

Video Interface for Mercedes-Benz W222 (S-Class)

User Guide

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 may 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. Main Specification

1.1 Specification

1. Product composition

Multimedia Interface * 1ea

Sub-board * 1ea

2. MULTIMEDIA INTERFACE input spec.

3 * A/V (NTST&PAL) input

1 * CVBS (rear camera) input. (rear camera source)

1 * Analog RGB

1 * LCD input (car system input)

3. MULTIMEDIA INTERFACE output spec.

1 * LCD output(LCD Operation)

1 * Audio OUTPUT

2 * CVBS OUTPUT(Video Out for installing Headrest monitor)

4. POWER spec.

Input power : 8VDC ~ 16VDC

Consumption power : 4WATT (in maximum level)

5. Switch input mode

- Input video skip function : able to select whether to use the respective input video sources or not via DIP switch.
- Able to change input modes via the remote control.
- Able to switch modes via the Toggle switch.
- Able to switch modes via Original button of the car through CAN.

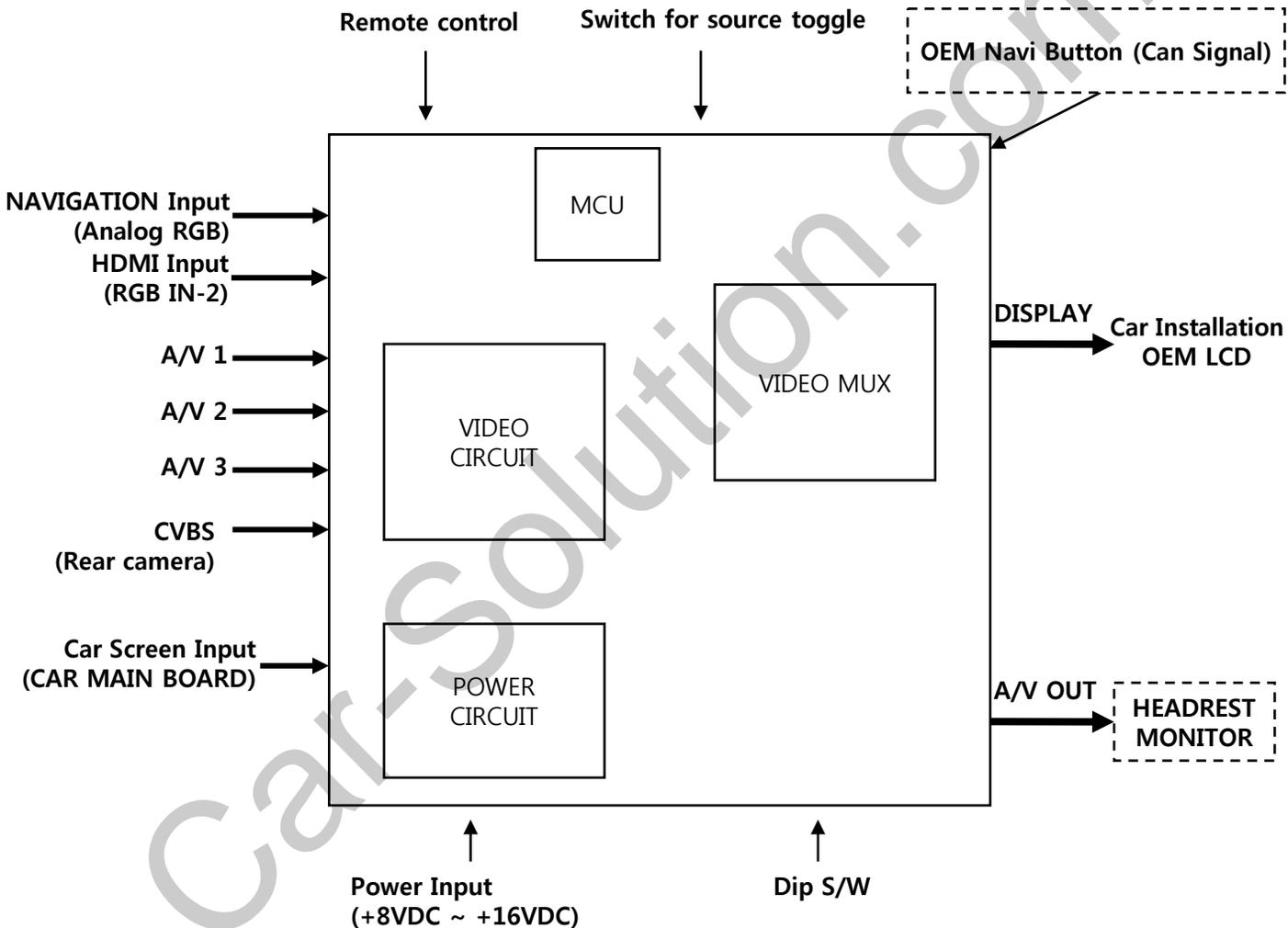
1. Main Specification

1. Features

- More convenience to install with plug & play
: (LVDS cable offered)
- Possible to move the displayed position of DVD, Navigation.
- Improved Display Screen
:(convenience-oriented Interfaces for users)
- Add a safe function (show the main screen while driving)

