

2019

Data Switch-Remote Power Control (DS-RPC)



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1/1/2019

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ABOUT THIS DS-RPC OWNER'S MANUAL

This document provides information required for installing and operating your Bay Tech equipment. It should allow the user to connect to, power up, and access an applications menu where peripheral equipment can be controlled. We recommend 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 **228-563-7334**, or toll free from anywhere in the United States using **1-800-523-2702** or contact us at our Web Site, www.baytech.net.

BayTech manufactures many remote site management power products and data switches. If you would like information on any of these products, please contact BayTech Customer Service at the above numbers or visit our web site.

Conventions used in this manual include:



CAUTION: This term is used to denote any condition that could possibly result in physical harm to personnel or damage to equipment.



IMPORTANT: This term is used to denote conditions that could result in the loss of communications or to highlight the proper functioning of equipment.



NOTE: This term is used to denote items of interest to the user.

<cr>: Carriage Return or ENTER

The information in this document is subject to change without notice. The statements, configurations, technical data, and recommendations in this document are believed to be accurate and reliable, but are presented without express or implied warranty. Users must take full responsibility for their applications of any products specified in this document. The information in this document is proprietary to Bay Technical Associates, Inc.

In the interest of improving internal design, operational function, and/or reliability, Bay Technical Associates, Inc reserves the right to make changes to the products described in this document without notice.

Bay Technical Associates, Inc does not assume any liability that may occur due to the use or application of the product(s) or circuit layout(s) described herein.

COMPLIANCE STANDARD

BayTech units are in accordance with the general requirements of *Standard for Information Technology Equipment* (ETL listed, conforms to ANSI/UL 60950-1 2nd Edition and CAN/CSA C22.2 No. 60950-00. CE conforms to IEC 60950.) *Equipment installations are to be in accordance with the Canadian Electrical Code, Part I, CSA C22.1-02; General Requirements – Canadian Electrical, Part II, CSA C22.2 No 0-M91; the National Electrical Code, NFPA 70-2005; and the National Electrical Safety Code, NFPA, IEEE C2-2002.*

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

INSTALLATION

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 Customer Support at **228-563-7334** or call toll free inside the United States at **800-523-2702**. At a minimum, you should receive the following:

1. DS-RPC series unit and/or DS modules.
2. Manual insert describing the location of the User's Guide on BayTech's website at www.baytech.net.
3. 1 ea. DE-9 (9 pin) PC serial port adapter 9FRJ45PC-1, RJ-45 Roll over cable -- RJ08X007.
4. Horizontal brackets: M140R114, M140R115



NOTE: Keep the shipping container and packing material in the event future shipment is required.

Preparing the Installation Site

The installation area should be clean and free of extreme temperatures and humidity. Allow sufficient space behind the DS unit for cabling and receptacle connections. Access to installation site should be restricted to authorized personnel. Installation of these units should be limited to ITE and Telco server environments.

PRÉPARATION DE L'EMPLACEMENT D'INSTALLATION

Le secteur d'installation devrait être propre et exempt des températures et de l'humidité extrêmes.

Permettez le suffisamment d'espace derrière l'unité de MRP/MMP/MSP/MDP pour des raccordements de câblage et de réceptacle. L'accès à l'emplacement d'installation devrait être limité au personnel autorisé.

L'installation de ces unités devrait être limitée à ITE et à environnements de serveur de Telco.

Power

- **208V VAC Model:** Internal 208 VAC 50/60 Hz, (10 Amps Maximum Load).
- **120V VAC Model:** Internal 120 VAC 50/60 Hz (15, Amps Maximum Load).



CAUTION: This unit is intended for indoor use only. Do not install near water or expose this unit to moisture. To prevent heat buildup, do not coil the power cord when in use. Do not use extension cords. Do not attempt to make any internal changes to the power source. Do not attempt to modify any portion or component of an MRP/MMP/MSP/MDP Series Unit unless specifically directed to by BayTech personnel. BayTech must perform any internal operations.

ATTENTION: Cette unité est prévue pour l'usage d'intérieur seulement. N'installez pas près de l'eau ou n'exposez pas cette unité à l'humidité. Pour empêcher l'habillage de la chaleur, ne lovez pas le cordon de secteur en service. N'employez pas les cordes de prolongation. N'essayez pas de n'apporter aucune modification interne à la source d'énergie. N'essayez pas de ne modifier aucune partie ou composant d'une unité de série de MRP/MMP/MSP/MDP à moins qu'ait spécifiquement dirigé vers par le personnel de BayTech. BayTech doit effectuer toutes les opérations internes.



CAUTION: High-voltage surges and spikes can damage this equipment. To protect from such power surges and spikes, this unit must have a good earth ground or good power surge protection.

ATTENTION: Les montées subites et les transitoires à haute tension peuvent endommager cet équipement. Pour se protéger contre de telles montées subites et transitoires de puissance, cette unité doit avoir une bonne protection rectifiée ou bonne de la terre de puissance de montée subite.



CAUTION: Do not exceed the AC current rating for the selected model.

ATTENTION: Ne dépassez pas l'estimation courante à C.A. pour le modèle choisi.



