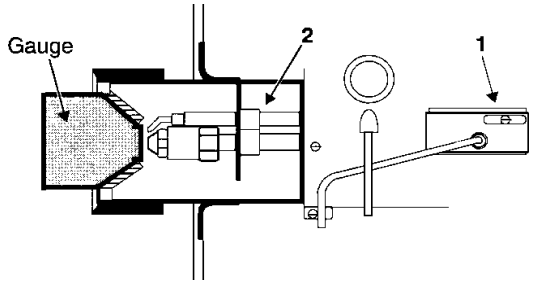
Beckett Oil Burner Nozzle Adjustment

Burner must be removed from furnace for this procedure.



To adjust nozzle:
1. Loosen screw.
2. Slide entire nozzle/electrode assembly back and forth until nozzle just touches gauge

Figure 10

Nozzle and Electrode Alignment
Proper nozzle and electrode depth and alignment are essential for proper burner operation. Figure 10 shows the proper adjustment procedure using the Beckett "T" gauge.

To check and adjust the nozzle depth:

1. Insert the small end of the "T" gauge into the end of the cone and measure from the flat of the end cone to the tip of the nozzle. The proper measurement should be 1.13". When the depth is correct, the tip of the nozzle should just touch the base of the "T" gauge.

2. Nozzle adjustments are made by sliding the entire nozzle assembly forward or backward within the blast tube (see Figure 10).

To check nozzle alignment:

1. Insert the small end of the "T" gauge into the end of the cone and measure the nozzle and electrode alignment against the center lines marked on the gauge.

2. If the nozzle is not centered, but found to be too far left or right, a new nozzle will need to be ordered. **Do not attempt to adjust by bending the 90° elbow in the oil line.**

SEQUENCE OF OPERATION

1. The thermostat calls for heat, activating the burner motor and ignitor.

2. After a 15-second pre-purge period, the oil solenoid valve is energized and ignition is established.

3. After thermostat is satisfied, thermostat circuit will open.

4. Power to the burner is interrupted, thus shutting down the burner.

MAINTENANCE AND SERVICE

Oil Burner
It is recommended that the nozzle and oil filter be checked before each heating season. Also recheck the conditions shown on the **OIL FURNACE START-UP CHECKLEST** found on page 2.

Always keep the valve shut off if the burner is shut down for an extended period of time.

Flue Pipe
Have the flue pipe inspected annually by a qualified service technician. If any soot or ash has formed inside the flue pipe, remove and clean. If the flue pipe has any holes or is rusted out, replace with a new flue pipe of the same size. Inspect the flue draft control device and replace if defective.

Blower
Blower motor is pre-lubricated and sealed for extended operation. No further lubrication is required.

The blower assembly may be removed from the cabinet for cleaning and servicing of the blower. Disconnect power to the unit before servicing.

Heat Exchanger
To clean the heat exchanger:

1. Remove the vent pipe from the furnace.

2. Remove the locking screws and the caps from the two cleanout tubes; remove the flue access elbow.

3. Using a long spiral wire bursh, sweep down the outer drum of the heat exchanger. Using a shop vacuum hose attachment, vacuum out all loose debris.

4. Remove the locking screw and cap from the inspection tube and with the spiral wire brush reach upward toward the rear of the heat exchanger to clean out the crossover tube; replace the locking screw and cap on the inspection tube.

5. Do not attempt to clean the combustion chamber, as it can be easily damaged.

6. Replace the three previously removed cleanout caps and flue access elbow, making sure to reinstall the locking screws.

7. Brush out and vacuum the vent outlet area of the outer drum and reattach the vent pipe.

8. Clean up around burner, blower deck, and vestibule area.

Heat exchanger cleanout kit #ABRSH380-3 is available from the manufacturer.

