

Installation Manual

*Multimedia Interface for
Ford Sync4.0 System 2021~*

SYNC4-HLI



Specification

Compatibility:

(Sync4.0)

F150 / F250 / F350 / F550 12inch 2021

Bronco 12inch 2022

E-Transit 10inch 2021

Ford Expedition 15.5inch Vertical 2021

Ranger 12inch Vertical 2022

Focus 13inch

Rosenberg Round Connector

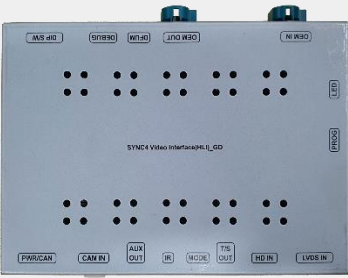
- **Support OEM Cap. Touch Function**
- **Ranger 12inch and Focus 13inch doesn't support original touch function on interface level**

Interface Input / Output specification:

Input: HDMI x1
LVDS x1
CVBS(Front Camera) x1
CVBS(Rear Camera) x1
CVBS(Left Camera) x1
CVBS(Right Camera) x1

Output: Audio OUTPUT x1

Components



Main Board
QCPASS1709



LCD Cable
HLCDA0049



IF Cable
HPOWER0293



J by J Cable
HARETC0391



AV CABLE
HAVCAB0073



UART CABLE
HTOUCH0031



AUX Cable
HAVCAB0072



Toggle Button
HARETC0001

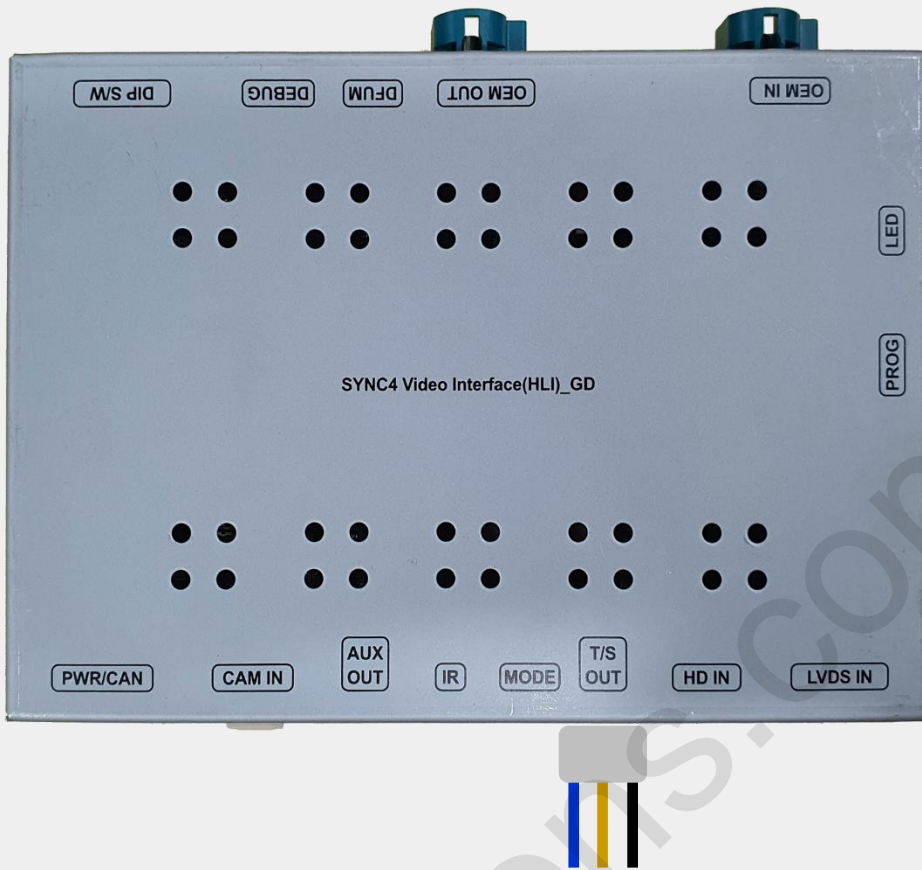


IR 4P Cable
HIRCAB0002



Remote CTRL.
REMOTE0001

Cable Connection



1. **PWR/CAN:** Connect provided power/CAN cable
2. **CAM IN:** Connect A/V cable
3. **AUX OUT:** Connect AUX cable
4. **IR:** Connect IR cable
5. **MODE:** Connect toggle button cable
6. **T/S OUT:** Connect UART 3P cable, Pin #2 (middle) used for touch data transmission [\[UART-TX\]](#)
7. **HD IN:** HDMI input
8. **LVDS-IN:** LVDS input (QROIX)
9. **OEM IN:** Connect the OEM LCD cable coming from the OEM monitor
10. **OEM OUT:** Connect one end of the supplied LCD cable and the other end to the OEM head unit
11. **DIP S/W:** DIP SWITCH setting

DIP Switch Settings



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

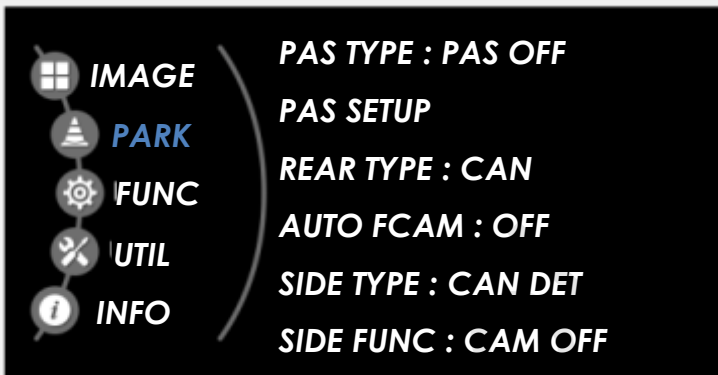
Please make sure to disconnect the power cable of the interface and reconnect the power cable again to apply the dip switch changes.

PIN	Dip S/W SELECT
1	OFF : LVDS Mode ON : LVDS Mode Skip
2	OFF : HDMI Mode ON : HDMI Mode Skip
3	3 ON, 4 OFF, 5 OFF : Focus 13inch 3 OFF, 4 OFF, 5 OFF : F150 / F550 / E-TRANSIT (1920x1200)
4	3 OFF, 4 OFF, 5 ON : Expedition 15.5inch Vertical (1200x1920) 3 OFF, 4 ON, 5 OFF : Ranger 12inch Vertical (1200x1920) -> Not support original touch screen function on interface level
5	3 OFF, 4 ON, 5 ON : F350 12inch (1920x1200)
6	OFF : Ext. Front Camera Mode ON : OEM Front Camera Mode
7	OFF : OEM Rear Camera Mode ON : Ext. Rear Camera Mode
8	OFF : Disable OEM Touch Function on Ext. Mode ON : Enable OEM Touch Function on Ext. Mode
9	OFF : Internal Clock Mode ON : Original Clock Mode
10	OFF : Wake-Up by CAN Data Detection ON : Wake-Up by Monitor Power (ACC) Detection

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: N/C



PARK

PAS TYPE: Select parking line type.

