

# *Remote Power Switch (AC)*

## USER MANUAL



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## Revision History

December 4, 2019	Added support for Reset Cooldown State
November 15, 2019	Added support for Ping Targets
May 17, 2018	Added note: 2 "Usr" relays are reserved for future use.
June 12, 2014	Added bypassing password section Added notes on expansions
May 10, 2012	Added fan control section
March 20, 2012	Added Sensor sections
February 8, 2012	Updated Specifications section
June 8, 2010	Initial Release

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### Notice

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# 1 Remote Power Switch (AC) Overview



**Fig. 1.1** Deploy this power switch at critical locations to switch on, off, and reboot equipment from miles away.

If you've ever had to jump in your truck and drive hours to a site to reboot jammed equipment, you already know exactly why you need the Remote Power Switch (AC). With this power switch, you'll power on/off and reboot all your critical devices - right from your desk at the Central Office.

Using any PC on your network or dialup, you can operate controls and check temperature at the site - all without rolling a single truck. The web browser supports HTTPS (via SSL encryption), allowing you to browse securely. You also have the build option to use the following integrated RTU functions: 16 discrettes, 4 analogs, 2 controls.

**1 X 8 Version:** The Remote Power Switch (AC) controls up to eight 110VAC outlets. A single 20 Amp max input feed will power eight dedicated 10 Amp max outputs while also powering the unit. The total output current cannot exceed the maximum 20 Amp input current.

**2 X 3 Version:** This version of the Remote Power Switch (AC) is equipped with Primary and Secondary power feeds. The unit allows dual 20 Amp max input feeds to power two groups of three dedicated 10 Amp max outputs while also powering the unit. This means that a single input will feed three individual outputs. The total output current per outlet cannot exceed the Maximum 20 Amp input current.

- Switch on/off and reboot equipment, **right from your desk chair**
- Drastically cuts down on **expensive truck rolls** - Quickly pays for itself
- Available with 2 AC Inputs + 3 AC Outputs each **OR** 1 AC Input + 8 AC Outputs
- Build Options: **RTU version** with 16 discrettes, 4 analogs & 2 controls **OR only Remote Power Switching power**
- SNMP-compatible - **Send SNMP traps** to your SNMP manager
- **Enable/disable remote access** to the unit for on-site troubleshooting
- **Secure web browsing** (via SSL encryption) for security-conscious organizations
- **Built-in temperature monitoring** to track changing environmental conditions (RTU-build only)
- **RoHS 5/6 compliant**

Need to control lots of power at a single location? If you're already on-site, you'll use the front panel control buttons to switch power on and off. And to make sure no one back at the CO disrupts your troubleshooting, you can temporarily disable remote access with the push of a button.

## 2 Specifications

<b>Dimensions:</b>	1.72" H x 17.026" W x 9.636" D (4.4 cm x 43.25 cm x 24.48 cm)
<b>Weight:</b>	1.5lb
<b>AC Inputs:</b>	1 AC input feed with 8 outputs <b>OR</b> 2 AC inputs with 3 outputs each Range: 85 to 250 VAC AC inputs support 20 amps max current at 120 VAC Unit requires 14W max for internal functions
<b>Output Relays:</b>	Max output is 10 amps @ 125 VAC per outlet
<b>Control Buttons:</b>	Located on the front panel; used for switching power on/off while on-site
<b>Interfaces:</b>	1 DB9 craft port 1 - Rj45 10BaseT half-duplex ethernet port 1 - DPS sensor jack (RJ11) for external temperature probe 16 D-Wire sensors (Optional) 33.6 Telco modem for backup remote access <b>OR</b> (Optional) 1 RS232 or RS485 serial port
<b>SNMP:</b>	v1 and v2c
<b>Controls:</b>	2 - Ctrl Commands: On, Off and Reset (off-on)
<b>Web Interface:</b>	HTTP or HTTPS via SSL encryption
<b>Mounting:</b>	19" or 23" rack mountable; 1 rack unit
<b>Firmware Upgrade:</b>	Upgradeable via LAN or serial
<b>TTY Interface:</b>	Yes, through front DB9 craft port and dialup, Telnet on TCP port 2002
<b>Op. Temperature:</b>	32°–104° F (0°– 40° C)
<b>Op. Humidity:</b>	0%–95% non-condensing
<b>Storage Temperature:</b>	-4°–131° F (-20°– 55° C)
<b>MTBF:</b>	60 years
<b>Windows Compatibility:</b>	Windows XP, 2000, Vista, 7 32/64 bit
<b>RoHS:</b>	5 of 6
<b><u>RTU Build Only:</u></b>	
<b>Alarm Termination:</b>	Via 50-pin Amphenol connector on back panel
<b>Discrete alarms:</b>	16
<b>Analogs:</b>	4
<b>Internal Temp:</b>	1

This unit does not contain any operator-serviceable parts.

---

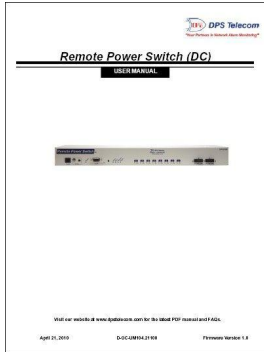
All servicing is to be performed by DPS Telecom only.

### 3 Shipping List

Please make sure all of the following items are included with your Remote Power Switch (AC). If parts are missing, or if you ever need to order new parts, please refer to the part numbers listed and call DPS Telecom at **1-800-622-3314**.



**Remote Power Switch (AC)**  
**D-PK-216RP**



**Remote Power Switch (AC) User Manual**  
**D-UM-RSPAC**



**Resource CD**



**6 ft. DB9M-DB9F Download Cable**  
**D-PR-045-10A-04**



**14 ft. Ethernet Cable**  
**D-PR-923-10A-14**



**x 2**

**19" Rack Ear**  
**D-CS-325-10A-00**



**6.5' Power Cord, 20 Amp 120VAC**  
**(1 for 1x8 version,**  
**2 for 2x3 version)**  
**3-960-00063-02**





**x 2**

**Two Standard Rack Screws  
1-000-12500-06**



**x 4**

**Four 3/8" Ear Screws  
2-000-60375-05**



**x 2**

**Two Metric Rack Screws  
2-000-80750-03**



**Pads  
2-015-00030-00**

### **3.1 Available by Request**



**23" Rack Ears  
D-CS-325-10A-07**



**DPS Sensor  
D-PR-1822-10A-07**



**6.5' Power Cord, 20 Amp Int'l 250VAC  
(1 for 1x8 version, 2 for 2x3 version)  
3-960-00063-01**



**Expansion RS232 Serial Cable  
D-PR-1028-10C-01**

## 4 Installation

### 4.1 Tools Needed

To install the Remote Power Switch (AC), you'll need the following tools:



**Phillips No. 2 Screwdriver**

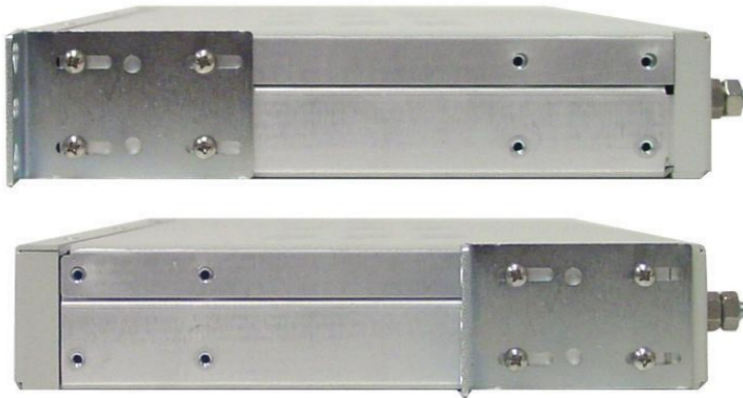


**Small Standard No. 2 Screwdriver**



**PC with web browser and terminal emulator, such as HyperTerminal**

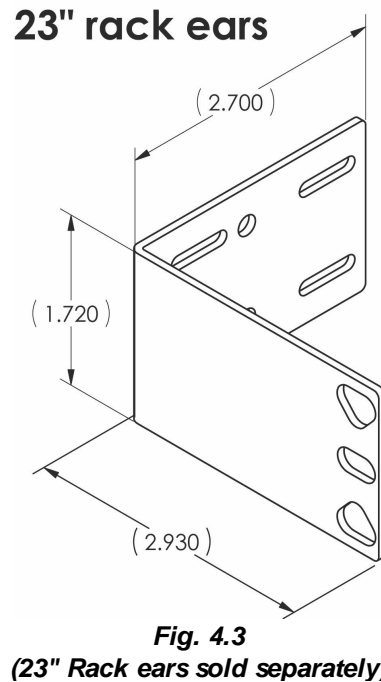
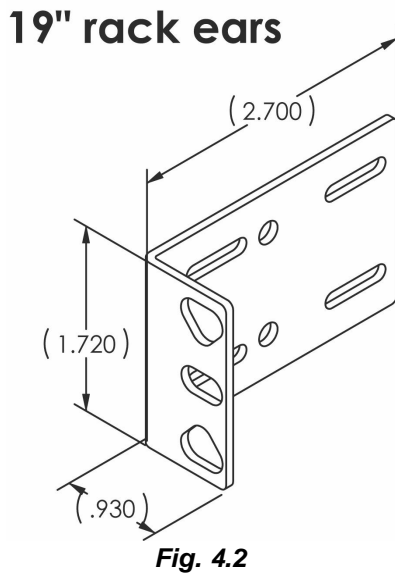
## 4.2 Mounting



**Fig. 4.1** The Remote Power Switch (AC) can be flush or rear-mounted

The Remote Power Switch (AC) mounts in a 19" rack or a 23" rack using the provided rack ears for each size. Two rack ears locations are provided. Attach the appropriate rack ears in the flush-mount or rear-mount locations shown above.

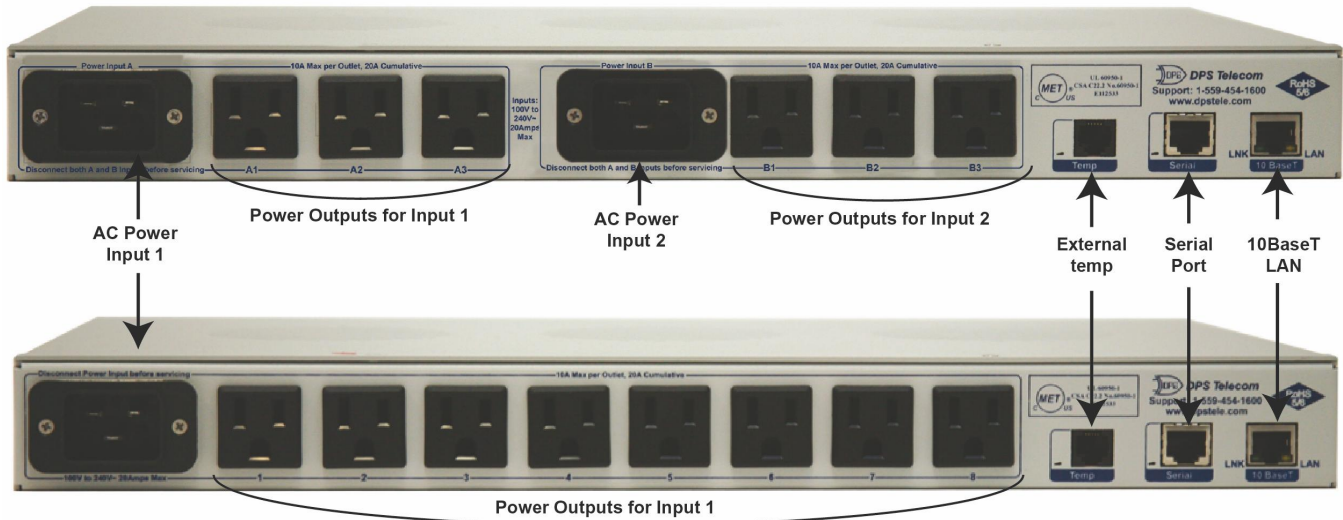
The rack ears can be rotated 90° for wall mounting or 180° for other mounting options.



