

# 货车摄像头无损加装盲区雷达预警系统

## Truck camera non-destructive retrofit blind area radar warning system

### 一、产品简介

#### I. Product Introduction

感谢您选择我司生产的商用车盲区监测并线辅助预警系统，产品由一个24Ghz毫米波雷达、一个指示灯及连接线束组成。

Thank you for choosing our commercial vehicle blind zone monitoring and lane assist warning system, which consists of a 24Ghz millimeter wave radar, an indicator light and a connecting harness.

本系统产品对相邻车道的危险目标进行预警。24Ghz毫米波雷达独特的穿透烟、雾、灰尘的能力可以实现全天候、全天时应用，实时探测信号区域内的物体，识别相对位移靠近的物体。可探测到最远12米内的目标，最后输出预警信号。

The system is designed to warn of dangerous targets in adjacent lanes. 24Ghz millimeter wave radar's unique ability to penetrate smoke, fog and dust allows for all-weather, all-day applications, real-time detection of objects in the signal area and identification of objects with relative displacement close by. Targets within a maximum distance of 12 meters can be detected, and the warning signal is finally output.

### 二、产品清单

#### II. Product List

| 名称<br>Name                                | 数量<br>Quantity |
|-------------------------------------------|----------------|
| 24Ghz毫米波雷达<br>24Ghz millimeter wave radar | 1个<br>1pc      |
| 车内预警提示灯<br>In-car warning light           | 1个<br>1pc      |
| 线材<br>Wire                                | 1组<br>1 group  |
| 角度尺<br>Angle ruler                        | 1个<br>1pc      |
| 支架及配件包<br>Bracket and accessories package | 1组<br>1 group  |

### 三、技术参数

#### III. Technical parameters

| 编号<br>Number | 项目<br>Item | 规格<br>Specification |
|--------------|------------|---------------------|
|--------------|------------|---------------------|

|    |                                      |                    |
|----|--------------------------------------|--------------------|
| 01 | 工作电压<br>Operating Voltage            | 12 V               |
| 02 | 工作频段<br>Operating band               | 24 Ghz             |
| 03 | 工作温度<br>Operating temperature        | - 40°C ~ + 85°C    |
| 04 | 功耗<br>Power consumption              | < 2 W              |
| 05 | 防水等级<br>Waterproof level             | Ip 67              |
| 06 | 距离分辨<br>Distance resolution          | 0 . 5 m            |
| 07 | 测距精度<br>Distance measuring accuracy  | Better than 0.18 m |
| 08 | 最大探测距离<br>Maximum detection distance | 15m                |

四、产品功能

IV. Product function

雷达通电启动，实时探测信号区域内物体，识别到有相对速度更快在靠近车体的物体后发出预警信号

Radar power start, real-time detection of objects in the signal area, identify objects with relatively faster speed in close proximity to the body of the car after the warning signal

预警模式：车内提示灯常亮

Early warning mode: the car light is always on

五、安装说明

V. Installation instructions

1、雷达安装高度：距离地面0.5—1.4米；超过1.4米雷达略向下倾斜（图4）

Radar installation height: 0.5-1.4 meters from the ground; more than 1.4 meters radar slightly downward tilt (Figure 4)

2、雷达安装角度：20度箭头斜面贴合雷达，标尺尺身与车身平行（如图1）

Radar installation angle: 20 degrees arrow bevel fit radar, scale ruler body parallel to the body (as in Figure 1).

3、雷达信号面朝车后，雷达信号面前方不能有金属物质阻挡；

Radar signal face towards the back of the car, there should be no metal material blocking in front of the radar signal.

4、雷达出线口朝下；

Radar outlet facing downwards.

5、雷达安装于车身左/右车身外侧；（如图2黄框内/图3/图4）

Radar mounted on the outside of the body left / right body; (such as Figure 2 in the yellow box / Figure 3 / Figure 4)

6、主线束单支红色线输出预警触发信号：可接视频主机摄像头的触发线，用于切换对应摄像头画面。

Main harness single red line output warning trigger signal: can be connected to the trigger line of the video host camera, used to switch the corresponding camera screen.