Emergency Fuel Pump Replacement
If replacement of the A2EA6520 fuel pump becomes necessary, replace it with another Beckett CleanCut fuel pump. In an emergency situation where the correct replacement parts are not available, an A2VA7116 fuel pump could be used. This option can produce a smoky start-up and shutdown that could result in fouling of a heat exchanger. **This is only a short-term option and should be used only until the correct parts can be obtained and installed.**

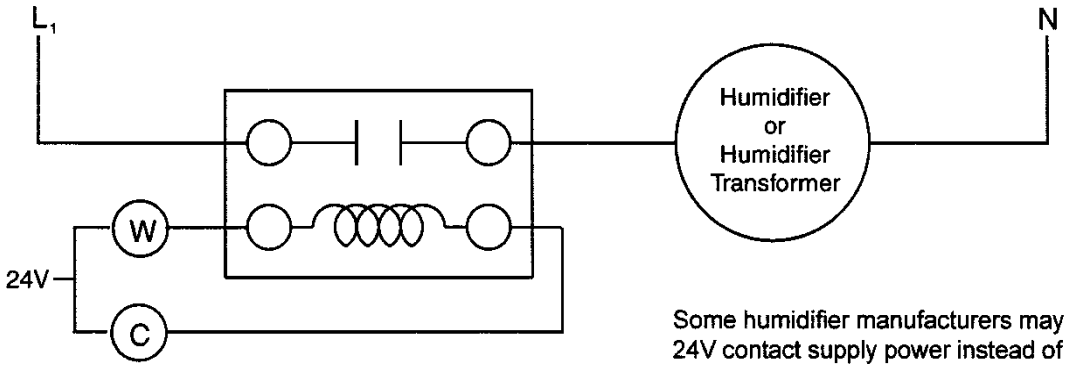
Complete National Fuel Gas Codes are available from:

1. **American Gas Association**
   1515 Wilson Boulevard
   Arlington, VA 22209

2. **National Fire Protection Association, Inc.**
   1 Battery March Park
   Quincy, MA 02269

3. **American National Standards Institute, Inc.**
   Publications Sales Department
   11 West 42nd Street
   New York, NY 10036

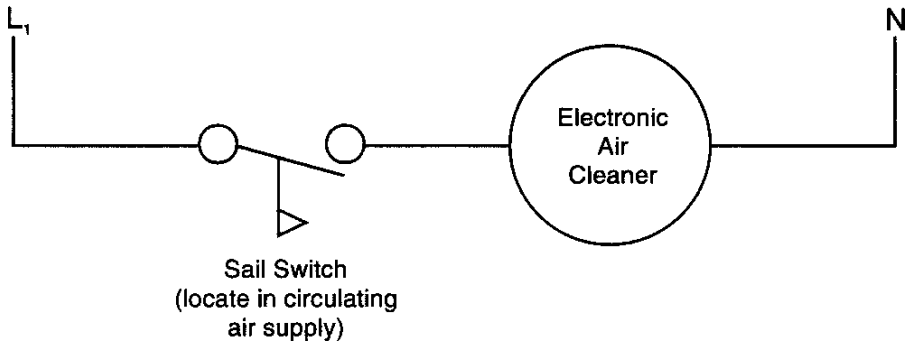
Humidifier Wiring



This diagram is intended as a general guide only. See the humidifier manufacturer's installation instructions for detailed connection information.

