

## KINGFISH INSTALLATION INSTRUCTIONS

The MOOR Kingfish uses the latest in integrated circuit technology and provides the most accurate indication of trolling speed available. Please take a few minutes to read the following instructions and you will be assured of long and trouble-free service. Locate the serial number on the instrument housing and record for future reference. Be sure to fill out and return the enclosed warranty card for your Kingfish.

Serial No. \_\_\_\_\_

### A. INSTRUMENT HEAD INSTALLATION

*Flush Mounting: (See Figure 1)*

1. Select a flat, smooth area on the instrument panel where the instrument can be easily seen. Check for adequate clearance behind the panel.
2. Cut a 4-1/8" diameter hole in the instrument panel at the selected location.
3. Check instrument fit to assure that unit will seat evenly. If necessary, enlarge the hole slightly using a file.
4. Apply sealing compound (ie: "Boat-Life" caulk) to the backside of the bezel, and insert the unit into the hole in an upright position.
5. Place the mounting ring over the back of the unit. Use one self-tapping screw to lock the ring to the case close to the instrument panel, and use the other three screws to snug the unit to the panel.

*Surface Mounting:*

1. Install the pod mounting bracket on the top surface of the instrument console or on an overhead panel on an enclosed boat, using appropriate screws.
2. Mount the instrument pod to the bracket using the knobs, and placing the star washers between the pod and bracket.
4. After completing wiring (See section C) insert instrument into pod so that dial is aligned for viewing.

### B. TRANSMITTER INSTALLATION

*Thru-Hull Mounting: (See Figure 2)*

The location of the thru hull deserves special attention. The preferable location is close to the centerline, where the water flow is always smooth and where it will stay submerged at all times.

1. Scribe a 2-5/8" diameter circle at the location selected.
2. Drill a 1/8" pilot hole at the center, then cut a 2-1/8" hole thru the hull.
3. Using a file, chamfer an angle of 35 degrees from the 2-5/8" scribe mark to match the angle of the thru-hull. Try the thru-hull frequently while chamfering until you achieve a flush fit with the outside of the hull.

4. Check that the inside of the hull at the hole is square to the thru-hull so that the ring nut will seat evenly. It is recommended to shim the inside surface to provide an even seat.
5. Seat the thru-hull using a high grade marine bedding compound such as "Boat-Life" caulk and tighten the ring nut securely. (Silicone sealants are not recommended for a good seal.) **DO NOT OVERTIGHTEN THE NUT: LET THE COMPOUND DO THE SEALING.** To overtighten may cause the joint to leak.

#### Transom Mounting: (See Figure 3)

Take special care to mount the bottom of the transom bracket exactly level and in line with the boat bottom where it meets the transom. A recommended procedure is to hold a board against the bottom of the boat, then bend the bracket angle so that the vertical flange fits against the transom when the bottom flange is flat against the board. While a helper is holding the board and bracket, carefully drill the four mounting holes for the bracket, and secure with appropriate screws. Mount the thru-hull in the transom mount bracket using the large O-ring supplied between the bracket and the retaining ring nut.

#### Transmitter Installation:

1. Coat the rubber gasket lightly with Vaseline or other water-resistant type grease.
2. Place top nut over the wire and handle.
3. Insert inner transmitter into the thru-hull so that the arrow on the handle faces toward the bow of the boat.
4. Tighten down the top nut finger tight, allowing the gasket to do the sealing. **DO NOT OVERTIGHTEN THE NUT.**
5. Route the transmitter cable to the instrument location away from other electrical wires and equipment to keep extraneous interference to a minimum. Protect the cable from heat, oil, gasoline, rough surfaces and sharp objects.

