

**HP 3000 Computer Systems**



**HP 3000 SERIES 52/58 UPGRADE  
Installation Manual**



**HP 3000 Series 52/58 Upgrade**

# **HP 3000 SERIES 52/58 UPGRADE**

**Installation Manual**



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# PRINTING HISTORY

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First Edition ..... JAN 1987

# PREFACE

This manual contains procedures for upgrading:

Series 39/40/42 systems to Series 52 (SPU and memory) systems

and

Series 44/48\* systems to Series 58 (SPU and memory) systems.

## NOTE

The Series 52/58 systems require MPE V/E (T-MIT or later versions).

Section 1 describes the Series 39/40/42 to Series 52 SPU and memory upgrade.

Section 2 describes the Series 44/48\* to Series 58 memory upgrade.

Section 3 describes the Selftest Console Messages.

Appendix A contains brief instructions for returning old system PCAs for credit. Finance and Remarketing Division supplies complete information in the Notice of Return folder.

Additional Hewlett-Packard Manuals required to perform the upgrade installation procedures are:

**HP 3000 Series 39/4X/5X CMP/ System Manual, P/N 30090-90005**

**HP 3000 Series 42XP/52/58 Memory Diagnostic Manual, P/N 30477-90002**

The installation procedure for the box (processing unit) swap upgrade to a Series 52 (32552CH) is included in the Series 52 Installation Manual, P/N 30179-90001.

The installation procedures for the box (processing unit) swap upgrade to a Series 58 (32558CH) is included in the Series 58 Installation Manual, P/N 30477-90001.

\*The Series 44/48 must be a two card cage configuration in order to upgrade to a Series 58 CPU and memory. A single card cage system must first be upgraded using the Series 44 Expansion Kit (30087A).





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# SERIES 39/40/42 TO 52 CPU AND MEMORY UPGRADE

SECTION

1

## INTRODUCTION

The Series 39/40/42 to 52 Field Upgrade, product number 30552C, includes:

- CPU PCAs (CPS-F and ALU-F)
- CMP-2 PCA
- Memory Controller PCA
- 4 MB Memory Array PCA
- Burgundy Color Nameplate
- Card Cage Label
- Upgrade Sticker
- 2 Flat Cable Assemblies (FCA)

The new hardware consists of a minimum of five PCAs that replace existing PCAs:

PCS and CTL or CPS/CPS-E PCA(s)	→	CPS-F PCA (P/N 30476-60002)
ALU PCA	→	ALU-F PCA (P/N 30476/60001)
CMP PCA	→	CMP-2 PCA (P/N 30090-60087)
Memory Controller(s)	→	S58 Memory Controller (P/N 30172-60001)
256 kb Memory PCA(s)	→	4 MB Memory PCA (P/N 30479-60001)

The Series 52 can include up to 8 MB of memory. Existing 1 MB memory PCAs are supported, but 256'kb PCAs are not supported.

See Figure 1-1 for a graphic representation of the Series 52 field upgrade.

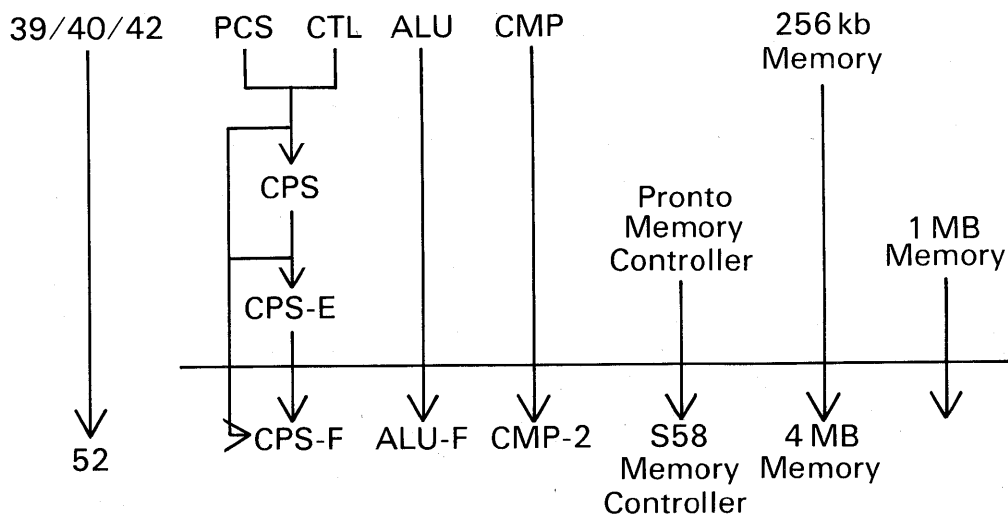


Figure 1-1. Series 39/40/42 to 52 Field Upgrade

## CPU INSTALLATION

Materials used in this procedure are the CPS-F PCA (P/N 30476-60002), the ALU-F PCA (P/N 30476-60001), the CMP-2 PCA (P/N 30090-60087), two four-card FCAs (P/N 30000-93054), and a card cage label (P/N 30550-80202).

No tools are needed.

See Figure 1-2 while performing the CPU and Memory installation procedures.

