

This interface can insert camera/DVD or extra video onto the buick/Opel screen. [the buick/Opel system which uses the General motor's new digital technology has 2 kinds of LCDs, one is WQGA[480X240], which normally has only navigation and radio, air conditional controller, so we can insert DVD or reverse camera video into it. The other is the WVGA[800X480] system, which has Navigation/DVD, and camera can be inserted].



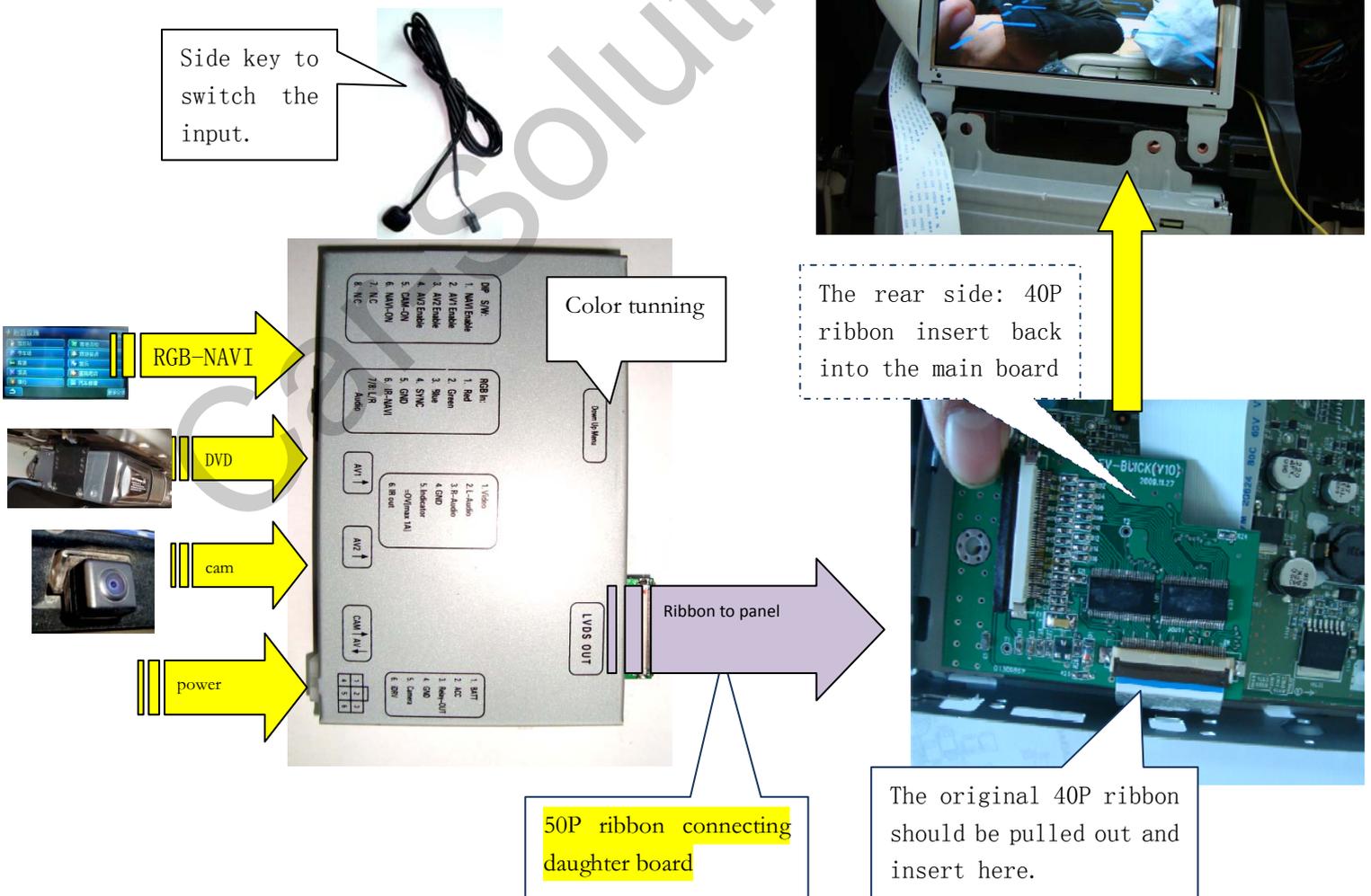
[the car types are Buick lacrosse, Regal and Opel].

