



# Human Presense Detection System

HPDS-401P-WL Wireless Version 2024





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## 1. Equipment Configuration and Quotation

Wireless Intelligent Microseismic Life Detection System (Portable)			
Serial Number	Product Name	Model/Specification	Quantity
1	Detection System Host/Laptop	HPDS-401P-WL	1
2	Wireless Vehicle Detection sensor		4
3	Wireless Ground Detection sensor		1
4	HPDS System Software		1
Total Quotation:			
Note: The product warranty is for one year.			

## 2. Product Introduction

### 1) Function Overview

The Wireless Intelligent Micro-Vibration Life Detection System collects subtle vibrations (such as heartbeats, breathing, pulses, body movements, etc.) inside the vehicle caused by life signs through the "miniature chip sensor sensors" attached to the inspected vehicle. It uses system algorithms for intelligent analysis to determine whether there are hidden living beings inside the vehicle. The wireless signal transmission technology has a long effective range and does not require physical wiring, eliminating the cumbersome operation procedures in previous inspection work (laying lines, deployment, storage, registration, etc.), greatly improving the efficiency of police and staff in vehicle safety inspections to prevent escape and smuggling, reducing the workload of police and providing evidence.

### 2) Product Appearance





### 3) Product Components



Serial Number	Detail Picture	Component Unit	Function Introduction
①		System Software	Integrated control center, command sending center Patented built-in software
②		Operation Client	Portable, remote operation
③		Microseismic Detection System Host	Built-in detection sensor charging base, start switch, and various interfaces; Portable aviation trolley case, can store detection sensors and operation clients; Telescopic rod can be freely extended and adjusted, flexible deployment.
④		Vehicle Detection sensor	Vehicle detection sensors and ground environmental detection sensors can be used interchangeably through system settings.
⑤		Ground Environmental Detection sensor	

## (1) System Host



Serial Number	Component Unit	Function Introduction
①	Wireless Intelligent Charging Base	Wireless magnetic adsorption charging Real-time power monitoring Intelligent circuit protection (charge when weak, cut off when full)
②	One-Key Start Switch	Operating control device power on/off, including power indicator light
③	External Power Input Interface	Can supply power to the device through an external power source
④	External Power Output Interface	Can supply power to the operation client through an external power source
⑤	Network Interface	RJ-45 interface

## (2) Detection sensor

### 1 Vehicle Detection sensor

- Modular design: independent sensing module + independent transmission module
- Vehicle vibration signal collection
- Integrated magnetic adsorption charging and data transmission
- Industrial-grade ABS material, double magnetic adsorption to prevent falling off

Dual magnetic adsorption detection surface



Battery Display

Wireless Charging Contac



## 2 Ground Environmental Detection sensor

- Modular design: independent sensing module + independent transmission module
- Environmental signal collection
- Integrated magnetic adsorption charging and data transmission
- Industrial-grade ABS material, double magnetic adsorption to prevent falling off



## 3 Detection sensor Operation Instructions

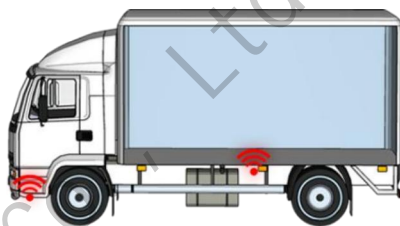


Handheld Wireless Vehicle  
Detection sensor

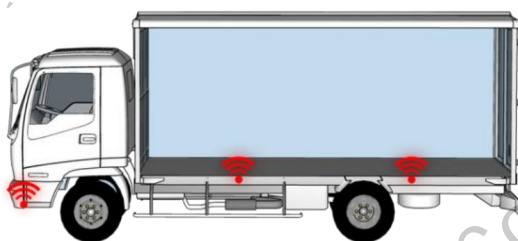
Wireless Ground Environmental  
Detection sensor



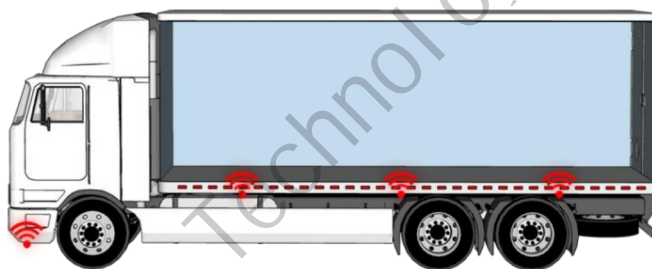
#### 4 Detection sensor Usage Quantity Instructions



