Installation of Field Bill of Material

PN 02L4064

System Card Replacement

on Multiaccess Enclosure (FC3000)

of the IBM 3746 Models 9X0

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Before Installation (Steps 1-8)

1.0 Machines Affected

3746 Model 9X0 with Multiaccess Enclosure (FC 3000)

2.0 Related BMs and ECs

2.1 Prerequisites

IMPORTANT

Before changing the system card, verify that your customer has **saved** all his **MAE configuration files** on diskette. If not, do not exchange the card before he has saved his configurations.

2.2 Concurrent ECs

(Must be installed together)

None.

2.3 Companion ECs

(May be installed together)

None.

3.0 BMs to be Installed

FB/M	Title
02L4064	System Card replacement.

4.0 Preparation

- Familiarize yourself with the purpose and details of the installation instruction before negotiating machine time with the customer.
- Check all items listed on the BM(s) to determine that all parts have been received.

5.0 Programming

None.

6.0 Purpose and Description

6.1 Purpose

To improve the performances of the Multiaccess Enclosure.

6.2 Description

To replace the system card on the Multiaccess Enclosure.

7.0 Installation Time

FFBM	Machine Hrs.	System Hrs.	CE Hour	Nbr of CE
02L4064	01.0	00.0	1	1

8.0 Tools/Material Required

None.

Installation (Steps 9-12)

9.0 Safety

Review the **Safety Notices** and the **Safety Inspection Procedures** located at the beginning of the *IBM 3745 Communication Controller All Models*, *IBM 3746 Expansion Unit Model 900*, *IBM 3746 Nways Multiprotocol Controller Model 950 Safety Information*, GA33-0400.

10.0 Details of Installation

This installation instructions gives the procedures to replace the MAE system card.

- This is one step in the migration of the MAE from FC 3000 to FC 3001.

  To have an overview of all the tasks and documentation to be used during the migration, Refer to Figure 1 on page 6.
- This is one step for some system card memory upgrade.

Attention

1. The System Card is **not** hot pluggable.
2. Verify that the **MAE configuration**s have been **saved** before going thru.

Then go to 10.1, “Recording the IP Addresses” on page 7 to start the installation.

