

# **BENZ W221(2011) PAS**

## **MB10 PAS**

### **(VIDEO Interface)**



|       |                 |
|-------|-----------------|
| MODEL | MB10-PAS-151103 |
| DATE  | 2016.02.03      |

# Main Spec.

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## 1. Input Spec. (MULTI VIDEO INTERFACE)

- 2 x Analog RGB Input (Navigation & MHL System)
- 2 x A/V Input (External video source).
- 1 x CVBS(REAR CAMERA) Input. (Rear camera source)
- 1 x CVBS(FRONT CAMERA) Input. (Front camera source)
- 1 x LVDS Input. (Car Command System)

## 2. Output Spec.

- 2 x CVBS Output (Video out for Installing Headrest Monitor)
- 1 x Audio L/R Output.
- 1 x LCD Output (LCD Operation)

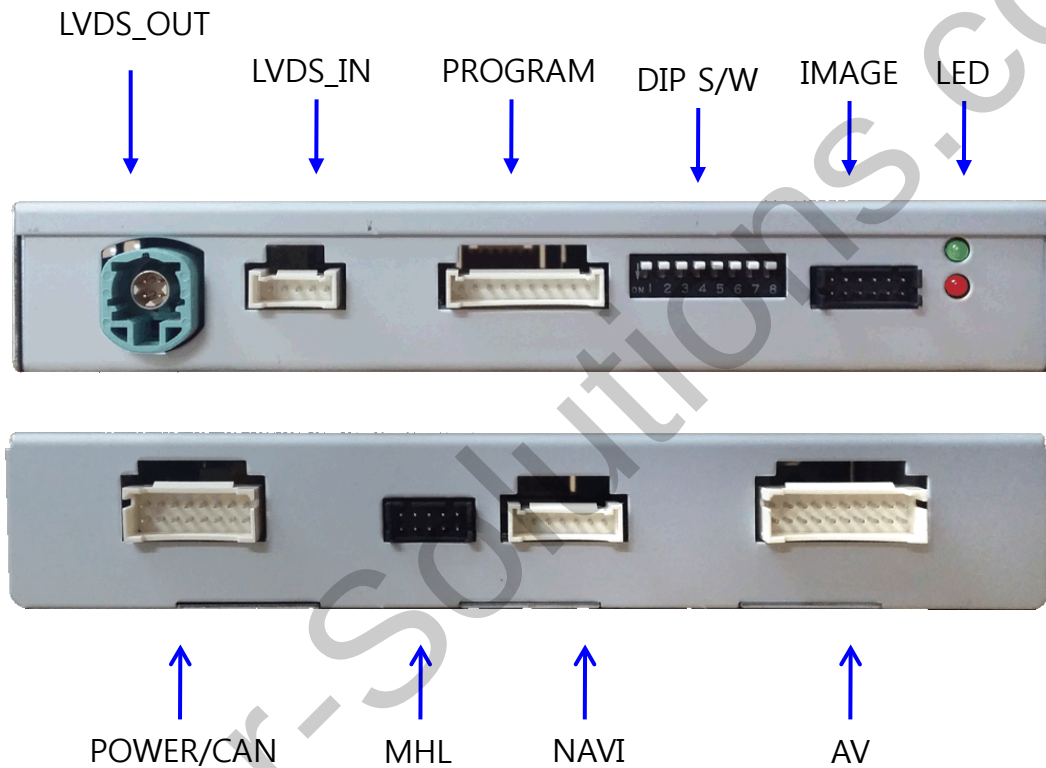
## 3. Power Spec.

- Input Power : 8VDC ~ 24VDC
- Consumption Power : 12Watt, Max

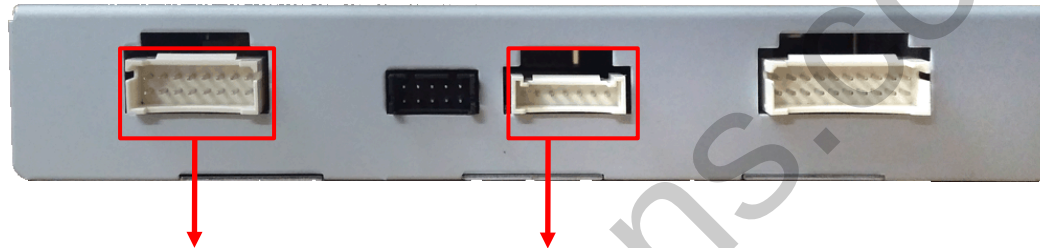
## 4. Switch Input mode

- Possible to select CAR model while switching mode by DIP S/W
- By button on the Commander in the car via CAN

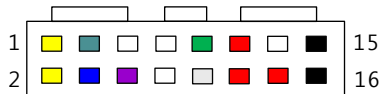
# External Appearance



# Connector Pin Assignment



\*POWER Connect



- |                     |                     |
|---------------------|---------------------|
| 1. Battery (Yellow) | 9. ECAN-L (Green)   |
| 2. Battery (Yellow) | 10. ECAN-H (Orange) |
| 3. REAR-DET (Brown) | 11. ACC (Red)       |
| 4. FRONT-DET (Blue) | 12. FRONT-VCC (Red) |
| 5. BCAN-L (White)   | 13. NC              |
| 6. BCAN-H (Purple)  | 14. REAR-VCC (Red)  |
| 7. NC               | 15. GND (Black)     |
| 8. NC               | 16. GND (Black)     |

\*NAVI Connect



- |   |                 |
|---|-----------------|
| ① | R DATA (Red)    |
| ② | G DATA (Green)  |
| ③ | B DATA (Blue)   |
| ④ | SYNC (White)    |
| ⑤ | GND (Black)     |
| ⑥ | DMB IR (Green)  |
| ⑦ | DVD IR (Orange) |

# Product Composition

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Interface 1 EA



RGB Navi Cable(7pin) 1 EA



Power Cable(7pin) 1 EA



A/V Cable 1 EA



LVDS Cable 1 EA

# Product Composition Option

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**Option** : Sub Board 1 EA



**Option** : RGB Cable 1 EA



**Not for sale** : HDMI Cable 1 EA

# DIP S/W Setting

\* ON : DOWN , OFF : UP

| PIN | FUNCTION         | DIP S/W Selection                               |
|-----|------------------|-------------------------------------------------|
| 1   | RGB(=NAVI) MUTE  | ON : Skipping RGB Mode<br>OFF : RGB Display     |
| 2   | AV1(=DVB-T) MUTE | ON : Skipping AV1<br>OFF : AV1 Display          |
| 3   | AV2(=DVD) MUTE   | ON : Skipping AV2<br>OFF : AV2 Display          |
| 4   | RGB(=MHL) MUTE   | ON : Skipping MHL Mode<br>OFF : MHL Display     |
| 5   | NC               |                                                 |
| 6   | SPLIT_VIEW       | ON : SPLIT_VIEW Monitor<br>OFF : Normal Monitor |
| 7   | NC               |                                                 |
| 8   | NC               |                                                 |

