

Installation Manual

*Navigation box on Android 10
for Volvo XC90, S90 2017- OEM Monitors*



QROI-XI_VOLVO (HW V3.0)

Specification

CATEGORY		SPECIFICATION
OS Version		10.0
CPU		ARM Cortex-A72 + Cortex-A53@2.0GHz (HEXA CORE) ARM Mali-T860 (QUAD CORE) - for GPU
Memory	RAM	4GB LPDDR4
	Internal Storage	32GB eMMC
	External Storage	Micro SD slot (MAX 128GB)
Network	WI-FI	802.11 a/b/g/n/ac (2.4 GHz / 5 GHz) Internally on board with Ant.
	Bluetooth	4.0 (Internally on board with Antenna)
	MODEM	LTE + UMTS + GSM (CONNECT TYPE : External USB Dongle type): Option
	GPS	GPS + GLONASS
Video	Out	HDMI x 1
	In	HDMI x 1, FCAM x 1, RCAM x 1
Audio	Out	AUX + SPK + BT + FM TX
	In	MIC
USB Port		HOST x 2 (Internal 2.0 Port x 1 + 3.0 Port x 1)
Touch Input		UART
Resolution		768 x 1024
Language		Multi-Language
Power		Input : DC 9V ~ 18V Consumption : 10 Watt
Operation Temperature		-10 °C ~ 70 °C
Storage Temperature		-20 °C ~ 80 °C

Specification

Car Compatibility:

9inch Vertical

XC40/XC60/XC90/S60/S90

Cap. T/S monitor

- ✓ **Support OEM touch screen function**
- ✓ **Support PDC split screen**

car-solutions.com

Components



MAIN BOARD
QCPASS1726



POWER CABLE
HPOWER0283



LCD CABLE x2
HLCDCA0037



MULTI1 CABLE
HARETC0360



MULTI2 CABLE
HARETC0359



GPS CABLE
GPSANT0013



LCD EXTENSION
QCPASS0638



MIC CABLE
MICPHO0003



SPK CABLE
SPEAKER007



IR CABLE
HIRCAB0002



BUTTON CABLE
HARETC0001



REMOTE CTRL.
REMOTE0001

Components



Wi-Fi/BT Extension

[HARETC0406](#)

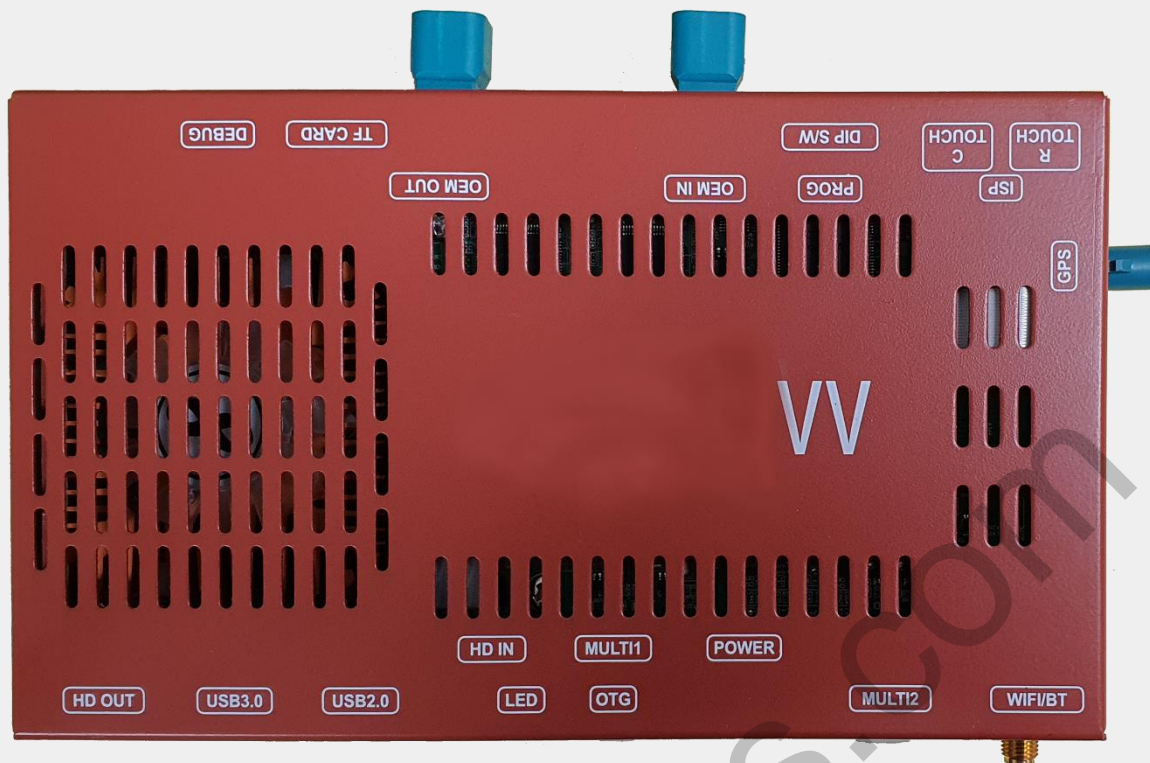


Wi-Fi/BT Antenna

[ETCETC1238](#)

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Cable Connection



1. **HD OUT:** HDMI output
2. **USB2.0/3.0:** USB host
3. **HD IN:** HDMI input
4. **LED:** Red LED on for power input, Blue LED on for android system booting
5. **MULTI1:** Rear Camera/Front Camera/Remote Control/Toggle Button
6. **POWER:** connect provided power cable (GND/ACC/B+)
7. **MULTI2:** SPK OUT/AV OUT/MIC IN/FM-TX ANT/[UART \[#1 is UART-TX\]](#)
8. **Wi-Fi/BT:** connect provided Wi-Fi/BT extension cable and antenna
9. **GPS:** connect GPS antenna
10. **R TOUCH:** Resistive touch panel input
11. **C TOUCH:** Capacitive touch panel input
12. **DIP S/W1:** 8POL DIP switch setting
13. **OEM IN:** Connect one end of the supplied LCD cable and the other end to the supplied extension board
14. **OEM OUT:** Connect one end of the supplied LCD cable and the other end to the OEM monitor
15. **TF card:** micro SD card input

DIP Switch Settings



*** ON: DOWN / OFF: UP**

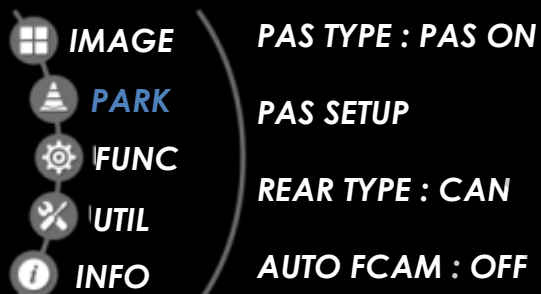
Please make sure to disconnect the power cable of interface and reconnect to apply dip switch setting whenever changing DIP switch.

PIN	FUNCTION	Dip S/W SELECT
1	No Use (OFF)	
2		
3		
4	GPS Power	OFF : Use QDIS GPS Antenna ON : Use Original GPS Antenna
5	HDMI Mode	OFF : HDMI Mode ON : HDMI Mode Skip
6	Front Camera	OFF : Ext. Front Camera Mode ON : OEM Front Camera Mode
7	Rear Camera	OFF : OEM Rear Camera Mode ON : Ext. Rear Camera Mode
8	Mode Change	OFF : Always Available ON : Available after 10 sec after Engine ON <i>* If Ext. mode goes black after the engine on, set dip #8 ON (2020/2021 XC60/V60 etc.)</i>

Factory Settings



- | | |
|----------------------|-----------------------------|
| 1. ◀ Long Press: | Access to the Factory Menu |
| 2. OK Short Press: | Selection or Mode Change |
| 3. ▶ Long Press: | Factory Reset |
| 4. ▲ Short Press: | Moving Upward |
| 5. ▼ Short Press: | Moving Downward |
| 6. MENU Short Press: | Back |
| 7. PIP Short Press: | Split Screen (RCAM/HDMI/AV) |



PARK

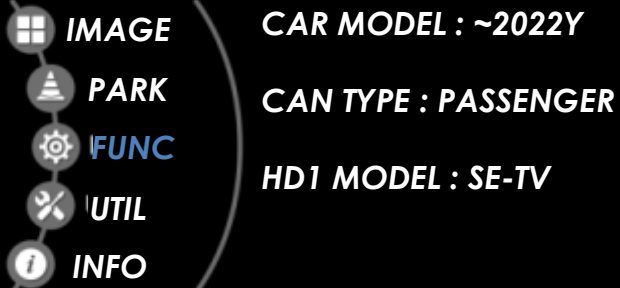
PAS TYPE: Select parking line type.

