

INSTALLATION INSTRUCTIONS

ADAPT420-2 Conversion Kit

Retrofit kit for replacing EWC12, 18, 24, or 30
with EWC122, 182, 242, or 302 chassis

OR

Retrofit kit for replacing HWC12, 18, 24, or 30
with HWC122, 182, 242, or 302 chassis

WARNING

This chassis shall be installed by a qualified agency in accordance with the manufacturer's instructions and all applicable codes and requirements of the authority having jurisdiction. If the information in these instructions is not followed exactly, electric shock, fire, or explosion may result which may cause property damage, personal injury, or death. The qualified service agency performing this work assumes responsibility for properly installing this chassis.

WARNING

Risk of electrical shock. Disconnect all remote power supplies before installing or servicing any portion of the system. Failure to disconnect power supplies can result in property damage, personal injury, or death.

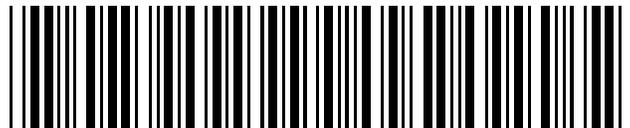
WARNING

Turn off gas prior to the appliance before performing any service. Failure to disconnect gas supply can result in property damage, personal injury, or death.

Parts List

Quantity	Part
1	Filler Panel
1	Center Rear Panel (Filter Access Panel Support)
1	Foam Sealing Tape (1 ft.)
2	Wiring Diagram Labels
1	Installation Instructions

Manufactured By
A.A.C.
A Lennox International Company
421 Monroe Street
Bellevue, OH 44811



INSTALLATION

This kit was designed to retrofit either an EWC122, 182, 242, or 302 chassis into a cabinet originally equipped with an EWC12, 18, 24, or 30 chassis or an HWC122, 182, 242, or 302 chassis into a cabinet originally equipped with an HWC 12, 18, 24, or 30 chassis. **This kit cannot be used to replace an HWC181, 241, or 301.**

If any damage to the contents is found at the time of delivery, proper notation should be made on the carrier's freight bill. Damage claims should be filed with the carrier at once. Claims of shortage should be filed with the manufacturer within 5 days.

Read these instructions completely before starting replacement of chassis.

When replacing the original chassis, the new chassis should have the same nominal cooling capacity. If the nominal cooling capacity of the new chassis is larger than the original, both the appliance internal line voltage wire and the field wiring must be checked for proper size. Refer to Table 1 for proper wire size. Additionally, the fuse and/or breaker size must be checked.

Wire Sizes

Chassis Model	Internal Wiring	Field Wiring
122	12 Gauge	12 Gauge
182	12 Gauge	12 Gauge
242	12 Gauge	10 Gauge
302	12 Gauge	10 Gauge

Table 1

Replacement Procedure

Preparing the New Chassis

1. Remove packaging from the new chassis.
2. In order for the blower close-off panel to fit, a slight modification to the new chassis is required. The modification is required so that the blower close-off panel, which is located above the chassis in the unit that seals off the blower outlet to the cabinet, will fit. Referring to Figure 1, cut a 2" notch in the top flange of the chassis division panel that separates the evaporator and blower section from the compressor and condenser.

