Installation Manual
(QPI-LVTX-PCM3.1 PDC)

Warning / Caution

Warning

- When installing the main unit, do not remove or alter existing vehicle fasteners, including nuts, bolts, screw, clips, and fittings. Never detach, move or alter existing vehicle wiring, including electrical grounds and straps. Alteration of existing vehicle components may make vehicle unsafe to operate. Should be no any electronic devices or magnetic pole around installation place.
- Air bags are vital part of a safety system. Never install main unit in a way which will alter air bag wiring or interfere with air bag deployment. Air bags must function properly in the event of an accident.
- Before installing, check the location of pipe, tank, electrical cables and others.
- Read and follow the instruction manual.
- Wiring location must not interfere driving, get in or out from car.
- Use electrical tape to insulate the ends of all wires, even if they are not used. Proper insulation prevents arcs, shocks and fires.
- When installation is complete, test all vehicle electrical systems to ensure they operate correctly, including lights, horn, brake lights, and emergency flashers.
- According to our sales policy, any problems caused by user's mistake, careless can not be guaranteed.

Caution

- All steps of installation should be done by well-trained specialist.
- During installation ignition key should be taken off and after all installation finish connect power cable with interface for the last step.
- Do not install the main unit in places where it ma be exposed to dew condensation (around the air conditioning hose, etc), or in locations where it may come in contact with water, high levels of moisture, dust or oily smoke
- Install wiring in a manner in which cables will not come in contact with metal parts. The wiring may be damaged by contact with metal parts, resulting in fire and shocks. Avoid all contact with hot surfaces when wiring the main unit. High temperatures may damage wiring, causing shorts, arcing and fires.
- Kindly check all parts are in the box, when receiving the product, if anything missing, inform to the supplier or manufacturer.

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1. Specifications

1.1 Main Specifications

1. Car Compatibility
   Porsche PCM3.1 head unit

2. Components
   Interface* 1EA
   Sub-board*1EA

3. MULTIMEDIA INTERFACE Input specifications
   3 * A/V Input (Video External Input).
   1 * CVBS(Rear Camera) Input
   1 * Analog RGB input (Navigation)
   1 * LCD input (Car system input)

4. MULTIMEDIA INTERFACE Output specifications
   1 * LCD output

5. Power specification
   Input power : 8VDC ~ 18VDC
   Consumed power : 3.5WATT

6. Switch input mode
   - External display skip function :
     Through DIP switch, can controls each video input
   - Through remote control, can changes input mode
   - Through CAN or rear lamp cable, rear camera can
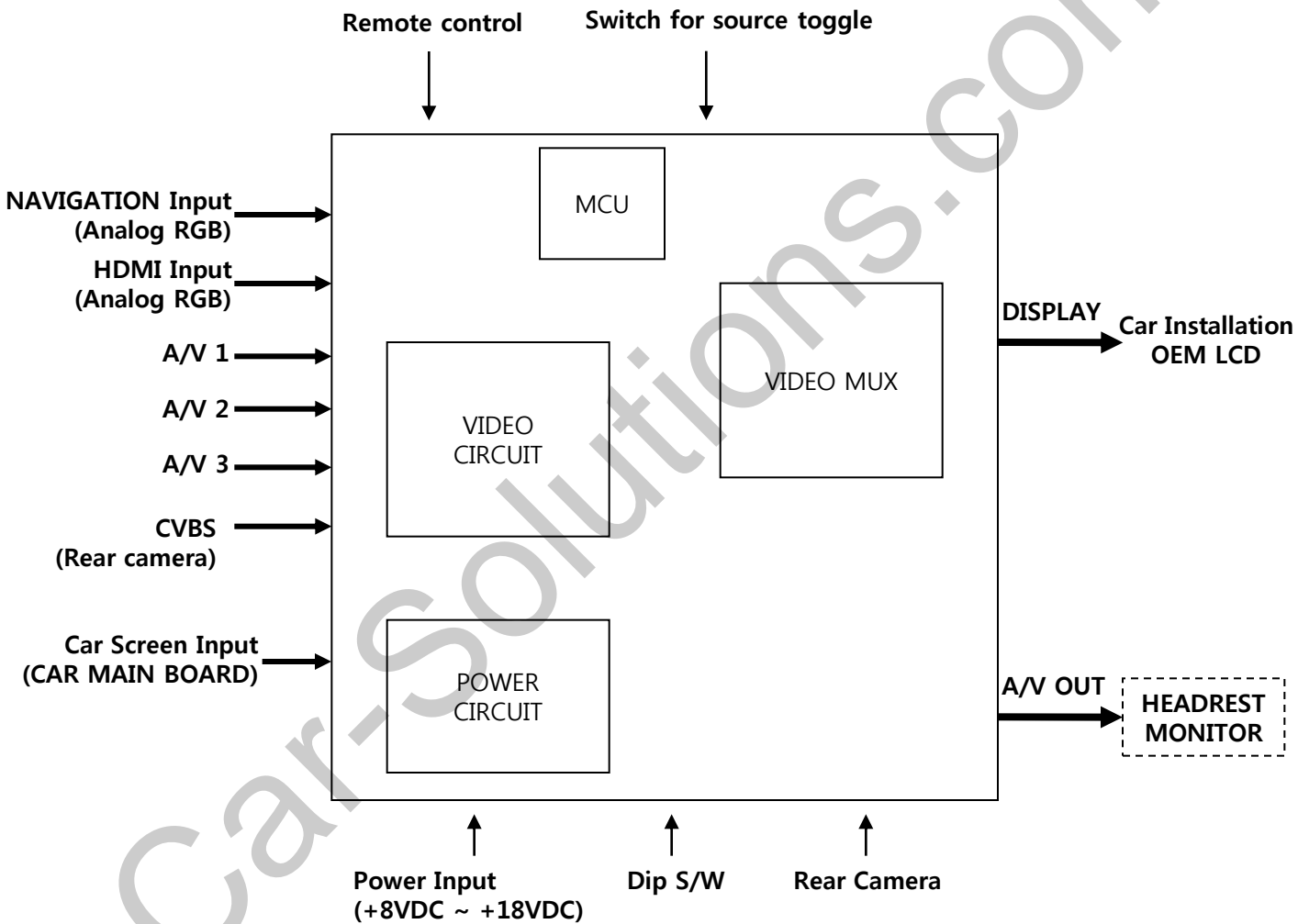   be detected

