CALIBER

RMD 050DAB-BT
Manual
· ENGLISH ·

SPECIFICATIONS

FM TUNER

Frequency Range -- 87.5 ~ 108MHZ

Usable Sensitivity -- 12 dBuV

Stereo Separation -- >35 dB

DAB+ TUNER

Frequency Range -- 174 ~ 240MHz

Antenna type ---------- Screen mount / male SMA connector / active (with separate 12V power supply wire)

Note: connect the antenna power supply wire to the remote/antenna wire (blue/white) of the head unit
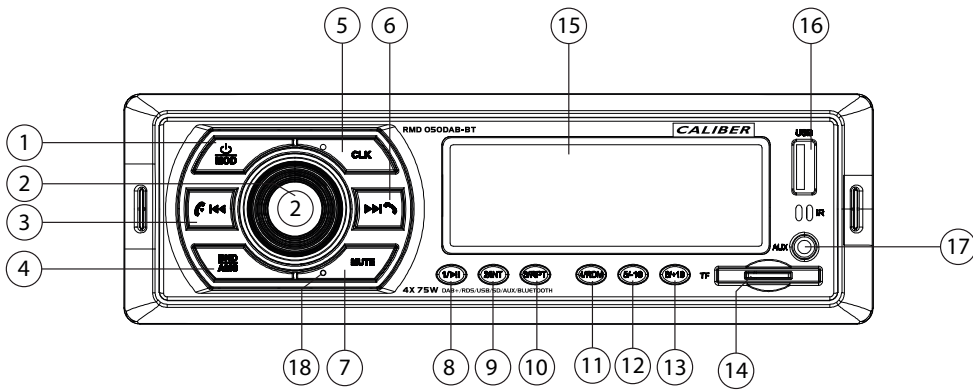
ELECTRIC

Power Supply -- DC 11 ~ 15 Volt

Current Consumption -- < 10 Ampere

Load Impedance -- 4 to 8 Ohm

Dimensions -- 187mm (W) x 145mm (D) x 58mm (H)

Power Output -- 4 x 75W (Max)

Line Output -- 1V

Transmission

Bluetooth Freq range: -- 2402-2480 Mhz

Max e.r.p: -- <100mW/20dBm

PLAYBACK

MP3, WMA, playback with ID3 Tag Display

| Key	System		Tuner		DAB	MP3/WMA		BT Audio	Bluetooth	
	Short press	Long press	Short press	Long press	Short press	Short press	Long press	Short press	Short press	Long press
1	Power / mode	Power off								
2	Rotary Volume / Menu		EQ menu	Menu	EQ menu	EQ menu	Menu	EQ menu	EQ menu	Menu
3	Previous		Scan backward	Scan manually	Scan backward	Previous	Fast backward	Previous	Answer incoming call	Transfer conversation to mobile phone
4			Switch Band	Scan	Scan		Track select			
5	Show clock time									
6	Next		Scan forward	Scan manually	Scan forward	Next	Fast forward	Next	Reject incoming call/end call	
7	Mute audio / un-mute audio									
8			M 1		M 1	Play / pause	toggle display	Play / pause	Play / pause	toggle display
9			M 2		M 2	Play intro's		Play intro's		
10			M 3		M 3	Repeat		Repeat		
11			M 4		M 4	Shuffle		Shuffle		
12			M 5		M 5	Previous 10		Previous 10		
13			M 6		M 6	Next 10		Next 10		
14	Micro SD card									
15	Display									
16	USB port (up to 32GB)									
17	AUX-input 3,5mm jack									
18	Reset									

