



CARAUDIO-SYSTEMS RL-A15 Input Compatible Rear View Camera User Manual

[Home](#) » [CARAUDIO-SYSTEMS](#) » CARAUDIO-SYSTEMS RL-A15 Input Compatible Rear View Camera User Manual 

Contents

- 1 CARAUDIO-SYSTEMS RL-A15 Input Compatible Rear View Camera
- 2 Product Information
- 3 Legal Information
- 4 Prior to installation
 - 4.1 Pin-assignments
- 5 Connection schema
- 6 Installation
- 7 Coding of the rear-view camera
- 8 Speed related rear view camera shut down
- 9 Specifications
- 10 Technical support
- 11 Documents / Resources
 - 11.1 References

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CARAUDIO-SYSTEMS RL-A15 Input Compatible Rear View Camera



Product Information

Camera Interface RL-A15

The Camera Interface RL-A15 is designed for use with the Mercedes Vito Audio15 system. It allows for the connection of a rear-view camera to provide additional safety and convenience while driving. The interface is compatible with the NTSC camera format and comes with a CAN-Box RLC-TV515 for seamless integration with the vehicle's navigation system.

Specifications

- **Model:** RL-A15
- **Version:** 15.12.2023
- **Compatibility:** Mercedes Vito (W447) Audio15
- **Camera Format:** NTSC

FAQ

- **Q:** Is it legal to watch moving pictures while driving?
 - **A:** No, it is prohibited by law to watch moving pictures while driving. The driver must not be distracted. The Camera Interface RL-A15 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.

- **Q:** What should I do if there are malfunctions caused by changes/updates of the vehicle's software?
 - **A:** 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 your own cost. Labor cost and other expenses involved with the software-updates will not be refunded.
- **Q:** Can I use the Camera Interface RL-A15 with any vehicle?
 - **A:** No, the Camera Interface RL-A15 is specifically designed for use with the Mercedes Vito (W447) Audio15 system. It is important to check the compatibility of your vehicle and accessories before installation.

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.

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.

Delivery contents

Take down the SW-version and HW-version of the interface boxes, and store this manual for support purposes.

CAN-box RLC-TV515
HW _____ SW _____



Adapter
CAB-TVAS20A

Harness
TV-NTG2



Check compatibility of vehicle and accessories

- **Requirements**

- **Vehicle:** Mercedes Vito (W447)

- **Navigation:** Audio15

- **Limitations**

- **After-market rear-view camera:** Only compatible with NTSC-cameras.

Setting the DIP switches of the CAN-box RLC-TV515

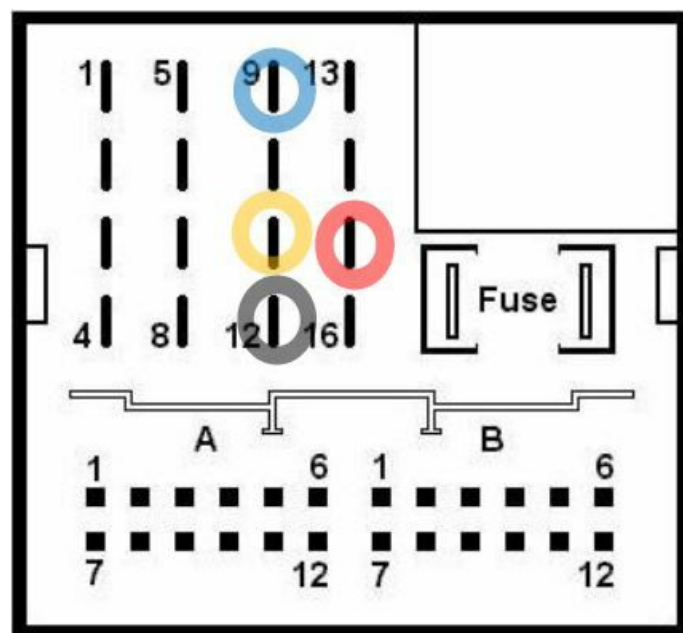
Vehicle/ navigation	DIP 1	DIP 2	DIP 3	DIP 4	DIP 5	DIP 6
Camera coding	ON	OFF	OFF	OFF	OFF	ON
Camera decoding	OFF	OFF	OFF	OFF	OFF	ON

Note: DIP switch functions of the RLC-TV515

- **DIP 1** – Camera coding
- **DIP 2** – Speed related rear view camera shut down
- **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-assignments

