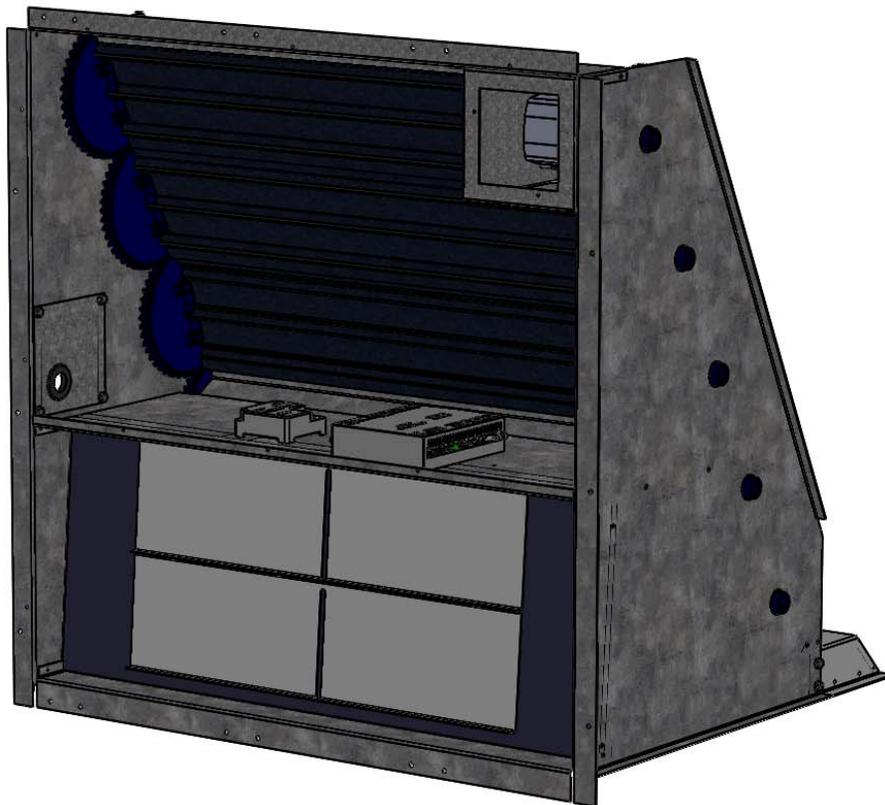


INSTALLATION INSTRUCTIONS FOR
3-12.5 TON YORK PREDATOR GEN 7
OR NEWER ECONOMIZER
DOWNSHOT CONFIGURATION



CAS PART NUMBER 1023535

READ COMPLETELY BEFORE INSTALLING!!!

CAMBRIDGEPORT IS NOT RESPONSIBLE FOR IMPROPERLY INSTALLED EQUIPMENT

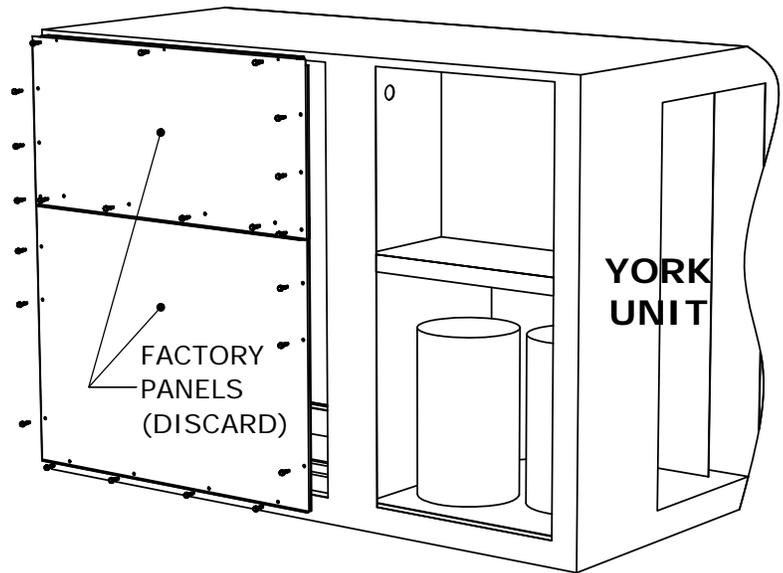
PAGE 1

**BEFORE BEGINNING VERIFY DOWNSHOT ECONOMIZER CONFIGURATION
IF ECONOMIZER IS IN SIDESHOT CONFIGURATION SKIP AHEAD TO PAGE 7**

STEP 1: PANEL REMOVAL

REMOVE TWO (2) FACTORY BLOCK OFF
PANELS ON SIDE OF UNIT.

DISCARD PANELS AS THEY WILL NOT BE
NECESSARY ONCE ECONOMIZER IS
INSTALLED.



STEP 2: PREPARATION

ORGANIZE WIRING INSIDE UNIT SO WIRES DO NOT INTERFERE WITH ECONOMIZER DURING
OPERATION.

