

# XPOWER

## USER MANUAL

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### **Congratulations, you are now the owner of SRM X-Power PowerMeter pedals!**

This manual provides instructions on features, important safety information and how to set up and use your X-Power pedals.

**How does the X-Power pedal work?** Each pedal measures the force applied and the cadence in real-time then calculates the torque and power, sending it to your bike computer. X-Power pedals are ANT+™ and Bluetooth® 4.0 or higher compatible. With its rechargeable battery, double seal technology and an integrated robust design it is made for many years of use. Please follow each step carefully in this manual! **Enjoy the ride with X-Power!**

## PACKAGE CONTENT

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- SRM X-Power pedal pair (SPD compatible)
- SPD compatible cleats incl. screws
- 3m USB-A to micro USB-B cable
- Charge adapter X-Power to Micro USB-B
- Quick start guide incl. safety instructions and warranty information

### **⚠ WARNING - TO AVOID SERIOUS INJURIES**

Be sure to follow the instructions provided in this user manual when installing the product. The X-Power pedals are designed so that you release them only when you intend to release. They are not designed to release automatically at times such as when falling off the bicycle. If you have any doubt when installing the X-Power pedals, we recommend that you seek assistance from an authorized retailer or refer to the support page on [www.srm.de](http://www.srm.de). Incorrect installation of the X-Power pedals may result in damage not covered by product warranty, serious injury or death. Please familiarize yourself with your new pedals before riding on the road. Practice engaging and disengaging, first at a standstill and then while riding in a safe location.

Weight limit: X-Power pedals are designed and optimized for use by cyclists up to 120 kg (265 lbs).



# 3

PEDAL CATEGORY

Classification for bicycle usage according to international standard ASTM F2043-13 for the X-Power pedal is rated category 3: This is a set of conditions for operation of a bicycle that includes Condition 1 and Condition 2 as well as rough trails, rough unpaved roads, and rough terrain and unimproved trails that require technical skills. Jumps and drops are intended to be less than 61cm (24"). For more info and explanations on all bicycle usage conditions visit our webpage [www.srm.de](http://www.srm.de).

### **⚠ CAUTION - DANGER FOR ELECTRONIC EQUIPMENT**



Sensitive electronic instruments and devices may change calibration or be damaged by the magnetic field of the charge adapter that includes two strong NdFeB magnets. Keep the adapter away from magnetic storage media i.e. credit or memory cards, etc. as well as from electronic equipment such as computers, laptops, digital cameras and mobile phones.

SRM X-Power PowerMeter pedals are warranted to be free from defects in materials or workmanship for two years from the date of purchase. Within this period, SRM will, at its option, repair or replace any components that fail in normal use. Such repairs or replacement will be made at no charge to the original owner/customer for parts or labour, provided that the customer shall be responsible for any necessary transportation cost. Any damage to the pedals that is not considered normal wear and tare, is not covered by warranty.

Further information and exceptions for which the guarantee does not apply can be found at [www.srm.de/support/warranty/](http://www.srm.de/support/warranty/) Additionally, SRM reserves the right to refuse warranty claims against products or services that it deems fraudulent. The SRM PowerMeter is defined as: shaft, pedal-body, rechargeable battery, internal electronics, seals, covers.

## TECHNICAL DATA

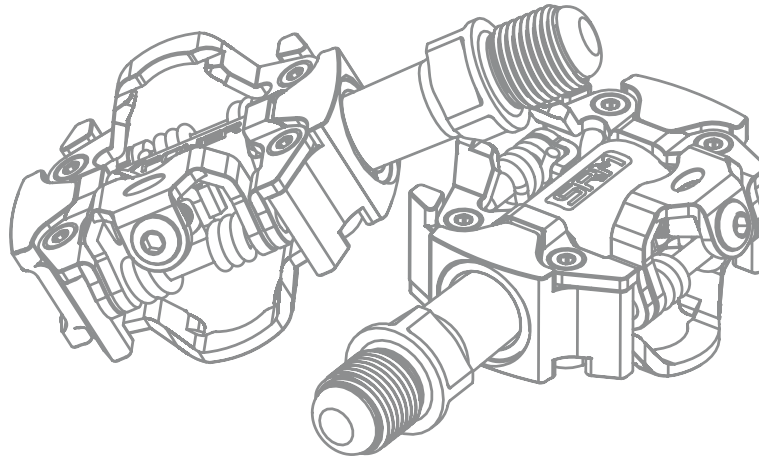
POWER MEASURING ACCURACY	± 2%
IP PROTECTION	IP 67
BATTERY TYPE	70mAh rechargeable Lithium Polymer battery
VOLTAGE	3.7 V DC / 5V DC Charging
BATTERY RUN TIME	Up to 30 hours of riding time
OPERATING TEMPERATURE	-20 / +60°C (-4 / 140°F)
CHARGING TEMPERATURE	+10 / +45°C (50 / 113°F)
WIRELESS FREQUENCY PROTOCOL	ANT+™ 2.4GHz @ 4dbm nominal Bluetooth® 2.4GHz @ 4dbm nominal
WEIGHT	345g per Pair (not including cleats)

