

FM car radio
with MP3/WMA player and Bluetooth interface

orava

**AR-116
Instruction manual**

EN



Dear Customer,

Thank you for the trust you have shown by purchasing our product. Please read this instruction manual carefully and keep it for future.

**model: AR-116 model: AR-116 model: AR-116 model: AR-116
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Intended use of the device

The device is intended exclusively for the reception of radio broadcasts and playback of audio formats from digital optical data carriers or other external sources of audio signal in vehicles, to the extent determined by technical and operational parameters and functions, safety and user instructions and environmental effects.

ORAVA electrical appliances are manufactured according to the state of the art and recognized safety rules. Nevertheless, unjust and unprofessional use or improper use may result in injury or endangerment to the life of the user or a third party, or to a third party. damage to equipment and other property.

1. GENERAL SAFETY INSTRUCTIONS AND WARNINGS

This document contains important safety instructions and warnings for the safe, correct and economical operation of electrical / electronic equipment. Its compliance helps the user avoid risks, increase product reliability and durability.

1.1. General safety instructions

- Before commissioning, we recommend that you read the operating instructions carefully and operate the device in accordance with the instructions!
- The safety instructions and cautions in this manual do not cover all possible conditions and situations that may occur when using the device. The user must understand that a factor that cannot be built into any of the products is personal responsibility and caution. Therefore, these factors must be ensured by the users operating the device.
- The manufacturer is not responsible for any damage to health or property if the safety instructions and warnings are not followed!
- Remove all packing material and labels from the device before using the device for the first time. Secure and keep the packaging material out of the reach of children and incapacitated persons.
- Before using the device for the first time, make sure that the device is complete and shows no visible signs of damage. Do not use the product if it is defective or has any visible damage.
- If possible, keep the operating instructions close to the unit for the entire life of the unit. Always keep this manual with your device for future reference and use by new users.
- Do not alter the technical parameters and characteristics of the device by unauthorized modification or modification of any part of the device.
- The manufacturer is not liable for damage caused during transport, misuse, damage or destruction of the device due to adverse weather conditions.
- Only use the device for its intended purpose and in the manner specified by the manufacturer.

1.2. Operating environment safety

- Do not use the device in an industrial or outdoor environment!
- Operating environment characteristics
 - 1. Ambient temperature $+5 \div +40^\circ\text{C}$
 - 2. Humidity $5 \div 85\%$
 - 3. Altitude $\leq 2000\text{ m}$
 - 4. Occurrence of water Occasional occurrence of water vapor
- Other characteristics are determined from the label and section „Technical data“ of the operating instructions.

1.3 Electrical safety

- This device is intended for installation in vehicles with a 12 V DC car battery and a grounded negative terminal.
- Before installing, make sure that the vehicle is using a 12 V DC car battery.
- Be careful to install the device in buses, trucks or caravans using a 24 V DC supply voltage.
- Connecting the device to this voltage may cause irreparable damage.
- The device operates at a safe voltage, so there is no risk of electric shock when used and operated under reasonably foreseeable conditions.
- When installing and wiring, make sure that the wiring complies with the wiring diagram specified by the manufacturer in the operating instructions.
- Incorrect connection may cause device malfunction or damage the vehicle electrical system.
- Take extra care to damage the insulation of the connection wires of the installation. Secure the electrical cables and individual wires with insulating tape, especially where the wires and cables pass through the bulkheads in the vehicle body panels or near moving parts.
- Damage to the insulation can cause an electric short circuit, resulting in a fire.

1.4. Safety of persons

- This device is intended for use by non-professional personnel according to the manufacturer's instructions.
- Operations of the device include operations such as turning the device on and off, user handling and operating parameter settings, visual or auditory inspection of the device, and user cleaning and maintenance.
- This device may be used by children over 3 years of age and persons with reduced physical, sensory or mental abilities or lack of experience or knowledge if they are supervised or instructed in the safe use of the device and understand the dangers involved.
- Children must not play with the device.
- Cleaning and maintenance by the user must not be performed by children without supervision.

Warning!

- The operation of the device by children and persons with reduced physical, sensory or mental abilities must be restricted depending on the respect and observance of legal regulations governing the safety rules relating to the transport of persons in motor vehicles.
- The driver of the motor vehicle resp. the person responsible for the children and other persons carried in the vehicle.

1.5. Cleaning, maintenance and repair

- Perform routine user cleaning and maintenance only as recommended. Do not use solvents or abrasive cleaners or items for cleaning. Pollution and visible stains from touching the fingers respectively. hands can be cleaned using detergents specially designed for cleaning household appliances and consumer electronics respectively. device installed inside the vehicle.
- Never repair the unit yourself!
- Have the product serviced by a qualified person only (*) for both warranty and post-warranty repairs.

(*) Competent qualified professional: the sales department of the manufacturer or importer or a person who is qualified and authorized to carry out this type of activity with the ability to avoid all hazards.

Special safety instructions. Read carefully!

- Electrical device is designed and manufactured in such a way as to allow safe operation and use by unauthorized personnel. Despite all the measures that were. The manufacturer's safe use, operation and use entails certain residual risks and the associated potential hazards.
- The following symbols and their meanings have been used on the device and in the accompanying documentation to indicate potential hazards:



This symbol alerts users that if the safety instructions for using and operating the device are not followed, there is a risk of:
Risk of serious injury or death! Risk of equipment damage or other property damage!

Transportation/Transfer

- When using e.g. Take care when moving the truck to prevent the device from toppling over.
- Carry the device by firmly gripping the base of the device or by firm covers. When moving the device, make sure that your hands and the device are not damp or slippery.
Risk of device damage!

Unpacking/Packaging

- Unpack the device and its accessories and dispose of any parts of the packaging material, etiquettes and labels before putting it into operation and store them in a safe place or keep them away from children and incapacitated persons.
- Clean the device according to the instructions in the "Commissioning" section before commissioning. In particular, clean the device of any packaging material and any dirt (e.g. dust).
- Never clean the device in a way that could cause the cleaning liquid to flow into the device. Clean the device only with a slightly damp cloth and wipe dry or allow to dry.

Inspection/Commissioning

- We recommend performing initial and subsequent regular inspections of the device.
- Never use the device if it is incomplete, damaged or any part of it has been damaged during use.
- Do not use non-original and incomplete parts and accessories.
- Use only recommended parts and accessories to install the device.
Risk of serious injury!
Risk of device damage!

Location/Installation

Warning!

