

## EMS WINDSPEED

# INSTALLATION INSTRUCTIONS

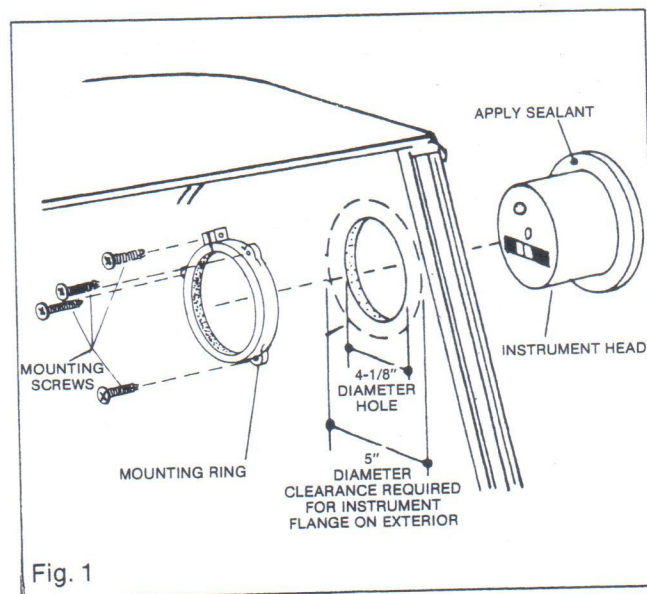
MODEL WSI

The EMS Model WSI windspeed instrument is an extremely reliable and accurate anemometer that will indicate wind speed with a high degree of repeatability from four knots to a full 60 knots. 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 WSI.

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.



## B. MASTHEAD INSTALLATION

Mounting to an existing EMS apparent wind system:

1. Place windspeed generator cups on the bottom section of the tee fitting below the apparent wind vane and secure with the cotter pin provided. NOTE: the generator is upside down; this will not affect the operation.
2. Feed the wire leads from the generator cups into the mounting pipe hole at the bend and retrieve at the end.
3. Strip 1/4" of insulation from each lead and crimp on female bullet connectors provided. Be sure crimp is on bare wire and not insulation.

Mounting independently: (See Figure 2)

1. Feed the wire leads from the generator cups into the mounting pipe hole and retrieve it the end.
2. Secure the windspeed generator cups to the pipe using the cotter pin provided.
3. Strip 1/4" of insulation from each lead and crimp on female bullet connectors provided. Be sure crimp is on bare wire and not insulation.
4. Secure unit in position on the mast with clamps provided and appropriate screws.

## C. MASTHEAD WIRING:

1. Run the 2 conductor cable down the mast and to the instrument location taking care not to damage the cable. The cable may be run inside the mast, exiting through a hole in the side of the mast near the top. If this is done, use a grommet in the hole to prevent wire chafe.
2. Install the male bullet connectors which mate with the female connectors from the masthead unit to the end of the 2 conductor cable.
3. Connect the bullet connectors together at the masthead. Polarity is not important. Waterproof connectors where wires enter using a silicone compound.

## D. INSTRUMENT WIRING (See Figure 2)

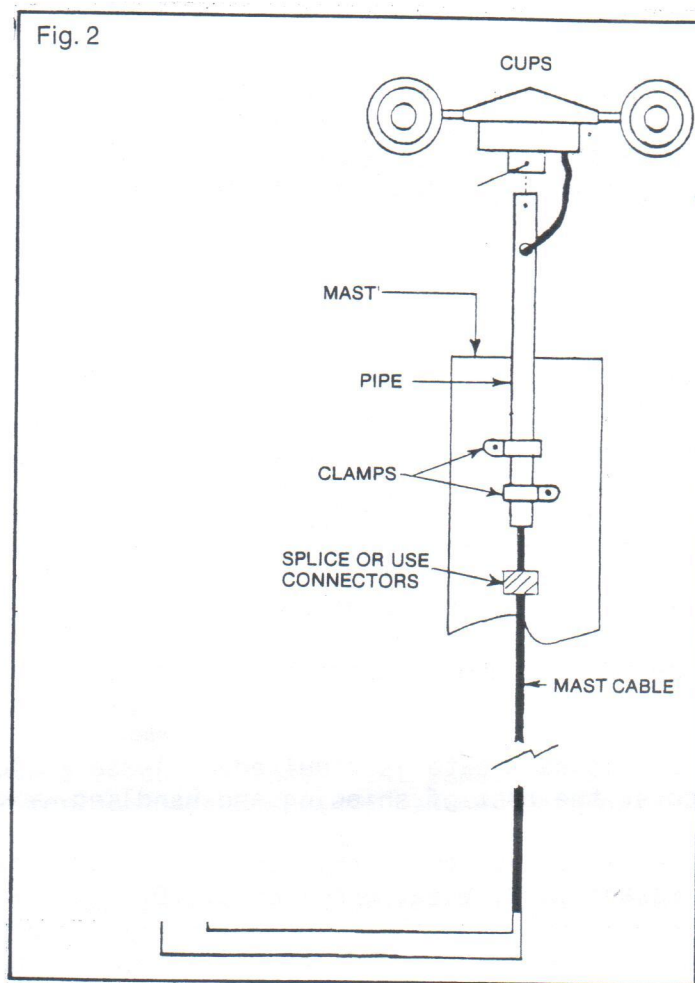
NO POWER IS NECESSARY FOR HOOKUP OF THE WSI WINDSPEED INSTRUMENT.

Simply connect the two wires from the mast 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 WSI 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).





#### E. CALIBRATION

The WSI windspeed instrument was calibrated and tested before leaving the factory, to assure that it is complete and in perfect working condition. If, however the need arises to re-calibrate, the following procedure should be used:

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.

#### F. TROUBLE SHOOTING

Most problems when the instrument does not read at all are wiring problems. Please check your instrument for loose strands of wire between terminals and especially where wires have been spliced. Check to be sure mast cable was not damaged during installation, and that the proper mast and instrument connections have been made.

#### Checking the mast unit:

Disconnect the mast cable from the instrument. Connect an ohmmeter across the two wires from the mast generator. A reading of approximately 600 ohms should be observed. If the cups are rotating the reading will fluctuate around the 600 ohm reading. Check reading at the instrument end of the mast cable and the connection at the top of the mast to rule out the cable assembly.

#### 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

[WWW.MOORELECTRONICS.COM](http://WWW.MOORELECTRONICS.COM)

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

Include return address, daytime phone number, description of problem, and windspeed generator cups.

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.

*\$16.00*

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.

30-112-010	Windspeed generator cups
30-118-010	Clamps (2) for windspeed mounting pipe
30-115-010	Mounting pipe for windspeed generator cups
05-222-000	2 conductor mast cable per foot
39-055-000	Instrument front cover