

QUICK START: RPC Series With Ethernet

by Bay Technical Associates

The RPC Series with Ethernet controller is a remote power control unit that allows for power monitoring and outlet control.

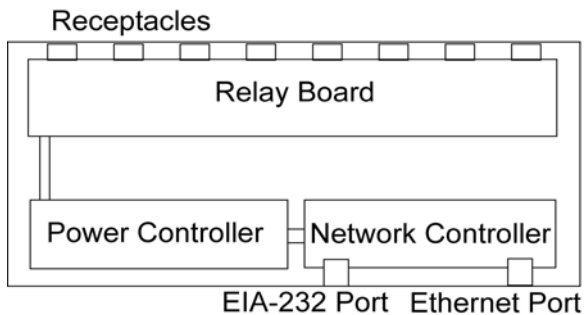
Installation

The RPC 3's, 5's, 9's, 11's, 15's and 17's use the same configuration instructions. The figures in this manual are based on the RPC3, the actual screen displays will vary by model.

Remove the *RPC* from the package. Check the contents of shipment to make sure that you received:

- RPC 3 NC
- RJ08X007 (RJ45 Rollover Cable)
- 9FRJ45PC-1 (DB-9 to RJ45 Adapter)

Interior Architecture



Power Controller: The controller connects to the relay board to control outlets.

Network Controller: The board used to control the unit through an Ethernet interface.

Serial Setup

- Connect the *9FRJ45PC-1* adapter to the serial port of the computer.
- Connect the RPC's EIA-232 port to the adapter via the *RJ08X007* rolled flat ribbon cable.
- Use terminal emulation software to access the unit.¹

```
RPC3-NC Series
(C) 2002 by BayTech
P4.00
```

```
Option(s) Installed:
True RMS Current
Internal Temperature
True RMS Voltage
```

```
    Average Power:      0 Watts
True RMS Voltage:    113.2 Volts
True RMS Current:     0.0 Amps
Maximum Detected:    0.1 Amps
Circuit Breaker:     Good
```

```
Internal Temperature: 31.5 C
```

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

Type "Help" for a list of commands

```
RPC3-NC>
```

Figure 1

Status Screen: Once the serial connection is made using the terminal software, the screen will display *Figure 1*. This displays the inherent state of the outlets, the Average Power, RMS voltage and Current and Maximum Detected Current both in Amps. Also shown is the state of the circuit breaker and the Internal Temperature of the unit.

IMPORTANT: There are two important configurations that need to take place.

- 1.) Power Controller
- 2.) Network Controller

¹ We recommend Windows HyperTerminal with a port configuration set to 9600, 8, none, 1. This manual uses Tera Term found at http://hp.vector.co.jp/authors/VA_002416/tterm23.zip.

Power Controller Configuration: The management of users and outlets.

RPC Configuration: Type *config* followed by a <CR>.² This command takes you to *Figure 2*. This screen will enable you to edit any of the information listed.

Figure 2

RPC3-NC>config

```

1)>...Manage Users
2)>...Change Outlet Name
3)>...Enable/Disable Confirmation
4)>...Enable/Disable Status Menu
5)>...Change Unit ID
6)>...Change Alarm Threshold
X)>...Exit
Enter Request:

```

Manage Users: The Manage Users menu shown in *Figure 3* allows the user to add, delete, or edit usernames. This menu also allows the administrator to edit the level of outlet access the user is granted.

Change Outlet Name: Allows the administrator to change the name of the outlets.

Enable/Disable Confirmation: Enables/Disables the confirmation of choices. Example, “Turn off all outlets [Y/N]?”

Enable/Disable Status Menu: Enables/Disables the status screen. Example, the screen with the Amperage and Voltage readings is shown when you first log on to the unit.

Change Unit ID: Allows the user to change the name of the unit. Defaulted as something similar to BT RPC3-20. Allows the user to personalize or customize name or location, up to 31 alphanumeric characters.

Change Alarm Threshold: The Alarm Threshold is the value set that sounds the amperage alarm when it reaches or exceeds the amperage value indicated.

Figure 3

Enter Request: 1

```

-----
|      User      |   Assigned Outlets   |
|                | 1| 2| 3| 4| 5| 6| 7| 8|
|-----|-----|
|      admin     | Y| Y| Y| Y| Y| Y| Y| Y|
|-----|-----|

```

```

1)>...Add Outlet(s)
2)>...Remove Outlet(s)
3)>...Add All Outlets
4)>...Remove All Outlets

```

Enter Request:

User Access: Once you add a user, you can grant/restrict access to outlets or outlet control.

To add multiple outlets under the user name, use the following nomenclature: X,X,X,X. Where “X” is the number of the outlet you wish to assign.

² <CR> = HRT or ENTER. This can also take you back to the previous screen.

Any changes being made do not take affect until the selected user is logged in.

To switch a user, you must log out and log back in under the new user name.

Figure 4

```
RPC3-NC>password
Enter new Password: *****
Re-Enter new Password: *****
Type "Help" for a list of commands

RPC3-NC>
```

Password: Type *password* followed by a <CR>. Shown in *Figure 4*. This password is for the controller part of the unit.

Network Configuration: The management of Network Properties.

Access Menu³: The Access Menu screen, shown in *Figure 5*, allows for Outlet Operations, Network Configuration, or Disconnection. To access the Network Configuration Screen, type five Attention Characters⁴.

Figure 5

```
Access Menu:
Outlet Operations.....1
Network Interface Module Login..2
Disconnect.....X,CR
```

Enter request:

Network Interface Login: *Figure 6* allows the user to utilize such menus as: Power Control, Configurations, Unit Status, and the ability to reset the unit (soft reboot)⁵ or Logout.

