USER MANUAL

BYB TECH

TELEMETRY

bybtech.it

QUICK START

QUICK START

- Mount BYB Telemetry:
  - Use the included mountings to install the acquisition units and the sensors.

- Power On and connect your PC/smartphone to the unit to configure your sensors:
  - Press and hold Run Button for 2 seconds to enable Wi-Fi.
  - Connect to Wi-Fi network: BYB-Telemetry (default password: bybtelemetry).
  - Open the BYB software or app to manage your configurations.
  - Input the mandatatory data, such as: Fork travel, Fork sensor length, Shock travel, Shock sensor length, Rear wheel travel, Wheel size etc...

- Power On and wait for the GPS fix:
  - Press the Power button once and wait for the run LED to switch on (system ready).
  - Wait for the Run LED to turn solid green (GPS fix acquired).

- Start recording:
  - Press the Run button once.
  - Run LED blinks slowly when recording.
  - Press the Run button again to stop recording.

- Connect to the software/app:
  - Press and hold Run Button for 2 seconds to enable Wi-Fi.
  - Connect to Wi-Fi network: BYB-Telemetry (default password: bybtelemetry).
  - Open the BYB software or app to download your runs or manage the configurations.

- Optional setup:
  - Add external trigger or BLE sensors via app.
  - Configure other advanced features.

[TIPS]

At cold start (first run of the day) the GPS can take up to several minutes to get a fix, while at hot start the GPS can get a fix in seconds.

[TIPS]

Make sure you have entered the mandatory parameters required in the bike configuration. If not, check again the previous steps.

WHAT'S IN THE BOX?

Components list

BYB Telemetry is a complete, ready-to-use data acquisition system designed for high-performance applications. The kit includes a set of professional sensors, a compact data acquisition unit, and various spare parts.For example, the V3 Pro MTB Kit includes:

- x1 V3 Pro data acquisition unit
- x1 Front sensor (210 mm)
- x1 Shock sensor (80 mm)
- x1 GPS module
- x2 Brakes sensors (digital)
- x1 Speed sensor
- x2 Acquisition unit plastic mountings
- x1 GPS support
- x1 Fork mountings full kit
- x1 Shock mountings full kit
- x1 Screw kit
- x1 Magnets kit
- x1 Connector's caps kit

ACQUISITION UNIT

Main features

The acquisition unit is available in two different versions: V3 and V3 Pro. Depending on your version, some features may vary. The main features include:

V3

V3 Pro

TELEMETRY	V3  80g	V3 PRO  80g
Aspect & weight		
Channels	2	5
Sampling modes	MTB, MX	MTB, MX, QUAD, CAR
Sampling rate	500 Hz	1000 Hz
Snap-in connectors	✓	✓
Leverage ratio	✓	✓
GPS Lap timing	✓	✓
Chrono lap timing (External triggers)	✗	✓
Heart rate & power meter sensors	✗	✓
Customizable	✗	✓
Raw data export (OPEN mode)	✗	✓
PC software & Smartphone app	Essential	Full featured

SENSORS

Linear sensors

BYB Telemetry includes a set of universal linear sensors that can be adapted to any mountain bike, motorcycle, quad, car, and more. The primary difference between the sensors is their length. Each kit can be customized upon request. The main features of the sensors are:

- Motorsport high-precision sensors
- Compact body
- Black anodized aluminum body
- Low actuation force
- Auto-alignament uniball joints
- Removable uniball joint
- IP65
- Carbon cover

Front sensor

Usually 210mm for MTB and 350mm for MX. Quad and car lengths are available on request.

Rear sensor

Usually 80mm for MTB and 150mm for MX. Quad and car lengths are available on request.

SENSORS

Brakes, speed and GPS

To complete the system, the kit includes a GPS antenna, brake sensors, and a wheel speed sensor. In particular, the brake and speed sensors allow for the collection of additional data and unlock new features within the software and app. For example, you can analyze how the rider is braking and identify the exact sections of the track where time is being gained or lost. The main characteristics of these sensors are:

- Compact
- DIGITAL output (ANALOG version available as upgrade)
- Fast to install (without open the hydraulic circuit in case of brakes)

Brake sensor

Speed sensor

GPS antenna

MOUNTINGS

Mounting

The acquisition unit can be installed on the frame to track bike dynamics, or mounted anywhere on the bike, thanks to the four M3 threaded holes located underneath the unit. The acquisition unit is supplied with a set of plastic frame mountings. Custom mountings can be 3D printed upon request.

Frame moutings

GPS mounting

The GPS antenna can be mounted using a single cable tie. We recommend installing the GPS antenna in a position with a clear view of the sky.

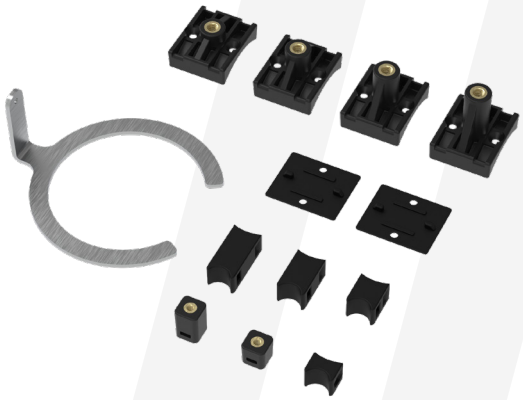
GPS mounting

MOUNTINGS

Suspension mountings

The suspension sensors can be installed using a complete set of steel and plastic mountings. This kit is compatible with all types of suspension systems: double-crown, single-crown, air, or spring-based.

MTB suspension mountings

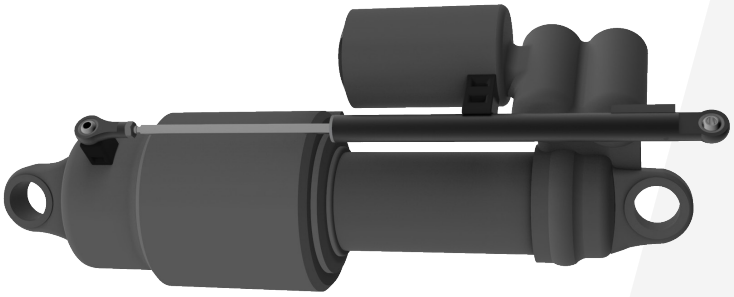


MX suspension mountings

HOW TO INSTALL?

Suspension sensor installation

The correct installation of the sensors is extremely important to avoid damages and maximize the system performances.



[CAUTION]

To avoid any damage to the sensors, the sensor's travel must be equal to or greater than the full suspension travel. The sensor's lifespan is directly influenced by riding conditions (mud, dirt, water).

