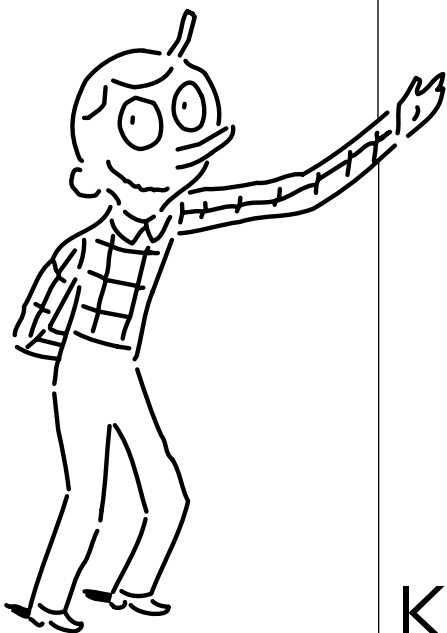


# 1


# Setting up your Kenwood Audio System

## Spectrum 350



KENWOOD

## Licensing

Manufactured under license from Dolby Laboratories Licensing Corporation. Additionally licensed under one or more of the following patents: US numbers 3,632,886; 3,746,792; and 3,959,590; Canadian numbers 1,004,603 and 1,037,877. 'Dolby', and the  symbol are trademarks of Dolby Laboratories Licensing Corporation.

# Safety first

**WARNING:**  
**TO PREVENT FIRE OR ELECTRIC SHOCK, DO NOT  
EXPOSE THIS UNIT TO RAIN OR MOISTURE.**

## Safety Symbols

We've placed these safety symbols on the back of the unit.



### CAUTION:

To prevent electric shock, match the wide blade of the plug to the wide slot in a wall socket, and insert fully.



The lightning bolt symbol is to alert you to the danger of electric shock from the operating of electric parts inside the unit.



The exclamation point symbol is to let you know that there are important operating and servicing instructions in this manual that you should read before you operate this unit.

### Canadian IC Compliance Notice

This device complies with RSS-210 of Industry Canada. Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

### Rechargeable Battery Warning

If this unit uses a rechargeable battery, use the battery charger that came with the unit only. Do NOT take apart, damage, burn, or short circuit the battery, or expose it to heat—this could cause it to burst or to release toxic materials. Keep the battery away from children.

### About the power supply

This unit is designed for operation in the USA and Canada using a power supply of AC 120 volts only.

### Safety Precautions

Read this page carefully to ensure safe operation.

Please read all of the safety and operating instructions before operating this unit. Adhere to all warnings on the unit and in this manual. Follow all the safety and operating 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 this manual or as marked on the unit. If you are not sure of the type of power supply to your home, consult your unit dealer or local power company. For units intended to operate from battery power, or other sources, refer to the instruction manual.
- 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, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the unit.
- 3 CAUTION—Polarization.** This unit may be equipped with a polarized alternating-current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your outlet. Do not defeat the safety purpose of the polarized plug.
- 4 Ventilation.** Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the unit and to protect it from overheating, and these openings must not be blocked or covered. 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 4 inches away from the walls.

Do not use the unit on a bed, sofa, rug or similar surface that may block the ventilation openings. This unit should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.

- 5 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.
- 6 Temperature.** The unit may not function properly if used at extremely low, or freezing temperatures. The ideal ambient temperature is above +41°F.
- 7 Heat.** The unit should be situated away from heat sources such as radiators, heat registers, stoves, or other units (including amplifiers) that produce heat.
- 8 Electric Shock.** Care should be taken so that objects do not fall and liquid is 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.
- 9 Enclosure removal.** Never remove the enclosure. If the internal parts are touched accidentally, a serious electric shock might occur.
- 10 Cleaning.** Unplug this unit from the wall outlet before cleaning. Do not use volatile solvents such as alcohol, paint thinner, gasoline, or benzine, etc. to clean the cabinet. Use a clean dry cloth.
- 11 Lightning.** For added protection for this unit during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the unit due to lightning and power-line surges.
- 12 Abnormal smell.** If an abnormal smell or smoke is detected, immediately turn the power OFF and unplug the unit from the wall outlet. Contact your dealer or nearest service center.
- 13 Damage requiring service.** The unit should be serviced by qualified service personnel when:

The power-supply cord or the plug has been damaged.

Objects have fallen, or liquid has been spilled into the unit.

The unit has been exposed to rain or water.

The unit has been dropped, or the enclosure damaged.

The unit exhibits a marked change in performance.

The unit does not appear to operate normally by following the instruction manual. Adjust only those controls that are covered by the instruction manual as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the unit to its normal operation.

- 14 Servicing.** The user should not attempt to service the unit beyond that described in the instruction manual. All other servicing should be referred to qualified service personnel.
- 15 Power lines.** An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.
- 16 AC outlets.** Do not connect other audio equipment with a power consumption larger than that specified to the AC outlet on the rear panel. Never connect other electrical units, such as an iron or toaster, to it to prevent fire or electric shock.
- 17 Overloading.** Do not overload wall outlets, extension cords, or integral convenience receptacles as this can result in a risk of fire or electric shock.
- 18 Attachment.** Do not use attachments not recommended by the unit manufacturer as they may cause hazards.
- 19 Replacement parts.** When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original parts. Unauthorized substitutions may result in fire, electric shock, or other hazards.
- 20 Safety check.** Upon completion of any service or repairs to this unit, ask the service technician to perform safety checks to determine that the unit is in proper operating condition.
- 21 Carts and stands.** Don't put this unit on a cart or stand that is unsteady or that can not support the unit's weight. If you move this unit on a cart or stand, be careful—quick stops, excessive force and pushing over or uneven surfaces, may cause the cart to overturn and damage your equipment.



### FCC Warning

This equipment may generate or use radio frequency energy. Changes or modifications to this equipment may cause harmful interference unless the modifications are expressly approved in the instruction manual. The user could lose the authority to operate this equipment if an unauthorized change or modification is made.

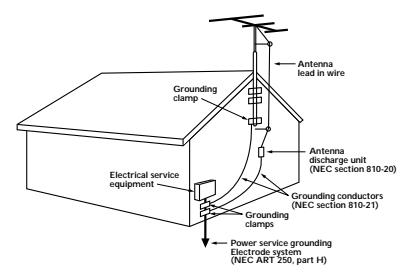
### Important

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment may cause harmful interference to radio communications if it is not installed and used in accordance with the instructions. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment OFF and ON, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/TV technician for help

### Cable System Installer Notice

Article 820-40 of the NEC provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.



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# Welcome

Setting up your SPECTRUM System isn't difficult, but getting your system up and running will be even easier if you follow the step-by-step directions in this manual.

## Unpacking

Unpack all of the components carefully, and examine them for shipping damage. If any are damaged or fail to operate, notify your dealer immediately. If your SPECTRUM System was shipped to you directly, notify the shipping company without delay. Only the person or company who originally received the system can file a claim against the carrier for shipping damage. Keep the original carton and packing materials in case you need to transport or ship your SPECTRUM System.

## Did you get everything?

Check the lists below to make sure you have everything. And before you start setting up the system, look at the list of tools and other items you need. If you're setting up other components along with your system, read the manual that came with each of those components to see what you need.

### Receiver parts

- Receiver (KR-596)
- Remote Control (RC-S0501)
- 2 Batteries for remote
- FM indoor antenna
- AM loop antenna
- Loop antenna stand

### CD player parts

- CD Player (DP-R896)
- Audio cable
- System control cable

### Cassette deck parts

- Cassette Deck (KX-W595)
- 2 Audio cables

### Speaker parts

- 2 Main speakers (JL-506)
- 2 Speaker wires

### Rack parts

- Left panel
- Right panel
- Rack base
- RACK top
- Top back panel
- Bottom back panel
- Kick panel
- Fixed shelf
- Removable shelf

- Glass Door
- Hardware bag  
(see page 7 for contents of the hardware bag)

## You may need to purchase

- Audio cables
- Video cables
- Speaker wire

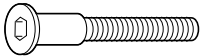






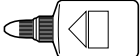





## You'll need these tools

- Screwdriver (slot and/or Phillips)
- Pliers

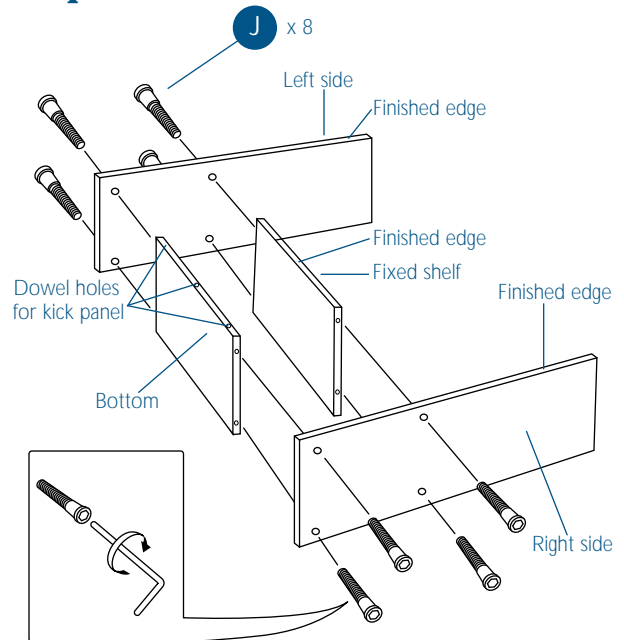
# Assembling the rack

## Hardware list

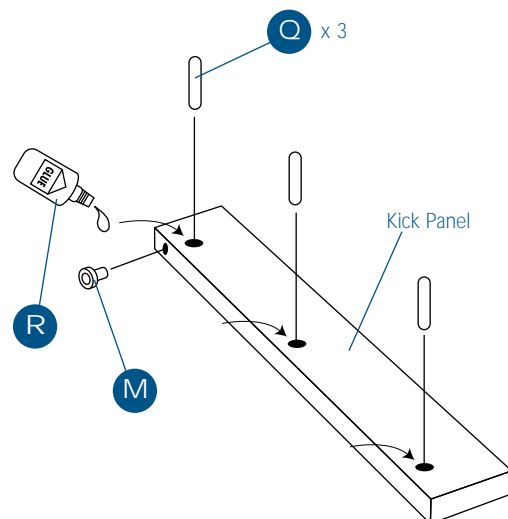
Before assembling your rack check to be sure that you received all of the hardware listed below.

Item	Description	Quantity
J	 Allen bolt	8
K	 Phillips head screw	12
L	 Allen wrench	1
M	 Hinge insert	2
N	 Magnetic catch	1
O	 Wood dowel (long)	2
Q	 Wood dowel (short)	9
R	 Glue	1
S	 Shelf pin	4
T	 Upper hinge	1
U	 Lower hinge	1
V	 Catch plate	1
W	 Catch plate pad	1

