



**TRANE VOY1525HE  
VERTICAL  
ECONOMIZERS  
I/O/M MANUAL**

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**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 |   |
|------------------------|---|
| VOY1525                | TCD, TCH, TFD, TFH, YCD, YCH, YFD, YFH 151-300, WCD, WCH, WFD, WFH, WSD, WSH 150, 180 TSD, TSH 180F-300F/180G-300G, THD, YHD, THH, YHH, 150F/150G, GWSD, GWSH 150E-180E, 240E               |
| VOY1525HE              | TCD, TCH, TFD, TFH, YCD, Y CH, YFD, YFH 181-301 WCD, WCH, WFD, WFH, WSD, WSH 240 THD, YHD, THH, YHH 180F-300F/180G-300G TZH, TZD, YZH, YZD 150F-210F, 150G-210G, GWSD, GWSH 150E-180E, 240E |

### Part Number

# EC - 1 - 2 3 4 5 - 6

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

| configuration (2)  |
|--|
| 0 - NO ECON<br>C - CONVERTIBLE<br>H - HORIZONTAL<br>V - VERTICAL |

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

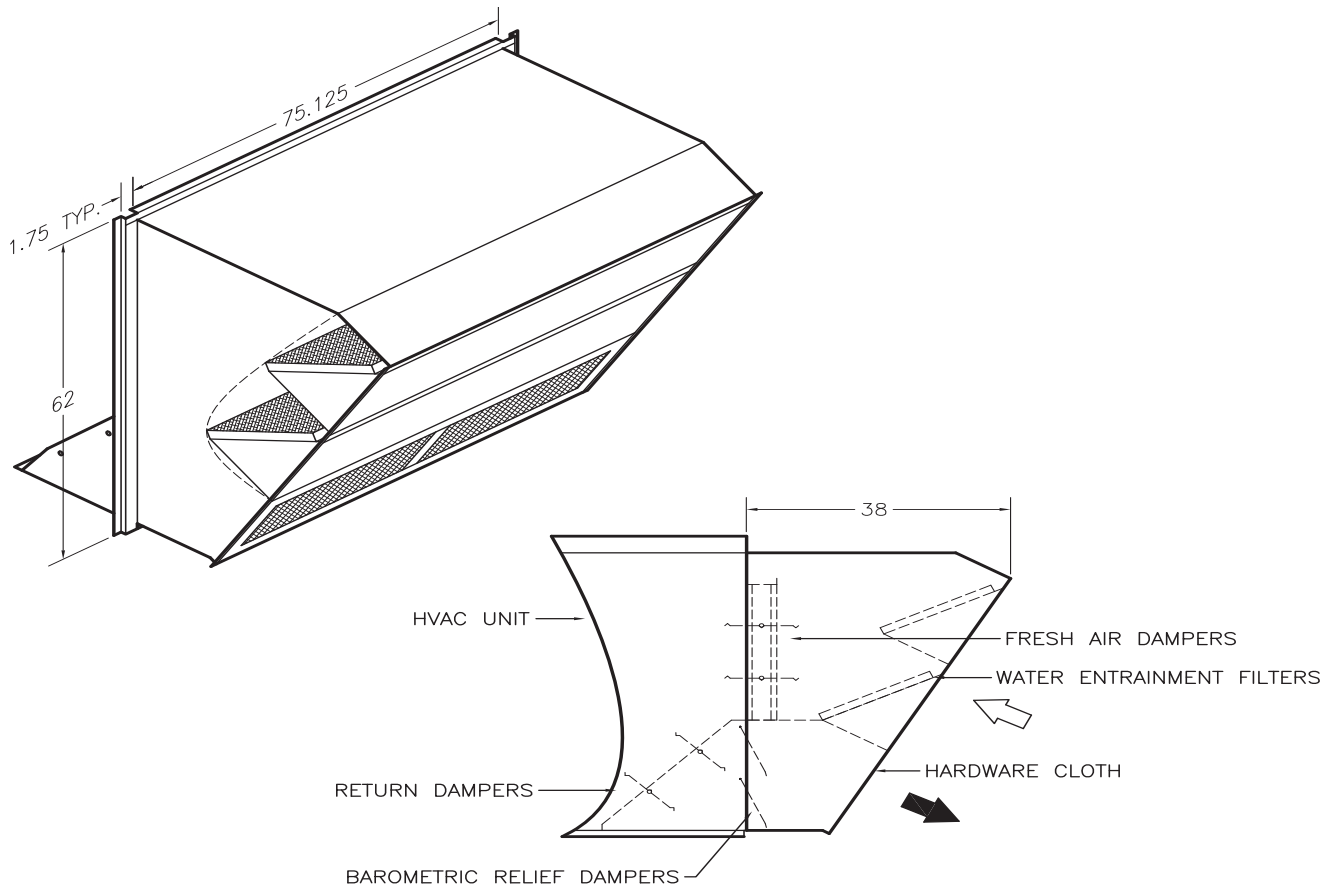
| controls (4)   |
|--|
| 0 - ECON ONLY<br>A - IAQ<br>B - IAQ (NO IONIZATION)<br>D - DCV |

