

EHPWH Main Control Board REPLACEMENT INSTRUCTIONS

Kit Name	Main Control Board - 50 Gal	Main Control Board - 65 Gal	Main Control Board - 80 Gal
Kit Part Number	105002065	105002085	105002068
Compatible Rinnai Products	REHP Series - 50 Gal Models	REHP Series - 65 Gal Models	REHP Series - 80 Gal Models

! WARNING Failure to correctly assemble the components according to these instructions may result in electric shock, injury, or death.

! CAUTION

To protect yourself from harm, follow the steps below before proceeding.

- Antistatic gloves must be worn .
- Disconnect the electrical power supply by turning off the electricity at the circuit breaker.
- Turn off the water by closing manual ball valves for the hot and cold water connections at the appliance.

Items Inside Product Box

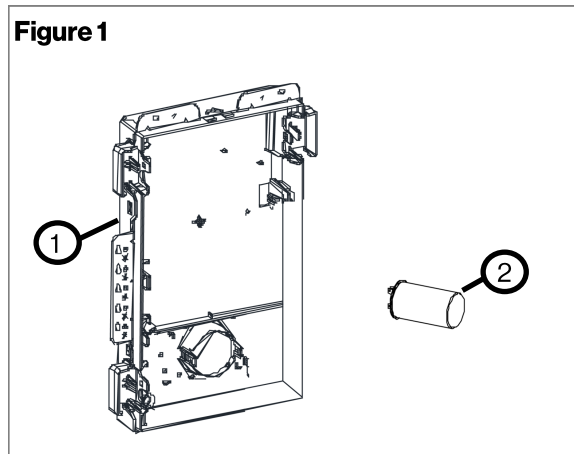
Before installation, please make sure all parts are located inside the product box.

Table 1

Item #	Item	Qty
1	Main Control Board with Box	1
2	Compressor Capacitor (105002063)	1

TOOLS/MATERIALS REQUIRED

- Phillips and Flat Head Screw Drivers
- Multimeter (to test capacitor)
- Tongue and Groove Plier
- Plastic Zip Ties



Instructions

1. Antistatic gloves must be worn to protect yourself from harm.
2. Disconnect the electrical power supply by turning off the electricity at the circuit breaker.
3. Turn off the water by closing manual valves for the hot and cold water connections at the appliance.
4. Use a flat head screw driver to remove the display box front cover. To remove, slide the flat head of screw driver into the slots located on the bottom side of cover and twist the driver to remove (Figure 2). Keep front cover safe to be reinstalled in step 26.
5. Use a Phillips head screw driver to remove 4 screws securing the display box rear cover (Figure 3). Keep removed 4 screws secured to be reinstalled in step 25.

IMPORTANT

When following the instructions to remove display box front cover, ensure not to apply unnecessary force. If applied, it may break the snap pins located on the display front cover and prevent it from assembling it back. Ensure to twist the screw driver softly and the cover should open without any damage.

