NAVIECARE

LoRa Smart ID card

E308 User Manual

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NAVIECARE LIMITED

Document Revision Record

Version	Time	Description	Remark
V1.0.0	2019-03-28	Preliminary version	Ming

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1. Description

E308 is an intelligent GPS tracker based on LORAWAN network transmission. It supports GPS and Beidou dual-mode outdoor positioning and Bluetooth 4.0 indoor positioning. The positioning accuracy is 10 meters outdoor and 3~5 meters indoor. Through the intelligent tracker , beacons , LoRaWAN gateway and platform , it can realize the real-time positioning of staff and visitors.Help enterprises and institutions achieve personnel management and safe production.

Application

- ✓ Construction
- ✓ Factory
- ✓ Hotel

- ✓ Police system
- ✓ Property
- ✓ Petrochemical

2. Features

- ✓ Staff real-time positioning
- ✓ Smart attendance
- ✓ Voice broadcast
- ✓ SOS in emergency
- ✓ Intelligent warning of dangerous areas
- ✓ Geofence: Automatic alarm when the setting range is exceeded
- ✓ External personnel management

3. Interface

3.1 LED indicator

Table2.1 LED indicator

No	Status	Description	Remark
1	RGB Red LED indicator	Lights up for 5 seconds after turn on, accompanied by a startup ringtone	
		Lights up for 5 seconds when turned off, accompanied by a shutdown ringtone	
		Slowly flash when charging, 5S once	
		When fully charged, Red LED stop flash	
		Low battery (less than 30% power), continuous flash, 3S once	
2	RGB Green LED indicator	When searching for a satellite, it lights up for 500ms, and turns off for 3S and then lights up again	
		After the satellite is positioned, it will be extinguished after 5S	
		After the ibeacon is positioned,flashes every 5s	
3	RGB Blue LED indicator	Submit a network request, flash when sending a request, 2S once	
		After joining the network successfully, it will go out after 5S	
		Data transmission, fast flashing 3 times, 500ms each time	
		If failed to join the network, it flashes 4 times in succession, 500ms each time.	
4	Blue indicator(close to buttons)	After pressing the POWER button, the light is on, 1S once	
		After pressing the SOS button, the light is on, 1S once	
		Received downlink message from platform , the SOS light flashes 3S once when is not read	
		After pressing M key, the light is on, 1S once	
		After inspection successful, the M button light flashes 3 times, 1S once (the motor vibration 500ms once)	

3.2 Buttons

No	Button/interface	Description	Remark
1	SOS button	Long press 3S, immediately report location and alarm information	
		When the platform sends a message, press 500ms to read	
		Short press 3 times (400ms once), broadcast signal strength of device	
2	POWER button	Press and hold 3S to turn on the machine; press and hold 8S to turn off the machine and the motor vibrates once.	
		Short press 3 times (400ms once) to broadcast the battery percentage of device	
3	Function button	Short press (500ms) for inspection	
		Short press 3 times (400ms once) to broadcast the current time	
4	Reset button	Short press 1s to reset the device	
5	SIM card slot	Insert SIM card(2G and NB-IoT version optional)	
6	USB port	Charge the device	
		Use for upgrade	
7	Charging port	charging	

