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**RPC SERIES**

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**REMOTE POWER CONTROL UNIT**

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**OWNER'S MANUAL**

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# OWNER'S MANUAL

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## ***BAYTECH*** ***REMOTE POWER CONTROL UNIT***

**FOR MODELS**

**RPC-2**

**RPC-2A**

**RPC-2 MD01**

**RPC-2 RDR**

**RPC-3**

**RPC-3A**

**RPC-5**



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# CONTENTS

|            |  |           |
|------------|--|-----------|
| <b>1.0</b> | <b>INTRODUCTION TO THE RPC</b>             | <b>1</b>  |
| 1.1        | About This Users Manual                    | 1         |
| <b>2.0</b> | <b>QUICK START`</b>                        | <b>2</b>  |
| 2.1        | A Quick Start for RPC-2 and RPC-2A         | 3         |
| 2.2        | A Quick Start for RPC-2 MD01 and RPC-2 RDR | 6         |
| 2.3        | A Quick Start for RPC-3, RPC3A and RPC-5   | 11        |
| <b>3.0</b> | <b>INSTALLATION</b>                        | <b>18</b> |
| 3.1        | Unpacking                                  | 18        |
| 3.2        | Preparing the Installation Site            | 18        |
| 3.3        | Safety Operations                          | 18        |
| 3.4        | Power On/Off State                         | 20        |
| 3.5        | Power Up Sequence                          | 20        |
| 3.6        | Circuit Breaker                            | 20        |
| 3.7        | Ground                                     | 21        |
| <b>4.0</b> | <b>CABLING</b>                             | <b>21</b> |
| 4.1        | RJ-45 Cables and Adapters                  | 21        |
| <b>5.0</b> | <b>OPERATION AND CONFIGURATION</b>         | <b>25</b> |
| 5.1        | RPC-2 and RPC-2A                           | 25        |
| 5.1.1      | EIA-232 Serial Connection                  | 25        |
| 5.1.2      | Communications Software                    | 26        |
| 5.1.3      | Operation                                  | 26        |
|            | Accessing Main Menu                        | 27        |
|            | Controlling Receptacles                    | 27        |
| 5.1.4      | Configuration                              | 28        |
|            | Change Password                            | 29        |
|            | Disabling Password                         | 30        |
|            | Change Outlet Name                         | 30        |
|            | Enable/Disable Confirmation (RPC-2A)       | 31        |
|            | Enable/Disable Status Menu (RPC-2A)        | 32        |
| 5.2        | RPC-2 MD01 and RPC-2 RDR                   | 33        |
| 5.2.1      | LOCAL ACCESS                               | 33        |

---

# CONTENTS

|       |                                   |    |
|-------|-----------------------------------|----|
|       | 5.2.1.1 EIA-232 Serial Connection | 33 |
|       | 5.2.1.2 Communications Software   | 33 |
|       | 5.2.1.3 LOCAL Operation           | 34 |
|       | Accessing Main Menu               | 34 |
|       | Controlling Receptacles           | 35 |
|       | 5.2.1.4 LOCAL Configuration       | 36 |
|       | Change Password                   | 36 |
|       | Disabling Password                | 37 |
|       | Change Outlet Name                | 38 |
| 5.2.2 | REMOTE ACCESS                     | 39 |
|       | 5.2.2.1 Modem Connections         | 39 |
|       | RPC-2 MD01 (Internal Modem)       | 39 |
|       | RPC-2 RDR (External Modem)        | 39 |
|       | 5.2.2.2 REMOTE Operations         | 40 |
|       | Accessing Main Menu via Modem     | 40 |
|       | Controlling Receptacles           | 41 |
| 5.3   | RPC-3, RPC-3A and RPC-5           | 43 |
|       | 5.3.1 LOCAL ACCESS                | 43 |
|       | 5.3.1.1 EIA-232 Serial Connection | 43 |
|       | 5.3.2 REMOTE ACCESS               | 44 |
|       | 5.3.2.1 Network Port Connection   | 44 |
|       | 5.3.3 Communications Software     | 44 |
|       | 5.3.4 Operations                  | 45 |
|       | Accessing Main Menu               | 46 |
|       | 5.3.4.1 Outlet Control            | 47 |
|       | 5.3.4.2 Manage Users              | 49 |
|       | Add Users                         | 49 |
|       | Delete User                       | 50 |
|       | Change Password                   | 50 |
|       | Change Outlet List                | 52 |
|       | 5.3.5 Configuration               | 53 |
|       | IP Address                        | 53 |
|       | Subnet Mask                       | 54 |
|       | Gateway                           | 55 |
|       | Unit ID                           | 55 |

---

# CONTENTS

|                   |   |           |
|-------------------|---|-----------|
|                   | Access  | 55        |
|                   | Outlets   | 56        |
|                   | Outlet Status Display   | 57        |
|                   | Command Confirmation  | 57        |
|                   | Outlet Power-Up Delay   | 57        |
|                   | Name Outlets  | 58        |
|                   | Display Outlet User   | 59        |
| 5.3.6             | Unit Status   | 60        |
|                   | System Status   | 60        |
|                   | Network Interface   | 61        |
|                   | Logged Users  | 61        |
|                   | Outlet Status   | 62        |
| 5.3.7.            | Reset Unit  | 63        |
| 5.3.8             | Command Summary   | 63        |
| <b>6.0</b>        | <b>TECHNICAL SUPPORT</b>                                      | <b>64</b> |
| <b>7.0</b>        | <b>REPACKAGING, SHIPPING AND RETURNING<br/>TO THE FACTORY</b> | <b>65</b> |
| <b>8.0</b>        | <b>FCC RADIO FREQUENCY INTERFACE<br/>STATEMENT</b>            | <b>66</b> |
| <b>APPENDICES</b> |   |           |
|                   | Appendix A - RPC Troubleshooting Guide                        | 67        |
|                   | Appendix B - Specifications                                   | 70        |
|                   | Appendix C - Diagnostic LED Indications                       | 72        |
|                   | Appendix D - Modem Command Summary                            | 73        |
| <b>INDEX</b>      |   | <b>75</b> |

# 1.0 INTRODUCTION TO THE REMOTE POWER CONTROL SWITCH (RPC)

The BayTech RPC-Series is a full-featured AC power management solution that provides an easy way to control power of remote equipment. From your office or from anywhere, the RPC will TURN ON, TURN OFF, OR REBOOT remote equipment.

There are six different RPC models. Four models operate at 115 VAC, 15 Amp. Two models operate at 230 VAC, 10 Amp.

## 115 VAC, 50/60 Hz, 15 Amp

**RPC-2:** Six receptacles and an EIA-232 connection.

**RPC-2 MD01:** Six receptacles, EIA-232 connection, and a 2400 bps Modem.

**RPC-2 RDR:** Six receptacles, EIA-232 connection, and Ring Detect Reset.

**RPC-3:** Eight receptacles, Ethernet and EIA-232 connections.

**RPC-5:** (15amps per receptacle) Four receptacles, Ethernet and EIA-232 connections.

## 230 VAC, 50/60 Hz, 10 Amp

**RPC-2A:** Six receptacles and an EIA-232 connection.

**RPC-3A:** Eight receptacles, Ethernet, and EIA-232 connections.

## 1.1 ABOUT THIS USERS MANUAL

The RPC Owner's Manual is a user's guide for all models of the RPC Series. To find the appropriate operating instructions, please identify the particular RPC model you are using.

This document provides information required for installing and operating your Remote Power Control Unit. It should allow the user to connect, power up, and access an applications menu where the power of connected equipment can be controlled. We suggest reading this manual carefully, while placing special emphasis on correct cabling and configuration. If you have any problems with your installation, please contact a BayTech Applications Engineer at 228-467-8231 or call toll free anywhere in the United States at 800-523-2702.

BayTech manufactures many remote site management products, data switches, data collection multiplexers, remote power controllers, and peripheral print sharers. If you would like information on any of these products, please contact BayTech Customer Service.

We welcome any comments you may have about our products, and we hope that you will continue to look to BayTech for your data communication needs.

## **2.0 QUICK START**

This section, "Quick Start," describes the basic steps required to set up and configure your RPC. Each Quick Start will discuss like models.

- Section 2.1    RPC-2 and RPC-2A Quick Start
- Section 2.2    RPC-2 MD01 and RPC-2 RDR Quick Start
- Section 2.3    RPC-3, RPC-3A and RPC-5 Quick Start

If you need to further acquaint yourself with the RPC set up, configuration, and operations, see the section entitled, "Detailed Operation and Configuration."

## 2.1 RPC-2 AND RPC-2A QUICK START

### EIA-232 SERIAL CONNECTION

#### RPC-2/RPC-2A

Using the 9FRJ45PC-1 adapter and the RJ08X007 cable, connect the serial port of your computer to the RJ-45 port labeled "EIA-232."

Load serial port communications software. Set serial communications parameters to 9600 bps, 8 data bits, 1 stop bit, and no parity.

### OPERATION

#### Accessing Main Menu

#### RPC-2/RPC-2A

Power on the RPC unit. The following status menu appears:

RPC-2 Series  
(C) 1997 by BayTech  
F2.07

Circuit Breaker : On

- 1) ... OUTLET 1 : Off
- 2) ... OUTLET 2 : Off
- 3) ... OUTLET 3 : Off
- 4) ... OUTLET 4 : Off
- 5) ... OUTLET 5 : Off
- 6) ... OUTLET 6 : Off

RPC >

If the status menu fails to appear, ensure the correct cables and adapters are being used and that they are connected properly.

Also, verify the serial communication parameters are correctly configured.

## Controlling Receptacles

### RPC-2/RPC-2A

To set or change the status of the receptacles, enter one of the following commands: ON n, OFF n, REBOOT n, where “n” is the outlet number you wish to send the command. Entering an outlet number of “0” sends the command to **all** outlets.

## CONFIGURATION

Type “CONFIG” from the RPC>prompt. The following menu appears:

### RPC-2

RPC >CONFIG

- 1) ... Change Password
  - 2) ... Change Outlet Name
- Enter Request:

### RPC-2A

RPC > CONFIG

- 1) ... Change Password
- 2) ... Change Outlet Name
- 3) ... Enable/Disable Confirmation
- 4) ... Enable/Disable Status Menu
- X) ... Exit

Enter Request:

## Programming a Password

### RPC-2/RPC-2A

Select #1, “Change Password,” press <Enter.> **NOTE** The password is

**disabled from the factory. The factory default password is a carriage return.** The RPC prompts for the old password. Enter a carriage return. The RPC prompts for a new password. Enter a new password (maximum field length, 8 alphanumeric characters). **NOTE: The password feature is case sensitive.** The RPC asks you to confirm the new password. A message confirms success of the password change.

## Programming Receptacle Names

### RPC-2/RPC-2A

Select #2, “Change Outlet Name,” press <Enter.> At “Enter Request,” select the outlet number you wish to change; press <Enter.> Enter a new receptacle name (maximum field length, 10 characters); press <Enter.> The new name will show in the main menu for the corresponding outlet.

## Enable/Disable Confirmation

### RPC-2A

From the configuration menu, select #3, “Enable/Disable Confirmation.” the RPC responds with the option to toggle confirmation on or off. **NOTE The factory default setting is Enabled:**

Disable Confirmation? (Y/N)

## Enable/Disable Status Menu

### RPC-2A

From the configuration menu, select #4, "Enable/Disable Status Menu." The RPC responds with the option to toggle the status menu on or off.. **NOTE The factory default setting is Enabled:**

Disable Status Menu? (Y/N)

## 2.2 RPC-2 MD01 AND RPC-2 RDR QUICK START

### LOCAL ACCESS

#### EIA-232 SERIAL CONNECTION

Using the 9FRJ45PC-1 adapter and the RJ08X007 (8-pin crossed) cable, connect the serial port of your computer to the RJ-45 port labeled "EIA-232."

Load serial port communications software. Set serial communications parameters to 9600 bps, 8 data bits, 1 stop bit, and no parity.

### OPERATION

#### Accessing Main Menu

Power on the RPC unit. Hit <Enter.> The following status menu appears:

RPC-2 Series  
 (c) 1997 by BayTech  
 F2.07

**Circuit Breaker : On**

- 1) ... OUTLET 1 : Off
- 2) ... OUTLET 2 : Off
- 3) ... OUTLET 3 : Off
- 4) ... OUTLET 4 : Off
- 5) ... OUTLET 5 : Off
- 6) ... OUTLET 6 : Off

RPC >

If the status menu fails to appear, ensure the correct cables and adapters are being used and that they are connected properly. Also, verify the serial communication parameters are correctly configured.

