



**YORK SCS
VERTICAL
ECONOMIZERS
I/O/M MANUAL**

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

York 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).

Unit to RTU Conversion	
SCS12-H	ZX 04-06; XY, ZY, XQ 04; ZQ 04-05
SCS34-H	ZX 07; XY, ZY, XQ 05-06; ZQ 06; XXA7
SCS12-V	ZX 04-07; ZY 04-06; ZQ 04-06; XY 04-06; XQ 04-06; XXA7
SCS34-V	ZX 08-14; ZY 07-12; XX 08-12; XY 07-09
SCSHE12-V	ZX 04-07; ZY 04-06; ZQ 04-06; XY 04-06; XQ 04-06; XXA7
SCSHE34-V	ZX 08-14; ZY 07-12; XX 08-12; XY 07-09

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	PRES
			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)

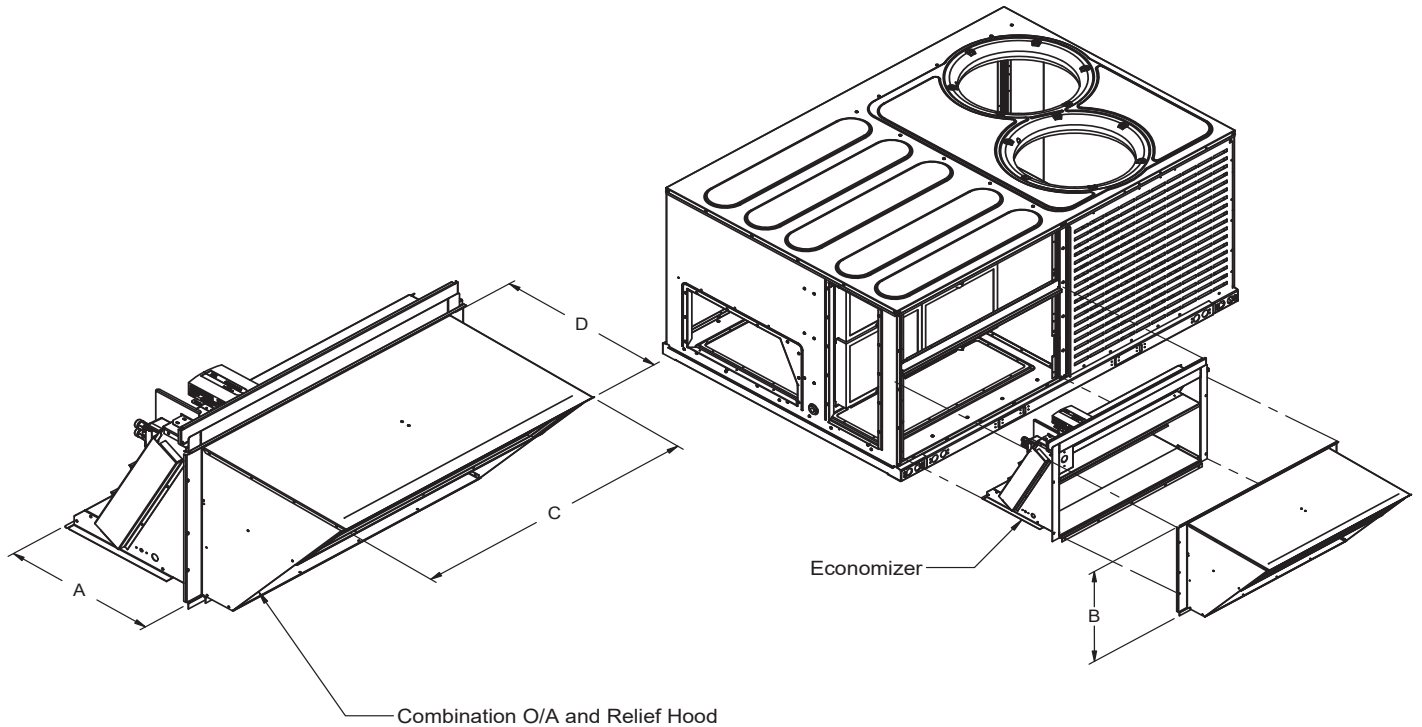
0 - NO POWER EXHAUST
 A - 208/230V 1Φ FIXED PE
 B - 208/230V 3Φ FIXED PE
 C - 460V 3Φ FIXED PE

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.