\* DIP S/W Example



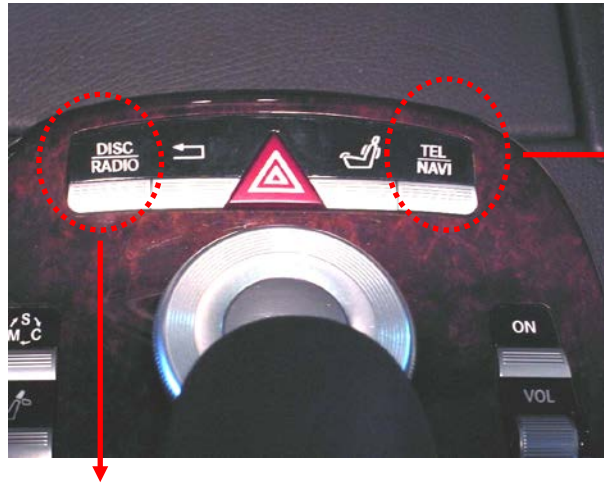
W221(2011year)



SPLIT\_VIEW Monitor

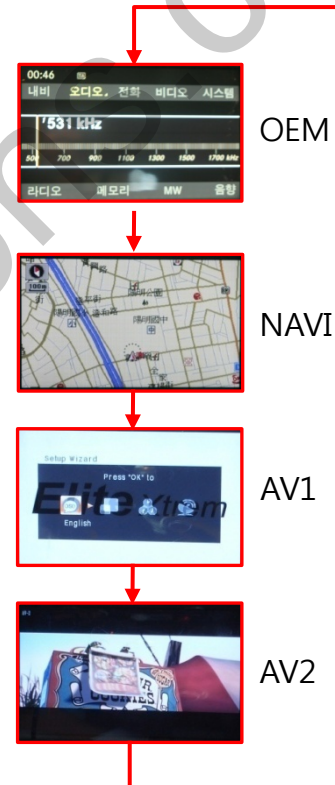
# I-DRIVE Control

I-Drive control : S class



Push Long

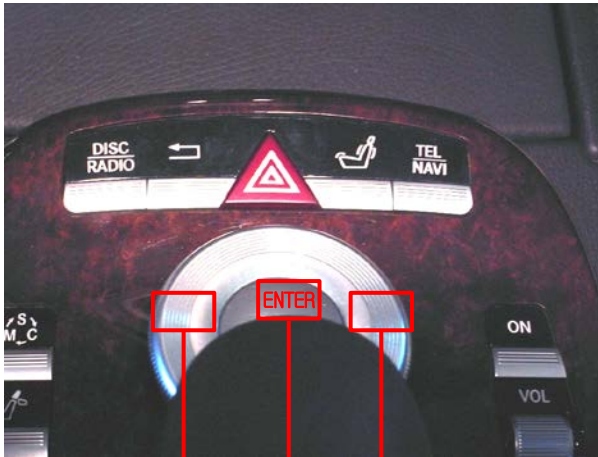
Push short, back to OEM screen





# I-DRIVE Control

## DVB-T UI control



ICON move to right

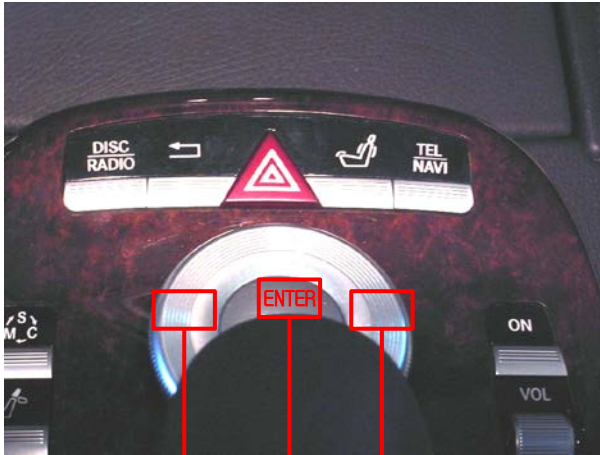
Push long = DVB-T ICON ON, Push short = ICON select

ICON move to left



# I-DRIVE Control

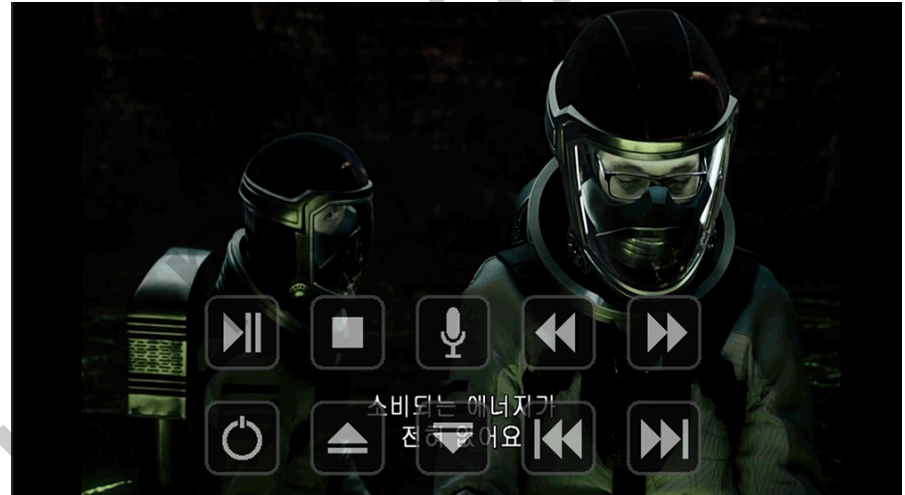
## DVD UI control



ICON move to right

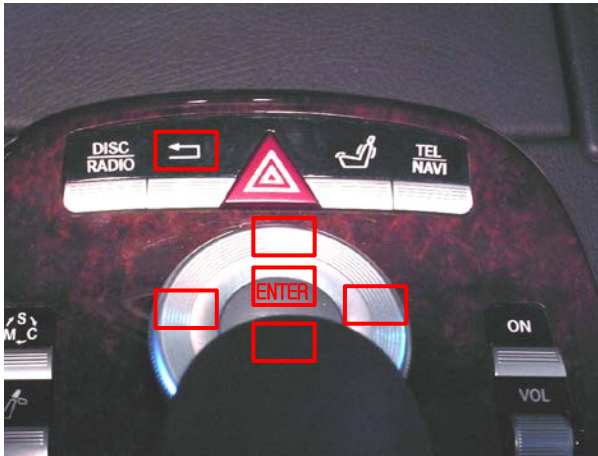
Push long = DVB-T ICON ON, Push short = ICON select