PAS SETUP: You can move the position of parking line.

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

AUTO FCAM: Front camera display setting (OFF/15/10/5/3Sec)

SIDE TYPE: Select side camera detection type (OFF/CAN DET/WIRE DET)

SIDE FUNC: Left, Right side camera display setting (CAM (L)/(R)/ALL/OFF)

Factory Settings



FUNCTION

CAR MODEL: Car model selection for touch/gear/button use
(F150(EXPEDITION) / RANGER / F350 / F550 / E-TRANSIT / AMAROK)

LVDS MODEL: Car-play, Navigation Model Setting
(QROIX-HD / QROIX / SUNE10 / SE-CP)

- QROIX-HD (1280x720) -> [YouTube Full Screen Mode](#)
- QROIX / SUNE10 (800x480)

HD1/HD2 MODEL: Navigation Model Setting
(SUNE10 / UART2USB / SE-TV / QROIX-HD)



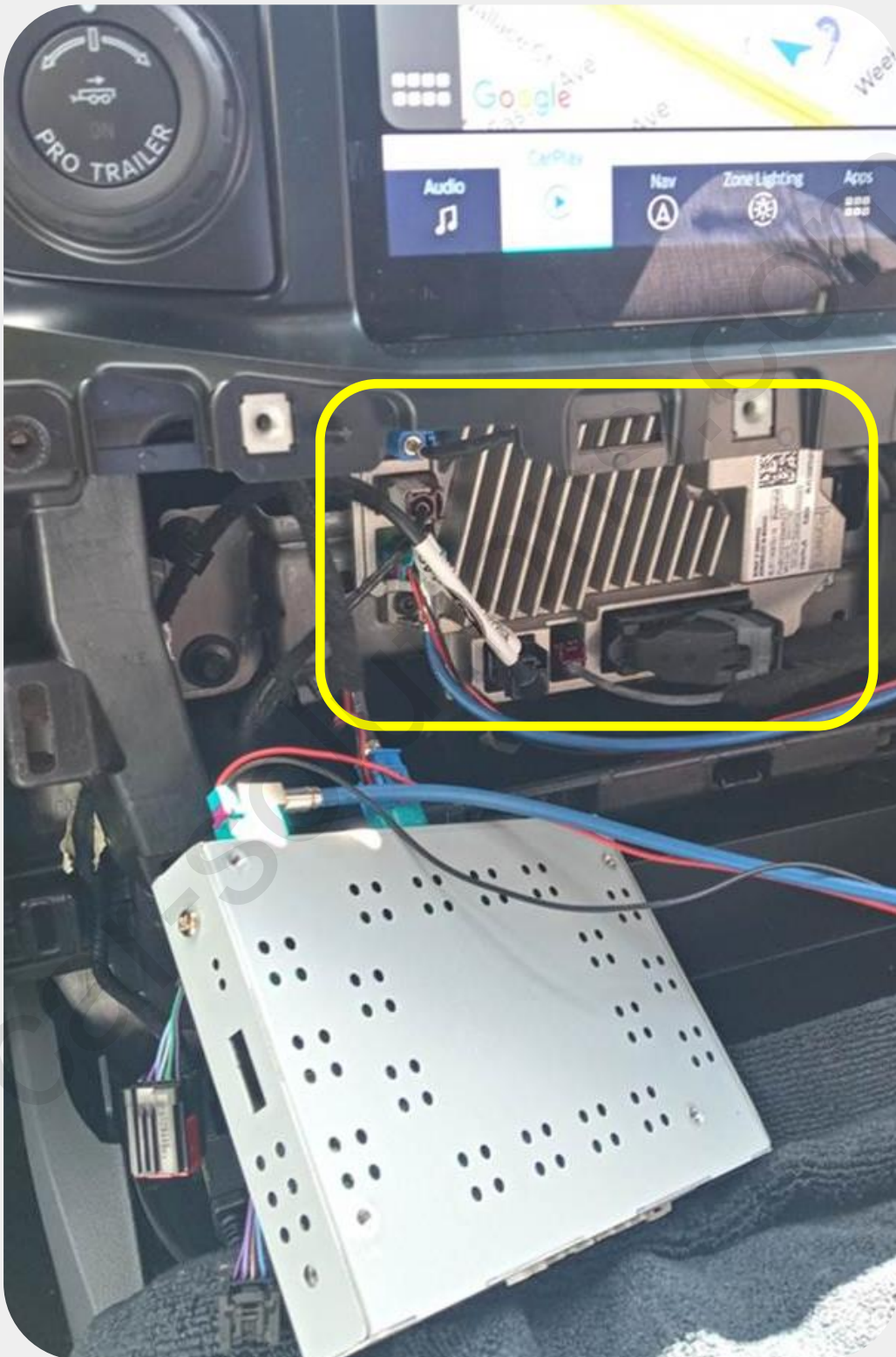
UTIL

FACTORY RESET: Factory mode reset (YES/NO)