## Controlling Receptacles

To set or change the status of the receptacles, enter one of the following commands: ON n, OFF n, REBOOT n, where “n” is the outlet number you wish to send the command. Entering an outlet number of “0” sends the command to all outlets.

## CONFIGURATION

Type “CONFIG” from the RPC-2> prompt. The following menu appears:

RPC >CONFIG

- 1) ... Change Password
- 2) ... Change Outlet Name

Enter Request:

**Change Password**

Select #1, "Change Password," press <Enter.> **NOTE The factory default password is disabled by making the password a carriage return.** The RPC prompts for the old password. Enter a carriage return. The RPC prompts for a new password. Enter a new password (maximum field length, 8 characters). The RPC asks you to confirm the new password. A message confirms success of the password change.

**Change Outlet Name**

Select #2, Receptacle Names "Change Outlet Name," press <Enter.> Select the outlet number, press <Enter.> Enter a new receptacle name (maximum field length, 10 characters), press <Enter.> The new name will show in the main menu for the corresponding outlet.

**REMOTE ACCESS****MODEM CONNECTIONS****RPC-2 MD01  
(Internal Modem)**

Using the RJ04X007 (RJ-11) modular cable, connect either port labeled "LINE" on the RPC unit to the telco wall jack.

**Proceed to "Accessing Main Menu via Modem."****RPC-2 RDR  
(External Modem)**

Plug the modem's power supply into receptacle number six on the RPC.

Using the RJ04X007 (RJ-11) modular cable, connect either port labeled “LINE” on the RPC unit to the telco wall jack. Using another RJ04X007 (RJ-11) modular cable, connect the remaining port labeled “LINE” on the RPC unit to the port labeled “LINE” on the external modem.

Using the 25MRJ45MD-8 adapter and the RJ08X007 (8-pin crossed) cable, connect the DB-25 female port of the modem to the RJ-45 port labeled “EIA-232” on the back of the RPC unit.

## **RPC-2 RDR EXTERNAL COMMAND SUMMARY**

You must customize the external modem’s configuration to operate properly with the RPC-2 RDR. See Appendix C, MODEM COMMAND SUMMARY.

## **OPERATION**

### **Accessing Main Menu Via Modem**

Using a communications software, package, dial the modem. After a connection has been established, the RPC sends the following header:

**RPC-2 Series  
(C) 1997 by BayTech  
F2.07**

If you set a password when you were locally connected to the RPC through the serial port, the following header appears. Note the additional prompt for a password:

---

RPC-2 Series  
 (C) 1997 by BayTech  
 F2.07  
 Enter Password

If prompted, enter password. The following main menu appears.

RPC-2 Series  
 (C) 1997 by BayTech  
 F2.07

Circuit Breaker : On

1)...OUTLET 1 : Off  
 2)...OUTLET 2 : Off  
 3)...OUTLET 3 : Off  
 4)...OUTLET 4 : Off  
 5)...OUTLET 5 : Off  
 6)...OUTLET 6 : Off

## Controlling Receptacles

To set or change the status of the receptacles, enter one of the following commands: ON n, OFF n, REBOOT n, where “n” is the outlet number you wish to send the command. Entering an outlet number of “0” sends the command to **all** outlets.

## CONFIGURATION

Type “CONIG” from the RPC-2 > prompt. Follow instructions for Change Password and Change Outlet Name on page 7 of this Quick Start.

## 2.3 A QUICK START FOR RPC-3, RPC-3A AND RPC-5

**RPC-5 Note:** The RPC-3 and RPC-5 are configured in a similar manner. This quick start will reference the RPC-3 menus. The only programming differences for the RPC-5 pertain to the number of receptacles shown in the menus.

*NOTE: Inlet #1 supplies power to the logic of the RPC-5, this inlet must have power for the unit to operate.*

### **LOCAL ACCESS**

#### **EIA-232 SERIAL CONNECTION**

Using the 9FRJ45PC-1 adapter and the RJ08X007 (8-pin crossed) cable, connect the serial port of your computer to the RJ-45 port labeled "EIA-232" on the RPC unit.

### **REMOTE ACCESS**

#### **NETWORK PORT CONNECTION**

Using a straight 10Base-T cable, connect the port labeled Ethernet on the RPC to the network hub. Establish a Telnet client session and login from your workstation.

#### **COMMUNICATIONS SOFTWARE**

Load serial port communications software. Set serial communications parameters to 9600 bps, 8 data bits, 1 stop bit, and no parity.

### **OPERATION**

#### **Accessing Main Menu**

Power on the RPC unit. Hit <Enter.> The following main menu appears:

**RPC-3 TelnetHost**  
**Revision F 3.03, (C) 1998**  
**Bay Technical Associates**

**Unit ID: RPC3**

**RPC-3 Menu:**

- 1) ... Outlet Control**
- 2) ... Manage Users**
- 3) ... Configuration**
- 4) ... Unit Status**
- 5) ... Reset Unit**
- 6) ... Logout**

**Enter Selection:**

If the main menu fails to appear, ensure the correct cables and adapters are being used and that they are connected properly. Also, verify the serial communication parameters are correctly configured.

## Outlet Control

To set or change the status of the receptacles, select #1 “Outlet Control” from the main menu. From the RPC> prompt, enter one of the following commands: ON n, OFF n, REBOOT where “n” is the outlet number you wish to send the command. Entering an outlet number of “0” sends the command to **all** outlets. Type “MENU” to return to the main menu.

**NOTE** The reboot command will only reboot outlets that are turned ON; an outlet that is turned OFF cannot be rebooted.

## Manage Users

To add, delete, or modify a user, change passwords, or change user lists, select #2, “Manage Users,” from the main menu. The following menu appears:

### User Management Menu

To modify existing user, enter number of user.  
To add/delete user, select appropriate menu choice.  
Enter request, CR to exit menus.

- 1) ... Add user
- 2) ... admin

The “Add user” option is presented any time less than 8 users are defined. The “Delete

user” option is presented any time one or more optional outlet users are defined. Deletion of admin user is prohibited.

**Change Password**

From the User Management Menu, select the number of the user to modify, followed by a carriage return <cr>.

**NOTE Password can be enabled or disabled for serial login and network login.**

Select #1, “Change Password.” The RPC responds, “Enter Old Password:” Hit <Enter> for initial setup or enter current password. The RPC responds, “Enter New Password.” Enter a new password. The RPC responds, “Confirm by Re-Entering New Password.” Re-enter the new password. **NOTE: Password is case sensitive.**

**Change User List**

From the User Management Menu, select the number of the user to modify, followed by a carriage return <cr>. Select #2, “Change User List.” Enter the number of the outlet(s) you want to give or remove access. If more than one outlet, enter the numbers separated by commas. Example: 2,6,8.

**CONFIGURATION**

**IMPORTANT: For network access, you must configure the IP address, subnet mask, and gateway from the serial port.**

**NOTE: Network parameters, such as IP Address, require a unit reset. All other changes take affect immediately upon accepting changes after exiting configuration.**

Select #3, "Configuration" from the main menu. The following menu appears:

Bay Technical Associates  
RPC-3 Configuration Menu  
MAC Addr: 00.C0.48.05.53.A2

Unit ID: RPC3  
Medium Stat: good  
Active users: 1

Enter choice from menu, CR to exit  
1) ... IP Address : 0.0.0.0  
2) ... Subnet Mask : 0.0.0.0  
3) ... Gateway : 0.0.0.0  
4) ... Unit ID : RPC-3  
5) ... Access  
6) ... Outlets  
7) ... Exit

### **IP Address**

Select #1, "IP Address." Enter the RPC unit's IP address in dotted decimal format (200.4.3.50).

### **Subnet Mask**

Select #2, "Subnet Mask." Enter the RPC unit's subnet mask in dotted decimal format (255.255.255.0).

### **Gateway**

Select #3, "Gateway." Enter the RPC unit's Gateway address in dotted decimal format (200.4.5.50).

### **Unit ID**

Select #4, "Unit ID." Enter the RPC unit's Unit ID (64 chars max).

**Access**

**NOTE** If username and password are disabled (factory default), outlet users will have access to all admin functions.

From the configuration menu, select #5, "Access," followed by a carriage return <cr>. The RPC responds with a Login Setup menu, allowing the user to enable/disable user name and password for both network access and serial port access. If the option is currently enabled, you will be asked if you want to disable. If the option is currently disabled, you will be asked if you want to enable. Answer "Y" for "Yes," or "N" for "No," accordingly.

**Outlets**

From the configuration menu, select #6, "Outlets." The RPC sends an Outlet Operation Configuration Menu including the following options:

- 1) **Outlet Status display** – enable/disable
- 2) **Command Confirmation** – enable/disable
- 3) **Outlet Power-up Delay** – programmable elapse time before applying power to an outlet after unit power-up, reset, or reboot.
- 4) **Name Outlets** – Program outlet names
- 5) **Display Outlet Users** – A display of outlet user assignments.

**UNIT STATUS**

From the main menu, select #4, “Unit Status,” followed by a carriage return. The RPC sends a Unit Status Menu that provides vital information about the RPC—system status, network interface, logged user status, and outlet status. Select the number of the status to review.

**RESET UNIT/Saving  
Network Parameters**

From the main menu, select #5, “Reset Unit,” followed by a carriage return. The RPC responds, “Reset Unit? (Y/N).” Type “Y” for yes. Allow approximately 5 seconds for unit reset.

## 3.0 INSTALLATION

### 3.1 UNPACKING

Compare the unit and serial number of the equipment you received to the packing slip located on the outside of the box. Inspect equipment carefully for damage that may have occurred in shipment. If there is damage to the equipment or if materials are missing, contact BayTech technical support at 228-467-8231 or call toll free inside the United States at 800-523-2702. At a minimum, you should receive the following:

- a. The RPC unit.
- b. This manual with any applicable addendum's.
- c. Power Cords (4 with RPC-5) (1 with RPC2A/RPC3A).
- d. 1 ea. DE-9 (9 pin) PC com port adapter -- 9FRJ45PC-1.
- e. 1 ea. RJ-45 cross over cable -- RJ08X007.
- f. 1 ea. RJ-11 telco cable -- RJ04X007 (RPC-2 MD01 & RPC-2 RDR).
- g. 1 ea. external modem adapter -- 25MRJ45MD-8 (RPC-2 RDR).

**NOTE: Keep the shipping container and packing material for future shipment.**

### 3.2 PREPARING THE INSTALLATION SITE

The installation area should be clean and free of extreme temperatures and humidity. Allow sufficient space behind the RPC unit for cabling and receptacle connections.

### 3.3 SAFETY OPERATIONS

When operating, installing, maintaining, transporting, or storing equipment, take the following special precautions to avoid the introduction of hazards.

**CAUTION** For indoor use only.

**NOTE** Refer to the National Electrical Code (NEC) for applicable wiring standards.

1. Be sure to connect this device to a grounded (three-prong) receptacle. The receptacle must be installed near the equipment and easily accessible.
2. Do not exceed the AC current rating for the selected model. (See Appendix B “SPECIFICATIONS” for each RPC model).
3. Although the power switch is turned OFF, the unit is not totally isolated from the power supply. In order to be absolutely removed from the power supply, the power supply must be unplugged from the unit.

**IMPORTANT** For PERMANENTLY CONNECTED EQUIPMENT, a readily accessible disconnect device shall be incorporated in the fixed wiring; for PLUGGABLE EQUIPMENT, the socket-outlet shall be installed near the equipment and easily accessible.

4. Do not install near water or expose this unit to moisture.
5. To prevent heat buildup, do not coil the power cord when in use.
6. Avoid the use extension cords.
7. When connecting other equipment to the RPC, remove power from both units.
8. Do not attempt to make any internal changes to the power source.
9. Do not attempt to modify any portion/component of an RPC unit. BayTech or another authorized service technician must perform any internal changes. For more information, please contact BayTech at 228-467-8231 or call toll free inside the United States at 800-523-2702.

Applying power illuminates a green LED on the front panel of the RPC. When the power switch is off, devices connected to the unit are not receiving power (off).

## **3.4 POWER ON/OFF STATE**

Each receptacle is individually controlled by an internal relay. Upon initialization of power, the status of each receptacle will return to the state it was in prior to losing power. For example, if Outlet 1 and Outlet 2 are “ON” and power is removed from the RPC, the status of Outlet 1 and Outlet 2 will return to “ON” when power is restored to the RPC.

