



USER MANUAL

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the Spiny family! We're excited bike. to that you've chosen our product to electrify Before you get started, we recommend reading the user manual carefully to ensure a correct and safe installation. Get ready to enjoy the full Spiny experience on your bicycle!

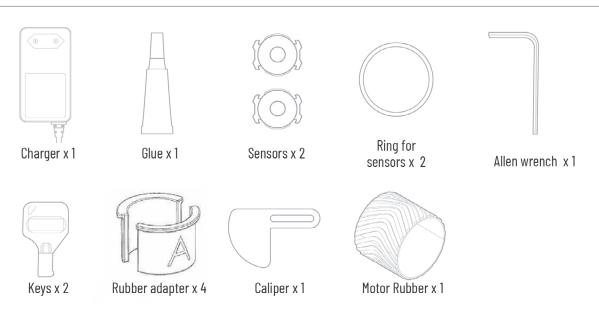
### WARNING

Incorrect installation may wear down the motor rubber and damage the equipment or your bicycle. Carefully read all the information before using it.

Read all safety warnings and instructions. Failure to comply with the warnings and instructions may result in electric shocks, fires, and/or serious injuries. Keep all warnings and instructions for future reference.

### **KIT CONTENTS**

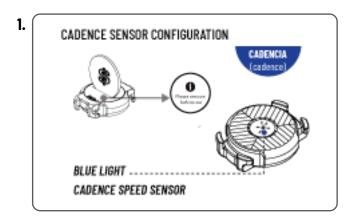




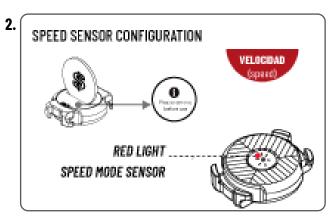
### **FIRST STEPS**

We will quide you through the first steps to set up your SPINY.

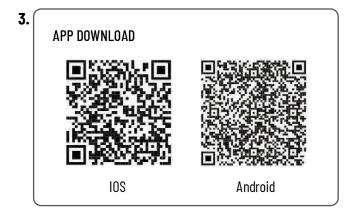
Spiny sensors can be configured in two operating modes: cadence and speed. When the battery is removed and reinserted, the operating mode switches between these two options. The sensor indicates the selected mode by flashing a light for a few seconds: blue for cadence mode and red for speed mode. It is essential to match the sensor mode with the adhesive label. Sync the sensors with the app before mounting them on the bicycle. If you have any doubts or issues with the sensors, refer to the TROUBLESHOOTING section of this manual.



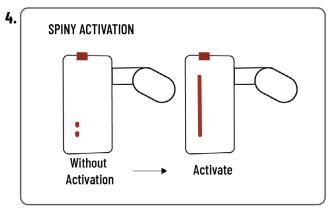
Turn the cover in the OPEN direction, remove the battery, and take out the protective plastic. Close the cover by turning it in the CLOSE direction. If the front light flashes blue, the process is complete. If it flashes red, open and close the cover again until the light turns blue. The light will turn off after a few seconds. You can follow the step-by-step process in this video: <a href="mailto:getspiny.com/configuracion-sensor">getspiny.com/configuracion-sensor</a>



Turn the cover in the OPEN direction, remove the battery, and remove the protective plastic. Close the cover by turning it in the CLOSE direction. If the flashing light on the front is red, the procedure is complete. If it is blue, open and close the cover until the light turns red. The light will turn off after a few seconds. You can see the step-by-step process in this video: <a href="mailto:getspiny.com/configuracion-sensor">getspiny.com/configuracion-sensor</a>



Scan the corresponding  $\ensuremath{\mathsf{QR}}$  code to access the download of our app.



**ATTENTION!** You must activate the Spiny from the app When turning on your Spiny for the first time, 2 red lights will light up on one side. Once activated, when turning it on again, all the lights will light up in red.

**IMPORTANT!** If the application shows a battery level of 0%, move the sensors again to reactivate them and check the charging status once more. The sensors automatically deactivate after 1 minute of inactivity. To reactivate them, simply move them. **To pair the sensors with the application, make sure to move them so they activate.** The physical appearance of the sensors may differ by batch; respect the installation instructions.

### PREPARE YOUR BICYCLE BEFORE INSTALLATION

- 1. Remove any accessory mounted on the seat tube of the bicycle to allow proper installation, such as a water bottle, lock mount, etc.
- 2. If your bicycle has a fender, you will need to remove it or partially trim it to allow the Spiny motor to make contact with the tire. To determine where to cut, follow the installation up to step 4 and check which part of the fender needs to be removed.
- 3. If your bicycle has a brake cable running along the frame tube, you must detach it from the fixed guide on the frame and route it through the fixed Spiny mount.

### **INSTALLATION**

To ensure proper operation and prevent wear or malfunctions, it is essential to follow all the steps in this guide carefully. An incorrect setup may damage the motor rubber or affect pedal assistance. If your bicycle requires adapters or has a particular frame geometry, pay special attention to the mounting position and motor adjustment. You can follow the step-by-step installation video at: <a href="https://www.getspiny.com/instalacion">www.getspiny.com/instalacion</a>



Select the rubber adapter that best fits the diameter of the bicycle seat post tube. If necessary, you can combine the two models. **CAUTION!** If not installed correctly, the equipment may rotate and get damaged.



