2019

MMP and MMPr Redundant Series QUICK START



COPYRIGHT 2019 Bay Technical Associates, Inc 3/1/2019

QUICK START: MMP SERIES

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.

NOTE: If this is a MASTER/SLAVE setup, do not connect the 8" cable until after the Ethernet port has been set-up.

Outlet Control:

- 1. Connect the 9FRJ45PC-4 or 9FRJ45PC-1 adapter to your PC.
- 2. Connect the supplied rollover flat cable RJ08X007 to the adapter and to the EIA232 serial port on the Baytech MMP device.
- 3. Use terminal emulation software to access the unit, (i.e. Microsoft Hyper-terminal). Set the PC serial port configuration to the following: **9600 bps**, **8 data bits**, **1stop bit and no parity**. If your device has a **B/C** switch near the EIA232 port, set it to **'B'**.
- 4. If you get only a blinking cursor Press 'Enter'. If still only a blinking cursor, Type 5 semicolons (;), there is a one second delay before the menu is displayed.
- 5. You should get the Outlet Status menu (Figure 1). This is the outlet controller circuits. If you get the Network Menu (Figure 7), select option 1, Outlet Control or Unit (MMP 20 (2, 1) . . . 1) to get to the Outlet Status menu.
- 6. At prompt type 'config' and press 'Enter'. You should see a menu similar to (Figure 4).
- 7. Select number for the Manage Users option. You should see a menu similar to (Figure 5).
- 8. **IMPORTANT NOTE:** the first user added will be the ADMIN user. Type "A" and press 'Enter'. Type the name of the admin user. The name is case sensitive.
- 9. Select the user number. You should see the user in the menu similar to (Figure 6).
- 10. Select 'Add Outlet(s)' to add a few outlets (i.e. 1, 2, 4) and press 'Enter' or select 'Add All Outlet'. A **"Y"** signifies the outlet has been assigned to the user.
- 11. Press 'Enter' you should see a menu similar to (**Figure 5**) with the user name. Repeat steps 7 thru 10 to add other users.
- 12. Once you have added the users press 'Enter' until you get back to the Outlet Status menu, (Figure 1). Type 'Exit'. With (Microsoft Hyper-terminal) pressing 'Enter' will reconnect to the unit outlet controller and it will ask for a use name. If this does not happen close the terminal emulator session and open it again.
- 13. Type the name of a user to log in. You should see a menu similar to (**Figure 1**). The user will see only the outlets assigned to them.
- 14. At the prompt type 'password' and press 'Enter'. You should see prompts similar to (Figure 3).
- 15. Enter the password for the user. Repeat steps 12 thru 14 to add or change the password of the user.

At this point you have enough Outlet Control Configurations to operate this Baytech Device. Continue to the Ethernet Controller Configuration if your unit has an Ethernet port. This is the bare minimum for Ethernet Control. 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. The System Administrator should tell you to use DHCP or provide you an IP Address, Subnet Mask, and Gateway Address. **NOTE: default IP Address is 0.0.0**

Ethernet Configuration:

Before continuing your System Administrator needs to tell you to use DHCP or give you an IP Address, Subnet Address, and Gateway Address.