Modifying Division Panel

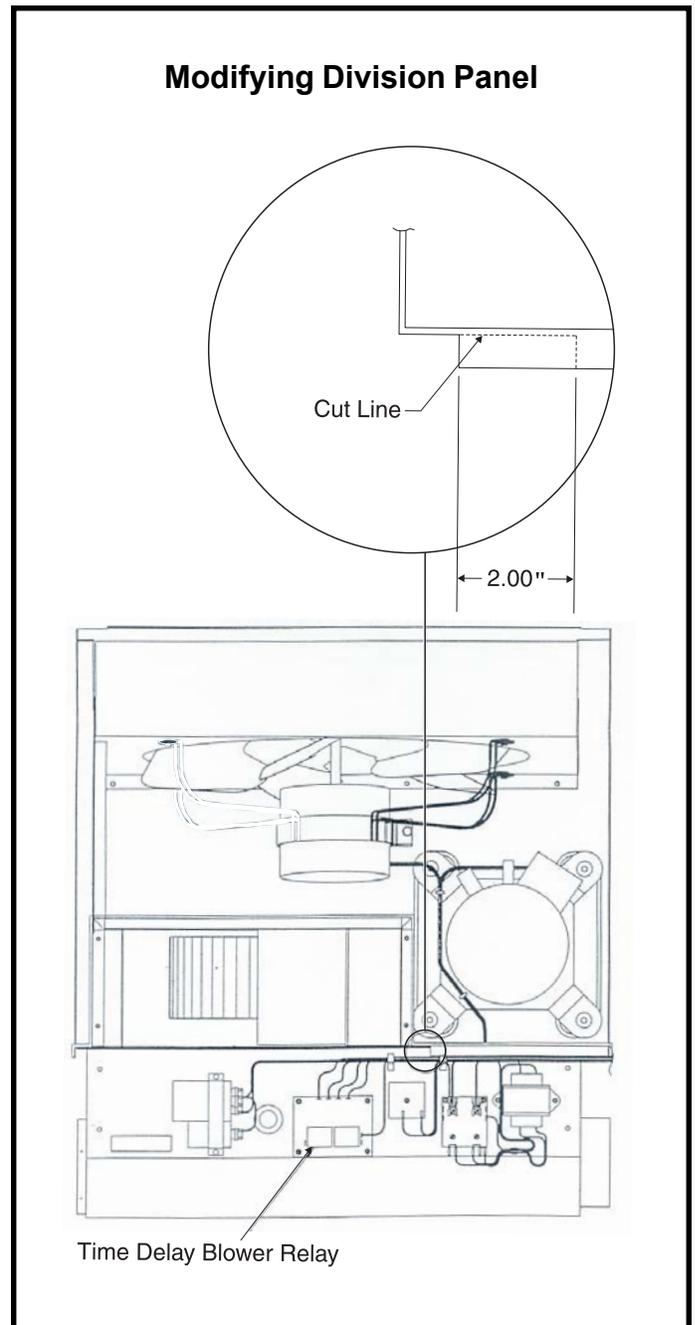


Figure 1

3. Remove the two screws on the top right side of the circulating air blower support as facing the coil. Install the filler panel by re-installing the two removed screws through the filler panel (see Figure 2).
4. Place the enclosed self-sticking foam tape on the flanges around the filler panel. This will provide a seal between the chassis and cabinet.
5. Use Table 2 or Table 3 (page 4) to find the heating input and model of the new chassis. The heating and cooling speeds can be found in the proper table. On the circulating air blower delay board, connect the appropriate cooling speed tap from the motor. All chassis

Installing Filler Panel

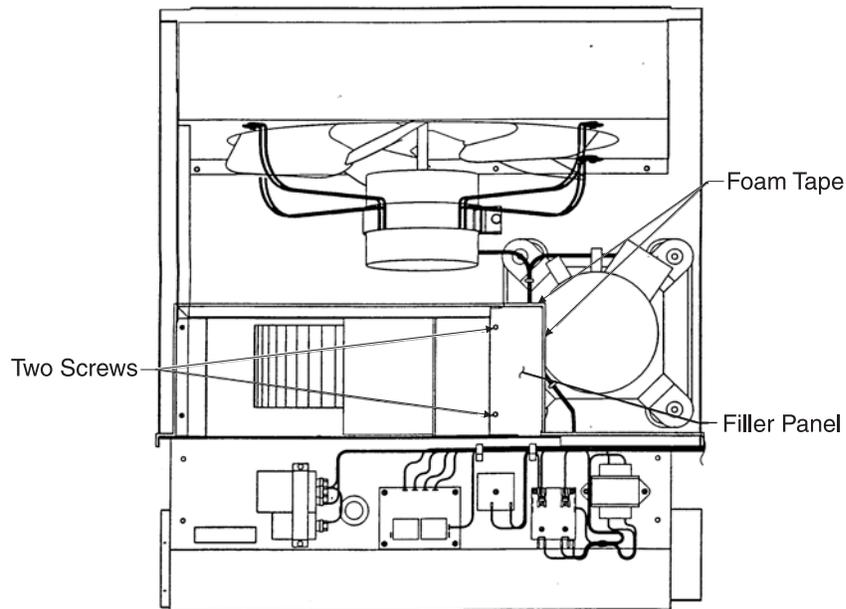


Figure 2

come wired from the factory with both heating and cooling speeds set for high speed. A jumper wire, as supplied from the factory, goes between the heating and cooling relays. This wire must remain in place if both heating and cooling are to run on the same motor speed. If the heating and cooling speeds are different, the wire must be removed and wired accordingly. See Figure 1 for board location.