If the bicycle has gears, route the cables through the hole in the fixed bracket shown in the image.

Ensure that the locking area of the fixed bracket is always oriented towards the Spinys mounting side.



Depending on the bike frame's format, using the screws located on the back of the Spiny, you can adjust the motor's height to fit the bike properly.

IF THESE POSITIONS ARE NOT ENOUGH, WE OFFER ADAPTERS TO EXTEND THE MOUNTING OPTIONS — SEE PAGE



Place the fixed mount on the seat tube of the frame using the Allen key, without fully tightening it. Position the cable slot facing forward to create more space for the motor (Position A), or facing backward to bring the motor closer to the wheel (Position B). Check the clearance using the spacer tool.



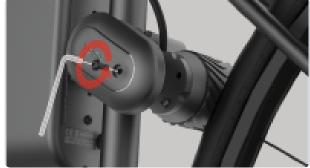
Before tightening EA the screws, place the calibrator and raise or lower the fixed mount so that the wheel touches a tangent point on the caliper. CAUTION! If the screws are not firmly tightened, the equipment may rotate and get damaged.



Once the fixed bracket is secured, attach the Spiny until it clicks! Verify that it is aligned with the wheel.

If you cannot secure the mount, check that the lock of the fixed mount is oriented towards the Spiny's mounting side.

7.



Remove the motor cover using the Allen key to calibrate the motor position, and after steps 8, 9 and 10, put it back on.

8.

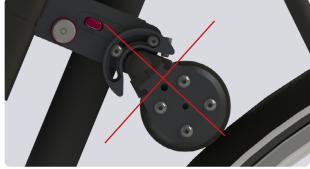
**Lower position adjustment:** Loosen the two stop screws with an Allen key, turn them counterclockwise until the motor is about 1 mm away from the wheel, and then tighten the screws. In this position, the motor remains when it is deactivated.

9. 10.

Upper Position Adjustment – Option A: adjust the upper stop screw so that the motor remains slightly held in its active position. This improves sensitivity when detecting the start and stop of pedaling. Also adjust this screw to ensure the motor applies proper pressure on the tire. Watch the instructional video: <a href="mailto:getspiny.com/regulacion">getspiny.com/regulacion</a> If this adjustment is not possible on your bicycle, proceed to step 10.

**Upper Position Adjustment - Option B:** in this configuration, the motor remains free in its working position. You can loosen the upper stop screw so that, when it stops spinning, the motor lowers by its own weight. This mode may be useful if you prefer the motor to disengage automatically when you stop pedaling, or if your bike's geometry does not allow the motor to be held in the upper position.

11.



### **Incorrect Spiny Positioning:**

The motor is applying insufficient pressure against the tire. Check the positioning of the fixed mount using the plastic gauge (Step 4), then readjust the motor's movement limits.



Place the **CADENCE** sensor on the inner side of the pedal opposite the chainring, using the rubber ring, as close as possible to the axle.

geometry does not allow the motor to be held in the upper position.

Press the front button for 3 seconds to turn on the Spiny.

14.



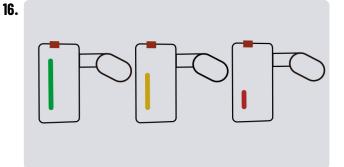
Install the **SPEED** sensor on the spokes of the rear wheel with the rubber ring.

15.



Download the app to activate the Spiny, sync sensors, configure the wheel type, assist mode, and monitor the battery level.

To check the sensor battery status, move the sensors to activate them.



With the Spiny on, press the front button once to know the battery charge status. **Green: 100%- 70% Yellow: 70%- 40% Red: 40%-0%. THE BATTERY INDICATION AT THE LOWER LIMIT MAY BE INACCURATE.** 

**17.** 



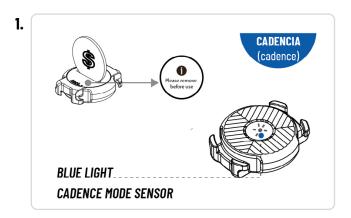
Turn off the Spiny, release the quick coupling by moving the lever backward, and turn the key counterclockwise to remove it from the bike.



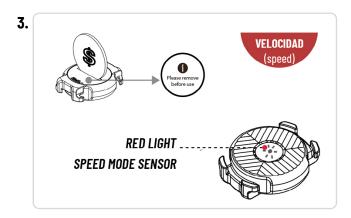
Charge the Spiny by connecting the charger to the rear charging pin. Perform a full 4-hour charge before the first use. The charger's indicator light will change from red to green when the charge is complete. **The Spiny's lights will flash red when the battery is depleted**.

### **SENSOR CONFIGURATION**

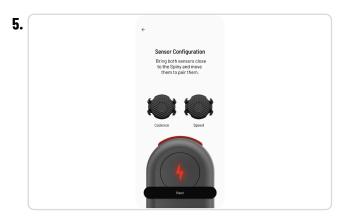
Spiny sensors can be configured in two operating modes: cadence and speed. When the sensor's battery is removed and reinserted, the operating mode switches between these two options. The sensor indicates the selected mode by flashing a light for a few seconds: blue for cadence mode and red for speed mode. It is essential to match the sensor mode with the adhesive label. If you have any doubts or issues with the sensors, refer to the SENSORS TROUBLESHOOTING section of this manual.



Turn the cover in the **OPEN** direction, remove the battery, and take out the protective plastic. Close the cover again; a blue light will blink on the front of the sensor.



