Part description (Bluetooth handsfree car kit)

D.C Power Input - Connect to the cigarette lighter

USB Upgrade Port - For firmware upgrade

Speaker - The back side

Caller ID Indicators - 12 digits (phone with handsfree profile required)

LED Indicators - 4 LEDs - Light on (during handsfree use)

Bluetooth Link LED - Light twinkling (Pairing mode)
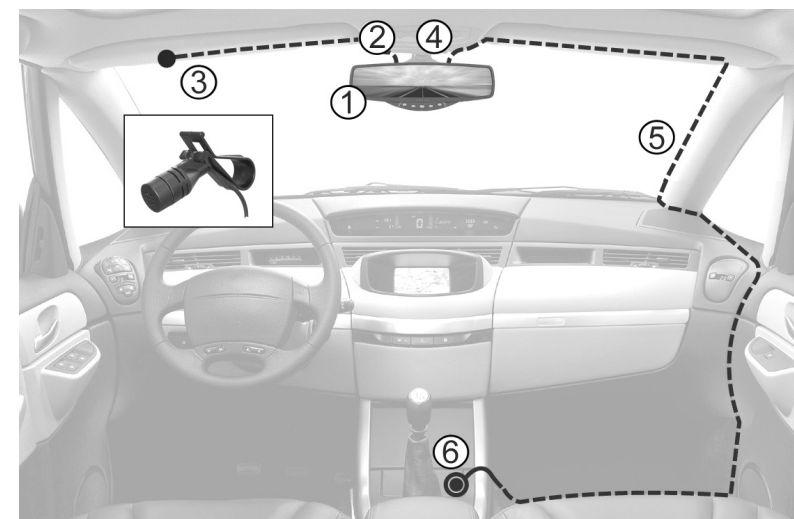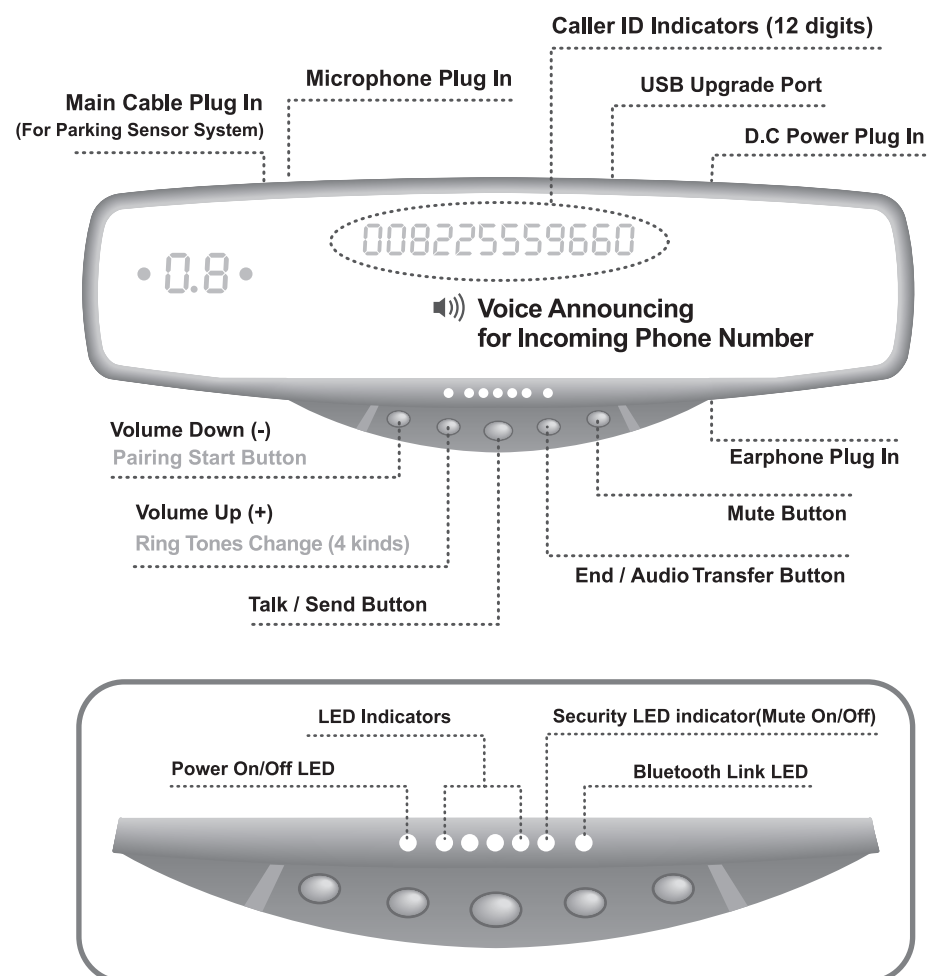   Light on (Bluetooth mode)