CAUTION: In order to be absolutely removed from the power supply, the power cord must be unplugged from the power source.

ATTENTION: Afin d'être absolument enlevé de l'alimentation d'énergie, le cordon de secteur doit être débranché de la source d'énergie.



CAUTION: For PERMANENTLY CONNECTED EQUIPMENT, a readily accessible disconnect device (Circuit Breaker rated not to exceed the amperage rating of the unit) shall be incorporated in the fixed wiring between the power source and the Baytech unit. For PLUGGABLE EQUIPMENT, the socket-outlet shall be installed near the equipment and easily accessible. The outlets providing power to the unit shall be protected against over current, short circuit and earth fault by suitable rated protective devices.

ATTENTION: Pour l'ÉQUIPEMENT DE MANIÈRE PERMANENTE RELIÉ, un dispositif aisément accessible de débranchement (disjoncteur évalué pour ne pas dépasser l'estimation d'ampérage de l'unité) sera incorporé dans le câblage fixe entre la source d'énergie et l'unité de Baytech. Pour l'ÉQUIPEMENT QUE L'ON PEUT BRANCHER, la douille-sortie sera installée près de l'équipement et facilement accessible. Les sorties fournissant la puissance à l'unité seront protégées contre le courant, le court-circuit et le défaut de terre finis par les dispositifs protecteurs évalués appropriés.

Applying power illuminates a green LED on the front panel of the MRP/MMP/MSP/MDP. When the power switch is off, devices connected to the unit are not receiving power.

Mettre sous tension illumine une LED verte pour la puissance sur le panneau avant de la MRP/MMP/MSP/MDP. Quand le commutateur électrique est éteint, les dispositifs reliés à l'unité ne reçoivent pas la puissance.

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.

208V/10A Rated Model:

(10A Maximum Over current protection Device)

120V/15A Rated Model:

(15A Maximum Over current protection Device)

CABLING

RJ-45 Cable

Control Module RJ-45 pin Signals

Pin	EIA 232 Signal	Signal Direction	Description
1	DTR	Out	Handshake, Line Driver Inactive State = High: +12V when power is applied. Used as a handshake line to enable/disable the receiving of characters.
2	GND		Signal Ground
3	RTS	Out	Handshake, Line Driver Inactive State = High: +12 V when power is applied. Not used to enable/disable.
4	TX	Out	Transmit (Data Out)
5	RX	In	Receive (Data In)
6	DSR	In	Handshake In. –12V when not used
7	GND		Signal Ground
8	CTS	In	Used as a handshake line to enable/disable the receiving of characters.

Adapter signals

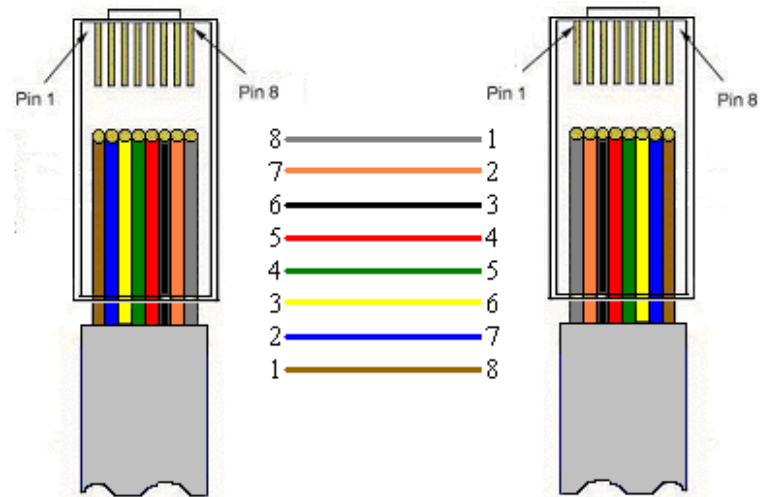
Listed are the pin specifications for the BayTech cable and adapters and the terminal COM ports:

Serial 1: Port Pin out Table

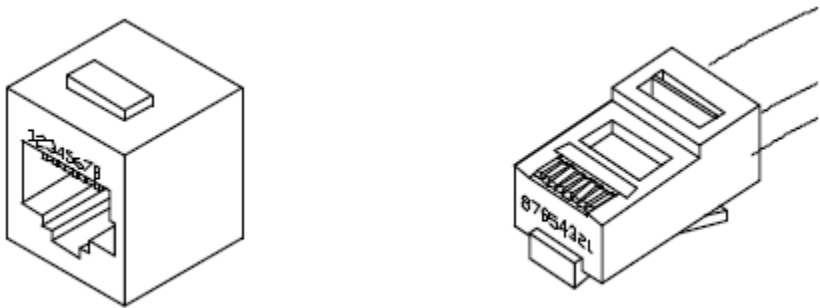
Signal	RS-232 Port (DS)	RS-232 Port (RPC)	COM Port DE-9 Pin	COM Port DB-25 Pin	Signal
DTR	1	1	4	20	DSR
GND	2	2		1	GND
RTS	3	3	7	5	CTS
TXD	4	4	3	2	RXD
RXD	5	5	2	3	TXD
DSR	6	N/C	6	6	DTR
GND	7	7	5	7	GND
CTS	8		8	4	RTS
DTR			4		DCD
DCD		8	1	8	DTR
RI	9			22	

