; 10.5 TURNS; BLK	28480	9100-3294
A1L13	9140-0421	6	1	INDUCTOR-FIXED #30 AWG, 15-1/2 TURNS	28480	9140-0421
A1L20	9100-1626	1	2	INDUCTOR RF-CH-MLD 36UH 5% .166DX.385LG	28480	9100-1626
A1L21	9100-1626	1		INDUCTOR RF-CH-MLD 36UH 5% .166DX.385LG	28480	9100-1626
A1L31	9140-0210	1	1	INDUCTOR RF-CH-MLD 100UH 5% .166DX.385LG	28480	9140-0210
A1R1	0698-7363	1	1	RESISTOR 75 .1% .125W F TC=0+-50	19701	MF4C1/8-T2-75R0-B
A1R2	0698-8154	0	1	RESISTOR 75 .1% 1W F TC=0+-25	07716	BR5-1-T9-75R0-B
A1R3	0757-0442	9	1	RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A1R4	0698-4351	1	2	RESISTOR 10.5 1% .125W F TC=0+-100	03888	PME55-108-T0-10R5-F
A1R5	0698-4351	1		RESISTOR 10.5 1% .125W F TC=0+-100	03888	PME55-108-T0-10R5-F
A1R6	0698-4350	0	2	RESISTOR 10.2 1% .125W F TC=0+-100	03888	PME55-1/8-T0-10R2-F
A1R7	0698-3510	2	1	RESISTOR 453 1% .125W F TC=0+-100	24546	C4-1/8-T0-453R-F
A1R8	0698-4350	0		RESISTOR 10.2 1% .125W F TC=0+-100	03888	PME55-1/8-T0-10R2-F
A1R10	0757-0381	5	4	RESISTOR 15 1% .125W F TC=0+-100	19701	MF4C1/8-T0-15R0-F
A1R11	0757-0381	5		RESISTOR 15 1% .125W F TC=0+-100	19701	MF4C1/8-T0-15R0-F
A1R12	0757-0381	5		RESISTOR 15 1% .125W F TC=0+-100	19701	MF4C1/8-T0-15R0-F
A1R13	0757-0381	5		RESISTOR 15 1% .125W F TC=0+-100	19701	MF4C1/8-T0-15R0-F
A1R14	0757-0274	5	1	RESISTOR 1.21K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1211-F
A1R15	2100-3211	7	1	RESISTOR-TRMR 1K 10% C TOP-ADJ 1-TRN	28480	2100-3211
A1R16	0757-0801	4	1	RESISTOR 150 1% .5W F TC=0+-100	28480	0757-0801
A1R17	0757-0398	4	1	RESISTOR 75 1% .125W F TC=0+-100	24546	C4-1/8-T0-75R0-F
A1R21	0698-4450	1	2	RESISTOR 324 1% .125W F TC=0+-100	24546	C4-1/8-T0-324R-F
A1R22	0683-1055	5	3	RESISTOR 1M 5% .25W FC TC=-800/+900	01121	CB1055
A1R23	0698-4450	1		RESISTOR 324 1% .125W F TC=0+-100	24546	C4-1/8-T0-324R-F
A1R24	0683-1055	5		RESISTOR 1M 5% .25W FC TC=-800/+900	01121	CB1055
A1R25	0683-1055	5		RESISTOR 1M 5% .25W FC TC=-800/+900	01121	CB1055
A1R26	0698-3226	7	1	RESISTOR 6.49K 1% .125W F TC=0+-100	24546	C4-1/8-T0-6491-F
A1R27	0698-3382	6	1	RESISTOR 5.49K 1% .125W F TC=0+-100	24546	C4-1/8-T0-5491-F
A1R31	0683-4725	2	1	RESISTOR 4.7K 5% .25W FC TC=-400/+700	01121	CB4725
A1R32	0683-1015	7	1	RESISTOR 100 5% .25W FC TC=-400/+500	01121	CB1015
A1R33	0811-3079	0	1	RESISTOR .51 5% .5W PW TC=0+-300	75042	BW20-1/2-33/64-J
A1T10	9100-0471	2	1	TRANSFORMER BALUN, 11 TURNS BIFILAR	28480	9100-0471
A1T11	9100-0473	4	1	TRANSFORMER 150 OHM BALUN, 21 TURNS	28480	9100-0473
A1T20	9100-0459	6	1	TRANSFORMER-AUDIO IND PRI 7-8 12 MY @	28480	9100-0459
A1U31	1820-1433	6	1	IC SHF-RGTR TTL LS R-S SERIAL-IN PRL-OUT	01295	SN74LS164N
A1U32	1858-0047	5	1	TRANSISTOR ARRAY 16-PIN PLSTC DIP	13606	ULN-2003A
	1200-0607	0	1	SOCKET-IC 16-CONT DIP DIP-SLDR	28480	1200-0607

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A1	03586-66506**	8	1	INPUT MULTIPLEXER (3586A) **DOES NOT INCLUDE ALUMINUM BOX, COVER, OR BOX-MOUNTED CONNECTORS UNDER THIS NUMBER.	28480	03586-66506
A1C1	0160-2199	2	2	CAPACITOR-FXD 30PF +-5% 300VDC MICA	28480	0160-2199
A1C2	0121-0114	5	1	CAPACITOR-V TRMR-CER 7-25PF 350V PC-MTG	52763	304322 7/25PF N300
A1C3	0160-2199	2		CAPACITOR-FXD 30PF +-5% 300VDC MICA	28480	0160-2199
A1C11	0160-0128	3	3	CAPACITOR-FXD 2.2UF +-20% 50VDC CER	28480	0160-0128
A1C12	0160-0128	3		CAPACITOR-FXD 2.2UF +-20% 50VDC CER	28480	0160-0128
A1C13	0160-2222	2	1	CAPACITOR-FXD 1500PF +-5% 300VDC MICA	28480	0160-2222
A1C20	0180-2735	4	2	CAPACITOR-FXD 100UF+100-10% 63VDC AL	28480	0180-2735
A1C21	0180-2735	4		CAPACITOR-FXD 100UF+100-10% 63VDC AL	28480	0180-2735
A1C22	0121-0178	1	1	CAPACITOR-V TRMR-CER 15-60PF 200V	52763	304322 15/60PF N1500
A1C23	0140-0198	5	1	CAPACITOR-FXD 200PF +-5% 300VDC MICA	72136	DM15F201J0300WV1CR
A1C31	0180-0228	6	1	CAPACITOR-FXD 22UF+-10% 15VDC TA	56289	150D226X9015B2
A1C32	0160-0134	1	1	CAPACITOR-FXD 220PF +-5% 300VDC MICA	28480	0160-0134
A1C33	0160-0128	3		CAPACITOR-FXD 2.2UF +-20% 50VDC CER	28480	0160-0128
A1C34	0160-0576	5	1	CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A1C35	0160-3879	7	1	CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A1J1	1250-1637	3	1	CONNECTOR-RF SM-SNP M SGL-HOLE-FR 75-OHM	28480	1250-1637
A1J2	1251-3192	1	1	CONNECTOR 3-PIN M POST TYPE	28480	1251-3192
A1J3	1250-1676	0	1	CONNECTOR-BNC (3586A STANDARD)	28480	1250-1676
A1J3	1250-1076	4	1	CONNECTOR-SIEMENS (3586A OPTION 001)	28480	1250-1076
A1J4	1251-5586	1	2	JACK-BNA TRIPLE BLK SLDR-LUG-TERM	28480	1251-5586
A1J5	1251-5586	1		JACK-BNA TRIPLE BLK SLDR-LUG-TERM	28480	1251-5586
A1K1	0490-1318	4	5	RELAY 2C 12VDC-COIL .5A 28VDC	28480	0490-1318
A1K2	0490-1318	4		RELAY 2C 12VDC-COIL .5A 28VDC	28480	0490-1318
A1K3	0490-1318	4		RELAY 2C 12VDC-COIL .5A 28VDC	28480	0490-1318
A1K4	0490-1318	4		RELAY 2C 12VDC-COIL .5A 28VDC	28480	0490-1318
A1K5	0490-1318	4		RELAY 2C 12VDC-COIL .5A 28VDC	28480	0490-1318
A1L1	9140-0422	7	1	INDUCTOR-FIXED #28 AWG, 7-1/2 TURNS	28480	9140-0422
A1L12	9100-3294	3	1	INDUCTOR; VAR; 10.5 TURNS; BLK	28480	9100-3294
A1L20	9100-1626	1	2	INDUCTOR RF-CH-MLD 36UH 5% .166DX.385LG	28480	9100-1626
A1L21	9100-1626	1		INDUCTOR RF-CH-MLD 36UH 5% .166DX.385LG	28480	9100-1626
A1L31	9100-1618	1	1	INDUCTOR RF-CH-MLD 5.6UH 10%	28480	9100-1618
A1R1	0698-7363	1	1	RESISTOR 75 .1% .125W F TC=0+-50	19701	MF4C1/8-T2-75R0-B
A1R2	0698-8154	0	1	RESISTOR 75 .1% 1W F TC=0+-25	07716	BR5-1-T9-75R0-B
A1R3	0757-0442	9	1	RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A1R10	0757-0291	6	2	RESISTOR 24.9 1% .125W F TC=0+-100	19701	MF4C1/8-T0-2492-F
A1R11	0757-0291	6		RESISTOR 24.9 1% .125W F TC=0+-100	19701	MF4C1/8-T0-2492-F
A1R14	0698-3122	2	1	RESISTOR 412 1% .125W F TC=0+-100	03888	PME55-1/8-T0-4120-F
A1R15	2100-3383	4	1	RESISTOR-TRMR 50 10% C TOP-ADJ 1-TRN	28480	2100-3383
A1R16	0757-0801	4	1	RESISTOR 150 1% .5W F TC=0+-100	28480	0757-0801
A1R17	0757-0398	4	1	RESISTOR 75 1% .125W F TC=0+-100	24546	C4-1/8-T0-75R0-F
A1R21	0698-4450	1	2	RESISTOR 324 1% .125W F TC=0+-100	24546	C4-1/8-T0-324R-F
A1R22	0683-1055	5	3	RESISTOR 1M 5% .25W FC TC=-800/+900	01121	CB1055
A1R23	0698-4450	1		RESISTOR 324 1% .125W F TC=0+-100	24546	C4-1/8-T0-324R-F
A1R24	0683-1055	5		RESISTOR 1M 5% .25W FC TC=-800/+900	01121	CB1055
A1R25	0683-1055	5		RESISTOR 1M 5% .25W FC TC=-800/+900	01121	CB1055
A1R26	0698-3226	7	1	RESISTOR 6.49K 1% .125W F TC=0+-100	24546	C4-1/8-T0-6491-F
A1R27	0698-3382	6	1	RESISTOR 5.49K 1% .125W F TC=0+-100	24546	C4-1/8-T0-5491-F
A1R31	0683-4725	2	1	RESISTOR 4.7K 5% .25W FC TC=-400/+700	01121	CB4725
A1R32	0683-1015	7	1	RESISTOR 100 5% .25W FC TC=-400/+500	01121	CB1015
A1R33	0811-3079	0	1	RESISTOR .51 5% .5W PW TC=0+-300	75042	BW20-1/2-33/64-J
A1T10	9100-0471	2	1	TRANSFORMER BALUN, 11 TURNS BIFILAR	28480	9100-0471
A1T11	9100-0473	4	1	TRANSFORMER 150 OHM BALUN, 21 TURNS	28480	9100-0473
A1T20	9100-0459	6	1	TRANSFORMER-AUDIO IND PINS 7-8 12 HY @	28480	9100-0459
A1U31	1820-1433	6	1	IC SHF-RGTR TTL LS R-S SERIAL-IN PRL-OUT	01295	SN74LS164N
A1U32	1858-0047	5	1	TRANSISTOR ARRAY 16-PIN PLSTC DIP	13606	ULN-2003A
	1200-0607	0	1	SOCKET-IC 16-CONT DIP DIP-SLDR	28480	1200-0607

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A1	03586-66507**	9	1	INPUT MULTIPLEXER (3586C) **DOES NOT INCLUDE ALUMINUM BOX, COVER, OR BOX-MOUNTED CONNECTORS UNDER THIS NUMBER.	28480	03586-66507
A1C1	0160-2199	2	2	CAPACITOR-FXD 30PF +-5% 300VDC MICA	28480	0160-2199
A1C2	0121-0114	5	1	CAPACITOR-V TRMR-CER 7-25PF 350V PC-MTG	52763	304322 7/25PF N300
A1C3	0160-2199	2		CAPACITOR-FXD 30PF +-5% 300VDC MICA	28480	0160-2199
A1C4	0121-0451	3	1	CAPACITOR-V TRMR-AIR 1.7-11PF 175V	74970	187-0106-028
A1C20	0180-2735	4	2	CAPACITOR-FXD 100UF+100-10% 63VDC AL	28480	0180-2735
A1C21	0180-2735	4		CAPACITOR-FXD 100UF+100-10% 63VDC AL	28480	0180-2735
A1C22	0121-0170	1	1	CAPACITOR-V TRMR-CER 15 60PF 200V	52763	304322 15/60PF N1500
A1C23	0140-0198	5	1	CAPACITOR-FXD 200PF +-5% 300VDC MICA	72136	DM15F201J0300WV1CR
A1C31	0180-0228	6	1	CAPACITOR-FXD 22UF+-10% 15VDC TA	56289	150D226X9015B2
A1C32	0160-0134	1	1	CAPACITOR-FXD 220PF +-5% 300VDC MICA	28480	0160-0134
A1C33	0160-0128	3	1	CAPACITOR-FXD 2.2UF +-20% 50VDC CER	28480	0160-0128
A1C34	0160-0576	5	1	CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A1C35	0160-3847	9	2	CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A1C36	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A1J1	1250-1637	3	1	CONNECTOR-RF SM-SNP M SGL-HOLE-FR 75-OHM	28480	1250-1637
A1J2	1251-3192	1	1	CONNECTOR 3-PIN M POST TYPE	28480	1251-3192
A1J3	1250-1676	0	1	CONNECTOR-RF BNC M SPCL-MTG 75-OHM	28480	1250-1676
A1J4	1510-0542	9	1	BINDING POST-BLACK	28480	1510-0542
A1J4	1510-0543	0	1	BINDING POST, RED	28480	1510-0543
A1K1	0490-1318	4	5	RELAY 2C 12VDC-COIL .5A 28VDC	28480	0490-1318
A1K2	0490-1318	4		RELAY 2C 12VDC-COIL .5A 28VDC	28480	0490-1318
A1K3	0490-1318	4		RELAY 2C 12VDC-COIL .5A 28VDC	28480	0490-1318
A1K4	0490-1318	4		RELAY 2C 12VDC-COIL .5A 28VDC	28480	0490-1318
A1K5	0490-1318	4		RELAY 2C 12VDC-COIL .5A 28VDC	28480	0490-1318
A1L1	9140-0437	4	1	COIL, VARIABLE	28480	9140-0437
A1L2	9140-0422	7	1	INDUCTOR-FIXED #28 AWG, 7-1/2 TURNS	28480	9140-0422
A1L20	9100-1626	1	2	INDUCTOR RF-CH-MLD 36UH 5% .166DX.385LG	28480	9100-1626
A1L21	9100-1626	1		INDUCTOR RF-CH-MLD 36UH 5% .166DX.385LG	28480	9100-1626
A1L31	9100-1618	1	1	INDUCTOR RF-CH-MLD 5.6UH 10%	28480	9100-1618
A1R1	0757-0284	7	1	RESISTOR 150 1% .125W F TC=0+-100	24546	C4-1/8-T0-151-F
A1R2	0698-7363	1	1	RESISTOR 75 .1% .125W F TC=0+-50	19701	MF4C1/8-T2-75R0-B
A1R3	0757-0442	9	1	RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A1R4	0698-8154	0	1	RESISTOR 75 .1% 1W F TC=0+-25	07716	BR5-1-T9-75R0-B
A1R21	0698-4450	1	2	RESISTOR 324 1% .125W F TC=0+-100	24546	C4-1/8-T0-324R-F
A1R22	0683-1055	5	3	RESISTOR 1M 5% .25W FC TC=-800/+900	01121	CB1055
A1R23	0698-4450	1		RESISTOR 324 1% .125W F TC=0+-100	24546	C4-1/8-T0-324R-F
A1R24	0683-1055	5		RESISTOR 1M 5% .25W FC TC=-800/+900	01121	CB1055
A1R25	0683-1055	5		RESISTOR 1M 5% .25W FC TC=-800/+900	01121	CB1055
A1R26	0698-3226	7	1	RESISTOR 6.49K 1% .125W F TC=0+-100	24546	C4-1/8-T0-6491-F
A1R27	0698-3250	5	1	RESISTOR 5.36K 1% .125W F TC=0+-100	24546	C4-1/8-T0-5361-F
A1R28	2100-3212	8	1	RESISTOR-TRMR 200 10% C TOP-ADJ 1-TRN	28480	2100-3212
A1R31	0683-4725	2	1	RESISTOR 4.7K 5% .25W FC TC=-400/+700	01121	CB4725
A1R32	0683-1015	7	1	RESISTOR 100 5% .25W FC TC=-400/+500	01121	CB1015
A1R33	0811-3079	0	1	RESISTOR .51 5% .5W PW TC=0+-300	75042	BW20-1/2-33/64-J
A1T20	9100-0459	6	1	TRANSFORMER-AUDIO IND PINS 7-8 12 HY @	28480	9100-0459
A1U31	1820-1433	6	1	IC SHF-RGTR TTL LS R-S SERIAL-IN PRL-OUT	01295	SN74LS164N
A1U32	1858-0047	5	1	TRANSISTOR ARRAY 16-PIN PLSTC DIP	13606	ULN-2003A

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A2	03586-66502	4	1	INPUT AMPLIFIER (3586A/B)	28480	03586-66502
A2C1	0160-0128	3	10	CAPACITOR-FXD 2.2UF +-20% 50VDC CER	28480	0160-0128
A2C2	0160-0128	3		CAPACITOR-FXD 2.2UF +-20% 50VDC CER	28480	0160-0128
A2C3	0160-2241	5	1	CAPACITOR-FXD 2.2PF +-.25PF 500VDC CER	28480	0160-2241
A2C4	0121-0451	3	2	CAPACITOR-V TRMR-AIR 1.7-11PF 175V	74970	187-0106-028
A2C5	0121-0178	1	1	CAPACITOR-V TRMR-CER 15-60PF 200V	52763	304322 15/60PF N1500
A2C6	0160-4802	8	1	CAPACITOR-FXD 82PF +-5% 100VDC CER 0+-30	28480	0160-4802
A2C7	0121-0455	7	2	CAPACITOR-V TRMR-AIR 1.9-15.7PF 175V	74970	187-0109-028
A2C8	0160-0576	5	12	CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A2C10	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A2C11	0160-5348	9	1	CAPACITOR-FXD 51PF +-5% 100VDC CER 0+-30	28480	0160-5348
A2C12	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A2C13	0180-0229	7	2	CAPACITOR-FXD 33UF+-10% 10VDC TA	56289	150D336X9010B2
A2C14	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A2C15	0180-0106	9	2	CAPACITOR-FXD 60UF+-20% 6VDC TA	56289	150D606X0006B2
A2C16	0160-5350	3	1	CAPACITOR-FXD 300PF +-5% 100VDC CER	28480	0160-5350
A2C17	0160-4823	3	1	CAPACITOR-FXD 820PF +-5% 100VDC CER	28480	0160-4823
A2C20	0160-3874	2	2	CAPACITOR-FXD 10PF +-.5PF 200VDC CER	28480	0160-3874
A2C21	0160-3872	0	2	CAPACITOR-FXD 2.2PF +-.25PF 200VDC CER	28480	0160-3872
A2C22	0160-0128	3		CAPACITOR-FXD 2.2UF +-20% 50VDC CER	28480	0160-0128
A2C23	0160-3874	2		CAPACITOR-FXD 10PF +-.5PF 200VDC CER	28480	0160-3874
A2C24	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A2C25	0180-0229	7		CAPACITOR-FXD 33UF+-10% 10VDC TA	56289	150D336X9010B2
A2C26	0160-3872	0		CAPACITOR-FXD 2.2PF +-.25PF 200VDC CER	28480	0160-3872
A2C30	0180-0106	9		CAPACITOR-FXD 60UF+-20% 6VDC TA	56289	150D606X0006B2
A2C31	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A2C32	0121-0451	3		CAPACITOR-V TRMR-AIR 1.7-11PF 175V	74970	187-0106-028
A2C33	0121-0455	7		CAPACITOR-V TRMR-AIR 1.9-15.7PF 175V	74970	187-0109-028
A2C40	0160-0128	3		CAPACITOR-FXD 2.2UF +-20% 50VDC CER	28480	0160-0128
A2C41	0160-0128	3		CAPACITOR-FXD 2.2UF +-20% 50VDC CER	28480	0160-0128
A2C42	0180-0228	6	4	CAPACITOR-FXD 22UF+-10% 15VDC TA	56289	150D226X9015B2
A2C43	0160-0128	3		CAPACITOR-FXD 2.2UF +-20% 50VDC CER	28480	0160-0128
A2C44	0160-3879	7	1	CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A2C45	0160-0128	3		CAPACITOR-FXD 2.2UF +-20% 50VDC CER	28480	0160-0128
A2C46	0160-0128	3		CAPACITOR-FXD 2.2UF +-20% 50VDC CER	28480	0160-0128
A2C47	0180-0228	6		CAPACITOR-FXD 22UF+-10% 15VDC TA	56289	150D226X9015B2
A2C60	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A2C61	0180-1746	5	2	CAPACITOR-FXD 15UF+-10% 20VDC TA	56289	150D156X9020B2
A2C62	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A2C63	0180-1746	5		CAPACITOR-FXD 15UF+-10% 20VDC TA	56289	150D156X9020B2
A2C64	0160-0128	3		CAPACITOR-FXD 2.2UF +-20% 50VDC CER	28480	0160-0128
A2C65	0180-0228	6		CAPACITOR-FXD 22UF+-10% 15VDC TA	56289	150D226X9015B2
A2C66	0180-0228	6		CAPACITOR-FXD 22UF+-10% 15VDC TA	56289	150D226X9015B2
A2C67	0160-0128	3		CAPACITOR-FXD 2.2UF +-20% 50VDC CER	28480	0160-0128
A2C80	0160-4557	0	2	CAPACITOR-FXD .1UF +-20% 50VDC CER	16299	CAC04X7R104M050A
A2C81	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A2C82	0160-5349	0	1	CAPACITOR-FXD 200PF +-5% 100VDC CER	28480	0160-5349
A2C85	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A2C86	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A2C87	0160-3847	9	1	CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A2C90	0160-4557	0		CAPACITOR-FXD .1UF +-20% 50VDC CER	16299	CAC04X7R104M050A
A2C100	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A2CR1	1901-0025	2	8	DIODE-GEN PRP 100V 200MA DO-7	28480	1901-0025
A2CR2	1901-0025	2		DIODE-GEN PRP 100V 200MA DO-7	28480	1901-0025
A2CR3	1901-0025	2		DIODE-GEN PRP 100V 200MA DO-7	28480	1901-0025
A2CR4	1901-0025	2		DIODE-GEN PRP 100V 200MA DO-7	28480	1901-0025
A2CR5	1901-0025	2		DIODE-GEN PRP 100V 200MA DO-7	28480	1901-0025
A2CR6	1901-0025	2		DIODE-GEN PRP 100V 200MA DO-7	28480	1901-0025
A2CR7	1902-0777	3	1	DIODE-ZNR 1N825 6.2V 5% DO-7 PD=.4W	04713	1N825
A2CR8	1901-0025	2		DIODE-GEN PRP 100V 200MA DO-7	28480	1901-0025
A2CR9	1901-0025	2		DIODE-GEN PRP 100V 200MA DO-7	28480	1901-0025
A2J1	1250-1637	3	2	CONNECTOR-RF SM-SNP M SGL-HOLE-FR 75-OHM	28480	1250-1637
A2J2	1250-1637	3		CONNECTOR-RF SM-SNP M SGL-HOLE-FR 75-OHM	28480	1250-1637
A2J3	1250-1512	3	1	CONNECTOR-RF SMB M PC 50-OHM	28480	1250-1512
A2K1	0490-1318	4	3	RELAY 2C 12VDC-COIL .5A 28VDC	28480	0490-1318
A2K2	0490-1318	4		RELAY 2C 12VDC-COIL .5A 28VDC	28480	0490-1318
A2K3	0490-1318	4		RELAY 2C 12VDC-COIL .5A 28VDC	28480	0490-1318
A2K4	0490-1221	8	1	RELAY-REED 1A 500MA 200VDC 12VDC-COIL	28480	0490-1221
A2L1	9100-2486	3	1	INDUCTOR RF-CH-MLD 330NH 5% .166DX.385LG	28480	9100-2486
A2L3	9140-0265	6	1	INDUCTOR RF-CH-MLD 1.6UH 5% .166DX.385LG	28480	9140-0265
A2L4	9100-1618	1	5	INDUCTOR RF-CH-MLD 5.6UH 10%	28480	9100-1618
A2L5	9100-1618	1		INDUCTOR RF-CH-MLD 5.6UH 10%	28480	9100-1618
A2L6	9100-1618	1		INDUCTOR RF-CH-MLD 5.6UH 10%	28480	9100-1618

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A2L7	9100-1618	1		INDUCTOR RF-CH-MLD 5.6UH 10%	28480	9100-1618
A2L8	9100-1618	1		INDUCTOR RF-CH-MLD 5.6UH 10%	28480	9100-1618
A2Q1	1855-0410	0	1	TRANSISTOR J-FET N-CHAN D-MODE TO-18 SI	28480	1855-0410
A2Q1	9170-0894	0		CORE-SHIELDING BEAD	28480	9170-0894
A2Q2	1853-0354	7	5	TRANSISTOR PNP SI TO-92 PD=350MW	28480	1853-0354
A2Q3	1854-0305	0	2	TRANSISTOR NPN SI TO-18 PD=400MW	28480	1854-0305
A2Q4	1853-0354	7		TRANSISTOR PNP SI TO-92 PD=350MW	28480	1853-0354
A2Q5	1853-0354	7		TRANSISTOR PNP SI TO-92 PD=350MW	28480	1853-0354
A2Q6	1854-0305	0		TRANSISTOR NPN SI TO-18 PD=400MW	28480	1854-0305
A2Q7	1854-0092	2	1	TRANSISTOR NPN SI PD=200MW FT=600MHZ	28480	1854-0092
A2Q10	1854-0795	2	3	TRANSISTOR NPN SI TO-92 PD=625MW	04713	MPSH10
A2Q11	1854-0795	2		TRANSISTOR NPN SI TO-92 PD=625MW	04713	MPSH10
A2Q12	1854-0795	2		TRANSISTOR NPN SI TO-92 PD=625MW	04713	MPSH10
A2Q13	1853-0354	7		TRANSISTOR PNP SI TO-92 PD=350MW	28480	1853-0354
A2Q14	1853-0354	7		TRANSISTOR PNP SI TO-92 PD=350MW	28480	1853-0354
A2Q20	1853-0051	1	1	TRANSISTOR PNP 2N4037 SI TO-5 PD=1W	3L585	2N4037
A2Q21	1854-0039	7	1	TRANSISTOR NPN 2N3053S SI TO-39 PD=1W	3L585	2N3053S
A2R1	0698-3438	3	1	RESISTOR 147 1% .125W F TC=0+-100	24546	C4-1/8-T0-147R-F
A2R2	0699-0057	8	1	RESISTOR 9K .1% .1W F TC=0+-5	28480	0699-0057
A2R3	0698-5453	6	1	RESISTOR 900 .1% .125W F TC=0+-50	03888	PME55 T-2-900R-B
A2R4	0698-7448	3	1	RESISTOR 100 .1% .25W F TC=0+-25	19701	MF52C1/4-T9-100R-B
A2R5	2100-3212	8	1	RESISTOR-TRMR 200 10% C TOP-ADJ 1-TRN	28480	2100-3212
A2R10	0683-1005	5	1	RESISTOR 10 5% .25W FC TC=-400/+500	01121	CB1005
A2R11	0757-0275	6	1	RESISTOR 113 1% .125W F TC=0+-100	24546	C4-1/8-T0-113R-F
A2R12	2100-3103	6	1	RESISTOR-TRMR 10K 10% C SIDE-ADJ 17-TRN	02111	43P103
A2R13	0698-4421	6	2	RESISTOR 249 1% .125W F TC=0+-100	24546	C4-1/8-T0-249R-F
A2R14	0757-0439	4	2	RESISTOR 6.81K 1% .125W F TC=0+-100	24546	C4-1/8-T0-6811-F
A2R15	0683-3055	9	1	RESISTOR 3M 5% .25W FC TC=-900/+1100	01121	CB3055
A2R16	0757-0402	1	1	RESISTOR 110 1% .125W F TC=0+-100	24546	C4-1/8-T0-111-F
A2R17	0757-0465	6	2	RESISTOR 100K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1003-F
A2R18	0757-0465	6		RESISTOR 100K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1003-F
A2R19	0757-0438	3	4	RESISTOR 5.11K 1% .125W F TC=0+-100	24546	C4-1/8-T0-5111-F
A2R20	0757-0438	3		RESISTOR 5.11K 1% .125W F TC=0+-100	24546	C4-1/8-T0-5111-F
A2R30	0683-4705	8	8	RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A2R31	0698-4374	8	2	RESISTOR 29.4 1% .125W F TC=0+-100	03888	PME55-1/8-T0-29R4-F
A2R32	0698-4386	2	1	RESISTOR 59 1% .125W F TC=0+-100	24546	C4-1/8-T0-59R0-F
A2R33	0698-4374	0		RESISTOR 29.4 1% .125W F TC=0+-100	03888	PME55-1/8-T0-29R4-F
A2R34	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A2R35	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A2R36	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A2R37	0757-0437	2	1	RESISTOR 4.75K 1% .125W F TC=0+-100	24546	C4-1/8-T0-4751-F
A2R38	0698-3178	8	1	RESISTOR 487 1% .125W F TC=0+-100	24546	C4-1/8-T0-487R-F
A2R39	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A2R40	0757-0346	2	3	RESISTOR 10 1% .125W F TC=0+-100	24546	C4-1/8-T0-10R0-F
A2R41	0757-0403	2	1	RESISTOR 121 1% .125W F TC=0+-100	24546	C4-1/8-T0-121R-F
A2R42	0757-0346	2		RESISTOR 10 1% .125W F TC=0+-100	24546	C4-1/8-T0-10R0-F
A2R49	0757-0424	7	1	RESISTOR 1.1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1101-F
A2R50	0698-4421	6		RESISTOR 249 1% .125W F TC=0+-100	24546	C4-1/8-T0-249R-F
A2R51	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A2R52	0698-4445	4	1	RESISTOR 5.76K 1% .125W F TC=0+-100	24546	C4-1/8-T0-5761-F
A2R53	0757-0439	4		RESISTOR 6.81K 1% .125W F TC=0+-100	24546	C4-1/8-T0-6811-F
A2R54	0698-3122	2	1	RESISTOR 412 1% .125W F TC=0+-100	03888	PME55-1/8-T0-4120-F
A2R55	0698-3488	3	1	RESISTOR 442 1% .125W F TC=0+-100	24546	C4-1/8-T0-422R-F
A2R56	0757-0280	3	3	RESISTOR 1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1001-F
A2R57	0683-3625	9	1	RESISTOR 3.6K 5% .25W FC TC=-400/+700	01121	CB3625
A2R58	0683-1525	4	1	RESISTOR 1.5K 5% .25W FC TC=-400/+700	01121	CB1525
A2R60	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A2R61	0698-4484	1	2	RESISTOR 19.1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1912-F
A2R62	0757-0280	3		RESISTOR 1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1001-F
A2R63	0683-1015	7	3	RESISTOR 100 5% .25W FC TC=-400/+500	01121	CB1015
A2R64	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A2R65	0698-4450	1	2	RESISTOR 324 1% .125W F TC=0+-100	24546	C4-1/8-T0-324R-F
A2R66	0698-3518	0	2	RESISTOR 7.32K 1% .125W F TC=0+-100	24546	C4-1/8-T0-7321-F
A2R67	0757-0421	4	2	RESISTOR 825 1% .125W F TC=0+-100	24546	C4-1/8-T0-825R-F
A2R68	0698-4402	3	2	RESISTOR 97.6 1% .125W F TC=0+-100	24546	C4-1/8-T0-97R6-F
A2R69	0698-3518	0		RESISTOR 7.32K 1% .125W F TC=0+-100	24546	C4-1/8-T0-7321-F
A2R79	0757-0421	4		RESISTOR 825 1% .125W F TC=0+-100	24546	C4-1/8-T0-825R-F
A2R80	0698-4381	7	1	RESISTOR 48.7 1% .125W F TC=0+-100	24546	C4-1/8-T0-48R7-F
A2R81	0698-4402	3		RESISTOR 97.6 1% .125W F TC=0+-100	24546	C4-1/8-T0-97R6-F
A2R82	0698-4484	1		RESISTOR 19.1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1912-F
A2R83	0757-0280	3		RESISTOR 1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1001-F
A2R84	0683-1015	7		RESISTOR 100 5% .25W FC TC=-400/+500	01121	CB1015
A2R85	0683-2425	5	1	RESISTOR 2.4K 5% .25W FC TC=-400/+700	01121	CB2425
A2R86	0698-4450	1		RESISTOR 324 1% .125W F TC=0+-100	24546	C4-1/8-T0-324R-F
A2R100	0683-5115	6	2	RESISTOR 510 5% .25W FC TC=-400/+600	01121	CB5115
A2R101	0683-0475	1	1	RESISTOR 4.7 5% .25W FC TC=-400/+500	01121	CB47G5
A2R102	0683-2025	1	2	RESISTOR 2K 5% .25W FC TC=-400/+700	01121	CB2025

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A2R103	0757-0420	3	1	RESISTOR 750 1% .125W F TC=0+-100	24546	C4-1/8-T0-751-F
A2R104	0757-0416	7	1	RESISTOR 511 1% .125W F TC=0+-100	24546	C4-1/8-T0-511R-F
A2R105	2100-3350	5	1	RESISTOR-TRMR 200 10% C SIDE-ADJ 1-TRN	28480	2100-3350
A2R106	0698-3223	4	1	RESISTOR 1.24K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1241-F
A2R107	0757-0438	3		RESISTOR 5.11K 1% .125W F TC=0+-100	24546	C4-1/8-T0-5111-F
A2R108	0757-0438	3		RESISTOR 5.11K 1% .125W F TC=0+-100	24546	C4-1/8-T0-5111-F
A2R109	0683-0625	3	3	RESISTOR 6.2 5% .25W FC TC=-400/+500	01121	CB62G5
A2R110	0683-5115	6		RESISTOR 510 5% .25W FC TC=-400/+600	01121	CB5115
A2R111	0683-2025	1		RESISTOR 2K 5% .25W FC TC=-400/+700	01121	CB2025
A2R112	0683-1035	1	3	RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A2R113	0683-0625	3		RESISTOR 6.2 5% .25W FC TC=-400/+500	01121	CB62G5
A2R114	0683-0625	3		RESISTOR 6.2 5% .25W FC TC=-400/+500	01121	CB62G5
A2R120	0683-4715	0	4	RESISTOR 470 5% .25W FC TC=-400/+600	01121	CB4715
A2R121	0683-4715	0		RESISTOR 470 5% .25W FC TC=-400/+600	01121	CB4715
A2R122	0683-4715	0		RESISTOR 470 5% .25W FC TC=-400/+600	01121	CB4715
A2R123	0683-4715	0		RESISTOR 470 5% .25W FC TC=-400/+600	01121	CB4715
A2R125	0683-4725	2	5	RESISTOR 4.7K 5% .25W FC TC=-400/+700	01121	CB4725
A2R126	0683-4725	2		RESISTOR 4.7K 5% .25W FC TC=-400/+700	01121	CB4725
A2R127	0683-1015	7		RESISTOR 100 5% .25W FC TC=-400/+500	01121	CB1015
A2R130	0683-4725	2		RESISTOR 4.7K 5% .25W FC TC=-400/+700	01121	CB4725
A2R131	0683-4725	2		RESISTOR 4.7K 5% .25W FC TC=-400/+700	01121	CB4725
A2R132	0683-4725	2		RESISTOR 4.7K 5% .25W FC TC=-400/+700	01121	CB4725
A2R133	0683-1025	9	1	RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A2R140	0683-1835	1		RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A2R141	0683-1035	1		RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A2R142	0683-0335	2	4	RESISTOR 3.3 5% .25W FC TC=-400/+500	01121	CB33G5
A2R143	0683-0335	2		RESISTOR 3.3 5% .25W FC TC=-400/+500	01121	CB33G5
A2R144	0683-0335	2		RESISTOR 3.3 5% .25W FC TC=-400/+500	01121	CB33G5
A2R145	0683-0335	2		RESISTOR 3.3 5% .25W FC TC=-400/+500	01121	CB33G5
A2R150	0757-0277	8	1	RESISTOR 49.9 1% .125W F TC=0+-100	24546	C4-1/8-T0-49R9-F
A2R151	0757-0346	2		RESISTOR 10 1% .125W F TC=0+-100	24546	C4-1/8-T0-10R0-F
A2U1	1826-0111	7	2	IC OP AMP GP DUAL TO-99 PKG	3L585	CA1458T
A2U2	1826-0111	7		IC OP AMP GP DUAL TO-99 PKG	3L585	CA1458T
A2U3	1858-0047	5	1	TRANSISTOR ARRAY 16-PIN PLSTC DIP	13606	ULN-2003A
A2U4	1820-1730	6	1	IC FF TTL LS D-TYPE POS-EDGE-TRIG COM	01295	SN74LS273N
A2U5	1820-1433	6	1	IC SHF-RGTR TTL LS R-S SERIAL-IN PRL-OUT	01295	SN74LS164N
	9170-0894	0	2	CORE-SHIELDING BEAD	28480	9170-0894

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A2	03586-66503	5	1	INPUT AMPLIFIER (3586C)	28480	03586-66503
A2C1	0160-0128	3	10	CAPACITOR-FXD 2.2UF +-20% 50VDC CER	28480	0160-0128
A2C2	0160-0128	3		CAPACITOR-FXD 2.2UF +-20% 50VDC CER	28480	0160-0128
A2C3	0160-2241	5	1	CAPACITOR-FXD 2.2PF +-.25PF 500VDC CER	28480	0160-2241
A2C4	0121-0451	3	2	CAPACITOR-V TRMR-AIR 1.7-11PF 175V	74970	187-0106-028
A2C5	0121-0178	1	1	CAPACITOR-V TRMR-CER 15-60PF 200V	52763	304322 15/60PF N1500
A2C6	0160-4802	8	1	CAPACITOR-FXD 82PF +-5% 100VDC CER 0+-30	28480	0160-4802
A2C7	0121-0455	7	2	CAPACITOR-V TRMR-AIR 1.9-15.7PF 175V	74970	187-0109-028
A2C8	0160-0576	5	12	CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A2C10	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A2C11	0160-5348	9	1	CAPACITOR-FXD 51PF +-5% 100VDC CER 0+-30	28480	0160-5348
A2C12	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A2C13	0180-0227	7	2	CAPACITOR-FXD 33UF+-10% 10VDC TA	56289	150D336X9010B2
A2C14	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A2C15	0180-0106	9	2	CAPACITOR-FXD 60UF+-20% 6VDC TA	56289	150D606X0006B2
A2C16	0160-5350	3	1	CAPACITOR-FXD 300PF +-5% 100VDC CER	28480	0160-5350
A2C17	0160-4823	3	1	CAPACITOR-FXD 820PF +-5% 100VDC CER	28480	0160-4823
A2C20	0160-3874	2	2	CAPACITOR-FXD 10PF +-.5PF 200VDC CER	28480	0160-3874
A2C21	0160-3872	0	2	CAPACITOR-FXD 2.2PF +-.25PF 200VDC CER	28480	0160-3872
A2C22	0160-0128	3		CAPACITOR-FXD 2.2UF +-20% 50VDC CER	28480	0160-0128
A2C23	0160-3874	2		CAPACITOR-FXD 10PF +-.5PF 200VDC CER	28480	0160-3874
A2C24	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A2C25	0180-0229	7		CAPACITOR-FXD 33UF+-10% 10VDC TA	56289	150D336X9010B2
A2C26	0160-3872	0		CAPACITOR-FXD 2.2PF +-.25PF 200VDC CER	28480	0160-3872
A2C30	0180-0106	9		CAPACITOR-FXD 60UF+-20% 6VDC TA	56289	150D606X0006B2
A2C31	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A2C32	0121-0451	3		CAPACITOR-V TRMR-AIR 1.7-11PF 175V	74970	187-0106-028
A2C33	0121-0455	7		CAPACITOR-V TRMR-AIR 1.9-15.7PF 175V	74970	187-0109-028
A2C40	0160-0128	3		CAPACITOR-FXD 2.2UF +-20% 50VDC CER	28480	0160-0128
A2C41	0160-0128	3		CAPACITOR-FXD 2.2UF +-20% 50VDC CER	28480	0160-0128
A2C42	0180-0228	6	4	CAPACITOR-FXD 22UF+-10% 15VDC TA	56289	150D226X9015B2
A2C43	0160-0128	3		CAPACITOR-FXD 2.2UF +-20% 50VDC CER	28480	0160-0128
A2C44	0160-3879	7	1	CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A2C45	0160-0128	3		CAPACITOR-FXD 2.2UF +-20% 50VDC CER	28480	0160-0128
A2C46	0160-0128	3		CAPACITOR-FXD 2.2UF +-20% 50VDC CER	28480	0160-0128
A2C47	0180-0228	6		CAPACITOR-FXD 22UF+-10% 15VDC TA	56289	150D226X9015B2
A2C60	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A2C61	0180-1746	5	2	CAPACITOR-FXD 15UF+-10% 20VDC TA	56289	150D156X9020B2
A2C62	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A2C63	0180-1746	5		CAPACITOR-FXD 15UF+-10% 20VDC TA	56289	150D156X9020B2
A2C64	0160-0128	3		CAPACITOR-FXD 2.2UF +-20% 50VDC CER	28480	0160-0128
A2C65	0180-0228	6		CAPACITOR-FXD 22UF+-10% 15VDC TA	56289	150D226X9015B2
A2C66	0180-0228	6		CAPACITOR-FXD 22UF+-10% 15VDC TA	56289	150D226X9015B2
A2C67	0160-0128	3		CAPACITOR-FXD 2.2UF +-20% 50VDC CER	28480	0160-0128
A2C80	0160-4557	0	2	CAPACITOR-FXD .1UF +-20% 50VDC CER	16299	CAC04X7R104M050A
A2C81	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A2C82	0160-5349	0	1	CAPACITOR-FXD 200PF +-5% 100VDC CER	28480	0160-5349
A2C85	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A2C86	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A2C87	0160-3847	9	1	CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A2C90	0160-4557	0		CAPACITOR-FXD .1UF +-20% 50VDC CER	16299	CAC04X7R104M050A
A2C100	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A2CR1	1901-0025	2	8	DIODE-GEN PRP 100V 200MA DO-7	28480	1901-0025
A2CR2	1901-0025	2		DIODE-GEN PRP 100V 200MA DO-7	28480	1901-0025
A2CR3	1901-0025	2		DIODE-GEN PRP 100V 200MA DO-7	28480	1901-0025
A2CR4	1901-0025	2		DIODE-GEN PRP 100V 200MA DO-7	28480	1901-0025
A2CR5	1901-0025	2		DIODE-GEN PRP 100V 200MA DO-7	28480	1901-0025
A2CR6	1901-0025	2		DIODE-GEN PRP 100V 200MA DO-7	28480	1901-0025
A2CR7	1902-0777	3	1	DIODE-ZNR 1N825 6.2V 5% DO-7 PD=.4W	04713	1N825
A2CR8	1901-0025	2		DIODE-GEN PRP 100V 200MA DO-7	28480	1901-0025
A2CR9	1901-0025	2		DIODE-GEN PRP 100V 200MA DO-7	28480	1901-0025
A2J1	1250-1637	3	2	CONNECTOR-RF SM-SNP M SGL-HOLE-FR 75-OHM	28480	1250-1637
A2J2	1250-1637	3		CONNECTOR-RF SM-SNP M SGL-HOLE-FR 75-OHM	28480	1250-1637
A2J3	1250-1512	3	1	CONNECTOR-RF SMB M PC 50-OHM	28480	1250-1512
A2K1	0490-1318	4	3	RELAY 2C 12VDC-COIL .5A 28VDC	28480	0490-1318
A2K2	0490-1318	4		RELAY 2C 12VDC-COIL .5A 28VDC	28480	0490-1318
A2K3	0490-1318	4		RELAY 2C 12VDC-COIL .5A 28VDC	28480	0490-1318
A2K4	0490-1221	8	1	RELAY-REED 1A 500MA 200VDC 12VDC-COIL	28480	0490-1221
A2L1	9100-2486	3	1	INDUCTOR RF-CH-MLD 330NH 5% .166DX.385LG	28480	9100-2486
A2L3	9140-0265	6	1	INDUCTOR RF-CH-MLD 1.6UH 5% .166DX.385LG	28480	9140-0265
A2L4	9100-1618	1	5	INDUCTOR RF-CH-MLD 5.6UH 10%	28480	9100-1618
A2L5	9100-1618	1		INDUCTOR RF-CH-MLD 5.6UH 10%	28480	9100-1618
A2L6	9100-1618	1		INDUCTOR RF-CH-MLD 5.6UH 10%	28480	9100-1618

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A2L7	9100-1618	1		INDUCTOR RF-CH-MLD 5.6UH 10%	28480	9100-1618
A2L8	9100-1618	1		INDUCTOR RF-CH-MLD 5.6UH 10%	28480	9100-1618
A2Q1	1855-0410	0	1	TRANSISTOR J-FET N-CHAN D-MODE TO-18 SI	28480	1855-0410
A2Q1	9170-0894	0	1	CORE-SHIELDING BEAD	28480	9170-0894
A2Q2	1853-0354	7	5	TRANSISTOR PNP SI TO-92 PD=350MW	28480	1853-0354
A2Q3	1854-0305	0	2	TRANSISTOR NPN SI TO-18 PD=400MW	28480	1854-0305
A2R4	1853-0354	7		TRANSISTOR PNP SI TO-92 PD=350MW	28480	1853-0354
A2Q5	1853-0354	7		TRANSISTOR PNP SI TO-92 PD=350MW	28480	1853-0354
A2Q6	1854-0305	0		TRANSISTOR NPN SI TO-18 PD=400MW	28480	1854-0305
A2Q7	1854-0092	2	1	TRANSISTOR NPN SI PD=200MW FT=600MHZ	28480	1854-0092
A2R10	1854-0795	2	3	TRANSISTOR NPN SI TO-92 PD=625MW	04713	MPSH10
A2Q11	1854-0795	2		TRANSISTOR NPN SI TO-92 PD=625MW	04713	MPSH10
A2Q12	1854-0795	2		TRANSISTOR NPN SI TO-92 PD=625MW	04713	MPSH10
A2Q13	1853-0354	7		TRANSISTOR PNP SI TO-92 PD=350MW	28480	1853-0354
A2Q14	1853-0354	7		TRANSISTOR PNP SI TO-92 PD=350MW	28480	1853-0354
A2Q20	1853-0051	1	1	TRANSISTOR PNP 2N4037 SI TO-5 PD=1W	3L585	2N4037
A2Q21	1854-0039	7	1	TRANSISTOR NPN 2N3053S SI TO-39 PD=1W	3L585	2N3053S
A2R1	0698-3438	3	1	RESISTOR 147 1% .125W F TC=0+-100	24546	C4-1/8-T0-147R-F
A2R2	0699-0057	8	1	RESISTOR 2K .1% .1W F TC=0+-5	28480	0699-0057
A2R3	0698-5453	6	1	RESISTOR 900 .1% .125W F TC=0+-50	03888	PME55 T-2-900R-B
A2R4	0698-7448	3	1	RESISTOR 100 .1% .25W F TC=0+-25	19701	MF52C1/4-T9-100R-B
A2R5	2100-3212	8	1	RESISTOR-TRMR 200 10% C TOP-ADJ 1-TRN	28480	2100-3212
A2R10	0683-1005	5	1	RESISTOR 10 5% .25W FC TC=-400/+500	01121	CB1005
A2R11	0757-0275	6	1	RESISTOR 113 1% .125W F TC=0+-100	24546	C4-1/8-T0-113R-F
A2R12	2100-3103	6	1	RESISTOR-TRMR 10K 10% C SIDE-ADJ 17-TRN	02111	43P103
A2R13	0698-4421	6	2	RESISTOR 249 1% .125W F TC=0+-100	24546	C4-1/8-T0-249R-F
A2R14	0757-0439	4	2	RESISTOR 6.81K 1% .125W F TC=0+-100	24546	C4-1/8-T0-6811-F
A2R15	0683-3055	9	1	RESISTOR 3M 5% .25W FC TC=-900/+1100	01121	CB3055
A2R16	0757-0404	3	1	RESISTOR 130 1% .125W F TC=0+-100	24546	C4-1/8-T0-131-F
A2R17	0757-0465	6	2	RESISTOR 100K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1003-F
A2R18	0757-0465	6		RESISTOR 100K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1003-F
A2R19	0757-0438	3	4	RESISTOR 5.11K 1% .125W F TC=0+-100	24546	C4-1/8-T0-5111-F
A2R20	0757-0438	3		RESISTOR 5.11K 1% .125W F TC=0+-100	24546	C4-1/8-T0-5111-F
A2R30	0683-4705	8	8	RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A2R31	0698-4391	9	2	RESISTOR 69.8 1% .125W F TC=0+-100	24546	C4-1/8-T0-69R8-F
A2R32	0757-0402	1	1	RESISTOR 110 1% .125W F TC=0+-100	24546	C4-1/8-T0-111-F
A2R33	0698-4391	9		RESISTOR 69.8 1% .125W F TC=0+-100	24546	C4-1/8-T0-69R8-F
A2R34	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A2R35	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A2R36	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A2R37	0757-0437	2	1	RESISTOR 4.75K 1% .125W F TC=0+-100	24546	C4-1/8-T0-4751-F
A2R38	0698-4453	4	1	RESISTOR 402 1% .125W F TC=0+-100	24546	C4-1/8-T0-402R-F
A2R39	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A2R40	0757-0346	2	3	RESISTOR 10 1% .125W F TC=0+-100	24546	C4-1/8-T0-10R0-F
A2R41	0757-0403	2	1	RESISTOR 121 1% .125W F TC=0+-100	24546	C4-1/8-T0-121R-F
A2R42	0757-0346	2		RESISTOR 10 1% .125W F TC=0+-100	24546	C4-1/8-T0-10R0-F
A2R49	0757-0424	7	1	RESISTOR 1.1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1101-F
A2R50	0698-4421	6		RESISTOR 249 1% .125W F TC=0+-100	24546	C4-1/8-T0-249R-F
A2R51	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A2R52	0698-4445	4	1	RESISTOR 5.76K 1% .125W F TC=0+-100	24546	C4-1/8-T0-5761-F
A2R53	0757-0439	4		RESISTOR 6.81K 1% .125W F TC=0+-100	24546	C4-1/8-T0-6811-F
A2R54	0698-3122	2	1	RESISTOR 412 1% .125W F TC=0+-100	03888	PME55-1/8-T0-4120-F
A2R55	0698-3488	3	1	RESISTOR 442 1% .125W F TC=0+-100	24546	C4-1/8-T0-422R-F
A2R56	0757-0280	3	3	RESISTOR 1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1001-F
A2R57	0683-3625	9	1	RESISTOR 3.6K 5% .25W FC TC=-400/+700	01121	CB3625
A2R58	0683-1525	4	1	RESISTOR 1.5K 5% .25W FC TC=-400/+700	01121	CB1525
A2R60	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A2R61	0698-4484	1	2	RESISTOR 19.1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1912-F
A2R62	0757-0280	3		RESISTOR 1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1001-F
A2R63	0683-1015	7	3	RESISTOR 100 5% .25W FC TC=-400/+500	01121	CB1015
A2R64	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A2R65	0698-4450	1	2	RESISTOR 324 1% .125W F TC=0+-100	24546	C4-1/8-T0-324R-F
A2R66	0698-3518	0	2	RESISTOR 7.32K 1% .125W F TC=0+-100	24546	C4-1/8-T0-7321-F
A2R67	0757-0421	4	2	RESISTOR 825 1% .125W F TC=0+-100	24546	C4-1/8-T0-825R-F
A2R68	0698-4402	3	2	RESISTOR 97.6 1% .125W F TC=0+-100	24546	C4-1/8-T0-97R6-F
A2R69	0698-3518	0		RESISTOR 7.32K 1% .125W F TC=0+-100	24546	C4-1/8-T0-7321-F
A2R79	0757-0421	4		RESISTOR 825 1% .125W F TC=0+-100	24546	C4-1/8-T0-825R-F
A2R80	0698-4381	7	1	RESISTOR 48.7 1% .125W F TC=0+-100	24546	C4-1/8-T0-48R7-F
A2R81	0698-4402	3		RESISTOR 97.6 1% .125W F TC=0+-100	24546	C4-1/8-T0-97R6-F
A2R82	0698-4484	1		RESISTOR 19.1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1912-F
A2R83	0757-0280	3		RESISTOR 1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1001-F
A2R84	0683-1015	7		RESISTOR 100 5% .25W FC TC=-400/+500	01121	CB1015
A2R85	0683-2425	5	1	RESISTOR 2.4K 5% .25W FC TC=-400/+700	01121	CB2425
A2R86	0698-4450	1		RESISTOR 324 1% .125W F TC=0+-100	24546	C4-1/8-T0-324R-F
A2R100	0683-5115	6	2	RESISTOR 510 5% .25W FC TC=-400/+600	01121	CB5115
A2R101	0683-4725	1	1	RESISTOR 4.7 5% .25W FC TC=-400/+500	01121	CB4705
A2R102	0683-2025	1	2	RESISTOR 2K 5% .25W FC TC=-400/+700	01121	CB2025

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A2R103	0757-0420	3	1	RESISTOR 750 1% .125W F TC=0+-100	24546	C4 1/8-T0-751-F
A2R104	0757-0416	7	1	RESISTOR 511 1% .125W F TC=0+-100	24546	C4-1/8-T0-511R-F
A2R105	2100-3350	5	1	RESISTOR-TRMR 200 10% C SIDE-ADJ 1-TRN	28480	2100-3350
A2R106	0698-3223	4	1	RESISTOR 1.24K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1241-F
A2R107	0757-0438	3		RESISTOR 5.11K 1% .125W F TC=0+-100	24546	C4-1/8-T0-5111-F
A2R108	0757-0438	3		RESISTOR 5.11K 1% .125W F TC=0+-100	24546	C4-1/8-T0-5111-F
A2R109	0683-0625	3	3	RESISTOR 6.2 5% .25W FC TC=-400/+500	01121	CB6265
A2R110	0683-5115	6		RESISTOR 510 5% .25W FC TC=-400/+600	01121	CB5115
A2R111	0683-2025	1		RESISTOR 2K 5% .25W FC TC=-400/+700	01121	CB2025
A2R112	0683-1035	1	3	RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A2R113	0683-0625	3		RESISTOR 6.2 5% .25W FC TC=-400/+500	01121	CB6265
A2R114	0683-0625	3		RESISTOR 6.2 5% .25W FC TC=-400/+500	01121	CB6265
A2R120	0683-4715	0	4	RESISTOR 470 5% .25W FC TC=-400/+600	01121	CB4715
A2R121	0683-4715	0		RESISTOR 470 5% .25W FC TC=-400/+600	01121	CB4715
A2R122	0683-4715	0		RESISTOR 470 5% .25W FC TC=-400/+600	01121	CB4715
A2R123	0683-4715	0		RESISTOR 470 5% .25W FC TC=-400/+600	01121	CB4715
A2R125	0683-4725	2	5	RESISTOR 4.7K 5% .25W FC TC=-400/+700	01121	CB4725
A2R126	0683-4725	2		RESISTOR 4.7K 5% .25W FC TC=-400/+700	01121	CB4725
A2R127	0683-1015	7		RESISTOR 100 5% .25W FC TC=-400/+500	01121	CB1015
A2R130	0683-4725	2		RESISTOR 4.7K 5% .25W FC TC=-400/+700	01121	CB4725
A2R131	0683-4725	2		RESISTOR 4.7K 5% .25W FC TC=-400/+700	01121	CB4725
A2R132	0683-4725	2		RESISTOR 4.7K 5% .25W FC TC=-400/+700	01121	CB4725
A2R133	0683-1025	9	1	RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A2R140	0683-1035	1		RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A2R141	0683-1035	1		RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A2R142	0683-0335	2	4	RESISTOR 3.3 5% .25W FC TC=-400/+500	01121	CB3365
A2R143	0683-0335	2		RESISTOR 3.3 5% .25W FC TC=-400/+500	01121	CB3365
A2R144	0683-0335	2		RESISTOR 3.3 5% .25W FC TC=-400/+500	01121	CB3365
A2R145	0683-0335	2		RESISTOR 3.3 5% .25W FC TC=-400/+500	01121	CB3365
A2R150	0757-0277	8	1	RESISTOR 49.9 1% .125W F TC=0+-100	24546	C4-1/8-T0-4992-F
A2R151	0757-0346	2		RESISTOR 10 1% .125W F TC=0+-100	24546	C4-1/8-T0-10R0-F
A2U1	1826-0111	7	2	IC OP AMP GP DUAL TO-99 PKG	3L585	CA1458T
A2U2	1826-0111	7		IC OP AMP GP DUAL TO-99 PKG	3L585	CA1458T
A2U3	1858-0047	5	1	TRANSISTOR ARRAY 16-PIN PLSTC DIP	13606	ULN-2003A
A2U4	1820-1730	6	1	IC FF TTL LS D-TYPE POS-EDGE-TRIG COM	01295	SN74LS273N
A2U5	1820-1433	6	1	IC SHF-RGTR TTL LS R-S SERIAL-IN PRL-OUT	01295	SN74LS164N

See introduction to this section for ordering information
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Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A4	03586-66504	6	1	BROADBAND POWER/OVERLOAD/CALIBRATION (3586A/B)	28480	03586-66504
A4C1	0160-3879	7	15	CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A4C2	0160-0127	2	2	CAPACITOR-FXD 1UF +-20% 25VDC CER	28480	0160-0127
A4C3	0160-0576	5	18	CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A4C4	0180-0228	6	4	CAPACITOR-FXD 22UF+-10% 15VDC TA	56289	150D226X9015B2
A4C5	0160-0158	9	1	CAPACITOR-FXD 5600PF +-10% 200VDC POLYE	28480	0160-0158
A4C6	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A4C7	0160-0363	8	1	CAPACITOR-FXD 620PF +-5% 300VDC MICA	28480	0160-0363
A4C8	0180-0309	4	4	CAPACITOR-FXD 4.7UF+-20% 10VDC TA	56289	150D475X0010A2
A4C9	0180-0309	4		CAPACITOR-FXD 4.7UF+-20% 10VDC TA	56289	150D475X0010A2
A4C10	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A4C11	0180-0309	4		CAPACITOR-FXD 4.7UF+-20% 10VDC TA	56289	150D475X0010A2
A4C12	0180-0228	6		CAPACITOR-FXD 22UF+-10% 15VDC TA	56289	150D226X9015B2
A4C13	0180-0228	6		CAPACITOR-FXD 22UF+-10% 15VDC TA	56289	150D226X9015B2
A4C14	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A4C15	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A4C16	0140-0193	0	1	CAPACITOR-FXD 82PF +-5% 300VDC MICA	72136	DM15E820J0300WV1CR
A4C17	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A4C18	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A4C19	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A4C21	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A4C22	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A4C23	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A4C24	0160-2204	0	1	CAPACITOR-FXD 100PF +-5% 300VDC MICA	28480	0160-2204
A4C25	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A4C26	0160-0128	3	4	CAPACITOR-FXD 2.2UF +-20% 50VDC CER	28480	0160-0128
A4C27	0180-1746	5	2	CAPACITOR-FXD 15UF+-10% 20VDC TA	56289	150D156X9020B2
A4C28	0180-1746	5		CAPACITOR-FXD 15UF+-10% 20VDC TA	56289	150D156X9020B2
A4C29	0180-0228	6		CAPACITOR-FXD 22UF+-10% 15VDC TA	56289	150D226X9015B2
A4C30	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A4C31	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A4C32	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A4C33	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A4C35	0180-1734	5	1	CAPACITOR-FXD 47UF+-10% 6VDC TA	56289	150D476X9006B2
A4C40	0160-0127	2		CAPACITOR-FXD 1UF +-20% 25VDC CER	28480	0160-0127
A4C41	0180-0486	8	1	CAPACITOR-FXD 10UF+-10% 20VDC TA	28480	0180-0486
A4C42	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A4C44	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A4C101	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A4C102	0160-0128	3		CAPACITOR-FXD 2.2UF +-20% 50VDC CER	28480	0160-0128
A4C103	0160-0128	3		CAPACITOR-FXD 2.2UF +-20% 50VDC CER	28480	0160-0128
A4C104	0180-0309	4		CAPACITOR-FXD 4.7UF+-20% 10VDC TA	56289	150D475X0010A2
A4C105	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A4C107	0160-0128	3		CAPACITOR-FXD 2.2UF +-20% 50VDC CER	28480	0160-0128
A4C108	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A4C109	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A4C110*	0140-0190	7	1	CAPACITOR-FXD 39PF +-5% 300VDC MICA	72136	DM15E390J0300WV1CR
A4C110*	0160-0196	5	1	CAPACITOR-FXD 24PF +-5% 300VDC MICA	28480	0160-0196
A4C110*	0160-2198	1	1	CAPACITOR-FXD 20PF +-5% 300VDC MICA	28480	0160-2198
A4C110*	0160-2199	2	1	CAPACITOR-FXD 30PF +-5% 300VDC MICA	28480	0160-2199
A4C110*	0160-2308	5	1	CAPACITOR-FXD 36PF +-5% 300VDC MICA	28480	0160-2308
A4C111	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A4C112	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A4C113	0121-0036	0	1	CAPACITOR-V TRMR-CER 5.5-18PF 350V	52763	304324 5.5/18PF NPO
A4C114	0160-3847	9	1	CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A4C115	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A4C116	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A4C117	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A4C118	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A4C119	0180-0100	3	1	CAPACITOR-FXD 4.7UF+-10% 35VDC TA	56289	150D475X9035B2
A4C120	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A4C121	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A4C124	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A4C125	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A4C126	0160-4382	9	1	CAPACITOR-FXD 3.3PF +-.25PF 200VDC CER	28480	0160-4382
A4C127	0160-3874	2	1	CAPACITOR-FXD 10PF +-.5PF 200VDC CER	28480	0160-3874
A4C128	0160-2940	1	1	CAPACITOR-FXD 470PF +-5% 300VDC MICA	28480	0160-2940
A4CR1	1901-0535	9	5	DIODE-SM SIG SCHOTTKY	28480	1901-0535
A4CR2	1901-0535	9		DIODE-SM SIG SCHOTTKY	28480	1901-0535
A4CR3	1901-0535	9		DIODE-SM SIG SCHOTTKY	28480	1901-0535
A4CR4	1901-0050	3	6	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
A4CR5	1901-0050	3		DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050

See introduction to this section for ordering information
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Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A4CR8	1901-0050	3		DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
A4CR9	1901-0050	3		DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
A4CR10	1901-0539	3	4	DIODE-SM SIG SCHOTTKY	28480	1901-0539
A4CR11	1901-0539	3		DIODE-SM SIG SCHOTTKY	28480	1901-0539
A4CR12	1901-0539	3		DIODE-SM SIG SCHOTTKY	28480	1901-0539
A4CR13	1901-0539	3		DIODE-SM SIG SCHOTTKY	28480	1901-0539
A4CR14	1901-0050	3		DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
A4CR15	1901-0535	9		DIODE-SM SIG SCHOTTKY	28480	1901-0535
A4CR16	1901-0535	9		DIODE-SM SIG SCHOTTKY	28480	1901-0535
A4CR104	1901-0050	3		DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
A4CR105	1902-0686	3	1	DIODE-ZNR 6.2V 2% DO-7 PD=.4W TC=+.002%	04713	1N825
A4DS1	1990-0487	7	1	LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	5082-4584
A4DS2	1990-0486	6	1	LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	5082-4684
A4J1	1250-1637	3	1	CONNECTOR-RF SM-SNP M SGL-HOLE-FR 75-OHM	28480	1250-1637
A4L1	9100-0539	3	4	INDUCTOR (MISC ITEM)	28480	9100-0539
A4L2	9100-0539	3		INDUCTOR (MISC ITEM)	28480	9100-0539
A4L3	9100-0539	3		INDUCTOR (MISC ITEM)	28480	9100-0539
A4L4	9100-3548	0	2	INDUCTOR RF-CH-MLD 470NH 5% .166DX.385LG	28480	9100-3548
A4L5	9100-3548	0		INDUCTOR RF-CH-MLD 470NH 5% .166DX.385LG	28480	9100-3548
A4L105	9100-0539	3		INDUCTOR (MISC ITEM)	28480	9100-0539
A4L106	9140-0411	4	1	COIL VAR 200NH-300NH PC-MTG	28480	9140-0411
A4Q1	1853-0010	2	1	TRANSISTOR PNP SI TO-18 PD=360MW	28480	1853-0010
A4Q2	1853-0354	7	2	TRANSISTOR PNP SI TO-92 PD=350MW	28480	1853-0354
A4Q3	1853-0354	7		TRANSISTOR PNP SI TO-92 PD=350MW	28480	1853-0354
A4Q4	1854-0485	7	2	TRANSISTOR NPN SI TO-104 PD=175MW	28480	1854-0485
A4Q5	1854-0485	7		TRANSISTOR NPN SI TO-104 PD=175MW	28480	1854-0485
A4Q6	1854-0071	7	5	TRANSISTOR NPN SI PD=300MW FT=200MHZ	28480	1854-0071
A4Q7	1854-0071	7		TRANSISTOR NPN SI PD=300MW FT=200MHZ	28480	1854-0071
A4Q8	1854-0071	7		TRANSISTOR NPN SI PD=300MW FT=200MHZ	28480	1854-0071
A4Q101	1854-0071	7		TRANSISTOR NPN SI PD=300MW FT=200MHZ	28480	1854-0071
A4Q102	1854-0795	2	4	TRANSISTOR NPN SI TO-92 PD=625MW	04713	MPSH10
A4Q103	1854-0795	2		TRANSISTOR NPN SI TO-92 PD=625MW	04713	MPSH10
A4Q104	1854-0795	2		TRANSISTOR NPN SI TO-92 PD=625MW	04713	MPSH10
A4Q105	1854-0795	2		TRANSISTOR NPN SI TO-92 PD=625MW	04713	MPSH10
A4Q106	1854-0071	7		TRANSISTOR NPN SI PD=300MW FT=200MHZ	28480	1854-0071
A4R2	0683-5635	5	4	RESISTOR 56K 5% .25W FC TC=-400/+800	01121	CB5635
A4R3	0683-5635	5		RESISTOR 56K 5% .25W FC TC=-400/+800	01121	CB5635
A4R4	0683-5125	8	1	RESISTOR 5.1K 5% .25W FC TC=-400/+700	01121	CB5125
A4R5	0683-3325	6	3	RESISTOR 3.3K 5% .25W FC TC=-400/+700	01121	CB3325
A4R6	0683-7525	6	1	RESISTOR 7.5K 5% .25W FC TC=-400/+700	01121	CB7525
A4R7	0683-2025	1	2	RESISTOR 2K 5% .25W FC TC=-400/+700	01121	CB2025
A4R8	0683-4305	4	2	RESISTOR 43 5% .25W FC TC=-400/+500	01121	CB4305
A4R9	0683-4305	4		RESISTOR 43 5% .25W FC TC=-400/+500	01121	CB4305
A4R10	0683-5105	4	4	RESISTOR 51 5% .25W FC TC=-400/+500	01121	CB5105
A4R11	0683-5105	4		RESISTOR 51 5% .25W FC TC=-400/+500	01121	CB5105
A4R12	0683-2705	4	4	RESISTOR 27 5% .25W FC TC=-400/+500	01121	CB2705
A4R13	0683-3015	1	1	RESISTOR 300 5% .25W FC TC=-400/+600	01121	CB3015
A4R14	0683-2705	4		RESISTOR 27 5% .25W FC TC=-400/+500	01121	CB2705
A4R15	0683-2435	7	3	RESISTOR 24K 5% .25W FC TC=-400/+800	01121	CB2435
A4R16	0683-2435	7		RESISTOR 24K 5% .25W FC TC=-400/+800	01121	CB2435
A4R17	0757-0410	1	1	RESISTOR 301 1% .125W F TC=0+-100	24546	C4-1/8-T0-301R-F
A4R18	0683-2035	3	1	RESISTOR 20K 5% .25W FC TC=-400/+800	01121	CB2035
A4R19	0683-5105	4		RESISTOR 51 5% .25W FC TC=-400/+500	01121	CB5105
A4R20	0683-3625	9	1	RESISTOR 3.6K 5% .25W FC TC=-400/+700	01121	CB3625
A4R21	0757-0407	6	1	RESISTOR 200 1% .125W F TC=0+-100	24546	C4-1/8-T0-201-F
A4R22	0683-2025	1		RESISTOR 2K 5% .25W FC TC=-400/+700	01121	CB2025
A4R23	0683-1035	1	14	RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A4R24	2100-0552	3	1	RESISTOR-TRMR 50 10% C SIDE-ADJ 1-TRN	28480	2100-0552
A4R25	0698-3510	2	1	RESISTOR 453 1% .125W F TC=0+-100	24546	C4-1/8-T0-453R-F
A4R26	0698-3497	4	2	RESISTOR 6.04K 1% .125W F TC=0+-100	24546	C4-1/8-T0-604R-F
A4R28	0757-0449	6	4	RESISTOR 20K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2002-F
A4R29	2100-3054	6	1	RESISTOR-TRMR 50K 10% C SIDE-ADJ 17-TRN	02111	43P503
A4R30	2100-3350	5	1	RESISTOR-TRMR 200 10% C SIDE-ADJ 1-TRN	28480	2100-3350
A4R31	0757-0421	4	1	RESISTOR 825 1% .125W F TC=0+-100	24546	C4-1/8-T0-825R-F
A4R33	0698-4494	3	1	RESISTOR 35.7K 1% .125W F TC=0+-100	24546	C4-1/8-T0-3572-F
A4R34	0698-4476	1		RESISTOR 10.2K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1022-F
A4R35	0698-4468	1	1	RESISTOR 1.13K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1131-F
A4R36	0757-0280	3	4	RESISTOR 1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1001-F
A4R37*	0698-4475	9	1	RESISTOR 7.76K 1% .125W F TC=0+-100	03888	PME55-1/8-T0-9761-F
A4R37*	0698-4476	1	2	RESISTOR 10.2K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1022-F
A4R37*	0757-0442	9	1	RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A4R38	0757-0449	6		RESISTOR 20K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2002-F
A4R39	0757-0467	8	2	RESISTOR 121K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1213-F
A4R40	0757-0467	8		RESISTOR 121K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1213-F
A4R41	0683-1035	1		RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A4R42	0683-1035	1		RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035

See introduction to this section for ordering information
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Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A4R43	0757-0457	8	1	RESISTOR 56.2K 1% .125W F TC=0+-100	24546	C4-1/8-T0-5622-F
A4R44	0757-0449	6		RESISTOR 20K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2002-F
A4R45	0757-0460	1	1	RESISTOR 61.9K 1% .125W F TC=0+-100	24546	C4-1/8-T0-6192-F
A4R46	0683-1035	1		RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A4R47	0683-1055	5	3	RESISTOR 1M 5% .25W FC TC=-800/+900	01121	CB1055
A4R48	0683-1055	5		RESISTOR 1M 5% .25W FC TC=-800/+900	01121	CB1055
A4R49	0683-3325	6		RESISTOR 3.3K 5% .25W FC TC=-400/+700	01121	CB3325
A4R50	0683-3325	6		RESISTOR 3.3K 5% .25W FC TC=-400/+700	01121	CB3325
A4R52	0757-0465	6	1	RESISTOR 100K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1003-F
A4R53	0698-4473	8	1	RESISTOR 8.06K 1% .125W F TC=0+-100	24546	C4-1/8-T0-8061-F
A4R54	0811-1780	6	1	RESISTOR 1K 5% .25W PWW TC=+3400+-300	54294	VA12-1/4-1001-J
A4R56	0757-0449	6		RESISTOR 20K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2002-F
A4R57	0698-3268	7	1	RESISTOR 11.5K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1152-F
A4R58	0698-3572	6	2	RESISTOR 60.4K 1% .125W F TC=0+-100	24546	C4-1/8-T0-6042-F
A4R59	0698-3572	6		RESISTOR 60.4K 1% .125W F TC=0+-100	24546	C4-1/8-T0-6042-F
A4R60	0683-1035	1		RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A4R62	0683-1035	1		RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A4R64	0683-1035	1		RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A4R65	0683-1035	1		RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A4R70	0683-2435	7		RESISTOR 240K 5% .25W FC TC=-400/+800	01121	CB2435
A4R71	0683-4725	2	4	RESISTOR 4.7K 5% .25W FC TC=-400/+700	01121	CB4725
A4R75	0683-5105	4		RESISTOR 51 5% .25W FC TC=-400/+500	01121	CB5105
A4R80	1810-0075	9	1	NETWORK-RES 8-SIP750.0 OHM X 7	28480	1810-0075
A4R101	0683-1015	7	5	RESISTOR 100 5% .25W FC TC=-400/+500	01121	CB1015
A4R102	0757-0280	3		RESISTOR 1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1001-F
A4R103	0757-0280	3		RESISTOR 1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1001-F
A4R104	0683-3035	5	1	RESISTOR 30K 5% .25W FC TC=-400/+800	01121	CB3035
A4R105	0683-1035	1		RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A4R106	0757-0280	3		RESISTOR 1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1001-F
A4R107	0683-1025	9	7	RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A4R108	0683-1025	9		RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A4R109	0683-1025	9		RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A4R110	0683-1025	9		RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A4R111	0683-4715	0	2	RESISTOR 470 5% .25W FC TC=-400/+600	01121	CB4715
A4R112	0683-4715	0		RESISTOR 470 5% .25W FC TC=-400/+600	01121	CB4715
A4R113	0683-4705	8	3	RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A4R114	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A4R115	0683-2705	4		RESISTOR 27 5% .25W FC TC=-400/+500	01121	CB2705
A4R116	0683-2705	4		RESISTOR 27 5% .25W FC TC=-400/+500	01121	CB2705
A4R117	0683-1025	9		RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A4R118	0683-1025	9		RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A4R120	0698-4399	7	2	RESISTOR 88.7 1% .125W F TC=0+-100	24546	C4-1/8-T0-88R7-F
A4R121	0698-4453	4	1	RESISTOR 402 1% .125W F TC=0+-100	24546	C4-1/8-T0-402R-F
A4R122	0698-4399	7		RESISTOR 88.7 1% .125W F TC=0+-100	24546	C4-1/8-T0-88R7-F
A4R123	0698-7363	1	2	RESISTOR 75 .1% .125W F TC=0+-50	19701	MF4C1/8-T2-75R0-B
A4R124	0698-7363	1		RESISTOR 75 .1% .125W F TC=0+-50	19701	MF4C1/8-T2-75R0-B
A4R125	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A4R126	0683-4725	2		RESISTOR 4.7K 5% .25W FC TC=-400/+700	01121	CB4725
A4R127	0683-1035	1		RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A4R128	0683-1025	9		RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A4R129	0683-1015	7		RESISTOR 100 5% .25W FC TC=-400/+500	01121	CB1015
A4R130	0683-1015	7		RESISTOR 100 5% .25W FC TC=-400/+500	01121	CB1015
A4R132	0683-1015	7		RESISTOR 100 5% .25W FC TC=-400/+500	01121	CB1015
A4R133	0698-4468	3	1	RESISTOR 649 1% .125W F TC=0+-100	24546	C4-1/8-T0-649R-F
A4R134	2100-3123	0	1	RESISTOR-TRMR 500 10% C SIDE-ADJ 17-TRN	02111	43P501
A4R135	0698-3497	4		RESISTOR 6.04K 1% .125W F TC=0+-100	24546	C4-1/8-T0-604R-F
A4R136	2100-3122	9	1	RESISTOR-TRMR 100 10% C SIDE-ADJ 17-TRN	02111	43P101
A4R137	0683-5635	5		RESISTOR 56K 5% .25W FC TC=-400/+800	01121	CB5635
A4R138	0683-1035	1		RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A4R139	0683-1035	1		RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A4R140	0683-5635	5		RESISTOR 56K 5% .25W FC TC=-400/+800	01121	CB5635
A4R141	0683-1035	1		RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A4R142	0683-4725	2		RESISTOR 4.7K 5% .25W FC TC=-400/+700	01121	CB4725
A4R143	0683-4725	2		RESISTOR 4.7K 5% .25W FC TC=-400/+700	01121	CB4725
A4R144	0698-3548	6	1	RESISTOR 732 1% .125W F TC=0+-100	24546	C4-1/8-T0-732R-F
A4R150	0683-1055	5		RESISTOR 1M 5% .25W FC TC=-800/+900	01121	CB1055
A4R151	0683-1035	1		RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A4R152	0683-1915	7		RESISTOR 100 5% .25W FC TC=-400/+500	01121	CB1015
A411	08552-6044	1	1	TRANSFORMER-6-TURNS	28480	08552-6044
A4U1	1820-2655	6	1	IC OSC TTL LS DUAL	01295	SN74LS625N
A4U2	1820-0803	2	1	IC GATE ECL OR NOR TPL	04713	MC10105P
A4U3	1826-0340	4	1	IC OP AMP LOW BIAS-H-IMPD TO-99 PKG	28480	1826-0340
A4U4	1826-0421	2	1	IC CONV RMS/DC 14-DIP-C PKG	24355	AD536AJ
A4U4	1200-0638	7	1	SOCKET-IC 14-CONT DIP DIP SLDR	28480	1200-0638

See introduction to this section for ordering information
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Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A4U5	1826-0111	7	3	IC OP AMP GP DUAL TO-99 PKG	3L585	CA1458T
A4U6	1826-0111	7		IC OP AMP GP DUAL TO-99 PKG	3L585	CA1458T
A4U101	1820-0810	1	1	IC RCVR ECL LINE RCVR TPL 2-INP	04713	MC10116P
A4U103	1826-0043	4	1	IC OP AMP GP TO-99 PKG	3L585	CA307T
A4U104	1826-0111	7		IC OP AMP GP DUAL TO-99 PKG	3L585	CA1458T
	9170-0894	0	1	CORE-SHIELDING BEAD	28480	9170-0894

