



Installation Instructions – Supplemental

REMOTE ALARM KIT FOR PLATINUM® WATER HEATERS

These instructions detail the installation of the remote alarm kit in a Platinum Water Heater, retain this manual for reference.

IMPORTANT: INSTALLATION AND SERVICE MUST BE PERFORMED BY QUALIFIED SERVICE PERSONNEL. THESE INSTRUCTIONS ARE TO SUPPLEMENT THE INSTALLATION & MAINTENANCE MANUAL PROVIDED WITH YOUR PLATINUM WATER HEATER.

WARNING: High Voltage Shock Potential - Turn off all electrical service to the appliance prior to installation of this kit. Following, close any opened panel covers before restoring electrical service to the appliance. All wires and terminals carry High Voltage (120V). If the electrical service is not turned off and terminals are touched, a dangerous shock will occur.

WARNING: When servicing the controls, use exact, factory authorized replacement parts. Label all wires prior to disconnection. Verify proper operation after servicing. Incorrect parts substitution and wiring errors can cause damage, improper operation, fire, carbon monoxide and other unexpected and unsafe conditions that could result in property damage, personal injury, fire, explosion, exposure to hazardous materials or death.

OPERATIONAL LOGIC OF THE REMOTE ALARM

When the tank temperature is lower than the setpoint of the thermostat, the thermostat will initiate a call for heat. If the limit circuit is continuous and the blower proving circuit is closed, the heater will enter an ignition trial. If the ignition control module senses the presence of flame, it will remain in the firing mode until the tank has reached the setpoint. If the ignition control module fails to sense flame, it will attempt the ignition trial a total of three times. The ignition control module will then suspend these attempts and will do nothing until power is broken, and the circuit is subsequently reenergized. This is known as a lockout, as it disables the heater from responding to a change in tank temperature. An open limit will also cause a lockout which will reverse if the tank temperature drops 20F, or, if the limit is a manual reset type, when the temperature has dropped 20F and the limit reset button is pressed.

The remote alarm circuit monitors current from the thermostat circuit, from the gas safety valve circuit, and from the limit circuit to determine when a lockout has occurred (either due to the ignition control module or the limits). Under these conditions, an led lamp on the front control panel will be illuminated, and a relay will close. The contacts of this relay can be used to enable an alarm circuit for remote indication of the lockout condition.

Current from the thermostats and the limits initiates power to a time-delay relay. If the gas valve remains energized at the end of the ignition trial, this indicates that the ignition control module is sensing flame. If the gas valve does not remain energized at the end of the ignition trial, the alarm circuit will energize the led and enable the relay contacts. If an alarm bell is connected to the contacts, it will ring under these conditions. If the gas valve remains energized at the end of the ignition trial, the current of the alarm circuit is cancelled.

INSTALLATION OF THE REMOTE ALARM

In addition to these instructions, this kit consists of a wiring diagram, a relay board populated with two SPDT relays, a solid state time delay relay, and a wiring harness. The relay board takes its power from the system L2, and L1 as switched in the thermostat circuit, as well as the gas valve power, used to monitor lockout. Field wiring of this kit consists of only three connections that must be made with the existing wire harness of the Platinum water heater. For ease of installation, field wiring terminates in supplied side-splice connections. Locate these as the rectangular blue plastic connections at the end of the red, brown, and white wires of the wiring harness on the kit. Familiarize yourself with the components and the wiring connections before proceeding the steps of installation.

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Forming Splice Connections

Use a set of pliers to form the splice connections. Open the jaws of the splice connector. Within the jaws of the connector, there are two sides (an uninterrupted 'run' side, and a 'splice' side that terminates). Place the lead of the kit wiring harness into the 'splice' side of the fitting, and the wires of the Platinum into the 'run' side of the fitting. With the wires in place, close the jaws of the fitting, and use a set of pliers to force the blade of the fitting down. This will penetrate the insulation of the wires and form the electrical connection. Close the retainer of the fitting. The wires should not budge when tension is applied. If the wires are loose the connection must be re-made.

Mounting The Relay Board

You will need a ¼" hex nut driver for disassembly of the control panel and for mounting the relay board into the control enclosure. There are two doors of the control enclosure of the Platinum which open. The thermostat is located on a fixed panel between these two doors. The relay board must be installed beneath the upper door of the control panel. To install the relay board, it will be necessary to remove the doors and the fixed panel onto which the thermostat is mounted. Open the upper and lower control enclosure doors, and locate the four sheet metal screws that secure the fixed control panel. You will also need a ½ drill bit to mount the led into the control panel.