RJ08X007 Standard Rollover Cable – RJ45 to RJ45

Serial 2: RJ08X007 Pin out

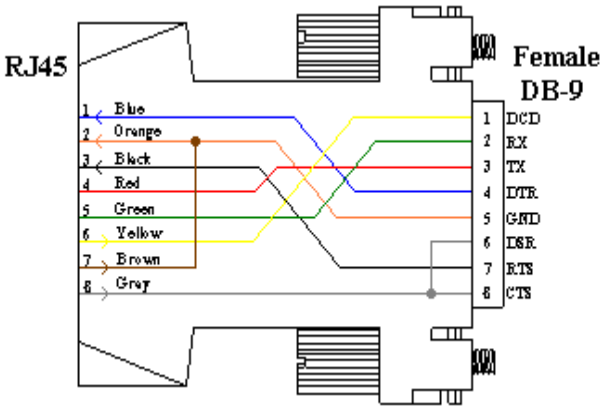


Serial 3: RJ45 Receptacle & Plug



Adapters

Serial 4: 9FRJ45PC-1 Adapter Pin Out



(Use with RJ08X007 Cable and B/C switch in “B”)

Serial Setup

Refer to the Host module user’s manual



NOTE: At any time during the session you need to go to another menu, use the **Attention Character = semi-colon (;)**. Press the attention character key 5-times to get back to the main status menu.



NOTE: Password feature is case sensitive. (Default is user/password is **root/baytech**). If the DS-RPC login is enabled, the default User Name is **‘admin’**; password is **‘baytech’ lower case or ‘BTA’ upper case for older units.**

QUICK START: DS-RPC

For those Administrators who have requested the bare minimum for this type of equipment, follow these steps exactly. If this is a new unit shipped directly from Baytech, follow the steps. If this is a previously own unit, perform a factory reset to clear out any users and passwords still in the unit.

DS2-RPC Controller Quick Start

- Setup the HOST module configuration first, before continuing.
1. If you get only a blinking cursor Press ‘Enter’. If still get only a blinking cursor, Type 5 semi-colons (;), The Attention Character will not echo on the screen. There is a one second delay before the menu is displayed. You should see a menu similar to (Figure 1).
 2. Type “C” for configure and press ‘Enter’.
 3. Type the number for ‘DS-RPC’ at the prompt and press ‘Enter’, (Figure 2).
 4. The outlet control menu, (Figure 3), has three options available to controlling the outlets, on/off/reboot, (Figures 4/5/6).
 5. At the DS-RPC prompt type “config” and press ‘Enter’, (Figure 7).
 6. Type “1” at the prompt and press ‘Enter’ to change the password. **Default is blank, (Figure 8)**
 7. Type the Attention Character, Default: semi-colon (;), 5-times quickly to get to the Host module network menu (Figure 1).
- At this point you have enough basic configurations needed to operate the RPC part of the DS-RPC unit.

DS2-RPC explanation quick start

Figure 1: Host Module Menu

Module:	
Attention Character:]	
Device A	.....1
Device B	.....2
Device C	.....3
Device D	.....4
DS-RPC	.....5
Configure.....	C
Status.....	S
Unit Reset.....	RU
Logout.....	T

Figure 2: Module Configuration Menu

Configuration	
DS62	module #1.....1
DS74	module #2.....2
DS-RPC	module #3.....3
Enter Request :3	

Figure 3: DS2-RPC Menu Rev F0.15

```
DS-RPC Power Control
(C) 1997 by BayTech
Rev. F0.15

Circuit Breaker: On

1)...Outlet 1 : On
2)...Outlet 2 : On
3)...Outlet 3 : On
4)...Outlet 4 : On

DS-RPC>
```

Type 'off' / 'on' / 'reboot' at prompt and should get the following:
'off' = Figure 3; 'on' = Figure 4; 'reboot' = Figure 5

NOTE: The reboot option has a 10-second count down before the outlets turn back on

Figure 7: Configuration Menu

```
1)...Change Password
2)...Change Outlet Name
3)...Enable/Disable Confirmation
4)...Enable/Disable Status Menu
X)...Exit
Enter Request:
```

Figure 8: Password

```
Enter Current Password: ****
Enter new Password:
Re-Enter new Password:
```

DS4(A)-RPC Controller Quick Start

Setup the HOST module configuration first, before continuing.

1. If you get only a blinking cursor Press 'Enter'. If still get only a blinking cursor, Type 5 semi-colons (;), The Attention Character will not echo on the screen. There is a one second delay before the menu is displayed. You should see a menu similar to (Figure 9).
2. Type "C" at the prompt and press 'Enter'.
3. Type the number for the 'DS-RPC' and press 'Enter', (Figure 10).
4. Type "1" for Manage Users and press 'Enter'. (Figure 11)
5. **IMPORTANT:** the first user added will be the ADMIN user. Type 'A' and press 'Enter', (Figure 12) Type a name for the admin user. Type the number of the user, just added. Add the outlets.
6. Press 'Enter' until you get to the Host module menu (Figure 9).

