



# Remote Power Manager (RPM)

## User's Manual



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# 1. Introduction

The RPM is an SNMP/Internet ready device designed to allow administrators to remotely and locally control the AC power for up to eight connected devices, such as: servers, routers, modems and telephone networks. With the expandable function of allowing daisy chaining (cascading) of up to 16 client units, administrators can control a total of 128 devices.

The RPM offers easy set up and user-friendly communication and control methods. Most common connection of all is via the LAN using normal Ethernet connection. The other option is to connect an external modem to the built in RS 232 port to allow dialing up of the Internet. Once connected and properly set up, the administrator will be notified of a web IP address and the administrator can manage the power of the devices from anywhere in the world via the web browser.

The superiority of the RPM over other power management products is RPM gives you control through a telephone (tone signals) with no need of a modem connection. Even if the network locks up or Internet crashes, there is always a back up telephone control option for administrators to control devices. With such powerful features, administrators can be sure that they will always gain access to their devices no matter where they are in the world.

## 2. RPM Package

The standard RPM package contains a Remote Power Manager Unit with supporting hardware and software.

The contents of your package are:

Remote Power Manager Unit.

Rack mount Brackets.

1-AC Power Cord.

8-RJ-11 to RS232 NT Server Cables (**RPM1609 only**): For PC communication.

1-RJ-11 Cascade Cable: For RPM daisy chain and UPS connection.

1-CD.

The contents of the CD:

Quick Install Procedure.

SNMP Utility: Configure SNMP card's IP address and upgrade firmware.

MIB files: dgpups.mib supports UPS, dgprpm.mib supports RPM, ENV, CPS and ATS.

Adobe Acrobat Reader.

User's Manual for RPM and SNMP card.

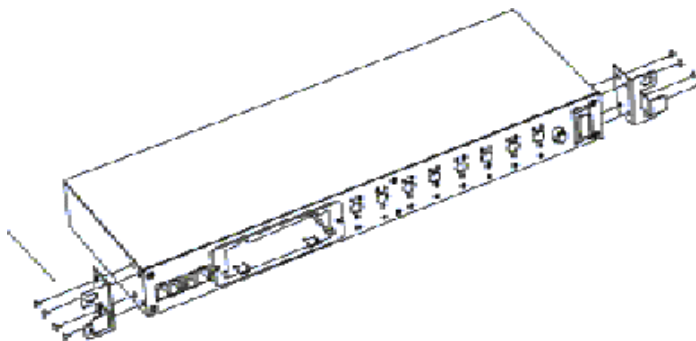
## 3. Features

- Turn ON/OFF any AC powered device via network, phone or the front panel control buttons.
- Integral 10/100Base-T Ethernet port for connection to your TCP/IP network.
- Support dial in by modem to control the AC power outlets.
- Address-Specific IP security masks prevent unauthorized source from accessing the RPM menu through the network.
- Support NMS to control RPM by MIB. User also can use MIB to develop their application interface.
- Download data and events log list to server.
- Daisy Chain expandable up to 16 units.
- Available in 115VAC and 230VAC models.
- When events occur, the RPM can notify user by email and trap according to the pre-set conditions.
- Allows the user to configure the sequence in which power is turned on or off for each outlet. This helps prevent in-rush currents at start-up, which can cause overload conditions. Sequencing also allows the user to predetermine which piece of equipment is turned on first, so that other equipment that is dependant on that unit will function properly.
- Support Windows NT/2000 and XP to execute safe shutdown and reboot.
- Customize and schedule shutdowns and reboots.
- Supports temperature and humidity probe to monitor environmental conditions.

