

ECM Blower Kit

INSTALLATION INSTRUCTIONS

For use with E3 & E4 Series Electric Furnaces

IMPORTANT SAFETY INFORMATION

INSTALLER: Please read all instructions before servicing this equipment. Pay attention to all safety warnings and any other special notes highlighted in the manual. Safety markings are used frequently throughout this manual to designate a degree or level of seriousness and should not be ignored. **WARNING** - Indicates a potentially hazardous situation that if not avoided, could result in personal injury or death. **CAUTION** - Indicates a potentially hazardous situation that if not avoided, may result in minor or moderate injury or property damage.

WARNING:

ELECTRICAL SHOCK, FIRE OR EXPLOSION HAZARD

Failure to follow safety warnings exactly could result in serious injury or property damage.

Improper servicing could result in dangerous operation, serious injury, death or property damage.

- Before servicing, disconnect all electrical power to furnace.
- When servicing controls, label all wires prior to disconnecting. Reconnect wires correctly.
- Verify proper operation after servicing.”

COIL		HIGH	MED-HIGH	MED	MED-LOW	LOW
		4 TON	3.5 TON	2.5-3 TON	2 TON	1.5 TON
Static (ESP) in W.C.	0.1	1655	1560	1190	940	680
	0.2	1630	1530	1160	900	645
	0.3	1590	1500	1130	870	615
	0.4	1555	1465	1100	830	575
	0.5	1525	1435	1060	800	540
	0.6	1210	1110	990	860	660

Table 1. E3 & E4 ECM Blower Data

MODEL CAPACITY (KW)	COOLING		HEATING	
	TONNAGE	MOTOR TAP #	MODEL CAPACITY (KW)	MOTOR TAP #
ALL	1.5-2	2	010-012	1
	2.5-3	3	015-023	2
	3.5-4	4		

Table 2. E3 & E4 Heating and Cooling Settings

INSTALLATION SEQUENCE

Blower Assembly Installation

NOTE: Retain all screws and fasteners for installation of the new blower assembly.

1. Before beginning the installation, make sure the unit is not powered and any breakers/disconnects to the unit are deactivated. Remove the furnace door.
2. Disconnect the thermostat wire connections and unhook the 6-pin blower plug from the control panel socket.
3. Remove all screws attaching the blower assembly to the furnace.
4. Slide out the complete blower assembly.
5. Replace the blower in step 4 with the ECM blower from this kit. Slide into the same position as the removed assembly, and then fasten with screws.

- **For E3 series furnaces only:** Install the grey wire that is supplied with this kit. Determine your appropriate model from Figures 1, 2, 3, or 4 (pages 2 & 3).

Firmly press the grey wire socket termination into pin location #5 of the blower plug (in the control panel) and the .25" push-on terminal into the open contactor termination shown in Figures 1, 2, 3 & 4 (pages 2 & 3). The dashed line represents the field installed grey wire.

- **For E4 series furnaces only:** Install the grey wire that is supplied with this kit. Determine your appropriate model from Figures 5, 6, 7, or 8 (pages 4 & 5).

- a.) Temporarily remove the black wire from pin L1 on the control board.
 - b.) Firmly press the grey wire socket termination into pin location #5 of the blower plug (in the control panel) and the .25" push-on terminal into the L1 terminal.
 - b.) Replace the black wire onto the "piggy-back" terminal of the grey wire at pin L1.
6. Plug the 6-pin plug from this kit into the control panel socket.
 7. Make the required thermostat wiring connections as shown in Figure 9 (page 6).
 8. Reinstall the furnace electrical panel and exterior door, and then restore power to the unit.

The blower speed is preset at the factory for proper heating and cooling operation. For optimum system performance and comfort, it may be necessary to change the factory set speed. Recommended settings are listed in Table 1 & Table 2. If heat and cool require tap 2, use the included wire adapter and wire nut.

