

FV-GM-CUE2016 Installation Manual_v20160526

Product type:

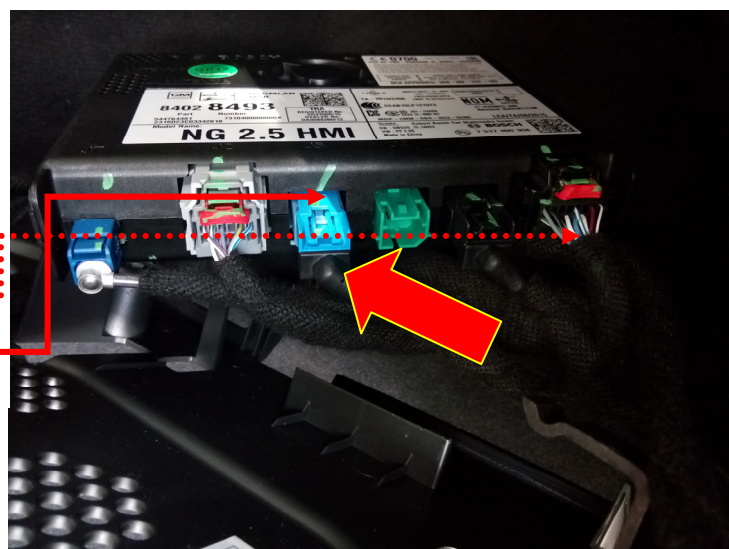
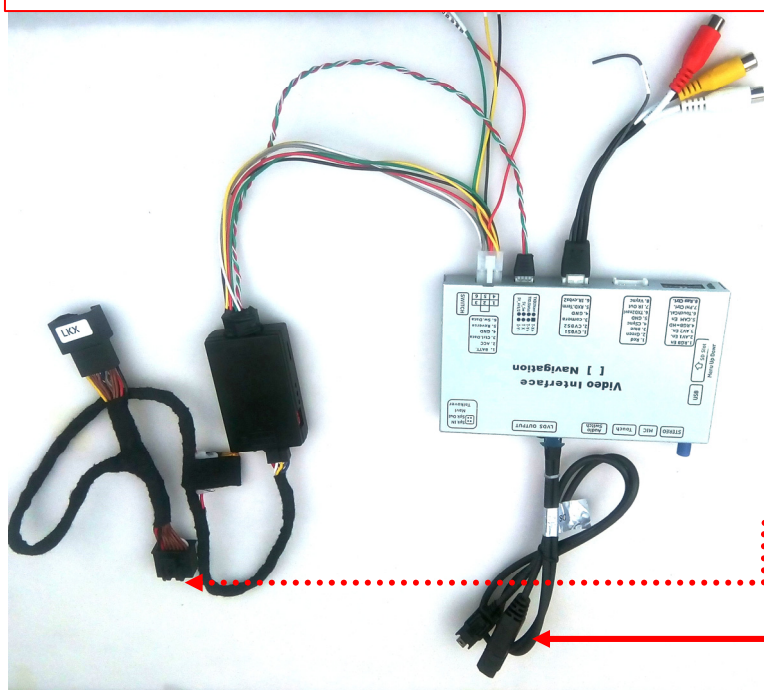
- [FN_GM_CUE2016](#) [with internal CE navigation module]
- [FV_GM_CUE2016](#) [without navigation inside, just video inserter]
- [FaN_GM_CUE2016](#) [with Android navigation module inside]
- [FV_360_CUE2016](#) [with 360 surround view inside]

This interface can insert video onto GM's CUE screens【 including 7-inch, 8-inch and 10-inch screens. E.g. 2013 and after, the SRX, ATSL with 7/8-inch screen, and CT6 with 10-inch screen】. Android live-traffic navigation, 360 surround view, and DVR, reverse camera videos can all be inserted. The OEM touch screen is used to control the added devices. All connections are done behind the HMI box, which is very easy.



The installer can buy the FV_GM_CUE2016, and manually add the winCE module or Android module to make it FN- or FaN-product.

