

BLOWER REPLACEMENT KIT**INSTALLATION INSTRUCTIONS FOR BLOWER REPLACEMENT KIT
(626031-01 & -02; 31A56 & 57) USED WITH LGM/LGT092-150 UNITS****Shipping and Packing List****Package 1 of 1 contains:**

- 1-Blower assembly
- 3-Primary limit switches (S10)
- 1-Transformer bracket
- Bag assembly containing:
 - 3-Fuses and holders
 - 1-Wire harness
 - 1-Wiring diagram
 - Hardware

Ordered and shipped separately for J Volt Units:

T4 Transformer

⚠ CAUTION

As with any mechanical equipment, personal injury can result from contact with sharp sheet metal edges. Be careful when you handle this equipment.

Application

This kit replaces a 450mm blower with a 500mm blower. 31A56 is used on Y-volt units and 31A57 is used on G- & J-Volt units.

Replace Blower Motor

Direct-drive motor may not immediately stop when power is interrupted to the Unit Controller. Disconnect unit power before opening the blower compartment. The Controller's digital inputs must be used to shut down the blower. See Unit Controller manual for operation sequences.

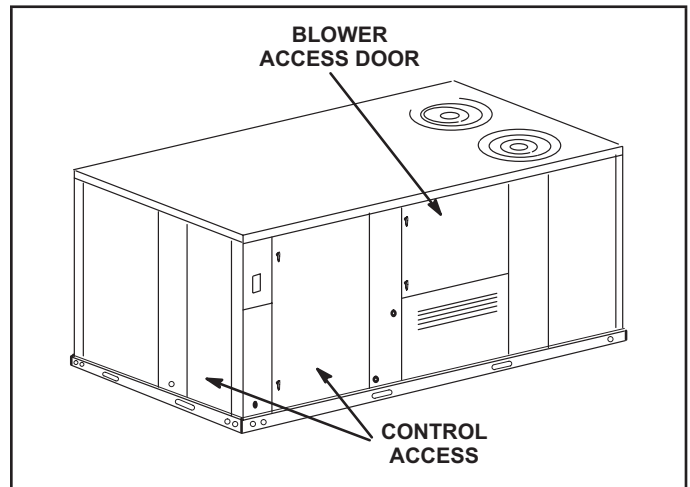
- 1 - Disconnect electrical power to unit. Wait five minutes before continuing service procedures to avoid electrical shock. This will allow internal capacitors time to fully discharge.

⚠ WARNING

To prevent serious injury or death:

- 1- Lock-out/tag-out before performing maintenance.
- 2- If system power is required (e.g., smoke detector maintenance), disable power to blower, remove fan belt where applicable, and ensure all controllers and thermostats are set to the "OFF" position before performing maintenance.
- 3- Always keep hands, hair, clothing, jewelry, tools, etc., away from moving parts.

- 2 - Open access panels. See figure 1.
- 3 - Disconnect B3 Modbus connection and PT6 connection (LGM only) in the blower section. See figure 2.
- 4 - Disconnect P48 in the controls area. See figure 4.
- 5 - Cut wire ties where necessary and pull P48 wiring harness from control area into blower section.

**FIGURE 1****⚠ WARNING**

Improper installation, adjustment, alteration, service or maintenance can cause property damage, personal injury or loss of life. Installation and service must be performed by a licensed professional installer (or equivalent), service agency or the gas supplier.

- 6 - Remove four screws securing blower assembly to unit. See figure 5.
- 7 - If unit was equipped with a blower proving switch, remove switch from existing blower housing. Attach the proving switch to replacement blower assembly in the same manner it was removed.
- 8 - *LGM Units Only* - Disconnect the pressure tubing from PT6 pressure sensor. See figure 3. Remove two screws and remove sensor/bracket assembly (note the orientation) from existing blower housing. Install the sensor/bracket onto the replacement blower assembly. Reattach the tubing in the same manner they were removed.