	Description of the functions
Power	Power function to activate or deactivate the unit.
Band	Band selection allows you to select different reception bands, f.i. FM1, FM2, FM3, DAB1, DAB2, DAB3
AF	AF stands for Alternative frequencies; the tuner will return to alternative frequencies whenever the reception signal is getting worse.
TA	TA stands for Traffic announcement which means that it will give you information about the traffic (if broadcasted) no matter what mode you are in (SD,USB, etc.) it will automatically interrupt the cd and give the information, after that it automatically switches back to the selected mode
Manual up/down	Long press to move the radio frequency number up/down step by step.
Menu (system)	Press the VOL/SEL (2) button for several seconds to activate the cyclical mode to choose from the following user instructions: AF > TA > TAVOL > REG > EON > SEL (Press to enter go to next function, rotate to change value)
Audio Menu	The Audio menu button gives you the possibility to adjust your sound system with the following options Bass, Treble, Balance and Fader. These options can be used to fine tune your sound. In EQ mode you can choose from preset EQ settings: FLAT, CLASSIC, POP, ROCK
Mode	The mode button allows you to go from one source (f.i. USB) to another source (f.i. Tuner, DAB) by pushing the button as many times as needed.
Rotary volume	This knob allows you to adjust the volume from minimum to maximum level. NOTE high sound levels may cause damage to your ears. In menu's this knob allows you to change values
M1- M6	These are the preset stations where you can store your favourite radio stations if in tuner mode.
Pause/Play	This button allows you in USB or SD mode to play or to pause the music.
Scan	Scan will play 10 seconds of each song on the USB or SD. If the preferred song is playing, push again and it will play that song.
Repeat	Repeat will play a selected song or album continuously. Available in USB and SD mode.
Shuffle	Shuffle will play all the songs random. Available in USB and SD mode.
File down/up	In MP3 mode press this button to go up or down one folder.
Track down/up	In MP3 mode press this button to go up or down one track
fast forward/backward	Long press to fast forward to the USB or SD.
3,5mm AUX jack in	To connect an external audio system.
USB poort	When inserting a USB stick the unit will switch to USB mode. (Max 32GB)
Micro SD card input	When inserting a micro SD card the unit will switch to micro SD mode. (Max 32GB card)
Reset	Use a pointed object to press and hold the reset button for 5 seconds. The unit will be set to factory default.

| Bluetooth	
Pairing	Activate Bluetooth on your mobile phone, and search for available devices. Select "RMD050DAB-BT Caliber", password "1234". If successful "Connected" is displayed, if not "Pairing Fail!" will be displayed for 3 seconds. The unit will go back to the previous mode.
Reconnect	The unit will normally auto-reconnect.
Reject incoming call	Press Previous (3) button if you not wish to answer the call, and return to normal playing mode.
Transfer	To audio transfer from head unit back to the mobile phone. Long press the Next (6) button to transfer the audio back to your mobile.

**Note! Do not operate the unit while driving!**

Instruction Manual
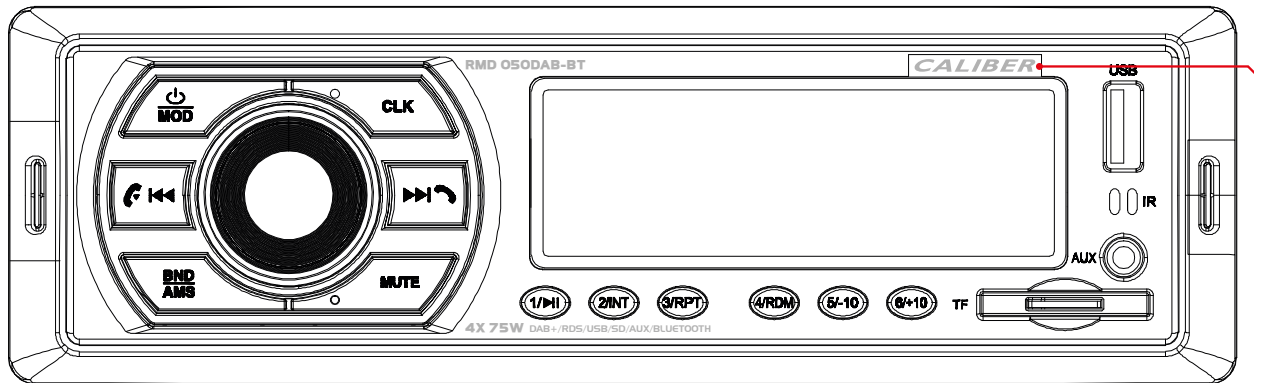
- FM Electronic tuning system
- Automatic storage of 18 broadcasting stations
- Support MP3/WMA format
- Support USB and TF card ports
- Support DAB function
- Super LCD display
- Digital electronic volume
- EQ   Sound effect control
- Support external audio input
- Support RDS function

Basic operation:

1. Backward music selection/backward broadcasting station search button (⌒◄◄)

    1) Long press this button for the backward broadcasting station search by step system under the reception state; short press this button for the backward broadcasting station search in a semi-automatic way, and Button 1-6 can be long pressed to preset the storage of broadcasting station after stopping.

