**Manuals+** — User Manuals Simplified.
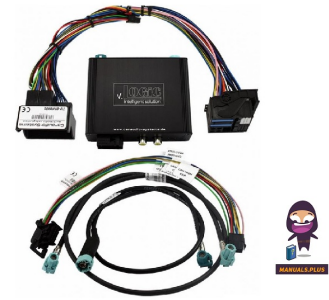


V5-NTG5-PNP
V.LOGiC
Intelligent
Solution

# CARAUDIO-SYSTEMS V5-NTG5-PNP V.LOGiC Intelligent Solution Owner's Manual

## Contents

**CARAUDIO-SYSTEMS V5-NTG5-PNP V.LOGiC Intelligent Solution**

## FAQs

**Q: Can I watch moving pictures while driving with this product?**

A: By law, watching moving pictures while driving is prohibited. The driver must not be distracted. This product should only be used while standing or to display fixed menus or rear-view camera video when the vehicle is moving.

**Q: How can I update the software of the interface?**

A: We offer free software updates for our interfaces for one year after purchase. To receive a free update, the interface must be sent in at your own cost.

## Product Features

- Interactive lane lines
- Own on-screen display and setup
- Rear-view camera input
- Automatic switching to rear-view camera input on the engagement of reverse gear from all operation modes

- Front camera input

- Manual switching to rear-view camera

- 2 trigger outputs (+12V max. 1A), separately adjustable switching events (CAN, ACC, camera, reverse gear)

- Compatible with all factory video accessories (e.g. rear-view camera, TV tuner)

- USB update port for software updates by consumer

**Legal Information**

By law, watching moving pictures while driving is prohibited, the driver must not be distracted. We do not accept any liability for material damage or personal injury resulting, directly or indirectly, from the installation or operation of this product. This product should only be used while standing or to display fixed menus or rear-view-camera video when the vehicle is moving, for example, the MP3 menu for DVD upgrades. Changes/updates of the vehicle's software can cause malfunctions of the interface. We offer free software updates for our interfaces for one year after purchase. To receive a free update, the interface must be sent in at own cost. Labor costs for and other expenses involved with the software updates will not be refunded.

## Prior to installation

Read the manual prior to installation. Technical knowledge is necessary for installation. The place of installation must be free of moisture and away from heat sources.

**Delivery contents**

Take down the SW-version and HW-version of the interface boxes, and store this manual for support purposes.
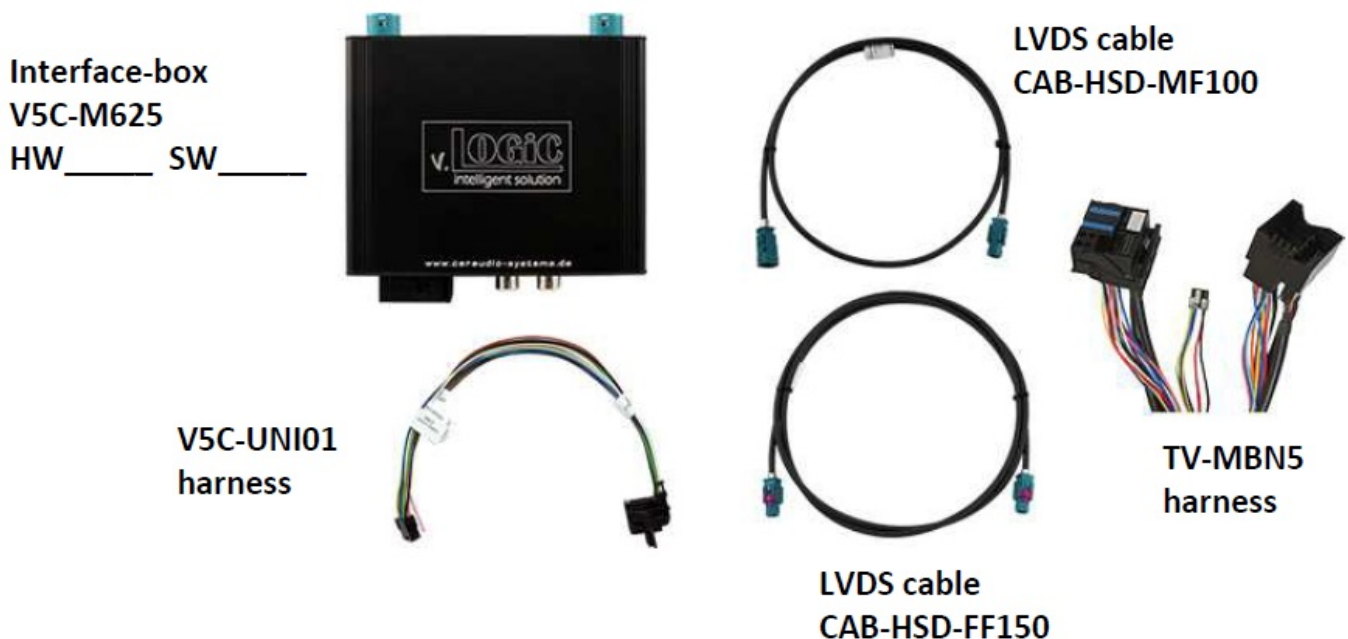


**check the compatibility of the vehicle and accessories**

**Requirements**

**Navigation**

COMAND Online NTG5/5.1, Audio20 NTG5/5.1 with 4pin HSD LVDS connector on the monitor (s-class W222 is not supported)