- 1. If this Baytech device has an Ethernet port, at the prompt of any menu type five Attention Characters (factory default is the semi-colon, {;}). The Attention Character will not echo on the screen. You should see a menu similar to (**Figure 7**).
- 2. Select 'C' for the configuration menu. You should see a menu similar to (Figure 8).
- 3. Select the number for 'Login Setup' option. You should see a menu similar to (Figure 9).
- 4. Select the number for 'Manage Users' option. You should see a menu similar to (Figure 12).
- 5. NOTE: The 'root' user can not be deleted.
- 6. Select 'A' to add user. Type the name and password at the prompts.
- 7. Press 'Enter' until get to the 'Login Setup Menu' (Figure 9).
- 8. Select 'Access Control' to enable or disable the Tenet and Serial Login Prompt (Figure 10).
- 9. Press 'Enter' until you get the Configuration menu (Figure 8).
- 10. Select 'Network Port Configuration' option. You should see a menu similar to (Figure 13).
- 11. If your System Administrator requires you to use DHCP, then select 'DHCP Enable/Disable' and type "Y" to enable DHCP. If you wish to assign a static IP address to this unit, Disable the DHCP and go to step 15.
- 12. Press 'Enter' until you are asked to 'Accept Changes'. Type **"Y"** to accept changes or **"N"** to decline changes.
- 13. After Accepting or Declining Changes you should get the Network Access Menu (Figure 7).
- 14. Select 'Unit reset' to update the external connections. Once the reset is completed (1 minute) connect the Baytech device to your network using an Ethernet cable.
- 15. If you disabled the DHCP in step 11, you should see a menu similar to (Figure 13).
- 16. Select the 'IP Address' option and type the assigned IP address and press 'Enter'.
- 17. Select the 'Subnet Mask' option and type the assigned subnet mask address and press 'Enter'.
- 18. Select the 'Gateway Address' option and type the assigned Gateway address and press 'Enter'.
- 19. Press 'Enter' until you are asked to 'Accept Changes'. Type "Y" to accept changes.
- 20. Select 'Unit reset' to update the external connections. Once the reset is completed (1 minute) connect the Baytech device to your network using an Ethernet cable.
- 21. You should be prompted for a user name and password, similar to (Figure 11)
- 22. To setup your unit for a MASTER/SLAVE CASCADE, refer to Addendum CASCADE.

At this point you have enough basic configurations needed to operate this Baytech unit.

Status Screen: Once the serial connection is made using the terminal software, the screen will display the inherent state of the outlets, the Average Power, RMS voltage, Current and Maximum Detected Current both in Amps, circuit breaker, Internal temperature of the unit, and external temperature sensors if connected. The number of outlets displayed depends on the MMP model.

Figure	1:	Outlet	Status
	.	ounce	Deacab

	True RMS	Peak RMS	True RMS	Average	Volt-
Group	Current	Current	Voltage	Power	Amps
Circuit C1	0.0 Amps	0.0 Amps	209.5 Volts	0 Watts	4 V
Circuit C2	0.0 Amps	0.0 Amps	209.5 Volts	0 Watts	4 V
Circuit C3	0.0 Amps	0.0 Amps	209.5 Volts	1 Watts	4 V
Circuit C4	0.0 Amps	0.0 Amps	207.3 Volts	0 Watts	4 V
Circuit C5	0.0 Amps	0.0 Amps	208.3 Volts	1 Watts	4 V
Circuit C6	0.0 Amps	0.0 Amps	209.6 Volts	0 Watts	4 V
5)CKT 2 Outlet 7)CKT 2 Outlet	1 : On 3 : On	8).	CKT 2 Outlet	2 : On 4 : On	
9)CKT 3 Outlet	1 : On	10).	CKT 3 Outlet	2 : On	
11)CKT 3 Outlet	3 : On	12).	CKT 3 Outlet	4 : On	
13) $CKT = 4 Outlet$	1 : On	14).	CKT 4 Outlet	2 : On	
IJ/ CKI I OULIEL	3 : On	16).	CKT 4 Outlet	4 : On	
15)CKT 4 Outlet		18).	CKT 5 Outlet	2 : On	
15)CKT 4 Outlet 17)CKT 5 Outlet	1 : On	±0,			
15)CKT 4 Outlet 15)CKT 4 Outlet 17)CKT 5 Outlet 19)CKT 5 Outlet	1 : On 3 : On	20).	CKT 5 Outlet	4 : On	

Help Menu: Type *Help* followed by a <CR> to view the line commands for the MMP outlet control.

