

Network Computing Devices

XRemote PROM Set Installation Instructions

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Revision History

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9300135	March, 1991	First release of this manual.

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Introduction

This document tells you how to install an XRemote PROM set in an NCD network display station.

PROM Version Numbers

Versions of NCD software are labeled according to the following rules:

maj.min.fix (for example, 2.2.2)

or

maj.min (for example, 2.2)

where:

maj is the major version number. This field changes for major functional enhancements.

min is the minor version number. This field changes for minor functional enhancements and routine bug fixes.

fix is the bug fix version number and is used to distinguish one bug fix version from another. If the fix version is alphabetic, it indicates a distribution by engineering rather than manufacturing. If you have such a version and do not understand why, please call NCD Technical Support.

The first form (*maj.min.fix*) refers to a specific product version. The second form (*maj.min*) is a generic reference to all bug fix versions that have the same major and minor version numbers.

Server Version vs. Boot Monitor Version

The boot monitor is located in two of the PROMs of the XRemote PROM set and may have a different version number than the server. In that case, you will see different version numbers displayed for XRemote and the boot monitor when the display station is reset and also in the Diagnostic Session menu.

All XRemote PROMs are labeled with the XRemote version number only.



Installation

The Xremote PROM installation kit consists of the following:

- these installation instructions
- the six PROMs packed in anti-static foam in a cardboard box

XRemote PROMs are labeled as shown below. Make sure that you have the correct PROMs; the labels should indicate XRemote PROMs (XR) and the model name for your display station (for example, NCD19).

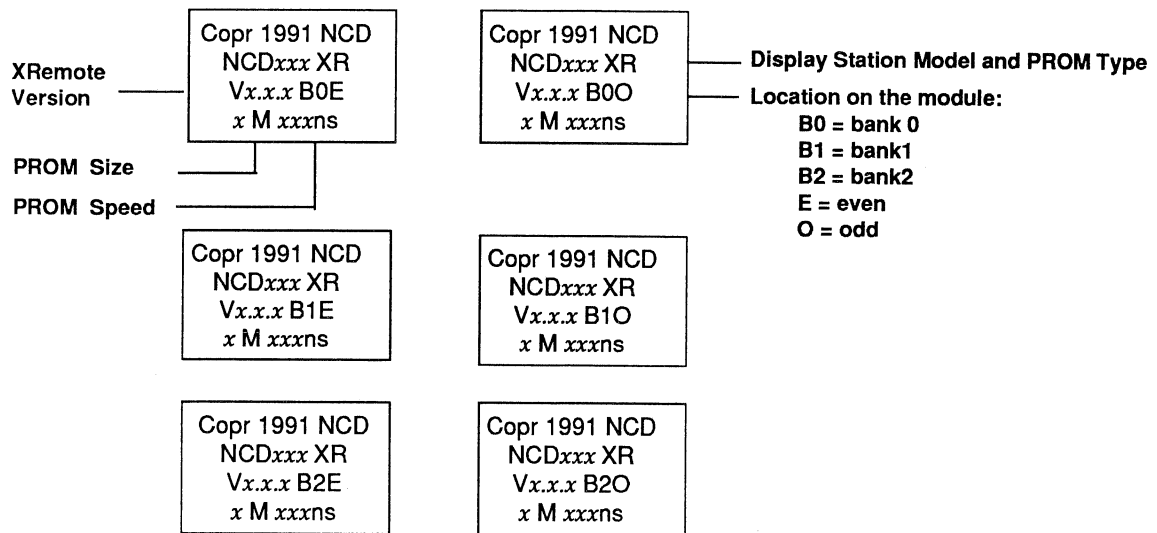


Figure 1. XRemote PROM Labels

You will need the following tools to install this kit:

- a flat-blade screwdriver
- an IC extraction tool (optional)

WARNING

Before performing the following procedure, make sure the AC power cord is disconnected from the display station.

CAUTION

PROMs and other components located on the communications circuit board are susceptible to damage by static discharge. Use caution when handling the circuit board and make sure you have touched a suitable ground before handling any PROMs. Hold the circuit board by its edges, and if possible, rest the board on an anti-static mat and wear a grounding strap.

Follow the instructions below to install the PROMs.

