AM-FM STEREO RECEIVER

# KR-A50/A30 /A30L

KENWOOD

INSTRUCTION MANUAL

This instruction manual can also be used for model KR-A50/A30(L)B. The operations and specifications for both model KR-A50/A30(L)B and model KR-A50/A30(L) are the same.

KR-A30L is shipped to Europe only.

KR-A50 → AM (MW)/FM KR-A30 → AM (MW)/FM KR-A30L → AM (MW/LW)/FM

#### 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 that our company represents. 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

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.

### **Safety precautions**

#### Service or modifications

Do not remove the cabinet or touch internal parts. Refer all service to qualified service personnel. Unauthorized modifications can result in a dangerous shock hazard and can void the warranty.

#### Power cord

Always insert or remove the power plug from the AC outlet by grasping the plug body. Never pull or stretch the cord. Take care that the cord is not subject to traffic or bent sharply around furniture. Keep heavy objects off the cord; never route it under rugs, and avoid the use of extra extension cords. Attention to these precautions will avoid fire or shock hazards.

#### Installation precautions

- a) Install the unit on a flat, vibration-free rigid table.
- b) Do not place the unit near a heat producing equipment such as a radiator. Avoid direct sunlight.
- c) The unit may not function properly if used at extremely low, or freezing temperatures. The ideal ambient temperature is above +5°C (41°F).
- d) Do not store or use the unit in a dusty location or in a moist atmosphere. Select a location where air is well ventilated.
- Keep the unit away from a source of magnetic fields such as TV sets, speaker systems, radios or magnetized objects.
- f) Operate the unit on rated power supply voltage (±5%). Irregular power voltage will result in incorrect operation.

#### Before applying power

Units shipped to USA and Canada are designed for operation on 120 volts AC only.

Units shipped to Australia and U.K. are designed for operation on 240 volts AC only.

Units shipped to Europe are designed for operation on 220 volts AC only.

#### For United Kingdom

The mains plug must be removed from the wall socket prior to any internal examination.

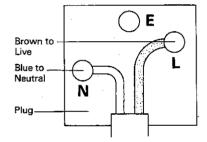
#### **Important**

The wires in this mains lead are coloured in accordance with the following code:

Blue...... Neutral Brown Live

The wires in this mains lead must be connected to the terminals in the plug as follows:

Wire colour	Plug terminal marking
Blue	N or Black
Brown	L or Red



#### Notes:

- 1) If a 13-amp plug is used, this must be fitted with a 5-amp fuse.
- If a 3-pin plug with earthing contact is used, no wire must be connected to the E terminal:

#### **WARNING:**

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

### **Safety precautions**



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.

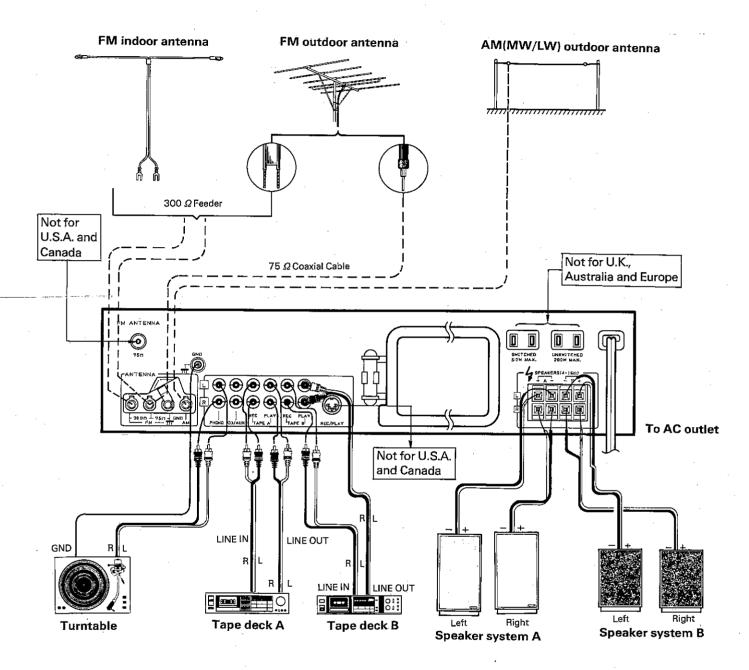


The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure; that may be of sufficient magnitude to constitute a risk of electric shock to persons.



