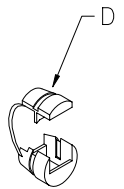
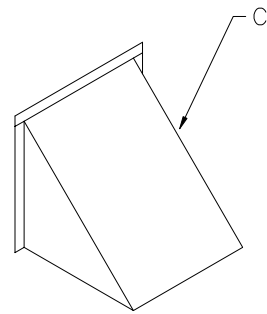
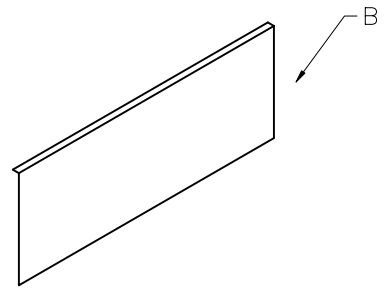
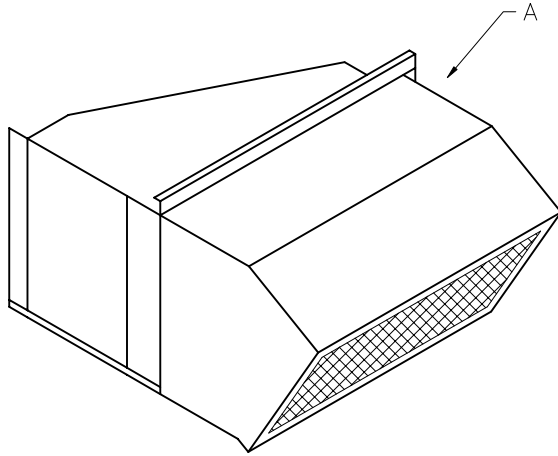
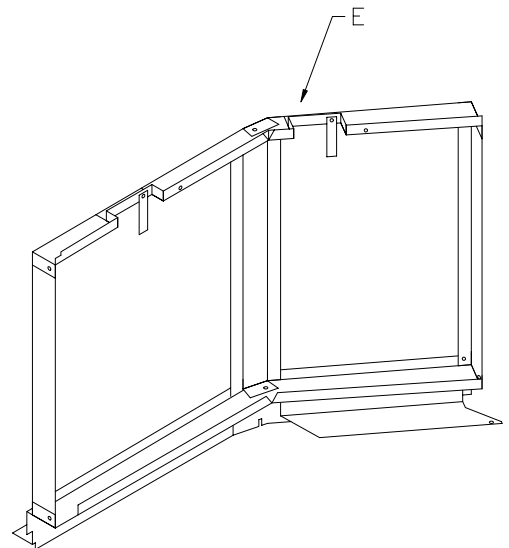


