

MFD3/RCD510 is used in many Volkswagen car types [Skoda, Pheaton, magontan, Touareg, etc.], this interface can insert 2AV or 1 RGB video onto MFD3 monitor, (4 keys buttons on either sides of the monitor), so reverse camera image, TV tuner, and more video sources can be inserted, this interface can also convert the car video onto the headrest monitor. the RCD510 (3 keys on either side of the monitor) can be inserted with navigation RGB, AV and reverse camera video.

Side keys:

MFD3: headrest monitor switch
RCD510: car monitor switch

Video inserted with daughter PCB



MFD3



RCD510



3 keys for color tuning.

Power, reverse
trigger, and switch

These 2 tails send original navigation and DVD video onto the headrest monitor.

Original DVD/navi/Music
information displayed

✧ **The 6Pin power connector signal definition:**

1. **YELLOW:** constant power +12V。

2. **BLACK:** Ground to chassis。

3. **GREEN:** reverse camera trigger signal [reverse=12V], to rear lamp。

4. **White:** switch signal input, >2V for triggering.[max.25V]

Grey: this signal is not used.

RED: =ACC, this interface is not using it, there is a ACC inside the ribbon cable which is connected to the monitor, when monitor ON, this interface works by showing the LED on.



✧ DIP switch settings.

DIP	=ON	=OFF
1, 2, 3	RGB/AV1/Av2 INPUT ENABLED	RGB/AV1/Av2 DISABLED
5	Rear camera=AV4[Green wire=12V] [installing extra camera]	Rear camera=original picture[Green wire=12V]
4, 6, 7, 8	No function [the 7 th DIP must stay UP side(=off), otherwise the interface goes into factory testing mode by displaying color bar on screen.]	

✧ Accessories

	Interface for MFD3	Interface for RCD510
1	One interface box	RCD510 interface box.
2	MFD3 daughter board, with 30p-1.0pitch-50CM ribbon, and one 50P-10cm ribbon.	RCD510 daughter board, with 50p-0.5 pitch-0.5meter ribbon to interface box, and 55p-8CM ribbon to car socket.
3	RGB input wire	AVwire 2PCs,RGB-1PC, Camera-1PC.
4	Power wire[Yellow,White,Black,Green]	Power wire[Yellow,White,Black,Green]
5	Keypad 2PCs	Keypad 1PCs
6	Users manual	User's manual
7		4 screws[Φ5]

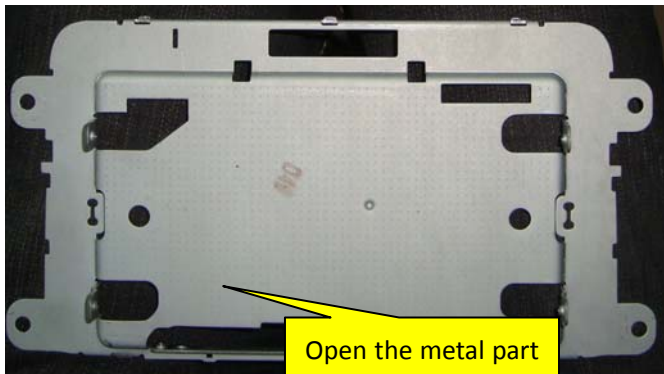
✧ Input switch

	MFD3	RCD510
1. Headrest moitor input	Side key pressing [2second long pressing can turn it on-off]	Not possible to connect headrest monitor
2. Car monitor input	1. [when white wire >2V, the monitor switches] , please cut the other keypad's connector off, and make it connected to the yellow and white wire for switching. 2. Another way is checking the golden finger on the PCB and get one key.[when key pressed, the PCB point get to 3V], then connect it to the white wire.	1. use the keypad. 2. connect the red point→ to the white wire then press AUX to switch input.
3. Auto reverse	Green wire to 12V for reversing.	