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.

### **System connections**



#### **Speakers**

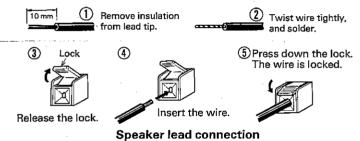
If only one set of speakers is to be connected, make connections to the terminals marked SPEAKERS A. Connect the speakers to the L and R terminals in accordance with the location selected for each speaker. To ensure correct speaker phasing, observe polarity marks; connect terminals marked (+) on the receiver to similarly-marked speaker terminals. Do the same for receiver and speaker terminals marked with a minus sign. Reversal of speaker leads will result in loss of bass tones and poor stereo separation.

If a second set of speakers is to be used, make connections at the set of terminals marked B.

It is recommended that the tips of the speaker leads be soldered, or the strands of individual leads be twisted together to eliminate any possibility of short-circuits forming in the speaker connecting network.

#### Note:

If a single pair of speakers is to be used, each speaker must be rated at 4 chms or more.



#### Tape decks

If only one tape deck is to be connected to the system it is recommended that it be connected to the jacks marked TAPE A.

#### **Playback**

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

#### Record

Plug the left and right input cables of the tape deck into the and R TAPE A REC jacks.

#### Second tape deck

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

#### DIN Connector (Not for U.S.A. and Canada)

If your tape deck is equipped with a DIN connector, connect it to the REC/PLAY connector with the DIN connecting cord. The signal must be controlled with the TAPE MONITOR A/B switch on the front panel.

#### Note:

If connections are made with a DIN connecting cord, the TAPE B PLAY and REC jacks should not be used.

#### CD/AUX jacks

CD/AUX jacks are used to connect other high-level signal sources, such as CD players, tuners, extra tape decks (equipped with preamps), mic preamps, etc.

#### Turntable

Your stereo turntable has two audio cables that are terminated with phono plugs. Plug the left channel plug into the L and the right channel plug into the R PHONO input jacks. If the turntable has a ground wire, connect it to this unit's CND terminal to avoid hum.

#### Ground

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

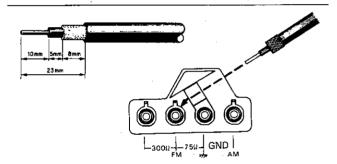
#### FM antennas

#### FM outdoor antenna

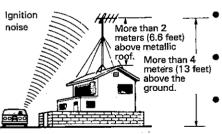
Consult with your dealer or service man about the best method of selecting and erecting an outdoor FM antenna. The choice of lead-in (feeder) wire is also important. The flat ribbon-shaped twin lead performs well electrically, is cheaper and is somewhat easier to handle in routing through windows and 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.

#### Note: -

Do not make connections to  $300 \Omega$  and  $75 \Omega$  antenna terminals simultaneously.



#### 75 $\Omega$ coaxial cable connection



- 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 installation

#### FM indoor antenna

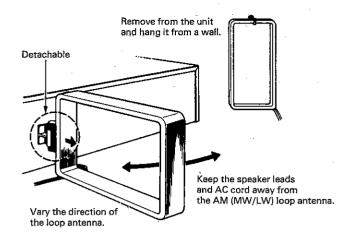
Connect the T-shaped indoor antenna (supplied) to the  $300 \Omega$  FM ANTENNA terminals. Spread the two arms that form the top of the "T" horizontally and hold them against convenient wall surfaces. Try several locations for best results on your favorite stations. Tape the antenna in place where the best compromise is found between listening results and appearance.

#### AM (MW/LW) antennas

#### AM (MW/LW) loop antenna

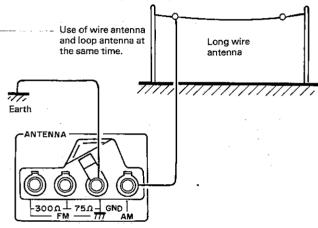
Tune to your favorite AM (MW/LW) station and position the Loop antenna for best reception. Try other stations and find the position that gives best overall reception.

When this unit is mounted in a rack or placed on a shelf with insufficient space behind, remove the loop antenna and hang it from a wall in the direction which gives best reception as shown below. If the length of the lead wire is too short add a lead wire of an appropriate length.



#### AM (MW/LW) outdoor antenna

In concrete buildings or at a great distance from the transmitter, it may be necessary to install an outdoor wire antenna. The end of this wire should be stripped of insulation and connected to the AM (MW/LW) terminal as shown below.



