



**CARRIER CHAS5
HORIZONTAL
ECONOMIZERS
I/O/M MANUAL**

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**For information on iAIRE’s Economizer Controls Package,
please refer to IOM-0014**

Carrier Economizer Description

PLEASE NOTE: Our economizer is a low leak, field installed economizer with the iAIRE patented controls packages and actuator, allowing you to reduce the amount of outside air needed from your rooftop HVAC system by up to 2/3 and will improve indoor air quality.

This reduction in system operation creates on-going utility savings. Payback on capital equipment costs with an iAIRE economizer can be realized in fewer than three years. These packages are designed to work directly on existing rooftop HVAC systems.

These economizers are all low leak and meet the IECC 2015 requirement and are Title 24 compliant by meeting section 120.2(i) for the required controls and the efficiency requirements in 140.4(e).

CHAS to RTU Conversion	
CHAS5	CHAS5: 48/50TC 16; 50TCQ 14; 48/50HC 14; 50HCQ 12; 48/50LC 08-12

Part Number

EC - 1 - 2 3 4 5 - 6

type	unit/ton (1)							
EC - ECONOMIZER	26 712 1525 3050	6075 100 125 150	CHAS12 CHAS34 CHAS5 CHAS69	A-BOX B-BOX C-BOX D-BOX E-BOX F-BOX	FND35 PACK13 PREC35 PREC48 PREC610	PREC810 VOY12 VOY12HE VOY1525HE	AFF LXS LXL SCS12 SCS34 SCSHE12 SCSHE34 SCL12	SCL34 SCLHE12 SCLHE34 PRED PREDS SL SLL SLU
	Controls Only		Carrier	Lennox	Trane		York	

configuration (2)
0 - NO ECON C - CONVERTIBLE H - HORIZONTAL V - VERTICAL

actuator (3)
0 - NO ACTUATOR A - 20 IN-LB B - 62 IN-LB C - 160 IN-LB

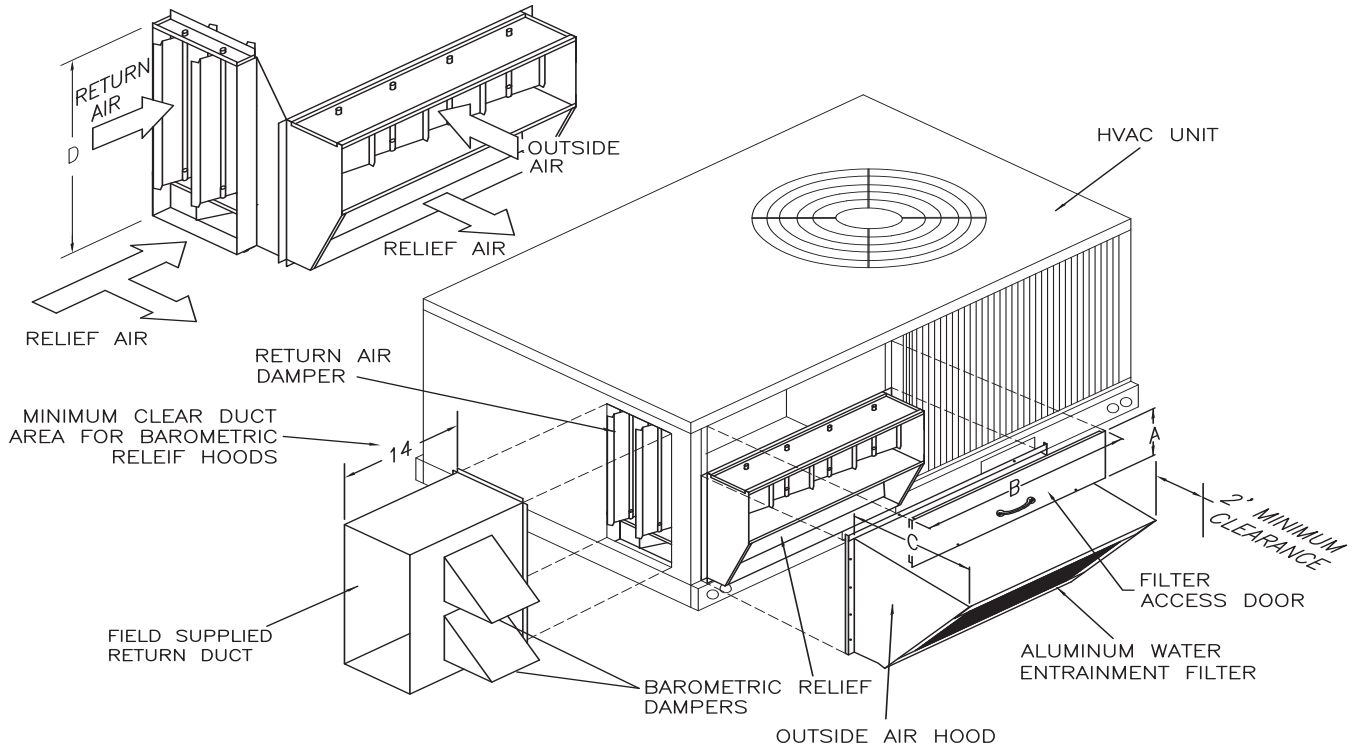
controls (4)
0 - ECON ONLY A - IAQ B - IAQ (NO IONIZATION) D - DCV