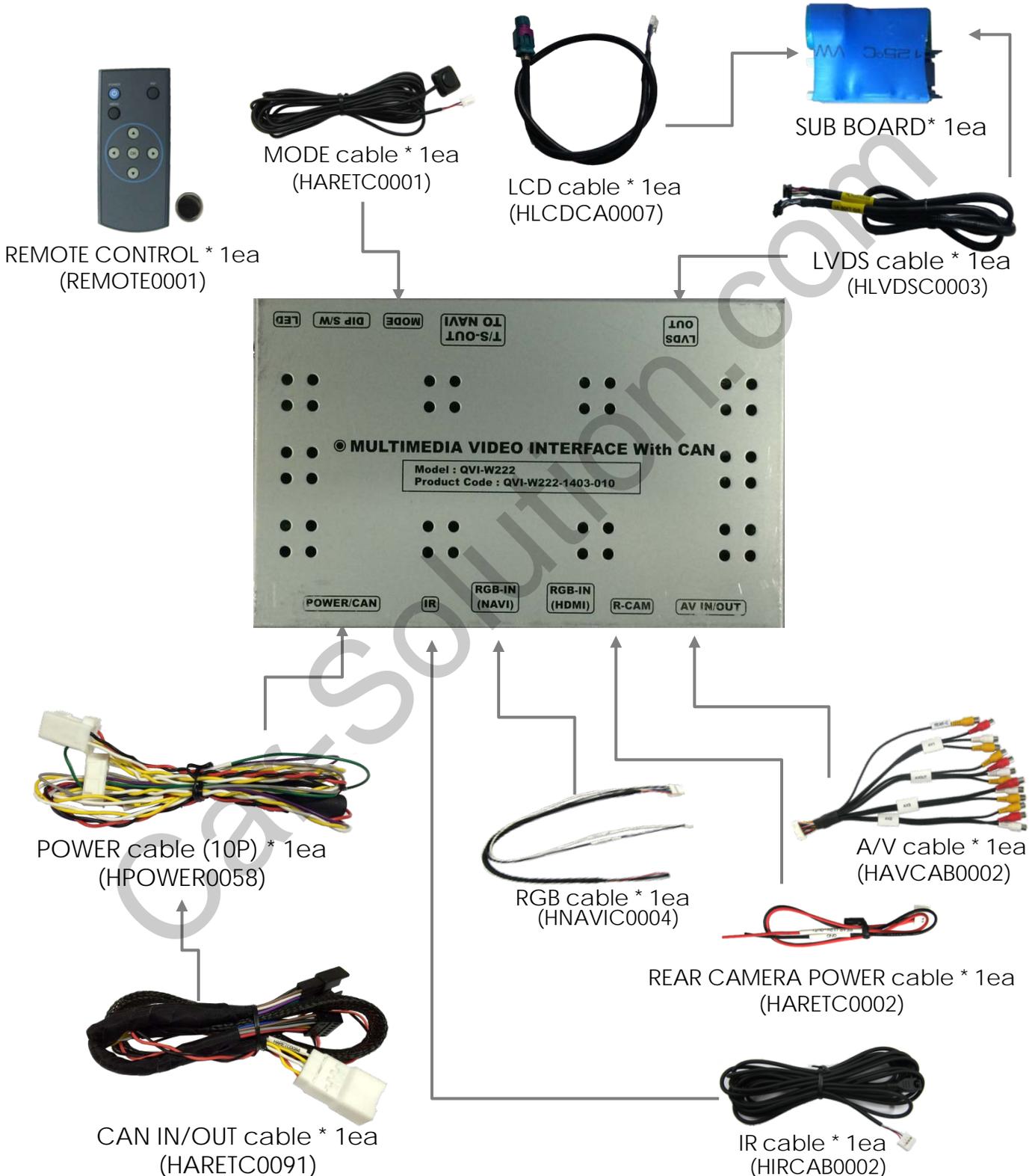
1. Main Specification

1.3 System diagram



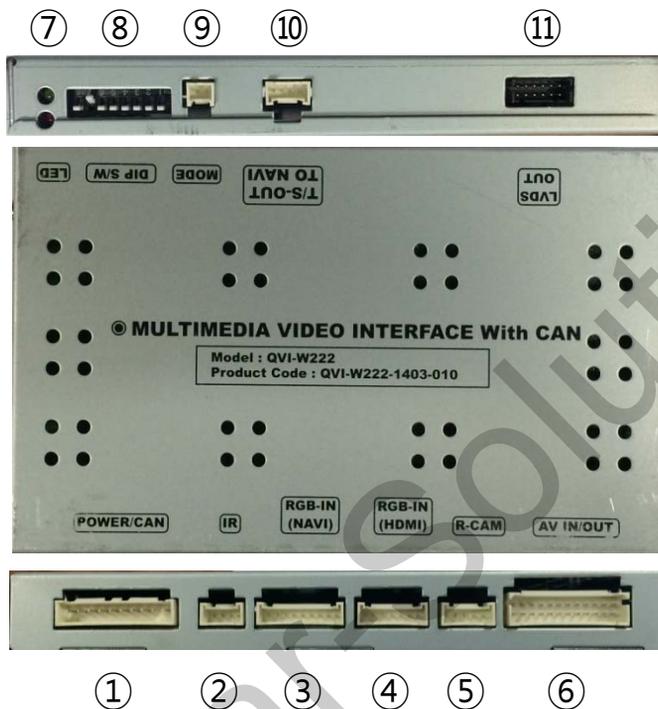
1. Main Specification

1.4 Components



1. Main Specification

1.5 Exterior



Dimension

Horizontal length 125mm

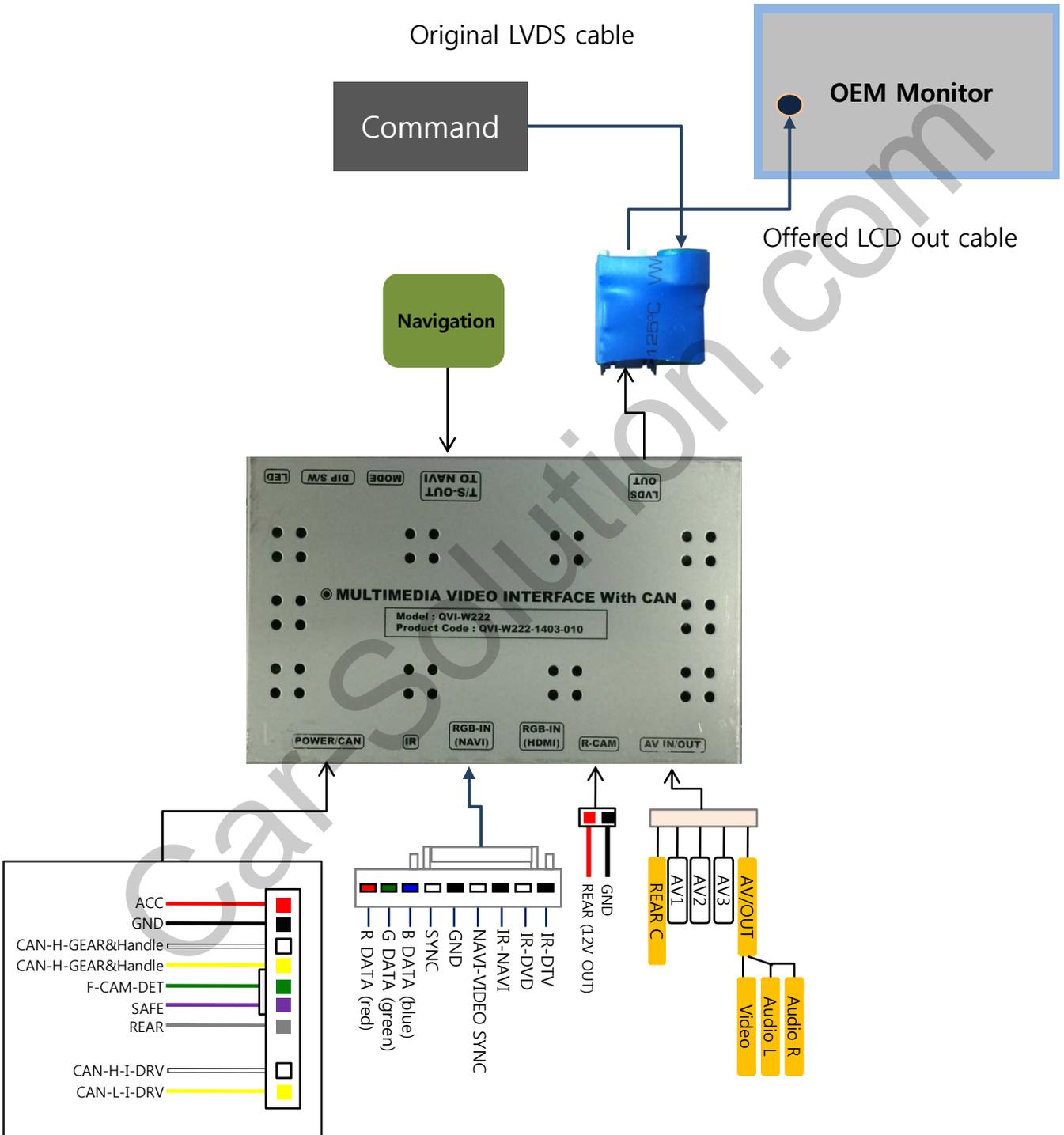
Vertical length 105mm

