



Remote Management Card

RMCARD205 / RMCARD305

User's Manual

Version 1.0

The Remote Management Card allows a UPS system and environmental sensor to be managed, monitored, and configured.

TABLE OF CONTENTS

Introduction	1
Installation Guide	3
Web Interface	8
Reset to Default Setting / Recover from a Lost Password ...	27
Firmware Upgrade	28
Save and Restore Configuration Settings	31
Troubleshooting	32
Conformance Approvals	33
Appendix 1	34
Appendix 2	36
Appendix 3	38

Introduction

Overview

The CyberPower Remote Management Card allows for remote monitoring and management of a UPS attached to a network. After installing the hardware and configuring an IP address, the user can access, monitor, and control the UPS from anywhere in the world! Simply use a web browser such as Internet Explorer or Firefox to access your UPS. Servers and workstations can be protected by the UPS utilizing PowerPanel® Business Edition Client to gracefully shutdown when signaled by the Remote Management Card.

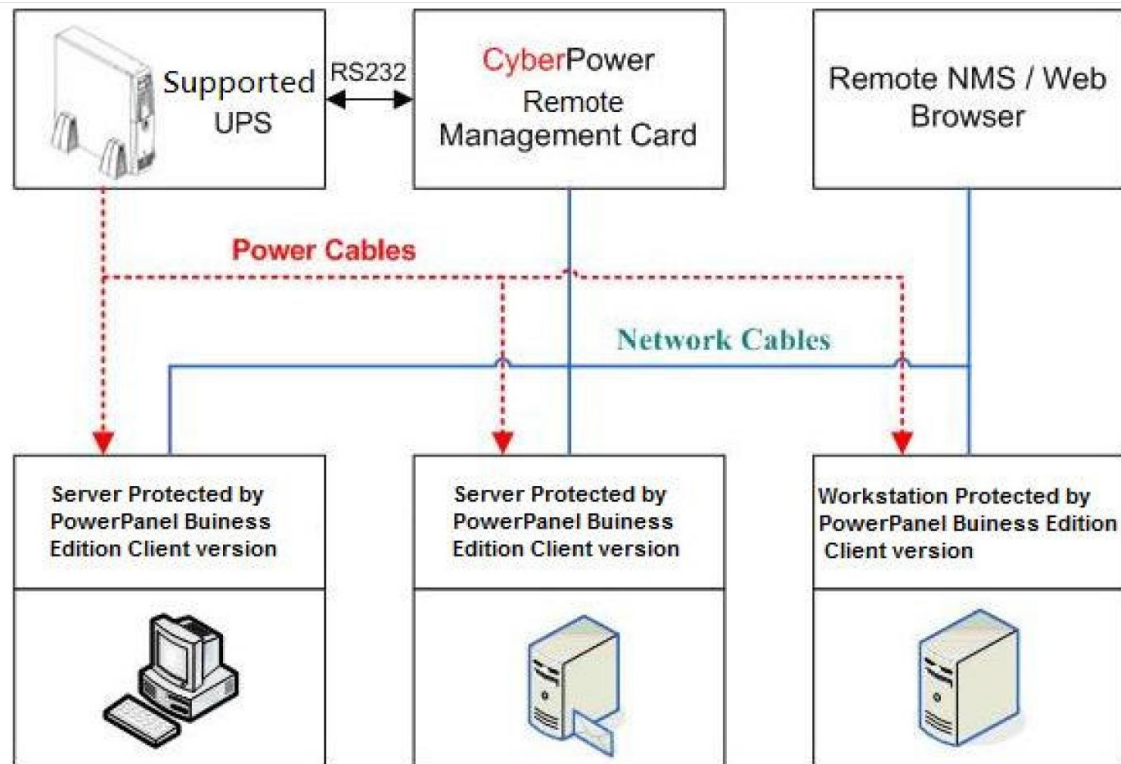
Features

- Real time UPS monitoring
- Remote management and configuration of UPS via Web Browser or NMS
- Trigger servers/workstations to shutdown during a power event to prevent data lose or corruption
- Schedule shutdown/start-up/reboot of the UPS via remote control
- Event logging to trace UPS operational history
- Graphic data logging for analyzing power conditions
- Save and restore configuration settings
- Event notifications via Email, SNMP traps, Syslog, and SMS
- Support IPv4/v6, SNMPv1/v3, HTTP/HTTPS, DHCP, NTP, DNS, SMTP, SSH, Telnet, FTP, and Syslog protocol
- Support Email Secure Authentication Protocols: SSL, TLS
- Support External Authentication Protocols: Radius, LDAP, LDAPS, Windows AD
- SNMP MIB available for free download
- User upgradeable firmware
- Bulk firmware upgrade tool
- Multiple-language user interface
- Quick installation
- Cisco EnergyWise
- Support Environmental Sensor (ENVIROSENSOR)

System Requirements

- An Ethernet connection to an existing network
- NMS (Network Management Station) compliant with SNMP (for optional NMS management)

Application



Unpacking

Inspect the Remote Management Card upon receipt. The package should contain the following:

- CyberPower Remote Management Card
- Quick Start Guide
- Spare Jumper
- RMCARD Adapter Guide (RMCARD305 only)
- RMCARD205 Front Panel (RMCARD305 only)

