



**LENNOX BBOX  
VERTICAL  
ECONOMIZERS  
I/O/M manual**

## Table of Contents

<b>Lennox Economizer Description.....</b>	<b>3</b>
<b>BBOX Vertical Submittal .....</b>	<b>4</b>
<b>BBOX Vertical Install .....</b>	<b>5</b>
<b>Additional Install Notes.....</b>	<b>6</b>

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

## Lennox 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).

### BOXB to RTU Conversion

BOXB

KGA/KCA 092-150  
LGH/LCH 092-150

### Part Number

# EC - 1 - 2 3 4 5 - 6

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

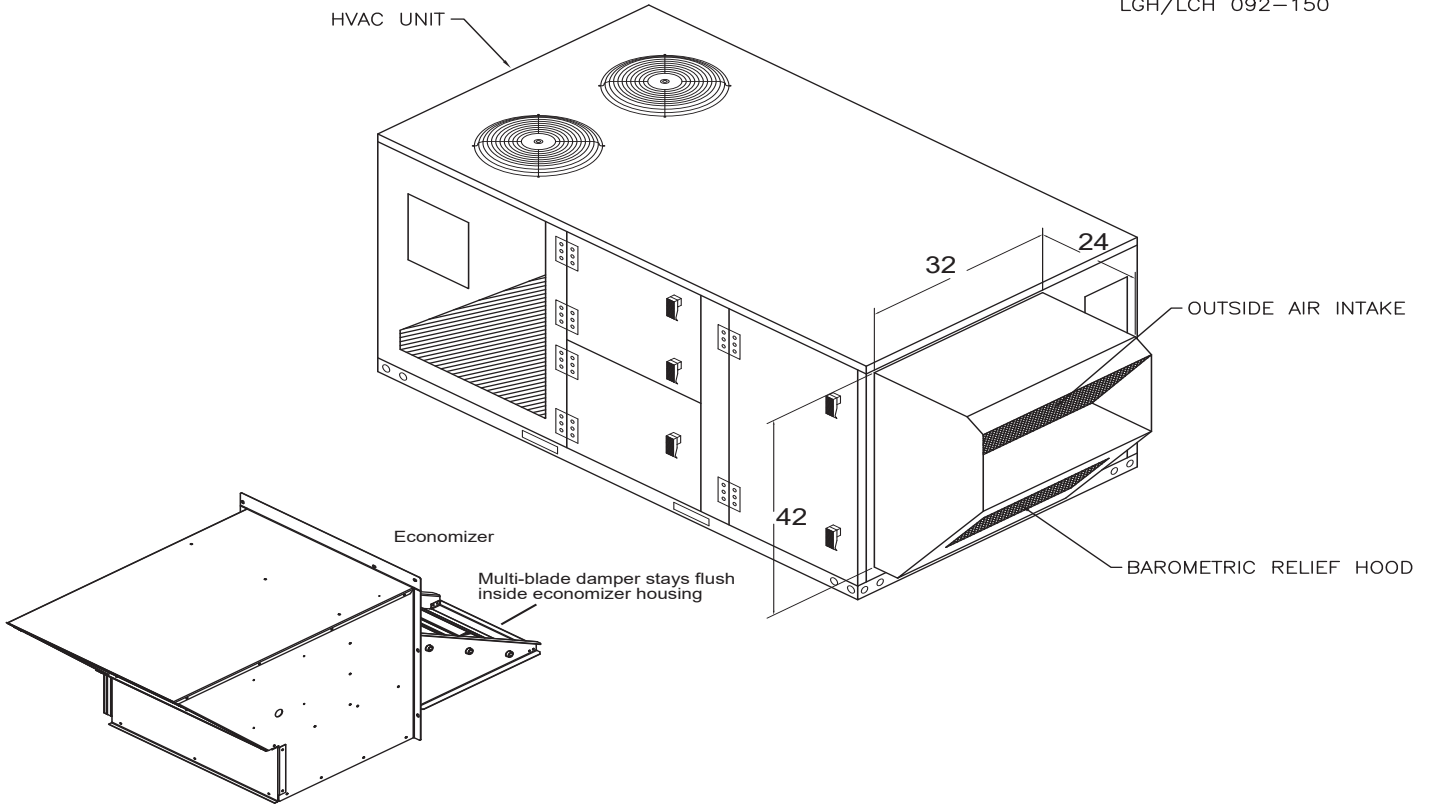
SUB-0025

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# BBOX Vertical Submittal

MODELS:  
KGA/KCA 092-150,  
LGH/LCH 092-150



### Electrical Data

PART #	Weight
EC-BOXB-VBA0-*	200 lbs.