Small Vehicle: Vehicle length within 6 m

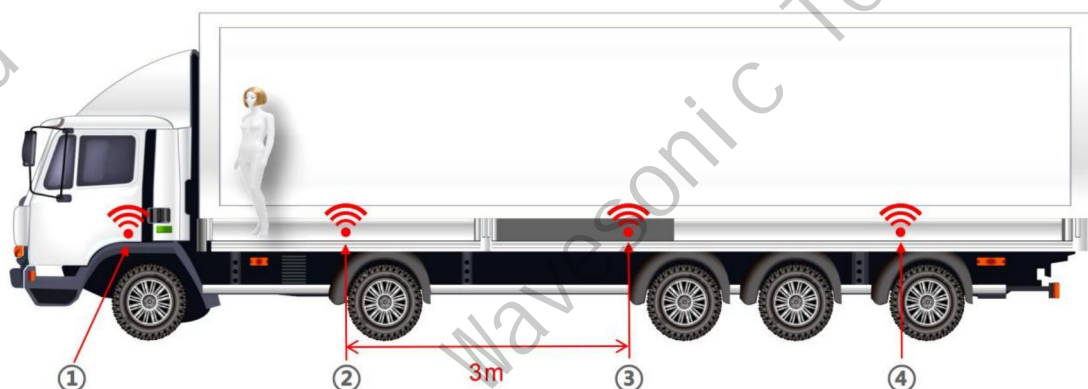


Medium Vehicle: Vehicle length between 6-9 m



Large Vehicle: Vehicle length between 9-13 m

★ Note: To ensure detection effectiveness, it is recommended that the spacing between detection sensors be  $\leq 3$  m.



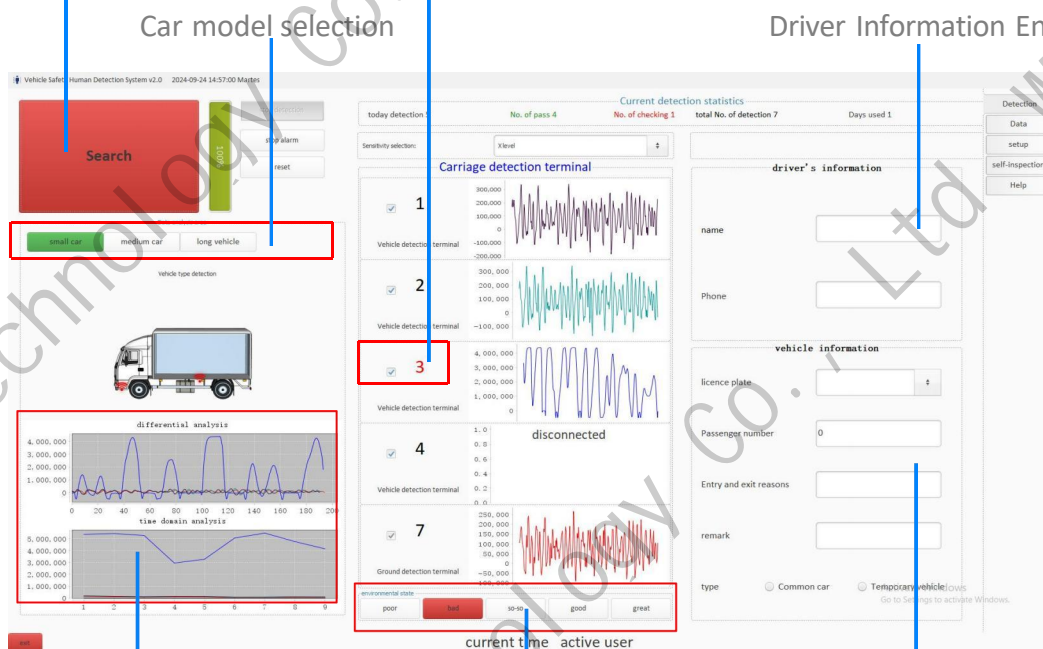
### (3) System Software

#### 1 Detection Page

Detection Result Abnormal

Alarm notification

Detection sensor No.3 is alarming, the number is displayed in red.