- Have the device installed by a qualified technician.
- Incorrect and improper installation may adversely affect the correct and safe operation of some safety devices in the vehicle's technical equipment (e.g. direction indicators, brake lights, horn, ...).
- Only connect the signal and power wires of the device according to the enclosed wiring diagram.
- The device is intended for placement and installation in a car, in the part of the instrument panel intended solely for placement and connection of the car radio.
- The device is designed for operation in vehicles with 12V DC supply voltage and grounded negative power supply pole.
- If the installation location of the device is not specified by the vehicle manufacturer, select a location where installation of the controls of the device will not interfere with the driving of the vehicle and where the device will not endanger the driver or passengers in extreme situations.
- When installing the device, disconnect the minus pole of the car battery to reduce the possibility of potential damage to the device due to a possible electrical short circuit.
- When installing, connect the signal cables and speaker wires first and then connect the device's power connector.
- If the ignition on the vehicle is not equipped with the ACC position, or the ignition cable is connected to a permanent power supply, e.g. battery cable, it is not possible to control the power of the device by ignition (i.e., the device cannot be switched on and off simultaneously with the ignition).
- To keep the ignition, switch on and off, connect the ignition cable to the power source for the device that turns on and off at the same time as the ignition.
- Ensure that there is sufficient air circulation around the device.
- For proper and reliable operation (especially when playing CDs), do not exceed the maximum tilt angle of 30 degrees from the horizontal.
- Do not insert any objects into the device and do not allow foreign objects to enter the connection connectors, the ventilation openings, or the openings of the device's covers.

- Do not block the air vents of the covers. Air ventilation ensures reliable and safe operation of the device.
- Do not subject the device or its accessories to strong vibrations and/or shocks. Do not drop or hit objects on the device.
- Do not place any containers containing liquids (e.g. beverages) in the area above the device. Dropping the container and flowing liquid into the device can cause irreparable damage to the device.

Warning!

- Do not expose the device to:
 - direct sunlight,
 - excessive mechanical stress,
 - excessive dust,
 - water and excessive moisture (eg rain),
 - insect,
 - aggressive external environment.

Risk of serious injury!
Risk of equipment damage!

Operation/Supervision

Warning!

- Only use the car radio in such a way and if it is really possible due to the circumstances of the traffic situation!
- As a car driver, you are fully responsible for your own safety, the safety of the passengers and the impact of your vehicle on the safety of traffic!
- To ensure safety while driving, use caution and at least observe the following precautions:
 - Pay special attention to driving the vehicle at all times!
 - To achieve the highest level of driving safety, the user of the car radio must be familiar with the functions and operation of the car before driving.
 - If you have to deal with an unforeseen or serious situation while driving (to solve a problem or set up the device), always stop the vehicle first!
 - Only use the functions of the car radio so that you are always in control of the driving of your vehicle in all traffic situations!
 - Adjust the volume level so that you can hear acoustic signals and signals at any time in any traffic situation coming from the external environment of the vehicle, in particular the emergency vehicle horn of the police, ambulance or fire-fighters.
 - Never put the external audio source on the instrument panel. The device could enter the driver's or passenger's compartment when sudden driving maneuvers and cause serious injury!
 - Never leave external audio sources near the airbags. If the airbag is deployed, the device could be shot into the passenger compartment and cause serious injury!

- While driving, it is forbidden to keep external audio sources in your hand or on your knees. The device could enter the driver's or passenger's compartment when sudden driving maneuvers and cause serious injury!
- Always route the cable for connecting an external audio source so that it does not restrict the driver and passengers when driving.
Risk of serious injury or death!
- For safe and reliable operation of the electronic device at low temperatures and excessive humidity (e.g. in winter), first let the device "acclimatize" (to ensure that the temperature and humidity in the vehicle cab stabilizes) to remove any moisture in the electrical / electronic parts that occurs when the temperature of the environment changes.

Warning!

- Depending on the model, the unit can be equipped with a laser unit - Class 1 laser.
- The equipment is safe for users under reasonably foreseeable operating conditions.
- Observe the following safety precautions to avoid exposure to laser radiation:
 - Never open the device or remove its covers.
 - Only have the device repaired by a qualified service technician.
 - Do not make any changes to the device.
 - Laser radiation is dangerous for eyesight!
 - There are no parts or components inside the device that you can repair yourself. Repairs to the device may only be carried out by authorized service personnel.
 - Never overload the device beyond the limits specified in the technical data!
 - If you notice any abnormal effects (sounds, odor, smoke, ...) while using the unit, turn off the unit immediately and unplug it from the wall socket. Have the device checked by a specialist garage.
 - Never underestimate possible dangers and be careful !!!

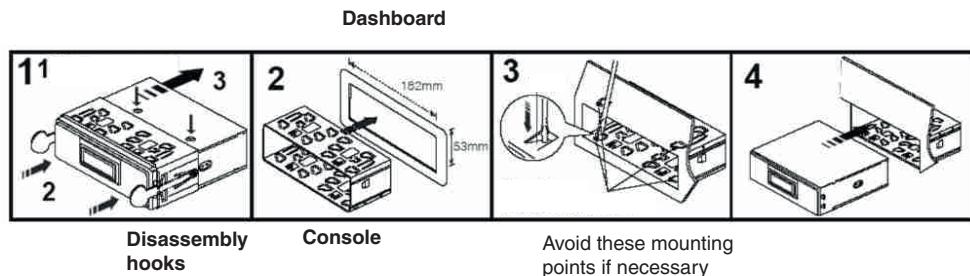
Assembly

- Before final installation of the device, temporarily connect all cables and check that the device works normally. Then remove the front panel before mounting.
- Only mount the device safely with the supplied parts.
- Contact your vehicle dealer for more information on vehicle modifications.
- Select the mounting location so that the device does not interfere with driving or the driver.
- The maximum mounting angle should not exceed 60 degrees.
- Do not install the device in places that are exposed to high temperatures, such as direct sunlight

DIN mounting

The device can be mounted by inserting it into the bracket (DIN front mounting) or fastening with screws using the holes on the sides of the device (DIN side mounting). See the illustration for installation details.

DIN mounting (front)



Console

1. After inserting the bracket into the dashboard, select and use a screwdriver to avoid the appropriate tabs (fixing points) so that the bracket is fixed in the hole.
2. Slide the device into the console until it clicks.

Disassembly of the device

1. Insert the supplied hooks into the holes.
2. Remove the device by pulling on the hooks with both hands.

Connections

- a. This equipment is intended for operation with a 12 V DC voltage with the negative pole grounded.
- b. Be careful not to feed any cables under the bolt or between any moving parts (such as seat rails).
- c. Before making the connections, turn off the ignition to avoid a short circuit.
- d. Connect the connecting cables and speakers to the device first, then connect it to the power connector.
- e. Connect all ground cables to a common ground point.
- f. If the vehicle is not equipped with an ISO connector, purchase one.

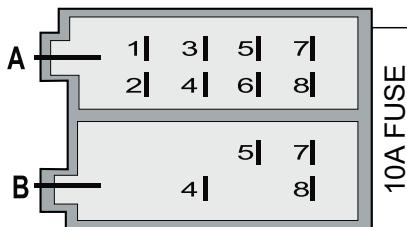
Notes

- Damage to the device due to incorrect connection is not covered by the warranty.

