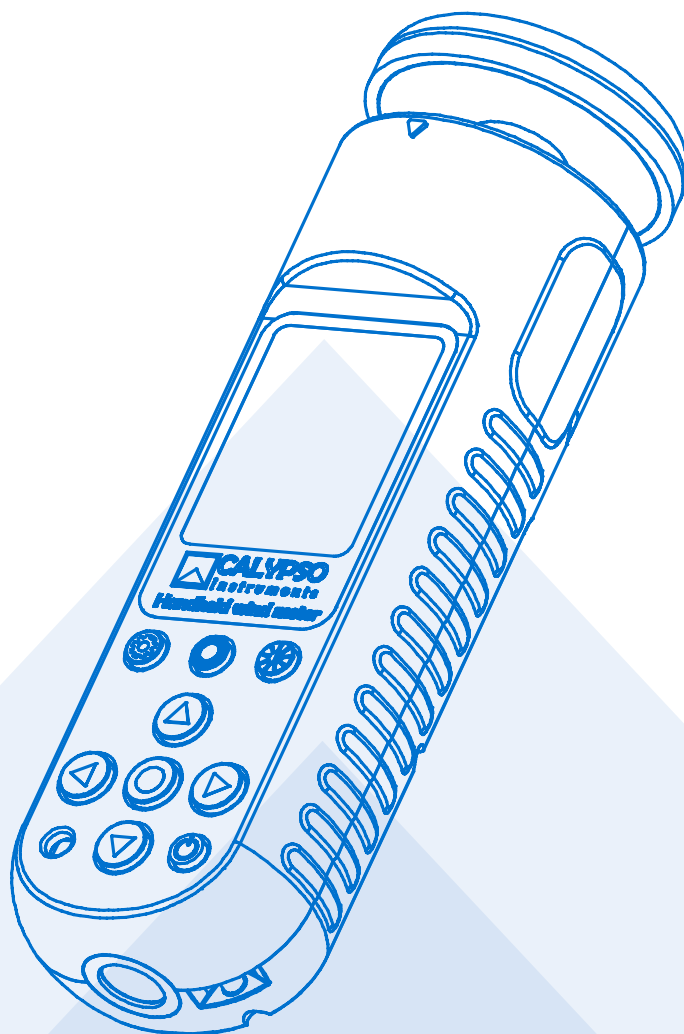


# User manual

## HANDHELD WEATHER WIND & WEATHER STATION · CMI1094

English version  
September 2026

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## 1 Product Overview

The new Calypso Instruments device Handheld Weather is the first mini, compact and lightweight unit to combine ultrasonic wind measurement with temperature, humidity and atmospheric pressure monitoring. Precision weather station in the palm of your hand.

The first handheld device to measure both wind speed and direction using ultrasonic technology — no moving parts, ever reliable. Featuring a color display, physical keypad, AA battery power with USB port for continuous use, and BLE connectivity for seamless integration with any partner platform.

## 2 Package Content

The package contains the following:

- Handheld weather instrument.
- Serial number on the packaging.
- A user guide at [www.calypsoinstruments.com](http://www.calypsoinstruments.com) with all useful information for the customer, linked via a QR code on the packaging.

### NOTE

It is recommended to keep the box; it contains the serial number.

### IMPORTANT NOTE

Before installing the anemometer, especially in challenging locations like the top of a mast, **please thoroughly test the device** to ensure it functions correctly without errors or issues.

We recommend testing the unit in an easily accessible location to confirm its accuracy. Always test it **outside of the packaging**.