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Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A4	03586-66508	0	1	BROADBAND POWER/OVERLOAD/CALIBRATION (3586C)	28480	03586-66508
A4C1	0160-3879	7	15	CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A4C2	0160-0127	2	2	CAPACITOR-FXD 1UF +-20% 25VDC CER	28480	0160-0127
A4C3	0160-0576	5	18	CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A4C4	0180-0228	6	4	CAPACITOR-FXD 22UF+-10% 15VDC TA	56289	150D226X9015B2
A4C5	0160-0158	9	1	CAPACITOR-FXD 5600PF +-10% 200VDC POLYE	28480	0160-0158
A4C6	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A4C7	0160-0363	8	1	CAPACITOR-FXD 620PF +-5% 300VDC MICA	28480	0160-0363
A4C8	0180-0309	4	4	CAPACITOR-FXD 4.7UF+-20% 10VDC TA	56289	150D475X0010A2
A4C9	0180-0309	4		CAPACITOR-FXD 4.7UF+-20% 10VDC TA	56289	150D475X0010A2
A4C10	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A4C11	0180-0100	3	1	CAPACITOR-FXD 4.7UF+-10% 35VDC TA	56289	150D475X9035R2
A4C12	0180-0228	6		CAPACITOR-FXD 22UF+-10% 15VDC TA	56289	150D226X9015B2
A4C13	0180-0228	6		CAPACITOR-FXD 22UF+-10% 15VDC TA	56289	150D226X9015B2
A4C14	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A4C15	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A4C16	0140-0193	0	1	CAPACITOR-FXD 82PF +-5% 300VDC MICA	72136	DM15E820J0300WV1CR
A4C17	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A4C18	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A4C19	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A4C21	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A4C22	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A4C23	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A4C24	0160-2204	0	1	CAPACITOR-FXD 100PF +-5% 300VDC MICA	28480	0160-2204
A4C25	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A4C26	0160-0128	3	4	CAPACITOR-FXD 2.2UF +-20% 50VDC CER	28480	0160-0128
A4C27	0180-1746	5	2	CAPACITOR-FXD 15UF+-10% 20VDC TA	56289	150D156X9020B2
A4C28	0180-1746	5		CAPACITOR-FXD 15UF+-10% 20VDC TA	56289	150D156X9020B2
A4C29	0180-0228	6		CAPACITOR-FXD 22UF+-10% 15VDC TA	56289	150D226X9015B2
A4C30	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A4C31	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A4C32	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A4C33	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A4C35	0180-1704	5	1	CAPACITOR-FXD 47UF+-10% 6VDC TA	56289	150D476X9006B2
A4C40	0160-0127	2		CAPACITOR-FXD 1UF +-20% 25VDC CER	28480	0160-0127
A4C41	0180-0486	8	1	CAPACITOR-FXD 10UF+-10% 20VDC TA	28480	0180-0486
A4C42	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A4C44	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A4C101	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A4C102	0160-0128	3		CAPACITOR-FXD 2.2UF +-20% 50VDC CER	28480	0160-0128
A4C103	0160-0128	3		CAPACITOR-FXD 2.2UF +-20% 50VDC CER	28480	0160-0128
A4C104	0180-0309	4		CAPACITOR-FXD 4.7UF+-20% 10VDC TA	56289	150D475X0010A2
A4C105	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A4C107	0160-0128	3		CAPACITOR-FXD 2.2UF +-20% 50VDC CER	28480	0160-0128
A4C108	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A4C109	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A4C110*	0140-0190	7	1	CAPACITOR-FXD 39PF +-5% 300VDC MICA	72136	DM15E390J0300WV1CR
A4C110*	0160-0196	5	1	CAPACITOR-FXD 24PF +-5% 300VDC MICA	28480	0160-0196
A4C110*	0160-2198	1	1	CAPACITOR-FXD 20PF +-5% 300VDC MICA	28480	0160-2198
A4C110*	0160-2199	2	1	CAPACITOR-FXD 30PF +-5% 300VDC MICA	28480	0160-2199
A4C110*	0160-2308	5	1	CAPACITOR-FXD 36PF +-5% 300VDC MICA	28480	0160-2308
A4C111	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A4C112	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A4C113	0121-0036	0	1	CAPACITOR-V TRMR-CER 5.5 18PF 350V	52763	304324 5.5/18PF NPO
A4C114	0160-3847	9	1	CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A4C115	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A4C116	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A4C117	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A4C118	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A4C119	0180-0309	4		CAPACITOR-FXD 4.7UF+-20% 10VDC TA	56289	150D475X0010A2
A4C120	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A4C121	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A4C124	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A4C125	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A4C126	0160-4382	9	1	CAPACITOR-FXD 3.3PF +-.25PF 200VDC CER	28480	0160-4382
A4C127	0160-3874	2	1	CAPACITOR-FXD 10PF +-.5PF 200VDC CER	28480	0160-3874
A4C128	0160-2940	1	1	CAPACITOR-FXD 470PF +-5% 300VDC MICA	28480	0160-2940
A4CR1	1901-0535	9	5	DIODE-SM SIG SCHOTTKY	28480	1901-0535
A4CR2	1901-0535	9		DIODE-SM SIG SCHOTTKY	28480	1901-0535
A4CR3	1901-0535	9		DIODE-SM SIG SCHOTTKY	28480	1901-0535
A4CR4	1901-0050	3	6	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
A4CR5	1901-0050	3		DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A4CR8	1901-0050	3		DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
A4CR9	1901-0050	3		DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
A4CR10	1901-0539	3	4	DIODE SM SIG SCHOTTKY	28480	1901-0539
A4CR11	1901-0539	3		DIODE-SM SIG SCHOTTKY	28480	1901-0539
A4CR12	1901-0539	3		DIODE-SM SIG SCHOTTKY	28480	1901-0539
A4CR13	1901-0539	3		DIODE SM SIG SCHOTTKY	28480	1901-0539
A4CR14	1901-0050	3		DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
A4CR15	1901-0535	9		DIODE-SM SIG SCHOTTKY	28480	1901-0535
A4CR16	1901-0535	9		DIODE-SM SIG SCHOTTKY	28480	1901-0535
A4CR104	1901-0050	3		DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
A4CR105	1902-0686	3	1	DIODE-ZNR 6.2V 2% DO-7 PD=.4W TC=+.002%	04713	1N825
A4DS1	1990-0487	7	1	LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	5082-4584
A4DS2	1990-0486	6	1	LED-LAMP LUM INT=1MCD IF=20MA-MAX BVR=5V	28480	5082-4684
A4J1	1250-1637	3	1	CONNECTOR-RF SM-SNP M SGL HOLE-FR 75-OHM	28480	1250-1637
A4L1	9100-0539	3	4	INDUCTOR (MISC ITEM)	28480	9100-0539
A4L2	9100-0539	3		INDUCTOR (MISC ITEM)	28480	9100-0539
A4L3	9100-0539	3		INDUCTOR (MISC ITEM)	28480	9100-0539
A4L4	9100-3548	0	2	INDUCTOR RF-CH-MLD 470NH 5% .166DX.385LG	28480	9100-3548
A4L5	9100-3548	0		INDUCTOR RF-CH-MLD 470NH 5% .166DX.385LG	28480	9100-3548
A4L105	9100-0539	3		INDUCTOR (MISC ITEM)	28480	9100-0539
A4L106	9140-0411	4	1	COIL-VAR 200NH-300NH PC-MTG	28480	9140-0411
A4Q1	1853-0010	2	1	TRANSISTOR PNP SI TO-18 PD=360MW	28480	1853-0010
A4Q2	1853-0354	7	2	TRANSISTOR PNP SI TO-92 PD=350MW	28480	1853-0354
A4Q3	1853-0354	7		TRANSISTOR PNP SI TO-92 PD=350MW	28480	1853-0354
A4Q4	1854-0485	7	2	TRANSISTOR NPN SI TO-104 PD=175MW	28480	1854-0485
A4Q5	1854-0485	7		TRANSISTOR NPN SI TO-104 PD=175MW	28480	1854-0485
A4Q6	1854-0071	7	5	TRANSISTOR NPN SI PD=300MW FT=200MHZ	28480	1854-0071
A4Q7	1854-0071	7		TRANSISTOR NPN SI PD=300MW FT=200MHZ	28480	1854-0071
A4Q8	1854-0071	7		TRANSISTOR NPN SI PD=300MW FT=200MHZ	28480	1854-0071
A4Q101	1854-0071	7		TRANSISTOR NPN SI PD=300MW FT=200MHZ	28480	1854-0071
A4Q102	1854-0795	2	4	TRANSISTOR NPN SI TO-92 PD=625MW	04713	MPSH10
A4Q103	1854-0795	2		TRANSISTOR NPN SI TO-92 PD=625MW	04713	MPSH10
A4Q104	1854-0795	2		TRANSISTOR NPN SI TO-92 PD=625MW	04713	MPSH10
A4Q105	1854-0795	2		TRANSISTOR NPN SI TO-92 PD=625MW	04713	MPSH10
A4Q106	1854-0071	7		TRANSISTOR NPN SI PD=300MW FT=200MHZ	28480	1854-0071
A4R2	0683-5635	5	4	RESISTOR 56K 5% .25W FC TC=-400/+800	01121	CB5635
A4R3	0683-5635	5		RESISTOR 56K 5% .25W FC TC= 400/+800	01121	CB5635
A4R4	0683-5125	8	1	RESISTOR 5.1K 5% .25W FC TC=-400/+700	01121	CB5125
A4R5	0683-3325	6	3	RESISTOR 3.3K 5% .25W FC TC=-400/+700	01121	CB3325
A4R6	0683-7525	6	1	RESISTOR 7.5K 5% .25W FC TC=-400/+700	01121	CB7525
A4R7	0683-2025	1	2	RESISTOR 2K 5% .25W FC TC=-400/+700	01121	CB2025
A4R8	0683-4305	4	2	RESISTOR 43 5% .25W FC TC=-400/+500	01121	CB4305
A4R9	0683-4305	4		RESISTOR 43 5% .25W FC TC=-400/+500	01121	CB4305
A4R10	0683-5105	4	4	RESISTOR 51 5% .25W FC TC=-400/+500	01121	CB5105
A4R11	0683-5105	4		RESISTOR 51 5% .25W FC TC=-400/+500	01121	CB5105
A4R12	0683-2705	4	4	RESISTOR 27 5% .25W FC TC=-400/+500	01121	CB2705
A4R13	0683-3015	1	1	RESISTOR 300 5% .25W FC TC=-400/+600	01121	CB3015
A4R14	0683-2705	4		RESISTOR 27 5% .25W FC TC=-400/+500	01121	CB2705
A4R15	0683-2435	7	3	RESISTOR 24K 5% .25W FC TC=-400/+800	01121	CB2435
A4R16	0683-2435	7		RESISTOR 24K 5% .25W FC TC=-400/+800	01121	CB2435
A4R17	0757-0410	1	1	RESISTOR 301 1% .125W F TC=0+-100	24546	C4-1/8-T0-301R-F
A4R18	0683-2035	3	1	RESISTOR 20K 5% .25W FC TC=-400/+800	01121	CB2035
A4R19	0683-5105	4		RESISTOR 51 5% .25W FC TC=-400/+500	01121	CB5105
A4R20	0683-2725	8	1	RESISTOR 2.7K 5% .25W FC TC=-400/+700	01121	CB2725
A4R21	0757-0402	1	1	RESISTOR 110 1% .125W F TC=0+-100	24546	C4-1/8-T0-111-F
A4R22	0683-2025	1		RESISTOR 2K 5% .25W FC TC=-400/+700	01121	CB2025
A4R23	0683-1035	1	14	RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A4R24	2100-0552	3	1	RESISTOR-TRMR 50 10% C SIDE-ADJ 1-TRN	28480	2100-0552
A4R25	0698-3510	2	1	RESISTOR 453 1% .125W F TC=0+-100	24546	C4-1/8-T0-453R-F
A4R26	0698-3497	4	2	RESISTOR 6.04K 1% .125W F TC=0+-100	24546	C4-1/8-T0-604R-F
A4R28	0757-0442	6	4	RESISTOR 20K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2002-F
A4R29	2100-3054	6	1	RESISTOR-TRMR 50K 10% C SIDE-ADJ 17-TRN	02111	43P503
A4R30	2100-3350	5	1	RESISTOR-TRMR 200 10% C SIDE-ADJ 1-TRN	28480	2100-3350
A4R31	0757-0421	4	1	RESISTOR 825 1% .125W F TC=0+-100	24546	C4-1/8-T0-825R-F
A4R33	0698-4494	3	1	RESISTOR 35.7K 1% .125W F TC=0+-100	24546	C4-1/8-T0-3572-F
A4R34	0698-4476	1		RESISTOR 10.2K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1022-F
A4R35	0698-4468	1	1	RESISTOR 1.13K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1131-F
A4R36	0757-0280	3	4	RESISTOR 1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1001-F
A4R37*	0698-4475	0	1	RESISTOR 9.76K 1% .125W F TC=0+-100	03658	RME55-1/8-T0-9761-F
A4R37*	0698-4476	1	2	RESISTOR 10.2K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1022-F
A4R37*	0757-0442	9	1	RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A4R38	0757-0442	6		RESISTOR 20K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2002-F
A4R39	0757-0467	8	2	RESISTOR 121K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1213-F
A4R40	0757-0467	8		RESISTOR 121K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1213-F
A4R41	0683-1035	1		RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A4R42	0683-1035	1		RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035

See introduction to this section for ordering information
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Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A4R43	0757-0459	8	1	RESISTOR 56.2K 1% .125W F TC=0+-100	24546	C4-1/8-T0-5622-F
A4R44	0757-0449	6		RESISTOR 20K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2002-F
A4R45	0757-0460	1	1	RESISTOR 61.9K 1% .125W F TC=0+-100	24546	C4-1/8-T0-6192-F
A4R46	0683-1035	1		RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A4R47	0683-1055	5	3	RESISTOR 1M 5% .25W FC TC=-800/+900	01121	CB1055
A4R48	0683-1055	5		RESISTOR 1M 5% .25W FC TC=-800/+900	01121	CB1055
A4R49	0683-3325	6		RESISTOR 3.3K 5% .25W FC TC=-400/+700	01121	CB3325
A4R50	0683-3325	6		RESISTOR 3.3K 5% .25W FC TC=-400/+700	01121	CB3325
A4R52	0757-0465	6	1	RESISTOR 100K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1003-F
A4R53	0698-4473	8	1	RESISTOR 8.06K 1% .125W F TC=0+-100	24546	C4-1/8-T0-8061-F
A4R54	0811-1780	6	1	RESISTOR 1K 5% .25W PWW TC=+3400+-300	54294	VA12-1/4-1001-J
A4R56	0757-0449	6		RESISTOR 20K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2002-F
A4R57	0698-3268	7	1	RESISTOR 11.5K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1152-F
A4R58	0698-3572	6	2	RESISTOR 60.4K 1% .125W F TC=0+-100	24546	C4-1/8-T0-6042-F
A4R59	0698-3572	6		RESISTOR 60.4K 1% .125W F TC=0+-100	24546	C4-1/8-T0-6042-F
A4R60	0683-1035	1		RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A4R62	0683-1035	1		RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A4R64	0683-1035	1		RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A4R65	0683-1035	1		RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A4R70	0683-2435	7		RESISTOR 24K 5% .25W FC TC=-400/+800	01121	CB2435
A4R71	0683-4725	2	4	RESISTOR 4.7K 5% .25W FC TC=-400/+700	01121	CB4725
A4R75	0683-5105	4		RESISTOR 51 5% .25W FC TC=-400/+500	01121	CB5105
A4R80	1810-0075	9	1	NETWORK-RES 8-SIP750.0 OHM X 7	28480	1810-0075
A4R101	0683-1015	7	5	RESISTOR 100 5% .25W FC TC=-400/+500	01121	CB1015
A4R102	0757-0280	3		RESISTOR 1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1001-F
A4R103	0757-0280	3		RESISTOR 1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1001-F
A4R104	0683-3035	5	1	RESISTOR 30K 5% .25W FC TC=-400/+800	01121	CB3035
A4R105	0683-1035	1		RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A4R106	0757-0280	3		RESISTOR 1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1001-F
A4R107	0683-1025	9	7	RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A4R108	0683-1025	9		RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A4R109	0683-1025	9		RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A4R110	0683-1025	9		RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A4R111	0683-4715	0	2	RESISTOR 470 5% .25W FC TC=-400/+600	01121	CB4715
A4R112	0683-4715	0		RESISTOR 470 5% .25W FC TC=-400/+600	01121	CB4715
A4R113	0683-4705	8	3	RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A4R114	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A4R115	0683-2705	4		RESISTOR 27 5% .25W FC TC=-400/+500	01121	CB2705
A4R116	0683-2705	4		RESISTOR 27 5% .25W FC TC=-400/+500	01121	CB2705
A4R117	0683-1025	9		RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A4R118	0683-1025	9		RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A4R120	0698-4399	7	2	RESISTOR 88.7 1% .125W F TC=0+-100	24546	C4-1/8-T0-88R7-F
A4R121	0698-4453	4	1	RESISTOR 402 1% .125W F TC=0+-100	24546	C4-1/8-T0-402R-F
A4R122	0698-4399	7		RESISTOR 88.7 1% .125W F TC=0+-100	24546	C4-1/8-T0-88R7-F
A4R123	0698-7363	1	2	RESISTOR 75 .1% .125W F TC=0+-50	19701	MF4C1/8-T2-75R0-B
A4R124	0698-7363	1		RESISTOR 75 .1% .125W F TC=0+-50	19701	MF4C1/8-T2-75R0-B
A4R125	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A4R126	0683-4725	2		RESISTOR 4.7K 5% .25W FC TC=-400/+700	01121	CB4725
A4R127	0683-1035	1		RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A4R128	0683-1025	9		RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A4R129	0683-1015	7		RESISTOR 100 5% .25W FC TC=-400/+500	01121	CB1015
A4R130	0683-1015	7		RESISTOR 100 5% .25W FC TC=-400/+500	01121	CB1015
A4R132	0683-1015	7		RESISTOR 100 5% .25W FC TC=-400/+500	01121	CB1015
A4R133	0698-4460	3	1	RESISTOR 649 1% .125W F TC=0+-100	24546	C4-1/8-T0-649R-F
A4R134	2100-3123	0	1	RESISTOR-TRMR 500 10% C SIDE-ADJ 17-TRN	02111	43P501
A4R135	0698-3497	4		RESISTOR 6.04K 1% .125W F TC=0+-100	24546	C4-1/8-T0-6041-F
A4R136	2100-3122	9	1	RESISTOR-TRMR 100 10% C SIDE-ADJ 17-TRN	02111	43P101
A4R137	0683-5635	5		RESISTOR 56K 5% .25W FC TC=-400/+800	01121	CB5635
A4R138	0683-1035	1		RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A4R139	0683-1035	1		RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A4R140	0683-5635	5		RESISTOR 56K 5% .25W FC TC=-400/+800	01121	CB5635
A4R141	0683-1035	1		RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A4R142	0683-4725	2		RESISTOR 4.7K 5% .25W FC TC=-400/+700	01121	CB4725
A4R143	0683-4725	2		RESISTOR 4.7K 5% .25W FC TC=-400/+700	01121	CB4725
A4R144	0698-3548	6	1	RESISTOR 732 1% .125W F TC=0+-100	24546	C4-1/8-T0-732R-F
A4R150	0683-1055	5		RESISTOR 1M 5% .25W FC TC=-800/+900	01121	CB1055
A4R151	0683-1035	1		RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A4R152	0683-1015	7		RESISTOR 100 5% .25W FC TC=-400/+500	01121	CB1015
A4T1	08552-6044	1	1	TRANSFORMER-6-TURNS	28480	08552-6044
A4U1	1820-2655	6	1	IC OSC TTL LS DUAL	01295	SN74LS625N
A4U2	1820-0803	2	1	IC GATE ECL OR-NOR TPL	04713	MC10105P
A4U3	1826-0340	4	1	IC OP AMP LOW BIAS-H-IMPD TO-99 PKG	28480	1826-0340
A4U4	1826-0421	2	1	IC CONV RMS/DC 14-DIP-C PKG	24355	AD536AJ
	1200-0638	7	1	SOCKET-IC 14-CONT DIP DIP SLDR	28480	1200-0638

See introduction to this section for ordering information
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Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A4U5	1826-0111	7	3	IC OP AMP GP DUAL TO-99 PKG	3L585	CA1458T
A4U6	1826-0111	7		IC OP AMP GP DUAL TO-99 PKG	3L585	CA1458T
A4U101	1820-0810	1	1	IC RCVR ECL LINE RCVR TPL 2-INP	04713	MC10116P
A4U103	1826-0043	4	1	IC OP AMP GP TO-99 PKG	3L585	CA307T
A4U104	1826-0111	7		IC OP AMP GP DUAL TO-99 PKG	3L585	CA1458T
	9170-0894	0	1	CORE-SHIELDING BEAD	28480	9170-0894

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A5	03586-66505	7	1	INPUT MIXER (3586A/B)	28480	03586-66505
A5C1	0160-4385	2	2	CAPACITOR-FXD 15PF +-5% 200VDC CER 0+-30	28480	0160-4385
A5C2	0160-4385	2		CAPACITOR-FXD 15PF +-5% 200VDC CER 0+-30	28480	0160-4385
A5C5	0160-3847	9	13	CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A5C6	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A5C7	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A5C20	0160-4283	9	1	CAPACITOR-FXD 100PF +-5% 200VDC CER	51642	150-100 NP0-101J
A5C21	0160-2249	3	2	CAPACITOR-FXD 4.7PF +-.25PF 500VDC CER	28480	0160-2249
A5C22	0160-2249	3		CAPACITOR-FXD 4.7PF +-.25PF 500VDC CER	28480	0160-2249
A5C23	0121-0162	3	1	CAPACITOR-V TRMR-AIR 1.2-3.5PF 350V	08590	10-1326-25004-910
A5C24	0160-2263	1	1	CAPACITOR-FXD 18PF +-5% 500VDC CER 0+-30	28480	0160-2263
A5C25	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A5C28	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A5C29	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A5C30	0160-2306	3	1	CAPACITOR-FXD 27PF +-5% 300VDC MICA	28480	0160-2306
A5C40	0180-0228	6	5	CAPACITOR-FXD 22UF+-10% 15VDC TA	56289	150D226X9015B2
A5C41	0180-0228	6		CAPACITOR-FXD 22UF+-10% 15VDC TA	56289	150D226X9015B2
A5C42	0180-0228	6		CAPACITOR-FXD 22UF+-10% 15VDC TA	56289	150D226X9015B2
A5C43	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A5C44	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A5C45	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A5C52	0160-2255	1	1	CAPACITOR-FXD 8.2PF +-.25PF 500VDC CER	28480	0160-2255
A5C53	0121-0451	3	6	CAPACITOR-V TRMR-AIR 1.7-11PF 175V	74970	187-0106-028
A5C54	0160-2241	5	1	CAPACITOR-FXD 2.2PF +-.25PF 500VDC CER	28480	0160-2241
A5C55	0160-2201	7	2	CAPACITOR-FXD 51PF +-5% 300VDC MICA	28480	0160-2201
A5C56	0121-0451	3		CAPACITOR-V TRMR-AIR 1.7-11PF 175V	74970	187-0106-028
A5C57	0160-2257	3	1	CAPACITOR-FXD 10PF +-5% 500VDC CER 0+-60	28480	0160-2257
A5C58	0160-2201	7		CAPACITOR-FXD 51PF +-5% 300VDC MICA	28480	0160-2201
A5C59	0121-0451	3		CAPACITOR-V TRMR-AIR 1.7-11PF 175V	74970	187-0106-028
A5C60	0160-2253	9	1	CAPACITOR-FXD 6.8PF +-.25PF 500VDC CER	28480	0160-2253
A5C61	0121-0451	3		CAPACITOR-V TRMR-AIR 1.7-11PF 175V	74970	187-0106-028
A5C62	0140-0191	8	1	CAPACITOR-FXD 56PF +-5% 300VDC MICA	72136	DM15E560J0300WV1CR
A5C63	0121-0451	3		CAPACITOR-V TRMR-AIR 1.7-11PF 175V	74970	187-0106-028
A5C64	0160-2266	4	1	CAPACITOR-FXD 24PF +-5% 500VDC CER 0+-30	28480	0160-2266
A5C65	0121-0451	3		CAPACITOR-V TRMR-AIR 1.7-11PF 175V	74970	187-0106-028
A5C67	0160-3879	7	1	CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A5C68	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A5C69	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A5C70	0180-1701	2	2	CAPACITOR-FXD 6.8UF+-20% 6VDC TA	56289	150D685X0006A2
A5C71	0180-1701	2		CAPACITOR-FXD 6.8UF+-20% 6VDC TA	56289	150D685X0006A2
A5C72	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A5C73	0180-0228	6		CAPACITOR-FXD 22UF+-10% 15VDC TA	56289	150D226X9015B2
A5C74	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A5C75	0180-0228	6		CAPACITOR-FXD 22UF+-10% 15VDC TA	56289	150D226X9015B2
A5C76	0180-2062	0	1	CAPACITOR-FXD 120UF+-20% 10VDC TA	56289	150D127X0010R2
A5CR1	1906-0211	8	1	DIODE-ARRAY VF DIFF=20MV	28480	1906-0211
A5J1	1250-1512	3	1	CONNECTOR-RF SMB M PC 50-OHM	28480	1250-1512
A5L1	9100-2249	6	1	INDUCTOR RF-CH-MLD 150NH 10% .105DX.26LG	28480	9100-2249
A5L21	9100-1379	1	1	INDUCTOR-VAR	28480	9100-1379
A5L22	9100-3562	8	3	INDUCTOR RF-CH-MLD 4.7UH 5% .166DX.385LG	28480	9100-3562
A5L23	9100-3562	8		INDUCTOR RF-CH-MLD 4.7UH 5% .166DX.385LG	28480	9100-3562
A5L24	9100-3562	8		INDUCTOR RF-CH-MLD 4.7UH 5% .166DX.385LG	28480	9100-3562
A5L25	9140-0257	6	1	COIL-VAR 297NH-363NH Q=140 PC-MTG	28480	9140-0257
A5L40	9140-0394	2	3	INDUCTOR RF-CH-MLD 680NH 5% .166DX.385LG	28480	9140-0394
A5L41	9140-0394	2		INDUCTOR RF-CH-MLD 680NH 5% .166DX.385LG	28480	9140-0394
A5L42	9140-0394	2		INDUCTOR RF-CH-MLD 680NH 5% .166DX.385LG	28480	9140-0394
A5L50	9140-0384	0	1	INDUCTOR 618NH 2% .344DX.625LG	28480	9140-0384
A5L51	9140-0386	2	2	INDUCTOR 702NH 2% .344DX.625LG	28480	9140-0386
A5L52	9140-0386	2		INDUCTOR 702NH 2% .344DX.625LG	28480	9140-0386
A5L53	9140-0385	1	1	INDUCTOR 831NH 2% .344DX.625LG	28480	9140-0385
A5Q21	1854-0345	8	2	TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW	04713	2N5179
A5Q22	1854-0345	8		TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW	04713	2N5179
A5Q70	1854-0795	2	2	TRANSISTOR NPN SI TO-92 PD=625MW	04713	MPSH10
A5Q71	1854-0795	2		TRANSISTOR NPN SI TO-92 PD=625MW	04713	MPSH10
A5Q72	1853-0354	7	1	TRANSISTOR PNP SI TO-92 PD=350MW	28480	1853-0354
A5R1	0757-0282	5	3	RESISTOR 221 1% .125W F TC=0+-100	24546	C4-1/8-T0-221R-F
A5R2	0757-0277	8	3	RESISTOR 49.9 1% .125W F TC=0+-100	24546	C4-1/8-T0-4992-F
A5R3	0757-0277	8		RESISTOR 49.9 1% .125W F TC=0+-100	24546	C4-1/8-T0-4992-F
A5R4	2100-3383	4	1	RESISTOR-TRMR 50 10% C TOP-ADJ 1-TRN	28480	2100-3383
A5R5	0757-0401	0	3	RESISTOR 100 1% .125W F TC=0+-100	24546	C4-1/8-T0-101-F

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A5R6	0757-0401	0		RESISTOR 100 1% .125W F TC=0+-100	24546	C4-1/8-T0-101-F
A5R7	0757-0284	7	2	RESISTOR 150 1% .125W F TC=0+-100	24546	C4-1/8-T0-151-F
A5R8	0757-0401	0		RESISTOR 100 1% .125W F TC=0+-100	24546	C4-1/8-T0-101-F
A5R9	0757-0282	5		RESISTOR 221 1% .125W F TC=0+-100	24546	C4-1/8-T0-221R-F
A5R10	0757-0277	8		RESISTOR 49.9 1% .125W F TC=0+-100	24546	C4-1/8-T0-4992-F
A5R11	0757-0284	7		RESISTOR 150 1% .125W F TC=0+-100	24546	C4-1/8-T0-151-F
A5R12	0757-0282	5		RESISTOR 221 1% .125W F TC=0+-100	24546	C4-1/8-T0-221R-F
A5R20	0698-4354	4	2	RESISTOR 11.8 1% .125W F TC=0+-100	03888	PME55-1/8-T0-11R8-F
A5R21	0698-4354	4		RESISTOR 11.8 1% .125W F TC=0+-100	03888	PME55-1/8-T0-11R8-F
A5R22	0698-4386	2	4	RESISTOR 59 1% .125W F TC=0+-100	24546	C4-1/8-T0-59R0-F
A5R23*	0698-3445	2	1	RESISTOR 348 1% .125W F TC=0+-100	24546	C4-1/8-T0-348R-F
A5R23*	0698-3447	4	1	RESISTOR 422 1% .125W F TC=0+-100	24546	C4-1/8-T0-422R-F
A5R23*	0698-3510	2	1	RESISTOR 453 1% .125W F TC=0+-100	24546	C4-1/8-T0-453R-F
A5R23*	0698-4123	5	1	RESISTOR 499 1% .125W F TC=0+-100	24546	C4-1/8-T0-499R-F
A5R23*	0698-4450	1	1	RESISTOR 324 1% .125W F TC=0+-100	24546	C4-1/8-T0-324R-F
A5R23*	0698-4452	3	1	RESISTOR 374 1% .125W F TC=0+-100	24546	C4-1/8-T0-374R-F
A5R23*	0698-4453	4	1	RESISTOR 402 1% .125W F TC=0+-100	24546	C4-1/8-T0-402R-F
A5R23*	0698-4454	5	1	RESISTOR 523 1% .125W F TC=0+-100	24546	C4-1/8-T0-523R-F
A5R24	2100-1984	7	1	RESISTOR-TRMR 100 10% C TOP-ADJ 1-TRN	73138	82PR100
A5R25	0683-6225	1	1	RESISTOR 6.2K 5% .25W FC TC=-400/+700	01121	CB6225
A5R26	0683-2725	8	1	RESISTOR 2.7K 5% .25W FC TC=-400/+700	01121	CB2725
A5R27	0683-7505	2	2	RESISTOR 75 5% .25W FC TC=-400/+500	01121	CB7505
A5R28	0683-1815	5	1	RESISTOR 180 5% .25W FC TC=-400/+600	01121	CB1815
A5R29	0683-7505	2		RESISTOR 75 5% .25W FC TC=-400/+500	01121	CB7505
A5R30	0757-0398	4	1	RESISTOR 75 1% .125W F TC=0+-100	24546	C4-1/8-T0-75R0-F
A5R31	0683-1015	7	1	RESISTOR 100 5% .25W FC TC=-400/+500	01121	CB1015
A5R32	0698-4448	7	2	RESISTOR 294 1% .125W F TC=0+-100	24546	C4-1/8-T0-294R-F
A5R33	0757-0294	9	1	RESISTOR 17.8 1% .125W F TC=0+-100	19701	MF4C1/8-T0-17R8-F
A5R34	0698-4448	7		RESISTOR 294 1% .125W F TC=0+-100	24546	C4-1/8-T0-294R-F
A5R50	2100-3349	2	1	RESISTOR-TRMR 100 10% C SIDE-ADJ 1-TRN	28480	2100-3349
A5R51	0698-3279	0	2	RESISTOR 4.99K 1% .125W F TC=0+-100	24546	C4-1/8-T0-4991-F
A5R52	0698-3279	0		RESISTOR 4.99K 1% .125W F TC=0+-100	24546	C4-1/8-T0-4991-F
A5R53	0698-4442	1	1	RESISTOR 4.42K 1% .125W F TC=0+-100	24546	C4-1/8-T0-4421-F
A5R54	0698-4464	7	1	RESISTOR 887 1% .125W F TC=0+-100	24546	C4-1/8-T0-887R-F
A5R70	0683-2405	1	1	RESISTOR 24 5% .25W FC TC=-400/+500	01121	CB2405
A5R71	0683-5115	6	1	RESISTOR 510 5% .25W FC TC=-400/+600	01121	CB5115
A5R72	0683-1025	9	1	RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A5R73	0757-0411	2	1	RESISTOR 332 1% .125W F TC=0+-100	24546	C4-1/8-T0-332R-F
A5R74	0698-0063	4	2	RESISTOR 5.23K 1% .125W F TC=0+-100	91637	CMF-1/8-T1-5231-F
A5R75	0757-0427	0	1	RESISTOR 1.5K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1501-F
A5R76	0698-0063	4		RESISTOR 5.23K 1% .125W F TC=0+-100	91637	CMF-1/8-T1-5231-F
A5R77	0757-0415	6	1	RESISTOR 475 1% .125W F TC=0+-100	24546	C4-1/8-T0-475R-F
A5R78	0757-0381	5	2	RESISTOR 15 1% .125W F TC=0+-100	19701	MF4C1/8-T0-15R0-F
A5R79	0683-5105	4	2	RESISTOR 51 5% .25W FC TC=-400/+500	01121	CB5105
A5R80	0683-5105	4		RESISTOR 51 5% .25W FC TC=-400/+500	01121	CB5105
A5R81	0757-0301	5		RESISTOR 15 1% .125W F TC=0+-100	19701	MF4C1/8-T0-15R0-F
A5R82	0698-4393	1	1	RESISTOR 73.2 1% .125W F TC=0+-100	24546	C4-1/8-T0-73R2-F
A5T1	08552-6044	1	3	TRANSFORMER 6-TURNS	28480	08552-6044
A5T3	9100-4038	5	1	TRANSFORMER BEAD CORE; WITH CT PRI & SEC	28480	9100-4038
A5T20	08552-6044	1		TRANSFORMER 6-TURNS	28480	08552-6044
A5T21	08552-6044	1		TRANSFORMER 6-TURNS	28480	08552-6044
A5U1	1858-0015	7	1	IC MISC	28480	1858-0015
A5Y1**	0410-0753	1	2	CRYSTAL-QUARTZ MATCHED PAIR; 49.995 MHZ	28480	0410-0753
A5Y2	0410-0753	1		CRYSTAL-QUARTZ MATCHED PAIR; 50.005MHZ	28480	0410-0753
	9170-0894	0	1	CORE-SHIELDING BEAD	28480	9170-0894

**-HP- PART NUMBER 0410-0753 CONSISTS OF A MATCHED SET OF 2 CRYSTALS: 1 EACH 49.995MHZ AND 1 EACG 50.005MHZ.

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A5	03586-66509	1	1	INPUT MIXER (3586C)	28480	03586-66509
A5C1	0160-4385	2	2	CAPACITOR-FXD 15PF +-5% 200VDC CER 0+-30	28480	0160-4385
A5C2	0160-4385	2		CAPACITOR-FXD 15PF +-5% 200VDC CER 0+-30	28480	0160-4385
A5C5	0160-3847	9	13	CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A5C6	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A5C7	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A5C20	0160-4283	9	1	CAPACITOR-FXD 100PF +-5% 200VDC CER	51642	150-100-NP0-101J
A5C21	0160-2249	3	2	CAPACITOR-FXD 4.7PF +-.25PF 500VDC CER	28480	0160-2249
A5C22	0160-2249	3		CAPACITOR-FXD 4.7PF +-.25PF 500VDC CER	28480	0160-2249
A5C23	0121-0162	3	1	CAPACITOR-V TRMR-AIR 1.2-3.5PF 350V	08590	10-1326-25004-910
A5C24	0160-2263	1	1	CAPACITOR-FXD 18PF +-5% 500VDC CER 0+-30	28480	0160-2263
A5C25	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A5C28	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A5C29	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A5C30	0160-2306	3	1	CAPACITOR-FXD 27PF +-5% 300VDC MICA	28480	0160-2306
A5C40	0180-0228	6	5	CAPACITOR-FXD 22UF+-10% 15VDC TA	56289	150D226X9015B2
A5C41	0180-0228	6		CAPACITOR-FXD 22UF+-10% 15VDC TA	56289	150D226X9015B2
A5C42	0180-0228	6		CAPACITOR-FXD 22UF+-10% 15VDC TA	56289	150D226X9015B2
A5C43	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A5C44	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A5C45	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A5C52	0160-2255	1	1	CAPACITOR-FXD 8.2PF +-.25PF 500VDC CER	28480	0160-2255
A5C53	0121-0451	3	6	CAPACITOR-V TRMR-AIR 1.7-11PF 175V	74970	187-0106-028
A5C54	0160-2241	5	1	CAPACITOR-FXD 2.2PF +-.25PF 500VDC CER	28480	0160-2241
A5C55	0160-2201	7	2	CAPACITOR-FXD 51PF +-5% 300VDC MICA	28480	0160-2201
A5C56	0121-0451	3		CAPACITOR-V TRMR-AIR 1.7-11PF 175V	74970	187-0106-028
A5C57	0160-2257	3	1	CAPACITOR-FXD 10PF +-5% 500VDC CER 0+ 60	28480	0160-2257
A5C58	0160-2201	7		CAPACITOR-FXD 51PF +-5% 300VDC MICA	28480	0160-2201
A5C59	0121-0451	3		CAPACITOR-V TRMR-AIR 1.7-11PF 175V.	74970	187-0106-028
A5C60	0160-2253	9	1	CAPACITOR-FXD 6.8PF +-.25PF 500VDC CER	28480	0160-2253
A5C61	0121-0451	3		CAPACITOR-V TRMR-AIR 1.7-11PF 175V	74970	187-0106-028
A5C62	0140-0191	8	1	CAPACITOR-FXD 56PF +-5% 300VDC MICA	72136	DM15E560J0300WV1CR
A5C63	0121-0451	3		CAPACITOR-V TRMR-AIR 1.7-11PF 175V	74970	187-0106-028
A5C64	0160-2266	4	1	CAPACITOR-FXD 24PF +-5% 500VDC CER 0+-30	28480	0160-2266
A5C65	0121-0451	3		CAPACITOR-V TRMR-AIR 1.7-11PF 175V	74970	187-0106-028
A5C67	0160-3879	7	1	CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A5C68	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A5C69	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A5C70	0180-1701	2	2	CAPACITOR-FXD 6.8UF+-20% 6VDC TA	56289	150D685X0006A2
A5C71	0180-1701	2		CAPACITOR-FXD 6.8UF+-20% 6VDC TA	56289	150D685X0006A2
A5C72	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A5C73	0180-0228	6		CAPACITOR-FXD 22UF+-10% 15VDC TA	56289	150D226X9015B2
A5C74	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A5C75	0180-0228	6		CAPACITOR-FXD 22UF+-10% 15VDC TA	56289	150D226X9015B2
A5C76	0180-2062	0	1	CAPACITOR-FXD 120UF+-20% 10VDC TA	56289	150D127X0010R2
A5CR1	1906-0211	8	1	DIODE-ARRAY VF DIFF=20MV	28480	1906-0211
A5J1	1250-1512	3	1	CONNECTOR-RF SMB M PC 50-OHM	28480	1250-1512
A5L1	9100-2249	6	1	INDUCTOR RF-CH-MLD 150NH 10% .105DX.26LG	28480	9100-2249
A5L21	9100-1379	1	1	INDUCTOR-VAR	28480	9100-1379
A5L22	9100-3562	8	3	INDUCTOR RF-CH-MLD 4.7UH 5% .166DX.385LG	28480	9100-3562
A5L23	9100-3562	8		INDUCTOR RF-CH-MLD 4.7UH 5% .166DX.385LG	28480	9100-3562
A5L24	9100-3562	8		INDUCTOR RF-CH-MLD 4.7UH 5% .166DX.385LG	28480	9100-3562
A5L25	9140-0257	6	1	COIL-VAR 297NH-363NH Q=140 PC-MTG	28480	9140-0257
A5L40	9140-0394	2	3	INDUCTOR RF-CH-MLD 680NH 5% .166DX.385LG	28480	9140-0394
A5L41	9140-0394	2		INDUCTOR RF-CH-MLD 680NH 5% .166DX.385LG	28480	9140-0394
A5L42	9140-0394	2		INDUCTOR RF-CH-MLD 680NH 5% .166DX.385LG	28480	9140-0394
A5L50	9140-0384	0	1	INDUCTOR 610NH 2% .344DX.625LG	28480	9140-0384
A5L51	9140-0386	2	2	INDUCTOR 702NH 2% .344DX.625LG	28480	9140-0386
A5L52	9140-0386	2		INDUCTOR 702NH 2% .344DX.625LG	28480	9140-0386
A5L53	9140-0385	1	1	INDUCTOR 831NH 2% .344DX.625LG	28480	9140-0385
A5Q21	1854-0345	8	2	TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW	04713	2N5179
A5Q22	1854-0345	8		TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW	04713	2N5179
A5Q70	1854-0795	2	2	TRANSISTOR NPN SI TO-92 PD=625MW	04713	MPSH10
A5Q71	1854-0795	2		TRANSISTOR NPN SI TO-92 PD=625MW	04713	MPSH10
A5Q72	1853-0354	7	1	TRANSISTOR PNP SI TO-92 PD=350MW	28480	1853-0354
A5R1	0757-0282	5	3	RESISTOR 221 1% .125W F TC=0+-100	24546	C4-1/8-T0-221R-F
A5R2	0757-0277	8	3	RESISTOR 49.9 1% .125W F TC=0+-100	24546	C4-1/8-T0-4992-F
A5R3	0757-0277	8		RESISTOR 49.9 1% .125W F TC=0+-100	24546	C4-1/8-T0-4992-F
A5R4	2100-3383	4	1	RESISTOR-TRMR 50 10% C TOP-ADJ 1-TRN	28480	2100-3383
A5R5	0757-0401	0	3	RESISTOR 100 1% .125W F TC=0+-100	24546	C4-1/8-T0-101-F

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A5R6	0757-0401	0		RESISTOR 100 1% .125W F TC=0+-100	24546	C4-1/8-T0-101-F
A5R7	0757-0284	7	2	RESISTOR 150 1% .125W F TC=0+-100	24546	C4-1/8-T0-151-F
A5R8	0757-0401	0		RESISTOR 100 1% .125W F TC=0+-100	24546	C4-1/8-T0-101-F
A5R9	0757-0282	5		RESISTOR 221 1% .125W F TC=0+-100	24546	C4-1/8-T0-221R-F
A5R10	0757-0277	8		RESISTOR 49.9 1% .125W F TC=0+-100	24546	C4-1/8-T0-4992-F
A5R11	0757-0284	7		RESISTOR 150 1% .125W F TC=0+-100	24546	C4-1/8-T0-151-F
A5R12	0757-0282	5		RESISTOR 221 1% .125W F TC=0+-100	24546	C4-1/8-T0-221R-F
A5R20	0698-4354	4	2	RESISTOR 11.8 1% .125W F TC=0+-100	03888	PME55-1/8-T0-11R8-F
A5R21	0698-4354	4		RESISTOR 11.8 1% .125W F TC=0+-100	03888	PME55-1/8-T0-11R8-F
A5R22	0698-4386	2	1	RESISTOR 59 1% .125W F TC=0+-100	24546	C4-1/8-T0-59R0-F
A5R23*	0698-3445	2	1	RESISTOR 348 1% .125W F TC=0+-100	24546	C4-1/8-T0-348R-F
A5R23*	0698-3447	4	1	RESISTOR 422 1% .125W F TC=0+-100	24546	C4-1/8-T0-422R-F
A5R23*	0698-3510	2	1	RESISTOR 453 1% .125W F TC=0+-100	24546	C4-1/8-T0-453R-F
A5R23*	0698-4123	5	1	RESISTOR 499 1% .125W F TC=0+-100	24546	C4-1/8-T0-499R-F
A5R23*	0698-4452	3	1	RESISTOR 374 1% .125W F TC=0+-100	24546	C4-1/8-T0-374R-F
A5R23*	0698-4453	4	1	RESISTOR 402 1% .125W F TC=0+-100	24546	C4-1/8-T0-402R-F
A5R23*	0698-4454	5	1	RESISTOR 523 1% .125W F TC=0+-100	24546	C4-1/8-T0-523R-F
A5R24	2100-1984	7	1	RESISTOR-TRMR 100 10% C TOP-ADJ 1-TRN	73138	82PR100
A5R25	0683-6225	1	1	RESISTOR 6.2K 5% .25W FC TC=-400/+700	01121	CB6225
A5R26	0683-2725	8	1	RESISTOR 2.7K 5% .25W FC TC=-400/+700	01121	CB2725
A5R27	0683-7505	2	2	RESISTOR 75 5% .25W FC TC=-400/+500	01121	CB7505
A5R28	0683-1815	5	1	RESISTOR 100 5% .25W FC TC=-400/+600	01121	CB1815
A5R29	0683-7505	2		RESISTOR 75 5% .25W FC TC=-400/+500	01121	CB7505
A5R30	0757-0395	1	1	RESISTOR 56.2 1% .125W F TC=0+-100	24546	C4-1/8-T0-56R2-F
A5R31	0683-1015	7	1	RESISTOR 100 5% .25W FC TC=-400/+500	01121	CB1015
A5R50	2100-3349	2	1	RESISTOR-TRMR 100 10% C SIDE-ADJ 1-TRN	28480	2100-3349
A5R51	0698-3279	0	2	RESISTOR 4.99K 1% .125W F TC=0+-100	24546	C4-1/8-T0-4991-F
A5R52	0698-3279	0		RESISTOR 4.99K 1% .125W F TC=0+-100	24546	C4-1/8-T0-4991-F
A5R53	0698-4442	1	1	RESISTOR 4.42K 1% .125W F TC=0+-100	24546	C4-1/8-T0-4421-F
A5R54	0698-4464	7	1	RESISTOR 887 1% .125W F TC=0+-100	24546	C4-1/8-T0-887R-F
A5R70	0683-2405	1	1	RESISTOR 24 5% .25W FC TC=-400/+500	01121	CB2405
A5R71	0683-5115	6	1	RESISTOR 510 5% .25W FC TC=-400/+600	01121	CB5115
A5R72	0683-1025	9	1	RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A5R73	0757-0411	2	1	RESISTOR 332 1% .125W F TC=0+-100	24546	C4-1/8-T0-332R-F
A5R74	0698-0063	4	2	RESISTOR 5.23K 1% .125W F TC=0+-100	91637	CMF-1/8-T1-5231-F
A5R75	0757-0427	0	1	RESISTOR 1.5K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1501-F
A5R76	0698-0063	4		RESISTOR 5.23K 1% .125W F TC=0+-100	91637	CMF-1/8-T1-5231-F
A5R77	0757-0415	6	1	RESISTOR 475 1% .125W F TC=0+-100	24546	C4-1/8-T0-475R-F
A5R78	0757-0381	5	2	RESISTOR 15 1% .125W F TC=0+-100	19701	MF4C1/8-T0-15R0-F
A5R79	0683-5105	4	2	RESISTOR 51 5% .25W FC TC=-400/+500	01121	CB5105
A5R80	0683-5105	4		RESISTOR 51 5% .25W FC TC=-400/+500	01121	CB5105
A5R81	0757-0381	5		RESISTOR 15 1% .125W F TC=0+-100	19701	MF4C1/8-T0-15R0-F
A5R82	0698-4393	1	1	RESISTOR 73.2 1% .125W F TC=0+-100	24546	C4-1/8-T0-73R2-F
A5T1	08552-6044	1	3	TRANSFORMER 6-TURNS	28480	08552-6044
A5T3	9100-4038	5	1	TRANSFORMER BEAD CORE; WITH CT PRI & SEC	28480	9100-4038
A5T20	08552-6044	1		TRANSFORMER 6-TURNS	28480	08552-6044
A5T21	08552-6044	1		TRANSFORMER 6-TURNS	28480	08552-6044
A5U1	1858-0015	7	1	IC MISC	28480	1858-0015
A5Y1**	0410-0753	1	2	CRYSTAL-QUARTZ MATCHED PAIR; 49.995 MHZ	28480	0410-0753
A5Y2	0410-0753	1		CRYSTAL-QUARTZ MATCHED PAIR; 50.005MHZ	28480	0410-0753
	9170-0894	0	1	CORE-SHIELDING BEAD **-HP- PART NUMBER 0410-0753 CONSISTS OF A MATCHED SET OF 2 CRYSTALS; 1 EACH 49.995MHZ AND 1 EACH 50.005MHZ.	28480	9170-0894

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A10	03586-66510	4	1	SECOND MIXER (3586A/B/C)	28480	03586-66510
A10C1	0160-2205	1	2	CAPACITOR-FXD 120PF +-5% 300VDC MICA	28480	0160-2205
A10C2	0160-2202	8	1	CAPACITOR-FXD 75PF +-5% 300VDC MICA	28480	0160-2202
A10C3	0160-2205	1		CAPACITOR-FXD 120PF +-5% 300VDC MICA	28480	0160-2205
A10C4	0160-3847	9	16	CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A10C5	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A10C6	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A10C7	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A10C15	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A10C16	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A10C17	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A10C18	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A10C20	0160-2249	3	2	CAPACITOR-FXD 4.7PF +-.25PF 500VDC CER	28480	0160-2249
A10C21	0160-2249	3		CAPACITOR-FXD 4.7PF +-.25PF 500VDC CER	28480	0160-2249
A10C22	0121-0162	3	1	CAPACITOR-V TRMR-AIR 1.2-3.5PF 350V	98590	10-1326-25004-710
A10C23	0160-2263	1	1	CAPACITOR-FXD 18PF +-5% 500VDC CER 0+-30	28480	0160-2263
A10C24	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A10C25	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A10C26	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A10C27	0160-2306	3	2	CAPACITOR-FXD 27PF +-5% 300VDC MICA	28480	0160-2306
A10C40	0160-2230	2	1	CAPACITOR-FXD 3300PF +-5% 300VDC MICA	28480	0160-2230
A10C41	0160-0127	2	1	CAPACITOR-FXD 1UF +-20% 25VDC CER	28480	0160-0127
A10C42	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A10C43	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A10C50	0180-0228	6	3	CAPACITOR-FXD 22UF+-10% 15VDC TA	56289	150D226X9015B2
A10C51	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A10C52	0180-0228	6		CAPACITOR-FXD 22UF+-10% 15VDC TA	56289	150D226X9015B2
A10C53	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A10C54	0180-0228	6		CAPACITOR-FXD 22UF+-10% 15VDC TA	56289	150D226X9015B2
A10C55	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A10C101	0140-0205	5	1	CAPACITOR-FXD 62PF +-5% 300VDC MICA	72136	DM15E620J0300WV1CR
A10C102	0160-4317	0	1	CAPACITOR-FXD 1200PF +-1% 100VDC MICA	28480	0160-4317
A10C103	0140-0195	2	1	CAPACITOR-FXD 130PF +-5% 300VDC MICA	72136	DM15F131J0300WV1CR
A10C104	0160-2387	0	2	CAPACITOR-FXD 1000PF +-1% 500VDC MICA	28480	0160-2387
A10C106	0160-2373	4	1	CAPACITOR-FXD 4700PF +-2% 300VDC MICA	28480	0160-2373
A10C107	0160-2306	3		CAPACITOR-FXD 27PF +-5% 300VDC MICA	28480	0160-2306
A10C108	0140-0223	7	1	CAPACITOR-FXD 260PF +-1% 300VDC MICA	72136	DM15F261F0300WV1C
A10C109	0160-3084	6	1	CAPACITOR-FXD 60PF +-2% 500VDC MICA	28480	0160-3084
A10C111	0160-2203	9	1	CAPACITOR-FXD 91PF +-5% 300VDC MICA 0+70	28480	0160-2203
A10C112	0160-2387	0		CAPACITOR-FXD 1000PF +-1% 500VDC MICA	28480	0160-2387
A10C113	0160-3535	2	1	CAPACITOR-FXD 560PF +-5% 300VDC MICA	28480	0160-3535
A10C114	0160-0980	3	1	CAPACITOR-FXD 6200PF +-2% 300VDC MICA	28480	0160-0980
A10C115	0160-2307	4	1	CAPACITOR-FXD 47PF +-5% 300VDC MICA	28480	0160-2307
A10C116	0160-3156	3	1	CAPACITOR-FXD 750PF +-1% 300VDC MICA	28480	0160-3156
A10C117	0140-0217	9	1	CAPACITOR-FXD 140PF +-2% 300VDC MICA	72136	DM15F141G0300WV1CR
A10C119	0140-0209	9	1	CAPACITOR-FXD 5PF +-10% 500VDC MICA	72136	DM15C050K0500WV1CR
A10C120	0140-0228	2	1	CAPACITOR-FXD 360PF +-1% 300VDC MICA	72136	DM15F361F0300WV1C
A10CR1	1906-0210	7	1	DIODE-ARRAY VF DIFF=20MV	28480	5082-2830
A10J1	1250-1512	3	1	CONNECTOR-RF SMB M PC 50-OHM	28480	1250-1512
A10L1	9100-3818	7	2	INDUCTOR RF-CH-MLD 47NH 20% .166DX.385LG	28480	9100-3818
A10L2	9100-3818	7		INDUCTOR RF-CH-MLD 47NH 20% .166DX.385LG	28480	9100-3818
A10L20	9100-1379	1	1	INDUCTOR-VAR	28480	9100-1379
A10L21	9100-3562	8	3	INDUCTOR RF-CH-MLD 4.7UH 5% .166DX.385LG	28480	9100-3562
A10L22	9100-3562	8		INDUCTOR RF-CH-MLD 4.7UH 5% .166DX.385LG	28480	9100-3562
A10L23	9100-3562	8		INDUCTOR RF-CH-MLD 4.7UH 5% .166DX.385LG	28480	9100-3562
A10L24	9140-0257	6	1	COIL-VAR 297NH-363NH Q=140 PC-MTG	28480	9140-0257
A10L40	9140-0393	1	1	INDUCTOR RF-CH-MLD 20UH 5% .166DX.385LG	28480	9140-0393
A10L50	9140-0394	2	3	INDUCTOR RF-CH-MLD 680NH 5% .166DX.385LG	28480	9140-0394
A10L51	9140-0394	2		INDUCTOR RF-CH-MLD 680NH 5% .166DX.385LG	28480	9140-0394
A10L52	9140-0394	2		INDUCTOR RF-CH-MLD 680NH 5% .166DX.385LG	28480	9140-0394
A10L101	9140-0376	0	3	COIL-VARIABLE 110. MH; +-3% MIN; Q	28480	9140-0376
A10L102	9140-0377	1	1	COIL-VARIABLE 290. MH; +-3% MIN; Q	28480	9140-0377
A10L103	9140-0376	0		COIL-VARIABLE 110. MH; +-3% MIN; Q	28480	9140-0376
A10L104	9140-0376	0		COIL-VARIABLE 110. MH; +-3% MIN; Q	28480	9140-0376
A10Q19	1854-0345	8	3	TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW	04713	2N5179
A10Q20	1854-0345	8		TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW	04713	2N5179
A10Q21	1854-0345	8		TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW	04713	2N5179
A10R1	0757-0277	8	4	RESISTOR 49.9 1% .125W F TC=0+-100	24546	C4-1/8-T0-4992-F
A10R2	0757-0277	8		RESISTOR 49.9 1% .125W F TC=0+-100	24546	C4-1/8-T0-4992-F
A10R3	0757-0402	1	2	RESISTOR 110 1% .125W F TC=0+-100	24546	C4-1/8-T0-111-F
A10R5	0757-0284	7	2	RESISTOR 150 1% .125W F TC=0+-100	24546	C4-1/8-T0-151-F
A10R6	0757-0402	1		RESISTOR 110 1% .125W F TC=0+-100	24546	C4-1/8-T0-111-F

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A10R7	0683-1015	7	2	RESISTOR 100 5% .25W FC TC=-400/+500	01121	CB1015
A10R8	0757-0282	5	2	RESISTOR 221 1% .125W F TC=0+-100	24546	C4-1/8-T0-221R-F
A10R9	0757-0277	8		RESISTOR 49.9 1% .125W F TC=0+-100	24546	C4-1/8-T0-4992-F
A10R10	0757-0284	7		RESISTOR 150 1% .125W F TC=0+-100	24546	C4-1/8-T0-151-F
A10R11	0757-0282	5		RESISTOR 221 1% .125W F TC=0+-100	24546	C4-1/8-T0-221R-F
A10R12	0757-0385	9	2	RESISTOR 22.1 1% .125W F TC=0+-100	19701	MF4C1/8-T0-22R1-F
A10R13	0757-0385	9	-	RESISTOR 22.1 1% .125W F TC=0+-100	19701	MF4C1/8-T0-22R1-F
A10R15	0757-0277	8		RESISTOR 49.9 1% .125W F TC=0+-100	24546	C4-1/8-T0-4992-F
A10R16	0757-0291	6	1	RESISTOR 24.9 1% .125W F TC=0+-100	19701	MF4C1/8-T0-2492-F
A10R17	0757-0401	0	1	RESISTOR 100 1% .125W F TC=0+-100	24546	C4-1/8-T0-101-F
A10R18	0698-4459	0	1	RESISTOR 634 1% .125W F TC=0+-100	24546	C4-1/8-T0-634R-F
A10R19	0683-1005	5	1	RESISTOR 10 5% .25W FC TC=-400/+500	01121	CB1005
A10R20	0698-3443	0	1	RESISTOR 287 1% .125W F TC=0+-100	24546	C4-1/8-T0-287R-F
A10R23*	0698-3445	2	1	RESISTOR 348 1% .125W F TC=0+-100	24546	C4-1/8-T0-348R-F
A10R23*	0698-3447	4	1	RESISTOR 422 1% .125W F TC=0+-100	24546	C4-1/8-T0-422R-F
A10R23*	0698-3510	2	1	RESISTOR 453 1% .125W F TC=0+-100	24546	C4-1/8-T0-453R-F
A10R23*	0698-4123	5	1	RESISTOR 499 1% .125W F TC=0+-100	24546	C4-1/8-T0-499R-F
A10R23*	0698-4450	1	1	RESISTOR 324 1% .125W F TC=0+-100	24546	C4-1/8-T0-324R-F
A10R23*	0698-4452	3	1	RESISTOR 374 1% .125W F TC=0+-100	24546	C4-1/8-T0-374R-F
A10R23*	0698-4453	4	1	RESISTOR 402 1% .125W F TC=0+-100	24546	C4-1/8-T0-402R-F
A10R23*	0698-4454	5	1	RESISTOR 523 1% .125W F TC=0+-100	24546	C4-1/8-T0-523R-F
A10R24	2100-0568	1	1	RESISTOR-TRMR 100 10% C TOP-ADJ 1-TRN	28480	2100-0568
A10R25	0683-1015	7		RESISTOR 100 5% .25W FC TC=-400/+500	01121	CB1015
A10R26	0683-6225	1	1	RESISTOR 6.2K 5% .25W FC TC=-400/+700	01121	CB6225
A10R27	0683-2725	8	1	RESISTOR 2.7K 5% .25W FC TC=-400/+700	01121	CB2725
A10R28	0757-0398	4	6	RESISTOR 75 1% .125W F TC=0+-100	24546	C4-1/8-T0-75R0-F
A10R29	0683-1815	5	1	RESISTOR 180 5% .25W FC TC=-400/+600	01121	CB1815
A10R30	0757-0398	4		RESISTOR 75 1% .125W F TC=0+-100	24546	C4-1/8-T0-75R0-F
A10R31	0757-0398	4		RESISTOR 75 1% .125W F TC=0+-100	24546	C4-1/8-T0-75R0-F
A10R32	0698-3488	3	2	RESISTOR 442 1% .125W F TC=0+-100	24546	C4-1/8-T0-422R-F
A10R33	0698-4373	7	1	RESISTOR 26.7 1% .125W F TC=0+-100	03888	PME55-1/8-T0-26R7-F
A10R34	0698-3488	3		RESISTOR 442 1% .125W F TC=0+-100	24546	C4-1/8-T0-422R-F
A10R40	0757-0398	4		RESISTOR 75 1% .125W F TC=0+-100	24546	C4-1/8-T0-75R0-F
A10R41	0757-0398	4		RESISTOR 75 1% .125W F TC=0+-100	24546	C4-1/8-T0-75R0-F
A10R42	0757-0398	4		RESISTOR 75 1% .125W F TC=0+-100	24546	C4-1/8-T0-75R0-F
A10R43	2100-3352	7	1	RESISTOR-TRMR 1K 10% C SIDE-ADJ 1-TRN	28480	2100-3352
A10R44	0757-0280	3	2	RESISTOR 1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1001-F
A10R51	0683-1025	9	1	RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A10R100	0698-3160	8	1	RESISTOR 31.6K 1% .125W F TC=0+-100	24546	C4-1/8-T0-3162-F
A10R101	0698-3156	2	1	RESISTOR 14.7K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1472-F
A10R102	0698-3245	0	1	RESISTOR 20.5K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2052-F
A10R103	0757-0280	3		RESISTOR 1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1001-F
A10R104	0698-3558	8	1	RESISTOR 4.02K 1% .125W F TC=0+-100	24546	C4-1/8-T0-4021-F
A10R105	2100-0567	0	1	RESISTOR-TRMR 2K 10% C TOP-ADJ 1-TRN	28480	2100-0567
A10T1	08552-6044	1	3	TRANSFORMER 6-TURNS	28480	08552-6044
A10T2	9100-4038	5	1	TRANSFORMER BEAD CORE; WITH CT PRI & SEC	28480	9100-4038
A10T3	08552-6044	1		TRANSFORMER 6-TURNS	28480	08552-6044
A10T20	08552-6044	1		TRANSFORMER 6-TURNS	28480	08552-6044
A10U1	1858-0015	7	1	IC MISC	28480	1858-0015
A10U40	1826-0715	7	2	IC OP AMP LOW-NOISE 8-DIP-P PKG	18324	NE5534AN
A10U101	1826-0715	7		IC OP AMP LOW-NOISE 8-DIP-P PKG	18324	NE5534AN
A10Y1**	0410-0753	1	2	CRYSTAL-QUARTZ MATCHED PAIR: 49.995MHZ	28480	0410-0753
A10Y2	0410-0753	1		CRYSTAL-QUARTZ MATCHED PAIR: 50.005MHZ	28480	0410-0753
				**-HP- PART NUMBER 0410-0753 CONSISTS OF A MATCHED SET OF 2 CRYSTALS: 1 EACH 49.995MHZ AND 1 EACH 50.005MHZ.		

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A11	03586-66511	5	1	SECOND LOCAL OSCILLATOR (3586A/B/C)	28480	03586-66511
A11C1	0180-1746	5	2	CAPACITOR-FXD 15UF+-10% 20VDC TA	56289	150D156X9020B2
A11C2	0180-1746	5		CAPACITOR-FXD 15UF+-10% 20VDC TA	56289	150D156X9020B2
A11C3	0180-0229	7	1	CAPACITOR-FXD 33UF+-10% 10VDC TA	56289	150D336X9010B2
A11C4	0160-3879	7	5	CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A11C6	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A11C12	0160-4571	8	8	CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A11C13	0160-3847	9	18	CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A11C15	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A11C16	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A11C20	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A11C22	0160-2242	6	1	CAPACITOR-FXD 2.4PF +-.25PF 500VDC CER	28480	0160 2242
A11C23	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A11C24	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A11C25	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A11C26	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A11C27	0140-0193	0	1	CAPACITOR-FXD 82PF +-5% 300VDC MICA	72136	DM15E820J0300WV1CR
A11C28	0160-2204	0	1	CAPACITOR-FXD 100PF +-5% 300VDC MICA	28480	0160-2204
A11C29	0160-0134	1	1	CAPACITOR-FXD 220PF +-5% 300VDC MICA	28480	0160-0134
A11C31	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A11C32	0180-0210	6	1	CAPACITOR-FXD 3.3UF+-20% 15VDC TA	56289	150D335X0015A2
A11C33	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A11C34	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A11C35	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A11C44	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A11C45	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A11C46	0160-4387	4	1	CAPACITOR-FXD 47PF +-5% 200VDC CER`0+-30	28480	0160-4387
A11C48	0160-3752	5	5	CAPACITOR-FXD 1000PF +-10% 50VDC CER	28480	0160-3752
A11C49	0160-3752	5		CAPACITOR-FXD 1000PF +-10% 50VDC CER	28480	0160-3752
A11C50	0160-3877	5	3	CAPACITOR-FXD 100PF +-20% 200VDC CER	28480	0160-3877
A11C51	0160-3877	5		CAPACITOR-FXD 100PF +-20% 200VDC CER	28480	0160-3877
A11C52	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A11C53	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A11C54	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A11C55	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A11C56	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A11C57	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A11C58	0160-3752	5		CAPACITOR-FXD 1000PF +-10% 50VDC CER	28480	0160-3752
A11C61	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A11C62	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A11C70	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A11C80	0180-0106	9	1	CAPACITOR-FXD 60UF+-20% 6VDC TA	56289	150D606X0006B2
A11C81	0140-2611	3	1	CAPACITOR-FXD 1UF +-10% 50VDC MET-POLYE	28480	0160-2611
A11C82	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A11C83	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A11C85	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A11C86	0160-3877	5		CAPACITOR-FXD 100PF +-20% 200VDC CER	28480	0160-3877
A11C91	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A11C92	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A11CR20	0122-0089	5	1	DIODE-VVC 29PF 10% C3/C25-MIN=5 BVR=30V	04713	MV109
A11CR24	1901-0040	1	1	DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
A11CR91	1990-0486	6	1	LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	5082-4684
A11J1	1250-1512	3	2	CONNECTOR-RF SMB M PC 50-OHM	28480	1250-1512
A11L1	9140-0129	1	2	INDUCTOR RF-CH-MLD 220UH 5% .166DX.385LG	28480	9140-0129
A11L2	9140-0129	1		INDUCTOR RF-CH-MLD 220UH 5% .166DX.385LG	28480	9140-0129
A11L3	9100-3560	6	1	INDUCTOR RF-CH-MLD 5.6UH 5% .166DX.385LG	28480	9100-3560
A11L15	9140-0144	0	2	INDUCTOR RF-CH-MLD 4.7UH 10% .105DX.26LG	28480	9140-0144
A11L20	9100-3547	9	3	INDUCTOR RF-CH-MLD 4.3UH 5% .166DX.385LG	28480	9100-3547
A11L21	9100-3345	5	1	INDUCTOR RF-CH-MLD 2UH 5% .166DX.385LG	28480	9100-3345
A11L22	9100-1379	1	1	INDUCTOR-VAR	28480	9100-1379
A11L23	9100-2485	2	1	INDUCTOR RF-CH-MLD 220NH 5% .166DX.385LG	28480	9100-2485
A11L33	9100-3547	9		INDUCTOR RF-CH-MLD 4.3UH 5% .166DX.385LG	28480	9100-3547
A11L44	9100-3547	9		INDUCTOR RF-CH-MLD 4.3UH 5% .166DX.385LG	28480	9100-3547
A11L50	9140-0144	0		INDUCTOR RF-CH-MLD 4.7UH 10% .105DX.26LG	28480	9140-0144
A11Q10	1854-0071	7	2	TRANSISTOR NPN SI PD=300MW FT=200MHZ	28480	1854-0071
A11Q11	1854-0071	7		TRANSISTOR NPN SI PD=300MW FT=200MHZ	28480	1854-0071
A11Q21	1853-0405	9	2	TRANSISTOR PNP SI PD=300MW FT=850MHZ	04713	2N4209
A11Q22	1853-0405	9		TRANSISTOR PNP SI PD=300MW FT=850MHZ	04713	2N4209
A11R11	0683-1525	4	1	RESISTOR 1.5K 5% .25W FC TC=-400/+700	01121	CB1525
A11R12	0683-2225	3	1	RESISTOR 2.2K 5% .25W FC TC=-400/+700	01121	CB2225
A11R13	0683-1035	1	3	RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A11R14	0683-3325	6	3	RESISTOR 3.3K 5% .25W FC TC=-400/+700	01121	CB3325
A11R15	0683-1125	0	1	RESISTOR 1.1K 5% .25W FC TC=-400/+700	01121	CB1125

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A11R16	0683-3325	6		RESISTOR 3.3K 5% .25W FC TC=-400/+700	01121	CB3325
A11R21	0683-1025	9	7	RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A11R22	0683-1025	9		RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A11R23	0683-4705	8	6	RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A11R24	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A11R25	0683-1025	9		RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A11R26	0683-3325	6		RESISTOR 3.3K 5% .25W FC TC=-400/+700	01121	CB3325
A11R27	0683-1025	9		RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A11R28	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A11R31	0683-1045	3	1	RESISTOR 100K 5% .25W FC TC=-400/+800	01121	CB1045
A11R32	0683-1025	9		RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A11R33	1810-0229	5	2	NETWORK-RES 8-SIP330.0 OHM X 7	01121	208A331
A11R34	0683-2715	6	1	RESISTOR 270 5% .25W FC TC=-400/+600	01121	CB2715
A11R44	1810-0229	5		NETWORK-RES 8-SIP330.0 OHM X 7	01121	208A331
A11R46	0683-5605	9	1	RESISTOR 56 5% .25W FC TC=-400/+500	01121	CB5605
A11R47	0683-1215	9	1	RESISTOR 120 5% .25W FC TC=-400/+600	01121	CB1215
A11R48	0683-1005	5	1	RESISTOR 10 5% .25W FC TC=-400/+500	01121	CB1005
A11R50	0683-1015	7	3	RESISTOR 100 5% .25W FC TC=-400/+500	01121	CB1015
A11R51	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A11R52	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A11R53	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A11R54	0683-6815	5	2	RESISTOR 680 5% .25W FC TC=-400/+600	01121	CB6815
A11R55	0683-6815	5		RESISTOR 680 5% .25W FC TC=-400/+600	01121	CB6815
A11R56	0683-1015	7		RESISTOR 100 5% .25W FC TC=-400/+500	01121	CB1015
A11R57	0683-1015	7		RESISTOR 100 5% .25W FC TC=-400/+500	01121	CB1015
A11R61	0683-1025	9		RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A11R62	0683-1025	9		RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A11R63	0683-5135	0	1	RESISTOR 51K 5% .25W FC TC=-400/+800	01121	CB5135
A11R70	0683-1055	5	1	RESISTOR 1M 5% .25W FC TC=-800/+900	01121	CB1055
A11R71	0683-3015	1	1	RESISTOR 300 5% .25W FC TC=-400/+600	01121	CB3015
A11R80	0757-0449	6	2	RESISTOR 20K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2002-F
A11R81	0757-0449	6		RESISTOR 20K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2002-F
A11R82	0683-8235	7	1	RESISTOR 82K 5% .25W FC TC=-400/+800	01121	CB8235
A11R83	0683-3035	5	2	RESISTOR 30K 5% .25W FC TC=-400/+800	01121	CB3035
A11R84	0683-3035	5		RESISTOR 30K 5% .25W FC TC=-400/+800	01121	CB3035
A11R85	0683-1825	7	5	RESISTOR 1.8K 5% .25W FC TC=-400/+700	01121	CB1825
A11R86	0683-1825	7		RESISTOR 1.8K 5% .25W FC TC=-400/+700	01121	CB1825
A11R91	0683-1825	7		RESISTOR 1.8K 5% .25W FC TC=-400/+700	01121	CB1825
A11R92	0683-1035	1		RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A11R93	0683-1825	7		RESISTOR 1.8K 5% .25W FC TC=-400/+700	01121	CB1825
A11R94	0683-1825	7		RESISTOR 1.8K 5% .25W FC TC=-400/+700	01121	CB1825
A11R95	0683-4715	0	1	RESISTOR 470 5% .25W FC TC=-400/+600	01121	CB4715
A11R96	0683-1035	1		RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A11U33	1820-0810	1	2	IC RCVR ECL LINE RCVR TPL 2-INP	04713	MC10116P
A11U44	1820-0810	1		IC RCVR ECL LINE RCVR TPL 2-INP	04713	MC10116P
A11U50	1826-0598	4	1	IC 14-DIP-P PKG	04713	MC12002P
A11U60	1826-0026	3	1	IC COMPARATOR PRCN TO-99 PKG	01295	LM311L
A11U70	1826-0599	5	1	IC 16-DIP-P PKG	04713	MC14568BCP
A11U80	1820-0478	7	1	IC OP AMP LOW-BIAS-H-IMPD TO-99 PKG	27014	LM308H
A11U90	1826-0412	1	1	IC COMPARATOR PRCN DUAL 8-DIP-P PKG	27014	LM393N
A11Y20	0410-0759	7	1	CRYSTAL-QUARTZ 49.984375 MHZ	28480	0410-0759
	9170-0894	0	1	CORE-SHIELDING BEAD	28480	9170-0894
A12	03586-66512	6	1	PART OF 03586-66511	28480	03586-66512
A12C1	0160-3752	5		CAPACITOR-FXD 1000PF +-10% 50VDC CER	28480	0160-3752
A12C2	0160-3752	5		CAPACITOR-FXD 1000PF +-10% 50VDC CER	28480	0160-3752
A12J1	1250-1512	3		CONNECTOR-RF SMB M PC 50-OHM	28480	1250-1512

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A15	03586-66515	9	1	TRACKING OUTPUT (3586A/B/C)	28480	03586-66515
A15C1	0140-0205	5	2	CAPACITOR-FXD 62PF +-5% 300VDC MICA	72136	DM15E620J0300WV1CR
A15C2	0160-2258	4	1	CAPACITOR-FXD 11PF +-5% 500VDC CER 0+-30	28480	0160-2258
A15C3	0140-0205	5		CAPACITOR-FXD 62PF +-5% 300VDC MICA	72136	DM15E620J0300WV1CR
A15C4	0160-3879	7	10	CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A15C5	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A15C6	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A15C7	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A15C8	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A15C9	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A15C10	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A15C11	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A15C12	0160-2204	0	1	CAPACITOR-FXD 100PF +-5% 300VDC MICA	28480	0160-2204
A15C13	0150-0091	8	1	CAPACITOR-FXD 1.5PF +-.25PF 500VDC CER	28480	0150-0091
A15C14	0160-2203	9	1	CAPACITOR-FXD 91PF +-5% 300VDC MICA 0+70	28480	0160-2203
A15C15	0160-2257	3	1	CAPACITOR-FXD 10PF +-5% 500VDC CER 0+-60	28480	0160-2257
A15C16	0160-2199	2	2	CAPACITOR-FXD 30PF +-5% 300VDC MICA	28480	0160-2199
A15C17	0160-2266	4	1	CAPACITOR-FXD 24PF +-5% 500VDC CER 0+-30	28480	0160-2266
A15C19	0180-0106	9	1	CAPACITOR-FXD 6CUF+-20% 6VDC TA	56289	150D636X0006B2
A15C20	0160-0576	5	11	CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A15C21	0180-0309	4	3	CAPACITOR-FXD 4.7UF+-20% 10VDC TA	56289	150D475X0010A2
A15C22	0180-0309	4		CAPACITOR-FXD 4.7UF+-20% 10VDC TA	56289	150D475X0010A2
A15C23	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A15C24	0180-0197	8	2	CAPACITOR-FXD 2.2UF+-10% 20VDC TA	56289	150D225X9020A2
A15C25	0180-0197	8		CAPACITOR-FXD 2.2UF+-10% 20VDC TA	56289	150D225X9020A2
A15C26	0160-0127	2	1	CAPACITOR-FXD 1UF +-20% 25VDC CER	28480	0160-0127
A15C27	0180-1701	2	3	CAPACITOR-FXD 6.8UF+-20% 6VDC TA	56289	150D685X0006A2
A15C28	0160-0162	5	1	CAPACITOR-FXD .022UF +-10% 200VDC POLYE	28480	0160-0162
A15C29	0160-2199	2		CAPACITOR-FXD 30PF +-5% 300VDC MICA	28480	0160-2199
A15C30	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A15C31	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A15C32	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A15C33	0180-1701	2		CAPACITOR-FXD 6.8UF+-20% 6VDC TA	56289	150D685X0006A2
A15C34	0180-1701	2		CAPACITOR-FXD 6.8UF+-20% 6VDC TA	56289	150D685X0006A2
A15C35	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A15C36	0180-0309	4		CAPACITOR-FXD 4.7UF+-20% 10VDC TA	56289	150D475X0010A2
A15C37	0180-0228	6	2	CAPACITOR-FXD 22UF+-10% 15VDC TA	56289	150D226X9015B2
A15C38	0180-0228	6		CAPACITOR-FXD 22UF+-10% 15VDC TA	56289	150D226X9015B2
A15C39	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A15C40	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A15C41	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A15C42	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A15C43	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A15C44	0160-3874	2	1	CAPACITOR-FXD 10PF +-.5PF 200VDC CER	28480	0160-3874
A15C45	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A15C46	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A15CR1	1902-0041	4	3	DIODE-ZNR 5.11V 5% DO-35 PD=.4W	28480	1902-0041
A15CR2	1901-0050	3	4	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
A15CR3	1901-0050	3		DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
A15CR4	1901-0535	9	4	DIODE-SM SIG SCHOTTKY	28480	1901-0535
A15CR5	1901-0535	9		DIODE-SM SIG SCHOTTKY	28480	1901-0535
A15CR6	1901-0535	9		DIODE-SM SIG SCHOTTKY	28480	1901-0535
A15CR7	1901-0535	9		DIODE-SM SIG SCHOTTKY	28480	1901-0535
A15CR9	1901-0050	3		DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
A15CR10	1902-0041	4		DIODE-ZNR 5.11V 5% DO-35 PD=.4W	28480	1902-0041
A15CR11	1901-0050	3		DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
A15CR12	1902-0041	4		DIODE-ZNR 5.11V 5% DO-35 PD=.4W	28480	1902-0041
A15J1	1250-1512	3	1	CONNECTOR-RF SMB M PC 50-OHM	28480	1250-1512
A15J2	1250-1637	3	1	CONNECTOR-RF SM-SNP M SGL-HOLE-FR 75-OHM	28480	1250-1637
A15L1	9140-0261	2	4	INDUCTOR RF-CH-MLD 100NH 5% .166DX.385LG	28480	9140-0261
A15L2	9140-0395	3	1	INDUCTOR RF-CH-MLD 560NH 5% .166DX.385LG	28480	9140-0395
A15L3	9140-0261	2		INDUCTOR RF-CH-MLD 100NH 5% .166DX.385LG	28480	9140-0261
A15L4	9140-0261	2		INDUCTOR RF-CH-MLD 100NH 5% .166DX.385LG	28480	9140-0261
A15L5	9100-3547	9	1	INDUCTOR RF-CH-MLD 4.3UH 5% .166DX.385LG	28480	9100-3547
A15L6	9140-0261	2		INDUCTOR RF-CH-MLD 100NH 5% .166DX.385LG	28480	9140-0261
A15L7	9100-3345	5	2	INDUCTOR RF-CH-MLD 2UH 5% .166DX.385LG	28480	9100-3345
A15L8	9100-3345	5		INDUCTOR RF-CH-MLD 2UH 5% .166DX.385LG	28480	9100-3345
A15L9	9100-3552	6	1	INDUCTOR RF-CH-MLD 1.5UH 5% .166DX.385LG	28480	9100-3552
A15L10	9140-0210	1	3	INDUCTOR RF-CH-MLD 100UH 5% .166DX.385LG	28480	9140-0210
A15L11	9140-0210	1		INDUCTOR RF-CH-MLD 100UH 5% .166DX.385LG	28480	9140-0210
A15L12	9140-0210	1		INDUCTOR RF-CH-MLD 100UH 5% .166DX.385LG	28480	9140-0210

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A15Q1	1853-0354	7	3	TRANSISTOR PNP SI TO-92 PD=350MW	28480	1853-0354
A15Q2	1853-0354	7		TRANSISTOR PNP SI TO-92 PD=350MW	28480	1853-0354
A15Q3	1853-0354	7		TRANSISTOR PNP SI TO-92 PD=350MW	28480	1853-0354
A15Q4	1854-0071	7	1	TRANSISTOR NPN SI PD=300MW FT=200MHZ	28480	1854-0071
A15R1	0757-0383	7	1	RESISTOR 18.2 1% .125W F TC=0+-100	19701	MF4C1/8-T0-18R2-F
A15R2	0683-1315	0	1	RESISTOR 130 5% .25W FC TC=-400/+600	01121	CB1315
A15R3	2100-3383	4	1	RESISTOR-TRMR 50 10% C TOP ADJ 1-TRN	28480	2100-3383
A15R4	0683-3315	4	2	RESISTOR 330 5% .25W FC TC=-400/+600	01121	CB3315
A15R5	0683-4705	8	2	RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A15R6	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A15R8	0683-4725	2	1	RESISTOR 4.7K 5% .25W FC TC=-400/+700	01121	CB4725
A15R9	0683-1025	9	2	RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A15R10	0683-2715	6	1	RESISTOR 270 5% .25W FC TC=-400/+600	01121	CB2715
A15R11	0757-0401	0	2	RESISTOR 100 1% .125W F TC=0+-100	24546	C4-1/8-T0-101-F
A15R13	0757-0407	6	1	RESISTOR 200 1% .125W F TC=0+-100	24546	C4-1/8-T0-201-F
A15R14	0683-1025	9		RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A15R15	0698-4451	2	2	RESISTOR 340 1% .125W F TC=0+-100	24546	C4-1/8-T0-340R-F
A15R16	0698-4451	2		RESISTOR 340 1% .125W F TC=0+-100	24546	C4-1/8-T0-340R-F
A15R17	0683-2025	1	1	RESISTOR 2K 5% .25W FC TC=-400/+700	01121	CB2025
A15R18	0683-1015	7	1	RESISTOR 100 5% .25W FC TC=-400/+500	01121	CB1015
A15R19	0683-1525	4	2	RESISTOR 1.5K 5% .25W FC TC=-400/+700	01121	CB1525
A15R20	0683-3315	4		RESISTOR 330 5% .25W FC TC=-400/+600	01121	CB3315
A15R21	0698-4438	5	1	RESISTOR 3.09K 1% .125W F TC=0+-100	24546	C4-1/8-T0-3091-F
A15R22	0757-0435	0	1	RESISTOR 3.92K 1% .125W F TC=0+-100	24546	C4-1/8-T0-3921-F
A15R23	0698-4453	4	2	RESISTOR 402 1% .125W F TC=0+-100	24546	C4-1/8-T0-402R-F
A15R24	0698-7332	4	2	RESISTOR 1M 1% .125W F TC=0+-100	28480	0698-7332
A15R25	0683-1045	3	2	RESISTOR 100K 5% .25W FC TC=-400/+800	01121	CB1045
A15R26	0757-0398	4	1	RESISTOR 75 1% .125W F TC=0+-100	24546	C4-1/8-T0-75R0-F
A15R27	0698-3488	3	2	RESISTOR 442 1% .125W F TC=0+-100	24546	C4-1/8-T0-422R-F
A15R28	0698-3432	7	1	RESISTOR 26.1 1% .125W F TC=0+-100	03888	PME55-1/8-T0-26R1-F
A15R29	0698-3438	3		RESISTOR 442 1% .125W F TC=0+-100	24546	C4-1/8-T0-422R-F
A15R30	0683-1045	3		RESISTOR 100K 5% .25W FC TC=-400/+800	01121	CB1045
A15R31	0698-4453	4		RESISTOR 402 1% .125W F TC=0+-100	24546	C4-1/8-T0-402R-F
A15R32*	0698-0077	0	1	RESISTOR 93.1K 1% .125W F TC=0+-100	03888	PME55-1/8-T0-9312-F
A15R32*	0698-4513	7	1	RESISTOR 97.6K 1% .125W F TC=0+-100	03888	PME55-1/8-T0-9762-F
A15R32*	0757-0464	5	1	RESISTOR 90.9K 1% .125W F TC=0+-100	24546	C4-1/8-T0-9092-F
A15R32*	0757-0465	6	1	RESISTOR 100K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1003-F
A15R32*	0757-0978	6	1	RESISTOR 95.3K 1% .125W F TC=0+-100	24546	C4-1/8-T0-9532-F
A15R33	0698-4205	4	1	RESISTOR 21K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2102-F
A15R34	0698-7962	6	1	RESISTOR 976K 1% .125W F TC=0+-100	07716	CEA-1/8-T0-9763-F
A15R35	0698-7332	4		RESISTOR 1M 1% .125W F TC=0+-100	28480	0698-7332
A15R36	0698-3215	4	1	RESISTOR 499K 1% .125W F TC=0+-100	28480	0698-3215
A15R38	0757-0401	0		RESISTOR 100 1% .125W F TC=0+-100	24546	C4-1/8-T0-101-F
A15R39	0683-2015	9	1	RESISTOR 200 5% .25W FC TC=-400/+600	01121	CB2015
A15R40	0757-0280	3	2	RESISTOR 1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1001-F
A15R41	0757-0280	3		RESISTOR 1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1001-F
A15R42	0683 5135	0	1	RESISTOR 51K 5% .25W FC TC=-400/+800	01121	CB5135
A15R43	0683-7525	6	3	RESISTOR 7.5K 5% .25W FC TC=-400/+700	01121	CB7525
A15R44	0683-7525	6		RESISTOR 7.5K 5% .25W FC TC=-400/+700	01121	CB7525
A15R45	0757-0283	6	1	RESISTOR 2K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2001-F
A15R46	1810-0076	0	1	NETWORK-RES 9-SIP1.8K OHM X 8	28480	1810-0076
A15R47	0698-4414	7	2	RESISTOR 158 1% .125W F TC=0+-100	24546	C4-1/8-T0-158R-F
A15R48	0698-4393	1	2	RESISTOR 73.2 1% .125W F TC=0+-100	24546	C4-1/8-T0-73R2-F
A15R49	0698-4414	7		RESISTOR 158 1% .125W F TC=0+-100	24546	C4-1/8-T0-158R-F
A15R50	0698-4393	1		RESISTOR 73.2 1% .125W F TC=0+-100	24546	C4-1/8-T0-73R2-F
A15R51	0683-4715	0	2	RESISTOR 470 5% .25W FC TC=-400/+600	01121	CB4715
A15R52	0683-1525	4		RESISTOR 1.5K 5% .25W FC TC=-400/+700	01121	CB1525
A15R53	0683-4715	0		RESISTOR 470 5% .25W FC TC=-400/+600	01121	CB4715
A15R54	0683-2425	5	1	RESISTOR 2.4K 5% .25W FC TC=-400/+700	01121	CB2425
A15R55	0683-7525	6		RESISTOR 7.5K 5% .25W FC TC=-400/+700	01121	CB7525
A15U1	1826-0598	4	1	IC 14-DIP-P PKG	04713	MC12002P
A15U2	1820-0270	7	1	IC WIDEBAND AMPL VID TO-100 PKG	07263	733HC
A15U3	1820-0478	7	1	IC OP AMP LOW-BIAS-H-IMPD TO-99 PKG	27014	LM308H
A15U4	1820-0810	1	1	IC RCVR ECL LINE RCVR TPL 2-INP	04713	MC10116P
A15U5	1820-0802	1	1	IC GATE ECL NOR QUAD 2-INP	04713	MC10102P

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A16	03586-66516	0	1	10MHZ FREQUENCY REFERENCE (3586A/B/C)	28480	03586-66516
A16C1	0180-2635	3	1	CAPACITOR-FXD 1000UF+50-10% 35VDC AL	28480	0180-2635
A16C2	0160-4571	8	3	CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A16C3	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A16C4	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A16C5	0160-3847	9	1	CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A16C10	0150-0012	3	1	CAPACITOR-FXD .01UF +-20% 1KVDC CER	56289	C023A102J103MS38
A16CR1	1990-0517	4	1	LED-LAMP LUM-INT=3MCD IF=20MA-MAX BVR=5V	28480	5082-4655
A16CR2	1902-3205	8	1	DIODE-ZNR 15V 5% DO-35 PD=.4W TC=+.057%	28480	1902-3205
A16J1	1250-1195	8	1	CONNECTOR-RF SM-SLD M PC 50-OHM	28480	1250-1195
A16Q1	1853-0020	4	1	TRANSISTOR PNP SI PD=300MW FT=150MHZ	28480	1853-0020
A16Q2	1854-0094	4	2	TRANSISTOR NPN SI PD=200MW FT=350MHZ	28480	1854-0094
A16Q3	1854-0094	4		TRANSISTOR NPN SI PD=200MW FT=350MHZ	28480	1854-0094
A16R1	0811-3069	8	1	RESISTOR 1 5% .5W PW TC=0+-150	75042	BW20-1-1R0-J
A16R2	0698-3515	7	2	RESISTOR 5.9K 1% .125W F TC=0+-100	24546	C4-1/8-T0-5901-F
A16R3	0698-3160	8	1	RESISTOR 31.6K 1% .125W F TC=0+-100	24546	C4-1/8-T0-3162-F
A16R4	0698-3515	7		RESISTOR 5.9K 1% .125W F TC=0+-100	24546	C4-1/8-T0-5901-F
A16R5	0698-4492	1	1	RESISTOR 32.4K 1% .125W F TC=0+-100	24546	C4-1/8-T0-3242-F
A16R6	0683-1025	9	2	RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A16R7	2100-3351	6	1	RESISTOR-TRMR 500 10% C SIDE-ADJ 1-TRN	28480	2100-3351
A16R8	0683-2025	1	3	RESISTOR 2K 5% .25W FC TC=-400/+700	01121	CB2025
A16R10	0683-4725	2	2	RESISTOR 4.7K 5% .25W FC TC=-400/+700	01121	CB4725
A16R11	0683-1645	9	1	RESISTOR 160K 5% .25W FC TC=-800/+900	01121	CB1645
A16R12	0683-1025	9		RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A16R13	0698-4470	5	1	RESISTOR 6.98K 1% .125W F TC=0+-100	24546	C4-1/8-T0-6981-F
A16R14	0698-4473	8	1	RESISTOR 8.06K 1% .125W F TC=0+-100	24546	C4-1/8-T0-8061-F
A16R15	0683-2025	1		RESISTOR 2K 5% .25W FC TC=-400/+700	01121	CB2025
A16R16	0683-2025	1		RESISTOR 2K 5% .25W FC TC=-400/+700	01121	CB2025
A16R17	0683-1035	1	1	RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A16R18	0683-4725	2		RESISTOR 4.7K 5% .25W FC TC=-400/+700	01121	CB4725
A16R22	0683-1015	7	2	RESISTOR 100 5% .25W FC TC=-400/+500	01121	CB1015
A16R24	0686-8215	9	1	RESISTOR 820 5% .5W CC TC=0+529	01121	EB8215
A16R25	0683-1015	7		RESISTOR 100 5% .25W FC TC=-400/+500	01121	CB1015
A16R26	0683-3915	0	1	RESISTOR 390 5% .25W FC TC=-400/+600	01121	CB3915
A16U1	1826-0203	8	1	IC 7815 V RGLTR TO-3	07263	7815KC
A16U2	1826-0678	1	1	IC OP AMP GP DUAL TO-99 PKG	27014	LM358H
A16U3	0960-0568	1	1	MI STAB OSC.	28480	0960-0568
	1250-1499	5	1	ADAPTER-COAX RTANG M-BNC F-BNC	28480	1250-1499

