

installation instruction

Multimedia Interface in combination with
a rear view camera

article-ID 35538

Interface rear view camera universal

article-ID 36460
36459
36456
36492-1
36492-2
36492-3

- Regarding after market RVC
- Regarding retrofitting original (OEM) RVC

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General advice

Congratulations to your new RVC interface.
Thank you for choosing a product of Kufatec GmbH.

While developing this product, your personal safety combined with the best operating service, modern design and an up-to-date production technique was especially taken into account.

Unfortunately, despite the utmost care injuries and/or damages might occur due to improper installation and/or use.

Please read the attached instruction manual completely with great care and keep it!

All articles of our production line pass through a 100 % check - for your safety and security.

We reserve the right to carry out technical changes which serve the improvement at any time.

According to each article and purpose, it is sometimes necessary to check each country's legal regulations before installing and starting the unit.

In case of guarantee claims, the device has to be sent back to the seller in the original packaging with the attached bill of purchase and detailed defect's description. Please pay attention to the manufacturer's return requirements (RMA). The legal warranty directions are valid.

The guarantee claim as well as the operating permission becomes invalid due to:

- a) unauthorized changes to the device or accessories which have not been approved or carried out by the manufacturer or its partners
- b) opening the device's frame
- c) device's repairs carried out by one's own
- d) improper use / operation
- e) brute force to the device (drop, wilful damage, accident etc.)

During installation, please pay attention to all safety relevant and legal directions.

The device has only to be installed by trained personnel or similarly qualified people.

Safety Instructions

Installation requires special knowledge.

Do not install the unit yourself. For safe and reliable installation, consult a dealer having special knowledge.

- Never use bolts or nuts from the car's safety devices for installation. If bolts or nuts from the steering wheel, brakes or other safety devices are used for installation of the unit, it may cause an accident.
- Use the unit with a DC 12V negative ground car. This unit cannot be used in large trucks which use a DC 24V battery. If it is used with a DC 24V battery, it may cause a fire or accident.
- Avoid installing the unit in following places:
 - Where it would hinder your safe driving.
 - Where it could damage the car's fittings.
- This unit is only for use in the following vehicles. Only connections described within this instruction guide are allowed or required to use for installation.
- For damage impact caused by faulty installation, unsuitable connections inappropriate vehicles Kufatec GmbH assumes no liability.
- We advise you that these units process data out of the CAN - protocol from the vehicle. As the supplier of this device we don't know the overall system you are working with. If our device causes damage due to other changes made by to the vehicle Kufatec GmbH assumes no liability.
- Kufatec GmbH supplier do not guarantee the use of the product for changes within a new vehicle series.
- If the car manufacturer's don't agree with the installation of our device by reason of warranty the Kufatec GmbH assumes no liability. Please check conditions and warranty before you begin the installation.
- Kufatec GmbH supplier reserves the right to change the device specifications without notice.

References of legal regulations for operation

Only use this unit in the intended domain.

If you use it in a foreign domain, if the unit is not installed properly, or if the unit will be reconstructed, the guarantee will expire.

RVC Interface

Retrofit kit in order to connect a RVC to the factory fitted head unit.

Scope of delivery

- RVC Interface universal (depends on article-ID)
- Specific Wiring harness (depends on article-ID)

Coding

- In case of Audi **head unit RNS-E**
 - head unit has to be coded to RVC
 - Address 56- Channel 04 - set from 0 to 1**
 - The head unit has to have a softwareindex of at least **550**.
- In case of VW **head unit RNS 510**
 - For fitting RVC interface universal
 - Address 19 - Diagnostic interface - needs to be coded to RVC
 - For fitting Multimedia Adapter 35538
 - Address 19 - Diagnostic interface - needs to be coded to TV
 - needs to be coded to RVC

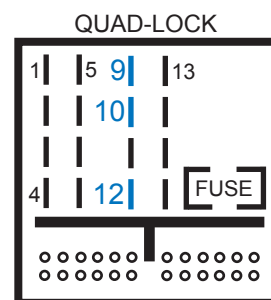
Installation instruction

Please remove the head unit using suitable tools,

With the connection of 4 new wires you will complete the fitting of the interface. Please see scheme below (blue marked figures). In order to achieve a proper connection we recommend both crimping and soldering the new wires.

black/white	-	CAN High	PIN 9
black/yellow	-	CAN Low	PIN 10
brown	-	Ground	PIN 12
red	-	Steady plus (from HW index 3.0) source	specific to the vehicle

NOTE: The rear view camera must not be connected to the cinch input of the Interface. Please see page 5, 6 for PIN configuration.



