



# UNLOCKER

Unleash the power of your  
Shimano STEPS motor

This instruction manual explains the features and operation of the **iOS version** of the **STEPS UNLOCKER v1.2** app. Please read through this manual before use in order to fully understand the app functions.

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## I. READ THIS FIRST! (WARNING BEFORE USAGE)



### **ANY ELECTRIC BIKE MODIFICATION AND/OR TUNING IS DONE AT YOUR OWN RISK!**

THE USAGE OF **STEPS UNLOCKER** MAY VOID THE MANUFACTURER'S WARRANTY OF YOUR ELECTRIC BIKE AND/OR CAUSE IREVERSIBLE DAMAGE TO YOUR E-BIKE, DRIVE UNIT (MOTOR), BATTERY, AND RELATED COMPONENTS.

NO LIABILITY IS ASSUMED FOR ANY PAST, PRESENT, OR FUTURE DAMAGES TO EQUIPMENT, OBJECTS AND/OR PERSONS CAUSED BY THE USAGE AND/OR MODIFICATIONS MADE USING THE **STEPS UNLOCKER** APP.

ANY ELECTRIC BIKES MODIFIED USING THE **STEPS UNLOCKER** APP MAY ONLY BE LEGALLY USED ON PRIVATE, ENCLOSED AREAS OR DESIGNATED ROUTES. BE AWARE OF YOUR LOCAL LAWS. MODIFIED ELECTRIC BICYCLES ARE NOT ALLOWED ON PUBLIC ROADS AND ANY OTHER AREAS WHERE TRAFFIC LAWS APPLY.

**ALWAYS FOLLOW THE LEGAL REGULATIONS IN YOUR AREA. YOU ARE RESPONSIBLE FOR HOW, WHEN, AND WHERE YOU USE YOUR E-BIKE.**

**RIDE SAFELY, AND ALWAYS USE A CERTIFIED BICYCLE HELMET.**

## II. DRIVE UNIT / IOS DEVICE COMPATIBILITY

### A. DRIVE UNIT AND FIRMWARE VERSIONS

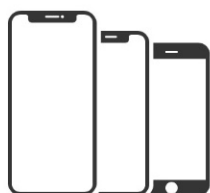
The following shows the adjustments available through the [STEPS UNLOCKER](#) iOS app based on your drive unit (motor) and maximum firmware version:

	SHIMANO DRIVE UNIT TYPE		
	DU-E6100	DU-E7000	DU-E8000
<b>Standard App Features</b>			
Assist Level	4.4.0	4.4.0	4.7.0
Torque Level	4.4.0	4.4.0	4.7.0
Power Output	4.4.0	4.4.0	4.7.0
<b>Licensed App Added Features</b>			
Market Setting	4.4.0	4.4.0	4.7.0
Wheel Size	4.4.0	4.4.0	4.7.0
Speed Derestriction	N/A	N/A	4.3.2 w/SC-E8000

You motor must have the firmware version shown above (or lower version) to have access to the feature. the [STEPS UNLOCKER](#) iOS app cannot downgrade firmware, however there is a way to downgrade to certain firmware versions – please see the [FAQ/TROUBLESHOOTING](#) section for more info.

### B. IOS DEVICES (TUNING INTERFACE)

The [STEPS UNLOCKER](#) iOS app is compatible with the following Apple iOS devices with functioning Bluetooth and iOS 12.1 or newer installed:



iPhone X/XR/XS and newer  
iPhone 6/6 Plus and newer  
iPhone 5s  
iPhone SE  
iPod touch 6<sup>th</sup> generation and newer



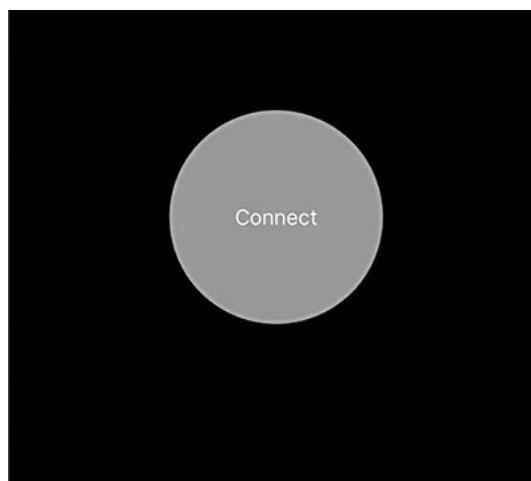
iPad Pro  
9.6-inch iPad 6<sup>th</sup> generation  
iPad Air 1 and newer  
iPad 5<sup>th</sup> generation and newer  
iPad mini 2 and newer

