ROTEL®

RA-12, RA-11

Stereo Integrated Amplifier
Amplificateur Stéréo Intégré
Stereo-Vollverstärker
Amplificador Integrado Estereofónico
Amplificatore integrato stereo
Geïntegreerde Stereoversterker
Integrerad stereoförstärkare
Стерео интегрированный усилитель

Owner's Manual
Manuel de l'utilisateur
Bedienungsanleitung
Manual de Instrucciones
Manuale di istruzioni
Gebruiksaanwijzing
Instruktionsbok
Инструкция пользователя

Important Safety Instructions

Notice
The rear mini USB connection should be handled by authorized persons only.

WARNING: There are no user serviceable parts inside. Refer all servicing to qualified service personnel.

WARNING: To reduce the risk of fire or electric shock, do not expose the unit to moisture or water. Do not expose the unit to dripping or splashing. Do not place objects filled with liquids, such as vases, on the unit. Do not allow foreign objects to get into the enclosure. If the unit is exposed to moisture, or a foreign object gets into the enclosure, immediately disconnect the power cord from the wall. Take the unit to a qualified service person for inspection and necessary repairs.
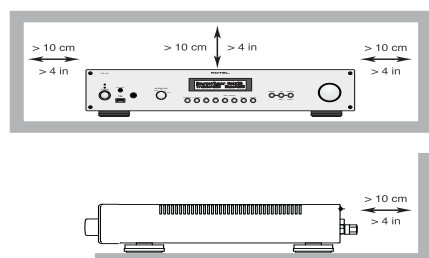
Read all the instructions before connecting or operating the component.

Keep this manual so you can refer to these safety instructions.

Heed all warnings and safety information in these instructions and on the product itself. Follow all operating instructions.

Clean the enclosure only with a dry cloth or a vacuum cleaner.

Do not use this unit near water.

You must allow a minimum 10 cm or 4 inches of unobstructed clearance around the unit.

Do not place the unit on a bed, sofa, rug, or similar surface that could block the ventilation openings. If the unit is placed in a bookcase or cabinet, there must be ventilation of the cabinet to allow proper cooling.

Keep the component away from radiators, heat registers, stoves, or any other appliance that produces heat.

The unit must be connected to a power supply only of the type and voltage specified on the rear panel. (USA: 120 V/60Hz, EC: 230V/50Hz)

Connect the component to the power outlet only with the supplied power supply cable or an exact equivalent. Do not modify the supplied cable. A polarized plug has two blades, with one wider than the other. A grounding plug has two blades plus a third grounding prong. These are provided for your safety. Do not defeat grounding and/or polarization safety provisions. If the supplied plug does not fit your outlet, please consult an electrician for replacement of the obsolete outlet. Do not use extension cords.

The main plug of the power cordset is a disconnect device of the apparatus. In order to completely disconnect the apparatus from the supply mains, the main plug of the power cordset should be unplugged from the mains (AC) outlet.The stand-by LED indicator will not be lit up to show the power cord is unplugged. The disconnect device shall remain readily operable.

Do not route the power cord where it will be crushed, pinched, bent, exposed to heat, or damaged in any way. Pay particular attention to the power cord at the plug and where the cord exits the back of the unit.

The power cord should be unplugged from the wall outlet during a lightning storm or if the unit is to be left unused for a long period of time.

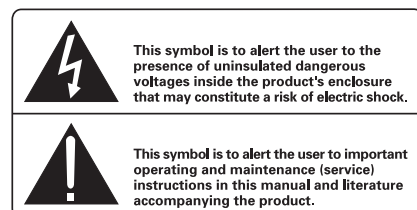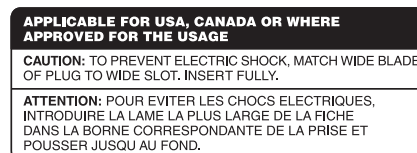Use only accessories specified by the manufacturer.

Use only with a cart, stand, rack, bracket or shelf system recommended by Rotel. Use caution when moving the unit in a stand or rack to avoid injury from a tip-over.

Immediately stop using the component and have it inspected and/or serviced by a qualified service agency if:
• The power supply cord or plug has been damaged
• Objects have fallen or liquid has been spilled into the unit
• The unit has been exposed to rain
• The unit shows signs of improper operation
• The unit has been dropped or damaged in any way

Please use Class 2 Wiring when connecting the speaker terminals of the unit to ensure proper insulation and minimize the risk of electrical shock.

The batteries in the remote control shall not be exposed to excessive heat such as sunshine, fire or the like.

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER. NO USER-SERVICEABLE PARTS INSIDE REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

APPLICABLE FOR USA, CANADA OR WHERE APPROVED FOR THE USAGE

CAUTION: TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT. INSERT FULLY.

ATTENTION: POUR EVITER LES CHOCS ELECTRIQUES, INTRODUIRE LA LAME LA PLUS LARGE DE LA FICHE DANS LA BORNE CORRESPONDANTE DE LA PRISE ET POUSSER JUSQU AU FOND.

This symbol is to alert the user to the presence of uninsulated dangerous voltages inside the product's enclosure that may constitute a risk of electric shock.

This symbol is to alert the user to important operating and maintenance (service) instructions in this manual and literature accompanying the product.

Rotel products are designed to comply with international directives on the Restriction of Hazardous Substances (RoHS) in electrical and electronic equipment and the disposal of Waste Electrical and Electronic Equipment (WEEE). The crossed wheelie bin symbol indicates compliance and that the products must be appropriately recycled or processed in accordance with these directives.

This symbol means that this unit is double insulated. An earth connection is not required.

