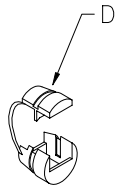
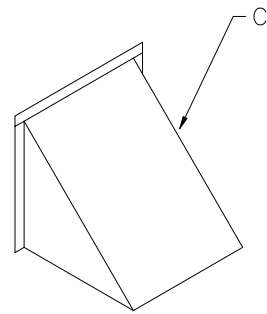
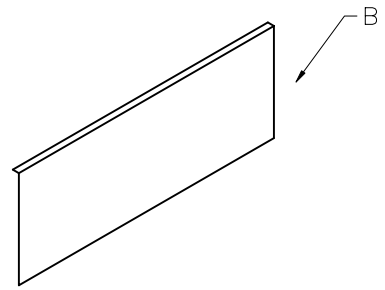
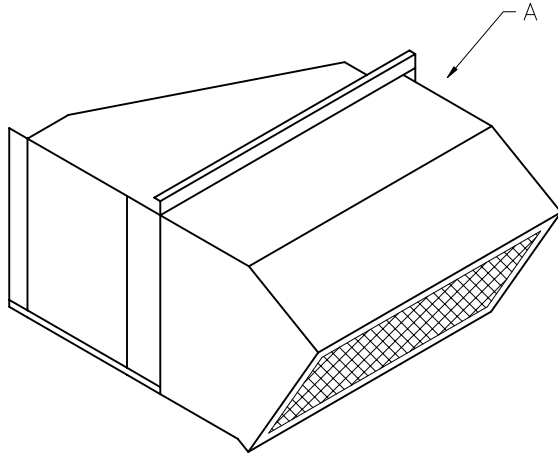
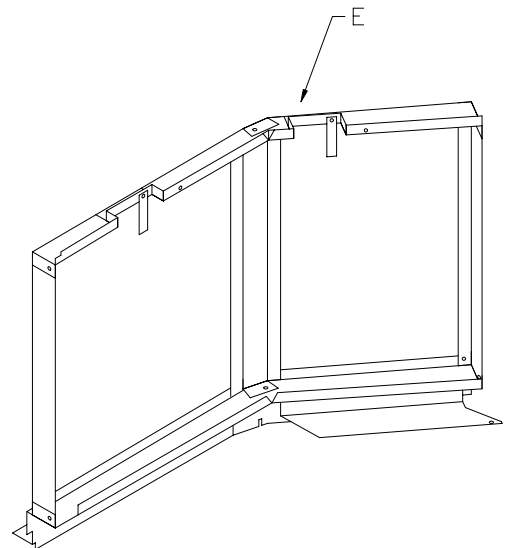


