

AM/FM Car radio with MP3/WMA
player and Bluetooth interface

orava

AR-122 Instruction manual



Dear Customer,

Thank you for your confidence in purchasing our product. Please read these instructions carefully and keep them for future reference.

model: AR-122 model: AR-122 model: AR-122 model: AR-122
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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 $+5 \div +40$ ° C
 2. Humidity $5 \div 85\%$
 3. Altitude ≤ 2000 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 !!!

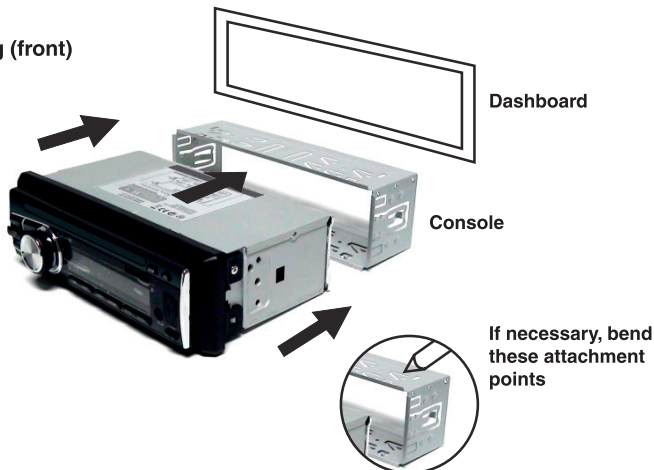
Mounting

- 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 the need to modify the vehicle.
- 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 or hot air, dust, dirt or excessive vibration.

DIN mounting

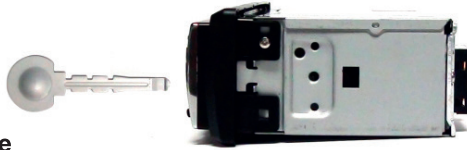
The device can be mounted by inserting it into the bracket (DIN front mounting) or fastening with screws using the holes on the sides of the device (DIN side mounting). See the illustration for mounting details.

DIN mounting (front)



Console

1. After inserting the bracket into the dashboard, select and use a screwdriver to avoid the appropriate tabs (fixing points) to secure the bracket 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.

DIN mounting (side)

Mount the device to the factory-fitted console in the car by fastening with screws using the holes on the sides of the device.

1. Insert the device into the factory-fitted console in the car (into the hole in the dashboard).
2. Align the holes on the bracket with the required holes on the side of the device and secure the device by tightening the required number of M4 x 3, M5 x5 screws.

Connection

- a. This device is intended for operation with a 12 V dc voltage with a grounded negative pole.
- b. Be careful not to pinch any cables under the screw or between any moving parts (such as seat rails).
- c. To avoid a short circuit, switch off the ignition before making connections.
- d. Connect the cords and speakers to the device before connecting it to the power connector.
- e. Connect all grounding cables to a common grounding point.
- f. If the vehicle does not have an ISO connector, purchase it.

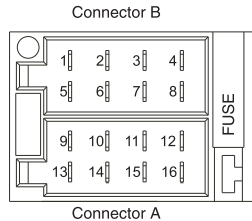
Notes

- Damage to the unit due to improper connection is not covered by the warranty.
- The device does not need to be equipped with a standard ISO connector. In this case, connect the device according to the connection section without the ISO connector.

Warning!

Do not short-circuit the connector. The device has a separate amplifier output. If you have only 2 speakers, do not connect the outputs, but choose the output for the front or rear speakers. Connect the red wire to the ignition (key in the ACC position) to prevent the battery from draining when not in use.

Wiring diagram of ISO connector



PIN	Cable colour	Function/Label
A14	Yellow	Permanent Power Supply - Car Battery (+)
A11	Blue	Powering the electrical antenna
A12	Red	Switch Mode Power Supply (ACC)
A16	Black	Skeleton (-)
B1	Purple	Speaker, Right, Rear (+)
B2	Gray	Speaker, Right, Front (+)
B3	White	Speaker, Left, Front (+)
B4	Green	Speaker, Left, Rear (+)
B5	Purple/Black	Speaker, Right, Rear (-)
B6	Gray/Black	Speaker, Right, Front (-)
B7	White/Black	Speaker, Left, Front (-)
B8	Green/Black	Speaker, Left, Rear (-)

Positions 9, 10, 13 and 15 on connector A are not connected.

Connection of control cables and external devices

Connection of control cables

Cable for connection to the control of the electric retractable antenna

If you have an electric retractable antenna in your car, you can connect a blue cable to it. If you switch on the car radio (ignition), the electric extension antenna extends automatically and retracts when the car radio (ignition) is switched off.