1159 / 1161-HEC INSTALLATION

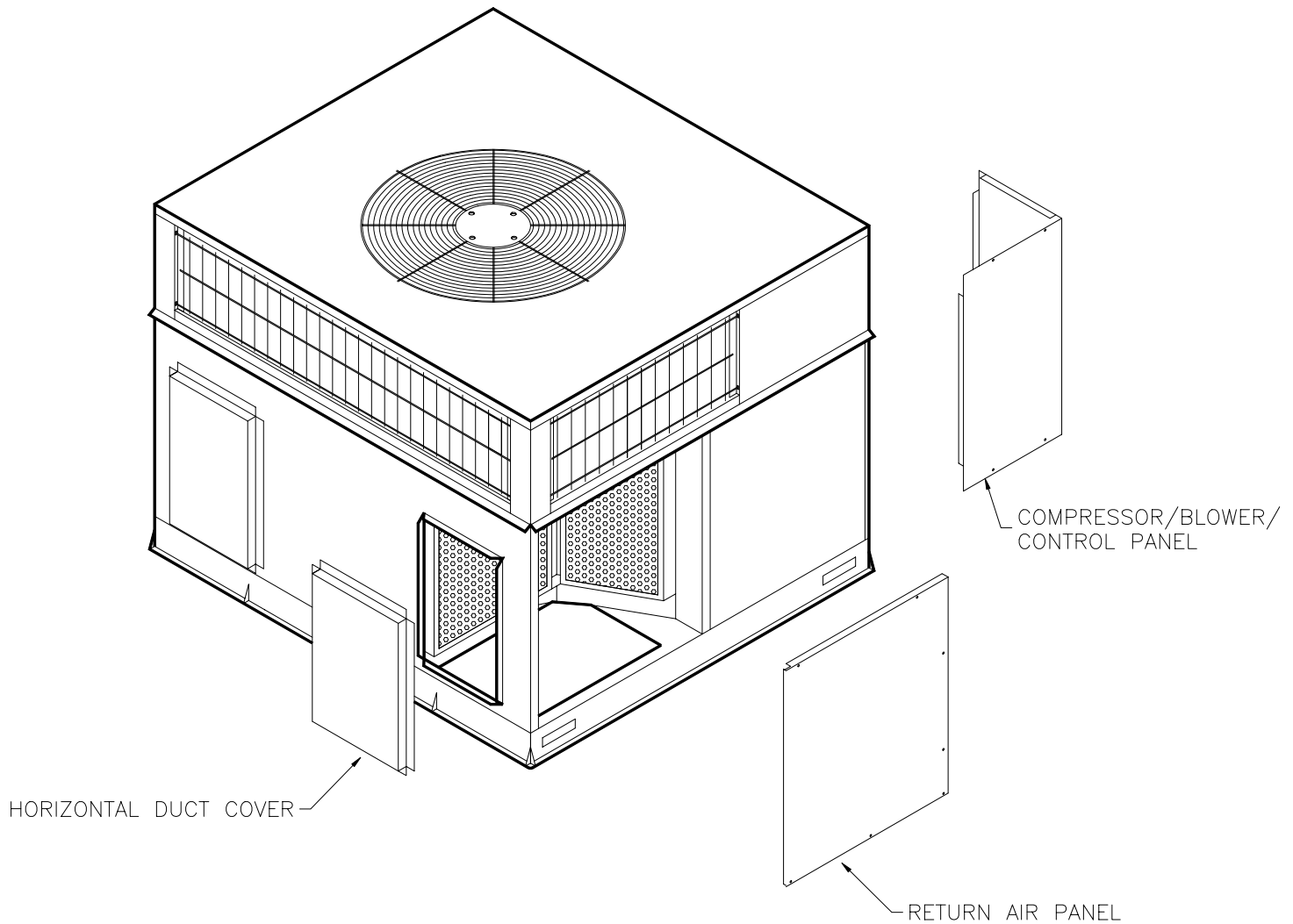


PARTS LIST

- (1) A - HORIZONTAL ECONOMIZER
- (1) B - FILTER ACCESS FILLER PANEL
- (1) C - 10x10 BAROMETRIC RELIEF HOOD
- (2) D - #1517 7/8 STRAIN RELIEF
- (1) E - FILTER RACK WITH (2) 1" FILTERS
- (2) #30-071 WIRE NUTS GREY
- (34) #10x3/4 WHW TEK SCREWS W/ SEALING WASHER
- (4) #L-7-50-MH-9 WIRE TIES W/ HOLE
- (20') 1/8x1 GASKET
- (1) 63-2700-06 HONEYWELL JADE W7220 BOOKLET

