

Network Management Card Quick Installation Guide

Before using this information and the product it supports, read the *Important Notices* document that comes with the product.

This *Quick Installation Guide* provides information about installing and setting up the IBM[®] Network Management Card. For more information, see the *IBM Network Management Card User's Guide* on the *Documentation* CD that comes with the uninterruptible power supply.

Statement 1:



DANGER

Electrical current from power, telephone, and communication cables is hazardous.

To avoid a shock hazard:

- Do not connect or disconnect any cables or perform installation, maintenance, or reconfiguration of this product during an electrical storm.
- Connect all power cords to a properly wired and grounded electrical outlet.
- Connect to properly wired outlets any equipment that will be attached to this product.
- When possible, use one hand only to connect or disconnect signal cables.
- Never turn on any equipment when there is evidence of fire, water, or structural damage.
- Disconnect the attached power cords, telecommunications systems, networks, and modems before you open the device covers, unless instructed otherwise in the installation and configuration procedures.
- Connect and disconnect cables as described in the following table when installing, moving, or opening covers on this product or attached devices.

To Connect:

- 1. Turn everything OFF.
- 2. First, attach all cables to devices.
- 3. Attach signal cables to connectors.
- 4. Attach power cords to outlet.

- To Disconnect:
- 1. Turn everything OFF.
- 2. First, remove power cords from outlet.
- 3. Remove signal cables from connectors.
- 4. Remove all cables from devices.

5. Turn device ON.

Installing and configuring the network management card

To install the network management card in an uninterruptible power supply, complete the following steps:

- 1. Unpack the network management card and make sure that you have the following items:
 - One network management card
 - One serial communication cable (for configuration setup)
 - Important Notices document
- 2. Record the network management card MAC address.



3. Remove the two screws from the uninterruptible power supply communication bay cover and remove the cover. For the location of the bay for your model, see the *Installation and Maintenance Guide* that comes with the uninterruptible power supply.

Notes:

- **a**. The uninterruptible power supply can remain online while you install the network management card.
- b. The orientation of the communication bay on your UPS model might be different from what is shown in the following illustration. You might have to rotate the card to install it.



4. Carefully slide the network management card into the bay and align the screw holes on the network management card with the screw holes on the uninterruptible power supply communication bay. Secure the network management card to the uninterruptible power supply with the screws that you removed in step 3 on page 2.



- 5. Make sure that the uninterruptible power supply is turned on.
- 6. (Optional) For advanced configuration through a web interface and to use the network management card on a network, connect an Ethernet cable (purchased separately) to the Ethernet connector on the network management card and to your network. Wait approximately 2 minutes until the UPS data LED flashes regularly, indicating normal operation. (See "LEDs and connectors" on page 8.)
 - **Note:** You will be able to set the network management card parameters through the settings/sensor connector even if the network management card is not connected to the network.



7. Connect the serial communication cable (which comes with the network management card) to the settings/sensor connector on the network management card and the COM port on a computer.



- 8. On the computer, start a terminal emulation program, such as HyperTerminal, and use the following settings:
 - Bits per second: 9600
 - Data bits: 8
 - Stop bits: 1
 - Parity: None
 - Flow control: None
 - Locally reproduce the characters entered option: Disabled
- 9. After the initialization process is completed, type USERID (all uppercase) at the prompt. The network management card main menu is displayed.

```
IBM NETWORK MANAGEMENT CARD :
```

```
1 : Reset
2 : Network configuration
3 : Set Login Password to Default
4 : Return to Default Configuration
0 : Exit
```

- 10. To configure the network settings, go to one of the following sections:
 - "Configuring the network settings with a DHCPv4 server (default)"
 - "Configuring the network settings without a DHCPv4 server"

Configuring the network settings with a DHCPv4 server (default)

If your network is connected to a DHCPv4 server, the network management card automatically collects the IP parameters from the server.

To view the IP parameters, complete the following steps:

1. From the main menu, press 2 (Network configuration). The following menu is displayed.



2. Press 1 (Read Network settings). The network management card displays the following settings that are supplied by the server. Note the IP address.

```
Network configuration :

MAC address : 00:20:85:FD:1C:07

Mode : Static IP

IP address : 166.99.21.94

Subnet mask : 255.255.248.0

Gateway 166.99.17.1

Link Local IPv6 address : FE80::220:85FF:FEFD:4210 /64

Global IPv6 address : 2001:720:410:100A:220:85FF:FEFD:4210 /64

Global IPv6 address : 1789:720:410:100A:220:85FF:FEFD:4210 /64
```

Note: The IPv6 parameters are read only.

- **3**. To exit, press 0 twice.
- 4. Disconnect the serial communication cable from the settings/sensor connector and the computer.

