

# Mercedes-Benz PIP Installation Guide Specification



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# Spec

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

- 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 Analog RGB Input (Navigation System output)
- 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.

|                   | Min | Typ | Max | Unit    |
|-------------------|-----|-----|-----|---------|
| Input Voltage     | 9   | 12  | 24  | V       |
| Operating current | 470 | 360 | 160 | mA      |
| Sleep current     | 8   | 12  | 27  | $\mu$ A |

## 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

# About Interface

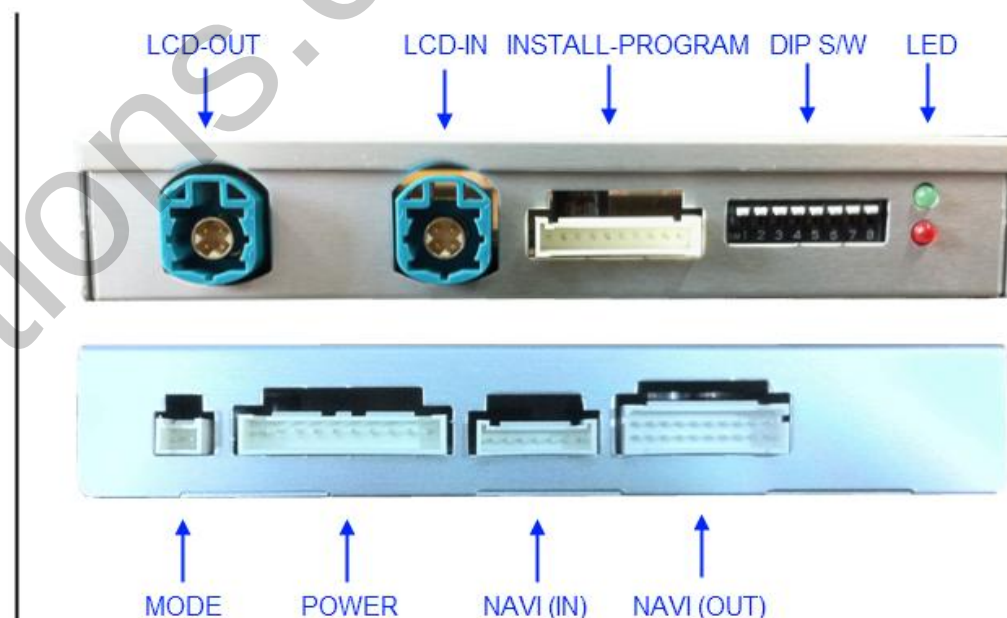
## - Dimension

124mm \* 83mm \* 23mm

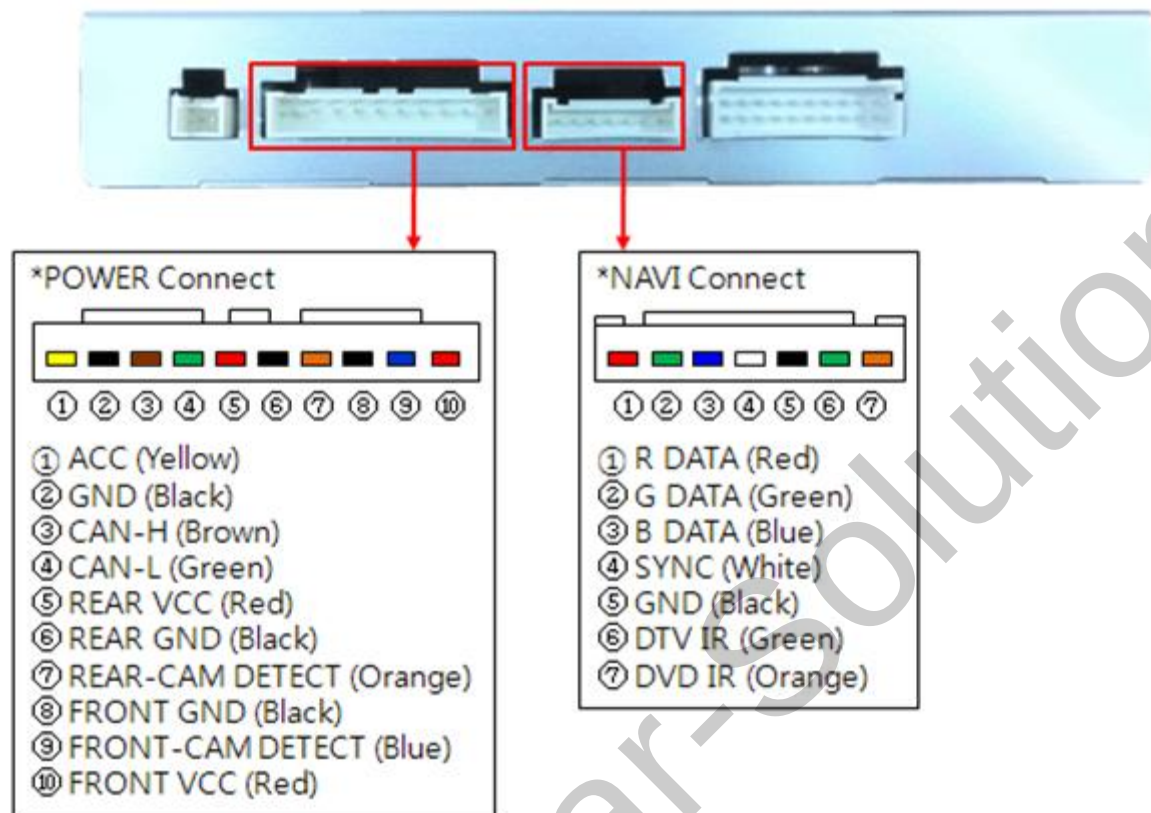


\* This can change under manufacturer's circumstance

## - External Appearance



# Connector Pin Assignment



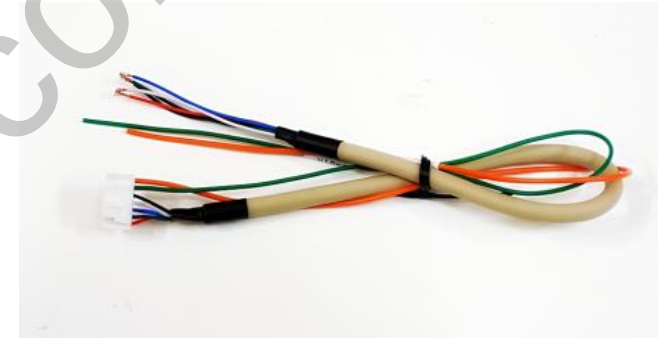
# Product Composition



Interface Board 1 EA



Power Cable 1 EA



RGB Navi Cable 1 EA



A/V Cable 1 EA



LVDS Cable 1 EA

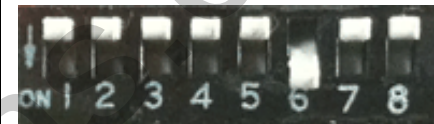