#### AC outlets (Except Australia, U.K. and Europe)

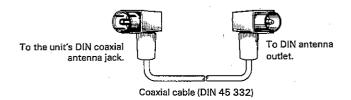
The AC outlets on the rear panel of the unit may be used to supply power to other components such as a turntable, tape deck, etc. Never connect any equipment here whose power consumption exceeds the capacity of each outlet.

- 1. SWITCHED outlet This is 50 watts (100 watts for KR-A30) maximum in total capacity and is controlled by the POWER switch on the front panel.
- 2. UNSWITCHED outlet This is 200 watts maximum in capacity and power is available at all times.

### IEC coaxial antenna jacks (Except U.S.A and Canada)

The male jack, recommended by IEC, is mounted on the rear panel of units shipped to some areas. Use an IEC antenna connector (shown below) when connecting it to your IEC antenna outlet.

However, if the antenna outlet is an older type IEC standard (13 mm diameter), use the adaptor supplied with the IEC standard cable.



Safety precaution for

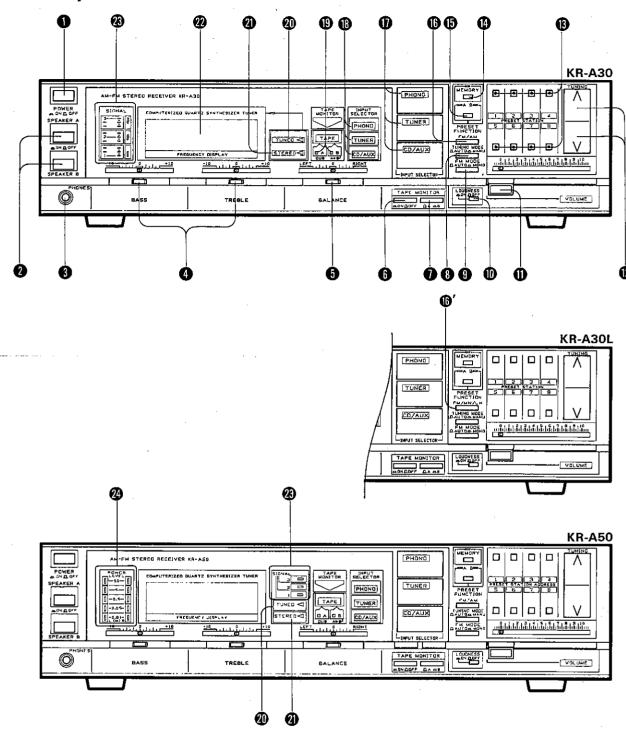
AC plug (KR-A50: U.S.A. and Canada)

(KR-A30: Canada)

#### CAUTION:

TO PREVENT ELECTRIC SHOCK DO NOT USE THIS (POLARIZED) PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

### **Controls, indicators and connectors**



#### POWER switch

Press it to turn on power.
Press it again to turn power off.

#### SPEAKER A and B switches

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

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

**A, B ON** – Activates the 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.

#### PHONES jack

Stereo headphones are plugged into this jack.

#### BASS and TREBLE controls

Slide toward +10 setting to increase bass or treble response, and toward -10 setting to decrease bass or treble response. Response is flat when set to "0".

#### **6** BALANCE control

This control permits balancing of left and right channels when imbalance exists in the sound source, or to correct acoustic imbalance due to room conditions.

When the right channel is weaker than the left channel, slide the control toward the RIGHT setting. When the left is weaker than the right, slide it toward the LEFT.

#### **6** TAPE MONITOR ON/OFF switch

Used to monitor a recording in progress or to play back a tape.

#### Note:

Be sure to set the TAPE MONITOR ON/OFF switch to OFF position when not operating a tape deck.

#### **1** TAPE MONITOR A/B switch

Release this switch to monitor or to record tape deck connected to the TAPE A jacks, and press the switch to monitor or to record the tape deck connected to the TAPE B jacks. Pressing the switch facilitates tape dubbing from the tape deck connected to the TAPE A jacks to the tape deck connected to the TAPE B jacks.

#### B TUNING MODE switch

- **AUTO** This setting permits automatic AM (MW)/ FM tuning by pressing the TUNING switch.
- **MANU** This setting permits manual AM (MW/LW)/FM tuning by pressing the TUNING switch.

