

Commercial Components Technical Bulletin

SUBJECT: W7100 with W7220A1000	Ref. Number	
	Issue Date	06/14/13
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Suggested Model Number: W7100	Date Codes Affected: N/A	

Step by step guide to assist you in successful replacement of economizers (W7212, W7215, H705, H205) with a W7220 JADE economizer controller when used with the W7100 controller.

Note: The W7220 does not replace the W7100; the W7220 is limited to 1 stage of economizing and 2 stages of mechanical cooling (3 total stages of cooling) for a system with 2 stages of mechanical cooling. The W7220 replaces the existing economizer (H205; H705; W7212 or W7215).

You will need to replace the M9185 or M945 motor that used to be on Economizer output terminals if you were using the H705 or H205. If the H205 or H705 had already been replaced with W7212 then the M90 series motor had already been replaced by the series 70 motor or DCA.

1. Remove all wires from the economizer. Mark each wire with the terminal designation (e.g., 1,2,3,4, TR1, TR etc.) as it is removed from the economizer.
2. Remove any sensors connected to the economizer and properly dispose of them.
3. Mount Jade (W7220) on the inside of the Rooftop unit where it will be easy to read the display and to change the settings.
4. Wire JADE to the existing 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)

OR

Wire JADE to M7285 using three new wires and ¼ in quick connects on motor end of wires:

M7285 wire termination	W7220 Wire termination
T1	ACT 24V (hot)
T2	ACT COM
(-)	ACT COM
(+)	ACT (2-10V)

5. Terminate wires from the W7100 to the Jade:

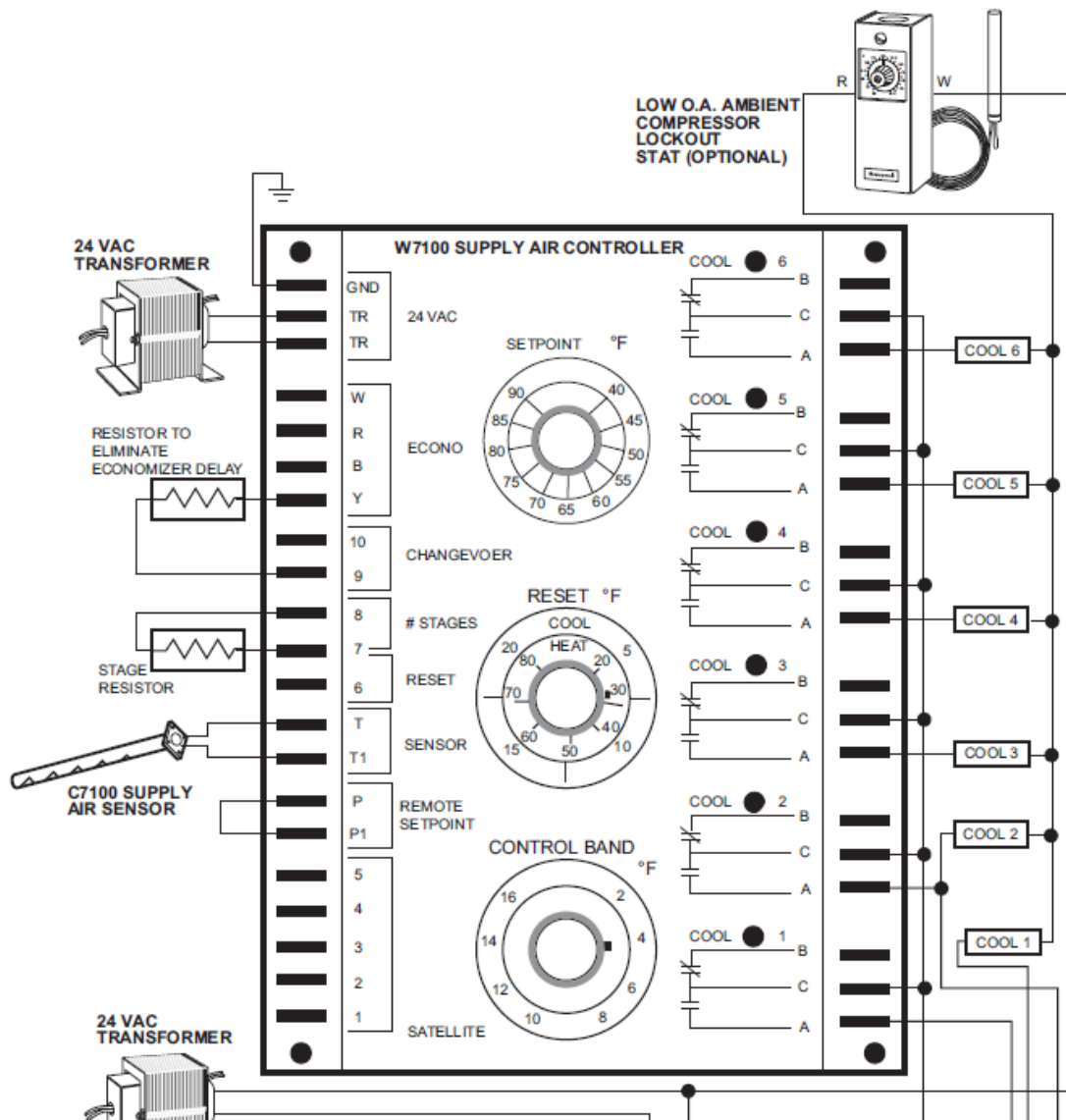
W7100 terminations	W7220 wire
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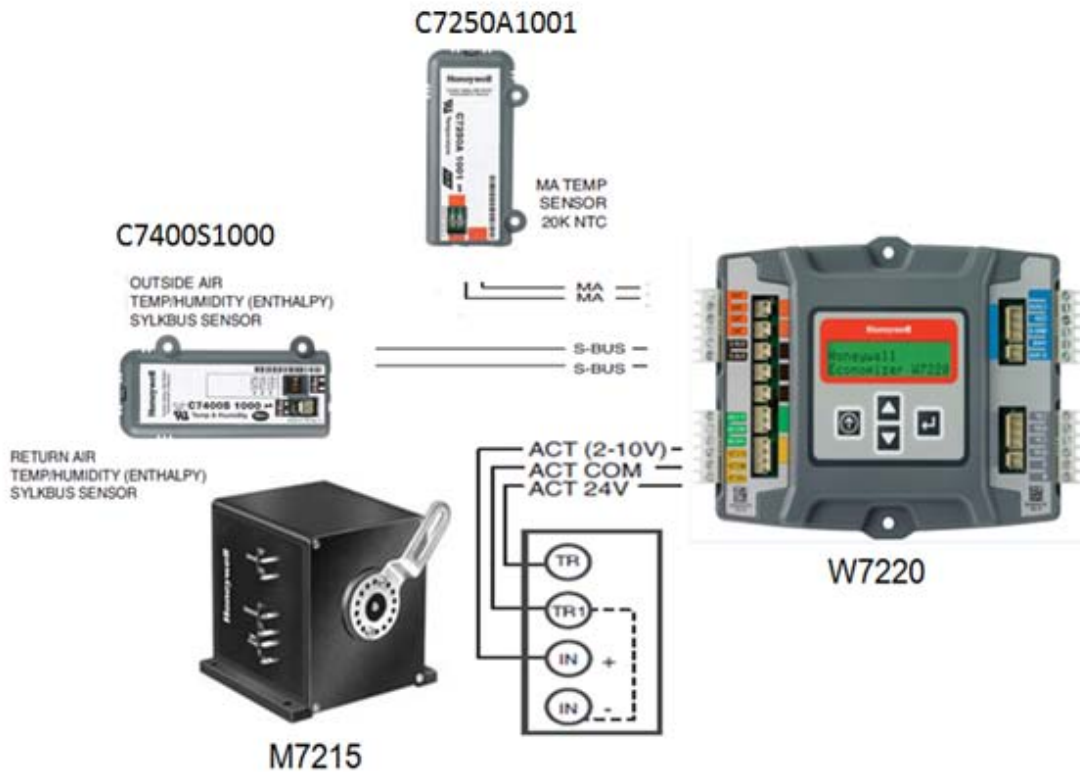
	termination
Cool 1 A	Y1-In
Cool 2 A	Y2-In
Transformer hot	R
Transformer common	C
Sensor terminations	
T-T1	MAT sensor (C7250A1001)
OAT sensor	OAT or S-Bus (C7250A1001 for temp only or C7400S1000 for enthalpy)
Return air sensor	RAT or S-bus (C7250A1001 for temp only or C7400S1000 for enthalpy)
Other terminations	
	E-GND (earth ground the controller using this terminal)
Compressor stage 1	Y1 Out
Compressor stage 2	Y2 Out

