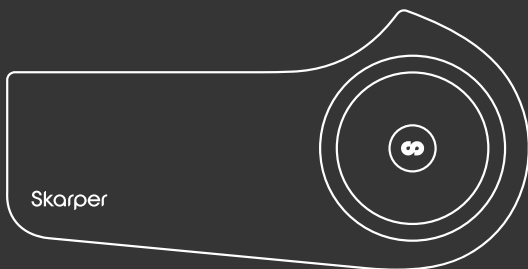




CLICK ON. TAKE OFF!



User Guide



CLICK ON. TAKE OFF!

User Guide

Original instructions

Please read this manual carefully before using your Skarper.
Keep it for future reference to get the most out of your ride.

Copyright

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Other product and company names may be trademarks or registered trademarks of other companies, and are the property of their owners. They are used only for explanation, without intent to infringe.

Skarper is the trading name of Blue Sky IP Ltd.

Intended purpose

The purpose of this manual is to provide instructions and information for the safe installation and use of Skarper.



This is V1.3.1 of the Skarper user manual, for the latest version, visit skarper.com/instructions

A woman in a black tank top and leggings is riding a bicycle on a paved path. In the background, a man in a cycling jersey is also riding a bicycle. The scene is set in a park-like area with trees and a church spire in the distance.

WELCOME TO SKARPER

Skarper: Your Bike, Only Better

You already know the thrill of the perfect ride - freedom, challenge, and the rush of the descent. Now, with Skarper, your bike can do more. Unlock its full potential to conquer hills, extend your range, and still enjoy the ride you love.

With one click, that daunting hill becomes a breeze. Another click, and you're back to pure cycling, no motor needed. That's the beauty of Skarper - eBike power without compromising your passion.

Precision engineered, Skarper delivers seamless power and performance. Whether it's sweat-free commutes or weekend adventures, Skarper is your ticket to go further. And when you want the full cycling experience? Just click off and ride - no heavy eBike, no hassle.

At Skarper, we believe you can have both tradition and innovation. Skarper gives you the choice, every ride.

This guide will show you how to install, use, and maintain your Skarper so you can elevate your cycling experience. Whether extending your horizons or taking on new challenges, Skarper helps you redefine what's possible on two wheels.

Skarper. Click On. Take Off!

Contents

8 Safety

- 8 Intended use

10 Your Skarper, an overview

- 11 What's in the box
- 12 Front of the Skarper drive unit
- 13 Rear of the Skarper drive unit
- 14 Parts of your bike

16 Installing your Skarper

- 18 Changing your disc brake rotor
- 20 6 bolt rotor
- 21 Centerlock rotor
- 22 Fitting your Skarper drive unit
- 24 Fitting your chainstay latch
- 26 Fitting your pedal sensor
- 28 Calibrating your Skarper

30 Everyday Use

- 32 Putting Skarper onto your bike
- 33 Turning Skarper on and off
- 34 Removing your Skarper drive unit from your bike
- 36 Checking your Skarper's battery level
- 37 Charging your Skarper drive unit
- 38 Riding modes
- 39 Understanding range

40 Other Things to Do

- 41 Charging the pedal sensor
- 42 Pairing the pedal sensor to your Skarper drive unit
- 43 Cleaning and caring for your Skarper drive unit
- 44 Transporting your Skarper drive unit
- 45 Storing your Skarper drive unit

46 If things do not go to plan

- 47 Installation troubleshooting
- 51 Skarper troubleshooting
- 56 Compatibility
- 58 What is Skarper doing

60 Specifications

62 Warranty

64 Regulatory

68 Support and help

70 Our Skarper manifesto

Safety

Disclaimer

The Skarper kit is supplied as parts for the user to install on their bicycle.

⚠ WARNING: It is crucial to follow the installation instructions meticulously. If you do not have the mechanical ability to correctly and safely install this kit, you should obtain the services of a professional bicycle shop or other qualified technician. Failure to properly install, ensure compatibility, operate or maintain the kit or any components or accessories can pose safety risks or compromise stability and may result in serious injury or death.

Each installation will be different and therefore it is the responsibility of the purchaser to determine the best way to install the kit on their particular bicycle. The following instructions should be considered as general guidelines only – your installation will be slightly different.

⚠ WARNING: Installation of the Skarper kit requires certain specialist equipment. You should not attempt to install the kit if you do not have the appropriate equipment.

Check Skarper is installed correctly before you ride. Because this kit is installed, maintained and operated by you, the purchaser, Blue Sky IP Limited disclaims any responsibility for injury, damage or other consequences arising from the installation of this product.

Check Skarper's list of recommended installers.

Safety Information

Installation and use of this kit will create a vehicle that has exposed moving parts, electrical connections and high-powered batteries. Any or all of these components can be dangerous.

Your kit is rain and splash resistant and can be used in all weathers. The electrical components of the Skarper, such as motor, battery, and controller, must not be submerged in water. Do not use the product in places with dust, moisture, or dirt to avoid internal circuit malfunctions.

All disc brakes can get very hot after riding, do not touch the braking surface.

Routinely check the condition of your bike. Make sure no bolts or fasteners have come loose. Perform a visual inspection of the whole bicycle before every ride. Check your brakes for proper operation.

For your first ride, be sure to pick an area away from cars, other cyclists, obstacles or other hazards to become familiar with the controls, features and performance of your new e-bike.

If you have any questions or would like assistance with your Skarper kit or submit a support ticket, please visit <https://www.skarper.com/contact>.

Intended use

Only use your Skarper as intended. Skarper was designed for riding on paved road or light gravel roads. It is not intended for single trail mountain biking or medium to heavy off-road riding. Skarper transforms your disc brake bike into a high- performance eBike.

Intended use includes compliance with all the information in this manual. Any use that deviates from, or goes beyond the intended use, is considered misuse.

⚠ WARNING: FOLLOW ALL INSTRUCTIONS TO SAFELY AND SECURELY INSTALL SKARPER. FAILURE TO DO SO CAN RESULT IN INJURY OR DEATH TO YOU AND/OR DAMAGE TO SKARPER OR YOUR BIKE.

Battery use and care elements are further set out at page 69.