Configuring the network settings without a DHCPv4 server

If your network is not connected to a DHCPv4 server, you must configure the network management card manually. To set the network configuration, complete the following steps:

1. From the main menu, press 2 (Network configuration). The following menu is displayed.



2. Press 2 (Modify Network settings).

3. Follow the instructions that are displayed on the screen and enter the IP parameters. After you have finished entering the parameters, wait until the message Done is displayed, indicating that the IP parameters are saved.

```
_____
Network settings
               _____
------
1 : Read Network settings
2 : Modify Network settings
3 : Set Ethernet speed
0 : Exit
_____
For each of the following questions, you can press <Return> to select the
value shown in braces, or you can enter a new value.
Should this target obtain IP settings from the network?[N] N
Static IP address [166.99.21.94]? 166.99.21.21
Static IP address is 166.99.21.21
Subnet Mask IP address [255.255.248.0]? 255.255.255.0
Subnet Mask IP address is 255.255.255.0
Gateway address IP address [166.99.17.1]? 166.99.17.1
Gateway address IP address is 166.99.17.1
Wait until your new configuration is saved ...
Reset the card to take into account the new configuration.
```

4. Press 0 to exit.

- 5. Press 1 to reset the network management card.
- 6. Press 2 to restart the network management card with the new IP parameters.
- 7. Disconnect the serial communication cable from the settings/sensor connector and the computer.

Accessing the network management card

Note: Before you can access the network management card, the Ethernet cable must be connected (see step 6 on page 3).

To access the network management card, complete the following steps:

- 1. Open a web browser from a computer and enter the IP address of the network management card in the address field.
- 2. In the "Connect to" window, in the **User name** field, type USERID (all uppercase). In the **Password** field, type passw0rd (all lowercase with a zero, not the letter O). The UPS Properties page is displayed.

IBM.	Ne	twork Management Card
	UPS Properties	0
UPS Properties UPS Control Weekly Schedule Shutdown Parameters	IBM 2200VA/1920W R HV UPS LI R 2200 Computer Room	
Logs and Notification		
Measurements Event Log	UPS Status UPS Alarm	About your UPS
System Log	Power source :	AC Power
Email Notification	Output load level :	
Settings Network	Output :	Master: On Image: Group1: On Image: Group2: On
System Notified Applications	Battery	
Access Control	Battery load level :	100 % Charging
Time	Remaining backup time :	6 h 25 mn 48 s
Firmware Upload	Battery status :	ок
	Last update : 2010 04/14 09:40:54	

3. To set the time, under **Settings**, click **Time**. To configure other network management card settings, use the **Settings** menu.

For more information, see the Network Management Card User's Guide.

LEDs and connectors

The network management card LEDs and connectors are shown in the following illustration and are described in Table 1 and Table 2.



Table 1. Ethernet connector LEDs (10/100BASE-T)

LED	Action	Description
ACT LED (green)	Off	The network management card is not connected to the network.
	On	The network management card is connected to the network, but there is no activity.
	Flashing	The port is sending and receiving data.
100 M LED (amber)	Off	The port is operating at 10 Mbps.
	On	The port is operating at 100 Mbps.

Table 2. Settings/sensor connector LEDs

LED	Action	Description
UPS data LED (green)	Off	The network management card is starting.
	On	The network management card is communicating with the uninterruptible power supply.
	Flashing	Communication with the uninterruptible power supply is established (normal operation).
RS-232 (amber)	Off	The Configuration menu is activated.
	On	The Configuration menu is not activated (normal operation).
	Flashing (only if an optional environmental monitoring probe is connected to the network management card)	Communication with the environmental monitoring probe is established (normal operation).

Default IP settings

The following table shows the IP default settings for the network management card.

Table 3. Network management card IP default settings
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IP default settings				
IP network	BOOTP/DHCP enabled			
	IP address: 192.168.1.2			
	Subnet mask: 255.255.0.0			
	Gateway: 0.0.0.0			
Web page access control	User name: USERID Password: passw0rd			
Settings/sensor port access control	Password: USERID (cannot be modified)			
Date and time	Synchronize with an NTP server (GMT)			

Connecting an environmental monitoring probe (optional)

To connect an environmental monitoring probe (purchased separately) to the network management card, complete the following steps:

- 1. Make sure that an IBM Network Management Card is installed in the uninterruptible power supply.
- 2. Connect one end of the Ethernet cable (which comes with the environmental monitoring probe) to the settings/sensor connector on the network management card. (The maximum cable length is 20 m.)



3. Connect the other end of the Ethernet cable to the RJ-45 connector on the environmental monitoring probe.

You can monitor and configure the environmental monitoring probe from the network management card home page. Recognition of the environmental monitoring probe is automatic.

For more information about the environmental monitoring probe, see the *Network Management Card User's Guide*.

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