

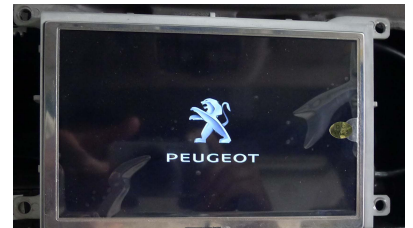
FV-PEUGEOT-MRN2013 Installation Manual (citroen_Peugeot) 20130723

Product type : FV-Peugeot_MRN2013

Or : FV-Citroen_Peugeot2013

This interface can insert RGB, 2-AV, also one reverse camera video onto MRN 2013 [Citroen, Peugeot508/208] original screen. Thus aftermarket navigation and DVD video can be displayed. Also this interface has these features:

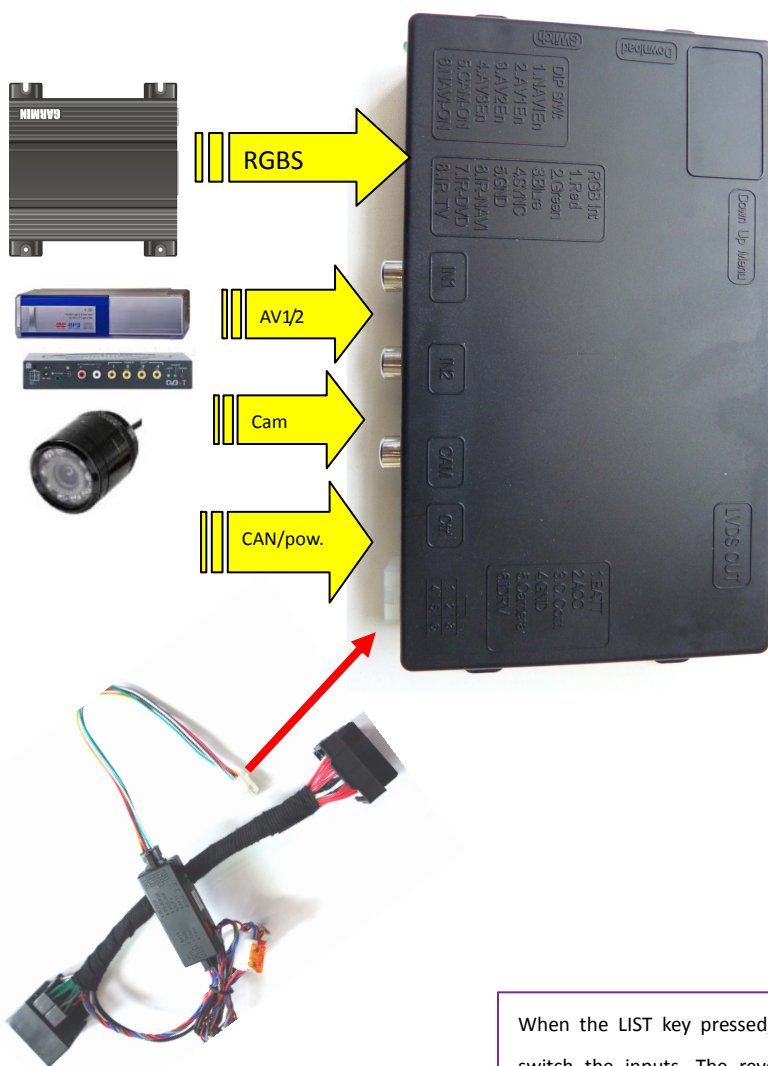
- ✓ Original key to switch the input, the user may switch the input by long pressing the LIST key.
- ✓ The IR code output is programmable, so people can use the touch screen to control DVD or other media devices.
- ✓ C A N bus generates the reverse camera signal for the automatic switch, guidelines can be displayed when reversing.
- ✓ All installation operations are plug and play, without hurting the original car wiring by soldering or re-routting.



For the cars of Citroen/Peugeot before 2013, another fosp interface should be used,[FV-Citroen/Peugeot], here below is what the installer should care about:

	FV-MRN2013 [citroen-peugeot-2013]	FV-Citroen-peugeot
The connector to monitor		
Key feature difference	Car has OEM touch panel, Video is delivered by 4Pin round connector.	No OEM touch panel. Video is transferred by 10Pin square connector.
Suited car types	2013year and after Chinese version Peugeot508, European Peugeot208,etc.	2013Year and before all Citroen/Peugeot cars with OEM LCD, including some Italian cars. E.g. C5, 508, 3008, European C4, 4008, and some Italian cars including MG6, 550. 2013year and after 3008, 4008 also use this interface. The interface use DIP7/8 to set the resolution and car protocol.[Eg. C5 uses 800X480 HD resolution, while C4, 4008 uses 480X240 resolution.]

