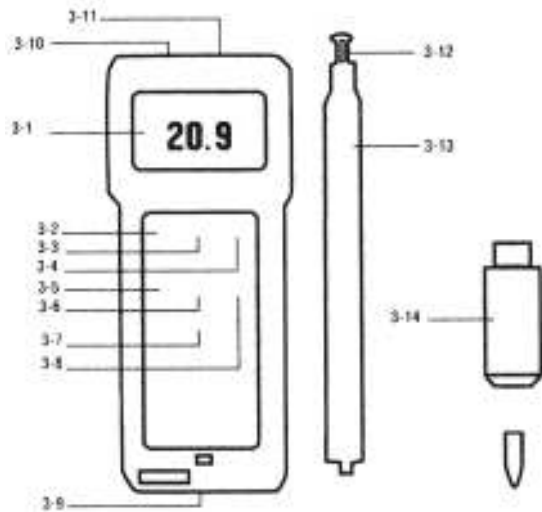


# TRACEABLE® HOT-WIRE ANEMOMETER/THERMOMETER INSTRUCTIONS

## SPECIFICATIONS

<b>Ranges:</b>	0.2 to 20.0 meters per second
(air velocity)	0.7 to 72.0 kilometers per hour
	40 to 3940 feet per minute
	0.5 to 44.7 miles per hour
	0.4 to 38.8 knots (nautical miles per hour)
(temperature)	32.0 to 122.0°F (0.0 to 50.0°C)
<b>Resolution:</b>	For meters per second, resolution is 0.1
(air velocity)	For kilometers per hour, resolution is 0.1;
	For feet per minute, resolution is 1;
	For miles per hour, resolution is 0.1;
	For knots, resolution is 0.1.
(temperature)	0.1°F (0.1°C)
<b>Accuracy:</b>	± 1% full scale plus 1 digit of the reading
(air velocity)	
(temperature)	0.8°C (1.5°F).
<b>Sampling Time:</b>	approximately 0.8 seconds
<b>Data Output:</b>	RS-232 PC serial interface
<b>Case:</b>	ABS plastic
<b>Fail safe:</b>	Low battery indicator
<b>Power:</b>	Six (6) 1.5V AAA alkaline batteries
<b>Accessories</b>	
<b>Supplied:</b>	carrying case, telescope probe, batteries, Traceable® Certificate, instructions.

## DESCRIPTION

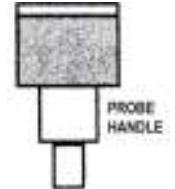


3-1	LCD Display
3-2	Power Button
3-3	Hold Button: press to hold reading
3-4	°C/°F button
3-5	Record Button: press to record results.
3-6	Recall Button: press to show minimum and maximum readings.
3-7	Zero Button
3-8	Unit button: press to select air velocity measurement
3-9	Battery Compartment
3-10	RS-232 Output Socket
3-11	Probe Input Socket
3-12	Sensor Head
3-13	Probe Handle
3-14	Probe Plug

## HOT WIRE ANEMOMETER OPERATION

1. Insert the PROBE PLUG (3-14, fig. 1) into the socket on top of the unit labeled INPUT (3-11, fig. 1).
2. Turn the meter on by switching the POWER BUTTON (3-2, fig. 1) to the right.
3. Select the desired temperature by pressing the °C/°F BUTTON (3-4, fig. 1).
4. Select the desired air velocity unit by pressing the UNIT BUTTON (3-8, fig. 1). Each press of the button will show a different unit of measurement on the display (m/s, km/h, ft/min, Knot, mile/h).
5. Slide the sensor cover to the end of the SENSOR HEAD (3-12 fig 1). See Figure 2. This allows the sensor head to be protected from the environment for a more accurate zero reading.
6. Push the ZERO BUTTON (3-7, fig. 1). The display should read 0,0.
7. Slide the sensor cover towards the probe handle to expose the sensor head. **Caution!! Do not allow fingers, tools or any other object to come in contact with the air velocity sensor. Any contact may permanently damage the sensor and the meter will not work properly.**
8. Adjust the TELESCOPE PROBE (3-13, fig. 1) to the desired length.
9. Note the mark located at the top of the SENSOR HEAD. This mark should be pointed towards the source of wind being measured. When this mark is placed towards the wind source, the upper display will show the air velocity value. The lower display shows the temperature.
10. To hold a measurement on the display, press and hold the HOLD BUTTON (3-3, fig. 1) while a measurement is being taken. The LCD display will show **DH** in the upper left portion of the display to indicate that the value is a "held" value. To cancel the data hold feature, simply press the HOLD BUTTON a second time.
11. To record a measurement, press and hold the RECORD BUTTON (3-5, fig. 1) while a measurement is being taken to hold the displayed value. The LCD display will show **REC** in the lower left portion of the display to indicate that the value is being recorded. To deactivate the record function, press the RECORD BUTTON again.