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

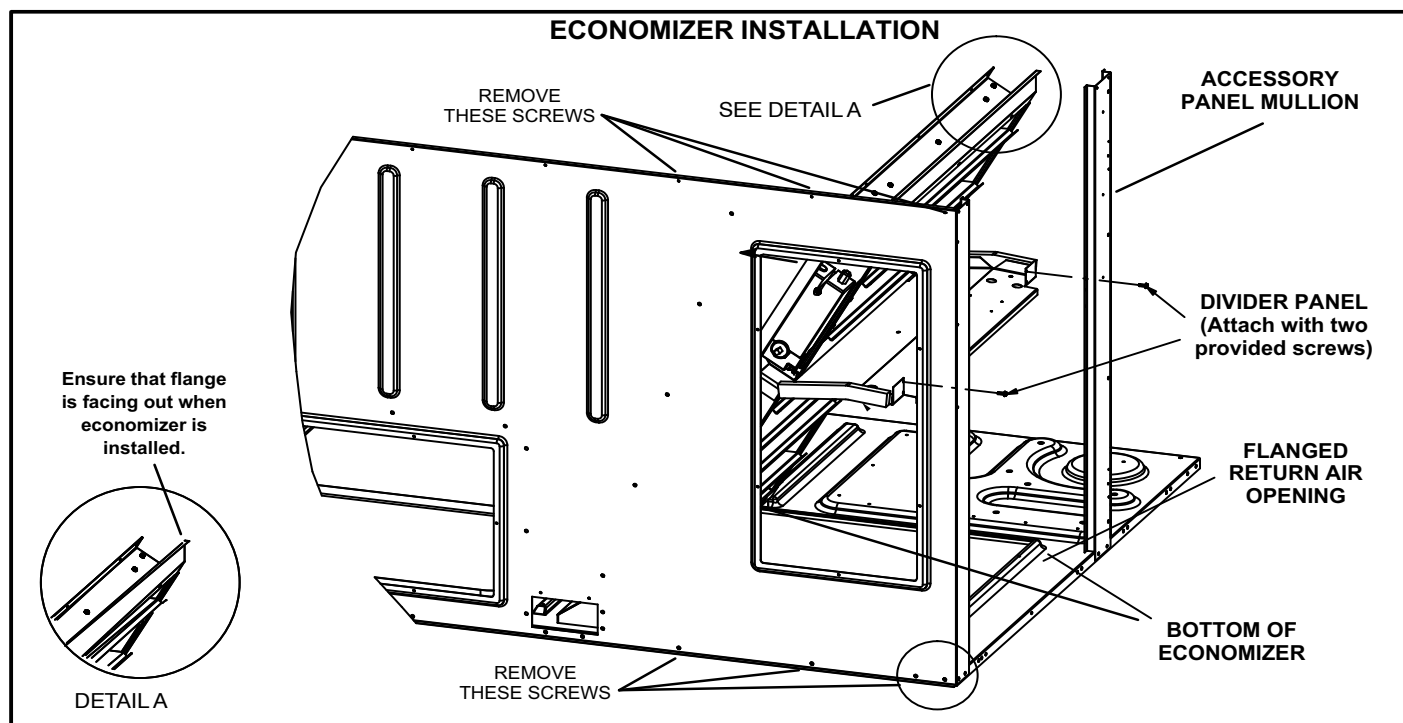
*OPTIONS
0 - No Options
B - Humidity/Enthalpic
C - BACNet

### 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.

## BBOX - Vertical Install



**FIGURE 1**

### DAMPERS

- 1- Disconnect all power to unit.
- 2- Remove accessory compartment access panel.
- 3- Remove and retain screws from top and bottom of rear panel. Remove screws from accessory panel mullion and remove mullion. Lift the top of the unit as needed. See figure 1.
- 4- Slide the bottom of the economizer over the flanged return air opening in the base of the unit until it settles into place. See figure 1.
- 5- Use provided screws to secure economizer divider panel to unit end mullion and accessory compartment mullion as shown in figure 1.
- 6- Before securing unit top panel with retained screws, position the outdoor air hood top seal under the panel as shown in figures 28 and 29. The outdoor air hood top seal is shipped with the other outdoor air hood components.

## Lennox Economizer Install Notes

### Additional Notes

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