## 5 AC Power Switch Back Panel

**Step 1:** Choose between the 2 x 3 or 1 x 8 version:

### 2 X 3 Version



### 1 X 8 Version

*Fig. 5.1 Remote Power Switch (AC) back panel connections*

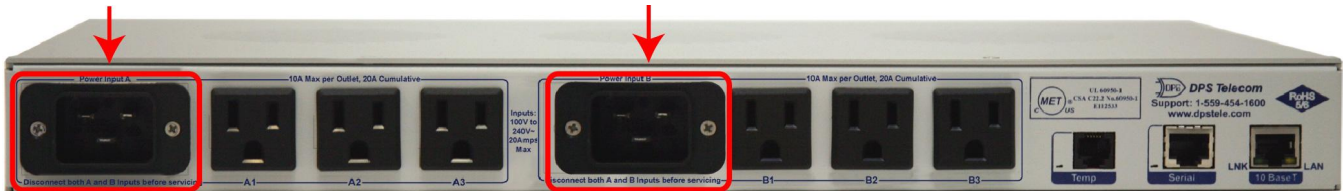
**Step 2:** Choose the RTU build option (shown below) or without alarm monitoring.



*Fig. 5.2 Remote Power Switch (AC) with NetGuardian RTU functionality.*

## 5.1 Power Connection

The Remote Power Switch (AC) itself is powered by the same AC power. The power inputs for the 2X3 version are shown below.



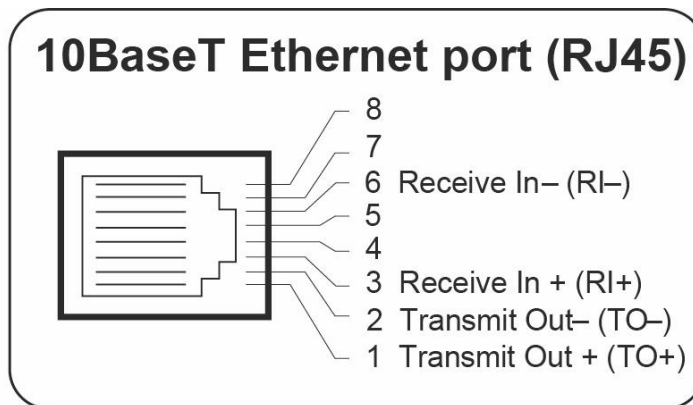
**Fig. 5.3** Close-up view of power inputs for the Remote Power Switch (AC). The 2X3 version is shown above.

### Before you connect a power supply to the Remote Power Switch (AC):

Always use safe power practices when making power connections. Make sure the input voltage does not exceed 125 VAC and the input current does not exceed 20 Amps.

## 5.2 LAN Connection

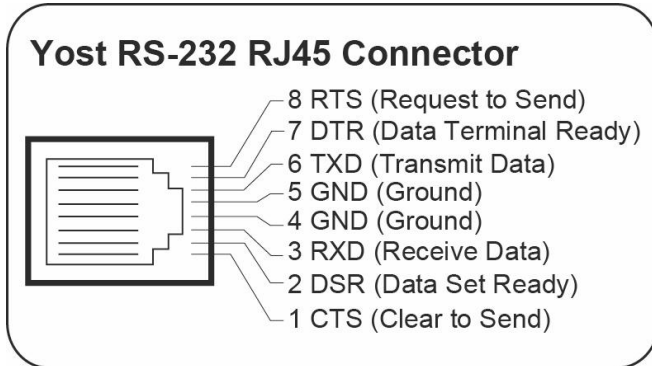
To connect the Remote Power Switch (AC) to the LAN, insert a standard RJ45 Ethernet cable into the 10BaseT Ethernet port on the back of the unit. If the LAN connection is OK, the LNK LED will light **SOLID GREEN**.



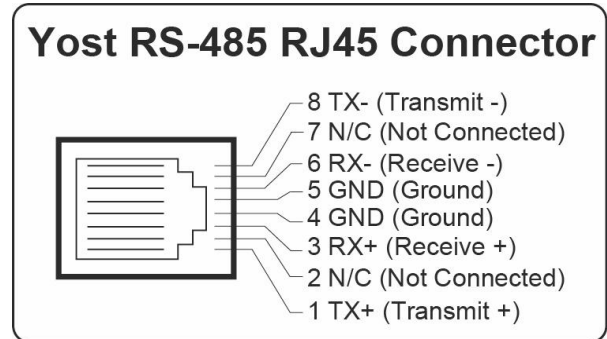
**Fig. 5.4** 10BaseT LAN connection pinout.

## 5.3 Serial Connection

Choose between an RS232 or RS485 serial port for your build of the Remote Power Switch.



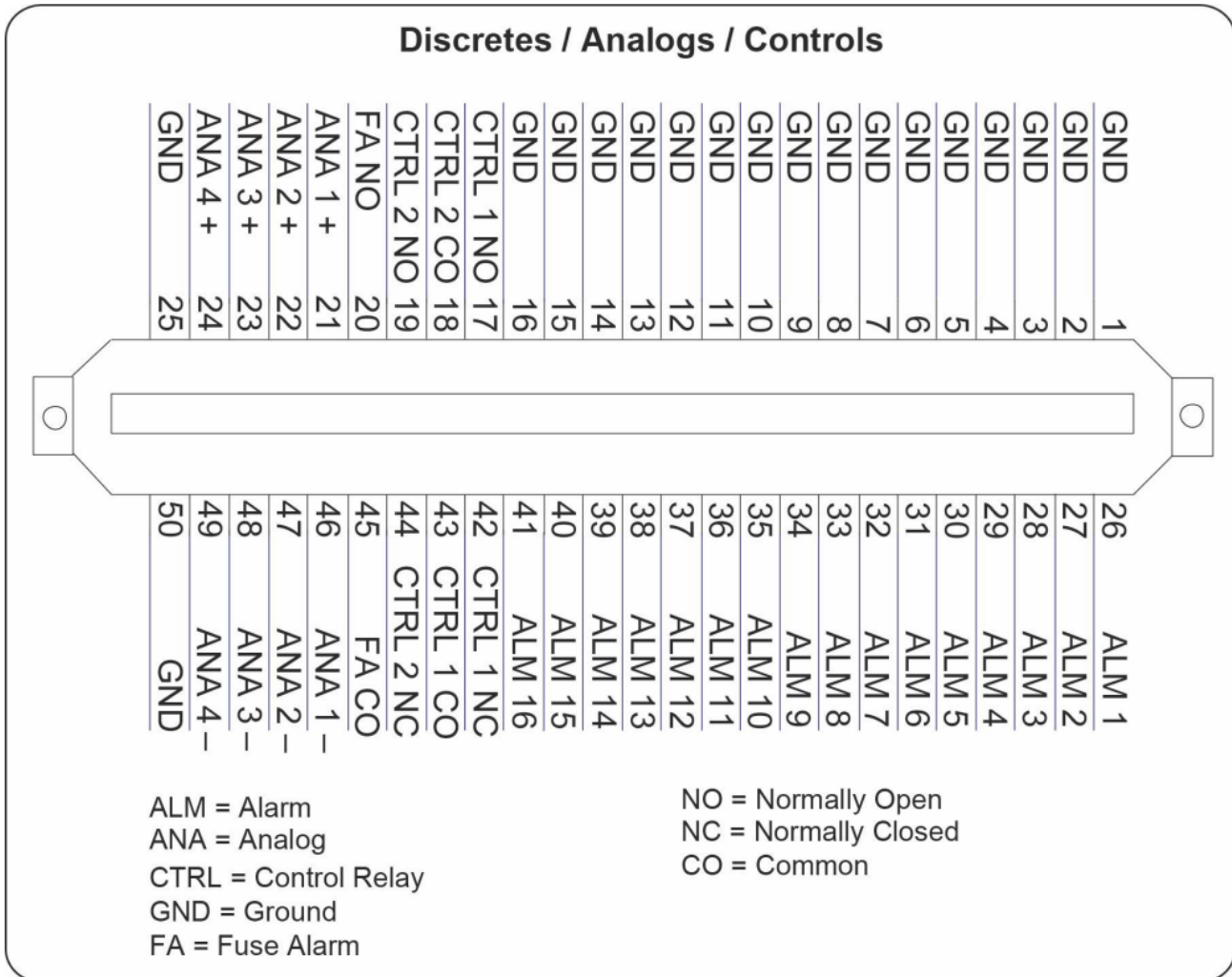
**Fig. 5.5** RS232 pinout.



**Fig. 5.6** RS485 pinout.

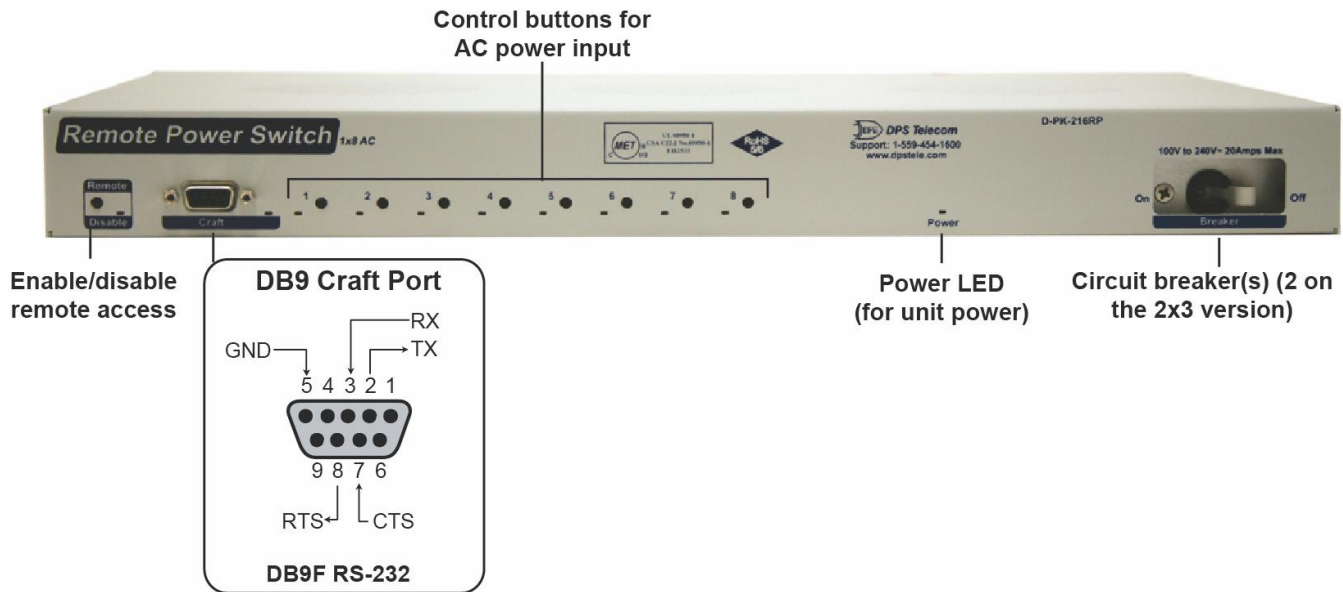
## 5.4 50-pin Amphenol Connector (RTU build only)

The 50-pin Amphenol connector on the Remote Power Switch is used for the discrete alarms, controls, and analogs. The pinout is shown below.



**Fig. 5.7** - For RTU- build only: Ampnehol pinout.

## 6 Remote Power Switch (AC) front panel



**Fig. 6.1.** Remote Power Switch (AC) Front panel connections. Note: If using the 2 x 3 version, the unit will have 6 control buttons on the front panel. The 1 X 8 version is shown above.

### 6.1 Remote Disable button

Hold the Disable button for 3 seconds to disable remote access to the unit. This is useful while on-site, so that unit settings cannot be changed while you are working. Disabling remote access also means you cannot change the state of control relays or reboot the system.

### 6.2 Craft Port

Use the front panel craft port to connect the Remote Power Switch (AC) to a PC for onsite unit configuration. To use the craft port, connect the included DB9 download cable from your PC's COM port to the craft port. Pinout is shown above for reference, but this is a standard DB9 to DB9.

### 6.3 Control Buttons

Normally, this unit is controlled remotely. However, control buttons on the front panel were added to facilitate local control. This is ideal during your initial testing.

To control power to your equipment while physically on site, use the control buttons located on the front panel of the Remote Power Switch (AC). Press and hold one of the buttons for at least a second to toggle on-off power to the corresponding outlet. You should hear the internal relay latch and release power to the associated power plug on the back panel. The corresponding LED will also turn from green to off. Press and hold the button again for 1 second and you will hear the relay latch, re-applying power to the outlet and turning the front LED from off to green.

To perform this same task remotely, log on to the internal web browser to access the controls. See section "Remote Power Switch Web Browser" for more detail.



---

## 6.4 Circuit Breaker

The 1x8 Remote Power Switch has its circuit breaker located on the front of the unit controlling the units input power. It is rated to protect your equipment from 100V to 240V with a current of 20Amps max. The 2x3 Remote Power Switch has two circuit breakers located in the front independently controlling power inputs A and B.

