

SR MARINER

KNOTMETER-LOG

INSTALLATION INSTRUCTIONS

Congratulations in choosing a high performance marine instrument and welcome to the growing family of SR Mariner product owners. Since our establishment in 1973, we have engineered our products to give you quality at a reasonable price.

To familiarize yourself with all the features and installation procedures please read the following instructions carefully.

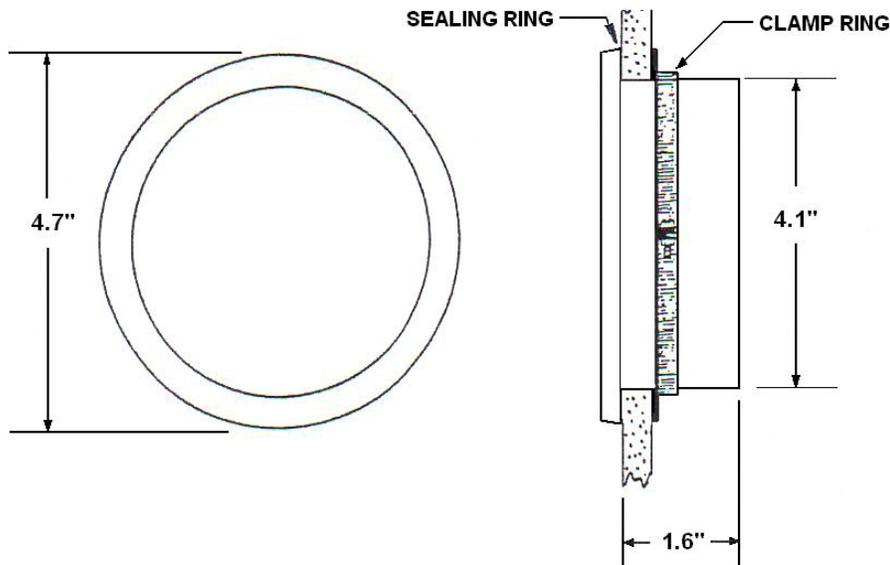
If you still have any questions or comments please call your nearest dealer or call us at (716) 693-5977 or write:

SR Instruments
600 Young Street
Tonawanda, NY 14150
Attn: Service Department

It is recommended that you temporarily hook up your SR MARINER equipment before installation so you become familiar with its connections and system performance. DO NOT CUT ANY CABLES, but connect according to wiring diagram (fig.3). Spin the paddlewheel on the transmitter to activate the knotmeter. If all functions perform satisfactorily, proceed with installation. If the system fails to perform, check all connections. If system still fails to perform check with your dealer for advice and/or replacement if needed.

CHARACTERISTICS OF KNOTMETER-LOGS

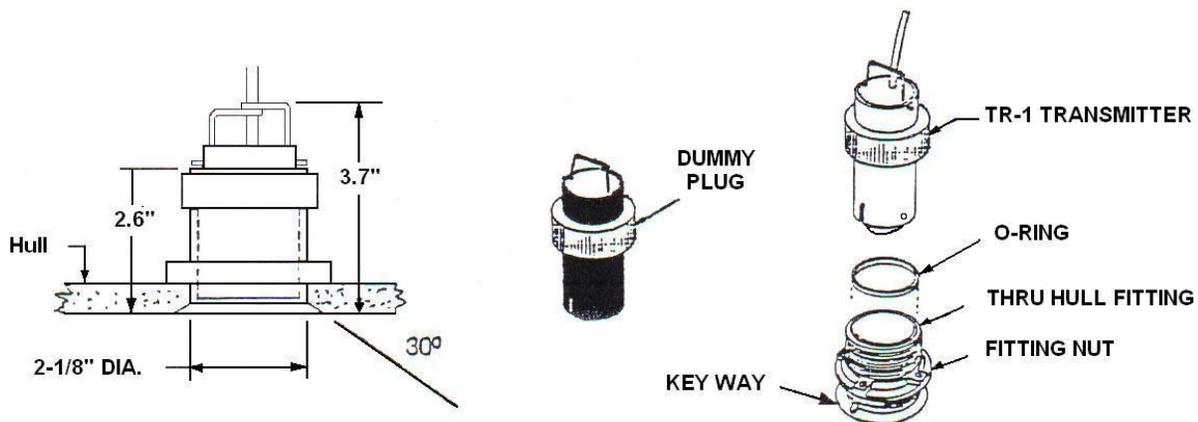
MODEL	NORMAL SCALE	EXPAND SCALE	RESETTABLE LOG	TOTAL LOG
KL-1	0-12	0-6	0-999.99	N/A
KL-2	0-12	0-6	0-999.99	0-9999.99
KL-5	0-10	0-5	N/A	0-9999.99
KL-9	0-30	0-15	0-999.99	0-9999.99



