

User Manual



AM250

Thermo-Anemometer + Psychrometer

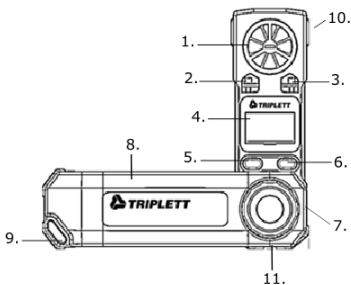


Introduction

Congratulations on your purchase of the Triplet AM250 Anemometer/Psychrometer. 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.

Meter Description

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



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 20 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 (oF/oC), Humidity (RH%), Dew Point (TD), & Temperature with wind-chill factor (WCI). Note that the center display is Air 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 specs for list) After 5 seconds the meter switches back to normal operation mode automatically

Select temperature units (oC or oF)

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

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

Specifications

Measurement	Range	Resolution	Accuracy (% of reading)
MPH (Miles per hour)	2.5 to 44.7 MPH	0.2 MPH	± (3% + 0.4 mph)
km/hr (kilometers per hour)	4.0 to 72.0 km/h	0.7 km/h	± (3% + 1.4 km/hr)
Knots (nautical miles per hour)	2.1 to 38.9 knots	0.3 knots	± (3% + 0.6 knots)
m/sec (meters per second)	1.1 to 20.0 m/s	0.1 m/s	± (3% + 0.2 m/s)
ft/min (feet per minute)	216 to 3936 ft/min	20ft/min	± (3% + 40 ft/min)
Beaufort force	1 to 8 BF	1 BF	± 1
Temperature	0 to 122°F (-18 to 50°C)	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)

General Specifications

Display	Dual LCD with low battery and multifunction indicators
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 default)
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 battery life
Dimensions / Weight	Instrument: 133 x 70 x 19mm(5.25 x 2.75 x 0.75") Vane: 1'(24mm) diameter /3 oz.(95 g)

Maintenance

Battery Replacement

The AM250 has a low battery indicator (battery symbol). **Important: Turn the meter off before opening the battery compartment.** 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. Secure the battery compartment cover and dispose of the lithium battery in accordance with local, state, or national disposal codes.



All EU users are legally bound by the Battery Ordinance to return all used batteries to community collection points or wherever batteries / accumulators are sold.

Disposal in household trash or refuse is prohibited.

Disposal: Follow the valid legal stipulations in respect of the disposal of the device at the end of its lifecycle

Other Battery Safety Reminders

Never dispose of batteries in a fire. Batteries may explode or leak.

Never mix battery types. Always install new batteries of the same type.

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.

CFM Measurements

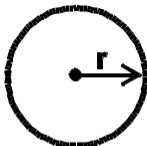
Measure the area of the duct using the diagrams below for rectangular and circular ducts (If the duct measurements are made in inches, divide the inches by 144 to get the area in square feet). Plug the area value (in square feet) in the cubic equations below. Note that the air velocity must be plugged into the cubic equations also.



$$A = w * h$$

$$\text{CFM (ft}^3/\text{min)} = \text{Air Velocity (ft/min)} \times \text{Area (ft}^2\text{)}$$

$$\text{CMM (m}^3/\text{min)} = \text{Air Velocity (m/sec)} \times \text{Area (m}^2\text{)} \times 60$$



$$A = \pi r^2$$

Warranty

Triplett / Jewell Instruments extends the following warranty to the original purchaser of these goods for use. Triplett warrants to the original purchaser for use that the products sold by it will be free from defects in workmanship and material for a period of (1) one year from the date of purchase. This warranty does not apply to any of our products which have been repaired or altered by unauthorized persons in any way or purchased from unauthorized distributors so as, in our sole judgment, to injure their stability or reliability, or which have been subject to misuse, abuse, misapplication, negligence, accident or which have had the serial numbers altered, defaced, or removed. Accessories, including batteries are not covered by this warranty

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