Warning!

You must not short-circuit the connector. The device has a separate amplification output. If you only have 2 speakers, do not connect the outputs, but choose the output for the front or rear speakers. Connect the red cable to the ignition (key in the ACC position) so that the battery does not discharge when the car is not in use.

Schéma zapojenia ISO konektora



PIN	Cable color	Function/Marking
A1	Brown	Speaker, right, rear (+)
A2	Brown/black	Speaker, right, rear (-)
A3	Green	Speaker, right, front (+)
A4	Green/black	Speaker, right, front (-)
A5	Blue	Speaker, left, front (+)
A6	Blue/black	Speaker, left, front (-)
A7	Grey	Speaker, left, rear (+)
A8	Grey/black	Speaker, left, rear (-)
B1	NA	
B2	NA	
B3	NA	
B4	Yellow	Permanent power source - car battery (+)
B5	Orange	Electrical antenna power supply
B6	NA	
B7	Red	Switched mode power supply (ACC)
B8	Black	Skeleton (-)

Connection of control cables and external devices

Connection of control cables

Cable for connection to the control of the electric extendable antenna

If you have an electric extendable antenna in your car, you can connect an orange cable to it. If you turn on the car radio (ignition), the electric extendable antenna will automatically extend, and when the car radio (ignition) is turned off, it will retract again.

Audio output (RCA connectors (white - L, red - R)

You can connect a final amplifier to the RCA connectors.

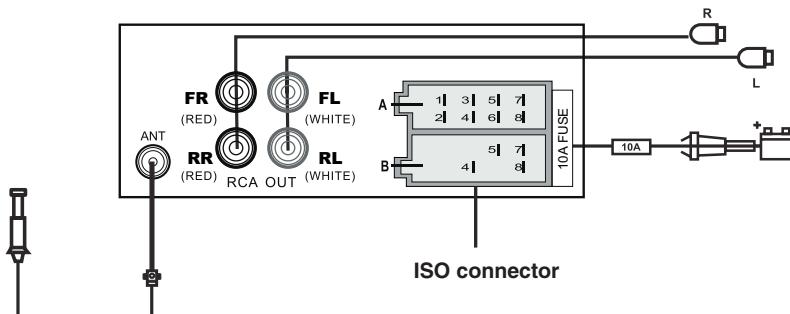
Audio input (AUX IN mini connector)

You can connect the output audio connector from an external device (mobile phone, portable audio player, etc.) to the AUX IN mini-connector on the front panel of the device.

Notice:

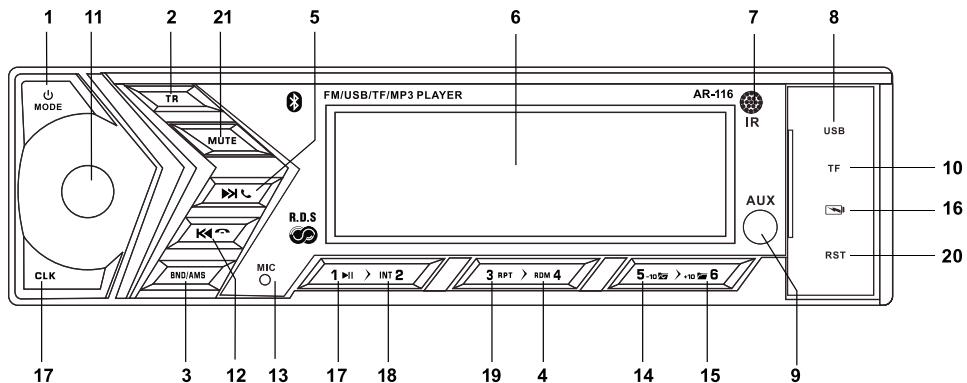
Insulate all non-insulated, unconnected cables and connectors with insulating tape or heat-shrink tubing to prevent damage to the device from a short circuit.

The back panel of the device may differ from the picture, but the connectors are the same.



Description of parts

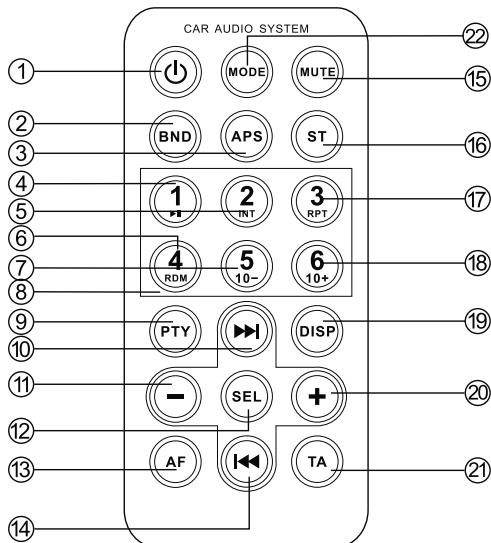
Front panel



1. Button **MODE** (On/Off/Selection of mode - sound source)
2. **TR** (Color Change) button
3. **BAND/AMS** button (BAND – Band/AMS – Automatic station tuning)
4. Button **4/RDM** (Preset 4/Random Play)
5. Button **▶◀** (Tuning Forward/Forward Playback/Answer Call)
6. Display
7. RC signal sensor
8. USB connector (connection of USB memory units/USB devices).
9. Input audio connector (**AUX**)
10. SD/MMC card slot
11. **VOL (SEL)** rotary control - turn/press
Volume up (turn right)/Volume down (turn left)
Selection and setting of sound characteristics (BASS-TRE-BAL-FAD)/EQ (Equalizer setting)/LOUD (Sound emphasis)/Local and Distance mode/Stereo and Mono mode.
Short press to switch items, turn to set selected item.Long press and hold to activate RDS settings, then short press to switch AF/TA/PY items and rotate to set the selected item.
A short press when connecting the phone and using it activates the voice assistant (only if the phone supports such a function).
12. Button **◀** (Tune back/Reverse playback/End call)
13. **MIC**
14. Button **5-10** (Preset 5/Switch back 10 tracks/Switch to previous folder)
15. Button **6+10** (Preset 6/Switch forward 10 tracks/Switch to next folder)
16. Charging USB connector (Connector with the function of fast charging of a mobile device)
17. Button **1▶II** (Preset 1/Play/Pause (**▶II**))
18. Button **2/INT** (Preset 2/Play intros)
19. Button **3/RPT** (Preset 3/Repeat)
20. Reset button (Resetting the device, use a suitable pointed object (paper clip))
21. Button **MUTE** muting of the sound

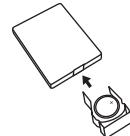
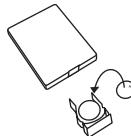
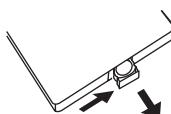
Remote control (RC)

