

507314-01  
 06/2022  
 Supersedes 04/2021

ENTHALPY SENSOR KIT

INSTALLATION INSTRUCTIONS FOR ENTHALPY SENSOR KIT (603364-29; 11G21)  
 USED WITH HIGH PERFORMANCE ECONOMIZERS ON ZG/ZC/ZH 036, 048, 060, 072 &  
 QG/QC/QZ, 036, 042, 048, 060 AND TAA/ELA/EL\_XA UNITS

**Shipping and Packing List**

**Package 1 of 1 contains:**

- 1 - Temperature and humidity sensor
- 1- Wiring harness (used for differential sensing only)
- 1- Bag assembly containing:
  - 2-#10-16 X 5/8" SDST screws

Check packaging for shipping damage. Contact the last carrier immediately if any shipping damage is found.

**⚠ WARNING**

Improper installation, adjustment, alteration, service or maintenance can cause property damage, personal injury or loss of life. Installation and service must be performed by a licensed professional HVAC installer or equivalent, service agency, or the gas supplier

**Application**

Sensors provide input to determine free cooling suitability. The enthalpy sensor provided in this kit senses both sensible temperature and humidity. See table 1 for usage. Refer to economizer installation instructions.

**Note - Differential sensor applications must use the same two sensors.**

TABLE 1

Sensors	Dampers modulate to maintain 55°F mixed air (R1) when:
Single OA Enthalpy Not approved for CA Title 24	OA temperature and humidity (A7) is lower than free cooling setpoint.
Differential Enthalpy - 1 in OA & 1 in RA Not approved for CA Title 24	OA temperature and humidity (A7) is lower than RA temperature and humidity (A62).

**⚠ CAUTION**

As with any mechanical equipment, contact with sharp sheet metal edges can result in personal injury. Take care while handling this equipment and wear gloves and protective clothing.

**ZG/ZC/ZH - Single Enthalpy**

**Note - Install the return air sensor before installing optional power exhaust dampers and gravity exhaust dampers. If gravity exhaust, power exhaust, or hoods are already installed, remove from unit.**

- 1 - Disconnect all power to unit.
- 2 - Remove filter access panel and return air access panel. If hood is already installed, remove hood. See figure 1.
- 3 - Set the DIP switch on kit sensor to appropriate "OA" setting as indicated on sensor.
- 4 - Replace existing RT26 OA sensor with new A7 sensor from this kit. See figure 2 for sensor location.
- 5 - On A6 economizer control, remove orange wires going to terminals marked "OAT" and reconnect them to free terminals marked "SBUS". Discard harness provided in kit. See figure 4.
- 6 - Follow economizer installation instruction for setup.

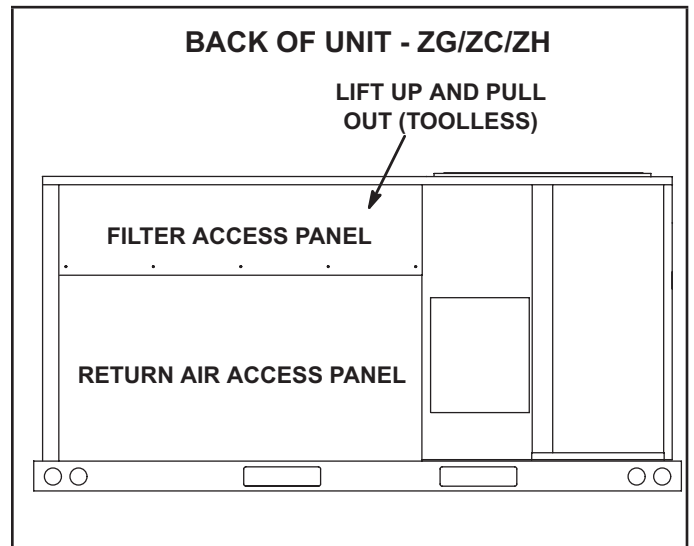


FIGURE 1

## ZG/ZC/ZH - Differential Enthalpy

**Note** - Install the return air sensor before installing optional power exhaust dampers and gravity exhaust dampers. If gravity exhaust, power exhaust, or hoods are already installed, remove from unit.

