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LTE-M+ GNSS Intelligent Lock Tracker for Logistics

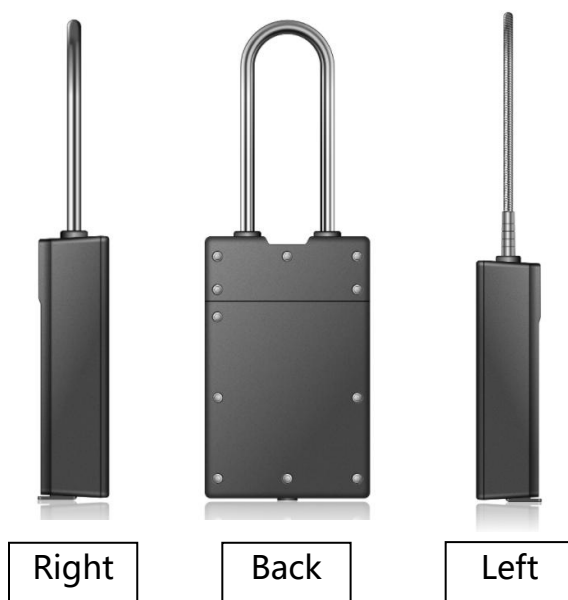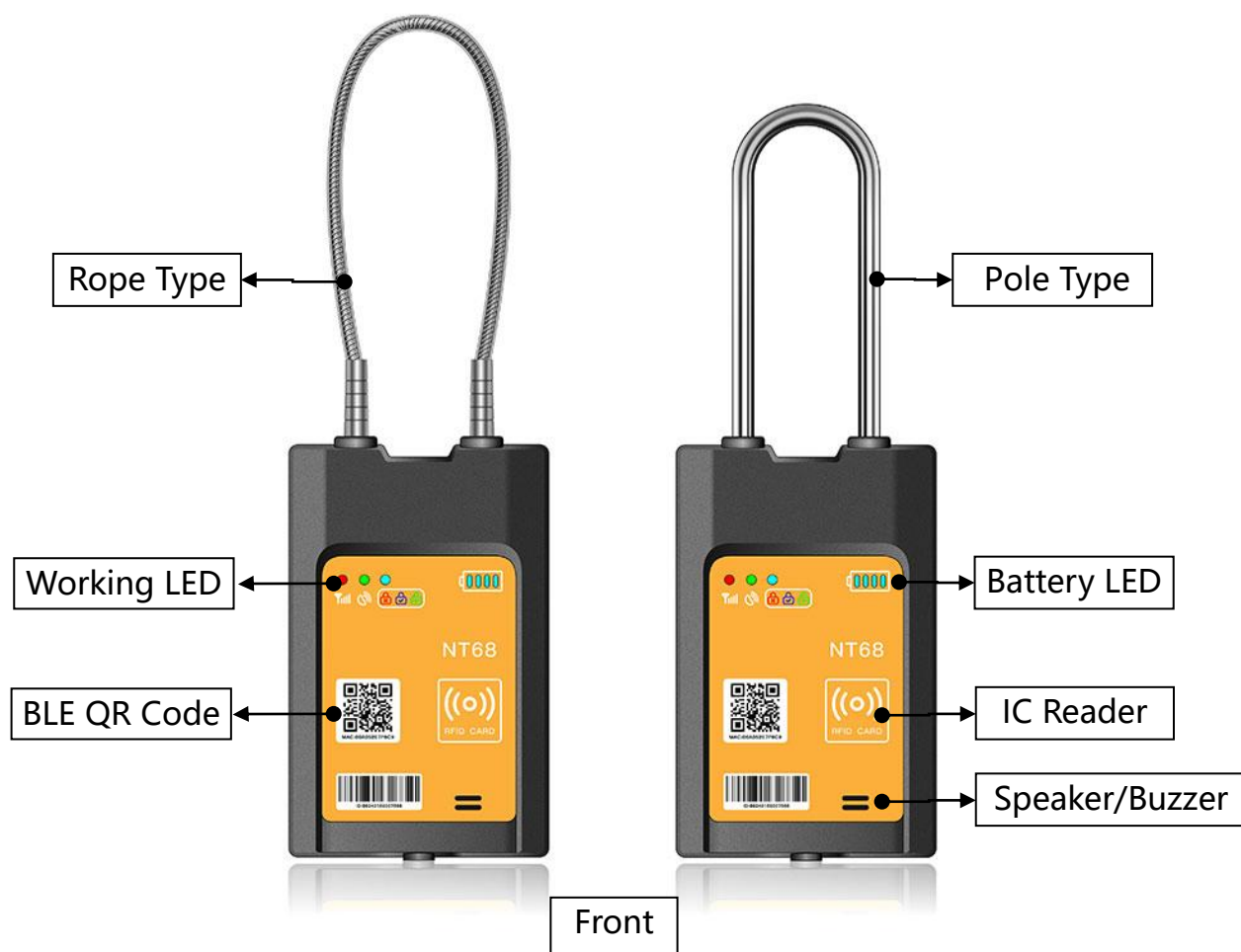## Quick Guide