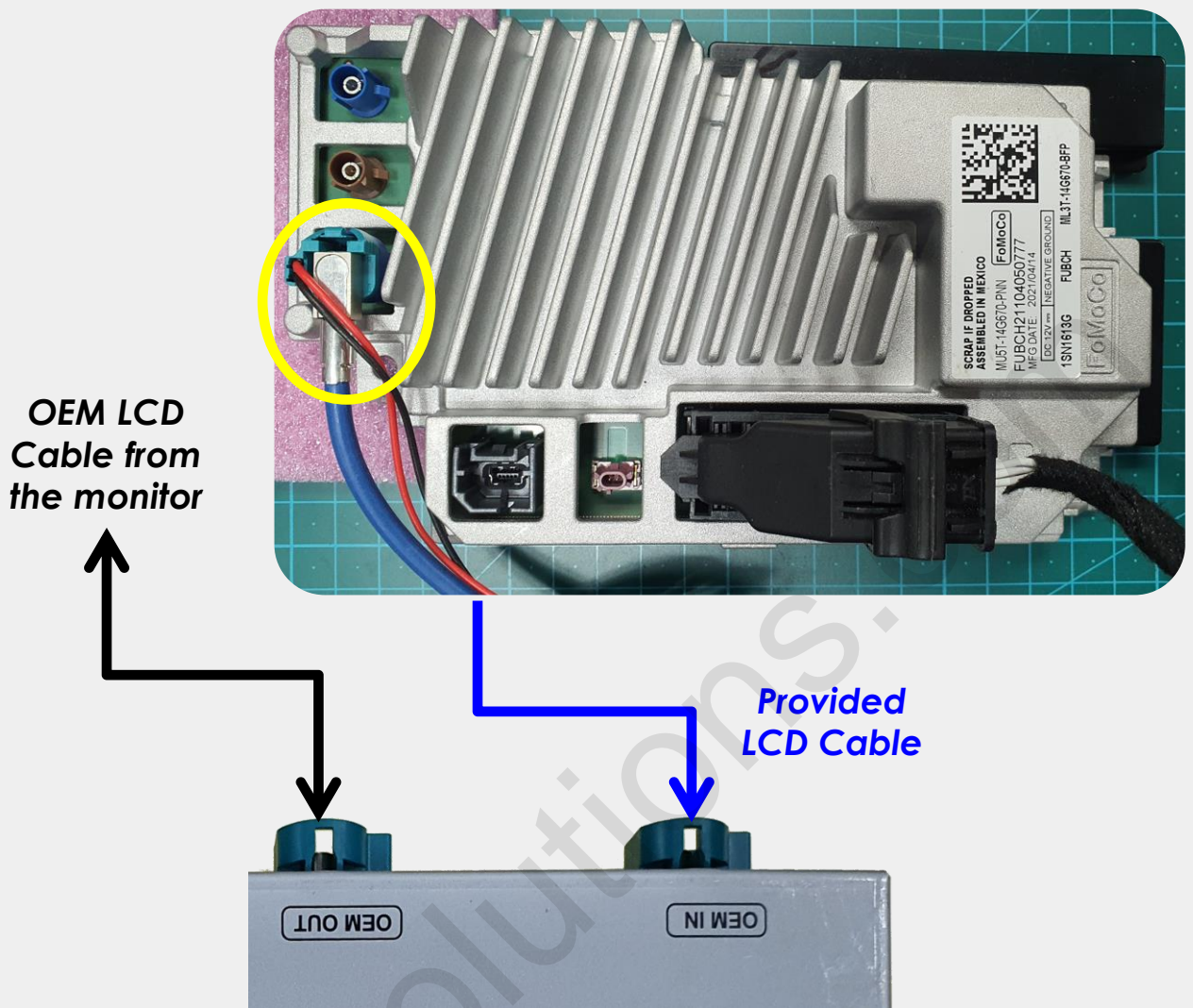
HANDLE BUTTON: Select handle back button use (OFF/ON)

Find Head Unit_F150

* Please find head unit below the monitor.



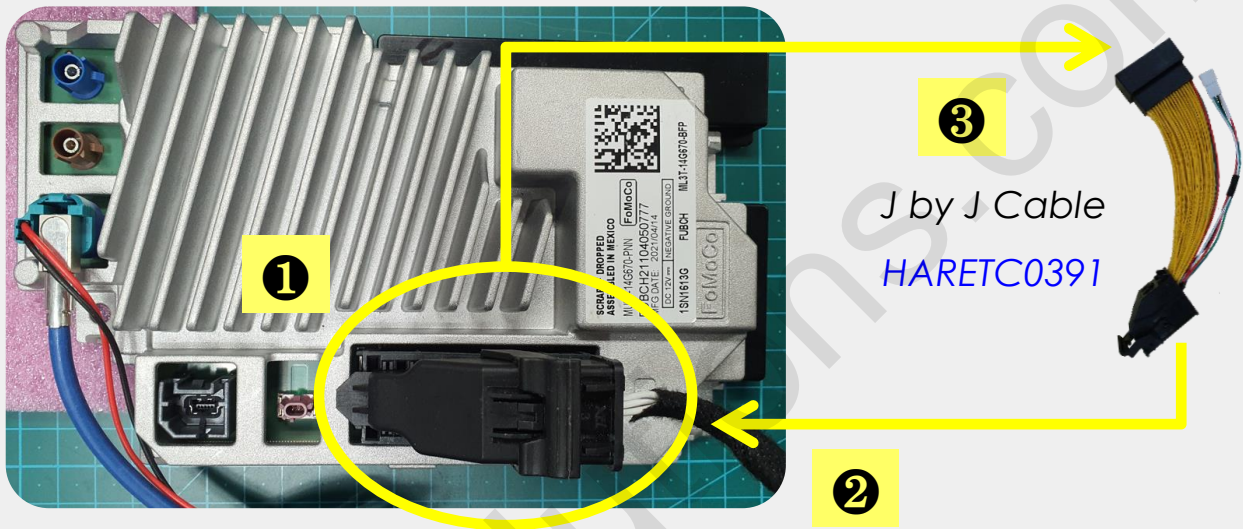
LCD IN/OUT Connection



1. Disconnect the OEM LCD cable coming from the monitor behind the head unit and connect it to the interface "OEM OUT" port
2. Connect one end of provided LCD cable to head unit and the other end to the interface "OEM IN" port

Power/CAN Connection

1. Disconnect the OEM power cable from the backside of the command
2. Connect the OEM cable to the female connector of supplied power Jack by Jack cable
3. Connect the male connector of supplied power Jack by Jack cable to the backside of the monitor
4. Connect supplied power Jack by Jack Cable to the supplied IF cable and connect it to the Interface



IF Cable
HPOWER0

OEM Button Use_Steering Wheel

* Press high lighted OEM button for 3 seconds long to mode switch



- *Back -> Long press 3sec for mode change*
- *Menu-> Long press 3sec for factory reset*

