ROTEL®

RA-1592MKII

Stereo Integrated Amplifier
Amplificateur Stéréo Intégré
Stereo-Vollverstärker
Amplificador Integrado Estereofónico
Geïntegreerde stereoversterker
Amplificatore integrato stereo
Integrerad stereoförstärkare
Интегрированный стерео усилитель

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

Important Safety Instructions

Notice

The RS232 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 these instructions.

Keep these instructions.

Heed all warnings.

Follow all instructions.

Do not use this apparatus near water.

Clean only with dry cloth.

Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.

Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

Only use attachments/accessories specified by the manufacturer.

Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

Unplug this apparatus during lightning storms or when unused for long periods of time.

Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
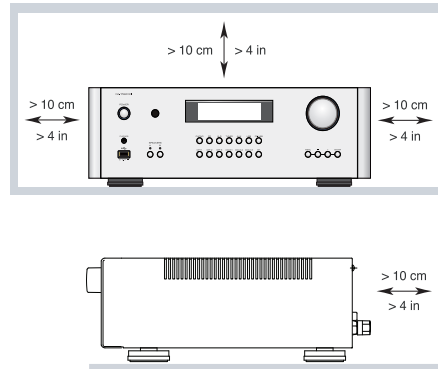
The apparatus should be used in non tropical climate.

The ventilation should not be impeded by covering the ventilation openings with items, such as newspapers, table-cloths, curtains, etc.

No naked flame sources, such as lighted candles, should be placed on the apparatus.

Touching uninsulated terminals or wiring may result in an unpleasant sensation.

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

> 10 cm
> 4 in

> 10 cm
> 4 in

> 10 cm
> 4 in

> 10 cm
> 4 in

WARNING: The rear panel power cord connector is the mains power disconnect device. The device must be located in an open area that allows access to the cord connector.

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. Do not use extension cords.

The mains plug is the disconnect of the unit. In order to completely disconnect the unit from the supply mains, remove the main plug from the unit and the AC power outlet. This is the only way to completely remove mains power from the unit.

Use Class 2 wiring for speaker connections to ensure proper installation and minimize the risk of electrical shock.

The batteries in the remote control should not be exposed to excessive temperature such as sunshine, fire or other heat sources. Batteries should be recycled or disposed as per state and local guidelines.
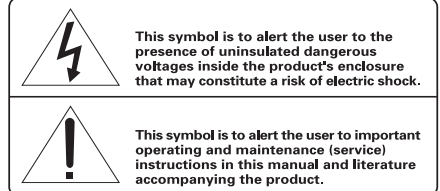
This device complies with Part 15 of the FCC Rules. Operation is subject to the following to conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

WARNING : SHOCK HAZARD-DO NOT OPEN
AVIS:RISQUE DE CHOC ÉLECTRIQUE-NE PAS OUVRIR

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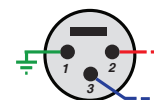
ATTENTION: POUR EVITER LES CHOCS ELECTRIQUES, INTRODUIRE LA LAME LA PLUS LARGE DE LA FICHE DANS LA BORNE CORRESPONDANTE DE LA PRISE ET POUSSER JUSQU AU FOND.

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.

Pin Assignments

Balanced Audio (3 pole XLR):
Pin 1: Ground / Screen
Pin 2: In phase / +ve / Hot
Pin 3: Out of phase / -ve / Cold

Figure 1: Controls and Connections
        Commandes et Branchements
        Bedienelemente und Anschlüsse
        Controles y Conexiones

Controlli e connessioni
Bedieningselementen en aansluitingen
Controlli e connessioni Kontroller och anslutningar
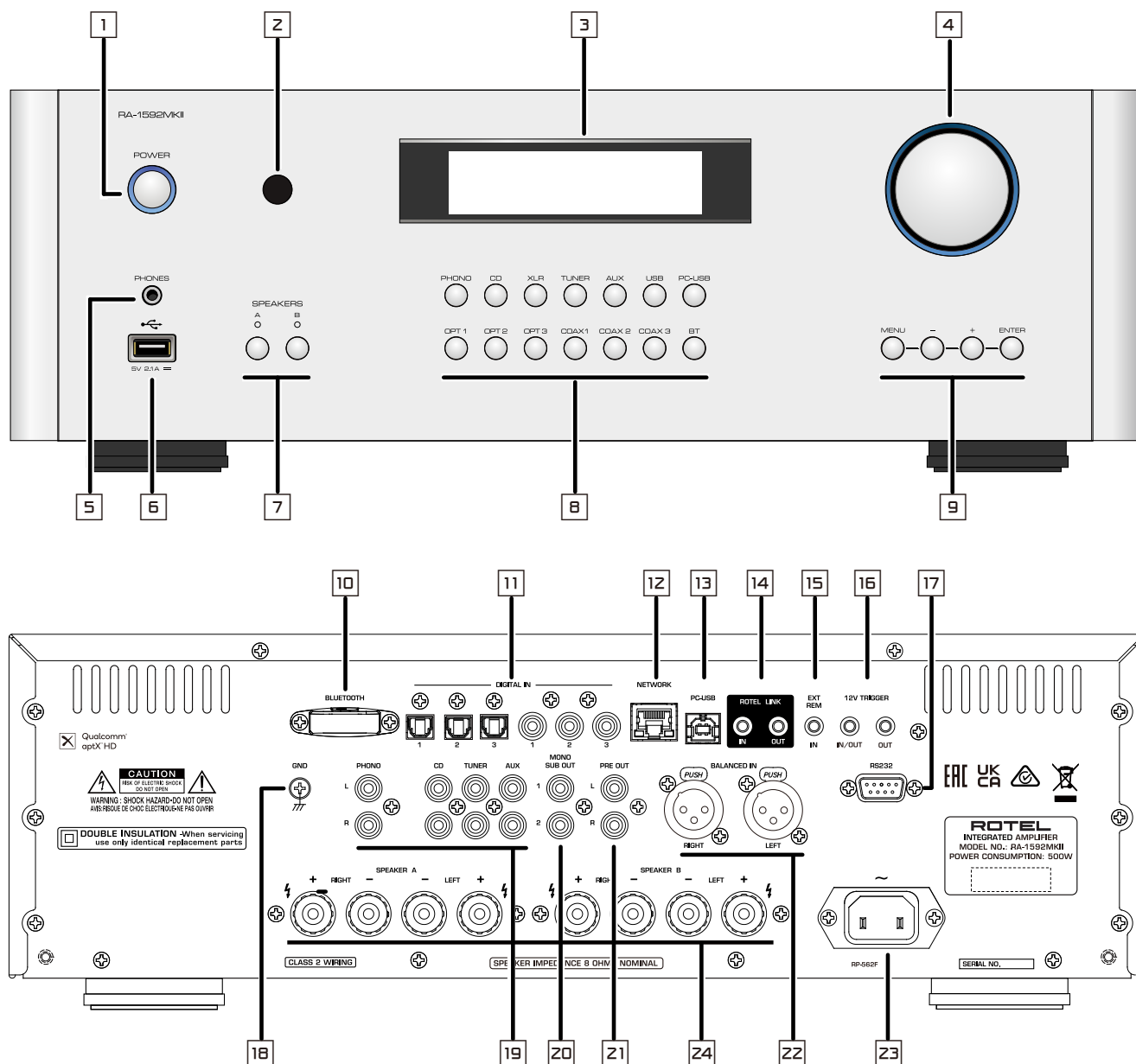Органы управления и разъемы