Option Cable:  
AUX Cable

# DIP S/W Setting

※ ON : DOWN , OFF : UP

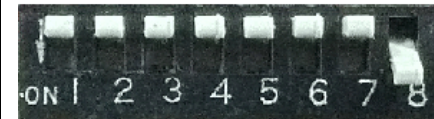
| PIN | FUNCTION        | DIP S/W Selection                                  |
|-----|-----------------|----------------------------------------------------|
| 1   | NAVI INPUT MUTE | ON : Skipping NAVI Mode<br>OFF : NAVI Display      |
| 2   | AV1 MUTE        | ON : Skipping AV1<br>OFF : AV1 Display             |
| 3   | AV2 MUTE        | ON : Skipping AV2<br>OFF : AV2 Display             |
| 4   | NAVI Mode       | ON : NAVI-AV Selection<br>OFF : NAVI-RGB Selection |
| 5   | N.C             |                                                    |
| 6   | CAR SEL         | ON : LG LCD 2014+<br>OFF : Sharp LCD 2013          |
| 7   | N.C             |                                                    |
| 8   | CAR SEL         | ON : 7" LCD Size<br>OFF : 5.8" LCD Size            |



5.8" Size (LG LCD 2014+)



5.8" Size (Sharp LCD 2013)



7" Size (Sharp LCD 2013)



7" Size (LG LCD 2014+ )

# DIP S/W Setting 2

※ 2014 Year E-Class problem.



