# INSTALLATION INSTRUCTION

**DUAL ENTHALPY KIT**
**MODEL 2EC04700924**

Supersedes: 530.46-N1.10V(199) | 035-13354-000-A-0402

## FOR RESIDENTIAL AND COMMERCIAL SINGLE PACKAGE UNITS 2 THROUGH 25 TONS

### GENERAL

This kit is used to convert single enthalpy economizer units to dual enthalpy economizer units. Kit Number 2CE04700524 is required to convert the economizer from dry bulb control to single enthalpy control.

### CONTENTS OF KIT

| ITEM | QTY. | DESCRIPTION |
|---|---|---|
| 1 | 1 | Enthalpy Sensor |
| 2 | 8 | Wires |
| 3 | 3 | Self Drilling Screws |

### TOOLS REQUIRED FOR INSTALLATION

A hex nut driver 5/16" and a Philips screwdriver are the only tools needed to install this kit. These tools are not supplied with this kit and must be supplied at time of installation.

### INSTALLATION

**For Residential Package Units** (1.5, 2, 2.5, 3, 3.5, 4 & 5 Tons)

1. Install the enthalpy sensor in the return air. Use the self drilling screws to attach the sensor to the return air duct work.

*NOTE: If the economizer is already installed, it will be necessary to disconnect the linkage and remove the return air damper in order to install the sensor.*

2. Remove the top of the economizer hood.
3. Remove the two (2) top screws holding the baffle inside the hood. Rotate the baffle up to expose the damper actuator.
4. Remove the resistor from terminals "$+_R$" and "$S_R$" and discard.
5. Connect the wire 451/BLK to "$+_R$" terminal and the wire 452/WHT to "$S_R$".
6. Run the BLK and WHT wires to the return air sensor. Route the wires around the return air damper bracket and through the notch for the drain tube. Connect the 451/BLK wire to the "+" terminal and the 452/WHT wire to the "S" terminal on the return air sensor.
7. Replace the baffle inside the hood and the top of the hood and secure with the screws removed in Step 2 and in Step 3.
8. Replace the return air damper and connect the linkage.

**For Commercial Package Units 3, 4, 5, & 6 Tons**

1. Install the enthalpy sensor in the return air. Use the self drilling screws to attach the sensor inside the return air compartment of the unit or inside the return air duct. The return air compartment can be accessed through the filter access panel.
2. Remove the filter access panel making sure to retain all seal screws and O-rings.
3. Locate the economizer actuator and remove the resistor from terminals "+R" and "SR" and discard.
4. Connect one end of wire 453/red to the "+" terminal of the sensor and the other end to the "+R" terminal of the actuator making sure to route the wires through grommets and away from moving parts.
5. Connect one end of wire 454/blue to the "S" terminal of the sensor and the other end to the "SR" terminal of the actuator again making sure to route the wires through grommets and away from moving parts.
6. Replace the access panel using the seal screws and O-rings removed in Step 1.

**For Commercial Package Units 7, 8, 10 & 12 Tons**

1. Install the enthalpy sensor in the return air. Use the self drilling screws to attach the sensor inside the return air compartment of the unit or inside the return air duct.
2. Remove the necessary panel or duct making sure to retain all seal screws and O-rings.
3. Locate the economizer actuator and remove the resistor from terminals "+R" and "SR" and discard.
4. Connect one end of wire 811/red to the "+" terminal of the sensor and the other end to the "+R" terminal of the actuator making sure to route the wires through grommets and away from moving parts.
5. Connect one end of wire 812/blue to the "S" terminal of the sensor and the other end to the "SR" terminal of the actuator again making sure to route the wires through grommets and away from moving parts.
6. Replace the access panel using the seal screws and O-rings removed in Step 1.

**For Commercial Package Units 12-1/2 - 25 Tons**

1. Install the enthalpy sensor in the return air. Use the self drilling screws to attach the sensor inside the return air compartment of the unit or inside the return air duct.
2. Remove the necessary panel or duct making sure to retain all seal screws and O-rings.
3. Locate the economizer actuator and remove the resistor from terminals "+R" and "SR" and discard.
4. Connect one end of wire 433/Blue to the "+" terminal of the sensor and the other end to the "+R" terminal of the actuator making sure to route the wires through grommets and away from moving parts.

5. Connect one end of wire 434/orange to the “S” terminal of the sensor and the other end to the “SR” terminal of the actuator again making sure to route the wires through grommets and away from moving parts.

6. Replace the access panel using the seal screws and O-rings removed in Step 1.



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