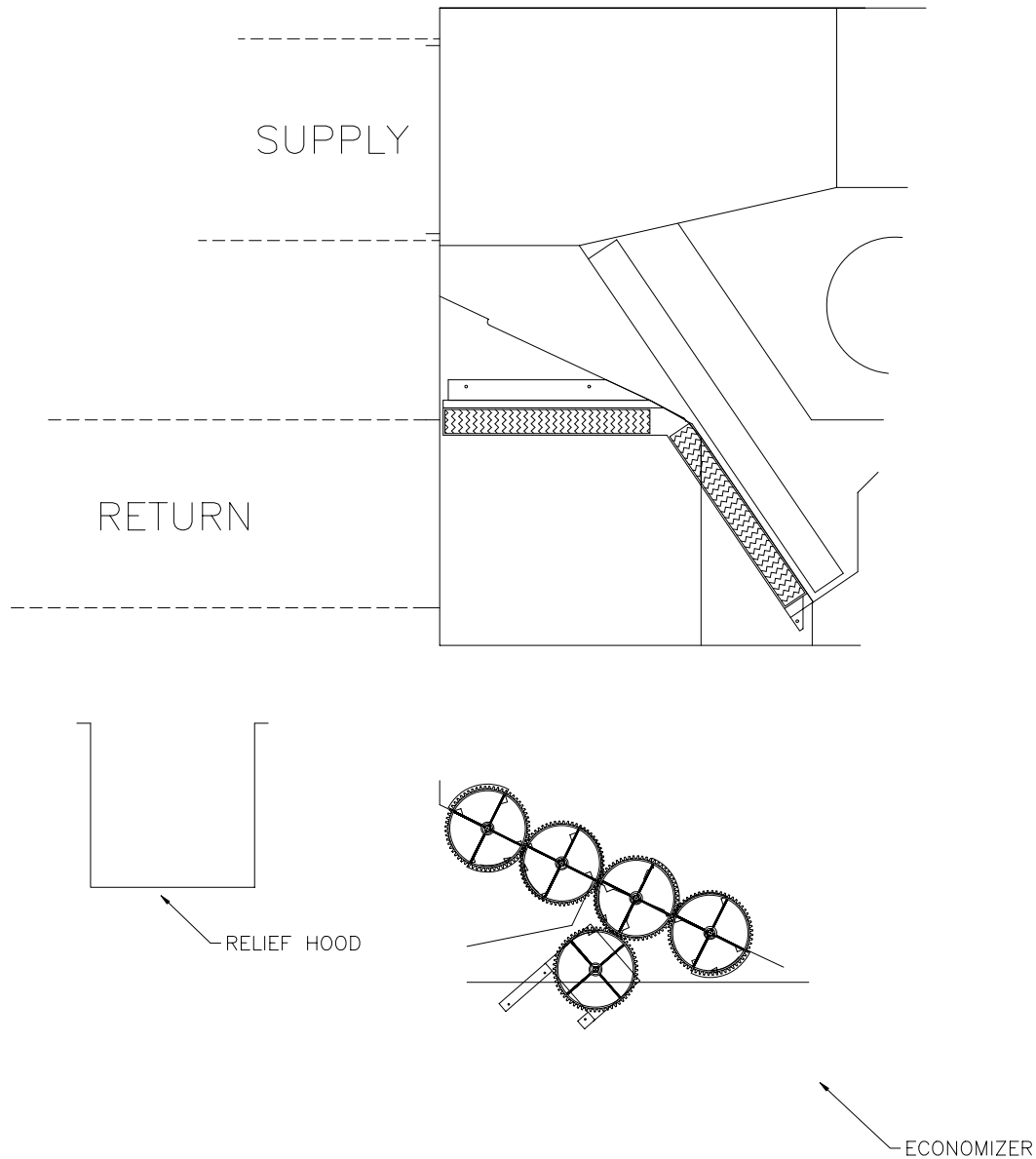


1159 / 1161-HEC INSTALLATION



- 1 - REMOVE THE HORIZONTAL RETURN AIR DUCT COVER AND THE RETURN AIR PANEL. SAVE THE SCREWS FROM THE COMPRESSOR PANEL. DISCARD THE HORIZONTAL DUCT PANELS. SAVE THE COMPRESSOR ACCESS PANEL.
- 2 - INSTALL THE FILTER RACK. SEE THE FILTER INSTRUCTIONS FOR DETAILS.
- 3 - PLACE GASKET ON THE HORIZONTAL ECONOMIZER FLANGES AND POSITION IT BACK OF A/C UNIT. ATTACH WITH #10X3/4 HWH TEK SCREWS WITH NEOPRENE SEALING WASHER. THE ECONOMIZER WILL SLIDE IN BACK OF A/C UNIT AND TO THE LEFT. THE DAMPER FRAME WILL COVER THE HORIZONTAL OPENING IN SIDE OF A/C UNIT.
- 4 - ATTACH FIELD PROVIDED RETURN AIR DUCT TO THE RETURN AIR OPENING ON THE A/C UNIT.
- 5 - CUT A 9.75" x 9.75" OPENING IN THE SIDE OF THE RETURN AIR DUCT. PLACE GASKET ON THE FLANGES OF THE RELIEF HOOD. ATTACH THE RELIEF HOOD OVER THE OPENING WITH #10X3/4 HWH TEK SCREWS WITH NEOPRENE SEALING WASHER.

1159 / 1161-HEC INSTALLATION



