Complete Wiring, LLD Replacement Kit

FOR YOUR SAFETY: This product must be installed and serviced by a professional service technician, qualified in pool/spa heater installation and maintenance. Improper installation and/or operation could create carbon monoxide gas in flue gases which could cause serious injury, property damage, or death. Improper installation and/or operation will void the warranty.

These instructions are to be used with the following Replacement Kits:

R0325900- Complete wiring replacement kit for Lite model LLD

⚠WARNING
If the information in these instructions is not followed exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

This document gives instructions for replacing the wiring in all Lite Model LLD pool/spa heaters (except Blue Haven Model). The instructions must be followed exactly. Read through the instructions completely before starting the procedure.

A. Replacing the Temperature Control Wiring-

(See Figure 1.) For this operation you will need the following items from the kit:

- 1- 16" Yellow Wire Assembly(Terminal on each end)
- 1- 16" Yellow/Black Wire Assembly
- 1- 27" Black Wire Assembly
- 1- Double Male Terminal

1. Connect the smaller terminal on the black/yellow wire to the 24V terminal on the back of the temperature controller. The other end of the black/yellow wire connects to the TH terminal on the ignition control module.

2. Connect the smaller terminal on the yellow wire to the PV/MV terminal on the back of the temperature controller. Connect the other end of the yellow wire to one tab of the double male terminal. Push the double male terminal onto the bottom terminal marked MV on the gas valve.

3. Connect one end of the black wire to the PSW terminal on the back of the temperature controller. Connect the other end of the wire to either terminal on the pressure switch.

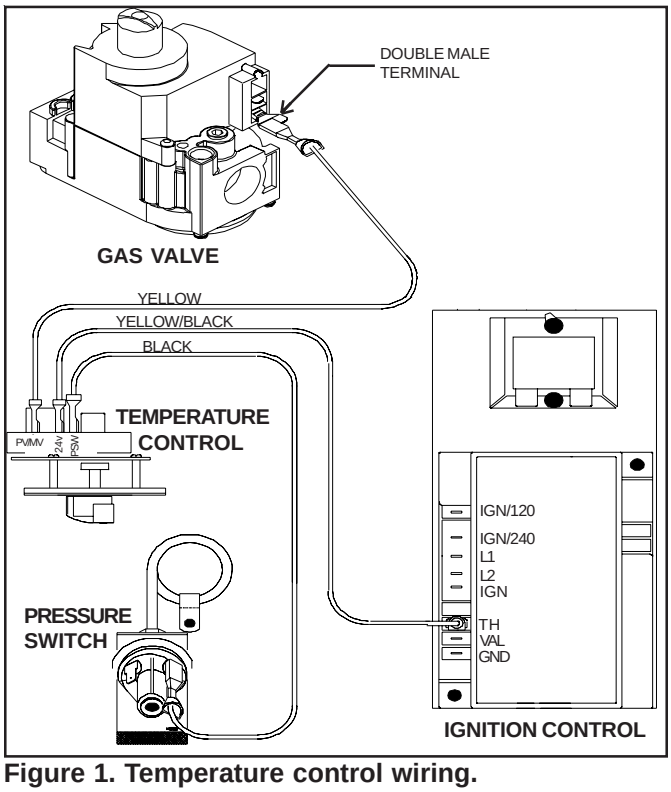

Figure 1. Temperature control wiring.

B. Replacing the Ignition Control Wiring-

For this operation you will need the following items from the kit:

- 1- 16" Yellow Wire Assembly(Terminal on one end only)
- 1- 18" Brown Wire Assembly
- 1- 8" Yellow Wire Assembly
- 1- 13" Green/Yellow Wire Assembly
- 1- Self Stripping Electrical Tap Connector

1. Assemble the Common Wire Harness. (See Figure 2.)

   a. If one end of the 16" Yellow Wire is stripped, cut the stripped end to a blunt end.

   b. Insert the blunt end of the wire into the inside channel of the tap connector.

   c. Snap the outside channel of the tap connector on to the 8" yellow wire so that it slides on the wire. The 16" wire should hang down past the insulated terminal on the 8" wire.

   d. Position the connector about 2" from the insulated terminal. Making sure that the blunt end of the 16" wire is fully inserted into the connector, use a pair of pliers to snap the connector closed.

   e. Push the female terminal on the green/yellow wire onto the male part of the uninsulated terminal on the yellow wire assembly.