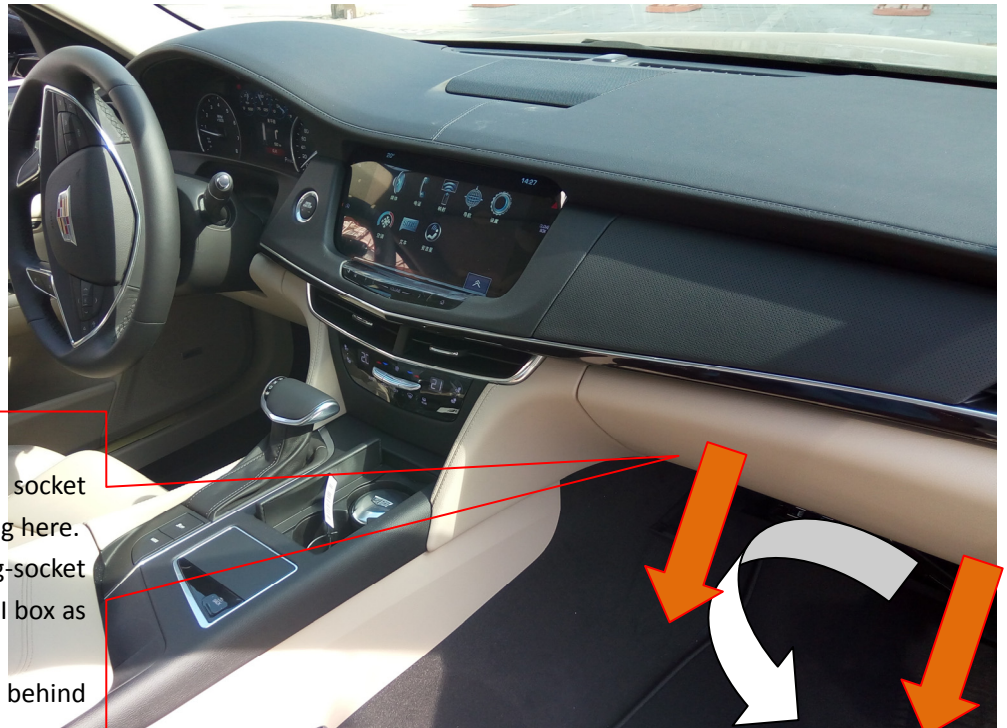
The external 360-HD with guidelines can be added any time onto the RGB-conector since it can be a stand-alone box outside.



Features:

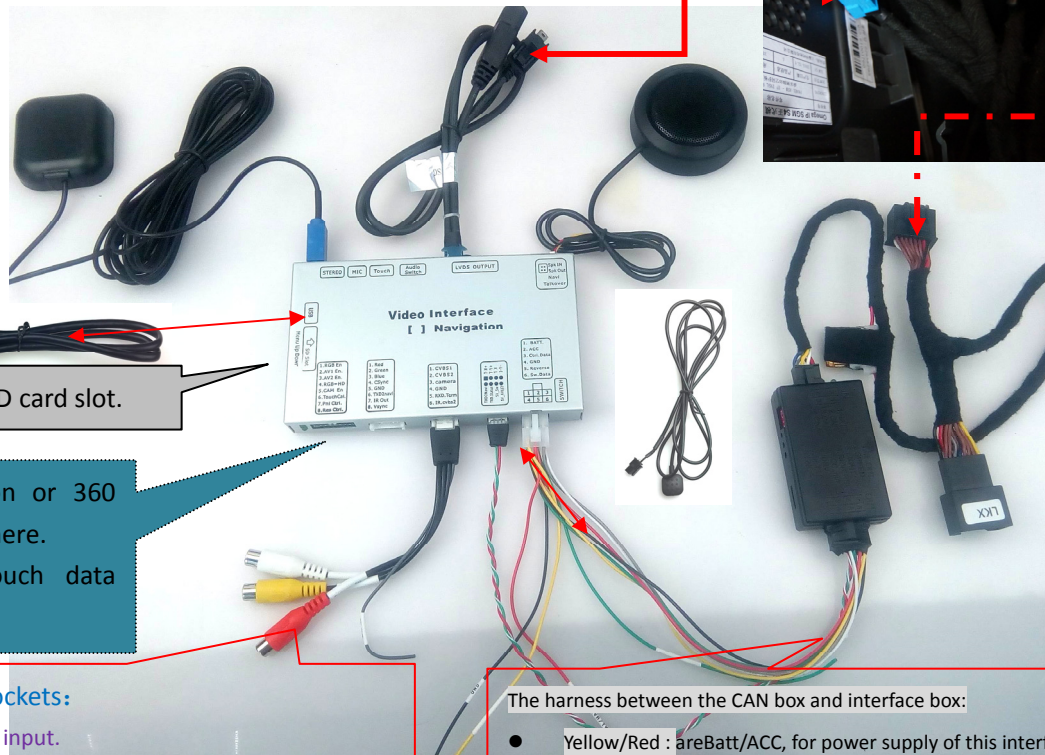
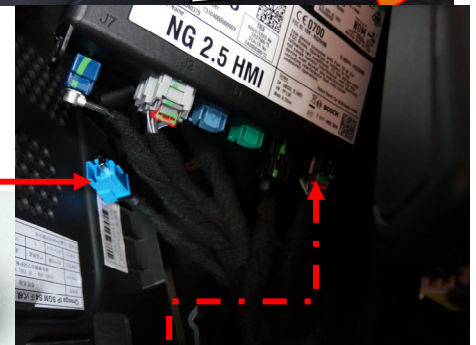
- Compatible with the newest CT6, XT5, 【the 10-inch CUE display】, and previous SRX, ATSL. 【the 7-inch CUE display】, the OEM touch is used is used to control the added navigation/android. 360 bird view can also be added.
- **FaN** series has internal android module, which has navigation+MP5 inside. Also it has phone-mirror function.
- The RGB input socket can accept HD-360 video make it displayed on OEM screen.

