

Introduction

Your choice of this product indicates that you are a devotee to excellence in sound reproduction.

We appreciate your patronage and take pride in the long tradition of quality components.

So that you can get the most out of your unit, we suggest that you take the time to read through this manual before you hook up and operate your system. This will acquaint you with operating features, and system-connection considerations, so that your listening pleasure will be enhanced right from the start. You will notice that in all aspects of planning, engineering, styling, operating convenience and adaptability, we have sought to anticipate your needs and desires.

Keep this manual handy for future reference.

For your records

Record the serial number, found on the back of the unit, in the spaces designated on the warranty card, and in the space provided below. Refer to the model and serial numbers whenever you call upon your dealer for information or service on this product.

Model KR-A57R Serial Number _____

Unpacking

Unpack the unit carefully and make sure that all accessories and cables are put aside so they will not be lost.

Examine the unit for any possibility of shipping damage. If your unit is damaged or fails to operate, notify your dealer immediately. If your unit was shipped to you directly, notify the shipping company without delay. Only the consignee (the person or company receiving the unit) can file a claim against the carrier for shipping damage.

We recommend that you retain the original carton and packing materials for use should you transport or ship the unit in the future.

Accessories

FM indoor antenna.....	1
AM loop antenna.....	1
AM loop antenna stand.....	1
Remote control unit.....	1
Battery (SUM-3, "AA" or "R6").....	2
75Ω/300Ω antenna adaptor.....	1

Contents

Caution: Read the following pages marked in ⚠ carefully to keep your safety.

⚠ Before applying power.....	2	Operating instructions.....	11
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Before applying power

This unit operates on 240 V AC only.

Safety precautions

WARNING:

TO PREVENT FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

 <div data-bbox="226 2176 584 2290">CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN</div> 	CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.
	THE LIGHTNING FLASH WITH ARROWHEAD SYMBOL, WITHIN AN EQUILATERAL TRIANGLE, IS INTENDED TO ALERT THE USER TO THE PRESENCE OF UNINSULATED "DANGEROUS VOLTAGE" WITHIN THE PRODUCT'S ENCLOSURE THAT MAY BE OF SUFFICIENT MAGNITUDE TO CONSTITUTE A RISK OF ELECTRIC SHOCK TO PERSONS.
	THE EXCLAMATION POINT WITHIN AN EQUILATERAL TRIANGLE IS INTENDED TO ALERT THE USER TO THE PRESENCE OF IMPORTANT OPERATING AND MAINTENANCE (SERVICING) INSTRUCTIONS IN THE LITERATURE ACCOMPANYING THE APPLIANCE.

Important safeguards

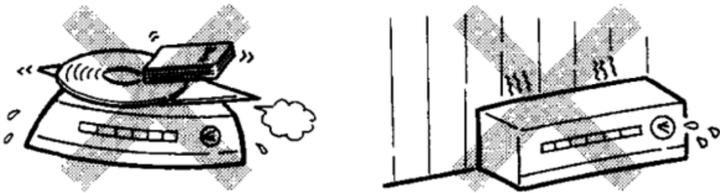
Please read all of the safety and operating instructions before operating this unit. For best results, follow all warnings placed on the unit and adhere to the operating and use instructions. These safety and operating instructions should be retained for future reference.

- 1. Power sources** – The unit should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.
- 2. Power-cord protection** – Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, pay particular attention to cords at plugs, convenience receptacles, and the point where they exit from the unit.

Never pull or stretch the cord.



- 3. Ventilation** – The unit should be situated so that its location or position does not interfere with its proper ventilation. To maintain good ventilation, do not put records or a table-cloth on the unit. Place the unit at least 10 cm away from the walls.

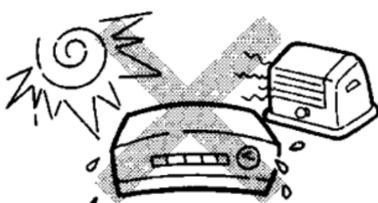


- 4. Water and moisture** – The unit should not be used near water – for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, etc.

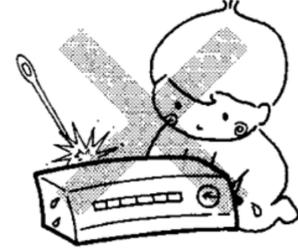


- 5. Temperature** – The unit may not function properly if used at extremely low, or freezing temperatures. The ideal ambient temperature is above +5°C (41°F).

- 6. Heat** – The unit should be situated away from heat sources such as radiators, heat registers, stoves, or other units (including amplifiers) that produce heat.



- 7. Electric shock** – Care should be taken so that object do not fall and liquid are not spilled into the enclosure through openings. If a metal object, such as a hair pin or a needle, comes into contact with the inside of this unit, a dangerous electric shock may result. For families with children, never permit children to put anything, especially metal, inside this unit.



- 8. Enclosure removal** – Never remove the enclosure. If the internal parts are touched accidentally, a serious electric shock might occur.



- 9. Cleaning** – Do not use volatile solvents such as alcohol, paint thinner, gasoline, benzine, etc. to clean the cabinet. Use a clean dry cloth.

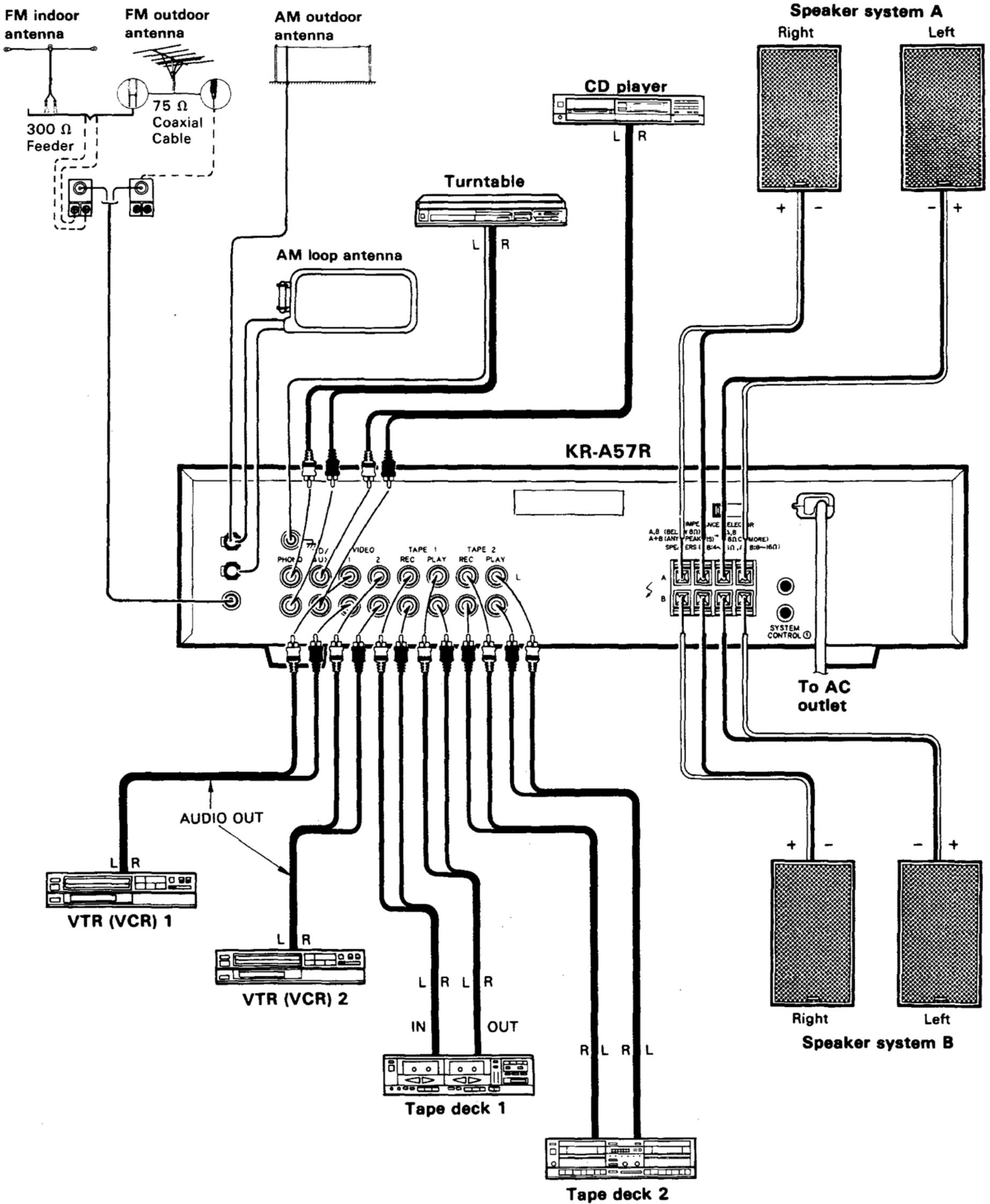


- 10. Abnormal smell** – If an abnormal smell or smoke is detected, immediately turn the power OFF and pull out the power cord. Contact your dealer or nearest service station.