[CAUTION]

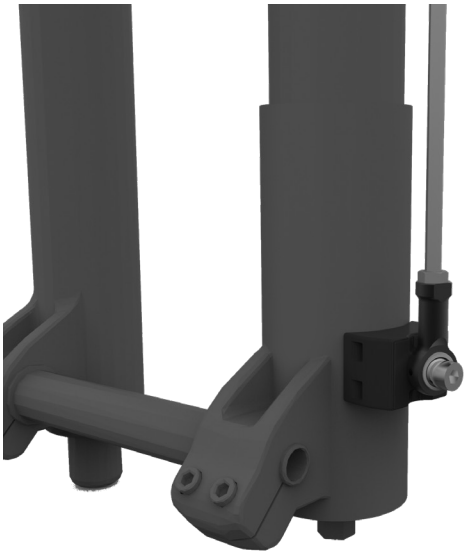
To avoid sensor damage and ensure accurate measurements, it is recommended to use the self-aligning joints. In any case, always double-check the alignment between the sensor body and the sliding cursor. The sensor must move freely, without any significant force or twisting.

[TIPS]

To avoid sensor damage and ensure accurate measurements, it is highly recommended to install both sensors with a slight retraction. Always leave the sensor retracted by 2–3 mm from its fully extended position.

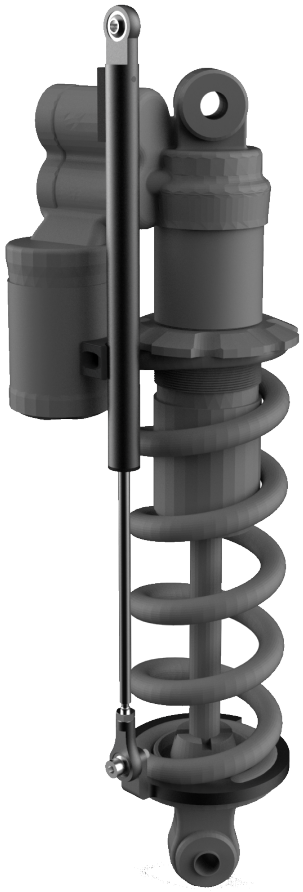
HOW TO INSTALL?

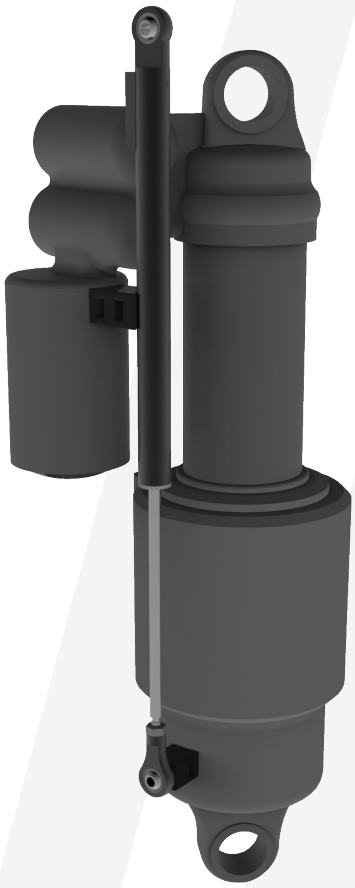
Example of suspension sensors installation



HOW TO INSTALL?

Example of suspension sensors installation





[TIPS]

To simplify the installation of any linear sensor—especially in tight spaces—you can remove the upper uniball joint and the threaded grub screw.

[CAUTION]

To ensure better alignment of the sensors and to protect the shaft, it is advisable to always keep the carbon cover installed.

HOW TO INSTALL?

DIGITAL brakes sensors installation

The digital brake sensors can be installed directly on the handlebar using a thin cable tie. It's important to position them so they do not interfere with the rider's movements. Next, install the magnets on the brake levers, ensuring that the south-pole facing the sensor head.

[CAUTION]

To avoid damaging the sensor, do not overtighten the cable tie!

[CAUTION]

Double-check the orientation of the magnet: the south pole must face toward the sensor head.

[TIPS]

To verify the correct magnet orientation, switch on the system and connect the brake sensors. The sensor's LED will turn on when the magnet is correctly detected.

[TIPS]

Fine-tune the brake sensor's starting point by adjusting the distance between the sensor and the magnet. In the optimal setup, the sensor's LED should turn on as soon as the rider begins to pull the lever.

HOW TO INSTALL?

ANALOG brakes sensors installation

The analog brake sensors can be installed directly on the handlebar using a thin cable tie. It's important to position them so they do not interfere with the rider's movements. Next, install the magnets on the brake levers, ensuring that the south-pole facing the sensor head. The analog brake sensors include an automatic calibration routine.

[CAUTION]

Make sure to have a moment during the run where the brakes are fully extended and fully pressed (for auto-calibration).

[CAUTION]

Double-check the orientation of the magnet: the south pole must face toward the sensor head. To avoid damaging the sensor, do not overtighten the cable tie!

[TIPS]

To verify the correct magnet orientation, switch on the system and connect the brake sensors. The sensor's LED will begin to increase in brightness once the magnet is detected.

[TIPS]

Fine-tune the brake sensor's endpoint by adjusting the distance between the sensor and the magnet. In the optimal setup, the sensor's LED should be nearly off when the lever is extended and reach maximum brightness when the lever is fully pulled.

HOW TO INSTALL?

Speed sensor installation

The speed sensor can be installed on either the left or right fork leg using a cable tie. Install the magnet on the spokes with the south-pole facing the sensor head, minimizing the distance between them. The sensor's LED should turn on when the magnet passes by.

[CAUTION]

To avoid damaging the sensor, do not overtighten the cable tie!

[CAUTION]

Verify correct magnet detection by turning the wheel with the sensor connected and the acquisition unit powered on. The LED should turn on when the magnet is near the sensor.

[TIPS]

Install the sensor and magnet as close as possible to the hub.

HOW TO INSTALL?

GPS antenna installation

The GPS antenna can be installed on the bike's top tube using the dedicated GPS mount and a couple of cable ties.

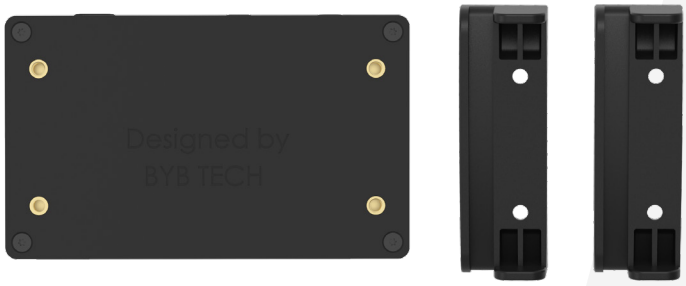
[TIPS]

To improve GPS accuracy, install the antenna facing toward the sky.