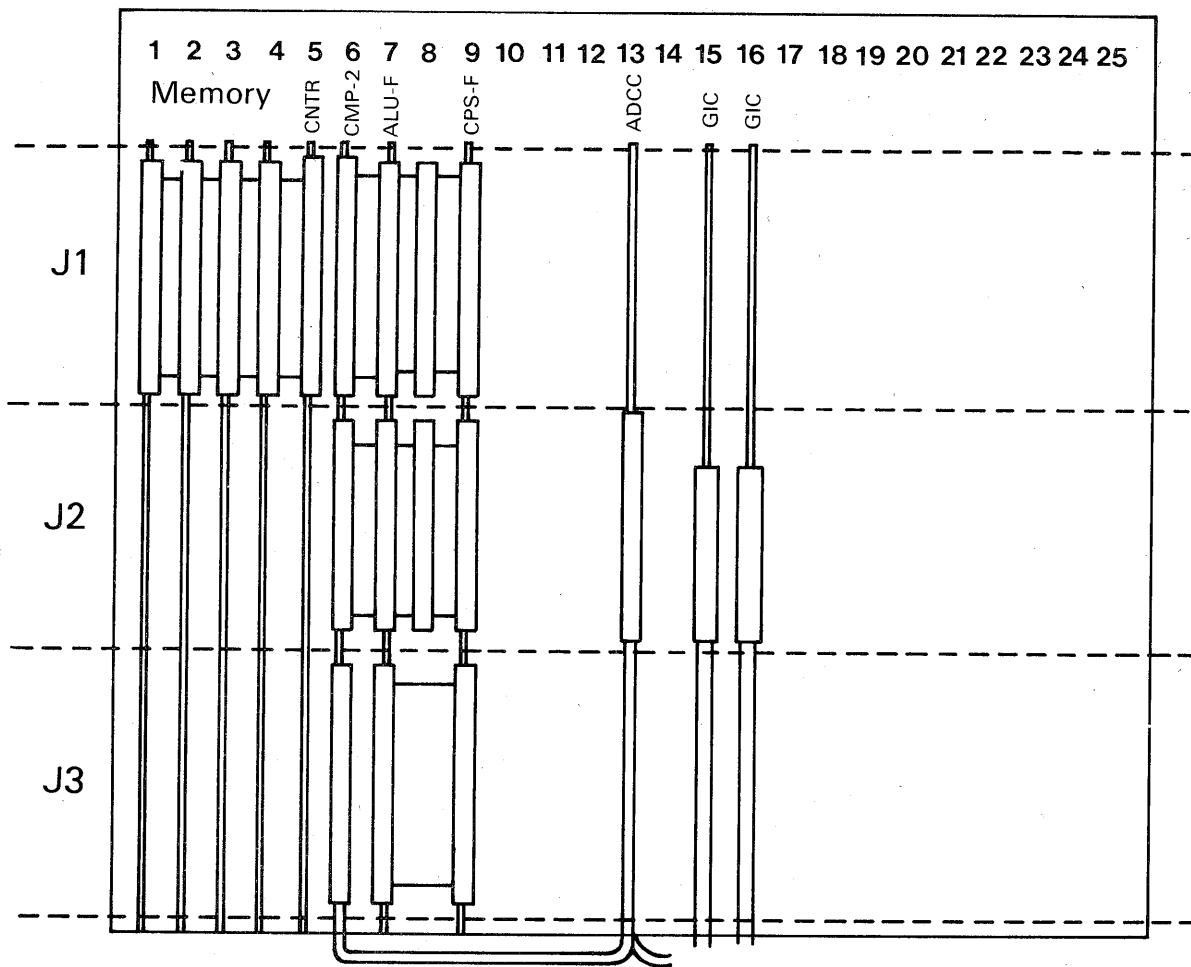


Figure 1-2. Series 52 PCA Card Cage

**CAUTION**

ESD protection requires the use of a grounded wrist strap when handling PCAs.

1. Verify that the system operator has backed up the system, logged off all users, and performed an MPE shutdown.
2. Set the POWER switch to OFF. Unplug the AC power cord or set the main breaker switch off.
3. Remove the back panel from the cabinet by loosening the captive screws, pulling the panel slightly forward, and lifting the panel off the bottom of the cabinet.

**NOTE**

The existing computer may have either a two - or three - PCA CPU. Steps 4 and 5 describe the procedure for both CPU configurations. Perform the procedure that applies to the existing computer.

4. **CPS/CPS-E PCA INSTALLED:** Disconnect the cables at J1, J2 and J3 on the PCAs in slots 6, 9, 11, 13, and 15 (CMP, ALU, CPS-E, ADCC, and GIC).

**PCS and CTL PCAs INSTALLED:** Disconnect the cables at J1, J2, and J3 on the PCAs in slots 6, 7, 9, 11, 13, and 15 (CMP, PCS, ALU, CTL, ADCC, and GIC).

5. **CPS/CPS-E PCA INSTALLED:** Remove the PCAs from slots 6, 9, 11, 13, and 15 (CMP, ALU, CPS/CPS-E, ADCC, and GIC).

**PCS and CTL PCAs INSTALLED:** Remove the PCAs from slots 6, 7, 9, 11, 13, and 15 (CMP, PCS, ALU, CTL, ADCC, and GIC).

**CAUTION**

Before performing Step 6, ensure that the correct PCAs have been removed. If the CPS-F PCA is installed with a CTL, PCS, or CPS PCA, all PCAs will be damaged at powerup.

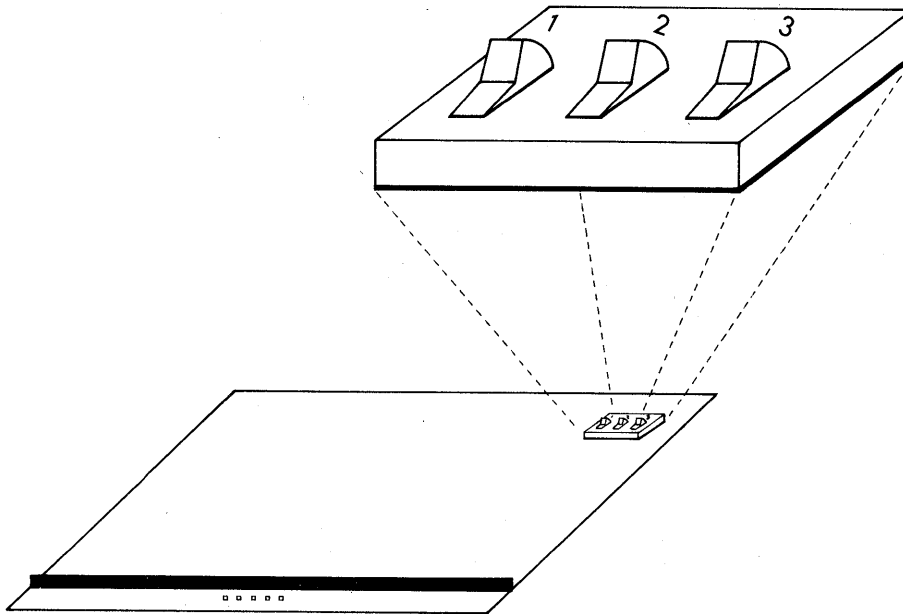
6. Install the CMP-2 PCA in slot 6, the ALU-F PCA in slot 7, the CPS-F PCA in slot 9, the ADCC PCA in slot 13, and the GIC PCAs in slots 15 and 16.
7. Reconnect the appropriate cables at J1, J2 and J3 of the CMP-2, the ALU-F, the CPS-F, the ADCC, and the GICs in slots 6, 7, 9, 13, 15, and 16, respectively.
8. Attach the new card cage configuration label over the existing card cage label. If you have more than one label on the existing system, you may want to use a screwdriver to pry the old labels off before attaching the new label. Verify that the new label correctly identifies the new card cage configuration.

