Additional Controller

Controller Part Numbers:

Residential Applications: MC-91-2 Commercial Applications: MCC-91-2



ITEMS INSIDE PRODUCT BOX

Before installation, please make sure that all parts are located inside the product box. If any items are missing or damaged, contact your local dealer/distributor or call Rinnai Customer Care at 1-800-621-9419.

Item#	ltem	Qty
1	Controller	1
2	Screw	1
3	Wall Anchor	1



TOOLS/MATERIALS REQUIRED

- Phillips head screwdriver
- Drill
- ☐ Wire Stripper / Crimper

☐ Additional Wire (22 AWG Minimum)

Wire Nuts

CONTROLLER LOCATIONS

- The temperature controller should be out of reach of small children.
- Avoid locations where the temperature controller may become hot (near an oven or radiant heater).
- Avoid locations in direct sunlight. The digital display may be difficult to read in direct sunlight.
- Avoid locations where the temperature controller could be splashed with liquids.
- Do not install in locations where the temperature controller can be adjusted by the public.

CABLE LENGTHS AND SIZES

The cable for the temperature controller should be a non-polarized two-core cable with a minimum gauge of 22 AWG. The maximum cable length from each temperature controller to the water heater depends on the total number of wired controllers connected to the water heater.

Number of	Maximum Cable Length for Each
1	328 ft. (100 m)
2	164 ft. (50 m)
3 or 4 *	65 ft. (20 m)

Controllers can only be wired in parallel; they cannot be wired in series.

Controllers wired in parallel



Controllers wired in series



Mounting The Controller

IMPORTANT: When performing the steps in this section, you must follow the wiring guidelines established by the National Electrical Code (NEC).

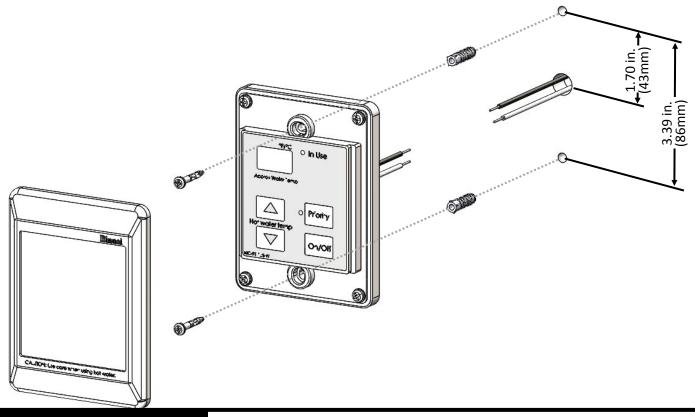
- 1. Make 3 holes in the wall as shown below. (Reference template on last page.)
- 2. Remove the face plate from the temperature controller using a screwdriver.



Disconnect power to the water heater. Do not attempt to connect the temperature controller(s) with the power on.

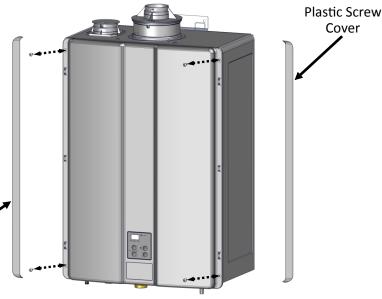
- After disconnecting power to the water heater, connect the field-supplied wire to the stripped wire ends of the controller. Follow the wiring guidelines established by the National Electrical Code (NEC).
- 4. Using the provided screws and wall anchors, mount the controller to the wall.





Routing Wire to PC Board

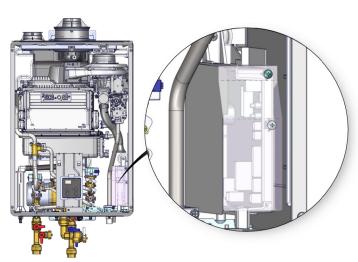
- 1. Remove the 2 plastic screw covers from each side of the front cover of the water heater.
- 2. Remove 4 screws securing the front cover of the water heater.
- 3. Remove the front cover of the water heater.

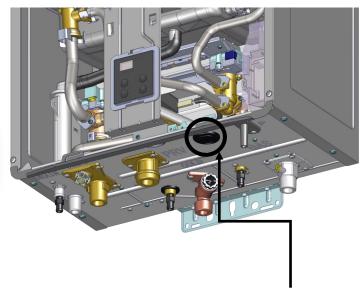


Plastic Screw Cover

- 4. Locate the PC Board located in the lower right side of the unit.
- 5. Thread the cable through the grommet access hole at the base of the water heater
- 6. Gently lift the transparent plastic cover on the PC Board to access the controller connection location.
- 7. Identify the connection method and proceed to Wiring Controller to PC Board.

PC Board Location





Grommet access hole

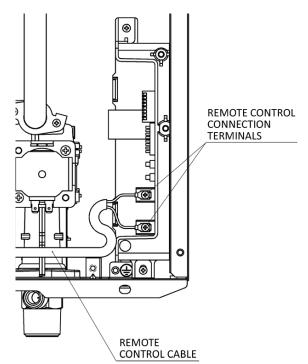
Wiring Controller to PC Board

If PC Board includes a label "Terminals for Control" follow path "A" below. Otherwise follow path "B"

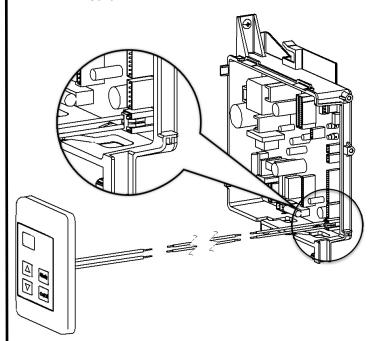


TERMINALS FOR CONTROLS

 Connect the stripped ends of field-supplied wire to the two crews labeled "TERMINAL FOR CONTROLS"



- B
- 1. Remove the controller cable from the plastic bag located on the water heater front cover.
- 2. Connect the field-supplied wire to the stripped wire ends of the controller cable.
- Connect the controller cable to the mating terminal at the bottom right side of the PC Board.



Controller Template

