



OWNER'S MANUAL

FOR

WATER HEATERS

CAUTION: READ INSTRUCTIONS BEFORE OPERATING APPLIANCE.

MODEL NUMBER _____ *F1100*

SERIAL NUMBER _____

IMPORTANT SAFETY INSTRUCTIONS

WARNING

When using electrical appliances, basic safety precautions to reduce the risk of fire, electrical shock, or injury to persons should be followed, including:

1. READ ALL INSTRUCTIONS BEFORE USING THIS WATER HEATER.
2. This water heater must be grounded. Connect only to properly grounded source. See "GROUNDING INSTRUCTIONS" found on Page 4, Item 7.
3. Install or locate this water heater only in accordance with the provided installation instructions.
4. Use this water heater only for its intended use as described in this manual.
5. Do not use an extension cord set with this water heater. If no junction box is available adjacent to the water heater, contact a qualified electrician to have one properly installed.
6. As with any appliance, close supervision is necessary when used by children.
7. Do not operate this water heater if it has a damaged power supply line, if it is not working properly, or if it has been damaged or dropped.
8. This water heater should be serviced only by qualified service personnel. Contact nearest authorized service facility for examination, repair, or adjustment.

WARNING

This water heater is equipped with a heat exchanger. Extended engine coolant circulation through the heater may result in excessively hot water.

This water heater tank and heat exchanger is made of aluminum. Some engine manufacturers recommend that cooling system be flushed periodically. Caustic chemicals are commonly used. **DO NOT** flush caustic chemicals (such as Nalcool) through your system with the heat exchanger hooked up or damage **WILL** occur to heater.

If flushing is required by your engine manufacturer, you must isolate heater from this process. After system flushing is complete and neutralized, you can then re-plumb heater. Make sure recommended automotive type premixed ethylene glycol coolants such as Prestone, Xerex, or Peak are used for replacement. Damage that occurs to heater due to chemical reaction by caustic chemicals **IS NOT** under warranty.

CAUTION

Hydrogen gas can be produced in a hot water system served by these heaters that have not been used for a long period of time (generally 2 weeks or more). Hydrogen gas is extremely flammable. To reduce the risk of injury under these conditions, it is recommended that the hot water faucet be opened for several minutes at the kitchen sink before using any electrical appliance connected to the hot water system. If hydrogen is present, there will be an unusual sound such as air escaping through the pipe as the water begins to flow. There should be no smoking or open flame near the faucet at the time it is open.

Small amounts of electric currents may move to your boat through your shore cord, causing galvanic damage to your water heater. To help prevent possible damage, a galvanic isolator is recommended. Galvanic corrosion **IS NOT** covered under warranty.

ANODES

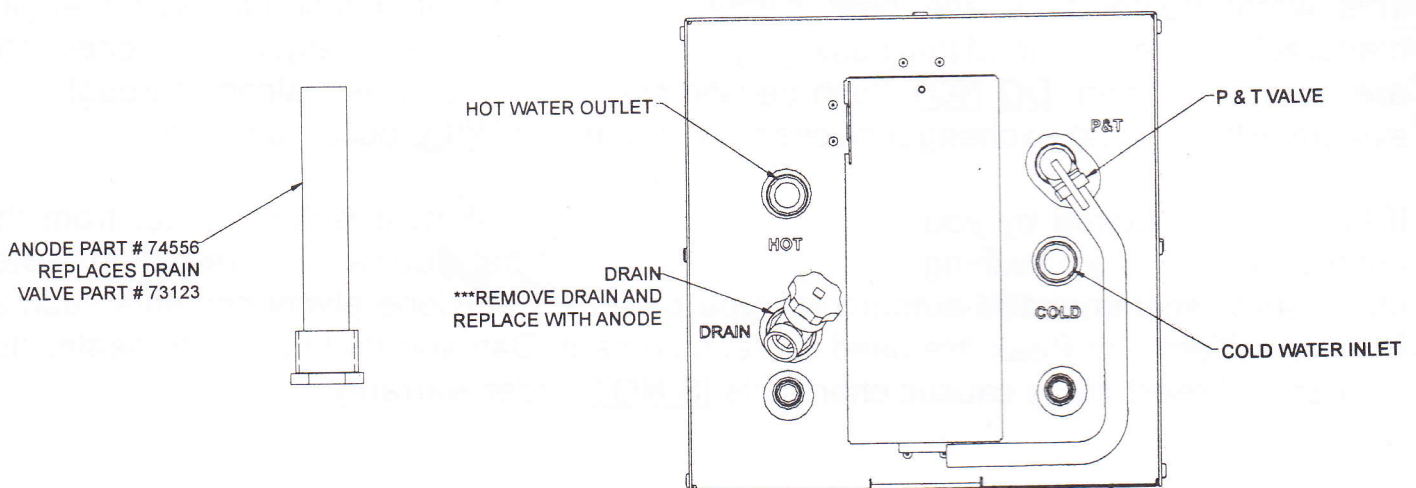
In a small number of instances tap water may have sufficient concentrations of dissolved salts to cause corrosion of the heater tank. Anode rods preserve the life of a water heater by corroding themselves so the water heater doesn't. These anode rods are easy to install! Simply replace the drain plug with this product to protect the water heater tank.