## 3 Technical Specifications

The Handheld Weather has the following technical specifications:

### 3.1 Weather data

| WIND SPEED |                                                                             |
|------------|-----------------------------------------------------------------------------|
| Range      | 0.5 – 45 m/s (1.12 – 100 mph)                                               |
| Accuracy   | 0.3 m/s or 3% at 0–16 m/s<br>(0–35.8 mph)<br>5% at 16–45 m/s (1.12–100 mph) |
| Resolution | 0.01 m/s (0.0224 mph)                                                       |

| WIND DIRECTION |                                                                                                   |
|----------------|---------------------------------------------------------------------------------------------------|
| Range          | 0 – 359°                                                                                          |
| Accuracy       | 3° at 1–5 m/s (2.24–11.2 mph)<br>1° at 5–16 m/s (11.2–35.8 mph)<br>6° at 16–45 m/s (35.8–100 mph) |
| Resolution     | ±1°                                                                                               |

| TEMPERATURE |                                |
|-------------|--------------------------------|
| Range       | –15 to 60 °C (5 to 140 °F)     |
| Accuracy    | ±0.5 °C at 25 °C (±32.9–77 °F) |
| Resolution  | 0.01 °C (32 °F)                |

| HUMIDITY   |          |
|------------|----------|
| Range      | 10 – 90% |
| Accuracy   | ±3.5%    |
| Resolution | 1%       |

| PRESSURE   |                 |
|------------|-----------------|
| Range      | 500 to 1200 hPa |
| Accuracy   | ±1 hPa          |
| Resolution | 0.1 hPa         |

### 3.2 Power consumption

|      |                              |
|------|------------------------------|
| Type | Lithium AA battery           |
|      | USB-C Powered (*Static mode) |

#### NOTE

To check the battery level, connect the device and check its screen or consult the AnemoTracker app. We recommend that only Lithium AA batteries be used in your device to provide the widest operating temperature range and to avoid damage caused by leaking lead-acid batteries. If you must use conventional AA batteries, please do not store your device with the batteries in place. Damage caused by battery corrosion is not covered under warranty.

#### WARNING

Lithium is a toxic substance, and ingestion may cause serious injury or death. Keep lithium batteries out of the reach of children. If swallowed, immediately seek medical help. Dispose of batteries properly and according to local regulations. Do not puncture or burn batteries. If the battery compartment does not close securely, stop using the product and keep it away from children.

#### \* STATIC MODE

The device has a USB-C port on the back that allows it to be powered via cable. It does not support charging.

### 3.3 Parameters

|             |      |
|-------------|------|
| Sample rate | 1 Hz |
|-------------|------|

| Configurable units |                               |
|--------------------|-------------------------------|
| Wind               | m/s, km/h, knots, mph         |
| Temperature        | Celsius, Fahrenheit or Kelvin |
| Humidity           | Percentage (%)                |
| Pressure           | hPa, inHg, mmHg, kPa or atm   |



### 3.4 Data Output: Bluetooth and Firmware

| BLUETOOTH |                                       |
|-----------|---------------------------------------|
| Version   | BLE 5.1 or beyond                     |
| Range     | ~30 m in open space (no interference) |

| FIRMWARE |                                                   |
|----------|---------------------------------------------------|
| Upgrade  | Via Bluetooth                                     |
| Download | <a href="#">AnemoTracker Configure&amp;Update</a> |

The Handheld Weather incorporates Bluetooth Low Energy (BLE) technology, providing reduced power consumption while maintaining a similar communication range.

### 3.5 Sensors

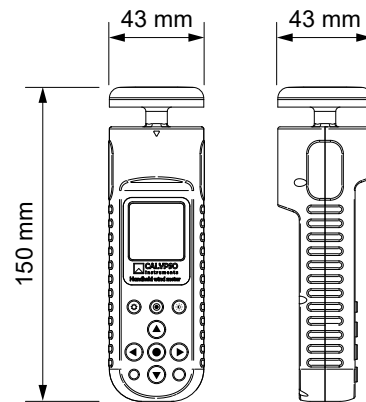
|                                           |                                   |
|-------------------------------------------|-----------------------------------|
| Wind sensor                               | Ultrasonic transducers (4x)       |
| Temperature, humidity and pressure sensor | SHT40, DPS368 & NTCLE350E4103FHBO |

The device has been designed with no moving parts to maximise reliability and minimise maintenance. Transducers communicate in pairs using ultrasonic waves to calculate wind speed and direction.