1. Specifications

1.2 Features

- Able to adjust DVD, NAVI display on screen

- Provide power cable to connect with rear camera

- Dynamic PAS(Parking assistance system), moving parking line according movement of steering wheel

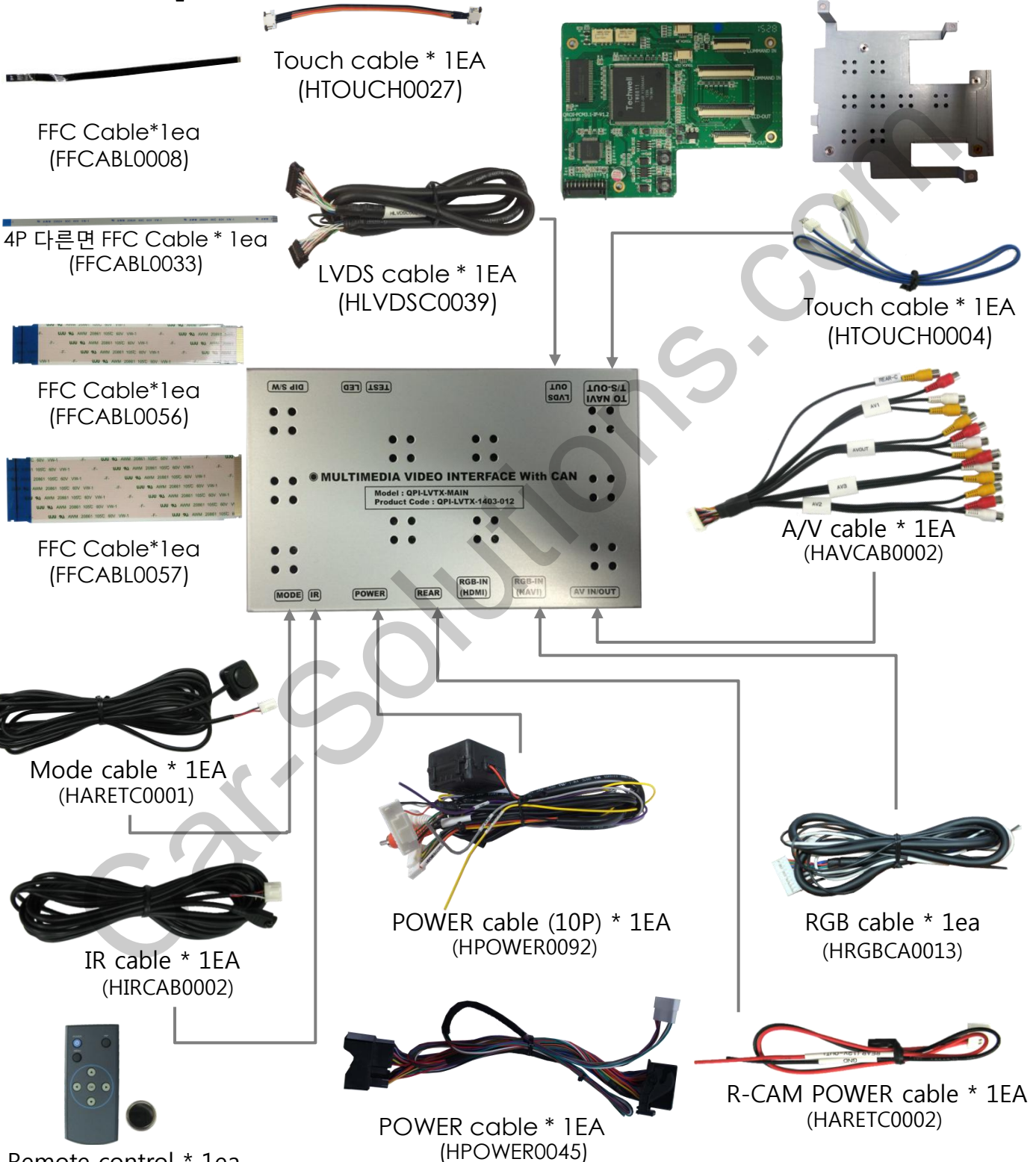- Able to display PDC on the screen(Parking Distance Control)

1. Specifications

1.3 System Diagram

Remote control

Switch for source toggle

MCU

**NAVIGATION Input
(Analog RGB)**

**HDMI Input
(Analog RGB)**

A/V 1

A/V 2

A/V 3

**CVBS
(Rear camera)**

**Car Screen Input
(CAR MAIN BOARD)**

VIDEO CIRCUIT

POWER CIRCUIT

VIDEO MUX

DISPLAY

**Car Installation
OEM LCD**

A/V OUT

**HEADREST
MONITOR**

**Power Input
(+8VDC ~ +18VDC)**

Dip S/W

Rear Camera

1. Specifications

1.4 Components

Touch cable * 1EA
(HTOUCH0027)