## **3.5 POWER UP SEQUENCE**

In order to minimize power surges, the RPC sequences power to each outlet in the “ON” state in 0.3-second intervals. When power is applied to the RPC, the initialization sequence requires a delay of 10 seconds before power is available at the service receptacles. Following the 10-second delay, the RPC sequences power to each outlet that is turned “ON.” Beginning with Outlet 1 and continuing to each outlet in the “ON” state, power is sequenced in 0.3-second intervals. If you choose the option requesting the RPC to reboot all connected equipment, the RPC sequences power to each outlet turned “ON” in 0.1-second intervals.

## **3.6 CIRCUIT BREAKER**

In the case of power overload, the circuit breaker automatically trips. Determine the cause of the tripped circuit breaker. Correct the problem then reset the circuit breaker by depressing the circuit breaker switch. Power to the RPC base unit (electronics, EIA-232 port, etc.) does not go through the circuit breaker. If an overload condition occurs, the RPC status menu is still accessible. If all circuits are closed, the circuit breaker status menu will indicate “On.” If the circuit breaker is tripped, the circuit breaker status will indicate “Off.”

## 3.7 GROUND

High-voltage surges and spikes can damage this equipment. Although surges and spikes can result from a variety of causes, lightning most often causes them. To protect from such power surges and spikes, this unit must have a good earth ground.

## 4.0 CABLING

### 4.1 RJ-45 CABLES AND ADAPTERS

**Important:** All RPC models have an RJ-45 port for connecting to a local EIA-232 device such as a computer terminal or external modem. Most serial computers do not have RJ-45 connections; therefore, an adapter is provided with this unit to convert from a DE-9 connector to an RJ-45 connector (BayTech Part No. 9FRJ45PC-1). An adapter to convert from a DB-25 connector to an RJ-45 connector is also available from BayTech, upon request (BayTech Part No. 25FRJ45PC-1).

### RJ-45 CABLES AND ADAPTERS

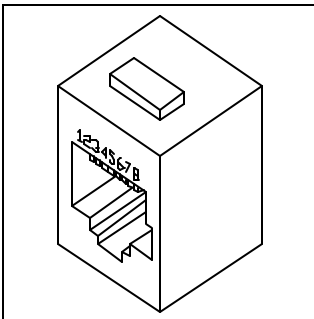


Fig. 1: RJ-45 Receptacle

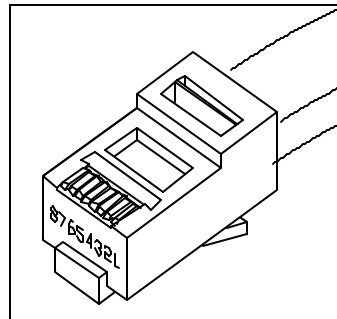
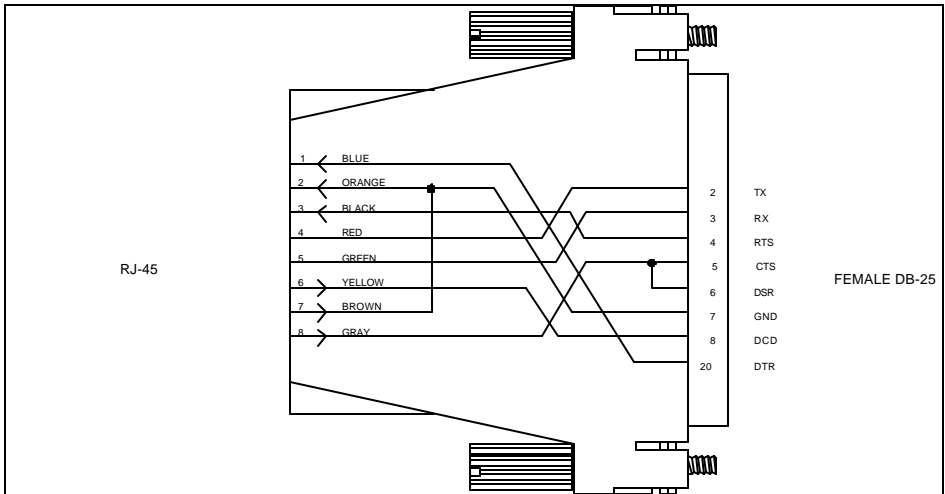


Fig. 2: RJ-45 Plug

The RPC RJ-45 control port uses the following signals:

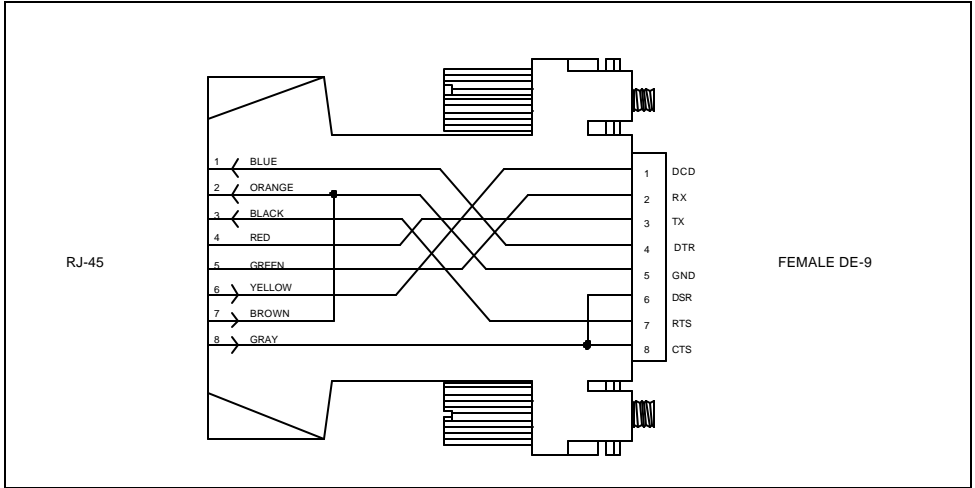
| EIA-232 RJ-45 CONTROL PORT PIN/SIGNAL DEFINITION |                |           |   |
|--|----------------|-----------|---|
| Pin  | EIA-232 Signal | Direction | Description   |
| 1  | DTR            | Output    | +10V when activated by DCD. Toggles on logout for modem disconnect. |
| 2  | GND            | ----      | Signal Ground   |
| 3  | RTS            | Output    | +10V when powered is applied, not used as a handshake line          |
| 4  | TX             | Output    | Transmit Data (data out)  |
| 5  | RX             | Input     | Receive Data (data in)  |
| 6  | N/C            | N/C       | No Connection   |
| 7  | GND            | ----      | Signal Ground   |
| 8  | DCD            | Input     | DCD into the RPC/Not used on RPC-2 MD01                             |



**Figure 3:** Computer/Terminal Adapter  
 BayTech Part No. 25FRJ45PC-1

Crossed RJ-45 cable is required

To interface a computer or terminal to the RPC, refer to comment on Page 20. Refer to *Figure 3*, if the host computer or terminal has a DB-25 male connector. Refer to *Figure 4*, if the host computer has a DE-9 male connector.

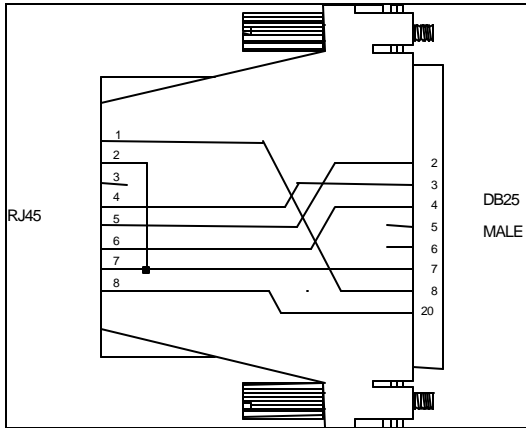


**Figure 4:** Computer/Terminal Adapter  
 BayTech Part No. 9FRJ45PC-1

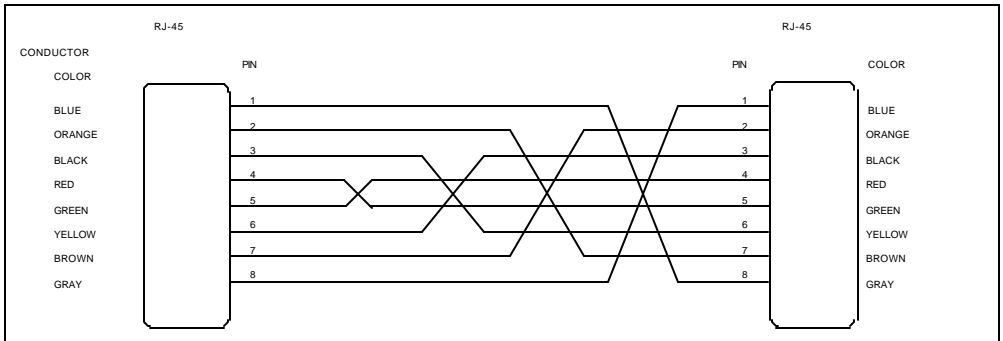
Crossed RJ-45 cable is required

**Modem Communications:** A modem can be connected to the EIA-232 serial port by using a 25MRJ45MD-8 adapter (*Figure 5*). Modem adapters are available from BayTech. Contact BayTech Technical Support for purchase information.

To interface an asynchronous modem to the RPC refer to *Figure 5*.



**Figure 5:** Modem Adapter  
 BayTech Part No. 25MRJ45MD-8 Crossed RJ-45 cable is required



**Figure 6:** Crossed 8-pin Modular Cable  
 BayTech Part No. RJ08X010 (10 feet)

## **IMPORTANT:**

**Crossed RJ-45 cables are required when modular connectors are used, as shown in *Figures 3 – 5*, or to interface the RPC to another BayTech product with modular connectors, such as the DS-Series data switch. See the cable diagram on Page 23.**

## **5.0 OPERATION AND CONFIGURATION**

The following section, “Operation and Configuration,” provides a detailed approach to accessing, operating, and configuring the RPC.

**NOTE** It is important that you type all commands correctly. Any combination of wrong entries results in an error message. As a result, you will have to start over from the previous menu.

### **5.1 RPC-2 AND RPC-2A**

#### **5.1.1 EIA-232 SERIAL CONNECTION**

##### **RPC-2/RPC-2A**

The RPC-2 and RPC-2A have an RJ-45 port for connecting to a local EIA232 device, such as a computer terminal or external modem. Most serial computers do not have RJ-45 connections; therefore, an adapter is provided with this unit to convert from a DE-9 connector to

an RJ-45 connector (BayTech Part No. 9FRJ45PC-1). If you are connecting to a modem, use a modem adapter (BayTech Part No. 25MRJ45MD-8).

BayTech also manufactures a computer/terminal adapter (BayTech Part No. 25FRJ45PC-1) for converting from a DB-25 connector to a RJ-45 connector.

If your computer does have a RJ-45 connection, but the pin signals are different from those described for BayTech on Page 20 of this manual, it is possible for BayTech to customize an adapter for you. If you require a different adapter than the one supplied with this unit, contact BayTech's Applications Engineers.

Using the 9FRJ45PC-1 adapter (or other applicable adapter) and the RJ08X007 crossed cable, connect the serial port of your computer to the RJ-45 port labeled "EIA-232" on the back of your RPC unit.

## 5.1.2 COMMUNICATIONS SOFTWARE

### RPC-2/RPC-2A

Load serial port communications software. Configure host terminal's serial communications parameters to match the RPC. RPC factory serial communications parameters are 9600 bps, 8 data bits, 1 stop bit, and no parity. **NOTE: These parameters are not user selectable.**

## 5.1.3 OPERATION

### RPC-2/RPC-2A

The RPC's main menu allows the user to monitor and control the equipment attached to each of the RPC-2 and RPC-2A's six receptacles. From this menu, you can turn on, turn off, or reboot attached equipment, individually, or all equipment, simultaneously.

The RPC recognizes three basic operating commands: ON n<cr>, OFF n<cr>, and REBOOT n<cr>, where n represents the outlet number and <cr> represents a carriage return.

There are six red LEDs on the front of the RPC unit. There is a corresponding red LED for each of the RPC's six receptacles. If any or all of the LEDs are illuminated, corresponding receptacle(s) are turned "ON," and consequently, attached equipment is receiving power. If any or all of the LEDs are not illuminated, corresponding receptacle(s) are turned "OFF."