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

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

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

# VOY1525HE Vertical Submittal



### Electrical Data

| PART #              | WEIGHT   |
|---------------------|----------|
| EC-VOY1525HE-VBA0-* | 520 lbs. |

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

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

### Features

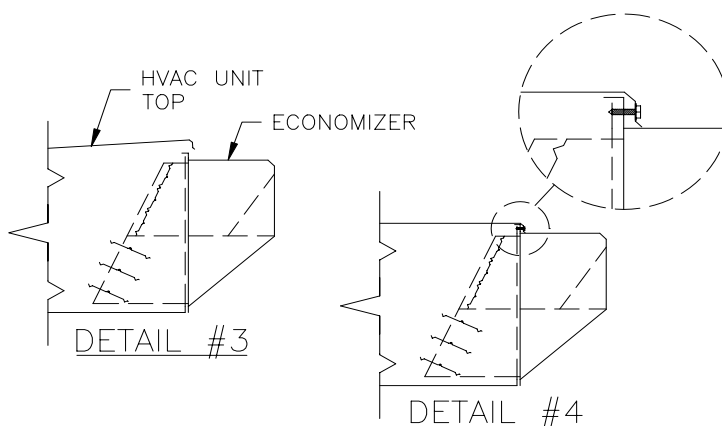
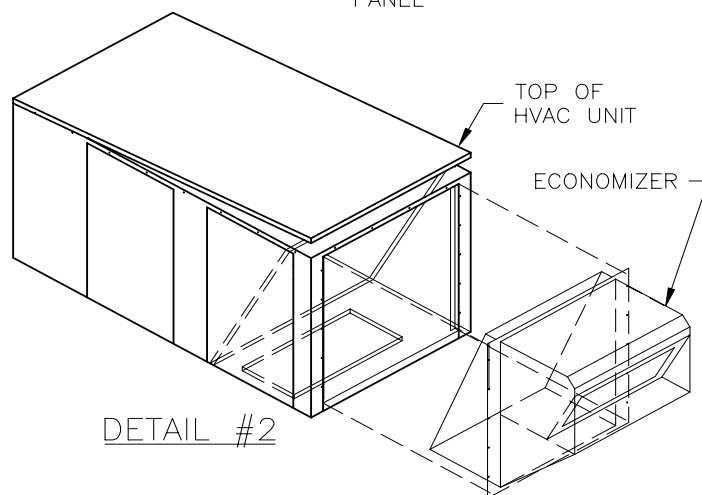
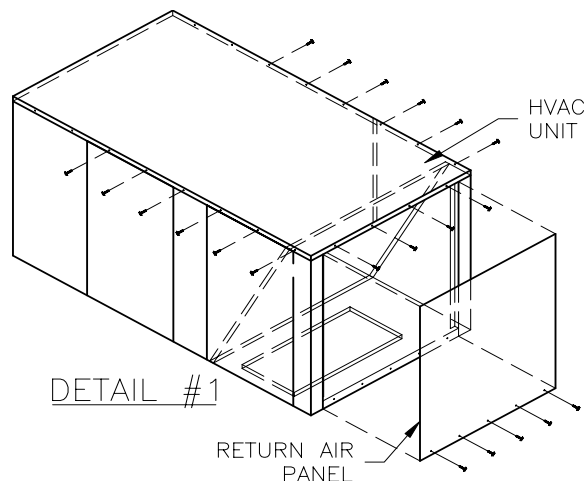
- **iAIRE Patented Controls Scheme Included**
- Low Leak Damper Included
- VOC, CO2 and Ionization included
- Heavy Gauge Galvanized Steel Construction
- American Sterling Grey Paint Finish
- One Piece Assembly
- Gear Driven Dampers
- Uses HVAC Unit Filter Access Door
- Capable of Relieving up to 100%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

