

WIRE HARNESS KIT INSTRUCTIONS

050/075/100 Kit #550002301

150/200 Kit #550002316

150/200 Kit #550002836 w/ Pump Relay Terminals

299 Kit #550002824

Kit installation shall be completed by qualified agency.

⚠ WARNING

Fire, explosion, asphyxiation and electrical shock hazard. Improper installation could result in death or serious injury. Read this instruction and understand all requirements, including requirements of authority having jurisdiction, before beginning installation. Installation not complete until appliance operation verified per Installation, Operation & Maintenance Manual provided with boiler.

Wire Harness Removal:

Tools required:

- Needle nose pliers
- Small (No. 1) phillips screwdriver
- Small wire ties
- 11/32" Nut Driver, Wrench or Socket
- 1/4" Nut Driver
- Side cutters

1. Follow instructions to TURN OFF GAS TO APPLIANCE found on Operating Instructions label on boiler or in Installation, Operation & Maintenance Manual. Verify all electrical power to boiler is turned off.

WARNING

Electric shock hazard. Turn OFF electrical power supply at service panel.

2. Remove front jacket panel(s). See figure 1.

⚠ WARNING

Burn hazard. Verify heat exchanger has cooled or use appropriate personal protection equipment.

3. Inspect combustion chamber through sight glass. Verify flame is not present. See figure 2.
4. Disconnect multi-pin connector from lower jacket and remove lower jacket. See figure 3.

Figure 1 - Sight Glass 050/075/100/150/200

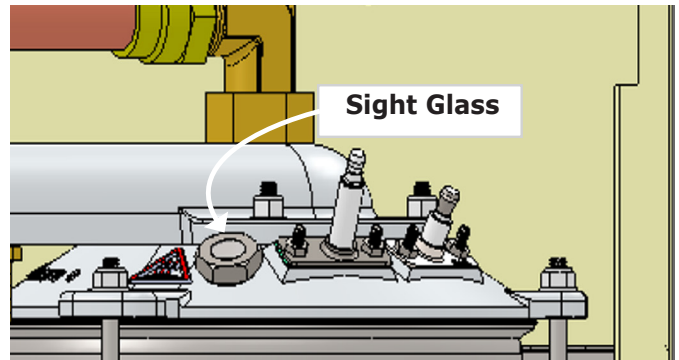


Figure 2 - Sight Glass 299

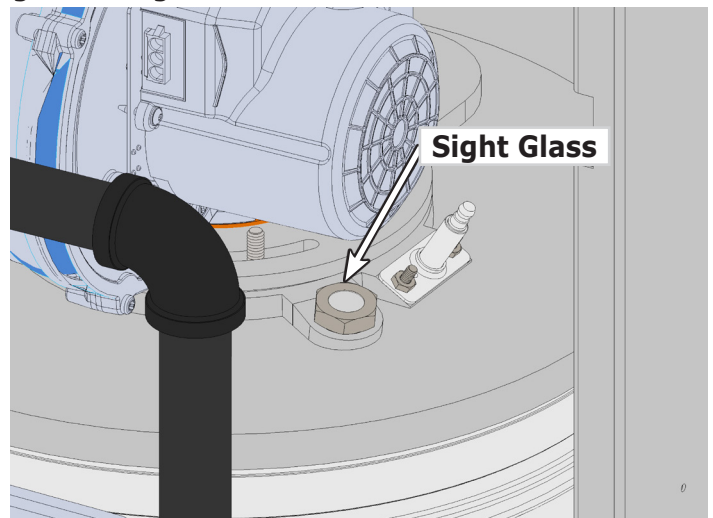
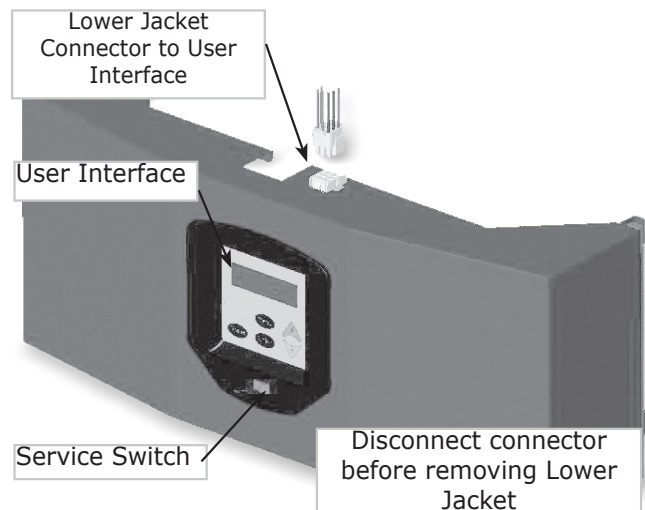


