

# Installation Manual

*Multimedia Interface for Toyota Lexus 2016~*



# Specification

## Compatibility:

**Lexus LX570 12" 2016~**  
**Lexus NX 8"/10" 2018~**  
**Lexus CT200 7" ~2018**  
**RX450/UX2019/GS2014/GS**  
**ES/LX/RX/IS/GX 7"/8"/12"**

## Interface Input / Output specification :

### Input:

LVDS In (Car System) \*1  
LVDS \*1  
A/V \*1  
CVBS(Front Camera) \*1  
CVBS(Rear Camera) \*1  
**HDMI \*1 [Optional]**

### Output:

LVDS Out (Car System) \*1  
Audio Out \*1

## Power Spec:

### Input Power:

8VDC ~ 18VDC

### Consumption:

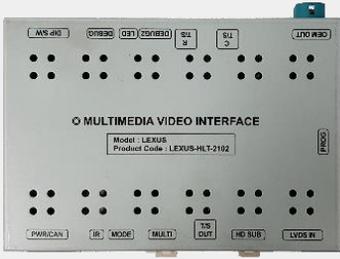
5WATT

## Switch input mode:

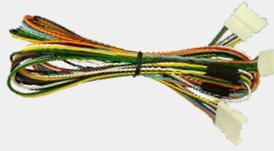
1. External video sources skip function: Able to control input videos on and off via Dip switches
2. Able to switch videos via the remote and button switch
3. Able to detect the rear view camera by CAN or rear lamp cable

**\* Support Control Car-play and Android Box by OEM Controller**

# Components



Main Board  
QCPASS1555



IF Cable  
HARETC0368



AV Cable  
HAVCAB0070



Button Cable  
HARETC0001



IR Cable  
HIRCAB0002



Remote CTRL.  
REMOTE0001



UART Cable  
HTOUCH0015

# Components with Options

## Lexus LX OEM Navi Power/CAN/LCD Cable



LX OEM Navi Power

[HPOWER0274](#)



LX OEM Navi CAN

[HARETC0369](#)



Old Lexus LCD

[HLCDCA0065](#)

## Lexus Y19 NX Power/CAN/LCD Cable



**OPTION**

Y19 NX Power

[HPOWER0275](#)



**OPTION**

Y19 NX CAN

[HARETC0370](#)



**OPTION**

New Lexus LCD

[HLCDCA0066](#)

# Components with Options

## HDMI 480P 1Port SUB Option



**OPTION**

HDMI-SUB

QCPASS1435



**OPTION**

HDMI-SUB CABLE

HARETC0327

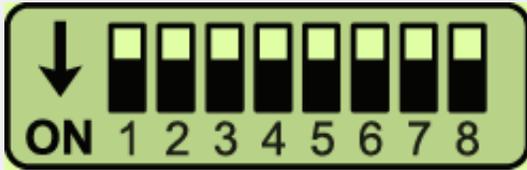
# Compatible Car List

Power/CAN	Year	Car Model	LCD Cable	OEM Touch Screen	OEM Controller
Y19 NX Jack by Jack (with AUX RCA) <a href="#">[HPOWER0275/</a> <a href="#">HARETC0370]</a>	2018~	NX 8"/10"	2019~ LCD Cable (NEW) <a href="#">[HLCDC A0066]</a>	NO	2019~ New Touch Pad (CAN IN/OUT)
	2019~	ES 8"/12"			
	2019~	LS 8"/12"			
	2019~	UX 8"/10"			
	2019~	IS 10"			
	2019~	LC 12"			
	2019~	RC 10"			
LX OEM NAVI Jack by Jack <a href="#">[HPOWER0274/</a> <a href="#">HARETC0369]</a>	2016~2019	RX 8"/12"	~2018 LCD Cable (OLD) <a href="#">[HLCDC A0065]</a>	NO	~2018 Old Touch Pad and Joy Stick (CAN IN/OUT)
	2012~2015	RX 8"			
	~2018	GS 8"/12"			
	~2018	CT 7"			
	~2018	ES 8"			
	~2018	IS 7"			
	~2018	LS 12"			
	2016~2021	LX570 12"			
	~2018	IS 10"			
	~2018	NX 7"			

# 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.



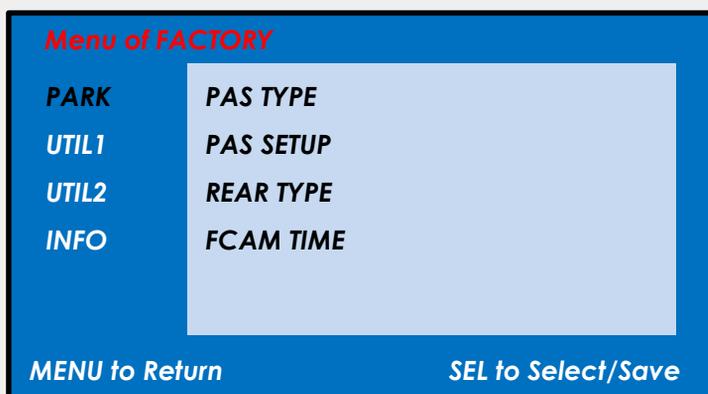
PIN	FUNCTION	Dip S/W SELECT
1	LVDS	OFF : LVDS MODE ON : LVDS MODE SKIP
2	HD	OFF : HD Mode ON : HD Mode Skip
3	AV	OFF : AV MODE ON : AV MODE SKIP
4	Front Camera	OFF : Ext. Front Camera Mode ON : OEM Front Camera Mode
5	LCD Resolution (Car Model)	5 OFF, 6 OFF -> 800 X 480 5 OFF, 6 ON -> 1280 X 480
6		5 ON, 6 OFF -> 800 X 480 (IS) 5 ON, 6 ON -> 800 X 480 (CT200)
7	Rear Camera	OFF : OEM Rear Camera Mode ON : Ext. Rear Camera Mode
8	<i>In case External Mode goes black, please set Dip #8 ON.</i>	
9	CAN In/Out	OFF : CAN In/Out Mode for OEM Controller ON : CAN Bypass Mode for OEM Controller
10	N/C	

# Remote Control



Key	FUNCTION
POWER & PIP	N/C
MENU	Activating OSD menu
OK	Making a selection, changing image display
▲	Moving upward
▼	Moving downward
◀	Moving leftward (If you press this button 2 seconds long, you can access the factory mode)
▶	Moving rightward (If you press this button 2 seconds long, you can reset all the data about user environment)

# Factory Settings



## **PARK**

### **PAS TYPE:**

Select parking line type.