Detection Data Waveform  
Consistency Comparison

Environmental Status

Vehicle Information Entry

Detection passed

Percentage Detection  
Progress Bar

Today's Detection Statistics Data

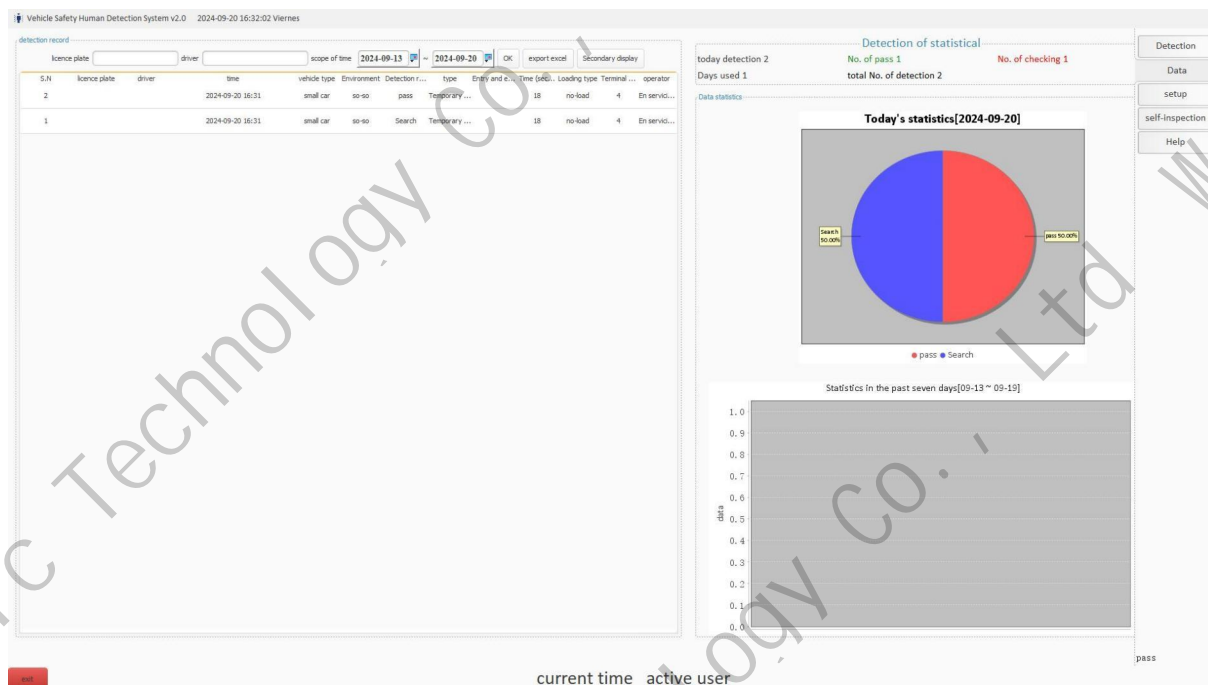


Real-time Data  
Waveform of Detection

Detection sensor  
Connection Status Indicator

## 2 System Data Page

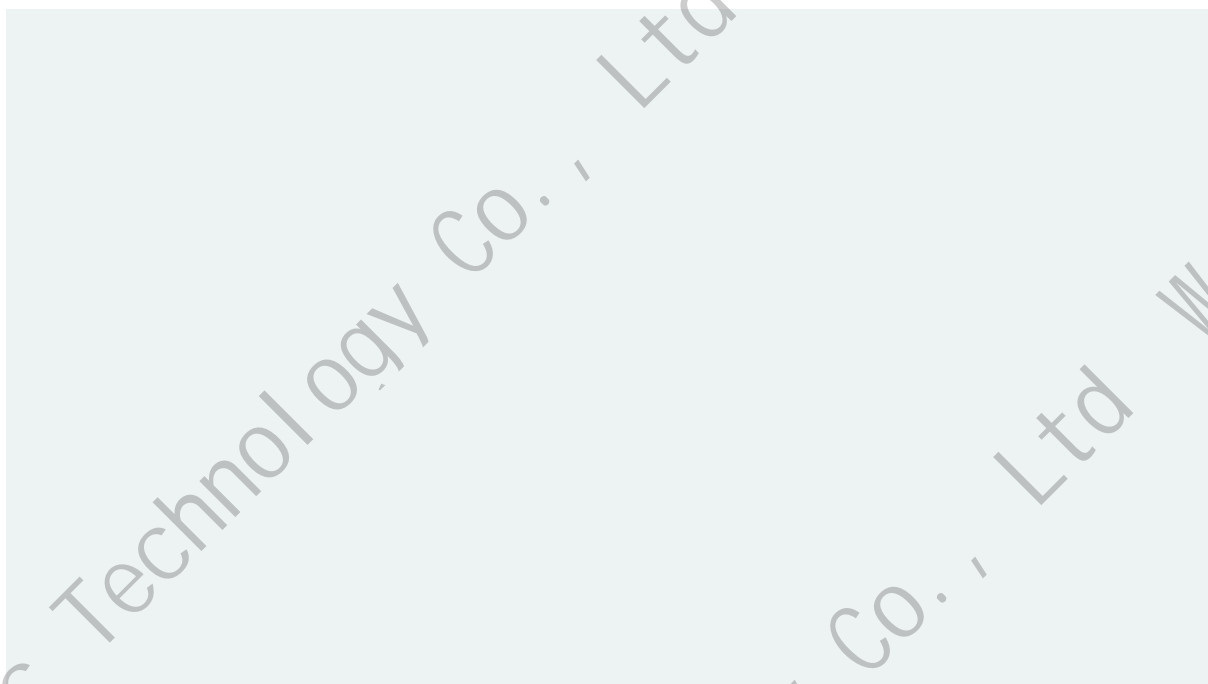
The page displays detection time, vehicle type, results, and converts them into bar charts, pie charts



