

Field Feature Bill of Material

PN 29H4867
Storage Expansion (FC 5027)
in Network Node Processor (NNP)
in IBM 3746 Model9X0 with FC 5022.

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3746 FFBM	PN 29H4867 1 of 14	EC E46485B 27NOV96	EC E46485C LAGPA1			
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Before Installation (Steps 1-8)

1.0 Machines Affected

3746 Model 9X0 with Feature 5022.

This feature should only be applied on the machine serial for which it is specified.

2.0 Related BMs and ECs

2.1 Prerequisites

- Microcode level: D46120 or higher.

Checkpoint: Check that the Basic Level Packaging Unit APPN EC level is D46120.000 or higher.

Note: Refer to *SPIM*, Chapter 3. 'Displaying the EC Level of Code'.

2.2 Concurrent ECs

None.

2.3 Companion ECs

None.

3.0 BMs to be Installed

29H4867 Network Node Processor Memory Expansion.

4.0 Preparation

1. Familiarize yourself with the purpose and details of the installation instruction before negotiating machine time with the customer.
2. Check all items listed on the BM(s) to determine that all parts have been received. Whenever required for a dual NNP configuration, the NNP memory expansion must be installed in both processors.

5.0 Programming

None.

6.0 Purpose and Description

6.1 Purpose

To support large network configuration on 3746-9x0.

6.2 Description

The installation of this B/M is divided into two main procedures:

1. Installing the storage expansion by **adding "SIMM" modules** on system board of the Network Node ProcessorA or B.
2. Update the configuration of the system.

7.0 Installation Time

FFBM	Machine Hrs.	System Hrs.	Nbr of CEs
29H4867	See Note.	0.0	1

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Notes:

1. No machine time is required if two Network Node Processor are installed and backup function is selected.
2. If only one Network Node Processor is installed, all the lines depending on it should be deactivated for about 1 hour..

