



SOFTWARE RELEASE NOTES

MCS-MAGNUM

Version 17.23D

07/03/2016

Updates from previous versions:

New Features:

1. NEW Feature: Added new field in circuit ram to store the last EXV SH ROC
2. New EXV States for SSH-PID control.
3. Add into user logic for HVAC, RTU firmware access to the new calculated exv superheat proposal, integral, and derivative adjustments to value position.
4. New SSH-PID logic:
5. All firmware version - continue working on new EXV logic - merged JGW latest Fast SSH logic into production firmware. Also made changes to allow it to function for multiple comps - got rid of writing values into setpoint and static variable that were not setup to multiple comps/circuits.
6. HVAC ONLY: As per JGW for better efficiency: If below the target and cmp actual % is greater than wanted, then set unit wanted percent equal to cmp actual percent. This way the unit will go into loading after finishing with VFD startup .

Bug Fixes:

1. RTU Fast SSH EXV control: During testing of RTU 17.23A4 JGW found that some of his code was missing. Copied latest code from exv.c module that JGW sent me on 6/14/16. Released RTU 17.23A5 for beta test.
2. Added a dedicated INCREMENT ADJUSTMENT DELAY TIMER call for EXV_SUPERHEAT_FAST. The delay is decremented based on exv_valve_adjustment. Released RTU 17.23A6 for beta test.

Any questions regarding this release, contact:

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3. Changed test on option to find the lowest suction superheat in the suction group to handle config in the field (check for setpoint type and high zone field not to be zero) and new method to use exv target setpoint as TARGET type and test for the night setback.
4. All firmwares - corrected issue with new SSH PID control logic - The logic was still adjusting the value when the EXV state when into EXV ROC HOLDING not to be zero to find lowest suction superheat. Otherwise just use the comp suction superheat.
5. Compiled error ->exv_superheat_Kp, exv_superheat_Ki and exv_superheat_Kd no name/ member of circuit ram structure. BWW changed the structure to overlay Fast SSH and PID ram fields.
6. As per JGW: Hard code exv start time to 30 seconds. Before we were using STP 20
7. When Switching unit OFF (R/S) and CMPs ROs were OFF for more than the pump post delay time all circuit Valves/Pumps got turned OFF while control pump was still running.
8. Circuit pump/Valve was going OFF during recip_vfd_startup.
9. Getting compilation errors in Refr, MHRC, ACU and PAO. Missing EXV PID and FAST SSH variable definitions .
10. Compilation Error -> extra curly bracket (}). In change a4d2efe0f66d5781c60254fa40edea3b11c86aa5 BWW commented out some and missed one line.

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