

Field Feature Bill of Material

PN 08J5340 - Storage Expansion (FC 5028) in Service Processor (SP) type 9585 in IBM 3745 Model XXA or 3746 Model 950 with FC 5021 and SC 9282

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374X FFBM	PN 08J5340 1 of 16	EC E46485A 19NOV96	EC E46485B 27NOV96	EC E46485C LAGPA1		
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374X FFBM	PN 08J5340 2 of 16	EC E46485A 19NOV96	EC E46485B 27NOV96	EC E46485C LAGPA1		
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Before Installation (Steps 1-8)

1.0 Machines Affected

- 3745 Model XXA or
 - 3746 Model 9X0
- with **FC 5021** and **SC 9282**.

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

2.0 Related BMs and ECs

2.1 Prerequisites

(Must be installed prior to this installation)

- 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

(Must be installed together)

None.

2.3 Companion ECs

(May be installed together)

None.

3.0 BMs to be Installed

P/N	Title
08J5340	Memory Expansion in Service Processor type 9585.

374X FFBM	PN 08J5340 3 of 16	EC E46485A 19NOV96	EC E46485B 27NOV96	EC E46485C LAGPA1		
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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.

5.0 Programming

None.

6.0 Purpose and Description

6.1 Purpose

To support large network configuration on 3746-9X0, increase the memory from 32Mb to 96Mb

6.2 Description

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

1. Installing four 16Mb "**SIMM**" modules on system board of the Service Processor type 9585.
2. Updating the configuration of the system.

7.0 Installation Time

FFBM	Machine Hrs.	System Hrs.	Nbr of CEs
08J5340	0.0	0.0	1

8.0 Tools/Material Required

E.S.D. Kit p/n 6428316

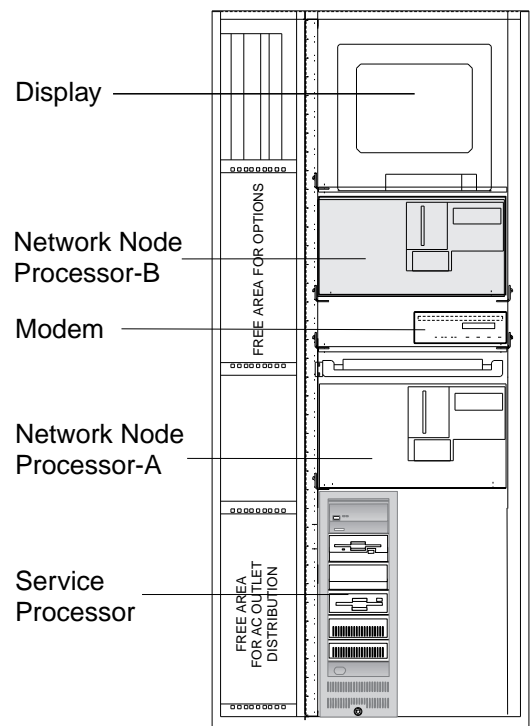


Figure 1. Service processor used type PS/2 9585.

374X FFBM	PN 08J5340 4 of 16	EC E46485A 19NOV96	EC E46485B 27NOV96	EC E46485C LAGPA1		
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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. Locate the Service Processor base unit, it can be installed inside the Controller Expansion or outside.

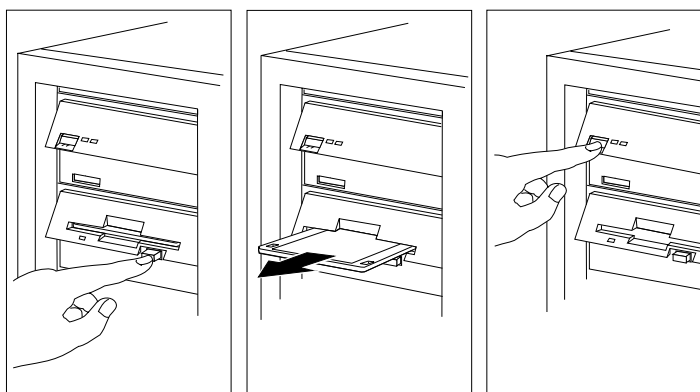
Is the Service Processor installed in a Controller Expansion?