**NOT USED:** Do not use parking line

**PAS ON:** No Use

**PAS OFF:** Use fixed parking line

### **PAS SETUP:**

Move the position of parking line.

### **REAR TYPE:**

Choose rear camera recognition.

**CAN:** Detecting the rear view camera by CAN signal. (Installer must connect "CAN" cable of the power cable to the "CAN" cable of the car)

**LAMP:** Detecting the rear view camera via "Grey Rear" wire. (Installer must connect "Rear-C" cable of the power cable to the rear lamp of the car)

### **FCAM TIME:**

Front Camera Display Setting

# Factory Settings

## Menu of FACTORY

PARK	LVDS MODEL
UTIL1	HDMI MODEL
UTIL2	CAR MODEL
INFO	AV OUT SELECT
	OEM SKIP
	FACTORY RESET

MENU to Return

SEL to Select/Save

## UTIL1

### LVDS MODEL:

Car-play, Navigation Model Setting

**HDMI MODEL:** DTV, Navi Model Setting

**CAR MODEL:** Select car model for gear CAN data (NX/Infiniti 7"/RX450/UX2019/GS2014/GS/ES/LX/RX/IS/GX)

**AV OUT SELECT:** Select audio channel transmitted through AUX(Default/AV1/HD)

**OEM SKIP:** (ON/OFF)

**FACTORY RESET:** Factory data reset

## Menu of FACTORY

PARK	REMOTE CONTROL
UTIL1	REMOTE TYPE
UTIL2	IR MEMORY
INFO	CAP TOUCH
	CTRL SEL
	HANDLE BUTTON

MENU to Return

SEL to Select/Save

## UTIL2

### REMOTE CONTROL:

Remote control UI setting (ON/OFF)

**REMOTE TYPE:** Select remote control model (USER/Not USED/SE-TV)

**IR MEMORY:** Register remote control memory data (DTV/DVD)

**CAP TOUCH:** Capacitive T/S Setting

**CTRL SEL:** Select OEM controller type (OFF/Old Jog/Touch Pad/Old Stick&Pad)

**HANDLE BUTTON:** Handle button Setting (OFF/Infiniti 7"/ES 12"/UX2019/Lexus)

## Menu of FACTORY

PARK	SYSTEM VERSION
UTIL1	
UTIL2	MAIN : 210825
INFO	SUB : 210825

MENU to Return

SEL to Select/Save

## INFO

System version information

# Installation Diagram

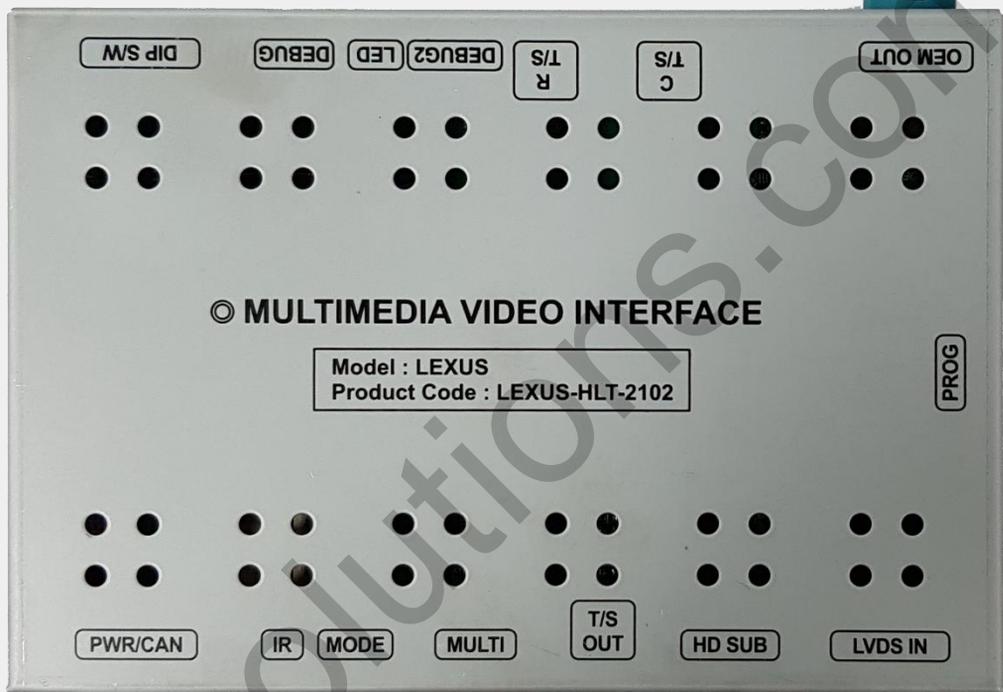
1. Please disconnect OEM LCD cable from the back side of monitor and connect it to supplied LCD cable female connector.

2. Connect supplied LCD cable male connector to the back side of monitor.

OEM  
Monitor

OEM LCD cable

Supplied LCD  
In/Out cable



Power/CAN/ADC/AVC  
connection made by  
provided Jack by Jack  
cable behind the head unit