PAS SETUP: Move the position of parking line.

REAR TYPE: Choose rear camera recognition (CAN/LAMP)

AUTO FCAM: Front Camera Display Setting

Factory Settings



FUNCTION

CAR MODEL: (~2022Y/2023Y~)

-> 2023Y~ has new air conditioner UI at the bottom line and different OEM camera display size

CAN TYPE: Select Gear CAN type (OBD/Passenger/Steering)

-> OBD : Use CAN data from OBD/Driver's seat

-> Passenger : Use CAN data from passenger's door frame [Default]

-> Steering : Use CAN data under the steering wheel

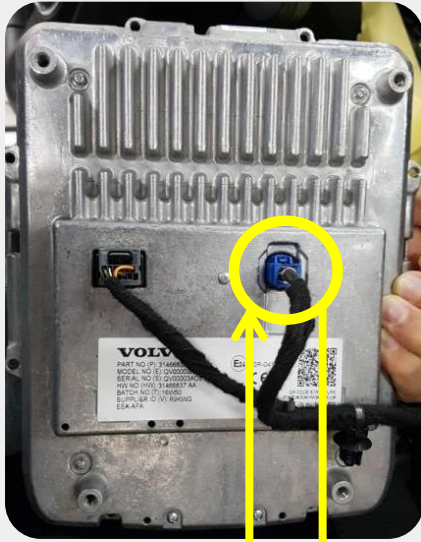
HD1 MODEL: HDMI device settings (SE-TV/II-VIEW)



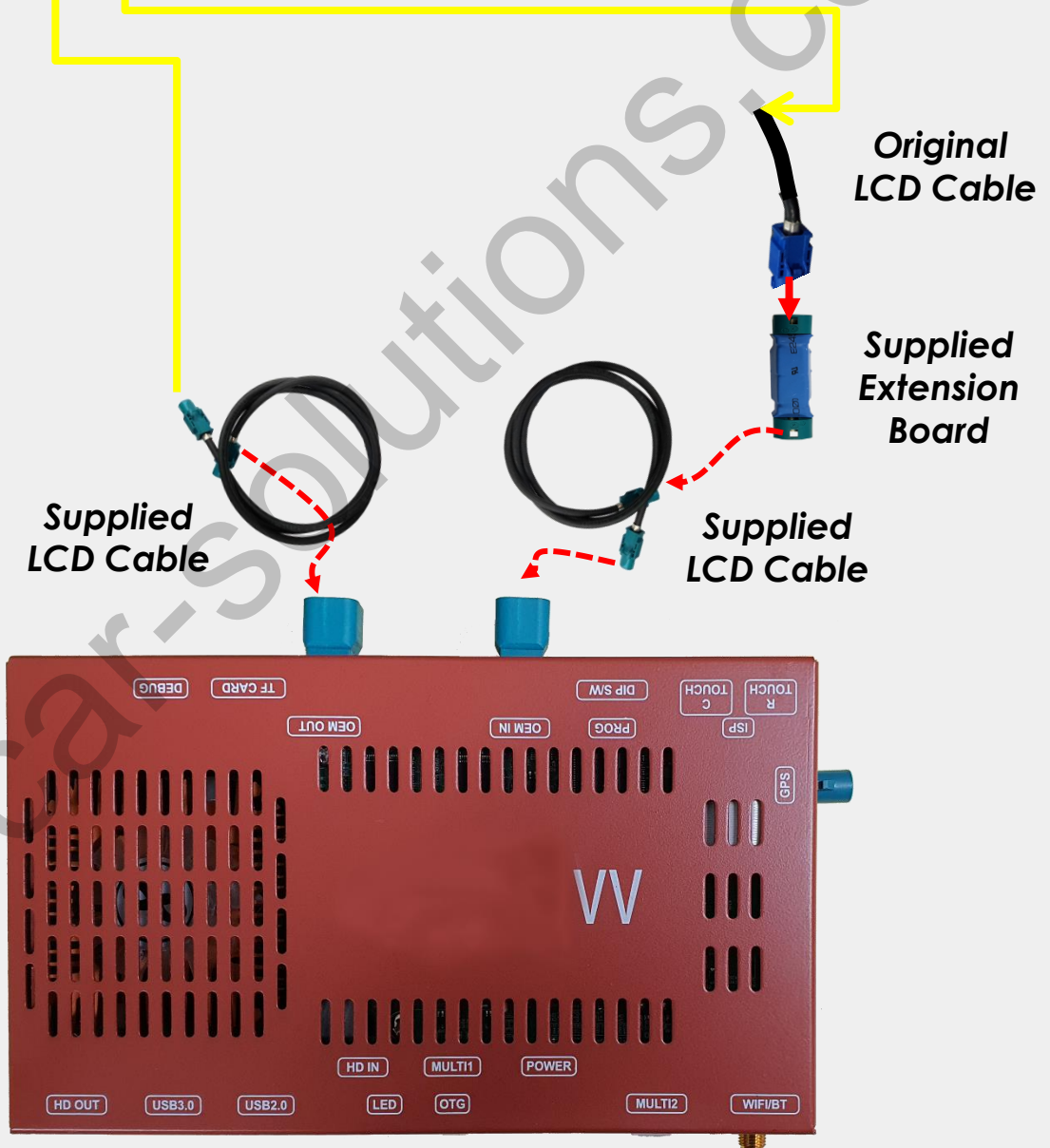
UTIL

RESET ALL: Factory mode reset (YES/NO)

LCD Cable Connection



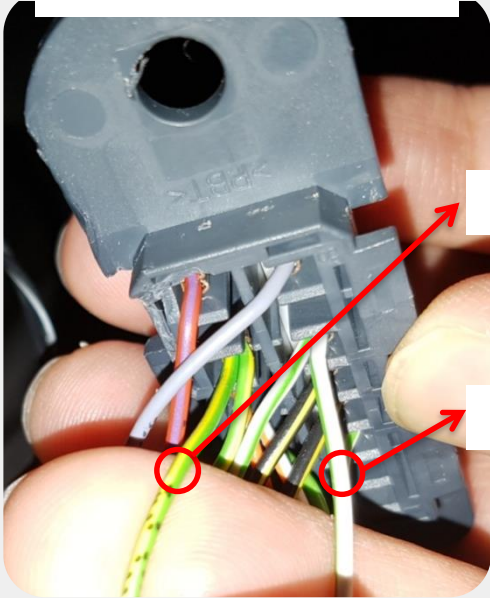
1. Unplug Original LCD cable from the back side of the monitor and connect it to the extension board
2. Connect one of the supplied LCD cable from extension board to the interface "OEM-IN"
3. Connect the other supplied LCD cable to the back side of monitor and interface "OEM-OUT"



CAN Connection_ OBD

* Find OBD cable under the driver's seat

Behind the OEM OBD



CAN-L

CAN-H

Supplied power cable pin map

P1	COLOR	SIGNAL
1	RED	ACC
2	YELLOW	B+
3	N.C	
4	BLACK	GND
5	N.C	
6	N.C	
7	BLACK/WHITE	CAN-H
8	BLACK	CAN-L
9	N.C	
10	BROWN	ADC1

