The **Network Management Card** is recommended for central UPSs protecting entire networks or for UPS units backing up critical loads.

With the card installed, the UPS has its own IP address and uses the local computer capabilities to:
- Supply web pages (http or https (SSL)) with information on status conditions and measurements/settings/alarms,
- Integrate an SNMP-based NMS such as HP OpenView, IBM Tivoli Netview and Computer Associates Unicenter,
- Communicate with the protection software installed on the protected servers (Network Shutdown Module or Netwatch),
- Send e-mail and SMS messages,
- Control the ON/OFF function of the UPS and the outlets,
- Monitor the Environment Sensor (optional, cat. no. 66846).

### UNPACKING AND CHECKS

- One **Network Management Card**,
- One serial cable for configuration (34003918),
- One installation manual (34003905).

### CHECK ON UPS VERSION

**Important.** Before installing the card, check that the UPS technical level (NT) is at least equal to that indicated in the compatibility list (For latest information, check [www.eaton.com/powerquality](http://www.eaton.com/powerquality)).

**Note.**
- If the technical level of the UPS is lower than that indicated in the compatibility list, contact EATON.

### Indices

<table>
<thead>
<tr>
<th>LED</th>
<th>Colour</th>
<th>Status</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACT</td>
<td>Green</td>
<td>• OFF</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• ON</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Flashing</td>
<td></td>
</tr>
<tr>
<td>100M</td>
<td>Orange</td>
<td>• OFF</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• ON</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Port operating at 10 Mbits/s</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Port operating at 100 Mbits/s</td>
<td></td>
</tr>
<tr>
<td>UPS Data</td>
<td>Green</td>
<td>• OFF</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• ON</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Flashing</td>
<td></td>
</tr>
<tr>
<td>RS232</td>
<td>Orange</td>
<td>• OFF</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• ON</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Flashing</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Configuration menu activated</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Normal operation</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Communication menu not activated</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Communication with Environment Sensor (option)</td>
<td></td>
</tr>
</tbody>
</table>
The **Network Management Card** can be hot-plugged on all UPSs compatible with the card. It is not necessary to shutdown the UPS, disconnect the load or restart the UPS.

- Remove the plastic cover of the Minislot.
- Note the MAC address of the card before inserting it.

- Insert and secure the card with the screws.
- Connect the ETHERNET cable.
- Check the ETHERNET port indications.
- Wait until the UPS Data LED flashes regularly (approx. two minutes), indicating that card start-up has terminated correctly.

**Nota:** You can set the parameters via Service port even if the network is not connected. At connection, the card will restart keeping the settings.

### IP SETTINGS

Once the card has started, proceed as indicated below.

- Connect the serial cable to card’s service port and PC’s COM port
- Use a terminal emulator such as HyperTerminal™ with these settings

<table>
<thead>
<tr>
<th>Bits per second</th>
<th>Data bits</th>
<th>Stop bits</th>
<th>Parity</th>
<th>Flow control</th>
</tr>
</thead>
<tbody>
<tr>
<td>9600</td>
<td>8</td>
<td>1</td>
<td>none</td>
<td>none</td>
</tr>
</tbody>
</table>

“Echo typed characters locally” option: disabled
- Type admin.

The main configuration menu is displayed:

**EATON NETWORK MANAGEMENT CARD**

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

**Your network is equipped with a BOOTP/DHCP server (default)**

The card is configured by default with this service enabled. No manual configuration is required. The IP parameters are automatically collected by the card.

From the main configuration menu: (see above)
- Press the 2 key (Network configuration).
- Press the 1 key (Read Network settings).

The settings supplied by the server are displayed:

- Network configuration:
  - MAC address: 00:20:85:FD:1C:07
  - Mode: DHCP
  - IP address: 166.99.23.18
  - Subnet mask: 255.255.255.0
  - Gateway: 166.99.17

- Note the IP address.
- Press the 0 key (Exit).
- Press the 0 key (Exit).

**Your network is not equipped with a BOOTP/DHCP server**

Manual configuration is required.
To set the network configuration, use terminal emulation (see above)

From the main configuration menu:
- Press the 2 key (Network configuration).
- Press the 2 key (Modify Network settings).
- Follow the instructions and enter the IP parameters:

<table>
<thead>
<tr>
<th>1 : Read Network settings</th>
<th>2 : Modify Network settings</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 : Set ethernet speed</td>
<td>0 : Exit</td>
</tr>
</tbody>
</table>

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 [166.99.16.16]? 166.99.1.82
- Subnet mask [255.255.0.0]? 255.255.255.0
- Gateway address [0.0.0.0]? 166.99.17.1

Wait until "Done" is displayed, indicating that the IP parameters have been saved.
- Press the 0 key (Exit).
- Press the 1 key (Reset).
- Press the 2 key (Restart).

The card restarts with the new IP settings (after approx. one minute).

**ACCESS TO SUPERVISION**

To check whether the **Network Management Card** is operational after installation and IP settings, proceed as follows.
- Run a browser
- Enter in the address bar:
  - http://IP address/ (e.g. http://166.99.1.82/)
- The home page is displayed

- Set the time by clicking the Time command.
- Continue configuration via the sections in the Settings menu.
This manual provides all the information required to install and configure the Network Management Card.

For more information on the supervision, control and configuration functions offered by the Network Management Card, see the user manual available at www.eaton.com/powerquality.

The Environment sensor is a Network Management Card option. It is available from EATON (cat. no 66846). The sensor remotely monitors the UPS environment by regularly measuring the temperature and humidity, and checking the states of two external contacts. It can also send alarms (e-mail, SNMP trap) tripped by pre-set thresholds. Connection is made via the Service port (Settings/Sensor) on the Network Management Card. The sensor is detected automatically. Configuration and supervision use a menu that may be accessed directly from the home page. For more information, see the user manual of the Network Management Card.

When correctly installed and used in accordance with manufacturer instructions, the card complies with the following standards:

- ITE (Information Technology Equipment) safety: IEC/EN 60950-1 2002
- EMC: EN 61000-6-2 (2002), EN 61000-6-3 (2002), IEC/EN 62040-2 (2002). In compliance with European directives:
  - Low voltage: 73/23/EEC and 93/68/EEC.
  - EMC: 89/336/EEC and 93/68/EEC.

Federal Communication Commission (FCC) statement
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

The information presented in this manual is also available in other languages at www.eaton.com/powerquality.