

# WINCE 6.0 Car Navigation Box CS9320 User Manual



CS9320 is Wonde Proud's new era for GPS+GLONASS dual-mode navigation. Following past model's stability and universal compatibility, we developed CS9320 as an advanced new model.

GPS+GLONASS dual-mode for more accurate positioning, HDMI output for entertainment, dual video display providing sound drive/passenger service.

Supported with Wonde Proud plug & play GPS/multimedia interface, CS9320 is going to have your driving experience enjoyable.

Thank you for purchasing CS9320 Navigation Box.

Before you start operating navigation, please refer to the following tips.

1. Optional function would work once you connect external device.
2. Firmware updating should be finished within several minutes.
3. Remember to change the resolution value after changing the panel setting so that both of them will work correctly.
4. If you change setting of resolution or panel inappropriately, error of display or touching control would take place. Under the circumstances, please contact your distributor or agency and get a file named LCD93.inf. Put this file into your SD card and restart the navigation box.

<b>Main Menu I</b>	<b>3</b>
Adjusting (RGB Adjust / CVBS Adjust / HDMI Adjust)	5
Panel (select correct touching code for your panel)	11
Resolution Setting for Correct Image Display	11
Calibration for Correct Touch Response	14
System: Auto Run Navigation On/Off	14
System: change the map's path	15
System: firmware update	18
System: Update Logo (Change your Start-up Picture)	20
System: NAVI MUTE ON/OFF	22
System: Shortcut to Menu On/Off	22
System: RF Reset	23
System: Resolution Change Confirm ON /OFF	23
System: GLONASS Filter ON/OFF	23
<b>Main Menu II</b>	<b>24</b>
Explorer	24
Video IN	26
REAR CAMERA	25
3G	26
Wireless	26
IE	28
<b>Main Menu III</b>	<b>28</b>
Time	30
Cursor	30
Power Mode (Reboot mode or Suspend Mode)	31
UART: select correct device connected to Uart port	32

Info.: check OS and firmware version of CS9320	32
<b>Installation</b>	<b>33</b>
<b>Pin Definition</b>	<b>36</b>
<b>Reset CS9320 with LCD93.INF</b>	<b>37</b>

### Main Menu I



Map access



HB, HS, VB adjusting



Select Panel model



Back to last page



Select System resolution



Touching calibration



System setting



To next page



Adjusting, input code: 7777

OK Password: 7777

EXIT 1 2 3 4 5

Clear 6 7 8 9 0

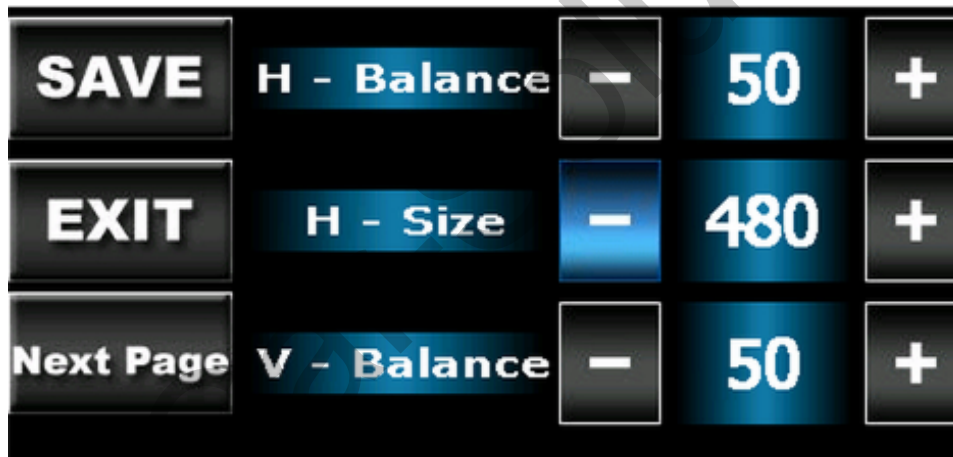
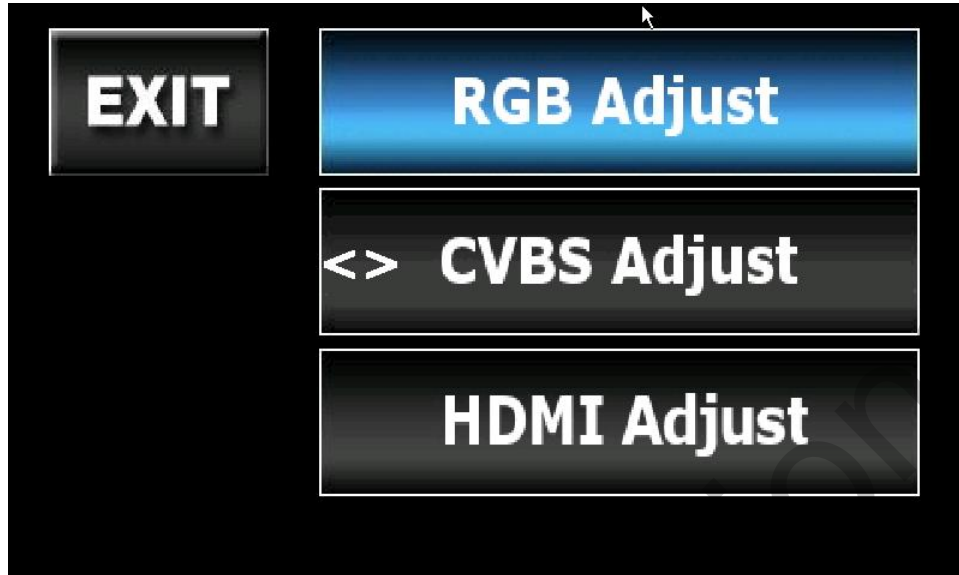
EXIT

RGB Adjust

<> CVBS Adjust

HDMI Adjust

1. RGB Adjust:



H-Balance—horizontal Balance of RGB image

H-Size—horizontal Size of RGB image

V-Balance—Vertical Balance of RGB image



Brightness—brightness of RGB image

H - Shift---RGB image horizontal moving

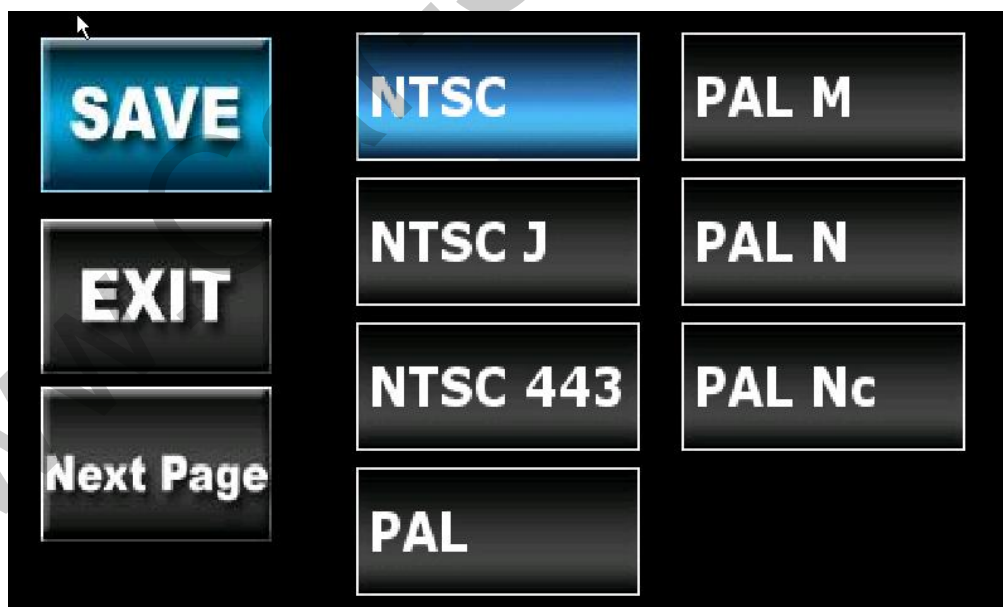
H - Scale----RGB image zoom in and zoom out

If the image is not in the middle, and you can't see the edge, please make an adjusting until you can see the complete image.

**P.S.: When you adjusted to a wrong value, you might lost image, but as long as you didn't click "Save," please restart CS9320 and you can reset the values.**

## 2. CVBS Adjust

Please select correct CVBS protocol according to your monitor.







Width---width of CVBS image

Height---height of CVBS image

Brightness---brightness of CVBS image

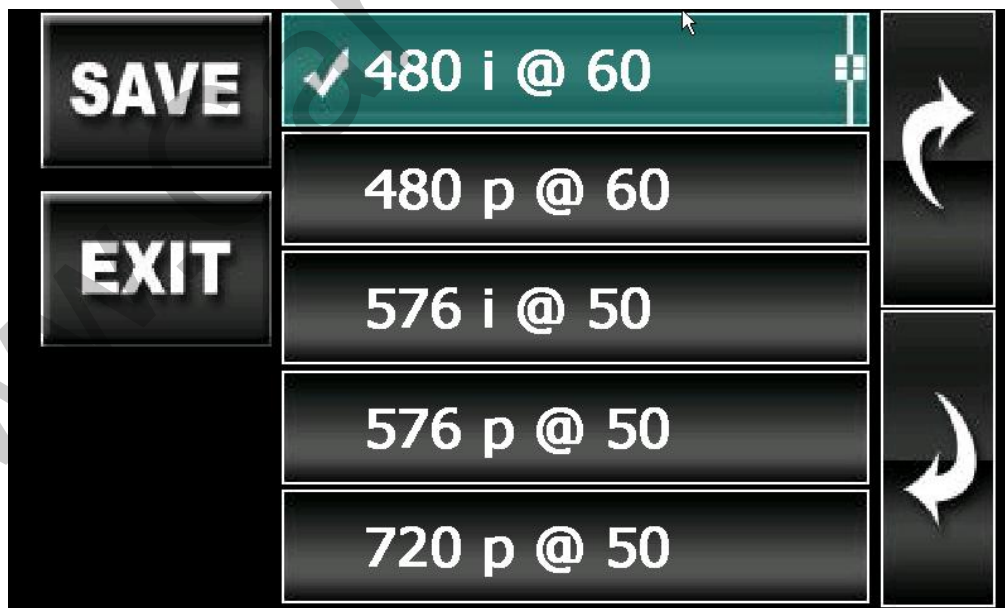
Contrast---color contrast of CVBS image




If the image is not in the middle, and you can't see the edge, please make an adjusting until you can see the complete image.