8.0 Tools/Material Required

E.S.D. Kit p/n 6428316

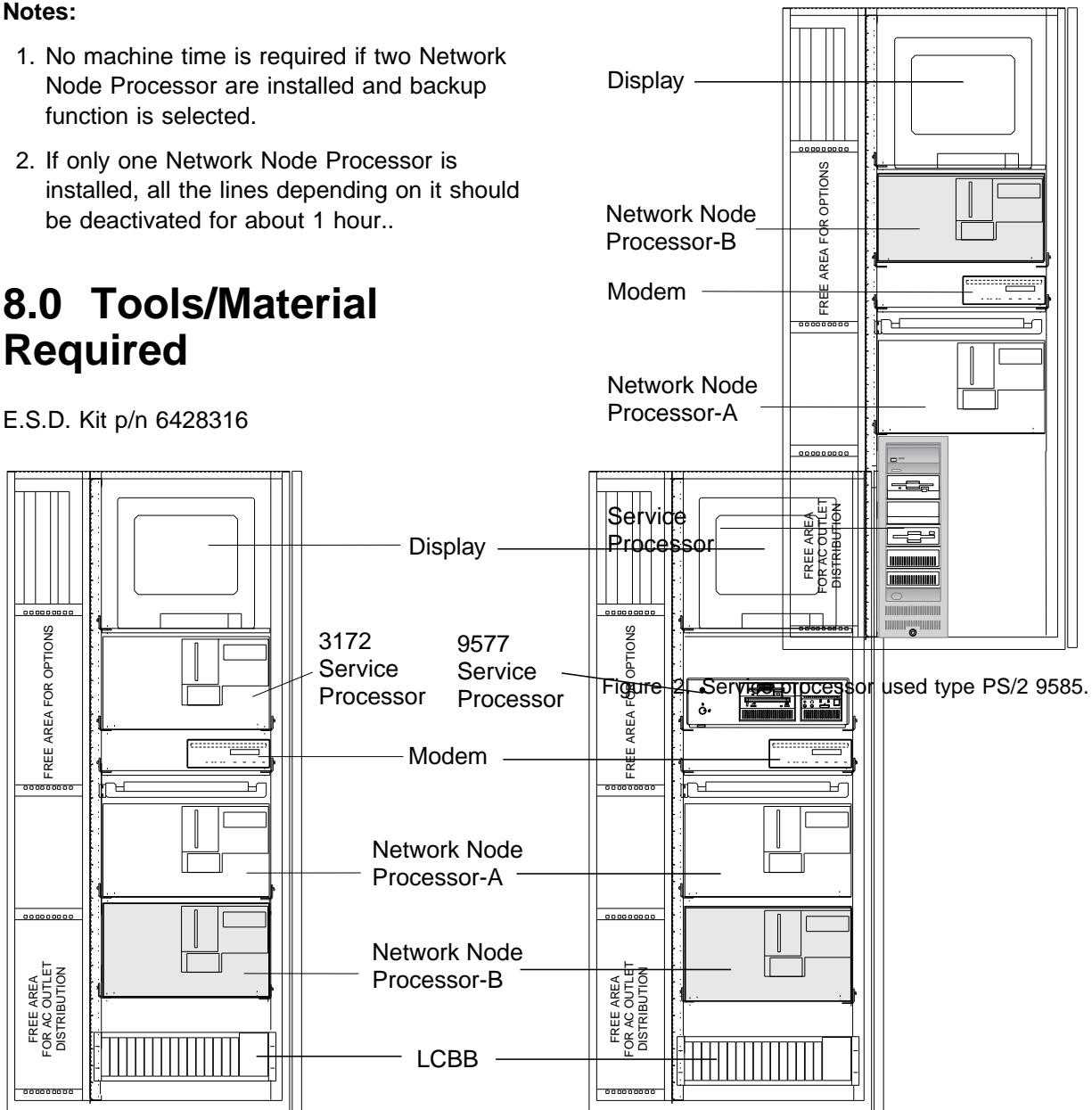


Figure 1. Service processor used type 3172 or PS/2 9577.

Installation (Steps 9-11)

9.0 Safety

See *Safety Notices* located at the beginning of the:

- 3745 Communication Controller Models 210 to 61A Maintenance Information Procedures, SY33-2054, or
- 3745 Communication Controller Models 130 to 17A Maintenance Information Procedures, SY33-2070

10.0 Details of Installation.

10.1 Preparing for the Installation

1. Open the front and rear doors of the Controller Expansion.

On the front side of the Network Node Processor:

2. Remove any media from the drives.
3. Switch the power **OFF (O)** of the Network Node Processor.

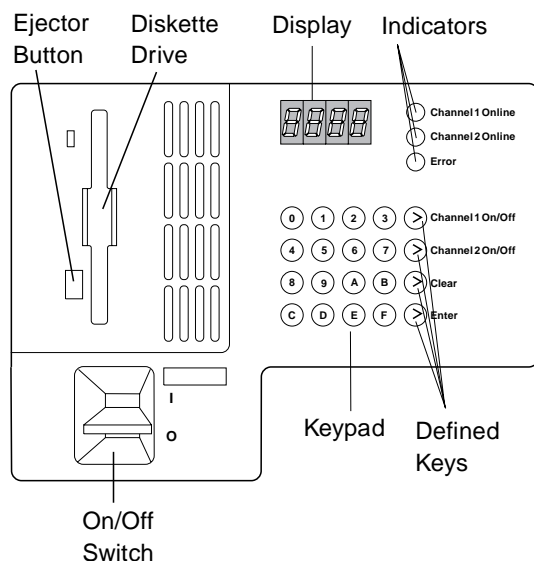


Figure 3. Processor Panel.

