

Commercial Components Technical Bulletin

SUBJECT: Replacement of W7215Axxx with W7220A1000 (JADE) and a M7215 motor or a 2-10Vdc DCA actuator	Ref. Number	
	Issue Date	03/22/13
	Author	Adrienne Thomle
Suggested Model Number: W7215	Date Codes Affected: N/A	

Step by step guide to assist you in successful replacement of the W7215 economizer with a W7220 JADE economizer controller. Note in some applications a W7215B1004 may be used.

1. Remove all wires from the W7215. Mark each wire with the terminal designation (e.g., 1,2,3,4, TR1, TR etc.) as it is removed from the W7215.
2. Mount Jade on the inside of the Rooftop unit where it will be easy to read the display and to change the settings.
3. Wire JADE to a M7215 motor using three new wires and ¼ in quick connects on motor end of wires:

M7215 wire termination	W7220 Wire termination
TR	ACT 24V (hot)
TR1	ACT COM
IN (+)	ACT (2-10V)

4. Wire JADE to DCA:

DCA wire termination	W7220 Wire termination
24 Vac (hot)	ACT 24V (hot)
24 Vac (COM)	ACT COM
2-10 COM	ACT COM
2-10 In	ACT (2-10V)

5. Terminate wires removed from the W7215 to the Jade:

W7215 wire termination	W7220 wire termination
1	Y1-In
2	Y1-Out
3	Y2-In
4	Y2-Out
5	None
TR	R
TR1	C
ST6008 OCC timer	OCC
P-P1	N/A

Commercial Components Technical Bulletin

T-T1	MAT* C7250A1001
So-So+	OAT or S-Bus* See chart below
Sr-Sr+	S-Bus*
AQ-AQ1	IAQ terminals **
Exhaust fan	EFH1***
Q-Q1	N/A
Power for Co2 sensor	IQA 24V+
SD-SD1	AUX2 IN 24 Vac IN Program W7220 for Shut Down mode
AC-AC1	Air change is not an option on W7220
PG-PG1	Purge is not an option on W7220
FREE COOL	N/A
Unit Control	N/A
None	E-GND (earth ground the controller using this terminal)
Indoor Fan	Controlled by thermostat
T6031 lockout	Program in Jade (MA LO SET and LOW T LOCK)

