

## **c.LOGiC Interface**

### **C2-MMI2G-x**

#### **for Audi MMI 2G navigation systems**

##### **Product features**

- Full plug and play multimedia interface
- 2 AV-inputs with separate IR-control-channels
- Integrated into vehicle infotainment
- control of 2 after-market devices by factory navigation buttons (e.g. DVD-player, DVD-changer, USB/iPod devices, ...)
- after-market rear-view camera input
- compatible with factory rear-view camera
- automatic switching to rear-view camera input
- RGB-input for after-market navigation
- video-in-motion for fed in video signal
- PAL/NTSC input compatible

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## 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 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 cost for and other expenses involved with the software-updates will not be refunded.

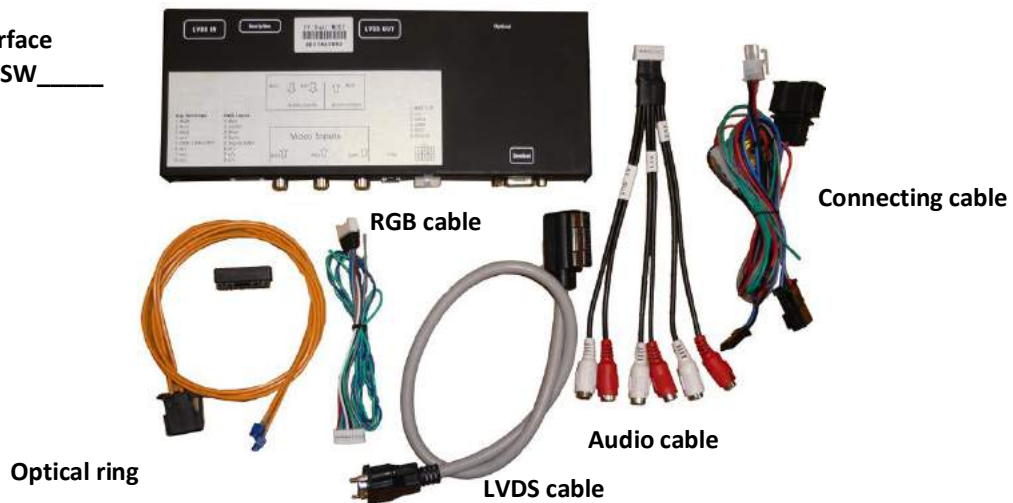
## 1. Prior to installation

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.

### 1.1. Delivery contents

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

Video-interface  
HW \_\_\_\_\_ SW \_\_\_\_\_



If remote function of the connected devices should be used, additional IR-remote cables and Y-adapters are needed, see chapter AV-source(s) .

## 1.2. Check compatibility of vehicle and accessories

Requirements	
<i>Vehicle</i>	A4 (B8/8K from early 2008), A5 (8T), A6 (4F), A8 (4D/4E), Q7 (4L)
<i>Navigation</i>	Audi MMI 2. generation
Limitations	
<i>Software version</i>	Only possible for MMI 2G with minimum software version 42.40.

**Note:** Prerequisite for the faultless functioning of the interface is at least minimum software version 42.40. The vehicle has to be updated before or after installation if the software version is lower. You can check the software version of the vehicle as follows:

- Switch on ignition
- Choose radio
- Press „SETUP“ button and hold it
- Press „RETURN“ button in addition to „SETUP“ button and hold it until the monitor shows „Current Config“
- Choose „Interfacebox“, you can see the software version as „SW-Index“

### 1.1. Dip-switch settings

With the video interface boxes dip-switches it is possible to dis- or enable the interfaces inputs (dip 1 to 3) and to preselect the type of camera which is (to be) installed (dip 5). Dip position down is ON and position up is OFF.



#### 1.1.1. Enabling the interface's video inputs (dip 1-3)

Only the enabled video inputs can be accessed when switching through the video sources. It is recommended to enable only the required inputs. The disabled video inputs are left out when switching.