- **NO**, go to 3
- **YES**, continue with next step.

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

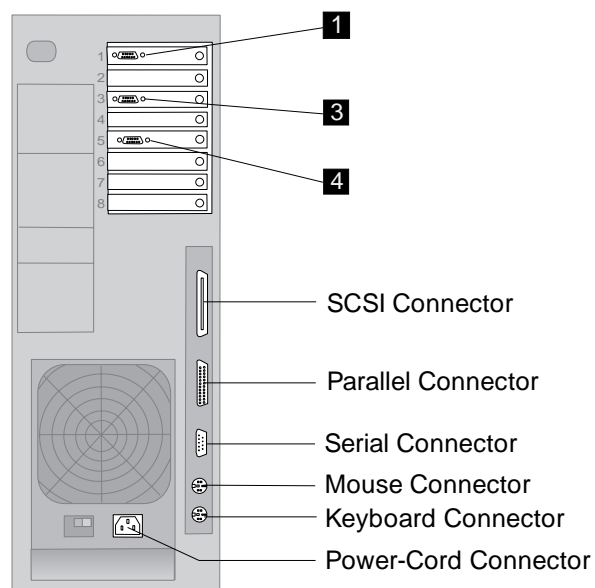
On the front side of the Service Processor:

3. Remove any media (diskettes or tapes) from the drives.
4. Shutdown the Service Processor. Then,
5. Turn off the SP and all attached options.



On the rear side of the Service Processor:

- ___ 6. Disconnect the Keyboard and mouse cables,
- ___ 7. the Power cord,
- ___ 8. the LAN cable **1**,
- ___ 9. the Display cable **4** and
- ___ 10. the Modem cable **3**.

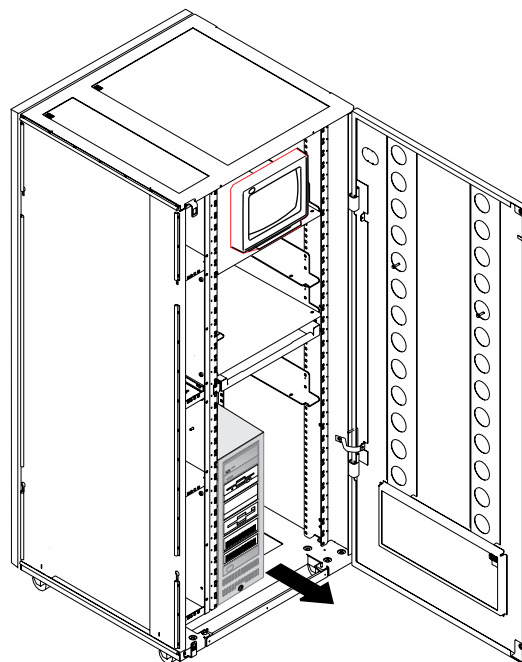


Is the Service Processor installed in a Controller Expansion?

- **NO**, go to 10.2, "Removing the covers (Front and side)" on page 7
- **YES**, continue with next step.

On the front side of the 3746-9x0:

- ___ 11. Slide the base unit from the rack.
- ___ 12. Take this unit and put it down on a table.

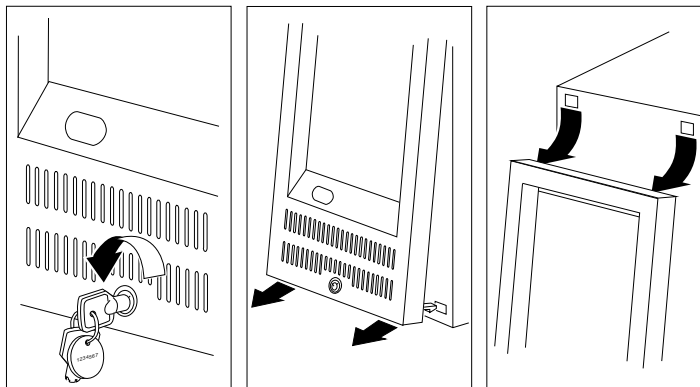


374X FFBM	PN 08J5340 6 of 16	EC E46485A 19NOV96	EC E46485B 27NOV96	EC E46485C LAGPA1		
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10.2 Removing the covers (Front and side)