Steps of Installation:

1. Turn off power to the water heater.
2. Locate the led lamp on the relay board. Remove it from wire nuts that retain it and set the lamp aside. Drill a ½" hole in the control panel approximately 1" above the fuse. Take care not to drill into the wiring directly behind the panel. Install the led into the hole by pushing it so that it snaps into the panel. **Refer to Figure 1.**
3. Remove upper and lower door of the control enclosure. Remove control panel, and set support it adjacent to the heater. Set aside the four sheet metal screws for subsequent re-attachment of this panel in later steps. **Refer to Figure 2.**
4. Install the relay board directly below where the limits are located. Using the four tek screws supplied in this kit, screw the relay board to the sheet metal enclosure of the Platinum Water Heater. **Refer to Figure 2.**
5. Locate the red wire of the relay board which terminates in a rectangular blue splice connector. Refer to the wiring diagram and locate the portion of the red thermostat wiring between the thermostat and the high limits. Make the splice connection between the thermostat and the high limit as indicated in the wiring diagram. **Refer to Figure 3.**
6. Locate the white wire of the relay board which terminates in a rectangular blue splice connector. Refer to the wiring diagram and locate one of the white wires connecting to the 9 pin receptacle. Locate this in the control enclosure and make the splice connection with the white wires as indicated in the wiring diagram. **Refer to Figure 4.**
7. Locate the brown wire of the relay board which terminates in a rectangular blue splice connector. Refer to the wiring diagram and locate the brown wire connecting to the ignition control module. Make the splice connection with the brown wires as indicated in the wiring diagram. **Refer to Figure 5.**
8. Locate the long yellow loop of wire on the relay board. Route it through the conduit fitting on the lower right hand portion of the control enclosure. It will terminate in the junction box on the frame on the right hand side of the Platinum water heater. **Refer to Figure 6.**

If desired, an external alarm circuit can be wired through the yellow alarm circuit in the junction box: Cut the yellow alarm circuit loop wire to create two dry leads. Connect one lead to L1 of an external alarm circuit. Connect the other lead to one side of a relay coil or alarm bell if 120v. Connect the other side of the coil or alarm bell to L2.

9. Re-attach the leads from the led lamp to the red and white leads using the wire nuts that were disconnected in step 2 of this procedure. **Refer to the wiring diagram.**
10. Re-attach the control panel the enclosure, securing it with the four sheet metal screws removed in step 3, and reattach the doors of the control panel.
11. Verify proper operation. Turn on the power, shut off the gas supply and observe ignition. The heater should try to ignite, and then lockout. The lamp should illuminate continuously. Make sure to turn the gas back on prior to leaving the jobsite.

Note: the remote alarm kit will not function properly with a remote thermostat or remote on/off as wired per the original wiring diagram. See note 1 of the wiring diagram for proper wiring of the remote alarm kit with a remote thermostat.