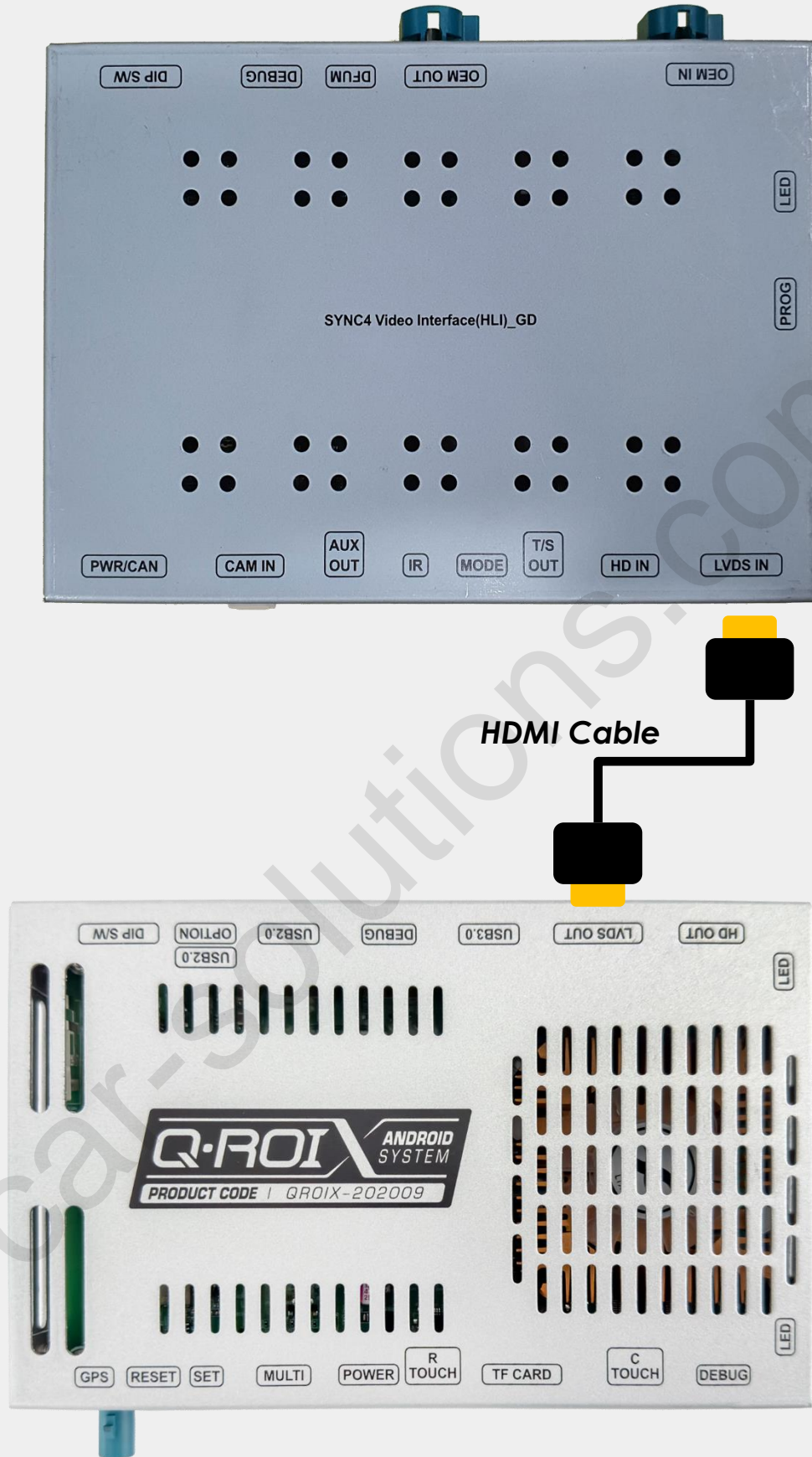
OEM Button Use_Steering Wheel

* Press high lighted OEM button for 3 seconds long to mode switch



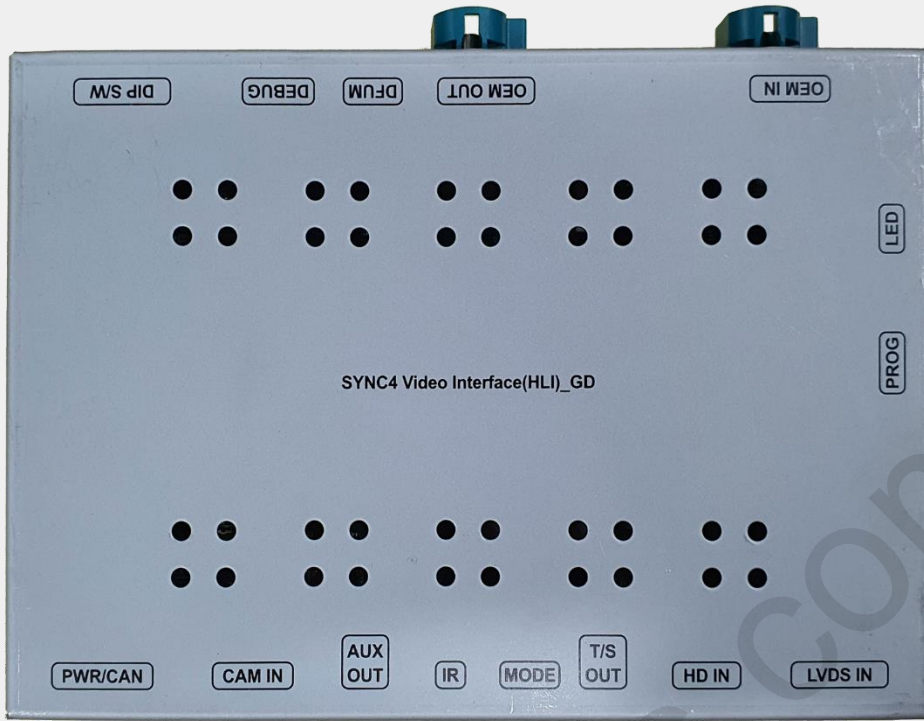
- OK -> Long press 3sec for mode change
- Left Arrow -> Long press 3sec for factory reset

QROIX Connection by LVDS Input



- **Factory Settings -> FUNC -> LVDS MODEL : QROIX**
- **QROIX power and audio cable connect to the car.**

QDISPLAY Connection by LVDS Input



- **Factory Settings -> FUNC -> LVDS MODEL : SE-CP**
- **QDISPLAY power and audio cable connect to the car.**

Installation Demo_ F150 12inch

* Factory Menu -> FUNC -> LVDS MODEL -> QROIX-HD(1280x720)

