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ULTRASONIC PORTABLE MINI AB
WIND METER

User manual CMI1061

APPLIED BALLISTICS   CE FC   0809

ACCURATE WIND SPEED & DIRECTION

Index

1. Product overview

Thank you for choosing the Ultrasonic Portable Mini AB wind meter from Calypso Instruments. The Ultrasonic Wind Instrument and Data Logger is a wireless, Bluetooth (BLE) and battery-powered, pocket-sized ultrasonic anemometer, easy to install, simple to use and compatible with IOS, Android and Garmin watches.

2. Package content

The package contains the following:

· Ultrasonic Portable Mini AB Wind Instrument

· Wireless charging QI

· A quick user guide on the back of the packaging and some more useful information for

the customer.

* This image is just for illustration purposes. The box of
the Mini AB looks different.

3. Technical specifications

The Ultrasonic Portabale Mini AB has the following technical specifications:

APPLIED BALLISTICS COMPATIBLE

Connect the Portable Mini AB to any Applied Ballistics compatible item

3.1 Dimensions	· Diameter 43 mm (1.69 in.) · Height: 47 mm (1.85 in.)

3.2 Weight	·78 grams (2.75 oz.)

3.3 Power	3.3 DCV 150 hours active use Battery Powered Wireless Charging QI

3.4 Sensors	Ultrasonic transducers (4x) Sample rate: 1 Hz

3.5 Bluetooth	· Version: 5.1 or above

BLE is the first open wireless communication technology, offering communication between mobile devices or computers and other smaller devices .such as our new wind meter.

Compared to Classic Bluetooth, BLE provides considerably reduced power consumption and cost while maintaining a similar communication range.
Version

The BLE version is 5.1. It incorporates important developments for the user by facilitating the reconnection between their devices once they leave and re-enter the Bluetooth range.

3.6 Wind Information

Sample rate: 1 Hz Wind Speed

Wind Speed

Range	0.5 to 45 m/s or 0.5 m/s	1.12 to 101 mph or 1.12 mph
Accuracy	±0.1 m/s at 10 m/s	0.22 at 22.4 mph
Threshold	0.5 m/s	1.12 mph

Wind direction

Range: 0 - 359º   Accuracy: ±1º

3. Technical specifications II

3.7. Protection Grade

· IPX8 (10 meters)

3.8 Easy mount

· Tripod mount (tripod thread (UNC1/4''-20)

Get yours here:

3.9 Firmware

Upgradable via Bluetooth

3.10 Product Material

The Ultrasonic Portable Mini AB is engineered to be a robust device with a minimal down-time. Made of high-quality Nylon.

3.11 Quality Control

Every single unit is calibrated with accuracy, following the same calibration standards for each one in a wind tunnel.

A Q/C report for both wind speed and direction is generated and kept in our files. Standard deviation is checked to guarantee that each unit has been calibrated to the highest standards

The Ultrasonic Portable Mini AB has been designed to avoid any mechanical parts to maximize reliability and minimize maintenance. The transducers communicate between themselves two by two using ultrasonic range waves. Each pair of transductors calculates the signal delay and get information about both wind direction and wind speed.

4. Device Installation

4.1. Installing the unit

The Mini AB has to be oriented to the bow taking as reference the mark that appears on the side (as shown in the image on the right).

It can be used with a tripod and even with a phone adapter.

5. App Installation

1. Make sure your device is BLE compatible. · Ultrasonic Portable works with Android 4.3 and beyond or iOS devices (4s, iPad2 or beyond).

2. Download and install *Anemotracker App* on your device from Google Play or Apple Store.

    download here!

3. Once the App is installed start it and open the settings menu by sliding the screen to the right.

4. Press the" Scan" button and all Ultrasonic Portable Mini AB devices within the range should show up at screen.

5. Select your device and connect.

If your device connects with the Ultrasonic Portable Mini AB correctly, continue with the normal installation.

 Further information:

Your device is compatible but you can not connect?

1. Make sure BT (Bluetooth) mode is running on your smartphone, Tablet or PC.

2. Make sure Ultrasonic Portable Mini AB is not in Off mode. It is in Off mode when the unit does not have sufficient battery level. There will be no battery level shown when trying to connect to the device in Anemotracker App.

