

c.LOGiC-Interface

C2-NTG25

**Compatible with Mercedes Benz
Comand APS NTG2.5 navigation systems**

Product features

- full plug and play multimedia interface
- 2 AV-inputs with separate IR-control channel
- control of after-market devices, e.g. DVB-T tuner, DVD-player, DVD-changer, ...
- Coding of TV option
- Rear-seat-entertainment video-output for Video-sources connected to the c.LOGiC
- power on remote out trigger signal (+12V) to switch on connected devices
- video in motion

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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.



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

Vehicle CLS-Coupe (W219) from approx. 04/2008, E-class (W211) from approx. 04/2008, SL-class (R230) from approx. 04/2008, SLK-class (R171) from approx. 04/2008, R-class (W251) from approx. 04/2008, ML-class (W164) from approx. 04/2008

Navigation Comand APS NTG2.5

Limitations

Factory-TV-tuner Must NOT be installed. If uninstalled, optical ring must be closed.

Video-in-motion function Navigation does NOT work while VIM is activated.

1.3. Setting the dip switches of the CAN-box TV-500

Vehicle/ navigation	Dip 1	Dip 2	Dip 3	Dip 4	Dip 5	Dip 6
All vehicles	OFF	OFF	OFF	OFF	OFF	OFF

Note: Dip switch functions of the TV-500

Dip 1 – activation TV-free

Dip 2 – no function

Dip 3 – no function

Dip 4 – no function

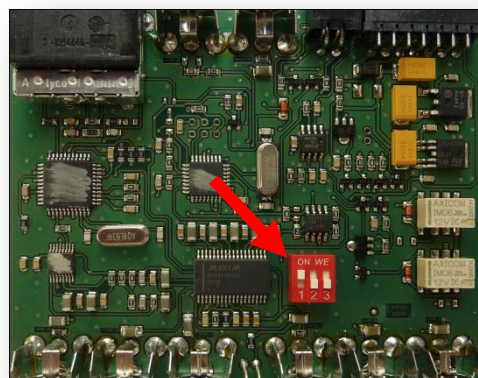
Dip 5 – CAN-bus termination resistor on the vehicle side

Dip 6 – CAN-bus termination resistor on the head-unit side

1.4. Setting the dip switches of the MOST®-Box C2C-M311

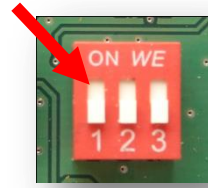
The default dip switch settings of the MOST®-box need to be changes ONLY if the AV2 input of the c.LOGiC shall be deactivated. The dip switches are located **inside** the MOST®-box. For changes it is necessary to open the box. Default settings are:

dip1 = ON, dip2 = OFF, dip3 = OFF



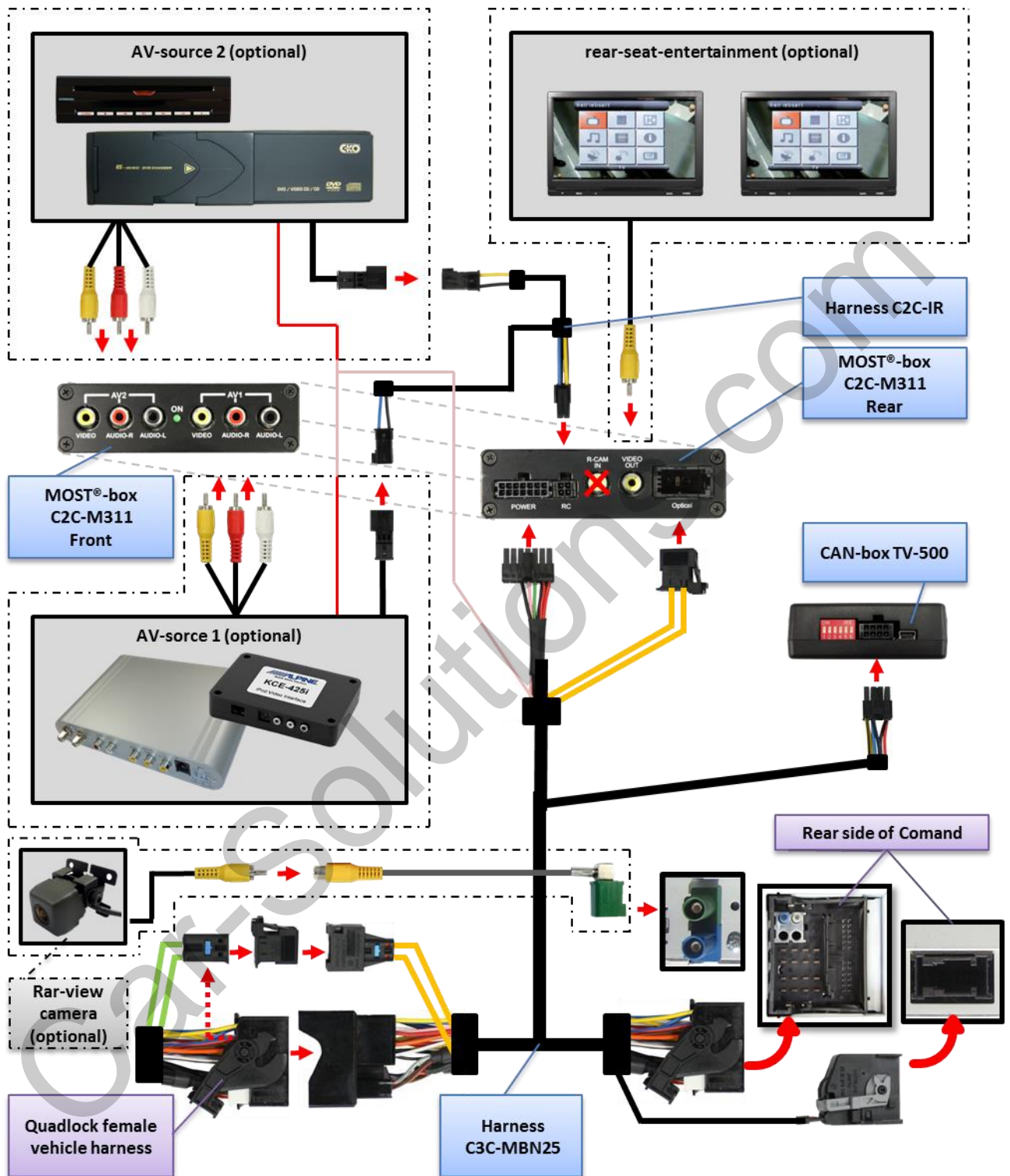
1.4.1. Deactivating c.LOGiC AV2 input

If only one AV-source shall be connected to the c.LOGiC, we recommend to disable the AV2-input, to avoid customers switching by mistake to black/no picture of the AV2-input. In order to disable the AV2-input of the c.LOGiC, set dip1 = OFF (down).



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2. Connection schema

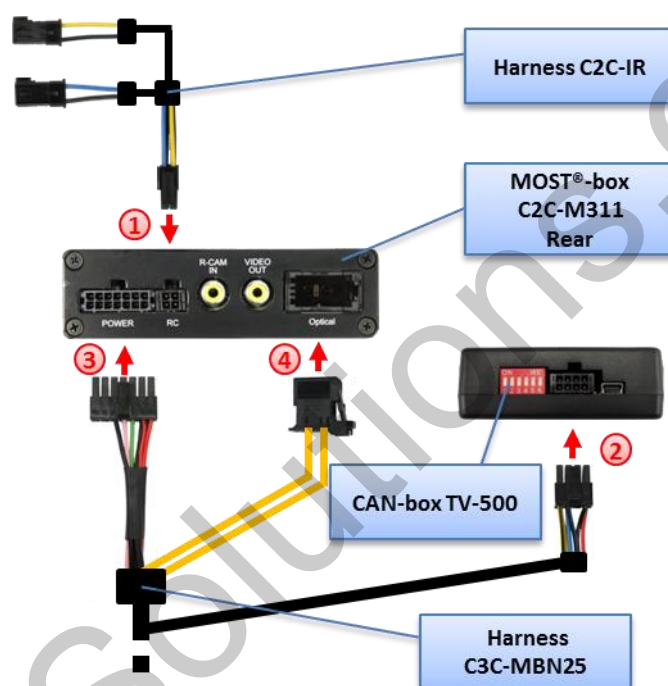


3. Installation

Switch off ignition and disconnect the vehicle's battery! If according to factory rules disconnecting the battery has 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.