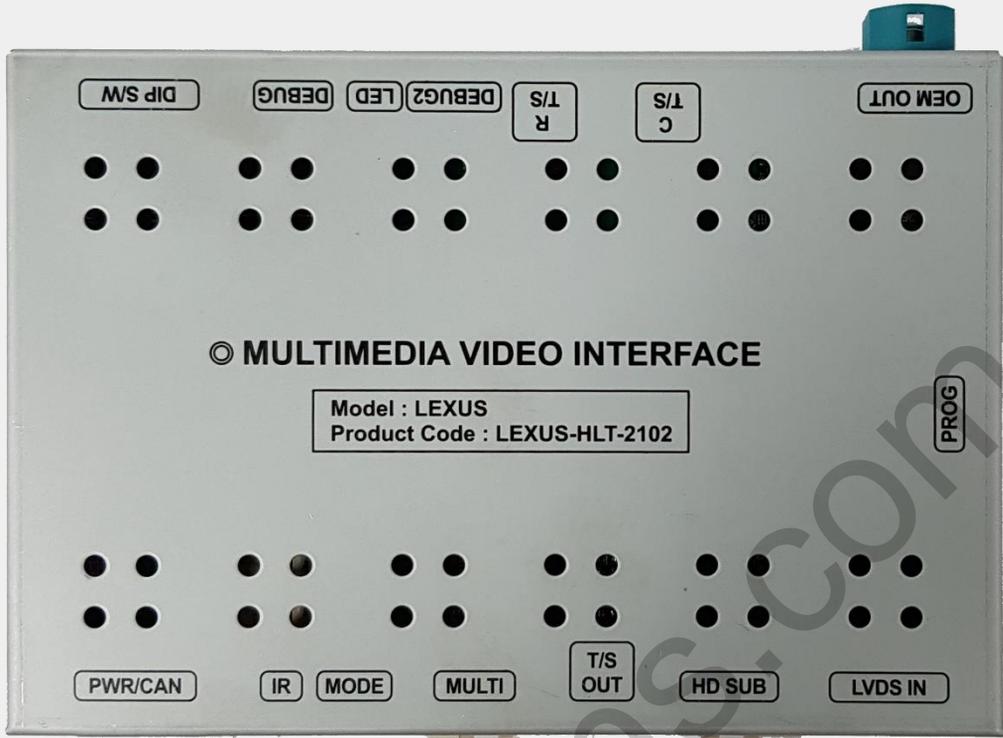
Pin#2 is  
UART-TX for  
UART Touch

AV In \*1  
Rear camera in \*1  
Front camera in \*1  
Aux out \*1

HDMI \*1  
[Optional]

Q-DIS  
CarPlay Android Auto  
CARPLAY  
Or Android  
Box

# Installation Diagram\_ HD1P Sub board



Pin#2 is  
UART-TX for  
UART Touch

HD1P Sub Board  
[Optional]

HDMI IN

# Activation with OEM Button

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

\* Please access into Factory settings -> UTIL2 -> Handle button for the button usage.



# Activation with OEM Button

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

\* Please access into Factory settings -> UTIL2 -> Handle button for the button usage.



# Activation with OEM Button

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

\* Please access into Factory settings -> UTIL2 -> CTRL SEL for the button and Joy Stick usage.



Please select *Old Stick and Pad* for these controller usage.



# Activation with OEM Button

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

\* Please access into Factory settings -> UTIL2 -> CTRL SEL for the button and Joy Stick usage.



Old Jog



Touch Pad

# Control QROIX Android Box

\* Please access into Factory settings -> UTIL2 -> CTRL SEL

\* Factory settings -> UTIL1 -> LVDS Model -> QROIX(SUNE10) Android Box could control by OEM Joystick and Touch Pad.



Old Stick and Pad



Old Stick and Pad



Old Stick and Pad



Touch Pad



\* Qroix Dip #3 Set ON to control Qroix with Lexus Touch Controller.

Section	Button	Operation	Function
Joy Stick or Touch Pad	MAP/HOME	Short press	Back to OEM
		Long press (3sec)	Mode Switch
	Joy Stick/Touch Pad	Rotation	Mouse Function
	Joy Stick ENTER	Short press	Select/Confirm
	Touch Pad	Push	
	UP/DOWN	Short press	Page Up/Down
	BACK	Short press	Back to previous page

# Control Car-play and Android Auto Module

\* Please access into Factory settings -> UTIL2 -> CTRL SEL

\* Factory settings -> UTIL1 -> LVDS Model -> QDISPLAY(SE-CP) Car-play Box control by OEM Joystick and Touch Pad.



Old Stick and Pad



Old Stick and Pad



Old Stick and Pad



Touch Pad



Section	Button	Operation	Function
Joy Stick or Touch Pad	MAP/HOME	Short press	Back to OEM
		Long press (3sec)	Mode Switch
	Joy Stick/Touch Pad	Rotation	Mouse Function
	Joy Stick ENTER	Short press	Select/Confirm
	Touch Pad	Push	

# Control Car-play and Android Auto Module

\* Please access into Factory settings -> UTIL2 -> Handle button-> ES 12"