Dip	Video-input	ON (down)	OFF (up)
Dip 1	RGB	enabled	disabled
Dip 2	Video IN1	enabled	disabled
Dip 3	Video IN2	enabled	disabled

## 1.1.2. Rear-view camera settings (dip 5)

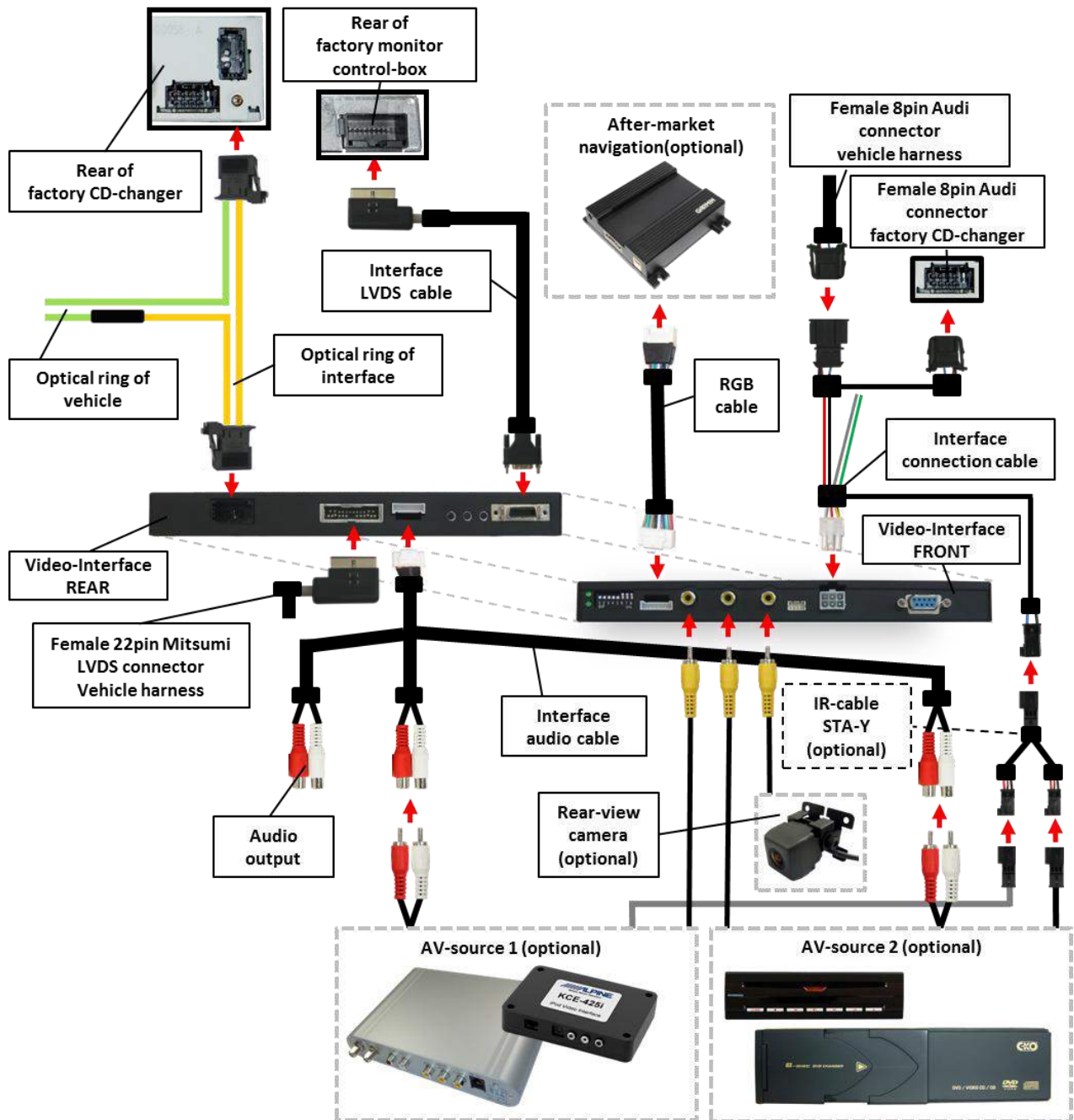
Depending on whether no camera, after-market camera or factory camera shall be used, dip 5 must use different settings.

If set to OFF, the interface switches to factory LVDS picture when the reverse gear is engaged to display factory rear-view camera or factory PDC picture. The green wire of the video-interface's 6pin power connector must be connected to reverse light (+12V of reverse light signal) by using a relay, ONLY if camera (after-market or factory) shall is (to be) installed (Relay AC-RW1230 and AC-RS5 optionally available).

