Installation instruction
Multimedia Adapter
VW

Article no.: 38328
38328-1
38329
38329-1

VW Touareg 7P
RNS 850
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General advice

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.

Please limit on installation or function problems the troubleshooting to 0.5 hours for mechanical and 1.0 hours for electronic works.

To avoid unnecessary work and to save costs, please send us immediately via the contact form Kufatec (http://www.kufatec.de/shop/de/infocenter/) a request to our technical support.

Please quote the following necessarily:

- Vehicle Identification Number
- Part number of the retrofit kit
- Detailed description of problems
- Already conducted operations
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 datas out of the MOST - 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 guaranty the use of the product for changing's 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.

NOTE: The road traffic has to have your full attention.

Telephone operations should only be done by suitable traffic and weather situations. The volume need to be set that you are still able to realise acoustic warn signals (Police, fire brigade).

- Errors and changes excepted.

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.
Multimedia Adapter

- Uncomplicated assembly, no cutting of the existing wires is necessary
- All the standard functions remain fully intact
- Operation through the RNS 850 operation unit (only with Interface Version „Plus“)
- **Audio output** through the speaker of the vehicle – no installation of additional speakers necessary

**NOTE:** Before the installation check, whether the vehicle is equipped with adapters of different brands. If there is assembled another interface than developed by Kufatec GmbH & Co. KG, so the trouble-free function of the multimedia adapter cannot be guaranteed. Respectively the interface of a different brand has to be removed from the vehicle.

**NOTE:** Light conductor must not be **BENT** or **BROKEN**! The recommended laying radius amounts to 40mm.
Faulty installation can result in higher cushioning and run-time differences. In such case the trouble-free functioning of the multimedia adapter cannot be guaranteed.

**NOTE:** **End device installation**
The installation of end devices is foreseen for the rear area of the vehicle. In case of the installation in the front area (e.g. DVD-Player) an additional AV wire will be necessary.

**NOTE:** In case of installation of 2 end devices (e.g. DVD Player + DVB-T) an Y-junction (Kufatec article no.35551) has to be used, in order to connect both control wires (fig. 1).

![Fig. 1](image)

Optional accessory

- Article no.: 35601 – jack junction for the parallel connection of the control wire + remote control receiver
- Article no.: 36482 – western junction for the parallel connection of the control wire + remote control receiver
- Article no.: 37613 – AV cable (extension) 550cm
Connection diagram

Fig. 2

* when factory-assembled

ACC (Blue) – Connect with the ACC wire (remote) of the end device (DVD/ DVB-T) If the end device is not equipped with an ACC wire, so the ACC wire of the interface remains without any function in the vehicle.

CAUTION: DO NOT connect the cable for the power supply (DVD/ DVB-T) to ACC cable of the interface! It could destroy the video interface!
This cable has to be additionally secured by a 1 ampere fuse.

Device specific control wires
In order to realize the operation of the end devices by means of MMI operation unit (only for Plus Version) you need a device specific control wire (see table).

<table>
<thead>
<tr>
<th>End device</th>
<th>Kufatec article no.</th>
<th>End device</th>
<th>Kufatec article no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>DVD Player Ampire DVX 101</td>
<td>35550</td>
<td>DVB-T Ampire DVBT 52</td>
<td>35549</td>
</tr>
<tr>
<td>DVD Player MP 410U</td>
<td>35550</td>
<td>DVB-T Ampire DVBT 200</td>
<td>35549</td>
</tr>
<tr>
<td>DVD Player BOA 85700</td>
<td>35550</td>
<td>DVB-T Ampire DVBT 400</td>
<td>35549-1</td>
</tr>
<tr>
<td>DVD Player AIV Car DVD Player</td>
<td>35550</td>
<td>DVB-T Alpine TUE-T150DV</td>
<td>35547</td>
</tr>
<tr>
<td>DVD Player DVD 145</td>
<td>35552</td>
<td>DVB-T Dietz 1491</td>
<td>35553</td>
</tr>
<tr>
<td>DVD Player 500 U</td>
<td>35550</td>
<td>DVB-T Dietz 1492</td>
<td>36923</td>
</tr>
<tr>
<td>DVB-T Zemex D90-2G</td>
<td>38265</td>
<td>DVB-T DAS M21</td>
<td>38400</td>
</tr>
<tr>
<td>DVB-T Zemex D100</td>
<td>35549-1</td>
<td>iPod Video Interface Alpine KCE 425i</td>
<td>35552</td>
</tr>
<tr>
<td>DVD Changer Zemex DVC62</td>
<td>38505</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Installation instructions

The following presentation shows the laying of the wires and the position of the single components as well.

