



# Deluxe Shower Sump System 4137, 4138 Mounting Instructions

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## SAVE THESE INSTRUCTIONS

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The Attwood Deluxe Shower Sump System is an efficient, low cost system incorporating an Attwood 750 GPH Pump and an Attwood Automatic Float Switch. This system is designed to satisfy the needs of the boater for a functional means of transferring "gray" water from the shower, or other water drains. Multiple inlets can be hooked up to more than one drain with different hose size options. The see-through top on the box allows you to see when the filter needs cleaning.

Refer to the chart below to ensure that you have selected the proper shower sump for your boat application:

Shower Sump Model	D.C. Voltage	D.C. Amps	Max Fuse Amperages
4137	12.0	2.7	4
4138	24.0	1.8	2



## WARNING:

To prevent personal injury, never use 120/240 VAC power tools while working in water or a wet environment.

To prevent personal injury, always disconnect the power source before servicing or installing this product.

Always use the fuse amperage rating specified for this shower sump model. Failure to do so could result in serious personal injury or fire hazards.

To prevent possible injury and water damage, shut off all water before servicing.

## REQUIRED FOR INSTALLATION

- Fine-tooth hacksaw or band saw
- File
- Drill and suitable drill bit
- Four #8 screws for hold-down clamps
- Phillips screwdriver
- One hose clamp for each hose used
- Wire connectors for 16-gauge wire
- See amperage in chart above

## Optional:

- Attwood model 7615 switch or equivalent

### Note:

Switch is recommended to allow the pump to be turned off in an emergency

The following materials are needed if no sump pump mounting pad is in place:

- 1/2" (1.27) thick marine plywood block large enough to mount sump pump
- Hand-held roller
- Fiberglass—18 oz. mat or woven roving
- Polyester resin and catalyst

## INSTALLATION INSTRUCTIONS

1. Determine location of sump system, making sure system is lower than the shower drain. Ensure there is enough structure and room to accommodate the sump system before drilling.

### Note:

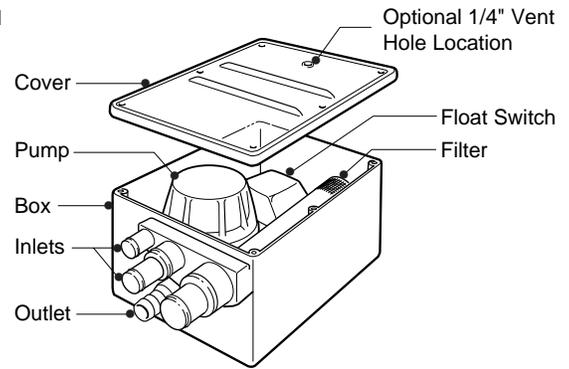
For correct operation of the automatic float switch, the box should be mounted level. If the box cannot be mounted level, the end without fittings can be raised up to 1/2" from level.

### Note:

Because sailboats tend to heel, install sump system parallel lengthwise with the bow-to-stern line. Fitting end can face either fore or aft.

2. For hook-up to multiple inlets/hose sizes, determine opening sizes needed and saw ends off the correct fittings (sizes and cut locations are marked on the fittings). File around the fitting inside diameter to remove burrs and rough edges. Figure 1

Figure 1



3. **To install mounting pad:**

Locate mounting pad area according to guidelines in Step 1.

4. Sand gelcoat or paint off the mounting surface to create an area that is 3" wider than the mounting pad on each side.

Completely cover the mounting pad with fiberglass. Saturate the fiberglass with resin, and press the fiberglass edges down against the hull to adhere the pad in place. Roll out the fiberglass to remove any uneven surfaces, air bubbles, or excess resin.

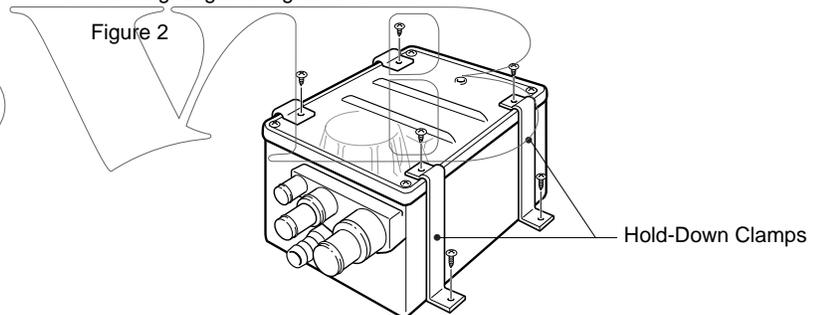
5. Place the box in desired location. Position the hold-down clamps (two on each side) so the top of the clamps are between the two raised ribs. Figure 2

Mark the screw hole locations and drill the pilot holes. *Do not drill through the hull!*

### Note:

If possible, pre-wire the sump system before fastening clamps down. See wiring diagram. Figure 4

Figure 2



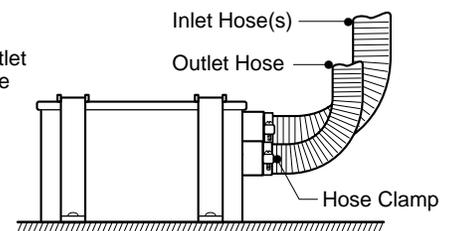
6. Connect 3/4" I.D. outlet hose from thru-hull connector to the outlet fitting. Secure the connection with a hose clamp.