### III. CONNECTING TO YOUR E-BIKE

#### **STEP 1**

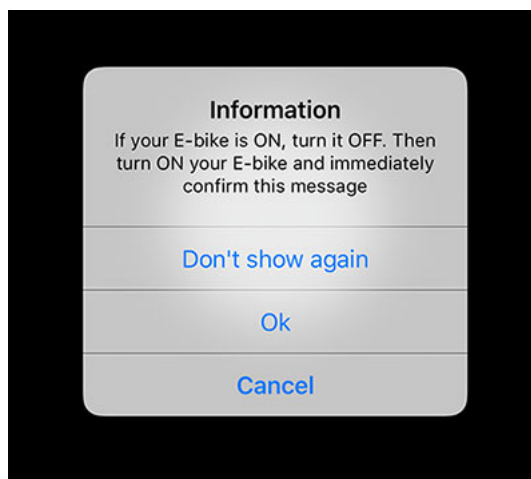
Make sure you have Bluetooth turned ON in your iOS device, then open the **STEPS UNLOCKER** app. Tap the [**CONNECT**] button to connect to your E-Bike.

(If you're having trouble connecting to your E-Bike, see the **FAQ / TROUBLESHOOTING** page for suggestions.)



#### **STEP 2**

If this is the first time using the app, you will see the Information pop-up. Follow the instructions to initiate the connection. Tap [**OK**] or [**DON'T SHOW AGAIN**] to go back to the connect screen.



#### **STEP 3**

Tap [**CONNECT**] again and after a moment, the Bluetooth name of your E-Bike should show up in the **STEPS UNLOCKER** app. Tap on your E-Bike's name to connect.

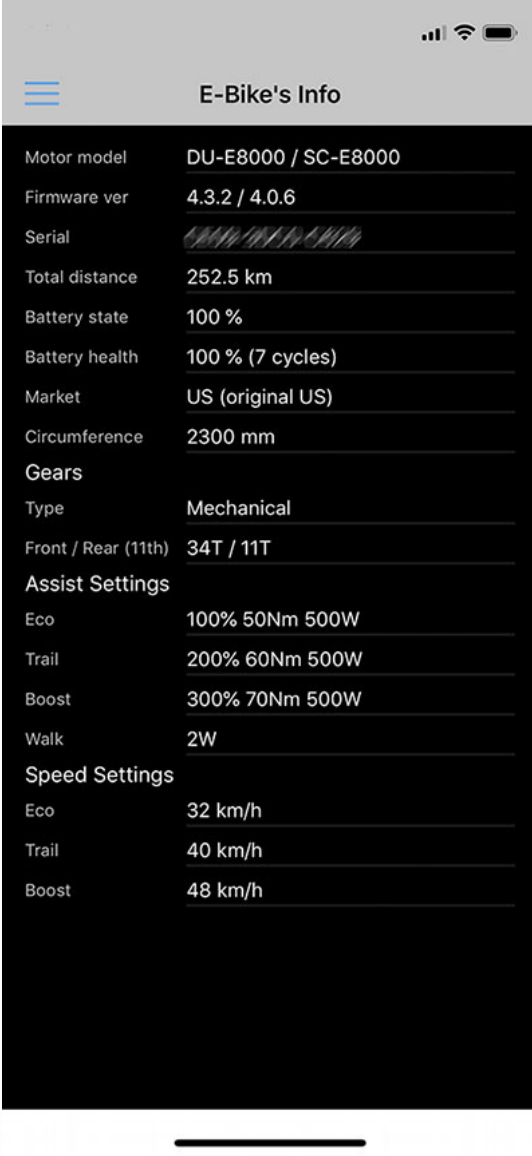
At this point the **STEPS UNLOCKER** app will gather and collect your E-Bike's settings and information. Keep your iOS device awake and within range of your E-Bike and allow the app to finish collecting information.



## IV. E-BIKE'S INFO


After the **STEPS UNLOCKER** app has successfully gathered your E-Bike's settings and information, you will be taken to the **E-BIKE'S INFO** screen. The top half of the screen will show your E-Bike specifications and battery condition at a glance.

