# Quick Start Instructions

### **Package Contents**

- Power Xpert Gateway Minislot (PXGMS) UPS Card
- USB Cable
- Quick Start Instructions



# **Help Desk Numbers**

United States	1-800-356-5737 or 1-800-843-9433
Canada	1-800-461-9166 ext 260
All Other Countries	Call your local service representative
Web sites:	

www.eaton.com/powerxpert

• www.eaton.com/pxgms

**NOTE:** On the Web site opening page, click **Support** and select the Customer Service link for more information.

Eaton and Power Xpert are registered trademarks of Eaton Corporation or its subsidiaries and affiliates. Google Chrome is a trademark of Google Inc. Linux is a registered trademark of Linus Torvalds. Microsoft, Internet Explorer, and Windows are registered trademarks of Microsoft Corporation in the United States and in other countries. Mozilla and Firefox are registered trademarks of the Mozilla Foundation. Phillips is a registered trademark of Phillips Screw Company. All other trademarks are property of their respective companies.

©Copyright 2012 Eaton Corporation, Raleigh, NC, USA. All rights reserved. No part of this document may be reproduced in any way without the express written approval of Eaton Corporation.

### TABLE OF CONTENTS

Section 1 Installation Checklist	2
Section 2 Install the Card	3
Section 3 Connect the Card to the Computer	5
Section 4 Install the USB Driver Software (Windows XP)	7
Section 5 Install the USB Driver Software (Windows 7)	. 14
Section 6 Verify IP Address Assignment	. 18
Section 7 Assign an IP Address	. 20

## Section 1 Installation Checklist

- 1. Verify that the following items are available:
  - Power Xpert Gateway Minislot (PXGMS) UPS Card package contents (see front cover)
  - D Phillips® screwdriver
  - □ Available USB port on a computer running Microsoft<sup>®</sup> Windows<sup>®</sup>
  - ❑ Web browser (Microsoft Internet Explorer<sup>®</sup> version 8.0 and higher, Mozilla<sup>®</sup> Firefox<sup>®</sup>, or Google Chrome<sup>™</sup> are recommended)
- 2. If you are going to use Dynamic Host Configuration Protocol (DHCP), provide your local network administrator with the card's MAC address. The MAC address is located on a label on the bottom of the card.

□ MAC Address

3. If you are not going to use DHCP to provide any of the settings listed below, contact your local network administrator for the settings. Select **DHCP** or enter the values for manual configuration in the table below:

ltem	Either Provided by DHCP*	Or M	anual Configuration
IPv4		Card IP Address: Netmask: Gateway:	
DNS – Name Servers		Name Server #1: Name Server #2: Name Server #3:	
DNS — Domain		Domain:	

\* The network administrator normally sets up the DHCP server to provide a static IP address each time the card makes a DHCP request.

- If you need e-mail functionality, obtain the SMTP mail server's IP address or host name. If using the SMTP host name, verify that you also have the Name Server IP address (see Step 3).
  - SMTP (mail server) IP Address or Host Name

# Section 2 Install the Card

**Note:** The hot-swappable PXGMS card can be installed without turning off the UPS or disconnecting the load.

To install the PXGMS card:

1. Verify that all six DIP switches on the card are in the OFF position (see Figure 1).



### Figure 1. Verify DIP Switches are OFF

- 2. Remove the Minislot cover. Retain the screws.
- **Note:** If there is another card already installed with an attached communication cable, disconnect the cable and then remove the card.
- 3. If not already done, record the MAC address for future reference (see Step 2 on page 2).
- 4. To prevent electrostatic discharge (ESD), place one hand on a metal surface, such as the UPS rear panel.

5. Slide the card into the open slot and secure with the screws removed in Step 2 (see Figure 2).



### Figure 2. Secure the PXGMS Card

6. Connect an active Ethernet cable (not supplied) to the Ethernet 10/100 connector on the PXGMS card (see Figure 3).



Figure 3. Install the Ethernet Cable

# Section 3 Connect the Card to the Computer

To connect the card to the computer:

- 1. Go to **www.eaton.com/pxgms** and perform one of the following:
  - Click the Power Xpert Gateway Minislot UPS Card link beside the PXGMS card photograph.
  - In the left column under Products and Services > Power Quality and Monitoring > Networking Hardware, select Power Xpert Gateway Minislot UPS Card.
- 2. On the Features tab, click the **Download Configuration File** link to download the powerxpert.inf file. Note the location of the downloaded file on your computer so you can use it later.
- 3. Plug the USB cable into the Setup port on the card (see Figure 4).