At this point you have enough basic configurations needed to operate the RPC part of the DS-RPC unit.

Figure 4: Outlets ON

```
DS-RPC>off
Turn Off All Outlets (Y/N)?
```

Figure 5: Outlets Off

```
DS-RPC>on
Turn On All Outlets (Y/N)?
```

Figure 6: Outlets Reboot

```
DS-RPC>reboot
Reboot All Outlets (Y/N)?

"9-0 count down"
```

Figure 9: Host Module Menu

```
Module:
Attention Character: ]

Device A      .....1
Device B      .....2
Device C      .....3
Device D      .....4
DS-RPC        .....5
Configure.....C
Status.....S
Unit Reset.....RU
Logout.....T
Enter Request :c
```

Figure 10: Module Configuration Menu

```
Configuration
DS62      module #1.....1
DS74      module #2.....2
DS-RPC    module #3.....3
Enter Request :3
```

Figure 11: DS-RPC Configuration Menu

```
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 :1
```

Type the letter “A” at the prompt to add a user.

Type the name of user.

Select number of user.

Type “1” or “3” to add outlets.

Figure 12: Add User Menu

```
-----
|      User      |      Assigned Outlets      |
|      1      |      2      |      3      |      4      |
|-----|-----|-----|-----|
A)...Add User
D)...Delete User
R)...Rename User

Enter user number to assign Outlets, A, D or R.
Enter Request: a
```

```
Enter user name: engineer

-----
1)...engineer      |      N      |      N      |      N      |      N      |
|-----|-----|-----|-----|
A)...Add User
D)...Delete User
R)...Rename User

Enter user number to assign Outlets, A, D or R.
Enter Request: 1
```

```
-----
|      User      |      Assigned Outlets      |
|      1      |      2      |      3      |      4      | |
|---|---|---|---|---|
|      engineer      |      N      |      N      |      N      |      N      |
|-----|-----|-----|-----|

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

Enter Request: 1

Enter Outlet number(s): 1,3
```

Detail Operations and Configurations

DS2-RPC Opening Menu

A valid connect to the host module, you should get the following menu.

The Configuration menu displays a list of modules installed in the DS2 chassis. Type “3” for the “DS-RPC”, and press ‘Enter’

NOTE: Module #1 in slot 1 is the Host module. Module #2 in slot 2 is the DS74 module. Refer to the individual Host and DS74 module for their configuration.

Module:	
Attention Character:]	
Device A	.....1
Device B	.....2
Device C	.....3
Device D	.....4
DS-RPC	.....5
Configure.....	C
Status.....	S
Unit Reset.....	RU
Logout.....	T

Configuration	
DS62	module #1.....1
DS74	module #2.....2
DS-RPC	module #3.....3

DS2-RPC CONFIGURATION MENU

DS-RPC Power Control	
(C) 1997 by BayTech	
Rev. F0.15	
1)...	Change Password
2)...	Change Outlet Name
3)...	Enable/Disable Confirmation
4)...	Enable/Disable Status Menu
X)...	Exit
Enter Request: 1	

Change Password

Select 1), to change the “Admin” user password.

If the Admin has a password, enter the current password before entering the new password.

Enter new Password:
Re-Enter new Password:

Enter Current Password:
Enter new Password:
Re-Enter new Password:

Change Outlet Name

Select 2), to change the names of the outlets. The unit will display a list of the outlet’s names.

Type the number of the outlet to be changed. If you want to change the name of Outlet 4, type the number 4 at the “Enter Request” prompt, and press ‘Enter’ The unit displays the following:

Type the new name up to 16 characters

1)...	Outlet	1
2)...	Outlet	2
3)...	Outlet	3
4)...	Outlet	4
Enter Request:4		

Enter :

If the unit displays the following: Type **“Y”** for yes to change the outlet name and type the new name.
Type **“N”** to keep the same outlet name.

Current Outlet: Outlet 4
Modify (Y/N)? Y
Enter:

Enable/Disable Confirmation

Select 3), to enable or disable the confirmation option.

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

From the configuration menu, select **“Enable/Disable Confirmation.”**

Depending on the current status of the switch, the DS responds with the option to change the current status. **Default is Enabled.**

Disable Confirmation (Y/N)? Y

Enable/Disable Status Menu

Select 4), to enable or disable the status menu. The DS displays the following:

Disable Status Menu (Y/N)? Y

If the Enable/Disable Status Menu feature is disabled, only the DS> prompt appears, else the following status menu appears.

Default is Enabled.

DS2-RPC Receptacle Controls

On, Off, Reboot

On, Off, Reboot, Lock, and Unlock are commands to control the individual outlets. From the (DS-RPC >) prompt, enter one of the following commands: **{ON n}**, **{OFF n}**, **{REBOOT n}**, where **“n”** is the outlet number you want to command.

Example: To turn **‘On’** Outlet 3, type **“ON 3”** from the DS-RPC prompt. The DS responds with:

Circuit Breaker: On

1)...Outlet 1 : On
2)...Outlet 2 : On
3)...Outlet 3 : On
4)...Outlet 4 : On

DS-RPC>

Turn On Outlet 3 (Y/N)?