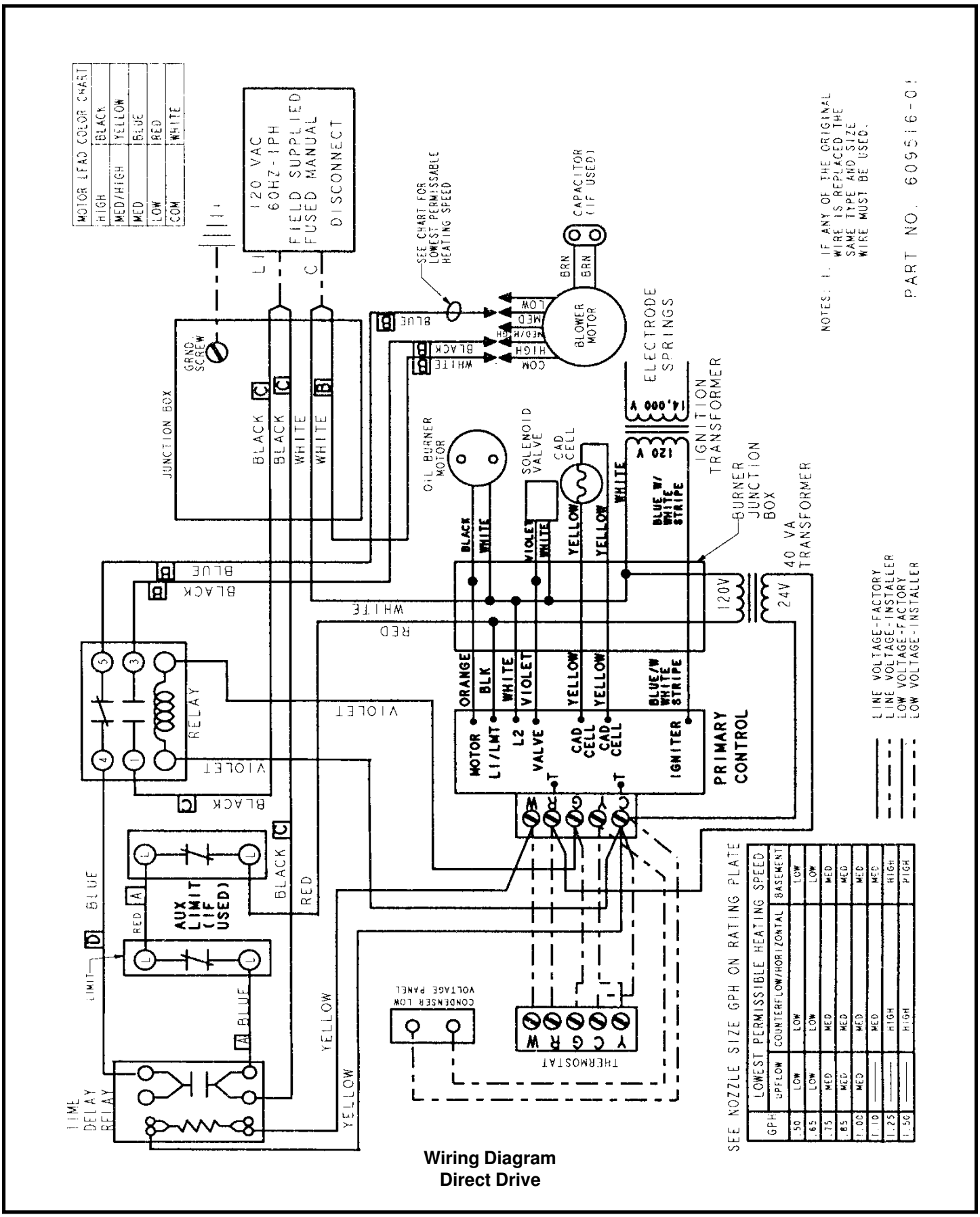
Figure 11

Electronic Air Cleaner Wiring



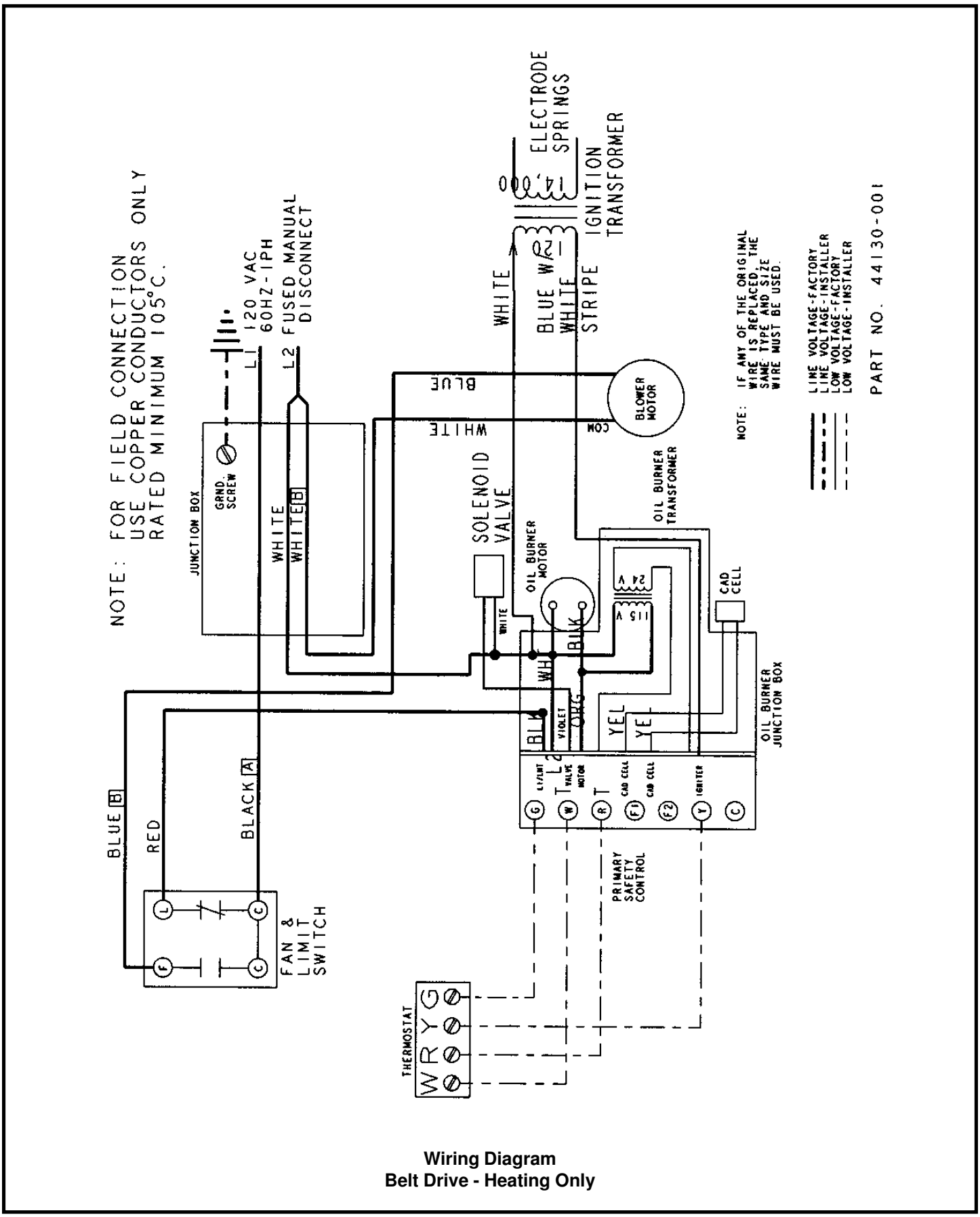
This diagram is intended as a general guide only. See the humidifier manufacturer's installation instructions for detailed connection information.