This interface has the following features:

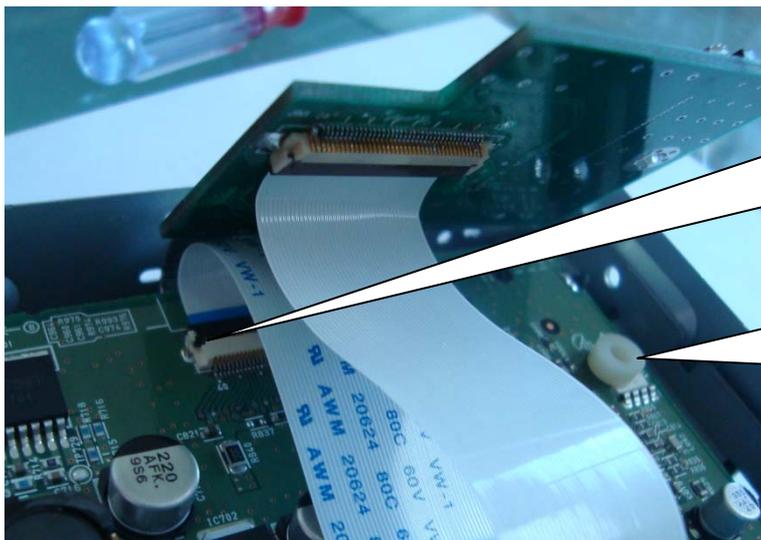
- ✓ All ribbon cables have "exact-fit" connector, it is convenient ,easy and fast for the installer.
- ✓ Digital processing circuit inside to guarantee the video quality.
- ✓ Multi-protection inside to make sure nothing will be damaged even when wrong-connection on wires.
- ✓ NTSC-PAL auto switch, [NTSC suggeseted for exact-picture size fitting]
- ✓ One DIP(DIP8) to set the WVGA[Regal: 800X480] or WQGA[Lacrosse:480X240] screens.



### 1.System connection

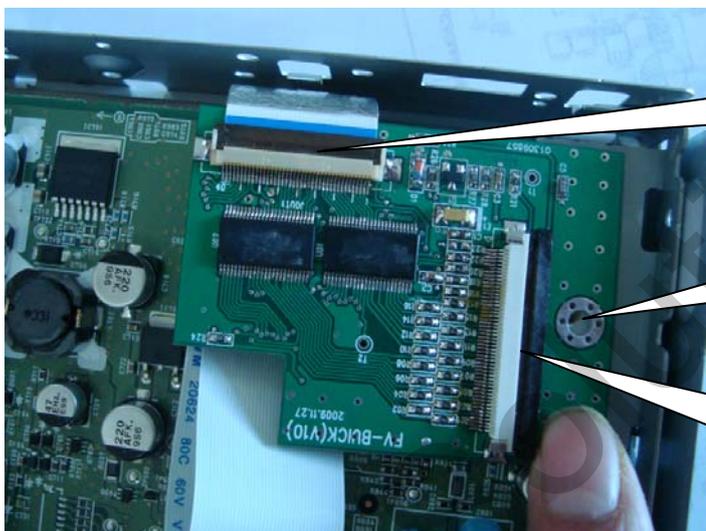


2. The daughter board installation method:



1. When the rear cover of the monitor is removed, we can see the 40P ribbon which is connecting panel, we remove that ribbon and insert the daughter board's ribbon there.

2. Remove the original screw here, and put the plastic stand here, which is used hold the new daughter board, a longer screw will fix the daughter board onto this plastic stand.



