# **Body Control Module**Remote Control Key

**User Manual** 

Manufacturer: Nanjing CETC-Motor Co.,Ltd.

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## —: Installation position:

BCM is usually installed on the chassis of the vehicle, located under the co-driver's seat, used to control the display screen, anti-theft system and other functions; The key is a portable piece, used to open the lock, lock, open the reserve door, etc. Working mode:

1, the key press the key, the key respectively sends 433.42Mhz, 433.92Mhz, 434.42Mhz 6 frames of data BDM receives high-frequency data from the above three frequency points, and responds to any frame of data, and stops receiving high-frequency data

## 2, ordinary key PKE

The BDM drives the low-frequency antenna at 125HZ to find the key. After receiving low frequency data, the key will respond at 433.42MHz high frequency. The BDM receives the high frequency response of the key at 433.42MHz.

3, 125kHZ transmission, 434.42MHz receive, periodic

Special BDM, common key

1) Start LF polling for the key

First, the key to learning bcm

Second, sending 612 51 00 00 00 00, the BDM enters the 6-antenna polling transmission mode, and if the RF of the BDM receives the high frequency signal of the key, the first byte of ID 610 becomes 0x01, and the key cannot be found for 2 seconds.

2) Stop polling for keys

Send 612 61 00 00 00 00, BDM stops antenna polling key;

## 4, 433.42MHz /433.92MHz/434.42MHz reception

Special key, normal BDM

- 1, short press the button 1, the key every 5 seconds periodically send 433.92MHz high-frequency data, and then the BDM executes the corresponding action. When button 1 is pressed again (long press), the key will stop sending high-frequency data. When the button is pressed to send data, the indicator blinks.
- 2, short press button 3, the key every 5 seconds to periodically send 433.42MHz high-frequency data, and then the BDM executes the corresponding action. When button 1 is pressed again (long press), the key will stop sending high-frequency data. When the button is pressed to send data, the indicator blinks.
- 3. Press button 4. The key periodically sends 434.42MHz high-frequency data every 5 seconds, and the BDM executes corresponding actions. When button 1 is pressed again (long press), the key will stop sending high-frequency data. When the button is pressed to send data, the indicator blinks.

## 二、**DESCRIPTION**

BCM and remote control keys are designed and produced by Nanjing

CETC-Motor Co., Ltd. Their main functions include anti-theft system, one key start, and other functions, providing one-stop technical solutions for automotive manufacturers. Our company was established on August 25, 2006 and has been deeply involved in the automotive electronics industry for 17 years. This product is a body controller that is shipped with the entire vehicle. If there are any quality issues, we need to communicate with the vehicle company for compensation. Our company will communicate with the automotive company for compensation issues.

## **Technical characteristics:**

The maximum temperature for the BCM and key of this product is -40  $^{\circ}$ C -90  $^{\circ}$ C, and the working temperature is -40  $^{\circ}$ C -80  $^{\circ}$ C.

## Working principle:

PKE is a handset that is operated by vehicle user. PKE sends encrypted data to BCM by RF antenna based on 433.92MHz/ 433.369MHz.

The BCM system send encrypted data to PKE by LF antenna or IMMO antenna based on 125KHz, and receive 433.92MHz/ 433.369MHz encrypted data from PKE, and execute the authentication. If the result of authentication is pass, BCM will perform the action in response.

## Instructions for use:

Customers are prohibited from disassembling without authorization. If there is any damage, professional personnel can be consulted for disassembly and repair. According to the after-sales repair requirements of automotive companies, accurate and legitimate accessories can be found for replacement and debugging. If damage is caused by unauthorized disassembly, our company will not compensate. Please note to the customer.

# 1. Body Control Module

#### 1.1. Product Information

Module No.: BC04

Voltage Range: DC 9-16V

Working frequency: TX: 125kHz

RX: 433.92MHz/433.369MHz

Modulation type: ASK for 125kHz

Transmitter maximum output power: 13 dBµA/m @10m

## 1.2. Manufacturer's plate

# Remote Control Key - 11652820

## 1.3. Product Information

Module No.: 11652820 Voltage: DC 3V (CR2032)

Working frequency: TX: 433.92MHz and 433.369MHz

RX: 125kHz

Modulation type: FSK for 433.92MHz and 433.369MHz

Transmitter maximum output power: -19 dBm

## 1.7. Usage/Setting Steps

This component is an automotive accessory, and the usage environment and instructions are subject to the final automotive manufacturer's manual. The setting method can be found in the automotive manual

## **FCC Statement**

Changes or modifications not expressly approved by the party respons ible for compliance could void

the user's authority to operate the equipment.

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 un desired operation.

**NOTE:** This equipment has been tested and found to comply with the I imits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against ha rmful interference in a residential installation. This equipment generate s uses and can

radiate radio frequency energy and, if not installed and used in accord ance 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.

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Consult the dealer or an experienced radio/TV technician for help important announcement

## **Radiation Exposure Statement**

This device is also designed to meet the requirements for exposure to radio waves established by the Federal Communications Commission (USA).

This device Was tested for typical near Body operations kep 0cm away, and this device complies with FCC radiation, exposure limits set forth for an uncontrolled environment.