



GREENPED

TUNING CHIP FOR GIANT

YAMAHA E-BIKES

MANUAL / VERSION 1 / 30.9.2016

IMPORTANT HINTS

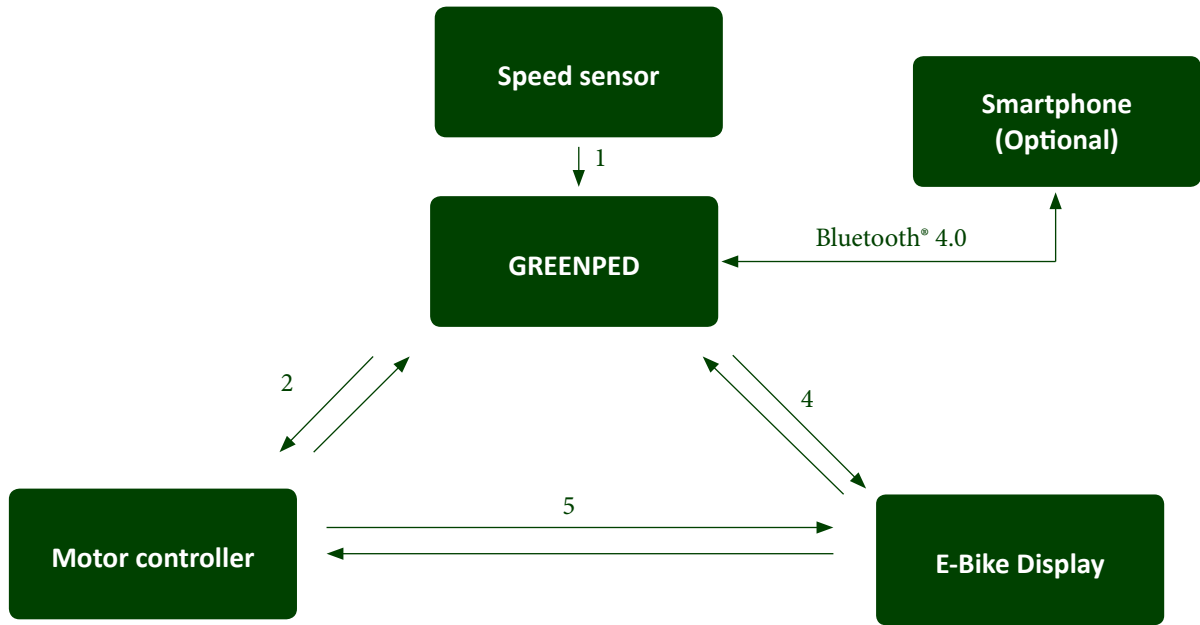
The use of the GREENPED module is only allowed in private, gated areas, for example for sports or marketing purposes. It manipulates the maximum speed settings of your Pedelec or S-Pedelec, set by the manufacturer, which is prohibited by the road/streets' laws. The GREENPED module manipulates the speed sensor signal and therefore the total distance display your E-Bike. The use of the GREENPED module falls under own risk. No liability is assumed for any present and future damage caused to property and / or persons by the installation / removal and / or use. The guarantee of the E-Bike is completely extinguished by the use or application of the GREENPED, because the installation or use represents a modification or manipulation of the E-Bikes (Pedelec or S-pedelec). If your E-Bike has an operating license, it will extinguish. Always drive carefully, use protective clothing such as helmets or protectors and do not bring yourself and others in danger. Talk beforehand with your insurance company, so that all areas of your actions are protected. Please note further that other statutory provisions apply in other countries. This is especially true when you are driving with the E-Bike in your holidays. Please inform yourself beforehand about possible restrictions and keep principles in mind.

