TRS Outdoor Electrical Installations

Supplemental Instructions

**This Document Applies to <u>Outdoor</u> TRS Installations Only
and is a Supplement to the TRS Installation Manual**

Applicable Product	Rinnai Tankless Rack System (TRS) (Outdoor Electrical Installations)
Applicable Models	TRS03CXiN, TRS03ILCXiN, TRS04CXiN, TRS05CXiN, TRS06CXiN

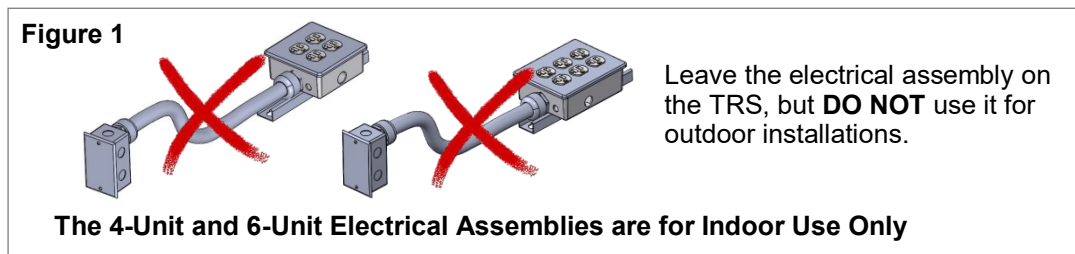| ⚠ WARNING	• Do not use an extension cord or adapter plug with this appliance. • The water heaters must be electrically grounded in accordance with local codes and ordinances or, in the absence of local codes, in accordance with the National Electrical Code, ANSI/NFPA No. 70.

⚠ **CAUTION** To protect yourself from harm, follow the steps below before proceeding:

- Turn off the electrical power supply by unplugging the power cord or by turning off the electricity at the circuit breaker. (The temperature controller does not control the electrical power.)
- Turn off the gas at the manual gas valve, usually located immediately below the water heater.
- Turn off the incoming water supply. This can be done at the isolation valve immediately below the water heater or by turning off the water supply to the building.

Overview

This document provides instructions on how to connect electrical power on outdoor TRS installations. Refer to the TRS Installation Manual (supplied with the TRS) for all other installation information.

The electrical assembly (Figure 1) installed on the TRS is rated for indoor use only. When installing a TRS outdoor, the power cables on the CX199iN tankless water heaters should be replaced with hardwire leads, and the electrical supply connections should be made as shown in these instructions.

Figure 1

Leave the electrical assembly on the TRS, but **DO NOT** use it for outdoor installations.

The 4-Unit and 6-Unit Electrical Assemblies are for Indoor Use Only

Tools / Materials Required

Supplied with TRS:

- Hardwire adapter (part number: 105002077) (Figure 2)

Field-Supplied:

- Phillips head screwdriver
- Wire
- Conduit
- Disconnect Switch

Figure 2

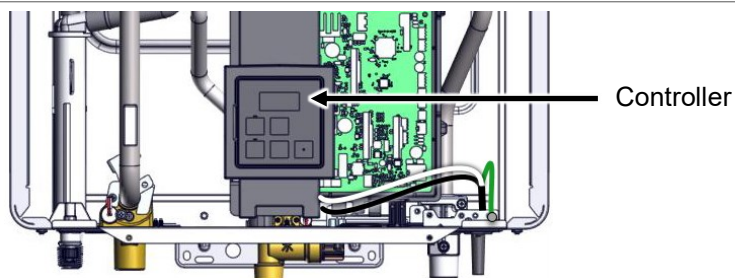Hardwire Adapter

Rinnai

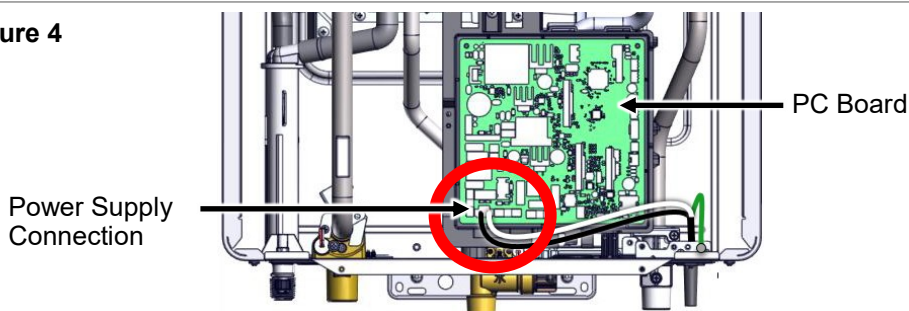# Instructions

REMOVE GROUND WIRE AND POWER CABLE:

1. Turn off and disconnect 120 V power supply, water supply, and gas supply.

2. Remove the water heater front panel (refer to the Tankless Water Heater Installation and Operation Manual for detailed instructions).

