

# ACCESSORY KIT INSTALLATION INSTRUCTIONS

## ECONOMIZER ACCESSORY MODEL 2EE04709024 / 2EE04709124



### WARNING

Cancer - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

#### General

This instruction provides all the necessary information to properly field-install an economizer on the indicated in **Table 1**.

Economizer Model **2EE04709024 / 2EE04709124** has a single input dry bulb sensor provides automatic 100% outdoor air capability.

Refer to the respective **unit** wiring diagram for information regarding electrical circuitry on the economizer.

Model	Control	Models
2EE04709024	Smart Equipment	ZE 036-072, ZD -03 thru -A6, J03-JA6ZE, ZD T03 - TA6, XN036-060, XT-03 thru-05, J03-J05XN, XTT03 - T05
2EE04709124	BAS with 2-10VDC	ZE 036-072, ZD -03 thru -A6, J03-JA6ZE, ZD T03 - TA6, XN036-060, XT-03 thru-05, J03-J05XN, XTT03 - T05

Table 1

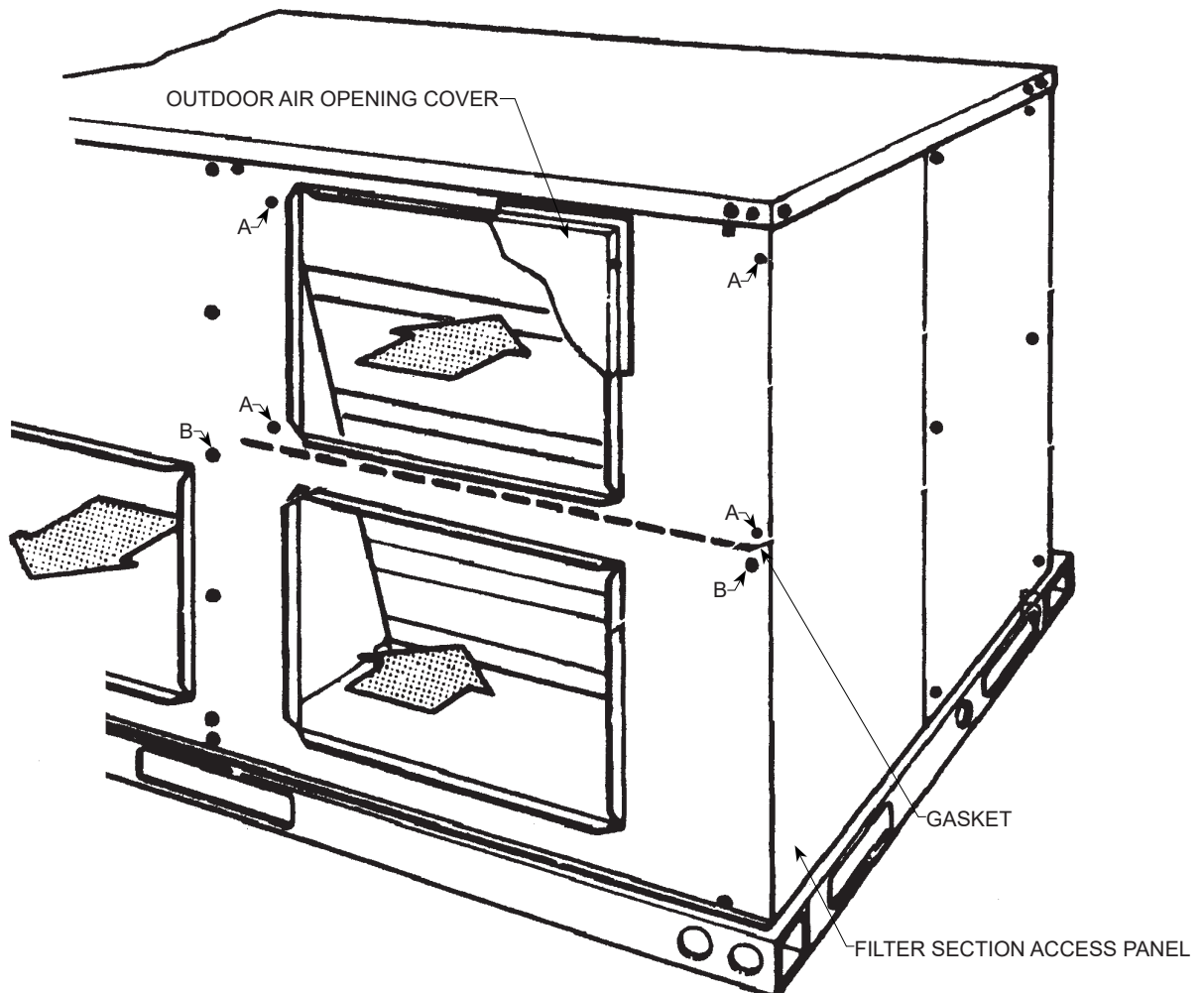


Figure 1

## Installation

Install this economizer per the following procedures.