**P.S.: When you adjusted to a wrong value, you might lost image, but as long as you didn't click "Save," please restart CS9320 and you can reset the values.**

### 3. HDMI Adjust

Please select the right option for HDMI setting



<b>SAVE</b>	720 p @ 60	
	1080 i @ 50	
<b>EXIT</b>	1080 i @ 60	
	1080 p @ 50	
	1080 p @ 60	
<b>SAVE</b>	1080 p @ 30	
	1080 p @ 25	
<b>EXIT</b>	1080 p @ 24	

**P.S.: When you adjusted a wrong value, you might lost image, but as long as you didn't click "Save," please restart CS9320 and you can reset the values.**

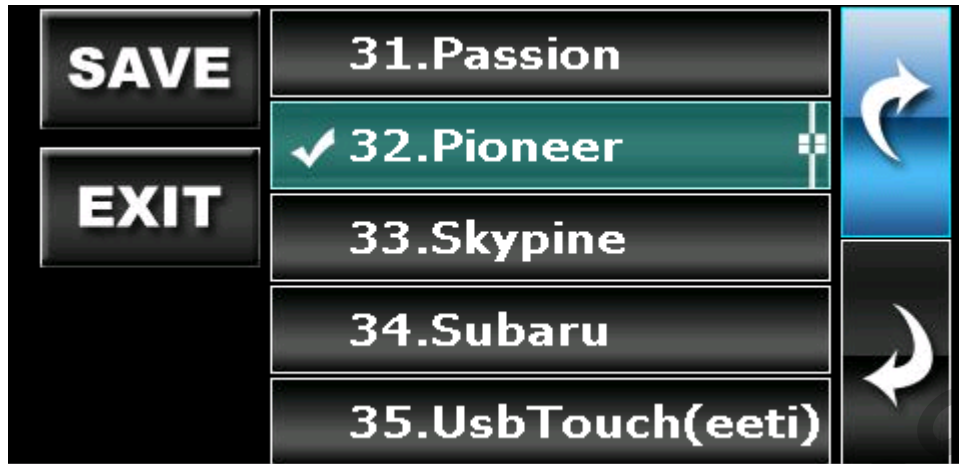


Panel, input code: 7777

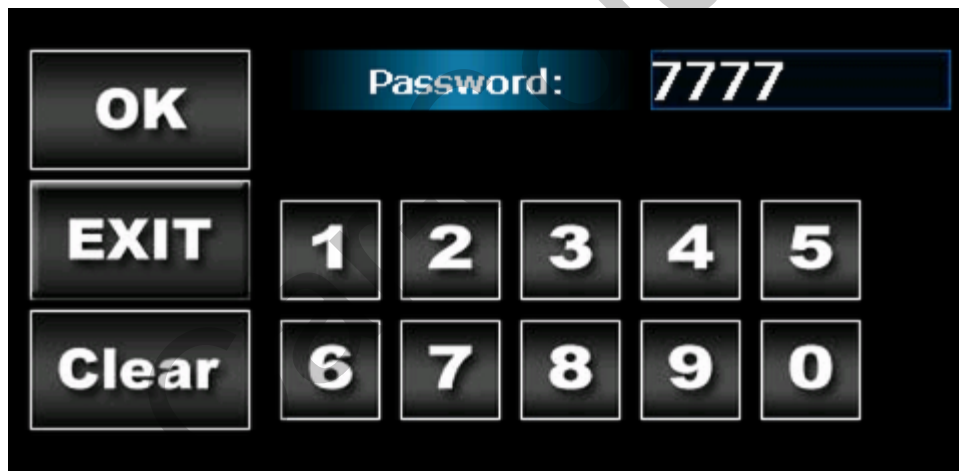


Select the right panel model to match your car monitor in order to enable touching control and successful display.





Resolution, input code: 7777



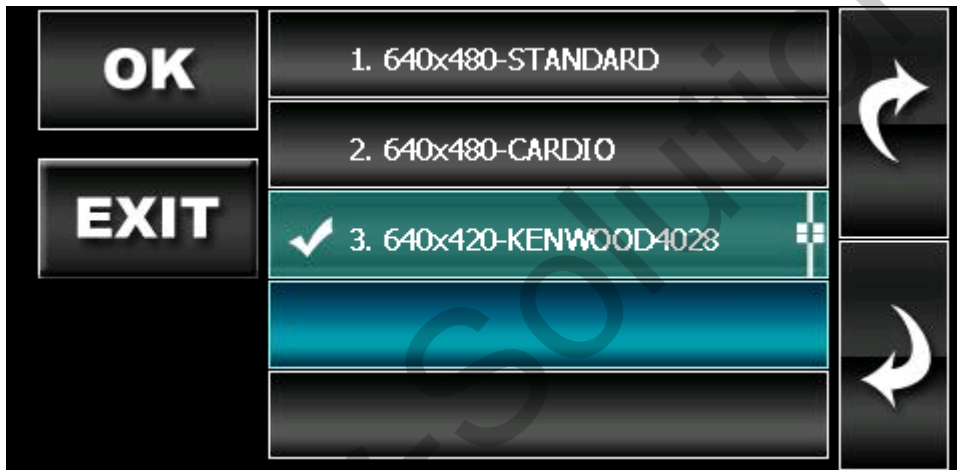
1<sup>st</sup> level, Select the correct resolution, and click "OK":



2<sup>nd</sup> level, select the matched resolution with your panel, and click “OK” again, then the right setting is saved.



When your Kenwood panel's resolution is “640x420”,  
Please select “640x480” and use map of resolution 640x480



Calibration

## WP9320 Touch Calibration

+

ReCalibrate

Exit

Touch “+” to ensure correct icon response.



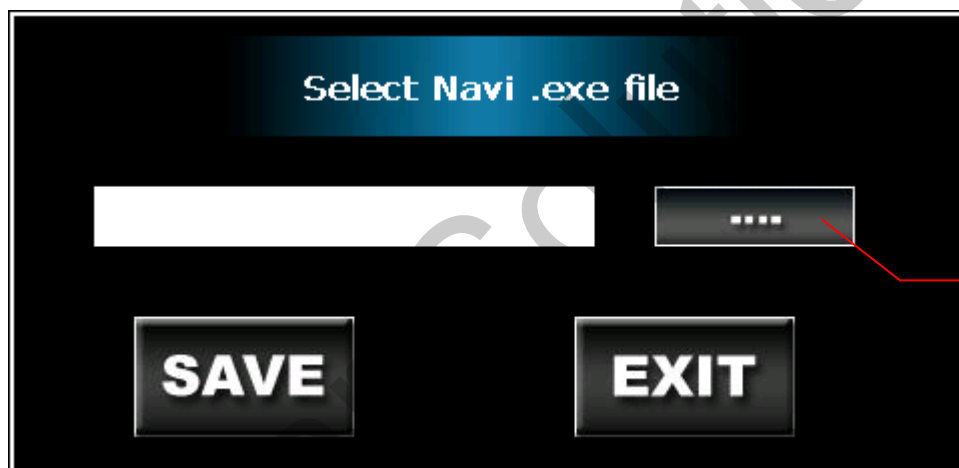
Setting page of System

1. “Auto Run Navi ON” means the system would enter into the map software directly, otherwise it won’t.

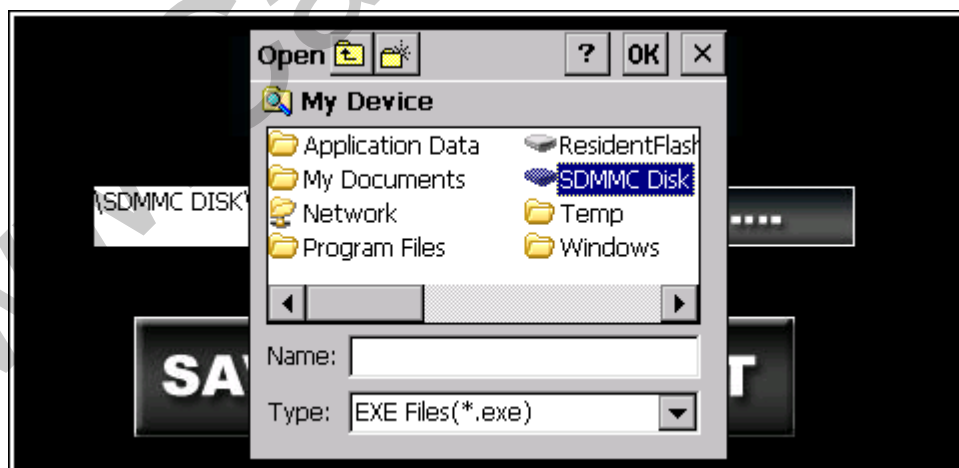


## 2. Steps of changing the map's path:

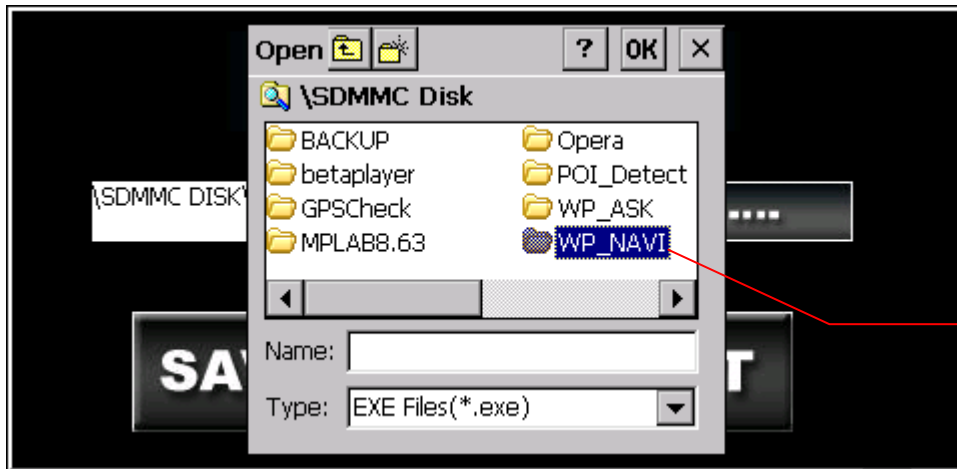
First of all, please put the map's file into SD card, and insert SD card to CS9320, then, click icon "System" → "Navi Path"