Height 21mm

- ① POWER/CAN
- ② IR
- ③ RGB-IN(NAVI)
- ④ RGB-IN(HDMI)
- ⑤ R-CAM
- ⑥ AV IN/OUT
- ⑦ LED
- ⑧ DIP S/W
- ⑨ MODE
- ⑩ T/S-OUT TO NAVI
- ⑪ LVDS OUT

2. Installation

2.1 Installation diagram



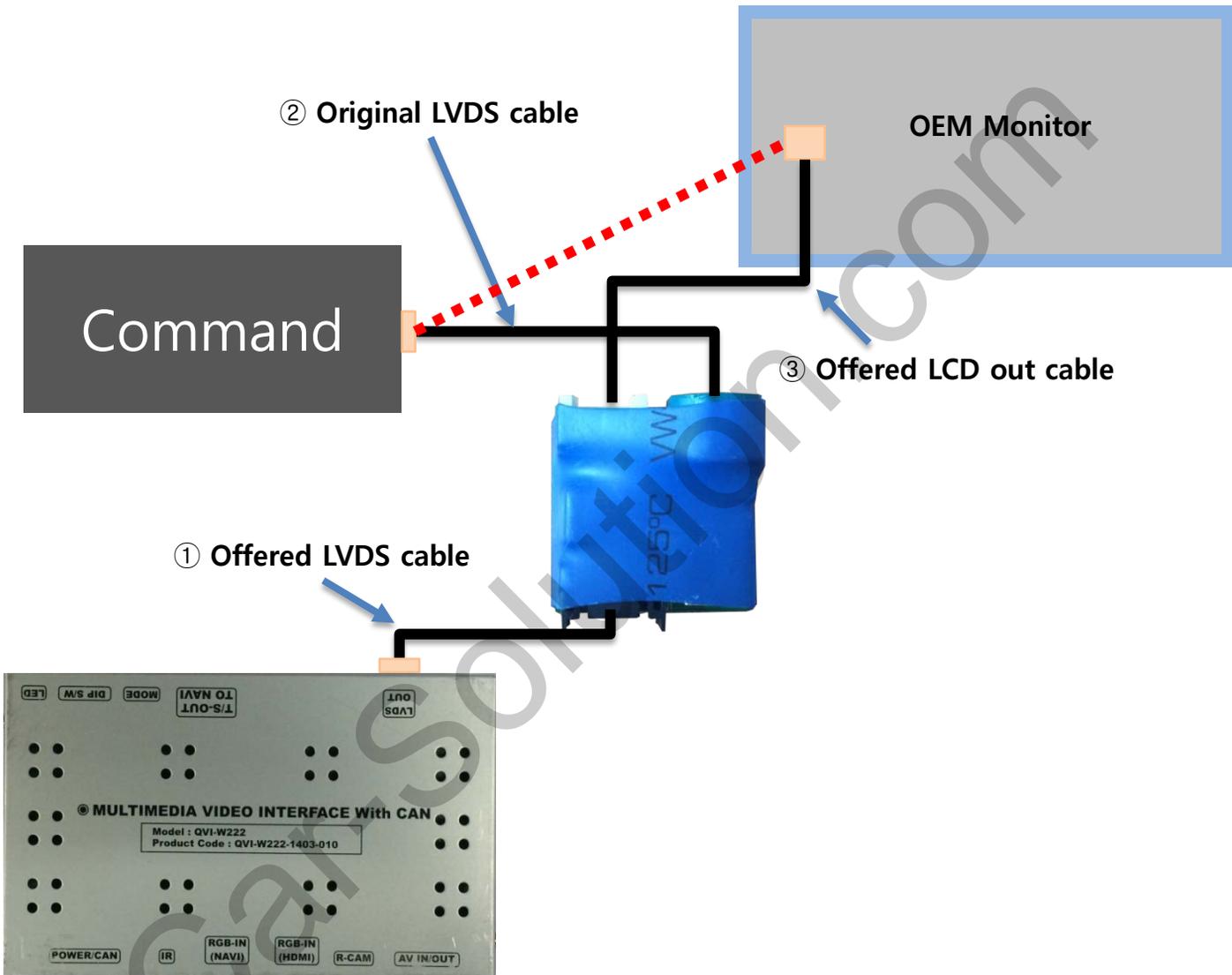
2. Installation

2.2 Cautions on installation

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

2. Installation

2.3 Installation of Monitor



- ① Please connect offered LVDS cable to LVDS-IN Main input of sub-Board.
- ② Take away original LCD cable from OEM monitor and connect it to sub-board.
- ③ Connect offered LCD-OUT cable to original monitor.