Place the unit on a fixed, level surface strong enough to support its weight. Do not place it on a moveable cart that could tip over.

Figure 1-1:   Controls and Connections
               Commandes et Branchements
               Bedienelemente und Anschlüsse
               Controles y Conexiones
               Controlli e connessioni
               De bedieningsorganen en aansluitingen
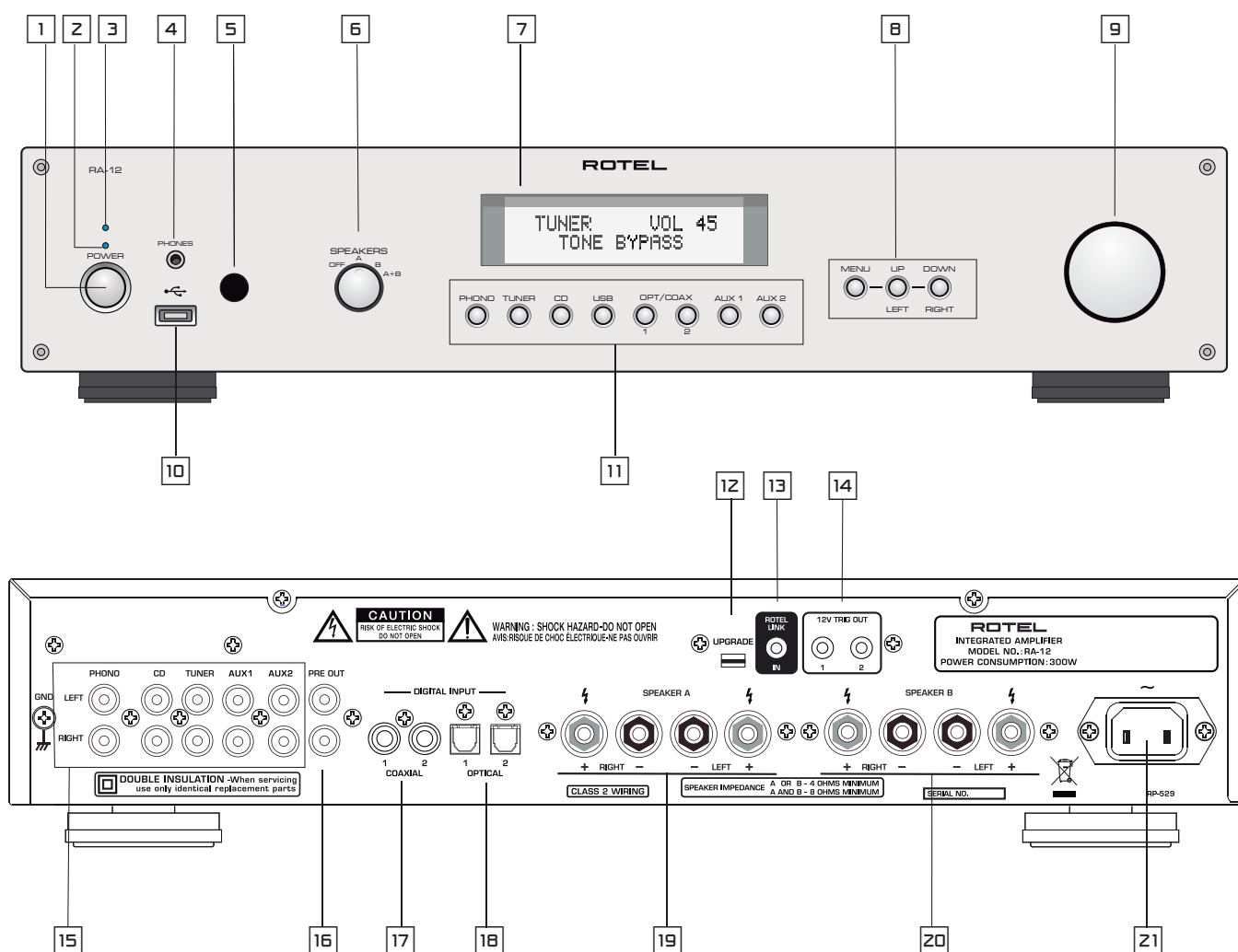   Kontroller och anslutningar
               Органы управления и разъемы