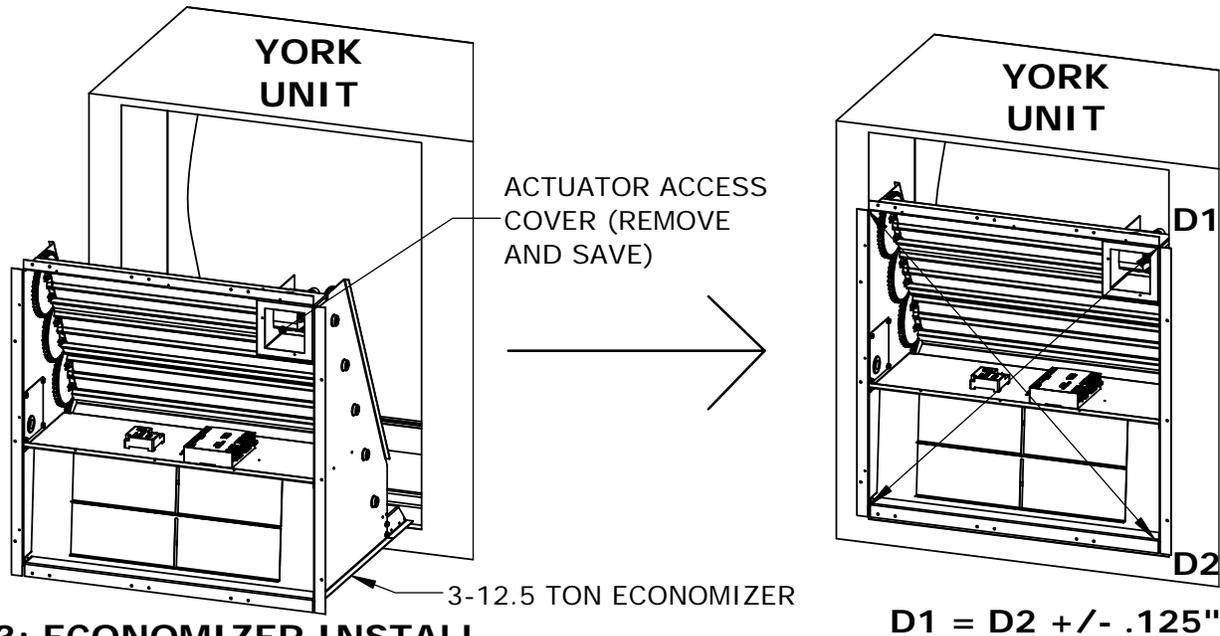


**VIEW FROM SIDE OF UNIT
(BOTTOM PANEL NOT SHOWN)**

RUN WIRING UP IN FRONT
OF FILTER TRACK



VIEW INSIDE UNIT

**STEP 3: ECONOMIZER INSTALL**

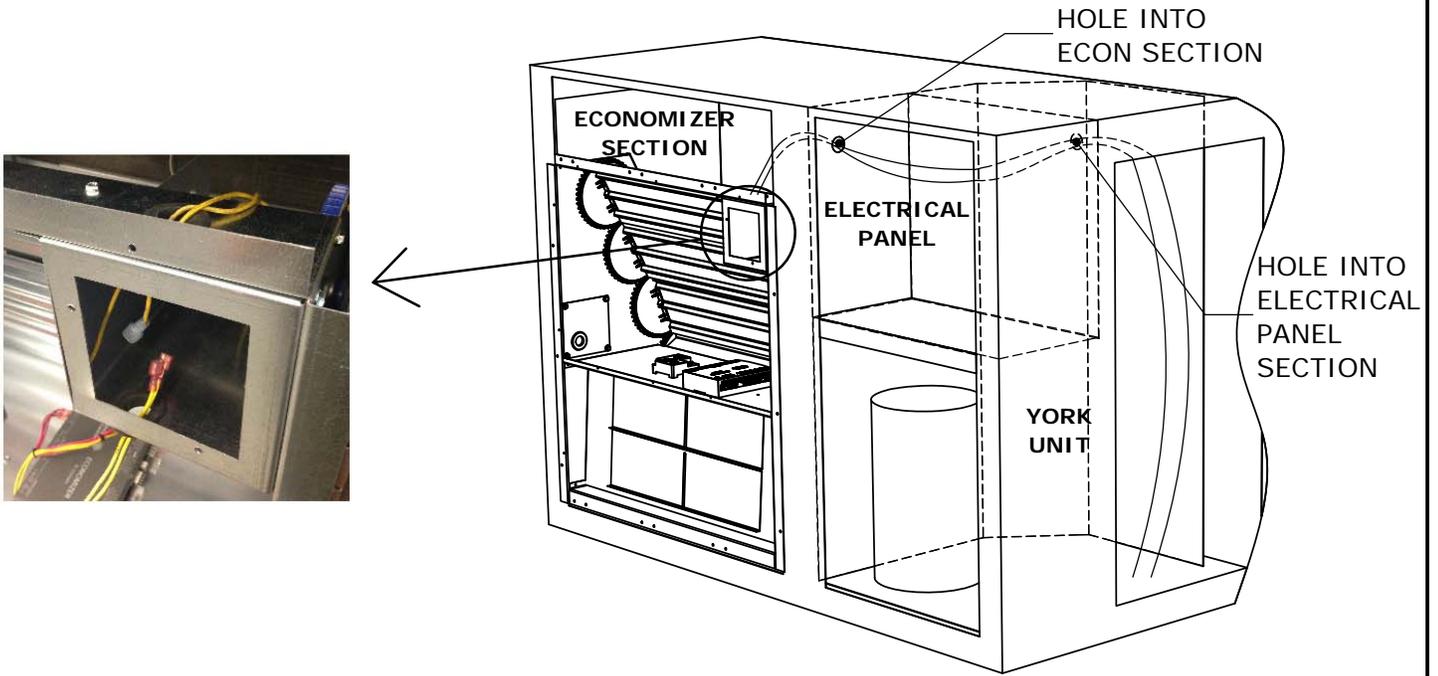
PLACE ECONOMIZER DAMPER ASSEMBLY INTO YORK UNIT POSITIONED AS SHOWN. USING PRE-PUNCHED HOLES IN DAMPER SIDE AND BOTTOM FLANGES, SECURE ECONOMIZER TO UNIT WITH SCREWS PROVIDED IN HARDWARE BAG.

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

REMOVE ACTUATOR ACCESS COVER (SEE ABOVE) AND SAVE FOR LATER.

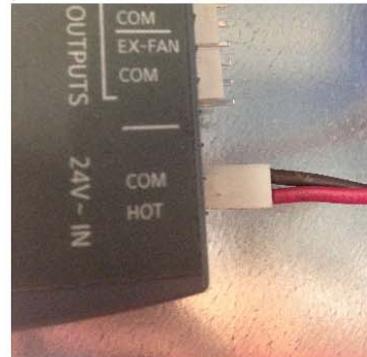
**STEP 4: O/A SENSOR (SEE DIAGRAM AT TOP OF PAGE 3)**

- i) DISCONNECT O/A SENSOR (TWO YELLOW WIRES) FROM FLOOR IN COMPRESSOR SECTION OF UNIT. SEE LEFT IMAGE.
- ii) ROUTE YELLOW WIRES UP THROUGH HOLE IN UNIT WALL INTO ELECTRICAL PANEL SECTION OF UNIT.
- iii) ROUTE YELLOW WIRES FROM ELECTRICAL PANEL SECTION INTO ECONOMIZER SECTION THROUGH HOLE IN WALL OF UNIT.
- iv) FEED WIRES THROUGH GROMMETED HOLE IN TOP OF ACTUATOR HOUSING AND LEAVE IN BOX. (SEE TOP OF PAGE 4)
- v) LOCATE TWO YELLOW WIRES FROM ENTHALPY SENSOR ALREADY INSTALLED ON ECONOMIZER. FEED THESE WIRES UP THROUGH GROMMETED HOLE IN BOTTOM OF ACTUATOR HOUSING AND ATTACH TO WIRES LEFT IN PREVIOUS STEP. (POLARITY INSENSITIVE)(SEE TOP OF PAGE 3)



STEP 5: 2-WIRE HARNESS

LOCATE TWO-WIRE HARNESS WITH RED AND BROWN WIRES HANGING ABOVE ECONOMIZER IN UNIT WIRING BUNDLE. ROUTE HARNESS THROUGH TOP AND BOTTOM GROMMETED HOLES IN ACTUATOR HOUSING AND ATTACH TO SE CONTROLLER (LOCATED ON MIDDLE DIVIDER OF ECONOMIZER) AT 24V-IN PORT. SEE BELOW



STEP 6: 3-WIRE HARNESS

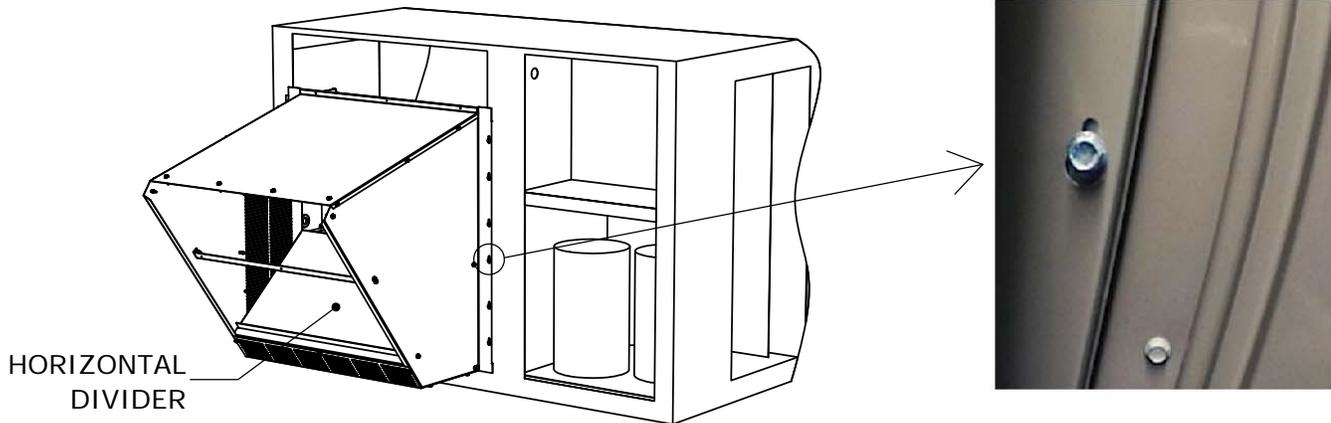
LOCATE THREE-WIRE HARNESS WITH RED, WHITE, AND BLACK WIRES HANGING ABOVE ECONOMIZER IN UNIT WIRING BUNDLE. ROUTE HARNESS THROUGH TOP AND BOTTOM GROMMETED HOLES IN ACTUATOR HOUSING AND ATTACH TO SE CONTROLLER AT SA BUS PORT. SEE BELOW



0

STEP 7: HOOD

INSTALL HOOD AS SHOWN USING TEARDROP SLOTS ON LEFT AND RIGHT HAND SIDES. SIDE FLANGES OF ECONO HOOD SHOULD REST ON UNIT BASE RAIL ONCE INSTALLED. ENSURE HORIZONTAL DIVIDER IS INSTALLED IN HOOD FOR DOWNSHOT ORIENTATION ECONOMIZING

**STEP 8: BLOCK OFFS**

i) SMALL CABINET - INSTALL PANEL "A" FOLLOWED BY PANEL "B" ON ABOVE HOOD AS SHOWN.