### Note:

The outlet hose must rise smoothly from the fitting, up to the thru-hull. Any downward dip will trap water and air inside the pump. Figure 3

Figure 3

For correct operation, outlet hose must continually rise above pump outlet to prevent air-lock



7. Connect inlet hoses from the drains to the inlet fittings. Secure each connection with a hose clamp.

### Note:

The inlet hoses must rise smoothly from the fitting, up to their Drains.

Also, using a shower drain with a trap will not allow air to vent out of the box, and the rising water will not activate the float switch.

**If the hose cannot be routed upward, or a drain with trap is desired:** Vent the sump system box by removing the system cover and drilling a 1/4" hole where indicated. File away any rough edges, and replace the cover (position hole toward the box end with no fittings). See Figure 1

8. Fasten sump system in place with the four hold-down clamps and four screws.

## WIRING INSTRUCTIONS



### WARNING:

Model 4137: Use 12-volt DC power source. Model 4138: Use 24-volt DC power source. Higher DC voltage or AC voltage may cause serious damage and/or personal injury.

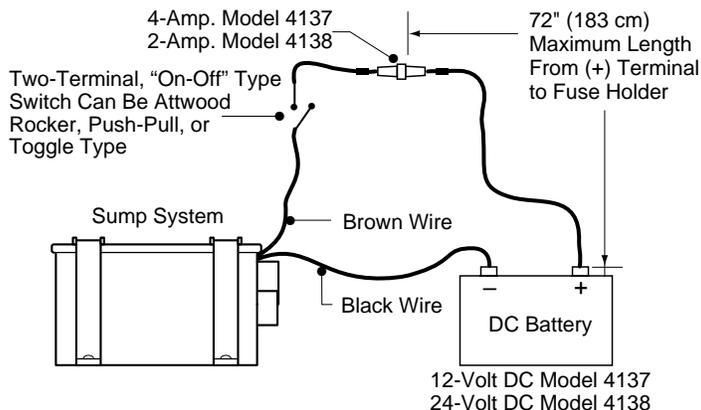
Circuit must be properly fused to prevent possible fire hazard and/or damage to pump and switch should the pump become jammed.

#### Caution:

All connections should be made using crimp-on connectors.

1. Electrical connections should be made as shown in Figure 4.

Figure 4



- Using butt connectors for 16-gauge wire, splice fuse holder into positive lead (brown) in a location easily accessible for changing fuses. Install the specified fuse.
- Run brown wire from sump system directly to the positive (+) battery terminal. If using manual on/off switch, run brown wire from sump system to the switch, then to the positive (+) battery terminal.
- Connect black wire from the sump pump system to the negative (-) battery terminal to complete the circuit.
- Re-connect power and water, and test unit for proper installation. Feed water into the sump; if the flow appears to be too low, check wire connections.

#### Note:

Reversed connections will result in opposite impeller rotation, which drastically reduces capacity and can cause premature pump failure.

## MAINTENANCE INSTRUCTIONS

Drain the unit during the winter months when not in use. Disconnect and drain all lines to the unit. Remove hold-down clamps and empty the unit. In some installations, it may be impossible to completely drain the system. Add a non-toxic RV/marine antifreeze to the shower drain and circulate it throughout the system.

For improved performance, periodically clean the filter. Remove the cover and slip the filter out for easy cleaning. Re-install the filter and cover when finished.

## TROUBLE SHOOTING

### Problem

Pump will not turn on

### Probable Cause

- Line is plugged
- Line is broken
- No power to the pump
- Fuse is blown
- System improperly wired
- Manual switch is not turned on
- Air is trapped in box—cover needs to be vented
- Float Switch is jammed in “off” position

### Problem

Pump will not turn off

### Probable Cause

- System improperly wired
- Float switch is jammed in “on” position
- Box not mounted level
- Air is trapped in box—cover needs to be vented

Pump output is low

- System wired backwards
- Line is plugged/restricted

System leaking at top

- Air is trapped in box—cover needs to be vented

System is leaking at inlet/outlet connection

- Hose clamp is missing
- Hose clamp is loose
- Pipe connection is loose

Pump turns on but does not pump

- Line is plugged
- Outlet hose does not rise continuously to thru-hull

Water returns to sump from outlet hose

- Check valve plugged or damaged

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