Figure 1-2:   Remote Control RR-AX91
              Télécommande infra-rouge RR-AX91
              Fernbedienung RR-AX91
              Mando a Distancia RR-AX91
              Telecomando RR-AX91
              De afstandsbediening RR-AX91
              Fjärrkontroll RR-AX91
              Пульт ДУ RR-AX91
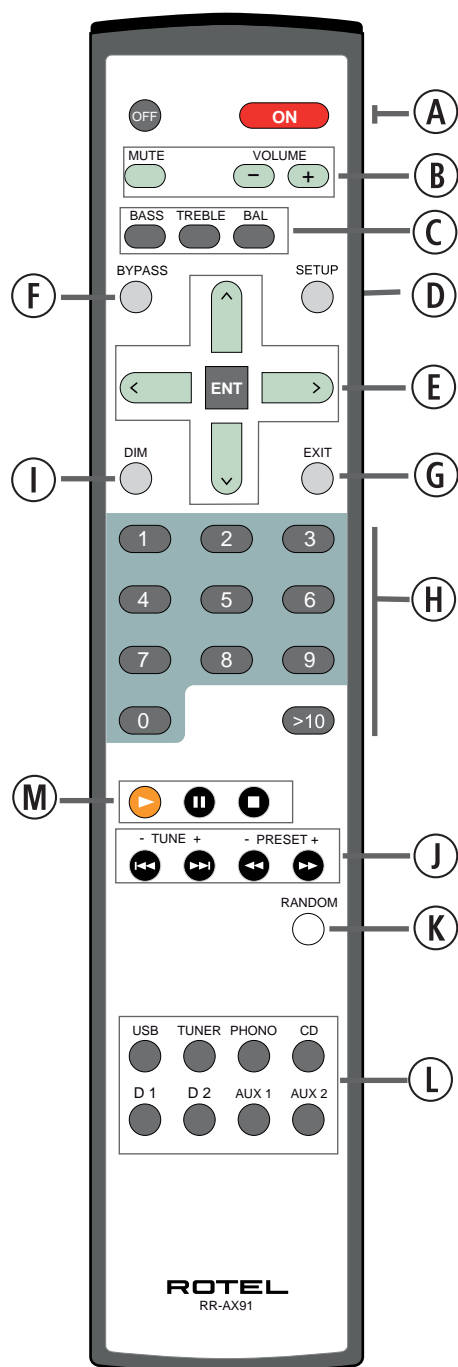
Figure 2: Preamp Input and Speaker Output Connections
Branchements des entrées sources et sorties enceintes acoustiques
Anschlussdiagramm
Conexiones para Entrada de Señal y Salida a las Cajas Acústicas
Collegamenti ingressi e diffusori
De signaalingangen en de luidsprekeruitgangen
Signal- och högtalaranslutningar
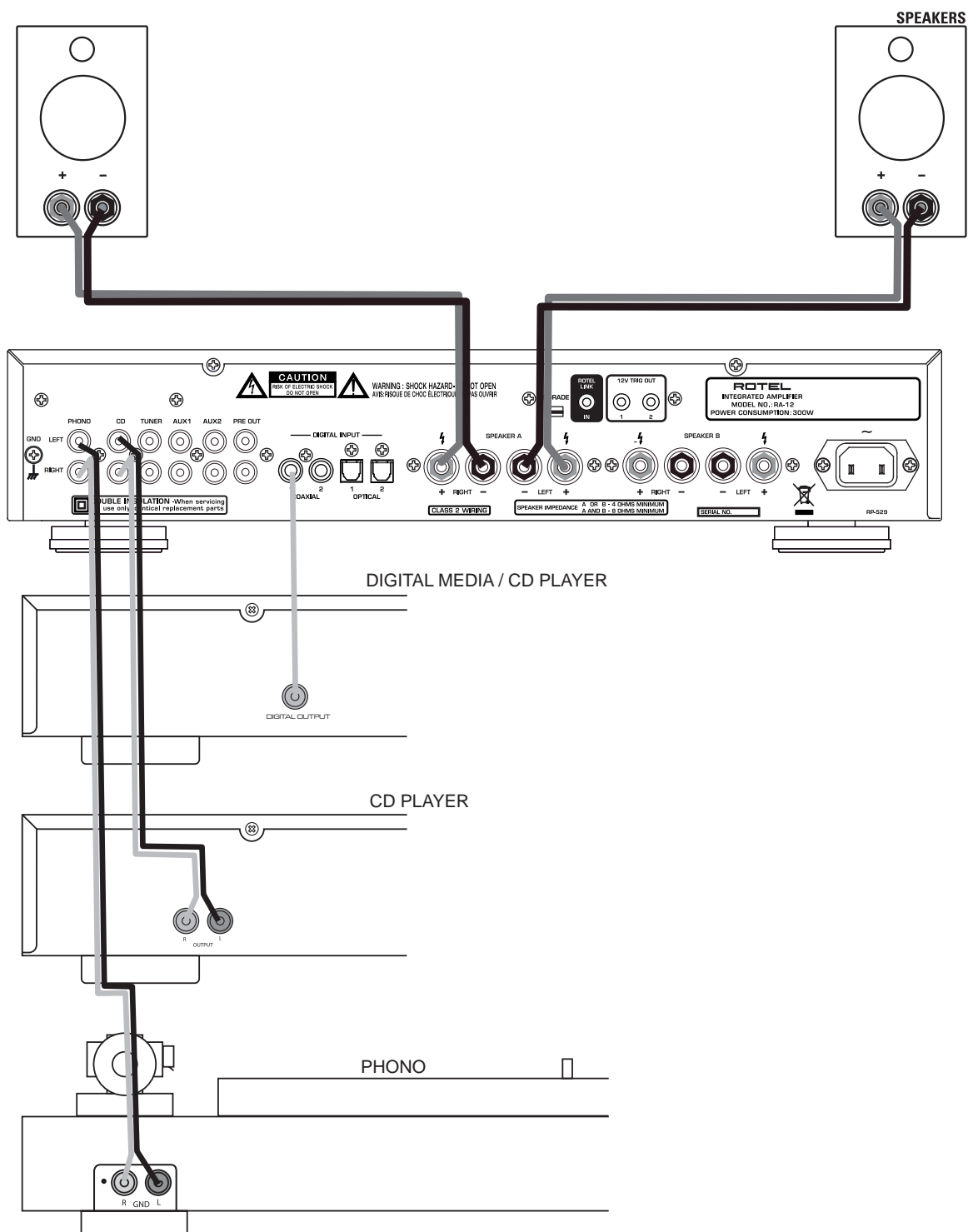Подсоединение источников сигнала и акустических систем

Figure 3: ROTEL LINK and 12V Trigger Connections
          Branchements ROTEL LINK et trigger 12 V
          ROTEL LINK- und 12V-Trigger-Anschlüsse
          Conexiones ROTEL LINK y para Señal de Disparo de 12V

Collegamenti Rotel Link e segnali Trigger 12 V
De ROTEL LINK en 12V trigger aansluitingen
ROTEL LINK-anslutning och 12 V-anslutning för styrsignal
Подсоединение ROTEL LINK и 12-В триггерного сигнала

Important! : The 12V trigger cables will override the Rotel Link commands. Do not connect the 12V trigger cable if Rotel Link is connected.