## INSTALLATION OF X-POWER

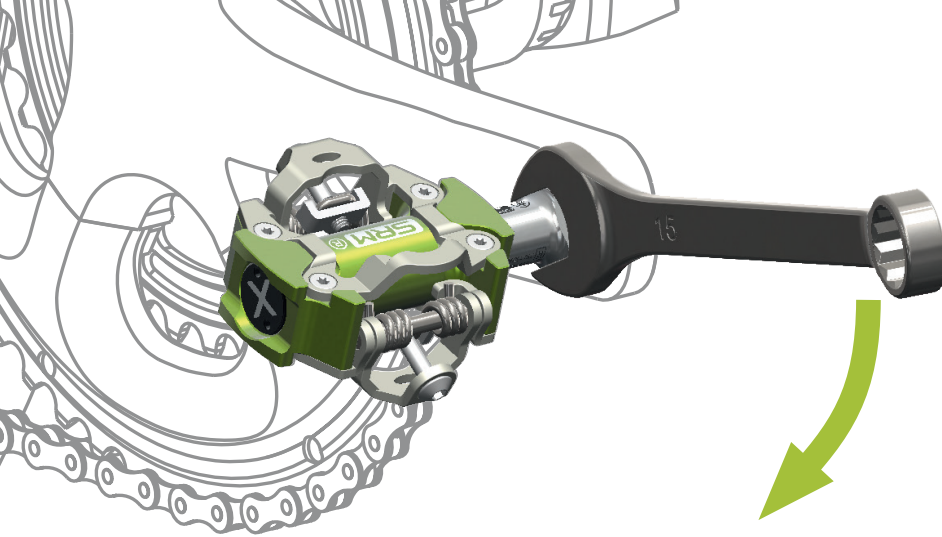
Setting up X-Power pedals is quick and easy. Follow the installation steps outlined below and fully charge both pedals as described on **page 8**. Install the X-Power app on your cell phone and follow the installation process inside the app properly.

### ⚠ IMPORTANT

It is essential to perform the installation process with the X-Power App **any time the pedals are removed, installed or tightened**, otherwise the data may not be displayed correctly.



## PEDAL INSTALLATION



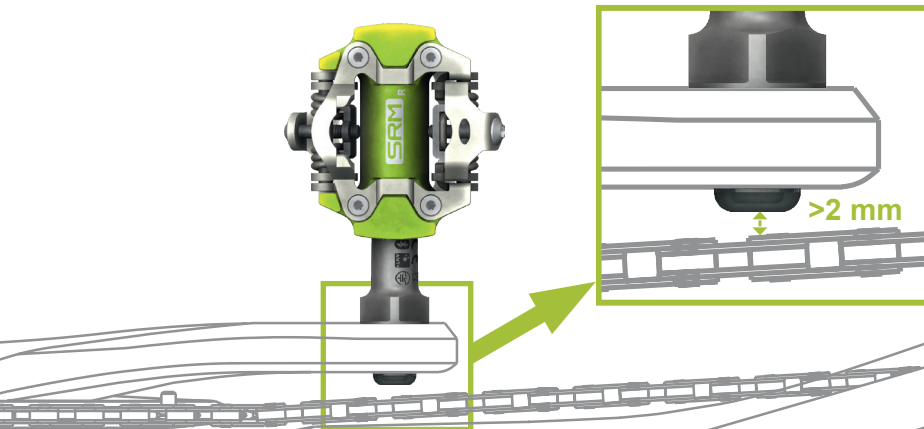
Apply grease to the pedal threads.  
Use a **15 mm** open end wrench (width >6 mm) to install the pedals into your crankset. Recommended min. torque **30Nm (22 lbf-ft)**. The pedal sides are clearly marked with R and L.

