# Magene Dual-protocol Crank Power Meter 



## RIDGE DUAL

## 01 Quick Start Guide

Thank you for purchasing RIDGE DUAL dual-sided dual protocol crank-arm power meter(Hereinafter referred to as RIDGE DUAL).
Please be sure to follow the 3.2 operation steps to activate the power meter before use.
For information regarding crank installation and adjustment not covered in this guide,please refer to your bicycle dealer's instruction manual.


- Email: support-cn@magene.cn
- Phone: 400-662-8297
- Website: www.magene.cn

If you have any questions about the power meter module, please contact us.

## 02 Unpacking the Box

Take RIDGE DUAL and its parts out of the box and keep the original packaging for future storing and transporting.


## The box should contain:

(1) Left power crank
(2) Right power crank
(3) CR2032 Battery
(4) Quick start Guide
(5) Accessory Bag

## 03 Connect and Activate the Power Meter

## NOTE:

RIDGE DUAL cannot display data such as power if it is not activated, be sure to follow these steps to activate before using.

1. Follow your bicycle's crank installation instructions to install RIDGE DUAL.
2. Install the right crank power meter battery as per 7.2.
3. Follow the 7.1 operation to open the battery cover of the left crank power meter, remove the insulator, and stall the battery cover back.
4. Open Magene Utility App, to search for power devices and find the same device as ANT+ID in the left crank sticker.
5. Click on the connection device, the unactivated device will jump to the device activation page to verify that the mobile phone has been activated, and can be used normally after successful activation.

(1)

(2)

(3)

(4)

(5)

## NOTE:

If step 4 cannot search for the power meter, please sit around the RIDGE DUAL 1 min and rotate the crank for a few weeks, at which time Bluetooth enters the broadcast state and can be connected.

## NOTE:

If activation fails, click return, enter the device search list, and reactivate.

## 04 Connect the Power Meter Device

RIDGE DUAL can be connected to power device after activation.
RIDGE DUAL is a Bluetooth and ANT+ dual-protocol power meter that is compatible with ANT+ and Bluetooth devices that support the standardized power meter protocol. Using this protocol the power meter's measured data can be viewed and recorded.
Typically, most bike computers can search for and add power meter equipment in the settings through the settings>sensors>new>sensor>power meter.

## NOTE:

When searching for the RIDGE DUAL power meter, step on the pedal connected to the power meter crank so that the power meter can detect the torque therefore waking up the power meter from Sleep mode, start the Bluetooth or ANT+ signal broadcast and wait for a device to connect.

## NOTE:

If there are multiple power meters in the current environment, you need to identify your power meter by ANT+ ID. For ANT+ ID, please refer to step 3.4 for the identification method.

## 05 Calibrating the Power Meter

Zero offset calibration will calibrate the power meter to 0 power when at rest.When calibrating, please turn the left crank in the vertical ground down state and use ANT+ Device or Magene UTILITY for calibration.

## 06 Peripheral Pairing and Functions

RIDGE DUAL wirelessly transmits ride information to a bike computer or receiver that support ANT+ or Bluetooth.
RIDGE DUAL logs the following information as you ride.
(1) Power
(2) Cadence
(3) Remaining Battery Capacity
(4) Torque Effectiveness
(5) Pedal Balance
(6) Pedal Smoothness

This product transmits the following information wirelessly to cycle computers or receivers that support ANT+ or Bluetooth LE connections.

## NOTE:

The 4,5,6 wireless receiver can only be used in part of the Apps of Magene.

## 07 Replace the Battery

When you discover the power meter is unable to make connections to any device the battery may be exhausted. Try replacing the battery at this time.

### 7.1 Replace the battery of left crank power meter

7.1.1 Rotate the battery cover counter-clock-wise to the unlocked position to open the battery compartment.
7.1.2 Remove the depleted CR2032 battery nothing the orientation. Install the new battery in the same orientation with the positive pole inside the battery cover.

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7.1.3 Reinstall the battery cover by pressing tight and rotating clockwise until the cover Reaches the locked position.

(1)

(2)

(3)

### 7.2 Replace the battery of right power meter:

7.2.1 Use a 1.6 mm hexagonal screwdriver to unscrew the battery cover bolt counterclockwise, remove the battery cover.Remove the depleted CR2032 battery nothing the orientation. Install the new battery in.
7.2.2 Install the battery cover in the position where it is removed and tighten the two bolts alternately.

(1)

(2)

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## NOTE:

1.Please ensure the battery cover of left power meter is lined up in the correct orientation before pressing and turning, failure to do so may cause damage.
2. Please remove the battery cover of the right power module before dismounting the chainwheel
3.When installing the battery cover of the right power meter module, please align the screw with the hole and then screw it in. Do not use a screwdriver to push the bolt. 4.Please keep used batteries in a safe place, or dispose of them in specially designated battery recycling depositories.
5. Do not attempt to disassemble the batteries.