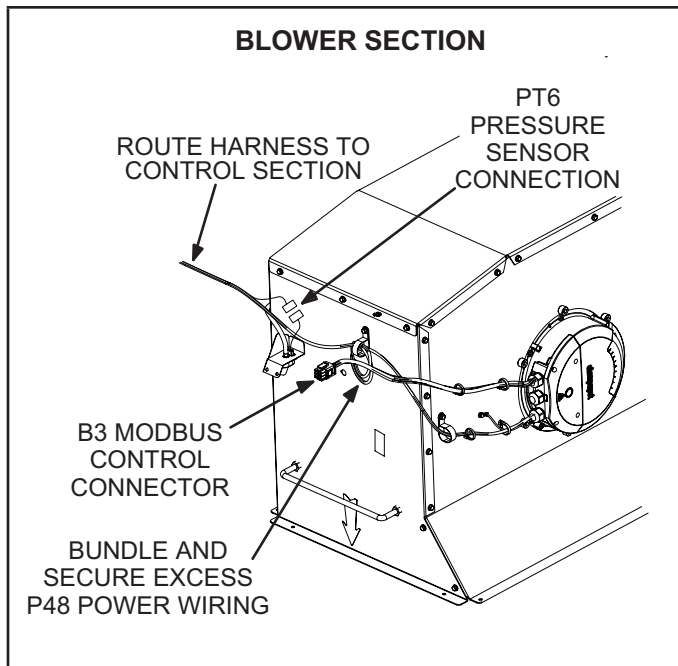


FIGURE 2

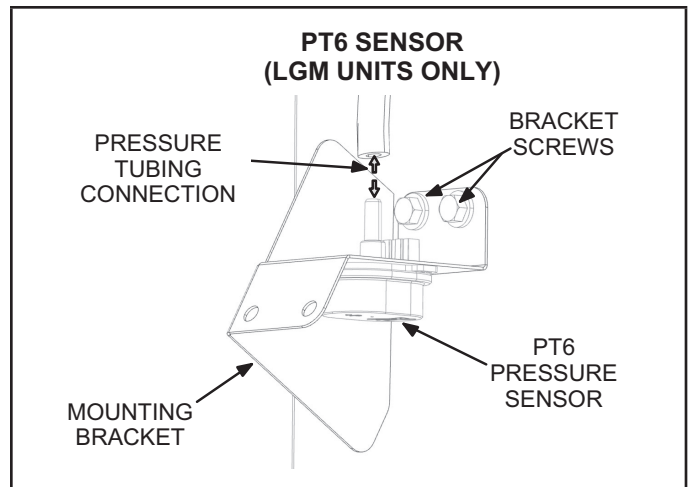


FIGURE 3

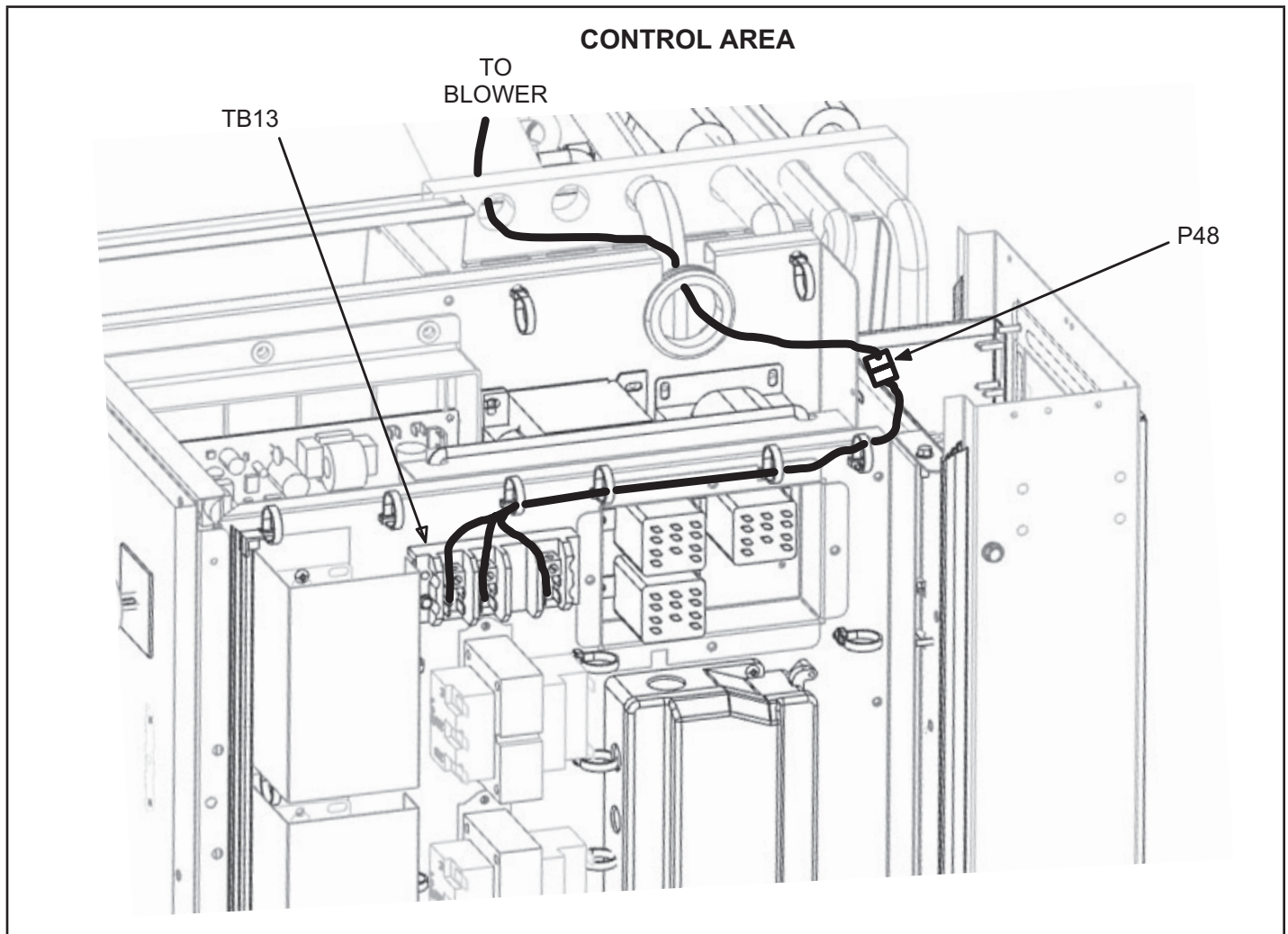


FIGURE 4

- 9 - Use the handle on the blower assembly to slide the assembly out of unit.

Note - Take note of the heat exchanger dimples before replacing the blower. See figure 5. The appropriate replacement limit switches are determined by tri- or offset-dimples. See “Install New Limit Switch” section.

- 10 - Install replacement blower assembly flanges into rails on the blower deck in the same manner it was removed. Secure into place using four screws shown in figure 5.
- 11 - Uncoil P48 wiring harness secured to replacement blower housing.
- 12 - Route P48 end of harness through unit to control area in the same manner it was removed.
- 13 - Connect B3 Modbus and PT6 connections as shown in figure 2.
- 14 - Bundle harnesses and use wire ties to secure kit harnesses to unit harnesses in the same manner they were removed.

Install New Limit Switch

Move the limit switch from the left side of the blower to the right side of the blower. See figure 6.

- 1 - Remove and retain screws securing the limit switch on the left side of the blower assembly. Discard limit switch.

- 2 - Remove and retain screws securing the limit switch on the left side of the blower assembly. Discard limit switch. Remove and retain screws securing the patch plate on the right side of the blower deck.

- 3 - Place the patch plate over the opening from the discarded switch on the left side of the blower. Secure with retained screws.

