

SYSTEM CONTROL KIT

Model: CK-41F



Designed for use with the SWG Series Power Venter for controlling Natural Gas or L.P. Gas appliances.

ITEMS INCLUDED IN KIT:

- 1- Junction box with mounted pressure switch and post purge timer
- 1- Fan control gas pressure switch
- 1- 2 ft. length of 1/4" aluminum tubing
- 2- Flexible conduit connector
- 1- GSK-3 Spillage switch
- 1- 1/4" tubing connector

READ THESE INSTRUCTIONS CAREFULLY AND COMPLETELY BEFORE PROCEEDING WITH THE INSTALLATION.

This device **MUST** be installed by a qualified agency in accordance with the manufacturer's installation instructions. The definition of a qualified agency is: any individual, firm, corporation or company which either in person or through a representative is engaged in, and is responsible for, the installation and operation of HVAC appliances, who is experienced in such work, familiar with all the precautions required, and has complied with all the requirements of the authority having jurisdiction.

Please retain these instructions after installation.

Installed By: _____ Phone: _____ Installation Date: _____



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MOUNTING JUNCTION BOX

The junction box can be mounted at the venter or remotely mounted away from the venter.
(See Figure 1 & Figure 2)

NOTE: Make sure pressure switch is in a vertical position. The pressure switch will not sense properly in a horizontal position.

1. Remove one of the knockouts from the side of the junction box where the pressure switch is mounted. Install the flexible conduit connector onto the CK-41F junction box and secure with fastening nut. If remote mounting the CK-41F junction box, mount the flexible conduit connector onto a 2" x 4" installer supplied junction box.
2. Fasten the flexible conduit from the SWG Venter into the conduit connector. Mount the CK-41F junction box or installer supplied junction box onto the wall or floor joist without straining the flexible conduit. Fasten the CK-41F junction box through the four dimpled locations on the base of the box. (See Fig. 3)

PRESSURE SWITCH SENSING TUBE INSTALLATION

1. Attach the 1/4" tubing connector to the pressure tube on the SWG Venter. (See Figure 3)
2. Connect the supplied 1/4" aluminum tubing to the tubing connector. Route the tubing to the CK-41F junction box and connect the tubing to the pressure switch. When routing the tubing, avoid kinking the tubing by bending the tubing too sharply.

For remote mounted CK-41F Junction Box, use a 1/4" OD copper, aluminum or plastic tubing and route the tubing to avoid contact with any heat source. A maximum of 80 feet of 1/4" tubing can be used with the SWG Series power venter.