Figure 2: Outlet HELP

MMP-20>help	
On n <cr> Off n <cr> Reboot n <cr> Status <cr> Ostatus <cr> Config <cr> Lock n <cr> Unlock n <cr> Unlock n <cr> Ostatus <cr> Current <cr> Clear <cr> Temp <cr> Logout <cr> Logoff <cr> Exit <cr> Password <cr> Whoami <cr> Unitid <cr></cr></cr></cr></cr></cr></cr></cr></cr></cr></cr></cr></cr></cr></cr></cr></cr></cr></cr></cr>	<pre>Turn on an Outlet, n=0,136,all Turn off an Outlet, n=0,136,all Reboot an Outlet, n=0,136,all MMP-10 Status MMP-20 Meter Outlet Status Enter configuration mode Locks Outlet(s) state, n=0,136,all Display True RMS Current Display True RMS Current Display True RMS Voltage Display Average Power Reset the maximum detected current Read current temperature Logoff Logoff Logoff Changes the current user password Displays the current user name Displays the unit ID</pre>
Type Help for MMP-20>	a list of commands

Password setting: Once you have logged out and log back in as a user or as the administrator, you can then set the password to gain access. Type "**Password**"<cr>

Figure 3: Outlet Password Set

MMP>password Enter new Password: ***** Re-Enter new Password: ***** Type Help for a list of commands MMP>

Power Controller Configuration Menu: To select the configuration menu, type **"config"** at the prompt.



NOTE: If the unit display with the following message, "**Configuration mode in use**" A user in the other port is in the "Configuration" menu.

Figure 4: Outlet Configuration

MMP>config	
Unit ID: MMP20	
1)Manage Users	Add/Delete/Rename, assign outlets
2)Change Outlet Name	Select an outlet to change its name
3)Enable/Disable Confirmation	Confirmation (Y/N)
4)Enable/Disable Status Menu	Opening status of outlets
5)Change Unit ID	As written
6)Change Alarm Threshold	As written
7)Change Display Orientation	Flip Display
X)Exit	

Manage User

The User Menu allows the admin user to add and delete users, change passwords, and change the outlet list that displays a user's access to prescribed outlets. Select "Manage Users," from the configuration menu and the following menu appears if the unit has been reset or initial setup:

Figure 5: Outlet Manage Users

```
      User
      Assigned Outlets

      C1,1
      C1,2
      C1,3

      A)...Add User

      D)...Delete User

      R)...Rename User

      C)...Change Circuit Group

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

      Enter Request:
```



NOTE: User in position (1) will be the 'admin user' for the outlets. Older units will not display the 'delete' option until a user is added.

Add a User:

Select A), "Add user," from the User Management Menu. Enter the name of the user to be added, followed by <cr>.



NOTE: User name is case sensitive.

Assigned Outlets

Select a user number from the User Management Menu, the MMP unit will display the Assign Outlet Menu:

Figure 6: Outlet Assignment

```
      User
      Assigned Outlets

      C1,1
      C1,2
      C1,3

      1) engineer
      N
      N

      N
      N
      N

      N.Add Outlet(s)
      Add individual Outlets (X, X, X, X)

      2)...Remove Outlet(s)
      Remove individual Outlets

      3)...Add All Outlets
      Add all outlets to above user

      4)...Remove All Outlets
      Remove all Outlets from the above user

      C)...Change Circuit Group
      Display next Circuit group of outlets

      Enter Request:
      Enter Request:
```



NOTE: If an outlet user's list is changed while the user is logged in, their outlet list changes dynamically. If enabled, an updated outlet status report will be issued. "Y" means the outlet is assigned to the user. "N" means the outlet is <u>NOT</u> assigned to the user.

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 whether outlet status menu is displayed.

Change Unit ID: Allows the user to change the name of the unit. The defaulted is something similar to MMP1. 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.

Change Circuit Group: Allows user to flip the display for units with cords going out the top of cabinets.

Universal Ethernet Controller Configuration:

Access Menu: The Access Menu screen, allows for Outlet Operations, Network Configuration, or Disconnection. To access the Network Configuration Screen, **type five Attention Characters**.