See introduction to this section for ordering information
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Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A20	03586-66520	6	1	IF FILTER-2000HZ (35868)	28480	03586-66520
A20C3	0160-3847	9	4	CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A20C4	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A20C11	0180-0374	3	2	CAPACITOR-FXD 10UF+-10% 20VDC TA	56289	150D106X9020B2
A20C12	0180-0374	3		CAPACITOR-FXD 10UF+-10% 20VDC TA	56289	150D106X9020B2
A20C32	0121-0162	3	2	CAPACITOR-V TRMR-AIR 1.2-3.5PF 350V	08590	10-1326-25004-910
A20C34	0160-2940	1	2	CAPACITOR-FXD 470PF +-5% 300VDC MICA	28480	0160-2940
A20C35	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A20C36	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A20C41	0160-2940	1		CAPACITOR-FXD 470PF +-5% 300VDC MICA	28480	0160-2940
A20C42	0121-0162	3		CAPACITOR-V TRMR-AIR 1.2-3.5PF 350V	08590	10-1326-25004-910
A20C51	0140-0223	7	1	CAPACITOR-FXD 260PF +-1% 300VDC MICA	72136	DM15F261F0300WV1C
A20C52	0160-3844	6	1	CAPACITOR-FXD 170PF +-1% 100VDC MICA	28480	0160-3844
A20C53	0160-3843	5	1	CAPACITOR-FXD 560PF +-1% 100VDC MICA	28480	0160-3843
A20C54	0140-0172	5	3	CAPACITOR-FXD 3000PF +-1% 100VDC MICA	72136	DM19F302F0100WV1CR
A20C55	0160-3085	7	3	CAPACITOR-FXD 510PF +-1% 300VDC MICA	28480	0160-3085
A20C56	0160-0136	3	1	CAPACITOR-FXD 2500PF +-1% 300VDC MICA	28480	0160-0136
A20C57	0140-0172	5		CAPACITOR-FXD 3000PF +-1% 100VDC MICA	72136	DM19F302F0100WV1CR
A20C58	0160-3793	4	1	CAPACITOR-FXD 680PF +-1% 100VDC MICA	28480	0160-3793
A20C59	0160-3156	3	1	CAPACITOR-FXD 750PF +-1% 300VDC MICA	28480	0160-3156
A20C60	0140-0172	5		CAPACITOR-FXD 3000PF +-1% 100VDC MICA	72136	DM19F302F0100WV1CR
A20C61	0160-0841	7	2	CAPACITOR-FXD 1740PF +-1% 300VDC MICA	28480	0160-0841
A20C62	0160-3085	7		CAPACITOR-FXD 510PF +-1% 300VDC MICA	28480	0160-3085
A20C63	0160-0841	7		CAPACITOR-FXD 1740PF +-1% 300VDC MICA	28480	0160-0841
A20C64	0160-2587	2	1	CAPACITOR-FXD 4000PF +-1% 100VDC MICA	28480	0160-2587
A20C65	0160-3085	7		CAPACITOR-FXD 510PF +-1% 300VDC MICA	28480	0160-3085
A20C66	0140-0225	9	1	CAPACITOR-FXD 300PF +-1% 300VDC MICA	72136	DM15F301F0300WV1C
A20C67	0160-3548	7	3	CAPACITOR-FXD .01UF +-1% 100VDC MICA	28480	0160-3548
A20C81	0160-3879	7	2	CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A20C82	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A20C91	0160-3548	7		CAPACITOR-FXD .01UF +-1% 100VDC MICA	28480	0160-3548
A20C92	0160-3548	7		CAPACITOR-FXD .01UF +-1% 100VDC MICA	28480	0160-3548
A20C93	0160-0576	5	1	CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A20C151	0140-0202	2	1	CAPACITOR-FXD 15PF +-5% 500VDC MICA	72136	DM15C150J0500WV1CR
A20C153	0160-2307	4	1	CAPACITOR-FXD 47PF +-5% 300VDC MICA	28480	0160-2307
A20C154	0160-3024	4	1	CAPACITOR-FXD 1700PF +-1% 100VDC MICA	28480	0160-3024
A20C155	0160-0356	9	1	CAPACITOR-FXD 1PF +-5% 300VDC MICA	28480	0160-0356
A20C156	0140-0190	7	1	CAPACITOR-FXD 39PF +-5% 300VDC MICA	72136	DM15E390J0300WV1CR
A20C157	0160-2203	9	1	CAPACITOR-FXD 91PF +-5% 300VDC MICA 0+70	28480	0160-2203
A20C158	0140-0209	9	2	CAPACITOR-FXD 5PF +-10% 500VDC MICA	72136	DM15C050K0500WV1CR
A20C159	0160-2199	2	1	CAPACITOR-FXD 36PF +-5% 300VDC MICA	28480	0160-2199
A20C160	0140-0199	6	1	CAPACITOR-FXD 240PF +-5% 300VDC MICA	72136	DM15F241J0300WV1CR
A20C161	0160-2202	8	1	CAPACITOR-FXD 75PF +-5% 300VDC MICA	28480	0160-2202
A20C164	0160-0342	3	1	CAPACITOR-FXD 800PF +-1% 300VDC MICA	28480	0160-0342
A20C166	0140-0209	9		CAPACITOR-FXD 5PF +-10% 500VDC MICA	72136	DM15C050K0500WV1CR
A20CR1-A20CR4	1901-0535	9	4	DIODE-SM SIG SCHOTTKY	28480	1901-0535
A20L51	9140-0357	7	2	COIL-VARIABLE 235. MH; +-3% MIN; Q	28480	9140-0357
A20L52	9140-0363	5	1	COIL-VARIABLE 18.30 MH; +-3% MIN; Q MIN	28480	9140-0363
A20L53	9140-0357	7		COIL-VARIABLE 235. MH; +-3% MIN; Q	28480	9140-0357
A20L54	9140-0364	6	1	COIL-VARIABLE 27.50 MH; +-3% MIN; Q MIN	28480	9140-0364
A20L55	9140-0365	7	1	COIL-VARIABLE 164. MH; +-3% MIN; Q	28480	9140-0365
A20L56	9140-0366	8	1	COIL-VARIABLE 44.5 MH; +-3% MIN; Q MIN	28480	9140-0366
A20L57	9140-0367	9	1	COIL-VARIABLE 81.40 MH; +-3% MIN; Q MIN	28480	9140-0367
A20L58	9140-0355	5	1	COIL-VARIABLE 126. MH; +-3% MIN; Q	28480	9140-0355
A20L59	9140-0368	0	1	COIL-VARIABLE 10.2 MH; +-3% MIN; Q MIN	28480	9140-0368
A20L91	9140-0380	6	1	COIL-VARIABLE 11.8 MH; +-3% MIN; Q MIN	28480	9140-0380
A20L92	9140-0381	7	1	COIL-VARIABLE 9.2 MH; +-3% MIN; Q MIN	28480	9140-0381
A20R1	0698-6323	1	4	RESISTOR 100 .1% .125W F TC=0+-25	28480	0698-6323
A20R2	0698-6323	1		RESISTOR 100 .1% .125W F TC=0+-25	28480	0698-6323
A20R3	0698-8059	4	4	RESISTOR 4.32K .1% .125W F TC=0+-25	19701	MF4C1/8-T9-4321-B
A20R4	0698-8059	4		RESISTOR 4.32K .1% .125W F TC=0+-25	19701	MF4C1/8-T9-4321-B
A20R5	0698-4433	0	1	RESISTOR 2.26K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2261-F
A20R6	0698-8059	4		RESISTOR 4.32K .1% .125W F TC=0+-25	19701	MF4C1/8-T9-4321-B
A20R7	0698-6323	1		RESISTOR 100 .1% .125W F TC=0+-25	28480	0698-6323
A20R8	0698-6323	1		RESISTOR 100 .1% .125W F TC=0+-25	28480	0698-6323
A20R9*	0698-3160	8	2	RESISTOR 31.6K 1% .125W F TC=0+-100	24546	C4-1/8-T0-3162-F
A20R9*	0698-3162	0	2	RESISTOR 46.4K 1% .125W F TC=0+-100	24546	C4-1/8-T0-4642-F
A20R9*	0698-4511	5	2	RESISTOR 86.6K 1% .125W F TC=0+-100	24546	C4-1/8-T0-8662-F
A20R9*	0757-0469	0	1	RESISTOR 150K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1503-F

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A20R10	0698-4431	8	1	RESISTOR 2.05K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2051-F
A20R11	0757-0346	2	2	RESISTOR 10 1% .125W F TC=0+-100	24546	C4-1/8-T0-10R0-F
A20R12	0757-0346	2		RESISTOR 10 1% .125W F TC=0+-100	24546	C4-1/8-T0-10R0-F
A20R13	0683-6835	9	3	RESISTOR 68K 5% .25W FC TC=-400/+800	01121	CB6835
A20R14	0683-5135	0	3	RESISTOR 51K 5% .25W FC TC=-400/+800	01121	CB5135
A20R15	0683-6835	9		RESISTOR 68K 5% .25W FC TC=-400/+800	01121	CB6835
A20R16	0683-5135	0		RESISTOR 51K 5% .25W FC TC=-400/+800	01121	CB5135
A20R17	0683-6835	9		RESISTOR 68K 5% .25W FC TC=-400/+800	01121	CB6835
A20R18	0683-5135	0		RESISTOR 51K 5% .25W FC TC=-400/+800	01121	CB5135
A20R21	0757-0401	0	2	RESISTOR 100 1% .125W F TC=0+-100	24546	C4-1/8-T0-101-F
A20R22	0698-3279	0	4	RESISTOR 4.99K 1% .125W F TC=0+-100	24546	C4-1/8-T0-4991-F
A20R23	0698-3279	0		RESISTOR 4.99K 1% .125W F TC=0+-100	24546	C4-1/8-T0-4991-F
A20R24	2100-3253	7	2	RESISTOR-TRMR 50K 10% C TOP-ADJ 1-TRN	28480	2100-3253
A20R25	0757-0462	3	1	RESISTOR 75K 1% .125W F TC=0+-100	24546	C4-1/8-T0-7502-F
A20R26	0698-4499	8	2	RESISTOR 54.9K 1% .125W F TC=0+-100	24546	C4-1/8-T0-5492-F
A20R27	0757-0465	6	4	RESISTOR 100K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1003-F
A20R28	0757-0442	9	5	RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A20R29	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A20R30	0757-0123	3	1	RESISTOR 34.8K 1% .125W F TC=0+-100	28480	0757-0123
A20R31	0757-0401	0		RESISTOR 100 1% .125W F TC=0+-100	24546	C4-1/8-T0-101-F
A20R32	0698-3279	0		RESISTOR 4.99K 1% .125W F TC=0+-100	24546	C4-1/8-T0-4991-F
A20R33	0698-3279	0		RESISTOR 4.99K 1% .125W F TC=0+-100	24546	C4-1/8-T0-4991-F
A20R34	0757-0465	6		RESISTOR 100K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1003-F
A20R35	2100-3214	0	1	RESISTOR-TRMR 100K 10% C TOP-ADJ 1-TRN	28480	2100-3214
A20R36	0757-0465	6		RESISTOR 100K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1003-F
A20R37	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A20R38	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A20R39	0757-0453	2	1	RESISTOR 30.1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-3012-F
A20R40	2100-3210	6	1	RESISTOR-TRMR 10K 10% C TOP-ADJ 1-TRN	28480	2100-3210
A20R51	0698-3151	7	1	RESISTOR 2.87K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2871-F
A20R52	0757-0441	8	1	RESISTOR 8.25K 1% .125W F TC=0+-100	24546	C4-1/8-T0-8251-F
A20R53	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A20R81	0699-0369	5	1	RESISTOR 110.5K .1% .125W F TC=0+-25	28480	0699-0369
A20R82	0698-6624	5	1	RESISTOR 2K .1% .125W F TC=0+-25	28480	0698-6624
A20R83	0698-8059	4		RESISTOR 4.32K .1% .125W F TC=0+-25	19701	MF4C1/8-T9-4321-B
A20R84	0698-3444	1	1	RESISTOR 316 1% .125W F TC=0+-100	24546	C4-1/8-T0-316R-F
A20R85	0698-4428	3	1	RESISTOR 1.69K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1691-F
A20R86*	0698-3160	8		RESISTOR 31.6K 1% .125W F TC=0+-100	24546	C4-1/8-T0-3162-F
A20R86*	0698-3162	0		RESISTOR 46.4K 1% .125W F TC=0+-100	24546	C4-1/8-T0-4642-F
A20R86*	0698-4511	5		RESISTOR 86.6K 1% .125W F TC=0+-100	24546	C4-1/8-T0-8662-F
A20R86*	0757-0451	0	1	RESISTOR 24.3K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2432-F
A20R91	0698-3228	9	2	RESISTOR 49.9K 1% .125W F TC=0+-100	28480	0698-3228
A20R92	0698-3228	9		RESISTOR 49.9K 1% .125W F TC=0+-100	28480	0698-3228
A20R93	0757-0465	6		RESISTOR 100K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1003-F
A20R94	0698-4499	8		RESISTOR 54.9K 1% .125W F TC=0+-100	24546	C4-1/8-T0-5492-F
A20R95	2100-3253	7		RESISTOR-TRMR 50K 10% C TOP-ADJ 1-TRN	28480	2100-3253
A20U1	1826-0217	4	2	IC OP AMP GP DUAL TO-99 PKG	07933	RC4558T
A20U2	1826-0043	4	1	IC OP AMP GP TO-99 PKG	3L585	CA307T
A20U3	1826-0417	6	2	IC SWITCH ANLG QUAD 16-DIP-C PKG	27014	LF13333D
A20U4	1826-0417	6		IC SWITCH ANLG QUAD 16-DIP-C PKG	27014	LF13333D
A20U6	1826-0222	1	1	IC OP AMP GP QUAD 14-DIP-P PKG	07263	UA4136PC
A20U7	1826-0217	4		IC OP AMP GP DUAL TO-99 PKG	07933	RC4558T
A20U9	1826-0476	7	1	IC SWITCH ANLG 8-DIP-P PKG	01295	TL601CP
A20U10	1826-0715	7	1	IC OP AMP LOW-NOISE 8-DIP-P PKG	18324	NE5534AN
A20U11	1826-0081	0	1	IC OP AMP WB TO-99 PKG	27014	LM318H
A20Y1**	0410-0765	5	4	CRYSTAL-QUARTZ PAIR; 15613 HZ & 15637	28480	0410-0765
A20Y2	0410-0765	5		CRYSTAL-QUARTZ PAIR; 15613 HZ & 15637	28480	0410-0765
A20Y3	0410-0765	5		CRYSTAL-QUARTZ PAIR; 15613 HZ & 15637	28480	0410-0765
A20Y4	0410-0765	5		CRYSTAL-QUARTZ PAIR; 15613 HZ & 15637	28480	0410-0765
				**WHEN -HP- PART NUMBER 0410-0765 IS ORDERED, A MATCHED SET OF 2 CRYSTALS WILL BE SENT: 1 EACH 15.613KHZ AND 1 EACH 15.637KHZ.		

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A20	03586-66523	9	1	IF FILTER 3100HZ (3586A/B/C)	28480	03586-66523
A20C3	0160-3847	9	4	CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A20C4	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A20C11	0180-0374	3	2	CAPACITOR-FXD 10UF+-10% 20VDC TA	56289	150D106X9020B2
A20C12	0180-0374	3		CAPACITOR-FXD 10UF+-10% 20VDC TA	56289	150D106X9020B2
A20C32	0121-0162	3	2	CAPACITOR-V TRMR-AIR 1.2-3.5PF 350V	08590	10-1326-25004-910
A20C34	0160-2940	1	2	CAPACITOR-FXD 470PF +-5% 300VDC MICA	28480	0160-2940
A20C35	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A20C36	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A20C41	0160-2940	1		CAPACITOR-FXD 470PF +-5% 300VDC MICA	28480	0160-2940
A20C42	0121-0162	3		CAPACITOR-V TRMR-AIR 1.2-3.5PF 350V	08590	10-1326-25004-910
A20C51	0160-2373	4	1	CAPACITOR-FXD 4700PF +-2% 300VDC MICA	28480	0160-2373
A20C52	0140-0231	7	1	CAPACITOR-FXD 440PF +-1% 300VDC MICA	72136	DM15F441F0300WV1C
A20C53	0140-0226	0	1	CAPACITOR-FXD 320PF +-1% 300VDC MICA	72136	DM15F321F0300WV1C
A20C54	0160-2387	0	3	CAPACITOR-FXD 1000PF +-1% 500VDC MICA	28480	0160-2387
A20C55	0160-0136	3	3	CAPACITOR-FXD 2500PF +-1% 300VDC MICA	28480	0160-0136
A20C56	0140-0155	4	2	CAPACITOR-FXD 1325PF +-1% 500VDC MICA	72136	DM20F1325RF0500WV1CR
A20C57	0160-3288	2	1	CAPACITOR-FXD 530PF +-1% 100VDC MICA	28480	0160-3288
A20C58	0160-3843	5	1	CAPACITOR-FXD 560PF +-1% 100VDC MICA	28480	0160-3843
A20C59	0160-3024	4	1	CAPACITOR-FXD 1700PF +-1% 100VDC MICA	28480	0160-3024
A20C60	0160-0136	3		CAPACITOR-FXD 2500PF +-1% 300VDC MICA	28480	0160-0136
A20C61	0160-3156	3	2	CAPACITOR-FXD 750PF +-1% 300VDC MICA	28480	0160-3156
A20C62	0140-0228	2	1	CAPACITOR-FXD 360PF +-1% 300VDC MICA	72136	DM15F361F0300WV1C
A20C63	0140-0155	4		CAPACITOR-FXD 1325PF +-1% 500VDC MICA	72136	DM20F1325RF0500WV1CR
A20C64	0140-0172	5	1	CAPACITOR-FXD 3000PF +-1% 100VDC MICA	72136	DM19F302F0100WV1CR
A20C65	0160-2387	0		CAPACITOR-FXD 1000PF +-1% 500VDC MICA	28480	0160-2387
A20C66	0160-0952	1	1	CAPACITOR-FXD 220PF +-1% 300VDC MICA	28480	0160-0952
A20C67	0160-2387	0		CAPACITOR-FXD 1000PF +-1% 500VDC MICA	28480	0160-2387
A20C68	0160-3840	2	1	CAPACITOR-FXD 7300PF +-1% 100VDC MICA	28480	0160-3840
A20C69	0160-3156	3		CAPACITOR-FXD 750PF +-1% 300VDC MICA	28480	0160-3156
A20C70	0160-0136	3		CAPACITOR-FXD 2500PF +-1% 300VDC MICA	28480	0160-0136
A20C71	0160-4317	0	1	CAPACITOR-FXD 1200PF +-1% 100VDC MICA	28480	0160-4317
A20C72	0140-0184	9	1	CAPACITOR-FXD 8200PF +-1% 100VDC MICA	72136	DM20F822F0100WV1CR
A20C81	0160-3879	7	2	CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A20C82	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A20C91	0160-3548	7	2	CAPACITOR-FXD .01UF +-1% 100VDC MICA	28480	0160-3548
A20C92	0160-3548	7		CAPACITOR-FXD .01UF +-1% 100VDC MICA	28480	0160-3548
A20C93	0160-0576	5	1	CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A20C151	0160-2205	1	1	CAPACITOR-FXD 120PF +-5% 300VDC MICA	28480	0160-2205
A20C152	0160-0196	5	1	CAPACITOR-FXD 24PF +-5% 300VDC MICA	28480	0160-0196
A20C153	0160-2150	5	4	CAPACITOR-FXD 33PF +-5% 300VDC MICA	28480	0160-2150
A20C154	0140-0197	4	1	CAPACITOR-FXD 180PF +-5% 300VDC MICA	72136	DM15F181J0300WV1CR
A20C155	0140-0220	4	2	CAPACITOR-FXD 200PF +-1% 300VDC MICA	72136	DM15F201F0300WV1CR
A20C156	0160-2150	5		CAPACITOR-FXD 33PF +-5% 300VDC MICA	28480	0160-2150
A20C157	0160-2015	1	2	CAPACITOR-FXD 15PF +-5% 500VDC MICA	28480	0160-2015
A20C158	0160-2198	1	1	CAPACITOR-FXD 20PF +-5% 300VDC MICA	28480	0160-2198
A20C159	0140-0196	3	1	CAPACITOR-FXD 150PF +-5% 300VDC MICA	72136	DM15F151J0300WV1CR
A20C160	0140-0191	8	1	CAPACITOR-FXD 56PF +-5% 300VDC MICA	72136	DM15F560J0300WV1CR
A20C161	0160-2150	5		CAPACITOR-FXD 33PF +-5% 300VDC MICA	28480	0160-2150
A20C162	0160-2197	0	1	CAPACITOR-FXD 10PF +-5% 300VDC MICA	28480	0160-2197
A20C163	0160-2307	4	3	CAPACITOR-FXD 47PF +-5% 300VDC MICA	28480	0160-2307
A20C164	0160-0945	2	1	CAPACITOR-FXD 910PF +-5% 100VDC MICA	28480	0160-0945
A20C165	0160-2150	5		CAPACITOR-FXD 33PF +-5% 300VDC MICA	28480	0160-2150
A20C166	0160-2015	1		CAPACITOR-FXD 15PF +-5% 500VDC MICA	28480	0160-2015
A20C167	0160-2307	4		CAPACITOR-FXD 47PF +-5% 300VDC MICA	28480	0160-2307
A20C168	0160-2307	4		CAPACITOR-FXD 47PF +-5% 300VDC MICA	28480	0160-2307
A20C169	0140-0220	4		CAPACITOR-FXD 200PF +-1% 300VDC MICA	72136	DM15F201F0300WV1CR
A20C170	0160-2025	3	1	CAPACITOR-FXD 220PF +-5% 500VDC MICA	28480	0160-2025
A20C171	0140-0194	1	1	CAPACITOR-FXD 110PF +-5% 300VDC MICA	72136	DM15F111J0300WV1CR
A20C172	0160-0363	8	1	CAPACITOR-FXD 620PF +-5% 300VDC MICA	28480	0160-0363
A20CR1	1901-0535	9	2	DIODE-SM SIG SCHOTTKY	28480	1901-0535
A20CR2	1901-0535	9		DIODE-SM SIG SCHOTTKY	28480	1901-0535
A20CR3	1901-0040	1	2	DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
A20CR4	1901-0040	1		DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
A20L51	9140-0354	4	2	COIL-VARIABLE 21.05 MH; +-3% MIN; Q MIN	28480	9140-0354
A20L52	9140-0355	5	2	COIL-VARIABLE 126. MH; +-3% MIN; Q	28480	9140-0355
A20L53	9140-0355	5		COIL-VARIABLE 126. MH; +-3% MIN; Q	28480	9140-0355
A20L54	9140-0356	6	1	COIL-VARIABLE 55. MH; +-3% MIN; Q MIN	28480	9140-0356
A20L55	9140-0357	7	1	COIL-VARIABLE 235. MH; +-3% MIN; Q	28480	9140-0357
A20L56	9140-0358	8	1	COIL-VARIABLE 31.3 MH; +-3% MIN; Q MIN	28480	9140-0358
A20L57	9140-0359	9	1	COIL-VARIABLE 350. MH; +-3% MIN; Q	28480	9140-0359
A20L58	9140-0354	4		COIL-VARIABLE 21.05 MH; +-3% MIN; Q MIN	28480	9140-0354
A20L59	9140-0360	2	1	COIL-VARIABLE 536. MH; +-3% MIN; Q	28480	9140-0360
A20L60	9140-0361	3	1	COIL-VARIABLE 10.70 MH; +-3% MIN; Q MIN	28480	9140-0361

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A20L61	9140-0362	4	1	COIL-VARIABLE 92.9 MH; +-3% MIN; Q MIN	28480	9140-0362
A20L91	9140-0378	2	1	COIL-VARIABLE 12.6 MH; +-3% MIN; Q MIN	28480	9140-0378
A20L92	9140-0379	3	1	COIL-VARIABLE 8.6 MH; +-3% MIN; Q MIN	28480	9140-0379
A20R1	0698-6323	1	4	RESISTOR 100 .1% .125W F TC=0+-25	28480	0698-6323
A20R2	0698-6323	1		RESISTOR 100 .1% .125W F TC=0+-25	28480	0698-6323
A20R3	0698-8059	4	4	RESISTOR 4.32K .1% .125W F TC=0+-25	19701	MF4C1/8-T9-4321-B
A20R4	0698-8059	4		RESISTOR 4.32K .1% .125W F TC=0+-25	19701	MF4C1/8-T9-4321-B
A20R5	0698-4433	0	1	RESISTOR 2.26K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2261-F
A20R6	0698-8059	4		RESISTOR 4.32K .1% .125W F TC=0+-25	19701	MF4C1/8-T9-4321-B
A20R7	0698-6323	1		RESISTOR 100 .1% .125W F TC=0+-25	28480	0698-6323
A20R8	0698-6323	1		RESISTOR 100 .1% .125W F TC=0+-25	28480	0698-6323
A20R9*	0698-3160	8	2	RESISTOR 31.6K 1% .125W F TC=0+-100	24546	C4-1/8-T0-3162-F
A20R9*	0698-3162	0	2	RESISTOR 46.4K 1% .125W F TC=0+-100	24546	C4-1/8-T0-4642-F
A20R9*	0698-4511	5	2	RESISTOR 86.6K 1% .125W F TC=0+-100	24546	C4-1/8-T0-8662-F
A20R9*	0757-0469	0	1	RESISTOR 150K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1503-F
A20R10	0698-4431	8	1	RESISTOR 2.05K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2051-F
A20R11	0757-0346	2	2	RESISTOR 10 1% .125W F TC=0+-100	24546	C4-1/8-T0-10R0-F
A20R12	0757-0346	2		RESISTOR 10 1% .125W F TC=0+-100	24546	C4-1/8-T0-10R0-F
A20R13	0683-6835	9	3	RESISTOR 68K 5% .25W FC TC=-400/+800	01121	CB6835
A20R14	0683-5135	0	3	RESISTOR 51K 5% .25W FC TC=-400/+800	01121	CB5135
A20R15	0683-6835	9		RESISTOR 68K 5% .25W FC TC=-400/+800	01121	CB6835
A20R16	0683-5135	0		RESISTOR 51K 5% .25W FC TC=-400/+800	01121	CB5135
A20R17	0683-6835	9		RESISTOR 68K 5% .25W FC TC=-400/+800	01121	CB6835
A20R18	0683-5135	0		RESISTOR 51K 5% .25W FC TC=-400/+800	01121	CB5135
A20R21*	0698-4408	9	2	RESISTOR 124 1% .125W F TC=0+-100	24546	C4-1/8-T0-124R-F
A20R21*	0757-0284	7	2	RESISTOR 150 1% .125W F TC=0+-100	24546	C4-1/8-T0-151-F
A20R21*	0757-0398	4	2	RESISTOR 75 1% .125W F TC=0+-100	24546	C4-1/8-T0-75R0-F
A20R21*	0757-0401	0	2	RESISTOR 100 1% .125W F TC=0+-100	24546	C4-1/8-T0-101-F
A20R22	0698-3279	0	4	RESISTOR 4.99K 1% .125W F TC=0+-100	24546	C4-1/8-T0-4991-F
A20R23	0698-3279	0		RESISTOR 4.99K 1% .125W F TC=0+-100	24546	C4-1/8-T0-4991-F
A20R24	2100-3253	7	2	RESISTOR-TRMR 50K 10% C TOP-ADJ 1-TRN	28480	2100-3253
A20R25	0757-0462	3	1	RESISTOR 75K 1% .125W F TC=0+-100	24546	C4-1/8-T0-7502-F
A20R26	0698-4499	8	1	RESISTOR 54.9K 1% .125W F TC=0+-100	24546	C4-1/8-T0-5492-F
A20R27	0757-0465	6	4	RESISTOR 100K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1003-F
A20R28	0757-0442	9	5	RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A20R29	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A20R30	0757-0123	3	1	RESISTOR 34.6K 1% .125W F TC=0+-100	28480	0757-0123
A20R31*	0698-4408	9		RESISTOR 124 1% .125W F TC=0+-100	24546	C4-1/8-T0-124R-F
A20R31*	0757-0284	7		RESISTOR 150 1% .125W F TC=0+-100	24546	C4-1/8-T0-151-F
A20R31*	0757-0398	4		RESISTOR 75 1% .125W F TC=0+-100	24546	C4-1/8-T0-75R0-F
A20R31*	0757-0401	0		RESISTOR 100 1% .125W F TC=0+-100	24546	C4-1/8-T0-101-F
A20R32	0698-3279	0		RESISTOR 4.99K 1% .125W F TC=0+-100	24546	C4-1/8-T0-4991-F
A20R33	0698-3279	0		RESISTOR 4.99K 1% .125W F TC=0+-100	24546	C4-1/8-T0-4991-F
A20R34	0757-0465	6		RESISTOR 100K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1003-F
A20R35	2100-3214	0	1	RESISTOR-TRMR 100K 10% C TOP-ADJ 1-TRN	28480	2100-3214
A20R36	0757-0465	6		RESISTOR 100K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1003-F
A20R37	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A20R38	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A20R39	0757-0453	2	3	RESISTOR 30.1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-3012-F
A20R40	2100-3210	6	1	RESISTOR-TRMR 10K 10% C TOP-ADJ 1-TRN	28480	2100-3210
A20R51	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A20R52	0698-3540	8	1	RESISTOR 15.4K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1542-F
A20R81	0699-0369	5	1	RESISTOR 113.5K .1% .125W F TC=0+-25	28480	0699-0369
A20R82	0698-6624	5	1	RESISTOR 2K .1% .125W F TC=0+-25	28480	0698-6624
A20R83	0698-8059	4		RESISTOR 4.32K .1% .125W F TC=0+-25	19701	MF4C1/8-T9-4321-B
A20R84	0698-3444	1	1	RESISTOR 316 1% .125W F TC=0+-100	24546	C4-1/8-T0-316R-F
A20R85	0698-4428	3	1	RESISTOR 1.69K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1691-F
A20R86*	0698-3160	8		RESISTOR 31.6K 1% .125W F TC=0+-100	24546	C4-1/8-T0-3162-F
A20R86*	0698-3162	0		RESISTOR 46.4K 1% .125W F TC=0+-100	24546	C4-1/8-T0-4642-F
A20R86*	0698-4511	5		RESISTOR 86.6K 1% .125W F TC=0+-100	24546	C4-1/8-T0-8662-F
A20R86*	0757-0451	0	1	RESISTOR 24.3K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2432-F
A20R91	0757-0453	2		RESISTOR 30.1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-3012-F
A20R92	0757-0453	2		RESISTOR 30.1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-3012-F
A20R93	0757-0465	6		RESISTOR 100K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1003-F
A20R94	0698-3499	6	1	RESISTOR 40.2K 1% .125W F TC=0+-100	24546	C4-1/8-T0-4022-F
A20R95	2100-3253	7		RESISTOR-TRMR 50K 10% C TOP-ADJ 1-TRN	28480	2100-3253
A20U1	1826-0217	4	2	IC OP AMP GP DUAL TO-99 PKG	07933	RC4558T
A20U2	1826-0043	4	1	IC OP AMP GP TO-99 PKG	3L585	CA307T
A20U3	1826-0417	6	2	IC SWITCH ANLG QUAD 16-DIP-C PKG	27014	LF13333D
A20U4	1826-0417	6		IC SWITCH ANLG QUAD 16-DIP-C PKG	27014	LF13333D
A20U6	1826-0222	1	1	IC OP AMP GP QUAD 14 DIP-P PKG	37263	UA4136PC
A20U7	1826-0217	4		IC OP AMP GP DUAL TO-99 PKG	07933	RC4558T
A20U9	1826-0476	7	1	IC SWITCH ANLG 8-DIP-P PKG	31295	TL601CP
A20U10	1826-0715	7	1	IC OP AMP LOW-NOISE 8-DIP-P PKG	18324	NE5534AN
A20U11	1826-0081	0	1	IC OP AMP WB TO-99 PKG	27014	LM318H

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A20Y**	0410-0765	5	4	CRYSTAL-QUARTZ PAIR; 15613 HZ & 15637	28480	0410-0765
A20Y2	0410-0765	5		CRYSTAL-QUARTZ PAIR; 15613 HZ & 15637	28480	0410-0765
A20Y3	0410-0765	5		CRYSTAL-QUARTZ PAIR; 15613 HZ & 15637	28480	0410-0765
A20Y4	0410-0765	5		CRYSTAL-QUARTZ PAIR; 15613 HZ & 15637	28480	0410-0765
				**WHEN -HP- PART NUMBER 0410-0765 IS ORDERED, A MATCHED SET OF 2 CRYSTALS WILL BE SENT: 1 EACH 15.613KHS AND 1 EACH 15.637KHZ.		

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A20	03586-66524	0	1	IF FILTER-1740HZ (3586A/B)	28480	03586-66524
A20C3	0160-3847	9	4	CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A20C4	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A20C11	0180-0374	3	2	CAPACITOR-FXD 10UF+-10% 20VDC TA	56289	150D106X9020B2
A20C12	0180-0374	3		CAPACITOR-FXD 10UF+-10% 20VDC TA	56289	150D106X9020B2
A20C32	0121-0162	3	2	CAPACITOR-V TRMR-AIR 1.2-3.5PF 350V	08590	10-1326-25004-910
A20C34	0160-2940	1	2	CAPACITOR-FXD 470PF +-5% 300VDC MICA	28480	0160-2940
A20C35	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A20C36	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A20C41	0160-2940	1		CAPACITOR-FXD 470PF +-5% 300VDC MICA	28480	0160-2940
A20C42	0121-0162	3		CAPACITOR-V TRMR-AIR 1.2-3.5PF 350V	08590	10-1326-25004-910
A20C51	0160-0952	1	1	CAPACITOR-FXD 220PF +-1% 300VDC MICA	28480	0160-0952
A20C52	0160-0336	5	1	CAPACITOR-FXD 100PF +-1% 300VDC MICA	28480	0160-0336
A20C53	0140-0234	0	1	CAPACITOR-FXD 500PF +-1% 300VDC MICA	72136	DM15F501F0300WV1C
A20C54	0160-2587	2	2	CAPACITOR-FXD 4000PF +-1% 100VDC MICA	28480	0160-2587
A20C55	0140-0177	0	1	CAPACITOR-FXD 400PF +-1% 300VDC MICA	72136	DM15F401F0300WV1CR
A20C56	0140-0235	1	1	CAPACITOR-FXD 2250PF +-1% 300VDC MICA	72136	DM20F2250RF0300WV1C
A20C57	0160-0136	3	1	CAPACITOR-FXD 2500PF +-1% 300VDC MICA	28480	0160-0136
A20C58	0160-3085	7	1	CAPACITOR-FXD 510PF +-1% 300VDC MICA	28480	0160-3085
A20C59	0160-3843	5	1	CAPACITOR-FXD 560PF +-1% 100VDC MICA	28480	0160-3843
A20C60	0140-0172	5	1	CAPACITOR-FXD 3000PF +-1% 100VDC MICA	72136	DM19F302F0100WV1CR
A20C61	0160-4317	0	1	CAPACITOR-FXD 1200PF +-1% 100VDC MICA	28480	0160-4317
A20C62	0140-0228	2	1	CAPACITOR-FXD 360PF +-1% 300VDC MICA	72136	DM15F361F0300WV1C
A20C63	0140-0155	4	1	CAPACITOR-FXD 1325PF +-1% 500VDC MICA	72136	DM20F1325RF0500WV1CR
A20C64	0160-2587	2		CAPACITOR-FXD 4000PF +-1% 100VDC MICA	28480	0160-2587
A20C65	0160-3288	2	1	CAPACITOR-FXD 530PF +-1% 100VDC MICA	28480	0160-3288
A20C66	0160-0191	0	1	CAPACITOR-FXD 272PF +-1% 300VDC MICA	28480	0160-0191
A20C67	0160-3548	7	3	CAPACITOR-FXD .01UF +-1% 100VDC MICA	28480	0160-3548
A20C81	0160-3879	7	2	CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A20C82	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A20C91	0160-3548	7		CAPACITOR-FXD .01UF +-1% 100VDC MICA	28480	0160-3548
A20C92	0160-3548	7		CAPACITOR-FXD .01UF +-1% 100VDC MICA	28480	0160-3548
A20C93	0160-0576	5	1	CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A20C151	0140-0209	9	2	CAPACITOR-FXD 5PF +-10% 500VDC MICA	72136	DM15C050K0500WV1CR
A20C152	0160-2306	3	1	CAPACITOR-FXD 27PF +-5% 300VDC MICA	28480	0160-2306
A20C153	0140-0209	9		CAPACITOR-FXD 5PF +-10% 500VDC MICA	72136	DM15C050K0500WV1CR
A20C154	0140-0197	4	2	CAPACITOR-FXD 130PF +-5% 300VDC MICA	72136	DM15F181J0300WV1CR
A20C155	0160-2150	5	2	CAPACITOR-FXD 33PF +-5% 300VDC MICA	28480	0160-2150
A20C156	0160-2205	1	1	CAPACITOR-FXD 120PF +-5% 300VDC MICA	28480	0160-2205
A20C157	0140-0197	4		CAPACITOR-FXD 180PF +-5% 300VDC MICA	72136	DM15F181J0300WV1CR
A20C158	0140-0190	7	1	CAPACITOR-FXD 39PF +-5% 300VDC MICA	72136	DM15E390J0300WV1CR
A20C159	0160-2202	8	1	CAPACITOR-FXD 75PF +-5% 300VDC MICA	28480	0160-2202
A20C161	0160-2025	3	1	CAPACITOR-FXD 220PF +-5% 500VDC MICA	28480	0160-2025
A20C162	0160-2150	5		CAPACITOR-FXD 33PF +-5% 300VDC MICA	28480	0160-2150
A20C163	0140-0202	2	1	CAPACITOR-FXD 15PF +-5% 500VDC MICA	72136	DM15C150J0500WV1CR
A20C164	0140-0226	0	1	CAPACITOR-FXD 320PF +-1% 300VDC MICA	72136	DM15F321F0300WV1C
A20C165	0160-2307	4	1	CAPACITOR-FXD 47PF +-5% 300VDC MICA	28480	0160-2307
A20CR1	1901-0535	9	4	DIODE-SM SIG SCHOTTKY	28480	1901-0535
A20CR2	1901-0535	9		DIODE-SM SIG SCHOTTKY	28480	1901-0535
A20CR3	1901-0535	9		DIODE-SM SIG SCHOTTKY	28480	1901-0535
A20CR4	1901-0535	9		DIODE-SM SIG SCHOTTKY	28480	1901-0535
A20L51	9140-0369	1	2	COIL-VARIABLE 279. MH; +-3% MIN; Q	28480	9140-0369
A20L52	9140-0354	4	1	COIL-VARIABLE 21.05 MH; +-3% MIN; Q MIN	28480	9140-0354
A20L53	9140-0369	1		COIL-VARIABLE 279. MH; +-3% MIN; Q	28480	9140-0369
A20L54	9140-0371	5	1	COIL-VARIABLE 32.10 MH; +-3% MIN; Q MIN	28480	9140-0371
A20L55	9140-0372	6	1	COIL-VARIABLE 269. MH; +-3% MIN; Q	28480	9140-0372
A20L56	9140-0373	7	1	COIL-VARIABLE 57.30 MH; +-3% MIN; Q MIN	28480	9140-0373
A20L57	9140-0374	8	1	COIL-VARIABLE 104. MH; +-3% MIN; Q	28480	9140-0374
A20L58	9140-0375	9	1	COIL-VARIABLE 121. MH; +-3% MIN; Q	28480	9140-0375
A20L59	9140-0368	0	1	COIL-VARIABLE 10.2 MH; +-3% MIN; Q MIN	28480	9140-0368
A20L91	9140-0382	8	1	COIL-VARIABLE 11.6 MH; +-3% MIN; Q MIN	28480	9140-0382
A20L92	9140-0383	9	1	COIL-VARIABLE 9.5 MH; +-3% MIN; Q MIN	28480	9140-0383
A20R1	0698-6323	1	4	RESISTOR 100 .1% .125W F TC=0+-25	28480	0698-6323
A20R2	0698-6323	1		RESISTOR 100 .1% .125W F TC=0+-25	28480	0698-6323
A20R3	0698-8059	4	4	RESISTOR 4.32K .1% .125W F TC=0+-25	19701	MF4C1/8-T9-4321-B
A20R4	0698-8059	4		RESISTOR 4.32K .1% .125W F TC=0+-25	19701	MF4C1/8-T9-4321-B
A20R5	0698-4433	0	1	RESISTOR 2.26K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2261-F
A20R6	0698-8059	4		RESISTOR 4.32K .1% .125W F TC=0+-25	19701	MF4C1/8-T9-4321-B
A20R7	0698-6323	1		RESISTOR 100 .1% .125W F TC=0+-25	28480	0698-6323
A20R8	0698-6323	1		RESISTOR 100 .1% .125W F TC=0+-25	28480	0698-6323
A20R9*	0698-3160	8	1	RESISTOR 31.6K 1% .125W F TC=0+-100	24546	C4-1/8-T0-3162-F
A20R9*	0698-3162	0	1	RESISTOR 46.4K 1% .125W F TC=0+-100	24546	C4-1/8-T0-4642-F
A20R9*	0698-4511	5	1	RESISTOR 86.6K 1% .125W F TC=0+-100	24546	C4-1/8-T0-8662-F
A20R9*	0757-0469	0	1	RESISTOR 150K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1503-F

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A20R10	0698-4431	8	1	RESISTOR 2.05K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2051-F
A20R11	0757-0346	2	2	RESISTOR 10 1% .125W F TC=0+-100	24546	C4-1/8-T0-10R0-F
A20R12	0757-0346	2		RESISTOR 10 1% .125W F TC=0+-100	24546	C4-1/8-T0-10R0-F
A20R13	0683-6835	9	3	RESISTOR 68K 5% .25W FC TC=-400/+800	01121	CB6835
A20R14	0683-5135	0	3	RESISTOR 51K 5% .25W FC TC=-400/+800	01121	CB5135
A20R15	0683-6835	9		RESISTOR 68K 5% .25W FC TC=-400/+800	01121	CB6835
A20R16	0683-5135	0		RESISTOR 51K 5% .25W FC TC=-400/+800	01121	CB5135
A20R17	0683-6835	9		RESISTOR 68K 5% .25W FC TC=-400/+800	01121	CB6835
A20R18	0683-5135	0	-	RESISTOR 51K 5% .25W FC TC=-400/+800	01121	CB5135
A20R21	0757-0401	0	2	RESISTOR 100 1% .125W F TC=0+-100	24546	C4-1/8-T0-101-F
A20R22	0698-3279	0	4	RESISTOR 4.99K 1% .125W F TC=0+-100	24546	C4-1/8-T0-4991-F
A20R23	0698-3279	0		RESISTOR 4.99K 1% .125W F TC=0+-100	24546	C4-1/8-T0-4991-F
A20R24	2100-3253	7	2	RESISTOR-TRMR 50K 10% C TOP-ADJ 1-TRN	28480	2100-3253
A20R25	0757-0462	3	1	RESISTOR 75K 1% .125W F TC=0+-100	24546	C4-1/8-T0-7502-F
A20R26	0698-4499	8	2	RESISTOR 54.9K 1% .125W F TC=0+-100	24546	C4-1/8-T0-5492-F
A20R27	0757-0465	6	4	RESISTOR 100K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1003-F
A20R28	0757-0442	9	5	RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A20R29	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A20R30	0757-0123	3	1	RESISTOR 34.8K 1% .125W F TC=0+-100	28480	0757-0123
A20R31	0757-0401	0		RESISTOR 100 1% .125W F TC=0+-100	24546	C4-1/8-T0-101-F
A20R32	0698-3279	0		RESISTOR 4.99K 1% .125W F TC=0+-100	24546	C4-1/8-T0-4991-F
A20R33	0698-3279	0		RESISTOR 4.99K 1% .125W F TC=0+-100	24546	C4-1/8-T0-4991-F
A20R34	0757-0465	6		RESISTOR 100K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1003-F
A20R35	2100-3214	0	1	RESISTOR-TRMR 100K 10% C TOP-ADJ 1-TRN	28480	2100-3214
A20R36	0757-0465	6		RESISTOR 100K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1003-F
A20R37	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A20R38	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A20R39	0757-0453	2	1	RESISTOR 30.1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-3012-F
A20R40	2100-3210	6	1	RESISTOR-TRMR 10K 10% C TOP-ADJ 1-TRN	28480	2100-3210
A20R51	0698-4435	2	1	RESISTOR 2.49K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2491-F
A20R52	0698-4020	1	1	RESISTOR 9.53K 1% .125W F TC=0+-100	24546	C4-1/8-T0-9531-F
A20R53	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A20R81	0699-0369	5	1	RESISTOR 110.5K .1% .125W F TC=0+-25	28480	0699-0369
A20R82	0698-6624	5	1	RESISTOR 2K .1% .125W F TC=0+-25	28480	0698-6624
A20R83	0698-8059	4		RESISTOR 4.32K .1% .125W F TC=0+-25	19701	MF4C1/8-T9-4321-B
A20R84	0698-3444	1	1	RESISTOR 316 1% .125W F TC=0+-100	24546	C4-1/8-T0-316R-F
A20R85	0698-4428	3	1	RESISTOR 1.69K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1691-F
A20R86*	0698-3280	3	1	RESISTOR 63.4K 1% .125W F TC=0+-100	24546	C4-1/8-T0-6342-F
A20R86*	0757-0124	4	1	RESISTOR 39.2K 1% .125W F TC=0+-100	28480	0757-0124
A20R86*	0757-0447	4	1	RESISTOR 16.2K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1622-F
A20R86*	0757-0451	0	1	RESISTOR 24.3K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2432-F
A20R91	0698-3228	9	2	RESISTOR 49.9K 1% .125W F TC=0+-100	28480	0698-3228
A20R92	0698-3228	9		RESISTOR 49.9K 1% .125W F TC=0+-100	28480	0698-3228
A20R93	0757-0465	6		RESISTOR 100K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1003-F
A20R94	0698-4499	8		RESISTOR 54.9K 1% .125W F TC=0+-100	24546	C4-1/8-T0-5492-F
A20R95	2100-3253	7		RESISTOR-TRMR 50K 10% C TOP-ADJ 1-TRN	28480	2100-3253
A20U1	1826-0217	4	2	IC OP AMP GP DUAL TO-99 PKG	07933	RC4558T
A20U2	1826-0043	4	1	IC OP AMP GP TO-99 PKG	3L585	CA307T
A20U3	1826-0417	6	2	IC SWITCH ANLG QUAD 16-DIP-C PKG	27014	LF13333D
A20U4	1826-0417	6		IC SWITCH ANLG QUAD 16-DIP-C PKG	27014	LF13333D
A20U6	1826-0222	1	1	IC OP AMP GP QUAD 14-DIP-P PKG	07263	UA4136PC
A20U7	1826-0217	4		IC OP AMP GP DUAL TO-99 PKG	07933	RC4558T
A20U9	1826-0476	7	1	IC SWITCH ANLG 8-DIP-P PKG	01295	TL601CP
A20U10	1826-0715	7	1	IC OP AMP LOW-NOISE 8-DIP-P PKG	18324	NE5534AN
A20U11	1826-0081	0	1	IC OP AMP WB TO-99 PKG	27014	LM318H
A20Y1**	0410-0765	5	4	CRYSTAL-QUARTZ PAIR; 15613 HZ & 15637	28480	0410-0765
A20Y2	0410-0765	5		CRYSTAL-QUARTZ PAIR; 15613 HZ & 15637	28480	0410-0765
A20Y3	0410-0765	5		CRYSTAL-QUARTZ PAIR; 15613 HZ & 15637	28480	0410-0765
A20Y4	0410-0765	5		CRYSTAL-QUARTZ PAIR; 15613 HZ & 15637	28480	0410-0765
				**WHEN -HP- PART NUMBER 0410-0765 IS ORDERED, A MATCHED SET OF 2 CRYSTALS WILL BE SENT: 1 EACH 15.613KHZ AND 1 EACH 15.637KHZ.		

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A21	03586-66521	7	1	IF GAIN & DETECTION (3586A/B/C)	28480	03586-66521
A21C1*	0140-0193	0	2	CAPACITOR-FXD 82PF +-5% 300VDC MICA	72136	DM15S820J0300WV1CR
A21C1*	0140-0194	1	1	CAPACITOR-FXD 110PF +-5% 300VDC MICA	72136	DM15F111J0300WV1CR
A21C1*	0140-0195	2	2	CAPACITOR-FXD 130PF +-5% 300VDC MICA	72136	DM15F131J0300WV1CR
A21C1*	0140-0196	3	2	CAPACITOR-FXD 150PF +-5% 300VDC MICA	72136	DM15F151J0300WV1CR
A21C1*	0160-2204	0	2	CAPACITOR-FXD 100PF +-5% 300VDC MICA	28480	0160-2204
A21C1*	0160-2205	1	2	CAPACITOR-FXD 120PF +-5% 300VDC MICA	28480	0160-2205
A21C2	0140-0200	8	1	CAPACITOR-FXD 680PF +-5% 300VDC MICA	72136	DM15F681J0300WV1CR
A21C3	0160-2055	9	18	CAPACITOR-FXD .01UF +80-20% 100VDC CER	28480	0160-2055
A21C4	0160-2055	9		CAPACITOR-FXD .01UF +80-20% 100VDC CER	28480	0160-2055
A21C5	0160-2055	9		CAPACITOR-FXD .01UF +80-20% 100VDC CER	28480	0160-2055
A21C6	0160-2306	3		CAPACITOR-FXD 27PF +-5% 300VDC MICA	28480	0160-2306
A21C7	0140-0191	8	3	CAPACITOR-FXD 56PF +-5% 300VDC MICA	72136	DM15E560J0300WV1CR
A21C8	0160-2055	9		CAPACITOR-FXD .01UF +80-20% 100VDC CER	28480	0160-2055
A21C9	0160-2055	9		CAPACITOR-FXD .01UF +80-20% 100VDC CER	28480	0160-2055
A21C10	0160-2055	9		CAPACITOR-FXD .01UF +80-20% 100VDC CER	28480	0160-2055
A21C11	0160-2306	3		CAPACITOR-FXD 27PF +-5% 300VDC MICA	28480	0160-2306
A21C12	0140-0191	8		CAPACITOR-FXD 56PF +-5% 300VDC MICA	72136	DM15E560J0300WV1CR
A21C13	0160-4571	8	3	CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A21C18	0160-0127	2	1	CAPACITOR-FXD 1UF +-20% 25VDC CER	28480	0160-0127
A21C19	0160-2055	9		CAPACITOR-FXD .01UF +80-20% 100VDC CER	28480	0160-2055
A21C20	0160-2055	9		CAPACITOR-FXD .01UF +80-20% 100VDC CER	28480	0160-2055
A21C21	0160-2306	3		CAPACITOR-FXD 27PF +-5% 300VDC MICA	28480	0160-2306
A21C22	0140-0191	8		CAPACITOR-FXD 56PF +-5% 300VDC MICA	72136	DM15E560J0300WV1CR
A21C23	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A21C24	0160-3847	9	2	CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A21C25	0160-2204	0		CAPACITOR-FXD 100PF +-5% 300VDC MICA	28480	0160-2204
A21C26	0160-2055	9		CAPACITOR-FXD .01UF +80-20% 100VDC CER	28480	0160-2055
A21C27	0160-2055	9		CAPACITOR-FXD .01UF +80-20% 100VDC CER	28480	0160-2055
A21C28	0160-2055	9		CAPACITOR-FXD .01UF +80-20% 100VDC CER	28480	0160-2055
A21C29	0160-3658	0	1	CAPACITOR-FXD 10UF +-10% 50VDC MET-POLYC	28480	0160-3658
A21C30	0160-0174	9	1	CAPACITOR-FXD .47UF +80-20% 25VDC CER	28480	0160-0174
A21C31	0160-2055	9		CAPACITOR-FXD .01UF +80-20% 100VDC CER	28480	0160-2055
A21C32	0160-0153	4	3	CAPACITOR-FXD 1000PF +-10% 200VDC POLYE	28480	0160-0153
A21C33	0160-2055	9		CAPACITOR-FXD .01UF +80-20% 100VDC CER	28480	0160-2055
A21C34	0160-2055	9		CAPACITOR-FXD .01UF +80-20% 100VDC CER	28480	0160-2055
A21C35	0180-0374	3	3	CAPACITOR-FXD 10UF+-10% 20VDC TA	56289	150D106X9020B2
A21C36	0180-0374	3		CAPACITOR-FXD 10UF+-10% 20VDC TA	56289	150D106X9020B2
A21C37	0180-0374	3		CAPACITOR-FXD 10UF+-10% 20VDC TA	56289	150D106X9020B2
A21C38	0160-0153	4		CAPACITOR-FXD 1000PF +-10% 200VDC POLYE	28480	0160-0153
A21C39	0180-0100	3	3	CAPACITOR-FXD 4.7UF+-10% 35VDC TA	56289	150D475X9035B2
A21C40	0160-2055	9		CAPACITOR-FXD .01UF +80-20% 100VDC CER	28480	0160-2055
A21C41	0160-2055	9		CAPACITOR-FXD .01UF +80-20% 100VDC CER	28480	0160-2055
A21C42	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A21C43	0140-0222	6	2	CAPACITOR-FXD 240PF +-1% 300VDC MICA	72136	DM15F241F0300WV1C
A21C44	0160-2387	0	2	CAPACITOR-FXD 1000PF +-1% 500VDC MICA	28480	0160-2387
A21C45	0160-3548	7	1	CAPACITOR-FXD .01UF +-1% 100VDC MICA	28480	0160-3548
A21C46	0140-0222	6		CAPACITOR-FXD 240PF +-1% 300VDC MICA	72136	DM15F241F0300WV1C
A21C47	0160-2387	0		CAPACITOR-FXD 1000PF +-1% 500VDC MICA	28480	0160-2387
A21C48	0150-0012	3	1	CAPACITOR-FXD .01UF +-20% 1KVDC CER	56289	C023A102J103MS38
A21C49	0160-0128	3	1	CAPACITOR-FXD 2.2UF +-20% 50VDC CER	28480	0160-0128
A21C51	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A21C52	0180-0100	3		CAPACITOR-FXD 4.7UF+-10% 35VDC TA	56289	150D475X9035B2
A21C53	0180-0100	3		CAPACITOR-FXD 4.7UF+-10% 35VDC TA	56289	150D475X9035B2
A21C60*	0140-0195	2		CAPACITOR-FXD 130PF +-5% 300VDC MICA	72136	DM15F131J0300WV1CR
A21C60*	0140-0196	3		CAPACITOR-FXD 150PF +-5% 300VDC MICA	72136	DM15F151J0300WV1CR
A21C60*	0140-0197	4	1	CAPACITOR-FXD 180PF +-5% 300VDC MICA	72136	DM15F181J0300WV1CR
A21C60*	0140-0198	5	1	CAPACITOR-FXD 200PF +-5% 300VDC MICA	72136	DM15F201J0300WV1CR
A21C60*	0160-2205	1		CAPACITOR-FXD 120PF +-5% 300VDC MICA	28480	0160-2205
A21C60*	0160-2206	2	1	CAPACITOR-FXD 160PF +-5% 300VDC MICA	28480	0160-2206
A21C61*	0140-0192	9	1	CAPACITOR-FXD 68PF +-5% 300VDC MICA	72136	DM15E680J0300WV1CR
A21C61*	0140-0193	0		CAPACITOR-FXD 82PF +-5% 300VDC MICA	72136	DM15E820J0300WV1CR
A21C61*	0160-2336	3	4	CAPACITOR-FXD 27PF +-5% 300VDC MICA	28480	0160-2306
A21C61*	0160-2307	4	1	CAPACITOR-FXD 47PF +-5% 300VDC MICA	28480	0160-2307
A21C70	0160-2055	9		CAPACITOR-FXD .01UF +80-20% 100VDC CER	28480	0160-2055
A21C71	0160-0153	4		CAPACITOR-FXD 1000PF +-10% 200VDC POLYE	28480	0160-0153
A21C72	0180-0309	4	2	CAPACITOR-FXD 4.7UF+-20% 10VDC TA	56289	150D475X0010A2
A21C73	0180-0309	4		CAPACITOR-FXD 4.7UF+-20% 10VDC TA	56289	150D475X0010A2
A21C74	0180-0061	5	1	CAPACITOR-FXD 100UF+75-10% 16VDC AL	56289	30D107G016DC2
A21C75	0180-0466	4	1	CAPACITOR-FXD 2200UF+100-10% 16VDC AL	28480	0180-0466
A21C80	0160-2055	9		CAPACITOR-FXD .01UF +80-20% 100VDC CER	28480	0160-2055
A21C90	0160-4532	1	1	CAPACITOR-FXD 1000PF +-20% 50VDC CER	28480	0160-4532

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A21CR1	1901-0040	1	6	DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
A21CR2	1901-0033	2	2	DIODE-GEN PRP 180V 200MA DO-7	28480	1901-0033
A21CR3	1901-0033	2		DIODE-GEN PRP 180V 200MA DO-7	28480	1901-0033
A21CR4	1901-0040	1		DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
A21CR5	1902-0048	1	1	DIODE-ZNR 6.81V 5% DO-35 PD=.4W	28480	1902-0048
A21CR6	1901-0040	1		DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
A21CR7	1901-0040	1		DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
A21CR8	1901-0040	1		DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
A21CR9	1901-0040	1		DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
A21CR10	1902-0945	7	1	DIODE-ZNR 3V 5% DO-35 PD=.4W TC=-.043%	28480	1902-0945
A21E1	1990-0702	9	1	OPTO-ISOLATOR LED-PCNDCT IF=40MA-MAX	18178	VTL5C3/2
A21L1	9100-0539	3	1	INDUCTOR (MISC ITEM)	28480	9100-0539
A21Q2	1854-0071	7	3	TRANSISTOR NPN SI PD=300MW FT=200MHZ	28480	1854-0071
A21Q3	1854-0071	7		TRANSISTOR NPN SI PD=300MW FT=200MHZ	28480	1854-0071
A21Q4	1854-0071	7		TRANSISTOR NPN SI PD=300MW FT=200MHZ	28480	1854-0071
A21R1	0683-1035	1	4	RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A21R2	0683-1025	9	7	RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A21R3	0757-0435	0	1	RESISTOR 3.92K 1% .125W F TC=0+-100	24546	C4-1/8-T0-3921-F
A21R4	0683-1045	3	5	RESISTOR 100K 5% .25W FC TC=-400/+800	01121	CB1045
A21R5	0683-4735	4	1	RESISTOR 47K 5% .25W FC TC=-400/+800	01121	CB4735
A21R6	0698-6624	5	1	RESISTOR 2K .1% .125W F TC=0+-25	28480	0698-6624
A21R7	0699-0369	5	1	RESISTOR 110.5K .1% .125W F TC=0+-25	28480	0699-0369
A21R8	0698-3279	0	1	RESISTOR 4.99K 1% .125W F TC=0+-100	24546	C4-1/8-T0-4991-F
A21R9	0698-3268	7	1	RESISTOR 11.5K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1152-F
A21R10	0698-4494	3	1	RESISTOR 35.7K 1% .125W F TC=0+-100	24546	C4-1/8-T0-3572-F
A21R11	0698-8344	0	1	RESISTOR 604K 1% .125W F TC=0+-100	28480	0698-8344
A21R13	0683-1025	9		RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A21R14	0757-0453	2	1	RESISTOR 30.1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-3012-F
A21R15	0683-1045	3		RESISTOR 100K 5% .25W FC TC=-400/+800	01121	CB1045
A21R16	0757-0465	6	1	RESISTOR 100K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1003-F
A21R17	0757-0442	9	7	RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A21R18	0683-2715	6	1	RESISTOR 270 5% .25W FC TC=-400/+600	01121	CB2715
A21R19	2100-3350	5	1	RESISTOR-TRMR 200 10% C SIDE-ADJ 1-TRN	28480	2100-3350
A21R20	0811-1780	6	1	RESISTOR 1K 5% .25W PWW TC=+3400+-300	54294	VA12-1/4-1001-J
A21R21	0698-4486	3	1	RESISTOR 24.9K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2492-F
A21R22	0757-0469	0	1	RESISTOR 150K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1503-F
A21R23	2100-3054	6	1	RESISTOR-TRMR 50K 10% C SIDE-ADJ 17-TRN	02111	43P503
A21R24	0698-4529	5	1	RESISTOR 226K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2263-F
A21R25	2100-3274	2	1	RESISTOR-TRMR 10K 10% C SIDE-ADJ 1-TRN	28480	2100-3274
A21R26	0698-4506	8	1	RESISTOR 73.2K 1% .125W F TC=0+-100	24546	C4-1/8-T0-7322-F
A21R27*	0698-3518	0	1	RESISTOR 7.32K 1% .125W F TC=0+-100	24546	C4-1/8-T0-7321-F
A21R27*	0698-4472	7	1	RESISTOR 7.68K 1% .125W F TC=0+-100	24546	C4-1/8-T0-7681-F
A21R27*	0698-4473	8	1	RESISTOR 8.06K 1% .125W F TC=0+-100	24546	C4-1/8-T0-8061-F
A21R28	2100-3351	6	1	RESISTOR-TRMR 500 10% C SIDE-ADJ 1-TRN	28480	2100-3351
A21R29	0683-4725	2	2	RESISTOR 4.7K 5% .25W FC TC=-400/+700	01121	CB4725
A21R30	0683-4725	2		RESISTOR 4.7K 5% .25W FC TC=-400/+700	01121	CB4725
A21R31	0683-1025	9		RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A21R32	0683-1015	7	3	RESISTOR 100 5% .25W FC TC=-400/+500	01121	CB1015
A21R36	0683-1005	5	2	RESISTOR 10 5% .25W FC TC=-400/+500	01121	CB1005
A21R37	0683-1005	5		RESISTOR 10 5% .25W FC TC=-400/+500	01121	CB1005
A21R38	0683-1025	9		RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A21R39	0683-1025	9		RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A21R41	0698-3558	8	2	RESISTOR 4.02K 1% .125W F TC=0+-100	24546	C4-1/8-T0-4021-F
A21R42	0757-0437	2	1	RESISTOR 4.75K 1% .125W F TC=0+-100	24546	C4-1/8-T0-4751-F
A21R43	0757-0288	1	1	RESISTOR 9.09K 1% .125W F TC=0+-100	19701	MF4C1/8-T0-9091-F
A21R44	2100-3273	1	1	RESISTOR-TRMR 2K 10% C SIDE-ADJ 1-TRN	28480	2100-3273
A21R45	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A21R46	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A21R47	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A21R48	0757-0443	0	1	RESISTOR 11K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1102-F
A21R49	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A21R50	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A21R51	0698-3280	3	4	RESISTOR 63.4K 1% .125W F TC=0+-100	24546	C4-1/8-T0-6342-F
A21R52	0698-3280	3		RESISTOR 63.4K 1% .125W F TC=0+-100	24546	C4-1/8-T0-6342-F
A21R54	0698-3280	3		RESISTOR 63.4K 1% .125W F TC=0+-100	24546	C4-1/8-T0-6342-F
A21R55	0698-3280	3		RESISTOR 63.4K 1% .125W F TC=0+-100	24546	C4-1/8-T0-6342-F
A21R56	0683-1045	3		RESISTOR 100K 5% .25W FC TC=-400/+800	01121	CB1045
A21R57	0683-4715	0	1	RESISTOR 470 5% .25W FC TC=-400/+600	01121	CB4715
A21R58	0683-3025	3	1	RESISTOR 3K 5% .25W FC TC=-400/+700	01121	CB3025
A21R59	0683-1015	7		RESISTOR 100 5% .25W FC TC=-400/+500	01121	CB1015
A21R60	0698-3558	8		RESISTOR 4.02K 1% .125W F TC=0+-100	24546	C4-1/8-T0-4021-F
A21R61	0757-0280	3	1	RESISTOR 1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1001-F
A21R62	0698-4452	3	1	RESISTOR 374 1% .125W F TC=0+-100	24546	C4-1/8-T0-374R-F
A21R63	0683-1035	1		RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A21R68	0683-2435	7	1	RESISTOR 24K 5% .25W FC TC=-400/+800	01121	CB2435

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A21R69	0683-2035	3	1	RESISTOR 20K 5% .25W FC TC=-400/+800	01121	CB2035
A21R70	0683-1045	3		RESISTOR 100K 5% .25W FC TC=-400/+800	01121	CB1045
A21R71	0683-1525	4	1	RESISTOR 1.5K 5% .25W FC TC=-400/+700	01121	CB1525
A21R72	0683-1045	3		RESISTOR 100K 5% .25W FC TC=-400/+800	01121	CB1045
A21R73	0683-5135	0	1	RESISTOR 51K 5% .25W FC TC=-400/+800	01121	CB5135
A21R74	0683-2025	1	1	RESISTOR 2K 5% .25W FC TC=-400/+700	01121	CB2025
A21R75	0683-1025	9		RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A21R76	0683-1015	7		RESISTOR 100 5% .25W FC TC=-400/+500	01121	CB1015
A21R78	0811-3070	1	1	RESISTOR 2.2 5% .5W PW TC=0+-150	28480	0811-3070
A21R80	0683-1035	1		RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A21R81	0757-0274	5	1	RESISTOR 1.21K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1211-F
A21R82	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A21R83	0757-0466	7	2	RESISTOR 110K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1103-F
A21R84	0698-6360	6	4	RESISTOR 10K .1% .125W F TC=0+-25	28480	0698-6360
A21R85	0698-6360	6		RESISTOR 10K .1% .125W F TC=0+-25	28480	0698-6360
A21R86	0698-6360	6		RESISTOR 10K .1% .125W F TC=0+-25	28480	0698-6360
A21R87	0698-6360	6		RESISTOR 10K .1% .125W F TC=0+-25	28480	0698-6360
A21R88	0757-0411	2	1	RESISTOR 332 1% .125W F TC=0+-100	24546	C4-1/8-T0-332R-F
A21R89	0757-0459	9	1	RESISTOR 22.1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2212-F
A21R90	0698-7332	4	1	RESISTOR 1M 1% .125W F TC=0+-100	28480	0698-7332
A21R91	0757-0433	8	1	RESISTOR 3.32K 1% .125W F TC=0+-100	24546	C4-1/8-T0-3321-F
A21R92	0683-1635	1		RESISTOR 16K 5% .25W FC TC=-400/+700	01121	CB1635
A21R93	0683-7535	8	1	RESISTOR 75K 5% .25W FC TC=-400/+800	01121	CB7535
A21R94	0698-3382	6	1	RESISTOR 5.49K 1% .125W F TC=0+-100	24546	C4-1/8-T0-5491-F
A21R95	0698-3497	4	1	RESISTOR 6.04K 1% .125W F TC=0+-100	24546	C4-1/8-T0-6041-F
A21R96	2100-3352	7	1	RESISTOR-TRMR 1K 10% C SIDE ADJ 1-TRN	28480	2100-3352
A21R97	0683-1025	9		RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A21R98	0757-0466	7		RESISTOR 110K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1103-F
A21R99	0698-4020	1	1	RESISTOR 9.53K 1% .125W F TC=0+-100	24546	C4-1/8-T0-9531-F
A21S1	3101-1341	3	2	SWITCH-SL SPDT SUBMIN .5A 125VAC/DC	28480	3101-1341
A21S2	3101-1341	3		SWITCH-SL SPDT SUBMIN .5A 125VAC/DC	28480	3101-1341
A21U1	1820-1433	6	2	IC SHF-RGTR TTL LS R-S SERIAL-IN PRL-OUT	01295	SN74LS164N
A21U2	1820-1730	6	2	IC FF TTL LS D-TYPE POS-EDGE-TRIG COM	01295	SN74LS273N
A21U3	5061-0795	5	1	RESISTOR NETWORK	28480	5061-0795
A21U4	1826-0581	5	1	IC SWITCH ANLG 16-DIP-C PKG	27014	LF13508D
A21U5	1826-0421	2	1	IC CONV RMS/DC 14-DIP-C PKG	24355	AD536AJ
	1200-0638	7	1	SOCKET-IC 14-CONT DIP DIP-SLDR	28480	1200-0638
A21U6	1826-0417	6	1	IC SWITCH ANLG QUAD 16-DIP-C PKG	27014	LF13333D
A21U7	1826-0109	3	3	IC OP AMP WB TO-99 PKG	34371	HA2-2625-B0593
A21U8	1826-0109	3		IC OP AMP WB TO-99 PKG	34371	HA2-2625-B0593
A21U9	1826-0109	3		IC OP AMP WB TO-99 PKG	34371	HA2-2625-B0593
A21U10	1826-0013	8	1	IC OP AMP LOW-NOISE TO-99 PKG	06665	SSS741CJ
A21U11	1826-0043	4	1	IC OP AMP GP TO-99 PKG	3L585	CA307T
A21U13	1820-0427	6	1	IC MODULATOR TO-100 PKG	04713	MC1496G
A21U16	1826-0348	2	1	IC AUDIO AMPL DUAL 14-DIP-P PKG	27014	LM377N
A21U17	1826-0111	7	1	IC OP AMP GP DUAL TO-99 PKG	3L585	CA1458T
A21U18	1826-0476	7	1	IC SWITCH ANLG 8-DIP-P PKG	01295	TL601CP
A21U19	1826-0021	8	1	IC OP AMP GP TO-99 PKG	27014	LM310H
A21U20	1826-0557	5	1	IC OP AMP GP QUAD 14-DIP-C PKG	27014	LM348J
A21U21	1820-1433	6		IC SHF-RGTR TTL LS R-S SERIAL-IN PRL-OUT	01295	SN74LS164N
A21U22	1820-1730	6		IC FF TTL LS D-TYPE POS-EDGE-TRIG COM	01295	SN74LS273N
A21U23	1820-1934	2	1	IC CONV 8-B D/A 16-DIP-C PKG	06665	DAC-08EQ

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A22	03586-66522	8	1	ANALOG/DIGITAL CONVERTER-3100HZ (3586A/B/C)	28480	03586-66522
A22C1	0160-3847	9	2	CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A22C2	0180-0210	6	1	CAPACITOR-FXD 3.3UF+-20% 15VDC TA	56289	150D335X0015A2
A22C3	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A22C4	0160-4812	0	1	CAPACITOR-FXD 220PF +-5% 100VDC CER	28480	0160-4812
A22C5	0170-0040	9	1	CAPACITOR-FXD .047UF +-10% 200VDC POLYE	56289	292P47392
A22C7	0160-3405	5	1	CAPACITOR-FXD 2UF +-10% 50VDC MET-POLYC	28480	0160-3405
A22C8	0160-4571	8	16	CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A22C9	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A22C10	0180-0228	6	3	CAPACITOR-FXD 22UF+-10% 15VDC TA	56289	150D226X9015B2
A22C11	0180-0228	6		CAPACITOR-FXD 22UF+-10% 15VDC TA	56289	150D226X9015B2
A22C12	0180-0228	6		CAPACITOR-FXD 22UF+-10% 15VDC TA	56289	150D226X9015B2
A22C13	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A22C14	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A22C15	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A22C16	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A22C17	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A22C18	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A22C19	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A22C20	0160-5349	0	2	CAPACITOR-FXD 200PF +-5% 100VDC CER	28480	0160-5349
A22C21	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A22C22	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A22C23	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A22C24	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A22C101	0160-0196	5	1	CAPACITOR-FXD 24PF +-5% 300VDC MICA	28480	0160-0196
A22C101	0160-4813	1	1	CAPACITOR-FXD 180PF +-5% 100VDC CER	28480	0160-4813
A22C102	0160-4801	7	1	CAPACITOR-FXD 100PF +-5% 100VDC CER	28480	0160-4801
A22C103	0140-0194	1	1	CAPACITOR-FXD 110PF +-5% 300VDC MICA	72136	DM15F111J0300WV1CR
A22C104	0160-2202	8	1	CAPACITOR-FXD 75PF +-5% 300VDC MICA	28480	0160-2202
A22C105	0160-5349	0		CAPACITOR-FXD 200PF +-5% 100VDC CER	28480	0160-5349
A22C106	0140-0199	6	1	CAPACITOR-FXD 240PF +-5% 300VDC MICA	72136	DM15F241J0300WV1CR
A22C107	0160-4822	2	2	CAPACITOR-FXD 1000PF +-5% 100VDC CER	28480	0160-4822
A22C108	0160-4822	2		CAPACITOR-FXD 1000PF +-5% 100VDC CER	28480	0160-4822
A22C109	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A22C110	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A22C111	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A22C113	0180-0229	7	1	CAPACITOR-FXD 33UF+-10% 10VDC TA	56289	150D336X9010R2
A22CR1	1901-0040	1	4	DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
A22CR2	1901-0040	1		DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
A22CR4	1902-0777	3	1	DIODE-ZNR 1N825 6.2V 5% DO-7 PD=.4W	04713	1N825
A22CR5	1901-0040	1		DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
A22CR6	1901-0040	1		DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
A22L1	9100-0541	7	3	INDUCTOR RF-CH-MLD 250UH 10% .25DX.5LG	28480	9100-0541
A22L2	9100-0541	7		INDUCTOR RF-CH-MLD 250UH 10% .25DX.5LG	28480	9100-0541
A22L3	9100-0541	7		INDUCTOR RF-CH-MLD 250UH 10% .25DX.5LG	28480	9100-0541
A22L101	9140-0137	1	1	INDUCTOR RF-CH-MLD 1MH 5% .2DX.45LG Q=60	28480	9140-0137
A22L102	9100-1637	4	1	INDUCTOR RF-CH-MLD 120UH 5% .166DX.385LG	28480	9100-1637
A22L103	9100-1634	1	1	INDUCTOR RF-CH-MLD 25UH 5% .166DX.385LG	28480	9100-1634
A22Q1	1853-0089	5	1	TRANSISTOR PNP 2N4917 SI PD=200MW	07263	2N4917
A22Q101	1854-0071	7	1	TRANSISTOR NPN SI PD=300MW FT=200MHZ	28480	1854-0071
A22Q102	1854-0215	1	4	TRANSISTOR NPN SI PD=350MW FT=300MHZ	04713	2N3904
A22Q103	1854-0215	1		TRANSISTOR NPN SI PD=350MW FT=300MHZ	04713	2N3904
A22Q104	1854-0215	1		TRANSISTOR NPN SI PD=350MW FT=300MHZ	04713	2N3904
A22Q105	1854-0215	1		TRANSISTOR NPN SI PD=350MW FT=300MHZ	04713	2N3904
A22R1	0683-2225	3	1	RESISTOR 2.2K 5% .25W FC TC=-400/+700	01121	CB2225
A22R2	0683-2245	7	2	RESISTOR 220K 5% .25W FC TC=-800/+900	01121	CB2245
A22R3	0683-2235	5	3	RESISTOR 22K 5% .25W FC TC=-400/+800	01121	CB2235
A22R4	0683-2245	7		RESISTOR 220K 5% .25W FC TC=-800/+900	01121	CB2245
A22R5	0683-1835	9	1	RESISTOR 18K 5% .25W FC TC=-400/+800	01121	CB1835
A22R6	2100-3356	1	1	RESISTOR-TRMR 200K 10% C SIDE-ADJ 1-TRN	28480	2100-3356
A22R7	0683-7535	8	1	RESISTOR 75K 5% .25W FC TC=-400/+800	01121	CB7535
A22R8	0683-1035	1	5	RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A22R9	0683-1035	1		RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A22R10	0683-2235	5		RESISTOR 22K 5% .25W FC TC=-400/+800	01121	CB2235
A22R11	0683-6835	9	1	RESISTOR 68K 5% .25W FC TC=-400/+800	01121	CB6835
A22R12	0683-2235	5		RESISTOR 22K 5% .25W FC TC=-400/+800	01121	CB2235
A22R13	0683-3335	8	1	RESISTOR 33K 5% .25W FC TC=-400/+800	01121	CB3335
A22R14	0683-1035	1		RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A22R15	1810-0231	9	1	NETWORK-RES 8-SIP2.2K OHM X 7	01121	208A222

See introduction to this section for ordering information
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Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A22R16	1810-0204	6	1	NETWORK-RES 8-SIP1.0K OHM X 7	01121	208A102
A22R17	0683-1035	1		RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A22R18	0683-5125	8	2	RESISTOR 5.1K 5% .25W FC TC=-400/+700	01121	CB5125
A22R19	0683-5125	8		RESISTOR 5.1K 5% .25W FC TC=-400/+700	01121	CB5125
A22R20	0698-6846	3	1	RESISTOR 5.42K .5% .125W F TC=0+-50	24546	NC55-1/8-T2-5421-D
A22R21	2100-3095	5	1	RESISTOR-TRMR 200 10% C SIDE-ADJ 17-TRN	02111	43P201
A22R22	0698-5552	6	1	RESISTOR 1K 1% .125W F TC=0+-25	28480	0698-5552
A22R23	0698-3152	8	1	RESISTOR 3.48K 1% .125W F TC=0+-100	24546	C4-1/8-T0-3481-F
A22R24	0757-0427	0	1	RESISTOR 1.5K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1501-F
A22R25	0683-1035	1		RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A22R26	0757-0280	3	1	RESISTOR 1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1001-F
A22R27	0757-0442	9	3	RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A22R28	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A22R29	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A22R30	0757-0445	2	2	RESISTOR 13K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1302-F
A22R31	0757-0445	2		RESISTOR 13K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1302-F
A22R32	0698-3557	7	1	RESISTOR 806 1% .125W F TC=0+-100	24546	C4-1/8-T0-806R-F
A22R33	0757-0438	3	5	RESISTOR 5.11K 1% .125W F TC=0+-100	24546	C4-1/8-T0-5111-F
A22R34	0757-0438	3		RESISTOR 5.11K 1% .125W F TC=0+-100	24546	C4-1/8-T0-5111-F
A22R35	0757-0453	2	1	RESISTOR 30.1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-3012-F
A22R36	0757-0438	3		RESISTOR 5.11K 1% .125W F TC=0+-100	24546	C4-1/8-T0-5111-F
A22R38	0757-0438	3		RESISTOR 5.11K 1% .125W F TC=0+-100	24546	C4-1/8-T0-5111-F
A22R39	0757-0438	3		RESISTOR 5.11K 1% .125W F TC=0+-100	24546	C4-1/8-T0-5111-F
A22R40	0683-1005	5	1	RESISTOR 10 5% .25W FC TC=-400/+500	01121	CB1005
A22R101	0683-1045	3	1	RESISTOR 100K 5% .25W FC TC=-400/+800	01121	CB1045
A22R102	0683-2035	3	3	RESISTOR 20K 5% .25W FC TC=-400/+800	01121	CB2035
A22R103	0683-2035	3		RESISTOR 20K 5% .25W FC TC=-400/+800	01121	CB2035
A22R104	0683-2035	3		RESISTOR 20K 5% .25W FC TC=-400/+800	01121	CB2035
A22R105	0698-3450	9	4	RESISTOR 42.2K 1% .125W F TC=0+-100	24546	C4-1/8-T0-4222-F
A22R106	0698-3450	9		RESISTOR 42.2K 1% .125W F TC=0+-100	24546	C4-1/8-T0-4222-F
A22R107	0698-3450	9		RESISTOR 42.2K 1% .125W F TC=0+-100	24546	C4-1/8-T0-4222-F
A22R108	0698-3450	9		RESISTOR 42.2K 1% .125W F TC=0+-100	24546	C4-1/8-T0-4222-F
A22R109	0757-0161	9	4	RESISTOR 604 1% .125W F TC=0+-100	24546	C4-1/8-T0-604R-F
A22R110	0757-0161	9		RESISTOR 604 1% .125W F TC=0+-100	24546	C4-1/8-T0-604R-F
A22R111	0698-3493	0	2	RESISTOR 4.12K 1% .125W F TC=0+-100	24546	C4-1/8-T0-4121-F
A22R112	0698-3493	0		RESISTOR 4.12K 1% .125W F TC=0+-100	24546	C4-1/8-T0-4121-F
A22R113	0757-0161	9		RESISTOR 604 1% .125W F TC=0+-100	24546	C4-1/8-T0-604R-F
A22R114	0757-0161	9		RESISTOR 604 1% .125W F TC=0+-100	24546	C4-1/8-T0-604R-F
A22R115	0698-4484	1	2	RESISTOR 19.1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1912-F
A22R116	0698-4484	1		RESISTOR 19.1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1912-F
A22R117	0698-4123	5	2	RESISTOR 499 1% .125W F TC=0+-100	24546	C4-1/8-T0-499R-F
A22R118	0698-4123	5		RESISTOR 499 1% .125W F TC=0+-100	24546	C4-1/8-T0-499R-F
A22R119	0757-0277	8	2	RESISTOR 49.9 1% .125W F TC=0+-100	24546	C4-1/8-T0-49R9-F
A22R120	0757-0277	8		RESISTOR 49.9 1% .125W F TC=0+-100	24546	C4-1/8-T0-49R9-F
A22U1	1820-1433	6	1	IC SHF-RGTR TTL LS R-S SERIAL-IN PRL-OUT	01295	SN74LS164N
A22U2	1820-1730	6	1	IC FF TTL LS D TYPE POS-EDGE-TRIG COM	01295	SN74LS273N
A22U3	1826-0581	5	2	IC SWITCH ANLG 16-DIP C PKG	27014	LF13508D
A22U4	1826-0222	1	2	IC OP AMP GP QUAD 14-DIP-P PKG	07263	UA4136PC
A22U5	1826-0642	9	1	IC CONV 3-1/2-DIG-A/D 16-DIP-C PKG	04713	MC1405L
A22U6	1820-2310	0	1	IC CNTR PMOS DECD UP/DOWN SYNCHRO	50088	MK50399N
A22U7	1826-0581	5		IC SWITCH ANLG 16-DIP-C PKG	27014	LF13508D
A22U8	1820-0668	7	1	IC BFR TTL NON-INV HEX 1-INP	01295	SN7407N
A22U9	1820-1416	5	1	IC SCHMITT-TRIG TTL LS INV HEX 1-INP	01295	SN74LS14N
A22U10	1820-1197	9	3	IC GATE TTL LS NAND QUAD 2-INP	01295	SN74LS00N
A22U11	1820-1197	9		IC GATE TTL LS NAND QUAD 2-INP	01295	SN74LS00N
A22U12	1820-1201	6	1	IC GATE TTL LS AND QUAD 2-INP	01295	SN74LS08N
A22U13	1820-1197	9		IC GATE TTL LS NAND QUAD 2-INP	01295	SN74LS00N
A22U14	1820-1991	1	4	IC CNTR TTL LS DECD DUAL 4-BIT	01295	SN74LS390N
A22U15	1820-1991	1		IC CNTR TTL LS DECD DUAL 4 BIT	01295	SN74LS390N
A22U16	1820-1991	1		IC CNTR TTL LS DECD DUAL 4-BIT	01295	SN74LS390N
A22U17	1826-0138	8	1	IC COMPARATOR GP QUAD 14-DIP-P PKG	01295	LM339N
A22U18	1820-1440	5	1	IC LCH TTL LS QUAD	01295	SN74LS279N
A22U19	1820-1122	0	1	IC CNTR CMOS BCD SYNCHRO DUAL	04713	MC14518BCP
A22U20	1820-1188	8	1	IC PL LOOP 16-DIP-P PKG	3L585	CD4046AF
A22U21	1826-0222	1		IC OP AMP GP QUAD 14-DIP-P PKG	07263	UA4136PC
A22U22	1820-1112	8	1	IC FF TTL LS D-TYPE POS-EDGE-TRIG	01295	SN74LS74AN
A22U101	1820-1202	7	1	IC GATE TTL LS NAND TPL 3-INP	01295	SN74LS10N
A22U102	1820-1991	1		IC CNTR TTL LS DECD DUAL 4-BIT	01295	SN74LS390N
A22Y101	0410-1209	4	1	CRYSTAL-QUARTZ 1.37750 MHZ	28480	0410-1209
A22Y102	0410-1214	1	1	CRYSTAL-QUARTZ 1.74750 KHZ	28480	0410-1214