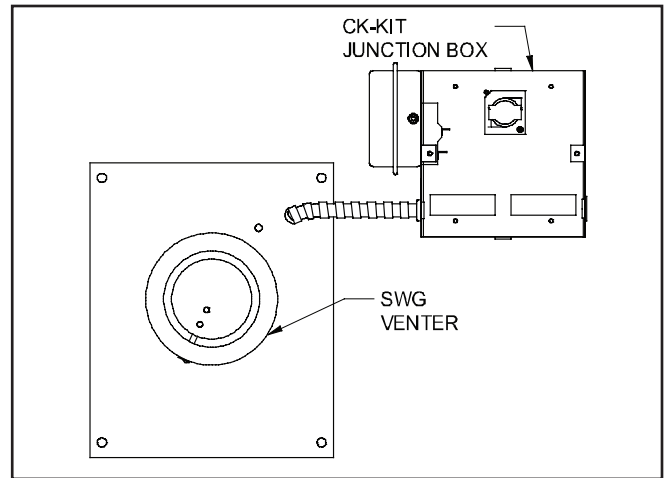


Figure 1

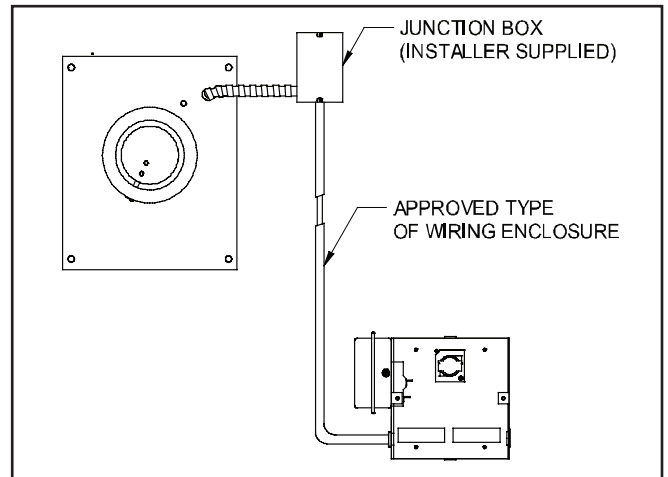


Figure 2

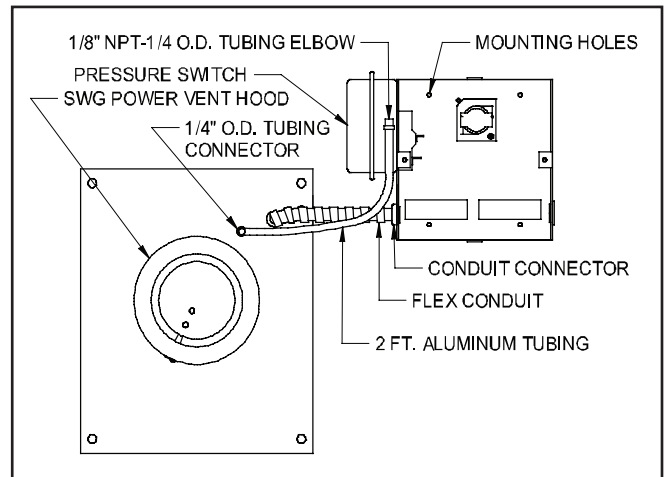


Figure 3

PROVING SWITCH ADJUSTMENTS

After proper air flow is established, the pressure switch adjustment is made by turning the pressure switch adjustment screw clockwise (See Figure 4) until burner operation stops. Turn the adjustment screw counter clockwise until burner ignites. Turn the adjustment screw an additional $\frac{1}{4}$ to $\frac{3}{4}$ turn counterclockwise to ensure adequate switch adjustment.

WARNING: Failure to properly adjust the pressure switch as specified above could lead to improper operation of the pressure switch, which will result in a hazardous condition and bodily harm!

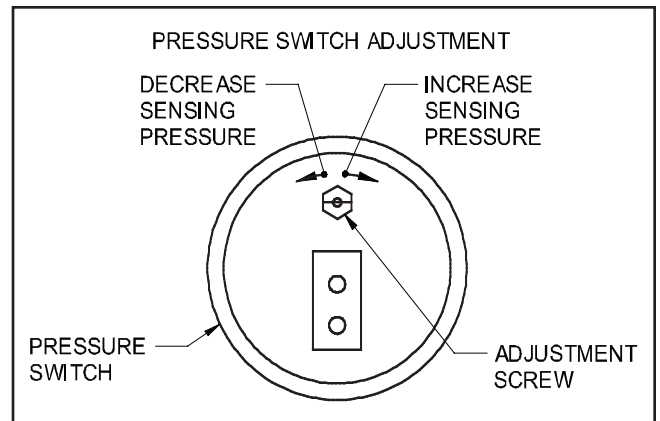


Figure 4

THERMOSTAT HEAT ANTICIPATOR ADJUSTMENT

After venting kit installation and checkout, check the amperage current draw through the thermostat circuit and adjust the thermostat anticipator accordingly.

WIRING INSTRUCTIONS

CAUTION: DISCONNECT ELECTRICAL POWER WHEN WIRING POWER VENTER.

Wire the venter motor and controls in accordance with the National Electrical Code, manufacturer's recommendations and/or applicable local codes. UNITS MUST BE GROUNDED. Check ground circuit to make certain that the unit has been properly grounded. The wiring should be protected by an over-current circuit device rated at 15 amperes. CAUTION must be taken to ensure that the wiring does not come into contact with any heat source. All line voltage and safety control circuits, between the venter and the appliance, MUST be wired in accordance with the National Electrical Code for class one wiring or equivalent methods. Route the venter motor and control wiring with an appropriate wiring method. Refer to Wiring Diagrams.