VOL ▲ / ▼ - For adjusting the loudspeaker volume up / down
        - Also used during the initial set up and pairing process

SEND - Controls 'Answer & Talk', 'Redial', 'Voice Dialling' and 'Pairing re-activation'

END - 'End', 'Reject' and 'Audio transfer'

MUTE - Switches OFF built-in loudspeaker allowing private conversation when
        optional earphone. (not included)

EAR - Earphone plug in

Caller ID Indicators (12 digits)

Microphone Plug In

USB Upgrade Port

Main Cable Plug In
(For Parking Sensor System)

D.C Power Plug In

008225559660

·0.8·

🔊 **Voice Announcing**
   for Incoming Phone Number

Volume Down (-)
Pairing Start Button

Earphone Plug In

Volume Up (+)
Ring Tones Change (4 kinds)

Mute Button

End / Audio Transfer Button

Talk / Send Button

LED Indicators

Security LED indicator(Mute On/Off)

Power On/Off LED

Bluetooth Link LED

·0.8· 008225559660

6

Installation guide

Bluetooth HandsFree Car Kit

① On the back of the **MHF-R330BT** unit you will see two pairs of clips. Place the bottom pair of clips on the underside of your existing rearview mirror. Lift the unit so that the bottom clips extend allowing the top clips to be fixed in position on top of your Rearview mirror and securely hold the handsfree unit in place. Adjust the fitted unit to your preference for clear rear vision.

② Select a suitable position for the microphone depending on your vehicle type, this should be placed close to the users head - the driver's sun visor is normally adequate.
"It is highly recommended to have the front of the microphone (side with more holes) directly facing the operator for the best voice pickup." The microphone can be placed either back or front of the visor by detaching, rotating and re-attaching microphone holder to correct side of the microphone.

③ Clip a microphone on the driver's sun visor recommended to keep a distance of the microphone from the **MHF-R330BT** unit as long as possible.

④ Insert the power jack of the power adapter cable (4M).

⑤ Connect the Power Adapter Cable into its respective socket on the **MHF-R330BT** unit.

⑥ The power lead should be secured and hidden into the vehicles interior using the seals or joins around the windscreen and door "A-Frame" and under your dashboard. Ensure that you leave yourself enough cable to be able to connect to your cigarette lighter socket.

Note : *Please ensure that the microphone and power cable do not interfere with the safe operation of your vehicle.*

Pairing your Bluetooth cellular phone with the MHF-R330BT

The MHF-R330BT supports both HandsFree and Headset Profiles. The default profile is HandsFree. Follow the pairing instructions for the first use, after that the unit will pair automatically.

Power On : It appears **start** on the mirror.
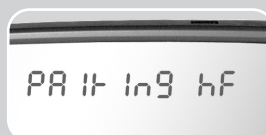
StArt

◀))) *Voice : "Power On"*

Pairing in "HandsFree" mode

1. When the power is on, press the "VOL ▲" button for 3 seconds.

2. You will hear a beep tone.
The HandsFree unit is now ready to be paired for the first time.

It appears **Pairing HF** on the mirror.

PAItIn9 hF

3. For the next procedure, Go to the next page to follow the instruction of ;

Go to | Cellular phone pairing mode (Next page)

Pairing in "Headset" mode

1. After the above 1~2, then press the "VOL ▲" button for 3 seconds again.

2. You will hear a second beep tone, which shows the unit is ready to be paired for the first time.

It appears **Pairing HS** on the mirror.