#### FM MODE switch

- ... AUTO With this setting, stereo broadcasts are received as stereo, and monaural broadcasts are received as monaural. When the unit is in auto tuning mode, only those stations whose signal strength is sufficiently strong for noise-free reception are received.
- **MONO** With this setting, all FM broadcasts are received as monaural. When reception of weaker stations is required, use this setting to pick up those stations too weak for stereo reception.

#### LOUDNESS switch

This switch boosts bass response to compensate for the lack of response in human hearing to those frequencies at low volume levels. This switch should be released when listening at normal and high levels.

#### WOLUME control and indicator

This control adjusts left-and right-channel volume simultaneously. Set it for the desired listening level.

#### TUNING switch

- A With the TUNING MODE switch set to AUTO, pressing this side shifts the tuning frequency upward until a broadcast station is received. With the TUNING MODE switch set to MANU, pressing this side momentarily increases the frequency by one step. When this side is kept pressed, the frequency starts increasing rapidly. When it reaches the upper limit of the frequency range, the frequency scanning stops.
- V With the TUNING MODE switch set to AUTO, pressing this side shifts the tuning frequency downward until a broadcast station is received. With the TUNING MODE switch set to MANU, pressing this side momentarily decreases the frequency by one step. When this side is kept pressed, the downward frequency scanning starts until the lower limit of the frequency range is reached.

### (PRESET STATION buttons and indicators (PRESET STATION ADDRESS buttons: KR-A50)

Used to preset the frequencies of broadcast stations. Each button gives access to two memory sections; one for A setting of the PRESET FUNCTION button and the other for B setting. Two stations can be preset, in either AM (MW/LW) or FM mode, with one of the PRESET STATION button. (Selection of FM or AM (MW/LW) mode is performed with the FM/AM (MW/LW) selector switch.)

With this preset feature of the unit, preset tuning is available

#### MEMORY button and indicator

Used to store the frequency-in-the memory. Press the button. The indicator lights for about 5 seconds. Press a PRE-SET STATION button while the indicator is lit, and the frequency displayed in the FREQUENCY DISPLAY is stored in the PRESET STATION button.

#### PRESET FUNCTION button and indicators

Used to select A or B setting for the PRESET STATION buttons.

In either FM or AM (MW/LW) mode, 16 stations can be preset at random as each setting (A or B) can contain 8 preset stations. The A indicator lights when A setting is used, and the B indicator lights when B setting is used.

#### 

For AM reception, press the switch so that the AM indicator in the FREQUENCY DISPLAY lights.

For FM reception, press the switch so that the FM indicator lights.

#### (B) FM/MW/LW selector switch

For LW reception, press the switch so that the LW indicator in the FREQUENCY DISPLAY lights.

For MW reception, press the switch so that the MW indicator lights.

For FM reception, press the switch so that the FM indicator lights.

#### INPUT SELECTORS

**PHONO** – Used to select the source connected to the PHONO jacks on the rear panel.

**TUNER** – For FM or AM (MW/LW) reception.

CD/AUX – Used to select the source connected to the CD/ AUX jacks.

#### **(B)** INPUT SELECTOR indicators

The corresponding indicator lights when one of the INPUT SELECTORs is pressed.

#### TAPE indicators

When the TAPE MONITOR ON/OFF switch is set to ON, the TAPE indicator and the A or B indicator lights. When the TAPE MONITOR A/B switch is set to A, the A indicator lights, and the B indicator lights when the switch is set to B.

#### TUNED indicator

Lights to show when an FM or AM (MW/LW) station is received.

#### STEREO indicator

Lights to show that the received FM station is transmitting in stereo and that the signal is strong enough to overcome muting.

#### **10** FREQUENCY DISPLAY

The frequency being received is indicated by this digital display. The FM indicator lights in FM mode, and the AM (MW/LW) indicator lights in AM (MW/LW) mode.

#### SIGNAL indicator

The 3-LED indicator lights to show the strength of incoming signal. The number of LEDs that light is proportional to the signal strength. Tune so that most LEDs light.

#### POWER LEVEL indicators

The POWER LEVEL indicators are for both the left and right channels.

### **Operating instructions**

#### **Broadcasting reception**

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

- Press the POWER switch, and then the TUNER switch of the INPUT SELECTORs.
- Select FM or AM (KR-A30L MW/LW) with the FM/AM (KR-A30L - MW/LW) selector switch.
- 3. Set the TUNING MODE switch to AUTO.