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

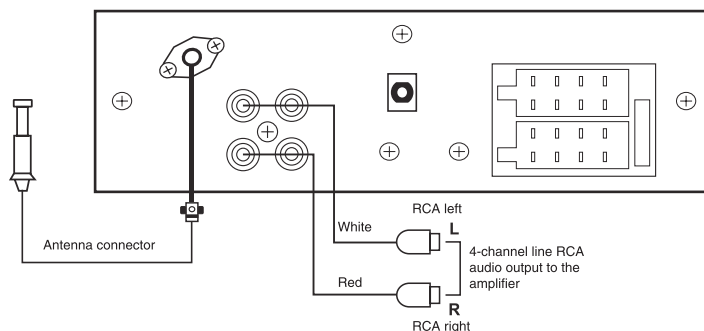
You can connect a power amplifier to the RCA connectors.

Audio input (mini connector AUX IN)

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

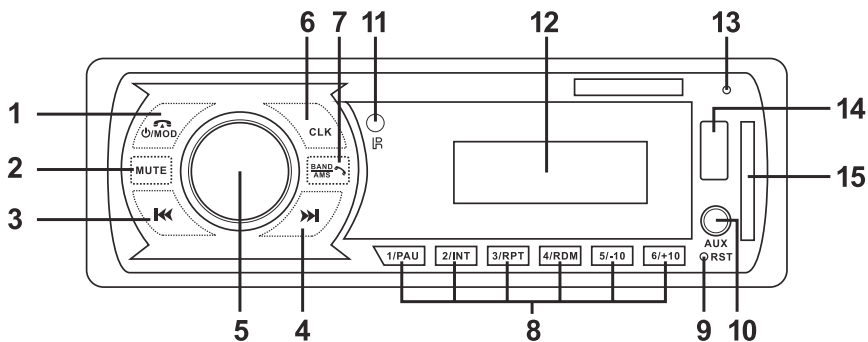
Warning:

Secure all uninsulated unconnected cables and connectors with insulating tape to prevent short circuit damage to the device.



Description of parts

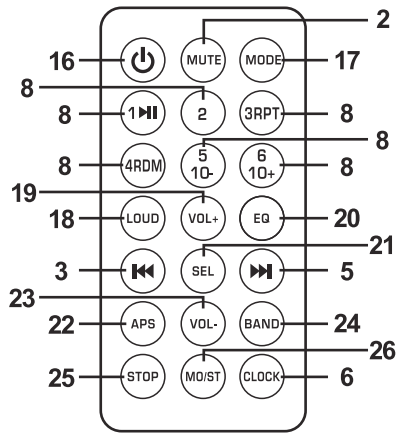
Front panel



1. /MOD button (On/Off/MOD Mode selection - audio sources / End call)
2. MUTE button
3. Button. (Rewind / Rewind during playback)
4. (Tuning forward/Fast forward during playback) button
5. VOL (SEL) knob - rotate / press
 Increase volume (rotate right) / Decrease volume (rotate left)
 Selection and adjustment of sound characteristics (BASS-TRE-BAL-FAD)/EQ (Equalizer setting)/Loud (Sound enhancement)/Local and Mono mode.
 Press briefly to switch items, rotate to set the selected item.
 Press and hold to activate the RDS settings, then press briefly to switch AF/TA/PY items and turn to adjust the selected item.
6. CLK button
7. /BAND/AMS button to switch the wavebands (BAND - Band/AMS - Automatic station tuning / Answering a call)
8. button 1/PAU (Preset 1/Play/Pause)
 button 2/INT (Preset 2/Playlist play)
 button 3/RPT (Preset 3/Repeat) button
 button 4/RDM (Preset 4/Shuffle play)
 button 5/-10 (Preset 5/Switches 10 items down)
 button M-6/+10 (Preset 6/Switches 10 items up)
9. RST button (Reset the device, use a suitable pointed object (paper clip))
10. Audio input connector (AUX)
11. RC signal sensor
12. Display
13. Microphone
14. USB connector (connection of USB storage units/USB devices. The connector also has the function of charging a herbal device)
15. SD/MMC card slot

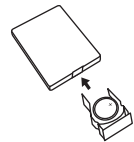
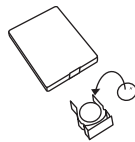
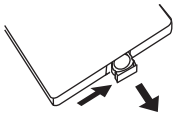
Remote control (RC)

2. **MUTE**
3. **◀◀** (Reverse Feed/Reverse Tuning)
5. **▶▶** (Forward/Tuning forward)
6. **CLOCK** button
8. **1 ▶||** (Play/Pause)
- 2 (Area Code 2)
- 3 **RPT** (Preset 3 / Repeat)
- 4 **RDM** (Preset 4 / Shuffle Play)
- 5 **10-** (Switching 10 items down)
- 6 **10+** (Switching 10 items up)
16. **⏻** (On/Off)
17. **MODE** (Signal Source Switching)
18. **LOUD** (Sound Enhancement)
19. **VOL +** (Volume up/Adjust audio function levels)
20. **EQ** (Equalizer and sound settings)
21. **SEL** (Sound function selection)
22. **APS** (Automatic tuning and storage of all available stations)
23. **VOL -** (Volume down / Adjusts the levels of audio functions)
24. **BAND**
25. **STOP** (Stop playback)
26. **MO/ST** (Stereo/mono audio switching)



Inserting batteries into the remote control

The system can be operated with the supplied remote control. Insert the circular 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 gets into the remote control, especially during battery replacement.
- Do not place the device so that the remote sensor is exposed to direct sunlight or light from lamps. Otherwise, it may occur malfunctions when operating with the remote control.
- If you will not be using the remote control for an extended period of time, remove the batteries to prevent battery leakage and corrosion.