Type **“Y”** for yes turns **‘On’** Outlet 3. Observe the status of Outlet 3 has changed to **‘On’** in the status menu. Likewise, typing **‘ON ALL’**, **‘ON 0’**, or **‘ON’** at the DS-RPC > prompt and responding **“Y”** for yes, turns **‘On’** all outlets. The **{OFF n}** command work similarly as the **{ON n}** command.

The **{REBOOT n}** command will reboot or reset equipment attached to corresponding receptacle(s). When the command to REBOOT is sent from the DS-RPC > prompt, the DS powers **‘Off’** the corresponding outlet(s) for approximately 10 seconds, then powers them **‘On’** in sequence. This command only works on outlets which were **‘On’** prior to receiving the reboot command

NOTE: Type the Attention Character, Default: semi-colon (;), 5-times quickly, to get out of the DS-RPC module.

DS4(A)-RPC OPENING MENU

With a valid connect to the host module; you should get the following Host Module menu. Type “C” at the prompt and press ‘Enter’ to display the module configuration menu.

```
Module:
Attention Character: ;

Device A      .....1
Device B      .....2
Device C      .....3
Device D      .....4
DS-RPC        .....5
Configure.....C
Status.....S
Unit Reset....RU
Logout.....T
Enter Request :c
```

The unit displays a list of modules installed in the DS4 chassis, not all available slots have to be filled. Type “5” or whatever number list the “DS-RPC”, and press ‘Enter’

```
Configuration
DS62          module #1.....1
DS74          module #2.....2
DS74          module #3.....3
DS74          module #4.....4
DS-RPC        module #5.....5
```



NOTE: Module #1 in slot 1 is for the Host module. Module #2-4 in slots 2-4 are the DS74-Peripheral module which connects to the external devices. Module #5 is the outlet module located internal to the chassis. Refer to the individual Host and DS74 manuals to configure these modules.



NOTE: Only the Admin user assigned to the First position in the manage users menu will have the following options available: ‘Config’, ‘Lock’, ‘Unlock’ and ‘Clear’.

Figure 13: Admin User Configuration

```
On n <cr>      --Turn on an Outlet, n=0,1...4,all
Off n <cr>     --Turn off an Outlet, n=0,1...4,all
Reboot n <cr>  --Reboot an Outlet, n=0,1...4,all
Status <cr>   --DS-RPC Status
Config <cr>   --Enter configuration mode
Lock n <cr>   --Locks Outlet(s) state, n=0,1...4,all
Unlock n <cr> --Unlock Outlet(s) state, n=0,1...4,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

DS-RPC>

Figure 14: Non-Admin User Configuration

```
On n <cr>      --Turn on an Outlet, n=0,1...4,all
Off n <cr>     --Turn off an Outlet, n=0,1...4,all
Reboot n <cr>  --Reboot an Outlet, n=0,1...4,all
Status <cr>   --DS-RPC Status
Current <cr>  --Display True RMS 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

DS-RPC>

DS4(A)-RPC CONFIGURATION MENU

Manage Users

Select 1) Manage Users displays the User Menu with a list of users.

--Add Users

Type “A” at the prompt and press ‘Enter’ to Add User.

NOTE: the first assigned user will be the ‘admin user’ for the outlets.

Enter the user name and press ‘Enter’.

The unit displays the list of users with the new name. At the prompt type the number of the user just added.

DS-RPC Series
(C) 2001 by BayTech
F2.05

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

Unit ID: Site Alpha

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:1

User	Assigned Outlets			
	1	2	3	4

A)...Add User
D)...Delete User
R)...Rename User

Enter user number to assign Outlets, A, D or R.
Enter Request: a

Enter user name: Engineer

1)...engineer	N	N	N	N
---------------	---	---	---	---

A)...Add User
D)...Delete User
R)...Rename User

Enter user number to assign Outlets, A, D or R.
Enter Request: 1

---Add Individual Outlets

The unit displays the selected user and a list of assigned outlets. ('N' = not assigned; 'Y' = assigned).

Select 1) to add outlets to the listed user.

The unit will respond with, "Enter Outlet number(s)": Type the number of the outlet to be assigned. If multiple outlets are to be assigned, type the numbers of the outlets with a comma between the numbers and press 'Enter', i.e. (1, 3) will assign outlets 1 and 3 to the Engineer user.

User	Assigned Outlets
	1 | 2 | 3 | 4
Engineer	N | N | N | N

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

Enter Request: 1

Enter Outlet number(s): 1, 3

---Remove Individual Outlets

Select 2) to remove individual outlets from a user. The unit responds with 'Enter Outlet number(s):' Type the number of the outlet to be removed. If multiple outlets are to be removed, type the numbers of the outlets with a comma between the numbers and press 'Enter',

The unit displays the user list minus the removed outlets.

User	Assigned Outlets
	1 | 2 | 3 | 4
Engineer	Y | N | Y | N

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

Enter Request: 2

Enter Outlet number(s): 1

---Add All Outlets

Select 3) to add all outlets to the user.