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A22	03586-66525	1	1	ANALOG/DIGITAL CONVERTER-2000HZ (3586B)	28480	03586-66525
A22C1	0160-3847	9	2	CAPACITOR-FXD .01UF +100 0% 50VDC CER	28480	0160-3847
A22C2	0180-0210	6	1	CAPACITOR-FXD 3.3UF+-20% 15VDC TA	56289	150D335X0015A2
A22C3	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A22C4	0160-4812	0	1	CAPACITOR-FXD 220PF +-5% 100VDC CER	28480	0160-4812
A22C5	0170-0040	9	1	CAPACITOR-FXD .047UF +-10% 200VDC POLYE	56289	292P47392
A22C7	0160-3405	5	1	CAPACITOR-FXD 2UF +-10% 50VDC MET-POLYC	28480	0160-3405
A22C8	0160-4571	8	16	CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A22C9	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A22C10	0180-0228	6	3	CAPACITOR-FXD 22UF+-10% 15VDC TA	56289	150D226X9015B2
A22C11	0180-0228	6		CAPACITOR-FXD 22UF+-10% 15VDC TA	56289	150D226X9015B2
A22C12	0180-0228	6		CAPACITOR-FXD 22UF+-10% 15VDC TA	56289	150D226X9015B2
A22C13	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A22C14	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A22C15	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A22C16	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A22C17	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A22C18	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A22C19	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A22C20	0160-5349	0	2	CAPACITOR-FXD 200PF +-5% 100VDC CER	28480	0160-5349
A22C21	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A22C22	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A22C23	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A22C24	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A22C101	0160-0196	5	1	CAPACITOR-FXD 24PF +-5% 300VDC MICA	28480	0160-0196
A22C101	0160-4813	1	1	CAPACITOR-FXD 180PF +-5% 100VDC CER	28480	0160-4813
A22C102	0160-4801	7	1	CAPACITOR-FXD 100PF +-5% 100VDC CER	28480	0160-4801
A22C103	0140-0194	1	1	CAPACITOR-FXD 110PF +-5% 300VDC MICA	72136	DM15F111J0300WV1CR
A22C104	0160-2202	8	1	CAPACITOR-FXD 75PF +-5% 300VDC MICA	28480	0160-2202
A22C105	0160-5349	0		CAPACITOR-FXD 200PF +-5% 100VDC CER	28480	0160-5349
A22C106	0140-0199	6	1	CAPACITOR-FXD 240PF +-5% 300VDC MICA	72136	DM15F241J0300WV1CR
A22C107	0160-4822	2	2	CAPACITOR-FXD 1000PF +-5% 100VDC CER	28480	0160-4822
A22C108	0160-4822	2		CAPACITOR-FXD 1000PF +-5% 100VDC CER	28480	0160-4822
A22C109	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A22C110	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A22C111	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A22C113	0180-0229	7	1	CAPACITOR-FXD 33UF+-10% 10VDC TA	56289	150D336X9010B2
A22CR1	1901-0040	1	5	DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
A22CR2	1901-0040	1		DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
A22CR3	1901-0040	1		DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
A22CR4	1902-0777	3	1	DIODE-ZNR 1N825 6.2V 5% DO-7 PD=.4W	04713	1N825
A22CR5	1901-0040	1		DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
A22CR6	1901-0040	1		DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
A22L1	9100-0541	7	3	INDUCTOR RF-CH-MLD 250UH 10% .25DX.5LG	28480	9100-0541
A22L2	9100-0541	7		INDUCTOR RF-CH-MLD 250UH 10% .25DX.5LG	28480	9100-0541
A22L3	9100-0541	7		INDUCTOR RF-CH-MLD 250UH 10% .25DX.5LG	28480	9100-0541
A22L101	9140-0137	1	1	INDUCTOR RF-CH-MLD 1MH 5% .2DX.45LG Q=60	28480	9140-0137
A22L102	9100-1637	4	1	INDUCTOR RF-CH-MLD 120UH 5% .166DX.385LG	28480	9100-1637
A22L103	9100-1634	1	1	INDUCTOR RF-CH-MLD 75UH 5% .166DX.385LG	28480	9100-1634
A22Q1	1853-0089	5	1	TRANSISTOR PNP 2N4917 SI PD=200MW	07263	2N4917
A22Q101	1854-0071	7	1	TRANSISTOR NPN SI PD=300MW FT=200MHZ	28480	1854-0071
A22Q102	1854-0215	1	4	TRANSISTOR NPN SI PD=350MW FT=300MHZ	04713	2N3904
A22Q103	1854-0215	1		TRANSISTOR NPN SI PD=350MW FT=300MHZ	04713	2N3904
A22Q104	1854-0215	1		TRANSISTOR NPN SI PD=350MW FT=300MHZ	04713	2N3904
A22Q105	1854-0215	1		TRANSISTOR NPN SI PD=350MW FT=300MHZ	04713	2N3904
A22R1	0683-2225	3	1	RESISTOR 2.2K 5% .25W FC TC=-400/+700	01121	CB2225
A22R2	0683-2245	7	2	RESISTOR 220K 5% .25W FC TC=-800/+900	01121	CB2245
A22R3	0683-2235	5	3	RESISTOR 22K 5% .25W FC TC=-400/+800	01121	CB2235
A22R4	0683-2245	7		RESISTOR 220K 5% .25W FC TC=-800/+900	01121	CB2245
A22R5	0683-1835	9	1	RESISTOR 18K 5% .25W FC TC=-400/+800	01121	CB1835
A22R6	2100-3356	1	1	RESISTOR-TRMR 200K 10% C SIDE-ADJ 1-TRN	28480	2100-3356
A22R7	0683-7535	8	1	RESISTOR 75K 5% .25W FC TC=-400/+800	01121	CB7535
A22R8	0683-1035	1	5	RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A22R9	0683-1035	1		RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A22R10	0683-2235	5		RESISTOR 22K 5% .25W FC TC=-400/+800	01121	CB2235
A22R11	0683-6835	9	1	RESISTOR 68K 5% .25W FC TC=-400/+800	01121	CB6835
A22R12	0683-2235	5		RESISTOR 22K 5% .25W FC TC=-400/+800	01121	CB2235
A22R13	0683-3335	8	1	RESISTOR 33K 5% .25W FC TC=-400/+800	01121	CB3335
A22R14	0683-1035	1		RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A22R15	1810-0231	9	1	NETWORK-RES 8-SIP2.2K OHM X 7	01121	208A222

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A22R16	1810-0204	6	1	NETWORK-RES 8-SIP1.0K OHM X 7	01121	208A102
A22R17	0683-1035	1		RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A22R18	0683-5125	8	2	RESISTOR 5.1K 5% .25W FC TC=-400/+700	01121	CB5125
A22R19	0683-5125	8		RESISTOR 5.1K 5% .25W FC TC=-400/+700	01121	CB5125
A22R20	0698-6846	3	1	RESISTOR 5.42K .5% .125W F TC=0+-50	24546	NC55-1/8-T2-5421-D
A22R21	2100-3095	5	1	RESISTOR-TRMR 200 10% C SIDE-ADJ 17-TRN	02111	43P201
A22R22	0698-5552	6	1	RESISTOR 1K 1% .125W F TC=0+-25	28480	0698-5552
A22R23	0698-3152	8	1	RESISTOR 3.48K 1% .125W F TC=0+-100	24546	C4-1/8-T0-3481-F
A22R24	0757-0427	0	1	RESISTOR 1.5K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1501-F
A22R25	0683-1035	1		RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A22R26	0757-0280	3	1	RESISTOR 1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1001-F
A22R27	0757-0442	9	3	RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A22R28	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A22R29	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A22R30	0757-0445	2	2	RESISTOR 13K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1302-F
A22R31	0757-0445	2		RESISTOR 13K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1302-F
A22R32	0698-3557	7	1	RESISTOR 806 1% .125W F TC=0+-100	24546	C4-1/8-T0-806R-F
A22R33	0757-0438	3	5	RESISTOR 5.11K 1% .125W F TC=0+-100	24546	C4-1/8-T0-5111-F
A22R34	0757-0438	3		RESISTOR 5.11K 1% .125W F TC=0+-100	24546	C4-1/8-T0-5111-F
A22R35	0757-0453	2	1	RESISTOR 30.1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-3012-F
A22R36	0757-0438	3		RESISTOR 5.11K 1% .125W F TC=0+-100	24546	C4-1/8-T0-5111-F
A22R38	0757-0438	3		RESISTOR 5.11K 1% .125W F TC=0+-100	24546	C4-1/8-T0-5111-F
A22R39	0757-0438	3		RESISTOR 5.11K 1% .125W F TC=0+-100	24546	C4-1/8-T0-5111-F
A22R40	0683-1005	5	1	RESISTOR 10 5% .25W FC TC=-400/+500	01121	CB1005
A22R101	0683-1045	3	1	RESISTOR 100K 5% .25W FC TC=-400/+800	01121	CB1045
A22R102	0683-2035	3	3	RESISTOR 20K 5% .25W FC TC=-400/+800	01121	CB2035
A22R103	0683-2035	3		RESISTOR 20K 5% .25W FC TC=-400/+800	01121	CB2035
A22R104	0683-2035	3		RESISTOR 20K 5% .25W FC TC=-400/+800	01121	CB2035
A22R105	0698-3450	9	4	RESISTOR 42.2K 1% .125W F TC=0+-100	24546	C4-1/8-T0-4222-F
A22R106	0698-3450	9		RESISTOR 42.2K 1% .125W F TC=0+-100	24546	C4-1/8-T0-4222-F
A22R107	0698-3450	9		RESISTOR 42.2K 1% .125W F TC=0+-100	24546	C4-1/8-T0-4222-F
A22R108	0698-3450	9		RESISTOR 42.2K 1% .125W F TC=0+-100	24546	C4-1/8-T0-4222-F
A22R109	0757-0161	9	4	RESISTOR 604 1% .125W F TC=0+-100	24546	C4-1/8-T0-604R-F
A22R110	0757-0161	9		RESISTOR 604 1% .125W F TC=0+-100	24546	C4-1/8-T0-604R-F
A22R111	0698-3493	0	2	RESISTOR 4.12K 1% .125W F TC=0+-100	24546	C4-1/8-T0-4121-F
A22R112	0698-3493	0		RESISTOR 4.12K 1% .125W F TC=0+-100	24546	C4-1/8-T0-4121-F
A22R113	0757-0161	9		RESISTOR 604 1% .125W F TC=0+-100	24546	C4-1/8-T0-604R-F
A22R114	0757-0161	9		RESISTOR 604 1% .125W F TC=0+-100	24546	C4-1/8-T0-604R-F
A22R115	0698-4484	1	2	RESISTOR 19.1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1912-F
A22R116	0698-4484	1		RESISTOR 19.1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1912-F
A22R117	0698-4123	5	2	RESISTOR 499 1% .125W F TC=0+-100	24546	C4-1/8-T0-499R-F
A22R118	0698-4123	5		RESISTOR 499 1% .125W F TC=0+-100	24546	C4-1/8-T0-499R-F
A22R119	0757-0277	8	2	RESISTOR 49.9 1% .125W F TC=0+-100	24546	C4-1/8-T0-49R9-F
A22R120	0757-0277	8		RESISTOR 49.9 1% .125W F TC=0+-100	24546	C4-1/8-T0-49R9-F
A22U1	1820-1433	6	1	IC SHF RGTR TTL LS R-S SERIAL-IN PRL-OUT	01295	SN74LS164N
A22U2	1820-1730	6	1	IC FF TTL LS D-TYPE POS-EDGE-TRIG COM	01295	SN74LS273N
A22U3	1826-0561	5	2	IC SWITCH ANLG 16-DIP-C PKG	27014	LF13508D
A22U4	1826-0222	1	2	IC OP AMP GP QUAD 14-DIP-P PKG	07263	UA4136PC
A22U5	1826-0642	9	1	IC CONV 3-1/2 DIG-A/D 16-DIP-C PKG	04713	MC1405L
A22U6	1820-2310	0	1	IC CNTR PMOS DECD UP/DOWN SYNCHRO	50088	MK50399N
A22U7	1826-0561	5		IC SWITCH ANLG 16-DIP-C PKG	27014	LF13508D
A22U8	1820-0668	7	1	IC BFR TTL NON-INV HEX 1-INP	01295	SN7407N
A22U9	1820-1416	5	1	IC SCHMITT-TRIG TTL LS INV HEX 1-INP	01295	SN74LS14N
A22U10	1820-1197	9	3	IC GATE TTL LS NAND QUAD 2-INP	01295	SN74LS00N
A22U11	1820-1197	9		IC GATE TTL LS NAND QUAD 2-INP	01295	SN74LS00N
A22U12	1820-1201	6	1	IC GATE TTL LS AND QUAD 2-INP	01295	SN74LS08N
A22U13	1820-1197	9		IC GATE TTL LS NAND QUAD 2-INP	01295	SN74LS00N
A22U14	1820-1991	1	4	IC CNTR TTL LS DECD DUAL 4-BIT	01295	SN74LS390N
A22U15	1820-1991	1		IC CNTR TTL LS DECD DUAL 4-BIT	01295	SN74LS390N
A22U16	1820-1991	1		IC CNTR TTL LS DECD DUAL 4-BIT	01295	SN74LS390N
A22U17	1826-0138	8	1	IC COMPARATOR GP QUAD 14-DIP-P PKG	01295	LM339N
A22U18	1820-1440	5	1	IC LCH TTL LS QUAD	01295	SN74LS279N
A22U19	1820-1122	0	1	IC CNTR CMOS DCD SYNCHRO DUAL	04713	MC14518BCP
A22U20	1820-1188	8	1	IC PL LOOP 16-DIP-P PKG	3L585	CD4046AF
A22U21	1826-0222	1		IC OP AMP GP QUAD 14-DIP-P PKG	07263	UA4136PC
A22U22	1820-1112	8	1	IC FF TTL LS D-TYPE POS-EDGE-TRIG	01295	SN74LS74AN
A22U101	1820-1202	7	1	IC GATE TTL LS NAND TPL 3-INP	01295	SN74LS10N
A22U102	1820-1991	1		IC CNTR TTL LS DECD DUAL 4-BIT	01295	SN74LS390N
A22Y101	0410-1210	7	1	CRYSTAL-QUARTZ 1.41250 MHZ	28480	0410-1210
A22Y102	0410-1215	2	1	CRYSTAL-QUARTZ 1.71250 MHZ	28480	0410-1215

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A22	03586-66526	2	1	ANALOG/DIGITAL CONVERTER-1740HZ (3586A/B)	28480	03586-66526
A22C1	0160-3847	9	2	CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A22C2	0180-0210	6	1	CAPACITOR-FXD 3.3UF+-20% 15VDC TA	56289	150D335X0015A2
A22C3	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A22C4	0160-3454	4	1	CAPACITOR-FXD 220PF +-10% 1KVDC CER	28480	0160-3454
A22C5	0170-0040	9	1	CAPACITOR-FXD .047UF +-10% 200VDC POLYE	56289	292P47392
A22C7	0160-3405	5	1	CAPACITOR-FXD 2UF +-10% 50VDC MET-POLYC	28480	0160-3405
A22C8	0160-4571	8	15	CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A22C9	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A22C10	0180-0228	6	3	CAPACITOR-FXD 22UF+-10% 15VDC TA	56289	150D226X9015B2
A22C11	0180-0228	6		CAPACITOR-FXD 22UF+-10% 15VDC TA	56289	150D226X9015B2
A22C12	0180-0228	6		CAPACITOR-FXD 22UF+-10% 15VDC TA	56289	150D226X9015B2
A22C13	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A22C14	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A22C15	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A22C16	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A22C17	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A22C18	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A22C19	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A22C20	0160-5349	0	3	CAPACITOR-FXD 200PF +-5% 100VDC CER	28480	0160-5349
A22C21	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A22C22	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A22C23	0160-5349	0		CAPACITOR-FXD 200PF +-5% 100VDC CER	28480	0160-5349
A22C24	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A22C101	0160-0196	5	1	CAPACITOR-FXD 24PF +-5% 300VDC MICA	28480	0160-0196
A22C101	0160-4813	1	1	CAPACITOR-FXD 1800PF +-5% 100VDC CER	28480	0160-4813
A22C102	0160-4801	7	1	CAPACITOR-FXD 100PF +-5% 100VDC CER	28480	0160-4801
A22C103	0140-0194	1	1	CAPACITOR-FXD 110PF +-5% 300VDC MICA	72136	DM15F111J0300WV1CR
A22C104	0160-2202	8	1	CAPACITOR-FXD 75PF +-5% 300VDC MICA	28480	0160-2202
A22C105	0160-5349	0		CAPACITOR-FXD 200PF +-5% 100VDC CER	28480	0160-5349
A22C106	0140-0199	6	1	CAPACITOR-FXD 240PF +-5% 300VDC MICA	72136	DM15F241J0300WV1CR
A22C107	0160-4822	2	2	CAPACITOR-FXD 1000PF +-5% 100VDC CER	28480	0160-4822
A22C108	0160-4822	2		CAPACITOR-FXD 1000PF +-5% 100VDC CER	28480	0160-4822
A22C109	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A22C110	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A22C111	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A22C113	0180-0229	7	1	CAPACITOR-FXD 33UF+-10% 10VDC TA	56289	150D336X9010B2
A22CR1	1901-0040	1	5	DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
A22CR2	1901-0040	1		DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
A22CR3	1901-0040	1		DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
A22CR4	1902-0777	3	1	DIODE-ZNR 1N825 6.2V 5% DO-7 PD=.4W	04713	1N825
A22CR5	1901-0040	1		DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
A22CR6	1901-0040	1		DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
A22L1	9100-0541	7	3	INDUCTOR RF-CH MLD 250UH 10% .25DX.5LG	28480	9100-0541
A22L2	9100-0541	7		INDUCTOR RF-CH-MLD 250UH 10% .25DX.5LG	28480	9100-0541
A22L3	9100-0541	7		INDUCTOR RF-CH-MLD 250UH 10% .25DX.5LG	28480	9100-0541
A22L101	9140-0137	1	1	INDUCTOR RF-CH-MLD 1MH 5% .2DX.45LG Q=60	28480	9140-0137
A22L102	9100-1637	4	1	INDUCTOR RF-CH-MLD 120UH 5% .166DX.385LG	28480	9100-1637
A22L103	9100-1634	1	1	INDUCTOR RF-CH-MLD 75UH 5% .166DX.385LG	28480	9100-1634
A22Q1	1853-0369	5	1	TRANSISTOR PNP 2N4917 SI PD=200MW	37263	2N4917
A22Q101	1854-0071	7	1	TRANSISTOR NPN SI PD=300MW FT=200MHZ	28480	1854-0071
A22Q102	1854-0215	1	4	TRANSISTOR NPN SI PD=350MW FT=300MHZ	04713	2N3904
A22Q103	1854-0215	1		TRANSISTOR NPN SI PD=350MW FT=300MHZ	04713	2N3904
A22Q104	1854-0215	1		TRANSISTOR NPN SI PD=350MW FT=300MHZ	04713	2N3904
A22Q105	1854-0215	1		TRANSISTOR NPN SI PD=350MW FT=300MHZ	04713	2N3904
A22R1	0683-2225	3	1	RESISTOR 2.2K 5% .25W FC TC=-400/+700	01121	CB2225
A22R2	0683-2245	7	2	RESISTOR 220K 5% .25W FC TC=-800/+900	01121	CB2245
A22R3	0683-2235	5	3	RESISTOR 22K 5% .25W FC TC=-400/+800	01121	CB2235
A22R4	0683-2245	7		RESISTOR 220K 5% .25W FC TC=-800/+900	01121	CB2245
A22R5	0683-1835	9	1	RESISTOR 18K 5% .25W FC TC=-400/+800	01121	CB1835
A22R6	2100-3356	1	1	RESISTOR-TRMR 200K 10% C SIDE-ADJ 1-TRN	28480	2100-3356
A22R7	0683-7535	8	1	RESISTOR 75K 5% .25W FC TC=-400/+830	01121	CB7535
A22R8	0683-1035	1	5	RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A22R9	0683-1035	1		RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A22R10	0683-2235	5		RESISTOR 22K 5% .25W FC TC=-400/+800	01121	CB2235
A22R11	0683-6835	9	1	RESISTOR 68K 5% .25W FC TC=-400/+800	01121	CB6835
A22R12	0683-2235	5		RESISTOR 22K 5% .25W FC TC=-400/+800	01121	CB2235
A22R13	0683-3335	8	1	RESISTOR 33K 5% .25W FC TC=-400/+800	01121	CB3335
A22R14	0683-1035	1		RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A22R15	1810-0329	6	1	NETWORK-RES 10-SIP7.5K OHM X 9	01121	210A752

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A22R16	1810-0204	6	1	NETWORK-RES 8-SIP1.0K OHM X 7	01121	208A102
A22R17	0683-1035	1		RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A22R18	0683-5125	8	2	RESISTOR 5.1K 5% .25W FC TC=-400/+700	01121	CB5125
A22R19	0683-5125	8		RESISTOR 5.1K 5% .25W FC TC=-400/+700	01121	CB5125
A22R20	0698-6046	3	1	RESISTOR 5.42K .5% .125W F TC=0+-50	24546	NC55-1/8-T2-5421-D
A22R21	2100-3095	5	1	RESISTOR-TRMR 200 10% C SIDE-ADJ 17-TRN	02111	43P201
A22R22	0698-5552	6	1	RESISTOR 1K 1% .125W F TC=0+-25	28480	0698-5552
A22R23	0698-3152	8	1	RESISTOR 3.48K 1% .125W F TC=0+-100	24546	C4-1/8-T0-3481-F
A22R24	0757-0427	0	1	RESISTOR 1.5K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1501-F
A22R25	0683-1035	1		RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A22R26	0757-0280	3	1	RESISTOR 1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1001-F
A22R27	0757-0442	9	3	RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A22R28	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A22R29	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A22R30	0757-0445	2	2	RESISTOR 13K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1302-F
A22R31	0757-0445	2		RESISTOR 13K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1302-F
A22R32	0698-3557	7	1	RESISTOR 806 1% .125W F TC=0+-100	24546	C4-1/8-T0-806R-F
A22R33	0757-0438	3	6	RESISTOR 5.11K 1% .125W F TC=0+-100	24546	C4-1/8-T0-5111-F
A22R34	0757-0438	3		RESISTOR 5.11K 1% .125W F TC=0+-100	24546	C4-1/8-T0-5111-F
A22R35	0757-0438	3		RESISTOR 5.11K 1% .125W F TC=0+-100	24546	C4-1/8-T0-5111-F
A22R36	0757-0438	3		RESISTOR 5.11K 1% .125W F TC=0+-100	24546	C4-1/8-T0-5111-F
A22R38	0757-0438	3		RESISTOR 5.11K 1% .125W F TC=0+-100	24546	C4-1/8-T0-5111-F
A22R39	0757-0438	3		RESISTOR 5.11K 1% .125W F TC=0+-100	24546	C4-1/8-T0-5111-F
A22R40	0683-1005	5	1	RESISTOR 10 5% .25W FC TC=-400/+500	01121	CB1005
A22R101	0683-1045	3	1	RESISTOR 100K 5% .25W FC TC=-400/+800	01121	CB1045
A22R102	0683-2035	3	3	RESISTOR 20K 5% .25W FC TC=-400/+800	01121	CB2035
A22R103	0683-2035	3		RESISTOR 20K 5% .25W FC TC=-400/+800	01121	CB2035
A22R104	0683-2035	3		RESISTOR 20K 5% .25W FC TC=-400/+800	01121	CB2035
A22R105	0698-3450	9	4	RESISTOR 42.2K 1% .125W F TC=0+-100	24546	C4-1/8-T0-4222-F
A22R106	0698-3450	9		RESISTOR 42.2K 1% .125W F TC=0+-100	24546	C4-1/8-T0-4222-F
A22R107	0698-3450	9		RESISTOR 42.2K 1% .125W F TC=0+-100	24546	C4-1/8-T0-4222-F
A22R108	0698-3450	9		RESISTOR 42.2K 1% .125W F TC=0+-100	24546	C4-1/8-T0-4222-F
A22R109	0757-0161	9	3	RESISTOR 604 1% .125W F TC=0+-100	24546	C4-1/8-T0-604R-F
A22R110	0757-0161	9		RESISTOR 604 1% .125W F TC=0+-100	24546	C4-1/8-T0-604R-F
A22R111	0698-3493	0	2	RESISTOR 4.12K 1% .125W F TC=0+-100	24546	C4-1/8-T0-4121-F
A22R112	0698-3493	0		RESISTOR 4.12K 1% .125W F TC=0+-100	24546	C4-1/8-T0-4121-F
A22R113	0757-0161	9		RESISTOR 604 1% .125W F TC=0+-100	24546	C4-1/8-T0-604R-F
A22R114	0757-0164	2	1	RESISTOR 5.6K 2% .25W F TC=0+-100	24546	C5-1/4-T0-5601-G
A22R115	0698-4484	1	2	RESISTOR 19.1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1912-F
A22R116	0698-4484	1		RESISTOR 19.1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1912-F
A22R117	0698-4123	5	2	RESISTOR 499 1% .125W F TC=0+-100	24546	C4-1/8-T0-499R-F
A22R118	0698-4123	5		RESISTOR 499 1% .125W F TC=0+-100	24546	C4-1/8-T0-499R-F
A22R119	0757-0277	8	2	RESISTOR 49.9 1% .125W F TC=0+-100	24546	C4-1/8-T0-49R9-F
A22R120	0757-0277	8		RESISTOR 49.9 1% .125W F TC=0+-100	24546	C4-1/8-T0-49R9-F
A22U1	1820-1433	6	1	IC SHF-RGTR TTL LS R-S SERIAL-IN PRL-OUT	01295	SN74LS164N
A22U2	1820-1730	6	1	IC FF TTL LS D-TYPE POS-EDGE-TRIG COM	01295	SN74LS273N
A22U3	1826-0581	5	2	IC SWITCH ANLG 16 DIP-C PKG	27014	LF13508D
A22U4	1826-0222	1	2	IC OP AMP GP QUAD 14-DIP-P PKG	07263	UA4136PC
A22U5	1826-0642	9	1	IC CONV 3-1/2 DIG-A/D 16-DIP-C PKG	04713	MC1405L
A22U6	1820-2310	0	1	IC CNTR PMOS DECD UP/DOWN SYNCHRO	50088	MK50399N
A22U7	1826-0581	5		IC SWITCH ANLG 16 DIP-C PKG	27014	LF13508D
A22U8	1820-0668	7	1	IC BFR TTL NON-INV HEX 1-INP	01295	SN7407N
A22U9	1820-1416	5	1	IC SCHMITT-TRIG TTL LS INV HEX 1-INP	01295	SN74LS14N
A22U10	1820-1197	9	3	IC GATE TTL LS NAND QUAD 2-INP	01295	SN74LS00N
A22U11	1820-1197	9		IC GATE TTL LS NAND QUAD 2-INP	01295	SN74LS00N
A22U12	1820-1201	6	1	IC GATE TTL LS AND QUAD 2-INP	01295	SN74LS08N
A22U13	1820-1197	9		IC GATE TTL LS NAND QUAD 2-INP	01295	SN74LS00N
A22U14	1820-1991	1	4	IC CNTR TTL LS DECD DUAL 4-BIT	01295	SN74LS390N
A22U15	1820-1991	1		IC CNTR TTL LS DECD DUAL 4-BIT	01295	SN74LS390N
A22U16	1820-1991	1		IC CNTR TTL LS DECD DUAL 4-BIT	01295	SN74LS390N
A22U17	1820-1403	6	1	IC GATE CMOS OR QUAD 2-INP	3L585	CD4071BE
A22U18	1820-1440	5	1	IC LCH TTL LS QUAD	01295	SN74LS279N
A22U19	1820-1122	0	1	IC CNTR CMOS BCD SYNCHRO DUAL	04713	MC14518BCP
A22U20	1820-1188	8	1	IC PL LOOP 16-DIP-P PKG	3L585	CD4046AF
A22U21	1826-0222	1		IC OP AMP GP QUAD 14-DIP-P PKG	07263	UA4136PC
A22U101	1820-1202	7	1	IC GATE TTL LS NAND TPL 3-INP	01295	SN74LS10N
A22U102	1820-1991	1		IC CNTR TTL LS DECD DUAL 4-BIT	01295	SN74LS390N
A22Y101	0410-1211	8	1	CRYSTAL-QUARTZ 1.42756 MHZ	28480	0410-1211
A22Y102	0410-1213	0	1	CRYSTAL QUARTZ 1.6975 MHZ	28480	0410-1213

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A30	03586-66530	8	1	FRACTIONAL N -N (3586A/B/C)	28480	03586-66530
A30C1	0180-0228	6	1	CAPACITOR-FXD 22UF+-10% 15VDC TA	56289	150D226X9015B2
A30C2	0180-0229	7	1	CAPACITOR-FXD 33UF+-10% 10VDC TA	56289	150D336X9010B2
A30C3	0160-3879	7	11	CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A30C5	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A30C6	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A30C7	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A30C8	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A30C9	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A30C10	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A30C11	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A30C12	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A30C13	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A30C14	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A30C15	0140-0191	8	1	CAPACITOR-FXD 56PF +-5% 300VDC MICA	72136	DM15E560J0300WV1CR
A30L2	9100-3560	6	2	INDUCTOR RF-CH-MLD 5.6UH 5% .166DX.385LG	28480	9100-3560
A30L3	9100-3560	6		INDUCTOR RF-CH-MLD 5.6UH 5% .166DX.385LG	28480	9100-3560
A30Q1	1853-0448	0	1	TRANSISTOR PNP SI TO-92 PD=625MW	04713	MPSH81
A30Q2	1854-0019	3	1	TRANSISTOR NPN SI TO-18 PD=360MW	28480	1854-0019
A30R1	1810-0121	6	1	NETWORK-RES 9-SIP1.0K OHM X 8	91637	CSPC9C07-102J
A30R2	0698-3492	9	1	RESISTOR 2.67K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2671-F
A30R3	0698-4439	6	1	RESISTOR 3.24K 1% .125W F TC=0+-100	24546	C4-1/8-T0-3241-F
A30R4	0683-1025	9	3	RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A30R5	0683-1025	9		RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A30R6	0683-2705	4	1	RESISTOR 27 5% .25W FC TC=-400/+500	01121	CB2705
A30R7	0683-7505	2	1	RESISTOR 75 5% .25W FC TC=-400/+500	01121	CB7505
A30R8	0683-1025	9		RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A30R9	0683-3325	6	1	RESISTOR 3.3K 5% .25W FC TC=-400/+700	01121	CB3325
A30R10	0683-5115	6	1	RESISTOR 510 5% .25W FC TC=-400/+600	01121	CB5115
A30U1	1820-1251	6	2	IC CNTR TTL LS DECD ASYNCHRO	01295	SN74LS196N
A30U2	1820-1251	6		IC CNTR TTL LS DECD ASYNCHRO	01295	SN74LS196N
A30U3	1820-1869	2	1	IC CNTR TTL S DECD ASYNCHRO	01295	SN74S196N
A30U4	1820-0686	9	2	IC GATE TTL S AND TPL 3-INP	01295	SN74S11N
A30U5	1820-0629	0	7	IC FF TTL S J-K NEG-EDGE-TRIG	01295	SN74S112N
A30U6	1820-0629	0		IC FF TTL S J-K NEG-EDGE-TRIG	01295	SN74S112N
A30U7	1820-0629	0		IC FF TTL S J-K NEG-EDGE-TRIG	01295	SN74S112N
A30U8	1820-0681	4	2	IC GATE TTL S NAND QUAD 2-INP	01295	SN74S00N
A30U9	1820-1196	8	2	IC FF TTL LS D-TYPE POS-EDGE-TRIG COM	01295	SN74LS174N
A30U10	1820-1196	8		IC FF TTL LS D-TYPE POS-EDGE-TRIG COM	01295	SN74LS174N
A30U11	1820-0629	0		IC FF TTL S J-K NEG-EDGE-TRIG	01295	SN74S112N
A30U12	1820-0629	0		IC FF TTL S J-K NEG-EDGE-TRIG	01295	SN74S112N
A30U13	1820-0686	9		IC GATE TTL S AND TPL 3-INP	01295	SN74S11N
A30U14	1820-1144	6	1	IC GATE TTL LS NOR QUAD 2-INP	01295	SN74LS02N
A30U15	1820-0629	0		IC FF TTL S J-K NEG-EDGE-TRIG	01295	SN74S112N
A30U16	1820-2004	9	1	IC MISC NMOS	28480	1820-2004
A30U17	1820-0681	4		IC GATE TTL S NAND QUAD 2-INP	01295	SN74S00N
A30U18	1820-0629	0		IC FF TTL S J-K NEG-EDGE-TRIG	01295	SN74S112N

See introduction to this section for ordering information
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Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A31	03586-66531	9	1	FRACTIONAL N VCO (3586A/B/C)	28480	03586-66531
A31C1	0180-0228	6	6	CAPACITOR-FXD 22UF+-10% 15VDC TA	56289	150D226X9015B2
A31C2	0180-0228	6		CAPACITOR-FXD 22UF+-10% 15VDC TA	56289	150D226X9015B2
A31C3	0180-0229	7	1	CAPACITOR-FXD 33UF+-10% 10VDC TA	56289	150D336X9010B2
A31C4	0180-0228	6		CAPACITOR-FXD 22UF+-10% 15VDC TA	56289	150D226X9015B2
A31C5	0180-0228	6		CAPACITOR-FXD 22UF+-10% 15VDC TA	56289	150D226X9015B2
A31C7	0180-0228	6		CAPACITOR-FXD 22UF+-10% 15VDC TA	56289	150D226X9015B2
A31C8	0160-0576	5	2	CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A31C9	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A31C10	0160-0570	9	3	CAPACITOR-FXD 220PF +-20% 100VDC CER	20932	5024EM100RD221M
A31C11	0160-0570	9		CAPACITOR-FXD 220PF +-20% 100VDC CER	20932	5024EM100RD221M
A31C12	0160-0570	9		CAPACITOR-FXD 220PF +-20% 100VDC CER	20932	5024EM100RD221M
A31C13	0160-3878	6	1	CAPACITOR-FXD 1000PF +-20% 100VDC CER	28480	0160-3878
A31C14	0160-3879	7	22	CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A31C15	0180-0228	6		CAPACITOR-FXD 22UF+-10% 15VDC TA	56289	150D226X9015B2
A31C16	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A31C17	0180-0291	3	1	CAPACITOR-FXD 1UF+-10% 35VDC TA	56289	150D105X9035A2
A31C18	0160-4389	6	1	CAPACITOR-FXD 100PF +-5PF 200VDC CER	28480	0160-4389
A31C19	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A31C20	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A31C21	0180-0197	8	2	CAPACITOR-FXD 2.2UF+-10% 20VDC TA	56289	150D225X9020A2
A31C22	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A31C23	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A31C24	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A31C25	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A31C26	0180-0197	8		CAPACITOR-FXD 2.2UF+-10% 20VDC TA	56289	150D225X9020A2
A31C27	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A31C28	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A31C29	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A31C32	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A31C33	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A31C35	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A31C36	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A31C37	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A31C38	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A31C39	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A31C40	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A31C41	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A31C42	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A31C43	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A31CR2	1902-3105	7	1	DIODE-ZNR 5.62V 2% DO-35 PD=.4W	28480	1902-3105
A31CR3	1901-0518	8	3	DIODE-SM SIG SCHOTTKY	28480	1901-0518
A31CR4	0122-0089	5	3	DIODE-VVC 29PF 10% C3/C25-MIN=5 BVR=30V	04713	MV109
A31CR5	0122-0089	5		DIODE-VVC 29PF 10% C3/C25-MIN=5 BVR=30V	04713	MV109
A31CR6	0122-0089	5		DIODE-VVC 29PF 10% C3/C25-MIN=5 BVR=30V	04713	MV109
A31CR7	1901-0518	8		DIODE-SM SIG SCHOTTKY	28480	1901-0518
A31CR8	1901-0518	8		DIODE-SM SIG SCHOTTKY	28480	1901-0518
A31CR9	1901-0040	1	4	DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
A31CR10	1901-0040	1		DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
A31CR11	1990-0486	6	1	LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	5082-4684
A31CR15	1901-0040	1		DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
A31CR16	1901-0040	1		DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
A31J1	1250-1512	3	1	CONNECTOR-RF SMB M PC 50-OHM	28480	1250-1512
A31L1	9100-3560	6	6	INDUCTOR RF-CH-MLD 5.6UH 5% .166DX.385LG	28480	9100-3560
A31L2	9100-3560	6		INDUCTOR RF-CH-MLD 5.6UH 5% .166DX.385LG	28480	9100-3560
A31L3	9100-3560	6		INDUCTOR RF-CH-MLD 5.6UH 5% .166DX.385LG	28480	9100-3560
A31L4	9140-0350	9	1	COIL-VAR 504NH-616NH Q=140 PC-MTG	28480	9140-0350
A31L5	9100-3560	6		INDUCTOR RF-CH-MLD 5.6UH 5% .166DX.385LG	28480	9100-3560
A31L6	9100-3560	6		INDUCTOR RF-CH-MLD 5.6UH 5% .166DX.385LG	28480	9100-3560
A31L7	9100-3560	6		INDUCTOR RF-CH-MLD 5.6UH 5% .166DX.385LG	28480	9100-3560
A31Q1	1854-0345	8	8	TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW	04713	2N5179
A31Q2	1854-0345	8		TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW	04713	2N5179
A31Q3	1854-0345	8		TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW	04713	2N5179
A31Q4	1854-0345	8		TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW	04713	2N5179
A31Q5	1854-0345	8		TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW	04713	2N5179
A31Q6	1854-0345	8		TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW	04713	2N5179
A31Q7	1854-0345	8		TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW	04713	2N5179
A31Q8	1854-0345	8		TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW	04713	2N5179
A31Q9	1854-0071	7	1	TRANSISTOR NPN SI PD=300MW FT=250MHZ	28480	1854-0071

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A31R1	0698-4421	6	1	RESISTOR 249 1% .125W F TC=0+-100	24546	C4-1/8-T0-249R-F
A31R2	0683-1035	1	8	RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A31R3	0757-0441	8	1	RESISTOR 8.25K 1% .125W F TC=0+-100	24546	C4-1/8-T0-8251-F
A31R4	2100-3210	6	1	RESISTOR-TRMR 10K 10% C TOP-ADJ 1-TRN	28480	2100-3210
A31R5	0683-1035	1		RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A31R6	0698-3497	4	1	RESISTOR 6.04K 1% .125W F TC=0+-100	24546	C4-1/8-T0-604R-F
A31R7	0683-2025	1	4	RESISTOR 2K 5% .25W FC TC=-400/+700	01121	CB2025
A31R8	0683-1035	1		RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A31R9	0683-2025	1	-	RESISTOR 2K 5% .25W FC TC=-400/+700	01121	CB2025
A31R10	0683-1035	1		RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A31R11	0683-1035	1		RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A31R12	0683-1035	1		RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A31R13	0683-2025	1		RESISTOR 2K 5% .25W FC TC=-400/+700	01121	CB2025
A31R14	0683-3315	4	4	RESISTOR 330 5% .25W FC TC=-400/+600	01121	CB3315
A31R15	0757-0273	4	1	RESISTOR 3.01K 1% .125W F TC=0+-100	24546	C4-1/8-T0-3011-F
A31R16	0683-1035	1		RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A31R17	0757-0405	4	1	RESISTOR 162 1% .125W F TC=0+-100	24546	C4-1/8-T0-162R-F
A31R18	0683-3035	5	3	RESISTOR 30K 5% .25W FC TC=-400/+900	01121	CB3035
A31R19	0683-4705	8	10	RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A31R20	0683-3035	5		RESISTOR 30K 5% .25W FC TC=-400/+800	01121	CB3035
A31R21	0683-3035	5		RESISTOR 30K 5% .25W FC TC=-400/+800	01121	CB3035
A31R22	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A31R23	0683-2025	1		RESISTOR 2K 5% .25W FC TC=-400/+700	01121	CB2025
A31R24	0698-3223	4	1	RESISTOR 1.24K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1241-F
A31R25	0757-0416	7	1	RESISTOR 511 1% .125W F TC=0+-100	24546	C4-1/8-T0-511R-F
A31R26	0683-2705	4	2	RESISTOR 27 5% .25W FC TC=-400/+500	01121	CB2705
A31R27	0757-0279	0	1	RESISTOR 3.16K 1% .125W F TC=0+-100	24546	C4-1/8-T0-3161-F
A31R28	0698-4443	2	1	RESISTOR 4.53K 1% .125W F TC=0+-100	24546	C4-1/8-T0-4531-F
A31R29	0683-1035	1		RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A31R30	0683-2705	4		RESISTOR 27 5% .25W FC TC=-400/+500	01121	CB2705
A31R31	0683-3315	4		RESISTOR 330 5% .25W FC TC=-400/+600	01121	CB3315
A31R32	0757-0401	0	3	RESISTOR 100 1% .125W F TC=0+-100	24546	C4-1/8-T0-101-F
A31R33	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A31R34	0757-0280	3	5	RESISTOR 1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1001-F
A31R35	0757-0280	3		RESISTOR 1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1001-F
A31R36	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A31R37	0757-0420	3	2	RESISTOR 750 1% .125W F TC=0+-100	24546	C4-1/8-T0-751-F
A31R38	0698-3443	0	2	RESISTOR 287 1% .125W F TC=0+-100	24546	C4-1/8-T0-287R-F
A31R39	0757-0346	2	1	RESISTOR 10 1% .125W F TC=0+-100	24546	C4-1/8-T0-10R0-F
A31R40	0757-0401	0		RESISTOR 100 1% .125W F TC=0+-100	24546	C4-1/8-T0-101-F
A31R41	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A31R42	0757-0280	3		RESISTOR 1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1001-F
A31R43	0757-0280	3		RESISTOR 1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1001-F
A31R44	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A31R45	0757-0420	3		RESISTOR 750 1% .125W F TC=0+-100	24546	C4-1/8-T0-751-F
A31R46	0698-3443	0		RESISTOR 287 1% .125W F TC=0+-100	24546	C4-1/8-T0-287R-F
A31R47	0698-3434	9	1	RESISTOR 34.0 1% .125W F TC=0+-100	24546	C4-1/8-T0-34R0-F
A31R48	0757-0401	0		RESISTOR 100 1% .125W F TC=0+-100	24546	C4-1/8-T0-101-F
A31R49	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A31R50	0757-0413	4	1	RESISTOR 392 1% .125W F TC=0+-100	24546	C4-1/8-T0-392R-F
A31R51	0757-0280	3		RESISTOR 1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1001-F
A31R52	0698-4424	9	1	RESISTOR 1.4K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1401-F
A31R53	1810-0121	6	1	NETWORK-RES 9-SIP1.3K OHM X 8	91637	CSP09C07-102J
A31R56	0683-3315	4		RESISTOR 330 5% .25W FC TC=-400/+600	01121	CB3315
A31R57	0683-3315	4		RESISTOR 330 5% .25W FC TC=-400/+600	01121	CB3315
A31R58	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A31R61	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A31R62	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A31R75*	0698-3262	1	1	RESISTOR 40.2 1% .125W F TC=0+-100	24546	C4-1/8-T0-4022-F
A31R75*	0698-4126	8	1	RESISTOR 35.7 1% .125W F TC=0+-100	24546	C4-1/8-T0-35R7-F
A31R75*	0698-4380	6	1	RESISTOR 45.3 1% .125W F TC=0+-100	24546	C4-1/8-T0-45R3-F
A31R75*	0698-4384	0	1	RESISTOR 54.9 1% .125W F TC=0+-100	24546	C4-1/8-T0-54R9-F
A31R75*	0757-0388	2	1	RESISTOR 30.1 1% .125W F TC=0+-100	24546	C4-1/8-T0-30R1-F
A31R75*	0757-0394	0	1	RESISTOR 51.1 1% .125W F TC=0+-100	24546	C4-1/8-T0-51R1-F
A31U1	1826-0111	7	2	IC OP AMP GP DUAL TO-99 PKG	3L585	CA1458T
A31U2	1826-0111	7		IC OP AMP GP DUAL TO-99 PKG	3L585	CA1458T
A31U3	1820-1303	5	1	IC CNTR ECL BCD POS-EDGE-TRIG	04713	MC10136L
A31U4	1820-0803	2	1	IC GATE ECL OR-NOR TPL	04713	MC10105P

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A32	03586-66532	0	1	FRACTIONAL N PHASE DETECTOR (3586A/B/C)	28480	03586-66532
A32C1	0140-0197	4	2	CAPACITOR-FXD 180PF +-5% 300VDC MICA	72136	DM15F181J0300WV1CR
A32C2	0140-0197	4		CAPACITOR-FXD 180PF +-5% 300VDC MICA	72136	DM15F181J0300WV1CR
A32C3	0180-0210	6	4	CAPACITOR-FXD 3.3UF+-20% 15VDC TA	56289	150D335X0015A2
A32C4	0160-4571	8	3	CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A32C5	0160-2257	3	1	CAPACITOR-FXD 10PF +-5% 500VDC CER 01-60	28480	0160-2257
A32C6	0160-2222	2	1	CAPACITOR-FXD 1500PF +-5% 300VDC MICA	28480	0160-2222
A32C7	0160-2250	6	1	CAPACITOR-FXD 5.1PF +-.25PF 500VDC CER	28480	0160-2250
A32C8	0160-0576	5	4	CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A32C9	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A32C10	0160-2204	0	1	CAPACITOR-FXD 100PF +-5% 300VDC MICA	28480	0160-2204
A32C11	0160-2940	1	1	CAPACITOR-FXD 470PF +-5% 300VDC MICA	28480	0160-2940
A32C12	0160-2236	8	1	CAPACITOR-FXD 1PF +-.25PF 500VDC CER	28480	0160-2236
A32C13	0160-4461	5	1	CAPACITOR-FXD 150PF +-2.5% 160VDC POLYP	28480	0160-4461
A32C14	0160-4640	2	1	CAPACITOR-FXD .1UF +-10% 100VDC	28480	0160-4640
A32C16	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A32C17	0180-0229	7	1	CAPACITOR-FXD 33UF+-10% 10VDC TA	56289	150D336X9010B2
A32C18	0180-0228	6	2	CAPACITOR-FXD 22UF+-10% 15VDC TA	56289	150D226X9015B2
A32C19	0180-0228	6		CAPACITOR-FXD 22UF+-10% 15VDC TA	56289	150D226X9015B2
A32C20	0160-3879	7	9	CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A32C21	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A32C22	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A32C23	0180-0210	6		CAPACITOR-FXD 3.3UF+-20% 15VDC TA	56289	150D335X0015A2
A32C24	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A32C25	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A32C26	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A32C27	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A32C28	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A32C29	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A32C30	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A32C32	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A32C36	0160-0127	2	1	CAPACITOR-FXD 1UF +-20% 25VDC CER	28480	0160-0127
A32C39	0180-0210	6		CAPACITOR-FXD 3.3UF+-20% 15VDC TA	56289	150D335X0015A2
A32C80	0180-0210	6		CAPACITOR-FXD 3.3UF+-20% 15VDC TA	56289	150D335X0015A2
A32C81	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A32CR1	1901-0040	1	9	DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
A32CR2	1901-0040	1		DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
A32CR3	1901-0518	8	4	DIODE-SM SIG SCHOTTKY	28480	1901-0518
A32CR4	1901-0518	8		DIODE-SM SIG SCHOTTKY	28480	1901-0518
A32CR5	1901-0518	8		DIODE-SM SIG SCHOTTKY	28480	1901-0518
A32CR6	1901-0518	8		DIODE-SM SIG SCHOTTKY	28480	1901-0518
A32CR7	1901-0040	1		DIODE SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
A32CR8	1901-0040	1		DIODE SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
A32CR9	1901 0040	1		DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
A32CR10	1901-0040	1		DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
A32CR11	1902 0048	1	1	DIODE-ZNR 6.81V 5% DO-35 PD=.4W	28480	1902-0048
A32CR13	1901-0040	1		DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
A32CR14	1902-3065	2	1	DIODE-ZNR 4.75V 5% DO-35 PD=.4W	28480	1902-3065
A32CR15	1901-0040	1		DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
A32CR20	1901-0040	1		DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
A32CR39	1902-0680	7	1	DIODE-ZNR 1N827 6.2V 5% DO-7 PD=.4W	24046	1N827
A32L1	9100-3560	6	4	INDUCTOR RF-CH-MLD 5.6UH 5% .166DX.385LG	28480	9100-3560
A32L2	9100-3560	6		INDUCTOR RF-CH-MLD 5.6UH 5% .166DX.385LG	28480	9100-3560
A32L3	9100-3560	6		INDUCTOR RF-CH-MLD 5.6UH 5% .166DX.385LG	28480	9100-3560
A32L80	9100-3560	6		INDUCTOR RF-CH-MLD 5.6UH 5% .166DX.385LG	28480	9100-3560
A32Q1	1853-0089	5	10	TRANSISTOR PNP 2N4917 SI PD=200MW	07263	2N4917
A32Q2	1853-0089	5		TRANSISTOR PNP 2N4917 SI PD=200MW	07263	2N4917
A32Q3	1854 0092	2	11	TRANSISTOR NPN SI PD=200MW FT=600MHZ	28480	1854-0092
A32Q4	1853-0089	5		TRANSISTOR PNP 2N4917 SI PD=200MW	07263	2N4917
A32Q5	1853-0089	5		TRANSISTOR PNP 2N4917 SI PD=200MW	07263	2N4917
A32Q8	1854-0475	5	1	TRANSISTOR-DUAL NPN PD=750MW	28480	1854-0475
A32Q10	1853-0089	5		TRANSISTOR PNP 2N4917 SI PD=200MW	07263	2N4917
A32Q11	1855-0082	2	1	TRANSISTOR J-FET P-CHAN D-MODE SI	28480	1855-0082
A32Q16	1855-0081	1	4	TRANSISTOR J-FET N-CHAN D-MODE SI	28480	1855-0081
A32Q17	1855-0081	1		TRANSISTOR J-FET N-CHAN D-MODE SI	28480	1855-0081
A32Q18	1854-0092	2		TRANSISTOR NPN SI PD=200MW FT=600MHZ	28480	1854-0092
A32Q19	1854-0092	2		TRANSISTOR NPN SI PD=200MW FT=600MHZ	28480	1854-0092
A32Q20	1854-0092	2		TRANSISTOR NPN SI PD=200MW FT=600MHZ	28480	1854-0092
A32Q21	1853-0089	5		TRANSISTOR PNP 2N4917 SI PD=200MW	07263	2N4917
A32Q22	1855-0308	5	1	TRANSISTOR-JFET DUAL N-CHAN D-MODE SI	28480	1855-0308

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A32Q24	1854-0092	2		TRANSISTOR NPN SI PD=200MW FT=600MHZ	28480	1854-0092
A32Q25	1854-0092	2		TRANSISTOR NPN SI PD=200MW FT=600MHZ	28480	1854-0092
A32Q26	1853-0089	5		TRANSISTOR PNP 2N4917 SI PD=200MW	07263	2N4917
A32Q27	1854-0092	2		TRANSISTOR NPN SI PD=200MW FT=600MHZ	28480	1854-0092
	9170-0894	0	2	CORE-SHIELDING BEAD	28480	9170-0894
A32Q28	1853-0089	5		TRANSISTOR PNP 2N4917 SI PD=200MW	07263	2N4917
A32Q29	1854-0092	2		TRANSISTOR NPN SI PD=200MW FT=600MHZ	28480	1854-0092
A32Q30	1854-0092	2		TRANSISTOR NPN SI PD=200MW FT=600MHZ	28480	1854-0092
A32Q31	1853-0089	5		TRANSISTOR PNP 2N4917 SI PD=200MW	07263	2N4917
A32Q32	1855-0081	1		TRANSISTOR J-FET N-CHAN D-MODE SI	28480	1855-0081
A32Q33	1855-0081	1		TRANSISTOR J-FET N-CHAN D-MODE SI	28480	1855-0081
A32Q34	1854-0092	2		TRANSISTOR NPN SI PD=200MW FT=600MHZ	28480	1854-0092
	9170-0894	0		CORE-SHIELDING BEAD	28480	9170-0894
A32Q80	1853-0089	5		TRANSISTOR PNP 2N4917 SI PD=200MW	07263	2N4917
A32Q81	1854-0092	2		TRANSISTOR NPN SI PD=200MW FT=600MHZ	28480	1854-0092
A32R2	0757-0161	9	4	RESISTOR 604 1% .125W F TC=0+-100	24546	C4-1/8-T0-604R-F
A32R3	0698-3512	4	6	RESISTOR 1.18K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1181-F
A32R4	0683-4705	8	13	RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A32R6	0757-0161	9		RESISTOR 604 1% .125W F TC=0+-100	24546	C4-1/8-T0-604R-F
A32R7	0698-3512	4		RESISTOR 1.18K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1181-F
A32R8	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A32R9	0683-1025	9	1	RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A32R10	0683-4715	0	3	RESISTOR 470 5% .25W FC TC=-400/+600	01121	CB4715
A32R11	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A32R12	0683-4715	0		RESISTOR 470 5% .25W FC TC=-400/+600	01121	CB4715
A32R13	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A32R14	0757-0161	9		RESISTOR 604 1% .125W F TC=0+-100	24546	C4-1/8-T0-604R-F
A32R15	0757-0407	6	1	RESISTOR 200 1% .125W F TC=0+-100	24546	C4-1/8-T0-201-F
A32R16	0757-0438	3	2	RESISTOR 5.11K 1% .125W F TC=0+-100	24546	C4-1/8-T0-5111-F
A32R17	0683-2005	7	2	RESISTOR 20 5% .25W FC TC=-400/+500	01121	CB2005
A32R18	0757-0420	3	1	RESISTOR 750 1% .125W F TC=0+-100	24546	C4-1/8-T0-751-F
A32R19	0698-3202	9	1	RESISTOR 1.74K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1741-F
A32R21	0698-4308	8	1	RESISTOR 16.9K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1692-F
A32R22	0757-0443	0	4	RESISTOR 11K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1102-F
A32R23	0683-1035	1	1	RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A32R24	0698-4431	8	6	RESISTOR 2.05K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2051-F
A32R25	0698-4478	3		RESISTOR 10.7K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1072-F
A32R26	0698-4435	2	3	RESISTOR 2.49K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2491-F
A32R27	0698-3512	4		RESISTOR 1.18K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1181-F
A32R28	0698-3179	9	3	RESISTOR 2.55K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2551
A32R29	0698-4202	1	3	RESISTOR 8.87K 1% .125W F TC=0+-100	24546	C4-1/8-T0-8871-F
A32R30	0698-4435	2		RESISTOR 2.49K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2491-F
A32R31	0698-3512	4		RESISTOR 1.18K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1181-F
A32R32	0698-3179	9		RESISTOR 2.55K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2551
A32R33	0698-4202	1		RESISTOR 8.87K 1% .125W F TC=0+-100	24546	C4-1/8-T0-8871-F
A32R34	0698-4435	2		RESISTOR 2.49K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2491-F
A32R35	0698-3512	4		RESISTOR 1.18K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1181-F
A32R36	0698-3179	9		RESISTOR 2.55K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2551
A32R37	0698-4202	1		RESISTOR 8.87K 1% .125W F TC=0+-100	24546	C4-1/8-T0-8871-F
A32R38	0683-1015	7	1	RESISTOR 100 5% .25W FC TC=-400/+500	01121	CB1015
A32R39	0683-1525	4	8	RESISTOR 1.5K 5% .25W FC TC=-400/+700	01121	CB1525
A32R40	0757-0443	0		RESISTOR 11K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1102-F
A32R41	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A32R42	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A32R43	0698-4431	8		RESISTOR 2.05K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2051-F
A32R44	0698-4431	8		RESISTOR 2.05K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2051-F
A32R45	0698-4431	8		RESISTOR 2.05K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2051-F
A32R49	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A32R50	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A32R51	2100-3354	9	1	RESISTOR-TRMR 50K 10% C SIDE-ADJ 1-TRN	28480	2100-3354
A32R54	2100-3211	7	1	RESISTOR-TRMR 1K 10% C TOP-ADJ 1-TRN	28480	2100-3211
A32R59	0757-0200	7	1	RESISTOR 5.62K 1% .125W F TC=0+-100	24546	C4-1/8-T0-5621-F
A32R60	0698-4431	8		RESISTOR 2.05K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2051-F
A32R61	2100-3383	4	1	RESISTOR-TRMR 50 10% C TOP-ADJ 1-TRN	28480	2100-3383
A32R62	0683-1055	5	1	RESISTOR 1M 5% .25W FC TC=-800/+900	01121	CB1055
A32R63	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A32R64	0757-0401	3	5	RESISTOR 100 1% .125W F TC=0+-100	24546	C4-1/8-T0-101-F
A32R65	0683-1065	7	1	RESISTOR 10M 5% .25W FC TC=-900/+1100	01121	CB1065
A32R66	0757-0446	3	2	RESISTOR 15K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1502-F
A32R67	0757-0401	0		RESISTOR 100 1% .125W F TC=0+-100	24546	C4-1/8-T0-101-F
A32R68	0757-0401	0		RESISTOR 100 1% .125W F TC=0+-100	24546	C4-1/8-T0-101-F
A32R69	0757-0446	3		RESISTOR 15K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1502-F
A32R70	0698-4431	8		RESISTOR 2.05K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2051-F
A32R71	0757-0418	9	1	RESISTOR 619 1% .125W F TC=0+-100	24546	C4-1/8-T0-619R-F
A32R72	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A32R73	0757-0274	5	1	RESISTOR 1.21K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1211-F
A32R74	0698-3441	8	1	RESISTOR 215 1% .125W F TC=0+-100	24546	C4-1/8-T0-215R-F
A32R75	0698-3443	0	1	RESISTOR 287 1% .125W F TC=0+-100	24546	C4-1/8-T0-287R-F
A32R76	0757-0419	0	1	RESISTOR 681 1% .125W F TC=0+-100	24546	C4-1/8-T0-681R-F
A32R77	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A32R78	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A32R79	0757-0273	4	2	RESISTOR 3.01K 1% .125W F TC=0+-100	24546	C4-1/8-T0-3011-F
A32R80	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A32R81	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A32R82	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A32R83	0757-0401	0		RESISTOR 100 1% .125W F TC=0+-100	24546	C4-1/8-T0-101-F
A32R84	0683-2005	7		RESISTOR 20 5% .25W FC TC=-400/+500	01121	CB2005
A32R85	0757-0401	0		RESISTOR 100 1% .125W F TC=0+-100	24546	C4-1/8-T0-101-F
A32R86	0683-1525	4		RESISTOR 1.5K 5% .25W FC TC=-400/+700	01121	CB1525
A32R87	0757-0427	0	2	RESISTOR 1.5K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1501-F
A32R88	0757-0427	0		RESISTOR 1.5K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1501-F
A32R89	0683-1525	4		RESISTOR 1.5K 5% .25W FC TC=-400/+700	01121	CB1525
A32R90	0683-1525	4		RESISTOR 1.5K 5% .25W FC TC=-400/+700	01121	CB1525
A32R91	0698-3512	4		RESISTOR 1.18K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1181-F
A32R92	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A32R93	0757-0443	0		RESISTOR 11K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1102-F
A32R94	0698-4512	6	1	RESISTOR 88.7K 1% .125W F TC=0+-100	24546	C4-1/8-T0-8872-F
A32R95	0683-3315	4	1	RESISTOR 330 5% .25W FC TC=-400/+600	01121	CB3315
A32R96	0683-1525	4		RESISTOR 1.5K 5% .25W FC TC=-400/+700	01121	CB1525
A32R97	0683-1525	4		RESISTOR 1.5K 5% .25W FC TC=-400/+700	01121	CB1525
A32R98	0683-1525	4		RESISTOR 1.5K 5% .25W FC TC=-400/+700	01121	CB1525
A32R99	0757-0273	4		RESISTOR 3.01K 1% .125W F TC=0+-100	24546	C4-1/8-T0-3011-F
A32R100	0683-1525	4		RESISTOR 1.5K 5% .25W FC TC=-400/+700	01121	CB1525
A32R101*	0698-4478	3	2	RESISTOR 10.7K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1072-F
A32R101*	0757-0442	9	4	RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A32R102	0757-0443	0		RESISTOR 11K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1102-F
A32R103	0683-4715	0		RESISTOR 470 5% .25W FC TC=-400/+600	01121	CB4715
A32R105	0757-0161	9		RESISTOR 604 1% .125W F TC=0+-100	24546	C4-1/8-T0-6040-F
A32R113	0757-0438	3		RESISTOR 5.11K 1% .125W F TC=0+-100	24546	C4-1/8-T0-5111-F
A32U1	1820-0817	8	1	IC FF ECL D-M/S DUAL	04713	MC10131P
A32U2	1820-1112	8	1	IC FF TTL LS D-TYPE POS-EDGE-TRIG	01295	SN74LS74AN
A32U3	1820-1196	8	1	IC FF TTL LS D-TYPE POS-EDGE-TRIG COM	01295	SN74LS174N
A32U4	1826-0043	4	1	IC OP AMP GP TO-99 PKG	3L585	CA307T
A32U5	1821-0001	4	1	TRANSISTOR ARRAY 14-PIN PLSTC DIP	3L585	CA3046
A32U6	1810-0294	4	1	NETWORK-RESISTOR 16 PIN DIP; RES	28480	1810-0294
A32U7	1826-0021	8	1	IC OP AMP GP TO-99 PKG	27014	LM313H
A32U8	1820-0471	0	1	IC INV TTL HEX 1-INP	01295	SN7406N

See introduction to this section for ordering information
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Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A40	03586-66540	0	1	FREQUENCY REFERENCE (3586A/B/C)	28480	03586-66540
A40C1	0160-0127	2	4	CAPACITOR-FXD 1UF +-20% 25VDC CER	28480	0160-0127
A40C2	0160-0576	5	7	CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A40C3	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A40C4	0160-4804	0	2	CAPACITOR-FXD 56PF +-5% 100VDC CER 0+-30	28480	0160-4804
A40C5	0160-0127	2		CAPACITOR-FXD 1UF +-20% 25VDC CER	28480	0160-0127
A40C6	0160-3847	9	7	CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A40C7	0160-0939	4	2	CAPACITOR-FXD 430PF +-5% 300VDC MICA	28480	0160-0939
A40C8	0160-3879	7	16	CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A40C9	0160-0939	4		CAPACITOR-FXD 430PF +-5% 300VDC MICA	28480	0160-0939
A40C10	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A40C11	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A40C12	0160-2206	2	2	CAPACITOR-FXD 160PF +-5% 300VDC MICA	28480	0160-2206
A40C13	0140-0207	7	1	CAPACITOR-FXD 330PF +-5% 500VDC MICA	72136	DM15F331J0500WV1CR
A40C14	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A40C15	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A40C16	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A40C30	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A40C31	0180-0309	4	1	CAPACITOR-FXD 4.7UF+-20% 10VDC TA	56289	150D475X0010A2
A40C32	0160-4804	0		CAPACITOR-FXD 56PF +-5% 100VDC CER 0+-30	28480	0160-4804
A40C33	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A40C34	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A40C35	0160-0127	2		CAPACITOR-FXD 1UF +-20% 25VDC CER	28480	0160-0127
A40C36	0160-3875	3	4	CAPACITOR-FXD 22PF +-5% 200VDC CER 0+-30	28480	0160-3875
A40C37	0160-3877	5	4	CAPACITOR-FXD 1002PF +-20% 200VDC CER	28480	0160-3877
A40C39	0160-3877	5		CAPACITOR-FXD 100PF +-20% 200VDC CER	28480	0160-3877
A40C41	0160-3877	5		CAPACITOR-FXD 100PF +-20% 200VDC CER	28480	0160-3877
A40C42	0160-0127	2		CAPACITOR-FXD 1UF +-20% 25VDC CER	28480	0160-0127
A40C50	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A40C51	0160-3875	3		CAPACITOR-FXD 22PF +-5% 200VDC CER 0+-30	28480	0160-3875
A40C52	0160-3875	3		CAPACITOR-FXD 22PF +-5% 200VDC CER 0+-30	28480	0160-3875
A40C53	0140-0199	6	1	CAPACITOR-FXD 240PF +-5% 300VDC MICA	72136	DM15F241J0300WV1CR
A40C56	0160-2206	2		CAPACITOR-FXD 160PF +-5% 300VDC MICA	28480	0160-2206
A40C57	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A40C62	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A40C63	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A40C64	0180-0228	6	4	CAPACITOR-FXD 22UF+-10% 15VDC TA	56289	150D226X9015B2
A40C65	0180-0228	6		CAPACITOR-FXD 22UF+-10% 15VDC TA	56289	150D226X9015B2
A40C66	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A40C67	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A40C68	0160-0174	9	2	CAPACITOR-FXD .47UF +80-20% 25VDC CER	28480	0160-0174
A40C69	0160-0128	3	1	CAPACITOR-FXD 2.2UF +-20% 50VDC CER	28480	0160-0128
A40C70	0180-1746	5	3	CAPACITOR-FXD 15UF+-10% 20VDC TA	56289	150D156X9020B2
A40C71	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A40C72	0180-1746	5		CAPACITOR-FXD 15UF+-10% 20VDC TA	56289	150D156X9020B2
A40C73	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A40C74	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A40C75	0160-0174	9		CAPACITOR-FXD .47UF +80-20% 25VDC CER	28480	0160-0174
A40C76	0160-3877	5		CAPACITOR-FXD 1002PF +-20% 200VDC CER	28480	0160-3877
A40C90	0160-4787	8	2	CAPACITOR-FXD 22PF +-5% 100VDC CER 0+-30	28480	0160-4787
A40C91	0160-4787	8		CAPACITOR-FXD 22PF +-5% 100VDC CER 0+-30	28480	0160-4787
A40C92	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A40C94	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A40C95	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A40C96	0140-0192	9	1	CAPACITOR-FXD 68PF +-5% 300VDC MICA	72136	DM15E680J0300WV1CR
A40C97	0160-2202	8	1	CAPACITOR-FXD 75PF +-5% 300VDC MICA	28480	0160-2202
A40C98	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A40C99	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A40C100	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A40C101	0180-1746	5		CAPACITOR-FXD 15UF+-10% 20VDC TA	56289	150D156X9020B2
A40C102	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A40C103	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A40C104	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A40C105	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A40C106	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A40C107	0160-3875	3		CAPACITOR-FXD 22PF +-5% 200VDC CER 0+-30	28480	0160-3875
A40C108	0180-0228	6		CAPACITOR-FXD 22UF+-10% 15VDC TA	56289	150D226X9015B2
A40C109	0180-0228	6		CAPACITOR-FXD 22UF+-10% 15VDC TA	56289	150D226X9015B2
A40CR1	1901-0040	1	9	DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
A40CR2	1901-0040	1		DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
A40CR50	1901-0040	1		DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
A40CR51	1901-0040	1		DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
A40CR52	1901-0040	1		DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A40CR53	1901-0040	1		DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
A40CR54	1901-0040	1		DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
A40CR55	1901-0040	1		DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
A40CR90	1901-0040	1		DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
A40CR91	0122-0089	5	1	DIODE-VVC 29PF 10% C3/C25-MIN=5 BVR=30V	04713	MV109
A40DS1	1990-0486	6	1	LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	5082-4684
A40J1	1250-1512	3	6	CONNECTOR-RF SMB M PC 50-OHM	28480	1250-1512
A40J2	1250-1512	3		CONNECTOR-RF SMB M PC 50-OHM	28480	1250-1512
A40J3	1250-1512	3		CONNECTOR-RF SMB M PC 50-OHM	28480	1250-1512
A40J4	1250-1512	3		CONNECTOR-RF SMB M PC 50-OHM	28480	1250-1512
A40J5	1250-1512	3		CONNECTOR-RF SMB M PC 50-OHM	28480	1250-1512
A40J6	1250-1512	3		CONNECTOR-RF SMB M PC 50-OHM	28480	1250-1512
A40L1	9140-0264	5	1	INDUCTOR RF-CH-MLD 1.2UH 5% .166DX.385LG	28480	9140-0264
A40L2	9140-0144	0	15	INDUCTOR RF-CH-MLD 4.7UH 10% .105DX.26LG	28480	9140-0144
A40L3	9140-0144	0		INDUCTOR RF-CH-MLD 4.7UH 10% .105DX.26LG	28480	9140-0144
A40L4	9100-3811	0	1	INDUCTOR RF-CH-MLD 750NH 5% .166DX.385LG	28480	9100-3811
A40L5	9140-0144	0		INDUCTOR RF-CH-MLD 4.7UH 10% .105DX.26LG	28480	9140-0144
A40L6	9140-0144	0		INDUCTOR RF-CH-MLD 4.7UH 10% .105DX.26LG	28480	9140-0144
A40L7	9140-0399	7	1	INDUCTOR RF-CH-MLD 2.2UH 5% .166DX.385LG	28480	9140-0399
A40L8	9140-0144	0		INDUCTOR RF-CH-MLD 4.7UH 10% .105DX.26LG	28480	9140-0144
A40L30	9140-0144	0		INDUCTOR RF-CH-MLD 4.7UH 10% .105DX.26LG	28480	9140-0144
A40L31	9140-0144	0		INDUCTOR RF-CH-MLD 4.7UH 10% .105DX.26LG	28480	9140-0144
A40L32	9140-0144	0		INDUCTOR RF-CH-MLD 4.7UH 10% .105DX.26LG	28480	9140-0144
A40L50	9100-3551	5	1	INDUCTOR RF-CH-MLD 1UH 5% .166DX.385LG	28480	9100-3551
A40L55	9100-0541	7	4	INDUCTOR RF-CH-MLD 250UH 10% .25DX.5LG	28480	9100-0541
A40L56	9100-0541	7		INDUCTOR RF-CH-MLD 250UH 10% .25DX.5LG	28480	9100-0541
A40L57	9140-0144	0		INDUCTOR RF-CH-MLD 4.7UH 10% .105DX.26LG	28480	9140-0144
A40L58	9100-1636	3	2	INDUCTOR RF-CH-MLD 110UH 5% .166DX.385LG	28480	9100-1636
A40L59	9100-1636	3		INDUCTOR RF-CH-MLD 110UH 5% .166DX.385LG	28480	9100-1636
A40L60	9140-0144	0		INDUCTOR RF-CH-MLD 4.7UH 10% .105DX.26LG	28480	9140-0144
A40L61	9140-0144	0		INDUCTOR RF-CH-MLD 4.7UH 10% .105DX.26LG	28480	9140-0144
A40L90	9100-3548	0	3	INDUCTOR RF-CH-MLD 470NH 5% .166DX.385LG	28480	9100-3548
A40L91	9100-3548	0		INDUCTOR RF-CH-MLD 470NH 5% .166DX.385LG	28480	9100-3548
A40L92	9140-0144	0		INDUCTOR RF-CH-MLD 4.7UH 10% .105DX.26LG	28480	9140-0144
A40L94	9140-0144	0		INDUCTOR RF-CH-MLD 4.7UH 10% .105DX.26LG	28480	9140-0144
A40L95	9100-3911	1	1	INDUCTOR RF-CH-MLD 220NH 5% .166DX.385LG	28480	9100-3911
A40L96	9140-0144	0		INDUCTOR RF-CH-MLD 4.7UH 10% .105DX.26LG	28480	9140-0144
A40L97	9100-3345	5	1	INDUCTOR RF-CH-MLD 2UH 5% .166DX.385LG	28480	9100-3345
A40L98	9140-0144	0		INDUCTOR RF-CH-MLD 4.7UH 10% .105DX.26LG	28480	9140-0144
A40L99	9100-3548	0		INDUCTOR RF-CH-MLD 470NH 5% .166DX.385LG	28480	9100-3548
A40L100	9100-0541	7		INDUCTOR RF-CH-MLD 250UH 10% .25DX.5LG	28480	9100-0541
A40L101	9100-0541	7		INDUCTOR RF-CH-MLD 250UH 10% .25DX.5LG	28480	9100-0541
A40Q1	1853-0036	2	5	TRANSISTOR PNP SI PD=310MW FT=250MHZ	28480	1853-0036
A40Q2	1853-0036	2		TRANSISTOR PNP SI PD=310MW FT=250MHZ	28480	1853-0036
A40Q30	1854-0019	3	2	TRANSISTOR NPN SI TO-18 PD=360MW	28480	1854-0019
A40Q31	1853-0089	5	1	TRANSISTOR PNP 2N4917 SI PD=200MW	07263	2N4917
A40Q32	1854-0019	3		TRANSISTOR NPN SI TO-18 PD=360MW	28480	1854-0019
A40Q33	1853-0449	0	1	TRANSISTOR PNP SI TO-92 PD=625MW	04713	MPSH81
A40Q50	1853-0036	2		TRANSISTOR PNP SI PD=310MW FT=250MHZ	28480	1853-0036
A40Q51	1853-0036	2		TRANSISTOR PNP SI PD=310MW FT=250MHZ	28480	1853-0036
A40Q52	1853-0036	2		TRANSISTOR PNP SI PD=310MW FT=250MHZ	28480	1853-0036
A40Q54	1854-0215	1	1	TRANSISTOR NPN SI PD=350MW FT=300MHZ	04713	2N3904
A40Q55	1855-0306	9	2	TRANSISTOR J-FET 2N4392 N-CHAN D-MODE	04713	2N4392
A40Q56	1855-0386	9		TRANSISTOR J-FET 2N4392 N-CHAN D-MODE	04713	2N4392
A40Q90	1853-0405	9	2	TRANSISTOR PNP SI PD=300MW FT=850MHZ	04713	2N4209
A40Q91	1853-0405	9		TRANSISTOR PNP SI PD=300MW FT=850MHZ	04713	2N4209
A40R1	0757-0277	8	5	RESISTOR 49.9 1% .125W F TC=0+-100	24546	C4-1/8-T0-4992-F
A40R2	0757-0401	0	3	RESISTOR 100 1% .125W F TC=0+-100	24546	C4-1/8-T0-101-F
A40R3	0683-3315	4	10	RESISTOR 330 5% .25W FC TC=-400/+600	01121	CB3315
A40R4	0683-3315	4		RESISTOR 330 5% .25W FC TC=-400/+600	01121	CB3315
A40R5	0683-4715	0	12	RESISTOR 470 5% .25W FC TC=-400/+600	01121	CB4715
A40R6	0683-3315	4		RESISTOR 330 5% .25W FC TC=-400/+600	01121	CB3315
A40R7	0683-3315	4		RESISTOR 330 5% .25W FC TC=-400/+600	01121	CB3315
A40R8	0757-0284	7	2	RESISTOR 150 1% .125W F TC=0+-100	24546	C4-1/8-T0-151-F
A40R9	0757-0280	3	5	RESISTOR 1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1001-F
A40R10	0757-0409	8	1	RESISTOR 274 1% .125W F TC=0+-100	24546	C4-1/8-T0-274R-F
A40R11	0683-4715	0		RESISTOR 470 5% .25W FC TC=-400/+600	01121	CB4715
A40R12	0683-3315	4		RESISTOR 330 5% .25W FC TC=-400/+600	01121	CB3315
A40R13	0683-3315	4		RESISTOR 330 5% .25W FC TC=-400/+600	01121	CB3315
A40R14	0757-0399	5	3	RESISTOR 82.5 1% .125W F TC=0+-100	24546	C4-1/8-T0-82R5-F
A40R15	0683-4305	4	8	RESISTOR 43 5% .25W FC TC=-400/+500	01121	CB4305
A40R16	0757-0401	0		RESISTOR 100 1% .125W F TC=0+-100	24546	C4-1/8-T0-101-F
A40R17	0683-1025	9	15	RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A40R18	0683-3315	4		RESISTOR 330 5% .25W FC TC=-400/+600	01121	CB3315
A40R19	0683-4305	4		RESISTOR 43 5% .25W FC TC=-400/+500	01121	CB4305
A40R20	0683-3315	4		RESISTOR 330 5% .25W FC TC=-400/+600	01121	CB3315

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A40R21	0683-4305	4		RESISTOR 43 5% .25W FC TC=-400/+500	01121	CB4305
A40R22	0683-4305	4		RESISTOR 43 5% .25W FC TC=-400/+500	01121	CB4305
A40R23	0683-1025	9		RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A40R24	0683-2025	1	1	RESISTOR 2K 5% .25W FC TC=-400/+700	01121	CB2025
A40R25	0757-0401	0		RESISTOR 100 1% .125W F TC=0+-100	24546	C4-1/8-T0-101-F
A40R26	0683-4305	4		RESISTOR 43 5% .25W FC TC=-400/+500	01121	CB4305
A40R27	0683-3315	4		RESISTOR 330 5% .25W FC TC=-400/+600	01121	CB3315
A40R28	0683-6815	5	9	RESISTOR 680 5% .25W FC TC=-400/+600	01121	CB6815
A40R29	0683-4715	0		RESISTOR 470 5% .25W FC TC=-400/+600	01121	CB4715
A40R30	0683-4715	0		RESISTOR 470 5% .25W FC TC=-400/+600	01121	CB4715
A40R31	0683-4305	4		RESISTOR 43 5% .25W FC TC=-400/+500	01121	CB4305
A40R32	0683-4715	0		RESISTOR 470 5% .25W FC TC=-400/+600	01121	CB4715
A40R33	0683-4715	0		RESISTOR 470 5% .25W FC TC=-400/+600	01121	CB4715
A40R34	0698-3178	8	1	RESISTOR 487 1% .125W F TC=0+-100	24546	C4-1/8-T0-487R-F
A40R35	0757-0277	8		RESISTOR 49.9 1% .125W F TC=0+-100	24546	C4-1/8-T0-4992-F
A40R36	0757-0277	8		RESISTOR 49.9 1% .125W F TC=0+-100	24546	C4-1/8-T0-4992-F
A40R37	0757-0280	3		RESISTOR 1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1001-F
A40R38	0683-1025	9		RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A40R39	0683-4715	0		RESISTOR 470 5% .25W FC TC=-400/+600	01121	CB4715
A40R40	0683-4715	0		RESISTOR 470 5% .25W FC TC=-400/+600	01121	CB4715
A40R42	0683-1025	9		RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A40R43	0683-1025	9		RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A40R44	0683-1025	9		RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A40R45	0683-1025	9		RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A40R46	0683-2035	3	2	RESISTOR 20K 5% .25W FC TC=-400/+800	01121	CB2035
A40R47	0683-5125	8	3	RESISTOR 5.1K 5% .25W FC TC=-400/+700	01121	CB5125
A40R48	0683-5125	8		RESISTOR 5.1K 5% .25W FC TC=-400/+700	01121	CB5125
A40R49	0683-2205	9	1	RESISTOR 22 5% .25W FC TC=-400/+500	01121	CB2205
A40R50	0757-0473	6	1	RESISTOR 221K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2213-F
A40R51	0757-0280	3		RESISTOR 1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1001-F
A40R52	0757-0280	3		RESISTOR 1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1001-F
A40R53	0698-4450	1	1	RESISTOR 324 1% .125W F TC=0+-100	24546	C4-1/8-T0-324R-F
A40R54	0683-4305	4		RESISTOR 43 5% .25W FC TC=-400/+500	01121	CB4305
A40R55	0757-0284	7		RESISTOR 150 1% .125W F TC=0+-100	24546	C4-1/8-T0-151-F
A40R59	0757-0465	6	1	RESISTOR 100K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1003-F
A40R66	0757-0442	9	3	RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A40R67	0683-1025	9		RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A40R68	0683-2035	3		RESISTOR 20K 5% .25W FC TC=-400/+800	01121	CB2035
A40R69	0683-4715	0		RESISTOR 470 5% .25W FC TC=-400/+600	01121	CB4715
A40R70	0683-6815	5		RESISTOR 680 5% .25W FC TC=-400/+600	01121	CB6815
A40R71	0683-4715	0		RESISTOR 470 5% .25W FC TC=-400/+600	01121	CB4715
A40R72	0683-1025	9		RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A40R73	0683-1025	9		RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A40R74	0683-1025	9		RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A40R75	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A40R76	0757-0280	3		RESISTOR 1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1001-F
A40R77	0757-0447	4	1	RESISTOR 16.2K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1622-F
A40R78	2100-3338	9	1	RESISTOR-TRMR 5K 10% C SIDE-ADJ 17-TRN	73138	68XR5K
A40R79	0698-3215	4	1	RESISTOR 499K 1% .125W F TC=0+-100	28480	0698-3215
A40R80	0683-1025	9		RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A40R81	0698-7332	4	2	RESISTOR 1M 1% .125W F TC=0+-100	28480	0698-7332
A40R82	0683-5125	8		RESISTOR 5.1K 5% .25W FC TC=-400/+700	01121	CB5125
A40R83	0698-3519	1	1	RESISTOR 12.4K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1242-F
A40R84	0683-4715	0		RESISTOR 470 5% .25W FC TC=-400/+600	01121	CB4715
A40R85	0683-6815	5		RESISTOR 680 5% .25W FC TC=-400/+600	01121	CB6815
A40R86	0698-7332	4		RESISTOR 1M 1% .125W F TC=0+-100	28480	0698-7332
A40R87	0683-1025	9		RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A40R88	0698-5094	1	1	RESISTOR 5.1M 5% .25W FC TC=-900/+1100	01121	CB5155
A40R89	0698-3492	9	1	RESISTOR 2.67K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2671-F
A40R90	0698-4386	2	2	RESISTOR 59 1% .125W F TC=0+-100	24546	C4-1/8-T0-59R0-F
A40R91	0698-3242	7	2	RESISTOR 357 1% .125W F TC=0+-100	24546	C4-1/8-T0-357R-F
A40R93	0683-3315	4		RESISTOR 330 5% .25W FC TC=-400/+600	01121	CB3315
A40R94	0683-4305	4		RESISTOR 43 5% .25W FC TC=-400/+500	01121	CB4305
A40R96	0683-6815	5		RESISTOR 680 5% .25W FC TC=-400/+600	01121	CB6815
A40R97	0683-6815	5		RESISTOR 680 5% .25W FC TC=-400/+600	01121	CB6815
A40R98	0683-6815	5		RESISTOR 680 5% .25W FC TC=-400/+600	01121	CB6815
A40R99	0683-6815	5		RESISTOR 680 5% .25W FC TC=-400/+600	01121	CB6815
A40R100	0757-0277	8		RESISTOR 49.9 1% .125W F TC=0+-100	24546	C4-1/8-T0-4992-F
A40R101	0683-4715	0		RESISTOR 470 5% .25W FC TC=-400/+600	01121	CB4715
A40R102	0757-0277	8		RESISTOR 49.9 1% .125W F TC=0+-100	24546	C4-1/8-T0-4992-F
A40R103	0757-0399	5		RESISTOR 82.5 1% .125W F TC=0+-100	24546	C4-1/8-T0-82R5-F
A40R104	0757-0399	5		RESISTOR 82.5 1% .125W F TC=0+-100	24546	C4-1/8-T0-82R5-F
A40R105	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A40R106	0683-1025	9		RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A40R107	0683-6815	5		RESISTOR 680 5% .25W FC TC=-400/+600	01121	CB6815

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	CD	Qty	Description	Mfr Code	Mfr Part Number
A40R108	0683-1025	9		RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A40R109	0683-6815	5		RESISTOR 680 5% .25W FC TC=-400/+600	01121	CB6815
A40R110	0698-3242	7		RESISTOR 357 1% .125W F TC=0+-100	24546	C4-1/8-T0-357R-F
A40R111	0698-4386	2		RESISTOR 59 1% .125W F TC=0+-100	24546	C4-1/8-T0-59R0-F
A40T1	08552-6044	1	1	TRANSFORMER 6-TURNS	28480	08552-6044
A40U1	1820-0810	1	2	IC RCVR ECL LINE RCVR TPL 2-INP	04713	MC10116P
A40U2	1820-0806	5	6	IC GATE ECL OR-NOR DUAL 4-5-INP	04713	MC10109P
A40U3	1820-0806	5		IC GATE ECL OR-NOR DUAL 4-5-INP	04713	MC10109P
A40U4	1820-0806	5		IC GATE ECL OR-NOR DUAL 4-5-INP	04713	MC10109P
A40U30	1820-1251	6	1	IC CNTR TTL LS DECD ASYNCHRO	01295	SN74LS196N
A40U31	1820-1383	5	2	IC CNTR ECL BCD POS-EDGE-TRIG	04713	MC10138L
A40U32	1820-0803	2	2	IC GATE ECL OR-NOR TPL	04713	MC10105P
A40U33	1820-1746	4	1	IC BFR CMOS INV HEX	04713	MC14049UBCP
A40U51	1820-0806	5		IC GATE ECL OR-NOR DUAL 4-5-INP	04713	MC10109P
A40U52	1820-0803	2		IC GATE ECL OR-NOR TPL	04713	MC10105P
A40U53	1820-1383	5		IC CNTR ECL BCD POS-EDGE-TRIG	04713	MC10138L
A40U54	1826-0043	4	1	IC OP AMP GP TO-99 PKG	3L585	CA307T
A40U55	1820-0478	7	1	IC OP AMP LOW-BIAS-H-IMPD TO-99 PKG	27014	LM308H
A40U90	1820-0806	5		IC GATE ECL OR-NOR DUAL 4-5-INP	04713	MC10109P
A40U92	1820-0810	1		IC RCVR ECL LINE RCVR TPL 2-INP	04713	MC10116P
A40U93	1820-0806	5		IC GATE ECL OR-NOR DUAL 4-5-INP	04713	MC10109P
A40Y90	0410-0751	9	1	CRYSTAL-QUARTZ 50 MHZ HC-18/U-HLDR	28480	0410-0751

