

**ANDROID 4.4
& above
COMPATIBLE**

MET-LINK



Document History

Paper copies are valid only on the day they are printed. Contact Observator Instruments if any doubt about the accuracy of this document.

Revision History

This document has been revised by:

Revision Number	Revision Date	Summary of Changes	Author
V1.01	18-03-17	Updated general content	Ludovic Grosjean

Reference Documents

Please see the following documents for more information:

Document Name	Download from	Author
Online Training documents	http://download.observator.com/files/?dir=User manuals/MET-Link	Ludovic Grosjean
Maximet Manual	http://download.observator.com/files/?dir=User manuals/MET-Link	Gill

Distribution list

This document has been distributed to:

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1. MET-LINK INTRODUCTION

Thanks for purchasing the new MET-LINK wireless handheld display and logging solution. It will give you years of service if you install and maintain the Wind Monitoring System according to guidelines set out in this Manual.

What is MET-LINK?

The MET-LINK handheld solution is comprised of a Maximet GMX-500, a MET-LINK **wireless interface** and a MET-LINK **Android Application** for your Bluetooth-enabled Android device.

The MET-LINK product sets a new industry standard for accuracy and stability across an unmatched full scale range. The MET-LINK system can be ordered with a GMX-500 with GPS option, GMX-300 or GMX-200. The MET-LINK compact wind sensors have all the features of the Maximet Gill sensors but are purpose built to **minimize power demand and cost**.

The MET-LINK interface module provides rechargeable power to the sensor and manages wireless communication to a Bluetooth enabled Android device. Sensor can be powered for up to 5 hours. The module is lightweight, compact, and clips to a belt for a hands free experience.

The MET-LINK Android smartphone application has a large range of features that support data visualization, data logging, and data management. Data can be viewed locally (on device) or exported in excel format via Bluetooth, email or GPRS to external data servers. Logged data is time/date stamped and location tagged for mapping.

The MET-LINK system is a portable product that is ideal for Military (AUV launching), Firefighting, boat, police, Sports (paragliding) applications. This is a great reference tool for wind checking on the spot. The freedom to port data directly to a phone, tablet or laptop offers the end user, field/lab work efficiencies and an ordered means of managing data. MET-LINK can be **customized and is upgradeable**. The MET-LINK handheld solution offers unparalleled ease of use, accuracy, and a very competitive price.

2. SAFETY



For correct functioning of Observator MET-LINK the sensors must be installed according installation instructions.



Always read and follow Maximet instructions.



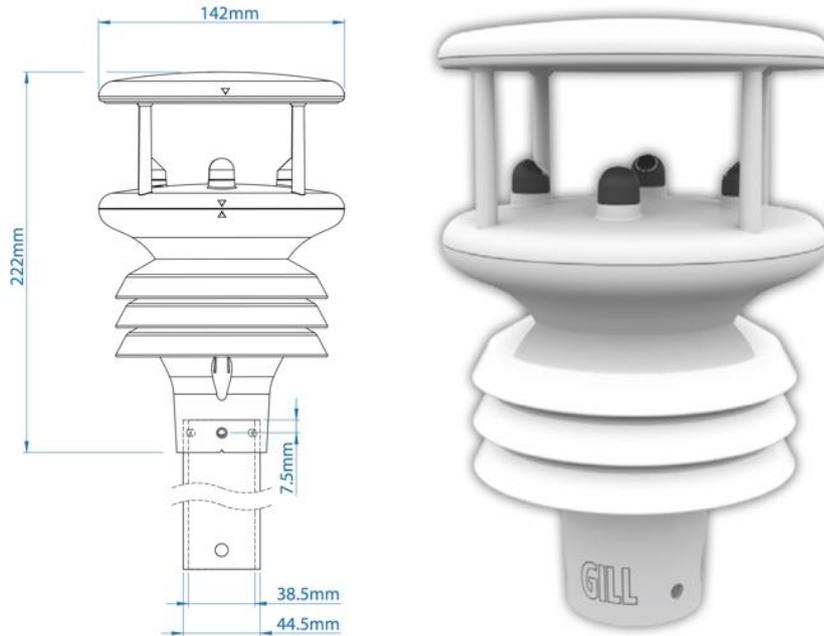
Always make sure to securely attach MET-LINK interface module.



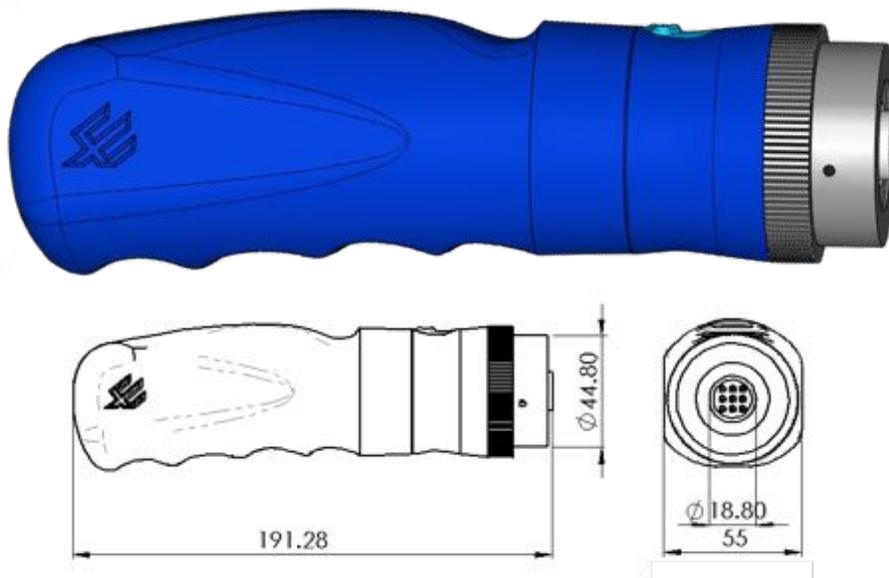
After end of life dispose this product according local regulations or return to manufacturer.

3. SPECIFICATION

Maximet sensor Dimensions	
Length	222 mm
Diameter	142 mm



MET-LINK wireless module Dimensions	
Length	191 mm
Diameter	55 mm



Connectivity	
MET-LINK interface (Bluetooth Module)	SPP profile

Power Supply		
Extended rechargeable Lithium Ion battery	13Wh	(Battery life ~5 hours of operation)
Power supply, charge through 12volt power pack, powers on when Sensor is plugged in		

Maximet GMX-500 (Gill Sensor)	
Temperature, Humidity & Pressure	<ul style="list-style-type: none"> ▪ Air Pressure / Temperature ▪ Humidity ▪ Naturally aspirated UV stable radiation shield ▪ Protection against wind-blown precipitation/dust
Wind	<ul style="list-style-type: none"> ▪ Wind speed & direction ▪ Apparent and true wind (with GPS) ▪ WMO wind averages and gust ▪ Compass ▪ GPS (optional) gives height above sea level, latitude and longitude
GPS (OPTION)	<ul style="list-style-type: none"> ▪ Height above sea level (<i>m</i>) ▪ MSL pressure
Parameters	<ul style="list-style-type: none"> ▪ Temperature (<i>°C, °F, °K</i>) ▪ Relative humidity (<i>% Rh, g/m³, g/kg</i>) ▪ Barometric pressure (<i>hPa, bar, mm Hg</i>) ▪ Absolute humidity (<i>g/m³</i>) ▪ Wind speed (<i>m/s, km/hr, mph, kts, ft/min</i>) ▪ Wind direction (<i>°</i>) ▪ True/apparent wind

Android App
Log files have embedded location, time & date, comments and photos
Logging of comma delimited data sentence
Statistic and smart Graph viewer tool
Fast data export
Battery Status and Charge indicator
Sensor status