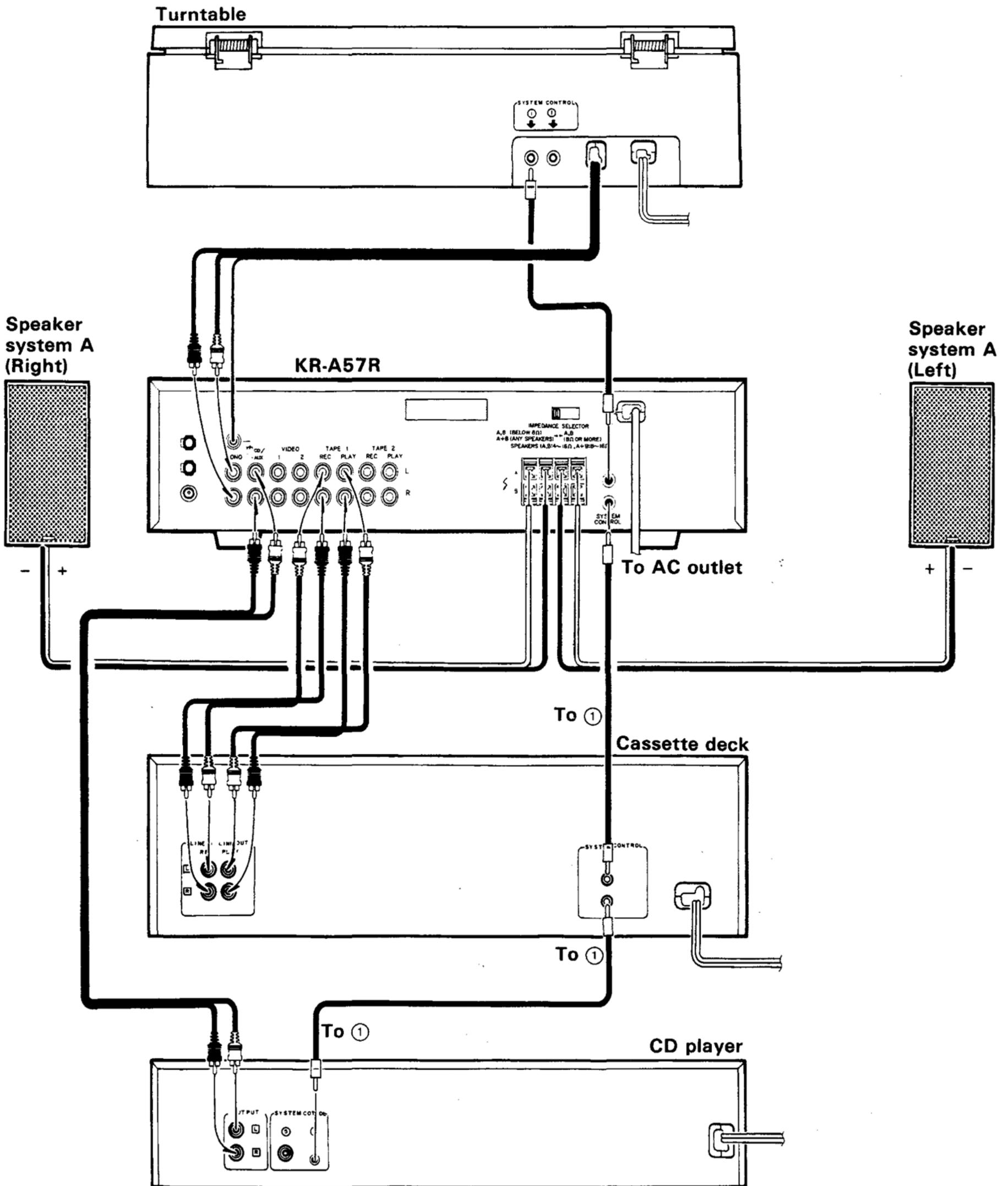
POWER OFF!



System connections



System control connections



SYSTEM CONTROL terminals

When the turntable, tape deck or CD player are used in connection with the receiver, they can be operated from the remote control unit of the receiver when their SYSTEM CONTROL terminals are connected as shown in the figures. (Ordinary audio cable connections are also required.) For details, refer to the operating instructions for the remote control unit on page 13 and SYSTEM CONTROL operation on page 12.

Front speakers terminals

This unit has two pairs of speaker terminals, SPEAKERS A and SPEAKERS B.

Connecting one speaker system

Connect speakers rated at 4 ohms or more to the SPEAKERS A terminals.

Connecting two speaker systems

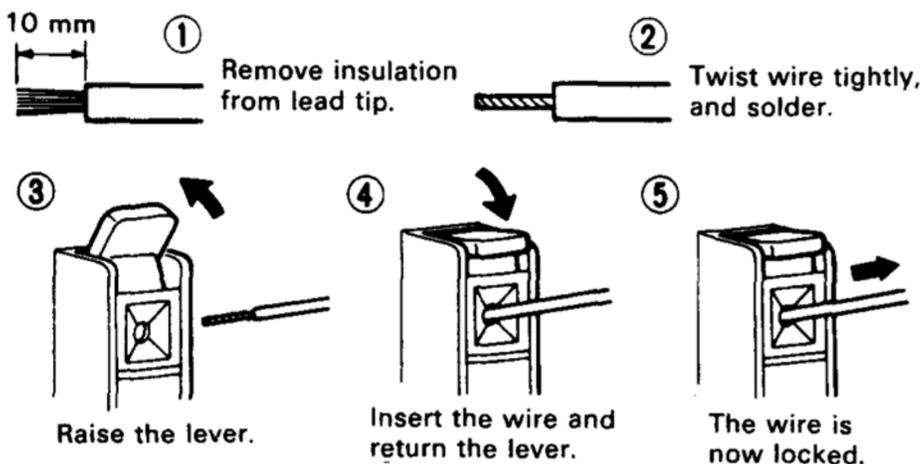
To connect an additional pair of speakers, use the B terminals. In this case, each speaker must be rated at 8 ohms or more.

Connecting with speaker cords

1. Connect the left speaker to the [L] SPEAKERS terminals and the right speaker to the [R] SPEAKERS terminals.
2. Be careful that wires do not contact adjacent terminals.
3. Be sure to connect the (+) terminal of the speaker to the (+) terminal of the unit.

Never short the (+) and (-) terminals.

Erroneous connection of speakers may result in poor imaging or unnatural sound.



Speaker lead connection

Setting IMPEDANCE SELECTOR

CAUTION

Speaker impedance selector:

When connecting one pair of speakers to the SPEAKERS A or B terminals, set the IMPEDANCE SELECTOR according to the speaker impedance.

4 Ω , 6 Ω → "A or B (BELOW 8 Ω)
A and B (ANY SPEAKERS)"

8 Ω , 16 Ω → "A or B
8 Ω OR MORE"

When connecting speakers to both SPEAKER A and B terminals, always set the IMPEDANCE SELECTOR to "A or B (BELOW 8 OHMS), A and B (ANY SPEAKERS)"



IMPEDANCE SELECTOR

A or B (BELOW 8 Ω) ◀ ▶ A or B
A and B (ANY SPEAKERS) (8 Ω OR MORE)

Notes:

1. During speaker system connection and operation of SPEAKER IMPEDANCE SELECTOR, set the POWER switch to OFF.
2. Check that the connected lead wires of the speaker systems do not contact with other jacks or terminals.

