

r.LiNK-Interface

RL-A15-2

**Rear and front camera input
compatible with Mercedes Vito
Audio15 system**

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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.

Interface-box
RLC-M40
 HW _____ SW _____



Harness
RLC-A15-2

1.2. Check compatibility of vehicle and accessories

Requirements

<i>Vehicle</i>	Mercedes Vito (W447)
<i>Navigation</i>	Audio15

Limitations

<i>After-market camera</i>	Only compatible with NTSC-cameras.
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1.3. Setting the dip switches of the interface-box RLC-M40

Vehicle/ navigation	Dip 1	Dip 2	Dip 3	Dip 4	Dip 5	Dip 6
Camera coding	ON	OFF	OFF	OFF	OFF	ON
Camera decoding	OFF	OFF	OFF	OFF	OFF	ON

Note: Dip switch functions of the RLC-M40

Dip 1 – Camera coding

Dip 2 – Front camera activation

Dip 3 – no function

Dip 4 – no function

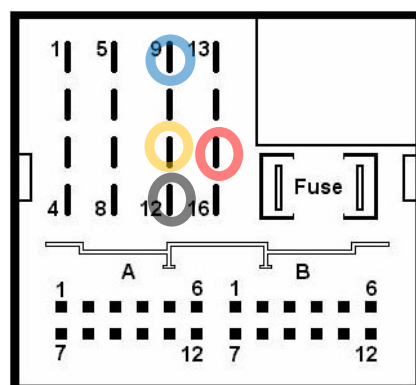
Dip 5 – no function

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

1.4. Pin-assignments

Pin-assignment factory connector

Assignment	Pin No.
+12V battery	Pin 15
Ground	Pin 12
CAN-low	Pin 9
CAN-high	Pin 11