Rear-view camera type	Dip 5
None	OFF
Factory	OFF
After-market	ON



## 2. Connection schema



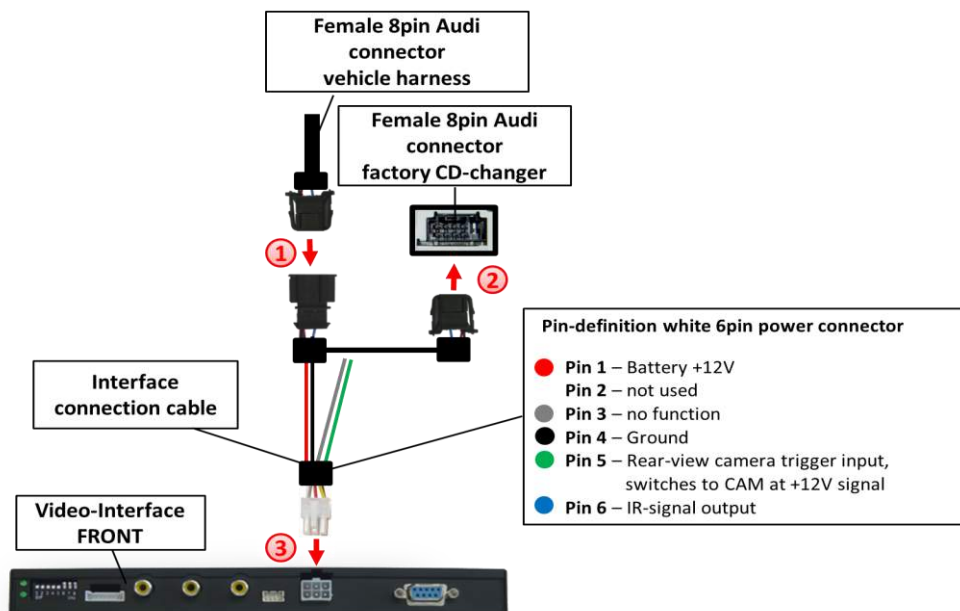
## 3. Installation

**Switch off 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 power source is not taken directly from the battery, the connection has to be checked for being start-up proven and permanent.**

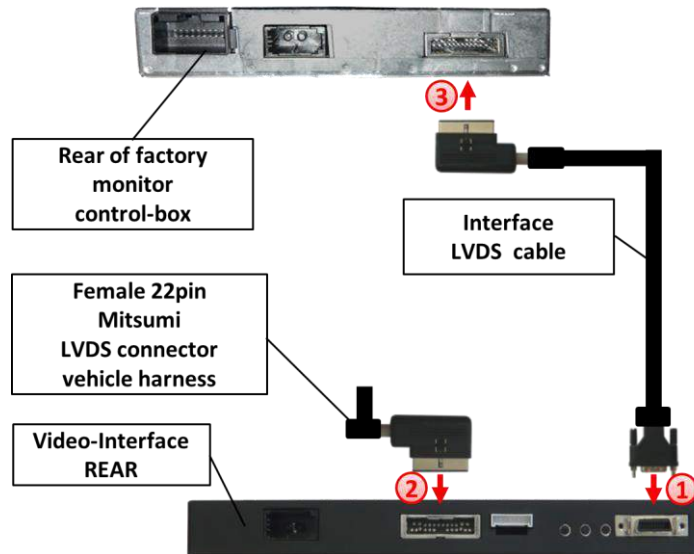
The Interface has to be installed into the LVDS leads between monitor control-box and at the factory CD-changer. The monitor control box is located at A6, A8 and Q7 behind the dash board, at A4 and A5 behind the air-conditioning control panel.

### 3.1. Connections to the factory CD-changer



- ① Remove the female 8pin Audi connector of the vehicle harness from the factory CD-changer and connect it to the male 8pin Audi connector of the interface connection cable.
- ② Connect the female 8pin Audi connector of the interface connection cable to the male 8pin Audi connector of the factory CD-changer.
- ③ Connect the white female 6pin Molex connector of the interface connection cable to the male 6pin Molex connector of the video-interface.