6. EWC ONLY: Cut and remove two black wires from the control plug, blower motor, and blower control. These wires are not needed as existing wiring will be used.

Removing the Old Chassis

1. Make sure that the electrical supply is disconnected and the gas supply is turned off.
2. Remove the filter access panel and center rear panel.
3. Disconnect the wire harness plug and remove the line voltage wires from the contractor.
4. Disconnect the condensate drain tube from drain pan.
5. Remove the blower close-off panel and remaining screws retaining the chassis in the cabinet.
6. Slide out the existing chassis.

EWC Units

Heater Size	New Chassis	Heating	Cooling	Jumper
5	122	Low	Medium	No
5	182	Medium	Low	No
5	242	Low	Medium	No
10	122	Medium	Medium	Yes*
10	182	Medium	Low	No
10	242	High	Medium	No
10	302	Medium	High	No
15	182	High	Low	No
15	242	High	Medium	No
15	302	Medium	High	No
20	182	High	Low	No
20	242	High	Medium	No
20	302	High	High	Yes*

* Jumper heating and cooling speeds on the blower control board.

Table 2

HWC Units

Heater Input	New Chassis	Heating	Cooling	Heating	Jumper
36,000	122	Medium	Medium	45 - 75	Yes
36,000	182	Low	Low	45 - 75	Yes
36,000	242	Low	Medium	20 - 50	No
40,000	122	Medium	Medium	45 - 75	Yes
40,000	182	Low	Low	45 - 75	Yes
40,000	242	Medium	Medium	20 - 50	Yes
48,000	122	High	Medium	45 - 75	No
48,000	182	Low	Low	45 - 75	Yes
48,000	242	Low	Medium	45 - 75	No
60,000	122	High	Medium	55 - 85	No
60,000	182	Medium	Low	45 - 75	No
60,000	242	Medium	Medium	45 - 75	Yes
60,000	302	Medium	High	45 - 75	No
66,000	122	High	Medium	55 - 85	No
66,000	182	Medium	Low	55 - 85	No
66,000	242	Medium	Medium	45 - 75	Yes
66,000	302	Medium	High	45 - 75	No

Blower Speed	Speed Tap Color
High	Black
Medium	Blue
Low	Red

Table 3

Installing the New Chassis

1. Slide the new chassis part way into cabinet so that control panel is exposed for wire connection purposes.
2. Connect the 208/230 volt line voltage wires to the contactor on the chassis control panel.
3. Inspect the physical configuration of the wiring plug on the chassis and compare that to the cabinet recep-

tacle. If they are mates, the new chassis can be plugged directly into the cabinet.

NOTE: Typically, any xxEWCxx-9, xxHWCxx-18, or later will have a receptacle that will accept the plug supplied with the new replacement chassis. If the plugs are not a mating pair, the new chassis and/or cabinet will have to be rewired (see the wiring diagrams found on pages 7 and 8). When rewiring the unit, be sure to keep the chassis low voltage wiring mated to the corresponding cabinet wiring.