Figure 4. Install the USB Cable

4. Plug the other end of the USB cable into the USB port on the computer.

5. The Windows operating system detects new hardware (see Figure 5).



Figure 5. Found New Hardware Wizard – Welcome Window

- **Note:** If a message displays indicating that the device driver software was not successfully installed, click **Ignore**.
- 6. The steps for installing the USB driver software are determined by the type of operating system running on your computer:
  - For Windows XP, continue to "Install the USB Driver Software (Windows XP)" on page 7.
  - For Windows 7, continue to "Install the USB Driver Software (Windows 7)" on page 14.

# Section 4 Install the USB Driver Software (Windows XP)

To install the USB driver software on a computer running Windows XP:

1. On the Welcome window, select **No, not this time** and click **Next** (see Figure 6).

Found New Hardware Wizard	
	Welcome to the Found New Hardware Wizard Windows will search for current and updated software by looking on your computer, on the hardware installation CD, or on the Windows Update Web site (with your permission). Read our privacy policy
	Can Windows connect to Windows Update to search for software? C Yes, this time only C Yes, now and every time I connect a device No, not this time Click Next to continue.
	< Back Next > Cancel

Figure 6. Found New Hardware Wizard – Welcome Window

2. Select **Install from a list or specific location (Advanced)** and click **Next** (see Figure 7).



Figure 7. Found New Hardware Wizard – Install Software Window

3. Select **Don't search. I will choose the driver to install** and click **Next** (see Figure 8).

Found New Hardware Wizard
Please choose your search and installation options.
C Search for the best driver in these locations.
Use the check boxes below to limit or expand the default search, which includes local paths and removable media. The best driver found will be installed.
Search removable media (floppy, CD-ROM)
Include this location in the search:
C:\ Browse
Don't search. I will choose the driver to install.
Choose this option to select the device driver from a list. Windows does not guarantee that the driver you choose will be the best match for your hardware.
< Back Next > Cancel

Figure 8. Found New Hardware Wizard – Installation Options Window

4. Select Network adapters and click Next (see Figure 9).

Found New Hardware Wizard			
Hardware Type.			
Select a hardware type, and then click Nex	et.		
Common hardware types:			
Modems Monitors MultiFunction adapters MultiFunction adapters Network adapters Network Client Network Protocol Network Service MoscPlup and Play Drivers			
	< Back	Next >	Cancel

### Figure 9. Found New Hardware Wizard – Hardware Type Window

5. Select Have Disk... and click Next (see Figure 10).

Found Ne	ew Hardware Wizard
Selec V	ct Network Adapter Which network adapter do you want to install?
<b>H</b>	Click the Network Adapter that matches your hardware, then click DK. If you have an installation disk for this component, click Have Disk.
(Unable	to find any drivers for this device)
	Have Disk
	< Back Next > Cancel

Figure 10. Found New Hardware Wizard – Select Network Adapter Window

- 6. Click Browse (see Figure 11).
- **Note:** Disregard the instruction to insert the manufacturer's installation disk. You will not install from a disk. The driver will be installed from the powerxpert.inf file you downloaded in Step 2 on page 5.

Install Fro	om Disk		×
-	Insert the manufacturer's installation disk, and then make sure that the correct drive is selected below.	OK Cancel	
	Copy manufacturer's files from:	Browse	

Figure 11. Install From Disk Window

- 7. In the Locate File window, navigate to the powerxpert.inf file you downloaded in Step 2 on page 5 (see Figure 12).
- 8. Select the file and click **Open**.

Locate File					? 🔀
Look in:	🞯 Desktop		*	G 🕸 📂 🛄•	
My Recent Documents Desklop My Documents	My Documents My Computer My Network Play #RECYCLE.BIN	ces			
My Computer	<				>
<b></b>	File name:	powerxpert.inf		~	Open
My Network	Files of type:	Setup Information (*.inf)		~	Cancel

### Figure 12. Locate File Window

9. In the Install from Disk window, the path to the powerxpert.inf file displays in the **Copy manufacturer's file from** box. Click **OK**.