Note:

DO NOT USE ZINC ANODES. THEY WILL NOT PREVENT CORROSION TO YOUR HEATER TANK!!!!

If you live in an area known to have such water please contact our customer service department at 616-897-9241 to order a Magnesium Anode.

Part No. 74556, Magnesium 4" Anode with 3/4" thread to replace drain valve.



NOTICE

This temperature / pressure valve may weep during initial operation. This is normal. The valve will seat itself with use. A drain hose should be installed at this valve directed into bilge.

If the boat is connected to the dockside water system, make sure to turn off the system at the dock when not attended. Also make sure a pressure regulator is used to control pressure.

OPERATING INSTRUCTIONS

1. Fill water system and completely fill tank.
2. Locate and turn remote electrical switch to "ON".
3. Turn switch to "OFF" position prior to draining water system.
4. The temperature / pressure valve may weep during initial operation. This is normal. The valve will seat itself with use.

NOTE: DO NOT OPERATE HEATER WITHOUT ELEMENT BEING SUBMERGED IN WATER

MAINTENANCE

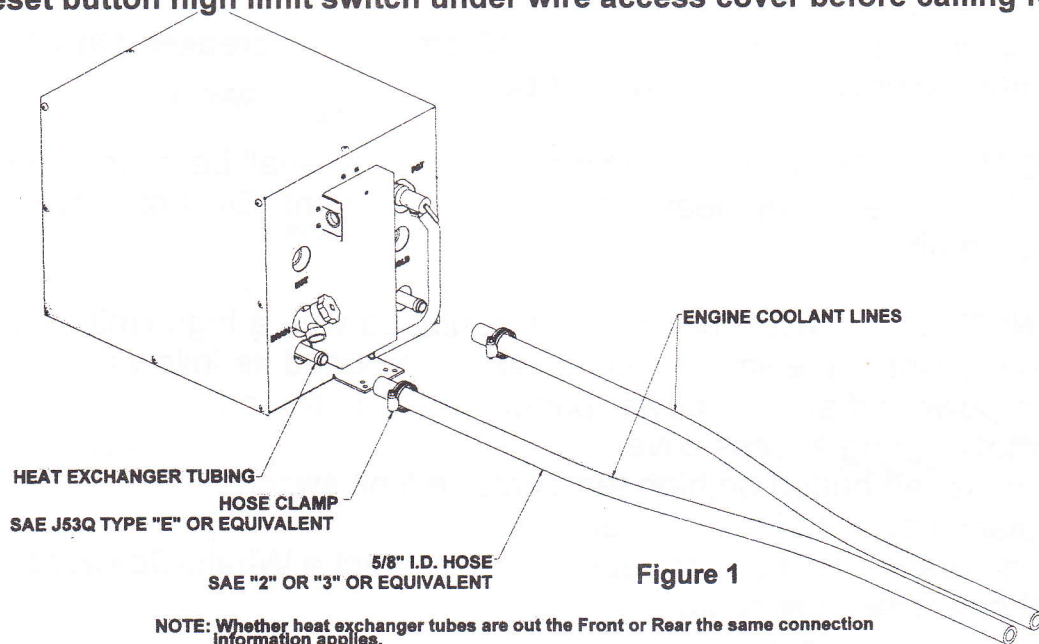
1. Check heat exchanger lines for leaks at regular intervals. A leak in the system will cause coolant loss and may damage engine.
2. Flush tank periodically to help prevent build-up of deposits.
3. Protect against damage from freezing temperatures (32° F or less)

