

# WIND LOGGER

Type: JWS-L401, JWSD-L401

## Manual

### OPERATING

Sensors continuously measure and transmit data of wind speed, air temperature and wind direction (optionally). Display unit receives data, calculates average values and stores them to the memory card. Current data, received from sensors, as well as part of the wind speed history are presented on LCD display. All operating parameters can be set using three keys on the receiver unit.

Displaying of data:

Shortly press key F to select between 3 pages

1. page - displays current wind speed, temperature, wind direction (optional), date and time
2. page - displays 7 days history of average and maximum wind speed
3. page - displays 24 h graph of hourly average wind speed
4. page - displays 24 h graph of hourly average temperature

Storing to SD card:

Data in .txt format are stored to SD card every full hour. Each data has date and time stamp.

Logging interval is selectable from 10 sec to 1h. Data are stored in the .txt format and are suitable for processing in excel.

Mark "NA" in logged data present missed wind data for marked interval.

Mark "nW" in logged wind direction data present undefined wind direction caused of no wind speed.

### SETTINGS

Hold the F key pressed to enter the setup menu. Select the parameter you wish to change by using up and down keys. Press the F key to enter in the selected parameter and change the value with up and down keys.

Press the F key to enter a new value into the permanent memory and move to the next parameter.

When you have set all the parameters, exit the setup menu by holding the F key pressed for 3 seconds.

#### Description of parameters:

Time: 12:33	time setting - 24 h time format
Date: 2013/12/26	date setting - year/month/ day
Day: Sunday	day setting
WS Address: xx	set the sensor address of your Wind speed sensor
WD Address: 00	set the sensor address of your Wind direction sensor <b>(value must be 00 if WD sensor is not installed)</b>
WS units: m/s	wind speed unit (m/s, km/h, knots, mph)
Temperature unit: °C	temperature unit (°C or °F)
Logging int: 1min	logging interval (10 s, <b>1 min</b> , 10 min or 60 min)
Display Auto Off: Yes	automatic display switching off (saving mode/ reducing power consumption) <b>Yes:</b> display automatically switches off after 1 minute <b>No:</b> display is always ON
Reset Data: No	<b>No/Yes</b>
Language:	English/French
WS Cal. Factor: +0.0%	Calibration factor for wind speed (-5,0 ... +5,0%, in 0,5% steps)

### **DISPLAY AUTO OFF**

Activate this mode in the setting menu to prolong battery life. Using this mode, the display switches off after 1 minute of inactivity. All other functions stay active. Display switches On with each press of the key.

### **DATA RECEIVING**

LED blinks every time when new data are received from sensors – every 2 seconds at normal reception. In case the display unit has no data from sensor for 30 seconds it shows two dashes. Signal strength is numerically shown in dB.

### **SENSOR ADDRESS**

Always set the address correspondent to the address of the sensor from which the receiver will receive data. Address of the sensor is marked on the sensor and also in the interior of the battery compartment.

### **RANGE**

The range is up to 400 meters (up to 1200 m at L401X model) - at 10 m sensor mounting height and when there is no obstacle between the sensor and the display unit. Inside the building the range is much smaller. Normally the signal can be received through two to three walls.

### **BATTERY REPLACEMENT**

Double blinks of LED diode marks that either - the sensor or the receiver battery should be changed.

#### **SENSOR:**

When the sign S starts alternate with battery symbol, replace the sensor battery. Take off the battery cover by turning sensors bottom part anti clockwise. Pull out the battery holder and insert new battery.

DISPLAY UNIT: battery symbol on LCD indicates the state of receiver batteries. Replace the battery if necessary. Batteries are placed under the lid at the backside of the display unit. Use 1,5 V AA lithium battery to prolong the operating time.

### **STORE DATA FROM SD CARD**

It is recommended to store data from SD card every month for preventing data loss because of empty battery in receiver or other external factors.

### **LIMITED WARRANTY**

This product is guaranteed for one year after date of purchase. During limited warranty period any defective product will be repaired or replaced with comparable product without charges. The limited warranty does not cover battery and damages of any kind including physical caused accidentally or from misuse. Manufacturer's responsibility is limited to repair or replace the product. Any liability for direct or indirect damage caused by product failure is excluded. The claimed product will be repaired or replaced only when returned to the store where it was purchased together with the original invoice.

## TECHNICAL DATA

Logging:		average wind speed in selected interval maximum wind speed in selected interval average temperature in selected interval average wind direction in selected interval
Logging interval:		selectable 10 s, 1 min, 10 min, 60 min
File creation on SD card:		creates new file every day at 10 s logging interval creates new file every month at 1 min, 10 min, 60 min logging interval creates new file after each insertion of SD card creates new file after each settings changes
Data format:		.txt
Memory card:		micro SD (included 4Gb)
Display updating:		every 2 seconds
Data transmission:		every 2 seconds
Wind speed measurement range:		0,6...50 m/s
Wind direction measurement range:		0 – 359 °
Temperature measurement range:		-30...+60 °C
Wind speed units:		m/s, Km/h, Knots, mph,
Temperature units:		°C, °F
Wind speed resolution:		0,1 m/s
Wind direction resolution:		1 °
Temperature resolution:		1 °C
Wind speed accuracy:		typ. +/- 3%
Wind direction accuracy:		+/- 2,5 °
Temperature accuracy:		+/- 1 °C
Range:	Type L401	up to 250 m visible distance
	Type L401X	up to 1200 m visible distance
Transmission frequency:		868 MHz
Temperature operating range:		-30 ... +60 °C
Battery - sensor:		1 x 3,6 V Lithium battery, AA - mignon (included)
Battery life - sensor:		up to 3 years
Battery - receiver:		2 x 1,5 V Lithium battery recommended, AA - mignon (not included)
Battery life - receiver:		up to 12 months (Lithium battery, WS sensor, display auto off mode) up to 6 months (Lithium battery, WS +WD sensor, display auto off mode)
Material	WS sensor:	AL, PVC
	WS sensor cups:	PA (polyamide)
	WD vane:	PC (polycarbonate)
	receiver:	ABS
Dimensions		
Height (sensor):		210 mm
Overall diameter cup to cup (sensor):		120 mm
Display unit:		94 x 63 x 28 mm
Mounting :		sensors mounts on ø 20 mm pipe

Alternations in specifications are subject to change without notice.