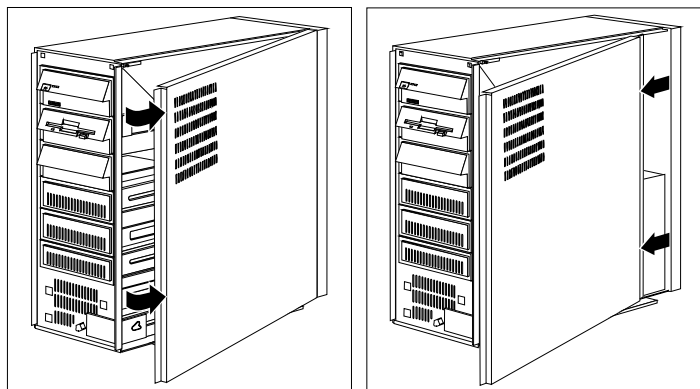
Remove the front cover:

- ___ 1. Unlock the cover.
- ___ 2. Grasp the front cover at the bottom and firmly pull it away from the server.
- ___ 3. Unhook the top corners of the cover from the SP.



Remove the side cover:

- ___ 4. Pivot the side cover away from the front of the SP.
- ___ 5. Pull the cover forward.
- ___ 6. Place the cover in a safe place so that the fan is protected from possible damage.



10.3 Installing Memory-Module Kits

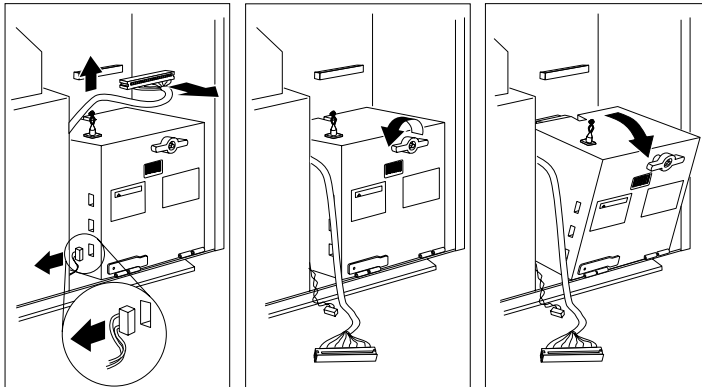
- ___ 1. Unplug the SCSI cable from the system board. Release the SCSI cable from the clip on the top of the power supply by turning the top of the clip.

CAUTION:

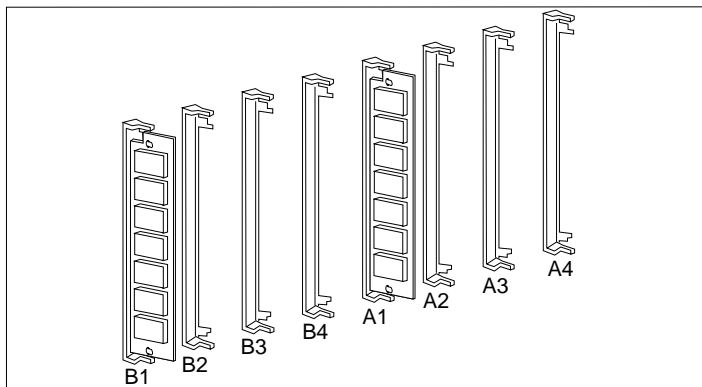
When you tilt out the power supply, do not let it drop. Personal injury or damage to the system might result.

Tilt out the power supply:

- ___ 2. Disconnect the twisted power cables from the power supply.
- ___ 3. Unscrew the spring-loaded power supply retaining knob until it releases.
- ___ 4. Place one hand on top of the SP for support.
- ___ 5. Tilt out the power supply with the other hand. (Be sure the power cord is removed from the back of the SP before you try to tilt out the power supply.)



- ___ 6. Locate the memory-module kit connectors. 2 X 16Mb memory-module kits are already installed in connectors: A1 and B1.



