# turbo PrintServer 20 and PrintServer 32 Printers Memory Installation Instructions

**Note:  If you are using PrintServer Software, Version 5.0, or earlier, do not install the memory board in the printer. The extra memory works only with PrintServer Software, Versions 5.1 or later.**

**If you have a PrintServer 32 plus printer and plan on using PrintServer Software, Version 5.0, or earlier, remove the memory option board from the printer.**

The instructions on the following pages explain the following procedures:

- Installing the memory option board on turbo PrintServer 20 and PrintServer 32 printers to increase the printer memory to 16 MB.  The extra memory enables you to take advantage of all the features available in PrintServer Software, Version 5.1, including PostScript Level 2 and PCL. The memory option board in this package includes 4 MB of memory.

- Installing extra SIMMs to the memory option board. You can add 4-MB and 8-MB SIMMs to the memory option board for a maximum of 32 MB of memory.

- Verifying that you installed the SIMMs or memory option board correctly.

- Troubleshooting any errors that may occur after installation.

Keep this document with the rest of your hardware documents for reference.

## Memory Option Board Kit Contents

The memory option board kit contains the following components:

- Memory option board with a 4-MB memory SIMM in one of the sockets

- Documentation

- Version 3.7 Controller Firmware upgrade kit

- A product label to add to the operator panel of the PrintServer 32 printer.

## Tools Needed to Install SIMMs or the Memory Option Board

To install the memory option board or the SIMMs, you need the following tools:
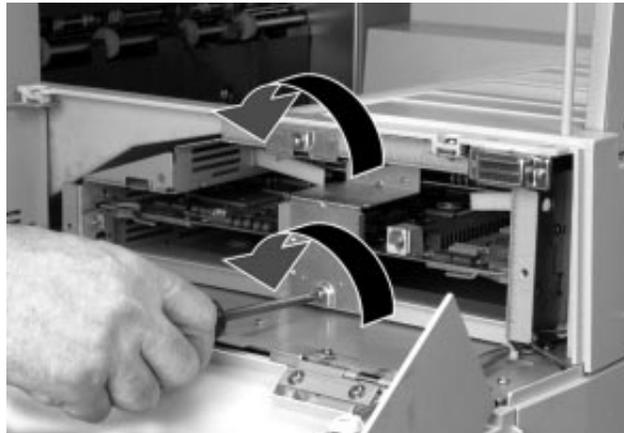
- Phillips head screwdriver

- Antistatic wrist strap

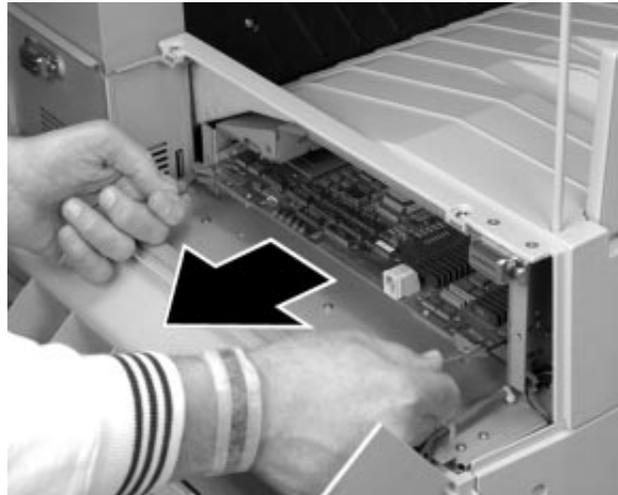## Installing the SIMMs or Memory Option Board