GreenPed Firmware Version	iPhone App Version	Android App Version
1.0: Compatible with Display RideControl SPORT	1.2: Compatible with Firmware Version 1.0	1.2: Compatible with Firmware Version 1.0

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1. MODE OF OPERATION



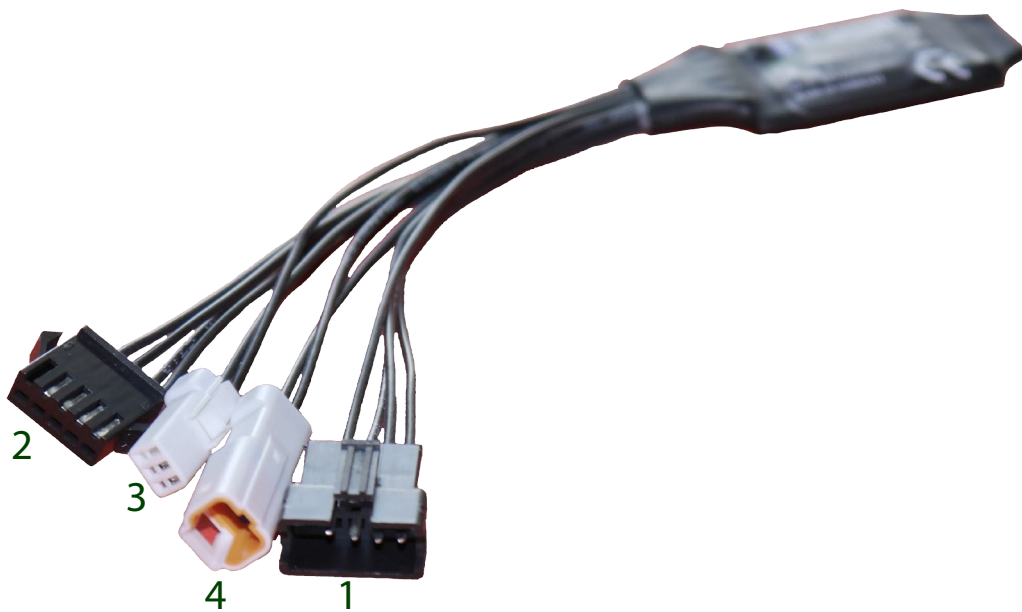
The GREENPED module is interposed between display/speedsensor and the motor. It measures the actual speed (1) and generates a fake speed signal (2) for the motor controller. After launching the E-Bike the GREENPED module cuts the communication between motor and E-Bike display (5) to send its own data to the display (4).

The manufacturers motor support limitation at 25 km/h or 45 km/h is removed by generating a lower fake speed (2). Therefore the distance, total distance, speed and average speed values, calculated by the motor controller, are wrong. The GREENPED calculates the actual data and sends it to the E-Bikes display (4).

2. GREENPED module

GREENPED MODULE

After plugging all of the connectors, the module is placed inside the frame of the E-Bike.



Technical specifications	
Dimensions	4,5x2,5x0,8cm
Cable length	11cm
Power dissipation	50mW
Radio range	10m
Radiocommunication	Bluetooth® 4.0
Splashproof	Ja

Connector connected with...	
1	the display
2	the motor display jack
3	the speed sensor
4	the speed sensor motor jack

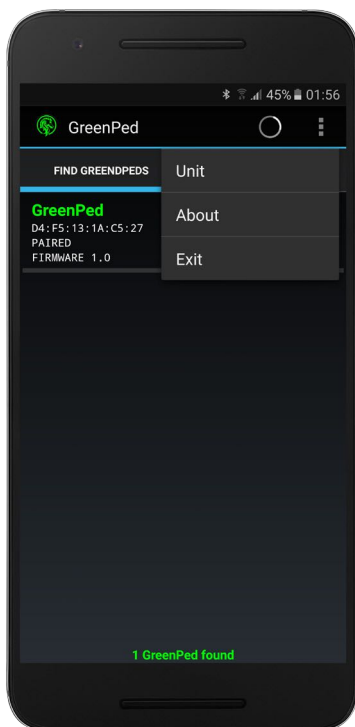
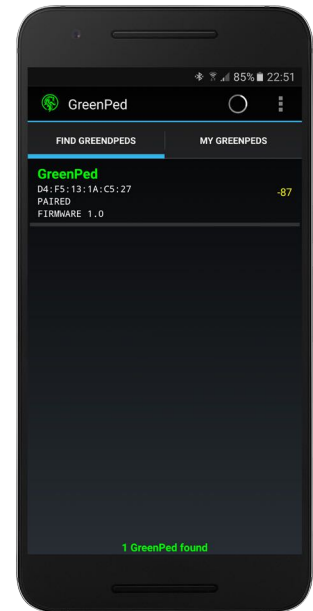
3. GREENPED APP FOR ANDROID

