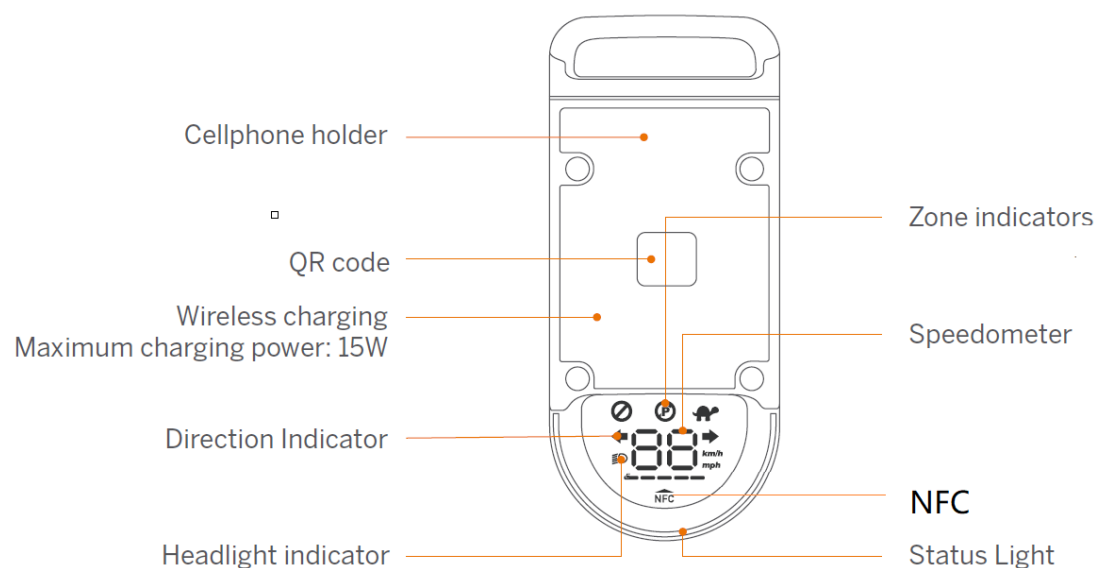


User Manual

Product Overview



Product Introduction: This product is installed in the dashboard as part of the electric assisted kickscooter, See the above picture.

When the user is actually using the kickscooter, this product can be used for swiping the card and charging the mobile phone, and when using time, the user will not touch the product and should keep a certain distance, at least 20cm.

I. More introduction

This product offers a configurable charging mode that supports 15W. 15W power supply meets WPC Qi standard RX. Supports foreign body detection, if there is a foreign body, as a metal conductive material, between the transmitter and the receiver, the transmitter is off. Place the mobile phone in the wireless charging tray, charge the mobile phone, and stop charging after removing the mobile phone. Magnetic card into the NFC induction area when the card operation!

II. Product parameters

Name: Onboard 15W Wireless Charging
Model: W015CN - 03
Color: black
Input voltage: DC 36V
Input current: 2A(Max)
Operating Temperature: 14–104°F (-10–40°C)
Storage Temperature: -4–122°F (-20–50°C)

III. characteristics

- Meet the WPC QI standard
- Support foreign body detection
- RoHS compliance

IV. FUNCTION SPECIFICATIONS

Wireless Charging	
Rated power	15W
Frequency band(kHz)	120~130
Modulation	ASK
Antenna type	Coil Antenna

NFC	
Frequency band(MHz)	13.56MHz
Modulation	ASK
Antenna type	Coil Antenna

The wireless charging input terminal VCC is connected to the 18V direct current. After the voltage is lowered by the BUCK circuit constituted by MOS tube Q1(RU30J30) and L3, it works in the full bridge circuit constituted by Q2(RU30J30) and Q3(RU30J30).The IC(CPS8100) sends a drive signal to control the Q2(RU30J30) upper and Q3(RU30J30) lower tubes and Q2(RU30J30) lower tubes and Q3(RU30J30) upper tubes to conduct alternately, so that an alternating voltage is obtained on the coil!Then through the electromagnetic induction to the receiving coil to get the voltage!The IC(CPS8100) detects current through resistor R9!

NFC Introduction

The FM17550 is a highly integrated Transceiver IC for Contactless communication at 13.56MHz. The FM17550 Transceiver IC support Reader/Writer mode supporting ISO/IEC 14443A/B protocol.

The FM17550's internal transmitter part is able to drive a reader/writer antenna designed to communicate with ISO/IEC14443A/B cards and transponders without additional active circuitry. The receiver part provides a robust and efficient implementation of a demodulation and decoding circuitry for signals from ISO/IEC14443A/B compatible cards and transponders. The digital part handles the complete ISO/IEC 14443A/B framing and error detection. The FM17550 supports ISO/IEC14443A cards and transponders with transfer speeds from 106kbit/s to 424kbit/s in both directions. And can supports all layers of the ISO/IEC14443B reader/writer communication scheme, and provided that stardardized protocols, e.g. like ISO/IEC 14443-4 and/or ISO/IEC 14443B anticollision are correctly implemented.