Please review the following:

- a) Drain tank by fully opening drain valve. Open T&P valve to help relieve vacuum in tank. (See item 2 in exploded view)
- b) It is recommended you winterize your fresh water system. First complete step 3a, then follow instructions of your local supplier regarding chemicals to use and how to use them.

CAUTION

If heater has been run without water and now fails to work, fill heater tank with water and push electric reset button high limit switch under wire access cover before calling for service.



INSTALLATION

NOTE: DO NOT INSTALL THE WATER HEATER ON ITS SIDE OR UPSIDE DOWN

1. Locate water heater at engine level as close to engine as possible.
2. Secure mounting brackets to structure with eight #12 minimum screws or 1/4 - 20 minimum cap screws and nuts.
3. Connect cold water supply and hot water outlet to heater as marked, 1/2" N.P.T. fittings.
4. Connect heat exchanger system described in **Figure 1**. Make sure coolant system is completely purged of air and full of coolant before operating.
5. Pressure temperature relief valve is factory installed. The pressure relief shall limit the pressure to 127.5 PSI (879.3 KPA) minimum, 150 PSI (1034.2 KPA) maximum.

The valve must be oriented, provided with tubing, or otherwise installed so that discharge can exit no more than 6 inches above, or at any distance below the structural floor, and cannot contact any live electrical part.

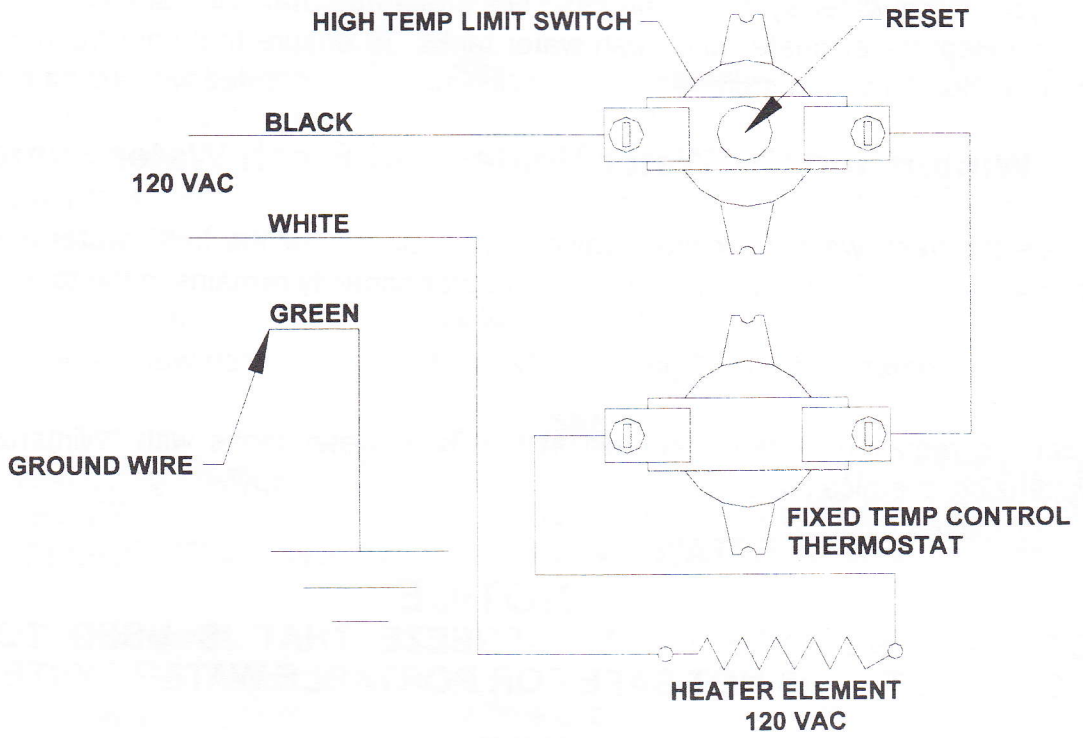
Install replacement temperature and pressure protective equipment required by local codes, but not less than a combination temperature and pressure relief valve certified as meeting the requirements for relief valves and automatic gas shutoff devices for hot water supply systems, ANSI Z21.22 by a nationally recognized testing laboratory that maintains periodic inspection of production of listed equipment or materials.