power exhaust (5)
0 - NO POWER EXHAUST A - 208/230V 1Φ FIXED PE B - 208/230V 3Φ FIXED PE C - 460V 3Φ FIXED PE

options (6)
0 - NONE B - HUMIDITY C - BACNET D - BLDG PRESSURE* R - RTU OPEN U - ULTRA LOW LEAK

Note: By adding option "D" any powered exhaust will be modulating.

Chassis 5 Horizontal Submittal



Dimensions

PART #	A	B	C	D	Relief Hood	Weight
EC-CHAS5-HBA0-*	18"	53"	25"	46.125"	2 - 12 x 12	225 lbs.

Electrical Data

PART	AMPS	PART	AMPS	TOTAL
ACTUATOR	.29A	CONTROLS	.44A	.73A

*OPTIONS

0 - No Options
B - Humidity/Enthalpic
C - BACNet

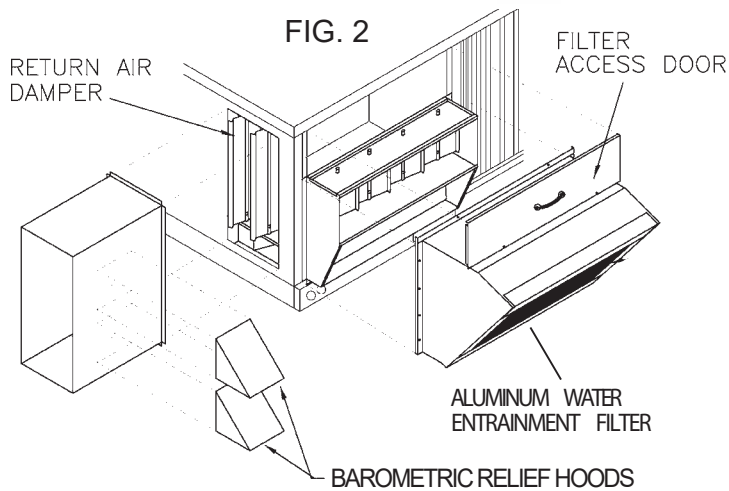
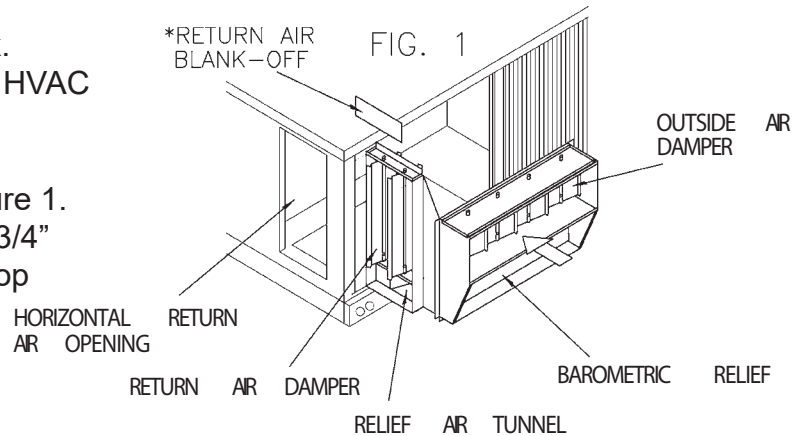
Features

