
MPM Firmware Release Notes 2.33

[####] = internal reference number

Released Version 2.33

[2637] Added support for 1X98X1 configuration.

Released Version 2.32

[2578] Discharge current latch alarm is now functional.

[2577] Digital output is now cleared if the parameter alarm is set to latch.

[2576] Alarm reset now clears digital output.

[2574] Added support for MPM 1x6x8V configuration.

[2561] Added firmware support for MPM-100 1x6x2V.

[2529] Intertier 21 no longer returns high value during a resistance test.

[2513] Changed the load configuration of the 1x86x1 MPM from 9 steps of 8 reads and 2 steps of 7 reads, to 6 steps of 11 reads and 2 steps of 10 reads.

[2510] Added configuration 1x87x1v.

[2508] System now detects high string current alarm.

[2507] Digital output is now triggered by high string current

[2565] Added configuration 1x40x1 and 2x40x1.

Released Version 2.26

[2399] Added more support and features for GSM.

Released Version 2.25

[2380] Added support for individual alarm status for each string.

[2379] Added ability to allow any string current to trigger discharge logging.

[2365] Commands added to set GSM modem to use default incoming data call, V32 protocol, data mode and no flow control.

Released Version 2.23

[2284] Enhanced battery setup communication via modem.

[2385] Added feature to support GSM modems.

- [2389] Added dip switches to select GSM frequencies.
- [2290] Improved alarm reporting on individual thresholds after the resistance test is completed.
- [2340] Added new system status MODBUS mapping for ASCOMP.
- [2354] In battery setup, enhanced timing to switch from absolute time to day interval.

Released Version 2.20

- [2350] Implemented backup storage for date and time.
- [2335] MPM device ID is set to 1 permanently.
- [2225] MPM will always record historical reading before doing a resistance test.
- [2221] Added polarity bit for the cell voltage.
- [2220] Resistance test readings are now stored in external memory.

Released Version 2.19

- [2066] New averaging resistance test algorithm for better intertier support.

Released Version 2.18

- [1997] Added support to check CT connection in load diagnostic.
- [1956] Created new configuration for 1X86X1.
- [1939] Changed flash sector size from 64 bytes (AT29c257) to 128 bytes (AT29c512) for firmware upgrade.

Released Version 2.17

- [1956] Created new configuration for 1X86X1.

Released Version 2.16

- [1918] Resistance reading of first cell in one load step is no longer always zero on 2X23X2, 3X23X2 and 4X23X2.

Released Version 2.15

- [1736] Added a register to store the model number and serial number.

Released Version 2.14

- [1993] Added firmware control 0x34 and 0x35 to disable and enable alarms for the Commissioning Assistant.
- [1852] Added support for new configurations: 1x23x2, 2x23x2, 3x23x2, 4x23x2.
- [1810] Added support for new configurations: 1x29x4.
- [1844] Added the ability to support high discharge current alarms.
- [1843] Added three control outputs. Requires hardware manufactured after December, 2006.
- [1839] Added code to reset the network card when doing a software reset.
- [1726] Added new feature to use absolute time to schedule auto resistance and log history data.
- [1665] MPM now clears discharge current to zero if its raw counts are less than 16.
- [1621] Each cell now has the ability to program a unique alarm threshold for internal resistance.

Released Version 2.12

- [1636] Warning event now displays the correct cell number with alarm.
- [1633] Added configuration 1X36X1 and 2X36X1 for the MPM.
- [1570] History is now also cleared after performing a memory clear.
- [1558] MPM now continues to scan even if the phone number is blank.

Released Version 2.11

- [1466] Increased data storage for discharge data. Requires new generation hardware.
- [1461] Added configuration screens for LGS centralized monitoring.

Released Version 2.09

- [1429] False temperature alarm, peak value has been fixed.

Released Version 2.08

- [1393] Added configuration 1X9X6. Config number 78.

Released Version 2.07

- [1383] Resolution improved for tracking temperature variation.
- [1377] Added configuration 1X9X12. Config number 77.
- [1374] The calculated temperature displayed is now linear and meets product specs. The problem was in how the K factor was being calculated.
- [1354] The MPM no longer keeps rebooting on a new board if ROM version 2.00 or later is installed.
- [1353] Added configurations 1x38x1 (75) and 2x38x1 (76).

Released Version 2.04

[1350] Added configuration 1X18X6. Config number 73.

[1338] Added configuration 1X56X2.

Released Version 2.03

[1326] Store the latest resistance readings to MODBUS mapping (45154-45683).

Released Version 2.02

[1295] Added configuration 1X8X12. Config number 72.

[1294] Added configuration 1X100X1. Config number 71.

Released Version 2.01

[1258] Holding down alarm reset on boot no longer sets load test to enable.

[1257] Holding down alarm reset on boot no longer sets discharge to report problem discharge only.

[1256] Holding down alarm reset on boot no longer sets Rtest mode to average.

[1255] Holding down alarm reset on boot now clears data memory.

Released Version 2.00

[1199] A boot up initialize is now generated to initialize the modem properly.

[1163] When the software acknowledges that the string status is good, an acknowledgement event is no longer created.

[1162] When in acknowledge mode, resetting alarms in the alarm screen no longer sends an acknowledgement.

[1161] Clearing memory no longer erases current alarms and alarm status.

[1149] The load test starting time is now correct. The time is now read from the time chip instead of RAM.

[1148] When the load test was set for 1 minute, the test stopped before a minute had elapsed. The register now clears to 0 when the load test starts.

[1117] Stop load test if gets problem discharge alarm event. During load test, if the OV or cell voltage lower than thresholds, dial out for problem discharge and stop load test.

[726] If a load test is performed it does not show up as a load test. It shows up as a regular discharge. The bit used to mark load test is assigned to wrong bit (bit 8), it should be bit 9.

Released Version 2.00a0

This version requires Version 5.10B5 or later software.

[1044] Now storing discharge duration (seconds) at MODBUS registers 41026 and 41027.

[950] Disabled the Float Current Alarm after a resistance test up to 24 hours. This eliminates false float alarms.

- [949] Disabled the Float Current Alarm after a discharge for up to 72 hours. This eliminates false float alarms.
- [948] 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.
- [940] Added an indication for memory full in alarm events Discharge, Resistance, and Historical memory.
- [932] When discharge memory fills up, data that was previously stored is no longer lost.
- [930] 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.
- [907] 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.
- [899] Added seven more temperature calibration constants.
- [898] 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

- [1089] The float current number in Alarm Events is no longer always set to 0 (float current #1).
- [1088] 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.
- [946] 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 communication occurs 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.