3. Then insert the original ribbon back onto the daughter PCB's 40P socket,

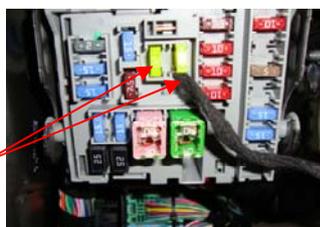
3. The daughter PCB is hold tight here by the screw in the accessories.

4. The back cover has already a long hole for this ribbon to go out, the 50P ribbon is connecting the daughter board to interface box.

3. ACC power supply location



Driver's left hand  
  
Both big fuse are ACC



4. reverse camera line



Rear trunk's left side

The green line inside is reverse signal indicator.



5. camera installation location.



6. Channel switch

- The user may use the side key to switch original→RGB->AV1->AV2→original→RGB.
- The Green wire can be used for reverse camera image display. [=12V then go to camera video]

7. The 6Pin power connector signal definition:

1. **YELLOW**: should be connected to ACC.

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.

8. Audio insertion

The CD has AUX input, which is located inside the armrest of the driver.

◇ 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]
8	=Off : WQGA screen [480X240 resolution] Usually this car does not have OEM DVD	=On : WVGA screen [800X400 resolution] Usually this car has OEM DVD
4, 6, 7	No function [ the 7 <sup>th</sup> DIP must stay UP side(=off), otherwise the interface goes into factory testing mode by displaying color bar on screen.]	

## 9. Accessories

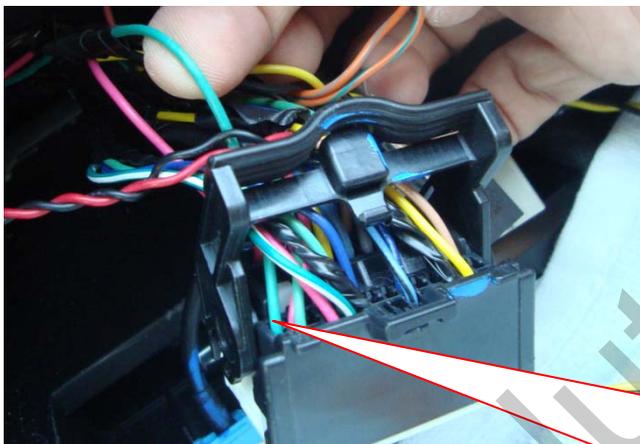
1	interface box.
2	510RC daughter board,
3	RGB-1PC
4	Power wire[Yellow,White,Black,Green]
5	Keypad 1PCs
6	User's manual
7	1 screws[Φ2.54]+1 plastic ring[Φ3]

Note:

How to use the original key to switch on FV-Buick V100328

People may use the car's keys on steering to select the input of FV-Buick. This file shows how to connect, and how to operate.

### 1. Connection



GMLAN:

The left-most side of this big connector, there is a single-wire which is usually blue. This is the GMLAN wire. It is not CAN bus twisted wire pair.

This wire should be connected to CAN bus input of FV-Buick.

CAN box of FV-Buick	Car Connector
Yellow with fuse	To Car's ACC or BATT
Black	To Car's Chassis on CD
Blue strip	To CAR's GMLAN wire like above picture
Gray strip	Not connected to anywhere

Note:

there are many twisted wire pairs on this connector which all go to the CD unit. There are 2 CAN buses, and one USB which is also twisted, which is just making this connector complicated.

However, we found that all GM multimedia data goes on GMLAN bus, which is a single wire. our interface has dedicated software to decode the GMLAN data.

### 2. functions



	操作	功能
1	Long hold “mute” key	Input switch on the interface: Car→RGB→AV1→AV2→Car→RGB→...
2	Long hold “mute” key	Back to car video
3	vol+/-	OSD pop up for DVD or etc.
4	“Src” scroll down	Execute the selected function of the pop up osd
	If the installer does not need the function of 3/4, just cut the gray wire off.	

Installers may also use the extra keypad to switch, then he does not need to care about the GMLAN wiring.