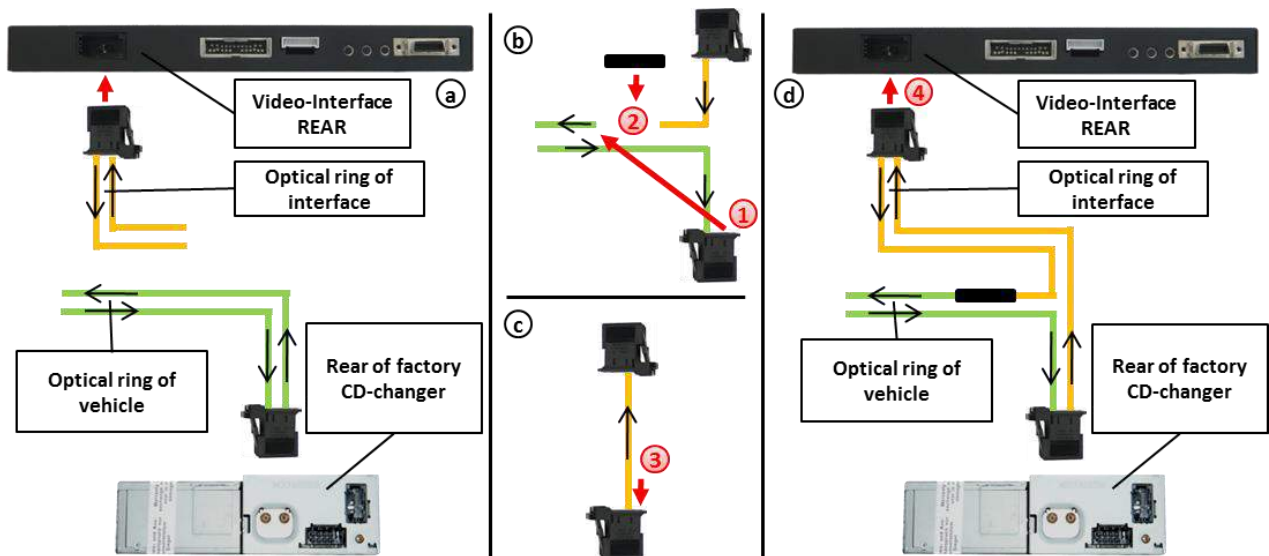
## 3.2. Connections to the factory monitor control-box



- ① Connect the interface LVDS cable to the video-interface.
- ② Remove the female 22pin Mitsumi LVDS connector from the rear of the factory monitor control-box and connect it to the male 22pin Mitsumi LVDS connector of the video-interface.
- ③ Connect the female 22pin Mitsumi connector of the interface LVDS cable to the male 22pin Mitsumi LVDS connector of the factory monitor control-box.



### 3.3. Connecting optical ring



- ① Remove the black MOST®-connector which contains the optical leads from the rear of the factory CD-changer. Remove the optical insert from the black connector. Remove the vehicle harness' optical output lead (see arrows on MOST®-connector).
- ② With the included optical bridge, connect the removed vehicle harness' optical output lead to the optical output lead of the interface's optical ring (see arrows on MOST®-connector).
- ③ Plug the optical input lead of the interface's optical ring into the free connector of the male MOST®-connector on the rear side of the factory CD-changer.
- ④ Plug male MOST®-connector of interface's optical ring into female MOST®-connector of the video-interface.

