

ASSEMBLY and INSTALLATION INSTRUCTIONS



Ignition Control Kit Premier 350 LP, NG and Dual Fuel (DF) Series Heaters (Part Number 500-25590)

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Kit Contents:

Description	Quantity
Ignition Control	1
Mounting Screws	2
Yellow Wire, 2-5/8 in.	1
Yellow Wire, 9-1/2 in.	1
Wire Harness, Red and Black	1
Wiring Diagrams	2
Installation Instructions	1

Tools required:

- Needle Nose Pliers
- Standard Screwdriver, or 1/4 in. Nut Driver

Qualifications for installation:

- You must be able to read and understand these instructions.
- You must have sufficient training and experience to change the electrical wiring as discussed and install the components in the kit.
- You must be able to test the heater for proper operation and place the heater in a continuing safe and normal operating condition.

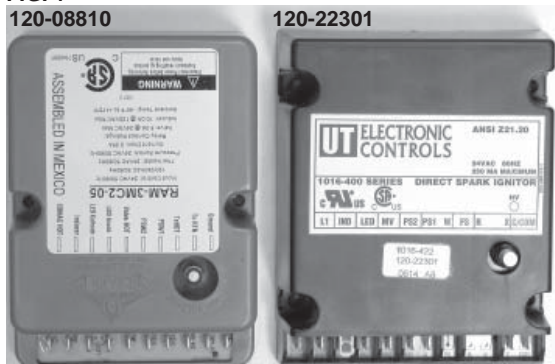
Discussion:

This kit replaces ignition control part numbers 120-08810 or 120-22301 when used on the Premier 350 Tent and dual Fuel (DF) heaters. The ignition control included in this kit keeps the fan motor running for 1 minute after the burner shuts down by thermostat, thereby allowing the heat chamber to cool.

Initial Preparation:

1. Disconnect the heater from its electrical supply.
2. Close the fuel supply to the heater.
3. Open the control box.
4. Determine the part number of the control box presently installed in the heater. See Fig. 1

FIG. 1

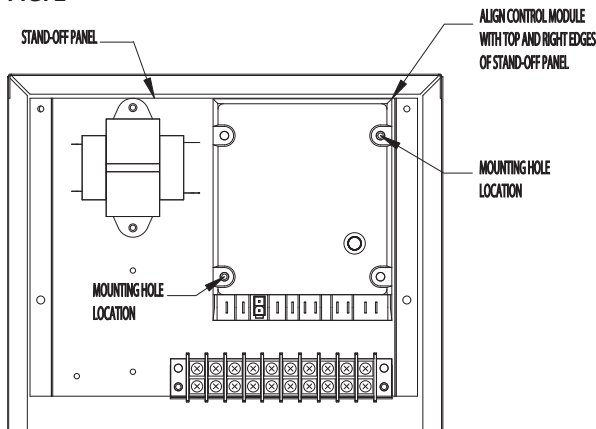


Ignition Control Installation

A. Initial Changeout

1. For heaters ONLY with control module 120-08810
 - a. Disconnect the red and black wires from the terminals marked LED (Cathode and Anode) on the ignition control.
 - b. Open the heater's burner end door where the gas enters.
 - c. Trace these wires back to the HEAT/VENT selector switch.
 - d. Observe what terminals on the switch the red wire and the black wire are connected to.
 - e. Disconnect the wires from the switch and discard the wires.
 - f. Connect the red and black wires from the kit to the selector switch terminals previously occupied by the original wiring.
 - g. Route the replacement wire harness back within the control box.
2. Regardless of what the original ignition control is, remove and discard the yellow wire connecting the 24 VAC output of the transformer to the terminal strip.
3. Remove the mounting screws from the original ignition control.
4. Mount the replacement control. Use the screws provided in the kit if necessary. Holes are provided in the control box stand-off panel. See Fig. 2.

FIG. 2



- Transfer the wires from the terminals on the original ignition control to the terminals on the replacement control. When transferring terminals from part 120-08810, refer to the following table for the proper corresponding terminals on the replacement control. Control part 120-22301 has the same terminal markings as the kit's ignition control.

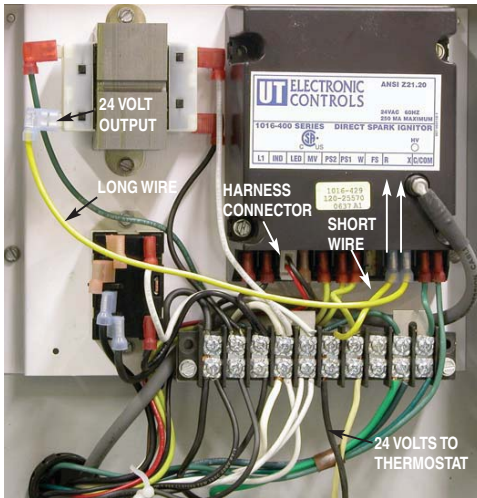
Terminal Markings

120-08810	Replacement ignition control
Inducer	IND
120 VAC Hot	L1
LED	LED
Valve Hot	MV
PSW1	PS1
PSW2	PS2
TX Hot	W
TX Return	C
Ground	Com

Final Wiring

- Connect the short yellow wire from the kit to the replacement ignition control terminal R and to the 24 VAC power supply to the heater's thermostat at the terminal strip.
- Connect the long yellow wire from the kit to the 24 VAC output of the transformer and to terminal X on the replacement ignition control. See Fig. 3.

