renkforce

RF-ARA-300 Car Radio

Item No. 2373345

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Table of contents

1. Introduction

Dear customer,

Thank you for purchasing this product.

This product complies with statutory, national and European regulations.

To ensure that the product remains in this state and to guarantee safe operation, always follow the instructions in this manual.

⚠ These operating instructions are part of this product. They contain important information on setting up and using the product. Do not give this product to a third party without the operating instructions. Therefore, retain these operating instructions for reference!

If there are any technical questions, please contact:

www.conrad.com/contact

2. Description of symbols

⚠ The symbol with an exclamation mark in a triangle is used to highlight important information in these operating instructions. Always read this information carefully.

⟶ The arrow symbol indicates special information and tips on how to use the product.

3. Intended use

With the Renkforce car radio, you can receive radio programmes in vehicles, play audio data from suitable media and amplify and play audio signals. It also serves as a hands-free set and a playback device for Bluetooth®-capable mobile phones.

The device must be connected to speakers for playback.

This product is only approved for the connection to 12 V direct current vehicle electrical system with the negative pole of the battery to the car body. The car radio must only be installed and operated in vehicles with this kind of on-board voltage.

The user must make sure that the way the product is installed protects the product from humidity and wetness. Contact with moisture must be avoided at all times.

For safety and approval purposes, do not rebuild and/or modify this product. Using the product for purposes other than those described above may damage the product. In addition, improper use can cause hazards such as a short circuit or fire. Read the operating instructions carefully and store them in a safe place. Only make this product available to third parties together with its operating instructions.

Bluetooth® is a registered trademark of Bluetooth® SIG, Inc. The use of this word mark has been licensed.

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4. Delivery content

- Car radio
- DAB antenna
- Installation frame
- 2x unlocking keys
- Set of connecting cables
- Operating instructions

Up-to-date operating instructions

Download the latest product information at www.conrad.com/downloads or scan the QR code shown. Follow the instructions on the website.

5. Safety information

Read the operating instructions carefully and observe in particular the safety instructions. If you do not follow the safety information and information on proper handling in these operating instructions, we will assume no liability for any resulting personal injury or damage to property. Such cases will invalidate the warranty/guarantee.

- This product is not a toy. Keep it out of the reach of children and pets.

- Do not leave packaging material lying around carelessly. It may become a dangerous plaything for children.

- The product must be protected from strong vibrations, high humidity, moisture, flammable gases, vapours, and solvents.

- Do not place the product under any mechanical stress.

- If it is no longer possible to operate the product safely, stop using it and prevent unauthorised use. Safe operation can no longer be guaranteed if the product:

  - is visibly damaged,

  - is no longer working properly,

  - has been stored for extended periods in poor ambient conditions or

  - has been subjected to any serious transport-related stress.

- Handle the product carefully. It can be damaged by impact, blows, or by being dropped, even from a low height.

- Always observe the safety information and operating instructions of any other devices which are connected to the product.

- In addition, observe the additional safety information in each section of these instructions.

- Consult a technician if you are not sure how to use or connect the product, or if you have concerns about safety.

- Maintenance, modifications and repairs must be carried out by a technician or a specialist repair centre. Never open the device.

- If you have questions which remain unanswered by these operating instructions, contact our technical support service or other technical personnel.

- Only use the product in temperate climates. It is not suitable for use in tropical climates.

- If the volume inside your car is too high, you will not hear acoustic warning signals. This constitutes a danger to yourself and to other road users. Therefore, ensure the volume is at a suitable level.

- Inattentiveness on the road might involve serious accidents. Only use the car audio under suitable traffic conditions so that you cannot get distracted from what is happening on the road while driving.

- Do not listen to too loud music over an extended time. This may damage your hearing.

6. Features and functions

- DAB+ receiver for digital radio reception
- FM radio module with RDS function
- USB and SD interface
- Bluetooth® hands-free set
- Music playback via Bluetooth® interface (A2DP)
- High output power (4 x 40 W max.)
- Preamp output for the connection of a power amplifier
- Port for external audio sources on the front panel
- Electronic volume, bass, treble, fader and balance control
- Digital signal processor for the adaptation of the sound characteristics to various music styles
- Loudness function
- Exact electronic tuning of the FM stations using PLL tuner
- 24 programmable station memory slots (18x FM, 6x DAB)
- Manual and automatic station search (both directions)
- Automatic storage of stations
- ID3 tag display
- ISO terminal

