



# **Camera interface**

## **RL-UCON22-TF**

# Interface for activation of factory rear-view camera input for Uconnect 5" or 8,4" system with 22 pin connector

Video input to connect a rear-view camera incl. video-in-motion

#### **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.

Version 01.04.2015 RL-UCON22-TF





#### **Contents**

#### 1. Prior to installation

- 1.1. Delivery contents
- 1.2. Check compatibility of vehicle and accessories
- 1.3. Connection scheme
- 1.4. Setting the DIP-switches of the CAN-box

#### 2. Installation

- 2.1. Connecting CAN-Box, harness and factory navigation unit
- 2.2. Connections to rear-view camera
- 3. Coding of rear-view camera
- 4. Activation of rear-view camera
- 5. Activation of the video-in-motion function
- 6. Specifications
- 7. Technical support

#### 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!

CAN-box ZLC-TV506
HW\_\_\_\_ SW\_\_\_\_

Harness
TV-DG22

Page



#### 1.2. Check compatibility of vehicle and accessories

Requirements

Vehicle Chrysler, Dodge, Fiat, Jeep, Lancia

Navigation Uconnect 5" / 8,4" display with 22 pin connector

Limitations

Video-sources Only compatible to NTSC-video-sources

# 1.3. **Connection schema** Rear-view camera Rear of head unit **CAN-Box** ZLC-TV506 **Grey female** 22pin connector vehicle harness +12V rear-view camera (max. 500mA) Video-in-motion selective (optional) Harness TV-DG22 White female 22pin connector vehicle harness

Page





#### 1.4. Setting the DIP-switches of the Can-box

Vehicle/ navigation	DIP 1	DIP 2	DIP 3	DIP 4	DIP 5	DIP 6
Video-in-motion permanent	ON	ON	OFF	OFF	OFF	OFF
Video-in-motion selective*	OFF	ON	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 CAN-box

DIP 1 – activation video in motion

DIP 2 – Rear-view camera coding

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

#### Pin-assignment of the CAN-Box CAN-box (Molex 8pin)

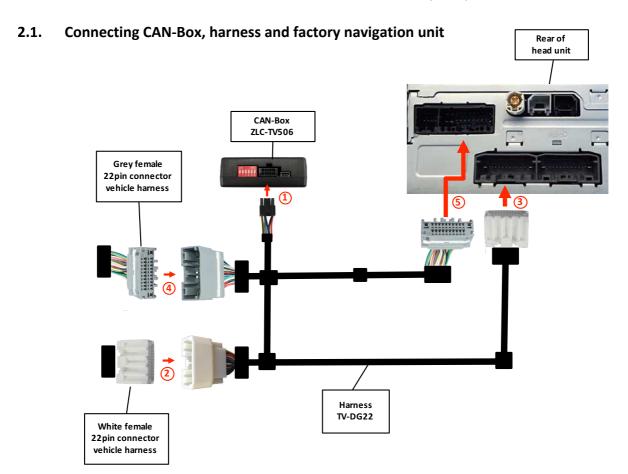
Cab	le colour	Pin-No.	Assignment		
•	Yellow	Pin 4	CAN-HIGH – connection to the head-unit		
•	Blue	Pin 3	CAN-LOW – connection to the head-unit		
• •	Yellow/Black	Pin 8	CAN-HIGH – connection to the vehicle		
• •	Blue/Black	Pin 7	CAN-LOW – connection to the vehicle		
•	Red	Pin 1	+12V permanent		
•	Black	Pin 5	Ground		
•	Green	Pin 6	Activation of the video-in-motion function (+12V = TV-free activated, only if DIP1=OFF)		
	White	Pin 2	Trigger output (+12V DC 500mA) (only if DIP2=ON and reverse gear engaged!)		



#### 2. 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 is sleep-mode. In case the sleep-mode does not show success, disconnect the battery with a resistor lead.

**Notes**: The interface is installed on the backside of the monitor unit Cinch plugs on the harness (red / white) forward the factory AUX signal and must therefore remain connected. Yellow cinch connector (male) have no function.



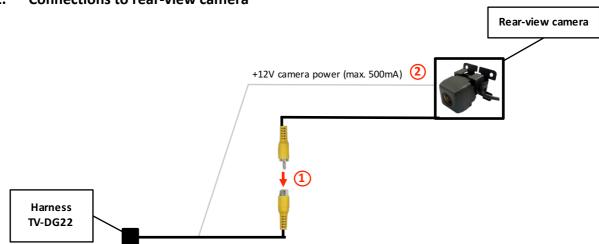
- Connect female 8pin Molex connector of harness TV-DG22 to male 8pin Molex connector of CAN-box ZLC-TV506.
- Transfer white female 22pin connector of vehicle harness from rear of the head-unit into male white female 22pin connector of harness TV-DG22.
- Plug white female 22pin connector of harness TV-DG22 into male 22pin connector on the rear of the head-unit.
- Transfer grey female 22pin connector of vehicle harness from rear of the head-unit into male grey female 22pin connector of harness TV-DG22.
- Plug grey female 22pin connector of harness TV-DG22 into male 22pin connector on the rear of the head-unit.

 $_{\sf Page}4$ 





#### 2.2. Connections to rear-view camera



- Connect the video RCA of the rear-view camera to the female RCA connector of the harness TV-DG22.
- Connect the white cable of harness TV-DG22 to the camera power supply (+12V max 500mA). The white cable gets power when reverse gear is engaged. By leaving the rear camera level the power is switch off again.

### 3. Coding of the rear-view camera

- 1. Set DIP switch "2" to "OFF" position
- 2. Turn on ignition
- 3. Wait until the head-unit has booted
- 4. Set DIP switch "2" to "ON" position
- 5. After a short time makes the system a reset and the coding operation is complete

#### 4. Activation of rear-view camera

The rear-view camera activate automatically whenever the reverse gear is engaging.

RL-UCON22-TF





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

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

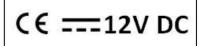
#### 6. Specifications

Operation voltage 10.5 – 14.8V Stand-by power drain <2mA
Operation power drain ~60mA
Power consumption ~0,08W

Temperature range -30°C to +80°C

Weight 44g

Measurements (box only) W x H x D 76 x 27 x 54 mm



#### 7. Technical support

Caraudio-Systems Vertriebs GmbH manufacturer/distribution

Rheinhorststr. 22 D-67071 Ludwigshafen am Rhein NavLinkz GmbH corporate sales/tech dealer-support

Eurotec-Ring 45 D-47445 Moers

phone +49 180 3 907050 email support@caraudio-systems.de

**Legal disclaimer:** Mentioned company and trademarks, as well as product names/codes are registered trademarks ® of their corresponding legal owners.

 $9^{\mathsf{age}}$