6 – ROUTE THE WIRING HARNESS THROUGH THE UNIT TO THE CONTROL COMPARTMENT.

7 – LOCATE THE MIXED AIR SENSOR WITH THE ORANGE TAG MARKED "REMOVE SENSOR AND MOUNT IN FAN COMPARTMENT". REMOVE THE SENSOR AND MOUNT IN THE SUPPLY FAN COMPARTMENT WITH THE PROBE NEAR THE BLOWER INTAKE OPENING. CONNECT THE TWO GREY WIRES FROM THE WIRING HARNESS TO THE MIXED AIR SENSOR WITH WIRE NUTS. SEE THE DETAIL ON THIS PAGE.

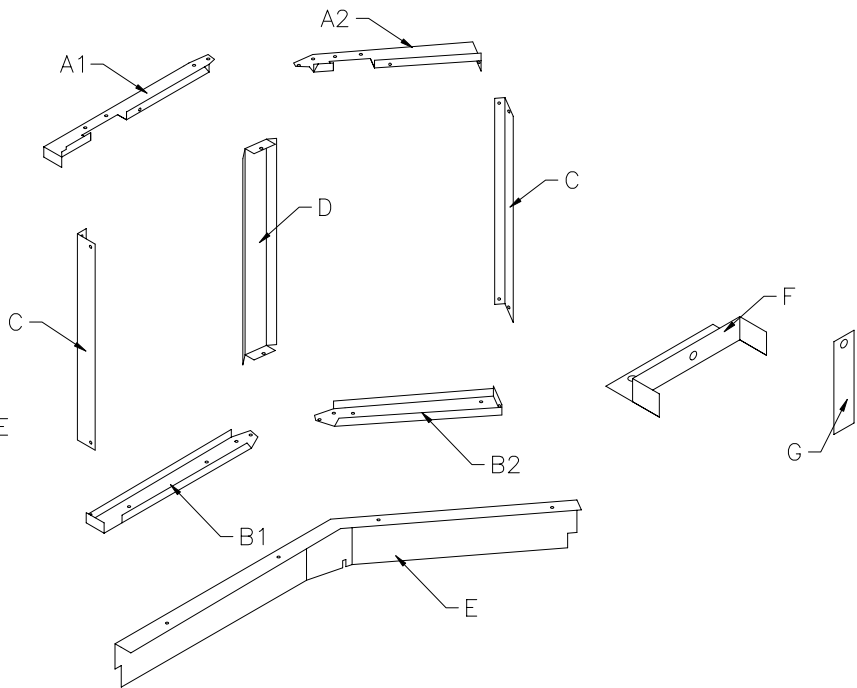
8 – CONNECT THE WIRING HARNESS TO THE UNIT CONTROLS PER THE WIRING DIAGRAM.

9 – SEE THE INCLUDED HONEYWELL ECONOMIZER LITERATURE FOR START AND TEST INFORMATION.

1561-FLT FILTER RACK INSTALLATION

PARTS LIST FOR FILTER RACK:

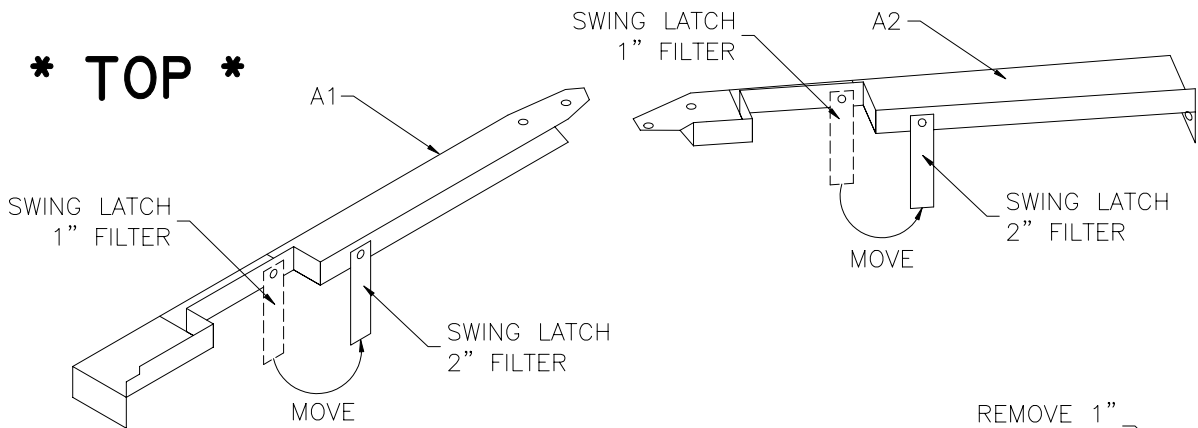
- (1) A1 - FILTER RACK TOP
- (1) A2 - FILTER RACK TOP
- (1) B1 - FILTER RACK BOTTOM
- (1) B2 - FILTER RACK BOTTOM
- (2) C - FILTER RACK SIDE
- (1) D - FILTER RACK MIDDLE
- (1) E - FILTER RACK BOTTOM BRACE
- (2) F - FILTER RETAINER
- (2) G - SWING BRACKET
- (17) #8x1/2 HWH TEK SCREWS
- (2) FILTERS 20x16x1 NOMINAL