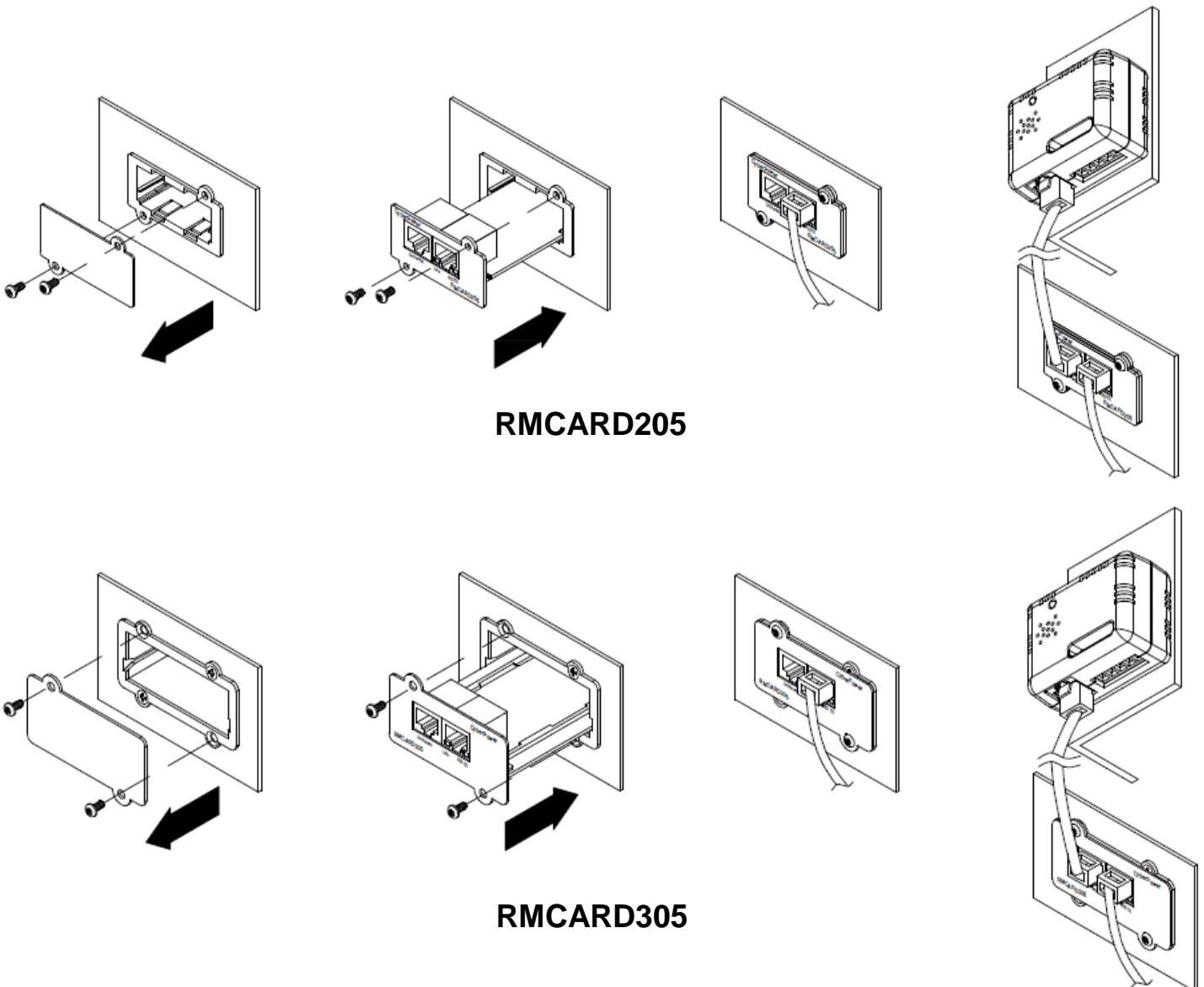
Installation Guide

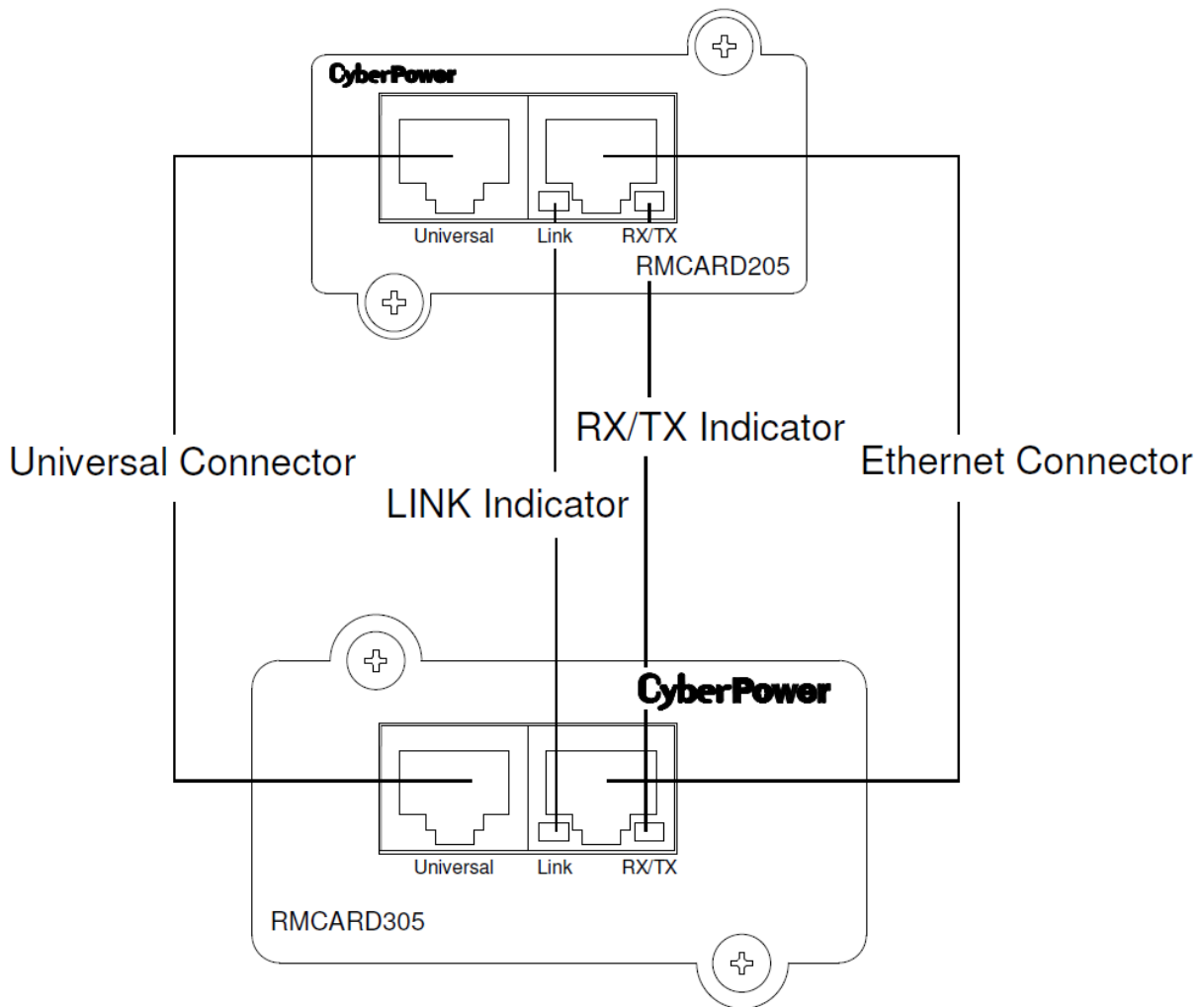
Step 1. Hardware Installation

Expansion port Remote Management Card

1. Remove the two retaining screws from the expansion port cover and remove the cover.
2. Install the CyberPower Remote Management Card into the expansion port.
3. Re-install and tighten the retaining screws.
4. Connect the Ethernet cable to the Ethernet connector of the CyberPower Remote Management Card.
5. (Optional) To connect the environmental sensor, use a RJ45 Ethernet cable. Connect one end to the Universal connector on the RMCARD and the other end into the sensor. For further information, please refer to the ENVIROSENSOR user's manual.

Note: The CyberPower Remote Management Card is a hot-swap device, so you do not need to turn off the UPS to install it.





Definitions for LED Indicators

Link LED color	Condition
Off	The Remote Management Card is not connected to the Network/ or the Remote Management Card power is off
On(Yellow)	The Remote Management Card is connected to the Network
TX/RX LED color	
Off	The Remote Management Card power is off
On(Green)	The Remote Management Card power is on
Flash	- Receiving/transmitting data packet - Reset finished

Step 2. Configure the IP address for the CyberPower Remote Management Card

Note: These instructions are for Windows OS. For other OS please refer to Appendix 2.

Method 1: Using the Power Device Network Utility tool

1. Install the Power Device Network Utility tool available for download on the Network Power Management product web page at www.CyberPower.com.
2. After installation completes, run the "Power Device Network Utility".
3. The main dialog of the Power Device Network Utility Tool program is shown in Figure 1. The configuration tool will display all CyberPower Remote Management devices present on the same network subnet. The "Refresh" button is used to search the local network subnet again.

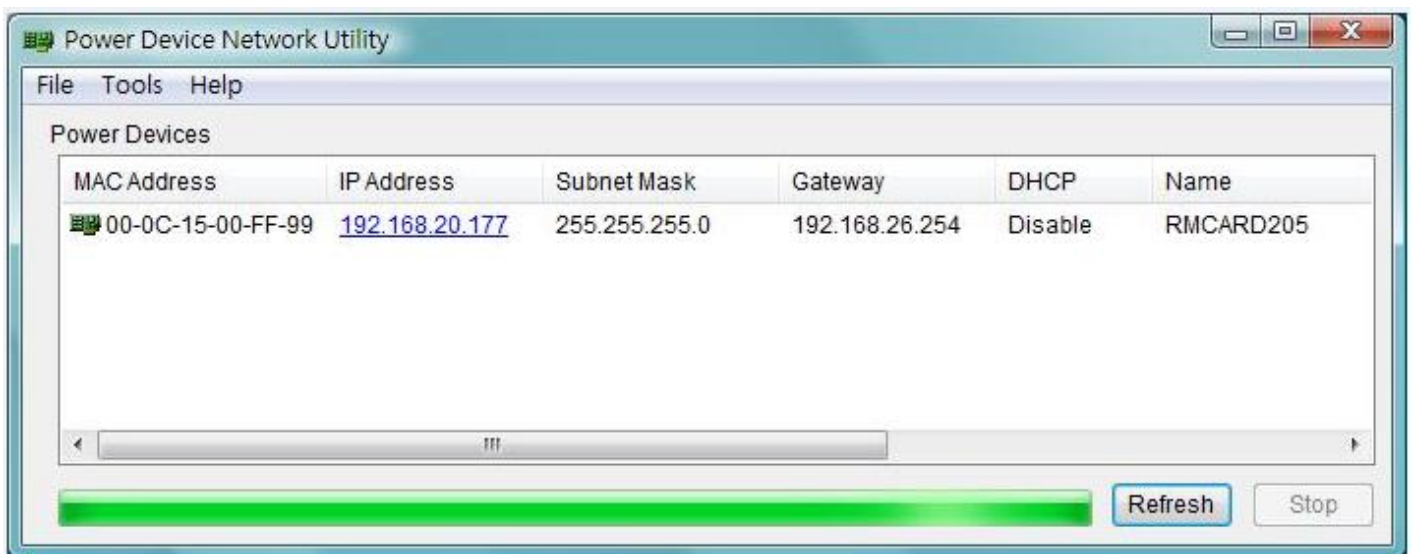


Figure 1. The main window of the "Power Device Network Utility" program.

4. Select the Remote Management Card you are setting up. Click on the Tools menu and select "Device Setup" or double click the Remote Management Card you want to configure.

5. You can modify the IP Address, Subnet Mask, and Gateway address for the Device MAC Address listed in the Device Network Settings window, as shown in Figure 2. The default IP Address is 192.168.20.177 and the default Subnet Mask is 255.255.255.0.

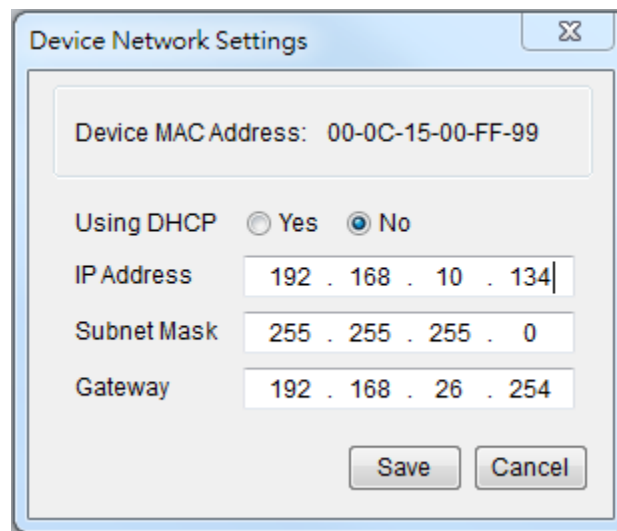


Figure 2. The Device Network setting window.

6. Modify the IP, subnet mask or gateway address. Enter the new addresses into the corresponding fields.
7. You will need to enter a User Name and Password for the Remote Management Card in the authentication window, as shown in Figure 3. There are two combinations of default user name and password, and both can work.
- (1) Default user name: **admin**
Default password: **admin**
- or
- (2) Default user name: **cyber**
Default password: **cyber**

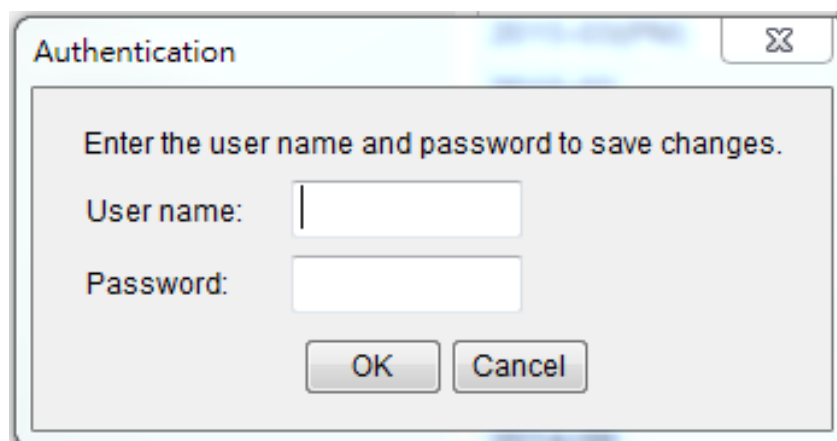


Figure 3. Authentication window.

8. If the IP address change is successful, you will see a message confirming the IP set up is OK, as shown in Figure 4.

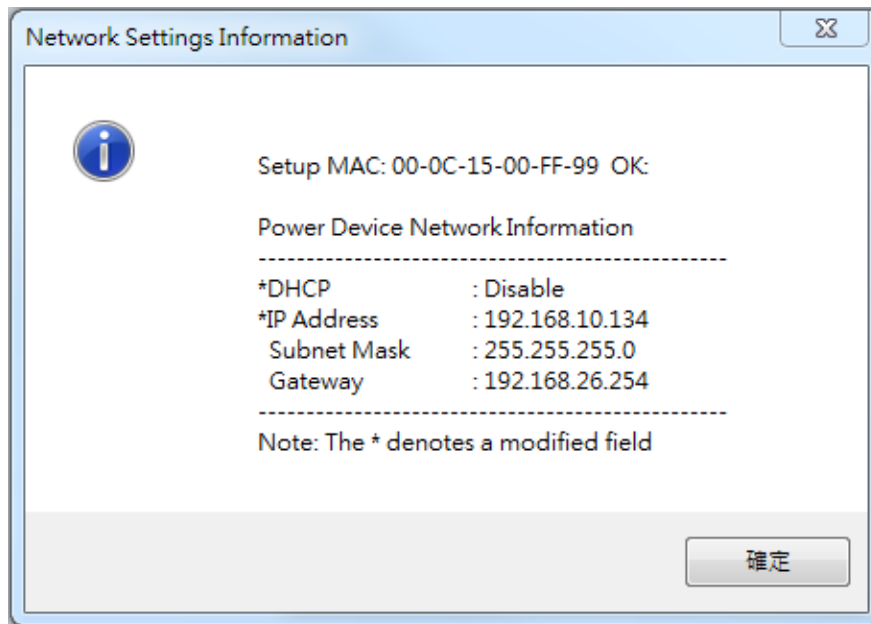


Figure 4. Setup IP Address successfully message.

Method 2: Using a command prompt

1. Obtain the MAC address from the label on the Remote Management Card. Each Management Card has a unique MAC address.

Note: The MAC address is labelled on the card.