Warning

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

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.

The device can also be operated using a paired mobile phone via the Bluetooth interface using an application that you can download for free from the iOS Store if you have an iPhone or from the Google Play store if you have an Android phone.

The remote-control application for this car radio will be available after scanning the following QR codes:

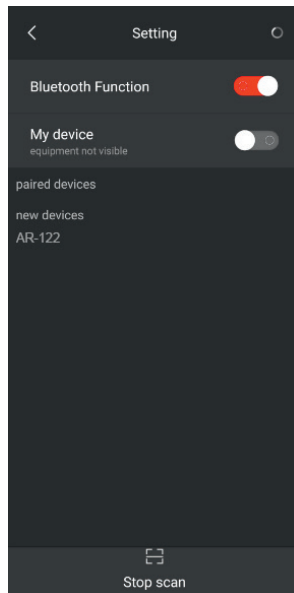
iOS Store



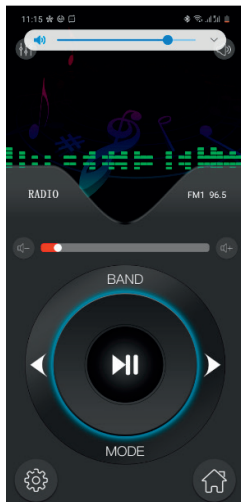
Play Store





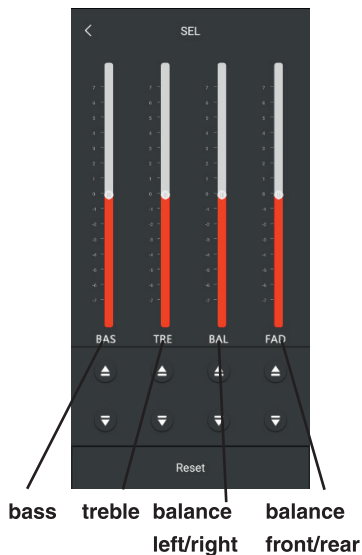
After downloading and launching the application on the mobile phone, the application and the window for selecting the car radio will be displayed. Click to select this car radio (AR-122).



After selecting the car radio, the application will connect to this car radio and the application will be able to control playback with its controls exactly as with the remote control.




After clicking on the icon  in the application, the interface for setting sound characteristics will be displayed. You can adjust the sound characteristics similar to the remote control or using the elements on the device. After setting, click the return icon  to restore the main display of the remote-control application.



Switching the device on/off


Power on

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

Power off

To turn off the device, press and hold /MOD (On/Off) (1) on the front panel.

Input source selection

When the device is turned on, briefly press the /MOD button (1) on the front panel to switch audio sources.

Available sources are: RADIO, MP3, (storage media only if an optional USB storage device is connected to the USB connector or an SD/MMC card inserted in the SD/MMC card slot), AUX IN (only if the input mini-collector is AUX on the front panel connected external audio device) Bluetooth.

Warning

If a signal source is not ready, it will not be possible to select it (e.g. if no external audio device is connected, it will not be possible to select a USB signal source).

Sound setting in TUNER/AUX mode

To adjust the volume, turn the rotary control on the front panel (5).

To access the sound characteristic setting mode, press the rotary control (5) on the front panel.

A short press on the control switches the setting mode in the order:

Volume (VOL) - Left/Right Balance (BAL) - Front/Rear Balance (FAD) - Sound Enhancement (LOUD) - Equalizer (EQ) - Local and Distance - Stereo/ Mono.

Sound setting in mode (USB/SD/Bluetooth)

Turn the knob (5) to adjust the volume. The level will be indicated on the display.

Press the control knob (5) to select the audio functions. After selecting the appropriate function, adjust its level with this volume control within 3 seconds. Otherwise, the volume adjustment mode is restored.

The functions switch as follows: **Volume (VOL) - Bass (BASS) - Treble (TRE) - Left/Right Balance (BAL) - Front/Rear Balance (FAD) - Sound Enhancement (LOUD) - Equalizer (EQ).**

Bass (BASS):

Press the Control knob (5) to select the BASS level adjustment function and then turn it to set the desired level from -7 to +7.

“0” corresponds to the neutral level.