Sub-board * 1ea

Bracket * 1ea

FFC Cable*1ea
(FFCABL0008)

4P 다른면 FFC Cable * 1ea
(FFCABL0033)

LVDS cable * 1EA
(HLVDSC0039)

Touch cable * 1EA
(HTOUCH0004)

FFC Cable*1ea
(FFCABL0056)

FFC Cable*1ea
(FFCABL0057)

MULTIMEDIA VIDEO INTERFACE With CAN

Model : QPI-LVTX-MAIN
Product Code : QPI-LVTX-1403-012

DIP S/W TEST LED LVDS OUT TO NAVI T/S-OUT

MODE IR POWER REAR RGB-IN (HDMI) RGB-IN (NAVI) AV IN/OUT

A/V cable * 1EA
(HAVCAB0002)

Mode cable * 1EA
(HARETC0001)

IR cable * 1EA
(HIRCAB0002)

POWER cable (10P) * 1EA
(HPOWER0092)

RGB cable * 1ea
(HRGBCA0013)

Remote control * 1ea

POWER cable * 1EA
(HPOWER0045)

R-CAM POWER cable * 1EA
(HARETC0002)

2. Installation

2.1 Installation Diagram

〈Navigation〉

〈HPOWER0092〉

MULTIMEDIA VIDEO INTERFACE With CAN

Model : QPI-LVTX-MAIN
Product Code : QPI-LVTX-1403-012

DIP S/W   LED   TEST   LVDS OUT   TO NAVI T/S-OUT

MODE   IR   POWER   REAR   RGB-IN (HDMI)   RGB-IN (NAVI)   AV IN/OUT

GND
REAR (9V OUT)

R DATA (red)
G DATA (green)
B DATA (blue)
SYNC
GND
NAVI-VS
IR-NAVI
IR-DVD
IR-DTV

REAR C
AV1
AV2
AV3
AV/OUT

Video
Audio L
Audio R

REAR-C
SAFE
F-CAM-DETECT

〈Command 뒤〉

〈HPOWER0045〉

〈OEM Cable〉
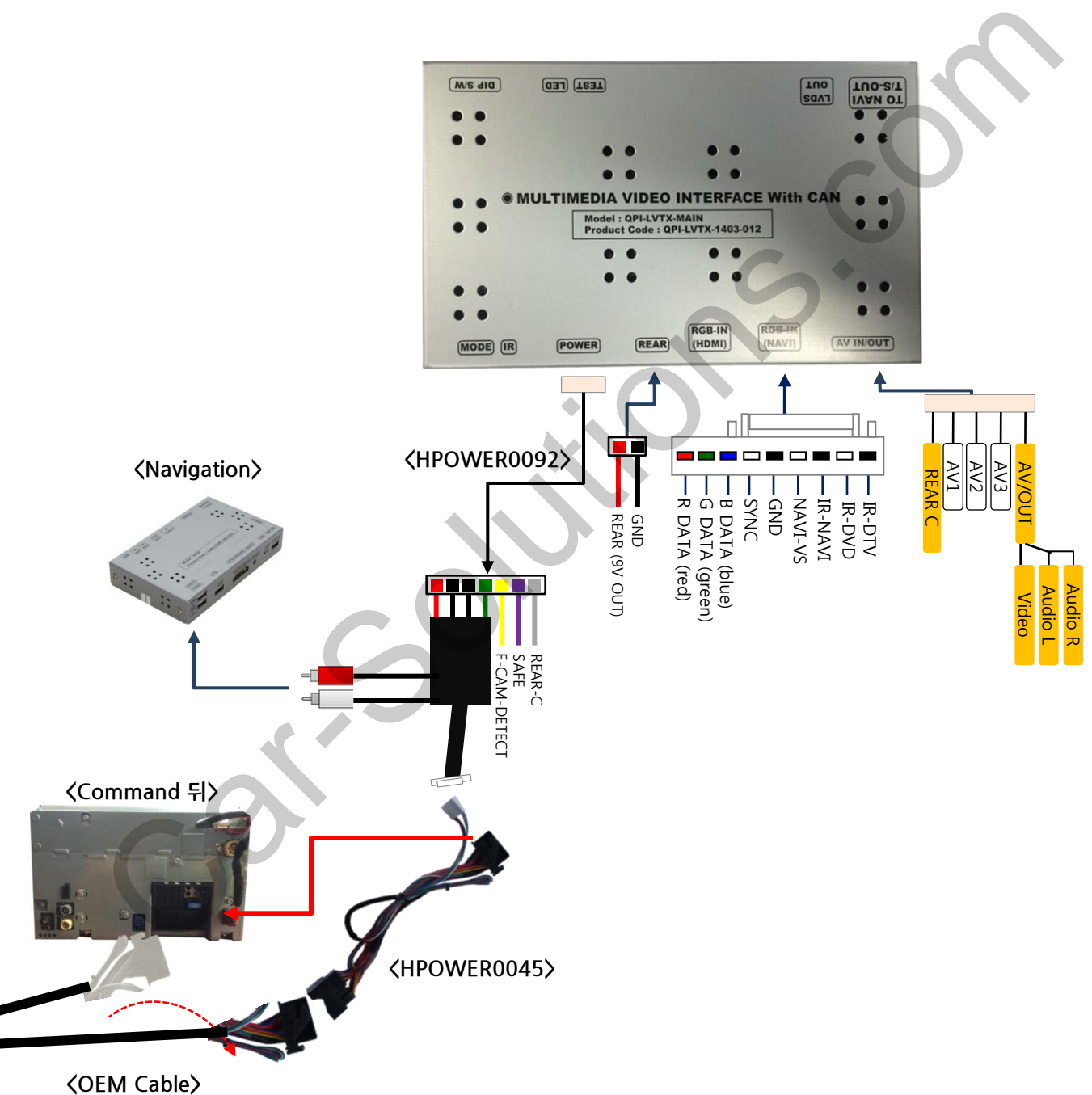
2. Installation

2.2 Installation

※ Sub-board connection

① Disassemble the monitor and connect the touch cable from the back of LCD as shown on the left