6. Connect the electrical supply by a qualified electrician. The electrical supply shall be permanent wiring, armored cable or conduit, per national electrical code NFPA 70, with a minimum capacity of 1500 watts.

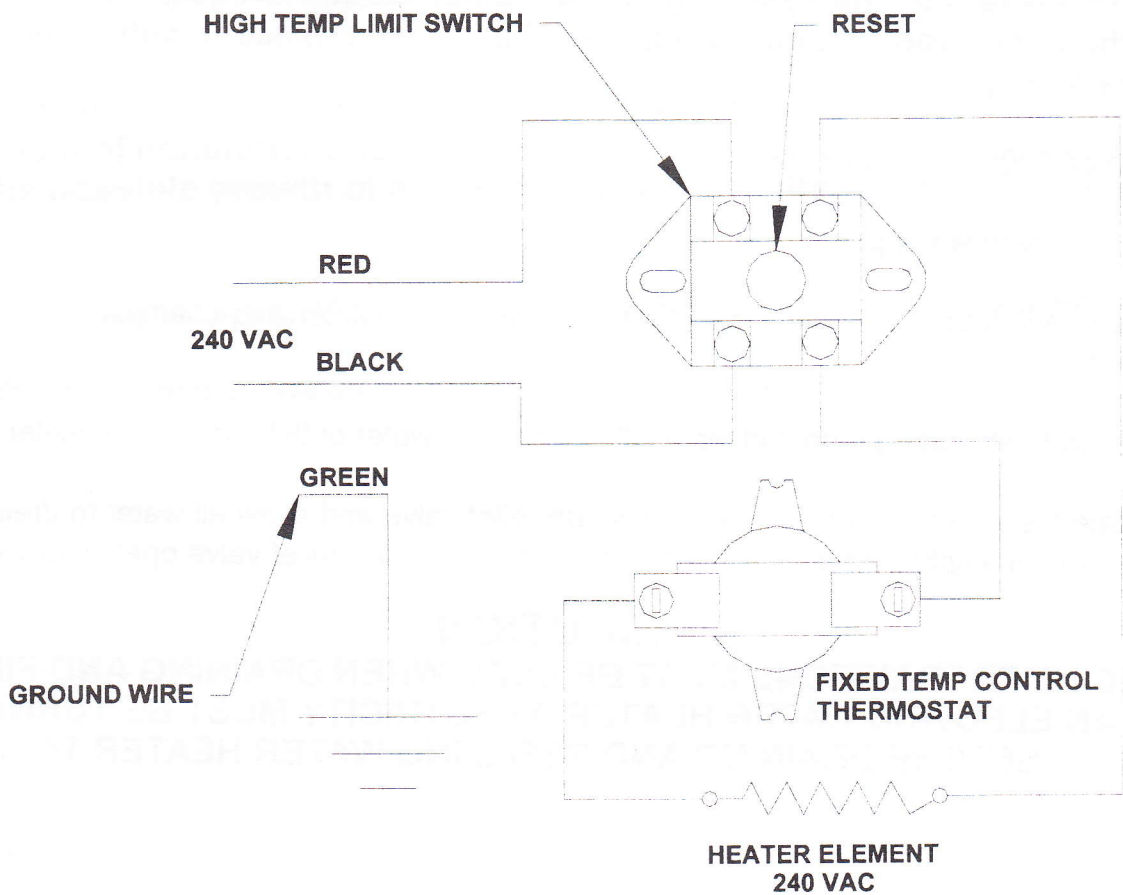
On 120 volt circuits, use a UL approved 15 amp circuit breaker. On 240 volt circuits, use a 10 amp approved circuit breaker per leg.