The unit displays the user with all outlets assigned, (Y).

User	Assigned Outlets
	1 | 2 | 3 | 4
Engineer	N | N | Y | N

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

Enter Request: 3

---Remove All Outlets

Select 4) to remove all outlets assigned to the user.

The unit displays the user with no outlets assigned, (N).

User	Assigned Outlets
	1 | 2 | 3 | 4
Engineer	Y | Y | Y | Y

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

Enter Request: 4

--Delete User

Select **D)** from the Manage Users menu to **Delete User**.

The unit responds with 'Enter the user number to delete'. Type the number and press 'Enter'.

The unit displays the user list minus the deleted user.

User	Assigned Outlets
	1 | 2 | 3 | 4
Engineer	N | N | N | N

A)...Add User
D)...Delete User
R)...Rename User

Enter Request: d

Enter the user number to delete: 1

You are deleting the current admin user. The next user will become the admin user, do you want to continue. (Y/N)? y

User	Assigned Outlets
	1 | 2 | 3 | 4

A)...Add User
D)...Delete User
R)...Rename User

Enter user number to assign Outlets, A, D or R.

Enter Request:

--Rename User

Select **R)** from the Manage Users menu to **Rename User**.

The unit responds with 'Enter the user number to rename:'. Type the number and press 'Enter'.

The unit responds with 'Enter user name:'. Type the new name and press 'Enter'.

The unit displays the user list with the renamed user.

User	Assigned Outlets
	1 | 2 | 3 | 4
1)...Tester	N | N | N | N

A)...Add User
D)...Delete User
R)...Rename User

Enter user number to assign Outlets, A, D or R.

Enter Request: r

Enter the user number to rename: 1

Enter user name: Engineer

User	Assigned Outlets
	1 | 2 | 3 | 4
1)...Engineer	N | N | N | N

A)...Add User
D)...Delete User
R)...Rename User

Enter user number to assign Outlets, A, D or R.

Enter Request:

Change Outlet Name

Select 2) **Change Outlet Name** from the Configuration Menu to rename the outlets.

The unit responds with a list of outlets. Type the number of an outlet and press 'Enter'.

The unit responds with the Current Outlet name and 'Modify (Y/N)?' Type "**Y**" for yes to change the outlet name and press 'Enter'. Type the new name. Type "**N**" to keep the same outlet name and press 'Enter'.

The unit displays the outlet list with the renamed outlet.

```
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: 2

1)...Outlet 1
2)...Outlet 2
3)...Outlet 3
4)...Outlet 4

Enter Request: 1

Current Outlet: Outlet 1
Modify (Y/N)? y

Enter : Tester 1

1)...Tester 1
2)...Outlet 2
3)...Outlet 3
4)...Outlet 4

Enter Request:
```

Enable/Disable Confirmation

Select 3) **Enable/Disable Confirmation** from the Configuration Menu to enable a confirmation prior to executing command.

If the unit responds with 'Enable Confirmation (Y/N)?', The Confirmation is currently disabled.

If the unit responds with 'Disable Confirmation (Y/N)?', The Confirmation is currently enabled.

Type "**Y**" for yes or "**N**" for no and press 'Enter'.

Default is Enabled.

```
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: 3
Enable Confirmation (Y/N)? y

Or

Disable Confirmation (Y/N)? y
```

Enable/Disable Status Menu

Select 4) **Enable/Disable Status Menu** from the Configuration Menu to enable outlet status menu

If the unit responds with 'Enable Status Menu (Y/N)?'. The Status Menu is currently disabled. If the unit responds with 'Disable Status Menu (Y/N)?'. The Status Menu is currently enabled. Type "**Y**" for yes or "**N**" for no and press Enter'. A Disabled Status Menu is display only the prompt: "**DS-RPC>**".
Default is Enabled.

```
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: 4
Enable Status Menu (Y/N)? y

Or

Disable Status Menu (Y/N)? y
```

Change Unit ID

Select **5) Change Unit ID** from the Configuration Menu to change the unit ID.

The unit responds with 'Current Unit ID:' and 'Modify (Y/N)?' Type **"Y"** for yes or **"N"** for no and press 'Enter'.

If yes the unit responds with 'Enter New Unit ID:' Type new name for the ID and press 'Enter'. The unit responds with "Unit ID: (Name). In the screen shot, the current ID was blank. The new ID is "Site Alpha"

Default is Blank(No Name Entered).

```
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: 5

Current Unit ID:

Modify (Y/N)? y

Enter New Unit ID: Site Alpha
Unit ID: Site Alpha
```

Change Alarm Threshold

Select **6) Change Alarm Thresholds** from the Configuration Menu to the over current alarm levels.

The unit responds with current 'Buzzer alarm value:' and 'Modify (Y/N)?' Type **"Y"** for yes or **"N"** for no and press 'Enter'.