Figure 12



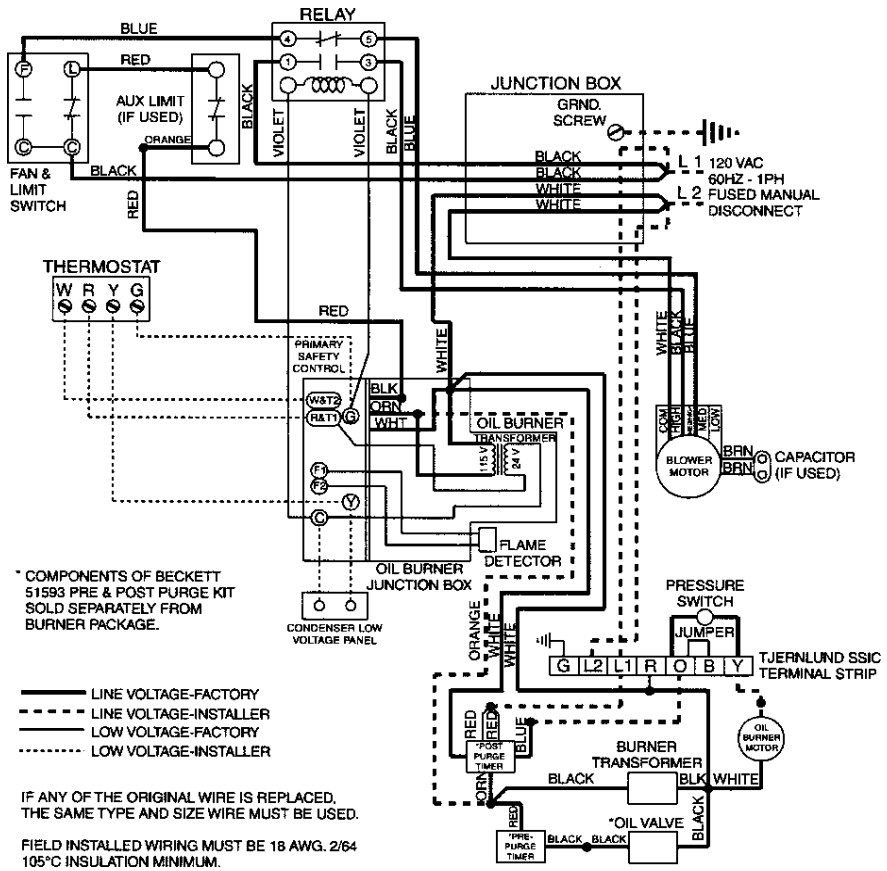
Wiring Diagram
Direct Drive

Figure 13



Wiring Diagram
Belt Drive - Heating Only

Figure 14



Wiring Diagram for Horizontal Venting with the Tjernlund System

Wiring Diagram for Horizontal Venting with the Field Control System

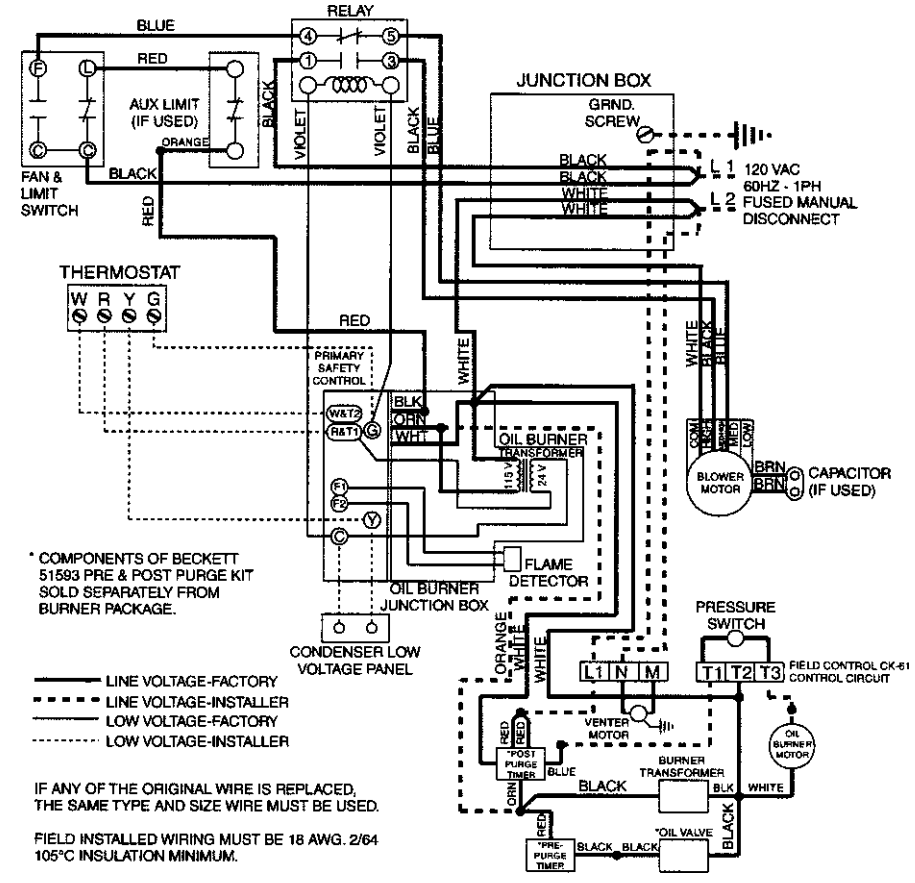


Figure 15

Due to ongoing product improvements, specifications and dimensions are subject to change and correction without notice or incurring obligations. Determining the application and suitability for use of any product is the responsibility of the installer. Additionally, the installer is responsible for verifying dimensional data on the actual product prior to beginning any installation preparations.

Incentive and rebate programs have precise requirements as to product performance and certification. All products meet applicable regulations in effect on date of manufacture; however, certifications are not necessarily granted for the life of a product. Therefore, it is the responsibility of the applicant to determine whether a specific model qualifies for these incentive/rebate programs.

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1900 Wellworth Ave., Jackson, MI 49203 • Ph. 517-787-2100 • www.comfort-aire.com • www.century-hvac.com

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