2. Use the ARP command to set the IP address.

Example:

To assign the IP Address 192.168.10.134 for the Remote Management Card, which has a MAC address of 00-0C-15-00-FF-99 you will type in the following in the command prompt from a PC connected to the same network as the Remote Management Card.

(1) Type in “arp -s 192.168.10.134 00-0C-15-00-FF-99” then press Enter.

3. Use the Ping command to assign a size of 123 bytes to the IP.

(1) Type in “ping 192.168.10.134 -l 123” then press Enter.

(2) If the replies are received, your computer can communicate with the IP address.

To select an IP address for the Remote Management Card, please refer to Appendix 1.

Web Interface

Login User Account

You can select a preferred language, and will need to enter a User Name and Password to login to the interface. There are two user account types.

1. Administrator (Both combinations of default user name and password can work.)
 - (1) Default user name: **admin**
Default password: **admin**
 - or
 - (2) Default user name: **cyber**
Default password: **cyber**
2. View only
 - (1) Default username: **device**
Default password: **cyber**

The administrator can access all functions, including enable/disable the view only account. The viewer can access read only features but cannot change any settings.

Note: 1. The Administrator account is also used for the FTP log in and Power Device Network Utility.

2. The Login process uses MD5 algorithm to protect the username and password.

Web Content

[Summary] Provide an overview of the system operation and the items that are auto refreshed; However, different model of UPS systems may have different items displayed.

Item	Definition
Current Condition	Display the current operating condition of UPS and environmental sensor.
UPS Status	
Battery Capacity	The percentage of the current UPS battery capacity in a graph.
Load	The load of UPS as a percentage of available Watts in a graph.
Remaining Runtime	How long the UPS can support its load by battery power.
System Data	
Name	The name of the equipment.
Location	Where the power equipment is located.
Contact	The person to contact about this equipment.
Uptime.	How long the system has been working continuously
Envir Status	
Temperature	The current temperature of the environmental sensor in a graph.
Humidity	The current humidity of the environmental sensor in a graph.
Envir Data	
Name	The name of the environmental sensor.
Location	The location of the environmental sensor.
Recent Device Events	A list of device events that recently occurred.

[UPS] Following items can be displayed/configured through the UPS page; however, different UPS models may have different items displayed/configured.

[UPS->Status] Display the basic information about the current UPS status. Items displayed are auto refreshed.

Item	Definition
Input	
Status	The current status of the utility power supplied to the UPS.
Voltage	The current input voltage of the utility power supplied to the UPS.
Frequency	The current frequency of the utility power supplied to the UPS.
Output	
Status	The current status of the output power the UPS is supplying to connected equipment.
Voltage	The output voltage the UPS is supplying to the connected equipment.
Frequency	The output frequency the UPS is supplying to the connected equipment.
Load	The power draw of the connected equipment expressed as a percentage of the total load capacity. This is displayed as watts on some UPS models.
Current	The UPS output current in amps.
Non-Critical Load (NCL)	The present status of the NCL outlet.
Battery	
Status	The present status of the battery packs.
Remaining Capacity	The present capacity of the batteries, expressed as a percentage of full charge.
Remaining Runtime	The amount of time that the UPS can supply power to its load.
System	
Status	The present operating status of the UPS.
Temperature	The temperature inside the UPS.

[UPS->Information] Provide the technical specifications of the UPS.

Information	Description
Model Name	The model name of the UPS.
Serial Number	The serial number of the UPS.
Voltage Rating	The output voltage rating (Volts) of the UPS.
Working Frequency	The frequency of the UPS output power.
Power Rating	The Volt-Amp rating of the UPS.
Current Rating	The output current rating (Amps) of the UPS.
Load Power	The power rating (Watts) of the UPS.
Battery Voltage Rating	The DC voltage rating of the battery set.

Firmware Version	The revision number of the UPS firmware.
USB Version	The revision number of the UPS USB firmware
LCD Version	The revision number of the UPS LCD firmware
Battery Replacement Date	The date that the batteries were last replaced. This must be set manually and should be set after the batteries have been replaced or when the unit is first installed. If this date has not been set, it is recommended that this date should be set immediately.
NCL	The amount of the Non-Critical Load.
Extended Battery Pack	The amount of the external battery packs connected to the UPS. The number of packs is configured manually, and the configurations will vary by model.
Installation Place	When clicking the “Find it” button, either the alarm will beep or the indicators will flash to inform users of the location. This helps users to identify a specific UPS in a multiple UPS installation.

[UPS->Configuration] Configure the parameters of the UPS.

Item	Definition
Supplied Power	
Voltage	Set the output voltage which is supplied to the connected equipment.
Utility Power Failure Condition	
High/Low Input (or Output) Voltage Threshold	When the utility power voltage or output voltage (depending on UPS model) is higher/lower than the threshold, the UPS will supply battery power to the connected equipment. This setting only comes into effect after a restart of the UPS.
Utility Sensitivity	When the UPS detects the utility voltage is out of range, the UPS will switch to battery mode to protect the equipment plugged into the UPS. Low sensitivity has a looser voltage range and the supplied power may vary more widely. The power from fuel generator may cause the UPS to switch to battery mode more frequently, and the low sensitivity is recommended. The UPS switches to battery mode rarely and also saves more battery power. High sensitivity allows the UPS to supply the more stable power to equipments and switches to battery mode frequently.
Frequency Tolerance	Sets the acceptable range of the input frequency. The UPS will supply battery power to the connected equipment if it is out of tolerance.
Operation	
Normal	Normal operating mode of the UPS.
Generator Mode	If the UPS uses generator as its input power, this option should

	enable the UPS to function normally. If this option is selected, the UPS will be forbidden to enter Bypass mode or ECO mode to protect the connected equipment.
ECO Mode	On-line UPS enters Economy mode. The UPS will enter Bypass mode when the input voltage/frequency is within the configured threshold. Once the utility voltage/frequency exceeds thresholds, the UPS will switch to Normal operation.
Manual Bypass	Determines whether to allow the UPS to enter Manual Bypass mode. If this option is enabled, the UPS will be forced to enter Bypass mode.
Bypass	<i>Note: The UPS may automatically enter Bypass Mode per these configured settings.</i>
Bypass Condition	<p>No Bypass: If this option is selected, the UPS will not enter Bypass mode and will stop supplying output power.</p> <p>Check Volt/Freq: If the utility voltage is in the range of the voltage thresholds and the utility frequency is in range of the frequency tolerance, the UPS will enter Bypass mode. Otherwise the UPS will stop supplying output power.</p> <p>Check Volt Only: Only if the utility voltage is in the range of the voltage thresholds, the UPS will enter Bypass mode. Otherwise the UPS will stop supplying output power.</p>
Bypass When UPS Off	When the UPS turn off, the UPS switch to Bypass Mode.
Power Restore	After utility power is restored, the UPS turns on automatically and supplies power to the connected equipment. The following settings are used to configure the UPS restore behavior:
Automatic Restore	When this option is enabled, the UPS will restore output immediately when the utility power restores. When this option is disabled, the UPS will not restore output at that moment and users have to turn it on manually at a later time.
Recharged Delay	When utility power restores, the UPS will start to recharge until the specified delay is expired before restoring output power.
Recharged Capacity	When utility power restores, the UPS will start to recharge until the specified battery capacity is met before restoring output power.
Returned Delay	The Returned Delay will take effect every time when the UPS is turned on. This also includes the scheduling and user controlling task.
Line Stable Delay	When the UPS is in battery mode and utility power restored, the UPS would wait for the specific delay time to change battery mode to line mode. When the UPS battery is already lower then Low Battery Threshold and utility power restored, the UPS would return to line mode immediately.

Battery	
Low Battery Threshold	When the UPS supplies battery power and the remaining capacity is lower than this threshold, the UPS will alarm.
External Battery Pack	Set the amount of external battery packs. This allows for an accurate runtime estimation based upon the total number of batteries.
System	
Cold Start	Set the ability of the UPS to start in the absence of input power. When this option is enabled, the UPS can be turned on with battery power.
Audible Alarm	If this option is enabled, the UPS will issue an audible alarm when supplying battery power or when output is overloaded.
Dry Relay Function	<p>This configures the power condition for the UPS dry relay to function when the selected condition occurs. Refer to UPS manual for further information about advanced UPS dry relay utilization. The Dry Relay Function can be configured to be activated with following power conditions:</p> <p>(1)Utility Failure: The utility power fails and the UPS is using battery power.</p> <p>(2)Low Battery: The battery capacity is too low to support the connected computers to shut down.</p> <p>(3)Alarm: The UPS is issuing the audible alarm due to the occurrence of warning events, such as overload.</p> <p>(4)Bypass: The UPS has switched to Bypass mode due to overload or UPS fault.</p> <p>(5)UPS Fault: The UPS could be malfunctioning due to hardware fault.</p>
Screen Save Time	When no UPS button is pressed or no power event occurs during this delay, the LCD screen will be turned off.
Wiring Fault Detecting	If this option is enabled, the UPS will detect if the UPS wiring is not grounded or is reversed. It is recommended to assure the UPS wiring has ground connection first. This option should be enabled if the UPS wiring has ground connection.
Over Discharge Protection	When the UPS is on Battery Mode with 0% load and the status remains for the time configured, the RMCARD will enforce the UPS to Sleep Mode and the output will be turned off.
Enter Sleep Mode After All Clients Shutdown	If this option is enabled, UPS will enter sleep mode after utility power failed and remaining MSDT+2 minutes. More information about MSDT please reference to help page of UPS -> PowerPanel List.
Non-Critical Outlet Bank	
Turn Off Threshold	When supplying battery power, the UPS will power off this NCL outlet

	if the remaining battery capacity is lower than this threshold.
Turn off Delay Time	When supplying battery power, the UPS will power off this NCL outlet after this delay time is met.
Turn On Delay Time	When the utility power restores, the UPS will restore the output of this NCL outlet after the delay time is met. This prevents excessive power consumption caused by all the connected equipment starting at the same time.

[UPS->Master Switch] Switch the output power of the UPS to be on or off.

Item	Definition
Reboot UPS	Turns the UPS off and back on
Turn UPS Off	Turns the UPS off.
UPS Sleep	This command is available under Utility Power Failure Mode. It can make UPS in sleep mode until power restore. <i>Note: Some UPS may not support this command.</i>
Cancel	Cancel a pending action to turn the UPS off.
Turn UPS On	Turns the UPS on.
Shutdown/Sleep Delay	How long the UPS waits before it turns off in response to a "Reboot UPS", "Turn UPS off" or "UPS Sleep" commands.
Reboot Duration	After the UPS is turned off, Reboot Duration defines how long the UPS waits before its turned back in response to "Reboot UPS" command.
Signal PowerPanel® Clients to Shutdown	Select this option to warn PowerPanel® Business Edition Clients before UPS turning off. The Shutdown Delay (MST, Max Clients Shutdown Time) for the UPS can be revised to insure a graceful shutdown.

[UPS->Bank Control] Display the current state of each Bank, and it provides on/off control for the Non-Critical Outlet Bank. Outlet Index and Device Name display the device name provided power by the specific outlet.

Item	Definition
Bank Control Options	
ON	Turns non-critical bank on immediately.
OFF	Turns non-critical bank off immediately.
Device Name Identification	
Outlet #	The index of outlet.
Device Name	Device Name on this outlet.