1159 / 1161-HEC INSTALLATION

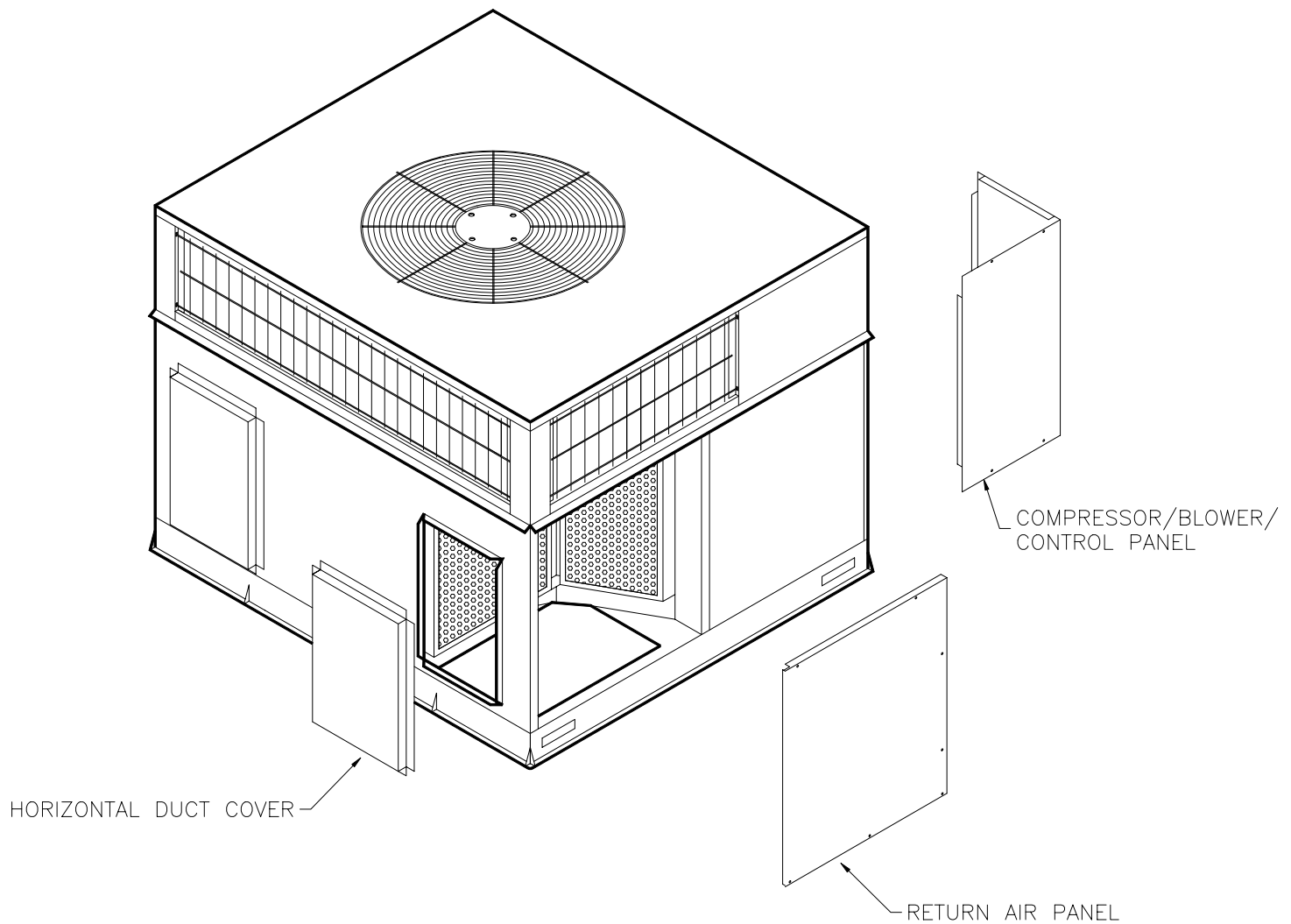


PARTS LIST

- (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

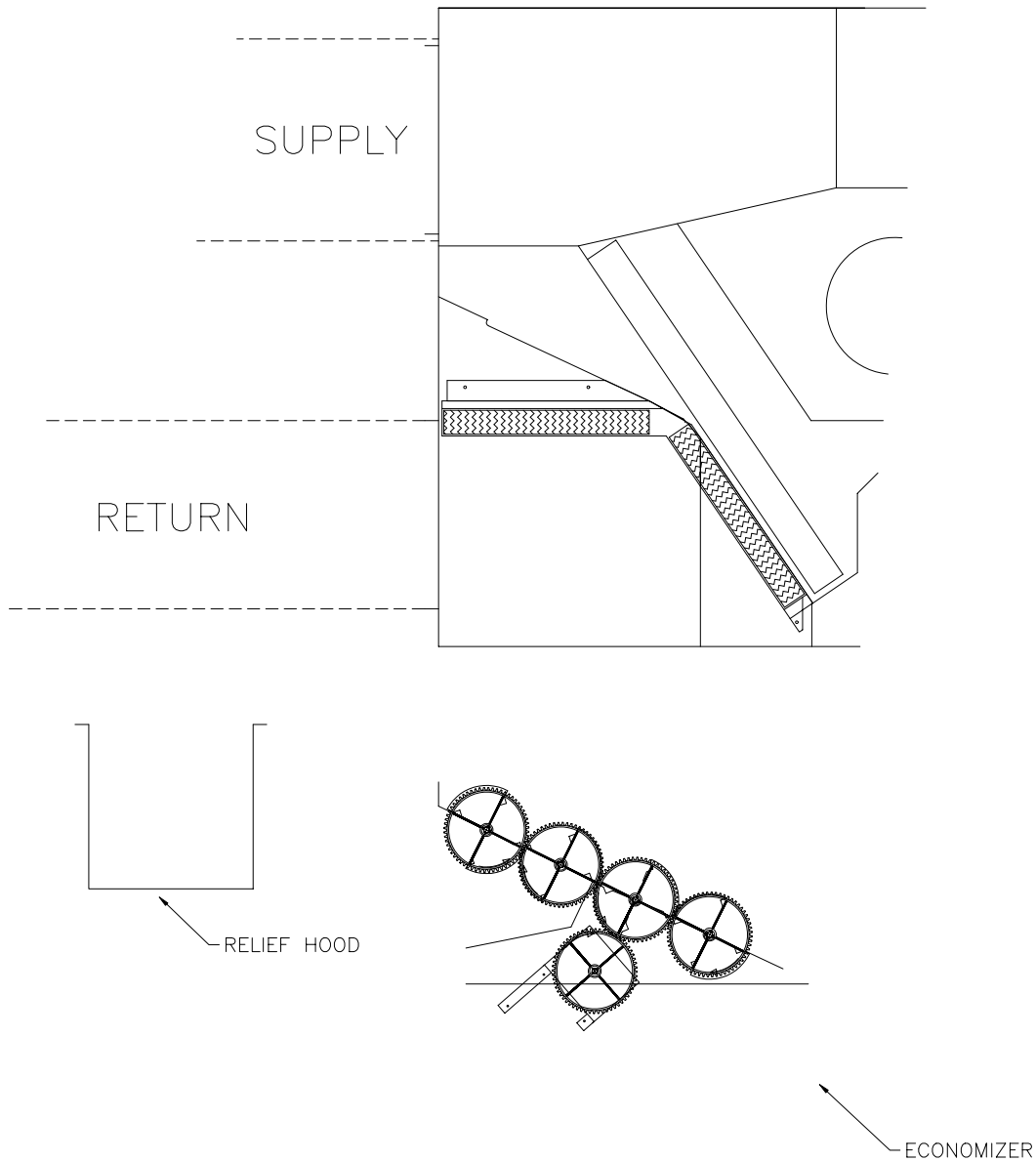


1159 / 1161-HEC INSTALLATION



- 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.

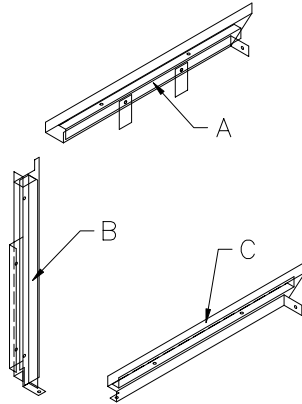
7 – LOCATE THE MIXED AIR SENSOR WITH THE ORANGE TAG MARKED "REMOVE SENSOR AND MOUNT IN FAN COMPARTMENT". REMOVE THE SENSOR AND MOUNT IN THE SUPPLY FAN COMPARTMENT WITH THE PROBE NEAR THE BLOWER INTAKE OPENING. CONNECT THE TWO GREY WIRES FROM THE WIRING HARNESS TO THE MIXED AIR SENSOR WITH WIRE NUTS.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