LOW VOLTAGE WIRING INSTRUCTIONS FOR BOILERS AND WARM AIR FURNACES

1. With boilers, locate terminal on spark ignition module or gas valve, (if standing pilot) which would normally be 24 volts hot on a call for heat. With spark ignition systems, this terminal could be TH-W or 24 V depending on the spark ignition control.
2. With warm air furnaces, locate terminal W in furnace junction box.
3. Remove wire from this terminal and reroute to T1 on CK-41F.
4. With boilers, connect T3 on CK-41F to hot side of gas valve (if standing pilot) or to terminal TH-W or 24 V, if spark ignition.

NOTE: Remember, the correct terminal is the one that would normally be hot on a call for heat.

5. With warm air furnaces, connect T3 on CK-41F to terminal W in furnace junction box.
6. Connect T2 on CK-41F to a 24 volt neutral on transformer or where convenient, or to the C terminal in the furnace fan center.

LINE VOLTAGE WIRING INSTRUCTIONS

1. Connect 120 volts hot power source wire to terminal L1 on CK-41F.
2. Connect 120 volts neutral power source wire and white wire from venter motor to terminal N on the CK-41F.
3. Connect black wire from venter motor to terminal M on the CK-41F.

REFER TO THE SWG VENTER INSTALLATION INSTRUCTIONS FOR SETTING SYSTEM AIRFLOW.