6. Remove low ambient compressor lock out stat and program Low T Lockout in the setpoints menu of the W7220A1000.
7. Program W7220 for Stage 3 delay in the Advanced setup menu, see installation instructions for notes.

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Replace the old sensors with new JADE sensors:

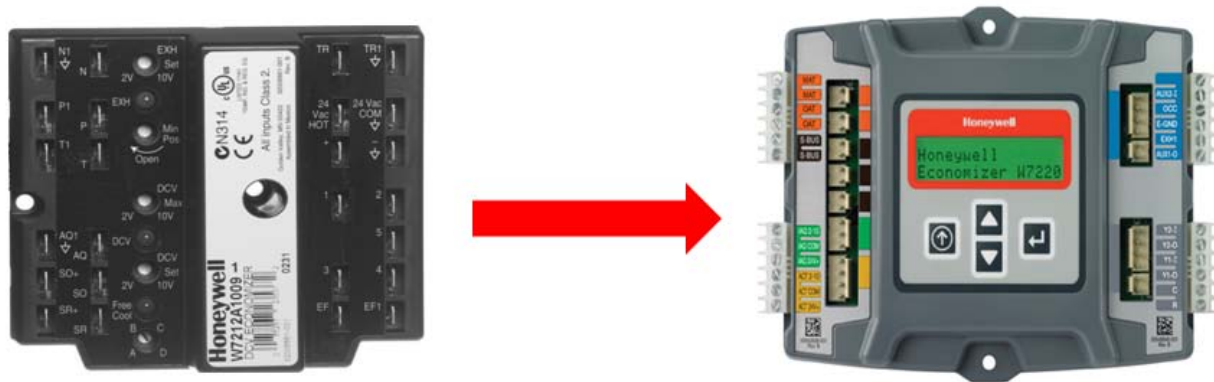
Old Sensor	Description	New Sensor	Termination on W7220
C7400	Solid State Enthalpy	C7400S1000	S-Bus
C7660	Solid State Dry Bulb	C7250A1001	OAT
C7150	Mixed Air Sensor	C7250A1001	MAT

Do not remove the C7100 from the W7100. There will be a C7100 supply air temperature and C7250 mixed air. C7100 is used as anticipator for W7100.

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

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