- OEM Gold touch cable → Supplied touch cable
(HTOUCH0027)

- Supplied FFC cable → Supplied touch cable
(FFCABL0033)   (HTOUCH0027)
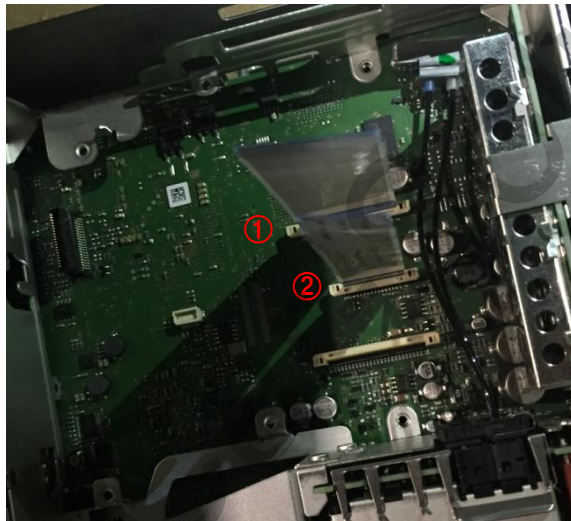
- Supplied black FFC cable → Where OEM touch
(FFCABL0008)   cable is connected

② Take out cables through the marked place and assemble the plate.

2. Installation

2.2 Installation
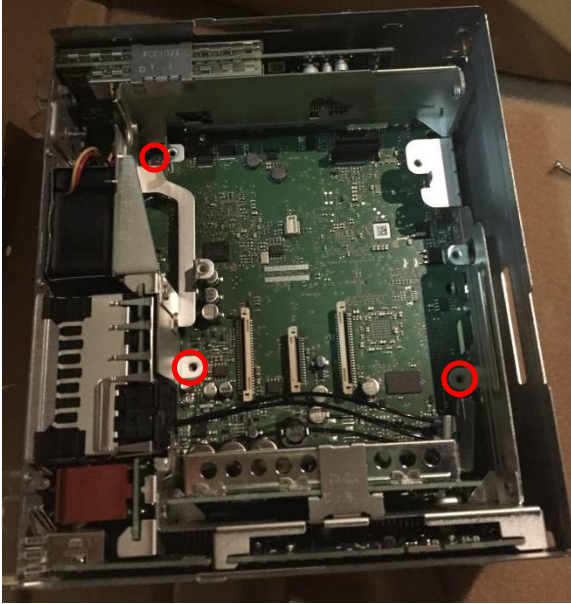
③This picture is another side of LCD
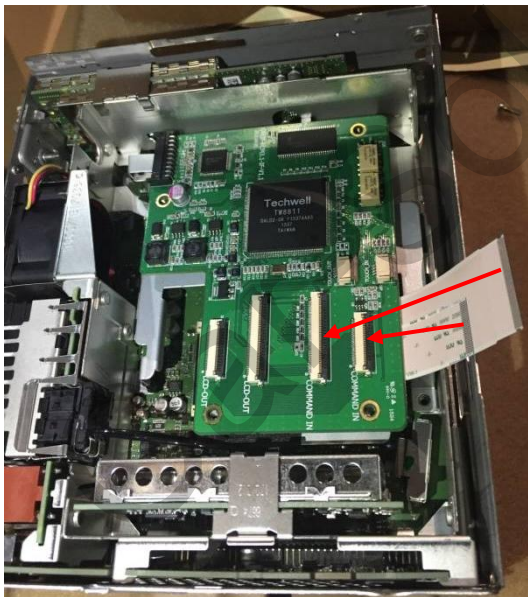Loosen 3 bolts which are marked on the left.

④ Connect supplied FFC cable to marked place

- Supplied 50P FFC cable → ①
  (FFCABL0057)

- Supplied 30P FFC cable → ②
  (FFCABL0056)