Important : Les connexions trigger 12v sont prioritaires sur les commandes Rotel Link. Ne branchez pas de câble trigger 12 V si une connexion Rotel Link a été réalisée.

Wichtig! Die 12V-Trigger-Kabel umgehen die Rotel Link-Befehle. Schließen Sie kein 12V-Trigger-Kabel an, wenn die Rotel Link-Verbindung hergestellt wurde.
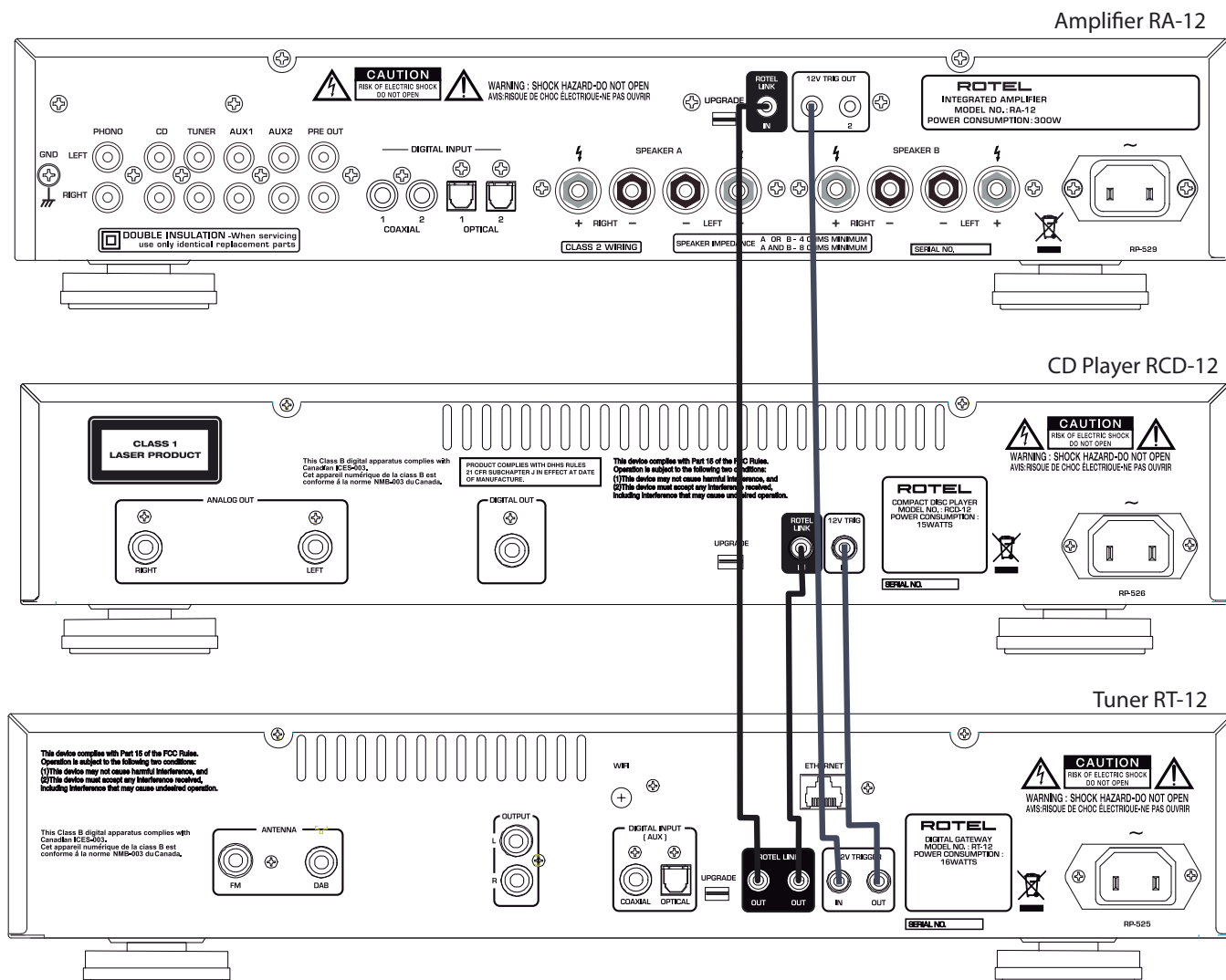
¡Importante!: Los cables para señal de disparo de 12V bloquearán las órdenes de control vía Rotel Link. Por lo tanto, cuando el Rotel Link esté conectado no conecte ningún cable para señal de disparo de 12V.

Importante! I segnali Trigger 12 V hanno la precedenza sui comandi Rotel Link, pertanto non effettuare i collegamenti Trigger 12 V se si utilizza il bus Rotel Link.

Belangrijk: De 12V trigger aansluitingen hebben voorrang op de ROTEL LINK opdrachten. Sluit dus niet de 12V triggerkabel en ROTEL LINK tegelijkertijd aan.

Viktigt! Kablarna för 12 V styrsignaler åsidosätter Rotel Link-kommandon. Anslut inte kablar för 12 V styrsignal om det finns en Rotel Link-anslutning.

Внимание! : 12-В триггерный сигнал имеет приоритет над командами шины Rotel Link. Не подсоединяйте кабель 12-В триггерного сигнала, если уже сделано соединение по Rotel Link.

Amplifier RA-12

CD Player RCD-12

Tuner RT-12

Contents

About Rotel

Our story began 50 years ago. Over the decades, we have received hundreds of awards for our products and satisfied hundreds of thousands of people who take their entertainment seriously – like you.