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A50	03586-66550	2	1	STEP LOOP (3586A/B/C)	28480	03586-66550
A50C1	0160-4386	3	6	CAPACITOR-FXD 33PF +-5% 200VDC CER 0+-30	28480	0160-4386
A50C2	0160-3879	7	53	CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A50C3	0160-4386	3		CAPACITOR-FXD 33PF +-5% 200VDC CER 0+-30	28480	0160-4386
A50C4	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A50C5	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A50C6	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A50C7	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A50C8	0160-4386	3		CAPACITOR-FXD 33PF +-5% 200VDC CER 0+-30	28480	0160-4386
A50C9	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A50C10	0160-4386	3		CAPACITOR-FXD 33PF +-5% 200VDC CER 0+-30	28480	0160-4386
A50C11	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A50C12	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A50C13	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A50C14	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A50C15	0160-4386	3		CAPACITOR-FXD 33PF +-5% 200VDC CER 0+-30	28480	0160-4386
A50C16	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A50C17	0160-4386	3		CAPACITOR-FXD 33PF +-5% 200VDC CER 0+-30	28480	0160-4386
A50C18	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A50C19	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A50C20	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A50C21	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A50C22	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A50C23	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A50C24	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A50C25	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A50C26	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A50C27	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A50C28	0160-4385	2	1	CAPACITOR-FXD 15PF +-5% 200VDC CER 0+-30	28480	0160-4385
A50C29	0160-4350	1	5	CAPACITOR-FXD 68PF +-5% 200VDC CER 0+-30	28480	0160-4350
A50C30	0160-4350	1		CAPACITOR-FXD 68PF +-5% 200VDC CER 0+-30	28480	0160-4350
A50C31	0160-4350	1		CAPACITOR-FXD 68PF +-5% 200VDC CER 0+-30	28480	0160-4350
A50C32	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A50C33	0160-4350	1		CAPACITOR-FXD 68PF +-5% 200VDC CER 0+-30	28480	0160-4350
A50C34	0160-4350	1		CAPACITOR-FXD 68PF +-5% 200VDC CER 0+-30	28480	0160-4350
A50C35	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A50C36	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A50C37	0160-4389	6	5	CAPACITOR-FXD 100PF +-5PF 200VDC CER	28480	0160-4389
A50C38	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A50C39	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A50C40	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A50C41	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A50C42	0180-1746	5	4	CAPACITOR-FXD 15UF+-10% 20VDC TA	56289	150D156X9020B2
A50C43	0180-1746	5		CAPACITOR-FXD 15UF+-10% 20VDC TA	56289	150D156X9020B2
A50C44	0160-0570	9	2	CAPACITOR-FXD 220PF +-20% 100VDC CER	20932	5024EM100RD221M
A50C45	0160-0570	9		CAPACITOR-FXD 220PF +-20% 100VDC CER	20932	5024EM100RD221M
A50C46	0160-4389	6		CAPACITOR-FXD 100PF +-5PF 200VDC CER	28480	0160-4389
A50C47	0160-4389	6		CAPACITOR-FXD 100PF +-5PF 200VDC CER	28480	0160-4389
A50C48	0160-0164	7	1	CAPACITOR-FXD .039UF +-10% 200VDC POLYE	28480	0160-0164
A50C49	0160-0571	0	3	CAPACITOR-FXD 470PF +-20% 100VDC CER	28480	0160-0571
A50C50	0160-4389	6		CAPACITOR-FXD 100PF +-5PF 200VDC CER	28480	0160-4389
A50C51	0180-0196	7	1	CAPACITOR-FXD 56UF+-10% 15VDC TA	56289	150D566X9015R2
A50C70	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A50C71	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A50C72	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A50C73	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A50C74	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A50C75	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A50C76	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A50C77	0160-4389	6		CAPACITOR-FXD 100PF +-5PF 200VDC CER	28480	0160-4389
A50C78	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A50C79	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A50C80	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A50C81	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A50C82	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A50C83	0160-0127	2	2	CAPACITOR-FXD 1UF +-20% 25VDC CER	28480	0160-0127
A50C84	0160-2306	3	1	CAPACITOR-FXD 27PF +-5% 300VDC MICA	28480	0160-2306
A50C85	0160-2205	1	1	CAPACITOR-FXD 120PF +-5% 300VDC MICA	28480	0160-2205
A50C86	0160-0571	0		CAPACITOR-FXD 470PF +-20% 100VDC CER	28480	0160-0571
A50C87	0160-2940	1	1	CAPACITOR-FXD 470PF +-5% 300VDC MICA	28480	0160-2940
A50C88	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A50CB9	0160-0571	0		CAPACITOR-FXD 470PF +-20% 100VDC CER	28480	0160-0571
A50C90	0180-1746	5		CAPACITOR-FXD 15UF+-10% 20VDC TA	56289	150D156X9020B2
A50C91	0180-1746	5		CAPACITOR-FXD 15UF+-10% 20VDC TA	56289	150D156X9020B2
A50C92	0160-0127	2		CAPACITOR-FXD 1UF +-20% 25VDC CER	28480	0160-0127
A50C93	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A50C94	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A50C95	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A50C96	0180-2651	3	1	CAPACITOR-FXD 470UF+75-10% 16VDC AL	56289	500D477H016DF7
A50C97	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A50C98	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A50C99	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A50C100	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A50C101	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A50C102	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A50C103	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A50C104	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A50C105	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A50CR1**	0122-0098	6	2	DIODE-VVC	28480	0122-0098
A50CR2	0122-0098	6		DIODE-VVC	28480	0122-0098
A50CR3	1901-0040	1	5	DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
A50CR4	1902-3149	9	1	DIODE-ZNR 9.09V 5% DO-35 PD=.4W	28480	1902-3149
A50CR70	1901-0040	1		DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
A50CR71	1901-0040	1		DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
A50CR72	1901-0040	1		DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
A50CR73	1901-0040	1		DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
				**A50CR1, A50CR2, A51CR1 AND A51CR2 ARE A MATCHED SET OF VARICAPS. -HP- PART NUMBER 0122-0098 CONSISTS OF A REPLACE MENT OF SET OF 4 MATCHED VARICAPS.		
A50D870	1990-0486	6	1	LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	5082-4684
A50J1	1250-1512	3	3	CONNECTOR-RF SMB M PC 50-OHM	28480	1250-1512
A50J2	1250-1512	3		CONNECTOR-RF SMB M PC 50-OHM	28480	1250-1512
A50J3	1250-1512	3		CONNECTOR-RF SMB M PC 50-OHM	28480	1250-1512
A50L1	9100-2249	6	3	INDUCTOR RF-CH-MLD 150NH 10% .105DX.26LG	28480	9100-2249
A50L2	9100-2249	6		INDUCTOR RF-CH-MLD 150NH 10% .105DX.26LG	28480	9100-2249
A50L3	9100-2249	6		INDUCTOR RF-CH-MLD 150NH 10% .105DX.26LG	28480	9100-2249
A50L4	9100-3560	6	7	INDUCTOR RF-CH-MLD 5.6UH 5% .166DX.385LG	28480	9100-3560
A50L5	9140-0409	0	1	COIL-VAR 130NH-162NH Q=125 PC-MTG	28480	9140-0409
A50L6	9100-3560	6		INDUCTOR RF-CH-MLD 5.6UH 5% .166DX.385LG	28480	9100-3560
A50L7	9100-1636	3	4	INDUCTOR RF-CH-MLD 110UH 5% .166DX.385LG	28480	9100-1636
A50L8	9100-1636	3		INDUCTOR RF-CH-MLD 110UH 5% .166DX.385LG	28480	9100-1636
A50L70	9100-3560	6		INDUCTOR RF-CH-MLD 5.6UH 5% .166DX.385LG	28480	9100-3560
A50L71	9100-3560	6		INDUCTOR RF-CH-MLD 5.6UH 5% .166DX.385LG	28480	9100-3560
A50L72	9100-3560	6		INDUCTOR RF-CH-MLD 5.6UH 5% .166DX.385LG	28480	9100-3560
A50L73	9100-3560	6		INDUCTOR RF-CH-MLD 5.6UH 5% .166DX.385LG	28480	9100-3560
A50L74	9100-1641	0	1	INDUCTOR RF-CH-MLD 240UH 5% .166DX.385LG	28480	9100-1641
A50L75	9100-1636	3		INDUCTOR RF-CH-MLD 110UH 5% .166DX.385LG	28480	9100-1636
A50L76	9100-1636	3		INDUCTOR RF-CH-MLD 110UH 5% .166DX.385LG	28480	9100-1636
A50L77	9100-0541	7	1	INDUCTOR RF-CH-MLD 250UH 10% .25DX.5LG	28480	9100-0541
A50L78	9100-3560	6		INDUCTOR RF-CH-MLD 5.6UH 5% .166DX.385LG	28480	9100-3560
A50Q1	1854-0345	8	10	TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW	04713	2N5179
A50Q2	1854-0345	8		TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW	04713	2N5179
A50Q3	1854-0345	8		TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW	04713	2N5179
A50Q4	1854-0345	8		TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW	04713	2N5179
A50Q5	1854-0345	8		TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW	04713	2N5179
A50Q6	1854-0345	8		TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW	04713	2N5179
A50Q7	1854-0345	8		TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW	04713	2N5179
A50Q8	1854-0345	8		TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW	04713	2N5179
A50Q9	1854-0215	1	5	TRANSISTOR NPN SI PD=350MW FT=300MHZ	04713	2N3904
A50Q10	1854-0345	8		TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW	04713	2N5179
A50Q11	1854-0345	8		TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW	04713	2N5179
A50Q70	1854-0215	1		TRANSISTOR NPN SI PD=350MW FT=300MHZ	04713	2N3904
A50Q71	1854-0215	1		TRANSISTOR NPN SI PD=350MW FT=300MHZ	04713	2N3904
A50Q72	1853-0036	2	3	TRANSISTOR PNP SI PD=310MW FT=250MHZ	28480	1853-0036
A50Q73	1853-0036	2		TRANSISTOR PNP SI PD=310MW FT=250MHZ	28480	1853-0036
A50Q74	1853-0036	2		TRANSISTOR PNP SI PD=310MW FT=250MHZ	28480	1853-0036
A50Q75	1854-0215	1		TRANSISTOR NPN SI PD=350MW FT=300MHZ	04713	2N3904
A50Q76	1854-0215	1		TRANSISTOR NPN SI PD=350MW FT=300MHZ	04713	2N3904
A50R1	0757-0398	4	3	RESISTOR 75 1% .125W F TC=0+-100	24546	C4-1/8-T0-75R0-F
A50R2	0757-0280	3	14	RESISTOR 1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1001-F
A50R3	0683-4705	8	14	RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A50R4	0757-0280	3		RESISTOR 1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1001-F
A50R5	0757-0420	3	5	RESISTOR 750 1% .125W F TC=0+-100	24546	C4-1/8-T0-751-F

See introduction to this section for ordering information
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Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A50R6	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A50R7	0698-3430	5	3	RESISTOR 21.5 1% .125W F TC=0+-100	03888	PME55-1/8-T0-21R5-F
A50R8	0757-0407	6	5	RESISTOR 200 1% .125W F TC=0+-100	24546	C4-1/8-T0-201-F
A50R9	0757-0398	4		RESISTOR 75 1% .125W F TC=0+-100	24546	C4-1/8-T0-75R0-F
A50R10	0757-0280	3		RESISTOR 1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1001-F
A50R11	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A50R12	0757-0280	3		RESISTOR 1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1001-F
A50R13	0757-0420	3		RESISTOR 750 1% .125W F TC=0+-100	24546	C4-1/8-T0-751-F
A50R14	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A50R15	0698-3430	5		RESISTOR 21.5 1% .125W F TC=0+-100	03888	PME55-1/8-T0-21R5-F
A50R16	0757-0407	6		RESISTOR 200 1% .125W F TC=0+-100	24546	C4-1/8-T0-201-F
A50R17	0757-0398	4		RESISTOR 75 1% .125W F TC=0+-100	24546	C4-1/8-T0-75R0-F
A50R18	0757-0280	3		RESISTOR 1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1001-F
A50R19	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A50R20	0757-0280	3		RESISTOR 1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1001-F
A50R21	0757-0420	3		RESISTOR 750 1% .125W F TC=0+-100	24546	C4-1/8-T0-751-F
A50R22	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A50R23	0698-3430	5		RESISTOR 21.5 1% .125W F TC=0+-100	03888	PME55-1/8-T0-21R5-F
A50R24	0757-0407	6		RESISTOR 200 1% .125W F TC=0+-100	24546	C4-1/8-T0-201-F
A50R25	0757-0291	6	3	RESISTOR 24.9 1% .125W F TC=0+-100	19701	MF4C1/8-T0-2492-F
A50R26	0757-0416	7	1	RESISTOR 511 1% .125W F TC=0+-100	24546	C4-1/8-T0-511R-F
A50R27	0757-0279	0	2	RESISTOR 3.16K 1% .125W F TC=0+-100	24546	C4-1/8-T0-3161-F
A50R28	0757-0280	3		RESISTOR 1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1001-F
A50R29	0757-0291	6		RESISTOR 24.9 1% .125W F TC=0+-100	19701	MF4C1/8-T0-2492-F
A50R30	0698-4443	2	1	RESISTOR 4.53K 1% .125W F TC=0+-100	24546	C4-1/8-T0-4531-F
A50R31	0698-3242	7	1	RESISTOR 357 1% .125W F TC=0+-100	24546	C4-1/8-T0-357R-F
A50R32	0698-3223	4	1	RESISTOR 1.24K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1241-F
A50R33	0757-0464	5	1	RESISTOR 90.9K 1% .125W F TC=0+-100	24546	C4-1/8-T0-9092-F
A50R34	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A50R35	0757-0442	9	8	RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A50R36	0757-0277	8	3	RESISTOR 49.9 1% .125W F TC=0+-100	24546	C4-1/8-T0-4992-F
A50R37	0757-0277	8		RESISTOR 49.9 1% .125W F TC=0+-100	24546	C4-1/8-T0-4992-F
A50R38	0757-0420	3		RESISTOR 750 1% .125W F TC=0+-100	24546	C4-1/8-T0-751-F
A50R39	0757-0444	1	1	RESISTOR 12.1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1212-F
A50R40	0698-4473	8	1	RESISTOR 8.06K 1% .125W F TC=0+-100	24546	C4-1/8-T0-8061-F
A50R41	0757-0291	6		RESISTOR 24.9 1% .125W F TC=0+-100	19701	MF4C1/8-T0-2492-F
A50R42	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A50R43	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A50R44	0757-0200	7	1	RESISTOR 5.62K 1% .125W F TC=0+-100	24546	C4-1/8-T0-5621-F
A50R45	2100-3253	7	2	RESISTOR-TRMR 50K 10% C TOP-ADJ 1-TRN	28480	2100-3253
A50R46	2100-3253	7		RESISTOR-TRMR 50K 10% C TOP-ADJ 1-TRN	28480	2100-3253
A50R47	0757-0401	0	1	RESISTOR 100 1% .125W F TC=0+-100	24546	C4-1/8-T0-101-F
A50R48	0757-0462	3	1	RESISTOR 75K 1% .125W F TC=0+-100	24546	C4-1/8-T0-7502-F
A50R49	0698-4496	5	1	RESISTOR 45.3K 1% .125W F TC=0+-100	24546	C4-1/8-T0-4532-F
A50R50	0757-0420	3		RESISTOR 750 1% .125W F TC=0+-100	24546	C4-1/8-T0-751-F
A50R51	0683-2025	1	4	RESISTOR 2K 5% .25W FC TC=-400/+700	01121	CB2025
A50R52	0683-2025	1		RESISTOR 2K 5% .25W FC TC=-400/+700	01121	CB2025
A50R53	0683-2025	1		RESISTOR 2K 5% .25W FC TC=-400/+700	01121	CB2025
A50R54	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A50R55	0683-2025	1		RESISTOR 2K 5% .25W FC TC=-400/+700	01121	CB2025
A50R56	0757-0279	0		RESISTOR 3.16K 1% .125W F TC=0+-100	24546	C4-1/8-T0-3161-F
A50R70	0698-3132	4	4	RESISTOR 261 1% .125W F TC=0+-100	24546	C4-1/8-T0-2610-F
A50R71	0698-3132	4		RESISTOR 261 1% .125W F TC=0+-100	24546	C4-1/8-T0-2610-F
A50R72	0698-3132	4		RESISTOR 261 1% .125W F TC=0+-100	24546	C4-1/8-T0-2610-F
A50R73	0757-0280	3		RESISTOR 1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1001-F
A50R74	0757-0438	3	1	RESISTOR 5.11K 1% .125W F TC=0+-100	24546	C4-1/8-T0-5111-F
A50R75	0757-0280	3		RESISTOR 1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1001-F
A50R76	0683-4715	0	4	RESISTOR 470 5% .25W FC TC=-400/+600	01121	CB4715
A50R77	0698-3132	4		RESISTOR 261 1% .125W F TC=0+-100	24546	C4-1/8-T0-2610-F
A50R78	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A50R79	0757-0460	1	1	RESISTOR 61.9K 1% .125W F TC=0+-100	24546	C4-1/8-T0-6192-F
A50R80	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A50R81	0757-0280	3		RESISTOR 1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1001-F
A50R82	0683-4715	0		RESISTOR 470 5% .25W FC TC=-400/+600	01121	CB4715
A50R83	0757-0280	3		RESISTOR 1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1001-F
A50R84	0757-0280	3		RESISTOR 1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1001-F
A50R85	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A50R86	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A50R87	0757-0346	2	4	RESISTOR 10 1% .125W F TC=0+-100	24546	C4-1/8-T0-10R0-F
A50R88	0757-0346	2		RESISTOR 10 1% .125W F TC=0+-100	24546	C4-1/8-T0-10R0-F
A50R89	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A50R90	0698-3557	7	1	RESISTOR 806 1% .125W F TC=0+-100	24546	C4-1/8-T0-806R-F
A50R92	0757-0280	3		RESISTOR 1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1001-F
A50R93	0757-0407	6		RESISTOR 200 1% .125W F TC=0+-100	24546	C4-1/8-T0-201-F
A50R94	0757-0407	6		RESISTOR 200 1% .125W F TC=0+-100	24546	C4-1/8-T0-201-F

See introduction to this section for ordering information
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Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A50R95	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A50R96	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A50R97	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A50R98	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A50R99	0757-0280	3		RESISTOR 1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1001-F
A50R100	0683-4715	0		RESISTOR 470 5% .25W FC TC=-400/+600	01121	CB4715
A50R101	0757-0277	8		RESISTOR 49.9 1% .125W F TC=0+-100	24546	C4-1/8-T0-4992-F
A50R102	0683-4715	0		RESISTOR 470 5% .25W FC TC=-400/+600	01121	CB4715
A50R103	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A50R104	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A50R105	0757-0346	2		RESISTOR 10 1% .125W F TC=0+-100	24546	C4-1/8-T0-10R0-F
A50R106	0757-0346	2		RESISTOR 10 1% .125W F TC=0+-100	24546	C4-1/8-T0-10R0-F
A50R107	0757-0411	2	1	RESISTOR 332 1% .125W F TC=0+-100	24546	C4-1/8-T0-332R-F
A50RP70	1810-0167	0	3	NETWORK-RES 8-SIP330.0 OHM X 4	01121	208B331
A50RP71	1810-0167	0		NETWORK-RES 8-SIP330.0 OHM X 4	01121	208B331
A50RP72	1810-0167	0		NETWORK-RES 8-SIP330.0 OHM X 4	01121	208B331
A50RP73	1810-0121	6	1	NETWORK-RES 9-SIP1.0K OHM X 8	91637	CSP09C07-102J
A50RP74	1810-0037	3	1	NETWORK-RES 16-DIP1.0K OHM X 8	11236	761-3-R1K
A50S1	3101-2039	8	1	SWITCH-SL SPDT SUBMIN .5A 125VAC PC	28480	3101-2039
A50U1	1826-0043	4	1	IC OP AMP GP TO-99 PKG	3L585	CA307T
A50U70	1820-0810	1	1	IC RCVR ECL LINE RCVR TPL 2-INP	04713	MC10116P
A50U71	1820-1788	4	2	IC CNTR ECL BIN SYNCHRO POS-EDGE-TRIG	07263	F10016DC
A50U72	1820-1788	4		IC CNTR ECL BIN SYNCHRO POS-EDGE-TRIG	07263	F10016DC
A50U73	1826-0678	1	1	IC OP AMP GP DUAL TO-99 PKG	27014	LM358H
A50U74	1820-0817	8	1	IC FF ECL D-M/S DUAL	04713	MC10131P
A50U75	1820-0802	1	1	IC GATE ECL NOR QUAD 2-INP	04713	MC10102P
A50U76	1820-1383	5	1	IC CNTR ECL BCD POS-EDGE-TRIG	04713	MC10136L

See introduction to this section for ordering information
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Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A51	03586-66551	3	1	SUMMATION LOOP (3586A/B/C)	28480	03586-66551
A51C1	0160-4386	3	8	CAPACITOR-FXD 33PF +-5% 200VDC CER 0+-30	28480	0160-4386
A51C2	0160-3879	7	34	CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A51C3	0160-4386	3		CAPACITOR-FXD 33PF +-5% 200VDC CER 0+-30	28480	0160-4386
A51C4	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A51C5	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A51C6	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A51C7	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A51C8	0160-4386	3		CAPACITOR-FXD 33PF +-5% 200VDC CER 0+-30	28480	0160-4386
A51C9	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A51C10	0160-4386	3		CAPACITOR-FXD 33PF +-5% 200VDC CER 0+-30	28480	0160-4386
A51C11	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A51C12	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A51C13	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A51C14	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A51C15	0160-4386	3		CAPACITOR-FXD 33PF +-5% 200VDC CER 0+-30	28480	0160-4386
A51C16	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A51C17	0160-4386	3		CAPACITOR-FXD 33PF +-5% 200VDC CER 0+-30	28480	0160-4386
A51C18	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A51C19	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A51C20	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A51C21	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A51C22	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A51C23	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A51C24	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A51C25	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A51C26	0160-4386	3		CAPACITOR-FXD 33PF +-5% 200VDC CER 0+-30	28480	0160-4386
A51C27	0160-4386	3		CAPACITOR-FXD 33PF +-5% 200VDC CER 0+-30	28480	0160-4386
A51C28	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A51C29	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A51C30	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A51C31	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A51C32	0180-0196	7	1	CAPACITOR-FXD 56UF+-10% 15VDC TA	56289	150D566X9015R2
A51C33	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A51C34	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A51C35	0160-4385	2	1	CAPACITOR-FXD 15PF +-5% 200VDC CER 0+-30	28480	0160-4385
A51C36	0160-4350	1	5	CAPACITOR-FXD 68PF +-5% 200VDC CER 0+-30	28480	0160-4350
A51C37	0160-4350	1		CAPACITOR-FXD 68PF +-5% 200VDC CER 0+-30	28480	0160-4350
A51C38	0160-4350	1		CAPACITOR-FXD 68PF +-5% 200VDC CER 0+-30	28480	0160-4350
A51C39	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A51C40	0160-4350	1		CAPACITOR-FXD 68PF +-5% 200VDC CER 0+-30	28480	0160-4350
A51C41	0160-4350	1		CAPACITOR-FXD 68PF +-5% 200VDC CER 0+-30	28480	0160-4350
A51C42	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A51C43	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A51C44	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A51C45	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A51C46	0160-2611	3	1	CAPACITOR-FXD 1UF +-10% 50VDC MET-POLYE	28480	0160-2611
A51C47	0160-3877	5	4	CAPACITOR-FXD 100PF +-20% 200VDC CER	28480	0160-3877
A51C48	0160-3877	5		CAPACITOR-FXD 100PF +-20% 200VDC CER	28480	0160-3877
A51C49	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A51C50	0180-1746	5	2	CAPACITOR-FXD 15UF+-10% 20VDC TA	56289	150D156X9020B2
A51C51	0180-1746	5		CAPACITOR-FXD 15UF+-10% 20VDC TA	56289	150D156X9020B2
A51C52	0160-0155	6	1	CAPACITOR-FXD 3300PF +-10% 200VDC POLYE	28480	0160-0155
A51C53	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A51C54	0160-0945	2	1	CAPACITOR-FXD 910PF +-5% 100VDC MICA	28480	0160-0945
A51C55	0160-3877	5		CAPACITOR-FXD 100PF +-20% 200VDC CER	28480	0160-3877
A51C56	0160-3877	5		CAPACITOR-FXD 100PF +-20% 200VDC CER	28480	0160-3877
A51C57	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A51C58	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A51CR1**	0122-0098	6	2	DIODE-VVC	28480	0122-0098
A51CR2	0122-0098	6		DIODE-VVC	28480	0122-0098
A51CR3	1901-0518	8	1	DIODE-SM SIG SCHOTTKY	28480	1901-0518
A51CR4	1901-0050	3	2	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
A51CR5	1901-0050	3		DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
				**A51CR1, A51CR2, A50CR1 AND A50CR2 ARE A MATCHED SET OF VARICAPS. -HP- PART NUMBER 0122-0098 CONSISTS OF A REPLACEMENT SET OF 4 MATCHED VARICAPS.		
A51J1	1250-1512	3	3	CONNECTOR-RF SMB M PC 50-OHM	28480	1250-1512
A51J2	1250-1512	3		CONNECTOR-RF SMB M PC 50-OHM	28480	1250-1512
A51J3	1250-1512	3		CONNECTOR-RF SMB M PC 50-OHM	28480	1250-1512
A51J4	1250-1339	2	1	CONNECTOR-RF SM-SLD M PC 50-OHM	28480	1250-1339

See introduction to this section for ordering information
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Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A51L1	9100-3314	8	4	INDUCTOR RF-CH-MLD 150NH 5% .166DX.385LG	28480	9100-3314
A51L2	9100-3560	6	3	INDUCTOR RF-CH-MLD 5.6UH 5% .166DX.385LG	28480	9100-3560
A51L3	9100-3314	8		INDUCTOR RF-CH-MLD 150NH 5% .166DX.385LG	28480	9100-3314
A51L4	9100-3560	6		INDUCTOR RF-CH-MLD 5.6UH 5% .166DX.385LG	28480	9100-3560
A51L5	9100-3314	8		INDUCTOR RF-CH-MLD 150NH 5% .166DX.385LG	28480	9100-3314
A51L6	9100-3314	8		INDUCTOR RF-CH-MLD 150NH 5% .166DX.385LG	28480	9100-3314
A51L7	9100-3560	6		INDUCTOR RF-CH-MLD 5.6UH 5% .166DX.385LG	28480	9100-3560
A51L8	9140-0410	3	1	COIL-VAR 166NH-194NH Q=125 PC-MTG	28480	9140-0410
A51L9	9100-1636	3	2	INDUCTOR RF-CH-MLD 110UH 5% .166DX.385LG	28480	9100-1636
A51L10	9100-1636	3		INDUCTOR RF-CH-MLD 110UH 5% .166DX.385LG	28480	9100-1636
A51L11	9140-0397	5	1	INDUCTOR RF-CH-MLD 9.1UH 5% .166DX.385LG	28480	9140-0397
A51Q1	1854-0345	8	13	TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW	04713	2N5179
A51Q2	1854-0345	8		TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW	04713	2N5179
A51Q3	1854-0345	8		TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW	04713	2N5179
A51Q4	1854-0345	8		TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW	04713	2N5179
A51Q5	1854-0345	8		TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW	04713	2N5179
A51Q6	1854-0345	8		TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW	04713	2N5179
A51Q7	1854-0345	8		TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW	04713	2N5179
A51Q8	1854-0345	8		TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW	04713	2N5179
A51Q9	1854-0345	8		TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW	04713	2N5179
A51Q10	1854-0345	8		TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW	04713	2N5179
A51Q11	1854-0345	8		TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW	04713	2N5179
A51Q12	1854-0215	1	1	TRANSISTOR NPN SI PD=350MW FT=300MHZ	04713	2N3904
A51Q13	1854-0345	8		TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW	04713	2N5179
A51Q14	1854-0345	8		TRANSISTOR NPN 2N5179 SI TO-72 PD=200MW	04713	2N5179
A51R1	0757-0398	4	4	RESISTOR 75 1% .125W F TC=0+-100	24546	C4-1/8-T0-75R0-F
A51R2	0757-0280	3	9	RESISTOR 1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1001-F
A51R3	0683-4705	8	11	RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A51R4	0757-0280	3		RESISTOR 1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1001-F
A51R5	0757-0420	3	5	RESISTOR 750 1% .125W F TC=0+-100	24546	C4-1/8-T0-751-F
A51R6	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A51R7	0698-3430	5	3	RESISTOR 21.5 1% .125W F TC=0+-100	03888	PME55-1/8-T0-21R5-F
A51R8	0757-0407	6	4	RESISTOR 200 1% .125W F TC=0+-100	24546	C4-1/8-T0-201-F
A51R9	0757-0398	4		RESISTOR 75 1% .125W F TC=0+-100	24546	C4-1/8-T0-75R0-F
A51R10	0757-0280	3		RESISTOR 1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1001-F
A51R11	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A51R12	0757-0280	3		RESISTOR 1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1001-F
A51R13	0757-0420	3		RESISTOR 750 1% .125W F TC=0+-100	24546	C4-1/8-T0-751-F
A51R14	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A51R15	0698-3430	5		RESISTOR 21.5 1% .125W F TC=0+-100	03888	PME55-1/8-T0-21R5-F
A51R16	0757-0407	6		RESISTOR 200 1% .125W F TC=0+-100	24546	C4-1/8-T0-201-F
A51R17	0757-0398	4		RESISTOR 75 1% .125W F TC=0+-100	24546	C4-1/8-T0-75R0-F
A51R18	0757-0280	3		RESISTOR 1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1001-F
A51R19	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A51R20	0757-0280	3		RESISTOR 1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1001-F
A51R21	0757-0420	3		RESISTOR 750 1% .125W F TC=0+-100	24546	C4-1/8-T0-751-F
A51R22	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A51R23	0683-6205	7	1	RESISTOR 62 5% .25W FC TC=-400/+500	01121	CB6205
A51R24	0757-0407	6		RESISTOR 200 1% .125W F TC=0+-100	24546	C4-1/8-T0-201-F
A51R25	0757-0420	3		RESISTOR 750 1% .125W F TC=0+-100	24546	C4-1/8-T0-751-F
A51R26	0757-0407	6		RESISTOR 200 1% .125W F TC=0+-100	24546	C4-1/8-T0-201-F
A51R27	0757-0280	3		RESISTOR 1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1001-F
A51R28	0757-0280	3		RESISTOR 1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1001-F
A51R29	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A51R30	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A51R31	0698-3430	5		RESISTOR 21.5 1% .125W F TC=0+-100	03888	PME55-1/8-T0-21R5-F
A51R32	0757-0398	4		RESISTOR 75 1% .125W F TC=0+-100	24546	C4-1/8-T0-75R0-F
A51R33	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A51R34	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A51R35	0757-0416	7	1	RESISTOR 511 1% .125W F TC=0+-100	24546	C4-1/8-T0-511R-F
A51R36	0757-0279	0	1	RESISTOR 3.16K 1% .125W F TC=0+-100	24546	C4-1/8-T0-3161-F
A51R37	0757-0280	3		RESISTOR 1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1001-F
A51R38	0757-0291	6	2	RESISTOR 24.9 1% .125W F TC=0+-100	19701	MF4C1/8-T0-2492-F
A51R39	0698-4443	2	1	RESISTOR 4.53K 1% .125W F TC=0+-100	24546	C4-1/8-T0-4531-F
A51R40	0698-3242	7	2	RESISTOR 357 1% .125W F TC=0+-100	24546	C4-1/8-T0-357R-F
A51R41	0698-3242	7		RESISTOR 357 1% .125W F TC=0+-100	24546	C4-1/8-T0-357R-F
A51R42	0698-3223	4	1	RESISTOR 1.24K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1241-F
A51R43	0757-0464	5	1	RESISTOR 90.9K 1% .125W F TC=0+-100	24546	C4-1/8-T0-9092-F
A51R44	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A51R45	0757-0442	9	3	RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A51R46	0757-0277	8	2	RESISTOR 49.9 1% .125W F TC=0+-100	24546	C4-1/8-T0-4992-F
A51R47	0757-0277	8		RESISTOR 49.9 1% .125W F TC=0+-100	24546	C4-1/8-T0-4992-F
A51R48	0757-0420	3		RESISTOR 750 1% .125W F TC=0+-100	24546	C4-1/8-T0-751-F
A51R49	0757-0444	1	1	RESISTOR 12.1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1212-F
A51R50	0698-4473	8	1	RESISTOR 8.06K 1% .125W F TC=0+-100	24546	C4-1/8-T0-8061-F

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A51R51	0757-0291	6		RESISTOR 24.9 1% .125W F TC=0+-100	19701	MF4C1/8-T0-2492-F
A51R52	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A51R53	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A51R54	0757-0200	7	1	RESISTOR 5.62K 1% .125W F TC=0+-100	24546	C4-1/8-T0-5621-F
A51R55	2100-3253	7	2	RESISTOR-TRMR 50K 10% C TOP ADJ 1-TRN	28480	2100-3253
A51R56	2100-3253	7		RESISTOR-TRMR 50K 10% C TOP-ADJ 1-TRN	28480	2100-3253
A51R57	0757-0401	0	1	RESISTOR 100 1% .125W F TC=0+-100	24546	C4-1/8-T0-101-F
A51R58	0757-0180	2	1	RESISTOR 31.6 1% .125W F TC=0+-100	28480	0757-0180
A51R59	0757-0462	3	1	RESISTOR 75K 1% .125W F TC=0+-100	24546	C4-1/8-T0-7502-F
A51R60	0698-4496	5	1	RESISTOR 45.3K 1% .125W F TC=0+-100	24546	C4-1/8-T0-4532-F
A51S1	3101-2039	8	1	SWITCH-SL SPDT SUBMIN .5A 125VAC PC	28480	3101-2039
	9170-0894	0	1	CORE-SHIELDING BEAD	28480	9170-0894

See introduction to this section for ordering information
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Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A52	03586-66552	4	1	SUM LOOP MIXER (3586A/B/C)	28480	03586-66552
A52C1	0160-0570	9	2	CAPACITOR-FXD 220PF +-20% 100VDC CER	20932	5024EM100RD221M
A52C2	0160-3879	7	7	CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A52C3	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A52C4	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A52C5	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A52C6	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A52C7	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A52C8	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A52C9	0160-0576	5	8	CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A52C10	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A52C11	0160-0570	9		CAPACITOR-FXD 220PF +-20% 100VDC CER	20932	5024EM100RD221M
A52C14	0140-0205	5	2	CAPACITOR-FXD 62PF +-5% 300VDC MICA	72136	DM15E620J0300WV1CR
A52C15	0160-2204	0	1	CAPACITOR-FXD 100PF +-5% 300VDC MICA	28480	0160-2204
A52C16	0140-0205	5		CAPACITOR-FXD 62PF +-5% 300VDC MICA	72136	DM15E620J0300WV1CR
A52C17	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A52C18	0160-2266	4	2	CAPACITOR-FXD 24PF +-5% 500VDC CER 0+-30	28480	0160-2266
A52C19	0160-2266	4		CAPACITOR-FXD 24PF +-5% 500VDC CER 0+-30	28480	0160-2266
A52C20	0180-1746	5	2	CAPACITOR-FXD 15UF+-10% 20VDC TA	56289	150D156X9020B2
A52C21	0180-1746	5		CAPACITOR-FXD 15UF+-10% 20VDC TA	56289	150D156X9020B2
A52C22	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A52C23	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A52C24	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A52C25	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A52C26	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A52C28	0180-2651	3	1	CAPACITOR-FXD 470UF+75-10% 16VDC AL	56289	500D477H016DF7
A52CR1	1902-0041	4	1	DIODE-ZNR 5.11V 5% DO-35 PD=.4W	28480	1902-0041
A52J1	1250-1512	3	2	CONNECTOR-RF SMB M PC 50-OHM	28480	1250-1512
A52J2	1250-1512	3		CONNECTOR-RF SMB M PC 50-OHM	28480	1250-1512
A52L1	9100-3560	6	2	INDUCTOR RF-CH-MLD 5.6UH 5% .166DX.385LG	28480	9100-3560
A52L2	9100-3560	6		INDUCTOR RF-CH-MLD 5.6UH 5% .166DX.385LG	28480	9100-3560
A52L3	9140-0400	1	2	INDUCTOR RF-CH-MLD 8.2UH 5% .166DX.385LG	28480	9140-0400
A52L4	9140-0400	1		INDUCTOR RF-CH-MLD 8.2UH 5% .166DX.385LG	28480	9140-0400
A52L5	9140-0398	6	1	INDUCTOR RF-CH-MLD 12UH 5% .166DX.385LG	28480	9140-0398
A52L6	9140-0237	2	2	INDUCTOR RF-CH-MLD 200UH 5% .166DX.385LG	28480	9140-0237
A52L7	9140-0237	2		INDUCTOR RF-CH-MLD 200UH 5% .166DX.385LG	28480	9140-0237
A52L8	9100-0541	7	1	INDUCTOR RF-CH-MLD 250UH 10% .250DX.5LG	28480	9100-0541
A52Q1	1853-0036	2	1	TRANSISTOR PNP SI PD=310MW FT=250MHZ	28480	1853-0036
A52Q2	1854-0215	1	1	TRANSISTOR NPN SI PD=350MW FT=300MHZ	04713	2N3904
A52R1	0757-0398	4	2	RESISTOR 75 1% .125W F TC=0+-100	24546	C4-1/8-T0-75R0-F
A52R2	0683-4305	4	5	RESISTOR 43 5% .25W FC TC=-400/+500	01121	CB4305
A52R3	0757-0398	4		RESISTOR 75 1% .125W F TC=0+-100	24546	C4-1/8-T0-75R0-F
A52R4	0683-4305	4		RESISTOR 43 5% .25W FC TC=-400/+500	01121	CB4305
A52R5	0683-4305	4		RESISTOR 43 5% .25W FC TC=-400/+500	01121	CB4305
A52R6	0683-4305	4		RESISTOR 43 5% .25W FC TC=-400/+500	01121	CB4305
A52R7	0683-3005	9	2	RESISTOR 30 5% .25W FC TC=-400/+500	01121	CB3005
A52R8	0683-3005	9		RESISTOR 30 5% .25W FC TC=-400/+500	01121	CB3005
A52R9	0757-0411	2	1	RESISTOR 332 1% .125W F TC=0+-100	24546	C4-1/8-T0-332R-F
A52R10	0757-0291	6	2	RESISTOR 24.9 1% .125W F TC=0+-100	19701	MF4C1/8-T0-2492-F
A52R11	0698-4396	4	1	RESISTOR 80.6 1% .125W F TC=0+-100	24546	C4-1/8-T0-80R6-F
A52R12	0757-0412	3	1	RESISTOR 365 1% .125W F TC=0+-100	24546	C4-1/8-T0-365R-F
A52R13	0698-4439	6	1	RESISTOR 3.24K 1% .125W F TC=0+-100	24546	C4-1/8-T0-3241-F
A52R14	0698-3511	3	4	RESISTOR 665 1% .125W F TC=0+-100	24546	C4-1/8-T0-665R-F
A52R15	0757-0282	5	1	RESISTOR 221 1% .125W F TC=0+-100	24546	C4-1/8-T0-221R-F
A52R16	0698-3511	3		RESISTOR 665 1% .125W F TC=0+-100	24546	C4-1/8-T0-665R-F
A52R17	0683-1515	2	1	RESISTOR 150 5% .25W FC TC=-400/+600	01121	CB1515
A52R18	0683-1025	9	3	RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A52R19	0683-1025	9		RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A52R20	0683-1025	9		RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A52R21	0698-3511	3		RESISTOR 665 1% .125W F TC=0+-100	24546	C4-1/8-T0-665R-F
A52R23	0683-4305	4		RESISTOR 43 5% .25W FC TC=-400/+500	01121	CB4305
A52R24	0698-3511	3		RESISTOR 665 1% .125W F TC=0+-100	24546	C4-1/8-T0-665R-F
A52R25	0757-0291	6		RESISTOR 24.9 1% .125W F TC=0+-100	19701	MF4C1/8-T0-2492-F
A52U1	1826-0598	4	1	IC 14-DIP-P PKG	04713	MC12002P
A52U1	1200-0474	9	1	SOCKET-IC 14-CONT DIP-SLDR	28480	1200-0474
A52U2	1820-0810	1	1	IC RCVR ECL LINE RCVR TPL 2-INP	04713	MC10116P
	9170-0894	0	1	CORE-SHIELDING BEAD	28480	9170-0894

See introduction to this section for ordering information
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Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A53	03586-66553	5	1	SUM PHASE DETECTOR (3586A/B/C)	28480	03586-66553
A53C2	0160-3879	7	9	CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A53C4	0160-0576	5	6	CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A53C5	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A53C6	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A53C7	0160-3877	5	5	CAPACITOR-FXD 100PF +-20% 200VDC CER	28480	0160-3877
A53C8	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A53C9	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A53C10	0160-0127	2	3	CAPACITOR-FXD 1UF +-20% 25VDC CER	28480	0160-0127
A53C11	0160-3877	5		CAPACITOR-FXD 100PF +-20% 200VDC CER	28480	0160-3877
A53C12	0160-3877	5		CAPACITOR-FXD 100PF +-20% 200VDC CER	28480	0160-3877
A53C14	0160-0161	4	1	CAPACITOR-FXD .01UF +-10% 200VDC POLYE	28480	0160-0161
A53C15	0160-0301	4	1	CAPACITOR-FXD .012UF +-10% 200VDC POLYE	28480	0160-0301
A53C16	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A53C17	0160-0127	2		CAPACITOR-FXD 1UF +-20% 25VDC CER	28480	0160-0127
A53C18	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A53C19	0160-0571	0	3	CAPACITOR-FXD 470PF +-20% 100VDC CER	28480	0160-0571
A53C20	0160-0571	0		CAPACITOR-FXD 470PF +-20% 100VDC CER	28480	0160-0571
A53C21	0160-3877	5		CAPACITOR-FXD 100PF +-20% 200VDC CER	28480	0160-3877
A53C22	0180-1746	5	2	CAPACITOR-FXD 15UF+-10% 20VDC TA	56289	150D156X9020B2
A53C23	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A53C24	0180-1746	5		CAPACITOR-FXD 15UF+-10% 20VDC TA	56289	150D156X9020B2
A53C25	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A53C26	0160-3877	5		CAPACITOR-FXD 100PF +-20% 200VDC CER	28480	0160-3877
A53C27	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A53C28	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A53C29	0160-0571	0		CAPACITOR-FXD 470PF +-20% 100VDC CER	28480	0160-0571
A53C30	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A53C31	0180-2651	3	1	CAPACITOR-FXD 470UF+75-10% 16VDC AL	56289	500D477H016DF7
A53C32	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A53C33	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A53C35	0160-0127	2		CAPACITOR-FXD 1UF +-20% 25VDC CER	28480	0160-0127
A53CR2	1901-0040	1	6	DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
A53CR3	1901-0040	1		DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
A53CR4	1901-0040	1		DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
A53CR5	1901-0040	1		DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
A53CR6	1901-0040	1		DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
A53CR7	1901-0040	1		DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
A53DS1	1990-0486	6	1	LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	5082-4684
A53J1	1250-1339	2	1	CONNECTOR-RF SM-SLD M PC 50-OHM	28480	1250-1339
A53L1	9100-3560	6	1	INDUCTOR RF-CH-MLD 5.6UH 5% .166DX.385LG	28480	9100-3560
A53L2	9140-0398	6	1	INDUCTOR RF-CH-MLD 12UH 5% .166DX.385LG	28480	9140-0398
A53L3	9100-1636	3	2	INDUCTOR RF-CH-MLD 110UH 5% .166DX.385LG	28480	9100-1636
A53L4	9100-1636	3		INDUCTOR RF-CH-MLD 110UH 5% .166DX.385LG	28480	9100-1636
A53L5	9140-0144	0	3	INDUCTOR RF-CH-MLD 4.7UH 10% .105DX.26LG	28480	9140-0144
A53L6	9140-0144	0		INDUCTOR RF-CH-MLD 4.7UH 10% .105DX.26LG	28480	9140-0144
A53L7	9140-0144	0		INDUCTOR RF-CH-MLD 4.7UH 10% .105DX.26LG	28480	9140-0144
A53L8	9100-0541	7	1	INDUCTOR RF-CH-MLD 250UH 10% .25DX.5LG	28480	9100-0541
A53Q1	1853-0036	2	4	TRANSISTOR PNP SI PD=310MW FT=250MHZ	28480	1853-0036
A53Q2	1854-0215	1	3	TRANSISTOR NPN SI PD=350MW FT=300MHZ	04713	2N3904
A53Q3	1854-0215	1		TRANSISTOR NPN SI PD=350MW FT=300MHZ	04713	2N3904
A53Q4	1853-0036	2		TRANSISTOR PNP SI PD=310MW FT=250MHZ	28480	1853-0036
A53Q5	1854-0215	1		TRANSISTOR NPN SI PD=350MW FT=300MHZ	04713	2N3904
A53Q6	1853-0036	2		TRANSISTOR PNP SI PD=310MW FT=250MHZ	28480	1853-0036
A53Q7	1853-0036	2		TRANSISTOR PNP SI PD=310MW FT=250MHZ	28480	1853-0036
A53R1	0698-6338	8	1	RESISTOR 5K 1% .125W F TC=0+-25	28480	0698-6338
A53R2	0698-7960	4	2	RESISTOR 7.87K 1% .125W F TC=0+-25	19701	MF4C1/8-T9-7871-F
A53R3	2100-3353	8	1	RESISTOR-TRMR 20K 10% C SIDE-ADJ 1-TRN	28480	2100-3353
A53R4	0698-6871	4	1	RESISTOR 10K .5% .125W F TC=0+-50	28480	0698-6871
A53R5	0698-7960	4		RESISTOR 7.87K 1% .125W F TC=0+-25	19701	MF4C1/8-T9-7871-F
A53R6	0757-0449	6	1	RESISTOR 20K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2002-F
A53R7	0757-0283	6	5	RESISTOR 2K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2001-F
A53R8	0757-0469	0	1	RESISTOR 150K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1503-F
A53R9	0698-4493	2	3	RESISTOR 34K 1% .125W F TC=0+-100	24546	C4-1/8-T0-3402-F
A53R10	0757-0283	6		RESISTOR 2K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2001-F
A53R11	0698-3264	3	2	RESISTOR 11.8K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1182-F
A53R12	0683-3315	4	17	RESISTOR 330 5% .25W FC TC=-400/+600	01121	CB3315
A53R13	2100-3274	2	1	RESISTOR-TRMR 10K 10% C SIDE-ADJ 1-TRN	28480	2100-3274
A53R14	0757-0346	2	7	RESISTOR 10 1% .125W F TC=0+-100	24546	C4-1/8-T0-10R0-F
A53R15	0683-1025	9	5	RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A53R16	0757-0442	9	6	RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A53R18	0683-4705	8	8	RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A53R19	0757-0346	2		RESISTOR 10 1% .125W F TC=0+-100	24546	C4-1/8-T0-10R0-F
A53R20	0757-0346	2		RESISTOR 10 1% .125W F TC=0+-100	24546	C4-1/8-T0-10R0-F
A53R21	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A53R22	0757-0407	6	2	RESISTOR 200 1% .125W F TC=0+-100	24546	C4-1/8-T0-201-F
A53R23	0757-0346	2		RESISTOR 10 1% .125W F TC=0+-100	24546	C4-1/8-T0-10R0-F
A53R24	0757-0346	2		RESISTOR 10 1% .125W F TC=0+-100	24546	C4-1/8-T0-10R0-F
A53R25	0757-0411	2	2	RESISTOR 332 1% .125W F TC=0+-100	24546	C4-1/8-T0-332R-F
A53R26	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A53R27	0698-3264	3		RESISTOR 11.8K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1182-F
A53R28	0698-4435	2	1	RESISTOR 2.49K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2491-F
A53R29	0698-4493	2		RESISTOR 34K 1% .125W F TC=0+-100	24546	C4-1/8-T0-3402-F
A53R30	0757-0283	6		RESISTOR 2K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2001-F
A53R31	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A53R32	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A53R33	0683-3315	4		RESISTOR 330 5% .25W FC TC=-400/+600	01121	CB3315
A53R34	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A53R35	0757-0283	6		RESISTOR 2K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2001-F
A53R36	0683-3315	4		RESISTOR 330 5% .25W FC TC=-400/+600	01121	CB3315
A53R37	0683-3315	4		RESISTOR 330 5% .25W FC TC=-400/+600	01121	CB3315
A53R38	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A53R39	0698-4493	2		RESISTOR 34K 1% .125W F TC=0+-100	24546	C4-1/8-T0-3402-F
A53R40	0757-0280	3	2	RESISTOR 1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1001-F
A53R41	0683-1025	9		RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A53R42	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A53R43	0683-3315	4		RESISTOR 330 5% .25W FC TC=-400/+600	01121	CB3315
A53R44	0683-3315	4		RESISTOR 330 5% .25W FC TC=-400/+600	01121	CB3315
A53R45	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A53R46	0683-3315	4		RESISTOR 330 5% .25W FC TC=-400/+600	01121	CB3315
A53R47	0683-1025	9		RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A53R48	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A53R49	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A53R50	0757-0407	6		RESISTOR 200 1% .125W F TC=0+-100	24546	C4-1/8-T0-201-F
A53R51	0757-0346	2		RESISTOR 10 1% .125W F TC=0+-100	24546	C4-1/8-T0-10R0-F
A53R52	0757-0346	2		RESISTOR 10 1% .125W F TC=0+-100	24546	C4-1/8-T0-10R0-F
A53R53	0698-3557	7	1	RESISTOR 806 1% .125W F TC=0+-100	24546	C4-1/8-T0-806R-F
A53R54	0757-0280	3		RESISTOR 1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1001-F
A53R55	0757-0283	6		RESISTOR 2K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2001-F
A53R56	0698-3495	2	1	RESISTOR 866 1% .125W F TC=0+-100	24546	C4-1/8-T0-866R-F
A53R57	0757-0411	2		RESISTOR 332 1% .125W F TC=0+-100	24546	C4-1/8-T0-332R-F
A53R58	0683-1025	9		RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A53R59	0683-3315	4		RESISTOR 330 5% .25W FC TC=-400/+600	01121	CB3315
A53R60	0683-3315	4		RESISTOR 330 5% .25W FC TC=-400/+600	01121	CB3315
A53R61	0683-2415	3	1	RESISTOR 240 5% .25W FC TC=-400/+600	01121	CB2415
A53R62	0683-1025	9		RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A53R63	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A53R64	0683-3315	4		RESISTOR 330 5% .25W FC TC=-400/+600	01121	CB3315
A53R65	0683-3315	4		RESISTOR 330 5% .25W FC TC=-400/+600	01121	CB3315
A53R66	0683-3315	4		RESISTOR 330 5% .25W FC TC=-400/+600	01121	CB3315
A53R67	0683-3315	4		RESISTOR 330 5% .25W FC TC=-400/+600	01121	CB3315
A53R69	0683-3315	4		RESISTOR 330 5% .25W FC TC=-400/+600	01121	CB3315
A53R70	0683-3315	4		RESISTOR 330 5% .25W FC TC=-400/+600	01121	CB3315
A53R71	0683-3315	4		RESISTOR 330 5% .25W FC TC=-400/+600	01121	CB3315
A53R72	0683-3315	4		RESISTOR 330 5% .25W FC TC=-400/+600	01121	CB3315
A53R73	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A53U1	1826-0043	4	2	IC OP AMP GP TO-99 PKG	3L585	CA307T
A53U2	1826-0043	4		IC OP AMP GP TO-99 PKG	3L585	CA307T
A53U3	1826-0678	1	1	IC OP AMP GP DUAL TO-99 PKG	27014	LM358H
A53U4	1820-0802	1	1	IC GATE ECL NOR QUAD 2-INP	04713	MC10102P
A53U5	1820-0803	2	1	IC GATE ECL OR-NOR TPL	04713	MC10105P
A53U6	1820-0817	8	1	IC FF ECL D-M/S DUAL	04713	MC10131P
A53U6	1200-0473	8	1	SOCKET-IC 16-CONT DIP DIP-SLDR	28480	1200-0473
A53U7	1820-0810	1	1	IC RCVR ECL LINE RCVR TPL 2-INP	04713	MC10116P

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	CD	Qty	Description	Mfr Code	Mfr Part Number
A60	03586-66560	4	1	CONTROLLER (3506A/B/C)	28480	03586-66560
A60C1	0180-0210	6	1	CAPACITOR-FXD 3.3UF+-20% 15VDC TA	56289	150D335X0015A2
A60C3	0160-3165	4	1	CAPACITOR-FXD .047UF +-2% 50VDC POLYE	28480	0160-3165
A60C4	0180-0228	6	3	CAPACITOR-FXD 22UF+-10% 15VDC TA	56289	150D226X9015B2
A60C5	0180-0228	6		CAPACITOR-FXD 22UF+-10% 15VDC TA	56289	150D226X9015B2
A60C6	0160-4571	8	14	CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A60C7	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A60C8	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A60C9	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A60C10	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A60C11	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A60C12	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A60C13	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A60C14	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A60C15	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A60C16	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A60C17	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A60C18	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A60C19	0160-3847	9	2	CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A60C20	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A60C21	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A60C29	0180-0309	4	1	CAPACITOR-FXD 4.7UF+-20% 10VDC TA	56289	150D475X0010A2
A60C30	0160-0127	2	3	CAPACITOR-FXD 1UF +-20% 25VDC CER	28480	0160-0127
A60C31	0160-2307	4	1	CAPACITOR-FXD 47PF +-5% 300VDC MICA	28480	0160-2307
A60C32	0160-0127	2		CAPACITOR-FXD 1UF +-20% 25VDC CER	28480	0160-0127
A60C33	0140-0200	0	1	CAPACITOR-FXD 390PF +-5% 300VDC MICA	72136	DM15F391J0300WV1CR
A60C34	0160-0127	2		CAPACITOR-FXD 1UF +-20% 25VDC CER	28480	0160-0127
A60C36	0180-0228	6		CAPACITOR-FXD 22UF+-10% 15VDC TA	56289	150D226X9015B2
A60C37	0160-0363	8	1	CAPACITOR-FXD 620PF +-5% 300VDC MICA	28480	0160-0363
A60CR1	1901-0040	1	4	DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
A60CR2	1901-0040	1		DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
A60CR4	1901-0518	8	2	DIODE-SM SIG SCHOTTKY	28480	1901-0518
A60CR5	1901-0518	8		DIODE-SM SIG SCHOTTKY	28480	1901-0518
A60CR6	1901-0040	1		DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
A60CR7	1901-0535	9	1	DIODE-SM SIG SCHOTTKY	28480	1901-0535
A60CR8	1901-0040	1		DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
A60J1	1810-0307	0	1	NETWORK-CNDCT MODULE DIP; 16 PINS; 0.100	28480	1810-0307
A60L1	9100-0541	7	2	INDUCTOR RF-CH-MLD 250UH 10% .25DX.5LG	28480	9100-0541
A60L2	9100-0541	7		INDUCTOR RF-CH-MLD 250UH 10% .25DX.5LG	28480	9100-0541
A60L3	9100-1628	3	1	INDUCTOR RF-CH-MLD 43UH 5% .166DX.385LG	28480	9100-1628
A60Q1	1853-0020	4	1	TRANSISTOR PNP SI PD=300MW FT=150MHZ	28480	1853-0020
A60R1	0683-2015	9	3	RESISTOR 200 5% .25W FC TC=-400/+600	01121	CB2015
A60R2	0757-0465	6	1	RESISTOR 100K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1003-F
A60R3	0683-3025	3	4	RESISTOR 3K 5% .25W FC TC=-400/+700	01121	CB3025
A60R4	0683-3025	3		RESISTOR 3K 5% .25W FC TC=-400/+700	01121	CB3025
A60R5	1810-0269	3	4	NETWORK-RES 9-SIP10.0K OHM X 8	28480	1810-0269
A60R6	0683-2415	3	1	RESISTOR 240 5% .25W FC TC=-400/+630	01121	CB2415
A60R7	0683-2015	9		RESISTOR 200 5% .25W FC TC=-400/+600	01121	CB2015
A60R8	0683-3025	3		RESISTOR 3K 5% .25W FC TC=-400/+700	01121	CB3025
A60R9	0683-3025	3		RESISTOR 3K 5% .25W FC TC=-400/+700	01121	CB3025
A60R10	0757-0288	1	1	RESISTOR 9.09K 1% .125W F TC=0+-100	19701	MF4C1/8-T0-9091-F
A60R11	0683-1055	5	1	RESISTOR 1M 5% .25W FC TC=-800/+900	01121	CB1055
A60R12	0683-2015	9		RESISTOR 200 5% .25W FC TC=-400/+600	01121	CB2015
A60R13	0683-4715	0	2	RESISTOR 470 5% .25W FC TC=-400/+600	01121	CB4715
A60R14	0683-4715	0		RESISTOR 470 5% .25W FC TC=-400/+600	01121	CB4715
A60R15	1810-0206	8	1	NETWORK-RES 8-SIP10.0K OHM X 7	01121	208A103
A60R16	1810-0269	3		NETWORK-RES 9-SIP10.0K OHM X 8	28480	1810-0269
A60R17	0698-4487	4	1	RESISTOR 25.5K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2552-F
A60R18	0683-2025	1	2	RESISTOR 2K 5% .25W FC TC=-400/+700	01121	CB2025
A60R19	0698-4486	3	2	RESISTOR 24.9K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2492-F
A60R20	0683-3915	0	1	RESISTOR 390 5% .25W FC TC=-400/+630	01121	CB3915
A60R21	0757-0464	5	1	RESISTOR 90.9K 1% .125W F TC=0+-100	24546	C4-1/8-T0-9092-F
A60R22	1810-0269	3		NETWORK-RES 9-SIP10.0K OHM X 8	28480	1810-0269
A60R23	1810-0269	3		NETWORK-RES 9-SIP10.0K OHM X 8	28480	1810-0269
A60R24	0683-5135	0	2	RESISTOR 51K 5% .25W FC TC=-400/+800	01121	CB5135
A60R25	0683-5135	0		RESISTOR 51K 5% .25W FC TC=-400/+800	01121	CB5135
A60R26	0683-2025	1		RESISTOR 2K 5% .25W FC TC=-400/+700	01121	CB2025
A60R27	0683-1015	7	1	RESISTOR 100 5% .25W FC TC=-400/+500	01121	CB1015
A60R28	0698-4486	3		RESISTOR 24.9K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2492-F
A60R30	0683-5105	4	1	RESISTOR 51 5% .25W FC TC=-400/+500	01121	CB5105

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A60S1	3101-1860	1	1	SWITCH-SL 5-1A DIP-SLIDE-ASSY .1A 50VDC	28480	3101-1860
A60S2	3101-2094	5	1	SWITCH-RKR DIP-RKR-ASSY 8-1A .05A 30VDC	28480	3101-2094
A60U1	1820-1759	9	2	IC BFR TTL LS NON-INV OCTL	27014	DM81LS97N
A60U2	1820-1204	9	1	IC GATE TTL LS NAND DUAL 4-INP	01295	SN74LS20N
A60U3	1820 1112	8	1	IC FF TTL LS D-TYPE POS-EDGE-TRIG	01295	SN74LS74AN
A60U4	1820-1199	1	3	IC INV TTL LS HEX 1-INP	01295	SN74LS04N
A60U5	1820-2036	7	1	IC DRVR NMOS CLOCK DRVR	04713	MC6875L
A60U6	1820-1480	3	1	IC MICPROC NMOS 8-BIT	04713	MC6800L
A60U6	1200-0659	2	2	SOCKET-IC 40-CONT DIP-SLDR	28480	1200-0659
A60U7*	1818-1159	8	1	IC NMOS 32768 (32K) ROM 450-NS 3-S	55576	SYP2332 MASKED
A60U7	1818-1515	0	1	IC NMOS 32768 (32K) ROM 450-NS 3-S	33297	EA8332APC MASKED
	1200-0658	1	6	SOCKET-IC 24-CONT DIP-SLDR	28480	1200-0658
A60U8	1818-1158	7	1	IC NMOS 32768 (32K) ROM 450-NS 3-S	55576	SYP2332 MASKED
A60U8	1818-1514	9	1	IC NMOS 32768 (32K) ROM 450-NS 3-S	33297	EA8332APC MASKED
	1200-0658	1		SOCKET-IC 24-CONT DIP-SLDR	28480	1200-0658
A60U9	1818-1157	6	1	IC NMOS 32768 (32K) ROM 450-NS 3-S	55576	SYP2332 MASKED
A60U9	1818-1513	8	1	IC NMOS 32768 (32K) ROM 450-NS 3-S	33297	EA8332APC MASKED
	1200-0658	1		SOCKET-IC 24-CONT DIP-SLDR	28480	1200-0658
A60U10	1818-1156	5	1	IC NMOS 32768 (32K) ROM 450-NS 3-S	55576	SYP2332 MASKED
A60U10	1818-1512	7	1	IC NMOS 32768 (32K) ROM 450-NS 3-S	33297	EA8332APC MASKED
	1200-0658	1		SOCKET-IC 24-CONT DIP-SLDR	28480	1200-0658
A60U11	1818-1155	4	1	IC NMOS 32768 (32K) ROM 450-NS 3-S	55576	SYP2332 MASKED
A60U11	1818-1511	6	1	IC NMOS 32768 (32K) ROM 450-NS 3-S	33297	EA8332APC MASKED
	1200-0658	1		SOCKET-IC 24-CONT DIP-SLDR	28480	1200-0658
A60U12	1818-1154	3	1	IC NMOS 32768 (32K) ROM 450-NS 3-S	55576	SYP2332 MASKED
A60U12	1818-1510	5	1	IC NMOS 32768 (32K) ROM 450-NS 3-S	33297	EA8332APC MASKED
	1200-0658	1		SOCKET-IC 24-CONT DIP-SLDR	28480	1200-0658
A60U13	1820-1759	9		IC BFR TTL LS NON-INV OCTL	27014	DM81LS97N
A60U13	1200-0700	4	1	SOCKET-IC 20-CONT DIP DIP-SLDR	28480	1200-0700
A60U14	1818-0438	4	2	IC NMOS 4096 (4K) STAT RAM 450-NS 3-S	01295	TMS2114-45NL
A60U16	1818-0438	4		IC NMOS 4096 (4K) STAT RAM 450 NS 3-S	01295	TMS2114-45NL
A60U18	1820-1481	4	1	IC NMOS	04713	MC6821L
A60U18	1200-0659	2		SOCKET-IC 40-CONT DIP-SLDR	28480	1200-0659
A60U19	1820-1975	1	1	IC SHF-RGTR TTL LS NEG-EDGE-TRIG PRL-IN	01295	SN74LS165N
A60U20	1826-0119	5	1	IC TIMER TTL MONO/ASTBL	18324	NE555T
A60U21	1820-1730	6	2	IC FF TTL LS D-TYPE POS-EDGE-TRIG COM	01295	SN74LS273N
A60U22	1020-1730	6		IC FF TTL LS D-TYPE POS-EDGE-TRIG COM	01295	SN74LS273N
A60U23	1826-0626	3	1	IC COMPARATOR PRCN TO-99 PKG	01295	LM311L
A60U24	1820-1216	3	4	IC DCDR TTL LS 3-TO-8-LINE 3-INP	01295	SN74LS138N
A60U25	1820-1208	3	1	IC GATE TTL LS OR QUAD 2-INP	01295	SN74LS32N
A60U26	1820-1216	3		IC DCDR TTL LS 3-TO-8-LINE 3-INP	01295	SN74LS138N
A60U27	1820-1199	1		IC INV TTL LS HEX 1-INP	01295	SN74LS04N
A60U28	1810-1009	7	2	IC CMOS 1024 (1K) STAT RAM 360-NS 3-S	32293	IM65X61-CJN
A60U29	1818-1009	7		IC CMOS 1024 (1K) STAT RAM 360-NS 3-S	32293	IM65X61-CJN
A60U30	1820-1216	3		IC DCDR TTL LS 3-TO-8-LINE 3-INP	01295	SN74LS138N
A60U31	1820-1216	3		IC DCDR TTL LS 3-TO-8-LINE 3-INP	01295	SN74LS138N
A60U32	1820-1199	1		IC INV TTL LS HEX 1-INP	01295	SN74LS04N
A60U33	1820-1201	6	2	IC GATE TTL LS AND QUAD 2-INP	01295	SN74LS08N
A60U34	1820-1367	5	1	IC GATE TTL S AND QUAD 2-INP	01295	SN74S08N
A60U35	1820-1201	6		IC GATE TTL LS AND QUAD 2-INP	01295	SN74LS08N
A60U36	1820-1238	9	2	IC MUXR/DATA SEL TTL LS 4-TO-1-LINE DUAL	01295	SN74LS253N
A60U37	1826-0759	9	1	IC COMPARATOR GP QUAD 14-DIP-C PKG	04713	LM339J
A60U38	1820-1238	9		IC MUXR/DATA-SEL TTL LS 4-TO-1-LINE DUAL	01295	SN74LS253N
A60U39	1820-1298	1	4	IC MUXR/DATA-SEL TTL LS 8-TO-1-LINE	01295	SN74LS251N
A60U40	1820-1298	1		IC MUXR/DATA-SEL TTL LS 8-TO-1-LINE	01295	SN74LS251N
A60U41	1820-1298	1		IC MUXR/DATA-SEL TTL LS 8-TO-1-LINE	01295	SN74LS251N
A60U42	1820-1298	1		IC MUXR/DATA-SEL TTL LS 8-TO-1-LINE	01295	SN74LS251N
	4040-0747	2	1	EXTR-PC BD GRA POLYC .062-BD-THKNS	28480	4040-0747
	4040-0748	3	1	EXTR-PC BD BLK POLYC .062-BD-THKNS	28480	4040-0748
	1200-0539	7	2	SOCKET-IC 18-CONT DIP DIP-SLDR	28480	1200-0539

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A61	03586-66561	5	1	HP INTERFACE BUS (3586A/B/C)	28480	03586-66561
A61C1	0160-4571	8	1	CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A61C2	0180-0228	6	2	CAPACITOR-FXD 22UF+-10% 15VDC TA	56289	150D226X9015B2
A61C3	0180-0228	6		CAPACITOR-FXD 22UF+-10% 15VDC TA	56289	150D226X9015B2
A61C4	0160-3847	9	9	CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A61C5	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A61C6	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A61C7	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A61C8	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A61C9	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A61C10	0160-3847	9		CAPACITOR-FXD .01UF +100 0% 50VDC CER	28480	0160-3847
A61C11	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A61C12	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A61CR1	1902-3036	3	2	DIODE-ZNR 3.16V 5% DO-7 PD=.4W TC=-.064%	28480	1902-3036
A61CR2	1902-3036	3		DIODE-ZNR 3.16V 5% DO-7 PD=.4W TC=-.064%	28480	1902-3036
A61L1	9100-4031	8	1	TRANSFORMER IND: 2.25 MAY -10%, +50%, DC	28480	9100-4031
A61L2	9100-0541	7	1	INDUCTOR RF-CH-MLD 250UH 10% .25DX.5LG	28480	9100-0541
A61L3*	9100-1636	3	1	INDUCTOR RF-CH-MLD 110UH 5% .166DX.385LG	28480	9100-1636
A61L3*	9100-1637	4	1	INDUCTOR RF-CH-MLD 120UH 5% .166DX.385LG	28480	9100-1637
A61L3*	9100-1638	5	1	INDUCTOR RF-CH-MLD 130UH 5% .166DX.385LG	28480	9100-1638
A61L3*	9100-1639	6	1	INDUCTOR RF-CH-MLD 150UH 5% .166DX.385LG	28480	9100-1639
A61L3*	9100-1640	9	1	INDUCTOR RF-CH-MLD 160UH 5% .166DX.385LG	28480	9100-1640
A61L3*	9140-0129	1	1	INDUCTOR RF-CH-MLD 220UH 5% .166DX.385LG	28480	9140-0129
A61L3*	9140-0138	2	1	INDUCTOR RF-CH-MLD 180UH 5% .166DX.385LG	28480	9140-0138
A61L3*	9140-0210	1	1	INDUCTOR RF-CH-MLD 100UH 5% .166DX.385LG	28480	9140-0210
A61L3*	9140-0237	2	1	INDUCTOR RF-CH-MLD 200UH 5% .166DX.385LG	28480	9140-0237
A61R1	1810-0329	6	5	NETWORK-RES 10-SIP7.5K OHM X 9	01121	210A752
A61R2	1810-0329	6		NETWORK-RES 10-SIP7.5K OHM X 9	01121	210A752
A61R3	1810-0329	6		NETWORK-RES 10-SIP7.5K OHM X 9	01121	210A752
A61R4	1810-0329	6		NETWORK-RES 10-SIP7.5K OHM X 9	01121	210A752
A61R5	1810-0329	6		NETWORK-RES 10-SIP7.5K OHM X 9	01121	210A752
A61R6	0683-1025	9	1	RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A61R7	0683-7505	2	2	RESISTOR 75 5% .25W FC TC=-400/+500	01121	CB7505
A61R8	0683-7505	2		RESISTOR 75 5% .25W FC TC=-400/+500	01121	CB7505
A61R9	0757-0280	3	1	RESISTOR 1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1001-F
A61R10	8150-3375	5	1	RESISTOR-ZERO OHMS 22 AWG LEAD DIA	28480	8150-3375
A61U1	1820-2176	6	1	IC MICPROC NMOS 8-BIT	28480	1820-2176
A61U1	1200-0659	2	1	SOCKET-IC 40-CONT DIP-SLDR	28480	1200-0659
A61U2	1820-1689	4	4	IC UART TTL QUAD	01295	MC3446P
A61U3	1820-1689	4		IC UART TTL QUAD	01295	MC3446P
A61U4	1820-1689	4		IC UART TTL QUAD	01295	MC3446P
A61U5	1820-1689	4		IC UART TTL QUAD	01295	MC3446P
A61U6	1826-0759	9	9	IC COMPARATOR GP QUAD 14-DIP C PKG	04713	LM339J
A61U7	1826-0759	9		IC COMPARATOR GP QUAD 14-DIP-C PKG	04713	LM339J
A61U8	1826-0759	9		IC COMPARATOR GP QUAD 14-DIP-C PKG	04713	LM339J
A61U9	1826-0759	9		IC COMPARATOR GP QUAD 14-DIP-C PKG	04713	LM339J
A61U10	1826-0759	9		IC COMPARATOR GP QUAD 14-DIP-C PKG	04713	LM339J
A61U11	1826-0759	9		IC COMPARATOR GP QUAD 14-DIP-C PKG	04713	LM339J
A61U12	1826-0759	9		IC COMPARATOR GP QUAD 14-DIP C PKG	04713	LM339J
A61U13	1826-0759	9		IC COMPARATOR GP QUAD 14-DIP-C PKG	04713	LM339J
A61U14	1820-1491	6	2	IC BFR TTL LS NON-INV HEX 1-INP	01295	SN74LS367AN
A61U15	1820-1491	6		IC BFR TTL LS NON-INV HEX 1-INP	01295	SN74LS367AN
A61U16	1820-1199	1	1	IC INV TTL LS HEX 1-INP	01295	SN74LS04N
A61U17	1820-1144	6	1	IC GATE TTL LS NOR QUAD 2-INP	01295	SN74LS02N
A61U18	1820-1201	6	2	IC GATE TTL LS AND QUAD 2-INP	01295	SN74LS08N
A61U19	1820-1197	9	1	IC GATE TTL LS NAND QUAD 2-INP	01295	SN74LS00N
A61U20	1820-1201	6		IC GATE TTL LS AND QUAD 2-INP	01295	SN74LS08N
A61U21	1820-1730	6	3	IC FF TTL LS D-TYPE POS-EDGE-TRIG COM	01295	SN74LS273N
A61U22	1820-1730	6		IC FF TTL LS D-TYPE POS-EDGE-TRIG COM	01295	SN74LS273N
A61U23	1820-1730	6		IC FF TTL LS D-TYPE POS-EDGE-TRIG COM	01295	SN74LS273N
A61U24	1820-1997	7	1	IC FF TTL LS D-TYPE POS-EDGE-TRIG PRL-IN	01295	SN74LS374N
A61U25	1820-1112	8	1	IC FF TTL LS D-TYPE POS-EDGE-TRIG	01295	SN74LS74AN
A61U26	1820-1759	9	1	IC BFR TTL LS NON-INV OCTL	27014	DM81LS97N
A61U27	1820-1492	7	1	IC BFR TTL LS INV HEX 1-INP	01295	SN74LS369AN
A61U28	1820-1195	7	1	IC FF TTL LS D-TYPE POS-EDGE-TRIG COM	01295	SN74LS175N
A61U29	1818-1530	9	1	IC NMOS 16384 (16K) ROM 450-NS 3-S	33297	EA0316EPC MASKED
A61U29	1200-0658	1	1	SOCKET-IC 24-CONT DIP-SLDR	28480	1200-0658
A61U30	1820-1212	9	1	IC FF TTL LS J-K NEG-EDGE-TRIG	01295	SN74LS112AN
A61U31	1826-0759	9		IC COMPARATOR GP QUAD 14-DIP-C PKG	04713	LM339J
	1200-0539	7	2	SOCKET-IC 18-CONT DIP DIP-SLDR	28480	1200-0539

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A62	03586-66562	6	1	HP INTERFACE BUS-SUB PC	28480	03586-66562
A62J1	1251-5768	1	1	CONNECTOR 24-PIN F AMP CHAMP	28480	1251-5768
A62S1	3101-2215	2	1	SWITCH-RKR DIP-RKR-ASSY 7-1A .05A 30VDC	28480	3101-2215
	8120-2887	9	1	CABLE ASSY-HP-IB	28480	8120-2887

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A70	03586-66570	6	1	IMPAIRMENTS-B (3586B)	28480	03586-66570
A70C1	0160-3024	4	4	CAPACITOR-FXD 1700PF +-1% 100VDC MICA	28480	0160-3024
A70C2	0160-3024	4		CAPACITOR-FXD 1700PF +-1% 100VDC MICA	28480	0160-3024
A70C4	0160-2130	1	2	CAPACITOR-FXD 865PF +-1% 100VDC MICA	28480	0160-2130
A70C5	0160-2130	1		CAPACITOR-FXD 865PF +-1% 100VDC MICA	28480	0160-2130
A70C6	0140-0163	4	4	CAPACITOR-FXD 4751PF +-1% 300VDC MICA	72136	DM20F4751F0300WV1CR
A70C7	0140-0163	4		CAPACITOR-FXD 4751PF +-1% 300VDC MICA	72136	DM20F4751F0300WV1CR
A70C8	0140-0163	4		CAPACITOR-FXD 4751PF +-1% 300VDC MICA	72136	DM20F4751F0300WV1CR
A70C9	0140-0163	4		CAPACITOR-FXD 4751PF +-1% 300VDC MICA	72136	DM20F4751F0300WV1CR
A70C10	0160-3024	4		CAPACITOR-FXD 1700PF +-1% 100VDC MICA	28480	0160-3024
A70C11	0160-3024	4		CAPACITOR-FXD 1700PF +-1% 100VDC MICA	28480	0160-3024
A70C30	0160-3548	7	9	CAPACITOR-FXD .01UF +-1% 100VDC MICA	28480	0160-3548
A70C31	0160-3337	2	3	CAPACITOR-FXD 10PF +-10% 50VDC CER 0+-30	28480	0160-3337
A70C32	0160-3548	7		CAPACITOR-FXD .01UF +-1% 100VDC MICA	28480	0160-3548
A70C33	0160-2585	0	1	CAPACITOR-FXD 2000PF +-1% 100VDC MICA	28480	0160-2585
A70C34	0160-3337	2		CAPACITOR-FXD 10PF +-10% 50VDC CER 0+-30	28480	0160-3337
A70C35	0160-3548	7		CAPACITOR-FXD .01UF +-1% 100VDC MICA	28480	0160-3548
A70C36	0160-3337	2		CAPACITOR-FXD 10PF +-10% 50VDC CER 0+-30	28480	0160-3337
A70C37	0160-3548	7		CAPACITOR-FXD .01UF +-1% 100VDC MICA	28480	0160-3548
A70C38	0160-3548	7		CAPACITOR-FXD .01UF +-1% 100VDC MICA	28480	0160-3548
A70C60	0180-0309	4	2	CAPACITOR-FXD 4.7UF+-20% 10VDC TA	56289	150D475X0010A2
A70C61	0160-4571	8	6	CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A70C62	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A70C63	0180-0309	4		CAPACITOR-FXD 4.7UF+-20% 10VDC TA	56289	150D475X0010A2
A70C64	0180-0228	6	1	CAPACITOR-FXD 22UF+-10% 15VDC TA	56289	150D226X9015B2
A70C65	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A70C66	0160-3847	9	23	CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A70C67	0160-2306	3	1	CAPACITOR-FXD 27PF +-5% 300VDC MICA	28480	0160-2306
A70C68	0140-0191	8	1	CAPACITOR-FXD 56PF +-5% 300VDC MICA	72136	DM15E560J0300WV1CR
A70C69	0160-0127	2	1	CAPACITOR-FXD 1UF +-20% 25VDC CER	28480	0160-0127
A70C70	0160-2204	0	1	CAPACITOR-FXD 130PF +-5% 300VDC MICA	28480	0160-2204
A70C71	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A70C72	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A70C73	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A70C74	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A70C75	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A70C76	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A70C77	0180-0374	3	5	CAPACITOR-FXD 10UF+-10% 20VDC TA	56289	150D106X9020B2
A70C80	0160-4557	0	4	CAPACITOR-FXD .1UF +-20% 50VDC CER	16299	CAC04X7R104M050A
A70C82	0180-0197	8	2	CAPACITOR-FXD 2.2UF+-10% 20VDC TA	56289	150D225X9020A2
A70C83	0160-3787	6	1	CAPACITOR-FXD 1UF +-10% 50VDC MET-POLYC	28480	0160-3787
A70C84	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A70C85	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A70C86	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A70C87	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A70C88	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A70C89	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A70C91	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A70C92	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A70C93	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A70C94	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A70C95	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A70C96	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A70C97	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A70C99	0160-4557	0		CAPACITOR-FXD .1UF +-20% 50VDC CER	16299	CAC04X7R104M050A
A70C110	0160-2587	2	2	CAPACITOR-FXD 4000PF +-1% 100VDC MICA	28480	0160-2587
A70C111	0160-2587	2		CAPACITOR-FXD 4000PF +-1% 100VDC MICA	28480	0160-2587
A70C112	0160-3939	0	1	CAPACITOR-FXD 1400PF +-1% 100VDC MICA	28480	0160-3939
A70C113	0160-3046	0	1	CAPACITOR-FXD 250PF +-1% 100VDC MICA	28480	0160-3046
A70C114	0160-3548	7		CAPACITOR-FXD .01UF +-1% 100VDC MICA	28480	0160-3548
A70C115	0160-4835	7	2	CAPACITOR-FXD .1UF +-10% 50VDC CER	28480	0160-4835
A70C116	0160-4835	7		CAPACITOR-FXD .1UF +-10% 50VDC CER	28480	0160-4835
A70C117	0180-0197	8		CAPACITOR-FXD 2.2UF+-10% 20VDC TA	56289	150D225X9020A2
A70C118	0160-3597	4	2	CAPACITOR-FXD 2UF +-10% 330VAC(RMS) PPR	28480	0160-3597
A70C119	0160-3587	4		CAPACITOR-FXD 2UF +-10% 330VAC(RMS) PPR	28480	0160-3587
A70C130	0160-2671	5	2	CAPACITOR-FXD .1UF +-5% 80VDC POLYE	28480	0160-2671
A70C131	0160-2671	5		CAPACITOR-FXD .1UF +-5% 80VDC POLYE	28480	0160-2671
A70C133	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A70C134	0180-0291	3	1	CAPACITOR-FXD 1UF+-10% 35VDC TA	56289	150D105X9035A2
A70C136	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A70C138	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847

See introduction to this section for ordering information
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Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A70C139	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A70C140	0160-3548	7		CAPACITOR-FXD .01UF +-1% 100VDC MICA	28480	0160-3548
A70C141	0140-0172	5	1	CAPACITOR-FXD 3300PF +-1% 100VDC MICA	72136	DM19F302F0100WV1CR
A70C142	0160-3548	7		CAPACITOR-FXD .01UF +-1% 100VDC MICA	28480	0160-3548
A70C143	0160-3936	7	1	CAPACITOR-FXD 700PF +-1% 100VDC MICA	28480	0160-3936
A70C144	0160-0341	2	1	CAPACITOR-FXD 640PF +-1% 300VDC MICA	28480	0160-0341
A70C145	0160-4463	7	1	CAPACITOR-FXD .1UF +-1% 50VDC MET-POLYC	28480	0160-4463
A70C146	0180-0374	3		CAPACITOR-FXD 10UF+-10% 20VDC TA	56289	150D106X9020B2
A70C147	0160-3548	7		CAPACITOR-FXD .01UF +-1% 100VDC MICA	28480	0160-3548
A70C148	0180-0374	3		CAPACITOR-FXD 10UF+-10% 20VDC TA	56289	150D106X9020B2
A70C150	0180-0374	3		CAPACITOR-FXD 10UF+-10% 20VDC TA	56289	150D106X9020B2
A70C151	0180-0374	3		CAPACITOR-FXD 10UF+-10% 20VDC TA	56289	150D106X9020B2
A70C160	0160-4801	7	2	CAPACITOR-FXD 100PF +-5% 100VDC CER	28480	0160-4801
A70C161	0160-4801	7		CAPACITOR-FXD 100PF +-5% 100VDC CER	28480	0160-4801
A70C162	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A70C163	0160-4557	0		CAPACITOR-FXD .1UF +-20% 50VDC CER	16299	CAC04X7R104M050A
A70C164	0160-4557	0		CAPACITOR-FXD .1UF +-20% 50VDC CER	16299	CAC04X7R104M050A
A70C165	0160-4814	2	1	CAPACITOR-FXD 150PF +-5% 100VDC CER	28480	0160-4814
A70C166	0160-4822	2	1	CAPACITOR-FXD 1000PF +-5% 100VDC CER	28480	0160-4822
A70C167	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A70C170	0180-0375	4	3	CAPACITOR-FXD 68UF+-10% 20VDC TA	56289	150D686X9020B2
A70C171	0180-0375	4		CAPACITOR-FXD 68UF+-10% 20VDC TA	56289	150D686X9020B2
A70C172	0180-0375	4		CAPACITOR-FXD 68UF+-10% 20VDC TA	56289	150D686X9020B2
A70CR1	1901-0050	3	11	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
A70CR2	1902-0048	1	1	DIODE-ZNR 6.81V 5% DO-35 PD=.4W	28480	1902-0048
A70CR3	1901-0033	2	1	DIODE-GEN PRP 180V 200MA DO-7	28480	1901-0033
A70CR4	1901-0050	3		DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
A70CR5	1901-0050	3		DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
A70CR8	1901-0518	8	1	DIODE-SM SIG SCHOTTKY	28480	1901-0518
A70CR9	1901-0050	3		DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
A70CR10	1901-0050	3		DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
A70CR11	1901-0050	3		DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
A70CR12	1901-0050	3		DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
A70CR13	1901-0050	3		DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
A70CR14	1901-0050	3		DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
A70CR15	1901-0050	3		DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
A70CR16	1901-0050	3		DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
A70CR19	1902-3104	6	1	DIODE-ZNR 5.62V 5% DO-35 PD=.4W	28480	1902-3104
A70E1	1990-0702	9	1	OPTO-ISOLATOR LED-PCNDCT IF=40MA-MAX	18178	VTL5C3/2
A70L1	9100-1631	8	3	INDUCTOR RF-CH-MLD 56UH 5% .166DX.385LG	28480	9100-1631
A70L2	9100-1631	8		INDUCTOR RF-CH-MLD 56UH 5% .166DX.385LG	28480	9100-1631
A70L3	9100-1631	8		INDUCTOR RF-CH-MLD 56UH 5% .166DX.385LG	28480	9100-1631
A70Q1	1854-0071	7	3	TRANSISTOR NPN SI PD=300MW FT=200MHZ	28480	1854-0071
A70Q3	1854-0071	7		TRANSISTOR NPN SI PD=300MW FT=200MHZ	28480	1854-0071
A70Q4	1854-0071	7		TRANSISTOR NPN SI PD=300MW FT=200MHZ	28480	1854-0071
A70Q5	1854-0215	1	2	TRANSISTOR NPN SI PD=350MW FT=300MHZ	04713	2N3904
A70Q6	1854-0215	1		TRANSISTOR NPN SI PD=350MW FT=300MHZ	04713	2N3904
A70R1	0698-7371	1	2	RESISTOR 20.605K .1% .125W F TC=0+-50	19701	MF4C1/8-T2-20605R-B
A70R2	0698-7371	1		RESISTOR 20.605K .1% .125W F TC=0+-50	19701	MF4C1/8-T2-20605R-B
A70R3	0698-7365	3	1	RESISTOR 13.394K .1% .125W F TC=0+-50	19701	MF4C1/8-T2-13394R-B
A70R4	0757-0449	6	6	RESISTOR 20K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2002-F
A70R5	0698-7372	2	3	RESISTOR 108.94K .1% .125W F TC=0+-50	19701	MF4C1/8-T2-108441-B
A70R6	0698-7376	6	1	RESISTOR 11.397K .1% .125W F TC=0+-50	19701	MF4C1/8-T2-11397R-B
A70R7	0757-0449	6		RESISTOR 20K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2002-F
A70R8	0698-7372	2		RESISTOR 108.94K .1% .125W F TC=0+-50	19701	MF4C1/8-T2-108441-B
A70R9	0698-7366	4	2	RESISTOR 139.64K .1% .125W F TC=0+-50	19701	MF4C1/8-T2-139641-B
A70R10	0698-7366	4		RESISTOR 139.64K .1% .125W F TC=0+-50	19701	MF4C1/8-T2-139641-B
A70R11	0698-7367	5	1	RESISTOR 78.028K .1% .125W F TC=0+-50	19701	MF4C1/8-T2-78028R-B
A70R12	0757-0449	6		RESISTOR 20K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2002-F
A70R13	0698-7368	6	2	RESISTOR 36.901K .1% .125W F TC=0+-50	19701	MF4C1/8-T2-36901R-B
A70R14	0698-7370	0	1	RESISTOR 17.579K .1% .125W F TC=0+-50	19701	MF4C1/8-T2-17579R-B
A70R15	0757-0449	6		RESISTOR 20K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2002-F
A70R16	0698-7368	6		RESISTOR 36.901K .1% .125W F TC=0+-50	19701	MF4C1/8-T2-36901R-B
A70R17	0698-7375	5	2	RESISTOR 28.64K .1% .125W F TC=0+-50	19701	MF4C1/8-T2-28641-B
A70R18	0698-7375	5		RESISTOR 28.64K .1% .125W F TC=0+-50	19701	MF4C1/8-T2-28641-B
A70R20	0698-3519	1	1	RESISTOR 12.4K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1242-F
A70R21	0757-0449	6		RESISTOR 20K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2002-F
A70R22	0757-0442	9	17	RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A70R23	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A70R24	0757-0450	9	1	RESISTOR 22.1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2212-F
A70R26	0698-7372	2		RESISTOR 108.94K .1% .125W F TC=0+-50	19701	MF4C1/8-T2-108441-B
A70R30	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A70R31	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A70R32	0698-4480	7	3	RESISTOR 15.8K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1502-F
A70R33	2100-3273	1	2	RESISTOR-TRMR 2K 10% C SIDE ADJ 1-TRN	28480	2100-3273
A70R34	0698-3156	2	2	RESISTOR 14.7K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1472-F
A70R35	0698-4495	4	2	RESISTOR 37.4K 1% .125W F TC=0+-100	24546	C4-1/8-T0-3742-F