## VOY1525HE - Vertical Install

### DOWN DISCHARGE ECONOMIZER INSTALLATION INSTRUCTIONS

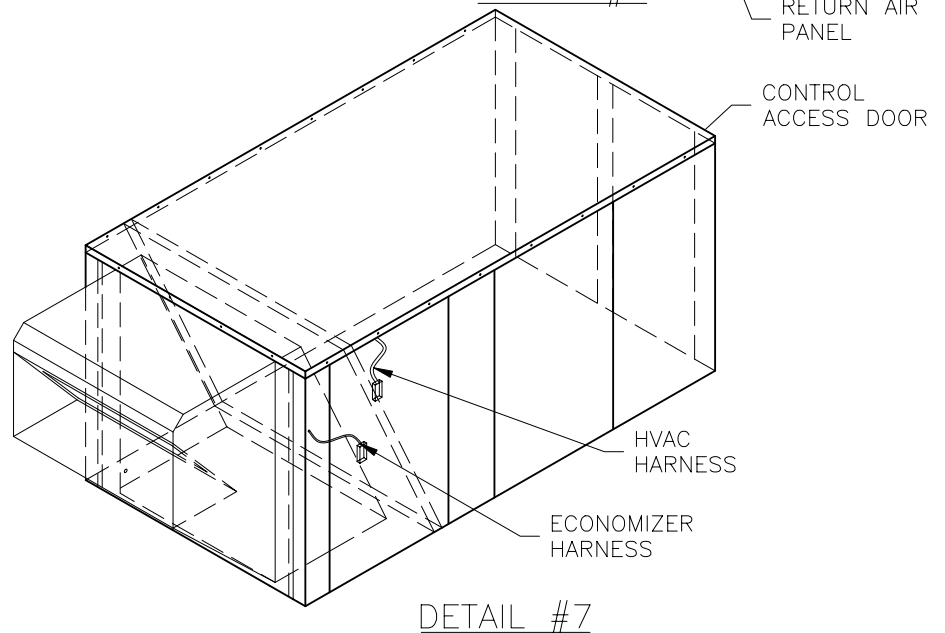
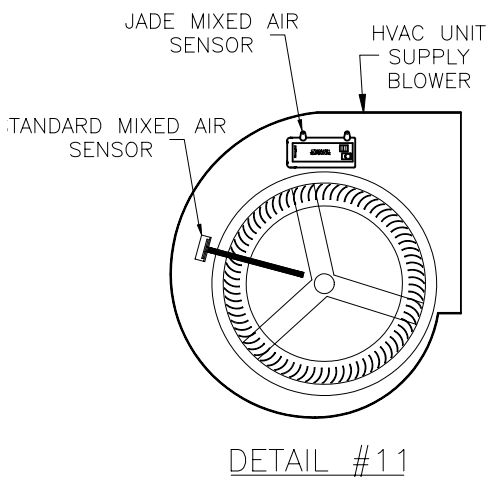
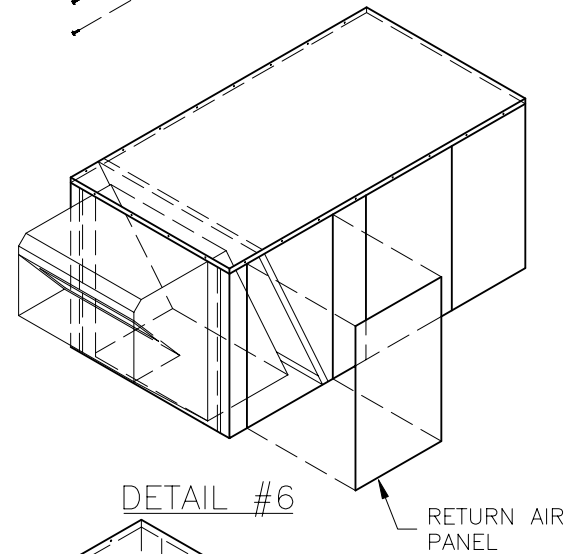
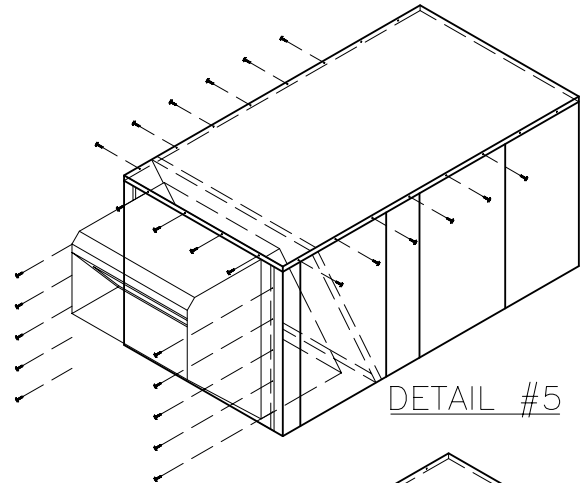
- 1 – REMOVE RETURN AIR COMPARTMENT PANEL FROM BACK OF HVAC UNIT.(SEE DETAIL #1)
- 2 – REMOVE SCREWS ON BACK OF HVAC UNIT HOLDING TOP OF HVAC UNIT DOWN. ALSO REMOVE SCREWS ABOUT HALF-WAY DOWN BOTH SIDES OF HVAC UNIT TOP. (SEE DETAIL #1)
- 3 – LIFT TOP OF THE HVAC UNIT AND PROP UP WITH SUPPORTS, 2” SPACING 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. MAKE SURE THE LEFT AND RIGHT SIDE FLANGES OF THE ECONOMIZER SLIDE INTO THE SIDE GROOVES OF THE HVAC UNIT. (SEE DETAIL DRAWING #2 & #3)
- 6 – REMOVE 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 PROVIDED WITH ECONOMIZER PACKAGE. (SEE DETAIL #5)



## VOY1525HE - Vertical Install (cont'd)

### DOWN DISCHARGE 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 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).