

Digital Wind / Temperature / RH Meter

PRODUCT MANUAL

Item # 3145



Spectrum[®]
Technologies, Inc.

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This manual will familiarize you with the features and operation of your new Digital Wind/Temp/RH Meter. Please read this manual thoroughly before using your meter. For customer support or to place an order call Spectrum Technologies, Inc. at 800-248-8873 or (815) 436-4440

between 7:30 am and 5:30 PM CST,
FAX at 815-436-4460, or
E-Mail at info@specmeters.com.
Web site: www.specmeters.com

Spectrum Technologies, Inc.
12360 S Industrial Dr E.
Plainfield, IL 60585

INTRODUCTION

Congratulations on your purchase of the Digital Wind/Temp/RH Meter. The dual display indicates Air Velocity and Humidity, Dew Point, Ambient Temperature, or Temperature with wind-chill factor. With careful use, this meter will provide years of reliable service.

SPECIFICATIONS

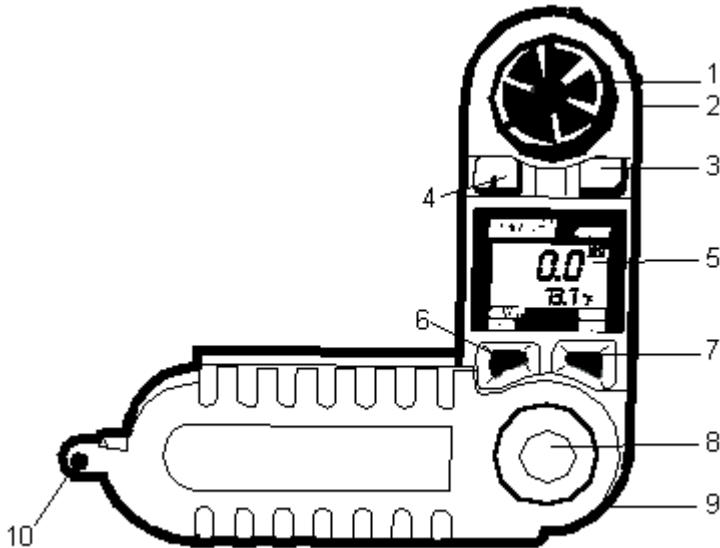
General

Display	Dual 3½ digit LCD with low battery and multifunction
Sensors	Sapphire bearing, non-corrosive vane for air velocity; Precision thermistor for temperature measurements
Average Mode	Choice of 5 or 10 reading averaging (2 second factory)
Max and Data Hold Displays	Max recalls the highest reading; Data Hold freezes the display
Sample time	1 reading per second for air velocity and temperature (1 reading per 15 seconds for humidity with 2 second updates)
Water-resistant	To 3' (1m)
Operating conditions	5 to 122°F (-15 to 50°C) / < 80% RH
Power supply	Lithium battery (CR-2032 or equivalent) / 400 hour
Dimensions / Weight	Instrument: 5.25 x 2.75 x 0.75" (133 x 70 x 19mm)

Range

Measurement Units	Range	Resolution	Accuracy
MPH	1.1 to 62.5 MPH	0.2 MPH	± (3% + 0.4 mph)
km/hr	1.8 to 100.6 km/h	0.7 km/h	± (3% + 1.4 km/hr)
Knots	1.0 to 54.3 knots	0.3 knots	± (3% + 0.6 knots)
m/sec	0.5 to 28 m/s	0.1 m/s	± (3% + 0.2 m/s)
ft/min	100 to 5500 ft/min	20ft/min	± (3% + 40 ft/min)
Beaufort force	1 to 17 BF	1 BF	± 1
Temperature	0 to 122°F	0.1°F/C	± 1.8°F (± 1°C)
Relative Humidity	10 to 95%	1%	± 5% RH
Dew Point	32 to 122 °F (0 to 50°C)	0.1°F/C	± 3.6°F (2°C)

METER DESCRIPTION



1. Vane impeller
2. Impeller set screw (on rear of meter)
3. Relative Humidity sensor
4. Temperature sensor
5. LCD display
6. ON/OFF, HOLD key
7. UNITS, MODE key
8. Battery compartment (on rear)
9. Tripod mounting hole
10. Lanyard (neckstrap)

METER OPERATION

Turning the meter ON and OFF

- Press the ON/OFF/HOLD button to turn the meter ON.
- Press and hold the ON/OFF/HOLD buttons for approx. 3 seconds to turn it OFF.
- The meter's Auto Power OFF feature turns the meter OFF after 10 minutes of inactivity.

Change the lower display parameter

- With the meter ON, press and hold down the ON/OFF/HOLD button.
- While continuing to hold the ON/OFF/HOLD button, press the UNITS/MODE button repeatedly to step through Temperature ($^{\circ}\text{F}/^{\circ}\text{C}$), Humidity (RH%), Dew Point (TD), & Temperature with wind-chill factor (WCI). Note that the center display is Wind Velocity.