NOTE: For initial network access, the IP address, subnet mask, and gateway must be configured from the serial port. **Default setting is 0.0.0.**

Figure 7: Network Controller

```
      Module: 1

      Attention Character: ;

      MMP20
      (2,1)....1

      Status.....S
      Unit Status

      Configure....C
      Unit Configuration menu

      Unit Reset.....RU
      Terminates external connections, does not affect outlet states.

      Logout.....T
      Enter Request :s
```

Figure 8: Network Configuration

```
Copyright(C) Bay Technical Associates 2008
 URPC Ethernet Host Module
 Revision F 2.25.06
                       Module 1
                     Serial number 22222 colilo version 1.05.01
 Hardware 1.00
Status.....1
                                    Status of all network options
Serial Port Configuration.....2
                                    Setup the Serial port EIA232
Serial Port Device Name......3
                                    Change the EIA232 port name
Attention Character.....4
                                    Type 5 times to access Network Main menu.
Disconnect Timeguard.....5
                                   Data received within the delay period,
                                    is data, not attention character; thereby
                                   preventing unwanted port disconnection
Connect Port ID Echo.....6
                                    Echo port name or module# & port#
                                   Login Menu Serial/Telnet/Radius/TACACS
Login Setup.....7
                                    access control, manage users
Network Port Configuration.....8
                                   Network Port IP Address
Module Name.....9
                                    Change name of module
MMP Management.....10
                                    Set up Voltage/Current/Sensor threshold
                                    Update Firmware, SSL, Configuration files
Firmware / Config Download....11
Exit.....X,CR
Enter Request :
```

Login Setup Menu

Figure 9: Network Login Setup

```
Access Control.....1
Manage Users.....2
Radius Configuration.....3
TACACS Configuration.....4
Exit....X,CR
```

Access Control

Enable or disable usernames and passwords for both network and serial port access. If either login has been enabled you will get a prompt similar to the following:

Figure 10: Network Access Control

```
Telnet Login Prompt Enable/Disable..1
Serial Login Prompt Enable/Disable..2
```

Figure 11: Network Login Prompts

Universal RPC login: Password:

The default user and password is "root/baytech", all lower case.

Manage Users

Add/delete users and change their passwords. Usernames and passwords are case sensitive and alphanumeric. **The root user can not be removed**.

Figure 12: Network Manage Users

```
User Management Menu
To change user password or port access, enter number of user.
To add/delete user, select appropriate menu choice.
SNMP V3 requires passwords that are between 8 and 31 characters long
Enter request, CR to exit menus.
A)...Add user
1)...root
```

Network Port Configuration

For network access, you must configure the IP addresses, Subnet Mask, and Gateway Address, or enable the DHCP. The Changes must be saved and the module reset for network changes to take effect.

Figure 13: Network Port Configuration

```
Network setup :
Ethernet Address...... 00:C0:48:00:01:FD
IP Address.....
                            70.150.140.89
Subnet Mask.....
                            255.255.255.224
                            70.150.140.65
Default Gateway.....
Connection Inactivity Timeout (mins): Disabled
Carriage Return Translation: Enabled
Break Length (msecs): 350
DHCP is Disabled
              Telnet is Enabled
                                SSH is Enabled
SSH host keys are set to factory default
IPv4 Configuration.....1
IPv6 Configuration.....2
Inactivity Timeout.....3
Carriage Return Translation.....4
Break Length.....5
DHCP Enable/Disable.....6
Telnet Enable/Disable.....7
SSH Enable/Disable.....8
SSH Host Key Generation.....9
IP Filter Configuration.....10
SNMP Configuration.....11
Web Server Configuration.....12
Exit.....X,CR
Enter Request :
```

Quick Start for MMPr100 ATS part

Connect to your unit and type the attention character 5-times at the prompt. You should see the following menu. At the Prompt Type '1' and press Enter.



You should see a similar screen.

