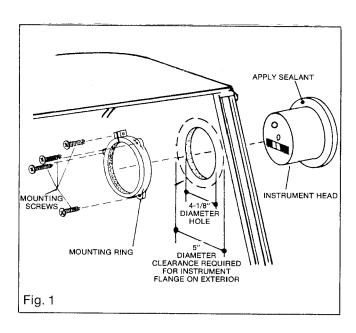
MOOR Electronics Inc.

LKD INSTALLATION INSTRUCTIONS

The MOOR LKD self contained liquid crystal knotmeter is a precision electronic instrument which will accurately record boat speed. 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.

A. INSTRUMENT HEAD INSTALLATION (See Figure 1)

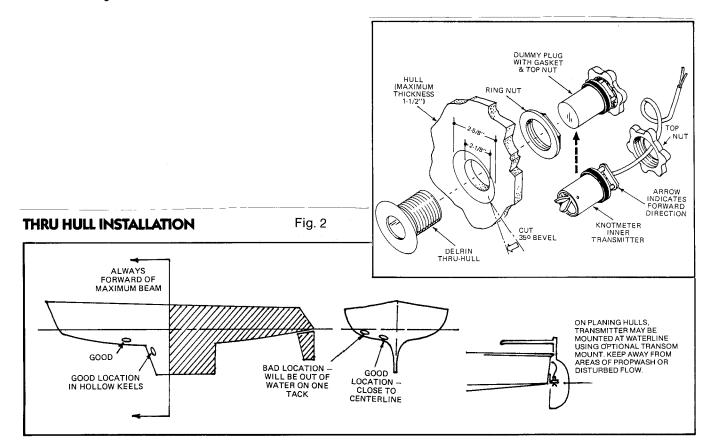
- 1. Select a flat, smooth area on the instrument panel where the instrument can be easily seen. Check for adequate clearance behind the panel.
- 2. Cut a 4-1/8" diameter hole in the instrument panel at the selected location.
- Check instrument fit to assure that unit will seat evenly. If necessary, 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.



B. THRU HULL INSTALLATION (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. An optional transom mount bracket is also available from Moor for those who do not prefer the thru hull mounting.

- 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.



C. INNER TRANSMITTER INSTALLATION (See Figure 2)

- 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. The cable is 20' long. If mor e cable is necessary, use 22 gauge or greater. Waterproof the splice between the two cables to prevent bilge water from shorting out the transmitter.

D. DUMMY PLUG INSTALLATION (See Figure 2)

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

E. INSTRUMENT WIRING CAUTION: DO ALL WIRING WITH POWER DISCONNECTED

- 1. Locate the red and black power leads from the back of the instrument.
- 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 installed in this line.
- 4. Plug the transmitter cable into the transmitter jack on the back of the instrument.
- 5. Apply power to the circuit and the LKD is now ready for use.

Night Light:

A night light is included with the instrument. If you desire to connect it locate the white wire from the back of the instrument. Connect the white wire to $\pm 12V$ via a separate switch or the boats lighting circuit.

F. CALIBRATION

The LKD 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 the Knotmeter:

Remove the lowermost 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 decreases the reading, and counter clockwise rotation increases the reading. Replace the plastic plug.

G. 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.

H. 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



Tel: (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 \$14.55 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.

I. SPARE PARTS

Moor Part No.

88-830-105 Turbo blade w/shaft
38-155-030 Gasket (transmitter/dummy plug)
88-830-121 Dummy plug
88-010-100 Speed inner transmitter (blue)

To compliment your purchase, Moor offers a complete line of wind instruments and depth sounders to satisfy your instrumentation requirements. Write or call for our complete catalog of marine electronics.