CAM-GM/IR Installation Manual_V20191120

CAM_ GM/IR [without internal navigation]

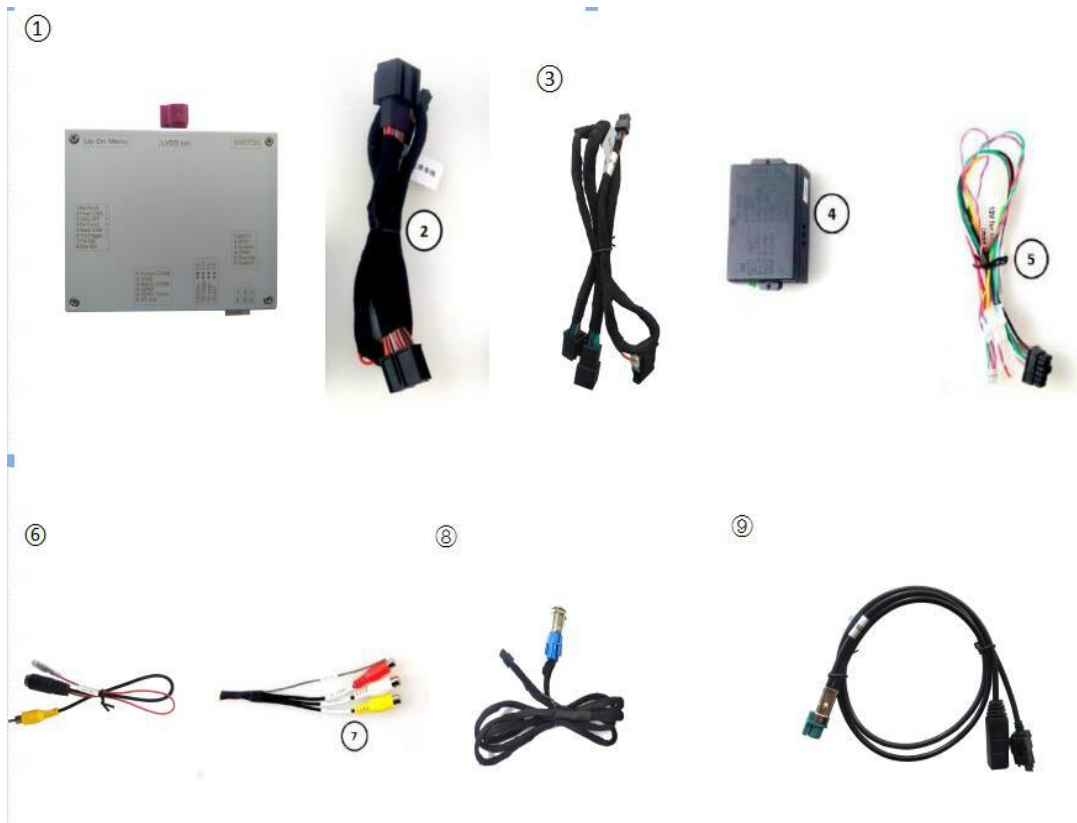This interface can insert video into 2013-Cadillac monitors. This offers RGB-navigation onto the OEM screen, also DVD/TV videos can be inserted. This interface also has the following features:

Features：

➢ All Plugs are Cadillac2013 specific, so the installers does not need to open the OEM monitor, the installation process is risk-free.

➢ OEM touch panel will be used to control navigation for FN-cadillac's internal navigation module. all touch operations in inserted video mode will not make background control

to the OEM CD/Head unit, because of the dedicated CAN-bus blocking function for inserted video inside.

➢ The Can bus will generate automatic reverse video, and parking guidelines

1. What's in the box:.

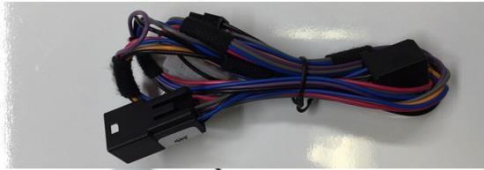| Item	Description
1	Camera Interface
2	CAN Interface Harness (Cadillac)
3	CAN Interface Harness (Buick)
4	CAN Box
5	Power Interface Harness
6	Transfer Cable
7	RCA Cable
8	Switch Button for Front Camera
9	LVDS Cable