Table 2.2 Buttons and interface

4. Specification

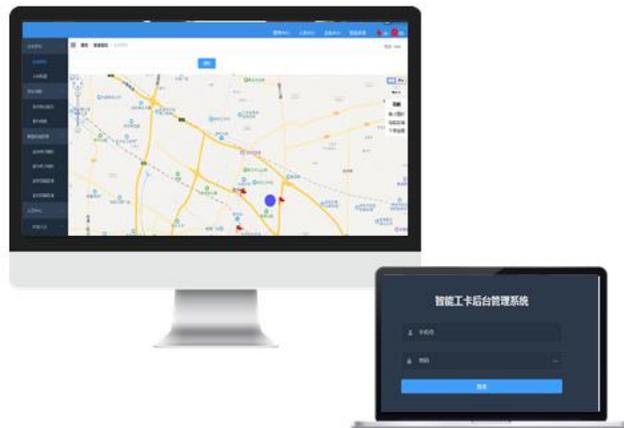| Parameter	Spec
Communication	Build in LoRa module , Frequency : CN470MHz
Bluetooth	Building in Bluetooth
Positioning	Outdoor GPS positioning and indoor Bluetooth positioning
Positioning accuracy	10 meters (outdoor) 3-5 meters (indoor)
Gyro	Build in gyro , Supports power saving mode in non-motion state
Battery	Rechargeable 1000mah lithium battery
Charging port	Micro usb
Speaker	1511 waterproof speaker, support voice broadcast and order delivery
Buttons	1-SOS button 2-Power button 3-Function button 4-Reset button
Battery life	More than 10hours (GNSS positioning interval 30s)
Dimensions	106.8*71*10.8mm
Waterproof	IP66
NFC	Support
Time sync	Time synchronization with GPS
LED indicator	Three color LED indicator
Location storage	support
Operation temperature	-20℃~40℃
Uplink frequency	customized
Positioning time	Cold start 38S hot start 1S Recapture <1S
Charging voltage	5V

Table 4.1 specification

5. Operation guide (Platform)

5.1 User platform

Each company has a dedicated administrator account, and employee accounts are limited to their

own use.

5.2 Staff management

The company administrator account can add, delete, and modify staff info according to the needs of

the company.Unbind or bind the mobile number.

5.3 Device management

After log in the administrator account , the device information of the smart card can be modified, can

remark or adjust the position of the Bluetooth beacon on the floor .

5.4 Automatic attendance setting

You can check the data of the staff's induction/departure time, working time, and whether the work

content is up to standard, achieve intelligent attendance and work assessment.

5.5 Alarm management

Add, modify electronic fences and hazardous areas, and set up personnel who are allowed to enter the area.

5.6 Positioning

The system records the historical activity track of the personnel, and inputs the personnel information to view data such as the walking route and the length of stay in a certain area, which is convenient for supervision management and optimization of operations.

5.7 Positioning Map

The administrator can set the company's geographic location on the map and upload an indoor map

at that location.

5.8 Safety inspection

The administrator sets the inspection point and the inspection task. The employee wears the staff

card for inspection. The administrator can view the employee 's inspection track on the platform.

6. Device Operation guide

6.1 Power on

Press and hold 3S to turn on the device; RGB RED LED lights up for 5 seconds after turn on,

accompanied by a startup ringtone

6.2   Broadcast battery percentage

After powering on, press the POWER button for 3 times (400ms once) to broadcast the current

battery percentage of the device.

6.3 Power off

Press and hold the POWER button for 8S, the motor vibrates once for 500ms, and the device is turned

off with the shutdown ringtone.

6.4 SOS in emergency

Press and hold the SOS button for 3s to send a SOS message , the motor vibrates for 500ms after the

SOS alarm is successfully sent.

6.5   Broadcast Platform Instructions

After the platform sends a message, the SOS button blue light flashes 3S once (when the voice

command is sent, the motor continuously vibrates 3 times), press the SOS button for 500ms to

broadcast the platform message.

6.6 Broadcast signal strength of device

Press the SOS button three times (400ms once) to broadcast the signal strength of device.

6.7 Inspection/Intelligent attendance

   Inspection: According to the inspection task, short press the M key once, the device will broadcast

"Enter the inspection mode" and report the inspection data. After successful inspection, the M

button blue light flashes 3 times (1S once), the device voice broadcast "patrol successful", the motor

vibration is 500ms. If the inspection failed, and the device voice broadcast "GUGUGU".

Intelligent attendance: Short press the M key once to enter the inspection mode and report the

attendance data. If attendance success, the M-key blue light flashes 3 times (1S once), the device

voice broadcasts "Attendance success", and the motor vibrates 500ms. if attendance failed, and the

device voice broadcast "Attendance Failure"

6.8 Broadcast time

Press the M button 3 times (400ms once) to broadcast the current time.

6.9 Reset

Short press reset button 1s to reset the device.

7. Package

Item	Method	QTY	Dimensions	G.W	Accessories	Remark
Smart card	Gift box	1pcs/box			USB charging cable , user manual , gift card	40pcs/cartoon