



SOFTWARE RELEASE NOTES

MCS-MAGNUM

Version 17.38

04/26/2018

Updates from previous versions:

New Features:

1. Finished implementing EXV_FAST_II_APPROACH_CONTROL.
2. Added line in exv startup to reverse sign if evap fast level.
3. Add new operator for SI user logic - High Range and Low range operators. This new operator will find the highest of lowest sensor value across a consecutive range of SI, AO or RO.

Bug Fixes:

1. Bacnet Device ID: Changed device name so it does not include a space when discovered.
2. Turbocor: Alarm pop up is not displaying in MCS-connect Graphics.
3. Bug Fix EXV.c While testing a unit that was setup for old superheat control. Found that the EXV was getting stuck in Startup.
4. Bug Fix CPM: Corrected problem with CPM shutting down a fully loaded chiller because it thinks it has reached the max Pumps allowed ON.
5. Bug Fix CPM "Isolation valves located on CPM with flow switches on chiller. CPM will open valve and wait for flow to make on chiller based on setpoint #112. If flow isn't made by the time specified in that setpoint the CPM will lockout that chiller. The problem is the CPM will instantly come out of lockout by itself and try to start the chiller again because the chiller is reporting steps available since the chiller itself wasn't locked out. The same issue occurs when the CPM doesn't receive an isolation valve proof.
6. Bug Fix CPM "When using fixed staging on the CPM and a non lead chiller has steps removed due to a disable switch for example the lead chiller is also having steps of capacity removed and shutting down a compressor unnecessarily"
7. Bug Fix in EXV Approach control - Changed the CHL_EXV_LOW_SUPERHEAT control logic, in EXV stage control and fast control 1&2, to use suction superheat instead of Evap Approac.
8. Bug Fix CPM "No Isolation valve proof needs to also lock the chiller out like you did with the no water flow. It currently just locks out for like 1 second then resets and tries again much like the no flow was doing"
9. Bug Fix HVAC-Turbocor: Alarm pop up is not displaying in MCS-connect Graphics after generating a SI out of range or circuit sensor fault alarm. Alarm RO must be turn ON after a unit control sensor fault.



SOFTWARE RELEASE NOTES

10. Bug Fix EXV fast control 1 & 2, Add MOP checks in EXV fast control 1 & 2. Original logic was set to ignore the MOP state.
11. Bug Fix EXV bump open logic: While testing the MCS 5580 chiller config, saw that the EXV bump logic was opening the valve even though it was set to MOP HOLD.
12. Bug Fix SI min/max range. (High) Custom mix max range test is generating an Alarm if the SI value is set to 9999 and the range is between -32000 and 32768.
13. Bug Fix Subcooler EXV: "Tested the cfg with the different Hex files. Set the Eco Sup Heat target at Setpoint # 253, but the Eco EXV is not working correctly based on it. It doesn't Modulate" On version 17.30G, changed the subcooler exv min percent and subcooler exv max percent from STPs 15 and 16 to STP 69 value and time fields. Added check to only use STP 69 when setup for Fast Exv Control.
14. Bug Fix PAO.c: Sensor input M-3 remote switch when turned on sets remote target to 0 if nothing is being sent should go to min 35 deg. Also, at same time relay output M-1 should go from normally open to normally closed but is staying in the normally closed position all the time with the logic but can manually open and close the relay. Solution: I modified the software to only turn the "OK for A/C" relay ON when the unit is set to "Remote Control", and in config we changed sensor M-5 "REMOTE TMP" to read 35F at 0 Vdc and 75F at 4.5Vdc.
15. Bug Fix - CENT firmware only - If comp is in "Shutting Off" state and surge occurred, the comp get stuck running. Do not allow the surge to change the state when in shutting off state.
16. Bug Fix key.c: Run hours lead compressor not working. Changed the unloading logic to shut down the compressor with the most run hours only If compressor rotation on time option is selected.
17. Bug Fix LWC "Loop Stepoint 2 AMB OFF TEMP doesn't work."
Problems: AMB/PUMPS logic was only running when the R/S was set equal to RUN. Wait a cycle flag was never initialized causing the unit to get stuck in LOOP AMB/PUMPS with no pumps running, ok to exit low ambient pump logic was preventing the loop safeties from running if the control temp was within range and the state was in LOOP AMB/PUMPS .
18. Task - Lockout the unit on a VFD Fault, the Alarm light will come on right away and the unit will reset the Lockout RO after clearing the fault. VFD needs to remain in lockout until a manual reset is executed.



SOFTWARE RELEASE NOTES

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

Information contained in this document has been prepared by Micro Control Systems, Inc. and is copyright © protected 2020. Copying or distributing this document is prohibited unless expressly approved by MCS.