PAItIn9 hS

3. For the next procedure, Go to the next page to follow the instruction of ;

Go to | Cellular phone pairing mode (Next page)

The "**Headset**" **mode** does not support
'**Caller ID**', '**Voice Dialling**' and '**Reject Call**'

Cellular phone pairing mode

1. Browse your cellular phone menu and find the connectivity and / or Bluetooth connection section.

2. Select the "search for" a new HandsFree device function and allow the phone to find the **MHF-R330BT**.

   Note : Each cellular phone type has distinct phone menu so you may need to refer to your manufacture's instructions for the correct procedure on how to "connect a new Bluetooth device".

3. The Bluetooth code for the **MHF-R330BT** should appear on your cellular phone screen.

4. Press the "connect" with the HandsFree option on your cellular phone.

   Note : Please return to the pairing instructions if the Bluetooth code does not appear on the cellular phone screen. The green LED light should flash during pairing.

5. The cellular phone should prompt for a pin code.
   Insert the **MHF-R330BT** pin code : **1 2 3 4**

6. The cellular phone should confirm that it has established a new paired connection.

7. Close the menu. The pairing is now completed.

   It appears **Paired** on the Mirror.

   PAItEd

   ◀))) *Voice : "Connected"*

   Note : The green LED light illuminates after successful pairing.
   Please adjust the volume to your preference by using the volume keys.

Pairing can be stored up to 4 cellular phones.

● **ModooFree Plus BT** can be stored up to 4 different phones.
● The earliest phone number will be removed when the memory is full.
● The Pairing Priority will be given to the last paired cellular phone.
● If you want to change the pairing priority, try to connect **ModooFree Plus BT** from the cellular phone.

No Bluetooth connection :

No Phone on the mirror.

➔ Press "SEND" button in order to reactive Bluetooth pairing link.

no PhonE

Send call :

Calling on the mirror.

CALLIn9

MUTE :

Secret on the mirror.

SECrEt

NOTE : Once the Bluetooth pairing is completed between your cellular phone and MHF-R330BT, the both units will be automatically recognized on its pairing whenever turn on the key in your car.

Useful Tips for Bluetooth Connection

1. Should your cellphone battery be at low charge, the Bluetooth connection may occasionally be lost. To maintain good connectivity ensure that your phone battery is adequately charged.

2. In case of failure of Bluetooth pairing
   1) Delete item in paired list on your Bluetooth phone
   2) Reset both phone and handsfree by switching off /on
   3) Reset pairing as per procedure

3. Connection not established after pairing
   ➜ Manually connect from the paired phone
      i.e. My paired devices ➜ MHF-R330BT ➜ Connect

4. How to establish re-connection after pairing
   ➜ Press "SEND" button briefly
   ➜ Press and hold "END" button for 5 seconds

   The handsfree unit will re-connect automatically thereafter.

Using the MHF-R330BT as a HandsFree Device

When the handsfree is ringing with incoming call

To accept call
press "SEND" button

It appears **Accept Call** on the mirror.

`ACCEPt CALL`

To reject call
press "END" button

It appears **Drop Call** on the mirror.

`dɾoP CALL`

To change handsfree ring tone (3 Ring Sound Options + 1 Voice)
press and hold "VOL ▼" button for 5 seconds.

Display will show **Elod 1, 2, 3. or O.**
Set to your chosen option by repeating same procedure.

`ELod 1`

※ **No voice announcement from the handsfree**
   ➜ Set cellular phone profile to **Vibration / Silent** mode.

During conversation

To end call
press "END" button

It appears **Drop Call** on the mirror.

`dɾoP CALL`

To control volume
press "VOL ▲" / "VOL ▼" button

It appears **Vol Up** or **Vol Dn**(down) on the mirror.

`uoL UP`
`uoL dn`

Audio transfer

The audio transfer function is for switching the call from the HandsFree unit to the cellular phone for a private conversation without disconnecting the call.

Switching from HandsFree to cellular phone :
   Press and hold "END" button (for 3 seconds)
Switching back to HandsFree :
   Press and hold "END" button (for 3 seconds)

It appears **Call Trans** on the mirror.

`CALL tɾAnS`

Call waiting

Double click "SEND" button connecting to the second call.

It appears **Redial** on the mirror.

Note : *This function only works if you have a call waiting option with your carrier and also another call is actually waiting to be answered.*

`ɾEd IAL`

Last number dialling during idle

Press "SEND" button

It appears **Redial** on the mirror.