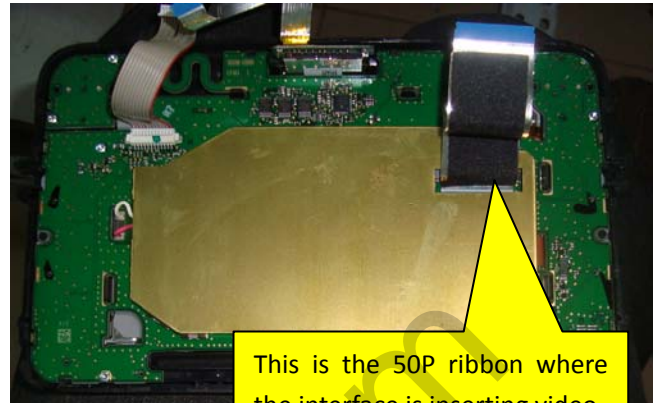


MFD3[RNS510] installation:

- (1) Remove the top 2 screws, then the top cover can be opened, then remove the side screws to open the monitor part.。



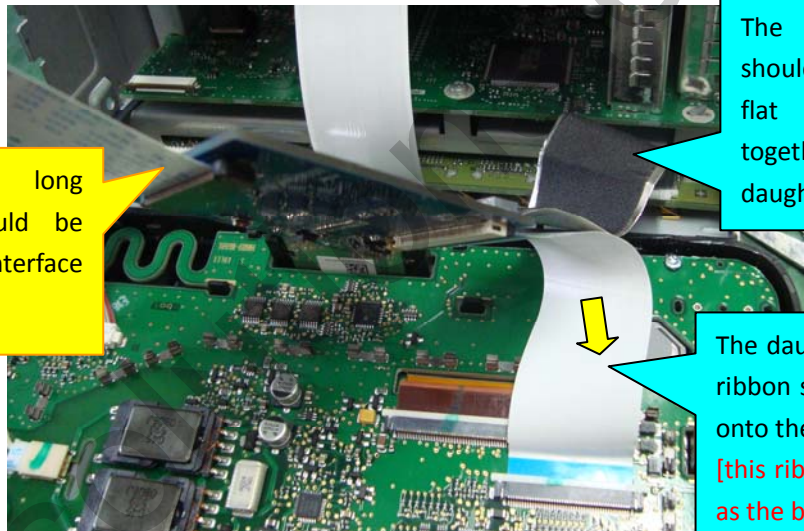
Open the metal part after the monitor



This is the 50P ribbon where the interface is inserting video

- (2) MFD3 daughter board installation

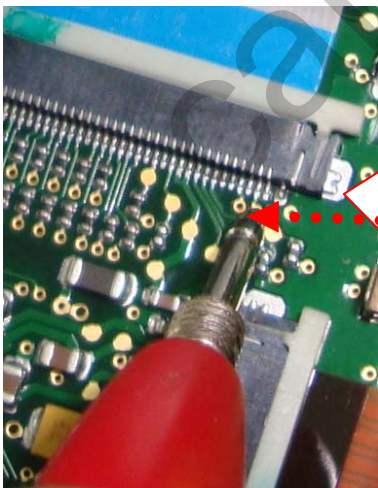
This half a meter long ribbon(30P-1.0mm) should be connected to the interface outside.



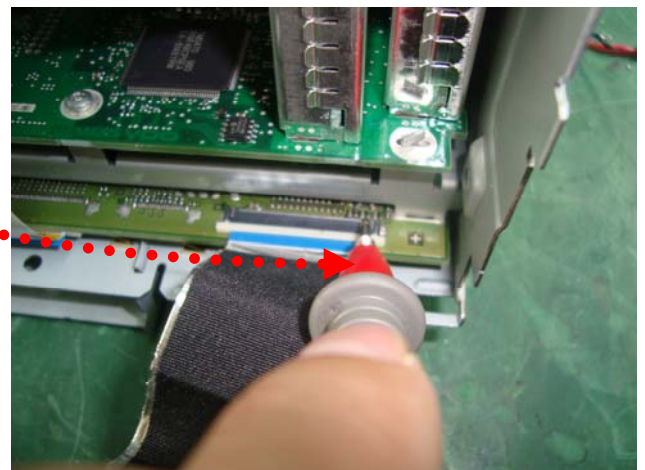
The car original ribbon should be replaced by the flat ribbon which goes together with the daughter board.

The daughter PCB's 50P output ribbon should be inserted back onto the monitor socket.
[this ribbon is at the same side as the big ribbon to interface]

- (3) Check again the ribbon connection in this method, then install the monitor back.