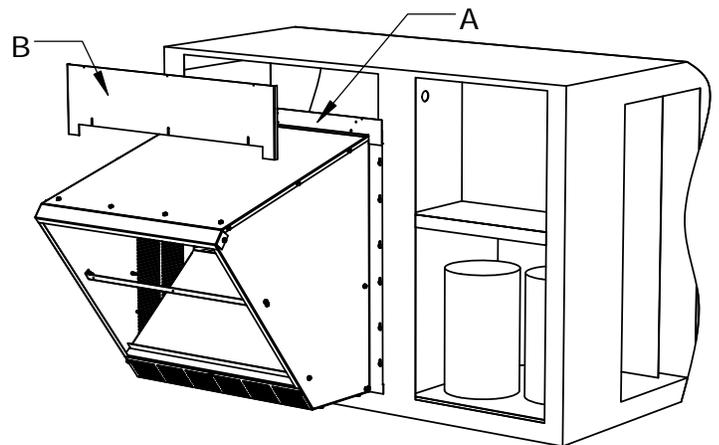
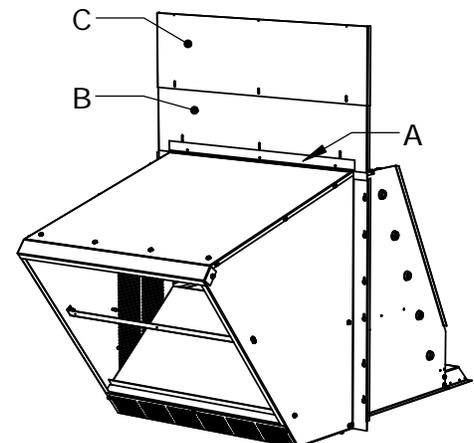
SMALL CABINET UNITS

ZF 078-090
ZH 037-090
ZJ 037-061
ZR 037-090

ii) LARGE CABINET - INSTALL PANEL "A" FOLLOWED BY PANEL "B" AND FINALLY PANEL "C" ABOVE HOOD AS SHOWN.

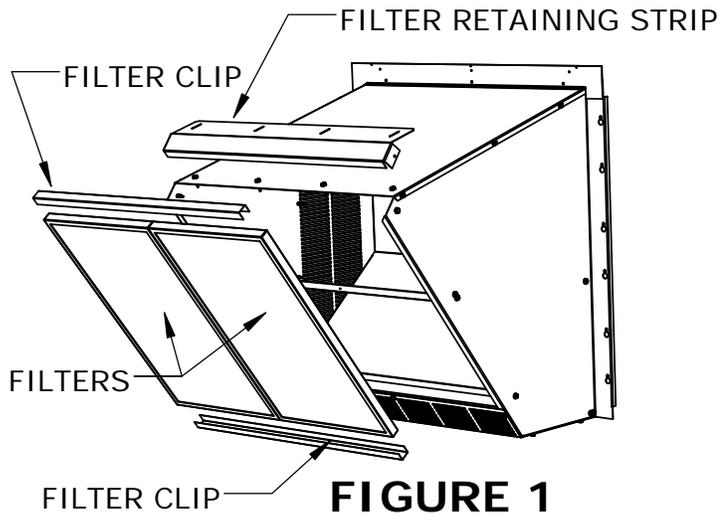
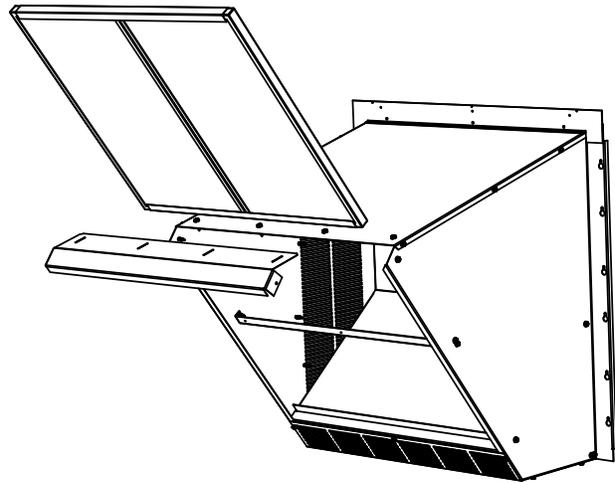
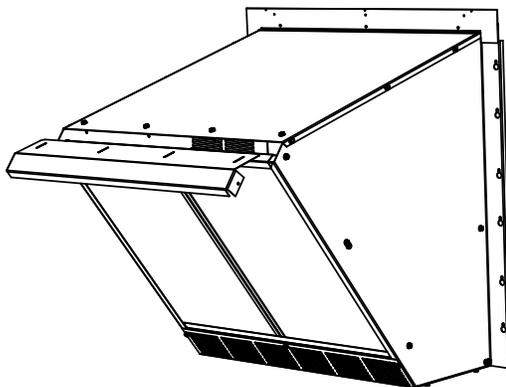
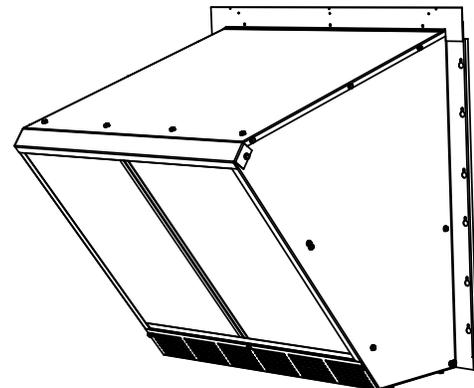
LARGE CABINET UNITS

ZF 102-150
ZH 102-150
ZJ 078-150
ZR 102-150

**SMALL CABINET****LARGE CABINET
(UNIT NOT SHOWN)**

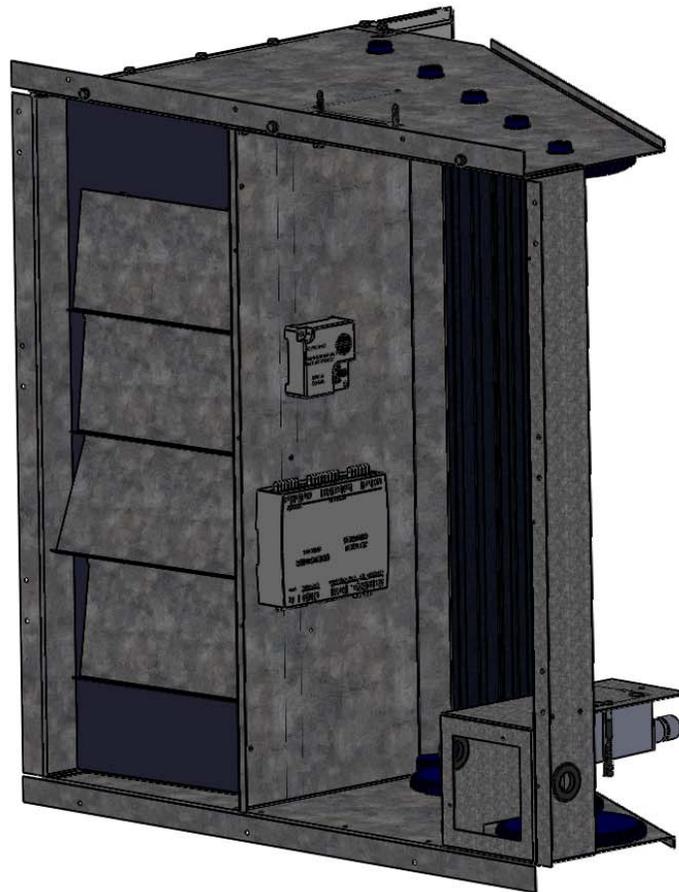
STEP 9: HOOD FILTERS

LOOSEN SCREWS HOLDING FILTER RETAINING STRIP AND REMOVE. NOTE: FILTER RETAINING STRIP MAY SHIP PRE-REMOVED FROM THE FACTORY. ATTACH FILTER CLIPS TO TOP AND BOTTOM OF FILTERS TO HOLD IN PLACE [SEE FIGURES 1 & 2]. SLIDE FILTERS INTO HOOD AS SHOWN IN FIGURE 2. RE-INSTALL FILTER RETAINING STRIP TO HOLD FILTERS IN PLACE [SEE FIGURES 3 & 4].