Models: E3EB-010H

LEGEND:

- FIELD INSTALLED
- LOW VOLTAGE
- HIGH VOLTAGE

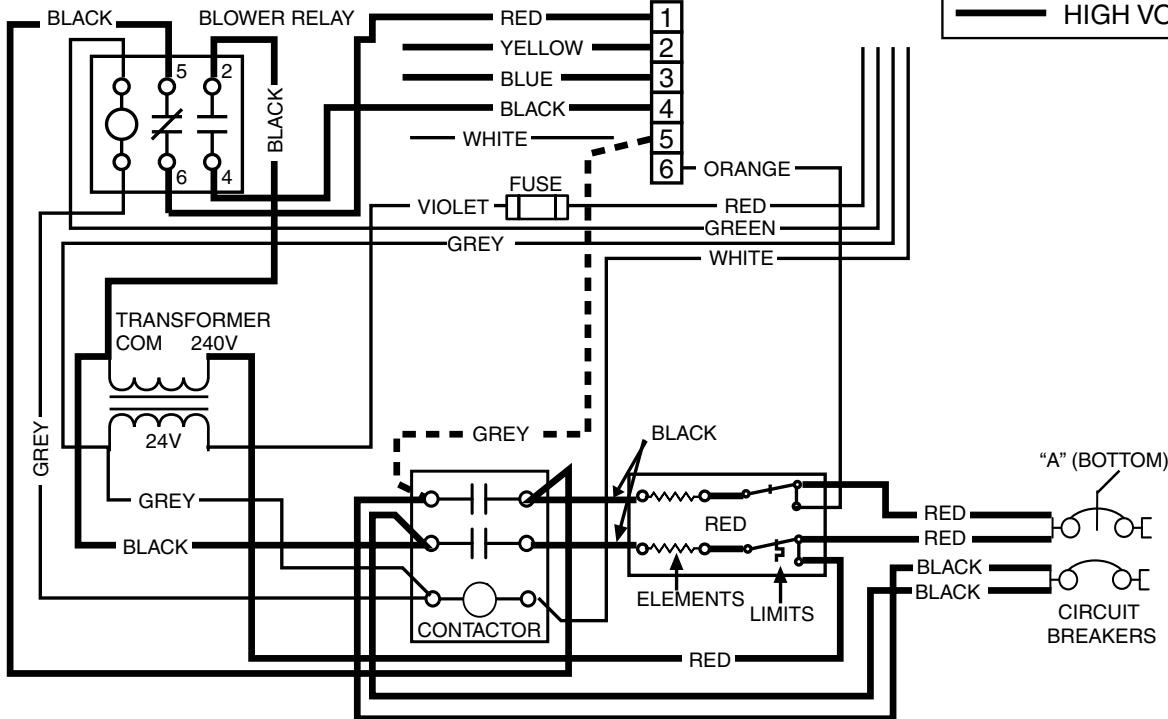


Figure 1. E3EB-010H Electrical Diagram

Models: E3EB-012H

LEGEND:

