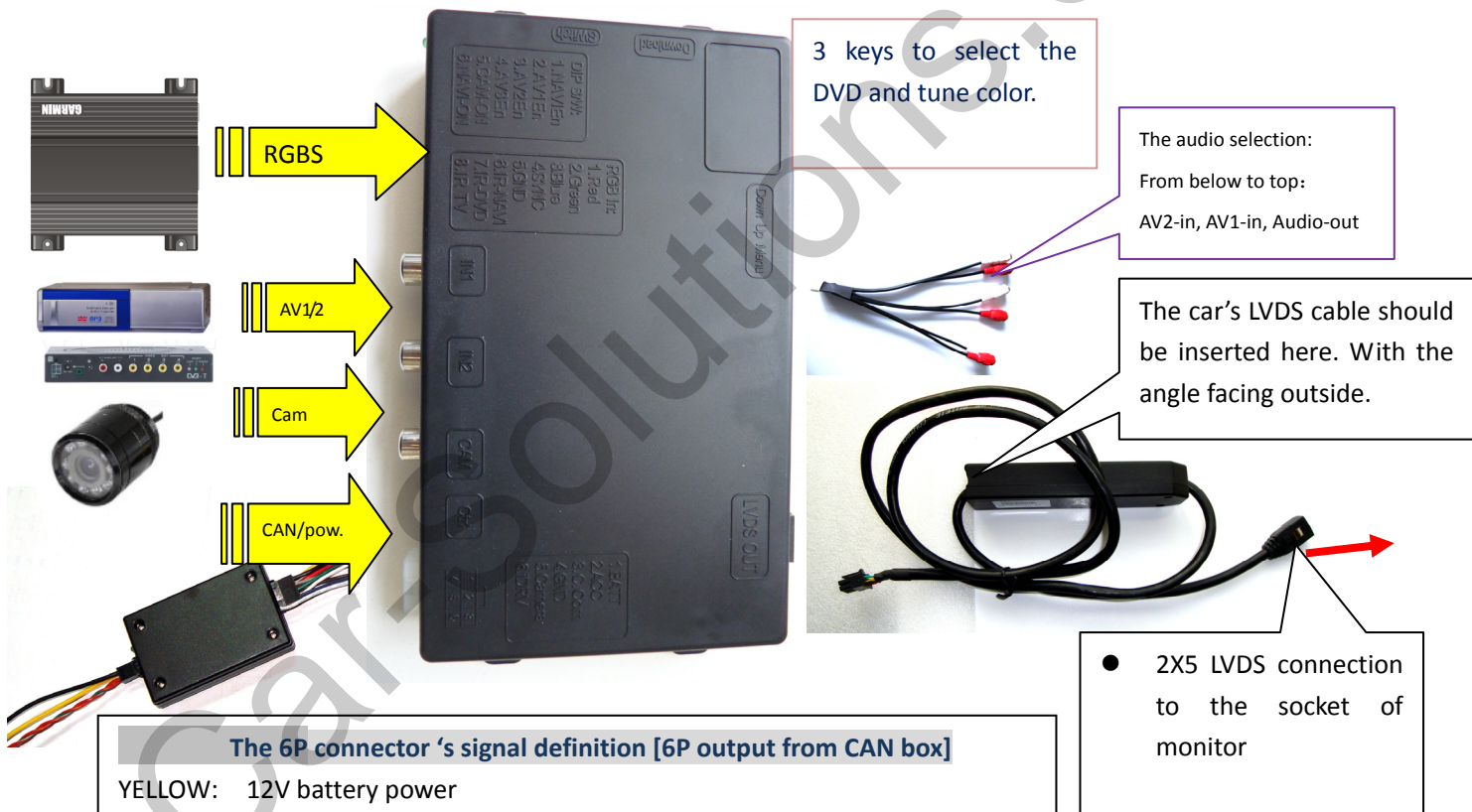# Citroen C5，Peugeot508 interface installation manual

This interface can insert RGB, 2-AV, also one reverse camera video onto Citroen C5,or Peugeot508 original screen. Thus 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 MUTE key.
- ✓ With the original keys, the user can operate DVD or digital TV with pop-op OSD text. The user can also use touch screen to control DVD or other devices.
- ✓ The IR code output is programmable, so people can use the touch screen to control whatever device.
- ✓ CAN bus generate the reverse camera signal for the automatic switch.
- ✓ All installation operations are plug and play, without hurting the original car wiring by soldering or re-rounting.

1. System connection：

RGBS

AV1/2

Cam

CAN/pow.

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 here. With the angle facing outside.

- 2X5 LVDS connection to the socket of monitor

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

YELLOW: 12V battery power

RED=ACC： when screen is On this wire goes to 12V.

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 when =12V.[max 25V]

**GRAY**： IR   control signal from the CAN box to control external DVD etc.

On Peugeot508,the user presses TRAF to switch the video channel, and rotate to enable the MMI，ESC to execute the command.