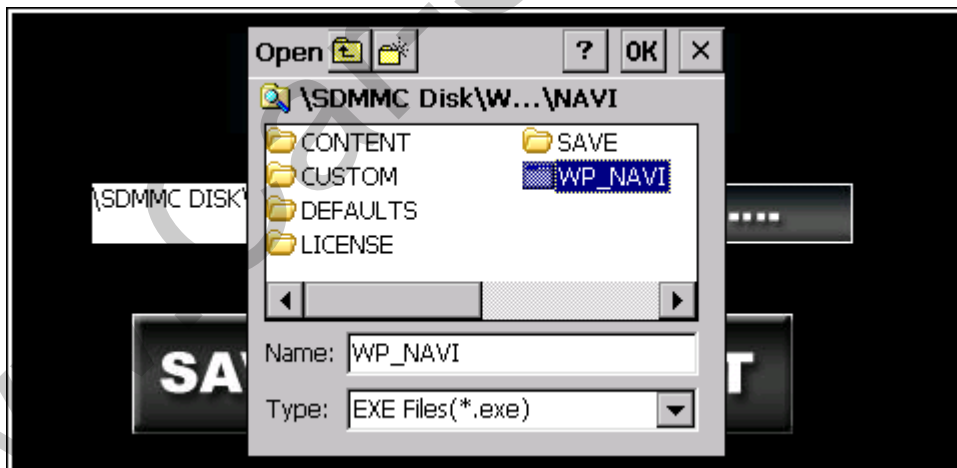
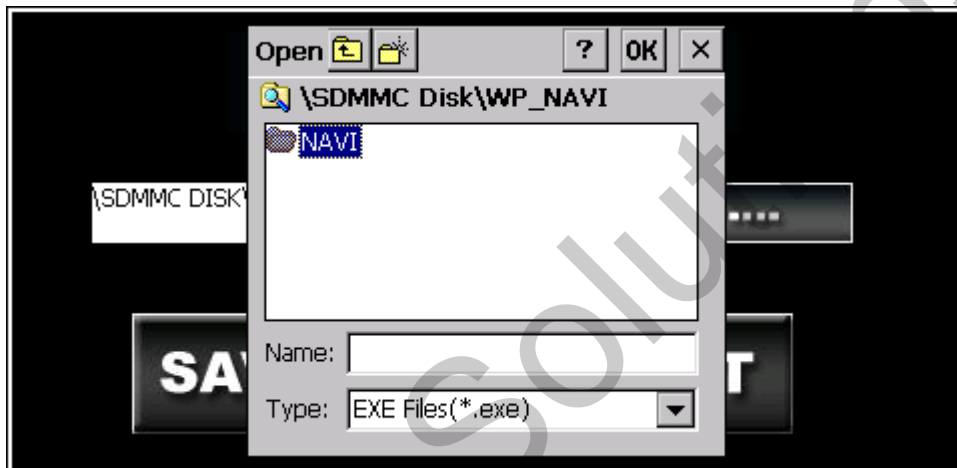
Browse, and select "SDMMC Disk"

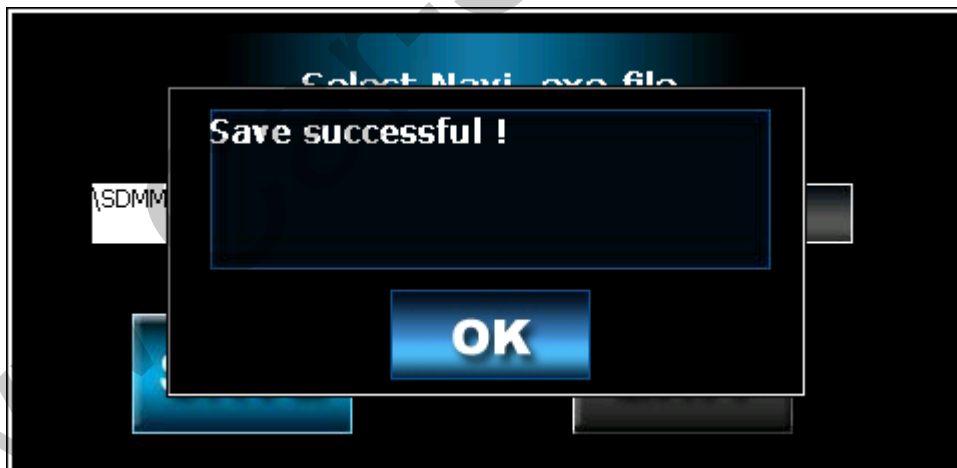






Enter correct folders and continually find ".exe" file





**Note: the pre-setting of map's path is:**  
**\SDMMC DISK\WP\_NAVI\NAVI\WP\_NAVI.EXE**

By above steps, you can change map's path for your own CS9320.

### 3. Steps of Firmware Updating:

Put the appropriate file to SD card and plug SD card into the device, then press the button of "Update Firmware" and wait for the system to finish Firmware updating.

(1) Format SD card.

(2) Copy UPD file to SD card first.

(3) Copy the others to SD card.

(4) Insert SD card to the navi-box and then plug the power line.

(5) If the RGB monitor match the setting of the navi-box, you will see the update process on the RGB monitor, if there's nothing can be seen, you can check LED that will light after 2 seconds since plugging the power line and you need to wait around 3 minutes to finish the process (please do not power off while updating within 3 minutes).

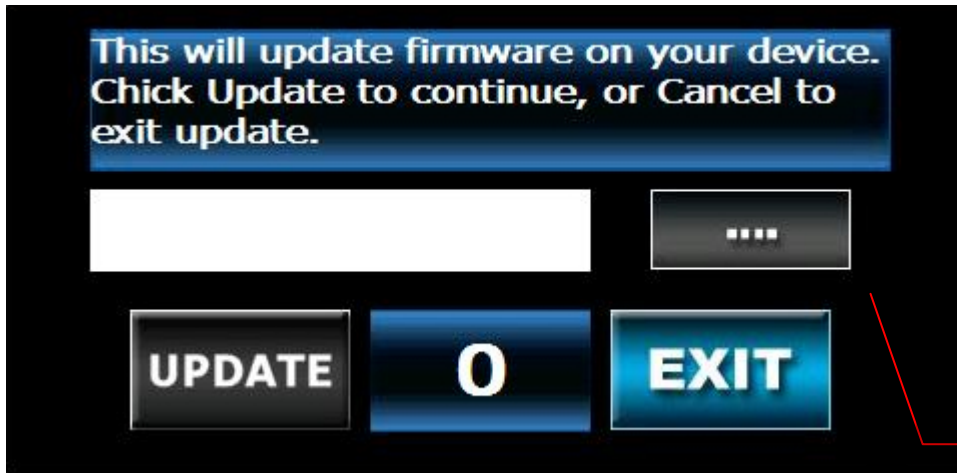
(6) If you use CVBS/HDMI-in monitor, navi-box will not show any message while updating process, you need to wait around 3 minutes (Please do not power off while updating within 3 minutes), after finishing the update process, navi-box will show the main menu in the CVBS/HDMI-in monitor.

(7) After updating process, navi-box will auto boot.

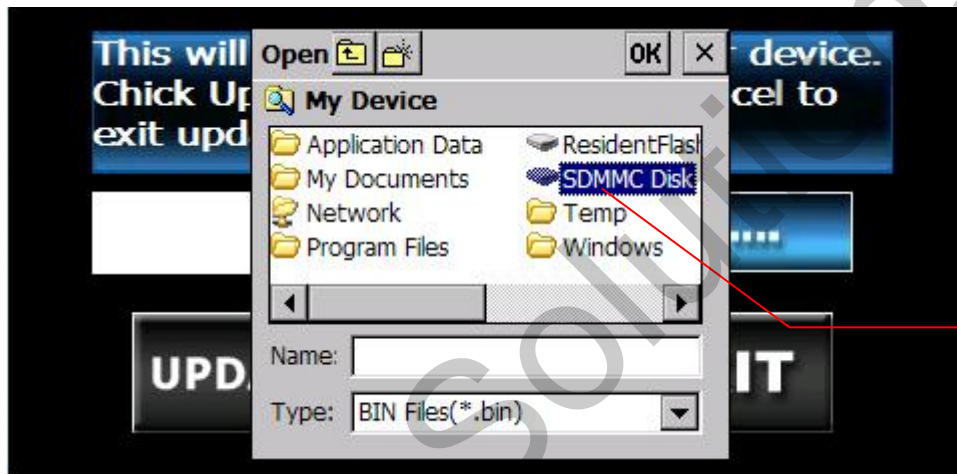
When you see the main menu appear, you need to eject SD card then un-plug the power line and plug the power line again for complete OS updating process.