* The color of wires may vary



POWER CABLE

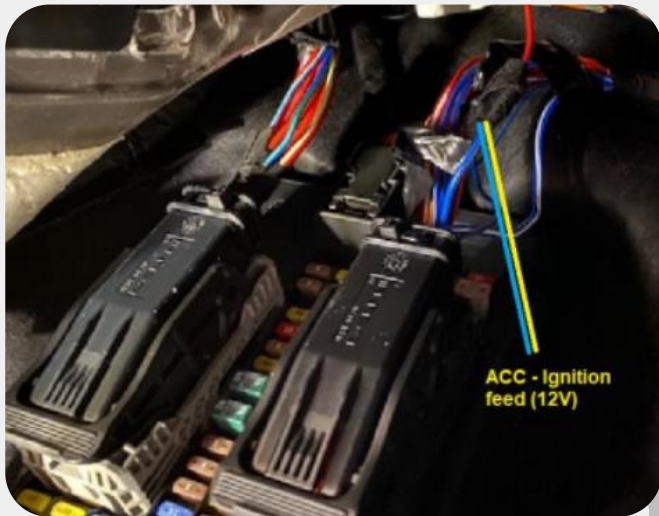
HPOWER0283

CAN Connection_ Under Driver's Seat

In case CAN wires are not located at OBD parts,

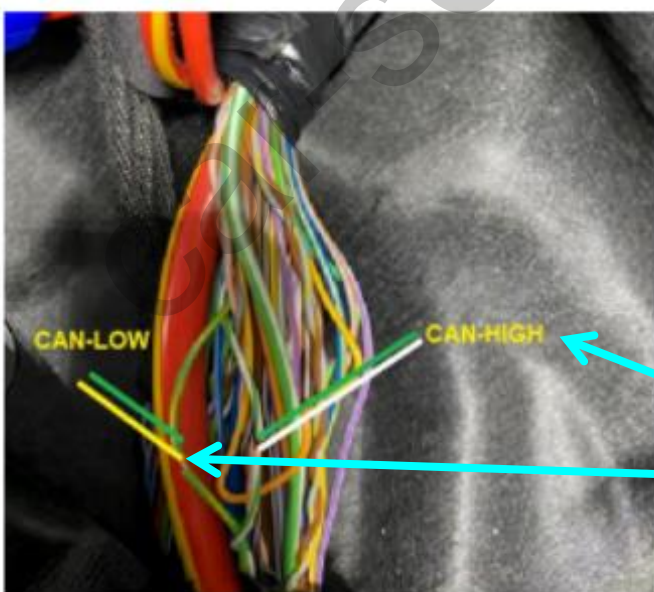
Plz find below wire Under the driver's seat (CAN data is same as OBD)

Car location	Wire color	Signal
Front / Left BMI module	Yellow/orange	12V reverse
Front / Left BMI module	Green/yellow	CAN-LOW
Front / Left BMI module	White/Green	CAN-HIGH
Front / right Fuse box	Blue/yellow	ACC Ignition feed (12V)



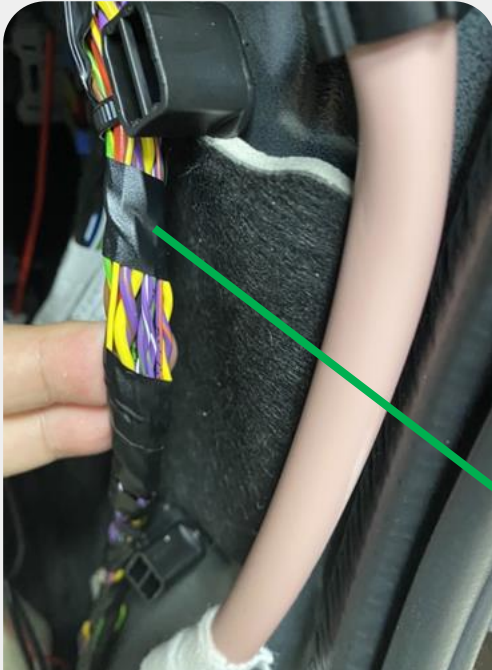
Supplied power cable pin map

P1	COLOR	SIGNAL
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2	YELLOW	B+
3	N.C	
4	BLACK	GND
5	N.C	
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7	BLACK/WHITE	CAN-H
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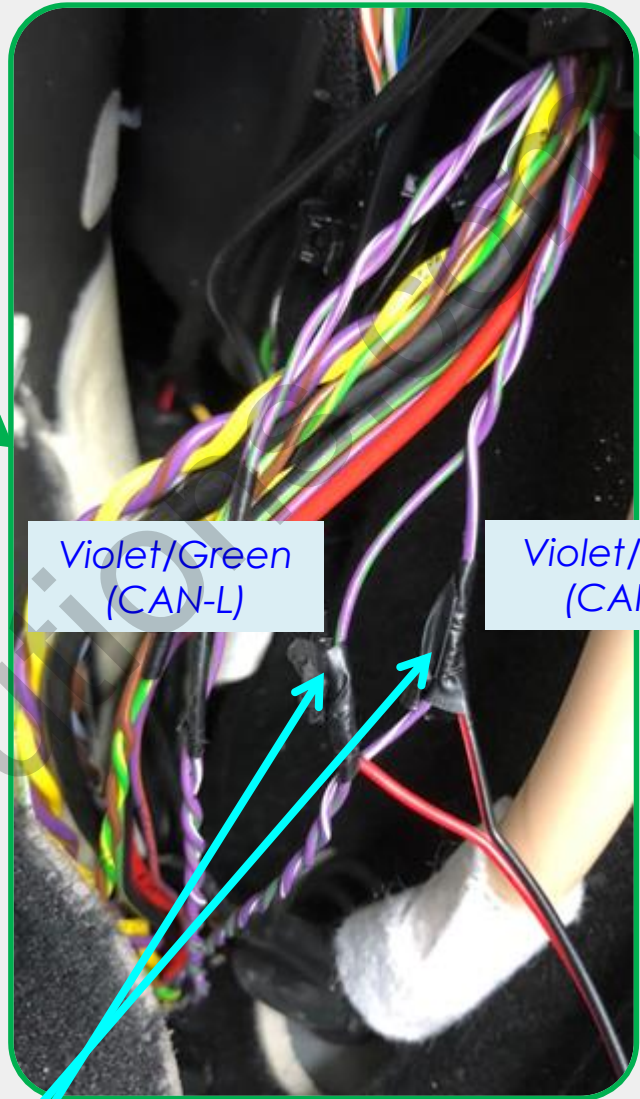


CAN Connection_ Passenger's Door Frame

In case CAN wires are not located at OBD or Under the Driver's seat, Plz find below wire Under the passenger's door frame.



Under the passenger's door frame



Supplied power cable pin map

P1	COLOR	SIGNAL
1	RED	ACC
2	YELLOW	B+
3	N.C	
4	BLACK	GND
5	N.C	
6	N.C	
7	BLACK/WHITE	CAN-H
8	BLACK	CAN-L
9	N.C	
10	BROWN	ADC1

CAN Connection_ Under Steering Wheel

* You could also find CAN wires under the steering wheel.