1. Power down the printer.

2. Disconnect the power cord from the wall outlet and then from the printer.

3. Open the operator panel cover.

4. Attach the antistatic wrist strap and ground yourself to a metal object.

5. Loosen the two captive screws from the card cage cover and remove the cover.

6. Loosen the two captive screws securing the grounding bracket and remove the bracket.



7. Remove the controller board to help you access the components inside the front panel. If you are installing SIMMs, remove the memory option board as well. The memory option board is located under the controller board
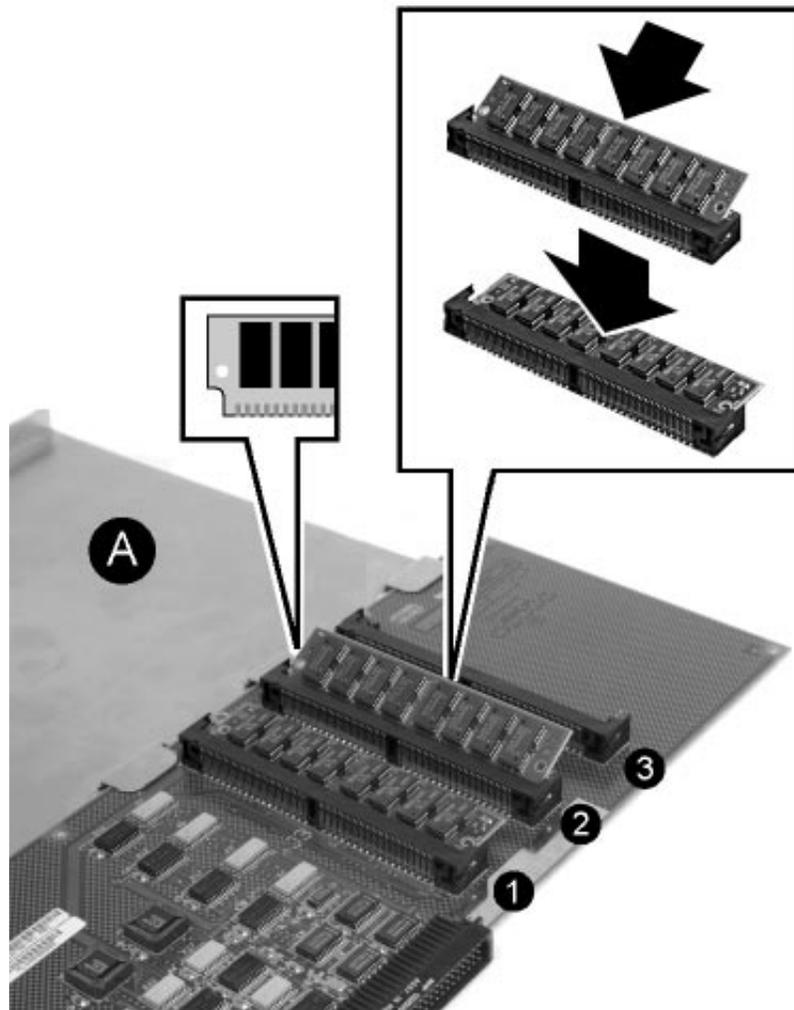


8. If you are installing the memory option board, and have not installed Version 3.7 controller firmware, do so now. The firmware upgrade kit is included with the memory option board. Follow the installation instructions in the firmware upgrade kit. Then continue with the rest of the memory option board steps.

If you are installing the memory option board and not adding SIMMs, skip steps 9 and 10.

9.  If you are installing SIMMs, insert the SIMMs into the next available slot that is appropriate for the type of SIMM you have. See the following table:

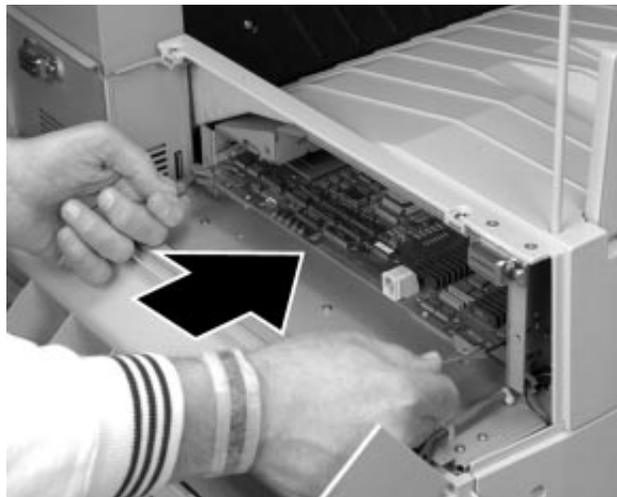| This slot... | Is for this type of SIMM... |
|---|---|
| ❶ | 4-MB or 8-MB SIMM |
| ❷ | 4-MB or 8-MB SIMM |
| ❸ | 4-MB SIMM<br>(Do not use this slot for an 8-MB SIMM.) |

10. Make sure the notched corner of the SIMM is nearest to the extension board (A). Gently press down the SIMM until it locks into place.