Compatibility	
Android Application for Smartphone & Tablet	Version 4.4 & above

Capabilities	
Wind speed	(From sensor)
Temperature	(From sensor)
Location	(From sensor/phone)

Wind Speed	
Range	0.1 m/s to 60 m/s
Accuracy	±3% to 40 m/s ±5% to 60 m/s
Resolution m/s	0.01
Starting Speed	0.1 m/s
Sampling Rate	1 Hz
Units	<i>(m/s, km/hr, mph, kts. Ft/min)</i>

Wind Direction	
Range	0-359°
Accuracy	±3° to 40 m/s ±5° to 60 m/s
Resolution	1°
Sampling Rate	1 Hz
Units	<i>(Degrees)</i>

Temperature & Dew Point	
Range	-40°C to +70°C
Accuracy	±0.3°C @ 20°C
Resolution	0.1
Sampling Rate	1 Hz
Units	<i>(°C, °F, °K)</i>

Humidity	
Range	0-100%
Accuracy	±2% @ 20°C (10%-90% RH)
Resolution	1%
Sampling Rate	1 Hz
Units	<i>(% Rh, g/m3, g/kg)</i>

Pressure	
Range	300 to 1100
Accuracy	±0.5 hPa @ 25°C
Resolution	0.1 hPa
Sampling Rate	1 Hz
Units	<i>(hPa, bar, mm Hg, inHg)</i>

4. DESCRIPTION

When the product is delivered, this is what you will find in the box:



Items found in the box		
Figure 1.1.	Maximet sensor	
Figure 1.2.	MET-LINK interface Module	
Figure 1.3.	Charging cable	
Figure 1.4.	Standard Li-ion batteries	

5. ACCESSORIES

Observator Instruments offers a wide range of accessories for MET-LINK range of product directly available from the website:



Accessories		
Figure 1.1.	Spare Maximet sensor	
Figure 1.2.	Spare charging adapter	
Figure 1.3.	Spare Li-ion extended batteries (optional double capacity, up to 10 hours recording)	
Figure 1.4.	Case	

Accessories		
Figure 1.5.	Spare Bluetooth MET-LINK interface module	
Figure 1.6.	Spare Bluetooth module housing Shroud	
Figure 1.7.	Tripod	

6. INSTALLATION

Install the sensor for the first time

Connect the Li-ion battery to the MET-LINK interface module (normally installed when provided), if not please follow the instruction described in the section “Maintenance: Battery replacement”.

To **Install the Android application on your smartphone**, use the following link, download and install the APK file (for smartphone):

<https://play.google.com/store/apps/details?id=obs.metlink&hl=en>

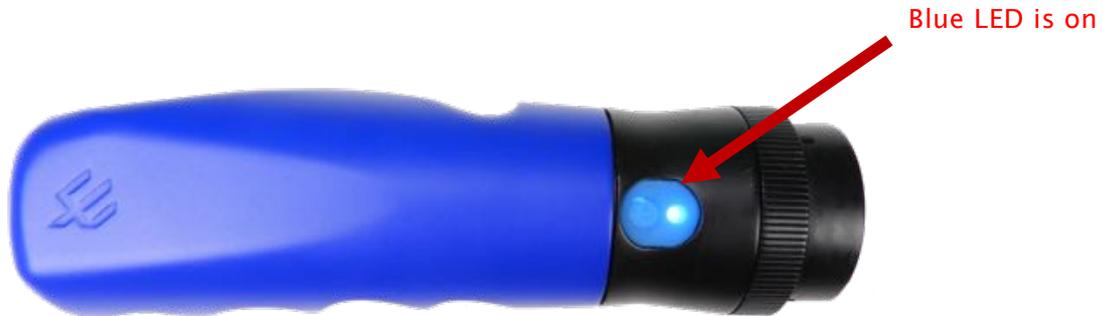
1. **Connect** MET-LINK sensor to the Maximet module by matching the pin and turning the module screw.



Download MET-LINK application:



2. Press on the MET-LINK interface module button and notice the blue LED indicator turning on. If you cannot see the blue indicator light, it means the MET-LINK interface module is not powered.



Note: In the event where the indicator is not lighting up, ensure that the MET-LINK interface module has enough battery (refer to the “Charging Battery” section of this manual) and ensure that the long term storage switch inside the Bluetooth module is on.



Note: If storing the Wireless interface more than 6 months, please power off the device.

LED STATUS	COLOR	MEANING
Flashing Blue	●	Bluetooth available for pairing
Flashing Green	●	Device is paired
Flashing Red & Green	● ○ ●	Battery is charging or charged
No LED	○	MET-LINK interface module off

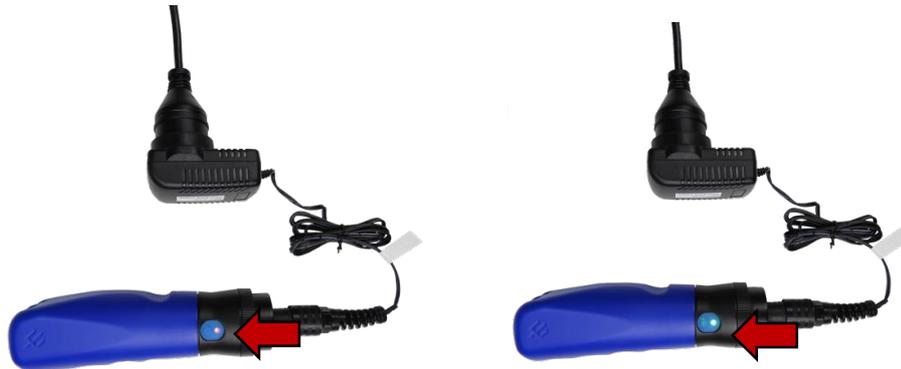
3. Run the app: go to the chapter “Android Application interface” of this document.

Charging the battery

1. Connect the provided charging adapter to the MET-LINK interface module and apply power.



2. At any time, you can monitor the charging status of the module by pressing on the MET-LINK interface button. The LED indicator is flashing green and red to indicate that the battery is charging.



3. We highly recommend to use the application to monitor the battery level, please refer to section “Read the Bluetooth battery level” in the next chapter

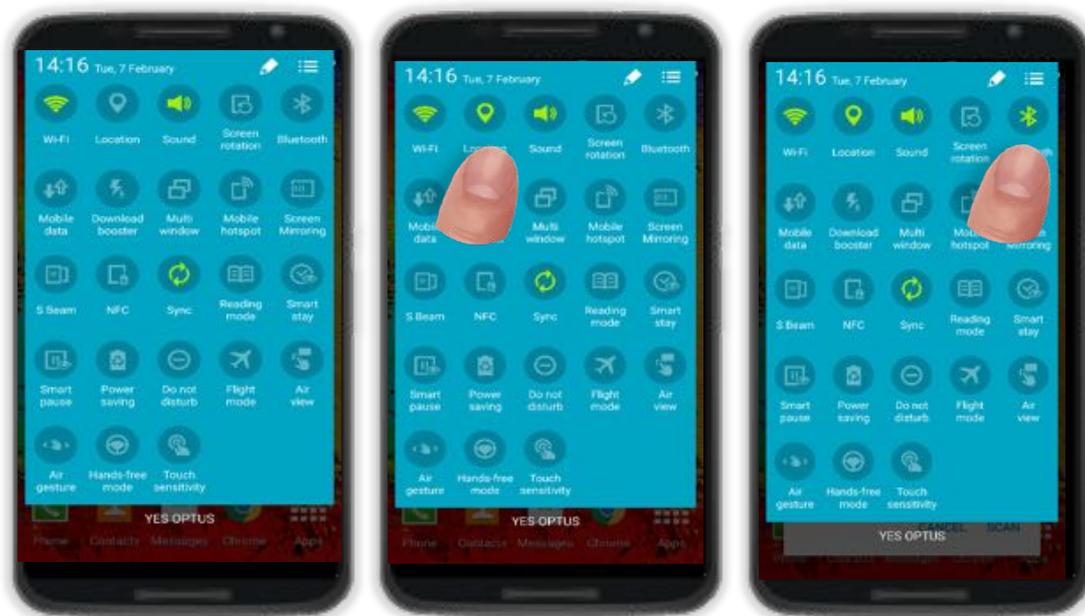
Note: The best way to verify if the battery is fully charged is to use the Android Application to monitor the battery level. The user should expect that the charge will take 90 minutes and up to 3 hours of charge if the battery is fully flat.