Figure 6

```
RPC Network Interface Module - F.3.09.8
<C> 2001 Bay Technical Associates
Unit ID:  RPC NETWORK INTERFACE

Power Control.....1
Configure.....2
Status.....3
Unit Reset.....4
Logout.....5
```

Enter Request :2

Network Properties: *Figure 7* grants the Administrator the capability to view the status of the network properties listed within that screen.

³ The Access Menu only appears once a session, after the first access, five Attention Characters will bring you to the Network Interface Module screen (Figure 6).

⁴ Attention Character = semi-colon (;)

⁵ A Unit Reset or RU does not cycle power to the receptacles [logic reset].

Figure 7

```

Copyright(C) Bay Technical Associates 2001
RPC Network Interface Module
Revision F.3.09.8      Kernel   K.1.01.1
Core   C.1.01.1      Hardware H.1.00
  Status.....1
  Serial Port Configuration.....2
  Port Device Name.....3
  Attention Character.....4
  Login Setup.....5
  SNMP Configuration.....6
  Network Port Configuration.....7
  Unit ID.....8
  Upgrade Firmware.....9
  Active Restore.....10
  RPC Management.....11
  Exit.....X,CR

```

Enter Request :

Login Setup: The Administrator can control such capabilities as Header control, Access Control, and the ability to change the usernames and passwords as shown in *Figure 8*.

Figure 8

```

Enter Request :5
  Header.....1
  Access Control.....2
  Change User Name.....3
  Change Password.....4
  Exit.....X,CR

```

Enter Request :

Network Properties Configuration: *Figure 9* allows the user to edit the Network properties such as the Internet Protocol Address (IP), Subnet Mask, Gateway, and the Enabling or Disabling of Telnet, Bootp and DHCP. The user will also be able to edit the Inactivity Timeout, Carriage Return Translation, or Break Length.

Bootp is *enabled* by default. To *disable* Bootp as shown in *Figure 9*, type 7 followed by a <CR>. Type Y for yes to disable Bootp from that menu.

Figure 9

```

Enter Request :7
Network Configuration

IP Address:  0.0.0.0
Subnet Mask: 0.0.0.0
Gateway:     0.0.0.0
Ethernet Address: 00.C0.48.32.5A.CF
Connection Inactivity Timeout (mins): Disabled
Carriage Return Translation: Disabled
Break Length (msecs): 350
DHCP is Disabled   Bootp is Disabled
Telnet is Enabled

IP Address.....1
Subnet Mask.....2
Gateway Address.....3
Inactivity Timeout.....4
Carriage Return Translation.....5
Break Length.....6
Bootp.....7
DHCP.....8
Telnet.....9
Exit.....X,CR

```

Enter Request :

Help Menu: At the Status Menu shown in *Figure 10*, type *Help* followed by a <CR> to view the line commands for the RPC's.

Figure 10

RPC3-NC>help

```
On n <cr>      --Turn on an Outlet, n=0,1...8,all
Off n <cr>     --Turn off an Outlet, n=0,1...8,all
Reboot n <cr>  --Reboot an Outlet, n=0,1...8,all
Status <cr>    --RPC3-NC Status
Config <cr>    --Enter configuration mode
Lock n <cr>    --Locks Outlet(s) state, n=0,1...8,all
Unlock n <cr>  --Unlock Outlet(s) state, n=0,1...8,all
Current <cr>   --Display True RMS Current
Clear <cr>     --Reset the maximum detected current
Temp <cr>     --Read current temperature
Voltage <cr>   --Display True RMS Voltage
Logout <cr>   --Logoff
Logoff <cr>   --Logoff
Exit <cr>     --Logoff
Password <cr> --Changes the current user password
Whoami <cr>   --Displays the current user name
Unitid <cr>   --Displays the unit ID
Help <cr>    --This Command
```

Type "Help" for a list of commands

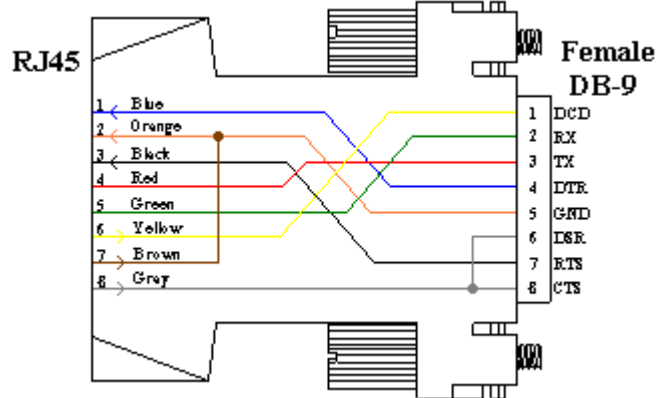
RPC3-NC>

Cables and Adapters

Listed are the pin specifications for the BayTech cable and adapters and the terminal COM ports:

Signal	RS-232 Port (DS)	RS-232 Port (RPC)	Com Port DE-9 Pin	COM Port DB-25 Pin	
DTR	1	1	4	20	DSR
GND	2	2		1	GND
RTS	3	3	7	5	CTS
TxD	4	4	3	2	RxD
RxD	5	5	2	3	TxD
DSR	6	N/C	6	6	DTR
GND	7	7	5	7	GND
CTS	8		8	4	RTS
DTR			4		DCD
DCD		8	1	8	DTR
RI	9			22	

9FRJ45PC-1



RJ08X007