#### Note:

Auto tuning of LW is not possible with KR-A30L.

- 4. Set the FM MODE switch to AUTO. The muting will act in FM mode.
- 5. Press the A or V side of the TUNING switch 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  $\land$  or  $\lor$  side of the TUNING switch again.

6. Adjust the VOLUME control to the required listening level and use the BASS and TREBLE controls to adjust the sound to your won preference.

#### Manual tuning (to receive a weak broadcast)

- Select FM or AM (MW/LW) with the FM/AM (MW/LW) selector switch.
- 2. Set the TUNING MODE switch to MANU.
- 3. To receive a weak broadcast, set the FM MODE switch to MONO. The muting will be released in FM mode.
- 4. Press the Λ or ∨ side of the TUNING switch 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 Λ or ∨ side.
- Adjust the VOLUME control to the required listening level and use the BASS and TREBLE controls to adjust the sound to your own preference.

#### Preset procedures

Up to 16 stations can be preset in either the AM (MW/LW) or FM bands.

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

#### Note:

- When a PRESET STATION button is pressed to preset a new frequency, the old frequency is cleared and the new frequency is stored.
- Preset frequency can be stored in memory for about 7 10 days after the POWER switch is set to OFF. If the preset frequency cannot be recalled, press a PRESET STATION button and follow the above "Preset procedure".
- Do not press the MEMORY and PRESET STATION buttons simultaneously.

#### Preset tuning

- 1. Select A or B setting with the PRESET FUNCTION button.
- Press the PRESET STATION button for the required station
- Adjust the VOLUME control to the required listening level and use the BASS and TREBLE controls to adjust the sound to your own preference.

#### Turntable

- 1. Press the PHONO switch of the INPUT SELECTORs.
- 2. Operate the turntable.
- Adjust the VOLUME control to the required listening level and use the BASS and TREBLE controls to adjust the sound to your own preference.

#### CD/AUX

- 1. Press the CD/AUX 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 BASS and TREBLE controls to adjust the sound to your own preference.

#### Tape decks

#### **Playback**

- 1. Set the TAPE MONITOR ON/OFF switch to ON.
- Select output from the tape deck connected to the TAPE A jacks or TAPE B jacks with the TAPE MONITOR A/B switch.
- 3. Operate the tape deck.
- Adjust the VOLUME control to the required listening level and use the BASS and TREBLE controls to adjust the sound to your own preference.

#### Recording (one tape deck)

- Select the required program source with the INPUT SE-LECTORs.
- 2. Set the TAPE MONITOR ON/OFF switch to OFF, and the TAPE MONITOR A/B switch to A position.
  - To monitor the recording, set the TAPE MONITOR A/B switches to A position.
- Set the tape deck to recording mode and adjust the recording levels with the controls on the deck.
- Adjust listening level and tone at the unit to your preference while monitoring the signal; these settings do not affect the recording.

#### Recording (two tape decks)

- Select the required program source with the INPUT SE-LECTORs.
- 2. Set the TAPE MONITOR ON/OFF switch to OFF, and the TAPE MONITOR A/B switch to A position.
- 3. Set the tape decks to recording mode and adjust the recording levels with the controls on the tape decks.
- 4. Recording can now be made on both tape decks simultaneously.

#### Tape-to-tape dubbing (Tape deck A ▶ B)

With the TAPE MONITOR A/B switch set to B, tape recordings may be duplicated easily using the tape deck connected to TAPE A jacks to play the prerecorded tape and tape deck connected to TAPE B jacks to record.



Switches	Д ОFF, Д A		<b>⇔</b> ON, <b>Л</b> A	쇼 ON, 쇼 B
Speakers	Source	Source	Tape A	Tape B
TAPE A REC	Source	Source	Source <sup>1)*</sup>	Source <sup>1)*</sup>
TAPE B REC	Source	Tape A <sup>2)*</sup> (DUBBING A ► B)	Source	Tape A <sup>3)*</sup> (DUBBING A ► B)

- 1)\* While the playback sound is heard from the speakers, the source is recorded on the other deck.
- 2)\* Tape dubbing from the tape deck A to B is possible while the source is heard from the speakers.
- 3)\* Monitoring the tape deck B during tape dubbing from deck A to B is possible.