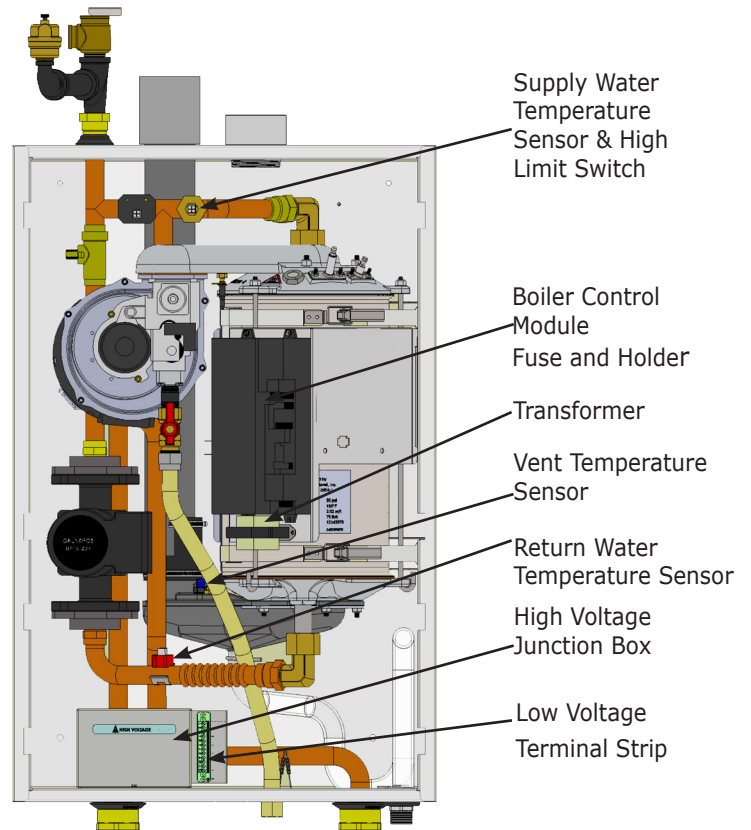
Figure 3 - Lower Jacket (Viewed from front of boiler)



WIRE HARNESS KIT INSTRUCTIONS

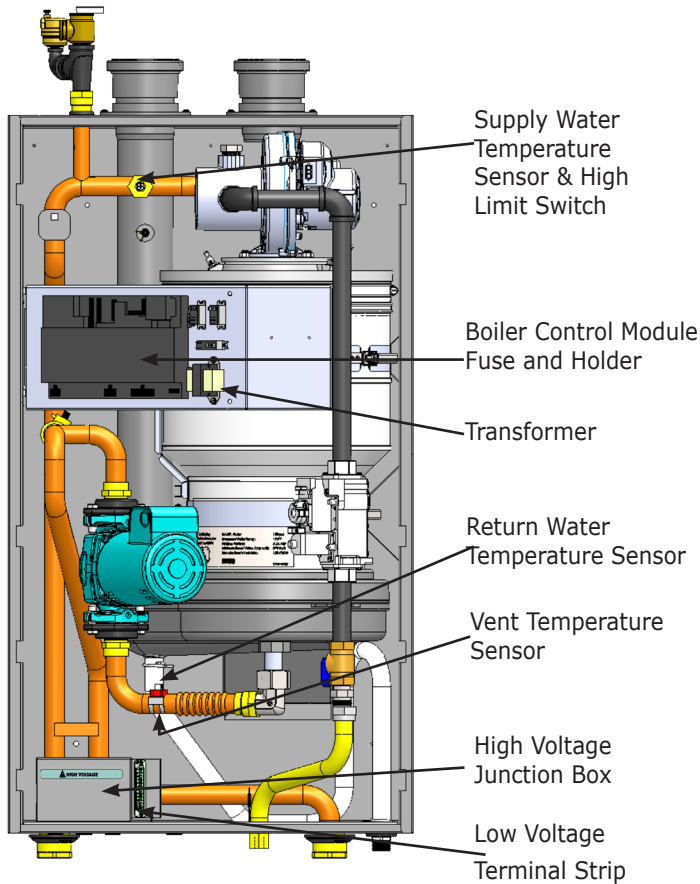
5. Remove retaining screw from high voltage junction box and remove cover.
 - Remove two (2) screws holding high voltage terminal strip. Lift strip up and out. Leave field wiring attached to strip. Disconnect boiler connections from rear terminals.
 - Leave low voltage field connections in place. Unplug low voltage terminal strip from low voltage socket.
 - Remove two (2) screws holding terminal frame in place.
 - Spread retaining tabs on terminal frame from back side of panel. Push low voltage socket back through frame.
 - Disconnect boiler low voltage wires from socket.
6. Disconnect wire harness from return water sensor.
7. Disconnect wire harness from control module.
8. Disconnect wire harness from pump relays (if equipped).
9. Disconnect flame sensor cable from flame sensor. Remove right-side 8-32 hex nut using 11/32" nut driver, wrench or socket. Disconnect ground wire from stud.
10. Disconnect two (2) wire harnesses from transformer, two (2) wire harnesses from blower motor, cables from Low Water Cutoff and high temperature supply switch.
11. Remove retaining screw from gas valve connector and remove connector.
12. Disconnect wire harness from heat exchanger pump.
 - Remove screw from pump electrical box cover. Remove cover.
 - Remove ground screw. Remove ground wire.
 - Loosen wire nuts. Disconnect wire harness from pump power wires.
 - Squeeze tabs on strain relief. Remove wire harness from pump.
13. Disconnect ground screw wire from transformer.
14. Disconnect wire harness from vent temperature sensor.
15. Cut cable tie barbs holding harness to chassis. Remove wire harness from boiler.
16. Squeeze tabs on 2 pin connector and remove.

