

# User Manual

# Model M130 Mini Anemometer



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## 1 Introduction

Thank you for purchasing a M130 Air Velocity Meter from Anaheim Scientific. The M130 measures air speed and temperature. It is ideal for spot measurements at air outlets on account of its 30mm vane. Durable, and reliable the M130 is easy to use

#### 1.1 M130 features:

- Wind speed measurements up to 55 mph (90 kph)
- Measurements in m/s, km/h, mph, knots, or ft/min
- Light air response 0.4m/s
- Max/Min/Avg and data hold
- Auto power off with disable function

## 2 Safety Summary



#### CAUTION

Adhere to the following conditions for safe and effective usage of this meter

- Do not operate the meter in an environment filled with combustible gas, liquids, dust or fibers

- In order to avoid damage caused by contamination or static electricity, do not touch the circuit board before taking adequate precautions
- Operating Environment: Indoors use. This instrument has been designed for usage within an environment of pollution degree 2
- Please don't touch the vanes by fingers or foreign body to avoid damage to the vanes.
- Operating Environment: 5°C ~ +50°C, <95% RH, <2km altitude</li>
- Storage Environment: -10 to 60°C, <70% RH</li>

#### 3 Compliance Statements



**Caution:** This symbol indicates that the equipment and its accessories are subject to special collection and disposal procedures

This meter complies with EMC: EN61326-1(2006), IEC 61000-4-2(2008, IEC 61000-4-3(2006) + (2007).

#### 4 Product Contents and Inspection

This unit is tested prior to shipment. It is therefore ready for immediate use upon receipt. An initial

physical inspection should be made to ensure that no damage has been sustained during shipment.

Inspect the packing box on receipt for any external damage. If any external damage is evident, remove the instrument and visually inspect its case and parts for any damage. If damage to the instrument is evident, a description of the damage should be noted on the carrier's receipt and signed by the driver or carrier agent. Save all shipping packaging for inspection. Forward a report of any damage to the agent through which the unit is procured.

Retain the original packing in case subsequent repackaging for return is required. Use of the original packing is essential.

After the mechanical inspection, verify the contents of the shipment. The items included in this package are:

- M130 Meter
- User Manual
- Carrying Case
- 2 x AAA Batteries

#### 5 Device Description

- 1. Vane
- 2. Display (LCD)
- 3. Velocity unit select button
- Calibration and °C/°F button
- 5. Data hold button

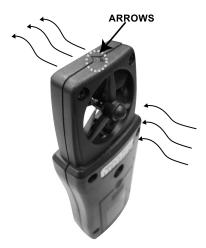


- 6. Maximun/Average/Minimum button
- 7. Power Button : ŎN/OFF

#### 6 Device Operation

#### 6.1 Measuring Air Velocity:

Follow the arrows to measure velocity. As shown in the photo.





#### WARNING

Please don't touch the vanes by fingers or foreign body to avoid damage to the vanes.

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#### 6.2 Power Button:

Press the "<sup>®</sup>" button more for than 2 seconds to power on the meter. Press the button again and the meter will immediately turn off.

#### 6.3 Velocity Unit Button:

Select the unit:  $m/s \rightarrow Knots(kts) \rightarrow ft/min(fpm)$  $\rightarrow Km/hr(kph) \rightarrow mph.$ 

#### 6.4 Calibration:

- Calibration should be set at 10 m/s
- Prepare a known 10m/s velocity
- Press CAL button and POWER button for more than 2 seconds and the LCD will display CAL
- Press CAL button again for more than 2 seconds and the meter will shut down
- Your meter is now calibrated

#### 6.5 °C/ °F Button :

Select °C/ °F.

#### 6.6 MAX/MIN/AVG Button :

Press the "MAX/MIN" button. MAX will appear and the highest reading (since the meter was turned on) will stay showing. Press the button again to see AVG, the average value. This will change as time goes on and

the average value changes. Press the button again for MIN, the minimum value. Press again to go to MAX again, or press for more than 1 second to exit this mode.