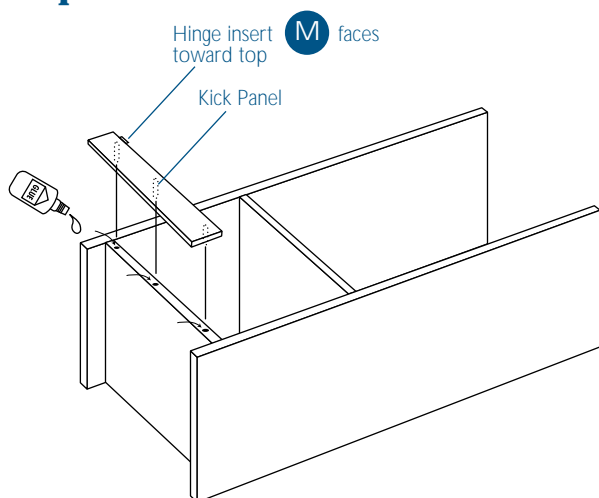
## Step 1



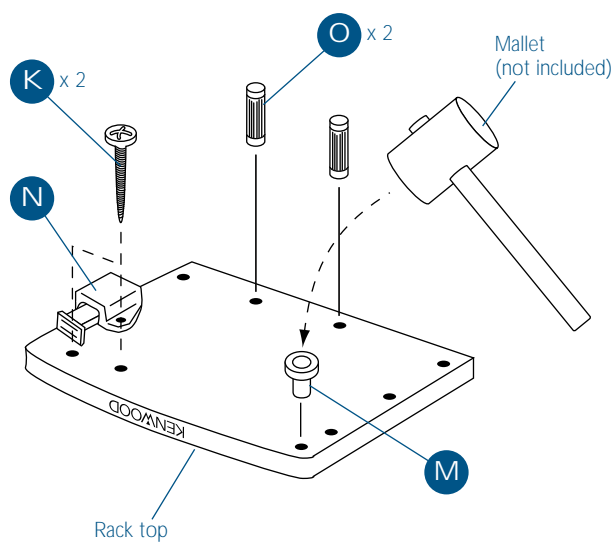
## Step 2



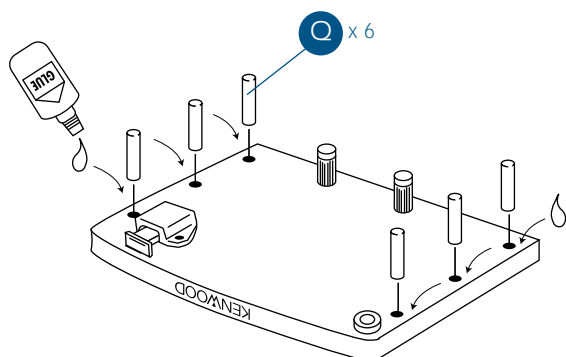
### Step 3



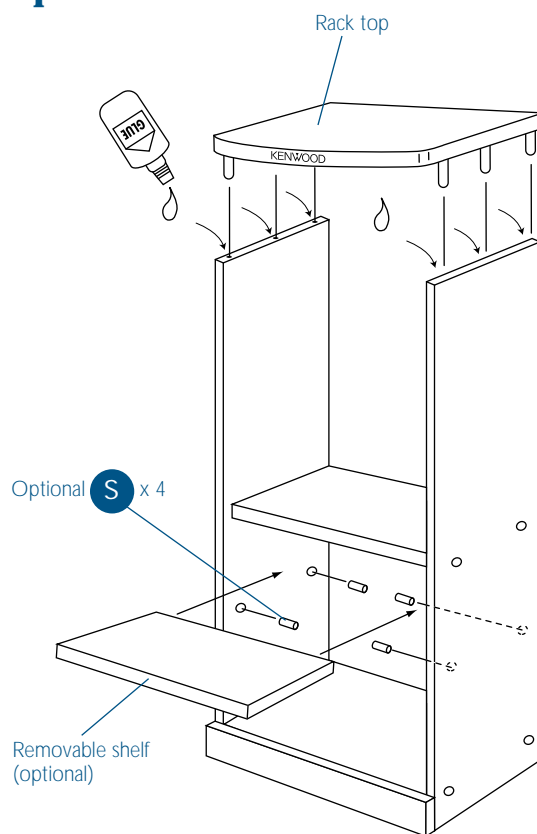
### Step 4



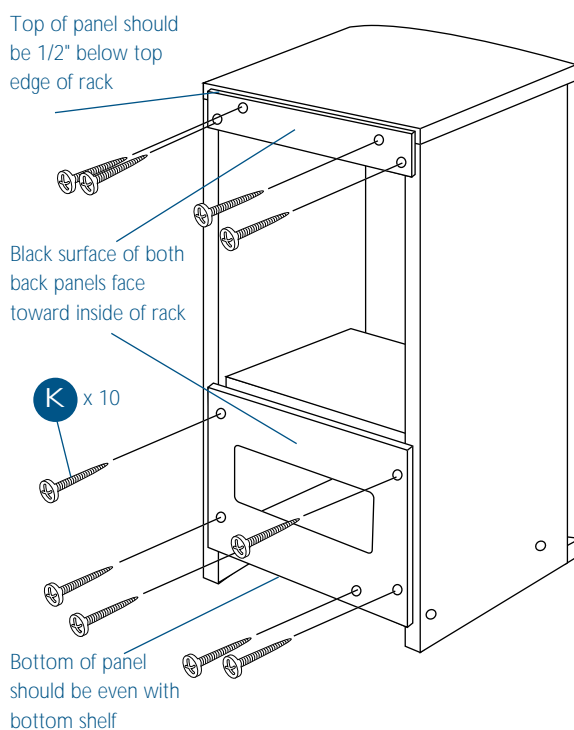
### Step 5



### Step 6

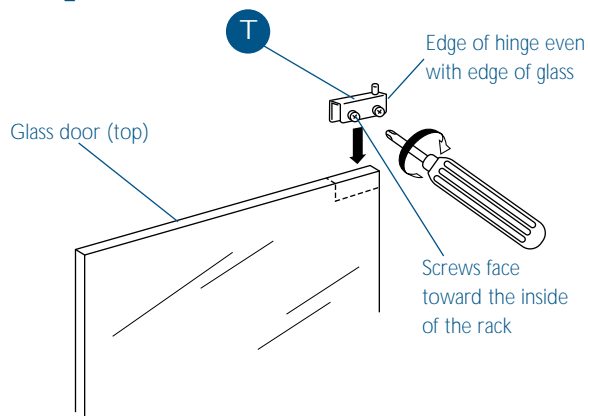


### Step 7

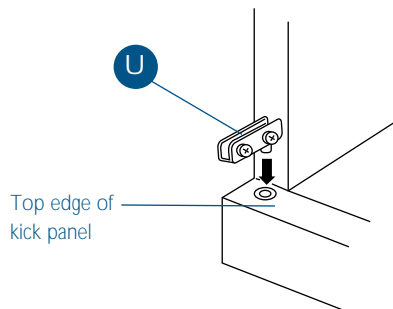




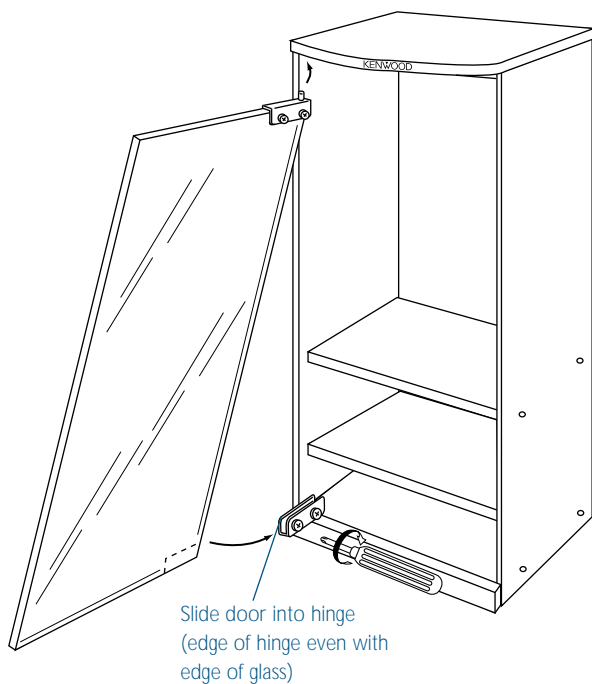
## Step 8



## Step 9



## Step 10

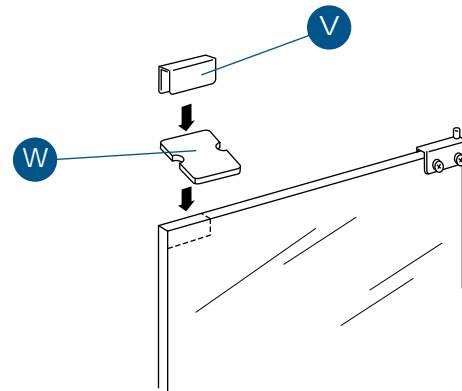


## Step 11

First close the door to see where the magnetic catch contacts it.

Attach the cushion (W) to the door where the magnetic catch contacted it.

Slip the catch plate (V) over the cushion.



## How to get replacement parts for your rack

If any of the rack parts are missing or damaged, look for the rack model number on the ID sticker on the back panel. Then, contact the appropriate company for replacement parts.

If your rack's model number is:

### **SRC-406C**

contact:

**Tocabi America**  
**755 Otay Valley Road**  
**Chula Vista, CA 91911**  
**(619) 661-6136**

or

### **SRC-406N**

contact:

**Kenwood**  
**1900 Gulf Street**  
**Lamar MO 64759**  
**(800) 327-9782**

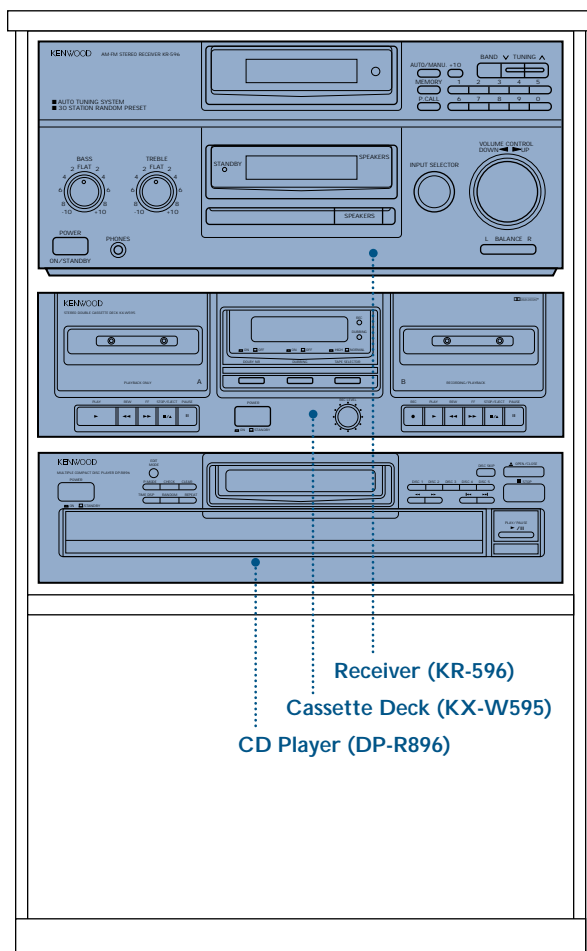
Use the following parts list to identify missing or damaged parts:

<b>Item</b>	<b>Description</b>	<b>Quantity</b>	<b>SRC-406C Part No.</b>	<b>SRC-406N Part No.</b>
A	Left side panel	1	XW1061	349092-0
B	Rack bottom	1	XW0903	344739-1
C	Right side panel	1	XW1060	349093-9
D	Kick panel	1	XW0902	344733-2
E	Rack top	1	XW0897	344727-8
F	Bottom back panel	1	XW0905	433734-4
G	Fixed shelf	1	XW0900	344737-5
H	Removable shelf	1	XW0901	344738-3
I	Top back panel	1	XW1062	431295-3
J	Allen screws	8	S0033	423699-8
K	Small screws	12	S0034	414954-8
L	Allen wrench	1	M0018	408737-2
M	Hinge inserts	2	P0054	425226-8
N	Magnetic door catch	1	P0098	431264-3
O	Long wooden dowels	2	W0981	429169-7
Q	Short wooden dowels	9	W0092	404578-5
R	Glue	1	G0012	404589-0
S	Shelf pegs	4	M0019	424881-3
T	Top door hinge	1	M0026	425226-8
U	Bottom door hinge	1	M0027	425226-8
V	Door catch plate	1	M0011	422201-6
W	Catch plate pad	1	G0047	422201-6
X	Glass door	1	G0241	431296-1

# Placing your system

## Stacking your components in the rack

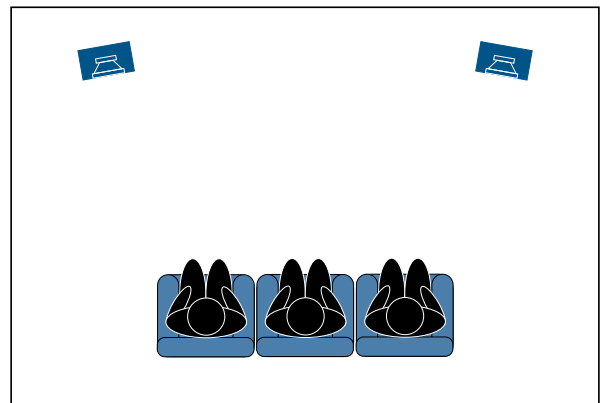
To make sure that they're properly ventilated and stable, stack them according to the following diagram. If you're using a turntable, place it on top of the rack.



## Positioning your speakers

You can get the best stereo effect by placing your speakers 6' to 12' apart along the same wall, with the main listening area midway between the 2 speakers.

- To enhance the stereo effect (especially if the speakers are more than 8' apart), rotate each speaker slightly toward the listening area.
- Placing the speakers against a wall will increase their bass output, but could also make them sound unnaturally 'thick' or 'heavy'. If this occurs, try moving them away from the wall a foot or so.



# Connecting your components

## Important:

Please wait until you've connected all of the cables before plugging any of the components into AC wall outlets and turning them on.

## Connecting your speakers

Connect your speakers first. You'll have an easier time getting to the connections on the backs of the components before you connect all of the other cables.

- 1 Place the speakers in their approximate locations first, then leave a little extra speaker wire so you can fine-tune their locations.
- 2 Use the speaker wire supplied with the speakers. If you need longer wire, buy speaker wire that is 18-gauge or thicker. Remember, the smaller the number, the thicker the wire: 18-gauge wire is thicker than 20-gauge.

## A few tips

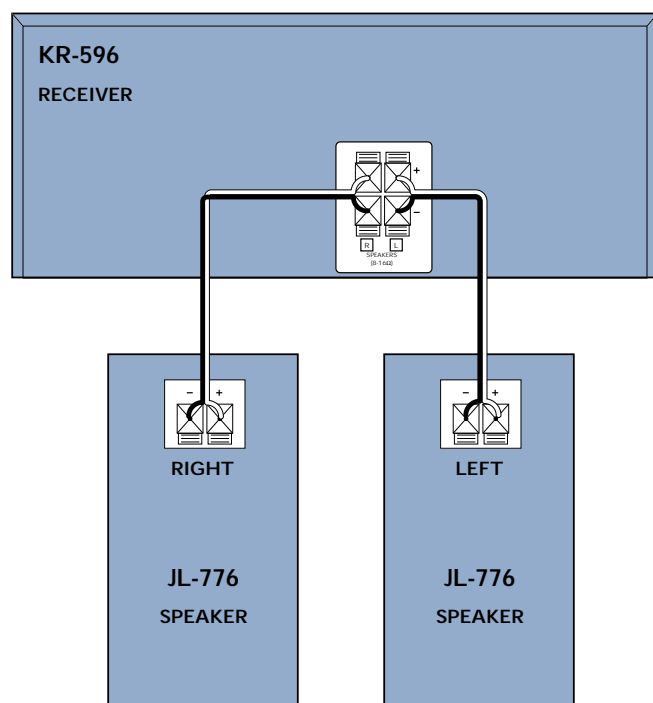
- To save you time, we've removed the insulation from the ends of the speaker wire we supplied.
- When connecting speaker wires, be sure to connect positive connections to each other and negative connections to each other. Connecting positive to negative (+ to -) or negative to

positive (- to +) can cause poor sound quality.

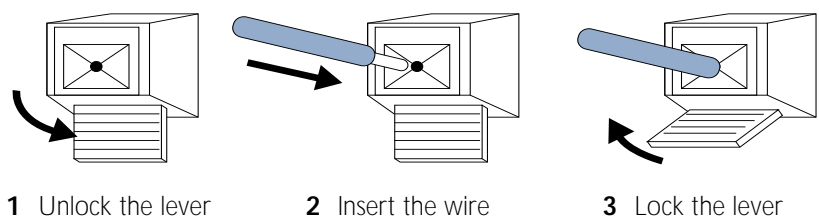
- Never allow the positive and negative speaker wires to touch each other. Touching wires can cause a short circuit, which could damage your electronics.

## Left and right speakers

Connect the left and right speakers to the 'Speakers' jacks on the receiver.

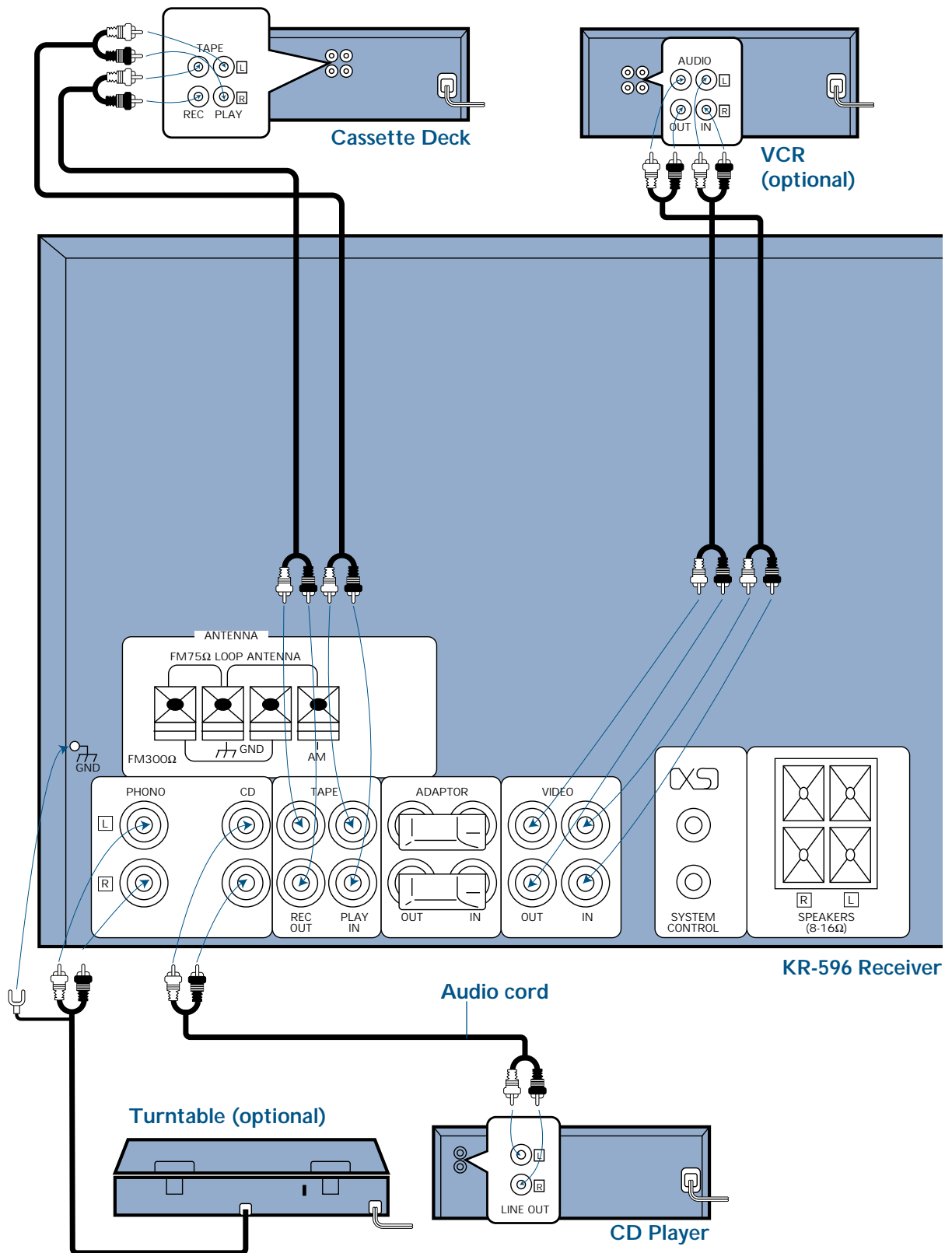


## To connect the wire:



# Connecting your CD player, cassette deck, and optional turntable or VCR

Use the cables that came with the audio and video components. You can connect any turntable that has a magnetic phono cartridge.