Additional Specifications VW RNS 510

NOTE: The CAN-Gateway (address 19) needs to be coded to Rear view camera. Please contact your local VW Audi dealer.

In case of using the multimedia interface 35538 you also need to change the „TV-Norm“ to **NTSC**. Please proceed with the buttons as follows (not valid for the RVC interface universal):

„MEDIA“ --- „SETUP“
 ⋮
 Settings --- „VIDEO“ --- „TV-NORM“ ---- „NTSC“

Additional Specifications Audi RNS-E

NOTE: The head unit needs to be coded to Rear view camera. Please contact your local VW Audi dealer.

Address 56 - Channel 04 - set from 0 to 1
 The head unit has to have a softwareindex of at least **550**.

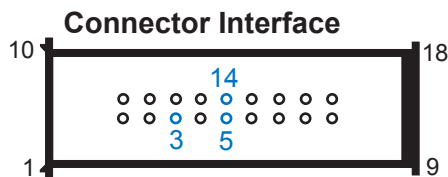
Fitting after market camera

The **autom.** switch for the RVC is limited to vehicles which get the rear view signal by CAN bus!

Audi RNS-E	-	A3(8P), A4(8E, 8H), TT(8J) - nicht A6(4B)
VW MFD2, RNS2, RNS 510	-	Golf5, Jetta, Passat 3C, Eos, Tiguan, Touran, Touareg, T5, Octavia
VW MFD1, Audi RNS-D, MB Comand 2.0, 2.5	-	No autom. switch available

The RVC has to process **NTCS signals!**

You will need to integrate the wiring (Article-ID 35570) as well as the add on cable (only for RNS-E, MFD2/RNS2) into the main wiring of the interface (connector interface).



article-ID 35570

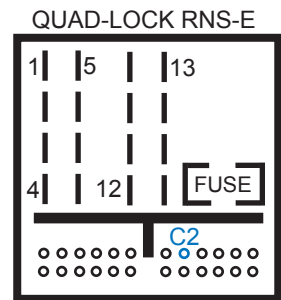
Black - Pin 5 (Videoground)
Yellow - Pin 14 (Videoinput)

article-ID 35676 (RNS-E)
35677 (MFD2/RNS2)

add on cable - Pin 3

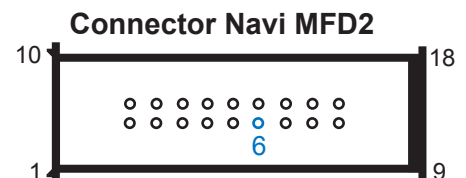
ATTENTION: Note for navigation unit Audi RNS-E

In case of **Audi RNS-E** navigation you are able to connect two multimedia devices as well as a rear view cam at the same time. The add on cable (**article-ID 35676**) has to be connected to position **C2 (RFSL)** of the navigation unit. By choosing the rear gear the video source of the RVC will be shown automatically. The condition is you have to be in the CD/TV mode (Software 1.96/ Hardware 2.5). Hardware version 3.0 allows the automatic switch to the video source of the RVC by choosing the rear gear independent in which mode you are. Furthermore the navigation has to have a **softwareindex** of at least **550**. The value at channel 4 has to be changed from 0 to 1 by using diagnostic software.



ATTENTION: Note for navigation unit VW MFD2, RNS2

In case of **VW MFD2/ RNS2** navigation you are able to connect two multimedia devices as well as a RVC at the same time. The add on cable (**article-ID 35677**) has to be connected to **PIN 6 (VSWITCH)** of the main wiring of the interface (connector Navigation side). By choosing the rear gear the video source of the RVC will be shown automatically. The condition is you have to be in the TV mode (Software 1.96/ Hardware 2.5). Hardware version 3.0 allows the automatic switch to the video source of the RVC by choosing the rear gear independent in which mode you are.



ATTENTION: Note for navigation units VW MFD1, Audi RNS-D, MB Comand 2.0/ 2.5

In case of **VW MFD1, Audi RNS-D, Mercedes Comand 2.0/ 2.5** navigation you are able to connect two multimedia devices (see page 11) at the same time as well as control them by the OEM navigation units. It is not possible to control two devices in combination with a RVC. Take note there is no auto. switch available.