    2) Short press this button for backward selection of single music under the MP3 playing state. Long press this button for rapid rewinding.

    3) Short press the button to hang up the incoming message or call after the phone bluetooth is connected.

2. Power switch/mode button (⏻/MOD)

    1) Short press this button for startup and long press this button for shutdown after energizing.

    2) Short press this button for mode conversion after startup (reception/USB/SD/AUX/DAB/BT).

3. Volume knob/tone selection/RDS function control button (VOL/SEL)

    1) Rotate the volume knob can regulate the volume under the condition of the reception or playback.

    2) Short press the volume repeatedly can enter into the following selection : (BASS, TRE, BAL, FAD, EQ, LOUD, STERO/MONO, DX/LOC, CLOCK 12/24 and AREA EUR/USA, namely: bass, treble, left-right balance, anterior-posterior balance, sound effect, equal loudness, radio stereo/mandatory mono, remote/local, 12/24-hour system and European system/American system) functions, which can be selected by regulating the volume knob.

    3) Short press this button after long pressing under the condition of the reception or playback, and (AF ON, TA OFF, TAVOL25, REG OFF, EON OFF and SEL PTY) functions will be entered, which can be selected by regulating the volume knob.

4. Bluetooth microphone placed in the CLK button

    The sound during the call with bluetooth will be entered from here.

5. Clock button (CLK)

    Short press this button once for checking the clock, and then, long press this button to enter into the time set (the clock will be flickered) under the state that the time is displayed, at this time, rotate the volume knob for hour regulation; Short press this button again, the minute will be flickered, at this time, rotate the volume knob for minute regulation; the system will make automatic confirmation after 2s upon the regulation is completed, and the time state will be exited.

6. Forward music selection/ forward broadcasting station search/answer button (►►⌒)

    1) Long press this button for the forward broadcasting station search by step system under the reception state; short press this button for the forward broadcasting station search in a semi-automatic way, and Button 1-6 can be long pressed to preset the storage of broadcasting station after stopping.

incoming message; long press this button to dial the last phone number under the bluetooth state.

7. Display screen

Display the reception frequency and current display information.

8. USB Socket

Insert the USB flash disk, and the music in corresponding format can be displayed automatically.

9 panel control receiving window

It is used to receive the command sent from the panel control.

10. AUX-IN Jack (AUX)

It is used for external connection of audio signal.

11. Insert TF card

Insert the TF card, and the music in corresponding format can be displayed automatically.

12. Figure 6/forward+10 music button (6/+10)

1) Short press this button for playing the preset "6" radio station under the reception state, and long press this button for 2s to store the radio station played currently as "6" radio station.

2) Under the MP3 playing state, short press this button for selection play offorward +10 musics, and long press this button for forward selection of folder and playing.

13. Figure 5/ backward-10 music button (5/-10)

1) Short press this button for playing the preset "5" radio station under the reception state, and long press this button for 2s to store the radio station played currently as "5" radio station.

2) Under the MP3 playing state, short press this button for selection play of backward +10 musics, and long press this button for backward selection of folder and playing.

14. Figure 4/ random play button (4/RDM)

1) Short press this button for playing the preset "4" radio station under the reception state, and long press this button for 2s to store the radio station played currently as "4" radio station.

2) Short press this button for random playing under the MP3 playing state. Short press this button again, the sequential play will be recovered.

15. Figure 3/single repeat play button (3/RPT)

1) Short press this button for playing the preset "3" radio station under the reception state, and long press this button for 2s to store the radio station played currently as "3" radio station.