## MEMORY INSTALLATION

Materials used in this procedure are the S58 Memory Controller PCA (P/N 30172-60001), 4 MB Memory PCA(s) (P/N 30479-60001), 2 MB Memory PCA(s) (P/N 30478-60001, and existing 1 MB Memory PCAs (P/N 30161-60001). The 256 kb Memory PCAs (P/N 30092-60001) are not supported. **Up to four memory PCAs are supported, for a maximum of 8 MB of memory.**

See Figure 1-2 while performing the following procedure.

1. Remove the flat cable at J1 on the Memory Controller and memory PCAs.
2. Remove the Memory Controller from slot 5 and the memory PCAs from slots 1 through 4.
3. Set the S58 Memory Controller configuration switch (located near the right backplane edge of the PCA) so that all three switches are in the down position. See Figure 1-3 for switch positions.



**Figure 1-3. S58 Memory Controller Switch Positions**

4. Install the S58 Memory Controller PCA in slot 5.
5. Start with slot 1 and install the memory PCAs in the following order:
  - a. Installed all of the 2 MB Memory PCAs (P/N 30478-60001).
  - b. Then installed all of the 4 MB Memory PCAs (P/N 30479-60001).
  - c. Finally installed all of the 1 MB Memory PCAs (P/N 30161-60001).

Some of these PCAs may not be present. Up to, but not more than, 8 MB of memory can be installed in the Series 52.

6. You must set the memory address switches as shown in the table below that matches your memory configuration. To understand the switch settings for the 2 MB Memory PCAs (P/N 30478-60001) and the 4 MB Memory PCAs (P/N 30479-60001), consider these boards to be sets of two and four 1 MB PCAs. The memory address switch should be set to the position corresponding to the first megabyte of those sets.

**Table 1-1. Series 52 with 5 MB of Memory**

Card Cage Slot Number	Memory PCA Size	Address Switch Setting
1	2 MB	0
2	1 MB	2
3	1 MB	3
4	1 MB	4

**Table 1-2. Series 52 with 6 MB of Memory**

Card Cage Slot Number	Memory PCA Size	Address Switch Setting
1	4 MB	0
2	1 MB	4
3	1 MB	5
4	---	---

**Table 1-3. Series 52 with 8 MB of Memory**

Card Cage Slot Number	Memory PCA Size	Address Switch Setting
1	4 MB	0
2	4 MB	4
3	---	---
4	---	---

**Table 1-4. Series 52 with 8 MB of Memory**

Card Cage Slot Number	Memory PCA Size	Address Switch Setting
1	2 MB	0
2	4 MB	2
3	1 MB	6
4	1 MB	7

7. Reinstall the flat cable at J1 on the Memory Controller and memory PCAs.
8. Using standard field return shipping procedures, return the old PCAs for credit. Appendix A covers these procedures in more detail.

## CHANGING THE NAMEPLATE

This procedure describes replancing the Series 39/40/42 nameplate with a Series 52 nameplate. The new nameplate will read Series 52, but will be burgundy color rather dark grey.

Tools required for this procedure are a large Posidriv® screwdriver, a small Posidriv® screwdriver, two flatblade screwdrivers, and a 3/16-inch nut driver.

1. Using a large Posidriv® screwdriver, loosen the two black screws securing the shroud at top rear of the computer cabinet (above card cage). Remove the shroud by sliding it back and a way from the front of the computer cabinet.

<b>CAUTION</b>
----------------

ESD protection requires the use of a grounded wrist strap when handling PCAs.

2. Inside the cabinet and behind the nameplate is a small LED PCA. Using a small Posidriv® screwdriver, remove the two screws securing the PCA. Move the PCA to one side.
3. A ground wire is connected from chassis to the nameplate bolt. Using a 3/16-inch nut driver, remove the two nuts holding the ground wire to the bolt. Remove flat washer and spacer.



**NOTE**

At this point, the nameplate is still held in place by double-sided tape installed at the factory. Perform Step 4 to pry the nameplate from the front panel. Pressure can be applied to the back side of the nameplate at two places: the bolt and a small slot just below the bolt.

4. Insert a flatblade screwdriver into the slot below the bolt and gently push the nameplate forward. Then push the nameplate bolt until the top edge of the nameplate separates from the front panel. Be careful not to scratch the paint on the front panel. Discard the old nameplate. Remove any remnants of old tape from the front panel before installing the new nameplate.
5. Remove protective backing from tape on back side of new nameplate and install.
6. Reinstall spacer, flat washer, ground, wire, and two nuts.
7. Reinstalled LED PCA.
8. Reinstalled and secure the shroud to the computer cabinet.

**NOTE**

Ensure that the RFI fingers on the front and back panels make complete contact with the RFI brackets around the card cage. See Figure 1-4