Treble (TRE):

Press the control knob (5) to select the pitch adjustment function (TRE) and then turn it to set the desired level from -7 to +7.

“0” corresponds to the neutral level.

Left/Right Balance (BAL):

Press the Control knob (5) to select the balance adjustment function between the left and right speakers (BAL), and then turn it to adjust the desired balance level from far right to far left.

The center corresponds to the balance between the right and left speakers.

Front/Rear Balance (FAD):

Press the Control knob (5) to select the front and rear speaker balance (FAD) adjustment function, and then turn it to adjust the desired balance level from far back to far forward.

The center corresponds to the balance between the front and rear speakers.

Set the equalizer preset

Press the control knob (5) or the EQ button (20) on the remote control to activate the equalizer setting mode (EQ).

Set one of the equalizer presets according to which sound suits you (POP, CLASS, ROCK).

Sound enhancement

Press the control knob (5) to activate the LOUD mode and select to turn this mode on or off.

You can also turn the sound enhancement on and off with the LOUD button (18) on the remote control.

When turned on, both the low and high frequencies of the sound are highlighted, so the sound will be louder. To turn off the sound enhancement, set this mode to turn off.

Setting and displaying the time**CLK button (6) on the radio or CLOCK button (6) on the remote control**

The time display function works after setting the clock.

Time setting

Press and hold CLK (6) or CLOCK (6) on the radio. The time setting mode is activated.


The hour display flashes, turn the rotary selector (5) to set the desired hour and press CLK on the device to switch to the minute setting.

The minute display flashes, turn the rotary selector (5) to set the minutes and press CLK on the device to switch off the time setting mode.


To display the clock (set time), briefly press the CLK button (6) on the device or CLOCK (6) on the remote control.

Tuner control

Input source selection Radio


Turn on the unit and press /MOD (1) on the unit or MODE (17) on the remote control until the radio is selected as the input source.

Radio band selection


Use the /BAND/AMS button (7) on the front panel or BAND (24) on the remote control to switch the radio bands. The bands are switched in the order FM1 - FM2 - FM3 - AM- FM1

Tuning stations


Automatic tuning and storage of all available stations

Pressing and holding the /BAND/AMS button (7) on the front panel for more than 1 second or the APS (22) on the remote starts automatic tuning and presetting.


All available stations are stored in the device memory. When all stations have been stored, tuning stops and the first stored station is selected


To stop tuning, press /BAND/AMS again. Newly tuned stations will overwrite previously saved stations!

Automatic tuning

Briefly press the /▶▶▶ buttons on the front panel, on the remote control or in the application on the phone to start auto tuning in the appropriate direction.

Manual tuning

Pressing and holding the /▶▶▶ button on the front panel, remote control or application on the phone (for more than 1 second) turns on the manual tuning mode. Then short

Press /▶▶▶ on the front panel, remote control, or phone application to tune manually. If you do not touch the button for about 1 second, the auto tuning mode returns.

Notes:

Newly tuned stations will overwrite previously saved stations! 6 stations (P1 - P6) can be stored in each band.

Presets P1 - P6 correspond to the number buttons 1 - 6 on the device, remote control or in the mobile application.

Recalling stored stations/Storing stations

Numeric preset buttons (1-6) / playback control buttons

1. Briefly press the corresponding button to call up a stored preset.
2. Press and hold the appropriate button (for more than 1 second) after tuning in a station to store the tuned station under the pressed button.

RDS system

Selection and setting of RDS functions: On/Off. TA, AF, STEREO/MONO sound switching, On/Off CT (Exact Time) function, etc. perform with the rotary knob (5) in radio (FM) mode.

TA (Traffic News)

In FM radio mode, press and hold the joystick (5). The RDS function setting mode is activated. Then press briefly to switch the RDS functions in AF/TA/PTY order. After selecting the desired function, turn the knob to select the setting of the function (on off) and confirm the setting by pressing the knob.

Therefore, after activating the RDS setting mode, select the TA function by briefly pressing the control knob. Activating the Traffic Announcement (TA) function (TA ON setting) will automatically tune to the FM station that is currently broadcasting traffic announcements. These settings work regardless of the current audio source.

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

To turn off the TA function, turn the knob to set the TA OFF setting.

AF (Alternative Frequencies)

In FM radio mode, press and hold the joystick (5). The RDS function setting mode is activated. Then press briefly to switch RDS functions. Briefly press the control dial to select the AF function. The Alternative Frequency (AF) function automatically selects and tunes in the frequency of the station you are currently listening to with the strongest signal in the station network.

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

If you leave the area with the range of the regional program broadcast and want to make the most of the AF function, turn off the regional mode.

To turn off the AF function, turn the control dial to set the AF OFF setting.

Notes

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

PTY

In FM radio mode, press and hold the joystick (5). The RDS function setting mode is activated. Then press briefly to switch RDS functions. Briefly press the knob to select the PTY function and briefly press to confirm the selection.