If yes the unit responds with 'Enter:' Type new value and press 'Enter'. To verify the changes, Select 6) from the Configuration Menu. **Default is 12.0 Amps.**

```
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: 6

Buzzer alarm value : 12.0 Amps

Modify (Y/N)? y

Enter: 13
```

DS4(A)-RPC OUTLET CONTROL

From the Host Module Menu, Select the number corresponding to the DS-RPC, in this screen shot the number is “5”.

```
Device A .....1
Device B .....2
Device C .....3
Device D .....4
DS-RPC .....5
Configure.....C
Status.....S
Unit Reset.....RU
Logout.....T

Enter Request: 5
```

The DS-RPC module displays the following menu below.
Outlet Default is ON.

```
DS-RPC Series
(C) 2001 by BayTech
F2.05

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

Unit ID: Site Alpha
Average Power: 0 Watts      Apparent Power: 26 VA
True RMS Voltage: 120.5 Volts
True RMS Current: 0.1 Amps  Maximum Detected: 0.2 Amps
Internal Temperature: 29.5 C
Outlet Circuit Breaker: Good

1)...Tester 1      : On
2)...Outlet 2      : On
3)...Outlet 3      : On
4)...Outlet 4      : On

Type "Help" for a list of commands

DS-RPC>help
```

Type “**Help**” at the prompt for a list of Outlet Controller commands



NOTE: Only the Admin user will have the {**Config**}, {**Lock n**}, {**Unlock n**}, or {**Clear**} options available.

```
On n <cr>      --Turn on an Outlet, n=0,1...4,all
Off n <cr>     --Turn off an Outlet, n=0,1...4,all
Reboot n <cr>  --Reboot an Outlet, n=0,1...4,all
Status <cr>    --DS-RPC Status
Config <cr>   --Enter configuration mode
Lock n <cr>   --Locks Outlet(s) state, n=0,1...4,all
Unlock n <cr> --Unlock Outlet(s) state, n=0,1...4,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

DS-RPC>
```

DS4(A)-RPC Receptacle Controls: --On, Off, Reboot, Lock, and Unlock

On, Off, Reboot, Lock, and Unlock are commands to control the individual outlets. From the (DS-RPC >) prompt, enter one of the following commands: {ON n}, {OFF n}, {REBOOT n}, where “n” is the outlet number you want to command.

Example: To turn ‘On’ Outlet 3, type “ON 3” from the DS-RPC prompt. The DS responds with:

```
Circuit Breaker: On

1)...Outlet 1    : On
2)...Outlet 2    : On
3)...Outlet 3    : On
4)...Outlet 4    : On

DS-RPC>on 3
```

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

Type “Y” for yes turns ‘On’ Outlet 3. Observe the status of Outlet 3 has changed to ‘On’ in the status menu. Likewise, typing ‘ON ALL’, ‘ON 0’, or ‘ON’ at the DS-RPC > prompt and responding “Y” for yes, turns ‘On’ all outlets. The {OFF n} command work similarly as the {ON n} command.

The {REBOOT n} command will reboot or reset equipment attached to corresponding receptacle(s). When the command to REBOOT is sent from the DS-RPC > prompt, the DS powers ‘Off’ the corresponding outlet(s) for approximately 10 seconds, then powers them ‘On’ in sequence. This command only works on outlets which were ‘On’ prior to receiving the reboot command

The {Lock n} command will lock the outlet in its current state, On or Off. The {Unlock n} command unlocks the outlets to allow them to change states, On, Off, or Reboot.



NOTE: Only the Admin user will have the {Lock n} and {Unlock n} options.

Status

This shows the current status of the unit RPC: Voltage, RMS Current, Maximum Detected Current, state of circuit breaker, Average Power, Apparent Power and Internal Temperature.

```
Average Power:      0 Watts      Apparent Power:     29 VA
True RMS Voltage:   121.1 Volts
True RMS Current:   0.2 Amps      Maximum Detected:   0.2 Amps
Internal Temperature: 33.5 C
Outlet Circuit Breaker: Good

1)...Tester 1      : On
2)...Test 2        : On
3)...Outlet 3      : On
4)...Outlet 4      : On
```

Config

Refer to previous section on DS4 (A)-RPC CONFIGURATION MENU.

Current

Type “Current” at the prompt to show the unit’s True RMS Current and Peak RMS Current, and the unit will display the following:

```
DS-RPC>current

True RMS Current:    0.2 Amps      Maximum Detected:    0.2 Amps
Type "Help" for a list of commands
```

Clear

Type **“Clear”** at the prompt to reset the Maximum Detected, the unit will redisplay the status menu with the new maximum detected current. Admin user only

Voltage

Type **“Voltage”** at the prompt to display the unit’s True RMS Voltage, and the unit will display the following.

True RMS Voltage: 122.2 Volts

Temp

Type **“Temp”** at the prompt to show the unit’s current temperature, the units will display the following:

Internal Temperature: 33.5 C

Logging Out

Type **“Logout”**, **“Logoff”**, or **“Exit”** at the prompt to logoff from the unit. This will close the Outlet Control session. Press **“Enter”** to open the Outlet Controller session. A login prompt may appear if a user has been assign to an outlet. Newer firmware may go to the network menu.