1.  (On/Off)
2. **BND** (Band Switching)
3. **APS** (Automatic tuning and saving of all available stations)
4.  (Play/Pause)
5.  (Preset 2/ Play song intros)
6.  (Preset 4/Random Play)
7.  (Preset 5/ Switching to the previous folder)
8. **Buttons for selecting songs**
9. **PTY** (RDS function PTY)
10.  (Tuning forward/Advancing playback Answering a call)
11. - (Volume down/Adjust audio function levels)
12. **SEL** (Equalizer and Sound Settings)
13. **AF** (RDS AF function)
14.  (Tune back/Reverse playback/End call)
15. **MUTE** (Mute)
16. **ST** (Stereo/Mono switching during FM broadcasting to improve reception)
17.  (Preset 3/Repeat)
18.  (Preset 6/ Switch to next folder)
19. **DISP** (Clock setting)
20. + (Increase volume/Adjust audio function levels)
21. **TA** (RDS function TA)
22. **MODE** (Mode selection - sound source)



Inserting batteries into the remote control

The system can be operated with the supplied remote control. Insert a round battery (CR2025, 3 V) into the remote control according to the correct polarity + and -. When using the remote control, point it at the sensor to receive signals from the remote control to the car radio.



Notes

- Do not leave the remote control in very hot or humid places.
- Make sure that no object enters the remote control, especially when replacing the batteries.
- Do not place the unit so that the remote sensor is exposed to direct sunlight or light from lamps. Otherwise, malfunctions may occur when operating with the remote control.
- If you will not be using the remote control for a long time, remove the batteries to prevent possible battery leakage and subsequent corrosion.

Warning

The arrangement of the controls on the remote control may differ slightly from the illustration.

Preparing to play

This information is described when using the controls on the device!

The device can also be operated with the supplied remote control, the control is the same or very similar to when using the elements on the device.

Turn the device on/off

Power on

Press button  (On/Off) (1) on the front panel. The device turns on to the mode that was active when the device was turned off.

Shutdown

To turn off the device, press and hold the /**MODE** (On/Off) button (1) on the front panel for a long time.

Selection of input signal source

When the device is on, short press the **MOD** button (1) on the front panel to switch audio sources.

The available sources are: RADIO (Radio), BT (Bluetooth), MP3, (memory media, only if an optional USB memory device is connected to the USB connector or an SD/MMC card is inserted into the SD/MMC card slot), AUX IN and again radio.

Warning!

If a signal source is not ready, its selection will not be possible (e.g. if the MMC card is not inserted, it will not be possible to select the MP3 signal source).

Volume adjustment

To adjust the volume, turn the rotary control on the front panel (11).

To access the sound characteristics setting mode, press the rotary control (11) on the front panel.

By briefly pressing the controller, the setting mode is switched in the following order:

Bass (BASS) - Treble (TRE) - Balance Left/Right (BAL) - Balance Front/Back (FAD) - Equalizer (EQ) - Sound Enhancement (LOUD) - Stereo/Mono.

Sound settings

Turn the controller (11) to adjust the volume. The level will be indicated on the display.

Press the controller (11) to select sound functions. After selecting the corresponding function, adjust its level with this volume control within 5 seconds. Otherwise, the volume adjustment mode will be restored. The functions are switched as follows: **Volume (VOL) - Bass (BASS) - Treble (TRE) - Balance Left/Right (BAL) - Balance Front/Back (FAD) - Equalizer (EQ) - Sound Enhancement (LOUD) - Stereo/Mono - Volume...**

BASS:

Press the knob (11) to select the BASS level adjustment function, and then turn it to set the desired level in the range from -7 to +7.

“0” corresponds to the neutral level.

TREBLE (TRE):

Press the knob (11) to select the treble level adjustment function (TRE) and then turn it to set the desired level in the range from -7 to +7. “0” corresponds to the neutral level.

Left/Right Balancing (BAL):

Press the knob (11) to select the left/right balance (BAL) function, then turn it to set the desired balance level from far right to far left.

Center corresponds to the balance between the right and left speakers.

Front/Rear Balance (FAD):

Press the knob (11) to select the front/rear balance adjustment (FAD) function, then turn it to set the desired balance level from full back to full front.

Center corresponds to the balance between front and rear speakers.

Equalizer preset setting

Press the controller (11) on the front panel or the SEL button (12) on the RC to activate the equalizer (EQ) adjustment mode.

Set one of the equalizer presets (POP – ROCK – CLASS – OFF), depending on what sound suits you.

Sound enhancement

Press the controller (11) to activate the LOUD sound enhancement mode and choose to turn this mode off or on.

When turned on, the low and high frequencies of the sound will be emphasized, so the sound will be more powerful. To turn off sound highlighting, set this mode to off.

STEREO/MONO

Short press the controller (11) in the FM radio listening mode and select Stereo while switching the sound setting functions. Turn the knob to select Stereo or Mono for FM broadcast reception. You can also use the ST button (16) on the remote control to set this function directly. If the reception of the given station is of poor quality, select the MONO setting for it.

Local/Distance (Local/Overall PI signal tuning)

Short press the controller (11) in the FM radio listening mode and select Local (Distance) while switching the sound setting functions.

Then rotate the knob to select the setting for the MSK alternate frequency tuning function and set it to Local or Distance.

Time setting and display

DISP button (19) on the remote control

The time display function works after setting the clock.

Time setting

In standby mode, press and hold the DISP button (19) on RC. The time setting mode is activated.

The hour display is flashing, turn the rotary control (11) to set the desired hour and press DISP (19) to RC to switch to the minute display flashing.

The minutes display is flashing, turn the dial (11) to set the minutes and press the DISP (19) to RC to turn off the clock setting mode.

You can display the clock (set exact time) by briefly pressing the DISP button (19) on the remote control

Tuner control

Selecting the input signal source Radio

Turn on the device by pressing  (1) on the device and keep pressing it until radio is selected as the input signal source.

Radio band selection

Use the BND/AMS button (3) on the front panel or BND on RC to switch radio bands. The bands are switched in the order FM1 - FM2 - FM3 - FM1....

Tuning stations

Automatic tuning and saving of all available stations

Pressing and holding the BND/AMS button (3) on the front panel for more than 1 second or APS on RC will start automatic tuning and storing stations. All available stations are stored in the device's memory. After all stations are stored, tuning stops and the first stored station is selected.

You can stop tuning in progress by pressing the BND/AMS button again.

Newly tuned stations will overwrite previously saved stations!

Automatic tuning

A short press of the  buttons on the front panel or on RC in radio mode will start automatic tuning in the corresponding direction.

Manual tuning

Press and hold the  button on the front panel or RC (for more than 1 second) in radio mode to enter manual tuning mode. Then you tune manually by briefly pressing the  button on the front panel or on the RC. If you do not touch the button for about 1 second, the automatic tuning mode will be restored.

