

Error code 70 has been added to the list of error codes for Rinnai condensing water heaters. The revised error code table is provided below. Manual part number U290-665X03(00) has been updated with error code 70.

Code	Fault	Remedy
03	Power interruption during Bath Fill (Water will not flow when power returns).	Turn off all hot water taps. Press ON/OFF twice.
10	Air Supply or Exhaust Blockage	Ensure Rinnai approved venting materials are being used. Check that nothing is blocking the flue inlet or exhaust. Check all vent components for proper connections. Ensure vent length is within limits. Verify dip switches are set properly. Check fan for blockage. Burner Sensor Error (see code 31) Check the fins in the heat exchanger.
11	No Ignition	Check that the gas is turned on at the water heater, gas meter, or cylinder. Ensure gas type and pressure is correct. Ensure gas line, meter, and/or regulator is sized properly. Bleed all air from gas lines. Verify dip switches are set properly. Ensure appliance is properly grounded. Disconnect EZConnect™ or MSA controls to isolate the problem. Ensure igniter is operational. Check igniter wiring harness for damage. Check gas solenoid valves for open or short circuits. Remove burner cover and ensure all burners are properly seated. Remove burner plate and inspect burner surface for condensation or debris.
12	Flame Failure	Check that the gas is turned on at the water heater and gas meter. Check for obstructions in the flue outlet. Ensure gas line, meter, and/or regulator is sized properly. Ensure gas type and pressure is correct. Bleed all air from gas lines. Ensure proper Rinnai venting material was installed. Ensure vent length is within limits. Verify dip switches are set properly. Ensure appliance is properly grounded. Disconnect keypad. Disconnect EZConnect™ or MSA controls to isolate the problem. Check power supply for loose connections. Check power supply for proper voltage and voltage drops. Ensure flame rod wire is connected. Check flame rod for carbon build-up. Disconnect and reconnect all wiring harnesses on unit and PC board. Check for DC shorts at components. Check gas solenoid valves for open or short circuits. Remove burner plate and inspect burner surface for condensation or debris. Check the ground wire for the PC board.
14	Thermal Fuse	Check gas type of unit and ensure it matches gas type being used. Check for restrictions in air flow around unit and vent terminal. Check for low water flow in a circulating system causing short-cycling. Ensure dip switches are set to the proper position. Check for foreign materials in combustion chamber and/or exhaust piping. Check heat exchanger for cracks and/or separations. Check heat exchanger surface for hot spots which indicate blockage due to scale build-up. Refer to instructions in manual for flushing heat exchanger. Measure resistance of safety circuit. Ensure high fire and low fire manifold pressure is correct. Check for improper conversion of product.

Condensing Water Heater Error Codes

Code	Fault	Remedy
16	Over Temperature Warning	Check for restrictions in air flow around unit and vent terminal. Check for low water flow in a circulating system causing short-cycling. Check for foreign materials in combustion chamber and/or exhaust piping. Check for clogged heat exchanger.
25	Condensate Trap Error	Condensate container is full. Check condensate drain for blockage. Replace condensate trap.
31	Burner Sensor Error	Measure resistance of sensor. Replace sensor.
32	Outgoing Water Temperature Sensor Fault	Check sensor wiring for damage. Measure resistance of sensor. Clean sensor of scale build-up. Replace sensor.
33	Heat Exchanger Outgoing Temperature Sensor Fault	Check sensor wiring for damage. Measure resistance of sensor. Clean sensor of scale build-up. Replace sensor.
52	Modulating Solenoid Valve Signal Abnormal	Check modulating gas solenoid valve wiring harness for loose or damaged terminals. Measure resistance of valve coil.
61	Combustion Fan Failure	Ensure fan will turn freely. Check wiring harness to motor for damaged and/or loose connections. Measure resistance of motor winding.
65	Water Flow Control Fault	The water flow control valve has failed to close during the bath fill function. Immediately turn off the water and discontinue the bath fill function. Contact a state qualified or licensed contractor to service the appliance.
70	Sensor Harness Connection	Check PC board switches (in the bank of 6 switches, #2 should be on for indoor models and off for outdoor models) Check the connection harness at the E connection on the PC board. Outdoor models should have 2 orange cables at #7 and 8 positions. Indoor models should not have cables at these positions. If this is incorrect then replace the sensor harness. Replace PC board
71	SV0, SV1, SV2, SV3 and SV4 Solenoid Valve Circuit Fault	Replace PC board.
72	Flame Sensing Device Fault	Ensure flame rod is touching flame when unit fires. Check all wiring to flame rod for damage. Remove flame rod and check for carbon build-up; clean with sand paper. Check inside burner chamber for any foreign material blocking flame at flame rod. Measure micro amp output of sensor circuit with flame present. Replace flame rod.
73	Burner Sensor Circuit Error	Check sensor wiring and PC board for damage. Replace sensor.
LC	Scale Build-up in Heat Exchanger (when checking maintenance code history, "00" is substituted for "LC")	Flush heat exchanger. Refer to instructions in manual. Replace heat exchanger. NOTE: The LC code is the only error code that will allow the unit to keep running. The display will alternate between the LC code and the temperature setting. The controller will continue to beep. The LC code will reset if power is turned off and then on.
No code	Nothing happens when water flow is activated.	Clean inlet water supply filter. On new installations ensure hot and cold water lines are not reversed. Check for bleed over. Isolate unit from building by turning off cold water line to building. Isolate the circulating system if present. Open your pressure relief valve; if water is flowing, there is bleed over in your plumbing. Ensure you have at least the minimum flow rate required to fire unit. Ensure turbine spins freely. Measure the resistance of the water flow control sensor. Check for DC shorts at components.