Then turn the knob to select the desired PTY program type and press briefly to confirm the selection. The options are PROGRAM TYPE (PTY) SPECIAL (SPE) and MESSAGES (NVS). To start tuning the desired program type, press the rotary control. The unit starts searching for the type of program selected. If no station broadcasts the selected program type and the unit switches to the previous mode.

PTY: this coding distinguishes 31 predefined program types, e.g. in Europe news, rock music, etc. - allows users to find programs with similar broadcasts on the air.

STEREO/MONO

Briefly press the joystick (5) in FM radio listening mode, and select Stereo while switching the audio settings functions. Turn the Control knob to select Stereo or Mono for FM broadcast reception.

If the reception of the station is poor, select the MONO setting for it. You can also adjust the stereo/mono sound with the MO/ST button (26) on the remote control

Local/Distance

Briefly press the joystick (5) in FM radio listening mode, and select Local (Distance) while switching the audio settings functions.

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

Description of the RDS function

Radio Data System (RDS) is a radio service that allows you to transmit even more digital information along with the radio station's signal in the FM radio band. For example, when an RDS station is received, one of the following information will appear on the display.

- AF (Alternative Frequencies)

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

- TA (Traffic News)

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

- PTY (Search by program type)

You can also tune in to a station by selecting the type of program you want to listen to. If the station is transmitting PTY data, the display shows the type of current program.

- CT (Current time)

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

Remark

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

Playback control

MP3/WMA playback

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

This unit can play MP3/WMA files directly from compatible storage media. You can control playback by using the buttons on the unit (or the supplied remote).

Depending on the media and recording method, some files may not be playable or skipped.

The device is compatible with MP3 / WMA formats.

Notes on playing MP3 / WMA files

The unit can play MP3 files (MPEG1, 2, 2.5 Audio Layer 3). However, there are some limitations. Please note the following when saving MP3 / WMA files to the storage media: Maximum number of nested folders: 8 Maximum number of files per media: 999 Maximum number of folders per media: 255

MP3/WMA files that do not meet the above conditions may not play correctly.

Encoding MP3/WMA files and compression settings

Please note the following when compressing MP3 files: Bitrate: 32- 320 kbps

Sampling frequency: 32 - 44.1 - 48 kHz (WMA) 16 - 22.05,24 - 32 - 44,1 - 48kHz (MP3)

Saving files to media

If you insert media with MP3/WMA files only, the unit will read all the data. If the media contains many folders or non-MP3/WMA files, the playback of MP3/WMA files will be interrupted, the files may take a long time to load and may not be smooth. Connecting such media may produce loud noise and damage the speakers. Do not attach media with files other than MP3/WMA files that have the extension of MP3/WMA or non-MP3/WMA files.

Data flows

The device is compatible with 32 - 320 kbps data streams.

General operations

Fast forward/rewind

◀◀/▶▶ buttons on the front panel, on the remote, or in the mobile app

In normal mode, by briefly pressing ◀◀/▶▶ on the front panel, the remote, or the mobile application during playback, you can select a track to play by switching tracks. After you select a song, it will play.

Fast forward/rewind

In normal mode, press and hold ◀◀/▶▶ on the front panel, RC to fast-forward the track while playing. It will normally resume when you release the button, or press ▶▶ on the front panel, RC, or the mobile app to restore.

Play/Pause

1/▶▶ (Play/Pause) button

Press this button on the front panel, the remote, or the mobile app (button 1) to start / pause playback.

If you pause playback, press it again to resume playback.

Playing intro tracks

2/INT button (Introduction)

Press this button on the front panel to select the intro play mode.

The first 10 seconds of each track on the current media are played. If you press this button again during the beginning of a track, this mode is canceled and the track is played normally.

Repeat Play

3/RPT (Repeat) button

Press this button on the front panel to play the current track repeatedly on the current medium. To cancel the mode, press this button again.

Random Play

4/RDM (Random Play) button

Press this button on the front panel to select random play mode.

The songs will be played in random order. Press again to cancel.

Navigate between songs and albums

You can select the desired track/album using your device, remote control, or phone app:

Search for a file by switching between them

You can select the desired file (track) more quickly by pressing the 5 (10 -)/6 (10+) buttons on the front panel, 10- and 10+ on the remote control or in the mobile application while playing the track. Press to switch 10 files forward or 10 files backward depending on the current track.

Playback files from USB drive

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

Compatibility

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

Warning

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

Inserting the USB drive

Connect a compatible USB memory device to the USB connector.

Ejecting 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 for USB mode appears on the display and the file loading from the unit starts.

Note:

Depending on the USB drive and the number of files stored on the USB drive, it may take some time to access and load files from the USB drive.

2. When the USB drive is correctly inserted, the device will automatically switch to USB mode immediately, regardless of the currently selected mode.
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, you can select the desired mode by pressing the button /MOD (1) on the unit, MODE (17) on the remote control or in the application (even when a USB drive is inserted in the unit).

