



SOFTWARE RELEASE NOTES

MCS-MAGNUM

Version 17.21E

11/25/2015

Updates from previous versions:

New Features:

1. HVAC: Added Low Temperature Off option.
2. CENT - add offset to the target temp to keep all the comp off until the control temp goes above the target setpoint plus the setback value of setpoint #151. Setpoint #151 must be setup as target type to enable this new logic. The setback field is used as an offset to the target if the time column for setpoint #151 is non-zero. If time column is zero, then the setback is used as the fixed value for allow the comp to run again.
3. CENT - Add new feature to save the purge cycle in circuit ram so MCS-Connect graphics has access to purge cycles.
4. CENT - Add support for multiple centrifugal comp on the same magnum - needed to change few of the surge fields to arrays with circuit number used as the index.
5. CENT - Missed these lines when doing commit for the new Temp OFF logic.
6. MHRC: Added logic to force a minimum time delay of 30 seconds or value in Time field of SP50 COND_VALVE_TARGET_PSI before turning outside fan (COND) ON when in heating mode.
7. Cent Firmware only - Started working on new Modulating Hot Gas Bypass open and closed relay logic. Also add new modulate AO only - this is the same as Modulating AO/RO option, just no relay output. The new modulating open/close relay logic is not fully implemented.

Bug Fixes:

1. Change how maximum compressor run hour exceeded is handled, was 3 screens now 1, go to authorization screen.
2. CPM: Add #ifndef to prevent error in lcd.c
3. SW: AO_TYPE_MODBUS_WRITE not shifting by correct decimal places. MHRC/COMP SPEED AO value will stay 10 and we needed a 1. To get unit running Sergio/Max divided AO value by ten on the Modbus IO side.
4. MEMORY.C - Force at least one suspend for every flash page erase.
5. Prevent MCS Ethernet messages from being processed while performing a flash write.
6. Revert "New Feature HVAC: Added Low Temperature Off option."

Any questions regarding this release, contact:
support@mcscontrols.com

Micro Control Systems, Inc. 5580 Enterprise Parkway Fort Myers, Florida 33905
(239)694-0089 FAX: (239)694-0031 www.mcscontrols.com

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7. Modbus AO - simplify decimal shifting by only using display type of the Modbus AO for decimal shifting.
8. MHRC: Remove warning for already implemented defrost function.
9. MHRC: Keep condensers off while unit is switching from modes using both heating and chiller.
10. MHRC: Prevent MHRC from turning off cooling/heating when it's already in use and still has more "energy" to save.
11. CENT - correct bug in EXV centrifugal logic - the exv index was calculated wrong - it was never updated from the old 64 relay output.
12. Released MHCR 17.21-D for Beta testing (BWW)
13. Released MHCR 17.21D1 for Beta testing (BWW)
14. MHRC: Corrected bug from commit e309b0c5f3dc3fbf5adba84dc894555773db0f4b . The outside fan pre-delay in heat mode was always being set to 30 sec. Test was using STP value field instead of the time field.
15. Enhancement MHRC: energy efficiency - If in heating mode and cool control temp is above target allow cooling ON or vice versa if in cooling mode and heat control temp is below target.
16. Released MHCR 17.21D2 for Beta testing (BWW)
17. MHRC firmware only - Correct issue with low suction pressure offset not be set when in heating mode. When unit in heating only we lower the low suction pressure unloading, reload, and safety setpoints to allow the outdoor coil to run lower evap temps. No worries about freezing and we have a defrost cycle!
18. CENT Firmware only - Removed used code that was left over from the modulating HGB for scroll logic in HVAC. No functional changed.
19. All Firmware's - Correct issue in EXV logic when config for EXV only the valve was being opened in the pre-pump down logic. the valve should stay closed to allow for pump out. A change was made for Tandem EXV to allow the tandem EXV to open during pre-pump down. This change was allowing the main EXV to open also.
20. Correct issue with Comp logic that bump the EXV when comp was loading or unloading. Two fixes put in.
21. Allow scroll compressors with a staged HGB and an AO to use the minimum capacity cutout option for HGB.

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