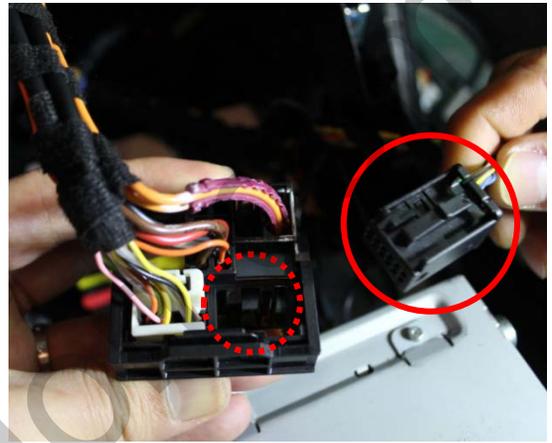
2. Installation

2.4 CAN Connection

※ First, Pull away a gear stick box and you will be able to see cables.



① Please find a bunch of cables as above picture #1



② Please take away the black connector marked in red.



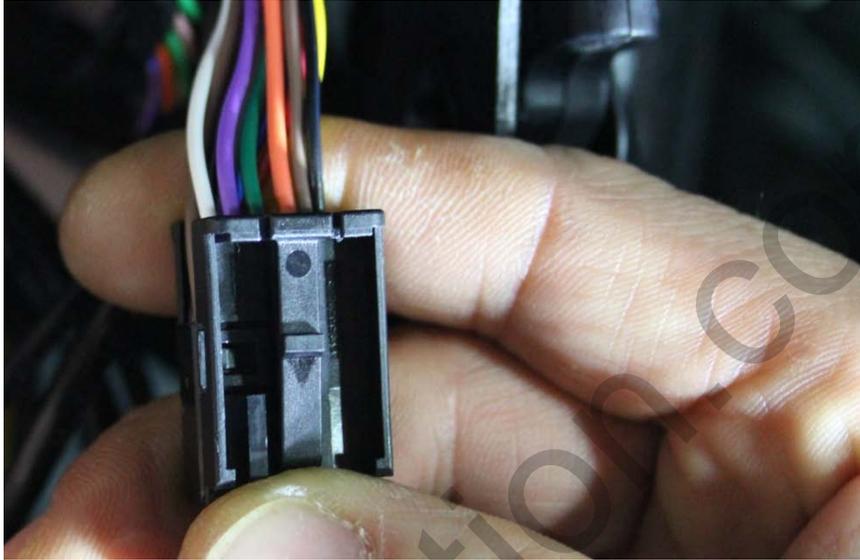
③ Please take away the black cap was pulled away.



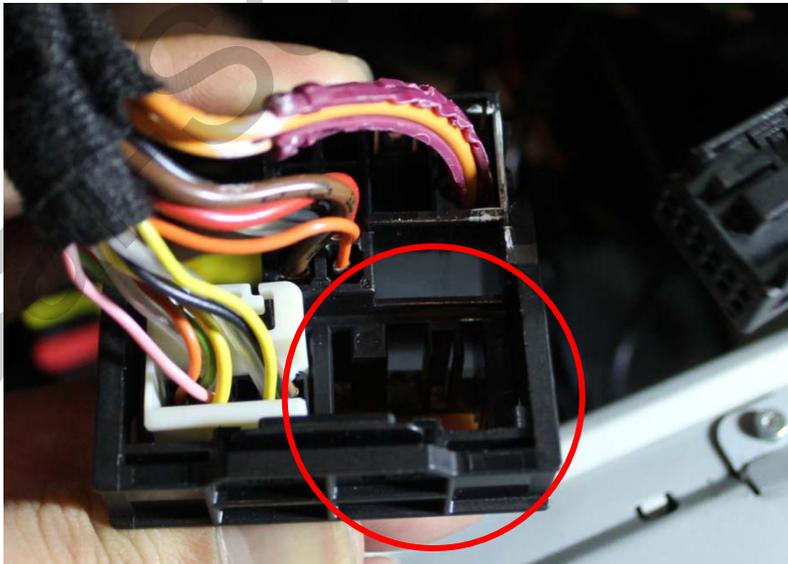
④ Please connect the cable to offered CAN IN/OUT cables.

2. Installation

2.4 CAN Connection



⑤ Please put CAN IN/OUT cables into the black cap



⑥ Please put it into the empty space where the black connector was pulled way.

