

Product User Manual

Vehicle Terminal T-BOX

Product Model: T29-CEV

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Product Composition and Interface Definition

1、 Product Overview

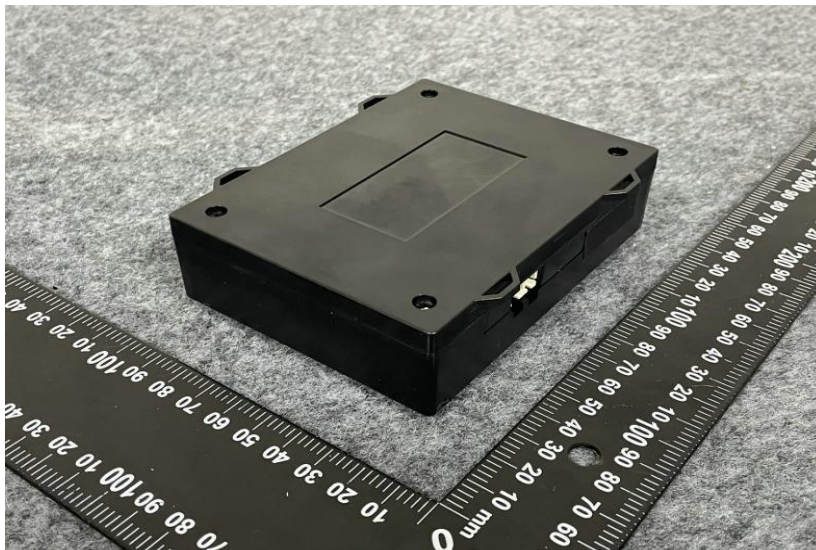
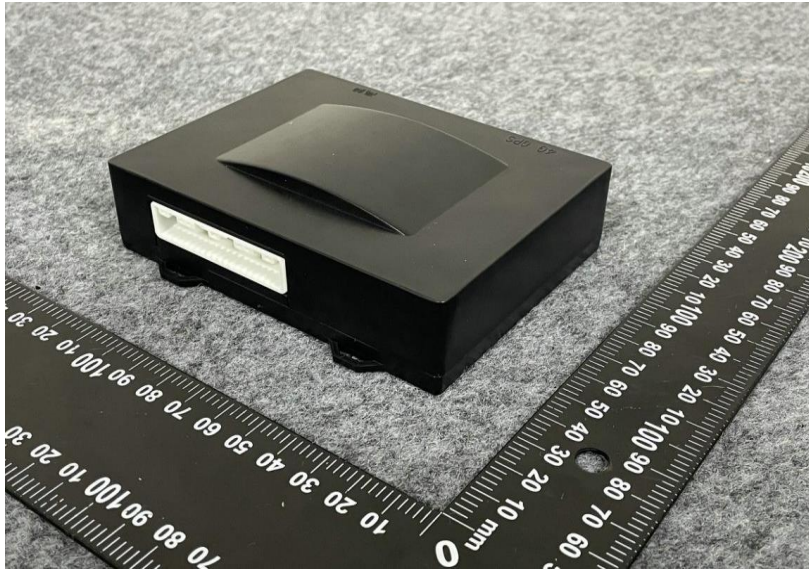
Vehicle Terminal T-Box provided a remote intelligent vehicle control terminal, the main functions are remote start / flameout vehicle, remote switch window, remote switch tail box, remote switch air conditioning, reading the whole car fault code, remote diagnosis, etc.

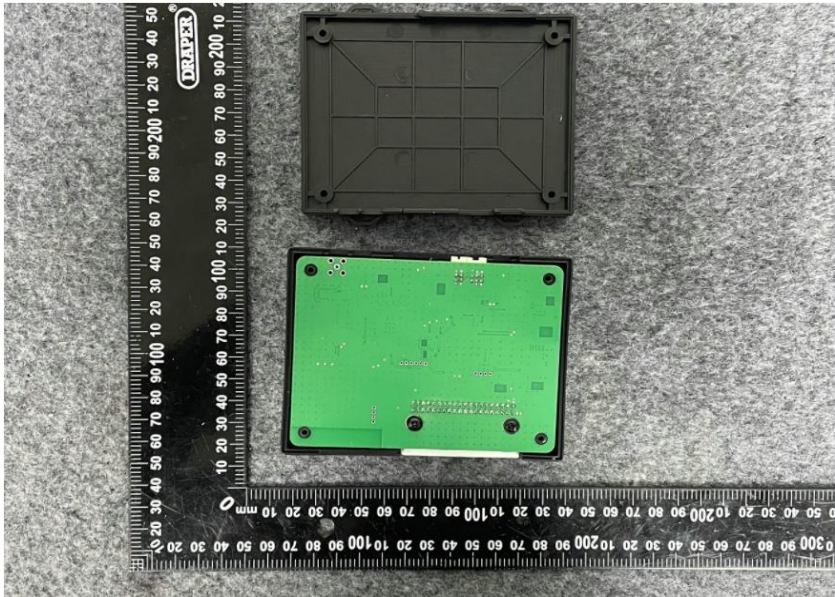
The T-BOX supports three communication modes: 4G, BLE, and can still support users to control the car in special scenarios such as no network signal and mobile phone shutdown.