### 3.6 Dimensions

Dimensions and weight make the Handheld Weather a compact and easy-to-use product.

|          |                                            |
|----------|--------------------------------------------|
| Diameter | 43 mm (1.69 in.)                           |
| Height   | 150 mm (5.91 in.)                          |
| Weight   | 180 g (6.4 oz.)                            |
| Display  | 128 x 128 px (1.44")<br>Full Color TFT LCD |



### 3.7 Materials

|               |                                     |
|---------------|-------------------------------------|
| Main material | Injected engineering plastic (grey) |
|---------------|-------------------------------------|

### 3.8 Mount

| MOUNTING     |                    |
|--------------|--------------------|
| Thread       | 1/4" Female thread |
| Tripod mount | Included           |

| ACCESSORIES   |             |
|---------------|-------------|
| Tripod        | Coming soon |
| Handheld Case | Coming soon |

A wide range of accessories can be used with the device, visit our website [www.calypsoinstruments.com](http://www.calypsoinstruments.com) and check all the accessories available and their possible combinations.

### 3.9 Environmental

|                     |                            |
|---------------------|----------------------------|
| IP Protection grade | IP66                       |
| Temperature range   | -15 to 60 °C (5 to 140 °F) |
| Humidity range      | 10– 90% HR                 |

### 3.10 Compatible Devices

|         |                          |
|---------|--------------------------|
| Android | Bluetooth 5.1 or beyond  |
| iPhone  | 4S or beyond             |
| iPad    | 3rd generation or beyond |



Visit [www.calypsoinstruments.com](http://www.calypsoinstruments.com) for the latest compatibility information.

### 3.11 Calibration

The Handheld Weather has been calibrated with accuracy following the same calibration standards for each unit.

## 4 Functions

The Handheld Weather will allow you to perform a great diversity of operations adapting to your needs.

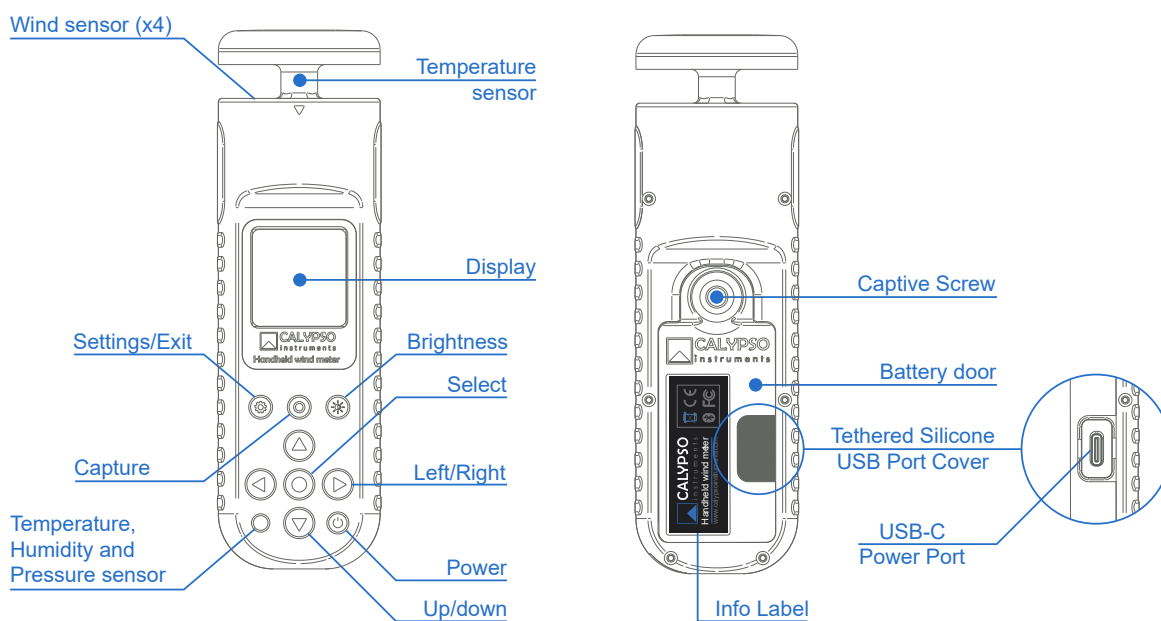
It will provide you with information on everything shown below via a color screen and through the AnemoTracker App. The most important aspects that facilitate the unit are the following:

- Apparent Wind and Apparent Wind Angle.
- Real Wind and Real Wind Angle: All collected by the anemometer and the crossing with the GPS of the connected device.
- Data logging: the collected data can be stored in the device and application memory, exported, and displayed in graphs.
- Temperature
- Humidity
- Pressure

### NOTE

For full information on using the AnemoTracker App, visit [www.calypsosinstruments.com](http://www.calypsosinstruments.com) and download the latest app manual.

### 4.1 Get to know your device



### 4.2 Buttons

| BUTTON | NAME   | FUNCTION                                                                                                                                    |
|--------|--------|---------------------------------------------------------------------------------------------------------------------------------------------|
|        | POWER  | Press for half a second to three seconds to put the device to sleep or wake it. Hold for three seconds or more to switch it off completely. |
|        | SELECT | In a menu: opens the option, or switches it On/Off.<br>On a reading screen or in a statistics view: does nothing.                           |

**UP/DOWN**

On a reading screen: cycles through the sensor screens (Main summary → Wind → Temperature → Humidity → Pressure → repeat).

In a menu: moves the selection up or down, wrapping around.

In Time & Date: UP increases and DOWN decreases the field being edited.

In a statistics view: does nothing.

**LEFT/RIGHT**

On a reading screen: RIGHT opens that sensor's statistics view; LEFT does nothing.

In a statistics view: LEFT returns to the reading screen; RIGHT does nothing.

In a menu: steps the setting to the next (RIGHT) or previous (LEFT) value.

In Time & Date: RIGHT moves to the next field, LEFT to the previous one.

**SETTINGS/EXIT**

On a reading screen: opens the main menu.

In a menu: steps back one level (Back).

In Time & Date: returns to the System menu.

**CAPTURE**

No function on the current unit.

**BRIGHTNESS**

Works on any screen: blanks and restores the display. It does not cycle through brightness levels — the backlight level is set under Interface ▶ Backlight.

### 4.3 Options menu

Most configuration options are accessed from the main Options menu by pressing the **SETTINGS/EXIT** button from any measurement screen.