NT68E

KNOW NT68E

Rope Type

Pole Type

Working LED

Battery LED

BLE QR Code

IC Reader

Speaker/Buzzer

NT68

Front

Right

Back

Left

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- GNSS/AGPS/WiFi/LBS Positioning
- Standby Over 150 days
- Low Power/Over Speed Alarm
- Lock Rope Cuting Alarm
- Unlock by BLE/SMS/Platform/APP/GEO Fence/Timing
- 12000mAh & Rechargeable
- IP68 Waterproof
- Shell Opened Alarm
- Configuration by BLE

CELLULAR & GNSS LED INDICATION

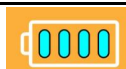|	RED LED Cellular Network	GREEN LED GNSS Signal
Slowly Blinking (On 2s off 2s)	Platform Connected	WFi Positionging
Stays Off		Positioning Failure
Quickly Blinking (on 0.5s off 0.5s)	Cellular Searching	LBS Positioning
Stays On	Communication module restarting	GNSS Fixed

Note: The LED will Off after hibernation.

LOCK & BATTERY LED INDICATION

LOCK LED Indicator (RED/BLUE/GREEN)

RED LOCK LED ON	LOCKED Status
RED LOCK LED Blinking	LOCKED Status and Lock Cutting Alarm
BLUE LOCK LED ON	Unlocked Status and did not pull-out
BLUE LOCK LED Blinking	Unlocked Status and Lock Cutting Alarm
GREEN LOCK LED ON	Unlocked Status and pull-out
3 LED Cycles on in turn	Mechanical Failure

Battery & Capacity LED

When USB plugged in, charging status	4 LED cycles on in turn	Battery in Charging
	4 LED blinking together	Battery Fully charged
When USB is not plugged in, each pressing power button, LED will start to display the left battery.	4 LED stays on	81%-100% Capacity
	3 LED stays on, 1 LED blinking	75%-80% Capacity
	3 LED stays on, 1 LED off	56%-74% Capacity
	2 LED stays on, 1 LED blinking, 1 LED off	50%-55% Capacity
	2 LED stays on, 2 LED off	30%-49% Capacity
	1 LED stays on, 1 LED blinking, 2 LED off	25%-29% Capacity
	1 LED stays on, 3 LED off	10%-24% Capacity
	1 LED blinking, 3 LED off	1%-9% Capacity and low voltage

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⦿ LOCK

1. Push in the Rope/ Pole , device ready to be locked, **BLUE** Lock LED on;

2. In 1st status, device can be locked by IC card/BLE/SMS/Platform;

3. After device locked successfully, the buzzer will beep and a voice will prompt "Lock success"(only Europe Version), **RED** Lock LED on;

4. If do not push in the Rope/Pole head, the buzzer will beep for 3 times and a voice prompt "Lock failed: please insert the lock rod".

⦿ UNLOCK

1. When device is locked, it can be unlock by IC card/BLE/SMS/Platform;

2. If unlock successfully, the buzzer will beep and a voice prompt "Unlock success" and **BLUE** Lock LED on;

3. Pull out the Rope/Pole, GREEN Lock LED on.

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◎ Intelligent Mode(Moving/Static Reporting Mode)

Default working mode, with a built-in high-sensitivity acceleration G-sensor, device can monitor the vehicle and know its status moving or static, if moving it will report location in real time at a short interval; if static for long time, device will report location by a long time interval. In this state, the power consumption of device is extremely low, to save your battery.