PHONO jacks

The PHONO jacks of the unit can accept a turntable with an MM type phono-cartridge.

Your stereo turntable has RCA pin-plug cord that is terminated with phono plugs. Plug the left channel plug into the [L] and right channel plug into the [R] PHONO jacks. If the turntable has a ground wire, connect it to the unit's GND terminal to avoid hum.

GND (Ground)

For maximum safety and minimum interference connect the GND terminal to a good earth ground if practicable. A good earth ground is a metal stake driven into moist earth. However, never use a gas pipe for this purpose.

CD/AUX jacks

To these jacks, high-level signal sources such as, CD player, tuner, extra tape decks, TV, VCR sound outputs, etc. can be connected

Tape 1, 2 jacks

If only one tape deck is to be connected to the system it is recommended that it be connected to the jacks marked TAPE 1. (If your tape deck is equipped with a 3 head system, connect to the jacks marked TAPE 2. The simultaneous monitoring can be possible.) Tape deck input and output cables are normally terminated with phono plugs.

Playback

Plug the left and right output cables of the tape deck into the [L] and [R] TAPE 1 PLAY jacks.

Record

Plug the left and right input cables of the tape deck into the [L] and [R] TAPE 1 REC jacks.

Second tape deck

Plug the input and output cables from the second tape deck into the REC and PLAY jacks marked TAPE 1 OR 2.

VIDEO (audio) 1, 2 jacks

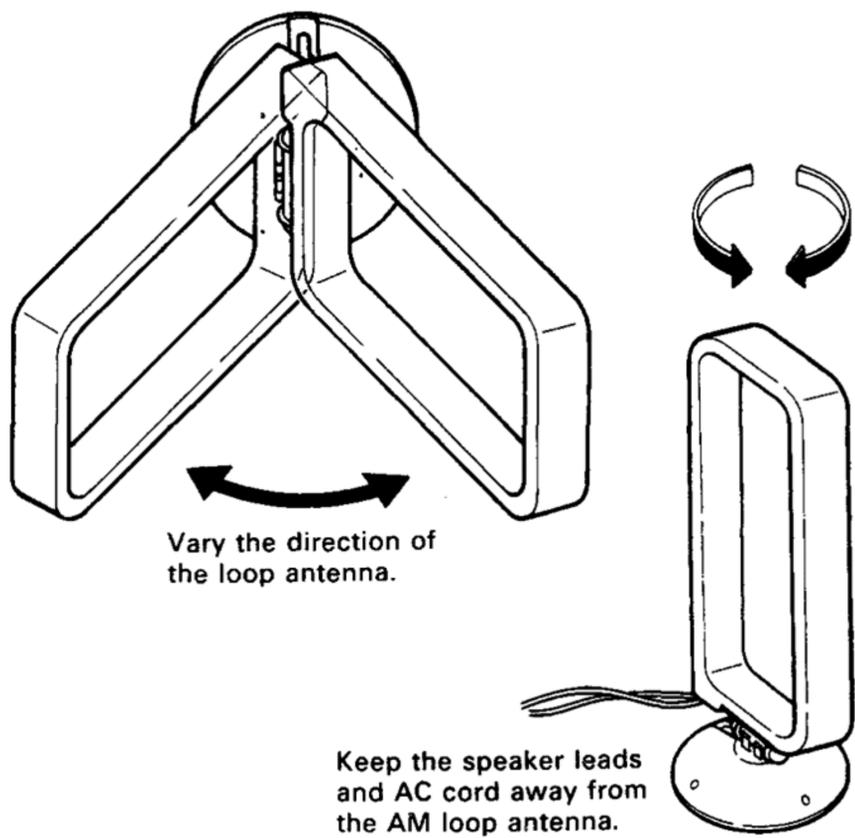
Two video recorders can be connected to the VIDEO 1 and VIDEO 2 jacks. VIDEO jacks are used to connect the audio output terminals of a video recorder. (Never connect these jacks to the video output of the video recorder.)

AM antennas

AM loop antenna

Install the AM loop antenna to the supplied loop antenna stand and place them on a shelf, etc., or install them in the rack or wall with screws.

Rotate the AM loop antenna to the right or left for best reception.



Note:
Do not place the AM loop antenna on the unit. As this unit employs computing device, placing the AM loop antenna on the unit may result in noise generation. Place the AM loop antenna away from the unit.

AM outdoor antenna

In steel buildings or at a great distance from the transmitter, it may be necessary to install an outside long wire antenna. The end of this wire should be stripped of insulation and connected to the AM terminal. At this time, keep the loop antenna connected.

FM antennas

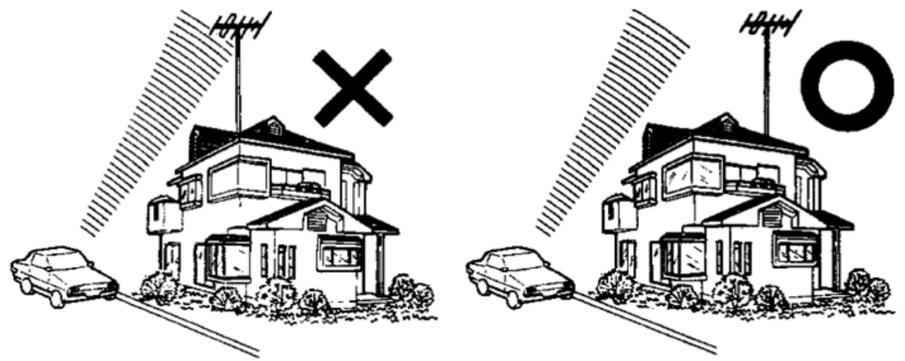
Your unit approaches the theoretical limit in FM sensitivity. However, the performance of your system is determined to a very large extent upon the signal conditions where the antenna is placed. The reason is that FM broadcast signals travel in straight paths. Therefore they can be blocked by natural or man-made obstructions such as mountains, hills, or buildings. At large distances from the transmitter the curvature of the earth acts as a screen between transmitter and receiver.

Consider the signal conditions in planning your installation. If you live in or near an urban area the indoor antenna (supplied) may serve your needs adequately.

However, if desired stations are weak due to natural obstructions, or if you live in a building which is made of steelreinforced concrete (which acts as a shield) it may be necessary to install a good outdoor antenna.

FM outdoor antenna

Consult with your dealer or service man about the best method of selecting and erecting an outdoor FM antenna. The choice of lead-in (feeder) wire is also important. The flat ribbon-shaped twin lead performs well electrically, is cheaper and is somewhat easier to handle routing through windows and around rooms. Coaxial cable is more expensive, does a much better job of minimizing interference, is less prone to the effects of weather and close-by metal objects, and is nearly as good a signal conductor as the ribbon type wire. The latter is particularly true of foam-type coaxial cables. Coaxial cable is somewhat more difficult to install at the point where the cable enters the building. If coaxial cable is selected, make sure the antenna is designed to drive that type of cable.



- To minimize auto-ignition noise, locate the antenna as far from heavy traffic as possible.
- Keep the feeder or coaxial cable as short as possible. Do not bundle or roll up excess cable.
- The antenna should be at least two meters (6.6 feet) from reinforced concrete walls, or metal structures.

FM outdoor antenna setting

FM indoor antenna

Connect the T-shaped indoor antenna (supplied) to the 300 ohm FM ANTENNA terminal as shown in the system connections diagram. Spread the two arms that form the top of the "T" horizontally and hold them against convenient wall surfaces. Try several locations for best results on your desired stations. Tape the antenna in place where the best compromise is found between listening results and appearance.

75Ω coaxial cable connection

After stripping the end of your coaxial cable, RG-6 or RG-59 mount the supplied 75Ω/300Ω FM antenna adapter on the cable as shown. Then insert the plug into the 75Ω ANTENNA terminal on the rear panel as shown in **System connections diagram**.