Operating Voltage Current Active So Source 1 RMS Volt Source 2 RMS Volt Load RMS Volt	: 120.0 Volt: urce: 1 age: 121.5 age: 121.6 age: 121.5	ς,			
	1/1 				
Circuit Breaker	True RMS Current	Peak RMS Current	Average Power	Volt- Amps	
CKT1	0.1	0.3	0	18	
Int. Temp: 97.7 Switch 1: Open 2:	F Open				
1)MOD 1 Outle	t 1 : On	Locked 2).	MOD 1 Outlet	2 : On	Locked
3)MOD 1 Outle	t 3 : On	Locked 4).	MOD 1 Outlet	: 4 : On	Locked
5)MOD 1 Outle	t 5 : On	Locked 6).	MOD 2 Outlet	· I · On	Locked
9)MOD 2 Outle	t. 4 : On	Locked 10).	MOD 2 Outlet	5 : On	Locked
Type Help for a list of commands					

At the prompt type 'config' and press Enter

NOTE: None Redundant units do not have options 8 and 9. Should see the following menu:



At the prompt type '8' and press Enter

If you get the following response, type "n" and press Enter, if you want the unit to automatically switch-back to the primary source. It will tell you the current delay time and you can change the delay time.

```
Disable switch back to primary (Y/N)? N
Current delay switch back to primary source time is(0= minimum): 0 Seconds
Change delay switch back time (Y/N)?y
Enter seconds (0-6500):
```

If you type 'Y' to DISABLE the switch-back, you will have to manually switch the input source by typing 'source 1' at the MMP100 prompt.

If you get the following response, type "y" and press Enter. Change the delay time if needed.

```
Enable switch back to primary (Y/N)? y
Current delay switch back to primary source time is(0= minimum): 0 Seconds
Change delay switch back time (Y/N)?y
Enter seconds (0-6500):
```

After pressing Enter you get to the configure 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
7)...Change Display Orientation
8)...Change Redundant Power Switch Back mode/time
9)...Change Redundant Power Switching Brownout Voltage Levels
X)...Exit
Enter Request:9
```

Type '9' at the prompt and press Enter to see the Brownout setting for Primary to Secondary. Then you will be asked to set the Secondary to primary value..