7. **GROUNDING INSTRUCTIONS:** The supply ground shall be connected to the green wire located in the water heater wiring compartment. Do not place switch in the grounding circuit.
8. **RESET INSTRUCTIONS:** The heater is equipped with a high limit switch which can be manually reset. If the limit switch activates, proceed as follows:
 - Turn power off at main power panel or remote switch
 - Remove wiring access cover
 - Depress red button on high temperature limit switch
 - Replace cover and turn power on
 - If temperature limit switch reactivates, contact a Whale-Seaward Authorized service center.

WIRING DIAGRAM FOR 120V



WIRING DIAGRAM FOR 240V



Winterizing Your Whale[®] Heat Water Heater

Winterizing your fresh water system is an essential procedure that will maintain the life and longevity of your Whale Heat water heater and fresh water tanks. To ensure that your fresh water system has adequate protection for winter storage, use the following recommended winterizing procedure.

Winterizing the Water Heater and Fresh Water System

1. Locate the fresh water tank drain valve or plug and allow the fresh water tanks to drain until approximately 115% to 120% of the water heater capacity remains in the tanks.

Example: If water heater is 11 gallons = 12 to 13 gallons in fresh water tanks.

2. Treat the remaining fresh water left in the fresh water tanks with "Winterizing Chemicals". Winterizing chemicals are non-toxic antifreeze that is a propylene-glycol base and are safe for portable water systems.

NOTICE

DO NOT USE THE TYPE OF ANTI-FREEZE THAT IS USED TO WINTERIZE AUTOMOBILES. THIS IS NOT SAFE FOR PORTABLE WATER SYSTEMS.

NOTICE

Antifreeze can be very corrosive to the anode rode. The result will be accelerated deterioration of the rod and heavy sediment in the tank. If you intend to winterize by adding antifreeze into the system and your water heater is equipped with an anode, remove the anode rode (storing it for the winter) and replace it with a 3/4" male pipe thread drain plug.

3. Turn off 120V or 240V AC power.
4. Turn on fresh water pump.
5. Open each faucet and water outlet one at a time until winterizing chemical is apparent at the opening.
6. Turn off fresh water pump and leave all faucets and water outlets open over winter.
7. Locate the water heater drain and pressure relief valve and allow all water to drain from water heater until empty. Leave water heater drain and pressure relief valve open over winter.

CAUTION

SPECIAL PRECAUTIONS MUST BE USED WHEN DRAINING AND FILLING AN ELECTRIC WATER HEATER. ELECTRICITY MUST BE TURNED OFF BEFORE DRAINING AND REFILLING WATER HEATER TANKS.

De-Winterizing the Water Heater and Fresh Water System

1. Close all faucets, water outlets, the water heater drain and pressure relief valve.
2. If during the winterizing procedure the anode was removed and replaced with a 3/4" male pipe thread drain plug, remove the drain plug and replace with anode.
3. Fill fresh water tanks with fresh water approximately so that 115% to 120% of the water heater capacity remains in the fresh water tanks.

Example: If water heater is 11 gallons = 12 to 13 gallons in fresh water tanks.

CAUTION

SPECIAL PRECAUTIONS MUST BE USED WHEN DRAINING AND FILLING AN ELECTRIC WATER HEATER. ELECTRICITY MUST BE TURNED OFF BEFORE DRAINING AND REFILLING WATER HEATER TANKS.

4. Turn on fresh water pump.
5. Open each faucet and water outlet one at a time until winterizing chemical is no longer apparent at the opening. This allows the fresh water to flush the winterizing chemicals out of the fresh water system.
6. Fill fresh water tanks to 100% capacity.

NOTICE

Whale Heat recommends that while filling the fresh water storage tanks that a small amount of common household bleach be added to the fresh water system to control the possible growth of algae. If an algae condition starts it is very difficult to control.