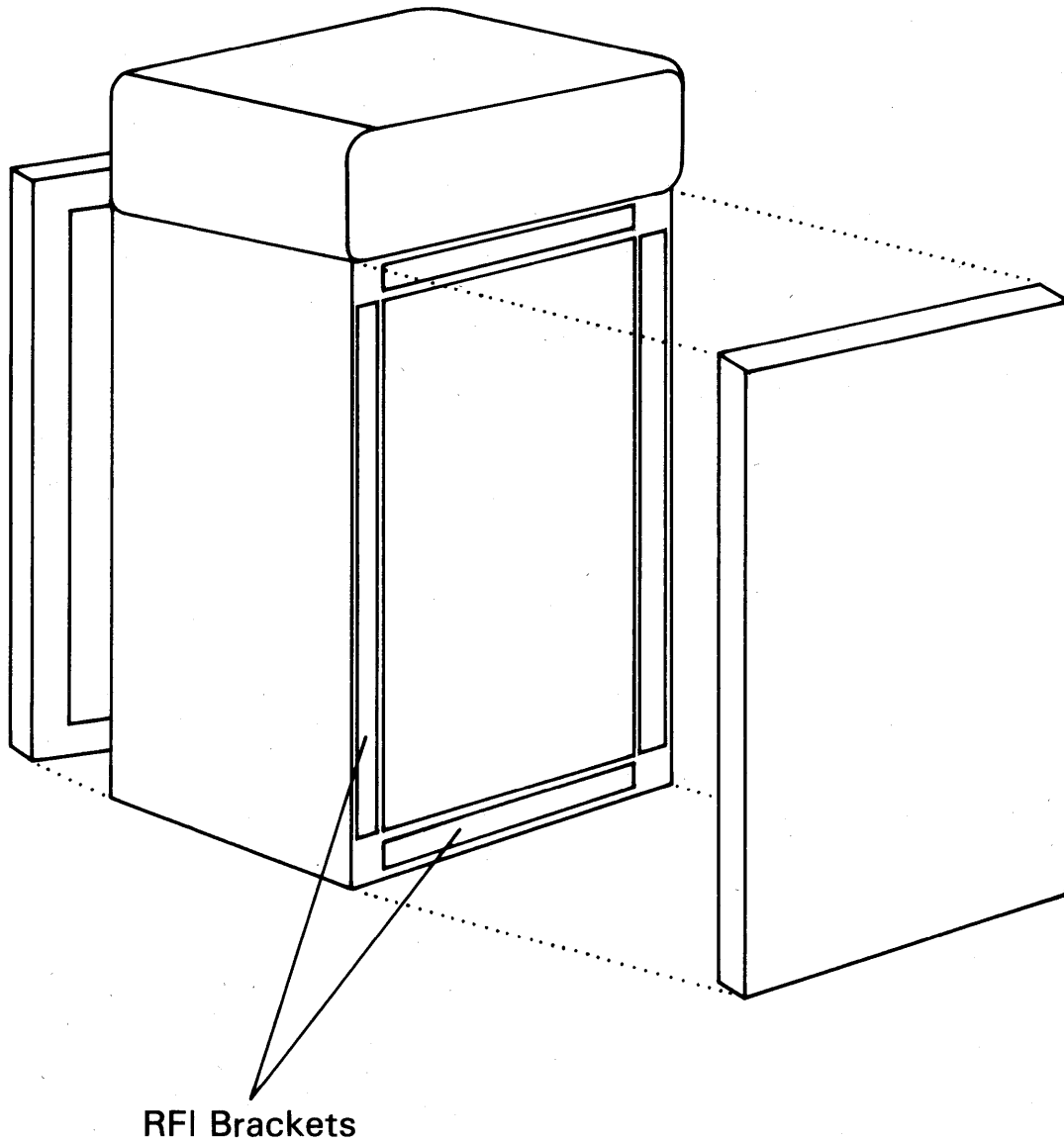


Figure 1-4. Series 52 - Front View (RFI Brackets)

## UPGRADE STICKER INSTALLATION

Place the adhesive upgrade sticker on the top rear of computer cabinet, near the serial number. See Figure 1-5 for the correct location.

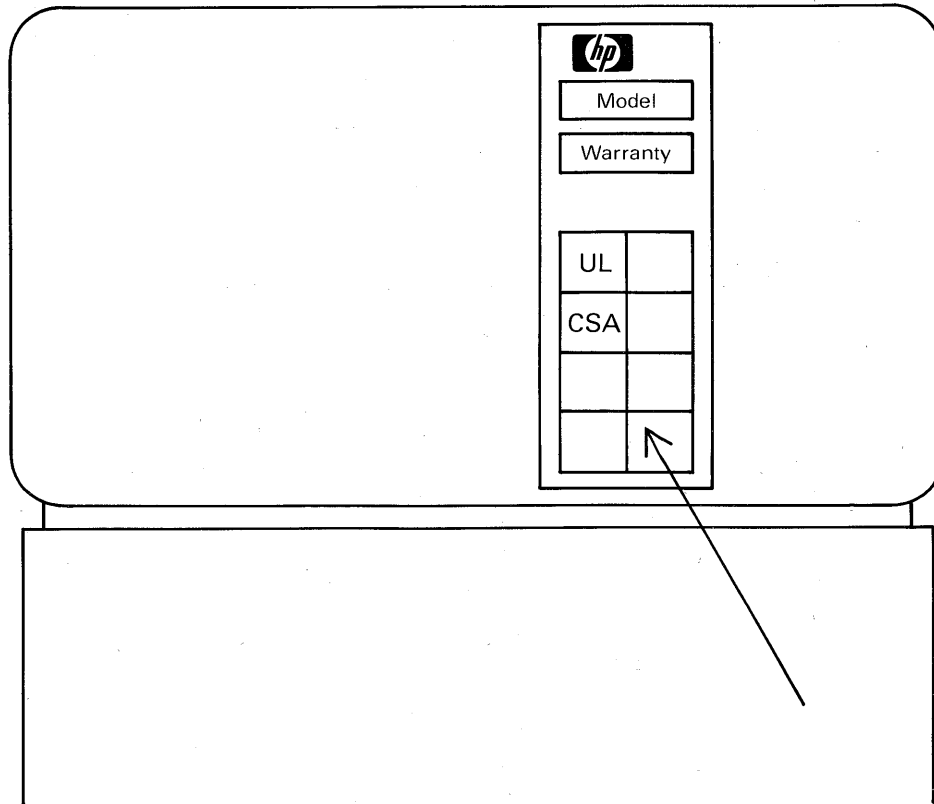


Figure 1-5. Upgrade Sticker Location (rear view of 39/40/42)

## SYSTEM VERIFICATION

1. Reinstall back cover.
2. Plug in AC power cord. Turn on power switch.
3. Execute CMP/system selftest by typing SELFTEST at the CMP prompt (->). Refer to Section 3 of this manual for a description of the selftest console messages. For additional selftest information, refer to the HP 3000 Series 39/4X/5X System CMP/Selftest Manual (P/N 30090-90005).
4. Run the MDIAG 58 memory diagnostic to verify correct operation of the memory subsystem. Refer to the HP 3000 Series 42XP/52/58 MDIAG 58 Memory Diagnostic Manual (P/N 30477-90002) for instructions.



# SERIES 44/48 TO 58 MEMORY UPGRADE

SECTION

2

## INTRODUCTION

The Series 44/48 to 58 Field Upgrade, product number 30558C, includes;

- 4 MB Memory Array PCA
- Nameplate
- Card Cage Label
- Upgrade Sticker
- 3 Flat Cable Assemblies (FCA)

The new hardware consists of a minimum of five PCAs that replace the existing PCAs:

PCS and CTL or CPS/CPS-E PCA(s)	→	CPS-F PCA (P/N 30476-60002)
ALU PCA	→	ALU-F PCA (P/N 30476-60001)
CMP PCA	→	CMP-2 PCA (P/N 30090-60087)
Memory Controller(s)	→	S58 Memory Controller (P/N 30172-60001)
256 kb Memory PCA(s)	→	4 MB Memory PCA (P/N 30479-60001)

The Series 58 can include up to 8 MB of memory but does not support 256 kb Memory PCAs. The Series 44/48 must have two card cages to be upgraded to a Series 58. A single card cage system must first be upgraded using the Series 44 Expansion Kit (30087A). Installed all memory PCAs in the second card cage.