CAN box has a dip switch，DIP1=ON for C5，=Down for peugeot508。Wrong settings will not damage anything.

2．DIP Settings
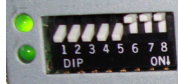
DIP	=ON	=OFF
1	RGB enable	RGB off
2,3	AV1/2 enable	AV1/2 off
4	ON：RGB input=VGA resolution	OFF: RGB input=NTSC resolution.
5	Reverse video =AV4 [when Green wire=12V]	Reverse video = car video [when Green wire=12V]
6，	Down once for IR programming,	Down 5 times for touch calibration if people wants to use touch to control DVD.
7，8		LCD screen resolution set, these 2 DIPs should stay Up.

3． CAN connection：
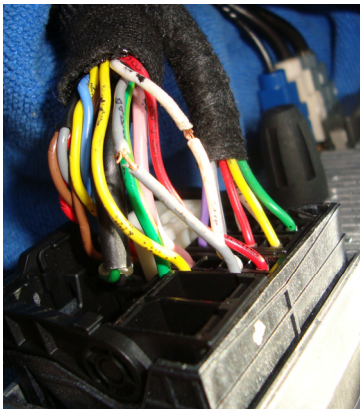
name	CAR wire color	CAN box wire color
CAN -	Gray wire	Gray strip
CAN +	White wire	Green strip
GND	**big——Green wire**	Brown
BATT[13.8V]	Big ——Orange wire	RED With Fuse

- [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.

The CD/navigation retrofit:

CAN wires should be wired to the rear of the CD/navigation computer, with the hooks like the above picture, the Computer can be taken out. The Peugeot is much easier, just take the surrounding plastic out.

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.

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To the "Ctrl" port of the interface.
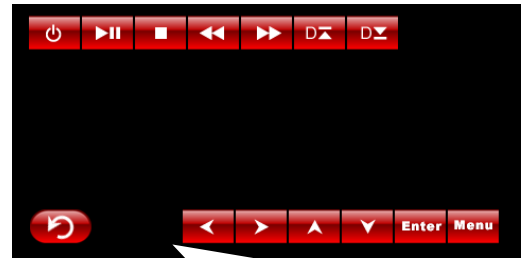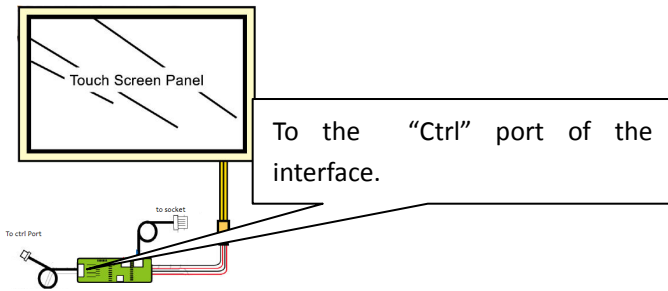
When this daughter PCB is inserted, the user touch the panel, this touch icons will pop out, and the user can control DVD/TV with it. These touch icons will also pop out when the user rotate the knob on Peugeot508.

The 3 keys can choose the DVD/TV type connected to this unit.

If the installer do not want these icons to pop out, set the DVD/TUNER options to be "None".

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.

When the menu key is pressed twice, the menu of "H Pos" and 　"V Pos" will be shown, the installer can adjust the values to make the image fit into the center of the screen.

6. The retrofit process

- Remove the wooden decoration piece.
   as the arrow shows.

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● then remove the screws behind, the total plastic part can be take down, this makes the panel now shown outside.

● then take down the big plastic, and install the daughter board and wire for inserting video behind the monitor.

●
Attention: the original plug should be inserted into the LVDS wire's board socket, wrong direction will make the picture black but not hurting any device.

● Audio selection：
  ➢ if user is installing just a DVD or TV tuner, the sound can be connected to AUX。
  ➢ if the user are installing 2 audio sources,one relay should be used to switch the sound，the control signal can be connected to the Pin2 of the Ctrl port.[max sink 2A].
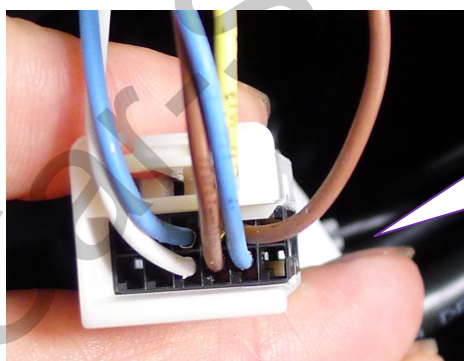
There are stereo input wires behind the CD like the picture shows, the center 3 wires: Yellow: left-audio, Blue: right-audio,Brown: GND.

7．Accessories：

（1） [ ] One interface box.
（2） [ ] CAN box with input/output wires.
（3） [ ] LVDS cable〔with daughter board, output LVDS cable〕
（4） [ ] one installation manual.

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

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