CANNON FABRICATION INC
182 GRANITE STREET, SUITE 101, CORONA, CA 92879
PHONE: (951)278-1830 FAX: (951)278-8444 www.canfab.com canfab@canfab.com

FOR:

PART NO:

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)

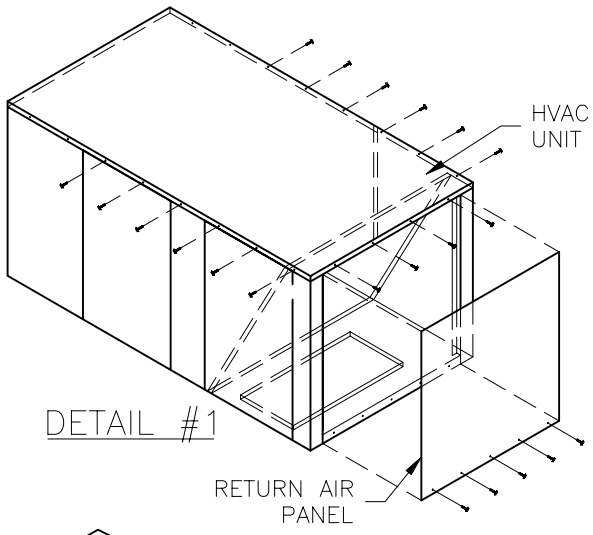
3 – LIFT TOP OF THE HVAC UNIT AND PROP UP WITH SUPPORTS, 2" SPACING REQUIRED. (SEE DETAIL #2)

4 – WHEN USING THE BELIMO ACTUATOR OPTION, CONSULT CONTROLS CONTRACTOR REGARDING THE ECONOMIZER WIRING REQUIREMENTS.

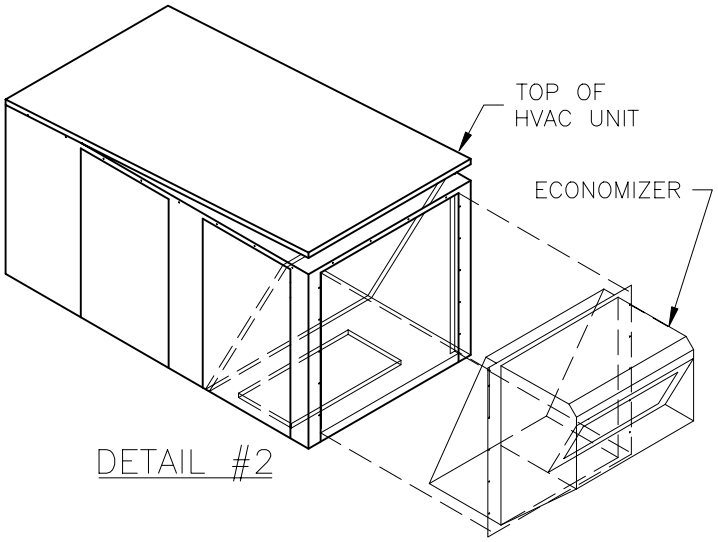
5 – SLIDE ECONOMIZER ASSEMBLY INTO THE HVAC UNIT. MAKE SURE THE LEFT AND RIGHT SIDE FLANGES OF THE ECONOMIZER SLIDE INTO THE SIDE GROVES OF THE HVAC UNIT.
(SEE DETAIL DRAWING #2 & #3)

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)

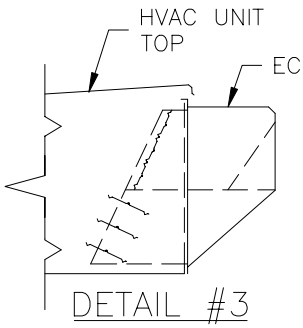
7 – SECURE TOP OF THE ECONOMIZER TO THE HVAC UNIT BY USING SCREWS REMOVED IN STEP #2. ALSO SCREW ALONG THE SIDE FLANGES OF THE ECONOMIZER USING #12 X 1 SCREWS PROVIDED WITH ECONOMIZER PACKAGE.
(SEE DETAIL #5)