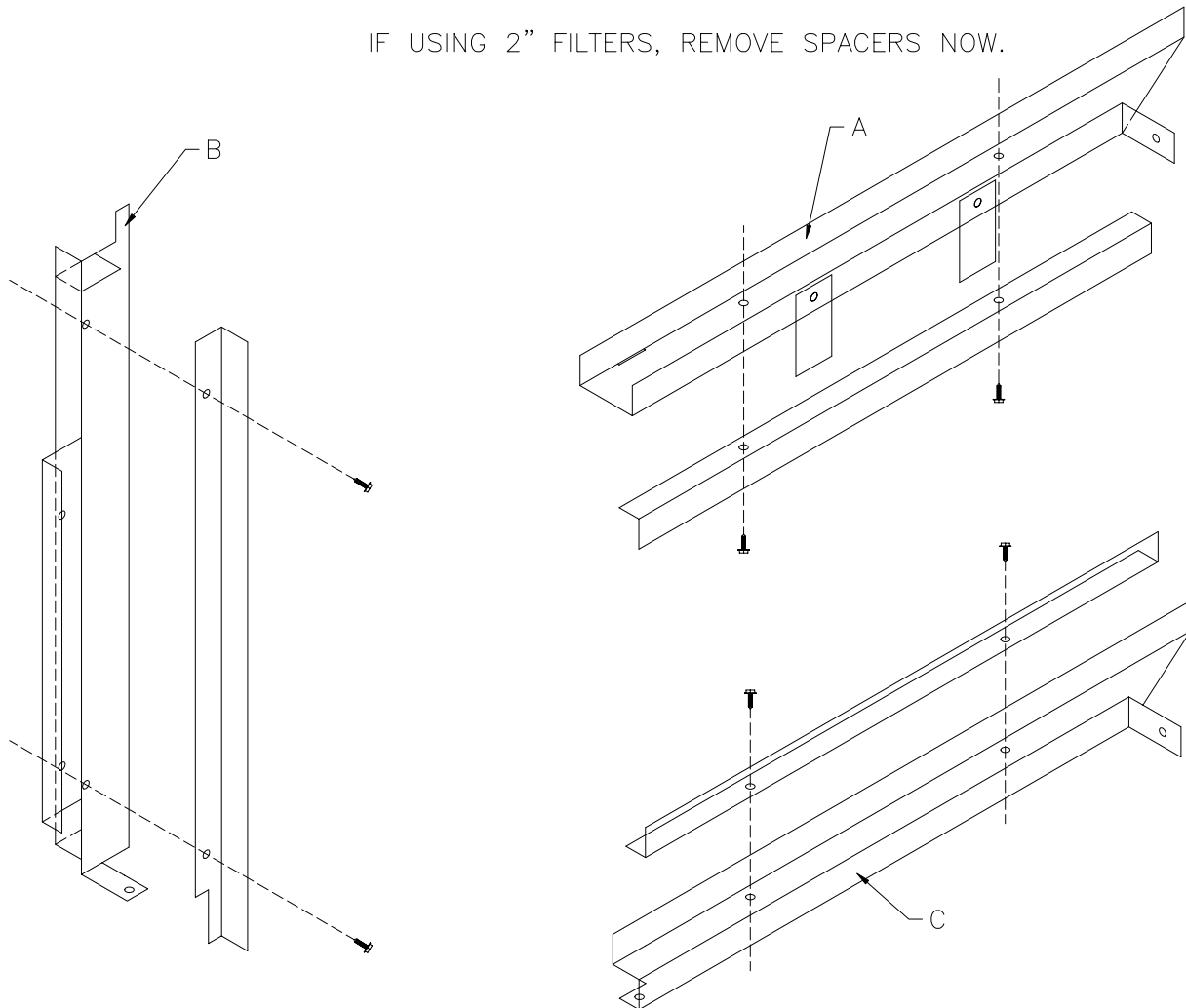
I559-FLT FILTER RACK INSTALLATION

- PARTS LIST: FOR FILTER RACK
(1) A – FILTER RACK TOP
(1) B – FILTER RACK SIDE
(1) C – FILTER RACK BOTTOM
(5) #8x1/2 HWH TEK SCREWS
(2) FILTERS 20x10x1 NOMINAL