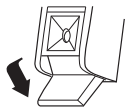


## Connecting your antennas

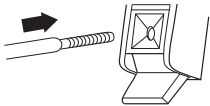
The quality of your FM/AM reception depends on how well you place your antennas. So please follow the instructions carefully.

### Connecting the antenna wires to the antenna jacks

- 1 Unlock lever



- 2 Insert wire



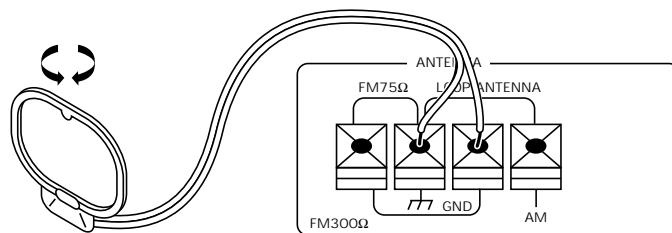
- 3 Lock lever



### Using the AM indoor loop antenna (supplied)

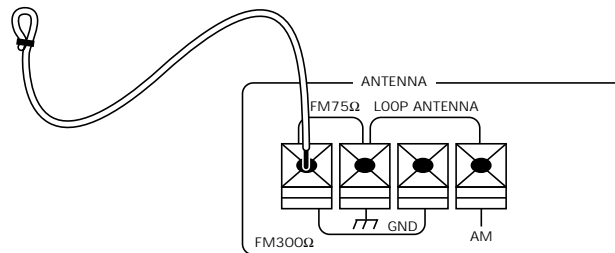
Place the antenna as far away as possible from the main system, television, speaker wires and power cords.

Rotate the antenna until you get the best reception.



### Using the FM indoor antenna (supplied)

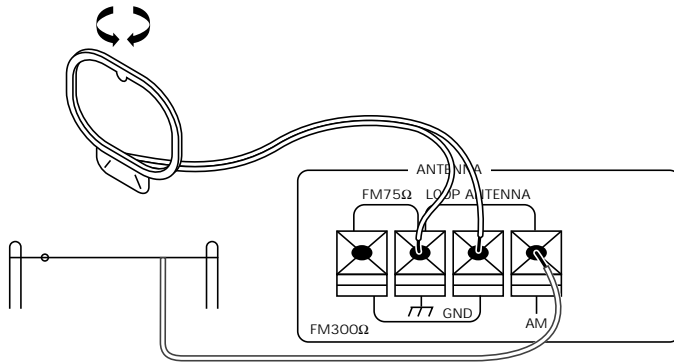
Use this antenna until you can install an outdoor antenna. When you do, remove the indoor antenna.



- 1 Remove the insulation from the wire tip, and twist the wire tightly to get rid of any loose strands.
- 2 Connect the end of the wire to the left-most antenna jack on the receiver.
- 3 Fully extend the antenna, and place it along a wall or bookshelf.
- 4 Adjust the antenna to find the position that provides the best reception.
- 5 Attach the looped end to the wall or bookshelf.

### Using an AM outdoor antenna (optional)

If you're using the AM loop antenna, but reception is poor, run a vinyl-coated wire of more than 20 feet outdoors. Do not disconnect the loop antenna.

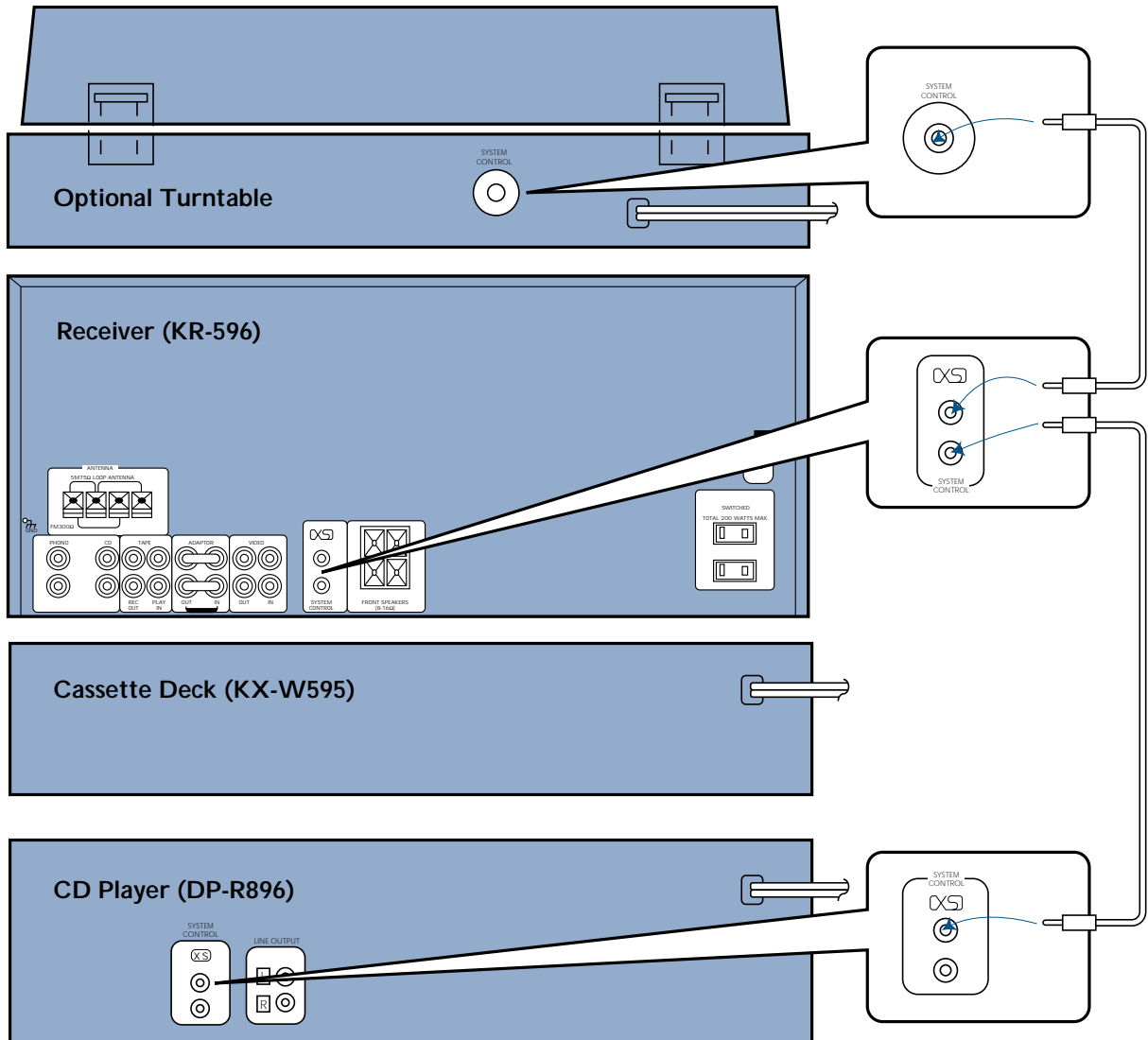


### Using an FM outdoor antenna (optional)

For the best reception and sound quality, we recommend using an outdoor FM antenna. Since most outdoor antennas use either 75 ohm or 300 ohm connections, your Spectrum System's receiver provides connections for both. Contact your local electronics dealer/installer for more information.

## Connecting the system control cables

Connect the system control cables as shown below. Be sure to push the plugs all the way in.

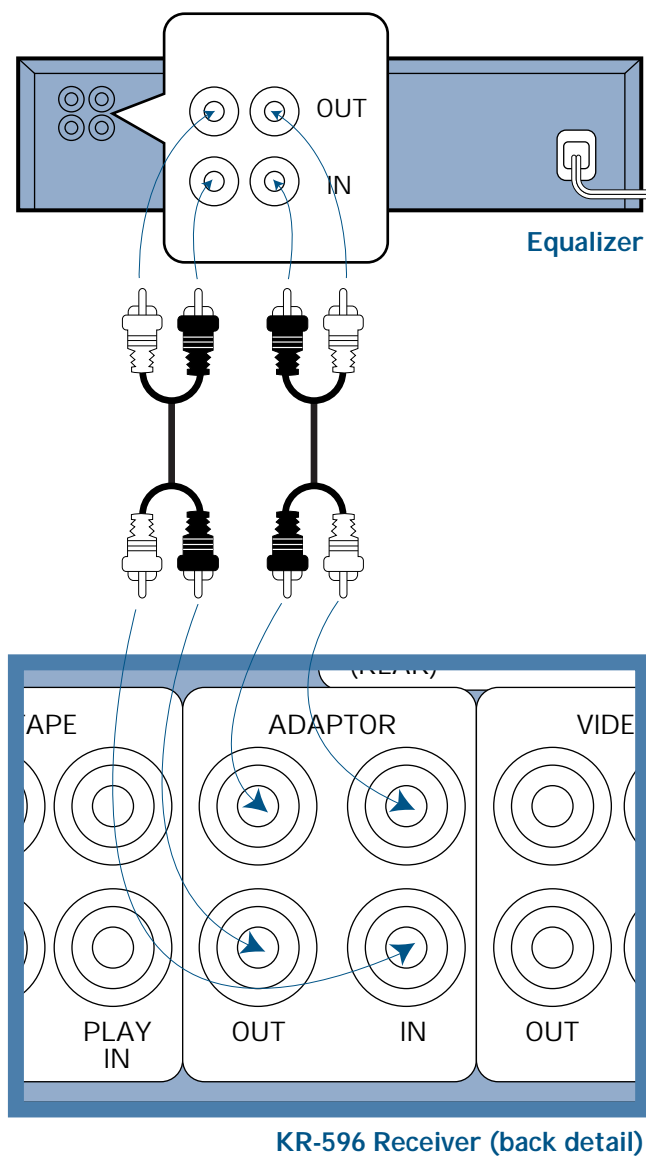




## Connecting other audio components

You can connect a graphic equalizer or similar component to your SPEC-TRUM System.

Remove the shorting plugs from the 'Adapter' jacks, and connect the component to those jacks.



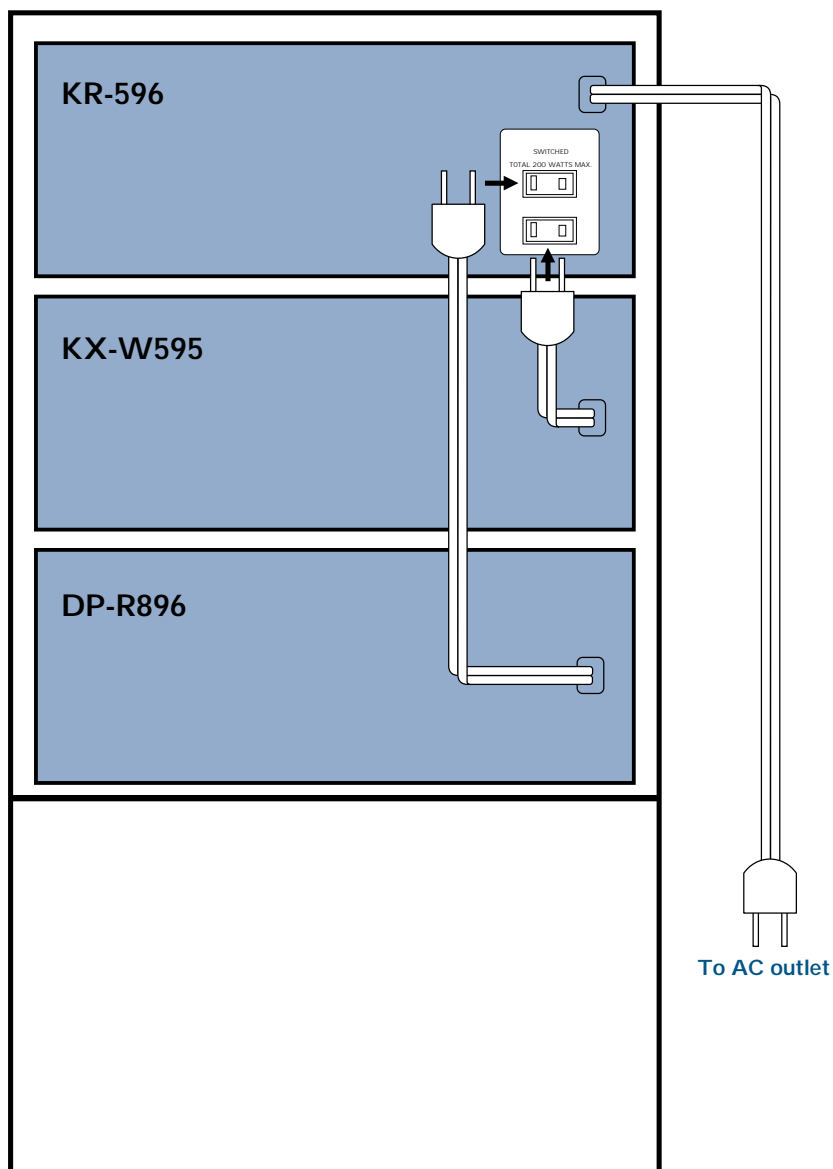
### A few tips:

- Read the manual that came with the other component.
- If you're using the 'Adapter' jacks, keep the shorting plugs for future use.
- If you're not connecting another component to the 'Adapter' jacks, be sure you insert the shorting plugs properly into the jacks. Otherwise, the sound will be cut off.
- Never plug a shorting plug into jacks other than the 'Adapter' jacks. You could damage the amplifier.

# Plugging in your power cords

Important: Make sure you follow these instructions carefully when you plug in the power cords. If the connections are wrong, they could cause electrical overload and fire.