Install the 4 x 16Mb SIMMs provided with the MES:

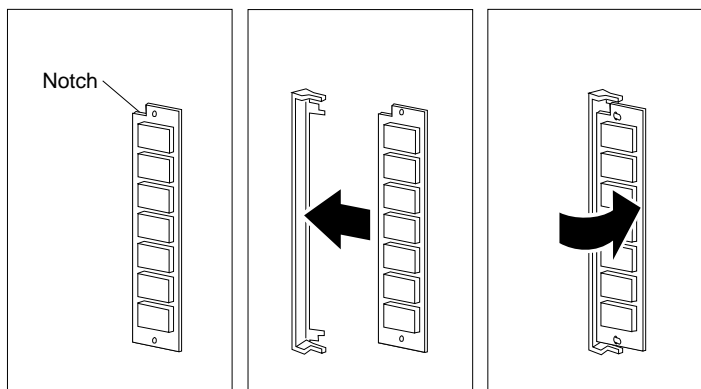
- ___ 7. Touch the static-protective package to any unpainted metal surface on the SP. Then, remove the memory-module kit from the package.



Important

Memory-module kits **must** be installed in pairs (A2 and B2, A3 and B3).

- ___ 8. Turn the memory-module kit so that the notched end faces the top of the SP.
- ___ 9. Insert the kit into the connector.
- ___ 10. Pivot the kit to the right until it snaps into place.



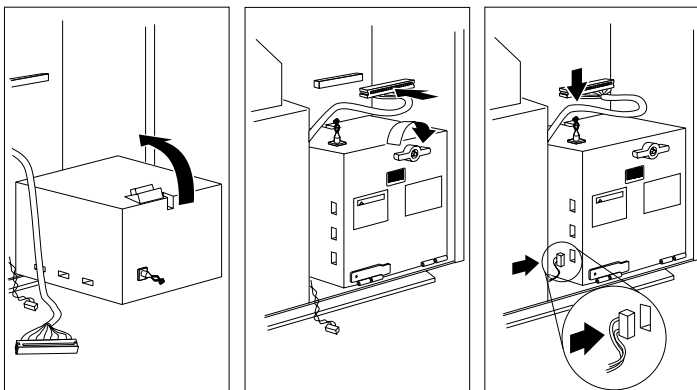
- ___ 11. Repeat these steps for each kit you install.

Reinstall the power supply:

- ___ 12. Carefully move the cables out of the way.
- ___ 13. Tilt the power supply into the server.
- ___ 14. Press in the retaining knob and turn it to the right until it is tight.
- ___ 15. Connect all twisted power cables to the power supply.

Note: These cables do not have to be connected in a specific order or to a particular connector. All of the cables are identical, and all of the connectors are identical.

- ___ 16. Plug the SCSI cable connector into the connector on the system board.
- ___ 17. Route the SCSI cable through the clip on the top of the power supply and fasten the clip.

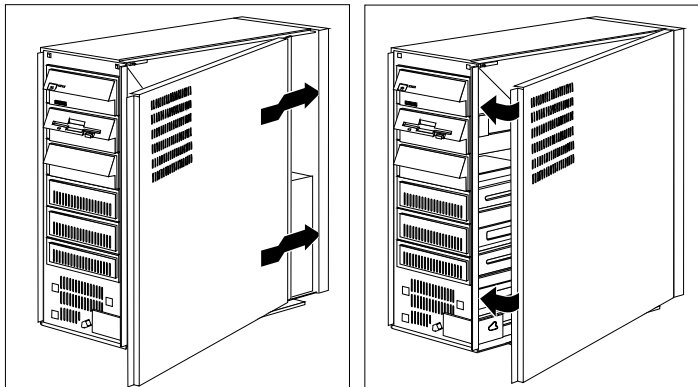


10.4 Reinstalling the Covers (Side and front)

Note: Be careful not to damage the hardware around the fan on the side cover when installing the covers.