#### 6.7 Data Hold button:

Freezes the reading present on the LCD screen at the moment the button is pressed.

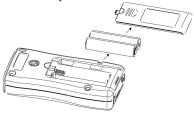
#### 6.8 Auto Power:

When the LCD "G" symbol is showing, the Auto Power-Off feature is engaged. To save battery life, the meter powers down automatically after approximately 12 minutes of inactivity. To turn this feature on or off, press and hold the Power Button, "I", for more than 2 seconds.

#### 6.9 Battery Replacement:



- Remove the battery cover
- Replace the battery.
- Install the battery cover.



### 7 Technical Specifications

#### 7.1 General Specifications:

Display	Dual LCD display. The maximum value on the primary display is 9999. The maximum value on secondary display is 999.	
Sampling Rate	1 sample per second	
Power Supply	2 x AAA Batteries	
Battery life	50 hours during consecutive use	
Dimensions	135 × 48 × 23 mm (H × W × D)	
Weight	80g (excluding the battery)	
Warranty	Limited two-year warranty	

#### 7.2 Velocity Specifications:

Unit	Range	Resolution	Accuracy
m/s	0.4~25	0.1	±2% + 0.2
km/hr (kph)	1.5~90	0.1	±2% + 0.8
mph	0.9~55	0.1	±2% + 0.4
knots (kts)	0.8~48	0.1	±2% + 0.4
ft/min (fpm)	79~4921	1	±2% + 40

Unit	Range	Resolution	Accuracy
°C	-20~50	0.1	±1°C
°F	-4~122	0.1	±1.8°F

#### 7.3 Temperature Specifications:

#### 8 Service, Repairs, Calibration

- The following are instructions regarding policies for servicing, repairing or calibrating Anaheim Scientific products. Turnaround time is usually less than ten (10) working days unless expedited service is requested and pre-arranged.
- Send an email to service@anaheimscientific.com requesting an RMA number specifying your request for either service/repair and/or calibration with your product's model number.
- Once you receive a reply from service@anaheimscientific.com, you will be asked to ship prepaid to the address below. Package the unit carefully using filler or bubble wrap, and if possible, ship in the original box. Ship each unit separately. (Anaheim Scientific is not responsible for any shipping damage that may occur.)
- Include a packing list with each unit shipped stating what type of service is required and include the return shipping information: name, address and telephone number.

- If the unit is in warranty, please provide the following: proof of purchase or copy of the original invoice.
- If the unit is out of warranty, prepayment is required by Check, Money Order or Credit Card.
- Return all merchandise to Anaheim Scientific with pre-paid shipping. The flat-rate repair charge for Non-Warranty Service does not include return shipping. Return shipping to locations in North American is included for Warranty Service.
- For overnight shipments and non-North American shipping fees please contact Anaheim Scientific

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Anaheim Scientific ATTN: Service/Repair 22820 Savi Ranch Parkway Yorba Linda, CA 92887

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#### 9 Limited Two-Year Warranty

- Scientific warrants to the original purchaser that its products and the component parts thereof, will be free from defects in workmanship and materials for a period of two years from date of purchase.
- Anaheim Scientific will, without charge, repair or replace, at its option, defective product or component parts. Returned product must be accompanied by proof of the purchase date in the form of a sales receipt.
- To help us better serve you, please complete the warranty registration for your new instrument via our website <u>www.anaheimscientific.com</u>
- Exclusions: This warranty does not apply in the event of misuse or abuse of the product or as a result of unauthorized alterations or repairs. The warranty is void if the serial number is altered, defaced or removed.
- Anaheim Scientific shall not be liable for any consequential damages, including without limitation damages resulting from loss of use. Some states do not allow limitations of incidental or consequential damages. So the above limitation or exclusion may not apply to you.
- This warranty gives you specific rights and you may have other rights, which vary from state-to-state.

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