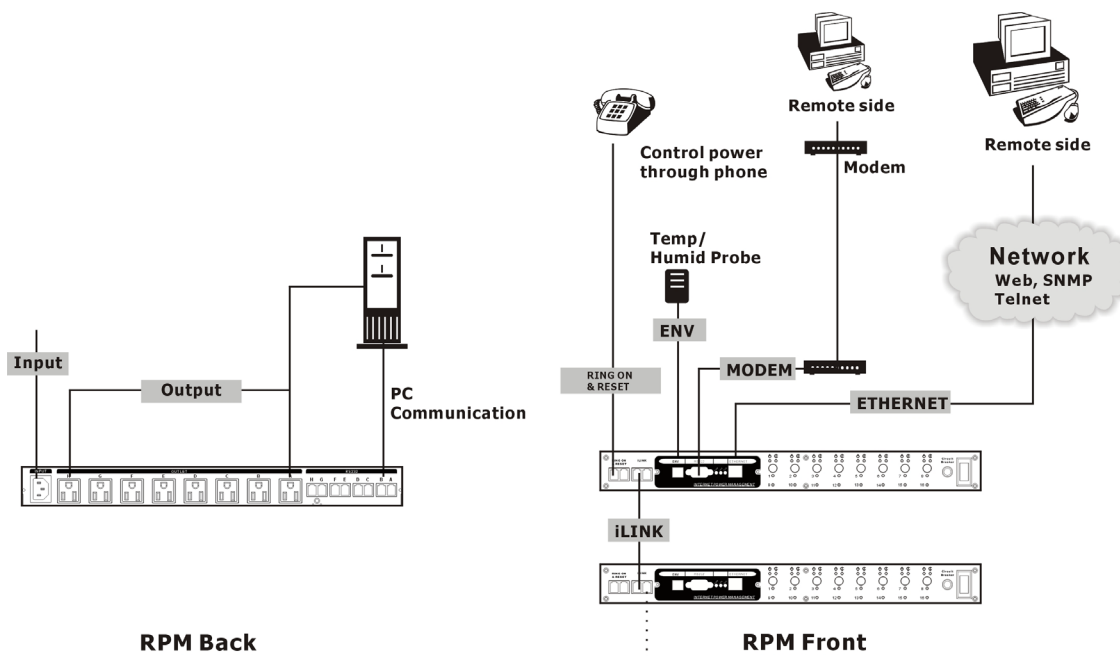
## 4. Installation

### Procedure

1. Install the mounting brackets.  
The RPM comes with brackets for mounting in a standard 19-inch rack. To mount the RPM into a rack perform the following procedure:
  - Attach the mounting brackets to the unit as shown, using the four retaining screws provided for each of the brackets.
  - Choose a location for the brackets. A notched hole on the vertical rail denotes the middle of a U slot.
  - Align the mounting holes of brackets with the notched hole on the vertical rail and attach with the retaining screws.

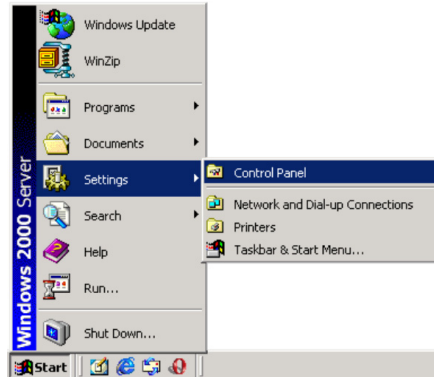


2. Connect all input and output connectors.
3. Connect Ethernet cable to RPM.



4. **Program the IP address. (See the SNMP-32 User’s Manual).**
5. Set RPM’s front control buttons for Internet ready. (See the Outlook section for the correct operation)
6. Use a browser to monitor and control the RPM.
7. For NT shutdown setup, use the RJ11 to RS322 NT Server cable to connect with server and use the following instruction to configure control panel /UPS in Windows OS.

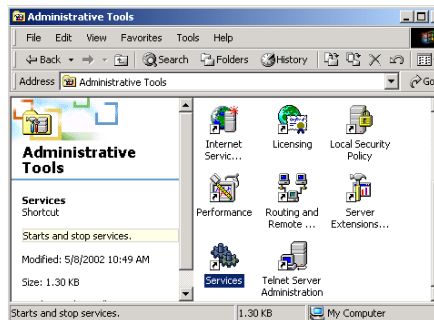
1. Open your Windows 2000 Control Panel by clicking on “Start”, “Setting”, “Control Panel”.



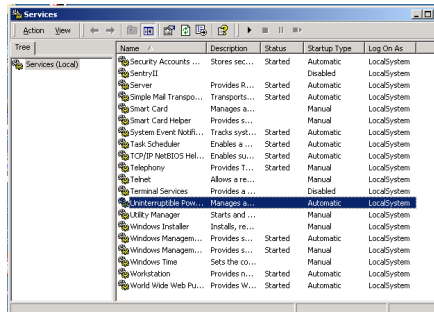
2. Double-click on the Control Panel’s “Administrative Tools” icon.