The application requires Android version 5.1 or higher.

3.1 Home screen - SEARCH

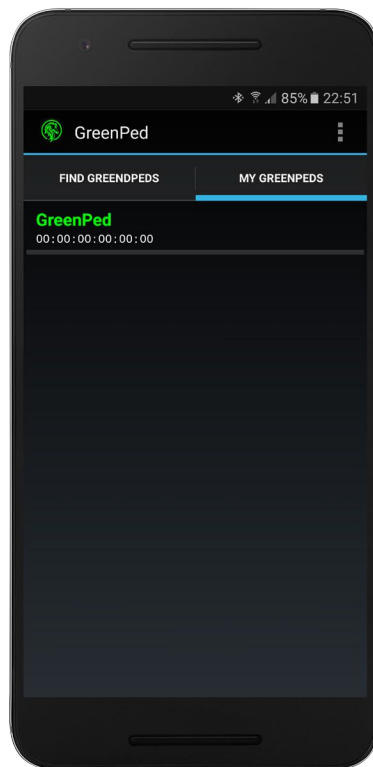
The app will search for GREENPEDs right after its launch. If a module is found, name, unique ID, firmware version and signal strength are shown on the display. Furthermore, the application shows, if module and smartphone are paired. If there is no signal over 3 seconds, the module are „greyed out“ and can no longer be selected.

If a smartphone connects to a module the first time, a PIN code has to be entered. The default PIN is „000000“.



Home screen – OPTIONS

A tap on “Unit” opens a menu where the speed measurement unit can be selected from km/h and mph. A tap on “About” shows the current version of the app.



Home screen - MY GREENPEDS

The database saves all data of the GREENPEDs that were connected to the app, so the data can be viewed without being connected to a specific GREENPED. The data can not be changed by the user. The list in this view shows all GREENPEDs in the database. The app adds GREENPEDs that were never connected to the app and updates the data of GREENPEDs that were already connected before. A tap on a GREENPED opens the main screen, that shows the saved data. If the app starts the first time, a demo GREENPED with the address „00:00:00:00:00:00“ is added to the database. With a long tap a GREENPED can be removed from the list.

3.2 MAIN SCREEN - SPEEDOMETER

As soon as the app is connected to the GREENPED, the GREENPED data is read by the app. After all the data is read, the controls are activated and settings can be changed.

Important

After installing the GREENPED, the E-Bike total distance has to be entered. That can be done with a **long** tap on the total distance label.

Controls

Max speed: The actual speed calculated with user set wheel size.

Average speed: The actual average speed

Duration: Riding time in hours and minutes.

Distance: Actual distance.

Total distance: Actual total distance.

Reset

Max speed, average speed, duration and distance can be reset by a **long** tap on the specific label.

A **long** tap on the speed label resets max speed, average speed, duration, distance, max PWR and average PWR.

SPORT: Current motor support mode of the E-Bike

Always ON/OFF: Shows if the tuning is activated automatically after turning on the E-Bike.

Temporary ON/OFF: Shows if the tuning is currently activated. Can only be activated in the app, if tuning activation with the E-Bike hand control is inactive.

Cycles: Battery loss in percent summed up and divided by 100, can be resetted with a long tap.

Temp.: Temperature of the module.

