

Wednesday, May 15th, 2019

Attn: ASAs, REPs, and Rental customers

RE: C450CRN-1 Controllers on SCOD100AR4 Chillers.

2019 model SCOD100AR4 chillers (100 ton air-cooled rental scroll chillers) are provided with a C450CRN-1 controller (JCI PENN C450).

The purpose of this bulletin is to outline how the controller is programmed and how to make changes to the desired set-points.

Basic information:

- The controller uses 3 sensors:
 - SENS1 (sensor 1): entering fluid temperature
 - SENS2 (sensor 2): leaving fluid temperature
 - SENS3 (sensor 3): ambient temperature
- The controller uses 3 relay outputs (3 digital outputs, DOs):
 - OUTR1 (output relay 1): Compressor 1
 - OUTR2 (output relay 1): Compressor 2
 - OUTR3 (output relay 1): Compressor 3
- The controller is typically set to control for a sensor 2 desired set-point (leaving fluid temperature).
- For a complete parameter list refer to the parameters list attached to this bulletin

How to change the temperature set-point:

When viewing the C450CRN1 controller it will typically scroll through the values of all 3 sensors. For example, see the photo attached. Sensor 3 is reading at 87F.



In order to begin to program:

HOLD THE UP AND DOWN ARROWS FOR 5 SECONDS, and release



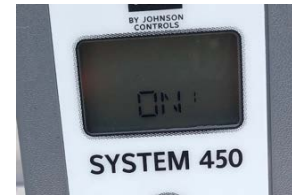
The display should then read --- SENS (see photo)

In order to change the leaving fluid set-point the user must change ALL 3 OUTR SETTINGS (all 3 compressor set-points must be changed)

Press the M key. Once pressed, the screen should read --- OUTR 1(see photo - below left)



PRESS THE RIGHT ARROW, the ON setpoint should be flashing. Adjust the ON1 setting as desired. Press THE RIGHT ARROW AGAIN, and adjust the OFF1 setpoint as desired.



Repeat the steps for OUTR2 & OUTR3 (as noted below)

Press the M key. Once pressed, the screen should read --- OUTR 2(see photo)

PRESS THE RIGHT ARROW, the ON setpoint should be flashing. Adjust the ON2 setting as desired. Press THE RIGHT ARROW AGAIN, and adjust the OFF2 setpoint as desired.

Press the M key. Once pressed, the screen should read --- OUTR 3(see photo)

PRESS THE RIGHT ARROW, the ON setpoint should be flashing. Adjust the ON3 setting as desired. Press THE RIGHT ARROW AGAIN, and adjust the OFF3 setpoint as desired.

Once all 3 OUTR ON and OUTR OFF settings are changed to the desired values, press the M key, then PRESS THE UP AND DOWN ARROWS TOGETHER, and release

This should reset the screen to standard viewing mode (all 3 sensor values should scroll past the display).

How to change the control mode for leaving fluid temperature to entering fluid temperature:

When viewing the C450CRN1 controller it will typically scroll through the values of all 3 sensors. For example, see the photo attached. Sensor 3 is reading at 87F.



In order to begin to program:

HOLD THE UP AND DOWN ARROWS FOR 5 SECONDS, and release



Press the M key, --- OUTF should than be displayed. Hit the M key until SENS is displayed. Hit the RIGHT ARROW. Select which control type is desired. SENS1 is entering fluid control. SENS2 is leaving fluid control.

PRESS THE UP AND DOWN ARROWS TOGETHER, and release

This should reset the screen to standard viewing mode (all 3 sensor values should scroll past the display).

Should you have any questions, please contact Smart Family at (281) 540-2805.

Sincerely,

Mike Green
Engineering & Technical Support Department