



# c.LOGiC lite-Interface

# C1-MFD3-PNP

# Compatible with navigation systems Volkswagen RNS510, RNS810 Skoda Columbus Seat Trinax

Only for vehicles WITHOUT factory rear-view camera

# **Product features**

- full plug and play multimedia interface
- 1 AV-inputs with separate IR-control channel
- control of after-market devices, e.g. DVB-T tuner, DVD-player, DVD-changer, ...
- after-market rear-view camera input
- automatic switching to rear-view camera input (optional coding necessary for automatic switching from OEM-Modes)
- rear-view camera power (+12V max. 1A)
- power on remote out trigger signal (+12V max. 1A) to switch on connected devices
- video-in-motion

# Mainual



#### **Contents**

#### 1. Prior to Installation

- 1.1. Delivery contents
- 1.2. Check compatibility of vehicle and accessories
- 1.3. Setting the dip switches of the CAN-box TV-500

#### 2. Connection schema

#### 3. Installation

- 3.1. Interconnecting Interface-box, CAN-box and harness
- 3.2. Connections to head-unit
- 3.3. Connecting peripheral devices
- 3.3.1. AV-source
- 3.3.2. Installing AV-source's IR-sensor additionally
- 3.3.3. After-market rear-view camera

#### 4. Operation

- 4.1. Activation of the video-in-motion function
- 4.2. Selecting the c.LOGiC as current AV-source
- 4.3. Assigning device control
- 4.4. Remote functions
- 4.4.1. Previous/next channel/track
- 4.4.2. Other remote functions
- 4.4.3. Menu/setup navigation

#### 5. Specifications

# 6. Technical support

#### Appendix A – Device control table





# **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



If remote function for the connected devices shall be used, additional an IR-remote cable and Y-adapter are needed, see chapter AV-source.

Version 20.09.2017 C1-MFD3-PNP



# 1.2. Check compatibility of vehicle and accessories

Requirements			
Vehicle	Volkswagen, Skoda and Seat		
Navigation	RNS510, Columbus and Trinax (all with min. Version B with SW 1100) and RNS810 navigation systems		
Limitations			
Factory-TV-tuner	Must NOT be installed.		
After-market rear-view camera	Only compatible with NTSC-cameras.  Automatic switching to camera from OEM mode only works after coding the head-unit to rear-view camera per diagnosis computer or our optional available OBD-coder OBD-301-R (OPS, too).		
OPS	On vehicles with OPS (optical parking system) the OPS control box must be coded to rear-view camera per diagnosis computer if an after-market rear-view camera should be installed.		

# 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
Video-in-motion permanent	ON	OFF	OFF	OFF	OFF	OFF
Video-in-motion selective*	OFF	OFF	OFF	OFF	OFF	OFF

<sup>\*</sup> With dip1 to OFF the included green cable is used to activate the video-in-motion function.

**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

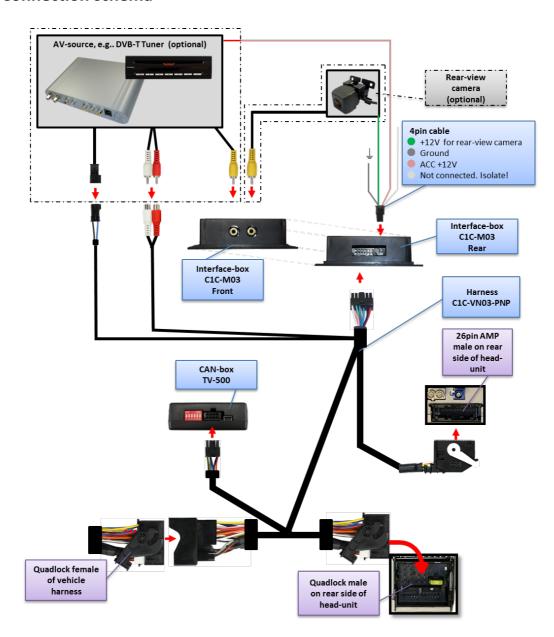
Dip 6 – CAN-bus termination resistor on the head-unit side

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C1-MFD3-PNP



## 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.

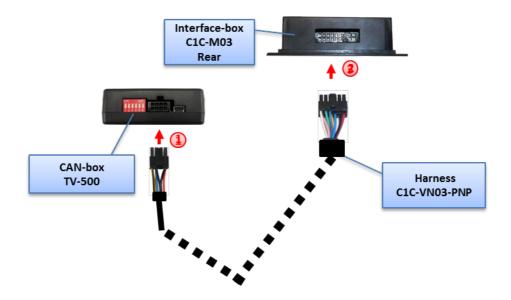
Place of installation is behind the head-unit.

