

MPM Firmware Release Notes

Version 2.00a0

This version requires Version 5.10B5 or later software.

- Now storing discharge duration (seconds) at MODBUS registers 41026 and 41027.
- Disabled the Float Current Alarm after a resistance test up to 24 hours. This eliminates false float alarms.
- Disabled the Float Current Alarm after a discharge for up to 72 hours. This eliminates false float alarms.
- Added an alarm acknowledgement feature. When External Reset is selected, this causes contacts alarm LED to clear and enter an acknowledgement into the Alarm Events. Software has an additional alarm reset that causes the alarm event to clear as before.
- Added an indication for memory full in alarm events Discharge, Resistance, and Historical memory.
- When discharge memory fills up, data that was previously stored is no longer lost.
- MPM-100 alarm event queue has been increased. Previously, if two alarms occurred, only one was identified and reported through the autopolling process and Historical Events log. This queue is now expanded to match the BDS Controller's 16 events.
- Changed the discharge data format in the MODBUS mapping. Now uses 8 bytes per record to save 20% memory space. Speeds up communication, and firmware doesn't need to check sector boundaries.
- Added seven more temperature calibration constants.
- Added a time-to-go feature using the algorithm for Peukert's Formula. The MPM calculates the remaining Amp hours and the software does the remaining calculations.

Version 2.00

- The float current number in Alarm Events is no longer always set to 0 (float current #1).
- The temperature number in Alarm Events is no longer always set to 0 (temperature #1).
- Load test now stops if a problem Discharge Alarm event occurs. During the load test, if the OV or cell voltage is lower than the thresholds, the system dials out for the problem discharge and stops the load test.
- Add a new configuration for 1X88X1V for MPM-100. Same as the configuration 1X80X1, except 11 reads per step instead of 10.

Version 1.23

- Corrected 4X12X2 configuration. The last two strings had problem in cell selection.
- Added 1X54X2 configuration.

Version 1.22

- Added 1X90X1 configuration for Nicad's.
- Correct algorithm for resistance readings on 4V modules.

Version 1.20

- Added ability to disable discharge capture and reporting separately.
- Corrected some timing issues that dealt with some differences in hardware components.
- The intertier readings no longer come back with intermittent intertier readings of very large or small readings.
- Improved Telco multiplexer operation when using modem combinations. Previously, alarms events would not get reported properly or the telephone connection would disconnect prematurely. The Telco multiplexer must have the firmware upgraded to version 1.04 or later.
- Can now see Historical alarms.
- The local port no longer temporarily loses communications when the unit attempts to dial out.
- Dial out attempts have been increased from three to sixteen times. This was done in case multiple alarms occur on large systems using multiplexers.
- Added discharge summary for up to 40 discharges. This allows the PC to poll for discharge data and compare to see if it already exists in the database. This increases the speed when auto extracting data during auto polling and eliminates multiple discharges being stored in database.
- Added a five minute cool down time between strings to comply with UL requirements.
- Because of the additional intertier channels, the MODBUS registers have changed for the existing 1-4 intertiers. The new assignments are the same as the BDS series monitor and they are at 06FCh - 070Ah. Software with version 4.00 or later cannot be used with MPM's using firmware versions earlier than 1.20.
- Improved modem communications.

- Added support for new hardware. This includes the following features and configurations:

Features

4 additional intertiers.
7 additional temperatures.
4 float current channels.
40 additional cell inputs.

Configurations

1X13X2
2X13X2
3X13X2
4X13X2
1X26X1
2X26X1
3X26X1
1X41X1
2X41X1
1X10X1
2X10X1
3X10X1
4X10X1
1X80X1
1X92X1
1X96X1
1X97X1
1X58X2
1X15X8
2X15X8
1X25X1
2X25X1
3X25X1
4X25X1
1X4X6
2X4X6
3X4X6
4X4X6
3X24X2
4X24X2
2X20X1
3X20X1
4X20X1

- A large cell number is no longer displayed for a warning.
- The MPM no longer loses communications due to a bad frame being received.
- The internal network card now supports netmask and gateway settings.
- After cycling power, the configuration no longer changes to a different configuration. This would only occur on certain configurations.

- If connected via the Telco line and no communications occur over a period of time, the controller automatically hangs up. Previously, it was possible for the MPM to stay off hook if software did not initiate hang up. This could occur if the Telco link became broken.
- Cycling power to the MPM while holding in the ALARM RESET button now disables alarms, discharge, resistance test and remote reporting.