- 1 - Disconnect all power to unit.
- 2 - Remove filter access and return air access panel. If hood is already installed, remove hood.
- 3 - Set the DIP switch on one kit sensor to "OA" setting and the second kit sensor to "RA" setting as indicated on the sensor.
- 4 - Replace existing RT26 OA sensor with new A7 kit sensor set to "OA". See figure 2 for sensor location.
- 5 - On A6 economizer control, remove orange wires going to terminals marked "OAT" and reconnect them to free terminals marked "SBUS". See figure 4.
- 6 - Install new sensor from second kit as A62 RA sensor in the return air with screws provided. Be sure not to obstruct the damper movement and not to damage wires.
- 7 - Connect harness from EITHER kit between the A62 RA sensor and free "S-BUS" terminals on the A6 economizer control. Be sure to route wires away from moving parts. Discard second harness.
- 8 - Follow economizer installation instruction for setup

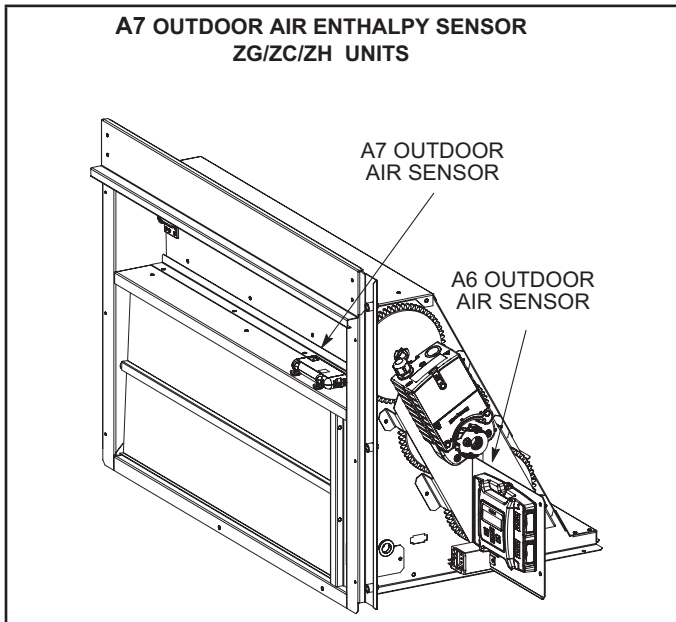


FIGURE 2

## QG/QC/QH - Single Enthalpy

**Note** - Differential Enthalpy not available on Q-series units.

**Note** - Install the return air sensor before installing optional power exhaust damper and gravity exhaust damper. If Gravity exhaust, power exhaust or hoods are already installed, remove from unit.

- 1 - Disconnect all power to unit.
- 2 - Remove blower access panel. If hood is already installed, remove hood.
- 3 - Set the DIP switch on kit sensor to appropriate "OA" setting as indicated on the sensor.
- 4 - Replace the outdoor air sensor with the sensor provided in this kit. See figure 3 for sensor install location.
- 5 - On the economizer controller, remove wires going to terminals marked "OAT" and reconnect them to free terminals marked "SBUS". Discard harness provided in kit. See figure 4.
- 6 - Follow economizer installation instructions for setup.