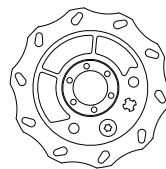
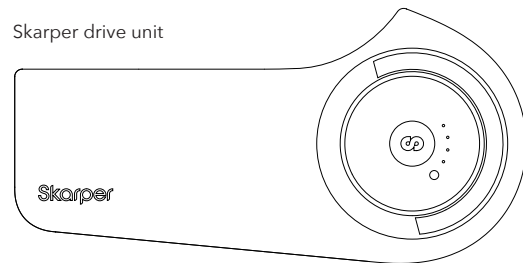
7

YOUR SKARPER, AN OVERVIEW

Get to know your Skarper

What's in the box

Skarper drive unit



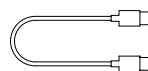
DiskDrive rotor



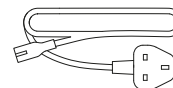
Chainstay latch and parts



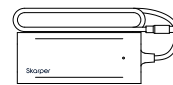
Pedal sensor



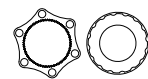
USB-C cable



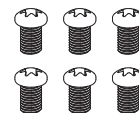
UK power lead



Skarper charger



Centrelock
adapters

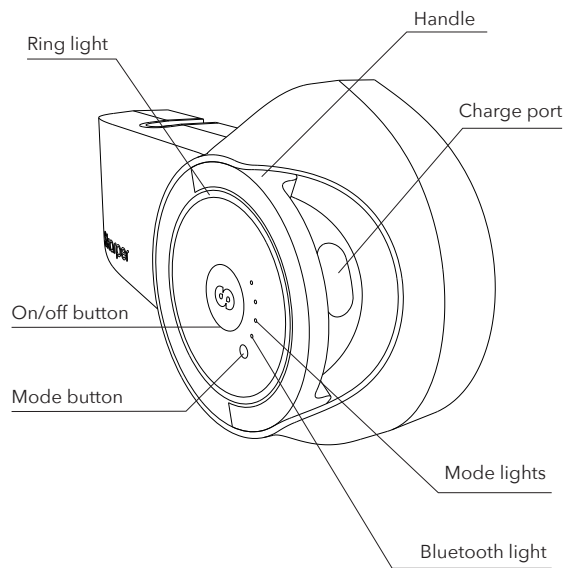


6 x DiskDrive bolts

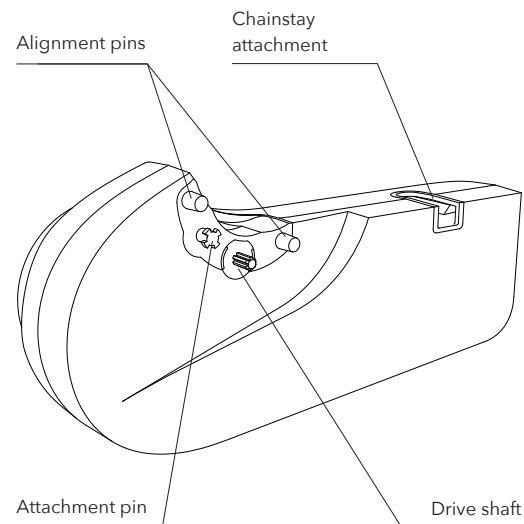


Frame protection
tape

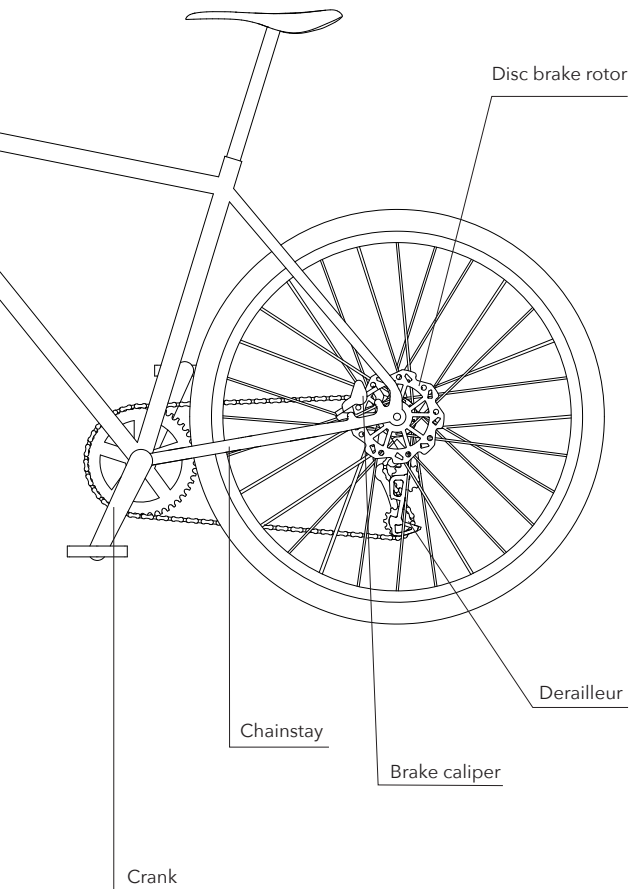
Front of the Skarper drive unit



Rear of the Skarper drive unit



Parts of your bike



2

INSTALLING YOUR SKARPER

To install your Skarper for the first time,
you need to:

- 1 Change the disc brake rotor
- 2 Fit the Skarper drive unit
- 3 Fit the chainstay latch
- 4 Fit the pedal sensor
- 5 Calibrate your Skarper

Let's start



Changing your disc brake rotor

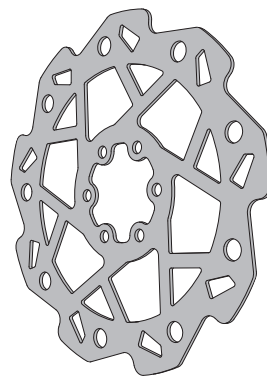
Before fitting Skarper to your bike, you need to replace the disc brake rotor with our DiskDrive rotor.

There are two types of rotor fittings: 6 bolt and Centerlock. Both are compatible with Skarper.

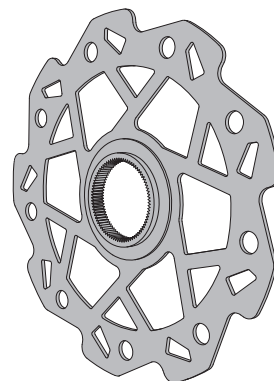
The DiskDrive rotor is 160 mm diameter.
It is possible to convert from a 140 mm or 180 mm rotor.