**Limitations**

**Factory**

TV tuner Vehicles with factory TV tuner are not supported

**Setting the DIP switches of the interface box V5C-M625**

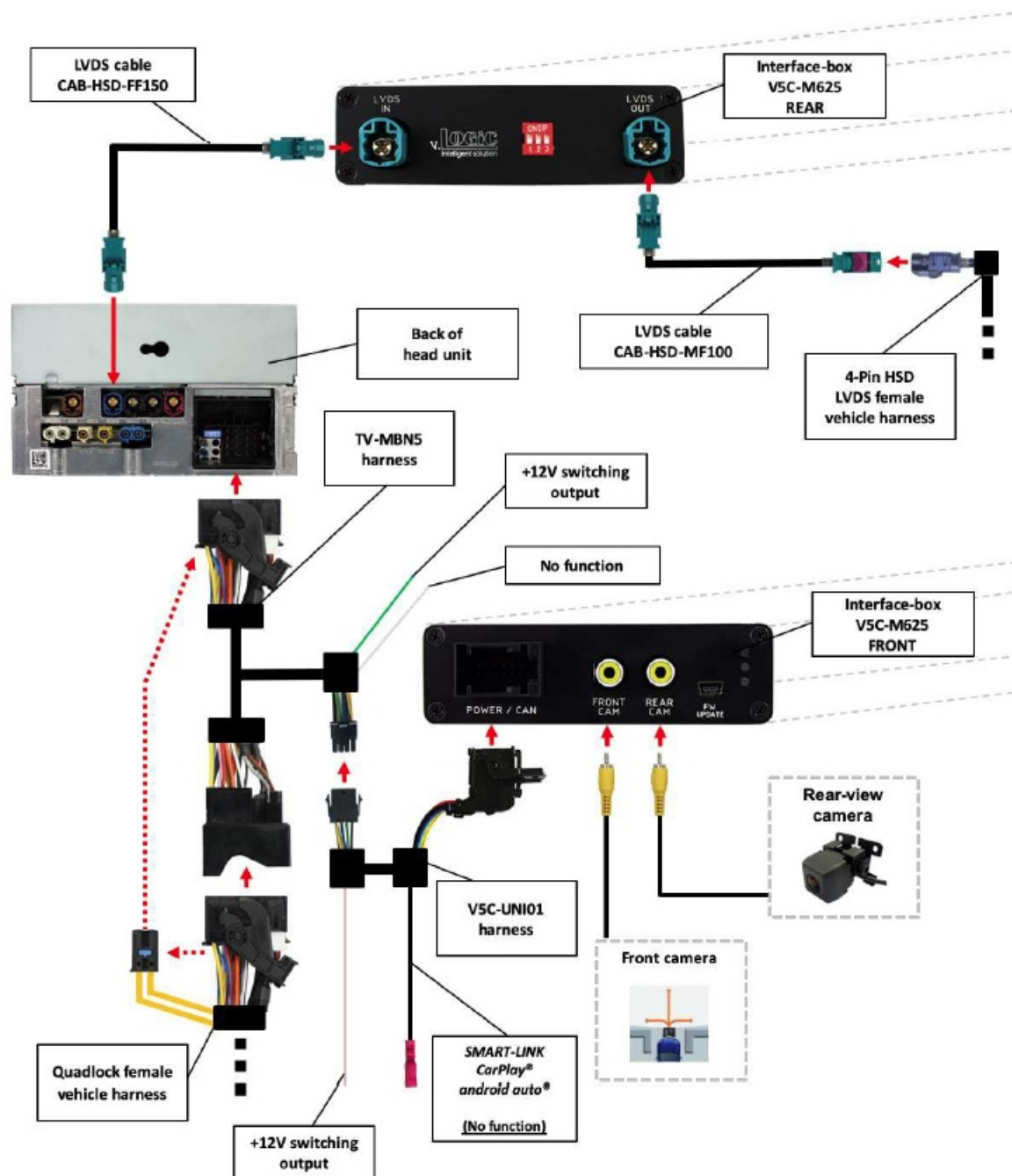DIP 1 on the back of the interface box V5C-M625 is used to set the monitor type. The default setting is:

| Head unit | DIP 1 | DIP 2 | DIP 3 |
|---|---|---|---|
| COMAND Online NTG5/5.1,<br><br>Audio20 NTG5/5.1 (Hi-resolution) | ON | No function | No function |
| Audio20 NTG5/5.1 (Low resolution) | OFF | No function | No function |

After each change of the DIP switch settings, you have to execute a power reset of the interface-box!

**LEDs of the interface box V5C-M625**



**Connection schema**

**LVDS cable CAB-HSD-FF150**

**Interface-box V5C-M625 REAR**

LVDS IN

LVDS OUT

**Back of head unit**

**LVDS cable CAB-HSD-MF100**

**4-Pin HSD LVDS female vehicle harness**

**TV-MBN5 harness**

**+12V switching output**

**No function**

**Interface-box V5C-M625 FRONT**

POWER / CAN

FRONT CAM

REAR CAM

FW UPDATE

**Rear-view camera**

**V5C-UNI01 harness**

**Front camera**

**Quadlock female vehicle harness**

**+12V switching output**

**SMART-LINK CarPlay® android auto®**

**(No function)**

## Installation

Switch off the ignition and disconnect the vehicle's battery! The interface needs a permanent 12V source. If according to factory rules disconnecting the battery is to be avoided, it is usually sufficient to put the vehicle in sleep mode. In case the sleep mode does not show success, disconnect the battery with a resistor lead. If a power source is not taken directly from the battery, the connection has to be checked for being start-up proven and permanent. Prior to wire and device installation, we suggest connecting and test the correct function of all after-market and factory infotainment equipment! The interface is installed on the backside of the head unit.