Figure 2

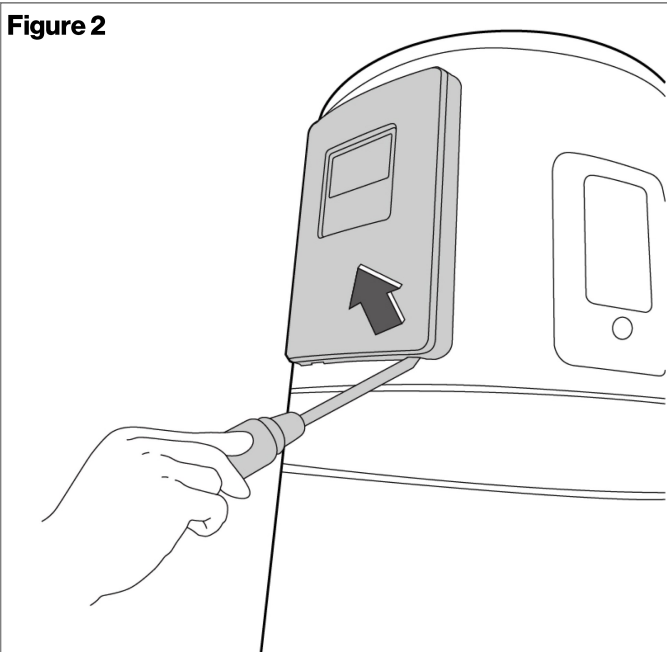
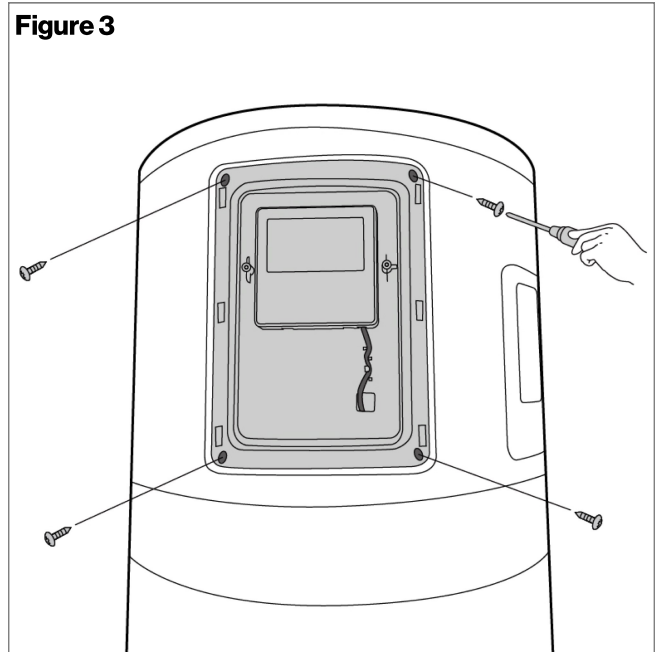


Figure 3



6. Use a flat head screw driver to remove the display box. To remove, slide the flat head of screw driver into the slots located on the bottom side of box and twist the driver to remove (Figure 4).
7. Disconnect the display board connector (Figure 5). Keep display box and display board safe to be reinstalled in step 24 & step 25.

IMPORTANT

When following the instructions to remove display box, ensure not to apply unnecessary force. If applied, it may break the snap pins located on the display box and prevent it from assembling it back. Ensure to twist the screw driver softly and the box should open without any damage.

Figure 4

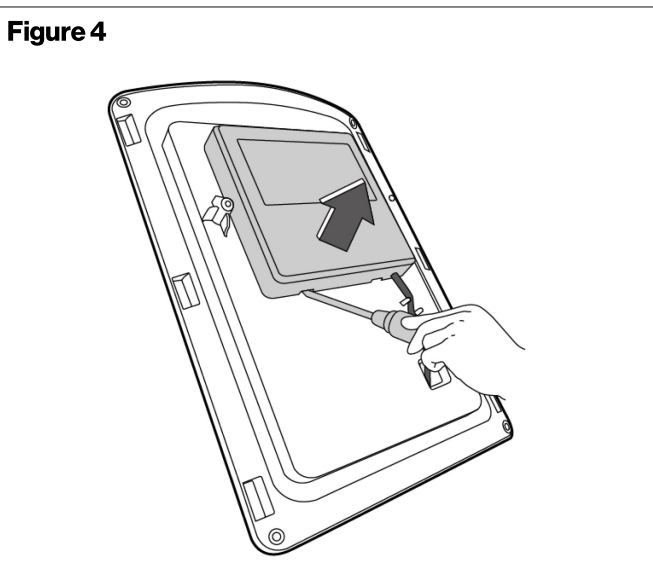
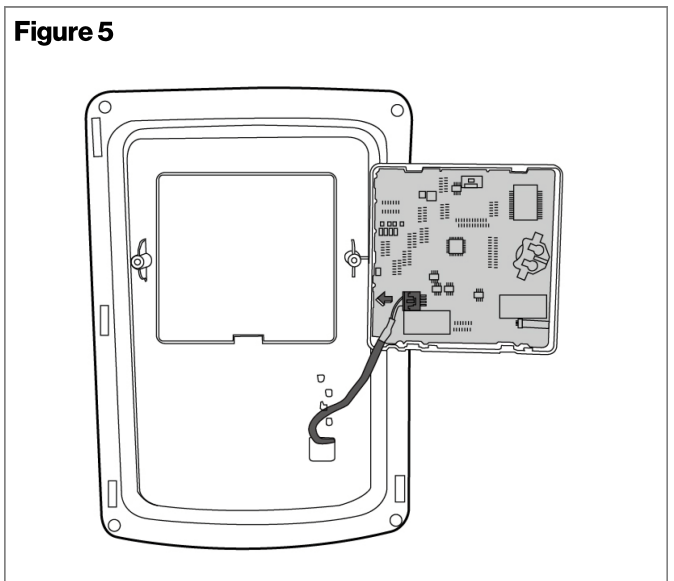


