

Inspection Check Sheet

The WaterHeater™ by ITR

June, 2005

NOTICE

No warranty will be extended to unapproved, unauthorized or improper installations. Use of any materials or equipment unsuited for their intended use will result in a voided warranty for The WaterHeater™ by ITR.

This Inspection Check Sheet is intended for use after the ITR heating products have been installed; it should also be used informally to monitor progress during the installation. Only authorized personnel may carry out the inspection and testing.

No rewiring of the WaterHeater™ by ITR is permitted unless it has been pre-approved by ITR.

1. Before Start-up Hour Meter Reading _____

✓	Step	1. Before Start-up
	1	The heater and all components are mounted in appropriate location according to ITR recommended guidelines, with required clearances for maintenance (minimum 3" for all open panels and unrestricted access to the front).
	2	All components, accessories and materials are ITR manufactured or appropriate for intended use.
	3	Length, routing and sizing of water hoses, fuel lines, air vents, combustion air intake hose, and exhaust tubing are of a suitable type and have been installed and connected according to the installation guide standards.
	4	The WaterHeater™ by ITR is properly exhausted (i.e. no exhaust fumes from unit will infiltrate the living area).
	5	The combustion inlet is drawing 100% outside air and is unrestricted.
	6	No exhaust parts are close to, touching or passing through any combustible material (unless fire-protected).
	7	All exhaust connections and fittings are secure and airtight. Proper clamps are used and no hoses are kinked or pinched.
	8	Fuel supply has a dedicated pickup from main diesel fuel tank.
	9	Fuel lines do not pass through areas of excess heat and are separated from water lines.
	10	Fuel lines are secure with no risk of becoming pinched, kinked, or damaged during normal operation.
	11	All DC wiring connections are correctly secured, sized and installed according to normally-accepted wiring practices and applicable standards (CSA or National Electrical Code).
	12	All AC electrical connections are correctly secured and sized to applicable standards (CSA or National Electrical Code).
	13	Battery connection is secure and, direct from The WaterHeater™ to house battery bank, with correct polarity.

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✓	Step	1. Before Start-up
	15	Battery connection is protected with a circuit breaker or heavy-duty fuse that is properly sized to the total system load and is protected from accidental disconnect.
	16	All external electrical connections are properly grounded.
	17	Water lines are suitable for domestic water and are properly insulated from the cold and protected from solvents where necessary.
	18	The Thru hull must be installed in such a way as to preclude water ingestion into The WaterHeater™ through the combustion fan intake or exhaust pipe due to wave action, the vessels wake or spray.
	19	If the air intake is attached to the thru hull ensure that it is placed between 10 o'clock and 2 o'clock and goosed necked similar to the exhaust to avoid water intake.
	20	Exhaust is goose necked to prevent water ingestion.
	21	The WaterHeater™ tank has been filled and flushed fully to remove any debris.

Comments: _____

Inspection #1 completed by: _____
Print name
Signature
Date

2. Initial Start-up

! DANGER

- Never** • operate The WaterHeater™ in an enclosed area without adequate ventilation
- shut off The WaterHeater™ power via an inline battery or master switch while system is running
 - disconnect battery when The WaterHeater™ is running
 - disconnect battery when inverter is on
 - leave The WaterHeater™ running in bypass mode while unattended (service technician only).
 - let the domestic circulating water pump run dry or operate The WaterHeater™ without the tank being fully filled.

✓	Step	2. Initial Start-up
	22	Turn the voltage at the main power feed to The WaterHeater™ on and ensure the voltage is between 11 VDC and 15 VDC. Turn on the power on/off button on The WaterHeater™ and the green power LED on the heater should light up.
	23	Turn on the AC element circuit breaker and the AC LED should light up on The WaterHeater™.

✓	Step	2. Initial Start-up
	24	Turn on The WaterHeater™ at the remote operating panel and the burner LED light should light up red. If the burner does not start, reset the system by turning the remote switch off/on. Since this is the initial start up the water in the tank should be cold enough for the burner to start. Ensure that the red indicator LED's for the AC and Burner remain lit.
	25	Ensure these signs of normal operation appear: <ul style="list-style-type: none"> • The green compressor, fuel pump, combustion fan, and igniter LED's on The WaterHeater™ should be lit. • The red flame out, voltage, and low water LED's on The WaterHeater™ should not be lit. If they are lit correct the situation per the Installation and Operating Manual.
	26	Ensure no leaks are present (check all hosing, connections, etc.).

Comments: _____

Inspection #2 completed by: _____

Print name Signature Date

3. Normal Operation

✓	Step	3. Normal Operation
	27	Ensure the burner continues to operate until the domestic water has reached the set temperature (The WaterHeater™ should produce 120°F water at this point).
	28	Ensure the domestic hot water system operates effectively (turn on hot water tap; hot water should run continuously; 52°F (29°C) difference from ambient at 1.5 GPM; use thermocouple to test temperature). Note a cold system takes approximately three minutes to attain operating temperature.
	29	If The WaterHeater™ cycles off on its own, ensure the combustion fan continues to operate for another two minutes to purge the burner.

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Comments: _____

Inspection #3 completed by: _____

Print name

Signature

Date

4. Shutdown

✓	Step	4. Shutdown
	30	When The WaterHeater™ is running and is turned off at the remote indicator panel the heater should run through its two minute purge cycle.
	31	If the heater will not be operated in low temperature conditions, drain the domestic water system and The WaterHeater™ completely to avoid freezing and damaging any components.

Hour Meter Reading at completion of check out _____

Comments: _____

Inspection #4 completed by: _____

Print name

Signature

Date

The WaterHeater™ Serial No.

Type of Installation (Marine or RV)

Owners Name / Address / Telephone Numbers

Supervisor and final sign-off: _____

Print name

Signature

Date

