



## INSTALLATION INSTRUCTIONS FOR

CARRIER 3A (CAS PART #1022355/1022911) CARRIER 4A (CAS PART #1022356/1022912) CARRIER 74A (CAS PART #1022558/1022936) ECONOMIZER

### HORIZONTAL CONFIGURATION



1022355-1022911 3A ECONOMIZER FOR 3-6 TON UNITS



1022356/1022912 4A ECONOMIZER FOR 7.5-12.5 TON UNITS

1022558/1022936 74A ECONOMIZER FOR 12.5 [HIGH EFF], 15 TON UNITS

## READ COMPLETELY BEFORE INSTALLING!!!

CAMBRIDGEPORT IS NOT RESPONSIBLE FOR IMPROPERLY INSTALLED EQUIPMENT

PAGE 7

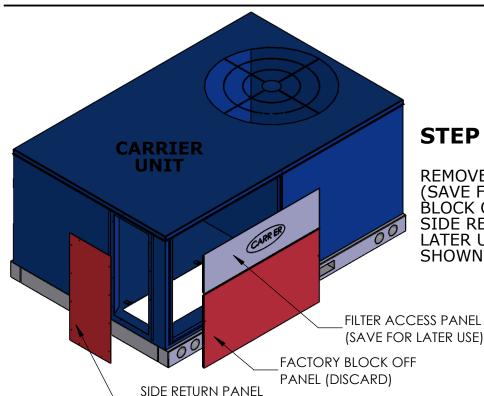
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BEFORE BEGINNING VERIFY HORIZONTAL ECONOMIZER CONFIGURATION IF AIR FLOW IS HORIZONTAL USE DOWNSHOT CONFIGURATION INSTRUCTIONS



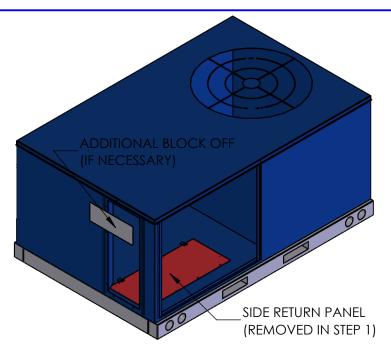
#### **STEP 1: PANEL REMOVAL**

REMOVE FILTER ACCESS PANEL (SAVE FOR LATER USE), FACTORY BLOCK OFF PANEL (DISCARD), AND SIDE RETURN PANEL (SAVE FOR LATER USE) FROM CARRIER UNIT AS SHOWN HERE.

## STEP 2 (OPTION): DUAL ENTHALPY

(SAVE FOR LATER USE)

IF DUAL ENTHALPY OPTION HAS BEEN ADDED NOW IS THE TIME TO INSTALL THE SECOND ENTHALPY SENSOR (SOLD SEPARATELY) IN THE RETURN AIR DUCT. SEE PAGE 18 FOR ENTHALPY SENSOR WIRING DETAIL



### **STEP 3: BLOCK OFFS**

INSTALL SIDE RETURN PANEL (REMOVED FROM STEP 1 ON LEFT HAND SIDE OF UNIT) OVER BOTTOM RETURN OPENING.

IF 10-12.5 TON UNIT IS BEING INSTALLED, AN ADDITIONAL BLOCK OFF IS REQUIRED ON THE SIDE RETURN OPENING. INSTALL 5.25" X 14" PANEL AT TOP OF SIDE RETURN OPENING.



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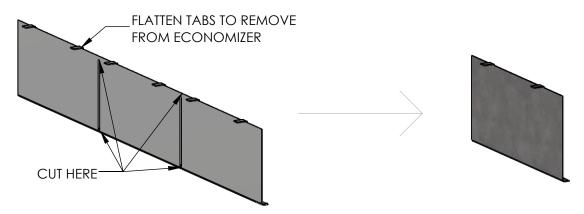




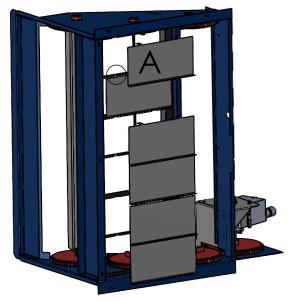
#### **STEP 4: BAROMETRIC RELIEF BLADES**

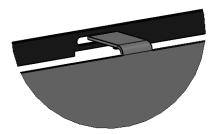
BAROMETRIC RELIEF BLADES ARE SHIPPED CONFIGURED FOR DOWNSHOT ECONOMIZERS. REPOSITION BLADES FOR HORIZONTAL APPLICATION.

i) FLATTEN TABS, REMOVE BLADES FROM ECONOMIZER, THEN CUT AT SLOTS.



ii) ROTATE BLADES 90° AND PLACE IN ECONOMIZER AT SIX (6) LOCATIONS.