2. Installation

2.4 CAN Connection

※ You will be able to find the CAN wire behind the Air conditioner.

Please cut the opposite side of offered power cable connector to use.



※ Please connect offered CAN-H-GEAR&HANDLE(White) to CAN-High(Yellow + White)

※ Please connect offered CAN-L-GEAR&HANDLE(Yellow) to CAN-Low(Yellow)

3. Set up

3.1 Dip Switch



※ ON : DOWN / OFF : UP

※ DIP S/W usage example

- Input Mode : A/V1, Navigation (RGB)
- Rear camera : When to be installed on CVBS 4

- ▷ DIP S/W : 1 → OFF
- ▷ DIP S/W : 2,3 → OFF
- ▷ DIP S/W : 4 → ON
- ▷ DIP S/W : 5 → ON
- ▷ DIP S/W : 6 → ON
- ▷ DIP S/W : 7 → ON (CVBS4 가능)
- ▷ DIP S/W : 8 → ON

PIN	Function	Dip S/W Selection
1	RGB INPUT MUTE	ON : Skipping RGB Mode OFF : RGB Display
2	A/V 1 MUTE	ON : Skipping A/V 1 OFF : A/V1 Display
3	A/V 2 MUTE	ON : Skipping A/V 2 OFF : A/V2 Display
4	A/V 3 MUTE	ON : Skipping A/V 3 OFF : A/V3 Display
5	Skip OEM Image	ON : Skip OEM image OFF : No Skip OEM Image
6		N.C
7	Rear Mode	ON : External Rear Camera OFF : OEM Rear Camera
8	Skip HDMI mode	ON : Skip HDMI mode OFF: No Skip HDMI mode

3. Set up

3.2 Remote control



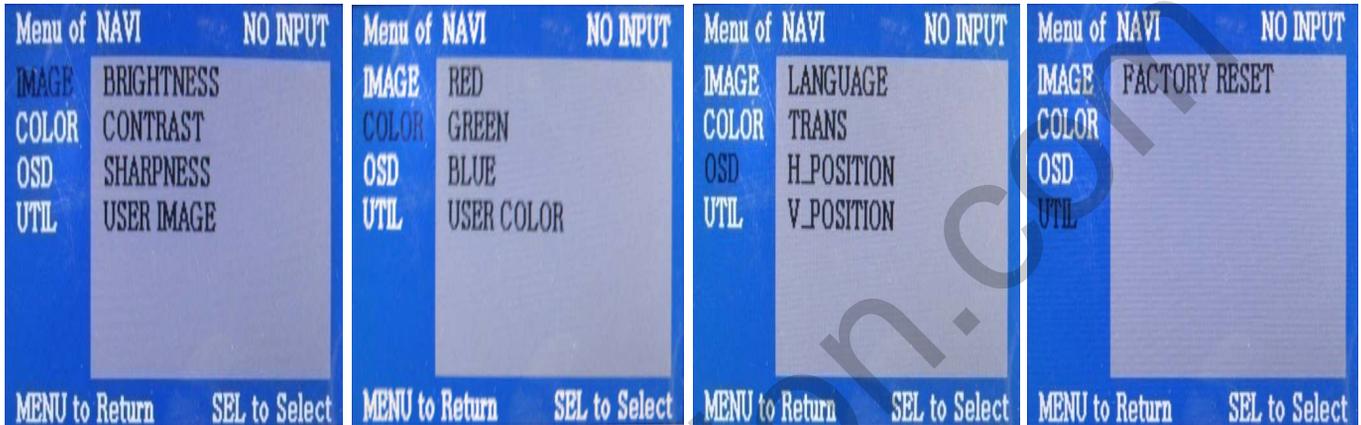
*FACTORY MODE (Interface setting for **installer**)
: Operated by pressing ▲ → ▼ → ▲ → MENU button or
press ◀ more than 5seconds long on the remote control.

Key	Function
POWER & PIP	Unavailable
MENU	Activating OSD menu
OK	Making a selection, changing image display
▲	Moving upward
▼	Moving downward
◀	Moving leftward (If you press this button 5 seconds long, you can get access to the factory mode.)
▶	Moving rightward (If you press this button 2 seconds long, you can reset all the data about user environment.)

3. Set up

3.3 OSD (On Screen Display)

* Analog RGB Mode



IMAGE

- * BRIGHTNESS
- * CONTRAST
- * SHARPNESS
- * USER IMAGE : Selecting one among 4 color options.

