Follow the mounting and installation instructions for the display. Attach the base of the masthead with four screws to the top of the mast. The mast pipe must point directly forward to the bow. (If this is not possible, see Note.) Run the free end of the 70-foot cable down or through the mast. The free end can exit through the side of the mast above or below deck as conditions permit. Out the cable to length and splice to the 2-foot cable with connector. It is preferable to solder these connections and insulate with heat shrinkable sleeving, but if this is not convenient, use the crimp connectors provided. Splice red to red, black to black, green to green, and white to white. Connect the connector of the 20-foot cable and route to the display. Connect according to the wiring diagram above.

Mount the AW-WS switch where convenient. The wire may exit out the back of the switch or the switch can be notched for side exit. Route the cable to the display and connect according to the above diagram.

Connect +12 VDC power from a fused source to the terminal marked "+12V." 12-volt return is connected to "COMMON." If lighting is to be used, connect +12 VDC through a switch or dimmer to one (not both) of the terminals marked "LIGHT."

If a Model CH-1 Close Hauled indicator is to be used, it may be connected across the red, black, and green terminals of the mast cable.
Note: When the masthead unit can not be mounted with the pipe pointed forward, then the vane must be readjusted as follows: Loosen the two set screws in the vane and remove vane. Turn the potentiometer shaft until the display reads 180°. Carefully install vane pointing straight aft and tighten set screws. Check display for 10° starboard, 180°, and 10° port. If satisfactory, put Loctite or equivalent on set screws.

CALIBRATION

Both the Apparent Wind and Windspeed displays are calibrated at the factory and should not require recalibration, but if recalibration is necessary, follow this procedure:

**Apparent Wind** - Move the vane so that it points directly aft. If the display does not read 180°, remove the rubber plug from the back of the display labeled "CAL-APP. WIND" and adjust the potentiometer until the display reads 180°. Check the display reading when the vane is moved from 10° starboard to 10° port. If the display does not read 10° port when the vane is at 10° port (this is the position just before the display switches from 10° port to 10° starboard), then either the mast pipe or the mast itself may be misaligned. Up to 10 degrees or so can be adjusted as follows:

1. Step 1. Readjust full scale on the display by setting the vane to port 10° (the point just before the display switches to starboard 10°) and adjusting the "CAL-APP. WIND" potentiometer until the display reads 10° port or until the needle rests lightly on the full scale stop.

2. Remove the plastic cap and 8-32 nut in the center of the anemometer cap and carefully remove anemometer cups.

3. Loosen the two screws holding the anemometer generator, and with the wind vane pointing straight aft, turn the anemometer assembly until the display reads 180°. Check display when the vane points 10° starboard, 180°, and 10° port. If satisfactory, replace anemometer cups.

4. Replace rubber plug in "CAL" hole.

**Windspeed** - The Windspeed has been factory calibrated but it may be adjusted by removing the rubber plug in the "CAL-WS" hole on the back of the display and adjusting the potentiometer so that the display agrees with a reference unit. Replace rubber plug.
INSTALLATION INSTRUCTIONS FOR THE "MARINER" LINE DISPLAY
AND LOWER UNITS

In mounting any of the displays in the "Mariner" line, a 4 1/16 to
4 1/8 inch diameter hole must be bored or cut in either the
Bulkhead or Instrument Panel. After the hole is prepared, remove
all burrs and clean the face of the Bulkhead or Panel with deter-
gent and water to remove all traces of dirt, oils, fingerprints,
etc. Each display is furnished with an adhesive backed seal ring
to hold the unit fast in place. It is recommended that the paper
backing on the adhesive ring not be removed until the system is
finally calibrated. When ready for final mounting, remove paper
backing from seal ring and press unit firmly in place.
A. The recommended location for a knotmeter or log transducer and depth sensor is:

(a) Sailboat: The preferred position 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 and usually in front of the keel and approximately one foot off of the centerline. Generally the knotmeter transducer can be mounted on one side of the keel with the depth sensor in a similar position on the opposite side of the keel. If due to access consideration, it is necessary to locate the depth sensor and knotmeter transducer on the same side on a fore & aft line, locate the depth sensor ahead of the knotmeter transducer so that the turbulence created by the paddlewheel will not affect the depth sensor.

(b) Power boats: The depth sensor and knotmeter transducer is generally mounted aft, so that they remain immersed at full speed. Both should remain ahead of the propeller turbulence but remain sufficiently under water so that surface bubbles are not encountered.

(c) S R INSTRUMENTS provides a tool, THAT, that should be used to drill and flare the hole for the thru hull fitting. If this tool is not readily available, contact the factory. If unfamiliar with this tool, drill a hole in a scrap piece of wood first to judge its action. Drill the hole in stages, trying the thru hull fitting, so as to not over drill the depth. File a notch, facing forward, with the edge of a file to seat the keyway of the fitting. Apply bedding compound around the lip of the fitting and body of fitting where it will be in the hull, and around the fitting on the inside of the hull. Tighten the nut finger tight or tap lightly with a small wooden block against the nut projections.

It is recommended that you temporarily hook up your mariner equipment before installation so that you will become familiar with the connections and system performance. Do not cut any cables, but connect according to wiring diagram. Where splices are required just twist leads and insulate with electrical tape. A 12V lantern battery, if fresh, can be used to supply power where needed. Check all wiring before connecting power.

Apply power and spin the lower transmitter to activate the knotmeters and logs. Spin the anemometer cups to activate wind speed displays and move wind vane through 360° and observe wind direction displays. If all systems perform satisfactorily, proceed with installation. If any system fails to perform satisfactorily, check all connections. If properly wired and power source has proper voltage, check with your dealer for advice and or replacement if needed.

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