

# INSTALLATION INSTRUCTIONS

## Paddlewheel & Valve Kit 33-218

Fits TRIDUCER® Multisensor with Valve

Models: B744V, B744VL, B66V, B66VL, and SS544V

U.S. Patents: 4,898,029; 5,186,050, Re 33,982. Australian Patent 605,281  
Canadian Patent 1,313,775. Japanese Patent 1851014

08/05  
17-207-02 rev. 02

**IMPORTANT:** Please read the instructions completely before proceeding with the installation. These instructions supersede any other instructions in your instrument manual if they differ.



**WARNING:** Never leave the boat in the water unattended without the valve assembly in the housing and the paddlewheel insert or blanking plug secured!

(see Figures 2 and 3)

The valve assembly must be in the housing to make a watertight seal. When the valve assembly is removed, the blanking plug CANNOT prevent water from seeping into the boat.

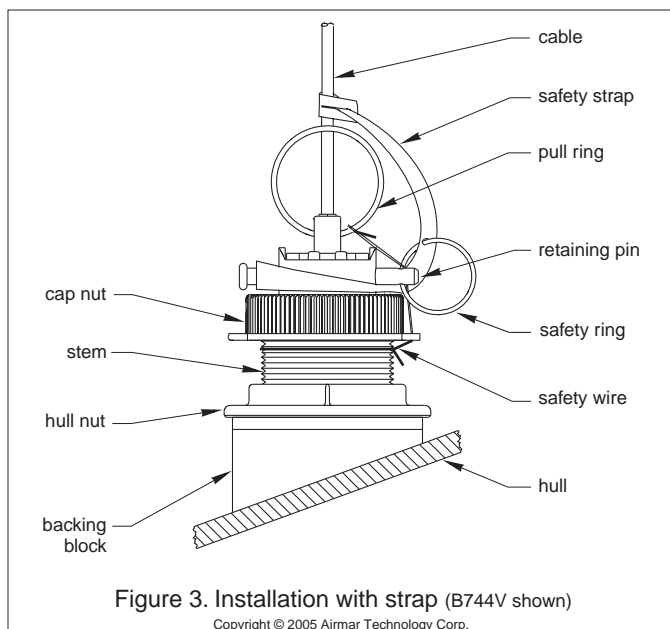
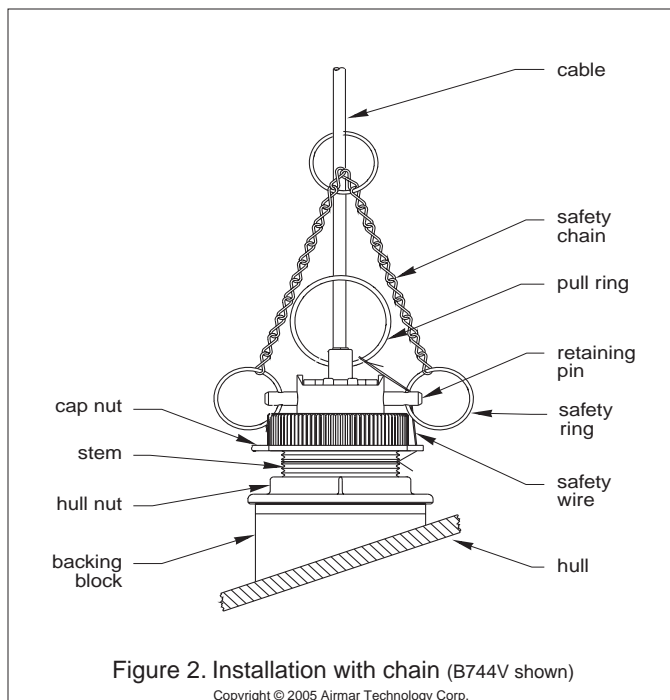
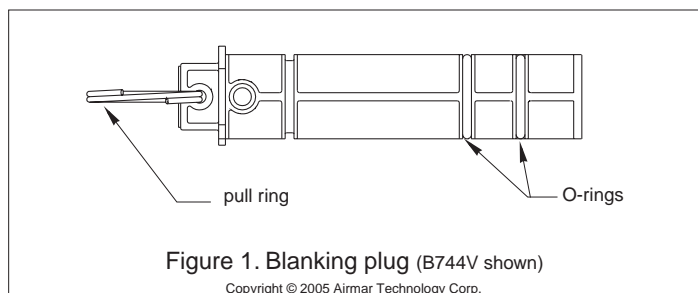
**CAUTION:** NEVER USE SOLVENTS!