10. Select the most recent Linux USB Ethernet/RNDIS Gadget and click Next (see Figure 13).

Found New Hardware Wizard
Select Network Adapter Which network adapter do you want to install?
Click the Network Adapter that matches your hardware, then click OK. If you have an installation disk for this component, click Have Disk.
Show compatible hardware
Network Adapter: Linux USB Ethernet/RNDIS Gadget
This driver is not digitally signed!     Have Disk     Have Disk
< Back Next > Cancel

Figure 13. Found New Hardware Wizard – Select Network Adapter Window

Note: If the caution message shown in Figure 14 displays, click Continue Anyway.

Hardwa	are Installation
1	The software you are installing for this hardware: Linux USB Ethernet/RNDIS Gadget has not passed Windows Logo testing to verify its compatibility with Windows XP. (Tell me why this testing is important.) Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommeds that you stop this installation now and contact the hardware vendor for software that has passed Windows Logo testing.
	Continue Anyway STOP Installation

Figure 14. Caution Message

11. The wizard installs the software for the USB driver. Click **Finish** to close the wizard (see Figure 15).

Found New Hardware Wizard		
	Completing the Found New Hardware Wizard	
	The wizard has finished installing the software for:	
	Linux USB Ethernet/RNDIS Gadget	
	Click Finish to close the wizard.	
	K Back Finish Cancel	

Figure 15. Found New Hardware Wizard – Finished Installing the Software Window

12. Open the Network Connections window from the Windows Control Panel to verify that the installation was successful.

If "Linux USB Ethernet/RNDIS Gadget" is listed in the Device Name column, the USB driver has been successfully installed (see Figure 16).

S Network Connections				
<u>Eile E</u> dit <u>V</u> iew F <u>a</u> vor	ites <u>T</u> ools Adva <u>n</u> ced <u>H</u> e	əlp		
Address 🔕 Network Conne	ctions		¥	→ Go
Name	Туре	Status	Device Name	
LAN or High-Speed Inter	net			
🕹 1394 Connection	LAN or High-Speed Inter	Disabled	1394 Net Adapter	
🕹 Local Area Connection	LAN or High-Speed Inter	Connected	Intel(R) 82567LM Gigabit Network Conn.	
Local Area Connection 2	LAN or High-Speed Inter	Connected	Linux USB Ethernet/RNDIS Gadget	~
<				>
Linux USB Ethernet/RNDIS Gad	get			

#### Figure 16. Network Connections Window

**Note:** By default, the PXGMS card requests an IP address through DHCP when the card is connected to a network.

- 13. Either verify the assigned IP address or manually enter a fixed IP address:
  - To verify the IP address assigned through DHCP, continue to "Verify IP Address Assignment" on page 18.
  - To manually enter a fixed IP address for the card's network connection, continue to "Assign an IP Address" on page 20.

# Section 5 Install the USB Driver Software (Windows 7)

To install the USB driver software on a computer running Windows 7:

- 1. Open the Control Panel and select Hardware and Sound (see Figure 17).
- 2. Under Devices and Printers, select **Device Manager** to open the Device Manager window.



Figure 17. Control Panel Window – Hardware and Sound

- 3. Expand Other devices and select RNDIS/Ethernet Gadget (see Figure 18).
- 4. Right-click Update Driver Software.



Figure 18. Device Manager Window

5. Select Browse my computer for driver software (see Figure 19).



Figure 19. Update Driver Software Window – Search Method

- 6. Click Browse (see Figure 20).
- 7. In the Locate File window, navigate to the powerxpert.inf file you downloaded in Step 2 on page 5.
- 8. Select the file and click **Open**.
- 9. The path to the powerxpert.inf file displays in the **Search for driver** software in this location box. Click **Next** (see Figure 20).



Figure 20. Update Driver Software Window – Browse for Driver Software

**Note:** If the message "Windows can't verify the publisher of this driver software" displays, select **Install this driver software anyway** (see Figure 21).



Figure 21. Windows Security Message

10. When the driver software is updated successfully, the message "Windows has successfully updated your driver software" displays (see Figure 22).