## Connecting interface box and harnesses
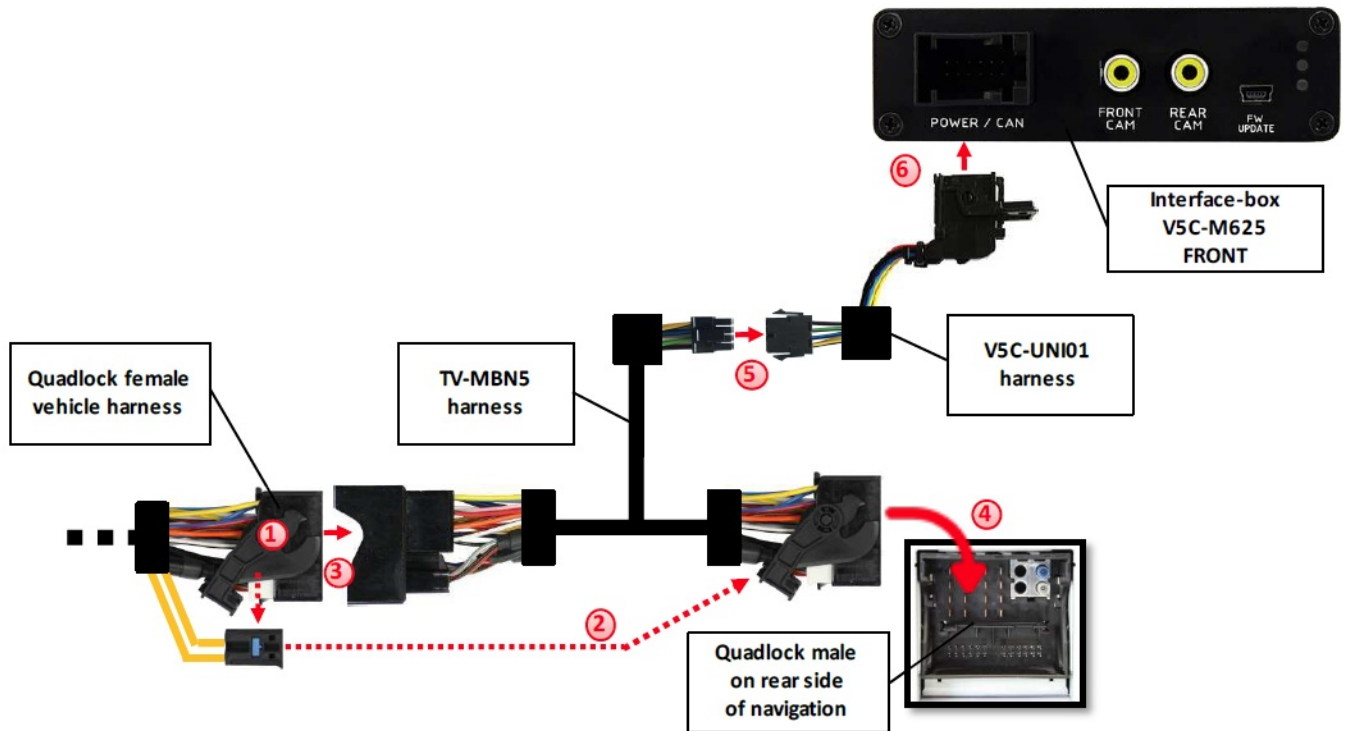
1. Remove the female Quadlock connector of the vehicle harness from the rear of the navigation computer.
2. Remove optical leads from the female Quadlock connector of the vehicle harness and insert them into the female Quadlock connector of harness TV-MBN5 at the same position.
3. Connect the female Quadlock connector of the vehicle harness to the male Quadlock connector of harness TV-MBN5.
4. Connect the female Quadlock connector of harness TV-MBN5 to the male Quadlock connector of the navigation computer
5. Connect the female 8-pin molex connector of the harness TV-MBN5 to the male 8-pin molex connector of the harness TV-MBN5.
6. Connect the female 12pin AMP connector of the harness TV-MBN5 to the front side of the V5C-M625 interface box.

## LVDS connection
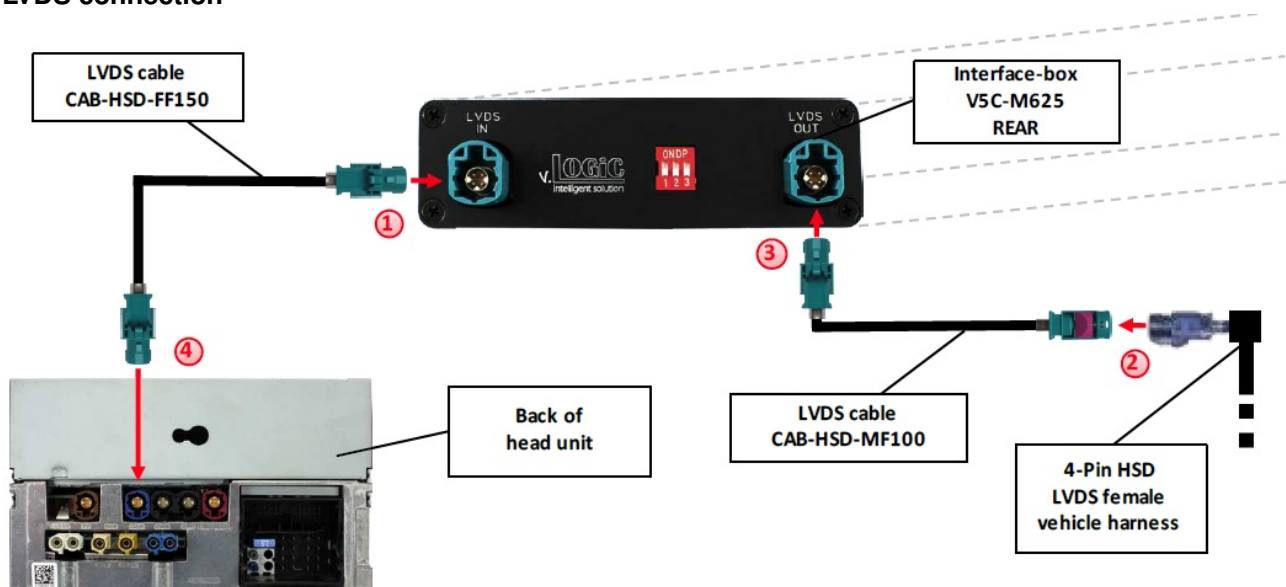
1. Connect the female 4pin HSD LVDS connector of the LVDS cable CAB-HSD-FF150 to the male 4-pin HSD LVDS connector (LVDS-IN) on the rear of the interface box V5C-M625.
2. Remove the blue female 4-pin HSD LVDS connector of the vehicle harness at the back of the head unit and connect it to the male 4-pin HSD LVDS of the CAB-HSD-MF100 LVDS cable.
3. Connect the female 4-pin HSD LVDS connector of the LVDS cable CAB-HSD-MF100 to the male 4pin HSD LVDS connector (LVDS-OUT) on the rear of the interface box V5C-M625.
4. Connect the female 4-pin HSD LVDS connector of the LVDS cable CAB-HSD-FF150 to the pink male 4-pin HSD LVDS connector on the rear of the head unit.