Use a multi-meter to confirm the ribbon inserted OK:
The 2 legs should be touching the based board and monitor board's respective pins: 2-2, 3-3, 4-4, 5-5, make sure that there is no short-circuit in neighbouring pins. And no broken contact, after this the monitor can be installed back. [this picture shows Pin1 is at the right side]



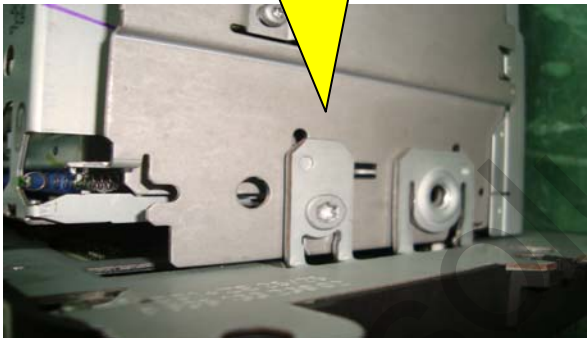
Note:

1. MFD3 interface's headrest monitor will show image for 15 seconds when powering up, afterward, it turns off automatically, the user need to long press the keypad to turn it on.
2. The 18~38 Pin inside the ribbon are carrying RGB data. This is where the video is decoded out and inserted back, and the other pins are direct connected from input to output, that is why we can measure in the above way to confirm the connection.
3. The Rear seat monitor, which carries 2 cable sockets output, will be available if the customer ordered the version **with headrest output**. The MFD3's video can only be displayed on the dedicated monitor, which carries 800X480 high definition video. The connection between interface and headrest monitors is digital LVDS.

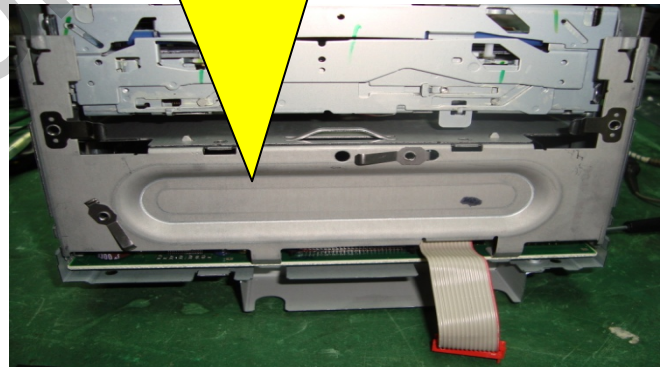
RCD510 installation

- (1) when the monitor is taken down from the car, remove the top shell and then take down the CD changer by removing the 4 side screws.

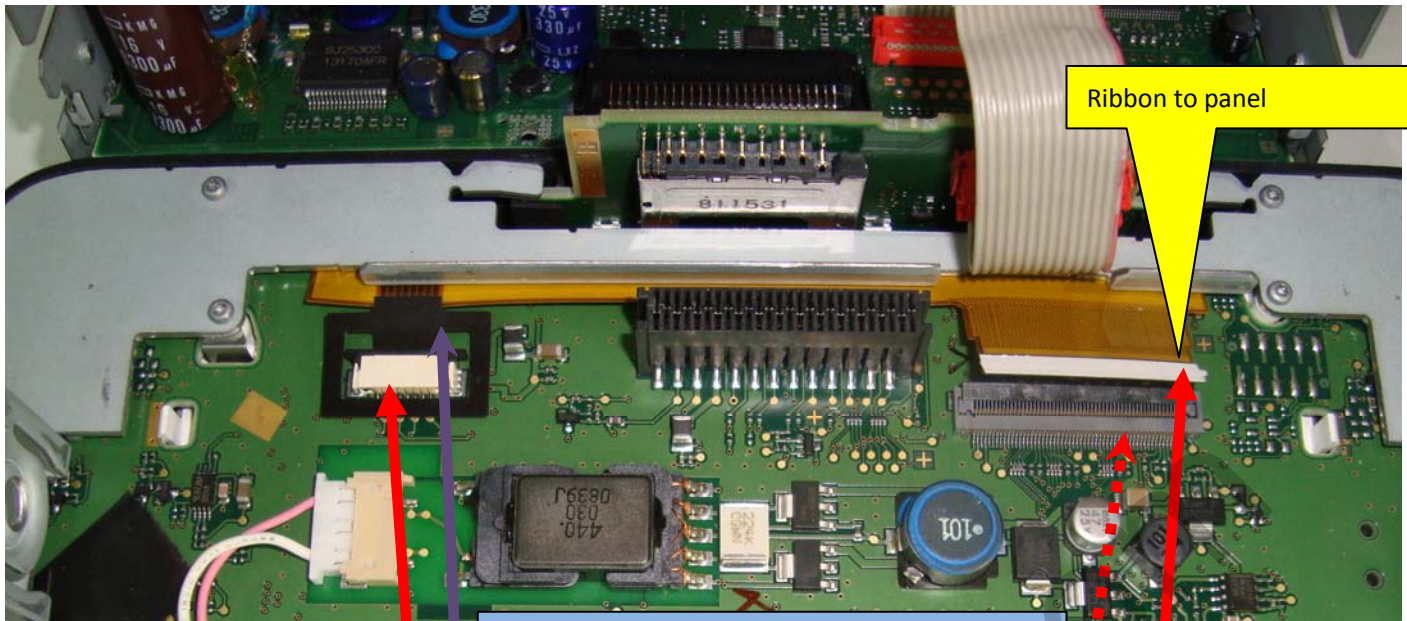
After removing the top shell, remove the 4 side screws open the monitor side.