7. Overview
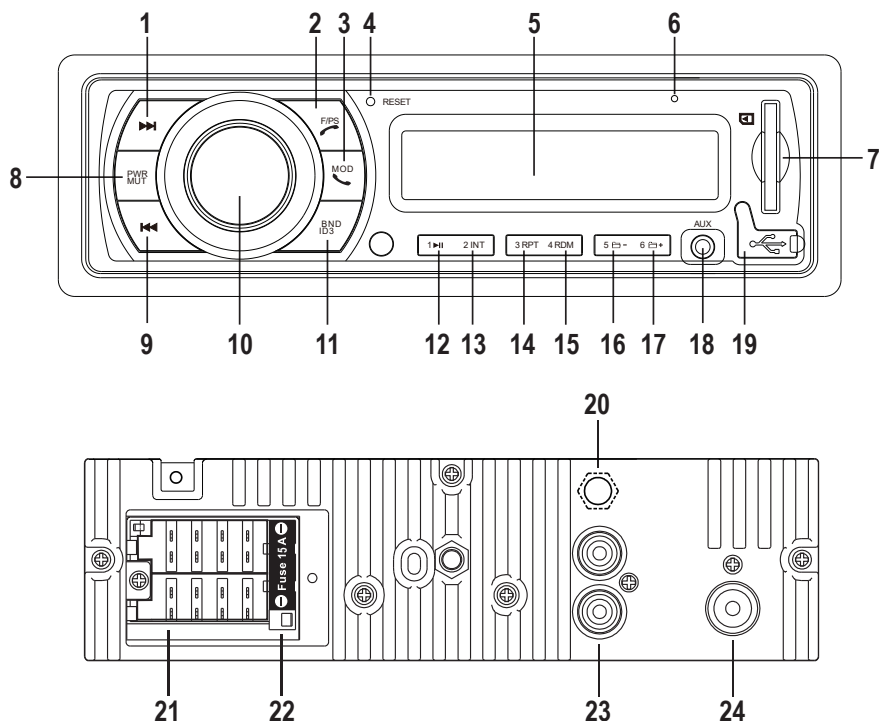
1	►►▌ button
2	F/PS/☎ button
3	MOD/☎ button
4	RESET button
5	Display
6	Hands-free microphone
7	SD card reader
8	PWR/MUT button
9	▌◄◄ button
10	Knob
11	BND/ID3 button
12	1/►❚❚ button

13	2/INT button
14	3/RPT button
15	4/RDM button
16	5/🗀 ▬ button
17	6/🗀 ✛ button
18	AUX port
19	USB port
20	DAB antenna port
21	ISO terminal
22	Fuse
23	LINE outputs
24	FM antenna port

8. Mechanical installation

An installation cut-out for the car radio is provided in most vehicles. The choice of the installation location depends on safety aspects. Therefore we recommend that you actually install the car radio in this place.

The device requires a DIN installation cut-out with the dimensions 182 x 53 mm; these dimensions are standardised and most vehicle manufacturers comply with them.

Should there be no installation cut-out, please consult your car dealer about the correct place of installation for your car radio.

Please select the place of installation carefully so that the device neither impedes the driver nor distracts them from what is happening on the road.

Use the supplied installation material to guarantee a safe installation.

Any modifications to the vehicle that become necessary due to the installation of the car radio or other components must always be carried out in such a manner that neither traffic safety nor the car stability is affected. In most cases, cutting out a piece of sheet metal will render the type approval null and void.

Since the device becomes hot during operation, the place of installation must be heat-resistant.

Make sure before drilling the attachment holes that no electric cables, brake lines, fuel tank or similar can be damaged.

When using tools to install your car's hi-fi components, follow the manufacturer's safety instructions.

When installing the car hi-fi system, consider the risk of accident which can arise from devices being torn away in the case of an accident. Therefore, you should secure each component in a place where it cannot be dangerous to passengers.

Before you install the device, check the depth of the installation recess. A minimum depth of 100 mm is required for installation.

a) Installation into the radio recess
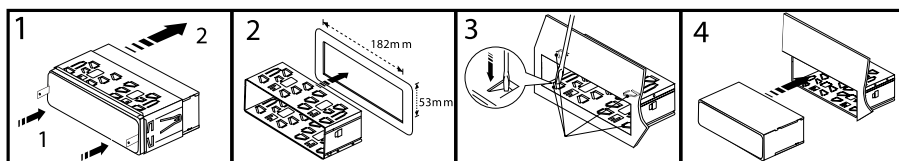
- Unlock the installation frame with the two unlocking keys (figure 1, item 1).

- Remove the installation frame towards the back of the device (figure 1, item 2).

- Insert the installation frame into the respective cut-out in the vehicle (fig. 2).

- Bend down some clips in the installation frame until the frame is securely fastened in the recess (fig. 3).

- When you have made all the electrical contacts (see "Electric Connection"), insert the device into the installation frame until it locks in (fig. 4).

Keep the two unlocking keys in a safe place. You will need them for a later removal of the device.

b) Removal

• Unlock the device by inserting the two unlocking keys into the slots on the side of the device frame.