Place of installation is behind the Comand head-unit.

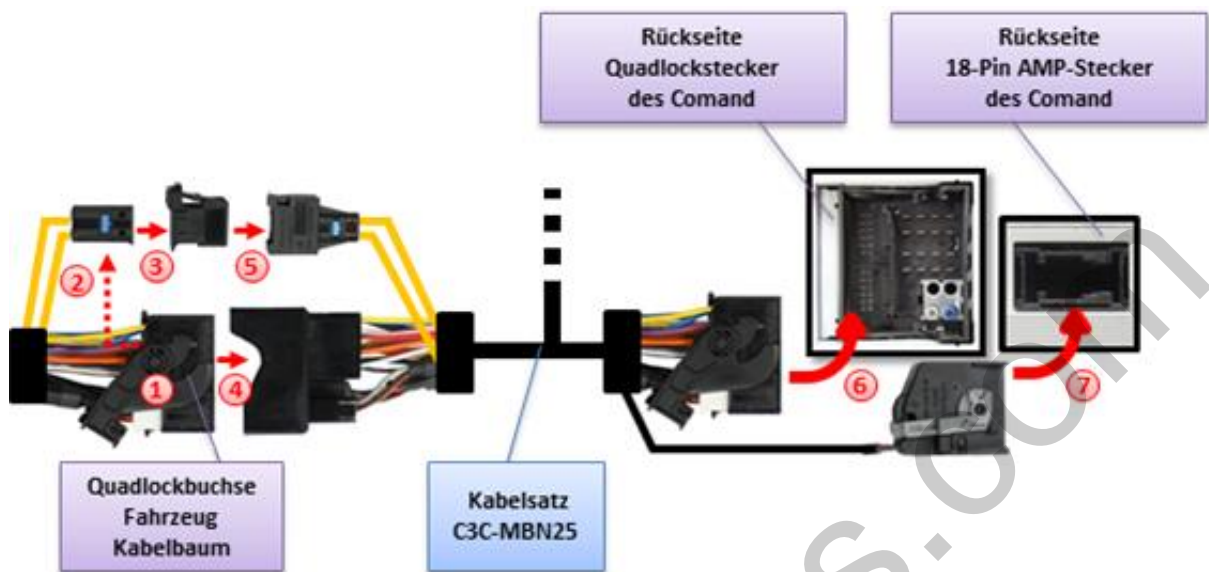
3.1. Interconnecting MOST®-box, CAN-box and harnesses



- ① Plug harness C2C-IR into 4pin Molex of MOST®-box C2C-M311.
- ② Plug harness C3C-MBN25 into 8pin Molex of CAN-box TV-500.
- ③ Plug harness C3C-MBN25 into 14pin Molex of MOST®-box C2C-M311.
- ④ Plug male MOST®-connector of C3C-MBN25 into female MOST®-socket of MOST®-box C2C-M311.

3.2. Quadlock connector

Remove the Comand from the dash-board.



- ① Disconnect female Quadlock connector from the back of the Comand.
- ② Remove MOST®-insert from the factory harness female Quadlock connector.
- ③ Plug MOST®-insert into male MOST®-connector shell of harness C3C-MBN25.
- ④ Plug female Quadlock connector into male Quadlock socket of harness C3C-MBN25.
- ⑤ Plug male MOST®-connector into female MOST®-socket of C3C-MBN25.
- ⑥ Plug female Quadlock connector of C3C-MBN25 into male Quadlock socket of the Comand.
- ⑦ Plug female 18pin AMP connector of C3C-MBN25 into male 18pin AMP connector of the Comand.

Note: Vehicles without MOST®-components, which means without factory CDC, without factory phone or other MOST®-components have no optical leads at the Comand. In this case remove female MOST®-socket of C3C-MBN25 and the single optical lead between the male and female Quadlock of the C3C-MBN25. Plug the now left over single optical lead on the male Quadlock side into the now empty slot of the male MOST®-connector.