ICON move to left



# OSD(On Screen Display) Control

OSD control



|        |                                                                                     |
|--------|-------------------------------------------------------------------------------------|
| RETURN | Press 6sec, OSD ON<br>Press short MENU EXIT                                         |
| ENTER  | Item Selection, Value Selection                                                     |
| UP     | Item up<br>Increase selected value                                                  |
| RIGHT  | First->Second->Third Menu move<br>Third Menu에서 Item down<br>Increase selected value |
| DOWN   | Item down<br>Decrease selected value                                                |
| LEFT   | Third->Second->First Menu move<br>Third Menu Item up<br>Decrease selected value     |

| Mode State |             |                |
|------------|-------------|----------------|
| MENU       | Config      | NAVI           |
| Config     | NAVI-RGB    | KD900(WVGA)    |
| Option     | NAVI-AV     | Default        |
| Image      | DVD         | ELT-980XU Slim |
| Screen     | DVB-T(IMB)  | ELT-DVBT20     |
| Parking    | BlackBox    | Default        |
| First Menu | Second Menu | Third Menu     |

# OSD(On Screen Display) Control

| First Menu | Second Menu    | Third Menu | Action                                     |
|------------|----------------|------------|--------------------------------------------|
| Option     | RearCam-Type   | OEM        | Original Camera                            |
|            |                | ExtDevice  | Use aftermarket Rear camera                |
|            | RearCam-Power  | ON         | Rear camera get +12V consistently          |
|            |                | AUTO       | Rear camera get +12V when reverse gear on  |
|            |                | OFF        | Shut out the power supply.                 |
|            | FrontCam-Type  | OEM        | Original Camera                            |
|            |                | ExtDevice  | Use aftermarket Front camera               |
|            | FrontCam-Power | ON         | Front camera get +12V consistently         |
|            |                | AUTO       | Front camera get +12V when reverse gear on |
|            |                | OFF        | Shut out the power supply.                 |
|            | RearCam-RcvOpt | ON         | Show Frontcam 25sec after rear mode.       |
|            |                | OFF        | Default                                    |
|            | Reset          | Excute     | Option Menu all Reset                      |

# OSD(On Screen Display) Control

NAVI-RGB menu

| First Menu | Second Menu | Third Menu | Action                         |
|------------|-------------|------------|--------------------------------|
| Image      | Brightness  |            | Adjust the value of brightness |
|            | Contrast    |            | Adjust the value of contrast   |
|            | Color-RED   |            | Adjust the value of RED        |
|            | Color-GREEN |            | Adjust the value of GREEN      |
|            | Color-BLUE  |            | Adjust the value of BLUE       |
|            | Reset       | Excute     | Option Menu all Reset          |

DVD,DVB-T(DMB),NAVI-AV,REAR,FRONT menu

| First Menu | Second Menu | Third Menu | Action                         |
|------------|-------------|------------|--------------------------------|
| Image      | Brightness  |            | Adjust the value of brightness |
|            | Contrast    |            | Adjust the value of contrast   |
|            | Saturation  |            | Adjust the value of Saturation |
|            | Hue         |            | Adjust the value of Hue        |
|            | Sharpness   |            | Adjust the value of Sharpness  |
|            | Reset       | Excute     | Option Menu all Reset          |



<< Brightness >>



<< Saturation >>



<< Contrast >>

# OSD(On Screen Display) Control

## OSD Setting- Screen Mode

- Horizontal
- Vertical
- Scaler X Up
- Scaler X Down
- Scaler Y Up
- Scaler Y Down

| MENU    | Screen       | MAVI |
|---------|--------------|------|
| Config  | Horizontal   | 50   |
| Option  | Vertical     | 50   |
| Image   | Scale X Up   | 50   |
| Screen  | Scale X Down | 50   |
| Parking | Scale Y Up   | 50   |



# OSD(On Screen Display) Control

OSD Control- Parking Line On/Off

| MENU    | Parking       | REAR        |
|---------|---------------|-------------|
| Config  | OPS Display   | On          |
| Option  | Line Display  | On          |
| Image   | Warnings Lang | Р о с с и я |
| Screen  | Horizontal    | 50          |
| Parking | Vertical      | 50          |

| MENU    | Parking / Line Display | REAR        |
|---------|------------------------|-------------|
| Config  | OPS Display            | On          |
| Option  | Line Display           | On          |
| Image   | Warnings Lang          | Р о с с и я |
| Screen  | Horizontal             | 50          |
| Parking | Vertical               | 50          |

| MENU    | Parking / Line Display | REAR        |
|---------|------------------------|-------------|
| Config  | OPS Display            | On          |
| Option  | Line Display           | On Off      |
| Image   | Warnings Lang          | Р о с с и я |
| Screen  | Horizontal             | 50          |
| Parking | Vertical               | 50          |

| MENU    | Parking / Line Display | REAR        |
|---------|------------------------|-------------|
| Config  | OPS Display            | On          |
| Option  | Line Display           | On Off      |
| Image   | Warnings Lang          | Р о с с и я |
| Screen  | Horizontal             | 50          |
| Parking | Vertical               | 50          |

Parking Line ON

Parking Line OFF



# OSD(On Screen Display) Control

OSD Control- Parking Sensor Display on/off

| MENU    | Parking       | REAR   |
|---------|---------------|--------|
| Config  | OPS Display   | On     |
| Option  | Line Display  | On     |
| Image   | Warnings Lang | Россия |
| Screen  | Horizontal    | 50     |
| Parking | Vertical      | 50     |

| MENU    | Parking / OPS Display | REAR |
|---------|-----------------------|------|
| Config  | OPS Display           | On   |
| Option  | Line Display          | On   |
| Image   | Warnings Lang         | 한국어  |
| Screen  | Horizontal            | 50   |
| Parking | Vertical              | 50   |

| MENU    | Parking / OPS Display | REAR   |
|---------|-----------------------|--------|
| Config  | OPS Display           | On Off |
| Option  | Line Display          | On     |
| Image   | Warnings Lang         | 한국어    |
| Screen  | Horizontal            | 50     |
| Parking | Vertical              | 50     |

| MENU    | Parking / OPS Display | REAR   |
|---------|-----------------------|--------|
| Config  | OPS Display           | On Off |
| Option  | Line Display          | On     |
| Image   | Warnings Lang         | 한국어    |
| Screen  | Horizontal            | 50     |
| Parking | Vertical              | 50     |

OPS ON

OPS OFF





# OSD(On Screen Display) Control

OSD Control- Warnings Language Change

| MENU    | Parking / Warnings Lang | REAR    |
|---------|-------------------------|---------|
| Config  | OPS Display             | English |
| Option  | Line Display            | 中文      |
| Image   | Warnings Lang           | 한국어     |
| Screen  | Horizontal              | 台灣      |
| Parking | Vertical                | Россия  |

English

Check entire surroundings!