Rotel was founded by a family whose passionate interest in music led them to manufacture high-fidelity components of uncompromising quality.

Through the years, that passion has remained undiminished and the family goal of providing exceptional value for audiophiles and music lovers, regardless of their budget, is shared by all Rotel employees.

Rotel's engineers work as a close team, listening to, and fine tuning, each new product until it reaches their exacting musical standards. They are free to choose components from around the world in order to make that product the best they can. You are likely to find capacitors from the United Kingdom and Germany, semiconductors from Japan or the United States, while toroidal power transformers are manufactured in Rotel's own factory.

We all have concerns about our environment. And, as more and more electronics are produced and later discarded, it is especially important for a manufacturer to do all it can to engineer products that have a minimum negative impact on landfill sites and water tables.

At Rotel, we are proud to do our part. We have reduced the lead content in our electronics by using special ROHS solder, while our new Class D (not digital) amplifiers are up to five times more efficient than our legacy designs and still deliver power and performance. These products run cool, give minimum wasted energy, are good for the environment and give better sound too.

Finally, we have printed this brochure on recycled paper stock.

While we understand that these are small first steps, they are still important ones. And we continue to pursue new methods and materials for a cleaner and greener manufacturing process.

All of us at Rotel thank you for buying this product. We are sure it will bring you many years of enjoyment.

Getting Started

Thank you for purchasing the Rotel RA-12/RA-11 Stereo Integrated Amplier. When used in a high-quality music audio system, it will provide years of musical enjoyment.

This amplifier is a full featured, high performance component. All aspects of the design have been optimized to retain the full dynamic range and subtle nuances of your music. The unit has a highly regulated power supply incorporating a Rotel custom-designed toroidal power transformer. This low impedance power supply has ample power reserves, which enables the amplifier to easily reproduce the most demanding audio signals. This type of design is more expensive to manufacture, but it is better for the music.

The printed circuit boards (PCB) are designed with Symmetrical Circuit Traces. This insures that the precise timing of the music is maintained and faithfully recreated. The circuitry uses metal film resistors and polystyrene or polypropylene capacitors in important signal paths. All aspects of this design have been examined to ensure the most faithful music reproduction.

The main functions of the RA-12 and RA-11 are easy to install and use. If you have experience with other stereo systems, you shouldn't find anything perplexing. Simply plug in the associated components and enjoy.

NOTE: *The operations and feature of RA-12 and RA-11 are the same. The illustrations in the manual use the RA-12 as an example, but all sockets and buttons are the same on the RA-11.*

A Few Precautions

WARNING: *To avoid potential damage to your system, turn off ALL the components in the system when connecting or disconnecting the loudspeakers or any associated components. Do not turn the system components back on until you are sure all the connections are correct and secure. Pay particular attention to the speaker wires. There must be no loose strands that could contact the other speaker wires, or the chassis of the amplifier.*

Please read this manual carefully. It provides information on how to incorporate the RA-12/RA-11 into your system as well as information that will help you get optimum sound performance. Please contact your authorized Rotel dealer for answers to any questions you might have. In addition, all of us at Rotel welcome your questions and comments.

Save the shipping carton and all enclosed packing material for future use. Shipping or moving the amplifier in anything other than the original packing material may result in severe damage to your amplifier.

Fill out and send in the owner's registration card packed with the unit. Also be sure to keep the original sales receipt. It is your best record of the date of purchase, which you will need in the event warranty service is ever required.

Placement

Like all audio components that handle low level signals, this amplifier can be affected by its environment. Avoid placing the unit on top of other components. Also avoid routing audio signal cables near power cords. This will minimize the chance it will pick up hum or interference.

The unit generates heat as part of its normal operation. The heat sinks and ventilation openings in the amplifier are designed to dissipate this heat. The ventilation slots in the top cover must be open. There should be 10 cm (4 inches) of clearance around the chassis, and reasonable airflow through the installation location, to prevent the amplifier from overheating.

Remember the weight of the amplifier when you select an installation location. Make sure that the shelf or cabinet can support it. We recommend installing the unit in furniture designed to house audio components. Such furniture is designed to reduce or suppress vibration which can adversely affect sound quality. Ask your authorized Rotel dealer for advice about component furniture and proper installation of audio components.

Cables

Be sure to keep the power cords, digital signal cables and regular audio signal cables in your installation away from each other. This will minimize the chance of the regular audio signal cables picking up noise or interference from the power cords or digital cables. Using only high quality, shielded cables will also help to prevent noise or interference from degrading the sound quality of your system. If you have any questions see your authorized Rotel dealer for advice about the best cable to use with your system.

The RR-AX91 Remote Control

Some functions can be done with either the front panel controls, or the supplied RR-AX91 remote control. When these operations are described, the square call out numbers refer to the main unit, while the encircled letters refer to the remote control.

Second Amplifier Remote Code

The factory setting is remote code 1. If you find that the remote is conflicting with other Rotel amplifiers, you can change to remote code 2 with the following steps.

1. From the remote control press Tuner Ⓛ and 2Ⓗ at the same time to set the remote control to send Audio Code 2.

2. Point the remote at the unit and press 2Ⓗ key for 5 seconds. The unit will show 'Audio Custom Code 1 -> 2'.

3. Repeat the above procedure and press '1' key instead of '2' to change the unit back to Code 1.

NOTE: *The remote control can be used to operate the basic functions of Rotel tuners and CD players. Remote control keys labeled Ⓗ Ⓜ Ⓙ Ⓚ can be used to operate CD or Tuner functions in your system. For the remote to operate properly, make sure both the remote and the CD or Tuner are both in same remote code, either Code 1 or 2.*

AC Power and Control

AC Power Input 〔21〕

The unit does not draw high levels of current from the power outlet. However, whenever possible, it should be plugged directly into a 2-pin polarized wall outlet. Do not use an extension cord. A heavy duty multi-tap power outlet strip may be used if it (and the wall outlet) can handle the current demanded by the amplifier and all the other components connected to it.