2. system connection(for the version without internal navi, the SD slot, navi-antenna,speaker
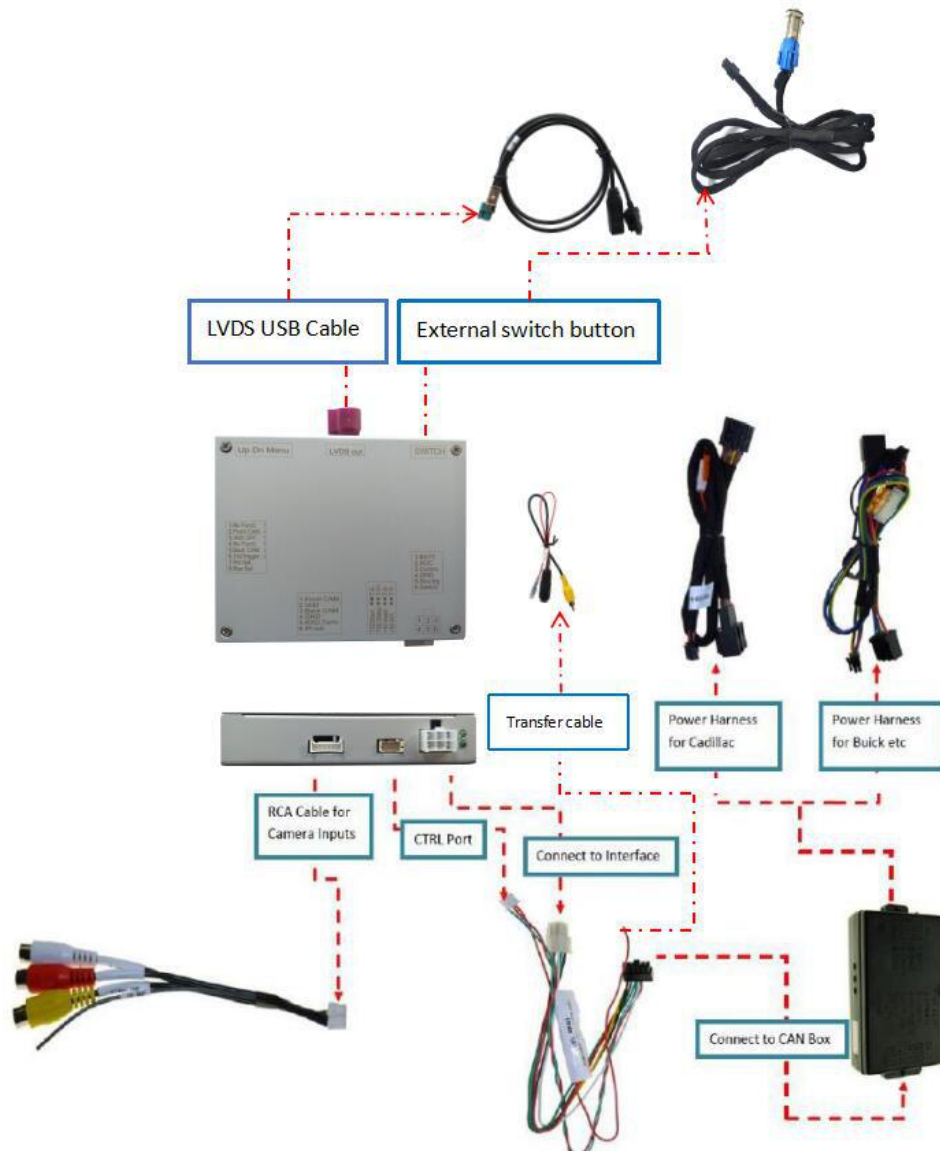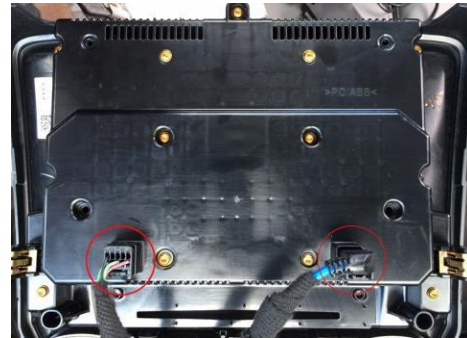
conn. will not be seen.)