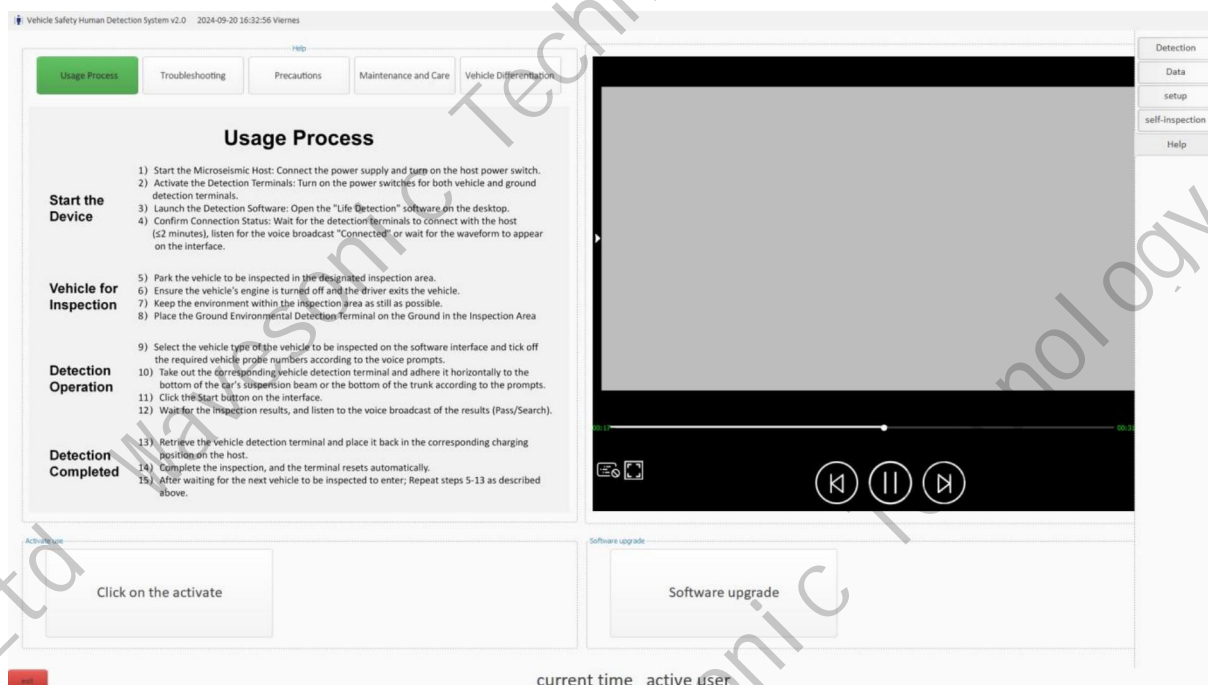
## 3 Self-check Page



## 4 Settings Page



## 5 Help Page





## 4) Product Features

- **Convenient detection:** The inspected vehicle does not need to open doors/unload goods, the handheld wireless vehicle detection sensor directly adsorbs on the bottom of the vehicle, no wiring is required, and the operation is convenient.
- **Wireless detection:** Wireless detection sensors, real-time monitoring to prevent loss; wireless information collection/transmission.
- **Simple operation:** The interactive interface is clear and the operation process is simple and easy to learn, one-key start and one-key detection.
- **Multiple warnings:** Visual red and green signs on the software interface + automatic voice broadcast of detection results.
- **Intelligent alarm:** Intelligent positioning monitoring, overall/partial alarm display; voice reminder to retract the detection sensor.
- **Intelligent charging:** Wireless magnetic adsorption charging, intelligent power monitoring, charge when weak, cut off when full.
- **Battery display:** Real-time display of detection sensor power status, visual four-level power icon, with low power reminder.
- **Transmission security:** Industrial-grade wireless radio frequency technology, stable data reception; Dedicated data encryption technology to ensure data transmission security;
- **Convenient maintenance:** Modular structure standard installation, can be quickly disassembled for maintenance replacement.