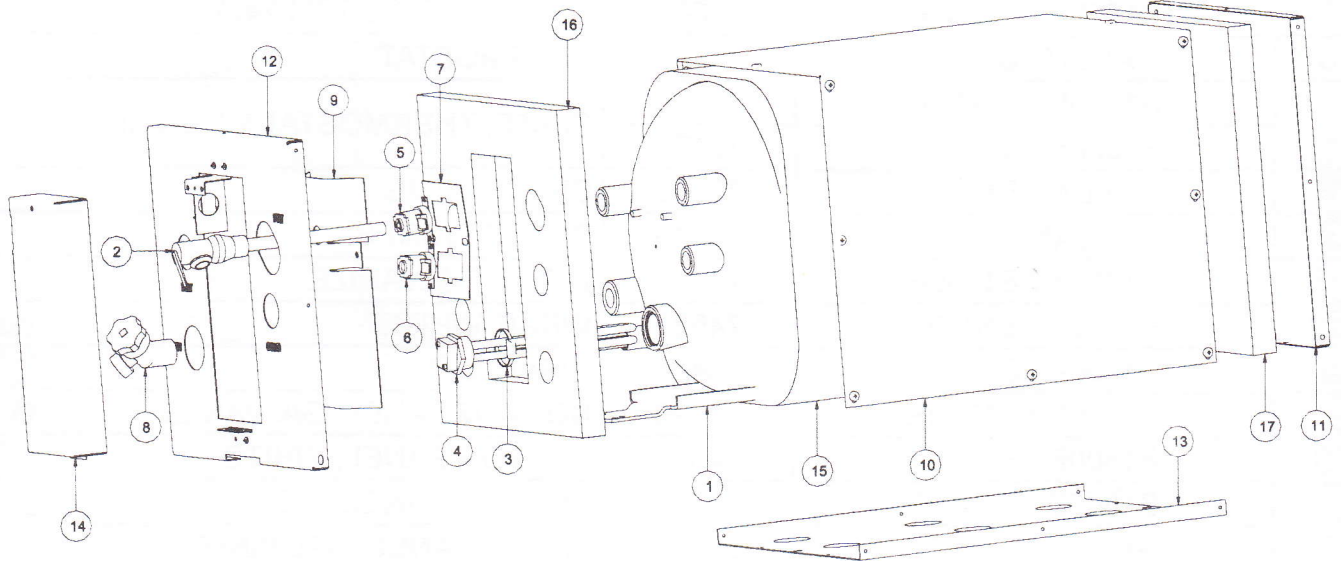
Example: 1 oz. of bleach for every 50 gallons of fresh water.

7. Fresh water system is now de-winterized and ready for use.

PARTS LIST MODELS

S600, S650, S700, S750, F600, F650, F700, F750

S1100, S1150, S1200, S1250, F1100, F1150, F1200, F1250



ITEM	MODEL NO	PART NO	DESCRIPTION	
1	S600 / S700	80253	TANK ASSEMBLY	
	F600 / F700	80309		
	S1100 / S1200	80254		
	F1100 / F1200	80310		
2	ALL MODELS	73127	TEMPERATURE/PRESSURE VALVE	
3	ALL MODELS	73124	GASKET, HEATING ELEMENT	
4	ALL 120V MODELS	74031	1500W HEATING ELEMENT	
	ALL 240V MODELS	74032		
5	ALL 120V MODELS	74563	HIGH LIMIT SWITCH	
	ALL 240V MODELS	74607		
6	ALL MODELS	73129	THERMOSTAT	
7	ALL 120V MODELS	73148	PLATE, THERMOSTAT MOUNTING	
	ALL 240V MODELS	73171		
8	ALL MODELS	73123	DRAIN VALVE	
9	ALL MODELS	73145	SHIELD, WIRES	
10	S600 / S650 / F600 / F650	73137	WRAP, GALVANIZE	
	S600 / S650 / F600 / F650	74661	WRAP, WHITE	
	S700 / S750 / F700 / F750	73283	WRAP, S.S.	
	S1100 / S1150 / F1100 / F1150	73166	WRAP, GALVANIZE	
	S1100 / S1150 / F1100 / F1150	74665	WRAP, WHITE	
	S1200 / S1250 / F1200 / F1250	73287	WRAP, S.S.	
11	S600 / S650	73140	BOTTOM PANEL, GALVANIZE	
	F600 / F650	73888		
	S600 / S650	74681	BOTTOM PANEL, WHITE	
	F600 / F650	74663		
	S700 / S750	73286	BOTTOM PANEL, S.S.	
	F700 / F750	73887		
	S1100 / S1150	73169	BACK PANEL, GALVANIZE	
	F1100 / F1150	73941		
	S1100 / S1150	74691		BACK PANEL, WHITE
	F1100 / F1150	74667		
	S1200 / S1250	73290		BACK PANEL, S.S.
	F1200 / F1250	73942		