**FIGURE 1****FIGURE 2****FIGURE 3****FIGURE 4**

**... SKIP AHEAD TO PAGE 16 FOR YORK/JCI
SIMPLICITY CONTROL BOARD SET UP**

INSTALLATION INSTRUCTIONS FOR
3-12.5 TON YORK PREDATOR GEN 7
OR NEWER ECONOMIZER
SIDESHOT CONFIGURATION



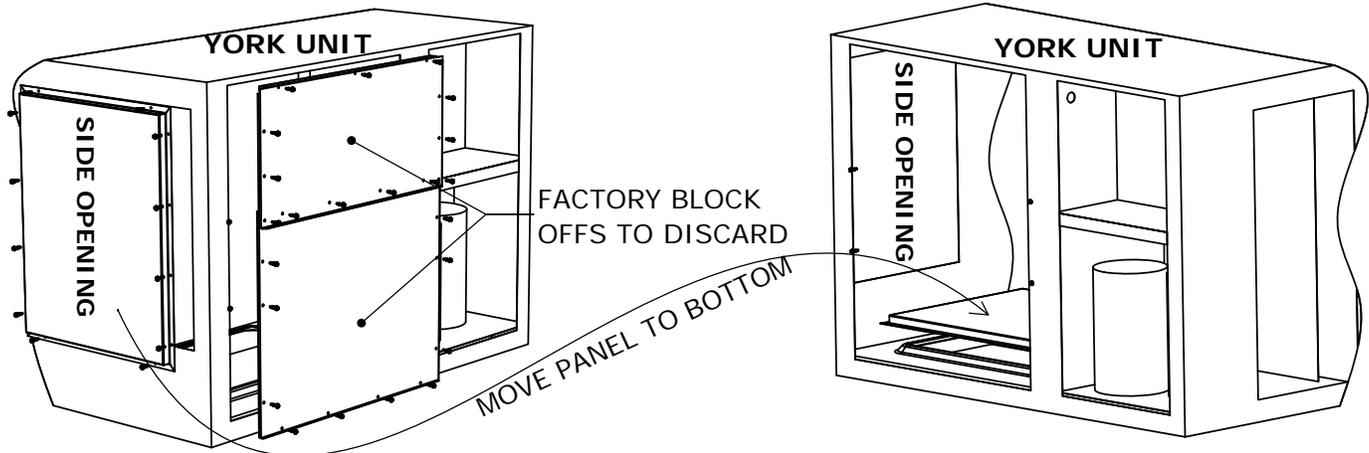
CAS PART NUMBER 1023535

READ COMPLETELY BEFORE INSTALLING!!!

CAMBRIDGEPORT IS NOT RESPONSIBLE FOR IMPROPERLY INSTALLED EQUIPMENT

PAGE 7

**BEFORE BEGINNING VERIFY SIDESHOT ECONOMIZER CONFIGURATION
IF ECONOMIZER IS IN DOWNSHOT CONFIGURATION REFER BACK TO PAGE 1**



STEP 1: PANEL REMOVAL

REMOVE TWO (2) FACTORY BLOCK OFF PANELS ON SIDE OF UNIT AND DISCARD. REMOVE SIDE RETURN AIR OPENING PANEL (SEE ABOVE) AND INSTALL ON UNUSED BOTTOM OPENING.

STEP 2: UNIT PREPARATION

ORGANIZE WIRING INSIDE UNIT SO WIRES DO NOT INTERFERE WITH ECONOMIZER DURING OPERATION. IF USING A LARGE CABINET YORK UNIT, REMOVE CROSS BRACE FOR FILTER RACK ON FAR LEFT HAND SIDE. SEE BELOW

RUN WIRING UP IN FRONT OF FILTER TRACK



**VIEW FROM SIDE OF UNIT
(BOTTOM PANEL NOT SHOWN)**



VIEW INSIDE UNIT

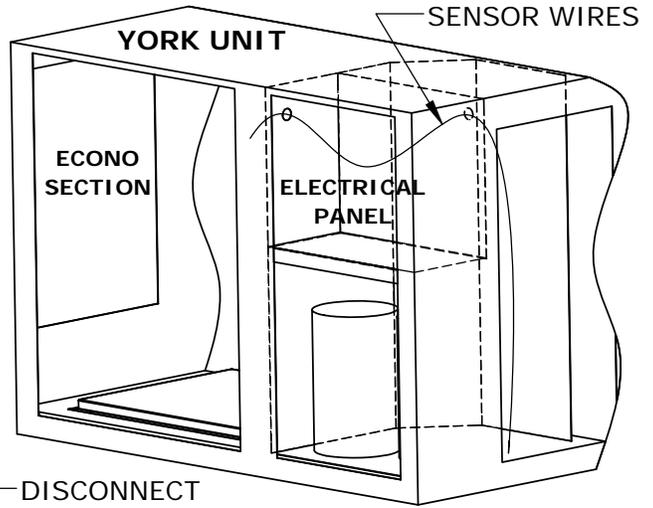
REMOVE
(LARGE CAB ONLY)



VIEW INSIDE UNIT

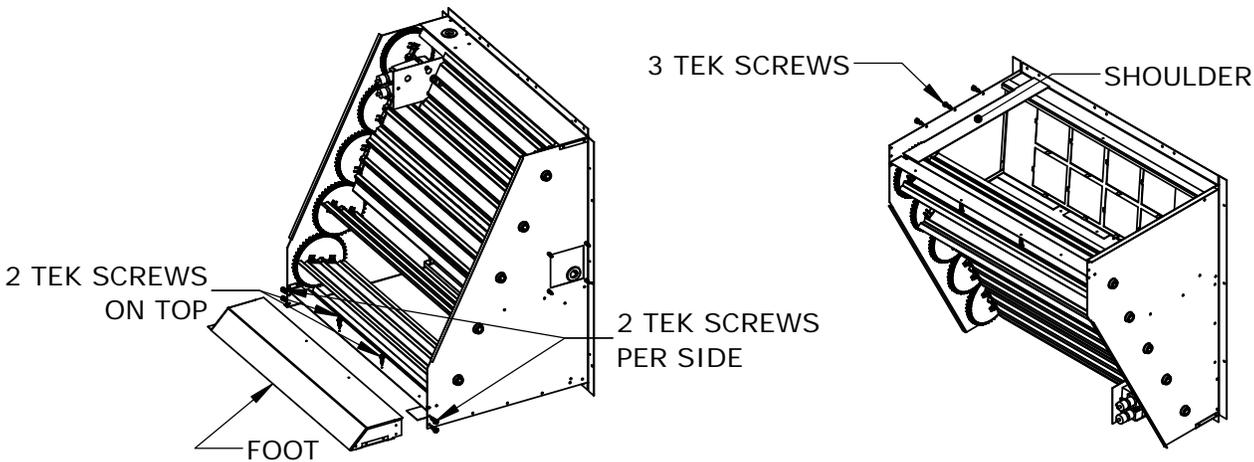
STEP 3: O/A SENSOR

DISCONNECT O/A SENSOR (TWO YELLOW WIRES) FROM FLOOR IN COMPRESSOR SECTION OF UNIT. ROUTE YELLOW WIRES THROUGH HOLE IN UNIT WALL INTO ELECTRICAL PANEL SECTION OF UNIT. FINALLY, RUN WIRES INTO ECONOMIZER SECTION OF UNIT THROUGH HOLE IN PANEL WALL.



STEP 4: ECONOMIZER PREPARATION

REMOVE FOOT AND SHOULDER PIECES FROM BOTTOM OF ECONOMIZER.