See Figure 2-1 for a graphic representation of the Series field upgrade.

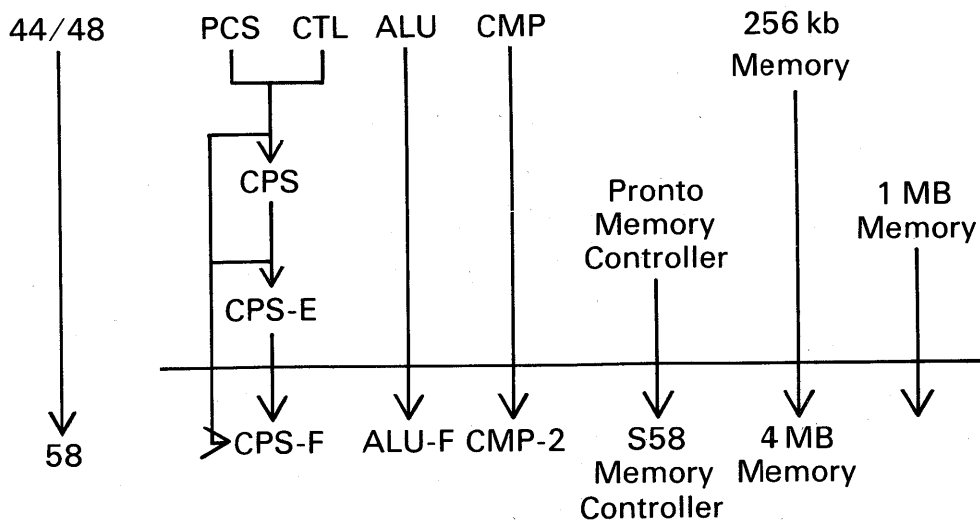


Figure 2-1. Series 44/48 to 58 Field Upgrade

# CPU INSTALLATION

Materials used in this procedure are the CPS-F PCA (P/N 30476-60002), the ALU-F PCA (P/N 30476-60001), the CMP-2 PCA (P/N 30090-60087), two three-card FCAs (P/N 30000-93053), and a card cage label (P/N 30477-80200). No tools are needed.

See Figure 2-2 while performing the following procedure.

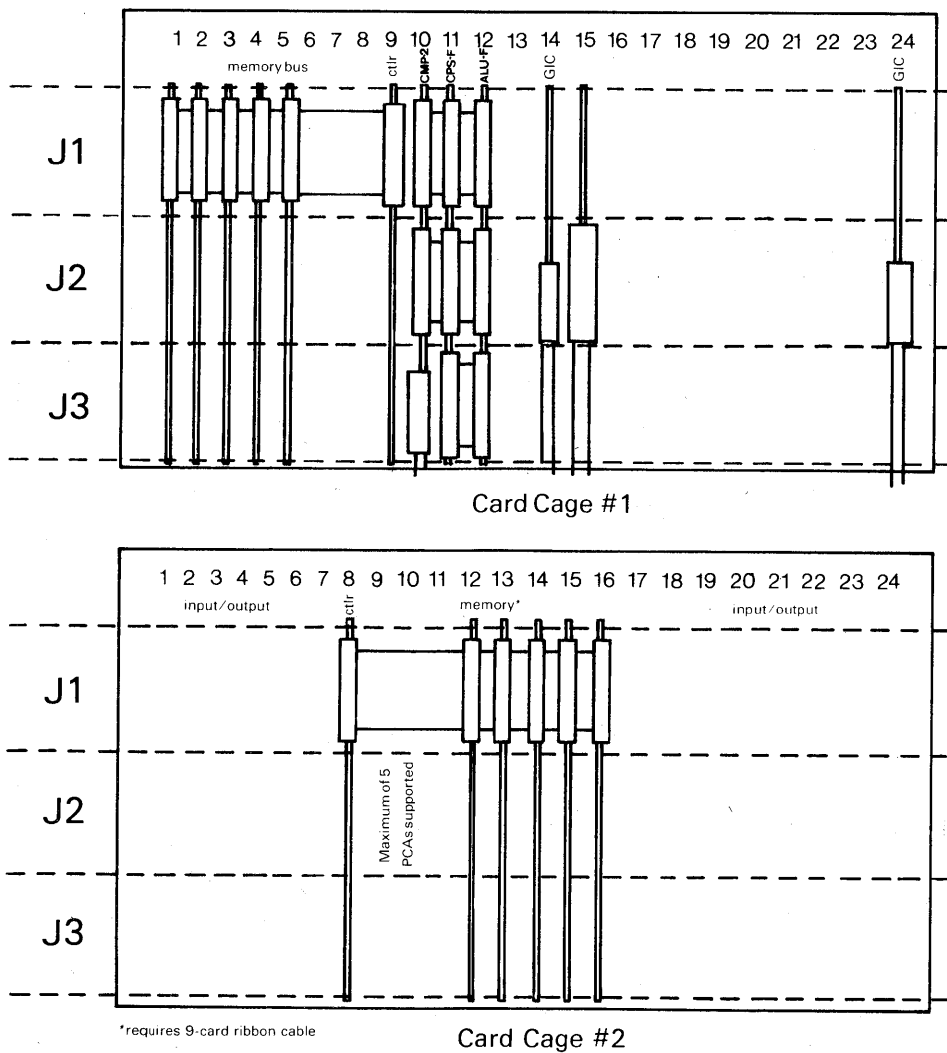


Figure 2-2. Series 58 PCA Card Cages

**NOTE**

If no INP PCAs (P/N 30020-60009) are installed in card cage 2, install all of the memory PCAs in card cage 2.

If any INP PCAs (P/N 30020-60009) and associated GICs are installed in card cage 2, install all of the memory PCAs in card cage 1

**CAUTION**

ESD protection requires the use of a grounded wrist strap when handling PCAs.

1. Verify that the system operator has backed up the system, logged off all users, and performed an MPE shutdown.
2. Set the POWER switch to OFF. Unplug the AC power cord or set the system's circuit breaker off.
3. Open the rear card cage doors. Perform this procedure in card cage 1.

**NOTE**

The existing computer may have either a two- or three- PCA CPU. Steps 4 and 5 describe the procedure for both CPU configurations. Perform the procedure that applies to the existing computer.

4. **CPS, CPS-E PCA INSTALLED:** Disconnect the cables at J1, J2, and J3 on the PCAs in slots 10, 11, 13, 12, 14, and 16 (CMP, CPS, CPS-E ALU, ADCC and GIC).