The process of getting to the Cadillac video connector is a little complicated, especially XTS, some screws are difficult to find.

For the detailed screw-work procedure on Cadillac, please contact Fosp sales people for the PPT pictures.

GM/Buick/ All Other Vehicles　　　　　**GM Trucks**

LVDS USB Cable	External switch button

RCA Cable for Camera Inputs

CTRL Port

Transfer cable

Connect to Interface

Power Harness for Cadillac

Power Harness for Buick etc

Connect to CAN Box

The 6PIN power connector signal definition between the Can box and interface box：

YELLOW：power supply of 12V BATT。

RED：**generated ACC（=12V when key in ignition state）**：when=12V，the interface works.

BLACK：Ground to Chassis。

GREEN：Can box generated reverse trigger signal [when =12V the reverse video is enabled]

WHITE：Can box generated switch signal wire, when=12V, this interface switches。[max.25V]

GRAY：CAN box's communication with interface on sharing control signal to DVD/TV on this wire.[if we do not need to idrv to control

DVD/TV/iPOD, this wire may be cut off.]

3.User's Control

Reverse signal:

　　The reverse signal is always generated by the data wire. When the car goes into reverse, the green wire from the CAN box goes to 12V volt.

　　When in reverse, the CAN box will generate guideline signals to the interface. The installer can use the 3 key buttons on the side of interface to switch it off.

The input switch:

　　When interface mode(all video input except car OEM picture), the OEM CD/Radio will not respond to user's touch operation onto the monitor,because of the FOSP can box in between.

　　Note: there is in Infrared sensor under the LCD area, which senses the users' hand approaching operations and makes graphics on LCD. So when switching, the left/top side of screen is suggested..
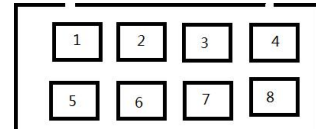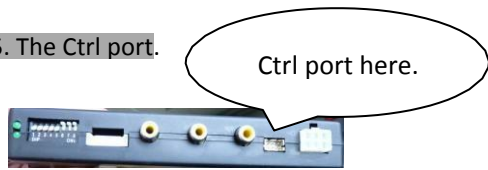
4.　the 3 side key buttons

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 first 5 options has separate state memory. The modification of one input is different , and it does not affecting other inputs.

- 　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 brightness/contrast/saturation tunes the color of the current video input.
- 　The H position,V position sets the image position on screen.
- 　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.

5. The Ctrl port.

1	2	3	4
5	6	7	8

The Ctrl port has 8 pins, it is not necessary for the installers to use it in most cases, however it can be used for installer's convenience in case many more extra devices are installed.

Pin 1, Pin2	+5V output voltage for sound switch relay when AV1 is selected, 0V when AV2 selected.	This pin can pull the relay with +5V. [max output=2A, while most mechanical relay only needs 0.1~0.3A.]
Pin3:	constant +5V when the unit is working.	max 2A output.
Pin 4,8	GND	It is tied to GND inside.
Pin 5:	data bus for touch screen	Pin5,6 should NOT be connected to GND, because it will halt the CPU inside. Leave it open for normal use.
Pin 6:	clock bus for touch screen.	
Pin 7	+5V output voltage for switch relay, when in inserted video mode, this pin=5V, when in original car video mode, this pin=0V.	max 2A output.

6. Parameters

No.	name	parameter
1	RGB resolution input	800X480 HD suggested.
2	Av1,Av2, cam video	0.7Vpp with 75 ohm impedance NTSC/PAL/SECAM automatic switch
3	IR output	5V digital infrared control code with 4 data bytes [machine code1,machine code 2, user code, verification code]
4	Control wires	White wire: signal= max 5V. Gray wire: signal= max 5V. All these wires can tolerate 12V for <10 seconds.
5	Normal Power consumption	4.8W [0.4A @12V]
6	Standby current	< 10uA
7	Reverse trigger threshold	>5V trigger
8	Work temperature	-40 ~ +85C
9	Size	15.8 * 9 * 2CM
10	Internal navi module resolution	800X480
11	USB	OTG function,1A output with surge of 3A.
12	Compatible with maps	Navione, navitel, Igo, Primo.sygic, etc.