### 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.

AM, FM, PHONO or tape playback	Cause	Remedy
Power on but no sound.	<ol> <li>Power cord not plugged in.</li> <li>Poor connection at wall outlet. Power outlet inactive.</li> <li>VOLUME control set fully coun-</li> </ol>	<ol> <li>Check plug contact.</li> <li>Check outlet using a lamp or other appliance (outlet may be controlled by a wall switch).</li> <li>Set the control to your preference.</li> </ol>
No sound from left and right.	terclockwise.  1. Speaker cords disconnected. 2. Speakers switched off. 3. No input selector switch is in use.	<ol> <li>Check speaker connections.</li> <li>Check speaker switch.</li> <li>Press one of the selector switches to select the desired program.</li> </ol>
Sound from left or right, but not both.	Poor speaker connections.     Defective speaker.	<ol> <li>Check connections at both ends of speaker cord.</li> <li>Reverse speakers. If problem stays with speaker, have speaker checked.</li> </ol>
	BALANCE control is set to one extreme or the other.	3. Check setting of the control.
PHONO playback only	Cause	Remedy
No sound from both or one speaker.	Turntable output disconnected.	Check phono cables.
Loud hum drowns out sound.	Poor ground connection at phono cable connections.	Check phono plugs, particularly outer- shell connections.
Low background hum.	Hum picked up in turntable or turn- table cables.	Keep cables away from power cords. Twist left and right cables together. Reverse AC plug of turntable. Connect ground wire between turntable and GND connector.
Background buzz.	TV signal picked up by phono cable (especially near transmitter).	Route phono cables to minimize buzz.
Howling noise at maximum volume settings.	Acoustic pickup from speaker.	Increase distance between speaker and turntable. Choose speaker loca- tions carefully. Check turntable sus- pension.

# **Specifications**

### KR-A50

EIA

**Power Output** 45 watts\* per channel minimum RMS, both channels

45 watts* per channel minin driven at 8 ohms from 20 Hz than 0.05% total harmonic dis	to 20 KHz with no me
Both channels driven Into 8 ohms at 1 kHz Into 4 ohms at 1 kHz Total harmonic distortion (20 Hz to 20 rated power into 8 ohms 1/2 rated power into 8 ohms	0.05% 0.03%
Intermodulation distortion (60 Hz : 7 k	0.02%
Input sensitivity/impedance PHONO TAPE, CD/AUX	2.5 mV/50k ohms 150 mV/50k ohms
Signal-to-noise ratio (A weighted) PHONO	75 dB for 2.5mV input
CD/AUX, TAPE Maximum PHONO input level	81 dB for 5.0 mV input 103 dB for 150 mV input
at 1 kHzFrequency response	145 mV (RMS), THD 0.05%
PHONO RIAA standard curve	20 Hz to 20 kHz
TAPE, CD/AUX	± 0.5 dB 10 Hz to 100 kHz
Tone control	−3 dB
BASS TREBLE Loudness control	± 10 dB at 100 Hz ± 10 dB at 10 kHz
(VOL. – 30 dB)	+8 dB at 100 Hz
Output level/impedance TAPE REC OUT (Pin)	150 mV/1k ohms
FM Tuner Section	10.0 dB#/1.0 d/0
Usable sensitivity50 dB quieting sensitivity	10.8 dBf (1.9 μV)
Mono	17.2 dBf (4 $\mu$ V) 37.2 dBf (40 $\mu$ V)
Mono Stereo Total harmonic distortion at 1 kHz	75 dB 68 dB
Mono	0.15%
Stereo Frequency response	0.25% 30 Hz to 15 kHz +0.5 dB, –2 dB
Capture ratioImage rejection ratio	1.2 dB 40 dB (60 dB for Europe mode
Spurious response ratioIF response ratio	72 dB (75 dB for Europe mode 65 dB (75 dB for Europe mode
Alternate channel selectivityAM suppression ratio	55 dB at ±400 kHz 57 dB
Stereo separation ratio	45 dB at 1 kHz 35 dB at 50 Hz to 10 kHz
Subcarrier suppression ratio Antenna impedance	37 dB 300 ohms balanced and
FM frequency range	75 ohms unbalanced 87.5 MHz to 108 MHz
AM Tuner Section	•
Usable sensitivity	40 dB
General	
Power requirement	(USA and Canada) 220V AC, 50/60 Hz (Europe) 240V AC, 50/60 Hz (UK and
Power consumption	Australia) 2.5A (UL and CSA) 180W (Others)
AC outlet	
Dimensions	W: 420 mm (16-17/32") H: 106 mm (4-3/16")
Weight (Net)	D: 271 mm (10-21/32") 5.6 kg (12.3 lb): USA 6.0 kg (13.2 lb): Others

\* Measured pursuant to Federal Trade Commission's Trade Regula-tion rule on Power Output Claims for Amplifier in U.S.A.