DETAIL A SCALE 1 : 1

iii) BEND TABS BACK TO 45° TO HOLD IN ECONOMIZER AND ALLOW FOR OPENING

\*\*\*IMPORTANT\*\*\*

TABS MUST BE BENT BACK AS SHOWN OR THEY WILL PREVENT DAMPER FROM OPENING





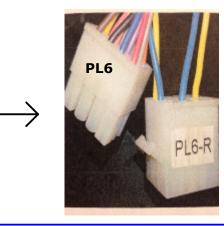


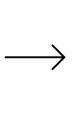
#### **STEP 5: WIRING HARNESS**

IN ECONOMIZER SECTION OF THE RTU LOCATE FACTORY WIRING HARNESS "PL-6" AND REMOVE FACTORY HARNESS JUMPER LABELED "PL6-R". (NOTE: SAVE JUMPER "PL6-R" FOR FUTURE USE IF ECONOMIZER NEEDS TO BE BYPASSED)

SET ECONOMIZER LOOSELY IN CORNER OF UNIT SO THAT PLUG FROM ECONOMIZER REACHES UNIT HARNESS. CONNECT CAMBRIDGEPORT ECONOMIZER WIRING HARNESS TO THE UNIT WIRING HARNESS "PL-6".







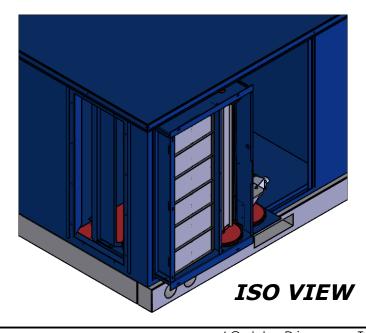


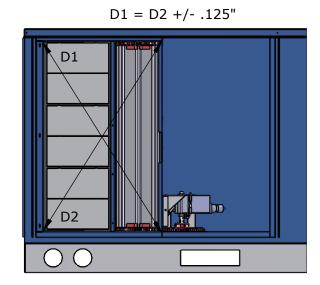
#### STEP 6: ECONOMIZER INSTALL

INSTALL ECONOMIZER IN BOTTOM LEFT HAND SIDE OF UNIT AS SHOWN ABOVE. ALLOW FLANGE ON PERIMETER OF ECONOMIZER TO REST OVER FLANGE IN UNIT.

WARNING: ECONOMIZER MUST BE INSTALLED "SQUARE" OR COMPONENT DAMAGE WILL RESULT! CAMBRIDGEPORT WILL NOT ACCEPT RESPONSIBILITY FOR DAMAGED PARTS DUE TO IMPROPER INSTALLATION/ OPERATION!

NOTE: THE PRE-DRILLED HOLES MAY NOT LINE UP WITH THE UNIT. **DO NOT** FORCE SCREWS INTO PRE-DRILLED HOLES. DRILL NEW HOLES IF NECESSARY.





**FRONT VIEW** 





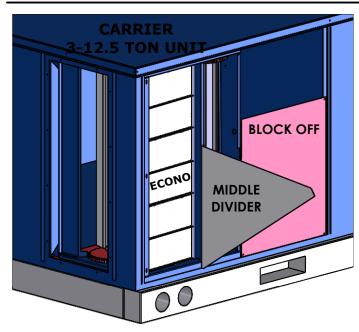
#### **STEP 7: ACTUATOR CHECK**

LOCATE WINDOW ON SIDE OF ACTUATOR BRACKET WHICH IS MOUNTED ON TOP OF DAMPER BLADE ASSEMBLY.

ENSURE BLACK SWITCH IS LOCATED IN THE COUNTERCLOCKWISE (POINTED UP) POSITION AS SHOWN HERE. IF SWITCH IS CLOCKWISE THEN FLIP SWITCH TO BE IN CCW POSITION.

WARNING: IF SWITCH IS IN THE INCORRECT POSITION ECONOMIZER WILL NOT OPERATE PROPERLY





12.5 [HIGH EFF],

**15 TON UNIT** 

## STEP 8: BLOCK OFFS AND HOOD DIVIDER

INSTALL MIDDLE DIVIDER FOR HOOD DIRECTLY TO FLANGE IN CENTER OF ECONOMIZER AS SHOWN.

FOR 3-12.5 TON UNITS FIND APPROPRIATE BLOCK OFF PANEL AND INSTALL OVER OPEN AREA TO THE RIGHT OF MIDDLE DIVIDER AS SHOWN.

FOR 12.5 [HIGH EFF],15 TON UNITS ARRANGE FIVE (5) PANELS TO THE RIGHT AS SHOWN BELOW.