1 – Radio box
2 – DVD-changer (if factory-installed)
3 – Multimedia adapter
4 – Multimedia unit RNS 850

Installation place - Radio box

Dismantle the rear end cover mask (fig. 4). Loosen the screws of the lashing eyes and remove the blind (fig. 5). Unscrew the bolts of the D-column lining (fig. 6).

Loosen the right-hand lining. The radio box is situated vertically mounted next to the Infotainment rack. (fig. 7).
Interface connection

**Light conductor**

The connection takes place Plug & Play on the backside of the radio box.

Remove the original light conductor plug from the radio box (fig. 8). Connect the original light conductor plug with the socket of the delivered cable harness (fig. 9).

Integrate the light conductor of the delivered cable harness in the radio box (fig.10). The figure 11 shows the correct connection of the interface.

**Power supply**

The connection of the power supply takes place with the Quadlock-plug of the radio box.

The wires brown (ground) and red (permanent positive) have to be connected specifically to the vehicle by means of a braze or crimp joint (fig. 12, 13). **Do not use any press-on connectors!**

**NOTE:** The color of the wire can also be neutral – connection see the wire imprint.

BROWN – PIN 17

RED – PIN 18
Connect the 18-pin plug and the light conductor plug to the interface. Connect the audio - video- and control wire to the delivered cable harness. **Note:** The control wire is necessary only in case of the **Plus** Version.

![Image of connector and wiring](fig14.png) ![Image of video and audio wires](fig15.png) ![Image of blue single wire](fig16.png)

**Blue single wire** (fig. 16) - connect with the **ACC** wire of the end device (DVD/ DVB-T)

First check the connection notes of the end device (DVD/ DVB-T), which wire is the ACC! Make the **presss-on connections** competently.

If the end device is not equipped with an ACC wire, so the ACC wire of the interface remains without function in the vehicle.

**CAUTION:** Do not connect any wire for the power supply (DVD/ DVB-T) to the ACC wire! This can damage the video Interface!

This wire has to be additionally secured with a 1 Ampere fuse.

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**Connection Video wire**

Lay the video wire to the front area of the vehicle (fig.17).

![Image of video wire](fig17.png)

Loosen the necessary bolts of the glove compartment (fig.18-20) and disconnect the original plug connections of the Multimedia unit RNS 850.
Take out the RNS 850 unit. Connect the delivered video wire to the **RNS 850 unit - FAKRA GREEN** (fig. 21).

**CAUTION:** If the vehicle is ex-factory equipped with a DVD-changer, so the video wire has to be integrated in the DVD-changer.
In order to carry out a coding of the vehicle please contact your VW dealer. For the execution of the vehicle coding choose the **vehicle self-diagnosis**.

**Address 19**

- **Self-diagnosis**
  - **Unterstützte Funktionen**
    - 001 - Identifikation (Dienst $1A$)
    - 004 - Fehlerspeichereinheit
    - 008 - Codierung (Dienst $7$)
    - 011 - Messwerte
    - 014 - Lange Anpassung
    - 015 - Zugriffsberechtigung
    - 017 - Sicherheit
    - 022 - Ausgabe beenden
  - Alle Diagnosefunktionen anzeigen

- **Installation list**
  - **Unterstützte Funktionen**
    - 10 - Einfahrrahmen II
codiert
    - 20 - Fernlichtassistent
      nicht codiert
    - 30 - Sonderfunktion
      nicht codiert
    - 07 - Anzeige-Bedieneinheit
codiert
    - 17 - Schaltheileneinsatz
codiert
    - 37 - Navigation
codiert
    - 47 - Soundsystem
codiert
    - 57 - TV-Tuner
codiert
    - 67 - Sprachsteuerung
      nicht codiert
    - 77 - Telefon
      nicht codiert
    - 6C - Rückfahrkamera
      nicht codiert

Set the TV-Tuner on coded – confirm the coding
Setup Video Interface

1. After pressing the MEDIA key (fig. 24) – select the TV-Tuner source (fig. 25).

2. Select the menu item STATION

3. By means of the control dial select menu item 90- SYS-SETUP (fig. 27).
ONCE AGAIN select the menu item SENDER >…

4. Set the number of the devices to be controlled

1C: Configuration Single or Dual control system

- **1C00**: Control of ONE end device – dual control system is deactivated
- **1Cxx**: The end device has to be selected through the menu item 2C
- **2Cxx**: In case of control system of TWO end devices in the menu item 1C01 till 1Cxx select the device for the first control (see table).

2C: Selection of the devices of the dual control system

- **2C00** to **2Cxx**: Selection of the end devices through the menu item from 2C00 to 2Cxx

By means of the control dial define the end device. This sign * symbolizes the actual configuration. **NOTE**: In case of only one end device you have to define first 1C00 before the end device will be selected through 2Cxx.