4. When battery is fully charged, disconnect the charging cable.



7. ANDROID APPLICATION INTERFACE

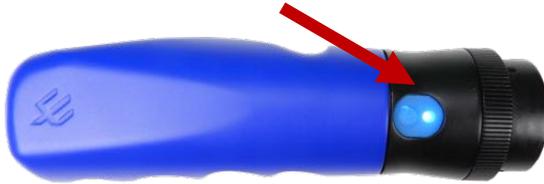
Activate the GPS location & Bluetooth



1. Go to your phone options
2. Activate the GPS location of your phone
3. Activate Bluetooth

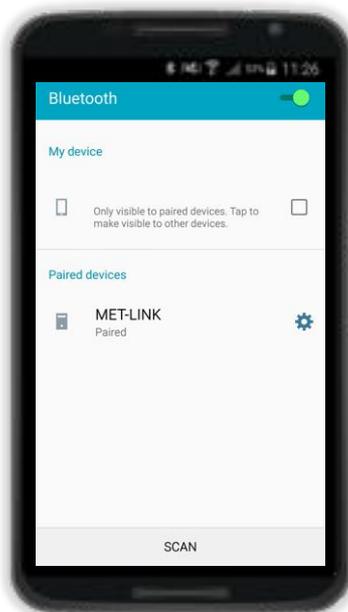
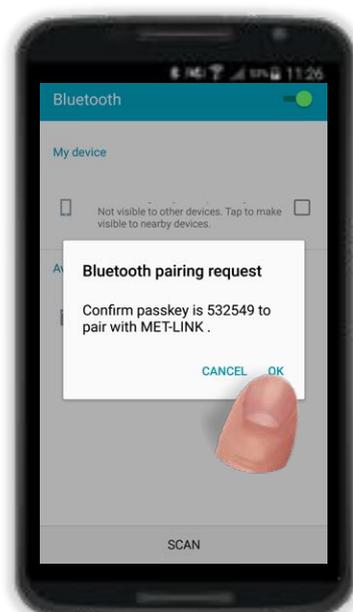
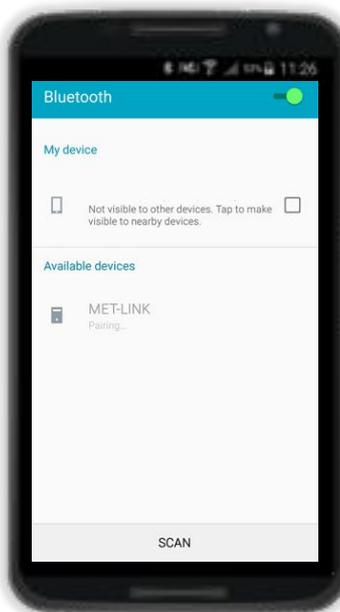
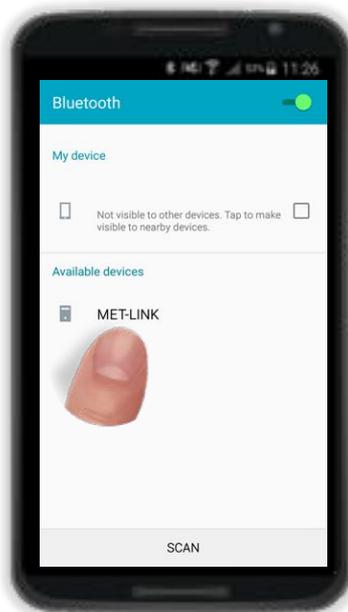
Pair the sensor via Bluetooth

Blue indicator
is flashing



After having activated the Bluetooth of your phone:

1. Turn on the MET-LINK interface by pressing on the blue button, make sure that the blue LED indicator turns on.



Note: Step 2 to 5 are to be completed only the first time you connect a new sensor.

2. Go to the Bluetooth settings, scan to find the new device. Select the new sensor to pair and press pair.
3. Wait while pairing the sensor.
4. Allow pairing by pressing "Ok".
5. Sensor is now shown as paired, you can now run MET-LINK Application.

Launch the app & connect to sensor

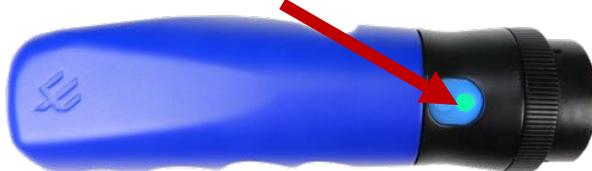


1. Search for “MET-LINK” App in Google Play store or alternatively scan the QR code below. Download and open the software.



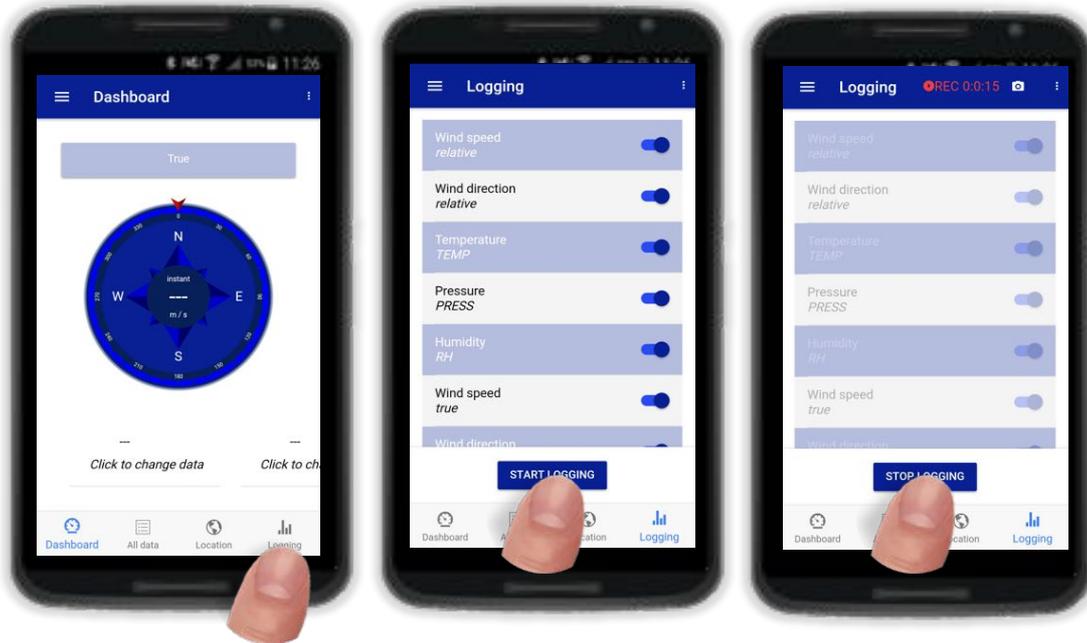
2. Wait for the app to load.
3. Search for device to connect to by pressing on “Find Device”. If you cannot see the device, make sure that the MET-LINK interface module is available and the blue LED is on.
4. Select device from the available list. You will notice the LED indicator turns green when app is successfully connected to the module.

