INSTRUCTIONS FOR
RXRX-AV04 DUAL ENTHALPY SENSOR UPGRADE KIT

Installation

For maximum energy savings, this upgrade kit will allow the economizer to compare the outdoor air enthalpy to the return air enthalpy, instead of a user-selected setpoint to determine if "free cooling" is available. This Sylk Bus Sensor is a combination temperature and humidity sensor which is powered by and communicates on the two-wire communication bus of the W7220 economizer logic module.

Parts Included

The sensor upgrade kit contains the following:

- (1) Sensor
- (1) Wiring harness
- (2) #10-16 x ½" TEC screws
- (3) Tie wraps
- (1) Strain relief bushing (for 7.5 to 25 ton units only)

The following included parts are only used with the 3 to 5 and 6 ton economizers:

- (1) Sensor mounting bracket
- (2) #10-16 x ½" TEC screws

> **⚠ 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.

Installation

OA (Outside Air) and RA (Return Air) sensors are the same part number. Set the sensor type using the three DIP switches located on the sensor.

DIP Switch Setting	C1	C2	C3
Return Air Enthalpy Sensor	ON	OFF	OFF

Prior to installation of the sensor, use a small tool such as a stick pin to set the DIP Switch (see Figure 1).

Figure 1: Set Sensor as Return Air (RA) type

3 to 5 and 6 Ton Convertible Economizer

1. For previously installed economizers, remove the outdoor air and exhaust air hoods to access the barometric relief damper.
2. Mount the sensor to the mounting bracket (refer to Figure 2 for the proper bracket orientation) using the two #10-16 x ½" TEC screws (provided).