- **BLUETOOTH**

- Status ON/OFF

- **MEMORY**

- Clear Log
- Auto Store
- Store Rate
- Over Write

- **INTERFACE**

- Night Mode
- Shutdown
- Backlight
- Beep

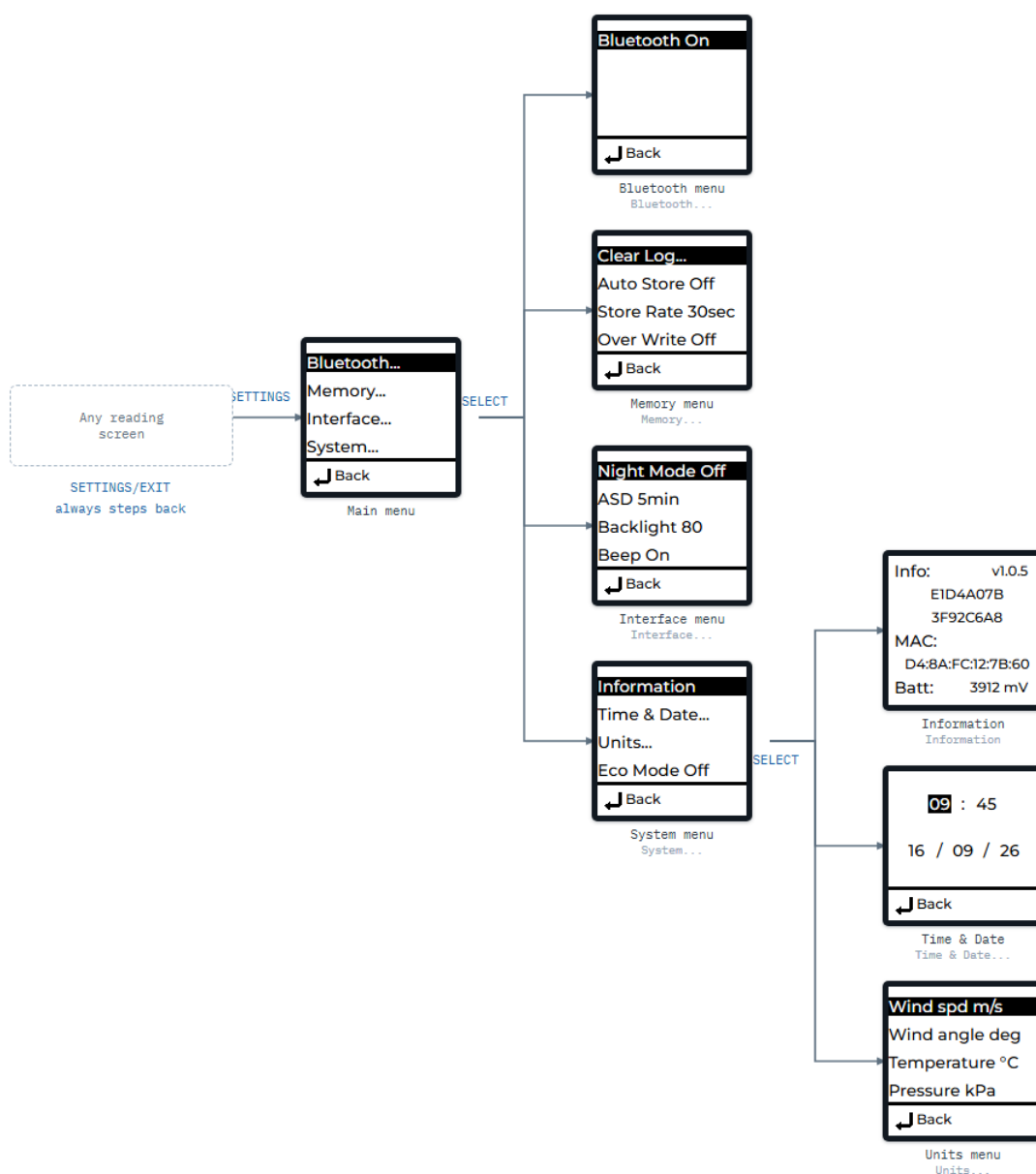
- **SYSTEM**

- Information
- Time & Date
- Units
- Eco Mode
- Factory Restore

## 4.4 Menu navigation

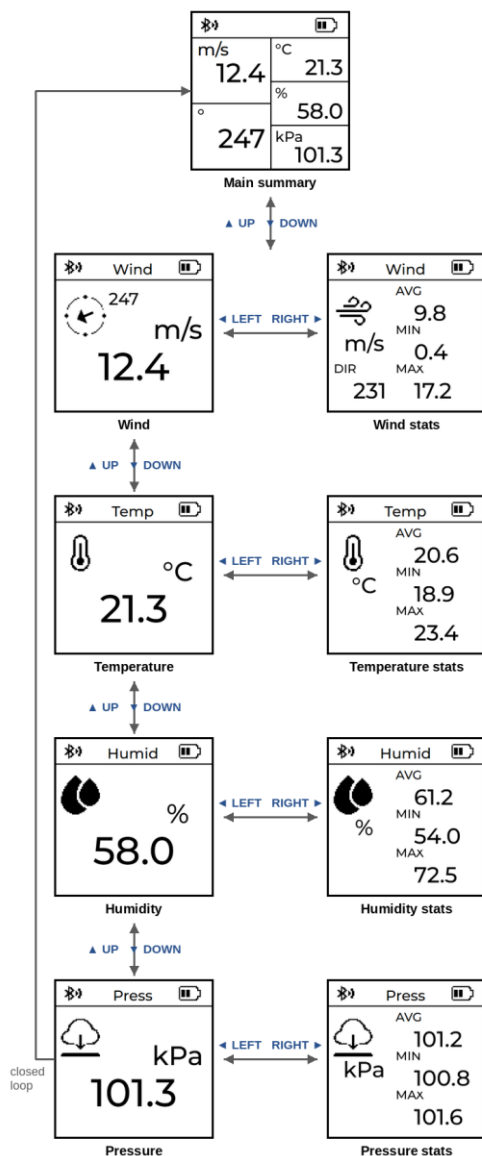
- **Task:** label followed by "...", the same style as a Submenu entry. Highlight it and press SELECT to execute it immediately instead of opening a screen. Clear Log is the only current example: it deletes all logged data at once, with no confirmation step – use it with care.
- **Submenu:** label followed by "...". Press SELECT to enter. e.g. "Memory...", "Interface..."
- **Setting** (two states): label with current value shown at right. Press LEFT/RIGHT to switch between the two states. e.g. "Bluetooth On", "Night Mode Off"
- **Combo Field** (multiple values): label with current value and a "◀ ▶" indicator. Press LEFT/RIGHT to cycle through values. e.g. "Backlight ◀80▶"
- **Selected item:** highlighted in inverse – black background with white text (or the reverse) – regardless of item type. The display is a full-colour panel, but the interface itself is drawn entirely in black and white.

The diagram below shows the full menu tree, starting at the Options menu (opened from any reading screen via SETTINGS/EXIT) and branching into Bluetooth, Memory, Interface and System; System in turn opens Units, Information and Time & Date.



## 4.5 Sensor screens

UP and DOWN step through the five reading screens, which form a closed loop. RIGHT opens the statistics for that sensor and LEFT returns to it. The main summary screen has no statistics of its own.



## 5 Installation

### 5.1 Installing the Unit

Orient the unit towards the north using the alignment mark on the side of the device. Use in a location free from any obstacles within a 2-metre radius that could disturb airflow to the transducers.