### ⚠ NOTE

Do not use a cone wrench as it might damage the charging port.

**Right pedal** - right hand thread

**Left pedal** - left hand thread



### ⚠ NOTE

Pedal clearance to the chain and frame should be greater than two millimetres.

## CHARGING THE PEDALS

To charge the X-Power pedals attach the magnetic charge adapter to a USB wall charger (not included) with the enclosed USB cable.

Connect the adapter onto the charge port on the pedal shaft. A **blinking red** LED indicates that the pedal is charging. Once the pedal is fully charged the LED will **blink green**. A full charge cycle takes approximately three hours.

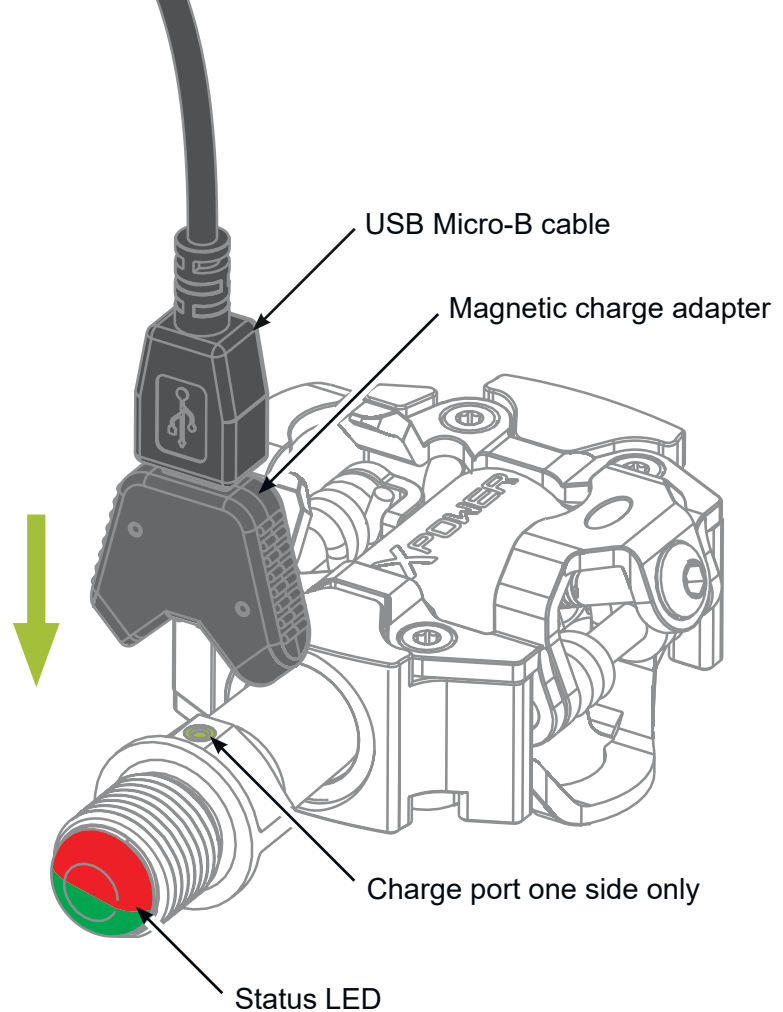
### ⚠ NOTE

When charging the pedals the internal electronics goes in standby automatically. To re-activate the pedal remove the charger and turn the pedal.

A **blinking yellow** LED indicates cadence for the first couple pedal revolutions. If the cadence LED is **blinking red** the pedal battery is low and should be recharged!

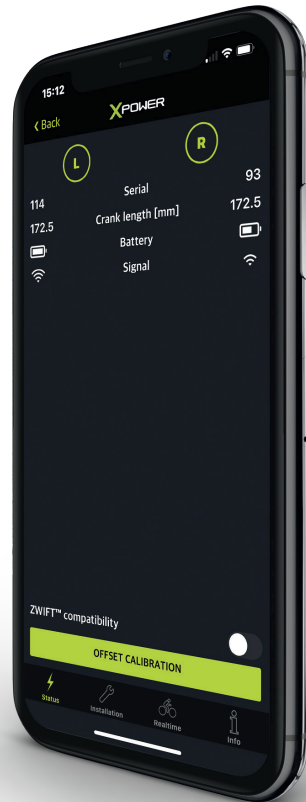
### ⚠ NOTE

Using crank boots on your crank can cover the charge port and make charging impossible when mounted. Add pedal spacers or remove the boot if necessary.