ITEM	MODEL NO.	PART NO	DESCRIPTION	
12	S600 / S650	80648	FRONT PANEL, GALVANIZE	
	F600 / F650	80649		
	S600 / S650	80652	FRONT PANEL, WHITE	
	F600 / F650	80653		
	S700 / S750	80650	FRONT PANEL, S.S.	
	F700 / F750	80651		
	13	S1100 / S1150	80654	FRONT PANEL, GALVANIZE
		F1100 / F1150	80655	
		S1100 / S1150	80658	FRONT PANEL, WHITE
		F1100 / F1150	50659	
S1200 / S1250		80657	FRONT PANEL, S.S.	
F1200 / F1250		80656		
14	S600 / S650 / F600 / F650	73138	BASE, GALVANIZE	
	S600 / S650 / F600 / F650	74664	BASE, WHITE	
	S700 / S750 / F700 / F750	73284	BASE, S.S.	
	S1100 / S1150 / F1100 / F1150	73170	BASE, GALVANIZE	
	S1100 / S1150 / F1100 / F1150	74668	BASE, WHITE	
	S1200 / S1250 / F1200 / F1250	73288	BASE, S.S.	
15	ALL MODELS	73141	ACCESS, COVER GALVANIZE	
		73291	ACCESS, COVER S.S.	
		74669	ACCESS, COVER WHITE	
16	S600 / S650 / F600 / F650	73146	INSULATION, WRAP	
	S1100 / F1100 / S1200 / F1200	73175		
17	S600 / S700	73147	INSUALTION, FRONT	
	F600 / F700	74225		
	S1100 / S1200	73176		
	F1100 / F1200	74227		
18	S600 / S700	73330	INSULATION, BACK	
	F600 / F700	74226		
	S1100 / S1200	73331		
	F1100 / F1200	74228		

LIMITED TWO YEAR WARRANTY

WHALE® HEAT warrants the products delivered will be:

- A. Free from (1) encumbrances and (2) defects in material and workmanship under the normal use and service.
- B. Will meet applicable specifications and descriptions at time of delivery to BUYER.

The obligation of WHALE HEAT under this warranty is limited to the repair, rework, or replacement at WHALE HEAT'S option, any part or component thereof, which examination discloses to our satisfaction to have been nonconforming or defective. WHALE HEAT, after establishing customer's purchase date and determining problem to be under warranty, will either repair the product at their factory or authorized service center and allow labor and parts for (2) two years from purchase date. Transportation charges are the responsibility of the customer. Conditions not covered under warranty are:

- (1) Corrosion due to electrolysis
- (2) Cracking of the tank due to freezing water
- (3) Routine maintenance that may be required

The foregoing warranty and condition shall apply to any repaired, reworked, or replaced products, part or component supplied by WHALE HEAT and shall in no event be liable to BUYER OR BUYER'S customers for any incidental or consequential damages, or loss of use, or other losses, however occasioned.

Implied warranties of merchantability and of the fitness of the product for any purpose are warranted for a period of two years on parts and labor.

WHALE HEAT makes no warranties, expressed or implied after that time.

Some states do not allow limitation on how long an implied warranty lasts or for the exclusion or limitations of incidental or consequential damages, therefore, the above limitations may not apply to you.

This warranty is extended to the original purchaser only, unless purchased for purpose of resale. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

REPAIR PARTS

Repair parts listed herein may be ordered through Attwood Corporation, Attwood Distributors and Dealers, or Dealer's Authorized Service Centers. All parts will be shipped at prevailing prices.

When ordering repair parts, please give the following information:

1. The part number
2. The part description
3. The model number of the water heater
4. The serial number of the water heater

The model number and serial number of the water heater will be found on the rating plate located on the front panel. For the Authorized Service Center nearest you, please contact Attwood Corporation.

Attwood Corporation
1016 North Monroe Street
Lowell, MI 49331
Tel: (616) 897-9241
USAsales@whalepumps.com