## 7 Quick Start: How to Connect to the Remote Power Switch

Use the following instructions to give the unit an IP address, subnet and gateway through the front craft port (TTY interface) to start. Once these settings are saved and you reboot the unit, you can access it over LAN to perform the rest of your changes via the Web Browser interface. **NOTE:** Use included DB9 craft port. **DPS Part # D-PR-045-10A-04.**

**Alternative option:** You can skip the TTY interface by using a LAN crossover cable directly from your PC to the Remote Power Switch (AC) and access its Web Browser.

### 7.1 ...via Craft Port (using TTY Interface)

1. The simplest way to connect to the Remote Power Switch (AC) is over a physical cable connection between your PC's COM port and the unit's craft port. **Note:** You must be connected via craft port or Telnet to use the TTY interface. Make sure you are using the straight through (1 to 1) Male to Female DB9-DB9 download cable provided with your Remote Power Switch (AC) to make a craft port connection. We'll be using HyperTerminal to connect to the unit in the following example - however, most terminal-emulating programs should work.



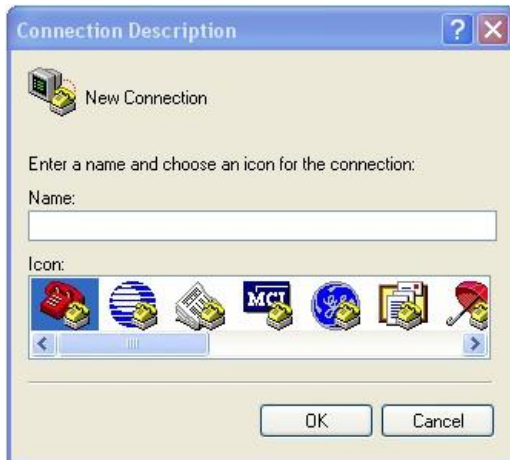
To access HyperTerminal using Windows:

2. Click on the **Start** menu > select **Programs > Accessories > Communications > HyperTerminal.**



3. At the Connection Description screen, enter a name for this connection. You may also select an
4. At the Connect To screen, select Com port you'll be using from the drop down and click

icon. The name and icon do not affect your ability to connect to the unit.



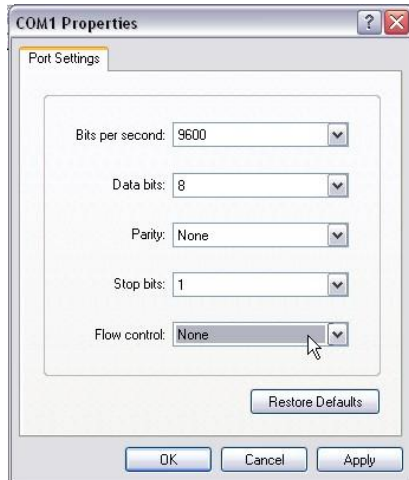
OK. (COM1 is the most commonly used.)



5. Select the following COM port options:

- Bits per second: 9600
- Data bits: 8
- Parity: None
- Stop bits: 1
- Flow control: **None**

Once connected, you will see a blank HyperTerminal screen. Press Enter to activate.



6. When prompted, enter the default user name **admin** and password **dpstelecom**.  
**NOTE:** If you don't receive a prompt for your user name and password, check the Com port you are using on your PC and make sure you are using the cable provided.

Additional cables can be ordered from DPS Telecom: *Part number D-PR-045-10A-04*



7. The Remote Power Switch (AC)'s main menu will appear. Type C for C)onfig, then E for E)thernet. Configure the unit's IP address, subnet mask, and default gateway.

```

9600 baud - HyperTerminal
File Edit View Call Transfer Help
-----
Login: admin
Password: *****
Logged in successfully.

NG216-G3 v1.0H.0045
(c)2009 DPS Telecom, Inc.

C)onfig P)ing D)ebbug e(X)it ? C
E)thernet S)tats n(V)ram re(B)oot (ESC) ? E
Unit IP      : 192.168.1.100 (192.168.1.100)
Subnet Mask  : 255.255.192.0 (255.255.192.0)
Gateway      : 255.255.255.255 (255.255.255.255)
Unit MAC     : 00.10.81.00.45.8F

U)nit Addr S)ubnet G)ateway (ESC) ? U
Unit IP : 126.10.230.121

```

8. ESC to the main menu. When asked if you'd like to save your changes, type Y for Y)es. Reboot the Remote Power Switch (AC) to save its new configuration.

```

9600 baud - HyperTerminal
File Edit View Call Transfer Help
-----
E)thernet S)tats n(V)ram re(B)oot (ESC) ? E
Unit IP      : 192.168.1.100 (192.168.1.100)
Subnet Mask  : 255.255.192.0 (255.255.192.0)
Gateway      : 255.255.255.255 (255.255.255.255)
Unit MAC     : 00.10.81.00.45.8F

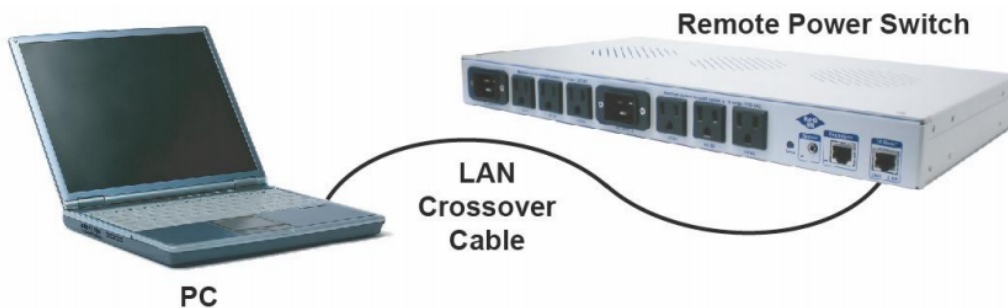
U)nit Addr S)ubnet G)ateway (ESC) ? U
Unit IP : 126.10.230.121
Unit IP      : 126.10.230.121 (192.168.1.100)
Subnet Mask  : 255.255.192.0 (255.255.192.0)
Gateway      : 255.255.255.255 (255.255.255.255)
Unit MAC     : 00.10.81.00.45.8F

U)nit Addr S)ubnet G)ateway (ESC) ? <--
E)thernet S)tats n(V)ram re(B)oot (ESC) ? B
Do you want to save changes (y/N) : y
Write...complete
Rebooting...Uc

```

Be sure to change the IP of your computer back to one that operates on your network. **Now you're ready** to do the rest of your configuration via LAN. Plug your LAN cable into the Remote Power Switch (AC) and see Section 9, "Logging On to the Remote Power Switch" to continue using the Web Browser.

## 7.2 ...via LAN



*Connection through Ethernet port*

To connect to the Remote Power Switch (AC) via LAN, all you need is the unit's IP address (Default IP address is 192.168.1.100).

If you **DON'T** have LAN, but **DO** have physical access to the Remote Power Switch (AC), connect using a LAN crossover cable. **NOTE:** Newer PCs should be able to use a standard straight-through LAN cable and handle the crossover for you. To do this, you will temporarily cchange your PC's IP address and subnet mask to match the factory default IP settings. Follow these steps:

1. Get a LAN crossover cable and plug it directly into the Remote Power Switch (AC)'s LAN port.
2. Look up your PC's current IP address and subnet mask, and write this information down.
3. Reset your PC's IP address to **192.168.1.200**. Contact your IT department if you are unsure how to do this.
4. Reset your PC's subnet mask to **255.255.0.0**. You may have to reboot your PC to apply your changes.

- 
5. Once the IP address and subnet mask of your computer coincide with the unit, you can access the Remote Power Switch (AC) via a Telnet session or via Web browser by using the unit's default IP address of **192.168.1.100**.
  6. Provision the Remote Power Switch (AC) with the appropriate information, then **change your computer's IP address and subnet mask back to their original settings**.

***Now you're ready*** to do the rest of your configuration via LAN. Plug your LAN cable into the Remote Power Switch (AC) and see Section 9, "Logging On to the Remote Power Switch (AC)" to continue databasing using the Web Browser.

## 8 TTY Interface

The TTY interface is the built-in interface for basic configuration. From the TTY interface, you can:

- Edit the IPA, subnet, and gateway
- Monitor and operate relays
- Debug and troubleshoot
- Ping other devices on the network
- Set unit back to factory defaults
- View hardware config

*For more advanced configuration tools, please use the Web Browser Interface.*

For Telnet, connect to the IP address at port 2002 to access the configuration menus after initial LAN/WAN setup. **Telnet sessions are established at port 2002, not the standard Telnet port** as an added security measure.

### Menu Shortcut Keys

The letters before or enclosed in parentheses () are menu shortcut keys. Press the shortcut key to access that option. Pressing the ESC key will always bring you back to the previous level. Entries are not case sensitive.

## 8.1 Operatie Control Relays



```

c:\ Telnet 126.10.230.134

RPS v1.00.1594
(c)2009 DPS Telecom, Inc.

C)onfig M)onitor P)ing D)ebug e(X)it ? M
C)ontrols (ESC) ? C
B)ase E)xpansions (ESC) ?
Base Power Controls

Num Description                               Status
1                               Latched
2                               Latched
3                               Latched
4                               Latched
5                               Latched
6                               Latched
7                               Latched
8                               Latched

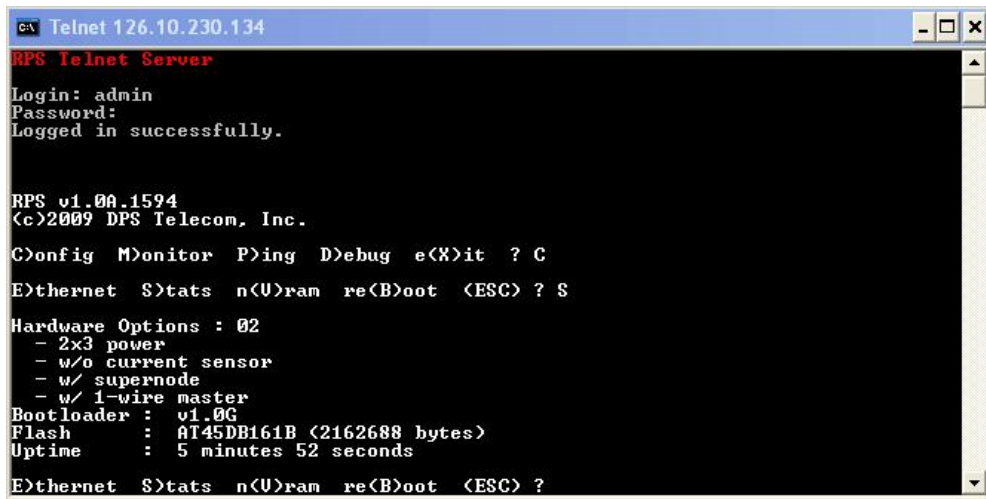
S)tatus O)pr R)ls M)om (ESC) ?

```

*Fig. 8.1 - Latch or release controls from the TTY interface*

1. Login to the TTY interface and press **C)onfig**, then **B)ase** for base relays.
2. The Base Power Controls descriptions will appear, along with their status (Latched or Released).
3. Press **O)perate**, **R)elease**, or **M)omentary** for the desired control.

## 8.2 View Hardware Config & Stats



```

Telnet 126.10.230.134
RPS Telnet Server
Login: admin
Password:
Logged in successfully.

RPS v1.0A.1594
(c)2009 DPS Telecom, Inc.

C)onfig M)onitor P)ing D)debug e(X)it ? C
E)thernet S)tats n(U)ram re(B)oot (ESC) ? S

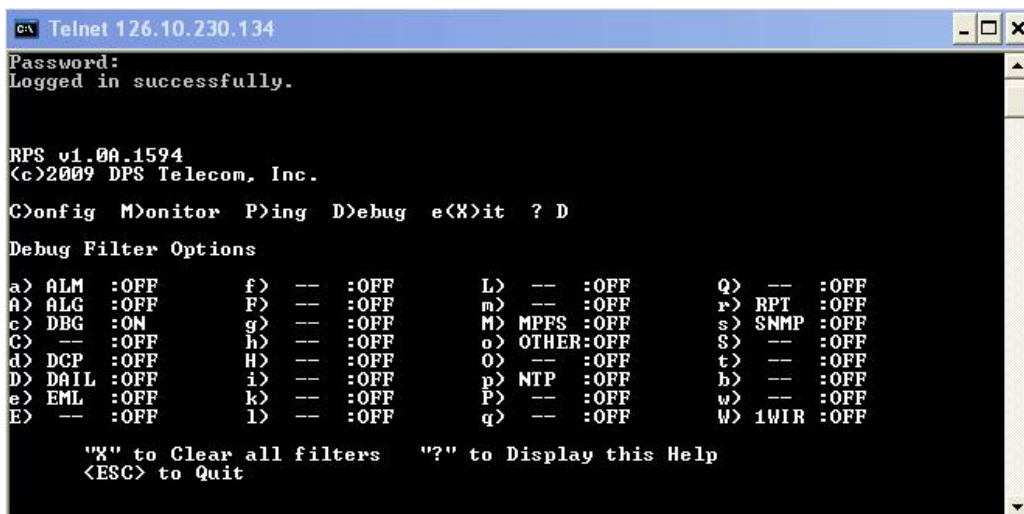
Hardware Options : 02
- 2x3 power
- w/o current sensor
- w/ supernode
- w/ 1-wire master
Bootloader : v1.0G
Flash      : AT45DB161B (2162688 bytes)
Uptime    : 5 minutes 52 seconds
E)thernet S)tats n(U)ram re(B)oot (ESC) ?