## X-POWER APP DOWNLOAD



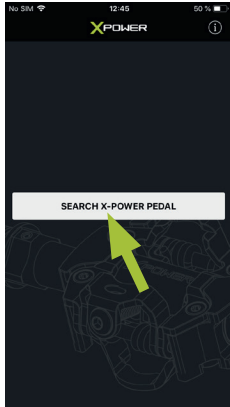
To configure and calibrate the pedals download the **X-Power** application (iOS and Android), enable Bluetooth® on the phone and spin both pedals to turn them on. You can then follow the on-screen instructions to connect to the app.

### ⚠ IMPORTANT

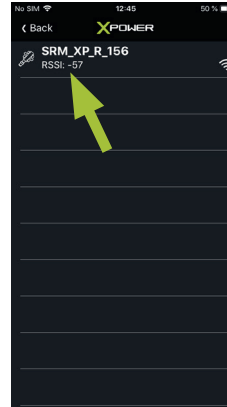
For correct operation you **must** follow the installation steps on **page 10-11**.



# INSTALLATION OF X-POWER PEDALS



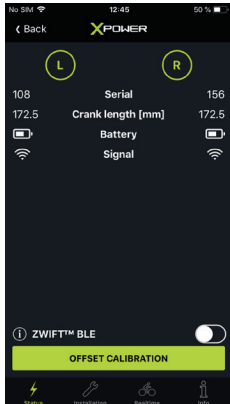
**Step 1:**  
Open the X-Power App and search for your pedals. Make sure both pedals are turned on and Bluetooth® is enabled.




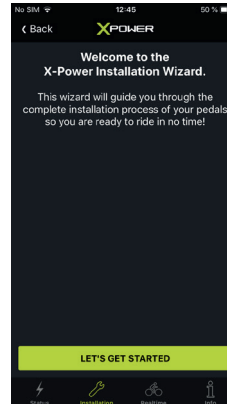
**Step 2:**  
Select the pedal shown!

**NOTE**

**Only the right pedal will be shown!**  
The left pedal connects automatically as soon as a connection has been established on the right side.

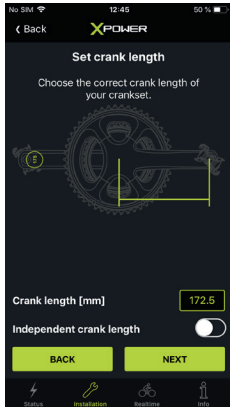


**Step 3:**  
The **Status** screen will show all needed information such as battery level. If you don't see a left pedal here, proceed with the initial installation. Choose the  **Installation** tab now...

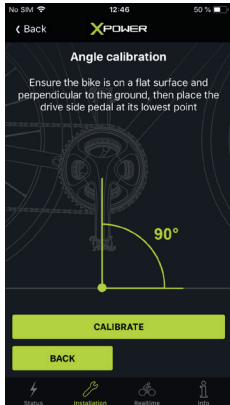


**Step 4:**  
... and follow the instructions in the **Installation Wizard** carefully.

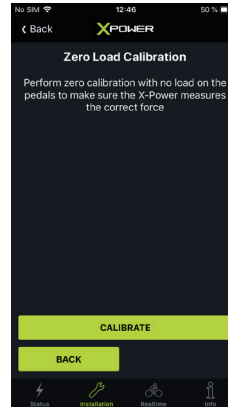
If no left pedal was found you can search and select the left pedal in the next screen. Make sure the left pedal is charged and turned on.



**Step 5:**  
Choose the **correct crank length** of your crankset.



**Step 7: Angle Calibration**  
Make sure the **right crank** is facing **directly down** (at 90 degrees to the ground as in the graphic on screen). and the bike is on a level (horizontal) and flat surface when performing this calibration step.



**Step 6: Zero Load Calibration**

**NOTE**

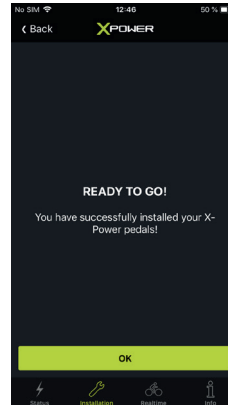
Ensure there is no load on the pedal while performing the offset calibration!