On the rear side of the Processor:

4. Disconnect the Keyboard cable **A** and **B**,
5. the Power cord **C**,
6. the LAN cable **D**,

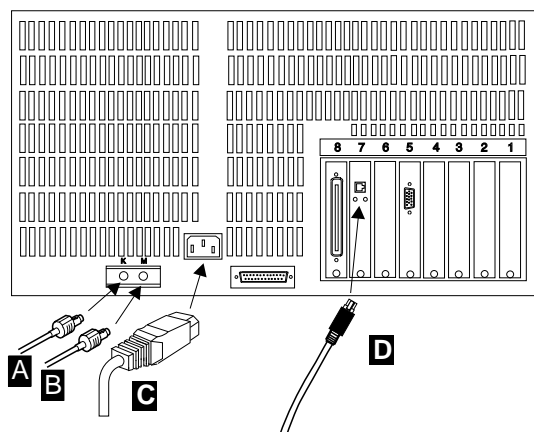
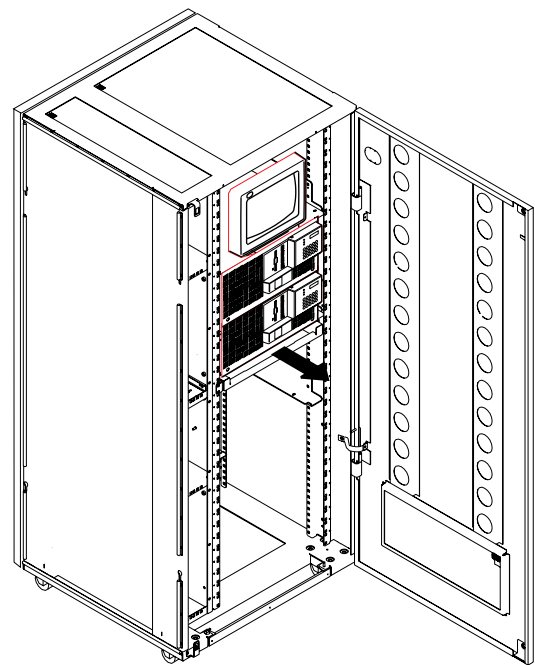


Figure 4. Cable locations.

On the front side of the 3746-9x0:

- ___ 7. Slide the base unit from the rack.
- ___ 8. Take this unit and put it down on a table.



10.2 Removing the NNP Covers.

- ___ 1. Loosen the quarter-turn fasteners on the top of the NNP
- ___ 2. Hold the edges of the top and lift up.
- ___ 3. As you remove the top, note the position of the plastic baffle attached to the inside surface. You must reinstall the top so that the baffle covers the left side of the NNP.

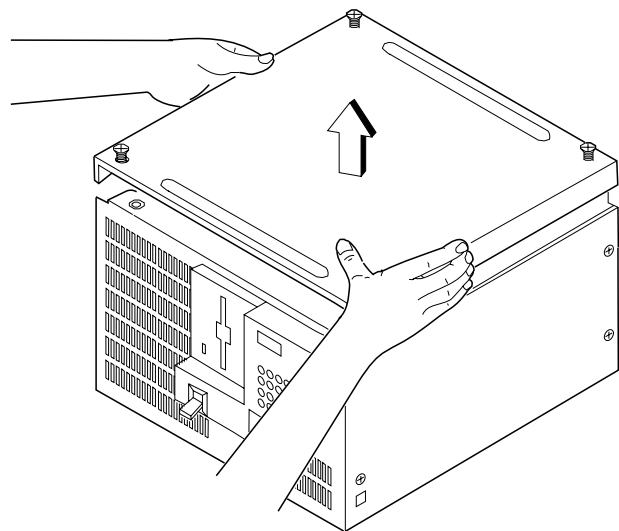
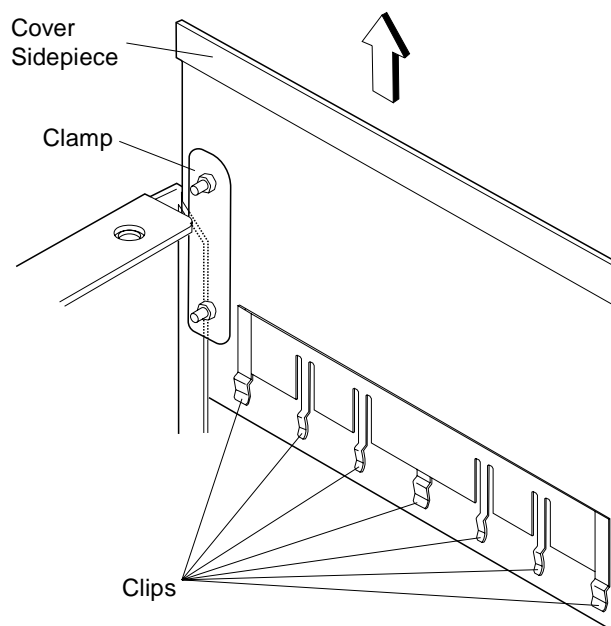


