

NCC199(-SV, -DV), NRC111(-SV, -DV) Error Code Lists with Remote

Error Code	Description	Check Points	Recommended Tools	Notes
(F) 10	Combustion abnormality (BTU Drop) (Combustion continues after shutdown)	<ul style="list-style-type: none"> ▪ If unit is installed with a recirculation loop, use an aquastat to maintain a 10 degree differential. ▪ Check for material on burner which is burning after combustion stops (e.g. grease) 		Power must be disconnected to reset this error code.
(F) 11	Ignition failure	<ul style="list-style-type: none"> ▪ Check incoming gas pressure ▪ Check/clean ignition plug and flame rod (USE A GREEN SCRUB PAD <u>DO NOT USE SAND PAPER OR EMERY CLOTH</u>) ▪ Check for obstructions in venting ▪ Confirm correct gas type ▪ Grounding of the unit 	<ul style="list-style-type: none"> ▪ Screw driver ▪ Manometer ▪ Voltmeter 	
(F) 12	Flame rod does not detect flame; flame loss during operation	<ul style="list-style-type: none"> ▪ Check incoming gas pressure ▪ Check/clean ignition plug and flame rod (USE A GREEN SCRUB PAD <u>DO NOT USE SAND PAPER OR EMERY CLOTH</u>) ▪ Check for obstructions in venting ▪ Confirm correct gas type ▪ Grounding of the unit 	<ul style="list-style-type: none"> ▪ Screw driver ▪ Manometer ▪ Voltmeter 	
(F) 14	Thermal fuse failure	<ul style="list-style-type: none"> ▪ Thermal fuse must be replaced to resolve error code <p>Typical Reasons for Failure:</p> <ul style="list-style-type: none"> ▪ Poor combustion due to restriction of air flow; unit needs to be cleaned thoroughly ▪ Poor water quality; unit may need to be flushed or heat exchanger replaced 	<ul style="list-style-type: none"> ▪ Screw driver 	
(F) 16	Abnormally high output water temperature	<ul style="list-style-type: none"> ▪ Confirm proper gas type ▪ Typically resolved with a descale or a manifold pressure adjustment 	<ul style="list-style-type: none"> ▪ Screw driver ▪ Manometer ▪ De-scale equipment 	
(F) 20	High limit switch triggered	<ul style="list-style-type: none"> ▪ Descale heater ▪ Check operation of high limit switch 	<ul style="list-style-type: none"> ▪ De-scale equipment 	Power must be disconnected to reset this error code.
(F) 29	Neutralizer water level abnormality	<ul style="list-style-type: none"> ▪ Make sure neutralizer is draining properly ▪ Look for moisture on neutralizer water level sensor 		
(F) 31	Inlet thermistor abnormality	<ul style="list-style-type: none"> ▪ Check operation of cold water (inlet) thermistor 	<ul style="list-style-type: none"> ▪ Screw driver 	
(F) 32	Outlet thermistor abnormality	<ul style="list-style-type: none"> ▪ Check operation of hot water (outlet) thermistor 	<ul style="list-style-type: none"> ▪ Screw driver 	
(F) 33	Heat exchanger thermistor abnormality	<ul style="list-style-type: none"> ▪ Check operation of heat exchanger thermistor 	<ul style="list-style-type: none"> ▪ Screw driver 	
(F) 59	Combustion abnormality (low input BTU)	<ul style="list-style-type: none"> ▪ Check incoming gas pressure ▪ Check for blockage in venting ▪ Check for debris in fan motor or burner chamber ▪ Adjust unit for high elevation 	<ul style="list-style-type: none"> ▪ Screw driver ▪ Manometer 	
(F) 61	Fan motor abnormality	<ul style="list-style-type: none"> ▪ Check incoming voltage ▪ Check operation of the fan motor ▪ Check operation of the circuit board 	<ul style="list-style-type: none"> ▪ Screw driver ▪ Voltmeter 	
(F) 65	Main flow control valve abnormality	<ul style="list-style-type: none"> ▪ Check for blockage of main servo ▪ Check operation of main servo ▪ Main servo may need to be replaced 	<ul style="list-style-type: none"> ▪ Screw driver 	

(F) 66	Bypass flow control valve abnormality	<ul style="list-style-type: none"> ▪ Check for blockage of bypass servo ▪ Check operation of bypass servo ▪ Bypass servo may need to be replaced 	<ul style="list-style-type: none"> ▪ Screw driver 	
(F) 70	Circuit board abnormality	<ul style="list-style-type: none"> ▪ Occurs commonly after circuit board reprogramming ▪ May indicate damage to circuit board 	<ul style="list-style-type: none"> ▪ Screw driver 	
(F) 71	Gas valve drive circuit abnormality	<ul style="list-style-type: none"> ▪ Occurs commonly when unit is used with modified sine-wave voltage supply (e.g. batter backup, solar power, generator) ▪ Check voltage output from circuit board to gas valve; may indicate damage to circuit board 	<ul style="list-style-type: none"> ▪ Screw driver ▪ Voltmeter 	
(F) 72	Flame rod detection circuit abnormality (flame detected without ignition sequence)	<ul style="list-style-type: none"> ▪ Check unit grounding ▪ May indicate damage to flame detection circuit on circuit board 	<ul style="list-style-type: none"> ▪ Screw driver 	
(F) 73	Circuit board setting abnormality	<ul style="list-style-type: none"> ▪ Typically occurs when clips connected when power on ▪ Disconnect power to reset heater ▪ Check circuit board programming 	<ul style="list-style-type: none"> ▪ Screw driver 	Power must be disconnected to reset this error code.
F76	Multi-system communication error	<ul style="list-style-type: none"> ▪ Disconnect power to reset heaters ▪ Check quick connect cord 		
760	Remote controller transmission abnormality	<ul style="list-style-type: none"> ▪ Disconnect power to reset unit ▪ Make sure only one remote connected to heater (system) ▪ Check remote wire connections 		
(F) 90	Combustion abnormality	<ul style="list-style-type: none"> ▪ Check for blockage in flue vent ▪ Check incoming gas pressure ▪ Check gas type ▪ Check flame color; blue (good), yellow (heater needs to be cleaned) 	<ul style="list-style-type: none"> ▪ Screw driver ▪ Manometer ▪ Compressor 	Power must be disconnected to reset this error code.
(F) 92	Neutralizer life cycle warning	<ul style="list-style-type: none"> ▪ Neutralizer is past usable lifetime and should be replaced ▪ Burner timer must be reset after neutralizer is replaced 		
(F) 93	Neutralizer life cycle warning	<ul style="list-style-type: none"> ▪ Neutralizer is past usable lifetime and should be replaced ▪ Burner timer must be reset after neutralizer is replaced 		
(F) 99	Combustion abnormality	<ul style="list-style-type: none"> ▪ Check for blockage in flue vent ▪ Check incoming gas pressure ▪ Check gas type ▪ Check flame color; blue (good), yellow (heater needs to be cleaned) 	<ul style="list-style-type: none"> ▪ Screw driver ▪ Manometer ▪ Compressor 	Power must be disconnected to reset this error code.