2. Installation

2.2 Installation
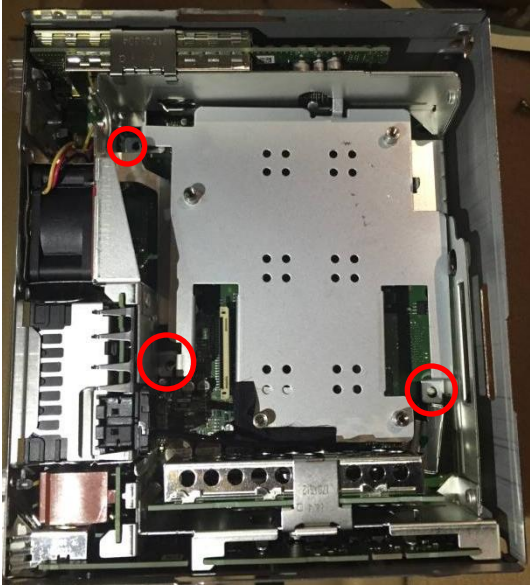
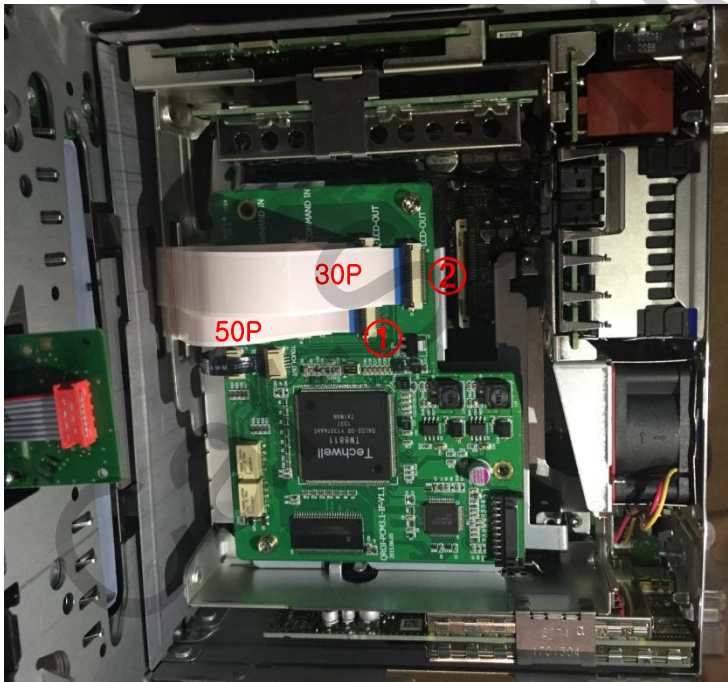⑤ place the bracket where bolts were loosen and tighten bolts again

⑥ On the top of bracket, place the subboard and connect the supplied FFC cables as shown on the left

2. Installation

2.2 Installation

⑦ Pull the cables on the backside of LCD through the marked place.

⑧ Connect cables as shown on the left

  - Black FFC cable → LCD OUT
  - FFC cable → LCD IN

  - Original 50P FFC cable → ①

  - Original 30P FFC cable → ②

※ Do not damage or cut any parts of original FFC cable when connecting to the sub-board.

3. Settings

3.1 DIP switch

※ **ON : DOWN / OFF : UP**
   Default : Dip S/W 8 OFF

※ For example: Use of DIP S/W
  - Use input mode : A/V2, A/V3
  - Use original navigation
  - External rear camera

▷ DIP S/W : 1,2 → ON

   (INPUT MODE Display X)

▷ DIP S/W : 3 → OFF (A/V2 Display)

▷ DIP S/W : 4 → OFF (A/V3 Display)

▷ DIP S/W : 5.6 → OFF

▷ DIP S/W : 7 → ON(Display external rear camera)

▷ DIP S/W : 8 → OFF (Default)

PIN	Function	Dip S/W Selection
1	Displaying RGB input	ON : RGB mode skip OFF : RGB mode display
2	Displaying A/V 1	ON : A/V 1 mode skip OFF : A/V1 mode display
3	Displaying A/V 2	ON : A/V 2 mode skip OFF : A/V2 mode display
4	Displaying A/V 3	ON : A/V 3 mode skip OFF : A/V3 mode display
5	N.C	
6	Displaying OEM NAVI	ON : Equipped with OEM NAVI OFF : Doesn't equipped with OEMNAVI
7	Setup of rear camera use	ON : CVBS4 OFF : MAIN
8	N.C	

※ Please make sure to disconnect the power cable of the interface and reconnect the power cable again to apply the dip switch setting whenever changing DIP switch.
Otherwise, DIP switch setting will not be applied.

support@car-solutions.com

3. Settings
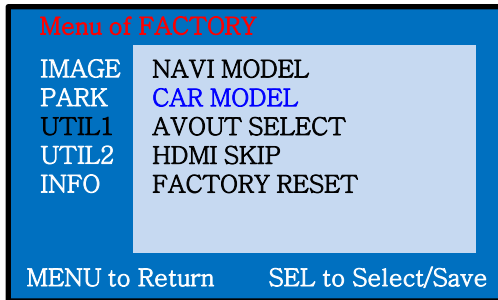
3.2 Remote Control

Key	Function
POWER	Unavailable
PIP	A/V 1~2 Mode : Display remote control UI on the screen A/V 3 Mode : Able to switch mode by using UI on the screen
MENU	Activate 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.)

3. Settings

3.3 Car Model and Navi Mode

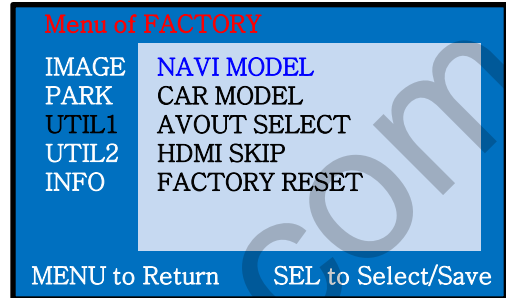**FACTORY mode – Press ◄ button 2 seconds long on the remote control.**

▪ Setup for car model

```
Menu of FACTORY

IMAGE      NAVI MODEL
PARK       CAR MODEL
UTIL1      AVOUT SELECT
UTIL2      HDMI SKIP
INFO       FACTORY RESET


MENU to Return      SEL to Select/Save
```