Notes

Newly tuned stations will overwrite previously saved stations! It is possible to save 6 stations (P1 - P6) in each band.

Presets P1 - P6 correspond to numeric buttons 1 - 6 on the device or RC.

Recalling stored stations/Saving stations

Numeric buttons for presets (1-6)/playback control buttons

1. Briefly press the corresponding button to call up the saved preset.
2. By long pressing the corresponding button (for more than 1 second) after tuning the station, you save the tuned station under the pressed button.

RDS system

Notice:

Your device may not be equipped with an RDS system. This section only applies to devices equipped with RDS.

Selection and setting of RDS functions: On/Off. functions TA, AF, STEREO/MONO sound switching, On/Off. CT functions (Precise Time) etc. with the rotary control (11) in radio mode (FM).

TA (Traffic Intelligence)

In FM radio mode, press and hold the controller (11). The RDS function settings mode is activated. Then, short press to switch the RDS functions in AF/TA/PTY order. After selecting the desired function by turning the controller, select the setting of the given function (on/off) and confirm the setting by pressing the controller.

After activating the RDS settings mode, select the TA function by briefly pressing the controller (the function can be activated directly with the TA button (21) on the RC). Activating the Traffic Announcement (TA) function (TA ON setting) will ensure automatic tuning of the FM station currently broadcasting traffic information. These settings work regardless of the current audio source.

After the messages are finished, the device switches back to the original audio source.

If you want to turn off the TA function, turn the dial to set the TA OFF setting.

AF (Alternate Frequency)

In FM radio mode, press and hold the controller (11). The RDS function settings mode is activated. Then switch the RDS functions with a short press. Select the AF function by briefly pressing the controller (the function can be activated directly with the AF button (13) on RC). The alternative frequency (AF) function automatically selects and tunes to the frequency of the currently listening station with the strongest signal in the station network.

When the AF function is activated: the device is factory set to "AF ON", so the regional station will be retuned to another regional station with a stronger signal.

If you are leaving an area with a regional program broadcast and want to make the most of the AF function, turn off the regional mode.

If you want to turn off the AF function, turn the dial to set the AF OFF setting.

Notes

- If the AF mode is on and you start tuning, the tuning stops only on RDS stations.
- Regardless of the AF mode setting, when switching from another audio source back to the tuner, the tuner will automatically always switch to the FM band.

PTY

In FM radio mode, press and hold the controller (11). The RDS function settings mode is activated. Then switch the RDS functions with a short press. Select the PTY function by briefly pressing the controller and confirm the selection with a short press (the function can be turned on directly with the PTY button (9) on RC).

Then, by turning the controller, select the desired type of PTY program and press briefly to confirm the selection. You can start tuning the desired type of program by pressing the rotary control. The device will start searching for the selected program type. If no station broadcasts the selected type of program and the device switches to the previous mode.

An overview of the PTY genres is as follows:

Genre overview

PTY

Music

POP , ROCK
EASY, LIGHT
CLASSICS,
JAZZ, COUNTRY
NATION, OLDIES
FOLK

Spoken word

NEWS, AFFAIRS, INFO
SPORT, EDUCATE, DRAMA
CULTURE,SCIENCE, VARIED
WEATHER, FINANCE, CHILDREN
SOCIAL, RELIGION, PHONE IN
TRAVEL, LEISURE, DOCUMENT

Description of the RDS function

Radio Data System (RDS) is a radio service that enables the broadcasting of additional digital information along with the radio station signal in the FM radio band. For example, when receiving an RDS station, the display will show one of the following information.

- PI (Program Identification)

This is a broadcast code for a type of program.

- PS (Program Name)

Information containing the name of the program.

- AF (Alternative Frequency)

The alternative frequency (AF) function automatically selects and tunes to the frequency of the currently listening station with the strongest signal in the station network.

- TA (Traffic information)

If the station is currently broadcasting traffic information, the TA indicator lights up.

- PTY (Search by program type)

The station can also be tuned by choosing the type of program you want to listen to. If the station is broadcasting PTY data, the display will show the type of current program.

- CT (Current Time)

The CT (Clock Time) function automatically sets the clock using the RDS service.

- EON (Extended monitoring of other networks)

The EON (Enhanced Other Networks) function, using the RDS service, allows the receiver to monitor other networks or stations and, in the case of traffic reports, automatically temporarily change the station.

Note

Depending on the country, not all RDS functions may work.

Playback control

MP3/WMA file playback

MP3 and WMA (Windows Media Audio) files are digital audio files that are compressed compared to a standard audio CD file to save capacity.

This device can play MP3/WMA files directly from compatible storage media. You can control playback with the buttons on the unit (or the supplied remote). Depending on the type of media and recording method, some files may not be playable or may skip playback.

The device is compatible with MP3/WMA formats.

Notes on playing MP3/WMA files

The device can play MP3 files (MPEG1, 2, 2.5 Audio Layer 3). However, there are some limitations.

Observe the following when saving MP3/WMA files on the storage media: There are the following restrictions when playing:

Maximum number of subfolders: 8

Maximum number of files on media: 999

Maximum number of folders on media: 255

MP3/WMA files that do not comply with the above conditions may not play properly.

MP3/WMA file encoding and compression settings

Observe the following when compressing MP3 files:

Data rate: 32-320 kbps

Sampling frequency: 32 - 44.1 - 48 kHz (WMA) 16 - 22.05.24 - 32 - 44.1 - 48 kHz (MP3)

Saving files to media

If you insert media with MP3/WMA files only, the device reads all the data. If the media contains many folders or files other than MP3/WMA, playback of MP3/WMA files will be interrupted, file loading may take a long time and may not be smooth. When such media is connected, loud noise may be reproduced and the speakers may also be damaged. Do not connect to a media device with files other than MP3/WMA files with an MP3/WMA extension, or with non-MP3/WMA files.

Data flows

The device is compatible with data streams of 32 - 320 kb/s.

General operations

Switch songs forward/backward

◀◀/▶▶ buttons on the front panel or RC

In normal mode, pressing the ▶◀/▶▶ buttons on the front panel or remote control during playback briefly selects a track to play by switching tracks. After selecting a song, it will start playing.

Fast forward/rewind the song

In normal mode, pressing and holding the ▶◀/▶▶ buttons on the front panel or remote control during playback will fast forward the track being played. It resumes normally when you release the button, or you can reset it by pressing 1/▶▶ (17) on the front panel or 1/▶▶ (4) on the remote control or u (4) and remote control.

Play/Pause

1/▶▷ II button (Play/Pause)

Press this button on the front panel or DO to start/pause playback. If you pause playback, press again to resume playback.

Playing song introductions

2/INT button (Introduction)

Press this button on the front panel to select the play mode. Playing the first 8 seconds of each song on the current media. If you press this button again while playing the beginning of the song, this mode will be canceled and the song will play normally.