- FIELD INSTALLED
- LOW VOLTAGE
- HIGH VOLTAGE

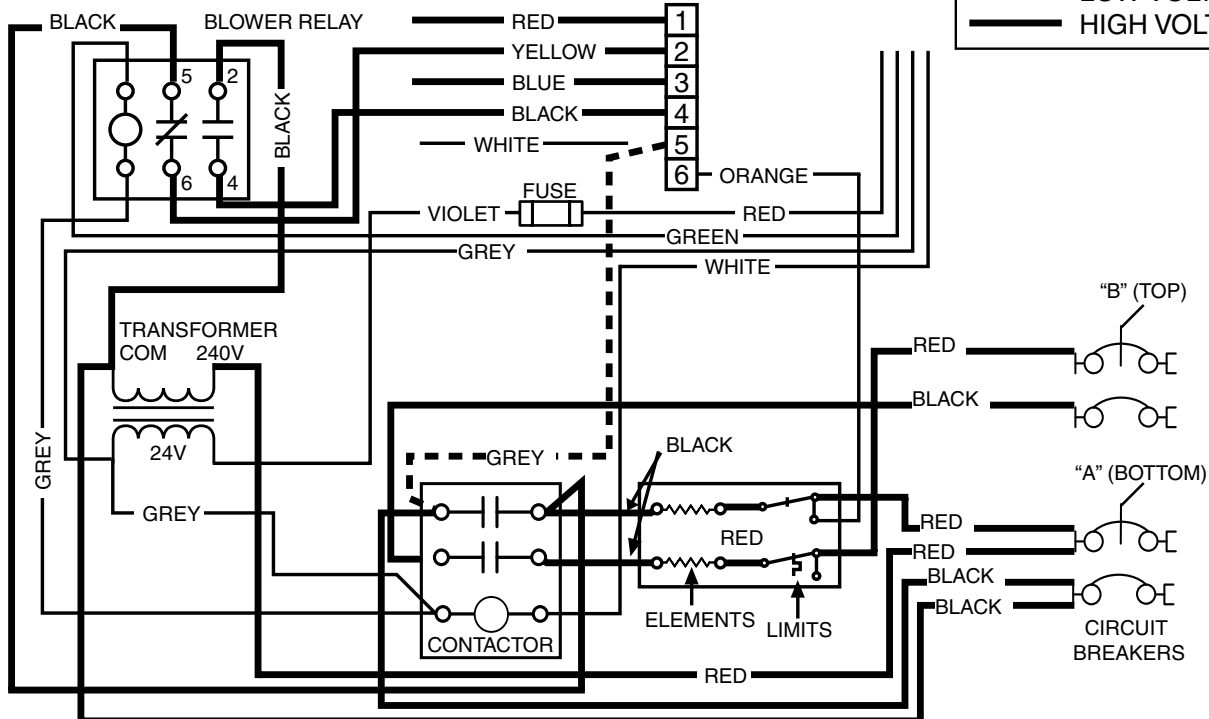


Figure 2. E3EB-012H Electrical Diagram

Models: E3EB-015H, 017H