2) Short press this button for single repeat play under the MP3 playing state, and short press this button again, the single repeat function will be canceled.

16. Figure 2/browse and play button

1) Short press this button for playing the preset "2" radio station under the reception state, and long press this button for 2s to store the radio station played currently as "2" radio station.

2) Short press this button for browsing the MP3 music under MP3 playing state, and the next music will be played 10s after playing of each music; short press this button again, the sequential play will be recovered.

17. Figure 1/pause button (1/►❚❚)

1) Short press this button for playing the preset "1" radio station under the reception state, and

long press this button for 2s to store the radio station played currently as "1" radio station.

2) Short press this button for pause under MP3 playing state, and short press this button again for playing.

18. Mute button (MUTE)

Short press this button for mute and shore press this button again for mute cancellation.

19. Reset button (RES)

In case the functions of host system are in disorder, short press this button for resetting the system, after which, the host needs to be restarted.

20. Band switching/automatic lock button (BND/AMS)

1) Short press this button for band switching (FM1-FM2-FM3/DAB1-DAB2-DAB3) under the state of reception or DAB mode, and long press this button for searching the broadcasting station automatically, and the searched broadcasting station will be stored as the Button 1-6 preset in order; After the broadcasting station is searched automatically for once, the program of the first broadcasting station stored will be played automatically. 6 broadcasting stations can be stored for each band, namely, 18 broadcasting stations can be stored.

2) Long press this button for music selection by figures under the playback state, at this time, the target music can be selected by "volume knob", "Move Previous" and "Move Next"; finally, short press "SEL" button for playback confirmation.

Bluetooth operation:

1. Matching of phone and host

   Firstly, approach the phone to host and enable the bluetooth of the phone, then, find the bluetooth name of the host "RDM050DAB-BT" (password: 1234) with the phone for connection. When 2s "doduo" prompt tone is sent from the phone, it indicates that the successful connection between the host and phone bluetooth.

2. Dialing with bluetooth

   After the bluetooth connection, press the "MODE" button to switch to the "BT" state, at this time, the phone number will be input by pressing the numeric key "0-9" after the " ➚ " button on the panel control is pressed, then, press " ➚ " button again to achieve the dialing.

3. Answering calls with bluetooth

   After the bluetooth connection, shore press " ▸▸➚ " button on the panel or " ➚ " button on the panel control in case of incoming message; when the volume needs to be regulated, long press "BND/AMS" button on the panel may realize the switching of the call between the phone and host, and the call can be hung up by pressing " ⟲◂◂ " button on the panel or " ☎ " button on the panel control after the call.

4. Playing music with bluetooth

   After the bluetooth connection, BT mode can be switched to by pressing "MODE" button; at this time, the music in the phone can be played by short pressing the " 1/▶‖ " button on the panel or panel control, which can be paused by short pressing such button again.

Basic RDS operation

1) AF   Function

   When starting the host for the first time, its system will default to be in the RDS (AF) tracking and station selection state automatically; In case the broadcasting station of FM band requires to be listened, RDS (AF) function must be closed at first, otherwise, FM band will not receive the broadcasting station.

   Method for switching on/off AF: Long press "SEL" button to select AF 0N at first, and select AF OFF by rotating volume knob.

2) REG Function

   The "REG OFF" state will be entered by short pressing "SEL" button after long pressing such button under any condition of the opened host, then whether to open area selection will be selected by volume knob.

3) TA Function

   The "TA OFF" state will be entered by short pressing "SEL" button after long pressing such button under any condition of the opened host, then select to open "TA ON" by regulating the volume knob, and the traffic information can be played automatically.