**After-market front camera**

**Connection to the after-market front camera**
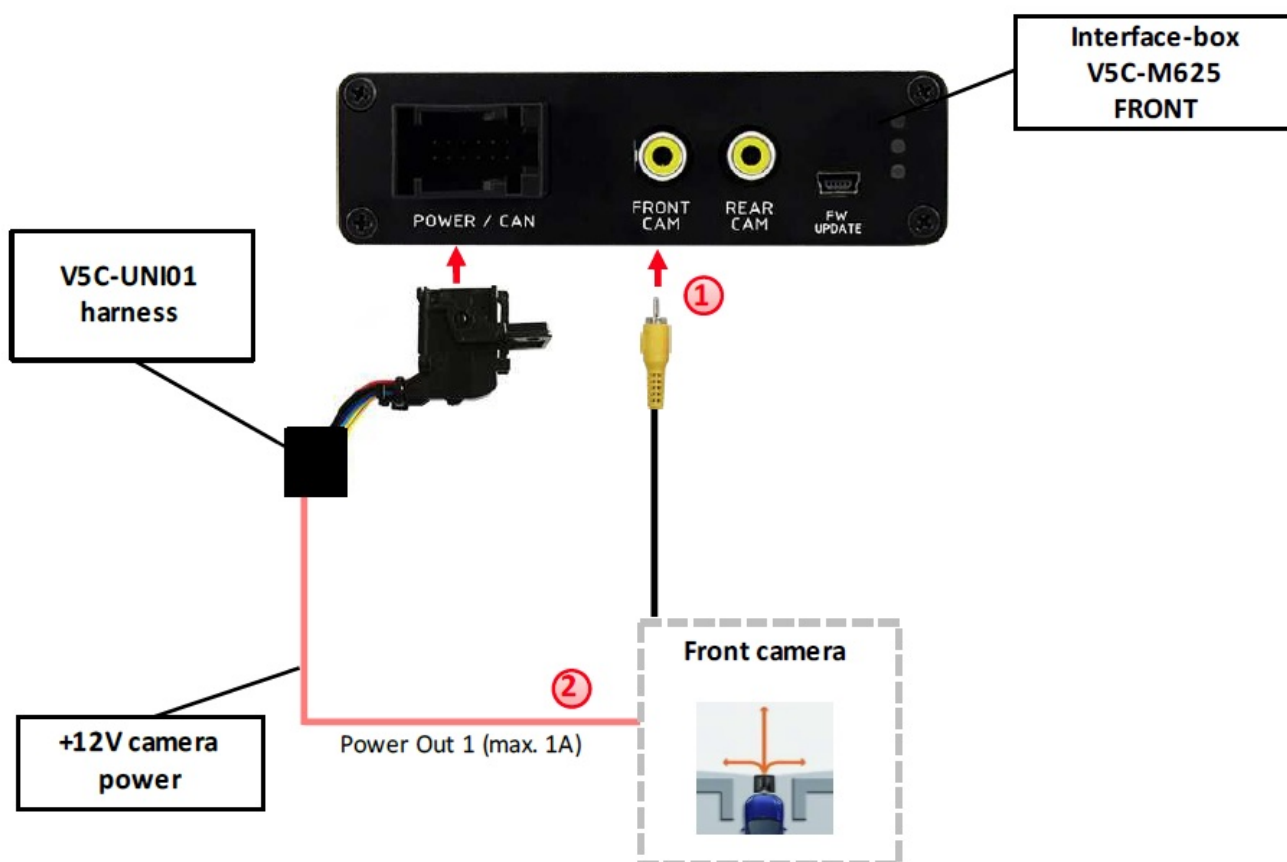


1. Connect the video RCA of the after-market front camera to the female RCA connector "FRONT CAM" of the interface box V5C-M625.
2. The pink wire of harness V5C-UNI01 can be used for +12V electric power supply (max. 1A) of the after-market front camera. Configure in the OSD menu "OPTION", menu item "POWER OUT 2" the designated electric power supply (see chapter "Configurable switching outputs").

**Settings for connecting an after-market front camera**

You have to configure some settings in the OSD-menus INPUTS and MISC if you want to connect an after-market front camera (Operation of the OSD: see chapter "OSD-Operation").




| OSD-menu | Menu item | Setting | Explication |
|---|---|---|---|
| INPUT | FVC | OFF | Keine Frontkamera angeschlossen |
| | | ON | Switches to front camera if parking process is enabled and reverse gear is released |
| OPTION | PARK LOGIC | RGearOnly | Enabled while parking process |
| | | RGearSpeed | Enabled while parking process and up to 30 km/h |
| | | RGearTime | Enabled while parking process and up to 20 second |

Note: You can deactivate the enabled parking process by pressing the "hands-free mode OFF" or "right arrow" button on the steering wheel. After deactivation, you can't enable the parking process again until the vehicle is diving faster than 30km/h or the ignition is switched off.