Repeat play

3/RPT (Repeat) button

Press this button on the front panel to play the current song in the folder repeatedly or all songs on the current medium. To cancel the mode, press this button again.

Shuffle play

4/RDM (Shuffle play) button

Press this button on the front panel to select the random play mode. Tracks will be played in random order. Press again to cancel the mode.

Navigating between tracks and albums (5/DIR-a 6/DIR + or 10- and 10+ on the remote control)

The desired track/album can be selected with the device or with the remote control:

Searching for a file by switching between them

You can select the desired file (track) more quickly by pressing 5/DIR-a 6/DIR + on the front panel, 5/10- and 5/10 + on the remote control while the track is playing.

Press the buttons to switch to the previous folder, the next folder, or 10 files forward or 10 files backward with respect to the current song.

Playing files from a USB drive

Thanks to the USB connector, the device can also play files from a USB memory device or USB device.

Compatibility

Due to rapidly changing technologies, the device may not be compatible with all USB drives, especially USB drives that require driver installation. Use only USB drives compatible with this unit.

Warning

If you are using a portable USB player as a USB memory device with your device, the USB player must be turned on.

Inserting a USB drive

Connect a compatible USB memory device to the USB connector (8) (the USB connector (16) is only for charging, do not confuse the connectors!).

Eject the USB drive

Gently press the front panel with your finger and pull out the USB drive with your other hand.

Playing

1. Insert the USB drive correctly and completely into the USB connector. The display shows the USB mode and the file download from the unit starts.

Note:

Accessing and retrieving files from a USB drive may take some time, depending on the USB drive and the number of files stored on it.

2. When the USB drive is inserted correctly, the device will automatically switch to USB mode immediately, regardless of the mode currently selected.

3. To turn off USB mode and playback, gently pull the USB drive out of the device. When the USB drive is disconnected, the device automatically switches to radio mode.

Alternatively, the desired mode can be selected by pressing the /MODE button (1) on the device or the MODE button (22) on the remote control (even if a USB drive is inserted in the device).

4. The method of playing files from a USB drive is the same as the description of general file playback operations.

5. Always disconnect the USB drive after playback.

WARNING

1) Never leave a USB drive inserted in the device if you leave the car parked for a long time. You can permanently damage both the device and the USB drive.

2) Do not accidentally or intentionally hit the USB drive. You can permanently damage both the device and the USB drive.

3) Pull the USB drive out of the device sensitively. Doing so may permanently damage both the device and the USB drive.

4) Never try to connect a USB drive that is excessively large or heavy (HDD with built-in USB connector, etc.) to the unit. Normal operation may not be possible with such units because you will overload the front panel. In addition, you can permanently damage both the device and the USB drive. Also, the front panel controls may not be freely available.

USB specifications

USB 1.1

Data flow: More than 320 kB/s

Format: FAT12/FAT16/FAT32. NTFS format may not be supported!

Play files from a microSD memory card

Thanks to the MicroSD memory card slot, the device can also play files from such cards.

Compatibility

Due to rapidly changing technologies, the device may not be compatible with all types of SD/SDHC/MMC cards, especially with cards that require driver installation. Use only SD/SDHC/MMC cards compatible with this unit.

Inserting a microSD card

Insert a compatible SD/MMC memory card into the **TF** SD/MMC card slot (10). Orient the card in the correct way.

Eject the microSD card

Gently press the front panel with your finger and gently push the card with your other hand. When the card pops up, pull it out of the slot.

Playing

1. Insert the card correctly and completely into the microSD card slot until it clicks.
2. The loading of files from the card will start. When the card is inserted correctly, the device automatically switches to microSD card playback mode regardless of the currently selected mode.
Note:
Accessing and retrieving files from the card may take some time, depending on the card and the number of files stored on it.
3. To turn off card play mode, gently pull the card out by gently pushing it. When the card pops up, pull it out of the slot. When the card is removed, the device automatically switches to radio mode.
Alternatively, the desired mode can be selected by pressing the **⊕/MODE** button (1) on the device or the **MODE** (22) button on the remote control (even if a card is inserted in the slot).
4. The method of playing files from the card is the same as the description of general file playback operations.
5. After playing, remove the card from the slot.

WARNING

- 1) Do not accidentally or intentionally strike, bend or break the card. You can permanently damage both the device and the card.
- 2) Pull the card out of the slot with sensitivity. Doing so may permanently damage both the device and the card.
- 3) Always insert the card in the correct way and direction. Improper forcible insertion can permanently damage both the device and the card.

Other playback options

The device also allows you to play sound from connected devices.

Playback from a connected external audio device (AUX)

External devices equipped with audio output connectors can be connected to the device. Use a suitable optional audio cable for connection.

Activating the AUX IN input signal source:

Press /MODE (1) on the device or MODE (22) on the remote control until the AUX signal source is activated. This source is activated only when a compatible external audio device is connected to the input mini-jack on the front panel of the device.

For details on how to control the connected device, refer to its operating instructions.

Changing the color of the display backlight

After switching on, the device changes the color of the backlight of the display and touchpads every 3 seconds. There are 7 colors available. When you want to use only one color, wait until the backlight color is the one you want, then press the TR button (2) on the device.

The backlight color will no longer change. To activate the color changes again, press the TR button (2) again.

Notice:

If this procedure does not work for the device, the device does not have this optional feature.

Bluetooth operations

1. If you want to use the Bluetooth functions, your mobile phone must have a bluetooth interface, "Hands-free" functions and must be compatible with this device.
2. If you want to use Bluetooth functions, you need to pair your mobile phone with this device. See the pairing section below. Before pairing and connecting your phone with the device, make sure that the phone's battery is sufficiently charged.
3. Always perform pairing after the phone has been switched on for a long time.
4. The identification of this device is "AR116" (it will appear on the phone display).
5. For optimal performance, do not place the phone more than 3 meters away from the device.
6. There must be no obstacles between the phone and the device.
7. Do not place metal objects or other obstacles between the phone and the device.
8. Some phones may have a "Power Saving Mode" when the Bluetooth mode is active. DISABLE this mode on your phone.
Otherwise, incorrect communication between the phone and the device may occur in such a mode.
9. Bluetooth mode must be turned on before making an outgoing or incoming call.
10. In order for the call quality to be as high as possible, place the phone at a distance of approx. 1 meter from the device.
11. To disconnect your phone from the device, turn off Bluetooth on your phone.
12. Some phones support broadband ringing "radio ringing". In this case, the ringtone on the radio will be the same as the one set on the phone. However, some phones do not support this feature. In this case, the ringtone on the radio will be standard.
13. When talking on the phone, we recommend setting the volume level to a lower value. This results in higher sound quality. At higher volumes, echo and feedback may occur with a microphone.
14. If Bluetooth operations do not work by default, e.g. pairing fails, outgoing call cannot be made, etc., reset the Bluetooth module by powering off and powering on the device.