中文

请注意车辆周围环境!

한국어

차량 주변을 전부 확인

台灣

請注意車輛周圍環境!

Россия

Следите за всем окружением автомобиля!

日本

周辺の安全を確認

# OSD(On Screen Display) Control

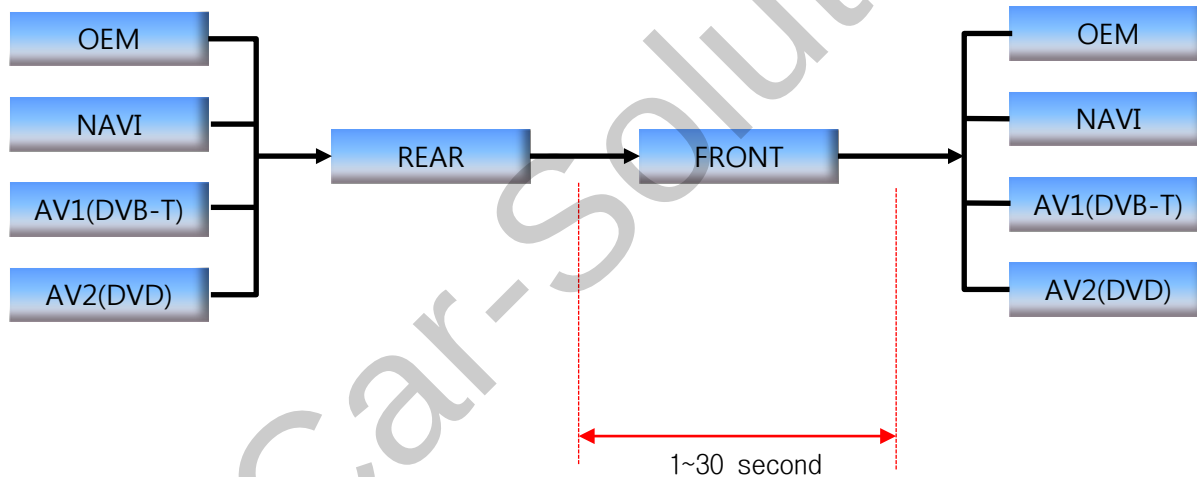
## OSD Setting - Front Camera Auto Mode

- Option -> RearCam-RcvOpt -> 0 second = RearCam-RcvOpt menu OFF

1~30 second = RearCam-RcvOpt menu ON & time control

| MENU    | Option / RearCam-RcvOpt | REAR           |
|---------|-------------------------|----------------|
| Config  | FrontCam-Det            | ExtWire        |
| Option  | RearCam-RcvOpt          | 0s             |
| Image   | AV Out                  | USER           |
| Screen  | Reset                   | Execute Cancel |
| Parking |                         |                |

| MENU    | Option / RearCam-RcvOpt | REAR           |
|---------|-------------------------|----------------|
| Config  | FrontCam-Det            | ExtWire        |
| Option  | RearCam-RcvOpt          | 30s            |
| Image   | AV Out                  | USER           |
| Screen  | Reset                   | Execute Cancel |
| Parking |                         |                |



# OSD(On Screen Display) Control

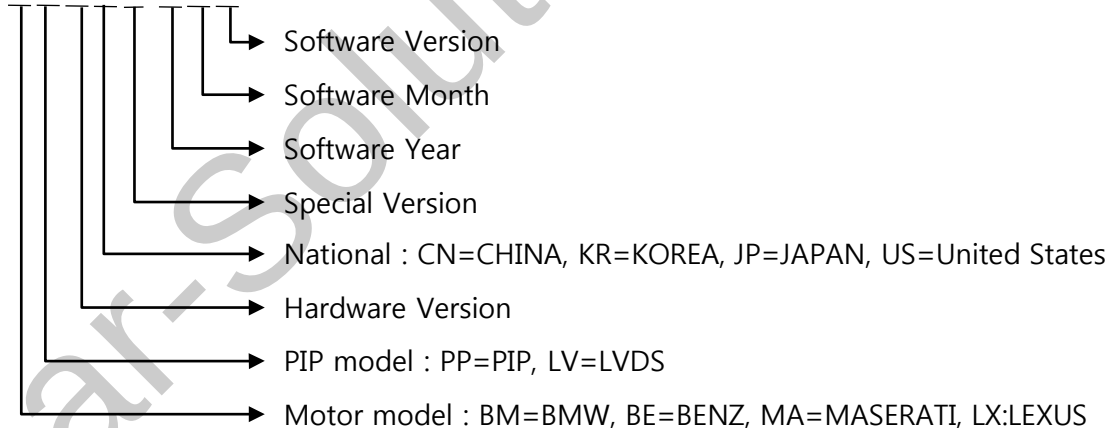
## OSD Setting - Utility Mode

| MENU    | Utility / Factory Reset | REAR             |
|---------|-------------------------|------------------|
| OSD     | Factory Reset           | Execute Cancel   |
| Utility | Version                 | BEPP06SGX-130950 |
|         |                         |                  |