**WARNING! YOUR DISC BRAKES ARE SAFETY-CRITICAL PARTS SO IF YOU DO NOT HAVE THE REQUIRED EQUIPMENT, OR DO NOT HAVE THE MECHANICAL ABILITY TO CORRECTLY AND SAFELY INSTALL THIS KIT, WE RECOMMEND YOU GET HELP FROM A QUALIFIED BIKE PROFESSIONAL OR DEALER. SKARPER CERTIFIED INSTALLARS CAN FOUND ON:
[HTTP://WWW.SKARPER.COM](http://www.skarper.com)**



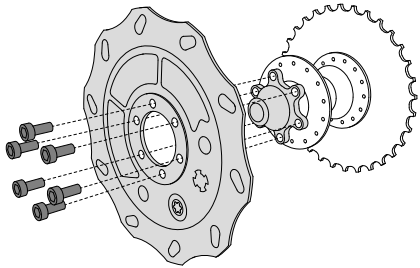
6 bolt rotor



Centerlock rotor

6 bolt rotor

- 1 Remove your rear wheel.
- 2 Remove the six bolts around the rotor.
- 3 Remove your old disc brake rotor from the hub.
- 4 Place the DiskDrive rotor on the hub.



- 5 Make sure the DiskDrive rotor is correctly seated.
If the spokes and DiskDrive rotor are touching, refer to the 'if things do not go to plan' section.
- 6 Secure the bolts first by hand, and then tighten to the torque specified by your bike manufacturer.

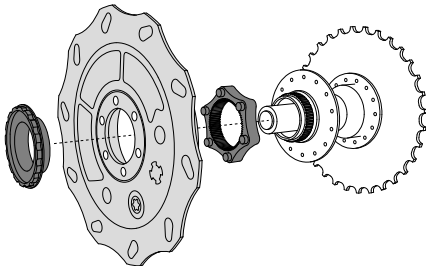
⚠ WARNING: Installation of the Skarper kit requires certain specialist equipment (eg. torque wrench able to tighten the bolts provided to up to 10 Newton Metres (Nm) to which the average person may not have access. Failure to do so can lead to the kit (including the disc brake) disengaging when in motion, causing accidents. You should not attempt to install the kit if you do not have the appropriate equipment.

- 7 Refit the rear wheel.
- 8 **⚠ WARNING:** Check that your brakes work properly.

If you have any issues, refer to the 'if things do not go to plan' section.

Centerlock rotor

- 1 Remove your rear wheel.
- 2 Use a Centerlock tool to remove the locking.
There are two types of lock rings, internal and external, which require different tools.
- 3 Remove your old disc brake rotor from the hub.



- 4 Refit the Centerlock assembly: 6 bolt adapter, DiskDrive rotor and locking.
- 5 Make sure the DiskDrive rotor is correctly seated.
If the spokes and DiskDrive rotor are touching, do not tighten the lock ring, and refer to the 'if things do not go to plan' section.
- 6 Use the locking tool and tighten to 40 Nm or as specified by your bike's manufacturer.

⚠ WARNING: Installation of the Skarper kit requires certain specialist equipment (eg. torque wrench able to tighten the bolts provided to 40 Newton Metres (Nm) to which the average person may not have access. Failure to do so can lead to the kit (including the disc brake) disengaging when in motion, causing accidents. You should not attempt to install the kit if you do not have the appropriate equipment.

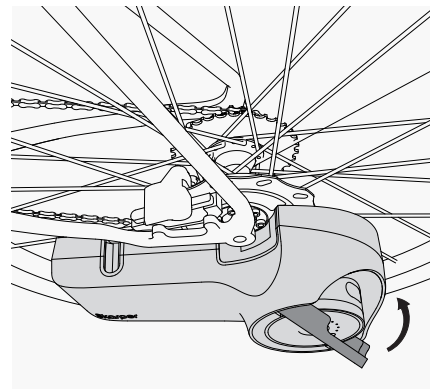
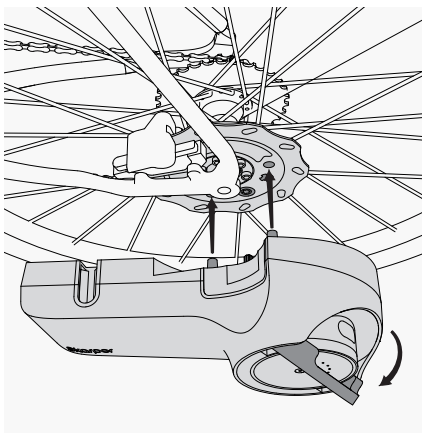
- 7 Refit the rear wheel.
- 8 **⚠ WARNING:** Check that your brakes work properly.

If you have any issues, refer to the 'if things do not go to plan' section.

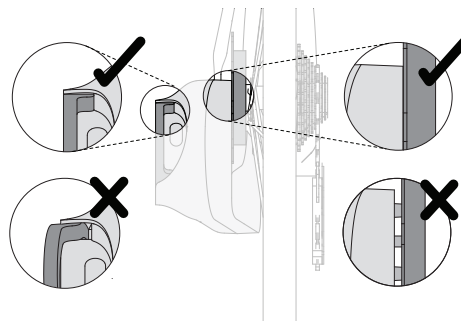
Fitting your Skarper drive unit

To fit the Skarper drive unit onto your bike:

- 1 Open the handle.
- 2 Align the Skarper drive unit pins with the alignment holes on the DiskDrive rotor.
- 3 Push the Skarper drive unit into the DiskDrive rotor.



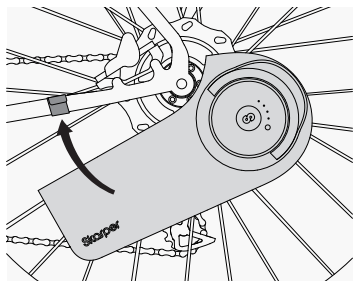
- 4 Close the handle.
Make sure the Skarper drive unit is fully engaged and the handle is fully closed.