Your unit is configured at the factory for the proper AC line voltage in the country where you purchased it (either 120 volts AC or 230 volts AC with a line frequency of either 50 Hz or 60 Hz). The AC line configuration is noted on a decal on the back panel.

NOTE: *Should you move your amplifier to another country, it is possible to reconfigure it for use on a different line voltage. Do not attempt to perform this conversion yourself. Opening the enclosure of the unit exposes you to dangerous voltages. Consult a qualified service person or the Rotel factory service department for information.*

NOTE: *Some products are intended for sale in more than one country and as such are supplied with more than one AC cord. Please only use the one appropriate for your country/region.*

If you are going to be away from home for an extended period of time such as a month-long vacation, it is a sensible precaution to unplug your amplifier (as well as other audio and video components) while you are away.

Power Switch 1 Ⓐ and Power Indicator 2

Press the front panel Power Switch button, to turn the unit on. The Power Indicator light is illuminated when the unit is on. Press Power Switch button again to turn the unit off.

When the power switch is in the ON position, the remote control ON and OFF buttons may be used to activate the RA-11/RA-12. In Standby mode the power LED remains lit, but the display is turned OFF.

Input Signal Connections

[See Figure 2.

NOTE: *To prevent loud noises that neither you nor your speakers will appreciate, make sure the system is turned off when you make any signal connections.*

Phono Input 15 and Ground Connection (GND)

Plug the cable from the turntable into the appropriate left and right phono inputs. If the turntable has a "ground" wire, connect it to the screw terminal to the left of the Phono inputs. It will help prevent hum and noise.

Line Level Inputs 15

The CD, Tuner, and Aux inputs of the amplifier are "line level" inputs. These are for connecting components such as CD players, Hi Fi or NICAM Stereo video cassette recorders, tuners, Laser Disc players or the analog output from a CD-ROM drive.

The Left and Right channels are labeled and should be connected to the corresponding channels of the source component. The Left connectors are white, the Right connectors are red. Use high quality RCA cables for connecting input source components to the unit. Ask your authorized Rotel dealer for advice about cables.

Digital Signal Inputs 17 18

[See Figure 2.]

There are two sets of digital inputs labeled COAXIAL and OPTICAL. Connect the COAXIAL or OPTICAL outputs of your player into these sockets. The digital signals will be decoded and played by the amplifier. The unit is capable of decoding PCM signals up to 24 bit, 192kHZ.

Preamp Outputs 16

The amplifier has a set of preamp outputs. The signal from the source selected with the Function Selector is always available from these outputs. Typically these outputs are used to provide a signal to another integrated amplifier or power amplifier, which is used to drive remote speakers

NOTE: *Changes to the settings of the Volume, Balance or Tone controls affect the signal from the Preamp Outputs.*

Speaker Outputs 19 20
Speaker Selector Switch 6

[See Figure 2.]

The amplifier has two sets of speaker outputs, labeled "A" 19 and "B" 20.The speaker outputs are controlled by the switch 6 on the front panel.

Speaker Selection

If only one set of speakers will be used at any given time, the speakers may have an impedance as low as 4 ohms. If there are times when both the A and B speakers will be used, all the speakers should have an impedance of 8 ohms or more. Speaker impedance ratings are less than precise. In practice, very few loudspeakers will present any problems for the unit. See your authorized Rotel dealer if you have any questions.

Speaker Wire Selection

Use insulated two-conductor stranded wire to connect the unit to the speakers. The size and quality of the wire can have an audible effect on the performance of the system. Standard speaker wire will work, but can result in lower output or diminished bass response, particularly over longer distances. In general, heavier wire will improve the sound. For best performance, you may want to consider special high-quality speaker cables. Your authorized Rotel dealer can help in the selection of cables for your system.

Polarity and Phasing

The polarity – the positive/negative orientation of the connections – for every speaker and amplifier connection must be consistent so all the speakers will be in phase. If the polarity of one connection is reversed, bass output will be very weak and stereo imaging degraded. All wire is marked so you can identify the two conductors. There may be ribs or a stripe on the insulation of one conductor. The wire may have clear insulation with different color conductors (copper and silver). There may be polarity indications printed on the insulation. Identify the

positive and negative conductors and be consistent with every speaker and amplifier connection.

Speaker Connection
Turn off all the components in the system before connecting the speakers. The amplifier has color-coded binding post type speaker connectors on the back panel. These connectors accept bare wire, connector lugs, or dual banana type connectors. (except in European Community countries where their use is not permitted)

Route the wire from the amplifier to the speakers. Give yourself enough slack so you can move the components to allow access to the speaker connectors. If you are using dual banana plugs, connect them to the wires and then plug into the backs of the binding posts. The thumbscrews of the binding posts should be screwed in all the way (clockwise).

If you are using terminal lugs, connect them to the wires. If you are attaching bare wires directly to the binding posts, separate the wire conductors and strip the insulation from the end of each conductor. Be careful not to cut into the wire strands. Unscrew (turn counterclockwise) the binding post thumbscrews. Place the connector lug or wire around the binding post shaft. Turn the thumbscrews clockwise to clamp the connector lug or wire firmly in place.

