



# TSUNAMI AERATOR PUMP

INSTALLATION INSTRUCTIONS

09/01

69391 Rev. B

## SAVE THESE INSTRUCTIONS

### ⚠ DANGER

If Aerator is installed thru-hull, remove boat from water to service this pump. Do not use this pump to remove gasoline or other flammable liquids.

### ⚠ WARNING

Most of the aerator pump, plumbing and connections are below the water level. Do not attempt to install, adjust, service or remove this product while the boat is in the water. Failure to follow these instructions could result in a large volume of water flooding and sinking your boat. Any leak will allow water to enter the boat.

To prevent personal injury, always disconnect the power source when installing or servicing any electrical product.

Use the fuse amperage rating specified for your model pump.

Refer to Specification and Accessories Charts to be sure you have selected the proper components:

## SPECIFICATIONS CHART

Part Num./Series	ABYC Specifications @13.3 VDC (GPH = Gal. Per Hour)				ISO Specifications @12.0 VDC (LPH = Liters Per Hour)			
	Hole Saw Size	Amp Fuse	0 ft. Head GPH/amps	3.3 ft. Head GPH/amps	6.7 ft. Head GPH/amps	0kPa Head LPH/amps	10kPa Head LPH/amps	Max Head (ft. @ 13.6v/kPa @ 12v)
4640/500	1-1/8"	2.5A	500/1.8	440/1.8	265/1.8	1705/1.5	1420/1.5	10' 5"/30
4650/800	1-1/8"	4A	800/3.0	670/3.0	525/3.0	2900/2.6	2350/2.6	14'/35
4660/1200	1-3/8"	5A	1200/3.5	900/3.5	700/3.5	4320/3.4	3145/3.4	10' 5"/26

## ACCESSORIES CHART

	A.	B.	C.	D.	E.	F.	G.	H.
<b>3/4" O.D. OUTLET MODELS</b>								
Part Num./Series	Inlet Hose I.D.	3/4" Inlet Hose Connector	3/4" O.D. Thru Hull	3/4" Threaded Outlet Connector	Remote Bracket	S.S. Inlet Strainer	Spray Head	Replacement Motor Cartridge
4640/500	3/4"	3899	66547	3890, 90°	4122	4232	4125	4620
4650/800	3/4"	3899	66547	3890, 90°	4122	4232	4125	4622
<b>1-1/8" O.D. OUTLET MODELS</b>								
Part Num./Series	Inlet Hose I.D.	1-1/8" Inlet Hose Connector	1-1/8" O.D. Thru Hull	1-3/8" Threaded Outlet Connector	Remote Bracket	S.S. Inlet Strainer	Spray Head	Replacement Motor Cartridge
4660/1200	1-1/8"	3902	66549	3891, 90°	4121	4234	4127	4624

## MOUNTING LOCATIONS

- The aerator can be mounted directly through the transom, at least 2" (5.1 cm) below the static water line. (Figure 1)
- The aerator can also be remotely installed on a marine-plywood mounting pad. This requires an Attwood Remote Bracket — see Accessories Chart for size. (Figure 2)
- For NPT threaded versions (4643, 4653 and 4663), the aerator is designed to be threaded into a 3/4" (1.9 cm) (4643, 4653) or 1" (2.6 cm) (4663) plumbing connection (ball valve, seacock, etc.). (Figure 3)

**IMPORTANT:** To avoid airlock, do not allow dips or sharp bends in outlet or inlet hoses.

## DIRECT MOUNTING INSTRUCTIONS

See Accessories Chart for size / part number of Outlet Hose Connector.

- With boat out of the water, select a suitable location at least 2" (5.1 cm) below the water line. Use a hole saw (See Specification Chart for size — compare against aerator inlet) to drill a hole through the transom. (Figure 1)
- Apply polyurethane marine sealant (Attwood 30106) to the nut and to threaded side of the aerator flange.
- Install the aerator inlet through the transom and assemble the nut. Tighten the nut handtight. Use wrench to tighten 1/4 additional turn (about 8-10 ft. lbs.).

**⚠ WARNING:** DO NOT EXCEED these tightening specifications as the aerator and/or nut may be damaged.

- Install Attwood 90° Outlet Connector to the aerator outlet. Tighten the fitting handtight, then 1/4 to 1/2 additional turn with wrench.
- Use an Inlet Strainer to avoid clogging of the pump.

## REMOTE MOUNTING INSTRUCTIONS

See Accessories Chart for sizes / part numbers of Thru-Hull, Bracket, and Inlet Hose.

