

SungJin Techwin Co., Ltd.



For every kind of car, there is only one HandsFree Car Kit.
SungJin Techwin products insure all of our customer's safety and quality
under the quality management system of ISO 9001.

For more details, please visit to www.switch-vr.com



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Bluetooth HandsFree Car Kit

SungJin Techwin Co., Ltd.

www.switch-vr.com

Made in Korea

v5.9



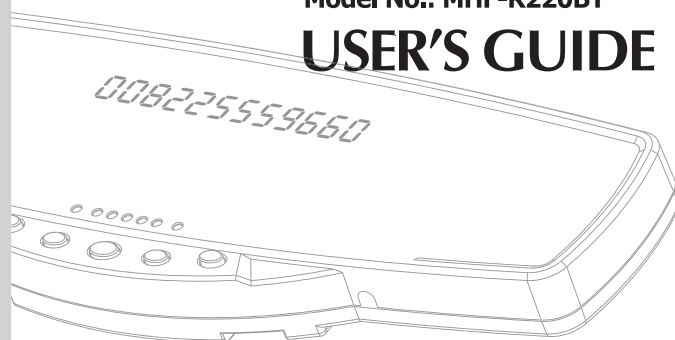
The Premium HandsFree Car Kit

modoo free BT

Rearview Mirror HandsFree Car Kit

Model No.: MHF-R220BT

USER'S GUIDE



SungJin Techwin Co., Ltd.

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MHF-R220BT

modoo free BT

Bluetooth HandsFree Car Kit

Introduction

The Rearview Mirror HandsFree Car Kit (MHF-R220BT) is a wireless device that utilises the latest **Bluetooth*** technology to communicate with your compatible phone within a 10-metre range. This allows you to talk through its built-in high quality loudspeaker and external high sensitivity microphone without the need to hold the phone or take your hands off the steering wheel.

So easy to install, just plug into your vehicles lighter socket and simply clip the **MHF-R220BT** unit over the existing Rearview mirror and once set up, you will be able to answer, end, reject, redial, place calls or adjust the loudspeaker volume by the simple press of a button, wherever your phone is in your car- there is no need to even remove your phone from your pocket or purse.

The **MHF-R220BT** also supports voice dialling** which enables you to dial your favourite contacts without the need to touch the phone and allow you to remain concentrated on safely driving your car.

*** Ring Tone (4 kinds) : 1 voice, 3 ring sounds**

Notes :

* Bluetooth wireless technology is an international standard for short range wireless communication. It allows you to establish a wireless connection within a range of 10 metres between your **MHF-R220BT** and a compatible device. Bluetooth is a registered trademark of Bluetooth SIG Inc.

** Functions only with cellular phones with voice dialling capability.



Features

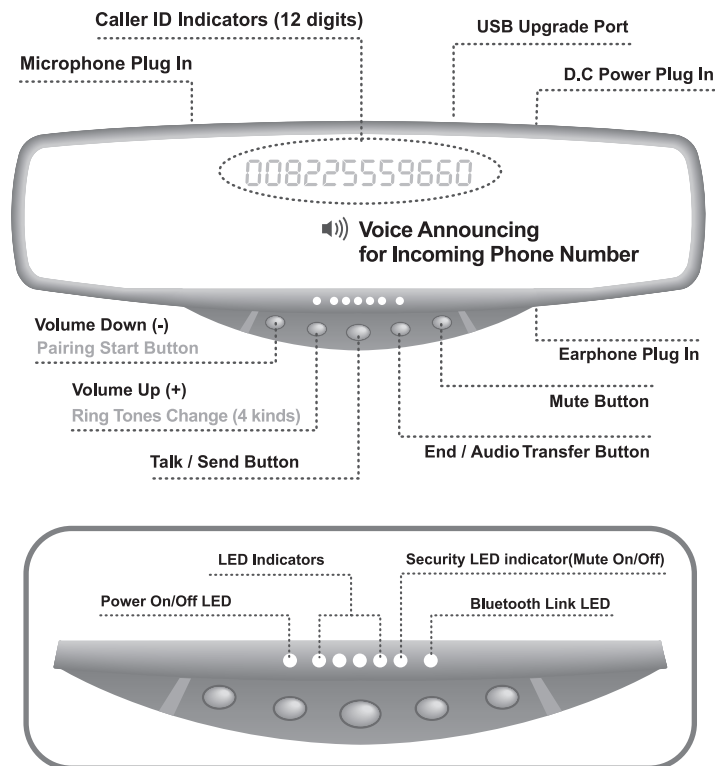
- Universal bluetooth handsfree car kit for all kind of bluetooth phone. (Compatible with all kinds of GSM / CDMA / TDMA / WCDMA bluetooth phones.)
- Rearview mirror type. (Anti-glare & Safety mirror function)
- 12 Digit Caller ID. (phone with handsfree profile required)
- Voice announcing for incoming telephone number.
- Changeable ring tones. (3 Ring Sound Options + 1 Voice)
- Digital noise & echo suppression system.
- Full two ways (Duplex) conversation.
- High powered amplifier and speaker.
- Directional high sensitive microphone.
- Voice dialling, redial and audio transfer function.
- USB firmware upgrade.
- Automatic re-connection.
- Loudspeaker mute button.
- Easy set up and simple operation.
- Modern & elegant design.
- Provides the best sound clarity with little or no distortion. (Superior sound quality)
- Surge prevention circuit