**Accessing Main Menu** Power on the RPC unit. The following status menu appears:

```
RPC-2 Series
(c) 1997 by BayTech
F2.07
```

```
Circuit Breaker : On
```

```
1)... OUTLET 1  : Off
2)... OUTLET 2  : Off
3)... OUTLET 3  : Off
4)... OUTLET 4  : Off
5)... OUTLET 5  : Off
6)... OUTLET 6  : Off
```

```
RPC >
```

If the status menu fails to appear, ensure the correct cables and adapters are being used and they are connected properly. Also, verify the serial communication parameters are correctly configured.

**Controlling Receptacles** To set or change the status of receptacles, enter one of the following commands: ON n, OFF n, REBOOT n, where “n” is the outlet number you wish to send the command. Entering an outlet number of “0” sends the command to **all** outlets.

Example: To turn “On” Outlet 3, type **ON 3** from the RPC prompt (RPC >). The RPC responds:

```
Turn On Outlet 3 (Y/N)?
```

Responding “Y” for yes turns “On” Outlet 3. Observe the status of Outlet 3 has changed to ***On*** in the status menu:

RPC-2 Series  
 (c) 1997 by BayTech  
 F2.07

Circuit Breaker : On

1) ... OUTLET 1 : Off  
 2) ... OUTLET 2 : Off  
 3) ... OUTLET 3 : On  
 4) ... OUTLET 4 : Off  
 5) ... OUTLET 5 : Off  
 6) ... OUTLET 6 : Off

RPC >

Likewise, typing **ON 0** at the RPC > prompt and responding “Y” for yes, turns “On” all outlets. Typing **OFF n** at the RPC > prompt turns off corresponding outlet(s).

The **REBOOT n** command will reboot or reset equipment attached to corresponding receptacle(s). When the command to REBOOT (n) is sent from the RPC > prompt, the RPC powers “Off” corresponding outlet(s) for approximately 10 seconds, then returns them to the state they were (“On” or “Off”) prior to receiving the reboot command.

## 5.1.4 CONFIGURATION

The RPC-2’s configuration menu allows the user to (1) set or change a password and (2) customize the outlet name(s) to identify equipment attached to the RPC. In addition to “Change Password” and “Change Outlet Name,” the RPC-2A’s configuration menu allows enabling/disabling confirmation and enabling/disabling status menu.

The password is disabled from the factory by making the password a carriage return. If a password (other than a carriage return) is set, the RPC requires password entry before allowing the user to operate the RPC unit. **REMEMBER, the password feature is case sensitive.**

The factory default outlet names are Outlet 1, Outlet 2, Outlet 3 . . . Outlet 6. From the RPC's configuration menu, the user can change any outlet name to outline a unique set-up.

### **RPC-2**

From the status menu's RPC > prompt, type **CONFIG**. The following menu appears:

**RPC > CONFIG**

- 1) . . . Change Password
- 2) . . . Change Outlet Name

**Enter Request:**

### **RPC-2A**

From the status menu's RPC > prompt, type **CONFIG**. The following menu appears:

- 1) . . . Change Password
- 2) . . . Change Outlet Name
- 3) . . . Enable/Disable Confirmation
- 4) . . . RPC > CONFIG
- 5) . . . Enable/Disable Status Menu
- X) . . . Exit

**Enter Request:**

### **Change Password**

#### **RPC-2/RPC-2A**

Select #1, "Change Password," and press <Enter.> The RPC responds:

**Enter Current Password:**

Since the factory default password is a carriage return, hit <Enter.> If this is not an initial set-up and a password has already been set, enter the current password, followed by a carriage return. If you enter the password incorrectly, the RPC responds with an "Error" message and returns to the main menu. Consequently, you must start over by typing "CONFIG" to access the configuration menu. If you enter the current password correctly, the RPC responds:

**Enter New Password:**

Enter a new password (maximum field length, 8 alphanumeric characters), followed by a carriage return. The RPC responds:

**Re-Enter New Password:**

Re-enter the new password identically to the first entry. **Remember that the password feature is case sensitive.** If you fail to re-enter the new password correctly, the RPC responds with an “Error” message and returns to the main menu. Consequently, must start over by typing CONFIG” from the RPC > prompt to access the configuration menu. If you re-enter the new password correctly, the RPC returns to the main menu again, but you will not get an “Error” message.

**Circuit Breaker : On**

1) ... OUTLET 1 : Off  
2) ... OUTLET 2 : Off  
3) ... OUTLET 3 : On  
4) ... OUTLET 4 : Off  
5) ... OUTLET 5 : Off  
6) ... OUTLET 6 : Off

**RPC >**

**Disabling a Password** To disable a password, enter a carriage return at the “*Enter New Password*” prompt. Enter another carriage return at the “*Re-enter New Password*” prompt. Changing the new password to a carriage return disables password protection. See **Programming a Password** above.

### **Change Outlet Name**

#### **RPC-2/RPC-2A**

Select #2, “Change Outlet Name,” and press <Enter.> The RPC sends the following menu:

1) ... OUTLET 1  
2) ... OUTLET 2  
3) ... OUTLET 3  
4) ... OUTLET 4  
5) ... OUTLET 5  
6) ... OUTLET 6

**Enter Request:**

Enter the number of the outlet you want to change. If you want to change the name of Outlet 4, type the number 4 at the “Enter Request” prompt, followed by a carriage return. The RPC responds:

**Enter:**

Enter a new receptacle name (maximum field length, 10 characters), followed by a carriage return. If you want to change the name of Receptacle 4 from Outlet 4 to Router 1, **type Router 1** from the “Enter” prompt, followed by a carriage return. The RPC responds with the outlet name menu displaying the name change to Outlet 4:

- 1) ... OUTLET 1
- 2) ... OUTLET 2
- 3) ... OUTLET 3
- 4) ... **Router 1**
- 5) ... OUTLET 5
- 6) ... OUTLET 6

**Enter Request:**

To return to the RPC > prompt, hit any key at the “Enter Request” prompt.

## **Enable/Disable Confirmation**

### **RPC-2A**

When a command is sent to TURN ON, TURN OFF, OR REBOOT a receptacle, if the enable/disable confirmation feature is enabled, the RPC responds asking you to confirm the command. For example, if the command **ON 3** is sent, and the enable/disable confirmation is enabled, the RPC responds:

**Turn On Outlet 3? (Y/N)**

If the enable/disable feature is disabled, the RPC will not ask to confirm the command.

From the configuration menu, select #3, “Enable/Disable Confirmation.” Depending on whether confirmation is currently enabled or disabled, the RPC responds with the option to change the current status. **NOTE The factory default setting is Enabled:**

Disable Confirmation? (Y/N)

### **Enable/Disable Status Menu**

#### **RPC-2A**

From the configuration menu, select #4, “Enable/Disable Status Menu.” If the Enable/Disable Status Menu feature is enabled, the following status menu appears. **NOTE The factory default setting is Enabled:**

Circuit Breaker: On

- 1) Outlet 1 : Off
- 2) Outlet 2 : Off
- 3) Outlet 3 : Off
- 4) Outlet 4 : Off
- 5) Outlet 5 : Off
- 6) Outlet 6 : Off

RPC-2A >

If the Enable/Disable Status Menu feature is disabled, only the RPC-2A > prompt appears.

RPC-2A >

Depending on whether confirmation is currently enabled or disabled, the RPC responds with the option to change the current status. **NOTE The factory default setting is Enabled:**

Disable Status Menu? (Y/N)

**NOTE: “Outlet Control” works the same with status menu enabled or disabled.**

## **5.2 RPC-2 MD01 AND RPC-2 RDR**

### **5.2.1 LOCAL ACCESS**

#### **5.2.1.1 EIA-232 SERIAL CONNECTION**

The RPC-2 MD01 and RPC-2 RDR have an RJ-45 port for connecting to a local EIA-232 device, such as a computer terminal or external modem. Most serial computers do not have RJ-45 connections; therefore, an adapter is provided with this unit to convert from a DE-9 connector to an RJ-45 connector (BayTech Part No. 9FRJ45PC-1). If you are connecting to a modem, use a modem adapter (BayTech Part No. 25MRJ45MD-8).

BayTech also manufactures a computer/terminal adapter (BayTech Part No. 25FRJ45PC-1) for converting from a DB-25 connector to a RJ-45 connector. If your computer does have a RJ-45 connection, but the pin signals are different from those described for BayTech on Page 20 of this manual, it is possible for BayTech to customize an adapter for you. If you require a different adapter than the one supplied with this unit, contact one of BayTech's Applications Engineers.

Using the 9FRJ45PC-1 adapter (or other applicable adapter) and the RJ08X007 crossed cable, connect the serial port of your computer to the RJ-45 port labeled "EIA-232" on the back of your RPC unit.

#### **5.2.1.2 COMMUNICATIONS SOFTWARE**

Load serial port communications software. Configure host terminal's serial communications parameters to match the RPC. RPC factory serial communications parameters are 9600 bps, 8 data bits, 1 stop bit, and no parity.

**NOTE: These parameters are not user selectable.**

### 5.2.1.3 LOCAL OPERATION

The RPC’s main menu allows you to monitor and control equipment attached to each of the RPC-2 RDR and RPC-2 MD01’s six receptacles. From this menu, you can turn on, turn off, or reboot attached equipment, individually, or all equipment, simultaneously.

The RPC recognizes three basic operating commands: ON n<cr>, OFF n<cr>, and REBOOT n<cr>, where n represents the outlet number and <cr> represents a carriage return.

There are six red LEDs on the front of the RPC unit. There is a corresponding red LED for each of the RPC’s six receptacles. If any or all of the LEDs are illuminated, corresponding receptacle(s) are turned "ON," and consequently, attached equipment is receiving power. If any or all of the LED’s are not illuminated, corresponding receptacle(s) are turned "OFF."

**Accessing Main Menu** Power on the RPC unit. The following outlet and circuit breaker status menu appears:

RPC-2 Series  
(c) 1997 by BayTech  
F2.07

**Circuit Breaker : On**

- 1) ... OUTLET 1 : Off
- 2) ... OUTLET 2 : Off
- 3) ... OUTLET 3 : Off
- 4) ... OUTLET 4 : Off
- 5) ... OUTLET 5 : Off
- 6) ... OUTLET 6 : Off

RPC >

If the status menu fails to appear, ensure the correct cables and adapters are being used and that they are connected properly. Also, verify the serial communication parameters are correctly configured.

**Controlling Receptacles** To set or change the status of receptacles, enter one of the following commands: ON n, OFF n, REBOOT n, where “n” is the outlet number you wish to send the command. Entering an outlet number of “0” sends the command to **all** outlets.

Example: To turn “On” Outlet 3, type **ON 3** from the RPC prompt (RPC >). The RPC responds:

Turn On Outlet 3 (Y/N)?

Responding “Y” for yes turns “On” Outlet 3. Observe that the status of Outlet 3 has changed to ***On*** in the status menu:

RPC-2 Series  
(c) 1997 by BayTech  
F2.07

Circuit Breaker : On

1) ... OUTLET 1 : Off  
2) ... OUTLET 2 : Off  
3) ... OUTLET 3 : On  
4) ... OUTLET 4 : Off  
5) ... OUTLET 5 : Off  
6) ... OUTLET 6 : Off

RPC >

Likewise, typing **ON 0** at the RPC > prompt and responding “Y” for yes, turns “On” **all** outlets. Typing **OFF n** at the RPC > prompt turns off corresponding outlet(s).

The **REBOOT n** command will reboot or reset equipment attached to corresponding receptacle(s). When the command to REBOOT (n) is sent from the RPC > prompt, the RPC powers “Off” corresponding outlet(s) for approximately 10 seconds, then returns them to the state they were (“On” or “Off”) prior to receiving the reboot command.

### 5.2.1.4 LOCAL CONFIGURATION

The RPC-2 RDR and RPC-2 MD01’s configuration menu allows the user to (1) set or change a password and (2) customize the outlet name(s) to identify equipment attached to the RPC.

The password is disabled from the factory by making the password a carriage return. If a password (other than a carriage return) is set, the RPC requires password entry before allowing the user to operate the RPC unit.

**NOTE** The password feature is case sensitive.

The factory default outlet names are Outlet 1, Outlet 2, Outlet 3 . . . Outlet 6. From the RPC’s configuration menu, the user can change any or all outlet names to outline a unique set-up.