Figure 5



8. Use a Phillips head screw driver to remove 4 screws securing the cover of main control E-box (Figure 6). The cover contains two items, the sheet metal piece supported with the plastic cover, ensure to remove both. Keep the cover safe to reinstalled in step 22.
9. Use a Phillips head screw driver to remove 6 screws securing the junction box cover and CTA 2045 cover (Figure 7). Keep these 6 screws safe to be reused in step 21.

Figure 6

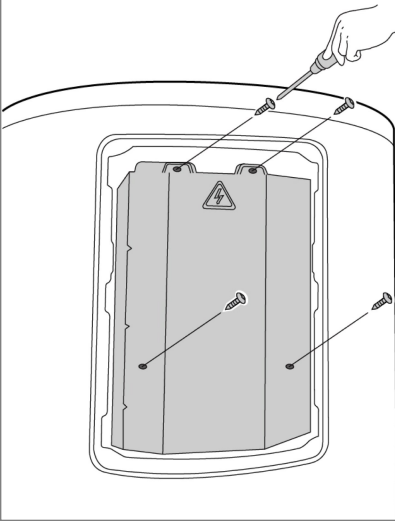
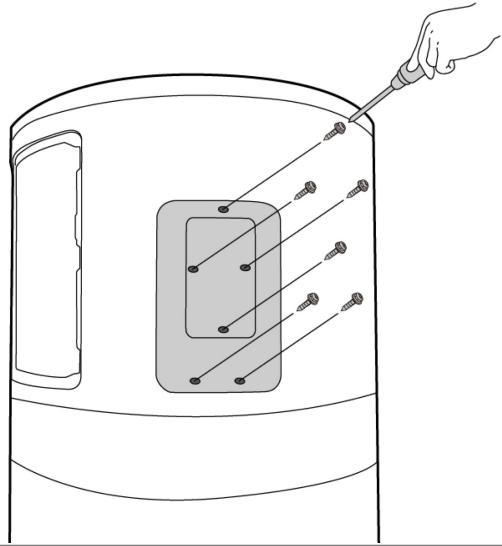


Figure 7



10. Use a Phillips head screw driver to remove 2 screws and release line L1 (black) and line L2 (white) (Figure 8). Disconnect power supply cable on the breaker side too if needed. Keep removed 2 screws safe to be reinstalled in step 20.
11. Pull out L1 (black) and line L2 (white) from the magnetic induction sensors located on the main control board (Figure 9). Be careful while pulling out wires not to damage sensors.