QROIX-HD Mode

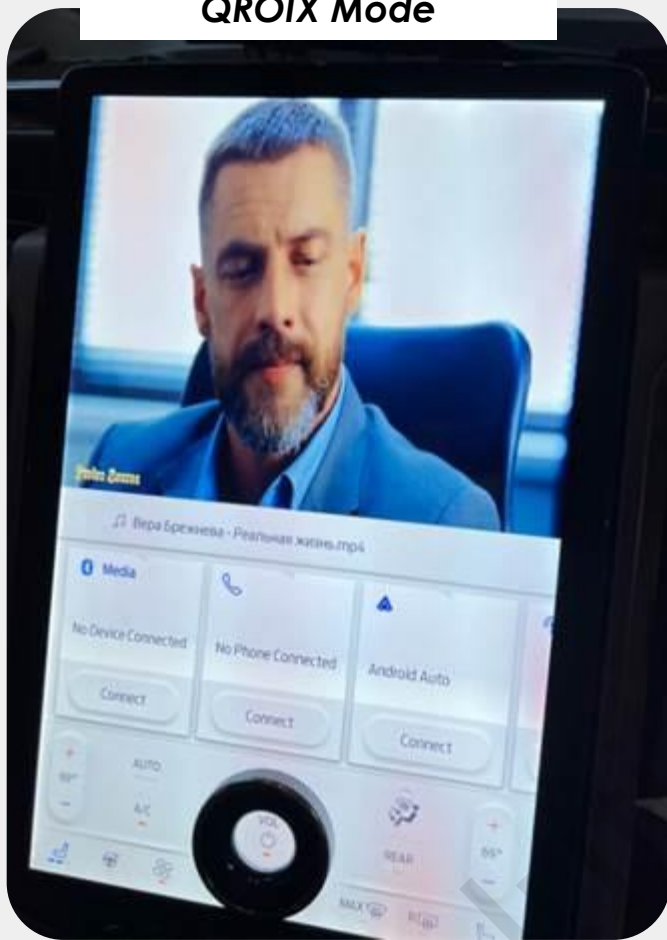


QROIX-HD Mode

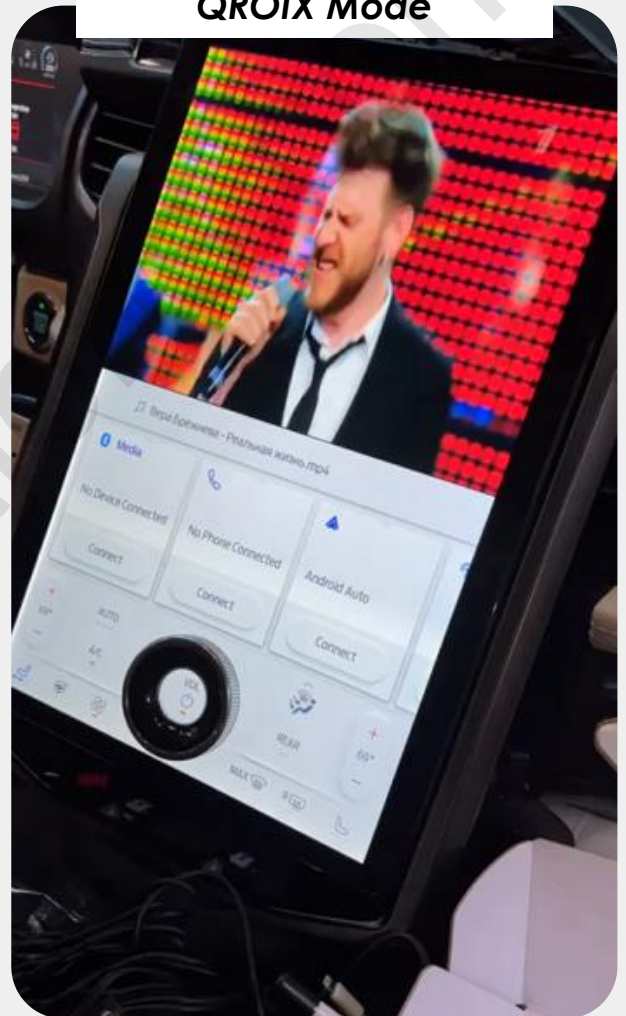


Installation Demo_ Ford Expedition 15.5inch

QROIX Mode



QROIX Mode



Installation Demo_ Ford E-Transit 12inch

Rear Camera Mode



Side Camera Mode



Installation Demo_ Ford E-Transit 12inch Manual Gearbox

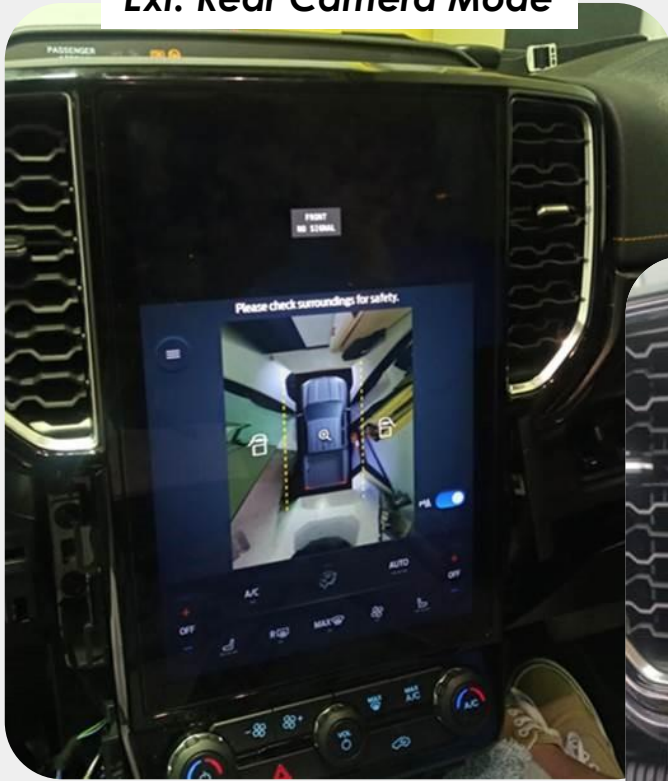


Rear Camera Mode

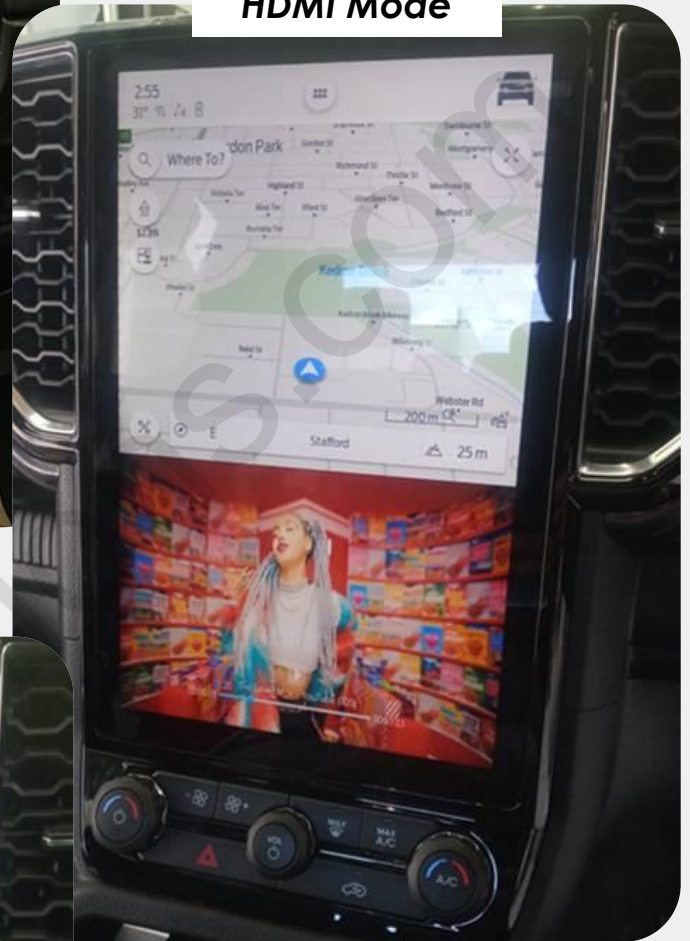


Installation Demo_Ranger 12inch

Ext. Rear Camera Mode



HDMI Mode



QROIX Mode



Installation Demo_ F150 12inch



Ext. Full Screen

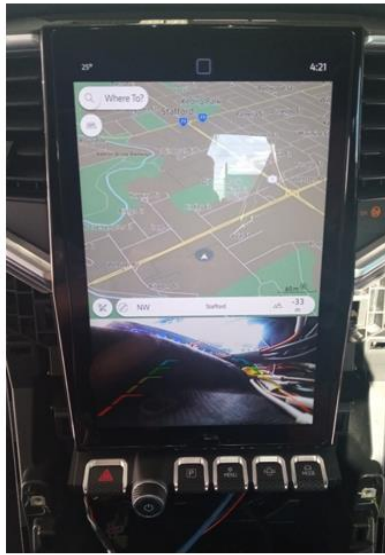


Ext. Small Screen



- *Upward Arrow -> Long press 3sec to change camera screen size on OEM Car-Play mode*