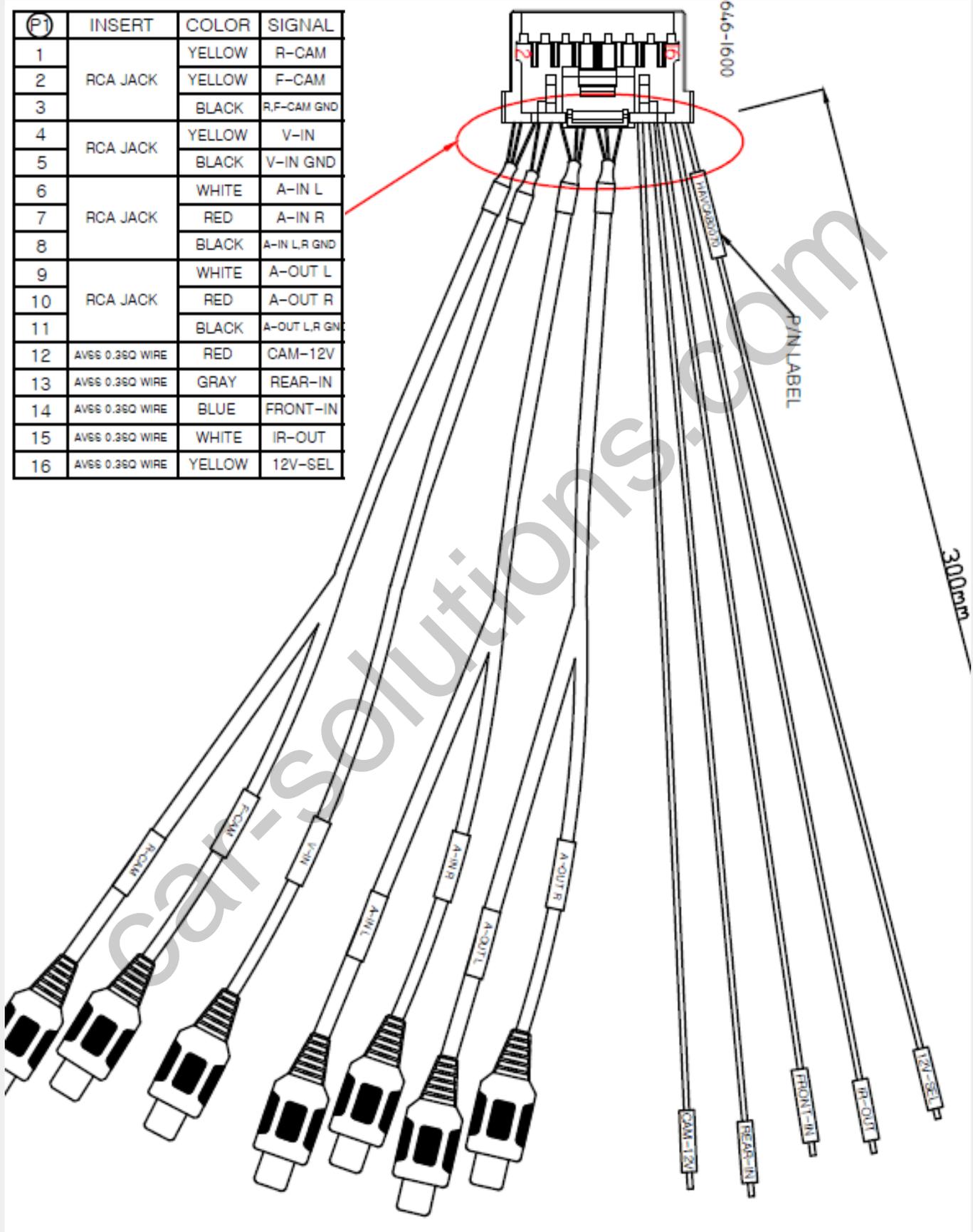
\* Factory settings -> UTIL1 -> LVDS Model -> QDISPLAY(SE-CP) Car-play Box control by OEM handle button



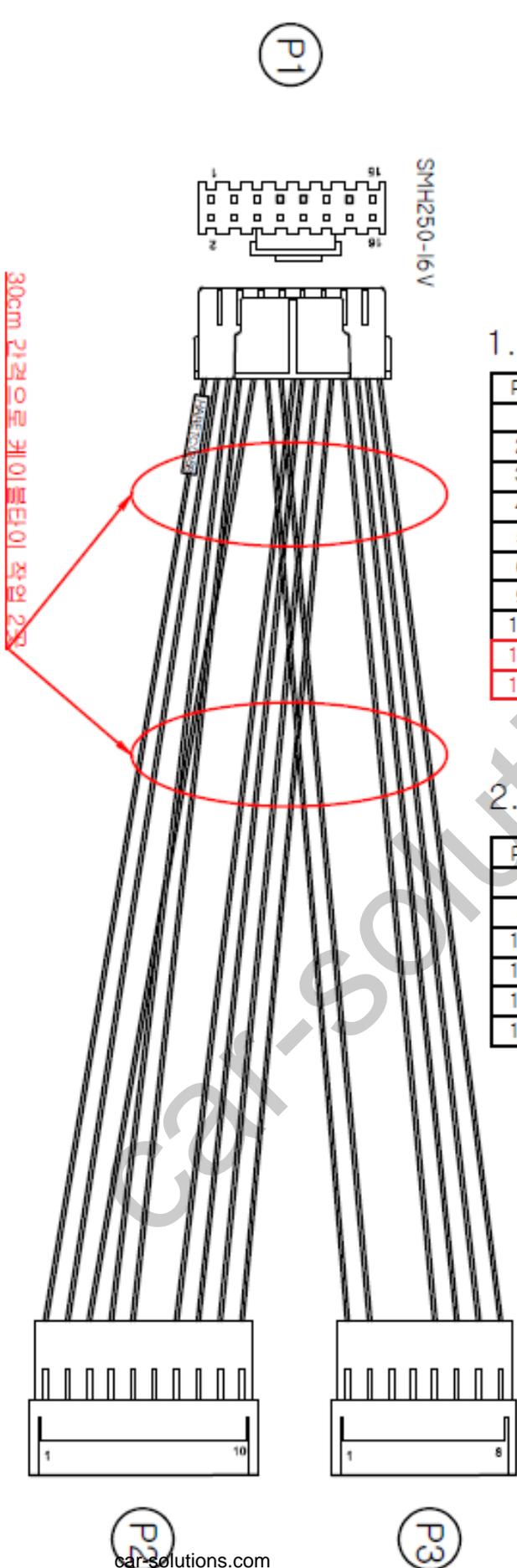
Section	Button	Operation	Function
Handle Button	PHONE	Short press	Back to OEM
		Long press <b>(3sec)</b>	Mode Switch
	LEFT/RIGHT	Short Press	Movement
	VOICE	Short press	Select/Confirm
		Long press <b>(3sec)</b>	Si-Ri

# Multi Cable Drawing

(P1)	INSERT	COLOR	SIGNAL
1	RCA JACK	YELLOW	R-CAM
2		YELLOW	F-CAM
3		BLACK	R,F-CAM GND
4	RCA JACK	YELLOW	V-IN
5		BLACK	V-IN GND
6	RCA JACK	WHITE	A-IN L
7		RED	A-IN R
8		BLACK	A-IN L,R GND
9	RCA JACK	WHITE	A-OUT L
10		RED	A-OUT R
11		BLACK	A-OUT L,R GND
12	AVSS 0.36Q WIRE	RED	CAM-12V
13	AVSS 0.36Q WIRE	GRAY	REAR-IN
14	AVSS 0.36Q WIRE	BLUE	FRONT-IN
15	AVSS 0.36Q WIRE	WHITE	IR-OUT
16	AVSS 0.36Q WIRE	YELLOW	12V-SEL



