User Manual

IoT Device

Model: D700

1.Introduction

The IoT device is designed for the shared scooter and it could communicate with the cloud server via cellular communication.

Our IoT device is highlighted with the following features. First of all, you could fully control the scooter, such as lock/unlock, power on /off, turn on/off the throttle, and switch between different riding modes, etc. Secondly, it could help monitor the state of the scooter through its communications with the server, such as sending alarms, firmware version information, battery temperatures, etc. In addition to that, it also has the auxiliary features like prompt voice and it has the superior waterproof design.

This user manual provides an overview of the basic functions of the IoT device. Please read it carefully to ensure your safe and proper usage of the IoT device.

The pictures showed in this user manual are for reference only.

2.Basic Parameters

Item	Specification
Cloud Communications	Connected to the server through TCP socket
Bands Support (U.S.-Band)	B5/B7/B41
Wifi Band	2.4G/5G
Connectivity/BLE	BLE5.2 (2402-2480MHz) (Auxiliary unlocking)
GNSS	GPS+GLONASS/GPS+BDS
Antenna Efficiency	Celluar>40%; GPS>70%
Unlocking Time	1-3s
Geolocation Precision	≦15m (open ground, sunny unobstructed)
Geolocation Time	Hard/Cold Boot <35s; Soft/Warm Boot<1s (open field)

2.Basic Parameters

Item	Specification
Voice Prompts	Factory Defaults; Volume:70-90dB
Motion Detection	Triaxial Accelerometer
Operating Temperature	-20℃ ~ 60℃
Storage Temperature	-40℃ ~ 70℃
Operating Humidity	93%RH
IP Rating	IP67
Unlocked state current	<40mA (36VDC average current)
Lock state (standby) current	<5mA (36VDC average current)
Battery&Communication Interfaces	5pin:12-48V,GND,TX (TTL),RX (TTL), Power_control_wire
Battery Supply Voltage	12-48VDC
Built-in Lithium Battery	3.7V/1500mAH（adaptation）
Backup Battery Life	>2h
Dimensions	205 X 54.8 X 67mm
Housing Material	PC

3.Main Features

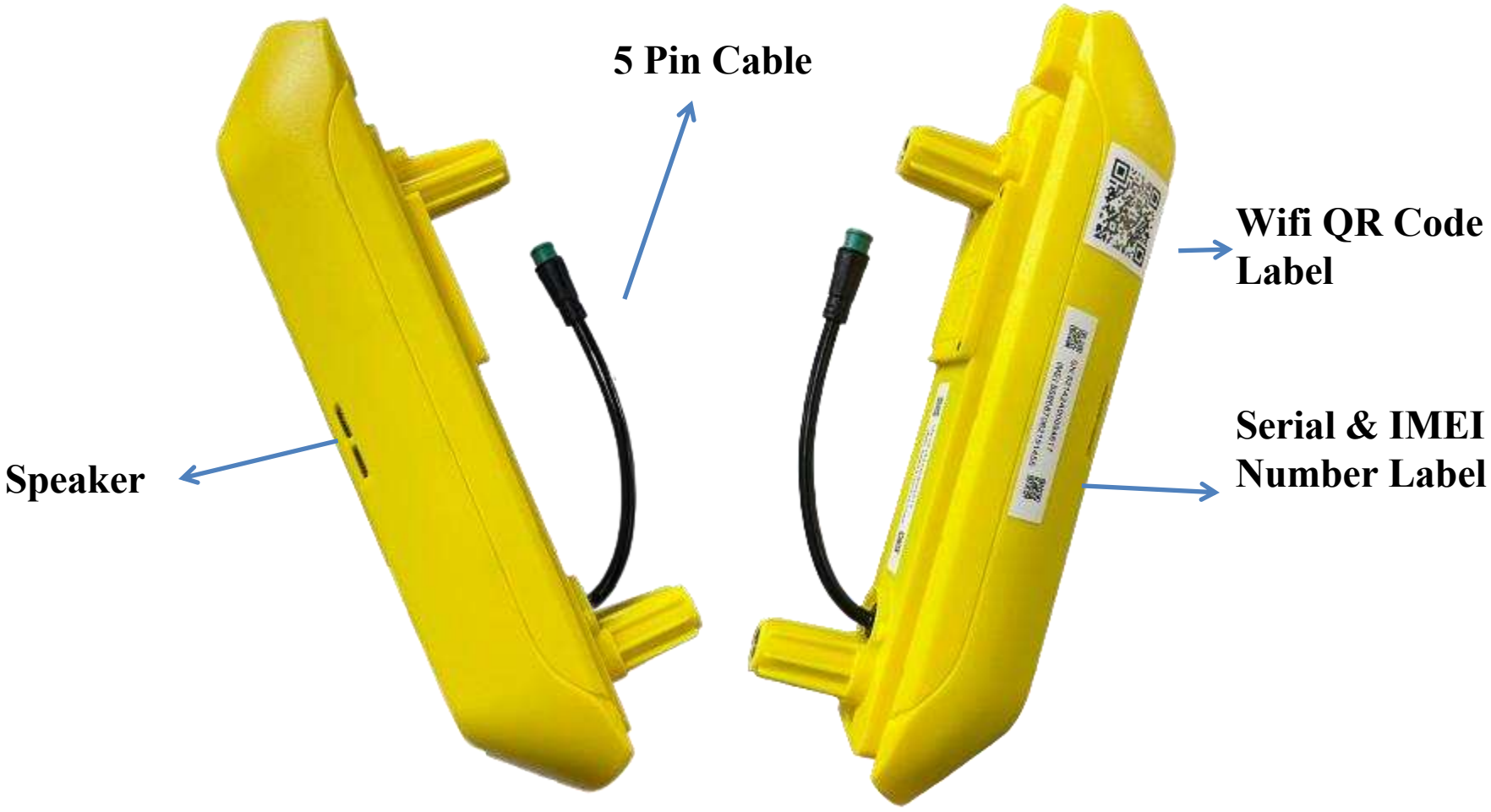
Main Features(Firmware Version: 1.7.5) *This will be continuously updated
Lock&unlock, power on/off through both 4G and BLE5.2.
Two modes to locate: Single/Continuous
Adjustable sensitivity of accelerometer
User-defined communication interval between server and IoT
Headlight switch: manual or programmable
Enable/Disable Riding Modes Switch
Riding modes switch:manually or programmable
Enable/Disable Throttle, Cruise control, Front&rear lights flash
Searching scooter module
User-defined Max. Speed of different Riding Modes
Read and report scooter information remotely (speed, estimated battery life, Riding Modes. distance travelled and estimated remaining mileage, temperatures of scooter motor and mainboard, etc.)
Monitor charging state
Play voice prompts
IoT device dismantled alarm
Low batter alarm
Illegal scooter movements or shaking alarm
Scooter fallen down alert (report to server, no alarm)
Scooter fault alert
Remote firmware upgrades of scooters and IoT devices