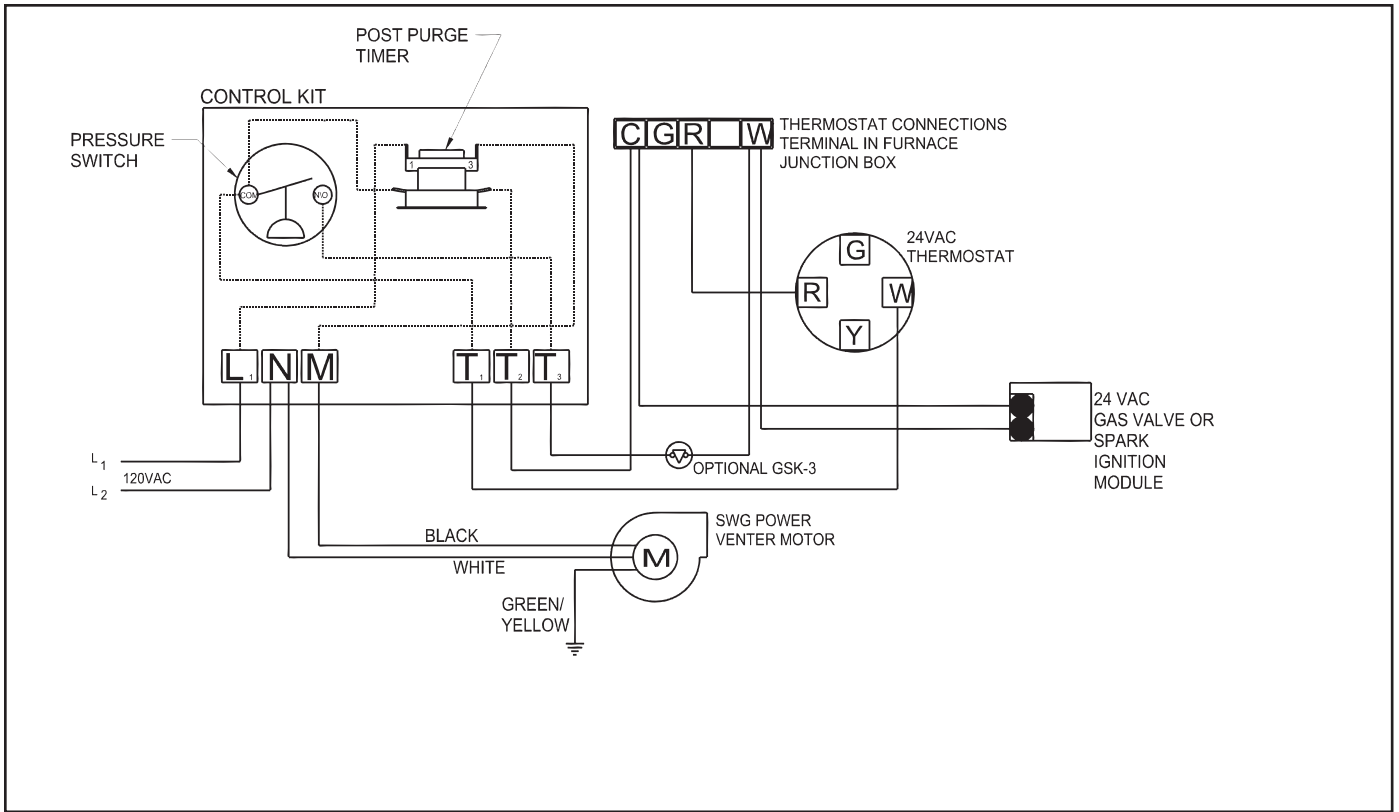


Diagram A
Typical Furnace Wiring

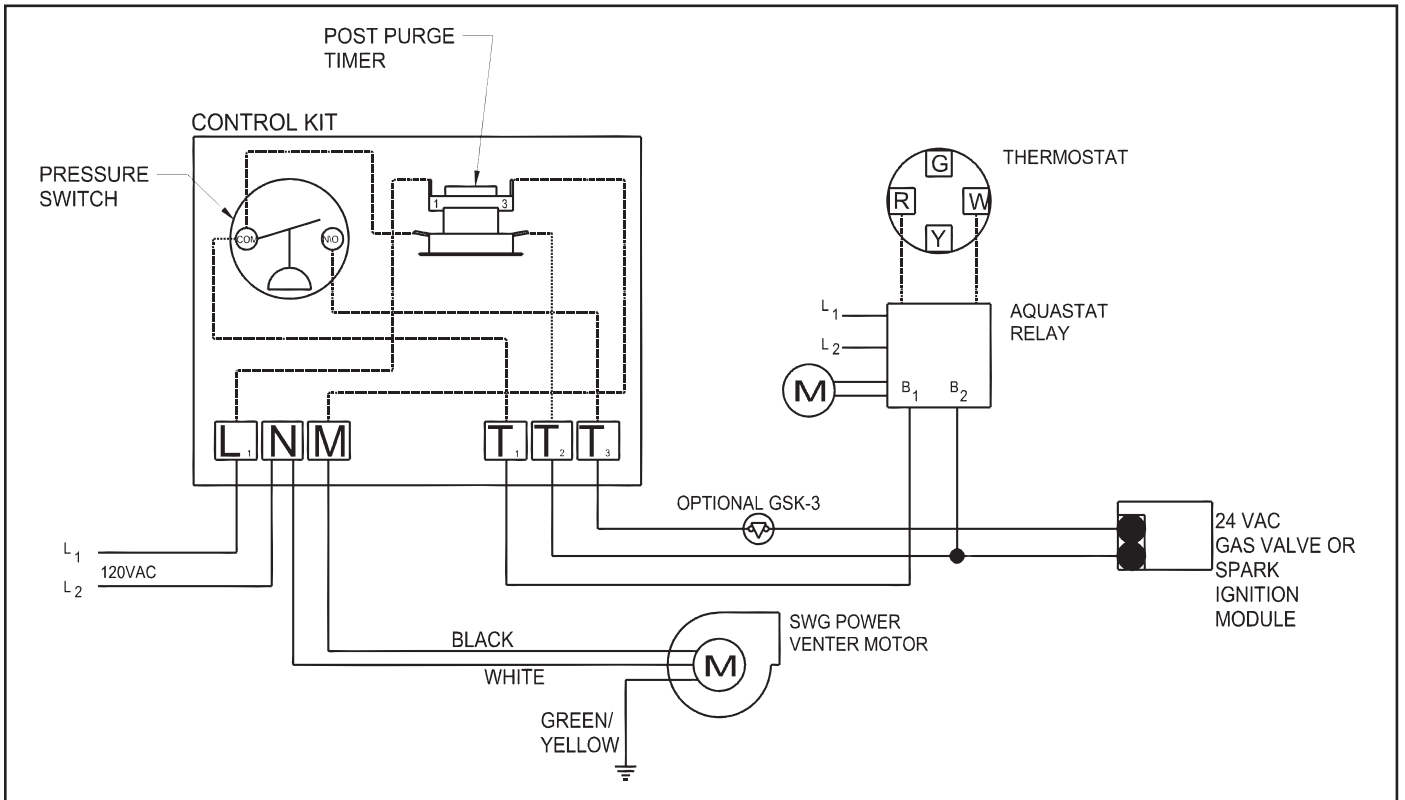