Overview of controls for use with Bluetooth and phones

If you want to use the Bluetooth functions, you can use the following control elements to control them and control telephone calls, which have the following functions.

1 Button (12) on the device, (14) on RC

Press: Reject an incoming call Press during a call: End the call

2 Button (5) on the device, (10) on the RC

Press while ringing: Answer incoming call

Press and hold: Transfer the call from the radio back to the phone during a call.

Bluetooth profiles supported by this device

HSP (Head Set Profile)

HFP (Hands Free Profile)

A2DP (Advanced Audio Distribution Profile)

AVRCP (Audio/Video Remote Control Profile)

Bluetooth features supported by this device

- 1 Bluetooth Hands-Free calling with a mobile phone compatible with HSP and HFP profiles.
- 2 Make a call from a mobile phone via the Bluetooth wireless interface.
- 3 Listen to music via Bluetooth wireless technology from an audio device or mobile phone compatible with A2DP and AVRCP profiles.

Bluetooth operations

Pairing

Pairing a mobile phone with a Bluetooth device

Notes:

- o Pairing is required when connecting this device to another Bluetooth device for the first time. Once paired, re-pairing will not be necessary. During the next connection, another device will automatically connect to this device via the Bluetooth interface.
- o This device can pair with multiple hands-free and/or audio devices.
- o If the paired Bluetooth device has both HFP (Hands Free Profile) and A2DP (Advance Audio Distribution Profile) profile, both profiles will be paired automatically at the same time.

Pairing from the mobile phone

- o Turn on the Bluetooth interface on your phone (see the user manual of your phone).
- o Search the list of found Bluetooth devices on your phone (see the user manual of your phone).
- o The phone should show "AR116" on the screen. Select the device "AR116" and continue pairing.
- o When the phone prompts you to enter the code, enter the code "0000". This code must then be the same on both devices.
- o If the pairing was successful, the BT icon will light up on the display when the Bluetooth mode is selected. If there is no pairing, the BT icon will flash in this mode.

The previous mode is automatically restored on the display.

Notes

- o If this device is connected to another Bluetooth device during pairing, another (third) Bluetooth device will not find this device. To search for this device with a third device, first disconnect the second Bluetooth device from this device.

Connecting the Bluetooth system

The device has an automatic connection function. However, sometimes it is necessary to make the connection manually. For example in the following cases:

- o The phone is out of range (2 meters from the device). The connection is lost and a call is coming in, or during the call the user moves the phone further than 2 meters from the device and it returns. If the user wants to transfer the call sound from the phone back to the device, he must do so manually. Connection is only possible with paired devices!

To re-establish the connection, use Menu and select the item to reconnect.

Disconnecting the Bluetooth system

You can disconnect the Bluetooth device in the following way:

- o Turn off the Bluetooth function on your phone. The phone will disconnect from this device.

Incoming call

Answering an incoming call

- o If an incoming call is recorded, the caller's number will appear on the display and a ring will sound.
- o Accept the call by pressing the button  (5).

Note:

The audio source you are listening to will mute and ring until you answer the call. When playing from media, playback pauses. After receiving a call, the sound of the call is reproduced from the speakers in the car. Speak into the built-in microphone in the car stereo.

- o You can adjust the call volume by turning the volume dial.
- o End the call by pressing the button  (12). The call ends and the sound is automatically turned on and the previous sound source is restored.

Notes

- o If the call comes in standby mode (ignition on, device off), the device will automatically turn on.

Ending the call

- o End the call by pressing the button  (12). The device will automatically restore the previous mode.

Rejecting an incoming call

- o You can reject an incoming call by pressing the button  (12).

Note

The audio source you are listening to will mute and ring until you answer the call. After pressing  (12), the sound is turned on and the previous sound source is restored.

Outgoing call

Making an outgoing call

- o Make the call from a mobile phone. Select a number from the list.
- o After entering the number, press  (5) to start dialing.

Notes

- o The sound of the audio source being listened to is turned off after pressing the button  (5).
- o You can adjust the call volume by turning the volume dial.
- o End the call by pressing  (12). Automatically turns on the sound and restores the previous sound source.
- o If you turn off the ignition during a call, the call will continue. After the call ends, you must press  (12) to turn off the call and the device.

Call transfer

Transfer the call from the device back to the phone

- o During a call, press and hold the button  (5).

The sound of the call is transferred from the device back to the phone, if e.g. you need privacy.

Notes

- o If you are making an outgoing call, if the called party has not yet accepted the call, it is not possible to transfer the call. You can transfer the call only when the called party accepts it.
- o Depending on the type of phone, the transfer of the call may take different time. For some phones, the call may not be transferred.
- o It is not possible to transfer a call from the phone back to this device.

Bluetooth audio signal stream A2DP (Advanced Audio Distribution Profile)

Through this device, it is possible to reproduce sound from another paired and connected Bluetooth audio device that supports the A2DP (Advanced Audio Distribution Profile) Bluetooth technology.

Connecting a Bluetooth audio device to this device

Before playing from another Bluetooth audio device (mobile phone), the device must first be paired and connected to this device.

- o Refer to the pairing section for the pairing procedure. o See the connection procedure in the connection section.
- o If the paired Bluetooth device has both HFP (Hands Free Profile) and A2DP (Advanced Audio Distribution Profile) profile, both profiles will be paired automatically at the same time. For example if the mobile phone has both HFP (Hands Free Profile) and A2DP (Advanced Audio Distribution Profile) profiles and this mobile phone is already paired with this device for the HFP profile, pairing for the A2DP profile is not necessary.

Play sound from another Bluetooth audio device through this device

- o Pair and connect a Bluetooth audio device with this device. See the pairing section for the pairing procedure.
For the connection procedure, see the connection section.
- o Press the MODE button (8) on the switch or MODE on the remote control until "BT" appears on the display.

Warning!

In order to enable Bluetooth audio signal flow from another audio device, it is necessary to select the "BT" mode first. In other mode, the function of Bluetooth audio signal stream (A2DP) will not work.

If no audio device is connected to the device, no sound can be reproduced via the Bluetooth interface after switching to BT mode.

- o If the given audio device is connected to the device, after switching to "BT" mode, it is possible to play songs from the connected Bluetooth audio device through this device. Information you can find information about controlling playback on a Bluetooth audio device in its user manual.

Controlling another Bluetooth audio device through this AVRCP (Audio Video Remote Control Profi) device

Another paired and connected Bluetooth audio device (mobile phone) that supports AVRCP (Audio Video Remote Control Profile) of Bluetooth technology can be controlled through this device.

Supported functions are:

1 Start playback

After switching to "BT" mode, this device will automatically send a playback command to another paired and connected Bluetooth audio device via the AVRCP profile.

The playback command differs depending on the connected Bluetooth audio device. If the connected Bluetooth audio device does not start playback after switching this device to "BT" mode, it will be necessary to start playback directly on the connected Bluetooth audio device.