NOTE: *Be sure there are no loose wire strands that could touch adjacent wires or connectors.*

Phones Output 4

The Phones output allows you to connect headphones for private listening. This output accommodates standard stereo phone (1/8") plugs. Plugging in a set of headphones does not cut off the signal to the outputs. Use the Speaker Selector to turn off the speakers. The settings of the Function Selector determines which source is heard.

NOTE: *Because the sensitivity of speakers and headphones can vary widely, always reduce the volume level before connecting or disconnecting headphones.*

Remote Sensor 5

This remote sensor window receives IR commands from the remote control. Please do not block this sensor.

Display 7

The front panel display shows the source selected, volume level and tone settings.

USB Input 10

The front USB input can be connected to a iPod, iPhone, MP3 players or a Bluetooth dongle (supplied) for wireless streaming. With iPod or iPhones, simply plug the device into the front USB and select USB function from the source selector. The iPod, iPhone remains active.

Search and play tracks as usual and the music will be played through the Rotel system.

Bluetooth Dongle
Insert the supplied Bluetooth Dongle into the front USB for wireless streaming via Bluetooth, from your device (i.e. mobile phones) to the amplifier. From your mobile device, look for "Rotel Bluetooth" and connect to it. Connection is normally automatic, but if prompted for a password, please press "0000" then press ENT on the remote and your device.

Audio Controls

Volume Control 9 Ⓑ
Turn the controls clockwise to increase the volume, or counter clockwise to decrease the volume. From the remote control press the volume + or - key to turn the volume up or down. Press the MUTE key to completely mute the volume.

Balance Control 8 Ⓒ
The Balance Control adjusts the left-to-right balance of the sound output. The factory default is the center position or "0". To change the balance from the front panel, press the MENU 8 key to toggle the front display to BALANCE SETTING mode. Then press the LEFT or RIGHT keys on the front panel to change the value to LEFT or RIGHT. The value can change from L15 to R15. From the remote, press the BAL Ⓒ key to access the BALANCE SETTING menu, the press the LEFT or RIGHT key to adjust. When finished, press the EXIT Ⓖ key to exit the menu.

Tone Control Bypass 8 Ⓕ
Bass and Treble Control (Tone Control) circuits are bypassed at factory default to ensure the purest possible sound. The front display will show TONE BYPASS. To turn on the tone control, press the BYPASS Ⓕ key on the remote control. From the front panel press the MENU 8 key to toggle to the Bypass control then press the LEFT or RIGHT keys to turn bypass on or off.

Bass and Treble Controls 8 Ⓒ
Set the Bass or Treble controls from the front panel by pressing the MENU 8 key to toggle to either the Bass or Treble Setting menu. Then press the LEFT or RIGHT key to adjust the value. The Bass and Treble values range from -4 to +4. From the remote control, press the Bass or Treble key Ⓒ, then press the LEFT or RIGHT keys on the remote to adjust the value.

A properly setup high-performance audio system produces the most natural sound with little or no adjustment of the tone controls. Use these controls sparingly. Be particularly careful when turning the controls up. This increases the power output in the bass or treble range, increasing the load on the amplifier and speakers.

NOTE: *Setting the Bass and Treble controls do not automatically turn on the tone control. To turn on tone control, refer to previous section Tone Control Bypass.*

Function Control 11 Ⓛ
The Function control selects the input signal source. From the front panel or remote press the corresponding input key to select the source to listen to.

ROTEL LINK 13

[See Figure 3 .]
This amplifier is capable of linking with other Rotel Link enabled products in the series. Connect the 3.5mm cable from the ROTEL Link Output of the Digital Gateway RT-12. This allows the unit to be controlled through the IP remote developed by ROTEL.

12V Trigger Outlet 14

[See Figure 3 .]
Some audio components can be turned on automatically when they receive a 12V turn on "signal". The two12V Trigger Outputs of the RA-11/RA-12 provide the required signal. Connect compatible components to the amplifier with a conventional 3.5mm mini plug cable. When the unit is turned off, the trigger signal is interrupted, and the components controlled by it are turned off.

NOTE: *If you are using other units in the series with Rotel link, please use the Rotel Link connection to turn the units on or off. Do not connect both the Rotel Link and 12V trigger cables. The 12V trigger's power on or off features will override the Rotel Link features.*

Rear USB Upgrade 12

The rear mini USB socket labeled UPGRADE is for updating the internal firmware when necessary and should be handled by a certified technician.

Protection Indicator 3

The amplifier has both thermal and over-current protection circuitry that protects the amplifier against damage in the event of extreme or faulty operating conditions. The protection circuits are independent of the audio signal and have no impact on sonic performance. Instead, the protection circuits monitor the temperature of the output devices and shut down the amplifier if temperatures exceed safe limits.

Most likely, you will never see this protection circuitry in action. However, should a faulty condition arise, the amplifier will stop playing and the LED indicator on the front panel will light up.

If this happens, turn the amplifier off. Let it cool down for several minutes, and attempt to identify and correct the problem that caused the protection circuitry to engage. When you turn the amplifier back on, the protection circuit will automatically reset and the indicator LED should go out.

In most cases, the protection circuitry activates because of a fault condition such as shorted speaker wires, or inadequate ventilation leading to an overheating condition. In very rare cases, highly reactive or extremely low impedance speaker loads could cause the protection circuit to engage.

If the protection circuitry triggers repeatedly and you are unable to isolate and correct the faulty condition, contact your authorized Rotel dealer for assistance in troubleshooting.

Settings Menu

You can access the settings menu from the front panel by pressing the MENU B button or the SETUP D button on the remote. You can step through a total of eleven sub-menus by pressing the MENU B key on the front panel or UP/DOWN key on the remote.