Turn the cover in the **OPEN** direction, remove the battery, and take out the protective plastic. Close the cover again and repeat the process until a red light blinks on the front of the sensor.

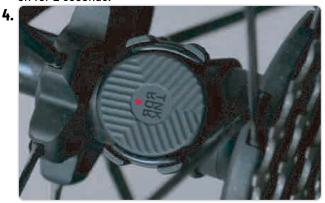


From the SPINY App, configure the sensors with the device. Once configured, you can view the battery status of the sensors from the SETTINGS -> SENSORS menu.

If the application shows a battery level of 0%, move the sensors to activate them.



Place the **CADENCE** sensor on the inner side of the pedal opposite the chainring, using the rubber ring, as close as possible to the axle. Each time the sensor is activated when you start moving the pedal, the blue light will turn on for 2 seconds.



Place the **SPEED** sensor on the rear wheel hub using the rubber ring. The red light will turn on only during the setup process, it will not turn on again once activated.



To replace the battery, turn the cover in the **OPEN** direction, remove the battery, and insert a new CR2032 battery. Close the cover and reconfigure the sensor, whether it is **CADENCE or PEDALING**.

# TROUBLESHOOTING - SENSORS

| PROBLEM   | SOLUTION  |
|---|---|
| The app doesn't recognize the sensors, it keeps "configuring" | <ol> <li>Check that both sensors are set to the correct mode (cadence/speed). If the app doesn't recognize the sensors after setting them up, it's likely that both sensors are set to the same operating mode by mistake. Repeat the procedure.</li> <li>Check that the Spiny and the sensors are within 30 cm of your phone.</li> <li>Move the sensors slightly to activate them and do the same without placing them on the bike.</li> <li>Repeat the sensor pairing process from the app under SETTINGS -&gt; SENSORS.</li> </ol> |
| The sensor lights are not visible when I insert the battery.  | <ol> <li>Check that the sensors are free of the protective plastic under the battery.</li> <li>Repeat the sensor setup process in a dimmer environment. The blue light on the cadence sensor may be slightly dimmer.</li> <li>The lights on the front of the sensors will only flash for a few seconds when you insert the battery, then remain off.</li> </ol>   |
| The sensor light does not match the indicated color           | <ol> <li>Turn the corresponding sensor cover, remove the battery, reinsert the battery, turn the cover to close it, and check the light color.</li> <li>If the light color matches the desired operating mode, setup is complete.</li> <li>If the light does not match the required operating mode, remove and reinsert the battery. The sensor lights will cycle between red and blue each time you perform this process.</li> </ol>   |
| The app does not indicate the % charge of the sensors         | Move the sensors and wait a few seconds for the information to update.     Review the sensor settings following the steps in the manual.     Re-sync the sensors from SETTINGS -> SENSORS.  |
| The motor turns on and off sporadically while pedaling.       | 1. Check that the sensors are installed correctly. SEE MANUAL. 2. Check that the cadence sensor is on the pedal, close to the axle and mounted on the inside, and the speed sensor is on the wheel. 3. Verify that the speed has not exceeded 25 km/h.  |
| The Spiny's engine does not activate                          | Verify that the cadence and speed sensors are correctly configured and synced with the app.     If the app doesn't recognize the sensors after setting them up, it's likely that both sensors are accidentally set to the same operating mode. Repeat the procedure.  |

### **USING THE SPINY**

SPINY is a pedal-assist system, which means the device activates while pedaling and deactivates when you stop pedaling or when exceeding 25 km/h (the maximum allowed speed). The activation and deactivation of the device have a delay of a few seconds.

### POWER ON AND OFF

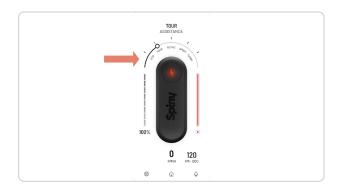
To turn on the device, press the front button for 3 seconds until the red side lights turn on.

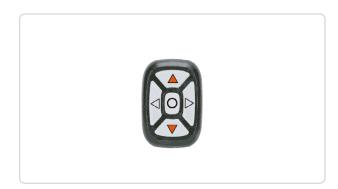
To turn it off, press and hold the same button until the lights turn off.

**Important:** If you're going to move the bike without using Spiny, turn it off to avoid accidental activation.

### **ASSISTANCE MODES**

You can choose from one of the 5 assistance modes depending on which best suits your preferences and usage needs. You can switch modes using the SPINY APP or the Bluetooth controller (optional accessory).





OFF - No assistance; only available via the Bluetooth remote. The device remains on but does not provide pedal assistance.

ECO - Minimal assistance, ideal for flat terrain and maximum range.

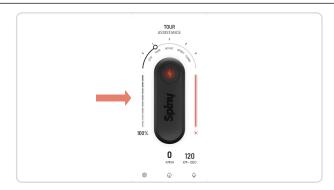
TOUR - Gentle assistance, suitable for relaxed rides with moderate power consumption.

ACTIVE - Medium assistance, ideal for city use and mixed routes, offering good battery performance.

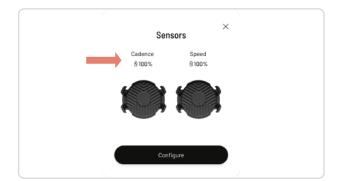
SPORT - High assistance, useful for frequent climbs or increased effort.