RVC solution as Stand-alone (MFD1, RNS-D, Comand 2.0/ 2.5):

For installing a RVC you need to connect the RVC with the videoinput of the interface (without article-ID 35570)

Combination RVC + one multimedia-device (MFD1, RNS-D, Comand 2.0/ 2.5):

For the installation of this combination the multimedia device has to be connected by video input of the interface. The RVC has to be connected by using article-ID 35570. In the menu index „**1C**“ the video switch „**1C10 - Video Switch**“ has to be activated. The device you want want to control has to be choosed by menu index „**2C**“ (ex Software index 2.20).

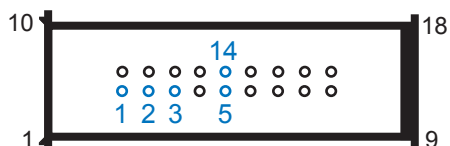
Fitting original (OEM) RVC

For installing an original (OEM) RVC (vehicle **doesn't** have factory fitted RVC) you need to use wiring **article-ID 36136**. The installation of an original control unit for RVC is not necessary.

Note: By choosing the rear gear the system doesn't display the help lines on the screen.

You will need to integrate the wiring (Article-ID 36136) as well as the add on cable (only for RNS-E, MFD2/RNS2) into the main wiring of the interface (connector interface).

Connector Interface



Article-ID 36136

Black - Pin 5 (Videoground)
 Yellow - Pin 14 (Videoinput)
 Red - Pin 1 (Plus)
 Brown - Pin 2 (Ground)

Article-ID 35676 (RNS-E)
 35677 (MFD2/RNS2)

add on cable - Pin 3

Furthermore you need to connect the wiring to the original RVC (Image 1, 2). Therefore you need to change the connection of the original RVC showing on image 1 (delivered 2-pole connector female). Finally you need to connect the two Gray FAKRA - Connections (Image 2).

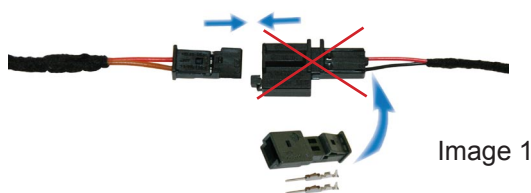


Image 1

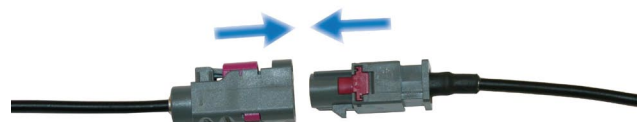
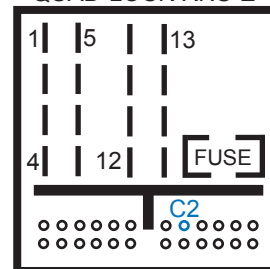


Image 2

ATTENTION: Note for navigation unit Audi RNS-E

In case of **Audi RNS-E** navigation you are able to connect two multimedia devices as well as a rear view cam at the same time. The add on cable (**article-ID 35676**) has to be connected to position **C2 (RFSL)** of the navigation unit. By choosing the rear gear the video source of the RVC will be shown automatically. The condition is you have to be in the CD/TV mode (Software 1.96/ Hardware 2.5). Hardware version 3.0 allows the automatic switch to the video source of the RVC by choosing the rear gear independent in which mode you are. Furthermore the navigation has to have a **softwareindex** of at least **550**. The value at channel 4 has to be changed from 0 to 1 by using diagnostic software.

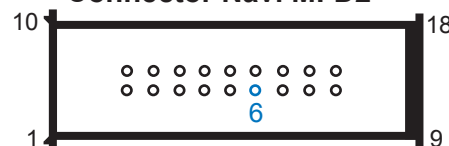
QUAD-LOCK RNS-E



ATTENTION: Note for navigation unit VW MFD2, RNS2

In case of **VW MFD2/ RNS2** navigation you are able to connect two multimedia devices as well as a RVC at the same time. The add on cable (**article-ID 35677**) has to be connected to **PIN 6 (VSWITCH)** of the main wiring of the interface (connector Navigation side). By choosing the rear gear the video source of the RVC will be shown automatically. The condition is you have to be in the TV mode (Software 1.96/ Hardware 2.5). Hardware version 3.0 allows the automatic switch to the video source of the RVC by choosing the rear gear independent in which mode you are.

Connector Navi MFD2



ATTENTION: Note for navigation unit VW RNS 510 (Touchscreen)

In case of **VW RNS 510** navigation unit you are able to connect two devices as well as a rear view cam at the same time. By choosing the rear gear the video source of the RVC will be shown automatically.