#### **Change Password**

From the status menu’s RPC > prompt, type **CONFIG**. The following menu appears:

```
RPC > CONFIG
1) . . . Change Password
2) . . . Change Outlet Name
```

Enter Request:

Select #1, “Change Password,” and press <Enter.> The RPC responds:

Enter Current Password:

Since the factory default password is a carriage return, hit <Enter.> If this is not an initial set-up and a password has already been set, enter the current password, followed by a carriage return. If you enter the password incorrectly, the RPC responds with an “Error” message and returns to the main menu. Consequently, you must start over by typing “CONFIG” to access the configuration menu. If you enter the current password correctly, the RPC responds:

**Enter New Password:**

Enter a new password (maximum field length, 8 alphanumeric characters), followed by a carriage return. The RPC responds:

**Re-Enter New Password:**

Re-enter the new password identically to the first entry. **Remember that the password feature is case sensitive.** If you fail to re-enter the new password correctly, the RPC responds with an “Error” message and returns to the main menu. Consequently, you must start over by typing “CONFIG” from the RPC > prompt to access the configuration menu. If you re-enter the new password correctly, the RPC returns to the main menu again, but you will not get an “Error” message.

**Circuit Breaker : On**

1) ... OUTLET 1 : Off  
2) ... OUTLET 2 : Off  
3) ... OUTLET 3 : On  
4) ... OUTLET 4 : Off  
5) ... OUTLET 5 : Off  
6) ... OUTLET 6 : Off

**RPC >**

**Disabling a Password** To disable a password, enter a carriage return at the “*Enter New Password*” prompt. Enter another carriage return at the

“*Re-enter New Password*” prompt. Changing the new password to a carriage return disables password protection. See **Programming a Password** above.

### **Change Outlet Name**

From the status menu’s RPC > prompt, type **CONFIG**. The following menu appears:

**RPC > CONFIG**

- 1) ... **Change Password**
- 2) ... **Change Outlet Name**

**Enter Request:**

Select #2, “Change Outlet Name,” and press <Enter.> The RPC responds:

- 1) ... **OUTLET 1**
- 2) ... **OUTLET 2**
- 3) ... **OUTLET 3**
- 4) ... **OUTLET 4**
- 5) ... **OUTLET 5**
- 6) ... **OUTLET 6**

**Enter Request:**

Enter the number of the outlet you want to change. If you want to change the name of Outlet 4, type the number 4 at the “Enter Request” prompt, followed by a carriage return. The RPC responds:

**Enter:**

Enter a new receptacle name (maximum field length, 10 characters), followed by a carriage return. If you want to change the name of Receptacle 4 from Outlet 4 to Router 1, **type Router 1** from the “Enter” prompt, followed by a carriage return. The RPC responds with the outlet name menu displaying the name change to Outlet 4:

- 1) ... OUTLET 1
- 2) ... OUTLET 2
- 3) ... OUTLET 3
- 4) ... Router 1
- 5) ... OUTLET 5
- 6) ... OUTLET 6

Enter Request:

To return to the RPC > prompt, hit any key at the “Enter Request” prompt.

## 5.2.2 REMOTE ACCESS

### 5.2.2.1 MODEM CONNECTIONS

**RPC-2 MD01 (Internal Modem)** Using the RJ04X007 (RJ-11) modular cable, connect either port labeled “LINE” on the back of the RPC unit to the telco wall jack. Proceed to “**Accessing Main Menu via Modem.**”

**RPC-2 RDR (External Modem)** Plug the modem’s power supply into receptacle number six on the RPC. Using the RJ04X007 (RJ-11) modular cable, connect either port labeled “LINE” on the back of the RPC unit to the telco wall jack. Using another RJ04X007 (RJ-11) modular cable, connect the remaining port labeled “LINE” on the back of the RPC unit to the port labeled “LINE” on the external modem.

Using the 25MRJ45MD-8 adapter and the RJ08X007 (8-pin crossed) cable, connect the DB-25 female port of the modem to the RJ-45 port labeled “EIA-232” on the back of the RPC unit.

**IMPORTANT** You must customize the external modem's configuration to operate properly with the RPC-2 RDR. See Appendix C (MODEM COMMAND SUMMARY) for information on customizing external modem configurations.

### 5.2.2.2 REMOTE OPERATIONS

The RPC's main menu allows you to monitor and control the equipment attached to each of the RPC-2 RDR and RPC-2 MD01's six receptacles. From this menu, the user can turn on, turn off, or reboot attached equipment, individually, or all equipment, simultaneously.

The RPC recognizes three basic operating commands: ON n<cr>, OFF n<cr>, and REBOOT n<cr>, where n represents the outlet number and <cr> represents a carriage return.

**Accessing Main Menu via Modem** Using a communications software, dial the modem using the ATDT command. If the modem does not respond in 5 to 7 rings, the RPC's RDR feature recycles power to Outlet 6 and consequently resets the modem. Dial the modem again using the ATDT command. When a connection has been established, the RPC sends the following header:

RPC-2 Series  
(C) 1997 by BayTech  
F2.07

If you set a password when you were locally connected to the RPC through the serial port, the following header appears. Note the additional prompt for a password:

RPC-2 Series  
(C) 1997 by BayTech  
F2.07  
Enter Password:

If prompted, enter password. The following main menu appears:

RPC-2 Series  
(C) 1997 by BayTech  
F2.07

Circuit Breaker : On

1) ... OUTLET 1 : Off  
2) ... OUTLET 2 : Off  
3) ... OUTLET 3 : Off  
4) ... OUTLET 4 : Off  
5) ... OUTLET 5 : Off  
6) ... OUTLET 6 : Off

**VERY IMPORTANT WHEN OPERATING REMOTELY, DO NOT SEND THE COMMAND TO TURN “OFF” A RECEPTACLE THAT HAS A HOST TERMINAL OR MODEM ATTACHED. DOING SO WILL RESULT IN THE HOST TERMINAL OR MODEM BEING POWERED DOWN CREATING A “LOCKED-OUT” CONDITION. YOU WILL NOT BE ABLE TO REESTABLISH A CONNECTION UNTIL THE RECEPTACLE HAS BEEN TURNED “ON” THROUGH THE SERIAL PORT.**

**IF YOU SEND THE COMMAND TO “REBOOT” A RECEPTACLE WITH A HOST TERMINAL OR MODEM ATTACHED, ACTIVE CONNECTION TO THAT TERMINAL OR MODEM IS LOST AND WILL HAVE TO BE REESTABLISHED.**

**Controlling Receptacles** To set or change the status of receptacles, enter one of the following commands: ON n, OFF n, REBOOT n, where “n” is the outlet number you wish to send the command. Entering an outlet number of “0” sends the command to **all** outlets.

---

Example: To turn “On” Outlet 3, type **ON 3** from the RPC prompt (RPC >). The RPC responds:

**Turn On Outlet 3 (Y/N)?**

Responding “Y” for yes turns “On” Outlet 3. Observe the status of Outlet 3 has changed to **On** in the status menu:

RPC-2 Series  
(c) 1997 by BayTech  
F2.07

Circuit Breaker : On

1) ... OUTLET 1 : Off  
2) ... OUTLET 2 : Off  
3) ... OUTLET 3 : On  
4) ... OUTLET 4 : Off  
5) ... OUTLET 5 : Off  
6) ... OUTLET 6 : Off

RPC >

Likewise, typing **ON 0** at the RPC > prompt and responding “Y” for yes, turns “On” **all** outlets. Typing **OFF n** at the RPC > prompt turns off corresponding outlet(s).

The **REBOOT n** command will reboot or reset equipment attached to corresponding receptacle(s). When the command to REBOOT (n) is sent from the RPC > prompt, the RPC powers “Off” corresponding outlet(s) for approximately 10 seconds, then returns them to the state they were (“On” or “Off”) prior to receiving the reboot command.

## 5.3 RPC-3 AND RPC-3A and RPC-5

**RPC-5 Note:** The RPC-3 and RPC-5 are configured in a similar manner. This quick start will make reference the RPC-3 menus. The only programming differences for the RPC-5 pertain to the number of receptacles shown in the menus.

*Inlet #1 supplies power to the logic of the RPC-5, this inlet must have power for the unit to operate.*

The RPC-3 and RPC-3A are multi-user units, supporting one admin user and up to eight outlet users. The admin user has access to all outlets, user and system configuration options, unit status, and unit reset capabilities. The outlet user has access to only those outlets in the user's outlet list, as set by the admin user. The outlet user's menu and status display shows only those outlets accessed to the user.

**NOTE** The RPC-3 and RPC-3A supports one admin user. The admin user may have four sessions running concurrently. Default user name is admin. User names are case sensitive.

### 5.3.1 LOCAL ACCESS

#### 5.3.1.1 EIA-232 SERIAL CONNECTION

The RPC-3 and RPC-3A have a RJ-45 port for connecting to a local EIA-232 device, such as a computer terminal or external modem. Most serial computers do not have RJ-45 connections; therefore, an adapter is provided with this unit to convert from a DE-9 connector to a RJ-45 connector (BayTech Part No. 9FRJ45PC-1). If you are connecting to a modem, use a modem adapter (BayTech Part No. 25MRJ45MD-8).

Using the 9FRJ45PC-1 adapter (or other applicable adapter) and the RJ08X007 crossed cable, connect the serial port of your computer to the RJ-45 port labeled "EIA-232" on the back of your RPC unit.

## 5.3.2 REMOTE ACCESS

### 5.3.2.1 NETWORK PORT CONNECTION

The RPC-3 and RPC-3A have an Ethernet port for connecting to a network. **REMEMBER, in order for a network connection to be established, at a minimum, you must configure the IP address, subnet mask, and if applicable, gateway. Network configurations can be**

**configured through the Ethernet port or locally through the serial port.**

Once you have configured the IP address, subnet mask, and if applicable, gateway through the serial port, a network connection can be established via a Telnet session from your workstation.

Using a straight 10Base-T cable, connect the Ethernet portion the RPC-3 or RPC-3A to the network hub.

Is the green LINK LED is illuminated? If it is not, you are not “linked” to the network. Check the 10Base-T cable connection to your network.

Also, verify status of the CX LED. It should not be flashing. If the CX LED is flashing, note the number of times it flashes in a cycle. To determine what the CX LED is indicating; refer to Appendix C “DIAGNOSTIC LED INDICATIONS.” If the LED indications are correct, the RPC can be accessed through a Telnet session. Establish the Telnet client session and login from you workstation.

### 5.3.3 COMMUNICATIONS SOFTWARE

Load serial port communications software. Configure host terminal’s serial communications parameters to match the RPC. RPC factory serial communications parameters are 9600 bps, 8 data bits, 1 stop bit, and no parity. **NOTE: These parameters are not user selectable.**

## 5.3.4 OPERATIONS

**VERY IMPORTANT WHEN OPERATING REMOTELY, DO NOT SEND THE COMMAND TO TURN “OFF” A RECEPTACLE THAT HAS A HOST TERMINAL OR MODEM ATTACHED. DOING SO WILL RESULT IN THE HOST TERMINAL OR MODEM BEING POWERED DOWN CREATING A “LOCKED-OUT” CONDITION. YOU WILL NOT BE ABLE TO REESTABLISH A CONNECTION UNTIL THE RECEPTACLE HAS BEEN TURNED “ON” THROUGH THE SERIAL PORT.**

**IF YOU SEND THE COMMAND TO “REBOOT” A RECEPTACLE WITH A HOST TERMINAL OR MODEM ATTACHED, ACTIVE CONNECTION TO THAT TERMINAL OR MODEM IS LOST AND WILL HAVE TO BE REESTABLISHED.**

**IMPORTANT AN ASSIGNED USER IS ALLOWED ONE ACTIVE SESSION. THE ADMIN USER IS ALLOWED FOUR SESSIONS RUNNING CONCURRENTLY.**

From the RPC-3 and RPC-3A's main menu, #1 “Outlet Control” and #4 “Unit Status” allow the user to monitor and control the equipment attached to each of the RPC's eight receptacles. Selection #3 puts the user into the configuration menu for setting network parameters, programming user login access, and outlet configuration. Selection #2 allows the admin user to manage optional users. Reset the unit at selection #5.

There are eight red LED's on the front of the RPC unit. There is a corresponding red LED for each of the RPC's eight receptacles. If any or all of the LEDs are illuminated, the corresponding receptacle(s) are turned "ON," and consequently, attached equipment is receiving power. If any one (or all) of the LED's are not illuminated, the corresponding receptacle(s) are turned “OFF.”