3.3. Connecting peripheral devices

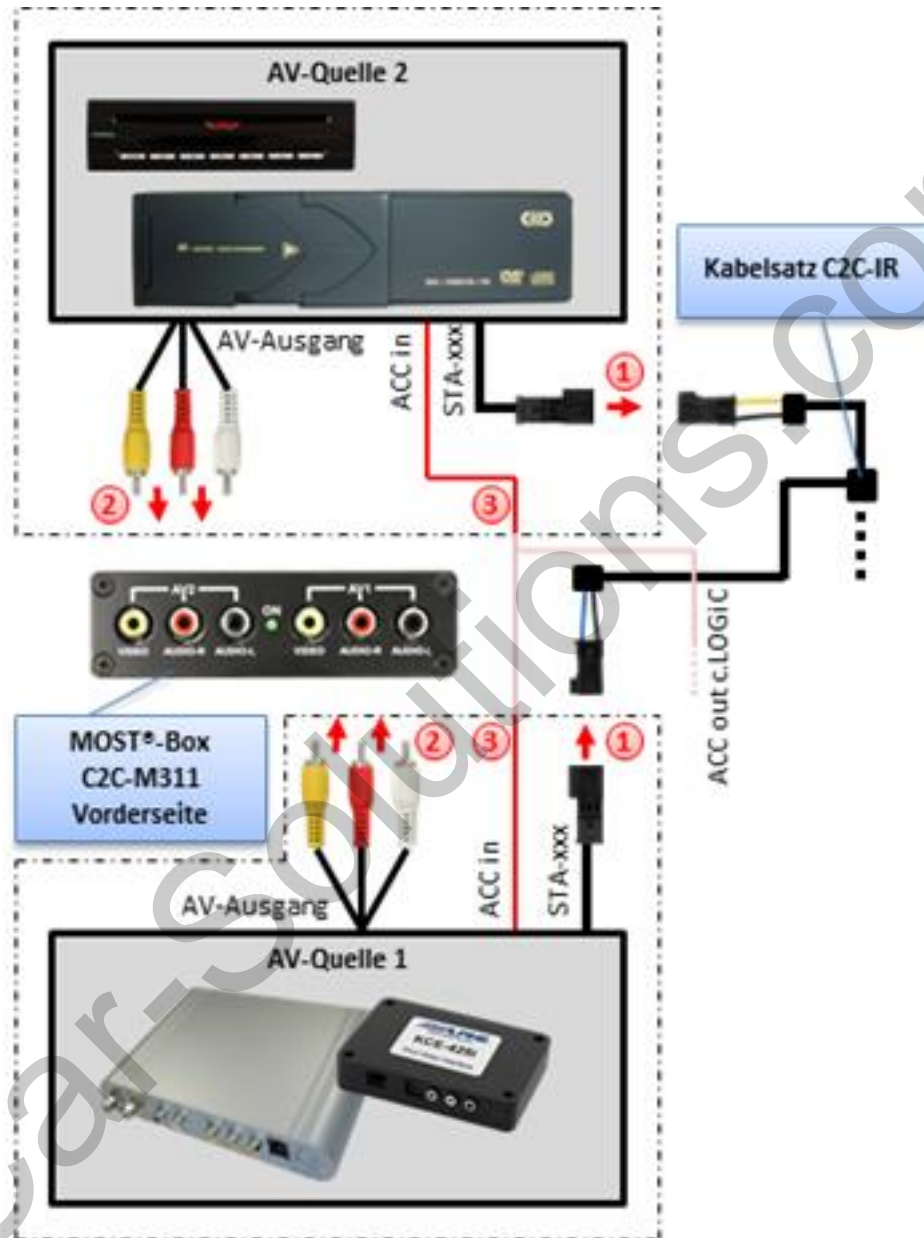
It is possible to connect up to 2 after-market AV-sources and rear-seat-entertainment to the c.LOGiC interface.

Before final installation of the peripheral devices, we recommend to test-run the c.LOGiC functions to detect incompatibility of vehicle, navigation, factory accessories or peripheral devices as soon as possible.

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3.3.1. 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-remote cables STA-xxx which must be ordered separately for the control of the device.