Figure 5. Removing the Top Cover.

- ___ 4. Remove the right sidepiece (near air duct assembly). Loosen, but do not remove, the four screws with a screwdriver.
- ___ 5. Holding the top of sidepiece with both hands, lift straight up.



10.3 Removing the Air Duct.

- ___ 1. Remove the back screw near the SIMM in memory slot A4.

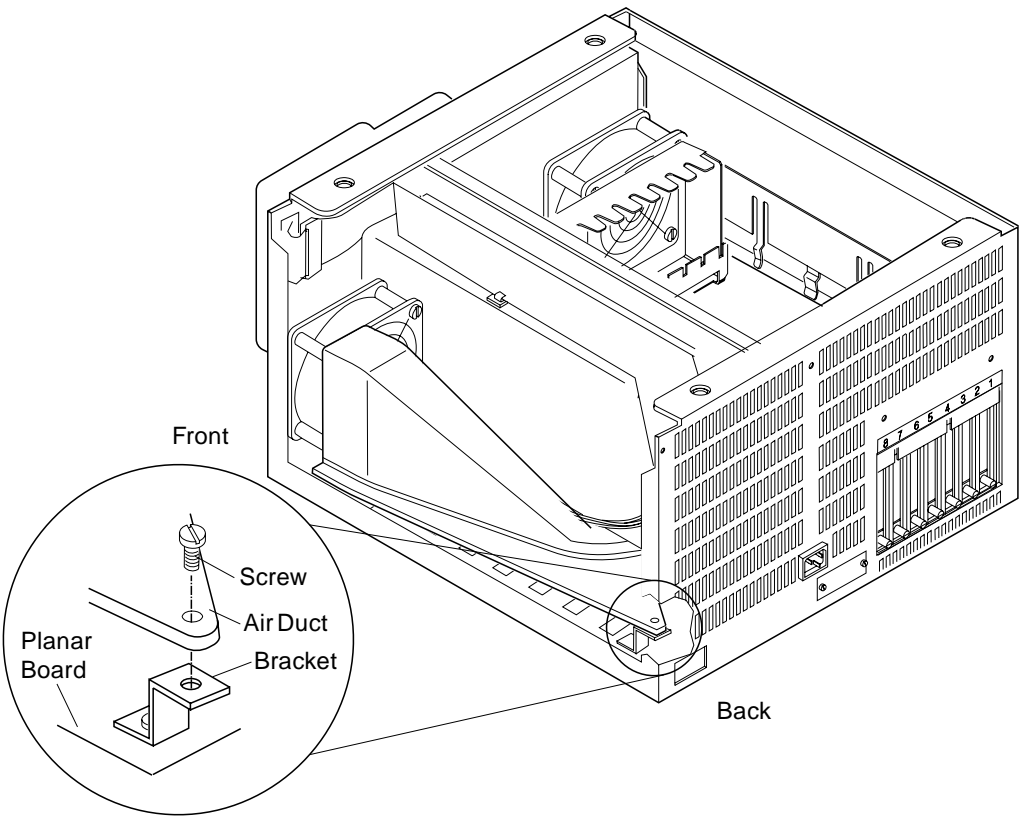
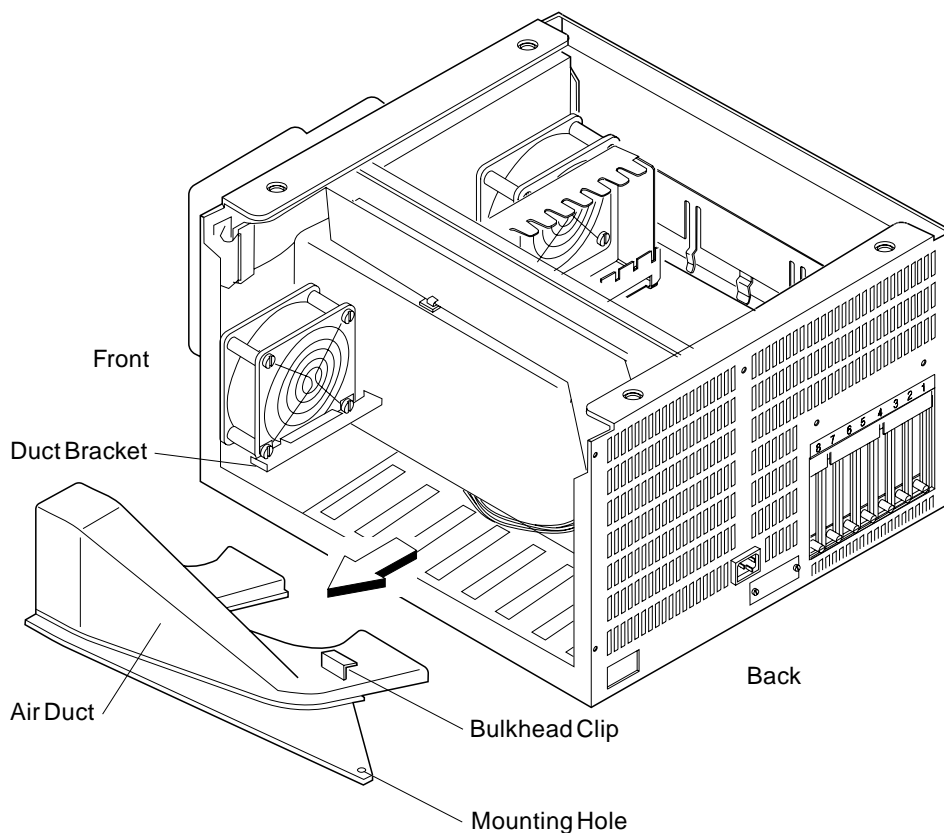