Figure 2: RR-AX150 Remote Control   Afstandsbediening RR-AX150
         Télécommande infrarouge RR-AX150   Telecomando RR-AX150
         Fernbedienung RR-AX150   RR-AX150 fjärrkontroll
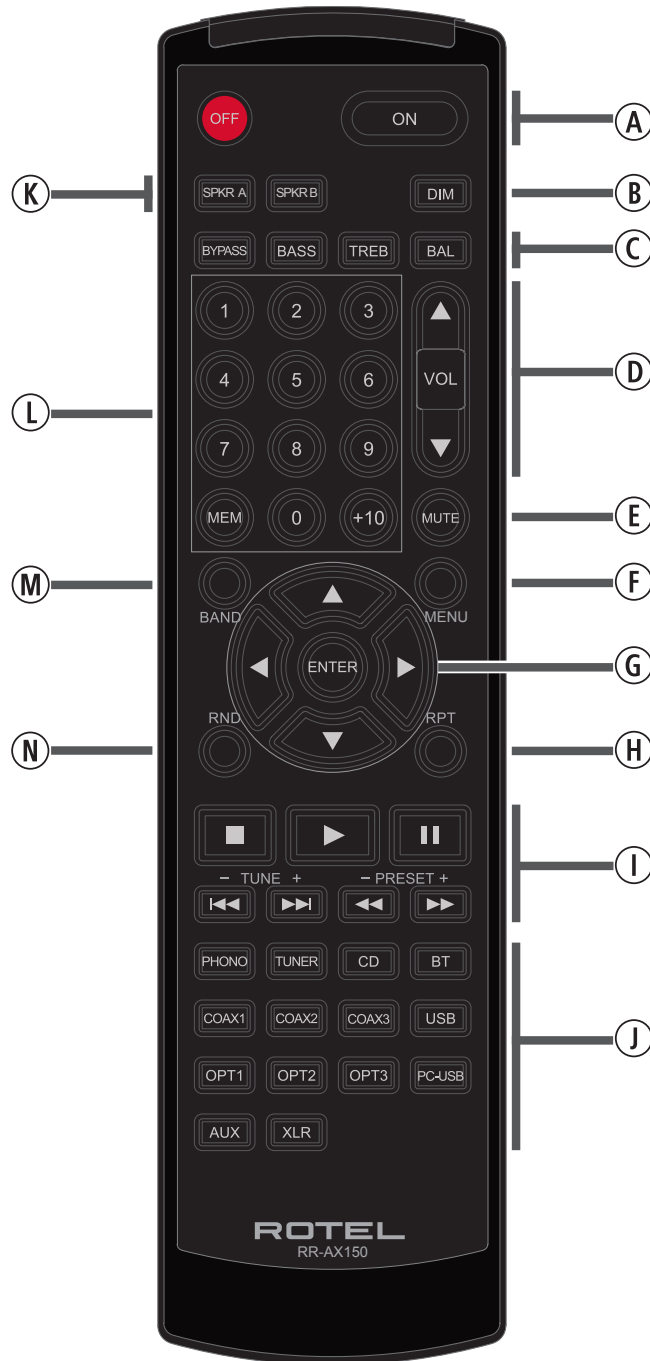   Mando a Distancia RR-AX150   Пульт ДУ RR-AX150

Figure 3: Analog Input and Speaker Output Connections

Branchements des entrées analogiques et sorties enceintes acoustiques

Anschlussdiagramm (analoge Eingangsanschlüsse, Ausgangsanschlüsse für die Lautsprecher)