TURBO - Maximum assistance, ideal for steep hills or demanding segments; higher battery consumption.

### **BATTERY STATUS**



From the **APP**, you can view the battery status of the SPINY in the sidebar of the home screen. **When the Spiny is in operation, the battery indication may be inaccurate.** 



Go to <code>SETTINGS</code> -> <code>SENSORS</code> to check the sensors battery level. If the app shows a battery level of 0%, move the sensors again to reactivate them and check the charge status once more.

### **MOTOR**

If you notice excessive wear on the motor rubber during the first uses of the device, this indicates an installation issue. Carefully review steps 8 and 9 of the manual to correct it. For safety, in case of overheating, Spiny will automatically reduce the delivered power until the temperature decreases. The device will indicate this condition by flashing the lights in WHITE; once cooled, they will return to their normal RED color.

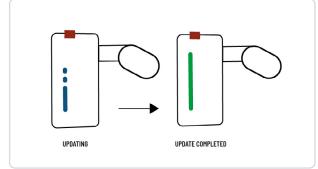
1.



Update the Spiny whenever the app prompts you to do so. The process may take 1 to  $\overline{\mathbf{3}}$  minutes.

KEEPING YOUR DEVICE UPDATED WILL ENSURE A BETTER USER EXPERIENCE.

2.



During the update, the Spiny lights will gradually turn Blue. Wait until the update is complete and the lights turn Green.

DO NOT TURN OFF THE DEVICE.

**3**.



Once the update is complete, the Spiny will turn off. Previous settings will be retained after each update. You will need to turn it on again to start using it.

4.



To ensure your Spiny is updated to the latest version available, go to the "UPDATES" section from the "SETTINGS" menu.

Spiny.

Scan the corresponding OR code to download our app.





Android

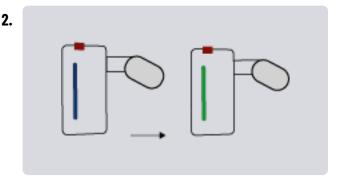
### **BLUETOOTH REMOTE CONTROL** (Accessory NOT Included)

This accessory will allow you to easily change the Spiny's assistance modes and manually control the start and stopping the engine assist. IT IS AN ACCESSORY, NOT NECESSARY FOR THE OPERATION OF THE SPINY.

IMPORTANT! The Bluetooth controller connects directly to the Spiny. You should not pair it with your mobile phone.



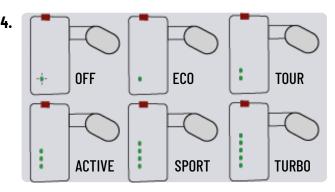
Press and hold the central button on the remote for 3 seconds until the blue side light turns on. The light will keep blinking until the remote is paired with the Spiny. With the Spiny turned on, press the front button twice to activate pairing mode.



The device lights will turn blue, indicating it is ready to pair. When it detects a powered-on Bluetooth remote, it will pair automatically, and the lights will turn green for 1 second to confirm the connection.



Pressing the up or down arrows on the remote changes the assistance mode one level at a time. You can choose between the following modes: OFF, ECO, TOUR, ACTIVE, SPORT, and TURBO, depending on the level of assistance you want while pedaling.



Each time you change the mode, Spiny will indicate it with its lights. In OFF mode, the device will show a flashing green light, and the motor will not activate even if you are pedaling. In the app, the mode selector will appear white to indicate that no assistance is active.



By pressing the central button on the remote, you can temporarily activate or deactivate motor assistance without stopping pedaling. When deactivated, the motor will stop providing assistance. It will reactivate automatically when you start pedaling again.



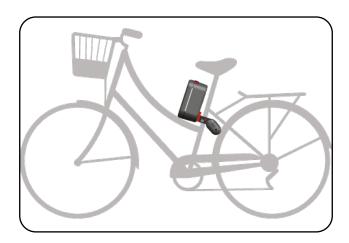
By pressing the left or right arrow on the remote once, the turn signal light mode will activate for 5 seconds. After that time, the Spiny lights will automatically return to red, their normal state during use. If you hold down the side arrows for 3 seconds, you can turn the side lights of the Spiny on or off.

### DAILY USE OF THE BLUETOOTH REMOTE CONTROL

Turn on the Spiny and then the paired Bluetooth remote. You'll notice the blue light on the remote starts blinking. In a few seconds, the unit will detect the controller. The controller's blue light will turn off, and the Spiny's lights will turn green for a few seconds, indicating that the connection was successful. You can mount the remote on your bike's handlebar for safe and convenient use. To charge the remote's battery, use the included USB-C cable. The remote will automatically power off after 15 minutes of inactivity to save battery. Important: The OFF mode can only be selected using the Bluetooth remote (not from the app). Instructional video: getspiny.com/control-remoto

### **LOWER POSITION ADAPTERS** (Accessories NOT Included)

Depending on your bike frame's shape, these extra parts provide an additional mounting position between the housing and the motor assembly. They are recommended when the housing interferes with the bike's down tube. Adapter installation video: getspiny.com/adaptador-inferior





### **Mounting Adapter II**

Use the Allen key included with your Spiny.

Tighten all the screws firmly so the adapter stays securely in place. The adapter is positioned between the mount and the unit, as shown in the image.