• Carefully pull the car radio out of the installation frame.

• Loosen all plug connectors on the back of the device.
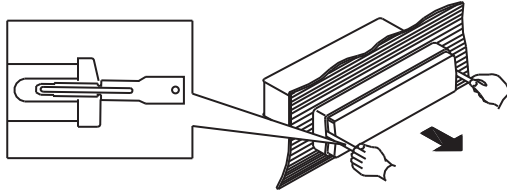
c) DAB antenna

For adhesive installation, a minimum temperature of 15 °C is required. Clean the adhesive areas with a suitable cleaner (e.g. rubbing alcohol) before installation.

The antenna should not be attached in the area of metallised windscreen parts or close to heating wires.

Do not attach the antenna within the driver's field of view. It should not interfere with the driver's clear view of the road.

Select the place of installation with due regard to the length of the connecting cables. They should be long enough to reach the site of installation of the car radio.

The DAB antenna and connecting cables must never be installed within the release range of an air bag.

- The antenna should be mounted within the upper corner of the windscreen and A-pillar (at the top right from the driver's perspective).
- Use the picture below to determine the mounting position.

- The black electronics box and antenna wire should be attached to the windscreen and the copper-coloured ground plane to a metal part of the windscreen frame. Make sure the coating of the metal part of the windscreen frame is intact in doing so.
- Peel off the protective films and attach the antenna such that the cable outlet faces the covering of the A-pillar.
- Once attached, the antenna should not be subject to any mechanical strain for 24 hours.
- The connecting cables must be guided to the car radio installation recess.

9. Electrical connection

Electrical connection must always be carried out by a specialist.

To avoid short-circuits and resulting damages to the device, the negative pole (ground) of the vehicle battery must be disconnected during electrical connection. Only connect the negative pole of the battery when you have completely connected the device and checked the connections.

Use only a voltmeter or a diode test lamp to check the voltage of the vehicle system leads, as regular test lamps consume excessive voltage and may thus damage the vehicle's electronics.

When laying the cables, make sure they are not squeezed or abraded on sharp edges. Use rubber grommets for the lead-though points.

The line towards the speakers must be a bifilar cable. Insulate the bare wires at the connecting terminals. Ensure there are no sharp edges that may damage the cables. Ensure that your speakers have a sufficiently high power rating (see "Technical data"). Ensure that all the speakers have the correct polarity, i.e. the plus and minus marks must match. The connecting cables of the speakers are usually coded: Some manufacturers mark the (+) line with an additional colour band. Others use a corrugated line for the (+) pole and a smooth one for the (-) pole. The system was designed for the operation at speaker impedances of at least 4 Ohm. Never connect speakers with a lower impedance.

In most vehicles, the cables for the electric connection and the connection of the speakers have been laid directly to the installation recess.

If this is not the case, please ensure that any cables placed later are secured by the respective on-board fuses (see vehicle operation manual).

a) Connecting the antennas

FM antenna

• Insert the plug of your car's antenna into the FM antenna port (24) on the back of the device.

• If your vehicle has a different antenna plug, please use a suitable adapter available in specialist shops.

DAB antenna

• Insert the plug of the included DAB antenna into the DAB antenna port (20) on the back of the car radio.

• Manually tighten the union nut to secure the antenna.

• Connect the thin black wire of the DAB antenna to the antenna control output of the ISO plug (system plug A, terminal 5, blue wire, see also "Connecting the speakers and the power supply").

b) Connecting the LINE outputs

The car radio has LINE outputs (23) for connecting a power amplifier.

⚠️ The LINE outputs (23) should only be connected via suitable shielded cinch wires. Other cables may cause interferences.

Keep the connecting cables as short as possible and do not place them near other cables to avoid interferences in the cables.

To avoid distortions or mismatches that could damage the unit, the cinch connector must only be connected to devices with suitable cinch terminals.

Connect the inputs of the power amplifier to the LINE outputs (23) on the back of the device.

⟶ The red socket is a terminal for the right channel and the white socket for the left channel.

c) AUX port

You can connect an external audio device (e.g. a portable MP3 player) to the AUX port (18). The signal of the audio device is played back via the speakers.

• Connect the AUX port (18) to the audio output of the external device.

d) Connecting the speakers and the power supply

Vehicles equipped with an ISO plug can be connected directly to the ISO terminal (21), provided the same plug configuration applies (please check in advance!). If the plug configuration differs, a commercially available vehicle-specific adapter should be used.

Contact assignment of the ISO terminal (21) can be found in the following figures. Please consult your car dealer about the respective assignment of your vehicle system plug.