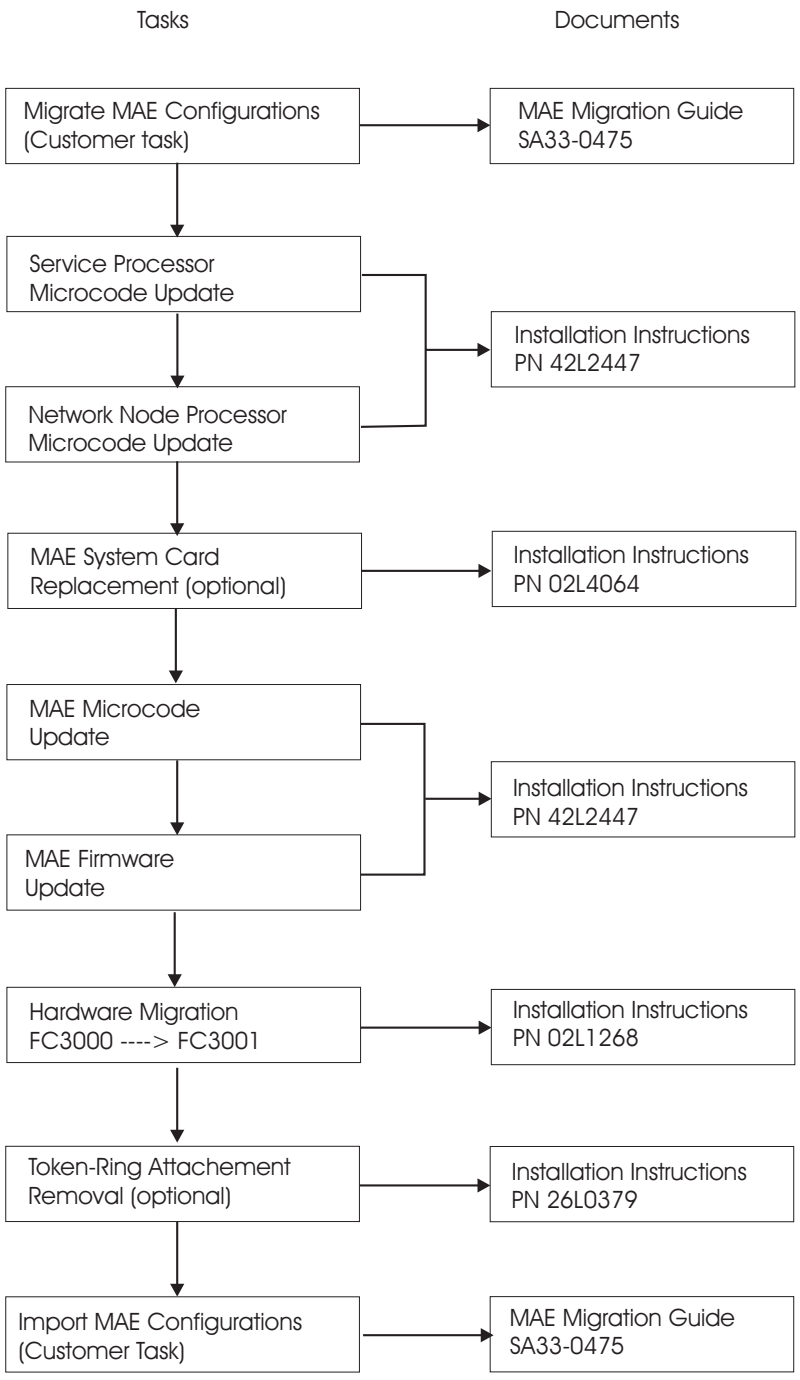


Figure 1. MAE FC 3000 to FC 3001 Migration Scenario

10.1 Recording the IP Addresses

__ 1. Double click on the Service Processor object icon.

__ 2. Click on **Configuration Management**, then double click on **SP customization**.

__ 3. Check **Service LAN addresses**, then click on Next>>.

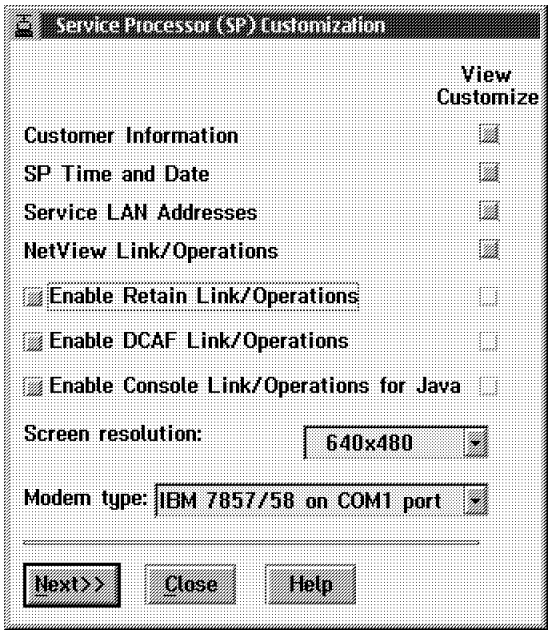


Figure 2. Service Processor Customization

__ 4. Record the IP address of the **Service Processor**, **MAE**, **Router** (if any) and the **Subnet mask**.

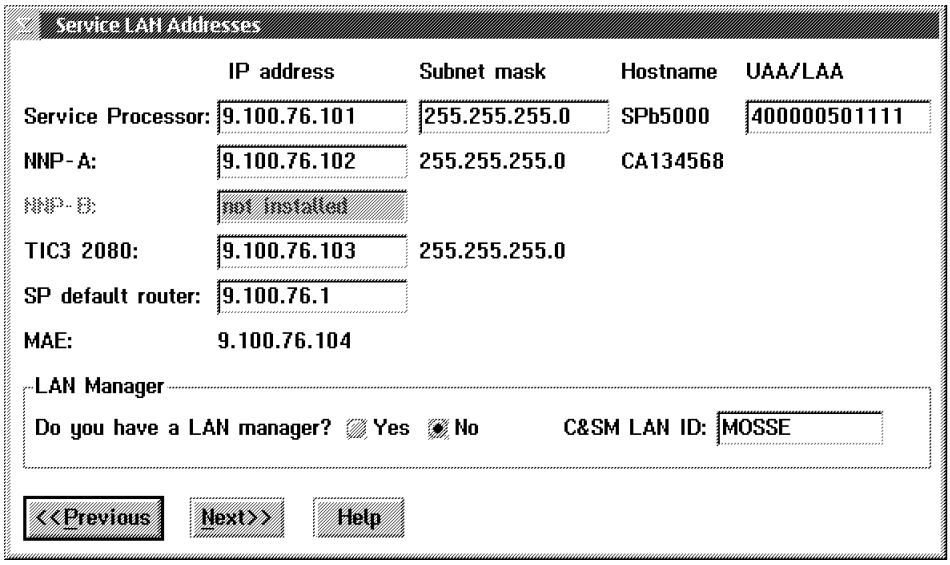


Figure 3. Service LAN addresses

__ 5. Then to exit from SP customization, click on **Previous**, **Close**, and **NO**.

10.2 Removing the Old System Card

Attention

Electrostatic discharge (ESD) can damage the static-sensitive devices on circuit boards. To avoid this kind of damage, use the following precautions:

- Do not remove the DIMM until you are ready to insert it into the Multiaccess Enclosure.
- Use correct grounding techniques when inspecting and installing the DIMM. Use a foot strap or grounding mat, or wear a grounded static discharge wrist strap, or touch a grounded rack or other source of ground before you handle the DIMM.

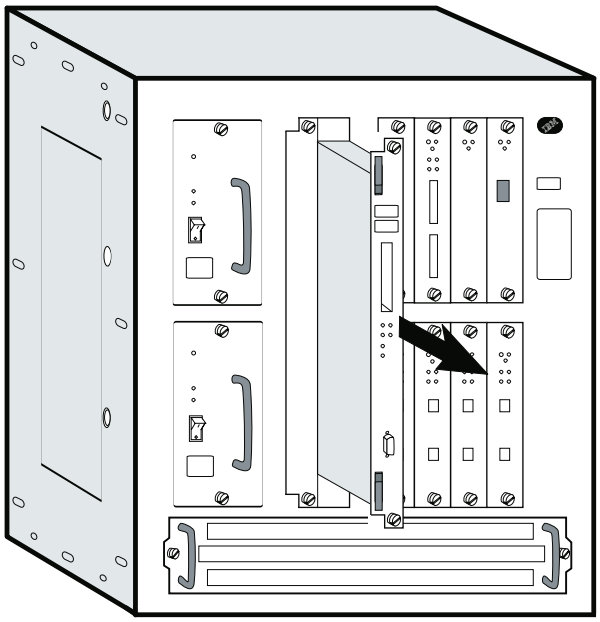