Figure 22. Update Driver Software Window – Update Successful

- 11. To verify the device is installed:
  - a. Go to Control Panel > Hardware and Sound > Devices and Printers > Device Manager.
  - b. Expand Network adapters.
  - c. Verify that **Linux USB Ethernet/RNDIS Gadget** is listed under Network adapters (see Figure 23).



Figure 23. Device Manager Window – Verify Device Installation

- 12. From the **Start** menu, go to **All Programs > Accessories > Command Prompt** to open a Command Prompt window.
- Enter ipconfig /all. The adapter IP addressing information displays (see Figure 24).
- Verify that the assigned IPv4 address is in the 192.168.200.x range, where "x" is typically "1."

The USB driver software installation is complete.

🖬 Command Prompt	
IP Routing Enabled : No WINS Proxy Enabled : No	
Ethernet adapter Local Area Connection 2:	
Connection-specific DNS Suffix       :         Description       :       Linux USB Ethernet/RNDIS Gadget         Physical Address       :       FA-A3-3B-78-48-26         Dut Enafication Enabled       :       Ves         Link-Local IP06 Address       :       1982:15507:a654:b206:6398x14(Preferred)         Ink-Local IP06 Address       :       1922:168:2001.(Preferred)         Subnet Mask       :       :       255:255:255.06         Lease Obtained       :       :       Ves         Default Gateway       :       :       Thursday, September 09, 2010 5:51:59 PM         Default Gateway       :       :       :         DHCP Server       :       :       :         DHCPV6 IAID       :       :       :         DHCPV6 Client DUID       :       :       :       :         DHCPV6 Client DUID       :       :       :       :       :         :       :       :       :       :       :       :         :       :       :       :       :       :       :       :         :       :       :       :       :       :       :       :       :         :	
DNS Servers : fec0:0:0:ffff::1/1 fec0:0:0:ffff::2/1	
fecØ:0:0:ffff::3%1 NetBIOS over Tcpip: Enabled	

Figure 24. Command Prompt Window – Adapter IP Address Information

## Section 6 Verify IP Address Assignment

To verify the IP address assignment:

- 1. Connect to the card over the USB cable:
  - a. Open your Web browser.
  - b. Enter: http://192.168.200.101

You are prompted to log on.

- 2. Log on as administrator. The default user name and default password are "admin." The PXGMS card Web page displays.
- 3. Select **Network** from the Configuration menu. The Network page displays (see Figure 25).