2. Replace the Common Wire Harness (See Figure 3.)

   a. Push the female part of the uninsulated terminal of the common wire harness onto the tab on the lower right portion of the transformer.

   b. Connect the short section of the yellow wire coming out of the tap connector (with the smaller terminal) to the GND terminal on the Ignition Control Box.

   c. Connect the remaining section of yellow wire to the unused tab on the double male terminal assembled to the gas valve in Section A.

   d. Attach the green and yellow wire to the burner tray using the ground screw on the manifold bracket.

3. Connect the smaller terminal of the brown wire to the VAL terminal on the Ignition Control Box. Connect the other end of the brown wire to the upper terminal marked MV on the gas valve.

C. Replacing the Power Supply Wires-

For this operation you will need the following items from the kit:

- 1- 16" Black Wire Assembly
- 1- 16" Red Wire Assembly
- 1- 36" Red Wire Assembly With In-Line Fuse
- 1- Fusible Link Assembly

First, determine if your heater's power supply wires are connected to the outside power supply using wire nuts or a terminal block. Open the door of the wire

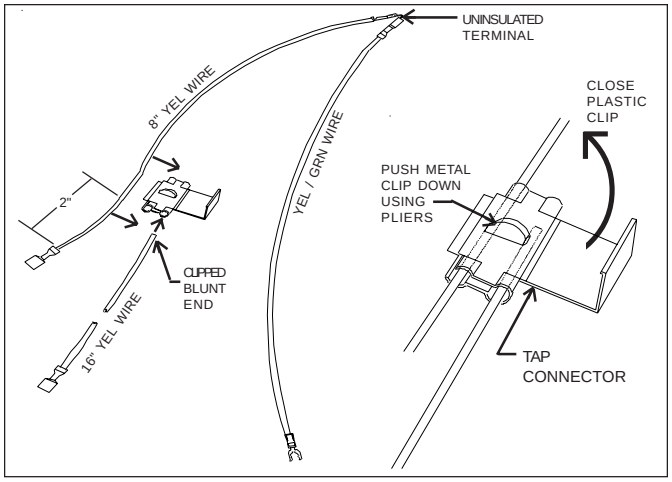

Figure 2. Common wire harness assembly.

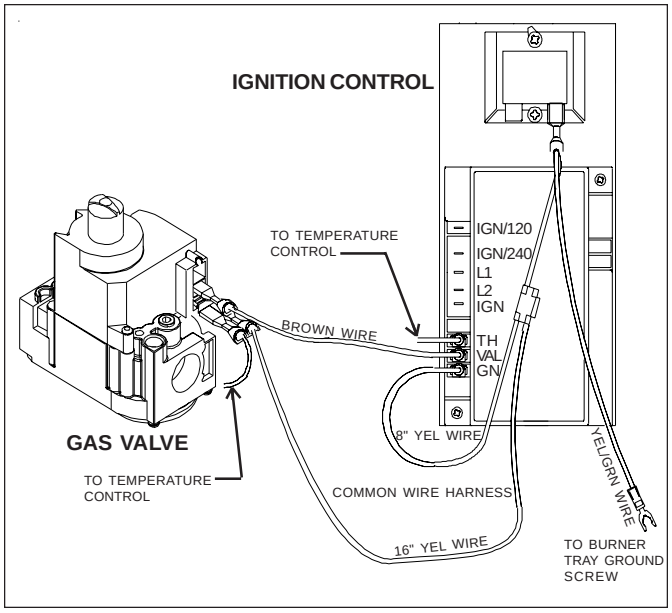

Figure 3. Ignition control wiring.

enclosure by removing the screw above the Ignition Control Box. The red and black wires coming through the top of the enclosure will either be connected to a terminal block or directly to the outside power supply.

1. If the power supply wires are connected to a terminal block, do the following. (See Figure 4.)

   a. Connect the fork terminal of the red wire to the same screw as the red wire leading to the transformer. Push the other end of the wire up through the slotted grommets in the enclosure bracket and the top of the enclosure. Connect the wire to the L2 terminal on the Ignition Control Box.

   b. Connect the fork terminal of the black wire to the same screw as the black wire leading to the transformer. Push the other end of the wire up through the slotted grommets in the enclosure bracket and the top of the enclosure. Connect

the wire to the L1 terminal on the Ignition Control Box.