Figure 4 - 050/075/100/150/200 Model



WIRE HARNESS KIT INSTRUCTIONS

Figure 5 - 299 Model



Wire Harness Replacement:

1. Connect wire harness to control module.

NOTICE

Control module has two (2) 4-wire connectors (J2 and J4). Plug wires are labeled to assist in connection to proper jack.

2. Connect wire harness to pump relays (if equipped). Refer to pump relay labels and wire diagram for proper installation.
3. Attach green ground wire to left side of transformer. Secure with green ground screw.
4. Connect low voltage wires to low voltage socket. Insert socket frame through front of panel. Push socket into frame from rear of panel engaging two (2) tabs on frame. Secure frame to panel with 2 screws.
5. Insert harness into boiler and secure by pushing cable tie barbs into chassis.
6. Connect flame sensor cable. Attach ground wire to right stud of flame sensor and secure with nut. Do not over-tighten.
7. Connect igniter cable to control module.
8. Connect wire harness to low water cutoff and high temperature sensor supply switch.
9. Connect wire harness to blower (2 places).
10. Install Gas Valve harness. Attach gas valve harness to gas valve. Secure with integral screw.
11. Connect high voltage leads to high voltage terminal strip. Secure high voltage terminal strip with two (2) screws.
12. Connect wire harness to return water temperature sensor.
13. Squeeze tabs on 2 pin connector (not used) and insert.
14. Connect wire harness to vent temperature sensor.
15. Connect wire harness to heat exchanger pump.
 - Insert wire harness into pump junction box.
 - Attach green ground wire to junction box. Secure with green ground screw.
 - Connect wire harness black and white wires to pump wires. Wires are interchangeable.
 - Insert strain relief into pump junction box. Snap into place.
 - Attach junction box cover. Secure with screw.
16. Attach high voltage terminal box cover. Secure with screw.
17. Attach lower jacket, connect multi-pin connector.
18. Resume operation using OPERATING INSTRUCTIONS found on Operating Instructions label on boiler or in Installation, Operation & Maintenance Manual.
19. Verify proper operation by following START UP PROCEDURE in Installation, Operation & Maintenance Manual.
20. Install front jacket panel(s).

PARTS LIST

050/075/100 Wire Harness Kit #550002301		
DESCRIPTION	PART #	QTY
Main Boiler 120V Wiring Assembly Harness to High Voltage Terminal Block 50/075/100	-	1
Wire Harness Lower Jacket	-	1
Strain Relief Bushing	-	1
Screw, 6 x 3/8, Type B	-	2
Screw, 8-32 x 5/16, Self Tapping, Ground, Green	-	1
Instructions	240008954	1
150/200 Wire Harness Kit #550002316		
Main Boiler 120V Wiring Assembly Harness to High Voltage Terminal Block 150/200	-	1
Wire Harness Lower Jacket	-	1
Strain Relief Bushing	-	1
Screw, 6 x 3/8, Type B HPH, SZN	-	2
Screw, 8-32 x 5/16, Self Tapping, Ground, Green	-	1
Instructions	240008954	1
150/200 Wire Harness Kit #550002836 w/ Pump Relay Terminals		
Main Boiler 120V Wiring Assembly Harness to High Voltage Terminal Block 150/200 w/ Pump Relay Terminals	-	1
Wire Harness Lower Jacket	-	1
Strain Relief Bushing	-	1
Screw, 6 x 3/8, Type B HPH, SZN	-	2
Screw, 8-32 x 5/16, Self Tapping, Ground, Green	-	1
Instructions	240008954	1
299 Wire Harness Kit #550002824		
Main Boiler 120V Wiring Assembly Harness to High Voltage Terminal Block 299	-	1
Wire Harness Lower Jacket	-	1
Screw, 6x3/8, Type B HPH, SZN	-	2
Screw, 8-32x5/16, Self Tapping, Ground, Green	-	2
Instructions	240008953	1