Change Dip S/W



# I-Drive Control usage

## Control DTV by I-Drive



<On DTV Mode >

Push Long : SCAN

Push Short : Channel UP

Push Short : Channel DOWN

Push Long : Change the mode



# I-Drive Control usage

## Control DVD UI

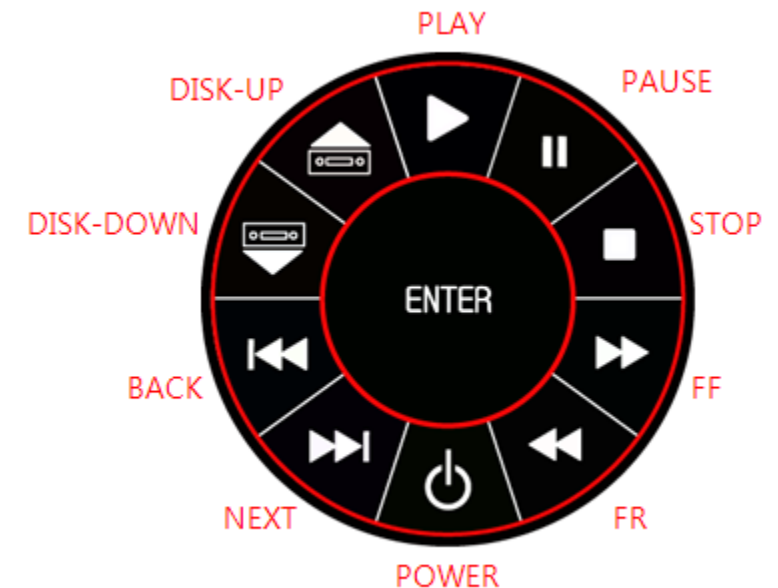


<On DVD Mode >

Icon image Move to right

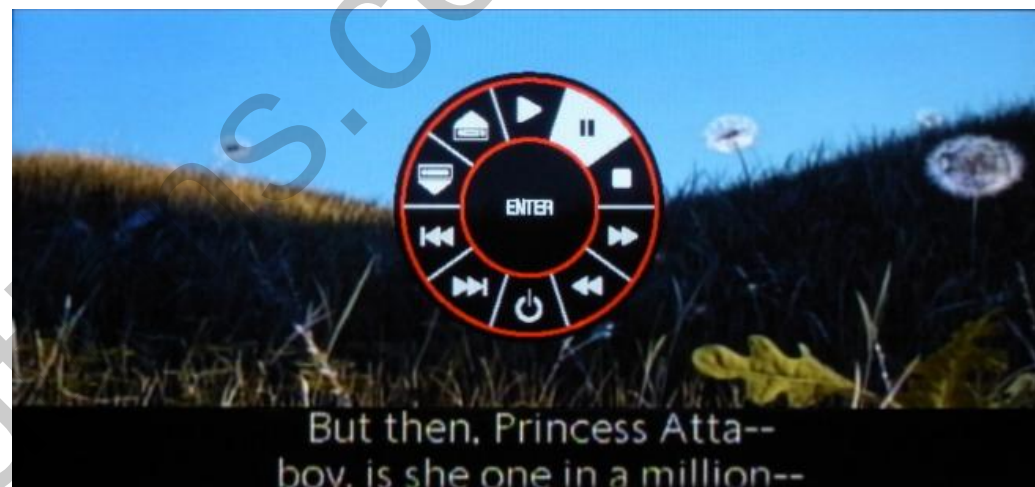
Push Long : DVD UI ON, Push Short : Enter the Icon