[UPS->Diagnostics] When a power failure occurs, the UPS will supply battery power to all connected equipment immediately. The UPS must have sufficient runtime for all connected computers to be shut down properly.

The **UPS/Diagnostics** page provides the ability to verify the UPS can supply adequate battery runtime for the connected computers to shutdown properly. Perform a complete runtime calibration to ensure and accurate estimate of the runtime for the connected load. The buzzer can be tested that UPS can alarm and indicators can be verified that they can display well as demand of UPS.

Battery Test

The **Battery Test** will force the UPS to switch to battery power for 10 seconds. This allows the user to verify the battery conditions and provides information about the battery, including the results and date of the last battery test. Click the **“Start”** button to begin a battery test.

Performing a battery test is prohibited when the **Frequency Working Mode** option is set to *fixed*. If performing a battery test on the fixed frequency mode, a UPS fault may occur and cause the UPS to enter Bypass mode. The frequency on Bypass mode may not be accepted and may damage the connected equipment.

The results will be reported after a battery test completes.

- **Last Test Date:** The date the most recent running battery test.
- **Last Test Result:** The results of the most recent battery test.

Passed: The battery performs normally during the test.

None: The UPS has never performed the battery test.

Failed: The battery test results in failure.

Follow the steps below if the battery test fails:

Repeat the battery test and replace the batteries if the test fails again.

Contact **CyberPower** for assistance if the battery test fails after the batteries have been replaced.

Runtime Calibration

The **Runtime Calibration** ensures the runtime estimate is accurate with the load and the current battery capacity. The results show the runtime, the results, and the date of the last calibration.

When a runtime calibration is initiated, the connected equipment will be run on battery power until the batteries are completely discharged. The batteries will be then automatically recharged following the calibration.

Users can click the **“Start”** button to initiate a runtime calibration. Click the **“Cancel”** button to stop the runtime calibration. The result will be reported after a calibration is finished or canceled.

- **Estimated Runtime:** The estimated runtime of the batteries.
- **Last Elapsed Runtime:** The elapsed time of last Runtime calibration.
- **Last Calibration Result:** The results of the last Runtime calibration.

Passed: The runtime calibration is completed and the batteries are good.

None: The UPS has never performed a runtime calibration.

Failed: The UPS fails during the runtime calibration.

Canceled: The calibration was interrupted.

- **Last Calibration Date:** The date of the last Runtime calibration.

Note: 1. It is recommended to perform at least one calibration every 3 months.

2. A complete calibration causes the battery capacity to deplete. Ensure the UPS has recharged completely after performing a calibration.

[UPS->Schedule]: Sets the UPS to automatically shutdown and restart at scheduled times (Once/Daily/Weekly). The **Schedule** page manages scheduled shutdowns and lists all configured schedules. Each schedule row displays the details of when the schedule will take effect and when to perform it.

[Once]: The user may set a specific date and time for the UPS shutdown.

[Daily]: Set a specific time of the day for the UPS shutdown.

[Weekly]: Set a specific day and time of the week for the UPS shutdown.

1. Click [Once], [Daily] or [Weekly] option and Click "Next>>", Enter the date and time to shut down the UPS. Select [Never], [Instant], or the date and time for the UPS to restore power. Select the bank to be controlled, and click "Shutdown Clients" to set all clients to perform a graceful shutdown. You can enter a "Name" for this Schedule.
2. Click "Apply" to add the item to the Schedule. Click "Reset" to remove the item from the Schedule.
3. Applied settings are listed in [Schedule] menu.

Note: The management system allows up to 10 scheduled settings.

[UPS->Wake on Lan] This function is used to wake the PC through the network. Enter the IP address of that PC when it is on and the system will search its MAC accordingly. The maximum number of IP that can be set is 50.

Item	Definition
WoL Features	
Load/Sync with PowerPanel® Client List	Load and Sync with PowerPanel Client List. Wake on the PowerPanel Client network device on power event.
Wake Conditions	
UPS Turn On	Enable the option can wake on registered network device when power event: UPS turned on occur.
Utility Power Restore and Output is Supplied	Enable the option can wake on registered network device when power event: UPS Utility Restore and Output is Supplied.

Note: Make sure the PC hardware has such function supported and configures as "Enable" under BIOS.

[UPS->EnergyWise] The EnergyWise initiative focuses on reducing the energy consumption of all devices connected to a Cisco network. Through this compatibility, the CyberPower Remote Management Card is recognized to work with other EnergyWise-enabled entities and can be easily monitored and controlled to achieve the best energy performance under the EnergyWise operation framework.

Item	Definition
Configuration	
EnergyWise	Enable CISCO EnergyWise support.
Service port	The port number used to communicate with EnergyWise solution (must the same as switch).
Domain Name	The domain name of the EnergyWise solution (must the same as switch).
Off-State Cache	Enable/Disable endpoint entry to cache in the switch energywise list after reboot.
Secure Mode	Enable EnergyWise use of a shared secret.
Shared Secret	The secret for the EnergyWise domain.
Node List	EnergyWise Children List page shows all EnergyWise entities and provides users to configure EnergyWise Entity attributes.
Name	The name used to identify each outlet.
Role	This parameter is a string used to describe the function of the entity (max length 31 characters).
Keywords	This parameter is a string used to describe the entity (max length 31 characters).
importance	This parameter is a value between 1 and 100 that shows the entity importance high or low.

[UPS->PowerPanel[®] List] Display the Information of connected PPBE (PowerPanel[®] Business Edition) Clients. The connection is executed by PPBE Clients and the listed clients will be removed if disconnected for 1 hour.

Item	Definition
Configuration	
Max Clients Shutdown Time (MST)	The max time that all the connected clients required to shutdown.
Max Clients Shutdown Delay Time (MSDT)	The max value required from utility power fails till all the clients are shutdown.

[Envir] Following items can be displayed/configured through the Envir page.

[Envir->Status] Display the basic information of the environmental sensor and connected devices.

Item	Definition
Information	
Name	The name of the environment sensor.
Location	The location of the environment sensor.
Temperature	
Current Value	The current temperature of the environment.
Maximum	The highest temperature as well as the time of occurrence detected by the environment sensor.
Minimum	The lowest temperature as well as the time of occurrence detected by the environment sensor.
Humidity	
Current Value	The current humidity of the environment.
Maximum	The highest humidity as well as the time of occurrence detected by the environment sensor.
Minimum	The lowest humidity as well as the time of occurrence detected by the environment sensor.
Contact	Display the name and status (Normal/Abnormal) of contacts.

[Envir->Configuration]

Item	Definition
Information	
Name	The name used to identify the environment sensor.
Location	The place where the environment sensor is located.
Temperature	
High Threshold	Upper limit for normal temperature.
Low Threshold	Lower limit for normal temperature.
Hysteresis	The difference between High/Low Threshold and the point where the temperature state is from abnormal to normal.
Rate of Change	The rate used to define abnormal change of temperature.
Unit	The unit of temperature.
Humidity	
High Threshold	Upper limit for normal humidity.
Low Threshold	Lower limit for normal temperature.
Hysteresis	The difference between High/Low Threshold and the point where the humidity state is from abnormal to normal.
Rate of Change	The rate used to define abnormal change of humidity.
Contact	
Name	The name used to identify the contact.
State	The state used to define normal condition of the contact

[Logs->Event Logs] Display the list of events and a brief description of each event along with the date and time stamp.

Note: 1. The recordable events are listed under “System->Notifications->Event Action.”

2. The recorded time is using the 24-hour clock format.

[Logs->Status Records] This page is used to view the logs of the UPS status and environment status; however, different product may have different items displayed.

All items have the same definition as they are in the UPS status or environment status.

- Input min (V): The minimum input voltage of the utility power from the previous record.
- Input max (V): The maximum input voltage of the utility power from the previous record.
- Input (Hz): The current frequency of the utility power supplied to the UPS.
- Output (V): The output voltage of the UPS supplying to the connected equipment.
- Output (Hz): The output frequency of the UPS supplying to the connected equipment.
- Load (%): The percentage of the total UPS power load supplying to the connected equipment.
- Capacity (%): The percentage of the current UPS battery capacity.
- Remaining Runtime: How long the UPS can support its load under battery mode.
- Temperature (°C or °F): The current temperature of the environment.
- Humidity (%RH): The current humidity of the environment.

[Logs->Graphing] This page is used to diagram the data of the Status Record. The graphing function makes the status records easier to be analyzed.

Item	Definition
Graph Period	The period used to draw the graph backward from today. The longer period selected, the more graphing time is needed.
Graph Data	The data used to draw the graph. The more data selected, the more graphing time is needed.
Graph Node	Select “Display All Nodes in Detail” will display all the points along with the line; meanwhile, moving the cursor on the point will show the information of that point. If the box is not selected, the graph will show the line only but less graphing time is needed.
Launch Graph in New Window	Click the box will open a new page showing the graph in detail.

[Logs->Maintenance] This page is used to maintain “Event Logs” and “Status Records”. The application provides information on how many events have been recorded before it is full.

Item	Definition
Event Logs	
Clear All Logs	Clear the existing event logs.
The Number of Events	The number of existing event logs/the max number of event logs.
Save Event Logs	Save the existing event logs as a txt file.
Status Records	
Recording Interval	Set the frequency to record the status data. A smaller interval will provide more frequent recordings but maintain them for a shorter period. A larger interval will provide less frequent recordings, but maintain them for a longer period.
Clear All Records	Clear the existing status records.
Remaining Time	The remaining recordable time base on the recording interval.
Save Status Records	Save the status records as a txt file.

Note: Some old event logs/status records will be cleared automatically when there is no space to record.

[Logs->Syslog] Allow users set syslog server and send test message.

Item	Definition
Syslog	Enable send event logs to Syslog server.
Facility Code	Select Syslog facility.
Server IP Address	The IP address of Syslog server.
Server Port	The UDP port used by the Syslog server.
Send Test	Send informational message to syslog server.

[System->General->Time] Current Settings: Displays the current date and time on the card and also display the status and rest time to update with Network Time Protocol (NTP). To set the date and time, users can choose to set manually or by using the NTP (Network Time Protocol) server.

System Time Configuration:

Choose the Time Zone of your location in GMT (Greenwich Mean Time) first, and

- **Using NTP server:** Enter the IP address/domain name of NTP servers, choose the time zone, and set the frequency to update the date and time from NTP server. Click "Update right now" to update immediately.
- **Manual Setup:** Enter the date and time in the designated format.

[System->General->Identification] Assign the system's name, contact, and location.

Item	Definition
Name	The name of the equipment.
Location	Where the power equipment is located.
Contact	The person to contact about this equipment.

[System->General->Daylight Saving Time] Adjust the clock daylight saving time.

Item	Definition
DST Configuration	
Disable	Disable DST.
Tradition US DST	Tradition US DST Start: 2:00, second Sunday in March. End: 2:00 first Sunday in November.
Manual DST	Manual DST date time rules.

[System->Security->Authentication] Set for login authentication and software authentication.