**Accessing Main Menu** Power on the RPC unit. The following main menu appears:

**RPC-3 TelnetHost**  
**Revision F 3.03, (C) 1998**  
**Bay Technical Associates**  
**Unit ID: RPC3**

**RPC-3 Menu:**

- 1) . . . Outlet Control**
- 2) . . . Manage Users**
- 3) . . . Configuration**
- 4) . . . Unit Status**
- 5) . . . Reset Unit**
- 6) . . . Logout**

**Enter Selection:**

If the main menu fails to appear, ensure the correct cables and adapters are being used and they are properly connected. Also, verify the serial communication parameters are correctly configured.

If this is not an initial setup and username and/or password have been enabled, you will be prompted to enter a username and/or password. When a successful username and/or password has been entered, the main menu (above) appears.

### 5.3.4.1 Outlet Control

To set or change the status of receptacles, select #1 “Outlet Control” from the main menu. The following status menu appears:

**Available RPC3 Outlets**

For command summary, enter **HELP**

Circuit Breaker : On

| Selection Number | Outlet Name | Outlet Number | Power Status |
|------------------|-------------|---------------|--------------|
| 1                | OUTLET 1    | 1             | Off          |
| 2                | OUTLET 2    | 2             | Off          |
| 3                | OUTLET 3    | 3             | Off          |
| 4                | OUTLET 4    | 4             | Off          |
| 5                | OUTLET 5    | 5             | Off          |
| 6                | OUTLET 6    | 6             | Off          |
| 7                | OUTLET 7    | 7             | Off          |
| 8                | OUTLET 8    | 8             | Off          |

RPC >

**NOTE** The outlet user sees only those outlets as assigned to him by the admin user.

From the RPC > prompt, enter one of the following commands: ON n, OFF n, REBOOT n, where “n” is the outlet number you wish to send the command. Entering an outlet number of “0” sends the command to **all** outlets.

**Example:** To turn “On” Outlet 3, type **ON 3** from the RPC prompt (RPC >). The RPC responds with:

**Turn On Outlet 3 (Y/N)?**

Responding “Y” for yes turns “On” Outlet 3. Observe the status of Outlet 3 has changed to *On* in the status menu:

**Circuit Breaker : On**

| Selection Number | Outlet Name | Outlet Number | Power Status |
|------------------|-------------|---------------|--------------|
| 1                | OUTLET 1    | 1             | Off          |
| 2                | OUTLET 2    | 2             | Off          |
| 3                | OUTLET 3    | 3             | Off          |
| 4                | OUTLET 4    | 4             | Off          |
| 5                | OUTLET 5    | 5             | Off          |
| 6                | OUTLET 6    | 6             | Off          |
| 7                | OUTLET 7    | 7             | Off          |
| 8                | OUTLET 8    | 8             | Off          |

RPC >

Likewise, typing **ON 0** at the RPC > prompt and responding “Y” for yes, turns “On” all outlets. Typing **OFF n** at the RPC > prompt turns off corresponding outlet(s).

The **REBOOT n** command will reboot or reset equipment attached to corresponding receptacle(s), if the outlet is turned ON. When the command to REBOOT (n) is sent from the RPC > prompt, the RPC powers “Off” corresponding outlet(s) for approximately 10 seconds plus the programmed outlet delay time, then returns them to the state they were (“On” or “Off”) prior to receiving the reboot command.

**NOTE** The reboot command will only reboot outlets that are turned ON; an outlet that is turned OFF cannot be rebooted.

### 5.3.4.2 *Manage Users*

Selection #2, “Manage Users,” from the main menu allows the admin user to add and delete users, change passwords, and change the outlet list that determines an outlet user’s access to prescribed outlets.

From the main menu, select #2, “Manage Users.” The following menu appears:

**User Management Menu**

**To modify existing user, enter number of user.**

**To add/delete user, select appropriate menu choice.**

**Enter request, CR to exit menus.**

- 1) ... Add user
- 2) ... admin

If this is not an initial setup and optional outlet users have been added, they too will show in the User Management Menu, along with the option to delete users.

**User Management Menu**

**To modify existing user, enter number of user.**

**To add/delete user, select appropriate menu choice.**

**Enter request, CR to exit menus.**

- 1) ... Add user
- 2) ... Delete user
- 3) ... admin
- 4) ... engineering
- 5) ... sales

**Add user**

The “Add user” option is presented any time less than 8 optional users are defined. Select #1, “Add user,” from the User Management Menu. The RPC-3 or RPC-3A responds:

**Enter username (<= 8 characters) >**

Enter the name of the user to be added, followed by a carriage return <cr>.

**NOTE** User name is case sensitive.

The RPC-3 or RPC-3A resumes the User Management Menu including the added user.

**Delete user** **NOTE** Deletion of admin user is prohibited. If an outlet user is deleted and is logged in at the time, the outlet user is disconnected.

Select #2, "Delete user," from the User Management Menu. The RPC-3 or RPC-3A responds:

From menu above, enter number for user to delete

Enter the number that corresponds to the user to be deleted, followed by a carriage return <cr>.

The RPC-3 or RPC-3A resumes the User Management Menu excluding the deleted user.

**Change Password** **IMPORTANT** If enabled, the provides independent enabling of username and password, allowing outlet users access to assigned outlets by entering a user name and/or password. If disabled, neither the username nor password is required, and every user will have access to all admin functions.

From the User Management Menu, select the number of the user to modify, followed by a carriage return <cr>. The unit responds:

**NOTE** Password can be enabled or disabled for serial login and network login.

Enter choice, CR to exit

User name: engineering

- 1) ... Change Password
- 2) ... Change Outlet List

Enter Request >

Factory default password is a carriage return <cr>. If Password is enabled, the RPC requires password entry before allowing the user to operate the RPC unit.

**NOTE** Password feature is case sensitive.

Select #1, "Change Password," followed by a carriage return. The RPC-3 or RPC-3A responds:

Enter Old Password:

Since the factory default password is a carriage return, hit <Enter.> If this is not an initial set-up and a password has already been set, enter the current password, followed by a carriage return. If you enter the password incorrectly, the RPC responds indefinitely with "Enter old password:" until the old password has been entered correctly. **NOTE** A carriage return <cr> will exit to user menu. If you enter the current password correctly, the RPC responds:

Enter new password (<= 8 characters) >

Enter a new password (maximum field length, 8 alphanumeric characters), followed by a carriage return. The RPC responds with:

Confirm by Re-Entering New Password:

Re-enter the new password identically to the first entry.

**Remember that the password feature is case sensitive.**

If you fail to re-enter the new password correctly, the RPC responds indefinitely with “Confirm by Re-Entering New Password:” until the new password has been re-entered correctly. **NOTE** A carriage return <cr> will exit to user menu. If you re-enter the new password correctly, the RPC returns to the configuration menu.

**NOTE** Entering a null password for a particular user will act to disable login requirement of a password for that user. Thus, if username and password prompts are enabled, it is possible to configure a unit to allow nonauthenticated access to some users while requiring a password from others.

## Change Outlet List

**NOTE** If an outlet user's list is changed and he is logged in at the time, his outlet list dynamically changes. If enabled, an updated outlet status report will be issued.

The outlet list determines which outlets a particular user can access. From the User Management Menu, enter the number of the user to modify, followed by a carriage return. The select #2, “Change Outlet List.” The RPC-3 or RPC-3A responds:

To change outlet access, enter number(s) of outlets. If more than one entry, separate numbers with commas. CR to exit.

User Name: engineering

| Outlet          | Access |
|-----------------|--------|
| 1) ... Outlet 1 | yes    |
| 2) ... Outlet 2 | no     |
| 3) ... Outlet 3 | yes    |
| 4) ... Outlet 4 | yes    |
| 5) ... Outlet 5 | no     |
| 6) ... Outlet 6 | yes    |
| 7) ... Outlet 7 | yes    |
| 8) ... Outlet 8 | no     |

To toggle outlet access, enter the number that corresponds to the outlet you want to change. For example, if you want engineering to have access to Outlet 2, enter the number 2, followed by a carriage return. If you want engineering to have access to Outlets 2, 5, and 8 enter the numbers 2, 5 and 8 separated by commas: 2,5,8

## 5.3.5 CONFIGURATION

Configuration can be performed through the serial port, as well as through the network port, by the admin user only. From the RPC Main Menu, select #3, “Configuration.” The following menu appears:

```
Bay Technical Associates
RPC-3 Configuration Menu
MAC Addr:      00.C0.48.05.53.A2
```

```
Unit ID: RPC3
Medium Stat: good
Active users: 1
```

```
Enter choice from menu, CR to exit
1) ... IP Address      : 0.0.0.0
2) ... Subnet Mask    : 0.0.0.0
3) ... Gateway        : 0.0.0.0
4) ... Unit ID        : RPC-3
5) ... Access
6) ... Outlets
7) ... Exit
```

**IMPORTANT NETWORK PARAMETERS, SUCH AS IP ADDRESS, REQUIRE A UNIT RESET BEFORE ANY CHANGES WILL TAKE AFFECT. ALL OTHER CONFIGURATION CHANGES WILL BE IMMEDIATELY IMPLEMENTED UPON ACCEPTING CHANGES AT THE END OF THE CONFIGURATION PROCEDURE. EXIT ALL MENUS BY <CR>.**

**IP Address** The IP address consists of four bytes, each byte ranging from 0 to 255. **This parameter must be programmed before the RPC can be accessed on the network.**

From the configuration menu, select #1, "IP Address." The RPC responds:

**Enter IP address in dotted decimal form:**

Enter the IP address (Example: 200.4.3.50), followed by a carriage return. Upon entry of a carriage return, the RPC resumes the configuration menu. **NOTE: The factory default IP address is 0.0.0.0.** If you fail to enter the IP address in dotted decimal form, the RPC responds again:

**Enter IP address in dotted decimal form:**

The RPC responds indefinitely with the same request until the IP address is entered in the correct form.

**Subnet Mask** The Subnet Mask consists of four bytes, each byte ranging from 0 to 255. **This parameter must be programmed before the RPC can be accessed on a network.**

From the configuration menu, select #2, "Subnet Mask." The RPC responds:

**Enter Subnet Mask in dotted decimal form:**

Enter the Subnet Mask (Example: 255.255.255.0), followed by a carriage return. Upon entry of a carriage return, the RPC resumes the configuration menu.

**NOTE: The factory default Subnet Mask is 0.0.0.0.** If you fail to enter the subnet mask in dotted decimal form, the RPC responds again:

**Enter Subnet Mask in dotted decimal form:**

The RPC responds indefinitely with the same request until the subnet mask is entered in the correct form.

**Gateway** The gateway address consists of four bytes, each byte ranging from 0 to 255.

From the configuration menu, select #3, “Gateway.” The RPC responds:

**Enter Gateway address in dotted decimal form:**

Enter the gateway address (Example: 200.4.5.50), followed by a carriage return. Upon entry of a carriage return, the RPC resumes the configuration menu. **NOTE: The factory default Gateway address is 0.0.0.0.** If you fail to enter the gateway address in dotted decimal form, the RPC responds again:

**Enter Gateway address in dotted decimal form:**

The RPC responds indefinitely with the same request until the gateway address is entered in the correct form.

**Unit ID** From the configuration menu, select #4, “Unit ID.” The RPC responds:

**Enter Unit ID (64 chars max):**

Enter the RPC unit ID, followed by a carriage return. The RPC resumes the configuration menu. **NOTE: The factory default Unit ID is RPC-3.**

**Access** **IMPORTANT** If username and password are disabled (factory default), outlet users will have access to all admin functions.

Login Setup allows the user to enable or disable username and password login for both serial and network ports. If the features are enabled, the RPC requires username and password entry before allowing access to the unit.

To configure the login setup, select #5, "Access," from the configuration menu, followed by a carriage return <cr>. The RPC-3 or RPC-3A responds with the following Login Setup menu:

**Login Setup**

Toggle option by entering number, CR to exit

**Network Access:**

- 1) ... Prompt for user name:        disabled
- 2) ... Prompt for password:        disabled

**Serial Port Access:**

- 3) ... Prompt for user name:        disabled
- 4) ... Prompt for password:        disabled

Enter option >

Enter the number that corresponds to the prompt you want to toggle. The unit responds by asking if you want to enable the prompt, if it is currently disabled or disable the prompt, if it is currently enabled. Type "Y" for "Yes," or "N" for "No," accordingly.