4.Diagram

a. IoT Device*1

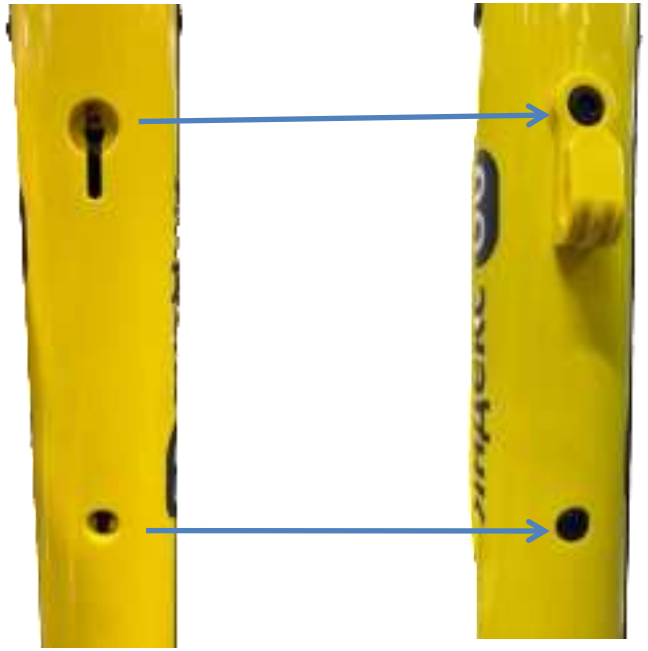
a

5.Main Body Diagram



6. Assembling

a. The IoT device: First, connect the 5 pin cable of the scooter with that of the IoT device. Second, mount the 2 screws(M4*12) to attach the IoT device to the stem.



7.Notes

1. Do not use the IoT device beyond the operating temperature range: -20℃ ~ 60℃.
2. Do not dismantle the IoT device to change SIM card inside because this will weaken its waterproof performance.
3. Keep the IMEI code label and Serial Number code label adhered on the IoT device intact.
4. Fixer may vary depending on the model of the scooter.
5. Environment surroundings, terrain and other factors may affect the signal quality of GPS and cellular communication.
6. The IoT device is a highly customized product. SIM cards will be installed into the IoT device in advance and t he IP address of the server to which the IoT device will be connected will be written to the firmware. Please con firm this customization info with the manufacturer before your purchase.

8. Regulatory Info

FCC Regulatory Compliance

Note: 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.

Caution: Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this equipment.

RF Exposure Compliance

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

8. Regulatory Info

Supplier's Declaration of Conformity

Model No.: D700

Responsible Party

SHENZHEN AONI ELECTRONIC CO.LTD
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FCC Compliance Statement

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.