Figure 6. Air duct (fixation details)

- 2. Slide the air duct approximately half an inch towards the back of the base unit to clear the duct bracket mounted on the fan.
- 3. Lift the air duct out of the machine ; as you do, make sure that you clear the duct bracket.

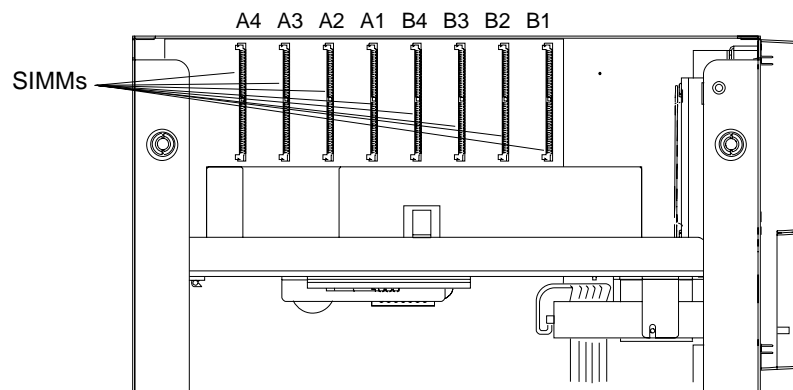
Note: The Z-bracket remains attached to the planar board.