Figure 8

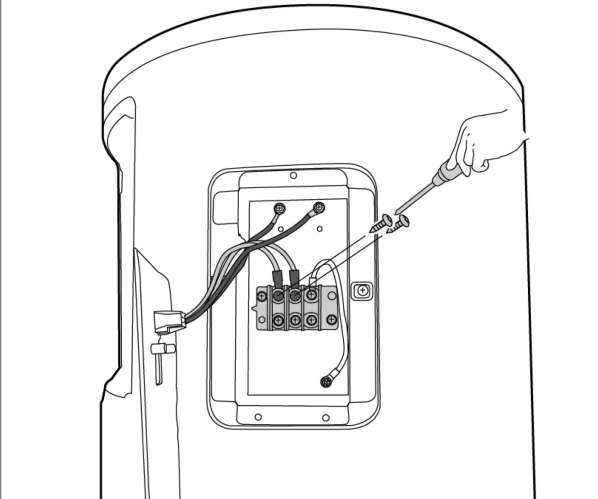
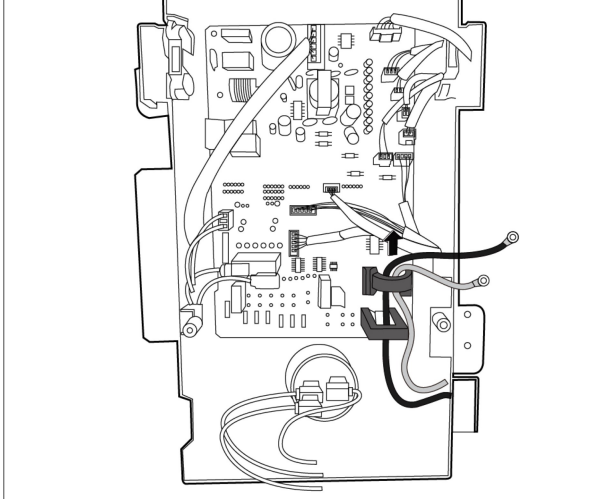


Figure 9



12. Disconnect all connectors from the main control board and capacitor (Figure 10). Ensure to remove retention pins from all connectors before disconnecting them. Tongue and groove plier can be used to disconnect spade terminals.
13. Remove 4 screws securing main control board and take it out (Figure 11). Keep screws safe to be installed in step 17.