1. Connections



HMI is behind this cover:

- (1) The interface's LVDS plug and socket should be wired on the blue-plug here.
- (2) The interface's power plug-socket should be wired behind the HMI box as the picture shows.
- (3) No installation should be done behind the monitor.



MP5/MP3 file storage here.

SD card slot.

External HD navigation or 360 video can be inserted here. The 6-pin is the touch data output in UART way.

External video input sockets:

- Yellow: AV1's video input.
- White: AV2's video input
- Red: reverse video input.
- Gray: IR output to control DVD/TV in inserted video mode.

The harness between the CAN box and interface box:

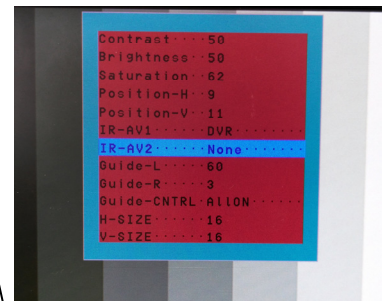
- Yellow/Red : are Batt/ACC, for power supply of this interface.
- Black for ground.
- Green wire for reverse display.
- White wire for switching the inputs.
- The Gray wire for guideline and PDC information display.

2. DIP settings:

DIP	=ON side (DOWN)	=OFF side (UP)
1	RGB Enabled	RGB disabled
2,	AV1 enabled	AV1 disabled
3	AV2 enabled	AV2 disabled
4	When in reverse, the video is on the RGB port. This is the case when RGB-HD 360 video is used.	When in reverse, the video is on the CVBS port. This is the case when composite video is used.
5	Reverse signal (green wire=12V) switch to CAM video	Reverse signal (green wire=12V) switch to OEM video
6,7		No function, should be at OFF.
8	UP =10 inch CUE display[e.g. 2016 CT6] DOWN = 7/8 inch CUE display[e.g. 2013/2016 SRX/ATSL.]	

3. 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 not affecting others.



- 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 position H,position V set 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 or touch screen to control the installed device in AV1/2 mode. Left/right push will pop up the MMI icons, and push will execute the selected icon.
 - 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.

