



OWNER'S MANUAL **THERMA-FLO® SERIES PUMPS** **WITH "ENVIRO-HEAT" TECHNOLOGY®**

Congratulations!

The spa bath you have selected is one of the finest available! One of the many qualities that made *this* spa bath the best - is the use of Aqua-Flo's **Therma-Flo®** pump with Enviro-Heat Technology. The **Therma-Flo® EHT** pump was designed with you, the user, in mind...to provide you with the highest performance at a much lower operating cost, as compared to any other pump in its class. The **Therma-Flo® EHT** pump does not utilize traditional power hungry heaters to heat-up or maintain the temperature of water in your spa bath; rather, it recovers the heat generated during the transition of electrical energy to mechanical energy. Through this innovative method, the **Therma-Flo® EHT** pump does not use additional energy to heat up the water, making this the most energy efficient and environmentally friendly pump available. By making this intelligent purchase decision, you will save money *and* you have helped the environment.

More About Aqua-Flo...

Aqua-Flo is the leading supplier of pumps to the Leisure Water Industry, serving the portable spa, jetted bath and swimming pool industries since 1971. Headquartered in Chino, California, U.S.A., Aqua-Flo has manufactured and sold millions of pumps worldwide from our state-of-the-art manufacturing facility. Our skilled and experienced associates utilize the best computer design and simulation softwares for original product development. We, at Aqua-Flo, pride ourselves on our high quality, reliable & innovative products; while providing unparalleled customer service. We are committed to provide you with the most pleasant and hassle free experience - guaranteed.

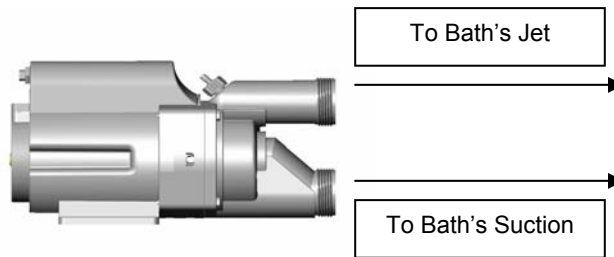
IMPORTANT: This pump is intended for spa bath use ONLY,
and is not suitable for any other application.

INSTALLATION & OPERATING INSTRUCTIONS

Therma-Flo® Series Pumps

MOUNTING PREPARATION

1. Find a suitable indoors mounting location where the pump is close to the spa bath, as safely as possible, but remains inaccessible to the person in the spa bath.
 - a. The pump's suction port (inlet) must be lower than the normal operating bath water level to ensure proper pump priming, but higher than the spa bath suction to ensure correct draining. When emptied, the water must drain back into the spa bath as required by Health Department Regulations.
 - b. The discharge port (outlet) should be lower than the water level and the plumbing should be horizontal or rise slightly to prevent airlocks. Airlocks will prevent the pump from properly priming.



2. This pump is intended for permanent installation only and must not be used in portable service application. The mounting surface must be constructed from durable material and supported securely in a horizontal position.
3. A clearance of at least 7.5 cm (3") on all sides (top, sides, front, and back) is required for ease of installation and air circulation. Enclosures must be adequately ventilated to promote free flow of air and prevent condensation.
4. Provision for securing the plumbing leading to the pump must be considered to avoid undue stress to the pump's connections.
5. The pump requires 220-240 Volts A.C., 10 amperes minimum, 50 Hz, single-phase power supply supplied through a Residual Current Device (RCD) with a rated tripping current not exceeding 30 mA.

Above are the minimum requirements required for installing this pump. Additional requirements, standards, and codes, mandated by government agencies on specific areas where the pump will be installed, must be followed.