Green indicator
is flashing

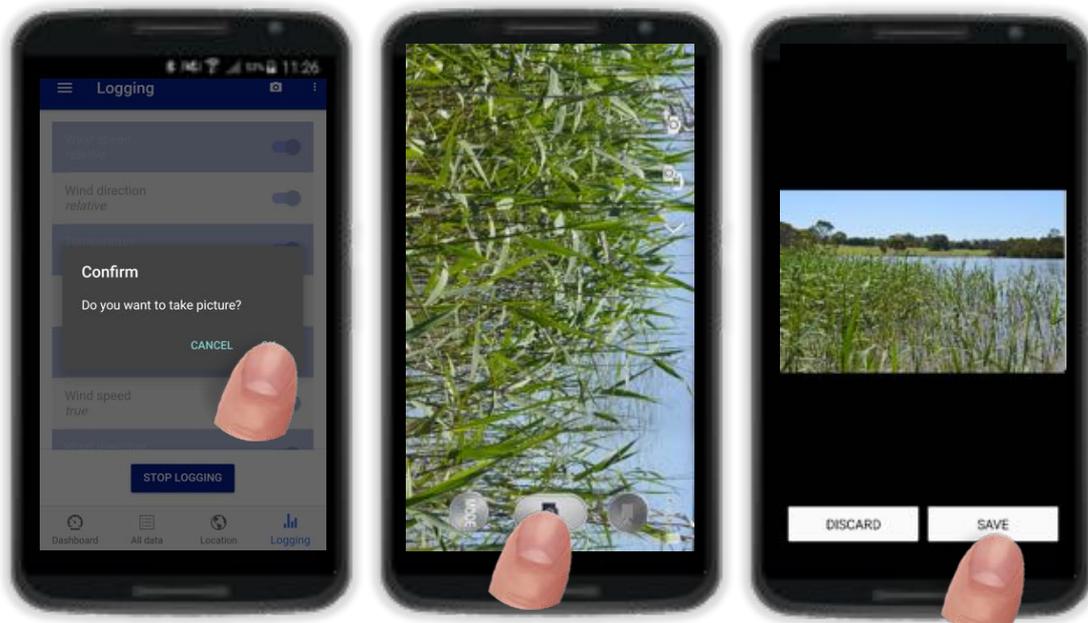


Note: If you want to turn off the module, make sure you disconnect the wireless module from the app.

Record data

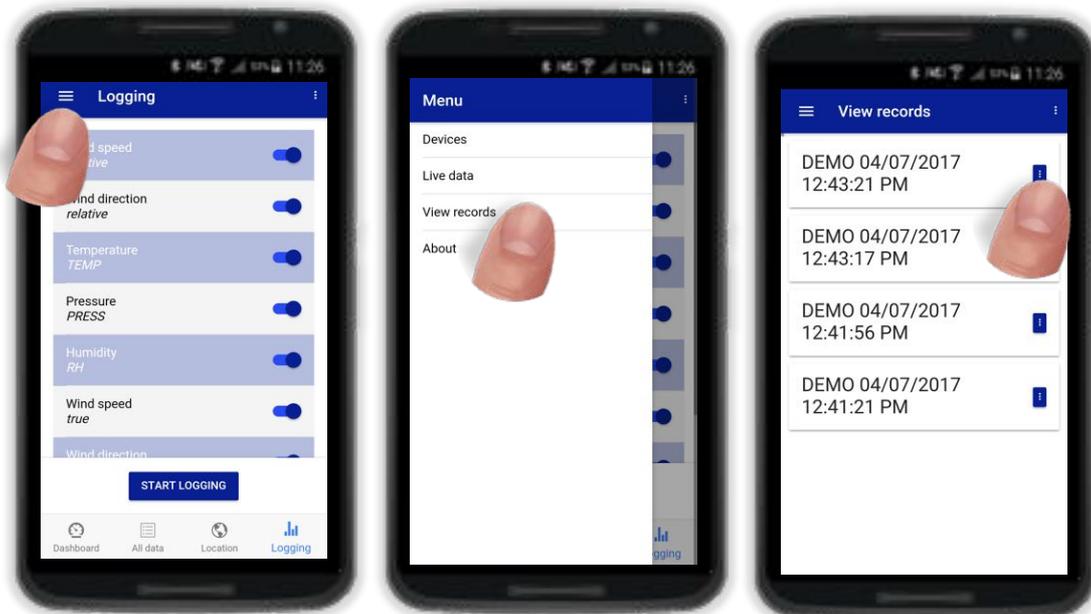


1. When connecting to the sensor for the first time, wait few seconds in order to load the data and select “Logging” menu.
2. Press on “Start Logging” to start the record.
3. A record message will be displayed while recording. Press on “Stop Logging” when required.

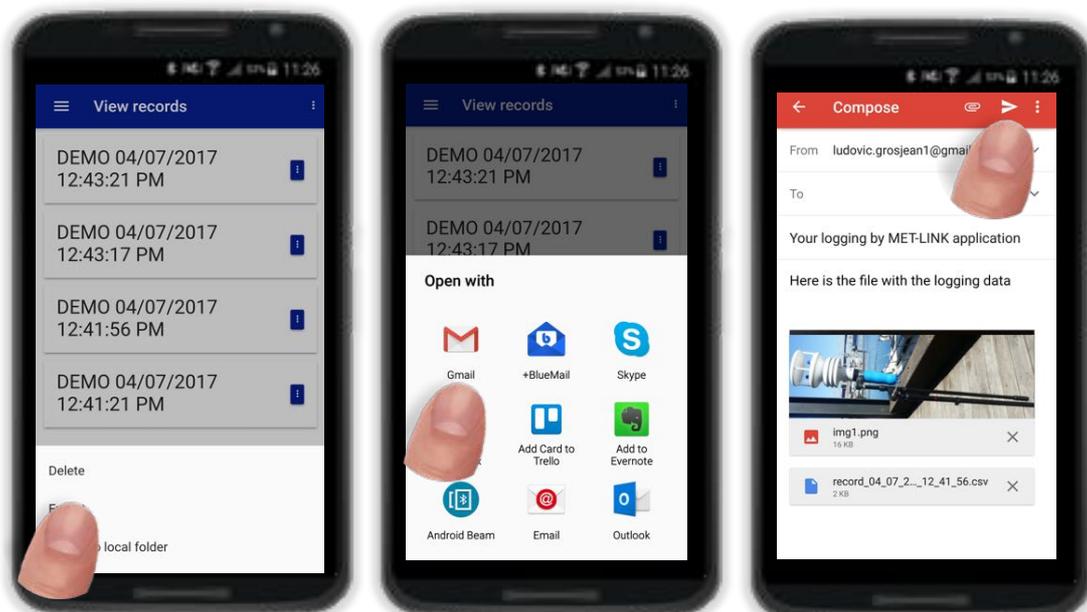


4. If the user did not take a picture, the app will offer the user to record a picture on the database, press “Ok”.
5. Take a picture.
6. Press “Save” to save the picture in the database, alternatively press “Discard” to take another picture.