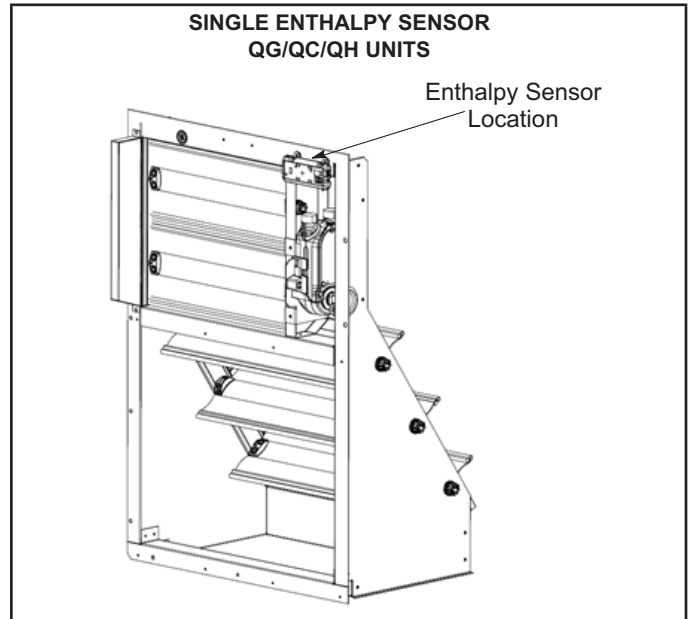


FIGURE 3

## TAA/ELA/EL\_XA - Single Enthalpy

- 1 - Disconnect all power to unit.
- 2 - Set the DIP switch on kit sensor to appropriate "OA" setting as indicated on sensor.
- 3 - Replace existing RT26 OA sensor, if applicable, and replace with new A7 sensor from this kit. See figure 5 for sensor location.
- 4 - Remove economizer control access panel. See figure 5.

- 5 - On A6 economizer control, remove orange wires going to terminals marked "OAT" and reconnect them to free terminals marked "SBUS". Discard harness provided in kit. See figure 4.
- 6 - Follow economizer installation instruction for setup

### TAA/ELA/EL\_XA - Differential Enthalpy

- 1 - Disconnect all power to unit.
- 2 - Set the DIP switch on one kit sensor to "OA" setting and the second kit sensor to "RA" setting as indicated on the sensor.
- 3 - Replace existing RT26 OA sensor with new A7 kit sensor set to "OA". See figure 5 for sensor location.

- 4 - Remove economizer control access panel. See figure 5.
- 5 - On A6 economizer control, remove orange wires going to terminals marked "OAT" and reconnect them to free terminals marked "SBUS". See figure 4.
- 6 - Install new sensor from second kit as A62 RA sensor in the return air with screws provided. Be sure not to obstruct the damper movement and not to damage wires.
- 7 - Connect harness from EITHER kit between the A62 RA sensor and free "S-BUS" terminals on the A6 economizer control. Be sure to route wires away from moving parts. Discard second harness.
- 8 - Follow economizer installation instruction for setup.