4. The method of playing files from the USB drive is the same as the description of general file playback operations.
5. Always disconnect the USB drive after playback.

CAUTION

- 1) Never leave a USB drive inserted in the device if you leave the car parked for a long time. You can permanently damage the device and the USB drive.
- 2) Do not accidentally or intentionally hit the USB drive. You can permanently damage the device and the USB drive.
- 3) Pull the USB drive out of the device with sensitivity. Doing so can permanently damage the device and the USB drive.
- 4) Never attempt to connect a USB drive that is too large or too heavy (HDD with built-in USB connector, etc.) to the unit. With such units, normal operation may not be possible because the front panel is overloaded. In addition, you can permanently damage the device and the USB drive. Also, the front panel controls may not be freely available.

USB Specifications

USB 1.1

Bitrate: More than 320kbps

Format: FAT12/FAT16/FAT 32. NTFS format may not be supported!

Playing files from a SD card

Thanks to the SD 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 cards, especially cards requiring driver installation. Use only SD cards compatible with this unit.

Inserting the SD card

Insert a compatible SD/MMC memory card into the SD/MMC card slot. Orient the card correctly.

Ejecting the SD card

Gently press the front panel with your finger, and with your other hand, gently pull the card out of the slot.


Playing

1. Insert the card correctly and fully into the SD card slot until it clicks.
2. The file will start loading from the card. When the card is correctly inserted, the device automatically switches to playback mode from the SD card, regardless of the currently selected mode.

Note:

Depending on the card and the number of files stored on it, it may take some time to access and load files from the card.

3. To turn off card playback mode, gently pull the card out by pushing it gently. When the card pops out, pull it out of the slot. When the card is removed, the device automatically switches to radio mode.

Alternatively, you can select the desired mode by pressing the button /MOD (1) on the unit, MODE (17) on the remote control or in the application (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 the general file playback operations.
5. After playing, remove the card from the slot.

WARNING

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


Other playback options

You can also play audio from connected devices.

Playback from a connected external audio device (AUX)

External devices equipped with audio output jacks can be connected to the device. Use a suitable optional audio cable to connect.

To activate the AUX IN source:

Press on /MOD (1) the device, MODE (17) on the remote control or in the application until the AUX signal source is activated. This source is activated only when a compatible external audio device is connected to the input mini connector on the front panel of the unit.



For details on how to operate the connected equipment, refer to its operating instructions.

Bluetooth operation

1. To use Bluetooth functions, your mobile phone must have a Bluetooth interface, hands-free functions and be compatible with this device.
2. To use the Bluetooth function, you must pair your mobile phone with this device. See the pairing section below. Before pairing and connecting the phone to the device, make sure that the battery is sufficiently charged.
3. Do not pair the phone until the phone has been switched on for a long time.
4. The identification of this device is "AR122" (appears 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 obstructions between the phone and the device.
7. Do not place metal objects or other obstructions between the phone and the device.
8. Some phones may have "Power Saving Mode" when Bluetooth is active. Disable this mode on your phone. Otherwise, communication between the phone and the device may be incorrect.
9. Before making an outgoing or incoming call, Bluetooth must be turned on.
10. For best call quality, place your phone within about 1 meter of the device.
11. To disconnect your phone from your device, turn off Bluetooth on your phone.
12. Some phones support "Broadband Ringtones".
In this case, the ring signal on the radio will be the same as that set on the phone. However, some phones do not support this feature. In this case, the ring signal on the radio will be standard.
13. We recommend setting the volume level to a lower value when making a call. This results in higher sound quality. At higher volume, echo and feedback can be generated with microphone.
14. If Bluetooth operations do not work normally, eg. pairing fails, outgoing call cannot be made, etc., reset the Bluetooth module by turning the device off and on.

Overview of controls for use with Bluetooth and phones

If you want to use the Bluetooth functions, you can use the following controls that have the following functions to control them and control your calls.

- 1 Button /MOD (1)
Press during ringing: Answer an incoming call
Push and hold: Transfer a call from the radio back to the phone during a call.
- 2 Button /BAND/AMS (7)
Press: Reject an incoming call Press during a call: End 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 HSP and HFP compatible mobile phone.
- 2 Make a call from your mobile phone via the Bluetooth wireless interface.
- 3 Listen to music via the Bluetooth wireless interface from an audio device or A2DP and AVRCP compatible mobile phone.

Bluetooth operation

Pairing

Pair your mobile phone with a Bluetooth device

Notes:

- o Pairing is required when connecting this unit to another Bluetooth device for the first time. You will not need to pair again after pairing. The next time you connect another device to this device, it automatically connects via the Bluetooth interface.
- o This device can be paired 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 are automatically paired at the same time.

