

Wireless Vehicle Detector

User Manual

Release Date	Version	Author
2016.03	1.0	Jiangshuai Ding Shihe Liu

1. Application

- Traffic data collection
- Vehicle flow detection, Vehicle speed detection, Traffic occupancy, Analysis of Vehicle Type

2. Product Description

The Wireless Vehicle Detector is a low power ZigBee device. It uses highly sensitive sensors detect a vehicle status information through a magnetic field around the device relative changes in Earth's magnetic field to analyze ON-OFF status of the vehicle, and this data is based on low-power wireless protocol transmitted to receivers and repeaters. Device has 16 working channels. According to environmental noise, we can open the application software switching equipment working channel. Easy installation, convenient, without prejudice to the roadbed .It uses 3.6V Li / SOCl2 battery, and work more than five years. (Key Features See Table 1.)

Key Features			
Radio Frequency Band	2.4GHz	Max Output Power	0dBm
Transmission Rate	250kbps	Receiver Sensitivity	-95dBm
Number Of Channels	16	Protection Class	IP68
Antenna Beamwidth	±60°	Operating Temperature	-40℃ ~ +85℃
Channel Bandwidth	5MHz	Relative Humidity	≤95% (Non Condensing)
Detection Sensitivity	0-15 Level	Operating Life	≥5 years
Antenna Type	Ceramic Antenna	Laying Methods	Use special sealed plastic magnetic sealing, after hardening the surface of the device below ground 2CM
Power	Li/SOCl2 Battery 3.6V, 18Ah		

Table 1.

3. Wireless Vehicle Detector Installation Guide

Preparations: The Wireless vehicle detector is a device buried below ground level. Before embedded in the road surface, we use a water_drilling device to dig a depth of 110mm, and 108mm diameter circular aperture. (See Figure 1.)

Installation Requirements: Arrow atop the of The Wireless vehicle detector indicate the direction of travel. Mark and record device ID number in the corresponding position of the lane on the drawings. After, use special glue to fill the hole until it dried.



Structure Max Size:94mm*66mm

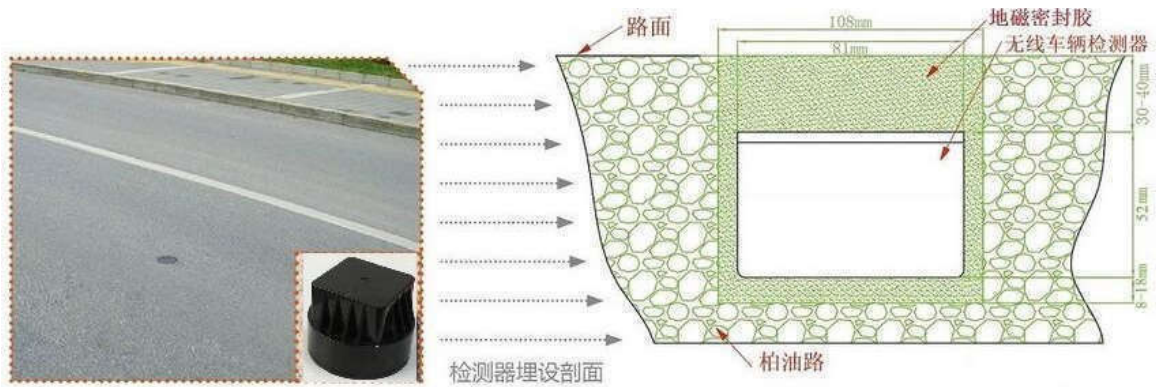


Figure 1.

Notice: Reverse installation location (Detector to the parking line for the front, the opposite direction for the rear) must have a pole (Street lamp pole, Signal lamp pole or Control rod). It is to prepare for the installation of repeater later.

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4.MeritPlusDta Technical Support

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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. 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.