Replace the side cover:

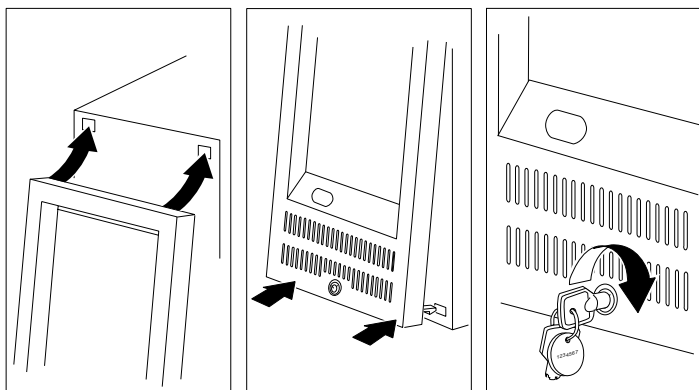
- ___ 1. Align the rear of the side cover with the groove on the rear of the frame.
- ___ 2. Align the groove at the top of the side cover with the top of the frame.
- ___ 3. Push the side cover to close it.



Replace the front cover:

- ___ 4. Slide the top posts into the holes at the top of the server.
- ___ 5. Firmly press the bottom of the front cover, one corner at a time until it snaps into place.
- ___ 6. Lock the front cover.

Note: If you ever move your system, be sure not to jar or pull on the front cover. Security features on the cover will respond as if someone is trying to break into your server, giving you an error message.



10.5 Reinstalling the Processor.

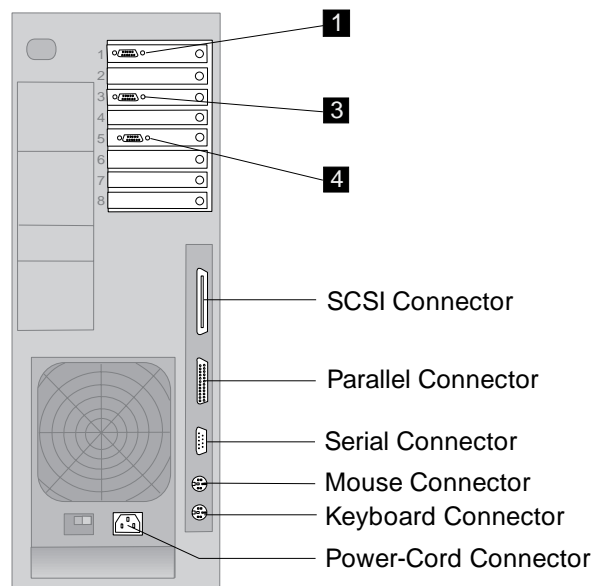
- ___ 1. Reinstall the Service Processor at its original place.

Important

Blocking the air vents can cause overheating, which will result in a malfunction or permanent damage. Therefore, be sure to maintain a clearance of at least 51 mm (2 in.) on all sides of the server to allow for air circulation.

On the rear side of the Processor:

- ___ 2. Reconnect the keyboard and the mouse cables,
- ___ 3. The display cable **4**,
- ___ 4. the Modem cable **3**,
- ___ 5. the LAN cable **1**, and
- ___ 6. The Power cord.

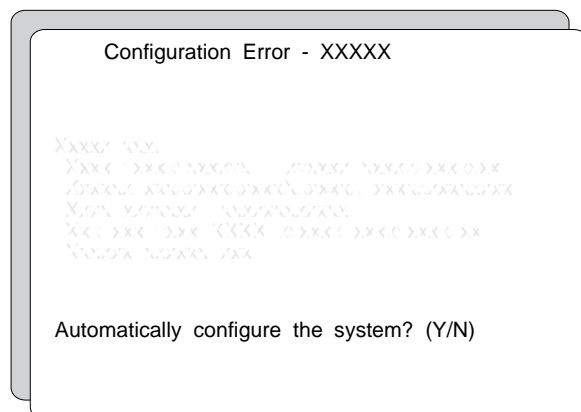


10.6 Updating System Programs

1. Remove all media from the drives; then, turn **ON** the Service Processor and all external devices.

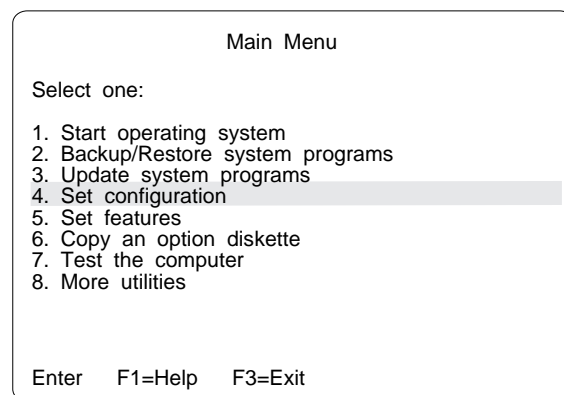
After a few moments, a configuration message appears on the screen. This is normal because you changed your system configuration. (If you do not get the message, check for loose connections on the options you just installed.)