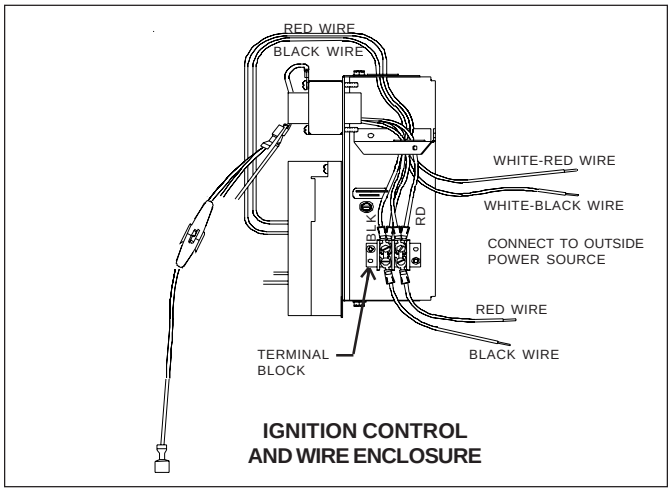

Figure 4. Power supply connections with terminal block.

2. If the power supply wires are connected directly to the outside power source using wire nuts, do the following. (See Figure 5.)

   a. Cut the fork terminal off of the red wire and strip the insulation back 1/2". Twist the stripped end of the red wire to the same wire group as the red wire leading to the transformer. Secure it with a wire nut. Push the other end of the wire up through the slotted grommets in the enclosure bracket and the top of the enclosure. Connect the wire to the L2 terminal on the Ignition Control Box.

   b. Cut the fork terminal off of the black wire and strip the insulation back 1/2". Twist the stripped end of the black wire to the same wire group as the black wire leading to the transformer. Secure it with a wire nut. Push the other end of the wire up through the slotted grommets in the enclosure bracket and the top of the enclosure. Connect the wire to the L1 terminal on the Ignition Control Box.

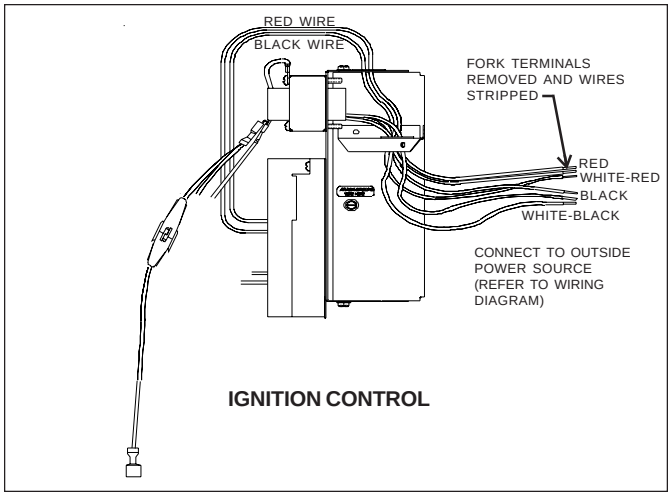

Figure 5. Power supply connections without terminal block.

3. Remove the damaged fusible link from the bracket on the inner panel and replace it with the new fusible link provided with the kit.

4. Connect the red wire with the in-line fuse to the tab at the lower left side of the transformer. The fuse holder should be closest to the end attached to the transformer. Connect the other end of the wire to either terminal on the fusible link. (See Figure 6.)

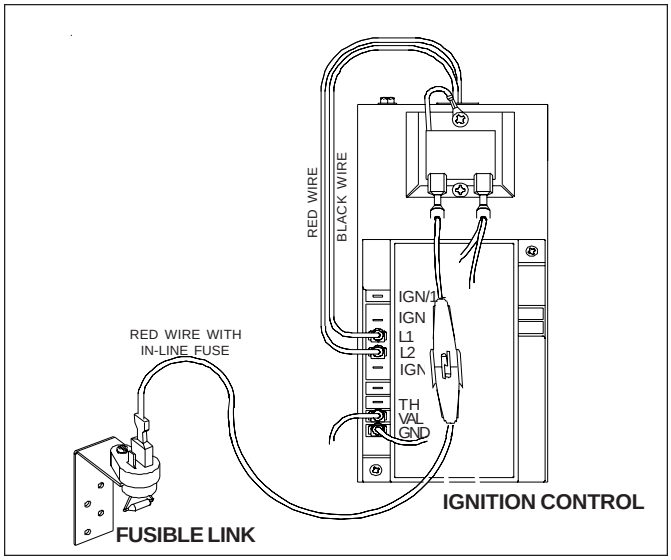

Figure 6. In-line fuse connection to fusible link

D. Replacing the Hi-Limit Switches and Harness- (See Figure 7.)

For this operation you will need the following items from the kit:

1- Hi-Limit Switch Assembly

1. Remove the top of the heater. Also remove the gap closure on the input/output header side of the heater.

2. If your heater has a metal bracket with insulation covering the wires near the flue collector, remove the bracket and insulation.