__ 1. Switch OFF each power supply.

__ 2. Label the cables on the system card. Unplug the cables and the PCMCIA card.

__ 3. Loosen thumbscrews on the system card.

__ 4. Remove the system card and lay it on a soft non-conductive surface.

__ 5. Unpack the new system card and lay it on a soft non-conductive surface.



__ 6. If you have replaced the system card for a memory upgrade, install the DIMM on the system card using the FFBM 25L9934 for 64 MB DIMM, then return here and continue the procedure with 10.3, “Installing the New System Card” on page 10.

10.3 Installing the New System Card

__ 1. Install the new system card. Make sure the card is aligned with the plastic grooves and then slide it in until it is flush with the box. Hold the locking latches so that they are perpendicular to the face of the system card. With the card in full contact with the rear of the Multiaccess Enclosure, press the locking latches into the system card.

__ 2. Tighten the thumbscrews on the face of the adapter card clockwise.

__ 3. Plug the PCMCIA token-ring from the defective system card to the new system card.

__ 4. Plug the cables into the system card.

__ 5. Power ON and verify the LEDs (the OK green LED must be ON and the yellow LED corresponding to the slot where the PCMCIA card is plugged must be OFF).

The Multiaccess Enclosure has a number of light-emitting diodes (LEDs) that indicate how the unit is functioning.