Installation Demo_ VW Amarok 12inch



OR



Option 1

Option 2

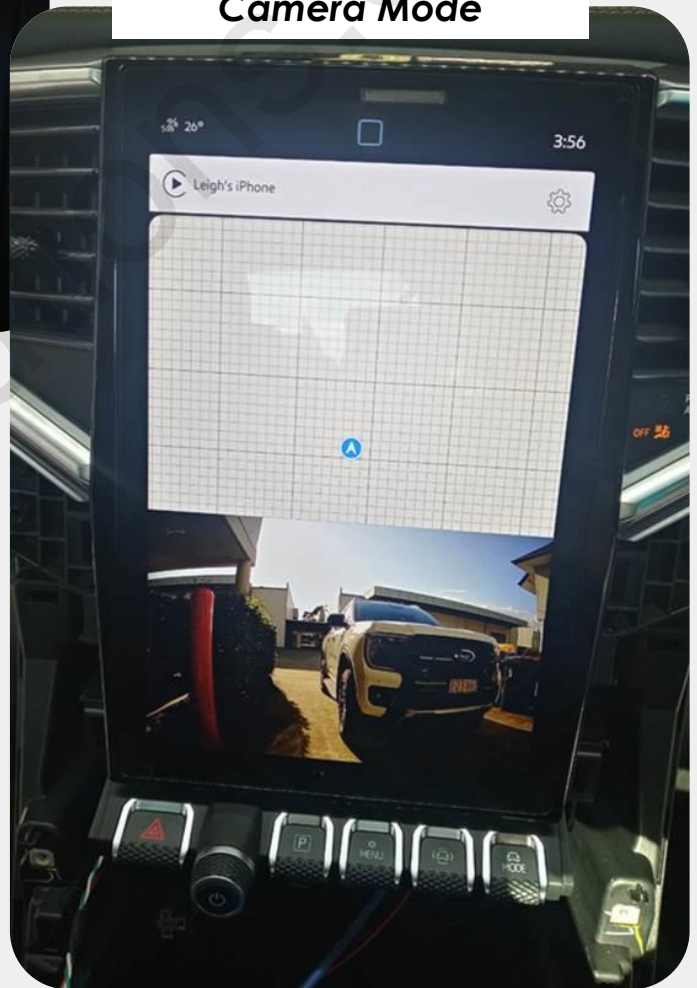


- *Right Arrow -> Long press 3sec to change camera screen size on OEM Car-Play mode*