```
Primary to Secondary trip voltage value : 100.0 Volts
Modify (Y/N)?
Secondary to Primary return voltage value : 100.0 Volts
Modify (Y/N)?
```

Network Menu Options

Select each menu option, press 'Enter, then select next option and press 'Enter', i.e. {Network Status: (C/1), type 'C' (Configure) at prompt and press 'Enter', type '1' (Status) at prompt, and press 'Enter'.

PD Unit (2,1): (1) Type **config** Manage Users: (1) Change Outlet Name: (2) Enable/Disable Confirmation: (3) Enable/Disable Status Menu : (4) Change Unit ID: (5) Change Alarm Threshold: (6) Change Display Orientation: (7) Change Redundant Power Switch Back mode/time; {redundant power only}: (8) Change Redundant Power Switching Brownout Voltage Levels; {redundant power only}: (9) Type **help**: PD Unit (2,2): (2) Network Status: (S) Network Configure: (C) Status: (C/1) Serial Port Configuration: (C/2) Handshaking: (C/2/1) Baud Rate: $(\mathbb{C}/2/2)$ Word Size: (**C**/2/3) Stop Bits: (C/2/4) Parity: (C/2/5) RTS Line Driver Inactive State: (C/2/6) DTR Line Driver Inactive State: (C/2/7) Serial Port Device Name: (C/3) Attention Character: (C/4) Disconnect Timeguard: (C/5) Connect Port ID Echo: (C/6) Disable Port ID Echo: (C/6/1) Use Module, Port Number: (C/6/2)Use Device Name: (C/6/3) Login Setup: (C/7) Access Control: (C/7/1) Radius Configuration: (C/7/3) TACACS Configuration: (C/7/4) Network Port Configuration: (C/8) with IPv6 IPv4 Configuration: (C/8/1) IPv6 Configuration: (C/8/2) Inactivity Timeout: (C/8/3) Carriage Return Translation: (C/8/4) Break Length: (C/8/5) DHCP Enable/Disable: (C/8/6) Telnet Enable/Disable: (C/8/7) SSH Enable/Disable: (C/8/8) SSH Host Key Generation: (C/8/9) IP Filter Configuration: (C/8/10) SNMP Configuration: (C/8/11) Web Server Configuration: (C/8/12) Module Name: (C/9) RPC Management: (C/10) Temperature Alarm Threshold: (C/10/1)

Under Voltage Alarm Threshold: (C/10/2) Over Voltage Alarm Threshold: (C/10/3) Low Current Alarm Threshold: (C/10/4) Environmental Sensors: (C/10/5) Outlet Groups: (C/10/6) Temperature units (degrees C/F): (C/10/7) RPC Cascade Mode: (C/10/8) Power Factor Threshold: (C/10/9) Firmware / Config Download: (C/11) Enable Firmware Upgrade: (C/11/1) Enable SSL Cert Upload: (C/11/2) Enable Configuration File Upload: (C/11/3) Restore Configuration Defaults: (C/11/4) Get Current Configuration File: (C/11/5) Display Configuration Error Log: (C/11/6) Enable Rel Ctl. Firmware Upgrade: (C/11/7) Unit Reset: (**RU**) Logout: (**T**)

Addendum: CASCADE:

Cascade Mode Configuration

For Master/Slave configuration, from the Network Menu Type "C" and press Enter Copyright(C) Bay Technical Associates 2010 URPC Ethernet Host Module Revision F 3.03.05 Module 1 31034779 colilo version 1.05.01 Hardware 1.00 Serial number Status.....1 Serial Port Configuration.....2 Serial Port Device Name.....3 Attention Character.....4 Disconnect Timeguard.....5 Connect Port ID Echo.....6 Login Setup.....7 Network Port Configuration.....8 Module Name.....9 RPC Management.....10 Firmware / Config Download....11 Exit.....X,CR Enter Request :10 1. Type "10" RPC Management and Enter Host-controlled RPC Feature Configuration Temperature Alarm Threshold.....1 Under Voltage Alarm Threshold.....2 Over Voltage Alarm Threshold.....3 Low Current Alarm Threshold.....4 Environmental Sensors.....5 Outlet Groups.....6 Temperature units (degrees C/F)....7 RPC Cascade Mode.....8 Power Factor Threshold.....9 Enter Request :8 2. Type "8" RPC Cascade Mode and Enter Cascade Mode Menu Cascade mode: Disabled Outlet Status Display: Enabled Command Confirmation: Enabled Cascade Mode Enable.....1

Cascade Mode Status Display.....2 Command Confirmation.....3 Enter Request :1

3. Type "1" Cascade Mode Enable and Enter RPC Cascade Mode is..... Disabled

Enabling this feature will allow access and management of a BayTech Remote Power Device through the console (EIA-232) port via telnet/ssh/SNMP/http.

In RPC Cascade Mode, normal console port terminal service will operate only when the network cable is disconnected.

When Cascade Mode is changed, URPC module will *RESET* upon acceptance of configuration changes, at which time, cascade device should be connected to or disconnected from the EIA-232 port as appropriate. Enable ? (Y/N), CR for no change) :

- 4. Type "Y" and Enter 3x. Accept changes ? (Y/N) :
- 5. Type "Y" and Enter Changes accepted.

The Network MxP will reset. At this point allow up to 1 minute for the units to come up and recognize the setup.

Cable Connection with Cascade Feature Enabled

Setup procedure for Master and Slave unit with CASCADE enabled. **NOTE:** *Do not connect the Network cable until the last step.*

- 1. Install Master/Slave units in the rack or on the table.
- 2. Power up the units.
- 3. Connect PC to the Master/Slave EIA232 (console) port to configure the individual units.
- 4. Connect the 8-inch cable between the EIA232 (console) ports on the Master and Slave units.
- 5. Connect the Network cable to the Master Ethernet port.
- 6. Telnet into the unit and the opening screen should show you the outlets of both units.

NOTE: You may disconnect the short cable from the Slave unit and connect your PC. When done reconnect the short cable to the Slave unit.

If at any point you disconnect the short cable from the Master unit and connect your PC to the EIA232 port, you will not see the units menu but random characters. DISCONNECT the Network cable and your PC from the Master unit. Wait 60-seconds and reconnect your PC to the EIA232 port to see the Master unit's menu. Once your task is complete, connect the short cable from the Slave to the Master unit. *Connect the Network cable last*.

End of Procedure.

End of Quick Start Manual