Icon image Move to right



# DVD UI

## Control DVD UI



# OSD Menu



UP, RIGHT

Press 6sec, **OSD ON**

Select

DOWN, LEFT

EXIT

► RGB Mode: Contrast, Brightness

► AV1, AV2, REAR Mode:

- Contrast, Brightness, Saturation, Hue, Sharpness
- Setting each AV1, AV2, Rear Mode separately

► RGB Mode

| MENU    | Image      | NAVI |
|---------|------------|------|
| Image   | Contrast   | 42   |
| OSD     | Brightness | 50   |
| Parking | Saturation | 50   |
| Config  | Hue        | 50   |
| Utility | Sharpness  | 25   |

► AV1 Mode

| MENU    | Config   | AV-2                     |
|---------|----------|--------------------------|
| Image   | DMB(DTV) | EliteXtrem. ELT-DVET20   |
| OSD     | DVD      | EliteXtrem. ELT-980KU S1 |
| Parking | NAVI     | LCKT.                    |
| Config  | SafeMode | Off                      |
| Utility | Reset    | Execute Cancel           |

► AV2 Mode

| MENU    | Config   | AV-1                     |
|---------|----------|--------------------------|
| Image   | DMB(DTV) | EliteXtrem. ELT-DVET20   |
| OSD     | DVD      | EliteXtrem. ELT-980KU S1 |
| Parking | NAVI     | LCKT.                    |
| Config  | SafeMode | Off                      |
| Utility | Reset    | Execute Cancel           |

► Rear Mode

| MENU    | Parking    | REAR |
|---------|------------|------|
| Image   | Display    | On   |
| OSD     | Horizontal | 50   |
| Parking | Vertical   | 50   |
| Config  | TP         | 40   |
| Utility | AutoPower  | Off  |

# OSD Menu

## ► OSD Setting – Config Mode

| MENU    | Config     | NAVI           |
|---------|------------|----------------|
| Config  | NAVI-RGB   | Default        |
| Option  | NAVI-AV    | Default        |
| Image   | DVD        | ELT-980XU Slim |
| Screen  | DVB-T(IMB) | ELT-DVBT20     |
| Parking | BlackBox   | Default        |

### - NAVI(GPS) - RGB : Model Select

- ① Default
- ② GI-4000
- ③ GI-8000
- ④ PANASONIC
- ⑤ KD-900
- ⑥ PURENAVI8
- ⑦ SINGAPURA

### - NAVI – AV : Model Select

- ① Default

### - DVD : Model Select

- ① EliteXtrem. ELT-980XU SLIM
- ② SANYO
- ③ LCKT
- ④ NECVOX (DVA-3206)
- ⑤ AMPIRE (DVX-101)

### - DTB-T : Model Select

- ① EliteXtrem. ELT-DVBT20
- ② NETWORK. NET-770
- ③ MEDIALIFE
- ④ PANASONIC
- ⑤ PIONEER
- ⑥ GEX-700DV
- ⑦ PORTUGAL

### - BlackBox : Default

### - RearCam : Default

### - FrontCam : Default

### - Reset :

- ① Excute
- ② Cancele

# OSD Menu

## ► OSD Setting – Option Mode

| MENU    | Option         |           | NAVI |
|---------|----------------|-----------|------|
| Config  | RearCam-Type   | ExtDevice |      |
| Option  | RearCam-Power  | Off       |      |
| Image   | FrontCam-Type  | ExtDevice |      |
| Screen  | FrontCam-Power | Off       |      |
| Parking | Safe Mode      | Off       |      |

- **Safe Mode** : Default

- **RearCam – RcvOpt**

- ① On : Show Frontcam 25sec after rear mode.
- ② Off: Default

- **Reset**

- ① Excute
- ② Cancele

- **RearCam – Type**

- ① OEM: Original Rear camera
- ② ExtDevice : Use aftermarket Rear camera

- **RearCam – Power**

- ① ON : Rear camera get +12V consistently
- ② AUTO: Rear camera get +12V when reverse gear on.
- ③ OFF: Shut out the power supply.