7、车内提示灯：贴到显示屏左右两侧（对应左右雷达）。如图5，图6。

In-car indicator light: stick to the left and right side of the display (corresponding to the left and right radar). As in Figure 5, Figure 6.



图1 Figure 1



图2 Figure 2



图3 Figure 3



图4 Figure 4



图5 Figure 5



图6 Figure 6

六、雷达信号覆盖示意图

VI. Radar signal coverage schematic

雷达监测区域

阴影区域为雷达信号覆盖区域  
宽3米，长10米

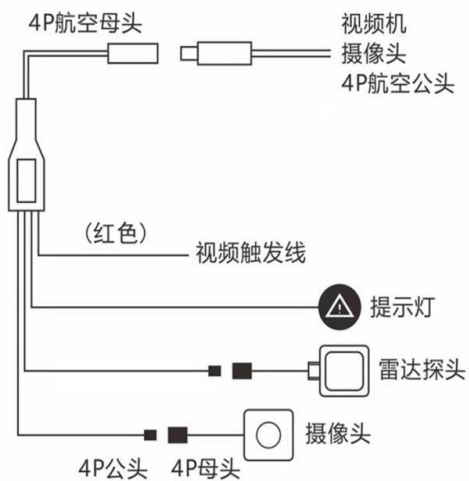


雷达监测区域  
Radar monitoring area  
阴影区域为雷达信号覆盖区域  
The shaded area is the radar signal coverage area  
宽3米，长10米  
3 meters wide and 10 meters long  
雷达安装角度  
Radar installation angle  
有物体以更快的相对速度进入信号区域，雷达预警  
An object enters the signal area at a faster relative speed, radar warning

有物体以更快的相对速度进入信号区域，雷达预警

按20度角度尺（雷达与车体形成110°角）安装：测侧车道后方移动靠近的物体。  
Installed by 20 degree angle scale (radar and car body form 110° angle): measure objects moving close behind the side lane.

七、线路连接图例  
VII. Example of line connection diagram



视频机摄像头4P航空公头  
 4P Aero head Video Machine Camera  
 4P航空母头  
 4P Airline Male  
 (红色)  
 (Red)  
 视频触发线  
 Video trigger cable  
 提示灯  
 Prompt light  
 雷达探头  
 Radar probe  
 摄像头  
 Camera  
 4P公头  
 4P male  
 4P母头  
 4P female

## 八、产品图

### VIII. Product Diagram



## 九、注意事项

IX. Notes

1、在下列情况下，雷达可能不会做出提醒：

The radar may not make a reminder in the following cases.

A、车辆位于右侧相邻车道侧后方盲区，长时间保持相对同速。

The vehicle is located in the right adjacent lane side and rear blind area, keep the relative same speed for a long time.

B、车辆所处的相邻车道极宽，超过雷达信号计算范围

The adjacent lane the vehicle is in is extremely wide and exceeds the radar signal calculation range

C、穿过山丘或山道顶点时

When crossing the top of a hill or mountain road

2、如果道路宽度较窄，可能会检测到两车道的车辆

If the width of the road is narrow, vehicles in both lanes may be detected

3、大雨天气水珠完全覆盖雷达外壳时，会降低探测灵敏度和效果。

When the water droplets completely cover the radar shell in heavy rain, it will reduce the detection sensitivity and effect.

4、车辆静止状态，雷达可感应到大雨落下，会产生预警信号

The vehicle is stationary, the radar can sense the heavy rain fall, will produce a warning signal

5、到车时，雷达会感应到后方固定物体（因与雷达有相对速度靠近）

To the car, the radar will sense the rear fixed objects (because of the relative speed with the radar close)



进行实际车道变道前，务必目视检查周围区域。

Be sure to visually check the surrounding area before making an actual lane change.

该系统仅用来辅助您检测变道时侧后方靠近的车辆，不可完全依赖本系统，如因此发生意外，本公司概不负责。

This system is only intended to assist you in detecting vehicles approaching from the side and rear during a lane change, and should not be relied upon exclusively.