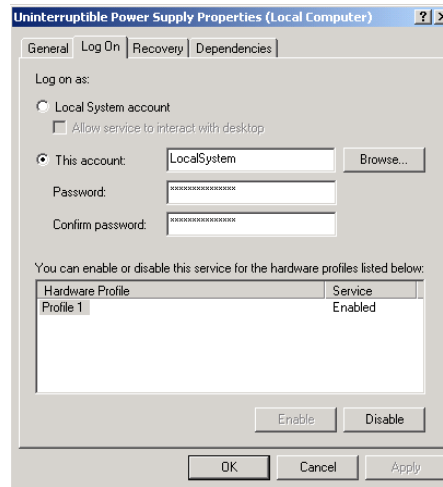
3. Double-click the “Services” icon.



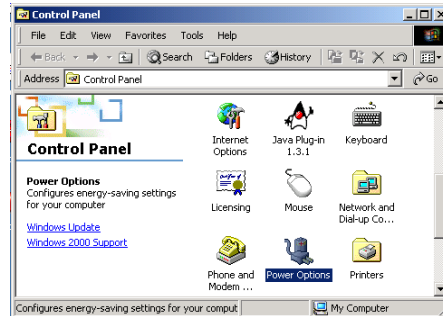
4. Double-click on the Uninterruptible Power Supply service.



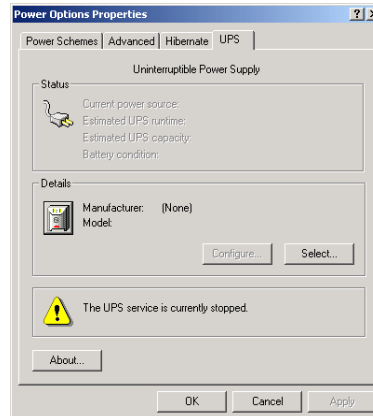
5. Select the “Log On As: This Account” button, input the appropriate account information, and then click “OK”.



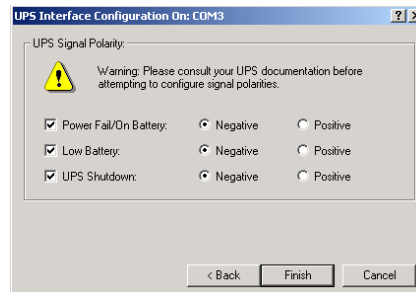
6. Double-click on the Control Panel’s “Power Options” icon.



7. Select the UPS page, and then click on “Select”.

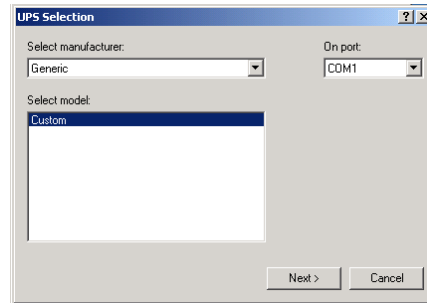


8. Choose the correct manufacturer from the “Select manufacturer” pull-down list, choose the correct COM port, and then click on “Next”.





9. Click on the boxes, as shown, and then choose “Negative” for the three voltage settings. Click on “Finish” to keep these settings.



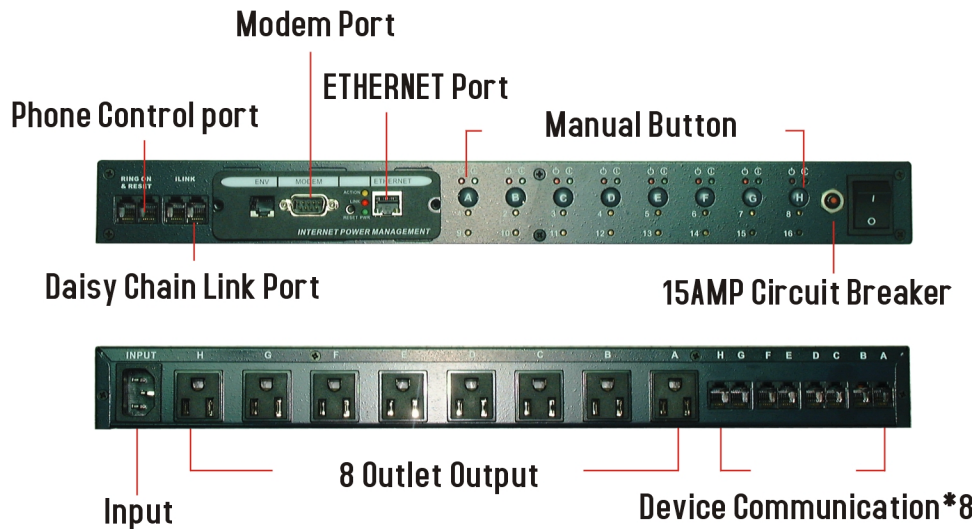
Click “OK” at bottom of the “Power Options Properties” window to finish.