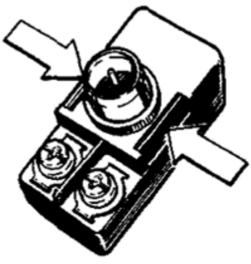
300Ω ribbon type cable connection

Although the unit is designed exclusively for use with 75Ω coaxial cable, it can also accept a 300Ω indoor supplied 75Ω/300Ω antenna adapter. Strip the plastic insulation from the wire ends for about 10 mm (3/8 inch). Connect the wires to the terminals on the adapter, then insert it into the 75Ω ANTENNA terminals on the rear panel (see **System connections diagram**).

If you connect a 300Ω feeder cable, you need not detach the collar in the 75Ω/300Ω antenna adapter.

If the collar is detached, the sensitivity will decrease.

Note:
A FM outdoor antenna can be connected to the tuner with either a 75Ω coaxial cable or 300Ω ribbon feeder. For proper connection, carefully read the instruction manual for the FM outdoor antenna.

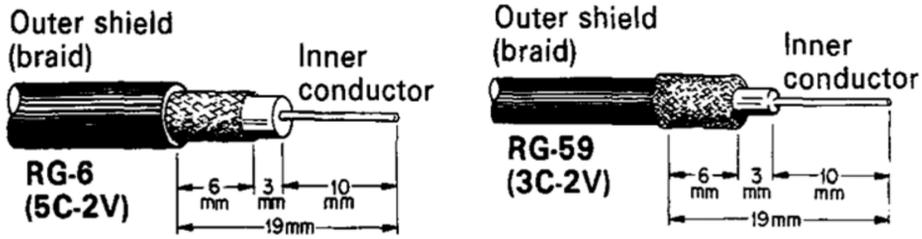


Press the claws in the direction of the arrows with the fingers to release the lock and pull out the cover.

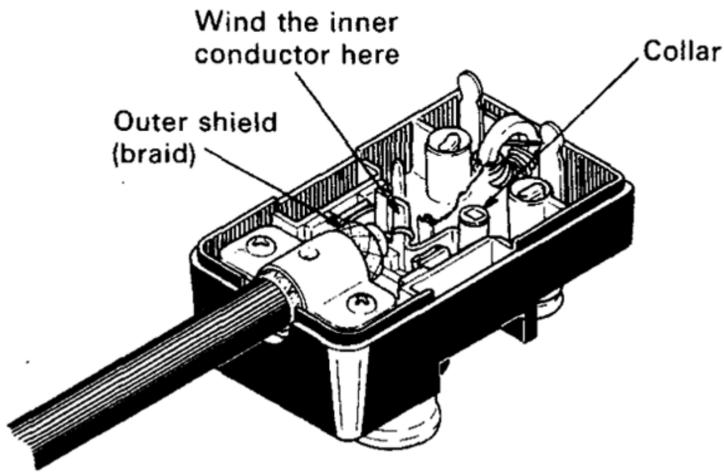
75Ω/300Ω antenna adapter
(supplied)

How to open the 75Ω/300Ω antenna adapter

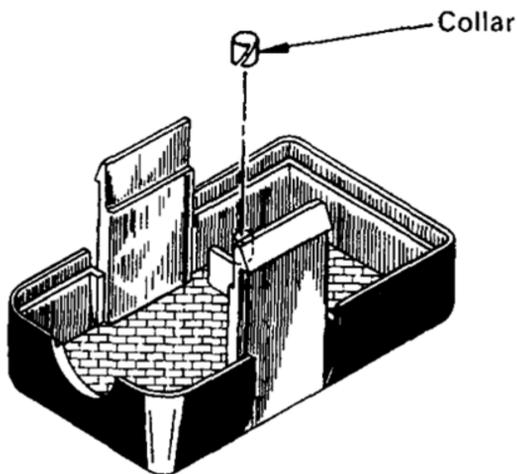
1. Arrange the coaxial cable as illustrated.



2. Connect the processed coaxial cable to 75Ω/300Ω antenna adapter as shown below in the case of RG-6, insert and wind the inner conductor around the slit. In the case of RG-59, further insert and wind the inner conductor around the slit. Detach the collar in the antenna adapter.

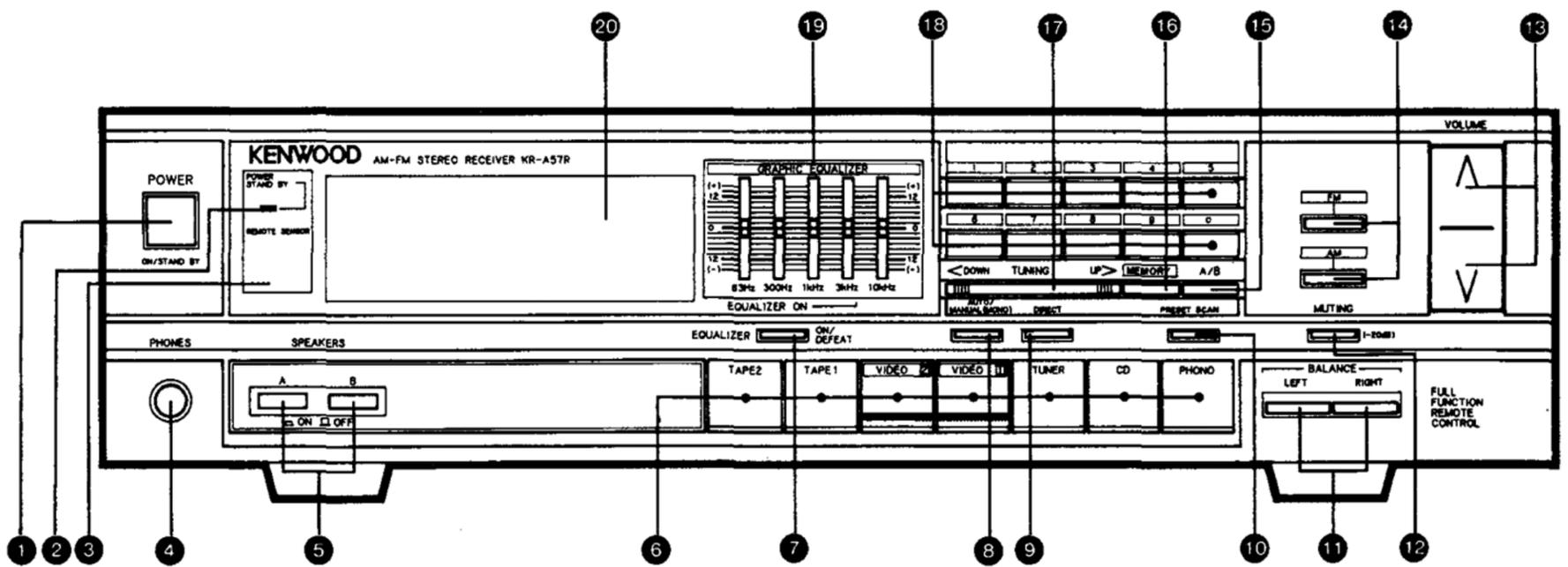


3. Put the collar on the pole in the cover.



75Ω antenna connection

Controls, indicators and connectors



1 POWER switch

By pressing this switch, the power of the unit and the power of the equipment connected to the SWITCHED AC outlet can be switched ON/OFF.

When this switch is pressed, the function selected last or the last station to be received will be displayed. You can operate the switch from a distance with the RC-70E (remote control unit).

2 REMOTE POWER STAND BY indicator

Lights when the power cord is connected to the AC outlet. When this indicator is lit, the POWER switch or POWER key of the remote control unit can be operated.

3 REMOTE SENSOR

Point the supplied remote control unit towards this sensor and operate.

4 PHONES jack

Stereo headphones are plugged into this jack.

5 SPEAKERS switch

A, B OFF – This position silences all speakers to permit private use of headphones.

A ON – Activates speakers connected to the SPEAKERS A terminals on the rear panel.

B ON – Activates speakers connected to the SPEAKERS B terminals on the rear panel.