For accurate readings, never place any obstacles around the sensors. Ensure the space between the sensors and the base of the unit is clear – objects such as cords can interfere with ultrasonic waves and produce inaccurate wind readings.

## 5.2 How to Use

### Step 1 — Remove the unit from the packaging

- Remove the device from its case and protective element and keep it out throughout the usage cycle.

#### NOTE

Keeping the device inside its packaging during setup and use will cause erroneous measurements. Always use it **outside of the packaging**

### Step 2 — Install battery.

- Unscrew the captive screw on the back cover and open it.
- Insert one AA lithium battery, following the label instructions.
- Replace the battery cover with its captive screw, ensuring it clicks completely into place.

#### STATIC MODE

The device can be powered continuously from an outlet via the USB-C port on the back. This does not charge the internal battery; it only allows the unit to run in a fixed location connected to mains power for extended periods.

#### To use the device in this mode:

- Remove the USB-C shield located on the back cover of the housing.
- Connect the USB-C power cable to the device.

### Step 3 — Turn on the device.

- Press POWER button to turn it on.

### Step 4 — Install the AnemoTracker App

- Make sure your device has Bluetooth enabled. The device requires BLE 5.1. Compatible: Android (Bluetooth 5.1 or beyond), iPhone (4S or beyond), iPad (3rd generation or beyond).
- Download the AnemoTracker App from Google Play or the Apple Store.
- Open the App, slide right to open settings, and press the Pair button.
- All Handheld devices within range appear. Select the one matching the MAC number on your box.

#### WARNING

Each unit can only be connected to one device at a time. Disconnect from the current device first to allow pairing with another.

### Step 5 — If your device will be exposed to sunlight: Spin it.

- Spin the device by its lanyard in a full circle for 8 seconds to obtain accurate temperature, pressure and humidity readings.
- Always maintain a firm grip on the lanyard.