- 4 - Select the replacement switch as follows (see figure 5 to view the heat exchanger dimples):

Tri-Dimple Heat Exchangers (figure 7)

Std. Heat (6 tubes; 150°F) - 49L8901

Med. Heat (9 tubes; 175°F) - 49L8601

High Heat (11 tubes; 185°F) - 100847-10

Offset-Dimple Heat Exchangers (figure 8)

Std. Heat (6 tubes; 150°F) - 100847-04

Med. Heat (9 tubes; 190°F) - 100847-12

High Heat (11 tubes; 185°F) - 100847-10

- 5 - Install the switch on the right side of the blower; secure with retained screws.

- 6 - Cut the wire ties securing the discarded switch. Route to the replacement switch on the right side of the blower. Connect wires to terminals.

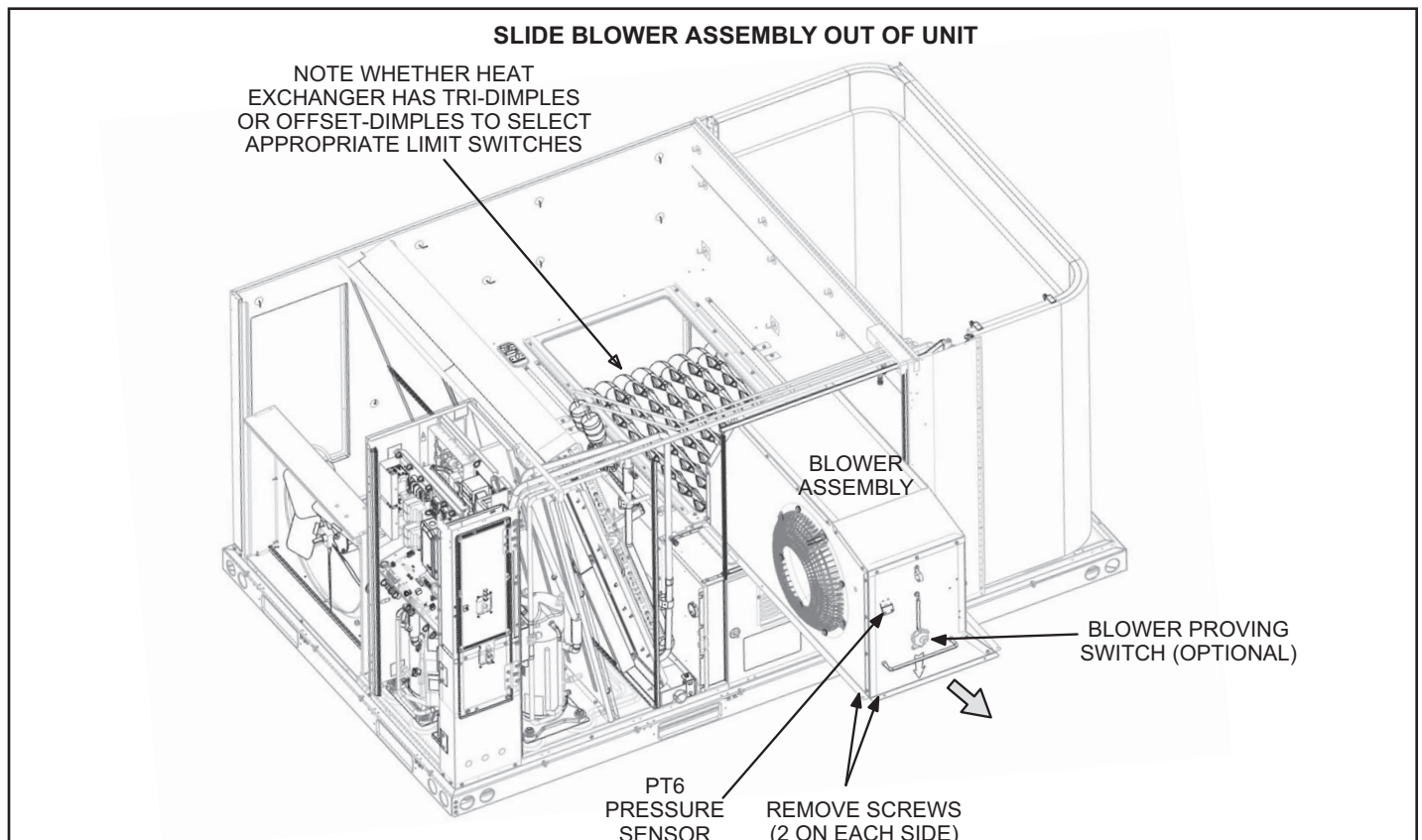


FIGURE 5

INSTALL REPLACEMENT S10 LIMIT SWITCH

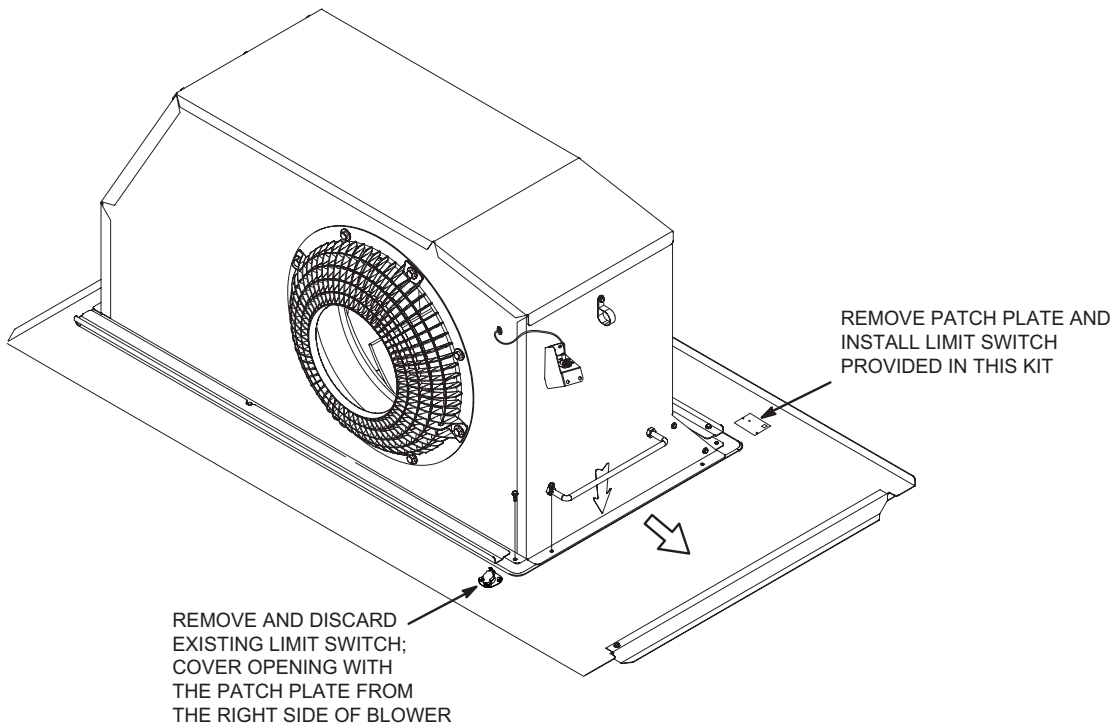


FIGURE 6

TRI-DIMPLE HEAT EXCHANGER

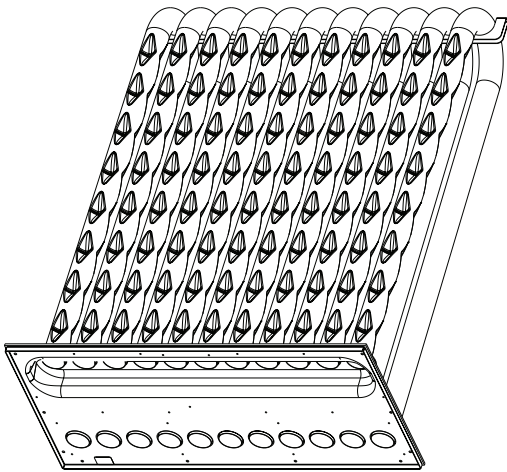


FIGURE 7

OFFSET-DIMPLE HEAT EXCHANGER

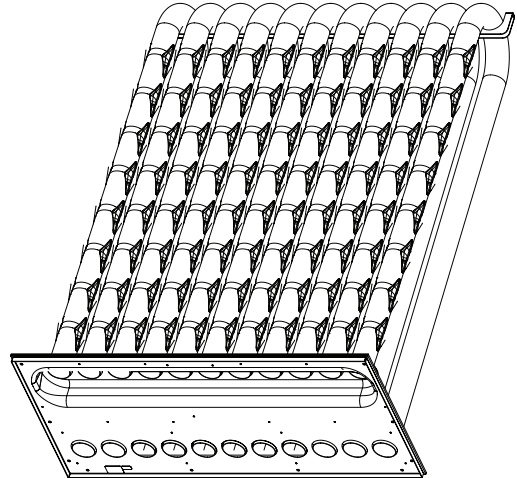


FIGURE 8

Install T4 Transformer (575 / J-Volt Only)