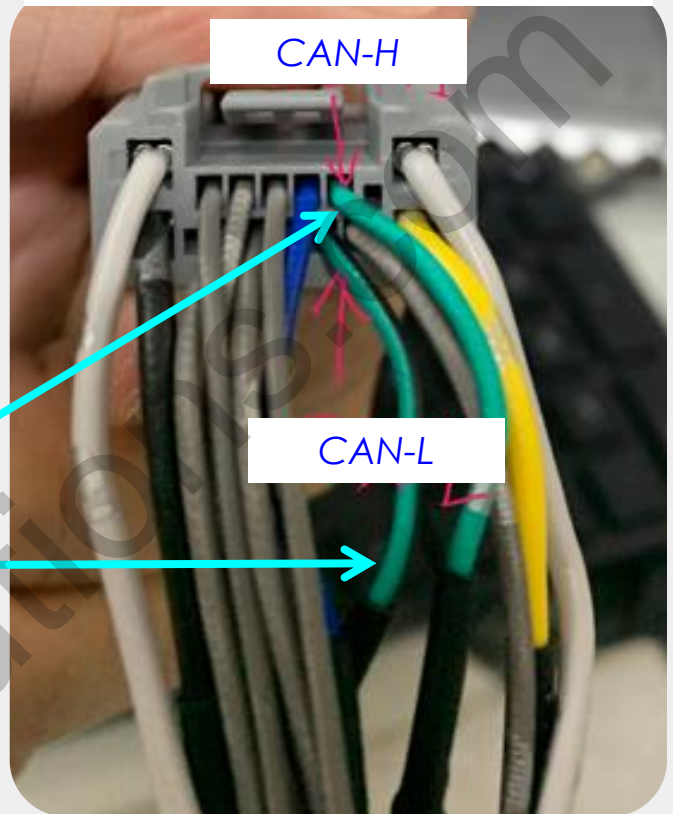
Please find pin map below.

2019Y XC90 and 2022Y XC40

Supplied power cable pin map

P1	COLOR	SIGNAL
1	RED	ACC
2	YELLOW	B+
3	N.C	
4	BLACK	GND
5	N.C	
6	N.C	
7	BLACK/WHITE	CAN-H
8	BLACK	CAN-L
9	N.C	
10	BROWN	ADC1

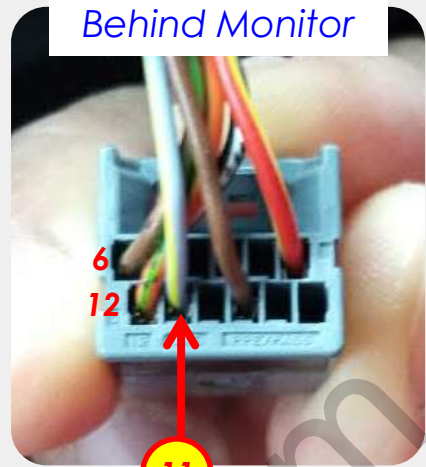
Under the steering wheel



ADC Connection to Use OEM Button

Please connect Original ADC(#11pin) wire behind the monitor to the supplied power #10(ADC1) for button use

Behind Monitor



Supplied power cable pin map

P1	COLOR	SIGNAL
1	RED	ACC
2	YELLOW	B+
3	N.C	
4	BLACK	GND
5	N.C	
6	N.C	
7	BLACK/WHITE	CAN-H
8	BLACK	CAN-L
9	N.C	
10	BROWN	ADC1



POWER CABLE
HPOWER0283

11



1. Press Home button twice -> mode switch
2. Short press -> Back to OEM

Split Screen on Rear Camera Mode (CVBS / HDMI)

Please press high lighted button for 3secs long or short press PIP button on the remote control to change screen display ratio.



~2022Y

Ext. Rear + OEM Rear



Ext. Camera Full

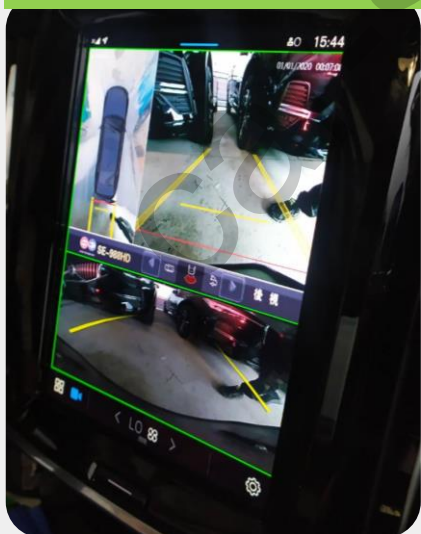


Ext. Rear + OEM PDC



2023Y~

Ext. Rear + OEM Rear

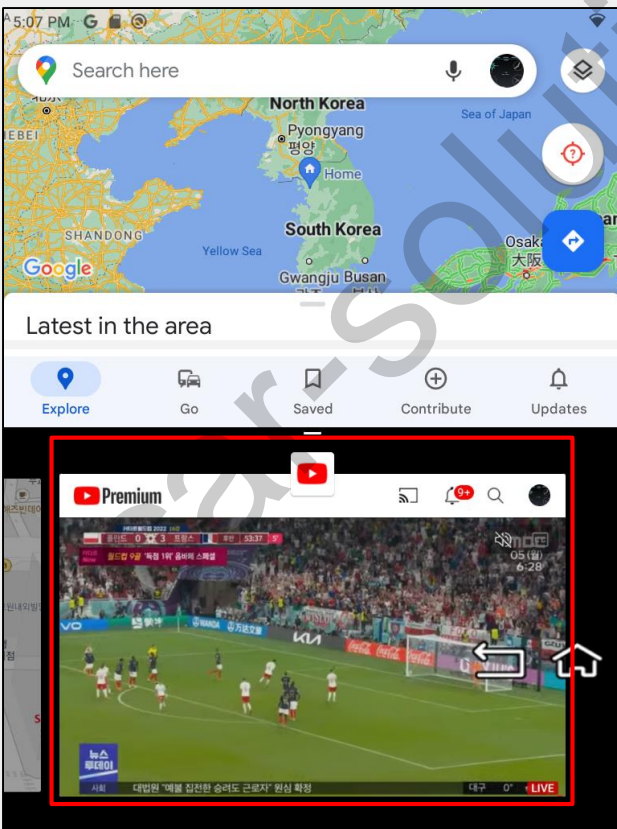
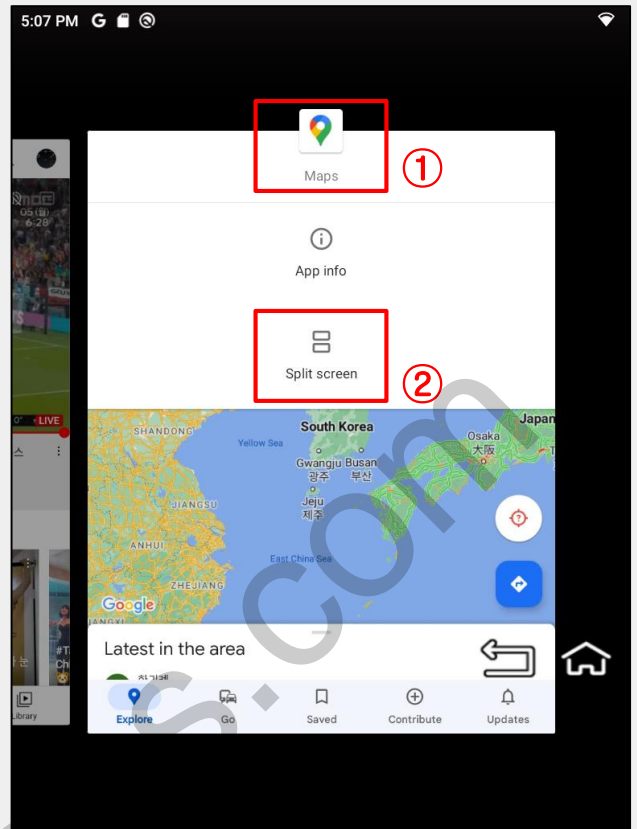
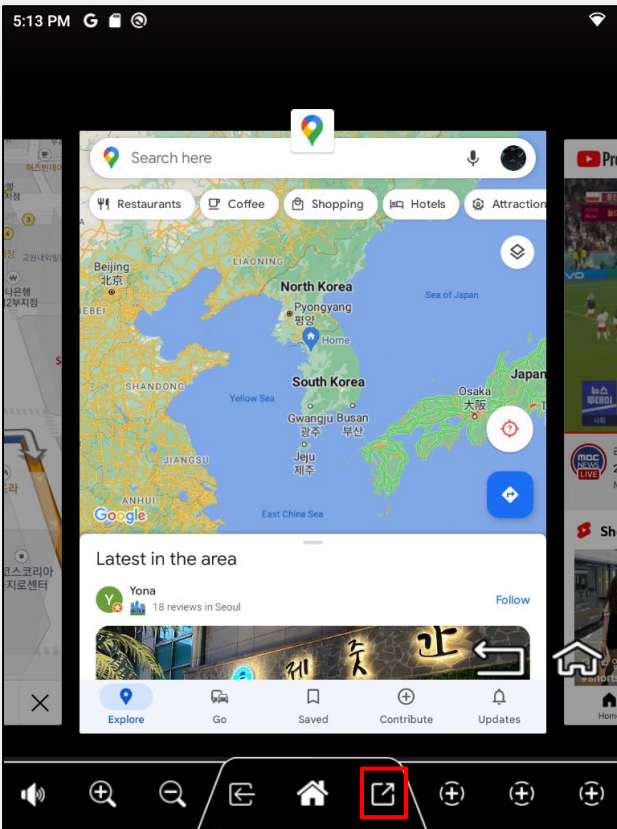