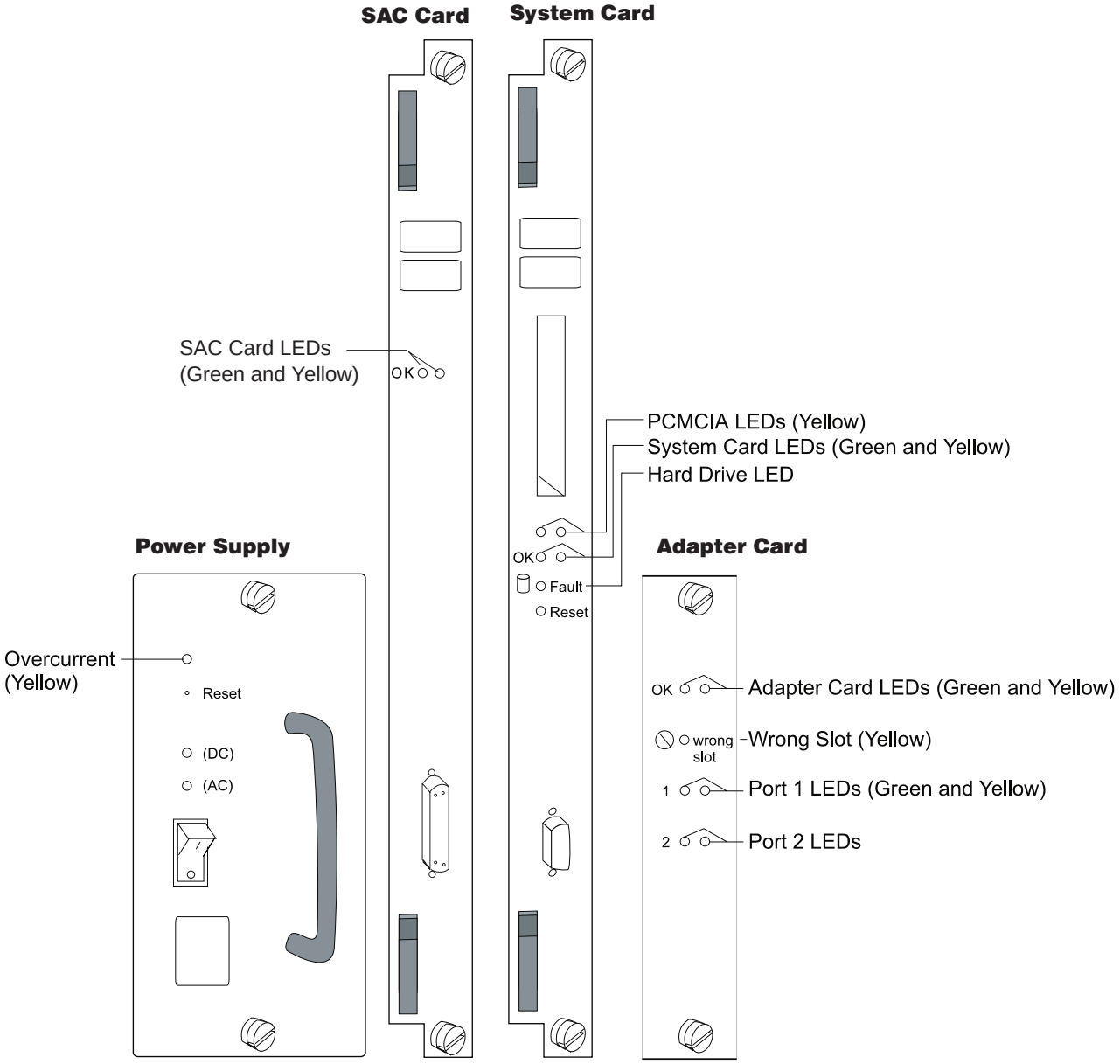


Figure 4. Power Supply, System Card, SAC card (if present), and Adapter Card LEDs

Power Supply Status

LEDs	Meaning
Yellow (Overcurrent)	On - There is an overcurrent condition with the –48 V to one or more of the adapters (slots 1–8) or the +12 V to the fan tray.
Green DC	On - +5 V, +12 V, and –48 V are OK.
Green AC	On - AC source voltage is present and within tolerance.

System Card Status

LEDs	Meaning
PCMCIA 1 or PCMCIA 2 (Yellow)	On - PCMCIA device has a fault, is not installed, or is not seated correctly. Off - Device passed self-tests
OK (Green)	On - Card hardware is operating normally. Blinking - Loading from hard file
OK (Yellow)	On - Card hardware has a fault.
Fault Hard Drive (Yellow)	On - Hard drive has failed.