- With boat out of water, install Thru-Hull Connector through the transom. (Figure 2)
- ⚠ CAUTION:** DO NOT drill through the bottom of the boat when installing Remote Bracket.
- Attach Remote Bracket to the mounting pad by drilling two 1/8" (3 mm)-diameter pilot holes and fastening with two #8 stainless steel pan head screws. Position aerator on Bracket so pump outlet is pointed straight up.
- Complete outlet fitting and hose connection as described above.
- Connect a length of reinforced, smooth bore Inlet Hose from the Thru-Hull to the aerator Inlet Hose Connector. Use a hose clamp at each end of the hose.

## SEACOCK MOUNTING INSTRUCTIONS

- With boat out of the water, choose suitable location at least 2" (5.1 cm) below the water line. (Figure 3)
- Install seacock according to manufacturer's instructions.
- ⚠ WARNING:** DO NOT EXCEED these tightening specifications (below) because the aerator may be damaged.
- Apply polyurethane marine sealant (Attwood 30106) to aerator inlet threads. Turn aerator into seacock threads handtight, then 1/4 to 1/2 additional turn with wrench.
- Install 90° outlet connector to the treaded aerator outlet. Tighten the fitting handtight, then 1/4 to 1/2 additional turn with wrench. Install 3/4" (1.9 cm) I.D. reinforced hose with clamps to barbed outlet and outlet connector.

## LIVWELL CONNECTION INSTRUCTIONS

See Accessories Chart for sizes / part numbers of Outlet Hose and Spray Head.

- Connect outlet hose from the aerator outlet fitting to the Spray Head. Use a hose clamp at each end of the hose. (Figure 4)

**IMPORTANT:** Route the hose as straight as possible with an upward angle. Avoid dips or sharp bends that can create airlock and hinder water flow.

- An aerator pump can be connected to the bottom of a livewell to recirculate water within the tank.

## WIRING INSTRUCTIONS

The power source to the pump must be a 12-volt DC battery ONLY. Protect circuit with fuse (see chart) and make all wire connections above the highest possible water level, using marine grade wire connectors only. Waterproof all connections with suitable materials. (Figure 5)

**⚠ CAUTION:** Failure to make waterproof connections and fuse pump properly will void the product warranty.

## CARE AND MAINTENANCE

**⚠ WARNING:** If Aerator is installed thru-hull, BOAT MUST BE OUT OF THE WATER to remove or replace aerator motor cartridge.

- With boat out of water, occasionally remove Motor Cartridge and check pump to be certain debris is not restricting or jamming the impeller. Hold outlet with one hand and depress red locking tab with other. Twist Motor Cartridge counter-clockwise and remove from housing. (Figure 6)
- Be sure "O" ring is not damaged, nicked or worn. Lubricate the "O" ring area with vegetable oil to ease re-assembly.
- To install new Motor Cartridge (H), see Accessories Chart for part number. Motor must match housing color: 500 Series = RED, 800 = BLUE, 1200 = GRAY.
- Align motor cartridge red tab with slot on aerator housing. Push in and turn clockwise.

**⚠ WARNING:** To avoid leaking or sinking, the RED TAB MUST BE LOCKED AND EXTENDING through aerator housing slot.

## ATTWOOD AERATOR PUMPS LIMITED WARRANTY

This Attwood Aerator Pump carries a three (3) year warranty. See product catalog or [www.attwoodmarine.com](http://www.attwoodmarine.com) for details.

Figure 1 / Figura 1  
Abbildung 1 / Figur 1

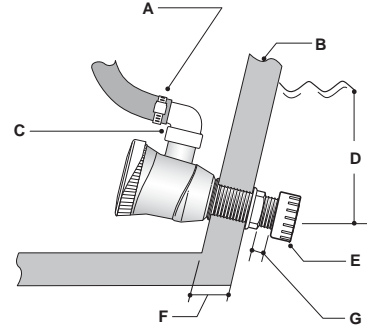


Figure 1

- Allow Clearance to Access Hose Clamp and Locking Tab
- Transom
- Outlet Connector
- 2" (5.1 cm) Minimum
- Inlet Strainer (optional)
- 1/8" (3 mm) Min. 1-7/16" (3.7 cm) Max.
- 3/8" (1 cm) Thread

Figura 1

- Deje espacio para acceder a la abrazadera para manguera y la lengüeta de seguridad
- Travesaño
- Conector de salida
- Por lo menos 5.1 cm
- Filtro de entrada (opcional)
- No menos de 3 mm ni más de 3.7 cm
- Rosca de 1 cm

Figur 1

- tillräckligt fritt utrymme för åtkomst av slangklämma och låsfil ik
- akterspegel
- utloppskoppling
- minst 5.1 cm
- inloppssil (tillval)
- min. 3 mm max. 3.7 cm
- 1 cm gänga