- **Motor Model**  
Shows the type of motor and display unit equipped on your E-Bike
- **Firmware Version**  
Shows the current firmware of your motor and display unit
- **Serial Number**  
This is your E-Bike system serial number
- **Total Distance**  
This is the total distance travelled by your E-Bike's motor (odometer)
- **Battery State**  
This is the current charge level of your E-Bike's battery
- **Battery Health**  
This shows your relative battery health and the total number of battery charge cycles
- **Gears (Type, Front/Rear)**  
This shows specified rear mech type and highest mechanical gear ratio



E-Bike's Info	
Motor model	DU-E8000 / SC-E8000
Firmware ver	4.3.2 / 4.0.6
Serial	XXXXXXXXXXXX
Total distance	252.5 km
Battery state	100 %
Battery health	100 % (7 cycles)
Market	US (original US)
Circumference	2300 mm
<b>Gears</b>	
Type	Mechanical
Front / Rear (11th)	34T / 11T
<b>Assist Settings</b>	
Eco	100% 50Nm 500W
Trail	200% 60Nm 500W
Boost	300% 70Nm 500W
Walk	2W
<b>Speed Settings</b>	
Eco	32 km/h
Trail	40 km/h
Boost	48 km/h

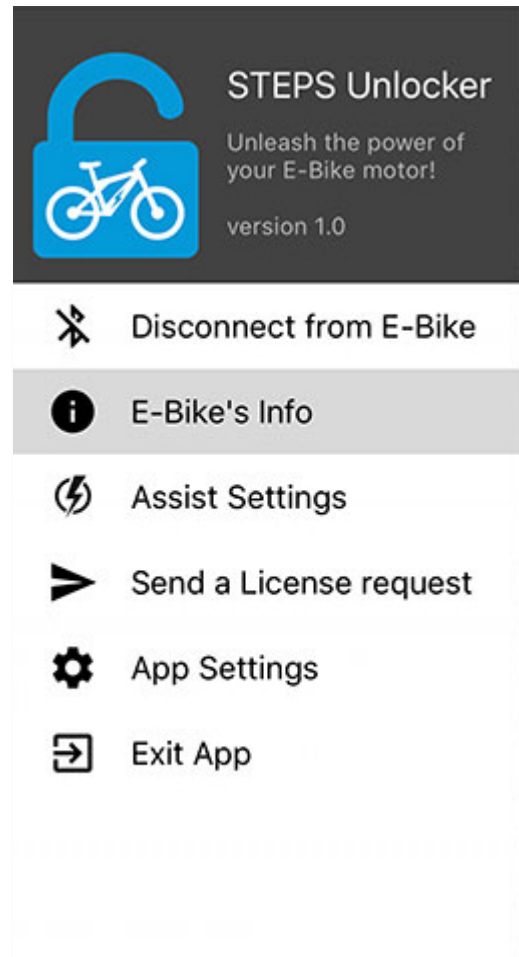
\*Other settings shown (Market, Circumference, Assist, and Speed) will be covered in more detail later in this manual.

The bottom half of the info screen shows tuning settings. To start tuning your E-Bike, tap on the  menu icon at the top-left of the info screen to get to the **MAIN MENU**.

## V. STANDARD FEATURES - MAIN MENU (Unlicensed Version)

If you have an unlicensed version, the **MAIN MENU** of the **STEPS UNLOCKER** app will have the standard options described below. The only tuning option will be **ASSIST SETTINGS**.

- **Disconnect from E-Bike**  
Tap and confirm to close the Bluetooth connection between your iOS device and your E-Bike.
- **E-Bike's Info**  
Takes you back to the E-Bike's Info screen so you can see your E-Bike's current configuration.
- **Assist Settings (See section VI)**  
This is where you can adjust your motor's assist, torque, and maximum power settings.
- **License Request (See section VII)**  
Upgrading to the licensed version of the app will unlock more tuning options for your E-Bike.
- **App Settings (See section VIII)**  
Application-specific settings.
- **Exit App**  
Tap and confirm to exit the **STEPS UNLOCKER** app.