- **FrontCam – Type**

- ① OEM: Original Front camera
- ② ExtDevice : Use aftermarket Front camera

- **FrontCam – Power**

- ① ON : Front camera get +12V consistently
- ② AUTO: Front camera get +12V when reverse gear on.
- ③ OFF: Shut out the power supply.

# OSD Menu

## ► OSD Setting – Image Mode

| MENU    | Image      | NAVI |
|---------|------------|------|
| Config  | Brightness | 50   |
| Option  | Contrast   | 50   |
| Image   | Saturation | 50   |
| Screen  | Hue        | 50   |
| Parking | Sharpness  | 25   |

- Brightness
- Contrast
- Saturation
- Hue
- Sharpness
- Color – RED
- Color – Green
- Color – Blue
- Reset
  - ① Excute
  - ② Cancele

## ► OSD Setting – Screen Mode

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

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

# OSD Menu

## ► OSD Setting – Parking Mode

| MENU    | Parking    | REAR   |
|---------|------------|--------|
| Image   | Display    | On Off |
| OSD     | Horizontal | 50     |
| Parking | Vertical   | 50     |
| Config  | TP         | 40     |
| Utility | AutoPower  | Off    |

- Display : Parking line display On/Off
- Horizontal : Parking line move Left/Right
- Vertical : Parking line move Up/Down
- TP : Parking line clarity
- AutoPower : Parking line ACC control

**On:** Rear camera get a power supply when reverse gear on.

But, Depend on camera Spec. sometimes noise image happen.

**Off:** Rear camera get a power supply continuous.



REAR → Connect to back-light wire.

REAR-GND → Connect to rear camera Acc and GND.