Figure 1

- Laissez assez d'espace pour l'accès au collier de serrage et à la languette de verrouillage
- Tableau
- Raccord de sortie
- Minimum de 5,1 cm
- Crépine d'entrée (en option)
- Min. 3 mm Max. 3,7 cm
- Filetage de 1 cm

Abbildung 1

- Genügend Abstand planen, damit die Schlauchklemme und die Haltelasche zugänglich sind
- Heckspiegel
- Auslassanschluss
- Mindestens 5.1 cm
- Einlasssieb (optional)
- 3 mm min., 3,7 cm max.
- Gewinde 1 cm

Figure 2 / Figura 2  
Abbildung 2 / Figur 2

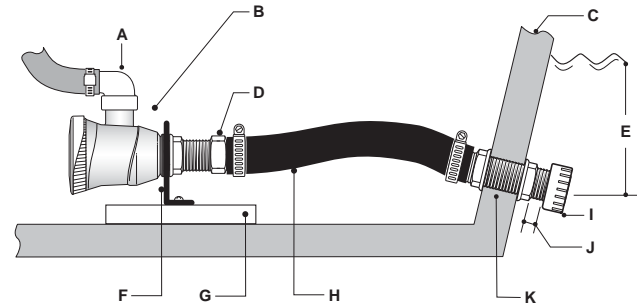


Figure 2

- Outlet Connector
- Allow Clearance to Access Hose Clamp and Locking Tab
- Transom
- Inlet Hose Connector
- 2" (5.1 cm) Minimum
- Remote Bracket
- Suitable Mounting Pad
- Inlet Hose (NO DIPS IN HOSE)
- Inlet Strainer
- 3/8" (1 cm) Thread
- Thru-Hull Connector

Figure 2

- Raccord de sortie
- Laissez assez d'espace pour l'accès au collier serrage et à la languette de verrouillage
- Tableau
- Raccord d'entrée
- Minimum 5,1 cm
- Support à distance
- Tampon de fixation convenable
- Boyau d'entrée (AUCUNE DESCENTE DANS LE BOYAU)
- Crépine d'entrée
- Filetage de 1 cm
- Raccord passe-coque

Figura 2

- Conector de salida
- Deje espacio para acceder a la abrazadera para manguera y la lengüeta de seguridad
- Travesaño
- Conector para manguera de entrada
- Por lo menos 5.1 cm
- Soporte remoto
- Almohadilla de montaje adecuada
- Manguera de entrada (SIN DESCENSOS)
- Filtro de entrada
- Rosca de 1 cm
- Conector de casco pasante

Abbildung 2

- Auslassanschluss
- Genügend Abstand planen, damit die Schlauchklemme und die Haltelasche zugänglich sind
- Heckspiegel
- Eingangsschlauchanschluss
- Mindestens 5.1 cm
- Halterung
- Passende Montagefl äche
- Einlassschlauch (KEINE SENKEN IM VERLEGTEN SCHLAUCH)
- Einlasssieb
- Gewinde 1 cm
- Rumpfdurchführung

Figur 2

- utloppskoppling
- tillräckligt fritt utrymme för åtkomst av slangklämma och låsfil ik
- akterspegel
- inloppsslangkoppling
- minst 5.1 cm
- fjärmonteringshållare
- lämpligt monteringsunderlag
- inloppsslang (LÅT EJ SLANGEN HÅNGA)
- inloppssil
- 1 cm gänga
- skrovgenomföring

Figure 3 / Figura 3  
Abbildung 3 / Figur 3

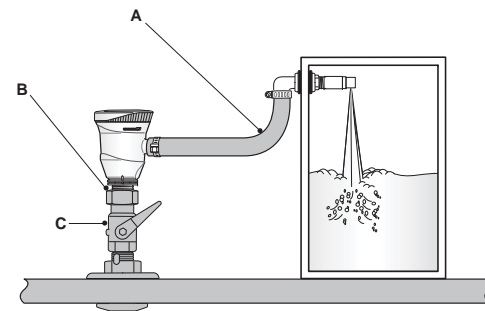


Figure 3

- 3/4" (1.9 cm) I.D. Hose
- Apply Polyurethane Sealant
- Seacock (not supplied) with 3/4" (1.9 cm) 14 NPT inlet

Figure 3

- D.I. boyau 1,9 cm
- Appliquez un agent d'étanchéité en polyuréthane
- Robinet (non fourni) avec entrée à filetage NPT 14 de 1,9 cm

Figura 3

- D.I. manguera de 1.9 cm
- Aplicar sellador de poliuretano
- Válvula de entrada marítima (no suministrada) con 1.9 cm de entrada 14 NPT