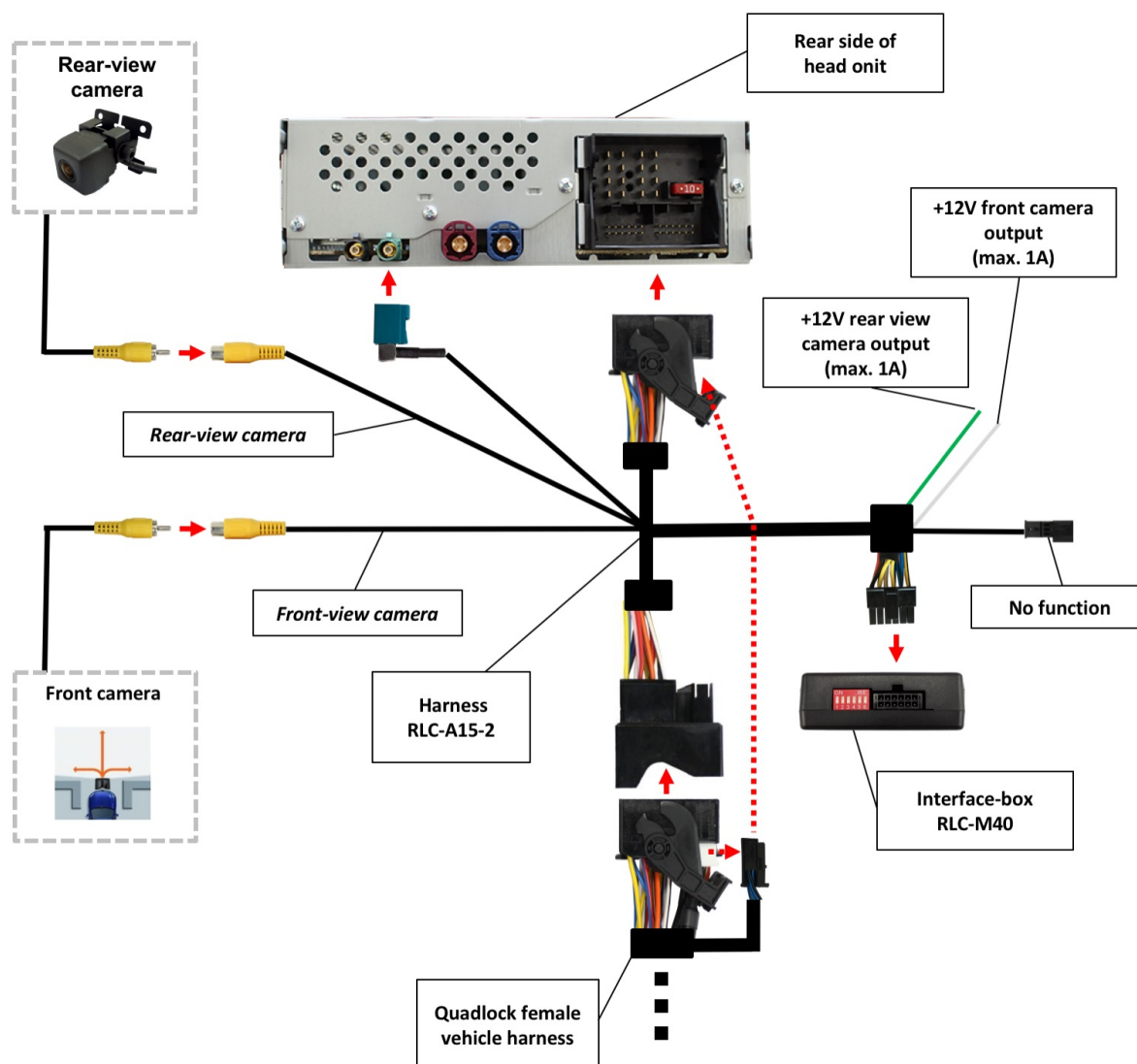


No liability for vehicle wire colors and pin definition! Possible changes by the vehicle manufacturer. The given information must be verified by the installer.

Pin-assignment of the interface-box RLC-M40 (Molex 12pin)

Cable colour	Pin-No.	Assignment
Yellow	Pin 6	CAN-HIGH – connection to the head-unit
Blue	Pin 5	CAN-LOW – connection to the head-unit
Yellow/Black	Pin 12	CAN-HIGH – connection to the vehicle
Blue/Black	Pin 11	CAN-LOW – connection to the vehicle
Red	Pin 1	+12V permanent
Black	Pin 7	Ground
Green	Pin 2	+12V rear view camera output (max. 1A)
White	Pin 3	+12V front camera output (max. 1A)
Blue	Pin 4	No function
Yellow	Pin 8	Rear view camera video signal input
Yellow	Pin 10	Front camera video signal input
Transparent	Pin 9	Camera video signal output