4) TA Volume selection function

   The "TA VOL" state will be entered by short pressing "SEL" button after long pressing such button under any condition of the opened host, then the volume of TA function can be selected by volume knob.
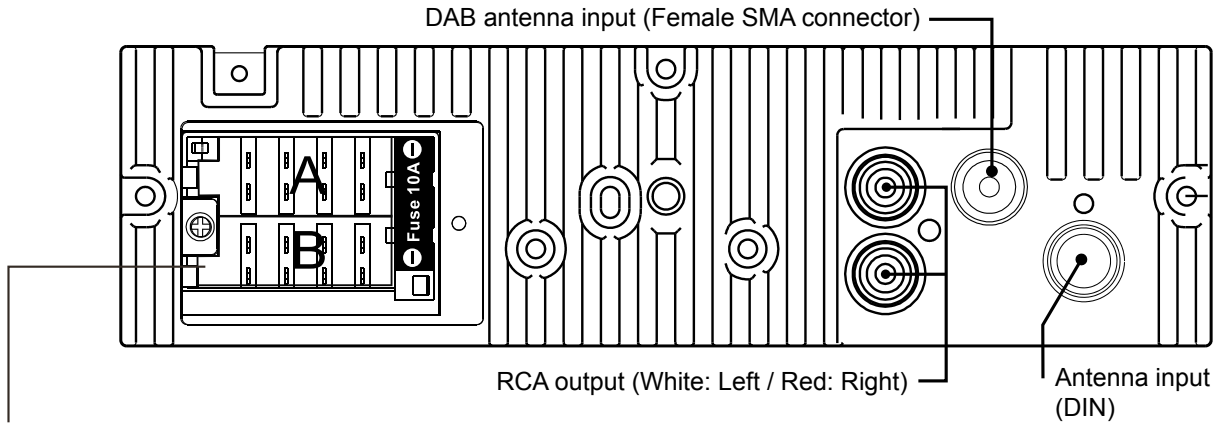
5) EON Function

   The "EON" state will be entered by short pressing "SEL" button after long pressing such button under any condition of the opened host, then whether the to display the information of other broadcasting stations will be selected by volume knob.
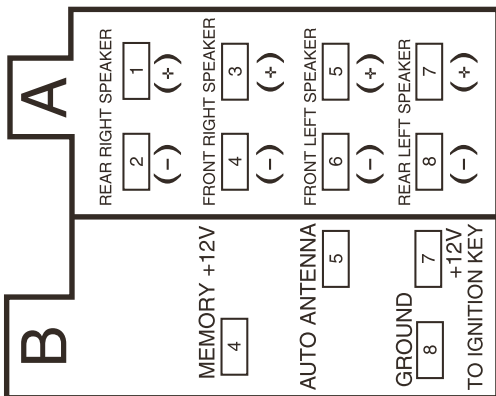
6) PTY Function

   The "SEL PTY" selection state will be entered by short pressing "SEL" button after long pressing such button under reception condition of opened host, then, the type of broadcasting station program will be selected with "volume +" and "volume -" buttons.
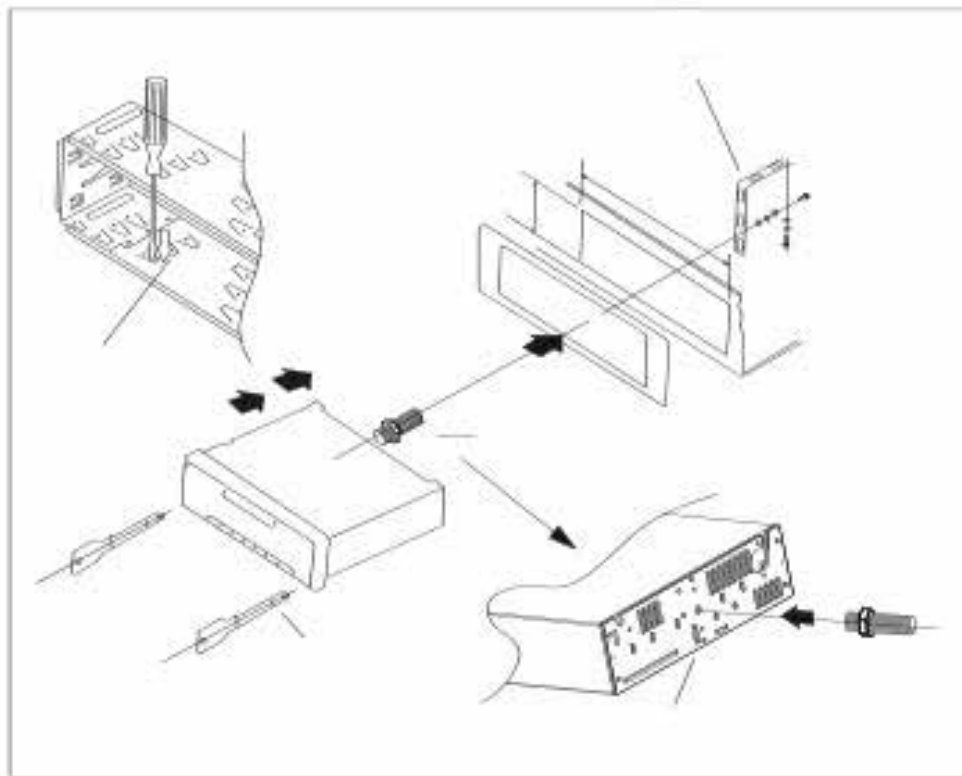
Wiring diagram