### Step 6 — Pair your device and use it.

- Once the App is installed start it and click on the three lines on the bottom left-hand corner to open settings
- Press the Pair button. All Handheld units within range appear. If no device is shown, swipe down on "Scanning for wind device" screen.

- Select your device and connect. Select the one matching the MAC number on your box. If your device connects with your Handheld unit correctly, continue with the normal installation. If not, please go to section 6 [Troubleshooting](#)

### Step 7 – Disconnect your device.

- To avoid draining the battery, unpair your device from the App and turn off the device using the power button. This will keep your unit off.

## 5.3 Additional Settings

All settings are accessed from the Options menu (SETTINGS/EXIT button).

### BLUETOOTH

- Go to Bluetooth and press SELECT to switch the radio On or Off.

### MEMORY

- **Clear Log** — deletes all logged data immediately. There is no confirmation step, so use it with care. A brief “Clearing...” notice shows on screen while it completes.
- **Auto Store** — set to On to log data automatically.
- **Store Rate** — adjust the automatic logging frequency.
- **Over Write** — set to On so new readings overwrite the oldest ones once memory is full; set to Off to stop logging once memory fills.

### INTERFACE

- **Night Mode** — inverts the display for use in low light.
- **Shutdown** — choose the idle time after which the device powers off automatically.
- **Backlight** — set the backlight level, in steps of ten.
- **Beep** — turn the confirmation beep on or off.

### SYSTEM

- **Time & Date** — set the hour, minute, day, month and year.
- **Units** — choose the units for wind speed, wind angle, temperature and pressure, each set independently.
- **Eco Mode** — switches off Bluetooth, lowers the backlight to 30, silences the beeper and sets auto shutdown to 30 seconds, to save battery. A brief on-screen notice confirms the change.
- **Information** — view the firmware version, the device’s unique identifier, its Bluetooth address and the battery voltage.
- **Factory Restore** — resets all settings to their defaults. A brief on-screen confirmation appears before returning to the previous screen.

## 5.4 Viewing Statistics

Press RIGHT from any reading screen to open the statistics view for that sensor, showing the Min, Avg and Max values recorded. Statistics run continuously in the background and cannot be started, stopped, or cleared from the screen.

1. Press RIGHT to open the statistics view for the current sensor.
2. Press LEFT to return to the reading screen.

## 5.5 Connecting via Bluetooth

The device always connects through the AnemoTracker app installed on a phone or tablet (see section 5.2, steps 4 and 7). This same connection is used both to receive real-time Wind Direction data (via the phone's compass) and to export the data log stored on the device.

1. On the device, open the Options menu, go to Bluetooth, and set it to On.
2. On your phone or tablet, open AnemoTracker and pair the device following the steps in section 5.2.
3. Once paired, a Bluetooth icon appears in the device's status bar.
4. To export logged data, use the export option within the AnemoTracker app itself.

## 5.6 Logging and Exporting Data

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- Automatic logging: set Auto Store to On and adjust Store Rate in the Memory menu to log data automatically at a fixed interval.
- Viewing logged data: the unit does not display graphs, data-point lists, or log details on-screen. Connect via Bluetooth and use the AnemoTracker app to view, graph, and export the logged data.
- Clearing the log: in the Memory menu, select Clear Log. The log is deleted immediately with no confirmation step — a brief “Clearing...” notice appears while it happens. Use this option with care, as the data cannot be recovered.

## 5.7 Measurement Glossary

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**WIND SPEED** — the speed of the wind, measured by the ultrasonic sensor.

**WIND DIRECTION** — the compass heading the wind is coming from, shown in cardinal points and degrees (requires the phone's compass via AnemoTracker).

**TEMPERATURE** — ambient temperature; for best accuracy, measure away from direct sunlight and with good airflow.

**HUMIDITY** — relative humidity, the amount of moisture currently held by the air as a percentage of the total the air could hold.