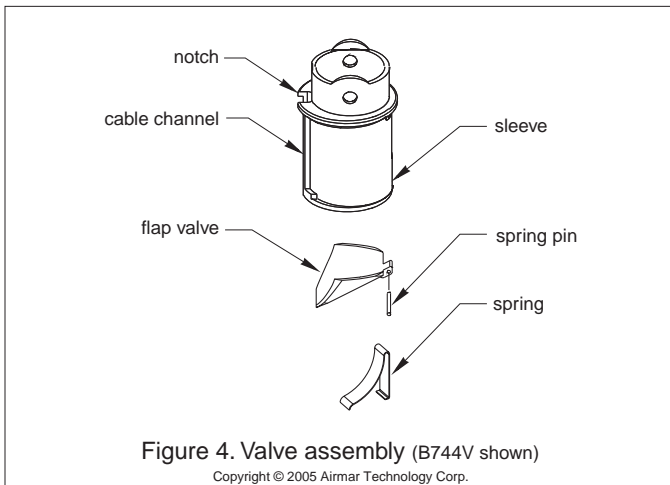
Cleaners, fuel, paint, sealants, and other products may contain strong solvents, such as acetone, which attack many plastics greatly reducing their strength.

### Servicing

**Warning:** O-rings must be intact and well lubricated to make a watertight seal.

1. Replace the two O-rings near the bottom of the blanking plug. Do not place them near the pull ring (see Figure 1). Lubricate the O-rings with silicone lubricant or petroleum jelly (Vaseline®).
2. Remove the safety wire and unscrew the cap nut. With the blanking plug ready in one hand, remove the paddlewheel insert and valve assembly as one unit by grasping the pull ring and pulling upward. Rapidly insert the blanking plug to minimize the flow of water into the boat. TEMPORARILY hold the plug in place with the safety wire (see Figures 2 and 3).  
**It is NOT a watertight or secure seal!**  
**DO NOT leave the boat in the water unattended.**
3. Separate the paddlewheel insert from the valve assembly by removing the safety ring and the retaining pin. Grasp the insert by the pull ring and pull slowly upward.