A, B ON – Activates speakers connected to the SPEAKERS A and B terminals simultaneously.

Note:

When the SPEAKER A and B switches are used at the same time, the speakers connected to the SPEAKERS A and B terminals are connected in series. In this respect, whenever using the SPEAKER A and B switches at the same time, be sure that two pairs of speakers are connected to the terminals A and B, otherwise no sound is output.

6 INPUT SELECTOR switches

TAPE 1 – Used to play back a tape deck connected to TAPE 1 jacks.

TAPE 2 – Used to play back a tape deck connected to the TAPE 2 jacks. (The TAPE-2 switch is operated in priority to any other audio input switches.)

VIDEO 1 – Selects the video recorders connected to the VIDEO 1 jacks.

VIDEO 2 – Select the video recorders connected to the VIDEO 2 jacks.

TUNER – Selects the tuner mode for FM or AM reception.

CD – Selects the source connected to the CD/AUX jacks.

PHONO – Selects the program source played on the turntable.

Note:

If the setting of the INPUT SELECTOR switch cannot be changed, press other INPUT SELECTOR switch, then press the desired INPUT SELECTOR switch again.

7 GRAPHIC EQUALIZER switch

Press this switch to ON and the frequency characteristic will be modified by passing through the graphic equalizer. In the DEFEAT position, the frequency characteristic remains unchanged.

The ON indicator lights when the switch is set to ON.

8 AUTO/MANUAL (MONO) switch

Press this switch to select the tuning mode between AUTO or MANUAL (MONO). In MANUAL (MONO) mode, FM stereo broadcast is received in monoural.

9 DIRECT key

Press this key while listening to a radio broadcast to set the unit to the direct tuning mode so that the frequency of the desired station can be entered with the numeric keys. Press to set to the direct input standby mode. Press again to return to the last memory of the tuner.

10 PRESET SCAN key

Use this key for preset channel scanning. When a frequency stores in the preset memory is being received, pressing this key shifts the reception to the next frequency in the preset memory. (The preset channels are scanned in the order A-1, ..., A-0, B-1, ..., B-0.)

11 BALANCE control key

Governs the amount of sound coming from each paired speakers to get optimum stereo effect.

Pressing the RIGHT key will decrease the left channel volume and pressing the LEFT key will decrease the right channel volume. When the BALANCE control is pressed, display window shows the BALANCE indicator.

12 MUTING switch

When the muting switch is pressed, the MUTING indicator in the display window will flash, and the overall listening sound level is reduced by -20 dB.

When the switch is pressed again, you can restore exactly the same listening level as before.

13 VOLUME control key

This control adjusts the left- and right-channel volumes simultaneously. Set it for the desired listening level. Pressing the up (Λ) key increases the volume and pressing the down (∇) key decreases it. When VOLUME control is pressed, the frequency display shows volume level in decibel.

Note:

A slight noise is heard from the speakers when operating the VOLUME controls. This noise is the built-in microprocessor control signal and is not a fault.

14 FM, AM band switches

FM – For FM broadcasts (The FM indicator lights.)

AM – For AM broadcasts (The AM indicator lights.)

This switch has the same function as that of the TUNER switch of the INPUT SELECTOR. It is therefore possible to switch directly to the radio reception mode (FM or AM) from any other input mode.

15 Preset A/B switch

Each time this button is pressed, PRESET mode A and B is selected alternately (at this time, A or B indicator lights in the display window).

In either FM or AM, 10 stations can be stored into A and B respectively, by frequency. In total, frequencies of up to 20 stations can be preset with this unit.

16 MEMORY key

When the input mode is in tuner mode, use this key to store new frequencies in the preset channel memory.

By pressing the MEMORY key, setting the PRESET key to A or B and by pressing one of the preset channel key, the frequency being received is stored in memory in the preset channel key pressed.

17 TUNING UP/DOWN key

Auto tuning mode – When the UP or DOWN key is pressed, the frequency automatically increases or decreases until the next station of sufficient signal strength is reached.

Manual tuning mode – Each time the UP or DOWN key is pressed, the tuned frequency increases or decreases in the following manner.

FM – 100 kHz steps

AM – 10 kHz steps

If either key is held down more than half a second, the tuned frequency will continue to increase or decrease until the key is released.

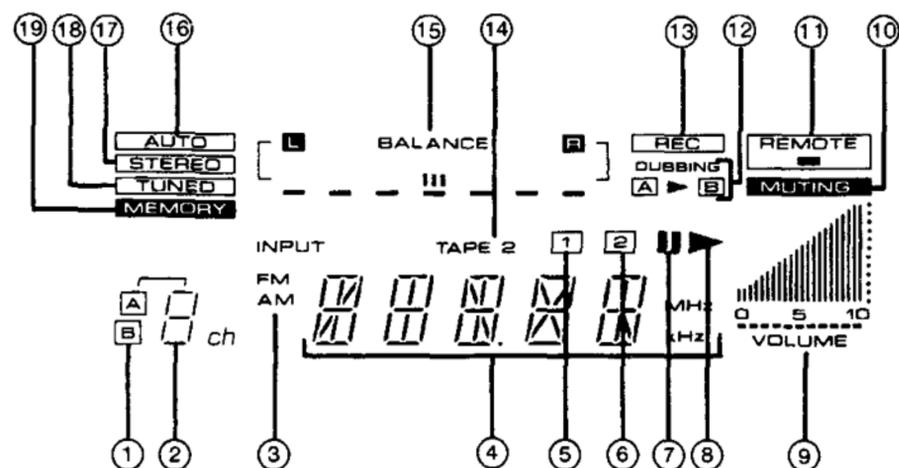
18 PRESET (numeric) keys

Used to store and recall frequencies in the preset memory. The receiver enters directly to the radio reception mode of the required station from any other input mode by pressing the corresponding PRESET key.

19 GRAPHIC EQUALIZER controls

Adjust these controls up and down to equalize the sound by ± 12 dB to the center frequency indicated.

20 Display window



- ① "A" or "B" lights according to the selection of the Preset A/B switch.
- ② Displays the preset channel.
- ③ Displays the tuner input mode. "FM" lights during FM broadcast reception, "AM" lights during AM reception and "INPUT" lights during selection of the INPUT SELECTOR without TUNER.
- ④ Displays the input mode display, digital frequency display and decibel displays.
- ⑤ Lights when the VIDEO 1 of INPUT SELECTOR is pressed.
- ⑥ Lights when the VIDEO 2 of INPUT SELECTOR is pressed.
- ⑦ This indicator lights when the PAUSE key of the tape deck or CD player is pressed during operation.
- ⑧ This indicator lights when the PLAY key of the tape deck or CD player is pressed during operation.
- ⑨ Indicates the audio volume.
- ⑩ Flashes when the MUTING switch is pressed.
- ⑪ This indicator lights when the unit is operated with the remote control unit.
- ⑫ This indicator lights when tape-to-tape dubbing (copying) is performed with the double deck connected to the TAPE 1 jacks corresponding to that of input selector.
- ⑬ This indicator lights when the tape deck connected to the TAPE 1 jacks corresponding to that of input selector is set to the recording mode.
- ⑭ Lights when the TAPE 2 of INPUT SELECTOR is pressed.
- ⑮ Indicates the volume balance between left and right.
- ⑯ In tuner mode, lights during AUTO tuning.
- ⑰ In tuner mode, lights when a stereo broadcast is tuned in.
- ⑱ In tuner mode, lights when a station is tuned in.
- ⑲ In tuner mode, lights when a station is tuned in by memory selection.

Operating instructions

Broadcasting reception

Auto tuning (Almost all stations can be tuned in.)

1. Press the POWER switch, and then the TUNER switch of the INPUT SELECTOR.
2. Select FM or AM with the FM/AM selector switch.
3. Set the tuning mode switch to AUTO.
4. Press the down or up side of the TUNING key to start the tuning system in the direction of the required station.

Release when the FREQUENCY DISPLAY shows that you are approaching the required station. The auto tuning will stop automatically when the station is received, and the FREQUENCY DISPLAY will show the channel frequency.