Export data

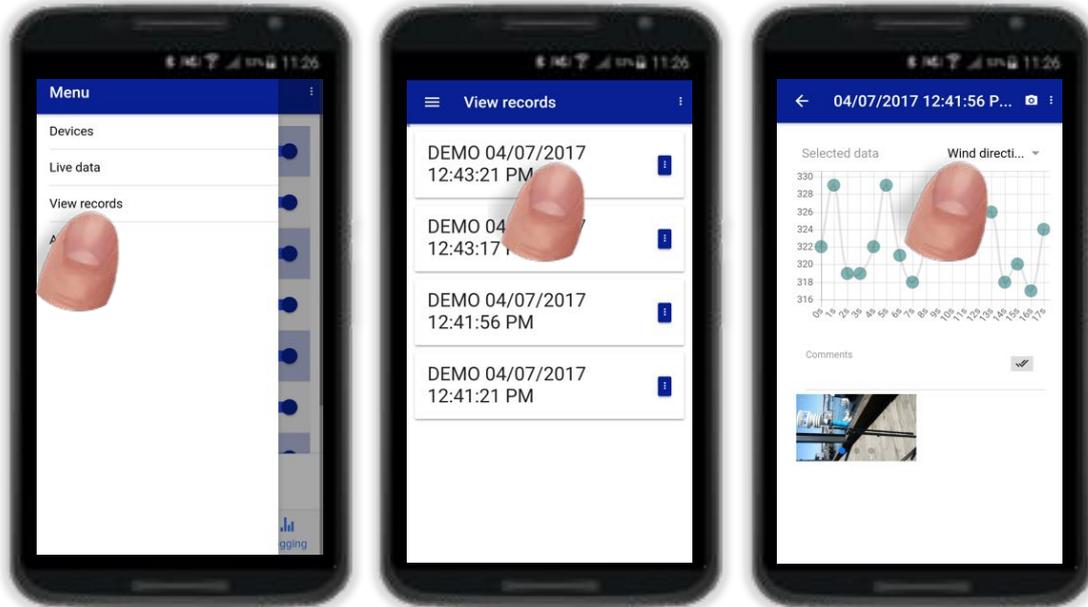


1. Go to the Page menu by clicking on the left-hand side Icon.
2. Select “View records” menu.
3. “View records” menu will display the different records available from the most recent to the oldest, click on the icon of the selected record to display options.

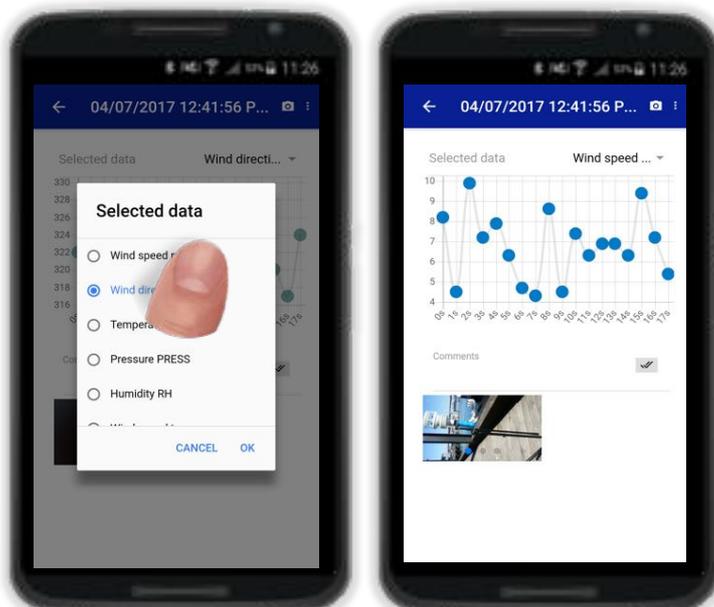


1. Select Export option.
2. Select your export Method.
3. Compose your email including the recipient and click on the send button to send the log file and the pictures attached.

View a record

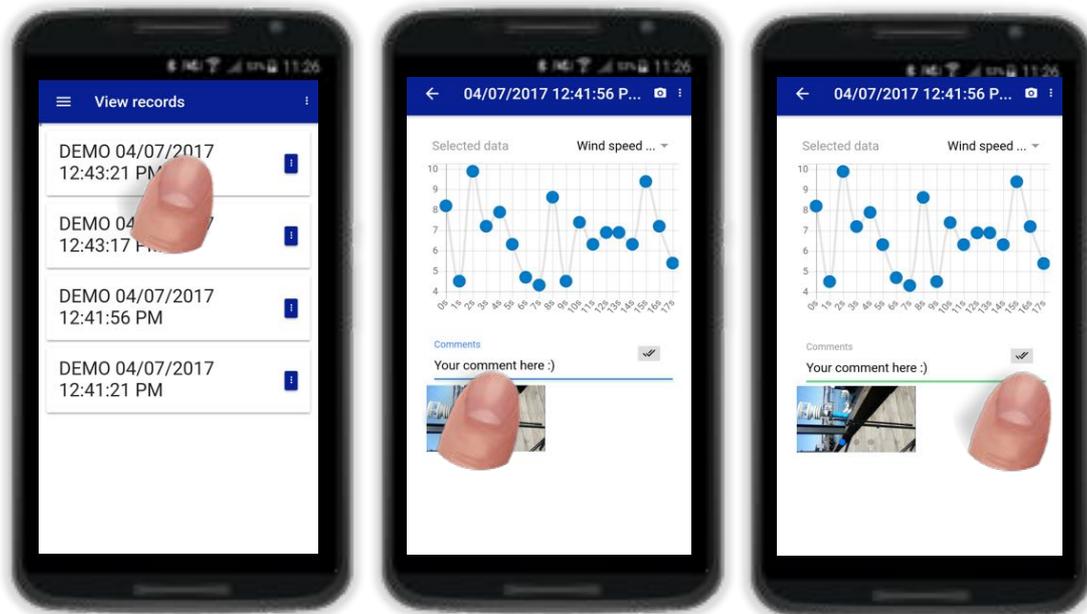


1. In the Page menu select “View records” menu.
2. “View records” menu will display the different records available from the most recent to the oldest, click on any record to display the logged data.
3. The record displays a record of all wind measurements. Click on the Graph to access individual measurements. Alternatively click on the drop down menu to select which graph you want to visualize.



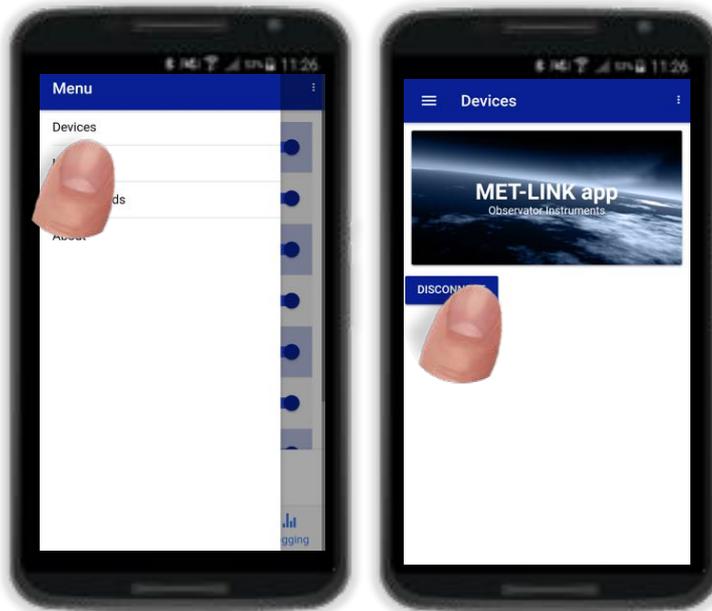
4. Select which graph you want to display from the available choices.
5. Scroll down to see attachments (GPS and pictures) or comment.

Comment a record



1. Follow steps 1, 2 of the previous chapter “View a Record”.
2. Type your comment in the comment section.
3. Press the green icon to save your comment.

Turn off MET-LINK interface

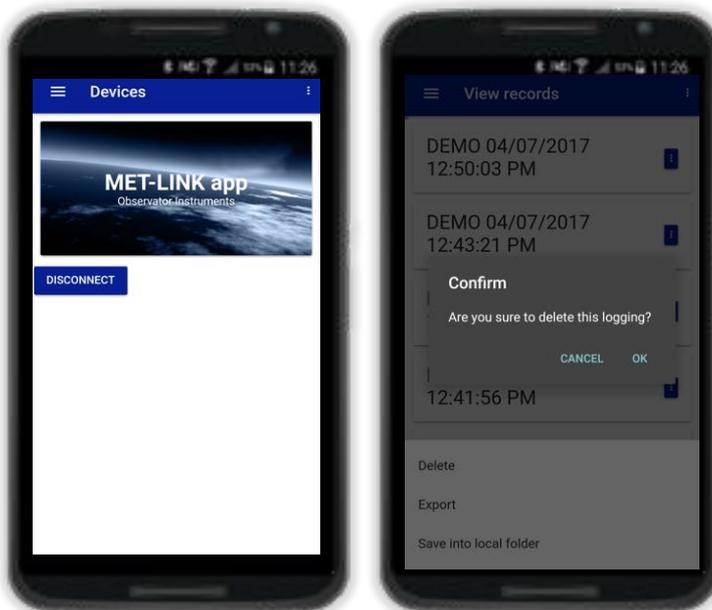


We highly recommend to disconnect the wireless when not taking measurement.