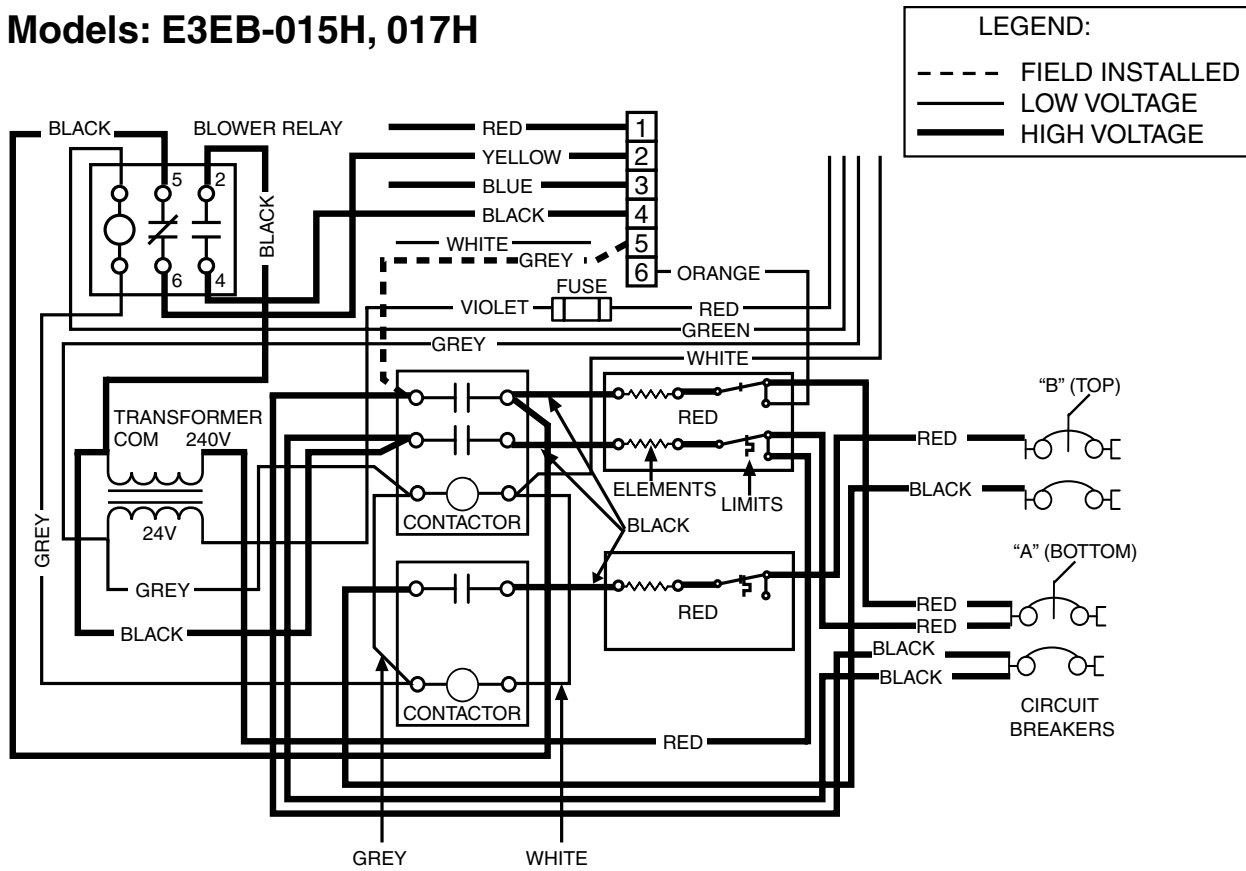


Figure 3. E3EB-015H & 017H Electrical Diagram

Models: E3EB-020H, 023H

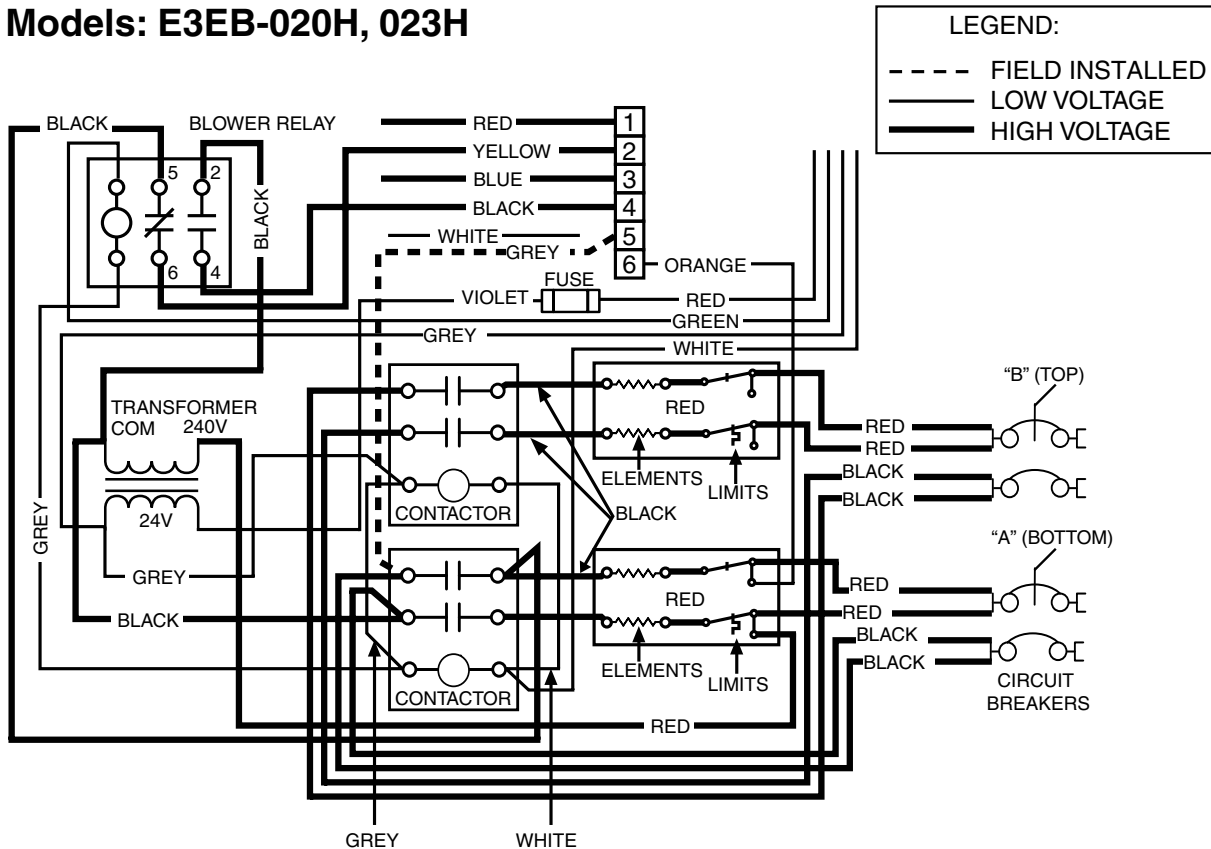