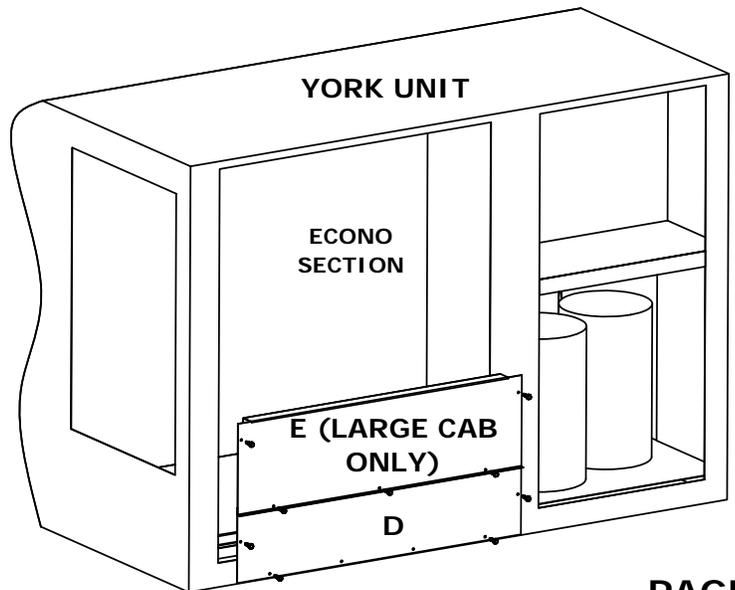


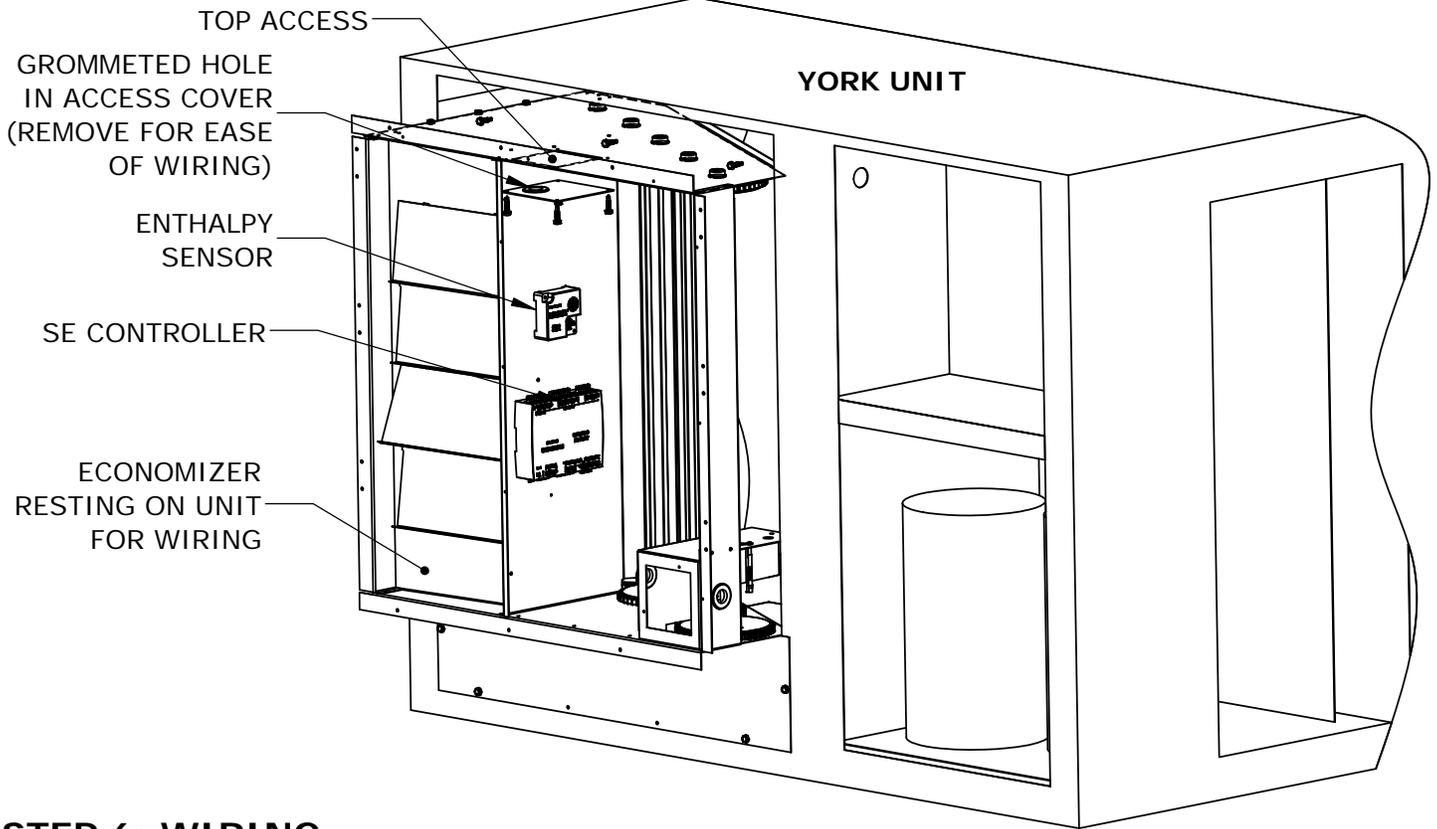
STEP 5: BOTTOM BLOCK OFFS

INSTALL PANEL "D" AT BOTTOM OF ECONOMIZER OPENING. IF LARGE CABINET YORK UNIT IS INSTALLED, ALSO ADD PANEL "E" ABOVE "D" (SEE BELOW)

LARGE CABINET UNITS

- ZF 102-150
- ZH 102-150
- ZJ 078-150
- ZR 102-150

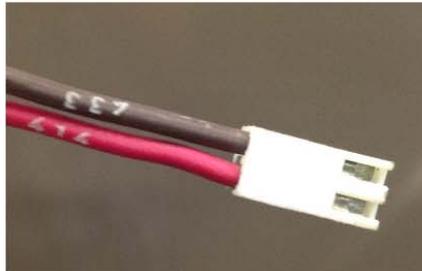




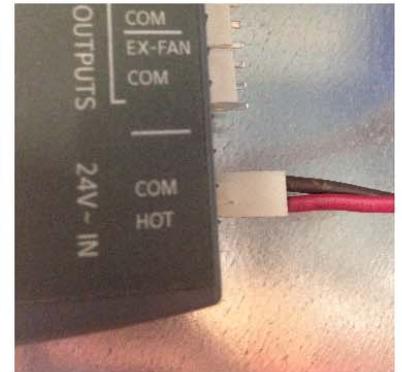
STEP 6: WIRING

i) REST DAMPER ASSEMBLY ON BOTTOM BLOCK OFF AND LET HANG OUTSIDE UNIT AS SHOWN ABOVE.

ii) LOCATE 2-WIRE HARNESS WITH RED AND BROWN WIRES HANGING ABOVE ECONOMIZER IN UNIT WIRING BUNDLE. ROUTE HARNESS THROUGH TOP ACCESS HOLE AND GROMMETED HOLE IN ACCESS COVER AND ATTACH TO SE CONTROLLER AT "24V-IN" PORT.



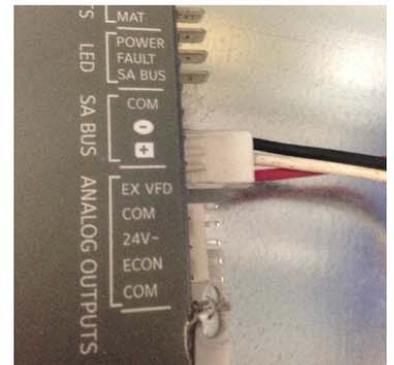
2-WIRE HARNESS AND LOCATION



iii) LOCATE 3-WIRE HARNESS WITH RED, WHITE, AND BROWN WIRES HANGING ABOVE ECONOMIZER IN UNIT WIRING BUNDLE. ROUTE HARNESS THROUGH TOP ACCESS HOLE AND GROMMETED HOLE IN ACCESS COVER AND ATTACH TO SE CONTROLLER AT "SA BUS" PORT.



3-WIRE HARNESS AND LOCATION



...CONTINUED ON PAGE 11

iv) LOCATE YELLOW O/A WIRES HANGING IN ECONOMIZER SECTION FROM STEP 3. ROUTE THESE TWO WIRES THROUGH TOP ACCESS HOLE AND GROMMETED HOLE IN ACCESS COVER AND CONNECT TO YELLOW ENTHALPY SENSOR WIRES PRE-LOCATED ON TEMPERATURE SENSOR. (POLARITY INSENSITIVE)

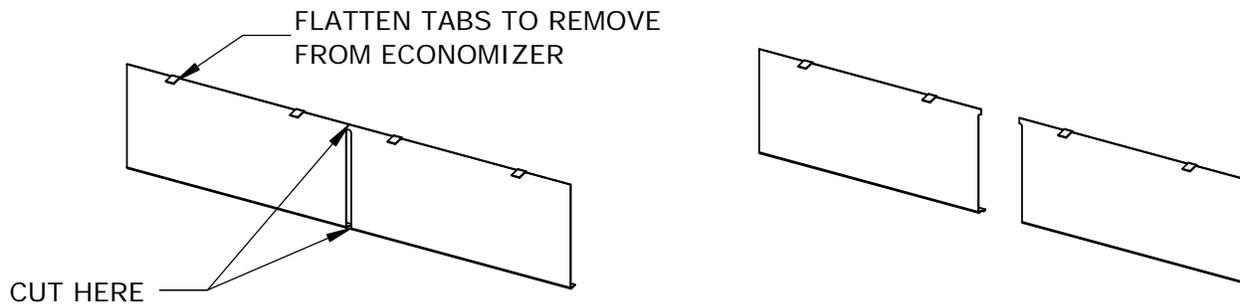
v) ORGANIZE WIRING AS SHOWN AS TO NOT INTERFERE WITH ECONOMIZER OPERATION.