- 1 - Install bracket in unit (bracket is provided in some units). Secure with provided hardware. See figure 7.
- 2 - Secure transformer and fuses onto bracket.

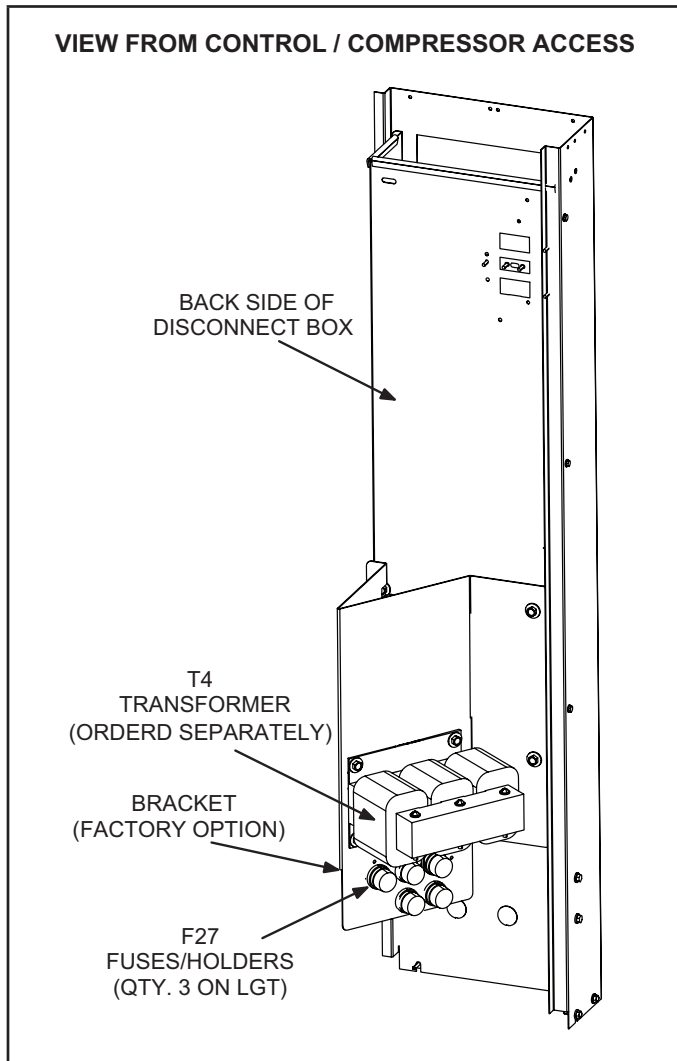


FIGURE 9

Connect Wiring

- 1 - *G-Volt Units* - Connect J48 power harness to P48 (previously routed from replacement blower). See figure 4.
- 2 - *J-Volt Units* - Remove and discard existing J48 harness routed to TB13. See figure 4. Make kit harness connections as shown in figure 8.