Figure 4. E3EB-020H & E3EB-023H Electrical Diagram

Models: E4EB-010H

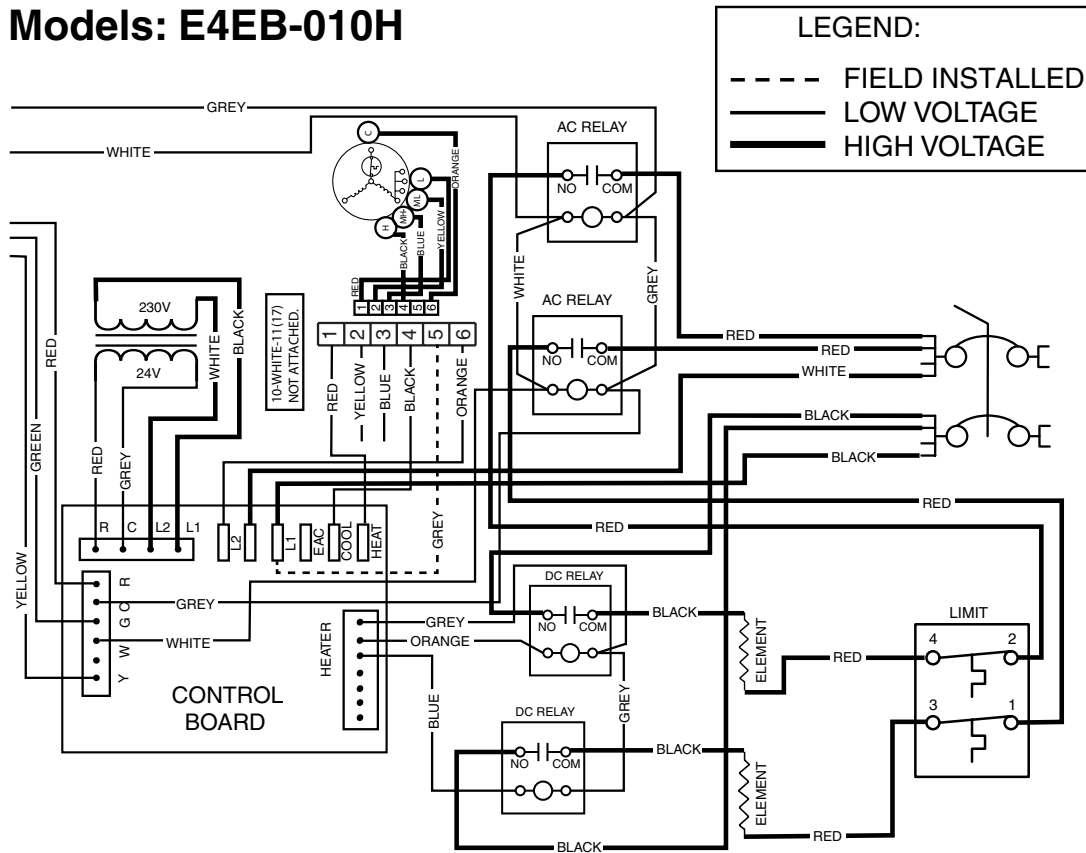


Figure 5. E3EB-010H Electrical Diagram

Models: E4EB-012H

