

EMS KNOTMETER

INSTALLATION INSTRUCTIONS

MODEL U25K

The EMS U25K 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. Note: the series number on the box is not the complete serial number. Be sure to fill out and return the enclosed warranty card for your U25K.

Serial No. _____

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.
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.

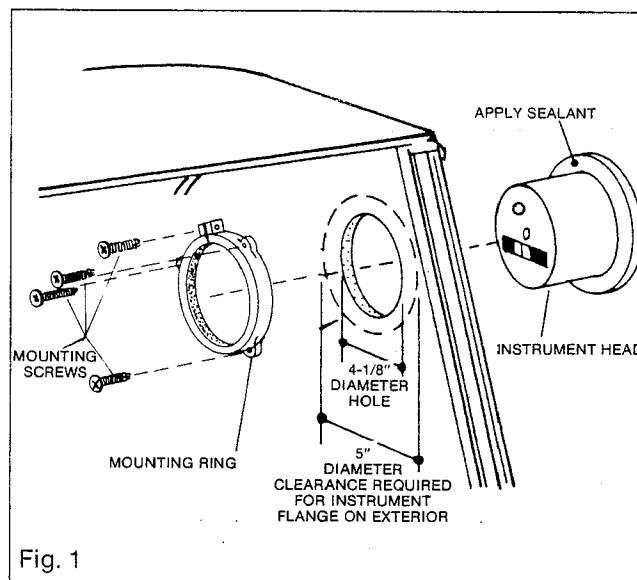


Fig. 1

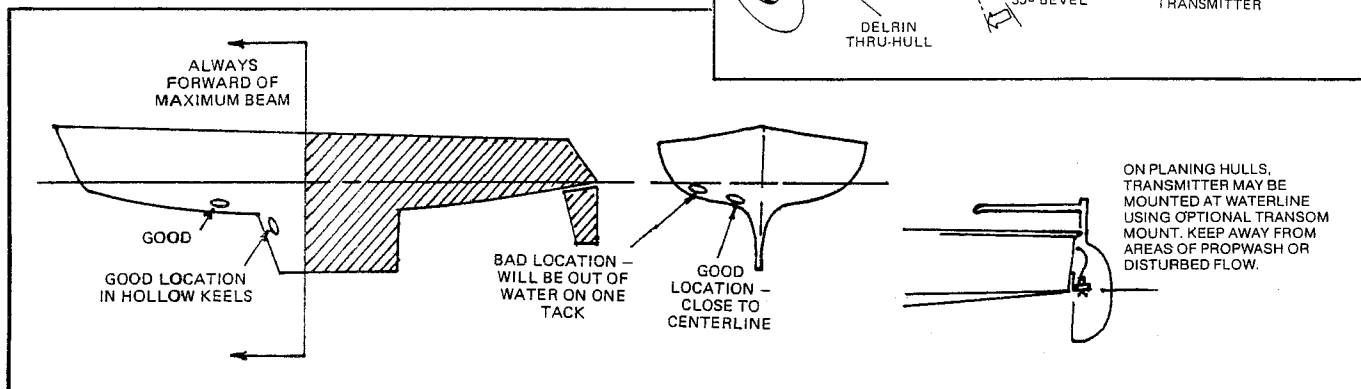
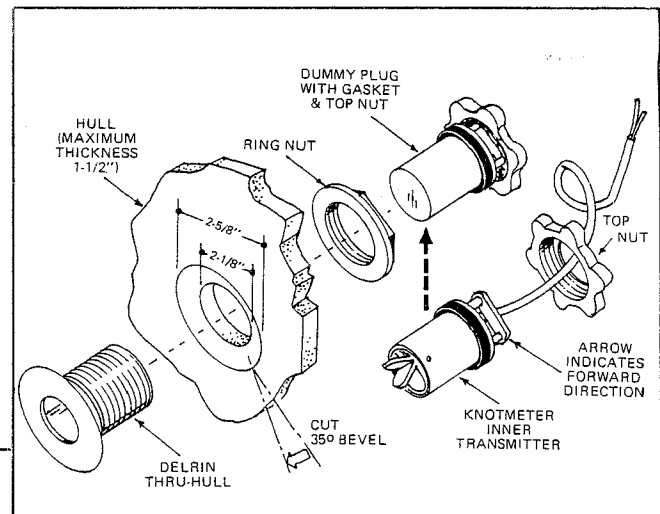
B. THRU HULL INSTALLATION (See Figure 2)

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.

THRU HULL INSTALLATION

Fig. 2



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.**

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

NO POWER IS NECESSARY FOR OPERATION OF THE KNOTMETER.

Simply connect the two wires from the inner transmitter cable to the two terminal screws marked (-COM) and (1) on the back of the instrument. Polarity is not important, but by convention the black wire is normally connected to (-COM). Do not connect +12V power to either of these terminals.

Night Light:

The U25K is equipped with a night lighting circuit for use after dark. To use this feature connect the terminal marked (-COM) on the back of the instrument to the negative (ground) terminal of the battery or electrical circuit of the boat and the terminal marked (+LIT) to +12V via a separate switch or the boats lighting circuit. **CAUTION! DO NOT CONNECT +12V TO ANY TERMINALS OTHER THAN THE ONE MARKED (+LIT).**

F. CALIBRATION

The U25K 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 small red plastic plug from the hole marked (A) on the back of the instrument. Using a small screw driver, 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.

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

(716) 821-5304 Phone
(716) 821-5306 Fax

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.

I. SPARE PARTS

Moor
Part No.

88-830-105	Turbo blade w/shaft
88-020-104	Red inner transmitter
38-155-030	Gasket (transmitter/dummy plug)
88-830-121	Dummy plug