Note : *This function only works if phone has "last number redial" feature.*

`ɾEd IAL`

Voice Dialling during idle

Press and hold "SEND" button (for 2 seconds)

It appears **Voice Dial** on the mirror.
Announce name after a beep.

Note : *Voice dialling is possible only if your cellular phone has a voice dialling capability. Each cellular phone type has distinct phone menu so you may need to refer to your manufacture's instructions.*

`uoICE dIAL`

HandsFree Call (Send Call) in the Car

Press phone number on the cellular phone, and press "SEND" button of HandsFree.

Note : If there is no sound on the loudspeaker of HandsFree unit, press and hold "END" button for 3 seconds. Then, it will switch from Cellular Phone to Hands Free.

Private conversation option:

The operator can plug an earphone (not included) in to the earphone jack of the **MHF-R330BT** for a private conversation.

Note : For your own safety, it is highly recommended that the vehicle is parked in the safe place when plugging in the earphone.

> *Please note ;*
> *It is possible that the **MHF-R330BT** buttons might not operated as per this operation guide if your Bluetooth phone has an unusual Bluetooth program. In this case, please reset both **MHF-R330BT** and cellular Phone.*

### Re-activation of Bluetooth Link after Pairing
➜ *Press "SEND" button.*

(If Bluetooth Link LED is turned off, press "SEND" button
in order to reactivate the Bluetooth pairing link)

Specification (HandsFree Car Kit)

Input power	10 ~ 16V DC
Normal Current	> 50mA
Maximum Current	> 500mA
Fuse	250V / 2A
Speaker	Max. 2W
Microphone	Directional microphone -52dB
Noise Suppression	Up to 18dB
Echo Suppression	Up to 42dB
Operating temperature range	- 30℃ ~ + 80℃
Full duplex operation with noise & echo suppression	
Bluetooth specification: v1.2 compliant	
Supported Profiles	Handsfree Profile, Headset Profile
Power Class	2dBm Max (Class 2)
Carrier Frequency	2400MHz ~ 2483.5MHz
Built in Flash memory	8M bit
Compatibility	This unit is compatible with most Bluetooth equipped cellular phones including Motorola, Sony Ericsson and Nokia, Samsung, LG, Etc. (Most Bluetooth enabled phones)

Installation on the Parking Sensors

This manual is intended to explain the safe and correct use of the product. Please read this manual carefully before use.
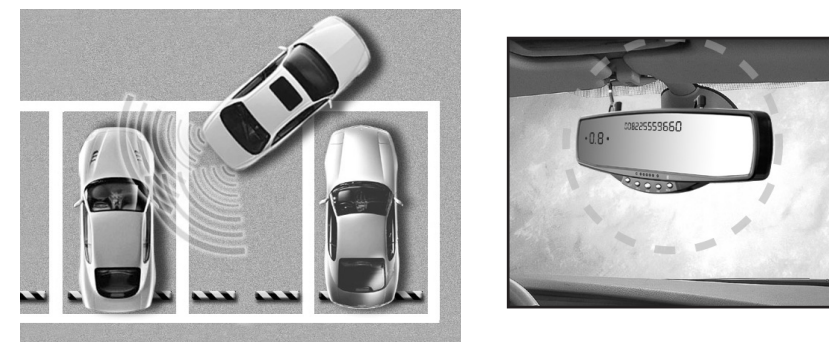
With a built-in Parking Sensors by ultrasonic sensors inside the rear mirror, while backing the vehicle, the sensor senses the distance from the right, left, rear and indicates the distance via LED digits (0.4m~1.6m) & left & right and also by four stages of warning signals(beep sounds) which helps the driver while backing the vehicle.

Product Overview

The Parking Sensor helps the driver view the rear of the vehicle. It helps prevent collisions and accidents during any backward movement of the vehicle. If there is an obstacle at the rear of the car, the alarm inside the vehicle displays the distance to the obstacle and generates a signal proportional to it.

Features of the Product

- Enables safe backward movement by detecting obstacles in the rear.
- Insures a safe distance in the event of snow, rain, frost or fog.
- Insures a safe distance between an obstacle and the rear of the vehicle while parking and stopping.
- Easily installed and semi-permanent.
- Good design which matches the vehicle (Attach Type sensors).
- Displays the distance to the obstacle from the back of the vehicle while backing-up within 0.4m.
- Informs the driver of the proximity of obstacles on the left and right sides of the vehicle.
- Generates a four-level alarm signal depending on the distance to the obstacle.