2. Press **ENTER** (for Yes)
3. Press **Y** (for Yes)



10.6.1 Changing the Hardware Configuration

1. From the **Main Menu** window select the **Set Configuration** option, then
2. the select **Change Configuration** option.
3. Compare the values displayed on the window to the values listed below, and change the system values when needed:



View Configuration	
Total System Memory	
Installed Memory.....	98304KB (96.0MB)
Usable Memory.....	97920KB (96.0MB)
Built in Features	
Installed Memory.....	98304KB (96.0MB)
Diskette Drive 0 Type.....	2.88MB 3.5"
Diskette Drive 1 Type.....	Not Installed
Diskette Drive 2 Type.....	Not Installed
Math Coprocessor.....	Installed
Num Lock.....	Off
Display F1 prompt to access System Pro	Yes
Serial Port.....	SERIAL 1, IRQ 4
Parallel Port.....	PARALLEL 1
Parallel Port DMA Arbitration Level...	Shared Level 7
SCSI Address (ID).....	7
SCSI I/O Address Select.....	3540h-3547h
SCSI DMA Arbitration Level.....	Level C
Move Mode Support.....	Enabled
Wait State Support.....	Enabled
Selected Feedback Return Exception....	Ignored
100ns Streaming Data transfer Support.	Enabled
Target Mode.....	Enabled
SCSI Disconnect.....	Enabled
Fast SCSI-External.....	Disabled
Wide SCSI Messages - External.....	Enabled
Wide SCSI Messages - Internal.....	Enabled
Processor.....	66 Mhz 80486DX2
Bypass System Programs on Error.....	Disabled
Memory-Checking Method.....	ECC
Slot 1 - IBM Token-Ring Network 16/4 Adapter/A	
Primary or Alternate adapter.....	Primary
Adapter Data Rate.....	16 Mbps
ROM Address Range.....	D4000/D5FFF
RAM Size and Address Range.....	16 KB /D8000-DBFFF
Interrupt Level.....	Interrupt 2
Slot 2 - Empty	
Slot 3 - IBM V.32 Modem/A (Note 1)	
Communication Port.....	SDLC 1, Arb 1
Slot 3 - IBM Multi-Protocol Communication Adapter (Note 1)	
Communication Port.....	SDLC 1, Arb 1
Slot 4 - Empty	
Slot 5 - XGA Display Adapter/A.	
Video I/O Address.....	Instance 6: 2160h - 216Fh
1MB VRAM Aperture Base Address.....	Disabled
Video Arbitration Level.....	Arbitration level 13
Video Fairness.....	Fairness On
ROM Address Range.....	C0000h - C1FFFh
Slot 6 - Empty	
Slot 7 - Empty	
Slot 8 - Empty	

Notes:

- 1) These cards are mutually exclusive.

10.6.2 Backing up the configuration information:

- 1. Press **F1** when the prompt is displayed.

After a few moments, the Main Menu for the system programs appears on the screen.

- 2. From the Main Menu, select **Set configuration**.

- 3. From the Set Configuration menu, select **Backup configuration**.

- 4. When the backup is complete (after approximately three seconds), press **Enter**. Then, press **F3** to return to the Main Menu.

The updated configuration information was copied from memory to your System Partition.

Main Menu

Select one:

1. Start operating system
2. Backup/Restore system programs
3. Update system programs
4. Set configuration
5. Set features
6. Copy an option diskette
7. Test the computer
8. More utilities

Enter F1=Help F3=Exit

11.0 Test Procedures

No test required.

374X FFBM	PN 08J5340 15 of 16	EC E46485A 19NOV96	EC E46485B 27NOV96	EC E46485C LAGPA1		
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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.