**After-market rear-view camera**

**Connection to the after-market rear-view camera**
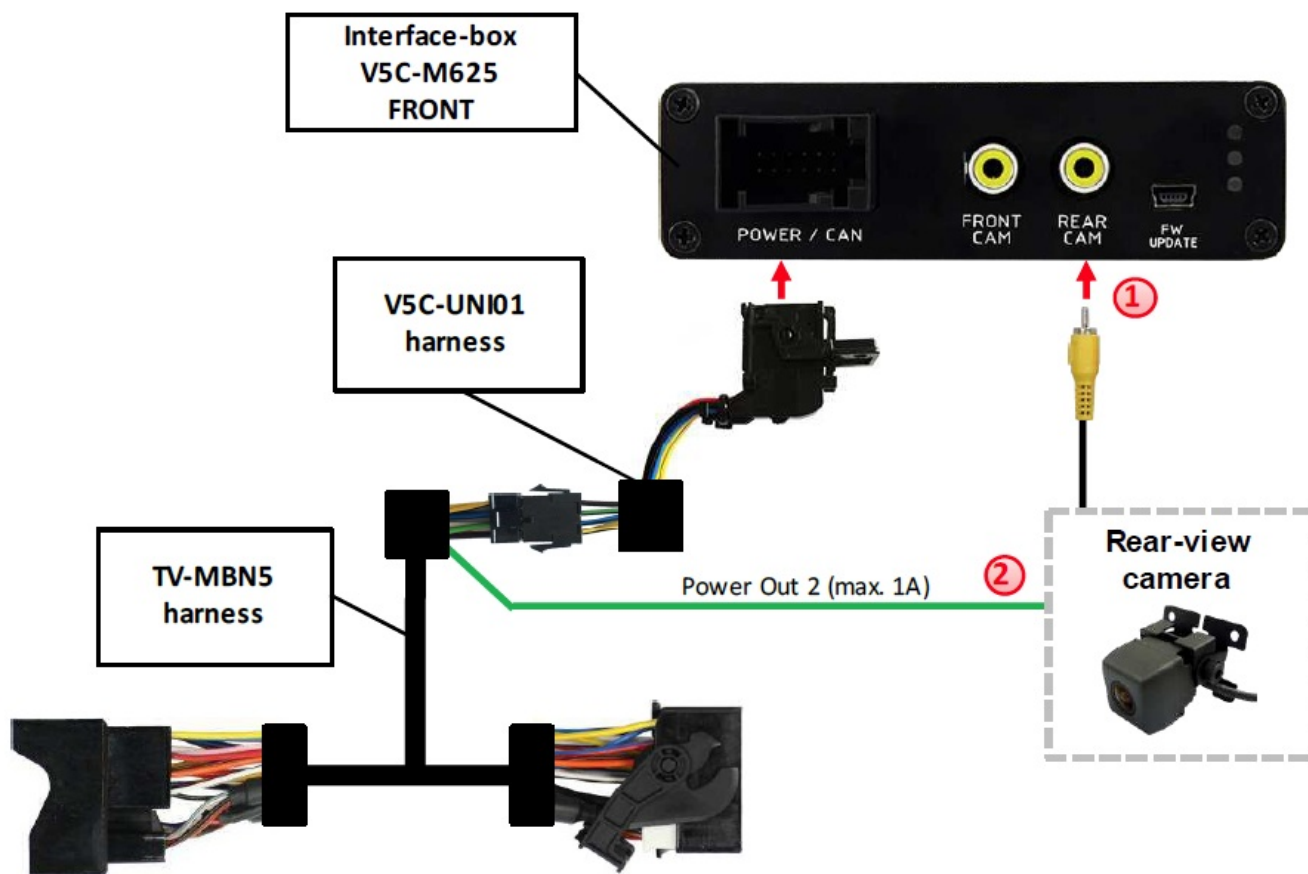
1. Connect the video RCA of the after-market rear-view camera to the female RCA connector "REAR CAM" of the interface box V5C-M625.

2. The green wire of harness TV-MBN5 can be used for a +12V electric power supply (max. 1A) of the aftermarket rear-view camera. Configure in the OSD menu "OPTION", menu item "POWER OUT 2" the designated electric power supply (see chapter "Configurable switching outputs").



**Settings for connecting an after-market rear-view camera**

You have to configure some settings in the OSD-menus INPUT and OPTION if you want to connect an after-market rear-view camera (Operation of the OSD: see chapter "OSD operation")

| OSD-menu | Menu item | Setting | Explication |
|---|---|---|---|
| INPUT | RVC | OFF | No rear-view camera connected |
| | | ON | Switches to the rear-view camera, if reverse gear is engaged and/or PDC-display, is displayed |
| OPTION | PARK LOGIC | RGearOnly | Enabled while parking process |
| | | RGearSpeed | Enabled while parking process and up to 30 km/h |
| | | RGearTime | Enabled while parking process and up to 20 seconds |
| | RVC GRAPHIC | OFF | Interactive lane lines deactivated |
| | | LINES | Interactive lane lines activated |

Note: You can deactivate the enabled parking process by pressing the "hands-free mode OFF" or "right arrow" button on the steering wheel. After deactivation, you can't enable the parking process again until the vehicle is diving faster than 30km/h or the ignition is switched off.