HOW TO INSTALL?

Acquisition unit installation

The acquisition unit can be installed on the frame using the provided plastic mountings. Custom mountings can be 3D printed or designed by utilizing, as mounting option, the four M3 threaded mounting holes located on the bottom of the acquisition unit.



[CAUTION]

If you are not using all the connectors, be sure to mount the connector's protective cap to prevent dirt from entering.

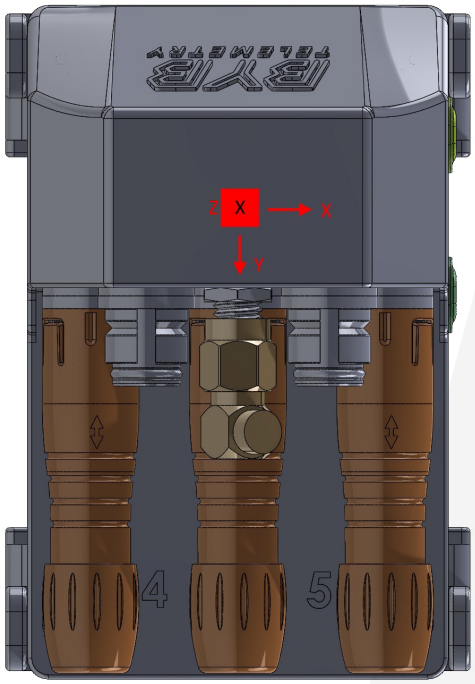
[CAUTION]

Always ensure the micro USB port is covered while riding.

IMU ORIENTATION

Acquisition unit IMU orientation

The acquisition unit features a built-in 3-axis accelerometer and 3-axis gyroscope. All acceleration and gyroscope data are available within the software and can be interpreted according to the following orientation:



[CAUTION]

Pitch, roll, and yaw angles should be computed based on how the user installs the acquisition unit on the bike.

CONNECTORS INSTALLATION

Connectors installation

The acquisition unit includes one GPS connector and either 2 or 5 sensor's connectors. BYB Telemetry follows a well-defined color scheme, which is used for both the connectors and within the software/app. Connect the sensors according to the selected mode: MTB, MOTO, OPEN, QUAD, or CAR.

Each connector has a specific color and assigned position.
Please follow the instructions on the next pages (accordingly to version V3 or V3 Pro)

[CAUTION]

To avoid any damage align the white mark of the connectors and insert gently every connector without force them.

[CAUTION]

To avoid damaging the GPS connector, do not overtighten the GPS SMA connector. Over-tightening can permanently damage the acquisition unit and cannot be repaired or replaced.

TELEMETRY V3

Acquisition unit

Telemetry V3 version features three connectors and supports the following standard sensors:

- Fork sensor
- Shock sensor
- GPS antenna

The connectors are statically mapped, as shown in the image below: Connector 1 is on the left, Connector 2 is on the right, and the GPS SMA connector is located in the middle.

TELEMETRY

TELEMETRY V3

Buttons and functionalities

Switch the device on/off
- To switch on: Press the power button. The run LED will switch on too, and the device will be ready.
- To switch off: Press the power button.

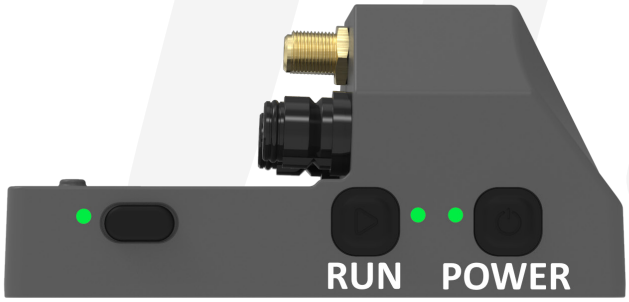
Starting/stopping an acquisition
- To start acquisition: Press the run button once. The run LED will start blinking slowly.
- To stop acquisition: Press the run button again. The run LED will stop blinking.

Connection mode
- Press and hold the run button for 2 seconds to enable Wi-Fi connection mode.
- Press the button again to disable the connection.

Resetting the system
- Factory reset: Press and hold the power button for 8 seconds to restore default settings.
- Force restart: Press and hold the power button for 15 seconds. The device will restart automatically.

Power LED function
- Green: The device is powered on. Battery level is ok.
- Red: The device is powered on. Battery level is low (below 40%).

Run LED function
- Red solid: The device is ready to acquire, but GPS does not have a fix.
- Green solid: The device is ready to acquire, and GPS has a fix.
- Red/Green, blinking slowly: The device is sampling data.
- Blue, blinking fast: The device is in connection mode.



TELEMETRY V3

Device configurations

Device name
This is the name assigned to the device. When connection mode is active, this name will appear as the Wi-Fi network name (e.g., BYB-DeviceName).

BYB mode
This is a selector between the various modes: MTB and MOTO. Remember to connect the sensors according to the mode selected.

Auto pause
Auto Pause is a feature used to stop data sampling when specific conditions are met.

AP Password
This is the password for accessing the device's Wi-Fi network. The default password is "bybtelemetry".

Format SD
This command will wipe all the runs stored inside the memory.

Factory reset
This command will reset the entire device to the factory configurations.

TELEMETRY V3

BYB modes - **MTB** and **MX**

Telemetry V3 features two BYB modes: MTB and MX.
In both modes, the following pinout applies:

- **1 – Fork sensor**
- **2 – Shock sensor**

The recorded data are saved in a binary .byb file format.

TELEMETRY V3

Sensor calibration - Automatic calibration

Suspension sensor calibration is not required. The system automatically detects the maximum and minimum values for each specific fork or shock. However, to ensure accurate measurements, it's important to follow these simple recommendations:

- Install the linear sensors slightly retracted — never fully extended. Always retract the sensor by 2–3 mm.
- Ensure the linear sensors have enough travel to cover the full suspension travel (fork and shock).
- Verify that the carbon cover does not collide with the frame or any mounting hardware.
- Enter the correct values (in mm) for fork travel, shock travel, wheel size, and rear wheel travel in the "Bike Config menu" using the smartphone app or PC software. If incorrect values were previously entered, you can manually correct them directly in the .byb file: open the "Notes" section, update the values, and save the changes.
- Make sure that at least one moment of the ride captures the suspension in a fully extended state. This can be during a jump or by lifting the bike just before the ride begins.