Adapter Card Status

LEDs	Meaning
OK (Green)	On - Adapter is operating normally.
OK (Yellow)	On - Adapter has a fault.
Wrong slot (Yellow)	On - Adapter is in the wrong slot. The wrong slot LED is ON only when an adapter that is plugged into the multiaccess enclosure violates the plugging rules.
Green port (See note).	On - Port is operating normally (enabled and configured). Off - Port is not configured or is disabled. For the ESCON adapter: Blinking - The optical power measurement test is running.
Yellow port (See note).	On - One or more ports has a hardware fault. Blinking - One or more ports has a port I/O or network failure. Use the Maintenance Analysis Procedures (MAPs) to isolate. Off - No problem detected.

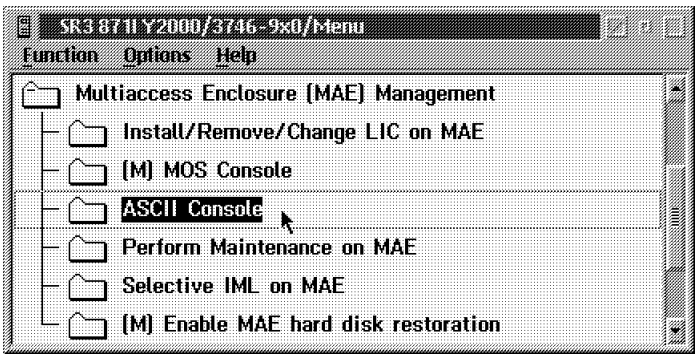
Note: The port LEDs of the multiport WAN adapters (FC 3282, FC 3291, and FC 3292) reflect the status of one or more of the ports.

SAC Card Status (If present)

LEDs	Meaning
OK (Green)	On - Card hardware is operating normally Blinking - Loading from hard file
OK (Yellow)	• MAE is not configured • Quick config is running on MAE • Card hardware has a fault

10.4 Updating the Vital Product Data.

__ 1. From the '3746-9x0 Menu', click on **Multiaccess Enclosure (MAE) Management**, then double click on **ASCII console**.



__ 2. Press the **reset** on the front of the system card.

If **V:** prompt appears type **MFGMODE**
This should return '00'. If set set to anything else ... type **MFGMODE 0**, then press again the reset button on the MAE system card and go to next step.