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A70R36	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A70R37	0698-4480	7		RESISTOR 15.8K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1582-F
A70R38	0698-3268	7	2	RESISTOR 11.5K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1152-F
A70R39	0698-4503	5	1	RESISTOR 66.5K 1% .125W F TC=0+-100	24546	C4-1/8-T0-6652-F
A70R40	2100-3207	1	2	RESISTOR-TRMR 5K 10% C SIDE-ADJ 1-TRN	28480	2100-3207
A70R41	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A70R42	0698-4480	7		RESISTOR 15.8K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1582-F
A70R43	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A70R44	0698-3156	2		RESISTOR 14.7K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1472-F
A70R45	2100-3273	1		RESISTOR-TRMR 2K 10% C SIDE-ADJ 1-TRN	28480	2100-3273
A70R46	0698-4495	4		RESISTOR 37.4K 1% .125W F TC=0+-100	24546	C4-1/8-T0-3742-F
A70R47	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A70R48	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A70R49	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A70R50	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A70R51	0757-0451	0	1	RESISTOR 24.3K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2432-F
A70R52	0757-0434	9	1	RESISTOR 3.65K 1% .125W F TC=0+-100	24546	C4-1/8-T0-3651-F
A70R53	0757-0280	3	2	RESISTOR 1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1001-F
A70R60	0757-0447	4	1	RESISTOR 16.2K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1622-F
A70R61	0683-2715	6	1	RESISTOR 270 5% .25W FC TC=-400/+600	01121	CB2715
A70R62	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A70R63	0757-0465	6	3	RESISTOR 100K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1003-F
A70R64	0757-0453	2	1	RESISTOR 30.1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-3012-F
A70R66	0683-4725	2	1	RESISTOR 4.7K 5% .25W FC TC=-400/+700	01121	CB4725
A70R67	0683-2435	7	2	RESISTOR 24K 5% .25W FC TC=-400/+800	01121	CB2435
A70R68	0683-1025	9	3	RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A70R69	0698-4486	3	1	RESISTOR 24.9K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2492-F
A70R70	2100-3054	6	1	RESISTOR-TRMR 50K 10% C SIDE-ADJ 17-TRN	02111	43P503
A70R71	0683-2035	3	4	RESISTOR 20K 5% .25W FC TC=-400/+800	01121	CB2035
A70R72	2100-3350	5	2	RESISTOR-TRMR 200 10% C SIDE-ADJ 1-TRN	28480	2100-3350
A70R73	0811-1780	6	1	RESISTOR 1K 5% .25W PWW TC=+3400+-300	54294	VA12-1/4-1001-J
A70R74	0698-3518	0	1	RESISTOR 7.32K 1% .125W F TC=0+-100	24546	C4-1/8-T0-7321-F
A70R75	0683-1035	1	4	RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A70R76	0698-7332	4	1	RESISTOR 1M 1% .125W F TC=0+-100	28480	0698-7332
A70R77	0757-0433	8	1	RESISTOR 3.32K 1% .125W F TC=0+-100	24546	C4-1/8-T0-3321-F
A70R78	0683-2025	1	1	RESISTOR 2K 5% .25W FC TC=-400/+700	01121	CB2025
A70R79	0683-1005	5	1	RESISTOR 10 5% .25W FC TC=-400/+500	01121	CB1005
A70R80	0683-1045	3	5	RESISTOR 100K 5% .25W FC TC=-400/+800	01121	CB1045
A70R81	0683-1545	8	2	RESISTOR 150K 5% .25W FC TC=-800/+900	01121	CB1545
A70R82	0698-3155	1	1	RESISTOR 4.64K 1% .125W F TC=0+-100	24546	C4-1/8-T0-4641-F
A70R83	0757-0280	3		RESISTOR 1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1001-F
A70R86	0683-1545	8		RESISTOR 150K 5% .25W FC TC=-800/+900	01121	CB1545
A70R87	0698-4489	6	1	RESISTOR 28K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2802-F
A70R88	0757-0422	5	1	RESISTOR 909 1% .125W F TC=0+-100	24546	C4-1/8-T0-9090-F
A70R89	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A70R90	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A70R91	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A70R92	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A70R93	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A70R96	0683-5125	8	3	RESISTOR 5.1K 5% .25W FC TC=-400/+700	01121	CB5125
A70R97	2100-3356	1	1	RESISTOR-TRMR 200K 10% C SIDE-ADJ 1-TRN	28480	2100-3356
A70R98	0698-4537	5	1	RESISTOR 357K 1% .125W F TC=0+-100	28480	0698-4537
A70R100	0757-0273	4	1	RESISTOR 3.01K 1% .125W F TC=0+-100	24546	C4-1/8-T0-3011-F
A70R101	0698-3497	4	1	RESISTOR 6.04K 1% .125W F TC=0+-100	24546	C4-1/8-T0-604R-F
A70R103	0683-7515	4	1	RESISTOR 750 5% .25W FC TC=-400/+600	01121	CB7515
A70R110	0698-4474	9	2	RESISTOR 8.45K 1% .125W F TC=0+-100	24546	C4-1/8-T0-8451-F
A70R111	0698-4474	9		RESISTOR 8.45K 1% .125W F TC=0+-100	24546	C4-1/8-T0-8451-F
A70R112	0757-0272	3	1	RESISTOR 52.3K 1% .125W F TC=0+-100	24546	C4-1/8-T0-5232-F
A70R113	0698-4504	6		RESISTOR 69.8K 1% .125W F TC=0+-100	24546	C4-1/8-T0-6982-F
A70R114	0698-4501	3	1	RESISTOR 59K 1% .125W F TC=0+-100	24546	C4-1/8-T0-5902-F
A70R115	0757-0466	7	2	RESISTOR 110K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1103-F
A70R116	0698-4497	6	1	RESISTOR 48.7K 1% .125W F TC=0+-100	24546	C4-1/8-T0-4872-F
A70R117	0698-3484	9	1	RESISTOR 6.65K 1% .125W F TC=0+-100	24546	C4-1/8-T0-6651-F
A70R118	0698-4488	5	1	RESISTOR 26.7K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2672-F
A70R119	0698-5916	6	1	RESISTOR 1.25M 1% .5W F TC=0+-100	28480	0698-5916
A70R120	0757-0466	7		RESISTOR 110K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1103-F
A70R121	0757-0401	0	1	RESISTOR 100 1% .125W F TC=0+-100	24546	C4-1/8-T0-101-F
A70R122	0698-3228	9	2	RESISTOR 49.9K 1% .125W F TC=0+-100	28480	0698-3228
A70R123	0757-0449	6		RESISTOR 20K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2002-F
A70R124	0683-2035	3		RESISTOR 20K 5% .25W FC TC=-400/+800	01121	CB2035
A70R125	2100-3358	3	1	RESISTOR-TRMR 1M 20% C SIDE-ADJ 1-TRN	28480	2100-3358
A70R126	0757-0123	3	1	RESISTOR 34.8K 1% .125W F TC=0+-100	28480	0757-0123
A70R130	0683-1555	0	1	RESISTOR 1.5M 5% .25W FC TC=-900/+1100	01121	CB1555
A70R131	0698-4519	3	1	RESISTOR 140K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1403-F
A70R132	0757-0486	1	1	RESISTOR 750K 1% .125W F TC=0+-100	28480	0757-0486

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A70R133	2100-3357	2	1	RESISTOR-TRMR 500K 10% C SIDE-ADJ 1-TRN	28480	2100-3357
A70R134	0757-0124	4	1	RESISTOR 39.2K 1% .125W F TC=0+-100	28480	0757-0124
A70R135	0757-0349	5	1	RESISTOR 22.6K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2262-F
A70R136	0683-1045	3		RESISTOR 100K 5% .25W FC TC=-400/+800	01121	CB1045
A70R137	0683-5125	8		RESISTOR 5.1K 5% .25W FC TC=-400/+700	01121	CB5125
A70R138	0683-1035	1		RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A70R139	0683-1045	3		RESISTOR 100K 5% .25W FC TC=-400/+800	01121	CB1045
A70R140	0757-0270	1	1	RESISTOR 249K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2493-F
A70R141	0698-3148	2	1	RESISTOR 102K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1023-F
A70R142	0698-3456	5	1	RESISTOR 287K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2873-F
A70R143	0698-4524	0	1	RESISTOR 174K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1743-F
A70R144*	0698-4504	6	2	RESISTOR 69.8K 1% .125W F TC=0+-100	24546	C4-1/8-T0-6982-F
A70R144*	0698-4505	7	1	RESISTOR 71.5K 1% .125W F TC=0+-100	24546	C4-1/8-T0-7152-F
A70R144*	0757-0461	2	1	RESISTOR 68.1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-6812-F
A70R145	0698-4498	7	1	RESISTOR 53.6K 1% .125W F TC=0+-100	24546	C4-1/8-T0-5362-F
A70R146	2100-3207	1		RESISTOR-TRMR 5K 10% C SIDE-ADJ 1-TRN	28480	2100-3207
A70R147	0683-2435	7		RESISTOR 24K 5% .25W FC TC=-400/+800	01121	CB2435
A70R148	0698-4518	2	1	RESISTOR 137K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1373-F
A70R149	0683-1045	3		RESISTOR 100K 5% .25W FC TC=-400/+800	01121	CB1045
A70R150	0757-0465	6		RESISTOR 100K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1003-F
A70R151	0757-0465	6		RESISTOR 100K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1003-F
A70R152	0698-8353	1	2	RESISTOR 806K 1% .125W F TC=0+-100	28480	0698-8353
A70R153	0698-4539	7	2	RESISTOR 402K 1% .125W F TC=0+-100	28480	0698-4539
A70R154	0698-8353	1		RESISTOR 806K 1% .125W F TC=0+-100	28480	0698-8353
A70R155	0698-4539	7		RESISTOR 402K 1% .125W F TC=0+-100	28480	0698-4539
A70R156	0683-1045	3		RESISTOR 100K 5% .25W FC TC=-400/+800	01121	CB1045
A70R157	0683-1025	9		RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A70R158	0683-1025	9		RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A70R159	0683-1035	1		RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A70R160	0698-3450	9	2	RESISTOR 42.2K 1% .125W F TC=0+-100	24546	C4-1/8-T0-4222-F
A70R161	0698-3450	9		RESISTOR 42.2K 1% .125W F TC=0+-100	24546	C4-1/8-T0-4222-F
A70R162	0757-0161	9	2	RESISTOR 604 1% .125W F TC=0+-100	24546	C4-1/8-T0-604R-F
A70R163	0698-3493	0	1	RESISTOR 4.12K 1% .125W F TC=0+-100	24546	C4-1/8-T0-4121-F
A70R164	0757-0161	9		RESISTOR 604 1% .125W F TC=0+-100	24546	C4-1/8-T0-604R-F
A70R165	0698-4484	1	1	RESISTOR 19.1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1912-F
A70R166	0698-4123	5	1	RESISTOR 499 1% .125W F TC=0+-100	24546	C4-1/8-T0-499R-F
A70R167	0757-0277	8	1	RESISTOR 49.9 1% .125W F TC=0+-100	24546	C4-1/8-T0-4992-F
A70R171	0698-3268	7		RESISTOR 11.5K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1152-F
A70R172	0698-4494	3	1	RESISTOR 35.7K 1% .125W F TC=0+-100	24546	C4-1/8-T0-3572-F
A70R173	0698-8344	0	1	RESISTOR 604K 1% .125W F TC=0+-100	28480	0698-8344
A70R181	2100-3350	5		RESISTOR-TRMR 200 10% C SIDE-ADJ 1-TRN	28480	2100-3350
A70R182	0698-3228	9		RESISTOR 49.9K 1% .125W F TC=0+-100	28480	0698-3220
A70R183	0757-0444	1	1	RESISTOR 12.1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1212-F
A70R188	0757-0403	2	1	RESISTOR 121 1% .125W F TC=0+-100	24546	C4-1/8-T0-121R-F
A70R189	0683-2035	3		RESISTOR 20K 5% .25W FC TC=-400/+800	01121	CB2035
A70R190	0683-2035	3		RESISTOR 20K 5% .25W FC TC=-400/+800	01121	CB2035
A70R191	0683-5125	8		RESISTOR 5.1K 5% .25W FC TC=-400/+700	01121	CB5125
A70R192	0683-1035	1		RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A70TL1	1251-4822	6	1	CONNECTOR 3 PIN M POST TYPE	28480	1251-4822
A70TL1	1258-0141	8	1	JUMPER-REM	28480	1258-0141
A70U1	1826-0217	4	6	IC OP AMP GP DUAL TO-99 PKG	07933	RC4558T
A70U2	1826-0217	4		IC OP AMP GP DUAL TO-99 PKG	07933	RC4558T
A70U3	1826-0217	4		IC OP AMP GP DUAL TO-99 PKG	07933	RC4558T
A70U4	1826-0217	4		IC OP AMP GP DUAL TO-99 PKG	07933	RC4558T
A70U5	1826-0111	7	9	IC OP AMP GP DUAL TO-99 PKG	3L585	CA1458T
A70U6	1826-0111	7		IC OP AMP GP DUAL TO-99 PKG	3L585	CA1458T
A70U7	1826-0111	7		IC OP AMP GP DUAL TO-99 PKG	3L585	CA1458T
A70U8	1826-0217	4		IC OP AMP GP DUAL TO-99 PKG	07933	RC4558T
A70U9	1826-0111	7		IC OP AMP GP DUAL TO-99 PKG	3L585	CA1458T
A70U10	1826-0111	7		IC OP AMP GP DUAL TO-99 PKG	3L585	CA1458T
A70U11	1826-0043	4	2	IC OP AMP GP TO-99 PKG	3L585	CA307T
A70U12	1826-0109	3	1	IC OP AMP WB TO-99 PKG	34371	HA2-2625-BC593
A70U14	1820-1433	6	2	IC SHF-RGTR TTL LS R-S SERIAL-IN PRL-OUT	01295	SN74LS164N
A70U15	1820-1433	6		IC SHF-RGTR TTL LS R-S SERIAL-IN PRL-OUT	01295	SN74LS164N
A70U16	1820-1730	6	2	IC FF TTL LS D-TYPE POS-EDGE-TRIG COM	01295	SN74LS273N
	1200-0700	4	2	SOCKET-IC 20 CONT DIP DIP-SLDR	28480	1200-0700
A70U17	1820-1730	6		IC FF TTL LS D-TYPE POS-EDGE-TRIG COM	01295	SN74LS273N
	1200-0700	4		SOCKET-IC 20-CONT DIP DIP-SLDR	28480	1200-0700
A70U18	1820-1934	2	1	IC CONV 8-B-D/A 16-DIP-C PKG	16665	DAC-08EQ
A70U19	1826-0026	3	1	IC COMPARATOR PRCN TO-99 PKG	01295	LM311L
A70U20	1820-1422	3	1	IC MV TTL LS MONOSTBL RETRIG	01295	SN74LS122N
A70U21	1820-1194	6	1	IC CNTR TTL LS BIN UP/DOWN SYNCHRO	01295	SN74LS193N
A70U22	1826-0421	2	1	IC CONV RMS/DC 14-DIP-C PKG	24355	AD536AJ
A70U23	1826-0111	7		IC OP AMP GP DUAL TO-99 PKG	3L585	CA1458T
A70U24	1826-0111	7		IC OP AMP GP DUAL TO-99 PKG	3L585	CA1458T
A70U25	1826-0476	7	3	IC SWITCH ANLG 8-DIP-P PKG	01295	TL601CP

See introduction to this section for ordering information
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Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A70U26	1826-0138	8	1	IC COMPARATOR GP QUAD 14-DIP-P PKG	01295	LM339N
A70U27	1826-0111	7		IC OP AMP GP DUAL TO-99 PKG	3L585	CA1458T
A70U28	1826-0111	7		IC OP AMP GP DUAL TO-99 PKG	3L585	CA1458T
A70U29	1826-0547	3	2	IC OP AMP LOW-BIAS-H-IMPD DUAL 8-DIP-P	01295	TL072ACP
A70U30	1826-0547	3		IC OP AMP LOW-BIAS-H-IMPD DUAL 8-DIP-P	01295	TL072ACP
A70U31	1820-1188	8	1	IC PL LOOP 16-DIP-P PKG	3L585	CD4046AF
A70U35	1820-0416	3	1	VOID/CANCELLED	28480	1820-0416
A70U36	1826-0476	7		IC SWITCH ANLG 8-DIP-P PKG	01295	TL601CP
A70U37	1826-0476	7		IC SWITCH ANLG 8-DIP-P PKG	01295	TL601CP
A70U38	1826-0417	6	1	IC SWITCH ANLG QUAD 16-DIP-C PKG	27014	LF13333D
A70U39	1826-0217	4		IC OP AMP GP DUAL TO-99 PKG	07933	RC4558T
A70U40	1820-1202	7	1	IC GATE TTL LS NAND TPL 3-INP	01295	SN74LS10N
A70U41	1826-0043	4		IC OP AMP GP TO-99 PKG	3L585	CA307T
A70U42	1826-0477	8	2	IC SWITCH ANLG 8-DIP-P PKG	01295	TL610CP
A70U43	1826-0477	8		IC SWITCH ANLG 8-DIP-P PKG	01295	TL610CP
A70Y1	0410-1212	9	1	CRYSTAL-QUARTZ 1.66250 MHZ	28480	0410-1212
	1200-0638	7	1	SOCKET-IC 14-CONT DIP DIP-SLDR	28480	1200-0638
	4040-0748	3	1	EXTR-PC BD BLK POLYC .062-BD-THKNS	28480	4040-0748
	4040-0756	3	1	EXTR-PC BD WHT POLYC .062-BD-THKNS	28480	4040-0756

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Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A70	03586-66571	7	1	IMPAIRMENTS-A (3586A)	28480	03586-66571
A70C1	0160-3624	4	6	CAPACITOR-FXD 1700PF +-1% 100VDC MICA	28480	0160-3624
A70C2	0160-3624	4		CAPACITOR-FXD 1700PF +-1% 100VDC MICA	28480	0160-3624
A70C4	0140-0163	4	2	CAPACITOR-FXD 4751PF +-1% 300VDC MICA	72136	DM20F4751F0300WV1CR
A70C5	0140-0163	4		CAPACITOR-FXD 4751PF +-1% 300VDC MICA	72136	DM20F4751F0300WV1CR
A70C6	0140-0184	9	2	CAPACITOR-FXD 8200PF +-1% 100VDC MICA	72136	DM20F822F0100WV1CR
A70C7	0140-0184	9		CAPACITOR-FXD 8200PF +-1% 100VDC MICA	72136	DM20F822F0100WV1CR
A70C8	0160-3624	4		CAPACITOR-FXD 1700PF +-1% 100VDC MICA	28480	0160-3624
A70C9	0160-3624	4		CAPACITOR-FXD 1700PF +-1% 100VDC MICA	28480	0160-3624
A70C10	0160-3624	4		CAPACITOR-FXD 1700PF +-1% 100VDC MICA	28480	0160-3624
A70C11	0160-3624	4		CAPACITOR-FXD 1700PF +-1% 100VDC MICA	28480	0160-3624
A70C30	0160-3548	7	9	CAPACITOR-FXD .01UF +-1% 100VDC MICA	28480	0160-3548
A70C31	0160-3337	2	2	CAPACITOR-FXD 10PF +-10% 50VDC CER 0+-30	28480	0160-3337
A70C32	0160-3548	7		CAPACITOR-FXD .01UF +-1% 100VDC MICA	28480	0160-3548
A70C33	0160-2585	0	1	CAPACITOR-FXD 2000PF +-1% 100VDC MICA	28480	0160-2585
A70C34	0160-3337	2		CAPACITOR-FXD 10PF +-10% 50VDC CER 0+-30	28480	0160-3337
A70C35	0160-3548	7		CAPACITOR-FXD .01UF +-1% 100VDC MICA	28480	0160-3548
A70C36	0160-3874	2	1	CAPACITOR-FXD 10PF +-.5PF 200VDC CER	28480	0160-3874
A70C37	0160-3548	7		CAPACITOR-FXD .01UF +-1% 100VDC MICA	28480	0160-3548
A70C38	0160-3548	7		CAPACITOR-FXD .01UF +-1% 100VDC MICA	28480	0160-3548
A70C60	0180-0309	4	2	CAPACITOR-FXD 4.7UF+-20% 10VDC TA	56289	150D475X0010A2
A70C61	0160-4571	8	6	CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A70C62	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A70C63	0180-0309	4		CAPACITOR-FXD 4.7UF+-20% 10VDC TA	56289	150D475X0010A2
A70C64	0180-3228	6	1	CAPACITOR-FXD 22UF+-10% 15VDC TA	56289	150D226X9015B2
A70C65	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A70C66	0160-3847	9	23	CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A70C67	0160-2306	3	1	CAPACITOR-FXD 27PF +-5% 300VDC MICA	28480	0160-2306
A70C68	0140-0191	8	1	CAPACITOR-FXD 56PF +-5% 300VDC MICA	72136	DM15E560J0300WV1CR
A70C69	0160-0127	2	1	CAPACITOR-FXD 1UF +-20% 25VDC CER	28480	0160-0127
A70C70	0160-2204	0	1	CAPACITOR-FXD 100PF +-5% 300VDC MICA	28480	0160-2204
A70C71	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A70C72	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A70C73	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A70C74	0160-3847	9		CAPACITOR-FXD .01UF +100 0% 50VDC CER	28480	0160-3847
A70C75	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A70C76	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A70C77	0180-0374	3	5	CAPACITOR-FXD 10UF+-10% 20VDC TA	56289	150D106X9020B2
A70C80	0160-4557	0	4	CAPACITOR-FXD .1UF +-20% 50VDC CER	16299	CAC04X7R104M050A
A70C82	0180-0197	8	2	CAPACITOR-FXD 2.2UF+-10% 20VDC TA	56289	150D225X9020A2
A70C83	0160-3787	6	1	CAPACITOR-FXD 1UF +-10% 50VDC MET-POLYC	28480	0160-3787
A70C84	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A70C85	0160-4571	8		CAPACITOR-FXD .1UF +80-20% 50VDC CER	28480	0160-4571
A70C86	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A70C87	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A70C88	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A70C89	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A70C91	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A70C92	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A70C93	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A70C94	0160-3847	9		CAPACITOR-FXD .01UF +100 0% 50VDC CER	28480	0160-3847
A70C95	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A70C96	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A70C97	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A70C99	0160-4557	0		CAPACITOR-FXD .1UF +-20% 50VDC CER	16299	CAC04X7R104M050A
A70C110	0160-2587	2	2	CAPACITOR-FXD 4000PF +-1% 100VDC MICA	28480	0160-2587
A70C111	0160-2587	2		CAPACITOR-FXD 4000PF +-1% 100VDC MICA	28480	0160-2587
A70C112	0160-3939	0	1	CAPACITOR-FXD 1400PF +-1% 100VDC MICA	28480	0160-3939
A70C113	0160-3046	0	1	CAPACITOR-FXD 250PF +-1% 100VDC MICA	28480	0160-3046
A70C114	0160-3548	7		CAPACITOR-FXD .01UF +-1% 100VDC MICA	28480	0160-3548
A70C115	0160-4835	7	2	CAPACITOR-FXD .1UF +-10% 50VDC CER	28480	0160-4835
A70C116	0160-4835	7		CAPACITOR-FXD .1UF +-10% 50VDC CER	28480	0160-4835
A70C117	0180-0197	8		CAPACITOR-FXD 2.2UF+-10% 20VDC TA	56289	150D225X9020A2
A70C118	0160-3587	4	2	CAPACITOR-FXD 2UF +-10% 330VAC(RMS) PPR	28480	0160-3587
A70C119	0160-3587	4		CAPACITOR-FXD 2UF +-10% 330VAC(RMS) PPR	28480	0160-3587
A70C130	0160-2671	5	2	CAPACITOR-FXD .1UF +-5% 80VDC POLYE	28480	0160-2671
A70C131	0160-2671	5		CAPACITOR-FXD .1UF +-5% 80VDC POLYE	28480	0160-2671
A70C133	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A70C134	0180-0291	3	1	CAPACITOR-FXD 10UF+-10% 35VDC TA	56289	150D106X9035B2
A70C136	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A70C138	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847

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Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A70C139	0160-3847	9		CAPACITOR-FXD .01UF +100 0% 50VDC CER	28480	0160-3847
A70C140	0160-3548	7		CAPACITOR-FXD .01UF +-1% 100VDC MICA	28480	0160-3548
A70C141	0140-0172	5	1	CAPACITOR-FXD 3000PF +-1% 100VDC MICA	72136	DM12F302F0100WV1CR
A70C142	0160-3548	7		CAPACITOR-FXD .01UF +-1% 100VDC MICA	28480	0160-3548
A70C143	0160-3936	7	1	CAPACITOR-FXD 700PF +-1% 100VDC MICA	28480	0160-3936
A70C144	0160-0341	2	1	CAPACITOR-FXD 640PF +-1% 300VDC MICA	28480	0160-0341
A70C145	0160-4463	7	1	CAPACITOR-FXD .1UF +-1% 50VDC MET-POLYC	28480	0160-4463
A70C146	0180-0374	3		CAPACITOR-FXD 10UF+-10% 20VDC TA	56289	150D106X9020B2
A70C147	0160-3548	7		CAPACITOR-FXD .01UF +-1% 100VDC MICA	28480	0160-3548
A70C148	0180-0374	3		CAPACITOR-FXD 10UF+-10% 20VDC TA	56289	150D106X9020B2
A70C150	0180-0374	3		CAPACITOR-FXD 10UF+-10% 20VDC TA	56289	150D106X9020B2
A70C151	0180-0374	3		CAPACITOR-FXD 10UF+-10% 20VDC TA	56289	150D106X9020B2
A70C160	0160-4801	7	2	CAPACITOR-FXD 100PF + 5% 100VDC CER	28480	0160-4801
A70C161	0160-4861	7		CAPACITOR-FXD 105PF +-5% 100VDC CER	28480	0160-4861
A70C162	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A70C163	0160-4557	0		CAPACITOR-FXD .1UF +-20% 50VDC CER	16299	CAC04X7R104M050A
A70C164	0160-4557	0		CAPACITOR-FXD .1UF +-20% 50VDC CER	16299	CAC04X7R104M050A
A70C165	0160-4814	2	1	CAPACITOR-FXD 150PF +-5% 100VDC CER	28480	0160-4814
A70C166	0160-4822	2	1	CAPACITOR-FXD 1000PF + 5% 100VDC CER	28480	0160-4822
A70C167	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A70C170	0180-0375	4	3	CAPACITOR-FXD 68UF+-10% 20VDC TA	56289	150D686X9020B2
A70C171	0180-0375	4		CAPACITOR-FXD 68UF+-10% 20VDC TA	56289	150D686X9020B2
A70C172	0180-0375	4		CAPACITOR-FXD 68UF+-10% 20VDC TA	56289	150D686X9020B2
A70CR1	1901-0050	3	11	DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
A70CR2	1902-3048	1	1	DIODE-ZNR 6.81V 5% DO-35 PD=.4W	28480	1902-3048
A70CR3	1901-0033	2	1	DIODE-GEN PRP 180V 200MA DO-7	28480	1901-0033
A70CR4	1901-0059	3		DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0059
A70CR5	1901-0050	3		DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
A70CR8	1901-0518	8	1	DIODE-SM SIG SCHOTTKY	28480	1901-0518
A70CR9	1901-0050	3		DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
A70CR10	1901-0050	3		DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
A70CR11	1901-0050	3		DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
A70CR12	1901-0050	3		DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
A70CR13	1901-0050	3		DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
A70CR14	1901-0050	3		DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
A70CR15	1901-0050	3		DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
A70CR16	1901-0050	3		DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
A70CR19	1902-3104	6	1	DIODE-ZNR 5.62V 5% DO-35 PD=.4W	28480	1902-3104
A70E1	1990-0292	9	1	OPTO-ISOLATOR LED-PCNSCT IF=40MA-MAX	18178	VTL5C3/2
A70L1	9100-1631	8	3	INDUCTOR RF-CH-MLD 56UH 5% .166DX.385LG	28480	9100-1631
A70L2	9100-1631	8		INDUCTOR RF-CH-MLD 56UH 5% .166DX.385LG	28480	9100-1631
A70L3	9100-1631	8		INDUCTOR RF-CH-MLD 56UH 5% .166DX.385LG	28480	9100-1631
A70Q1	1854-0071	7	3	TRANSISTOR NPN SI PD=300MW FT=200MHZ	28480	1854-0071
A70Q3	1854-0071	7		TRANSISTOR NPN SI PD=300MW FT=200MHZ	28480	1854-0071
A70Q4	1854-0071	7		TRANSISTOR NPN SI PD=300MW FT=200MHZ	28480	1854-0071
A70Q5	1854-0215	1	2	TRANSISTOR NPN SI PD=350MW FT=300MHZ	04713	2N3904
A70Q6	1854-0215	1		TRANSISTOR NPN SI PD=350MW FT=300MHZ	04713	2N3904
A70R1	0698-7668	9	4	RESISTOR 39.91K .1% .125W F TC=0+-50	19701	MF4C1/8-T2-39911-B
A70R2	0698-7668	9		RESISTOR 39.91K .1% .125W F TC=0+-50	19701	MF4C1/8-T2-39911-B
A70R3	0698-6378	6	1	RESISTOR 14.9K .1% .125W F TC=0+-50	28480	0698-6378
A70R4	0757-0449	6	6	RESISTOR 20K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2002-F
A70R5	0698-7673	6	3	RESISTOR 49.39K .1% .125W F TC=0+-50	19701	MF4C1/8-T2-49391-B
A70R6	0698-7674	7	1	RESISTOR 13.19K .1% .125W F TC=0+-50	19701	MF4C1/8-T2-13191-B
A70R7	0757-0449	6		RESISTOR 20K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2002-F
A70R8	0698-7673	6		RESISTOR 49.39K .1% .125W F TC=0+-50	19701	MF4C1/8-T2-49391-B
A70R9	0698-7680	5	2	RESISTOR 59.41K .1% .125W F TC=0+-50	19701	MF4C1/8-T2-59411-B
A70R10	0698-7680	5		RESISTOR 59.41K .1% .125W F TC=0+-50	19701	MF4C1/8-T2-59411-B
A70R11	0698-7679	2	1	RESISTOR 19.41K .1% .125W F TC=0+-50	19701	MF4C1/8-T2-19411-B
A70R12	0757-0449	6		RESISTOR 20K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2002-F
A70R13	0698-7668	9		RESISTOR 39.91K .1% .125W F TC=0+-50	19701	MF4C1/8-T2-39911-B
A70R14	0698-7682	7	1	RESISTOR 52.98K .1% .125W F TC=0+-50	19701	MF4C1/8-T2-52981-B
A70R15	0757-0449	6		RESISTOR 20K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2002-F
A70R16	0698-7668	9		RESISTOR 39.91K .1% .125W F TC=0+-50	19701	MF4C1/8-T2-39911-B
A70R17	0698-7675	8	1	RESISTOR 24.06K .1% .125W F TC=0+-50	19701	MF4C1/8-T2-24061-B
A70R18	0698-7670	3	1	RESISTOR 23.69K .1% .125W F TC=0+-50	19701	MF4C1/8-T2-23691-B
A70R20	0757-0443	0	1	RESISTOR 11K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1102-F
A70R21	0757-0449	6		RESISTOR 20K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2032-F
A70R22	0757-0442	9	18	RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A70R23	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A70R24	0757-0450	9	1	RESISTOR 22.1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2212-F
A70R25	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A70R26	0698-7673	6		RESISTOR 49.39K .1% .125W F TC=0+-50	19701	MF4C1/8-T2-49391-B
A70R30	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A70R31	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A70R32	0698-4480	7	3	RESISTOR 15.8K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1582-F
A70R33	2100-3273	1	2	RESISTOR-TRMR 2K 10% C SIDE-ADJ 1-TRN	28480	2100-3273
A70R34	0698-3156	2	2	RESISTOR 14.7K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1472-F

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A70R35	0698-4495	4	2	RESISTOR 37.4K 1% .125W F TC=0+-100	24546	C4-1/8-T0-3742-F
A70R36	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A70R37	0698-4480	7		RESISTOR 15.8K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1582-F
A70R38	0698-3260	7	2	RESISTOR 11.5K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1152-F
A70R39	0698-4503	5	1	RESISTOR 66.5K 1% .125W F TC=0+-100	24546	C4-1/8-T0-6652-F
A70R40	2100-3207	1	2	RESISTOR-TRMR 5K 10% C SIDE-ADJ 1-TRN	28480	2100-3207
A70R41	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A70R42	0698-4480	7		RESISTOR 15.8K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1582-F
A70R43	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A70R44	0698-3156	2		RESISTOR 14.7K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1472-F
A70R45	2100-3273	1		RESISTOR-TRMR 2K 10% C SIDE-ADJ 1-TRN	28480	2100-3273
A70R46	0698-4495	4		RESISTOR 37.4K 1% .125W F TC=0+-100	24546	C4-1/8-T0-3742-F
A70R47	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A70R48	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A70R49	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A70R50	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A70R51	0757-0451	0	1	RESISTOR 24.3K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2432-F
A70R52	0757-0434	9	1	RESISTOR 3.65K 1% .125W F TC=0+-100	24546	C4-1/8-T0-3651-F
A70R53	0757-0280	3	2	RESISTOR 1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1001-F
A70R60	0757-0447	4	1	RESISTOR 16.2K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1622-F
A70R61	0683-2715	6	1	RESISTOR 270 5% .25W FC TC=-400/+600	01121	CB2715
A70R62	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A70R63	0757-0465	6	3	RESISTOR 100K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1003-F
A70R64	0757-0453	2	1	RESISTOR 30.1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-3012-F
A70R66	0683-4725	2	1	RESISTOR 4.7K 5% .25W FC TC=-400/+700	01121	CB4725
A70R67	0683-2435	7	2	RESISTOR 24K 5% .25W FC TC=-400/+800	01121	CB2435
A70R68	0683-1025	9	3	RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A70R69	0698-4486	3	1	RESISTOR 24.9K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2492-F
A70R70	2100-3054	6	1	RESISTOR-TRMR 50K 10% C SIDE-ADJ 17-TRN	02111	43P503
A70R71	0683-2035	3	4	RESISTOR 20K 5% .25W FC TC=-400/+800	01121	CB2035
A70R72	2100-3353	5	2	RESISTOR TRMR 200 10% C SIDE-ADJ 1 TRN	28480	2100-3350
A70R73	0811-1780	6	1	RESISTOR 1K 5% .25W PWW TC=+3400/-360	54294	VA12-1/4-1K-J
A70R74	0698-3518	0	1	RESISTOR 7.32K 1% .125W F TC=0+-100	24546	C4-1/8-T0-7321-F
A70R75	0683-1035	1	4	RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A70R76	0698-7332	4	1	RESISTOR 1M 1% .125W F TC=0+-100	28480	0698-7332
A70R77	0757-0433	8	1	RESISTOR 3.32K 1% .125W F TC=0+-100	24546	C4-1/8-T0-3321-F
A70R78	0683-2025	1	1	RESISTOR 2K 5% .25W FC TC=-400/+700	01121	CB2025
A70R79	0683-1005	5	1	RESISTOR 10 5% .25W FC TC=-400/+500	01121	CB1005
A70R80	0683-1045	3	5	RESISTOR 100K 5% .25W FC TC=-400/+800	01121	CB1045
A70R81	0683-1545	8	2	RESISTOR 150K 5% .25W FC TC=-800/+900	01121	CB1545
A70R82	0698-3155	1	1	RESISTOR 4.64K 1% .125W F TC=0+-100	24546	C4-1/8-T0-4641-F
A70R83	0757-0280	3		RESISTOR 1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1001-F
A70R86	0683-1545	8		RESISTOR 150K 5% .25W FC TC=-800/+900	01121	CB1545
A70R87	0698-4489	6	1	RESISTOR 28K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2802-F
A70R88	0757-0422	5	1	RESISTOR 909 1% .125W F TC=0+-100	24546	C4-1/8-T0-909R-F
A70R89	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A70R90	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A70R91	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A70R92	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A70R93	0757-0442	9		RESISTOR 10K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1002-F
A70R96	0683-5125	8	3	RESISTOR 5.1K 5% .25W FC TC=-400/+700	01121	CB5125
A70R97	2100-3356	1	1	RESISTOR-TRMR 200K 10% C SIDE-ADJ 1-TRN	28480	2100-3356
A70R98	0698-4533	1	1	RESISTOR 294K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2943-F
A70R100	0757-0273	4	1	RESISTOR 3.61K 1% .125W F TC=0+-100	24546	C4-1/8-T0-3611-F
A70R101	0698-3497	4	1	RESISTOR 6.04K 1% .125W F TC=0+-100	24546	C4-1/8-T0-604R-F
A70R103	0683-7515	4	1	RESISTOR 750 5% .25W FC TC=-400/+600	01121	CB7515
A70R110	0698-4474	9	2	RESISTOR 8.45K 1% .125W F TC=0+-100	24546	C4-1/8-T0-8451-F
A70R111	0698-4474	9		RESISTOR 8.45K 1% .125W F TC=0+-100	24546	C4-1/8-T0-8451-F
A70R112	0757-0272	3	1	RESISTOR 52.3K 1% .125W F TC=0+-100	24546	C4-1/8-T0-5232-F
A70R113	0698-4504	6		RESISTOR 69.8K 1% .125W F TC=0+-100	24546	C4-1/8-T0-6982-F
A70R114	0698-4501	3	1	RESISTOR 59K 1% .125W F TC=0+-100	24546	C4-1/8-T0-5902-F
A70R115	0757-0466	7	2	RESISTOR 110K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1103-F
A70R116	0698-4497	6	1	RESISTOR 48.7K 1% .125W F TC=0+-100	24546	C4-1/8-T0-4872-F
A70R117	0698-3484	9	1	RESISTOR 6.65K 1% .125W F TC=0+-100	24546	C4-1/8-T0-6651-F
A70R118	0698-4468	5	1	RESISTOR 26.7K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2672-F
A70R119	0698-5916	6	1	RESISTOR 1.25M 1% .5W F TC=0+-100	28480	0698-5916
A70R120	0757-0466	7		RESISTOR 110K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1103-F
A70R121	0757-0461	0	1	RESISTOR 100 1% .125W F TC=0+-100	24546	C4-1/8-T0-101-F
A70R122	0698-3228	9	2	RESISTOR 49.9K 1% .125W F TC=0+-100	28480	0698-3228
A70R123	0757-0449	6		RESISTOR 20K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2002-F
A70R124	0683-2035	3		RESISTOR 20K 5% .25W FC TC=-400/+800	01121	CB2035
A70R125	2100-3358	3	1	RESISTOR-TRMR 1M 20% C SIDE-ADJ 1-TRN	28480	2100-3359
A70R126	0757-0123	3	1	RESISTOR 34.8K 1% .125W F TC=0+-100	28480	0757-0123
A70R130	0683-1555	0	1	RESISTOR 1.5M 5% .25W FC TC=-900/+1100	01121	CB1555
A70R131	0698-4519	3	1	RESISTOR 140K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1403-F

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A70R132	0757-0486	1	1	RESISTOR 750K 1% .125W F TC=0+-100	28480	0757-0486
A70R133	2100-3357	2	1	RESISTOR-TRMR 500K 10% C SIDE-ADJ 1-TRN	28480	2100-3357
A70R134	0757-0124	4	1	RESISTOR 39.2K 1% .125W F TC=0+-100	28480	0757-0124
A70R135	0757-0349	5	1	RESISTOR 22.6K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2262-F
A70R136	0683-1045	3		RESISTOR 100K 5% .25W FC TC=-400/+800	01121	CB1045
A70R137	0683-5125	8		RESISTOR 5.1K 5% .25W FC TC=-400/+700	01121	CB5125
A70R138	0683-1035	1		RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A70R139	0683-1045	3		RESISTOR 100K 5% .25W FC TC=-400/+800	01121	CB1045
A70R140	0757-0270	1	1	RESISTOR 249K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2493-F
A70R141	0698-3148	2	1	RESISTOR 102K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1023-F
A70R142	0698-3456	5	1	RESISTOR 287K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2873-F
A70R143	0698-4523	9	1	RESISTOR 169K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1693-F
A70R144*	0698-4504	6	2	RESISTOR 69.8K 1% .125W F TC=0+-100	24546	C4-1/8-T0-6982-F
A70R144*	0698-4505	7	1	RESISTOR 71.5K 1% .125W F TC=0+-100	24546	C4-1/8-T0-7152-F
A70R144*	0757-0461	2	1	RESISTOR 68.1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-6812-F
A70R145	0698-4498	7	1	RESISTOR 53.6K 1% .125W F TC=0+-100	24546	C4-1/8-T0-5362-F
A70R146	2100-3207	1		RESISTOR-TRMR 5K 10% C SIDE ADJ 1-TRN	28480	2100-3207
A70R147	0683-2435	7		RESISTOR 24K 5% .25W FC TC=-400/+800	01121	CB2435
A70R148	0698-4518	2	1	RESISTOR 137K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1373-F
A70R149	0683-1045	3		RESISTOR 100K 5% .25W FC TC=-400/+800	01121	CB1045
A70R150	0757-0465	6		RESISTOR 100K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1003-F
A70R151	0757-0465	6		RESISTOR 100K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1003-F
A70R152	0698-8353	1	2	RESISTOR 806K 1% .125W F TC=0+-100	28480	0698-8353
A70R153	0698-4539	7	2	RESISTOR 402K 1% .125W F TC=0+-100	28480	0698-4539
A70R154	0698-8353	1		RESISTOR 806K 1% .125W F TC=0+-100	28480	0698-8353
A70R155	0698-4539	7		RESISTOR 402K 1% .125W F TC=0+-100	28480	0698-4539
A70R156	0683-1045	3		RESISTOR 100K 5% .25W FC TC=-400/+800	01121	CB1045
A70R157	0683-1025	9		RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A70R158	0683-1025	9		RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A70R159	0683-1035	1		RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A70R160	0698-3450	9	2	RESISTOR 42.2K 1% .125W F TC=0+-100	24546	C4-1/8-T0-4222-F
A70R161	0698-3450	9		RESISTOR 42.2K 1% .125W F TC=0+-100	24546	C4-1/8-T0-4222-F
A70R162	0757-0161	9	2	RESISTOR 604 1% .125W F TC=0+-100	24546	C4-1/8-T0-604R-F
A70R163	0698-3493	0	1	RESISTOR 4.12K 1% .125W F TC=0+-100	24546	C4-1/8-T0-4121-F
A70R164	0757-0161	9		RESISTOR 604 1% .125W F TC=0+-100	24546	C4-1/8-T0-604R-F
A70R165	0698-4484	1	1	RESISTOR 19.1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1912-F
A70R166	0698-4123	5	1	RESISTOR 499 1% .125W F TC=0+-100	24546	C4-1/8-T0-499R-F
A70R167	0757-0277	8	1	RESISTOR 49.9 1% .125W F TC=0+-100	24546	C4-1/8-T0-49R2-F
A70R171	0698-3268	7		RESISTOR 11.5K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1152-F
A70R172	0698-4494	3	1	RESISTOR 35.7K 1% .125W F TC=0+-100	24546	C4-1/8-T0-3572-F
A70R173	0698-8344	0	1	RESISTOR 604K 1% .125W F TC=0+-100	28480	0698-8344
A70R181	2100-3350	5		RESISTOR-TRMR 200 10% C SIDE-ADJ 1-TRN	28480	2100-3350
A70R182	0698-3228	9		RESISTOR 49.9K 1% .125W F TC=0+-100	28480	0698-3228
A70R183	0757-0444	1	1	RESISTOR 12.1K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1212-F
A70R188	0757-0403	2	1	RESISTOR 121 1% .125W F TC=0+-100	24546	C4-1/8-T0-121R-F
A70R189	0683-2035	3		RESISTOR 20K 5% .25W FC TC=-400/+800	01121	CB2035
A70R190	0683-2035	3		RESISTOR 20K 5% .25W FC TC=-400/+800	01121	CB2035
A70R191	0683-5125	8		RESISTOR 5.1K 5% .25W FC TC=-400/+700	01121	CB5125
A70R192	0683-1035	1		RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A70TL1	1251-4822	6	1	CONNECTOR 3 PIN M POST TYPE	28480	1251-4822
A70TL1	1258-0141	8	1	JUMPER-REM	28480	1258-0141
A70U1	1826-0217	4	6	IC OP AMP GP DUAL TO-99 PKG	07933	RC4558T
A70U2	1826-0217	4		IC OP AMP GP DUAL TO-99 PKG	07933	RC4558T
A70U3	1826-0217	4		IC OP AMP GP DUAL TO-99 PKG	07933	RC4558T
A70U4	1826-0217	4		IC OP AMP GP DUAL TO-99 PKG	07933	RC4558T
A70U5	1826-0111	7	9	IC OP AMP GP DUAL TO-99 PKG	3L585	CA1458T
A70U6	1826-0111	7		IC OP AMP GP DUAL TO-99 PKG	3L585	CA1458T
A70U7	1826-0111	7		IC OP AMP GP DUAL TO-99 PKG	3L585	CA1458T
A70U8	1826-0217	4		IC OP AMP GP DUAL TO-99 PKG	07933	RC4558T
A70U9	1826-0111	7		IC OP AMP GP DUAL TO-99 PKG	3L585	CA1458T
A70U10	1826-0111	7		IC OP AMP GP DUAL TO-99 PKG	3L585	CA1458T
A70U11	1826-0043	4	2	IC OP AMP GP TO-99 PKG	3L585	CA307T
A70U12	1826-0139	3	1	IC OP AMP WB TO-99 PKG	34371	HA2-2625-B0593
A70U14	1820-1433	6	2	IC SHF-RGTR TTL LS R-S SERIAL-IN PRL-OUT	01295	SN74LS164N
A70U15	1820-1433	6		IC SHF-RGTR TTL LS R-S SERIAL-IN PRL OUT	01295	SN74LS164N
A70U16	1820-1730	6	2	IC FF TTL LS D-TYPE POS-EDGE-TRIG COM	01295	SN74LS273N
	1200-0700	4	2	SOCKET-IC 20-CONT DIP DIP-SLDR	28480	1200-0700
A70U17	1820-1730	6		IC FF TTL LS D-TYPE POS-EDGE-TRIG COM	01295	SN74LS273N
	1200-0700	4		SOCKET-IC 20-CONT DIP DIP-SLDR	28480	1200-0700
A70U18	1820-1934	2	1	IC CONV 8-B D/A 16-DIP-C PKG	06665	DAC-08EQ
A70U19	1826-0026	3	1	IC COMPARATOR PRCN TO-99 PKG	01295	LM311L
A70U20	1820-1422	3	1	IC MV TTL LS MONOSTBL RETRIG	01295	SN74LS122N
A70U21	1820-1194	6	1	IC CNTR TTL LS BIN UP/DOWN SYNCHRO	01295	SN74LS193N
A70U22	1826-0421	2	1	IC CONV RMS/DC 14-DIP-C PKG	24355	AD536AJ
A70U23	1826-0111	7		IC OP AMP GP DUAL TO-99 PKG	3L585	CA1458T
A70U24	1826-0111	7		IC OP AMP GP DUAL TO-99 PKG	3L585	CA1458T
A70U25	1826-0476	7	3	IC SWITCH ANLG 8-DIP-P PKG	01295	TL601CP

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A70U26	1826-0138	8	1	IC COMPARATOR GP QUAD 14-DIP-P PKG	01295	LM339N
A70U27	1826-0111	7		IC OP AMP GP DUAL TO-99 PKG	3L585	CA1458T
A70U28	1826-0111	7		IC OP AMP GP DUAL TO-99 PKG	3L585	CA1458T
A70U29	1826-0547	3	2	IC OP AMP LOW-BIAS-H-IMPD DUAL 8-DIP-P	01295	TL072ACP
A70U30	1826-0547	3		IC OP AMP LOW-BIAS-H-IMPD DUAL 8-DIP-P	01295	TL072ACP
A70U31	1820-1188	8	1	IC PL LOOP 16-DIP-P PKG	3L585	CD4046AF
A70U35	1820-0416	3	1	VOID/CANCELLED	28480	1820-0416
A70U36	1826-0476	7		IC SWITCH ANLG 8-DIP-P PKG	01295	TL601CP
A70U37	1826-0476	7		IC SWITCH ANLG 8-DIP-P PKG	01295	TL601CP
A70U38	1826-0417	6	1	IC SWITCH ANLG QUAD 16-DIP-C PKG	27014	LF13333D
A70U39	1826-0217	4		IC OP AMP GP DUAL TO-99 PKG	07933	RC4558T
A70U40	1820-1202	7	1	IC GATE TTL LS NAND TPL 3-INP	01295	SN74LS10N
A70U41	1826-0043	4		IC OP AMP GP TO-99 PKG	3L585	CA307T
A70U42	1826-0477	8	2	IC SWITCH ANLG 8-DIP-P PKG	01295	TL610CP
A70U43	1826-0477	8		IC SWITCH ANLG 8-DIP-P PKG	01295	TL610CP
A70Y1	0410-0760	0	1	CRYSTAL-QUARTZ 1.6425 MHZ HC-33/U-HLDR	28480	0410-0760
	1200-0607	0	1	SOCKET-IC 16-CONT DIP DIP-SLDR	28480	1200-0607
	4040-0748	3	1	EXTR-PC BD BLK POLYC .062-BD-THKNS	28480	4040-0748
	4040-0756	3	1	EXTR-PC BD WHT POLYC .062-BD-THKNS	28480	4040-0756

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Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A80	03586-66580	8	1	POWER SUPPLY (3586A/B/C)	28480	03586-66580
A80BT1	1420-0251	6	1	BATTERY 2.5V .1A-HR NI-CD SLDR-TAB	28480	1420-0251
A80C1	0180-2779	6	2	CAPACITOR-FXD 470UF+75-10% 50VDC AL	56289	30D477G050FK2
A80C2	0180-2779	6		CAPACITOR-FXD 470UF+75-10% 50VDC AL	56289	30D477G050FK2
A80C3	0180-0098	8	-2	CAPACITOR-FXD 100UF+-20% 20VDC TA	56289	150D107X002052
A80C4	0180-0309	4	1	CAPACITOR-FXD 4.7UF+-20% 10VDC TA	56289	150D475X0010A2
A80C5	0180-0098	8		CAPACITOR-FXD 100UF+-20% 20VDC TA	56289	150D107X002052
A80C6	0180-0159	2	1	CAPACITOR-FXD 220UF+-20% 10VDC TA	56289	150D227X0010S2
A80CR1	1901-0040	1	8	DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
A80CR2	1990-0486	6	3	LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	5082-4684
A80CR3	1902-0579	3	3	DIODE-ZNR 5.1V 5% PD=1W IR=10UA	28480	1902-0579
A80CR4	1901-0040	1		DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
A80CR5	1990-0485	5	3	LED-LAMP LUM-INT=800UCD IF=30MA-MAX	28480	5082-4984
A80CR6	1901-0662	3	3	DIODE-PWR RECT 100V 6A	04713	MR751
A80CR7	1901-0040	1		DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
A80CR8	1902-0777	3	1	DIODE-ZNR 1N825 6.2V 5% DO-7 PD=.4W	04713	1N825
A80CR9	1902-0644	3	3	DIODE-ZNR 1N5363B 30V 5% PD=5W TC=+.29MV	28480	1902-0644
A80CR10	1901-0040	1		DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
A80CR11	1902-3104	6	1	DIODE-ZNR 5.62V 5% DO-35 PD=.4W	28480	1902-3104
A80CR30	1901-0040	1		DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
A80CR31	1990-0486	6		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	5082-4684
A80CR32	1901-0040	1		DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
A80CR33	1902-0644	3		DIODE-ZNR 1N5363B 30V 5% PD=5W TC=+.29MV	28480	1902-0644
A80CR34	1990-0485	5		LED-LAMP LUM-INT=800UCD IF=30MA-MAX	28480	5082-4984
A80CR35	1901-0662	3		DIODE-PWR RECT 100V 6A	04713	MR751
A80CR36	1902-0579	3		DIODE-ZNR 5.1V 5% PD=1W IR=10UA	28480	1902-0579
A80CR50	1901-0040	1		DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
A80CR51	1990-0486	6		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	5082-4684
A80CR52	1901-0040	1		DIODE-SWITCHING 30V 50MA 2NS DO-35	28480	1901-0040
A80CR53	1902-0644	3		DIODE-ZNR 1N5363B 30V 5% PD=5W TC=+.29MV	28480	1902-0644
A80CR54	1990-0485	5		LED-LAMP LUM-INT=800UCD IF=30MA MAX	28480	5082-4984
A80CR55	1901-0662	3		DIODE-PWR RECT 100V 6A	04713	MR751
A80CR56	1902-0579	3		DIODE-ZNR 5.1V 5% PD=1W IR=10UA	28480	1902-0579
A80Q1	1854-0071	7	1	TRANSISTOR NPN SI PD=300MW FT=200MHZ	28480	1854-0071
A80R1	0698-3700	2	1	RESISTOR 715 1% .125W F TC=0+-100	24546	C4-1/8-T0-715R-F
A80R2	0683-1045	3	1	RESISTOR 100K 5% .25W FC TC=-400/+800	01121	CB1045
A80R3	0683-4725	2	10	RESISTOR 4.7K 5% .25W FC TC=-400/+700	01121	CB4725
A80R4	0683-2705	4	1	RESISTOR 27 5% .25W FC TC=-400/+500	01121	CB2705
A80R5	0683-3025	3	2	RESISTOR 3K 5% .25W FC TC=-400/+700	01121	CB3025
A80R6	0811-3290	7	2	RESISTOR .1 5% 2W PW TC=0+-800	28480	0811-3290
A80R7	0683-6235	3	2	RESISTOR 62K 5% .25W FC TC=-400/+800	01121	CB6235
A80R8	0757-0401	0	3	RESISTOR 100 1% .125W F TC=0+-100	24546	C4-1/8-T0-101-F
A80R9	0683-7525	6	2	RESISTOR 7.5K 5% .25W FC TC=-400/+700	01121	CB7525
A80R10	0683-4725	2		RESISTOR 4.7K 5% .25W FC TC=-400/+700	01121	CB4725
A80R11	0683-4725	2		RESISTOR 4.7K 5% .25W FC TC=-400/+700	01121	CB4725
A80R12	0683-2025	1	4	RESISTOR 2K 5% .25W FC TC=-400/+700	01121	CB2025
A80R13	0683-1005	5	3	RESISTOR 10 5% .25W FC TC=-400/+500	01121	CB1005
A80R14	0698-8061	8	1	RESISTOR 8.25K .1% .125W F TC=0+-25	19701	MF4C1/8-T9-8251-B
A80R15	2100-3056	8	1	RESISTOR-TRMR 5K 10% C SIDE ADJ 17-TRN	02111	43P502
A80R16	0698-6360	6	4	RESISTOR 10K .1% .125W F TC=0+-25	28480	0698-6360
A80R17	0683-3325	6	1	RESISTOR 3.3K 5% .25W FC TC=-400/+700	01121	CB3325
A80R18	0683-1025	9	1	RESISTOR 1K 5% .25W FC TC=-400/+600	01121	CB1025
A80R20	0687-4721	6	2	RESISTOR 4.7K 10% .5W CC TC=0+647	01121	EB4721
A80R21	0687-4721	6		RESISTOR 4.7K 10% .5W CC TC=0+647	01121	EB4721
A80R22	0683-2725	8	1	RESISTOR 2.7K 5% .25W FC TC=-400/+700	01121	CB2725
A80R23	0683-2025	1		RESISTOR 2K 5% .25W FC TC=-400/+700	01121	CB2025
A80R24	0683-4705	8	3	RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A80R30	0683-3025	3		RESISTOR 3K 5% .25W FC TC=-400/+700	01121	CB3025
A80R31	0811-3290	7		RESISTOR .1 5% 2W PW TC=0+-800	28480	0811-3290
A80R32	0683-6235	3		RESISTOR 62K 5% .25W FC TC=-400/+800	01121	CB6235
A80R33	0757-0401	0		RESISTOR 100 1% .125W F TC=0+-100	24546	C4-1/8-T0-101-F
A80R34	0683-7525	6		RESISTOR 7.5K 5% .25W FC TC=-400/+700	01121	CB7525
A80R35	0683-4725	2		RESISTOR 4.7K 5% .25W FC TC=-400/+700	01121	CB4725
A80R36	0683-4725	2		RESISTOR 4.7K 5% .25W FC TC=-400/+700	01121	CB4725
A80R37	0683-4725	2		RESISTOR 4.7K 5% .25W FC TC=-400/+700	01121	CB4725
A80R38	0698-6360	6		RESISTOR 10K .1% .125W F TC=0+-25	28480	0698-6360
A80R39	0698-6360	6		RESISTOR 10K .1% .125W F TC=0+-25	28480	0698-6360
A80R40	0683-1005	5		RESISTOR 10 5% .25W FC TC=-400/+500	01121	CB1005
A80R41	0683-2025	1		RESISTOR 2K 5% .25W FC TC=-400/+700	01121	CB2025

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Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A80R42	0683-2025	1		RESISTOR 2K 5% .25W FC TC=-400/+700	01121	CB2025
A80R43	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A80R50	0683-2425	5	1	RESISTOR 2.4K 5% .25W FC TC=-400/+700	01121	CB2425
A80R52	0683-1545	8	1	RESISTOR 150K 5% .25W FC TC=-800/+900	01121	CB1545
A80R53	0757-0401	0		RESISTOR 100 1% .125W F TC=0+-100	24546	C4-1/8-T0-101-F
A80R54	0683-4725	2		RESISTOR 4.7K 5% .25W FC TC=-400/+700	01121	CB4725
A80R55	0683-4725	2		RESISTOR 4.7K 5% .25W FC TC=-400/+700	01121	CB4725
A80R56	0683-4725	2		RESISTOR 4.7K 5% .25W FC TC=-400/+700	01121	CB4725
A80R57	0698-3259	6	1	RESISTOR 7.87K 1% .125W F TC=0+-100	24546	C4-1/8-T0-7871-F
A80R58	0698-6360	6		RESISTOR 10K .1% .125W F TC=0+-25	28480	0698-6360
A80R59	0683-1035	5		RESISTOR 10 5% .25W FC TC=-400/+500	01121	CB1035
A80R60	0683-6215	9	1	RESISTOR 620 5% .25W FC TC=-400/+600	01121	CB6215
A80R61	0683-4725	2		RESISTOR 4.7K 5% .25W FC TC=-400/+700	01121	CB4725
A80R62	0686-1225	7	1	RESISTOR 1.2K 5% .5W CC TC=0+647	01121	EB1225
A80R63	0683-4705	8		RESISTOR 47 5% .25W FC TC=-400/+500	01121	CB4705
A80U1	1826-0243	6	3	IC OP AMP GP DUAL TO-99 PKG	04713	MC1558G
A80U2	1826-0243	6		IC OP AMP GP DUAL TO-99 PKG	04713	MC1558G
A80U3	1826-0243	6		IC OP AMP GP DUAL TO-99 PKG	04713	MC1558G
	4040-0747	2	1	EXTR-PC BD GRA POLYC .062-BD-THKNS	28480	4040-0747
	4040-0749	4	1	EXTR-PC BD BRN POLYC .062-BD-THKNS	28480	4040-0749

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Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A98	03586-66594	4	1	SWITCH/DISPLAY (3586C)	28480	03586-66594
A98C1	0180-0104	7	1	CAPACITOR-FXD 200UF+75-10% 16VDC AL	56289	30D207G016DF2
A98C2	0160-3847	9	3	CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A98C3	0180-2651	3	1	CAPACITOR-FXD 470UF+75-10% 16VDC AL	56289	500D477H016DF2
A98C4	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A98C5	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A98CR2	1990-0665	3	27	LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A98CR3	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A98CR4	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A98CR5	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A98CR6	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A98CR7	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A98CR8	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A98CR12	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A98CR13	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A98CR14	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A98CR15	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A98CR16	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A98CR17	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A98CR18	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A98CR19	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A98CR20	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A98CR21	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A98CR22	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A98CR23	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A98CR24	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A98CR25	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A98CR26	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A98CR27	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A98CR28	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A98CR29	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A98CR30	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A98CR31	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A98CR300	1901-0025	2	2	DIODE-GEN PRP 100V 200MA DO-7	28480	1901-0025
A98CR301	1902-3002	3	2	DIODE-ZNR 2.37V 5% DO-7 PD=.4W TC=-.074%	28480	1902-3002
A98CR302	1902-0126	6	2	DIODE-ZNR 2.61V 5% DO-7 PD=.4W TC=-.072%	28480	1902-0126
A98CR303	1901-0025	2		DIODE-GEN PRP 100V 200MA DO-7	28480	1901-0025
A98CR304	1902-3002	3		DIODE-ZNR 2.37V 5% DO-7 PD=.4W TC=-.074%	28480	1902-3002
A98CR305	1902-0126	6		DIODE-ZNR 2.61V 5% DO-7 PD=.4W TC=-.072%	28480	1902-0126
A98CR307	1902-0960	6	1	DIODE-ZNR 12V 5% DO-35 PD=.4W TC=+.077%	28480	1902-0960
A98DS1	1990-0592	5	13	DISPLAY-NUM-SEG 1-CHAR .43-H	28480	5082-7653
A98DS2	1990-0592	5		DISPLAY-NUM-SEG 1-CHAR .43-H	28480	5082-7653
A98DS3	1990-0592	5		DISPLAY-NUM-SEG 1-CHAR .43-H	28480	5082-7653
A98DS4	1990-0592	5		DISPLAY-NUM-SEG 1-CHAR .43-H	28480	5082-7653
A98DS5	1990-0592	5		DISPLAY-NUM-SEG 1-CHAR .43-H	28480	5082-7653
A98DS6	1990-0592	5		DISPLAY-NUM-SEG 1-CHAR .43-H	28480	5082-7653
A98DS7	1990-0592	5		DISPLAY-NUM-SEG 1-CHAR .43-H	28480	5082-7653
A98DS8	1990-0592	5		DISPLAY-NUM-SEG 1-CHAR .43-H	28480	5082-7653
A98DS9	1990-0592	5		DISPLAY-NUM-SEG 1-CHAR .43-H	28480	5082-7653
A98DS10	1990-0592	5		DISPLAY-NUM-SEG 1-CHAR .43-H	28480	5082-7653
A98DS11	1990-0592	5		DISPLAY-NUM-SEG 1-CHAR .43-H	28480	5082-7653
A98DS12	1990-0592	5		DISPLAY-NUM-SEG 1-CHAR .43-H	28480	5082-7653
A98DS13	1990-0592	5		DISPLAY-NUM-SEG 1-CHAR .43-H	28480	5082-7653
A98DS14	1990-0681	3	1	DISPLAY-AN-SEG 1-CHAR .400-H RED	28480	5082-7656
A98DS15	1990-0696	0	15	LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98DS16	1990-0699	3	7	LED-LIGHT BAR MODULE LUM-INT=7MCD	28480	1LM1-2350
A98DS18	1990-0699	3		LED-LIGHT BAR MODULE LUM-INT=7MCD	28480	1LM1-2350
A98DS19	1990-0699	3		LED-LIGHT BAR MODULE LUM-INT=7MCD	28480	1LM1-2350
A98DS21	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98DS23	1990-0699	3		LED-LIGHT BAR MODULE LUM-INT=7MCD	28480	1LM1-2350
A98DS24	1990-0699	3		LED-LIGHT BAR MODULE LUM-INT=7MCD	28480	1LM1-2350
A98DS25	1990-0699	3		LED-LIGHT BAR MODULE LUM-INT=7MCD	28480	1LM1-2350
A98DS26	1990-0699	3		LED-LIGHT BAR MODULE LUM-INT=7MCD	28480	1LM1-2350
A98DS27	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98DS28	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98DS29	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98DS30	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98DS31	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98DS32	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98DS33	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98DS34	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98DS35	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98DS36	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98DS37	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98DS39	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A98DS40	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98J1	1251-5584	9	1	CONNECTOR 34-PIN M POST TYPE	28480	1251-5584
A98J2	1251-5608	8	1	CONNECTOR 14-PIN M POST TYPE	28480	1251-5608
A98J3	1251-5607	7	2	CONNECTOR 5-PIN M POST TYPE	28480	1251-5607
A98J4	1251-5607	7		CONNECTOR 5-PIN M POST TYPE	28480	1251-5607
A98J6	1251-5383	6	1	CONNECTOR 2-PIN M POST TYPE	28480	1251-5383
A98L1	9100-0541	7	2	INDUCTOR RF-CH-MLD 250UH 10% .25DX.5LG	28480	9100-0541
A98L2	9100-0541	7		INDUCTOR RF-CH-MLD 250UH 10% .25DX.5LG	28480	9100-0541
A98Q1-	1853-0016	8	8	TRANSISTOR PNP SI TO-92 PD=300MW	28480	1853-0016
A98Q8	1853-0016	8		TRANSISTOR PNP SI TO-92 PD=300MW	28480	1853-0016
A98R1	0683-2705	4	8	RESISTOR 27 5% .25W FC TC=-400/+500	01121	CB2705
A98R2	0683-2705	4		RESISTOR 27 5% .25W FC TC=-400/+500	01121	CB2705
A98R3	0683-2705	4		RESISTOR 27 5% .25W FC TC=-400/+500	01121	CB2705
A98R4	0683-2705	4		RESISTOR 27 5% .25W FC TC=-400/+500	01121	CB2705
A98R5	0683-2705	4		RESISTOR 27 5% .25W FC TC=-400/+500	01121	CB2705
A98R6	0683-2705	4		RESISTOR 27 5% .25W FC TC=-400/+500	01121	CB2705
A98R7	0683-2705	4		RESISTOR 27 5% .25W FC TC=-400/+500	01121	CB2705
A98R8	0683-2705	4		RESISTOR 27 5% .25W FC TC=-400/+500	01121	CB2705
A98R9	0683-1825	7	8	RESISTOR 1.8K 5% .25W FC TC=-400/+700	01121	CB1825
A98R10	0683-1825	7		RESISTOR 1.8K 5% .25W FC TC=-400/+700	01121	CB1825
A98R11	0683-1825	7		RESISTOR 1.8K 5% .25W FC TC=-400/+700	01121	CB1825
A98R12	0683-1825	7		RESISTOR 1.8K 5% .25W FC TC=-400/+700	01121	CB1825
A98R13	0683-1825	7		RESISTOR 1.8K 5% .25W FC TC=-400/+700	01121	CB1825
A98R14	0683-1825	7		RESISTOR 1.8K 5% .25W FC TC=-400/+700	01121	CB1825
A98R15	0683-1825	7		RESISTOR 1.8K 5% .25W FC TC=-400/+700	01121	CB1825
A98R16	0683-1825	7		RESISTOR 1.8K 5% .25W FC TC=-400/+700	01121	CB1825
A98R17	1810-0164	7	1	NETWORK-RES 9 SIP4.7K OHM X 8	91637	CSP09C07-472J
A98R18	1810-0269	3	1	NETWORK-RES 9-SIP10.0K OHM X 8	28480	1810-0269
A98R19	0757-0448	5	1	RESISTOR 18.2K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1822-F
A98R20	0757-0426	9	1	RESISTOR 1.3K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1301-F
A98R21	0683-2005	7	4	RESISTOR 20 5% .25W FC TC=-400/+500	01121	CB2005
A98R22	0683-2005	7		RESISTOR 20 5% .25W FC TC=-400/+500	01121	CB2005
A98R23	0683-2005	7		RESISTOR 20 5% .25W FC TC=-400/+500	01121	CB2005
A98R24	0683-2005	7		RESISTOR 20 5% .25W FC TC=-400/+500	01121	CB2005
A98R25	0683-1005	5	1	RESISTOR 10 5% .25W FC TC=-400/+500	01121	CB1005
A98S0	5060-9436	7	54	PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S1	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S2	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S3	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S4	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S5	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S6	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S7	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S8	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S9	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S10	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S11	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S12	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S13	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S14	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S15	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S16	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S17	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S18	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S19	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S20	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S21	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S22	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S23	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S24	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S25	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S26	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S27	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S28	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S29	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S30	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S31	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S32	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S33	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S34	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S35	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S36	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S37	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S38	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S39	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A98S40	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S41	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S42	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S43	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S44	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S45	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S46	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S47	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S48	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S49	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S50	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S51	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S52	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S53	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S300	3101-2441	6	1	SWITCH-PB DPDT ALTNG .5A 130VAC	28480	3101-2441
A98U1	1820-1433	6	3	IC SHF-RGTR TTL LS R-S SERIAL-IN PRL-OUT	01295	SN74LS164N
A98U2	1820-1433	6		IC SHF-RGTR TTL LS R-S SERIAL-IN PRL-OUT	01295	SN74LS164N
A98U3	1820-1433	6		IC SHF-RGTR TTL LS R-S SERIAL-IN PRL-OUT	01295	SN74LS164N
A98U4	1820-1740	8	3	IC DRVR TTL DSPL DRVR	27014	DS8863N
A98U5	1820-1740	8		IC DRVR TTL DSPL DRVR	27014	DS8863N
A98U6	1820-1740	8		IC DRVR TTL DSPL DRVR	27014	DS8863N
A98U7	1820-1738	6	1	IC FF TTL LS D-TYPE POS-EDGE-TRIG COM	01295	SN74LS273N
A98U8	1820-1587	1	4	IC DRVR TTL LED DRVR HEX 1-INP	27014	DM8859N
A98U9	1820-1587	1		IC DRVR TTL LED DRVR HEX 1-INP	27014	DM8859N
A98U10	1820-1587	1		IC DRVR TTL LED DRVR HEX 1-INP	27014	DM8859N
A98U11	1820-1587	1		IC DRVR TTL LED DRVR HEX 1-INP	27014	DM8859N
A98U12	1820-1200	5	2	IC INV TTL LS HEX	01295	SN74LS05N
A98U13	1820-1200	5		IC INV TTL LS HEX	01295	SN74LS05N
A98U14	1820-1873	8	1	IC BFR TTL LS INV OCTL 2-INP	27014	DM81LS98N
A98U15	1820-1492	7	1	IC BFR TTL LS INV HEX 1-INP	01295	SN74LS368AN
A98U16	1820-1112	8	1	IC FF TTL LS D-TYPE POS-EDGE-TRIG	01295	SN74LS74AN
	1200-0837	8	1	SOCKET-HI-DENS 28-CONT DIP-SLDR	28480	1200-0837
	1200-0638	7	1	SOCKET-IC 14-CONT DIP DIP-SLDR	28480	1200-0638

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	CD	Qty	Description	Mfr Code	Mfr Part Number
A9B	03586-66595	5	1	SWITCH/DISPLAY (3586A OPTION 003)	28480	03586-66595
A98C1	0180-0104	7	1	CAPACITOR-FXD 200UF+75-10% 16VDC AL	56289	30D207G016DF2
A98C2	0160-3847	9	3	CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A78C3	0180-2451	3	1	CAPACITOR-FXD 470UF+75-10% 16VDC AL	56289	500D477H016DF7
A98C4	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A98C5	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A98CR2	1990-0665	3	35	LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A98CR3	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A98CR4	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A98CR5	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A98CR6	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A98CR7	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A98CR8	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A98CR9	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A98CR10	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A98CR11	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A98CR12	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A98CR13	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A98CR14	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A98CR15	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A98CR16	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A98CR17	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A98CR18	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A98CR19	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A98CR20	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A98CR21	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A98CR22	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A98CR23	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A98CR24	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A98CR25	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A98CR26	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20mA-MAX BVR=5V	28480	1990-0665
A98CR27	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A98CR28	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A98CR29	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A98CR30	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A98CR31	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A98CR100	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A98CR101	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A98CR102	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A98CR103	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A98CR104	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A98CR300	1901-0025	2	2	DIODE-GEN PRP 100V 200MA DO-7	28480	1901-0025
A98CR301	1902-3002	3	2	DIODE-ZNR 2.37V 5% DO-7 PD=.4W TC=-.074%	28480	1902-3002
A98CR302	1902-0126	6	2	DIODE-ZNR 2.61V 5% DO-7 PD=.4W TC=-.072%	28480	1902-0126
A98CR303	1901-0025	2		DIODE GEN PRP 100V 200MA DO-7	28480	1901-0025
A98CR304	1902-3002	3		DIODE-ZNR 2.37V 5% DO-7 PD=.4W TC=-.074%	28480	1902-3002
A98CR305	1902-0126	6		DIODE-ZNR 2.61V 5% DO-7 PD=.4W TC=-.072%	28480	1902-0126
A98CR307	1902-0960	6	1	DIODE-ZNR 12V 5% DO-35 PD=.4W TC=+.077%	28480	1902-0960
A98D16	1990-0699	3	9	LED-LIGHT BAR MODULE LUM-INT=7MCD	28480	1LM1-2350
A98D17	1990-0699	3		LED-LIGHT BAR MODULE LUM-INT=7MCD	28480	1LM1-2350
A98D18	1990-0699	3		LED-LIGHT BAR MODULE LUM-INT=7MCD	28480	1LM1-2350
A98D19	1990-0699	3		LED-LIGHT BAR MODULE LUM-INT=7MCD	28480	1LM1-2350
A98D22	1990-0699	3		LED-LIGHT BAR MODULE LUM-INT=7MCD	28480	1LM1-2350
A98D23	1990-0699	3		LED-LIGHT BAR MODULE LUM-INT=7MCD	28480	1LM1-2350
A98D24	1990-0699	3		LED-LIGHT BAR MODULE LUM-INT=7MCD	28480	1LM1-2350
A98D25	1990-0699	3		LED-LIGHT BAR MODULE LUM-INT=7MCD	28480	1LM1-2350
A98D26	1990-0699	3		LED-LIGHT BAR MODULE LUM-INT=7MCD	28480	1LM1-2350
A98DS1	1990-0592	5	13	DISPLAY-NUM-SEG 1-CHAR .43-H	28480	5082-7653
A98DS2	1990-0592	5		DISPLAY-NUM-SEG 1-CHAR .43-H	28480	5082-7653
A98DS3	1990-0592	5		DISPLAY-NUM-SEG 1-CHAR .43-H	28480	5082-7653
A98DS4	1990-0592	5		DISPLAY-NUM-SEG 1-CHAR .43-H	28480	5082-7653
A98DS5	1990-0592	5		DISPLAY-NUM-SEG 1-CHAR .43-H	28480	5082-7653
A98DS6	1990-0592	5		DISPLAY-NUM-SEG 1-CHAR .43-H	28480	5082-7653
A98DS7	1990-0592	5		DISPLAY-NUM-SEG 1-CHAR .43-H	28480	5082-7653
A98DS8	1990-0592	5		DISPLAY-NUM-SEG 1-CHAR .43-H	28480	5082-7653
A98DS9	1990-0592	5		DISPLAY-NUM-SEG 1-CHAR .43-H	28480	5082-7653
A98DS10	1990-0592	5		DISPLAY-NUM-SEG 1-CHAR .43-H	28480	5082-7653
A98DS11	1990-0592	5		DISPLAY-NUM-SEG 1-CHAR .43-H	28480	5082-7653
A98DS12	1990-0592	5		DISPLAY-NUM-SEG 1-CHAR .43-H	28480	5082-7653
A98DS13	1990-0592	5		DISPLAY-NUM-SEG 1-CHAR .43-H	28480	5082-7653
A98DS14	1990-0681	3	1	DISPLAY-AN-SEG 1-CHAR .408-H RED	28480	5082-7656
A98DS15	1990-0696	0	17	LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A98DS20	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98DS21	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98DS27	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98DS28	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98DS29	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98DS30	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98DS31	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98DS32	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98DS33	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98DS34	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98DS35	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98DS36	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98DS37	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98DS38	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98DS39	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98DS40	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98J1	1251-5584	9	1	CONNECTOR 34-PIN M POST TYPE	28480	1251-5584
A98J2	1251-5608	8	1	CONNECTOR 14-PIN M POST TYPE	28480	1251-5608
A98J3	1251-5607	7	2	CONNECTOR 5-PIN M POST TYPE	28480	1251-5607
A98J4	1251-5607	7		CONNECTOR 5-PIN M POST TYPE	28480	1251-5607
A98J6	1251-5383	6	1	CONNECTOR 2-PIN M POST TYPE	28480	1251-5383
A98L1	9100-0541	7	2	INDUCTOR RF-CH-MLD 250UH 10% .25DX.5LG	28480	9100-0541
A98L2	9100-0541	7		INDUCTOR RF-CH-MLD 250UH 10% .25DX.5LG	28480	9100-0541
A98Q1	1853-0016	8	8	TRANSISTOR PNP SI TO-92 PD=300MW	28480	1853-0016
A98Q2	1853-0016	8		TRANSISTOR PNP SI TO-92 PD=300MW	28480	1853-0016
A98Q3	1853-0016	8		TRANSISTOR PNP SI TO-92 PD=300MW	28480	1853-0016
A98Q4	1853-0016	8		TRANSISTOR PNP SI TO-92 PD=300MW	28480	1853-0016
A98Q5	1853-0016	8		TRANSISTOR PNP SI TO-92 PD=300MW	28480	1853-0016
A98Q6	1853-0016	8		TRANSISTOR PNP SI TO-92 PD=300MW	28480	1853-0016
A98Q7	1853-0016	8		TRANSISTOR PNP SI TO-92 PD=300MW	28480	1853-0016
A98Q8	1853-0016	8		TRANSISTOR PNP SI TO-92 PD=300MW	28480	1853-0016
A98R1	0683-2705	4	8	RESISTOR 27 5% .25W FC TC=-400/+500	01121	CB2705
A98R2	0683-2705	4		RESISTOR 27 5% .25W FC TC=-400/+500	01121	CB2705
A98R3	0683-2705	4		RESISTOR 27 5% .25W FC TC=-400/+500	01121	CB2705
A98R4	0683-2705	4		RESISTOR 27 5% .25W FC TC=-400/+500	01121	CB2705
A98R5	0683-2705	4		RESISTOR 27 5% .25W FC TC=-400/+500	01121	CB2705
A98R6	0683-2705	4		RESISTOR 27 5% .25W FC TC=-400/+500	01121	CB2705
A98R7	0683-2705	4		RESISTOR 27 5% .25W FC TC=-400/+500	01121	CB2705
A98R8	0683-2705	4		RESISTOR 27 5% .25W FC TC=-400/+500	01121	CB2705
A98R9	0683-1825	7	9	RESISTOR 1.8K 5% .25W FC TC=-400/+700	01121	CB1825
A98R10	0683-1825	7		RESISTOR 1.8K 5% .25W FC TC=-400/+700	01121	CB1825
A98R11	0683-1825	7		RESISTOR 1.8K 5% .25W FC TC=-400/+700	01121	CB1825
A98R12	0683-1825	7		RESISTOR 1.8K 5% .25W FC TC=-400/+700	01121	CB1825
A98R13	0683-1825	7		RESISTOR 1.8K 5% .25W FC TC=-400/+700	01121	CB1825
A98R14	0683-1825	7		RESISTOR 1.8K 5% .25W FC TC=-400/+700	01121	CB1825
A98R15	0683-1825	7		RESISTOR 1.8K 5% .25W FC TC=-400/+700	01121	CB1825
A98R16	0683-1825	7		RESISTOR 1.8K 5% .25W FC TC=-400/+700	01121	CB1825
A98R17	1810-0269	3	1	NETWORK-RES 9-SIP10.0K OHM X 8	28480	1810-0269
A98R18	1810-0164	7	1	NETWORK-RES 9-SIP4.7K OHM X 8	91637	CSP09C07-472J
A98R19	0757-0448	5	1	RESISTOR 18.2K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1822-F
A98R20	0757-0426	9	1	RESISTOR 1.3K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1301-F
A98R21	0683-2005	7	4	RESISTOR 20 5% .25W FC TC=-400/+500	01121	CB2005
A98R22	0683-2005	7		RESISTOR 20 5% .25W FC TC=-400/+500	01121	CB2005
A98R23	0683-2005	7		RESISTOR 20 5% .25W FC TC=-400/+500	01121	CB2005
A98R24	0683-2005	7		RESISTOR 20 5% .25W FC TC=-400/+500	01121	CB2005
A98R25	0683-1005	5	1	RESISTOR 10 5% .25W FC TC=-400/+500	01121	CB1005
A98S0	5060-9436	7	78	PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S1	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S2	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S3	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S4	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S5	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S6	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S7	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S8	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S9	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S10	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S11	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S12	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S13	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S14	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S15	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S16	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S17	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S18	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S19	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A98S20	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S21	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S22	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S23	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S24	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S25	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S26	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S27	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S28	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S29	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S30	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S31	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S32	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S33	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S34	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S35	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S36	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S37	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S38	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S39	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S40	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S41	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S42	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S43	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S44	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S45	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S46	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S47	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S48	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S49	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S50	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S51	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S52	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S53	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S54	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S55	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S56	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S57	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S58	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S59	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S60	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S61	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S62	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S63	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S64	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S65	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S66	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S67	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S68	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S69	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S70	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S71	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S72	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S73	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S74	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S75	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S76	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S77	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S300	3101-2441	6	1	SWITCH-PB DPDT ALTNG .5A 100VAC	28480	3101-2441
A98U1	1820-1433	6	3	IC SHF-RGTR TTL LS R-S SERIAL-IN PRL-OUT	01295	SN74LS164N
A98U2	1820-1433	6		IC SHF-RGTR TTL LS R-S SERIAL-IN PRL-OUT	01295	SN74LS164N
A98U3	1820-1433	6		IC SHF-RGTR TTL LS R-S SERIAL-IN PRL-OUT	01295	SN74LS164N
A98U4	1820-1740	8	3	IC DRVR TTL DSPL DRVR	27014	DS8863N
A98U5	1820-1740	8		IC DRVR TTL DSPL DRVR	27014	DS8863N
A98U6	1820-1740	8		IC DRVR TTL DSPL DRVR	27014	DS8863N
A98U7	1820-1738	6	1	IC FF TTL LS D-TYPE POS-EDGE-TRIG COM	01295	SN74LS273N
A98U8	1820-1587	1	4	IC DRVR TTL LED DRVR HEX 1-INP	27014	DM8859N
A98U9	1820-1587	1		IC DRVR TTL LED DRVR HEX 1-INP	27014	DM8859N
A98U10	1820-1587	1		IC DRVR TTL LED DRVR HEX 1-INP	27014	DM8859N
A98U11	1820-1587	1		IC DRVR TTL LED DRVR HEX 1-INP	27014	DM8859N
A98U12	1820-1200	5	2	IC INV TTL LS HEX	01295	SN74LS05N
A98U13	1820-1200	5		IC INV TTL LS HEX	01295	SN74LS05N
A98U14	1820-1873	8	1	IC BFR TTL LS INV OCTL 2 INP	27014	DM81LS98N
A98U15	1820-1492	7	1	IC BFR TTL LS INV HEX 1-INP	01295	SN74LS368AN

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A9BU16	1820-1112	8	1	IC FF TTL LS D-TYPE POS-EDGE-TRIG	01295	SN74LS74AN
	1200-0837	8	1	SOCKET-HI-DENS 28-CONT DIP-SLDR	28480	1200-0837