DAB antenna input (Female SMA connector)

RCA output (White: Left / Red: Right)

Antenna input (DIN)

ISO connector:

A1. Rear right speaker(+) / Purple
A2. Rear right speaker(-) / Purple-Black
A3. Front right speaker(+) / Grey
A4. Front right speaker(-) / Grey-Black
A5. Front left speaker(+) / White
A6. Front left speaker(-) / White-Black
A7. Rear left speaker(+) / Green
A8. Rear left speaker(-) / Green-Black

B4. Battery 12V (+) / Yellow
B5. Antenna power / Blue-White
    (to DAB+ antenna power supply)
B6. Panel light / Orange-White
    (optional)
B7. ACC+ / Red
B8. Ground / Black

A	REAR RIGHT SPEAKER		FRONT RIGHT SPEAKER		FRONT LEFT SPEAKER		REAR LEFT SPEAKER	
	1 (+)		3 (+)		5 (+)		7 (+)	
	2 (-)		4 (-)		6 (-)		8 (-)	

B	MEMORY +12V	AUTO ANTENNA	GROUND	+12V TO IGNITION KEY
	4	5	8	7

Schematic diagram of installation and dismantling:

Technical parameters

FM part

Frequency range --87.5MHz-108MHz

Noise limit sensitivity ------------------------------------≤37dBf

Signal-to-noise ratio ---≥40dB

Frequency stepping-- 0.05 MHz or 0.1MHz

MP3 playing part

Frequency response --100Hz 1 Hz (5dB)