```

*Fig. 8.2 - Confirm the build options of your Remote Power Switch.*

1. Login to the TTY interface, then press **C)onfig > S)tats**.
2. You will see the hardware options available on your Remote Power Switch unit, as well as the firmware version, uptime, etc.

## 8.3 View Debug Filter



```

Telnet 126.10.230.134
Password:
Logged in successfully.

RPS v1.0A.1594
(c)2009 DPS Telecom, Inc.

C)onfig M)onitor P)ing D)debug e(X)it ? D
Debug Filter Options
a) ALM :OFF      f) -- :OFF      L) -- :OFF      Q) -- :OFF
A) ALG :OFF      F) -- :OFF      m) -- :OFF      r) RPT :OFF
c) DBG :OM       g) -- :OFF      M) MPFS :OFF    s) SNMP :OFF
C) -- :OFF      h) -- :OFF      o) OTHER:OFF    S) -- :OFF
d) DCP :OFF      H) -- :OFF      O) -- :OFF      t) -- :OFF
D) DAIL :OFF     i) -- :OFF      p) NTP :OFF     h) -- :OFF
e) EML :OFF      k) -- :OFF      P) -- :OFF      w) -- :OFF
E) -- :OFF      l) -- :OFF      q) -- :OFF      W) 1WIR :OFF

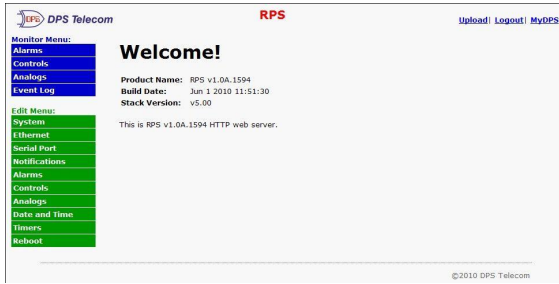
"X" to Clear all filters  "?" to Display this Help
<ESC> to Quit

```

*Fig. 8.3 - See debug options*

1. Login to the TTY interface, then press **D)debug..**
2. You will see the complete list of available debug filter options.

## 9 Remote Power Switch Web Browser



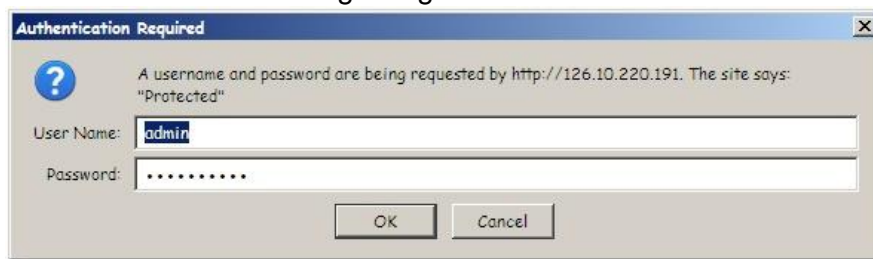
The Remote Power Switch (AC) features a built-in Web Browser Interface that allows you to configure the unit through the Internet or your Intranet. You can quickly issue controls using most commonly used browsers.

**NOTE:** Max number of users allowed to simultaneously access the Remote Power Switch (AC) via the Web is 4.

### 9.1 Logging on to the Unit

For Web Interface functionality, the unit must first be configured with some basic network information. If this step has not been done, refer to the section "Quick Start: How to Connect to the Remote Power Switch (AC)" for instructions on initial configuration setup.

1. To connect to the Remote Power Switch (AC) from your Web browser, enter its IP address in the address bar of your web browser. It may be helpful to bookmark the logon page to avoid entering this each time.
2. After connecting to the unit's IP address, enter your login information and click OK. **NOTE:** The factory default username is "**admin**" and the password is "**dpstelecom**".
3. In the left frame you will see the **Monitor** menu (blue) and **Edit** menu (green) The Monitor menu links are used to view the current status of alarms. The Edit menu is used to change the unit's configuration settings. All the software configuration will occur in the **Edit** menu. The following sections provide detailed information regarding these functions.



**Fig. 9.1** - Enter your password to enter the Remote Power Switch (AC) Web Browser Interface



## 9.1.1 Bypassing Password

If you forget your password you will need to restore the Remote Power Switch (AC) to factory defaults. This procedure requires physical access to the Remote Power Switch (AC) and will reset all setting changes.

1. Connect you're PC to the Remote Power Switch (AC) through its craft port
2. While holding down the 'Remote Disable' button (on the left side of the unit), restart the unit by turning the breaker switch (right side of unit) off and then back on. (Hold the 'Remote Disable' button until the unit finishes restarting)
3. When the unit finishes restarting, you will be able to access the TTY Interface (previous section) without logging in - press **I**nitialize
4. To complete the restore you will need to restart the unit. This can be done with the breaker switch **OR** you can hold the 'Remote Disable' button until the LED next to it turns green and then restart from the TTY interface (trying to restart from the TTY without holding the 'Remote Disable' button will not work)
5. At this point you should be able to login normally using the factory default username ("**admin**") and password ("**dpstelecom**").

## 9.1.2 Changing the Default Password

The password can be configured from the **Edit > System** screen. The minimum password length is four characters; however, DPS recommends setting the minimum password length to at least five characters. Use the following steps to change the logon password:

1. From the **Edit** menu select **System**.
2. Enter the new user name in the **User** field.
3. Enter the new password in the **Password** field.
4. Click the **Save** button.

Global System Settings	
Name	RPS
Location	Fresno, CA
Contact	559-454-1600
"From" E-mail Address	RPS@dpstele.com
SNMP GET String	dps_public
SNMP SET String	dps_public
User	admin
Password	••••••••
Web Server Type	<input checked="" type="radio"/> HTTP <input type="radio"/> HTTPS
DCP Responder Settings <a href="#">Display Mapping</a>	
DCP Unit ID	115 DCPx
<input checked="" type="radio"/> Listen DCP over LAN <input type="radio"/> Listen DCP over Primary Serial <input type="radio"/> Disable Listening	
DCP LAN	2001 UDP
Expansions	None
DCP Serial	<a href="#">Configure Primary Serial Port</a>
System Controls	
Initialize Configuration	<input type="button" value="Initialize"/>
Backup Configuration	config.bin <input type="button" value="Save"/>
Restore Configuration	<a href="#">Upload</a>
<input type="button" value="Reset"/> <input type="button" value="Save"/>	

*Fig. 9.2 - Global System Settings section of the Edit > System menu*

**NOTE:** You will see the following popup when making changes to the Remote Power Switch (AC) from the **Edit** menu. It will appear when confirming your changes to the database, either by clicking **Next** in the setup wizards or the **Save** button.



*Fig. 9.3 - Commit to NVRAM popup*

## 9.2 Edit Menu Field Descriptions

### 9.2.1 System

From the **Edit > System** menu, you will configure global DCP, and control settings.

**Fig. 9.4 - The Edit > System menu**

Global System Settings	
<b>Name</b>	A name for this Remote Power Switch (AC). (Optional field)
<b>Location</b>	The location of this Remote Power Switch (AC). (Optional field)
<b>Contact</b>	Contact telephone number for the person responsible for this Remote Power Switch (AC). (Optional field)
<b>User</b>	Used to change the username for logging into the unit.
<b>Password</b>	Used to change the password for logging into the unit (case-sensitive).
<b>"From" Email Address</b>	A valid email address used by the unit to send email alarm notifications.
DCP Responder Settings (For use with T/Mon NOC)	
<b>DCP Unit ID</b>	User-definable ID number for this Remote Power Switch (AC) (DCP Address).
<b>Listen DCP</b>	Choose to listen DCP over LAN or serial. May also be disabled.
<b>DCP LAN</b>	Enter the DCP port for this Remote Power Switch (AC) (UDP/TCP port).
<b>Expansions</b>	Set to "1" to add an expansion unit. (DCP must be set to "disable listening" when using an expansion unit.)
System Controls	
<b>Initialize Configuration</b>	Used to restore all factory default settings to the Remote Power Switch (AC). Do not initialize the non-volatile RAM (NVRAM) unless you want to re-enter all of your configuration settings again.
<b>Backup Configuration</b>	Saves your current configuration to a .bin file
<b>Restore Configuration</b>	Clickable link that takes you to the Firmware Load screen, where you'll browse to the config file you've saved on your PC

## 9.2.2 Ethernet

The **Edit > Ethernet** menu allows you to define and configure Ethernet settings.

Ethernet Settings	
<b>MAC Address :</b>	00:10:81:00:2F:6E
<b>Host Name :</b>	ACSWITCHER
<b>Enable DHCP :</b>	<input type="checkbox"/>
<b>Unit IP :</b>	126.10.221.11
<b>Gateway :</b>	126.10.220.254
<b>Subnet Mask :</b>	255.255.192.0
<b>DNS Server 1 :</b>	255.255.255.255
<b>DNS Server 2 :</b>	255.255.255.255
<input type="button" value="Reset"/> <input type="button" value="Save"/>	

**Fig. 9.5** - The Edit > Ethernet menu

Ethernet Settings	
<b>MAC Address</b>	Hardware address of the Remote Power Switch (AC). (Not editable - For reference only.)
<b>Host Name</b>	<i>Example:</i> If you don't want to remember this unit's IP address, you can type in a name in this field, such as NG216G3. Once you save and reboot the unit, you can now browse to it locally by simply typing in "NG216G3" in the address bar. (no "http://" needed).
<b>Enable DHCP</b>	Used to turn on Dynamic Host Connection Protocol. NOT recommended, because the unit is assigned an IP address from your DHCP server. The IP you've already assigned to the unit becomes inactive. Using DHCP means the unit will NOT operate in a T/Mon environment.
<b>Unit IP</b>	IP address of the Remote Power Switch (AC).
<b>Gateway</b>	An important parameter if you are connected to a wide-area network. It tells the Remote Power Switch (AC) which machine is the gateway out of your local network. Set to 255.255.255.255 if not using. Contact your network administrator for this info.
<b>Subnet Mask</b>	A road sign to the Remote Power Switch (AC), telling it whether your packets should stay on your local network or be forwarded somewhere else on a wide-area network.
<b>DNS Server 1</b>	Primary IP address of the domain name server. Set to 255.255.255.255 if not using.
<b>DNS Server 2</b>	Secondary IP address of the domain name server. Set to 255.255.255.255 is not using.

## 9.2.3 Serial Port

The **Edit>Serial Ports** menu allows you to configure your Remote Power Switch's serial port. The unit's serial port can be configured for reach-through access, so you can interface with a serial device at your site via LAN.

Primary Serial Port Configuration		
Location	Port Configuration	Reach-Through
Primary port located in the back of the unit.	Port Type: <input type="text" value="232"/> Baud: <input type="text" value="19200"/> Parity: <input type="text" value="8-bit data, no parity"/> Stop Bits: <input type="text" value="1"/> RTS head: <input type="text" value="0"/> RTS tail: <input type="text" value="0"/> Flow Control: <input type="text" value="None"/>	<input type="checkbox"/> Enable Reach-Through Port: <input type="text" value="3000"/> Type: <input type="text" value="TCP"/>
<input type="button" value="Reset"/> <input type="button" value="Save"/>		

*Configure your serial ports from the Edit>Serial Ports menu*

Port Configuration	
<b>Port Type</b>	Select your serial port type. Default value: 232 (Build options 232, 202, 485)
<b>Baud</b>	Change the craft port baud rate
<b>Parity</b>	Set even, odd, or no parity. Default value: no parity.
<b>Stop Bits</b>	Set the number of stop bits. Default value: 1
<b>RTS head</b>	Set the request to send (RTS) head time in milliseconds
<b>RTS tail</b>	Set the request to send (RTS) tail time in milliseconds
<b>Flow Control</b>	Set to hardware if flow control is required. Defaults to None.
Reach Through	
<b>Enable Reach Through</b>	Checking this box enables serial reach-through, allowing you to access a serial device connected to your Remote Power Switch via LAN
<b>Port</b>	Enter the Port number used for serial reach through interaction
<b>Type</b>	Use the pull-down box to select the connection type, TCP or UDP

*Field descriptions for the Serial Port Configuration screen*

## 9.2.4 Notifications

From the initial **Edit > Notifications** menu, you will see which of the 8 notifications are enabled, their server, and schedule. Click on the number link for one of the notifications to begin configuration.