**NOTE** A null password for any particular user disables the password login requirement for that user, even if prompt for password is enabled.

## Outlets

From the configuration menu, select #6, "Outlets." The following Outlet Operation Configuration Menu appears:

**Outlet Operation Configuration Menu**

Enter Request, CR to exit

- 1) ... Outlet Status Display:        enabled
- 2) ... Command Confirmation:        enabled
- 3) ... Outlet Power-up Delay
- 4) ... Name Outlets
- 5) ... Display Outlet Users

Enter Request >

## Outlet Status Display

From the Outlet Operation Configuration Menu, select #1, “Outlet Status Display.” Depending on whether outlet status display is currently enabled or disabled, the RPC responds with the option to change the current status.

**NOTE** The factory default setting is **Enabled**:

Disable Outlet Status Display? (Y/N)

## Command Confirmation

Consider Option 1, "Outlet Control," from the RPC Main Menu. The outlet control option allows control of each of the RPC-3 or RPC-3A's eight receptacles. When a command is sent to TURN ON, TURN OFF, OR REBOOT a receptacle, if the enable/disable confirmation feature is enabled, the RPC responds asking you to confirm the command. For example, if the command **ON 3** is sent, and the enable/disable confirmation is enabled, the RPC responds:

Turn On Outlet 3? (Y/N)

If the enable/disable feature is disabled, the RPC will not ask to confirm the command.

From the Outlet Operation Configuration Menu, select #2, “Command Confirmation.” Depending on whether confirmation is currently enabled or disabled, the RPC responds with the option to change the current status.

**NOTE** The factory default setting is **Enabled**:

Disable Confirmation? (Y/N)

## Outlet Power-up Delay

The Outlet Power-up delay allows a set amount of time to elapse after a unit power-up or user initiated reset before power is applied to the outlet. This power up sequence is also used when a REBOOT occurs.

From the Outlet Configuration Menu, select #3, "Outlet Power-up Delay." The unit responds:

To set delay, enter number of outlet, CR to exit

Outlet power-up delays (in seconds):

```
1) ... Outlet 1   : 0
2) ... Outlet 2   : 0
3) ... Outlet 3   : 0
4) ... Outlet 4   : 0
5) ... Outlet 5   : 0
6) ... Outlet 6   : 0
7) ... Outlet 7   : 0
8) ... Outlet 8   : 0
```

Enter Request >

Enter the number of the outlet to set a power-up delay, followed by a carriage return <cr>. The unit responds:

```
Outlet Name: Outlet 1
Enter delay (seconds) >
```

Enter the amount of time (seconds) to elapse before power is applied to the outlet. The RPC-3 or RPC-3A resumes the power-up delay status displaying the change.

**NOTE Maximum number of seconds is 599.**

## Name Outlets

"Name Outlets" allows the user to customize outlet name(s) to identify individual pieces of equipment attached to the RPC. **The factory default outlet names are Outlet 1, Outlet 2, Outlet 3 . . . Outlet 8.** From the RPC's configuration menu, the user can change any or all outlet names to outline a unique set-up.

From the configuration menu, select #6, "Name Outlets." Select #4, "Change Outlet Name," press <Enter.> The RPC sends the following menu:

Enter number of outlet to name, CR to exit.

- 1) ... OUTLET 1
- 2) ... OUTLET 2
- 3) ... OUTLET 3
- 4) ... OUTLET 4
- 5) ... OUTLET 5
- 6) ... OUTLET 6
- 7) ... OUTLET 7
- 8) ... OUTLET 8

Enter Request:

Enter the number of the outlet you want to change. If you want to change the name of Outlet 4, type the number 4 at the “Enter Request” prompt, followed by a carriage return. The RPC responds:

Enter:

Enter a new receptacle name (maximum field length, 10 characters), followed by a carriage return. If you want to change the name of Receptacle 4 from Outlet 4 to Router 1, **type Router 1** from the “Enter” prompt, followed by a carriage return. The RPC responds with the outlet name menu displaying the name change to Outlet 4:

- 1) ... OUTLET 1
- 2) ... OUTLET 2
- 3) ... OUTLET 3
- 4) ... **Router 1**
- 5) ... OUTLET 5
- 6) ... OUTLET 6

Enter Request:

To return to the configuration menu, hit any key at the “Enter Request” prompt.

### Display Outlet User

From the Outlet Operation Configuration Menu, select #5, “Display Outlet User,” followed by a carriage return. The RPC-3 or RPC-3A displays the outlet user assignments similar to the following:

**Outlet User Assignments**

| <b>Outlet Number</b> | <b>Outlet Name</b> | <b>Assigned User(s)</b> |
|----------------------|--------------------|-------------------------|
| 1                    | Outlet 1           | admin, eng              |
| 2                    | Outlet 2           | admin, sales            |
| 3                    | Outlet 3           | admin, sales, eng       |
| 4                    | Outlet 4           | admin, eng              |
| 5                    | Outlet 5           | admin, eng              |
| 6                    | Outlet 6           | admin, sales            |
| 7                    | Outlet 7           | admin, sales, eng       |
| 8                    | Outlet 8           | admin, eng              |

<Strike CR to continue>

## 5.3.6 UNIT STATUS

Unit status provides vital information about the RPC unit--system status, network interface, logged user status, and outlet status. In the event of problems with the RPC unit or its network interface capabilities, "Unit Status" information can be used as a valuable troubleshooting aid. You may be asked to refer to the unit status when calling one of BayTech's Application Engineers for support.

From the main menu, select #4, "Unit Status." The following Unit Status Menu appears:

**RPC Unit Status Menu**

- 1) ... System
- 2) ... Network Interface
- 3) ... Logged Users
- 4) ... Outlet Status

>

**System Status**

System Status provides information about the local memory (available buffers), how many TCP sockets in use, and the time the unit has been operating since the last unit reset or power up.

From the Unit Status Menu, select #1 “System.”  
The following system information is provided:

**System Status:**

Available local memory (256 byte buffers): 30  
TCP sockets in use: 1  
System up time (days: hh:mm:ss): xx:xx:xx:xx

<Strike any key to continue.>

**NOTE Each session has an inactivity timeout of ten minutes. After ten minutes of no activity elapses, the session terminates.**

## **Network Interface**

Network Interface gives information on the medium or connection status between the RPC unit and the equipment it is attached to, the number of faults, if any, the number of transmitting errors, the number of buffers left (30 or less) available to send data, and whether the receive queue status is available to receive data. From the Unit Status Menu, select #2, “Network Interface.” The following network information is provided:

**Network Status:**

Medium status: good  
Medium faults: 0  
Xmit bufr errs: 0  
Available send buffers: 29  
Receive queue status: open

<Strike any key to continue.>

## **Logged Users**

This option shows the number of active sessions. For each session, the name of the account, the type of interface (serial or network) and the status is Provided.

**NOTE** Due to memory limitations, outlet users accounts are limited to one active session per account. The admin user account has four sessions available for concurrent use.

Logged Users:

| <u>User Name</u> | <u>Location</u> | <u>Status</u> |
|------------------|-----------------|---------------|
| 1) ... admin     | *RS-232 Port    | +             |

<Strike "T" to terminate a session or any key to continue.>

Terminated a session by typing "T" at the <Strike "T" to terminate a session or any key to continue> prompt. After typing "T" the RPC responds:

Enter number of connections to terminate, <CR>:

Enter the number of the session to terminate. The RPC responds:

<Connection being terminated. Strike CR to continue. >

## Outlet Status

The following table shows the status of all outlets:

### Outlet Status

| Selection Number | Outlet Name | Outlet Number | Power Status |
|------------------|-------------|---------------|--------------|
| 1                | OUTLET 1    | 1             | Off          |
| 2                | OUTLET 2    | 2             | Off          |
| 3                | OUTLET 3    | 3             | Off          |
| 4                | OUTLET 4    | 4             | Off          |
| 5                | OUTLET 5    | 5             | Off          |
| 6                | OUTLET 6    | 6             | Off          |
| 7                | OUTLET 7    | 7             | Off          |
| 8                | OUTLET 8    | 8             | Off          |

## 5.3.7 RESET UNIT

Reset the unit to load new configuration changes. **You must reset for network parameters, such as IP Address, to take affect.**

From the main menu, select #5, "Reset Unit." The RPC responds:

Reset Unit? (Y/N)

Type "Y" for yes; allow approximately 5 seconds for unit reset.

## 5.3.8 COMMAND SUMMARY

In the list below, "n" refers to selection number as displayed in Outlet Status. Any invalid input results in an input error message and returns the user to the command prompt.

From the RPC3> prompt in Outlet Control, type HELP. The RPC responds with the following command summary information.

RPC3 >

"n" refers to selection number, as displayed in Outlet Status.

|          |   |
|----------|---|
| LOGOUT   | : terminate session                               |
| OFF n    | : turn off outlet "n", do all for n = 0           |
| ON n     | : turn on outlet "n", do all for n = 0            |
| REBOOT n | : cycle power off/on outlet "n", do all for n = 0 |
| RC       | : display outlet relay control information        |
| STATUS   | : display power status of outlets                 |
| HELP     | : display this message.                           |

<Strike CR to continue.>

## 6.0 TECHNICAL SUPPORT

BayTech has a staff of applications engineers on duty to assist you from 7 am to 7 pm (CST or CDT), Monday through Friday. In the event you have problems installing, setting up or operating your RPC unit, please feel free to contact BayTech's technical support office. For information on all of BayTech's data communication products, contact our Web Site at the address given below.

If you call the BayTech support desk, please have the following information available to help the applications engineers answer your questions efficiently:

- a. The RPC model type
- b. The unit's serial number (located on the bottom of the unit).
- c. The devices that you have connected to the RPC unit.
- d. Provide a general description of the application you are using. What are you trying to accomplish?
- e. What cables and adapters are you using? What are the lengths of the cables? Who sold you the cables and adapters?
- f. The name of the emulation program you are using.

**Bay Technical Associates, Inc.**  
**200 N. Second Street, P. O. Box 387**  
**Bay St. Louis, MS 39520 USA**  
**Phone: 800-523-2702 or 228-467-8231**  
**FAX: 228-467-4551**  
**Web Site: [www.baytechdcd.com](http://www.baytechdcd.com)**

## **7.0 REPACKAGING, SHIPPING, AND RETURNING TO THE FACTORY**

If your RPC unit needs service, upgrades, or repairs, or if the unit experiences failure, return it to BayTech. Before dismantling your equipment or before returning the unit for any reason, always call BayTech. The user should never attempt repairs on this unit. If you need to return the RPC to the factory for repairs, warranty work, or upgrades, follow the instructions below for repackaging and shipping.

### **Instructions for repackaging and shipping:**

- a. Call BayTech to get a Return Authorization Number. Without this number, BayTech will not accept warranty or no-charge returns.
- b. Choose a heavy cardboard box.
- c. Surround your unit with a minimum of two inches of insulation.
- d. Be sure to seal the box securely with strapping or packing tape. We do not recommend masking tape or cellophane tape.
- e. On the outside of the box, please write the Return Authorization Number.
- f. Ship the unit to the following address:

**Bay Technical Associates, Inc.  
200 N. Second Street  
Bay St. Louis, MS 39520 USA**

## **8.0 FCC RADIO FREQUENCY INTERFACE STATEMENT**

This equipment has been type tested and found to comply within the limits for a Class A digital device pursuant to Subpart J of Part 15 of FCC rules. FCC rules are designed to provide reasonable protection against interference with radio communications in a commercial environment. Not installing in accordance with this manual or operating this unit in a residential environment is likely to cause interference. In such cases, the user will be responsible for the expense of correcting the interference.