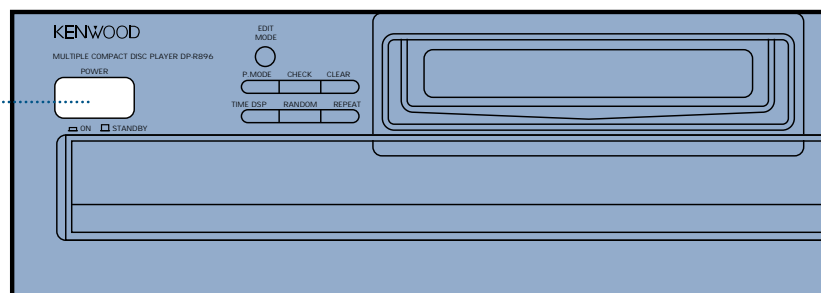
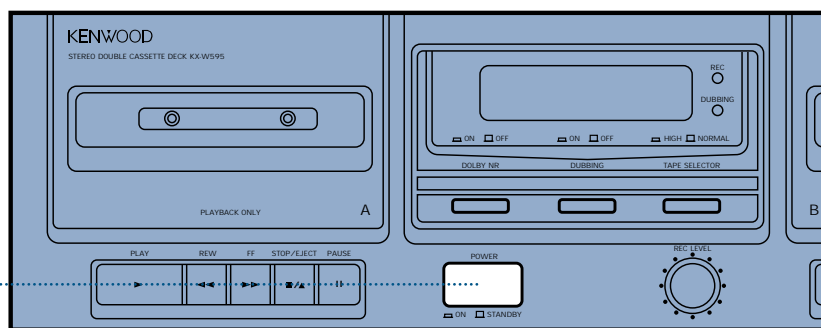
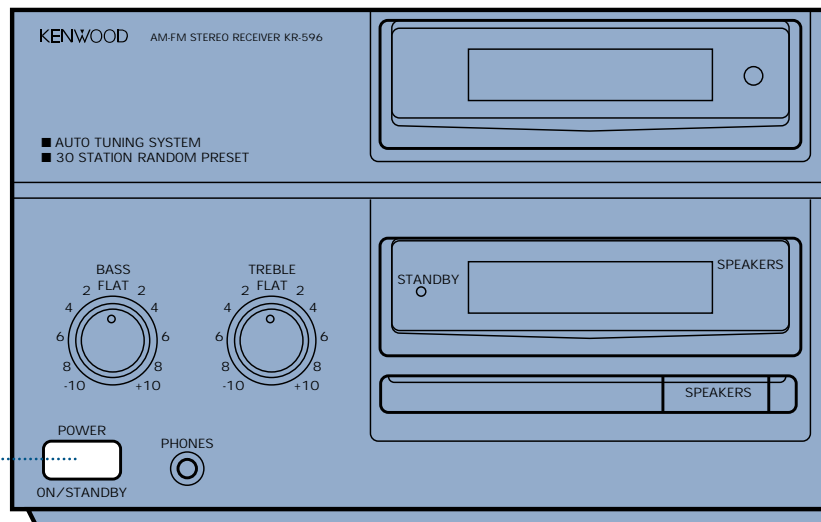
- 1 Plug the power cord of the CD player into one of the accessory outlets on the back of the receiver.
- 2 Plug the power cord of the cassette deck into the other accessory outlet on the back of the receiver.
- 3 Plug the power cord of the receiver into the wall AC outlet.



# Turning ON the power

If you've connected all of the power and system control cables as we've shown, you can turn on the power to the entire system from the receiver.

- Press the power switch on the receiver (or the POWER button on the remote) to turn the entire system ON and OFF.



## Important:

- Since the CD player and cassette deck have mechanical switches you must press their POWER switches when you turn the system ON for the very first time. After the first time, they will automatically turn ON and OFF with the rest of the system.



## **CONGRATULATIONS!**

Your SPECTRUM System is ready to go! Now, look at the 'Using your Kenwood Spectrum Audio System' manual to operate your system. Have fun!

# Warranty

Write the serial numbers (they're on the back of each unit, along with the model number) in the space below. If you need to call your dealer for information or service, you'll need the model and serial numbers. We suggest you keep your sales receipt as proof of purchase to validate your warranty coverage.

See the complete text of the warranty below. Please read it carefully.

Model number	Serial number
KR-596	
DP-R896	
KX-W595	
JL-506	

## Kenwood Limited Warranty

### Spectrum Systems

Kenwood is proud of its audio equipment, and stands behind it. For that reason, we offer you, the owner of a new Kenwood product, the following warranty:

### Warranty period: One year parts & labor

This Kenwood product is warranted for the stated period from the date of the original purchase.

### Scope of warranty

Except as specified below, this warranty covers all defects in material and workmanship in Kenwood products. The following are not covered by the warranty:

- 1 Voltage and/or line frequency conversions.
- 2 Periodic check-ups which do not disclose any defects covered by the warranty.
- 3 Units on which the serial number has been defaced, modified or removed.
- 4 Damage or deterioration:
  - a Occurring to any external cabinet, including but not limited to appearance items such as knobs, speaker grill and batteries.
  - b Resulting from accident, misuse, abuse, neglect, unauthorized product modification or failure to follow instructions contained in the owner's manual.
  - c Resulting from repair or attempted repair by anyone not authorized by Kenwood.
  - d Resulting from installation of parts or accessories that do not conform to the quality or specifications of the original parts or accessories.

e Occurring during shipment (claims must be presented to the shipper)

- 5 Product purchased or serviced outside the United States and its territories, unless the product is purchased through the U.S.A. Military Exchange Service.

### Who is protected

This warranty is extended only by the original purchaser. A purchase receipt or other proof of date of original purchase will be required before warranty service is rendered.

### What we will pay for

We will pay all labor and material expenses for covered items. Payment of shipping charges is discussed in the next section of this warranty.

### How to obtain warranty service

If your Kenwood product requires service:

- 1 Take or ship it to any Kenwood Authorized Service Center along with a complete description of the problem. If you are uncertain as to whether a Service Center is authorized, please call "1-800-KENWOOD" (1-800-536-9663) for the nearest service center in the continental U.S.A.
- 2 Although you must pay any shipping charges if it is necessary to ship the product for warranty service, we will pay the return shipping charges if the repairs are covered by the warranty.
- 3 Whenever your units are taken or sent for warranty service, you must include a copy of the original dated sales receipt as proof of warranty coverage.

### LIMITATION OF IMPLIED WARRANTIES

ALL IMPLIED WARRANTIES, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE, ARE LIMITED IN THE DURATION TO THE LENGTH OF THIS WARRANTY.

### EXCLUSION OF CERTAIN DAMAGES

KENWOOD'S LIABILITY FOR ANY DEFECTIVE PRODUCT IS LIMITED TO THE REPAIR OR REPLACEMENT OF SAID PRODUCT, AT OUR OPTION, AND SHALL NOT INCLUDE DAMAGES OF ANY KIND, WHETHER INCIDENTAL, CONSEQUENTIAL OR OTHERWISE. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS AND/OR DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS AND EXCLUSIONS MAY NOT APPLY TO YOU.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

If a problem develops during or after the Limited Warranty Period, or if you have questions regarding the operation of the product, you should contact your Kenwood Authorized Dealer or Authorized Service Center. If the problem or your question is not handled to your satisfaction, please contact our Customer Relations Department at the address below.

**Kenwood Service Corporation**  
PO Box 22745  
Long Beach, CA 90801-5745  
USA

For your nearest  
Kenwood Authorized Service Center, call:

**1-800-536-9663**  
24 hours a day, 7 days a week

KENWOOD USA CORPORATION  
PO Box 22745  
Long Beach, California 90801-5745

# 2

# Using your Kenwood Audio System

## Spectrum 350



KENWOOD

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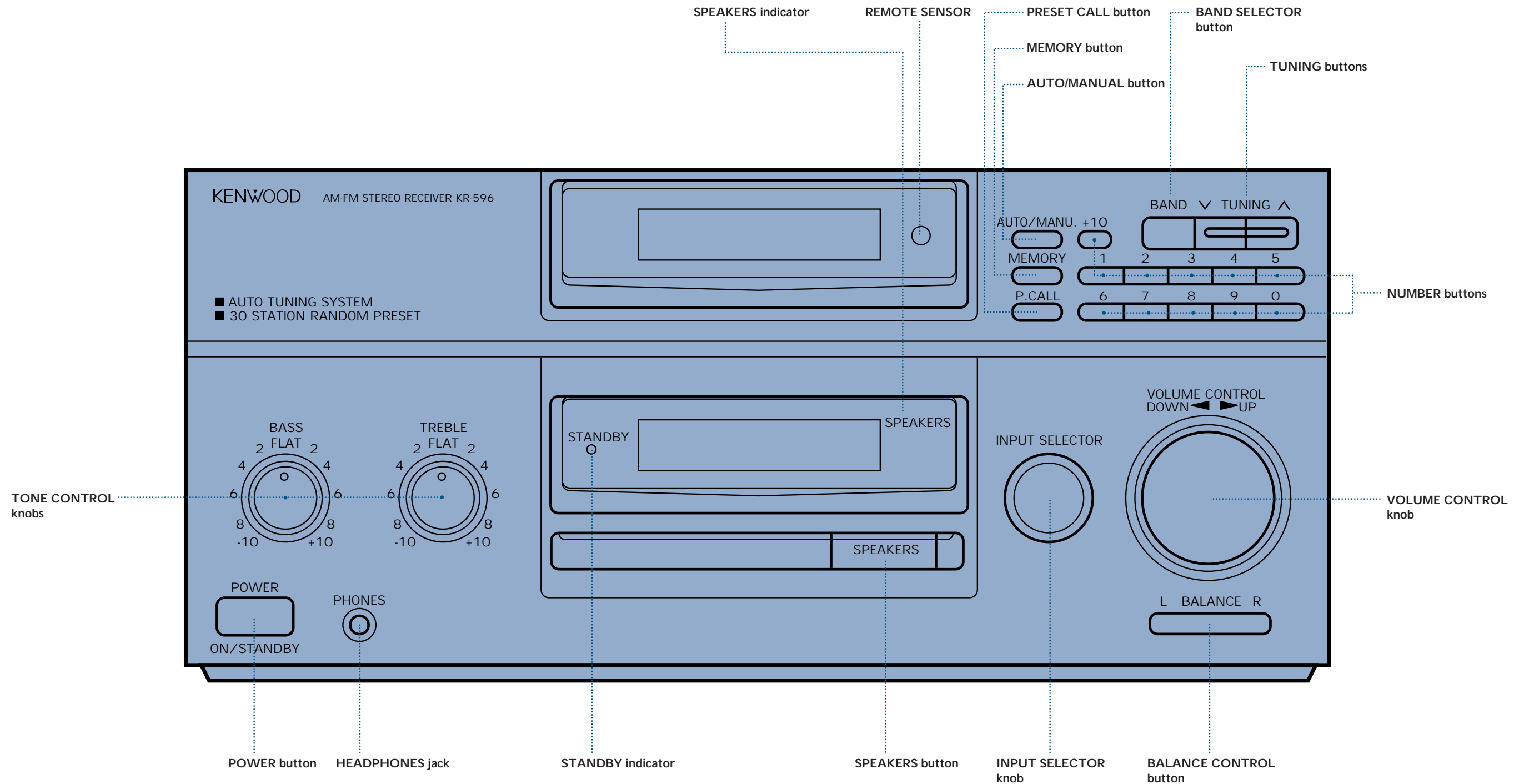
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# Welcome

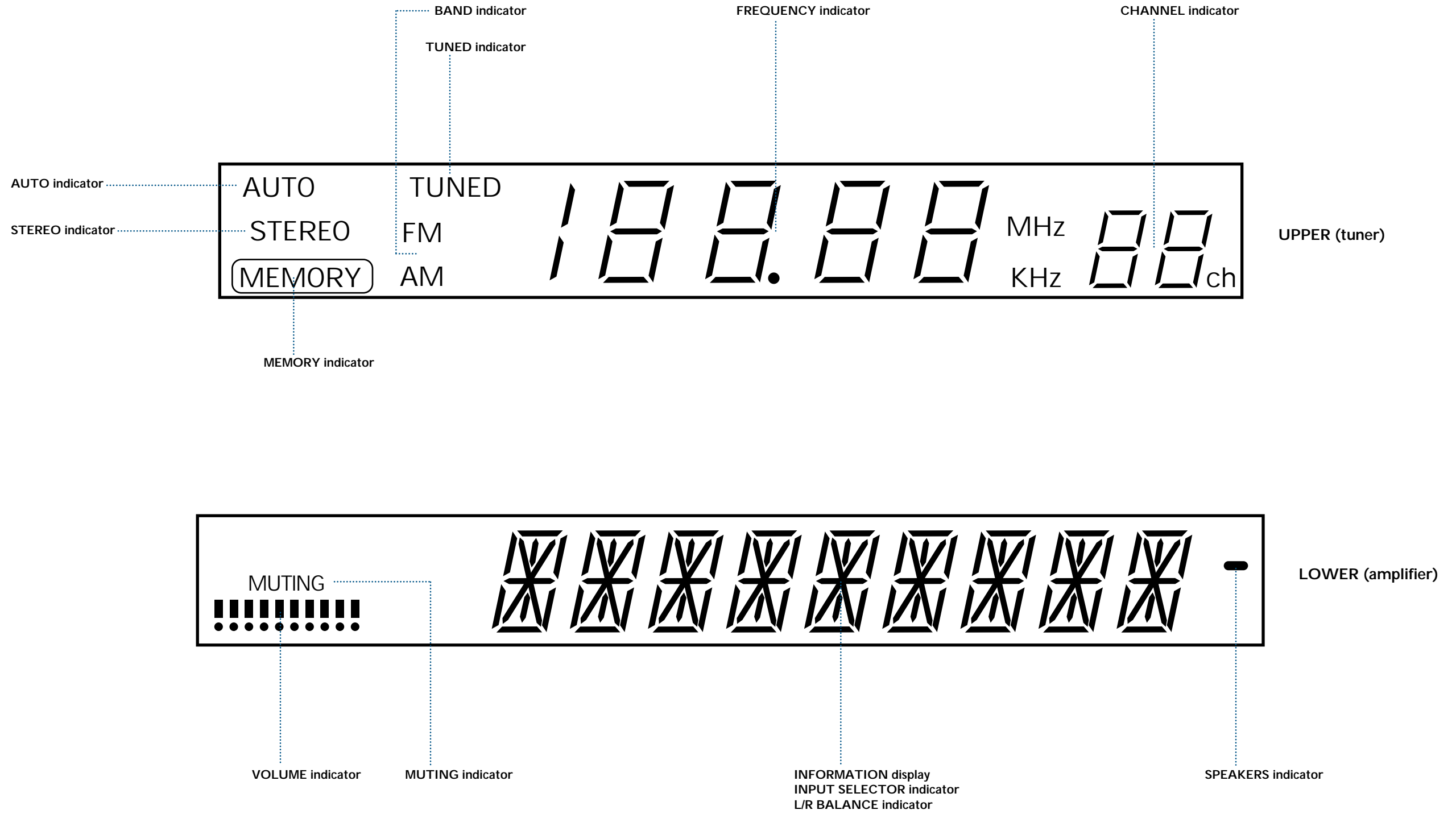
Now that you've set up your SPECTRUM system, the real fun begins! Operating your system is easy, if you follow the step-by-step instructions in this manual. Spend a little time with the manual before you jump in, so you become familiar with the many capabilities of your system. You'll find a handy table of contents to guide you to the information you need. Then put up your feet, sit back and enjoy the fabulous sound of your SPECTRUM system!

# Using the controls

## Front panel controls



# Reading the display

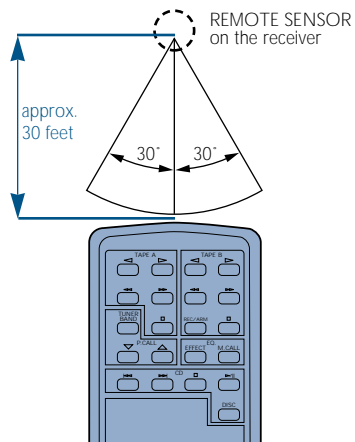


# The remote

You can use your SPECTRUM system remote for many functions.