Features

- **Supports ISO/IEC 14443A/M1 reader/writer mode**
- **Supports ISO/IEC 14443B reader/writer mode**
- **ISO/IEC14443A 106kbit/s and higher transfer speed at 212kbit/s and 424kbit/s**
- **Typical operating distance in reader/writer mode for communication to a ISO/IEC 14443A card up to 50mm (depending on the antenna size and tuning)**
- **Supports host interfaces**
 - ✧ SPI interface up to 10Mbit/s
 - ✧ I2C interface up to 400kbit/s in Fast Mode , and up to 3.4Mbit/s in High Speed Mode
 - ✧ Serial UART in different transfer speeds up to 1.2Mkbit/s, framing according to the RS232 interface with voltage levels according pad voltage supply
- **Comfortable 64 byte send and receive FIFO-buffer**
- **Flexible interrupt modes**
- **Multiple low-power modes**
 - ✧ Soft power down mode
 - ✧ Hard power down mode
 - ✧ Deep power down mode (typical 1uA)
- **Low Power external Card Detect (LPCD) at Reader/writer mode**
- **Programmable timer**
- **Internal oscillator to connect 27.12MHz quartz**
- **Wide voltage supply: 2.2V ~ 3.6V**
- **Dedicated transmitter voltage supply up to 5.5V**
- **Integrated CRC Co-processor**
- **Programmable I/O pins**

IMPORTANT SAFETY INSTRUCTIONS
SAVE THESE INSTRUCTIONS

WARNING

When using this product, basic precautions should always be followed, including the following:

- Read all the instructions before using the product.
- To reduce the risk of injury, close supervision is necessary when the product is used near children.
- DO NOT put fingers or hands into the product.
- DO NOT use this product if the flexible power cord or output cable is frayed, has broken insulation, or any other signs of damage.

Meaning of Symbols and Marks



This product conforms to the applicable EC Directives.



WARNING-It is not permitted to dispose of this product as normal household waste. Ensure that the product is recycled in accordance with local legal requirements.

FCC statement

Body worn operation

This equipment complies with relevant RF radiation exposure limits set forth for a public/uncontrolled environment. This equipment should be installed and/or operated with a minimum distance 20cm between the radiator and your body.

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

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

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Caution: Any changes or modifications not expressly approved by An Energy Technology Co., Ltd for compliance could void the user's authority to operate this equipment.

IC Statement

This device complies with CAN ICES-003(B) / NMB-003(B).

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

Cet appareil est conforme à la norme RSS d'Industrie Canada. Son fonctionnement est sujet aux deux conditions suivantes:

- (1) le dispositif ne doit pas produire de brouillage préjudiciable, et
- (2) le dispositif doit accepter tout brouillage reçu, y compris un brouillage susceptible de provoquer un fonctionnement indésirable.

Body worn operation

This equipment complies with relevant RF radiation exposure limits set forth for a public/uncontrolled environment. This equipment should be installed and/or operated with a minimum distance 10cm between the radiator and your body.

Déclaration d'exposition aux radiations:

Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé.

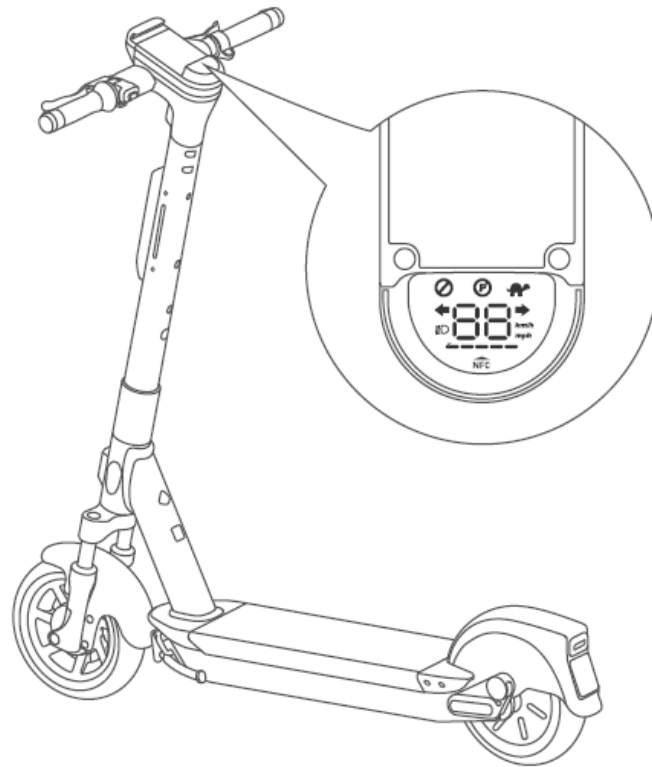
Cet équipement doit être installé et utilisé avec un minimum de 10cm de distance entre la source de rayonnement et votre corps.

FCC ID: 2AZX2-MR000001

IC: 27297-AN00000002

The risk solution and full test of the EU declaration of conformity are available at the following internet address: <https://b2b.segway.com/>

Installation



As shown in the figure above, fix the Onboard 15W Wireless Charging on the top of the scooter with screws and connect the corresponding wiring harness.

Power on the KickScooter and check the battery level and other display shown on the equipment.