Item	Definition
Login Authentication	
Local Account	User to login Remote Management Card with user name and password that configured in Local Account.
RADIUS , Local Account	User to login Remote Management Card with user name and password for authenticate with RADIUS server first. If the RADIUS server fails to respond, the user name and password that configured in Local Account will be used.
RADIUS Only	User to login Remote Management Card with user name and password for authenticate with RADIUS server only.
LDAP , Local Account	User to login Remote Management Card with user name and password for authenticate with LDAP server first. If the LDAP server fails to respond, the user name and password that configured in Local Account will be used.
LDAP Only	User to login Remote Management Card with user name and password for authenticate with LDAP server only.
Software Authentication	
Secret Phrase	The Authentication Phrase used to communicate with PowerPanel Business Edition Client. <i>Note: For more information, please refer to Appendix 2.</i>

[System->Security->Local Account] This page is used to configure the login account.

Information	Description
Administrator	The administrator can access full function, including enable/disable the Viewer account.
Viewer	The viewer can access the read function but cannot control or change any settings.
Manager IP	This IP setting is to set the allowable IP addresses. Users who log in as Admin (Viewer) can access RMCARD web pages if its IP Address is in one of Admin (Viewer) Manager IPs. If you want to access RMCARD from any IP address, you can set one of them as 0.0.0.0 or 255.255.255.255.

Change Administrator account:

1. Enter User Name
2. Enter Current Password for Authentication
3. Set the Manager IP (*optional*)
4. Enter New Password
5. Enter Confirm Password
6. Click "Apply"

Change Viewer account:

1. Select "Allow Access" to enable the Viewer account
2. Enter the User Name
3. Set the Manager IP (*optional*)
4. Enter New Password
5. Enter Confirm Password
6. Click "Apply"

Note: Only one user at a time may login WEB interface to access the device.

[System->Security->RADIUS Configuration] After setting the proper RADIUS server, the Remote Management Card can use user name and password that set on the RADIUS server to login.

Item	Definition
Server IP	The IP address of RADIUS server.
Shared Secret	The shared secret of Radius server.
Server Port	The UDP port used by the Radius server.
Test Setting	Using User Name and Password to authenticate with RADIUS server, and save information of RADIUS server if authentication succeeded.
Skip Test	There are save information of the RADIUS server with no test.

[System->Security->LDAP Configuration] After setting the proper LDAP server, the Remote Management Card can use user name and password that set on the LDAP server to login.

Item	Definition
LDAP Server	The IP address of LDAP server.
LDAP SSL	To communicate with LDAP server by LDAPS.
Port	The TCP port used by the LDAP(S) server.
Base DN	The Base DN of LDAP server.
Login Attribute	The Login Attribute of ldap user entry.(ex:cn or uid)
Type	The type of LDAP server (OPENLDAP or Active Directory).
AD Domain	The AD Domain of the Active Directory server.
Test Setting	Using User Name and Password to authenticate with LDAP server, and save information of LDAP server if authentication succeeded.
Skip Test	There are save information of the LDAP server with no test.

[System->Security->Session Control] Set for security setting.

Item	Definition
Timeout	The period (in minutes) that the system waits before auto logging off

[System->Network Service->TCP/IPv4] Display the current TCP/IP settings and also provides the function to obtain TCP/IP settings from the DHCP server.

Item	Definition
Current Configuration	Displays the current TCP/IP settings: IP address, subnet mask, gateway, primary DNS server, and second DNS server.
Using DHCP	Select the "Enable DHCP" option and click "Apply" to get IP address, Subnet Mask, and Gateway by DHCP. Select the "Obtain DNS Address from DHCP" option and click "Apply" to get the IP of DNS from the DHCP.
Manual	Enter the TCP/IP settings directly and click "Apply".

[System->Network Service->TCP/IPv6] Display the current the IPv6 settings.

Item	Definition
IPv6 Interface	Displays the current IPv6 address.
IPv6 Gateway	Displays the current IPv6 gateway.
IPv6 Configuration	
Access	Set the IPv6 service to either Enable or Disable.
Router Control	The IPv6 address is assigned through the method (Stateless Address Auto-configuration, Stateless DHCPv6 or Stateful DHCPv6) which is decided by router setting.
Manual	The IPv6 address is assigned by manual setting.
Manual IPv6 Address	Enter the IPv6 address directly and click "Apply" when the Manual box is checked.

[System->Network Service->SNMPv1 Service] Allow users to select the NMS, defined by the IP settings that can use the channel to control the system data access through SNMPv1 Service.

Item	Definition
SNMPv1 Service	
Allow Access	Set the SNMP service to either Enable or Disable.
SNMPv1 Access Control	
Community	The name used to access this community by a Network Management System (NMS). The field must be 1 to 15 characters length.
IP Address	The IP address or IP address mask can be accessed by NMS. A specific IP address allows access only by the NMS with the specified IP Address. The 255 is regarded as the mask and the rules list as follows: <ul style="list-style-type: none"> • 192.168.20.255: Access only by an NMS on the 192.168.20 segment. • 192.255.255.255: Access only by an NMS on the 192 segment. • 0.0.0.0 (the default setting) or 255.255.255.255: Access by any NMS on any segment.
Access Type	The allowable action for the NMS through the community and IP. <ul style="list-style-type: none"> • Read Only: Gets at any time but cannot SETS. • Write/Read: Gets at any time, SETs anytime unless someone is logged in the Web interface. • Forbidden: No GETS or SETS.

[System->Network Service->SNMPv3 Service] Allow users to enable/disable SNMPv3 service and configure the parameters of accessing through SNMPv3 service.

Item	Definition
SNMPv3 Service	
Allow Access	Set the SNMPv3 service to either Enable or Disable.
SNMPv3 Access Control	
User Name	The name to identify SNMPv3 user. The field must be 1 to 31 characters length.
Authentication Password	The password used to generate the key used for authentication. The field must be 16 to 31 characters length.
Privacy Password	The password used to generate the key used for encryption. The field must be 16 to 31 characters length.
IP Address	The IP address or IP address mask can be accessed by NMS. A specific IP address allows access only by the NMS with the specified IP Address. The 255 is regarded as the mask and the rules list as follows: <ul style="list-style-type: none"> • 192.168.20.255: Access only by an NMS on the 192.168.20

	segment. <ul style="list-style-type: none"> • 192.255.255.255: Access only by an NMS on the 192 segment. • 0.0.0.0 (the default setting) or 255.255.255.255: Access by any NMS on any segment.
Authentication Type	The hash type for authentication.
Privacy Type	The type for encrypting and decrypting data.

Note: The privacy protocol cannot be selected if no authentication protocol is selected

[System->Network Service->Web Service] Select Enable to allow access to the HTTP or HTTPS Service and configures the TCP/IP port for them. Use the “Valid Certificate” to browse the detailed information of HTTPS Certification; use the “upload Certificate” to upload and replace the HTTPS Certification.

Note: The format of uploading certificate must in a standard PEM (Privacy Enhanced Mail).

[System->Network Service->Console Service] Selects Enable to allow access to the Telnet or SSH Service and configures the TCP/IP port that Telnet or SSH uses to communicate.

Note: To enhance security, users can change port setting to any unused port from 5000 to 65535. Users must then specify the non-default port to obtain access. Telnet clients require users to append either a space and the port number or a colon and the port number to the command line to access the control console.

[System->Network Service->FTP Service] Allows users to Enable/Disable the FTP server service and configure the TCP/IP port of the FTP server (21 by default).

Note: The FTP server is used for upgrading Firmware. For more details about the upgrade process, please refer to “Firmware Upgrade” section.

[System->Notifications->Event Action] Display the event actions for each event. Users can click on the event to modify its action. When a specific event happens, the user can be notified by the corresponding method according to this list.

- Log: Record the event in the “Event Logs”.
- E-mail: Send an email to a specific user (An available SMTP server is necessary).
- Trap: A SNMP trap sent to a specific IP address.
- SMS: Send a short message to a specific mobile phone number (An available SMS service provider is needed).

[System->Notifications->SMTP Server] After setting the proper SMTP server, event notification email can sent to recipients when specific event occurs.

Item	Definition
Server's IP/Host Name	The IP or Host Name of SMTP server used to notify users by E-mail.

Sender's E-mail Address	The context of From field shown in the e-mail message sent to user.
Authentication	Select this option if the SMTP server needs Authentication check.
Username	Username used for Authentication.
Password	Password used for Authentication.
Secure connection	Enable TLS or SSL to Encrypt the SMTP connection.
Service port	The port number that PDU uses to communicate with SMTP server.

[System->Notifications->E-mail Recipients] Sets up to five e-mail recipients in designated email address format. The Recipients will receive an e-mail notification when Events occur.

To add a new recipient, click "New Recipient". To modify or delete an existing Recipient, click the e-mail address of that recipient. To check if SMTP setting and the email recipients are set correctly, click "TEST" button to check receiving status.

[System->Notifications->Trap Receivers] List of NMS IP (IPv6 Support) as TRAP receiver and the number of receivers can be set up to 10. The receiver will receive a SNMP trap when an event occurs.

To add a new receiver, click "New Receiver". To modify or delete an existing receiver, click the IP address or name of that receiver. To check if the traps can be received correctly, click "TEST" button.

[System->Notifications->SMS Service] Short Message Service (SMS) is a communication service used by mobile communication systems. Using standardized communication protocols will allow the interchange of short text messages between mobile devices. The system provides 4 methods to users to choose how they want to send the messages.

Information	Description
Service provider is Clickatell	Select the Clickatell option in the SMS Method field. Complete all the account details including Username, Password and HTTP API ID fields.
Service provider accepts HTTP GET	This specification from the SMS provider is required before using the HTTP GET method. Select the Using HTTP GET option in the SMS Method field. Insert the E_PHONE_NUMBER as recipient's mobile phone number and the E_PHONE_MESSAGE as event message, describe in the specification, and fill in the URL field. The expressions will be replaced by relevant content before the Client sends a notification to SMS provider.
Service provider accepts HTTP POST	This specification from the SMS provider is required before using the HTTP POST method to deliver messages to SMS providers. Select the Using HTTP POST option in the SMS Method field. Insert E_PHONE_NUMBER as recipient's mobile phone number and E_PHONE_MESSAGE as the event message, describe in the

	specification, and fill in the POST URL and POST BODY fields. The expressions will be replaced by the relevant content before the Agent/Client sends a notification to the SMS provider.
Service provider accepts E-mail (SMTP)	This specification from a SMS provider is required before using the E-mail to deliver the messages to SMS providers. Select the Using E-mail option in the Service Provider field. Insert E_PHONE_NUMBER as recipient's mobile phone number and the E_PHONE_MESSAGE as event message, describe in the specification. Fill in the Recipient's Address, Subject and Content. The expressions will be replaced by the relevant content before the Agent/Client sends a notification to the SMS provider.

[System->Notifications->SMS Recipients] Users can set up to 10 mobile phone numbers as SMS recipients. The Recipients will receive a short message notification when events occur.

To add a new recipient, click "New Recipient". To modify or delete an existing Recipient, click the mobile number or Name of that recipient. To test SMS settings, click "TEST" button and see if the test message is correctly received.

[System->Reset/Reboot] Reset or reboot the UPS.