## A few tips

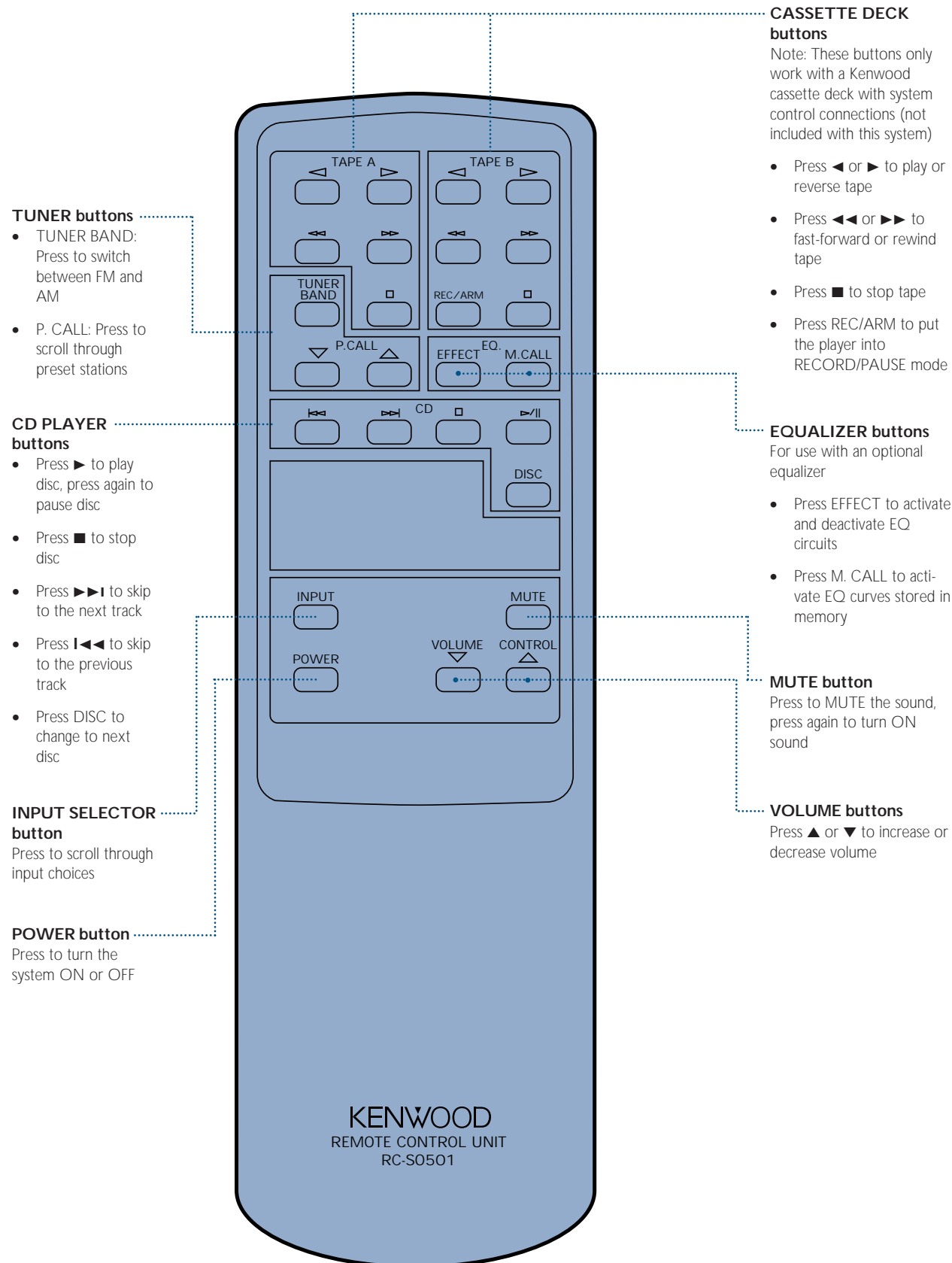
- Depending on temperature, humidity, and other environmental conditions, the operating range of your remote is approximately 30' and up to 30° on either side of the receiver's remote light sensor.
- When the operating distance of your remote begins to get shorter, replace both alkaline batteries with new ones.



- When you press 2 buttons one after the other, press each button securely for more than 1 second each.
- The remote may malfunction if direct sunlight or high-frequency fluorescent light enters the light sensor. In this case, either move the audio system, or remove the light source.

## Important:

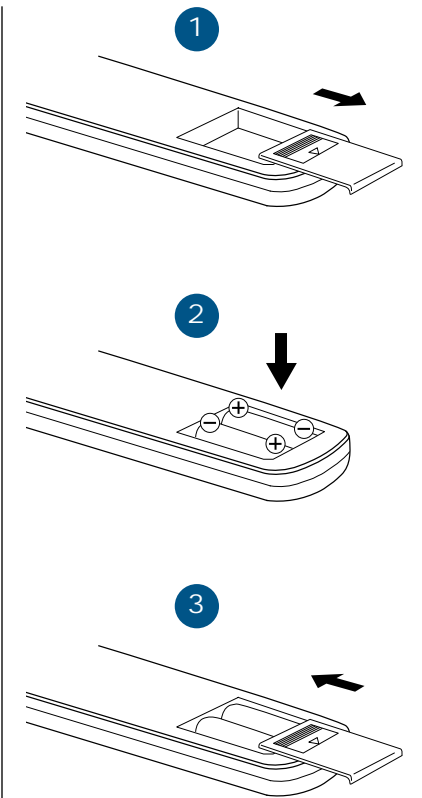
The batteries that came with this system are test batteries and may not last as long as alkaline batteries.



## Loading and replacing the batteries

If the receiver doesn't respond when you press a button on the remote, you need new batteries. We recommend replacing both batteries at the same time for longer battery life.

- 1 Remove the cover by pressing down on the ridged area and sliding it off in the direction of the arrow.
- 2 Insert 2 AA-size alkaline batteries (be sure to pay attention to the (+) and (-) signs when you're inserting the batteries).
- 3 Close the cover.



# The basic audio functions

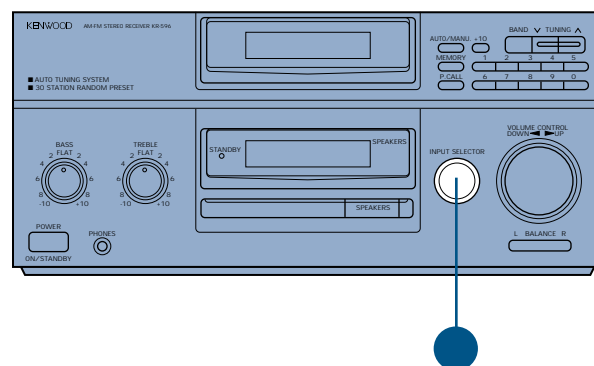
## Selecting the input source

You can play audio from as many as 5 different sources, including:

- TUNER
- TAPE
- CD
- VIDEO
- PHONO

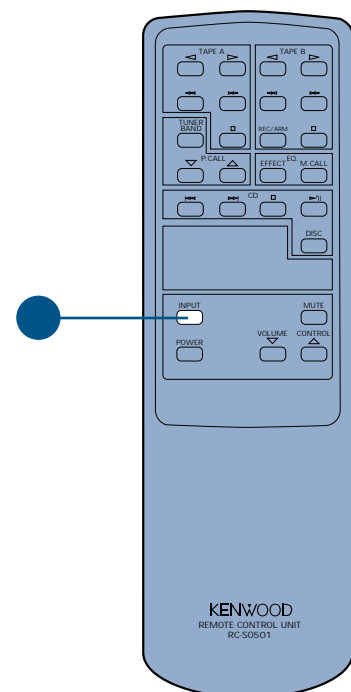
## Selecting from the front panel

Rotate the INPUT SELECTOR knob until you see the input source you want on the display.



## Selecting from the remote

Press the INPUT button until you see the input source you want on the display.

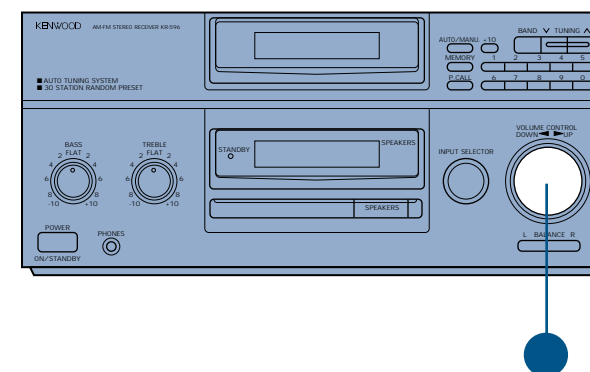


## Adjusting the volume

You can increase or decrease the volume level in 1 decibel (dB) increments. The display shows the decibel level change.

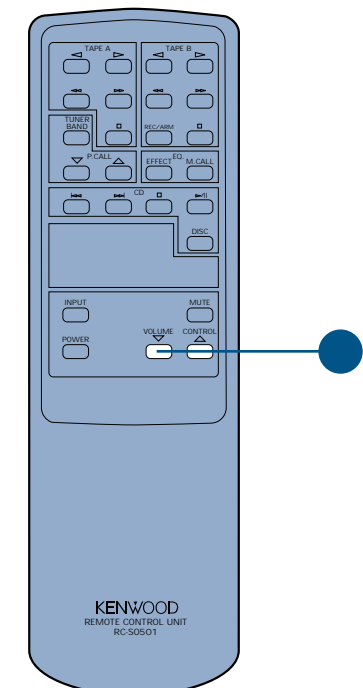
## Adjusting from the front panel

Turn the VOLUME knob clockwise to increase the volume. Turn the knob counter-clockwise to decrease it.



## Adjusting from the remote

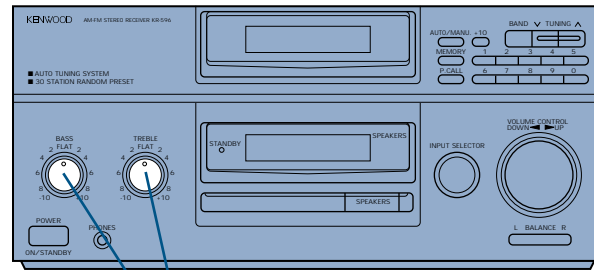
Press the VOLUME buttons to increase or decrease the volume level.



## Adjusting the bass and treble

You can increase or decrease the bass or treble to personalize the sound.

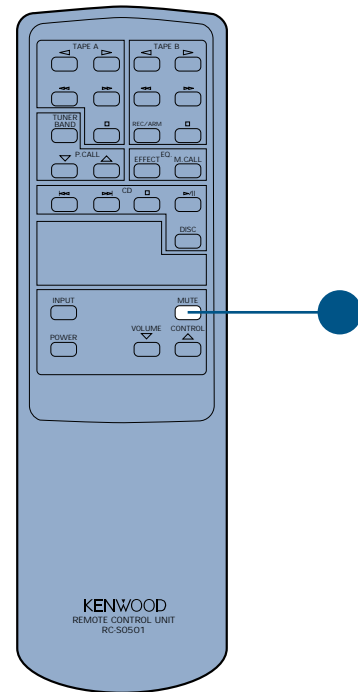
Turn the BASS and TREBLE controls clockwise to increase them. Turn the controls counter-clockwise to decrease them.



## Muting the sound

You can quickly turn OFF the sound (when the phone rings, for example), and turn it ON again without stopping play.

Press the MUTE button to turn the sound OFF. Press it again to turn the sound ON. The MUTE light on the display flashes while MUTE is ON.

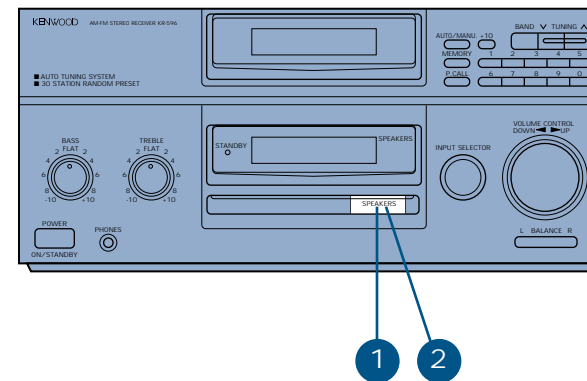


## Activating the speakers

You can turn the speakers ON or OFF (for example, to use headphones) with the SPEAKERS button.

- 1 Press the SPEAKERS button (while they are off) to turn the speakers ON.
- 2 Press the SPEAKERS button again to turn the speakers OFF.

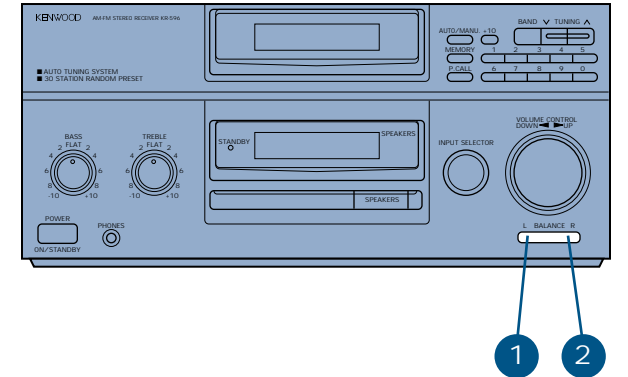
The SPEAKERS light on the display turns ON when the speakers are ON, and it goes OFF when the speakers are OFF.



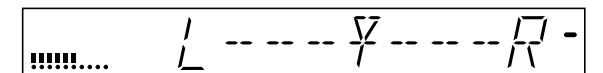
## Adjusting the speaker balance

You can adjust the balance of the volume between the left and right speakers.

- 1 Press the L BALANCE button to decrease the right speaker volume and maintain the left.
- 2 Press the R BALANCE button to decrease the left speaker volume and maintain the right.



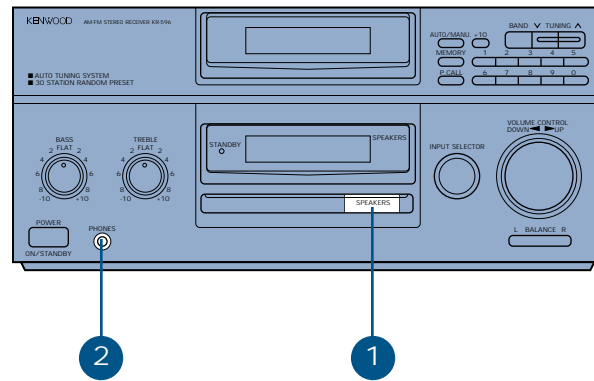
While you're adjusting the balance, the display shows the relative balance between the left and right speakers.



# Using headphones

You can use headphones to listen to music in private.

- 1 Turn the speakers OFF.
- 2 Insert the headphone plug into the HEADPHONE jack, and then put them on.



## Important

There are a few things to keep in mind when using headphones:

- Turn the volume down before switching the speakers back on.
- You can use your headphones with the speakers on but be careful. The volume delivered through the headphones is usually lower than that delivered through speakers. When you turn up the volume for the headphones, be careful not to turn it up so loud you damage your speakers.