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**Note: See the SNMP-32 Series User’s manual for the other functions.**

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## 5. Outlook

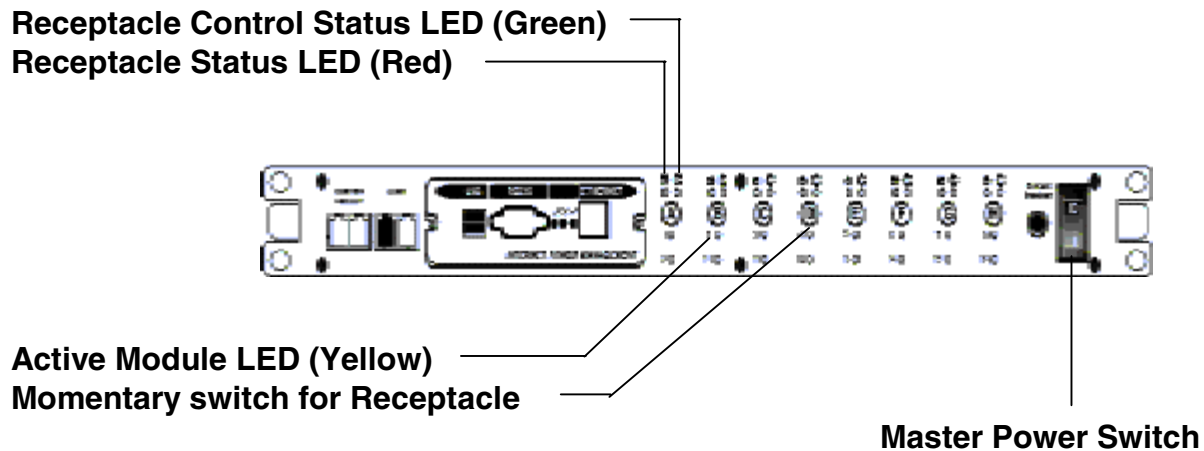


### RPM-Rear Panel

NT SERVER PORTS A-H: Provides controlled shutdown for NT server. Port A controls receptacle A; Port B controls receptacle B, etc.

### RPM-LED Table

RPM LED Table			
LED	ON	OFF	Flashing
Green	The momentary switch is disabled and the output receptacle is set for remote control.	The momentary switch is active and the receptacle may be turned on or off by pressing and releasing the switch	Pressing and holding the momentary switch for three seconds will change the state from remote to local control.
Red	The receptacle is on and providing power to devices.	The receptacle is off.	The receptacle has an internal fault.
Yellow	Indicates the RPM ID number. The RPM master (the RPM with the SNMP card) will display all the connected RPMs.	It means the RPM ID is RPM00.	



**Receptacle Status LED (Red):** When the LED is illuminated the receptacle is on and providing AC Power. When the LED is off the receptacle is not providing AC Power.

**Receptacle Control Status LED (Green):** When the control LED is illuminated, the momentary switch is disabled and the output receptacle is set for remote control (Internet Ready). When the Control LED is off, the momentary switch is active and the receptacle may be turned on or off by pressing and releasing the momentary switch (Local control mode). Pressing and holding the momentary switch for three seconds (the Control LED will be flashing) will change the state from remote to local control.

**NOTE:** The Control Status LED must be on to be able to control the output receptacles remotely.

**Active Module LED (Yellow):** When illuminated this LED indicates which module or client is currently being accessed via remote control.

**Momentary switch for receptacle control:** Pressing and holding the momentary switch for three seconds (the Control LED will be flashing) will change the state from remote to local control. Pressing and holding the momentary switch for one second will change the state from on to off or from off to on in the Local control mode.

## 6. Telephone Access

This section will guide you through the Telephone Access to control RPM.