1. Remove filter section access panel and outdoor air opening cover from the unit. Discard cover only, keeping the six (6) sealing screws for later use.
2. Before installing the damper assembly into the unit, the following steps must be performed.
  - a. Remove the  $\frac{1}{2}$ " knockout in the divider baffle, and the  $\frac{7}{8}$ " knockout in the motor support channel on the damper assembly.
  - b. On the side opposite the damper motor, attach the divider baffle (positioned downward) to the damper assembly frame with two (2) #10 screws provided. **Refer to Figure 2.** Use the topmost hole on each end of the damper frame for mounting this baffle. The  $\frac{1}{2}$ " knockout hole in the divider baffle must be toward the same end as the damper motor.



Figure 2: Damper Assembly

- c. Insert the two outdoor air enthalpy sensor wires (451/BK and 452/W) through the knockout hole in the motor support channel and **up** through the  $\frac{1}{2}$ " knockout hole in the divider baffle.

**Note:** Do not install strain relief bushings into these holes until later so that wire length adjustments can be made.

- d. Locate square opening (C) in evaporator partition (**Figure 3**), cut away insulation and insert discharge air sensor bulb (with bracket) through this opening.

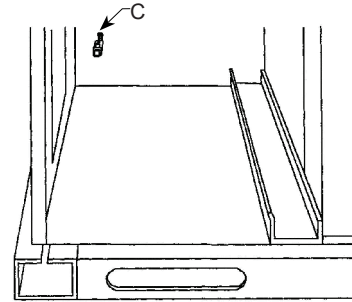
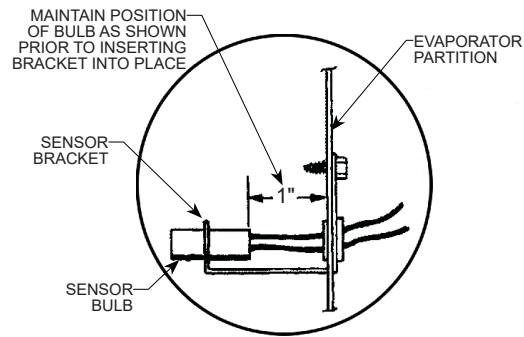


Figure 3: Discharge Air Sensor Location

Secure sensor bracket to partition with screw provided. Make sure sensor bulb protrudes past the end of the bracket to insure it will be in the air stream. Sensor leads will be connected to the damper motor later.

**Note:** Sensor may be more easily inserted into the evaporator partition by access through the side return air duct opening (providing there is no ductwork installed).

- e. Drill a  $\frac{1}{4}$ " clearance hole at dimple (A) shown in Figure 1 and remove the gasketed screw from position (B).
3. Insert the damper assembly into the filter section. Flex divider baffle downward so that the assembly will slide into place. Slide onto flange of the filter rack at the top and bottom of the filter compartment.
4. Secure the divider baffle to the unit duct panel at hole (B) using the gasketed screw removed in **Step 2 (e)** and one of the gasketed screws removed in **Step 1**.

**Note:** Omit Steps 5 through 8 for 2EE04709024.

5. Mount outdoor sensor on divider baffle.

The outdoor air sensor is included in the bag of parts shipped with each economizer accessory. Mount it at the holes just drilled using the two #8 x  $\frac{3}{4}$ " Phillips head screws supplied in the bag attached to the motor.

**Note:** Sensor must be positioned so that the sensing ports are at the top (louvers pointing downward) and terminal connections to the right.

6. Insert enthalpy harness from enthalpy sensor through the ½" knockout hole indicated in **Step 5**. Connect to S-bus terminal on Jade controller.

**Note:** Do not install strain relief bushings into the ½" holes until later so that wire length adjustments can be made.