If the auto tuning stops at an unwanted station before it reaches the required station, press the DOWN or UP side of the TUNING key again.

5. Adjust the VOLUME control to the required listening level and use the GRAPHIC EQUALIZER control to adjust the sound to your own preference.

DIRECT tuning

1. Select FM or AM with the FM, AM selector switch.
2. Press the DIRECT key.
3. Input the desired frequency with PRESET channel (Numeric) keys.
4. The receiver enters the radio reception mode just after the frequency value has been input.
(If the input value is outside the tuning range, the frequency display flashes for 5 seconds and the receiver returns to the radio reception mode of the last channel.)

Manual tuning (to receive a weak broadcast)

1. Select FM or AM with the FM/AM selector switch.
2. Set the tuning mode switch to MANU.
3. To receive a weak broadcast, FM mode is set to MONO automatically.
4. Press the down or up side of the TUNING key to start the tuning system in the direction of the required station.
Release when the FREQUENCY DISPLAY shows the required frequency. If the tuning does not stop at the required station, tap the down or up side.
5. Adjust the VOLUME control to the required listening level and use the GRAPHIC EQUALIZER control to adjust the sound to your own preference.

Preset procedures

Up to 20 stations can be preset in either the AM or FM bands.

1. Select AM or FM with the FM/AM selector switch.
2. With the AUTO or MANUAL tuning, tune the unit to the required station.
3. Select A setting with the PRESET A/B switch.
4. Press the MEMORY button.
5. Press one of the PRESET channel (Numeric) key within 5 seconds after the MEMORY key is pressed.
6. For B setting preset, select B setting with the PRESET A/B switch, and follow the same preset procedures as above (2-5).

Note:

When a PRESET channel key is pressed to preset a new frequency, the old frequency is cleared and the new frequency is stored.

Listening to a preset station

1. Select A or B setting with the PRESET A/B switch.
2. Press the PRESET channel key for the required station.

3. Adjust the VOLUME control to the required listening level and use the GRAPHIC EQUALIZER controls to adjust the sound to your own preference.

Record playing

1. Press the PHONO switch of the INPUT SELECTORS.
2. Operate the turntable.
3. Adjust the VOLUME control to the required listening level and use the GRAPHIC EQUALIZER controls to adjust the sound to your own preference.

CD

1. Press the CD switch of the INPUT SELECTORS.
2. Operate the component connected to the CD/AUX jacks.
3. Adjust the VOLUME control to the required listening level and use the GRAPHIC EQUALIZER controls to adjust the sound to your own preference.

Tape decks

Tape playback

1. Press the appropriate TAPE (1 or 2) switch to select output from a tape deck connected to the TAPE 1 or 2 jacks.
2. Operate the tape deck.
3. Adjust the VOLUME controls to your preference.

Note:

When both buttons (TAPE-1 and TAPE-2) are pressed, Tape-2 setting has priority.

Recording

1. Press the appropriate INPUT SELECTOR switch.
2. Set up your tape deck(s) for recording and set the recording level with the controls on your tape deck(s).
3. Adjust listening level at the unit to suit your listening preference.

Notes:

1. During recording with the cassette deck, the INPUT SELECTOR on the receiver is fixed at the source from which the recording is made, by the system control circuit. At this time, pressing any of the INPUT SELECTOR buttons does not function even when it is pressed. (TAPE-1)
2. The TAPE-2 selector switch has priority over the input selector switches. To listen to the source other than tape deck 2, be sure to set this switch to OFF.
3. Do not press the TAPE-2 switch while recording on the cassette deck connected to the TAPE-2 jacks.
4. To monitor with a three-head tape deck, set the tape deck accordingly.

Tape dubbing

Tape recordings may be duplicated (dubbed) easily using two tape decks connected to the TAPE 1 and 2 jacks.

For example:

(TAPE 1 to 2);

1. Connect two tape decks to the TAPE 1 and TAPE 2 jacks.
2. Press the TAPE-1 switch.
3. Play back the recorded tape and adjust the recording levels before starting tape dubbing.

(TAPE 2 to 1);

1. Press the TAPE-2 switch.
2. Play back the recorded tape and adjust the recording levels before starting tape dubbing.
3. Do not press the TAPE-1 switch during recording with tape deck 1.

Note: _____
Adjust record levels on the deck that is making the copy using that deck's operating controls.

VIDEO (audio sound)

1. Press the appropriate VIDEO (1 or 2) switch of the INPUT SELECTOR to select output from a video recorder connected to the VIDEO (1 or 2) jacks.
2. Operate the video recorder.
3. Adjust the VOLUME control key for your preference.

GRAPHIC EQUALIZER operation

1. Select the desired source and play back it.
2. Press the GRAPHIC EQUALIZER switch to ON.
3. Slide the equalizer level control knobs so that the equalized sound is heard from the speakers as desired.
4. The equalized sound sources can be recorded onto the tape (cassette) deck connected to the TAPE-1 jacks, VIDEO 1 and/or VIDEO 2 jacks on the rear panel of this unit.

Never turn off the power of the unit in the middle of dubbing.

System control operation

Connection

Using the system control cord provided (with the European version of the KR-A57R only, and provided with the system component models as below designated for other areas), make connections as shown on page 5.

The following models are available for the system control operations.

Turntable: KD-77F, KD-67F
Cassette deck: KX-97CW, KX-87CR, KX-77CW or KX-67W
CD player: DP-87, DP-57, DP-47, DP-M107R, DP-M97 or DP-M97R

Note: _____
Some models provide two or three system control jacks. However, when used with this receiver, be sure to connect the system control cord to the jack having a indication of (1).

Operation

1. Automatic play operation

When starting play with the turntable, cassette deck or CD player connected to the receiver, press the desired INPUT SELECTOR switch on the receiver. The turntable, cassette deck or CD player will automatically enter the play mode.

In the same way, pressing the Play key of the turntable, cassette deck or CD player will automatically switch the INPUT SELECTOR on the receiver to the equipment on which the Play key is pressed.

2. Synchro recording

To record the sound from the turntable or CD player onto the tape with the cassette deck, press the PLAY (START) key of the turntable or CD player. The cassette deck will start recording automatically, synchronized with the turntable or CD player starting play.

3. Remote control

When the remote control unit provided with this unit, to which the turntable, cassette deck or CD player is connected, is equipped with related control keys, the related component can be controlled using these keys.

Note: _____
During recording with the cassette deck, the INPUT SELECT on the receiver is fixed at the source from which the recording is made, by the system control circuit. At this time, pressing any of the INPUT SELECTOR buttons does not function even when it is pressed.

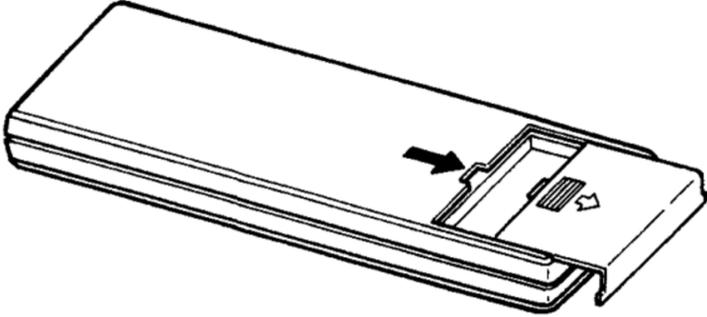
Operating procedure of the remote control unit

Notes

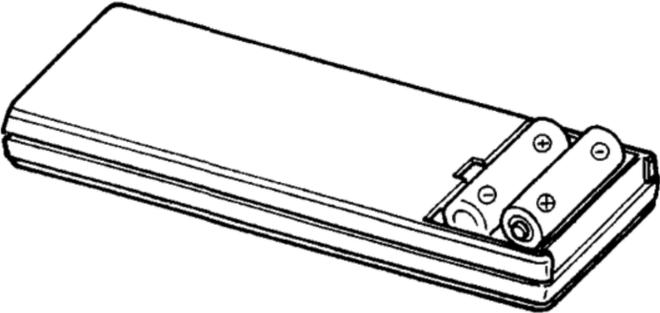
- When the power plug is connected to an AC outlet, this unit enters the power standby mode and the indicator lights. At that time, the unit can be operated only with the POWER key of remote control unit. First, enter the unit to the power on mode with the POWER key of remote control unit, and operate with the other keys.