*Note: It will not show anything in booting step for CVBS / HDMI out.*

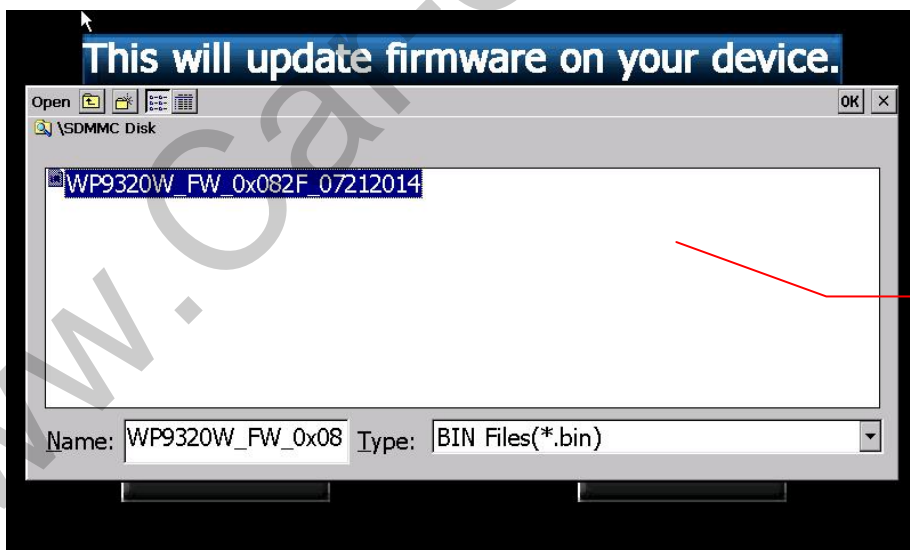




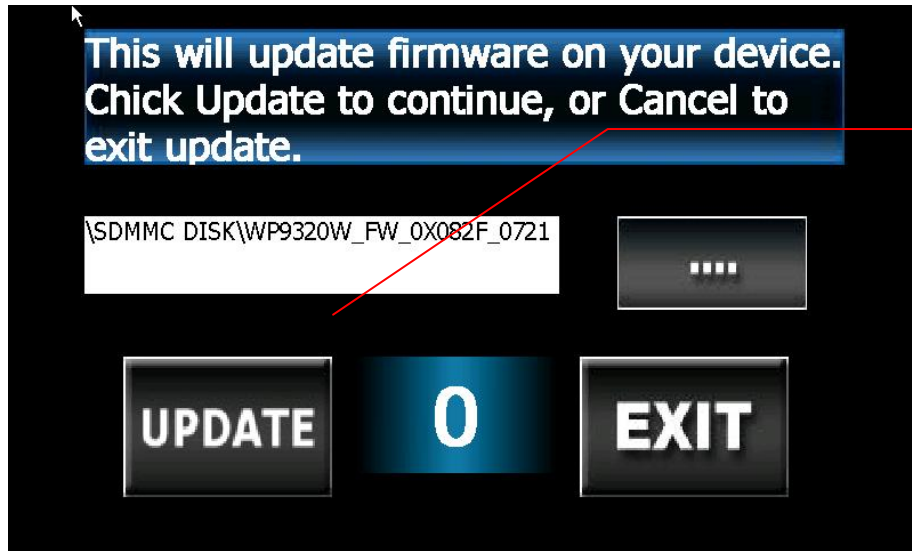
Click here to update file



Search from SDMMC Disk



Look for a file of ".bin" type



Click "UPDATE;" and wait until it's counted "100" and you see "Updated Successful."

**4. Update logo:**

"Update Logo" can help you change the start-up picture.



**To change start-up picture, please follow the steps:**

- a. Prepare 7 pictures, 24bit bmp file, containing following resolution: 320x240, 400x234, 480x234, 480x272, 640x480, 800x480, 640x240.
- b. The file names of 7 pictures have to be like following, consistent with the resolution:
  - logo320240.bmp
  - logo400234.bmp
  - logo480234.bmp

logo480272.bmp

logo640480.bmp

logo800480.bmp

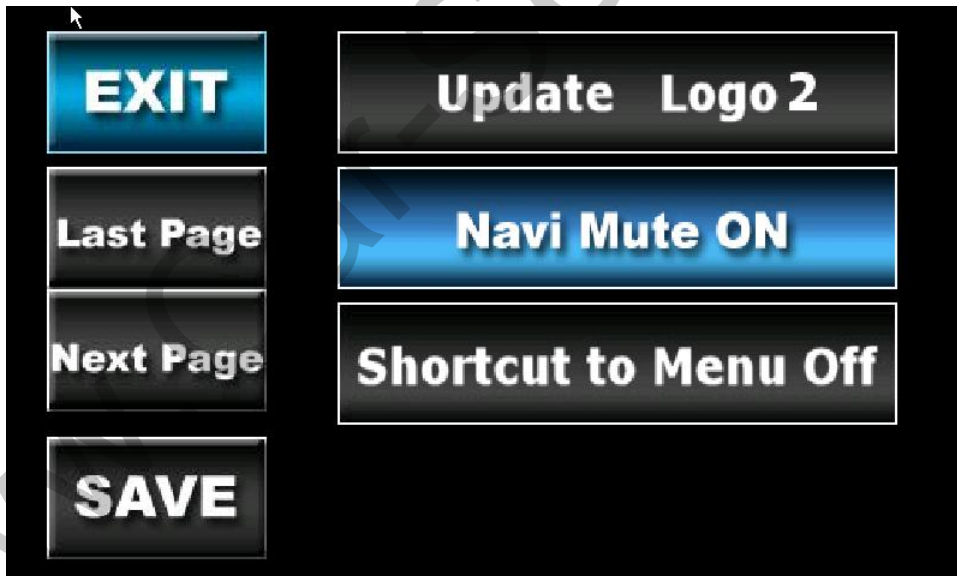
logo640240.bmp

- c. Put the 7 pictures you prepared into SD card root, insert CS9320, and click "UPDATE," then your start-up picture is updated. Please restart CS9320 to see.



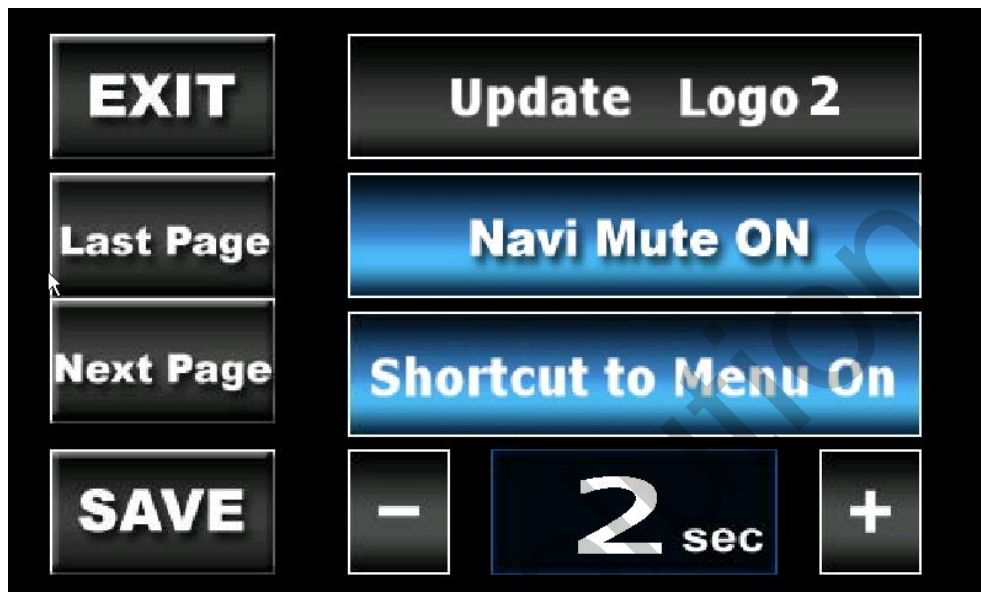
#### 5. Navi Mute ON / OFF

All other sound will mute when navigation talks.



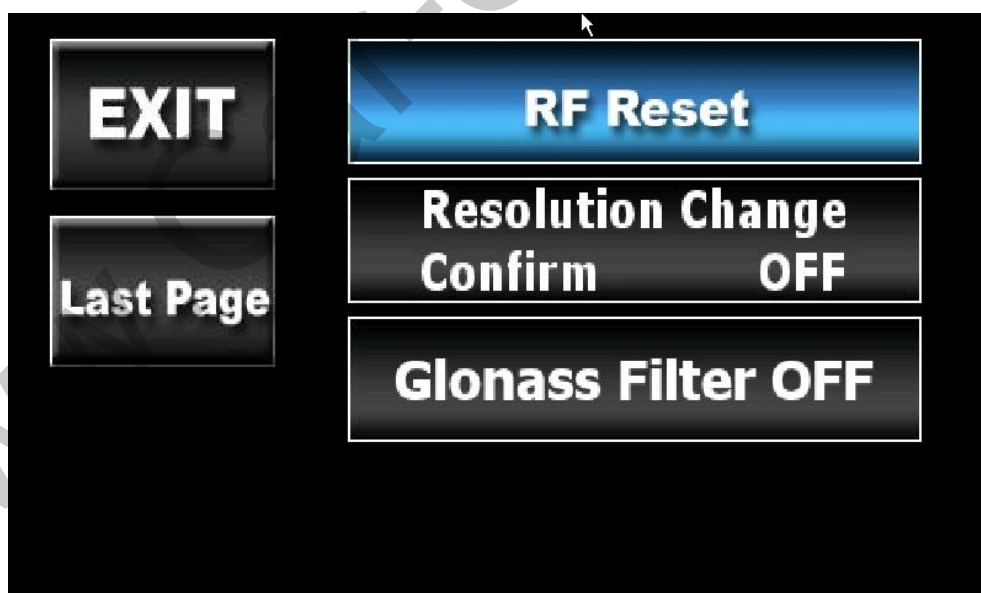
**6. Shortcut to Menu On:**

If "Shortcut to Menu On" is selected, it means when CS9320 is navigating in the map, you can access main menu with pressing right bottom corner of your touch panel for more than 2 seconds. And when you access main menu, navigating will keep going.