Method of Operation

The Parking Sensor beeps and the distance meter displays as "0.0" as soon as you engage the reverse gear. An alarm is generated if an obstacle is detected within the first-level detection area (within 1.6m), and the distance meter displays the distance to the obstacle. The alarm changes as the obstacle approaches the second-level (within 1.0m) and third-level (within 0.6m) detectionarea. When the obstacle is within 0.4m, a continuous alarm is generated. If the driver does not hear the alarm due to noise or weak hearing ability, the distance meter and the left/right lamps indicate the proximity of the obstacle.

Part description (Parking sensor kit)

Detection LED Indicators

Left 0.8 Right

Distance Indicators
(0.4~1.6M)
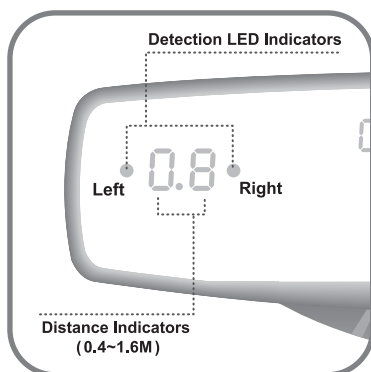
Detection LED Indicators
- Left (●) and Right (●)

Distance Indicators
- Distance via LED digits (0.4M ~ 1.6M)

Specification (Parking Sensors)

|	
Input power	12V~24V DC (Free Voltage)
Ejection Molding Material	ABS
Detection	Ultrasonic Sensors
Ultrasonic Frequency	40KHZ
Operating Temperature	- 20°C ~ + 65°C
Length of Main Cable	7m
Length of Sensor Cables	3m
Length of Power Cable	3m

Product Installation

Car Installation
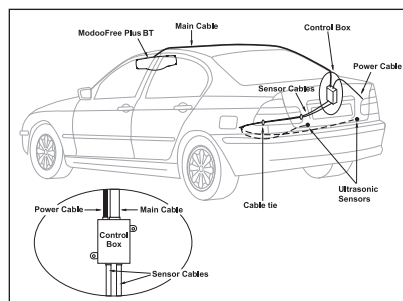
Connecting the parking system to the ModooFree Plus BT.

- Install the control box at the left and right sides of the rear seat beyond the reach of passengers' hands.

- Pull the main cable out of the windshield or pedal and connect it to the control box.

- Connect the sensor cable and the power cable to the control box.

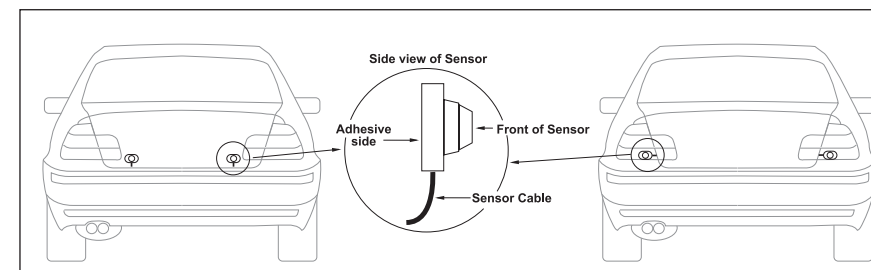- Use the cable-tie to organize the loose cables.

Installation Method

▶ Installation of Sensors

Organizing the Sensor Cable (two ways)
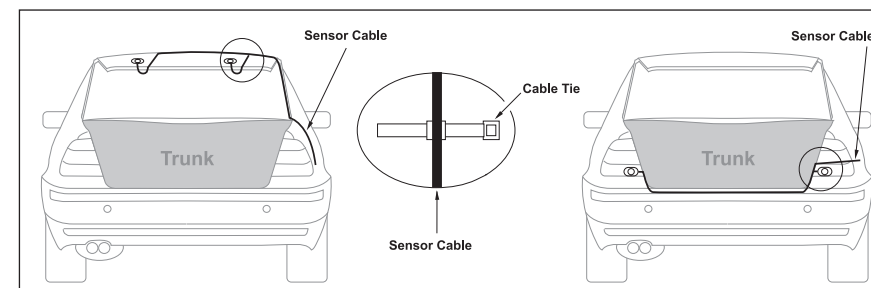
After attaching the sensor, attach the mount to the trunk and fix the sensor cable with the cable tie. Then, pull the sensor cable to one side of the trunk and put it in the control box.

