



**YORK PRED  
HORIZONTAL  
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	
PRED-V	ZT/ZR/ZH/ZJ 037, 049, 061, ZF/ZH/ZJ/ZR/XP/DH/DM/DF/DR/BP 078-150: DJ 150
PRED-H	ZF,ZH, ZR 102-150; ZJ, XP 078-150; BP 078, 102-150; DJ 150 DH 120, 150; DF 078, 150 DM 078, 120, 150; DR 090-150;
PREDS-H	ZT, ZH, ZR, ZJ 037-061 ZF, ZH, ZR 078, 090 DH 078-102; DF, DM 090, 102; BP 090

### 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	PREC610	Trane	SCS34	PRES
				F-BOX			SCSHE12	SL
				Lennox			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

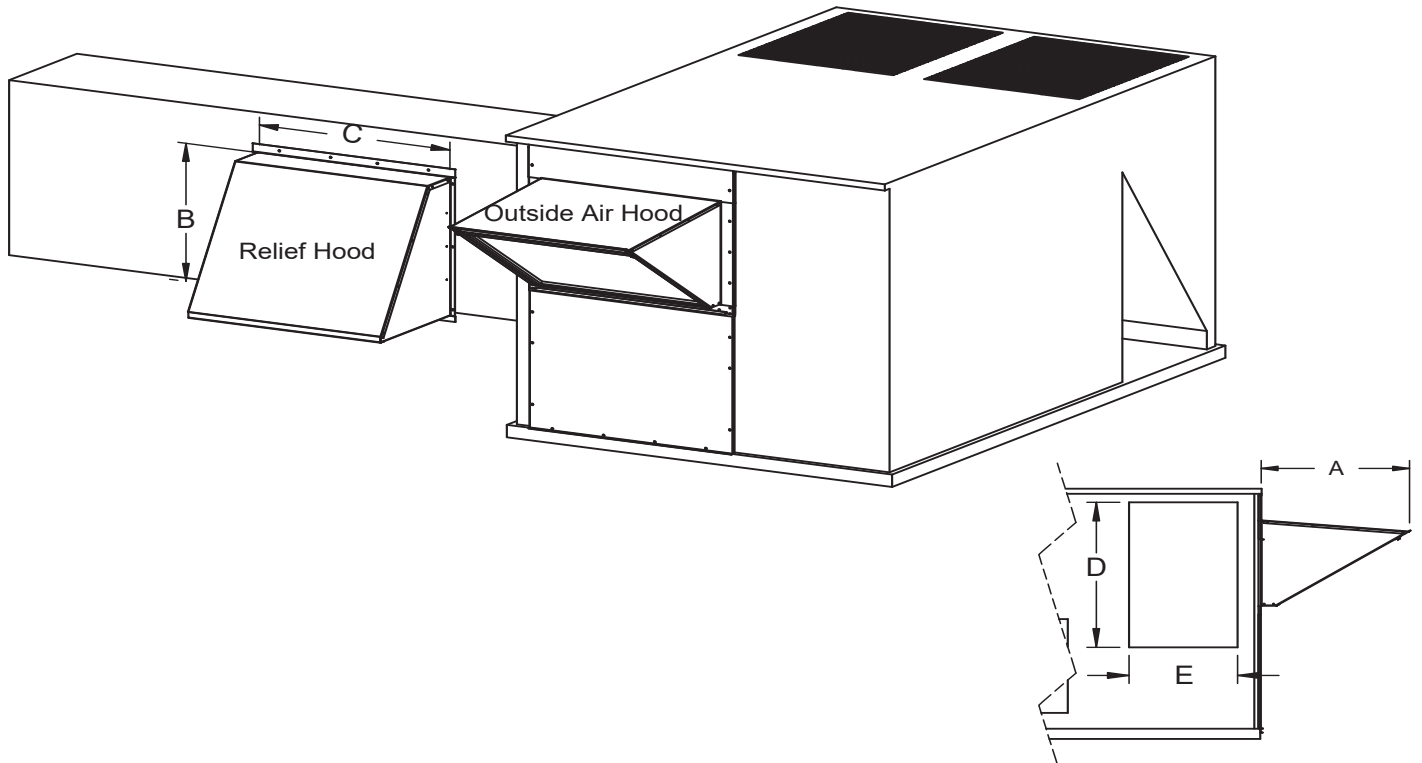
#### options (6)

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.