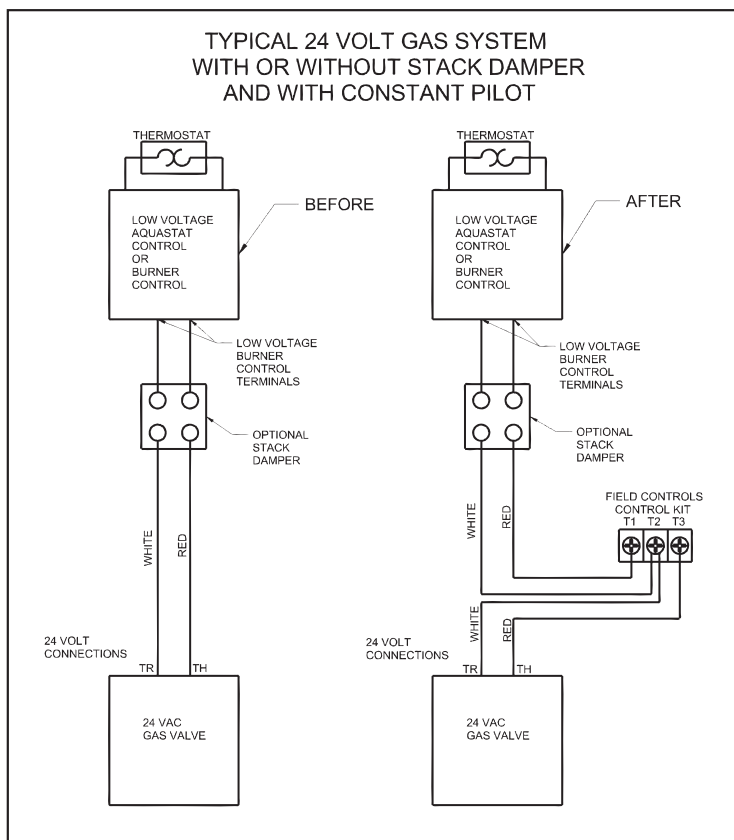
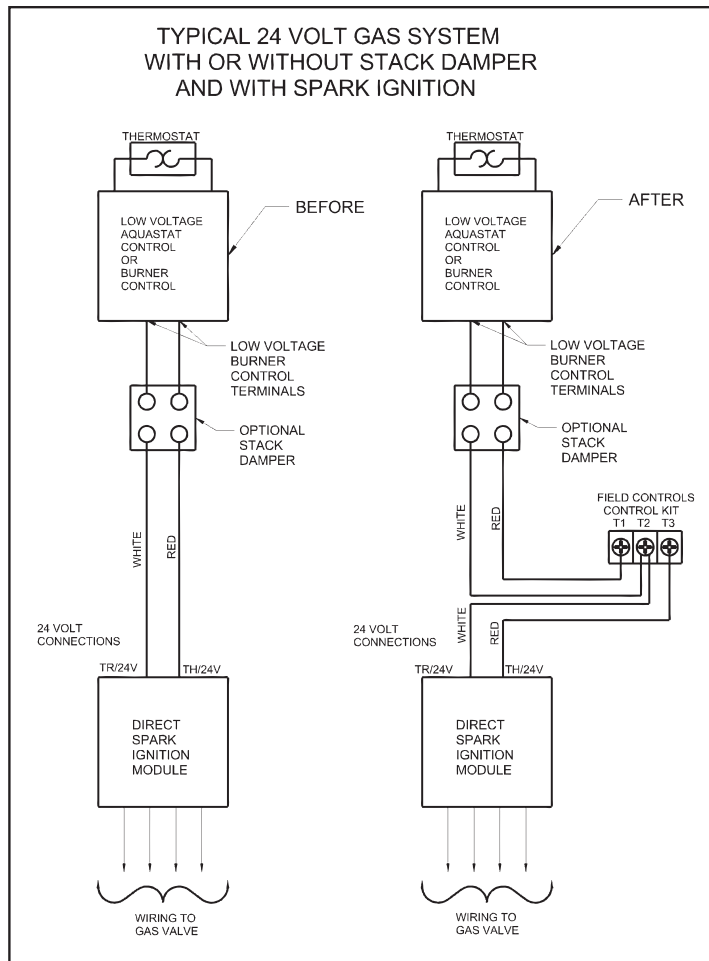