- Factory Reset : Execute - Reset All (Setting Default)
- Version : FW Version

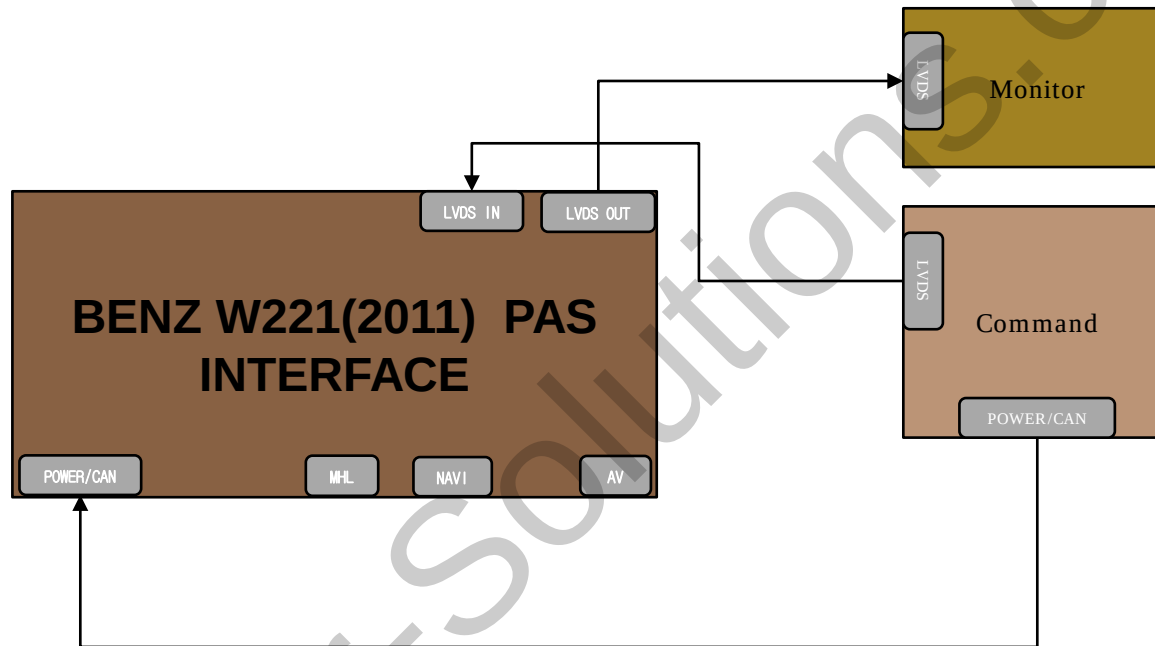
Finish update FW, check the FW version

Last Source : BEPP06SGX-130950