[TIPS]

It's highly reccomended to install both sensors not fully-extendend. Always retract the sensor of 2/3mm

[CAUTION]

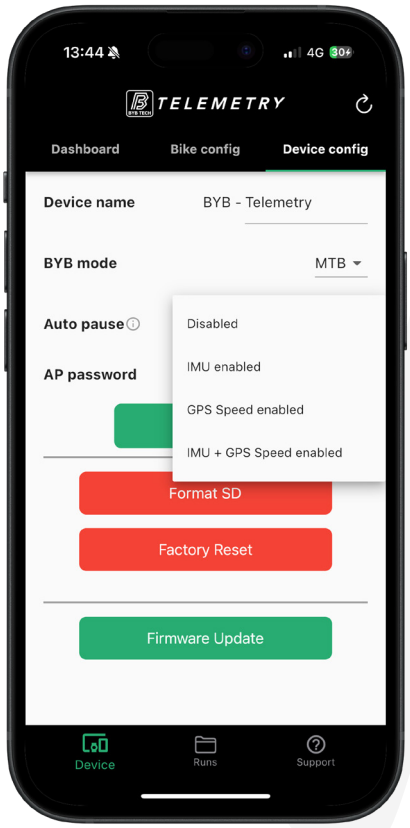
Be sure to have an instant with all suspension fully extended during your run. This is mandatory in order to obtain the correct auto-calibration.

TELEMETRY V3

Auto pause

Auto Pause is a feature used to stop data sampling when specific conditions are met. The available conditions are:

- Disabled: the sampling never stops
- IMU enabled: sampling paused if no movement detected for 10 seconds
- GPS enabled: sampling paused if the GPS speed is below 6 km/h
- IMU enabled + GPS enabled: sampling paused if both of the above conditions are met



TELEMETRY V3 PRO

Acquisition unit

Telemetry V3 Pro version features six connectors and supports the following standard sensors:

- Fork sensor
- Shock sensor
- Speed sensor
- Front brake sensor
- Rear brake sensor
- GPS antenna

In addition to standard sensors, the system also supports custom sensors, which can be configured and mapped according to user requirements. The connectors are dynamically mapped, and each one is labeled with a number, as shown in the image below:

[TIPS]

The sensors can be changed (within the range of available BYB sensors) and mapped directly by the user according to their specific needs.

TELEMETRY

TELEMETRY V3 PRO

Buttons and functionalities

Switch the device on/off
- To switch on: Press the power button. The run LED will switch on too, and the device will be ready.
- To switch off: Press the power button.

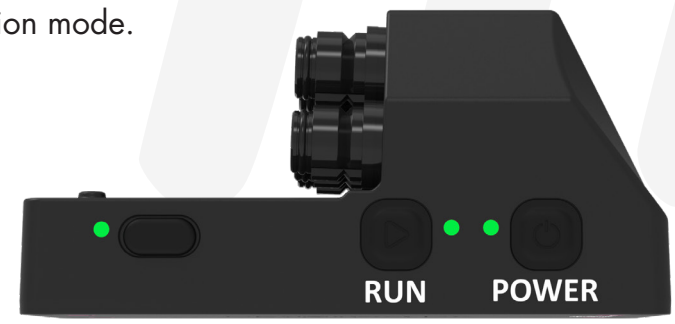
Starting/stopping an acquisition
- To start acquisition: Press the run button once. The run LED will start blinking slowly.
- To stop acquisition: Press the run button again. The run LED will stop blinking.

Connection mode
- Press and hold the run button for 2 seconds to enable Wi-Fi connection mode.
- Press the button again to disable the connection.

Resetting the system
- Factory reset: Press and hold the power button for 8 seconds to restore default settings.
- Force restart: Press and hold the power button for 15 seconds. The device will restart automatically.

Power LED function
- Green: The device is powered on. Battery level is ok.
- Red: The device is powered on. Battery level is low (below 40%).

Run LED function
- Red solid: The device is ready to acquire, but GPS does not have a fix.
- Green solid: The device is ready to acquire, and GPS has a fix.
- Blue solid: The device is looking for the paired BLE sensors (at least one BLE sensor is enabled).
- Red/Green, blinking slowly: The device is sampling data.
- Red/Green blinking slowly + Blue fast blink: The device is sampling data and the paired BLE devices are connected (at least one BLE sensor is enabled).
- Blue, blinking fast: The device is in connection mode.



TELEMETRY V3 PRO

Device configurations

Device name
This is the name assigned to the device. When connection mode is active, this name will appear as the Wi-Fi network name (e.g., BYB-DeviceName).

BYB mode
This is a selector between the various modes: MTB, MOTO, QUAD, CAR and OPEN. Remember to connect the sensors according to the mode selected.

Sampling rate
This is the sampling rate of data acquisition for each channel.

Channel mapping
This is the assignment between each connector and its corresponding sensor. The channel mapping can be customized by the user.

Auto pause
Auto Pause is a feature used to stop data sampling when specific conditions are met.

Chrono configuration - Lap type
Select between a closed circuit (motocross or xc loop) and an open circuit (downhill track).

Chrono configuration - External trigger
Enable (specify the number of triggers used) or disable the use of an external trigger.

Chrono configuration - External trigger ID
The ID assigned to the external trigger(s). It must match the ID of the external trigger(s) being used.

Heart rate sensor
Enable or disable the heart rate sensor. Enabling this option will activate Bluetooth Low Energy.

Power meter sensor
Enable or disable the power meter sensor. Enabling this option will activate Bluetooth Low Energy.

IMU orientation
Set the orientation of the device. This is used for calculating advanced metrics.

TELEMETRY V3 PRO

Device configurations

Custom code
This is a custom code assigned to a specific customer for dedicated and custom purposes.

AP Password
This is the password for accessing the device's Wi-Fi network. The default password is "bybtelemetry".

Sensor calibration
Enable or disable the automatic or manual calibration.

Heart rate sensor pairing
It starts the pairing procedure to a specific hear rate sensor.

Power meter sensor pairing
It starts the pairing procedure to a specific cycling power meter.

Format SD
This command will wipe all the runs stored inside the memory.

Factory reset
This command will reset the entire device to the factory configurations.

TELEMETRY V3 PRO

BYB modes - MTB, MOTO, QUAD and CAR

The current mode must be selected before starting any acquisition. Declaring the correct mode is essential, as it informs the software/app which type of data to display and which charts to generate.

The available modes are:
- MTB – typically used for fork, shock, speed, front brake, and rear brake
- MOTO – typically used for fork, shock, speed, front brake, and rear brake
- QUAD – typically used for front left suspension, front right suspension, rear suspension, front brake, and rear brake
- CAR – typically used for front left suspension, front right suspension, rear left suspension, and rear right suspension

The pinout of the BYB Telemetry Pro can be customized by the user to fit different setups (see next chapter).

The recorded data are saved in a binary .byb file format.

BYB modes - OPEN

The OPEN mode is designed for use with custom sensors. In this mode, all available analog channels can be utilized: CH1, CH2, CH3, CH4, and CH5.