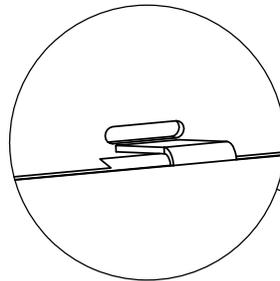
STEP 7: BAROMETRIC RELIEF BLADES

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

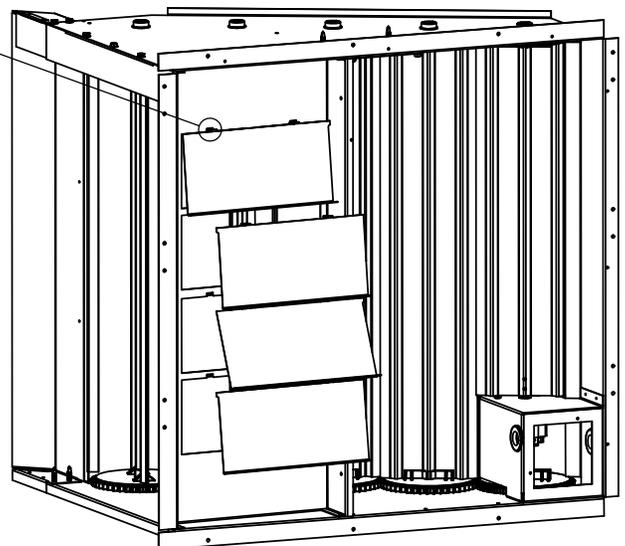
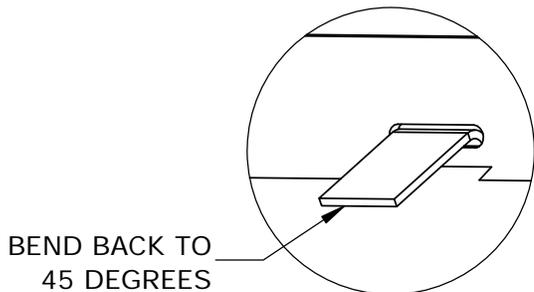
FLATTEN TABS, REMOVE BLADES FROM ECONOMIZER, THEN CUT AT SLOTS



ROTATE BLADES 90 DEGREES AND PLACE IN ECONOMIZER AT FOUR LOCATIONS



BEND TABS BACK TO 45 DEGREES TO HOLD IN ECONOMIZER AND ALLOW FOR RELIEF BLADES TO OPEN

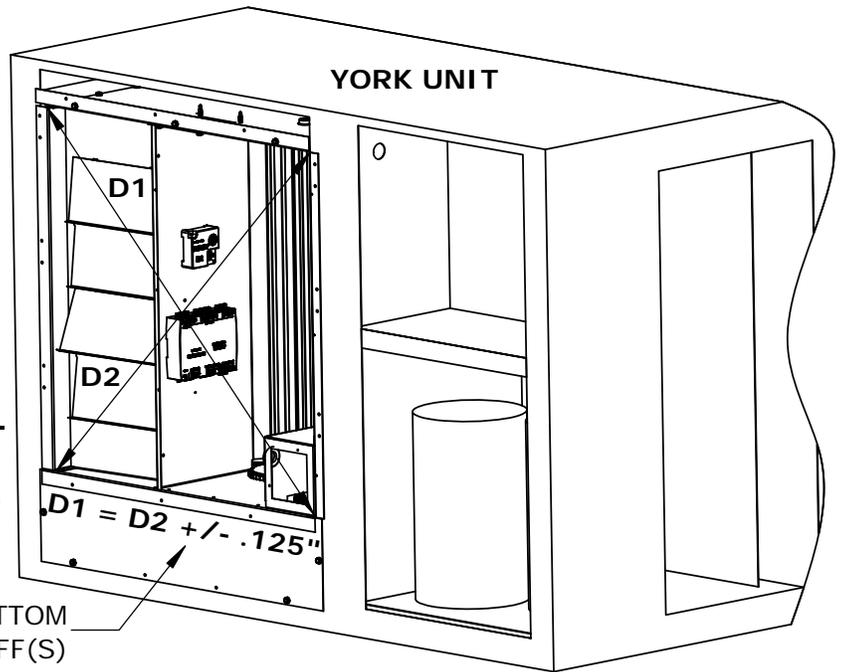


STEP 8: ECONOMIZER INSTALL

PLACE ECONOMIZER DAMPER ASSEMBLY INTO YORK UNIT POSITIONED AS SHOWN. USING PRE-PUNCHED HOLES IN DAMPER SIDE AND BOTTOM FLANGES, SECURE ECONOMIZER TO UNIT WITH SCREWS PROVIDED IN HARDWARE BAG.

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

BOTTOM
BLOCK-OFF(S)

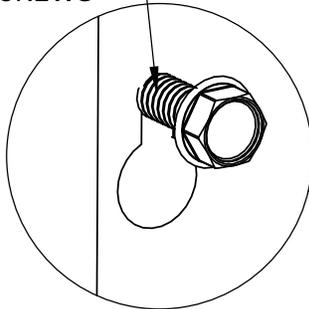
**STEP 9: HOOD INSTALL**

LOOSEN SCREWS PREVIOUSLY USED TO INSTALL ECONOMIZER. SLIDE TEARDROP SLOTS ON SIDE FLANGES OF WEATHER HOOD OVER SCREWS AND TIGHTEN TO SECURE WEATHER HOOD IN PLACE (SEE DETAIL "B" BELOW).

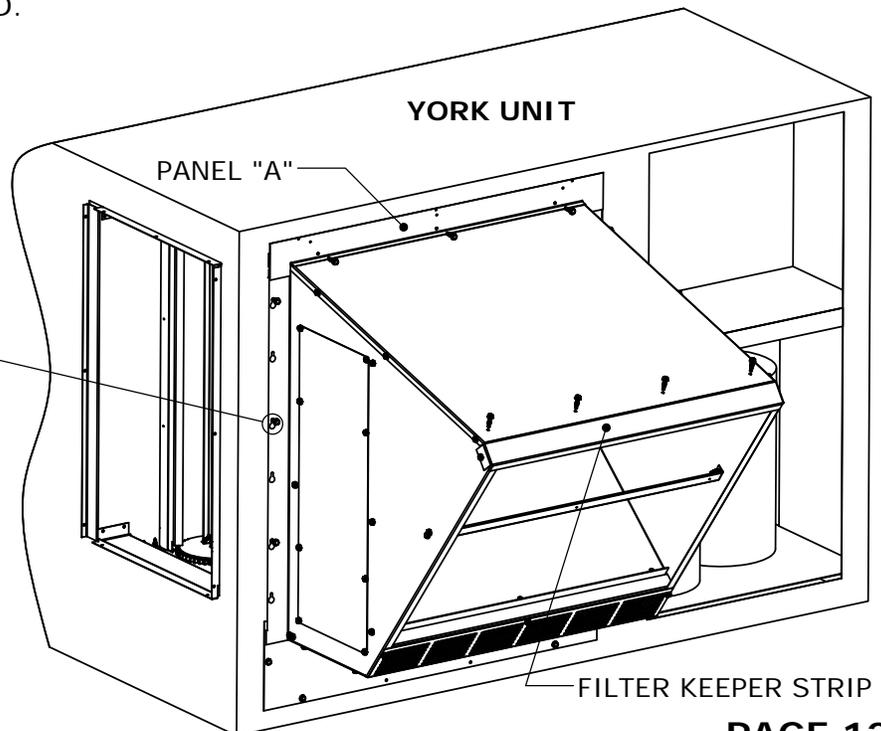
INSTALL TRIM RING PANEL "A" ABOVE WEATHERHOOD. PANEL SHOULD REST UNDERNEATH TOP CAP OF YORK UNIT.