REAR-POWER

# OSD Menu

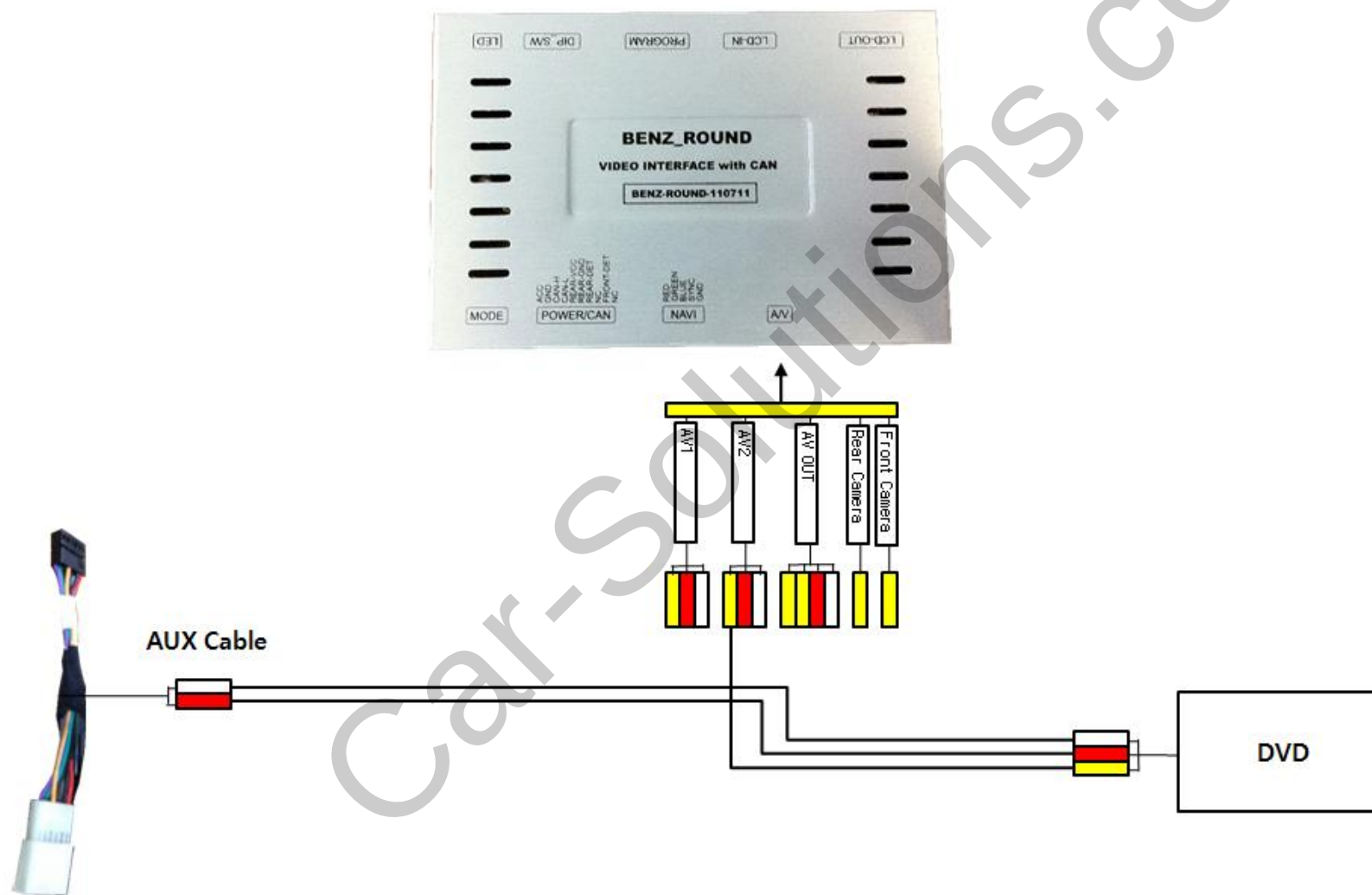
## ► OSD Setting – Utility Mode

| MENU    | Utility   | NAVI                   |
|---------|-----------|------------------------|
| Image   | Reset All | Execute Cancel         |
| OSD     | Info      | System Version = 01.01 |
| Parking |           |                        |
| Config  |           |                        |
| Utility |           |                        |

- Reset All : Initialization
- Info: Software version.