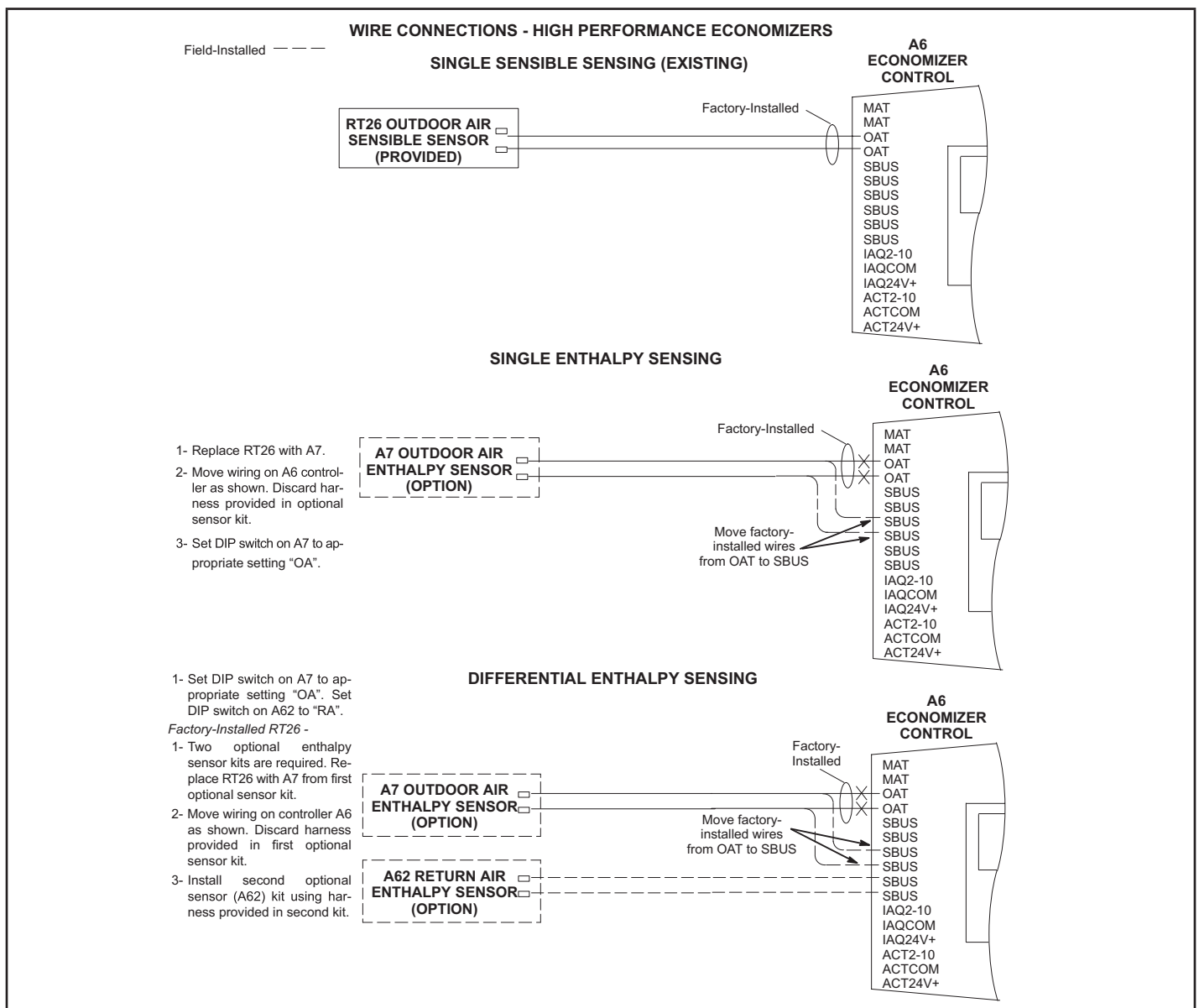
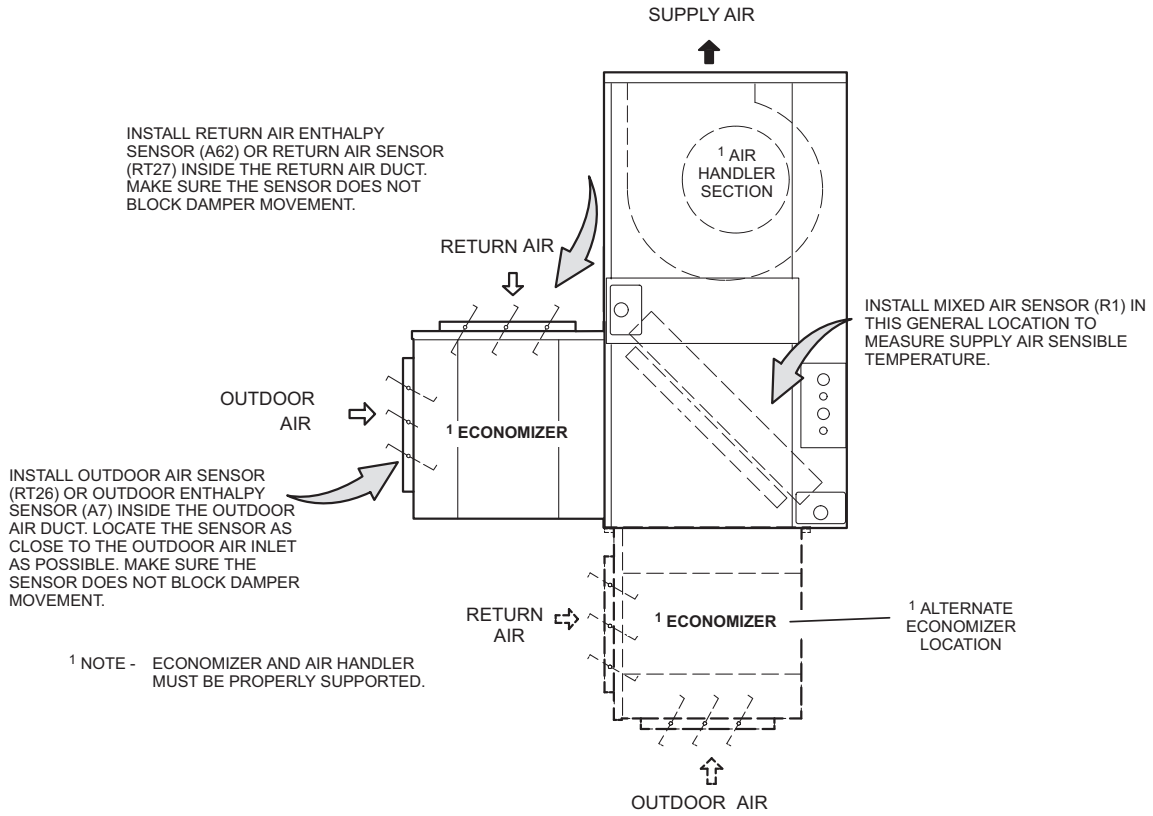