3. Move up controller and pull bottom of controller toward you. Remove controller from its location and let is rest next to the water heater.
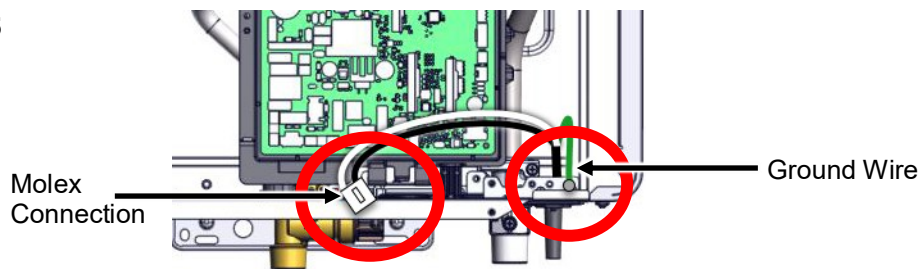
Figure 3

Controller

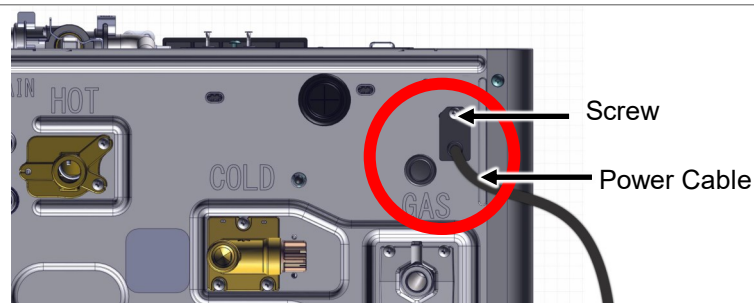4. Locate the power supply connection on the PC board located behind the controller.

Figure 4

PC Board

Power Supply Connection

5. Disconnect the molex connection, and then remove the ground wire from the grounding tab.

Figure 5
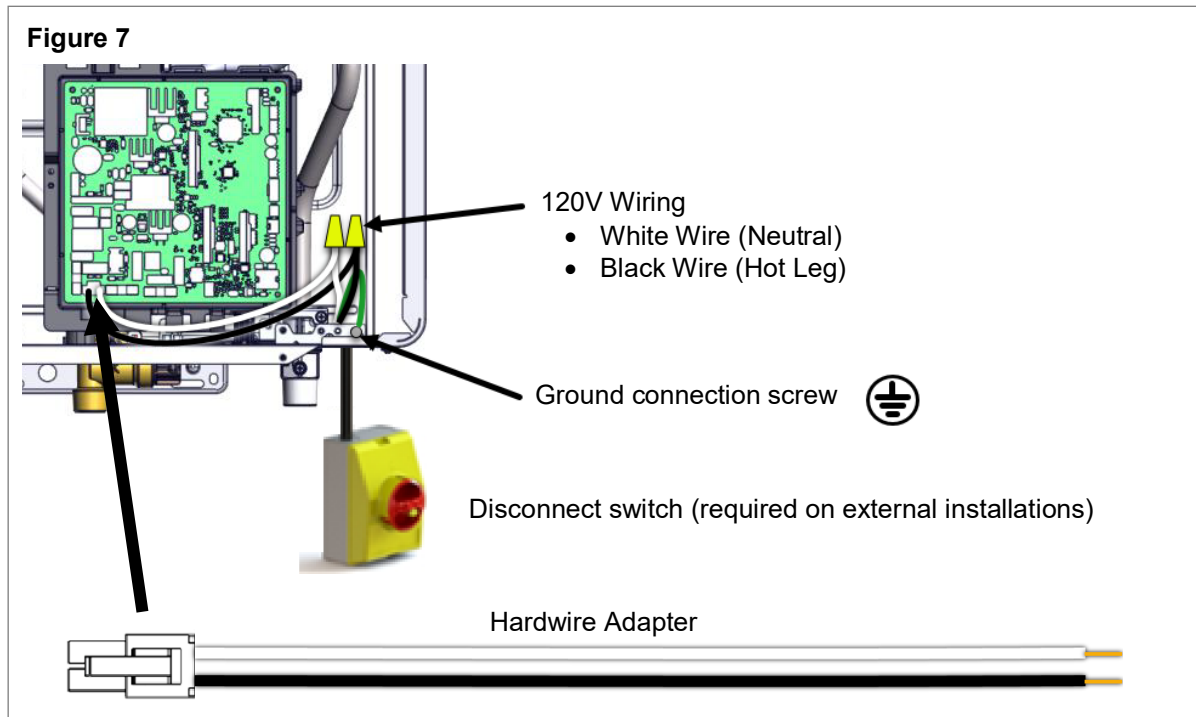

Molex Connection

Ground Wire

6. Use a screwdriver to remove the screw from the bottom of the water heater cabinet to free the power cable. Completely remove the cable. The screw and power cable will not be used again and can be discarded.

Figure 6

Screw

Power Cable

CONNECT THE POWER SUPPLY:

7. Plug the hardwire adapter (supplied with TRS) into the PC board, and run the wires behind the tabs to the right-hand side of the cabinet, where the grommets are located. The other end of the hardwire adapter will connect to the building power supply.

Figure 7

120V Wiring
- White Wire (Neutral)
- Black Wire (Hot Leg)

Ground connection screw

Disconnect switch (required on external installations)

Hardwire Adapter

When connecting the power supply, follow these guidelines:

- Do not rely on the gas or water piping to ground the water heaters. Ground locations are provided inside each water heater.
- The water heaters requires 120 VAC, 60 Hz power from a properly grounded circuit.
- On external (outdoor) models, a disconnect switch must be provided and installed for the incoming 120 VAC power. The switch should be a type that is suitable for outdoor use. Check the National Electrical Code, ANSI/NFPA 70 and your local codes for a proper switch type to use in your area. Power connections must be protected from the weather and flexible cords must use an appropriate strain relief.
- The wiring diagram is located on the inside of the water heater front cover.

8. Re-install controller.

Refer to the TRS Installation Manual for all other installation steps. When system installation is complete, remember to:

- Install water heater front panel.
- Connect gas and water supply.
- Connect and turn on 120 V power supply.