## $08 /$ Product Specifications

## RIDGE DUAL Left Crank Power Meter RIDGE DUAL Right Crank Power Meter

| Power Accuracy | $1.5 \%$ |
| :---: | :---: |
| Weight |  |
| Power Supply | CR2032 Battery |
| Working Life | 350H |
| Wireless Interface | ANT+ |
| Water Proofing | IPX Splash Resistance |
| Power Range | 0-3000W |
| Cadence Range | $20 \sim 240 r p m$ |
| External Cadence <br> sensor Magnets <br> Operating <br> Temperature | None |
| Reuqires Zero-point |  |
| Calibration |  |

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## 09 Q\&A

Please refer to the following if you have any questions in the process of using RIDGE DUAL

## Undisplayed power

A: 1.Check to see if activation has been performed
2.Check whether the bike computer or software has been connected
3.If the connection cannot be made, please replace the battery

## Q: The power has obvious deviation

A: Do zero offset calibration by your bike computer or MAGENE UTILITY

## Q: Zero point calibration failure

A: Keep the RIDGE DUAL power meter steady than make sure that the left crank is pointing straight at the ground. Try again.

## Q: Unable to search or connect RIDGE DUAL

A: 1.Reinstall the left crank power meter battery
2.Power data display is not supported by bike computer or software
3.ANT+ device malfunctioned or Bluetooth was not enabled

## Q: Torque Effectiveness/Pedal Balance/Peda Smoothness of right crank power meter is 0

A: $1 . U s e$ the Magene Utility to check if the right side is connected. after static setting the crank lmin, don`t touch it. Rotate the crank to see if the connection state is restored. if not, check the battery power (or replace the battery)

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2.If the problem occurs after the upgrade fails, check that the ID of the right crank (see the ANT+ID number on the sticker on the crank) appears in the device list, if so, click the connection, upgrade the device, and re-check the connection status after the upgrade. If none of the above is applicable or the problem is not solved, please consult online customer service or dealers.

## 10/ Upgrading the Power Meter's Firmware



Download for iOS
Download for Android

## 11 Warnings and Daily Check

## 1.WARNINGS:

- Do not spray the power meter module with high pressure water when cleaning the bicycle
- Please tighten the crank and pedal bolts exactly according to the instructions. Otherwise, it may cause damage to the crank or pedal
- Do not put the battery into fire or heat, otherwise it may cause a fire or explode
- The power meter module is a splash-proof design. Do not soak the power meter module in water.
- Do not subject the crank and power meter module to severe impact, as this may cause the power meter module to detach or malfunction.


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- In temperatures below -(minus) $10^{\circ} \mathrm{C}$, the CR2032 battery life will decay rapidly
- Use neutral detergent when washing cranks. Use of alkaline or acidic detergents or thinners may shorten the life of the sensor case.
- The power meter module users the 2.4G wireless communication band. The 2.4G signal environment surrounding the object or the surrounding area may cause interference to communications.
- If the signal connection is found to be unstable, try again in an open area. Strong electromagnetic waves generated by surrounding
- Do not try to remove the waterproof glue around the power meter module! This will compromise the waterproof performance of the power meter module.
- Natural wear and aging and normal use caused by performance deterioration is not covered by the warranty.


## 2.Daily Check Items Before Riding

Please check the items listed below before riding. In case of any abnormality, it is recommended to seek professional technicians for maintenance and debugging.

- Are there any cracks in the crank arms?
- Are the fastening sections fixed securely?
- Are the bearing sections fixed securely?
- Are there any abnormal noises?
- Is there sufficient charge remaining in the battery?


## 12 WARRANTY CARD

## WARRANTY CLAUSEPRODUCT

Thank you for purchasing RIDGE DUAL RIDGE DUAL dual-sided dual protocol crank-arm power meter.
Please carefully read the Warranty Clause.

## Warranty Clause:

This product has passed the strict quality inspection.Failure caused by product quality problem under normal use, we will give free warranty within the warranty period.Within 7 days from the date of purchase(including), the quality of the product itself is unconditionally returned.
The warranty period of RIDGE DUAL is 365 days Please use the original packaging for repairing, otherwise manufacturer does not undertake any related responsibility. The following situations are not covered by warranty:

- Beyond the warranty period.
- No valid warranty certificate.
- Damage caused by improper use and maintenance.
- The product code on the warranty card does not match the product.
- Unauthorized maintenance, modification, use of parts other than the product.
- Damage caused by irresistible factors.
- Damage caused by not using or installing the product in accordance with the instructions.
- Alter warranty card without authorization.
- Other failures and damages caused by non-product design, manufacturing, quality, etc
- Wear and dirt caused by normal operation, such as scratch, bump, etc

After the warranty expires, we continue to provide maintenance service for which will be charged related service fee.

## The company retains the rights to modify and explain above-mentioned contents.

## WARRANTY CARD

## PRODUCT INORMATION

Customer Name: $\qquad$
Address: $\qquad$
Purchase Date:
Distributor(Seal and Signature):
SERIVE RECORD

| Service Date | Malfunction and Solution |
| :--- | :--- |
|  |  |
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|  |  |

(71) Magene

FCC Statement
Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.
RF warning:
The device has been evaluated to meet general RF exposure requirment.
The device can be used without restriction.