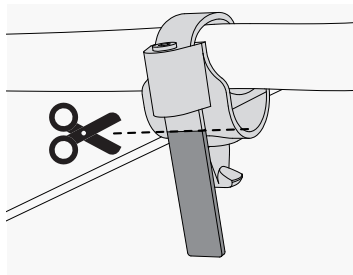
Fitting your chainstay latch

To fit the chainstay latch:

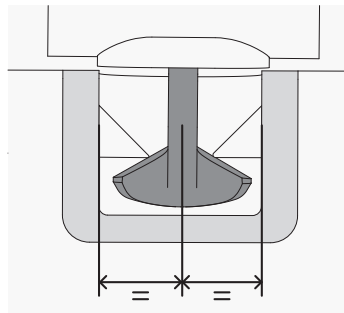
- 1 After fitting your Skarper drive unit, rotate it upwards to the chainstay to see roughly where to place the chainstay latch.
- 2 Wrap the provided frame protection tape around this area.



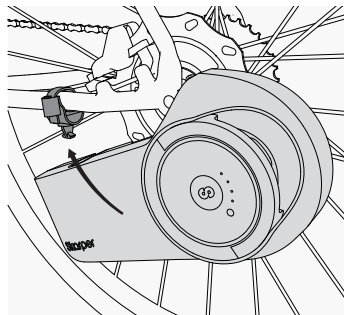
- 3 Loosely tighten the chainstay latch to the chainstay using a 3mm Allen key. Do not tighten the strap yet.
- 4 Using a pair of snips or scissors, cut away any excess strap.



- 5 Adjust the position of the chainstay latch so that the latch bolt sits centrally in the Skarper drive unit chainstay attachment.



- 6 Fully tighten the chainstay latch strap using a 3mm allen key.
- 7 Rotate the Skarper drive unit up again and click into the chainstay latch.

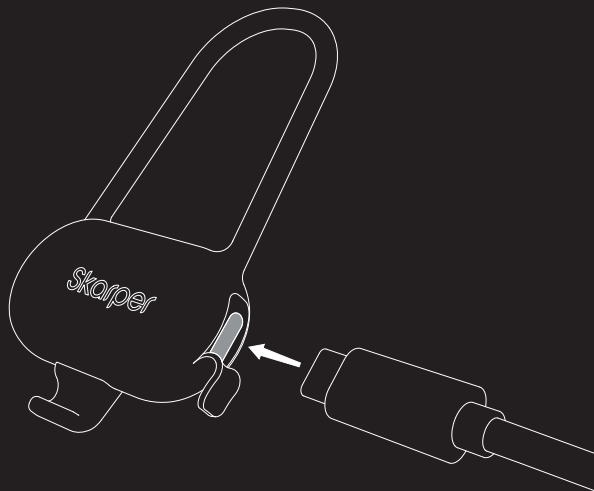


If the Skarper drive unit touches any part of your bike frame, please contact technical support before going for a ride.

Fitting your pedal sensor

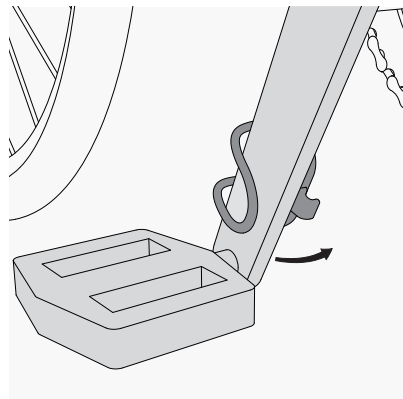
Before fitting the pedal sensor for the first time, plug it into the charger. This 'wakes up' the pedal sensor. This is the only time you need to do this.

Your pedal sensor comes Bluetooth pre-paired with your Skarper drive unit.



To fit the pedal sensor:

- 1 Place the pedal sensor on the inside of the left-side crank.
- 2 Stretch the strap around the crank and hook it to the pedal sensor.



If the pedal sensor touches any part of your bike frame when the pedal crank is rotated, refer to the 'if things do not go to plan' section.

Calibrating your Skarper

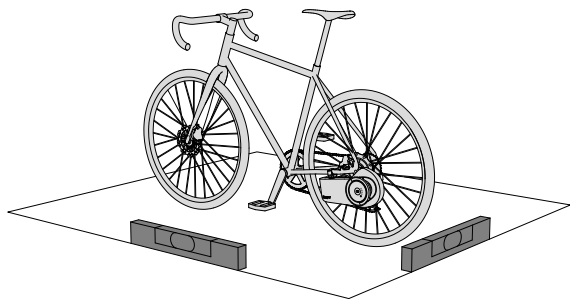
When you turn on the Skarper drive unit for the first time, a flashing amber light indicates that the unit's internal incline sensors need to be calibrated.

Calibrating Skarper on your bike provides optimal performance.

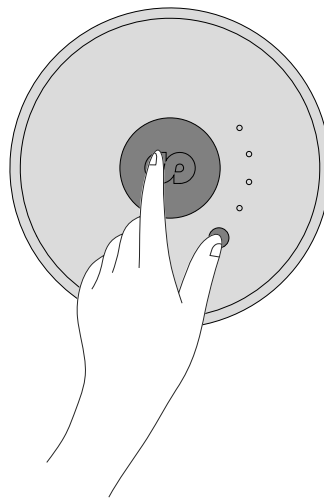
If you intend to use your Skarper on another bike, you should re-calibrate Skarper to get the most from your Skarper.

To calibrate your Skarper:

- 1 Turn on the Skarper drive unit and the pedal sensor:
 - A. Push and hold the on/off button until the lights turn on.
 - B. Turn on the pedal sensor by clicking its power button.
- 2 Hold your bike upright and on a level floor.
 If you are fitting Skarper to a bike with suspension, you need to sit on the bike during the calibration process.
 You may need a friend to help you with the rest of the process.



- 3 Hold the on/off button and mode button together for 5 seconds until you see an amber rotating ring light.



- 4 Continue to hold the bike upright until the ring light goes solid amber and then returns to white.
- 5 If the amber light flashes twice and then goes to a blinking amber, then calibration has failed. Make sure the bike is upright and level and then repeat steps 2 to 4.

Skarper is now fitted to your bike and you are ready to ride.