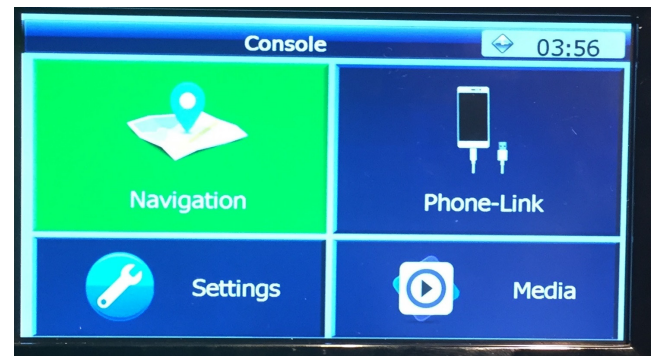
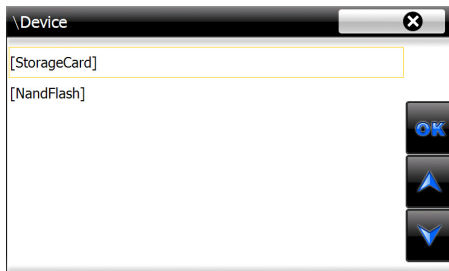
- The Guide options:
 - ◆ Guide-CTRL: should be set to OFF in this model.
 - ◆ Guide-L: no function.
 - ◆ Guide-R: no function.

5. FN-product Manual

(1) the Main Page.

When the module is just started without SD card in the SD slot, the page will show a cross on white screen, the installer just click on the cross to make the touch calibration.

When Calibration is done, the main page will be shown. The installer can click on each icon to go to their respective functions.



When first come to map, the user will be asked where the navigation software is, by popping up this picture on the left. After the user enters the address, then the map software will be executed.

(2) the Settings page.

This page is shown on the right side. The user may press the left-top icon to go back to the main page.

There are 8-icons on this page:

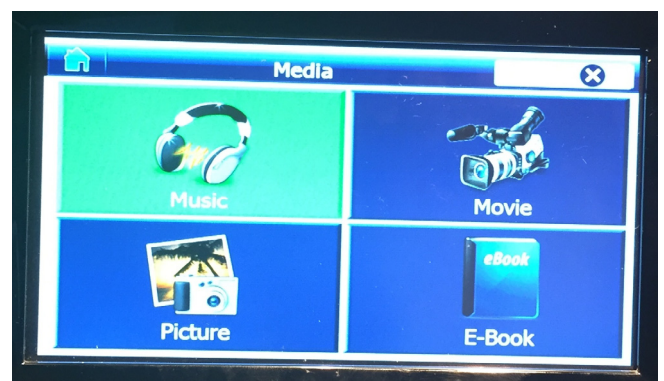
- Navigation setup: the location of EXE file of the navigation software, when it is set, the next time will the unit will power up with that software.
- GPS system monitor : to check the signal reception of navigation satellites。 This module uses 9600bps, COM2, it is auto compatible with the navigation software.
- System Setup: it is used to set the language of this module, e.g. Chinese or English, etc.
- Touch-Screen calibration : this icon is to make the touch precisely done, he click this icon, and cross will be shown and he touch the cross to till it disappears.
- Screen adjustment: this icon is used to set the brightness/Contrast, also location of the picture, this module does not use this function since it is digital inside.
- Volume: When the user touches the LCD, the module maybe give a beep, he needs to turn this option off to remove this sound.
- System time: to set the time of this unit. It maybe not needed, because the unit may also get the time from the GPS.



(3) Media page

The module inside has very powerful A6 processor and multimedia co-processor, it can play MP3 or MP5 files very smoothly. The AUX cable can be used so the stereo sound goes to the AUX port of the car and goes out on the OEM speakers.

when the USB cable is connected, files on it can also be played.



(4) Phone-Link Page

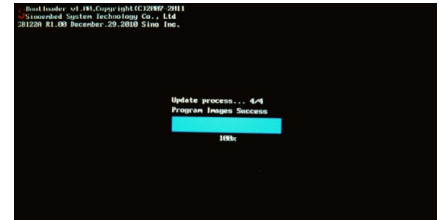
This module has very nicely tuned phone-mirror function for android phones, also the touch function can also be delivered. [this means, the user can touch the OEM foil to select the wanted music, go around on the map display, etc.]

The module is based on winCE operation system.

Fosp has another FaN-product, which is based on android system, it can mirror both android and iPhone display onto car screen.

4.1 the software update of this module

If the installer needs to upgrade the OS firmware, he should insert the upgrade SD card, then power it up, he will see this kind of re-flashing pictures and wait till the calibration cross is shown.