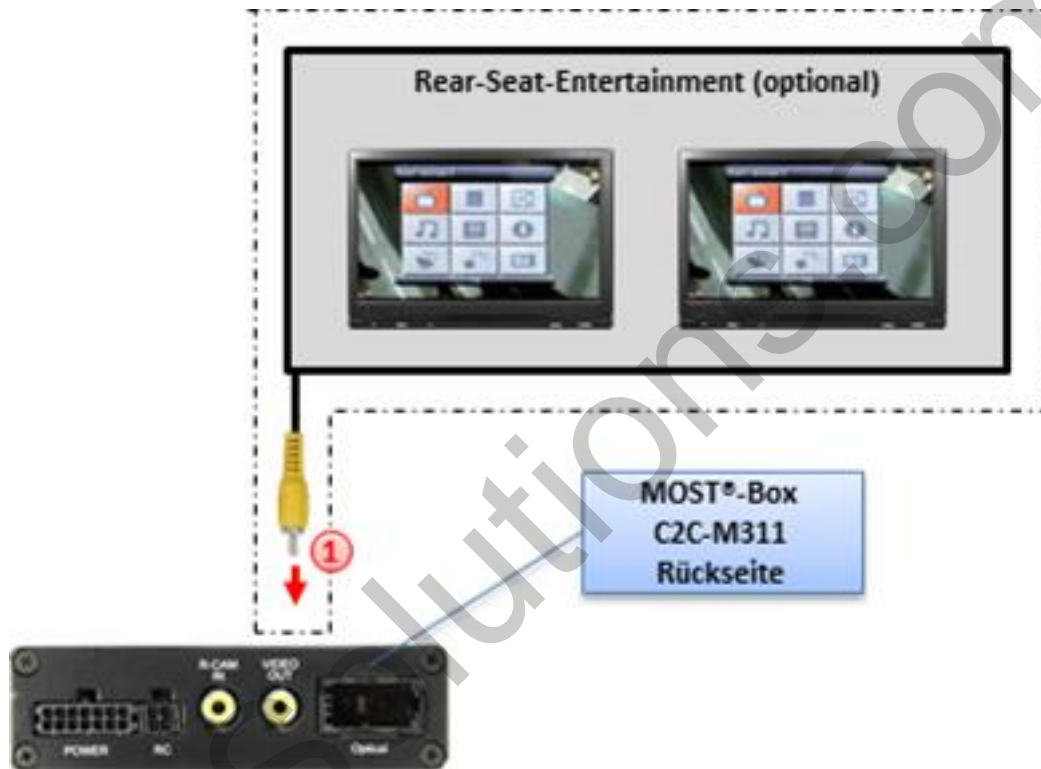


- ① Using the respective STA-xxx IR-control cable, interconnect the blue (yellow) female 3pin AMP connector of harness C2C-IR and IR-port of the AV-source 1 (AV-source 2).
- ② Using an RCA-cable, interconnect the female RCA-port AV1 (AV2) of the MOST®-box C2C-M311 with the AV-output of the AV-source 1 (AV-source 2).
- ③ The pink ACC-output wire (+12V max 1A) of harness C3C-MBN25 can be connected to the ACC-input wires of the connected device to switch it on. It carries +12V when the Comand is running.

3.3.2. 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.

3.3.3. After-market rear-seat-entertainment



- ① Using RCA-cables, connect the rear-seat-entertainment to the female RCA-connector VIDEO OUT of MOST®-box C2C-M311.

Note: As the output is a full output, not shared with the video signal for the navigation system, splitting the video with an RCA Y-cable might give a good enough picture for two rear-seat-entertainment monitors. If not, or if connecting more than two monitors, use a video splitter.

3.4. Coding

To enable the c.LOGiC functions on the Comand, they need to be coded once on the Comand by pressing Comand button combinations.

3.4.1. TV-option

In order to use the c.LOGiC it is necessary to code the Comand's TV-option. When the Comand has booted, choose "Comand" in the tachometer-display and press the "UP" and the "+" key of the steering wheel until the Comand screen becomes black. After the Comand has automatically rebooted, the option **TV** is available in the menu.



Note: In some cases the steering wheel keys "UP", "DOWN", "+" and "-" can be interchanged for coding.