#### Dummy Plug Installation:

In thru-hull installations the transmitter may be removed for cleaning while the boat is afloat using an optional dummy plug available from Moor. Have the dummy plug ready with the gasket coated with a light coat of Vaseline or other water-resistant grease. Unthread the cap nut, withdraw the transmitter, and quickly insert the dummy plug. Secure the plug with its top nut. **DO NOT OVERTIGHTEN.**

#### C. INSTRUMENT WIRING CAUTION: DO ALL WIRING WITH POWER DISCONNECTED

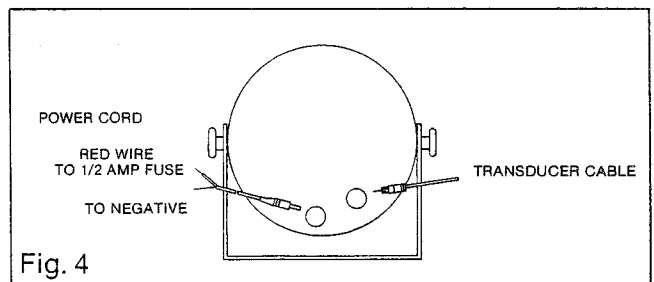
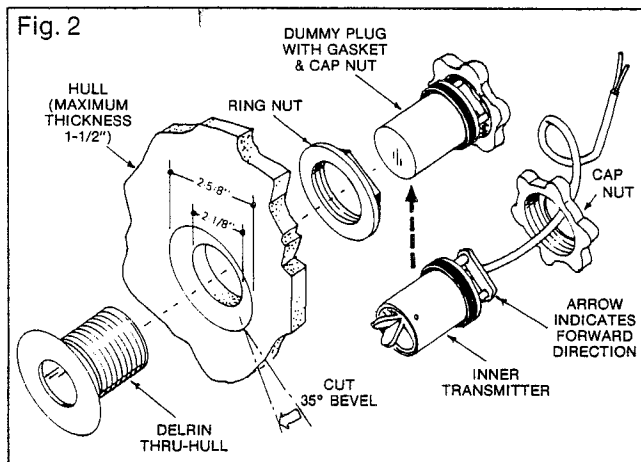
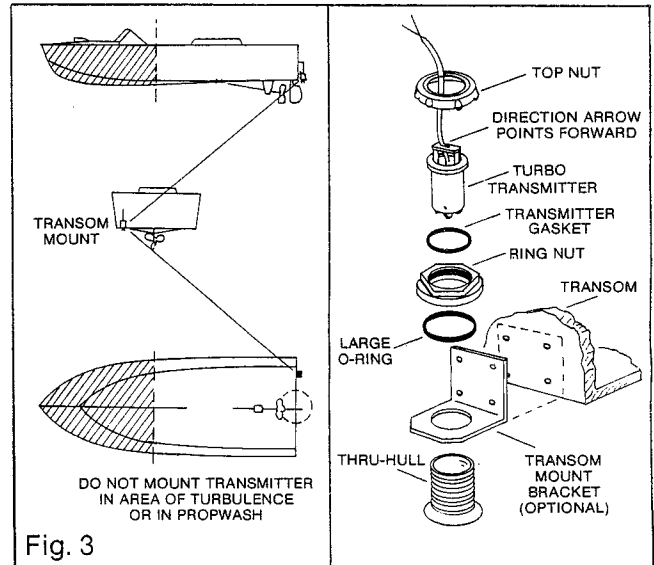
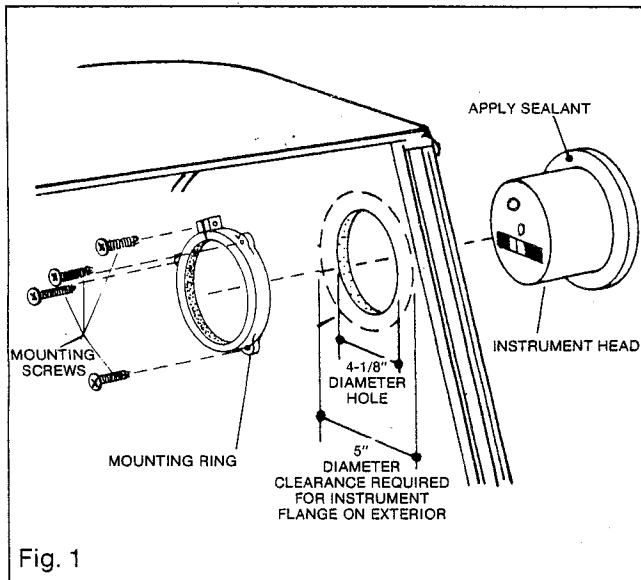
1. Locate the red and black fused power harness supplied with the unit. The stripped bare wire end of the cable connects to the boat's 12 VDC power source.
2. Connect the BLACK lead to the negative (GND) terminal of the battery or electrical circuit of the boat.
3. Connect the red lead to the positive (+12VDC) terminal of the battery or electrical circuit of the boat thru a 1/2 amp slow blow fuse. An on/off switch should be installed in this line.
4. If surface mounting, route the power and transmitter cables through the hole on the back of the surface mount pod.
5. Plug the transmitter and power cables into their matching jacks on the back of the instrument.
6. If surface mounting, insert the instrument into the pod so that the dial is aligned for viewing and cable plugs align with holes in pod.
7. Apply power to the circuit and the Kingfish is now ready for use.