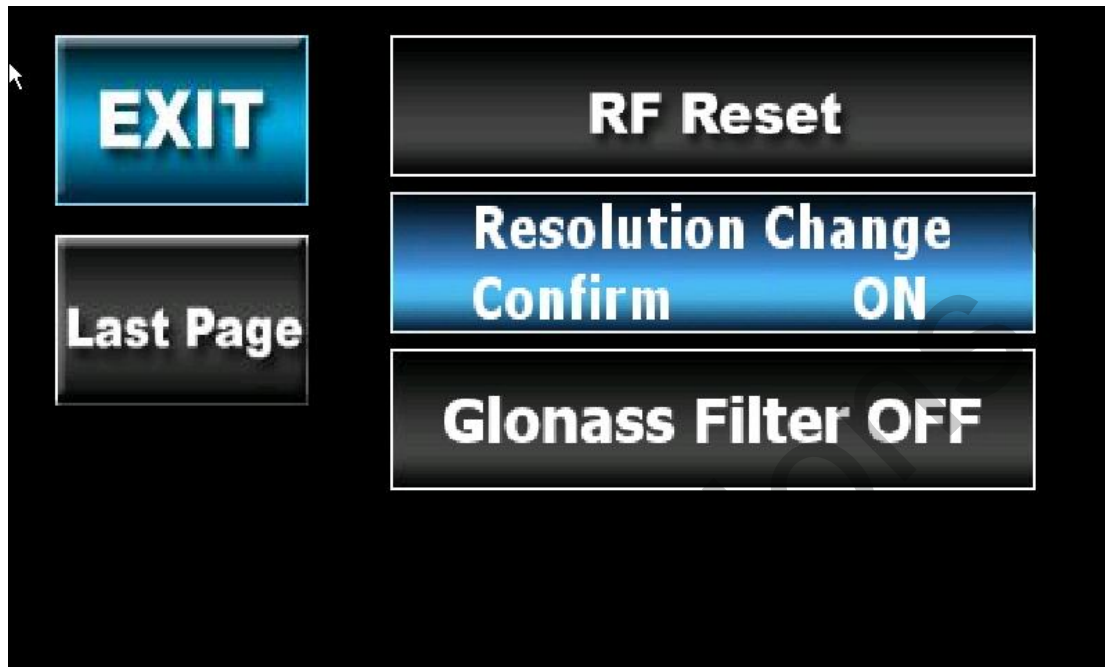


**7. RF Reset**

Reset RF pairing function

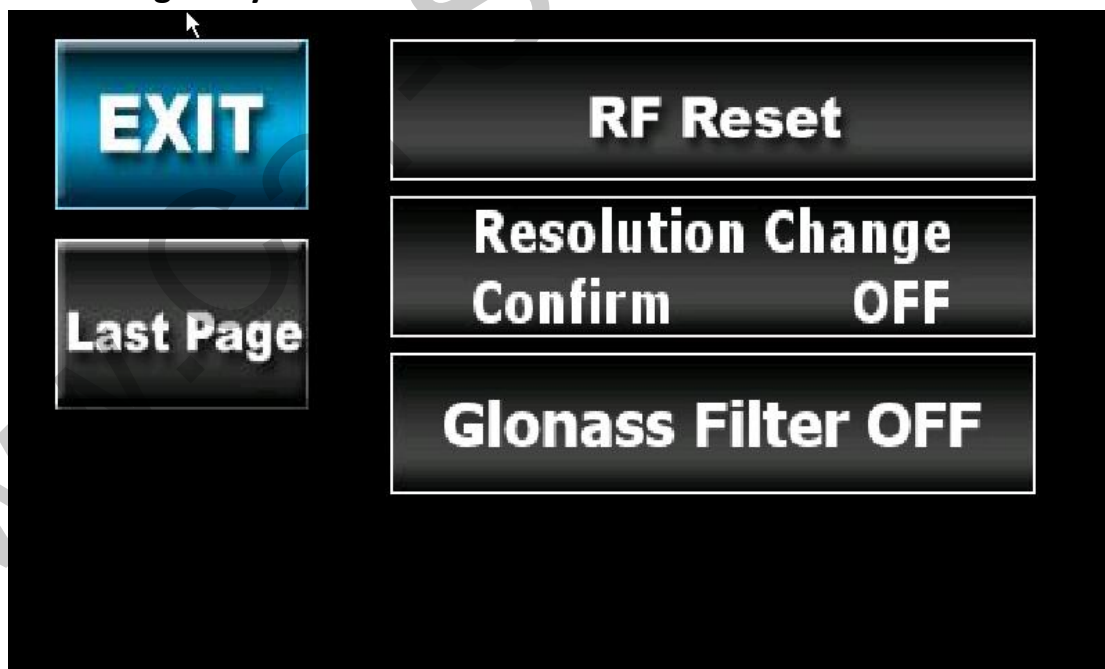


8. Resolution Change Confirm ON/OFF



9. Glonass Filter ON/OFF

Choose signal by GPS or GLONASS







### Main Menu II





Open Windows Explorer



Extra video input, or Digital TV access (Optional)



Rear Camera access (Optional)



Back to last page



3G device (Optional)



Setting page of Wireless (Optional)



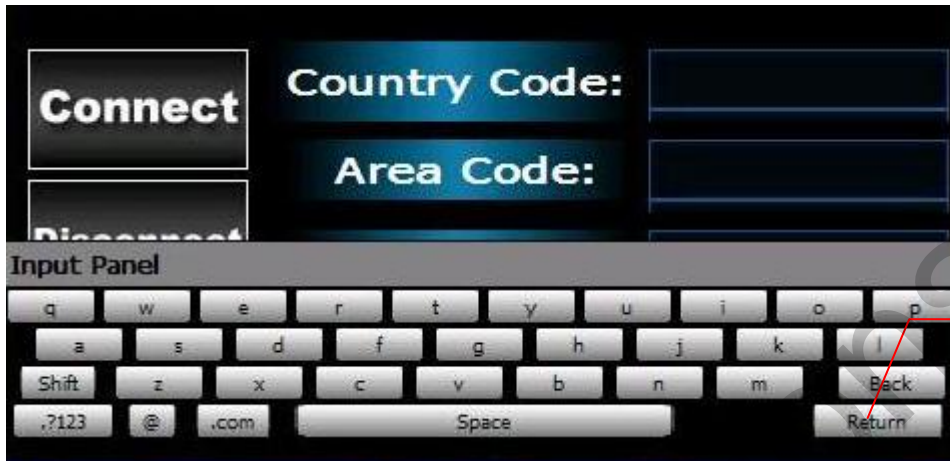
Select Browser to surf the Internet (Optional)



To next page



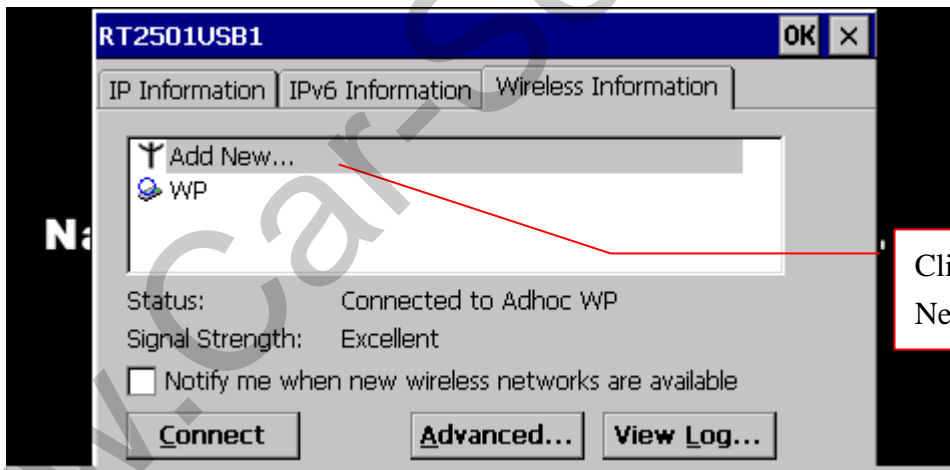
3G device (Optional)



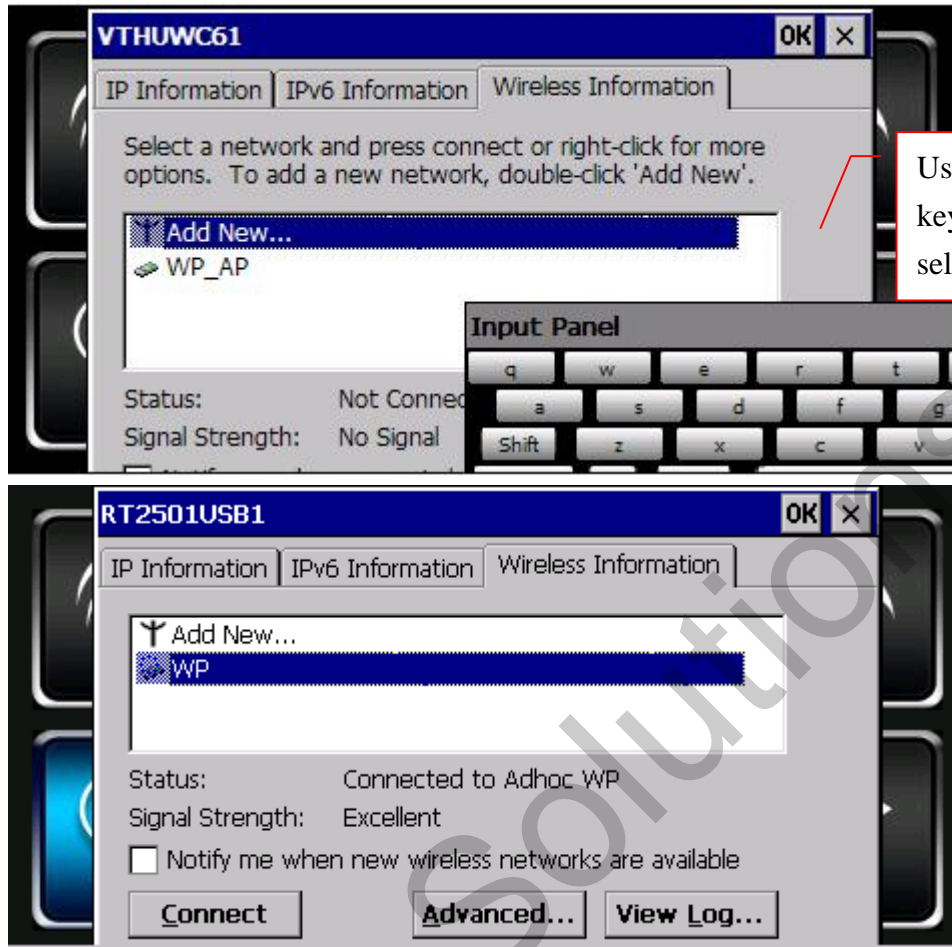
Use Input Panel to key in the data



Wireless



Click Here to Add New Wireless network



**After finishing the setting of Wireless Network, please select the network you need and “Connect.”**



Select the browser with which you want to surf the Internet.