## APPENDIX A

### RPC TROUBLESHOOTING GUIDE

| PROBLEM                                    | SYMPTOM           | CAUSE                                  | SOLUTION  |
|--|-------------------|--|---|
| No Menu                                    | Blank Screen      | Cables<br>Adapters<br>Parameters       | Ensure correct cables and adapters are being used and are connected properly. See Appendix B (Specifications). Verify serial parameters are correctly configured. |
|  |                   |  |   |
| Password Doesn't Work                      | Returns to prompt | Caps Lock                              | Password feature is case sensitive. Type password exactly as it was originally entered.   |
|  |                   |  |   |
| No menu when accessing thru external modem | Blank Screen      | Modem settings disagree with RPC-2 RDR | Enter AT modem commands to configure modem to operate with RPC. See Appendix D (Modem Command Summary).   |
| Cannot access RPC-3 through network port   | Blank Screen      | Various                                | Note what the CX LED is doing. Refer to Appendix C (Diagnostic LED Indications)   |

## APPENDIX A

### RPC TROUBLESHOOTING GUIDE

| PROBLEM                                       | SYMPTOM  | CAUSE                     | SOLUTION   |
|---|--|---------------------------|--|
| Cannot access Outlet Control or Configuration | “X” in the menu line for the desired operation | Multiple Users            | Network user overrides serial user. Only 1 user in Outlet Control or Configuration at a time. See logged users, Page 56.                       |
| Network session locks up                      | No response from unit                          | More than 4 sessions open | Terminate 1 or more sessions. See logged Users, Page 56.   |
| Can't get out of Outlet Control               | Returns to Outlet Control Menu                 | Wrong command             | Type MENU  |
| <b>Device not working</b>                     | No power, dead                                 |                           | Call BayTech Applications Engineers.   |
| Need to download manual from web site         |  |                           | <a href="http://www.baytechdcd.com">www.baytechdcd.com</a><br>Go to Product Manuals; scroll to “JUMP HERE FOR MANUALS.” Select desired manual. |

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## APPENDIX A

### RPC TROUBLESHOOTING GUIDE (Cont.)

| <b>PROBLEM</b>                             | <b>SYMPTOM</b>                          | <b>CAUSE</b>                          | <b>SOLUTION</b>                      |
|--|---|---------------------------------------|--------------------------------------|
| PING not echoing request                   | Gets request timeout                    |                                       | Check network connection             |
| Forgot Password                            | Cannot access unit past password prompt |                                       | Call a BayTech Applications Engineer |
| <b>Cannot configure network parameters</b> | No access to network parameters         | Trying to configure thru network port | Access unit thru serial port         |

## APPENDIX B

### SPECIFICATIONS

**Table 3.1**

|                            | <i>RPC-2</i>                     | <i>RPC-2A</i>                              | <i>RPC-2 MDOI</i>                | <i>RPC-2 RDR</i>                 | <i>RPC-3</i>  | <i>RPC-3A</i>   | <i>RPC-5</i>  |
|----------------------------|----------------------------------|--|----------------------------------|----------------------------------|---|---|---|
| <i>Power Receptacle</i>    | 6 each<br>115 VAC, 60 Hz, 15 Amp | 6 each<br>230 VAC, 50 Hz, 10 Amp           | 6 each<br>115 VAC, 60 Hz, 15 Amp | 6 each<br>115 VAC, 60 Hz, 15 Amp | 8 each<br>115 VAC, 60 Hz, 15 Amp  | 8 each<br>230 VAC, 50 Hz, 10 Amp  | 4 each<br>115 VAC, 60 Hz, 15 Amp  |
| <i>Circuit Breaker</i>     | 125 VAC, 15 Amp                  | 230 VAC, 10 Amp, Universal IEC 320 Outlets | 125 VAC, 15 Amp                  | 125 VAC, 15 Amp                  | 125 VAC, 15 Amp   | 230 VAC, 10 Amp, Universal IEC 320 Outlets                                    | 125 VAC, 15 Amp, 4 indiv breakers   |
| <i>EIA-232 Serial Port</i> | 8 pin modular connector (RJ-45)  | 8 pin modular connector (RJ-45)            | 8 pin modular connector (RJ-45)  | 8 pin modular connector (RJ-45)  | 8 pin modular connector (RJ-45)   | 8 pin modular connector (RJ-45)   | 8 pin modular connector (RJ-45)   |
| <i>Network Interface</i>   | N/A                              | N/A  | N/A                              | N/A                              | Ethernet, IEEE 802.3 compliance 10BASE-T (twisted pair RJ-45) TCP/IP & Telnet | Ethernet, IEEE 802.3 compliance 10BASE-T (twisted pair RJ-45) TCP/IP & Telnet | Ethernet, IEEE 802.3 compliance 10BASE-T (twisted pair RJ-45) TCP/IP & Telnet |
| <i>Protocols</i>           | N/A                              | N/A  | N/A                              | N/A                              | N/A   | N/A   | N/A   |
| <i>Frame Types</i>         | N/A                              | N/A  | N/A                              | N/A                              | Ethernet II and SNAP  | Ethernet II and SNAP  | Ethernet II and SNAP  |
| <i>Modem Interface</i>     | N/A                              | N/A  | 2400 bps                         | N/A                              | N/A   | N/A   | N/A   |
| <i>Modem Connectors</i>    | N/A                              | N/A  | 4 pin modular RJ-45              | 4 pin modular RJ-45              | N/A   | N/A   | N/A   |
| <i>Dimensions</i>          | 16.73" w x 3.42" d x 1.72" h     | 16.73" w x 4.32" d x 1.72" h               | 16.73" w x 3.42" d x 1.72" h     | 16.73" w x 3.42" d x 1.72" h     | 16.73" w x 5.25" d x 1.72" h  | 16.73" w x 6.17" d x 1.72" h  | 16.73" w x 6.17" d x 1.72" h  |
| <i>Weight</i>              | 3 lb, 4 oz                       | 3 lb, 8 oz                                 | 3 lb, 4 oz                       | 3 lb, 4 oz                       | 4 lb, 4 oz  | 4 lb, 8 oz  | 4 lb, 4 oz  |

## APPENDIX B

### SPECIFICATIONS (Cont.)

|                            | <i>RPC-2</i>                | <i>RPC-2A</i>               | <i>RPC-2 MDO1</i>   | <i>RPC-2 RDR</i>  | <i>RPC-3</i>   | <i>RPC-3A</i>   | <i>RPC-5</i>  |
|----------------------------|-----------------------------|-----------------------------|---|---|--|---|---|
| <b>LED Indicators</b>      | power receptacle status     | power receptacle status     | power receptacle status<br>TX modem status<br>RD modem status<br>DCD modem status | power receptacle status<br>TX modem status<br>RD modem status<br>DCD modem status | Power receptacle status<br>CX connection status and diagnostics<br>RX & TX activity<br>-Link | power receptacle status<br>CX connection status and diagnostics<br>RX & TX activity<br>Link | power receptacle status<br>CX connection status and diagnostics<br>RX & TX activity<br>Link |
| <b>Mounting (Optional)</b> | 19" or 23"                  | 19" or 23"                  | 19" or 23"  | 19" or 23"  | 19" or 23"   | 19" or 23"  | 19" or 23"  |
| <b>Warranty</b>            | One year on parts and labor | One year on parts and labor | One year on parts and labor   | One year on parts and labor   | One year on parts and labor  | One year on parts and labor   | One year on parts and labor   |

## APPENDIX C

### DIAGNOSTIC LED INDICATIONS

To detect hardware, cabling, or configuration problems upon initialization of power, the RPC-3 and RPC-3A go through a diagnostic sequence. To help determine the cause of the problem, the RPC-3 and RPC-3A have a CX LED located on the front, right side of the unit. Upon initialization of power, refer to the table below for interpretation.

| <i>INDICATION</i>                                       | <i>INTERPRETATION</i>                                 |
|---|---|
| Not lit   | Normal unconnected operation                          |
| Brief flash followed by a solid illumination            | Established connection on network port or serial port |
| Flashes 1 time per cycle                                | Hardware or NIC problem                               |
| Flashes 2 times per cycle                               | Configuration error                                   |
| Flashes 3 times per cycle                               | Cable or hub connection fault                         |
| Flashes 4 times per cycle                               | Duplicate IP address                                  |
| Remains lit without a brief flash prior to illumination | Memory error  |

**NOTE: DIAGNOSTIC INDICATIONS OVERRIDE A CONNECTION INDICATION.**

---

# APPENDIX D

## 1.0 MODEM COMMAND SUMMARY

### 1.1 U.S. ROBOTIC MODEMS

| <i>COMMAND</i> | <i>INTERPRETATION</i>                                 |
|----------------|---|
| AT&B1          | Fixed Serial Port Rate                                |
| AT&C1          | Normal CD Operations (default)                        |
| AT&D2          | Normal DTR Operations (default)                       |
| ATS0=1         | Auto answer telephone line in 4 or fewer rings        |
| ATE0           | Modem does not display keyboard commands.             |
| ATQ1           | Place modem into quiet mode                           |
| AT&W0          | Save the modem's configuration in non-volatile memory |

**NOTE:** To send all of the above at the same time, type the following command: **AT&B1&C1&D2S0=1EQ1&W0**

---

## APPENDIX D

### 1.0 MODEM COMMAND SUMMARY (Cont.)

#### 1.2 ROCKWELL CHIP SET MODEMS

| COMMANDS | INTERPRETATION                                    |
|----------|---|
| ATS23=59 | Fixed Serial Port Rate (default)                  |
| AT&C1    | Normal CD Operations (default)                    |
| AT&D2    | Normal DTR Operations (default)                   |
| ATS0=1   | Auto answer telephone line in 4 or fewer rings    |
| ATE0     | Modem does not display keyboard commands.         |
| ATQ1     | Place modem into quiet mode                       |
| AT&W0    | Save modem's configuration in non-volatile memory |

**NOTE:** To send all of the above at the same time, type the following command: **ATS23=59&C1&D2S0=1EQ1&W0**

# INDEX

## A

Adapter, 3, 6, 9, 11, 18, 23, 25, 26, 33, 39, 43  
Application Engineers, 60  
Asynchronous, 24  
ATDT Commands, 9, 40

## C

Cable, 24  
**Cabling**, 21  
Circuit Breaker, 3, 6, 20, 27, 34, 68  
Communications Software, 3, 6, 9, 11, 26, 33, 34, 40, 44  
Computer Adapter, 23  
Computer/Terminal Adapter, 22  
**Configuration**, 4, 7, 14, 15, 17, 25, 26, 28, 35, 36, 38, 40, 64, 65  
Current Password, 29, 37, 51

## D

**Default**, 5, 6, 8, 15, 29, 32, 36, 37, 51, 54, 55, 57, 58, 73, 74  
diagnostic, 72

## E

EIA-232 Port, 1, 3, 6, 9, 11, 20, 21, 25, 26, 33, 39, 43, 70  
Emulation, 4, 6, 7, 64  
Ethernet Hub, 11  
Ethernet Port, 11, 44  
**Exit**, 15, 17, 53, 55, 60  
External Modem, 9, 18, 21, 25, 33, 39, 40, 43, 67

## F

FCC Rules, 66

## G

**Gateway**, 15, 53, 55  
**Ground**, 21

## I

**Indoor Use**, 19

**Installation**, 18

**Interface**, 66

Internal Modem, 1, 39

Internal Relays, 20

**IP Address**, 14, 15, 44, 53, 54, 72

## L

LED, 19, 26, 34, 44, 45, 67, 71, 72

**Local Access**, 6, 11, 33, 43

**Local Operations**, 45

Login, 11, 14, 44, 51, 55

## M

Modem, 1, 8, 9, 18, 21, 23, 25, 33, 39, 40, 43, 67, 71, 73, 74

Modem Adapter, 18, 24

Modem Command Summary, 40, 73, 74

**Modem Connections**, 8, 39

**Modular connectors**, 25

## N

Network Configuration, 15, 53, 54

## O

**Operations**, 3, 6, 9, 11, 26, 40, 42, 65

## P

Password, 4, 5, 7, 8, 9, 10, 28, 29, 30, 36, 37, 40, 41, 51, 52, 53, 55, 67, 69

Password Protection, 30, 38

**Power**, 1, 2, 8, 11, 18, 19, 20, 21, 26, 28, 34, 36, 39, 42, 44, 45, 48, 60, 68, 71, 72

**Power On/Off State**, 20

**Power Up Sequence**, 20

## R

Reboot, 20, 26, 28, 34, 36, 40, 42, 48

**Remote Access**, 8, 39, 44

**Remote Operations**, 45

**Reset**, 15, 28, 36, 42, 48, 60, 63, 68

Ring Detect Reset, 1

## S

**Saving**, 17

Serial Parameters, 3, 6, 26, 33, 44  
Serial Port, 3, 6, 11, 14, 26, 33, 40, 43, 44,  
69, 72  
Status Menu, 3, 7, 20, 27, 29, 32, 34, 35, 36,  
38, 42, 46, 47, 48

## T

Telco Wall Jack, 9, 39  
**Telnet**, 11, 44, 46, 62, 68, 70

## U

**Unpacking**, 18



BAYTECH

REMOTE POWER CONTROL UNIT OWNER'S MANUAL

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