2023 S90



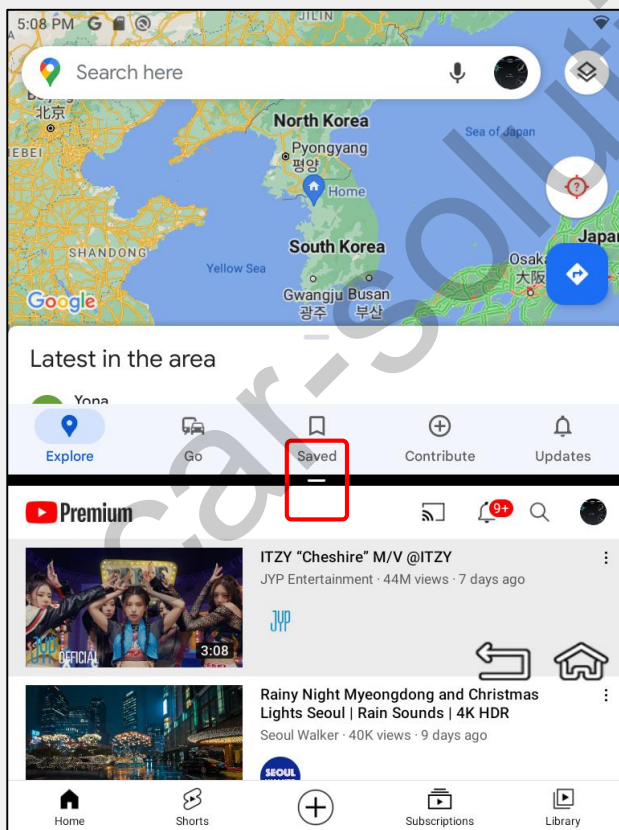
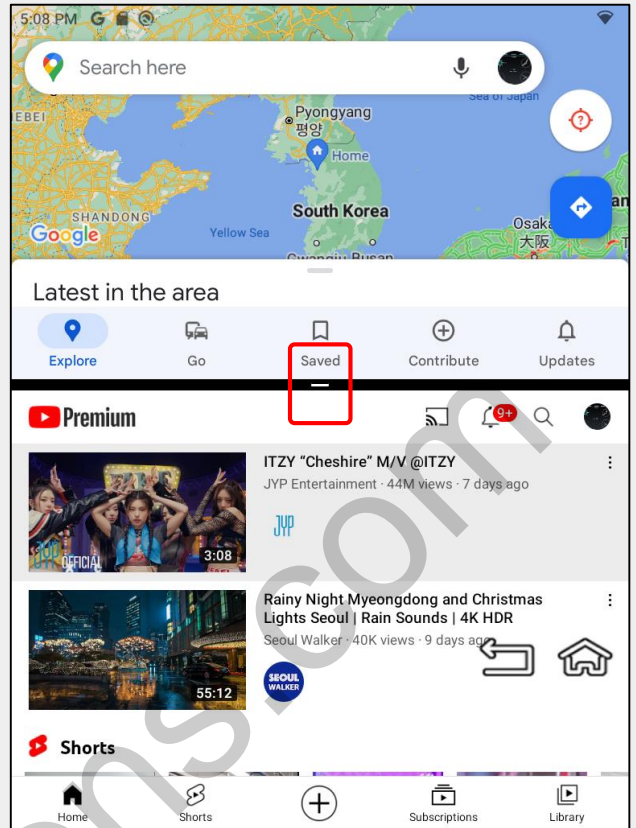
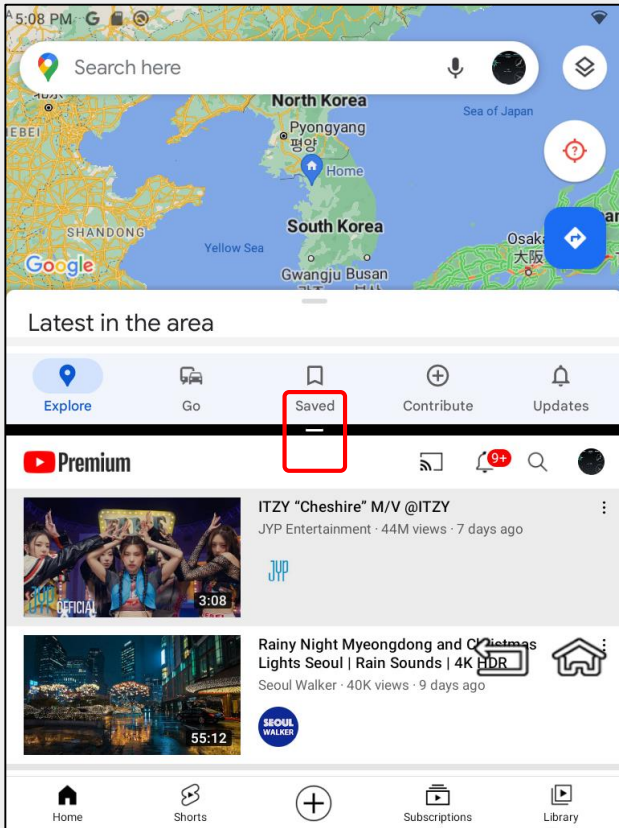
* Factory menu ->
Car mode -> 2023Y~
selection for smaller
air conditioner UI at
the bottom and
different Original
camera size