After taking away the monitor part, the CD is located top, the button metal here is removed and not used any more, so that the daughter board can be inserted inside.

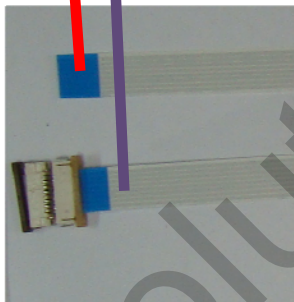


- (2) then the Monitor connector is seen, the daughter board is inserted onto the ribbon as in the below picture, the relation is shown as the arrows inside.

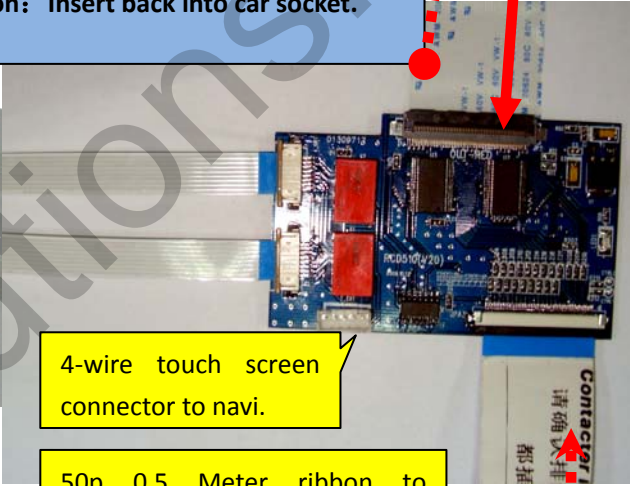


Touch screen converter for inserted navigation

Daughter PCB is inserted between the socket and ribbon.
Top socket: car red ribbon to get inserted in.
Button ribbon: Insert back into car socket.

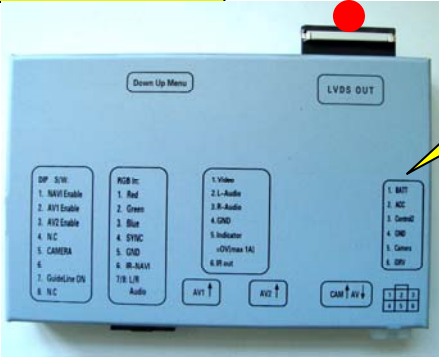


4-wire touch screen connector to navi.



50p 0.5 Meter ribbon to external interface box.

RGB,AV are connected this side



(2) touch screen to external navigation

When the interface is not in car video display mode, the 4Pin touch screen signal will be delivered to external navigation.[RGB, AV1,AV2, etc.]

(5) then the monitor can be installed back, please use the 4 screws in the accessory to fix the monitor back.