WARNINGS

(may cause serious injuries or death)

- *The power supply must be turned off during the installation process.*
- *This pump is wired for 220-240 VAC, 50 Hz, and Single Phase power supply only. The power supply should be supplied through a Residual Current Device (RCD) with a rated tripping current not exceeding 30 mA.*
- *No part of the pump is to be located above the spa bath during use. Parts incorporating electrical components, except remote control devices, must be located or fixed so that they cannot fall into the spa bath.*
- *Pump and other parts containing energized or live parts, except parts supplied with safety extra low voltage not exceeding 12 V, must be INACCESSIBLE to a person in the spa bath.*
- *Pump must be mounted on top of a horizontal and solid surface; fixed securely using screws or bolts through the 4 mounting holes located on the base.*
- *The appliance is not intended for use by young children or infirm persons without supervision.*
- *Young children should be supervised to ensure that they do not play with the appliance.*

CAUTION

(may cause property damage)

- *This pump is intended for **Spa Bath use ONLY**, and is not suitable for any other application.*
- *The pump is NOT self-priming; therefore, the water fill-level of the spa bath must be equal or higher than the pumps suction port (inlet).*
- *DO NOT run the pump without water. This may damage pump and its components.*
- *DO NOT open or service the pump. There are no "user serviceable" parts or assemblies inside. This pump contains dielectric oil used to cool down the motor. The amount of oil contained herein was precisely measured for optimum performance. Opening or altering the pump will void the warranty.*
- *This pump is a Type Y Attachment. If the supply cord needs to be replaced, please contact your local authorized dealer.*

INSTALLATION

1. Be sure that the requirements under Mounting Preparation section have been met.
2. The pump is provided with barrel unions to connect the pump's Suction port (inlet) and Discharge port (outlet) to the plumbing. The plumbing must be routed or oriented in a way that when the pump is installed, the port connections are not subjected to undue stress.

INITIAL START-UP

1. Fill the spa bath with water to the normal operating bath water level.
2. Open all the valves within the plumbing system.

CAUTION

(may cause property damage)

- *DO NOT run the pump without water. If pump fails to prime within 30 seconds, turn it off. Check if there is an airlock, clogged plumbing, or closed valve.*

1. Turn the power supply "ON".
2. If the pump has an air switch, depress the air button switch to turn the pump "ON" or "OFF".
3. Check plumbing system for leaks.

OPERATION

1. Fill the spa bath with water to the normal operating bath water level.
2. Depress the air button switch to turn the pump "ON".
3. Depress again, to turn it "OFF".
4. Be sure to drain the water from the spa bath after each use.

MAINTENANCE

This pump does not require periodic cleaning or maintenance to perform properly. It was designed and built to be trouble free. If, for some reason, the pump leaks or fails to perform after completing the troubleshooting procedure below, please contact your local *Authorized Dealer* for assistance. If it is still under warranty, we will replace it free.

AUTO BLEED ACTIVATION AND OPERATION

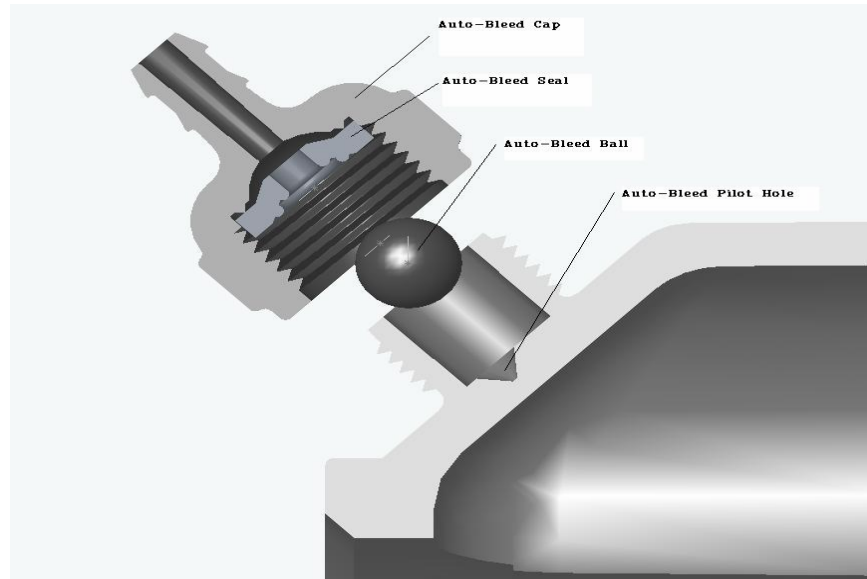
There is a possibility that under certain conditions, the Therma-Flo EHT front discharge pump may experience issues with air locking. In order to allow the user to easily eliminate the air lock, these pumps are equipped with an Auto Bleed Valve to release air.