__ 3. Several window are displayed during tests. Wait until the **Boot Information** window is displayed.

__ 4. Press **F1** when required (to prematurely terminate boot).

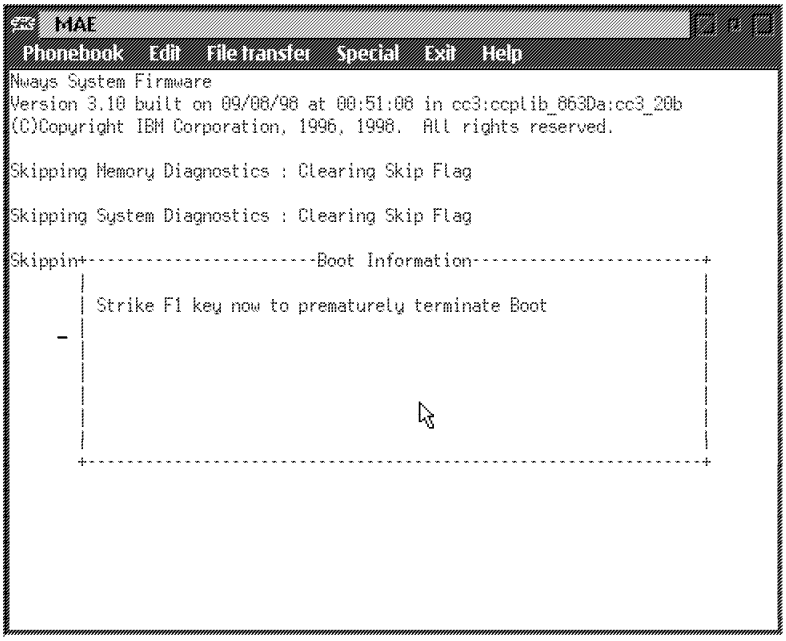


Figure 5. MAE

__ 5. On the **System Management Services** window, select **option 4 - Utilities**

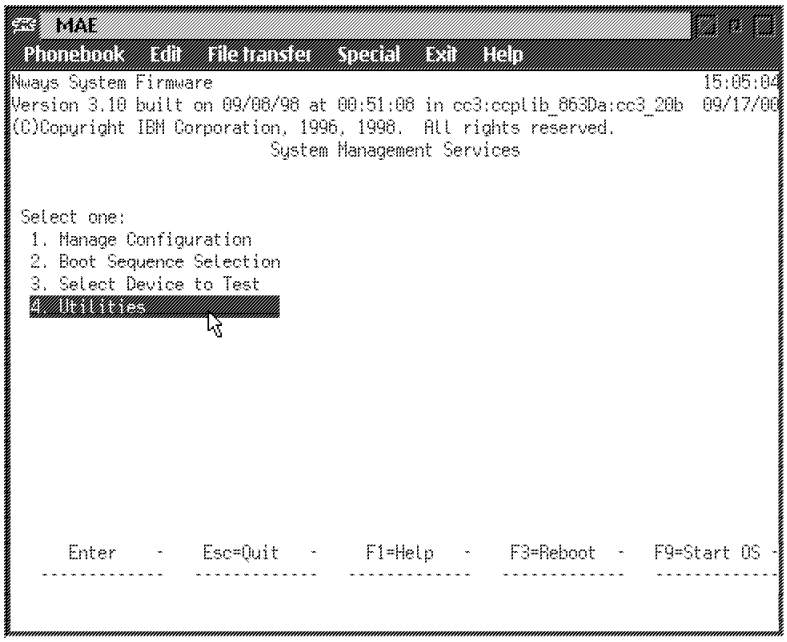


Figure 6. MAE

__ 6. Enter the Multiaccess Enclosure supervisory password when required: **2216**.

__ 7. On the **System Management Utilitie** window, select **option 9 - View or Set Vital Product Data**

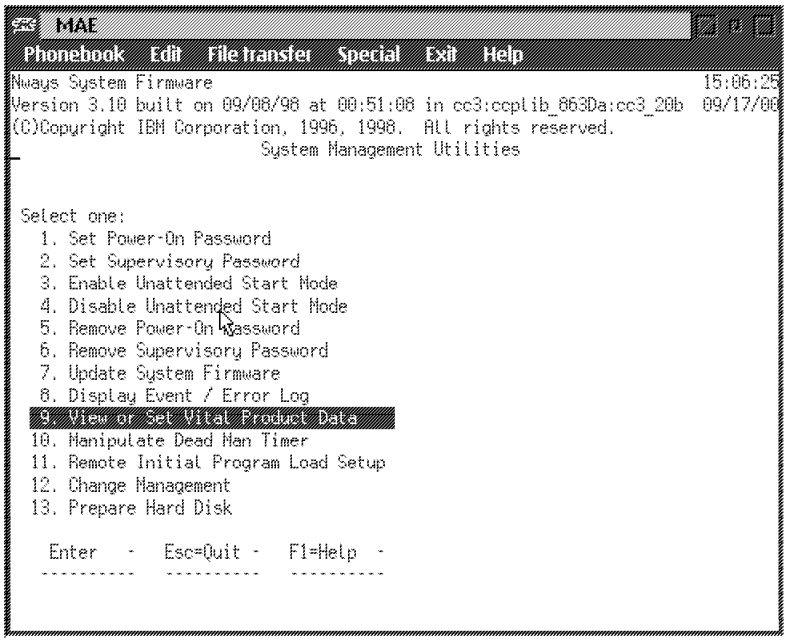


Figure 7. MAE