REMOVE FILTER KEEPER STRIP (SEE BELOW). NOTE: FILTER KEEPER STRIP MAY BE REMOVED AT FACTORY AND SHIPPED UNASSEMBLED.

LOOSEN SCREWS



DETAIL B

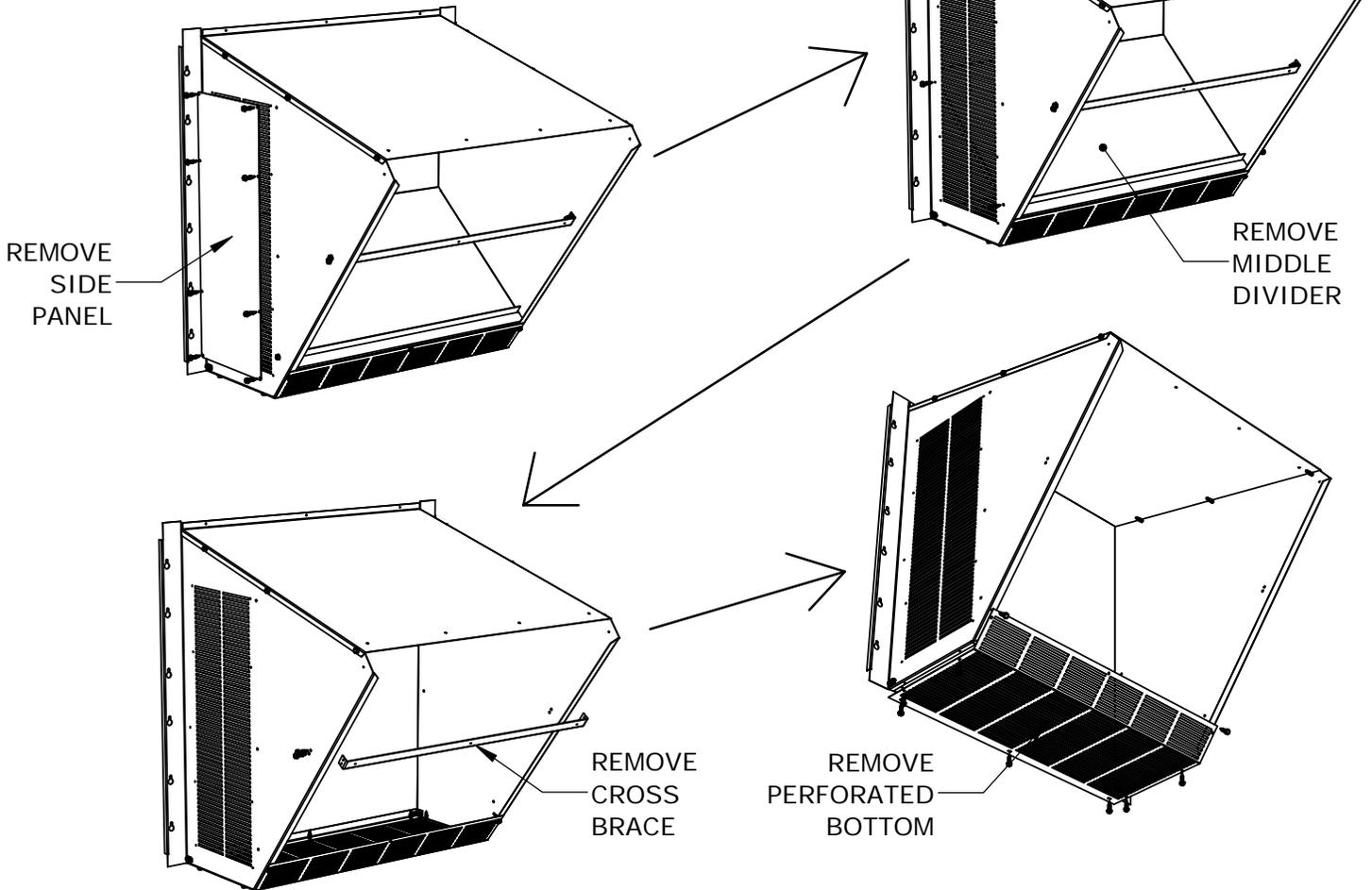


PAGE 12

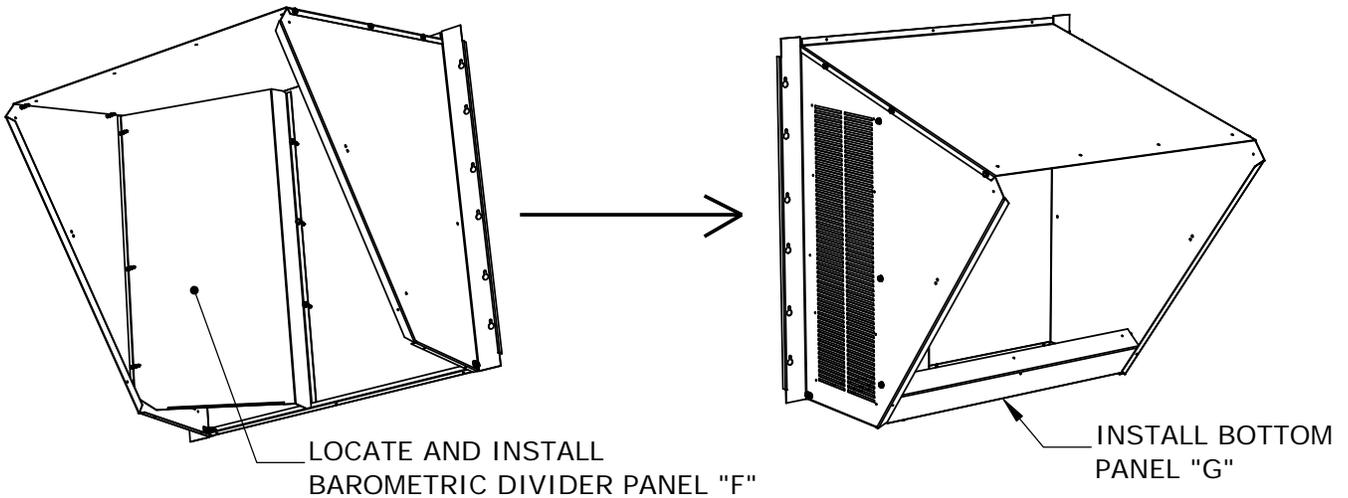
STEP 9: SIDESHOT HOOD PREPARATION

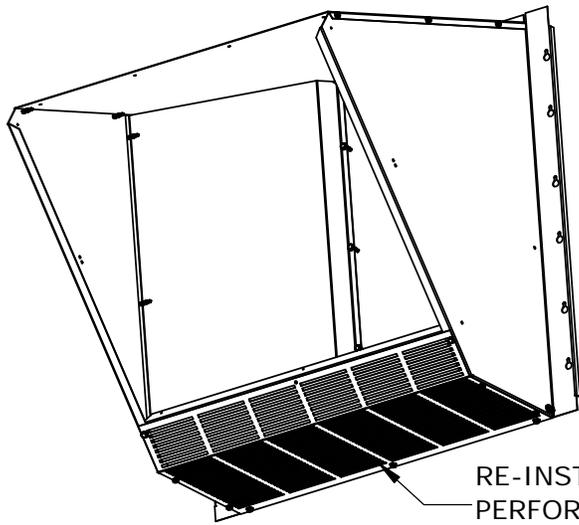
NOTE: HOOD IS SHIPPED FOR DOWNSHOT ORIENTATION

PART ONE: REMOVAL OF EXISTING PARTS



PART TWO: INSTALL PARTS FOR SIDESHOT AIR FLOW

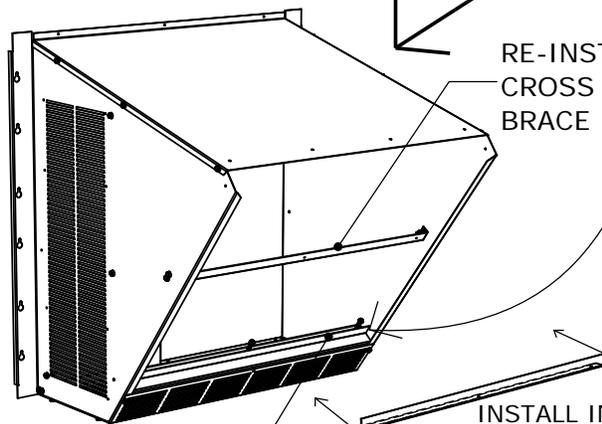




REMOVE TRACK FROM MIDDLE DIVIDER
TAKEN OUT AT BEGINNING OF STEP 9



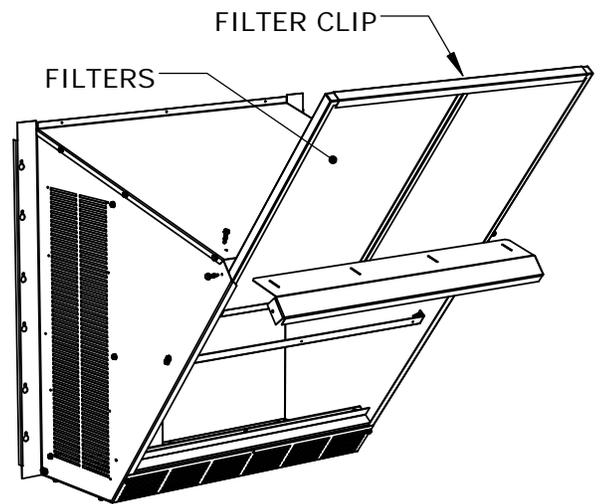
RE-INSTALL
PERFORATED
BOTTOM



RE-INSTALL
CROSS
BRACE

INSTALL TRACK

INSTALL IN THIS
ORIENTATION



FILTER CLIP

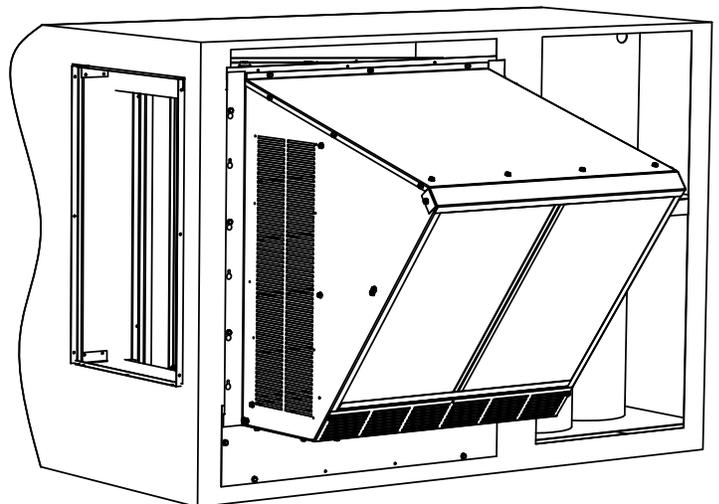
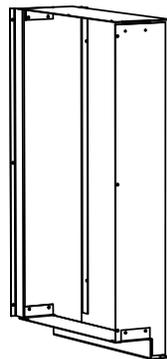
FILTERS

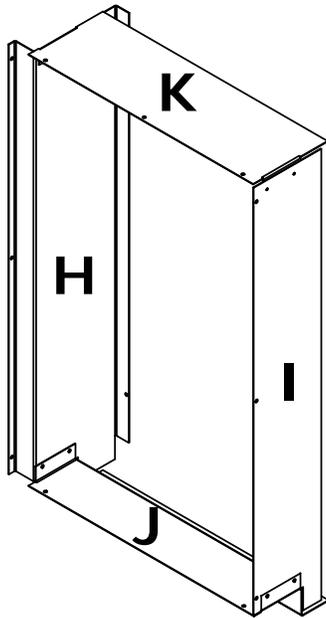
SLIDE FILTER CLIP OVER TOP AND BOTTOM OF FILTERS AND SLIDE FILTERS INTO HOOD.
RE-INSTALL FILTER KEEPER STRIP AND WEATHER HOOD INSTALL IS COMPLETE.

STEP 10: SAFING INSTALL

FOR ALL UNITS! INSTALL SAFING PIECES IN SIDE RETURN OPENING BETWEEN UNIT SIDE PANEL AND ECONOMIZER DAMPER ASSEMBLY. ENSURE ALL GAPS ARE COVERED AND SAFING IS SECURED BETWEEN UNIT AND DAMPER. INSTALL PIECES IN THE FOLLOWING ORDER:

- 1) LEFT SAFING WALL
- 2) RIGHT SAFING WALL
- 3) BOTTOM SAFING FLOOR
- 4) TOP SAFING CEILING

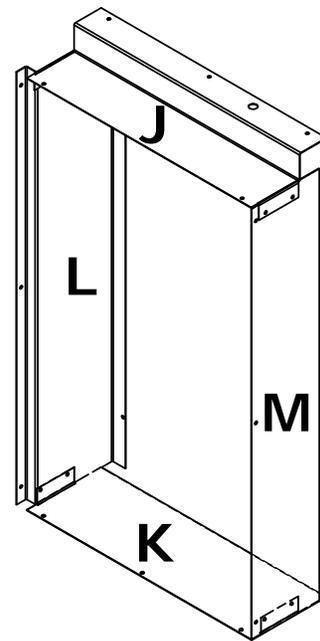


**SMALL CABINET UNITS**

ZF 078,090
