

Ford 2012 interface installation manual _v130418

product type: FV- ford-edge

This interface can insert High definition RGB navigation video, AV and reverse camera video onto ford, Lincoln cars[from 2011 and later]. The features are:

- Car specific connectors are used to insert HD RGB or CVBS onto ford OEM screens. This interface is compatible with almost ALL ford HD screens. Including the Raptor, Escape, Fusion, Edge, Lincoln, Explorer and more.
- OEM steering key button is used to switch the input.[long press on the VOICE key.], and OEM reverse camera video is displayed on whatever input like car and inserted video mode.
- Digital video transmission is used to display, thus HD navigation quality on LCD is guaranteed.
- The OEM speaker is used to insert the navigation voice. This all-in-one unit has navigation module inside, which makes the system very simple in installation.



1. System connection:



This 4Pin of navi sound output:

The top 2 pins are +5V and GND. [when the navi talks, this 5V comes out, and the relay to OEM speaker is pulled.]
The other 2 pins are sound to a speaker.

Map SD

Touch pin to external navi-modul

Audio switch

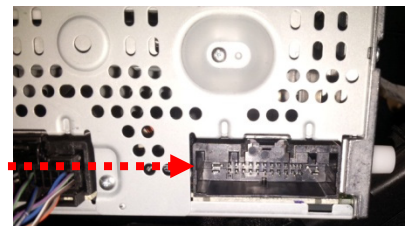
USB of navi. module

Cable to daughter PCB.

Note:

The navi antenna,SD card slot, USB connector will only be available on the all-in-one units.

The 4Pin touch connector should not be used on the all-in-one unit, it is connected internally already.



(This T-harness is used to give power supply to the whole unit, and can data for switching,and sound switch of oem speaker.)

2.DIP switches:

Try DIP4 ON/OFF to fit the CAN box for different cars.
DIP123 are not used.

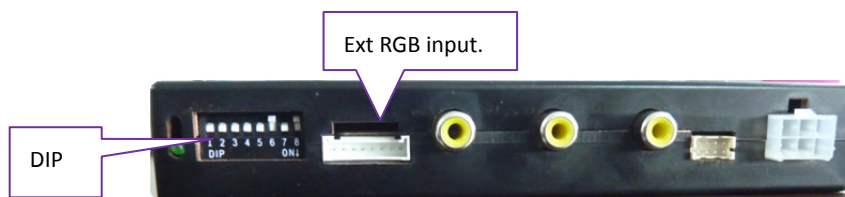
correct DIP4 will make the interface switch when the **Voice** key is pressed long.

This CAN box will make 12V on green wire on reverse.



This key long-Press will make the interface switch.

If not, change the DIP4 location.