DETAIL #1



DETAIL #2



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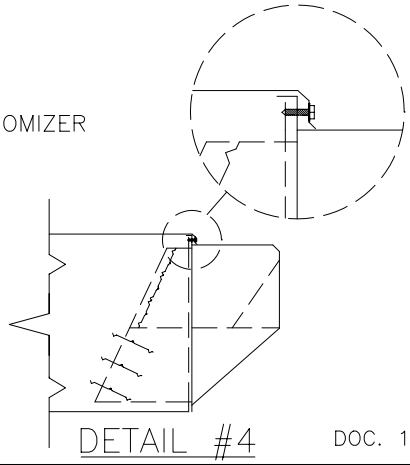
DETAIL #4

DOC. 1-2

PROJECT: DATE:

ENGINEER: DISTRIBUTOR:

DRAWING NUMBER: EC-INSTALL SW 01.15.14

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FOR:

PART NO:

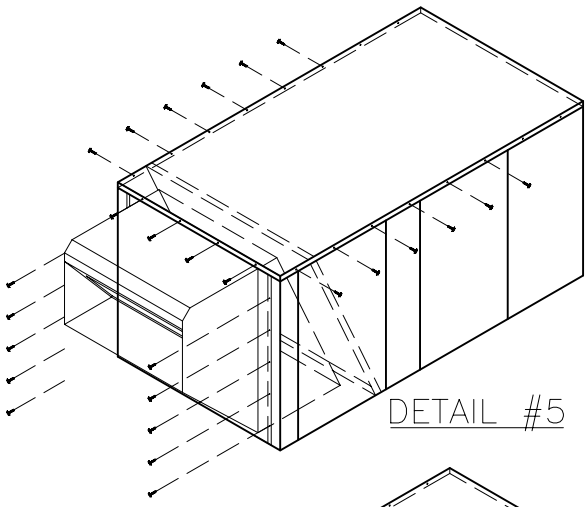
DOWN DISCHARGE ECONOMIZER INSTALLATION INSTRUCTIONS

8 – REPLACE ALL SCREWS ALONG THE SIDES OF THE TOP OF THE HVAC UNIT, REMOVED IN STEP #2. (SEE DETAIL #5)

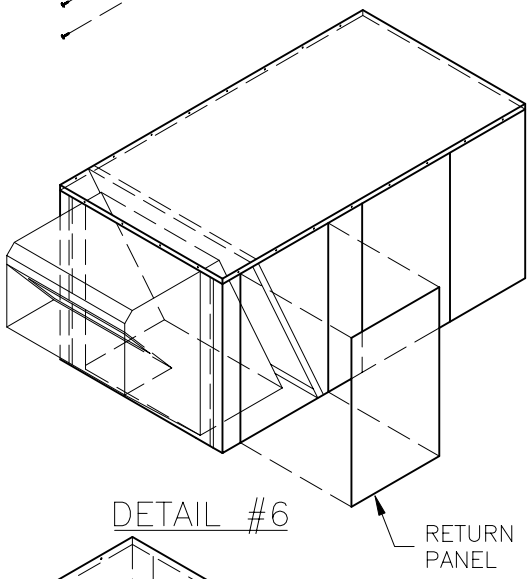
9 – REMOVE RETURN AIR COMPARTMENT PANEL LOCATED ON THE RIGHT SIDE OF HVAC UNIT.
(SEE DETAIL #6)

10 – PLUG ECONOMIZER HARNESS INTO THE HVAC UNIT ECONOMIZER HARNESS.
NOTE: HARNESS WILL BE INSIDE UPPER CORNER OF RETURN AIR COMPARTMENT.
(SEE DETAIL #7)