**PCS and CTL PCAs INSTALLED:** Disconnect the cables at J1, J2, and J3 on the PCAs in slots 10, 11, 12, 13, 14, and 16 (CMP, PCS, ALU, CTL, ADCC and GIC).

5. **CPS, CPS-E PCA INSTALLED:** Remove the PCAs from slots 10, 11, 13, 12, 14, and 16 (CMP, CPS, CPS-E, ALU, ADCC, and GIC).

**PCS and CTL PCAs INSTALLED:** Remove the PCAs from slots 10, 11, 12, 13, 14, and 16 (CMP, PCS, ALU, CTL, ADCC, and GIC).

**CAUTION**

Before performing Step 6, ensure that the correct PCAs have been removed. If the CPS-F PCA is installed with a CTL, PCS, or CPS PCA, all PCAs will be damaged at powerup.

6. Installed the CPM-2 PCA in slot 10, the CPS-F PCA in slot 11, the GIC PCA in slot 14, and the ADCC PCA in slot 15.
7. Reconnect the appropriate at J1, J2, and J3 of the CMP-2, the CPS ALU-F, the GIC, and the ADCC in slots 10, 11, 12, 14, and 15 respectively.
8. Attach the new card cage configuration label over the existing card cage label. Verify that the new label correctly identifies the new card cage configuration.

## MEMORY INSTALLATION

Memory can be installed in two configurations. If there are no INPs in card cage 2, all memory is installed in card cage 2. If there are any INPs and associated GICs in card cage 2, all memory is installed in card cage 1.

### Memory Installation - No INPs in Card Cage 2

Materials used in this procedure are the S58 Memory Controller PCA (P/N 30172-60001), 4 MB Memory PCAs (P/N 30479-60001), 2 MB Memory PCAs (P/N 30478-60001), existing 1 MB Memory PCAs (P/N 30161-60001), and a 9 board FCA (P/N 30094-60002). The 256 kb Memory PCAs (P/N 30092-60001) are not supported. **Up to five memory PCAs are supported, for a maximum of 8 MB of memory.**

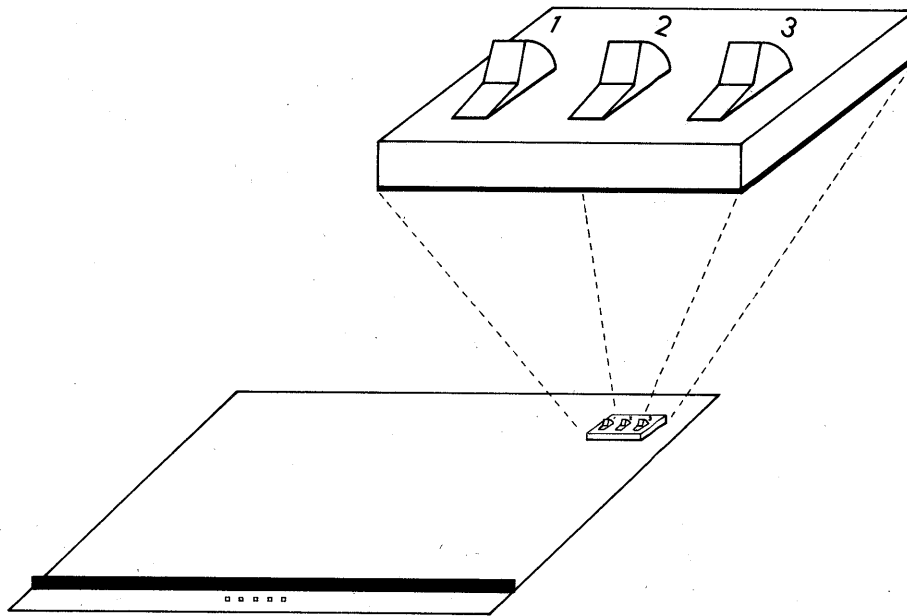
<b>NOTE</b>
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A Series 44/48 with a single card cage must have a second card cage (30087A) to be upgraded to a Series 58. **Install all memory PCAs in card cage 2.**

See Figure 2-2 while performing the following procedure.

1. Remove the flat cable at J1 on the Memory Controller(s) and memory PCAs.
2. Remove the Memory Controller(s) from slot 9 in card cage 1 and/or slot 8 in card cage 2 and remove the memory PCAs from slots 1 through 8 in card cage 1 and/or slots 9 through 16 in card cage 2.
3. On the backplane of card cage 1, set the MEM/NO MEN switch to the NO MEN position. On card cage 2, set the switch to MEM.
4. Set the S58 Memory Controller configuration switch (located near the right backplen edge of the PCA) so that all three switches are in the down position. See Figure 2-3 for switch positions.





**Figure 2-3. S58 Memory Controller Switch Positions**

5. Install the S58 Memory Controller PCA in slot 8 of card cage 2.
6. Start with slot 16 in card cage 2. Install the memory PCAs in descending numbered slots in this order.
  - a. Install all of the 2 MB Memory PCAs (P/N 30478-60001).
  - b. Then install of the 4 MB Memory PCAs (P/N 30479-60001).
  - c. Finally install all of the 1 MB Memory PCAs (P/N 30161-60001).

Some of these PCAs may not be present. Up to, but not more than, 8 MB of memory can be installed in the Series 58. **No more than five memory PCAs can be installed in the Series 58.**

7. You must set the memory address switches as shown in the table below matching your memory configuration. To understand the switch settings for the 2 MB Memory PCAs (P/N 30478-60001) and the 4 MB Memory PCAs (P/N 30479-60001), consider these boards to be sets of two and four 1 MB PCAs. The memory address switch should be set to the position corresponding to the first megabyte of those sets.

**Table 2-1. Series 58 with 5 MB of Memory**

Card Cage 2 Slot Number	Memory PCA Size	Address Switch Setting
16	2 MB	0
15	1 MB	2
14	1 MB	3
13	1 MB	4
12	---	---

**Table 2-2. Series 58 with 6 MB of Memory**

Card Cage 2 Slot Number	Memory PCA Size	Address Switch Setting
16	2 MB	0
15	4 MB	2
14	---	---
13	---	---
12	---	---

**Table 2-3. Series 58 with 8 MB of Memory**

Card Cage 2 Slot Number	Memory PCA Size	Address Switch Setting
16	4 MB	0
15	1 MB	4
14	1 MB	5
13	1 MB	6
12	1 MB	7

**Table 2-4. Series 58 with 8 MB of Memory**

Card Cage 2 Slot Number	Memory PCA Size	Address Switch Setting
16	4 MB	0
15	4 MB	4
14	---	---
13	---	---
12	---	---

**Table 2-5. Series 58 with 8 MB of Memory**

Card Cage 2 Slot Number	Memory PCA Size	Address Switch Setting
16	2 MB	0
15	2 MB	2
14	4 MB	4
13	---	---
12	---	---

8. Reinstall (or install) the flat cable (P/N 30094-60002) at J1 on the Memory Controller and memory PCAs.
9. Using standard field return shipping procedures, return the old PCAs for credit. Appendix A covers these procedures in more detail.