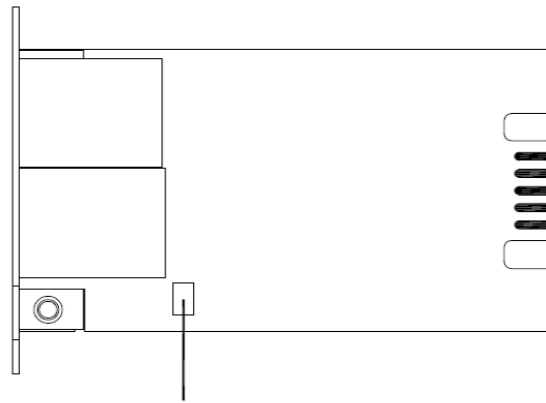
Item	Definition
Reboot RMCARD	Restart the RMCARD without turning off and restarting the UPS.
Reset RMCARD	Reset the RMCARD to default setting and restart it. This action will not turn off or restart the UPS.
Reset RMCARD (TCP/IP Settings Reserved)	Reset the RMCARD to default setting but reserving TCP/IP settings, and restart it. This action will not turn off or restart the UPS.

[System->About] Display vital information for the Remote Management Card.

Item	Definition
Model Name	Model name of the Remote Management Card.
Hardware Version	The hardware version of the Remote Management Card.
Firmware Version	The version number of the current firmware installed on Remote Management Card.
Firmware Updated Date	The last date the firmware was updated.
MAC Address	MAC address of the Remote Management Card.
Save Configuration	Click "Save" to save the configuration to local PC. The text file will have a default format of YYYY_MM_DD_HHMM.txt.
Restore Configuration	Use this function to restore a configuration that has been saved earlier. Click "Browse" to the location of the saved configuration file and click "Submit".

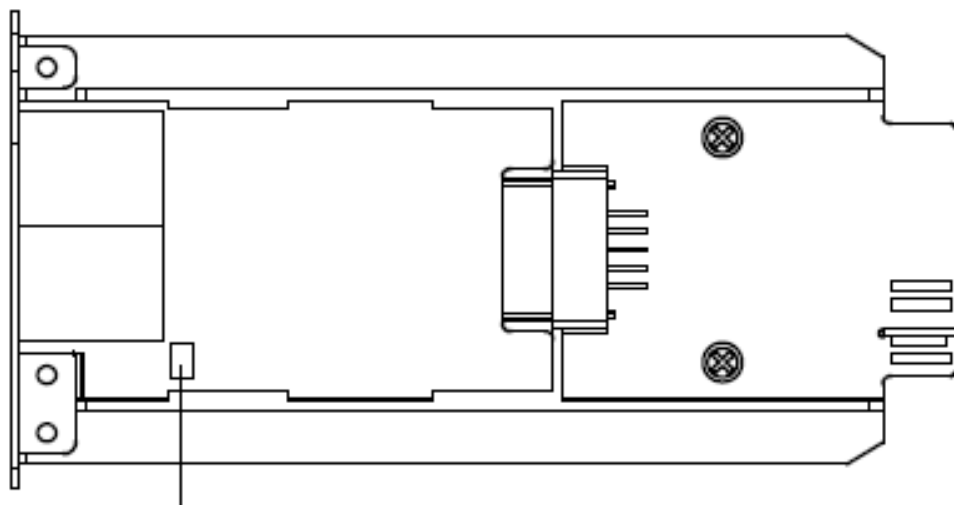
Reset to Default Setting / Recover from a Lost Password

To reset the CyberPower Remote Management Card to its default setting (including WEB log-in user name and password), please use the following steps:



RESET

RMCARD205



RESET

RMCARD305

1. Remove the two retaining screws on the card without turning off the UPS.
2. Uninstall the card.
3. Take off the jumper on the Reset pins as illustrated (the jumper is still necessary after reset, please do not lose or dispose it).
4. Re-install the card into the expansion port.
5. Wait until the Green LED is flashing (the frequency of the ON/OFF flashing is one second).
6. Uninstall the card again.
7. Place the jumper back onto the Reset pins.
8. Install card into the expansion port again.
9. Tighten the retaining screws.

Firmware Upgrade

By upgrading the Firmware, you can obtain both the new features and updates/improvements to existing functionality. You can check the “Firmware version” on the **[System->About]** webpage. There are two files to update in order to upgrade the firmware version.

Firmware upgrade files:

- A. cpsrm2scfw_XXX.bin
- B. cpsrm2scdata_XXX.bin

Note: Please do not turn the UPS off when processing the Firmware upgrade.

Method 1: Using FTP command

Use the following steps to upgrade the firmware:

1. Download the latest Firmware
2. Extract the file to “C:\”
3. Open a command prompt window
4. Login to the CyberPower Remote Management Card with FTP command, type
 - (1) ftp
 - (2) ftp> open
 - (3) To [current ip of RMCARD] [port]; EX: To 192.168.22.126 21
 - (4) Input USER NAME and PASSWORD (same as the administrator account in Web interface default: ‘cyber’ or ‘admin’; ‘cyber’ or ‘admin’)
5. Upgrade the file A, type
 - ftp > bin
 - ftp > put A. cpsrm2scfw_XXX.bin
6. Upgrade complete, type
 - ftp > quit
7. The system will reboot after you type “quit”
8. Login to the FTP again as step 4.
9. Upgrade the file B, type
 - ftp > bin
 - ftp > put B. cpsrm2scdata_XXX.bin
10. Upgrade complete, type
 - ftp > quit
11. The system will reboot after you type “quit”

Method 2: Using Upgrade and Configuration Utility tool (Bulk firmware upgrade tool)

1. Install the CyberPower Upgrade and Configuration Utility tool available for download on the Network Power Management product web page at www.CyberPower.com.
2. After installation completes, run the “Upgrade and Configuration Utility”.
3. The main dialog of the Upgrade and Configuration Utility tool program is shown in Figure 5. The configuration tool will display all CyberPower Remote Management devices present on the same network subnet. The "Discover" button is used to search the local network subnet again.

Note: You can click “View” to select the items you want to view.

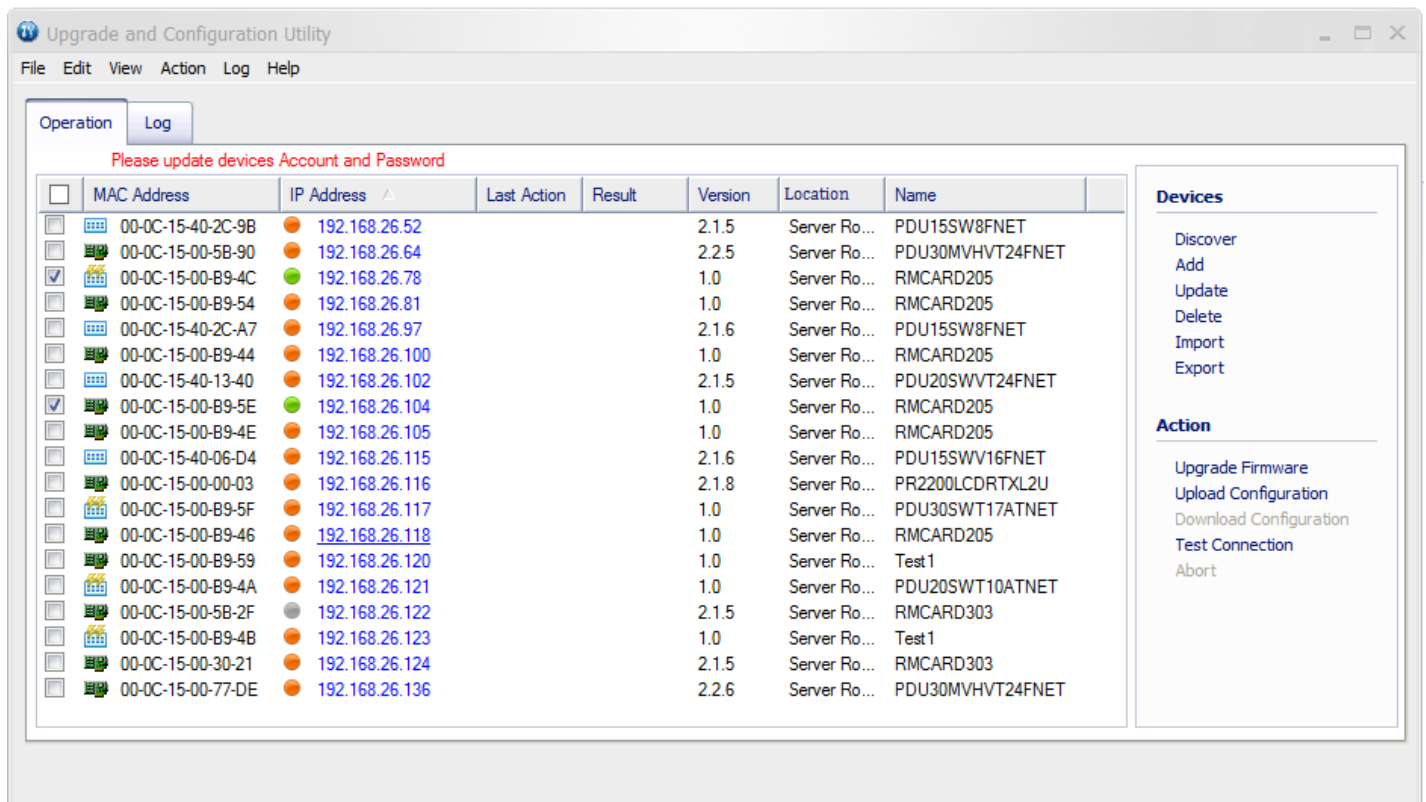


Figure 5. The main window of the “Upgrade and Configuration Utility” program.

4. Click the as to select the Remote Management Cards, and select “Update” on the right to update devices account and password. Once the update confirmed, the ● will become ●. For example, to update the account and password for the two Remote Management Cards, which have MAC address of 00-0C-15-00-B9-4C and 00-0C-15-00-B9-5E individually, as shown in Figure 5.

Note: You must update the devices account and password before firmware upgrade.

5. Click on the of devices you want to upgrade the firmware and select “Upgrade Firmware”.

Note: You can upgrade the firmware of more than one device which uses the same firmware files (Bulk firmware upgrade).

6. Choose the upgrade files Firmware and Data individually and click “OK” to implement firmware upgrade, as shown in Figure 6.

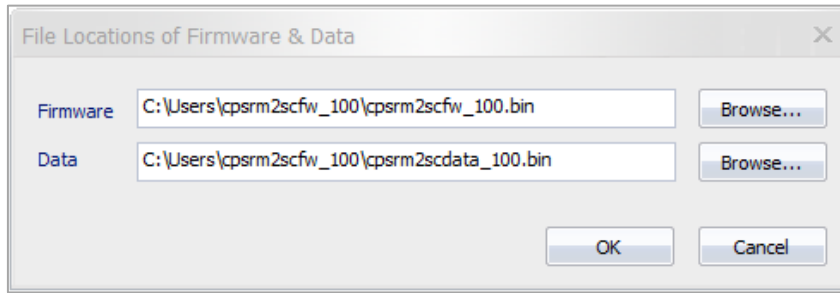


Figure 6. The File Locations of Firmware & Data window.