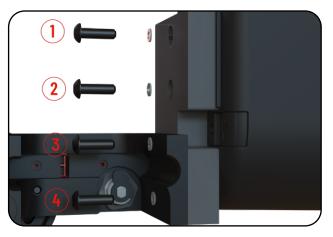
First, attach Adapter II to the unit using one of the two original screws with its washer (1). Then, secure the mount using the remaining original screw with its washer (3), and finally the M4 x  $25 \, \text{mm}$  screw with its washer (2) included in the kit.



### **Mounting Adapter III**

Use the Allen key included with your Spiny.

Tighten all the screws firmly so the adapter stays securely in place. The adapter is positioned between the mount and the unit, as shown in the image.

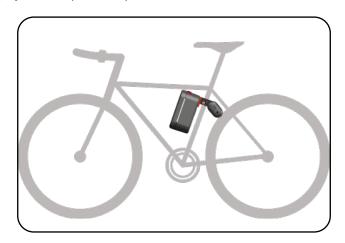


First, attach **Adapter III** to the unit using the two M4 x 14 mm screws with washers (1 and 2) included in the kit. Then, secure the mount using the two original screws and washers (3 and 4).

If you need any of these adapters to mount your Spiny, please contact our support team at: <a href="mailto:getspiny.com/pages/contacto">getspiny.com/pages/contacto</a>

### **UPPER POSITION ADAPTERS** (Accessories **NOT** Included)

Depending on your bike frame's shape, these extra parts provide an additional mounting position between the housing and the motor assembly. They are recommended when the housing interferes with the bike's top tube. Adapter installation video: getspiny.com/adaptador-superior





# 3 - 4 -

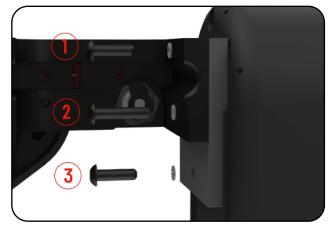
### Mounting Adapter 0

Use the Allen key included with your Spiny.

Tighten all the screws firmly so the adapter stays securely in place. The adapter is positioned between the mount and the unit, as shown in the image.

First, attach **Adapter 0** to the unit using the two M4 x 14 mm screws with washers (1 and 2) included in the kit. Then, secure the mount using the two original screws and washers (3 and 4).





### Mounting Adapter I.

Use the Allen key included with your Spiny. Tighten all the screws firmly so the adapter stays securely in place. The adapter is positioned between the mount and the unit, as shown in the image.

First, attach Adapter I to the unit using one of the two original screws with its washer (1). Then, secure the mount using the remaining original screw with its washer (3), and finally the M4  $\times$  20 mm screw with its washer (2) included in the kit.

If you need any of these adapters to mount your Spiny, please contact our support team at <a href="mailto:getspiny.com/pages/contacto">getspiny.com/pages/contacto</a>

### **SAFETY INSTRUCTIONS**

This productis a portable bicycle conversion kit that internally features a lithium battery pack as a power source. Before using Spiny on a ride, it is crucial that you understand the following instructions:

- Spiny cannot protect you from an accident: It is common to experience falls when using Spiny or any bicycle, and Spiny cannot offer protection in such situations. In the event of a crash, fall, or traffic accident, it is imperative that you undergo an inspection before using Spiny again. Contact Spiny technicians to ensure that everything is in order after an incident.
- **Know your limits:** If you attempt to use Spiny beyond your cycling abilities, there is a risk associated with that decision. It is essential that you know your cycling level in advance and refrain from exceeding your personal capabilities.
- Lifespan: Spiny is not indestructible, and its parts will not last indefinitely. It is designed for normal urban use, not for heavy loads or difficult terrain. However, we cannot predict the effects of extreme use, extreme conditions, traffic accidents, or situations that generate high stress and fatigue on the equipment.

If the equipment suffers damage, the lifespan of the different parts may be drastically reduced and may fail without warning. This will depend on the type of use, maintenance, type of bicycle, speed, terrain, and environmental conditions (humidity, salinity, temperature, etc.). Therefore, it is not possible to estimate a precise time for replacement.

- Handle Spiny with caution: Spiny, like any technological equipment, has components that require care. Mishandling Spiny can result in failures. Handle it with caution to ensure its proper operation.
- Think Safety: Just like when riding your conventional bicycle, it is essential to pay close attention to your surroundings while using Spiny: traffic, road conditions, obstacles, descents, among other aspects, some obvious and others less so. Have a thorough understanding of your capabilities and skills as a cyclist before performing maneuvers that could result in an accident. Safety lies in anticipation and knowledge of your own abilities.
- Do not modify your Spiny: Modifying your Spiny can turn it into unsafe equipment. Each component of your Spiny has been carefully analyzed to ensure its efficiency and durability. For these reasons, we ask that you do not make modifications to the equipment. If you have any doubts, visit the nearest Spiny Point so that a qualified technician can inspect it.
- Some examples of modifications to avoid (there are likely more):
- Physically altering parts (drilling, cutting, welding, etc.)
- Changing original parts.
- Changing the motor used. Disassembling the Spiny.
- Installation of unauthorized accessories.

