



**TRANE PREC48
HORIZONTAL
ECONOMIZERS
I/O/M MANUAL**

Table of Contents

Trane Economizer Description.....	3
PREC48 Horizontal Submittal.....	4
PREC48 Horizontal Install.....	5
Additional Install Notes.....	7

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

Trane 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	
PREC48	TSC 060G-090G, TSC 060H-090H, YSC 060G-090G, YSC 060H-090H, THC 048G-060G, THC 048H-060H, YHC 048G-060G, YSC 048H-060H, WSC 060H-072H, TZC 048E-60E, 048F-60F, YZC 048E-60E, 048F-60F, WHC 048-060H, WSC 060-072H, GWSC 060H, GERE 072

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	PREDS
				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)

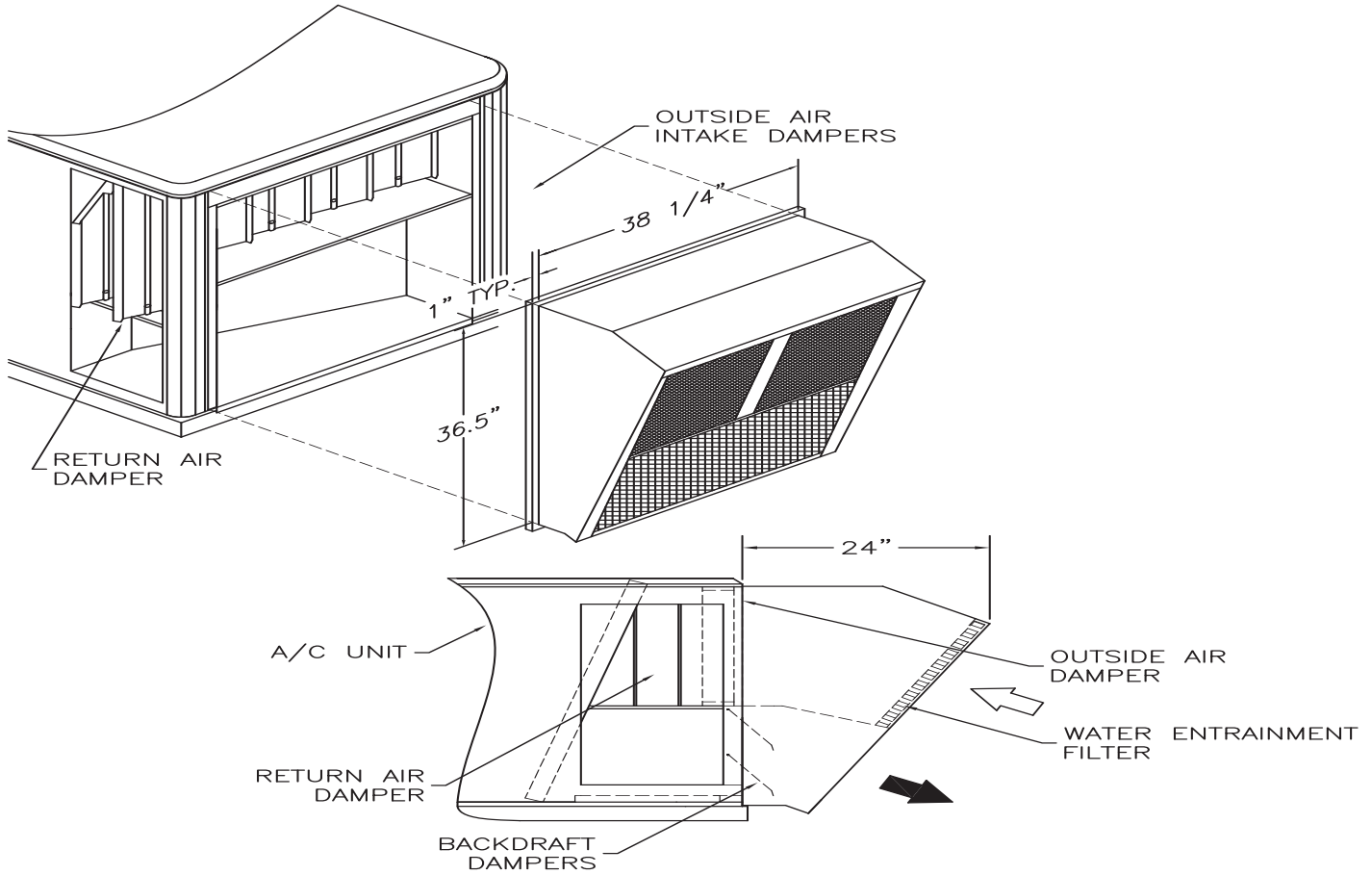
0 - NO POWER EXHAUST
 A - 208/230V 1Φ FIXED PE
 B - 208/230V 3Φ FIXED PE
 C - 460V 3Φ FIXED PE

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.

