



Building Technologies & Solutions – York Johnson Controls Plc.

Economizer - Cold Weather Operation

In cases where the SSE board will not bring on the compressors with a call for cooling and the economizer damper is 100% open; see below as a guide to adjust SSE board settings to allow mechanical cooling operation.

Step 1: With a call on Y1 and Y2 <u>disable</u> the economizer thru the SSE board:

- SSE Navigation: Details>SetUp>Econ>Econ-En (change to NO).
- If compressors starts, then the economizer settings are the culprit.

Step 2: Verify and record the following information within the SSE Economizer settings:

- Verify in the Economizer set up menus that the EconMech Set up is on Option B (factory default). **Navigation:** Details>Econ>SetUp>EconMech-Stp.
- In the SSE board, view and record the SAT value. Navigation: Summary>Sensors>Sensors>SAT
- In the SSE board view and record the Cooling Supply Upper and Lower Temp Settings. Navigation: Details>FanFVD>SetUp>SAT>Up-Sp and SATLo-SP.

Step 3: Review the SSE – Economizer sequence below and using the recorded information in previous step, adjust settings accordingly to allow for compressor operation.

- With an Y1 call dampers will modulate to get the SAT to within 5 degrees of the SAT Upper set point
- With an Y2 call the damper will modulate to get the SAT within 5 degrees of the SAT lower set point.
- Compressors will be held off unless the SAT temperature is 5 degrees greater than the Lower SAT temperature setting. The damper will have to be 100% open for 5 minutes and then the compressor staging will be every 5 minutes while the damper is at 100%.
- To get mechanical cooling to operate with economizer enabled, the lower SAT set point needs to be set to at least 5 degrees lower than the actual SAT temperature value.
- Keep in mind there may be excessive SAT shutdowns due to having colder air from the economizer and mechanical compressors running at the same time.