When using OPEN mode, the user does not need to declare the type of sensor connected to each channel. However, it is the user's responsibility to keep track of what is connected to each channel.

he recorded data are saved in a binary .bybOpen file format.
These files can only be opened and converted to .csv format using the BYB Telemetry software.

[CAUTION]

When using custom sensors always connect 3.3V sensors. It's suggested to ask us before the use.

TELEMETRY

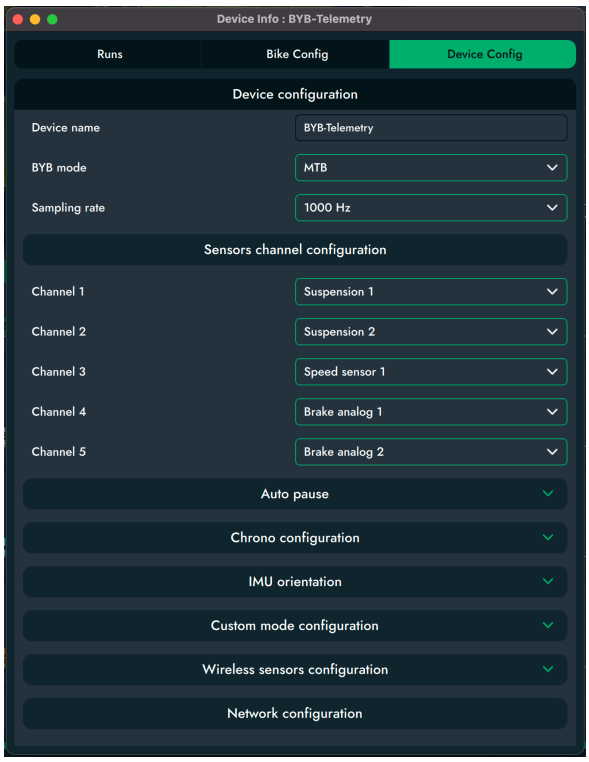
TELEMETRY V3 PRO

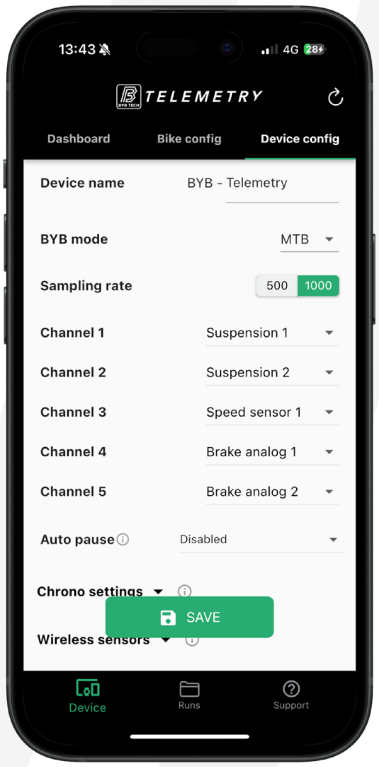
Channels mapping

The V3 Pro system allows full flexibility in channel mapping based on the connected sensors and user preferences. For each channel, you can select the corresponding sensor from a complete list of supported options.

By default, the standard sensor assignments are:

1 – Suspension 1 (Fork)
2 – Suspension 2 (Shock)
3 – Speed Sensor
4 – Front Brake
5 – Rear Brake





[CAUTION]

The channel mapping must be defined before starting any session and cannot be changed afterward.

TELEMETRY V3 PRO

Sensor calibration - Automatic calibration

Suspension sensor calibration is not required. The system automatically detects the maximum and minimum values for each specific fork or shock. However, to ensure accurate measurements, it's important to follow these simple recommendations:

- Install the linear sensors slightly retracted — never fully extended. Always retract the sensor by 2–3 mm.
- Ensure the linear sensors have enough travel to cover the full suspension travel (fork and shock).
- Verify that the carbon cover does not collide with the frame or any mounting hardware.
- Enter the correct values (in mm) for fork travel, shock travel, wheel size, and rear wheel travel in the "Bike Config menu" using the smartphone app or PC software. If incorrect values were previously entered, you can manually correct them directly in the .byb file: open the "Notes" section, update the values, and save the changes.
- Make sure that at least one moment of the ride captures the suspension in a fully extended state. This can be during a jump or by lifting the bike just before the ride begins.

[TIPS]

It's highly reccomended to install both sensors not fully-extendend. Always retract the sensor of 2/3mm

[CAUTION]

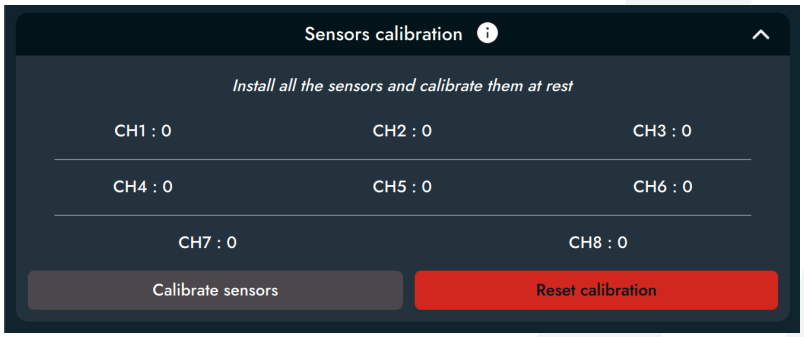
Be sure to have an instant with all suspension fully extended during your run. This is mandatory in order to obtain the correct auto-calibration.

TELEMETRY V3 PRO

Sensor calibration - Manual calibration [Expert users only]

The V3 Pro acquisition unit allows manual calibration of the sensors.
This process sets the minimum value for each sensor simultaneously. To perform the calibration, follow these steps:

- Install the linear sensors slightly retracted — never fully extended. Always retract the sensor by 2–3 mm.
- Ensure the linear sensors have enough travel to cover the full suspension travel (fork and shock).
- Verify that the carbon cover does not collide with the frame or any mounting hardware.
- Enter the correct values (in mm) for fork travel, shock travel, wheel size, and rear wheel travel in the "Bike Config menu" using the smartphone app or PC software. If incorrect values were previously entered, you can manually correct them directly in the .byb file: open the "Notes" section, update the values, and save the changes.
- Once all sensors are installed (e.g., with the bike hanging from a support), press "Calibrate." This action will set the current readings as the new minimum calibration values. These values will be used by the app and software to calculate the data accurately.



[TIPS]

It's highly reccomended to install both sensors not fully-extendend. Always retract the sensor of 2/3mm

[CAUTION]

Whenever the sensors or mountings are reinstalled or repositioned, the manual calibration must be performed again. Failure to recalibrate may result in inaccurate data.