1. In the Page menu select “Devices” menu.
2. Click on the disconnect button to disconnect the sensor, this will immediately turn off the MET-LINK interface module and turn off the Bluetooth LED indicator.

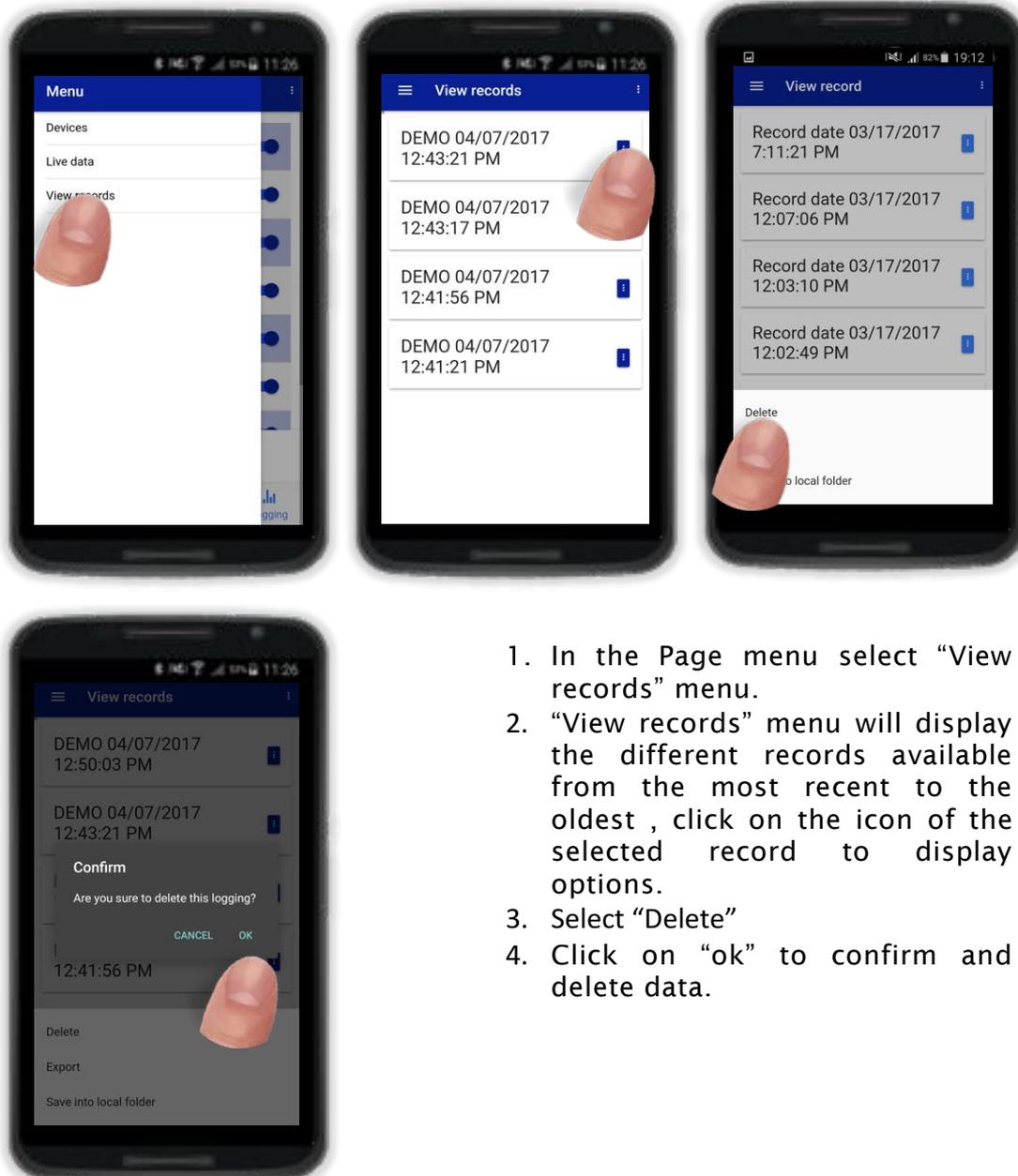
Note: Unplugging the sensor from the wireless device will not turn off the module.

Quit the application



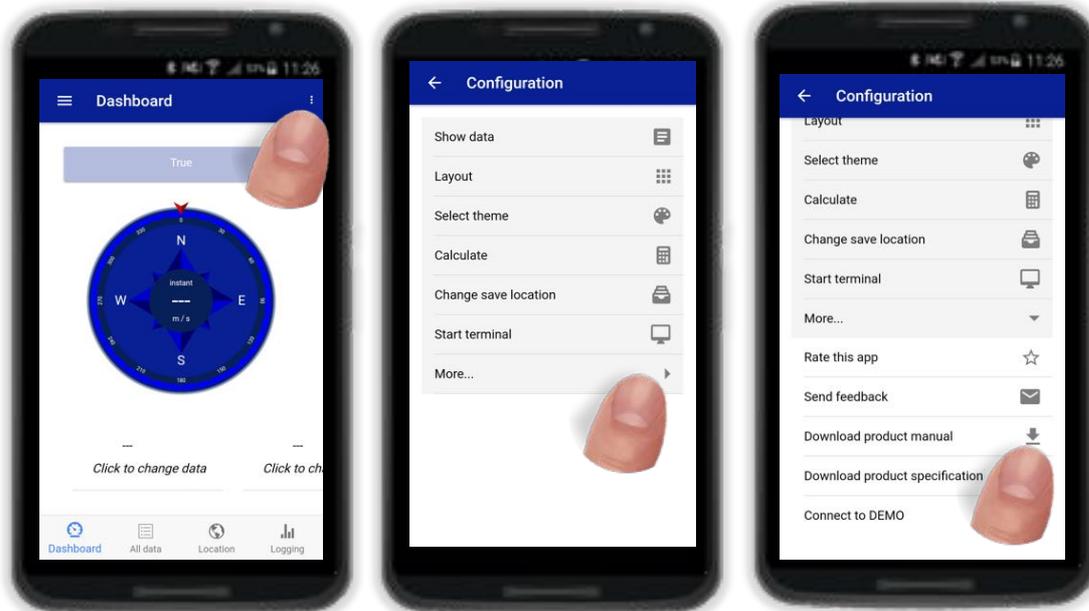
3. You can quit the application at any time by pressing on the return button of the application.
4. Click on “Ok” to confirm that you are ready to shut down the application. This action will immediately turn off the MET-LINK interface module.