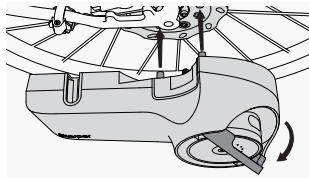
3

EVERYDAY USE

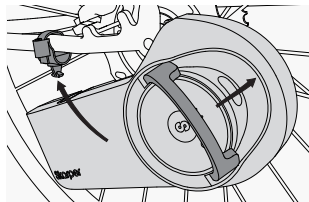
Putting Skarper onto your bike

To fit Skarper to your bike:

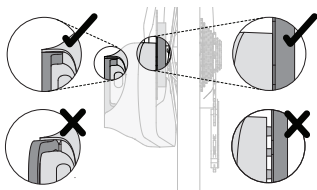
- 1 Open the handle.
- 2 Align the Skarper drive unit with the holes on the DiskDrive rotor. Tilt Skarper slightly, you don't need to slide the chainstay latch.



- 3 Push the Skarper drive unit firmly onto the DiskDrive rotor.
- 4 Close the handle. Make sure the Skarper drive unit is locked to the DiskDrive rotor and the handle is fully closed.



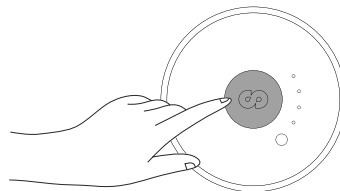
- 5 Rotate the Skarper drive unit and click into the chainstay latch.
- 6 Fit the pedal sensor to the inside of the left crank.



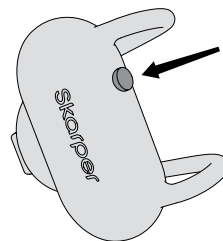
Turning Skarper on and off

To turn on Skarper, after fitting it to your bike:

- 1 Push and hold the on/off button until the lights turn on.



- 2 Turn on the pedal sensor by clicking its power button.



The Skarper drive unit starts and briefly displays the current battery charge level.

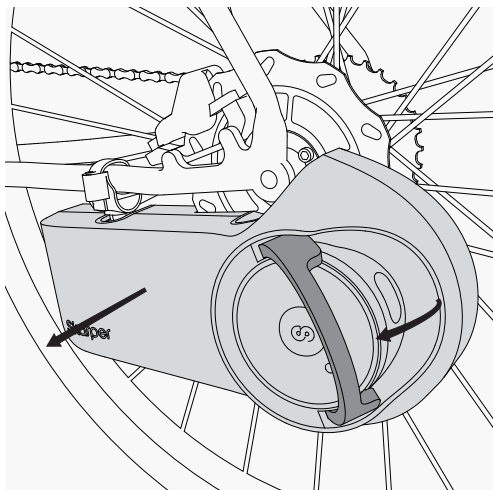
When the ring light is solid white and the Bluetooth light is steady, you are ready to ride. If the pedal sensor doesn't connect, see 'Other things to do' - 'Pairing the pedal sensor to your Skarper drive unit'.

To turn off the Skarper drive unit, push and hold the on/off button until the lights turn off. The pedal sensor turns off automatically after 30 seconds.

Removing your Skarper drive unit from your bike

To remove the Skarper drive unit:

- 1 Open the handle.
- 2 Using two hands, pull the Skarper drive unit completely away from your bike, sliding it off the chainstay latch and the DiskDrive rotor.

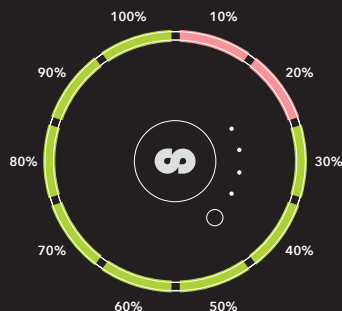


- 3 Close the handle and safely store the Skarper drive unit.
- 4 If required, remove the pedal sensor.



Checking your Skarper's battery level

To check the Skarper's battery level, click the on/off button, this can be done when the device is either on or off. The ring light fills up based on the charge level



The Skarper drive unit battery level is also indicated by the colour of the ring light:

Green
above 20%



Illustration showing 70%

Red
below 20%

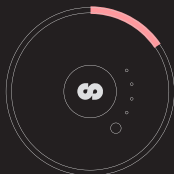


Illustration showing 20%

Charging your Skarper drive unit

To charge the Skarper drive unit, plug the Skarper charger into the Skarper drive unit.



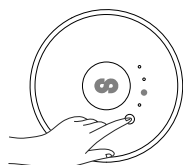
Only use an original Skarper charger for charging. Never charge your Skarper drive unit inside a bag or in a closed compartment with no ventilation.

When the Skarper drive unit is charging, the ring light sweeps in and out, showing the charge level (see top diagram on p.36). When the battery is fully charged, the full ring light shows a green, repeating, slow fade-in and fade-out (breathing effect). Skarper charges in about 2.5 hours if the battery is completely drained.

Riding modes

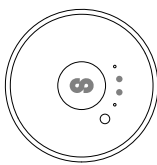
Skarper has 3 riding modes.

Each mode automatically adjusts to your riding needs:



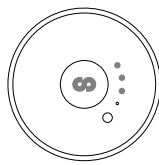
Eco

For a smooth and effortless ride



Cruise

When you want a little bit more punch



Turbo

For maximum power

Push the mode button to cycle through the different modes. Every time you turn the Skarper drive unit on, it uses the last selected riding mode.

Pausing assistance

If you want to save your battery charge or want to ride without assistance, you can pause Skarper, but still have it ready for when you need it.

- 1 Pedal backwards 3 times. Skarper stays on without providing assistance and the three mode lights flash simultaneously.
- 2 To unpause, repeat pedal backwards 3 times.

* When Skarper resumes assistance, it uses the last selected riding mode.

Understanding range

Eco - 25 to 50km

Cruise - 20 to 40km

Turbo - 15 to 30km

There are many factors that can affect the range your Skarper provides:

Terrain - Hills and rough road surface drain your battery faster

Route - Many stop-starts causes a significant power drain

Weather - Cycling into a headwind takes more power

Bike condition - Low pressure tyres or a rusty chain decreases efficiency

Weight - A heavy bike or rider requires more power

The range estimates are calculated by averaging real world ride data that include all of these variables. You could see higher or lower range with your Skarper depending on how it is being used.