Pin-assignment factory connector



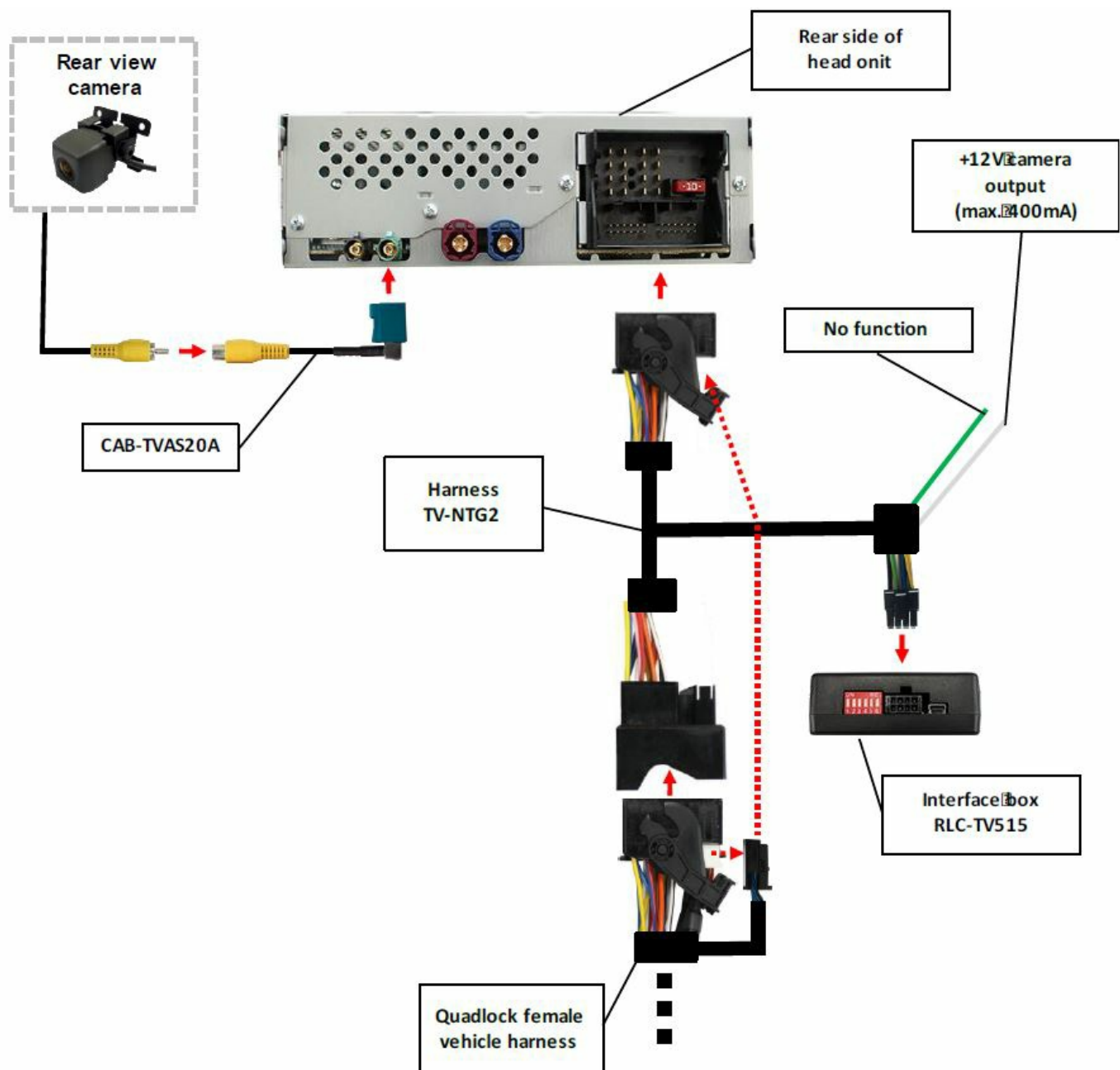
Assignment	Pin No.
+12V battery	Pin 15
Ground	Pin 12
CAN-low	Pin 9
CAN-high	Pin 11

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 CAN-Box RLC-TV515 (Molex 8pin)

Cable 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	No function
White	Pin 2	+12V rear view camera (max. 400mA)