## Memory Installation - With INPs in Card Cage 2

Materials used in this procedure are the S58 Memory Controller PCA (P/N 30172-60001), 4 MB Memory PCAs (P/N 30479-60001), 2 MB Memory PCAs (P/N 30478-60001), existing 1 MB Memory PCAs (P/N 30161-60001), and a 9-board FCA (P/N 30094-60002). The 256 kb Memory PCAs (P/N 30092-60001) are not supported. **Up to five memory PCAs are support, for a maximum of 8 MB of memory.**

### NOTE

A Series 44/48 with a single card cage must have a second card cage (30087A) to be upgraded to a Series 58C. **Install all memory PCAs in card cage 1.**

See Figure 2-2 while performing the following procedure.

1. Remove the flat cable at J1 on the Memory Controller(s) and memory PCAs.
2. Remove the Memory Controller(s) from slot 9 in card cage 1 and/or slot 8 in card cage 2 and remove the memory PCAs from slots 1 through 8 in card cage 1 and/or slots 9 through 16 in card cage 2.
3. On the backplane of card cage 1, set the MEM/NO MEN switch to the MEM position. On card cage 2, set the switch to the NO MEM position.
4. Set the S58 Memory Controller configuration switch (located near the right backplane edge of the PCA) so that all three switches are in the down position. See Figure 2-4 for switch positions.

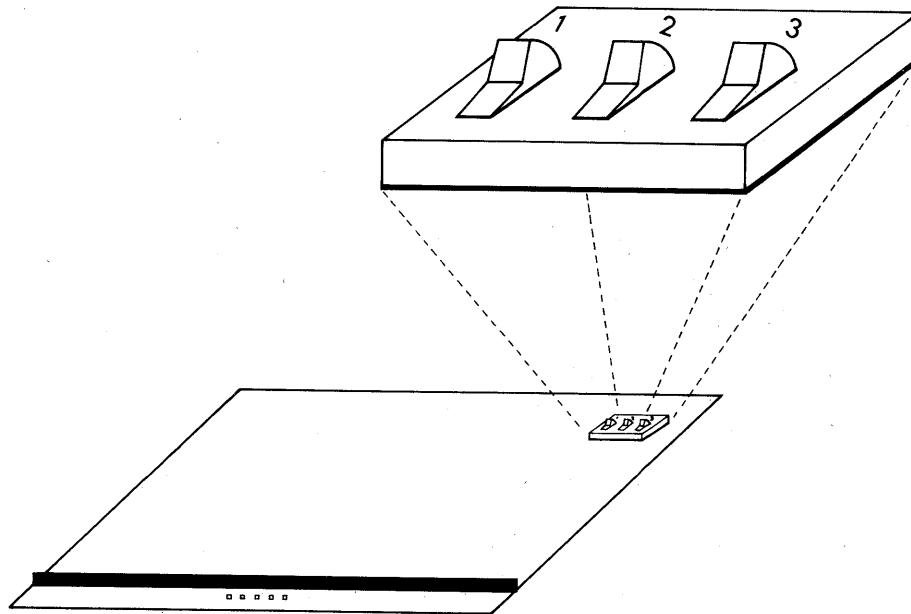


Figure 2-4. S58 Memory Controller Switch Positions

5. **Install** the S58 Memory Controller PCA in slot 9 of card cage 1.

6. Start with slot 1 in card cage 1. Install the memory PCAs in descending numbered slots in this order:
- Install all of the 2 MB Memory PCAs (P/N 30478-60001).
  - Then install all of the 4 MB Memory PCAs (P/N 30479-60001).
  - Finally install all of the 1 MB Memory PCAs (P/N 30161-60001).

Some of these PCAs may not be present. Up to but not more than, 8 MB of memory can be installed in the Series 58. **No more than five memory PCAs can be installed in the Series 58.**

7. You must set the memory address switches as shown in the table below matching your memory configuration. To understand the switch settings for the 2 MB Memory PCAs (P/N 30478-60001) and the 4 MB Memory PCAs (P/N 30479-60001), consider these boards to be sets of two and four 1 MB PCAs. The memory address switch should be set to the position corresponding to the first megabyte of those sets.

**Table 2-6. Series 58 with 5 MB of Memory**

Card Cage 1 Slot Number	Memory PCA Size	Address Switch Setting
1	2 MB	0
2	1 MB	2
3	1 MB	3
4	1 MB	4
5	---	---

**Table 2-7. Series 58 with 6 MB of Memory**

Card Cage 1 Slot Number	Memory PCA Size	Address Switch Setting
1	2 MB	0
2	4 MB	2
3	---	---
4	---	---
5	---	---

**Table 2-8. Series 58 with 8 MB of Memory**

Card Cage 1 Slot Number	Memory PCA Size	Address Switch Setting
1	4 MB	0
2	1 MB	4
3	1 MB	5
4	1 MB	6
5	1 MB	7

**Table 2-9. Series 58 with 8 MB of Memory**

Card Cage 1 Slot Number	Memory PCA Size	Address Switch Setting
1	4 MB	0
2	4 MB	4
3	---	---
4	---	---
5	---	---

**Table 2-10. Series 58 with 8 MB of Memory**

Card Cage 1 Slot Number	Memory PCA Size	Address Switch Setting
1	2 MB	0
2	2 MB	2
3	4 MB	4
4	---	---
5	---	---

8. Reinstall (or install) the flat cable (P/N 30094-60002) at J1 on the Memory Controller and memory PCAs.
9. Using standard field return shipping procedures, return the old PCAs for credit. Appendix A covers these procedures in more detail.



## CHANGING THE NAMEPLATE

This procedure describes replacing the Series 44/48 nameplate with a Series 58 nameplate. A flatblade screwdriver is required for this procedure.

