



EK-DE20M-IC. A01

## DE20M-AR Option ROM Installation

The DE20M-AR Option ROM provides remote boot capability in a PATHWORKS environment, version 4.1 or later. You install the chip on a DEC EtherWORKS 3 Turbo board.

This guide describes how to install the DE20M ROM chip, configure the DEC EtherWORKS 3 Turbo board (referred to as the board), and prepare the server to process the client remote boot requests. You can install the chip and configure the board, but have your PATHWORKS system manager prepare the client and server.

### CAUTION

**When installing the DE20M ROM chip, be sure to follow the electrostatic discharge (ESD) precautions described in *DEC EtherWORKS 3 Turbo User Information*.**

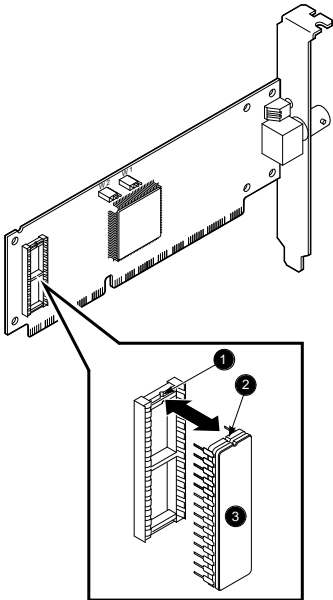
### Install the ROM Chip

If you are installing the ROM chip on a new board, you must first set up the board using the procedure described in the *DEC EtherWORKS 3 Turbo User Information* manual. If you have a diskless PC system, install the board on a PC connected to a PATHWORKS server to perform the board and remote boot setup. Then remove the board from that PC and install the ROM chip.

To install the DE20M ROM chip:

1. Align the ROM socket notch **1** with the ROM chip **2** (see the figure).
  2. Align the pins on the ROM chip **3** with the holes in the socket and insert the pins in their correct holes, taking care not to bend any pins during the process. Push the ROM chip firmly into the socket to make a solid contact.
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After you install the ROM chip, insert the board into the system and turn on the power.



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### Configure the Board

Use a system with disk drives and DOS already installed to configure the board as follows:

1. Insert the DEC EtherWORKS 3 Turbo diskette into the PC disk drive and set the default directory to the drive being used.
2. Type `NICSETUP` at the DOS system prompt, then press `Enter`. The screen displays information for all boards installed. Press `Enter` again to display the Main Menu.
3. Select the Setup option, then press `Enter`. The screen displays the current board configuration.

4. To enable Remote Boot, select the Custom Configuration option, then press `Enter` twice to display the User Selected Configuration screen.
5. Select the Remote Boot Enable option, then press `Enter`. Select the Save Configuration Data option and press `Enter`. Press `Enter` to write the data; press `Enter` to Continue.
6. To change the board setup, select the Setup option, then press `Enter` twice to display the User Selected Value screen.
7. Change the Memory Mode to 32K, then press `Enter`. This change sets the memory base to the default (D0000h). Press `Enter` again to accept the default. (See the *DEC EtherWORKS 3 Turbo User Information* manual to modify the memory base address.)
8. Select the Save Setup Data option, then press `Enter`. Press `Enter` again to write the data.
9. Press `ESC` twice to exit NICSETUP and return to the DOS prompt. The board is now set up with remote boot enabled.
10. Turn the system power off and then on again. **The changes you make in NICSETUP take effect only after a cold boot.**

## Prepare the Client and Server

Once the board is configured and before the first client is configured, have your PATHWORKS system manager install the DEC EtherWORKS 3 remote boot task image files on the server as follows:

1. Insert the DEC EtherWORKS 3 Remote Boot diskette into the disk drive of a PC connected to PATHWORKS.
2. Copy the PATHWORKS task image files from the EtherWORKS 3 Turbo Remote Boot diskette to the Personal Computing Systems Architecture (PCSA), version 4.1 or later, default file area on the server using the Network Files Transfer (NFT) program.

```
NFT> COPY/BLOCK
FILE(S)? : A:\EWRK3_?.TSK
TO?: hostname"SYSTEM password"::SYS$COMMON:
  [PCSA.LOAD_FILE.V41]
```

The /BLOCK switch is required to preserve the file format during the copy process.

3. Run NETSETUP to prepare the server for client boot requests. Set NETSETUP to Advanced mode and select the Configure a Remote Client option. Then configure the client as usual. Repeat this process for each remote boot client.
4. Log into the server and set the Network Control Program (NCP) database entry for each new client name to point to the DEC EtherWORKS 3 task image file. The following example shows a client configured to use the hardware clock for the scheduler. Replace EWRK3\_H.TSK with EWRK3\_S.TSK for the software clock.

```
NCP> DEFINE NODE client_name -  
_NCP> LOAD FILE SYS$COMMON:  
[PCSA.LOAD_FILE.V41]EWRK3_H.TSK  
NCP> SET NODE client_name ALL
```

The installation is complete when the database has been updated for the new nodes. For more information, refer to the *PATHWORKS for DOS Client Installation and Configuration Guide for the VMS Server* manual.

## Troubleshooting

If you do not get a response from the server while attempting to remote boot, verify that the client is connected to the network correctly and that the network interface on the server has been enabled to service the load requests. (The response to MCR NCP SHO KNOWN CIRCUIT CHAR should show the appropriate circuit with service enabled.)

If the client is reaching the server but is still not receiving service, verify that the appropriate task image files are listed in the directory as SYS\$COMMON:[PCSA.LOAD\_FILE.V41]EWRK3\_H.TSK (and EWRK3\_S.TSK).

Type DIR/FULL to verify that the task image files are sequential with a fixed record size of 512 bytes in length. If they are not, recopy the files using the /BLOCK switch for the NFT copy.

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