5. Parameters

No.	name	parameter
1	RGB map resolution	800X480 HD suggested.
2	Av1,AV2 , cam video	0.7Vpp with 75 ohm impedance NTSC/PAL/SECAM automatic switch
3	GPS antenna	5V active antenna from the golden finger connector.
4	Reverse Control wire	>5V will force into camera mode. All these wires can tolerate 12V for <10 seconds.
5	Normal Power consumption	4.8W
6	Standby current	< 10uA
7	Reverse trigger threshold	>5V trigger
8	Work temperature	-40 ~ +85C
9	Size	15.2 * 9 * 2.1CM
10	Working temperature	-40~+85C.
11	USB	OTG function,1A output with surge of 3A.
12	Compatible with maps	Navione, navitel, Igo, Primo.sygic, etc.
14	The HDMI resolution input from RGB port	Compatible with 800X600, 1024X768, 1280X720, 720P, 1080P. etc. Auto recognition software inside.
Navigation moudule parameter		
1	CPU	SiRFatlasVI (800M Cortex A9 + 300M DSP)
2	RAM	256 MB DDR3
3	FLASH	128MB
4	Storage of map	SD card
5	OS	WINCE6.0 CORE
6	Audio supported	 ape flac aac wav mp3 wma ogg
7	Video supported	 rmvb mp4 3gp mov avi divx xvid wmv mpg rm flv mkv

6. FaN product user's manual

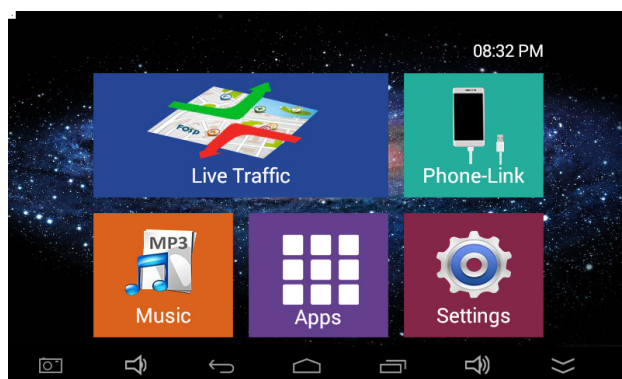
FaN series has 4-core high speed inside with 3G RAM and high-sensitivity GPS receiver, all operation on it is just like an normal android phone, it is designed for car usage:

- It has internal phone-mirror function, Android and iPhone display can both be mirrored to the car screen.
- It has internal wifi module, which can be connected to the hot-spot of a phone, thus on-line traffic information can be offered. Also on-line navigation like WAZE can be run on it.
- Internal Bluetooth can be connected to the car with data communication, and internal audio of media/navigation can go to the OEM speakers. The user's hands-free function can also be used.
- The OEM touch foil can be used to control the navi or mirrored android phone, the installer does not need to add another foil.

(1) The main page.

When this module starts on the first time without a SD card in the slot, the calibration page will be shown, the installer should touch the cross till the page is finished. Then this page will be shown.

Each icon has his specific function, the row on the bottom is for android operation. when the user slide from below to top, this string of control icons will show up.

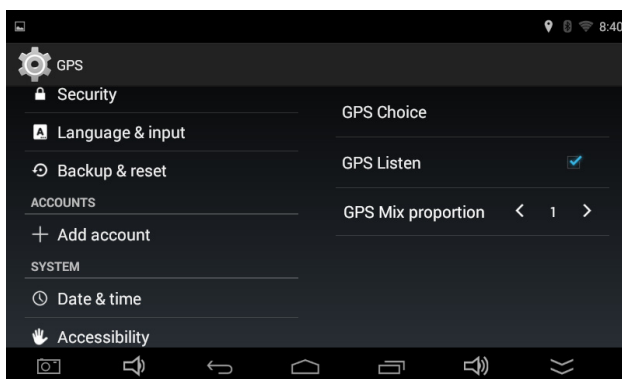


(2) the Live traffic icon.

The first icon is "Live traffic", the installer may install many on-line navigation in this module, like WAZE or google map, he can click this icon to execute the wanted navigation software. He may need to set the wifi to his phone's hot-spot for live traffic information.