Connection schema

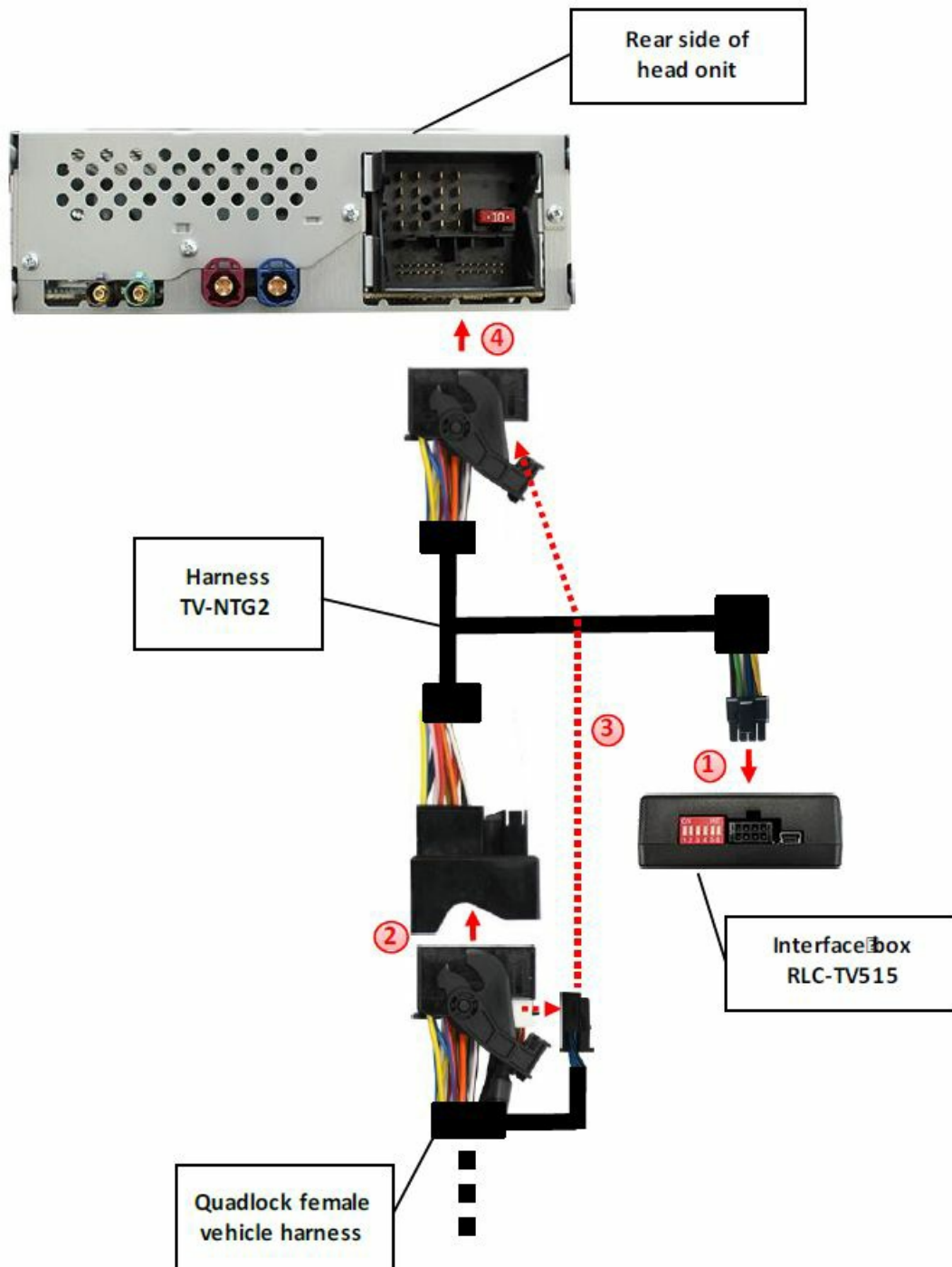


Installation

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.