Delete a record



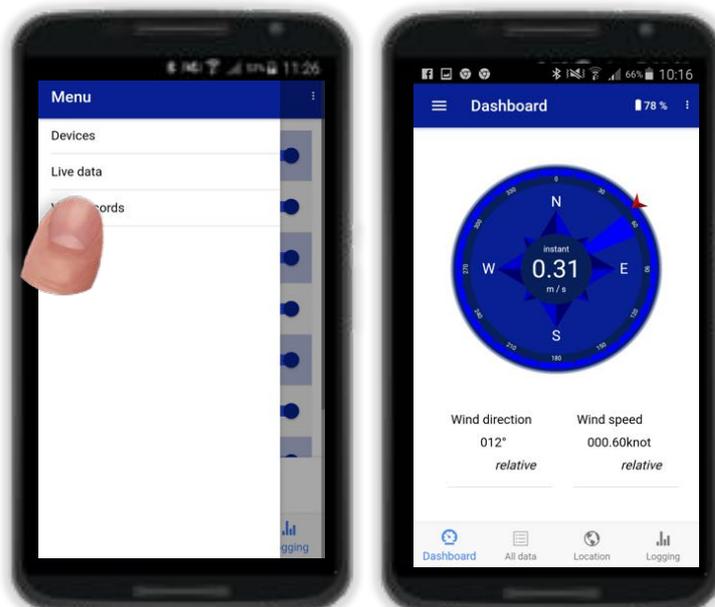
1. In the Page menu select “View records” menu.
2. “View records” menu will display the different records available from the most recent to the oldest , click on the icon of the selected record to display options.
3. Select “Delete”
4. Click on “ok” to confirm and delete data.

Access to additional information



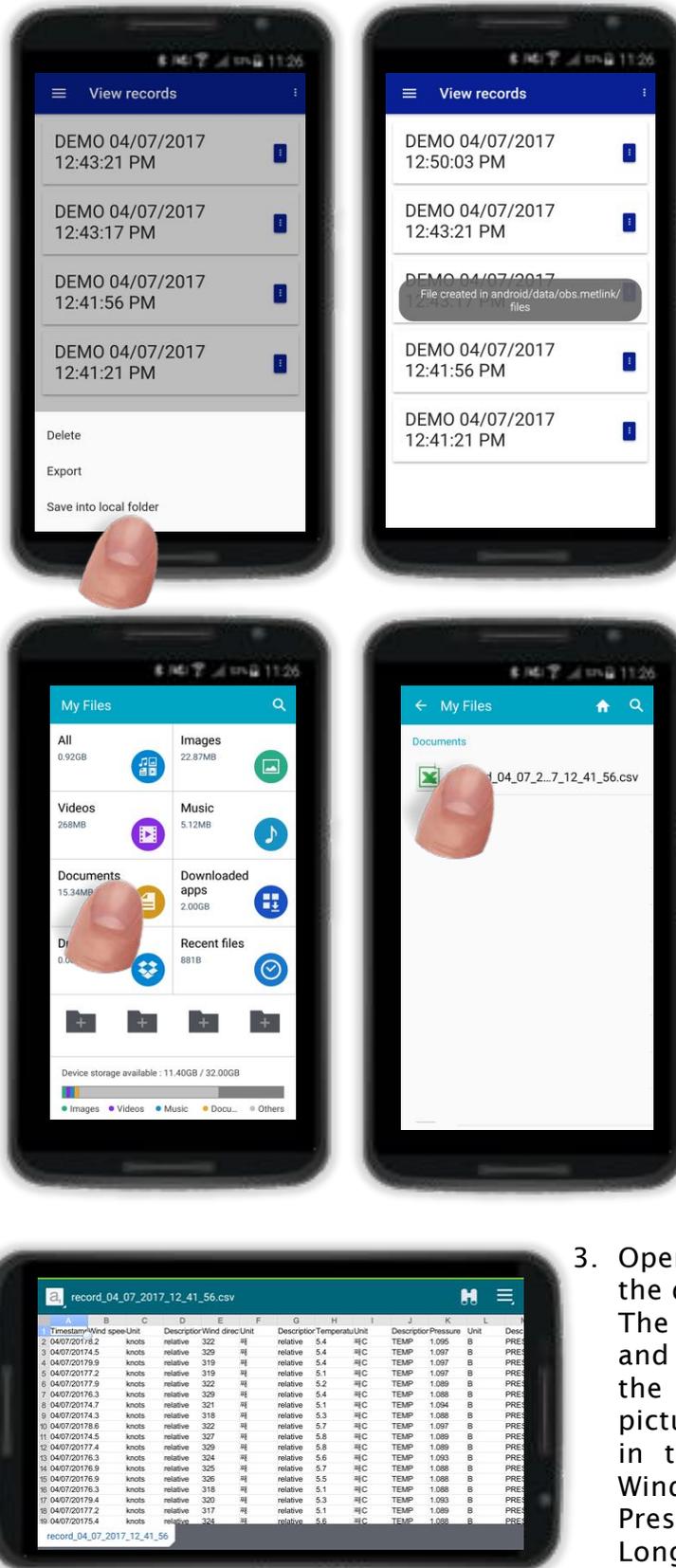
1. In the Page Dashboard, click on the top-right corner.
2. Select “More” to access to the drop-down menu
3. Documentation links are available on the “Download” buttons.

Read the Bluetooth battery level



1. In the Page menu select “Live data” menu.
2. The battery level is displayed on the top right corner.
When sensor is charging, sensor real-time data is no-longer available.

Export in local folder



1. Follow steps 1, 2, 3 of the chapter "View a Record". Press on "Save into local folder".
2. The exported record will be automatically saved in your local folder.

4. To open the file, you're your local folder.
5. Select the ".csv" file.

3. Open the the ".csv" file to view the data logged.
 The log file includes the date and time of the recording into the file name. Comments, picture names are displayed in the header. Wind speed, Wind direction, Temperature, Pressure, Humidity, Longitude, Latitude data is displayed in column according to the timestamp.

8. DEPLOYMENT

Deploy the sensor

1. Start by **considering the environment of operation**: always operate wearing appropriate safety equipment in safe operation conditions.



2. Install the module on the tripod and make sure the sensor is securely attached and steady.



NB: *In a simple application the sensor **can be simply held** while performing measurement.*

3. At any time, you can use the Smartphone application to connect to the sensor (refer to section “**Android Application interface**” of this document). In the case you cannot see live data, disconnect and reconnect the sensor to the MET-LINK interface module and start the application again.

We highly recommend to follow the following guidelines to take proper measurements:

- Verify the reading by doing the measurement twice for data redundancy purposes.

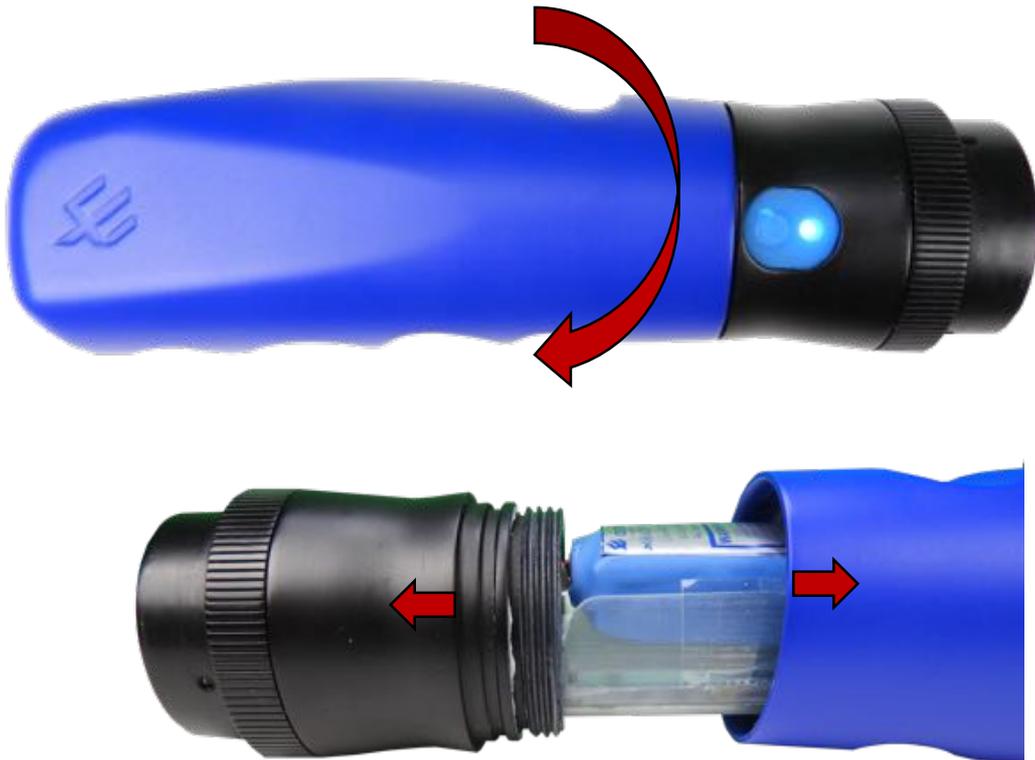
Retrieve the sensor

Carefully remove the sensor from the tripod, make sure the sensor is dry and store the sensor in appropriate conditions. After each use, **do not disconnect the sensor from the hand-held.**