### **PRECAUTIONS**

- •This manual is not intended for maintenance or repair services. If you require such services, please contact Spiny technicians.
- Whether you are an experienced cyclist or taking your first pedal strokes on a bike, it is crucial to read the Spiny operating manual before starting to use it. You can access the manual and all reference materials through our website www.getspiny.- com/manual-usuario or by scanning the R code.
- Ón your first ride with Spiny: It is crucial to exercise caution during your first experience using Spiny on your bike. The sensation differs significantly from that of conventional bicycles, and the speed attained is also higher. Before embarking on your ride, ensure that Spiny is correctly installed and secured to the bike. Additionally, choose an open space to avoid obstacles that may be bothersome.
- Although adaptation may require a brief period of time, Spiny is intuitive, and after a few minutes of use, you will feel more confident. Make the most of your biking experience with Spiny, but always remember to maintain the necessary caution and attention to ensure a safe and enjoyable ride.
- Do not submerge Spiny in water or spray it with water at high pressure, as this may affect the integrity of the equipment.
- Avoid using Spiny during storms, whether electrical or heavy rain, to preserve the integrity of the equipment.
- Spiny is designed for urban use; its use on rugged, rocky, dusty, or pothole-ridden terrain may affect its normal operation.
- « Extreme temperatures can cause malfunction. Do not use Spiny outside the range of -10°C to 40°C.
- Use only the charger provided with Spiny, as it is specific to the equipment.
- Charge in a cool, ventilated environment and away from direct sunlight.
- « Keep Spiny away from sources of fire, high temperatures, and direct sunlight.
- Do not attempt to disassemble or repair Spiny on your own; seek assistance from a specialized technician or contact us for help. Any unauthorized handling or modification of the device will void the warranty without exception.
- Avoid throwing Spiny into flames, as there is a risk of explosion and severe injuries.

- Prevent strong blows, pressures, or impacts on the equipment, as they can cause permanent damage.
- Since the device has small parts, keep it out of the reach of children to avoid risks of choking or other hazards.

### MAINTENANCE AND SERVICE

- •For cleaning, use a dry or slightly damp cloth with water to remove dirt accumulated from regular use. Do not clean Spiny with alcohol, gasoline, kerosene, or other corrosive and volatile chemical solvents to avoid serious damage. Do not wash Spiny with a high-pressure water sprayer. During cleaning, make sure the equipment is turned off, the charging cable is unplugged, and the rubber cover is closed, as water ingress could cause electric shocks or other major issues.
- •If the friction cylinder shows excessive wear (the relief pattern on the rubber cylinder is completely worn out), you should replace it as indicated in the next video: <a href="mailto:getspiny.com/cambio-tpu">getspiny.com/cambio-tpu</a>
- After using Spiny, you have the option to remove it and take it with you or leave it securely with the security key.
- Fully charge the battery after each use to extend its lifespan.
- •Do not attempt to disassemble or repair Spiny on your own; seek assistance from a specialized technician or contact us for help.
- Do not remove the battery. Removing the battery is a complicated process and may alter the operation of the equipment. You should contact an authorized repairer for replacement.

### REPLACEMENT OF THE MOTOR RUBBER

To replace the rubber roller on the motor, you will need the following tools: a utility knife, masking tape, alcohol, and medium-grit sandpaper.

The recommended adhesive is medium or slow-curing cyanoacrylate.

You can follow the step-by-step process in the following video: getspiny.com/cambio-tpu

To purchase replacement rollers, you can contact our technical support team at <u>getspiny.com/pages/contacto</u> or check with official Spiny retailers.

### **Key Notes**

- 1. Remove all remaining adhesive from the motor's surface using sandpaper and then clean the surface with alcohol.
- 2. Sand the inner part of the rubber cylinder until the surface loses its shine, then clean the surface with alcohol.
- 3. Cover nearby areas of the device to avoid glue stains.
- 4. Apply the adhesive to the motor in the area indicated in the image.
- 5. Check the orientation of the motor's pattern; it should be positioned as shown in the image.
- 6. Allow the adhesive to dry before using the SPINY again.
- 7. Ensure the motor rotates freely before using the SPINY again.



# **TROUBLESHOOTING**

| PROBLEM  | SOLUTION  |
|--|---|
| The Spiny shows 2 red lights                                     | Activation is missing. Download the SPINY app and follow the activation steps.  |
| The App does not connect to the Spiny                            | <ol> <li>Ensure that your phone's Bluetooth is activated and that connection permissions are granted.</li> <li>Make sure the Spiny is turned on and the phone is within 30 cm of the device.</li> <li>Ensure that your Spiny is not connected to another phone.</li> </ol>  |
| The sensors do not display charge status in the APP              | <ol> <li>Move the sensors to activate them and try again.</li> <li>Check the sensor configuration following the steps in the manual.</li> <li>Re-synchronize the sensors from CONFIGURATION -&gt; SENSORS.</li> <li>Replace the sensor battery and reconfigure it following the manual.</li> </ol>  |
| The motor activates and deactivates sporadically during pedaling | <ol> <li>Check that the sensor installation is correct. SEE MANUAL.</li> <li>Ensure the cadence sensor is on the inner side of the pedal and the speed sensor is on the wheel.</li> <li>Verify that you have not exceeded 25 km/h.</li> </ol>   |
| The Spiny's lights are flashing red.                             | Low battery, charge the device until the light on the charger turns green.  |
| The Spiny lights up, but the motor does not spin.                | <ol> <li>Make sure the device's battery is charged.</li> <li>Ensure the cadence sensor is correctly installed on the inner side of the pedal, as close to the axle as possible.</li> <li>Check that the speed sensor is on the rear wheel and securely fastened with its rubber band.</li> <li>Verify that both sensors are synced in the app (Settings -&gt; Sensors).</li> <li>Ensure that an assistance mode is activated (e.g., ECO, SPORT, or TURBO).</li> </ol> |
| The Spiny motor spins but does not push properly.                | <ol> <li>Check the charge status of the device's battery.</li> <li>Check the installation of the Spiny; the motor's position relative to the wheel must be correct for proper operation.</li> <li>Check the power configuration set in the App.</li> <li>Inspect the friction cylinder; if the pattern is worn, it must be replaced.</li> <li>If the motor overheats, a protection system will reduce the power output until it cools down.</li> </ol>                |
| The motor makes a lot of noise                                   | Review the installation and positioning steps of the device; incorrect adjustment can cause increased noise.     Using knobby tires increases noise compared to smooth tires.   |
| Firmware update failure  | <ol> <li>If the device does not update, turn it off and on again. Close and reopen the APP and try again.</li> <li>If the update stops before finishing and the device shows a blue light, turn it off and on again. Then, try the update again.</li> <li>If the issue persists, try using a different mobile phone.</li> <li>Try performing the update while connected to a Wi-Fi network.</li> </ol>  |
| Excessive wear of the motor's rubber                             | <ol> <li>Check that the motor presses the tire firmly in the upper position.</li> <li>Check the position of the fixed support using the calibrator.</li> <li>Check steps 12, 13, and 14 of the installation manual.</li> </ol>  |