### 3. Product Technical Parameters

- ① Equipment composition: The equipment consists of a microseismic detection system host, operation client, wireless vehicle detection sensors, wireless ground environmental detection sensors, and control system software.
- ② System host: With one-key start switch, 5 wireless intelligent charging bases; with 2 RJ-45 interfaces, 1 external power input interface, and 1 external power output interface.
- ③ Operation client: 13-inch display, resolution 1920×1080; i3 processor; 4GB memory; 128GB built-in storage; Windows10 operating system; equipped with 2 USB interfaces, RJ-45 interface, HDMI interface, headphone interface, power interface.
- ④ Portable aviation trolley case: Convenient for storing detection sensors and operation clients; telescopic rod can be freely extended and adjusted, flexible deployment and easy to move.
- ⑤ Charging method: Intelligent wireless magnetic adsorption charging, intelligent power monitoring, charge when weak, cut off when full.
- ⑥ Vehicle type selection: Optional detection vehicle types include small, medium, and large vehicles.
- ⑦ Ground environmental assessment: The system assesses environmental vibrations through the ground environmental detection sensor and displays the environmental vibration assessment results on the system software interface with words such as "excellent, good, medium, poor, very poor".
- ⑧ Detection progress display: The system displays the detection progress of vehicle personnel with a percentage progress bar.
- ⑨ Detection time setting: According to on-site use, the detection time can be set between 15s - 60s.
- ⑩ Detection alarm function:
  - A) When there is someone on the detected vehicle, the alarm frame turns red and displays the word "search"; the system continuously buzzes and gives an alarm, playing voice reminders;
  - B) When there is no one on the detected vehicle, the alarm frame turns green and displays the word "pass"; playing voice reminders.

- ⑪ Alarm sound level: The alarm sound can be adjusted, and the maximum sound level of the alarm sound at 1m is 80dB(A).
- ⑫ Alarm duration: The alarm duration can be set between 0s - 45s.
- ⑬ Software management: The software supports login through username and password, has a log query function; can retrieve detection results through conditions such as time, license plate, driver's name; has a report statistics export function; supports statistical single-day vehicle personnel detection results in pie chart form; supports statistical vehicle personnel detection results within a selected time period in bar chart form.
- ⑭ Waveform comparison: The system automatically analyzes the life sign information detected by the detection sensor, performs waveform data analysis and comparison, and displays the comparison process and results in real-time.
- ⑮ High-temperature operation: Detection sensor  $(55\pm 2)^{\circ}\text{C}$ , 2h.
- ⑯ Low-temperature operation: Detection sensor  $(-10\pm 3)^{\circ}\text{C}$ , 2h.

## 4. Operation and Use Process

① Start the device: Check the connection status of each part of the device.

② Place the ground environmental detection sensor.



Before detection: Turn off the vehicle  
- driver gets off - turn off all power in  
the vehicle - close the doors;

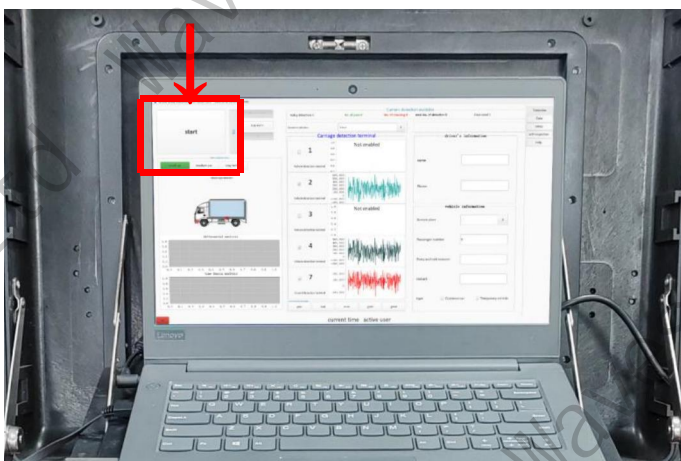
③ Take the vehicle detection sensor as needed and adsorb it on the bottom of the vehicle;



Based on the size of the vehicle to be  
inspected, operate according to the  
prompts on the software operation  
interface:

- Front of the vehicle: Attach 1  
detection sensor individually
- Cargo area: Attach 1 detection  
sensor every 3 meters

④ Operate the system software to initiate the inspection.



Select the corresponding vehicle type;  
click the [Inspection] button to start  
the inspection.