Split Screen



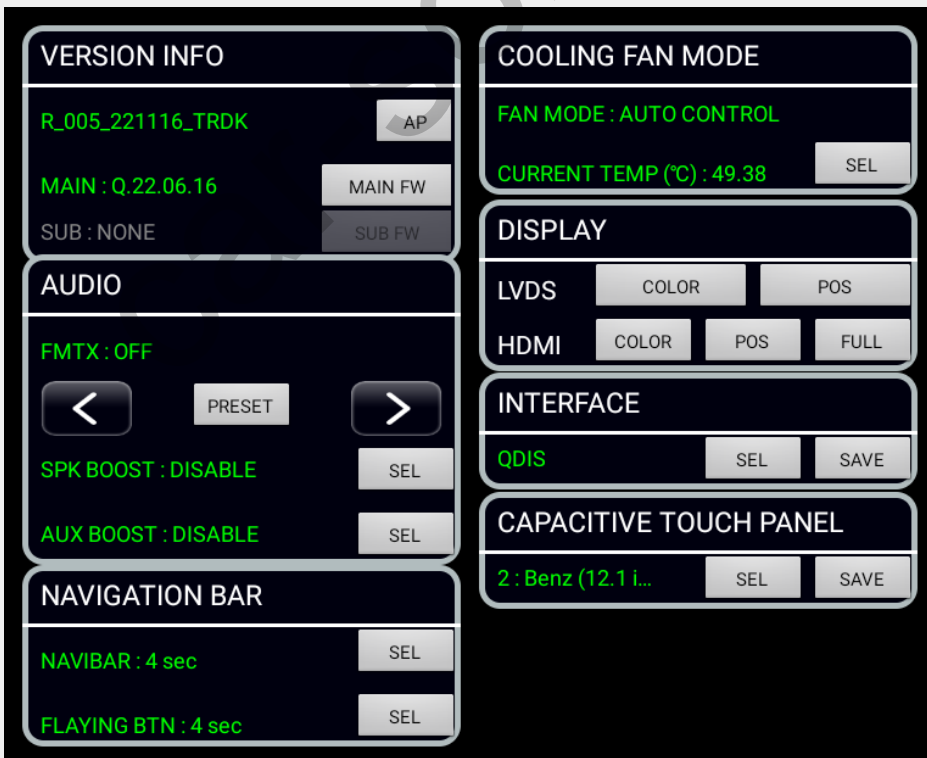
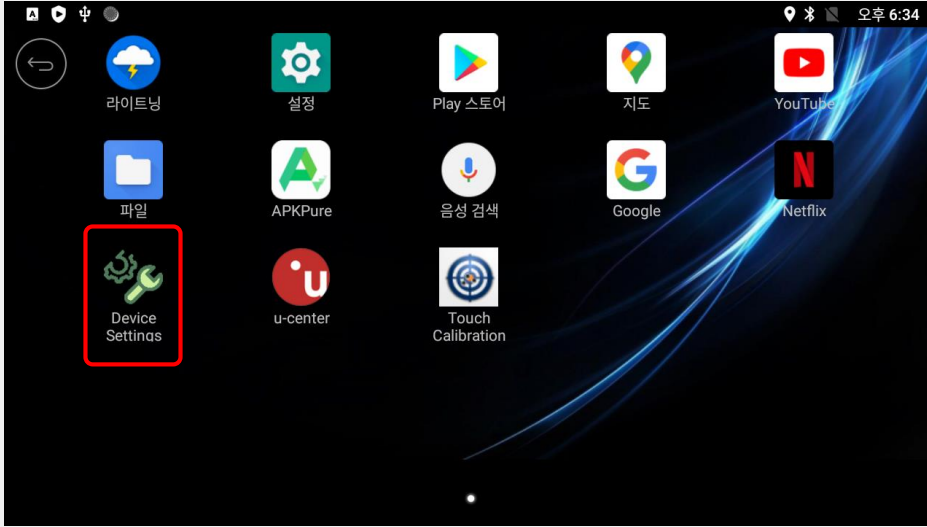
- 1. Press recent app button to select the apps for split screen**
- 2. Drag selected app screen to the top side**
- 3. And select another app screen on the bottom side to complete the split screen mode**