Installed Exterior of the Attach-Type Sensors (two ways)

Apply the Two-sided tape to the sensor attachment. Attach the sensor to the trunk or rear lights at about 50~80cm(20"~32") (normally 60cm(23.5")) from the center of the car.

※ **Caution** : The sensor may be positioned upside down.

Connecting the Power Cable
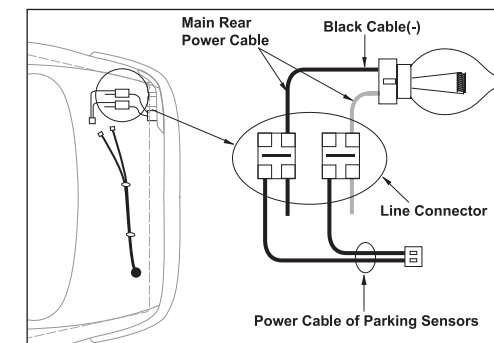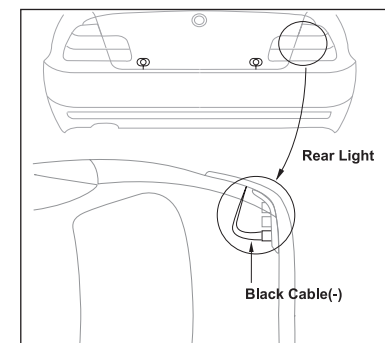
Connect the power cable.

Generally, black cables are (-) in vehicles. In the case of the ModooFree Plus BT Cable, do not peel off the cable covering - connect it using a line connector.

※ **Caution** : Beware of the (±) polarity.

Use of the Line Connector

Power Cable
of Parking Sensors

ⓐ

Rear Power Cable

Clip

ⓑ

ⓒ

Door

ⓓ

Rear Power
Cable   Power Cable
of Parking Sensors

ⓑ Put up the power cable in the line connecter as "ⓐ"
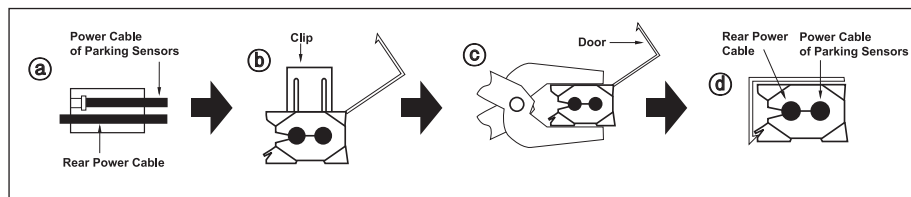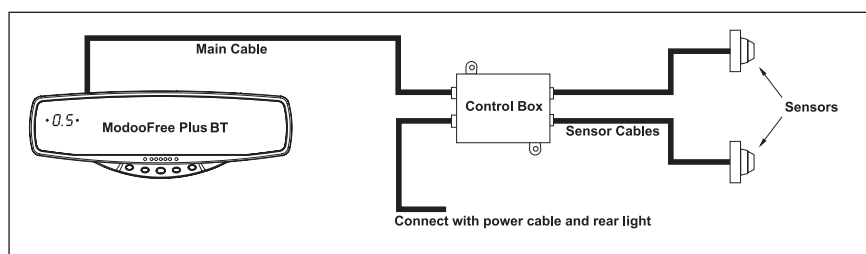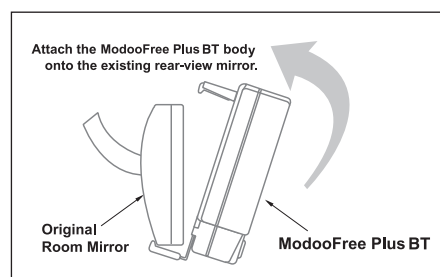ⓒ Press the clip with a long nose plier.
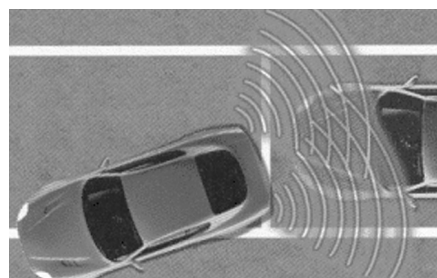ⓓ Close the door of line connector.