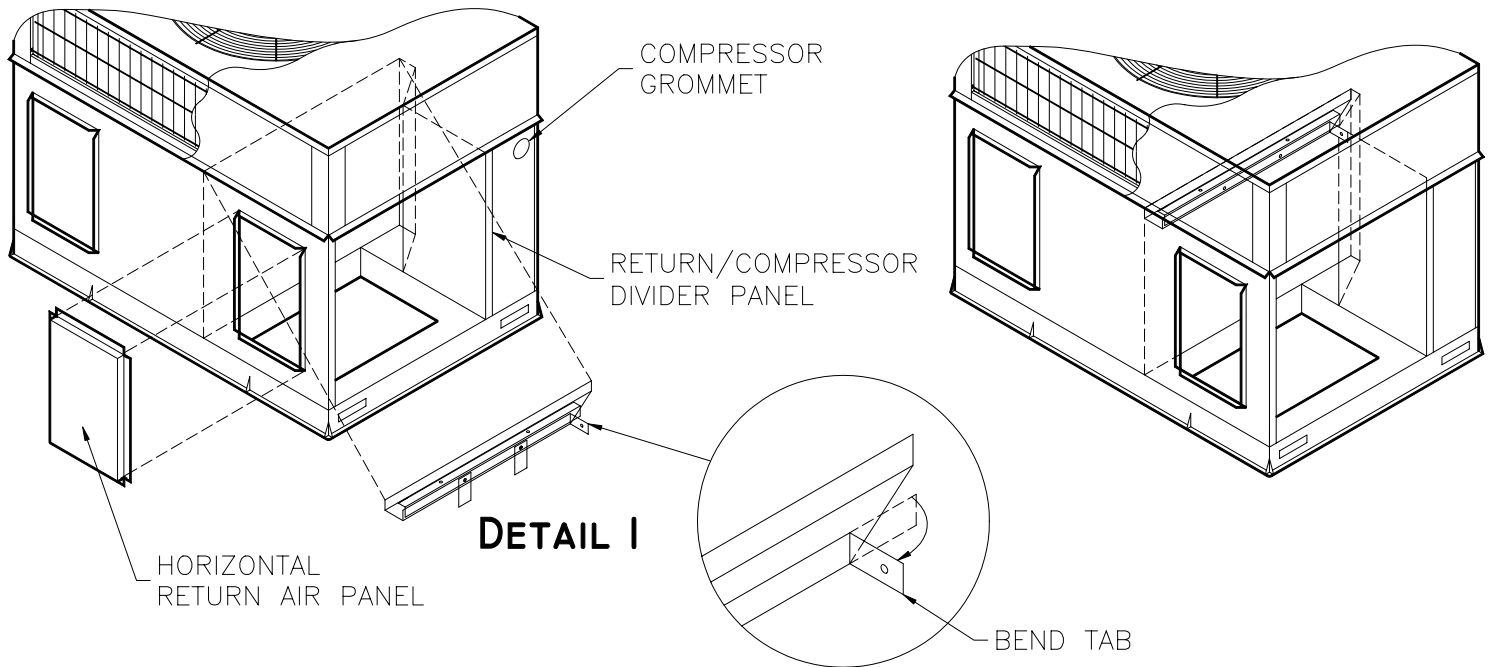
* NOTE *

IF USING 2" FILTERS, REMOVE SPACERS NOW.