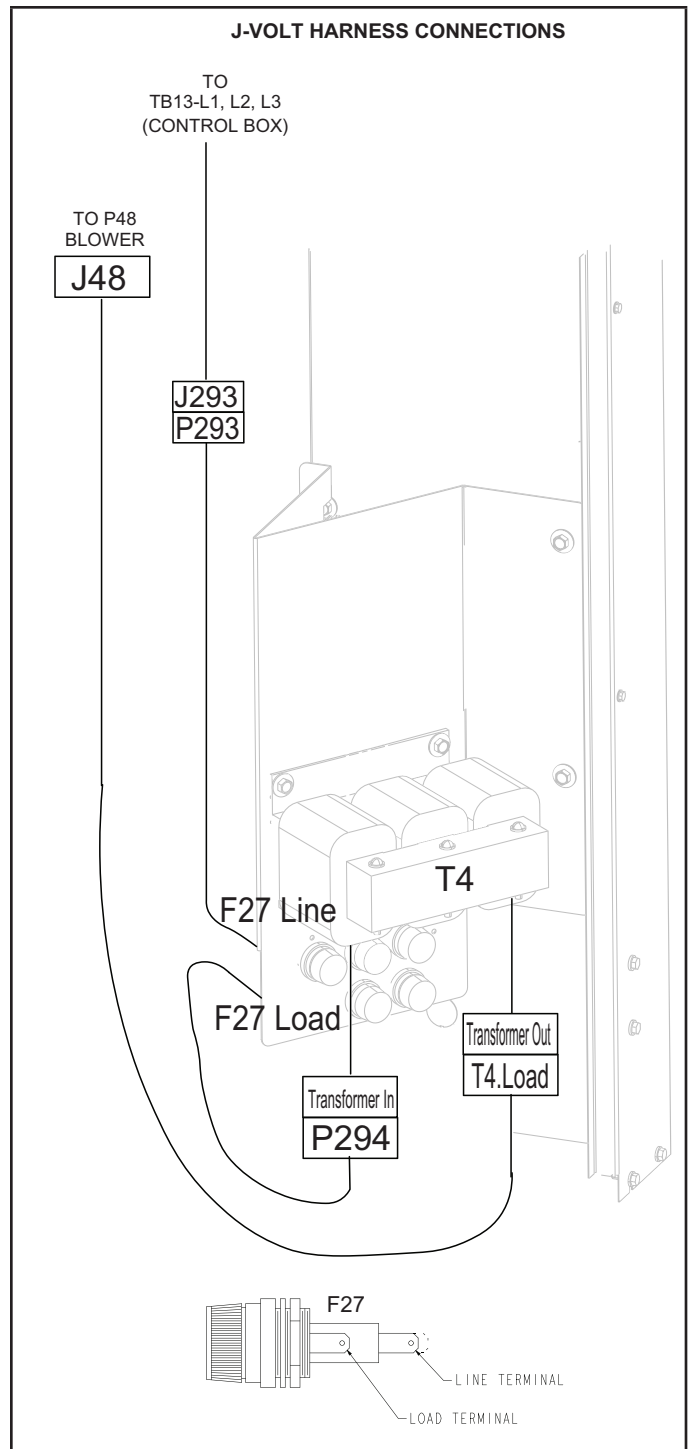


FIGURE 10

Firmware Update

- 1 - Update the Unit Controller firmware to version 09.01.0224 or newer.
- 2 - Set configuration ID 1, (7) System Blower Sub-Type, to "S" - Direct-Plus blower MODUS. Use menu path RTU MENU > SETUP > INSTALL.