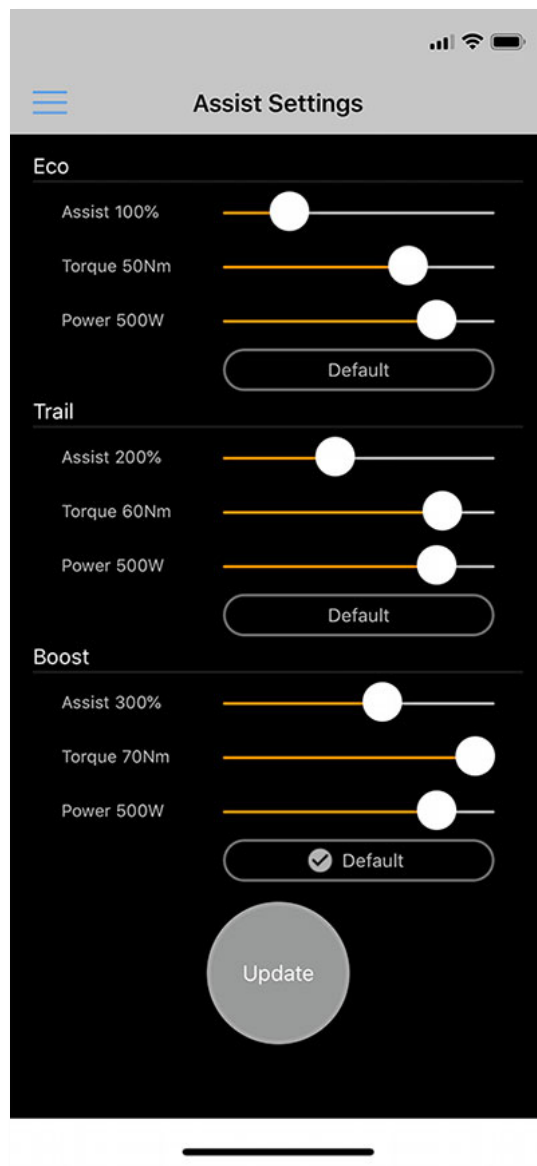


## VI. ASSIST SETTINGS

This is where you can adjust your motor's assist, torque, and maximum power settings for each of the three drive modes (ECO, TRAIL, and BOOST).

- **Assist Percentage**  
This parameter adjusts how much additional assist your E-Bike motor will provide, relative to your pedaling input. For example, setting this to 60% means your E-Bike's motor will add an additional 60% of your input as electric assist (up to maximum torque setting, below).
- **Torque (Maximum, in Nm)**  
This parameter adjusts the maximum amount of torque your E-Bike will produce during electric assist, regardless of your pedaling input.
- **Power (Maximum, in Watts)**  
This parameter limits the maximum amount of total power your E-Bike will produce during electric assist. A higher setting means more total power.

*The "Power" adjustment can be disabled in the "App Settings" page to prevent the user from forcing the E-Bike to exceed the system's safe rated output.*



Use the sliders to modify each parameter for each drive mode, then when you're finished tap **[UPDATE]** to transfer the settings to your E-Bike.

If you want to go back to factory settings, simply tap the **[DEFAULT]** button for each mode, then tap **[UPDATE]** to adjust your drive modes back to the OEM default parameters.

*TIP: After you are done tuning and you've exited the **STEPS UNLOCKER** app, don't forget to power cycle (turn off, then on) your E-Bike before use.*

## VII. SEND A LICENSE REQUEST

To unlock more tuning options for your E-Bike you can request a license. A licensed app will unlock premium tuning options, as described below.

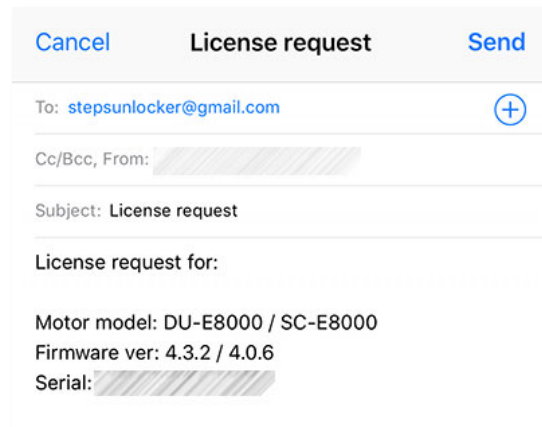
- **Market Settings\*** (See section X)  
Allows you to set the assist maximum speed limit cut-off based on the drive unit's market destination
- **Circumference\*** (See section XI)  
Allows you to specify wheel circumference for accurate speedometer calibration
- **Speed Derestriction\*** (See section XII)  
Allows you to raise the motor assist speed limit cut-off point (also known as "derestricting")



*\*The availability and functionality of the premium tuning options above are dependent on the firmware installed in your motor; to see what firmware versions are compatible, please see the [DRIVE UNIT / IOS DEVICE COMPATIBILITY](#) section for more information.*

### HOW-TO: REQUEST A LICENSE

1. Go to the **Main Menu** and tap "Send A License Request."
2. Your iOS device will open the built-in Mail app and pre-fill your E-Bike information in the Message field.
3. Simply tap **Send** to send the email request. Shortly you should receive a reply with license cost and payment options.