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	CD	Qty	Description	Mfr Code	Mfr Part Number
A9B	03586-66596	6	1	SWITCH/DISPLAY (3586A STANDARD)	28480	03586-66596
A9BC1	0180-0164	7	1	CAPACITOR-FXD 200UF+75-10% 16VDC AL	56289	30D207G016DF2
A9BC2	0160-3847	2	3	CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A9BC3	0180-2651	3	1	CAPACITOR-FXD 470UF+75-10% 16VDC AL	56289	500D477M016DF7
A9BC4	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A9BC5	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A9BCR2	1990-0665	3	34	LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR3	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR4	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR5	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR6	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR7	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR8	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR9	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR10	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR11	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR12	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR13	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR14	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR15	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR16	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR17	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR18	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR19	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR20	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR21	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR22	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR23	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR24	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR25	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR26	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR27	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR28	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR29	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR30	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR31	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR101	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR102	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR103	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR104	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR300	1901-0025	2	2	DIODE-GEN PRP 100V 200MA DO-7	28480	1901-0025
A9BCR301	1902-3002	3	2	DIODE-ZNR 2.37V 5% DO-7 PD=.4W TC=-.074%	28480	1902-3002
A9BCR302	1902-0126	6	2	DIODE-ZNR 2.61V 5% DO-7 PD=.4W TC=-.072%	28480	1902-0126
A9BCR303	1901-0025	2		DIODE-GEN PRP 100V 200MA DO-7	28480	1901-0025
A9BCR304	1902-3002	3		DIODE-ZNR 2.37V 5% DO-7 PD=.4W TC=-.074%	28480	1902-3002
A9BCR305	1902-0126	6		DIODE-ZNR 2.61V 5% DO-7 PD=.4W TC=-.072%	28480	1902-0126
A9BCR307	1902-0960	6	1	DIODE-ZNR 12V 5% DO-35 PD=.4W TC=+.077%	28480	1902-0960
A9BDS1	1990-0592	5	13	DISPLAY-NUM-SEG 1-CHAR .43 H	28480	5082-7653
A9BDS2	1990-0592	5		DISPLAY-NUM-SEG 1-CHAR .43 H	28480	5082-7653
A9BDS3	1990-0592	5		DISPLAY-NUM-SEG 1-CHAR .43-H	28480	5082-7653
A9BDS4	1990-0592	5		DISPLAY-NUM-SEG 1-CHAR .43-H	28480	5082-7653
A9BDS5	1990-0592	5		DISPLAY-NUM-SEG 1-CHAR .43-H	28480	5082-7653
A9BDS6	1990-0592	5		DISPLAY-NUM-SEG 1-CHAR .43 H	28480	5082-7653
A9BDS7	1990-0592	5		DISPLAY-NUM-SEG 1-CHAR .43-H	28480	5082-7653
A9BDS8	1990-0592	5		DISPLAY-NUM-SEG 1-CHAR .43 H	28480	5082-7653
A9BDS9	1990-0592	5		DISPLAY-NUM-SEG 1-CHAR .43 H	28480	5082-7653
A9BDS10	1990-0592	5		DISPLAY-NUM-SEG 1-CHAR .43-H	28480	5082-7653
A9BDS11	1990-0592	5		DISPLAY-NUM-SEG 1-CHAR .43 H	28480	5082-7653
A9BDS12	1990-0592	5		DISPLAY-NUM-SEG 1-CHAR .43-H	28480	5082-7653
A9BDS13	1990-0592	5		DISPLAY-NUM-SEG 1-CHAR .43-H	28480	5082-7653
A9BDS14	1990-0691	3	1	DISPLAY-AN SEG 1 CHAR .400-H RED	28480	5082-7656
A9BDS15	1990-0696	0	17	LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A9BDS16	1990-0699	3	7	LED-LIGHT BAR MODULE LUM-INT=7MCD	28480	1LM1-2350
A9BDS17	1990-0699	3		LED-LIGHT BAR MODULE LUM-INT=7MCD	28480	1LM1-2350
A9BDS18	1990-0699	3		LED-LIGHT BAR MODULE LUM-INT=7MCD	28480	1LM1-2350
A9BDS20	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A9BDS21	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A9BDS23	1990-0699	3		LED-LIGHT BAR MODULE LUM-INT=7MCD	28480	1LM1-2350
A9BDS24	1990-0699	3		LED-LIGHT BAR MODULE LUM-INT=7MCD	28480	1LM1-2350
A9BDS25	1990-0699	3		LED-LIGHT BAR MODULE LUM-INT=7MCD	28480	1LM1-2350
A9BDS26	1990-0699	3		LED-LIGHT BAR MODULE LUM-INT=7MCD	28480	1LM1-2350
A9BDS27	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A98DS28	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98DS29	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98DS30	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98DS31	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98DS32	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98DS33	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98DS34	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98DS35	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98DS36	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98DS37	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98DS38	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98DS39	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98DS40	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98J1	1251-5584	9	1	CONNECTOR 34-PIN M POST TYPE	28480	1251-5584
A98J2	1251-5608	8	1	CONNECTOR 14-PIN M POST TYPE	28480	1251-5608
A98J3	1251-5607	7	2	CONNECTOR 5-PIN M POST TYPE	28480	1251-5607
A98J4	1251-5607	7		CONNECTOR 5-PIN M POST TYPE	28480	1251-5607
A98J6	1251-5383	6	1	CONNECTOR 2-PIN M POST TYPE	28480	1251-5383
A98L1	9100-0541	7	2	INDUCTOR RF-CH MLD 250UH 10% .25DX.5LG	28480	9100-0541
A98L2	9100-0541	7		INDUCTOR RF-CH-MLD 250UH 10% .25DX.5LG	28480	9100-0541
A98Q1	1853-0016	8	8	TRANSISTOR PNP SI TO-92 PD=300MW	28480	1853-0016
A98Q2	1853-0016	8		TRANSISTOR PNP SI TO-92 PD=300MW	28480	1853-0016
A98Q3	1853-0016	8		TRANSISTOR PNP SI TO-92 PD=300MW	28480	1853-0016
A98Q4	1853-0016	8		TRANSISTOR PNP SI TO-92 PD=300MW	28480	1853-0016
A98Q5	1853-0016	8		TRANSISTOR PNP SI TO-92 PD=300MW	28480	1853-0016
A98Q6	1853-0016	8		TRANSISTOR PNP SI TO-92 PD=300MW	28480	1853-0016
A98Q7	1853-0016	8		TRANSISTOR PNP SI TO-92 PD=300MW	28480	1853-0016
A98Q8	1853-0016	8		TRANSISTOR PNP SI TO-92 PD=300MW	28480	1853-0016
A98R1	0683-2705	4	8	RESISTOR 27 5% .25W FC TC=-400/+500	01121	CB2705
A98R2	0683-2705	4		RESISTOR 27 5% .25W FC TC=-400/+500	01121	CB2705
A98R3	0683-2705	4		RESISTOR 27 5% .25W FC TC=-400/+500	01121	CB2705
A98R4	0683-2705	4		RESISTOR 27 5% .25W FC TC=-400/+500	01121	CB2705
A98R5	0683-2705	4		RESISTOR 27 5% .25W FC TC=-400/+500	01121	CB2705
A98R6	0683-2705	4		RESISTOR 27 5% .25W FC TC=-400/+500	01121	CB2705
A98R7	0683-2705	4		RESISTOR 27 5% .25W FC TC=-400/+500	01121	CB2705
A98R8	0683-2705	4		RESISTOR 27 5% .25W FC TC=-400/+500	01121	CB2705
A98R9	0683-1825	7	8	RESISTOR 1.8K 5% .25W FC TC=-400/+700	01121	CB1825
A98R10	0683-1825	7		RESISTOR 1.8K 5% .25W FC TC=-400/+700	01121	CB1825
A98R11	0683-1825	7		RESISTOR 1.8K 5% .25W FC TC=-400/+700	01121	CB1825
A98R12	0683-1825	7		RESISTOR 1.8K 5% .25W FC TC=-400/+700	01121	CB1825
A98R13	0683-1825	7		RESISTOR 1.8K 5% .25W FC TC=-400/+700	01121	CB1825
A98R14	0683-1825	7		RESISTOR 1.8K 5% .25W FC TC=-400/+700	01121	CB1825
A98R15	0683-1825	7		RESISTOR 1.8K 5% .25W FC TC=-400/+700	01121	CB1825
A98R16	0683-1825	7		RESISTOR 1.8K 5% .25W FC TC=-400/+700	01121	CB1825
A98R18	1810-0164	7	1	NETWORK-RES 9-SIP4.7K OHM X 8	91637	CSP09C07-472J
A98R18	1810-0269	3	1	NETWORK-RES 9-SIP10.0K OHM X 8	28480	1810-0269
A98R19	0757-0448	5	1	RESISTOR 18.2K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1822-F
A98R20	0757-0426	9	1	RESISTOR 1.3K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1301-F
A98R21	0683-2005	7	4	RESISTOR 20 5% .25W FC TC=-400/+500	01121	CB2005
A98R22	0683-2005	7		RESISTOR 20 5% .25W FC TC=-400/+500	01121	CB2005
A98R23	0683-2005	7		RESISTOR 20 5% .25W FC TC=-400/+500	01121	CB2005
A98R24	0683-2005	7		RESISTOR 20 5% .25W FC TC=-400/+500	01121	CB2005
A98R25	0683-1005	5	1	RESISTOR 10 5% .25W FC TC=-400/+500	01121	CB1005
A98S0	5060-9436	7	78	PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S1	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S2	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S3	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S4	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S5	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S6	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S7	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S8	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S9	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S10	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S11	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S12	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S13	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S14	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S15	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S16	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S17	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S18	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S19	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A98S20	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S21	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S22	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S23	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S24	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S25	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S26	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S27	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S28	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S29	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S30	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S31	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S32	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S33	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S34	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S35	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S36	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S37	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S38	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S39	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S40	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S41	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S42	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S43	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S44	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S45	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S46	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S47	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S48	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S49	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S50	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S51	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S52	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S53	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S54	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S55	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S56	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S57	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S58	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S59	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S60	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S61	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S62	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S63	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S64	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S65	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S66	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S67	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S68	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S69	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S70	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S71	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S72	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S73	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S74	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S75	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S76	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S77	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S300	3101-2441	6	1	SWITCH-PB DPDT ALTNG .5A 125VAC	28480	3101-2441
A98U1	1820-1433	6	3	IC SHF-RGTR TTL LS R-S SERIAL-IN PRL OUT	01295	SN74LS164N
A98U2	1820-1433	6		IC SHF-RGTR TTL LS R-S SERIAL-IN PRL OUT	01295	SN74LS164N
A98U3	1820-1433	6		IC SHF-RGTR TTL LS R-S SERIAL-IN PRL OUT	01295	SN74LS164N
A98U4	1820-1740	8	3	IC DRVR TTL DSPL DRVR	27014	DS8863N
A98U5	1820-1740	8		IC DRVR TTL DSPL DRVR	27014	DS8863N
A98U6	1820-1740	8		IC DRVR TTL DSPL DRVR	27014	DS8863N
A98U7	1820-1730	6	1	IC FF TTL LS D-TYPE POS-EDGE-TRIG COM	01295	SN74LS273N
A98U8	1820-1587	1	4	IC DRVR TTL LED DRVR HEX 1-INP	27014	DM8859N
A98U9	1820-1587	1		IC DRVR TTL LED DRVR HEX 1-INP	27014	DM8859N
A98U10	1820-1587	1		IC DRVR TTL LED DRVR HEX 1-INP	27014	DM8859N
A98U11	1820-1587	1		IC DRVR TTL LED DRVR HEX 1-INP	27014	DM8859N
A98U12	1820-1200	5	2	IC INV TTL LS HEX	01295	SN74LS05N
A98U13	1820-1200	5		IC INV TTL LS HEX	01295	SN74LS05N
A98U14	1820-1873	8	1	IC BFR TTL LS INV OCTL 2-INP	27014	DM81LS95N
A98U15	1820-1492	7	1	IC BFR TTL LS INV HEX 1-INP	01295	SN74LS368AN

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A9U16	1820-1112	8	1	IC FF TTL LS D-TYPE POS-EDGE-TRIG	01295	SN74LS74AN
	1200-0837	8	1	SOCKET-HT DENS 20-CONT DIP-SLDR	28480	1200-0837

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A9B	03586-66597	7	1	SWITCH/DISPLAY (3586B STANDARD)	28480	03586-66597
A9BC1	0180-0104	7	1	CAPACITOR-FXD 200UF+75-10% 16VDC AL	56289	30D207G016DF2
A9BC2	0160-3847	9	3	CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A9BC3	0180-2651	3	1	CAPACITOR-FXD 470UF+75-10% 16VDC AL	56289	500D477H016DF2
A9BC4	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A9BC5	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A9BCR2	1990-0665	3	35	LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR3	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR4	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR5	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR6	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR7	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR8	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR9	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR10	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR11	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR12	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR13	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR14	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR15	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR16	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR17	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR18	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR19	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR20	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR21	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR22	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR23	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR24	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR25	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR26	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR27	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR28	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR29	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR30	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR31	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR101	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR102	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR103	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR104	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR200	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR300	1901-0025	2	2	DIODE-GEN PRP 100V 200MA DO-7	28480	1901-0025
A9BCR301	1902-3002	3	2	DIODE-ZNR 2.37V 5% DO-7 PD=.4W TC=-.074%	28480	1902-3002
A9BCR302	1902-0126	6	2	DIODE-ZNR 2.61V 5% DO-7 PD=.4W TC=-.072%	28480	1902-0126
A9BCR303	1901-0025	2		DIODE-GEN PRP 100V 200MA DO-7	28480	1901-0025
A9BCR304	1902-3002	3		DIODE-ZNR 2.37V 5% DO-7 PD=.4W TC=-.074%	28480	1902-3002
A9BCR305	1902-0126	6		DIODE-ZNR 2.61V 5% DO-7 PD=.4W TC=-.072%	28480	1902-0126
A9BCR307	1902-0960	6	1	DIODE-ZNR 12V 5% DO-35 PD=.4W TC=+.077%	28480	1902-0960
A9BDS1	1990-0592	5	13	DISPLAY-NUM SEG 1-CHAR .43-H	28480	5082-7653
A9BDS2	1990-0592	5		DISPLAY-NUM SEG 1-CHAR .43-H	28480	5082-7653
A9BDS3	1990-0592	5		DISPLAY-NUM SEG 1-CHAR .43-H	28480	5082-7653
A9BDS4	1990-0592	5		DISPLAY-NUM SEG 1-CHAR .43-H	28480	5082-7653
A9BDS5	1990-0592	5		DISPLAY-NUM SEG 1-CHAR .43-H	28480	5082-7653
A9BDS6	1990-0592	5		DISPLAY-NUM SEG 1-CHAR .43-H	28480	5082-7653
A9BDS7	1990-0592	5		DISPLAY-NUM SEG 1-CHAR .43-H	28480	5082-7653
A9BDS8	1990-0592	5		DISPLAY-NUM SEG 1-CHAR .43-H	28480	5082-7653
A9BDS9	1990-0592	5		DISPLAY-NUM SEG 1-CHAR .43-H	28480	5082-7653
A9BDS10	1990-0592	5		DISPLAY-NUM SEG 1-CHAR .43-H	28480	5082-7653
A9BDS11	1990-0592	5		DISPLAY-NUM SEG 1-CHAR .43-H	28480	5082-7653
A9BDS12	1990-0592	5		DISPLAY-NUM SEG 1-CHAR .43-H	28480	5082-7653
A9BDS13	1990-0592	5		DISPLAY-NUM SEG 1-CHAR .43-H	28480	5082-7653
A9BDS14	1990-0681	3	1	DISPLAY-AN-SEG 1-CHAR .468-H RED	28480	5082-7654
A9BDS15	1990-0676	0	17	LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A9BDS16	1990-0699	3	7	LED-LIGHT BAR MODULE LUM-INT=7MCD	28480	1LM1-2350
A9BDS17	1990-0699	3		LED-LIGHT BAR MODULE LUM-INT=7MCD	28480	1LM1-2350
A9BDS18	1990-0699	3		LED-LIGHT BAR MODULE LUM-INT=7MCD	28480	1LM1-2350
A9BDS20	1990-0676	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A9BDS21	1990-0676	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A9BDS23	1990-0699	3		LED-LIGHT BAR MODULE LUM-INT=7MCD	28480	1LM1-2350
A9BDS24	1990-0699	3		LED-LIGHT BAR MODULE LUM-INT=7MCD	28480	1LM1-2350
A9BDS25	1990-0699	3		LED-LIGHT BAR MODULE LUM-INT=7MCD	28480	1LM1-2350
A9BDS26	1990-0699	3		LED-LIGHT BAR MODULE LUM-INT=7MCD	28480	1LM1-2350
A9BDS27	1990-0676	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A98DS28	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98DS29	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98DS30	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98DS31	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98DS32	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98DS33	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98DS34	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98DS35	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98DS36	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98DS37	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98DS38	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98DS39	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98DS40	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98J1	1251-5584	9	1	CONNECTOR 34-PIN M POST TYPE	28480	1251-5584
A98J2	1251-5608	8	1	CONNECTOR 14-PIN M POST TYPE	28480	1251-5608
A98J3	1251-5607	7	2	CONNECTOR 5-PIN M POST TYPE	28480	1251-5607
A98J4	1251-5607	7		CONNECTOR 5-PIN M POST TYPE	28480	1251-5607
A98J6	1251-5383	6	1	CONNECTOR 2-PIN M POST TYPE	28480	1251-5383
A98L1	9100-0541	7	2	INDUCTOR RF-CH-MLD 250UH 10% .25DX.5LG	28480	9100-0541
A98L2	9100-0541	7		INDUCTOR RF-CH-MLD 250UH 10% .25DX.5LG	28480	9100-0541
A98Q1	1853-0016	8	8	TRANSISTOR PNP SI TO-92 PD=300MW	28480	1853-0016
A98Q2	1853-0016	8		TRANSISTOR PNP SI TO-92 PD=300MW	28480	1853-0016
A98Q3	1853-0016	8		TRANSISTOR PNP SI TO-92 PD=300MW	28480	1853-0016
A98Q4	1853-0016	8		TRANSISTOR PNP SI TO-92 PD=300MW	28480	1853-0016
A98Q5	1853-0016	8		TRANSISTOR PNP SI TO-92 PD=300MW	28480	1853-0016
A98Q6	1853-0016	8		TRANSISTOR PNP SI TO-92 PD=300MW	28480	1853-0016
A98Q7	1853-0016	8		TRANSISTOR PNP SI TO-92 PD=300MW	28480	1853-0016
A98Q8	1853-0016	8		TRANSISTOR PNP SI TO-92 PD=300MW	28480	1853-0016
A98R1	0683-2705	4	8	RESISTOR 27 5% .25W FC TC=-400/+500	01121	CB2705
A98R2	0683-2705	4		RESISTOR 27 5% .25W FC TC=-400/+500	01121	CB2705
A98R3	0683-2705	4		RESISTOR 27 5% .25W FC TC=-400/+500	01121	CB2705
A98R4	0683-2705	4		RESISTOR 27 5% .25W FC TC=-400/+500	01121	CB2705
A98R5	0683-2705	4		RESISTOR 27 5% .25W FC TC=-400/+500	01121	CB2705
A98R6	0683-2705	4		RESISTOR 27 5% .25W FC TC=-400/+500	01121	CB2705
A98R7	0683-2705	4		RESISTOR 27 5% .25W FC TC=-400/+500	01121	CB2705
A98R8	0683-2705	4		RESISTOR 27 5% .25W FC TC=-400/+500	01121	CB2705
A98R9	0683-1825	7	8	RESISTOR 1.8K 5% .25W FC TC=-400/+700	01121	CB1825
A98R10	0683-1825	7		RESISTOR 1.8K 5% .25W FC TC=-400/+700	01121	CB1825
A98R11	0683-1825	7		RESISTOR 1.8K 5% .25W FC TC=-400/+700	01121	CB1825
A98R12	0683-1825	7		RESISTOR 1.8K 5% .25W FC TC=-400/+700	01121	CB1825
A98R13	0683-1825	7		RESISTOR 1.8K 5% .25W FC TC=-400/+700	01121	CB1825
A98R14	0683-1825	7		RESISTOR 1.8K 5% .25W FC TC=-400/+700	01121	CB1825
A98R15	0683-1825	7		RESISTOR 1.8K 5% .25W FC TC=-400/+700	01121	CB1825
A98R16	0683-1825	7		RESISTOR 1.8K 5% .25W FC TC=-400/+700	01121	CB1825
A98R17	1810-0269	3	1	NETWORK-RES 9-SIP10.0K OHM X 8	28480	1810-0269
A98R18	1810-0164	7	1	NETWORK-RES 9-SIP4.7K OHM X 8	91637	CSP09C07-472J
A98R19	0757-0448	5	1	RESISTOR 18.2K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1822-F
A98R20	0757-0426	9	1	RESISTOR 1.3K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1301-F
A98R21	0683-2005	7	4	RESISTOR 20 5% .25W FC TC=-400/+500	01121	CB2005
A98R22	0683-2005	7		RESISTOR 20 5% .25W FC TC=-400/+500	01121	CB2005
A98R23	0683-2005	7		RESISTOR 20 5% .25W FC TC=-400/+500	01121	CB2005
A98R24	0683-2005	7		RESISTOR 20 5% .25W FC TC=-400/+500	01121	CB2005
A98R25	0683-1005	5	1	RESISTOR 10 5% .25W FC TC=-400/+500	01121	CB1005
A98S0	5060-9436	7	79	PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S1	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S2	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S3	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S4	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S5	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S6	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S7	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S8	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S9	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S10	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S11	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S12	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S13	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S14	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S15	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S16	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S17	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S18	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A98S19	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S20	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S21	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S22	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S23	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S24	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S25	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S26	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S27	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S28	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S29	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S30	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S31	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S32	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S33	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S34	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S35	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S36	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S37	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S38	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S39	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S40	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S41	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S42	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S43	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S44	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S45	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S46	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S47	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S48	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S49	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S50	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S51	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S52	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S53	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S54	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S55	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S56	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S57	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S58	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S59	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S60	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S61	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S62	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S63	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S64	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S65	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S66	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S67	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S68	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S69	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S70	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S71	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S72	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S73	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S74	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S75	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S76	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S77	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S300	3101-2441	6	1	SWITCH-PB DPDT ALTNG .5A 100VAC	28480	3101-2441
A98U1	1820-1433	6	3	IC SHF-RGTR TTL LS R S SERIAL-IN PRL-OUT	01295	SN74LS164N
A98U2	1820-1433	6		IC SHF-RGTR TTL LS R-S SERIAL-IN PRL-OUT	01295	SN74LS164N
A98U3	1820-1433	6		IC SHF-RGTR TTL LS R-S SERIAL-IN PRL-OUT	01295	SN74LS164N
A98U4	1820-1740	8	3	IC DRVR TTL DSPL DRVR	27014	DS8863N
A98U5	1820-1740	8		IC DRVR TTL DSPL DRVR	27014	DS8863N
A98U6	1820-1740	8		IC DRVR TTL DSPL DRVR	27014	DS8863N
A98U7	1820-1730	6	1	IC FF TTL LS D-TYPE POS-EDGE-TRIG DUAL	01295	SN74LS273N
A98U8	1820-1507	1	4	IC DRVR TTL LED DRVR HEX 1-INP	27014	DM8859N
A98U9	1820-1587	1		IC DRVR TTL LED DRVR HEX 1-INP	27014	DM8859N
A98U10	1820-1587	1		IC DRVR TTL LED DRVR HEX 1-INP	27014	DM8859N
A98U11	1820-1587	1		IC DRVR TTL LED DRVR HEX 1-INP	27014	DM8859N
A98U12	1820-1200	5	2	IC INV TTL LS HEX	01295	SN74LS05N
A98U13	1820-1200	5		IC INV TTL LS HEX	01295	SN74LS05N
A98U14	1820-1073	8	1	IC BFR TTL LS INV OCTL 2-INP	27014	DM81LS98N
A98U15	1820-1422	7	1	IC BFR TTL LS INV HEX 1-INP	01295	SN74LS368AN

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A9BU16	1820-1112	8	1	IC FF TTL LS D-TYPE POS-EDGE-TRIG	01295	SN74LS74AN
	1200-0837	8	1	SOCKET-HI-DENS 20-CONT DIP-SLDR	28480	1200-0837

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A9B	03586-66598	8	1	SWITCH/DISPLAY (3586B OPTION 003)	28480	03586-66598
A9BC1	0180-0104	7	1	CAPACITOR-FXD 200UF+75-10% 16VDC AL	56289	30D207G016DF2
A9BC2	0160-3847	9	3	CAPACITOR-FXD .01UF +100 0% 50VDC CER	28480	9160 3847
A9BC3	0180-2651	3	1	CAPACITOR-FXD 470UF+75-10% 16VDC AL	56289	500D477H016DF7
A9BC4	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A9BC5	0160-3847	9		CAPACITOR-FXD .01UF +100-0% 50VDC CER	28480	0160-3847
A9BCR2	1990-0665	3	36	LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR3	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR4	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR5	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR6	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR7	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR8	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR9	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR10	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR11	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR12	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR13	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR14	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR15	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR16	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR17	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR18	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR19	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR20	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR21	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR22	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR23	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR24	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR25	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR26	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR27	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR28	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR29	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR30	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR31	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR100	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR101	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR102	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR103	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR104	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR200	1990-0665	3		LED-LAMP LUM-INT=1MCD IF=20MA-MAX BVR=5V	28480	1990-0665
A9BCR300	1901-0025	2	2	DIODE-GEN PRP 100V 200MA DO-7	28480	1901-0025
A9BCR301	1902-3002	3	2	DIODE-ZNR 2.37V 5% DO-7 PD=.4W TC=-.074%	28480	1902-3002
A9BCR302	1902-0126	6	2	DIODE-ZNR 2.61V 5% DO-7 PD=.4W TC=-.072%	28480	1902-0126
A9BCR303	1901-0025	2		DIODE-GEN PRP 100V 200MA DO-7	28480	1901-0025
A9BCR304	1902-3002	3		DIODE-ZNR 2.37V 5% DO-7 PD=.4W TC=-.074%	28480	1902-3002
A9BCR305	1902-0126	6		DIODE-ZNR 2.61V 5% DO-7 PD=.4W TC=-.072%	28480	1902-0126
A9BDS1	1990-0592	5	13	DISPLAY-NUM-SEG 1-CHAR .43-H	28480	5082-7653
A9BDS2	1990-0592	5		DISPLAY-NUM-SEG 1-CHAR .43-H	28480	5082-7653
A9BDS3	1990-0592	5		DISPLAY-NUM-SEG 1-CHAR .43-H	28480	5082-7653
A9BDS4	1990-0592	5		DISPLAY-NUM-SEG 1-CHAR .43-H	28480	5082-7653
A9BDS5	1990-0592	5		DISPLAY-NUM-SEG 1-CHAR .43-H	28480	5082-7653
A9BDS6	1990-0592	5		DISPLAY NUM-SEG 1-CHAR .43 H	28480	5082-7653
A9BDS7	1990-0592	5		DISPLAY-NUM-SEG 1-CHAR .43 H	28480	5082-7653
A9BDS8	1990-0592	5		DISPLAY-NUM-SEG 1-CHAR .43-H	28480	5082-7653
A9BDS9	1990-0592	5		DISPLAY-NUM-SEG 1-CHAR .43-H	28480	5082-7653
A9BDS10	1990-0592	5		DISPLAY-NUM-SEG 1-CHAR .43-H	28480	5082 7653
A9BDS11	1990-0592	5		DISPLAY-NUM SEG 1-CHAR .43-H	28480	5082-7653
A9BDS12	1990-0592	5		DISPLAY-NUM-SEG 1-CHAR .43 H	28480	5082-7653
A9BDS13	1990-0592	5		DISPLAY-NUM-SEG 1 CHAR .43-H	28480	5082-7653
A9BDS14	1990-0681	3	1	DISPLAY-AN-SEG 1-CHAR .408-H RED	28480	5082-7656
A9BDS15	1990 0676	0	17	LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A9BDS16	1990-0699	3	9	LED-LIGHT BAR MODULE LUM-INT=7MCD	28480	1LM1-2350
A9BDS17	1990-0699	3		LED-LIGHT BAR MODULE LUM-INT=7MCD	28480	1LM1-2350
A9BDS18	1990-0699	3		LED-LIGHT BAR MODULE LUM-INT=7MCD	28480	1LM1-2350
A9BDS19	1990-0699	3		LED-LIGHT BAR MODULE LUM-INT=7MCD	28480	1LM1-2350
A9BDS20	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A9BDS21	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A9BDS22	1990-0699	3		LED-LIGHT BAR MODULE LUM-INT=7MCD	28480	1LM1-2350
A9BDS23	1990-0699	3		LED-LIGHT BAR MODULE LUM-INT=7MCD	28480	1LM1-2350
A9BDS24	1990-0699	3		LED-LIGHT BAR MODULE LUM-INT=7MCD	28480	1LM1-2350
A9BDS25	1990-0699	3		LED-LIGHT BAR MODULE LUM-INT=7MCD	28480	1LM1-2350

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A98DS26	1990-0699	3		LED-LIGHT BAR MODULE LUM-INT=7MCD	28480	1LM1-2350
A98DS27	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98DS28	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98DS29	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98DS30	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98DS31	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98DS32	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98DS33	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98DS34	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98DS35	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98DS36	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98DS37	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98DS38	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98DS39	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98DS40	1990-0696	0		LED-LIGHT BAR MODULE LUM-INT=3MCD	28480	1LM1-2300
A98J1	1251-5584	9	1	CONNECTOR 34-PIN M POST TYPE	28480	1251-5584
A98J2	1251-5608	8	1	CONNECTOR 14-PIN M POST TYPE	28480	1251-5608
A98J3	1251-5607	7	2	CONNECTOR 5-PIN M POST TYPE	28480	1251-5607
A98J4	1251-5607	7		CONNECTOR 5-PIN M POST TYPE	28480	1251-5607
A98J6	1251-5383	6	1	CONNECTOR 2-PIN M POST TYPE	28480	1251-5383
A98L1	9100-0541	7	2	INDUCTOR RF-CH-MLD 250UH 10% .25DX.5LG	28480	9100-0541
A98L2	9100-0541	7		INDUCTOR RF-CH-MLD 250UH 10% .25DX.5LG	28480	9100-0541
A98Q1	1853-0016	8	8	TRANSISTOR PNP SI TO-92 PD=300MW	28480	1853-0016
A98Q2	1853-0016	8		TRANSISTOR PNP SI TO-92 PD=300MW	28480	1853-0016
A98Q3	1853-0016	8		TRANSISTOR PNP SI TO-92 PD=300MW	28480	1853-0016
A98Q4	1853-0016	8		TRANSISTOR PNP SI TO-92 PD=300MW	28480	1853-0016
A98Q5	1853-0016	8		TRANSISTOR PNP SI TO-92 PD=300MW	28480	1853-0016
A98Q6	1853-0016	8		TRANSISTOR PNP SI TO-92 PD=300MW	28480	1853-0016
A98Q7	1853-0016	8		TRANSISTOR PNP SI TO-92 PD=300MW	28480	1853-0016
A98Q8	1853-0016	8		TRANSISTOR PNP SI TO-92 PD=300MW	28480	1853-0016
A98R1	0683-2705	4	8	RESISTOR 27 5% .25W FC TC=-400/+500	01121	CB2705
A98R2	0683-2705	4		RESISTOR 27 5% .25W FC TC=-400/+500	01121	CB2705
A98R3	0683-2705	4		RESISTOR 27 5% .25W FC TC=-400/+500	01121	CB2705
A98R4	0683-2705	4		RESISTOR 27 5% .25W FC TC=-400/+500	01121	CB2705
A98R5	0683-2705	4		RESISTOR 27 5% .25W FC TC=-400/+500	01121	CB2705
A98R6	0683-2705	4		RESISTOR 27 5% .25W FC TC=-400/+500	01121	CB2705
A98R7	0683-2705	4		RESISTOR 27 5% .25W FC TC=-400/+500	01121	CB2705
A98R8	0683-2705	4		RESISTOR 27 5% .25W FC TC=-400/+500	01121	CB2705
A98R9	0683-1825	7	8	RESISTOR 1.8K 5% .25W FC TC=-400/+700	01121	CB1825
A98R10	0683-1825	7		RESISTOR 1.8K 5% .25W FC TC=-400/+700	01121	CB1825
A98R11	0683-1825	7		RESISTOR 1.8K 5% .25W FC TC=-400/+700	01121	CB1825
A98R12	0683-1825	7		RESISTOR 1.8K 5% .25W FC TC=-400/+700	01121	CB1825
A98R13	0683-1825	7		RESISTOR 1.8K 5% .25W FC TC=-400/+700	01121	CB1825
A98R14	0683-1825	7		RESISTOR 1.8K 5% .25W FC TC=-400/+700	01121	CB1825
A98R15	0683-1825	7		RESISTOR 1.8K 5% .25W FC TC=-400/+700	01121	CB1825
A98R16	0683-1825	7		RESISTOR 1.8K 5% .25W FC TC=-400/+700	01121	CB1825
A98R17	1810-0269	3	1	NETWORK-RES 9-SIP10.0K OHM X 8	28480	1810-0269
A98R18	1810-0164	7	1	NETWORK-RES 9-SIP4.7K OHM X 8	91637	CSP09C07-472J
A98R19	0757-0448	5	1	RESISTOR 18.2K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1822-F
A98R20	0757-0426	9	1	RESISTOR 1.3K 1% .125W F TC=0+-100	24546	C4-1/8-T0-1301-F
A98R21	0683-2005	7	4	RESISTOR 20 5% .25W FC TC=-400/+500	01121	CB2005
A98R22	0683-2005	7		RESISTOR 20 5% .25W FC TC=-400/+500	01121	CB2005
A98R23	0683-2005	7		RESISTOR 20 5% .25W FC TC=-400/+500	01121	CB2005
A98R24	0683-2005	7		RESISTOR 20 5% .25W FC TC=-400/+500	01121	CB2005
A98R25	0683-1005	5	1	RESISTOR 10 5% .25W FC TC=-400/+500	01121	CB1005
A98S0	5060-9436	7	78	PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S1	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S2	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S3	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S4	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S5	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S6	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S7	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S8	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S9	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S10	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S11	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S12	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S13	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S14	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S15	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S16	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S17	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S18	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S19	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A98S20	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S21	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S22	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S23	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S24	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S25	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S26	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S27	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S28	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S29	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S30	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S31	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S32	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S33	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S34	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S35	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S36	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S37	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S38	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S39	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S40	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S41	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S42	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S43	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S44	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S45	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S46	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S47	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S48	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S49	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S50	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S51	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S52	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S53	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S54	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S55	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S56	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S57	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S58	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S59	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S60	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S61	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S62	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S63	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S64	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S65	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S66	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S67	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S68	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S69	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S70	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S71	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S72	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S73	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S74	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S75	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S76	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S77	5060-9436	7		PUSHBUTTON SWITCH P.C. MOUNT	28480	5060-9436
A98S300	3101-2441	6	1	SWITCH-PB DPDT ALTNG .5A 100VAC	28480	3101-2441
A98U1	1820-1433	6	3	IC SHF-RGTR TTL LS R-S SERIAL-IN PRL-OUT	01295	SN74LS164N
A98U2	1820-1433	6		IC SHF-RGTR TTL LS R-S SERIAL-IN PRL-OUT	01295	SN74LS164N
A98U3	1820-1433	6		IC SHF-RGTR TTL LS R-S SERIAL-IN PRL-OUT	01295	SN74LS164N
A98U4	1820-1740	8	3	IC DRVR TTL DSPL DRVR	27014	DS8863N
A98U5	1820-1740	8		IC DRVR TTL DSPL DRVR	27014	DS8863N
A98U6	1820-1740	8		IC DRVR TTL DSPL DRVR	27014	DS8863N
A98U7	1820-1730	6	1	IC FF TTL LS D-TYPE POS-EDGE-TRIG COM	01295	SN74LS273N
A98U8	1820-1587	1	4	IC DRVR TTL LED DRVR HEX 1-INP	27014	DM8859N
A98U9	1820-1587	1		IC DRVR TTL LED DRVR HEX 1-INP	27014	DM8859N
A98U10	1820-1587	1		IC DRVR TTL LED DRVR HEX 1-INP	27014	DM8859N
A98U11	1820-1587	1		IC DRVR TTL LED DRVR HEX 1-INP	27014	DM8359N
A98U12	1820-1200	5	2	IC INV TTL LS HEX	01295	SN74LS05N
A98U13	1820-1200	5		IC INV TTL LS HEX	01295	SN74LS05N
A98U14	1820-1873	8	1	IC BFR TTL LS INV OCTL 2-INP	27014	DM81LS98N
A98U15	1820-1492	7	1	IC BFR TTL LS INV HEX 1-INP	01295	SN74LS368AN

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A9BU16	1820-1112	B	1	IC FF TTL LS D-TYPE POS-EDGE-TRIG	01295	SN74LS74AN
	1200-0837	B	1	SOCKET-HI-DENS 28-CONT DIP-SLDR	20480	1200-0837

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A99	03586-66599	9	1	MOTHERBOARD (3586A/B/C)	28480	03586-66599
A99C1	0180-0677	9	2	CAPACITOR-FXD 5800UF+75-10% 40VDC AL	28480	0180-0677
A99C2	0180-0677	9		CAPACITOR-FXD 5800UF+75-10% 40VDC AL	28480	0180-0677
A99C3	0180-2974	3	1	CAPACITOR-FXD .014F+75-10% 15VDC AL	56289	602D143G015AD2A
A99C5	0160-0168	1	1	CAPACITOR-FXD .1UF +-10% 200VDC POLYE	28480	0160-0168
A99C6	0160-3787	6	1	CAPACITOR-FXD 1UF +-10% 50VDC MET-POLYC	28480	0160-3787
A99C10	0160-3879	7	120	CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C11	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C12	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C13	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C14	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C15	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C16	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C17	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C18	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C19	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C20	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C21	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C22	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C23	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C24	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C25	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C26	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C27	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C28	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C29	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C30	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C31	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C32	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C33	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C34	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C35	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C36	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C37	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C38	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C39	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C40	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C41	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C42	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C43	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C44	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C45	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C46	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C47	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C48	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C49	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C50	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C51	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C52	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C53	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C54	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C55	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C56	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C57	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C58	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C59	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C60	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C61	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C62	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C63	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C64	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C65	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C66	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C67	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C68	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C69	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C70	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C71	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C72	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C73	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C74	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A99C75	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C76	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C77	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C78	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C79	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C80	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C81	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C82	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C83	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C84	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C85	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C86	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C87	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C88	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C89	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C90	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C91	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C92	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C93	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C94	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C95	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C96	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C97	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C98	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C99	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C100	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C101	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C102	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C103	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C104	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C105	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C106	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C107	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C108	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C109	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C110	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C111	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C112	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C113	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C114	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C115	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C116	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C117	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C118	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C119	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C120	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C121	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C122	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C123	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C124	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C125	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C126	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C127	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C128	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C129	0160-3879	7		CAPACITOR-FXD .01UF +-20% 100VDC CER	28480	0160-3879
A99C130	0180-2779	6	1	CAPACITOR-FXD 470UF+75-10% 50VDC AL	56289	30D477G050FK2
A99C131	0160-0576	5	3	CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A99C132	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A99C133	0160-0576	5		CAPACITOR-FXD .1UF +-20% 50VDC CER	28480	0160-0576
A99CR1	1901-0662	3	8	DIODE-PWR RECT 100V 6A	04713	MR751
A99CR2	1901-0662	3		DIODE-PWR RECT 100V 6A	04713	MR751
A99CR3	1901-0662	3		DIODE-PWR RECT 100V 6A	04713	MR751
A99CR4	1901-0662	3		DIODE-PWR RECT 100V 6A	04713	MR751
A99CR5	1901-0662	3		DIODE-PWR RECT 100V 6A	04713	MR751
A99CR6	1901-0662	3		DIODE-PWR RECT 100V 6A	04713	MR751
A99CR7	1901-0662	3		DIODE-PWR RECT 100V 6A	04713	MR751
A99CR8	1901-0662	3		DIODE-PWR RECT 100V 6A	04713	MR751
A99CR9	1901-0026	3	4	DIODE-PWR RECT 200V 750MA DO-29	28480	1901-0026
A99CR10	1901-0026	3		DIODE-PWR RECT 200V 750MA DO-29	28480	1901-0026
A99CR11	1901-0026	3		DIODE-PWR RECT 200V 750MA DO-29	28480	1901-0026
A99CR12	1901-0026	3		DIODE-PWR RECT 200V 750MA DO-29	28480	1901-0026
A99F1- A99F4	2100-0569	1	4	RESISTOR-TRMR 100 10% C TOP-ADJ 1-TRN	28480	2100-0569

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A99J1	1251-5606	6	2	CONNECTOR 14-PIN M POST TYPE	28480	1251-5606
A99J2	1251-5606	6		CONNECTOR 14-PIN M POST TYPE	28480	1251-5606
A99J3	1251-4406	2	1	CONTACT-CONN U/W-AMP-M TEM CRP	28480	1251-4406
A99J5	1251-0513	4	1	CONNECTOR 5-PIN M POST TYPE	28480	1251-0513
A99L1	9100-1791	1	14	INDUCTOR 290NH 20% .23DX.375LG	28480	9100-1791
A99L2	9100-3548	0	40	INDUCTOR RF-CH-MLD 470NH 5% .166DX.385LG	28480	9100-3548
A99L3	9100-3548	0		INDUCTOR RF-CH-MLD 470NH 5% .166DX.385LG	28480	9100-3548
A99L4	9100-3548	0		INDUCTOR RF-CH-MLD 470NH 5% .166DX.385LG	28480	9100-3548
A99L5	9100-3548	0		INDUCTOR RF-CH-MLD 470NH 5% .166DX.385LG	28480	9100-3548
A99L6	9100-1791	1		INDUCTOR 290NH 20% .23DX.375LG	28480	9100-1791
A99L7	9100-1791	1		INDUCTOR 290NH 20% .23DX.375LG	28480	9100-1791
A99L8	9100-3548	0		INDUCTOR RF-CH-MLD 470NH 5% .166DX.385LG	28480	9100-3548
A99L9	9100-3548	0		INDUCTOR RF-CH-MLD 470NH 5% .166DX.385LG	28480	9100-3548
A99L10	9100-1791	1		INDUCTOR 290NH 20% .23DX.375LG	28480	9100-1791
A99L11	9100-3548	0		INDUCTOR RF-CH-MLD 470NH 5% .166DX.385LG	28480	9100-3548
A99L12	9100-3548	0		INDUCTOR RF-CH-MLD 470NH 5% .166DX.385LG	28480	9100-3548
A99L13	9100-3548	0		INDUCTOR RF-CH-MLD 470NH 5% .166DX.385LG	28480	9100-3548
A99L14	9100-3548	0		INDUCTOR RF-CH-MLD 470NH 5% .166DX.385LG	28480	9100-3548
A99L15	9100-1791	1		INDUCTOR 290NH 20% .23DX.375LG	28480	9100-1791
A99L16	9100-3548	0		INDUCTOR RF-CH-MLD 470NH 5% .166DX.385LG	28480	9100-3548
A99L17	9100-3548	0		INDUCTOR RF-CH-MLD 470NH 5% .166DX.385LG	28480	9100-3548
A99L18	9100-3548	0		INDUCTOR RF-CH-MLD 470NH 5% .166DX.385LG	28480	9100-3548
A99L19	9100-3548	0		INDUCTOR RF-CH-MLD 470NH 5% .166DX.385LG	28480	9100-3548
A99L20	9100-3548	0		INDUCTOR RF-CH-MLD 470NH 5% .166DX.385LG	28480	9100-3548
A99L21	9100-3548	0		INDUCTOR RF-CH-MLD 470NH 5% .166DX.385LG	28480	9100-3548
A99L22	9100-1791	1		INDUCTOR 290NH 20% .23DX.375LG	28480	9100-1791
A99L23	9100-3548	0		INDUCTOR RF-CH-MLD 470NH 5% .166DX.385LG	28480	9100-3548
A99L24	9100-3548	0		INDUCTOR RF-CH-MLD 470NH 5% .166DX.385LG	28480	9100-3548
A99L25	9100-3548	0		INDUCTOR RF-CH-MLD 470NH 5% .166DX.385LG	28480	9100-3548
A99L26	9100-1791	1		INDUCTOR 290NH 20% .23DX.375LG	28480	9100-1791
A99L27	9100-3548	0		INDUCTOR RF-CH-MLD 470NH 5% .166DX.385LG	28480	9100-3548
A99L28	9100-3548	0		INDUCTOR RF-CH-MLD 470NH 5% .166DX.385LG	28480	9100-3548
A99L29	9100-3548	0		INDUCTOR RF-CH-MLD 470NH 5% .166DX.385LG	28480	9100-3548
A99L30	9100-3548	0		INDUCTOR RF-CH-MLD 470NH 5% .166DX.385LG	28480	9100-3548
A99L31	9100-1791	1		INDUCTOR 290NH 20% .23DX.375LG	28480	9100-1791
A99L32	9100-3548	0		INDUCTOR RF-CH-MLD 470NH 5% .166DX.385LG	28480	9100-3548
A99L33	9100-3548	0		INDUCTOR RF-CH-MLD 470NH 5% .166DX.385LG	28480	9100-3548
A99L34	9100-3548	0		INDUCTOR RF-CH-MLD 470NH 5% .166DX.385LG	28480	9100-3548
A99L35	9100-3548	0		INDUCTOR RF-CH-MLD 470NH 5% .166DX.385LG	28480	9100-3548
A99L36	9100-1791	1		INDUCTOR 290NH 20% .23DX.375LG	28480	9100-1791
A99L37	9100-1791	1		INDUCTOR 290NH 20% .23DX.375LG	28480	9100-1791
A99L38	9100-3548	0		INDUCTOR RF-CH-MLD 470NH 5% .166DX.385LG	28480	9100-3548
A99L39	9100-3548	0		INDUCTOR RF-CH-MLD 470NH 5% .166DX.385LG	28480	9100-3548
A99L40	9100-1791	1		INDUCTOR 290NH 20% .23DX.375LG	28480	9100-1791
A99L41	9100-3548	0		INDUCTOR RF-CH-MLD 470NH 5% .166DX.385LG	28480	9100-3548
A99L42	9100-3548	0		INDUCTOR RF-CH-MLD 470NH 5% .166DX.385LG	28480	9100-3548
A99L43	9100-1791	1		INDUCTOR 290NH 20% .23DX.375LG	28480	9100-1791
A99L44	9100-3548	0		INDUCTOR RF-CH-MLD 470NH 5% .166DX.385LG	28480	9100-3548
A99L45	9100-3548	0		INDUCTOR RF-CH-MLD 470NH 5% .166DX.385LG	28480	9100-3548
A99L46	9100-3548	0		INDUCTOR RF-CH-MLD 470NH 5% .166DX.385LG	28480	9100-3548
A99L47	9100-3548	0		INDUCTOR RF-CH-MLD 470NH 5% .166DX.385LG	28480	9100-3548
A99L48	9100-3548	0		INDUCTOR RF-CH-MLD 470NH 5% .166DX.385LG	28480	9100-3548
A99L49	9100-3548	0		INDUCTOR RF-CH-MLD 470NH 5% .166DX.385LG	28480	9100-3548
A99L50	9100-1791	1		INDUCTOR 290NH 20% .23DX.375LG	28480	9100-1791
A99L51	9100-3548	0		INDUCTOR RF-CH-MLD 470NH 5% .166DX.385LG	28480	9100-3548
A99L52	9100-3548	0		INDUCTOR RF-CH-MLD 470NH 5% .166DX.385LG	28480	9100-3548
A99L53	9100-1791	1		INDUCTOR 290NH 20% .23DX.375LG	28480	9100-1791
A99L54	9100-3548	0		INDUCTOR RF-CH-MLD 470NH 5% .166DX.385LG	28480	9100-3548
A99R1	0686-2025	7	2	RESISTOR 2K 5% .5W CC TC=0+647	01121	EB2025
A99R2	0686-2025	7		RESISTOR 2K 5% .5W CC TC=0+647	01121	EB2025
A99R3	0686-4715	6	1	RESISTOR 470 5% .5W CC TC=0+529	01121	EB4715
A99R101	0683-1035	1	4	RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A99R102	0683-1035	1		RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A99R104	0757-0283	6	2	RESISTOR 2K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2001-F
A99R105	0757-0283	6		RESISTOR 2K 1% .125W F TC=0+-100	24546	C4-1/8-T0-2001-F
A99R106	0683-1035	1		RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A99R107	0683-1035	1		RESISTOR 10K 5% .25W FC TC=-400/+700	01121	CB1035
A99R109	0686-1025	5	1	RESISTOR 1K 5% .5W CC TC=0+647	01121	EB1025
A99T1	9100-0447	2	1	TRANSFORMER VOLT RATIO: PRI: SEC 1, 2	28480	9100-0447
A99T3	9100-1238	1	3	TRANSFORMER-PULSE XFMR-PULSE,PC MTG	28480	9100-1238
A99T4	9100-1238	1		TRANSFORMER-PULSE XFMR-PULSE,PC MTG	28480	9100-1238
A99T5	9100-1238	1		TRANSFORMER-PULSE XFMR-PULSE,PC MTG	28480	9100-1238
A99U1	1990-0444	6	1	OPTO-ISOLATOR LED-PDIO/XSTR IF=25MA-MAX	28480	6N136
A99U2	1826-0396	0	1	IC 7815 V RGLTR TO-220	07263	7815UC

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
	1251-1365	6	1	CONNECTOR-PC EDGE 22-CONT/ROW 2-ROWS	28480	1251-1365
	1251-2035	9	1	CONNECTOR-PC EDGE 15-CONT/ROW 2-ROWS	28480	1251-2035
	1251-5566	7	1	CONNECTOR-PC EDGE 12-CONT/ROW 2-ROWS	28480	1251-5566

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
				CHASSIS-MOUNTED COMPONENTS		
B1	3160-0311	9	1	FAN-TBAX 74-CFM 100-125V 50/60-HZ	23936	4800X
	3150-0218	4	1	FILTER-AIR 32 STD MESH MET SCREEN	28480	3150-0218
	03582-04104	8	1	GUARD-FAN SWITCH	28480	03582-04104
CR20	1902-1217	8	1	DIODE-1N3997R	28480	1902-1217
	2110-0565	9	1	CAP-FUSEHOLDER	28480	2110-0565
F1	2110-0002	9	1	FUSE 2A 250V NTD 1.25X.25 UL	75915	312002
	2110-0564	8	1	HOLDER-FUSE	89327	031.1657
	2110-0569	3	1	NUT-FUSEHOLDER	28480	2110-0569
J100	1251-5790	9	1	CONNECTOR-TEL JACK 2-CKT	82389	M-114B
K1	0490-1222	9	1	RELAY-FAN	28480	0490-1222
LF1	9100-3910	0	1	LINE FILTER	28480	9100-3910
M1	1120-0692	3	1	METER-DB	28480	1120-0692
Q1	1854-0618	8	2	TRANSISTOR NPN SI DARL TO-3 PD=150W	04713	MJ3000
	1200-0819	6	3	SOCKET-XSTR 2-CONT TO-3 SLDR-EYE	28480	1200-0819
Q2	1853-0387	6	1	TRANSISTOR PNP SI DARL TO-3 PD=150W	04713	MJ2500
	1200-0819	6		SOCKET-XSTR 2-CONT TO-3 SLDR-EYE	28480	1200-0819
Q3	1854-0618	8		TRANSISTOR NPN SI DARL TO-3 PD=150W	04713	MJ3000
	1200-0819	6		SOCKET-XSTR 2-CONT TO-3 SLDR-EYE	28480	1200-0819
R100	2100-0669	3	1	RESISTOR-VAR CONTROL CCP 50K 10% 10CW	28480	2100-0669
R101	0683-1015	7	1	RESISTOR 100 5% .25W FC TC=-400/+500	01121	CB1015
RPG(W2)	03586-61615	0	1	ROTARY POSITION GENERATOR AND CABLE	28480	03586-61615
S1	3101-2298	1	2	SWITCH-SLIDE	28480	3101-2298
S2	3101-2298	1		SWITCH-SLIDE	28480	3101-2298
S3	3103-0020	7	1	SWITCH-THERMAL	28480	3103-0020
SP100	9160-0229	4	1	SPEAKER	28480	9160-0229
	5040-7695	4	1	MOUNT-SPEAKER	28480	5040-7695
T1	9100-0440	5	1	TRANSFORMER-POWER	28480	9100-0440

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
				MECHANICAL PARTS		
MP1	5020-8805	8	1	FRONT FRAME	28480	5020-8805
MP2	5020-8806	9	1	REAR FRAME	28480	5020-8806
MP5	5040-7202	9	1	TRIM, TOP	28480	5040-7202
MP6	5040-7201	8	1	FOOT(STANDARD)	28480	5040-7201
MP7	1460-1345	5	2	TILT STAND SST	28480	1460-1345
MP8	5040-7219	8	2	STRAP, HANDLE, CAP-FRONT	28480	5040-7219
MP9	5040-7220	1	2	STRAP, HANDLE, CAP-REAR	28480	5040-7220
MP13	5001-0440	1	2	TRIM, SIDE	28480	5001-0440
MP14	5060-9941	9	2	SIDE COVER (PERFORATED)	28480	5060-9941
MP15	5020-8836	5	4	CORNER STRUT	28480	5020-8836
MP16	5060-9834	9	1	TOP COVER	28480	5060-9834
MP17	03586-64101	5	1	BOTTOM COVER	28480	03586-64101
MP18	5060-9941	9		SIDE COVER (PERFORATED)	28480	5060-9941
MP19	5060-9803	2	2	STRAP-HANDLE	28480	5060-9803
MP20	03586-20203	6	1	FRONT DRESS PANEL-UPPER (3586A)	28480	03586-20203
	03586-00205	6	1	FRONT DRESS PANEL-LOWER (3586A STD.)	28480	03586-00205
	03586-00206	7	1	FRONT DRESS PANEL-LOWER (3586A OPT 003)	28480	03586-00206
	03586-20202	5	1	FRONT DRESS PANEL-UPPER (3586B)	28480	03586-20202
	03586-00204	5	1	FRONT DRESS PANEL-LOWER(3586B STD.)	28480	03586-00204
	03586-00203	4	1	FRONT DRESS PANEL-LOWER (3586B OPT. 003)	28480	03586-00203
	03586-00207	8	1	FRONT DRESS PANEL-LOWER (3586B OPT. 002)	28480	03586-00207
	03586-20204	7	1	FRONT DRESS PANEL-UPPER (3586C)	28480	03586-20204
	03586-00208	9	1	FRONT DRESS PANEL-LOWER (3586C)	28480	03586-00208
MP21	03586-00201	2	1	FRONT SUB-PANEL	28480	03586-00201
MP22	03586-00202	3	1	REAR PANEL	28480	03586-00202
	5040-6298	1	1	DIVIDER STRIP	28480	5040-6298
	5001-4645	6	1	TRANSFORMER BELL COVER	28480	5001-4645
	0535-0013	0	1	KNURLED NUTS	00000	ORDER BY DESCRIPTION
	5061-2009	8	1	REAR FEET KIT	28480	5061-2009
	03586-04704	8	1	BRACE DIGITAL	28480	03586-04704

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
				CABLE PARTS LIST		
W1	03586-61612	7	1	CABLE, A99J1 TO A90J2 (14 PINS)	28480	03586-61612
W2	03586-61615	0	1	CABLE, RPG TO A90J3 (5 PINS)	28480	03586-61615
W3	03586-61671	8	1	CABLE, A15J2 TO REAR PANEL BNC LABELED "FO(0-32 MHZ)", BLACK	28480	03586-61671
W4	03586-61674	1	1	CABLE, A40J3 TO REAR PANEL BNC LABELED "10 MHZ", VIOLET	28480	03586-61674
W5	03586-61675	2	1	CABLE, A40J1 TO REAR PANEL BNC LABELED "INPUT-EXT REF", RED	28480	03586-61675
W6	03586-61676	3	1	CABLE, A10J1 TO REAR PANEL BNC LABELED	28480	03586-61676
W6	03586-61676	3		"10 MHZ OVEN", WHITE	28480	03586-61676
W7	03586-61677	4	1	CABLE, A40J5 TO A11J1, BLUE	28480	03586-61677
W8	03586-61678	5	5	CABLE, A50J3 TO A40J4, GRAY	28480	03586-61678
W9	03586-61678	5		CABLE, A51J3 TO A15J1, GRAY	28480	03586-61678
W10	03586-61678	5		CABLE, A52J2 TO A51J1, GRAY	28480	03586-61678
W11	03586-61678	5		CABLE, A52J1 TO A50J1, GRAY	28480	03586-61678
W12	03586-61678	5		CABLE, A5J1 TO A2J3, GRAY	28480	03586-61678
W13	03586-61691	2	2	CABLE, A4J1 TO A2J2, GRAY/WHITE/RED	28480	03586-61691
W14	03586-61691	2		CABLE, A2J1 TO A1J1, GRAY/WHITE/RED	28480	03586-61691
W15	8120-1521	6	1	CABLE, POWER	28480	8120-1521
W16	8120-2887	9	1	CABLE, A61J1 TO REAR PANEL HPIB CONNECT AND A62 P.C. ASSEMBLY (34 PINS)	28480	8120-2887
W17	8120-2888	0	1	CABLE, A60J3 TO A98J1 (34 PINS)	28480	8120-2888
	1250-1499	5	1	ADAPTER-COAX RTANG M-BNC F-BNC	28480	1250-1499

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-3. Replaceable Parts

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
				MISCELLANEOUS PARTS		
	03586-66590	0	2	EXTENDER BOARD-22 PIN	28480	03586-66590
	03586-66591	1	2	EXTENDER BOARD-15 PIN	28480	03586-66591
	03586-90002	0	1	MANUAL SERVICE	28480	03586-90002
	03586-90012	2	1	MANUAL OPERATE	28480	03586-90012
	0370-1001	8	1	KNOB-VOLUME	28480	0370-1001
	0370-1303	3	1	KNOB-FREQUENCY	28480	0370-1303
	1460-0553	5	3	CLIP-FRONT DRESS PANEL (UPPER)	28480	1460-0553
	03586-04198	4	1	COVER, POWER SUPPLY	28480	03586-04198
	03586-04185	9	1	COVER, PLENUM	28480	03586-04185
	5041-0031	0	1	KEY CAP -POWER	28480	5041-0031
	5041-0285	6	10	KEY CAP -PEARL PIPE	28480	5041-0285
	5041-0343	7	1	KEY CAP	28480	5041-0343
	5041-0352	8	2	KEY CAP -GRAY	28480	5041-0352
	5041-0384	6	6	KEY CAP -SMOKEPIPE	28480	5041-0384
	5041-0417	6	15	KEY CAP -BLACK	28480	5041-0417
	5041-0450	7	1	KEY CAP -BLUE	28480	5041-0450
	5041-0774	8	1	KEY CAP -STORE	28480	5041-0774
	5041-0775	9	1	KEY CAP -RECALL	28480	5041-0775
	5041-0808	9	1	KEY CAP -PERIOD	28480	5041-0808
	5041-0811	4	1	KEY CAP -1	28480	5041-0811
	5041-0812	5	1	KEY CAP -2	28480	5041-0812
	5041-0813	6	1	KEY CAP -3	28480	5041-0813
	5041-0814	7	1	KEY CAP -4	28480	5041-0814
	5041-0815	8	1	KEY CAP -5	28480	5041-0815
	5041-0816	9	2	KEY CAP -6	28480	5041-0816
	5041-0817	0	1	KEY CAP -7	28480	5041-0817
	5041-0818	1	1	KEY CAP -8	28480	5041-0818
	5041-0819	2	1	KEY CAP -0	28480	5041-0819
	5041-0855	6	2	KEY CAP -ARROW	28480	5041-0855
	5041-0943	3	1	KEY CAP -LOCAL	28480	5041-0943
	5041-1743	3	1	KEY CAP -HZ MIN	28480	5041-1743
	5041-1744	4	1	KEY CAP -KHZ +DB	28480	5041-1744
	5041-1745	5	1	KEY CAP -MHZ -DB	28480	5041-1745
	5041-1746	6	1	KEY CAP -RDNG OFFSET	28480	5041-1746
	5041-1747	7	1	KEY CAP -CNTR FREQ	28480	5041-1747
	5041-1748	8	1	KEY CAP -THSHLD	28480	5041-1748
	5041-1749	9	1	KEY CAP -FREQ	28480	5041-1749
	5041-1750	2	1	KEY CAP -OFFSET	28480	5041-1750
	5041-1751	3	1	KEY CAP -TIME	28480	5041-1751
	5041-1752	4	1	KEY CAP -FULL SCALE	28480	5041-1752
	5041-1753	5	1	KEY CAP -FREQ STEP	28480	5041-1753
	5041-1754	6	1	KEY CAP -MEAS CONT	28480	5041-1754
	1250-1499	5	1	ADAPTER-COAX RTANG M-BNC F-BNC	28480	1250-1499
	0460-1336	3	1	TAPE-INDL .5-IN-W .0035-IN-T POLYE-FLM	28480	0460-1336
	0340-0691	7	1	INSULATOR POLYC	28480	0340-0691
	0460-0280	4	1	TAPE-INDL .375-IN-W .25-IN-T POLYU-FM	28480	0460-0280

See introduction to this section for ordering information
*Indicates factory selected value

Table 6-4. 3586 Non-Metric Hardware.

Part Number	Quantity	Description	Use
0624-0333	2	4-20 Self-Tap Screw (pan-head)	Hold A98S300 to A98 board.
2200-0091	2	4-40x.562 Screw (pan head)	Hold oven assembly to A16 board.
2510-0102	8	8-32x.375 Screw (flat head)	Hold on front handles.
2510-0192	16	8-32x.25 Screw (flat head)	Hold System II frame together.
2680-0129	6	8-32 x .312 Screw (pan head)	Hold filter caps to A99 board.
2740-0003	1	10-32 Nut	Holds CR20 to Darlington Assembly.
2950-0035	6	15/32-32 Nut	Hold large BNC connectors.
2950-0043	5	3/8-32 Nut	Hold small BNC connectors.
2950-0072	1	1/4-32 Nut	Holds Volume pot to sub panel.
2950-0078	23	10-32 Nut	Hold Sealectro connectors to PC board covers.
2110-0569	1	Nut	Holds fuseholder to rear panel.

Notes: 1. Replacement washers should be selected to fit from standard stock.

2. For non-listed parts, see paragraph 6-6.

Table 6-5. Metric Hardware.

Description	Part Number	Description	Part Number
Pan Head Screws		**Flat Head Screws**	
M2.5x.45x6	0515-0150	M2.5x.45x6	0515-0223
M2.5x.45x12	0515-0063	M2.5x.45x18	0515-0075
M3x.5x6	0515-0055	M3x.5x6	0515-0076
M3x.5x8	0515-0104	M3x.5x8	0515-0145
M3x.5x10	0515-0054	M3x.5x16	0515-0078
M3x.5x10 (stainless)	0515-0169	M3x.5x20	0515-0158
M3x.5x16	0515-0064	M3x.5x25	0515-0079
M3.5x.6x6	0515-0066	M3.5x.6x6	0515-0080
M3.5x.6x10	0515-0067	M3.5x.6x8	0515-0166
M3.5x.6x12	0515-0165	M3.5x.6x10	0515-0081
M3.5x.6x16	0515-0068	M3.5x.6x16	0515-0082
M3.5x.6x20	0515-0147	M4x.7x10 (Allen)	0515-0167
M3.5x.6x25	0515-0069		
M4x.7x60	0515-0156	**Nut (Hex)**	
Hex Head Screw		M2.5x.45	0535-0008
		M3x.5	0535-0004
M3x.5x8 (Self-Tap)*	0515-0239	M3.5x.6	0535-0007
		M3.5x.6 (knurled)	0535-0013
		M4x.7	0535-0006

Notes:

1. Replacement washers should be selected to fit from standard stock.
2. For non-listed parts, see paragraph 6-6.
3. See paragraph 6-14 for a description of metric part designation.
4. *May be replaced with M3x.5x8PH (non-self-tap).

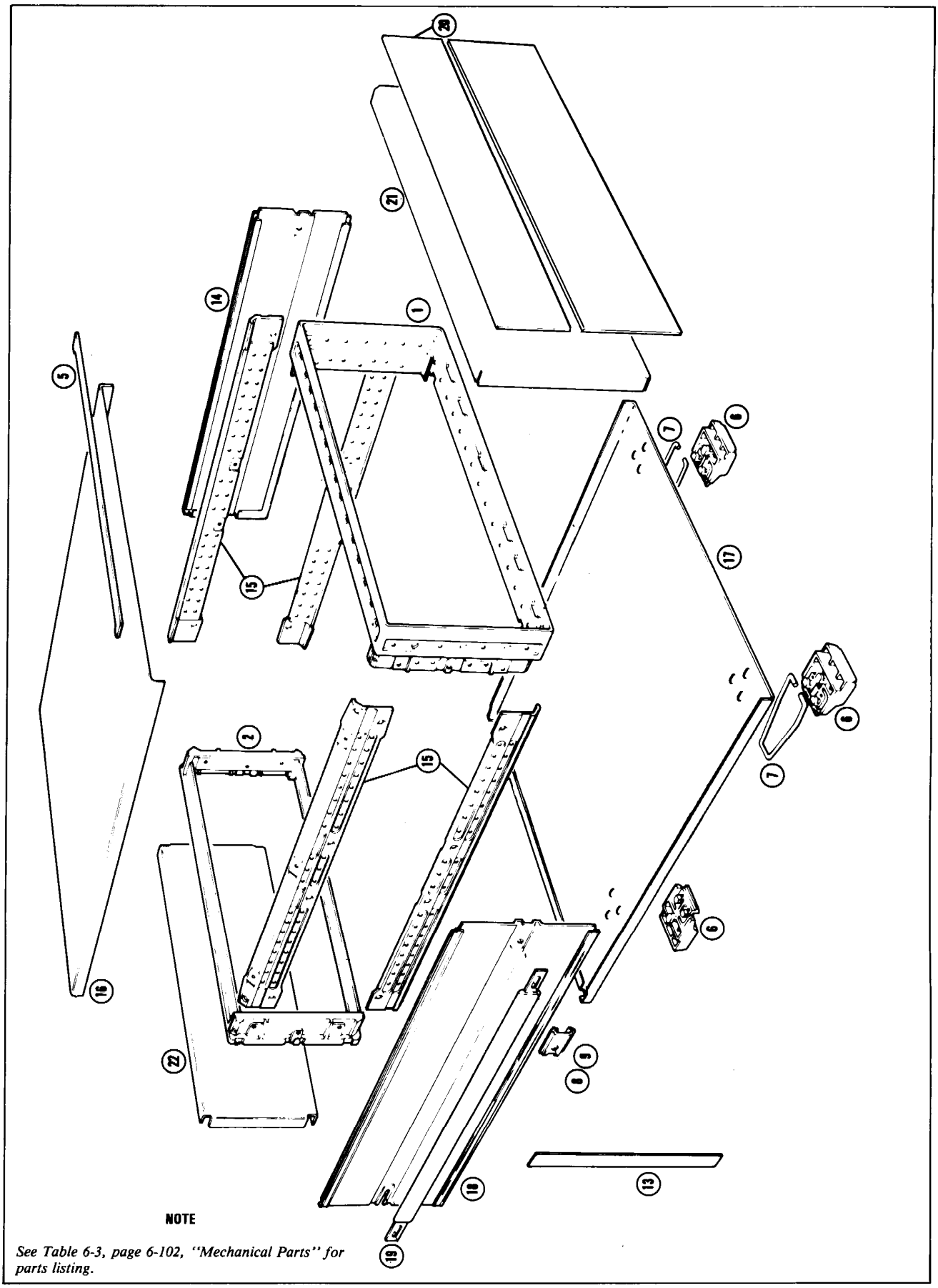

Figure 6-1. Mechanical Parts.

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SECTION VII
MANUAL CHANGES

7-1. INTRODUCTION.

7-2. This section contains information for adapting this manual to instruments for which the content does not apply directly. It also includes information about recommended modifications for improvements to earlier instruments.

7-3. Backdating information is organized by printed circuit (PC) board with all applicable backdating information for a given PC board placed together for easy reference.

7-4. General Information.

7-5. All newer revision circuit boards are useable in older instruments. During early production runs, some later revision changes were made on existing revision boards. For example, some A20 boards were delivered which were marked "REV A" but which had the revision B changes incorporated by on-board modification. These boards are therefore electrically identical to the "REV B" boards which provided a new layout to incorporate the revision B changes. Backdated PC board component locator drawings are not provided except for boards which had extensive differences in component layout between revisions.

7-6. Refer to Table 7-1 for a listing of the current (May 1983) revision letter for each 3586 PC board. Future board revisions will be covered by yellow "MANUAL CHANGES" supplements. All delivered PC boards were at least revision A.

7-7. MANUAL CHANGES.

7-8. Future instrument changes and corrections/changes to the 3586 Service Manual will be in the form of yellow "MANUAL CHANGES" supplement sheets included with the manual at instrument delivery. For a copy of the most recent supplement to this manual, contact your nearest Hewlett-Packard Sales Office listed at the back of this manual.

7-9. To correct this manual for your particular instrument, locate all changes which affect your instrument serial number in the yellow supplement sheets and make those corrections in the manual itself.

7-10. SERVICE NOTES.

7-11. The instrument related service note is a publication available to all HP Service Centers and customers. The service note conveys service-related information that is intended to increase the reliability, improve the performance, or extend the usefulness of your HP instrument. Service notes function as an "after-sales" support interface to Hewlett-Packard, offering additional information relative to your instrument.

7-12. The service note index found at the end of this section briefly identifies the service notes available for the 3586A/B/C. Contact your nearest Hewlett-Packard Sales Office listed at the back of this manual for instructions on obtaining copies.

Table 7-1. Circuit Board Revisions.

Part Number*	3586 Model	Schematic Number	Service Group	Reference Designator	Revision #
66506	A	1A	A	A1	B
66501	B	1B	A	A1	B
66507	C	1C	A	A1	D
66502	A/B	2	A	A2	C
66503	C	2	A	A2	C
66504	A/B	18	F	A4	C
66508	C	18	F	A4	C
66505	A/B	3	A	A5	B
66509	C	3	A	A5	B
66510	A/B/C	4	B	A10	B
66511	A/B/C	7	B	A11	A
66515	A/B/C	19	F	A15	A
66516	A/B/C	22	H	A16	A
66520	B	5A	B	A20	B
66523	A/B/C	5B	B	A20	B
66524	A/B	5C	B	A20	B
66521	A/B/C	6	B	A21	B
66522	A/B/C	8	C	A22	E
66525	B	8	C	A22	E
66526	A/B	8	C	A22	E
66530	A/B/C	15	E	A30	A
66531	A/B/C	16	E	A31	A
66532	A/B/C	17	E	A32	B
66540	A/B/C	21	H	A40	B
66550	A/B/C	11	D	A50	A
66551	A/B/C	12	D	A51	A
66552	A/B/C	13	D	A52	A
66553	A/B/C	14	D	A53	A
66560	A/B/C	9A/B	C	A60	A
66561	A/B/C	23	I	A61	B
66570	B	20A/B/C	G	A70	D
66571	A	20A/B/C	G	A70	D
66580	A/B/C	24	J	A80	C
66594	C	10A/B	C	A98	C
66595	A**	10A/B	C	A98	C
66596	A	10A/B	C	A98	C
66597	B	10A/B	C	A98	C
66598	B**	10A/B	C	A98	C
66599	A/B/C	24	J	A99	C

Notes:
1. Some PC boards with the same part number but different revision letters are electrically identical due to on-board modification.
2. *All part numbers are preceded by 03586-(Example: 03586-66506).
**Option 003.

7-13. BACKDATING INFORMATION.

7-14. A1-Input Multiplexer (Δ1).

7-15. There are three versions of the A1 board, depending upon instrument model or special options. The differences between boards are in the different input termination impedances available. Standard model configurations are:

3586A	03586-66506
3586B	03586-66501
3586C	03586-66507

7-16. A1 Backdating. Early instruments with the 66501 board had A1C13 of 1500pF. May be replaced in all instruments with 1000pF (Part Number 0160-0938) for improved flatness of 124Ω input.

7-17. The revision B for the 66507 board corrected revision A layout errors only (no circuit or component changes).

7-18. Pages 8-A-13/8-A-14, 8-A-15/8-A-16, 8-A-17/8-A-18; Figures 8-A-2, 8-A-3, 8-A-4.

Instruments in the serial number range 1927A00375 and below, 1928A00392 and below and 1929A00249 and below may have implemented, one of the relay logic configurations shown below.

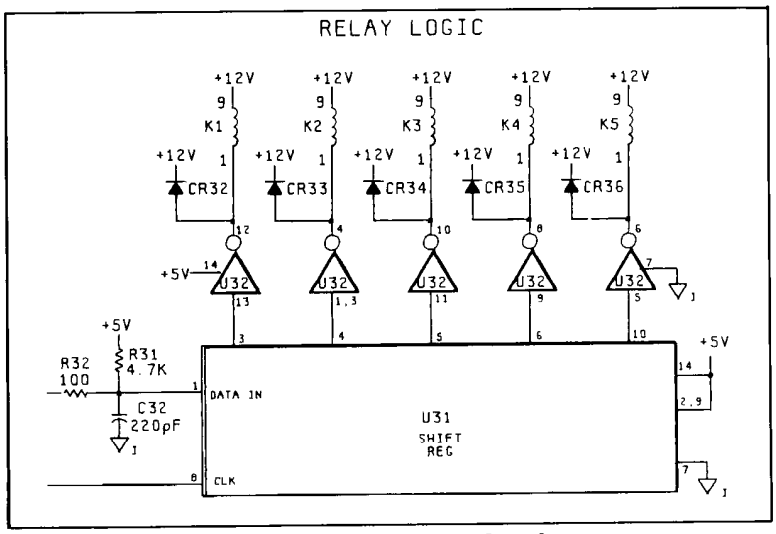


Figure 7-1. Relay Logic (03586-66501/66506) Revision A, (03586-66507) Revision B.

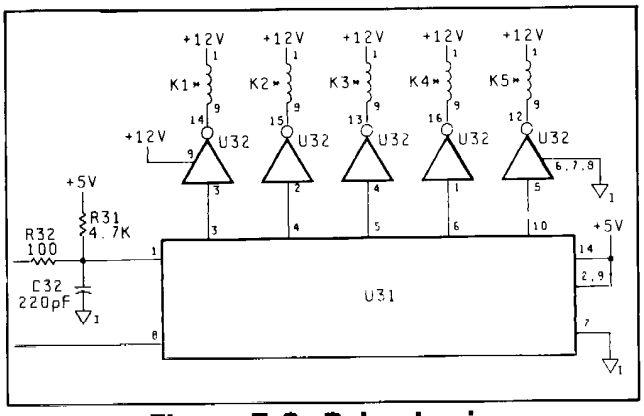


Figure 7-2. Relay Logic (03586-66501/66506) Revision B.

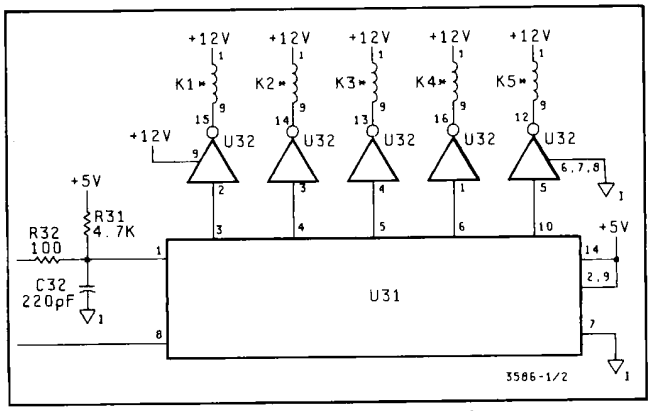


Figure 7-3. Relay Logic (03586-66507) Revision C.

7-19. The 66507 revisions C and D and the 66501/66506 revision B boards have different circuit layouts to accomodate several types of replacement relays. They also have a different relay driver (U32), with different pin numbers than the U32 shown in Figure 7-1. This prevents direct replacement of the new U32 part into some of the earlier revisions. These newer revisions also do not have CR32-CR36 (P/N 1901-0040) installed since diode action is provided by the "new" U32 (P/N 1858-0047). While the parts are not interchangeable, the assemblies themselves are. When replacing U32 on instruments whose relay logic is configured as shown in Figure 7-1, use part number 1820-0471.

7-20. Instruments which contain the relay logic shown in Figure 7-1 are represented by the component locators shown in Figures 7-4, 7-5, and 7-6.

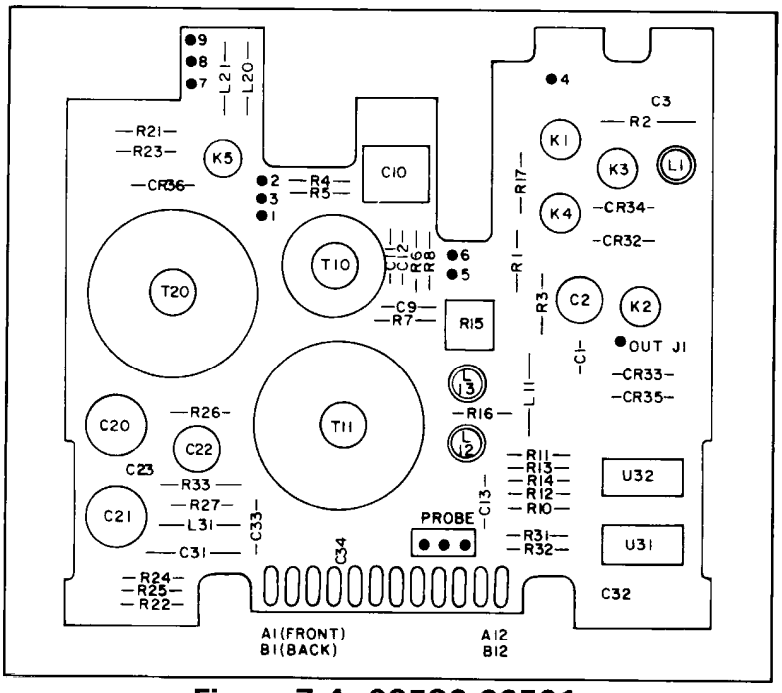


Figure 7-4. 03586-66501
Revision A Component Locator.

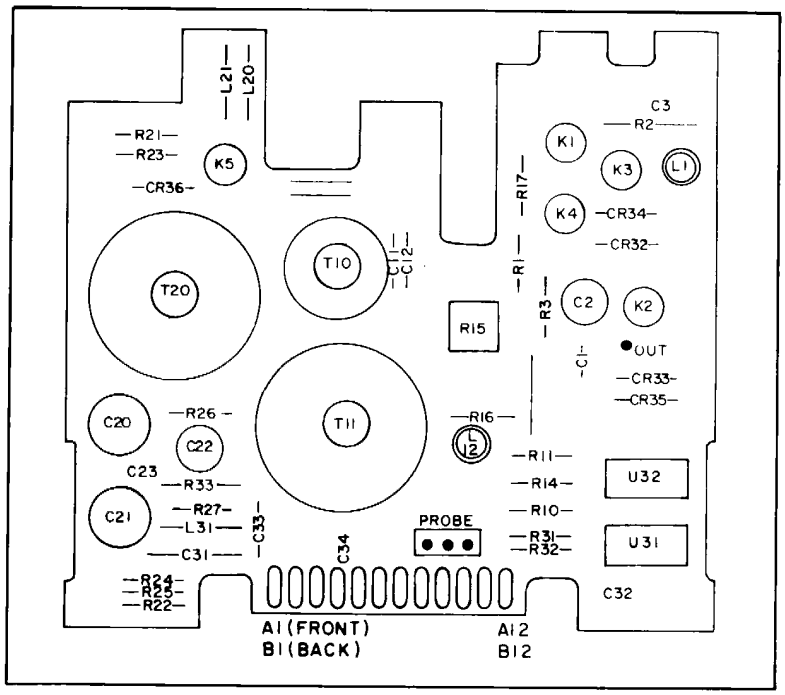


Figure 7-5. 03586-66506
Revision A Component Locator.

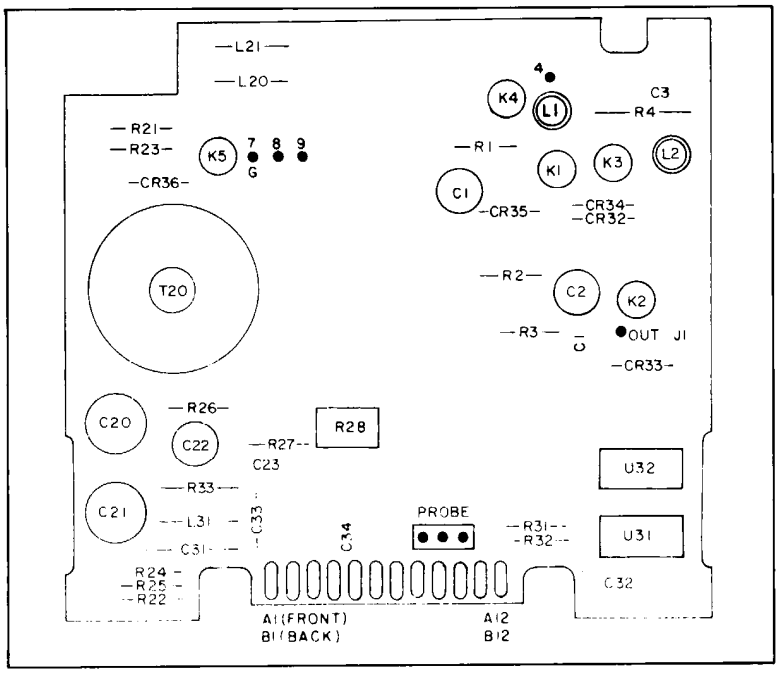


Figure 7-6. 03586-66507 Revision B Component Locator.

7-21. 3586A/B instruments with the relay logic shown in Figure 7-2 can use the component locator found on pages 8-A-13/8-A-14 and 8-A-15/8-A-16. Note that the only difference is that C35 is not included in these instruments.

7-22. 3586C instruments with the relay logic shown in Figure 7-3 can use the component locator found on page 8-A-17/8-A-18. Note that these instruments, however, do not have C35 or C36.

7-23. 3586C instruments (s/n 1929A00249 to 1929A00390) with 66507 revision C boards have A1C35 installed as shown in Figure 7-7. Instruments in this serial number range can use the component locator found on page 8-A-17/8-A-18. Note that these instruments do not have C36 and that C35 may be mounted on the circuit side of the PC board.

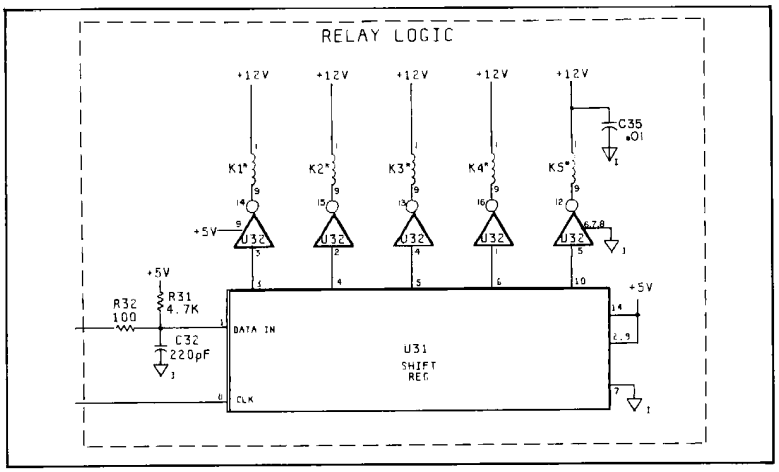


Figure 7-7. Location Of A1C35 (03586-66507) Revision C.

7-24. In certain 3586A/B/C instruments, A1C23 may be 200pF (p/n 0140-0198), 180pF (p/n 0140-0197), or 220pF (p/n 0160-0134).

7-25. A2-Input Amplifier (Δ2).

7-26. There are two versions of the A2 board, depending upon instrument model. The differences between boards are in component values only which affect stage gains. Standard model configurations are:

3586A/B	03586-66502
3586C	03586-66503

7-27. A2 Backdating. Early instruments had different component values for R16,R31,R32 R33, and R38. When replaced all at one time, these components may be replaced with the current values shown in Table 6-3.

7-28. The revision B configurations for the 66502 and 66503 boards are electrically identical to revision A with on-board modifications. Revision B is primarily for a new layout. A2C32 was changed on revision B to improve frequency response. The value of A2C32 in Table 6-3 may be retrofitted onto all revision A boards.

7-29. Page 8-A-19/8-A-20, Figure 8-A-5.

Instruments in the serial number range 1927A00847 and below, 1928A01566 and below and 1929A00767 and below implement the relay logic shown in Figure 7-8. This range of instruments also does not contain A2R150, A2R151, or A2C100.