Terminal B (speaker terminal)

1 Rear right speaker (+)

2 Rear right speaker (-)

3 Front right speaker (+)

4 Front right speaker (-)

5 Front left speaker (+)

6 Front left speaker (-)

7 Rear left speaker (+)

8 Rear left speaker (-)

Terminal A (power supply)

1 not assigned

2 not assigned

3 not assigned

4 Continuous current +12 V

5 Antenna control output

6 not assigned

7 Ignition +12 V

8 Ground
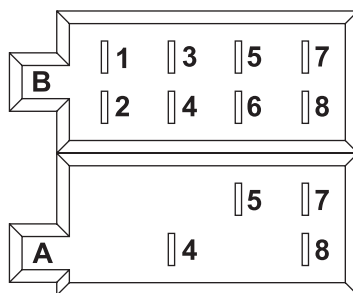
- The continuous current +12 V terminal (4) must be connected to a cable that supplies 12 V permanently when the ignition is off (terminal 30 of the vehicle electrical system). This terminal serves to save the user settings, time, etc.

- The antenna control output (5) supplies a voltage of 12 V when the device is on. This output provides power to the DAB antenna and a car amplifier. The thin black wire of the DAB antenna is connected to this output.

- The ignition +12 V terminal (7) must be connected to a cable that supplies 12 V only when the ignition is on (terminal 15 of the vehicle electrical system).

→ Do not connect this terminal to continuous current; otherwise, the vehicle battery could get discharged when the vehicle remains parked for a longer time.

- Connect the ground connection (8) to the vehicle body.

→ Adhesive techniques that evolve and the painted metal parts impair the electric conductivity. Therefore, not every metal part is a suitable earthing point.

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10. Operation

⚠️ Do not put the device into operation until you have familiarised yourself with the functions and these operating instructions.

Check all the connections again. When you have done so, reconnect the negative pole of the car battery.

a) General operation

PWR/MUT button (8)

- This button turns the device on and off and activates muting.

- When the device is off, briefly press this button to turn it on.

- When the device is on, long press this button to turn it off.

- When the device is on, briefly press this button to enable muting. The display (5) shows MUTE ON. Briefly press the PWR/MUT button (8) again to disable muting.

Knob (10)

- Turn this knob to adjust the volume.

- Pushing this knob enables you to customise various menu settings.

- Briefly press the knob (10):

  AF > TA > PTY > VOL > BAS > TRE > BAL > FAD > LOUD > EQ > DX/LOCAL > STEREO/MONO

- Long press the knob (10):

  Time display and setting

- More information about settings can be found under the "Menu settings" of this manual.

Display (5)

- The display (5) shows all information about the audio source that is being played (radio module, USB playback, etc.).

MOD/↘ button (3)

- This button enables you to select various audio sources and operate the hands-free set (details about Bluetooth® operation can be found below in this manual).

- Briefly press the MOD/↘ (3) button to toggle between audio sources:

  FM > DAB > USB > SD > AUX-IN > BT

→ When one of the sources is not active, i.e., no medium inserted, this source will be skipped in the selection.

RESET function

• This button resets all the settings to factory defaults.

• Use a pointed object such as a straightened paper clip to press the RESET button (4) in the following cases:

  - when you have completed the installation and connection

  - when the device does not respond to any button presses

  - when the display shows undefined characters

b) Menu settings

To customise the menu settings, you need to access the two levels of the menu by briefly or long pressing the knob (10). Choose the respective settings by turning the knob (10).

→ Some functions may not be available depending on the audio source (radio module, USB playback, etc.) that is being used.

Menu items - briefly press the knob (10)

AF > TA > PTY > VOL > BAS > TRE > BAL > FAD > LOUD > EQ > DX/LOCAL > STEREO/MONO

• AF ON/OFF

  AF ON > automatic station tracking on

  AF OFF > automatic station tracking off

→ The AF function activates automatic station tracking (see "RDS as reception concept").

  AF will be displayed. When the car radio receives no RDS station or the one with a weaker signal, the display flashes. When a station with a good signal is received, the symbol is displayed continuously.

  When you leave a transmission area, the device can only switch to a better station when the AF function is activated.

• TA ON/OFF

  TA ON >> traffic announcement switched on. The display shows "TA".

  TA OFF >> traffic announcement switched off.

→ The TA function enables the traffic announcement (see "RDS as reception concept").

  The programme is set to mute during the traffic announcement if a different audio source is being played (e.g. USB playback).

  When the volume of the radio broadcast that is being played is very low, the volume of the traffic announcement increases automatically to a preset value.

  With the function enabled, the device only searches for radio stations with the traffic programme (display shows "TP"). When you leave a transmission area of the traffic information station, the device automatically searches for a new radio station with the traffic programme (display shows "TA SEEK").