The screenshot shows an email composition interface with the following fields:

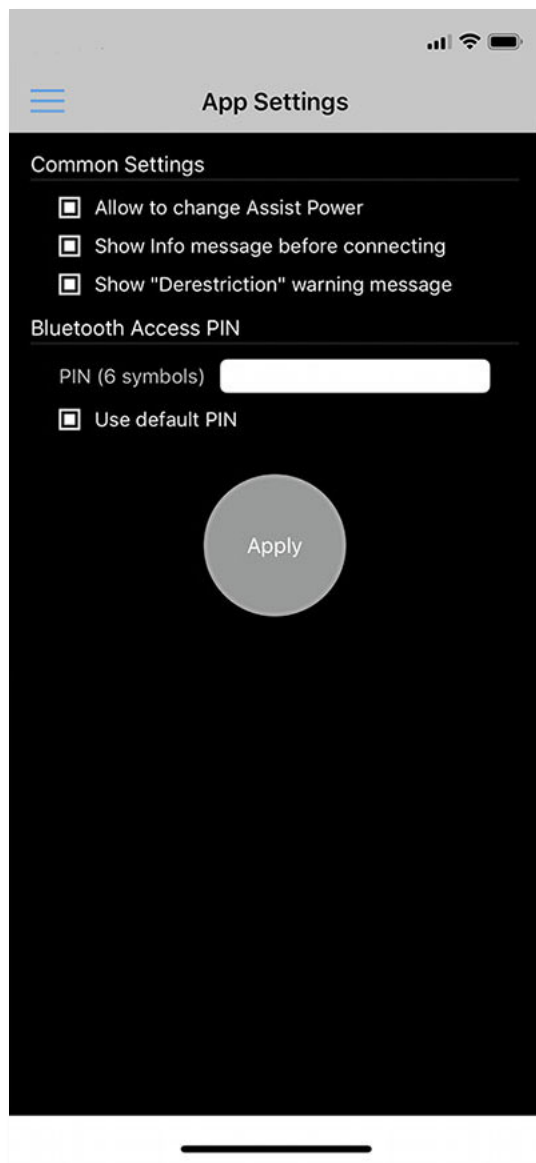
- Cancel** (left), **License request** (center), **Send** (right)
- To:** stepsunlocker@gmail.com (with a plus icon for adding more recipients)
- Cc/Bcc, From:** (blurred)
- Subject:** License request
- License request for:**
  - Motor model: DU-E8000 / SC-E8000
  - Firmware ver: 4.3.2 / 4.0.6
  - Serial: (blurred)



## VIII. APP SETTINGS

Here you can adjust other miscellaneous application settings, as described below.

- **Allow to change Assist Power**  
Enables or disables the “Power” adjustment slider on the **ASSIST SETTINGS** page.
- **Show Info message before connecting**  
Enables or disables the “How to Connect” pop-up information message when you try to connect to your E-Bike
- **Show “Derestriction” warning message**  
Enables or disables the derestriction warning window
- **Bluetooth Access PIN**  
In the event that you are not using the Shimano STEPS default Bluetooth access PIN code (000000) to connect to your E-Bike, enter the PIN here.



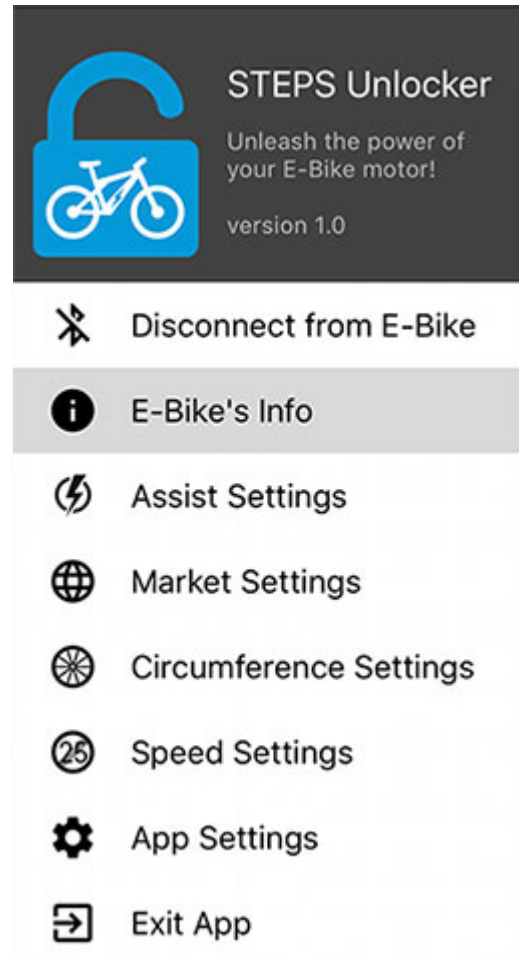
If you make any changes above, don't forget to tap **[APPLY]** to save the changes.