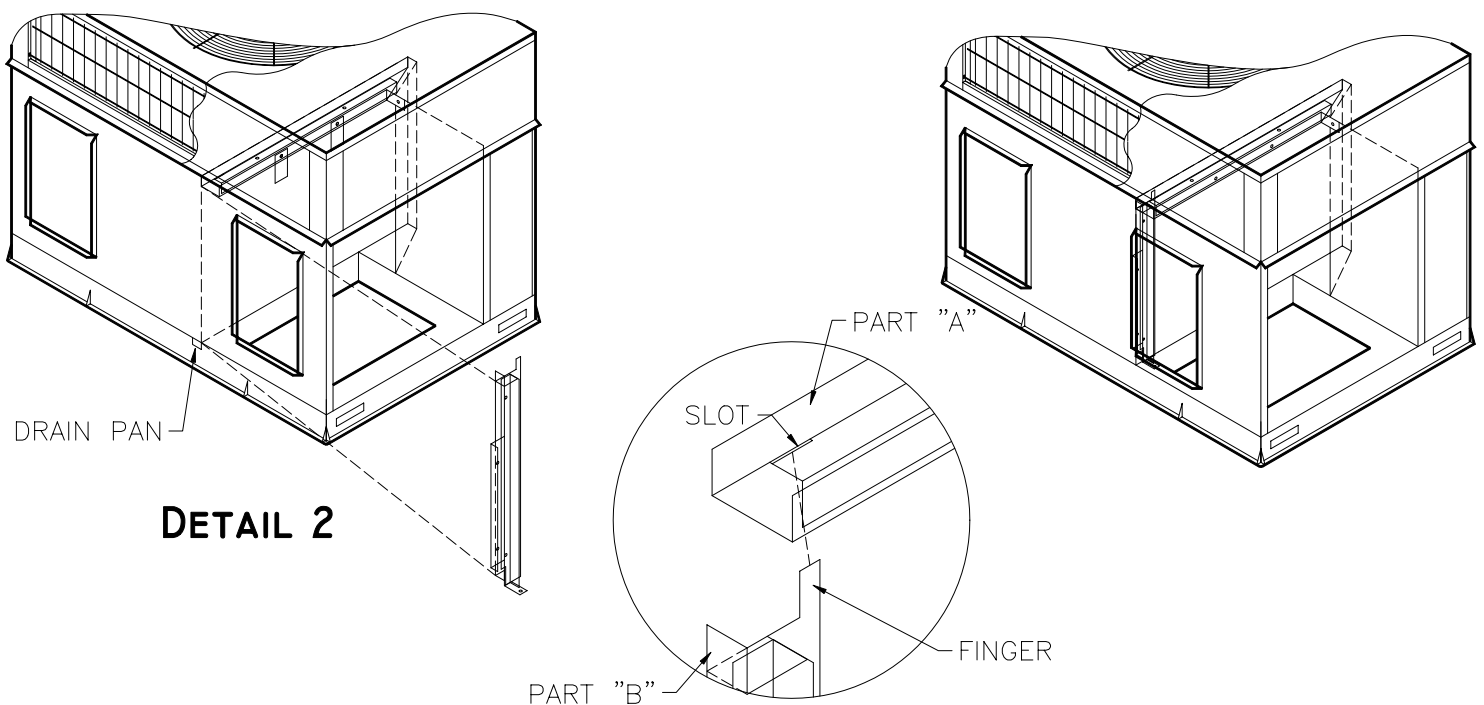


I559-FLT FILTER RACK INSTALLATION

- 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 "A" (FILTER RACK TOP). BEND THE TAB WITH (1) HOLE IN IT TO 90° BEFORE INSTALLING. INSTALL PART "A". SEE DETAIL 1. PUSH PART TO THE TOP OF THE UNIT, HOLD THERE FOR THE NEXT STEP.

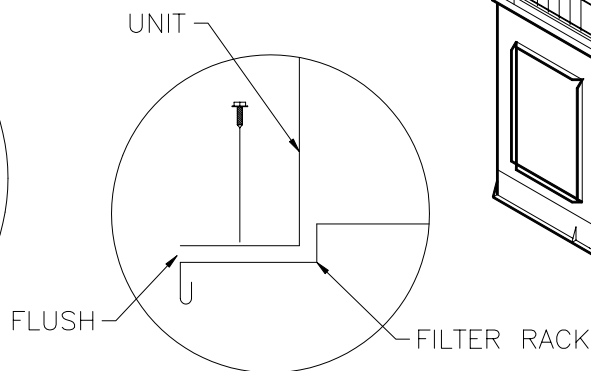
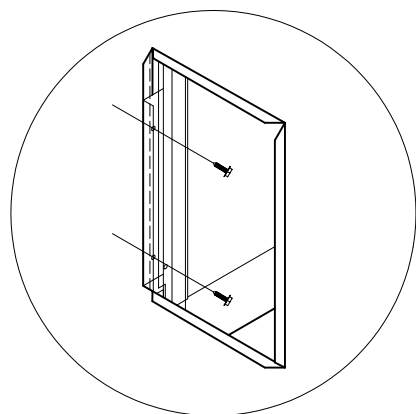


- 3 - INSTALL PART "B" (FILTER RACK SIDE). SEE DETAIL 2. INSERT THE FINGER FOUND ON TOP OF THE PART INTO THE SLOT FOUND ON PART "A". SEE DETAIL 3. THE BOTTOM WILL REST ON TOP OF THE DRAIN PAN.

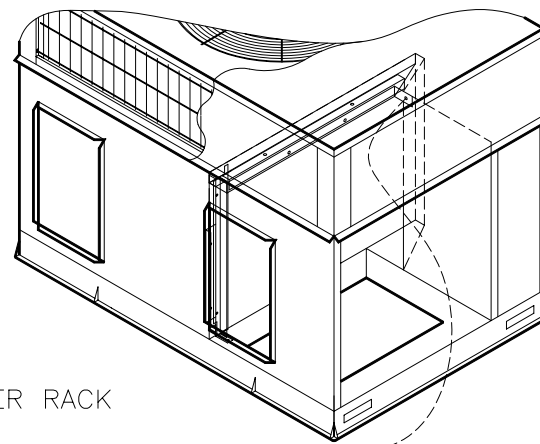


1559-FLT FILTER RACK INSTALLATION

- 4 – PULL THE FLANGE ON PART "B" INTO THE RETURN AIR OPENING. MAKE SURE IT IS FLUSH WITH THE OUTSIDE OF THE UNIT FLANGE. SECURE WITH (2) #8x1/2 SELF DRILLING SHEET METAL SCREWS PROVIDED. SEE DETAIL 4.



DETAIL 4



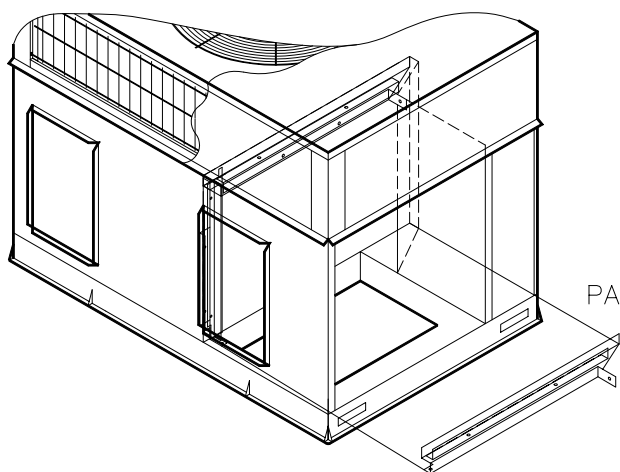
SCREW TAB TO
DIVIDER PANEL

- 5 – NOW THAT PART "B" IS SECURED TO THE UNIT. GO BACK TO PART "A" (INSTALLED IN STEP 2) AND SECURE WITH (1) #8x1/2 SELF DRILLING SHEET METAL SCREW PROVIDED (USE HOLE IN THE BENT TAB).