Installing the battery on the remote control unit

1. Remove the battery compartment cover.



2. Insert two size "AA" (R6) batteries confirming the correct polarity and close the cover in its place.



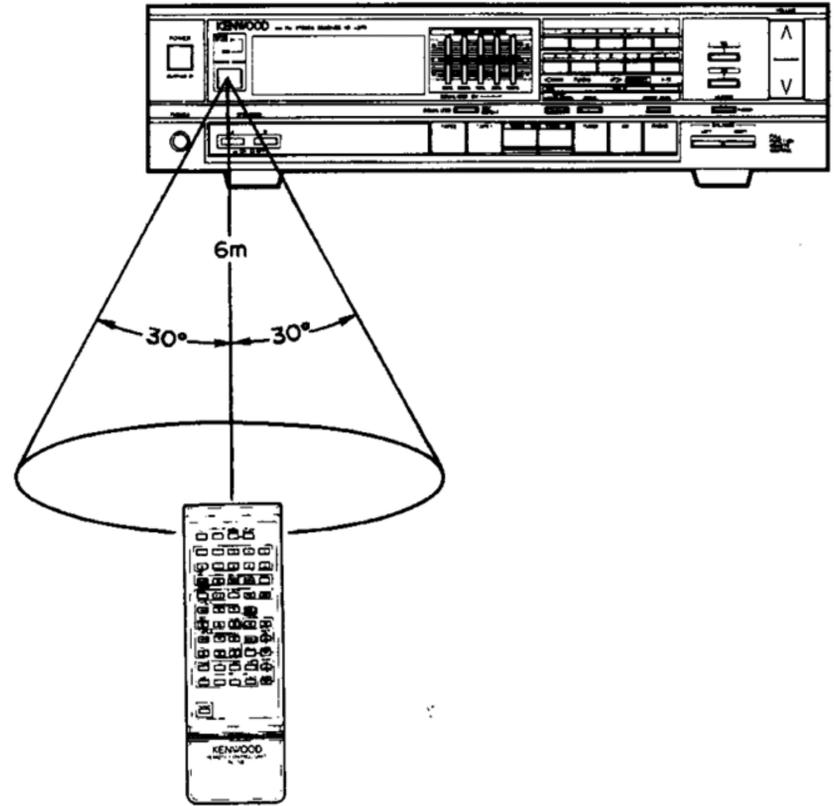
Note:

The provided batteries are to be used for operation of the remote control unit, and it may have shorter life. When the remote unit becomes effective only for shorter distance or does not operate, replace them with two new batteries.

Usable range of remote control unit

The usable range of the remote control unit may differ on temperature, humidity or using conditions, however, it is defined approximately as shown in the figure below:

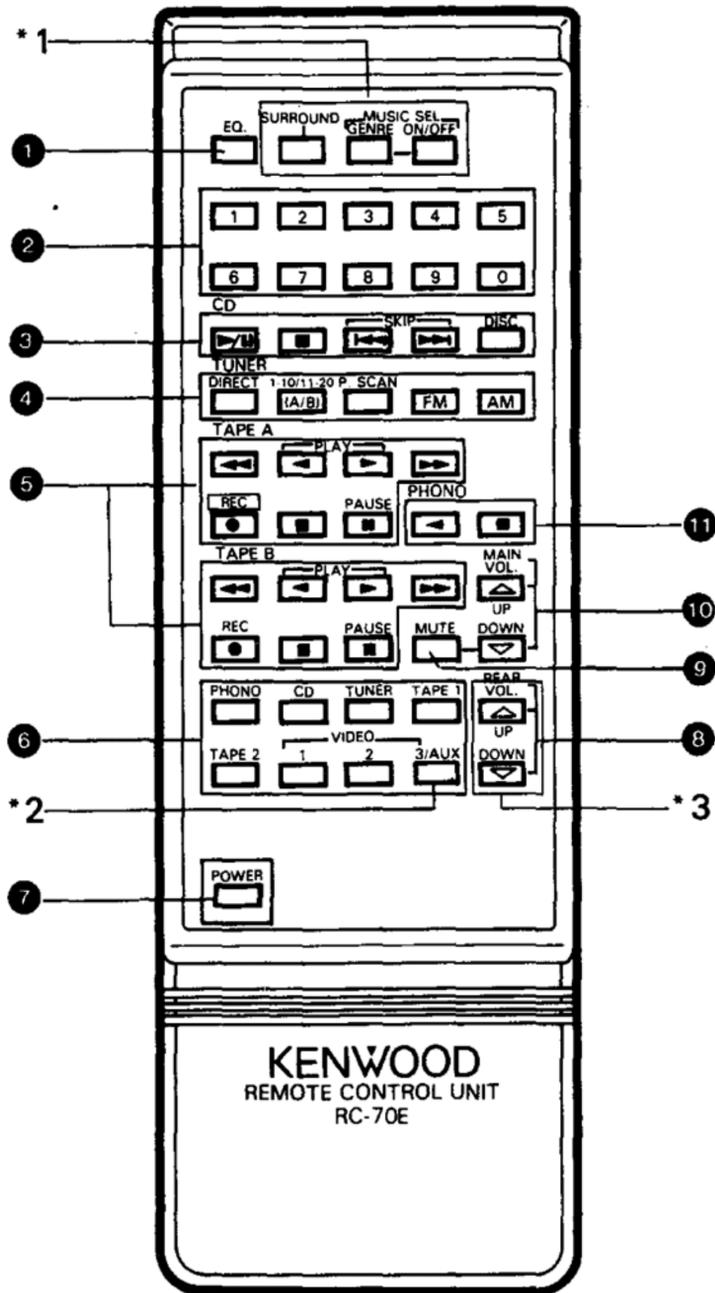
Remote control unit operation range KR-A57R



Note for remote control operation

After pressing one of operation keys, when the next operation is required, press the next operation key firmly after approx. 1 second interval. When the next operation key is pressed immediately after the previous key, it may cause misoperation.

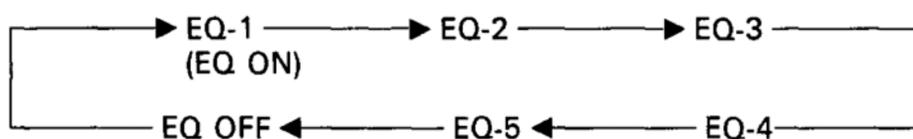
Remote control unit



Note:
*1, *2 VIDEO 3/AUX and *3 REAR VOL. (UP/DOWN) do not function with this unit.

1 GRAPHIC EQUALIZER key (EQ.)

When this key is pressed once, the graphic equalizer pattern stored in EQ-1 is recalled and displayed in the display window. After then, if it is kept depressed, the stored equalizer patterns will be recalled with the display showing "EQ-2", "EQ-5". Then this key is pressed again, the graphic equalizer function will be released.



2 10-Key

10-key direct operation is possible only for tuner and CD player.
(For example: When "7" is pressed while listening to track No. 4 of CD player, the track No. is changed to 7.)

Note: If you do not press the second key within two seconds after pressing the first key, the first number keyed in will be automatically selected as the channel number.

3 Compact disc player (DP-87/DP-57/DP-47/DP-M107R/DP-M97R/DP-M97) operation (CD)

Play/pause key (▶/⏸)

When this key is pressed with a compact disc loaded in the compact disc player, the disc is played. (Same function as the play key on the compact disc player.)

When this key is pressed during play, the player enters the pause mode. To release pause mode, press it again.

Stop key (■)

Press to cancel all operations. The pickup returns to the beginning of the first tune and the player enters the standby mode. (Same function as the stop key on the compact disc player.)