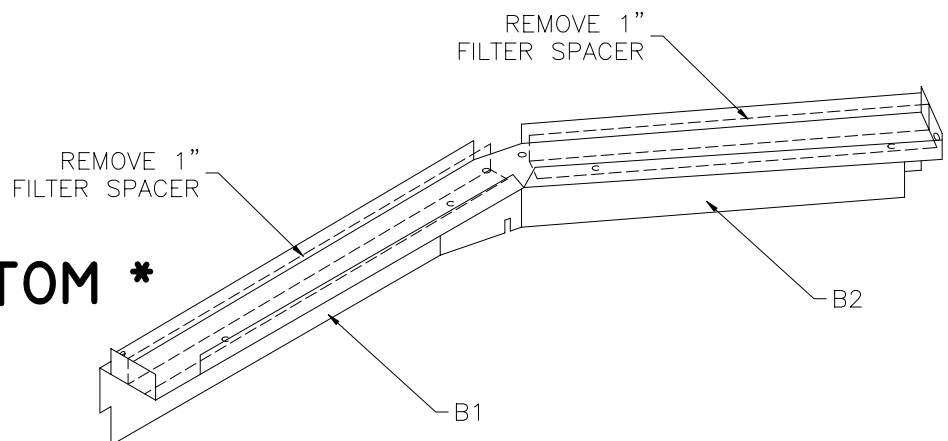
* NOTE *

IF USING 2" FILTERS,
 PART A. MOVE SWING LATCH TO THE OTHER SET OF HOLES. SEE BELOW.
 PART B. REMOVE 1" FILTER SPACERS. SEE BELOW.

* TOP *

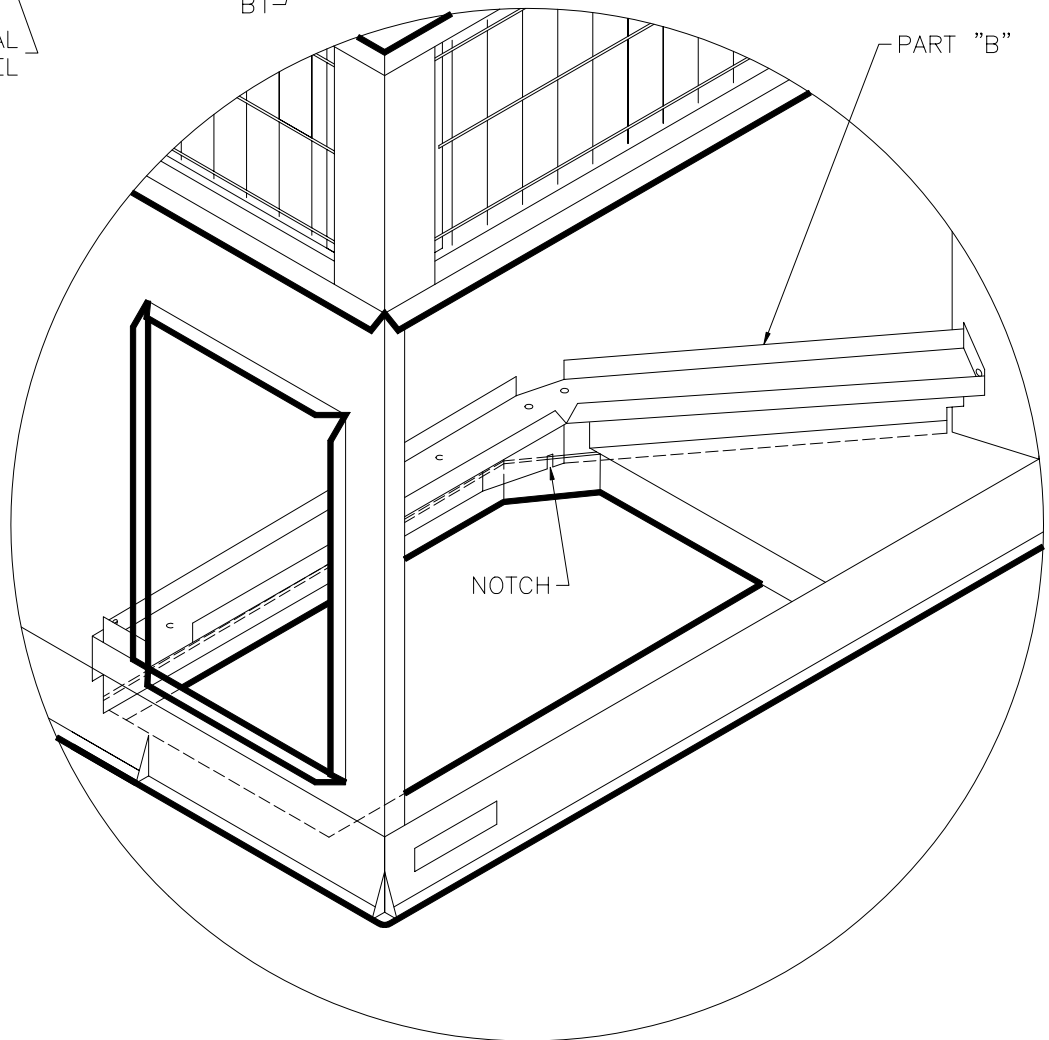
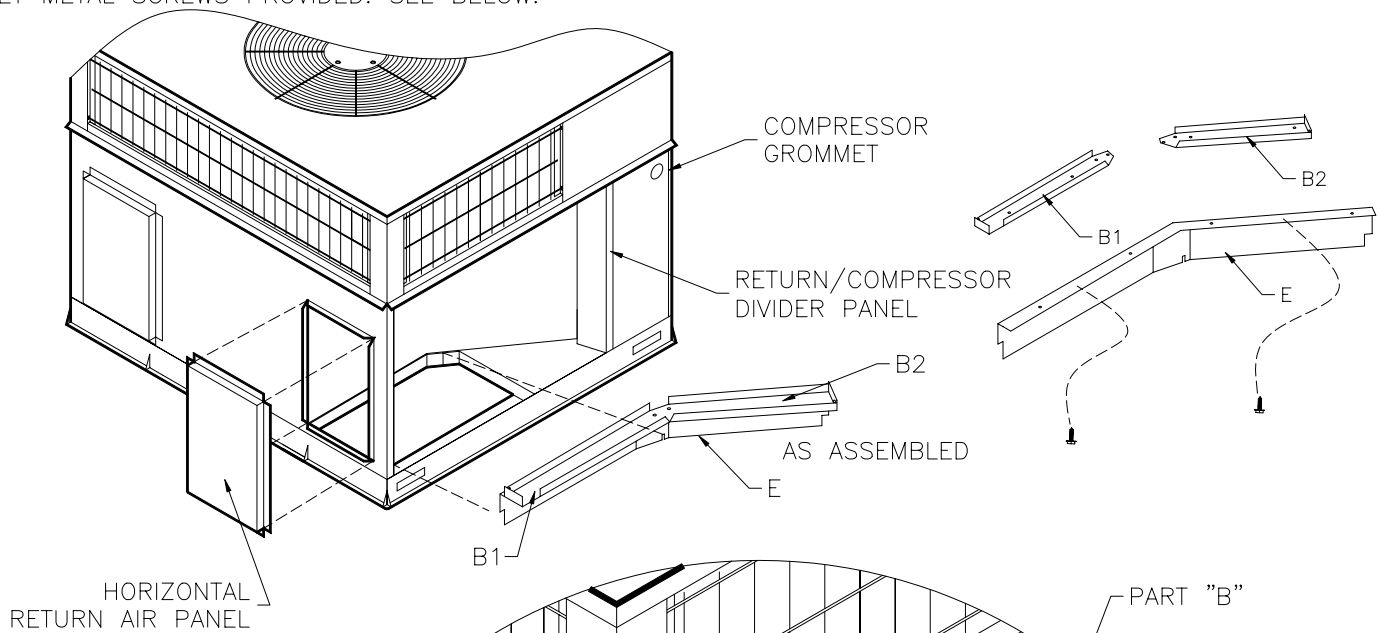