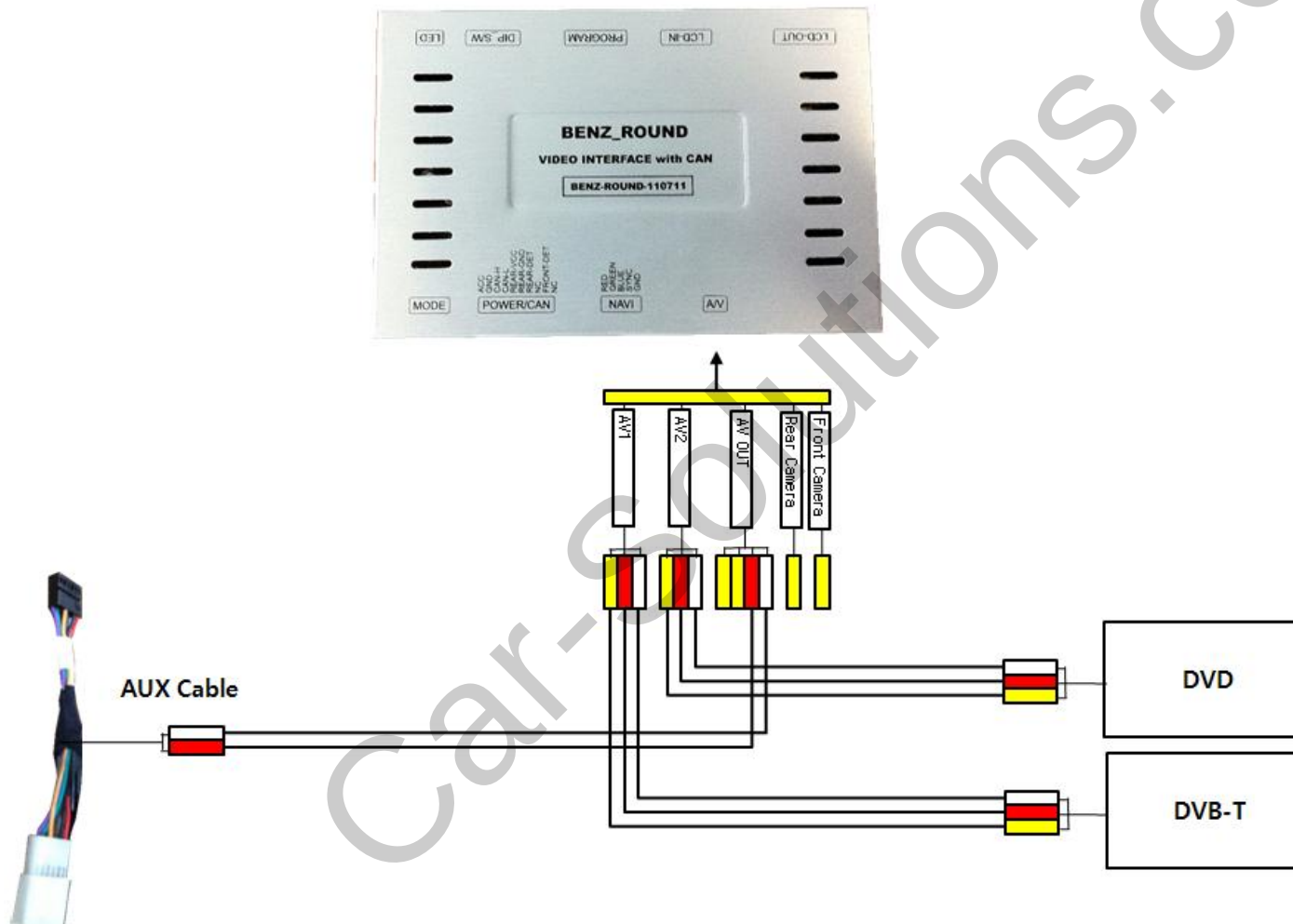
# Option AUX Cable Install

- External video signal: one ( ex : DVD)



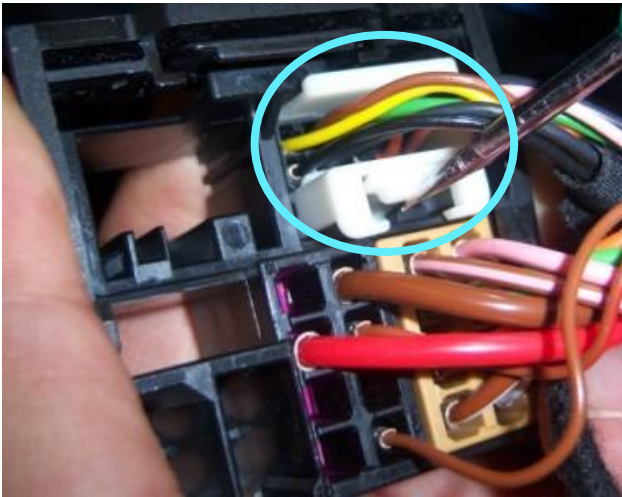
# Option AUX Cable Install

- External video signal: Two ( ex : DVB-T , DVD)

