RoyalTek

77G Millimeter Wave Radar



BSIS 使用手冊

型號:RAR-8200

技術規範

項目	規格
架構	雷達感測器+控制盒+警示器
水平視野	180°
啟動條件	0km/h ≤ 車速 ≤ 30km/h
偵測距離	車輛右前側:向前10m、向後30m (目標物:ISO 19206-4:2020)
輸入電壓	9-36VDC 可支援 12VDC 及 24VDC
耗電流	最大值<7.0 W
警示	提示:LED 亮燈或閃爍 警告:同時LED亮燈或閃爍及蜂鳴器 發出嗶-嗶-聲
介面	CAN/UART Reverse/Left turn/Right turn/Odometer
防水等級	IP69K (雷達感測器本體)
操作溫度	-40°C~85°C
產品尺寸	雷達感測器:129 X 42.4 X 48.16(mm) 控制盒:71 X 71 X 20(mm) 警示器:62.7 X 62.7 X 16.5(mm)
產品重量	雷達感測器:267g;控制盒:65.4g; 警示器:85.8g

中文 3H0U4A03N2P

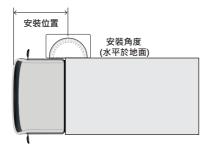
安裝說明

安裝要求

●您可以使用測量角度功能的手機APP和APK。 例如:「氣泡水平儀」應用程式...等。

●安裝位置與角度要求如下表格,量測面如下圖所示。

右前側安裝位置	安裝高度	安裝角度 (垂直於地面)	安裝角度 (水平於地面)
80~260公分	50~110公分	-2° ~ 3°	-3° ~ 3°



安裝角度

包裝清單

項目	品名	數量	項目	品名	數量
1	雷達感測器	1	7	束線帶	30
2	警示器	1	8	螃蟹夾	5
3	控制盒	1	9	控制盒背膠	1
4	線材 (控制盒至訊號端及警示器)	1	10	雷達感測器螺絲包	1
5	線材 (雷達至控制盒)	1	11	警示器螺絲包	1
6	使用手冊	1	12	医4 写定位卡	1

警報範圍

●車輛側方雷達盲點警示系統 (BSIS) 功能:

車輛行駛間,右側車前車後一車道目標物靠近於警示範圍,警示器燈號 亮起以提醒駕駛者。



2

信號電源安裝

安裝說明

注意事項

警告

本產品。

急加速、連續彎...等。

準,並遵守所有交通規則。

以下使用環境或情形均有可能導致側方雷達盲點警示系統功能檢測不穩

●可以吸收雷達波的材料,如:棉、毛衣、金屬、非反射表面...等。 ●草路或崎嶇道路上行駛時,如:上下連續陡峭斜坡、急彎、急煞停·

●大雨、大雪或大霧...等惡劣天氣下,在積水潮濕的路面上行駛時。 ●當您的車輛與警告區域的護欄、牆壁...等之間的距離較短時。

●本產品雖具備盲點偵測系統的功能,但不能用以取代或降低駕駛人 在駕駛前或駕駛時通常應具備的注意義務及應執行的任何檢查或操作

,駕駛人在任何駕駛條件下,都應保持警覺性,符合一切安全駕駛標

●本產品在偵測車輛或摩托車或行人或自行車時均不保證 100%的準確 性,因此不保證任何相關的視覺警示性能。環境及其它因素都可能影 響本盲點偵測系統的識別和反應性能,而導致警示無法正常運行。 ●駕駛人在使用本產品時,需始終保持專注於路況。當產品的警示燈亮

起或者蜂鳴器發出警告聲響時,為避免發生意外,請仍保持對周圍車

●為確保產品正常運作,建議至本產品合法經銷商或尋求專業技師安裝

3

●當您的車輛與靠近車輛的速度存在顯著差異或被快速超越時。 ■當你的車輛旁有較大靜止目標物時,較小之移動目標物偵測有可能受

●泥、雪、冰、貼紙...等覆蓋在雷達感測器或周圍區域時。

將如下車速/方向燈/檔位信號/電源連接到汽車電源系統。

	信號	備註		信號	備註
1	PWR	Ignition signal +12V/+24V (正電)	4	REVERSE	Reverse signal input (倒車檔位訊號)
2	GND	Ground (負電)	5	TURN_L	Left turn signal input (左轉燈訊號)
3	ODOMETER	Speed count input (車速訊號)	6	TURN_R	Right turn signal input (右轉燈訊號)