2 Switching tracks

Use the track back/forward buttons  /  on the device or on the remote control to switch the tracks playing on your phone.

3 Pause/Play

Use 1/ (17) on the device or 1/ (4) on the remote control to start/pause playback on the connected phone.

4 Adjust the volume

Use the rotary control on this device.

5 Mute

Use the MUTE button (15) on the remote control.

6 Stop playback

Use the /MODE (1) button on this device to switch to another sound source.

Control via the AVRCP profile varies according to the specific connected Bluetooth audio device. Operations other than those listed must be performed directly on the connected Bluetooth audio device.

Hands-free calling during the Bluetooth audio signal flow

If the connected Bluetooth audio playback device is a mobile phone, all Hands-free phone functions (accept/reject/call, etc.) are available during the Bluetooth audio signal flow.

Disconnecting the connected Bluetooth audio device

You can disconnect a Bluetooth audio device from this device by turning off Bluetooth on your phone.

Troubleshooting

The following overview will help to find the cause of a problem that may occur when using the device. Before starting to perform the recommended actions, check the correctness of the connections and controls.

Generally

The controls do not work.

Check the connections.

Do not hear the sound.

Adjust the volume.

Cancel the mute function.

If you have only two speakers connected, set the balance of the front and rear speakers to the center position.

The contents of the memory are deleted.

Save all settings again.

The power cord or car battery has been disconnected. The power cord is not connected properly.

Stored stations and clock settings are deleted.

The fuse has blown. Replace the fuse and perform the settings again.

When the ignition key is turned to the ON, ACC, or OFF positions, a disturbing sound is heard.

The cables are not properly connected in the accessory power connector in the car.

The device is not powered.

Check the connections. If everything is fine, check the fuse.

The electric extendable antenna will not extend.

The electric antenna is not equipped with a switching relay.

Check the wiring of the electric extendable antenna.

The sound

No sound is heard.

- , The connecting cable is not firmly connected.
- , The connecting cable is damaged.
- , The audio connecting cable is damaged. Replace it with a new one.
- , The device is switched to pause mode or. Press 1/▶|| to resume standard playback.
- , The device is in fast forward or reverse mode. Press 1/▶|| to resume standard playback.
- , Check the speaker connections.

The sound is not of good quality (humming).

- , Check that the speakers and components are connected correctly.
- , Check that the connecting cables are not near the transformer or the motor.
- , The end of the cable and the connector are dirty. Clean them with a cloth moistened with alcohol.

Operation

The remote control does not work.

- , There are obstacles between the remote control and the device.
- , The distance between the remote control and the device is too large.
- , You are not pointing the remote control at the remote control sensor on the device.
- , The battery in the remote control is low.

The device is not working properly.

- Static electricity, etc. may affect the correct operation of the device. Unplug the device from the power supply, plug it in again after about a minute, and then turn it on again

Radio reception

Unable to tune to stored stations.

Store the correct frequencies in memory.

The transmitted signal is too weak.

Stations are not available.

The sound is disturbed by noise.

Check the connection of the car antenna.

Automatic tuning is not possible.

The transmitted signal is too weak.

Tune to the station manually.

Bluetooth

Unable to pair phone and device.

Confirm the AR115 device on your phone and enter the same code on both devices.

The phone is not compatible with the device.

Unable to connect.

The phone is not compatible with the device. Important

Notice!

Even though your phone is compatible, due to the firmware version, unsuitable conditions, update, etc., it may not work reliably with this device, or it may not work at all.

This is not a device malfunction!

If the problem persists even after taking the recommended measures.

Technical specifications

MP3/WMA player

System	MP3/WMA codec system
Frequency range	100-10000 Hz
Number of channels	2 stereo channels
Channel separation	More than 50 dB
Signal-to-noise ratio	More than 50 dB

Audio

Output power	4 x 25 W (max)
Load impedance	4-8 Ohm
Line output (2x RCA)	1200 mV (MAX)

AUX input

Distortion	0.5%
Frequency range	100-10000 Hz
Connectors	1x input audio mini connector

Tuner

FM band

Tuning range	87.5 – 108.0 MHz
Intermediate frequency	10.7 MHz
Sensitivity	Less than 26 dB
Channel separation	More than 45 dB
Signal-to-noise ratio	More than 45 dB
Distortion	1.5%

Bluetooth

Input	200mA, max.
Output power	0 dBm (Class II)
Frequency band	2.4 GHz ~ 2.4835 GHz, ISM band
Range	3 m (free space)
Standard	Specifications Bluetooth 5.0

Generally

Operating temperature	-10°C to +60°C
Storage temperature	-30°C to +80°C
Operating humidity	45% to 80% RH
Power supply	DC 12 V (from car battery)
Polarity	Grounded negative pole (-)
Operating voltage	DC 10.8 - 16 V (from car battery)
Max. current load	10 A
Speaker impedance	4-8 Ohm
Output power	4 x 25 W (max)

The right to make changes reserved!

Producer:

ORAVA retail 1, a.s.
Seberíniho 2
821 03 Bratislava
Slovenská republika

Importer:

ORAVA retail 1, a.s. Seberíniho 2 821 03 Bratislava Slovenská republika	ORAVA distribution CZ, s.r.o. Ostravská 494 739 25 Sviadnov Česká republika
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INSTRUCTIONS AND INFORMATION REGARDING THE DISPOSAL OF USED PACKAGING

Dispose of used packaging material at a municipal waste disposal site.

DISPOSAL OF USED ELECTRICAL AND ELECTRONIC EQUIPMENT

This symbol on the products or in the accompanying documents means that used electrical and electronic products should not be mixed with general household waste. For proper disposal, recovery and recycling, please return these products to designated collection points. Alternatively, in some countries of the European Union or other European countries, you may return your products to your local retailer when purchasing an equivalent new product. By ensuring this product is disposed of correctly, you will help prevent potential negative consequences for the environment natural resources and help prevent potential negative effects on environment and human health, which could be the consequences of improper disposal waste. Contact your local authority or nearest office for more details collection point. Improper disposal of this type of waste may result in penalties in accordance with national regulations.

For business entities in the countries of the European Union

If you wish to discard electrical and electronic equipment, please request the necessary information from your seller or supplier.

Disposal in other countries outside the European Union

This symbol is valid in the European Union. If you wish to discard this product, please request obtain the necessary information on the correct method of disposal from the local authorities or from the your supplier.



This product complies with all the essential requirements of the EU directives that apply to it.

DECLARATION OF CONFORMITY

Short text Declaration of Conformity:

ORAVA retail 1, a.s. hereby declares that the AR-116 complies with the essential requirements and other relevant conditions of Directive 2014/53/EU of the European Parliament and of the Council.

The full text of the Declaration of Conformity is available at: www.orava.eu