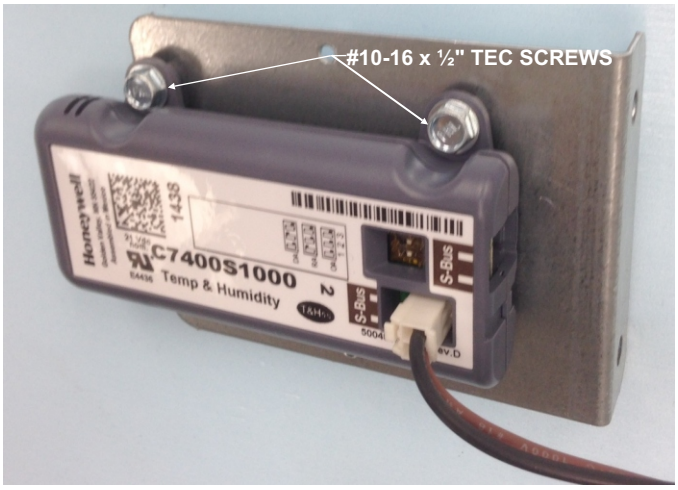


Figure 2: Mounting Sensor on 3 to 5 and 6 Ton Economizer

3. Remove seven screws holding barometric dampers (see figure 3) and remove for access to the mounting location.

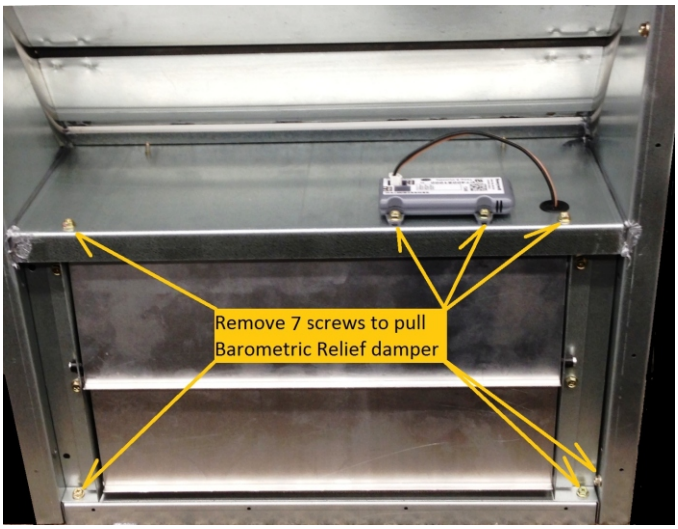


Figure 3: Remove Barometric Relief Damper

4. Mount the bracket to the economizer frame using the two #10-16 x 1/2" TEC screws provided.

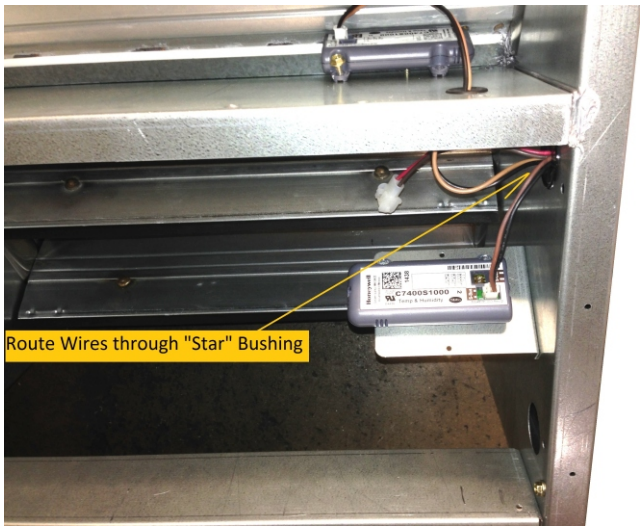


Figure 4: Installation of mounting bracket

5. Feed the new enthalpy harness wires through the star bushing in the economizer alongside the existing control harness.
6. Route and attach the wiring harness with the other harnesses on the economizer using the tie wraps provided and connect to the Logic Module (**See Figure 7**).
7. Reinstall the barometric relief dampers ensuring that they move freely. Reinstall outdoor air and exhaust air hoods from **Step 1** on existing installations.
8. Reconnect the electrical power supply.

7 to 25 Ton Vertical and Horizontal

1. For previously installed Vertical Airflow economizers, remove the Return Air cover panel on the back of the unit to access the economizer. For Horizontal models, remove the left end lower panel.
2. Remove the four screws holding the return air sensor mounting plate to the economizer frame (**See Figure 5** for Vertical Economizers, **Figure 6** for Horizontal Economizers).

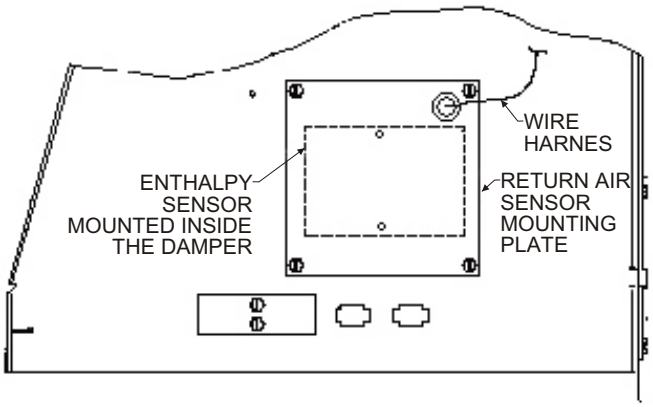
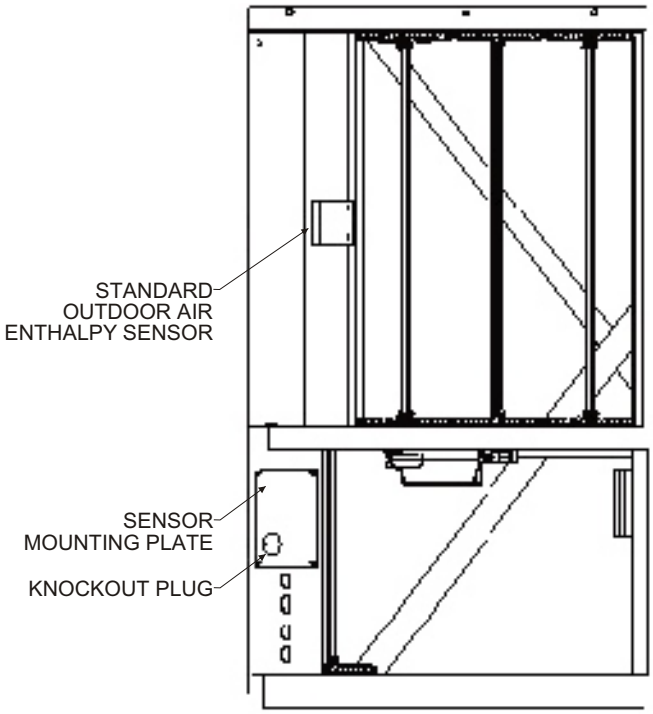


Figure 5: 7.5 to 12.5 and 15 to 25 Ton Vertical Economizer with Enthalpy Sensor Installed

3. Mount the sensor to ***inside*** of the mounting plate using the two #10-16 x ½" TEC screws (provided).



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

Figure 6: 7.5 to 12.5 and 15 to 25 Ton Horizontal Economizer Showing the Sensor Mounting Position

4. Remove the knockout plug from the mounting plate (**See Figure 5 or 6**).
5. Feed the wiring harness wires through the knockout opening and insert the strain relief provided to secure the wires.
6. Route and attach the wiring harness with the other harnesses on the damper using the tie wraps provided.
7. Wire the sensor and Logic Module (**See Figure 7**).
8. Secure mounting plate back to the economizer frame using the four screws removed in **Step 2** of this section.
9. For existing installations, reinstall the cover panels removed in **Step 1** of this section.
10. Reconnect the electrical power supply.