*TIP: After you are done tuning and you've exited the **STEPS UNLOCKER** app, don't forget to power cycle (turn off, then on) your E-Bike before use.*

## IX. PREMIUM FEATURES - MAIN MENU (Licensed Version)

If you have upgraded to the licensed version, the **MAIN MENU** of the **STEPS UNLOCKER** app will have additional tuning options.

- **Market Settings\*** (See section X)  
Allows you to set the assist maximum speed limit cut-off based on the drive unit's market destination
- **Circumference\*** (See section XI)  
Allows you to specify wheel circumference for accurate speedometer calibration
- **Speed Derestriction\*** (See section XII)  
Allows you to raise the motor assist speed limit cut-off point (also known as "derestricting")

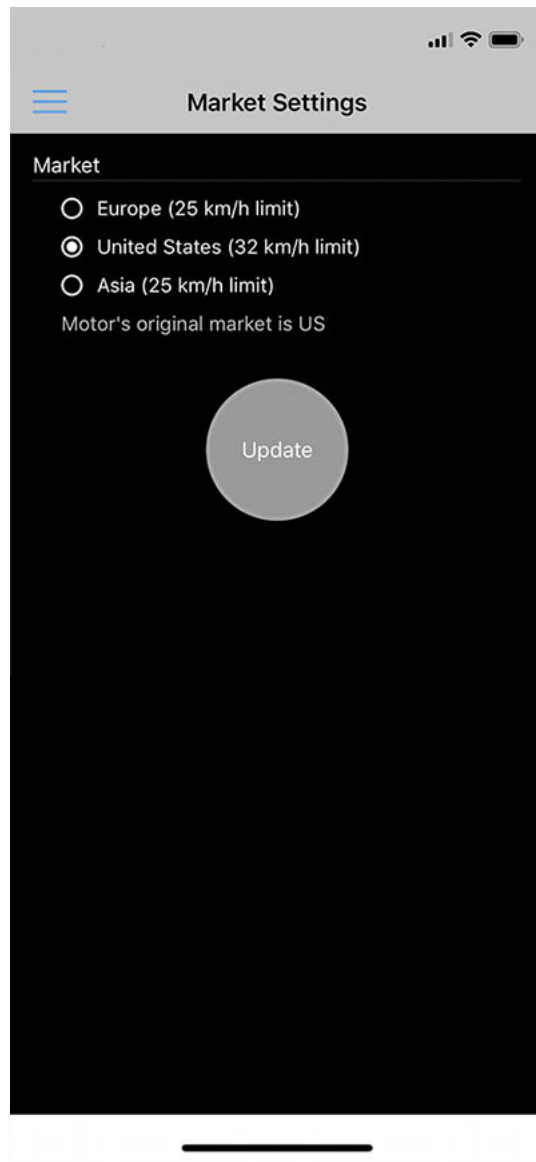


\*The availability and functionality of the premium tuning options above are dependent on the firmware installed in your motor; to see what firmware versions are compatible, please see the **DRIVE UNIT / IOS DEVICE COMPATIBILITY** section for more information.

## X. MARKET SETTINGS

This is where you can select your motor's "market setting" to specify the maximum speed limit cut-off for your E-Bike's assist.

- **Europe (25 km/h limit)**  
Select this to restrict your E-Bike assist to maximum 25 km/h (15.5 mph)
- **United States (32 km/h limit)**  
Select this to restrict your E-Bike assist to maximum 32 km/h (19.9 mph)
- **Asia (25 km/h limit)**  
Select this to restrict your E-Bike assist to maximum 25 km/h (15.5 mph)