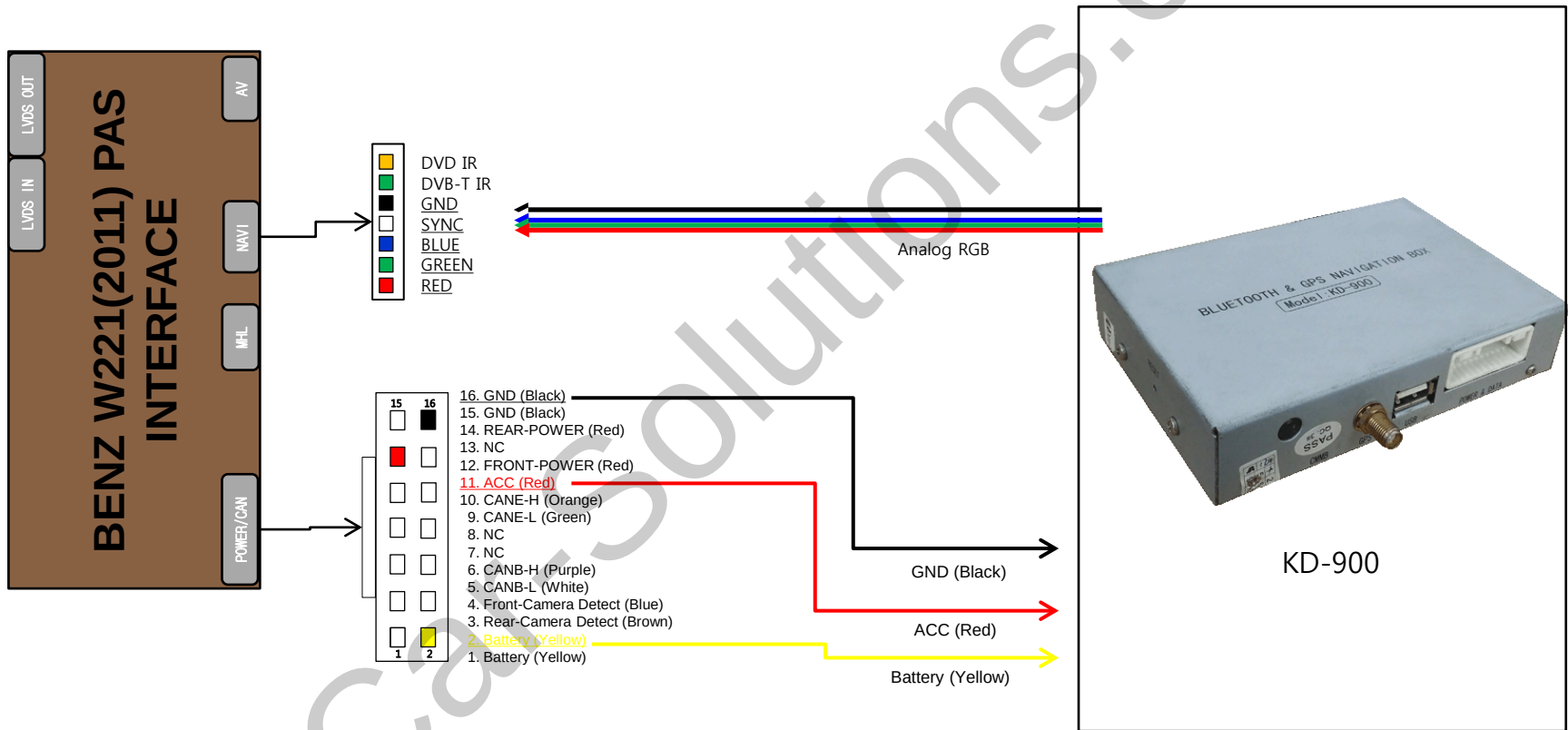
# Install Manual

## 1. Installation Diagram



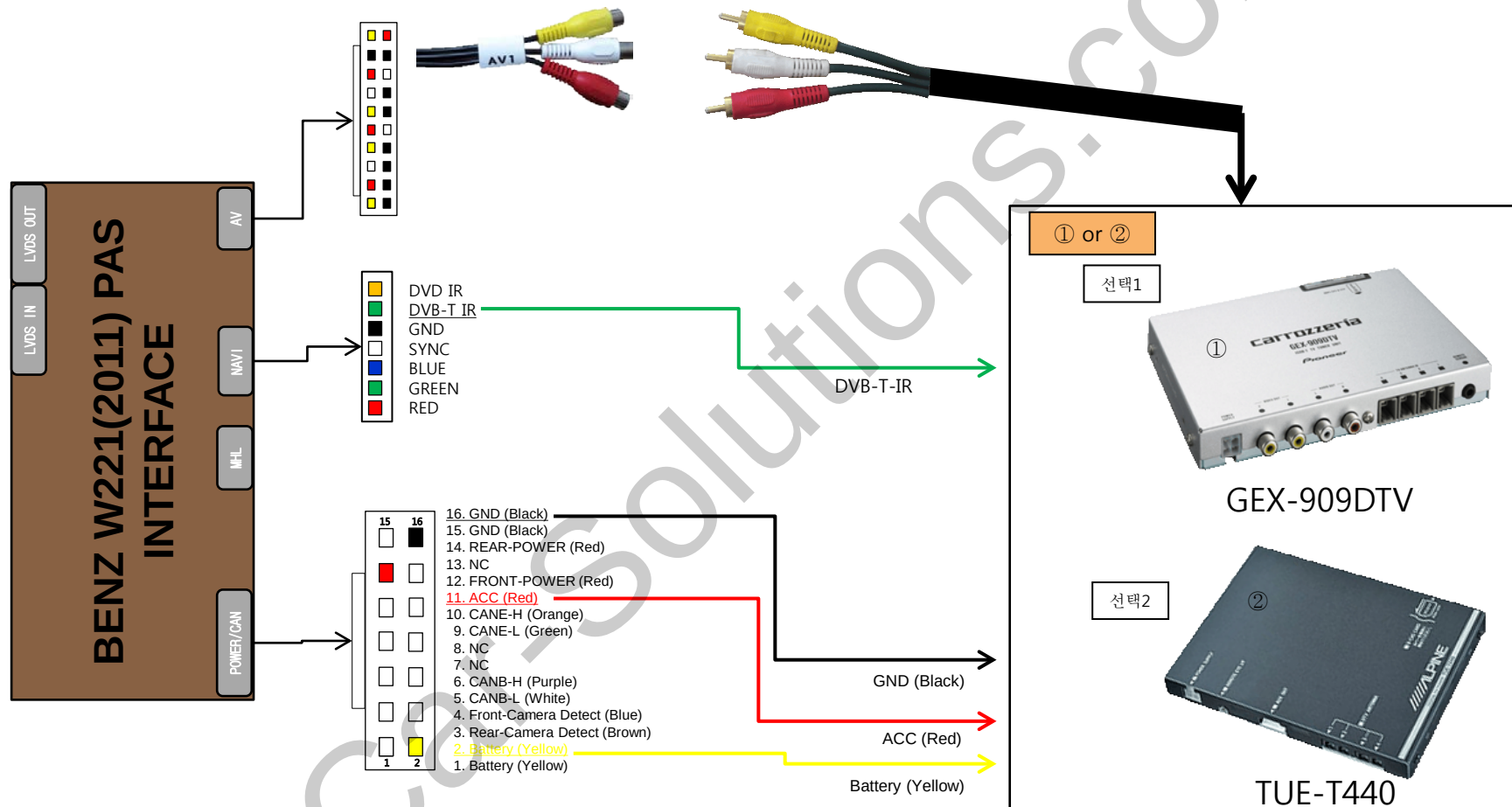
# Install Manual

## 2. Installation Navigation Connection



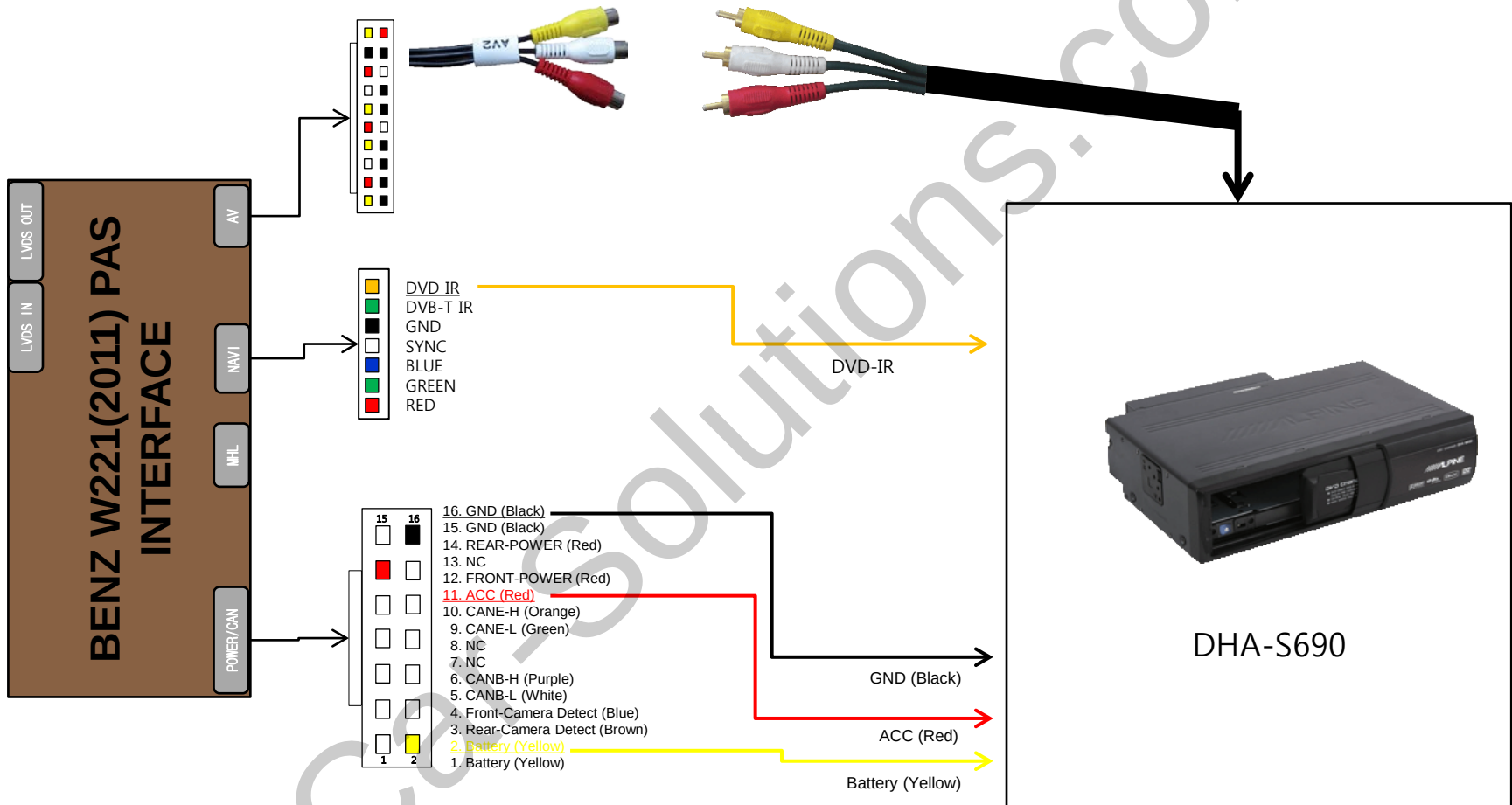