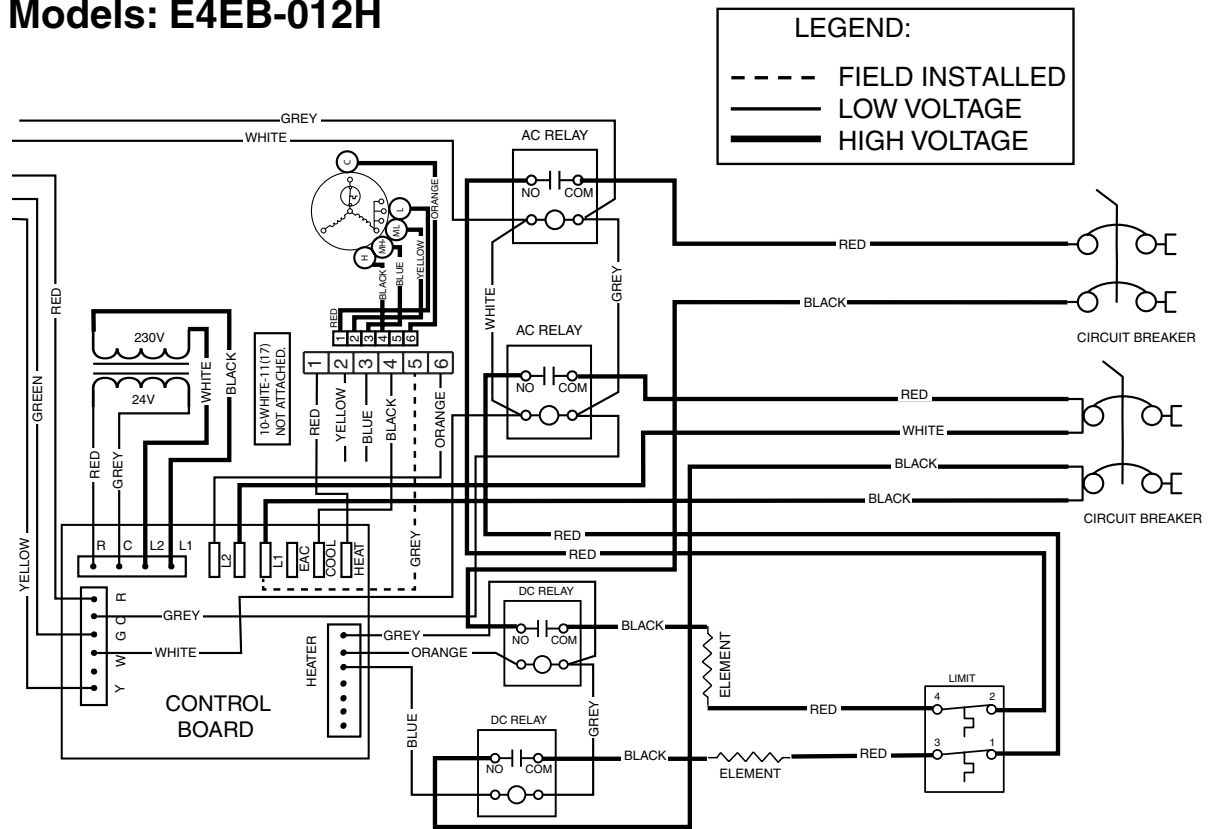


Figure 6. E4EB-012H Electrical Diagram

Models: E4EB-015H, 017H

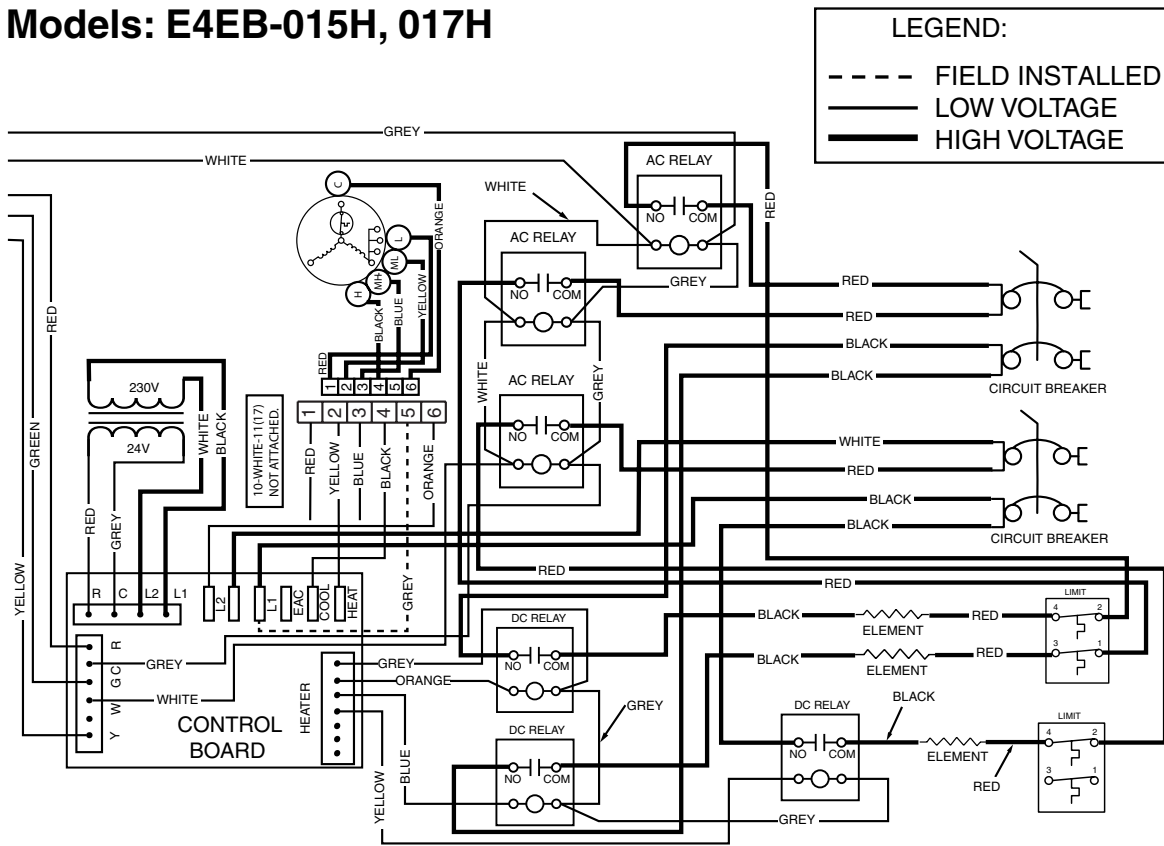


Figure 7. E4EB-015H & 017H Electrical Diagram