Image: Second	🏉 Eaton Power Xpert Gateway Mini	-Slot	JPS Card - Windows Internet Explorer	
		0.101/	content/ 🔻 😽 🗙 🖸 Bing	• ٩
Power Xpert®   C: A T = W/A     Overview     Overview     Overview     Overview     Perice Data     Open Alarms (7)     Logs     System Information   System Information     System Information   System Information     System Information     System Information     System Information     System Information     System Information     System Information     System Information     System Information     System Information     System Information     System Information     System Information     System Information     System Information   System Information   System Information   System Information   System Information   System Information   System Information   System Information   System Information   System Information   System Information   System Information   System Information   OpenVPN   PaterTime   Madue I Configuration   IPA ddress:   IPA ddress:   IPA ddress:   IPA ddress:   Shutdown Client   UPS Test and Control   UPS Scheduled Shutdown	🚖 Favorites 🛛 🏉 Eaton Power	Xpert	Gateway Mini-Slot UPS Card	
Power Xpert®       09/07/2012 21:36:30 UTC         99/07/2012 17:36:30 EDT       Your Location         Your Location       Overview         Device Data       •         Open Alarms (7)       •         Logs       •         System Information       System Information         BopenVPN       •         PiPv4       Automatic Configuration:         Modbus Serial       •         MAC:       10.222.39.230         Netmask:       255.255.255.0         Gateway:       10.222.39.248         UPS Scheduled Shuddown <t< td=""><td></td><td></td><td></td><td>*</td></t<>				*
Menu       Overview       S         Device Data <ul> <li>Network</li> <li>System Information</li> <li>System Iocation:</li> <li>Your Location</li> <li>System contact:</li> <li>Your Name</li> <li>MAC:</li> <li>Obster</li> <li>Shutdown Client</li> <li>VPS Test and Control</li> <li>Shutdown Client</li> <li>VPS Test and Control</li> <li>Shutdown Client</li> <li>VPS Test and Control</li> <li>Static Address:</li> <li>Static Address:</li> <li>Static Address:</li> <li>Static Address:<th>Power Xpert®</th><th>Y</th><th>9/07/2012 21:36:30 UTC 09/07/2012 17:36:30 EDT Your Location</th><th></th></li></ul>	Power Xpert®	Y	9/07/2012 21:36:30 UTC 09/07/2012 17:36:30 EDT Your Location	
Device Data	Menu	~	Overview	8
Open Alarms (7)   Logs   Configuration (8)   © Essential Configuration Tasks   Access Control   "" Open VPN   "" Connections   "" Connections   "" Connections   "" Connections   "" Connections   " Open VPN   @ E-Mail   Modbus Serial   BACnet/P   Shutdown Client   UPS Test and Control   Werk and Restore   © Firmware   Documentation	Device Data	÷	- Network	<b>_</b> _
Logs   System location: Your Location  System contact: Your Name  System contact: Your Name  System contact: Your Name  Network  Access Control  Network  NAC: 00:20:85:FC:00:1D  Network  Network  NAC: 00:20:85:FC:00:1D  Network  Netw	Open Alarms (7)	+	System Information	
Configuration (8)       System contact:       Your Name	Logs	•	System location: Your Location	
Essential Configuration Tasks     Access Control     Wetwork     Access Control     Wetwork     Access Control     Wetwork     Access Control     Walc: 00:20:85:FC:00:1D     Altornatic Configuration: DHCP Enabled:     Automatic Configuration     IPv4     Static Address:     IDuccenter	Configuration ( 8 )		System contact: Your Name	_
	Essential Configuration Task     Access Control     Benetic Configuration     Connections     Benetic Connections     Benetic Control     Benetic Control     SNMP     Modbus Serial     BACnet/IP     BACnet/IP     Destand Control     GUPS     Subtdown Client     GUPS     Subtdown Client     GUPS     Subtdown     Save and Restore     Firmware     Documentation		A Network MAC: 00:20:85:FC:00:1D     IPV4 Automatic Configuration: DHCP Enabled:     IP Address: 10.222.39.230 Netmask: 255.255.0 Gateway: 10.222.39.248     IDV6 Gateway: Static Address:	

Figure 25. PXGMS Card Network Page

- 4. Verify that the network settings match those on the Installation Checklist on page 2. If you are manually configuring the network settings, see "Assign an IP Address" on page 20.
- 5. Verify network communication:
  - a. Clear the **DHCP Enabled** check box. The text that was dimmed in the Manual Configuration section is now available.
  - b. Copy the IP address.
  - c. Open a second browser and paste the IP address in the Address bar and click **Go**. If the assigned IP address is working, you are prompted to log on.
  - d. Log on as administrator. The default user name and default password are "admin." The PXGMS card Web page displays.
- **Note:** For detailed information, refer to the user's guide for the PXGMS card, which is available through a link on the Documentation tab or from **www.eaton.com/pxgms**.

## Section 7 Assign an IP Address

To manually enter a fixed IP address for the card:

- 1. Connect to the card over the USB cable:
  - a. Open your Web browser.

#### b. Enter: http://192.168.200.101

You are prompted to log on.

- 2. Log on as administrator. The default user name and default password are "admin." The PXGMS card Web page displays.
- 3. Select **Network** from the Configuration menu. The Network page displays (see Figure 25 on Page 18).
- 4. Clear the **DHCP Enabled** check box to enable manual configuration.
- 5. Enter the IP, Netmask, and Gateway addresses in the Manual Configuration section and click **Apply**.
- 6. Click **OK** to confirm.
- If you are using a host name, or host names, for controlling access to the card, type the server IP address in the **Name Server** box. Up to three IP addresses can be entered.
- 8. Click Apply.
- 9. Click **OK** to confirm.
- 10. Verify network communication:
  - a. Copy the IP address you entered in Step 5.
  - b. Open a second browser and paste the IP address in the Address bar and click **Go**. If the assigned IP address is working, you are prompted to log on.
  - c. Log on as administrator. The default user name and default password are "admin." If the PXGMS card Web page displays, the fixed IP Address is correct.
- **Note:** For detailed information, refer to the user's guide for the PXGMS card, which is available through a link on the Documentation tab or from **www.eaton.com/pxgms**.



P-164000208 1