
P08 Ultrasonic Detector

USER MANUAL

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P08 Instruction Manual

1. Product Introduction

P08 Ultrasonic Detector defines status of parking space by measuring distance of ultrasonic transmitting and receiving. It is a non-contact instrument with stable performance. P08 is the first choice of car park guidance system.

P08 has two working mode: OFFLINE mode and ONLINE mode.

The OFFLINE mode: is standard configuration of P08, which is preprogrammed during production. Before installation, manually tune the required detection height.

The ONLINE mode: has to work with communication controller and the software to realize the guidance function.

According to actual application, choose the right P08 mode. It helps patron to find an available parking space efficiently, increase in car park rotation, optimize car park management, reduce car park running cost.

2. Product Picture



3. Functions & Features

3.1. Functions

- 1) Measure the distance between the detector and the reflection surface, detectable range: 0.3-4.5m.
- 2) Define status of parking space by being installed above each parking space.
- 3) OFFLINE mode and ONLINE mode available. (REMARK: This product is preprogrammed under OFFLINE mode, if you want to convert it to be ONLINE mode, please contact us freely for the system upgrade.)
- 4) Set the detection height by DIP in OFFLINE mode.
- 5) Control the LED indicator, RED for available, Green for full.

3.2. Features

- 1) High environment resistance by the mean of ultrasonic detection.
- 2) Pedestal and body apart design enables convenient maintain and fix.
- 3) Low power consumption, simple interface, reliable communication and stable performance.
- 4) ABS plastic shell.
- 5) Self-developed, possess the whole intelligent property and production technology, which enables good after-sell service.

4. Technical Parameters

Type	P08
Voltage rating	DC15-24V
Power consumption	0.5W
Detector	Ultrasonic
Detectable range	0.3m-4.5m
Detection angle	15°

Detection distance setting	DIP Switch(OFFLINE mode) or Automatic(ONLINE mode)
Working temperature	-20~+70℃
Communication	RS-485
Address coding Type	DIP Switch
Dimensions	105mm x 105mm x 60mm
Weight	0.3Kg

5. P08 Instruction

P08 should be equipped with corresponding space indicator light. Space indicator light is to indicate space status and guide patron to available space. P08 is suitable for the control of dual color LED indicator L06. P08 can control dual color LED indicator (RED for available, Green for full), engineering wiring instruction as follows:

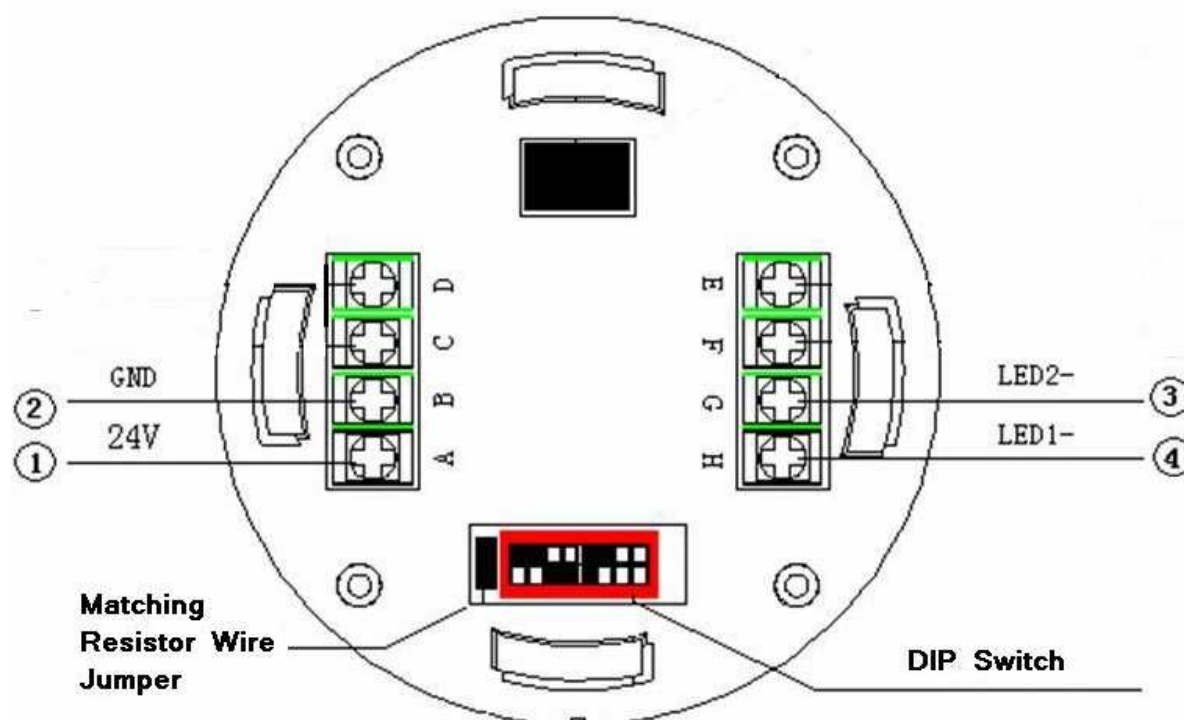


Fig.1

Serial Number	Project Wiring Instruction
A	Power supply cathode (+) , V+ form the power supply.
B	Power supply anode(-) , COM from the power supply. Connect to the Black cable from L06 LED indicator.
C	RS485 + (A+)Remark: Can't run without zone controller and software
D	RS485 - (B-) Remark: Can't run without zone controller and software
E	Reserved
F	Reserved
G	LED2-, wired with brown line
H	LED1-, wired with blue line

6. Product Operation

Operations of OFFLINE mode show as follow:

(1) Project Connection

It must follow the figure as below to connect our product.

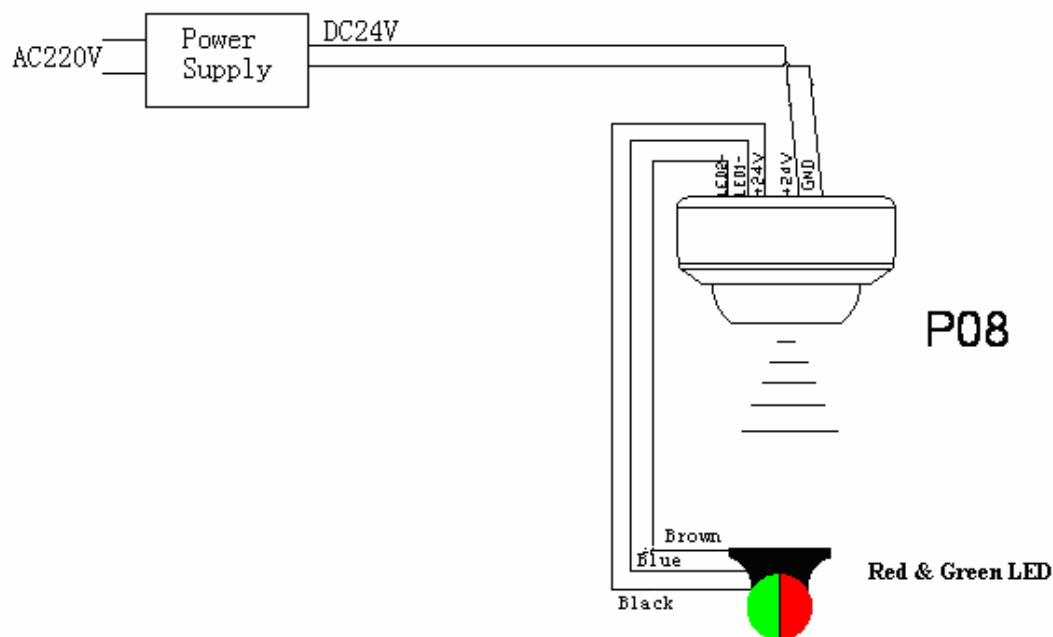


Fig.1

(2) Connection of Power Supply

There are two DC42V channel in the power supply. It should follow the figure below to connection between the power supply and the P08. Each channel can charge 30pcs, it said that two channels can charge 60pcs.

It is remarkable that the terminal P08 connect to the power supply only in the wire-length range of 200meter. Beyond this range, the P08 couldn't work because of voltage loss.