# Install Manual

## 3. Installation DVB-T Remote Control Connection



# Install Manual

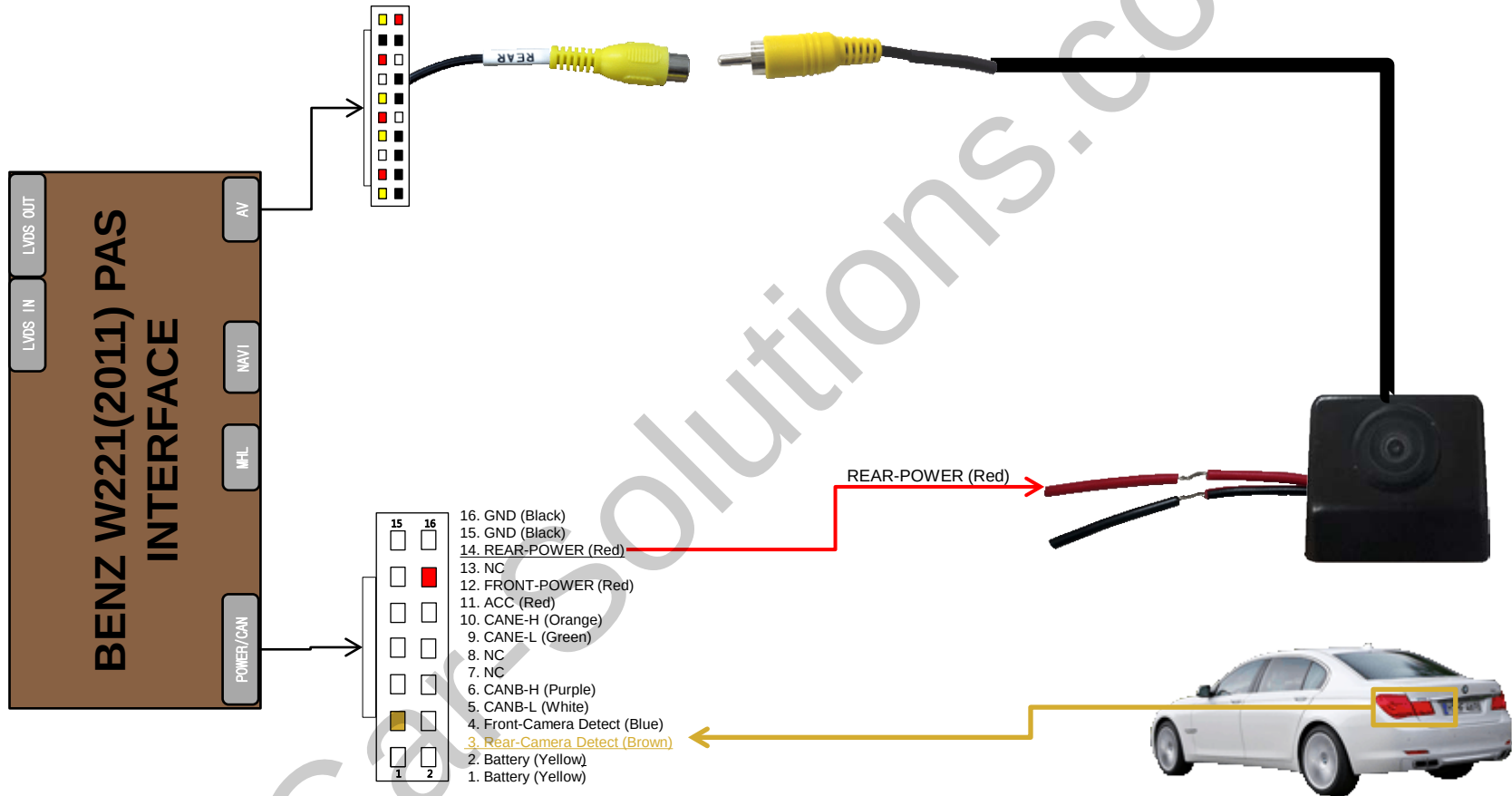
## 4. Installation DVD Remote Control Connection