### Main Menu III





Check System Time



Cursor Hide



Choose Power Mode for system



Back to last page



Choose UART connecting device for system



Check information of system



To next page

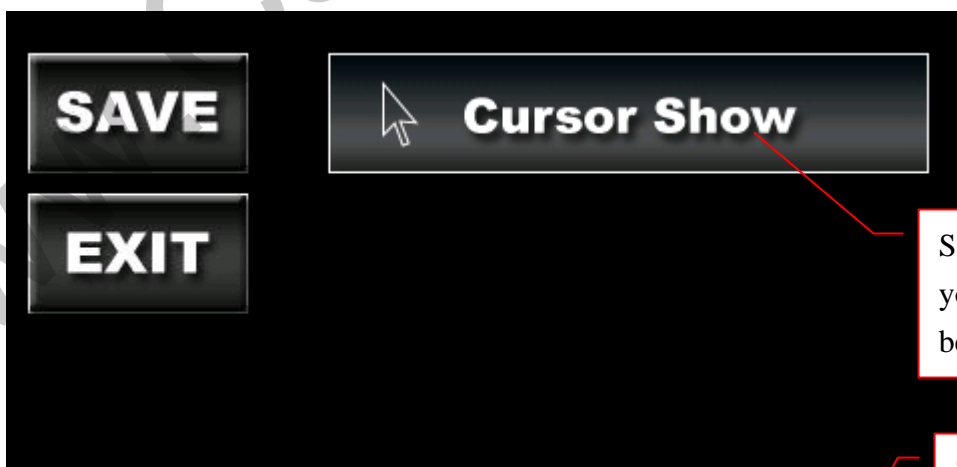


Time

Select correct zone, date, and time



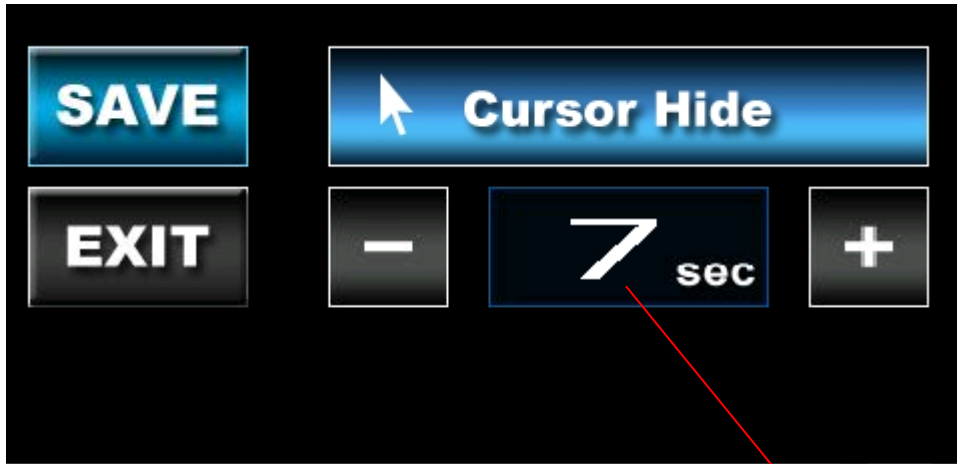
Cursor



Select "Cursor Show" if you would like cursor to be visible all the time.

Select "Cursor hide" if you would like cursor to be invisible forever.

After "Cursor hide" is selected, you need a "LCD92.INF" file in SD card to have cursor



### Power Mode

Select Power Mode for device:



Press “+” and “-” to set up the seconds you want cursor to disappear when there is no operation.

**Reboot Mode:** GPS back up only; once you restart CS9320, GPS re-positions, and navigation restarts.

**Suspend 1 Mode:** When you restart CS9320, navigation starts at where you turn off CS9320.

**P.S.:** Suspend 1 Mode needs lots of power consumption when you turn off CS9320; thus, it could lead car battery to run out of power if you leave your car not started for too long.



Suspend 2 Mode: TBD  
Related Time Setting: TBD



UART

Select UART connecting device and save.

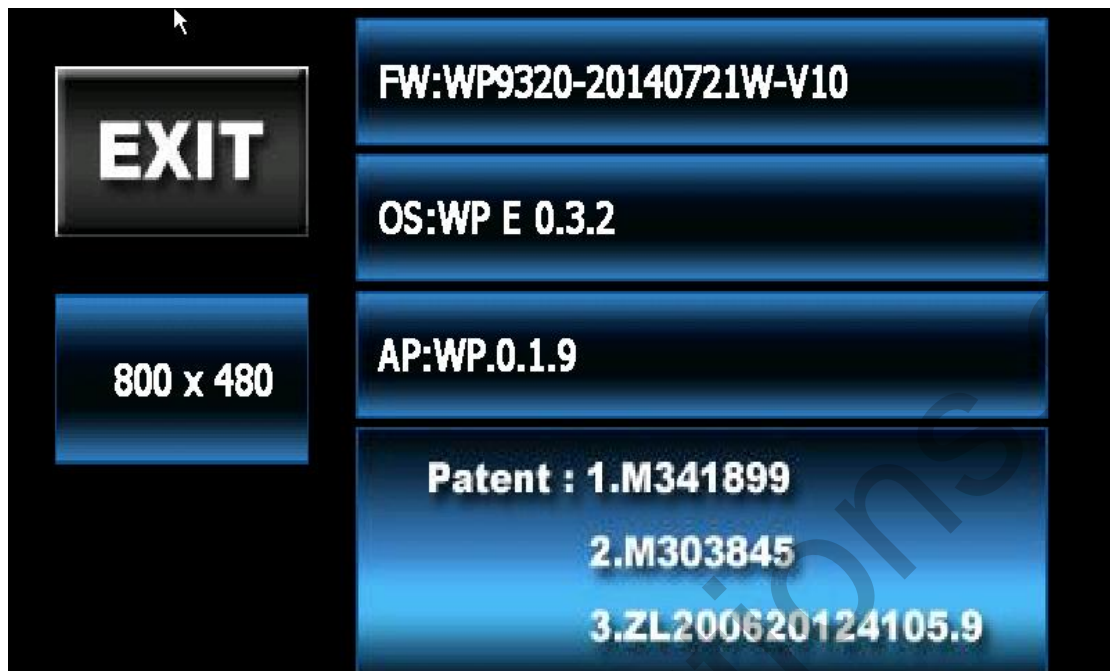


If you only have 1 device for Uart port, and didn't purchase "2-port Uart cable (optional)," please select your device on "UART A." If you have purchased "2-port Uart cable," please select correct device according which port (A or B) you connected to the device.



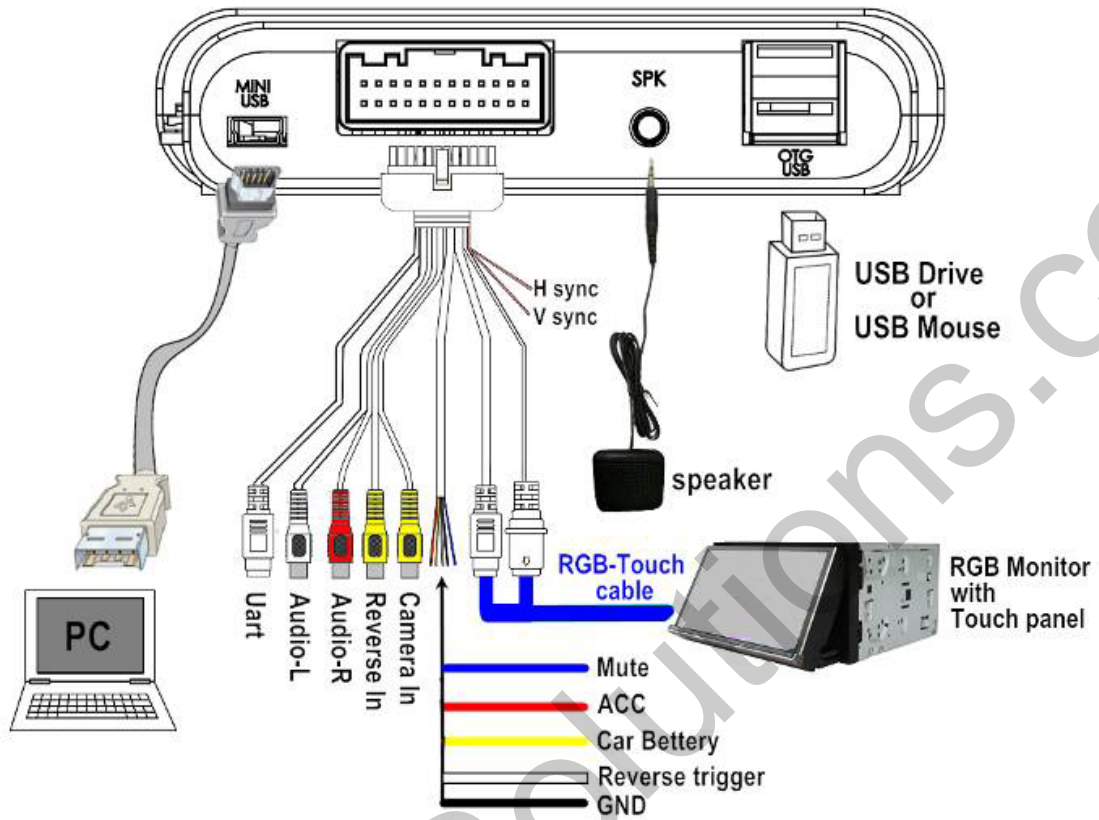
Info.