Notifications					
No.	Stat.	Type	Server	Time Window 1	Time Window 2
<a href="#">1</a>	OFF	SNMP		Sun,Mon,Tue,Wed,Thu,Fri,Sat,Any Time	Sun,Mon,Tue,Wed,Thu,Fri,Sat,Any Time
<a href="#">2</a>	OFF	SNMP		Sun,Mon,Tue,Wed,Thu,Fri,Sat,Any Time	Sun,Mon,Tue,Wed,Thu,Fri,Sat,Any Time
<a href="#">3</a>	OFF	SNMP		Sun,Mon,Tue,Wed,Thu,Fri,Sat,Any Time	Sun,Mon,Tue,Wed,Thu,Fri,Sat,Any Time
<a href="#">4</a>	OFF	SNMP		Sun,Mon,Tue,Wed,Thu,Fri,Sat,Any Time	Sun,Mon,Tue,Wed,Thu,Fri,Sat,Any Time
<a href="#">5</a>	OFF	SNMP		Sun,Mon,Tue,Wed,Thu,Fri,Sat,Any Time	Sun,Mon,Tue,Wed,Thu,Fri,Sat,Any Time
<a href="#">6</a>	OFF	SNMP		Sun,Mon,Tue,Wed,Thu,Fri,Sat,Any Time	Sun,Mon,Tue,Wed,Thu,Fri,Sat,Any Time
<a href="#">7</a>	OFF	SNMP		Sun,Mon,Tue,Wed,Thu,Fri,Sat,Any Time	Sun,Mon,Tue,Wed,Thu,Fri,Sat,Any Time
<a href="#">8</a>	OFF	SNMP		Sun,Mon,Tue,Wed,Thu,Fri,Sat,Any Time	Sun,Mon,Tue,Wed,Thu,Fri,Sat,Any Time

*Fig. 9.6 - The Edit > Notifications menu*

Once you've chosen which notification you want to setup, check the **Enable Notification** to turn it "on." Then choose to send an SNMP notification.

**Notification 1**

**Notification Setting**

**Enable Notification**

**Send SNMP Notification**

*Fig. 9.7 - Click on a notification to enable it and choose between SNMP and email notifications.*

## 9.2.5 System Alarms


Base		System
	Description	Notifications
1	Notification 1 failed	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
2	Notification 2 failed	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
3	Notification 3 failed	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
4	Notification 4 failed	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
5	Notification 5 failed	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
6	Notification 6 failed	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
7	Notification 7 failed	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
8	Notification 8 failed	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
9	Last Provisioning	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
10	NTP failed	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
11	Timed tick	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
12	Serial 1 RcvQ full	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
13	Dynamic memory full	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
14	Unit reset	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
15	Remote access disabled	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
16	Top board failed	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
17	Expansion 1 failed	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
18	Unused	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
19	Unused	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
20	Modem not responding	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
21	Power A failed	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
22	Power B failed	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
23	Fuse alarm	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
24	Bay 1 - 1 Fan Running	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
25	Bay 1 - 2 Fans Running	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
26	Bay 1 - 3 Fans Running	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
27	Bay 1 - 4 Fans Running	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
28	Bay 2 - 1 Fan Running	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
29	Bay 2 - 2 Fans Running	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
30	Bay 2 - 3 Fans Running	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
31	Bay 2 - 4 Fans Running	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

*Fig. 9.8 - The Edit > Alarms menu*

Editing System Alarms	
<b>Pnt (Point)</b>	Alarm point number
<b>Description</b>	Non-editable description for this System (housekeeping) Alarm.
<b>Rpt (Report)</b>	Check this box to choose to report this alarm. Check the box in the green bar (top) to have <u>all</u> System Alarms reported. Leave unchecked to ignore.
<b>Notification devices</b>	Check which notification device(s), 1 through 8, you want to send alarm notifications for that alarm point. Check the box in the green bar (top) to have that notification device send a notification for <u>all</u> the System Alarms.

## 9.2.6 Ping Targets

A ping target failure can be set to notify like a discrete alarm (see Notifications). When the ping target fails a number of times greater than the Ping Threshold (see Ping Target Settings) the alarm is set and any selected notifications will be triggered.



**RPS\_AC**

Network Monitoring Solutions

Home | Upload | Logout

**Monitor**

---

**Provisioning**

- System
- Ethernet
- Serial Port
- Notifications
- Alarms
- Ping Targets**
- Controls
- Analogs
- Sensors
- Fan Control
- Date and Time
- Timers

Reboot

**Ping Targets**

Targets
Settings
Control Association

Pnt	Enab	Device Description	Hostname/IPA	Notification devices							
				N1	N2	N3	N4	N5	N6	N7	N8
1	<input type="checkbox"/>	DIN	10.0.50.23	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	<input checked="" type="checkbox"/>	Junk IP	200.200.200.200	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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*The Edit > Ping Targets menu*

Provisioning Ping Targets	
<b>Pnt</b>	ID number for the ping target.
<b>Enab</b>	Check this box to enable the ping target.
<b>Description</b>	User-definable description for the ping target.
<b>Server (IP or Hostname)</b>	IP address or hostname of the device you would like to ping.
<b>Notification Devices</b>	Check which notification device(s), 1 through 8, you want to send alarm notifications for ping target.



## 9.2.7 Ping Targets Settings

The Ping Target Settings is used to set the frequency of pings, and to define the conditions under which an alarm is set. The RPS AC will ping each enabled target in its list according to the Ping Cycle Wait Time, so if the Ping Cycle Wait Time is 10 minutes, it will go through the list every 10 minutes. If the unit doesn't receive a response in a number of seconds set under Ping Response Timeout, it will consider this a ping failure. If the RPS AC receives more consecutive ping failures for a device than the Failure Threshold, the alarm will be set and any notifications will be triggered.

The screenshot shows a web interface for 'Ping Targets'. It has three tabs: 'Targets', 'Settings', and 'Control Association'. The 'Settings' tab is active. Below the tabs is a 'Global Settings' section with three rows of settings:

Global Settings	
Ping Cycle Wait Time ?	1 (minutes)
Ping Response Timeout ?	5 (seconds)
Failure Threshold ?	3

At the bottom of the settings area are 'Reset' and 'Save' buttons.

*The Edit > Ping Targets > Settings menu*

Ping Targets Settings	
<b>Ping Cycle Wait Time</b>	Number of minutes the unit waits between pinging the list of target IP's.
<b>Ping Response Timeout</b>	Number of seconds the unit will wait for a response to ping before declaring a ping failure.
<b>Failure Threshold</b>	Number of consecutive ping failures required for an alarm to be set.

## 9.2.8 Ping Targets Control Association

The Control Association is used to automatically attempt to power-cycle a device that can no-longer be pinged. When an alarm is set for a point, the RPS AC will turn off and on that relay to power-cycle the unit. If the alarm status persists, the RPS AC will attempt to power-cycle again after a short waiting period to allow the device to recover. Devices that fail to recover after power-cycling a number of times defined in Reset Attempts Max, will not be cycled again for a period of time defined in the Reset Cooldown. The outlet will remain in the Reset Cooldown State during Reset Cooldown period.

Ping Targets

Targets Settings Control Association

**Control Association** ?

Maximum Reset Attempts ? 2

Reset Cooldown ? 3 (minutes)

Reset Cooldown State ? Off ▾

Pnt	Device Description	Control
1	test	Power 1 ▾ (Reset time:1s)
2	(Disabled)	None ▾
3	(Disabled)	None ▾
4	(Disabled)	None ▾
5	(Disabled)	None ▾
6	(Disabled)	None ▾
7	(Disabled)	None ▾
8	(Disabled)	None ▾
9	(Disabled)	None ▾
10	(Disabled)	None ▾
11	(Disabled)	None ▾
12	(Disabled)	None ▾
13	(Disabled)	None ▾
14	(Disabled)	None ▾
15	(Disabled)	None ▾
16	(Disabled)	None ▾

Reset Save

The Edit > Ping Targets > Control Association menu

Ping Control Association	
<b>Reset Attempts Max</b>	Number of times the device will attempt to operate the relay if the alarm state continues
<b>Reset Cooldown</b>	If the unit fails to respond after Reset Attempts Max, no further attempts will be taken for this many minutes.
<b>Reset Cooldown State</b>	Configures control state during reset cooldown period.
<b>Description</b>	Description for the ping target set in Edit > Ping Targets > Targets
<b>Control</b>	Control that will be power-cycled on alarm.

## 9.2.9 Controls

Controls

Base **Groups**

Type	Description	Rst.Time	Delay	PwrOnState	Group
<a href="#">Usr01&gt;&gt;</a>	<input type="text"/>	1s	1s	On ▾	None ▾
<a href="#">Usr02&gt;&gt;</a>	<input type="text"/>	1s	1s	On ▾	None ▾
<a href="#">Pwr01&gt;&gt;</a>	<input type="text"/>	1s	1s	On ▾	None ▾
<a href="#">Pwr02&gt;&gt;</a>	<input type="text"/>	1s	1s	On ▾	01 ▾
<a href="#">Pwr03&gt;&gt;</a>	<input type="text"/>	1s	1s	On ▾	None ▾
<a href="#">Pwr04&gt;&gt;</a>	<input type="text"/>	1s	1s	On ▾	None ▾
<a href="#">Pwr05&gt;&gt;</a>	<input type="text"/>	1s	1s	On ▾	None ▾
<a href="#">Pwr06&gt;&gt;</a>	<input type="text"/>	1s	1s	On ▾	None ▾
<a href="#">Pwr07&gt;&gt;</a>	<input type="text"/>	1s	1s	On ▾	None ▾
<a href="#">Pwr08&gt;&gt;</a>	<input type="text"/>	1s	1s	On ▾	None ▾

Reset Save

*Fig. 9.9 - The Edit > Controls menu*

Editing Base Controls	
<b>Type</b>	Label indicating which power input/output is connected.
<b>Description</b>	User-definable description for what this power input/output is controlling.
<b>Reset Time</b>	Enter the amount of time before the control resets itself. (Momentary time) Example: enter <b>5m</b> for 5 minutes.
<b>Delay</b>	The time delay for the relay to power on relative to the previous relay that was powered on. Range: 1s to 10m
<b>PwrOnState</b>	If the unit loses power, this is the state, either open (off) or closed (on), that you want the relay to default to.
<b>RetainPwrState</b>	Only User Relays follow power on state if retain power state is enabled. Unit will hard reboot if firmware or config is uploaded.
<b>Group</b>	Enables this control to be part of a group, where you'll have the ability to latch/release multiple controls at the same time. If the device access is disabled and control button is pushed, LED will blink RED.

**Note:** If expansion is configured, Pwr09 to Pwr 16 controls will be present on this page. Pwr09 control will correspond to expansion Pwr01 control.

## 9.2.10 Groups tab

Type	Description	Rst.Time	PwrOnState
<a href="#">Grp01&gt;&gt;</a>	uWave Radio (A and B Power)	1s	On
<a href="#">Grp02&gt;&gt;</a>	15454 (A and B Power)	1s	On
<a href="#">Grp03&gt;&gt;</a>		1s	On
<a href="#">Grp04&gt;&gt;</a>		1s	On
<a href="#">Grp05&gt;&gt;</a>		1s	On
<a href="#">Grp06&gt;&gt;</a>		1s	On
<a href="#">Grp07&gt;&gt;</a>		1s	On
<a href="#">Grp08&gt;&gt;</a>		1s	On

Reset Save

Fig. 9.10 - The Edit > Groups menu

Control Groups	
<b>Type</b>	Group number.
<b>Description</b>	User-definable description for what this power input/output is controlling.
<b>Reset Time</b>	Enter the amount of time before the control resets itself. (Momentary time) Example: enter <b>5m</b> for 5 minutes.
<b>PwrOnState</b>	If the unit loses power, this is the state, either open (off) or closed (on), that you want the relay to default to.
<b>RetainPwrState</b>	Only User Relays follow power on state if retain power state is enabled. Unit will hard reboot if firmware or config is uploaded. If the device access is disabled and control button is pushed, LED will blink RED.