# IF Cable Drawing



P1

SMH250-16V

## 1. P1->P2

P1	연결	P2	COLOR	SIGNAL	DESCRIPTION	PAIR	비고
1	→	2	BLACK	GND	SMP250-10 WIRE 조립	twist pair	
2	→	1	YELLOW	B+	SMP250-10 WIRE 조립		
3	→	4	GREEN	ADC-1	SMP250-10 WIRE 조립	twist pair	
4	→	5	RED	AUX-DET	SMP250-10 WIRE 조립		
5	N.C						
6	→	3	WHITE	ADC-2	SMP250-10 WIRE 조립	twist pair	
9	→	8	BLUE	AVC2-L	SMP250-10 WIRE 조립	twist pair	
10	→	7	VIOLET	AVC2-H	SMP250-10 WIRE 조립		
11	→	10	GRAY	AVC1-L	SMP250-10 WIRE 조립	twist pair	
12	→	9	ORANGE	AVC1-H	SMP250-10 WIRE 조립		

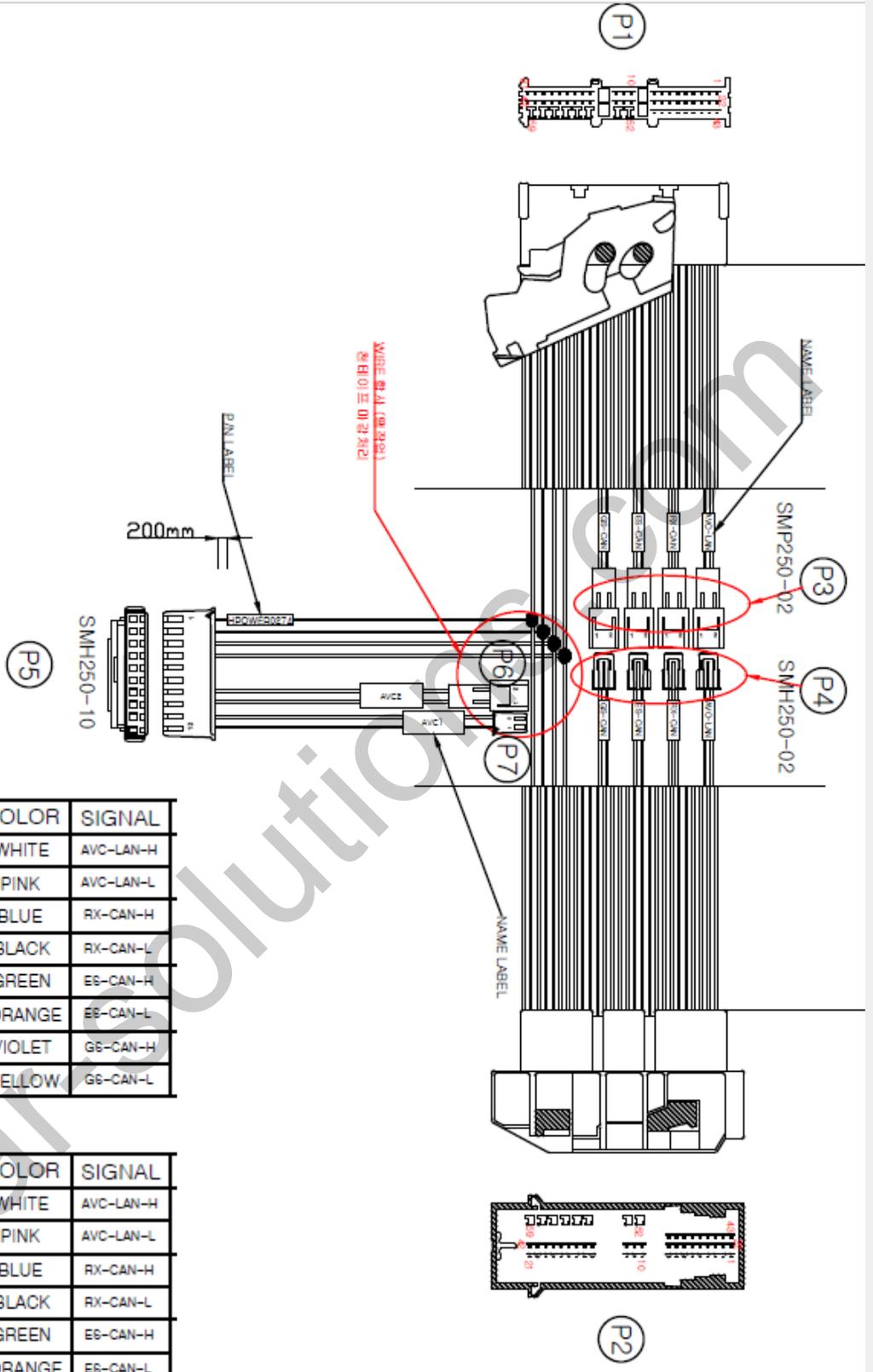
## 2. P1->P3

P1	연결	P3	COLOR	SIGNAL	DESCRIPTION	PAIR	비고
7	→	2	BROWN	ECU-CAN-L	SMP250-08 WIRE 조립	twist pair	
8	→	1	GREEN	ECU-CAN-H	SMP250-08 WIRE 조립		
13	→	8	YELLOW	CAN-L(OUT)	SMP250-08 WIRE 조립	twist pair	
14	→	7	WHITE	CAN-H(OUT)	SMP250-08 WIRE 조립		
15	→	6	BLACK	CAN-L(IN)	SMP250-08 WIRE 조립	twist pair	
16	→	5	BLACK/WHITE	CAN-H(IN)	SMP250-08 WIRE 조립		

P2

P3

# LX OEM Navi Power Drawing



## 1. P1->P3

P1	연결	P3	COLOR	SIGNAL
7	→	1	WHITE	AVC-LAN-H
8	→	2	PINK	AVC-LAN-L
24	→	1	BLUE	RX-CAN-H
25	→	2	BLACK	RX-CAN-L
43	→	1	GREEN	ES-CAN-H
44	→	2	ORANGE	ES-CAN-L
45	→	1	VIOLET	GS-CAN-H
46	→	2	YELLOW	GS-CAN-L