Battery: Battery level in %

PWR: Current motor power in %

ØPWR: Average motor power in %

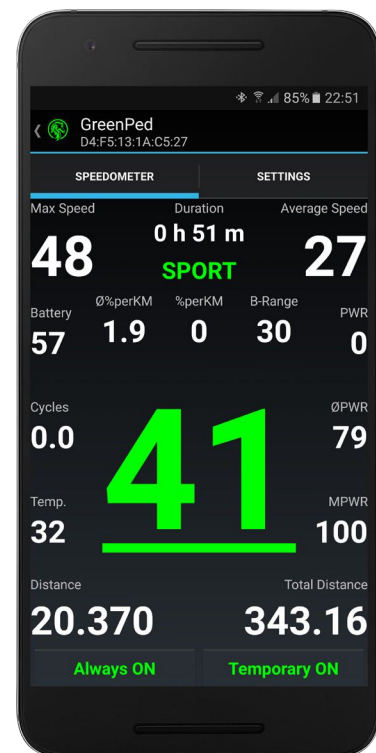
MPWR: Maximum motor power in %

%perKM: Battery level loss in % per km

Ø%perKM: Average battery level loss in % per km (average of last 5 km)

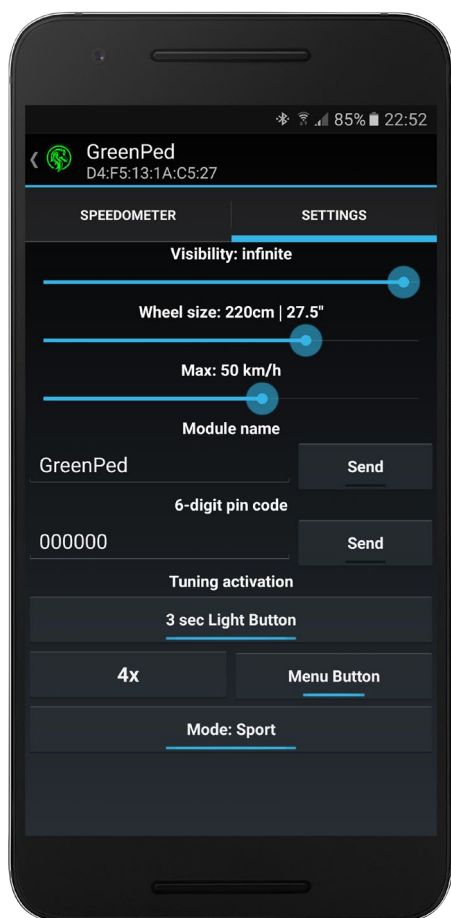
G-Range: GREENPED calculated range (battery level/ Ø%perKM)

The color of the the speed label changes from green to red, when the E-Bike light is turned on.



The underlined value is the current menu status of the E-Bike.

3.3 MAIN SCREEN - SETTINGS



Visibility: Can be set to values between 0 and 240 seconds or „infinite“. If visibility is set to 0, the app will no longer be able to find the module after disconnecting or restarting the E-Bike. Can be set to infinite by pushing the headlight button of the E-Bike 5 times within 8 seconds.

Wheel size: Speedometer calculation is based on this value.

Max: Sets the maximum motor supported E-Bike speed (15-75 km/h).

Module name: Advertising name with maximum 9 characters.

PIN: : Consists of exactly 6 digits. If too few digits are entered, the value will be filled with zeros. (1 = 000001; 345 = 000345)

Tuning activation

The tuning can be activated by pressing a combination of the light and menu button, and the current motor support mode.

The headlight button has to be pressed 3 seconds.

The number of menu button pressings has to be reached within 4 seconds.

If one of the buttons is active, tuning activation with the "Temporary" button in the app is not possible.

4. GREENPED APP FOR IPHONE/IPAD

The iPhone/iPad app requires iOS 10 or higher.

4.1 Home screen

The app will search for GREENPEDs right after its launch. If a module is found, name, unique ID, firmware version and signal strength are shown on the display. If there is no signal over 3 seconds, the module is deleted from the list.

A tap on the GREENPED connects the app. If the device connects the first time the PIN has to be entered in a prompt.