❑ UTIL1 - CAR MODEL
Select car model
PCM3.1

```
Menu of FACTORY

IMAGE      H-POSITION
PARK       V-POSITION
UTIL       H-SIZE(NAVI)
INFO



MENU to Return      SEL to Select/Save
```

❑ IMAGE
Adjust navigation position and size

H-POSITION : Move display
horizontally
V-POSITION : Move display
vertically
H-SIZE : Adjust navi size horizontally

▪ Setup for navigation

```
Menu of FACTORY

IMAGE      NAVI MODEL
PARK       CAR MODEL
UTIL1      AVOUT SELECT
UTIL2      HDMI SKIP
INFO       FACTORY RESET


MENU to Return      SEL to Select/Save
```

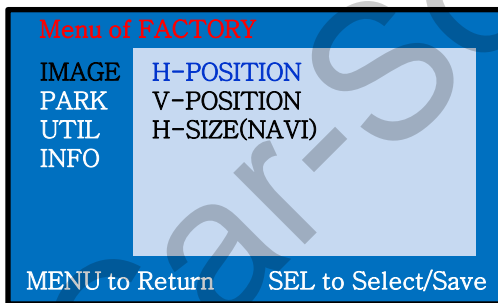### ❑ UTIL1 – NAVI MODEL
Select Navigation model

DEFAULT
DEFAULT
LS901
PAPAGO
QROI
KD900
ACLASS
GI5000A
GI8000N
HDMI
WP9200
MYVI
NAV_506TP
ICUBE
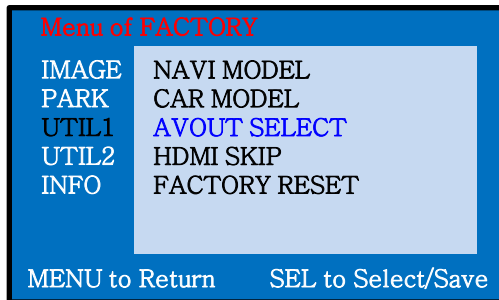GN_3000
NAVIST
PAPAGO
SMITH_PAD
Q-ROI

* Go into FACTORY/ IMAGE (as shown right) and adjust the position and the size of the navigation after setting the definition of the navigation

3. Settings

3.4 FACTORY Mode

FACTORY mode – Press ◀ button 2 seconds long on the remote control.

```
Menu of FACTORY

IMAGE    NAVI MODEL
PARK     CAR MODEL
UTIL1    AVOUT SELECT
UTIL2    HDMI SKIP
INFO     FACTORY RESET


MENU to Return       SEL to Select/Save
```

```
Menu of FACTORY

IMAGE    NAVI MODEL
PARK     CAR MODEL
UTIL1    AVOUT SELECT
UTIL2    HDMI SKIP
INFO     FACTORY RESET


MENU to Return       SEL to Select/Save
```

❑ UTIL1 – AVOUT SELECT

Selecting background sound After
returning navigation or original mode

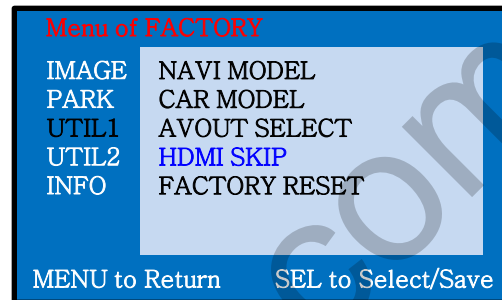DEFAULT : Selecting AV sound just before changing navigation or original mode from the AV mode

AV 1~3 : Sound of the selected AV source 1~3

❑ UTIL1 – HDMI SKIP

Selection of HDMI mode

ON(No use) / OFF(Use)

```
Menu of FACTORY

IMAGE    NAVI MODEL
PARK     CAR MODEL
UTIL1    AVOUT SELECT
UTIL2    HDMI SKIP
INFO     FACTORY RESET


MENU to Return       SEL to Select/Save
```

❑ UTIL1 - FACTORY RESET

FACTORY MODE RESET

※ This function also can be activated by pressing ▶ button long on the remote

3. Settings

3.4 FACTORY Mode
FACTORY mode – Press ◀ button 2 seconds long on the remote control.

Menu of FACTORY	Menu of FACTORY
IMAGE I-DRV REMOTE	IMAGE I-DRV REMOTE
PARK I-DRV CONTROL	PARK I-DRV CONTROL
UTIL1 IR MEMORY	UTIL1 IR MEMORY
UTIL2 CALIBRATE	UTIL2 CALIBRATE
INFO	INFO
MENU to Return SEL to Select/Save	MENU to Return SEL to Select/Save

❑ **UTIL2 - I_DRV REMOTE**
Choose DTV and DVD model
to be control I_DRV function

USER(IR MEMORY input)

※ If the mode is AV1~AV3, the
image of remote appears on the
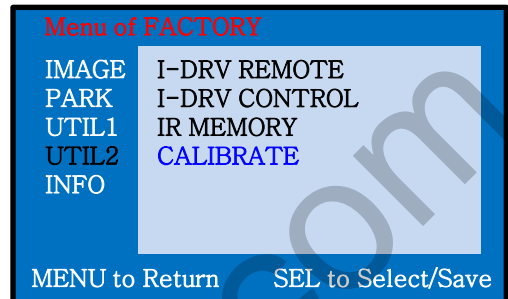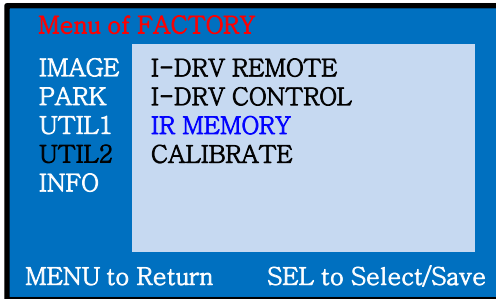screen after tapping the screen.