Attaching the Main Unit

Attach the ModooFree Plus BT body onto the existing rearview mirror.

Fix the connector at the parking sensor plug of the ModooFree Plus BT.

Attach the ModooFree Plus BT body
onto the existing rear-view mirror.

Original
Room Mirror   ModooFree Plus BT

Main Cable

•0.5• ModooFree Plus BT

Control Box

Sensor Cables

Sensors

Connect with power cable and rear light

Fix the connector with the control box label at one side of the alarm cable (7m) to the control box connector.

Detection distance

Detection Distance

First - level

Second - level

Third - level

Fourth - level

Rear Bumper

1.6M

1.0M

0.6M

0.4M
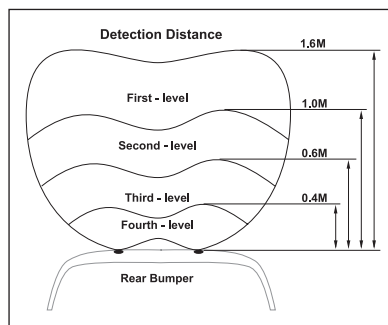
※ Attaching to Other Types of Vehicles (For trucks and tow trucks)

- It is better to arrange the cables along the left side of the frame (by the driver's seat).
- Make certain that water cannot contact the sensor while driving.
- The main cable should be long enough to compensate for the contours of the driver's seat.
- The main cable should be kept away from the engine, if possible.

Bracket Attachment
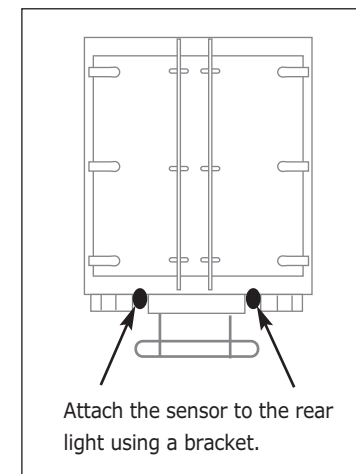
The sensor horn should always be in a horizontal position.

Attach the sensor to the rear light using a bracket.
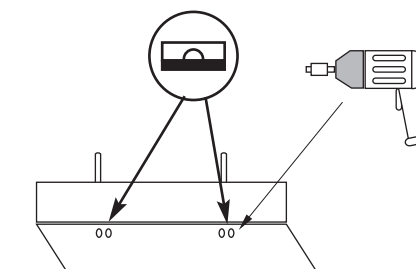
Bore two holes on the left and right sides with a drill, so that the bracket can be fixed with screws.

Attach at the center for a 1-ton truck, and at the rear gutter for a larger truck.

ModooFree Plus BT

Control Box   Install Sensors
by using brackets

008225559660

•0.8•
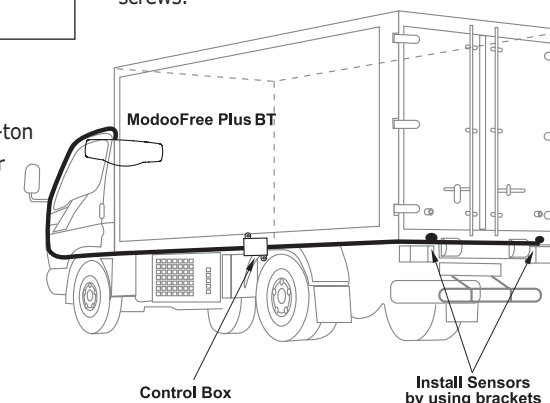
Troubleshooting

▶ Bluetooth HandsFree Car Kit

No indication from unit?
There is a chance the power cable plug is not correctly seated in the cigar/utility jack socket for proper connection. Remove and reinsert to ensure good fitting and connection.

Problem during pairing?
Repeat pairing process according to the pairing section

Still experiencing problem?
Turn off the cellular phone and separate the battery from the cellular phone for approximately five seconds (In some instances, this action clears up any potential bugs built up in the cellular phone software that can hinder proper pairing.) Repeat pairing process as per previous pairing instructions.