 $_{\sf Page}4$ 





# 3.1. Interconnecting Interface-box, CAN-box and harness

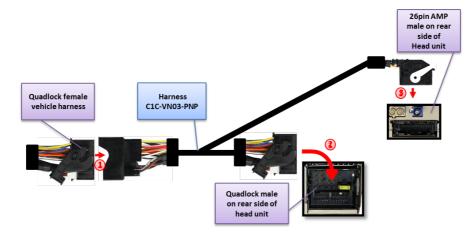


- 1 Plug harness C1C-VN03-PNP into 8pin Molex of CAN-box TV-500.
- 2 Plug harness C1C-VN03-PNP into 12pin Molex of Interface-box C1C-M03.



#### 3.2. Connections to head-unit

Remove the head-unit from the dash-board.

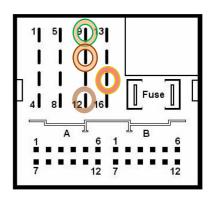


- 1 Transfer female Quadlock connector from the back of the head-unit to male Quadlock connector of harness C1C-VN03-PNP.
- 2 Plug female Quadlock connector of C1C-VN03-PNP into male Quadlock socket of head-unit.
- 3 Plug female 26pin AMP-connector of C1C-VN03-PNP into male 26pin AMP-socket of head-unit.

**Note:** If the 26pin AMP-socket of the head-unit is already occupied, the vehicle probably has a factory rear-view camera or a factory TV-tuner. In case of a factory tuner, it must be uninstalled: disconnect the female 26pin AMP-connector of the factory harness and disconnect all wires from the factory TV-tuner. In case of a factory rear-view camera you have ordered/received the wrong product, call for support.

Cable colour	Assignment			
• Red/Yellow	+12V Permanent Pin 15			
<ul><li>Brown</li></ul>	Ground Pin 12			
<ul><li>Orange/Green</li></ul>	CAN HIGH Pin 9			
<ul><li>Orange/Brau</li></ul>	CAN LOW Pin 10			

No liability for vehicle wire colors and pin definition! Possible changes by the vehicle manufacturer. The given information must be verified by the installer.





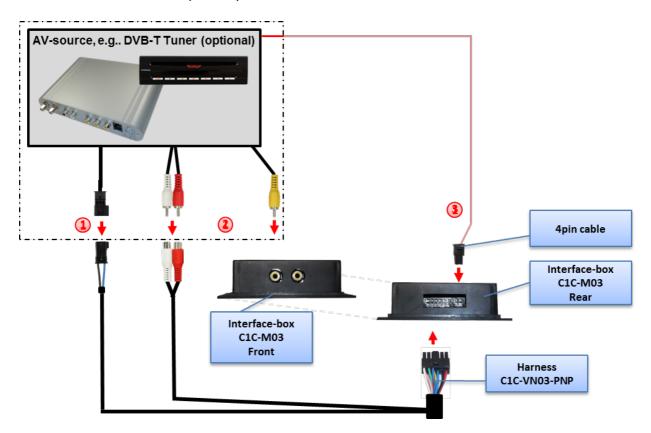
#### 3.3. Connecting peripheral devices

It is possible to connect one after-market AV-source and an after-market rear-view camera 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.

#### 3.3.1. **AV-source**

The c.LOGiC interface has the possibility to connect and remotely control by navigation buttons one pre-programmed device. 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 female 3pin AMP connector of harness C1C-VN03-PNP and the IR-port of the AV-source.
- Using an RCA-cable, interconnect the female RCA-port Video In of the Interface-box C1C-M03-PNP with the AV-output of the AV-source.
- 3 The pink ACC-output wire (+12V max 1A) of the 4pin cable can be connected to the ACC-input wires of the connected device to switch it on. It carries +12V when the head-unit is running.