❑ **UTIL2 - I_DRV CONTROL**
Whether to use IR REMOTE

ON / OFF

3. Settings

3.4 FACTORY Mode

FACTORY mode – Press ◄ button 2 seconds long on the remote control.

Menu of FACTORY

IMAGE	I-DRV REMOTE
PARK	I-DRV CONTROL
UTIL1	IR MEMORY
UTIL2	CALIBRATE
INFO	

MENU to Return   SEL to Select/Save

Menu of FACTORY

IMAGE	I-DRV REMOTE
PARK	I-DRV CONTROL
UTIL1	IR MEMORY
UTIL2	CALIBRATE
INFO	

MENU to Return   SEL to Select/Save

❑ **UTIL2 – IR MEMORY**

To register DVD, DTV remote control, the remote control value must be registered and can be controlled

※ Please select user mode on IR REMOTE in order to use this function

 DVD / DTV

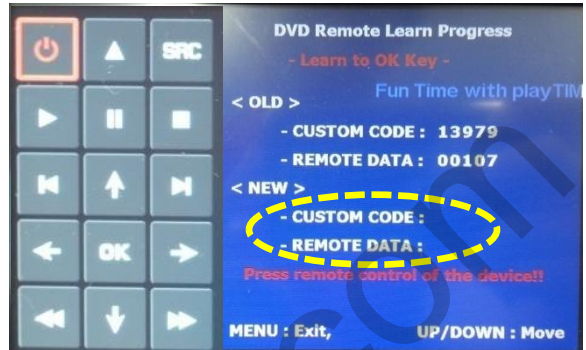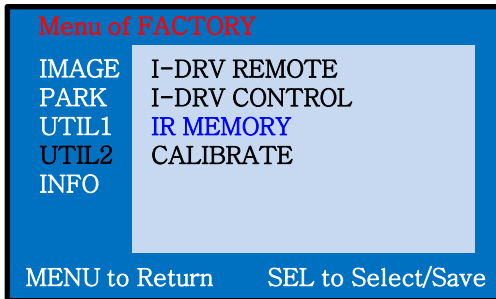(DVD, DTV Please connect IR cable to the remote signal)

❑ **UTIL2 – CALIBRATE**

Touch Calibration

YES / NO

3. Settings

3.5 DVD, DTV IR-MEMORY Input

① First of all, press ◄ button on remote controller 2 seconds long or press UP→DOWN→UP→MENU button in order to access Factory mode. Choose IR MEMORY on UTIL2.

In IR MEMORY, you can choose AV source of DTV and DVD you want to use.

② Picture above shows DVD remote control button value input, select menu you want to save. (To register DTV remote control button value, select IR MEMORY – DTV and follow below instructions.

For example)
a. After select OK button on OSD menu, press intended I-Drive button
b. Indicated part above will flicker, and press POWER on DVD remote control.
   (continue to next page)

IR-MEMORY mode?
When you want to control DVD and DTV via touch screen (using OSD menu) with other models besides already registered option-SANYO and NECVOX, you can register value of DVD and DTV's remote control which you have.
Then you can control DVD and DTV via touch screen.

3. Settings

3.5 DVD, DTV IR-MEMORY input

Instruction> continued…

c. The values that you registered will appear as green text in the marked area on pressing the button. And the values will be saved automatically.

d. Register remain buttons' value in OSD menu like the above-mentioned.

③ After register, select "SRC" button in OSD menu. Then you can see confirmation window as shown above. At the moment, (If data is saved, DVD TYPE and DTV TYPE will be changed to "USER" automatically.)

If you see "SUCCESS" on screen, the data is saved clearly and you can control DVD via touch screen. BUT, you MUST change the option in FACTORY-UTIL2-I_DRV REMOTE to "USER".

※ When you touch the screen, you can control DVD, DTV using remote control UI via touch screen

※ If touch the screen in DVD(A/V1), DTV(A/V2) mode, Can see remote control UI
   If touch the screen in RGB(HDMI), A/V3 mode, Can see mode switching UI
   - If you want to see mode switching UI in DVD, DTV mode, Select "SRC" button
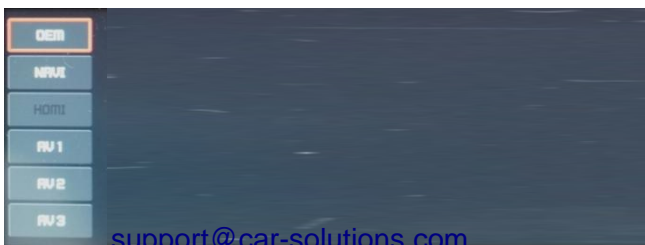
3. Settings

3.6 Use of OEM button

Monitor

※ NAVI button
  Dip6 OFF : Press short – mode switch
  Dip6 ON : Press long– mode switch
              Press short– return to
                          OEM mode