MHF-R220BT Installation Image

Box Content

- | | |
|-------------------------------------|-----|
| ● Rearview Mirror HandsFree Car Kit | 1EA |
| ● Power Adapter Cable | 1EA |
| ● User's Manual | 1EA |



Part description

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

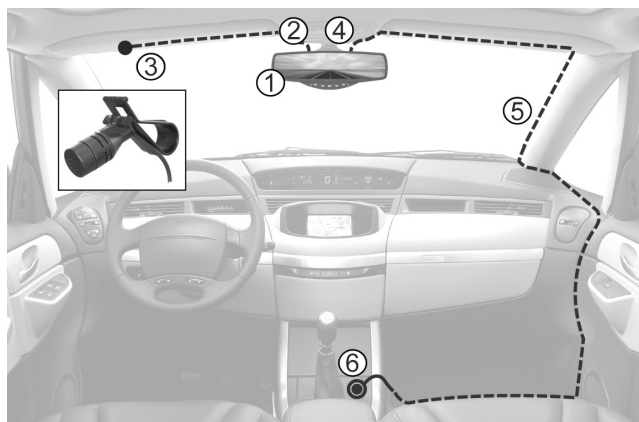
SEND - Controls 'Answer & Talk', 'Redial', 'Voice Dialling' and 'Pairing re-activation'

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

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

EAR - Earphone plug in





Installation guide

- ① On the back of the **MHF-R220BT** 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-R220BT** 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-R220BT** 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-R220BT

The MHF-R220BT 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 :

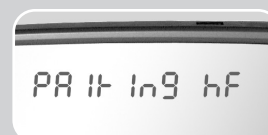
It appears **start** on the mirror.

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.

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.

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 ModooFree BT (**MHF-R220BT**).

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-R220BT** 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-R220BT 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.

🔊 **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 BT(MHF-R220BT) 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 BT from the cellular phone.

No Bluetooth connection :

No Phone on the mirror.

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



Send call :

Calling on the mirror.



MUTE :

Secret on the mirror.



NOTE : Once the Bluetooth pairing is completed between your cellular phone and MHF-R220BT, 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-R220BT ➔ 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-R220BT 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.



To reject call

press "END" button
It appears **Drop Call**
on the mirror.



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 0.**

Set to your chosen option by repeating same procedure.

※ 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.



To control volume

press "VOL ▲" / "VOL ▼" button
It appears **Vol Up** or **Vol Dn**(down)
on the mirror.



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 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.

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.

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.



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 HandsFree.

Private conversation option:

The operator can plug an earphone (not included) in to the earphone jack of the **MHF-R220BT** 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-R220BT** 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-R220BT** 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

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°C ~ + 80°C
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)

Troubleshooting

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.

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



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