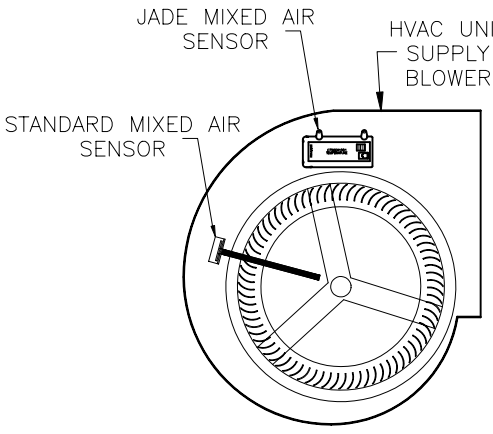
11 – REMOVE THE DISCHARGE AIR SENSOR FROM THE SHIPPING LOCATION BEHIND THE WATER ENTRAINMENT FILTER ON THE ECONOMIZER AND MOUNT IT IN THE HVAC UNIT SUPPLY FAN COMPARTMENT NEXT TO THE FAN INLET.



DETAIL #5



DETAIL #6



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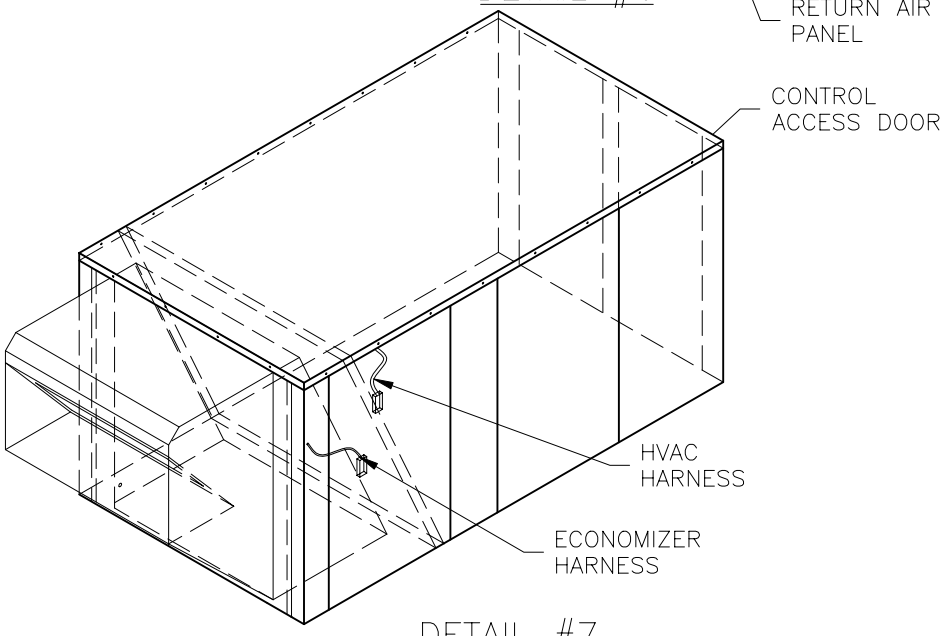