 ZH 037-090
 ZJ 037-061
 ZR 037-090

IN ORDER INSTALL:

1. PANEL H
2. PANEL I
3. PANEL J
4. PANEL K

**LARGE CABINET UNITS**

ZF 102-150
 ZH 102-150
 ZJ 078-150
 ZR 102-150

IN ORDER INSTALL:

1. PANEL L
2. PANEL M
3. PANEL K
4. PANEL J

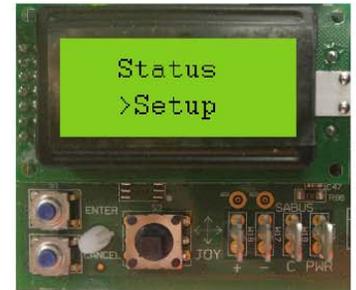
**... SKIP AHEAD TO PAGE 16 FOR YORK/JCI
 SIMPLICITY CONTROL BOARD SET UP**

LOCATE YORK SIMPLICITY CONTROLLER IN ELECTRICAL PANEL SECTION OF UNIT. USE JOYSTICK AND ENTER BUTTON TO NAVIGATE CONTROLLER OPTIONS ON SCREEN AND SET ECONOMIZER DAMPER CONFORMANCE.

SCREEN
ENTER BUTTON
JOYSTICK



JOYSTICK DOWN TO "Details" -> PRESS ENTER
JOYSTICK DOWN TO "Control" -> PRESS ENTER
JOYSTICK DOWN TO "Econ" -> PRESS ENTER
JOYSTICK DOWN TO "Setup" -> PRESS ENTER



JOYSTICK DOWN TO "Econ-MinPos" -> PRESS ENTER
JOYSTICK RIGHT TO DESIRED MIN POSITION % ->
PRESS ENTER TO LOCK IN %



JOYSTICK DOWN TO "EconOAT-SpEn" -> PRESS ENTER
JOYSTICK RIGHT TO DESIRED CHANGEOVER TEMPERATURE
-> PRESS ENTER TO LOCK IN TEMPERATURE



JOYSTICK DOWN TO "EconOAEth-Sp" -> PRESS ENTER
JOYSTICK RIGHT TO DESIRED BTU PER # -> PRESS ENTER
TO LOCK IN BTU PER #



JOYSTICK DOWN TO "LowAmb-Sp" -> PRESS ENTER
JOYSTICK RIGHT TO DESIRED TEMPERATURE TO ACTIVATE
LOW AMBIENT DAMPER POSITION ->
PRESS ENTER TO LOCK IN TEMPERATURE



JOYSTICK DOWN TO "LowAmb-MinPos" -> PRESS ENTER
JOYSTICK RIGHT TO DESIRED LOW AMBIENT DAMPER POSITION ->
PRESS ENTER TO LOCK IN POSITION