#### FOR 3-10 TON UNITS

USE 15" X 17-7/8" BLOCK OFF PANEL

FOR 10.5-12.5 TON UNITS

USE 17" X 23-5/8" BLOCK OFF PANEL

FOR 12.5 [HIGH EFF], 15 TON UNITS

USE PANEL ARRANGEMENT BELOW

9-7/8" X 23-1/8" [2]

-7" X 32-3/8"

-6-3/8" X 14"

-14" X 1*7-*1/2"

**CAMBRIDGEPORT** 

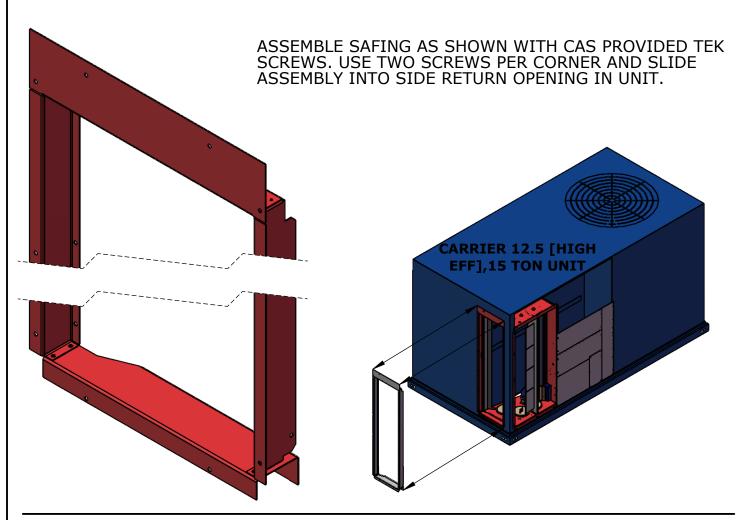
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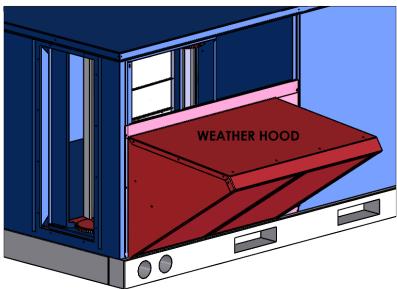




#### STEP 9: SAFING

IF OPERATING A 12.5 [HIGH EFF], 15 TON UNIT (ECONOMIZER PART #1022558/1022936) SAFING MUST BE INSTALLED IN SIDE RETURN AIR OPENING FOR PROPER AIRFLOW.





#### **STEP 10: WEATHER HOOD**

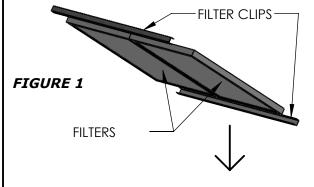
HORIZONTAL DIVIDER SHIPPED
INSTALLED MUST BE REMOVED FOR
PROPER OPERATION. REMOVE TWO
SCREWS ON BOTH SIDES OF HOOD
AND TAKE OUT DIVIDER.

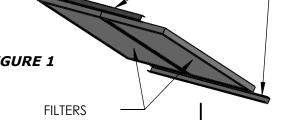
INSTALL WEATHER HOOD ON THE RTU SO THAT THE VERTICAL FLANGES SIT IN GROOVES ON THE RTU. HOOD WILL SIT OVER DIVIDER INSTALLED IN STEP 8. SECURE WITH SCREWS REMOVED FROM BLOCK OFF PANEL IN STEP 1.

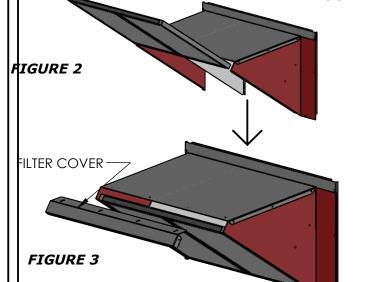


HOOD



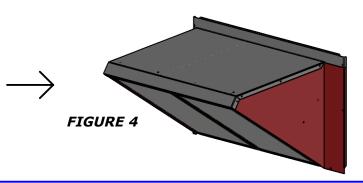






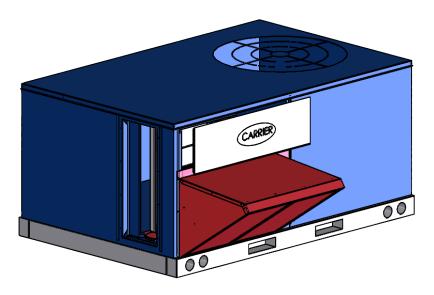
### **STEP 11: FILTER INSTALLATION**

- i) REMOVE FILTER COVER FROM TOP OF WEATHER HOOD.
- ii) PUT FILTERS TOGETHER AND HOLD IN PLACE BY ATTACHING FILTER CLIPS OVER TOP AND BOTTOM EDGE. (FIGURE 1)
- iii) SLIDE FILTER ASSEMBLY DOWN FRONT OF WEATHERHOOD WHILE ENGAGING EDGE FLANGES ON BOTH SIDES. (FIGURE 2)
- iv) ATTACH FILTER COVER TO WEATHERHOOD BY SLIDING FLANGE **UNDER** ROOF OF HOOD. (FIGURE 3,4)



### STEP 12: FILTER ACCESS PANEL AND WIRING

REINSTALL FILTER ACCESS PANEL (REMOVED FROM STEP 1) ON TOP OF WEATHERHOOD. FOLLOW INSTRUCTIONS FOR BELIMO WIRING AND SETUP ON PAGE [14].



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