- **iAIRE Patented Controls Scheme Included**
- Low Leak Damper Included
- VOC, CO2 and Ionization included
- Heavy Gauge Galvanized Steel Construction
- American Sterling Grey Paint Finish
- One Piece Assembly
- Gear Driven Dampers
- Uses HVAC Unit Filter Access Door
- Capable of Relieving up to 100% of the Outside Air Intake

Economizers with Indoor Air Quality control are Title 24 compliant by meeting section 120.2(i) for the required controls and the efficiency requirements in 140.4(e). They also meet California ozone emissions requirements to be CARB certified.

Chassis 5 - Horizontal Install

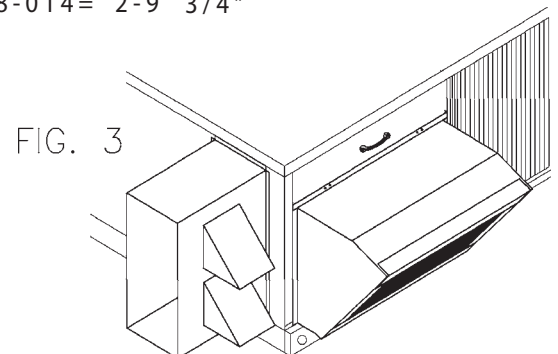
- Carefully remove the economizer from box.
- Remove filter access panel with door from HVAC unit.
- Remove filter(s).
- Slide economizer into unit as shown in figure 1.
 - Note:** EC-CHAS5-H**0-*, a 12-5/8" x 2-3/4" 18ga blank-off must be screwed over the top splitter of the return air damper frame before sliding in the economizer. Use two 10x1/2" TEK screws.



- The return air damper will slide horizontally through the opening and all the way to the left.
- Fasten with screws into the unit.
- Test cycle the economizer and make any necessary adjustment.
- Horizontally install the field supplied duct over the opening. Screw in place and seal.
- Cut openings in the return duct for the two barometric relief hoods. Fasten the hoods to the duct as required. See FIG. 2
 - EC-CHAS12-H**0-* = QTY (2) 7-3/4" x 7-3/4"
 - EC-CHAS34-H**0-* = QTY (2) 9-3/4" x 9-3/4"
 - EC-CHAS5-H**0-* = QTY (2) 11-3/4" x 11-3/4"

- Install the outside air hood over the outside air damper opening. Align the pre-punched holes to the ones on the unit and fasten in place.
- Replace the outside air filter(s) back into the unit.
- Install the filter access door up and under the top of the unit and over the top of the flange of the outside air hood. Fasten. Two filter access doors are supplied to accommodate different unit heights. Discard the unused door. See FIG. 3
- Refer to page 5 in IOM-0014 Economizer Controls Installation Manual for installation of the various sensors and actuators. Connect wires according to the wiring diagram on pg 8.

MODEL	OPENING SIZES
004-007	= 2-7 3/4" X 7 3/4"
008-014	= 2-9 3/4"



Carrier Economizer Install Notes

Additional Notes

1. Motor Spring>Returns closed when unit is not running.
2. Ensure that equipment transformer is sized to handle the extra load of the economizer and actuator.
3. When using a heat with defrost feedback, add an isolation relay between O and C. (Field provided and installed).