

DINHZ90150B

INTERNAL HORIZONTAL JADE
ECONOMIZER FITS DAIKIN
D*G090-150, D*H090-150,
D*C090-150. TITLE 24 COMPLIANT



ECONOMIZER 101

Economizers are designed to provide “free” air conditioning when outside conditions are appropriate. When the outside air is cool and dry enough, the economizer automatically opens to introduce the cool air to the interior space, thereby eliminating the need to run the air conditioning compressor.

If the outside air becomes too warm or humid, the economizer automatically closes the fresh air damper and the compressor engages to begin cooling the space mechanically.

If a two stage thermostat is used it is possible to use a combination of economizer and mechanical cooling to condition the space.

The economizer can also be set to allow a minimum amount of fresh air to enter the space when the equipment’s indoor blower is operating.

Economizers are valuable tools to enhance indoor air quality, save energy and prolong the life of the air conditioning equipment.

SEQUENCE OF OPERATION

This sequence assumes employment of a single enthalpy economizer using a two stage thermostat.

1. A call for cooling comes from room thermostat.
2. The enthalpy sensor determines if the atmospheric conditions are conducive for using outside air for cooling. If YES, go to step 3. If NO, or if outdoor air temperature rises above enthalpy set point, go to step 4.

3. The outside air dampers open and modulate to maintain a mixed air temperature (outside air + indoor air) of 53 degrees F. If the outdoor air is insufficient to satisfy the thermostat alone and a second stage of cooling is required, the compressor starts and works in conjunction with the economizer to cool the space. (Go to step 5.)
4. Outdoor air dampers open to minimum position and the compressor engages to provide mechanical cooling.
5. When the thermostat is satisfied the outside air dampers return to a closed position.

INSTALLATION

1. Open carton and inspect contents for shortages and damage.
2. Remove the large evaporator access panel.
3. Remove the horizontal return air opening cover and secure it over the downflow return opening per unit installation instruction.
4. Remove the unit factory jumper from the economizer harness, insert damper, and plug the economizer harness in.
5. Feed the pink mixed air sensor wire through to the blower section of the unit via the mousehole in the upper left hand corner. Connect the pink wires to the Jade control in the MAT terminal. (Figure 2)

NOTE: Ensure neither the wire nor the plugs interfere with the movement of the dampers during operation.

6. Remove the blower access panel and secure the mixed air sensor to the blower housing. (Figure 1)
7. Attach the pink mixed air sensor wires to the sensor.
8. Replace the blower access door and evaporator access door.
9. Attach field supplied duct to return air duct opening on the unit.
10. Assemble the fresh air/barometric relief hood per the attached instructions.
11. Install the hood and use the hood to locate the right hand side post on the unit. Use sheet metal screws to attach the side post to the unit.
12. Make any field adjustments to the control. See the Honeywell Jade manual, publication number 63-2700, for additional set up information on the control.
13. Install the filter/control access panel.

This product is warranted to be free from defects due to workmanship or materials, under normal use, for a period of sixty (60) months from date of installation.

ACCESSORIES / CAPABILITIES

Dual Enthalpy - Requires an additional C7400 enthalpy control installed in the return air duct.

Demand Control Ventilation - Requires a CO2 sensor.



Figure 1



Figure 2

MINIMUM SET POINT EQUATION

(To X OA) + (Tr X RA) = Tm

To = Outdoor air temperature

OA= Percent of outdoor air

Tr = Return air temperature

RA= Percent of return air

Tm= Resulting mixed air temperature

Example:

Fresh air required is 10% outdoor air.

Outdoor air temperature is 60 degrees F.

Return air temperature is 75 degrees F.

$(0.1 \times 60) + (0.9 \times 75) =$

$6.0 + 67.5 = 73.5$

Mixed air temperature will be 73.5 degrees F when the OA is 60 degrees F and the RA is 75 degrees F with 10% outdoor air.

CONTENTS

- Return Air/Fresh Air Damper Section
- Hood Assembly (See Attached for List)
- Screw Package
- Installation Instructions

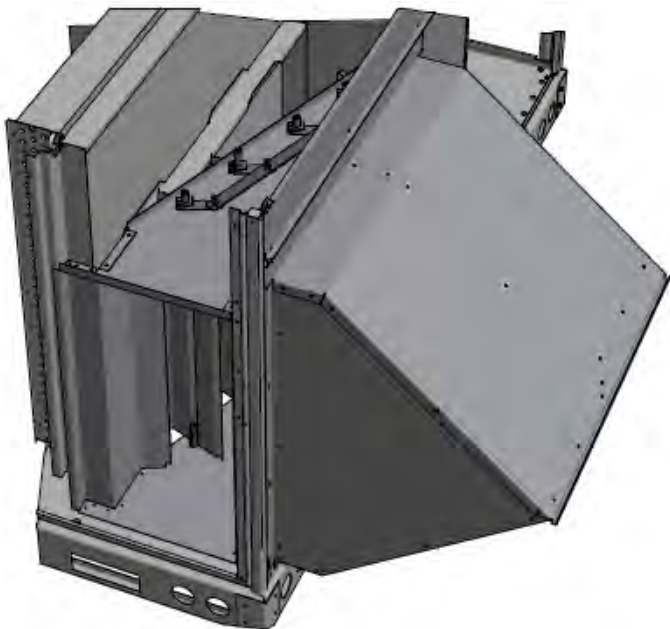
Important Notes

Please see enclosed brochure for Honeywell component trouble shooting and heat pump conversion instructions.

Heat pump applications require Goodman part number IRKT-01.

The fresh air mist eliminator should be flushed periodically with warm soapy water.

A two stage thermostat is recommended with this accessory.



Horizontal Return Air Opening