### 3.4. Connecting peripheral devices

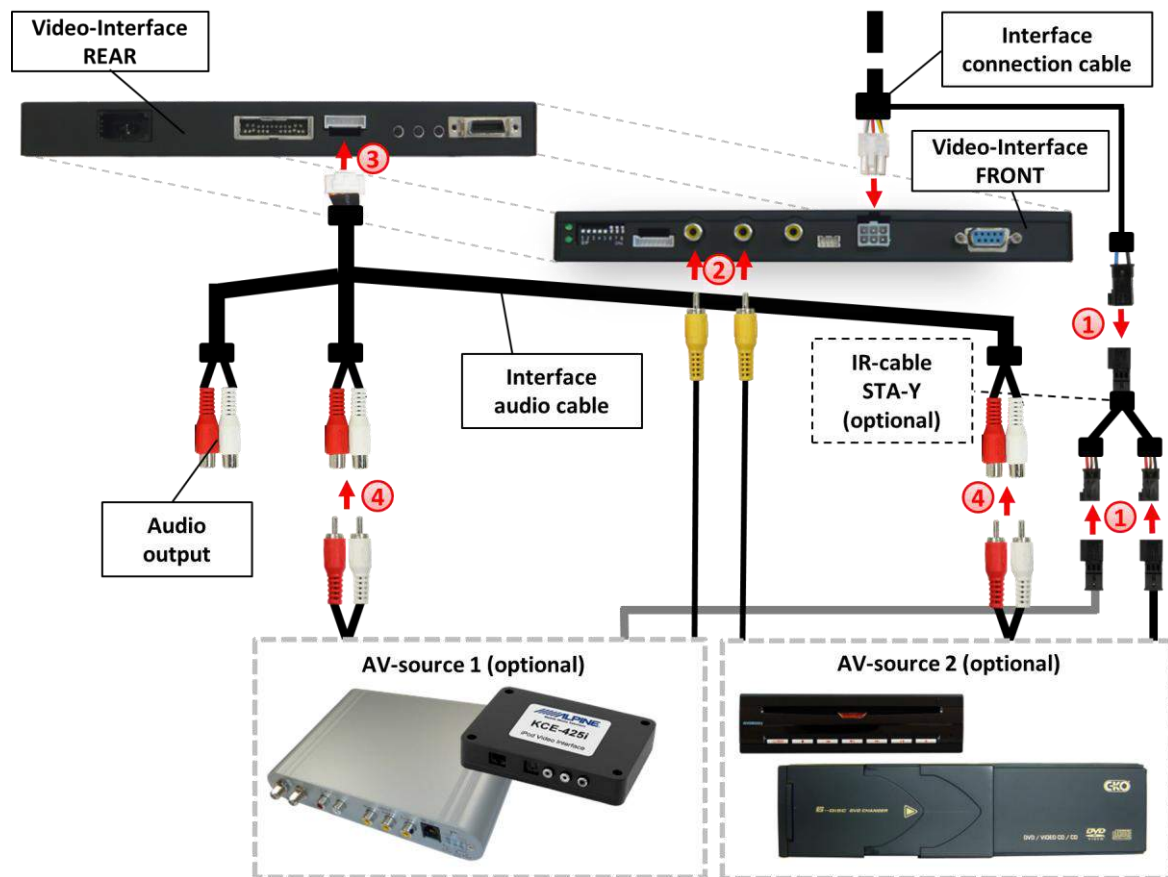
It is possible to connect 2 after-market AV-sources, an after-market rear-view camera and an after-market navigation to the video-interface.

**Before final installation of the peripheral devices, we recommend a test-run to detect incompatibility of vehicle and interface. Due to changes in the production of the vehicle manufacturer is always the possibility of incompatibility.**

### 3.4.1. AV-source(s)

The c.LOGiC interface has the possibility to connect and remotely control by navigation buttons up to 2 pre-programmed devices. The device list in the device control table (appendix A) shows the pre-programmed remote channels and the related IR-control cables STA-xxx which must be ordered separately for the control of the device.

**Note:** The two fix pre-programmed IR control channels are listed on the sticker on the back of the video-interface.



- ① Using the respective STA-xxx IR-control cable, interconnect the blue female 3pin AMP connector of the interface connection cable and the IR-port of the AV-source. If 2 AV-sources will be connected, plug the optional available IR-cable STA-Y between it.
- ② Connect the video-RCA of AV-source 1 to the RCA-port IN1 and the video-RCA of AV-source 2 to the RCA-port IN2 of the video-interface.
- ③ Connect the female 8pin connector of the audio cable to the male 8pin connector of the video-interface.
- ④ Connect the audio-RCA of AV-source 1 to the RCA-port AV1 and the audio-RCA of AV-source 2 to the RCA-port AV2 of the audio cable.