1. Dial up the RPM.
2. After three rings, the RPM will respond by sending out three short beeps to the caller. Then the RPM waits for the user to enter the password.
3. The user enters an access password (default password is 123456789#).
4. The RPM will send out three short beeps to confirm a successful login, or one long beep to deny access.
5. Once logged in, the remote user can punch in 4-8 digits. The first two digits specify which RPM, the next digit specifies which output receptacle and the next digit specifies which command. The last four digits specify the amount of time:
  - i. Command format: XXNA#:
  - ii. XX - 00—16 is the RPM's device number for a daisy chain, if there is no daisy chain, then any number is accepted.
  - iii. N - outlet number: 1(A)—8(H), 9 controls all the outlets.
  - iv. A - action type: 0=off, 1=on, 2=reset.
  - v. I.E. 0111# RPM01 turn on Outlet A.
  - vi. I.E. 0120# RPM01 turn off Outlet B.
  - vii. I.E. 0212# RPM02 reset outlet A.
  - viii. I.E. 01113600# means turn A on after 3600 minutes.
  - ix. I.E. 01103600# means turn A off after 3600 minutes.
  - x. I.E. 01123600# means reset A after 3600 minutes.
  - xi. Use a combination of 0111XXXX# or 0112XXXX# to get a different delay time. XXXX max value is 9999, which is about 166 hours or 6.94 days.
6. Use the "\*" key to cancel a command at any time.
7. The RPM will acknowledge the receipt of the commands by issuing 2 short beeps. A long beep indicates a failure or a non-recognizable command.
8. To change the password. The default password is 123456789#. The user has to enter the previous password in order to change their password.

**NOTE: The Password has to have a minimum of 7 digits and can have a maximum of 10 digits.**

9. The user enters 888# or whatever previous password. Then the RPM responds with three short beeps acknowledging access granted. The user then enters the new password as follows: 888XXXXXXXXXX#, and the RPM acknowledges with 2 short beeps. Then user inputs 888XXXXXXXXXX# the second time to re-confirm the new password. The RPM acknowledges with 4 short beeps, indicating that the password has been changed.
10. Hang up to close any access.
11. Forgot telephone interface password? Please do the following steps to restore the default password.
  - i. Dial up the RPM.
  - ii. After three sequence rings, the RPM will respond by sending out 3 short beeps to the caller and waiting for user to enter password. Then pressing the button A and H simultaneously on the RPM within twenty seconds.

- iii. When the LED A and H blinking, release the two buttons, the RPM will respond by sending out 4 short beeps to the caller. The password will be restored to default.
- 12. The RPM is in a waiting loop to receive the command string. Each command string should be entered within 20 seconds. After 180 seconds without any user input, the RPM will logout the user.
- 13. The 9 command set is for the administrator:
- 14. 0190# to turn off all of the outlets.
- 15. 0191# to turn on all of the outlets.
- 16. 0192# to reset every port with a delay of 8 minutes, which will allow safe shutdowns. The delay can be changed by command 888911XXXX#, where XXXX can range from 1 to 9999 minutes.
- 17. The user enters 000# that can force to break connection with RPM.

**NOTE: When daisy chaining the RPMs and using the telephone to access the RPMs, the Smart phone card inside all of the RPMs (except the Master RPM) must be disabled.**

## 7. Daisy Chaining

The Remote Power Manager (RPM) can be Daisy Chained up to a maximum of sixteen units. Each RPM in the Daisy Chain must have its own unique identification number. The default ID# is "0". The first RPM (Master RPM) must have the SNMP-32 Card install and must be configured before you can begin Daisy Chaining any additional RPMs. Only the first RPM requires the SNMP-32 Card. Follow the procedure below to Daisy Chain the RPMs:

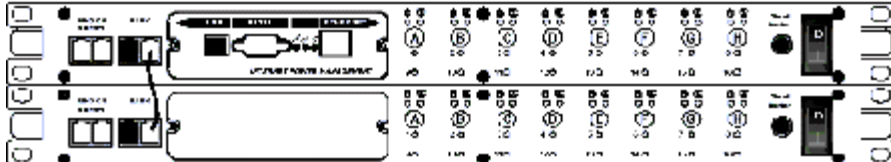
**Figure 1 - First RPM**



1. Make sure that the Terminator is plugged into the first RPM's iLink port (see Figure 1).
2. Plug the first RPM's power cord into utility power.
3. Turn the master power switch on.
4. Configure the RPM (see the SNMP-32 User's Manual).
5. Configure the first RPM's ID number (see the SNMP-32 User's Manual).