3. Remove the hi-limit switch cover from the input/output header. Also remove the clip holding the hi-limit switches in place

4. Cut any wire ties holding the hi-limit switch wires in place and pull the wires out through the top of the heater.

5. Remove both limit switches from the header, noting which switch has a red dot painted on it's flat surface.

6. Replace the limit switches, making sure to install the switch with the red dot in the lower well.

7. Replace the wires in the same fashion as the ones you removed. Use the wire ties to secure the wires away from the flue collector.

8. Replace the limit switch retainer clip and the cover.

9. If your heater has a metal bracket with insulation covering the wires near the flue collector, replace the bracket and insulation.

10. Replace the gap cover and top of the heater.

11. Connect the fork terminal on the hi-limit switch harness to one side of the terminal block mounted on the inner panel.

12. Connect the push-on terminal of the hi-limit switch harness to either tab on the pressure switch.

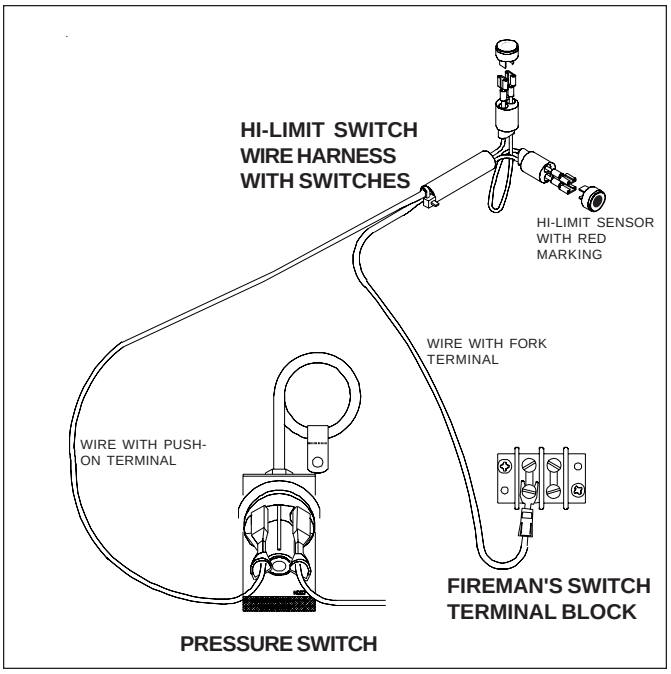

Figure 7. Hi-limit switch harness wiring

E. Replacing the Fireman's Switch Terminal Block Wires- (See Figure 8.)

For this operation you will need the following items from the kit:

1- 25 1/2" White Wire Assembly
1- 3 1/2" White Wire Assembly
1- Red Tag (Fireman's Switch Information)

1. Connect the push-on terminal of the long white wire to the remaining tab on the fusible link. Attach the other end of the wire to the same side of the terminal block as the hi-limit switch harness.

2. Insert the small white wire through the red tag, then attach the wire as a jumper from one connection to the other on the opposite side of the terminal block.

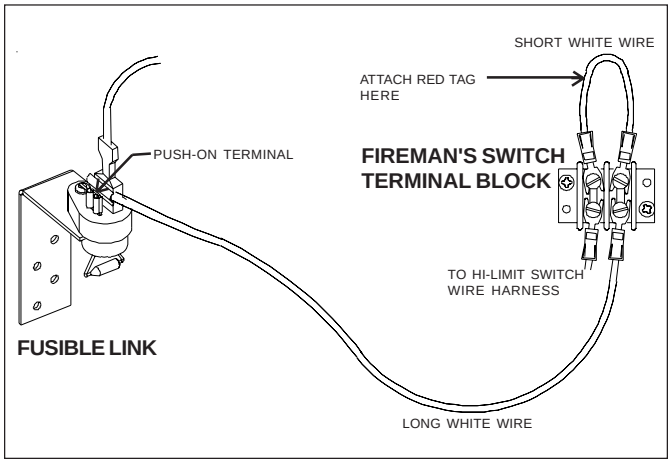

Figure 8. Fireman's switch terminal block wiring.

H0216400A

Jandy Pool Products, Inc.
6000 Condor Drive, Moorpark, CA, USA 93021 • 707.776.8200 FAX 707.763.7785
1758 Corporate Circle, Petaluma, CA, USA 94954 • 707.776.8200 FAX 707.763.7785

Litho in U.S.A. © Jandy Pool Products, Inc. 0508