Split Screen

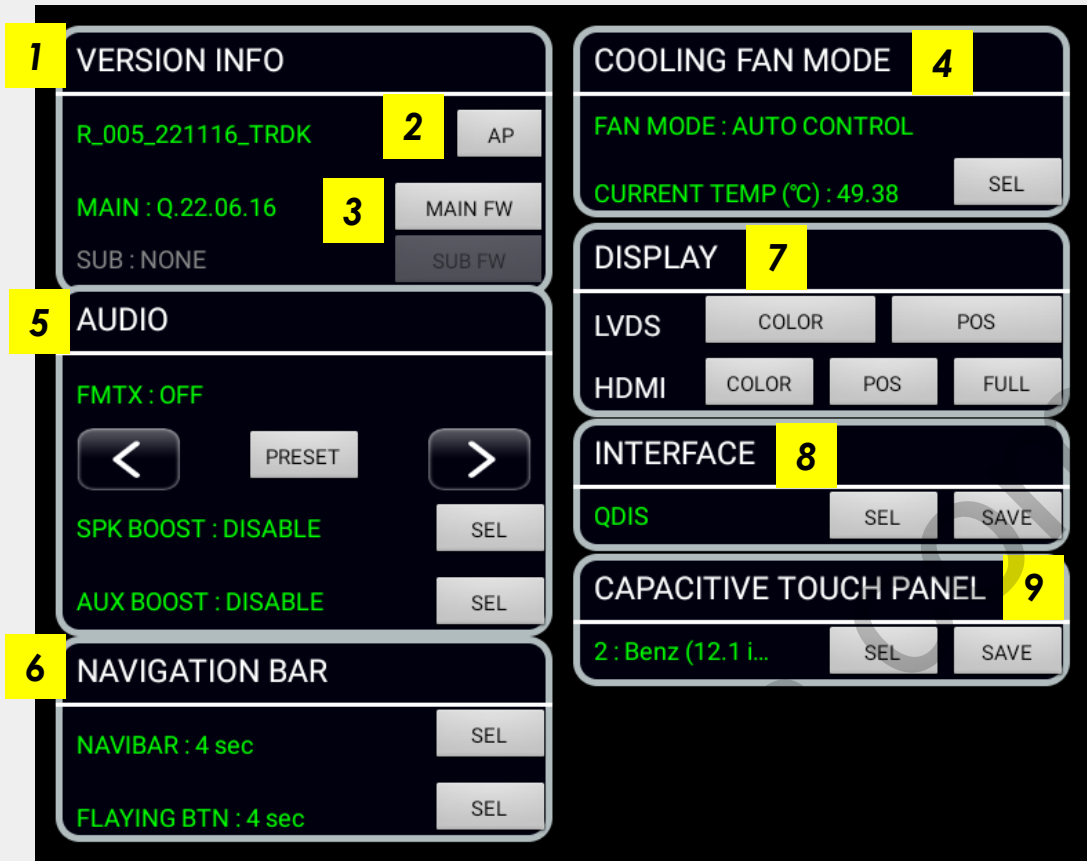


**Drag center division bar button
to change the split screen
display ratio**

Device Settings

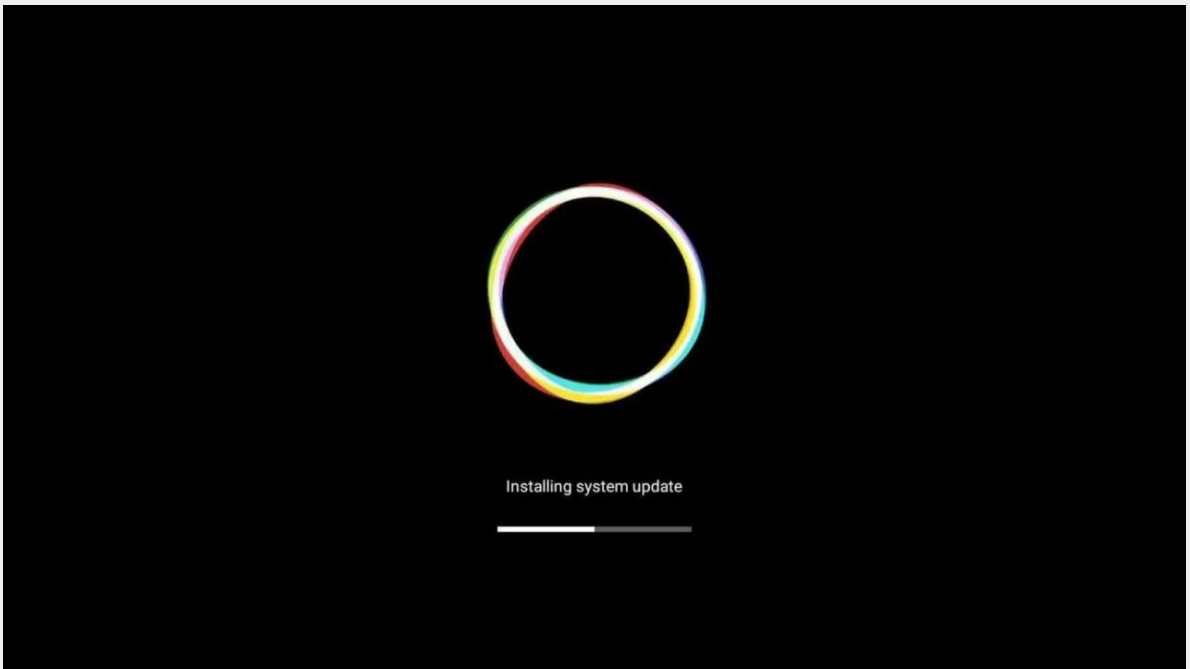


Device Settings

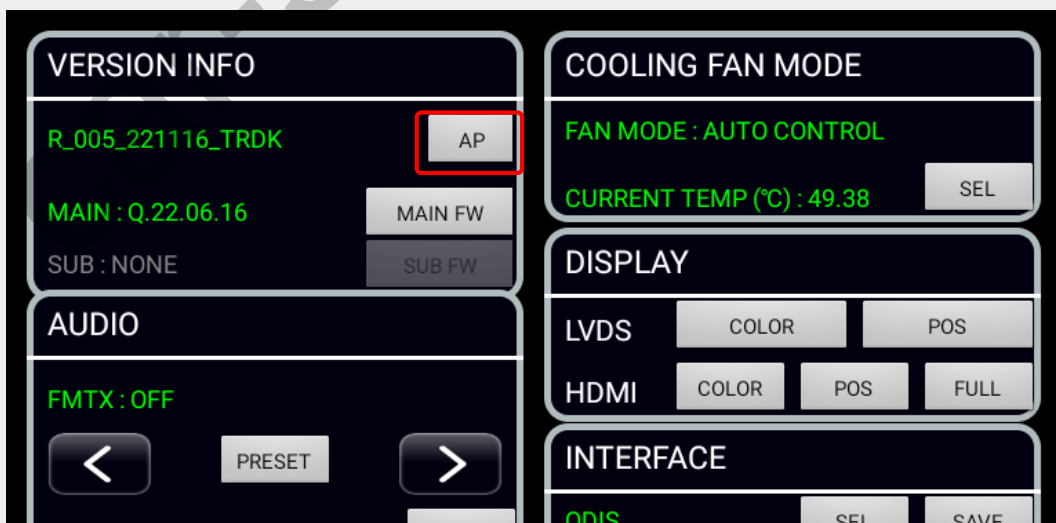


1. **Version info:** check the application and firmware version
2. **AP File Update:** press AP button and plug in USB memory stick with update.zip file (*AP Update also automatically activated by plugging USB memory stick in 5Secs)
3. **FW File Update:** press FW button and plug in USB memory stick with FW.QVL file
4. **Cooling fan mode:** cooling fan operation settings
5. **Navigation bar:** bottom navigation bar and flying back button display settings
6. **Audio:** FM-TX/speaker boost/aux, FM-TX boost settings
7. **Display:** LVDS/HDMI output color/position settings
8. **Interface:** different manufacture interface UART touch protocol selection
9. **Capacitive touch panel:** capacitive touch panel model selection

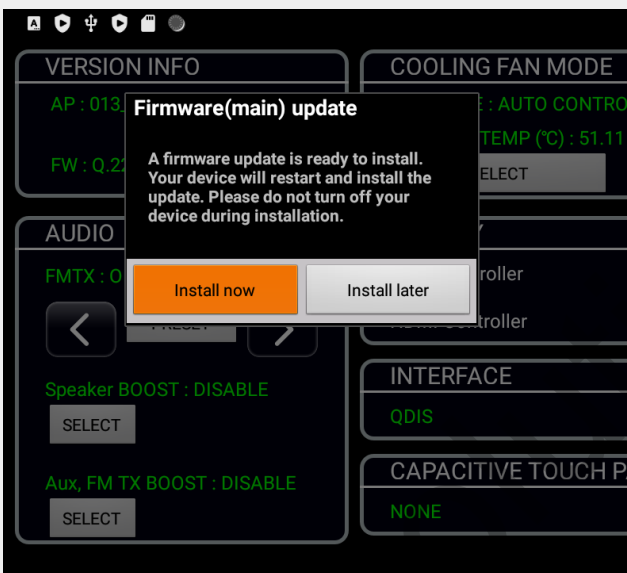
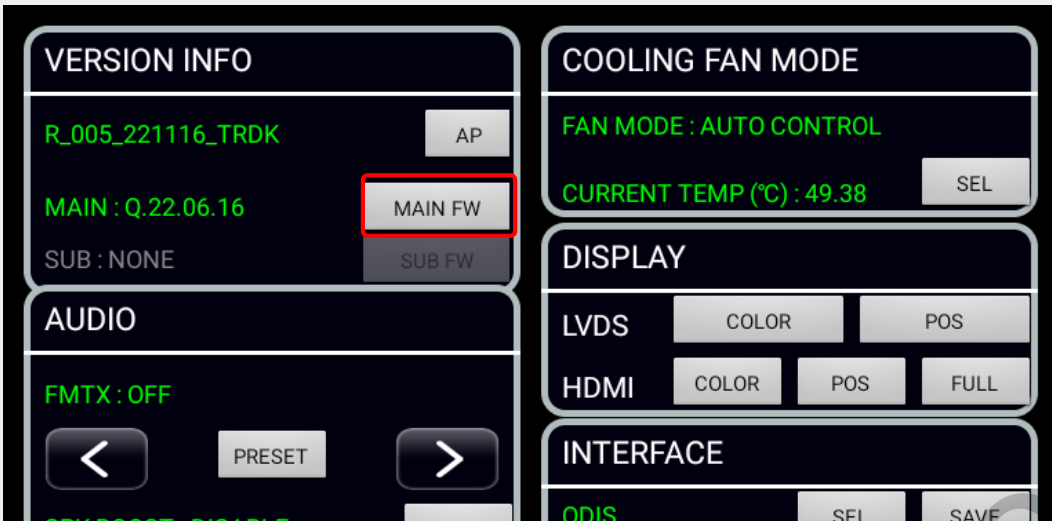
AP Update



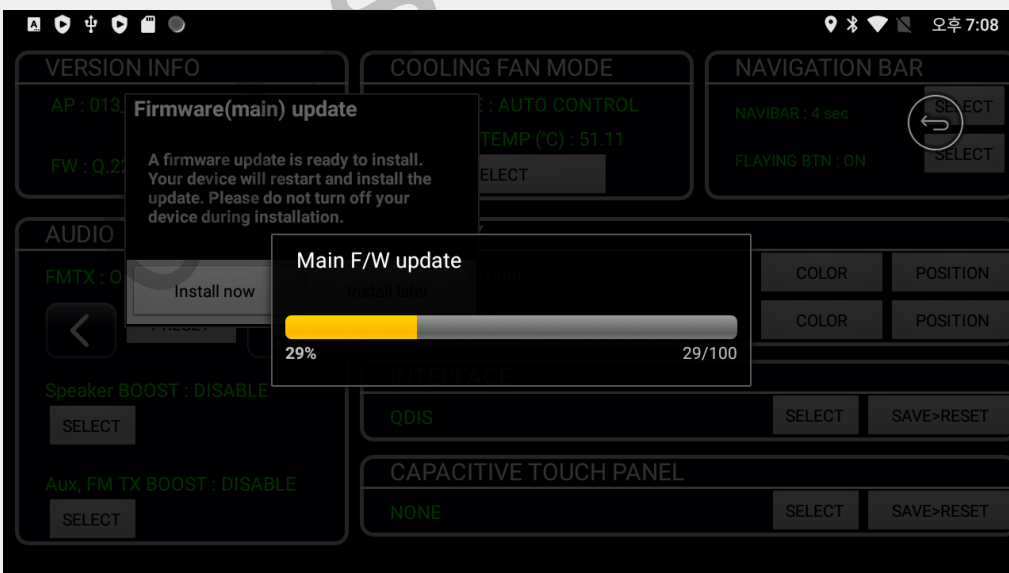
1. Please copy and paste update.zip file on USB memory stick and insert it to QROIXI USB port (not DEBUG Port)
2. Reset QROIXI power
3. update process will be activated automatically or press AP button in the device setting menu as below