**Settings for OEM rear-view camera**

| OSD-menu | Menu item | Setting | Explication |
|----------|-----------|---------|-------------|
| INPUT | RVC | OEM | If a factory rear-view camera is existing! The interface turns off if reverse gear is enabled and it displays the factory rear-view<br><br>camera |
| OPTION | PARK LOGIC | RGearSpeed | Enabled while parking process and up to 30 km/h |

**Configurable trigger outputs**
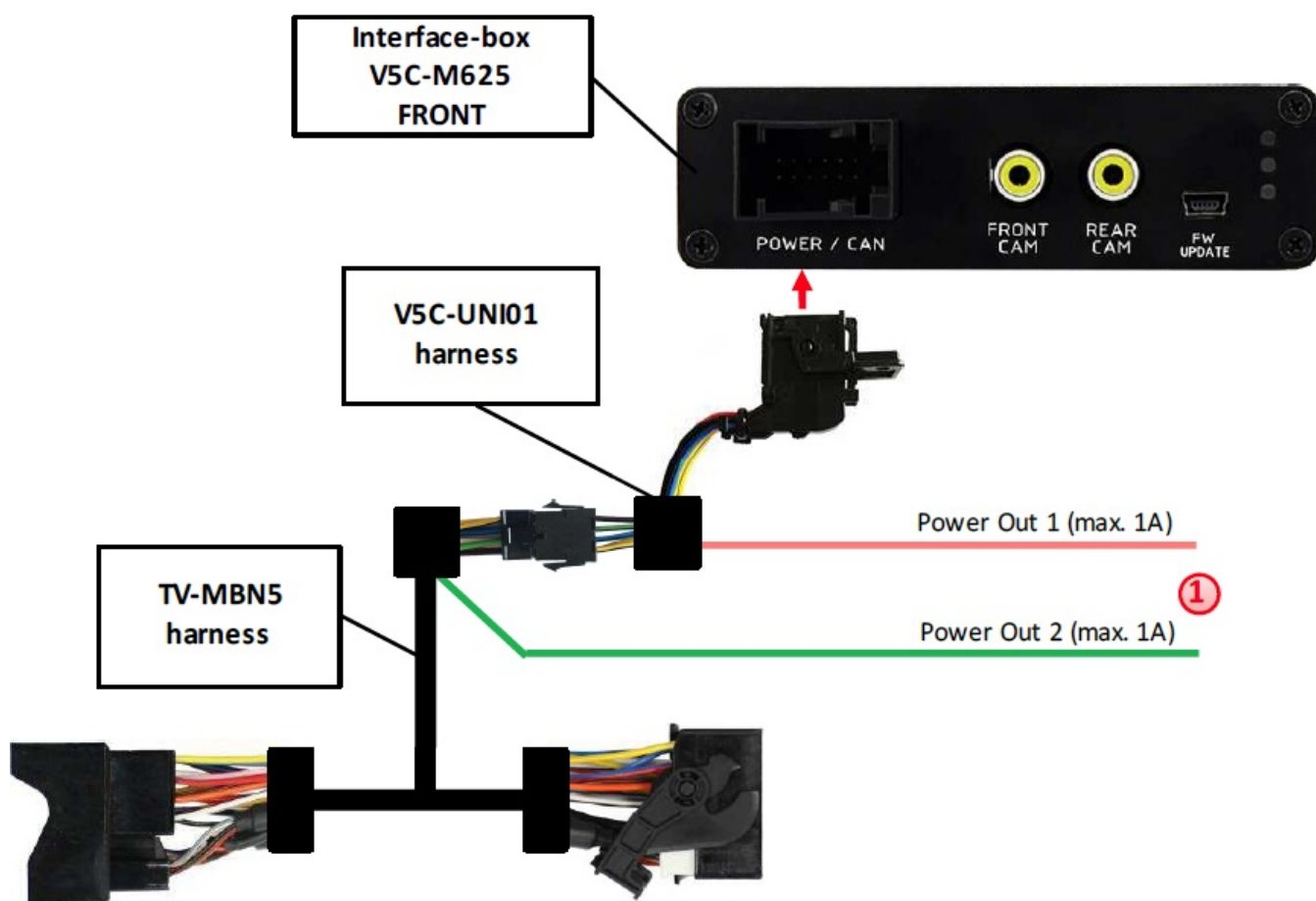


1. You can configure both +12V trigger outputs separately. The pink wire is POWER OUT 1 and the green wire is POWER OUT 2.

Note: You can configure both trigger outputs in the OSD-menu OPTION separately (Operation of the OSD: see chapter "OSD-Operation").

| OSD-menu | Menu item | Setting | Explication |
|---|---|---|---|
| OPTION | POWER OUT1 (pink) POWER OUT2 (green) | CAN | +12V when the interface is on (red LED on) |
| | | ACC | +12V when ignition is on |
| | | CAM | +12V when the rear-view camera input is activated |
| | | RGEAR | +12V when the reverse gear is engaged |
| | | AVS | +12V when interface video source is active |
| | | OFF | Trigger output deactivated |

**Interactive lane lines**

You have to configure some settings in the OSD-menu OPTION if you want to activate interactive lane lines (Operation of the OSD: see chapter "OSD-Operation").
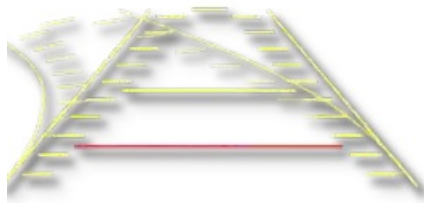
| OSD-menu | Menu item | Setting | Explication |
|---|---|---|---|
| OPTION | RVC GRAPHIC | OFF | Interactive lane lines deactivated |
| | | LINES | Interactive lane lines activated |
| | CAR TYPE | A/B/C/CLA/CLS/ E/ G/GLA/GLC/ GLE/ GLS/SL/SLC/ V/VITO/ | Vehicle type selection |

**Picture settings**

You can change the picture settings in the OSD-menu IMAGE (activation only from interface video level possible).

- Brightness
- Contrast
- Saturation
- Hue
- Sharpness

Note: The picture settings will be retained for each AV source separately.