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Figure 1

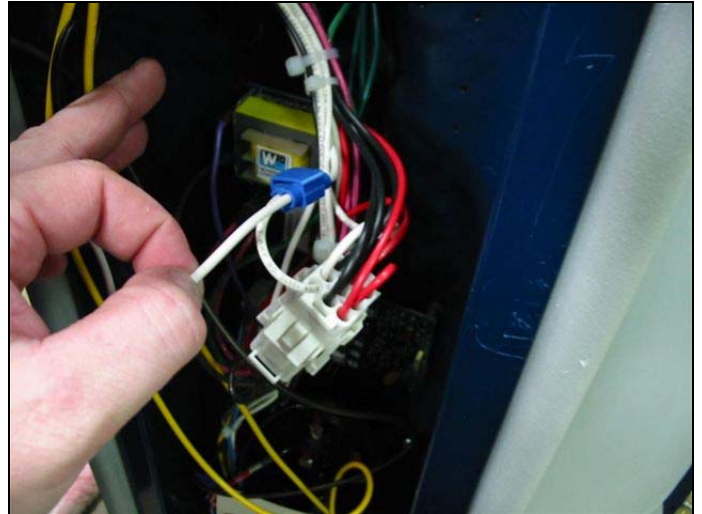


Figure 4

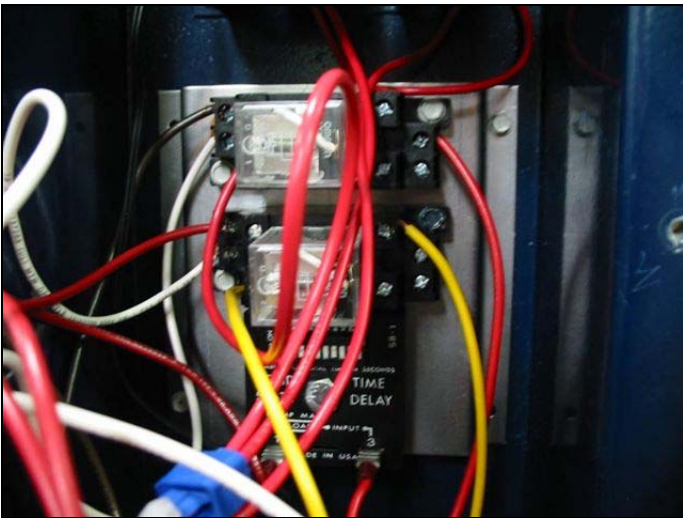


Figure 2

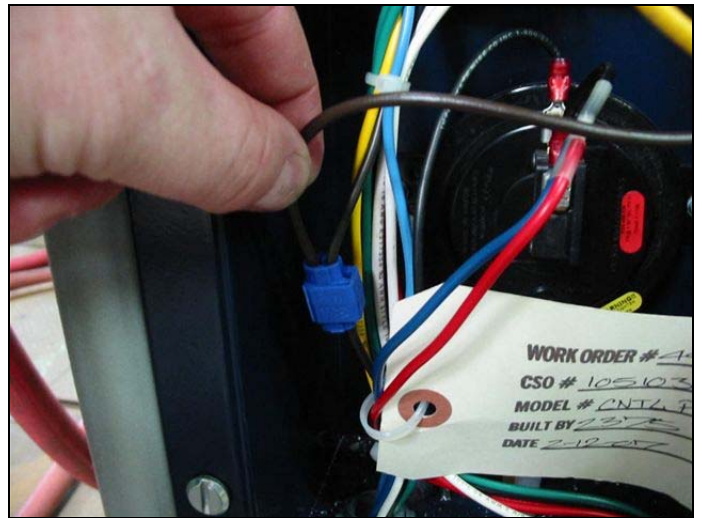


Figure 5

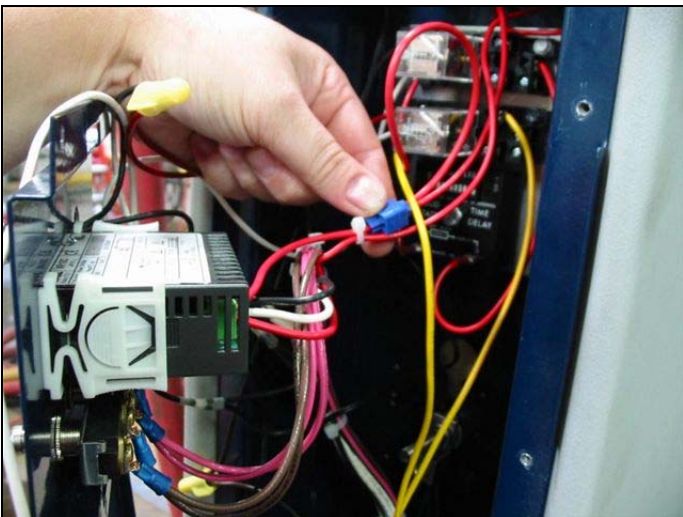


Figure 3

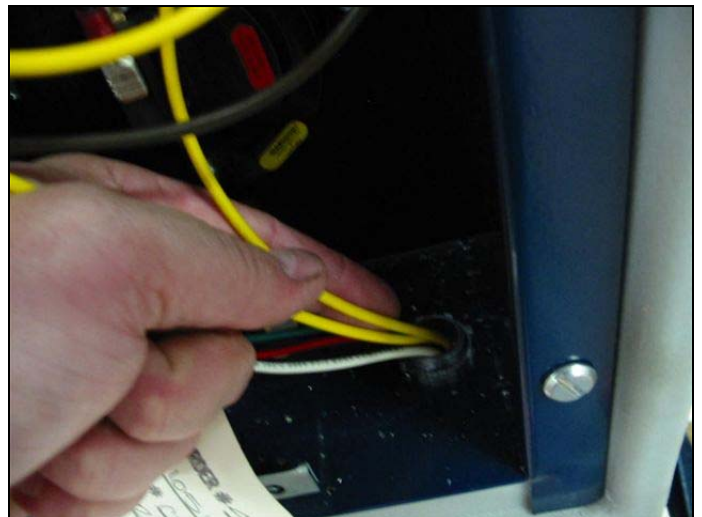


Figure 6

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