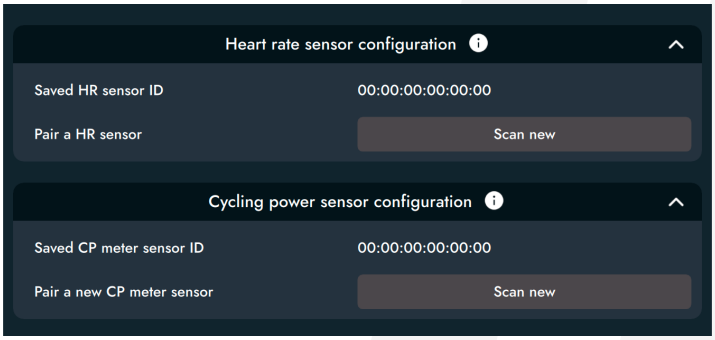
TELEMETRY V3 PRO

BLE sensors (Heart Rate and Power Meter)

The Telemetry V3 Pro acquisiton unit can connect to commercial BLE heart rate monitors and cycling power meters. Before use, each sensor must be paired with the acquisition unit. Once paired, the sensor's unique ID will be saved in the device for future sessions.

To pair a heart rate or power meter sensor:
- Activate the sensor: heart rate sensor (by wearing it) or the power sensor (by moving it).
- Enable WiFi mode on the BYB Telemetry.
- Open the app/software and navigate to the device configuration menu.
- Tap "Scan heart rate sensor" or "Scan cycling power meter sensor".
- Wait for the pairing process to complete — the unique code of the paired sensor will be displayed.

Before starting a run, make sure to set "Heart rate sensor" or "Power meter sensor" to YES in the device configuration menu.



[TIPS]
When BLE sensors are in use, you can verify their connection by observing the blue LED on the run button: it will light up steadily at system startup while searching for saved BLE sensors and blink rapidly (once or twice, according to the numer of connected sensors) during data sampling.

[TIPS]
It is highly recommended to set the "Heart Rate Sensor" or "Power Meter Sensor" option to "Yes" only if the corresponding sensors are in use.

[CAUTION]
Using a BLE sensor will activate the BLE, therefore it will reduce the battery life.

TELEMETRY V3 PRO

BYB Chrono

The Telemetry V3 Pro acquisition unit is capable of recording lap times using the BYB Chrono external triggers placed along the track. [More information available on BYB Chrono user manual]

Lap type

- Open lap: The track has a distinct start and finish, with the entry and exit points being separate.
- Closed lap: The track forms a loop with a shared start/finish line. In this mode, both the entry and exit laps are automatically excluded from any calculations.

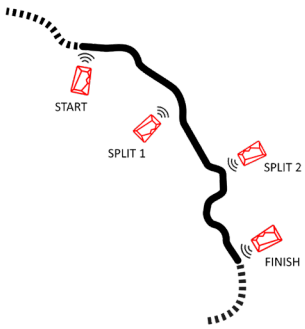
External trigger

BYB Chrono can be paired with an external trigger to achieve highly accurate timing, independent of GPS reception quality. It's possible to enable or disable the external trigger reception, and the user must specify the number of trigger used.

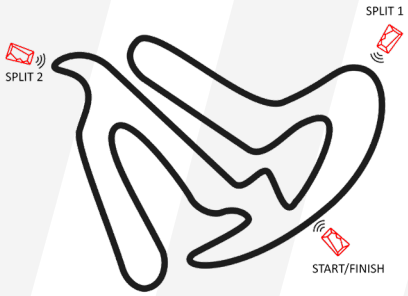
External trigger ID

This is the trigger's name The trigger's name can be customized. A unique name must be entered (default: "Chrono") that matches the trigger's ID.

OPEN LAP



CLOSED LAP



[TIPS]

The triggers can be shared between more Chrono devices. Additional triggers can be placed as intermediate splits, and the total number of triggers used must

[CAUTION]

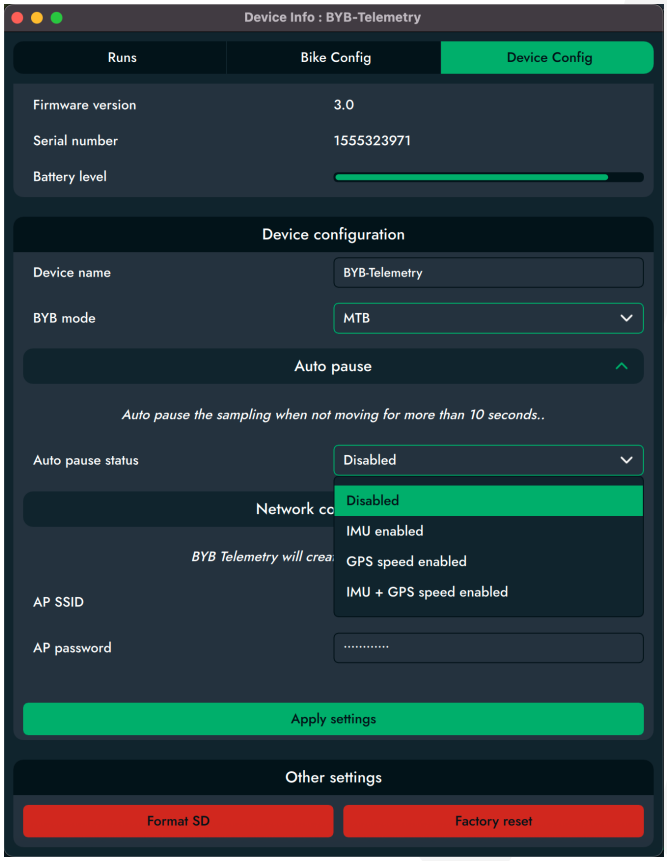
If not in use, set the "External trigger" option to "No". It will save a great quantity of battery.

TELEMETRY V3 PRO

Auto pause

Auto Pause is a feature used to stop data sampling when specific conditions are met. The available conditions are:

- Disabled: the sampling never stops
- IMU enabled: sampling paused if no movement detected for 10 seconds
- GPS enabled: sampling paused if the GPS speed is below 6 km/h
- IMU enabled + GPS enabled: sampling paused if both of the above conditions are met



DEVICE CONFIGURATION

Bike and rider configuration

This configuration is used to store essential data about the bike and the rider. Use the smartphone app or PC software to fill in all relevant fields. Each newly acquired run will automatically include these information. To ensure that the software can load any run properly, the following data are mandatory:

- Fork travel (mm) [Only numbers are accepted. Example: 200]
- Fork sensor travel (mm) [Only numbers are accepted. Example: 210]
- Shock travel (mm) [Only numbers are accepted. Example: 75]
- Shock sensor travel (mm) [Only numbers are accepted. Example: 80]
- Rear bike travel (mm) [Only numbers are accepted. Example: 215]
- Wheel size (mm) [Only numbers are accepted. Example: 26 or 27.5 or 29 or wheel diamter in mm. Example: 690]

You can store up to 15 different bike/rider configurations inside the acquisition unit. Each configuration is identified by the RiderName field, which must be entered without spaces between letters or words.