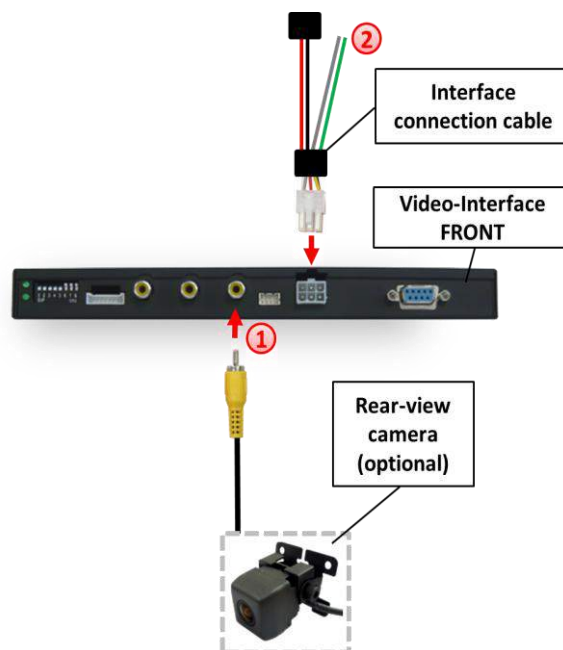
Audio pins	Definition
1/2	Audio input signal R/L of source IN2
3/4	Audio input signal R/L of source IN1
5/6	Audio output signal R/L
7	Ground
8	No function

**Note:** When switching the video interface from video-IN1 to video-IN2, the at the integrated audio switch connected audio signal will also automatically be switched.

### 3.4.2. Installing AV-source's IR-sensor additionally

Additionally to the control via OEM navigation, it is possible to install the original IR-sensor of a connected device. By using the respective Y-adapter (e.g. STA-Y35MM or STA-RJ12) for the IR-Port of the connected device, the controls of navigation AND device's IR-sensor can be connected and used simultaneously. Installation of the IR-sensor is recommended as the controls via navigation are limited, and not all functions may be covered.

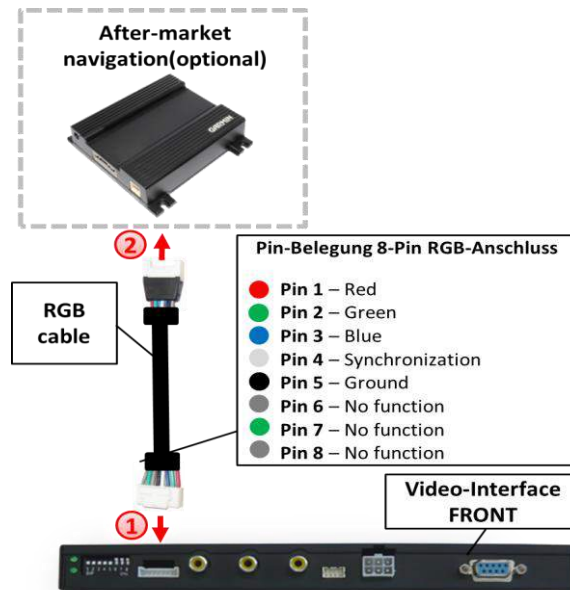
### 3.4.3. After-market rear-view camera



- ① Connect the video-RCA of the after-market rear-view camera to the RCA-port CAM of the video-interface.
- ② The grey wire of the interface connection cable is not connected and has to be isolated. Connect the green wire of the interface connection cable to +12V to see whether the automatic switching to camera inputs work. Later connect green wire to reverse gear light, using a relay.

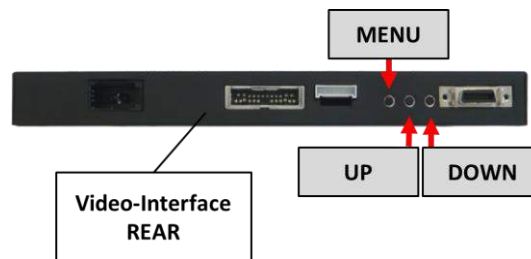
**Note:** Set Dip 5 to ON.

### 3.4.4. After-market navigation



- ① Connect female 8pin connector of the RGB cable to the male 8pin connector of the video-interface. The loose grey and the loose green wire have no function and have to be isolated.
- ② Connect male 6pin connector of the RGB cable to the after-Market navigation. The loose blue wire has no function and has to be isolated.