11. Hold the edges of the metal extension board and slide the memory option board into the bottom pair of slots, under the slots for the controller board.
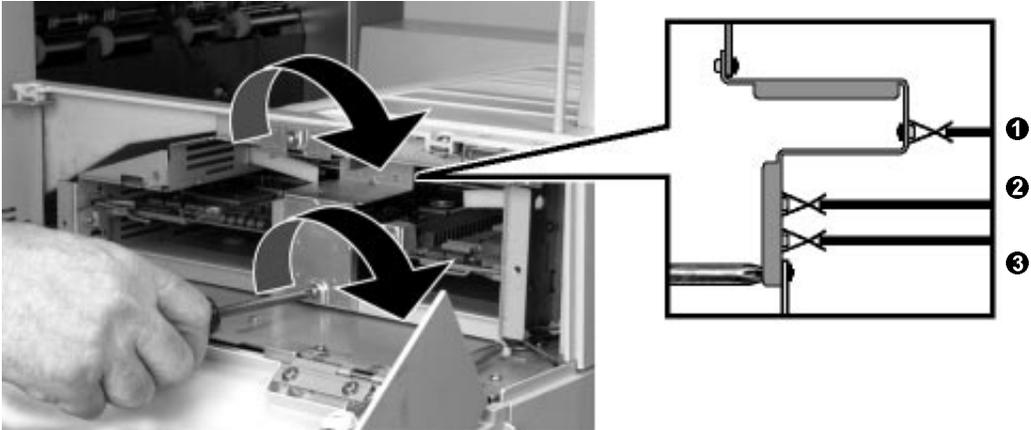


12. Replace the controller board.
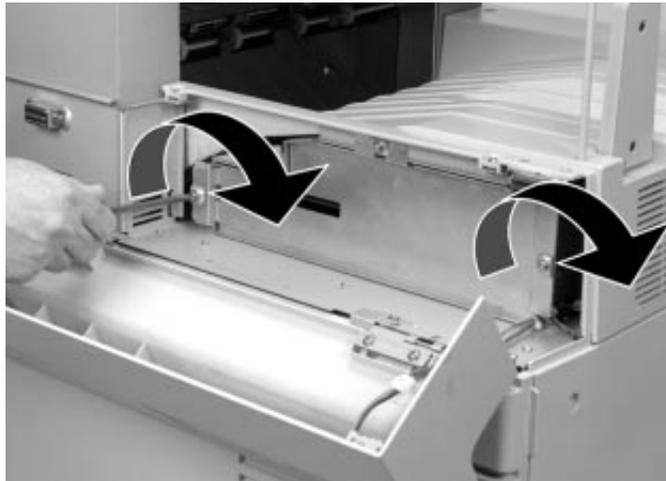
13. Replace the grounding bracket, making sure the clips grasp the edges of the boards inside the operator panel:

➊ Engine board

➋ Controller board

➌ Memory option board

14. Tighten the captive screws on the grounding bracket.

15. Replace the card cage cover and tighten the captive screws.



16. Close the cover to the operator panel.



17. Reconnect the power cord.

# Adding Labels to the Printer

1.  Add label 36-45376-01 to the back of the printer, near the power cord. Enter the appropriate information to the label. See the label instructions for further information.

2.  If you have a PrintServer 32 printer, replace the existing logo on the operator panel of the printer with the logo included in your kit.  The new product name of the printer is:

> PrintServer 32 plus

# Verifying the Installation

Power on the printer.  The power-up diagnostics run and the operator panel displays the following:

```
xx-xx-xx-xx-xx-xx
3.7  xx    xx nn MB
```

where:

| | |
|---|---|
| xx-xx-xx-xx-xx-xx | is the Ethernet hardware address of the printer. |
| 3.7 | is the version of firmware on the controller board. |
| nn MB | is the amount of memory recognized by the printer. |

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# Troubleshooting

If the printer does not power up correctly or an error message appears on the operator panel, use the following troubleshooting procedures to determine the problem and fix it.

