



# **Camera interface**

## RL-LR17-TF

Rear-view camera-input and video-in-motion compatible with Land Rover INCONTROL TOUCH (8") system from model 2017

Only for vehicles WITHOUT factory rear-view camera



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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.

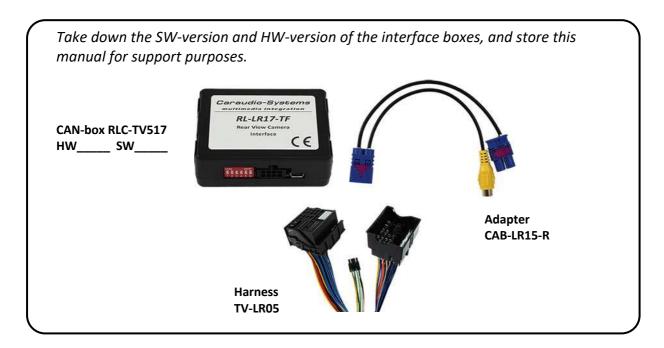




#### 1. Prior to installation

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



## 1.2. Check compatibility of vehicle and accessories

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Vehicle Land Rover vehicles from year 2017

Navigation INCONTROL TOUCH (8" screen)

Limitations

After-market rear-view Only compatible with NTSC-cameras.

camera





## 1.3. Setting the DIP switches of the CAN-box RLC-TV517

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

<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 RLC-TV517

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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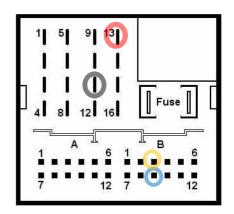




## 1.4. Pin-assignments

## Pin assignment quadlock connector

Function	Pin-No.
CAN-HIGH	Pin 3 (chamber B)
CAN-LOW	Pin 9 (chamber B)
+12V permanent	Pin 13
Ground	Pin 11



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

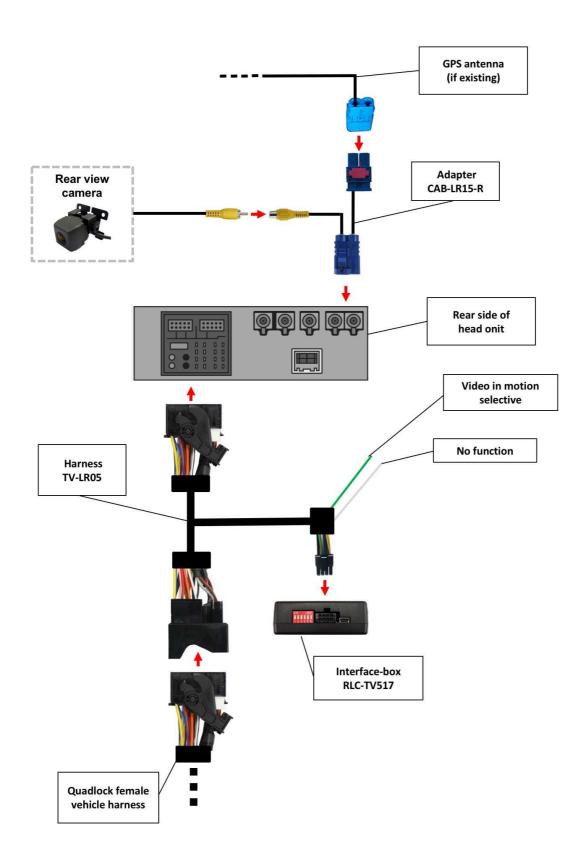
## Pin-assignment of the CAN-Box RLC-TV517 (Molex 8pin)

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)
	White	Pin 2	No function

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## 2. Connection schema



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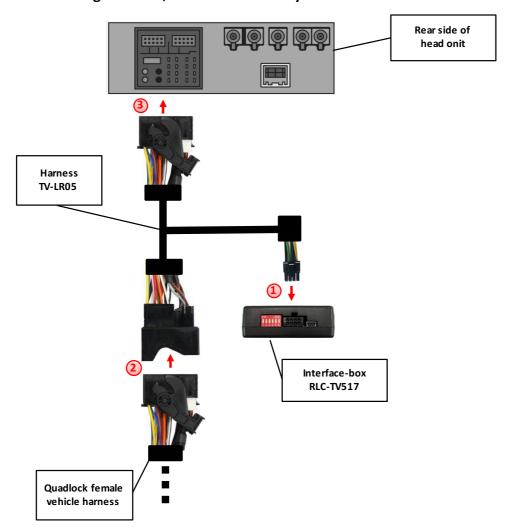


#### 3. Installation

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 on rear of the head unit.

#### 3.1. Interconnecting CAN-Box, harness and factory head unit

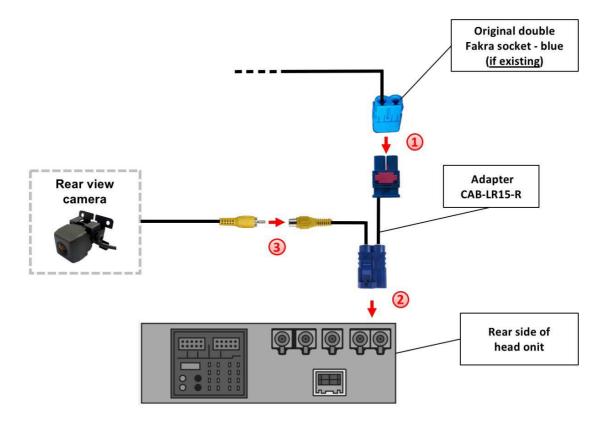


- 1 Connect female 8pin Molex connector of harness TV-LR05 to male 8pin Molex connector of CAN-box RLC-TV517.
- 2 Transfer Quadlock connector of vehicle harness from rear of the head unit into male Quadlock connector of harness TV-LR05.
- 3 Plug female Quadlock connector of harness TV-LR05 into male Quadlock socket on the rear of the head unit.

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



- 1 If existing, disconnect the original blue double Fakra socket from the Head Unit and connect it to the double Fakra male plug of adapter CAB-LR15-R.
- 2 Connect the double Fakra socket of adapter CAB-LR15-R to the double blue Fakra-connector on the rear of the head unit.
- 3 Connect the video RCA of the rear-view camera to the female RCA connector of adapter CAB-LR15-R.

Note: Only compatible with NTSC-cameras.





#### 4. 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

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

## 5. 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 70 x 20 x 47 mm/ 76 x 27 x 54 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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