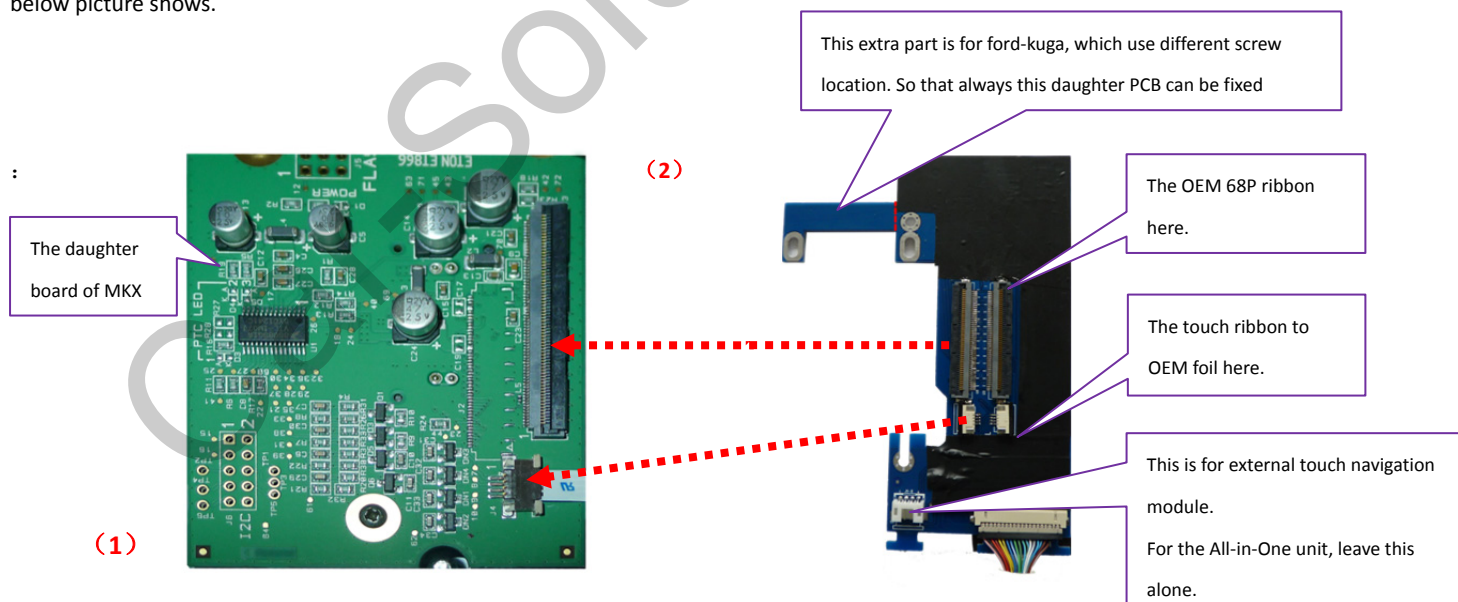


Interface box DIP switch setting:

DIP	=ON [DIP=Down side.]	=OFF
1	RGB enabled	RGB disabled.
2,	AV1 for DVD enabled	AV1 disabled
3	AV2 for Tuner or extra video enabled	AV2disabled
4	RGB=HD RGB [800X480 or VGA 640X480] This is the default setting of the internal navigation module.	RGB=Normal NTSC [480X240]
5	This is reverse camera trigger wire go to CAM when Green wire= 12V]	go to car video when Green wire= 12V
6	IR programme when once to ON Touch calibration when get to ON >5 times.	OFF for normal work.
7,8	7=UP,8=UP: (=OFF) , leave both UP when in normal use.	

3. Daughter PCB connecton

The ford screens has OEM touch foil, which can be used for the installed navigation, the daughter board should be installed as the below picture shows.



5.the 3 keys:

- 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 last option is used to enable/disable the guidelines in reverse mode, set it into OFF since almost all ford has OEM guidelines. [Set DIP5=OFF to enable oem video when in inserted navigation mode.]



6. Use the OEM touch panel to control DVD/TV:

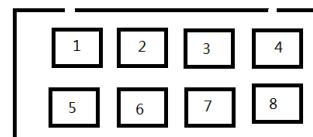
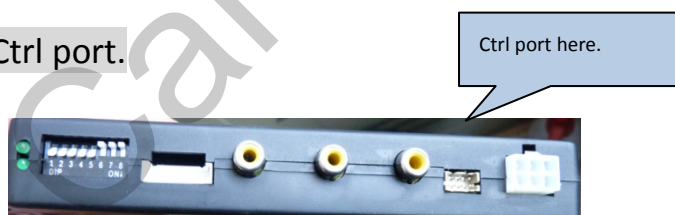
There are already many DVD and Digital TV remote code inside the interface. The installer can set to the suitable one and then he can use the touch panel to control DVD/Digital TV, without searching for a remote controller.

The installer can also set the OSD option to be "Prog", in this case, he can set the interface to learn the new remote code, and when touch the panel, icons will pop out and programmed code will be sent.

For the detailed information, please contact the sales people on the detailed manual on "Programming the IR code of the interfaces."



7. The Ctrl port.



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,	+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.]
Pin2		
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.

8. 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.syctic, etc.