2. Connection schema

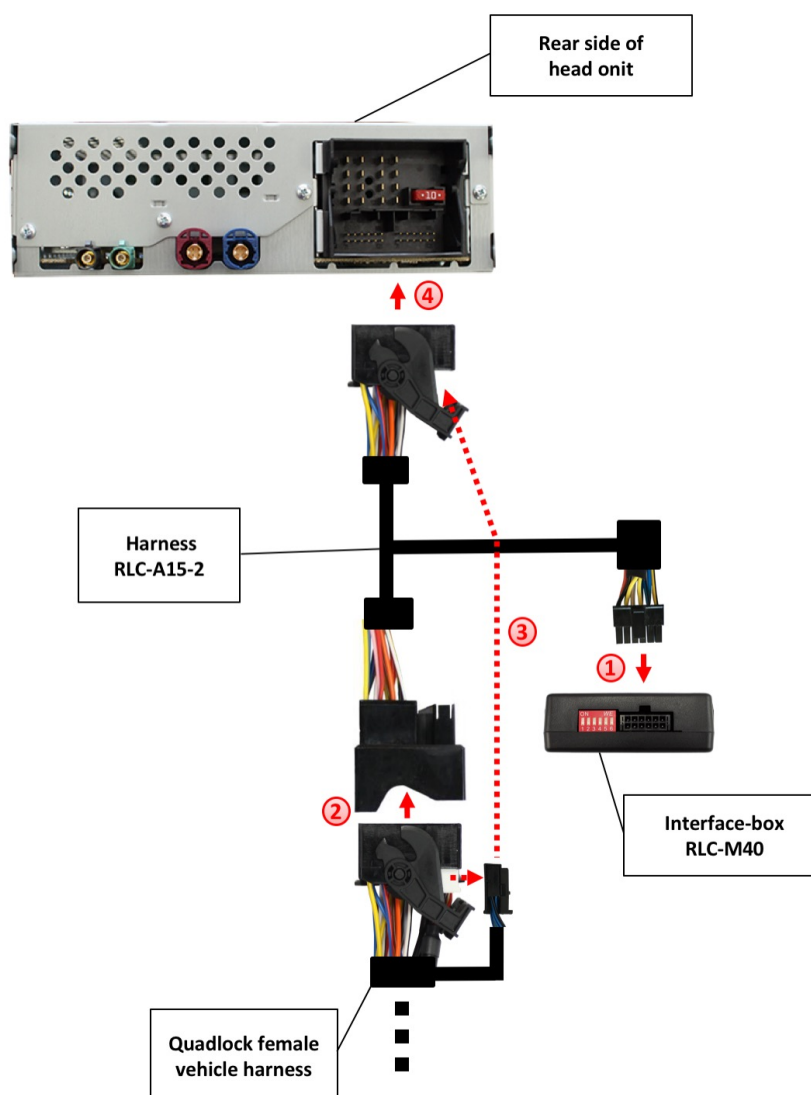


3. Installation

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 on rear of the head unit.

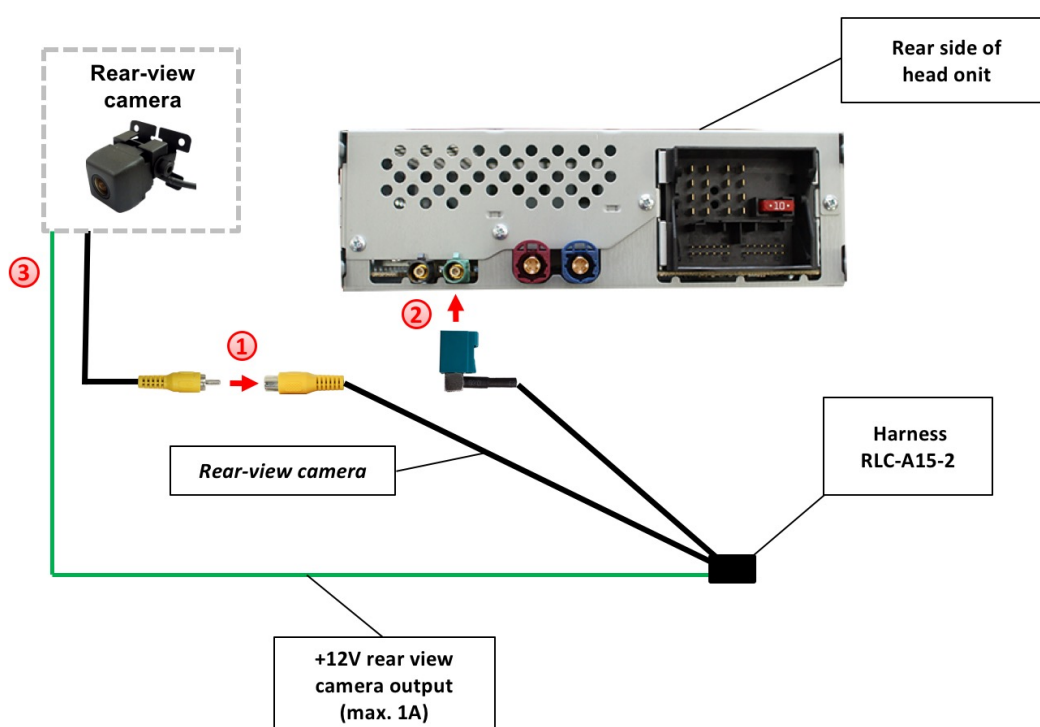
3.1. Interconnecting interface-Box, harness and factory head unit



- 1** Connect female 12pin Molex connector of harness RLC-A15-2 to male 12pin Molex connector of CAN-box RLC-M40.
- 2** Remove the female Quadlock connector of the vehicle harness from the rear of the head unit and connect it to the male Quadlock connector of harness RLC-A15-2.

- 3 Remove the 12pin Quadlock plug inserts from the female Quadlock connector of the vehicle harness and insert them into the female Quadlock connector of harness RLC-A15-2 at the same position.
- 4 Connect female Quadlock connector of harness RLC-A15-2 to the male Quadlock connector of the head unit.