COLOR

- * RED : Adjusting red
- * GREEN : Adjusting green
- * BLUE : Adjusting blue
- * USER COLOR : Selecting a color option among set color options

OSD

- * LANGUAGE : Choosing interface language while changing mode between A/V and DVD
- * TRANS : Adjusting transparency of OSD
- * H_POSITION, V_POSITION : Positioning OSD menu

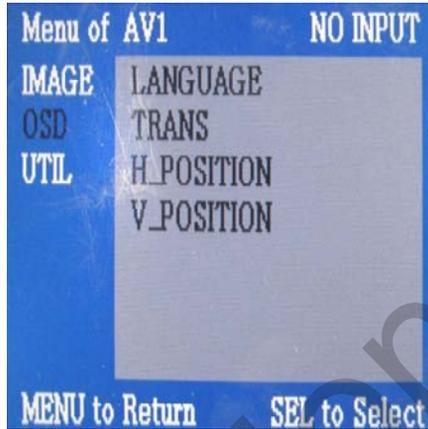
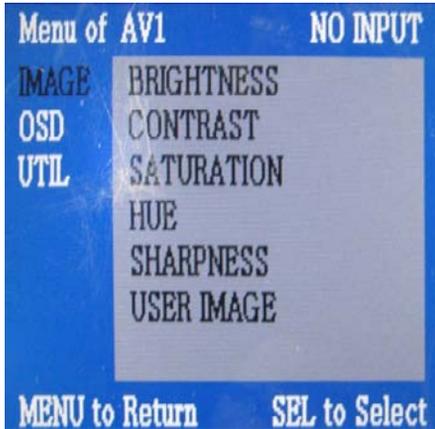
UTIL

- * FACTORY RESET : Resetting all the data about the relevant mode that applicable to navigation, DVD mode respectively. (Impossible to reset of screen position, only available for color, OSD setting)

3. Set up

3.3 OSD (On Screen Display)

* Video mode



IMAGE

- * BRIGHTNESS
- * CONTRAST
- * SATURATION
- * HUE
- * SHARPNESS
- * USER IMAGE
: Selecting one among 4 color options.

OSD

- * LANGUAGE : Choosing interface language while changing mode between A/V and DVD
- * TRANS : Adjusting transparency of OSD
- * H-POSITION
: moving in horizontal direction
- * V-POSITION
: moving in vertical direction

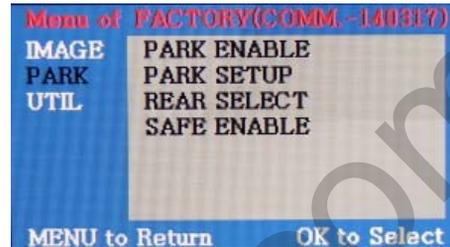
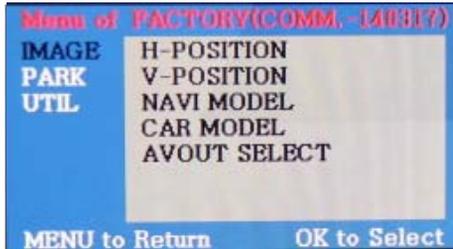
UTIL

- * FACTORY RESET : Resetting all the data about the relevant mode that applicable to navigation, DVD mode respectively. (Impossible to reset of screen position, only available for color, OSD setting)

3. Set up

3.4 Factory mode

FACTORY mode – Press ◀ button 5 seconds long on the remote control.



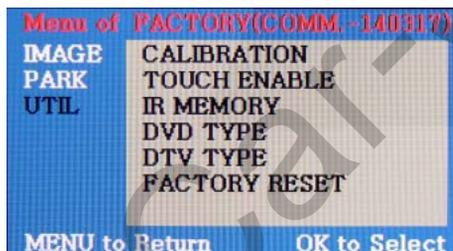
IMAGE

Adjusting the position of navigation

- * H-POSITION
: moving in horizontal direction
- * V-POSITION
: moving in vertical direction
- * NAVI MODEL : DEFAULT,
KD900(WVGA), MD7000(WVGA),
- * CAR MODEL : DEFAULT
- * AVOUT SELECT : DEFAULT, AV1,
AV2, AV3

PARK

- * PARK ENABLE : Setup of rear view
parking guide line
- * PARK SETUP : Control over position
of rear view parking guide line
- * SAFE ENABLE : To select whether
to use SAFE function(NOT to allow
watch video while driving) or not



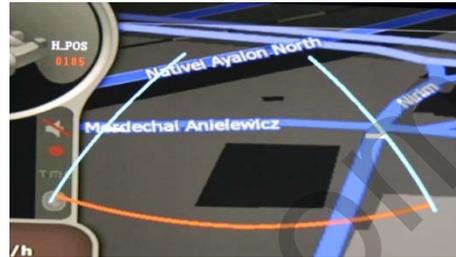
□ UTIL

- * CALIBRATION : NO USE
- * TOUCH ENABLE : NO USE
- * IR MEMORY : NO USE
- * DVD TYPE : SET DVD MODEL
- * DTV TYPE : SET DTV MODEL
- * FACTORY RESET : RESET

3. Set up

3.5 Parking guide line

FACTORY mode – 리모컨의 왼쪽방향 버튼을 5초 정도 누른다.