Abbildung 3

- 1.9 cm Schlauch I.D.
- Polyurethan-Dichtungsmasse auftragen
- Seeventil (nicht mitgeliefert) mit 1.9 cm NPT-Einlass

Figur 3

- 1.9 cm slang ID
- applicera polyuretantättningsmedel
- bottenförskrvning (medföljer ej) med 1.9 cm 14 NPT-inlopp

Figure 4 / Figura 4  
Abbildung 4 / Figur 4

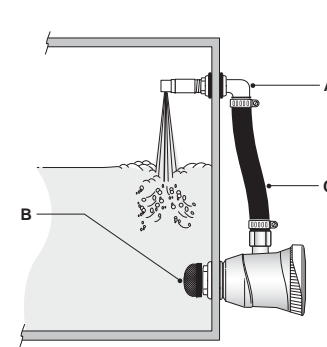


Figure 4

- Aerator Spray Head
- Intake
- Smooth-Bore Reinforced Hose

Figure 4

- Tête de vaporisation
- Entrée
- Boyau renforcé à intérieur lisse

Figura 4

- Cabezal del rociador del aireador
- Entrada
- Manguera de interior liso reforzada

Abbildung 4

- Sprühkopf des Belüfters
- Einlass
- Verstärkter Schlauch mit glattem Innendurchgang

Figur 4

- luftarspridarhuvud
- intag
- slät, armerad slang

Figure 5 / Figura 5  
Abbildung 5 / Figur 5

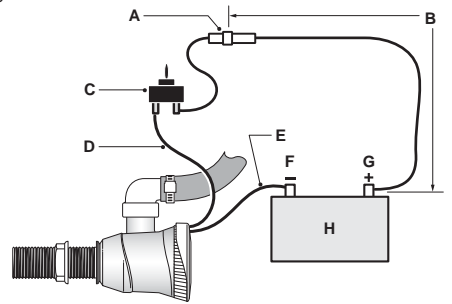


Figure 5

- Fuse Holder
- 72" (183 cm) Max. Length From (+) Terminal to Fuse
- 2-Terminal On/Off Switch
- Brown Wire
- Black Wire
- (neg)
- (pos)
- 12 Volt DC (Power Source)

Figure 5

- Porte-fusible
- Longueur maximum de 183 cm à partir de la borne (+) jusqu'au fusible
- Commutateur marche/arrêt à deux bornes
- Fil brun
- Fil noir
- (nég.)
- (pos.)
- 12 volts CC (source d'alimentation)

Figura 5

- Portafusibles
- Longitud máxima de 183 cm desde el terminal (+) al fusible
- Interruptor de encendido/apagado de 2 terminales
- Cable marrón
- Cable negro
- (negativo)
- (positivo)
- Fuente de energía de 12 voltios de CC

Abbildung 5

- Sicherungshalter
- Maximale Länge vom Plus-Pol (+) zur Sicherung 183 cm
- Ein / Aus-Schalter mit zwei Anschlüssen
- Brauner Draht
- Schwarzer Draht
- (neg.)
- (pos.)
- 12 V DC (Stromquelle)

Figur 5

- säkringshållare
- 183 cm maxlängd från (+)-pol till säkring
- dubbelpolig till/från-strömställare
- brun tråd
- svart tråd
- (neg)
- (pos)
- 12 V likström (strömökälla)

Figure 6 / Figura 6  
Abbildung 6 / Figur 6

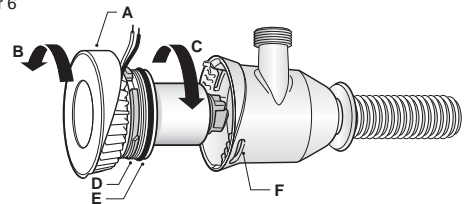


Figure 6

- Motor Cartridge
- Unlock
- Lock
- Red Tab
- "O" Ring
- Red Tab Must Be Extending Through Slot

Figure 6

- Cartouche du moteur
- Déverrouiller
- Verrouiller
- Patte rouge
- Joint torique
- La patte doit dépasser à travers de la fente

Figura 6

- Cartucho del motor
- Destrabar
- Trabar
- Lengüeta roja
- Junta tórica
- La lengüeta se debe poder ver a través de la ranura

Abbildung 6

- Motorgehäuse
- Entriegeln
- Verriegeln
- Rote Lasche
- O-Ring
- Rote Lasche muss durch den Schlitz eingreifen

Figur 6

- motorpatron
- lossa
- lås
- röd flik
- o-ring
- den röda fi iken måste sticka ut genom spåret