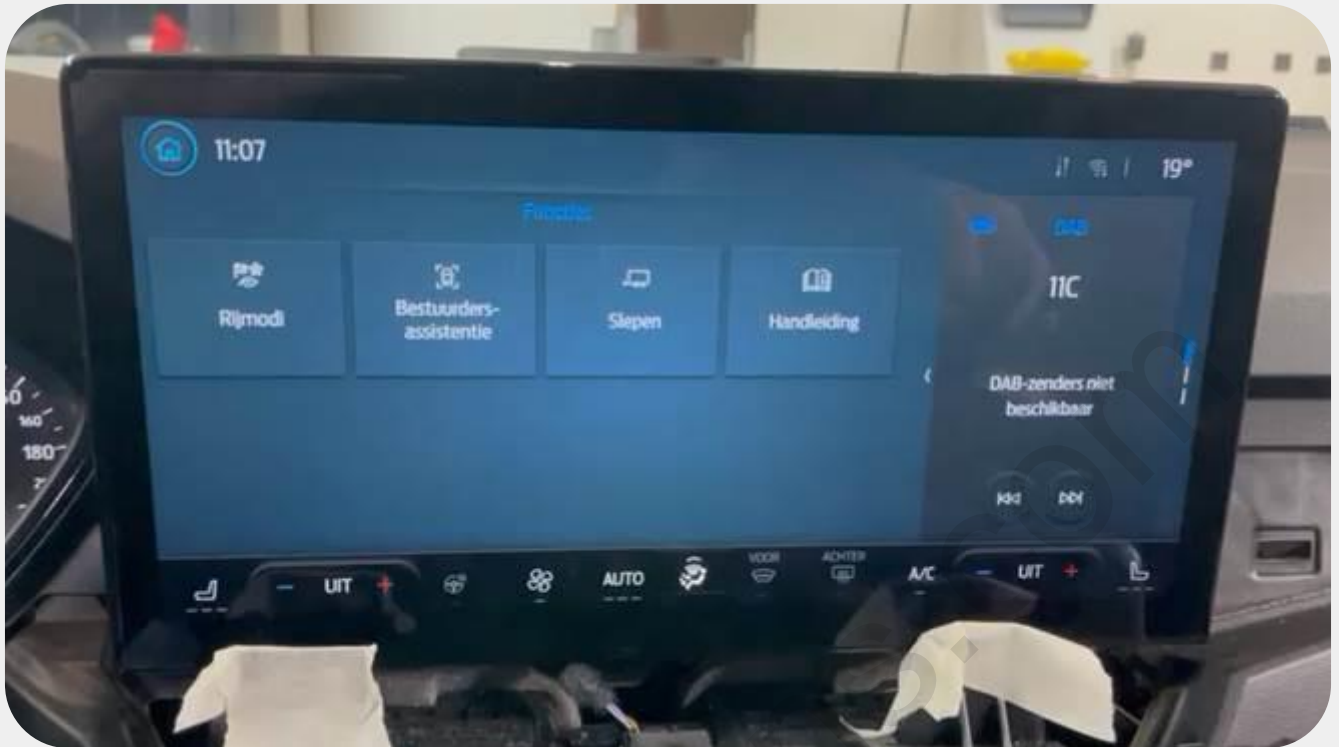
Installation Demo_ VW Amarok 12inch



Camera Mode



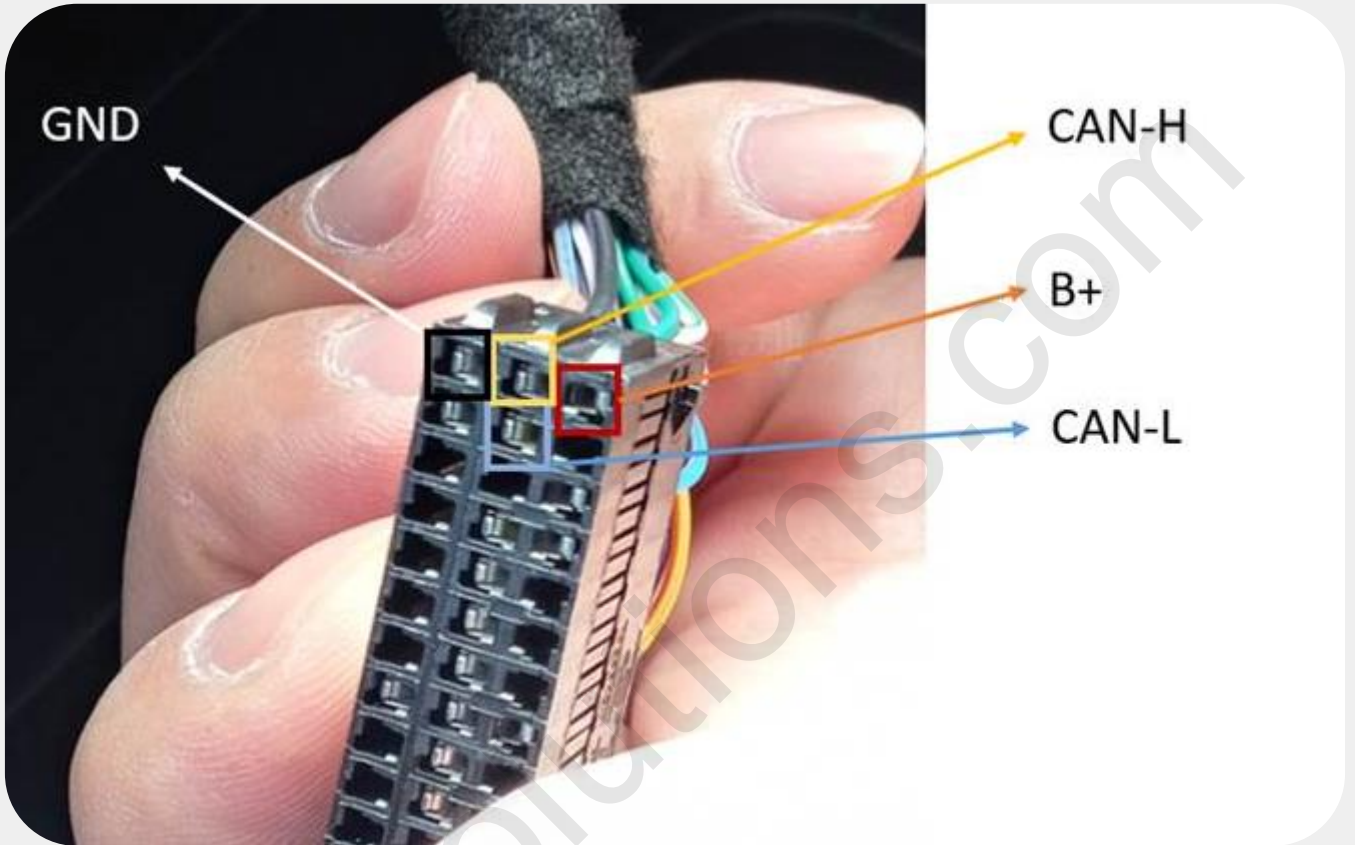
Installation Demo_Focus 13inch



- *DIP 3 ON, 4 OFF, 5 OFF / Car model F150*
- *Added on FW231018*
- *Support Handle button, moving PAS line*

Power / CAN Pin Map

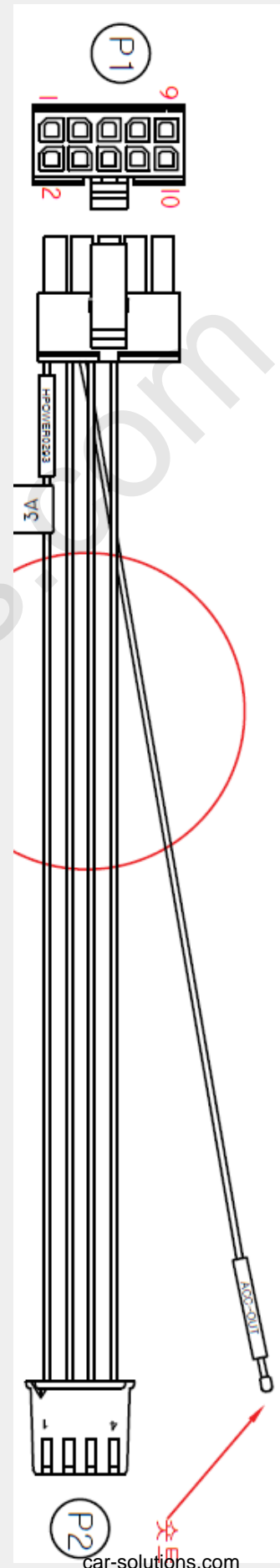
* Below is the power / CAN pin map of OEM connector.