| This Symptom/Error Code... | Indicates This Problem... | Do the Following... |
| --- | --- | --- |
| The operator panel displays the following, and then hangs:<br>9, 8, | The boards are not seated correctly. | Reseat or reinstall the controller board and memory option board. |
| A series of question marks appear on the operator panel:<br>????????... | The engine drive board is not seated correctly. | Reseat or reinstall the engine drive board. |
| The operator panel is blank. | The controller board is not seated correctly. | Reseat or reinstall the controller board. |
| The following message appears on the operator panel:<br>0001.0000 | The firmware version is incorrect or the controller board is inoperable. | See the section titled "Error 0001.0000". |
| The following message appears on the operator panel:<br>0002.0000 | The SIMM on the memory board is not working correctly. | See the section titled "Error 0002.0000". |
| The operator panel does not show the correct amount of memory. | The printer does not recognize all the memory. | See the section titled "Incorrect Memory". |

## Error 0001.0000

If the operator panel displays error 0001.0000, you may have a problem with the controller board or firmware. Use the following procedure to diagnose and fix the problem.

1. Power down the printer.
2. Remove the memory option board.
3. Power up the printer.

| If... | Then... |
|---|---|
| The operator panel still displays the error 0001.0000. | Call Digital Services to replace the malfunctioning controller board. |
| The printer powers up successfully. | Check the version of firmware in the printer. If the printer has version 3.6 firmware, the printer cannot use the optional memory. Upgrade to version 3.7 firmware (part number 4A–LPS2X–FW). |
| The firmware is version 3.7 and the printer powers up successfully. | Remove the SIMMs from the memory option board. Install the board without the SIMMs. <br>• If you still receive error 0001.0000, the memory option board is malfunctioning. <br><br>• If the printer powers up successfully, reinstall the SIMMs one at a time to find which SIMM is not functioning. |

## Error 0002.0000

If the operator panel displays error 0002.0000, you may have a problem with the SIMMs. Use the following procedure to diagnose and fix the problem.

1. Power down the printer.
2. Remove the memory option board.
3. Power up the printer.

| If... | Then... |
|---|---|
| The operator panel still displays the error 0002.0000. | Call Digital Services to replace a malfunctioning controller board. |
| The printer powers up successfully. | Remove the SIMMs from the memory option board. Install the board without the SIMMS.<br>• If you still receive error 0002.0000, the memory option board is malfunctioning.<br><br>• If the printer powers up successfully, reinstall the SIMMs one at a time to find which SIMM is not functioning. |

## Incorrect Memory

If the "nn MB" display on the operator panel does not show the correct amount of memory in the printer, use the following procedure to determine the problem.

1.  If the operator panel displays "12 MB," regardless of the amount of memory in the printer, reseat or reinstall the memory option board. If the amount of memory remains "12 MB," the memory option board is malfunctioning. Contact Digital Services to order a new memory option board without SIMMs.

2.  If the operator panel does not display the correct amount of memory, make sure that any 8 MB SIMMs are installed in slots 1 and 2.  Slot 3 does not support 8 MB SIMMs.  If the amount of memory remains incorrect, reinstall the SIMMs one at a time to find which SIMM is not recognized by the printer.

## Bypassing the Memory Test During Powerup

To save time during power up, you can bypass the memory option test, using the following procedure:

1.  When the operator panel displays "9, 8, 7," press the key marked "2" on the operator panel.  The operator panel displays an asterisk in the upper left corner. This bypasses the memory tests.

2.  Before the operator panel displays "2, 1, 0," press the key marked "4" on the operator panel. The asterisk disappears, and the printer finishes the power-up diagnostics and begins booting.

# Ordering Information

The following part options are available through DECdirect or your Digital Services representative.

| Option | Part Number |
|---|---|
| Memory and firmware kit:<br>• Memory option board with 4 MB SIMM<br>• Version 3.7 firmware | LPS3X–UA |
| 4-MB SIMM for turbo PrintServer 20 or PrintServer 32 printers. | LPS1X–UE |
| 8-MB SIMM for turbo PrintServer 20 or PrintServer 32 printers. | LPS1X–UF |
| Version 3.7 firmware kit | 4A–LPS2X–FW.B01 |
| Memory option board without SIMM | 54–23796–01 (Contact Digital Services.) |