1. Close all windows on your display station and log out.
2. Power the display station off and remove the AC power cord from the back of the monitor.
3. Disconnect the network cable (if any) from the communications interface module.
4. Remove the two screws holding the communications interface module in the base.

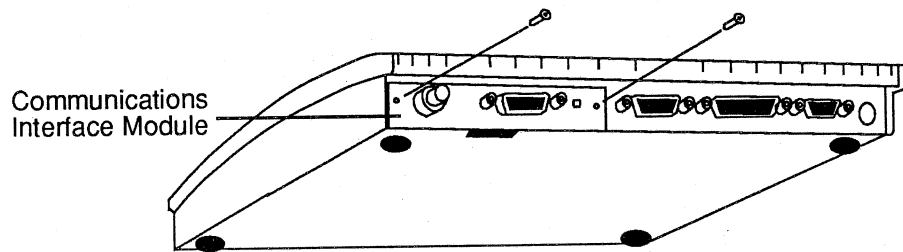


Figure 2. Removing the Screws from the Module

5. Place a flat-blade screwdriver in the slot at the bottom of the base and twist it to loosen the module.

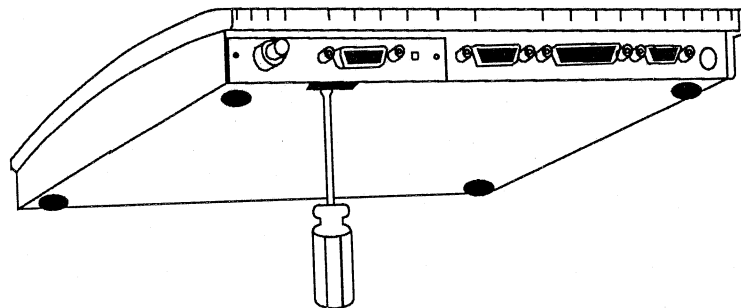


Figure 3. Removing the Module from the Base

6. Slide the module out of the base.
7. Place the module in front of you, oriented as shown in Figure 4.

Using Figure 4, inspect the PROM sockets on the circuit board, noting where PROMs are currently installed. There should be PROMs in Bank 0. There may also be PROMs in banks 1 and 2. The new PROMs will occupy all three banks.