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- PTY search:

  The PTY search function enables to search for stations with a pre-defined programme type (PTY) only (see "RDS as reception concept").

  PTY OFF >> PTY search switched off

  PTY SPEECH >> PTY search for programmes with the speech programme type

  PTY MUSIC >> PTY search for programmes with the music programme type

  You can select the desired programme type (SPEECH or MUSIC) with the knob (10).

  You can select the desired station type (see table) with the respective station button 1-6 (12-17).

  You can switch to the second or third station type from the table by pressing the respective station button again.

  Once you have selected the desired station type, the PTY search will be initiated automatically in a few seconds. The display shows PTY SEEK.

  The search stops at the next found station with the selected programme type.

  If no stations with the selected programme type have been found, a respective message will appear on the display (5).

Station button	SPEECH programme type	MUSIC programme type
1	NEWS, AFFAIRS, INFO	POP M, ROCK M
2	SPORT, EDUCATE, DRAMA	LIGHT M, EASY M
3	CULTURE, SCIENCE, VARIED	CLASSICS, OTHER M
4	WEATHER, FINANCE, CHILDREN	JAZZ, COUNTRY
5	SOCIAL, RELIGION, PHONE IN	NATION M, OLDIES
6	TRAVEL, LEISURE, DOCUMENT	FOLK M

- VOL adjusts the volume

  ⟶ This function enables you to adjust the volume without having to activate the menu every time first to do so

- BAS adjusts sound in the low frequency range
- TRE adjusts sound in the high frequency range
- BAL adjusts the volume ratio between the right and left speakers
- FAD adjusts the volume ratio between the front and rear speakers
- LOUD ON/OFF

  LOUD ON >> The loudness function is enabled.

  LOUD OFF >> The loudness function is disabled. The sound is not affected.

  ⟶ The human ear is less able to perceive low and high tones at low volumes. An increase in the frequency range at low volume (loudness correction) counters this effect, and the music sounds more natural.

- EQ - EQUALIZER

    EQ OFF >> equaliser off

    POP >> pop music preset

    ROCK >> rock music preset

    CLASSIC >> classical music preset

    JAZZ >> jazz music preset

    FLAT >> equaliser on, linear frequency response
- DX/LOCAL

    DX >> All stations are received.

    LOCAL >> Only stations with a very good signal are received.

⟶   The LOCAL setting is helpful in areas with a multitude of stations and good radio reception. During automatic station search, this option skips stations with a weak signal and interferences.

- STEREO/MONO

    STEREO >> The radio receives a stereo signal.

    MONO >> The radio receives a mono signal.

⟶   In case of poor FM reception conditions, it may be helpful to switch radio reception to mono. Mono radio mode has fewer interferences.

Menu items - long-press the knob (10)

- Time display

    Keep the knob (10) pressed until the time appears on the display.

    Briefly press the knob (10) to return to the normal display.
- Setting the time

    Keep the knob (10) pressed until the time appears on the display.

    Keep the knob (10) pressed until the hour display flashes.

    Turn the knob (9) to set the hours.

    Briefly press the knob (10) and turn it to set the minutes.

    Press and hold down the knob (10) to save the setting.

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c) Using the DAB radio

Station search

- If you cannot receive a DAB station after selecting DAB mode, press and hold down the BND/ID3 button (11).

- After that, the device searches for stations in the DAB reception area and saves those found in the station list.

- As the search progresses, display (5) shows the number of stations found.

Station selection

- Repeatedly press the buttons ▶▶| (1) and |◀◀ (9) until the desired station appears on the display (5).

- The device will switch to the selected station after a short time and it will be played.

Station buttons

- Configure the station you want to save.

- The selected station can be saved by long pressing station button 1-6 (12-17).

- You can then select a previously saved station directly by briefly pressing the respective station.

⟶ The DAB range has six station buttons. Thus, you can assign up to 6 station buttons.

Calling up station information

- You can display various information about the station that is being played by briefly pressing the BND/ID3 button (11).

- To switch the display, briefly press the BND/ID3 button (11) again.

- In all cases, different information is displayed for each station.

d) Using the FM radio

RDS as reception concept

The abbreviation "RDS" stands for Radio Data System, i.e. additional inaudible coded information is transmitted via the RDS station.

Your car radio is a device that can evaluate these coded data that are transmitted by most radio stations.

The following essential additional data is transmitted:

- Programme Identification (PI)
- Traffic Programme (TP)
- Traffic Announcement (TA)
- Programme Service (PS)
- Alternative Frequencies (AF)
- Programme Type (PTY)

Programme Identification (PI)

These data help the receiver to identify a station. It enables the radio to differentiate between areas where the same programme is transmitted. When the reception signal gets weaker, the car radio only switches to a station with a stronger signal if it transmits the programme with identical identification.