* BOTTOM *



156I-FLT FILTER RACK INSTALLATION

- 1 - REMOVE HORIZONTAL RETURN AIR PANEL FROM SIDE OF UNIT. REMOVE RETURN AIR/CONDENSOR PANEL FROM BACK OF UNIT. SAVE BOTH PANELS. SAVE SCREWS AND COMPRESSOR GROMMET FOR LATER RE-INSTALLATION.
- 2 - LOCATE PART "B1","B2" (FILTER RACK BOTTOM) AND MOUNT TO PART "E" (FILTER RACK BOTTOM BRACE). PUT PARTS INTO THE BOTTOM OF THE UNIT, MAKE SURE TO HOOK THE NOTCH IN THE BOTTOM OF PART "E" OVER THE PAN WALL. SO THAT THE RIGHT SIDE OF PART "E" GOES BEHIND THE PAN WALL AND THE LEFT SIDE GOES IN FRONT OF THE PAN WALL. SEE DETAIL 1. SECURE WITH (4) #8x1/2 SELF DRILLING SHEET METAL SCREWS PROVIDED. SEE BELOW.

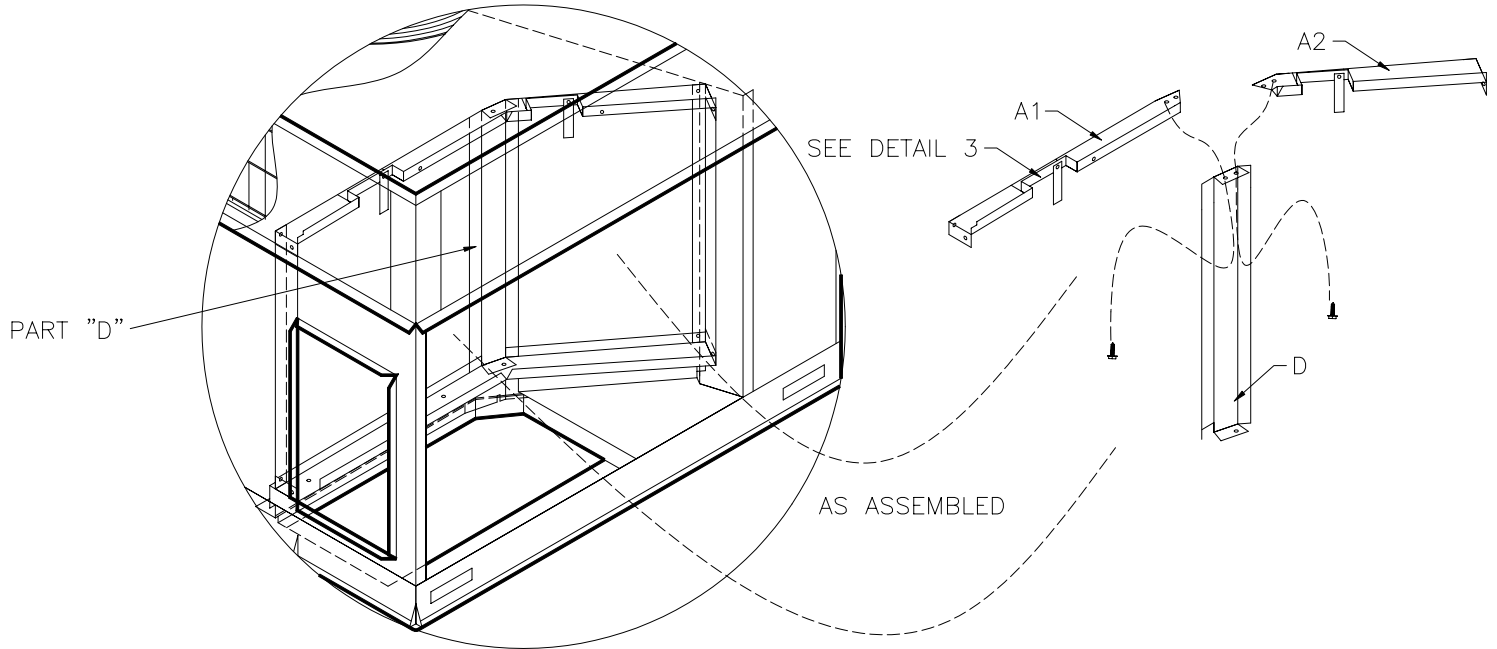


DETAIL I

1561-FLT FILTER RACK INSTALLATION

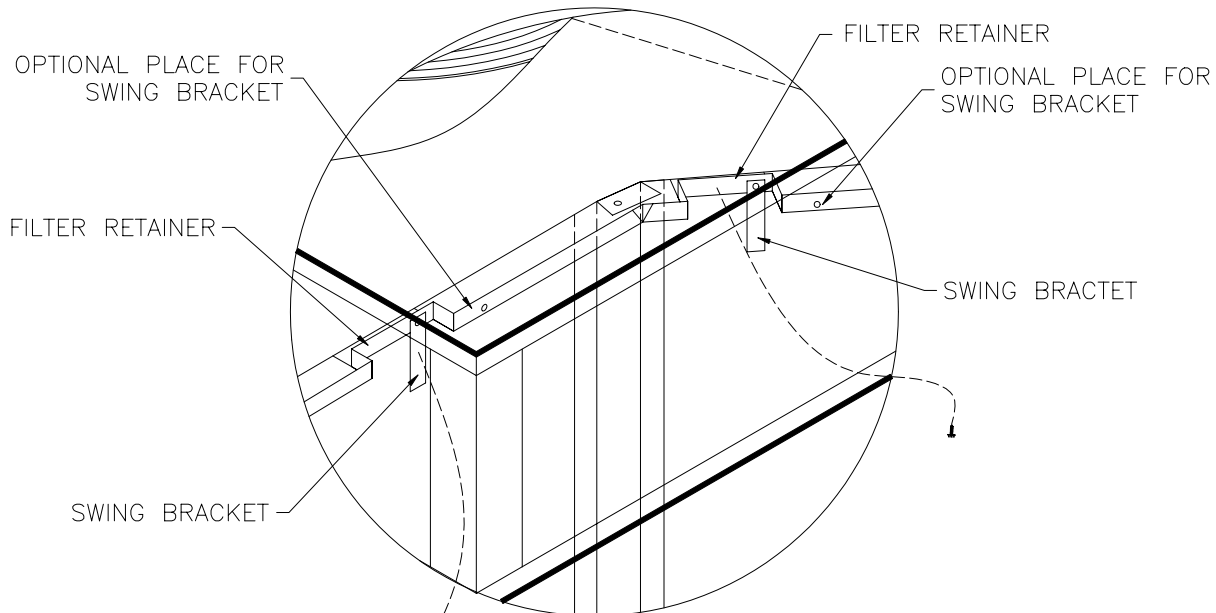
- 3 - LOCATE PART "A1" AND "A2" (FILTER RACK TOP) & PART "D" [FILTER RACK CENTER SUPPORT]. OVERLAP PART "A1" AND "A2" TOGETHER SO THE 2 HOLES MATCH. TAKE PART "D" AND MOUNT TO "A1" AND "A2" FROM THE INSIDE. NOW TAKE THAT PART AND INSERT IT INTO THE UNIT AND MOUNT PART "D" TO THE BOTTOM WHERE "B1" AND "B2" OVERLAPS. SEE DETAIL 2. SECURE WITH (4) #8x1/2 SELF DRILLING SHEET METAL SCREWS PROVIDED.