__ 8. From 'View or Set Vital Product Data', select **Hardware Vital Product Data**

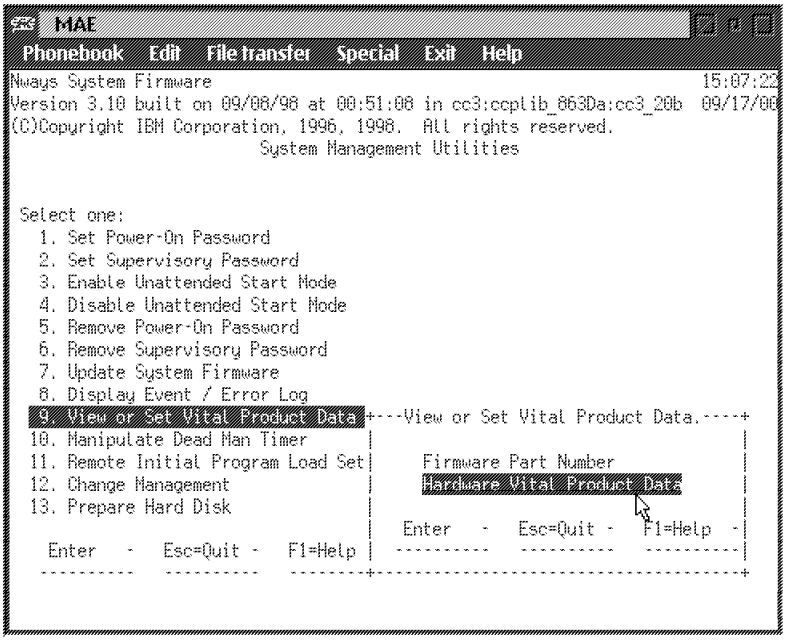


Figure 8. MAE

__ 9. Select **slot B**, then press **Enter**

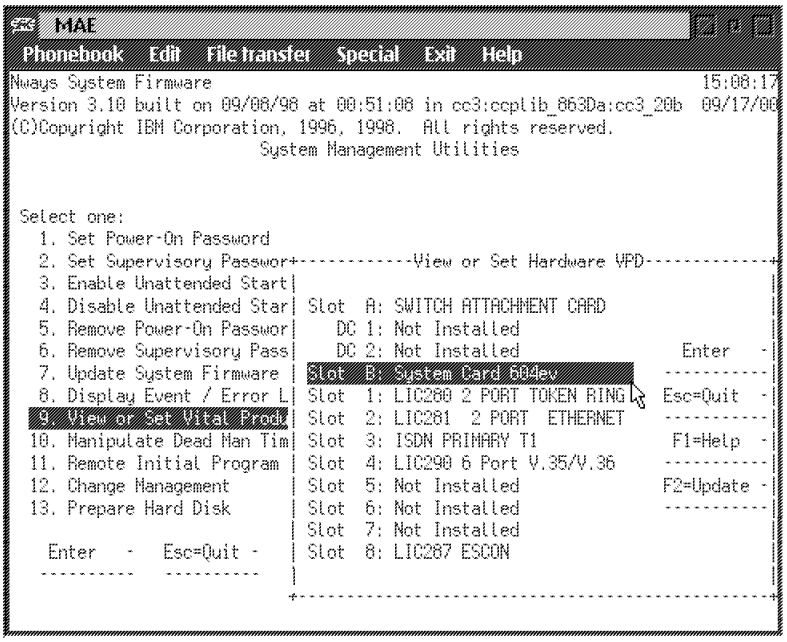


Figure 9. MAE

__ 10. In the BS entry field, type in the **MAE** serial number, then press **Enter**

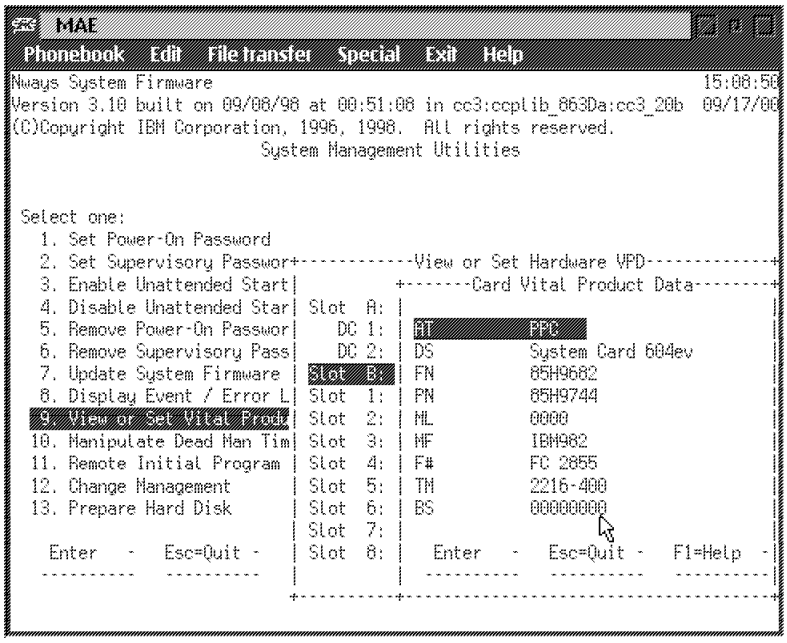


Figure 10. MAE

__ 11. Press ESC twice, then go to chapter 10.5, “Setting the IP Addresses”

10.5 Setting the IP Addresses

__ 1. Using the arrows keys, select **(11) Remote Initial Program Load Setup** and press **Enter**, **(1) IP Parameters** is selected, press **Enter** again.