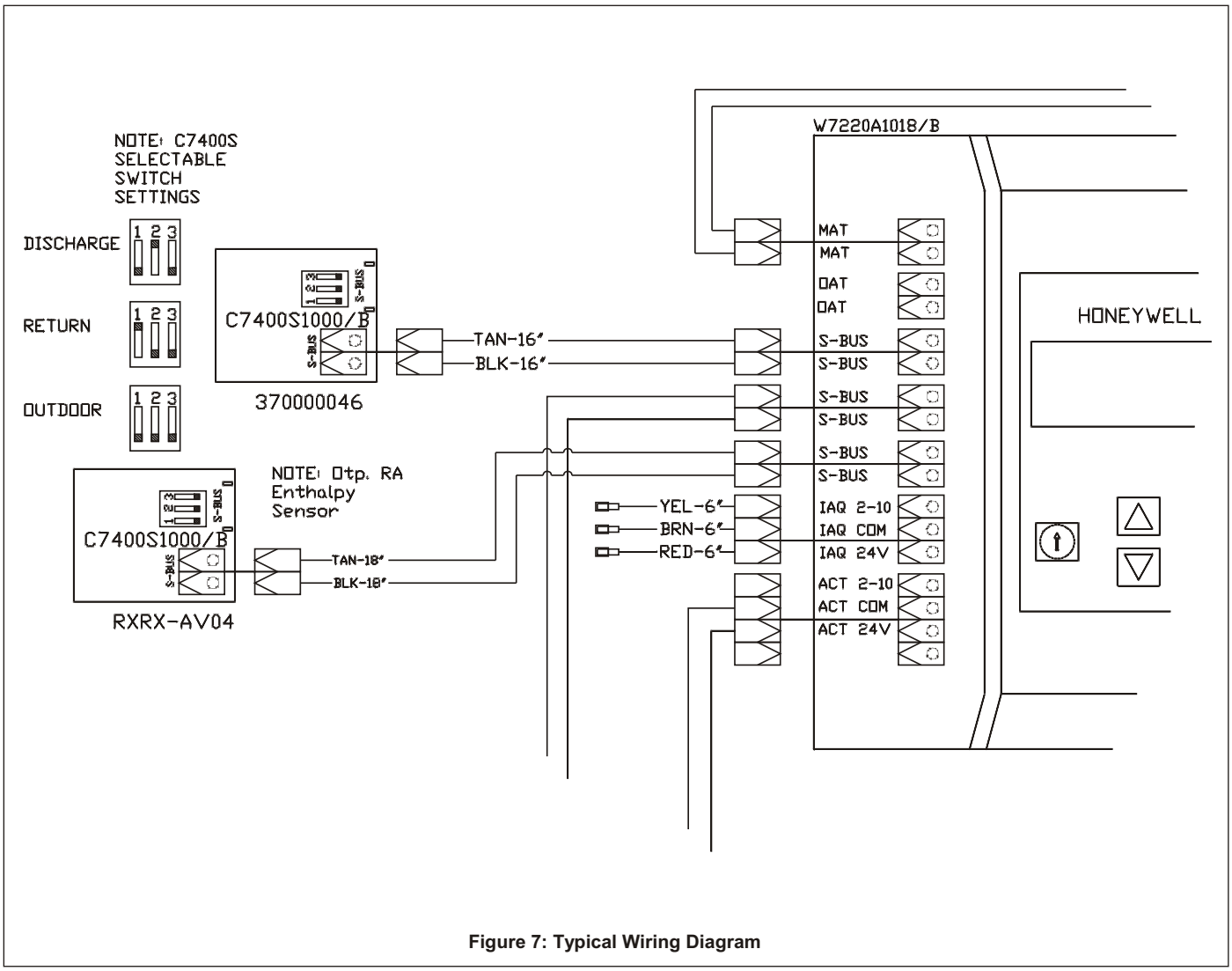


Figure 7: Typical Wiring Diagram