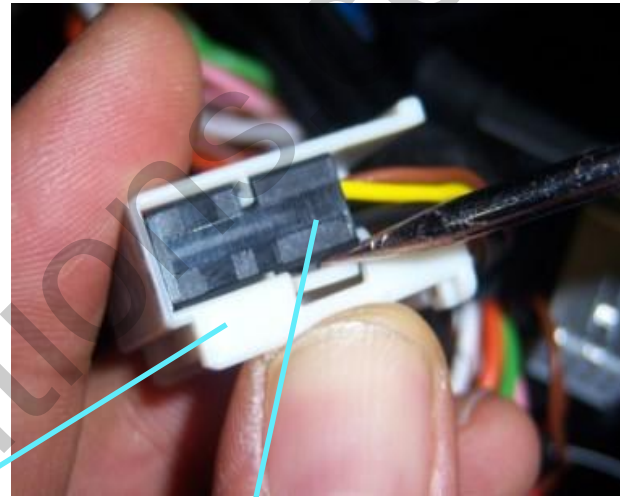


# Option AUX Cable Install

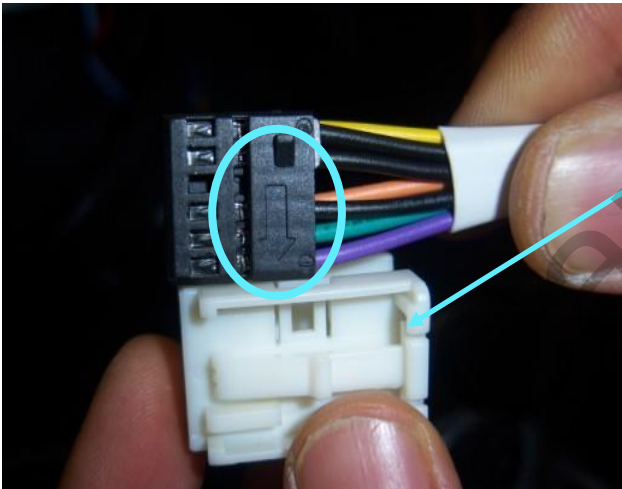
## ► AUX Cable Install



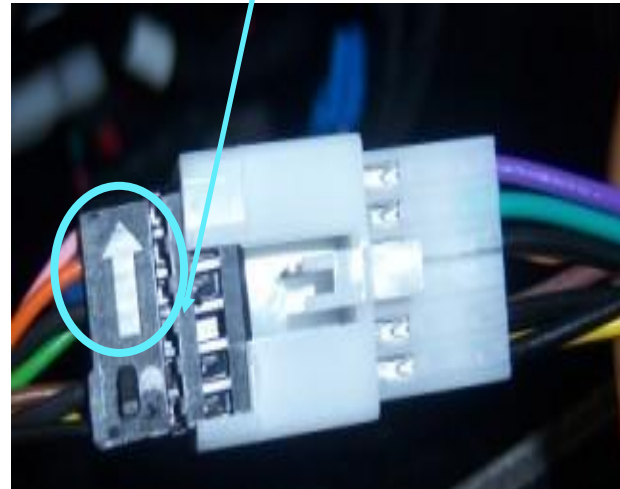
Pull out  
Original plug  
(white)



Separate  
original plug (Black)



Plug our connector  
to car connector



Plug car connector  
to our connector

## FAQ

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

- After acc turn on, 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 not turning on, there is no input device.
- **RED** LED and **GREEN** LED both are not turn on, check to power cable.

2. When monitor changed to Orange color.

- LVDS cable contact problem or cable 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
- 

4. Change the Language Chinese to English.

1) First menu -> select the 6th icon

| 主菜单  | 构成 REAR |             |
|------|---------|-------------|
| 构成   | 导航 -RGB | KD900(WVGA) |
| 选择   | 导航 -AV  | Default     |
| 图像调整 | DVD     | Default     |
| 画面调整 | 数字电视    | ELT-DVBT20  |
| 停车   | 行车记录器   | Default     |

2) Second menu -> select the 5th icon, then choose "English"

| 主菜单  | 菜单调整 / 语言 REAR |         |
|------|----------------|---------|
| 菜单调整 | 位置 左右调整        | English |
| 工具   | 位置 上下调整        | 中文      |
|      | 显示时间           | 한국어     |
|      | 透明度            |         |
|      | 语言             |         |