Getting the most range

To get the most out of your range you could try:




- 1 Switch to a lower power mode
- 2 Use Pause mode when assistance is not required
- 3 Make sure your bike is well maintained
- 4 Reduce unnecessary weight on your bike where possible (paniers and other heavy accessories)
- 5 Remember to keep using your bike's gears and maintain a smooth pedalling speed, particularly on hills.



Charging the pedal sensor

To charge the pedal sensor, plug the USB-C cable into the pedal sensor and to any standard USB charger.

When the pedal sensor is charging, a light flashes on it. The colour of the light indicates the current battery charge level:

-  **Green** above 80%
-  **Amber** between 15% and 80%
-  **Red** below 15%

When the pedal sensor is fully charged, the light turns solid green. It takes 1 hour to charge the pedal sensor fully from completely empty.

You can check the current battery status at any time by pressing the power button once.

The pedal sensor battery should last for 30 days based on 1 hour of operation and 23 hours of standby everyday.

Please note, your skarper cannot provide power if your pedal sensor is out of charge.

OTHER THINGS TO DO

Here are some other things you need to know as a Skarper owner.

Pairing the pedal sensor to your Skarper drive unit

If you need to pair the pedal sensor to the Skarper drive unit:

- 1 Turn on the Skarper drive unit.
- 2 Hold the mode button for 3 seconds until the ring light rotates blue.
- 3 Turn on the pedal sensor by clicking its power button.
- 4 Press and hold the power button on the pedal sensor for 3 seconds until the blue light flashes rapidly.

When pairing is successful, the ring light is briefly blue then remains white. The Bluetooth light and the pedal sensor light are solid blue.

Cleaning and caring for your Skarper drive unit

Follow these tips to keep your Skarper drive unit clean and well maintained:

Clean the Skarper drive unit with a damp cloth when needed.

Before cleaning, turn off the Skarper drive unit and take it off your bike.

Do not use abrasive pads or abrasive detergents.

The Skarper drive unit is water resistant to IP55.
Do not power-wash it or submerge it in water.

Transporting your Skarper drive unit

The Skarper drive unit is portable and can easily be transported.

Turn off your Skarper drive unit before carrying it.

Before putting your bike on a car bike rack, remove the Skarper drive unit.

If you plan to take your Skarper drive unit on a plane, check with your airline in advance.

Storing your Skarper drive unit

Things to keep in mind when storing your Skarper drive unit:

Store it away from direct sunlight.

Avoid storing it in extremely cold environments.

When storing for a long period, make sure the battery level is between 60% and 80% to preserve the battery capacity.



5

IF THINGS DO NOT GO TO PLAN

If you have any issues with your Skarper, refer to the following troubleshooting tips.

Installation troubleshooting

The table below is by no means a comprehensive troubleshooting guide, but rather a general guide for the most common issues. Each problem must be looked at on a case-by-case basis.

I can hear a rubbing sound or my rear wheel is not free spinning

Is the rear wheel installed correctly?

Check if the axle is properly seated in the dropout.

Check if the axle is tightened.

Are the brake pads rubbing on the disc?

Adjust your brake calipers.

If you are not sure about doing this, we recommend consulting a qualified professional.

Is the DiskDrive colliding with any part of your bike?

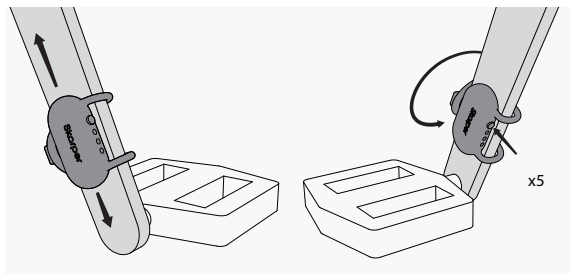
Contact technical support.

My pedal sensor does not fit on the inside of the crank

Try moving the pedal sensor up and down the crank to a position where it does not collide with the frame.

If this does not solve the issue, do the following:

- 1 Fit the pedal sensor on the external side of the crank.
- 2 When the pedal sensor is turned on, press its power button 5 times. A white light starts blinking. The sensor is now reverse mounted.



My foot is rubbing on the Skarper drive unit when I pedal

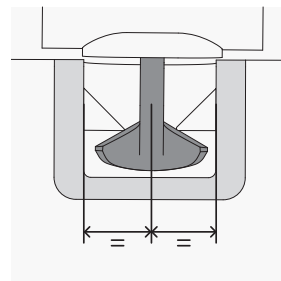
Try adjusting your foot position.

If this does not solve the issue, contact a bike mechanic to make adjustments to your bike, such as offsetting the crank or pedal.

The chainstay latch is not clicking into the Skarper drive unit

If the chainstay latch is not clicking in easily, or at all, try the following:

- 1 Slightly loosen the chainstay strap screw.
- 2 Move the chainstay latch along the chainstay to center it between the latches on the Skarper drive unit.



- 3 Re-tighten the screw and check if the chainstay latch clicks in.

If the issue persists, contact technical support.

My crank or pedal collides with the Skarper drive unit when I pedal

Check if your bike is compatible with Skarper.
For more information, see 'Compatibility' on page 56.

If the issue persists, contact technical support.

I have a different size disc brake rotor (140 mm or 180 mm)

It is usually possible to convert your disc size using an off-the-shelf adapter.

We recommend asking a qualified professional to adjust your brakes.

Skarper troubleshooting

The Skarper drive unit does not turn on

Is there any light indication when you press the on/off button or the mode button?

Yes: Refer to the descriptions of the fault indications in 'What is Skarper doing?'.

No: The Skarper drive unit may have overheated and has shut down as a safety mechanism.
Wait for 1 hour, then try to turn it on. If this does not work, contact technical support.

Skarper is not providing cycling assistance

Are there any light indications on the Skarper drive unit?

Yes: Refer to 'What is Skarper doing?'.

No: See the next step.

Are there any lights on the pedal sensor?

Yes:

Flashing blue light - it needs to be paired.

Flashing white light - it is in reverse mode. Press the power button 5 times to switch it to the right direction.

Solid blue light - it is paired, but there might be another issue.

No: See the next step.

Is the pedal sensor correctly mounted on the inside of the crank?

Yes: Contact technical support.

No: Mount correctly. If that cannot be done, see 'My pedal sensor does not fit on the inside of the crank'.