10.4 SIMM installation.

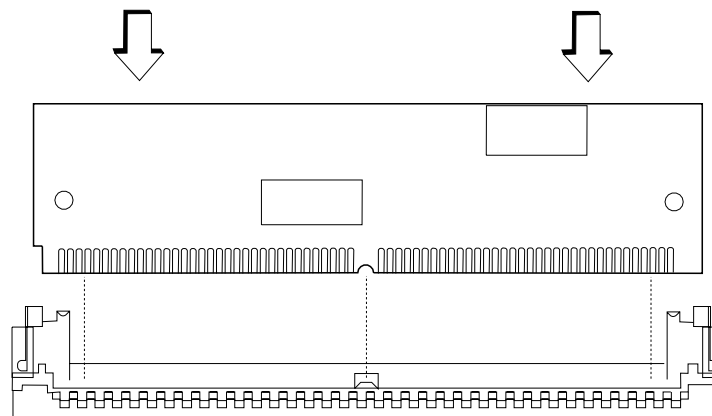
Caution

You should use the field electrostatic discharge (ESD) kit when you are handling a SIMM. Guidelines for using the ESD tools are printed inside the kit lid.

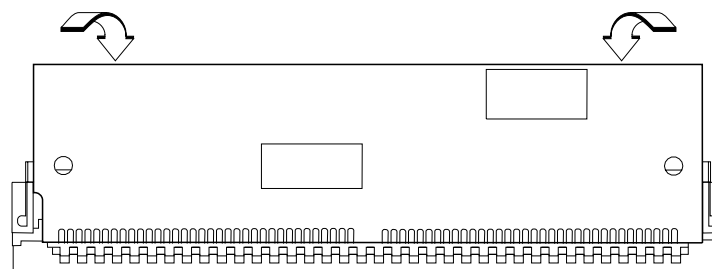


Install the two SIMMs modules in the first spare position in bank A and bank B:

- 1. Align the notch on the side of the SIMM with the side of the socket.
- 2. Using both hands, gently press the SIMM into the socket until it slips into place.



- 3. Gently press the SIMM back with your thumbs until the silver clips snap around the SIMM, holding it firmly in place.



10.5 Reinstalling the air duct.

- 1. Make sure the DC power cable is pulled back to position shown and held in place.
- 2. While holding the dc power cable in place, insert the air duct so that the bulkhead clip rests on the ledge of the bulkhead, which is located under the power supply.