Mobile phone pairing

- o Turn on Bluetooth on your phone (see your phone's instruction manual for instructions).
- o Look up the list of Bluetooth devices found on your phone (see your phone's instruction manual for instructions).
- o Your phone should display "AR122". Select "AR122" and continue pairing.
- o And the phone will ask you to enter the code, enter the code "0000". This code must then be the same on both devices.
- o If the pairing has been successful, the BT icon will light up on the display when the Bluetooth output mode is selected. If no pairing has occurred, the BT icon will flash in this mode. The display returns to the previous mode automatically.

Notes:

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

Bluetooth system connection

The device has an automatic link feature. However, sometimes you need to do the link manually. E.g. in the following cases;

- o Your phone is out of range (2 meters from the device). The connection is lost and a call is in progress, or during a call, the user moves away from the device more than 2 meters away and returns. If the user wants to transfer the call sound from the phone back to the device, they must do so manually. Connection is only possible with paired devices!
To reconnect, use Menu and select the reconnect item.

Disconnecting the Bluetooth system


To disconnect a Bluetooth device, follow these steps:

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

Incoming call


Answering an incoming call

- o If an incoming call is recorded, the caller's number appears on the display and a ringing tone sounds.

- o Press to answer the call /BAND/AMS (7).

Note:


The sound of the source you are listening to will be muted and a ring will sound until you answer the call. Media playback pauses playback. When a call is received, the sound of the call is reproduced from the car speakers. Talk toward the built-in microphone in the car radio.

- o You can adjust the call volume by turning the volume knob.
- o To end the call, press /MOD (1). The call ends and the sound automatically turns on and the previous audio source is restored.


Notes:

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


End a call

- o To end the call, press /MOD (1). The device will automatically return to the previous mode.

Reject an incoming call

- o You can reject an incoming call by pressing /MOD (1).

Note:




The sound of the source you are listening to will be muted and a ring will sound until you answer the call. Press /MOD (1) to turn on the sound and restore the previous sound source.

Outgoing call

Making an outgoing call


- o Make a call from your mobile phone. Select a number from the list.
- o After entering the number, press /BAND/AMS (7) to start dialing.

Notes:

- o The sound of the audio source you are listening to will be muted when you press the button /BAND/AMS (7) .
- o You can adjust the call volume by turning the volume knob.
- o To end the call, press /MOD (1). Automatically turns on the sound and restores the previous audio source.
- o If you switch off the ignition during a call, the call will continue. After the call you have to press /MOD (1) to turn off the call and the device.

Call transfer

Transfer a call from your device back to your phone

- o During a call, press and hold /BAND/AMS (7).

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

Notes:

- o If you are making an outgoing call, you cannot transfer the call if the called party has not answered. You can only transfer the call when the called party answers.
- o Depending on your phone, it may take different time to transfer the call. On some phones, the call may not be transferred.

Bluetooth Audio Stream A2DP (Advanced Audio Distribution Profile)


With this device, you can reproduce the sound from another paired one and a connected Bluetooth audio device that supports the A2DP (Advanced Audio Distribution Profile) Bluetooth technology.

Connect a Bluetooth audio device to this device

Before playing from another Bluetooth audio device (mobile phone), you must pair and connect the device to this device.

- o See the pairing procedure for the pairing procedure. o See the linking procedure for the linking procedure.
- o If the paired Bluetooth device has both HFP (Hands Free Profile) and A2DP (Advanced Audio Distribution Profile) profile, both profiles are automatically paired at the same time. E.g. if the mobile phone has both HFP (Hands Free Profile) and A2DP (Advanced Audio Distribution Profile) profiles and this mobile phone is already paired for the HFP profile with this device, pairing for the A2DP profile is not necessary.

Play audio from another Bluetooth audio device through this device

- o Pair the Bluetooth audio device and connect it to this device. See the pairing procedure for pairing procedure.
Refer to the section on how to connect.
- o Press /MOD (1) the gear button, MODE (17) on the remote control or in the application until "BT" appears on the display.

Warning:

To enable Bluetooth audio streaming from another audio device, you must first select "BT" mode. In another mode, the Bluetooth audio stream (A2DP) function 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 audio device is connected to the device, after switching to "BT" mode, you can play songs from the connected Bluetooth audio device through this device. For information on how to control playback on a Bluetooth audio device, refer to its operating instructions.

Control another Bluetooth audio device with this AVRCP (Audio Video Remote Control Profile)

With this device, you can control other paired and connected Bluetooth audio devices (mobile phone) that support the Bluetooth Audio Video Remote Control Profile (AVRCP).



Supported features are:

1 Start playback


After switching to "BT" mode, this unit 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 unit to "BT" mode, you will need to start playback directly on the connected Bluetooth audio device.

2 Switching tracks

Use the track reverse/forward /  buttons on the device, on the remote control, and in the application to switch songs on your phone.

3 Pause/Play

Use 1/PAU (8) on the device or  (8) on the remote control and in the app to start playback/ pause playback on the connected phone.