### 3.5. Picture settings



After installing the sources the picture settings can be changed using a pen on the buttons of the video interface. Press the MENU button to open settings menu on the OSD and to switch to the next setting. UP and DOWN change the corresponding values. The buttons are embedded in the housing to avoid accidental changes during or after installation.

## 4. Operation

### 4.1. Video-in-motion function

The video-in-motion function for the fed in video-signal is activated permanently without disturbing the navigation performance.

### 4.2. Selecting the c.LOGiC as current AV-source

After installation the c.LOGiC is identified as factory CD-changer and is displayed as virtual (second) CD-changer in the “CD/TV” and accordingly the “MEDIA” (in vehicles from year 2007) menu, sub-menu “Changer” and is shown as “CD7 – VIDEO”.



Select “CD7 – VIDEO” by pressing the knob. The display shows “01 – ON: - >” and “02- OFF: - <”. The MMI switches to the first activated input by pressing the “>” button. Each press of the “>” button will switch to the next enabled input.



Disabled inputs will be skipped. If all inputs are enabled the order is:

*Factory video → RGB-in → AV-IN1 → AV-IN2 → Factory video →...*

Pressing the “<” button will return to the factory video mode of the MMI navigation.

**Note:** Please note that no repeat function is activated in the Setup CD mode, otherwise it may get error messages.



### 4.3. Device control

After selecting the c.LOGiC as current AV-source it is possible to control the 2 fix pre-programmed devices by the knob of the left panel of the steering wheel.

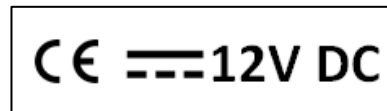
The display of the FIS shows the available functions among each other (first for AV1 and under it for AV2) in the CD-changer menu.

The functions of the device can be selected by scrolling the knob and the selected functions can be executed by pressing the knob. The function description equals the remote control buttons of the device's remote control. On the additional device the writing may vary (e.g. AV instead of Source).

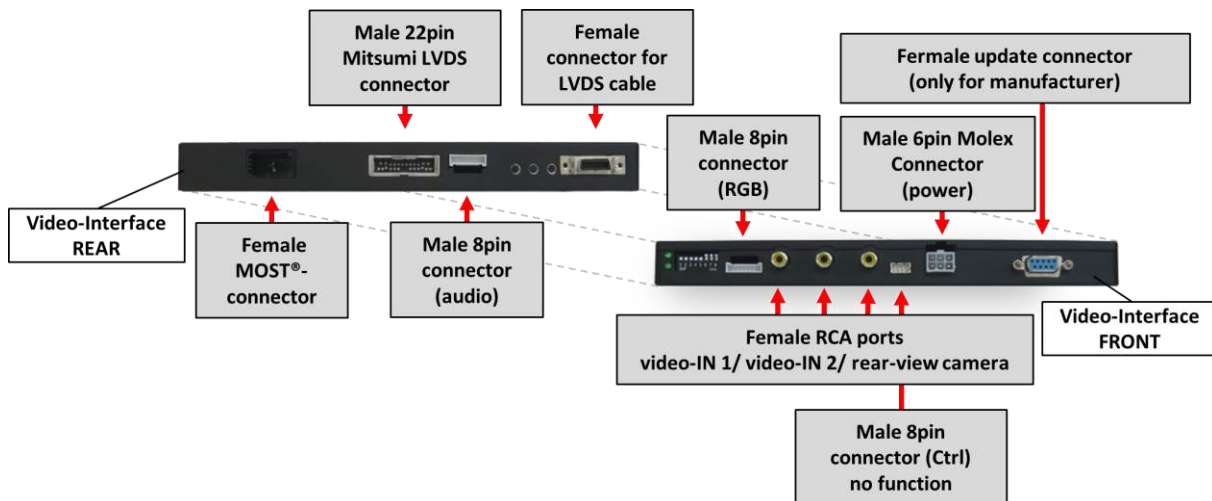


### 5. Specifications

Operation voltage	10.5 – 14.8V DC
Stand-by power drain	3mA
Operation power drain	500mA
Power consumption	6.8W
Temperature range	-30°C to +80°C
Weight	482g
Measurements (box only) B x H x T	230 x 23 x 103 mm



### 6. Connections (video-interface)



## 7. Technical support

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