Too loud?
Adjust the volume to your preferred sound level by pressing the relevant volume switch.

Each type of Bluetooth cellular phone has different function buttons, though highly unusual, it may be possible that the functions operate differently with your specific phone model.

Callers are complaining about hearing noise?
Check that the microphone is secured firmly in place and is not creating vibration and noise. Also check and adjust microphone accordingly to ensure that it is facing towards to the user's face.

▶ Parking Sensors Kit

The sensor does not work while engaged in "Reverse".
 - Check to see if the power cable is connected to the rear light.
 - Check to see if the power cable and the alarm cable are connected to the alarm.

The sensor does not detect obstacles. Only (0.0) is displayed.
 - Check to see if the sensor cable and alarm cable are connected.
 - Check to see if the alarm cable is connected to the alarm.
 - Check to see if the sensor is obstructed by dirt.
 - Check to see if any sensor is detected with the earth.

Safety precautions

 - Do not expose this unit under humid environment.
 - Do not drop this unit.
 - Do not disassemble this unit.
 - Do not press two buttons at once. This action may cause a sudden Bluetooth disconnection.
 - Do not clean the unit with any chemical or water.
 - Keep this unit away from fire and dust.
 - For safety reasons, please keep your phone conversation short, do not make any notes or read documents. It is highly recommended to park the vehicle in the safe place before continuing the conversation. Using a cellular phone while driving can potentially create a distraction for the driver which may increase the likelihood of an accident.
 - Please adjust direction of the mirror to ensure good rearview vision for safe driving.

 - Use the third-level alarm only when the obstacle is located in a straight line from the vehicle.
 - Attach the sensor level with the ground surface.
 - Keep water away from the alarm (ModooFree Plus BT).
 - Thin rods or objects, objects with a high tint angle, and sound-absorbing objects cannot be detected.
 - Beware that the power cable or sensor cable may be cut if excessive force is used during installation.
 - The area just under and to the right and left ends of the rear bumper cannot be detected.

Warranty

SungJin Techwin Co., Ltd. warrants to purchaser that for a period of one (1) year after the date of purchase (the "Warranty Period") of any SungJin Techwin Co., Ltd. Product by Purchaser, the product will substantially conform to SungJin Techwin Co., Ltd. published specifications for the product on the date of purchaser's purchase of the product, subject to the terms herein. Purchaser shall notify SungJin Techwin Co., Ltd. of any non-conformance during the warranty period and obtain a written return material authorization ("RMA") from SungJin Techwin Co., Ltd. for the nonconforming product and return the nonconforming product to SungJin Techwin Co., Ltd., freight prepaid with a statement describing the nonconformity. SungJin Techwin Co., Ltd. exclusive obligation with respect to nonconforming product shall be, at SungJin Techwin Co., Ltd.'s option and expense, to repair or replace such returned item. The foregoing is purchaser's sole and exclusive remedy for breach of warranty by SungJin Techwin Co., Ltd.'s with respect to the product. The warranty set forth above shall not apply to any product, which has not been properly used or handled in accordance with the instructions supplied by SungJin Techwin Co., Ltd. In addition, SungJin Techwin Co., Ltd.'s warranty is void if the product has been repaired, altered, damaged by the faulty installation, misuse, abuse, or which the product defect is attributable to any failure or damage which is beyond the reasonable control of SungJin Techwin Co., Ltd. This warranty applies only to new SungJin Techwin Co., Ltd. products purchased from authorized retail sellers only. The foregoing warranties are the sole warranties, express or implied, given by SungJin Techwin Co., Ltd. in connection with the product, and SungJin Techwin Co., Ltd. disclaims all other warranties, including warranties of merchantability, fitness for a particular purpose and no infringement of third party rights.

SungJin Techwin Co., Ltd. shall not be liable for any special, incidental or consequential damages in connection with the product, even if SungJin Techwin Co., Ltd. has been advised of the possibility of such damages. The liability of SungJin Techwin Co., Ltd. hereunder for all claims shall not exceed the amount paid by purchaser to SungJin Techwin Co., Ltd. for the product sold rise to SungJin Techwin Co., Ltd.'s liability.

Memo

....
....
....
....
....
....
....
....
....
....
....