Signal-to-noise ratio ---≥45dB

Channel separation --≥30dB

Voltage harmonic distortion (1kHz) --------------------------------≤5％

Balance of playback stereo channel -------------------------------------≤3dB

General index

Supply voltage --DC12V

Horn impedance --4-8Ω

Rated output power ---45W×4 channels

Size -----------------------------------178mm(width)×50mm(height)×100mm(depth)
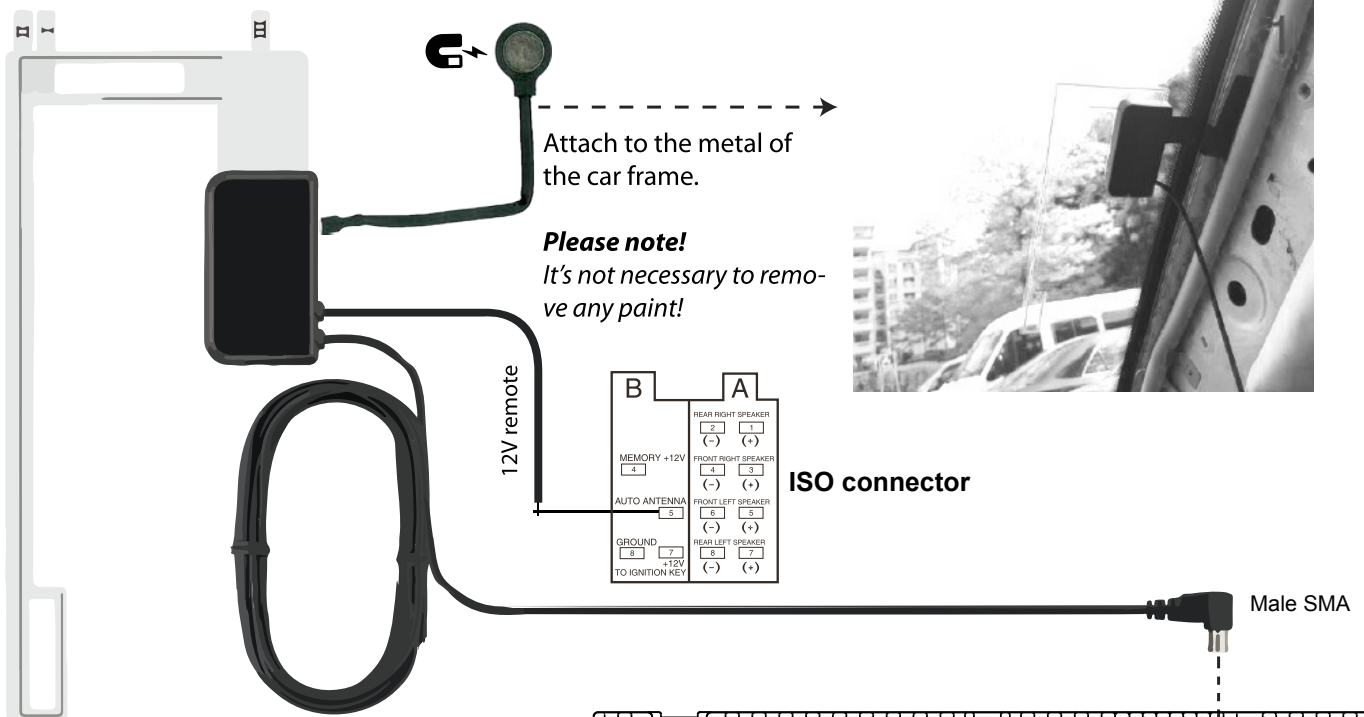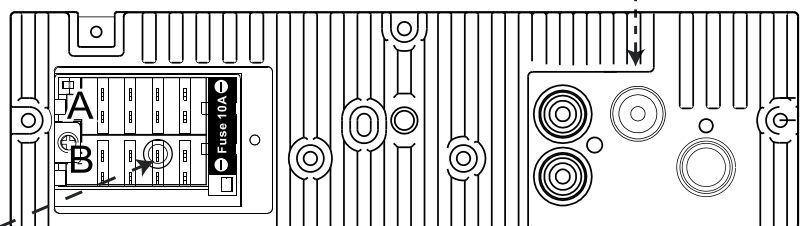
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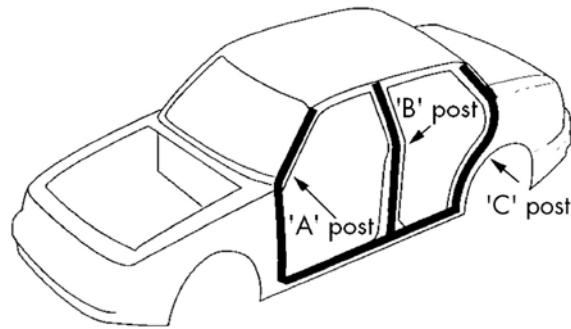
Place the antenna on the windshield near the 'A post'

Remove the cover of the A-post

Stick the transparant part of the antenna on the windshield and put the black part on the metal frame.

Attach to the metal of the car frame.

Please note!
It's not necessary to remo-ve any paint!

12V remote

B		A	
	REAR RIGHT SPEAKER		
	2	1	
	(–)	(+)	
MEMORY +12V	FRONT RIGHT SPEAKER		
4	4	3	
	(–)	(+)	**ISO connector**
AUTO ANTENNA	FRONT LEFT SPEAKER		
5	6	5	
	(–)	(+)	
GROUND	REAR LEFT SPEAKER		
8	8	7	
+12V	(–)	(+)	
TO IGNITION KEY			

Male SMA

A

B

Fuse 10A

Power the DAB Antenna with the blue/white cable (12V Remote)
Make sure to strip the wires before connecting them.

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