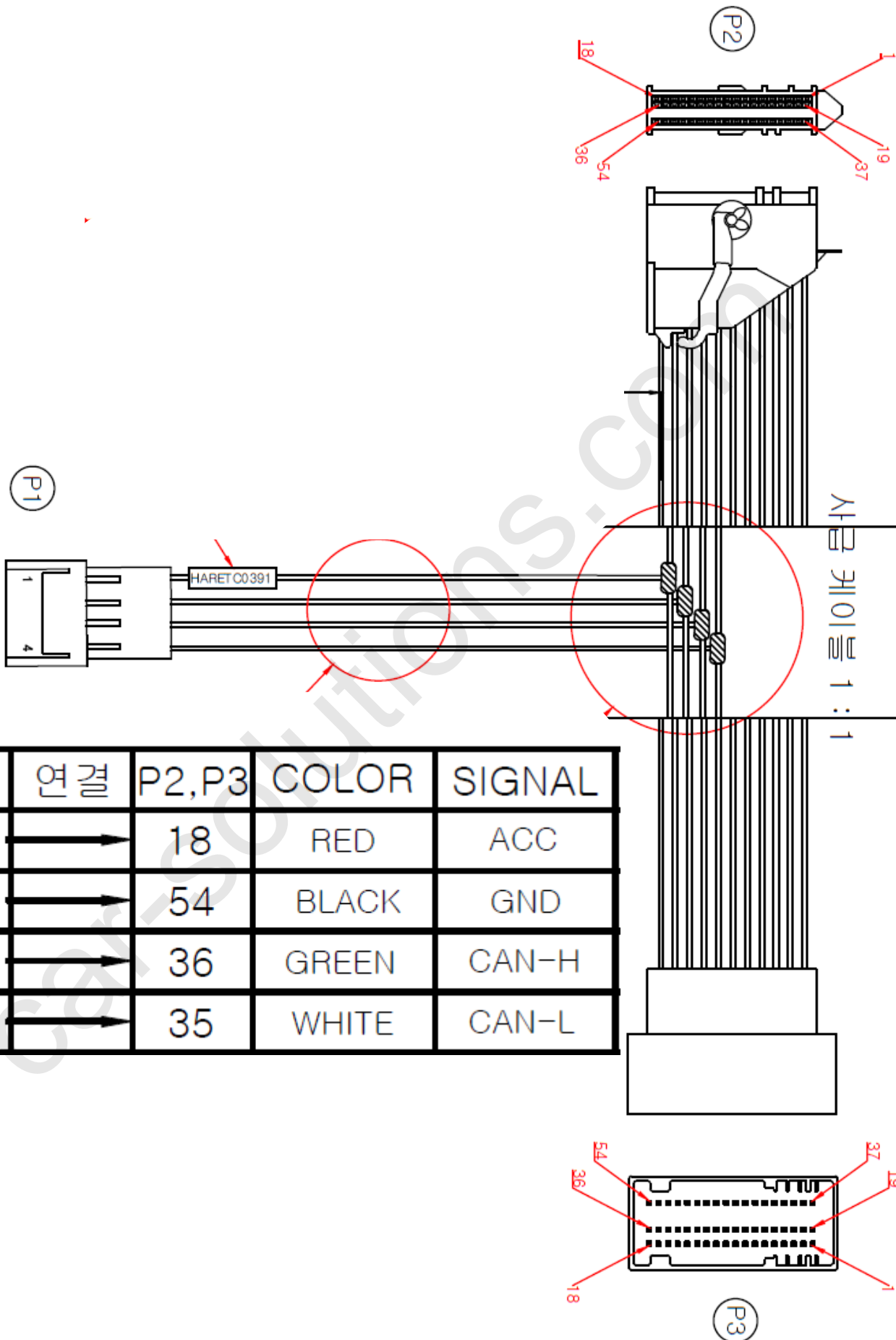
Power Cable Drawing

1. P1->P2

P1	연결	P2	COLOR	SIGNAL
1	→	1	RED	B+
2	X		N.C	
3	→	2	BLACK	GND
4	X		RED	ACC-OUT
5	→	3	GREEN	CAN-H
6	→	4	WHITE	CAN-L
7	X		N.C	
8	X		N.C	
9	X		N.C	
10	X		N.C	

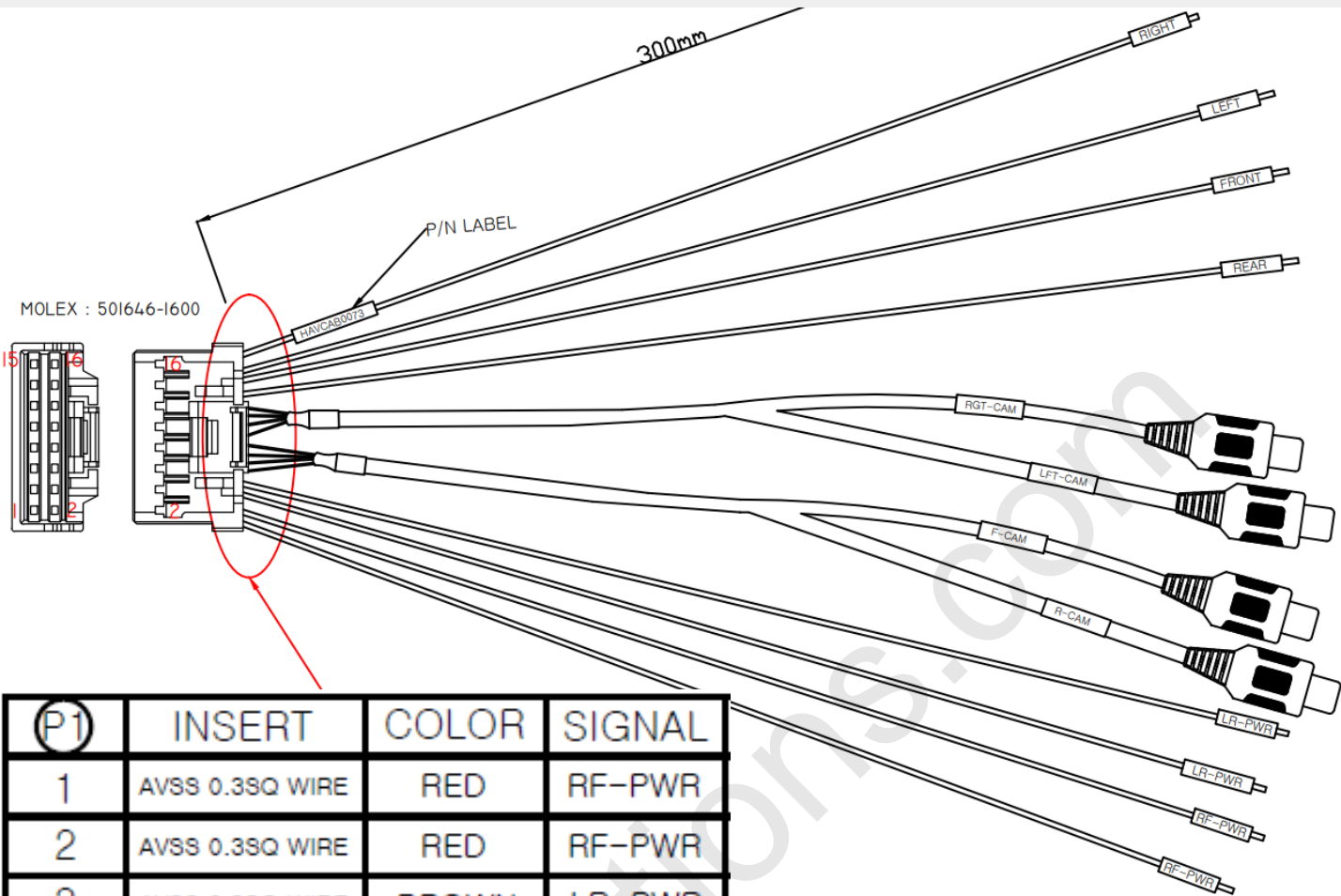


CAN Jack by Jack Cable Drawing



P1	연결	P2,P3	COLOR	SIGNAL
1	→	18	RED	ACC
2	→	54	BLACK	GND
3	→	36	GREEN	CAN-H
4	→	35	WHITE	CAN-L

AV Cable drawing



P1	INSERT	COLOR	SIGNAL
1	AVSS 0.35Q WIRE	RED	RF-PWR
2	AVSS 0.35Q WIRE	RED	RF-PWR
3	AVSS 0.35Q WIRE	BROWN	LR-PWR
4	AVSS 0.35Q WIRE	BROWN	LR-PWR
5	RCA JACK	YELLOW	R-CAM GND
6			R-CAM
7	RCA JACK	YELLOW	F-CAM GND
8			F-CAM
9	RCA JACK	YELLOW	LFT-CAM GND
10			LFT-CAM
11	RCA JACK	YELLOW	RGT-CAM GND
12			RGT-CAM
13	AVSS 0.35Q WIRE	GRAY	REAR
14	AVSS 0.35Q WIRE	BLUE	FRONT
15	AVSS 0.35Q WIRE	WHITE	LEFT
16	AVSS 0.35Q WIRE	ORANGE	RIGHT

Input:

CVBS IN (Front Camera) x1
 CVBS IN (Rear Camera) x1
 CVBS IN (Left Camera) x1
 CVBS IN (Right Camera) x1

Output:

Front camera SEL OUT (12V / 24V)
 Rear camera SEL OUT (12V / 24V)
 Side Camera SEL OUT (12V / 24V)
 12V / 24V SEL OUT

AUX Cable Drawing

P1	연결	P2	COLOR	SIGNAL
1	→	1	WHITE	AUX-L
2	→	2	RED	AUX-R
3	→	3	BLACK	AUX-GND