Continue with next step when successful.

CALIBRATION DONE

Repeat this step if calibration fails!

CALIBRATION FAILED



**Step 8:**  
If the angle calibration is successful you are all set and ready to go for a ride!  
If angle calibration fails repeat this step until completion! Make sure the crank doesn't move while performing the angle calibration.

## USING X-POWER

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**Before the first ride!** Spin the **X**-Power pedals to turn them on and connect to your bike computer. See **page 14** on how to pair your pedals to your bike computer. See **page 15-16** on how to mount the cleats and adjust the bindings according to your needs. Practice engaging and disengaging, first at a standstill and then while riding in a safe location.

### **Zero load calibration**

In order for the pedals to measure the correct power, you should perform a zero calibration before starting the ride. Trigger the calibration with the **X**-Power app or with your bike computer. Search the **sensor menu** and select the X-Power pedals. Calibration button should be available inside the menu. When paired via Bluetooth® make sure **both pedals** are calibrated separately.

### **Temperature compensation**

The **X**-Power pedals are temperature compensated, but should not be exposed to any major temperature changes during the zero load calibration process. The pedals react very quickly to changes in temperature which can lead to measurement errors if the calibration is performed incorrectly.

#### **⚠ WHAT DOES IT MEAN EXACTLY?**

If the bike was stored in the garage over night, you should perform the calibration process here - especially if the outside temperatures are significantly different (hot or cold).

 **START SCREEN**

Make sure Bluetooth® is enabled on your device when connecting to the X-Power pedal. Spin the pedals to activate them. Connect to the drive side pedal shown - the non-drive pedal will connect automatically if available.

 **STATUS**

Status screen displays an overview of the most important information such as serial numbers, battery status, and crank length. Offset calibration can be triggered and Zwift™ compatibility turned on/off.

 **ZWIFT COMPATIBILITY**

Enabling Zwift™ compatibility is only needed when connecting the X-Power pedals via Bluetooth® to your device running Zwift™. Disable this feature when riding outside using a Bluetooth® device. ANT+™ connections are not affected.

 **INSTALLATION**

Guides through the quick installation process of the X-Power pedals to make sure pedals are correctly setup. See **page 10-11** for more information on how to install the pedals.

 **REALTIME**

Realtime tab shows power, torque, and power balance for each pedal independently and the combined values.

 **INFO**

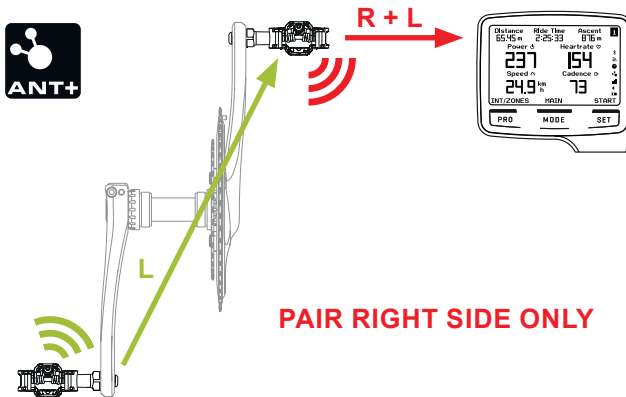
Info tab shows all necessary info to debug when errors occur and shows if firmware updates are available.

# POWERMETER PAIRING

X-Power pedal PowerMeter supports **ANT+**™ and **Bluetooth**® connections. To show data on your device you need to pair the X-Power pedal with your device. Depending on the device you might see one or more sensors. Select either Bluetooth® or ANT+™ to connect your bike computer.

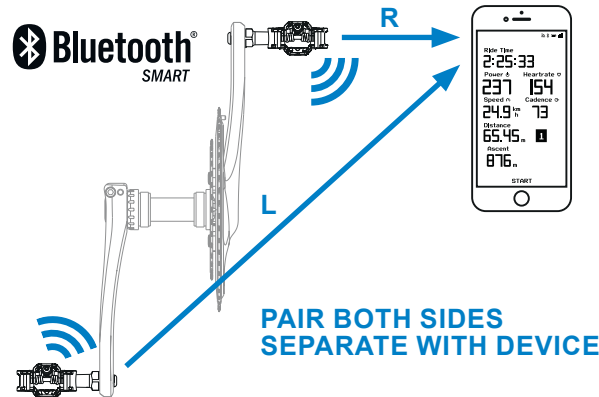
## PAIRING VIA ANT+™

Make sure both pedals are turned on when pairing to your device. Search in the device for **sensor menu, add/pair sensor** and if necessary choose **power** sensor. Via ANT+™ only the drive side serial will be shown and needs to get paired. The non-drive pedal (**Slave**) and drive side pedal (**Master**) work as a distributed system and send all data incl. power balance, etc. via the **Master** to your bike computer.