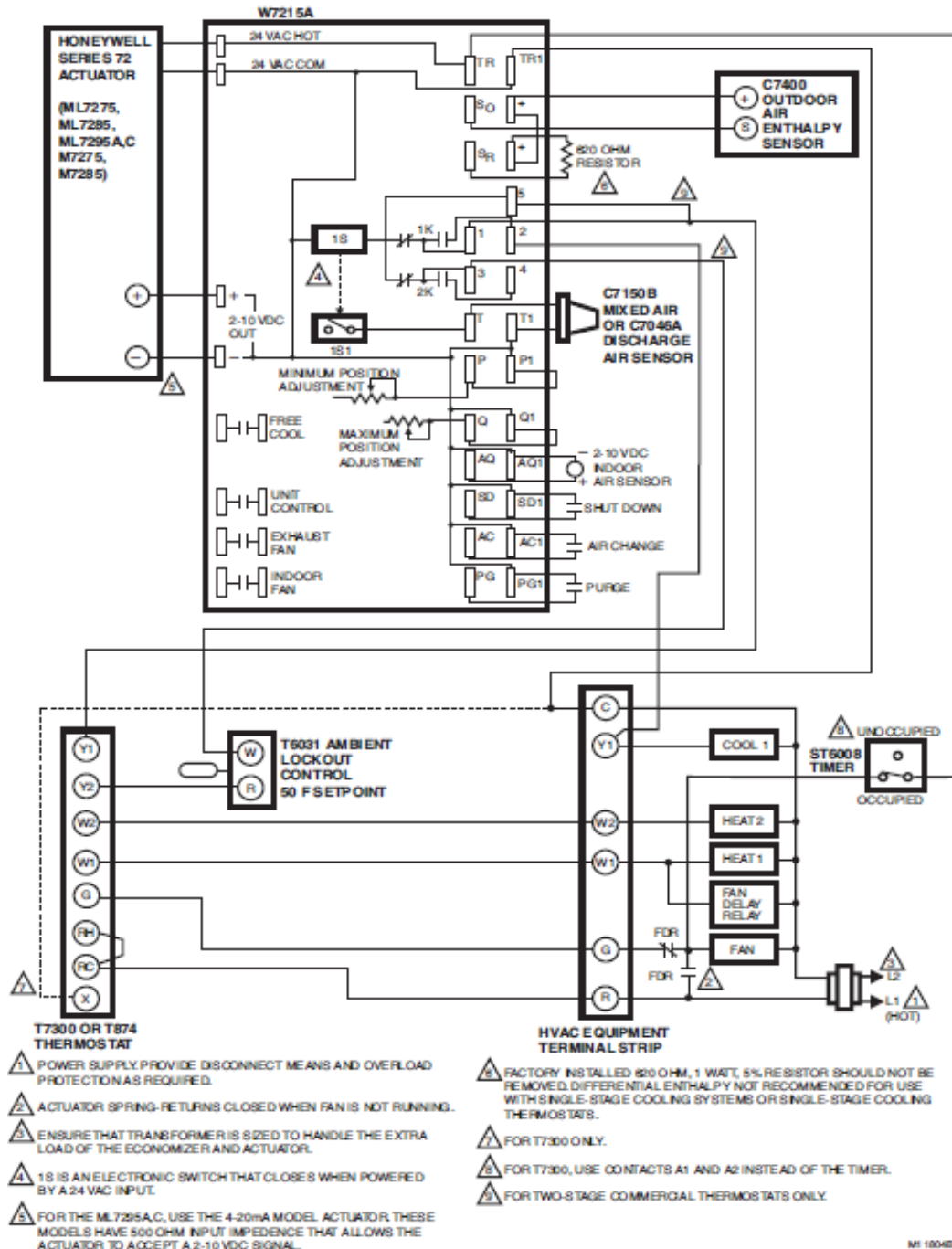
*Sensor to be changed

** CO2 sensor- no longer requires a separate transformer, can be powered by Jade

*** EFH1 out is 24 Vac, need to add a DPDT relay between EFH1 and C terminals.

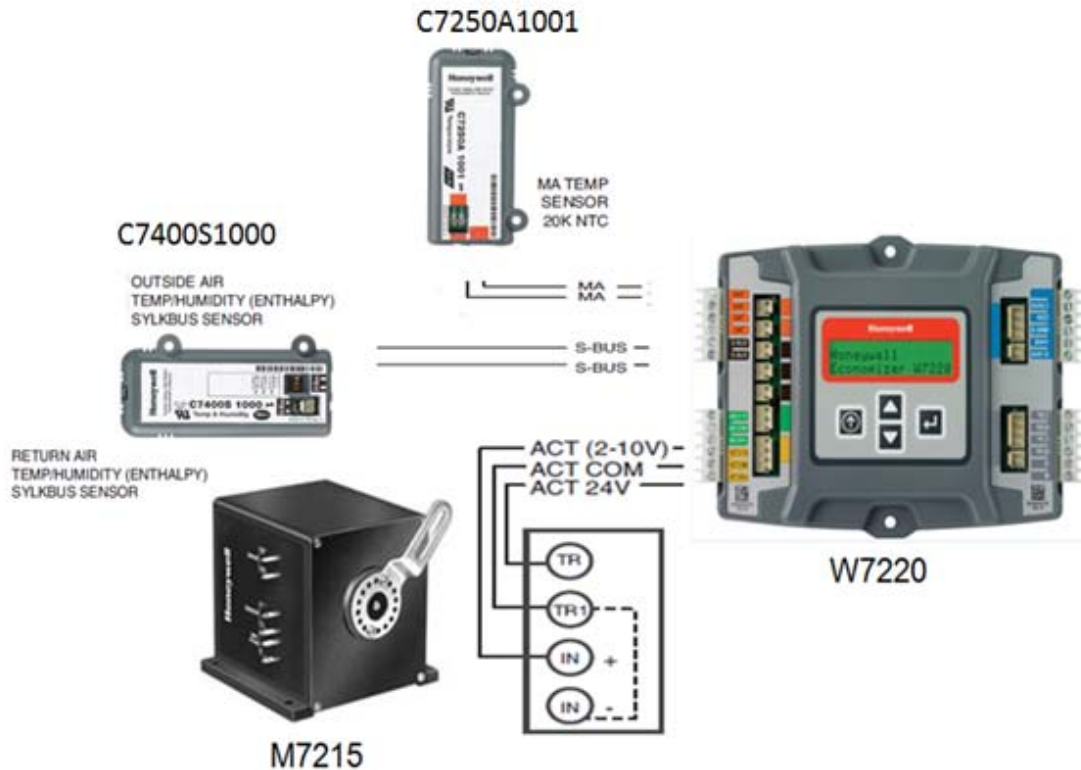
Commercial Components Technical Bulletin

OLD W7215 WIRING DIAGRAM



Commercial Components Technical Bulletin

NEW W7220 WIRING DIAGRAM



Replace the old sensors with new JADE sensors:

Old Sensor	Description	New Sensor	Termination on W7220
C7046A	Discharge Air	C7400S1000	S-Bus
C7150B	Mixed Air	C7250A1001	MAT
C7400	Solid State Enthalpy	C7400S1000	S-Bus
C7660	Solid State Dry Bulb	C7250A1001	OAT

There is no longer need for Minimum Position, DCV and Changeover Curve (A, B, C, D) potentiometers.

Commercial Components Technical Bulletin

The changeover curve, CO2 boundaries and minimum position are set using the LCD display menu item "Setpoints" and the 4 buttons on JADE.

For programming Jade refer to the Installation Instructions (62-0331) supplied with the Jade