# Using the tuner

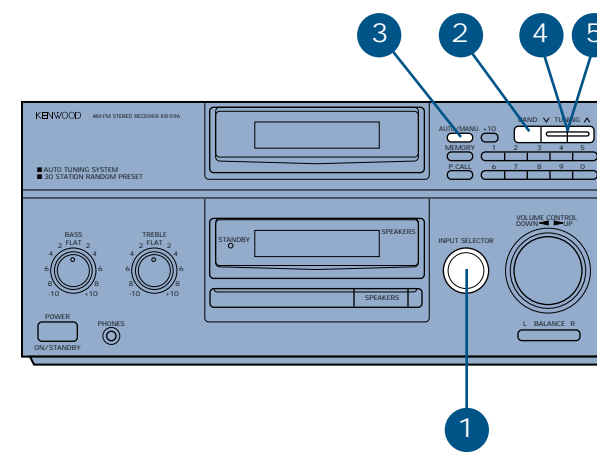
## Tuning stations automatically

You can automatically find the strongest radio station signals.

- 1 Select the TUNER input.
- 2 Press the BAND button to select FM or AM.
- 3 Press the AUTO/MANU button to select AUTO. The AUTO indicator light turns ON.
- 4 On the TUNING buttons, press ▲ to move up the broadcast band, or ▼ to move down the broadcast band.

The tuner stops automatically when it finds a strong station, and the TUNED light turns ON. If the station is broadcasting in stereo, the STEREO light turns ON.

- 5 Press ▲ or ▼ again to find the next strong signal.

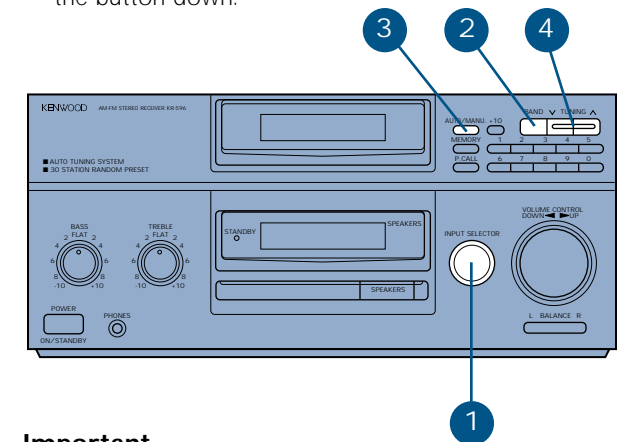


## Tuning stations manually

You can search for radio stations in small steps up and down the broadcast band to tune in a weak station that automatic tuning might miss.

- 1 Select the TUNER input.
- 2 Press the BAND button to select FM or AM.
- 3 Press the AUTO/MANU button to select MANUAL. The AUTO indicator light turns OFF.
- 4 On the TUNING buttons, press ▲ to move up the broadcast band, or ▼ to move down the broadcast band to the station you want.

The frequency changes by 0.1 MHz each time you press the button, or it continually changes if you hold the button down.



## Important

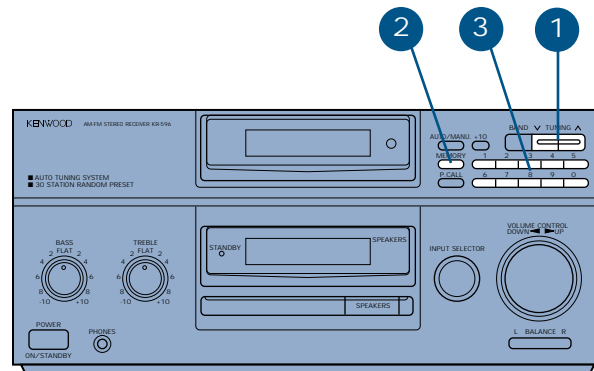
During manual tuning, the tuner receives stations only in mono.

- To receive a tuned station in stereo, press the AUTO/MANU button so the AUTO light turns ON. If the station is broadcast in stereo, you receive it in stereo.
- You may receive weaker stations with more background noise in stereo than in mono. To decrease the noise, press the AUTO/MANU button so the AUTO light goes OFF.

## Storing preset stations

You can store up to 30 of your favorite radio stations in memory.

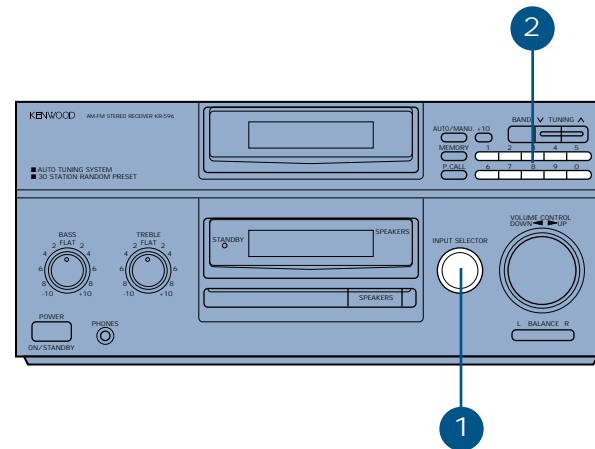
- 1 Tune in the station you want to preset.
  - 2 Press the MEMORY button. The MEMORY light turns ON.
  - 3 Within 5 seconds, enter the preset number using the number buttons. For example, to select preset #15, press the +10 button, then 5. To select preset #20, press the +10 button, the +10 button again, then 0.
- If you've already assigned a station to a preset number, assigning a new station erases the old one.
- 4 To preset additional stations, repeat these steps.



## Tuning preset stations

You can quickly tune to any preset station.

- 1 Select the tuner input.
- 2 Press the number buttons assigned to the station.



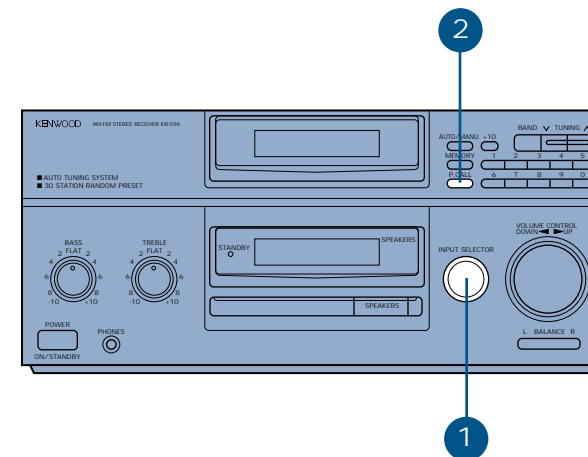
## Scrolling through preset stations

### Scrolling from the front panel

You can scroll through all preset stations in sequence.

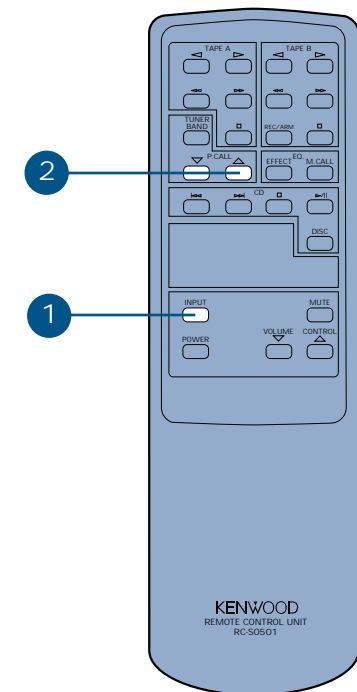
- 1 Select the tuner input.
- 2 Press the P.CALL (Preset Call) button. Each time you press the button, the tuner advances to the next preset station number. The display shows the preset numbers.

If you hold the button down, the tuner advances through the preset stations at 1/2-second intervals. When you release the button, you hear the station tuned in at that time.



### Scrolling from the remote

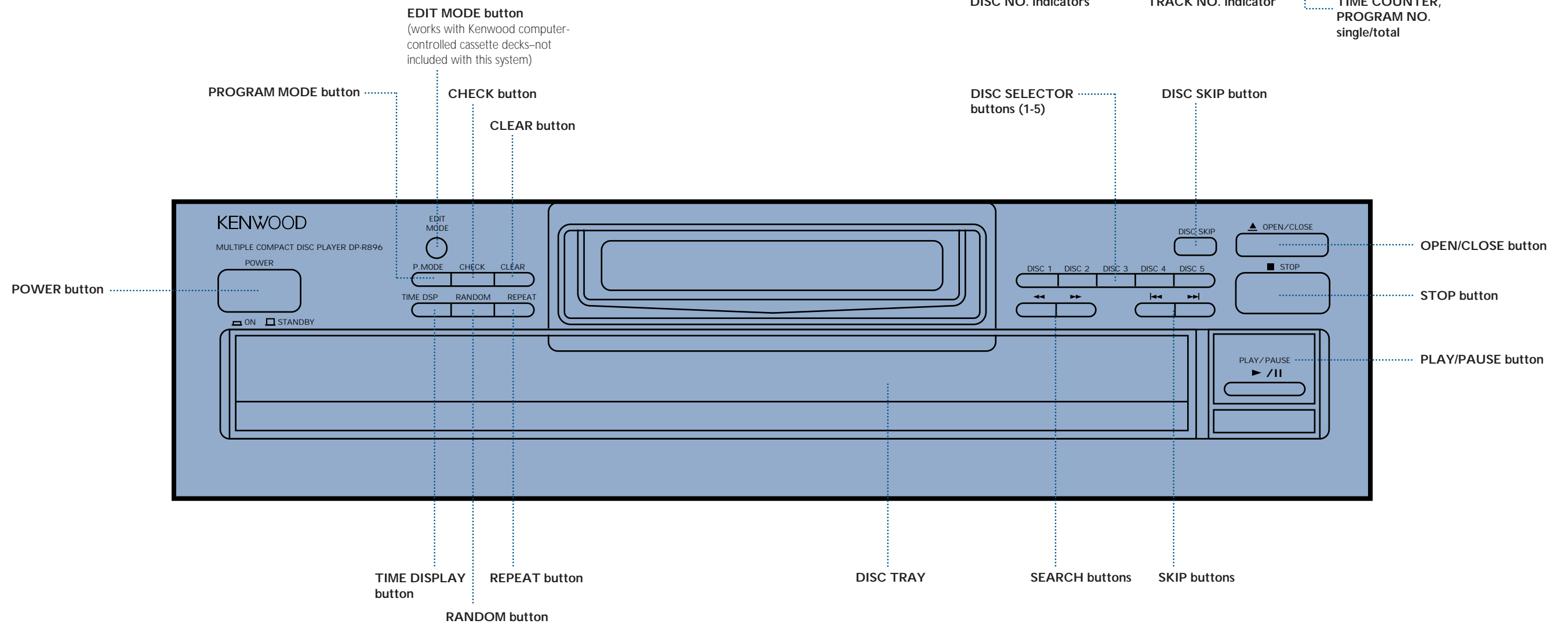
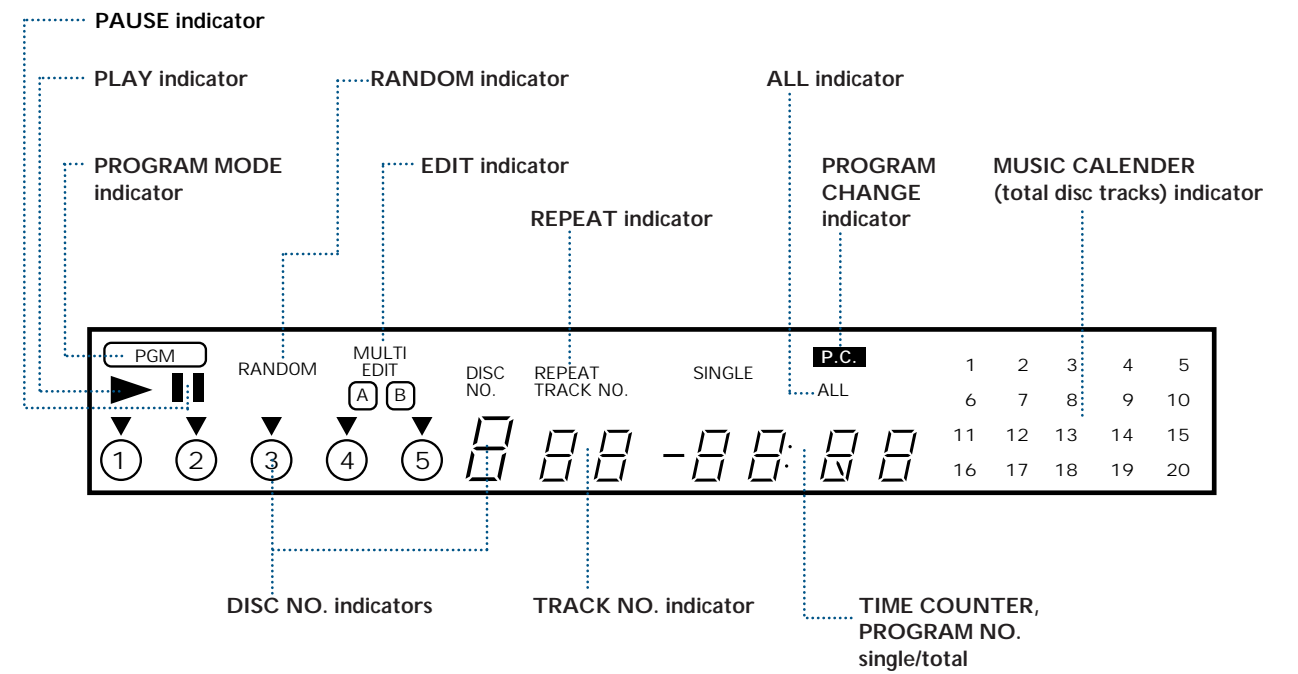
- 1 Use the INPUT button to select the tuner input.
- 2 Press the P. CALL buttons to scroll up or down through the preset stations. Each time you press the button, the tuner changes to the next or previous preset station number. The display shows the preset numbers. If you hold either button down, the tuner scrolls through the preset stations at 1/2-second intervals. When you release the button, you hear the station tuned in at that time.





# Using the CD player

## The front panel controls and display



## Before using the CD player

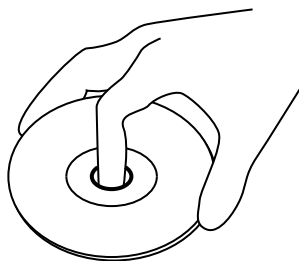
Please read the following instructions carefully to help prevent damage to your CD player and your CDs.

### Compatible CDs

Your CD player plays standard 5" CDs and 3" CD singles and the audio portion of CDV discs and CD-G (CD plus graphics) discs.

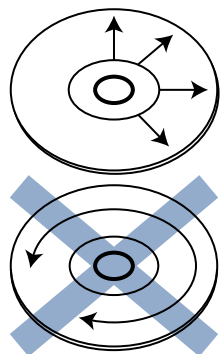
### Handling CDs

Hold a CD by its edges and center hole. Don't touch the playing surface or attach labels or tape to either side of the CD.



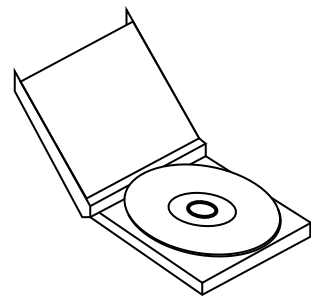
### Cleaning CDs

To clean fingerprints or other dirt from a CD, gently wipe it with a soft cotton cloth moving in circles outward from the center.