Conexiones de Entrada Analógicas y de Salida a las Cajas Acústicas

Analoge ingangen en luidsprekeruitgangen

Collegamenti ingressi analogici ed uscite diffusori

Anslutningar för högtalare och analoga ingångar

Подсоединение источников сигнала на аналоговые входы и акустических систем
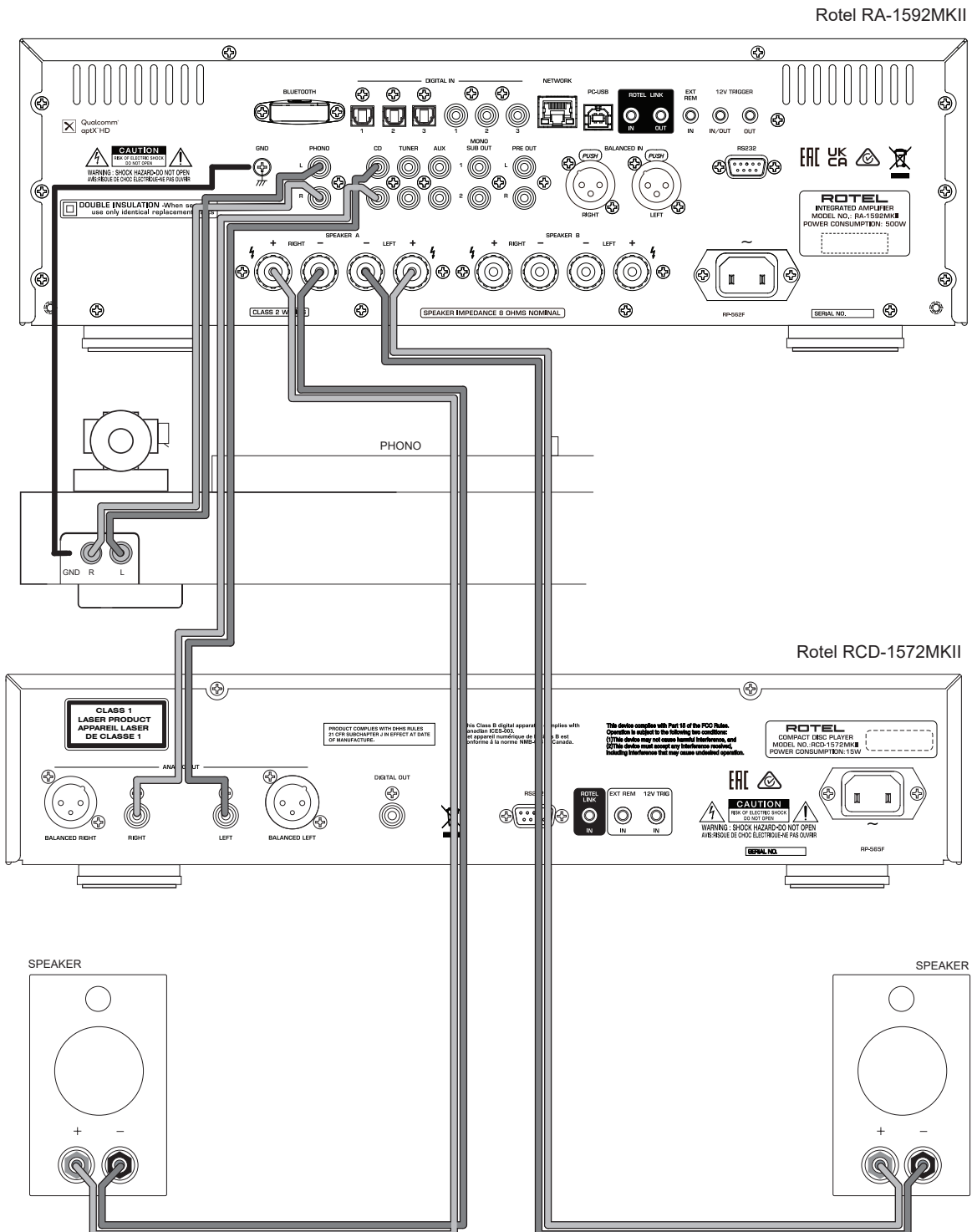
Figure 4: Digital Input and 12 Volt Trigger Connections
Entrées numériques et Branchements des trigger 12 V
Anschlussdiagramm (Digitaleingänge, 12V-Trigger)
Entrada Digital y Conexiones para Señal de Disparo de 12 Voltios
Digitale ingangen en 12V-trigger
Collegamenti ingressi digitali e segnali Trigger 12 V
Anslutningar för digitala ingångar och 12-volts styrsignaler
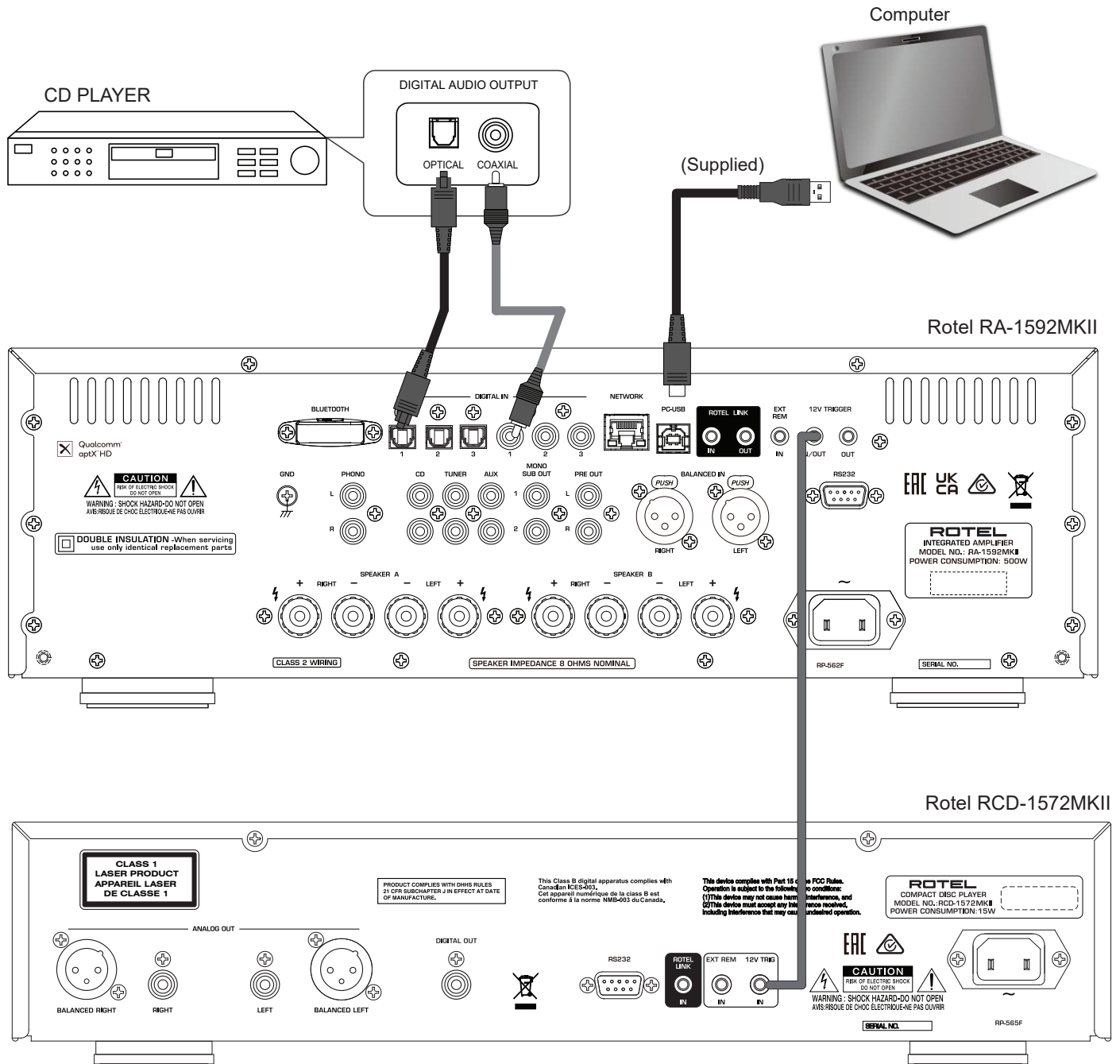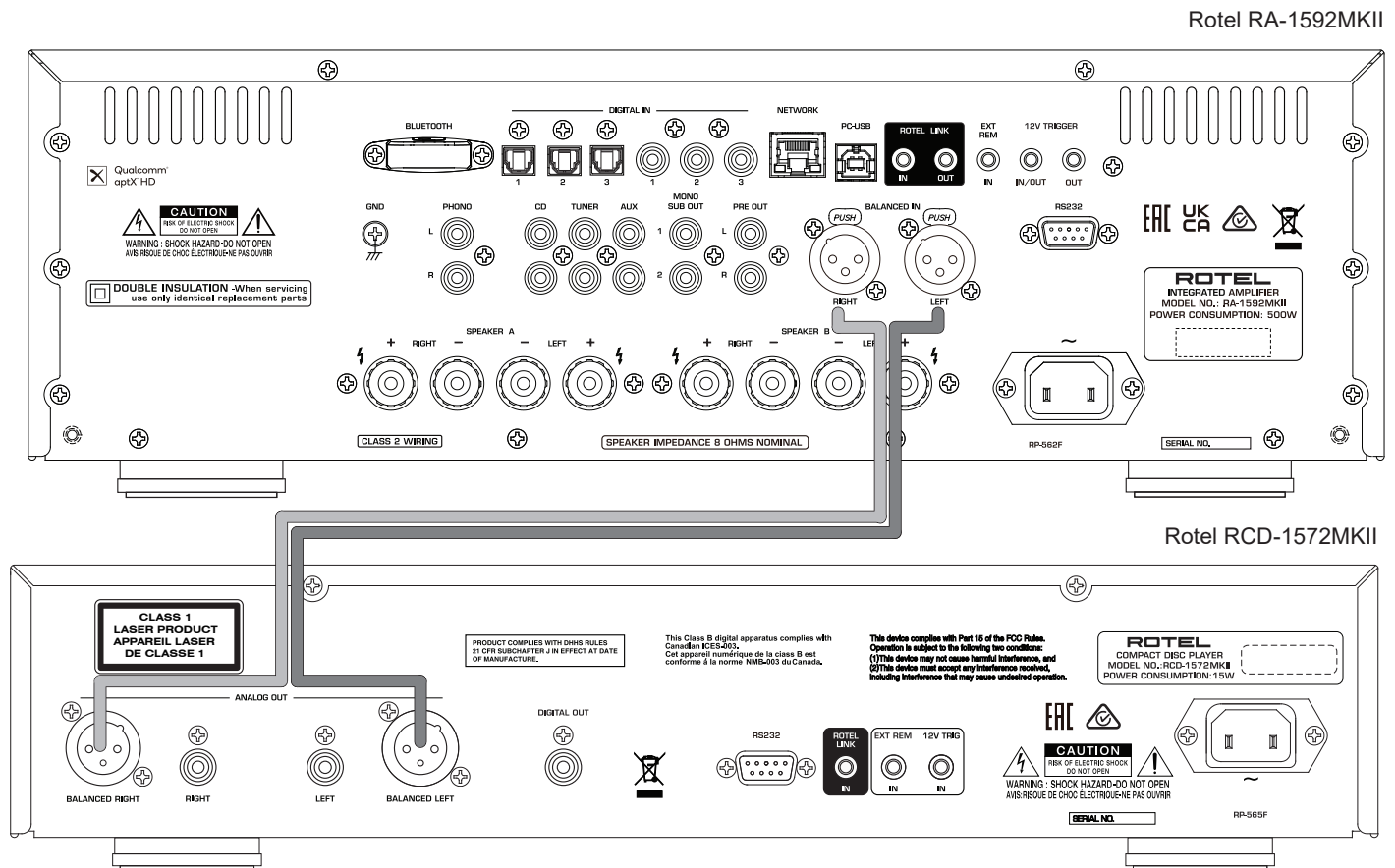Цифровой вход и 12-В триггерного сигнала

