Dual Enthalpy Sensor Upgrade Kit

Installation

Upgrade single enthalpy economizers (outdoor air enthalpy) to dual enthalpy by adding a return air enthalpy sensor and connecting it to the DME digital controller.

Parts Included

The sensor upgrade kit contains the following:

- 1 sensor
- 1 wiring harness
- 2 No. 6 thread-forming screws (1-inch long)
- 1 strain relief bushing
- 1 sensor mounting bracket (required for the 3 to 6 and 7.5 Ton Vertical only)
- 2 No. 10 self-drilling screws (5/8-inch long)
- 3 tie wraps

WARNING: Risk of Electrical Shock.
Disconnect the power supply and install a lockout tag before wiring connections are made to avoid possible electrical shock or damage to the equipment.

Mounting

3 to 6 and 7.5 Ton Vertical

To mount the sensor:

1. Mount the sensor to the mounting bracket (refer to Figure 1 for the proper bracket orientation) using the two No. 6 thread-forming screws provided.

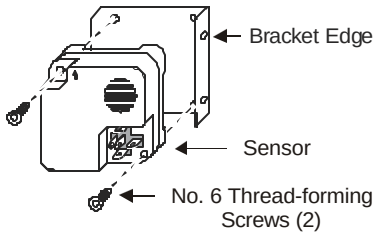


Figure 1: Mounting the Sensor to the Bracket

2. Mount the bracket to the Economizer damper using the two No. 10 self-drilling screws provided.

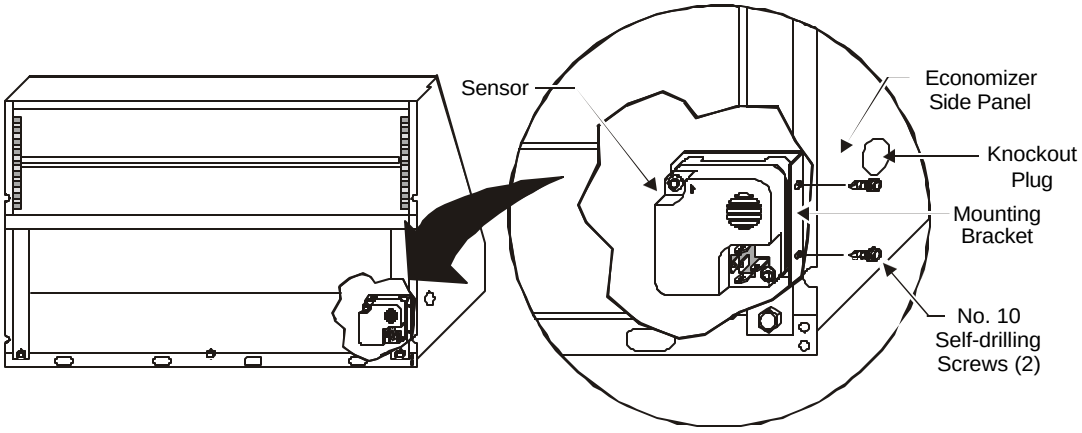


Figure 2: Mounting the Sensor and Bracket in a 3 to 6 and 7.5 Ton Vertical Economizer Assembly

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7 to 20 Ton Vertical and Horizontal

To mount the sensor:

1. Remove the four screws holding the return air sensor mounting plate to the damper (see Figure 3).
2. Mount the sensor to the mounting plate using the two No. 6 thread-forming screws provided.