**NOTE:** Each RPM must have it's own unique ID#, the default ID# is "0".

**Figure 2 - First and second RPM**

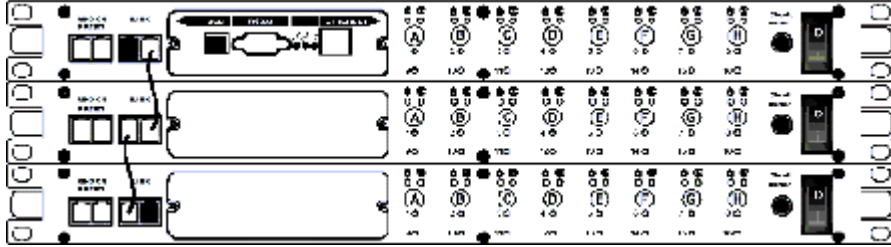


6. Make sure that the second RPM has the Terminator plugged into the iLink port (see Figure 2).
7. Connect the first and second RPM together with the iLink cable.
8. Plug the second RPM's power cord into utility power.
9. Turn the master power switch on.
10. Configure the second RPM's ID number (see the SNMP-32 User's Manual).

**NOTE:** Each RPM must have it's own unique ID#, the default ID# is "0".

11. If there are only two RPMs required for this application, then this completes the Daisy Chaining procedure and the RPMs are ready for use.
12. If your application requires additional RPMs, please continue with the Daisy Chaining procedure.

**Figure 3 - First, second and third RPM**



13. Make sure that the third RPM has the Terminator plugged into the iLink port.
  14. Remove the Terminator from the second RPM.
  15. Connect the second and third RPM together with the iLink cable.
  16. Plug the third RPM's power cord into utility power.
  17. Turn the master power switch on.
  18. Configure the third RPM's ID number (see the SNMP-32 User's Manual).
- NOTE:** Each RPM must have its own unique ID#, the default ID# is "0".
19. If there are only three RPMs required for this application, then this completes the Daisy Chaining procedure and the RPMs are ready for use.
  20. If your application requires additional RPMs (maximum of sixteen), then repeat steps 13-19 of the Daisy Chaining procedure.

## 8. Obtaining Technical Assistance

For Technical Support on the Web, please visit the Support section of our Web site  
Or visit our online Discussion Forum at [www.minutemanups.com](http://www.minutemanups.com)

In order to diagnose the problem you are having, our technicians need the following information from you.

### Installation Site:

Company Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ ZIP code: \_\_\_\_\_

Contact Person's Name: \_\_\_\_\_

Phone Number: \_\_\_\_\_

### If you are a consultant,

Consultant Name: \_\_\_\_\_

Phone Number: \_\_\_\_\_ Fax Number: \_\_\_\_\_

### Computer System:

Operating System and version: \_\_\_\_\_

System Manufacturer: \_\_\_\_\_

System Model Number: \_\_\_\_\_

NMS name and revision number: \_\_\_\_\_

### RPM:

Model Name/Number: \_\_\_\_\_

Serial Number: \_\_\_\_\_

### What are the symptoms?

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### **Technical Support**

Please have the information listed above ready when you contact us. You can reach us by calling:

**Phone:** 1-972-446-7363

**Fax:** 1-972-446-9011



## 9. Limited Product Warranty

Para Systems Inc. (Para Systems) warrants this equipment, when properly applied and operated within specified conditions, against faulty materials or workmanship for a period of three years from the date of original purchase by the end user. For equipment sites within the United States and Canada, this warranty covers repair or replacement of defective equipment at the discretion of Para Systems. Repair will be from the nearest authorized service center. Replacement parts and warranty labor will be borne by Para Systems. For equipment located outside of the United States and Canada, Para Systems only covers faulty parts. Para Systems products repaired or replaced pursuant to this warranty shall be warranted for the remaining portion of the warranty that applies to the original product. This warranty applies only to the original purchaser who must have properly registered the product within 10 days of purchase.

The warranty shall be void if (a) the equipment is damaged by the customer, is improperly used, is subjected to an adverse operating environment, or is operated outside the limits of its electrical specifications; (b) the equipment is repaired or modified by anyone other than Para Systems or Para Systems-approved personnel; or (c) has been used in a manner contrary to the product's operating manual or other written instructions.

Any technical advice furnished before or after delivery in regard to use or application of Para Systems's equipment is furnished without charge and on the basis that it represents Para Systems's best judgment under the circumstances, but it is used at the recipient's sole risk.

EXCEPT AS PROVIDED HEREIN, PARA SYSTEMS MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Some states do not permit limitation of implied warranties; therefore, the aforesaid limitation(s) may not apply to the purchaser.

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