All fields have a fixed character length, except for the Note section, which allows for a longer entry.

Save
This command will save the current cofiguration.

Load
This command will load a previously saved cofiguration.

Delete
This command will delete the current configuration. Every field wil be erased.

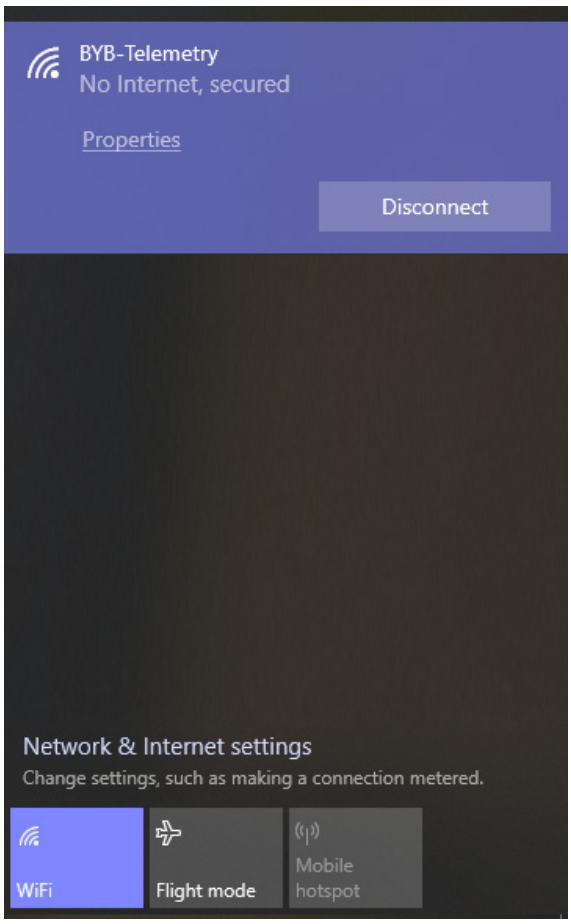
[TIPS]
The wheel size value is used only to perform speed sensors calculations. If you're running different wheel diameters, just input the diameter of the wheel on which is installed the speed sensor.

[TIPS]
The standard wheel diamter values can be 21 and 19 for MOTO and 26, 27.5 or 29 for MTB.
To increase the speed accuracy you can insert your custom wheel diamter (in mm) inside the wheel diamter field. Example: 695

DEVICE CONFIGURATION

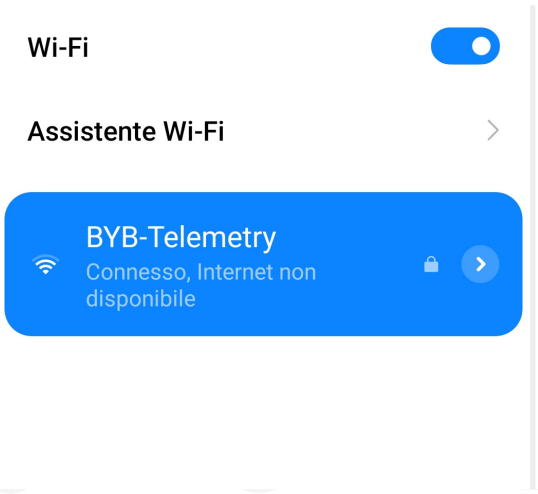
Connect to your BYB Telemetry V3

- Press and hold the Run button for 2 seconds. The Run LED will begin to blink blue rapidly.
- On your smartphone or computer, search for the Wi-Fi network named "**BYB-Telemetry**" (default name).
- onnect to the network using the default password: "**bybtelemetry**".
- Your device may show a message such as "Connected" or "Connected without internet".



Computer

iOS smartphone



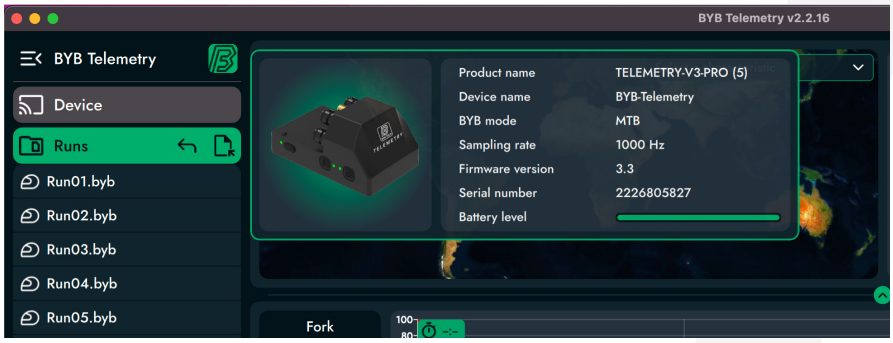
Android smartphone

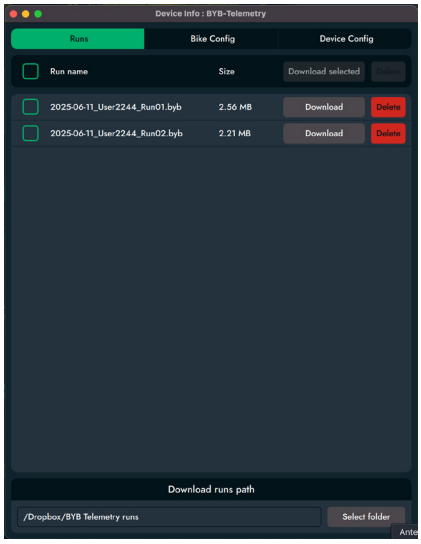
DEVICE CONFIGURATION

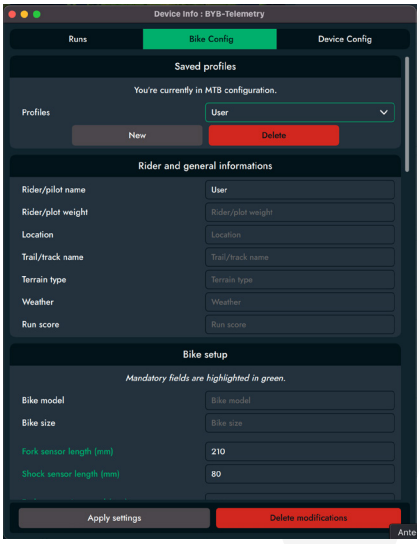
PC software - Donwload runs or manage configurations