COMMAND: **HC,T1,T2#**

T1/T2: Time interval in moving/static status, example: **HC,30,900#**

◎ Latent Mode(Regular Time Point Mode)

Device wakes up periodically according to the set regular timing interval, after data reports it will goes into deep sleep.

COMMAND: **HX,T#**

T: Each deep sleep time peroid, example: **HX,1440#** means wakeup every 24h. After sleeping, you can wake up the device by IC card, BLE command, Push in/Pull out lock lever operation, etc.

◎ Alarm Clock Mode(Exact Time Point Mode)

Device will wake up at the certain time points, it can set up at most 4 wake-up time points, after data reports it will goes into deep sleep.

COMMAND: **WAKEUP,T1[,T2[,T3[,T4]]]#**

T1...T4: Exact Time point, 0830 means 08:30; **WAKEUP,0800,1000,1530,1900#** means device wake up in 08:00,10:00,15:30,19:00, report and sleep.

After sleeping, you can wake up the device by IC card, BLE command, Push in/Pull out lock lever operation, etc.

ALARM

◎ Shell Opened Alarm

Device built-in Light sensor, when detecting the lock cover is removed, it will generate a shell opened alarm and report it to the platform.

◎ Low Power Alarm

When battery is less than 10%, it will report a low power alarm, and it will be automatically released after charging.

◎ Over Speed Alarm

When the vehicle speed is higher than the overspeed alarm value, device will generate a low power alarm, overspeed alarm value can be set.

◎ Lock Breakdown Alarm

Lock breakdown alarm will be reported if the device is locked/unlocked failure for 3 times.

◎ Lock Cutting Alarm

When the device is in locked state, lock rope or pole is detected be cut, a lock cuting alarm will be generated and sent to the platform.

TECHNICAL PARAMETERS

BATTERY	Rechargeable polymer lithium battery （3.7V，12000mAh)
CURRENT	Average Current< 60mA@3.7V；Power Saving Current < 3mA@3.7V；Sleep Current < 120µA；
DEMENTION	140mm*86mm*38mm
WEIGHT	662 g
WORK TEMPERATURE	-30℃～80℃
COMMUNICATION BAND	**NT68E (LTE-M / NBIoT, Suitable all over the world)** Cat M1 LTE-FDD：B2/B4/B12/B13
WiFi	2.4 GHz 802.11b(Rx)
BLUETOOTH	Bluetooth 5.1 (Lock/unlock and do configuration by BLE)
GNSS FREQUENCY	GPS L1:1575.42MHz,C/A Code；BD B1: 1561.098MHz
SPEAKER	For audio playback, lock/unlock operation and failure voice prompt
BUZZER	For lock/unlock result prompt, success a long beap, failure short beaps
LOCK MATERIAL	Nylon plus Fiber plastic
ROPE/POLE MATERIAL	Flexible 304 stainless steel wire rope with 6mm diameter rubber coating；U-shaped locking lever: 8mm in diameter
IP LEVEL	IP68 + Salt Fog +UV + Fire Resistance and Protection
CHARGING	DC5 V 2A

DEBUGGING

When your device has the following faults, please refer to the following troubleshooting scheme. If you still can't solve it, please contact your vendor or service provider!

PROBLEM	REASON	SOLUTION
Bad Signal	In the area without or bad signal	Go to outdoor and get good signal
	Metal cover on tracker or GPS antenna toward ground	Remove metal and toward to sky
Can not Power ON	Low battery	Connect to power supply and charge the battery
	Blown fuse	Change the Power Cable
	Poor contact	Check connection
Can not connect to network	SIM did not install well	Check SIM installation
	Stains on the metal surface of SIM card	Clean the SIM surface
	SIM not available	Contact your operator
	Over the SIM signal area	Move to the area which operator provide serivce
	Bad network signal	Move to the area has good signal
	SIM no balance	Charge the SIM

FCC WARNING

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.

(2) this device must accept any interference received, including interference that may cause undesired operation.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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.

To maintain compliance with FCC's RF Exposure guidelines, This equipment should be installed and operated with minimum 20cm distance between the radiator and your body: Use only the supplied antenna.