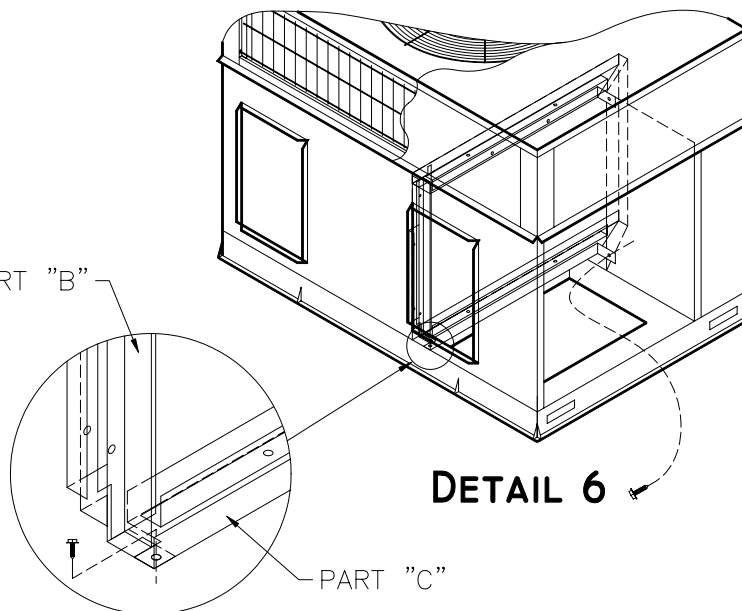
* NOTE *

IF USING A UNIT WITHOUT AN ECONOMIZER DO STEP 6 THEN SKIP TO STEP 8.
IF USING A UNIT WITH AN ECONOMIZER SKIP TO STEP 7.

- 6 – FOR NON-ECONOMIZER UNITS ONLY. LOCATE PART "C" (FILTER RACK BOTTOM) AND BEND THE TAB WITH (1) HOLE IN IT 90° LIKE IN STEP 2. INSTALL PART "C" INTO THE UNIT. SEE DETAIL 5. PART "C" WILL SIT ON TOP OF THE FLANGE AT THE BOTTOM OF PART "B". SECURE THERE WITH (1) #8x1/2 SELF DRILLING SHEET METAL SCREW PROVIDED. ALSO SECURE THE RIGHT END WITH (1) #8x1/2 SELF DRILLING SHEET METAL SCREW PROVIDED (USE HOLE IN THE BENT TAB). SEE DETAIL 6.