## PAIRING VIA BLUETOOTH®

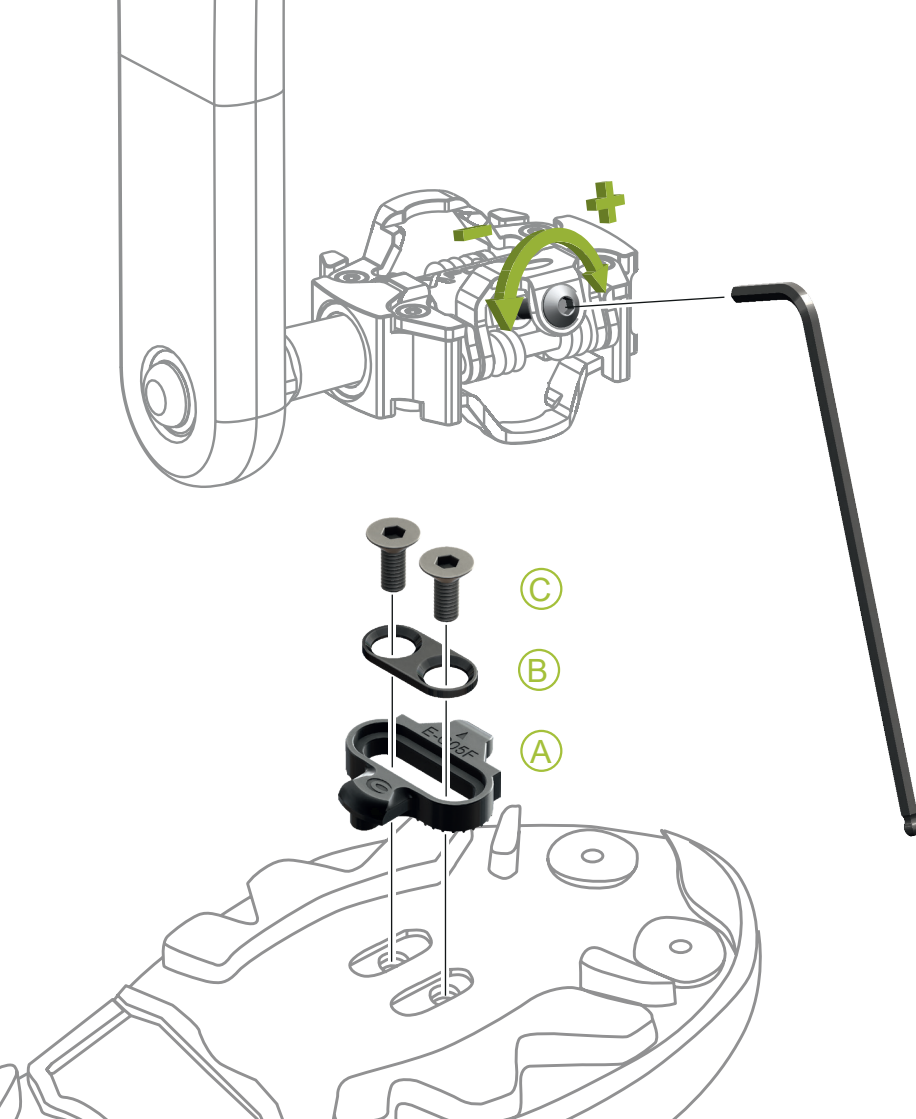
Make sure both pedals are turned on when pairing to your device. Search in the device for **sensor menu, add/pair sensor** and if necessary choose **power** sensor. When adding sensors via Bluetooth® you need to add both pedals separately. Make sure both drive and non-drive pedals are added to get the correct measurements incl. power balance.