To pick up just one navigation software for the icon of "live-traffic", the installer should go to settings, then go to "GPS", and on the first row "GPS choice", he may pick up the wanted software. The 2nd option is for navi-sound only or navi sound mixed when GPS sound and media sound are sent together.

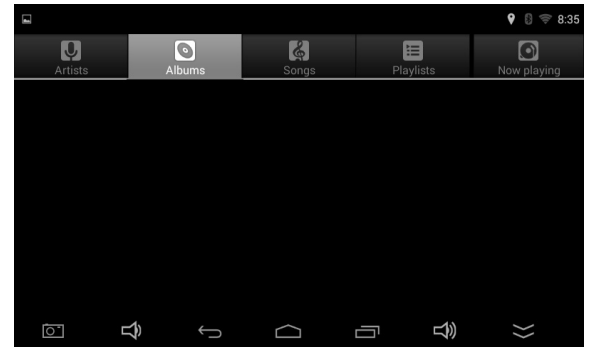
When traffic information is displayed: **Red** for traffic jam, **Yellow** slowly move forward, **Green** nice traffic condition.



(3) The music icon

Click the music icon, then a page like this will be shown:

This player can either play the music on the SD card, or the music in the USB disk. The user can re-insert a USB disk onto the USB port any time.



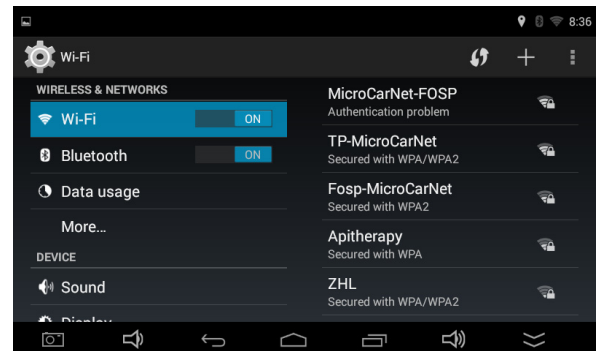
(4) The settings icon

The installer can set the wifi, and Bluetooth of this module. He should enable the hot-spot of his phone, and make the module connected to that spot by wifi.

The installer can also set the language, display and many other feature inside this page.

When in Bluetooth connection, the installer should make the module connected to car by data port. Now almost all cars has data port and hand-free port, which is shown by 2 icons like the picture.

When this module is connected to car's Bluetooth, he should click the handsfree OFF, and music-ON. Then he may still use his phone when he is listening to this module's audio output.

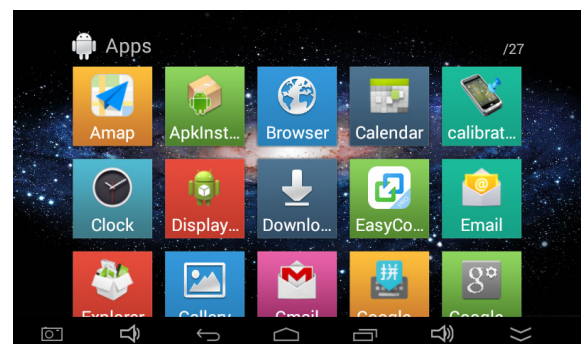


The audio output of this module can also go to the AUX port of the car.

(5) The APPs icon

When this icon is clicked, a page like right side is shown, the user can get all the apps he want, he can also install extra apps on it.

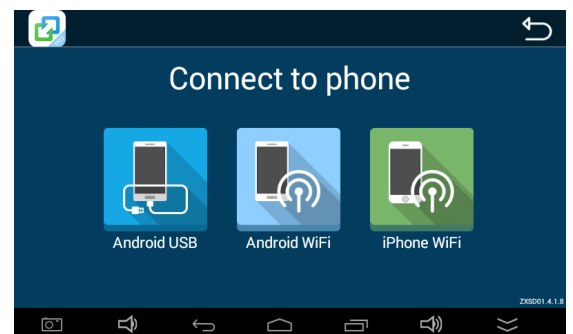
All the apps here are just like android phone usage.