Figure 4

TAA / ELA / EL\_XA UPFLOW UNITS



TAA / ELA / EL\_XA HORIZONTAL UNITS

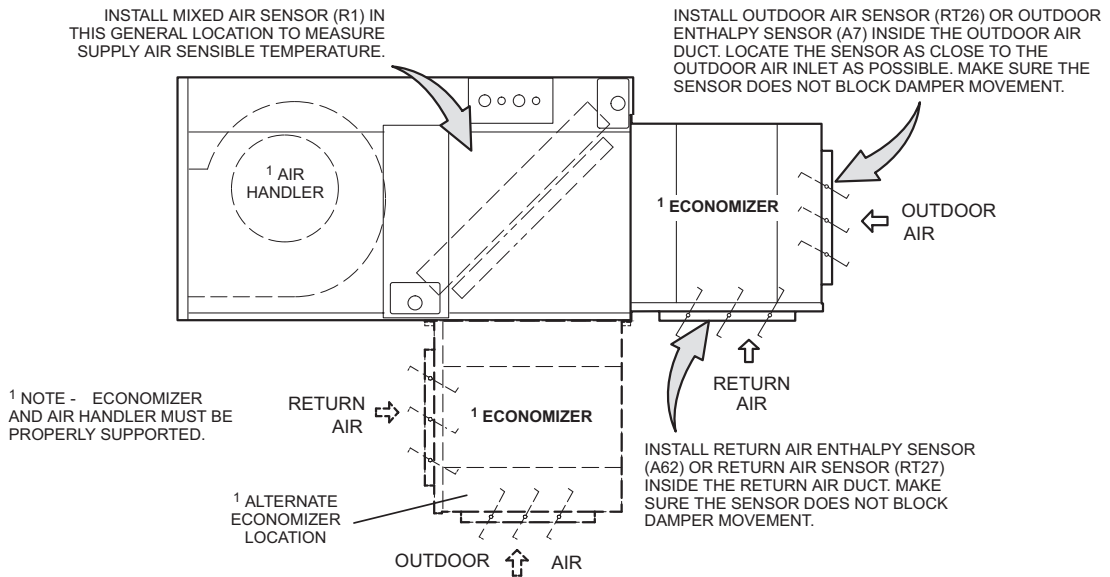


Figure 5