**NOTE: THE POWER HARNESS INCLUDES A 1/2 AMP SLOW BLOW FUSE FOR INSTRUMENT PROTECTION. REPLACEMENT FUSES MUST BE OF THE SAME AMPERAGE.**

D. BASIC THEORY OF OPERATION

The inner transmitter of the Kingfish is an alternator system. The spinning turbo blade produces an alternating frequency proportional to the speed of rotation. This signal is processed electronically to produce meter deflection proportional to the speed the boat.

The speed indicator operates on two scales. Speeds from 0 to 6 MPH are read directly as indicated on the dial scale. As the boat speed reaches 6 MPH the dial light will come on and the needle will automatically switch over to reading on the 0 to 60 MPH scale. In this mode the actual speed is the indicated dial reading X10. The unit will automatically switch back to the 0-6 scale when the speed returns to that range.



**E. CALIBRATION**

The Kingfish is calibrated and tested before leaving the factory. However it may be necessary to re-calibrate the instrument for greater accuracy for your own particular boat.

**To Calibrate:**

Remove the red plastic plug on the back of the instrument. Using a small screwdriver, 1/8" blade or smaller, insert the blade into the hole, engage the adjusting screw and turn to calibrate. **DO NOT USE EXCESSIVE FORCE.** Clockwise rotation increases the reading, and counter clockwise rotation decreases the reading. Replace the plastic plug.

This procedure requires removing the instrument from the pod if so installed.

**F. GENERAL CAUTIONS**

1. Care should be taken to protect the transmitter turbo blade when hauling and trailering your boat. The best advice is to remove the transmitter during such operations.
2. If trailering your boat with the transmitter installed be sure to secure the turbo blade so that it is not free to rotate. Rubber bands or tape work well. Allowing the turbo blade to rotate in free air during trailering will damage the turbo blade and possibly the transmitter.
3. It is not necessary to disconnect the Kingfish when boats speeds beyond the range of the meter are encountered. The meter will peg near full scale but is designed to withstand this condition.

**G. SERVICE NEEDED?**

Should your instrument become inoperative or if you believe there is a problem with the initial installation, please return the unit to the factory for quick prompt service to:

Moor Electronics, Inc.  
Service Department  
95 Dorothy Street  
Buffalo, NY 14206

Telephone: (716) 821-5304 Fax: (716) 821-5306

Include return address, daytime phone number, description of problem, and transmitter.

With warranty repairs, proof of purchase date is required. Please enclose proof of purchase date, and \$5.00 to cover the cost of shipping and handling.

With non-warranty repairs you will be advised of the cost upon our inspection of the unit. Payment may be by Master Card, Visa, check or C.O.D.

**H. SPARE PARTS**

Moor	
Part No.	
88-830-105	Turbo blade w/shaft
88-155-030	Gasket (transmitter/dummy plug)
88-830-121	Dummy plug
88-010-100	Speed inner transmitter (blue)