## BINDING AND CLEAT

Adjust the spring force to the optimal cleat holding force as needed when releasing the cleats from the bindings. The adjustment bolt is located at the rear of each binding. To adjust the spring tension use a **3mm** allen key. Clockwise rotation will increase and counter clockwise will decrease the holding force. Make sure to adjust both bindings on each pedal equally.

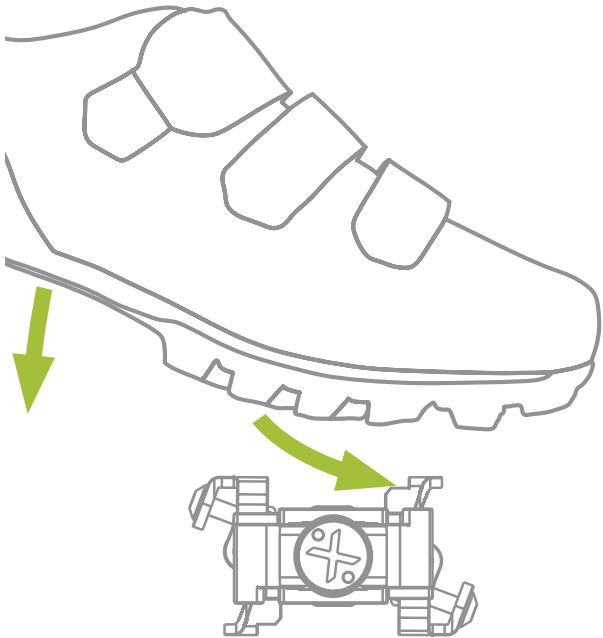
Position the cleat (**A**) followed by the cleat adapter (**B**) on to the sole of the shoe and then temporarily tighten them with the cleat mounting bolts (**C**) with a **4mm** allen key. Make sure the arrow is pointing toward the front of the shoe. The cleats are compatible with both left and right pedals. Tightening torque **5 - 6Nm (3.7 - 4.4 ft-lbf)**.



## ENGAGING AND RELEASING THE CLEATS

### Engaging the cleats with the pedal

Press the cleats into the pedals with a forward and downward motion until the cleat engages with the bindings.