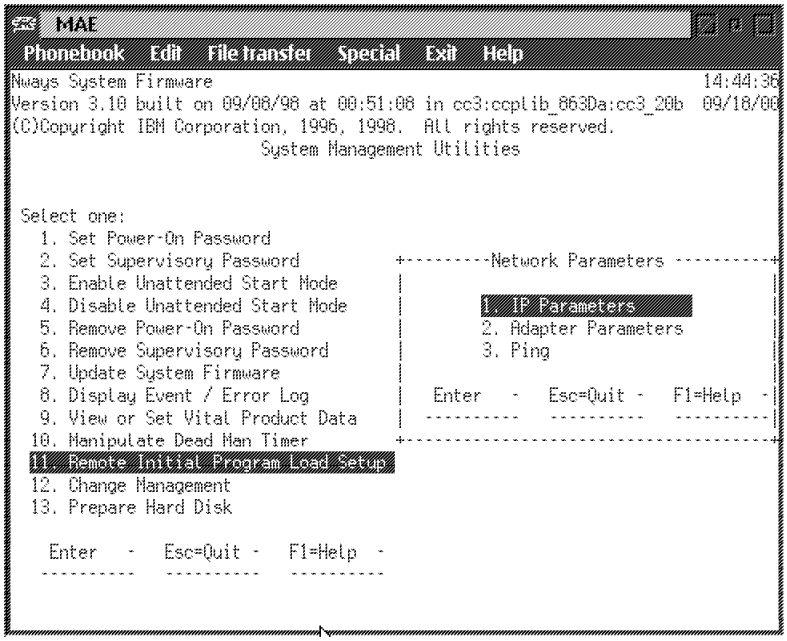


Figure 11. MAE

__ 2. Refer to Figure 12 on page 18, and according to what you recorded in step **4 on page 7** , enter the **Client IP address** (MAE address of the PCMCIA card), **Server IP address** (service processor address), **Gateway IP address** (if no router on the ring, enter the service processor IP address), the **subnet mask**, then press **Enter**.

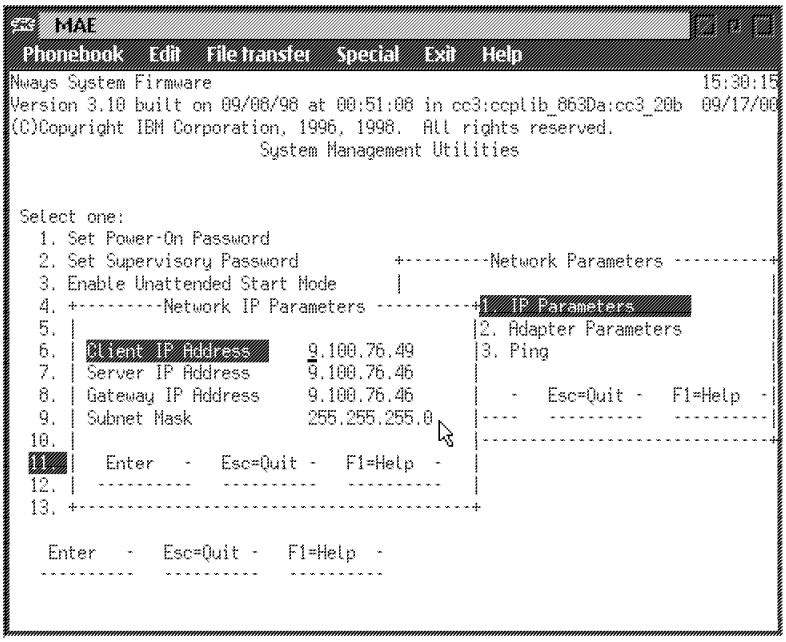


Figure 12. MAE

__ 3. Press the **Esc** key twice, press **F9** to start the OS, confirm by entering **Yes** then close the ASCII window.

11.0 Test Procedures

No test required.

12.0 Field Updating

None.

After Installation (steps 13-15)

13.0 Publications Update

None.

14.0 Parts Disposition

Return the removed DIMM to the customer, and return the system card to local branch office for scrapping.

15.0 Machine Records

- Install the new **MACHINE HISTORY** supplied.
- Report installation and quality according to existing procedures.

End of instructions.