Models: E4EB-020H, 023H

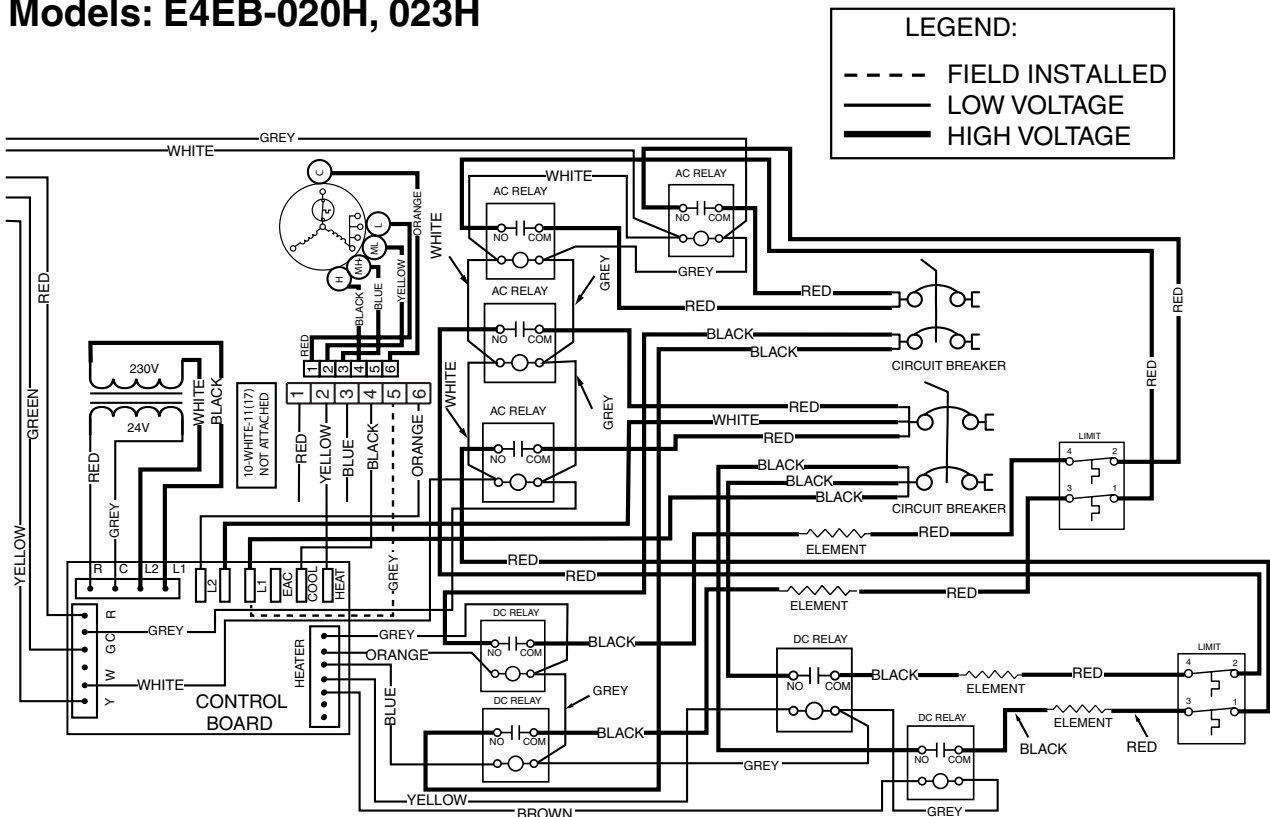
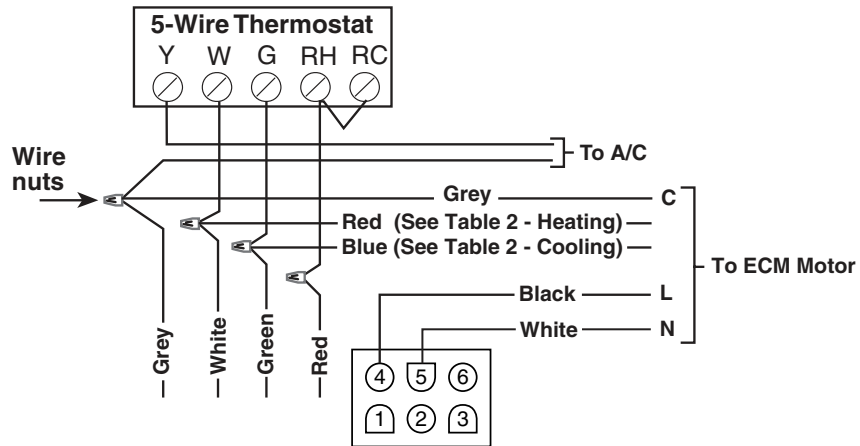
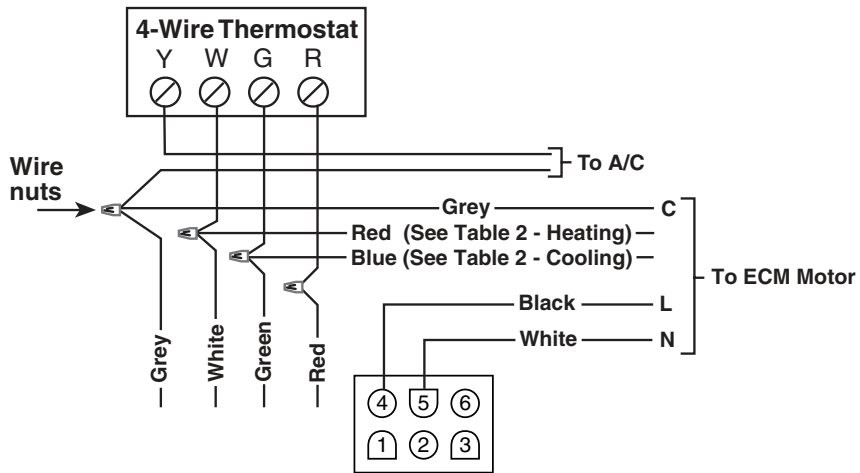