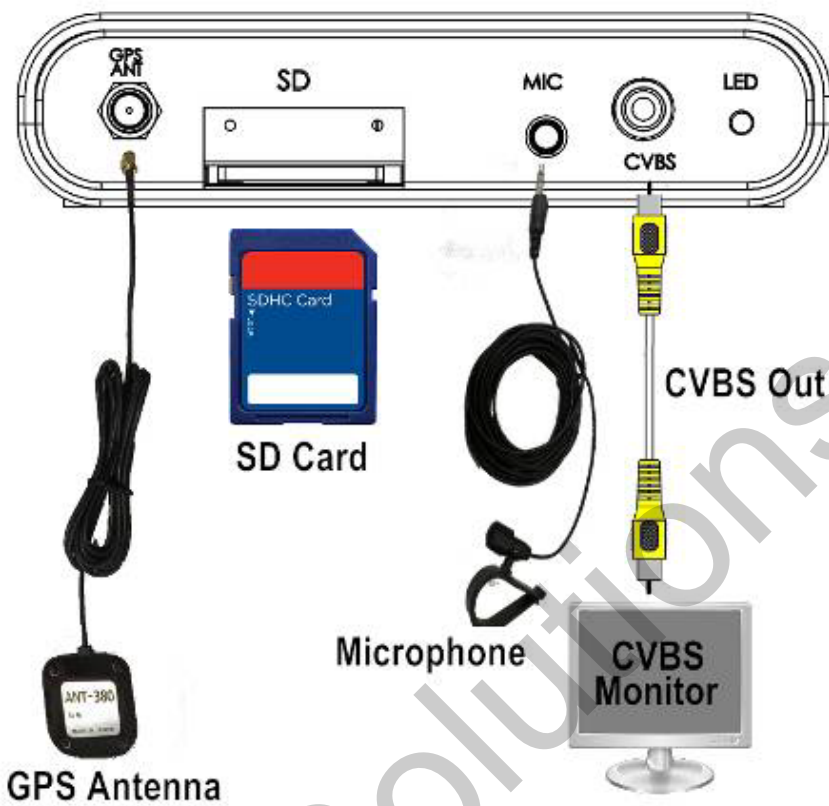
Check Firmware and OS version.

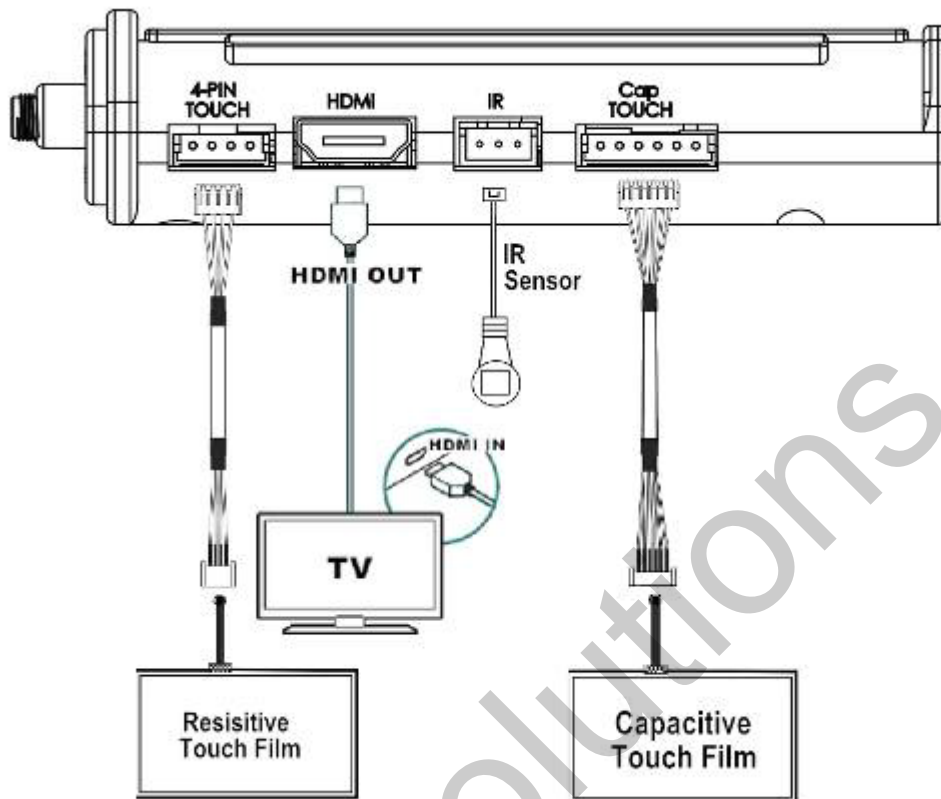


### Installation

As long as your monitor or car in-dash have RGB/CVBS input for external navigation, you will be able to integrate CS9320 navigation box. The following charts are guides for CS9320' s installation.

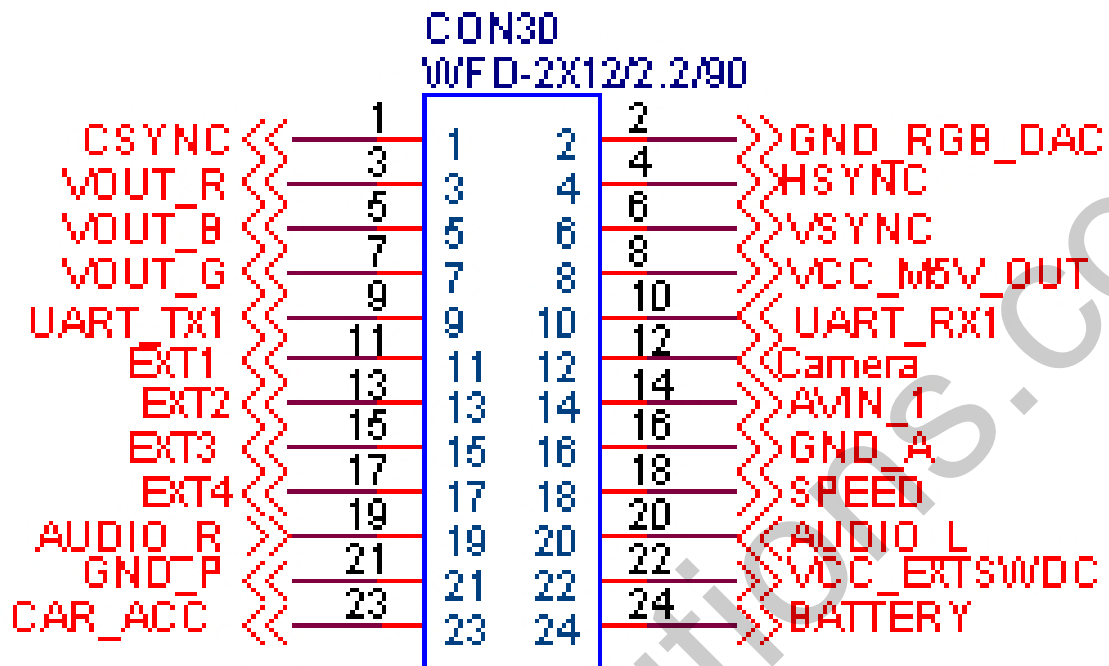




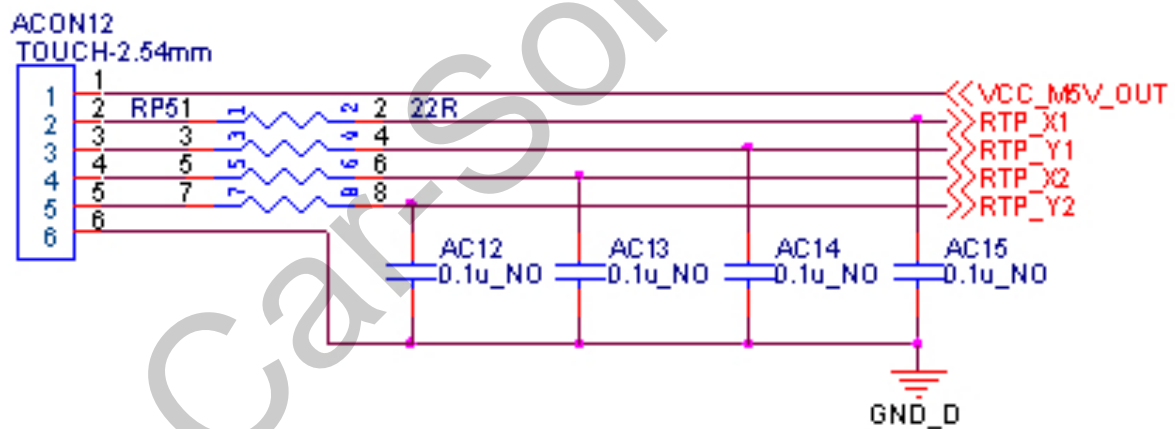


## 24pins pin description

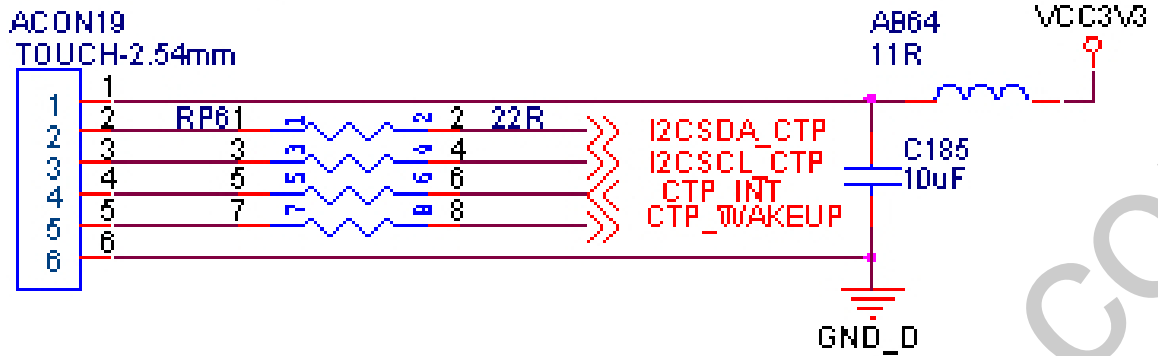
- Pin1 CSYNC
- Pin3 Vout\_R
- Pin5 Vout\_B
- Pin7 Vout\_G
- Pin9 Uart TX1
- Pin11 Touching Tx(Ext1)
- Pin13 Rear camera tri( Ext2)
- Pin15 Navi mute ( Ext3)
- Pin17 Touching Rx (EXT4)
- Pin19 HP\_R out
- Pin21 GND\_P
- Pin23 Car ACC
- Pin2 GND\_V
- Pin4 Vout\_Hsync
- Pin6 Vout\_Vsync
- Pin8 Uart 5V out
- Pin10 Uart Rx1
- Pin12 Video In 1
- Pin14 Video In2
- Pin16 GND\_D
- Pin18 Speed Plus/ 12Vout(H)
- Pin20 HP\_L out
- Pin22 VCC\_EXTSWDC
- Pin24 car Battery



