## PULSARONE

# The **wireless display** designed for eBikes.

Powerful, compact, easy to handle and small in size. Completely wireless, the new PULSARONE connects to the eBike system using the ANT+ LEV protocol specifically designed for electric bicycles and fully compatible with the new generation of X35 + systems.

It's 2.1" screen allows you to see vital information about your eBike system such as battery state of charge, assistance level, light system status, range and errors, as well as basic journey information such as speed or time.

This information is joined by a set of additional calculated data essential for any rider such as average speed, time, odometer, partial distance, heart rate, cadence, etc.

# Wireless control of the ebike assist level from the display.

PULSARONE display also works as a remote controller thanks to ANT+ LEV - a powerful low power protocol adapted for electric bike communication. It is possible to increase and decrease the eBike assist levels using the side buttons of the remote controller and see eBike and ride information on the screen.

# Adding more sensors and information.

In addition it is possible to connect PULSARONE display to other different ANT+ accessories like cadence, power meter or heart rate at the same time.







#### SPECIFICATIONS

- · 2,1" black & white LCD
- · 3 buttons · Wireless connectivity ANT+
- · Waterproof IP67
- · Battery type CR2032 (Included)
- · Certfications (CE, FCC)
- · ANT+ LEV, HR, CAD, PWR, CTF
- · Dimensions (57,7 mm x 41,1 mm)
- ·Weight 29 grs (with CR2032)
- 1 optional mount for handlebar Garmin compatible
- · MAHLE EBM compatible
- · 7 language manual (EN, ES, DE, FR, IT, PT, DU)
- · Screen protector included
- Aftermarket colored box
- $\cdot$  Designed by MAHLE in Europe Assembled in PRC

#### **eBIKE INFORMATION**

- · Main battery level
- · Range Extender battery level
- · Assist level / Walk mode
- · Lights status
- Range (rideable distance based on current battery level and assist level)
- · % of adjustment per assist level
- · Odometer
- · Active error

#### **eBIKE FUNCTIONS**

- · Increase & decrease assist level
- · Head lights control

#### **CONVENTIONAL BIKE INFORMATION**

- · Bike speed
- · Average speed
- $\cdot$  Ride distance
- · Odometer
- · Ride & current time
- $\cdot$  Cadence, power meter and heart rate (using ANT+ sensors)

#### SETTINGS

- ANT+ pairing
- · Units (KMH, MPH)
- · Current time
- · Reset



HOLDER SPORT MOUNT available on our B2B with order code 33010000001000

### PULSARONE

# Compatibility check.

If the enduser bought a bike with the X35 battery (without ANT+), he would be able to use the PULSARONE with the ANT+ CONVERSION KIT FOR MAHLE X35 EBIKEMOTION SYSTEM (ART.X35KITANT+). It provides ANT+ connectivity, therefore the X35KITANT+ will connect to the PULSARONE. Even if the x35+ (with ANT+ connection) is compatible with the PULSARONE, the user experience may vary depending on the firmware version.

The firmware can be seen in the ebikemotion web platform.

# Firmware check and updgrade.

1. Log in to the website: www.ebikemotion.com

2. Select "My Ebikes" and check the firmware of the joystick in the right corner of the page

- A The iM2EM121 is the latest version and it is the most friendly for the PULSARONE
- B For those batteries with the firmware iM2EM101 we strongly recommend to update the firmware using the GCU. This operation must be done by an official dealer (paid operation)
- C The C-type batteries' firmware has a different code and it looks like the one in the picture below. These batteries are not ANT+ LEV capable and the user would require a X35KITANT+

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In this chart, the functionalities depending on the firmware type:

	A firm: iM2EM121	B firm: iM2EM101	C firm: C-type	te
Assist Level Info The different assist levels are shown accordingly on Display UI	ОК	ОК	OK	۲ 2
Assist Level Selection Possibility to change level of assistance directly from the PULSARONE.	ОК	LIMITED (Attempt rate is LOW)	OK	022
Assist Level Percentage Display shall show the percentage of each motor maps when paired	ОК	КО	ОК	ERPEDIA 2
<b>Error Codes</b> The Error Code shown on Display matches with the Mobile App and the platform definition	ОК	LIMITED	OK	MILI
<b>Battery Level</b> When Range Extender is connected to the eBike, the value of battery level in Display toggles every 3 sec	ОК	ОК	ОК	P U L S A R O N E