#### **Audio Section**

,	
Rated power output	
	52W + 52W
Total harmonic distortion  Rated power output into 8 ohms	0.05%
Rated power into 8 ohms	0.02%
Frequency response	10 Hz to 100 kHz +0 dB, -3 dB
S/N Weighted: rated output power (IEC-A) ( ) = Unweighted, at 50 mW (DIN)	
PHONO	75 dB (55 dB)
CD/AUX, TAPE Input sensitivity/impedance	103 dB (56 dB)
PHONO	2.5 mV/50k ohms
CD/AUX, TAPE	150 mV/50k ohms
Tone control BASS 100 Hz	± 10 dB
TREBLE 10 kHz	± 10 dB
Loudness control (-30 dB)	+8 dB at 100 Hz
Channel separation at 1 kHz PHONO (Should be terminated	
with 2.2k ohms)	58 dB
with 47k ohms + 250 pF)	52 dB
FM Tuner Section	
Sensitivity at 75 ohms Mono: S/N 26 dB, 40 kHz Dev	1.0 <i>μ</i> V
Stereo: S/N 46 dB, 46 kHz Dev	28 μV
-3 dB Point, 40 kHz Dev	0.6 μV
Frequency response	30 Hz ~ 15 kHz +0.5 dB, –2.0 dB
Total harmonic distortion	+0.5 db, -2.5 db
Mono: 1 kHz, 40 kHz Dev	0.15%
Stereo: 1 kHz, 46 kHz Dev.	0.3%
S/N weighted (IEC-A) Mono: 40 kHz Dev., 1 mV input	65 dB
Stereo: 46 kHz Dev., 1 mV input	59 dB
S/N unweighted Mono: 40 kHz Dev., 1 mV input	59 dB
Stereo: 46 kHz Dev., 1 mV input	58 dB
FM stereo separation: 1 mV input (DIN)	40.15
250 Hz 1 kHz	40 dB 40 dB
6.3 kHz	28 dB
Image rejection ratio	40 dB
IF response ratio	(60 dB: Europe model) 65 dB
IF response ratio	(75 dB: Europe model)
	57 dB
Spurious response ratio	
Capture ratio	(75 dB: Europe model)
	(2.5 dB: Europe model)
19 kHz: 46 kHz Dev	
38 kHz: 46 kHz Dev	39 dB
Alternate channel selectivity ±300 kHz, 20 dB input	80 dB ·
AM Tuner Section	
Image rejection ratio	40 dB
General	
Power consumption	10011
IEC	
Dimensions	W: 420 mm H: 106 mm
	D: 271 mm
Weight (Net)	5.6 kg: USA 6.0 kg: Others
	J.J 49. Othors