Diagram B
Boiler Wiring with Aquastat



TYPICAL MULTIPLE 24 VOLT GAS SYSTEM WITH OR WITHOUT STACK DAMPER AND WITH SPARK IGNITION

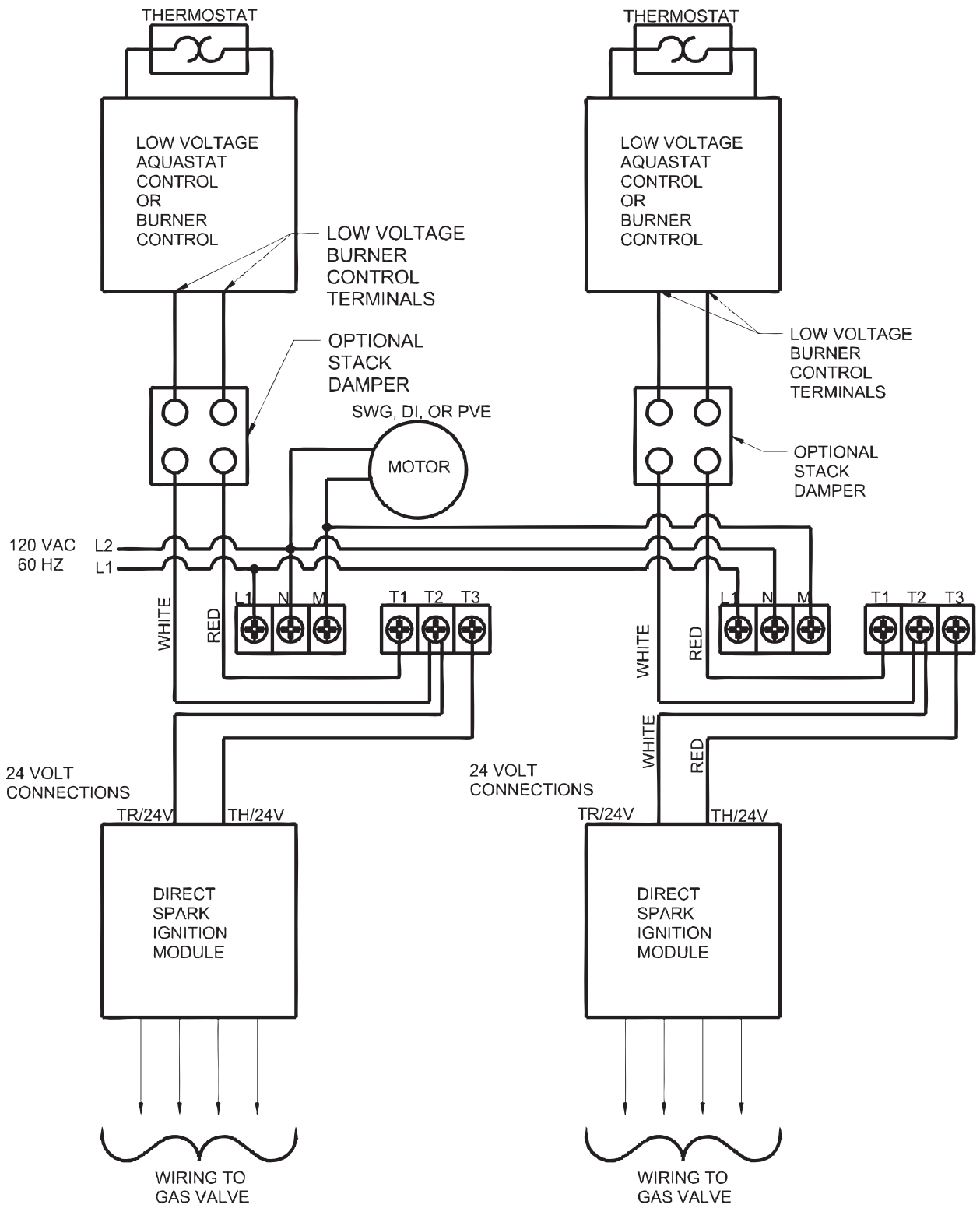


Diagram E

SYSTEM CONTROL CHECK OUT PROCEDURES

1. For furnaces or boilers, adjust the thermostat to call for heat and observe the power venting system for proper operation sequence. (Repeat if necessary)
 - a. Thermostat calls for heat.
 - b. Relay is energized and venter motor starts.
 - c. Pressure switch closes and burner starts.
 - d. Thermostat is satisfied, the burner stops.
 - e. This starts the post purge cycle. Purge time 1 to 2 min.
2. While system is operating, disconnect power to the venter motor. This should open the pressure switch contacts and stop burner operation.

TROUBLE SHOOTING HINTS

1. Venter does not activate when thermostat calls for heat.
 - a. Check wiring.
 - b. Check for 24 volts between T1 and T2 on the CK-41F control kit.
 - c. If there is 24 volts replace post purge timer.
2. Flue gas odor.
 - a. Check system draft.
 - b. Check for negative pressure in building.

REPAIR AND REPLACEMENT PARTS

REPAIR AND REPLACEMENT PARTS LIST	
DESCRIPTION	PART NUMBER
Pressure Switch	46083000
Post Purge Timer	46282800

LIMITED WARRANTY

Field Controls, LLC ("Company") warrants that its products shall be free from defects in material and workmanship under normal use for the limited period indicated, **from the date of manufacture, subject to the provisions 1-8 below.**

Eighteen (18) months

All Field Controls Products (except for those listed below as 5 years or 90 days).

Five (5) years

Field Controls Direct Vent Systems (FDVS), Field Oil Vent Kits (FOVP), and ComboVents (CV).

Field Controls warrants that the products listed below shall be free from defects in material and workmanship under normal use for the limited period indicated, **from the date of purchase by the consumer, subject to the provisions 1-8 below.**

Ninety (90) days

UV lamps/bulbs

Provisions:

1. During the limited warranty period, Company, or its authorized service representative, will repair or replace, at Company's option, without charge, a defective Product. Product that is repaired may be repaired with new or refurbished replacement parts. Product that is replaced may be replaced with a new or refurbished product of the same or similar design. Company will return repaired or replacement Product to customer in working condition. Labor charges are not covered as part of the limited warranty.
2. With regard to UV lamps/bulbs, customer shall be required to include a "valid proof of purchase" (sales receipt) identifying the Product purchased (Product model or accurate date code information) and the date the Product(s) was purchased.
3. Product whose warranty/quality stickers, Product serial number plates or electronic serial numbers have been removed, altered or rendered illegible shall not be covered under the limited warranty.
4. Defective Product must be returned to Company, postage prepaid.
5. IN NO EVENT SHALL COMPANY BE LIABLE FOR ANY INDIRECT, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR SIMILAR DAMAGES (INCLUDING, BUT NOT LIMITED TO, LOST PROFITS OR REVENUE, INABILITY TO USE PRODUCT, OR OTHER ASSOCIATED EQUIPMENT, THE COST OF SUBSTITUTE EQUIPMENT, AND CLAIMS BY THIRD PARTIES) RESULTING FROM THE USE OF PRODUCT. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.
6. THIS WARRANTY AND REMEDIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, REMEDIES AND CONDITIONS, WHETHER ORAL, WRITTEN, EXPRESS, STATUTORY OR IMPLIED. TO THE EXTENT PERMITTED BY LAW, COMPANY DISCLAIMS ALL IMPLIED AND STATUTORY WARRANTIES, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.
7. Company makes no warranty of any kind in regard to other manufacturer's products distributed by Company. Company will pass on all warranties made by the manufacturer and where possible, will expedite the claim on behalf of the customer, but ultimately, responsibility for disposition of the warranty claim lies with the manufacturer.
8. Product that has been subjected to misuse, accident, shipping or other physical damage, improper installation or application, abnormal operation or handling, neglect, fire, water or other liquid intrusion are not covered by the warranty.



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