Current User Password:

Type **“Password”** at the prompt to change the current user’s password and the unit will display the following:

Enter new Password:
Re-Enter new Password:

If the current user already has a password the unit will display the following:

Enter old Password:
Enter new Password:
Re-Enter new Password:



NOTE: If you do not have the user’s current password, delete the user. Reinstall user. Select option to change password and the unit will respond asking for a new password

Identify Current User

Type **“Whoami”** at the prompt to determine the current user, the unit displays the following:

Current User: root

To change the user, logout of the unit and log back in using the new user name.

Unit Identification

Type **“unitid”** at the prompt to determine the Unit ID, the MRP displays the following:

Unit ID: DS4-RPC

To change the unit ID, go the Outlet Configuration menu and select ‘Change Unit ID’ option. The maximum field length is 32 or 16 for older units.

BayTech Product Warranty

Bay Technical Associates (BayTech) warrants that its products will be free from defects in materials and workmanship under normal use for a period of two years from date of purchase (or from date of shipment from BayTech if proof of purchase is not provided).

During this warranty period, BayTech shall, at its discretion, either repair or exchange any defective product at no charge for labor and materials, or refund the amount paid for the product, less shipping and handling charges. Any replacement and/or repaired products are warranted for the remainder of the original warranty.

The customer is responsible for properly packaging the product and for shipping costs for returns. The customer is liable for loss or damage to the product during shipping, as well as any other fees or charges associated with transporting the product back to BayTech. BayTech will pay return costs for delivery within the Continental United States.

All repair and return shipments must be approved by BayTech and must be accompanied by an RA (return authorization) number. Please refer to our Repair and Return Policy below.

For the initial 30 days from the original date of shipment, any unopened product may be returned to BayTech, accompanied by an RA number. Full purchase price will be refunded, provided that the product is in excellent condition. A product may not be returned after 30 days from the original date of shipment unless approved by BayTech management.

For additional information or more specific warranty issues, contact BayTech's Technical Support or Customer Service Departments at (800) 523-2702 or (228) 563-7334.

Exceptions

This warranty does not cover misuse or minor imperfections that fall within design specifications or that do not materially alter functionality. BayTech does not warrant and is not responsible for damages incurred in shipping and handling or caused by disasters (such as fire, flood, wind, earthquake, lightning, power surges or water).

The warranty will be voided regarding products that have been neglected, altered, abused, misused, or used for purposes other than those for which it was designed.

Under no circumstances shall BayTech be liable for any special, incidental, or consequential damages based upon breach of warranty, breach of contract, negligence, strict liability, or any other legal theory. Such damages include (but are not limited to) loss of profits, loss of the product or associated equipment, cost of capital, cost of substitute or replacement equipment, facilities or services, down time, purchaser's time, the claims of third parties, including customers, and injury to property.

BayTech Extended Warranty

Extended warranties and but only at the time of product purchase. The extended warranty cost will not exceed 7% per year of the product list price unless otherwise stated in the customer contract or approved by BayTech management. Contact BayTech for further details on this.

Technical Support

BayTech offers Tech Support for the lifetime of the product. A staff of Applications Engineers is on duty to assist with installation, set up or operation issues. Support is available from 8:00 a.m. to 5 p.m. (CST or CDT), Monday through Friday at the phone numbers or website provided below.

Please have the following information available to help the Applications Engineers answer questions efficiently:

- BayTech model type
- Unit serial number
- Firmware version (if accessible)
A list of devices connected to the BayTech unit
- A general description of the application being used and the intended outcome
- Information about cables and adapters being used (type, length, place of purchase)
- The name of the software emulation program being used
- Printout of the configuration status (if possible)

Bay Technical Associates, Inc.
5239 A Avenue
Long Beach Industrial Park
Long Beach, MS 39560

Telephone: 800-523-2702 or 228.563.7334

FAX: 228.563.7335

Email: support@baytech.net

Website: www.baytech.net

Repair Policy

(Return policy refers to BayTech products purchased and returned for credit or repair.)

A Return Authorization (RA) number must be obtained in all cases before returning the BayTech product. Have the **serial number** and **reason for the return or description of the problem handy**. Customers in the Continental U.S. can call 1-800-523-2702 or international customers can call 228.563.7334 to obtain an RA number.

Before dismantling equipment or returning the unit for any reason, *always contact BayTech*. Attempting to repair a product without BayTech authorization may result in voiding the warranty.

Cost and Time:

The cost of repair for units no longer under warranty will be \$50.00 per hour plus cost of materials and shipping. Typical turnaround times for repairs are 3 days for domestic requests and 5 days for international.

Follow the instructions below for repackaging and shipping. **NOTE: Power should be disconnected from the power source before servicing or dismantling.**

Return Authorization Process:

- a. Contact BayTech via Phone, Fax, or Email to get a Return Authorization (RA) Number.
IMPORTANT: BayTech will not accept any returns without an RA number.
- b. Package the unit carefully in its original packaging or similar packaging. The warranty does not cover damage sustained during shipment. Enclose a letter with name, address, RA number, daytime phone number and description of the problem.
- c. Mark the RA number clearly on the outside of the package.
- d. Ship the unit by insured, prepaid carrier to the following address:

Bay Technical Associates
5239 A Avenue
Long Beach Industrial Park
Long Beach, MS 39560
RA #: 140-xxxxx