## 9.2.11 Analogs

Internal and external temperature sensors monitor the ambient temperature. Both sensors measure a range of 32° F to 140° F (0° C to 60° C) within an accuracy of ± 1°. The external temperature sensor provides external temperature readings by plugging the optional probe into the temperature port on the back panel.

You also have the option to use a Basic or Advanced configuration methods, explained the the following 2 sections.

### 9.2.11.1 Basic Configuration

Enb	Description	Rev	Notifications
<input checked="" type="checkbox"/>	Current Sensor A <a href="#">Details&gt;&gt;</a>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
<input checked="" type="checkbox"/>	Current Sensor B <a href="#">Details&gt;&gt;</a>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
<input checked="" type="checkbox"/>	External Temp Sensor <a href="#">Details&gt;&gt;</a>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
<input checked="" type="checkbox"/>	Humidity <a href="#">Details&gt;&gt;</a>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
<input checked="" type="checkbox"/>	Internal Temp Sensor <a href="#">Details&gt;&gt;</a>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

Fig. 9.11 - The Edit > Analogs menu

Editing Analogs - Basic	
<b>Enb (Enable)</b>	Check this box to enable this analog channel.
<b>Description</b>	User-definable description for the analog channel
<b>Details</b>	Clickable link that allows you to edit more advanced analog settings.
<b>Rev (Reverse)</b>	Check this box to reverse the polarity. <i>(This is not typically used. Reversing polarity is the same as reversing your wiring. Example: -54VDC becomes +54VDC)</i>
<b>Notification devices</b>	Check which notification device(s), 1 through 8, you want to send alarm notifications for that analog alarm. Check the box in the green bar (top) to have a notification device send an alarm for all analog channels.

## 9.2.11.2 Advanced Configuration

The screenshot shows the 'Analog Settings' configuration page. At the top, there's a 'Base' tab. Below it is a table with the following data:

Enb	Description	Rev	Notifications
<input checked="" type="checkbox"/>	Current Sensor A		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

Below the table, there are several configuration sections:

- DeadBand:** Input field with value 2.
- Scaling:** 'Actual' to 'Display'.
- Units:** 'VDC' to 'VDC'.
- Low ref:** 0 to 5.1.
- High ref:** 1 to 6.
- Thresholds:**
  - MjU: 0
  - MnU: 0
  - MnO: 15
  - MjO: 30

Fig. 9.12 - Detailed analog settings

Editing Analogs - Advanced	
<b>DeadBand</b>	The amount (in volts) that the channel needs to go above or below a threshold in order to cause an alarm.
<b>Units</b>	User-definable display units or optional choice between Fahrenheit and Celsius temperatures. The most common are: VDC = Voltage %H = Humidity F = Fahrenheit C = Celsius
<b>Low Reference *</b>	User-definable lower threshold settings
<b>High Reference *</b>	User-definable upper threshold settings
<b>Thresholds</b>	Threshold settings. These temperature settings are used to indicate the severity of the alarm depending on which threshold values have been passed. Enter values for Major Under (MjU), Minor Under (MnU), Minor Over (MnO), and Major Over (MjO).

\* These values are gathered from your sensor. Keep in mind that the NetGuardian is trying to build a linear equation to give the most accurate results. See examples below.

**Example 1:** If you are measuring battery voltage, we want the NetGuardian to show that the input is -54.2 VDC if -54.2 VDC is really being measured. However, if you are measuring temperature, the values are typically not a 1 : 1 ratio.

**Example 2:** Your X-Type sensor outputs 4 - 20mA. (We use a 250 ohm resistor to convert current to voltage measurement. Ohms Law tells us that 4mA x 250 ohms = 5 VDC. The sensor should tell us what the output current references. In this example, 4mA = 23° F and 20mA = 131° F **OR** 1V = 23° F and 5V = 131° F.

## 9.2.12 Sensors

Sensors connected to the AC Power Switch will appear the AC Power Switch's web interface in the order connected. Your AC Power Switch will automatically recognize the sensor type (temperature, humidity, air flow, etc.) and populate the Sensor ID and Unit (shown below as "Temperature Units") fields. To configure a sensor, simply fill in your description, thresholds, and other fields listed in the table below, then click **Save**.

**Note:** If your unit includes an internal temperature sensor, it will automatically appear in row 1.

Sensors ( ■ - detected and configured ■ - detected and NOT configured ■ - NOT detected and configured )

**Base**

Sensor ID	Description	Rev	Notifications
1 <span style="background-color: green; color: black;">288475b30300006a</span>	Internal Temperature <a href="#">Details&lt;&lt;</a>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Record freq: <input type="text" value="15m"/> DeadBand: <input type="text" value="1"/>		Temperature Units: <input checked="" type="radio"/> °F <input type="radio"/> °C	Thresholds: MjU: <input type="text" value="32"/> MnU: <input type="text" value="42"/> MnO: <input type="text" value="110"/> MjO: <input type="text" value="158"/>
2 <span style="background-color: yellow; color: black;">42b475b30306306b</span>	Interior Humidity <a href="#">Details&gt;&gt;</a>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
3 <span style="background-color: red; color: black;">34b475b30304206a</span>	Wind Speed <a href="#">Details&gt;&gt;</a>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

**Fig. 9.13** - The Edit > Sensors menu

Sensors	
<b>Sensor ID</b>	<p>The ID number found on the sticker on the temperature sensor node. Your AC Power Switch will automatically detect the sensor ID when you plug a sensor into the unit. The color of the sensor ID field will tell you the status of the connected sensor.</p> <ul style="list-style-type: none"> <li><b>Green</b> - The sensor is connected and properly configured</li> <li><b>Yellow</b> - The sensor is connected but has not yet been configured (fill in your configuration fields and click <b>Save</b> to configure the sensor).</li> <li><b>Red</b> - The sensor is not detected/configured (i.e. a previously configured sensor is no longer connected)</li> </ul> <p>To reconfigure the Sensor ID, simply delete any data in this field and click <b>Save</b>. The unit will refresh the sensor ID on that channel.</p>
<b>Sensor Description</b>	Used to describe the type or location of sensor connected to the AC Power Switch.
<b>Rev</b>	Checking the reverse button changes negative values to positive, and positive values to negative.
<b>Notifications</b>	Check which notification device(s), 1 through 8, you want to send alarm notifications for this sensor.
Details	
<b>Record Freq</b>	The frequency with which the AC Power Switch will record the sensor reading
<b>Deadband</b>	The additional qualifying value the AC Power Switch requires above/below your alarm thresholds in order to set an alarm.
<b>Units</b>	The unit(s) of measurement reported by a connected sensor. The field is configurable only if the sensor offers multiple display units (i.e. Fahrenheit or Celsius on a temperature sensor).
<b>MjU (Major Under) MnU (Minor Under) MnO (Minor Over) MjO (Major Over)</b>	Threshold settings that, when crossed, will prompt the NetGuardian to set an alarm. Recorded values less than an under value or greater than an over value will cause alarms.

## 9.2.13 Fan Control

The fan control menu is used to auto-activate outlets when user defined temperature thresholds are crossed. Temperature thresholds are assigned to control power switch outlets in groups of four. Bay 1 refers to outlets 1-4 while Bay 2 refers to outlets 5-8. It is assumed that there is a maximum of one fan connected to each power outlet.

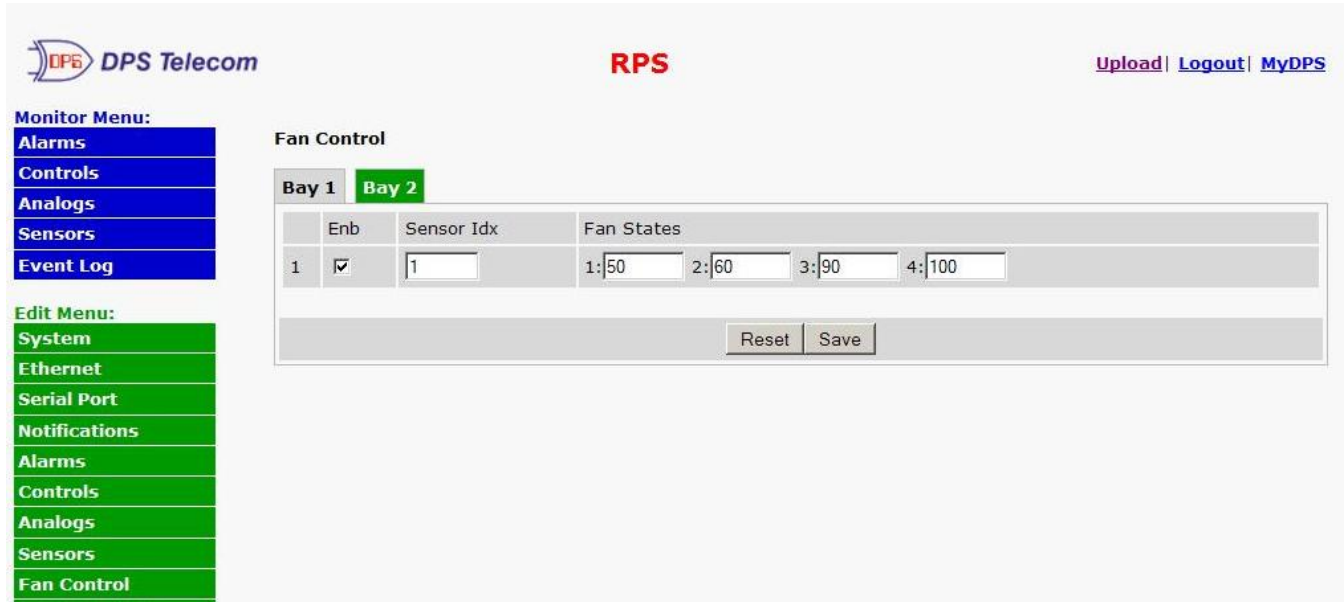


Fig. 9.14 - The Edit > Fan Control menu

Fan Control	
<b>Enable</b>	Check the enable box to activate fan states for either Bay1 or Bay2
<b>Sensor Index</b>	Enter the local sensor reference that you want the fan control to be activated by. This is the location of the sensor on the RTU.
<b>Fan States</b>	Enter the temperature at which you want the corresponding number of fans to be turned on.

**Note:** The outlet designated for "Fan 1" will auto-change every 24 hours after a power-up. For example, Outlet 1's fan is assigned as "Fan 1" one day. The next day, Outlet 2's fan is assigned as "Fan 1." This rotation is intended to give each fan comparable runtime to each other regardless of fan state.



## 9.2.14 Date and Time

Time Settings			
Date	Month Jun	Day 4	Year 2010
Time	Hour 12	Minute 10	PM
Automatic Time Adjustment (NTP)			
<input type="checkbox"/> Enable NTP			
NTP Server Address or Host Name	<input type="text"/>		Sync
Time Zone	GMT-08:00 Pacific Time		
Adjust Clock for Daylight Saving Time (DST)			
<input type="checkbox"/> Enable DST			
Start Day	Month Mar	Weekday Second Sunday	Hour 2 AM
End Day	Month Nov	Weekday First Sunday	Hour 2 AM
Reset Save			

Fig. 9.15 - The Edit > Date and Time menu

Time Settings	
<b>Date</b>	Select the current month, day, and year from the drop-down menus.
<b>Time</b>	Select the current hour, minutes, and time of day from the drop-down menus.
Automatic Time Adjustment (NTP)	
<b>Enable NTP</b>	Check this box to enable Network Time Protocol.
<b>NTP Server Address or Host Name</b>	Enter the NTP server's IP address or host name, then click Sync. Example: north-america.pool.ntp.org <b>NOTE:</b> Make sure DNS servers are defined if using Hostname for NTP server.
<b>Time Zone</b>	Select your time zone from the drop-down menu.
Adjust Clock for Daylight Savings Time (DST)	
<b>Enable DST</b>	Check this box to have the Remote Power Switch (AC) observe Daylight Savings.
<b>Start Day</b>	Select the month, weekday, and time when Daylight Savings will begin.
<b>End Day</b>	Select the month, weekday, and time when Daylight Savings will end.

## 9.2.15 Timers

Timers	
Description	Timer Value
<b>Web Refresh (100ms-60s):</b> How often web browser is refreshed when in monitor mode.	<input type="text" value="1s"/>
<b>Timed Tick (0s-60m 0=off):</b> This is a 'heartbeat' function that can be used by masters who don't perform integrity checks.	<input type="text" value="0s"/>
<b>Remote Access Auto-Enable in (0m-180m 0=off):</b> This is the amount of time that remote access can be disabled before it is auto-enabled. A value of 0 will cause remote access to never auto-enable.	<input type="text" value="10m"/>

*Fig. 9.16 - The Edit > Timers menu*

Timers	
<b>Web refresh</b>	How often the web browser is refreshed when in monitor mode.
<b>Timed Tick</b>	The "heartbeat" function that can be used by masters who don't perform integrity checks.
<b>Remote Access Auto-Enable</b>	The amount of time that remote access can be disabled before it is auto-enabled. A value of 0 will cause remote access to never auto-enable.