PREC48 Horizontal Submittal



Electrical Data

PART #	WEIGHT
EC-PREC48-HBA0*	220 lbs.

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

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

Features

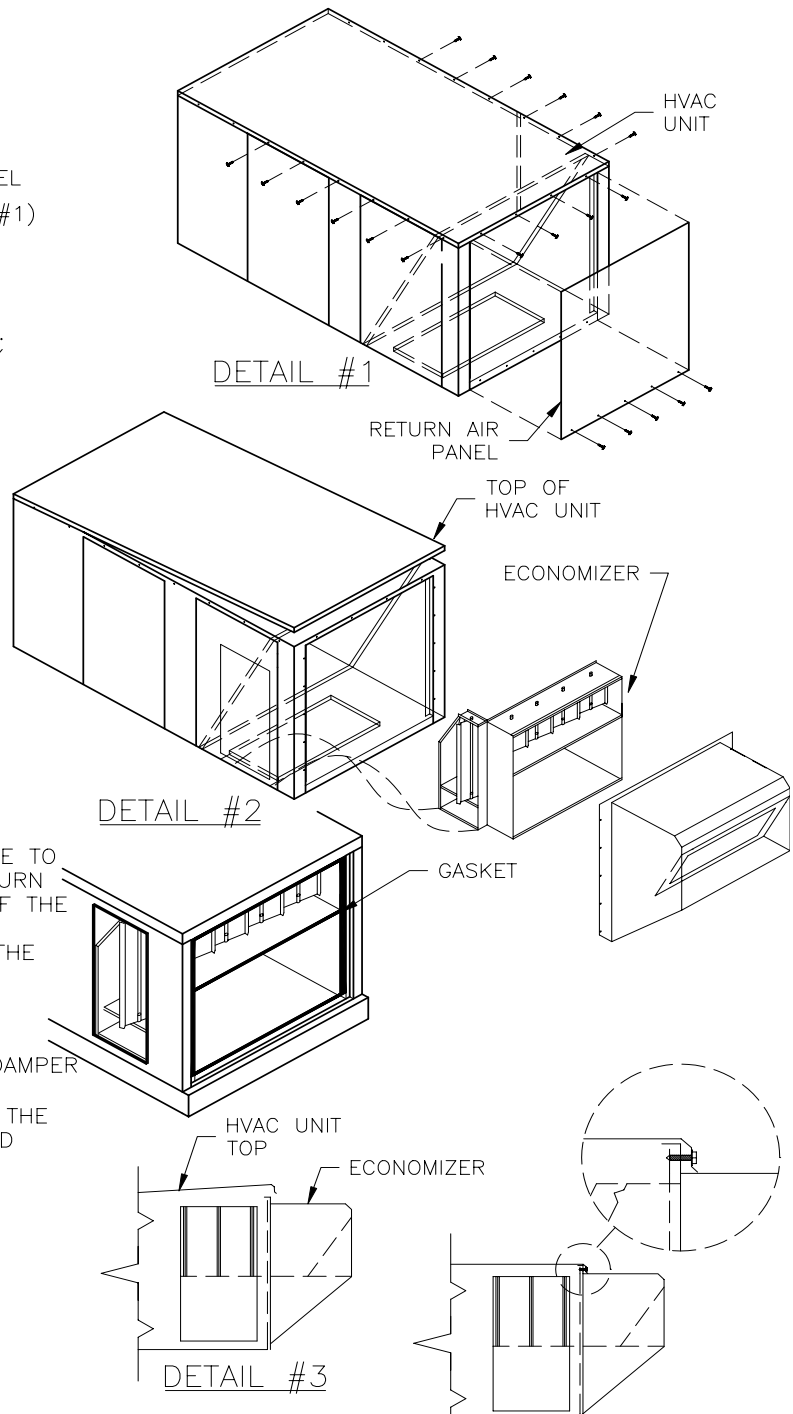
- **iAIRE Patented Controls Scheme Included**
- Low Leak Damper Included
- VOC, CO2 and Ionization included
- Heavy Gauge Galvanized Steel Construction
- American Sterling Grey Paint Finish
- One Piece Assembly
- Gear Driven Dampers
- Uses HVAC Unit Filter Access Door
- Capable of Relieving up to 100%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