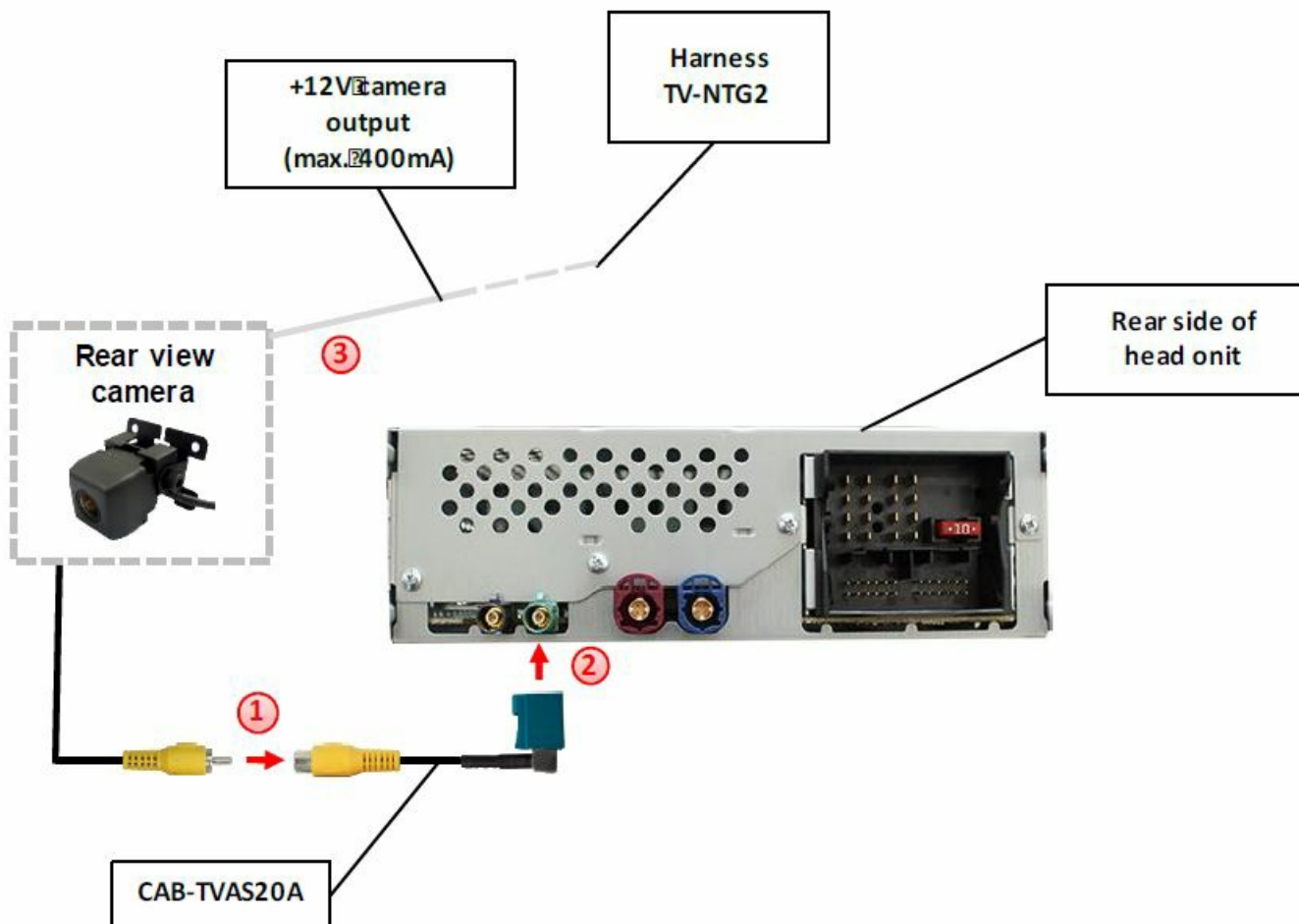
Interconnecting CAN-Box, harness and factory head unit



1. Connect female 8pin Molex connector of harness TV-NTG2 to male 8pin Molex connector of CAN-box RLC-TV515.
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 TV-NTG2.
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 TV-NTG2 at the same position.
4. Connect female Quadlock connector of harness TV-NTG2 to the male Quadlock connector of the head unit.

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

Connections to rear-view camera



1. Connect the video RCA of the rear-view camera to the female RCA connector of adapter CAB-TVAS20A.
2. Connect the Fakra socket of adapter CAB-TVAS20A to the green Fakra connector on the rear of the head unit.
3. Connect the white cable of harness TV-NTG2 to the camera power supply (+12V, max 400mA). The white 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.

Coding of the rear-view camera

Rear-view camera coding

1. Set DIP switch „1“ and „6“ to „ON“ (DIP 2,3,4,5 = 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 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.

Rear-view camera decoding

1. Set DIP switch "6" to „ON“, "1" to OFF (DIP 1,2,3,4,5 = 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 interface is personalized to this vehicle and can be used unlimited times to code or reverse coding on this vehicle

Speed related rear view camera shut down

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

- **DIP 2 switch „ON“:** Rear view camera automatically switches off at 20 km/h
- **DIP 2 switch „OFF“:** Rear view camera switch off when reverse gear is disengaged

***Note:** Rear view camera can also be manually switched off via the Audio15 system

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

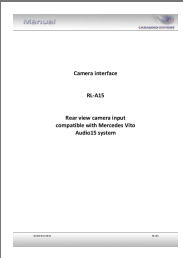
Measurements (box only) W x H x D 70 x 20 x 47 mm/ 76 x 27 x 54 mm

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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Documents / Resources

	<p>CARAUDIO-SYSTEMS RL-A15 Input Compatible Rear View Camera [pdf] User Manual MB Vito W447, RL-A15 Input Compatible Rear View Camera, RL-A15, Input Compatible Rear View Camera, Compatible Rear View Camera, Rear View Camera, View Camera, Camera</p>
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References

- [User Manual](#)

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