Figure 5: Balanced (XLR) Inputs
   Entrées symétriques (XLR)
   Anschlussdiagramm (symmetrische (XLR-) Eingänge)
   Entradas Balanceadas (XLR)

Gebalanceerde ingangen (XLR)
Collegamenti ingressi bilanciati (XLR)
Balanserade anslutningar (XLR)
Балансные (XLR) входы

Rotel RA-1592MKII

Rotel RCD-1572MKII

Important Notes
When making connections be sure to:
✔ Turn off **all** the components in the system **before** hooking up **any** components, including loudspeakers.
✔ Turn off **all** components in the system **before** changing **any** of the connections to the system.
It is also recommended that you:
✔ Turn the volume control of the amplifier all the way down **before** the amplifier is turned **on or off.**

Remarques importantes
Pendant les branchements, assurez-vous que :
✔ **Tous** les maillons sont éteints **avant** leur branchement, **quels qu'ils soient**, y compris les enceintes acoustiques.
✔ Éteignez **tous** les maillons **avant** de modifier **quoi que ce soit** au niveau de leurs branchements, quels qu'ils soient.
Il est également recommandé de :
✔ Toujours baissez le niveau sonore via le contrôle de volume, **avant d'allumer ou d'éteindre** l'amplificateur.

Wichtige Hinweise
Achten Sie beim Herstellen der Verbindungen auf Folgendes:
✔ Schalten Sie **alle** Komponenten im System ab, **bevor** Sie Geräte (einschließlich Lautsprecher) anschließen.
✔ Schalten Sie **alle** Komponenten im System ab, **bevor** Sie Anschlüsse im System verändern.
Ferner empfehlen wir, dass
✔ Sie die Lautstärke herunterdrehen, **bevor** Sie den Verstärker **ein-** oder **ab**schalten.

Notas Importantes
Cuando realice las conexiones, asegúrese de que:
✔ Desactiva **todos** los componentes del equipo, cajas acústicas incluidas, **antes** de conectar **cualquier nuevo componente** en el mismo.
✔ Desactiva **todos** los componentes del equipo **antes** de cambiar **cualquier conexión del mismo.**
También le recomendamos que:
✔ Reduzca el nivel de volumen de su amplificador a cero **antes** de **activarlo o desactivarlo.**

Héél belangrijk
Bij het maken van de verbindingen:
✔ Zorg dat niet alleen de RA-1592MKII, maar de **gehele** installatie uitstaat, als nog niet **alle** verbindingen gemaakt zijn.
✔ Zorg dat niet alleen de RA-1592MKII, maar de **gehele** installatie ook uitstaat, **als** u verbindingen gaat **wijzigen.**
Wij raden u ook aan om
✔ de volumeregelaar van de (voor)versterker geheel dicht te draaien (volkomen linksom) **wanneer** u uw eindversterker **aan- of uitzet.**

Note importanti
Quando effettuate i collegamenti assicuratevi di:
✔ Spegnere **tutti** i componenti del sistema **prima** di collegare **qualsiasi** componente, inclusi i diffusori.
✔ Spegnere **tutti** i componenti del sistema **prima** di modificare **qualsiasi** connessione nel sistema.
Vi raccomandiamo inoltre di:
✔ Portare il volume a zero **prima** di **accendere o spegnere** l'amplificatore.

Viktigt
Tänk på följande när du gör anslutningar:
✔ Stäng av **alla** apparater i anläggningen **innan** du ansluter nya komponenter eller högtalare.
✔ Stäng av **alla** apparater i anläggningen **innan** du ändrar någon anslutning.
Du rekommenderas också:
✔ Vrida ner volymen på förförstärkaren helt och hållet **innan** förstärkaren slås **på eller av.**

Важные замечания
Перед подсоединением:
✔ Выключите **все** компоненты, включая колонки.
✔ Выключите **все** компоненты в вашей системе, прежде чем что-то в ней **менять**.
Рекомендуется также:
✔ Вывести громкость усилителя на **минимум**, перед тем как **включать или выключать** его.

Contents

About Rotel

Our story began over 60 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 it is especially important for a manufacturer to do all it can to engineer products that have a minimum impact on the environment.

At Rotel, we are proud to do our part. We have reduced the lead content in our products by using special lead-free ROHS solder and components. Our engineers continually strive to improve power supply efficiency without compromise to quality. When in standby mode Rotel products use minimal power to meet global Standby Power Consumption requirements.