Traffic Programme (TP)

This signal enables the receiver to detect that a station with a traffic programme is being received.

Traffic Announcement (TA)

With this signal, the receiver can detect a traffic announcement and interrupt the playback of a different audio source.

Programme Service (PS)

This information tells the receiver which station it is receiving. The station name, e.g. BAYERN 3, appears on the display of the car radio.

Alternative Frequencies (AF)

A list of alternative frequencies that send the same programme is transmitted. If the signal of the received station becomes too weak, the receiver detects from the AF signal at which frequencies it must search for a station with a stronger signal.

Programme Type (PTY)

This code gives the receiver information about the type of the transmitted programme (e.g. sports, classic, news etc.). The listener can select his favourite programme purposefully.

A national disaster alarm can also be transmitted this way. However, not all radio stations offer the PTY service.

Therefore, when you leave the transmission area, the RDS system favourably automatically switches to a similar station that can be better received. However, it only switches when it finds a better station with the same programme.

The RDS system cannot eliminate short signal attenuations associated with the reception since this would mean that the car radio permanently switches back and forth. That would disturb the listener even more than short-term reception problems.

Another advantage of the RDS system is that the station name is displayed. The RDS station name is shown on the display of the car radio.

Button functions

BND/ID3 button (11)

Band range switching:

- Briefly push this button to select the band range of the radio module.
- There are 3 FM ranges:

   FM1 > FM2 > FM3

⟶ Each of the three band ranges enables to save 6 stations with station buttons 1-6 (12-17).

Buttons ▶▶| (1) and |◀◀ (9)

- These buttons enable to change the reception frequency to adjust stations in radio mode.
- Briefly pressing a button starts the automatic station search.
- The search only stops at the next found station with a strong signal.
- Long pressing of the button activates the manual station search.
- MANUAL appears on the display.
- This mode enables stepwise frequency adjustment with each press of the button.

⟶ When no buttons are pressed for a longer time, the device switches to the automatic station search. AUTO will appear briefly on the display.

Station buttons 1-6 (12-17)

- If you briefly press these buttons, you can select a preset station.
- If you want to save a station you are currently listening to, just press the desired button for about three seconds.

⟶ Each of the three FM ranges (FM1-3) has six station buttons. Thus, you can assign up to 18 station buttons.

F/PS/☎ button(2)

- Keep this button pushed to activate automatic storage of stations. This function enables automatic assignment of all stations with a strong signal to station buttons 1-6 (12-17).

- After this procedure, the stored stations are played for a few seconds.

- Briefly pressing this button plays all stored stations for a few seconds (same function as automatic storage of stations).

- To permanently play the selected station, briefly press the F/PS button (2) again.

- This button is also used to operate the hands-free set (further details can be found under the "Bluetooth® operation" of this manual).

e) USB/memory card operation

The device is equipped with a USB port and an SD memory card reader. MP3 files stored on these media cannot the played.

⚠️ Do not connect an MP3 player operated with batteries with the USB port. The power supply of the USB port can charge the batteries and lead to overheating and even explosion of the batteries.

→ USB data carriers with a memory capacity of up to 64 GB and current consumption of up to 500 mA can be connected to the USB port. The device also supports SD cards up to 64 GB. All data carriers must be formatted in FAT 32.

Only USB data carriers can be connected to the USB port. MP3 players with a USB port automatically switch to the PC mode when plugged into this port. This mode does not support playback of music files. The audio output of your MP3 player can be connected to the AUX port (18).

We cannot guarantee that all USB and SD data carriers will be recognised due to their manufacturer-specific functions and that the functionality of those recognised will not be restricted.

If the storage medium cannot be recognised, pull it out and plug it in again.

- Open the cover and connect your USB data carrier to the USB port (19).

- If you want to use an SD memory card, insert it into the SD card reader (7).

- The amplifier will automatically switch to the respective input and start playback.

- The medium that was connected last is always selected automatically.

1/►II button (12)

- Push this button to interrupt the playback briefly.

- When you press the button again, playback resumes at the point where it was interrupted.

Buttons ▶▶I (1) and I◀◀ (9)

These buttons enable playback of individual tracks or get to a specific section within a track.

⟶ The arrows on the buttons indicate whether it is a rewind or fast forward.

- Briefly press the buttons to move to the next or previous track.
- Long press the buttons to get to a specific section within a track.

Buttons 5/🗀- (16) and 6/🗀+ (17)

With these buttons, you can select folders on the data carrier (if any).

- 🗀- selects the previous folder.
- 🗀+ selects the next folder.

⟶ If there are no folders on the storage medium, these buttons do not have a function.

2/INT button (13)

- Press this button to play each track for approx. 10 seconds.
- To deactivate this function, press the button again. Playback resumes normal from this point.