Figure 2



## MEMORY RECALL OPERATION

Use the RECALL BUTTON (3-6, fig. 1) to recall the last minimum and maximum readings. When the **REC** symbol appears on the display, press the RECALL BUTTON (3-6, fig 1) once. The maximum recorded value will be displayed. **Max** will also appear on indicating that this is the maximum or highest reading. A second press of the RECALL BUTTON will display the minimum reading. The letters **Min** will also appear indicating that this is the minimum or lower reading. Note: The Data Record function must be in use to utilize the Memory recall features. Once the RECORD BUTTON has been pressed a second time to deactivate the data record function, the minimum and maximum values are no longer stored.

## RS-232 PC SERIAL INTERFACE

This unit features RS-232 output. A RS-232 OUTPUT SOCKET (3-10, fig. 1) is located on the top of the unit. To utilize this feature, connect the unit to a PC with the Data Acquisition Accessory. (see Accessories section).

Data is displayed in a 16 digit stream: D15 through D0. Each digit indicates the following:

D0	end word
D1 to D4	Upper Display Reading, D1=LSD, D4=MSD
D5 to D8	Lower Display Reading, D5=LSD, D8=MSD
D9	Decimal Point (DP) for Upper Display: 0= no DP, 1= 1 DP, 2=2 DP, 3=3 DP
D10	Decimal Point (DP) for Lower Display: 0= no DP, 1=1 DP, 2=2 DP, 3=3 DP
D11/D12	Annunciator for Upper Display: 00= No Symbol, 01= °C, 02= °F, 03= %, 04= % RH, 05= % PH, 06= %O <sub>2</sub> 07= mg/L, 08= m/s, 09= knots, 10= Km/h 11= Ft/min, 12= mph, 13= uS, 14=mS, 15= Lux, 16= Ft-cd, 17=dB, 18=mV

- D13 Annunciator for lower display: 0= No symbol,  
1= °C, 2= °F
- D14 Reading Polarity for the display:  
0= both upper and lower displays are "+",  
1= upper is "-" and lower is "+"  
2= upper is "+" and lower is "-"  
3= both upper and lower displays are "-".
- D15 Start word

#### **LOW BATTERY**

If the letters "LBT" appear on the left corner of the display, it indicates the batteries are low and need to be replaced. To replace the batteries, slide the battery cover located on the back of the unit away from the unit. Remove the old batteries and replace them with six new 1.5V AAA alkaline batteries. Use alkaline batteries, NOT regular or heavy duty batteries. Place the batteries in the proper direction as indicated by the diagram in the battery compartment. Incorrectly installed batteries may damage electronics. Replace battery cover.

#### **ALL OPERATIONAL DIFFICULTIES**

If this anemometer does not function properly for any reason, please replace the batteries with six new 1.5V AAA alkaline batteries (see Low Battery section, above). Low battery power can occasionally cause any number of "apparent" operational difficulties. Replacing the batteries with new fresh batteries will solve most difficulties.

#### **ACCESSORIES**

##### **Cat. No. 4138 Easy-Use™ Accessory Adaptor 115 VAC**

##### **Bonus Free Disk**

This demonstration disk shows the data acquisition capabilities of this digital product when connected to a computer. See **Cat No. 4136** below to order complete Data Acquisition System.

##### **Cat. No. 4136 Data Acquisition System Accessory**

Complete DAS—3™ Data Acquisition System captures, displays, and stores readings on any IBM-compatible PC. Information can be imported into databases. Includes 3.5" diskette and 5' serial cable with D9F plug.

**Cat. No. 4325 Data Logger** Complete DAS-4™ System captures and stores up to 8000 bytes (over 1000 readings) from all meters. Reading may be taken at intervals from 1 second to 99 hours. Stored readings may be downloaded to any PC and viewed. Can be read "as is" or imported to spreadsheets, databases, and statistical programs. Supplied with 36-inch serial cable with D9F computer plug, 3.5" inch diskette (Windows®), and four AA alkaline batteries. Size is 5 x 3 x 1 inches. Weight is 7 ounces.

##### **Cat. No. 4326 Accessory Adaptor 115 VAC for Data Logger**

#### **WARRANTY, SERVICE, OR RECALIBRATION**

For warranty, service, or recalibration, contact:

#### **CONTROL COMPANY**

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E-mail sales@control3.com

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Control Company is ISO 9001 Quality-Certified by DNV and ISO 17025 accredited as a Calibration Laboratory by A2LA.