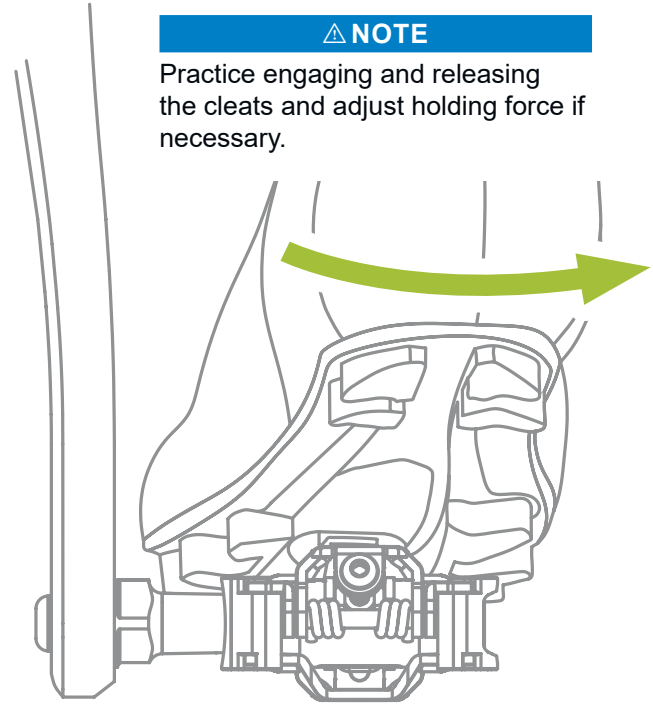


### Releasing the cleats from the pedal

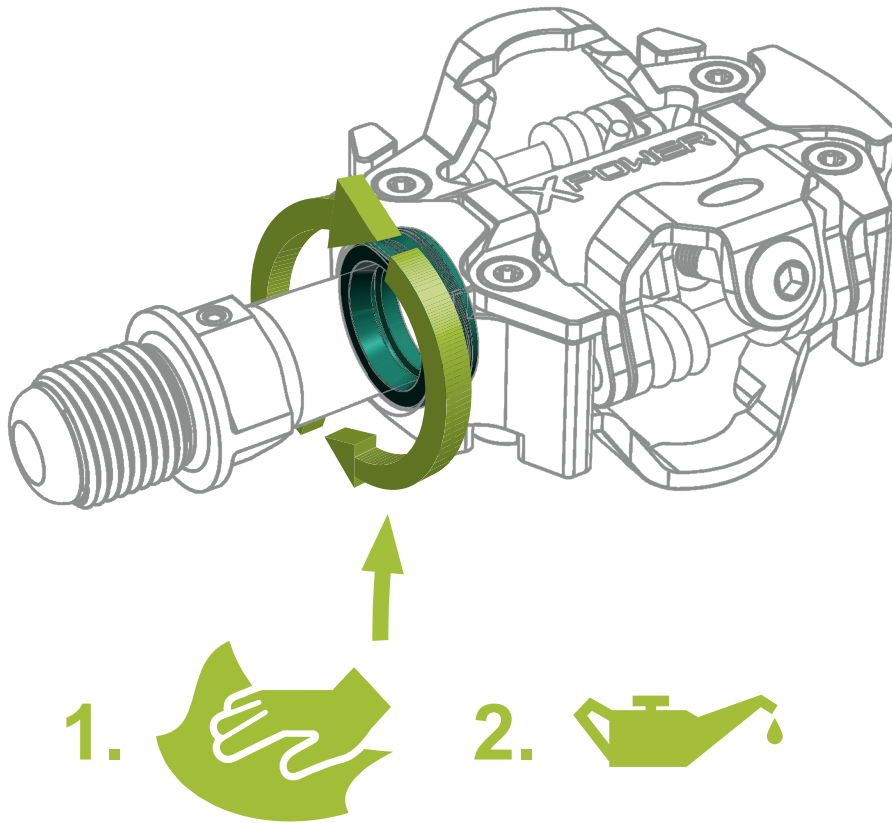
These cleats only release when the heel is twisted **outward**.

#### △ NOTE

Practice engaging and releasing the cleats and adjust holding force if necessary.







To keep the X-Power pedals running smoothly you don't need to disassemble them. Simply use a dry cloth and wipe away the dirt and debris around the green outer seal.

### △ NOTE

Please do not use solvents, as this can damage the seals or other parts inside the pedal, which can lead to further damage. Do not use high pressure cleaners as water ingress can damage the components.

Once everything is clean and free of dirt, apply some lubricant, such as light grease or oil on the lip of the seal and spin the pedal a few turns so that the lubricant can distribute evenly. Wipe away any excess.

### **My bike computer shows no power or cadence**

Check if the X-Power pedals are fully charged, turned on and paired with your bike computer. Follow the installation process with the X-Power app and check the realtime data tab to ensure the pedals show correct data.

### **I see three different sensors when pairing the pedals to my bike computer**

Your bike computer supports ANT+™ and Bluetooth® and therefore shows all sensors found. Make sure to pair only one or the other. See **page 14** for more information on how to pair to your device.

### **Power data is incorrect / Left - right balance is off**

Follow the installation process on **page 10** with the X-Power app once again. Make sure that you entered the correct crank length and that you oriented the drive side crank downwards when performing the angle calibration. If the problem persists, please contact SRM - the info page of the X-Power app is helpful for diagnosis.

### **I already have SPD cleats mounted on my shoes**

The X-Power binding is compatible with all SPD compatible cleats. However, a worn cleat might feel looser when engaged than the enclosed new set. SRM recommends new cleats for better engagement and power transmission. See **page 15** on how to adjust the binding and mount the cleats.

### **The body or binding is worn out. How can I replace them?**

Remove the 4x Torx T10 screws on each side of the pedal and remove the old binding. Mount a new set of bindings and tighten the new screws with a torque of 4 Nm (3 lbf.ft) max. Make sure to adjust the spring tension according to **page 15**. The complete pedal body can only be replaced at an authorized SRM Service Center - please contact SRM for more details.

### **How do I know I am on the most up to date firmware?**

Use the X-Power app on your phone to connect to your X-Power pedals. If new firmware is available, you will be notified in the app.

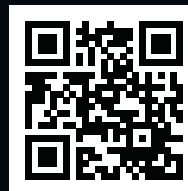
This device has been tested and found to comply with part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

(1) Reorient or relocate the receiving antenna. (2) Increase the separation between the equipment and the receiver. (3) Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. (4) Consult the dealer or an experienced radio/TV technician for help.

Operation is subjected 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. Note: Modification to this product will void the user's authority to operate this equipment.

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

CONTACT US ▶



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