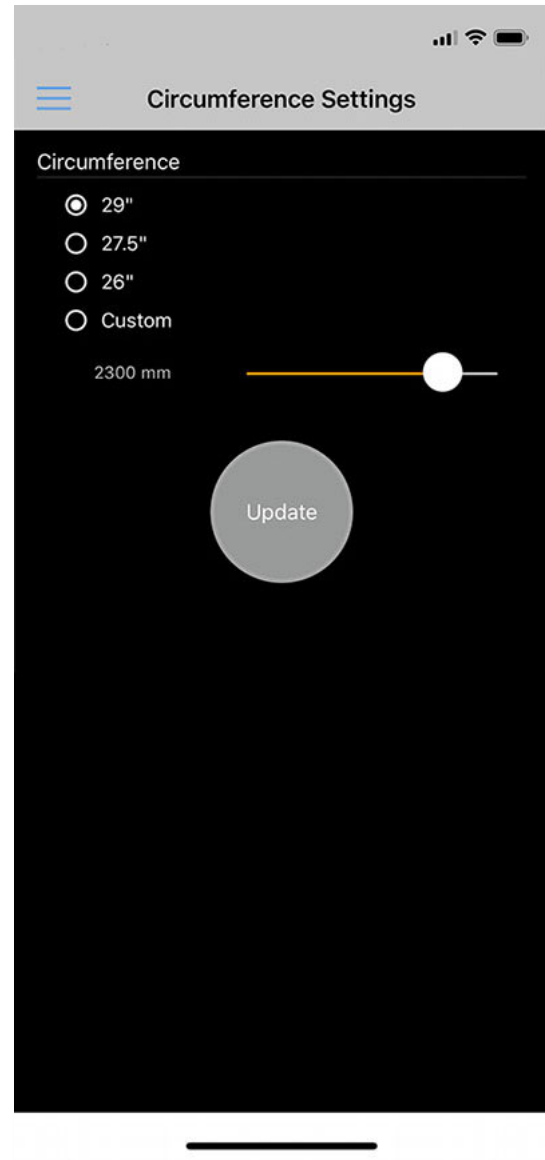
If you make any changes above, don't forget to tap **[UPDATE]** to save the changes.

*TIP: After you are done tuning and you've exited the **STEPS UNLOCKER** app, don't forget to power cycle (turn off, then on) your E-Bike before use.*

## XI. CIRCUMFERENCE SETTINGS

This is where you can select and/or calibrate your E-Bike's wheel size specification for accurate speedometer readings.

- **Select a Preset**  
Select 29", 27.5", or 26" to match the actual wheel size of your E-Bike
- **Custom**  
If you select "Custom", use the slider to set your actual tire circumference as measured in millimeters



If you make any changes above, don't forget to tap **[UPDATE]** to save the changes.

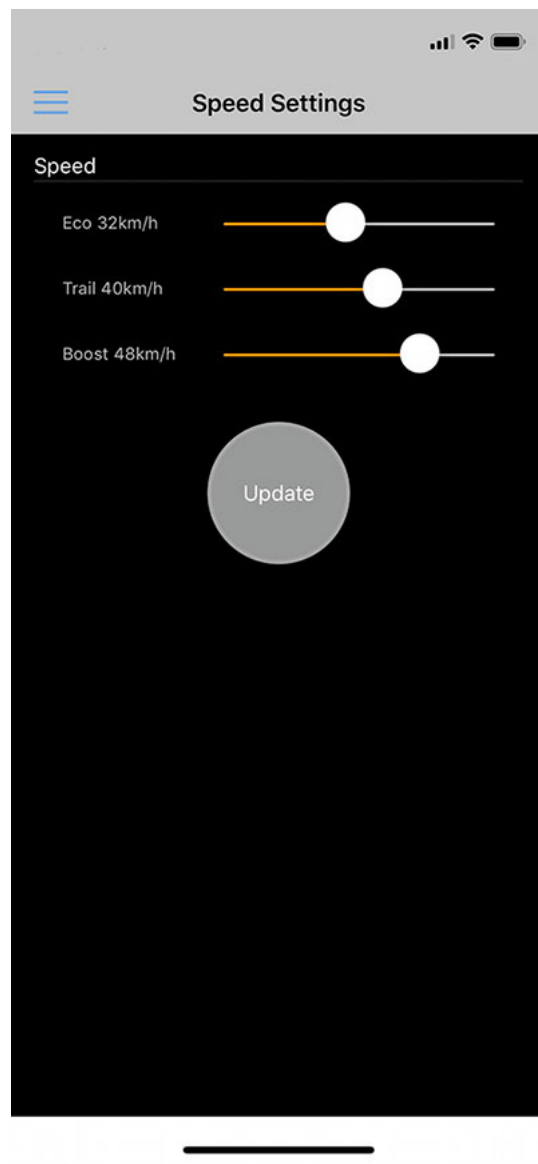
*TIP: After you are done tuning and you've exited the **STEPS UNLOCKER** app, don't forget to power cycle (turn off, then on) your E-Bike before use.*

## XII. SPEED SETTINGS

This is where you can raise or lower the motor assist speed limit cut-off point (also known as “derestricting”) for each of the three drive modes (ECO, TRAIL, and BOOST).

- **Speed**  
When you set a speed, your E-Bike’s motor will continue to provide assist until you reach this speed. Raising the speed means you’ll have more assist beyond the OEM speed limit.