Blower Close-Off Panel

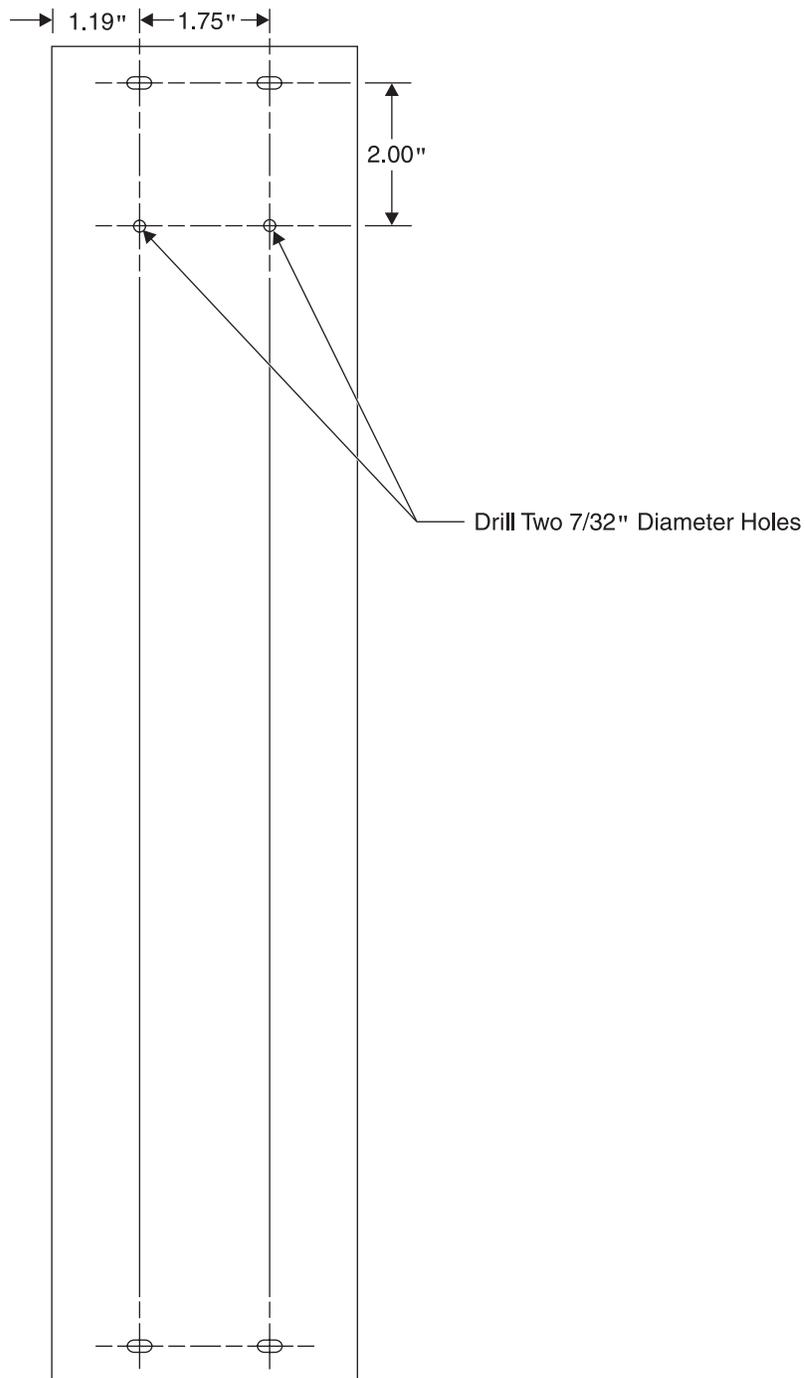


Figure 3

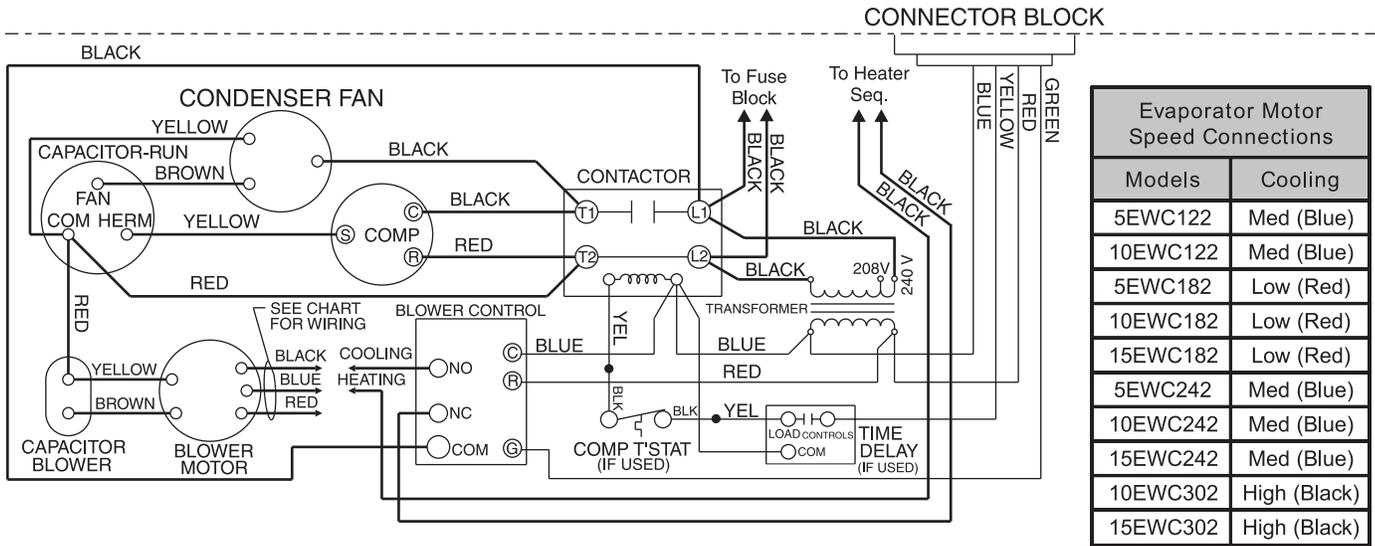
4. EWC ONLY: Connect the blower wires from the heating section. One is connected to NC on the blower control. The other is connected to the blower motor speed tap wire. See Table 2 (page 3) for proper speed and wiring diagram location.
5. After completing the wiring, slide the new chassis into place in the cabinet and replace the permagum in the corners.
6. Referring to Figure 3, drill two 7/32" diameter holes into the blower close-off panel that was removed earlier.

7. Re-install the modified blower close-off panel in the unit and add any additional retaining screws.
8. Reconnect the drain tubing to the drain pan.
9. Establish the gas and electrical supply to the unit and check the following:
 - A. Set thermostat for a call for cooling.
 - B. The compressor, condenser fan, and blower will start approximately 8 seconds after the thermostat calls for cooling. HWC ONLY: Blower will delay approximately 15 seconds.
 - C. When the thermostat is satisfied in the cooling mode, the compressor and condenser fan motor will shut off immediately. The circulating air blower will continue to operate for approximately 90 seconds.
 - D. Set the thermostat to call for heat.
 - E. EWC ONLY: Verify the circulating air blower starts and the heating elements come on.
 - F. HWC ONLY: Verify the main burners are lit. The circulating air blower will start approximately 60 seconds after the thermostat calls for heat.
 - G. HWC ONLY: Allow the unit to reach steady state conditions and verify that the unit is operating within the rise range shown on the unit rating plate. If no rise range is shown on the rating plate, refer to Table 3 (page 4) for the appropriate rise range. If the unit is not operating within the rise range, adjust the blower speed.
 - H. Turn thermostat down. The circulating air blower will continue to operate for approximately 90 seconds after the thermostat is satisfied.
10. Install the new wiring diagram (supplied) on the unit over the existing wiring diagram. If wire modifications were required, mark the changes on the wiring diagram for future reference.
11. Install the new center rear panel on the unit being careful not to pinch any wiring.
12. Re-install the filter access panel on the new center rear panel.

Some models, specifically the 66HWC122 and the 60HWC122, may have potential nuisance limit trips. If the duct work is such that it has high static resistance, 0.3" W.C. and above, and is operated at 208 volts or below, the potential for nuisance limit trips will increase. If a problem is encountered, a limit with a higher setting may need to be installed. Do not bypass the limit under any circumstance.