PREC48 - Horizontal Install

HORIZONTAL ECONOMIZER INSTALLATION INSTRUCTIONS

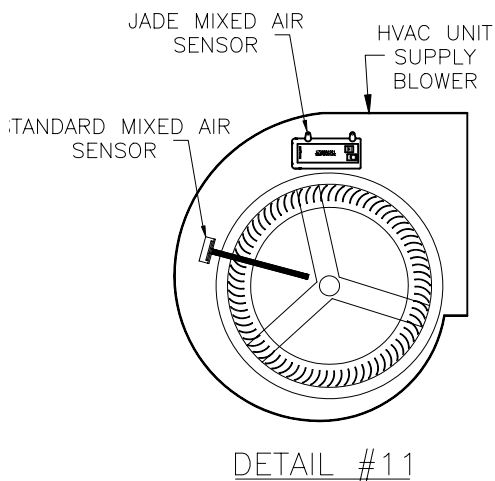
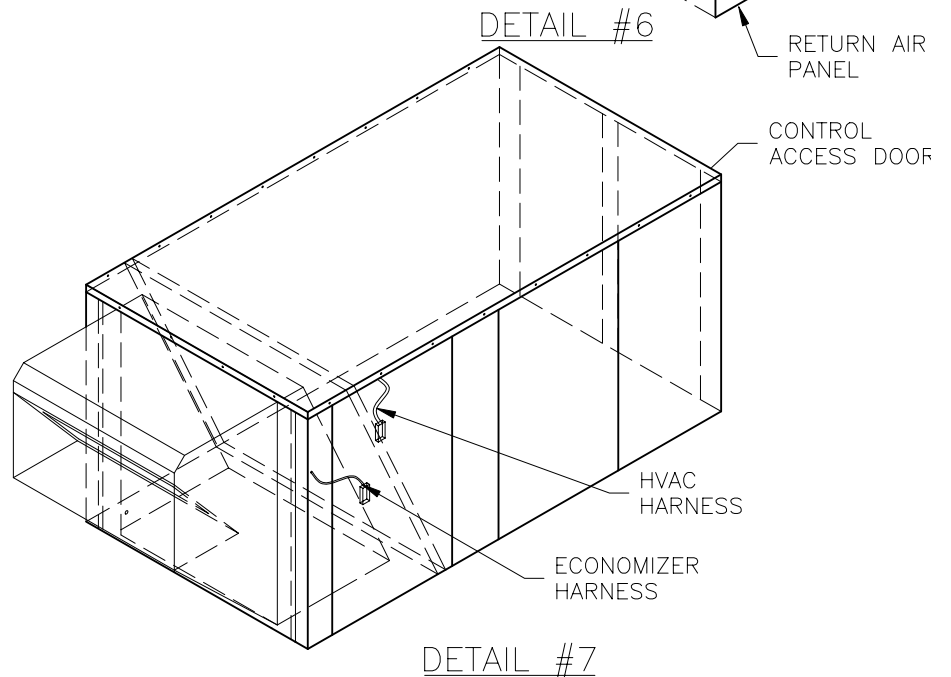
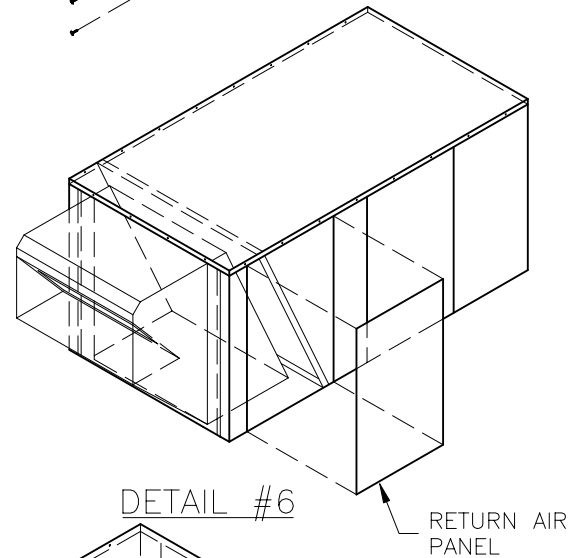
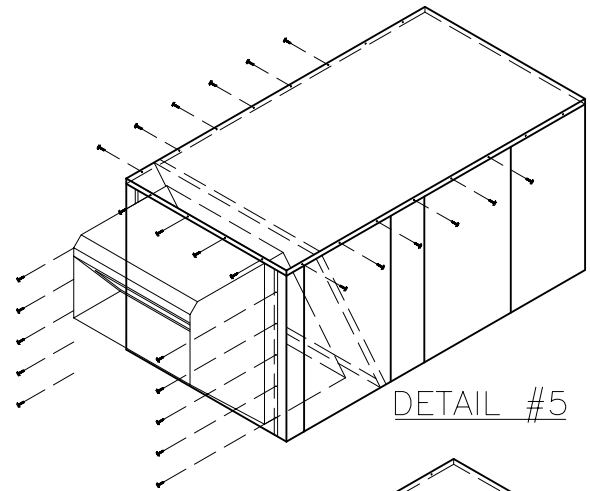
- 1 – REMOVE RETURN AIR COMPARTMENT PANEL FROM BACK OF HVAC UNIT.(SEE DETAIL #1)
- 2 – REMOVE SCREWS ON BACK OF HVAC UNIT HOLDING TOP OF HVAC UNIT DOWN. ALSO REMOVE SCREWS ABOUT HALF-WAY DOWN BOTH SIDES OF HVAC UNIT TOP. (SEE DETAIL #1)
- 3 – LIFT TOP OF THE HVAC UNIT AND PROP UP WITH SUPPORTS, 2" SPACING REQUIRED. (SEE DETAIL #2)
- 4 – WHEN USING THE BELIMO ACTUATOR OPTION, CONSULT CONTROLS CONTRACTOR REGARDING THE ECONOMIZER WIRING REQUIREMENTS.
- 5 – SLIDE ECONOMIZER ASSEMBLY INTO THE HVAC UNIT. PUT THE RETURN PORTION INTO THE COMPARTMENT FIRST AND SLIDE TO THE LEFT AGAINST THE HORIZONTAL RETURN OPENING THEN SLIDE THE RIGHT SIDE OF THE ASSEMBLY INTO THE RETURN AIR COMPARTMENT. APPLY GASKET AROUND THE PERIMETER. (SEE DETAIL #2 & #3)