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## PRED Horizontal Submittal



Dimensions

PART #	A	B	C	D	E	Weight
EC-PREDS-HBA0-*	20 11/16"	17 1/16"	29 3/4"	27 3/4"	18 1/16"	76 lbs.
EC-PRED-HBA0-*	25 5/16"	17 1/16"	29 3/4"	28 1/4"	18 1/16"	87 lbs

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

Electrical Data

PART	AMPS	PART	AMPS	TOTAL
ACTUATOR	.29A	CONTROLS	.27A	.56A

### 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.

## PRED 3 to 12.5 Ton Units- Horizontal Install

### Before Starting Installation

#### Warning

Shut power to unit prior to any work being done. Personal injury or death could result.

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

#### Important

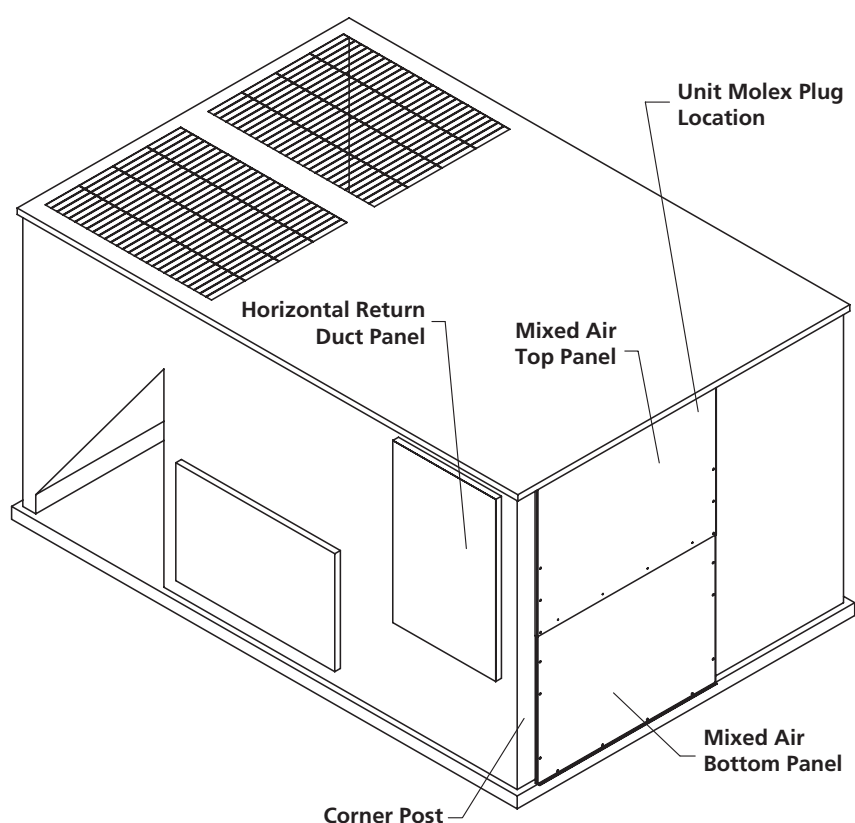
If supplied with power exhaust option, power exhaust power (Molex) connection is located on economizer next to its power connection. Make sure to plug in power exhaust when connecting economizer power in Step 3 of instructions below.

### Installation Instructions

1. Turn power off to unit being serviced or worked on.
2. Remove horizontal duct panel on side of unit and both mixed air compartment panels on end of unit. Save the unit screws for securing economizer hood to unit. (ILL. 1)
3. Slide economizer into end of unit aligning economizer with corner post. Slide right side of economizer into unit making sure horizontal damper is aligning with horizontal duct opening. Plug economizer Molex into unit Molex plug then slide economizer into unit flush slightly lifting the back of the economizer over embossment in unit base.
4. 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 unit wiring diagram.