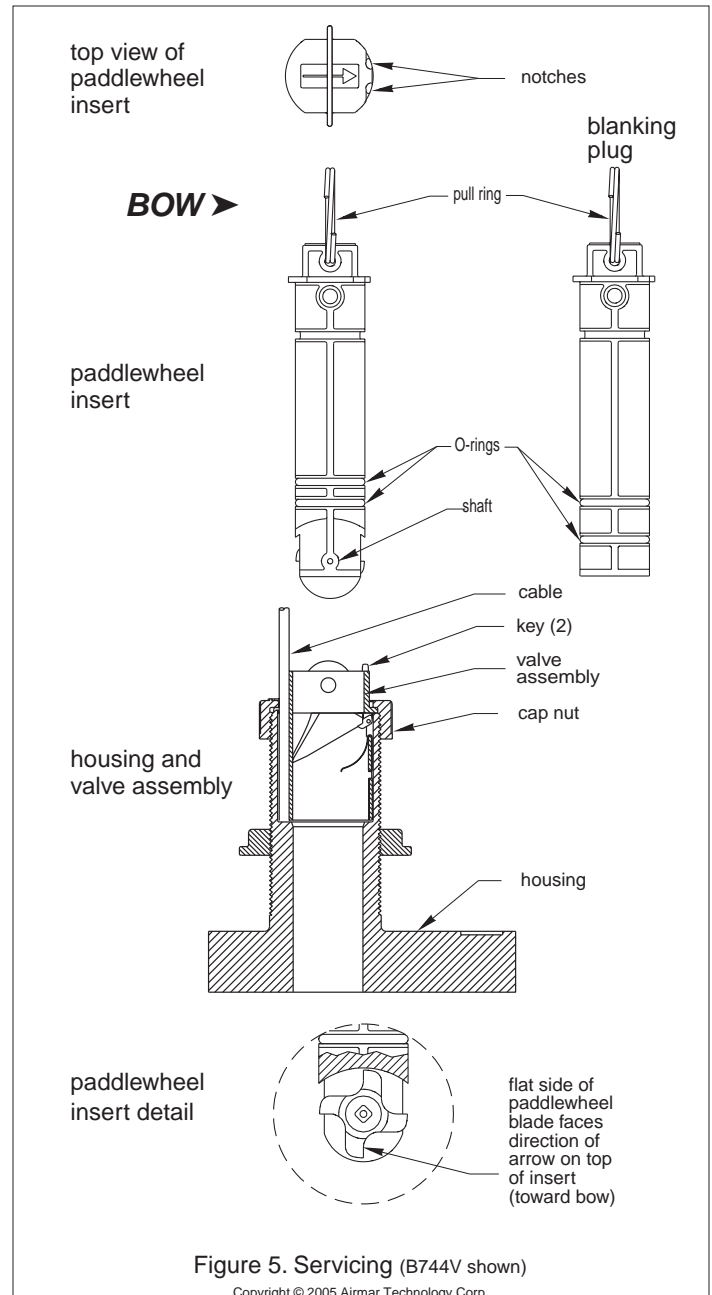
4. Check the new valve assembly to see that the flap valve moves freely and seats against the sleeve (see Figure 4). Discard the old valve assembly.
5. **To service the paddlewheel insert**, use the new paddlewheel shaft to push the old shaft out about 6 mm (1/4"). With pliers, remove the old shaft (see Figure 5).
6. Remove any aquatic growth from the insert using a stiff brush or putty knife. Clean the surface with mild household detergent and a Scotch-Brite® scour pad. If fouling is severe, lightly wet sand it with fine grade wet/dry paper.
7. Place the new paddlewheel in the cavity with the flat side of the blade facing the same direction as the arrow on the top of the insert.
8. Tap the new shaft into place until the ends are flush with the insert.
9. Replace the two O-rings in the grooves near the paddlewheel. *Do not* place them near the pull ring. Lubricate the O-rings with silicone lubricant or petroleum jelly (Vaseline®).
10. Slide the paddlewheel insert into the valve assembly. Seat it into place with a twisting motion until the keys fit into the notches. Secure the paddlewheel insert with the retaining pin and safety ring(s) (see Figures 2 and 3).

**Caution:** Be careful to avoid cross threading the cap nut.

11. Reinstall the valve assembly by first removing the safety wire from the blanking plug. With the valve assembly/insert ready in one hand, remove the blanking plug. Slide the valve assembly into the multisensor housing with the arrow on the top pointing forward toward the bow. *Be sure* the cable fits into the cable channel and the key in the housing fits into the notch in the sleeve (see Figure 4). (A pushing twisting motion will locate the key.) Screw the cap nut in place and **HAND-TIGHTEN** only. *Do not* over-tighten.

**Warning:** Always attach the safety wire to prevent the insert from backing out in the unlikely event that the cap nut and/or insert nut fails or is screwed on incorrectly.

12. Reattach the safety wire (see Figures 2 and 3).



## Antifouling Paint

Surfaces exposed to salt water *must* be coated with antifouling paint. Use **water-based** antifouling paint only. *Never* use ketone-based paint, since ketones can attack many types of plastic possibly causing damage. Paint the following surfaces.

- Exposed areas of the housing including the acoustic window
- Bore of the housing up 30mm (1-1/4")
- Outside wall below lower O-ring of paddlewheel insert
- Paddlewheel cavity
- Paddlewheel
- Blanking plug below lower O-ring including exposed end