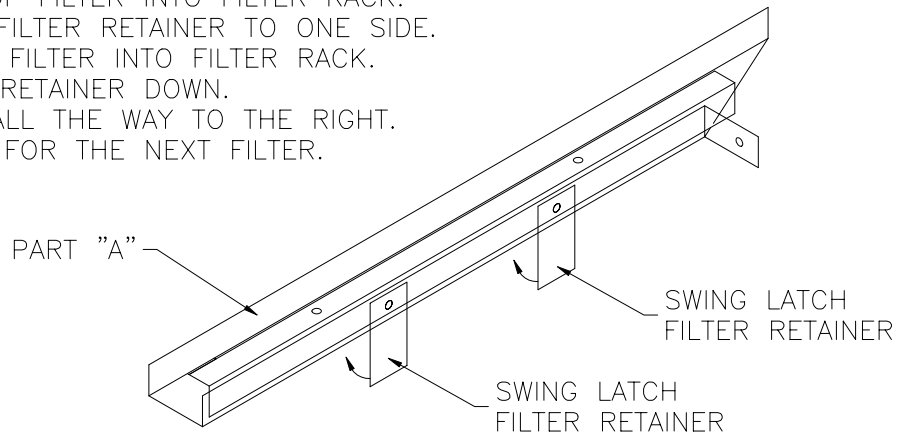
DETAIL 5



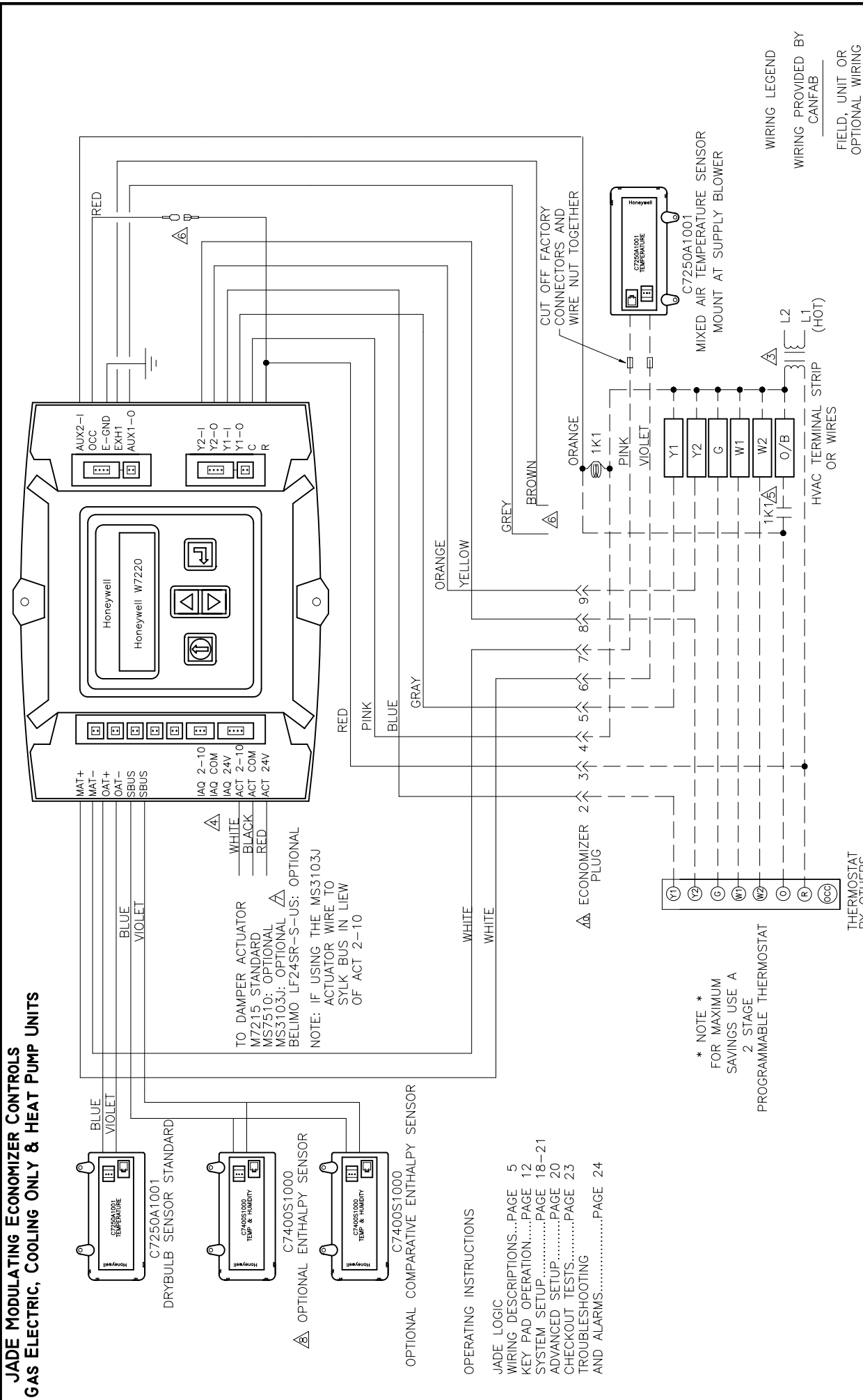
DETAIL 6

I559-FLT FILTER RACK INSTALLATION

- 7 – IF USING WITH AN ECONOMIZER, INSTALL "C" (FILTER RACK BOTTOM) PER ECONOMIZER INSTALLATION INSTRUCTIONS.
- 8 – INSTALL FILTERS. IF USING 2" FILTERS MAKE SURE THE SPACERS HAVE BEEN REMOVED.
 - 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. PUSH FILTER ALL THE WAY TO THE RIGHT.
 - F. DO THE SAME FOR THE NEXT FILTER.



**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: / /



182 GRANITE STREET, SUITE 101, CORONA, CA 92879
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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