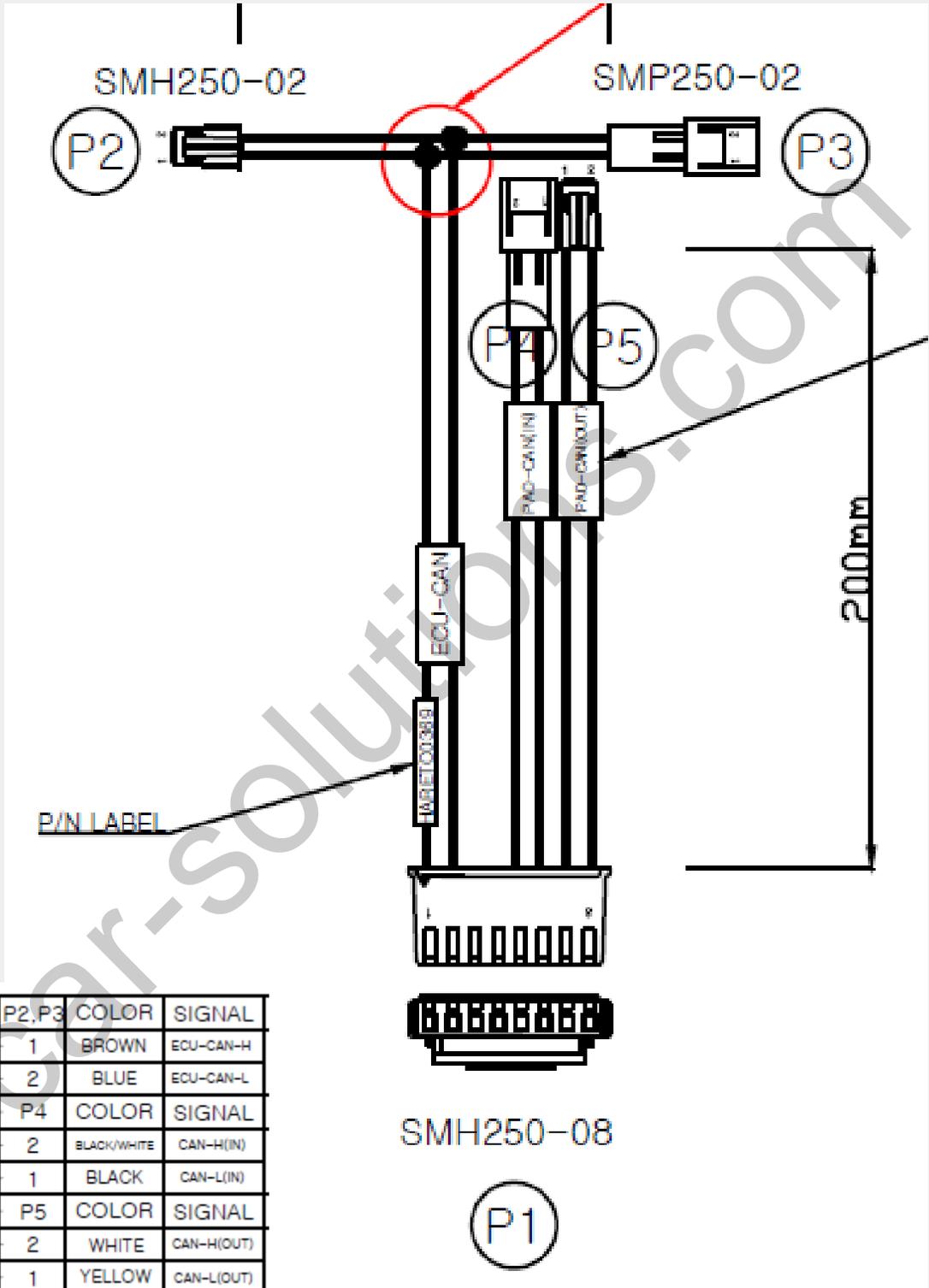
## 2. P2->P4

P2	연결	P4	COLOR	SIGNAL
7	→	1	WHITE	AVC-LAN-H
8	→	2	PINK	AVC-LAN-L
24	→	1	BLUE	RX-CAN-H
25	→	2	BLACK	RX-CAN-L
43	→	1	GREEN	ES-CAN-H
44	→	2	ORANGE	ES-CAN-L
45	→	1	VIOLET	GS-CAN-H
46	→	2	YELLOW	GS-CAN-L