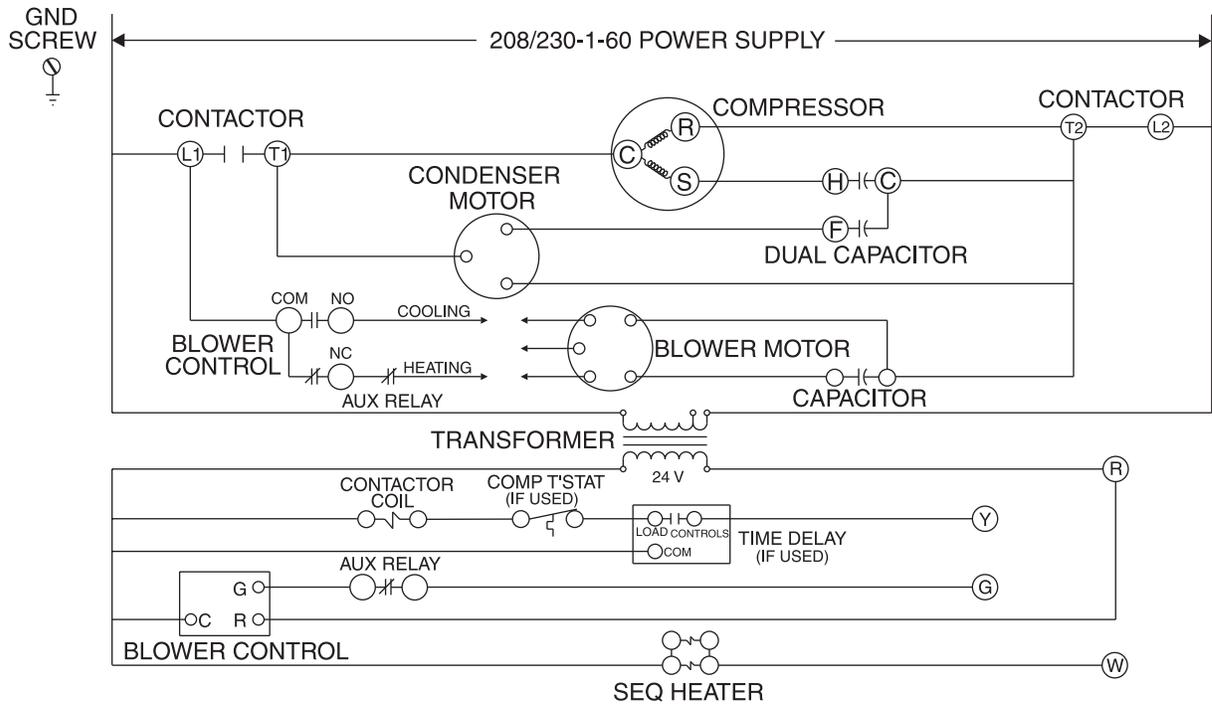
- LINE VOLTAGE - FACTORY
- - - - LINE VOLTAGE - FIELD
- LOW VOLTAGE - FACTORY
- - - - LOW VOLTAGE - FIELD

NOTE:
 IF ANY OF THE ORIGINAL WIRE AS SUPPLIED WITH THE FURNACE MUST BE REPLACED, IT MUST BE REPLACED WITH WIRING MATERIAL HAVING A TEMP. RATING OF AT LEAST 90° C.