Change the Air Velocity unit of measure

- Turn the meter OFF. Press and hold down both buttons until the display turns on and begins blinking then release both buttons.
- Press the UNITS/MODE button repeatedly to step through the units. See **Specifications** (p. 4) for list.
- After 5 seconds the meter switches back to normal operation mode automatically.

Select temperature units ($^{\circ}\text{C}$ or $^{\circ}\text{F}$)

- Turn the meter OFF first. Press and hold down both buttons until the display turns on and begins blinking then release the buttons.
- Press both buttons momentarily to change temperature units.
- After 5 seconds the meter switches back to normal operation mode automatically.

METER OPERATION

Taking Measurements

Position the meter so that the airflow enters the meter vane from the *rear* of the meter (opposite side of front panel logo). A tripod mount is located on the bottom of the meter.

Max Hold

- Max Hold represents the highest measurement taken since the meter was turned on.
- Press the UNITS/MODE button to display the Max reading (MAX icon appears).
- Press the UNITS/MODE button repeatedly to step through to the normal operating mode .

Average mode

- 5 or 10 reading averages can be displayed in the Average Mode.
- Press UNITS/MODE 3 times for 5 reading averaging or 4 times for 10 readings.
- To exit this mode, press the UNITS/MODE button until the icons on the left disappear.

Data Hold

- Data Hold freezes the most recent displayed reading.
- Press and hold the ON/OFF/HOLD button to activate Data Hold.
- As long as the ON/OFF/HOLD button is held the reading will remain on the LCD.

MAINTENANCE

Battery Replacement

The meter has a low battery indicator (battery symbol). Using a coin, turn the battery compartment cover **CLOCKWISE** to remove it. Once opened, observe the position of the battery, placing the new one in the same position. Affix the battery compartment cover and dispose of the lithium battery in accordance with local, state, or national disposal codes.

Important: Turn the meter off before opening the battery compartment.

Impeller Replacement

- Remove the set screw next to the impeller assembly (on the rear of the meter).
- Twist the impeller assembly counter-clockwise to the **OPEN** position and remove it.
- Install impeller by inserting & twisting the new impeller assembly clockwise
- Tighten the set screw.

CONVERSION TABLE

	m/s	ft/min	Knots	km/h	MPH
1 m/s =	1	196.87	1.944	3.6	2.24
1 ft/min =	0.00508	1	0.00987	0.01829	0.01138
1 knot =	0.5144	101.27	1	1.8519	1.1523
1 km/h =	0.2778	54.69	0.54	1	0.6222
1 MPH =	0.4464	87.89	0.8679	1.6071	1

WARRANTY

This product is warranted to be free from defects in material or workmanship for 1 year from the date of purchase. During the warranty period Spectrum will, at its option, either repair or replace products that prove to be defective. This warranty is void if the Spectrum products have been damaged by customer error or negligence, or if there has been an unauthorized modification.

Returning Products to Spectrum

Before returning a failed unit, you must obtain a Returned Goods Authorization (RGA) number from Spectrum. You must ship the product(s), properly packaged against further damage, back to Spectrum at your expense. Clearly mark the RGA number on the **outside of the package**. Spectrum is not responsible for any package that is returned without a valid RGA number or for the loss of the package by any shipping company.

Who do I contact?

Contact the company you purchased the data logger from: Spectrum Technologies, Inc. or an authorized Spectrum Dealer.

When Contacting Spectrum Technologies:

Please indicate that you need Technical Support.

Be prepared to:

1. Provide details on the hardware and software configuration of your components including: manufacturer, model number, peripherals and versions of the operating system.
2. Completely describe the problem. The more information you provide, the faster and more accurately we will be able to respond.

EXTECH INSTRUMENTS CORP, 285 Bear Hill Road, Waltham MA 02451
Phone: 781.890.7440 Fax: 781.890.7864

Declaration of Conformity

Extech Model: 45158

Description: Mini Thermo-Anemometer and Humidity

We, Extech Instruments Corporation, 285 Bear Hill Road, Waltham, MA 02451 declare that a sample of the product listed below has been tested by a third party for CE-marking according to:

EMC Directive, 89/336/EEC

Report Number: ET906-11-146

Certificate Date of Issue: December 5, 2001

Standards:

EN 61326:1998

EN 55011: 1998/A1:2000 (Class B)

IEC 61000-4-2:1995/A1:1998/A2:2000

IEC 61000-4-3:1996/A1:1998/A2:2000

The test reports show that the product fulfills the requirement in the EMC Directive for CE marking. On this basis, together with the manufacturer's own documented production control, the manufacturer (or his European authorized representative) can in his EC Declaration of Conformity verify compliance with the EMC Directive.



Tony Campagna
Operations Manager

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