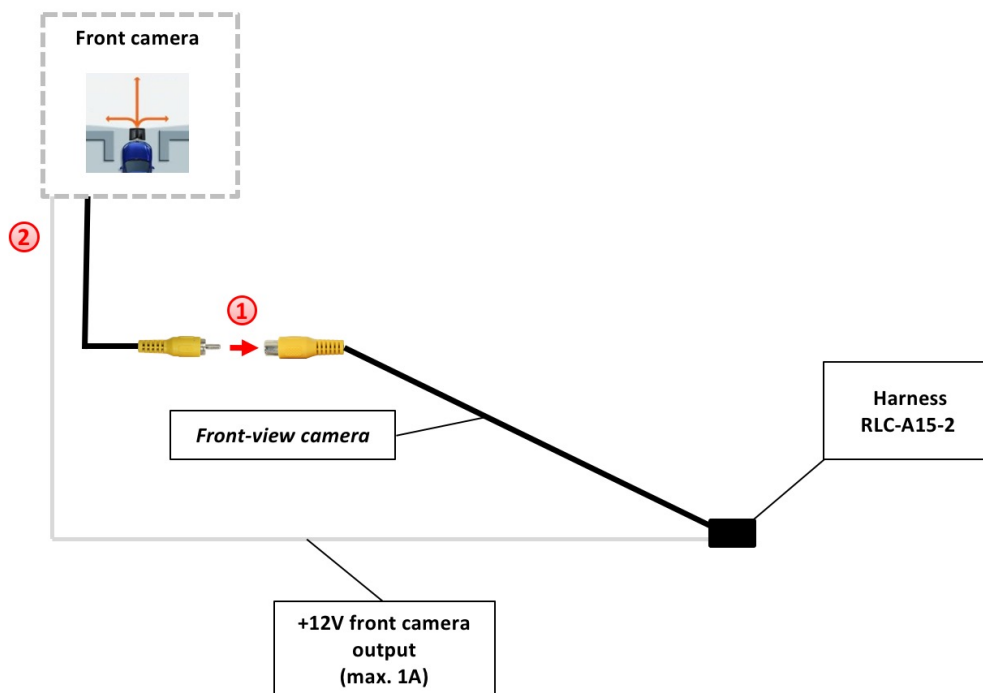
3.2. Connections to rear-view camera



- 1 Connect the video RCA of the rear-view camera to the female RCA connector with the label „Rear-view camera“ of RLC-A15-2 harness.
- 2 Connect the Fakra socket of the RLC-A15-2 harness to the green Fakra connector on the rear of the head unit.
- 3 Connect the green cable of harness RLC-A15-2 to the camera power supply (+12V, max 1A). The green cable gets power when reverse gear is engaged. By leaving the rear camera level the power is switch off again.

Note: Only compatible with NTSC-cameras.

3.3. Connections to front camera



- 1 Connect the video RCA of the front camera to the female RCA connector with the label „Front-view camera“ of RLC-A15-2 harness.
- 2 Connect the white cable of harness RLC-A15-2 to the camera power supply (+12V, max 1A). The white cable gets power when reverse gear is released. By leaving the rear camera level (after 20 km/h) the power is switch off again.

Note: Only compatible with NTSC-cameras.

4. Coding of the camera function

4.1. Camera function coding

1. Set DIP switch „1“, „5“, „6“ to „ON“
2. Turn ignition on (ignition position 2, Note: Do not start engine)
3. Wait until the Audio15 device has booted
4. Insert reverse gear („Diag“ appears on the screen and after a short time, the Audio15 device goes off)
5. Turn on the Audio15 device manually (press ON button)
6. The coding process is now complete
Note: When after the coding process the camera function is still not activated (red LED on the interface remains off), then additionally the ignition must be switched off and the vehicle must be locked for approx. 5 min.

4.2. Camera function decoding

1. Set DIP switch „5“, „6“ to „ON“, „1“ to OFF
2. Turn ignition on (ignition position 2, Note: Do not start engine)
3. Wait until the Audio15 device has booted
4. Insert reverse gear („Diag“ appears on the screen and after a short time, the Audio15 device goes off)
5. Turn on the Audio15 device manually (press ON button)
6. The decoding process is now complete

LED information:

LED	Status	Explication
Blue	Lights	CAN bus communication OK
	Flashes	CAN bus search
Red	Lights	Rear-view camera is coded
	Off	Rear-view camera is not coded

Note: After the first use on a vehicle, the RL-A15-2 interface is personalized to this vehicle and can be used unlimited times to code or reverse coding on this vehicle.

5. Front camera activation

Dip 1	Dip 2	Dip 3	Dip 4	Dip 5	Dip 6
ON	ON	OFF	OFF	ON	ON

Dip 2 switch „ON“*: Front camera activated. Switches off automatically at 20 km/h

***Note:** Camera can also be manually switched off via the Audio15 system

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	70 x 20 x 47 mm/ 76 x 27 x 54 mm

7. Technical support

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