CONNECTION DIAGRAM

SCHEMATIC



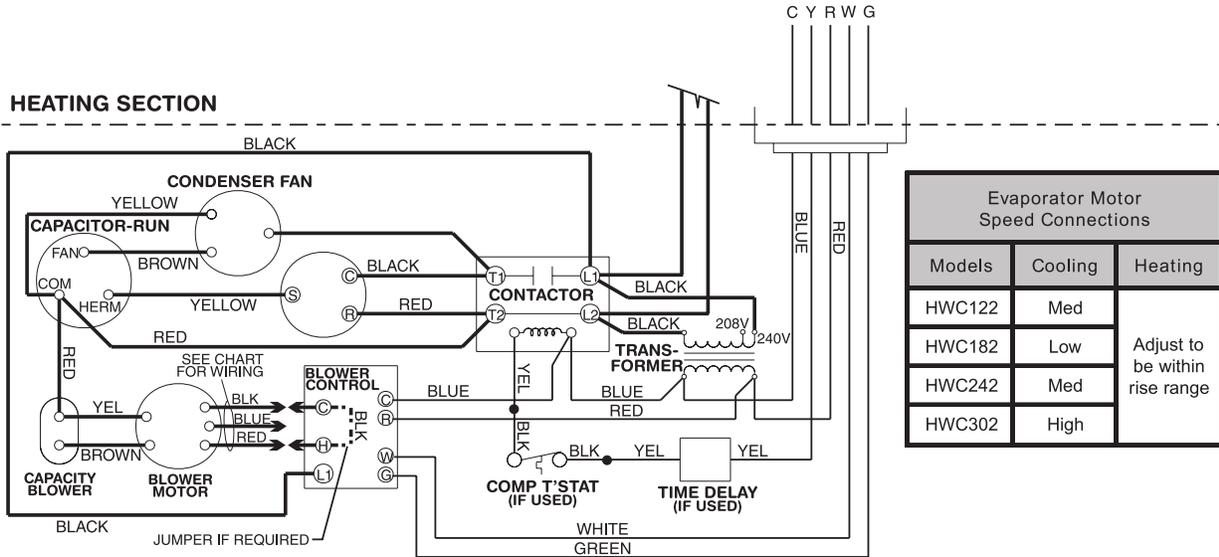
EWC Wiring Diagram

Figure 4

- LINE VOLTAGE - FACTORY
- LINE VOLTAGE - FIELD
- LOW VOLTAGE - FACTORY
- LOW VOLTAGE - FIELD

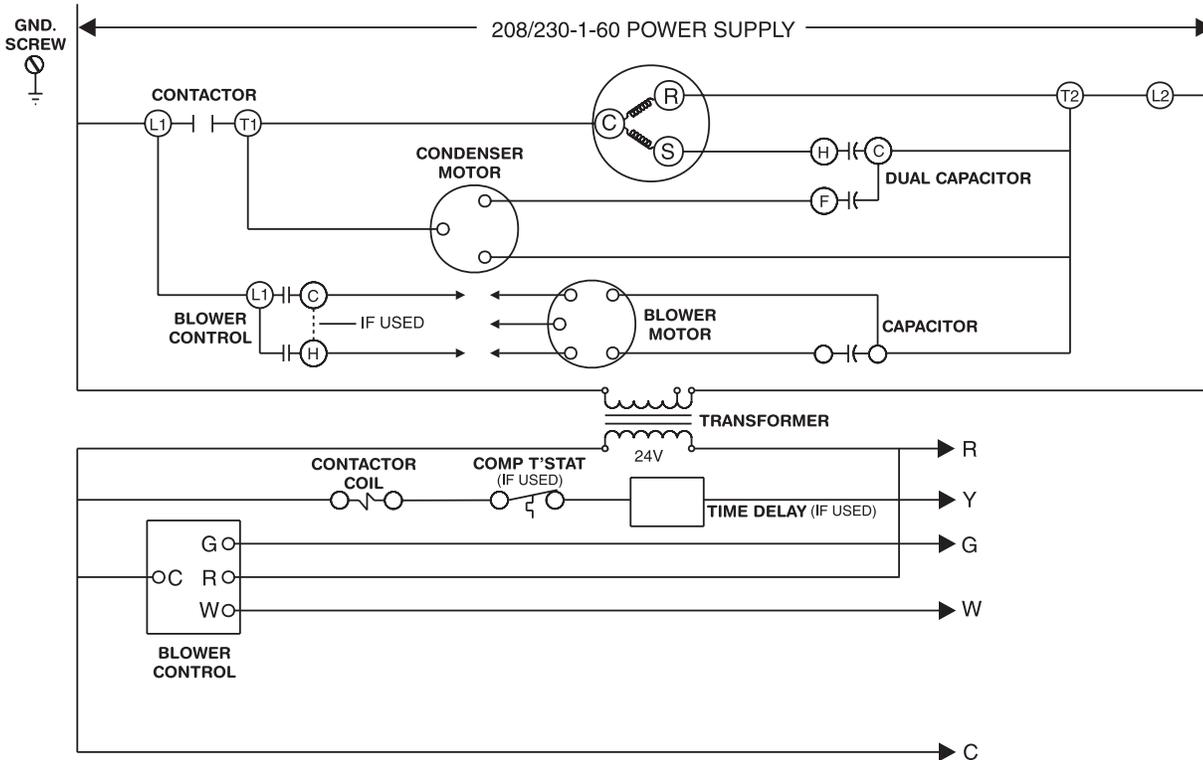
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CONNECTION DIAGRAM

SCHEMATIC



HWC Wiring Diagram

Figure 5