Configuration examples

1 end device

2 end devices
5. **Save the settings** – select the menu item **SAVE** in order to save the executed settings (fig. 31).

![Fig.31](image)

6. **Volume setting** – select the menu item **VOLUME UP** (fig. 32). Press the control dial so often, until the basic sound volume is adapted to the volume of the vehicle radio resp. another audio source.

![Fig.32](image)  
![Fig.33](image)

**NOTE:** In case of the interface „Basic“ type the volume has to be set by means of the remote control of the end device.  

**NOTE:** For a higher operation comfort the installation of an additional infrared receiver of the remote control is recommended.
Selection possibilities of the end device

1Cxx
1C01 – DVD Player Ampire DVX101
   DVD Player MP 410U
1 C02 – DVD Player AiV Car DVD Player
   DVD Player BOA 85700
1C03 – DVD Player DVD145
   DVD Player 500U
1C04 – DVB-T Alpine TUE-T150DV
1C05 – DVB-T DAS M21 (from Interface SW 1.13)
1C06 – DVD changer Zemex DVC62 (from SW 1.18)

2Cxx
2C01 – DVB-T Dietz 1492/1493
2C02 – DVB-T KTC dual3000
   DVB-T Dietz 1491
2C03 – DVB-T Ampire DVB-T 200, 400 2G/3G
2C04 – DVB-T Ampire DVB-T 52
   DVB-T Zemex DVB-T 100
   DVB-T Bullit HD 4G
   DVB-T ASUKA ARA-HD
   DVB-T Ampire 55-HD
2C05 – DVD Player Ampire DVX101
   DVD Player MP 410U
2C06 – iPod Video Interface Alpine KCE 425i
2C07 – DVD Player AiV Car DVD Player
   DVD Player BOA 85700
2C08 – DVD Player DVD145
   DVD Player 500U
2C09 – DVB-T Alpine TUE-T150DV
   DVB-T Alpine TUE T200
2C10 – DVB-T Zemex D90-2G
2C11 – DVD Player DVD500U
2C12 – DVB-T DAS M21 (from Interface SW 1.13)
2C13 – DVB-T HD-DVB-T
2C14 – DVD changer Zemex DVC62 (from SW 1.18)
Operation of the Video Interface

**NOTE:** An end device control is possible with the interface version PLUS only. The operation takes place via the keys of the RNS 850 control unit (fig. 34).

After the pressing of the key **MEDIA** (fig. 35) the **TV-Tuner** source can be selected (fig. 36).

Select the menu item **STATION** > There is the selection from 65 channels accessible.

**Function list**

By means of the control dial the following functions of the particular end device (DVD resp. DVB-T) can be executed (fig. 38). – For detailed list see the table of the control functions.
### Control functions

<table>
<thead>
<tr>
<th>Function</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MMI Display</td>
<td>Function description</td>
</tr>
<tr>
<td>80 – OK</td>
<td>OK-Key of the remote control</td>
</tr>
<tr>
<td>80 - Power</td>
<td>On/ Off</td>
</tr>
<tr>
<td>80 – Radio</td>
<td>Switching to the Digital Radio (possible in best. regions only)</td>
</tr>
<tr>
<td>80 – Video Input</td>
<td>Change between first and second device</td>
</tr>
<tr>
<td>80 – Search</td>
<td>Channel search</td>
</tr>
<tr>
<td>80 – Exit</td>
<td>Exit-Key of the remote control</td>
</tr>
<tr>
<td>80 – Up</td>
<td>Arrow-key on the top of the remote control</td>
</tr>
<tr>
<td>80 – Down</td>
<td>Arrow-key down on the remote control</td>
</tr>
<tr>
<td>80 – Left</td>
<td>Arrow-key left on the remote control</td>
</tr>
<tr>
<td>80 – Right</td>
<td>Arrow-key right on the remote control</td>
</tr>
<tr>
<td>80 – Next</td>
<td>Track forward</td>
</tr>
<tr>
<td>80 – Previous</td>
<td>Track back</td>
</tr>
<tr>
<td>80 – Volume Up</td>
<td>End device sound volume increase</td>
</tr>
<tr>
<td>80 – Volume Down</td>
<td>End device sound volume decrease</td>
</tr>
<tr>
<td>80 – USB</td>
<td>Selection USB source</td>
</tr>
<tr>
<td>80 – Setup</td>
<td>Menu-key of the remote control</td>
</tr>
<tr>
<td>90 – Sys. Setup</td>
<td>Configuration Multimedia Adapter</td>
</tr>
</tbody>
</table>