NOTE: USE CAUTION WHEN INSTALLING SCREWS NEAR COIL



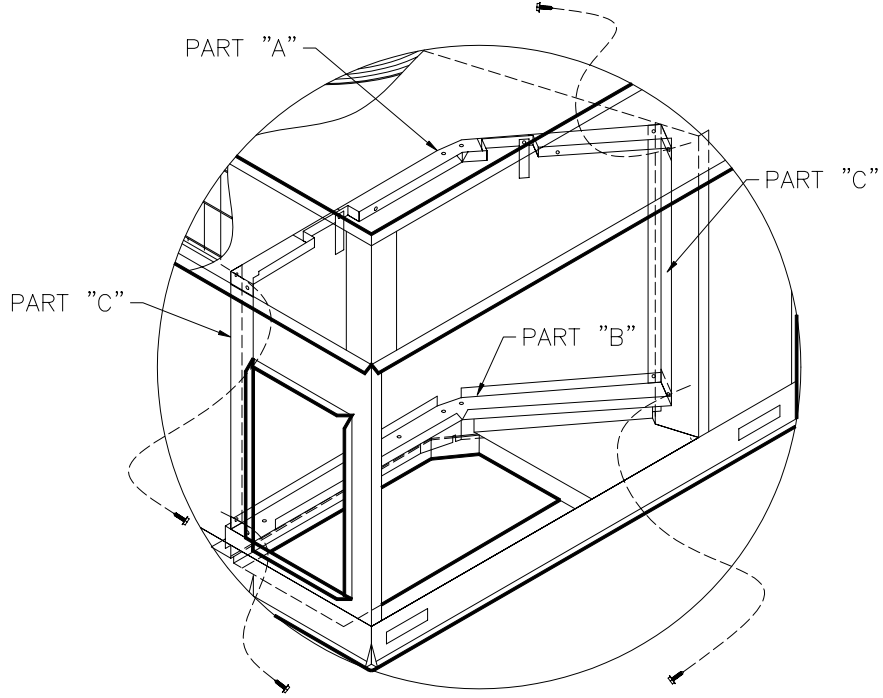
DETAIL 2

- 4 - TAKE PART "F" (FILTER RETAINER) AND MOUNT TO THE OPEN NOTCHES OF PARTS "A1" AND "A2". ONCE MOUNTED TAKE PART "G" (SWING BRACKET) AND MOUNT WHERE NEEDED ON PARTS "A1" AND "A2".



DETAIL 3

5 – INSERT PART "C" (SIDE SUPPORT) BETWEEN TOP AND BOTTOM ON EACH SIDE. MOUNT TO TOP AND BOTTOM OF FILTER RACK. ON LEFT SIDE, PUT THE SCREWS INTO THE BACK FLANGE. ON THE RIGHT SIDE, PUT THE SCREWS INTO THE SIDE FLANGE. SEE BELOW.



DETAIL 4

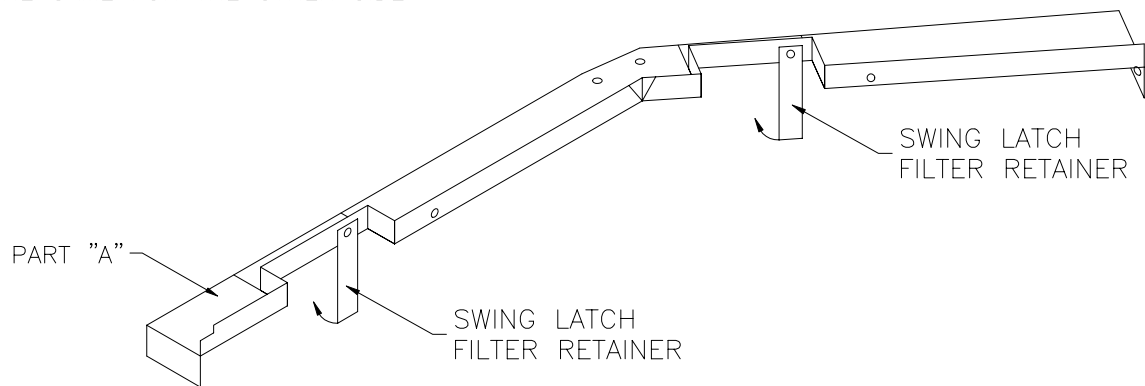
1561-FLT FILTER RACK INSTALLATION

* NOTE *

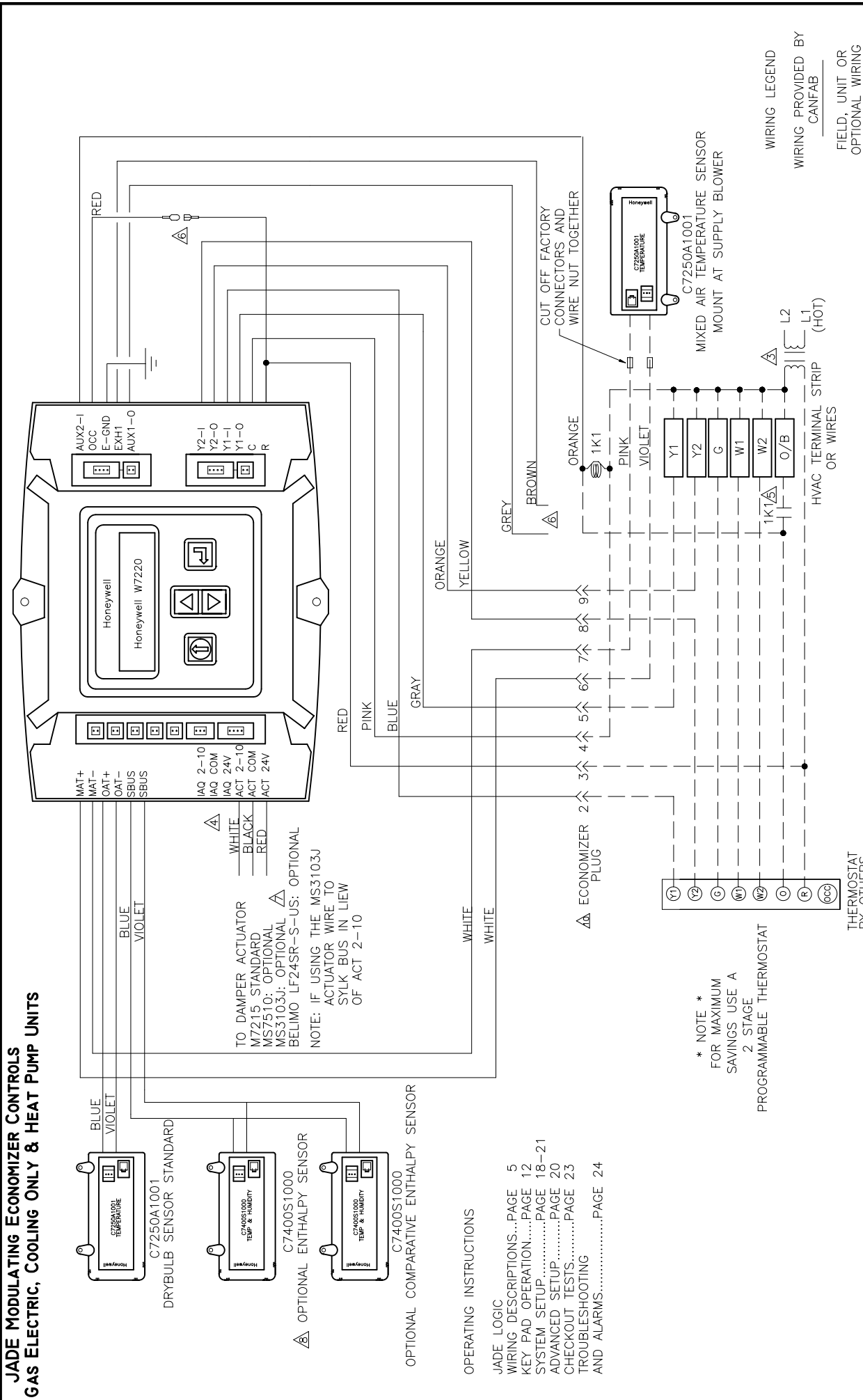
IF USING A UNIT WITHOUT AN ECONOMIZER DO STEPS 5 & 6.