※ Press "OPTION" button for 5 seconds – Reset
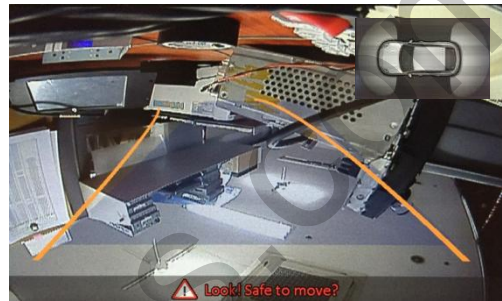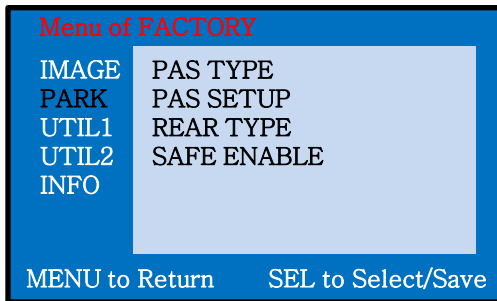
Steering Wheel

※ Press "BACK" button for 5 seconds
  – mode switch

3. Settings

3.7 Rear Camera
FACTORY mode – Press ◄ button 2 seconds long on the remote control

※**In case of installing the rear camera, remember to put Dip S/W 7 down(On)-Refer to page 9**


```
Menu of FACTORY

IMAGE     PAS TYPE
PARK      PAS SETUP
UTIL1     REAR TYPE
UTIL2     SAFE ENABLE
INFO

MENU to Return        SEL to Select/Save
```


❑ **PARK**

PAS TYPE : Selecting Type of parking guide line
 - NOT USED : Not use Parking guide line
  - PAS ON : Selecting Dynamic Parking guide line
  - PAS OFF : Selecting fixed Parking guide line

PAS SETUP : Adjusting the position of the parking guide line (available in PARK
            SETUP-> V-POSITION, H-POSITION)

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

SAFE ENABLE : If your car is connected with CAN cable and it is in "ON" state, you
              can NOT watch DVD or A/V except original image or navigation
              (HDMI) while driving. At that time the screen use only main and
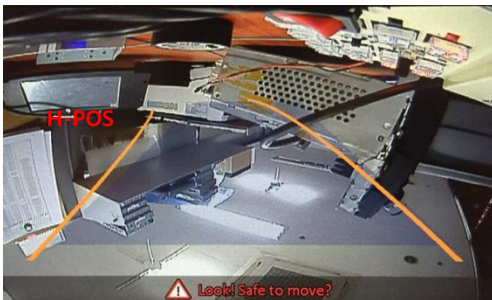   navigation(default : OFF)

a. If you want to get to the FACTORY mode, set the gear as rear state and press
   "LEFT" button 2 seconds long on the remote control or the keypad.

3. Settings

3.8 Rear Parking Guidelines

Go to Factory Menu, choose PAS SETUP, by using OK button change
H-POS → V-POS

❑ **H-POS**

In H-POSITION, use ◁, ▷ on remote control, to adjust parking guideline left and right.

❑ **V-POS**

In V-POSITION use △, ▽ on remote control, to adjust parking guideline up and down.

3. Settings

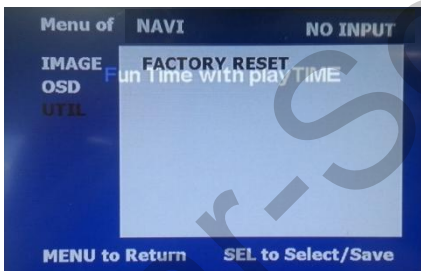## 3.9 OSD (On Screen Display) / Analog RGB Mode

❑ IMAGE

* BRIGHTNESS
* CONTRAST
* SHARPNESS

❑ OSD

*LANGUAGE : Set OSD language
 (only support English and Chinese)
* TRANS : Adjust OSD transparency
*H-POSITION : Move OSD horizontally
* V-POSITION : Move OSD vertically

❑ UTIL

* FACTORY RESET
  : Factory reset only for OSD function
  (unable to reset video position)
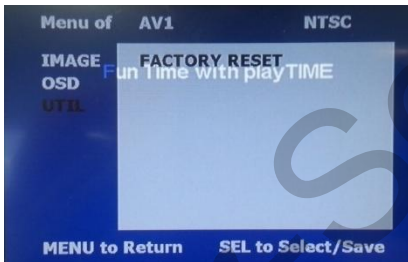
3. Settings

3.9 OSD (On Screen Display) / Video Mode

❏ IMAGE

* BRIGHTNESS
* CONTRAST
* SATURATION
* HUE
* SHARPNESS

❏ OSD

* LANGUAGE : Set OSD language
 (only support English and Chinese)
* TRANS : Adjust OSD transparency
* H_POSITION : Move OSD horizontally
* V_POSITION : Move OSD vertically

❏ UTIL

* FACTORY RESET
  : Factory reset only for OSD function
  (unable to reset video position)

4. Trouble Shooting

Q. Unable to switch the 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 for 2 seconds on the remote to check the status. , 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. When the mode is not skipped
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 displays only white color.
A. Check LCD out cable is connected well, if this status keeps, inform to
   manufacturer.

Q. Show PIP function via handle button, and original screen appear half only.
A. This is not because of faulty interface, please check original monitor split
   function settings.

Q. After connect CAN cable, set gear "P", video doesn't appear.
A. Go to "FACTORY MODE"and check "UTIL-Rear Select". Change "LAMP"settings
   to "CAN" with remote control.
 ※ LAMP : In case of connecting "Rear-C" wire of Power Cable to Rear Lamp in
   vehicle.
    It may not work on a camera with 12V

• Revision History

Date	History	Page
2016.03.29	- Dip S/W (#8 Factory reset function deleted)	13page
2016.07.04	- FFC cable	12page