



WINDY ANEMOMETER FOR BOATS

MANUAL

Model: WINDY B/M

PREFACE

Thank you for buying Navis Windy anemometer for boats. This manual provides information for the best performance and safe application of wind sensors.

Read this manual carefully before starting the installation of the sensors. Keep this manual after installation for future reference.

ASSEMBLY

Before mounting of sensor, place the cups on axle and press them with moderate force to their end position. To remove the cups, grab them in the center part and pull from the axle with moderate force.

Before mounting, place the sensor on sun for a few hours to charge the battery.

Download the app, set correspondent sensor address and check if smartphone receive the data from the sensor.

INSTALLATION

Mount the sensor by 3 self-tapping screws (not enclosed) to horizontal plate. Optional mounting accessories for mounting to vertical surface is also available.

For better signal reception it is recommended that the sensor is turned in such a way that it is visible from the helmsman's seat.

OPERATING

Sensor switches "ON" automatically when the anemometer cups revolve. Wind speed and direction are continuously measured and fresh data are transmitted over Bluetooth every second. In no wind condition the sensor switches "OFF" 6 hours after the anemometer have stopped rotating. Sensor "switched OFF" parameter can be set with application.

With "Windy Marine" app you can read data of current, average and maximum wind speed, wind direction, temperature or view history graphs.

RANGE

The range is up to 100 meters - at 10 m sensor mounting height and when there is no obstacle between the sensor and the receiver. Inside the building the range is much smaller. Range also varies with types of smartphones.

SMARTPHONE APPLICATION

Applications "WINDY MARINE" or "WINDY ANEMOMETER" can be downloaded from Google Play and form Apple App Store. Detailed instructions of application can be viewed on HELP menu.

ANDROID: Application requires device with Android 4.4 or newer with Bluetooth Low Energy (BLE).

APPLE: Application requires device with iOS 11 or newer with Bluetooth Low Energy (BLE).

Please note that application will increase battery consumption of your smartphone because of active Bluetooth communication.

App can't operate in background so history graphs are available only with display switched ON.

SENSOR ADDRESS

In application setting menu always set the address correspond to the address of the sensor from which you wish to receive data.

Address of the sensor is indicated on the sensor label. With function "Nearby sensors" in settings menu you can scan and select the sensors in range.

MAINTENANCE

Cleaning:

Cleaning can be done with a soft tissue or a cloth soaked in mild detergent. Never use aggressive solvents such as acetone. Make sure to use a proper force when cleaning the cups in order not to deform the cup arms.

Wind vane replacement:

Unscrew the inbus screw on vane holder by turning it anticlockwise. Pull out the old vane and insert the new one. Place it into a correct position and fix it with inbus screw.

Bearings replacement:

If cups or wind vane not turns at low wind speeds, it is time to replace the head with bearings.

PROCEDURE FOR WIND SPEED HEAD WITH BEARINGS (Figure 8):

Remove the cups by pulling them off the axis (step 1). Unscrew the head with bearings by turning it anticlockwise (step 2). Mount back the replacement head and reattach the cups.

PROCEDURE FOR WIND DIRECTION HEAD WITH BEARINGS (Figure 9):

Unscrew the screw on the top of the vane holder by turning it anticlockwise and pull out the wind vane (step 1). Unscrew the head with bearings by turning it anticlockwise (step 2). Mount back the replacement head and reattach the wind vane.

Warning: Please make sure the washer to be greased for proper sealing!