(6) the phone-mirror icon

When this icon is clicked, the page on the right side will be shown, the first 2 icons are for android phone connection, it has image mirroring, also the oem touch can be used to control the phone. The 3rd icon is for iPhone connection. Only the picture of iPhone will be mirrored onto car screen.

For Android phones, it is suggested to use the first icon, since this mode the phone is charged all the time.



A. Android-USB icon:



6.1 When the android phone is first connected, the picture on the right side will be shown, then the user connect the USB cable to the phone and the module by the USB port. The phone will ask the user if he accept “debug mode”. He selects OK, then the picture of the phone will be mirrored onto the car screen.

6.2 Android User interface

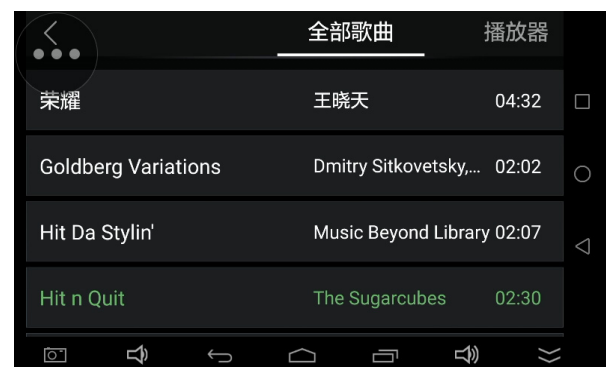
When the phone is connected, the interface will push a software onto the phone, like the picture here. It makes the phone shows the same UI as the car screen. And it make the user feels very easy to pick up the shortcut of application he wants to execute.

The user may click every icon to make it execute. Like the music and telephone icon. He may also hold on one icon, the a dialog window will show up, and he may choose the app for that icon.

6.3 Navigation/Music/etc pages

When the “music icon” is clicked, the music player in the phone will be executed, the user can select all music in the phone.

When the “navigation icon” is clicked, the navigation inside the phone will be executed, the user can operate on the car touch screen, all the operation is just like touching the phone itself. This way can free the driver’s hand from holding the phone, also the image quality is really nice since the connection is totally digital and has no detail loss in the display.



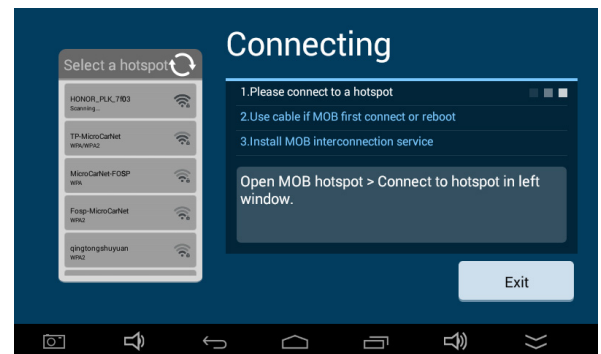
B. connecting to android phone with wifi mode :

The display on the car screen is already self-explanatory.

Make the module connected to the hotspot of the phone, then the display will be mirrored and touch operation on car screen will be done to the phone as well.

the first time the phone is connected to this module, please use the USB cable, since this module needs to push a software on the phone to make this 2 screens have the same UI.

Then later times, the USB connection is not needed any more.



C. Use WIFI to connect to an iPhone :

First enable the hot-spot of the phone, and make this module connected to that spot.

Then click on the airplay of the iPhone to mirror the picture of the iPhone to the car screen.

7. The FaN Parameters.

CPU	RK3188/T four core , 1.6G
RAM	1G DDRIII , optionally 2G DDRIII
FLASH	8G EMMC Flash,max64G
WIFI	RTL8188/RTL8723 (with BT data delivery)
GPS reception	HV5820
GPS Antenna	3V active, usually positioned within 30Seconds
Operation system	Android 4.4
size	Suitable for FOSP interfaces inside.
USB	Compatible with several HUB, Compatible with several USB camera, with fosp software for DVR function. Compatible with several 3G/4G dongle.
GPS frequency	1575.42MHz
GPS refresh speed	1Hz
GPS Channels	66
GPS sensitivity	-161dBm
GPS Precision	3.0m CEP
Volt in	10~15V
Power consumption	2.4W
Working temperature	-20~85C