Page 7

# Manual



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

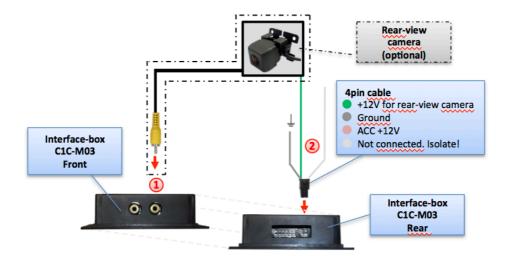
Additionally to the control via OEM navigation, it is possible to install the original IR-sensor of a connected device. By using the respective Y-adapter (e.g. STA-Y35MM or STA-RJ12) for the IR-Port of the connected device, the controls of navigation AND device's IR-sensor can be connected and used simultaneously.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

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



- Connect the video RCA of the after-market rear-view camera to female RCA connector R-CAM IN of Interface-box C1C-M03.
- 2 Connect the green wire of the 4pin cable to the camera power supply (+12V max. 1A) of the after-market rear-view camera and the grey wire to ground of the vehicle. The green wire is high (+12V max. 1A) when reverse gear is engaged. The white wire is not connected and has to be isolated. In some cases it is possible that the automatic switching does not work. In this case connect the white wire to the reverse gear light (+12V).

**Note:** Only compatible with NTSC-cameras.

Automatic switching on reverse gear from OEM mode to camera input only works after coding the head-unit per diagnosis computer or our optional available OBD-coder OBD-301-R (OPS, too).

If coding is done by diagnosis PC, code rear-view camera to "LOW" in controller 56 radio (not in controller 19 - CAN gateway). After coding the vehicles needs to be locked to reach sleep mode (30 seconds up to 66 minutes depending on vehicle).

**Vehicles with OPS (optical parking system):** If coding is done by diagnosis PC, code to rear-view camera in controller 10 park assistant 2 (not in controller 19 - CAN gateway). After coding the vehicles needs to be locked to reach sleep mode (30 seconds up to 66 minutes depending on vehicle).

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# 4. Operation

#### 4.1. Activation of the video-in-motion function

#### TV-500

The video-in-motion can be activated and deactivated by Dip 1 or alternatively by the included loose green cable in connection with a switch (not included in delivery).

#### Video-in-motion permanent

With dip1 to ON the video-in-motion function is activated permanently without disturbing the navigation performance.

#### Video-in-motion selective

With dip1 to OFF the included green cable is used to activate the video-in-motion function.

Connect a switch to the green cable and connect the green cable to +12V ACC.

• +12V = TV-Free is activated

OV = TV-Free is not activated

**Note**: The loose white cable is not required and must be isolated.

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

Push the **MEDIA** button of the head-unit and then select **VIDEO** to choose the c.LOGiC as current AV-source.





#### 4.3. Assigning device control

After selecting the c.LOGiC as current AV source, tap on the touch-screen to receive the options menu. Select **Extras** and then **V-text**.

Select Seite (page).

Enter "1" followed by the device-related IR-code as described in device control table (appendix A). Confirm with **OK**.

**Note:** The IR-control channel is preset to RC-Code 41 compatible DVB-T tuners.



#### 4.4. Remote functions

Remote functions can be executed by steering-wheel buttons, head-unit buttons and touch-screen.

#### 4.4.1. Previous/next channel/track

To skip to previous or next channel (TV-mode) or track (DVD/USB/iPod®-modes), use the arrow buttons in the upper left corner of the head-unit, the arrow touch-screen buttons or the UP and DOWN buttons of the steering-wheel.

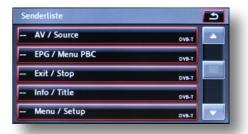




#### 4.4.2. Other remote functions

When AV1 or AV2 mode is activated, enter **Senderliste** (channel list). The menu which opens offers a range of commands for the active device.

The function description equals the remote control buttons of the additional device. On the additional device the writing may vary (e.g. AV instead of Source). Select any button to execute the described function on the active AV-source.



**Note:** The volume of an optional connected usbLiNK can be regulated by the right knob (possible only in the main menu).

 $P_{age}11$ 



#### 4.4.3. Menu/setup navigation

To navigate through menu or setup options of the AV-source, it is necessary to see their picture/OSD, which is not possible in the **Senderliste** (channel list). Instead, after entering menu/setup, select **Extras** and then **V-Text**.

Now menu navigation is possible by the arrow buttons in the upper left corner of the head-unit (left/right) and touch-screen:

Arrow up = UP, Arrow down = DOWN

Stopp = back/return/exit



# 5. Specifications

Zoom = OK/Enter

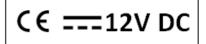
Operation voltage 10.5 – 14.8V DC

Stand-by power drain <1mA
Operation power drain 240mA
Power consumption 3W

Temperature range -30°C to +80°C

Weight 95g

Measurements (box only) B x H x T 106 x 30 x 71 mm



## 6. Technical Support

# Caraudio-Systems Vertriebs GmbH manufacturer/distribution

In den Fuchslöchern 3 D-67240 Bobenheim-Roxheim

email support@caraudio-systems.de

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 $^{\mathrm{age}}12$