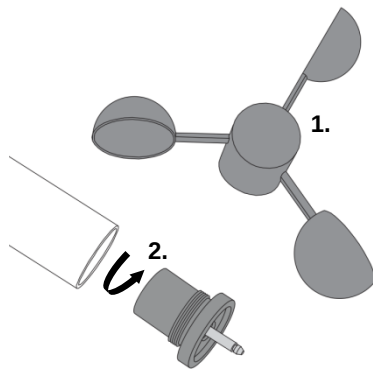


Figure 8. Cups bearings replacement

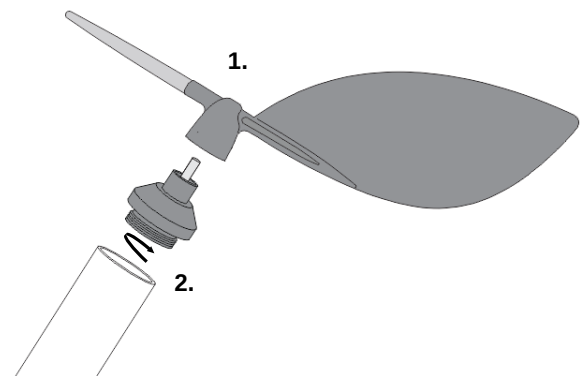


Figure 9. Wind vane bearings replacement (wind speed/direction sensor)

TROUBLESHOOTING

Symptom	Action
Application cannot read sensor data	- check if correct sensor address is set in application settings - check if the sensor is not in sleep mode (turn the cups to wake up the sensor) - check the sensor operation at a reduced distance to the smartphone - reset sensor with placing magnet on mark "R" on sensor housing
Interrupting and weak sensor signal	- check for obstructions between sensor and smartphone - place the sensor or smartphone on a different position with better signal reception - reduce distance between sensor and smartphone - change smartphone. Range varies with different types of smartphones
Cups do not turn at low wind speeds	- take off the cups and check bearings - replace the head with bearings if necessary

TEHNICAL DATA

Data transmission rate:	1 data / second
Wind speed measurement range:	0,6 - 50 m/s
Wind direction measurement range:	0 - 360 ⁰ , no blank sector, contactless magnetic measuring principle
Temperature measurement range:	-30 ... +60 ⁰ C
Wind speed resolution:	0,1 m/s
Wind direction resolution:	1 ⁰
Temperature resolution:	0.5 ⁰ C
Max. speed:	1 s peak since App start-up or since reset
Graphs resolution:	
2 min graph:	1 s (60 points)
60 min. graph:	1 min (60 points)
12 h. graph:	3 min (240 points)
Accuracy wind speed:	+/- 3 %
Accuracy wind direction:	+/- 2.5 ⁰
Accuracy temperature:	+/- 1 ⁰ C
Transmission frequency:	2.4 GHz
Output power:	+ 3 dB
Battery:	3,6V AA Lithium battery (included)
Battery life:	up to 2 years
Bearings:	precision stainless steel Ball bearing
Material - cups (replaceable):	PA (Polyamide)
Dimensions:	height 210 mm, overall diameter cup to cup 120 mm
Dimensions (without holder):	height 240 mm, overall vane diameter 220 mm
Mounting:	sensors mount on a pipe with 20 mm diameter
Application - Google Play, Apple App Store:	WINDY MARINE, WINDY ANEMOMETER

Subject to technical modification without notice.

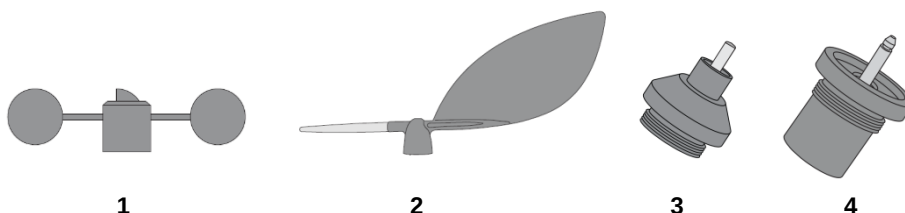
FCC STATEMENT:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Contains FCC ID: QOQBLE112

REPLACEMENT PARTS

- 1 Spare anemometer cups
- 2 Spare wind vane
- 3 WS sensor head with bearings
- 4 WD sensor head with bearings



WARRANTY (LIMITED)

The warranty period of NAVIS products is one year after the date of purchase. During limited warranty period any defective product will be repaired or replaced with comparable product without charges. The claimed product will be repaired or replaced only when returned to the store where it was purchased together with original invoice. Failure to follow these instructions may invalidate the warranty. The limited warranty does not cover battery and damages of any kind including physical damages caused accidentally or misuse of the product. NAVIS does not accept responsibility for any problems which may arise from applications other than the product was designed for. Any liability for direct or indirect damage caused by product failure is excluded.