Figure 10

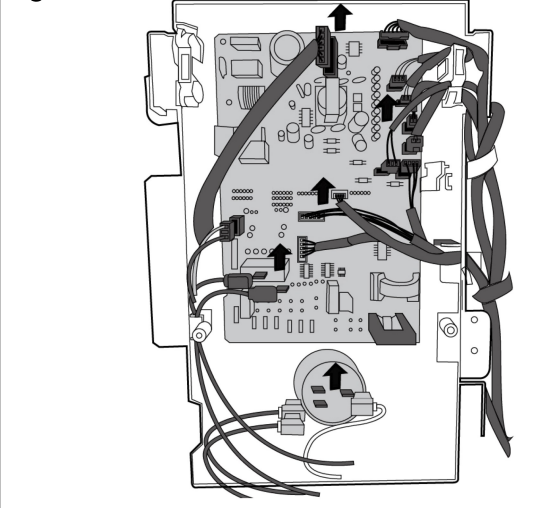
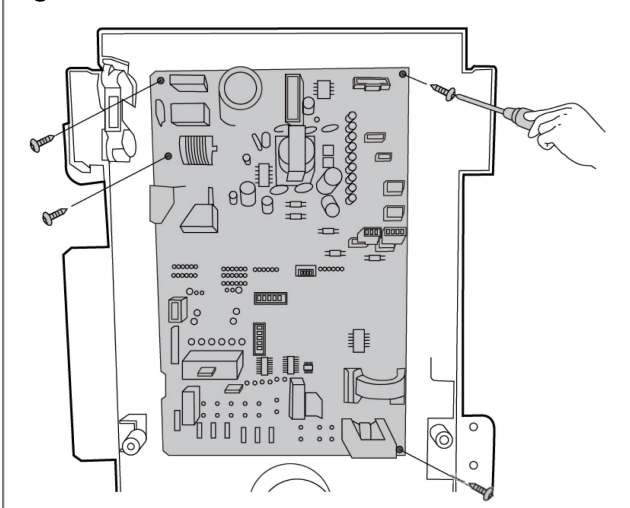
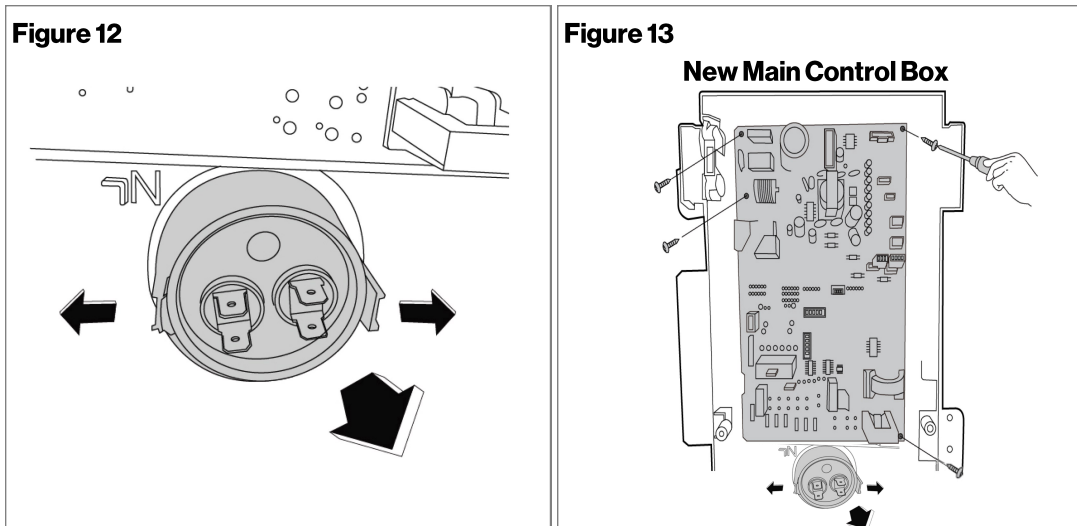


Figure 11



14. The Capacitor is rated for $15\ \mu\text{F} \pm 5\%$. Test the capacitance using multimeter and ensure that it is within the allowable tolerance. If it is outside of tolerance, remove the capacitor by pulling out snap pins (Figure 12).



Main Control Board Reassembly

15. Prepare new main control board and new capacitor by removing them out of main control box (Figure 13).
16. Install new main control board using 4 screws to the appliance (Figure 11). Install new capacitor on the appliance and ensure that it is secured properly (Figure 12).
17. Reconnect all connectors on the new main control board and new capacitor (Figure 10). Ensure to secure all connectors by reinstalling retention pins.
18. Carefully pass the line L1 (black) through both magnetic induction sensors and line L2 (white) through top (round) magnetic induction sensor only (Figure 9). Strap and secure power supply cables using zip ties.
19. Re install line L1 (black) and line L2 (white) terminals on the terminal box using 2 screws (Figure 8).
20. Reinstall junction box cover and CTA 2045 cover using 6 screws (Figure 7).
21. Reinstall the cover of main control E-box using 4 screws (Figure 6).
22. Reconnect the display board connector (Figure 5).
23. Install back the display board on the display box rear cover (Figure 4).
24. Reinstall display box rear cover on the appliance using 4 screws (Figure 3).
25. Install back display box front cover on top of display box rear cover (Figure 2).
26. Secure top cover to the appliance using 6 screws (Figure 1).
27. Turn on the water by opening manual valves for the hot and cold water connections at the appliance.
28. Reconnect the electrical power supply by turning on the electricity at the circuit breaker.
Note: For Canadian models only, update the set temperature to 140°F (60°C).
29. Ensure that the appliance runs fine. May need to open one of the faucets in the house to fire up the appliance.

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