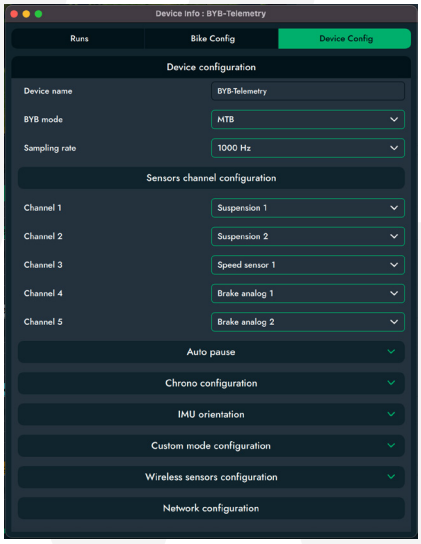
Once connected to the BYB Telemetry Wi-Fi:

- Open the BYB Telemetry software.
- Click the “Device” button in the top-left corner of the screen.
- Download or delete runs stored on the acquisition unit (individually or all at once).
- Manage settings or load configurations (click ‘Apply’ once done).







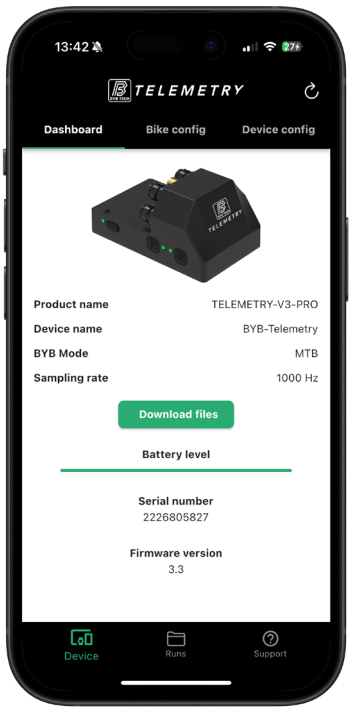


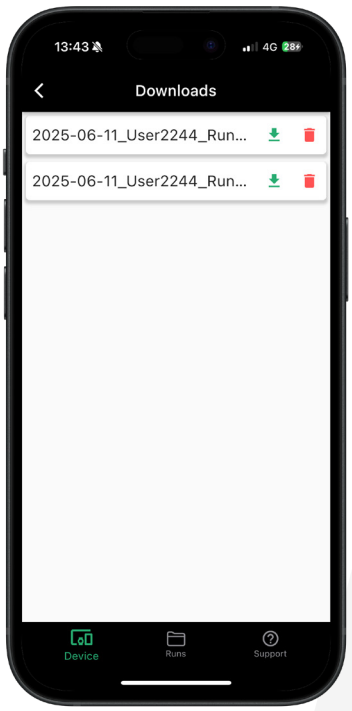
DOWNLOAD RUNS AND MANAGE CONFIGURATIONS

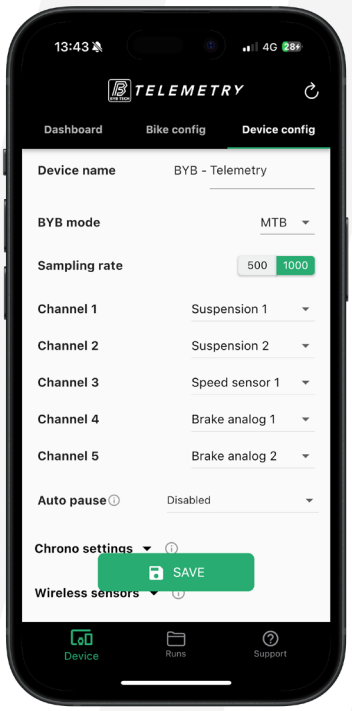
Smarthone app - Donwload runs or manage configurations

Once connected to the BYB Telemetry Wi-Fi:

- Open the BYB Telemetry app.
- On the Home page, tap the “download icon” to download a run.
- Go to the Config page to manage device, rider, and bike settings.
- Use the Runs page to view and analyze your runs.
- To share a run outside the app you can use Dropbox or press the dots on the right and click “share”.







[TIPS]

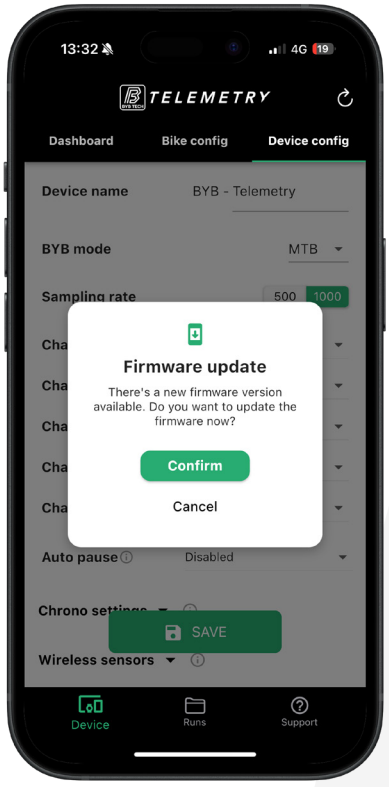
More detailed explanation about app usage are contained inside the software user manual.

FIRMWARE UPDATE

Firmware update

To check if a firmware update is available, connect to the BYB Telemetry Wi-Fi network and follow these steps:

- Open the BYB Telemetry app.
- If a new firmware version is available, a pop-up notification will appear.
- Follow the on-screen instructions to complete the update.



[TIPS]

It's highly recommended to start the firmware update with the device connected to a charging cable.

CHARGE THE SYSTEM

Battery charging

The acquisition unit is equipped with an inernal rechargeable battery.
To recharge it, follow these steps:

- Remove the microUSB protective cap.
- Connect the microUSB cable to the microUSB port of the unit.
- Use ONLY an USB PC port or a smartphone charger with an output of 5V, 1A.
- The charging LED is on when recharging the battery.
- The charging LED is off when the battery is fully charged.
- Insert the microUSB protective cap before the next ride.

[CAUTION]

Don't connect the microUSB port to an input greater than 5V. Use only phone chargers or PC USB port.

[TIPS]

To increase battery life recharge the system only before every use.

HOW TO WASH THE SYSTEM

System cleaning

BYB Telemetry is a professional electronic device and should never be cleaned with a pressure washer. Always clean it gently using water and a soft cloth.

[TIPS]

To extend the life of the suspension sensors, always remove any dirt—especially dry debris—from the sensor cursor. Dirt buildup can damage the internal gasket and reduce the sensor's IP65

[CAUTION]

Do not use a pressure washer directly on the acquisition unit, connectors, or sensors.

[CAUTION]

Always check that the micro USB connector is completely dry after cleaning the system and before reconnecting it for charging.

BYB TECH

www.bybtech.it