3. Make sure no other device is linked to your Ultrasonic Portable Mini AB.

Each unit can only be connected to **one** device at a time. As soon as it gets disconnected, Ultrasonic Portable Mini AB is ready to link to any other device with the Anemotracker app installed.

For further information please contact Calypso Technical Support.

5. Must-Know Information

5.1. General recommendations

Wind Speed Gust is that value that measures abrupt and sudden change in wind speed. Regarding mounting the unit, align the triangle mark of the Portable Mini AB to the place where you are aiming.

Make sure to install the sensor in a location **free from anything that obstructs the flow of wind to the sensors within a 2 meter radius**.

Other important aspects:

- 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.
- NOT allowed to be submerged fully or partially in water.

If you have any questions or doubts, please contact us directly.

5.2. Maintenance and repair

The Portable Mini AB does not require great maintenance thanks to the lack of the moving parts in this new design.

Transducers must be kept clean and aligned. Impacts or incorrect impulsive handling may lead to transducers misalignment.

The space around the transducers must be empty and clean. Dust, frost, water, etc... will make the unit stop working.

The Portable Mini AB can be wiped clean with a damp cloth being careful to not touch the transducers.

5.3 Warranty

This warranty covers the defects resulting from defective parts, materials and manufacturing, if made known to the manufacturer within 24 months after the purchase date.

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

Any wrongful use by the user will not incur any responsibility on part of Calypso Instruments; therefore, any harm caused to the Portable Mini AB by a mistake will not be covered by the waranty. Using assembly elements different from those delivered with the product will void the waranty.

Changes on transducers position/alignment will void any warranty.

For further information please contactCalypso Technical Support through
 sales@calypsoinstruments.com or visit **www.calypsoinstruments.com.**

6. Compatible Devices

This list provides all the devices and manufacturers that are compatible with Calypso Instruments' Mini AB, as of September 27, 2024. Manufacturers are listed first, followed by their respective devices.

Envision Technology
- MARS

Misc AB Enabled Devices
- LRF

Garmin
- Tactix 7 amoled

SIG SAUER
-K3K
-K4K
-K6K
-K8K
-K10K
-K1000
-K1400
-K1600
-K1800
-K2400
-K3000

Vectronix
-VSS

Applied Ballistics
-RSHUD
-DAAS

Sig BDX Devices

Bushnell
-Nitro
-R5
-R9

AB Elite
-MARS
-PT
-TRTN
-WX
-LRF

PAL
-PAL

RS-HUD
-PAL

DAAS

Henrich

Kestrel

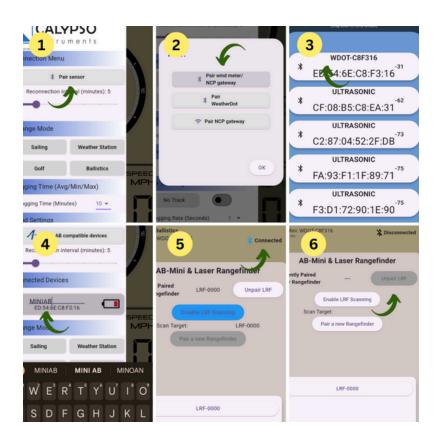If you cannot see your device on the above list, please contact the manufacturer.

7. How to Connect

7.1. Step-by-step Guide

In this guide, we will walk you through the steps to connect your Mini AB to your phone using the Anemo- Tracker app, allowing you to read wind data and pair the device with other compatible equipment, such as a laser range finder.

1- Open the drawer panel tapping on the three bars on the bottom left corner of the screen.

2- Up at the top of the drawer panel, press on Pair sensor-> Pair wind meter/NCP gateway

3- Tap on your Mini AB, that should show as WDOT-xxxxxx. The upper on the list, the stronger the signal (and generally this means closer to the phone)

4- After a few seconds, your now connected Mini AB would show on the Connected Devices section. Now you can read the wind on the app.

5- On the drawer panel, tap on Pair AB compatible devices. Now you are on the page used to pair any compatible device to your Mini AB. The pairing process consists of 2 steps: searching for a nearby com-patible device, and enable scanning for it. After some seconds, the state with change to connected.

6- You may disconnect the Mini AB and close Anemotracker, as your Mini AB is also connected to your laser range finder and will send data to it.

7.2. Video Tutorial

For a more detailed visual guide, we've created a video tutorial that walks you through each step. You can watch it on our YouTube channel by scanning the QR code on the right.

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