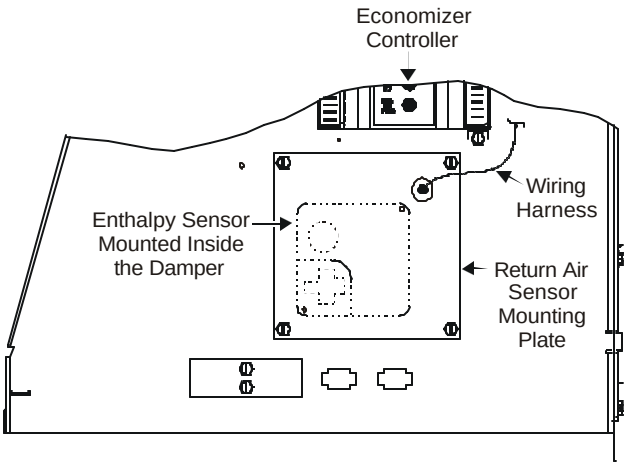
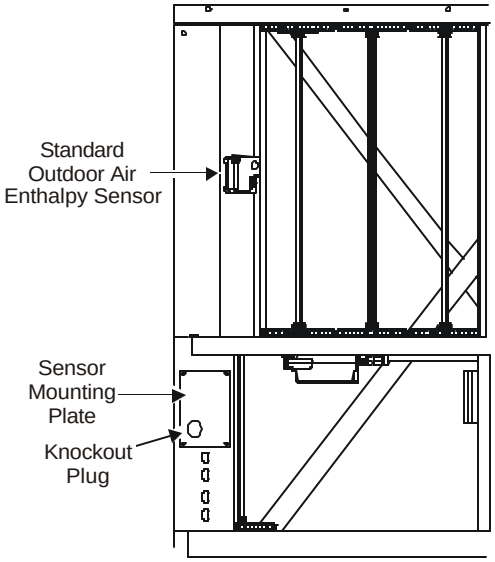


Figure 3: 7 to 12 and 15 to 20 Ton Vertical Economizer with Enthalpy Sensor Installed



Note: The sensor mounting plate gets installed so that the sensor resides in the return RA air stream.

Figure 4: 7.5 to 12.5 and 15 to 20 Ton Horizontal Economizer Showing the Sensor Mounting Position

Wiring

3 to 6 and 7.5 Ton Vertical

To wire the sensor to the DME controller:

1. Remove the knockout plug from the damper.
2. Feed the wiring harness wires through the knockout opening and insert the bushing provided to secure the wires.
3. Route and attach the wiring harness with the other harnesses on the damper using the tie wraps provided.
4. Wire the sensor and DME controller (see Figure 5 for wiring).
5. Ensure the barometric relief dampers move freely.
6. Reconnect the electrical power supply.
7. Press the configuration button on the DME controller for more than 30 seconds.

7 to 20 Ton Vertical and Horizontal

To wire the sensor to the DME controller:

1. Remove the knockout plug from the mounting plate (see Figure 4).
2. Feed the wiring harness wires through the knockout opening and insert the bushing provided to secure the wires.
3. Route and attach the wiring harness with the other harnesses on the damper using the tie wraps provided.
4. Wire the sensor and DME controller (see Figure 5 for wiring).
5. Mount the sensor and mounting plate to the damper using the four screws removed in Step 1 of the *7 to 20 Ton Vertical and Horizontal* section.
6. Reconnect the electrical power supply.
7. Press the configuration button on the DME controller for more than 30 seconds.

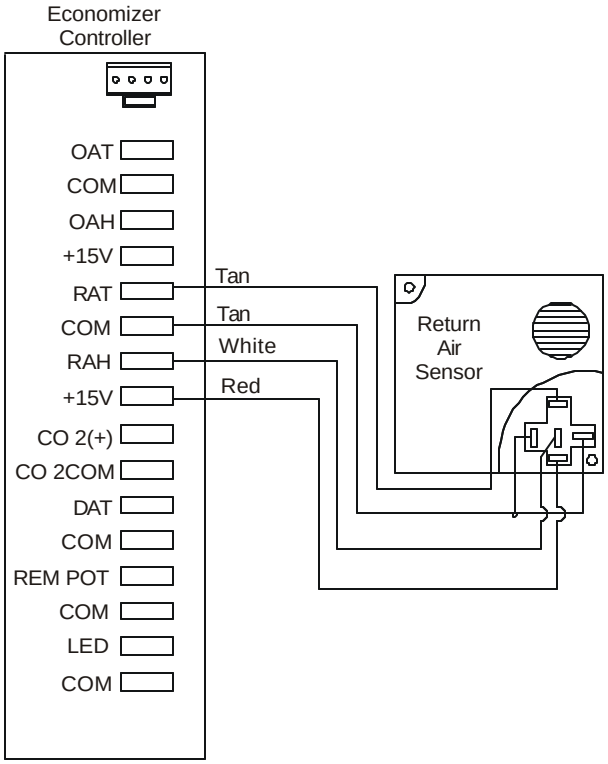


Figure 5: Enthalpy Sensor Wiring Diagram