PARTS INCLUDED	QTY.
Discharge Air Sensor	1
Male Wire Connectors	2
Wooden Screw Driver	1

ILL. 1



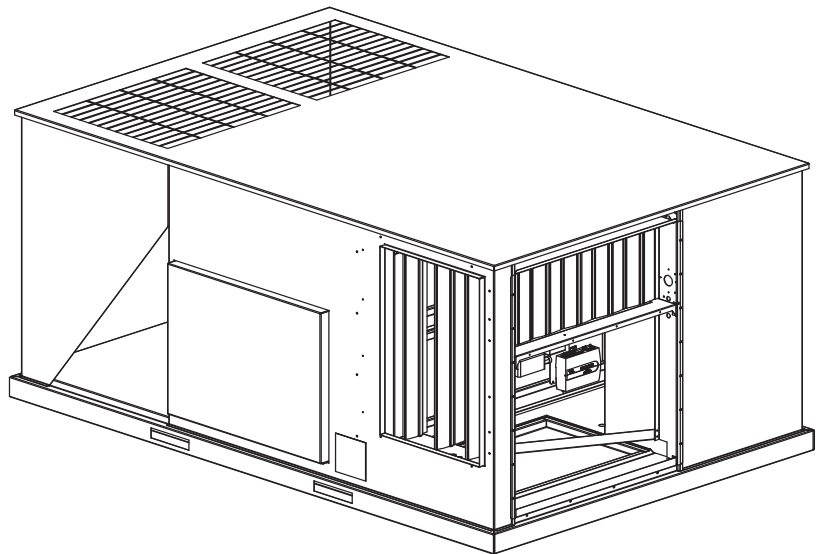
## PRED 3 to 12.5 Ton Units- Horizontal Install (cont'd)

5. Locate the relief hood (without filter).  
Install relief hood on horizontal duct as close to unit as possible.

Reinstall the mixed air bottom panel (below outside air damper) then attach outside air hood on top over outside air damper. (ILL. 3)

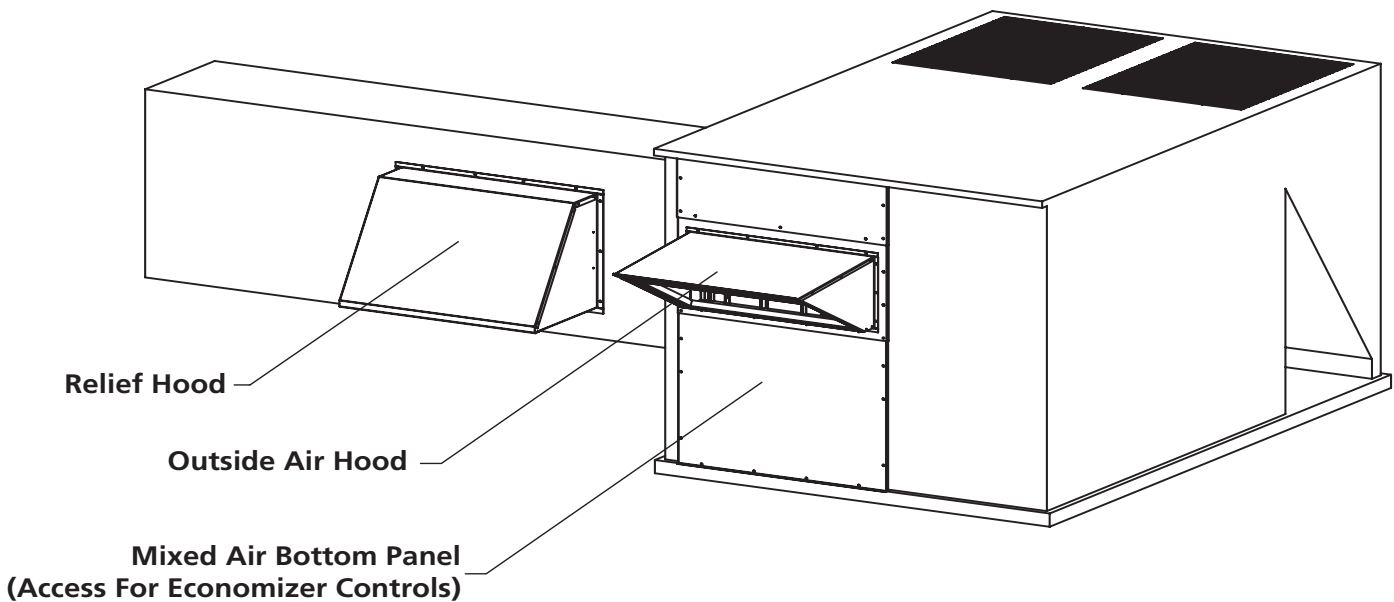
6. Use lower mixed air panel for access to controls. Reattach this panel when completed. The two end unit panels are no longer needed.
7. Set outside air filter in outside air hood. Secure filter with retainer angle and thumb screws provided in plastic bag.

ILL. 2



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

ILL. 3



## 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).