# **Specifications**

### KR-A30/A30L

EIA	4	IEC	
Audio Section		Audio Section	
Power Output 32 watts* per channel minimum		Rated power output 4 ohms at 60 Hz to 12.5 kHz	
at 8 ohms from 20 Hz to 20 kHz tal harmonic distortion.	with no more than 0.08% to-	no more than 0.7% T.H.D.(IEC) Total harmonic distortion	32W + 32W
Both channels driven	22147 - 22147	rated power output into 8 ohmslntermodulation distortion	0.08%
Into 8 ohms at 1 kHzInto 4 ohms at 1 kHz	33W + 33W	rated power into 8 ohmsFrequency response	
Total harmonic distortion (20 Hz to 2 rated power into 8 ohms	0.08%		-3 dB
Intermodulation distortion (60 Hz: 7 rated power into 8 ohms	kHz=4:1 SMPTE)	S/N Weighted: rated output power (IEC-A) ( ) = Unweighted, at 50 mW (DIN) PHONO	74 dB (54 dB)
PHONOCD/AUX, TAPE	2.5 mV/50k ohms	CD/AUX, TAPE	
Signal-to-noise ratio (A weighted) PHONO	•	Input sensitivity/impedance PHONO	2.5 mV/50 kohms
CD/AUX, TAPE	80 dB for 5.0 mV input	CD/AUX, TAPE Tone control	150 mV/50 kohms
Maximum PHONO input level at 1 kHz	· ·	BASS 100 Hz	
Frequency response PHONO RIAA standard	140 HV (AWS), 11D 0.00%	TREBLE 10 kHz Loudness control (-30 dB)	
curve	20 Hz to 20 kHz ± 0.5 dB	Channel separation at 1 kHz	
CD/AUX, TAPE	± 0.5 dB 10 Hz to 100 kHz -3 dB	with 2.2k ohms)	55 dB
Tone control BASS		CD/AUX (Should be terminated with 47k ohms + 250 pF)	56 dB
TREBLE	± 10 dB at 10 kHz	FM Tuner Section	
(VOL. – 30 dB)	+8 dB at 100 Hz	Sensitivity at 75 ohms	
TAPE REC OUT (Pin)	150 mV/1 kohms	Мопо: S/N 26 dB, 40 kHz Dev	
FM Tuner Section		Stereo: S/N 46 dB, 46 kHz Dev Limiting level	28 μν
Usable sensitivity50 dB quieting sensitivity	•	-3 dB Point, 40 kHz DevFrequency response	
MonoStereo	17.2 dBf (4 μV) 37.2 dBf (40 μV)		+0.5 dB, -2.0 dB
Signal-to-noise ratio at 65 dBf Mono	75 dB	Total harmonic distortion  Mono: 1 kHz, 40 kHz Dev	0.15%
Stereo Total harmonic distortion at 1 kHz	68 dB	Stereo: 1 kHz, 46 kHz DevS/N weighted (IEC-A)	0.3%
MonoStereo	0.25%	Mono: 40 kHz Dev., 1 mV input	
Frequency response	+0.5 dB, -2 dB	Stereo: 46 kHz Dev., 1 mV input	29 dR
Capture ratioImage rejection ratio	40 dB (60 dB for Europe model)	Mono: 40 kHz Dev., 1 mV input Stereo: 46 kHz Dev., 1 mV input	
Spurious response ratioIF response ratio	65 dB (75 dB for Europe model)	FM stereo separation: 1 mV input (DIN)	
Alternate channel selectivity	57 dB	250 Hz1 kHz	
Stereo separation ratio	35 dB at 50 Hz to 10 kHz	6.3 kHzImage response ratio	
Subcarrier suppression ratio Antenna impedance		• • • • • • • • • • • • • • • • • • • •	(60 dB: Europe model)
FM frequency range	75 ohms unbalanced 87.5 MHz to 108 MHz	IF response ratio	65 dB (75 dB: Europe model)
AM Tuner Section	•	AM suppression ratio	
Usable sensitivity	10 μV (450 μV/m): MW 10 μV (500 μV/m): LW		(75 dB: Europe model)
Signal-to-noise ratio	50 dB: MW 46 dB: LW	Capture ratio	1.2 dB (2.5 dB: Europe model)
Image rejection	40 dB: MW 60 dB: LW	Subcarrier suppression ratio 19 kHz: 46 kHz Dev	
Selectivity	25 dB: MW 35 dB: LW	38 kHz: 46 kHz Dev	
General		Alternate channel selectivity ±300 kHz, 20 dB input	80 dB
Power requirement	120V AC, 60 Hz (USA and Canada)	AM Tuner Section	
	220V AC, 50/60 Hz (Europe) 240V AC, 50/60 Hz (UK and Australia)	Image rejection ratio	60 dB: LW, 40 dB: MW
Power consumption	1.5A (UL and CSA)	General	•
AC outlet	Switched×1, Unswitched×1	Power consumption	
Dimensions	W: 420 mm (16-17/32 <sup>i</sup> ′) H: 106 mm (4-3/16 <sup>i</sup> ′)	IEC Dimensions	
Weight (Net)	D 271 mm (10-21/32*)		H: 106 mm
	5.6 kg (12.3 lb): Others	Weight (Net)	D: 271 mm 5.2 kg: USA
* Measured pursuant to Federal Trade ( on Power Output Claims for Amplifier in	U.S.A. :	•	5.6 kg: Others