9. MAINTENANCE & CALIBRATION

Battery replacement

1. Please unscrew the cover

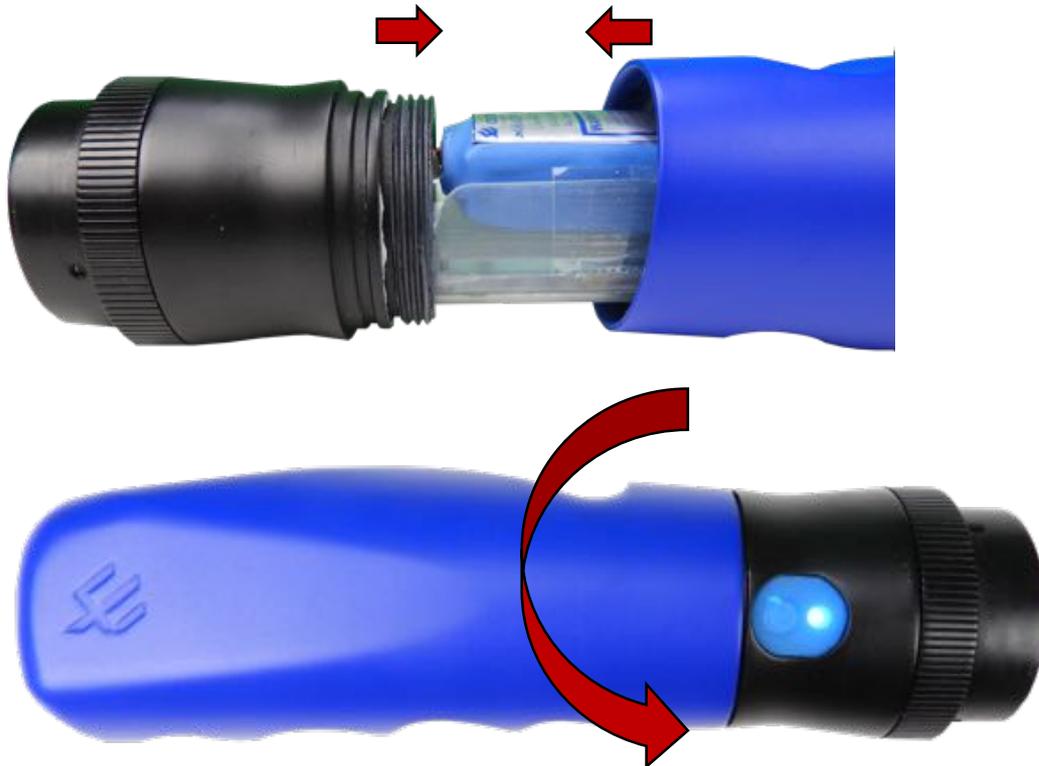


2. Disconnect the li-ion battery pack by pulling each part of the white connector.

➔ **Warning:** do not pull on the cables otherwise it would damage the unit.



3. Connect the new battery to the white connector, place the battery in the holder. Finally, screw the cover until fully tight.

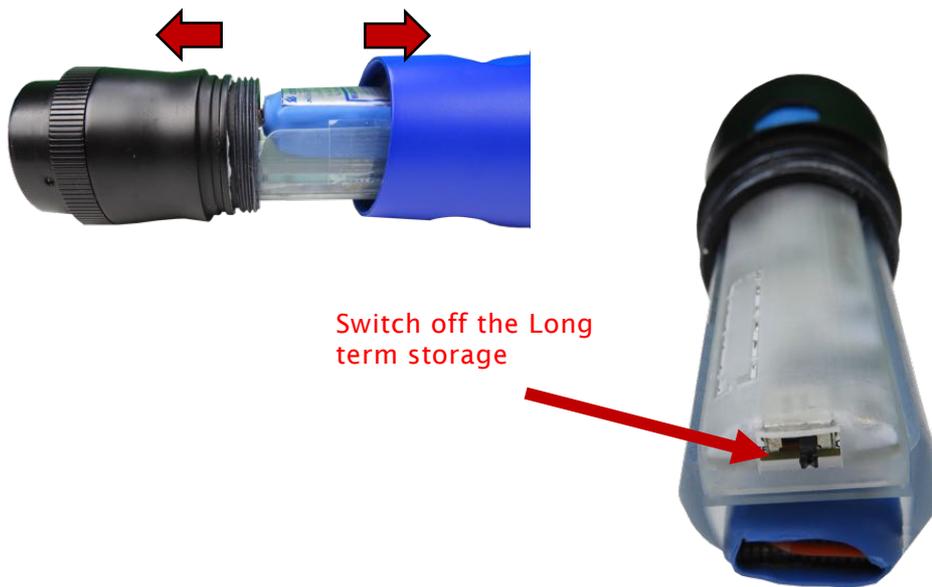


Note: High capacity batteries are available from the website for longer operational requirements.



Long term storage

In order to increase the life-expectancy of MET-LINK products, we highly recommend to switch off the long-term storage switch internal to the Bluetooth Module.



Note: The internal switch should be only used to turn off the unit if the device is in storage more than 6 months or when transporting by air. Normally its best to leave in ON position and cover must be closed at all times.

10. SERVICE & SUPPORT COVERAGE



MET-LINK



Valid Warranty

A valid warranty lets Observator Instruments quickly find your product and provide the help you need: **Warranty must be requested within 60 days after purchase**



Telephone Technical Support

Your product is eligible for telephone technical support under the Observator Instruments-Care Protection plan: **Expiration Date: 2 years after Purchase**



Repair and Service Coverage

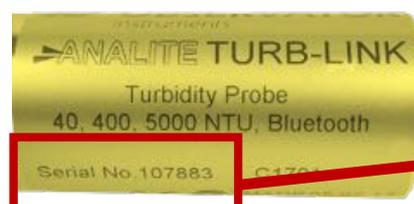
Your product is covered for eligible hardware repairs and service under the Observator Instruments-Care Protection plan: **Expiration Date: 1 years after Warranty registration**

You MUST register your warranty within 60-days after purchase on our website:

<https://observator.com/en/support/rma-request>

You will need: 1. Your Serial Number (can be found on the sensor sticker)

2. A valid E-Mail



S/N: 107883

Warranty conditions

MET-LINK products are warranted against defects in material and workmanship for one year from date of warranty registration, exclusive of the wiper assembly. The **warranty does not cover the battery. Unauthorized service, tampering or abuse will void this warranty. Damage as a result of improper installation will also void this warranty.**

Should you require service (under warranty or otherwise) please **contact Observator Instruments distributor from whom you purchased the sensor, or our Service Centre.** If the sensor is being returned for service under warranty, please supply proof of purchase and the Warranty document which has been emailed to you during the warranty registration.

All support enquiries must include:

1. The serial number of the sensor labelled on the casing of the sensor
2. The shipping address for sensor returns

Contact & more information

Additional Information, including training video, this manual up-to-date and tutorials are available on our training page:

<http://download.observator.com/files/?dir=User%20manuals/MET-LINK>



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