1. System connection:

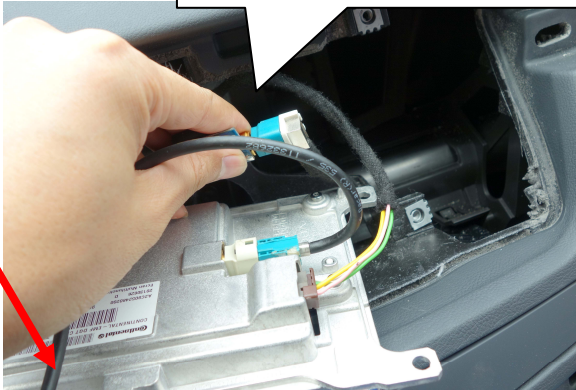


3 keys to select the DVD and tune color.

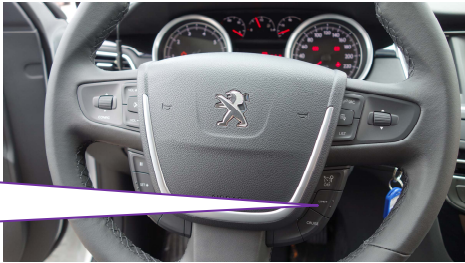
The audio selection:
From below to top:
AV2-in, AV1-in, Audio-out



The car's LVDS cable should be inserted into the daughter PCB's socket. While the daughter PCB's plug insert back into LCD panel.



When the LIST key pressed, the interface will switch the inputs. The reverse and guideline signals will be automatically generated.



The 6P connector 's signal definition [6P output from CAN box]

YELLOW: 12V battery power

RED=ACC: this is the ACC generated by CAN bus.

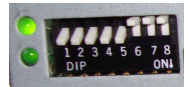
BLACK: Ground for chassis.

GREEN: reverse wire[=12V], the signal is generated by CAN bus decoding. It can drive a camera with 1A max output to power a camera as well.

white: switch signal generated by can bus.

GRAY: IR control signal from the CAN box to control external DVD etc, the guideline signal also goes on this wire.

2 . DIP Settings



DIP	=ON	=OFF
1	RGB enable	RGB off
2,3	AV1/2 enable	AV1/2 off
4	ON: RGB input=VGA resolution	OFF: RGB input=NTSC resolution.
5	Reverse video =inserted CAM video [when Green wire=12V]	Reverse video = car OEM picture [when Green wire=12V]
6,	Down once for IR programming,	Down 5 times for touch calibration if people wants to use touch to control DVD.
7, 8		LCD screen resolution set, these 2 DIPs should stay Up.

3 . CAN connection:

The CAN box is already connected by harness, so the installers does not need to modify the connection, here below is just for the installer's reference.