1. Bass (refer to Bass and Treble control section)

2. Treble (refer to Bass and Treble control section)

3. Balance (refer to Balance control section)

4. Tone Bypass (refer to Tone Control Bypass section)

5. Contrast: Changes the front panel display contrast between the back light and the actual characters.

6. Dimmer: Dims the display in 7 steps. This can also be accessed directly from the DIM I button on the remote control.

7. Rotel Link CD, selects how the CD player is connected to the amplifier, either CD (analog), CX1 (coaxial 1) or CX2 (coaxial 2). CD is the factory default.

NOTE: *This function works only with the Rotel App when selecting the RCD (Rotel CD) input and does not change the front panel or IR remote control source buttons.*

8. POWER ON Volume: This sets the volume level when the unit is turned ON.

9. Software Version : This shows the current software version loaded into the amplifier.

10. Factory Reset RIGHT=Yes: This sets the unit back to the original state as when it left the factory. Press the RIGHT key on the front panel or remote control to perform a factory reset. The unit will ask for confirmation, press the RIGHT key again to confirm. To cancel factory default at the confirmation menu, press the Menu key or UP/DOWN key on the remote to go to the next menu.

11. Exit: Exits the menu. Or from the remote press the EXIT G key to exit the menu at any time.

Troubleshooting

Most difficulties in audio systems are the result of incorrect connections, or improper control settings. If you encounter problems, isolate the area of the difficulty, check the control settings, determine the cause of the fault and make the necessary changes. If you are unable to get sound from the unit, refer to the suggestions for the following conditions:

Power Indicator Is Not Lit

The Power Indicator and the basic items in the Display window should be lit whenever the unit is plugged into the wall power outlet and the Power button is pushed in. If it does not light, test the power outlet with another electrical device, such as a lamp. Be sure the power outlet being used is not controlled by a switch that has been turned off.

Fuse Replacement

If another electrical device works when plugged into the power outlet, but the Power Indicator of the unit does not light when plugged into the same outlet and the Power Switch is pushed in, it indicates that the internal power fuse may have blown. If you believe this has happened, contact your authorized Rotel dealer to get the fuse replaced.

NO SOUND

Check the signal source to see if it is functioning properly. Make sure the cables from the signal source to the amplifier inputs are connected properly. Be sure the Listening Selector is set to the proper input. Check the wiring between the amplifier and the speakers.

Playable Audio Format

USB Apple (iPhone, iPod, iPad)

Format	Notes
Apple Lossless	Any supported file loaded to Apple device. Phone may resample depending on stored format.
MP3	
AAC	
AIFF	
WAV	

USB Bluetooth

Format	Notes
N/A	Any supported format by the sending device.

USB Flash Drive

Format	Notes
MP3	48K 16 Bit Maximum
WMA	
WAV	
OGG Vorbis	
M4A/AAC	

Coax/Optical

Format	Notes
SPDIF LPCM	44.1K, 48k, 88.2K, 96K, 176.4K, 192K 16 bit, 24 bit

Specifications

Continuous Power Output	40 watts/ch (RA-11)
(20-20 kHz, < 0.03%, 8 ohms)	*60 watts/ch (RA-12)*
Total Harmonic Distortion (20Hz-20kHz)	< 0.03% at rated power, 1/2 power or 1 watt
Intermodulation Distortion (60 Hz : 7 kHz, 4:1)	< 0.03% at rated power, 1/2 power or 1 watt
Frequency Response	
Phone input	20Hz-15kHz, ±0.3dB
Line Level Inputs	10Hz-100kHz, ±1dB
Damping Factor (20-20,000 Hz, 8 ohms)	*180*
Input Sensitivity / Impedance	
Phone input	2.5mV / 47 kOhms
Line Level Inputs	150 mV / 24 kOhms
Input Overload	
Phone input	180mV
Line Level Inputs	5V
Premp Output / Impedance	1V / 470 Ohms
Tone Controls - Bass / Treble	±4 dB at 100Hz / 10kHz
Signal to Noise Ratio (IHF "A" weighted)	
Phone input	80 dB
Line Level Inputs	100 dB
Digital Section	
Frequency Response	10Hz-95kHz ±3.0dB(MAX)
Signal to Noise Ratio (IHF "A" weighted)	100dB
Input Sensitivity/Impedance:	0 dBfs/75 ohms
Preout/Impedance:	1.2V/470 ohms (at -20dB)
Decodable front USB/iPod Digital Signals:	AAC(m4a), WAV, MP3, WMA (up to 48K 16 bit)
Coaxial/Optical	PCM up to 192K 24 bit
Power Requirements	120V, 60 Hz (USA)
	230V, 50 Hz (Europe)
Standby Power Consumption	0.5W
RA-11 Power Consumption	220 Watts
RA-11 Dimensions *(W, H, D)*	17" x 2^7/$_8$" x 13^1/$_2$"
	430 x 72 x 342 mm
RA-11 Panel Height	60 mm / 2^3/$_8$".
RA-11 Weight *(net)*	6.39 kg, 14lbs.
RA-12 Power Consumption	300 Watts
RA-12 Dimensions *(W, H, D)*	17" x 3^5/$_8$" x 13^1/$_2$"
	430 x 92 x 342 mm
RA-12 Panel Height	80 mm / 3^1/$_{16}$".
RA-12 Weight *(net)*	8.02 kg, 18lbs.

All specifications are accurate at the time of printing.
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"Made for iPod," and "Made for iPhone," means that an electronic accessory has been designed to connect specifically to iPod or iPhone, respectively, and has been certified by the developer to meet Apple performance standards. Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards. Please note that the use of this accessory with iPod, or iPhone may affect wireless performance.

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Made for iPod iPhone

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