7. If the firmware upgrade is implemented, you will see the Result in the main dialog, as shown in Figure 7.

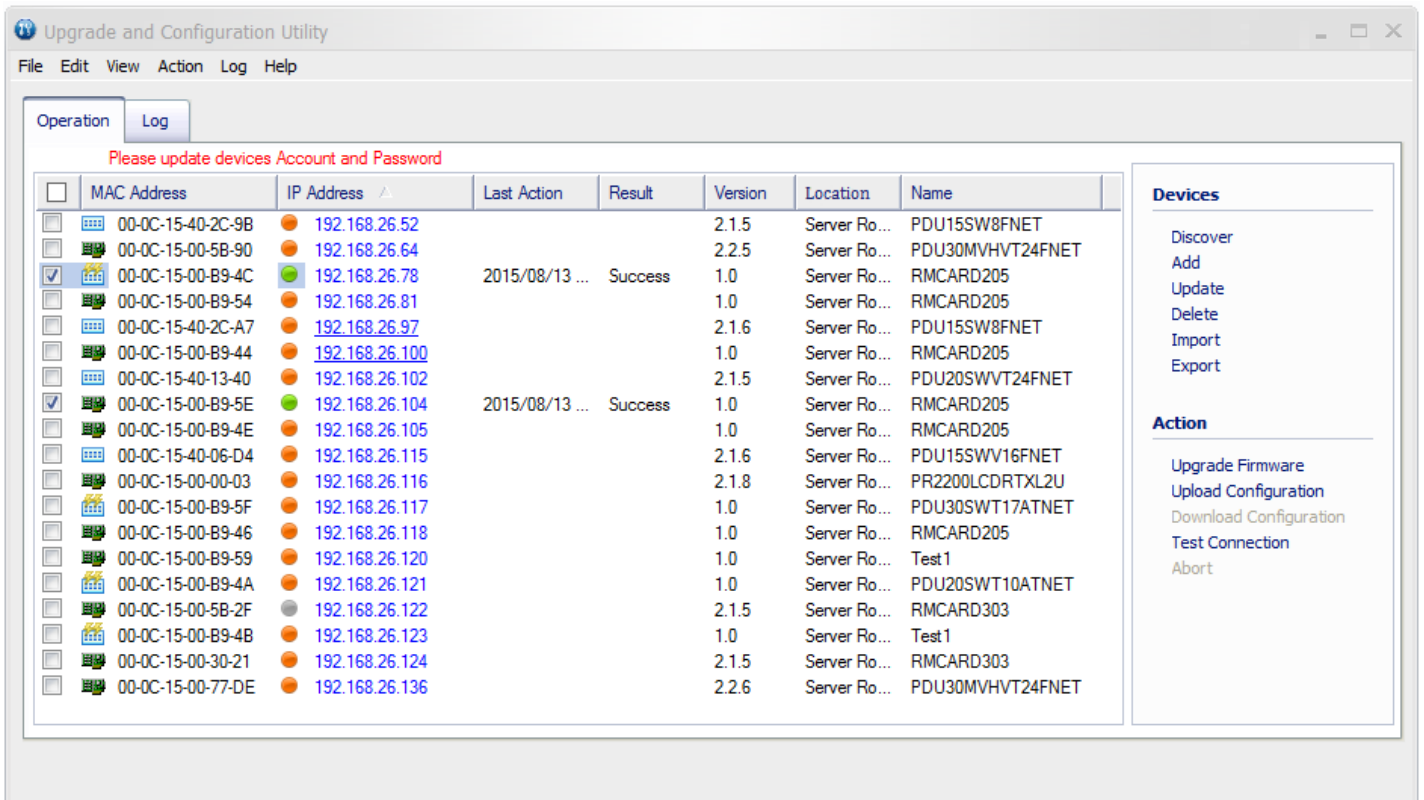
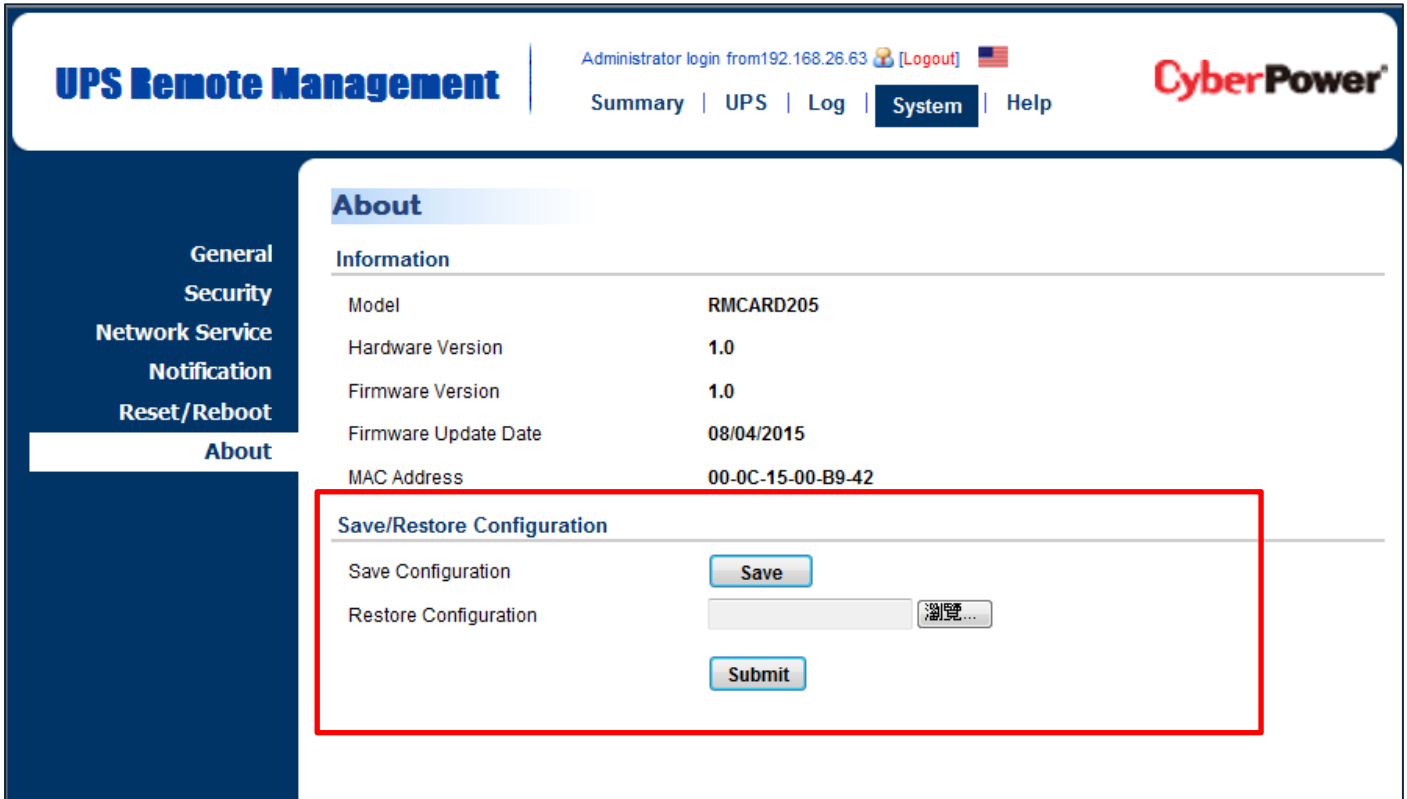


Figure 7. Firmware upgrade successfully in the main window.

Save and Restore Configuration Settings



The screenshot shows the 'UPS Remote Management' web interface. The top navigation bar includes the title 'UPS Remote Management', user information 'Administrator login from 192.168.26.63 [Logout]', and the CyberPower logo. A secondary navigation bar contains links for 'Summary', 'UPS', 'Log', 'System', and 'Help'. A left sidebar lists menu items: 'General', 'Security', 'Network Service', 'Notification', 'Reset/Reboot', and 'About'. The main content area is titled 'About' and contains an 'Information' table with the following data:

Information	
Model	RMCARD205
Hardware Version	1.0
Firmware Version	1.0
Firmware Update Date	08/04/2015
MAC Address	00-0C-15-00-B9-42

Below the information table is a section titled 'Save/Restore Configuration' which is highlighted with a red border. It contains two rows of controls:

- 'Save Configuration' with a 'Save' button.
- 'Restore Configuration' with a text input field, a 'Browse...' button, and a 'Submit' button.

Figure 8. Save/Restore Configuration in the main window.

You can easily save and restore the configuration to local PC, and the route is **[System->About]**. For save configuration, click "Save" to save the configuration to local PC. The text file will have a default format of YYYY_MM_DD_HHMM.txt. For restore configuration, click "Browse" to the location of the saved configuration file and click "Submit" to restore a configuration that has been saved earlier.

Troubleshooting

Problem	Solution
Unable to configure the Remote Management Card by method 1 or method 2 in user's manual.	<ol style="list-style-type: none"> 1. Check the LED status, the condition is normal when the yellow and green LEDs are both on. If green LED is off : ▶ Check if the Remote Management Card is properly seated in the UPS and the UPS power is connected to working electrical outlet. If yellow LED is off : ▶ Ensure the network connection is good. 2. Ensure the PC being used is on the same network subnet as Remote Management Card. 3. Ensure the Jumper on the Reset Pin is correctly installed.
Unable to ping the Remote Management Card	<ol style="list-style-type: none"> 1. Use method 1 and method 2 in user's manual to get/set a correct IP address for the Remote Management Card. 2. If the PC being used is on a different network subnet from the Remote Management Card, verify the setting of subnet mask and the IP address of gateway.
Lost the user name and password	Please refer to the "Reset to Default Setting / Recover from a Lost Password" part in the user's manual.
Default Network Setting	IP: 192.168.20.177 Subnet mask: 255.255.255.0 DHCP: On
Unable to access the Web Interface.	<ol style="list-style-type: none"> 1. Ensure the Http/Https access is enabled. 2. Ensure you can ping the RMCARD. 3. Ensure you are specifying the correct URL.
Unable to operate a SNMP get/set.	SNMPv1: Verify the community name. SNMPv3: Verify the user profile configuration.
Unable to receive traps.	<ol style="list-style-type: none"> 1. Ensure the trap types (SNMPv1/SNMPv3) and trap receiver are configured correctly. 2. Ensure the IP address of gateway is configured correctly if the RMCARD and NMS are on a different physical network.

Conformance Approvals

FCC Warning

This equipment has been tested and found to comply with the limits for a Class A Digital Device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Any special accessories needed for compliance must be specified in the instruction.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

The Class A digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulation.

Cet appareil numérique de la class A respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

Appendix 1

IP Address Settings for CyberPower Remote Management Card

Overview

All devices on a computer network need to have an IP address. Each device's IP address is unique. The same address cannot be used twice. In order to assign an IP address to the CyberPower Remote Management Card, you must determine the range of the available IP addresses, and then choose an unused IP address to assign to the Remote Management Card.