## 9.2.16 Reboot

Click on the **Reboot** link from the **Edit** menu will reboot the Remote Power Switch (AC) after writing all changes to NVRAM.



*Fig. 9.17 - The Edit > Reboot confirmation popup*

# 10 Monitoring via the Web Browser

## 10.1 Monitoring Alarms

System alarms are not-editable, housekeeping alarms that are programmed into Remote Power Switch (AC). The **Monitor > \ Alarms** screen provides the status of the system alarms by indicating if an alarm has been triggered. Under the **State** column, the status will appear in red if an alarm has been activated. The status will be displayed in green when the alarm condition is not present.

Base	System	
1	Notification 1 failed	Clear
2	Notification 2 failed	Clear
3	Notification 3 failed	Clear
4	Notification 4 failed	Clear
5	Notification 5 failed	Clear
6	Notification 6 failed	Clear
7	Notification 7 failed	Clear
8	Notification 8 failed	Clear
9	Lost Provisioning	Clear
10	NTP failed	Clear
11	Timed tick	Clear
12	Serial 1 RcvQ full	Clear
13	Dynamic memory full	Clear
14	Unit reset	Clear
15	Remote access disabled	Clear
16	Top board failed	Clear
17	Expansion 1 failed	Clear
18	Unused	Clear
19	Unused	Clear
20	Modem not responding	Clear
21	Power A failed	Clear
22	Power B failed	Clear
23	Fuse alarm	Clear
24	Bay 1 - 1 Fan Running	Clear
25	Bay 1 - 2 Fans Running	Clear
26	Bay 1 - 3 Fans Running	Clear
27	Bay 1 - 4 Fans Running	Clear
28	Bay 2 - 1 Fan Running	Clear
29	Bay 2 - 2 Fans Running	Clear
30	Bay 2 - 3 Fans Running	Clear
31	Bay 2 - 4 Fans Running	Clear

Fig. 10.1

## 10.2 Operating Controls

Use the following rules to operate the Remote Power Switch (AC)'s control:

1. Select **Controls** from the **Monitor** menu.
2. The **green** bar indicates that "**Power On**" for that device, and the **red** bar indicates "**Power Off**."
3. To issue the control, click on a command. Choose between power **Off**, **On**, or **Reset**.

Controls			
Base		Groups	
User 1	Top board control 1	Power on	Off On Reset
User 2	Top board control 2	Power on	Off On Reset
Power 1	uWave Radio A Power	Power on	Off On Reset
Power 2	uWave Radio B Power	Power on	Off On Reset
Power 3	15454 A Power	Power on	Off On Reset
Power 4	15454 A Power	Power on	Off On Reset
Power 5		Power on	Off On Reset
Power 6		Power on	Off On Reset
Power 7		Power on	Off On Reset
Power 8		Power on	Off On Reset

Fig. 10.2 Operate the control relay by clicking on one of the actions in the Commands field.

## 10.3 Viewing Analogs

This selection provides the status of the system's analog channels by indicating if an alarm has been triggered. The **Monitor > Analogs** screen provides a description of each analog channel, the current reading, the units being read, and alarm conditions (major under, minor under, major over, minor over, and not detected) according to your temperature settings.

Analogs			
Base			
1	Current Sensor A	5.100 VDC	None
2	Current Sensor B	5.100 VDC	None
3	External Temp Sensor	71.000 F	None
4	Humidity	60.000 %	None
7	Internal Temp Sensor	0.000 F	Major Under

Fig. 10.3 Viewing analogs from the web browser.

## 10.4 Sensors

On the **Monitor > Sensors** menu, you can monitor all attached digital "D-wire" sensors (including the Internal Temperature sensor if your AC Power Switch has this option). The most recent sensor measurement will be shown, and any alarm thresholds crossed will be shown in either orange for minor alarms, red for major alarms or red for not detected.



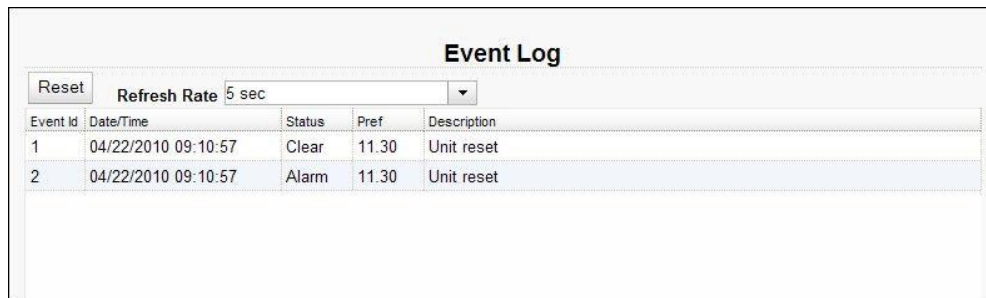
The screenshot shows a web interface titled "Sensors" with a "Base" tab selected. Below the tab is a table with four rows, each representing a sensor. The columns are: an index number (1-4), the sensor name ("Sensor 1" to "Sensor 4"), the current temperature reading in Fahrenheit, and the alarm status. The alarm status is color-coded: green for "None", orange for "MnO", and red for "None".

Index	Sensor Name	Temperature (F)	Alarm Status
1	Sensor 1	84.5 F	None
2	Sensor 2	100.1 F	MnO
3	Sensor 3	75.4 F	None
4	Sensor 4	80.2 F	None

**Fig. 10.4-** View the current status of all attached sensors in the Monitor > Sensors menu.

## 10.5 Viewing the Event Log

To view the unit's history, click on the **Monitor** menu > **Event Log**. This shows the history events from the last time the unit was rebooted.



The screenshot shows a web interface titled "Event Log". At the top, there is a "Reset" button and a "Refresh Rate" dropdown menu set to "5 sec". Below this is a table with five columns: "Event Id", "Date/Time", "Status", "Pref", and "Description". The table contains two rows of event data.

Event Id	Date/Time	Status	Pref	Description
1	04/22/2010 09:10:57	Clear	11.30	Unit reset
2	04/22/2010 09:10:57	Alarm	11.30	Unit reset

**Fig. 10.5**

## 11 SNMP Control of Relays

In order to control the power outputs via SNMP set commands, a SET command must include the following variables:

OID	Numeric OID	Type	Value	Conditions
dpsRTUCPort	1.3.6.1.4.1.2682.1.2.3.1	INTEGER	99	Always
dpsRTUCAddress	1.3.6.1.4.1.2682.1.2.3.2	INTEGER	1	Always
dpsRTUCDisplay	1.3.6.1.4.1.2682.1.2.3.3	INTEGER	1	Always
dpsRTUCPoint	1.3.6.1.4.1.2682.1.2.3.4	INTEGER	1..8	Relay to affect (must be one at a time)
dpsRTUCAction	1.3.6.1.4.1.2682.1.2.3.5	INTEGER	1..3	(1) Turn off Power, (2) Turn on Power, (3) Reset Power

To view the current state of a Power Output, query the dpsRTUASState with the following modifiers;  
port.address.display.point

**For example, to view the state of Power Output 1:**

SNMP GET

OID	Numeric OID	Type	Value
dpsRTUASState.99.1.1.1	1.3.6.1.4.1.2682.1.2.5.1.6.99.1.1.1	Display String	(Alarm) Power Off, (Clear) Power On

**And Power Output 8:**

SNMP GET

OID	Numeric OID	Type	Value
dpsRTUASState.99.1.1.8	1.3.6.1.4.1.2682.1.2.5.1.6.99.1.1.8	Display String	(Alarm) Power Off, (Clear) Power On

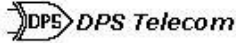
## 12 Firmware Upgrade

To access the **Firmware Load** screen, click on the **Edit > System** menu. At the bottom of this screen, click the firmware link located in the **System Controls** section.

Global System Settings	
Name	RPS
Location	Fresno, CA
Contact	559-454-1600
"From" E-mail Address	DPM216G2@dpstele.com
SNMP GET String	dps_public
SNMP SET String	dps_public
User	admin
Password	••••••••
Web Server Type	<input checked="" type="radio"/> HTTP <input type="radio"/> HTTPS
DCP Responder Settings <a href="#">Display Mapping</a>	
DCP Unit ID	1 DCPx
<input type="radio"/> Listen DCP over LAN <input type="radio"/> Listen DCP over Primary Serial <input checked="" type="radio"/> Disable Listening	
DCP LAN	2001 UDP
Expansions	None
DCP Serial	<a href="#">Configure Primary Serial Port</a>
System Controls	
Initialize Configuration	Initialize
Backup Configuration	config.bin Save
Restore Configuration	<a href="#">Upload</a>

*Fig. 13.1 - The clickable link to upgrade firmware from the Edit > System menu*

At the **Firmware Load** screen, simply browse for the firmware update you've downloaded from [www.dpstele.com](http://www.dpstele.com) and click **Load**.

 **DPS Telecom**

**Upload (config, firmware, web, or bundle)**

*Fig. 13.2 - Browse for downloaded firmware upgrade*

## 13 Display Mapping

Display	Point	Description
Display 1	1-8	Power Relay 1-8
	9-16	Expansion Power Relay 1-8
	17-32	Base Alarm 1-16
	33-48	Relay Group 1-16
	49-64	Undefined
Display	Point	Description
Display 2	1-64	Undefined
Display	Point	Description
Display 3	1	Analog 1 Minor Under
	2	Analog 1 Minor Over
	3	Analog 1 Major Under
	4	Analog 1 Major Over
	5-8	Undefined
	9-16	Analog 1 Control
	17-32	Analog 1 Value
	33-64	Undefined
Display	Point	Description
Display 4	1	Analog 2 Minor Under
	2	Analog 2 Minor Over
	3	Analog 2 Major Under
	4	Analog 2 Major Over
	5-8	Undefined
	9-16	Analog 2 Control
	17-32	Analog 2 Value



Display	Point	Description
	33-64	Undefined
Display	Point	Description
Display 5	1	Analog 3 Minor Under
	2	Analog 3 Minor Over
	3	Analog 3 Major Under
	4	Analog 3 Major Over
	5-8	Undefined
	9-16	Analog 3 Control
	17-32	Analog 3 Value
	33-64	Undefined
Display	Point	Description
Display 6	1	Analog 4 Minor Under
	2	Analog 4 Minor Over
	3	Analog 4 Major Under
	4	Analog 4 Major Over
	5-8	Undefined
	9-16	Analog 4 Control
	17-32	Analog 4 Value
	33-64	Undefined
Display	Point	Description
Display 7	1	Current for power 1 Minor Under
	2	Current for power 1 Minor Over
	3	Current for power 1 Major Under
	4	Current for power 1 Major Over
	5-8	Undefined
	9-16	Current for power 1 Control

Display	Point	Description
	17-32	Current for power 1 Value
	33-64	Undefined
Display	Point	Description
Display 8	1	Current for power 2 Minor Under
	2	Current for power 2 Minor Over
	3	Current for power 2 Major Under
	4	Current for power 2 Major Over
	5-8	Undefined
	9-16	Current for power 2 Control
	17-32	Current for power 2 Value
	33-64	Undefined
Display	Point	Description
Display 9	1	Internal Temp Minor Under
	2	Internal Temp Minor Over
	3	Internal Temp Major Under
	4	Internal Temp Major Over
	5-8	Undefined
	9-16	Internal Temp Control
	17-32	Internal Temp Value
	33-64	Undefined
Display	Point	Description
Display 10	1-64	Undefined
Display	Point	Description
Display 11	1-2	User relays 1-2
	3-16	Undefined

Display	Point	Description
	17	Notification 1 failed
	18	Notification 2 failed
	19	Notification 3 failed
	20	Notification 4 failed
	21	Notification 5 failed
	22	Notification 6 failed
	23	Notification 7 failed
	24	Notification 8 failed
	25	Lost Provisioning
	26	NTP failed
	27	Timed tick
	28	Serial 1 RcvQ full
	29	Dynamic memory full
	30	Unit reset
	31	Remote access disabled
	32	Top bard failed
	33	Expansion 1 failed
	34	Expansion 2 failed
	35	Expansion 3 failed
	36	Modem not responding
	37-64	Undefined
Display	Point	Description
Display 12	1-64	Undefined
Display	Point	Description
Display 13	1-64	Undefined
Display	Point	Description

