

iON-it Guardian Lite Specifications



Features

- Lock the immobilizer relay remotely via the app
- Effortless installation setup
- Monitoring car battery voltage readings from the app
- AES 128-bit encryption ensuring secure communication and data privacy
- MIL-STD-810 military-grade shock and vibration protection to withstand the toughest conditions

Specifications

Mechanical and Environmental		
Dimension (L x W x H)	Vehicle Relay Box: 68 × 57 × 26 mm, Smart Tag: 62 x 22 x 10 mm (±0.5 mm)	
Weight	Vehicle Relay Box: 55 g, Smart Tag: 12.5 g (±0.5 g)	
Material	Black PC-ABS thermoplastic, heat and impact resistant	
Operation Temperature	-10°C ~ +70°C	
Storage Temperature	-20°C ~ +85°C	
Electrical		
Power Supply Input	Operating: + 10 ~ + 14 Vdc	
Power Consumption	Stand-by	< 5 mA
	Operating	< 100 mA
Smart Tag Built-in Battery	Battery Cell	3.7V Li-Polymer

	Operation Temperature	-10°C ~ +70°C Note: Operating outside these ranges can reduce capacity, shorten the battery's lifespan, and pose safety risks.	
	Storage Condition	-20°C ~ +85°C, low humidity and no corrosive gas	
	Typical Capacity	120 mAh (operating time 6 months)	
IO Interface and Other			
Power Switch	Factory Reset (Press and hold the button for more than 15 seconds until you hear the melody, then release it)		
USB	Type-C		
Buzzer	66 dB (± 2 dB) @ sound output at 10 cm		
Digital Inputs	2 active high inputs, 30 Vdc (max)		
	2 active low inputs, 30 Vdc (max)		
Relays	OUT1: COM (30), NC (87a), NO (87)		
	OUT2: COM (30), NC (87a), NO (87)		
	Voltage Rating	12 Vdc	
	Contact Configuration	SPDT (1 Form C)	
	Current Rating	20A max	
Package Content			
iON-it Guardian Lite Main Unit ×1			
Input Wiring Harness ×1			
Relay Wiring Harness ×1			
USB- C to USB- C Cable ×1			

NOTE:

1. Datasheets are updated as needed and as such, specifications are subject to change without notice.
2. All specifications are measured at an ambient temperature of 25°C, humidity<75%, and nominal input voltage.
3. This document is intended for professional automotive electronics or vehicle modification technicians only. Installation by vehicle owners is not recommended.

iON-it Guardian Installation Guide

~Input Wiring Harness~



Wire Color	Label	Description
Red	+12V	Vehicle Power DC +10V ~ +14V
Black	GND	Vehicle Ground
Green	IN1	Active Low
Orange	IN2	Active High
Yellow	IN3	Active Low
Brown	IN4	Active High

~ Relay Wiring Harness ~



Wire Color	Label	Pin	Description
Black	OUT1_COM (30) / OUT2_COM (30)	30	Common
Yellow	OUT1_NC (87a) / OUT2_NC (87a)	87a	Normally Closed
White	OUT1_NO (87) / OUT2_NO (87)	87	Normally Closed

~ Installation Recommendations ~

1. Installation location should not be visible or easily accessible, such as behind the glove compartment. However, the Bluetooth transceiver must be installed in a location accessible to the vehicle owner, such as inside the glove compartment, to allow system reset and re-pairing when changing phones.
2. After connecting power and necessary wires, the system will automatically power on. Please pair the system with an iPhone first and confirm the device can be successfully added in the app before completing installation.
3. Before job completion, the technician must verify:
 - a. App Lock → Vehicle cannot be started
 - b. App Unlock → Vehicle starts normally
 - c. Find My location is displayed correctly
 - d. Press and hold the reset button for 15 seconds to reset the system so the owner's phone can pair

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~ Notice to User ~

FCC Caution:

Part 15.21

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

Part 15.19

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.

FCC Part15.105

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.

FCC RF Radiation Exposure Statement:

1. This Transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
2. This equipment complies with RF radiation exposure limits set forth for an uncontrolled environment.

Hereby, ARKNAV INTERNATIONAL, INC. declares that this product is in compliance with essential requirements and other relevant provisions of Directive 2014/53/EU. This product is allowed to be used in all EU member states.

**RADIO FREQUENCY MAXIMUM TRANSMIT POWER AND FREQUENCY BAND INFORMATION**

Frequency bands	Frequency range	Maximum output power
BT-BLE	2402-2480MHz	10.25dBm(EIRP)