The T-BOX can monitor the door lock, door, window, sunroof, air conditioning, battery voltage, BMS battery status, which users can view in real time through the APP. When the vehicle has anti-theft alarm, tire failure and other problems, T-BOX can immediately push the fault information to the owner's mobile phone.

The T-BOX can follow the vehicle to sleep, reducing its power consumption to a minimum when the vehicle is dormant. When the vehicle wakes up or the user controls the vehicle through the network, BLE , T-BOX will automatically wake up and enter the working state.

2、 Product physical schematic diagram







Product name: Vehicle Terminal T-BOX

Product model: T29-CEV

Product size: L160mm*W120mm*H40mm

3、Product External Interface Definition

Figure 1: Main connector

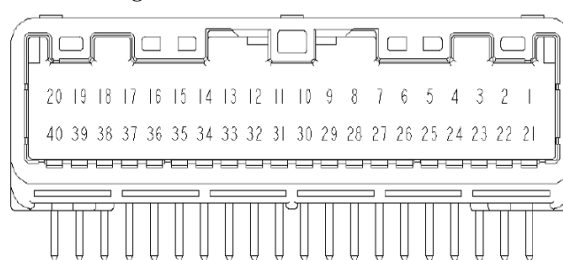


Figure 1 view direction of main connector

Pin	Signal Type	Description
1	Digital Input	IGN ON
19	Digital Signal	CAN H
20	Power	Power
39	Digital Signal	CAN L
40	GND	Power Ground
others	reserved	

4. Description of production parameters and functions

1. List of production parameters

NO.	Items	Specification	remark
1	Operating voltage	9-16VDC 10-100mA	
2	Operating current	25mA@12V (Quiescent 10mA)	
3	Size	L117mm*W98mm*H37mm	
4	Communication Type	4G、Bluetooth	
5	Operating temperature	-40 ~ +85℃	
6	Storage temperature	-40 ~ +85℃	

2. List of production functions

Function Type	Function Items	Description
Remote Control	Lock/Unlock	
	Open/Close Window	
	Open/Close Trunk	
	Open/Close Sunroof	
	Open/Close Air Conditioner	
	Set Temperature	
Status Monitor	Monitoring vehicle Status	Including status of door lock, doors, windows, trunk, sunroof, air conditioner and battery pack.
Diagnostic	Read DTC	Read DTC of the vehicle
	Remote Diagnose	Support dealer shop to diagnose the vehicle with the support of this production and another remote diagnose device.
Others	Updating Firmware	Support BLE/Net to update device firmware

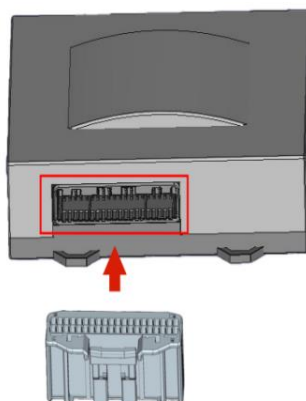
5. Product installation operation process

1. Equipment installation

(1) Check the equipment

Check whether the equipment appearance is good, whether the relevant accessories are complete.

(2) Select the terminal installation location requirements



(3) The terminal host shall be installed in the designated position of the vehicle, connected to the reserved main line of the vehicle, and fixed with screws.

2. Device binding and activation

After the equipment is installed, the dealer operator shall use the B-end APP to bind the equipment with the vehicle, and check that all the vehicle control functions are normal. After passing the test, the equipment will be automatically activated.

6. Analysis of Common Problems

1、Common problem analysis

fault phenomenon	analysis of causes	processing method
The equipment is offline	SIM card overdue shutdown	Contact the network operator to pay for the fee
	Vehicles are in the underground parking lot, and the tunnel signal is weak	Leave the area with a poor signal

2、 Precautions

1. Please pay attention to waterproof for electronic products.
2. Electricity is DC 9-15VDC 100mA DC, installation should first determine whether the user's power system is within this range, exceeding the maximum voltage of the terminal will damage the terminal.
3. When the ambient temperature exceeds the normal operating temperature range of the terminal, it is recommended to reduce the power off.
4. When the vehicle is in an underground parking lot, tunnel or garage, it will affect the signal of the location. And the communication network signal blind area may cause the equipment to go offline; when the vehicle leaves the above area, the equipment will automatically return to normal operation.
5. In case of any abnormal situation, please do not repair it by yourself. The manufacturer shall not be liable for damage caused by connection of non-original accessories or removed connections between parts.

7. After sales service

1. This product shall enjoy a one-year warranty service from the date of installation. During the warranty period, for equipment damage caused by non-human factors or product quality, please contact the agent or call the after-sales service department
2. The damage caused by the customer's private disassembly or force majeure (such as flood, vehicle accident) shall not be repaired.
3. After the expiration of the warranty period, the product damage and failure caused by the use, but the cost of maintenance materials should be charged.
4. Provide customers with free consulting and technical services such as the purchase, use and installation of products.

FCC Warning:

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.

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.

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.