Follow these steps to activate the Auto Bleed Valve:

1. Drain the pump.
2. Remove the threaded cap with seal and the ball supplied on the pump.
3. Drill a small (approximately 2 mm) hole inside the cavity through the pilot hole in the pump housing.
4. Replace the ball and cap with seal.
5. Connect one end of a small tube to the valve cap and the other end to an appropriate drain.
6. Refill the pump.

Once completed, trapped air should be automatically released during filling.

See diagram on next page.



TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
Pump Does Not Run	Power cord not plugged in	Plug in power cord
	Power supply is OFF	Turn power supply ON and/or replace fuse
	Air switch is OFF	Depress the air button
	Residential Current Device (RCD) tripped	Unplug power cord, reset RCD, check power in receptacle and plug in power cord
	Motor over heats	Let the motor cool down
Pump Still Does Not Run, Even After Performing #1	Air tube disconnected	Connect tube to air switch and air button nipples, secure
	Air tube damage/leaks	Replace tube
	Air tube kinked	Remove kink and properly route the tube
	Air button damaged	Replace air button
Pump Runs But Low or No Water Pressure on Jets	Air switch damaged	Replace air switch
	Closed valves	Open valves
	Low water level in spa bath	Fill spa bath up to the normal bath water level
	Airlock in the plumbing	Bleed air from plumbing
	Clogged or blocked plumbing	Open air-venturi control valve to release air trapped in plumbing

<p style="text-align: center;">THERMA-FLO® SERIES PUMPS LIMITED WARRANTY AQUA-FLO, LLC</p>
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WARRANTS TO:

The original retail purchaser only, that the products they manufacture are free from defects in material and/or workmanship for a period of five years (pump seals warranty for 30 days) from date of purchase. If within the first two years, any such products shall prove defective, it shall be repaired or replaced at AQUA-FLO's option as follows:

The original retail purchaser shall first contact the installing dealer, as soon as possible after discovery of the defect, but in no event later than expiration date of this warranty. Or upon notification,

AQUA-FLO, LLC

Customer Service Department
P.O. Box 2526, Chino, CA 91708

Will advise the consumer of the address to which the defective item may be shipped, together with the model number, serial number and date of purchase of item claimed to be defective. The consumer must pay for all shipping charges.

If within the years three through five any such product shall prove defective, the original retail purchaser shall be entitled to purchase replacement equipment or components at the following percentage off the current published list price:

Third year	60%
Fourth year	40%
Fifth year	20%

EXCLUSIONS:

- 1) This warranty shall not apply to failures resulting from negligence, abuse, misuse, misapplication, improper installation, alteration or modification, chemical corrosion, or improper maintenance.
- 2) Any items manufactured by other companies and used by AQUA-FLO in its products may carry warranties by the original manufacturers.
- 3) AQUA-FLO is not liable for incidental or consequential damages, loss of time, inconvenience, incidental expenses, labor or material charges in connection with removal or replacement of the equipment.

AQUA-FLO is not responsible for any implied warranties or representations by others and the foregoing warranty is exclusive and in lieu of all warranties provided herein.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.



PUMPS FOR THE LEISURE WATER INDUSTRY™

P.O. Box 2526 / Chino, CA USA 91708

Shipping: 5651 Schaefer Ave. / Chino, CA USA 91710

FAX: 909/627-5660 * TEL: 909/591-7453 * www.aqua-flo.com