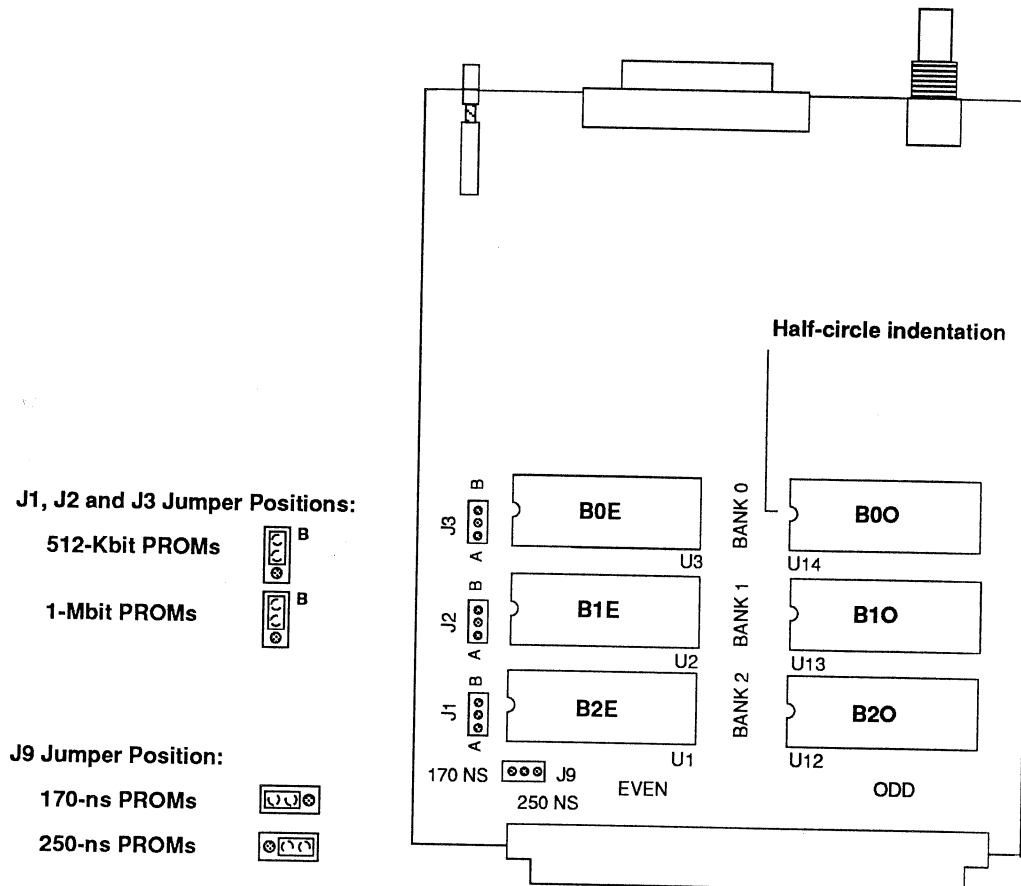


Figure 4. Typical Communications Interface Module

Your Communications Interface Module may have different connectors from those shown in Figure 4. The PROM installation procedure is the same for all modules.

8. Using an IC extraction tool or flat-blade screwdriver, remove all PROMs from their sockets. Note the location of the half-circle indentation on one end of the PROMs. The new PROMs must be installed with the same orientation.

9. Set Jumper J9, located on the lower left side of the board, to correspond with the speed of the PROMs. The correct positions are also shown in Figure 4.

PROM Speed Jumper—J9	
PROM Speed	Jumper Block Position
170 NS	over the left two pins
250 NS	over the right two pins

10. Set Jumpers J1, J2, and J3, located to the left of the PROM sockets, to correspond with the size of the PROMs. The correct positions are also shown in Figure 4.

PROM Size Jumpers—J1, J2 and J3	
PROM Size	Jumper Block Position
512 Kbit	over the top two pins
1 Mbit	over the top two pins

11. Carefully insert the replacement PROMs in the proper sockets. Make sure that the pins on the PROM are aligned with the socket receptacles and the PROMs are positioned as the original PROMs were (half-circle indentation on the left).

CAUTION

Failure to install the PROMs in the correct orientation can damage them permanently.

12. Install the module by sliding it into the base and replacing the two screws that lock the module into the base.
13. Reconnect the network cable.
14. Reconnect the AC power cord.
15. Turn the power on and observe the display. The first four lines display test results of the power-up self test. They should look like the following example:

```

Boot Monitor Vx.xx
Testing available memory    xxMbytes
Network controller passed  00:00:A7:xx:xx:xx
Keyboard controller Vx.xx

```

This should be followed by either a boot monitor prompt or the server initializing.

16. If the boot PROMs stop in the boot monitor and the boot monitor prompt (>) is displayed, start the server from PROM by typing the "bp" command after the prompt:

```
> bp
```

Press Return.

If you want the boot PROMs to load and run the server image at reset time instead of stopping in the boot monitor, change Boot X at Reset in the Network Parameters menu to "Yes."

17. If the error message

```
Server PROMs not installed
```

is displayed, the boot PROMs are not recognizing the XRemote PROMs. In that case, repeat the preceding steps to remove the communications interface module and recheck the installation.

If you have rechecked the installation and the server still fails to initialize, please contact NCD technical support.



In Case of Trouble

If you encounter difficulties, you can reach NCD via electronic mail. Just fill out the blank form supplied on the boot or font tape in the **examples** directory and e-mail it to the Internet address support@ncd.com.

You can also contact NCD by calling 415-694-0650 and asking for technical support. Again, locating the problem report form and collecting the answers to the questions on it will help speed up the resolution of your problem.

In reporting problems, we suggest that you take the actions indicated below and note the results before contacting NCD:

- Does the cursor still track mouse motion?
- Do some client windows accept keyboard input?
- Can window manager pop-up menus be activated?
- Can the displayed screen be refreshed to a correct state via a window manager refresh?
- Is the Main Menu displayed when you press the Setup key? If so, select the Diagnostic Session menu and note any errors reported.

Finally, note the model name of the display station and the version number of the server. Server and boot monitor version information is displayed in the Diagnostic Session setup menu.

For additional troubleshooting tips, see the *NCDware XRemote User's Manual*.