故障排除

	問題說明	造成原因	解決方法
		電源無法開啟	電源連接確認
		雷達傳感器毀損	請聯繫安裝服務廠
1	警示器無功能	雷達傳感器端鬆動	請聯繫安裝服務廠
		警示顯示器毀損	請聯繫安裝服務廠
		線材毀損	請聯繫安裝服務廠
2	偵測不良	雷達傳感器被污垢覆蓋	清除雷達上面異物 如仍持續不良,請聯繫安裝服務廠
3	失效模式	雷達偵測失效	重啟電源再次確認 如仍持續不良,請聯繫安裝服務廠
	, , , , , , , , , , , , , , , , , , ,	線材連接鬆脫	確認線材連接狀態

7

安裝說明

控制盒安装 安裝於駕駛艙內任一位置即可。

警示器安裝 安裝於駕駛艙內駕駛視野30°~90°度之可視範圍位置即可。 雷達感測器安裝

步驟一:安裝前請確保安裝區域附近表面非常乾淨。

步驟二:將定位卡放到車輛右側之適合安裝位置並標記。

步驟三:雷達對準標記的位置並鎖附螺絲(細節請參考安裝要求)。







安裝說明

機設備之干擾。

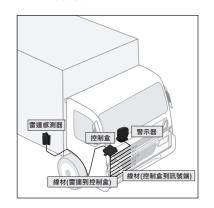
安裝提醒 注意!

警告

保證或承擔責任。

●由於車型配置不同,本說明書中的安裝圖僅供參

●如果您對車內相關部件及本產品的安裝不熟悉 建議請專業技術人員進行安裝。



4

●產品的製造商和經銷商對車輛行駛過程中發生的碰撞或損壞不作任何

●取得審驗證明之低功率射頻器材,非經核准,公司、商號或使用者均

●低功率射頻器材之使用不得影響飛航安全及干擾合法通信;經發現有

●低功率射頻器材須忍受合法通信或工業、科學及醫療用電波輻射性電

干擾現象時,應立即停用,並改善至無干擾時方得繼續使用。前述合

不得擅自變更頻率、加大功率或變更原設計之特性及功能。

法通信,指依電信管理法規定作業之無線電通信。

6

RoyalTek

77G Millimeter Wave Radar **User Manual**

Model:RAR-8200

Technical Specification

Item	Specification
Structure	Radar sensor + ECU box + Indicator
HFOV	Azimuth 180°
Active Condition	0km/h ≤ Speed ≤ 30km/h
Detection Range	Vehicle front right corner: front 10m, rear 30m (Target object ISO 19206-4:2020)
Supply Input Voltage	9-36VDC available for 12VDC and 24VDC system
Power Consumption	(max.)<7.0 W
Alert	Information signal: LED on/flash Warning signal: LED on/flash with buzzer
Interface	CAN/UART Reverse/Left turn/Right turn/Odometer
Waterproof	IP69K (Radar sensor unit)
Operating Temperature	-40°C~85°C
Dimension	Radar sensor: 129 X 42.4 X 48.16(mm) ECU box: 71 X 71 X 20(mm) Indicator: 62.7 X 62.7 X 16.5(mm)
Weight	Radar sensor: 267g, ECU box: 65.4g, Indicator: 85.8g

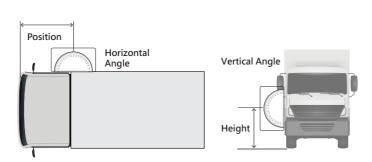
English 3H0U4A03N2P

Installation

Installation Requirements

- •You can use the phone APPs and APKs with the function of angle measuring, such as Bubble level App, etc.
- The installation position and angle requirements are shown in the following table, and the measurement surface is shown in the below figure.