7. Route the leads from the discharge air sensor installed in **Step 2 (d)** through the knockout hole in the motor support channel and attach to MAT terminal on Jade controller. Install the two wire ties on the underside of the divider baffle to support the sensor leads.
8. Adjust all sensor leads to be slack at the terminals but away from moving parts or sharp edges and insert the appropriate strain relief bushings in the unit duct panel, the divider baffle and the motor support channel.
9. Assemble the rainhood by attaching the LH and RH side plates to the top cover (2 screws each side). Apply gasketing to flange surface on each side plate. Extend gasketing beyond top and bottom of each flange to insure adequate corner sealing. Secure this assembly to the unit duct panel upper right corner). First, remove screw on unit top cover. Then slip flange of hood cover in under flange of unit top cover, replace screw, engaging hole in hood flange and tighten. Attach the two side plates to the unit duct panel by drilling 2 holes, ⅝" dia., (#26 drill) for each side plate, at dimples (E) provided in the unit panel. Secure with 4 of the gasketed screws that were removed in
10. Position bottom angle at bottom of hood, between the two side plates, but do not secure at this time. (Slotted openings **MUST** be downward for drainage as shown in **Figure 1**). After bottom angle is properly positioned, note where contact is made with the unit duct panel. Remove bottom angle and supply gasket (shipped with accessory) to this area to provide a seal. Reposition bottom angle and secure with 2 screws.
11. Install the two filters into the hood assembly, sliding down along retainers on side plates, into bottom angle at bottom of hood.

**Note:** Install filters so that "Air Flow" arrows point toward the unit.

12. Install filter cover over the end of the hood with one screw (center of hood), securing filters into position.
13. Replace the filter section access panel.

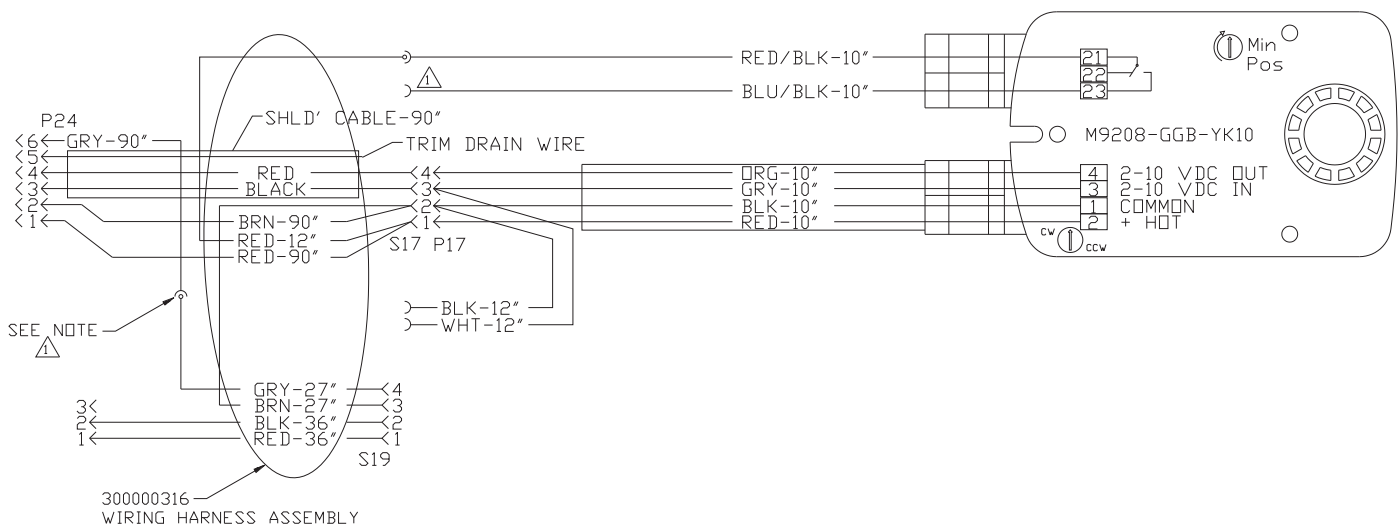
## ⚠ CAUTION

**Extreme care must be exercised in turning both the set point and minimum position adjusting screws to prevent twisting them off.**