The Rotel factory is also doing their part to help the environment through constant improvements to product assembly methods for a cleaner and greener manufacturing processes.

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

A Word About Watts

This amplifier's power output is rated as 200 watts for each channel, when both channels are operating together at full power. Rotel has chosen to specify the power output in this way because, in Rotel's experience, it gives the truest value of the receiver or amplifier's power capability.

When comparing specifications for different products, you should be aware that power output is often specified in other ways, so you may not be comparing like with like. For example, the power output may be quoted with only one channel operating, giving a higher maximum figure.

A loudspeaker's impedance rating indicates the electrical resistance or load it offers when connected to the amplifier, usually 8 ohms or 4 ohms. The lower the impedance, the more power the speaker will need. In effect, a 4 ohm speaker will require twice as much power as an 8 ohm speaker.

However, Rotel amplifiers are designed to work into any speaker impedance between 8 and 4 ohms, and with all the channels working up to their full power. Because Rotel designs are optimized for use with all channels operating together, Rotel is able to specify the true power output for both channels.

Getting Started

Thank you for purchasing the Rotel RA-1592MKII Stereo Integrated Amplifier. When used in a high-quality music audio system, your Rotel product will provide years of musical enjoyment.

The RA-1592MKII 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 RA-1592MKII has a highly regulated power supply incorporating a Rotel custom-designed toroidal power transformer and custom-made slit foil capacitors. This low impedance power supply has ample power reserves, which enables the RA-1592MKII 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 RA-1592MKII 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-1592MKII 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.

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. In addition to basic installation and operating instructions, it provides valuable information on various RA-1592 system configurations as well as general information that will help you get optimum performance from your system. 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 RA-1592MKII in anything other than the original packing material may result in severe damage to your amplifier.

If included in the box please complete the owner's registration card or register on line. 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, the RA-1592MKII can be affected by its environment. Avoid placing the RA-1592MKII 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 RA-1592MKII 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 RA-1592MKII 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.

The RA-1592MKII is supplied with an RR-AX150 remote control and must be placed where the infrared signal from the remote can reach the front panel Remote Sensor.

Cables

Be sure to keep the power cords, digital signal cables and analog audio signal cables in your installation away from each other. This will minimize the chance of the analog 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-AX150 Remote Control

Some functions can be done with either the front panel controls, or the supplied RR-AX150 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.

Remote Control Batteries

Two AA size batteries (supplied) must be installed before the remote control can be used. To install the batteries, remove the cover on the back of the RR-AX150. Install the batteries as shown in the illustration in the battery well. Test the control for proper operation, then replace the cover. When the batteries become weak the remote control won't operate the RA-1592MKII consistently. Installing fresh batteries should eliminate the problem.

AC Power and Control

AC Power Input 23

Your RA-1592MKII 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 RA-1592MKII to another country, it is possible to reconfigure your amplifier for use on a different line voltage. Do not attempt to perform this conversion yourself. Opening the enclosure of the RA-1592MKII 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.*

Because of its relatively high power rating, the RA-1592MKII can draw considerable current. Therefore, 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) is rated to handle the current demanded by the RA-1592MKII and all the other components connected to it.

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 and Power Indicator ☐1

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-1592MKII. In Standby mode the power LED remains lit, but the display is turned off.

12V TRIGGER Connection ☐16
See Figure 4
Some audio components can be turned on automatically when they receive a 12V turn on signal. The two 12V Trigger Outputs of the RA-1592MKII provide the required signal. Connect compatible components to the RA-1592MKII with a conventional 3.5mm mini plug cable. When the RA-1592MKII is in turn off mode, the trigger signal is interrupted, so the components controlled by it are turned off.

The 12V Trigger connection labeled as IN/OUT can be configured as either a trigger INPUT or OUTPUT. When the HT BYPASS mode is enabled in the Setup Menu the IN/OUT trigger is automatically configured as a 12V Trigger Input. When this trigger input receives a HIGH signal the unit will automatically Power On and the HT Bypass Source Input (AUX or XLR) will be selected. The volume level will set to a FIXED level as configured in HT BYPASS LEVEL. This option is ideal when the unit is connected to a Home Theater Receiver or Surround Processor allowing the home theater Left and Right speakers to route directly through the unit.

NOTE: *If HT BYPASS is set to DISABLED the IN/OUT 12V Trigger will be configured as an OUTPUT.*

NOTE: *Not all versions of RA-1592MKII support 12V Trigger Input. Please confirm on the rear panel the printing indicates "IN/OUT" to ensure this function is included.*

Input Signal Connections ☐11 ☐19 ☐22

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 ☐19 and Ground Connection (GND)
See Figure 3
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 ☐19
See Figure 3
The CD, Tuner, and Aux inputs of the amplifier are analog "line level" inputs. These inputs are for connecting components such as CD players or other audio playback devices with an analog audio output.

The left and right channels are clearly 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 RA-1592MKII. Ask your authorized Rotel dealer for advice about cables.

Balanced (XLR) Inputs ☐22
See Figure 5
A pair of balanced XLR inputs accept audio signals from CD player, Blu-ray player or other source components with XLR outputs.

NOTE: *You should choose only one method of analog connection from a source component to RA-1592MKII. Do not connect both the RCA and XLR outputs of a source component to the RA-1592MKII at the same time.*

Digital Signal Inputs ☐11
See Figure 4
There are three sets of digital inputs labeled 1, 2 and 3, for COAXIAL and OPTICAL respectively. Connect the COAXIAL or OPTICAL PCM outputs of your source component into these sockets. The digital signals will be decoded and played by the RA-1592MKII. The unit is capable of decoding PCM signals up to 24 bit, 192kHz.

Output Connections

MONO SUB Output ☐20
There are 2 connectors for mono subwoofer output to connect to a subwoofer. These mono outputs are summed with both the left and right audio signal. They are parallel outputs allowing 2 subwoofers to be connected to the RA-1592MKII.

Preamp Output ☐21
The RA-1592MKII has a set of preamp outputs labeled PRE OUT. The currently selected source input is available from this output. Typically the PRE OUT output is 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 Output.*

Headphone Output ☐5
The headphone output allows you to connect headphones for private listening. This output accepts a standard 3.5mm (1/8") mini stereo headphone connector. Plugging in a set of headphones does not cut off the signal to the speakers. Use the front panel ☐7 or remote control Ⓚ A-B Speaker Selector to turn off the speakers.

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

Speaker Outputs 24

See Figure 3

The RA-1592MKII has two sets of speaker outputs, labeled SPEAKER A and SPEAKER B. The speaker outputs are controlled by the A-B speaker selector buttons 7 on the front panel and the buttons Ⓚ on the remote control.

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 RA-1592MKII. See your authorized Rotel dealer if you have any questions.