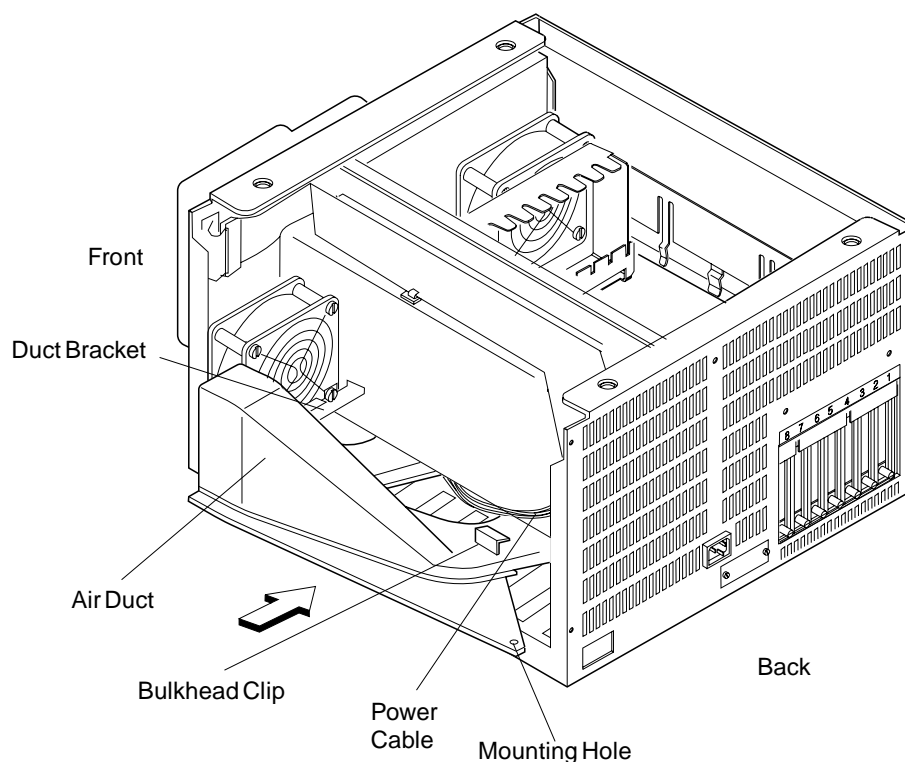


Figure 7. Reinstalling the Air Duct.

Note: The AC receptacle cable, resting on the ledge of the bulkhead, must be lifted slightly to allow the bulkhead clip to rest on the ledge.

- 3. Slide the air duct towards the back of the base unit approximately half an inch. In this position, the air duct can be inserted into the front duct bracket mounted on the fan.
- 4. Slide the air duct towards the fan, make sure that the bulkhead clip remains on the bulkhead ledge, and align the mounting hole of the air duct with the Z-bracket.
- 5. Install the retainer screw to hold the air duct in place against the Z-bracket.(see Figure 6 on page 8)

10.6 Reinstalling the Covers.

- ___ 1. Hold the sidepiece so that the clips are on the bottom.
- ___ 2. Slide the sidepiece down, so that the lips on the side of the NNP are between the side piece and the clamps on the cover.
- ___ 3. Make sure that the clips on the bottom of the sidepiece are attached firmly to the lip on the bottom of the NNP.
- ___ 4. Tighten the four retainer screws with a screwdriver to clamp the side firmly.

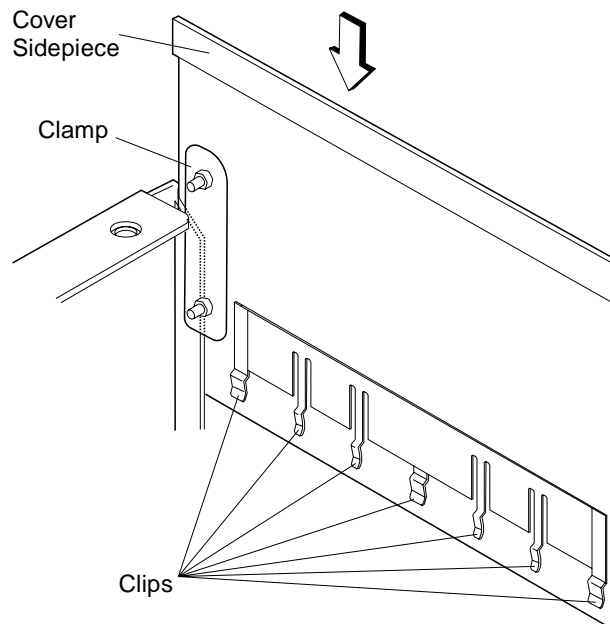


Figure 8. Reinstalling the Right Side Piece

- ___ 5. Position the top so that the plastic baffle covers the left side as you face the front of the NNP.
- ___ 6. Slide the top cover down so that its edges overlap the top edges of the sidepieces.
- ___ 7. Push down and turn clockwise the four quarter-turn fasteners on the top of the processor.