**NOTE: This setting is only available for:**  
- DU-E8000 up to firmware 4.3.2 only.



Use the sliders to modify each parameter for each drive mode, then when you’re finished tap **[UPDATE]** to transfer the settings to your E-Bike.

*TIP: After you are done tuning and you’ve exited the **STEPS UNLOCKER** app, don’t forget to power cycle (turn off, then on) your E-Bike before use.*

## **XIII. FAQ / TROUBLESHOOTING**

### **First time connecting to your E-Bike?**

Before you attempt to use the **STEPS UNLOCKER** app, you must first establish a Bluetooth Low-Energy (BLE) paired connection between your iOS device and your E-Bike. To do this:

1. Go to the App Store on your iOS device and download the **Shimano eTube** app.
2. Launch the app and follow the directions to pair the **Shimano eTube** app to your E-Bike.
3. Check that you can make adjustments to your E-Bike within the **Shimano eTube** app.

Once you have successfully done the above steps, you do not have to do it again. You can close the **Shimano eTube** app and begin using the **STEPS UNLOCKER** app.

### **I did the above, but I'm having trouble connecting STEPS UNLOCKER to my E-Bike?**

If you can connect with the **Shimano eTube** app (see above) but you're having trouble connecting with **STEPS UNLOCKER**, try the following, in order:

1. Turn your E-Bike off.
2. Completely close the **Shimano eTube** app.
3. Completely close the **STEPS UNLOCKER** app.
4. Restart **STEPS UNLOCKER** app.
5. Turn your E-Bike on.
6. Tap "Connect" in the **STEPS UNLOCKER** app.

### **What is the default Bluetooth passkey for my E-Bike?**

The default Bluetooth passkey for Shimano STEPS is "000000".

### **Can I downgrade the E-8000 firmware (for Speed Settings) using my iOS device?**

Yes you can if you have the SC-E8000 display unit; see the **APPENDIX: HOW-TO DOWNGRADE FIRMWARE** section of this instruction manual below for more information.

### **What happens to my settings if I use the Shimano eTube app?**

If you connect to your E-Bike using the **Shimano eTube** app and make any changes in the eTube app, this will override any changes you made using **STEPS UNLOCKER** back to Shimano default ranges, including maximum assist, torque, and any speed limit modifications.

Thus, to take advantage of all the capabilities of **STEPS UNLOCKER**, we suggest that you **do not use the Shimano eTube app** concurrently and just use the **STEPS UNLOCKER** app for all tuning.

## XIV. APPENDIX: HOW-TO DOWNGRADE E-8000 FIRMWARE

### ***FIRMWARE DOWNGRADE IS DONE AT YOUR OWN RISK!***

*DOWNGRADING FIRMWARE MAY VOID THE MANUFACTURER'S WARRANTY OF YOUR ELECTRIC BIKE AND/OR CAUSE IRREVERSIBLE DAMAGE TO YOUR E-BIKE, DRIVE UNIT (MOTOR), BATTERY, AND RELATED COMPONENTS.*



### **THIS IS AN ADVANCED PROCEDURE – YOU HAVE BEEN WARNED!**

To downgrade your E-8000 STEPS system firmware down to 4.3.2 using your iOS device, you need the following items:

- Your iOS device with the the Shimano **E-TUBE** app.
- A current Apple Mac with USB cable to connect to your iOS device.
- The free utility **iFunbox**, [click HERE to download](#).
- E-8000 firmware version 4.3.2, [click HERE to download](#).
- Your E-Bike must be equipped with the Shimano SC-E8000 Display unit.

**\*\* Downgrade not possible with other display units at this time \*\***

1. Download and extract the firmware archive to your Mac.
2. Connect your iOS device to the Mac.
3. Using iFunbox, browse to this directory on your iOS device:

*App File Sharing/E-TUBE/FW/*

4. Copy extracted .dat firmware files from the Mac to this folder on your iOS device.
5. Start the Shimano E-TUBE app and connect to your E-Bike.
6. Once connected, the E-TUBE app will tell you that there is a “new” firmware update available, version “5.x.x” (these are fake numbers, just for downgrade).
7. Hit **[ACCEPT]** to allow E-Tube app to install the downgraded 4.3.2 firmware.
8. When the E-Tube app is finished loading the downgraded firmware, turn off your E-Bike.
9. Restart your E-Bike and you’re done with the downgrade.

OPTIONAL: Delete files that you copied in step 3-4 from the iOS device.

## **XV. LICENSE AGREEMENT / RELEASE OF LIABILITY**

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## **XVI. TRADEMARK LEGAL NOTICE**

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