Speaker Wire Selection
Use insulated two-conductor stranded wire to connect the RA-1592MKII 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 Connections 24
Turn off all the components in the system before connecting the speakers. The RA-1592MKII 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 RA-1592MKII 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. Place the connector lug or wire around the binding post shaft. Turn the binding post 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.*

Remote Sensor Z

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

Display 3

The front panel display shows the source selected, volume level and tone settings. The display provides access to the setup and configuration menu options of the amplifier.

Front USB Input 6

The front USB input can be connected to an iPhone, iPad or iPod device providing music playback to the amplifier. To enable audio playback using one of these devices simply plug the device into the front USB and select USB as the desired source. The iPhone, iPad and iPod device will remain active allowing search and play functions.

aptX™ Bluetooth Connection 10

The Bluetooth Antenna 10 on the RA-1592MKII's back panel is for wireless streaming via Bluetooth, from your device (i.e. mobile phones, tablets or computers). From your device, look for "Rotel Bluetooth" and connect to it. Connection is normally automatic, but if prompted for a password, please press "0000" on your device. The RA-1592MKII supports both traditional Bluetooth, AAC and aptX™ Bluetooth audio streaming.

Audio Controls

VOLUME Control 4 Ⓓ
Turn the knob clockwise to increase the volume, or counter clockwise to decrease the volume. From the remote control press the volume + or - button to turn the volume up or down. Press the MUTE Ⓔ button to completely mute the volume.

BALANCE Control 9 Ⓒ
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 9 button to toggle the front display to BALANCE SETTING mode. Then press the - or + buttons on the front panel to change the value to LEFT or RIGHT. The value can change from L15 to R15.

NOTE: *This setting is saved permanently including after powering off the RA-1592MKII.*

To make temporary changes not saved after power off, from the remote, press the BAL Ⓒ button to access the BALANCE SETTING menu, then press the up/down/left/right Ⓖ arrow buttons to adjust. When finished, press the BAL Ⓒ button again to exit the menu.

Tone Control Bypass 9 Ⓒ
The Tone control is set to Disabled at factory default to bypass Bass and Treble Control circuits to ensure the purest possible sound. The front display will show TONE DISABLED. To disable the bypass control from the front panel, press the MENU 9 button to toggle to the TONE menu then press the - or + buttons to set Tone control to Enabled.

NOTE: *This setting is saved permanently including after powering off the RA-1592MKII.*

To temporarily changes the bypass mode, press the BYPASS Ⓒ button on the remote control to toggle the Tone control enabled and disabled.

Bass and Treble Controls 9Ⓒ

Set the Bass or Treble controls from the front panel by pressing the MENU 9 button to toggle to the BASS / TREBLE menu. Press ENTER 9 button to toggle between the options. Press the - or + 9 button to adjust the value. The Bass and Treble values range from -10 to +10.

NOTE: *These settings are saved permanently including after powering off the RA-1592MKII.*

To temporarily change the Bass and Treble settings from the remote control, press the BASS or TREB button Ⓒ, then press the up/down/left/right Ⓖ arrow buttons on the remote to adjust the value.

NOTE: *Bass and Treble changes are only available when Bypass is disabled (Tone control is enabled).*

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 as 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 does not automatically turn on the tone control. To turn on tone control, refer to previous section Tone Control Bypass.*

Source Input Selector 8Ⓙ

Press the corresponding input button on the front panel 8 or remote control Ⓙ to select the desired listening source.

Push the front panel source buttons to toggle between Optical 1 - 3, Coaxial 1- 3 and Aux or use the dedicated source button on the remote control.

Dimmer Control

Display Dimmer 9Ⓑ

To change the brightness of the front display, press the MENU 9 button to toggle to the DIMMER Settings. Then press the - or + buttons on the front panel to change the brightness.

NOTE: *This setting is saved permanently including after powering off the RA-1592MKII.*

To temporarily change the display brightness, press the DIM Ⓑ button on the remote.

Power LED Dimmer 9

To change the brightness of the Power LED and the two Speaker Selector LEDs on the front panel, press the MENU 9 button to toggle to the LED DIMMER Setting. Then press the - or + buttons on the front panel to change the LED brightness.

Valid settings include: BRIGHT, MID, DIM.

NOTE: *This setting is saved permanently including after powering off the RA-1592MKII.*

PC-USB Input ⑬

See Figure 4

Connect this input using the supplied USB cable to the USB socket of your computer.

The RA-1592MKII supports both USB Audio Class 1.0 and USB Audio Class 2.0 modes. Windows computers do not require installation of a driver for USB Audio Class 1.0 and support playback of audio up to 96kHz sampling rates. The Factory Default setting is USB Audio Class 1.0.

To take advantage of USB Audio Class 2.0 audio playback supporting up to 384kHz sampling rates you will need to install the Windows driver supplied on the USB included with the RA-1592MKII. You will also need to switch the RA-1592MKII to USB Audio Class 2.0 playback mode with the following:

• Press MENU on the front panel until "PC-USB CLASS" appears on the display.

• Select "2.0" using the "-" button then press "ENTER".

• Power cycle the RA-1592MKII and reboot your PC after changing the USB Audio mode to ensure both units are properly configured.

Many audio playback applications do not support 384kHz sampling rate. Please confirm your audio player supports 384kHz audio and you have 384kHz audio files to properly playback this sample rate. Also, you may need to configure the audio driver in your PC to output 384kHz or your computer may "down sample" to a lower audio sample rate. For more information please refer to your audio player or operating system information.

The RA-1592MKII has been certified as Roon Tested and compatible with Roon software via PC-USB.

roon
TESTED

Being Roon Tested means that Rotel and Roon have collaborated to ensure you have the best experience using Roon software and the RA-1592MKII together, so you can just enjoy the music.

For the best user experience it is suggested to use USB Audio Class 2.0 when using Roon.

NOTE: *USB Audio Class 2.0 requires installation of the Windows PC driver on the USB included with the RA-1592MKII.*

NOTE: *MAC computers do not require a driver to support PC-USB 1.0 or 2.0 audio.*

NOTE: *Upon successful installation of the driver, you may need to select the ROTEL audio driver from the audio/speaker setup of your computer.*

NOTE: *Support for MQA and MQA Studio requires USB Audio Class 2.0. Please select USB Audio 2.0 to support MQA.*

RS232 ⑰

The RA-1592MKII can be controlled via RS232 for integration with automation systems. The RS232 input accepts a standard straight DB-9 Male-to-Female cable.

For additional information on the connections, software, and operating codes for RS232 control of the RA-1592MKII, contact your authorized Rotel dealer.

Rotel Link ⑭

Rotel Link is not used for RA-1592MKII.

EXT REM IN Jack ⑮

This 3.5mm mini-jack receives command codes from industry-standard infrared receivers via hard-wired connections. This feature could prove useful when the unit is installed in a cabinet and the front-panel sensor is blocked. Consult your authorized Rotel dealer for information on these external repeaters and the proper wiring of a jack to fit the mini-jack receptacle.