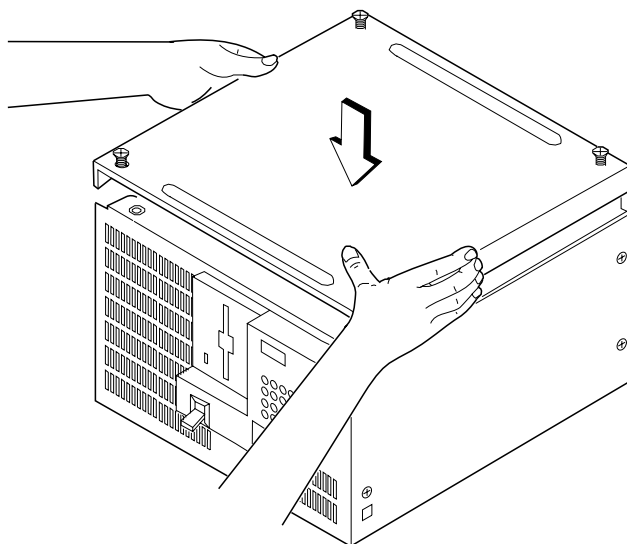


Figure 9. Reinstalling the Top Cover.

10.7 Reinstalling the Network Node Processor.

- ___ 1. Reinstall the Network Node Processor at its original place.

On the rear side of the Processor::

- ___ 2. Reconnect the Keyboard cable **A** and **B**,
- ___ 3. the Power cord **C** ,
- ___ 4. the LAN cable **D**

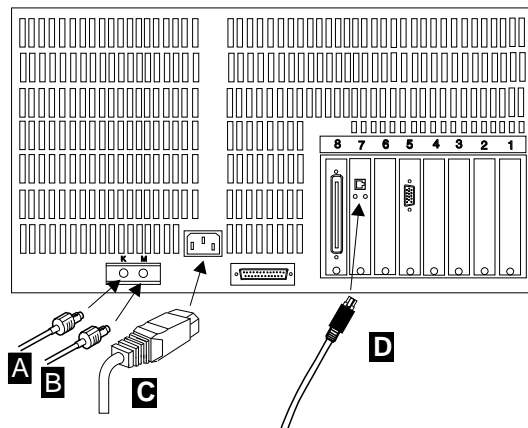


Figure 10. Cable locations.

10.8 Updating System Programs.

On the processor panel:

- ___ 1. Insert the **Reference Diskette A**.
- ___ 2. Switch the power **ON (I)** (See Figure 3 on page 5).
- ___ 3. Watch carefully the panel display.

The following list provides the sequence of codes when the Processor reconfigures:

Code Description

0000 POST

nnnn Temporary errors, where nnnn represents various codes.

The yellow LED can be dimming or steady. When steady, press **ENTER** after each error code.

Wait around 5 minutes.

0000 Loading the program

1000 Complete

- ___ 4. Switch the power **OFF (O)**.
- ___ 5. Wait 20 seconds, then switch the power **ON (I)**.

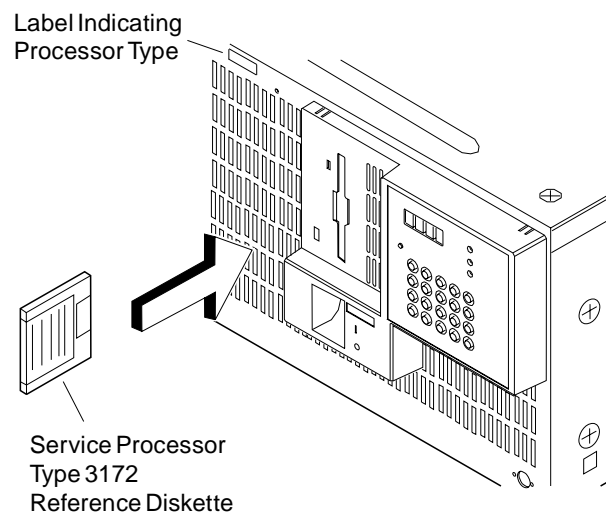


Figure 11. Inserting the Reference Diskette.

11.0 Test Procedures

No test required.

After Installation (steps 12-15)

12.0 Field Updating

None.

13.0 Publications Update

None.

14.0 Parts Disposition

14.1 Purchased Machines

- For EMEA/APG/AG Areas, refer to *Hardware and General Service Code Description*.
- For Domestic Areas, return parts to the customer.

15.0 Machine Records

- Install the new **MACHINE HISTORY** supplied.
- Report installation and quality problems using existing procedures.

End of instructions.