Note: You may need to contact your network administrator to obtain an available IP address.

Procedures to find an IP address:

1. Locate the subnet of CyberPower Remote Management Card.

One way to determine the range of possible IP addresses is to view the network configuration on a workstation. Click on [Start] and select [Run]. Type "command" into the open box and click [OK]. At the command prompt type "**ipconfig /all**" and press [Enter]. The computer will display network information as listed below:

```

Ethernet adapter
Connection-specific DNS Suffix.....: xxxx.com
Description.....: D-Link DE220 ISA PnP LAN adapter
Physical Address.....: 00-80-C8-DA-7A-C0
DHCP Enabled.....: Yes
Autoconfiguration Enabled ...: Yes
IP Address.....: 192.168.20.102
Subnet Mask.....: 255.255.255.0
Default Gateway.....: 192.168.20.1
DHCP Server.....: 192.168.20.1
DNS Servers.....: 211.20.71.202
                  168.95.1.1
  
```

2. Select an IP Address for CyberPower Remote Management Card

Verify the IP Addresses for the computer and the Remote Management Card belong to the same subnet. Refer to the above network information, the possible IP Address for the Remote Management Card could be 192.168.20.* (* hereafter represents any number between 1 and 255). Similarly, if the Subnet Mask is 255.255.0.0, the IP Address for Remote Management Card could be set up as 192.168.*.* to reach the same subnet with the computer.

To verify there is no other equipment connected to the network using the same IP Address, run “Ping 192.168.20.240” at the DOS Mode prompt when the IP Address you would like to set is 192.168.20.240. If the response is presented as below, the IP address is most likely not used and may be available for the CyberPower Remote Management Card.

Pinging 192.168.20.240 with 32 bytes of data:

Request timed out.

Request timed out.

Request timed out.

Request timed out.

If the response is shown as below, the IP address is in use. Try another IP address until an available address is found.

Pinging 192.168.20.240 with 32 bytes of data:

Reply from 192.168.20.240: bytes=32 time<10ms TTL=64

Reply from 192.168.20.240: bytes=32 time<10ms TTL=64

Reply from 192.168.20.240: bytes=32 time<10ms TTL=64

Reply from 192.168.20.240: bytes=32 time<10ms TTL=64

Appendix 2

Software Support

PowerPanel® Business Edition Client can support a UPS with a remote management card via the network. PowerPanel® Business Edition software is available on CyberPower Systems official website. Please visit www.CyberPower.com and go to the software section for free download.

Communicate with PowerPanel® Business Edition Client

The remote management system can communicate with PowerPanel® Business Edition Client software for login authentication and software authentication by setting the same secret phrase, as shown in Figure 9.

Note: The default secret phrase is 'powerpanel.encryption.key'.

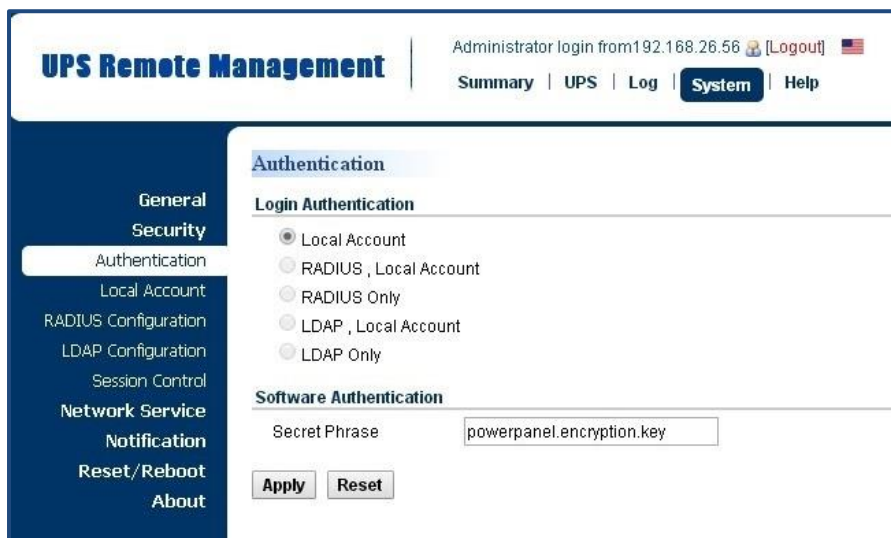


Figure 9. The Remote Management System web interface.

Obtain IP Address for Linux Operating System

The instructions in 'Configure the IP address for the CyberPower Remote Management Card' section are for Windows OS. For Linux Operating System, please use PowerPanel® Business Edition Client software to scan and obtain the IP address. The route is **[Power->Configuration]** on the PowerPanel® Business Edition Client web interface, as shown in Figure 10. For more information, please refer to PowerPanel® Business Edition User's Manual.

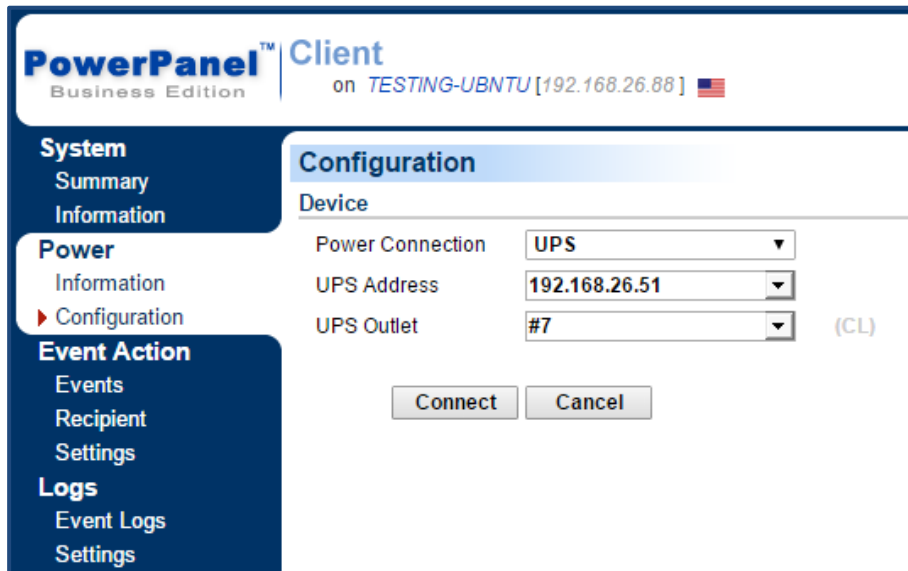
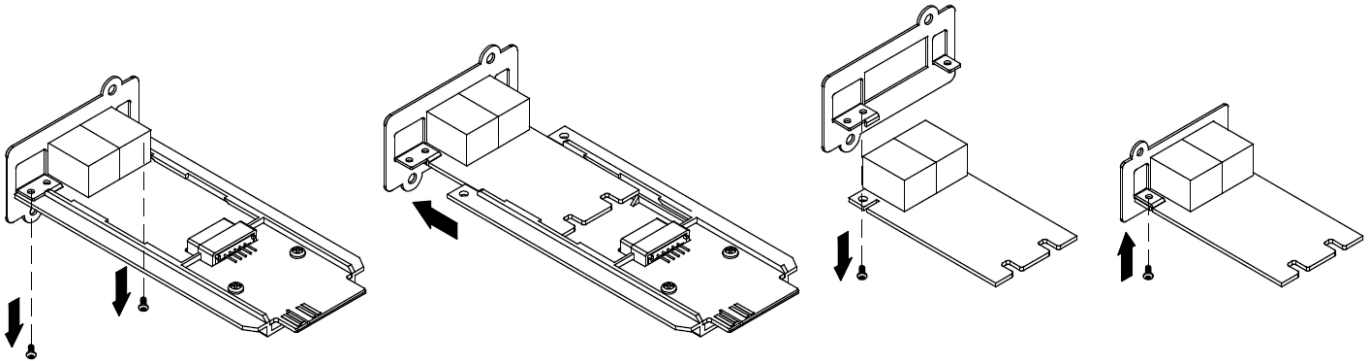


Figure 10. The PowerPanel® Business Edition Client web interface.

Appendix 3

RMCARD Adapter Guide

Remove the Adapter to go from an RMCARD305 to an RMCARD205



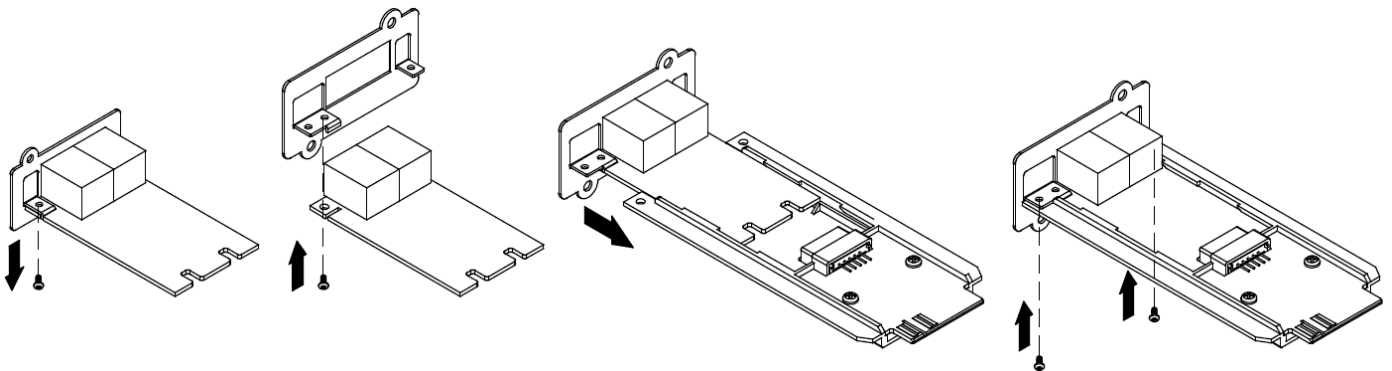
Step 1. Remove the two screws from the adapter holding the card in place.

Step 2. Remove the card from the adapter.

Step 3. Remove the screw holding the RMCARD305 front panel to the card.

Step 4. Attach the RMCARD205 front panel to the card.

Add the adapter to go from an RMCARD205 to an RMCARD305



Step 1. Remove the screw holding the front panel to the card and remove the RMCARD205 front panel.

Step 2. Screw on the RMCARD305 front panel to the card.

Step 3. Install the card into the adapter. Ensure that the card is securely seated in place.

Step 4. Use the two tray screws to secure the card to the adapter.

Note: The RMCARD Adapter Kit is not included with the RMCARD205. Please contact CyberPower for ordering information or Technical Support.

Note: RMCARD205 is designed for the 43x18mm (1.69x0.71inch) SNMP card expansion port of CyberPower PR and OR series UPS. RMCARD305 is designed for the 57x23mm (2.24x0.91inch) SNMP card expansion port of CyberPower OL series UPS



CyberPower[®]

CyberPower Systems, Inc.

www.cyberpower.com

For USA and Canada:

4241 12th Ave East, Suite 400

Shakopee, MN 55379

Toll-free: (877) 297-6937

For all other regions:

Please visit our website for local contact information.