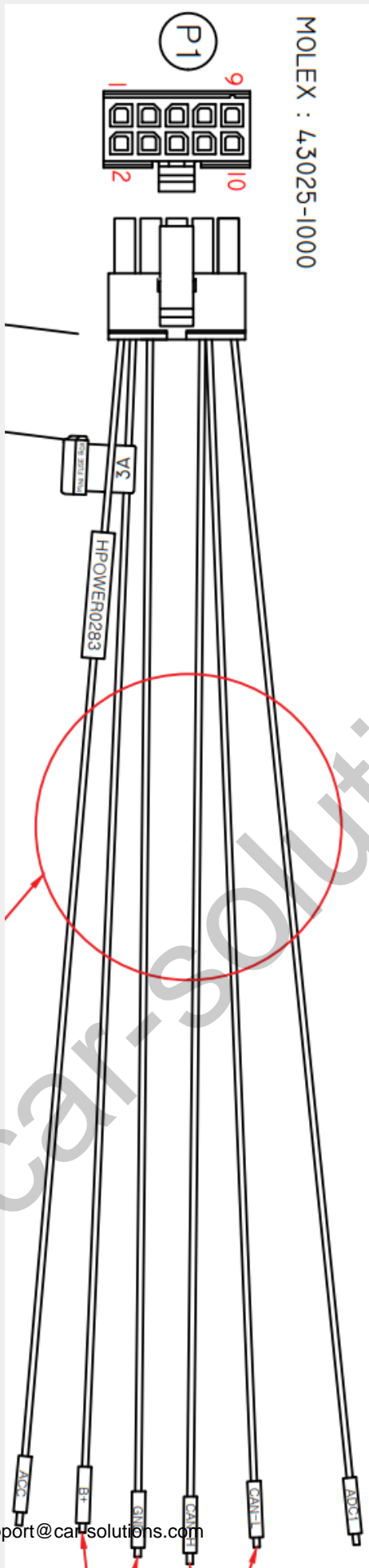
FW Update



1. Please copy and paste FW.QVL on USB memory stick
2. connect the USB memory stick to USB port. (not DEBUG port)
3. Please go to Device settings and click FW UPDATE button on the menu. And tap 'install now'
4. After finishing the upgrade, it will be rebooted by itself.



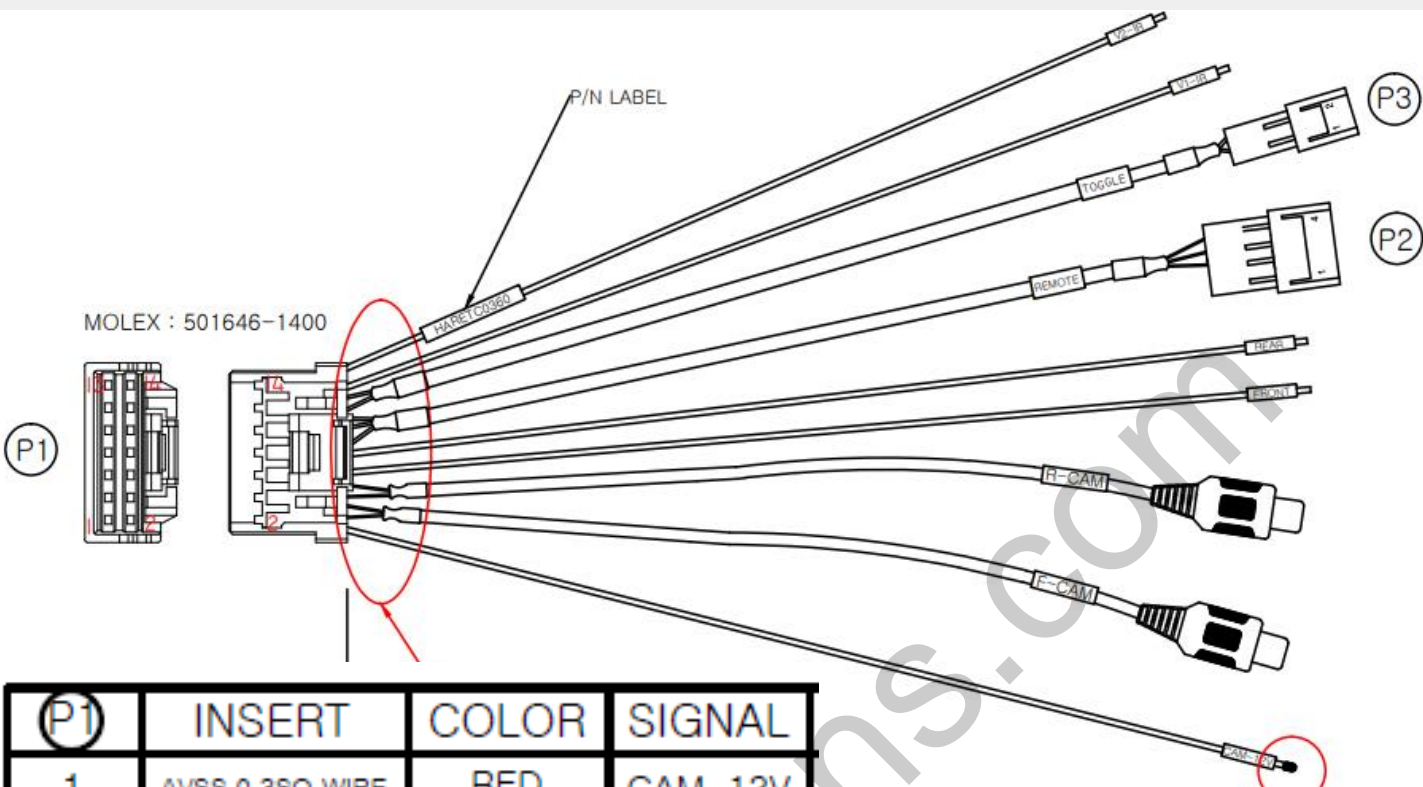
Power Cable Drawing



Connect provided power wire pin#1 and #2 together to car ACC. ←

P1	COLOR	SIGNAL
1	RED	ACC
2	YELLOW	B+
3	N.C	
4	BLACK	GND
5	N.C	
6	N.C	
7	BLACK/WHITE	CAN-H
8	BLACK	CAN-L
9	N.C	
10	BROWN	ADC1

Multi1 Cable Drawing



P1	INSERT	COLOR	SIGNAL
1	AVSS 0.35Q WIRE	RED	CAM-12V
2	RCA JACK	YELLOW	F-CAM-GND
3			F-CAM
4	RCA JACK	YELLOW	R-CAM-GND
5			R-CAM
6	AVSS 0.35Q WIRE	BLUE	FRONT
7	AVSS 0.35Q WIRE	GRAY	REAR
8	SMH200-04PL	BLACK	IR-GND
9		RED	P5V
10	SMH200-02PL	WHITE	OPT
11		BLACK	TOGGLE-GND
12		RED	TOGGLE
13	AVSS 0.35Q WIRE	GREEN	V1-IR
14	AVSS 0.35Q WIRE	BROWN	V2-IR

P2	COLOR	SIGNAL
2	BLACK	IR-GND
3	WHITE	OPT
4	RED	P5V

P3	COLOR	SIGNAL
1	RED	MODE
2	BLACK	GND

Multi2 Cable Drawing

(P1)	INSERT	COLOR	SIGNAL
1	STEREO JACK 2.5	RED	MIC
2		BLACK	GND
3	RCA JACK	WHITE	AUD-L
4			AUD-L GND
5	RCA JACK	RED	AUD-R
6			AUD-R GND
7	SMP250-02	BLACK	SPK-
8		RED	SPK+
9	N.C		
10	N.C		
11	SMH200-03PL	BLACK	GND
12		WHITE	UART-T
13		GREEN	UART-R
14	AVSS 0.3SQ	ORANGE	MUTE
15	N.C		
16	AVSS 0.3SQ	BLUE	FM-TX

(P2)	COLOR	SIGNAL
1	RED	SPK +
2	BLACK	SPK -

* UART-TX is for Touch data transmission.

(P3)	COLOR	SIGNAL
1	WHITE	UART-T
2	GREEN	UART-R
3	BLACK	UART-GND