3/RPT button (14)

- Press this button to repeat the track that is being played (RPT ONE).
- Press this button again to repeat all tracks in the selected folder (RPT DIR).
- Press this button again to repeat all tracks (RPT ALL).

4/RDM button (15)

- Pressing this button plays all tracks in random order.
- To deactivate this function, press the button again. Playback resumes normal from this point onward.

Track search

- Long pressing the BND/ID3 button (11) activates the track search.
- You can select the desired track number with the knob (10). If the track number consists of multiple digits, input the digits one by one. In doing so, wait briefly after inputting the digit until it flashes.
- To play the selected track, press the knob (10).

Accessing information about the track that is being played

- During playback of the MP3 track, the display automatically alternately shows the track time display and the ID3 tag information.
- The BND/ID3 button (11) enables you to toggle between the display functions.

f) Bluetooth® operation

To enable optimum telephone reception and keep the electromagnetic radiation in the vehicle as low as possible, you should always use an external antenna when using the mobile phone.

The Bluetooth® mode enables you to use the car radio as a hands-free set for mobile phones and/or as a playback device for Bluetooth® A2DP audio streaming. Your mobile phone or Bluetooth® device and the car radio must be paired to enable data exchange between them. This process is called "Pairing".

Pairing

• Turn on the car radio.

• Turn on your mobile phone and enable the Bluetooth® mode (refer to instructions for your mobile phone for details).

• In your mobile phone settings, activate search for nearby Bluetooth® devices.

• Once the car radio has been found, its name (RF-ARA-300) appears on the display of your Bluetooth® device.

• Connect your mobile phone to the car radio.

• When prompted to enter a password, enter 0000.

• If pairing is successful, the Bluetooth® icon is shown permanently on the display.

• If pairing was not successful, repeat the above steps. First, try deleting the car radio in your mobile phone (refer to instructions for your mobile phone for details).

Your car radio can only be paired with one Bluetooth® device at a time. If any other Bluetooth® device is already paired with the car radio, disconnect it first. This can be done through the menu settings of your mobile phone.

The connection between the car radio and the mobile phone with which it is paired will be lost if either device is turned off or the mobile phone moved too far from the car radio. In this case, the Bluetooth® icon will start to flash on the display (5). The connection is re-established automatically when both the car radio and the mobile phone are turned on and the latter is within range of the car radio. The display (5) permanently shows the Bluetooth® icon.

Ensure that you enable the automatic reconnection feature on your mobile phone; otherwise, the Bluetooth® connection will not be automatically re-established (refer to your device's instruction manual for details).

Accepting/declining an incoming phone call

• When you receive an incoming phone call, display (5) shows the caller's number.

⟶ If the caller has blocked their calling line identification or the mobile phone net does not support this feature, the caller ID will not be displayed.

• To accept an incoming phone call, press the MOD/↘ button (3).

• There is a built-in hands-free microphone (6) for the hands-free function on the front panel of the car radio.

• To decline an incoming phone call, press the F/PS/☎ button (2).

⟶ You can adjust the call volume with the knob (10) during a phone call.

Making a phone call

• Dial any number you want with your mobile phone.

• The car radio automatically switches to Bluetooth® mode and the called number is shown on the display (5).

Ending a phone call

• To end a phone call, press the F/PS/☎ button (2).

Audio streaming

Audio streaming is the Bluetooth® transmission of audio data (music) to the car radio.

Owners of an A2DP-capable mobile phone can connect it to the car radio using the pairing function as described above and send audio data.

• Make sure that both devices were connected via pairing.

• Play an audio file on your mobile phone (refer to the corresponding instruction manual).

• Press the MOD/↘ button (3) until the display (5) shows "BT".

• Audio transmission is now activated.

• You can now use buttons ▶▶| (1), |◀◀ (9) and 1/▶|| (12) to remotely control the playback of your mobile phone in the same manner as with USB and SD data carriers.

11. Maintenance and cleaning

• Regularly check the technical condition of the car radio, e.g. for damage to the connecting cables or the housing.

• If you suspect that safe operation is no longer possible, stop using the product immediately and prevent unauthorised use. Disconnect the vehicle electrical system!

a) Changing the fuse

• If you need to replace the fuse, only use fuses of the specified type and rated current (see "Technical data" for details).

⚠ Do not repair fuses or bridge the fuse holder.

• When the power supply has been disconnected (disconnect the ISO plug!), carefully remove the fuse (22) from the fuse holder near the ISO terminal (21).

• Replace it by a fuse of the same type.

• After that, you can reconnect the car radio to the vehicle electrical system and turn it on.

• If the fuse blows again, have the device repaired in a specialist workshop.

b) Cleaning

• Clean the exterior of the device only with a soft, dry cloth or brush.