**PRESSURE** — station (absolute) pressure at the current location.

## 6 Troubleshooting

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### 6.1 Troubleshooting Battery

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If you don't see your device in the App:

- Make sure your Handheld unit is not in Off mode (unit off when battery is empty).
- There will be no battery level shown when trying to connect to the device in AnemoTracker App. Charge your device.

### 6.2 Troubleshooting Bluetooth Connection

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If your compatible device cannot connect:

- Make sure Bluetooth mode is running on your smartphone, tablet or PC.
- Make sure no other device is already linked to your Handheld unit.
- Make sure you are within BLE range (~30 meters).

#### **WARNING**

Each unit can only be connected to one Handheld device at a time. Disconnect from the current device first to allow pairing with another.

### 6.3 Troubleshooting Sensor Accuracy

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If data is inaccurate:

- Make sure the Handheld device has been spun for 8 seconds.
- Make sure no debris is around or near the sensors.

You can review [11.1 General Recommendations](#).

If the problem persists, contact: [aftersales@calypsoinstruments.com](mailto:aftersales@calypsoinstruments.com)

## 7 AnemoTracker App

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The Handheld unit you have purchased is designed to be used with the AnemoTracker App, which provides apparent and true wind speed and direction, as well as temperature, humidity and pressure data, and allows data logging for future viewing. The app offers a variety of interfaces suited to different use cases.

For more information, download the latest app manual from [www.calypsoinstruments.com](http://www.calypsoinstruments.com)

## 8 AnemoTracker Configure & Update App

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Keeping your anemometer up to date is essential for ensuring optimal performance and accurate wind data collection.

You can update your anemometer by downloading the AnemoTracker Configurator & Update app (Android and iOS).

Stay up-to-date, get accurate data. Regular updates ensure your anemometer is running the latest firmware, improving both reliability and functionality.

### WARNING

Before updating your device, check for a new version. There's no need to update if a new version isn't available.

For more information, download the latest version from [www.calypsoinstruments.com](http://www.calypsoinstruments.com)

## 9 Compatible Apps

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We constantly work on making the product compatible with a great diversity of Applications.

To see compatible Apps visit the product tab in our website [www.calypsoinstruments.com](http://www.calypsoinstruments.com)

## 10 Developers

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Our hardware is open source. We welcome third-party software and hardware companies to seamlessly integrate our products into their platforms.

For more information, please contact us through our [web form](#) or at [sales@calypsoinstruments.com](mailto:sales@calypsoinstruments.com)

## 11 General Information

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### 11.1 General Recommendations

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When taking readings, hold the unit clear of your body and orient it towards the north using the alignment mark on the device, keeping a clear 2-metre radius free from obstacles that could disturb airflow to the transducers.

- Do not attempt to access the transducers area with your fingers.
- Do not attempt any modification to the unit.
- Never paint any part of the unit or alter its surface in any way.

- Do not power the device with any cable or accessory other than the one provided by the manufacturer.

## 11.2 Maintenance and Repair

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The unit requires minimal maintenance thanks to its design with no moving parts.

- Transducers must be kept clean and aligned.
- Impacts or incorrect handling may cause transducer misalignment.
- Wipe clean with a damp cloth, avoiding the transducer area.

## 11.3 Warranty

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This Warranty covers defects from defective parts, materials, and manufacturing if reported within 3 years of purchase date.

Warranty is void in case of non-following the instructions of use, repair or maintenance without written authorisation:

- Any harm caused to device by accident will not be covered by the warranty.
- Using assembly elements different from those delivered with the product will void the warranty.
- Do not attempt to access the transducers area with your fingers.
- Do not attempt any modification to the unit.
- Never paint any part of the unit or alter its surface in any way.
- Do not power the device with any cable or accessory other than the one provided by the manufacturer.

For further information please contact Calypso Technical Support through [info@calypsoinstruments.com](mailto:info@calypsoinstruments.com) or visit [www.calypsoinstruments.com](http://www.calypsoinstruments.com).