3.4.2. Reversing the coding

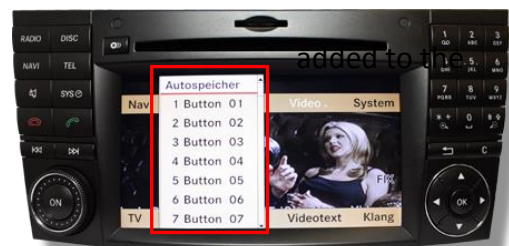
The above described coding can be reversed by pressing the key used for coding UP (TV-icon and the "-" key at the same time until the Comand resets itself.

3.5. Activation of remote functions

To activate the remote functions, push the "OK"-button while in c.LOGiC mode (see chapter Selecting the c.LOGiC as current AV-source) and select the **Preset** option.



Now select the **Autostore** option to activate the controls. Numbered buttons will be added to the menu.



Note: After loss of battery power, the activation has to be repeated.

4. Operation

4.1. Activation of the video-in-motion function

The video-in-motion function is activated by pressing the "hang up" button on the steering-wheel for more than 3 seconds. Repeat action to deactivate the video in motion function.



Note: As long as the video-in-motion function is activated, the **navigation** of the command **will NOT be working!**

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

Push the **OK** button of the Comand and then select **TV** to choose the c.LOGiC as current AV-source.

4.3. Switching between internal AV1 and AV2

After selecting the c.LOGiC as current AV-source, push "0"-button to switch from AV1 to AV2. Repeat to switch back AV1.

Note: If the AV-input is deactivated (see chapter Deactivating c.LOGiC AV2 input), it is not possible to switch to the c.LOGiC's AV2-input. If the switching should not work right after installation, lock the vehicle and wait for about 5 minutes. Repeat the activation procedure described in chapter 3.5..

4.4. Assigning device control for connected AV-source

After selecting the c.LOGiC as current AV-source, push "*" -button. The OSD will show "Channel [] Prog []". Now enter the device-related IR-code as described in device control table (appendix A), followed by number "11" for AV1 or "12" for AV2 and push "OK"-button to confirm the assignment.



Note: The IR-control channel AV1 is preset to RC-Code 41 compatible DVB-T tuners and AV2 is preset to RC-Code 09 for the usbLiNK. If the AV2 is deactivated (see chapter Deactivating c.LOGiC AV2 input), it is not necessary, nor possible to assign device controls for AV2.

4.5. Button assignment table

The button assignment table shows which functions of c.LOGiC and additionally connected devices can be executed by Comand buttons. Once an AV-input is activated, the Comand button in the left column will execute the function described in the corresponding device column.



The function description equals the remote control buttons of the additional device. On the additional devices the writing may vary (e.g. AV instead of Source).


Button assignment table c.LOGiC Mercedes Benz Comand APS NTG2.5						
COMAND button	DVB-T	USB-LiNK	DVD-player	DVD-changer	iPod®-control	Analog-tuner
1	SCAN	POWER	PLAY	PLAY	PLAY/PAUSE	SCAN
2	↑	↑	↑	↑	↑	VOL +
3	EPG	EXIT	STOP	STOP	POWER	FM
4	←	←	←	←	←	CH -
5	OK	OK / PLAY	OK	OK	ENTER	MODE
6	→	→	→	→	→	CH +
7	EXIT	MEDIA	PBC	DISC	SHUFFLE	ADJUST
8	↓	↓	↓	↓	↓	VOL -
9	MENU	SETUP	SETUP	SETUP	LIGHT	MODE
<<	CH -	TRACK -	TRACK -	TRACK -	TRACK -	CH -
>>	CH +	TRACK +	TRACK +	TRACK +	TRACK +	CH +

Additionally to the Comand buttons, the steering-wheel buttons UP and DOWN can be used for remote functions. Longpress UP has the same function as “<<” on the Comand and longpress DOWN has the same function as “>>” on the Comand.

Note: The user must not longpress the above mentioned buttons while in c.LOGiC mode. The remote functions could be disturbed. If so repeat 3.5. activation of remote functions.

5. Specifications

Operation voltage	10.5 – 14.8V DC
Stand-by power drain	<1mA
Operation power drain	210mA
Power consumption	2.9W
Temperature range	-30°C to +80°C
Weight	202g
Measurements (box only) B x H x T	90 x 30 x 105 mm

CE  12V DC