## Operation
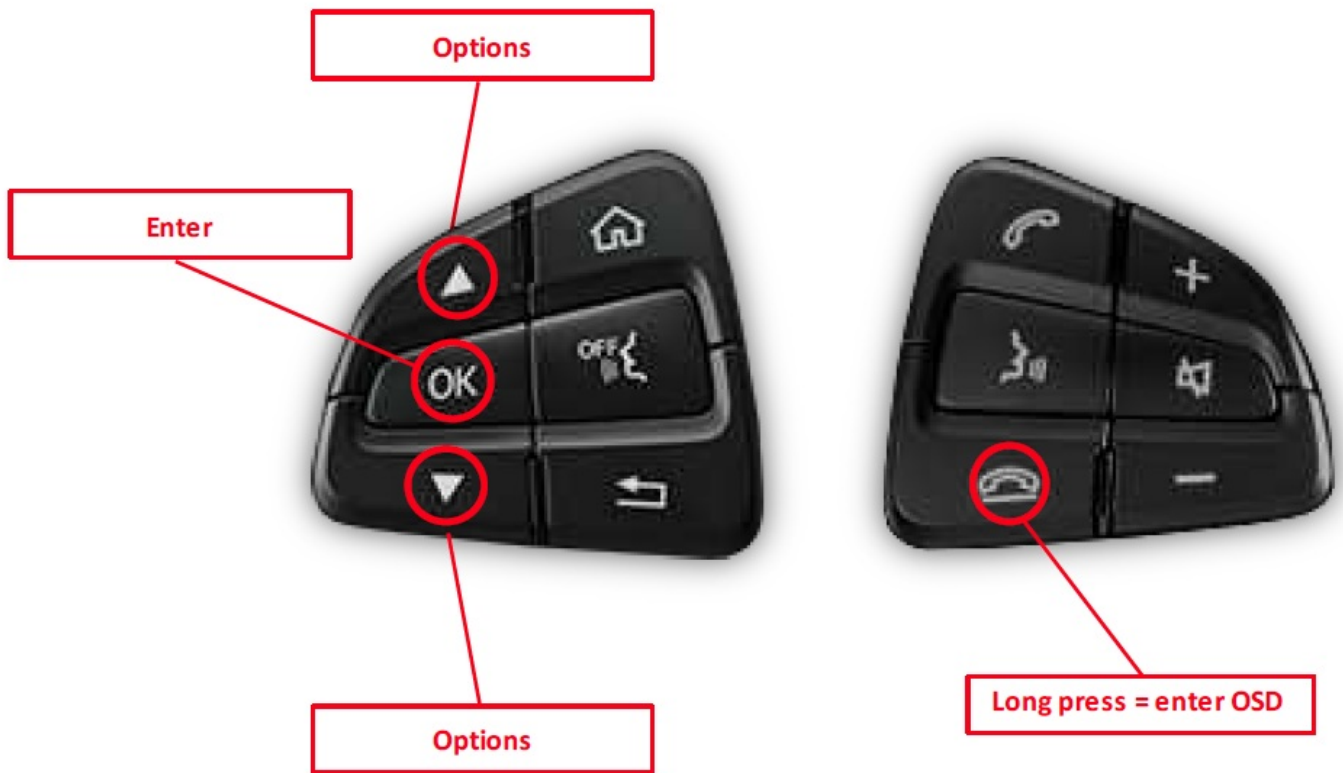
### OSD – On-screen display

You can change the basic configurations of the interface in the OSD (on-screen display).
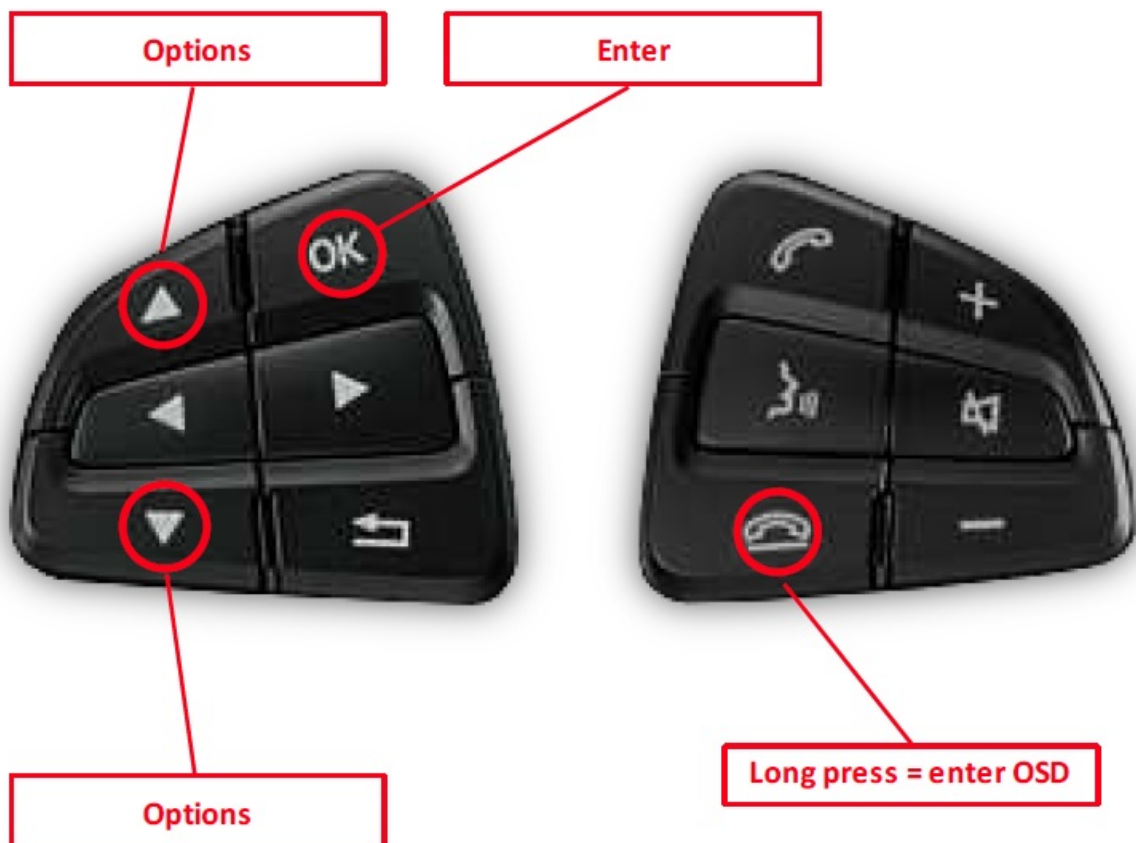