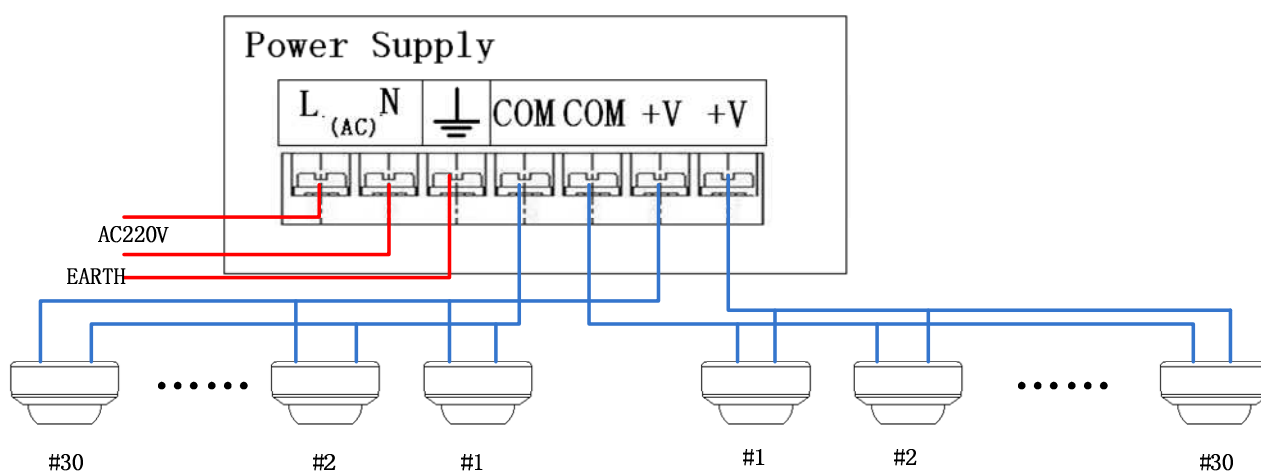


Fig.4

(3) Function Setting

Use P-7 on dipswitch to realize function selection. When P-7 is in “ON” position, it set as the operation mode in OFFLINE mode, dipswitches P-1 to P-6 are used to set up detection range of ultrasonic detector; Below figure shows when P-7 is in “ON” position(OFFLINE mode):



Fig.3

(3) Detection height Setting

When P-7 is in “ON” position, use dipswitches P-1 to P-6 to set up required detection range. It is easy and

logical to remember as different algorithm described below.

We assign different weight to each dipswitch.

Dipswitch	Weight
1	0.1
2	0.2
3	0.4
4	0.8
5	1.6
6	3.2

We add these numbers assigned to dipswitches in “ON” position (represented in white color). We skip the ones in opposite position. Each range setting is a different combination of these six dipswitches. In this way, we can calculate that in below figure, dipswitches in “ON” position will give $0.2 + 0.4 + 0.8 + 1.6 = 3.0$. That means the detection range of this ultrasonic detector is 3 meters.



Fig.4

(4) When finishing the setting above, the P08 should in working order

Remark: The ONLINE mode must need specialist to operate, it should touch our company.

7. Project Notes

(1)For protection of system spare parts, install when power is off.

(2)Working temperature: $-20^{\circ}\text{C} \sim 70^{\circ}\text{C}$.

(3)Set P08 detection height of each installation point according to the engineering construction diagram when installation

(4)P08 should be mounted at less than 4 meters (usually mounted at 2.7 meters) above the centre of

parking space. There should not be any isolation between detectors and ground ,such as pipe line 、squeeze tube,etc.P08 must be mounted parallel to the ground.

(5)Check the circuit strictly before electricity is on to protect equipments.

8. FAQ

Common Error	Analyze & Solution	Remarks
No shine detector indicator in P08	1. Check power cables of P08 ; 2. Check if the P-7 in DIP set the correct position.	1. P08 power supply:DC24V ; 2. In OFFLINE mode, the indicator in P08 should blink in one second; 3. In ONLINE mode, the indicator should blink quickly in one second when communicating ,else it couldn't.
Red LED turn on when no car	1. Check if detection height is correct;	1. It can set the detection height in the DIP in the OFFLINE mode.
No control LED guide lamp on/off	1. Check if lamp cables anti-lined; 2. Check if lamp broken.	For different indicator lamps, we have different control means, also different wiring methods in project applications.
If problem exists after checking as above recommendations, please contact us. Please do not open or destroy sensor.		

9. Transportation & Storage

(1)、Fragile, handle with care. Do not squeeze.

(2)、No shocking when P08 is transported 、handled and open

(3)、P08 should be stored when package. Put it on the support or plank. Max height is 4 boxes. Indoor temperature is -10℃-45℃,the relative humidity is less than 75%, no corrosive gas.

10. Package Check

When receive the P08 package, please make sure there is a qualified certificate alongwith the item.

P08 Parking Detector	1 pc
Qualified Certificate	1 pc