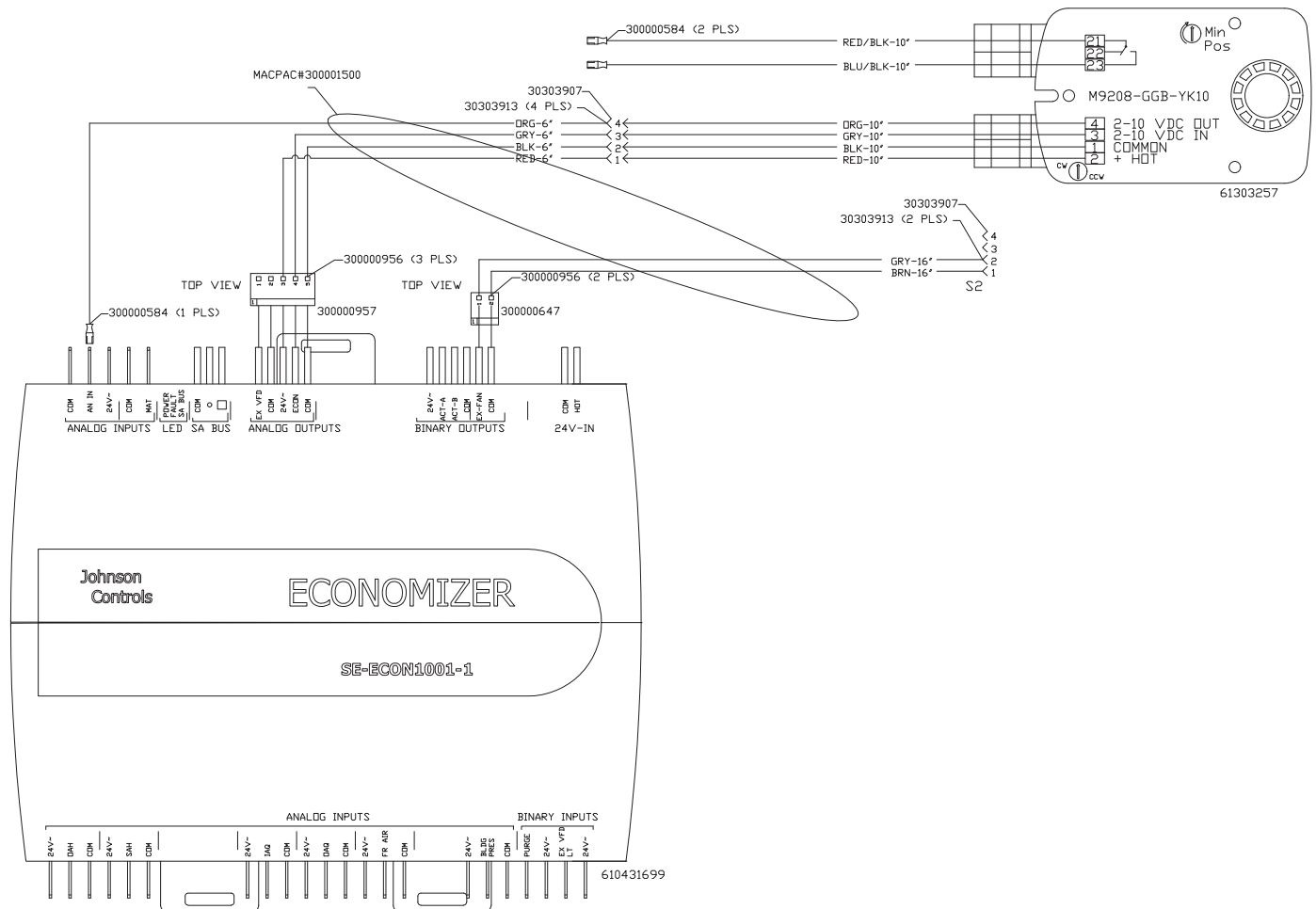
**Table 2: Sensor Connection Table**

Sensor Type (Terminal)	All Units (Wire Color)	Terminal Location	Logic Module
O.A. 24V O.A. (+) O.A. (-)	Field Supplied	24V OAH Com	Eco Board
R.A. 24V R.A. (+) R.A. (-)	823 / Red 825 / White 824 / Black	TB4-3 RAT+ RAT-	UCB
Discharge Air	371 / White 373 / Black	SAT+ SAT-	UCB

- Make all wiring connections as shown in Table 1.



Wiring Diagram (BAS): 2EE04709124



Wiring Diagram (Smart Equipment): 2EE04709024

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