Network Connection ⑫

The RA-1592MKII can be attached to a network using the rear panel NETWORK socket ⑫. The NETWORK configurations allow both STATIC and DHCP IP addressing. See the Network section of this manual under Setting Menu for IP address configuration information.

The NETWORK connection allows software updates to be downloaded from the Internet. The NETWORK connection also allows IP control for integration with automation systems.

For additional information on the IP control please contact your authorized Rotel dealer.

Protection Circuit

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 will display "AMP PROTECTION" on the front panel.

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.

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 ⑨ button or Ⓕ on the remote. You can change the value of the selected option by pressing the +/- button on the front panel or up/down/left/right Ⓖ arrow buttons on the remote. Step through the sub-menus by pressing the MENU ⑨ button on the front panel or Ⓕ on the remote.

- TONE: Tone Bypass Enabled/ Disabled (For more information refer to Tone Control Bypass section).

NOTE: *These settings are stored permanently even after the RA-1592MKII is powered off.*

- BASS: BASS level can be changed to desired settings (For more information refer to Bass and Treble Control section).

NOTE: *This setting is stored permanently even after the RA-1592MKII is powered off.*

- TREBLE: TREBLE level can be changed to desired settings (For more information refer to Bass and Treble Control section).

NOTE: *This setting is stored permanently even after the RA-1592MKII is powered off.*

- BALANCE: Change left/right balance (For more information on Balance sections refer to the Balance Control section).

NOTE: *This setting is stored permanently even after the RA-1592MKII is powered off.*

- DIMMER: Dims the display.

NOTE: *This setting is stored permanently even after the RA-1592MKII is powered off.*

- LED DIMMER: Dims the Power LED and the LEDs above the Speaker Selector buttons on the front panel.

NOTE: *This setting is stored permanently even after the RA-1592MKII is powered off.*

- POWER ON MAX VOLUME: This sets the maximum volume level when the unit is turned ON. "45" is the factory default.

NOTE: *Power On Max Volume settings do not apply to sources configured with Fixed Volume.*

- POWER MODE: Enables the RA-1592MKII to be controlled via the network port when attached to an automation system. The power consumption is higher in Quick Power mode. If network control is not required select the Normal Power mode. "Normal" is the factory default.

Valid settings include: Normal, Quick.

NOTE: When the POWER MODE is configured to Quick, the RA-1592MKII will consume additional power in standby mode.

NOTE: Due to local power consumption regulations the POWER MODE function is not available in all markets.

• AC POWER: If set to ON the unit will be powered on when AC Power is connected and the front panel power button is depressed to the on position. If set to STANDBY the unit will enter Standby mode when AC Power is connected and the front panel power button is depressed.

This function is useful to identify the operation of the unit in the event of a power failure and restore. The unit will either resume operation in the ON state or will enter STANDBY after a power failure/restore.

Valid settings include: ON (Default), STANDBY.

• OFF TIMER: The RA-1592MKII can be configured to automatically power off if unused for a specified period. If no changes are made to the unit within the specified "Off Timer" time the unit will automatically go to STANDBY mode. The Auto Power Off timer will be restarted if changes are made to the volume, source or playback. The default for Off Timer is set to 20 MINS.

Valid settings include: 20 MINS (Default), DISABLE, 1 HOUR, 2 HOURS, 5 HOURS, 12 HOURS.

• SIGNAL SENSE: Check if an audio signal is present on the configured Signal Sense input. The RA-1592MKII monitors the data stream to determine if there is audio. If there is no audio detected for 10 minutes, the RA-1592MKII will enter Signal Sense Power Mode. When in Signal Sense Power Mode and the RA-1592MKII detects audio on Signal Sense input, the unit will automatically power on. To disable this function, select the OFF option which is the factory default setting.

NOTE: When the SIGNAL SENSE function is activated, the RA-1592MKII will consume additional power in signal sense standby mode.

NOTE: Due to local power consumption regulations the SIGNAL SENSE function is not available in all markets.

• FIXED VOLUME: Configures a Fixed Volume level for a specified input. To enable this feature press the +/- buttons to select the desired fixed volume level for Aux 1, USB, PC-USB, Optical 1, Optical 2, Optical 3, Coax 1, Coax 2, Coax 3 or Bluetooth. When enabled and the input with a Fixed Volume is selected, the Volume level will immediately be set to the specified level.

Valid settings include: VARIABLE, FIXED 01-95, FIXED MAX.

  • AUX1 VOL: VARIABLE (disabled) is factory default.

  • USB VOL: VARIABLE (disabled) is factory default.

  • PC-USB VOL: VARIABLE (disabled) is factory default.

  • OPT1 VOL: VARIABLE (disabled) is factory default.

  • OPT2 VOL: VARIABLE (disabled) is factory default.

  • OPT3 VOL: VARIABLE (disabled) is factory default.

  • COAX1 VOL: VARIABLE (disabled) is factory default.

  • COAX2 VOL: VARIABLE (disabled) is factory default.

  • COAX3 VOL: VARIABLE (disabled) is factory default.

  • BLUETOOTH VOL: VARIABLE (disabled) is factory default.

NOTE: The Volume knob on the front panel and Volume +/- buttons on the IR remote are disabled when the volume is Fixed. To disable this feature set the Fixed Volume level to "Variable".

• HT Bypass: This option enables the Home Theater Bypass mode allowing audio signals to be routed directly through the unit from a Surround Sound Processor or Receiver output. Typical use is to connect the analog output RCA Preoutput Front Left and Front Right signals from the processor or receiver to the AUX INPUT or XLR INPUT on the unit. The audio is routed on the most direct path disabling Tone control at a unity gain setting or fixed level. To active the Home Theater Bypass select the desired source input connection in the setup menu then select the specified source using the front panel or remote control. When the HT BYPASS source is selected the volume controller is disabled allowing the volume to be controlled by the Home Theater Processor or Receiver. When HT Bypass is enabled the 12V Trigger labeled IN/OUT is configured as an INPUT. This allows the Home Theater Receiver or Surround Processor to automatically power on the unit and select the HT Bypass source input. Connect the 12V Trigger IN/OUT to the 12V Trigger Output of the Receiver or Processor to enable automatic power control.

Valid settings include: Disabled (Default), AUX, BAL-XLR.

• HT Bypass Level: This option allows customization of the amplification level used in the Home Theater Bypass mode. Select the left/right amplifier gain levels if needed to match the home theater processor or receiver output levels.

NOTE: Most level adjustments are done in the Home Theater Processor or Receiver so these adjustments should only be used if the amplifier gain output cannot be matched with the Home Theater source.

• PC-USB CLASS: Change supported PC-USB Audio Class of the attached device.

NOTE: Some computers attached to the PC-USB do not support USB Audio Class 2.0 and do not support 32 bits /384 kHz audio playback. If needed the PC-USB can be configured for USB Audio Class 1.0. Please refer to your computer operating system for details.