The default PIN is "000000".



4.2 Info screen

A tap on the + symbol in the top left corner opens the Info screen. A list with all already connected GREENPED is shown. With a tap on the arrow the speedometer screen is opened and the last received data of the specific GREENPED is shown. A demo GREENPED is generated if the app starts the first time. You can delete any GREENPED by swiping from left to right on the cell and tapping "delete". The „About“ option shows the current app version.

4.3 SPEEDOMETER - SCREEN

As soon as app and GREENPED are connected, the application reads out the data of the module. After all the data is read, the controls are being activated and you can change the settings.

Important

After installing the GREENPED, the E-Bike total distance has to be entered. That can be done with a **long** tap on the total distance label.

Controls

Max speed: The actual speed calculated with user set wheel size.

Average speed: The actual average speed

Duration: Riding time in hours and minutes.

Distance: Actual distance.

Total distance: Actual total distance.

Reset

Max speed, average speed, duration and distance can be reset by a **long** tap on the specific label.

A **long** tap on the speed label resets max speed, average speed, duration, distance, max PWR and average PWR.

NORMAL: Current mo-

tor support mode of the E-Bike

Always ON/OFF: Shows if the tuning is activated automatically after turning on the E-Bike.

Temporary ON/OFF: Shows if the tuning is currently activated. Can only be activated in the app if tuning activation with the E-Bike hand control is inactive.

Cycles: Battery loss in percent is summed up and divided by 100, can be resetted with a long tap.

Temp.: Temperature of the module.

Battery: Battery level in %

PWR: Current motor power in %

ØPWR: Average motor power in %

MPWR: Maximum motor power in %

%perKM: Battery level loss in % per km

Ø%perKM: Average battery level loss in % per km (average of last 5 km)

G-Range: GREENPED calculated range (battery level/ Ø%perKM)



The color of the the speedometer changes from green to red, when the light is turned on.

Visibility: Can be set to values between 0 and 240 seconds or „infinite“. If visibility is set to 0, the app will no longer be able to find the module after disconnecting or restarting the E-Bike.

Can be set to infinite by pressing the E-Bike headlight button 5 times within 8 seconds.

Wheel size: Speedometer calculation is based on this value.

Max: Sets the maximum motor supported E-Bike speed (15-75 km/h).

Module name: Advertising name with maximum 9 characters.

PIN: : Consists of exactly 6 digits. If too few digits are entered, the value will be filled with zeros. (1 = 000001; 345 = 000345)

Tuning activation

The tuning can be activated by pressing a combination of light and menu button, and the current motor support mode.

The headlight button has to be pressed 3 seconds.

The number of menu button pressings has to be reached within 4 seconds.

If one of the buttons is active, tuning activation with the “Temporary” button in the app is not possible.



5. TIPS AND TRICKS

- The app will automatically connect to the last connected module. By tapping on „Back“ you can deactivate the automatic connecting.
- If the connection fails, the app will automatically try to reconnect to the module. The screen will show „Reconnect...“
- The GREENPED can be reset to factory settings by pressing the E-Bike light button 10 times within 8 seconds.
- The visibility can be set to infinite by tapping the E-Bike light button 5 times within 8 seconds (if, for example, the visibility was set to 0 seconds before)
- The speedometer data is only saved permanently, if the E-Bike speed is lower than 15 km/h. If the E-Bike is turned off at a speed, that is higher than 15 km/h, the current speedometer data is not saved permanently.
- The iOS app disconnects, if the app is running in the background. The Android app remains connected.
- Data is sent from GREENPED to app 3 times a second.
- The GREENPED can be named after a smartphone, for example “Samsung”
- The GREENPED can not be found, if visibility is set to 0 seconds.
- Speedometer data, that is reset in the smartphone app, will not be reset in the E-Bike display.
- A hand control reset resets E-Bike and smartphone speedometer data.
- The same GREENPED can have different UUIDs on different Apple devices. Also the Android and iOS UUIDs are not the same.

Company Information

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