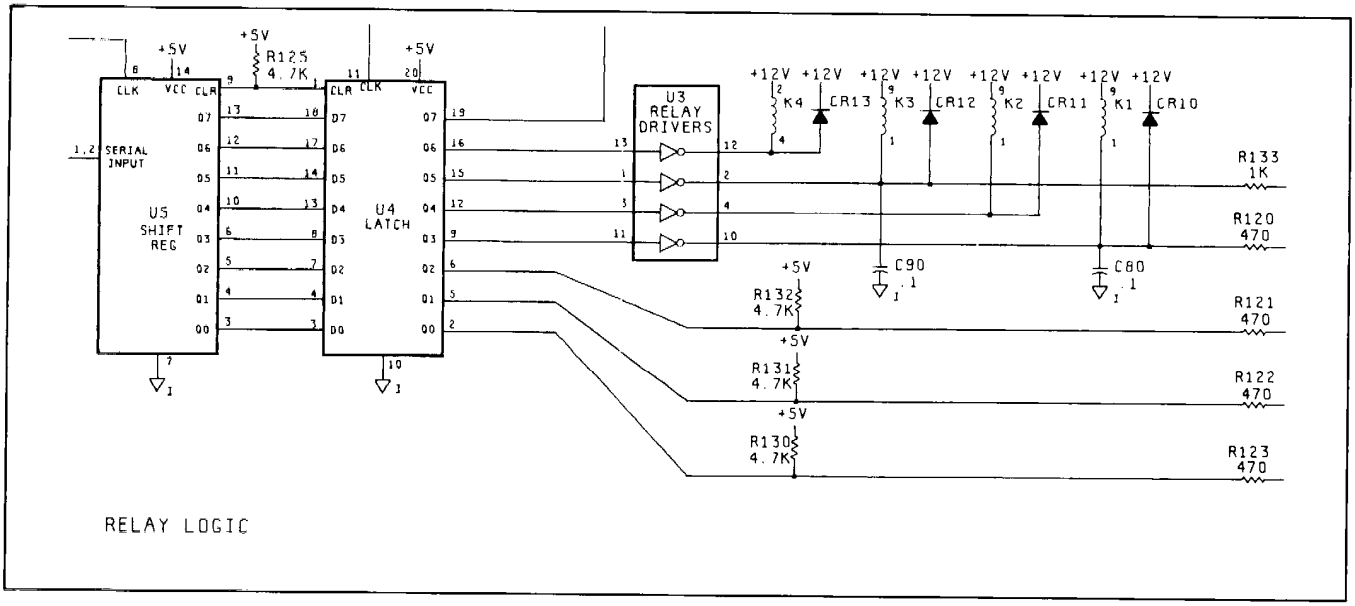


Figure 7-8. A2 Relay Logic Circuitry (Revision B).

7-30. The parts unique to the A2 relay logic circuitry (revision B) are summarized in Table 7-2.

Table 7-2. A2 Relay Logic Components (Revision B.)

REFERENCE DESIGNATOR	DESCRIPTION	-hp- PART NUMBER
A2C80	Capacitor-Fxd .1μF	0160-0576
A2C82	Capacitor-Fxd 200pF	0140-0198
A2C90	Capacitor-Fxd .1μF	0160-0576
A2K1	Relay 2C 12VDC-Coil	0490-0508
A2K2	Relay 2C 12VDC-Coil	0490-0508
A2K3	Relay 2C 12VDC-Coil	0490-0508
A2K4	Relay 2C 12VDC-Coil	0490-1221
A2R120	Resistor 470 .25w	0683-4715
A2R121	Resistor 470 .25w	0683-4715
A2R122	Resistor 470 .25w	0683-4715
A2R123	Resistor 470 .25w	0683-4715
A2R125	Resistor 4.7k .25w	0683-4725
A2R126	Resistor 4.7k .25w	0683-4725
A2R127	Resistor 100 .25w	0683-1015
A2R130	Resistor 4.7k .25w	0683-4725
A2R131	Resistor 4.7k .25w	0683-4725
A2R132	Resistor 4.7k .25w	0683-4725
A2R133	Resistor 1k .25w	0683-1025
A2U3	IC INV TTL HEX 1 = INP	1820-0471
A2U4	IC FF TTL LS D-TYPE	1820-1730
A2U5	IC SHF-RGTR TTL	1820-1433

7-31. For instruments in the range stated in paragraph 7-29, use the component locator shown in Figure 7-9.

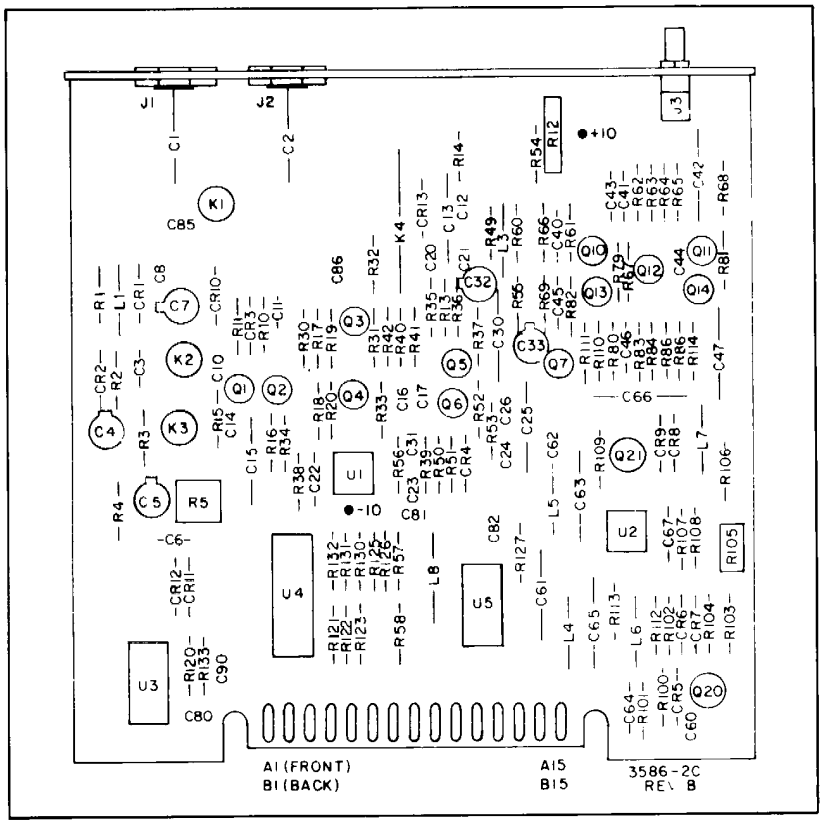


Figure 7-9. A2 Component Locator (Revision B).

7-32. In the Detailed Functional Description section of Volume II of the Service Manual, paragraph 8-130 applies to the above range of instruments with the exceptions shown in the following paragraph:

"The parallel eight bits from U5 are latched into U4 by the clock signal (ISO LATCH) from A60 through pulse transformer A99T3. Four of the outputs from U4 control relays K1-K4 through the open-collector drivers of U3. One of these, U3(10) goes logic LOW when CAL is selected, energizing K1 to bring in the CAL signal from the A4 board and at the same time sending a (L) CAL signal to A4 to turn on CAL. Also, anytime a Full Scale setting of +5dBm or higher is selected, 40dB of attentuation is required from the 0/20/40 dB circuits. Therefore U3(2) goes logic LOW causing K3 to energize (K2 will de-energize) and 40dB is selected. This same LOW signal is applied to A4 to select the high level CAL signal of −20dBm."

7-33. A4-BBP/OVLD/CAL (Δ3).

7-34. There are two versions of the A4 board, depending upon instrument model. The differences between boards are in component values only which affect stage gains. Standard model configurations are:

3586A/B	03586-66504
3586C	03586-66508

7-35. A4 Backdating. Early instruments had different component values for R43,R45,R49, R50,R104,R137, and R140. When these components are replaced all at one time, they may be replaced with the current values shown in Table 6-3.

7-36. The revision B change for the 66504 and 66508 boards provides different circuit configurations for the input circuits which pass the BBP RF signal to the Detector-Logger circuits. The old buffer circuit (revision A) is shown in Figure 7-10. Other circuits simply changed component values. Table 7-3 provides part numbers for revision A components. Figure 7-11 is the revision A component locator for A4 (both 66504 and 66508).

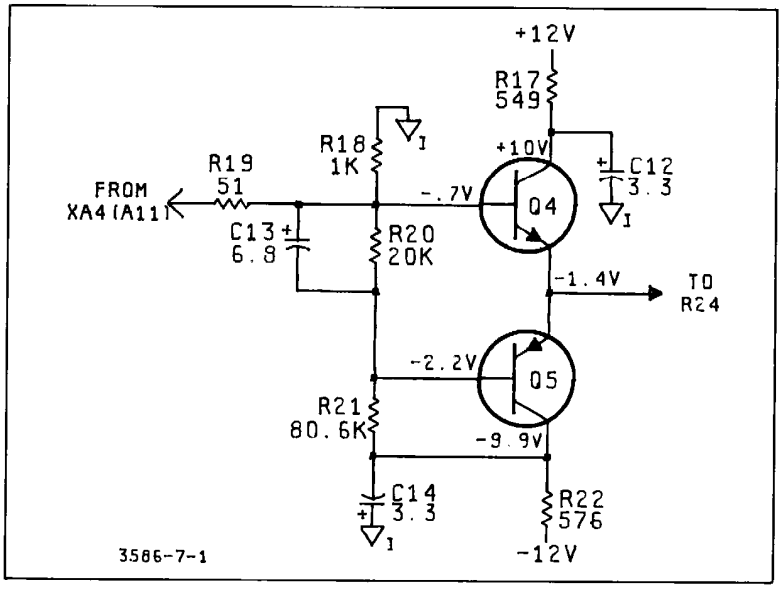


Figure 7-10. A4 Input Amplifier (BBP RF) Revision A.

Table 7-3. A4 Components (Revision A).

Reference Designator	Description	-hp- Part Number
A4R17	R-F 549Ω, 1%	0698-4456
A4R18	R-F 1KΩ, 1%	0757-0280
A4R19	R-F 51Ω, 5%	0683-5105
A4R20	R-F 20KΩ, 1%	0757-0449
A4R21	R-F 80.6KΩ, 1%	0698-4509
A4R22	R-F 576Ω, 1%	0698-4457
A4R25	R-F 100Ω, 1%	0757-0401
A4R26	R-F 2KΩ, 1%	0757-0283
A4C11	C-F 4.7μF, 10V	0180-0309
A4C12	C-F 3.3μF, 35V	0180-0161
A4C13	C-F 6.8μF, 6V	0180-1701
A4C14	C-F 3.3μF, 35V	0180-0161
A4Q4	XSTR-NPN 61714	1854-0485
A4Q5	XSTR-PNP SPS6837	1853-0354

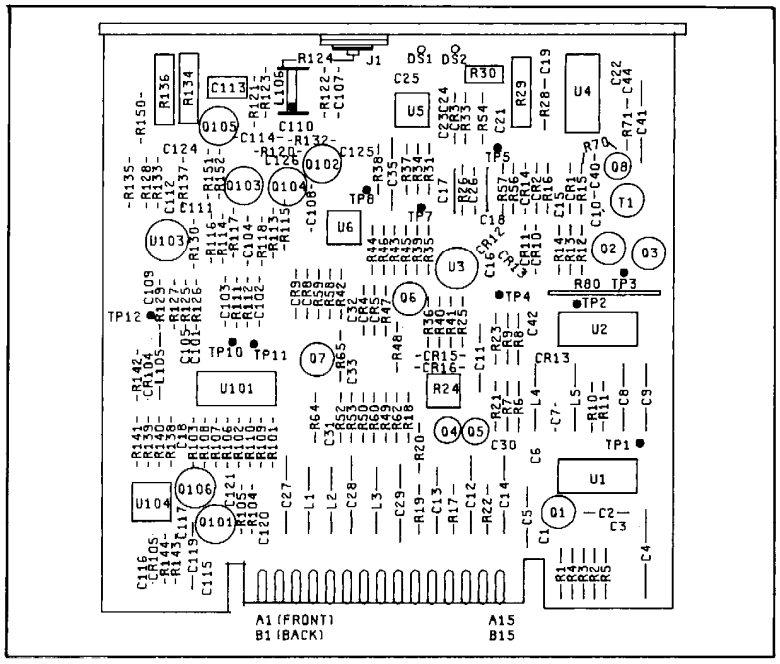


Figure 7-11. A4 Component Locator Revision A.

7-37. The revision C change for the 66504 and 66508 boards made minor hole changes and did not affect component values nor were there any circuit changes. The current schematic and component locator for A4 in Service Group F may be used for both revision B and revision C A4 boards. Note, however, that on some revision C boards, A4CR10-A4CR13 and A4R70 are mounted as shown in Figure 7-12.

7-38. Page 8-F-9/8-F-10, Figure 8-F-2.

For instruments in the serial number range 1927A00231 and below, 1928A00284 and below, and 1929A00195 and below, C40 is .22μF (p/n 0160-0170).

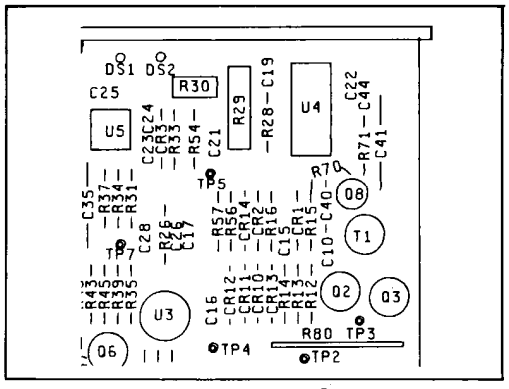


Figure 7-12. Alternate Positioning Of CR10-CR13 and R70.

7-39. A5-Input Mixer.

7-40. There are two versions of the A5 board, depending upon instrument model. The differences between boards are few. The 66509 is the same as the 66505 except for the following: (1) Different component values for R30 and R33; (2) R32 and R34 are not installed on the 66509 board. Standard model configurations are:

3586A/B	03586-66505
3586C	03586-66509

7-41. A5 Backdating. Some revision B boards of the 66505 are electrically identical to revision A. The same is true for revisions A and B of the 66509 board. Revision B for both boards was simply a re-layout because of on-board modifications. Later changes to revision B components were value changes only. Earlier instruments therefore may have different value components for R10,R11,C52,C55,C58, and C62. When replaced all at the same time, these components may be replaced with the current values shown in Table 6-3. The revision B component locator on page 8-A-21 may also be used for revision A as actual component positions are approximately the same.

7-42. A10-Second Mixer (3586A/B/C = 03586-66510).

7-43. A10 Backdating. Early instruments may have different values for R31,R43 and R44. These components may be replaced all at once by current values shown in Table 6-3. Early instruments had a resistor (R20) on the 50MHz filter bypass line to ground. This resistor may be deleted as was done on later instruments. The revision B component locator may be used for revision A boards.

7-44. Revision A of the 66510 board did not have R24 installed and R23* went to ground. As a consequence, a different padding list was used for R23* (see Table 7-4).

Table 7-4. A10R23* Padding List (Revision A).

Value	-hp- Part Number
374Ω	0698-4452
402Ω	0698-4453
422Ω	0698-3447
453Ω	0698-3510
499Ω	0698-4123
523Ω	0698-4454
549Ω	0698-4456
576Ω	0698-4457

7-45. The 66510 rev B board has C52 mounted horizontally beneath L104. All instruments with rev A boards and those with rev B boards and serial numbers prior to 1927A00396, 1928A00433, and 1929A00274 have C52 mounted vertically between R105 and L104. Mounting C52 horizontally was done to eliminate the problem of power supply noise being coupled into the ground for pin 2 of U101 causing the noise floor to be about 2dB higher for the 400Hz filter. With the exception of C52 the rev A and rev B component locators are identical and the component locator found on page 8-B-11/8-B-12 applies to all instruments.

7-46. A11-Second Local Oscillator (3586A/B/C = 03586-66511) (Δ4).

7-47. A11 Backdating. Page 8-B-21/8-B-22, Figure 8-B-6.

Instruments with serial numbers 1927A00405 and below, 1928A00458 and below, and 1929A00283 and below have different values and part numbers for L1, L2, R63, R80, and R81 than shown in Figure 8-B-6. For the above range of instruments, these components have the following values:

L1	4.3μH	p/n 9100-3547
L2	4.3μH	p/n 9100-3547
R63	1500Ω	p/n 0683-1525
R80	1000Ω	p/n 0757-0280
R81	1000Ω	p/n 0757-0280

Also, the instruments identified above have a 4.7μH inductor (L70) in place of R71 (on both the schematic and component locator).

7-48. A15-Tracking Output (3586A/B/C = 03586-66515).

7-49. There have been no changes to the A15 board since the first 3586A/B/C was delivered.

7-50. A16-10MHz Frequency Reference (3586A/B/C = 03586-66516).

7-51. A16 Backdating. Earlier instruments may have a different part number (LM358N, 1826-0346) installed for A16U2. This part may be directly replaced by IC358 (1826-0678).

7-52. A20-IF Filter.

7-53. There are three versions of the A20 board, depending upon instrument model and option selection. Standard model configurations are:

3586A Standard	03586-66524 (1740Hz Bandwidth)
3586A Option 003	03586-66523 (3100Hz Bandwidth)
3586B Standard	03586-66520 (2000Hz Bandwidth)
3586B Option 002	03586-66524 (1740Hz Bandwidth)
3586B Option 003	03586-66523 (3100Hz Bandwidth)
3586C	03586-66523 (3100Hz Bandwidth)

7-54. A20 Backdating. Some early revision A boards for the 66520, 66523, and 66524 had slightly different circuits for the ground isolation amplifier and for the 10/35dB amplifier (see Figure 7-13). Part numbers for components unique to those early boards are shown in Table 7-5.

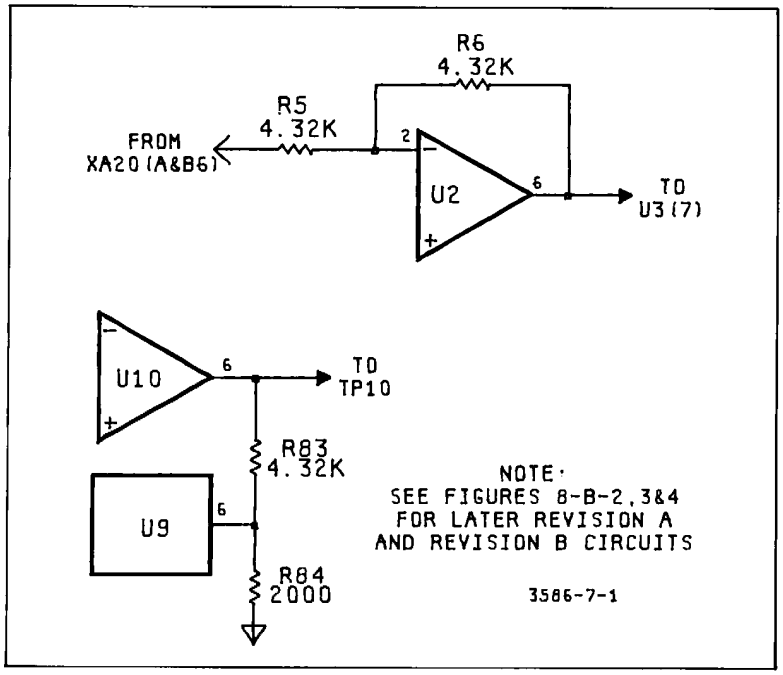


Figure 7-13. A20 Early Revision A Circuits.

Table 7-5. A20 Early Revision A Components.

Reference Designator	Description	-hp- Part Number
A20R5	R-F 4.32KΩ	0698-8059
A20R84	R-F 2000Ω	0698-6624

Notes:
1. Table is for 66520, 66523, and 66524.
2. See Figure 7-13 for circuits using these components.

7-55. Later revision A boards had the revision B changes incorporated by on-board modification. These boards are electrically identical to revision B boards.

7-56. Some revision A and revision B 66524 boards may have a different part number (L-V 305μH, 9140-0370) installed for A20L53. These parts may be directly replaced by L-V 279μH (9140-0369).

7-57. The revision B component locators for the 66520, 66523, and 66524 boards as shown on the Service Group B schematics can be used for early revision A boards by deleting the following items: CR1-CR4,R5,R9,R10,R85 and R86. These same deleted items form the revision B changes on the modified revision A boards and are located as follows:

1. Beneath U2 are CR1,CR2 and R9. To the right of them is R5.
2. R10 is located where R5 used to be.
3. R85 is just above C85 and R84 is moved to just above R85.
4. R86,CR3 and CR4 are to the right of C85.

7-58. A21-IF Gain and Detection (3586A/B/C = 03586-66521) (Δ5).

7-59. A21 Backdating. Revision A boards are electrically identical to revision B boards because of on-board modifications.

7-60. Some revision A and revision B boards may have a different part number (R-F 9.1k, 0683-9125) installed for A21R69. This part may be directly replaced by R-F 20K (0683-2035) provided the A70/A71 changes detailed in paragraph 7-108 are made at the same time.

7-61. The revision B component locator as shown on Figure 8-B-5 may be used for revision A boards with the following changes:

1. R68 is above Q2.
2. C30 is below and to the right of Q4.

7-62. Page 8-B-19/8-B-20, Figure 8-B-5.

Instruments with serial numbers 1927A00586 or below, 1928A00798 or below, or 1929A00423 or below do not have CR10.

7-63. A22-Analog/Digital Converter (Δ6).

7-64. There are three versions of the A22 board, depending upon instrument model and option selection. The only difference between versions is in sideband oscillator crystal frequencies. Standard model configurations are:

3586A Standard	03586-66526 (1740Hz)
3586A Option 003	03586-66522 (3100Hz)
3586B Standard	03586-66525 (2000Hz)
3586B Option 002	03586-66526 (1740Hz)
3586B Option 003	03586-66522 (3100Hz)
3586C	03586-66522 (3100Hz)

7-65. A22 Backdating. Some early revision A boards for the 66522, 66525, and 66526 may have a different part number (TTL INV 74LSO4N, 1820-1199) installed for A22U9. This part may be directly replaced with the current part number shown in Table 6-3.

7-66. The revision B component locator for the 66522, 66525, and 66526 boards as shown in Figure 8-C-2 may be used for the revision A boards with the following changes:

1. Replace Q1 with CR3.
2. See Figure 7-14 for layout of LSB/USB oscillator components on revision A boards.

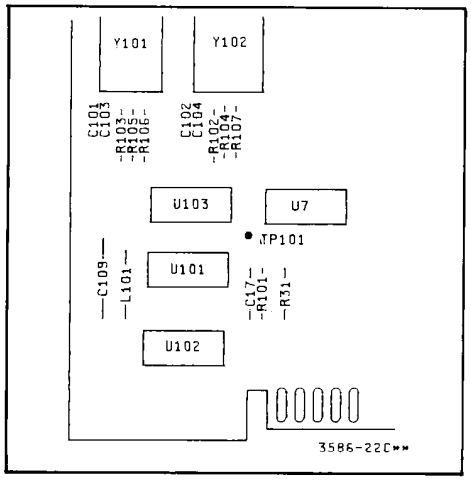


Figure 7-14. A22 (Revision A) Oscillator Component Locations.

7-67. The revision A for the 66522, 66525, and 66526 had a different design for the LSB/USB oscillator circuit. See Figure 7-15 for the revision A oscillator circuit. For part numbers of the components unique to revision A boards, see Table 7-6.

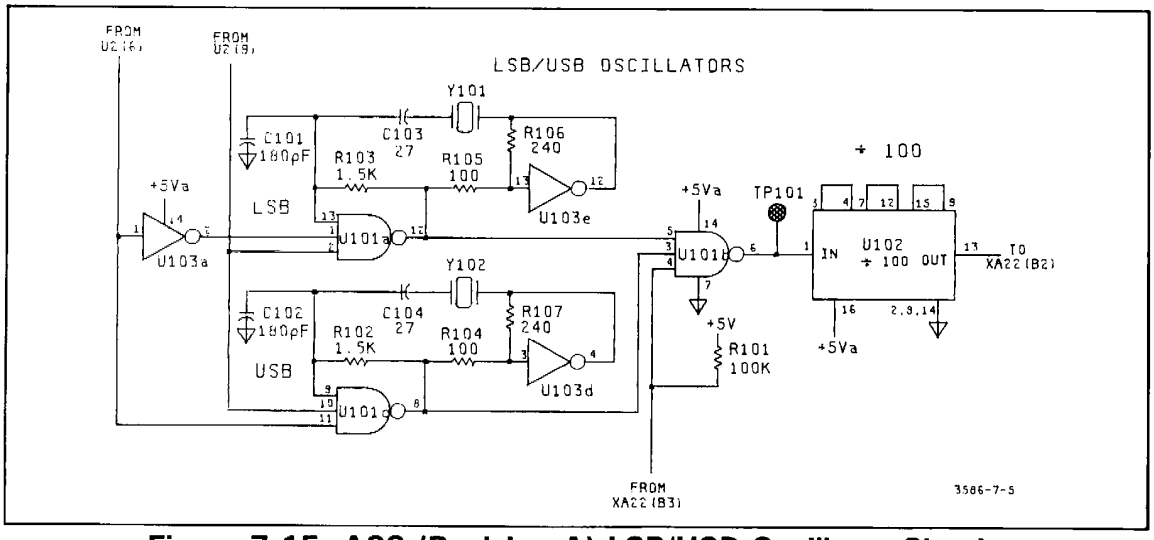


Figure 7-15. A22 (Revision A) LSB/USB Oscillator Circuit.

Table 7-6. A22 Revision A Components.

Reference Designator	Description	-hp- Part Number
A22C101,102	C-F 180pF 300V	0140-0197
A22C103,104	C-F 27pF 300V	0160-2306
A22R102,103	R-F 1500Ω 5%	0683-1525
A22R104,105	R-F 100Ω 5%	0683-1015
A22R106,107	R-F 240Ω 5%	0683-2415
A22U103	IC INV 74LS04N	1820-1199
A22CR3	Dio-Sl .05A 30V	1901-0040

7-68. On revision A boards, diode CR3 replaces Q1 on the A22 schematic (Figure 8-C-2). The cathode connects to U5(11) and the anode connects to U5(13).

7-69. Some early revision B boards had different part numbers (30pF, 0160-2199) installed for C101 and C102. They also did not have C103 and C104 installed at all. Current values for C101 and C102, as shown in Table 6-3, may be used if installed at the same time and if C103 and C104 are installed at the same time also (see Figure 8-C-2 for schematic).

7-70. Instruments with serial numbers equal or prior to 1927A00477, 1928A00622, and 1929A00309 may contain A22 boards which are revision B. Replace the schematic currently in Section VIII (A22 Rev. E) with Figure 7-16 (A22 Rev. B). Move A22 Rev. E to Section VII for instrument updating. See Table 7-7 for a listing of revision LSB/USB oscillator components.

NOTE

The revision letter (e.g., Rev A) shown under the component locator identifies the actual BOARD revision.

7-71. Instruments in the serial number range 1927A00478 to 1927A00506, 1928A00623 to 1928A00663, and 1929A00310 to 1929A00373 may contain A22 boards which are revision C. Replace the schematic currently in Section VIII (A22 Rev. E) with Figure 7-17 (A22 Rev. C). Move A22 Rev. E to Section VII for instrument updating.

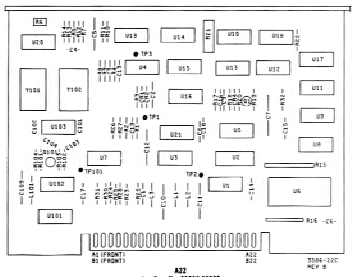
7-72. The A22 revision D boards and revision E boards are electrically identical. The board went revision E following re-layout because of board modifications.

7-73. Referring to paragraph 8-173 in the "Detailed Functional Description" portion of Section VIII, for instruments with revision A or revision B A22 boards the seventh sentence of the paragraph should read: "During this one-half second, U11(9) and U11(4) are HIGH, gating the PLL output from U17(11) into U6".

7-74. Referring to paragraph 8-181, for instruments with revision B boards, U103a and U103b are crystal controlled VCXO's.

Table 7-7. A22 Revision B LSB/USB Oscillator Components.

REFERENCE DESIGNATOR	DESCRIPTION	-hp- PART NUMBER
A22C101	Capacitor-Fxd 24pF	0160-0196
A22C102	Capacitor-Fxd 24pF	0160-0196
A22C103	Capacitor-Fxd 56pF	0140-0191
A22C104	Capacitor-Fxd 56pF	0140-0191
A22U103	IC DUAL VCO	1820-1424



A22
hp Part No. 03586-66522
Rev B

NOTES:
1. Y101/Y102 frequencies vary by PC board (and bandwidth).

	Y101(LSB)	Y102(USB)	Bandwidth
03586-66522	1.3725MHz	1.7475MHz	3100Hz
03586-66525	1.4125MHz	1.7125MHz	2000Hz
03586-66526	1.4275MHz	1.6975MHz	1740Hz

2. Crystal frequencies are the only differences for the three versions of the A22 board listed above.

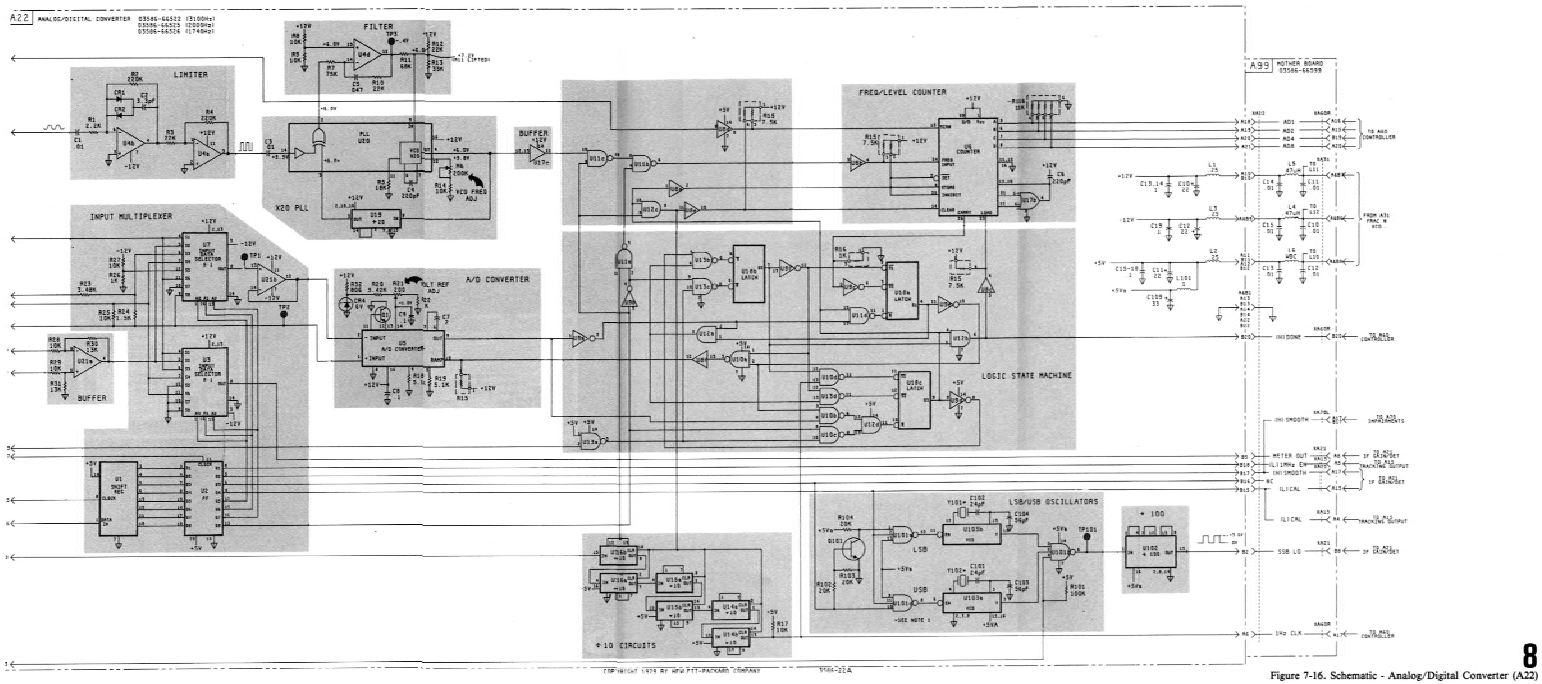
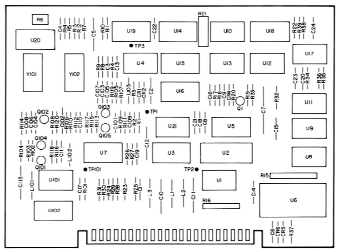


Figure 7-16. Schematic - Analog/Digital Converter (A22)



A22
-hp- Part No. 03586-66522
Rev C

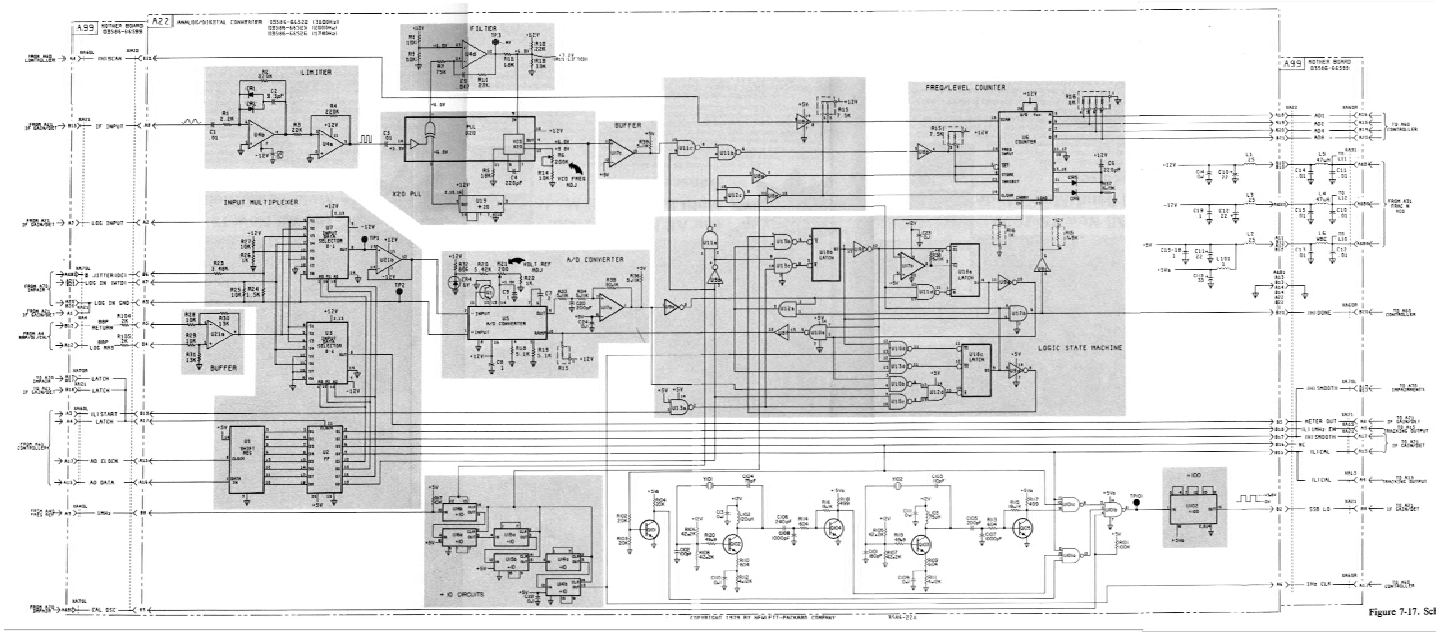


Figure 7-17. Schematic - Analog/Digital Converter (A22)

7-75. A30-Fractional-N ÷ N (3586A/B/C = 66530). (Δ7)

7-76. A30 Backdating. Some earlier revision A boards had a different part number (TTL N82S90N, 1820-1155) installed for A30U3. This component may be replaced with the current part per Table 6-3.

7-77. Instruments with serial numbers prior to 1927A00255, 1928A00305, and 1929A00205 have an R2 of 8.66kΩ (p/n 0698-3498) and an R3 of 3.24kΩ (p/n 0698-4439).

7-78. A31-Fractional-N VCO (3586A/B/C = 03586-66531).

7-79. There have been no changes to the A31 board since the first 3586A/B/C was delivered.

7-80. A32-Fractional-N Phase Detector (3586A/B/C = 03586-66532).

7-81. A32 Backdating. The only difference between revision A and revision B boards is some minor relayout of circuit traces to reduce 100kHz spurs. Use the component locator on Figure 8-E-5 for both revision A and revision B boards.

7-82. Some revision A boards had a different part number (11kΩ, 0757-0433) installed for A32R101. This part may be replaced with a current value from Table 6-3 to assist in adjusting Fractional-N bias current.

7-83. A40-Frequency Reference (3586A/B/C = 03586-66540) (Δ8).

7-84. A40 Backdating. Some earlier instruments had a different part number installed for A40Q55 and A40Q56 (1855-0062). This part was replaced with the current part (1855-0386) which is more reliable and a direct replacement for the earlier component.

7-85. Instruments with serial numbers equal or prior to 1927A00817, 1928A01428, and 1929A00667 implement the "buffer" circuitry and "Lock Speed-Up" circuitry shown in Figures 7-18 and 7-19. The board went revision B when these changes occured.

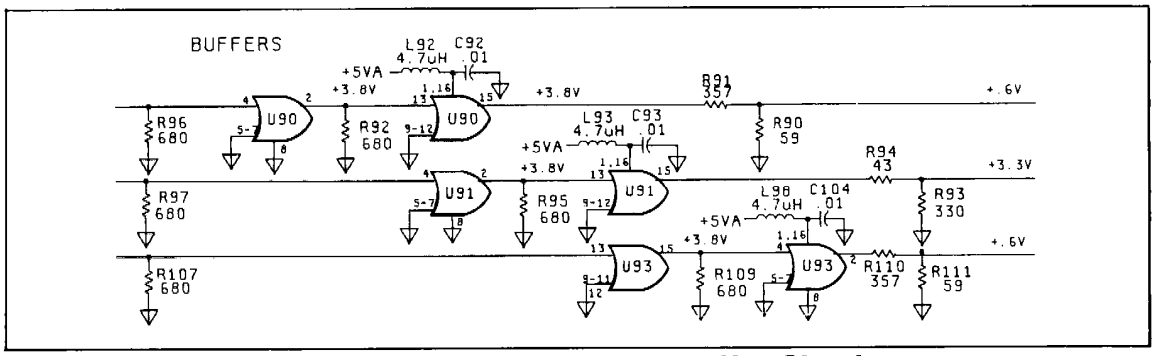


Figure 7-18. A40 Revision A Buffer Circuitry.

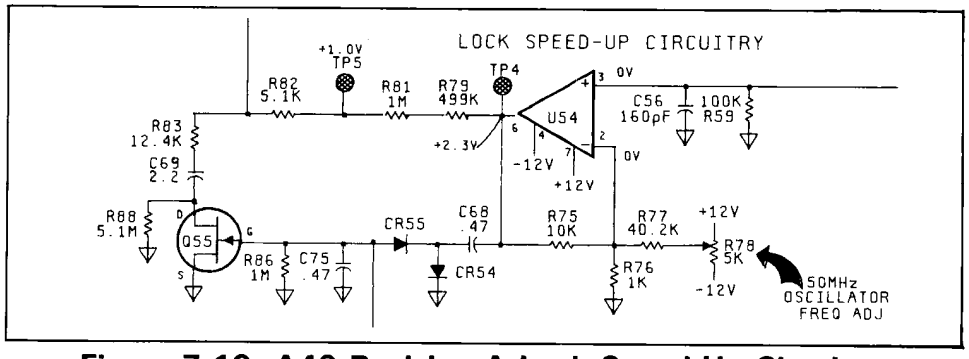


Figure 7-19. A40 Revision A Lock Speed-Up Circuitry.

7-86. Table 7-8 is a list of parts that pertain to the revision A buffer circuitry at the top of the schematic (Figure 8-H-1) but which have been deleted on revision B boards.

Table 7-8. Revision A Buffer Components.

REFERENCE DESIGNATOR	DESCRIPTION	-hp- PART NUMBER
A40C93	Capacitor-Fxd .01μF 100V	0160-3879
A40L93	Coil 4.7μH	9140-0144
A40R92	Resistor-Fxd 680 5% .25w	0683-6815
A40R95	Resistor-Fxd 680 5% .25w	0683-6815

7-87. Figure 7-20 is the component locator which applies to all revision A boards.

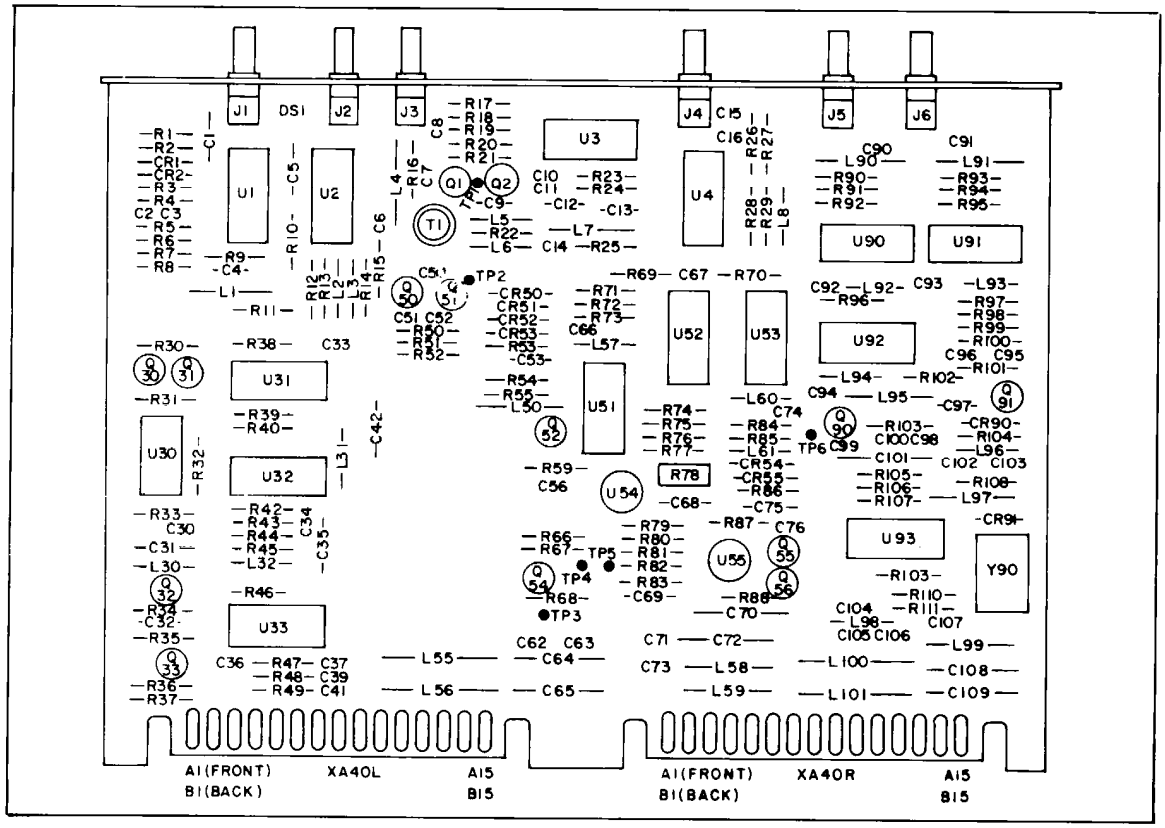


Figure 7-20. A40 Revision A Component Locator

7-88. A50-Step Loop (3586A/B/C = 03586-66550).

7-89. A50 Backdating. Earlier instruments may have a different part number (LM358N, 1826-0346) installed for A50U73. This part may be directly replaced by IC358 (1826-0678).

7-90. A51-Sum Loop VCO (3586A/B/C = 03586-66551).

7-91. A51 Backdating. Earlier instruments may have a different] part number (21.5Ω, 0698-3430) installed for A51R23. This part may be replaced with the current value per Table 6-3.

7-92. A52-Sum Loop Mixer (3586A/B/C = 03586-66552).

7-93. There have been no changes to the A52 board since the first 3586A/B/C was delivered.

7-94. A53-Sum Loop Phase Detector (3586A/B/C = 03586-66553).

7-95. A53 Backdating. Earlier instruments may have a different part number (LM358N, 1826-0346) installed for A53U3. This part may be directly replaced by IC358 (1826-0678).

7-96. A60-Controller (3586A/B/C = 03586-66560) (Δ9)

7-97. A60 Backdating. Some early A60 boards may have a different part number (1901-0040) installed for A60CR7. This part may be directly replaced by part number 1901-0535.

7-98. Some A60 boards may have revision A software ROM's (U7-U12) and some may have revision B software ROM's. See paragraph 8-C-27 for a discussion of the differences. Table 6-3 carries both sets of part numbers.

7-99. Instruments with serial numbers equal or prior to 1927A00212, 1928A00265, and 1929A00164 do not have A60R30.

7-100. A61 HP-IB (3586A/B/C = 03586-66561) (Δ10).

7-101. A61 Backdating. Some earlier A61 boards had a capacitor (C1, 2.2μF) installed from A61U1(4) to ground. This part may be deleted with no affect on A61 operation.

7-102. On some earlier A61 boards, A61U30(4,10) and A61U28(1) are open.

7-103. Instruments with serial numbers 1927A00822 and below, 1928A01500 and below, and 1929A00692 and below may contain a revision A A61 board and, therefore, it will not have A61R9, A61R10, or A61C1. The A61 board went revision B when these components were added. The revision B component locator otherwise applies to all revision A boards.

7-104. A70-Impairments (Option 003) (Δ11).

7-105. There are two versions of the A70 board depending upon model. The only differences between boards are in component values. Standard model configurations are:

3586A	03586-66571
3586B	03586-66570
3586C	(not available with Option 003)

7-106. A70 Backdating. There were a few modified revision A boards delivered which are electrically identical to the early revision B boards because of on-board modification. See Figure 7-21 for the revision A component locator for both the 66570 and 66571 boards. See Figure 7-22 for the revision B component locator for both the 66570 and 66571 boards.

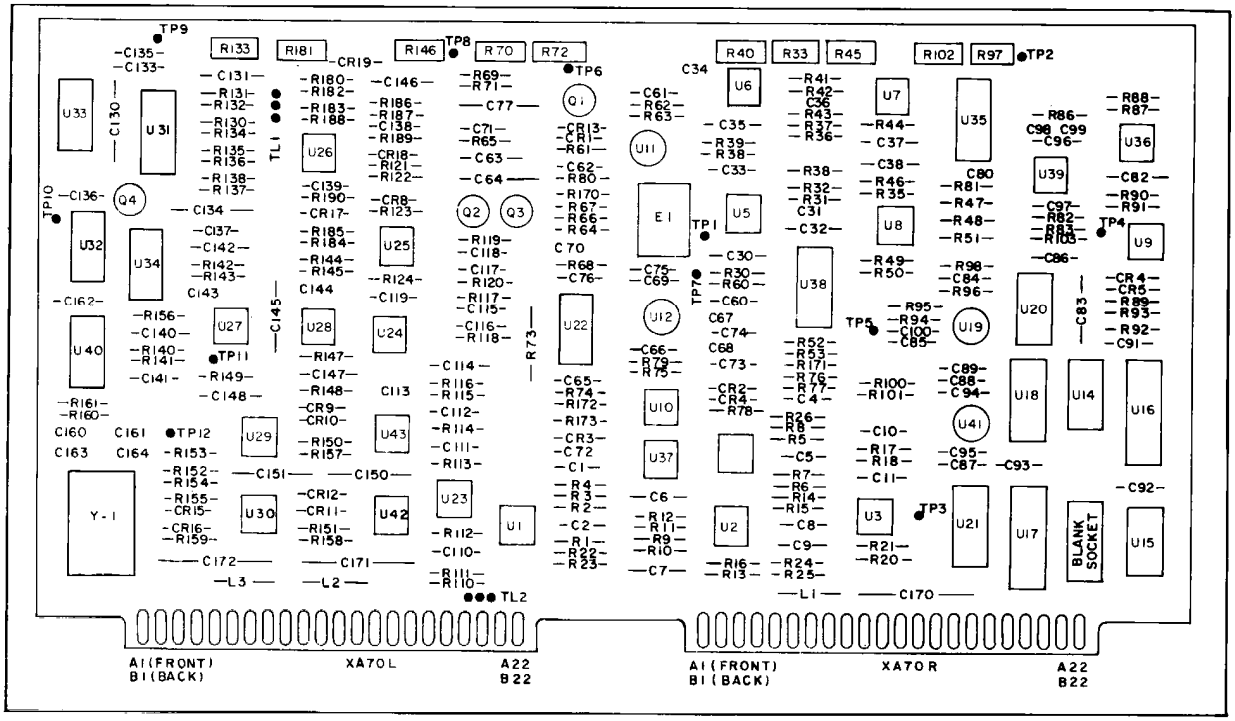


Figure 7-21. A70 Component Locator (Revision A).

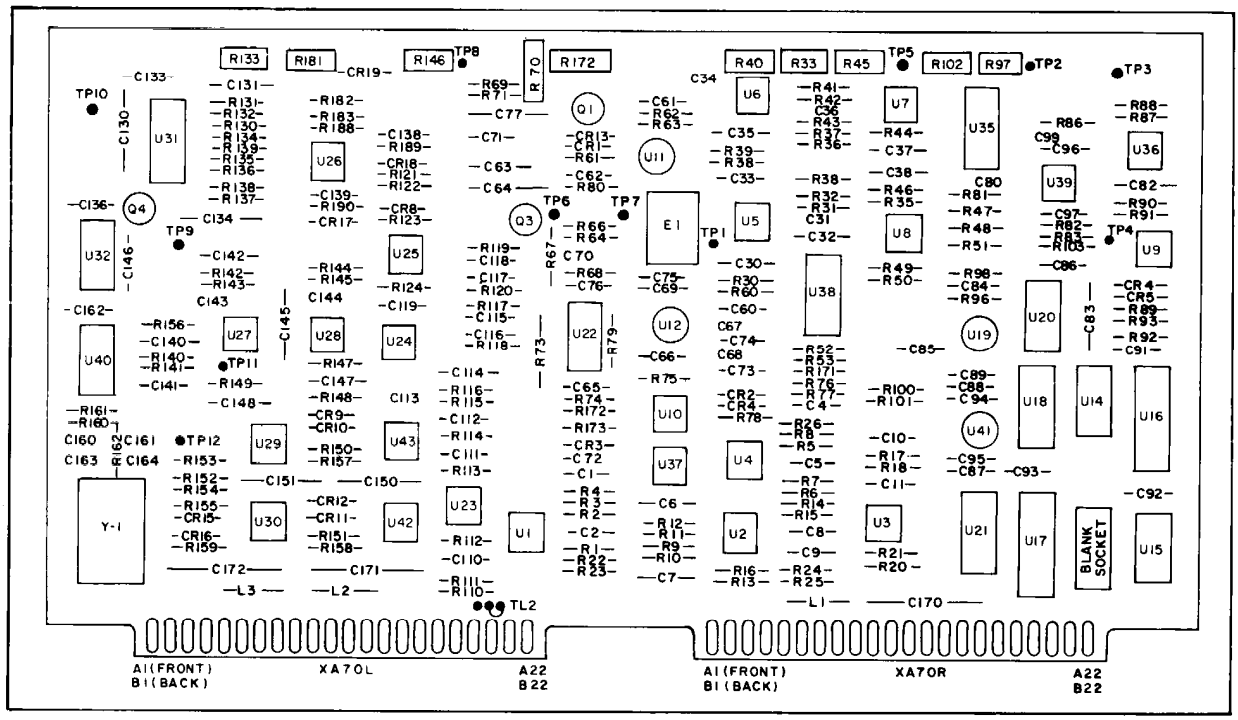


Figure 7-22. A70 Component Locator (Revision B).

Table 7-9. A70 Calibration Oscillator Components (Revisions A and B).

Reference Designator	Description	-hp- Part Number
A70C160,161,164	C-F 180pF 300V	0140-0197
A70C163	C-F 27pF 300V	0160-2306
A70R160	R-F 750Ω 5%	0683-7515
A70R161	R-F 100Ω 5%	0683-1015
A70R162	R-F 240Ω 5%	0683-2415
A70U40	IC SN74LS00	1820-1197

Notes:
1. C160 and Q5 as shown on revision C circuits in Service Group G were not installed on revision A and B A70 boards.
2. This table applies to both the 66570 and the 66571 boards.

7-107. The revision A and B A70 boards had a different circuit for the calibration oscillator (see Figure 7-23). Parts unique to this early oscillator circuit may be found in Table 7-9.

7-108. All revision A, all revision B, and some revision C A70 boards may have different part number components installed for A70R52 (37.4kΩ, 0698-4495) and A70R53 (10kΩ, 0757-0442). These parts may be replaced with the current values shown in Table 6-3 if A21R69 is changed at the same time (see paragraph 7-60).

7-109. Some early revision C boards had a different part number (30pF, 0160-2199) installed for A70C160. This part may be replaced by the current value shown in Table 6-3.

7-110. Early A70 boards had 20 pin sockets installed for U16 and U17. Replacement sockets may be ordered under part number 1200-0700.

7-111. Early revision A, B, and C boards may have a different part number (IC LF13331N, 1820-1795) installed for A70U35. This part may be directly replaced by IC 13331 (1826-0416).

7-112. Some early revision C boards did not have A70C161 installed. It was added to eliminate hand picking other circuit components. Also some early revision C boards may have a different part number (51kΩ, 0683-5135) installed for A70R71. To provide more adjustment range for U22, this part may be replaced by part number 0683-2035 (20kΩ).

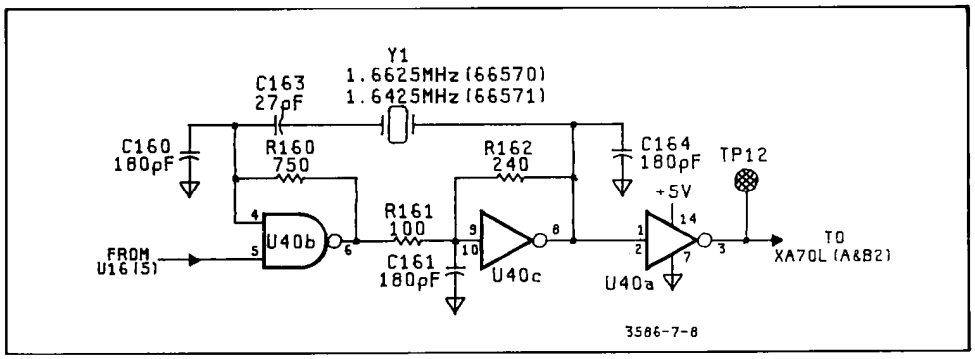


Figure 7-23. A70 Calibration Oscillator (Revisions A and B).

7-113. Instruments with serial numbers equal or prior to 1927A00540 and 1928A00718 and which are equiped with option 003 (Impairments), may contain revision A, B, or C A70 boards. If so, replace the schematic (20A) currently in Section VIII (A70 Rev. D) with Figure 7-24 (A70 Rev. C). Move the A70 revision D schematic to Section VII for instrument updating.

NOTE

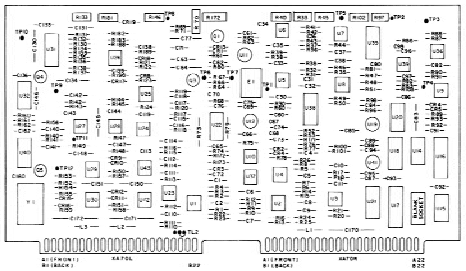
The revision letter (e.g., Rev A) shown under the component locator identifies the actual BOARD revision.

7-114. Table 7-10 contains the parts unique to the A70 revision C board.

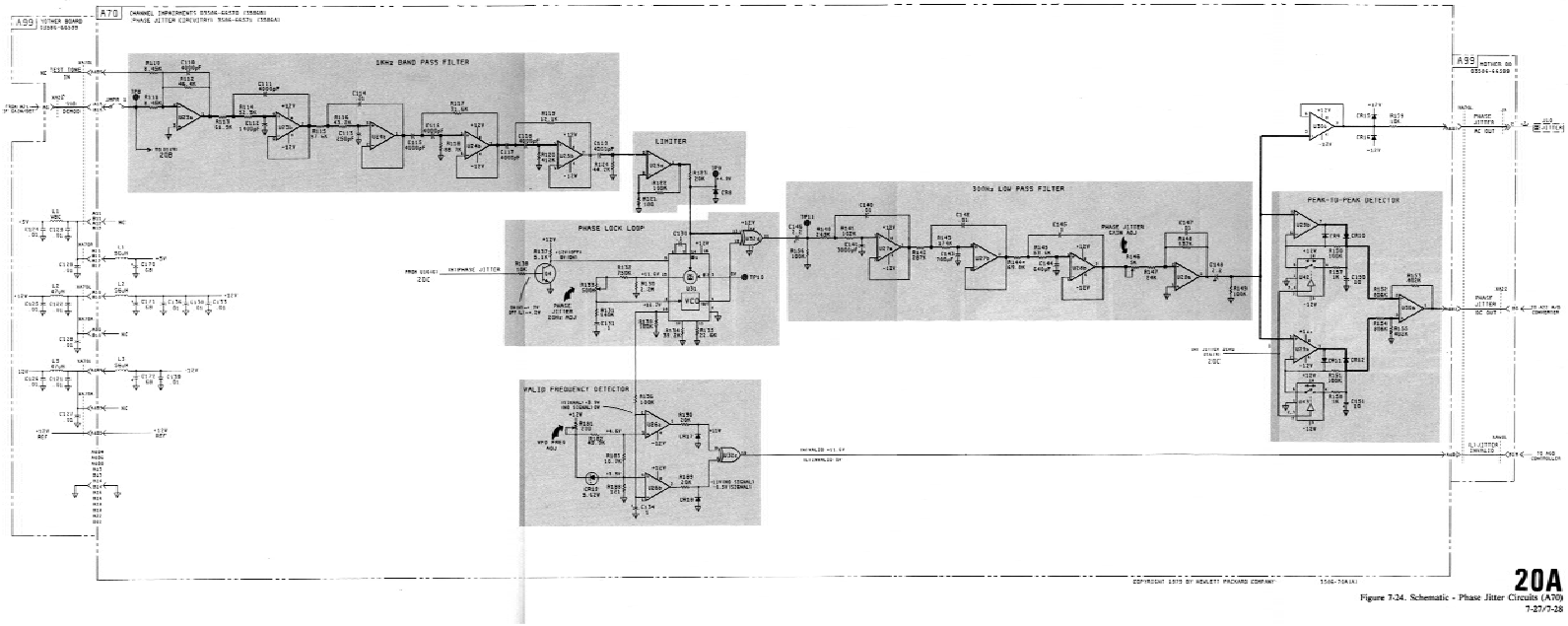
Table 7-10. A70 Revision C Components.

REFERENCE DESIGNATOR	DESCRIPTION	-hp- PART NUMBER
A70C148	Capacitor-Fxd 2.2μF 20VDC	0180-0197
A70R143	Resistor-Fxd 174k .125w	0698-4524
A70U32	IC Gate CMOS EXCL-OR QUAD 2-INP	1820-1601
A70CR17	Diode-Switching 80V 200mA	1901-0050
A70CR18	Diode-Switching 80V 200mA	1901-0050
A70R183	Resistor-Fxd 10.7k .125w	0698-4478
A70R123	Resistor-Fxd 20k .125w	0757-0449
A70R122	Resistor-Fxd 100k .125w	0757-0465
A70R124	Resistor-Fxd 44.2k .125w	0698-4207
A70C119	Capacitor-Fxd 4000pF 100VDC	0160-2587
A70U25	IC OP AMP GP DUAL 8-DIP-P	1826-0326
A70R119	Resistor-Fxd 12.1k .125w	0757-0444
A70R120	Resistor-Fxd 412k .125w	0698-4540
A70C118	Capacitor-Fxd 4000pF 100VDC	0160-2587
A70C117	Capacitor-Fxd 4000pF 100VDC	0160-2587
A70R117	Resistor-Fxd 31.6k .125w	0698-3160
A70R118	Resistor-Fxd 88.7k .125w	0698-4512
A70C116	Capacitor-Fxd 4000pF 100VDC	0160-2587
A70C115	Capacitor-Fxd 4000pF 100VDC	0160-2587
A70R116	Resistor-Fxd 43.2k .125w	0757-0456
A70R115	Resistor-Fxd 97.6k .125w	0698-4513
A70R114	Resistor-Fxd 52.3k .125w	0757-0272
A70R113	Resistor-Fxd 61.9k .125w	0757-0460
A70R112	Resistor-Fxd 46.4k .125w	0698-3162

7-115. When the A70 board went revision D, none of the circuitry depicted on schematic 20B (A70) changed. Therefore, the schematic currently in Section VIII (A70 rev. D) applies to revision C boards as well.



A70
Rp Part No. 05586-66570
Rev C



20A

Figure 7-34. Schematic - Phase Jitter Circuits (A70)

7-116. The revision C A70 board had different D/A and Calibration Oscillator circuitry than the revision D board shown in Figure 8-G-3. Refer to Figures 7-25 and 7-26 and Table 7-11 for the circuits and parts which are unique to the revision C boards. See also Figure 7-27 for the revision C component locator for both the 66570 and 66571 boards.

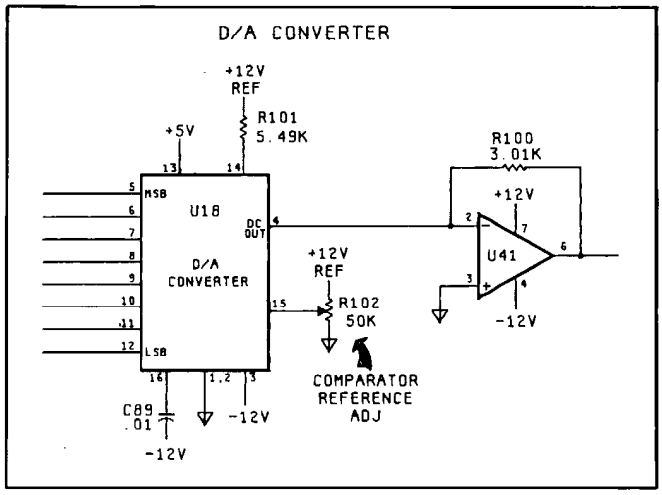


Figure 7-25. A70 Revision C D/A Converter Circuitry.

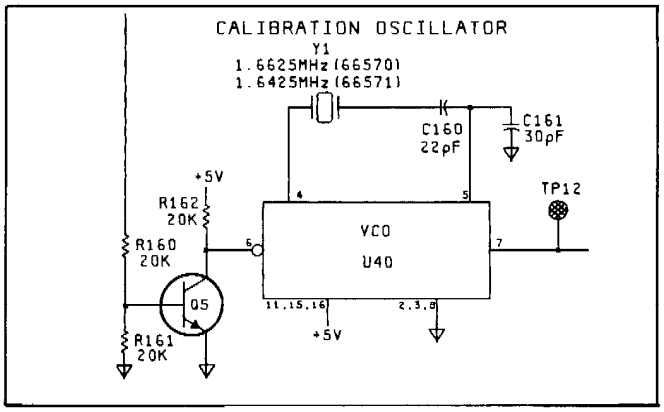


Figure 7-26. A70 Revision C Calibration Oscillator Circuitry.

Table 7-11. A70 Revision C Components.

REFERENCE DESIGNATOR	DESCRIPTION	-hp- PART NUMBER
A70R101	Resistor-Fxd 5.49k .125w	0698-3382
A70R102	Resistor-Var 50k	2100-3354
A70R160	Resistor-Fxd 20k .25w	0683-2035
A70R161	Resistor-Fxd 20k .25w	0683-2035
A70R162	Resistor-Fxd 20k .25w	0683-2035
A70C160	Capacitor-Fxd 22pF 500VDC	0160-2265
A70C161	Capacitor-Fxd 30pF 300VDC	0160-2199
A70U40	IC DUAL VCO	1820-1424

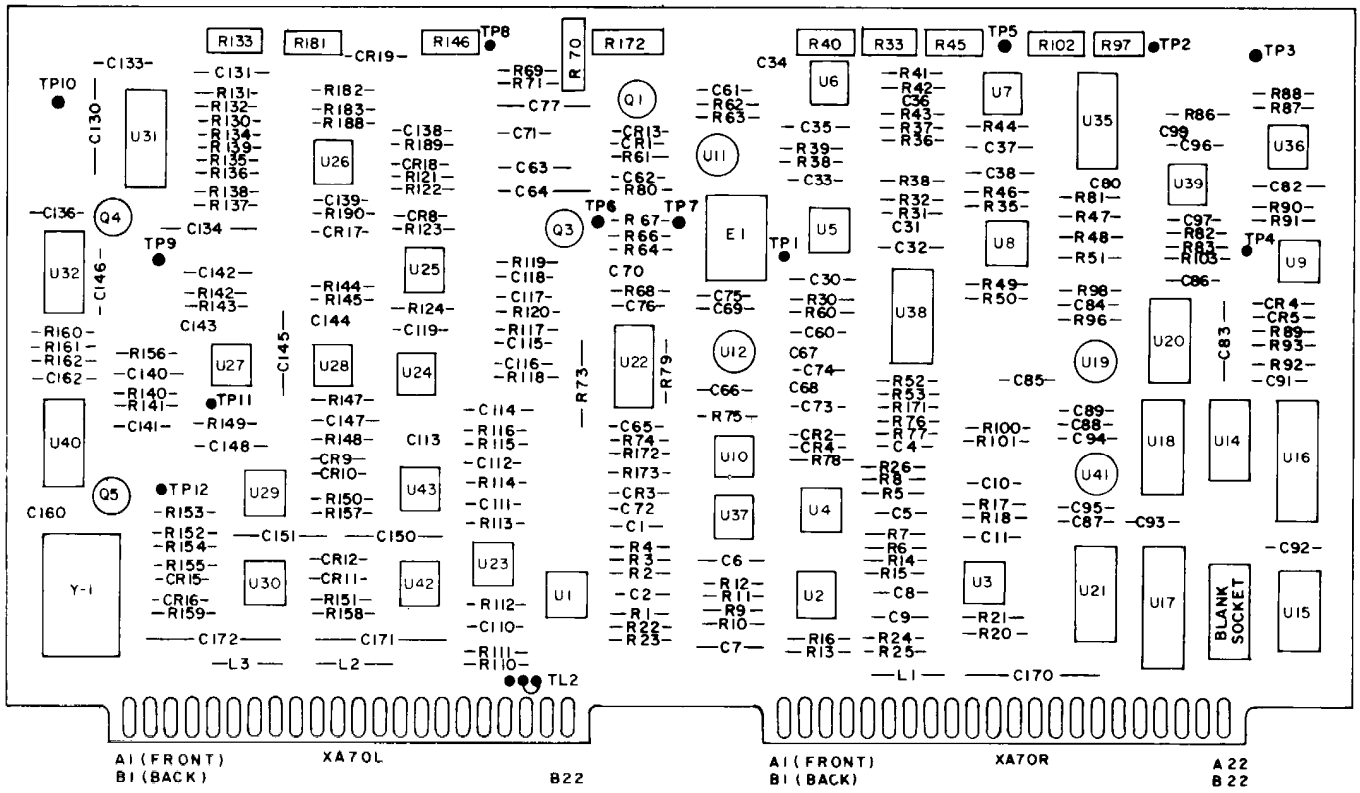


Figure 7-27. A70 Revision C Component Locator.

7-117. For instruments with serial numbers 1927A00541 to 1927A00602 and 1928A00719 to 1928A00818 A70R125 is 500kΩ (p/n 2100-3357) and A70R126 is 33.2kΩ (p/n 0757-0454).

7-118. For instruments with a revision C A70 board, paragraphs 8-277 and 8-278 in the "Detailed Functional Description" section should read as follows:

8-277. The incoming SSB DEMOD audio is bandwidth-limited for normal channel sideband audio, but is a 1004 Hz (BELL) or 1010 Hz (CCITT) tone for phase jitter tests. The tone is applied to a band-pass filter that is centered on 1000 Hz and is 1000 Hz wide so that it passes 500-1500 Hz. Over-all filter gain is +15 dB provided by the input amplifier U23a. The sinewave output of the filter is applied to a Limiter (U25a) which converts it to a square wave from Ø volts base to +12 volts peak.

8-278. The 1004/1010 Hz square wave (with phase jitter) becomes one input to the phase detector half of U31. It is also applied to exclusive-OR gate U32d. The other input to the phase detector is the output of the VCO in U31 which also feeds U32d. The VCO output is also 1004/1010 Hz but without any phase jitter. The phase-locked loop (PLL) has a $\div N = 1$ and is therefore locked to the test tone frequency and tracks it even if it drifts. The exact frequency of the tone is not critical to phase jitter measurements because the next operation is to demodulate the phase jitter sidebands from their "carrier", the test tone, and to measure only the jitter. This is accomplished by U32d which acts as another phase detector. The output of U32d is a 2008/2020 Hz signal plus the demodulated phase jitter sidebands. The frequency range of interest for phase jitter sidebands is from 20 Hz to 300 Hz. The 20 Hz lower limit of the jitter range is adjusted in the loop filter in the PLL. The high end of the range is obtained by passing the output of U32d through a 300 Hz Low Pass Filter (LPF). The VCO in U31 is enabled only when Q4 is turned on under control of the processor (Ø JITTER selected on the front panel).

7-119. For instruments with a revision C A70/71 board, paragraph 8-280 should read as follows:

8-280. An additional output of U31 (pin 10) is a DC voltage related to the VCO error voltage. This voltage is fed to a dual-comparator circuit used as a Valid Frequency Detector. U26(1) is normally HIGH and U26(7) is normally LOW, therefore U32(10) is normally HIGH (frequency valid). If the VCO is running outside a 100 Hz "window" of 960-1060 Hz, either U26(1) will trip LOW (frequency > 1060 Hz) or U26(7) will trip HIGH (frequency < 960 Hz) and U32c, being an exclusive-OR gate will trip LOW (frequency invalid) since both inputs are now the same. This signal (L) JITTER INVALID is passed to the processor which displays the error code E2.3 in the MEASUREMENT/ENTRY display area as long as the tone is invalid and the Ø JITTER measurement mode is selected. An adjustment is provided (R181) to move the center frequency of the 100 Hz window.

7-120. For instruments with a revision C A70/71 board, paragraph 8-288 should read as follows:

8-288. Calibration Oscillator. The USB and LSB oscillators used as the SSB LO during normal operations produce an 1850 Hz tone when beating against the second IF frequency. This tone would not be usable for calibration of the weighted filter since some of its level would be clipped by the filter. Therefore a separate calibration oscillator (U40b and U40c) is used to generate an SSB LO frequency in CAL that will be 1000 Hz (3586B) or 800 Hz (3586A) after mixing with the second IF frequency and which will provide accurate calibration of the weighted filter.

7-121. For instruments with a revision C A70/71 board, paragraph 8-289 should read as follows:

8-289. U40(7) is always HIGH except during the CAL cycle. When CAL occurs, U40(6) goes LOW allowing the circuit to oscillate at the frequency of 1.6625 MHz (3586B) or 1.6425 MHz (3586A). This frequency is passed out U40(7) to the A22 board where it is divided by 100 to produce 16.625 kHz or 16.425 kHz which will become the SSB LO frequency. When beat against the second IF (15.625 kHz), a 1000 Hz or 800 Hz audio tone is produced which becomes the SSB DEMOD signal input to the A70 board in CAL.

7-122. For instruments with a revision C A70/71 board, paragraph 8-G-21 in Service Group G should read as follows:

8-G-21. Error Code E 2.3 is an indication that the tone frequency upon which phase jitter measurements are being attempted is not within 960-1060Hz and therefore is not valid. If the tone is known to be within this range, A70R181 may need adjusting. This pot moves a 100Hz "window" all at once. For example, if the present limits for a valid signal were 900-1000Hz, adjusting A70R181 could move the window back to 960-1060Hz where it belongs. When the tone is valid, the voltage at U26(2/6) will be between that at U26(3) and U26(5). U32(8) will be LOW, U32(9) will be HIGH and U32(10) will be HIGH (valid). If the voltage at U26(2/6) exceeds that of either comparator reference, that comparator will trip and pins 8 and 9 of U32 will then either both be HIGH or both LOW causing U32(10) to go LOW (invalid).

7-123. For instruments with a revision C or earlier A70 board, paragraph 8-G-35 in Service Group G should read as follows:

8-G-35. To check the Impulse circuits up to the Comparator (U19) inputs, use the following procedure.

1. Perform steps 1-4 of paragraph 8-G-14.

2. TP2 should have a 1850Hz signal at about 10.8Vp-p.

3. TP4 should have the same signal rectified or about 5.4V (peak) and double the number of positive peaks (3700Hz).

4. TP5 should have +5 vdc (±0.10V) for a 3586B. A 3586A should read +6.25 vdc (±0.25V).

5. Select IMPULSE mode and press START.

6. TP5 should read about +3.65 vdc (THRESHOLD should still be ØdBm and Full Scale should be ØdBm from step 1 above).

7. Select other values of THRESHOLD settings from Table 8-G-4 and check TP5 for the approximate voltage indicated. Note that the voltage difference from instrument to instrument for any one frequency and full scale setting may cover ±3dB of CAL error. The CAL constant is **always** added to the value supplied to the D/A Converter as a reference for the Comparator (U19) and it cannot be zeroed out. However, the relative readings for sequential threshold steps within one instrument should remain about the same for a given frequency and full scale setting. Table 8-G-4 gives typical values for comparison purposes **only**. If the values for TP6 change with threshold changes and correspond approximately with Table 8-G-4, it shows that U14-U18 and U41 are probably all working.

8. The D/A Converter (U18) output as seen at TP5 is scaled at 1 count (input) = about 19.5 millivolts (output) for a 3586B and about 24.0 millivolts for a 3586A. Scaling for U18 is controlled by R102 which is normally adjusted to provide +5 vdc ±0.1V at TP5 (for a 3586B) with all 1's on the eight input lines of U18 (pins 5-12). For a 3586A, R102 is adjusted to provide +6.25 vdc ±0.25V at TP5. Then, for example, at a threshold setting of −11dB below full scale, if the input lines to U18 (TTL logic) at pins 5→12) (MSB→LSB) read 00110100_2 (64_8 or 52_{10}), the voltage at TP5 should be approximately +1.014 VDC (52 x 19.5mV) for a 3586B and approximately +1.248 VDC (52 x 24.0mV) for a 3586A.

7-124. A80-Power Supply (3586A/B/C = 03586-66580) (Δ12).

7-125. A80 Backdating. Revision A and Revision B of the 66580 board are electrically identical but their layouts are different. Use Figure 7-28 for component location on a revision A board.

7-126. All revision A boards and some revision B boards did not have A80CR11 installed. It may be added to allow the CMOS memories on A60 to operate if battery A80BT1 is open or removed.

7-127. For instruments in the serial number range 1927A00359 and below, 1928A00392 and below, and 1929A00249 and below, A80R5 and A80R30 are 4.7kΩ (p/n 0683-4725). Some earlier instruments, however, had R5 (3kΩ) and R30 (3kΩ) installed on a selected basis.

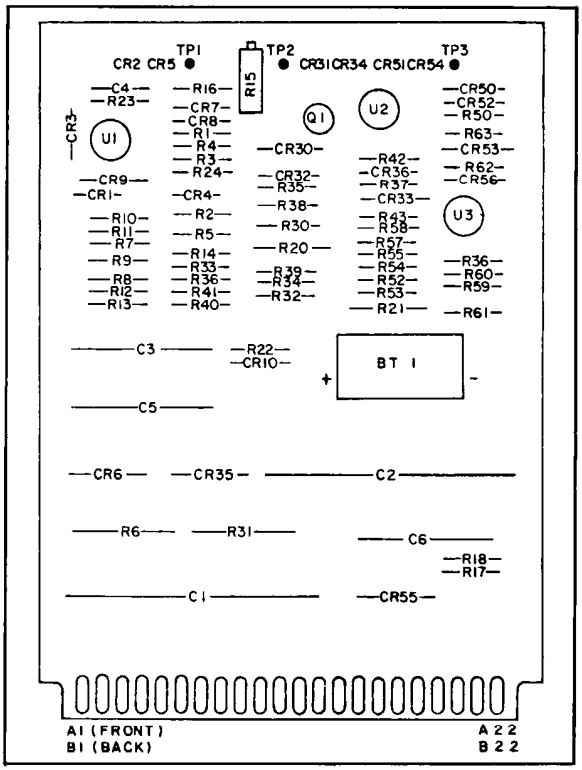


Figure 7-28. A80 Component Locator (Revision A).

7-128. The A80 board went revision C following a re-layout. The revision C board is electrically identical to revisions A and B. Use Figure 7-29 for component location on a revision B board.

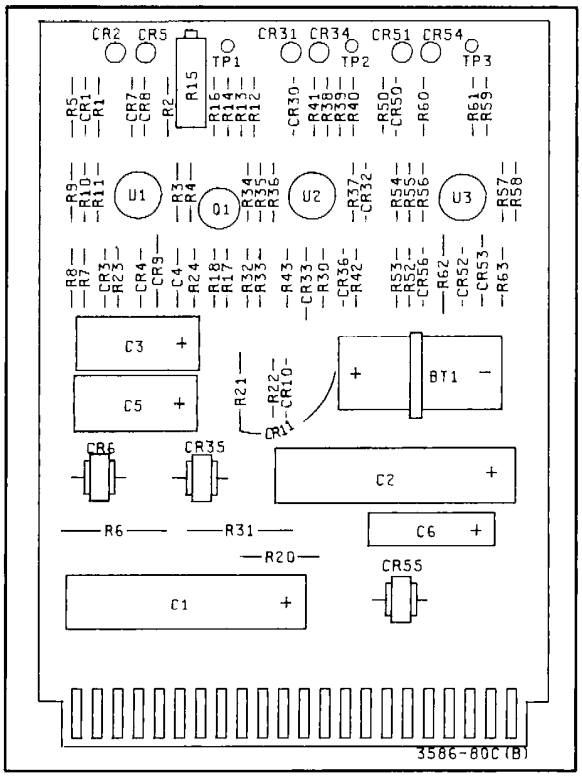


Figure 7-29. A80 Component Locator (Revision B).

7-129. A98-Switch/Display (Δ13).

7-130. There are five versions of the A98 board depending upon model and option. The only differences among the versions is in the quantity of switches and/or annunciators installed on a given board. The 66598 is the only version of the A98 board that has the maximum possible number of switches and annunciators. Standard model configurations are:

3586A Standard	03586-66596
3586A Option 003	03586-66595
3586B Standard	03586-66597
3586B Option 003	03586-66598
3586C	03586-66594

7-131. A98 Backdating. Revision A and revision B A98 boards are electrically identical and use the same component locator diagrams (Service Group C). Note that the revision A and revision B boards, however, do not contain A98R21-A98R25 or A98CR307.

7-132. Instruments with serial number 1927A00798 or below, 1928A01179 or below, and 1929A00553 or below do not have A98R21-A98R25. These instruments also do not have A98CR307. The A98 board went revision C when these components were added.

7-133. A99-Motherboard (3586A/B/C = 03586-66599).

7-134. A99 Backdating. Revision A, revision B, and revision C motherboards are electrically identical. The revision A board had the + 15V regulator (U2) added via on-board modification and the revision B was a re-layout to accomodate U2 and some minor trace and hole changes. Revision C incorporated larger connectors (more pins) for increased current capacity (parallel wiring). The revision A and B boards were modified using bypass wiring to correct the current overload condition. Revision C also added fuses in the + and −23 volt supplies.

7-135. Replacement connectors for revision A and B motherboards can be ordered under the following part numbers:

A99J2 (10 pin connector)	1251-4536
A99J3 (11 pin connector)	1251-4885

7-136. Matching cable connectors for the on-board connectors are:

A99P2 (10 pin connector)	1251-3537
A99P3 (11 pin connector)	1251-4886

7-137. Miscellaneous Backdating.

7-138. Early instruments may have a different part number (DIO-BKDN 1N3997R, 1902-1232) installed for CR20 which is mounted on the Darlington Transistor Assembly (see Figure 8-J-2). This zener was rated at 5.6V and drew an excessive amount of current, sometimes causing ripple on the + 5V regulated supply. It may be directly replaced by DIO-ZNR 6.2V, 1902-1217.

7-139. INSTRUMENT IMPROVEMENT MODIFICATIONS.

7-140. Distortion Characteristics.

7-141. To provide lower distortion characteristics for an early serial number instrument, the components in Table 7-12 may be changed to the indicated new values. Note that not all early instruments will have exactly the same value components installed but that the replacement component values are the same for all instruments.

Table 7-12. Distortion Improvement Changes.

PC Board	Reference Designator	Old Value	New Value*
66502	A2R16	90.9Ω	110Ω
	A2R31,R33	26.7Ω	29.4Ω
	A2R32	61.9Ω	59Ω
66503	A2R16	113Ω,158Ω	130Ω
	A2R31,33	63.4Ω	69.8Ω
	A2R32	113Ω	110Ω
	A2R38	487Ω	402Ω
66504 and 66508	A4R43	46.4KΩ,53.6KΩ	56.2KΩ
	A4R45	52.3KΩ,56.2KΩ	61.9KΩ
66510	A10R31	49.9Ω	75Ω

Note:
* See Table 6-3 for part number of new value component.

7-142. Miscellaneous Improvements.

7-143. The changes described in Table 7-13 may or may not be already incorporated in some instruments. The service technician should verify the existing value of the installed component and compare it to the table values to determine whether the improvement configuration already exists.

7-144. Table 7-14 is a summary of the service notes available for the 3586A/B/C.

Table 7-13. Miscellaneous Improvements.

PC Board	Reference Designator	Old Value	New Value*	Reason For Change
66501	A1C13	1500pF	1000pF	Improves flatness of 124Ω input.
66502 and 66503	A2C32	1.4-9.2pF	1.7-11pF	Improved frequency response.
66504 and 66508	A4R59,R50	1000Ω	3300Ω	Lower ripple on ± 12V supplies.
66505 and 66509	A5C52 A5C55,C58 A5C62	15pF 62pF 68pF	8.2pF 51pF 56pF	Improved flatness of 32.5MHz LPF and First Mixer.
66505 and 66509	A5R10 A5R11	33.2Ω 100Ω	49.9Ω 150Ω	Improves reliability of A5U1.
66510	A10R20	287Ω	(none)	Deleting A10R20 gives higher gain in bypass mode.
66510	A10R43 A10R44	500Ω 698Ω	1000Ω 1000Ω	Increases gain and adjustment range of the 25dB amplifier.
66521 66570 and 66571	A21R69 A70R52 A70R53	9.1KΩ 37.4KΩ 10KΩ	20KΩ 3.65KΩ 1000Ω	Audio circuit improvement for Option 003 instruments.
66522, 66525, and 66526	A22U9	74LS04N	74LS14	Corrects occasional erroneous display of Err 7.
66522, 66525, and 66526	A22C101,C102 A22C103,C104	30pF (none)	24pF 56pF	Corrects LSB/USB Oscillator problem.
66551	A51R23	21.5Ω	62Ω	Reduces L.O. feedthrough.
66580	A80CR11	(none)	ZNR 5.62V	Allows CMOS RAM on A60 to work with A80BT1 removed or open.
(none)	CR20	5.6V	6.2V	See paragraph 7-138.

Notes:
1. *See Table 6-3 for part number of new value (replacement component).

Table 7-14. 3586A/B/C Service Note Index

SERVICE NOTE #	TITLE	INSTRUMENT EFFECTIVITY
3586A/B/C-1	Intermittant Failure of Self Test Step 3-2	S/N: ALL
3586A/B/C-2B	Retrofit Kit for Revision B Software	S/N: 1927A00231 and below 1928A00284 and below 1929A00195 and below
3586A/B/C-3A	Interpreting Auto-Cal and Self-Test Failure Codes	S/N: ALL
3586A/B/C-4	Intermittant "ERR 8" Displays	S/N: ALL
3586A/B/C-5	Modification to Cure Intermittant Digital Problems	S/N: 1927A00256 and below 1928A00306 and below 1929A00206 and below
3586A/B/C-6A	HP-IB Verification Program	S/N: ALL
3586A/B/C-7	Improving 3586A/B/C-9815S HPIB Compatibility	S/N: ALL
3586A/B/C-8	Modification to Eliminate Periodic Disturbances to Customer Circuitry	S/N:ALL
3586A/B/C-9	Replacement Kits: A50 Step Loop/ A51 Summation Loop	S/N: ALL
3586A/B/C-10	-hp- P/N 03586-68701 Service Spare Parts Kit	SN:ALL
P-03586-69501-1	Frequency Reference Retrofit Kit	S/N: ALL
P-03586-69800-1	Product Support Package For 3586A/B/C Selective Level Meter	S/N: ALL