(Figure 1)

INSTALLING THE DISPLAY

1. Cut a 4-1/16" (max 4-1/8") diameter hole in the bulkhead or instrument panel where the display unit is to be mounted (fig.1).
2. Be sure to remove all burrs and clean the face of the bulkhead or panel with detergent to remove all traces of dirt, oils, fingerprints, etc...
3. Each display unit is furnished with an adhesive backed sealing ring to hold the unit fast in place and creates a water tight seal. Please note that it is not recommended that the paper backing be removed until the system is tested and finally calibrated. When ready for final mounting simply remove the paper backing, position unit correctly and firmly press into place.
4. Install the RETAINING RING as shown and tighten with a blade type screwdriver.



INSTALLATION TIPS FOR TRANSMITTERS

SAILBOATS:

The preferred position of the transmitter is where water is diverging around the hull and is free from turbulence and eddies. This is generally in the forward one-third of the hull in front of the keel and approximately one foot off the centerline. Generally the knotmeter transmitter can be mounted on one side of the keel with the depth transducer in a similar position on the opposite side of the keel. If due to access considerations, it is necessary to locate the depth transducer and the knotmeter transmitter on the same side on a fore and aft line, be sure to locate the depth transducer forward of the knotmeter transmitter so that the turbulence created by the paddlewheel does not interfere with the depth sensor.

INSTALLING THE THRU-HULL FITTING

1. The thru-hull fitting requires a 2-1/8" hole with a 30 degree flange. This can be done by use of a hole saw and then filing the flange or by use of a tool (THT) provided by SR Instruments. If this tool is not available locally, contact the factory and arrangements can be made to rent one.

NOTE: This tool requires an 1/2" drill motor.

2. When the THT tool begins to cut the flare, drill in stages, checking the fit of the thru-hull fitting so as not to cut too deep. Be sure the thru-hull fitting is flush with the hull.

3. With the edge of a file, cut or file a notch FACING FORWARD, to seat the key way of the thru hull fitting.

4. Apply bedding compound around the lip and body of the fitting where it will be in contact with the hull.

5. Insert the thru-hull fitting and tighten the FITTING NUT by using a spanner wrench or tap with a small wooden block against the nut to provide a snug fit. **DO NOT OVER TIGHTEN!**

FOLLOW THE MOUNTING INSTRUCTIONS FOR DISPLAY AND TRANSMITTER BEFORE PROCEEDING:

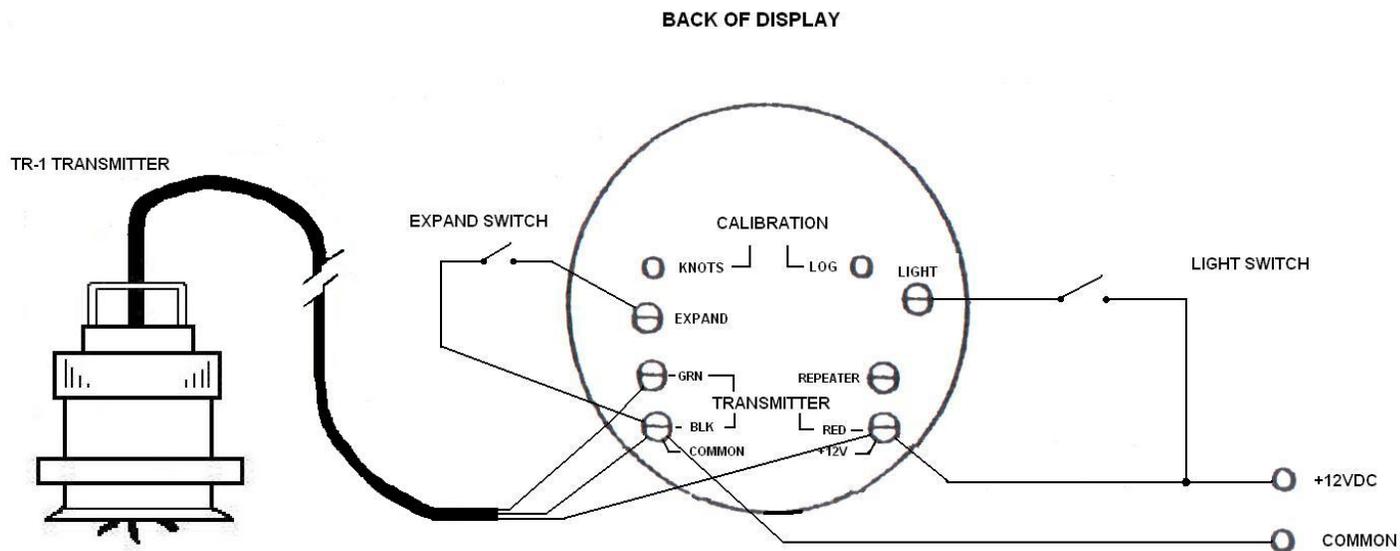
1. Be sure that the thru-hull fitting is properly installed with the KEY WAY facing FORWARD before you insert the transmitter into the thru-hull fitting. This key way mates with the speed sensor to assure proper orientation when transmitter is removed for maintenance or replacement.