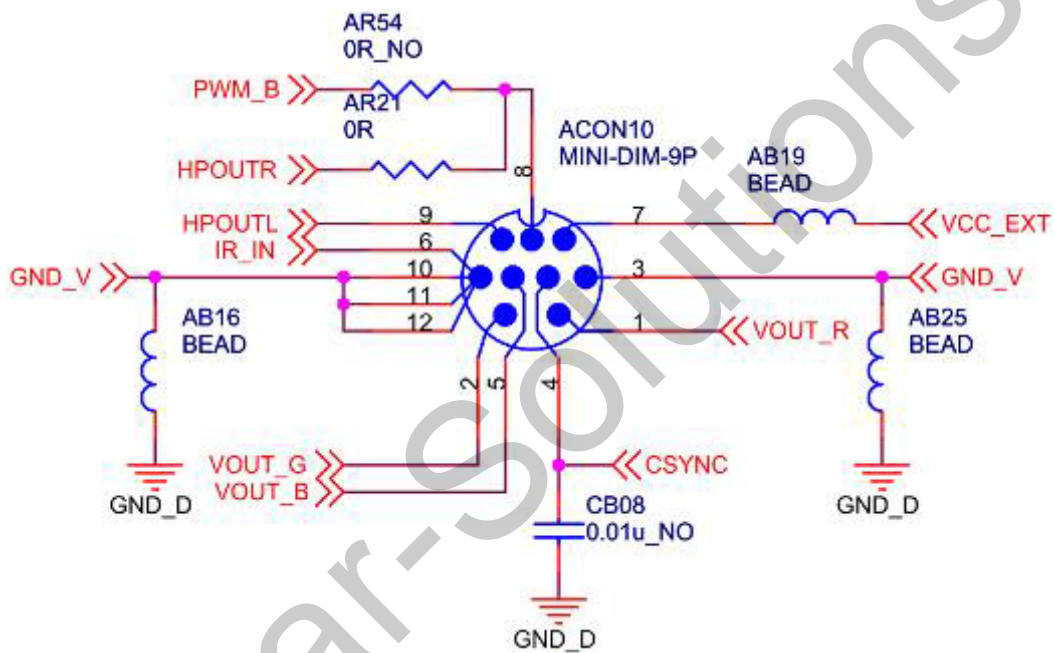
**4pin-touch port (resistive touch):**



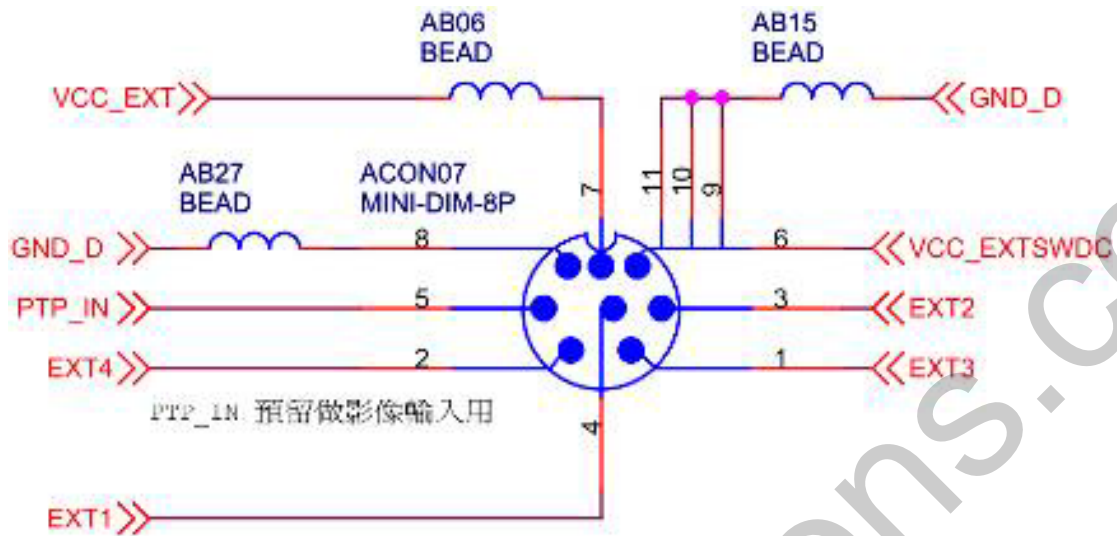
**Cap touch port (capacitive touch):**



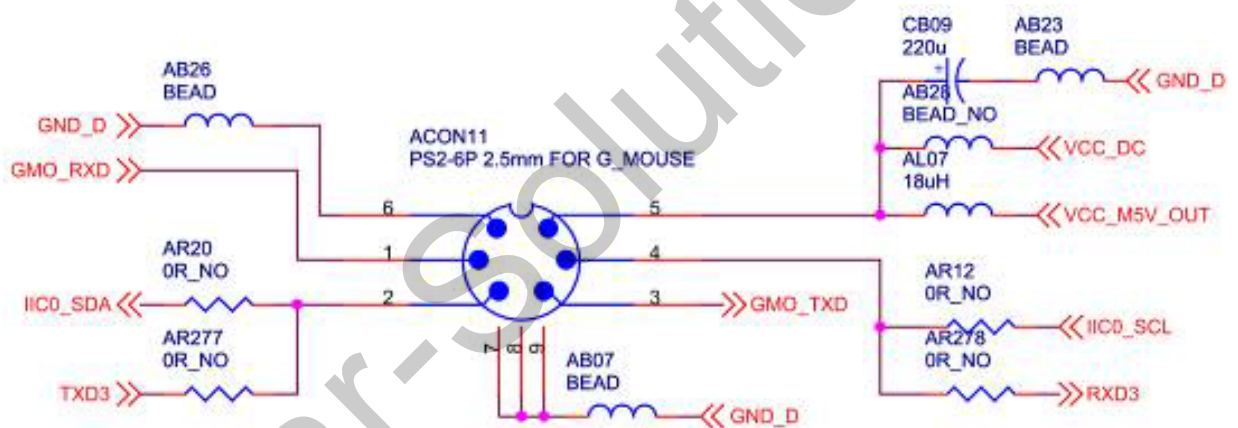
**9-pin RGB:**



**8-pin data**



### 6-pin UART:



### How to install the navigation box to your vehicle:

1. Plug the Map SD card into the navigation box.
2. Connect port "DC IN" (Navigation Box) with power cable; on power cable, ACC to Car ACC, BAT to Car battery, GND to ground, and MUTE to mute wire from monitor.

**Note: please DON'T connect BAT and ACC together.**

3. Connect GPS antenna, and put it where you can receive GPS signal well.
4. Link RGB (9 pin) cable, Data (8 pin) or AV cable to your monitor and use USB mouse to select the right panel.

**Note: on RGB cable, you could see PIN 1 and PIN 2,**



**PIN 1=external navigation mute**

**PIN 2=rear camera trigger**

5. If you have touch screen, connect 4-pin touch cable to the 4-pin hole on the side of navigation box.

**Note: if you couldn't see any image after you link RGB cable to the monitor, please proceed the following steps:**

1. **Make sure that you connect AV cable well and USB mouse to adjust panel setting and try again.**
2. **Enter your SD card with PC and find a file called, "LCD93.inf." Then, key in the right "resolution" and "panel," save and insert SD card to CS9320 again.**

### ***Reset CS9320 with LCD93.INF:***

When wrong resolution is selected, the image will disappear or become unstable.

Under this situation, please follow below steps to reset CS9320:

1. Get the file, "LCD93.inf" from your distributor
2. put the file into an empty 2G SanDisk SD card
3. insert the SD card into CS9320, and restart CS9320 3 to 5 times.

**Note: If there is nothing appearing from monitor, please wait about 30 seconds and power off/on CS9320 again.**

4. Then you should have stable image again, please take out SD card and delete the file.

**Note: As long as the "LCD93.inf" file existed in SD card with CS9320, it will erase the previous resolution setting.**

**LCD93.inf file:**

```
LCD92 - 記事本
檔案(F) 編輯(E) 格式(O) 檢視(V) 說明(H)

//*****
//Once you change any value from this file,
//the new setting will be effective after you power off/on the Navi Box.
//Note: If there is nothing appearing from monitor, please wait about 30 seconds and
//power off/on Navi Box again.
//*****

DRHB=50
DRHS=480
DRUB=50

//HSPW=13
//HFPD=11
//HBPD=13
//USPW=3
//VFPD=25
//UBPD=30

Resolution=55

//RES_480x234_ONLY=14
//RES_480x234_ONLY_Brightness=34
//RES_640x480_I_0_WP92=43 ;in 640x480 / out 640x480 by pass
//RES_800x480_I_0_WP92=55 ; CS8556 input 800x480 and output 800x480 by pass fo
//RES_480x272_I_0_WP92=56 ; CS8556 input 480x272 and output 480x272 by pass fo
//RES_400x234_I_0_WP92=57 ; CS8556 input 400x234 and output 400x234 by pass fo
//RES_320x240_I_0_WP92=58 ; CS8556 input 320x240 and output 320x240 by pass fo
//RES_I_640_480_0_640_420_KENWOOD_4028_WP92=59
//RES_I_800_480_0_640_420_KENWOOD_4028_WP92=61
//RES_I_800_480_0_800_480_BP_DAIWOODCO_1105_WP92=62
//RES_I_640x480_0_640x480_BP_CARDIO_WP92=63
//RES_I_480x234_0_480x234_BP_RHOSON_S60_WP92=64
//RES_I_800x480_0_800x480_BP_RHOSON_S60_WP92=65
//RES_I_480x234_0_480x234_JUC_WP92==67
//RES_I_320x240_0_320x240_BP_SPYKER_WP92=68

Panel=2
//CARDIO=0
```

Select the correct resolution and save.