- 6 – SLIDE THE HOOD ASSEMBLY OVER THE DAMPER SECTION. (SEE DETAILS 2 & 3) REMOVE THE SUPPORTS USED TO PROP THE TOP OF THE HVAC UNIT. SUPPORTS USED FROM STEP #3. NOTE: THE TOP OF HVAC UNIT HOOKS OVER THE TOP FLANGE OF ECONOMIZER (SEE DETAIL #4)
- 7 – SECURE TOP OF THE ECONOMIZER TO THE HVAC UNIT BY USING SCREWS REMOVED IN STEP #2. ALSO SCREW ALONG THE SIDE FLANGES OF THE ECONOMIZER USING #12 X 1 SCREWS (SEE DETAIL #5)



PREC48 - Horizontal Install (cont'd)

HORIZONTAL ECONOMIZER INSTALLATION INSTRUCTIONS

- 8 – REPLACE ALL SCREWS ALONG THE SIDES OF THE TOP OF THE HVAC UNIT, REMOVED IN STEP #2. (SEE DETAIL #5)
- 9 – REMOVE RETURN AIR COMPARTMENT PANEL LOCATED ON THE RIGHT OR LEFT SIDE OF HVAC UNIT.
(SEE DETAIL #6)
- 10 – PLUG ECONOMIZER HARNESS INTO THE HVAC UNIT ECONOMIZER HARNESS.
NOTE: HARNESS WILL BE INSIDE UPPER CORNER OF RETURN AIR COMPARTMENT.
(SEE DETAIL #7)
- 11 – REMOVE THE DISCHARGE AIR SENSOR FROM THE SHIPPING LOCATION BEHIND THE WATER ENTRAINMENT FILTER ON THE ECONOMIZER AND MOUNT IT IN THE HVAC UNIT SUPPLY FAN COMPARTMENT NEXT TO THE FAN INLET.



Trane 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).