⚠ Never use aggressive detergents, rubbing alcohol or other chemical solutions, as these may damage the housing or prevent the product from proper functioning.

12. Troubleshooting

Your car radio is a product that has been designed according to the state of the art and is reliable in operation. Should you face any problems and malfunctions, please refer to the following explanations for troubleshooting.

No playback, display and backlight are off

• The vehicle fuse is defective. Look up the respective fuse in the operation manual of your vehicle. Check the fuse.

• The fuse of the device is defective. Remove the device and check the fuse (22).

• The positive line/ground line is loose. Remove the device and check the connection of cables.

Playback only through one speaker

- The balance control is wrongly adjusted. Adjust the balance control as described.

- The speaker connection has come loose. Remove the device and/or speakers and check the connections.

Playback only through the front or rear speakers

- The fader control is wrongly adjusted. Adjust the fader control.

- The speaker connection has come loose. Remove the device and/or speakers and check the connections.

The device is muted in DAB mode

- Unlike normal radio operation, where interfering noise is caused by reception interferences, the DAB playback is muted when reception is poor. This is often explained by underdeveloped communication infrastructure, especially in rural areas. This is by no means a problem with your device.

- The DAB antenna was not properly installed, for example, too close to the vehicle's sheet metal parts or behind a metallised windscreen part. If a proper installation of the DAB antenna is not possible, use an external DAB antenna.

- The DAB antenna is not properly connected to/detached from the device or not connected to the antenna control output. Remove the device and check the connections.

No stations are received by the FM radio

- The antenna is not pulled out completely. Pull the antenna out to its full length.

- The antenna connection has come loose. Remove the device and check the connection.

- The antenna is defective. Check the connection, grounding and antenna itself.

Faulty radio, USB or SD memory card

- Interferences reach the device via the positive line. Install an additional interference suppression coil into the positive line.

- If necessary, equip your vehicle with spark-plug suppressor sockets, distributor arms etc. to suppress interferences.

- Bad ground connection. Check the ground connection; use a different ground connection if necessary.

When you press a station button, you only hear a hissing

- No station has been programmed. Programme the stations as described above.

- The continuous positive line is not connected or has come loose. Connect or check the continuous positive line as instructed or check whether the cable is correctly connected. Check the fuse.

The device does not respond to button presses and displays unintelligible characters

- Press the RESET button (4) to reset the device to factory defaults.

13. Declaration of Conformity (DOC)

Conrad Electronic SE, Klaus-Conrad-Straße 1, D-92240 Hirschau, hereby declares that this product conforms to Directive 2014/53/EU.

→ Click on the following link to read the full text of the EU declaration of conformity: www.conrad.com/downloads

Select a language by clicking on the corresponding flag symbol, and then enter the product order number in the search box. The EU Declaration of Conformity is available for download in PDF format.

14. Disposal

This symbol must appear on any electrical and electronic equipment placed on the EU market. This symbol indicates that this device should not be disposed of as unsorted municipal waste at the end of its service life.

Owners of WEEE (Waste from Electrical and Electronic Equipment) shall dispose of it separately from unsorted municipal waste. Spent batteries and accumulators, which are not enclosed by the WEEE, as well as lamps that can be removed from the WEEE in a non-destructive manner, must be removed by end users from the WEEE in a non-destructive manner before it is handed over to a collection point.

Distributors of electrical and electronic equipment are legally obliged to provide free take-back of waste. Conrad provides the following return options **free of charge** (more details on our website):

• in our Conrad offices

• at the Conrad collection points

• at the collection points of public waste management authorities or the collection points set up by manufacturers or distributors within the meaning of the ElektroG

End users are responsible for deleting personal data from the WEEE to be disposed of.

It should be noted that different obligations about the return or recycling of WEEE may apply in countries outside of Germany.

15. Technical data

Operating voltage ....12 V/DC

Fuse..vehicle blade fuse 15 A

Output power ....4 x 40 W (max.)

Speaker impedance..4 - 8 ohms

FM reception range ....87.5 - 108.0 MHz

DAB+ reception range ....Band III 174 - 240 MHz

Station memory slots..24 (18x FM + 6x DAB)

Bluetooth® version ....4.2 BR/EDR

Bluetooth® transmission frequency...................2.400 - 2.485 GHz

Bluetooth® transmission power.........................0 dBm

Bluetooth® range...ca. 10 m

Interfaces..Bluetooth®, USB and SD card

Supported media ....USB, SD, A2DP

USB port current carrying capacity...................max. 500 mA

SD memory card size ....max. 64 GB

USB storage capacity ....max. 64 GB

Installation recess..1 DIN (182 x 53 mm)

Installation depth ....approx. 80 mm (without plug)

Weight ....520 g

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