PARK

* PARK ENABLE : Selecting whether to display the parking guide line or not on rear gear (default : OFF)

* PARK 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.)

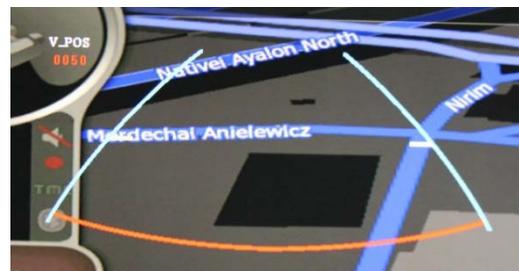
*CAN - Detecting the rear view camera by CAN signal (Installer must connect "CAN" cable of the power cable to the "CAN" cable of the car.)

* SAFE ENABLE : In case of Connecting "Safe" wire from the power cable to the hand break,
ENABLE – OEM Picture displays in Drive gear position
DISABLE – No display locked in any gear position

PARK - ENABLE

A. If you set 'PARK ENABLE' as "ON" state, there will be the rear view parking guide line. (as shown left picture)

B. Press the OK button of remote controller, 'H_POS' will be shown on the right and control moving in horizontal direction.



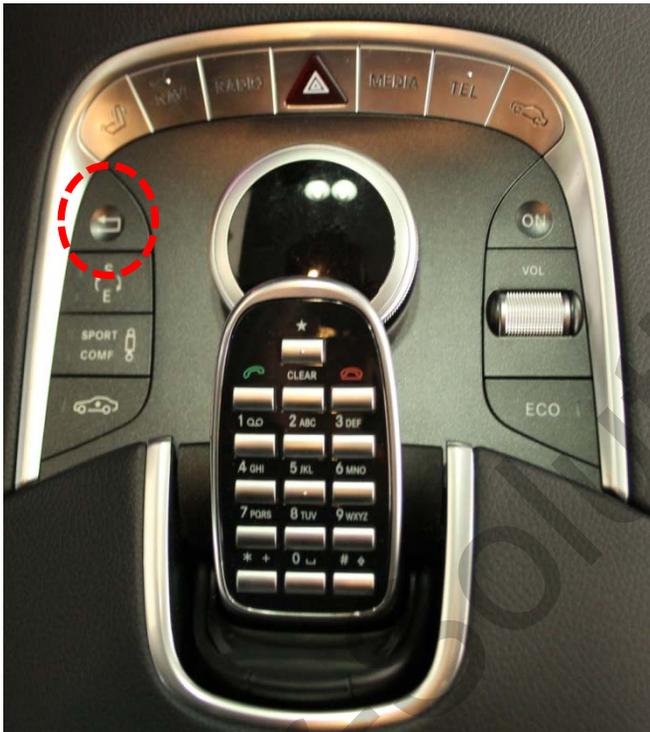
PARK - ENABLE

A. Press the OK button of remote control one more, 'V_POS' will be shown on the right and control moving in vertical direction.

3. Set up

3.6 Switching modes through CAN

After wiring CAN of the car with offered CAN cable, you can switch A/V mode by the Factory button as below.



<Jog shuttle>



<Left side of Steering handle >

Please use the return button to switch modes.

- Long press : Switch each mode
- Short press: Return to OEM Image

4. Troubleshooting

Q. I can not switch A/V sources

A. Check IR or Ground cable connection. Check LED lamps in the interface, if it is not on, check 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 dim or not suitable color)

A. Try to select "INITIAL" in OSD menu, if it does not work, inform to manufacturer.)

Q. I can watch the rear camera on the screen

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

Q. Unwanted A/V mode is displayed. (A/V source switching order : OEM->RGB->AV1->AV2->AV3)

A. Check DIP Switch Setting.

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. After setting PIP function, I got only half OEM image at the right in the screen.

A. This is not an error, just caused by user's setting mistake, user should set to "Split Screen" in the OEM menu.

Q. Rear CAM does not appear, when car is in reverse after CAN wiring.

A. Operate "FACTORY MODE" like left picture, then select "UTIL → Rear Select" If it is set as "LAMP", change it to "CAN" by remote or keypad.

※ LAMP : In case of connecting "Rear-C" wire of Power Cable to Rear Lamp in vehicle.

CAN : In case of detecting Rear Cam thru CAN signal. (CAN must be wired)

Q. After moving gear to "P" or "D" from "Reverse", I can't get navigation, but half PDC Image in the screen.

A. Once, you starts driving, the screen displays navigation right away, this is not an system error.