SCS Vertical Submittal



Dimensions

PART #	A	B	C	D	Weight
EC-SCL12-VBA0-*	17 3/16"	18 3/8"	33 1/4"	17 3/8"	81 lbs.
EC-SCL34-VBA0-*	19 3/4"	23 7/16"	40 3/4"	22"	94 lbs.

*OPTIONS

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

Electrical Data

PART #	PART	AMPS	PART	AMPS	TOTAL
EC-SCL12*	ACTUATOR	.29A	CONTROLS	.27A	.56A
EC-SCL34*	ACTUATOR	.29A	CONTROLS	.44A	.73A

Features

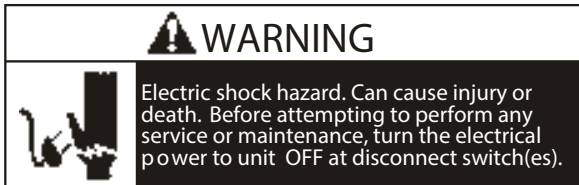
- **iAIRE Patented Controls Scheme Included**
- Low Leak Damper Included
- VOC, CO₂ and Ionization included
- Heavy Gauge Galvanized Steel Construction
- American Sterling Grey Paint Finish
- One Piece Assembly
- Gear Driven Dampers
- Uses HVAC Unit Filter Access Door
- Capable of Relieving up to 100%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

SCS - Vertical Install

Before Starting Installation

Only qualified HVAC service personnel should install, troubleshoot, repair or service HVAC and related HVAC equipment.



General

The instruction provides all the necessary information to properly field install the Economizer and Economizer Hood on the above indicated equipment.

Step 1:

Verify all unit parts in box .

- 1 ea. - Economizer
- 1 ea. - Economizer Hood
- 1 ea. - Adaptor Panel
- 1 ea. - Hardware Bag (Not shown):
 - 12 ea. - Type A #10 - 16 x 1/2 Screws
 - 14 ft. - 1/8 x 1/2 Gasket

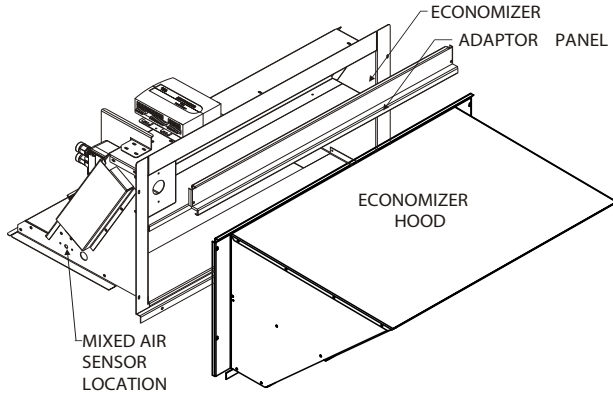


Figure 1

Step 2:

Remove the filter access panel. See Figure 2.

Step 3:

Remove screws that secure lower access panel and horizontal duct cover. Discard lower access panel but retain horizontal duct cover and screws for later use. See Figure 2.

Important

If supplied with power exhaust option, power exhaust power (Molex) connection is located on economizer next to its power connection. Make sure to plug in power exhaust when connecting economizer power in Step 3 of instructions below.

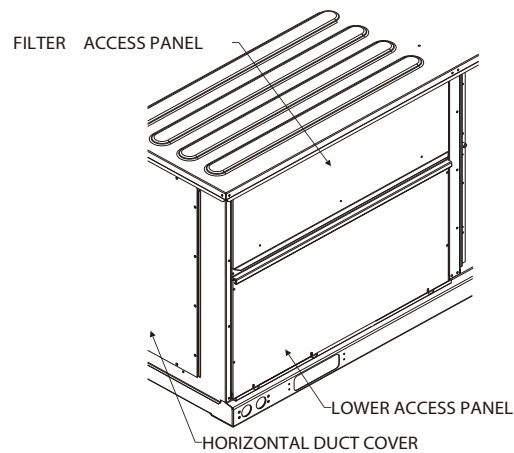


Figure 2

Step 4: (if required)

Remove RAT sensor and bracket as shown in Figure 3.

Step 5: (if required)

Break off RAT sensor from part of bracket as shown in Figure 3.