FIG. 3



- If you installed the red and black harness from the kit, insert its molded male connector into the female connector on the ignition control.
- Ensure all electrical connections are tight and secure.
- Refer to the appropriate wiring diagram, Fig. 4, and Fig. 5 for completed interconnection. **Bold lines** indicate added wiring

FIG. 4 (Connection Diagram - Premier 350 Heater w/ 2 Stage Valve)

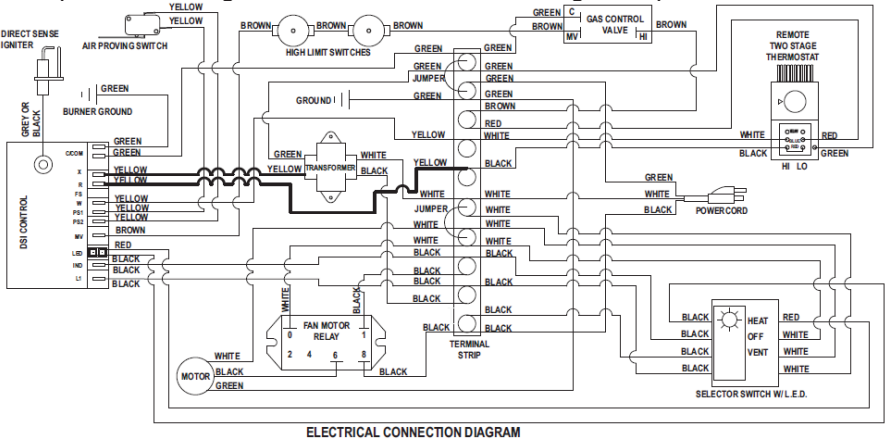
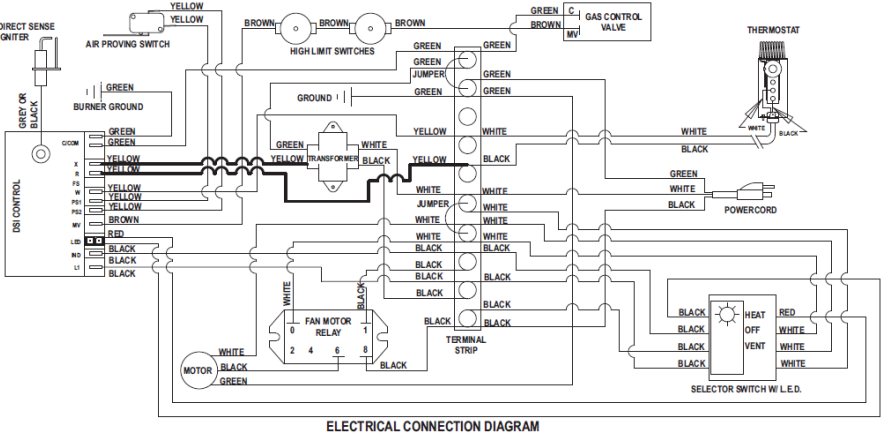


FIG. 5 (Connection Diagram - Premier 350 DF Heater with Single Stage Valve)



Label Application

A new wiring diagram must be applied after performing the ignition control changeout.

1. Open the control box. Remove the original wiring diagram from the interior of the control box cover and the alternate language wiring diagram adjacent to the control box.

NOTE:

- There are two wiring diagrams supplied in the kit. Determine which wiring diagram you need to apply.
 - Refer to the part number of the wiring diagram at the lower right- hand corner of each diagram.
 - o Wiring diagram part number 150-29935 is used on Premier 350 Dual Fuel (DF) heaters with a single stage thermostat and gas control valve.
 - o Wiring diagram 150-29936 is used on Premier 350 LP or NG heaters with a two- stage thermostat and gas control valve.
2. Clean the area and apply the appropriate wiring diagram from the kit to the interior of the control box cover.

Completion

1. Close and latch the control box.
2. Reconnect the heater to its electrical supply.
3. Open the fuel supply valve to the heater.
4. Start the heater so the burner ignites:
 - a. Allow the heater to operate for one or two minutes.
 - b. Turn the thermostat down below room temperature. **DO NOT unplug the heater before the cooling cycle is completed.**
 - c. The main burner will shut- down but the fan motor will continue to operate for 1 minute.
 - d. After 1 minute the fan motor will shut off.
 - e. If the burner and motor do not operate in this sequence, recheck all wiring.
5. Keep these instructions for future use.



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