



SOFTWARE RELEASE NOTES

MCS-MAGNUM

Version 17.25J

04/18/2017

Updates from previous versions: 17.25D

New Features:

1. All Firmware Version - Add refrigeration R449a into the pressure to saturated temperature charts. Used Opteon-XP40-pressure-temperature-data.pdf
2. All Firmware versions - Add testing for the FAST EXV Superheat logic in the EXV Startup State, to exit the state after 5 seconds if the suction pressure is less than the low suction + unload suction pressure setpoints. This is add incase the user set the exv start opening % too low.

Bug Fixes:

1. HVAC: Reported by DMC-> In the Screw CMP logic When I have the lead compressor setup as 1 our logic is skipping the compressor and moving onto the next available (#3) even if were off/ready just not outside the 60 second off/ready delay.
2. HVAC: Delete commented lines- no function change to the executable firmware.
3. HVAC: A compressor in a common suction system goes from OFF ready to staggering OFF when STP 240 is set to a value greater than suction_group_comps_running[suction_group] + suction_group_comps_available[suction_group]).
4. Copied changes done by JGW to Fast SSH Control and EXV startup functions.
5. All Firmware version - Adaptive Condenser logic - correct issue with SP_COND_VALVE_TARGET_PSI using Setpoint_bms_ram when it should be using the setpoint_ram. BMS RAM is written into the setpoint ram, therefore all logic should use setpoint_ram structure.
6. REFR & HCREFR firmware only - Add logic for REFR & HCREFR firmware into Adaptive condense logic. Need to add in cond disc offset variable to add the logic when unit is in hot gas or reverse cycle defrost state.

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. REFR & HCREF firmware only - Add logic for REFR & HCREF firmware into Adaptive condense logic. Need to add in cond disc offset variable to add the logic when unit is in hot gas or reverse cycle defrost state.
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11. CPM.c: Corrected the issue with the 5th valve not opening when there is no flow. Loaded into Napps N+2 demo for Brian Reed to test
12. All Firmware Version - Adaptive Condenser Logic using Bars units only - correct issue with adaptive adjustment making change by hard code 5.0 psi when config unit are setup for Bar. Need to adjust by 0.5 Bar not 5.0 psi. 5.0 bar is too big of a change!
13. All Firmware version - The EXV state, open%, Superheat and Superheat ROC was not saved correct in the Alarm Info for tandem comps on the suction group. Only the comp that is the suction group (ie has the EXV) was saving the correct data for the EXV in the alarm info. All the other comp on the suction group were saving their own EXV state, etc., when then neext o be saving the suction group EXV.
14. All Firmware - FAST EXV Superheat logic - add an test to exit the EXV Startup State if the exv state timer is greater than the exv startup time setpoint. If exist startup time reached but superheat was never reached it would stay in the startup state.
15. All Firmware version - The EXV state, open%, Superheat and Superheat ROC was not saved correct in the Alarm Info for tandem comps on the suction group. Only the comp that is the suction group (ie has the EXV) was saving the correct data for the EXV in the alarm info. All the other comp on the suction group were saving their own EXV state, etc., when then next o be saving the suction group EXV.
16. All Firmware - FAST EXV Superheat logic - add an test to exit the EXV Startup State if the exv state timer is greater than the exv startup time setpoint. If exist startup time reached but superheat was never reached it would stay in the startup state.

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