1. Use the key to unlock the front panel. Swing the panel open to the right.
2. Unscrew the two nuts on the top back of the nameplate.
3. From the back of the nameplate, use the flatblade screwdriver to pry the adhesive-backed nameplate from the panel.
4. Remove the old adhesive from the panel before installing the new nameplate.
5. Remove the protective backing from adhesive on the back side of the new nameplate.
6. Position the new nameplate so that the two small screws through the holes in the panel.
7. Reinstall the two nuts.

### NOTE

Ensure that the RFI fingers on the front and back panels make complete contact with the RFI brackets around the card cage. See Figure 2-5

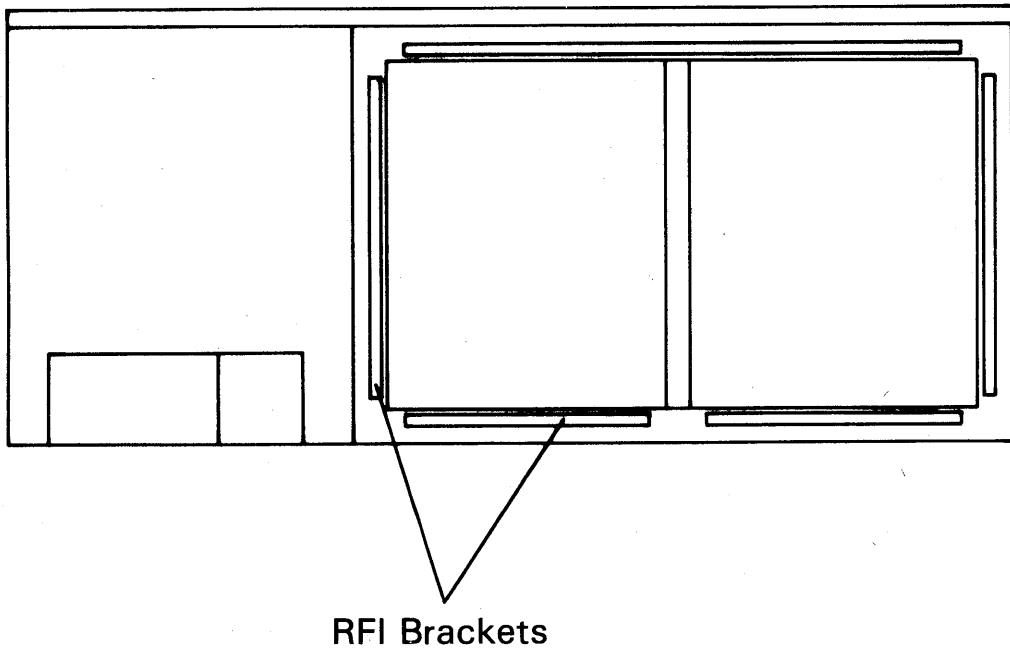


Figure 2-5. Series 58 - Back View (RFI Brackets)

8. Secure with the key.

## UPGRADE STICKER INSTALLATION

Place the adhesive upgrade sticker on the back of the computer cabinet, near the serial number on the lower left corner. See Figure 2-6.

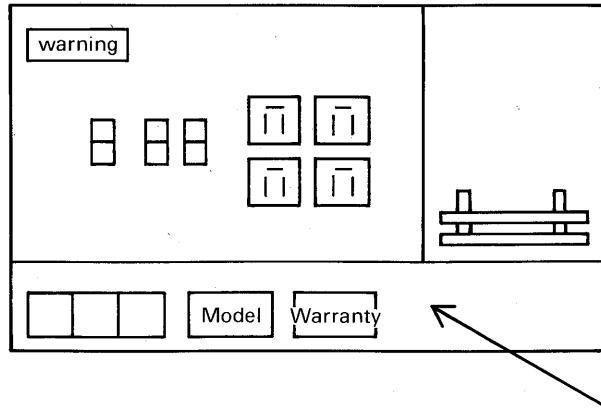


Figure 2-6. Series 44/48/58 Power Control Module Rear View

## SYSTEM VERIFICATION

1. Plug in AC power cord. Power up cabinet.
2. Execute CMP/system selftest by typing SELFTEST at the CMP prompt (->). Refer to Section 3 of this manual for a description of the selftest console messages. For additional selftest information, refer to HP 3000 Series 39/4X/5X System CMP/Selftest Manual (P/N 30090-90005).
3. Run the MDIAG 58 memory diagnostic to verify correct operation of the memory subsystem. Refer to the HP 3000 Series 42XP/52/58 MIDIAGS8 Memory Diagnostic Manual (P/N 30477-90002) for instructions.

## INTRODUCTION

The selftest console messages are:

### CMP TEST

RAM test passed  
ROM test passed  
UART test passed

### CMP-CPU Interface

SWITCH = 00  
test passed

### CPU TEST

0000  
0400  
0800  
0C00  
1000  
1400  
1800  
1C00  
2000  
2400  
2800  
2C00  
3000  
3400  
3800  
3C00  
test passed

### CONTROL PANEL

STATUS = 06 SYS DISC = NORM  
test passed

ADCC TRANSMIT test passed

ADCC RECEIVE test passed

GIC TEST CHL = 11 test passed

SYSTEM TEST passed

->



# RETURN PROCEDURE

APPENDIX

**A**

Finance and Remarketing Division (FRD) supplies the following items in the Notice of Return (NOR) folder:

Returner Equipment Verification (REV)  
Upgrade Equipment Return Instructions  
Notice of Return (NOR) Authorization Form  
Shipping Labels (adhered to shipping pouches)

Follow FRD's procedures to facilitate the return of PCAs for which upgrade credits have been issued. If the PCAs do not arrive at FRD within 30 days (60 days outside the U.S. and Canada), your office will be contacted for return order status.

The specific responsibilities of the CE are:

1. Ensure that the PCAs are fully operational.
2. Any discrepancies between what is listed on the REV and the products being returned should immediately be reported to FRD's Order Processing department.
3. Pack the de-installed PCAs in anti-static material, along with the REV, and return them to your shipping department.
4. Call FRD's Orders Processing department to make shipping arrangements.



# **READER COMMENT SHEET**

**HP 3000 Computer Systems**

**HP 3000 SERIES 52/58  
Upgrade Installation Manual**

**30477-90010 January 1987**

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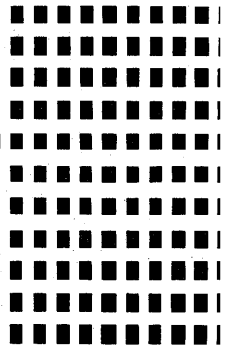
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