Flashing red light on the Skarper drive unit

Alternate halves of the ring light are flashing:

Overheat. Your Skarper drive unit got too hot and is in a safe protection state. It needs to cool down before you return to normal riding.

Place your Skarper drive unit in a cool, shady area to let it cool down faster. Wait for 1 hour, then try to turn it on. If this does not solve the issue, contact technical support.

The whole ring light is flashing:

General fault. Turn the Skarper drive unit off and back on. If this does not solve the issue, contact technical support.

The Skarper drive unit is not charging

Is everything plugged in correctly?

Yes: See the next step.

No: Make sure everything is plugged in correctly. If this does not solve the issue, go to the next step.

Is there any visible damage to the charger or cables?

Yes: Do not use, contact technical support.

No: See the next step.

What is the Skarper charger light colour?

Red: The Skarper drive unit is charging. The battery level may be very low. Wait 5 minutes until the Skarper drive unit battery state is displayed.

Green: If you have just finished riding, go to the next step.

Have you just finished riding?

Yes: The battery may be too hot for charging. Skarper operates within safe temperature ranges. Occasionally, during an intense ride, your Skarper drive unit may become hot, and the battery may need to cool down before charging.

No: Contact technical support.

The Skarper handle is not closing

Check for any loose debris in the DiskDrive rotor.

Make sure the Skarper drive unit is pushed against the DiskDrive rotor and is parallel.

The Skarper drive unit is loose on the DiskDrive rotor

Check if the Skarper handle is closed.

If this does not solve the issue, contact technical support.
Do not continue to ride.

The chainstay strap is slipping

Did you use the frame protection tape?

Yes: Loosen the screw, reposition, and tighten it. If it does not tighten, you may need to replace it.
Contact technical support.

No: Reinstall with the tape.

My pedal sensor strap snapped or I lost my pedal sensor

Do you still have the pedal sensor?

Yes: Contact technical support.

No: Order a new pedal sensor at skarper.com.

The Skarper drive unit case cracked

The Skarper drive unit can withstand significant drops. The external shells do not seal the unit, so it should still be functional. However, we recommend that you take your Skarper drive unit to a certified retailer or return it to us for inspection.

My Skarper drive unit is leaking water from the inside

Small amounts of water can enter through the Skarper drive unit cooling vents and drain out through the case. All internal components are sealed, so there is no risk from water exposure.

Flashing amber light on the Skarper drive unit

Alternate halves of the ring light are flashing amber: The Skarper drive unit overheated.

Your Skarper drive unit has overheated and is providing reduced assistance as a safety mechanism. After it has returned to a normal operating temperature, it can resume normal assistance.

Full ring light is flashing amber: Calibration required.

Refer to 'Calibrating your Skarper'.

When I turn on the Skarper drive unit, I see a red light.

The battery level is below 20%. See 'What is Skarper doing?'.

Compatibility

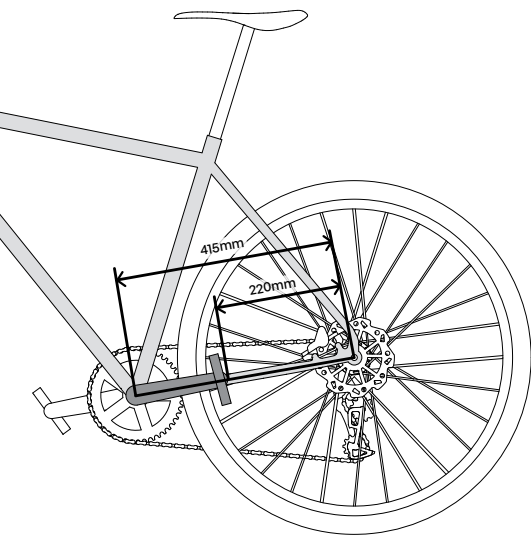
Skarper transforms a disc brake bike into a high-performance eBike. However, it may not work with or fit your bike. This section helps you check your bike's compatibility with Skarper.

Chainstay length

Skarper is designed for bikes with a minimum chainstay length of 415 mm. This covers the majority of bike frame sizes.

If your chainstay is shorter:

Measure the distance from the axle to the edge of the crank in its rear horizontal position. If it is more than 220 mm, Skarper should fit.



Dropout geometry

A dropout is the slot in the frame or fork of your bike where you attach the wheel axle.

Some dropout geometries may prevent the Skarper drive unit from fully rotating and clicking into the chainstay attachment. We tested Skarper on a wide range of bikes, and this is not a common issue.

If you think it may be a problem, refer to skarper.com or contact technical support.

Disc brakes versus rim brakes

The main types of bicycle brakes are disc brakes and rim brakes. Skarper is designed to work primarily on disc brake bikes. However, with a modification, you can use Skarper on a rim brake bike. To find out more, contact technical support.

Kick stands

If your bike has a chainstay-mounted kick stand, you must remove any chainstay-mounted kickstand before installing Skarper. Instead, you can install a two-legged kick stand mounted to the bottom bracket between /under the pedals.

Wheel sizes

Skarper is designed for bikes with wheel sizes between 26" and 29".

What is Skarper doing?

The table below lists what the Skarper drive unit is doing based on its light indicators.

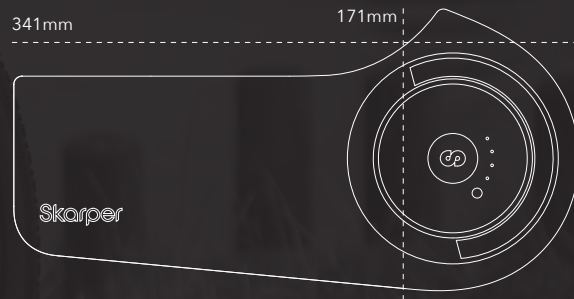
Ring light	What it means
White, pulsing	The Skarper drive unit turns on
White, fades out	The Skarper drive unit turns off
Amber, flashing	Calibration warning
Amber, flashing	Calibration failed
Blue, flashing	Bluetooth warning
Blue, rotating	Bluetooth pairing
Green, sliding in and out	Charging. The Skarper drive unit is charged above 20%
Red, sliding part of the circle	The Skarper drive unit is charged up to 20%

Ring light	What it means
Green, breathing effect	The Skarper drive unit is fully charged
Red, small part flashing	Low battery warning - below 10%
Red, two quick flashes, then off	Very low battery. The Skarper drive unit cannot turn on. Charge it.
Amber, alternating half flash	Overheat warning. The Skarper drive unit has reduced assistance and needs to cool down.
Red, alternating half flash	Overheat fault. The Skarper drive unit is not providing assistance and needs to cool down.
Red, flashing	General fault

6

341mm

171mm



Motor rating	250 W
Torque	45 Nm
Battery rating	48 V, 240 Wh
Skarper drive unit weight	4.5 kg
Top speed	25 km/h
Ingress protection rating	IP55

SPECIFICATIONS

SPECIFICATIONS



SKARPER PRODUCT WARRANTY

Thanks for choosing Skarper!
We're committed to delivering top-quality products and making sure you're happy with your purchase.

