

### ⚠ WARNING

Some of the checks below should be done by a licensed professional technician. Consumers should never attempt any action that they are not qualified to perform.

Code	Definition	Remedy
03	Power interruption during Bath Fill (Water will not flow when power returns).	Turn off all hot water taps. Press ON/OFF twice.
05	Bypass servo	Contact a licensed professional technician.
10	Air Supply or Exhaust Blockage	licensed professional technician only Ensure approved venting materials are being used. Ensure vent length is within limits. Verify if dip switches are set properly. Check fan for blockage. Burner Sensor (see code 31)
		Check that nothing is blocking the flue inlet or exhaust. Check all vent components for proper connections.
11	No Ignition (heater not turning on)	licensed professional technician only 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 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. Check the ground wire for the PC board.
		Check that gas is turned on at the water heater, gas meter, or cylinder. If the system is propane, make sure that gas is in the tank. Ensure appliance is properly grounded.
12	No Flame	licensed professional technician only 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 venting material was installed. Ensure condensation collar was installed properly. Ensure vent length is within limits. Verify if dip switches are set properly. 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 that the gas is turned on at the water heater, gas meter, or cylinder. Check for obstructions in the flue outlet. If the system is propane, make sure that gas is in the tank.
14	Thermal Fuse has activated	licensed professional technician only Check for restrictions in air flow around unit and vent terminal. Check gas type of unit and ensure it matches gas type being used. Check for low water flow in a circulating system causing short-cycling. Ensure dip switches are set to the proper position. If switch #5 in the SW2 bank is in the OFF position, turn it to the ON 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. Hard water must be treated to prevent scale build-up or damage to the heat exchanger. Measure resistance of safety circuit. Ensure high fire and low fire manifold pressure is correct. Check for improper conversion of product.
		Check for restrictions in air flow around unit and vent terminal.
16	Over Temperature Warning (safety shutdown because unit is too hot)	licensed professional technician only 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 blockage in the heat exchanger.
		Check for restrictions in air flow around unit and vent terminal.

In accordance with our company policy of on-going product improvement, Giant Factories Inc. reserves the right to make changes without prior notice.

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# TROUBLESHOOTING GUIDE

**Direct Vent Tankless Water Heater**  
Performance Series, UGTC

Code	Definition	Remedy
19	Electrical Grounding	licensed professional technician only Check all components for electrical short.
25	Condensate Trap is full	Check condensate trap and drain line for blockage.
31	Burner Sensor	Replace condensate trap.
32	Outgoing Water Temperature Sensor	Measure resistance of sensor. Replace sensor.
33	Heat Exchanger Outgoing Temperature Sensor	Check sensor wiring for damage. Measure resistance of sensor. Clean sensor of scale build-up. Replace sensor.
41	Outside Temperature Sensor	
51	Inlet Water Temperature Sensor	
52	Modulating Solenoid Valve Signal	
57	Burner	Check modulating gas solenoid valve wiring harness for loose or damaged terminals. Measure resistance of valve coil.
58	Secondary heat exchanger	Contact a licensed professional technician.
61	Combustion Fan	There is scale build-up in the secondary heat exchanger and it needs to be flushed to prevent damage. Refer to the flushing instructions in the manual. Hard water must be treated to prevent scale build-up or damage to the heat exchanger.
65	Water Flow Control	licensed professional technician only Ensure fan will turn freely. Check wiring harness to motor for damaged and/or loose connections. Measure resistance of motor winding.
70	PC Board	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 licensed professional technician to service the appliance.
71	Solenoid Valve Circuit	Check PC board DIP switches for correct position. Check the connection harness at the connection on the PC board. Replace PC board.
72	Flame Sensing Device	Replace the PC Board.
73	Burner Sensor Circuit	Verify flame rod is touching flame when unit fires. Check all wiring to flame rod. 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.
79	Water Leakage Detected	Check sensor wiring and PC board to be sure that they have not been damaged. Replace sensor.
LC # (LC0, LC1, LC2,...)	Scale Build-up in Heat Exchanger (when checking maintenance code history, "00" is substituted for "LC")	Turn off water supply and contact licensed professional technician.
FF	Maintenance has been performed	LC0-LC9 indicates that there is scale build-up in the heat exchanger and that the heat exchanger needs to be flushed to prevent damage. Refer to the flushing instructions in the installation manual. Hard water must be treated to prevent scale build-up or damage to the heat exchanger. To operate the water heater temporarily until the heat exchanger can be flushed, push the On/ Off button on the temperature controller five (5) times. Repeated LC codes will eventually lock out the water heater. Please call Giant technical department at 1-800-363-9354.
No code	Nothing happens when water flow is activated.	Indicates a licensed professional technician performed maintenance or corrected an issue.
		licensed professional technician only Clean inlet water supply filter. On new installations, ensure hot and cold water lines are not reversed. Verify you have at least the minimum flow rate required to fire unit.
		Check for cold to hot cross over. Isolate circulating system, if present. Turn off cold water to the unit, open pressure relief valve; if water continues to flow, there is bleed over in your plumbing. Verify if turbine spins freely. Measure the resistance of the water flow control sensor. If the display is blank and clicking is coming from the unit, disconnect the water flow servo motor (GY, BR, O, W, P, BL, R). If the display comes on, replace the water flow servo motor.

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40 Lesage Avenue, Montreal-East (Quebec) Canada H1B 5H3 • Telephone: (514) 645-8893 • Fax: (514) 640-0969