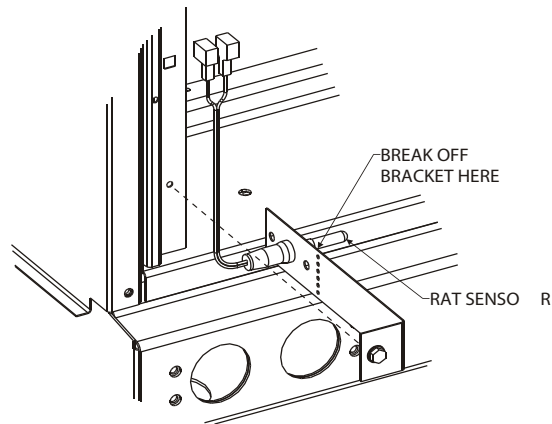
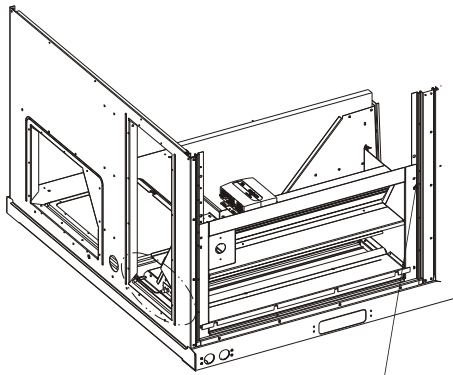


Figure 3

SCS - Vertical Install (cont'd)

Step 6:

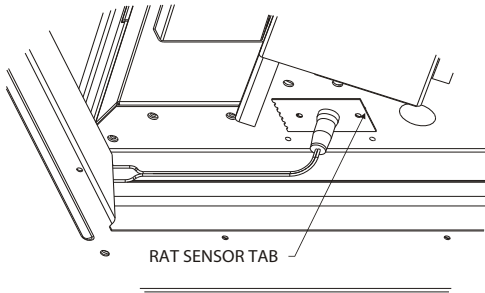
Slide the Economizer over return opening and secure to the unit post on each side of economizer. Secure the economizer across the bottom to the unit base. See Figure 4.



SECURE ON BOTH SIDES

Figure 4

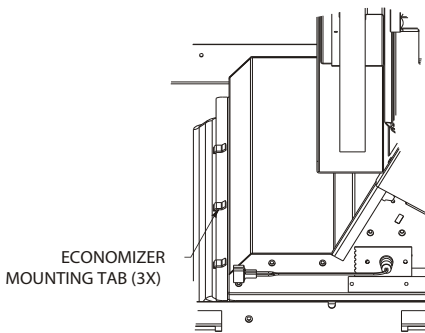
* If required: Secure RAT sensor with #10 x 16 x 1/2 screws provided with Economizer. (See Figure 5)



RAT SENSOR TAB

Figure 5

Note: Be sure the back of flange of Economizer goes under mounting tabs as shown in Figure 6.



ECONOMIZER MOUNTING TAB (3X)

Figure 6

Step 8:

Locate the harness in the return compartment with brown wire 845 and red wire 846. Connect this harness into the "24V-IN" connections on the economizer controller. Locate the harness in the return compartment with the red wire 840, black wire 841 and white wire 842. Connect this harness to the "SA BUS" connections on the economizer controller. Refer to the unit wiring diagram.

Step 9:

Reconnect power to the unit - follow all safety instructions, rules and codes.

For wiring information refer to page 8 in IOM-0014.

Step 10:

Apply gasket to the back side of side flanges and divider flange to seal between hood and economizer. Install economizer hood. Secure with screws that were removed in Step 3.

Step 11:

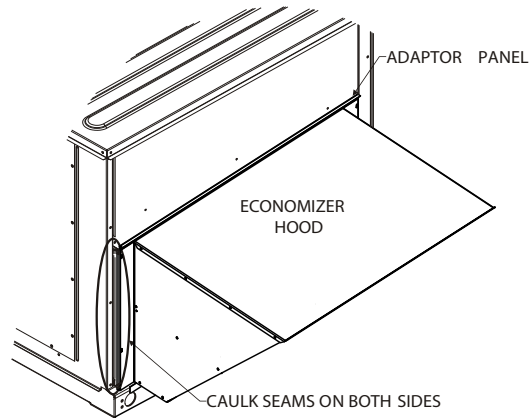
Install Adaptor Panel over Economizer Hood. Secure with two screws that were removed in Step 3.

Step 12:

Reinstall horizontal duct cover removed in Step 3.

Step 13:

Reinstall filter access panel removed in Step 2.



CAULK SEAMS ON BOTH SIDES

Figure 7

Note: Once the unit is operating properly, seal any, open joints, holes or seams with silicone caulking (field supplied), to make the economizer completely air and water tight. See Figure 7.

York 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).