### **TROUBLESHOOTING**

| PROBLEM   | SOLUTION   |
|---|--|
| The Spiny turns on with 6 red lights and the motor does not spin. | The motor does not spin freely  1. Check that no object is stuck between the motor and the mount.  2. If the motor still does not spin freely, remove the side cover that protects the motor adjustment system and check again.  3. If the motor spins freely, turn the device off and on again.  4. If the issue persists, please contact our support team: getspiny.com/pages/contacto   |
| The Spiny shifts or moves from its position                       | 1. Make sure the mount is securely attached to the frame and that the screws are firmly tightened. 2. Check that both screws are evenly tightened and that the safety washers included in the kit are in place. 3. Verify that the rubber adapters (A or B) are correctly installed (you can combine the included models to achieve a more secure fit).  |
| Spiny shifts or moves out of position                             | <ol> <li>Make sure the mount is securely attached to the bike frame and that the screws are firmly tightened.</li> <li>Check that both screws are evenly adjusted and that the security washers included in the kit are properly installed.</li> <li>Ensure that the rubber adapters (A or B) are correctly positioned. You can combine the included models for a more secure fit.</li> </ol>  |
| Spiny is not charging   | <ol> <li>Make sure the charger is properly connected to a working power outlet. Try a different outlet if needed.</li> <li>Check that the charger's plug is firmly inserted into Spiny's charging port, with no looseness or movement.</li> <li>While charging, the charger's light will be red. It will turn green when the battery is fully charged (approx. 4 hours).</li> <li>You can also check the real-time battery status in the Spiny app.</li> </ol> |
| Bluetooth remote does not connect or respond                      | 1. Turn on the Spiny and press and hold the central button on the remote. The bike must be stationary, otherwise it won't sync.  2. If this is the first time pairing, put Spiny in pairing mode (press the front button twice).  3. Make sure the remote's battery is charged.  4.If the issue persists, repeat the pairing process   |
| Replacing the motor roller  | 1. The kit includes one replacement roller, ready to install. 2. If you need more, you can purchase them by contacting our support team: getspiny.com/pages/contacto 3. Follow the detailed steps in the manual for replacement. 4. Use medium or slow-curing cyanoacrylate adhesive for bonding (do not use fast instant glue). 5. Step-by-step video: getspiny.com/cambio-tpu  |

### **SPECIFICATIONS**

| PERFORMANCE INDEX   | ELEMENTS                                 | SPECIFICATIONS  |
|---------------------|--|---|
| Dimensions:         | LxWxH(mm)                                | 225 x 200 x 90 mm   |
| Weight:             | Item Weight in kgs                       | 2.1 kgs   |
| Main Parameters:    | Maximum Speed (km/h)                     | 25 km/h   |
|                     | General Range (kms)                      | 50 km range   |
|                     | Maximum Gradient (%)                     | 12° maximum gradient  |
|                     | Suitable Surfaces                        | Suitable for cement and asphalt roads; dry and/or wet   |
|                     | Operating Temperature                    | Operating temperature: -20°C to 40°C  |
|                     | Storage Temperature                      | Storage temperature: -10°C to 45°C  |
|                     | IP Rating                                | IP65 Rating   |
| Battery Pack        | Nominal Voltage (V)                      | Nominal Voltage (V): 21.6 V   |
|                     | Maximum Input Voltage (V)                | Maximum Input Voltage (V): 25.2 V   |
|                     | Nominal Capacity (mAh)                   | Nominal Capacity (mAh): 10,000 mAh  |
|                     | Intelligent Battery Management<br>System | Protection against abnormal temperature / short circuit / low voltage / overvoltage / overcharge or excessive discharge |
| Maximum Power Motor |  | Maximum Power: 250 W  |
| Hotol               | RPM                                      | RPM: 2700 rpm   |
|                     | Input Voltage (V)                        | Input Voltage (V): 220 V  |
| Charger             | Output Voltage (V)                       | Output Voltage (V): 25.5 V +/- 1%   |
|                     | Output Current (A)                       | Output Current (A): 2.5 A +/- 5%  |
|                     | Charging Port                            | Charging Port: Plug DC 5.5 - 2.0 mm   |
|                     | Charging Time (h)                        | Charging Time (h): 4 hrs  |