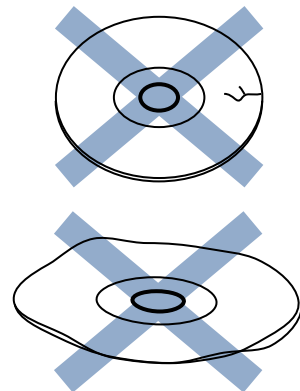
### Storing CDs

To protect your CDs, store them in their cases. Don't leave them in the player for a long time.



### Damaged CDs

To avoid possible damage to your player, don't attempt to play cracked or warped CDs.



### Condensation

Condensation of water vapor on the pickup lens may prevent proper operation of your CD player. To eliminate the condensation, leave the player ON for several hours. Condensation may occur when:

- You bring the player from a cool or cold place to a warm or humid place.

- You operate a heater in the vicinity of the player.
- There's a big difference between the player's internal temperature and the temperature of the room the player is in.

### Before you transport your CD player

- 1 Turn the player's power ON. Don't load any CDs.
- 2 Wait until 5 seconds after NO DISC appears on the display.
- 3 Turn the player's power OFF.

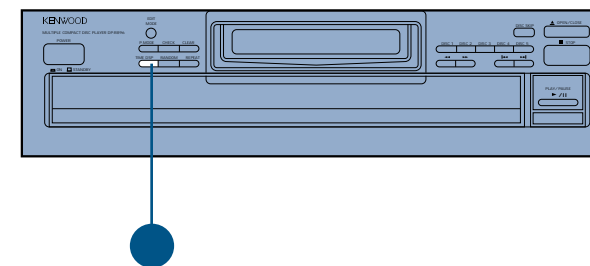
## Displaying CD time information

You can view time information for the CD you're playing.

Press the TIME DISP. button to cycle between:

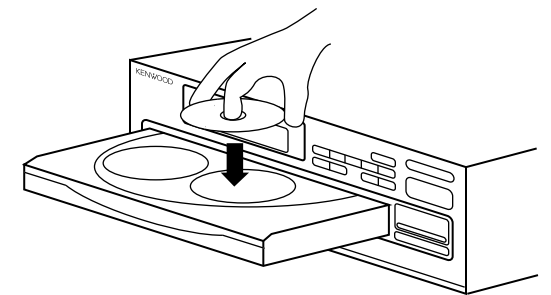
TRACK TIME: Elapsed and remaining time of the current track.

TOTAL TIME: Elapsed and remaining time of the CD.



## Loading CDs

- 1 Press the OPEN/CLOSE button to open the tray.
- 2 Place a CD in one of the tray's circular wells. While the tray is open, you can insert a CD in each of the 2 exposed wells.



- 3 To insert more CDs, press the DISC SKIP button to rotate the tray. Insert a CD when the tray stops rotating.
- 4 When you're done, press the OPEN/CLOSE button to close the tray.

## Changing CDs

### During play

- 1 Press the OPEN/CLOSE button to open the tray.
- 2 Change CDs in the exposed wells. If you want to put a CD in an unexposed well, press the DISC SKIP button to rotate the tray. You can't change the CD currently playing.

### When the player is stopped

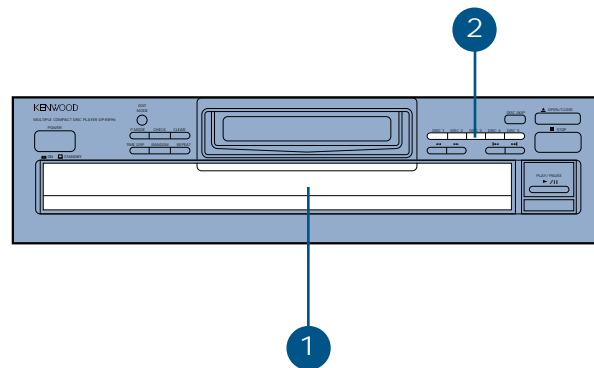
- 1 Press the OPEN/CLOSE button to open the tray.
- 2 Change CDs in the exposed wells. If necessary, press the DISC SKIP button to rotate the tray.

# Playing CDs

## From the beginning

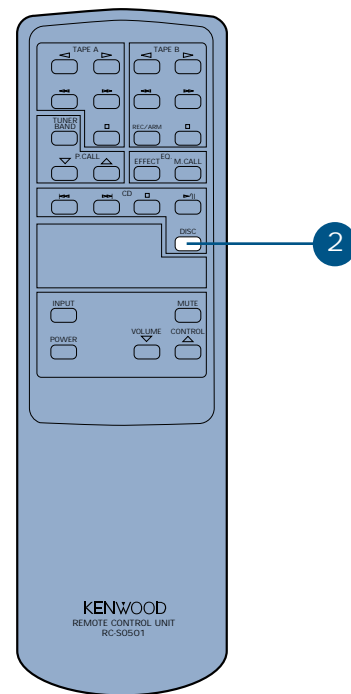
### Playing from the front panel

- 1 Load one or more CDs.
- 2 Select the CD using the DISC SELECTOR buttons. An indicator ▼ appears on the display over the number of the selected CD. The selected CD automatically begins playing.



### Playing from the remote

- 1 Load one or more CDs.
- 2 Press the DISC button until the indicator ▼ appears on the player's display over the number of the selected CD. The selected CD automatically begins playing.



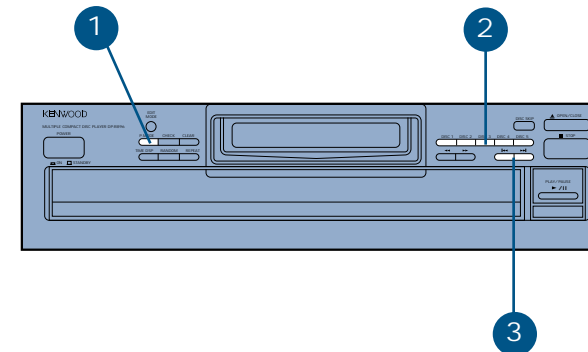
Whether you use the front panel or remote:

- If you don't select a CD when you've inserted more than 1 CD, the CDs play in order, starting with the CD in the lowest-numbered CD well.
- If you don't select a CD and you press the PLAY/PAUSE button, play begins with the CD number currently indicated on the display.

## From a specific track

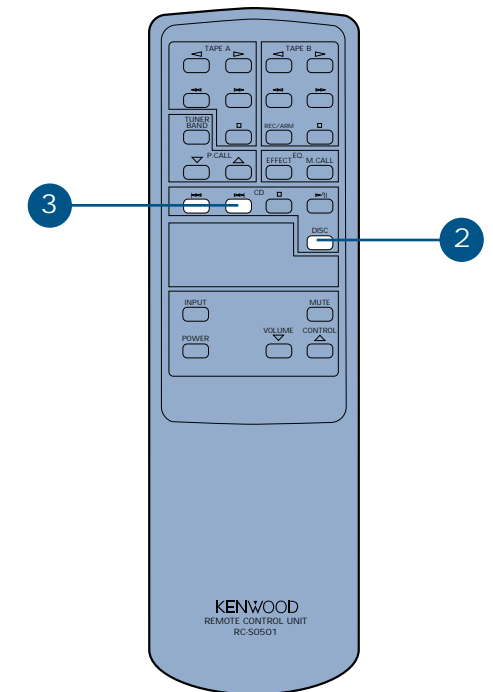
### Playing from the front panel

- 1 Make sure that the PGM (Program Mode) light is OFF. If the PGM light is ON, press the P.MODE button.
- 2 Select the CD using the DISC SELECTOR buttons.
- 3 Select the track using the ◀◀ and ▶▶ buttons. Play begins from the selected track and continues.



### Playing from the remote

- 1 Make sure that the PGM light is OFF. If the PGM light is ON, press the P.MODE button.
- 2 Select the CD using the DISC button.
- 3 Select the track using the ◀◀ and ▶▶ buttons. Play begins from the selected track and continues.



## Playing a combination of tracks

You can program up to 32 tracks from any combination of CDs to play in any order.

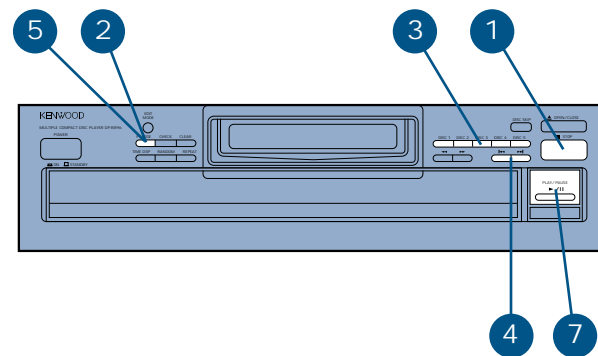
### A few hints:

- The player automatically adds a space of about 4 seconds between tracks in the PGM mode. This makes it easy to record tapes that are compatible with the track-finding function of Kenwood cassette decks. However, the PGM mode also inserts a 4-second space between 2 continuous, consecutive tracks programmed into memory, such as those on classical and live recordings.
- If you select the wrong track, press the CLEAR button, and select the correct track.
- When selecting tracks using the number buttons on the remote, you don't have to press the P.MODE button after each selection.
- Once you've programmed 32 tracks, the display indicates FULL, and you can't program any more tracks.
- If you press **I◀◀** or **▶▶I** buttons during Programmed play, the player skips the current track either forward or backward.

### Programming tracks

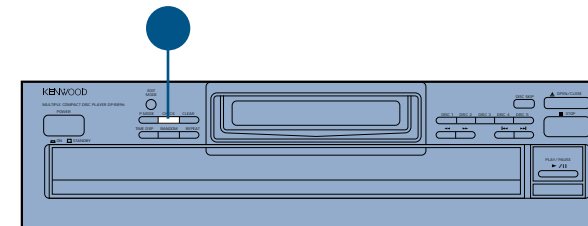
- 1 Press the STOP button.
- 2 Press the P.MODE button. The PGM light turns ON.
- 3 Select a CD.
- 4 Select a track.
- 5 Press the P.MODE button. The PLAY light flashes, and the display shows the selected CD and track and indicates P—01.
- 6 Repeat steps 3 through 5 above to program each track.
- 7 Press the PLAY button to play.

You can program all the tracks on a CD (in order) by pressing the P.MODE button without selecting any track numbers. The CD takes up only 1 program memory slot, regardless of how many tracks are on it.



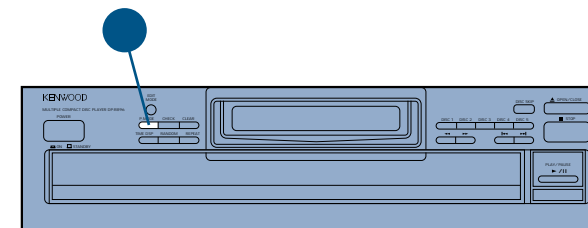
### To check a program

Press the CHECK button. Each time you press the button, you see the CD and track numbers in the order you programmed them on the display.



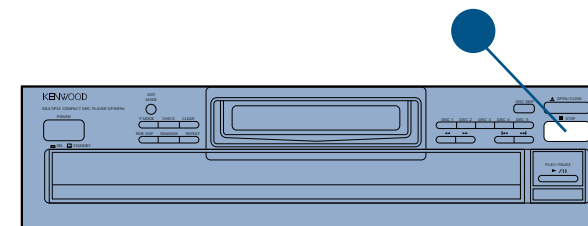
### To resume normal play

Press the P.MODE button. After the current track is done, the tracks continue to play in the order on the CD.



### To stop play

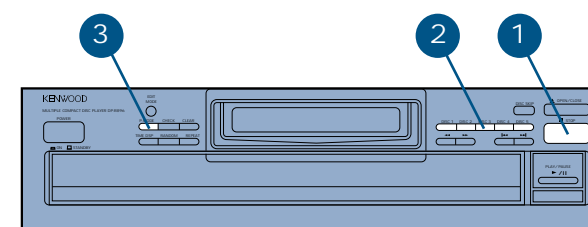
Press the STOP button.



### Adding a track to a program

You can add another track to the end of a program after the program has started playing.

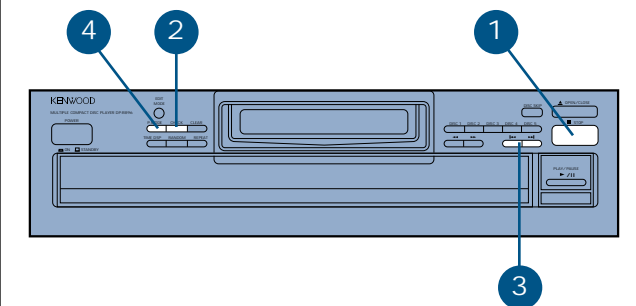
- 1 Press the STOP button.
- 2 Select the CD and track to add.
- 3 Press the P.MODE button.



### Changing a track in a program

You can change a track in a program after the program has started playing.

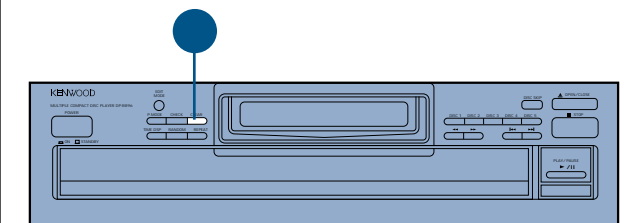
- 1 Press the STOP button.
- 2 Press the CHECK button until you see the P—# you want on the display. The P.C. light turns ON.
- 3 Select the new CD and track.
- 4 Press the P.MODE button.



### Clearing a track in a program

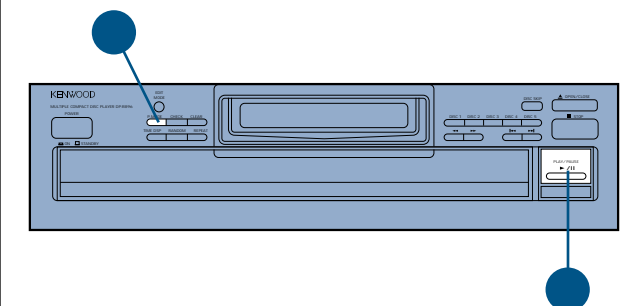
You can clear upcoming tracks in a program while it's playing.

Press the CLEAR button. Each time you press the button, you clear the tracks in order from the last track. You can't clear the track currently playing.



### Clearing a whole program

Press either the P.MODE button or the OPEN/CLOSE button.

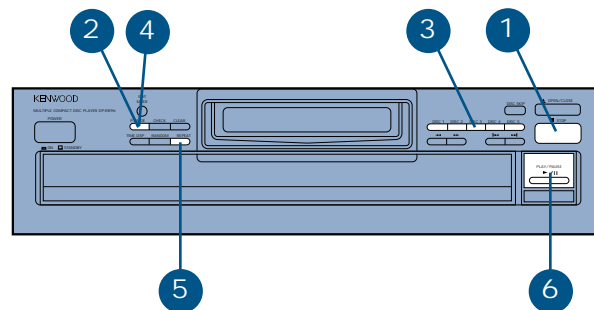


## Playing CDs over (repeat play)

You can repeat a single CD, all loaded CDs, or the contents of a program.