Front right side of vehicle	Installation Height	Installation Angle (Vertical to the ground)	Installation Angle (Horizontal to the ground)
80~260cm	50~110cm	-2° ~ 3°	-3° ~ 3°



5

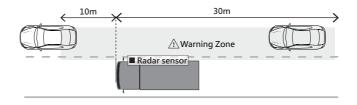
Packing List

Item	Description	Q'ty	Item	Description	Q'ty
1	Radar sensor	1	7	Cable tie	30
2	Indicator	1	8	Cable clip	5
3	ECU box	1	9	ECU adhesive	1
4	Cable (ECU to signal)	1	10	Radar screw package	1
5	Cable (radar to ECU)	1	11	Indicator screw package	1
6	User manual	1	12	Locating card	1

Alert Range

BSIS function:

The radar sensor is used to remind the driver withthe indicator if any object is getting close to the warning zone when the car is moving.



2

Installation

Installation of ECU Box Anywhere in the cabin.

Installation of Radar sensor

Step 2: Place the locating card in the appropriate installation and

Installation

Attention

detection instability:

consecutive turns, etc.

surrounding area.

is relatively short.

Caution

using this product.

thick fog, etc.

metals, non-reflective surfaces, etc.

vehicles or when being quickly overtaken.

smaller moving targets may be affected.

The following environments or events may cause BSIS function

 Driving on grassy or rugged roads, such as continuous steep slopes, sharp turns, sudden stops, sudden accelerations,

•When mud, snow, ice, stickers, etc., cover the radar sensor or

• During the severe weather, such as heavy rain, heavy snow, or

•When the distance between your vehicle and barriers or walls

• A large stationary object next to your vehicle, the detection of

• Although it has BSIS functions, it can't used to replace or reduce the driver's attention before driving and any operation. You should be kept on alert when driving to meet all standards of safe driving and obey all traffic rules also keep your focus on the road when

● This product isn't guaranteed to be 100% accurate in detecting vehicles, pedestrians, bicycles or motorcycles, therefore doesn' t guarantee any visual warning. The environment and other factors may affect the identification and response performance of the

blind spot detection, resulting in the warning not working properly.

• No significant speed difference between your vehicle and

• Materials that can absorb radar waves, such as: cotton, sweaters,

Wire connection

Connect signal power as below to the vehicle power system.

	Definition	Note		Definition	Note
1	PWR	Ignition signal +12V/+24V	4	REVERSE	Reverse signal input
2	GND	Ground	5	TURN_L	Left turn signal input
3	ODOMETER	Speed count input	6	TURN_R	Right turn signal input

Troubleshooting

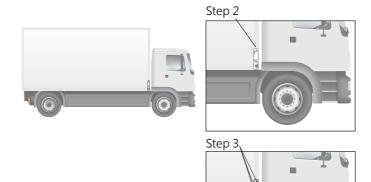
	Cannot power on	Power connection verification
	Radar sensor damaged	Contact the installation service provider
Indicator no function	Radar sensor end loose	Contact the installation service provider
	Indicator damaged	Contact the installation service provider
	Wire damaged	Contact the installation service provider
Detection error	The radar sensor covered with dirt	Clean radar sensor. If still abnormal, please contact the installation service provider
Failure mode Radar detection failure Loose wiring connection	Radar detection failure	Restart the power to check again. If still abnormal, please contact the installation service provider
	Cable connection verification	
	no function Detection error Failure	Radar sensor damaged Radar sensor end loose Indicator damaged Wire damaged Detection error The radar sensor covered with dirt Radar detection failure mode

Installation of Indicator In the visible range of 30° to 90° from driver's field of view in the cabin.

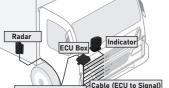
Step 1: Before installation, make sure the area surface is cleaned.

mark it.

Step 3: Align the radar to the location, and then lock and adhesive



6



•When using this product, the driver needs to keep focusing on

the road conditions. When the warning light is on or the buzzer is

• Ensure the normal operation of the product, it is recommended

to install the product at the authorized distributor of the product

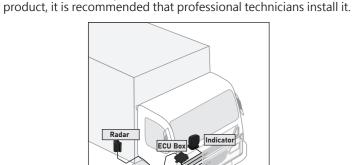
• Manufacturers and distributors of the product do not guarantee

or assume liability for collisions or damages that take place during

• As the configuration kind of car differs, the installation drawing

• If the relevant components or installation is unfamiliar to this

sounding, please pay attention to the surrounding vehicles to



Caution

avoid accidents.

vehicle driving.

Notice!

Installation Installation of Vehicle

or seek a professional technician.

in this manual is for reference only.