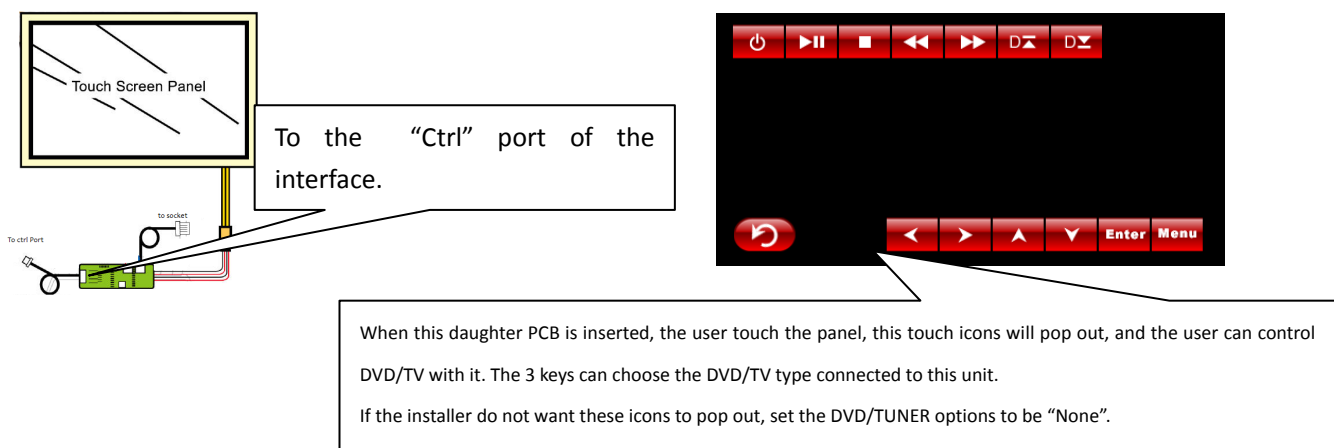


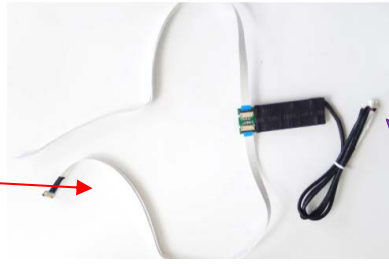
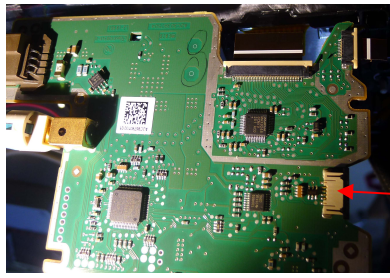
name	CAN box wire color	CAR wire color
CAN -	Gray wire	Top 1 st wire on the 1 st row
CAN +	blue wire	the 2 nd wire on the 2 nd row
GND	brown wire	The 4 th wire on the 1 st row
BATT[13.8V]	Red wire with fuse	The 4 th wire on the 2 nd row

- [CAN wires are twisted together always, when we connect them upside down, it will not hurt anything, when we connect them correctly, one LED will be blinking when data is running on the bus.]
- CAN box generate ACC according to CAN activities, when the driver leaves the car for >20 seconds, the can bus will stop thus ACC drops.

4.DVD, TV, and iPod control

When the touch screen is not used for navigation, it can also be used for DVD/TV control for installed device.





When extra navigation is installed, this daughter board can be used to switch the OEM touch panel, so the installed navigation can be touch controlled.

5. the 3 side key buttons

The input box has 3 side keys, the installer may use it to tune the picture display, and touch function for the connected DVD or other devices. The 3 keys are : menu, +, -.

- The 3 side keys are : menu, +/- respectively. When menu is press, OSD strings will pop up on screen, and the installer may adjust the best video effect. The +/- will change the value.
- The DVD/TUNER/NAVI is to set the IR code output to the installed device, so people use original knob to control
- When set to “none”, the control icons will not pop out
- When set to “Prog”, the installer can use DIP6=Down to program the IR code into the interface, so extra new devices can be controlled.



The programming of IR code:

- There are >10 types of DVD, NAVI, and Tuners' IR code are stored inside the interface. The installer just adjusts the options to select to wanted one, then it works. If the wanted type is not there, he may set the option to be “Prog” in the menu.
- When programming, switch the input to AV1, and set DIP6 down once, then the control icons will be shown, and one of the them will be blinking. Point the IR remote controller to the IR port of interface, the blinking icon will be moved to the next one. Which means one code is programmed. Repeat this step until all icons are programmed.
- The programming of AV2 is the same as above.

The last option in the menu is for guideline display, when set to “ON”, parking guidelines will be displayed when in reverse. “OFF” will disable this function.



8. Parameters

No.	name	parameter
1	RGB video amplitude	0.7Vpp with 75 ohm impedance
2	sync amplitude in RGB-navi port	3~5Vpp with 5K ohm impedance Sync should be NTSC composite with negative polarity. When in VGA mode, the Hsync and Vsync should be combined by a 74HC86 to make a Composite sync.[Xor operation], it can be XOR with '1' to get inverted to negative

		polarity.
3	RGB resolution	NTSC-RGB navigation, that is. 320X240,400X240,480X240 Or VGA resolution[640X480 or 800X480]
4	Av1,Av2, cam video	0.7Vpp with 75 ohm impedance NTSC/PAL/SECAM automatic switch
5	IR RGB, IR_AV1 output	3.3V digital infrared control code with 4 data bytes [machine code1,machine code 2, user code, verification code]
6	Normal Power consumption	2.4W [0.2A @12V]
7	Standby current	< 10uA
8	Reverse trigger threshold	>5V trigger
9	Ctrl port Pin1,2 and Pin7: Output voltage	Relay pull voltage for Audio and touch screen selection 5V volts.
10	Ctrl port Pin1,2 and Pin7: Current	2A. Tested to have no damage when short-circuit to GND for 2 minutes. Leave it open when do not use.
11	Work temperature	-40 ~ +85C