• PC-USB MODE: Change PC-USB Audio mode to support MQA and PCM Audio up to 24bits or PCM Audio Only up to 32bits. When PCM 32B is selected MQA audio is not supported. To playback MQA the MQA/24B option must be selected.

Valid settings include: MQA/24B (Default), PCM 32B.

• NETWORK INFO: Shows the network connection status and to view/configure the network settings. If the network is properly configured and attached, "Connected" will be displayed. To view or modify the network settings, press the ENTER button.

• NETWORK SETUP: The RA-1592MKII supports both DHCP and STATIC IP addressing. Select the desired IP address method and press ENTER.

If DHCP is selected you can refresh IP address by pressing ENTER or press MENU to view IP address information. Press the MENU button to toggle through IP address settings. If the IP address is renewed the network will be tested and connection status reported.

If STATIC IP address mode is selected you must configure all settings for the network including IP Address, Subnet Mask, Gateway and DNS Server. Use the up/down/left/right or +/- buttons to adjust the values and press ENTER to move to the next value. When the proper IP information is configured press MENU to go to the next setting. After entering the STATIC IP address information the network will be tested and connection status reported.

NOTE: *For more information regarding network connection please contact your authorized Rotel dealer.*

NOTE: *A network connection is not required for the RA-1592MKII to operate.*

• MAIN: This shows the current software version loaded into the RA-1592MKII. The software can be updated if the RA-1592MKII is properly connected to the Internet.

  • Press ENTER to check if a new software version is available.

  • If a new software version is available press the + button on the front panel or the up/right button on the remote control to select YES then press ENTER button to begin the software update process.

  • The new software will be downloaded from the Internet. The RA-1592MKII will power cycle when the software update is complete.

NOTE: *Do NOT power off the RA-1592MKII during the software update process.*

NOTE: *It is recommended to Reset Factory Defaults after the software update is complete.*

• PC-USB: This shows current loaded software version for PC-USB processor.

• FACTORY DEFAULT: This sets the unit back to the original state as when it left the factory. Press the + button on the front panel or RIGHT arrow button on the remote control to select <YES> then press the "ENTER" button on the front panel or on the remote control.

NOTE: *All previously configured options will be erased and reset to the factory default settings.*

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 RA-1592MKII, refer to the suggestions for the following conditions:

Power Indicator Is Not Illuminated

The Power Indicator ring around the power button and the basic items in the Display window should be illuminated whenever the RA-1592MKII is plugged into the wall power outlet and the POWER switch 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 still will not illuminated when the RA-1592MKII is plugged into the wall outlet, 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 RA-1592MKII inputs are connected properly. Check the wiring between the RA-1592MKII and the speakers.

Cannot Connect via Bluetooth

If you cannot pair your Bluetooth enabled device to the RA-1592MKII, delete the memory of the previous connection on your device. On your device this is often listed as "Forget this Device". Then try to make the connection again.

Playable Audio Formats

USB Apple (iPhone, iPod, iPad)

Format	Notes
Any supported file loaded to Apple device.	Any supported file loaded to Apple device. Phone may resample depending on stored format. May exclude Apps designed to play formats not originally supported by the sending device.

aptX™ and AAC Bluetooth

Format	Notes
Any format supported by the sending device.	May exclude Apps designed to play formats not originally supported by the sending device.

PC-USB

Format	Notes
Format determined by the Media Player/ Server software that you use.	Any supported format by the PC software PCM Audio: 44.1k, 48k, 88.2k, 96k, 176.4k, 192k 384k (16 bit, 24 bit and 32 bit) MQA, MQA Studio (24 bits/384kHz) Roon Tested

Coax/Optical

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

Specifications

Maximum Power Output	350 watts/channel, 4 ohms
Continuous Power Output	200 watts/channel, 8 ohms
Total Harmonic Distortion	< 0.008%
Intermodulation Distortion	< 0.03%
(60 Hz : 7kHz, 4:1)	
Frequency Response:	
Phono Input	20 Hz - 20kHz, 0 ± 0.5 dB
Line Level Inputs	10 Hz - 100kHz, 0 ± 0.5 dB
Damping Factor *(20 Hz - 20kHz, 8 ohms)*	600
Input Sensitivity / Impedance	
Phono Input *(MM)*	5.2 mV / 47k ohms
Line Level Inputs *(RCA)*	340 mV / 100k ohms
Line Level Inputs *(XLR)*	540 mV / 100k ohms
Input Overload	
Phono Input *(MM)*	52 mV
Line Level Inputs *(RCA)*	3.5 V
Line Level Inputs *(XLR)*	5.5 V
Preamplifier Output Level / Impedance	1.9 V / 100 ohms
Signal to Noise Ratio *(A weighted)*	
Phono Input *(MM)*	80 dB
Line Level Inputs	103 dB
Digital Section	
Frequency Response	10 Hz - 90k Hz (0 ± 2 dB, Max)
Signal to Noise Ratio *(IHF "A" weighted)*	102 dB
Input Sensitivity/Impedance	0 dBfs / 75 ohms
Preamplifier Output Level	1.43 V (at -20 dB)
Coaxial/Optical Digital Signals	SPDIF LPCM
	(up to 192k Hz 24 bit)
PC-USB	USB Audio Class 1.0
	(up to 96kHz 24bit)
	USB Audio Class 2.0
	(up to 384kHz 32bit)*
	*Driver installation required
	MQA and MQA Studio
	(up to 24bits/384kHz)
	Roon Tested
Power Requirements:	
USA:	120 volts, 60 Hz
EC:	230 volts, 50 Hz
Power Consumption	500 watts
Standby Power Consumption	
Normal	< 0.5 watts
Network Wakeup	< 2 watts
BTU *(4 ohms, 1/8th power)*	1239 BTU/h
Dimensions *(W x H x D)*	431 x 144 x 425 mm
	(17 x 5 $^{7}/_{8}$ x 16 ins.)
Front Panel Height	3U (132.6 mm, 5 $^{1}/_{4}$ ins)
Weight *(net)*	17.6 kg, 38.8 lbs.

All specifications are accurate at the time of printing.
Rotel reserves the right to make improvements without notice.

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'MQA' or 'MQA.' indicates that the product is decoding and playing an MQA stream or file, and denotes provenance to ensure that the sound is identical to that of the source material. 'MQA.' indicates it is playing an MQA Studio file, which has either been approved in the studio by the artist/producer or has been verified by the copyright owner.

'OFS' confirms that the product is receiving an MQA stream or file. This delivers the final unfold of the MQA file and displays the original sample rate.

"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.

iPhone, iPod, iPod classic, iPod nano, and iPod touch are trademarks of Apple Inc., registered in the U.S. and other countries.

ROTEL®

Home Theater Bypass Trigger function are effective start from the serial number below:
Black: 269-246-1001
Silver: 769-312-1001