Music skip key (▶▶)

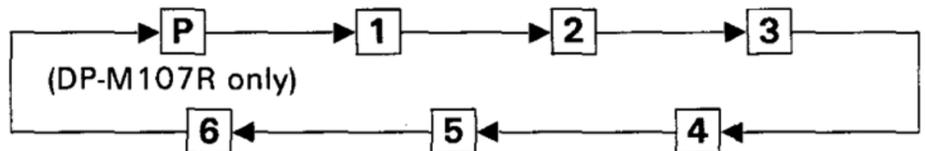
Press to skip to the beginning of the next tune. The pickup is advanced to the forward tunes by the number of times it is pressed. (Same function as the music skip key on the compact disc player.)

Music skip key (◀◀)

Press to return to the beginning of the current tune. Pressing it again returns the pickup to the beginning. When the key is continuously pressed, the pickup returns to the backward tunes by the number of times it is pressed. (Same function as the music skip key on the compact disc player.)

Disc select key (DISC)

When a multiple CD player (DP-M107R, DP-M97R, DP-M97) is connected, this key selects one of six (or seven) CDs sequentially in a cycle.



4 Tuner operation keys (TUNER)

Direct

When this key is pressed, the unit is set to direct mode and the frequency of the desired station can directly be input using 10-key.

[A/B]

Each time this button is pressed, the preset station range is changed.

P. SCAN

When this key is pressed, the preset station are automatically received from A-1 for a specified time.

Band select keys (FM/AM)

Select the desired band for broadcast listening.

5 Cassette deck operation keys (KX-97CW, KX-77CW, KX-67W...TAPE A/B) (KX-87CR...TAPE B only)

Stop key (■)

Press to stop tape running.

Rewind key (◀◀)

Press to fast-wind the tape to the left reel.

Fast-forward key (▶▶)

Press to fast-wind the tape to the right reel.

Reverse Play key (◀)

Press to start playback in reverse direction. (Rear side playback)

When use the KX-77CW, the Reverse Play Key (◀) of the TAPE-A dose not function. When use the KX-67W, the Reverse Play Key (◀) of the TAPE-A and TAPE-B dose not function.

Play key (▶)

Press to start playback in forward direction. (Front side playback)

Pause key (⏸)

Press to stop play back or recording momentarily.

Record key (REC) (●)

Press to start recording.

⑥ Input selector keys

PHONO: To listen to a source from the turntable connected to the PHONO jacks, press this switch.

CD: To listen to a source from the CD player connected to the CD jacks, press this switch.

TUNER: To listen to a source from the tuner connected to the TUNER jacks, press this switch.

TAPE-1: To listen to a source from the tape deck connected to the TAPE 1 jacks, press this switch.

TAPE-2: To listen to a source of the tape deck, etc., connected to the TAPE 2 jacks, press this switch.

VIDEO 1: To listen to a source from the equipment connected to the VIDEO 1/AUX jacks, press this switch.

VIDEO 2: To listen to an audio source from video cassette recorder connected to the VIDEO 2 jacks, press this switch.

Note:

VIDEO 3/AUX do not function with this unit.

⑦ POWER switch

Press to turn on the KR-A57R.

⑧ Surround volume keys (REAR LEVEL)

These surround volume keys (REAR LEVEL) function the same as the LEVEL (UP, DOWN) keys on the optional SS-97 Surround processor.

- This key is effective only when the optional SS-97 Surround Processor is used.

⑨ MUTING key (MUTE)

Press to decrease the volume level instantaneously. Pressing it again resumes the previous volume level.

⑩ VOLUME keys (UP/DOWN)

Controls the volume of the speakers and headphones. Press the UP (Δ) key to increase the volume level and, press the DOWN (∇) key to decrease it.

Note:

The volume is raised up to the level preset at the control amplifier.

⑪ Turntable (KD-77F, KD-67F) operation keys (PHONO)**Play key (◀)**

Press to start record play automatically.

For KD-67F, select the record size when turning the power on, before starting play with this key.

Stop key (■)

Press to stop play; the tonearm returns to the rest and the platter stops rotating.

In case of difficulty

If your unit should not perform as expected, consult the table below to see if the problem can be corrected before seeking help from your dealer or service representative.

Symptom	Causes	Remedy
No power, no sound.	1. Power cord not plugged in. 2. Poor connection at wall outlet. Power outlet inactive.	1. Check plug contact. 2. Check outlet using a lamp or other appliance (outlet may be controlled by a wall switch).
No sound from left and right.	1. Speaker cords disconnected. 2. speakers switched off.	1. Check speaker connections. 2. Check speaker switch.
Sound from left or right, but not both.	Poor speaker connections.	Check connections at both ends of speaker cord.
Occurs during AM reception only	Cause	Remedy
High-frequency whistle especially at night.	Interference from TV set.	Turn off TV set, if problem disappears try relocating TV set.
Intermittent buzz or cracking sound.	Lightning. Fluorescent lamps starting. Appliance or furniture starting.	No remedy. Try reversing AC plug. Try reversing AC plug.
Occurs during FM reception only	Cause	Remedy
Hiss that gets worse in stereo reception.	Very weak antenna input signal.	Consider an outdoor antenna installation. In areas remote from the transmitter a 5 to 8 element antenna designed exclusively for FM is suggested.
Rhythmic static or popping noises.	Automobile ignition noise, especially evident when receiving weak signals.	Review antenna installation. Site the antenna as far from the street as possible and use coaxial cable.
STEREO indicator fails to light during stereo broadcast.	Another possible effect of a very weak signal.	Antenna system needs attention (see above).

Specifications

AUDIO SECTION

Power Output

55 watts per channel minimum RMS, both channel driven at 8 ohms from 20 Hz to 20,000 Hz with no more than 0.08% total harmonic distortion.

60 watts per channel minimum RMS, both channel driven into 8 ohms at 1 kHz with no more than 0.08 % total harmonic distortion

Total Harmonic Distortion

(20 Hz-20,000 Hz, 8 ohms)..... 0.08% at 55W
(1 kHz, 8 ohms)..... 0.01% at 55W

Intermodulation

distortion 0.08% at 55W

Input sensitivity/Impedance

PHONO (MM) 3.0 mV/47 kohms
CD/AUX, TAPE,
VIDEO 200 mV/47 kohms

Frequency Response

PHONO (RIAA standard Curve) 20 Hz-20,000 Hz... ± 0.5 dB
TAPE, CD/AUX 10 Hz-70,000 Hz... $\begin{matrix} +0 \text{ dB} \\ -3 \text{ dB} \end{matrix}$

Signal to Noise Ratio

PHONO (MM) 73 dB
TAPE, CD/AUX,
VIDEO 100 dB

Graphic Equalizer

Center Frequency 63 Hz, 300 Hz, 1kHz,
3 kHz, 10 kHz
Control Range ± 12 dB

FM TUNER SECTION

Tuning Frequency

Range 87.5 MHz-108 MHz

Antenna Impedance 300 ohms balanced
75 ohms unbalanced

Usable Sensitivity 11.2 dBf (2.0 μ V)

50 dB Quieting Sensitivity

MONO 17.2 dBf (4 μ V)
STEREO 38.2 dBf (45 μ V)

Note:

We follow a policy of continuous advancements in development. For this reason specifications may be changed without notice.

Signal to Noise Ratio at 65 dBf

MONO 76 dB

STEREO 72 dB

Total Harmonic Distortion at 1,000 Hz

MONO 0.2%

STEREO 0.3%

Frequency Response 30 Hz-15,000 Hz $\begin{matrix} +0.5 \text{ dB} \\ -2.5 \text{ dB} \end{matrix}$

Stereo Separation 40 dB at 1,000 Hz

Selectivity 53 dB at 400 kHz

Capture Ratio 1.2 dB

Image Rejection Ratio 40 dB

IF Rejection Ratio 86 dB

Spurious rejection Ratio. 80 dB

AM Suppression Ratio.... 57 dB

AM TUNER SECTION

Tuning Range 530 kHz-1,610 kHz

Usable Sensitivity 15 μ V (440 μ V/m)

Signal to Noise Ratio 50 dB

Selectivity 25 dB

GENERAL

Power Consumption 150 W

Dimensions W :420 mm (16-9/16")

H :109 mm (4-5/16")

D :229mm (9")

Weight Net. 5.3 kg (11.7 lb)