DETAIL #7

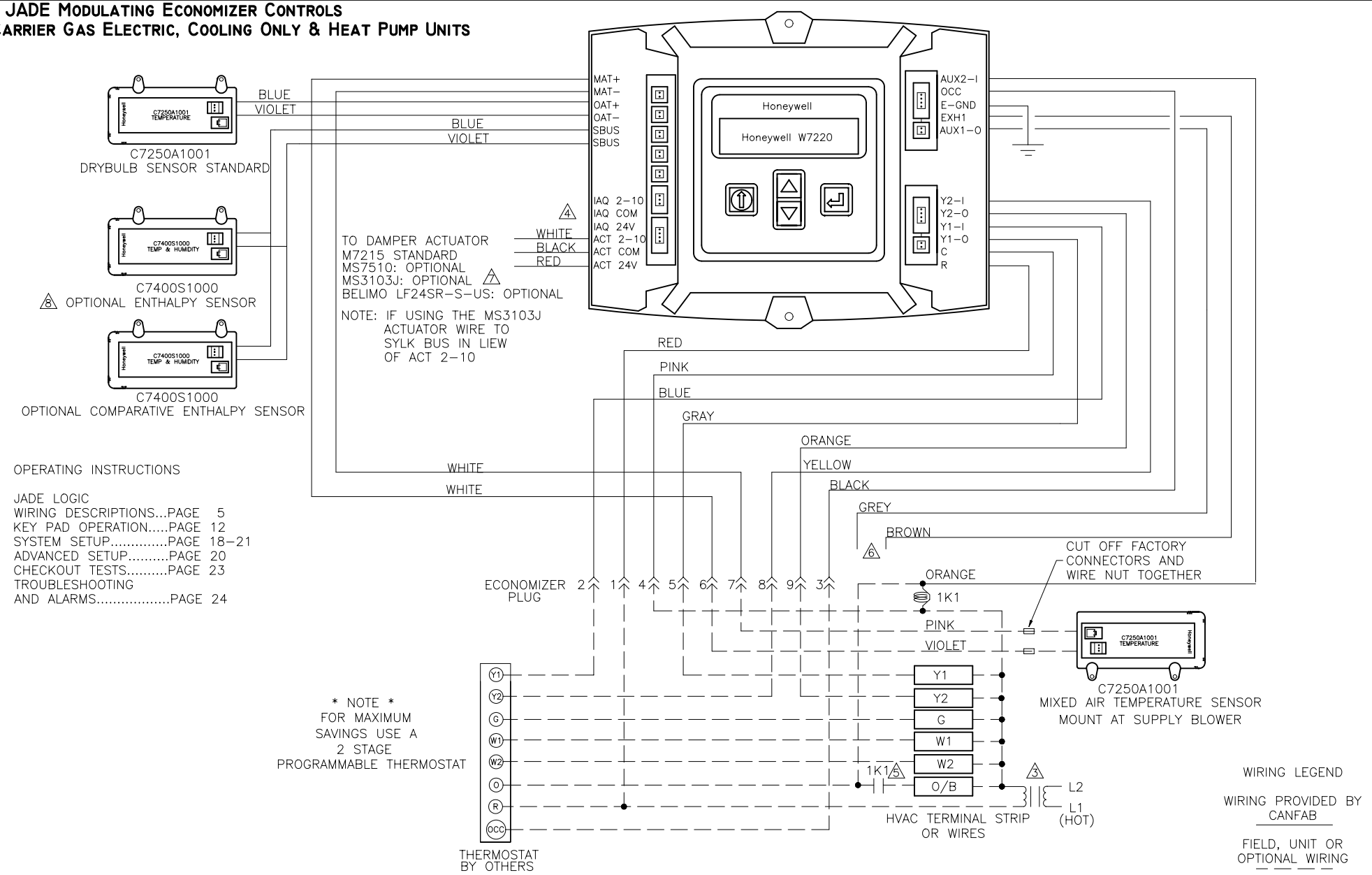
DOC. 2-2

PROJECT: DATE:

ENGINEER: DISTRIBUTOR:

DRAWING NUMBER: EC-INSTALL SW 01.15.14

JADE Modulating Economizer Controls
Carrier Gas Electric, Cooling Only & Heat Pump Units



OPERATING INSTRUCTIONS

JADE LOGIC
WIRING DESCRIPTIONS...PAGE 5
KEY PAD OPERATION.....PAGE 12
SYSTEM SETUP.....PAGE 18–21
ADVANCED SETUP.....PAGE 20
CHECKOUT TESTS.....PAGE 23
TROUBLESHOOTING AND ALARMS.....PAGE 24

WIRING LEGEND

WIRING PROVIDED BY CANFAB

FIELD, UNIT OR OPTIONAL WIRING

CanFab
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FOR: Carrier 3 Thru 27.5 Ton Commercial Units JADE Economizer Controls			
PART NO:		PROJECT:	
ENGINEER:		DISTRIBUTOR:	
DRAWING NO: 12100co	SW	3.04.13	DATE:
APPROVED BY:			DATE: / /

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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 PROVEDED 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. 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.
7. OPTIONAL MS3103J COMMUNICATING ACTUATOR AVAILABLE (SPECIAL ORDER CONTACT FACTORY).
8. 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.

   NOTE: JADE WILL BE IN "SET UP" MODE FOR THE FIRST 60 MINUTES AFTER POWER UP. IF A SENSENSOR 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: 12100CO.DWG SW 3.04.13