4 Adjust the volume

Use the control dial on this unit.

5 Mute the sound

Use the MUTE button on the remote control or in the application.

6 Stop playback

Use the button /MOD (1) on this unit or MODE (17) on the remote control and the application to switch to another audio source.

The control over the AVRCP profile varies depending on the connected Bluetooth audio device. Other than the above operations must be performed directly on the connected Bluetooth audio device.

Hands-free calling during Bluetooth audio stream

If a Bluetooth audio playback device is connected to a mobile phone, all hands-free telephone functions (answer / reject / call, etc.) are available during Bluetooth audio signal flow.

Disconnect the connected Bluetooth audio device

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

Troubleshooting

The following overview will help you find the cause of the problem you may encounter while using your device.

Make sure that the connections and controls are correct before performing the recommended actions.

Generally

The controls do not work.

Check the connections.

Don't hear sound.

Adjust the volume.

Cancel the mute function.

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

Memory contents are cleared.

Save all settings again.

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

The stored stations and clock settings are cleared.

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

When you turn the ignition key to ON, ACC, or OFF, you will hear a disturbing sound.

Cables are not properly connected in the car power connector.

The device is not powered.

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

The electrical pull-out antenna does not extend.

The electrical antenna is not equipped with a switching relay. Check the electrical extension antenna connection.

Sound

No sound.

- , The connecting cable is not connected securely.
- , The connecting cable is damaged.
- , The audio connecting cable is damaged. Replace it with a new one.
- , The unit is switched to pause mode or. Press ►|| to resume normal playback.
- , The device is in fast forward or fast reverse mode. Press ►|| to resume normal playback.
- , Check the speaker connections.

The sound is poor (noisy).

- , Check that the speakers and components are connected correctly.
- , Check that the connecting cables are not near the transformer or motor.
- , The cable end and 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 unit.
 - , The distance between the remote and the unit is too far.
 - , You are not pointing the remote to the remote sensor on the unit.
 - , The battery in the remote control is low.
-

The device is not working properly.

- , Static electricity, etc. it may affect the correct operation of the equipment. Unplug the device, reconnect it after about a minute, and then turn it on again

Radio reception

Unable to tune stored stations

Store the correct frequencies in memory.

The broadcast signal is too weak.

Stations are not available.

Sound is distorted by noise.

Check the auto antenna connection. Auto-tuning is not possible.

The broadcast signal is too weak.

Tune in the station manually.

Bluetooth

Unable to pair phone and device.

Confirm the AR122 on your phone and enter the same code on both devices. The phone is not compatible with the device.

Unable to link.

The phone is not compatible with the device.

Important Notice!

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

This is not a malfunction!

If you still cannot resolve the problem after taking the recommended actions, please contact the seller.

Technical specifications

MP3/WMA player

System	MP3/WMA kodek
Frequency range	20 - 20 000 Hz
Number of channels	2 stereo channels
Signal-to-noise ratio	More than 65 dB

Audio

Output power	4 x 60 W (max)
Load impedance	4-8 Ohm
Line Output (4x RCA)	650 mV (MAX)

AUX input

Distortion	0.5%
Frequency range	100-15000 Hz
Connectors	1x input mini audio connector

Tuner

FM band

Frequency response	30 Hz - 10 kHz
Tuning range	87.5-108.0 MHz
intermediate frequency	10 MHz
Sensitivity	Less than 22 dBf
Signal-to-Noise Ratio	More than 60 dB
Distortion	Less than 1%

AM band

Tuning range	520-1620 kHz
--------------	--------------

Bluetooth

Power input	0,03 mA
Output Power	max. 3 dBm, min. 30 dBm
Frequency band	2.4 GHz ~ 2.4835 GHz, ISM band
Range	3 m (open area)
Bluetooth	4.0 Specification Standard

Generally

Operating temperature	-20 ° C to + 75 ° C
Operating humidity	30% až 70% RV
Power supply	DC 12 V (from car battery)
Polarity	Negative Ground (-)
Operating voltage	DC 12-16 V (from car battery)
Max. current load	10 A
Speaker impedance	4-8 Ohm
Power	4 x 60 W (max)
Dimensions (W x H x D)	18.8 x 10.5 x 5 cm (with panel)
Weight	0.4 kg (with accessories)

Subject to change!

Producer:

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

Importer:

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

ORAVA distribution CZ, s.r.o.
Ostravská 494
739 25 Sviadnov
Česká republika



DISPOSAL OF USED ELECTRICAL AND ELECTRONIC Device

The symbol on the product or on its packaging indicates that this product does not belong to household waste. It is necessary to take it to a collection point for electrical recycling and electronic device.

By ensuring proper disposal of this product, you will help prevent negative consequences to the environment and human health that would otherwise be caused by inappropriate disposal of this product. For more detailed information about recycling of this product, please contact your local authority, your household waste disposal service or the shop where you purchased the product.



This product meets 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-122 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