Here's what you need to know about our warranty:

1 Limited 2-Year Warranty

Your Skarper product comes with a limited warranty for two years from the date of purchase. This covers any defects in materials and workmanship under normal use.

2 Warranty Coverage

Our warranty covers manufacturer defects. If something goes wrong because of how it was made, we'll repair or replace it for free. This doesn't cover damage from misuse, accidents, or modifications.

3 Fair Use Warranty for Non-Commercial Use

This warranty is for personal, non-commercial use only. If you're using your Skarper for commercial purposes, this warranty won't apply.



For full terms and conditions,
please scan the QR code or visit the Skarper website at:
www.skarper.com/terms-and-conditions/

If things do not go smoothly or you need help, get in touch with our customer service team. You'll need your proof of purchase and a description of the issue to get started.

Thanks again for choosing Skarper! We're here to help you get the most out of your product.

Battery safety and warnings

⚠ WARNING: Do not use a battery or charger that is not provided by Skarper.

Do not attempt to open, disassemble or crush the Skarper drive unit or its integrated battery as it could be dangerous and all warranties will become void.

Make sure that the Skarper drive unit is in good condition with no cracking or other damage before using it or charging it.

Keep the battery and charger out of reach of children.

Tampering, modifying or replacing the battery or any parts of Skarper by anyone that is not an authorised repairer can cause a serious safety hazard.

Do not remove the battery, always contact Skarper's technical support immediately regarding any battery issues.

Never place Skarper near sources of direct heat such as heaters or ovens.

Skarper must not be stored below -20°C or above $+60^{\circ}\text{C}$. Store at room temperature.

Do not ride in the rain without the charging port cover plugged in to keep the charging connectors clean and dry.

Dispose of the device, battery, and other accessories according to local regulations. Do not treat them as household waste. Improper disposal of batteries may lead to explosions. Batteries must be returned to Skarper for disposal. Contact Skarper's technical support for details.

General safety and warnings

DO NOT MODIFY OR TAMPER WITH SKARPER IN ANY WAY. MODIFYING SKARPER IN ANY WAY WILL VOID YOUR WARRANTY AND CAN LEAD TO ACCIDENTS RESULTING IN INJURY OR DEATH.

Ride smart. Not wearing a helmet when riding may result in serious injury or death.

Take care when riding in wet and slippery conditions. Ride slowly and gently apply force to the brakes to accommodate a longer stopping distance.

Ride at an appropriate speed, in accordance with the terrain, your riding capabilities and local government regulations. Skarper stops providing power when your country's top speed limit for eBikes is exceeded.

Skarper is made for average riding conditions. Do not use it for racing, mountain biking, or for any other form of non-urban cycling.

Many countries require specific safety devices. It is your responsibility to know about the laws of the country where you ride and to comply with all the applicable laws, including properly equipping yourself and your bike as the law requires. Please note, the regulatory environment which applies to e-bikes is complex and different in different jurisdictions (such as, relating to power limits and speed restrictions). As such, users should check that their converted e-bikes comply with local regulations.

As with all products, Skarper is subject to wear and tear. Any form of cracks, scratches or change of colouring can indicate that damage has occurred. If any sign of damage appears, or your Skarper has been dropped, been in an accident or otherwise damaged, contact technical support to get your Skarper inspected.

Failure to confirm compatibility, properly install, operate and maintain any component or accessory can result in serious injury or death. We always recommend getting advice from a professional when installing or modifying your bike in any way.

Skarper is not designed for towing trailers of any sort.

Skarper is not designed to work in tandem with another eBike motor, purpose built or converted.

Standards and compliance





SUPPORT AND HELP

**Got a question that wasn't answered here?
We're here to help!**

If you need assistance or technical support, don't hesitate to get in touch. And if you can think of ways to improve this guide, let us know.



Technical support: info@skarper.com
www.skarper.com/contact

61-63 Rochester Pl,
Camden, NW1 9JU
United Kingdom

www.skarper.com

OUR SKARPER MANIFESTO



We believe in the bicycle.
We believe in its simplicity, its elegance,
its power to change lives and cities.
We believe in the freedom it represents,
the joy it brings, and the connections it creates.

We believe in progress.
We believe in pushing boundaries, in questioning the status quo.
We believe that technology should enhance our experiences,
not replace them.

We believe in choice.
We believe that cyclists shouldn't have to choose
between tradition and innovation.
We believe in the power of 'and' over 'or'.

We believe in transformation.
Not in replacing, but in elevating.
Not in converting, but in releasing.

We believe that your bike is more than just a machine.
It's a companion, a confidant, a gateway to adventure.
It deserves to be cherished, not discarded.

We believe in the thrill of the ride.
In the burn of the climb and the rush of the descent.
In arriving energised, not exhausted.

We believe in sustainability.
In using what we have, not always buying new.
In empowering the bikes of today to meet the challenges of
tomorrow.

We believe in community.
In the nod between passing cyclists,
in the shared joy of the open road.
In making cycling accessible to all, not just the few.

We believe in you.
In your passion, your potential, your desire to go further.
We believe you shouldn't have to compromise.

We are Skarper.
We don't just add power to your bike.
We amplify your cycling passion.
We extend your horizons.
We redefine what's possible on two wheels.

We invite you to join us.
To click on. To take off. To ride beyond.
To be part of a revolution that doesn't replace the bike you love,
But unlocks its hidden potential.

This is not just about a product.
This is about a new way of thinking.
A new way of riding.
A new way of living.

This is Skarper.

Click on. Take off!