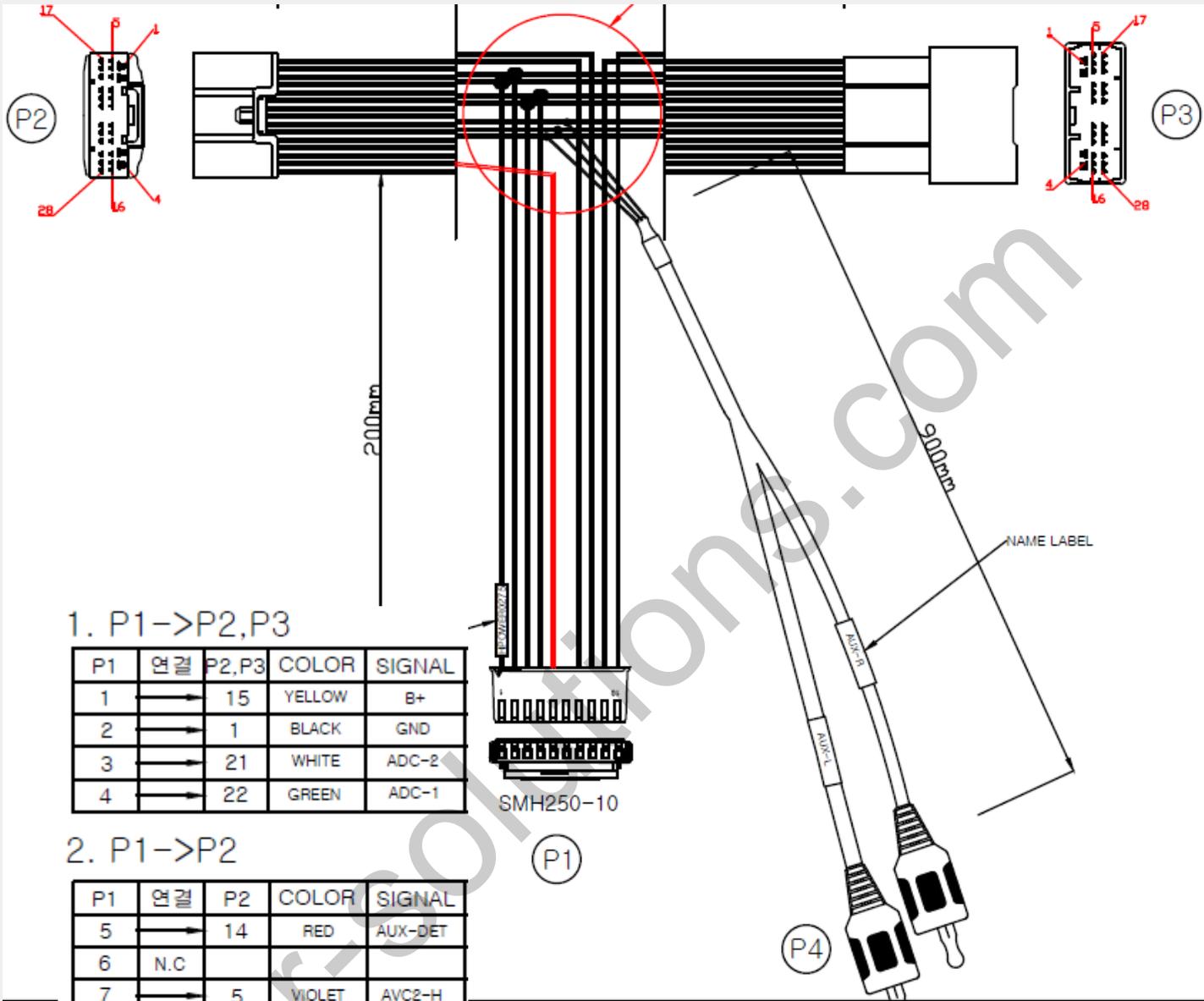
## 3. P5->P1.2

P5	연결	P1,P2	COLOR	SIGNAL
1	→	58	YELLOW	B+
2	→	54	BLACK	GND
3	→	33	BROWN	ADC-2
4	→	34	GREEN	ADC-1

# LX OEM Navi CAN Drawing



# Y19 NX Power Drawing



## 1. P1 → P2, P3

P1	연결	P2, P3	COLOR	SIGNAL
1	→	15	YELLOW	B+
2	→	1	BLACK	GND
3	→	21	WHITE	ADC-2
4	→	22	GREEN	ADC-1

SMH250-10

## 2. P1 → P2

P1	연결	P2	COLOR	SIGNAL
5	→	14	RED	AUX-DET
6	N.C			
7	→	5	VIOLET	AVC2-H
8	→	6	BLUE	AVC2-L

P1

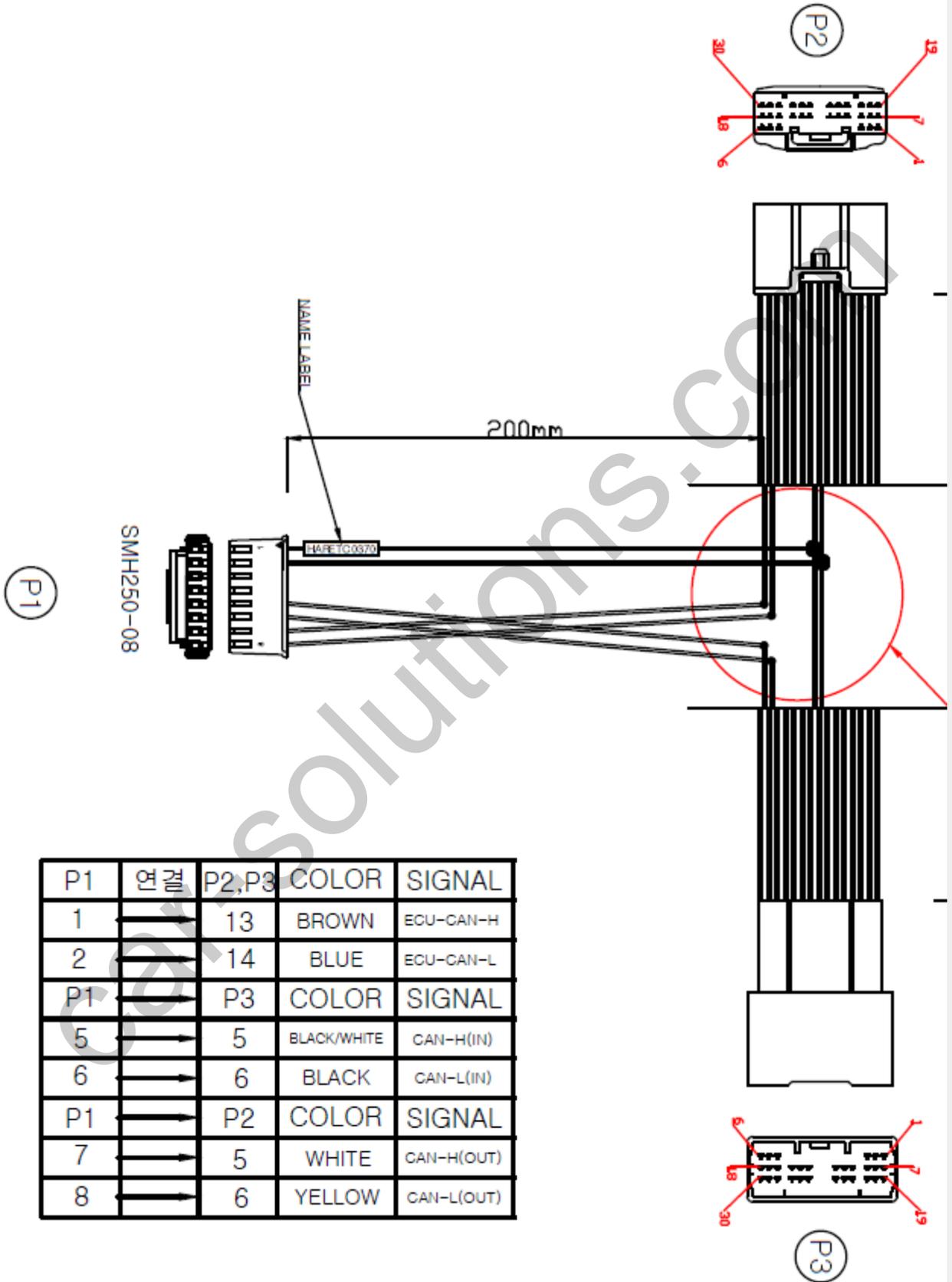
## 3. P1 → P3

P1	연결	P3	COLOR	SIGNAL
9	→	5	GRAY	AVC1-H
10	→	6	ORANGE	AVC1-L

## 4. P2, P3 → P4

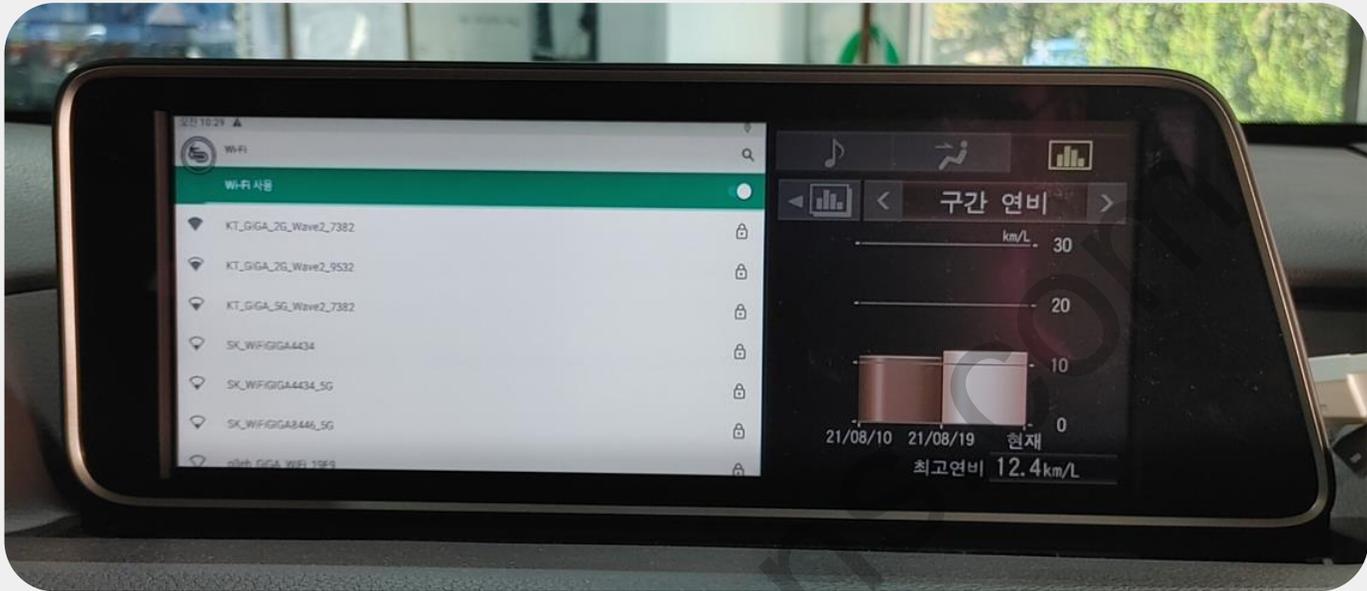
P2, P3	연결	P4	COLOR	SIGNAL
11	→	RCA PLUG 2EA	WHITE	AUX-L
12	→		RED	AUX-R
13	→		BLACK	AUX-GND

# Y19 NX CAN Drawing



# 2016~2019 RX450 12inch MNT Ext. Display

\* Below monitor OEM resolution is 1280\*480, but external mode only could display 800\*480 as below. (Dip S/W setting should set as 800\*480)



1. Gear(ECU) CAN need to connect ES CAN from provided OEM Navi Power/CAN cable.
2. Touch controller CAN IN/OUT need to connect RX CAN from provided OEM Navi Power/CAN cable.
3. Select Car Model as RX450 in OSD menu.

# **Cautions Before Installation**

1. Ignition key should be taken off before starting installation, interface power connection must be the last step in installation.
2. Power cable should be separated when connecting interface.
3. Should be no any electronic devices or magnetic pole around installation place.
4. All steps of installation should be done by well-trained specialist.
5. Dismantling without manufacturer's permission can not be guaranteed, (No permission to break attached label on the board.)