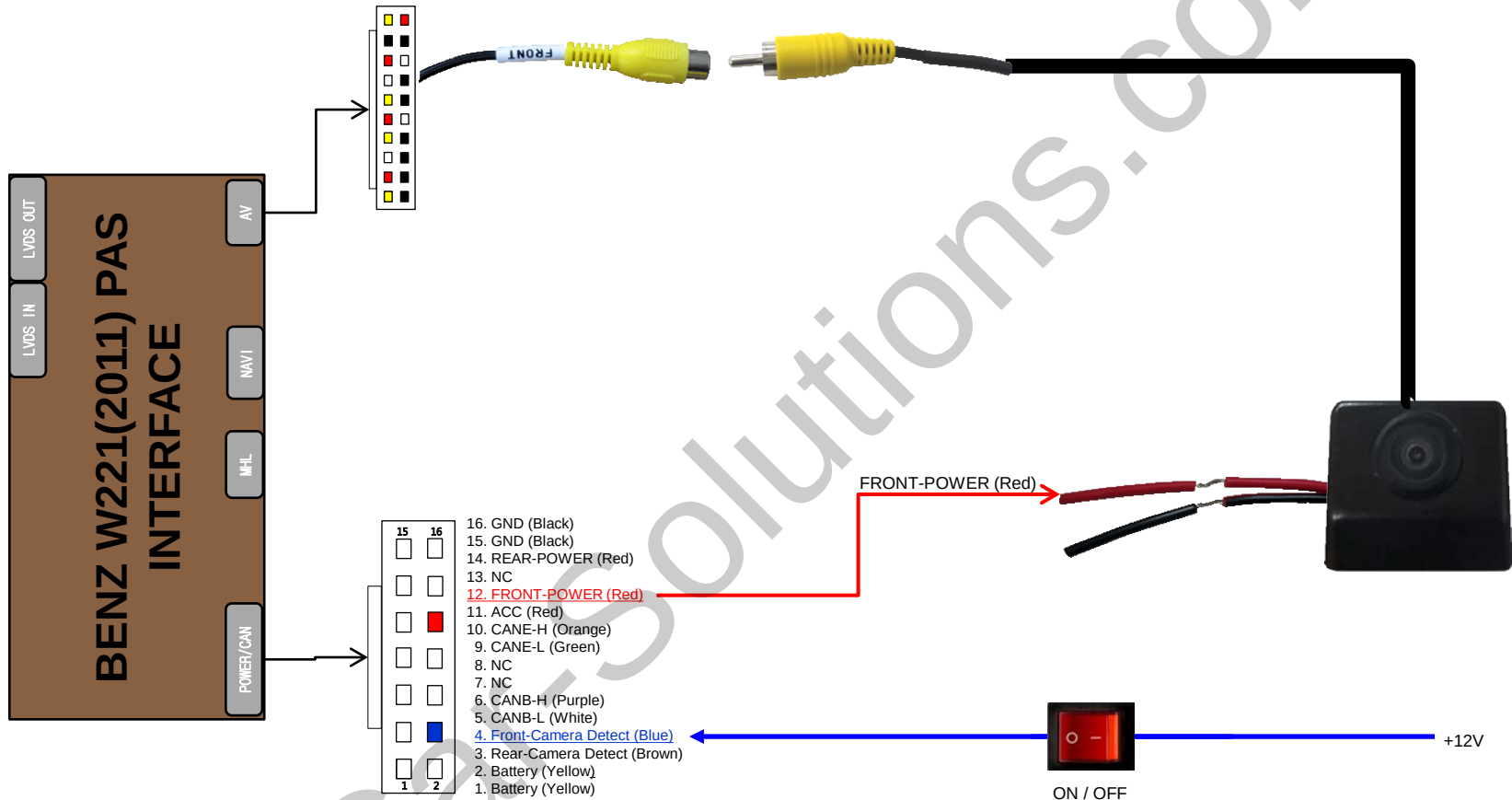
# Install Manual

## 5. Installation External Reverse(Rear) Camera Connection : OSD Screen selection CAN



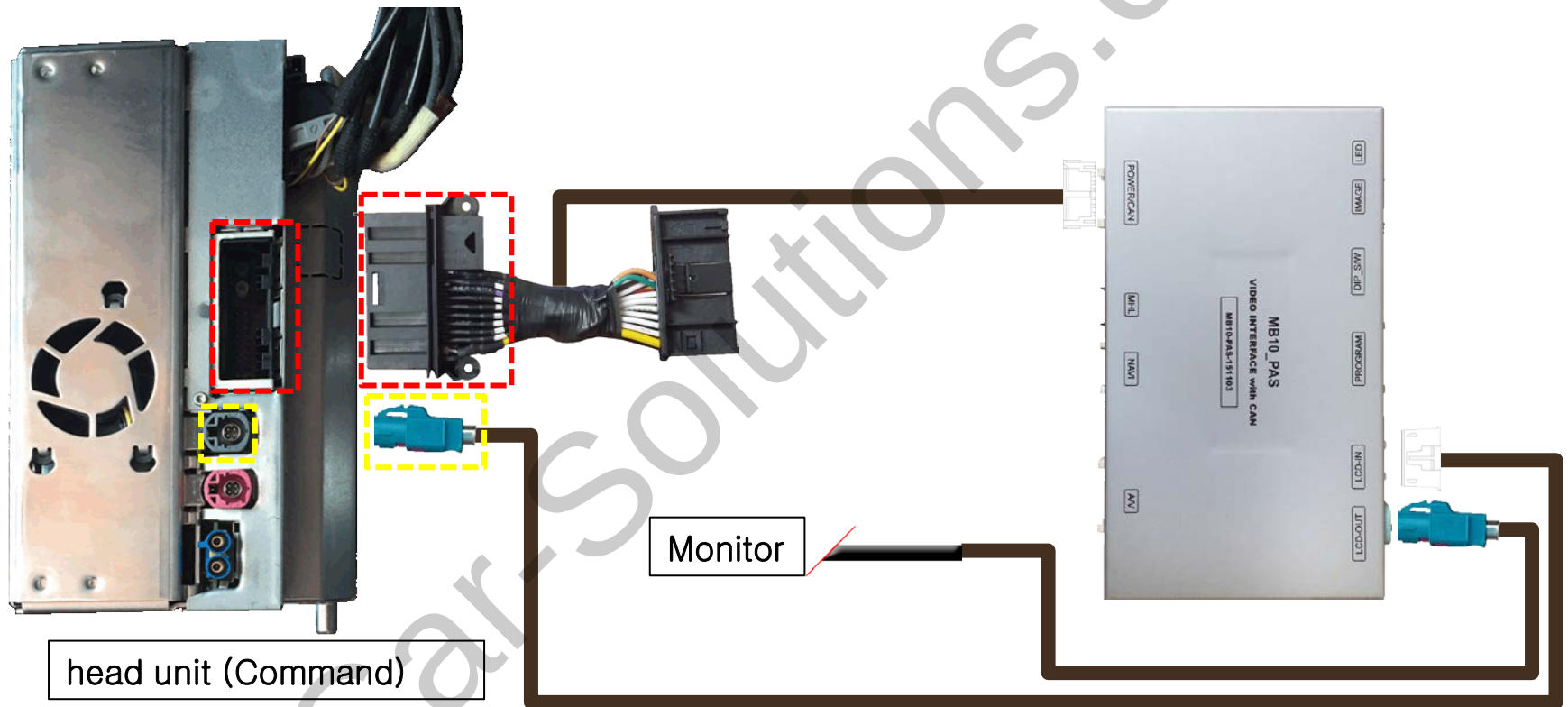
# Install Manual

## 6. Installation External Front Camera Connection



# Install Manual

## 7. Installation LVDS connection



# Q & A

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1. If Interface has a problem, Please check LED.

- ACC on (12v), If Interface does not have a problem; GREEN LED is blinking every 1 sec..
- RED LED is turn on (not blinking), Interface has a problem.
- RED LED is turn off every 1 sec, there is no input.
- RED LED and GREEN LED both are not turn on, check the CAN or ACC connection.

2. Q : LCD screen black

A : LVDS Cable problem or, connection problem.

3. When DTV or DVD mode, cannot control with I-Drive

- Check IR cable, and DTV or DVD device' s ground cable and Interface ground cable join together with using extra cable.
- Check device in OSD menu