### OSD – Operation

You can control the OSD by steering wheel buttons. Set the "radio level" in the instrument cluster before you start the OSD control.

**Mercedes steering wheel version 1**

**Mercedes steering wheel version 2**



**OSD – Additional setting options**

The following settings in the OSD-menus OPTION and OSD can be configured over and above the described settings in this manual (Operation of the OSD: see chapter "OSD-Operation"):

| OSD-menu | Menu item | Setting | Explication |
|----------|-----------|---------|-------------|
| OSD | POS. X | 0-xxx | Horizontal position of the OSD |
| | POS. Y | 0-xxx | The vertical position of the OSD |
| | SIZE | SMALL | Small OSD menu windows |
| | | LARGE | Large OSD menu windows |
| | OSD TIMEOUT | 2-20 | Time setting for automatic OSD shutoff |
| INFO | VERSION | X.XX.XX | Displays the current SW-version |
| OPTION | FACTORY RESET | | Resetting to factory settings |

**Video-in-motion function**

It is possible to activate and deactivate the video-in-motion in the OSD menu "OPTION" (Operation of the OSD: see chapter "OSD-Operation").



| OSD-menu | Menu item | Setting | Explication |
|----------|-----------|---------|-------------|
| OPTION | VIM | ON | Video-in-motion activated |
| | | OFF | Video-in-motion deactivated |

For the V5-NTG5-PNP the video-in-motion function is permanently active without disturbing the navigation performance.

**Selecting the interface as current video source**



**Long press "hands-free mode OFF"** respectively and long press the "right arrow" button to choose the interface as the current video source.
**Short press the" hang-up**" button switch the video sources (cameras). Each short press will switch to the next enabled input. If all inputs are enabled the order is:

**FRONT CAM → REAR CAM→ …**
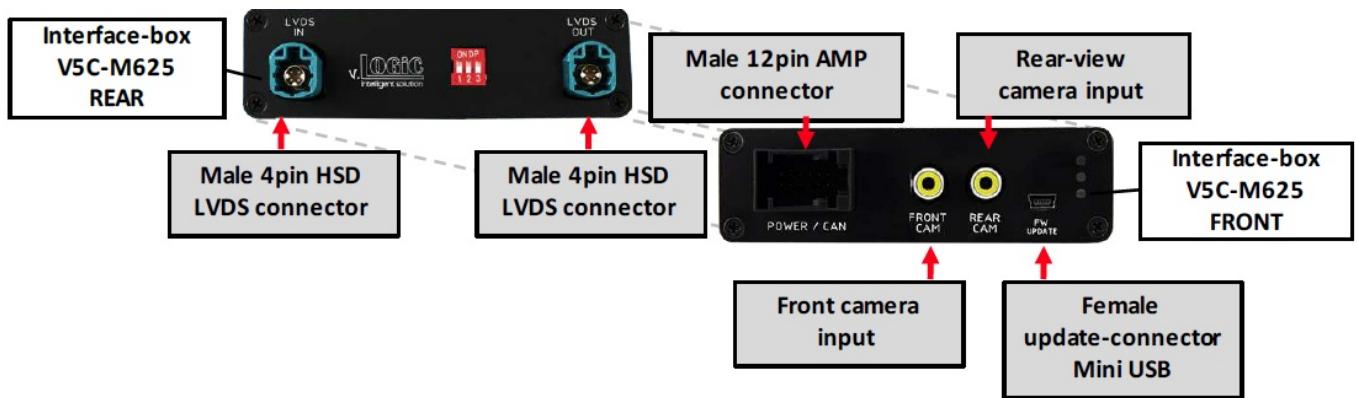
Inputs that are not enabled are skipped.

**Specifications**

- Operation voltage 10.5 – 14.8V DC
- Stand-by power drain <0,1mA
- Operation power drain 190mA
- Power consumption 2,6W
- Temperature range -20°C to +80°C
- Weight (box only) 285g
- Measurements (box only) B x H x T 141 x 30 x 105 mm
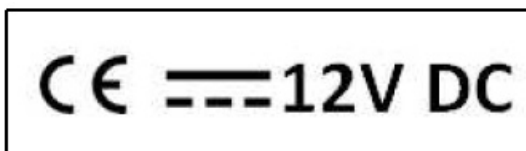


**Connections**

**(interface-box)**

## Technical Support

- CAS GmbH
- manufacturer/distribution
- In den Fuchslöchern 3
- D-67240 Bobenheim-Roxheim
- email **support@casgermany.com**

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## Documents / Resources



**CARAUDIO-SYSTEMS V5-NTG5-PNP V.LOGiC Intelligent Solution** [pdf] Owner's Manual V5-NTG5-PNP, V5C-M625, V5-NTG5-PNP V.LOGiC Intelligent Solution, V5-NTG5-PNP, V.LOGiC Intelligent Solution, Intelligent Solution, Solution

## References

- **User Manual**