6. Kindly check all parts are in the box, when receiving the product, if anything missing, inform to the supplier or manufacturer.
7. According to our sales policy, any problems caused by user's mistake, careless can not be guaranteed.

# Trouble shooting

## **Q. I cannot change mode**

A. Check connection of Ground cable and IR Cable. Check LED lamp is on, if not check connection of POWER cable.

## **Q. All I got on the screen is black.**

A. Check second LED lamp of the interface is on, if not, check A/V sources connected are working well. (Second lamp indicates AV sources connected works well) Check interface connection has been done well.

## **Q. Displayed image color is not proper (too dark or unsuitable color)**

A. Press ► button on the remote control for 2 seconds and check how it goes, if it does not work, inform to manufacturer.

## **Q. I cannot watch the rear camera on the screen**

A. Set the DIP switch #7 as state "ON".

## **Q. Set mode not appear**

A. Check DIP Switch.

## **Q. OEM image is not displayed.**

A. Check interface's LCD In/Out cable connection. If the status keeps on, inform to manufacturer.

## **Q. Screen only displays white color.**

A. Check LCD out cable is connected well, if this status keeps, inform to manufacturer.

## **Q. If no image is shown on screen after connecting CAN wire with Park gear.**

A. Go on the "FACTORY MODE", check "UTIL-Rear Select". If "LAMP", change the setting as "CAN" with the remote control. (\* when connecting Rear-C wire of LAMP power cable to Backup lights, Setting should be like this / CAN : if controlling rear camera with CAN wire)