Figure 8. E4EB-020H & 023H Electrical Diagram

E3EB & E4EB FURNACE CONTROL WIRING
(For single transformer system only)



E3EB & E4EB FURNACE CONTROL WIRING



E3EB & E4EB FURNACE CONTROL WIRING

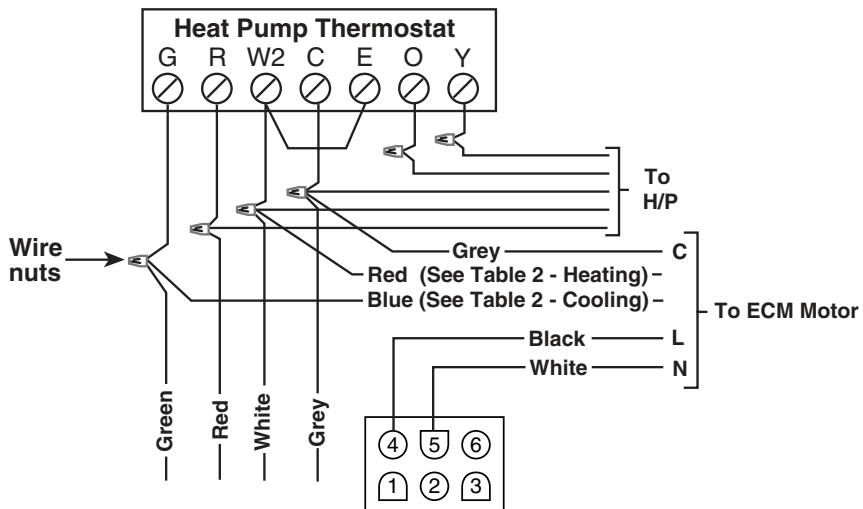


Figure 9. E3 & E4 Thermostat Connections



Specifications & illustrations subject to change without notice or incurring obligations (07/15).
O'Fallon, MO, © Nortek Global HVAC LLC 2015. All Rights Reserved.



10077300 (NEW)