Display	Point	Description
Display 14	1-64	Undefined
Display	Point	Description
Display 15	1-64	Undefined
Display	Point	Description
Display 16	1-64	Undefined
Display	Point	Description
Display 17	1-64	Undefined
Display	Point	Description
Display 18	1	Sensor 1 Minor Under
	2	Sensor 1 Minor Over
	3	Sensor 1 Major Under
	4	Sensor 1 Major Over
	5	Sensor 1 Not Detected
	6-8	Undefined
	9-16	Sensor 1 Control
	17-32	Sensor 1 Value
	33	Sensor 2 Minor Under
	34	Sensor 2 Minor Over
	35	Sensor 2 Major Under
	36	Sensor 2 Major Over
	37	Sensor 2 Not Detected
	38-40	Undefined
	41-48	Sensor 2 Control
	49-64	Sensor 2 Value

Display	Point	Description
Display 19	1	Sensor 3 Minor Under
	2	Sensor 3 Minor Over
	3	Sensor 3 Major Under
	4	Sensor 3 Major Over
	5	Sensor 3 Not Detected
	6-8	Undefined
	9-16	Sensor 3 Control
	17-32	Sensor 3 Value
	33	Sensor 4 Minor Under
	34	Sensor 4 Minor Over
	35	Sensor 4 Major Under
	36	Sensor 4 Major Over
	37	Sensor 4 Not Detected
	38-40	Undefined
	41-48	Sensor 4 Control
49-64	Sensor 4 Value	
Display	Point	Description
Display 20	1	Sensor 5 Minor Under
	2	Sensor 5 Minor Over
	3	Sensor 5 Major Under
	4	Sensor 5 Major Over
	5	Sensor 5 Not Detected
	6-8	Undefined
	9-16	Sensor 5 Control
	17-32	Sensor 5 Value
	33	Sensor 6 Minor Under
	34	Sensor 6 Minor Over

Display	Point	Description
	35	Sensor 6 Major Under
	36	Sensor 6 Major Over
	37	Sensor 6 Not Detected
	38-40	Undefined
	41-48	Sensor 6 Control
	49-64	Sensor 6 Value
Display	Point	Description
Display 21	1	Sensor 7 Minor Under
	2	Sensor 7 Minor Over
	3	Sensor 7 Major Under
	4	Sensor 7 Major Over
	5	Sensor 7 Not Detected
	6-8	Undefined
	9-16	Sensor 7 Control
	17-32	Sensor 7 Value
	33	Sensor 8 Minor Under
	34	Sensor 8 Minor Over
	35	Sensor 8 Major Under
	36	Sensor 8 Major Over
	37	Sensor 8 Not Detected
	38-40	Undefined
	41-48	Sensor 8 Control
49-64	Sensor 8 Value	
Display	Point	Description
Display 22	1	Sensor 9 Minor Under
	2	Sensor 9 Minor Over
	3	Sensor 9 Major Under

Display	Point	Description
	4	Sensor 9 Major Over
	5	Sensor 9 Not Detected
	6-8	Undefined
	9-16	Sensor 9 Control
	17-32	Sensor 9 Value
	33	Sensor 10 Minor Under
	34	Sensor 10 Minor Over
	35	Sensor 10 Major Under
	36	Sensor 10 Major Over
	37	Sensor 10 Not Detected
	38-40	Undefined
	41-48	Sensor 10 Control
	49-64	Sensor 10 Value

Display	Point	Description
Display 23	1	Sensor 11 Minor Under
	2	Sensor 11 Minor Over
	3	Sensor 11 Major Under
	4	Sensor 11 Major Over
	5	Sensor 11 Not Detected
	6-8	Undefined
	9-16	Sensor 11 Control
	17-32	Sensor 11 Value
	33	Sensor 12 Minor Under
	34	Sensor 12 Minor Over
	35	Sensor 12 Major Under
	36	Sensor 12 Major Over
	37	Sensor 12 Not Detected
38-40	Undefined	

Display	Point	Description
	41-48	Sensor 12 Control
	49-64	Sensor 12 Value
Display	Point	Description
Display 24	1	Sensor 13 Minor Under
	2	Sensor 13 Minor Over
	3	Sensor 13 Major Under
	4	Sensor 13 Major Over
	5	Sensor 13 Not Detected
	6-8	Undefined
	9-16	Sensor 13 Control
	17-32	Sensor 13 Value
	33	Sensor 14 Minor Under
	34	Sensor 14 Minor Over
	35	Sensor 14 Major Under
	36	Sensor 14 Major Over
	37	Sensor 14 Not Detected
	38-40	Undefined
	41-48	Sensor 14 Control
	49-64	Sensor 14 Value
Display	Point	Description
Display 25	1	Sensor 15 Minor Under
	2	Sensor 15 Minor Over
	3	Sensor 15 Major Under
	4	Sensor 15 Major Over
	5	Sensor 15 Not Detected
	6-8	Undefined
	9-16	Sensor 15 Control



Display	Point	Description
	17-32	Sensor 15 Value
	33	Sensor 16 Minor Under
	34	Sensor 16 Minor Over
	35	Sensor 16 Major Under
	36	Sensor 16 Major Over
	37	Sensor 16 Not Detected
	38-40	Undefined
	41-48	Sensor 16 Control
	49-64	Sensor 16 Value

## 14 Frequently Asked Questions

If you have a question about the Remote Power Switch (AC), please call us at **(559) 454-1600** or e-mail us at **support@dpstele.com**

### 14.1 General FAQs

**Q. How do I telnet to the Remote Power Switch (AC)?**

**A.** You must use **Port 2002** to connect to the Remote Power Switch (AC). Configure your Telnet client to connect using TCP/IP (**not** "Telnet," or any other port options). For connection information, enter the IP address of the Remote Power Switch (AC) and Port 2002. For example, to connect to the Remote Power Switch (AC) using the standard Windows Telnet client, click Start, click Run, and type "telnet <Remote Power Switch (AC) IP address> 2002."

**Q. How do I connect my Remote Power Switch (AC) to the LAN?**

**A.** To connect your Remote Power Switch (AC) to your LAN, you need to configure the unit IP address, the subnet mask and the default gateway. A sample configuration could look like this:

**Unit Address:** 192.168.1.100

**subnet mask:** 255.255.255.0

**Default Gateway:** 192.168.1.1

**Q. When I connect to the Remote Power Switch (AC) through the craft port on the front panel it either doesn't work right or it doesn't work at all. What's going on?**

**A.** Make sure your using the right COM port settings. Your COM port settings should read:

**Bits per second:** 9600 (9600 baud)

**Data bits:** 8

**Parity:** None

**Stop bits:** 1

**Flow control:** None

**Important!** Flow control **must** be set to **none**. Flow control normally defaults to hardware in most terminal programs, and this will not work correctly with the Remote Power Switch (AC).

**Q. The LAN link LED is green on my Remote Power Switch (AC), but I can't poll it from my T/Mon.**

**A.** Some routers will not forward packets to an IP address until the MAC address of the destination device has been registered on the router's Address Resolution Protocol (ARP) table. Enter the IP address of your gateway and your T/Mon system to the ARP table.

**Q. What characteristics of an alarm point can be configured through software? For instance, can point 4 be used to sense an active-low signal, or point 5 to sense a level or an edge?**

**A.** The unit's standard configuration is for all alarm points to be level-sensed. You **cannot** use configuration software to convert alarm points to TTL (edge-sensed) operation. TTL alarm points are a hardware option that must be specified when you order your Remote Power Switch (AC). Ordering TTL points for your Remote Power Switch (AC) does not add to the cost of the unit. What you can do with the configuration software is change any alarm point from "Normal" to "Reversed" operation. Switching to Reversed operation has different effects, depending on the kind of input connected to the alarm point:

- **If the alarm input generates an active-high signal**, switching to Reversed operation means

the Remote Power Switch (AC) will declare an alarm in the absence of the active-high signal, creating the practical equivalent of an active-low alarm.

- **If the alarm input generates an active-low signal**, switching to Reversed operation means the Remote Power Switch (AC) will declare an alarm in the absence of the active-low signal, creating the practical equivalent of an active-high alarm.
- **If the alarm input is normally open**, switching to Reversed operation converts it to a normally closed alarm point.
- **If the alarm input is normally closed**, switching to Reversed operation converts it to a normally open alarm point.

## 14.2 SNMP FAQs

**Q. Which version of SNMP is supported by the SNMP agent on this unit?**

**A.** SNMP v1 and v2c

**Q. How do I configure the Remote Power Switch (AC) to send traps to an SNMP manager? Is there a separate MIB for the Remote Power Switch (AC)? How many SNMP managers can the agent send traps to? And how do I set the IP address of the SNMP manager and the community string to be used when sending traps?**

**A.** The Remote Power Switch (AC) begins sending traps as soon as the SNMP managers are defined. The Remote Power Switch (AC) MIB is included on the Remote Power Switch (AC) Resource CD. The MIB should be compiled on your SNMP manager. (**Note:** MIB versions may change in the future.) The unit supports 2 SNMP managers, which are configured by entering its IP address in the Trap Address field of Ethernet Port Setup. To configure the community strings, choose SNMP from the Edit menu, and enter appropriate values in the Get, Set, and Trap fields.

**Q. Does the Remote Power Switch (AC) support MIB-2 and/or any other standard MIBs?**

**A.** The Remote Power Switch (AC) supports the bulk of MIB-2.

**Q. Does the Remote Power Switch (AC) SNMP agent support both Remote Power Switch (AC) and T/MonXM variables?**

**A.** The Remote Power Switch (AC) SNMP agent manages an embedded MIB that supports only the Remote Power Switch (AC)'s RTU variables. The T/MonXM variables are included in the distributed MIB only to provide SNMP managers with a single MIB for all DPS Telecom products.

**Q. How many traps are triggered when a single point is set or cleared? The MIB defines traps like "major alarm set/cleared," "RTU point set," and a lot of granular traps, which could imply that more than one trap is sent when a change of state occurs on one point.**

**A.** Generally, a single change of state generates a single trap.

**Q. The Remote Power Switch (AC) manual talks about control relay outputs. How do I control these from my SNMP manager?**

**A.** The control relays are operated by issuing the appropriate set commands, which are contained in the DPS Telecom MIB.

**Q. How can I associate descriptive information with a point for the RTU granular traps?**

**A.** The Remote Power Switch (AC) alarm point descriptions are individually defined using the Web Browser.

**Q. My SNMP traps aren't getting through. What should I try?**

**A.** Try these three steps:

1. Make sure that the Trap Address (IP address of the SNMP manager) is defined. (If you changed the Trap Address, make sure you saved the change to NVRAM and rebooted.)
2. Make sure all alarm points are configured to send SNMP traps.
3. Make sure the Remote Power Switch (AC) and the SNMP manager are both on the network. Use the unit's ping command to ping the SNMP manager.

## 15 Technical Support

DPS Telecom products are backed by our courteous, friendly Technical Support representatives, who will give you the best in fast and accurate customer service. To help us help you better, please take the following steps before calling Technical Support:

- 1. Check the DPS Telecom website.** You will find answers to many common questions on the DPS Telecom website, at <http://www.dpstele.com/support/>. Look here first for a fast solution to your problem.
- 2. Prepare relevant information.** Having important information about your DPS Telecom product in hand when you call will greatly reduce the time it takes to answer your questions. If you do not have all of the information when you call, our Technical Support representatives can assist you in gathering it. Please write the information down for easy access. Please have your user manual and hardware serial number ready.
- 3. Have access to troubled equipment.** Please be at or near your equipment when you call DPS Telecom Technical Support. This will help us solve your problem more efficiently.
- 4. Call during Customer Support hours.** Customer support hours are Monday through Friday, from 7 A.M. to 6 P.M., Pacific time. The DPS Telecom Technical Support phone number is **(559) 454-1600**.

**Emergency Assistance:** *Emergency assistance is available 24 hours a day, 7 days a week. For emergency assistance after hours, allow the phone to ring until it is answered with a paging message. You will be asked to enter your phone number. An on-call technical support representative will return your call as soon as possible.*

## 16 End User License Agreement

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**Technical Support**  
If a purchaser believes that a product is not operating in substantial conformance with DPS' published specifications or there appear to be defects in material and workmanship, the purchaser should contact our technical support representatives. If the problem cannot be corrected over the telephone and the product and problem are covered by the warranty, the technical support representative will authorize the return of the product for service and provide shipping information. If the product is out of warranty, repair charges will be quoted. All non-warranty repairs receive a 90-day warranty.

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