NOTE: The thru-hull should already have an o-ring installed. An extra o-ring is provided with the dummy plug.

2. Connect the transmitter wires to the display unit as shown in figure 3.

3. If you choose to connect night lighting simply connect your 12 volt D.C. wire as indicated in figure 3, and install a SPST switch on the positive (+) line to complete the circuit and activate the lights.

4. To operate the expand function install a SPST switch with one lead to EXPAND and the other to COMMON. When the switch is open you will read the larger white scale and when switch is closed you will be reading the EXPAND mode which is the smaller blue scale.



CALIBRATION

1. Your instrument is factory calibrated to read knots, however, if you need to recalibrate you must first remove the plugs from the holes marked KNOTS and LOG (fig.3)
 2. Proceed on a timed measure course to determine proper speed.
 3. After making an initial determination of boat speed, turn the calibration adjustment CLOCKWISE to INCREASE the indicated speed or COUNTERCLOCKWISE to DECREASE. A small blade type screwdriver will serve the purpose. The same adjustment may be used to calibrate in either KNOTS or STATUTE MILES.
- NOTE: The same method is used for any log calibrations.

POWER CONSUMPTION

LIGHTS	AMPS
OFF	.005A
ON	.08A

TROUBLESHOOTING

DISPLAY SHOWS SPEED/ LOG NOT FUNCTIONING - Check to be sure you have adequate power to the display. If there is adequate power going to the display, then check to see if the reset boot is tucked under the glass. If so then that is the problem; the reset boot has to be adhered to the outside of the lens. If the problem still exists, please send the unit in for repair to the address on the front of the manual.

NO SPEED OR LOG - The problem could be either the transmitter or the display. Please follow the proceeding steps to determine cause of the problem-

- A. Apply +12 VDC to the RED wire and the GROUND (NEGATIVE) to the BLACK wires.
 1. Measure actual voltage across RED and BLACK with DC voltmeter.
 2. Disconnect the GREEN wire (if still connected to the display) and measure across the GREEN and BLACK. This voltage should be approximately 1 volt less than step 1.
 - a. If good, then go to step 3.
 - b. If not even close to the proper voltage, sending unit needs replacing
 3. Continue measuring GREEN and BLACK, but now spin the paddlewheel. Your voltage should drop to approximately 6 or 7 volts.
 - a. If good, then the problem is in the readout.
 - b. If not good, then you have either missing magnets from the paddlewheel or the sending unit needs replacing.

INTERMITTENT READINGS- Keep the unit wired as normal and add a DC voltmeter across the GREEN and BLACK wires. Motor or sail as usual-

- A. If the voltage drops from the stationary 12 VDC to approximately 6-7 volts, but no speed indication appears on display, then the problem is in the display.
- B. If readings only occur when voltages are produced, then the paddlewheel is not always turning. Clean paddlewheel first and be sure it spins freely, and then try again. If the results are the same then paddlewheel may need replacing.

ACCESSORIES

ICW-1	INSTRUMENT COVER
ICW-2	INSTRUMENT COVER WITH DIVOT
O-RING	GASKET FOR THRU-HULL
DP-1	DUMMY PLUG
TR-1R	IMPELLER AND PIN
CLP RNG	CLAMP RING
MC-2	METER CASE FOR KL (YOUR MODEL NUMBER)
SEAL RING	GASKET FOR INSTRUMENT GAUGE
ESM	EXPAND SWITCH MODULE
TH-1	THRU-HULL FITTING
THT	THRU-HULL CUTTER