IF USING A UNIT WITH AN ECONOMIZER SEE ECONOMIZER INSTRUCTIONS NOW.

- 6 – INSTALL FILTERS. IF USING 2" FILTERS MAKE SURE THE SWING LATCHES ARE MOVED TO THE OTHER SET OF HOLES ON PART. SEE 1561-FLT FILTER RACK INSTALLATION – 1.
 - A. PUT BOTTOM OF FILTER INTO FILTER RACK.
 - B. SWING LATCH FILTER RETAINER TO ONE SIDE.
 - C. PUSH TOP OF FILTER INTO FILTER RACK.
 - D. SWING FILTER RETAINER DOWN.
 - E. NOW DO THE SAME FOR THE OTHER SIDE.



**JADE MODULATING ECONOMIZER CONTROLS
GAS ELECTRIC, COOLING ONLY & HEAT PUMP UNITS**



FOR: Carrier 1.5 Thru 5 Ton Light Commercial Units

PART NO:	PROJECT:
ENGINEER:	DISTRIBUTOR:
DRAWING NO: 12109co	SW 3.21.13
APPROVED BY:	DATE: / /

CanFab
 CANNON FABRICATION INC
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FOR: JADE ECONOMIZERS

PART NO:

MODULATING ECONOMIZER CONTROLS GAS ELECTRICS, COOLING ONLY AND HEAT PUMP UNITS PAGE 2

- 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 OPTIONAL DEMAND CONTROL VENTILATION (DCV) CO2 SENSOR WITH 2-10VDC OUTPUT. WIRE HARNESS EXTENSION PROVIDED WITH THE CO2 SENSOR.
- ⑤ WHEN USING A HEATPUMP WITH DEFROST FEEDBACK, ADD AN ISOLATION RELAY BETWEEN O AND C. (FIELD PROVIDED AND INSTALLED).
- ⑥ WHEN USING A SETBACK THERMOSTAT WITH OCCUPANCY OUT (24Vac) CONNECT THE 24Vac INPUT TO THE OCC TERMINAL. IF NO OCCUPANCY OUTPUT FROM THE THERMOSTAT THEN LEAVE THE JUMPER FROM R TO OCC CONNECTED.
- ⑦ 24 VAC OUTPUT WHEN PROGRAMMED CAP OFF IF NOT USED (SEE PAGE 6 FOR ACTUATOR WIRING OPTIONS). NOTE: ON/OFF ACTUATORS CAN BE USED ON THE EXH1 OR AUX1-O TERMINALS WITH GROUND TO THE C TERMINAL. WHEN PROGRAMMING THE EXH1 OR AUX1-O, THE % IS THE PERCENT OPEN POSITION OF THE OUTDOOR AIR DAMPER WHEN THE EXH1 OR AUX1-O TERMINAL IS ENERGIZED AND THE 2-POS DAMPER OPENS 100%. IF USING THE AUX1-O TERMINAL PROGRAM AUX1-O FOR EXH2.
- ⑧ OPTIONAL MS3103J COMMUNICATING ACTUATOR AVAILABLE (SPECIAL ORDER CONTACT FACTORY).
- ⑨ WHEN USING THE SYLKBUS SENSORS THERE WILL BE A SLIGHT DELAY WHILE THE JADE CONTROLLER AND THE SENSOR/S COMMUNICATE. ANALOG SENSORS DO NOT COMMUNICATE ON THE SYLKBUS AND OUTPUT A 20k OHM SIGNAL TO THE JADE CONTROLLER SO THE RESPONSE TIME IS INSTANTANEOUS.
- ⑩ NOT ALL HVAC UNITS WILL HAVE THE ECONOMIZER PLUG, IF YOUR UNIT DOES NOT HAVE THIS REMOVE THE PLUG ON THE ECONOMIZER HARNESS AND HARD WIRE TO THE UNIT AND THERMOSTAT.

NOTE: JADE WILL BE IN "SET UP" MODE FOR THE FIRST 60 MINUTES AFTER POWER UP. IF A SENSOR FOR THE OA OR SYLKBUS DEVICE (SENSOR, ACTUATOR) IS DISCONNECTED DURING THE SET UP MODE, THE JADE WILL NOT ALARM THE FAILURE. THE MA SENSOR IS A SYSTEM "CRITICAL" SENSOR, IF THE MA SENSOR IS REMOVED DURING THE SET UP MODE, THE JADE WILL ALARM. AFTER 60 MINUTES THE JADE CONTROLLER WILL CHANGE TO OPERATION MODE AND ALL COMPONENTS REMOVED OR FAILED WILL ALARM.

PROJECT:

DATE:

ENGINEER:

DISTRIBUTOR:

DRAWING NUMBER: 12109co

sw

3.21.13