**CE.** By means of this document, Spiny EV Solutions SL declares that this equipment complies with the following European directives and harmonized standards: Directive 2014/53/EU of the European Parliament and of the Council of 16 April 2014; Standard ETSI-EN 301 489-1 V2.2.3 (2019-11); CISPR 32 Ed 2.0 (2015) - Electromagnetic Compatibility of multimedia equipment - Emission requirements; IEC 61000-4-2 Ed 2.0 (2008) - Electromagnetic Compatibility (EMC) - Electrostatic discharge immunity test; IEC 61000-4-3 Ed 2.0 (2020) - Electromagnetic Compatibility (EMC) - Radio-frequency electromagnetic field immunity test.



FINAL DISPOSITION. All products bearing this symbol are waste electrical and electronic equipment (WEEE according to Directive 2012/19/EU) and should not be mixed with unsorted household waste. Instead, they should be disposed of in a manner that protects human health and the environment by delivering them to a designated collection point for recycling of electrical and electronic equipment waste, designated by the government or local authorities. Proper disposal and recycling will help prevent potential negative consequences for the environment and human health. Please contact your installer or local authorities for more information on the location and conditions of such collection points.

### **WARRANTY NOTIFICATION FOR SPINY**

This warranty gives you specific rights, and you may have other rights expressed by laws in your country, province, or state. Indeed, in some countries, provinces, or states, consumer law may establish a minimum warranty period. Unless the law allows it, Spiny does not limit, exclude, or suspend other rights you may have. For a full understanding of your rights, we recommend consulting the laws of your country, province, or state.

This contractual warranty applies to the hardware products of the Spiny product (hereinafter "the product") manufactured by Spiny EV Solutions SL, as originally supplied. It will apply to the software only when it is determined to be the effective cause of the failure and when it is the original software of the Product at the time of purchase and has not been tampered with by third parties. Third-party software includes those corresponding to device-specific applications provided by Android system or any other.

### **LIMITED PRODUCT WARRANTY**

Spiny warrants to the original purchaser that its Spiny product will be free from defects in materials and workmanship under normal use conditions for the warranty period. Unless otherwise stipulated by applicable law, the warranty lasts and is granted for 24 months, applied from the date of purchase. However, notwithstanding the foregoing clause, Spiny does not limit, exclude, or suspend the minimum legal warranty period mandated by applicable law.

### **LEGAL REMEDIES**

If a hardware defect is found and Spiny receives a valid claim within the warranty period, Spiny will (1) repair the Product at no charge, using new or refurbished parts, (2) replace the Product with a refurbished or new product, or (3) refund the Product without shipping costs. In the event of a defect, to the maximum extent required by law, these are your sole and exclusive legal remedies. Shipping and handling charges will apply except where prohibited by applicable law.

### **GUIDELINES FOR OBTAINING WARRANTY SERVICE**

In accordance with applicable law, Spiny may require the customer to provide proof of purchase with all purchase details.

### **EXCLUSIONS OR LIMITATIONS**

Unless otherwise stated by Spiny, this Limited Warranty only applies to the Product manufactured for Spiny EV Solutions under the trade name Spiny.

The warranty does not cover any of the following damages: (a) damages due to natural causes or force majeure, such as lightning, tornadoes, floods, fire, earthquake, or other external causes; (b)negligence; (c) alterations or modifications to any part of the product; (d) damage from use with non-Spiny products; (e) damage caused by accident, abuse, or misuse; (f) damage caused by operating the Product outside of permitted uses or as intended by Spiny or with inadequate power or voltage; (g) damage caused by service (including upgrades or expansions) performed by anyone other than a Spiny representative; or (h) inability to follow instructions regarding the use of the product.

No reseller, representative, agent, or employee of Spiny is authorized to make any modification, extension, or addition to this Limited Warranty. If any term is deemed unlawful or unenforceable, the legality or enforceability of the remaining terms shall not be affected or impaired.

Unless prohibited by law or unless Spiny has promised otherwise, after-sales services will be limited to the country or region of

the original purchase.

### **IMPLIED WARRANTIES**

Unless prohibited by applicable law, all implied warranties (including warranties of merchantability and fitness for a particular purpose) shall be limited to the duration of this limited warranty. Some jurisdictions do not allow limitations on the duration of an implied warranty, so the above limitation may not apply to you.

### **LIMITATION OF DAMAGES**

Unless prohibited by applicable law, Spiny shall not be liable for any incidental, indirect, special, or consequential damages, including but not limited to loss of profits, revenue, or data resulting from the breach of any express or implied Warranty or condition, or under any other legal theory, even if Spiny has been advised of the possibility of such damages.

Some jurisdictions do not allow the exclusion or limitation of special, indirect, incidental, or consequential damages, so the above limitation or exclusion may not apply to you.

### **CONTACT INFORMATION**

For more information, please visit: www.getspiny.com

The contact person for after-sales service may be any person from the service network authorized by Spiny, authorized distributors of Spiny, or the final seller who sold the products to you. If you have any questions, please contact the relevant person identified by Spiny.



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