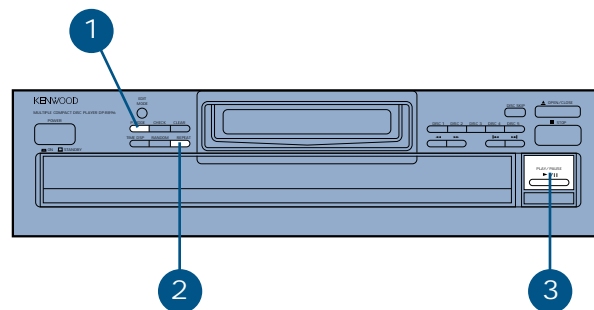
### Repeating a single CD

- 1 Press the STOP button.
- 2 Press the P.MODE button. The PGM light turns ON.
- 3 Select a CD.
- 4 Press the P. Mode button. The ALL indicator light turns on.
- 5 Press the REPEAT button. The REPEAT light turns ON.
- 6 Press the PLAY button.



### Repeating all loaded CDs

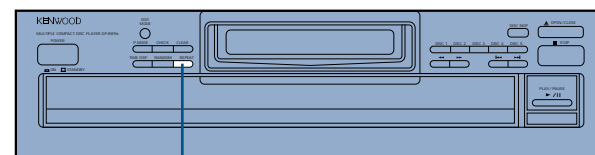
- 1 Make sure that the PGM light is OFF. If the PGM light is ON, press the P.MODE button.
- 2 Press the REPEAT button. The REPEAT light turns ON.
- 3 If you weren't already playing CDs, press the PLAY button.



### Repeating programmed tracks

You can repeat a programmed combination of tracks (see page 26, 'Programming Tracks'). If you only programmed 1 track, it plays over and over again.

- 1 Make sure that the program is playing (and the PGM light is ON).
- 2 Press the REPEAT button. The REPEAT light turns ON.



### To stop repeat play

Press the REPEAT button while repeat play is ON. The REPEAT light goes OFF.

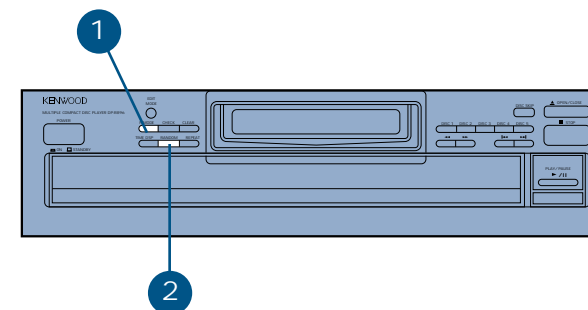
## Playing tracks in random order (random play)

You can randomly play all the tracks from the CDs in the tray without repeating any tracks.

- 1 Make sure the PGM light is OFF. If the PGM light is ON, press the P.MODE button.
- 2 Press the RANDOM button. The RANDOM light turns ON, and the MUSIC CALENDAR flashes.

Random play continues until all tracks have been played.

You can continuously repeat random play by pressing the REPEAT button during random play.



### To select another track during random play

Press the Forward TRACK SKIP button.

### To cancel random play

Press either the STOP, OPEN/CLOSE, or RANDOM buttons. If you press RANDOM, normal play starts from the track you're currently playing.

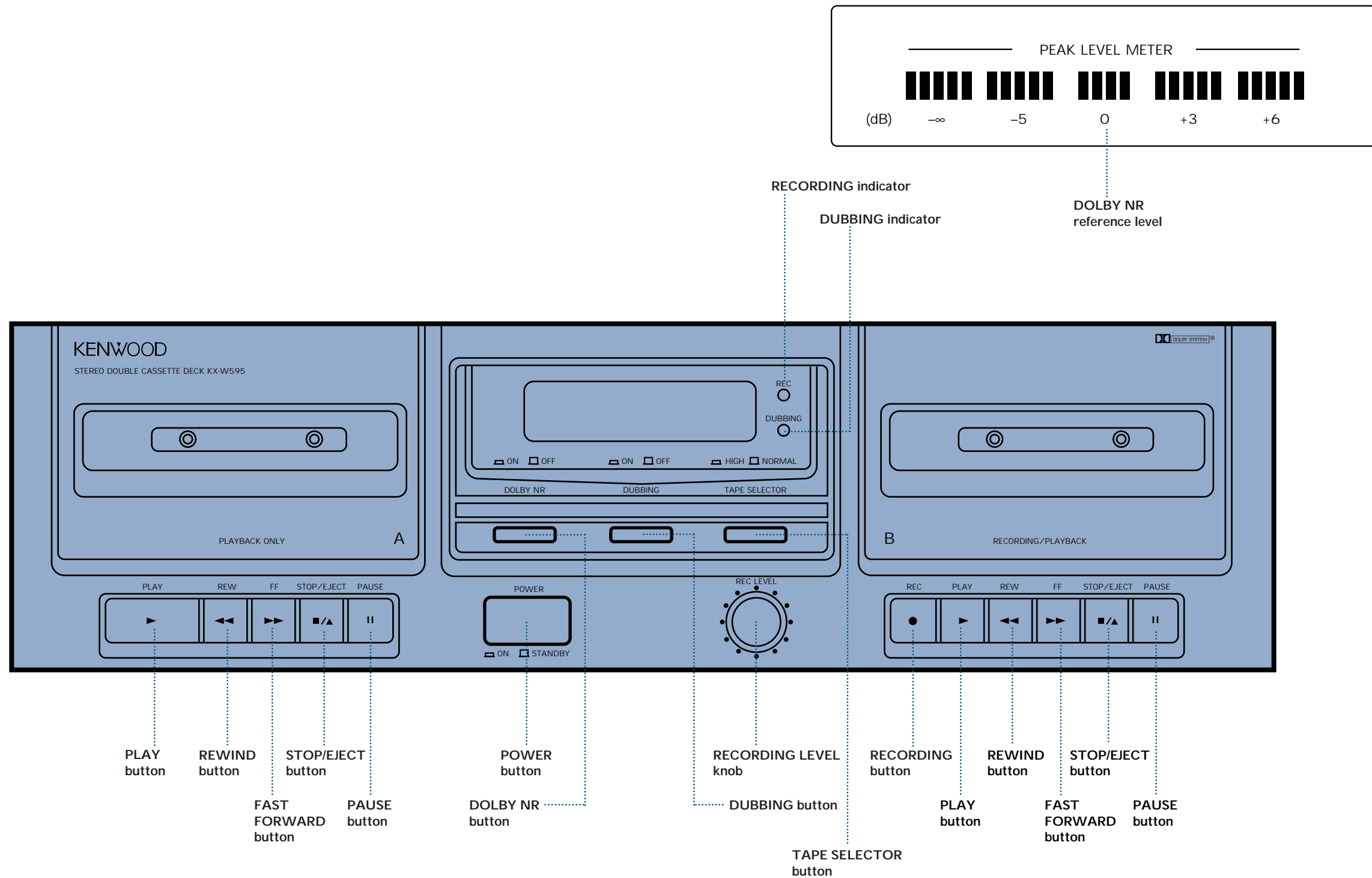
## Using a timer to play CDs

You can use your CD player with an audio timer (you'll have to buy it on your own) to play CDs at a time you choose.

- 1 Connect the power cords of the SPECTRUM system to the audio timer so that the timer turns the system on. Be sure to follow the instructions included with the timer.
- 2 Turn the system ON.
- 3 Insert 1 or more CDs. If you insert more than 1 CD, play begins with the CD in the lowest-numbered CD well.
- 4 Set the volume.
- 5 Set the timer. At the set time, the system will turn on, and the CD player will begin playing.

# Using the cassette deck

## The front panel controls and display

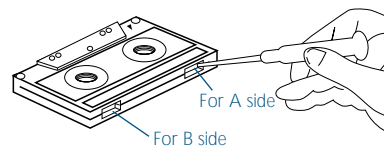


## Before using the cassette deck

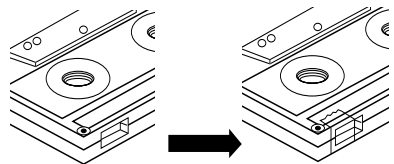
Please read the following instructions carefully to help prevent damage to your cassette tapes.

### Preventing accidental recording on pre-recorded tape

To prevent the accidental recording of a tape, use a small screwdriver or other tool to remove the recording-activation tabs on the top edge of the cassette case.

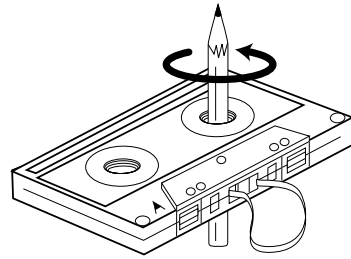


To record on the tape after you've removed the tabs, use cellophane tape to cover the portion of the hole previously covered by the tabs. Covering the entire hole may interfere with the operation of the cassette deck's automatic tape-type sensing mechanism.



### If there is slack in the tape

Insert a pencil into the tape reel hole, and wind the excess tape into the cassette case.



### Storing cassettes

Store tapes away from direct sunlight, magnetic fields (including those produced by speakers and television sets), and heaters.

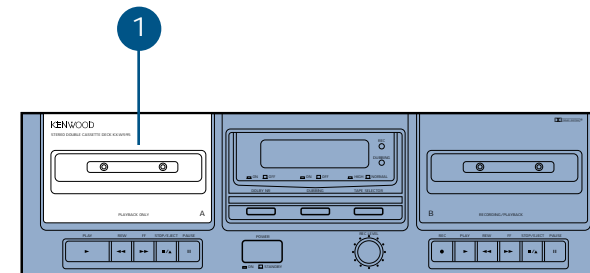
### Special tapes

Using 120-minute tapes and/or endless tapes could damage the tape mechanisms. We don't recommend them.

# Listening to tapes

## Playing tapes

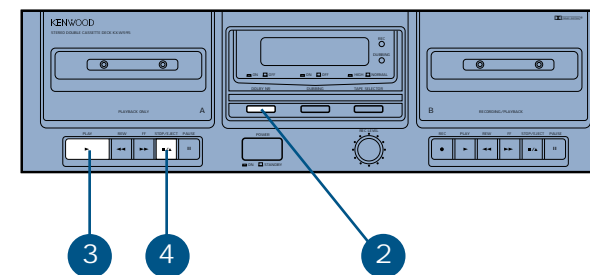
- 1 Insert a tape into a tape well. On tape A, the tape type (Normal or Chrome) is automatically selected. On tape B, press the TAPE SELECTOR button to select the proper tape type.



- 2 Select Dolby Noise Reduction for the tape you're playing. For example, if you're playing a tape recorded using Dolby, select ON.

- 3 Press the ► button to begin play.

- 4 Press the ■ button to stop play.



## Fast-winding tapes

- 1 Press the ■ button to stop play.
- 2 Press the ►► button to fast-forward through the tape, or press the ◀◀ button to rewind through the tape.
- 3 Press the ■ button to stop fast-winding.

# Recording tapes

You can record tapes from any source connected to your system: CDs, other tapes, records (if you've connected a record player), the radio, and even the audio portion of videotapes or laser discs (if you have these components connected).

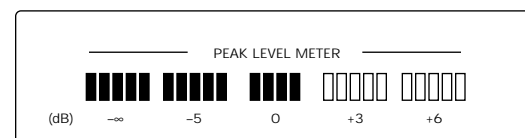
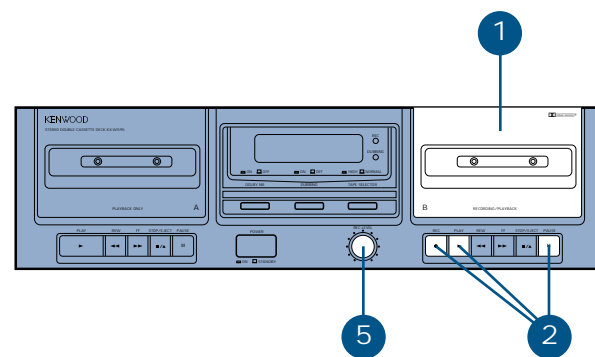
## A few tips:

- To record tapes, use tape-well B.
- You can't make recordings on metal tapes.
- Dolby Noise Reduction reduces tape hiss produced during the record/play process. Dolby B is the most widely used noise reduction system on pre-recorded tapes. Be sure you mark the tapes you record either Dolby B or not so you can play them back properly.

## Setting the recording level

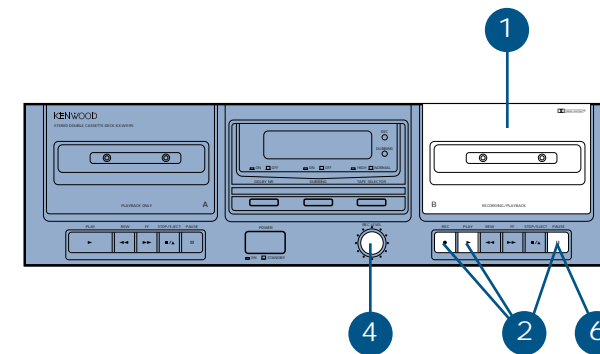
Setting the proper recording level is an important part of making good tapes. If the recording level is too low, tape hiss may mask the music's softer parts. If the recording level is too high, the music may sound distorted. These instructions help you set the optimum recording level.

- 1 Put a blank tape in tape-well B.
- 2 Press the PAUSE button, and then press the REC and PLAY buttons simultaneously.
- 3 Set the input of the receiver to the source you want to record. You can't select TAPE.
- 4 Find a loud section from the source you want to record, and play it.
- 5 Using the REC LEVEL knob, adjust the recording level so that the level indicators flash at 0 dB on the music's loudest passages. Turn the knob clockwise to increase the recording level or counter-clockwise to reduce it.



## Recording a tape

- 1 Put a blank tape in tape-well B.
- 2 Press the PAUSE button, and then press the REC and PLAY buttons simultaneously.
- 3 Set the input of the receiver to the source you want to record. You can't select TAPE.
- 4 Set the record level (see above).
- 5 Set the source at the beginning.
- 6 Press the PAUSE button to release the cassette from pause.
- 7 Play the music source.



### To pause the recording

Press the PAUSE button.

### To resume recording

Press the PAUSE button again.

### To stop recording

Press the STOP button.

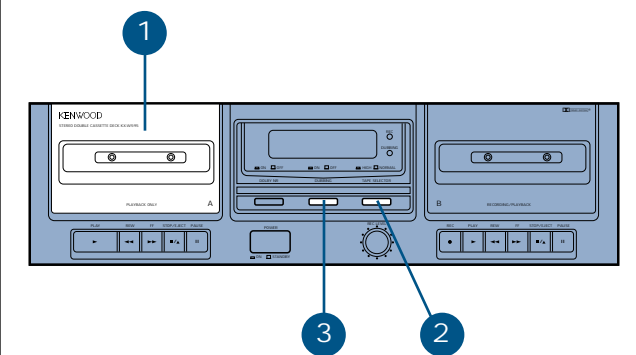
## Copying (dubbing) a tape

You can automatically copy a tape in tape-well A onto a tape in tape-well B.

### A few tips about recording tape-to-tape:

- You can't adjust recording level during copying. It is set automatically.
- The new recording in tape-well B will automatically have the same noise reduction as the original recording in tape-well A. This means you can't add Dolby Noise Reduction during dubbing.

- 1 Insert the tape to copy into tape-well A, and a blank tape into tape-well B.
- 2 Select the tape type for tape-well B.
- 3 Press the DUBBING button.



- 4 Press the REC and PLAY buttons for tape-well B simultaneously.

- 5 Press the PLAY button for tape-well A. Dubbing starts automatically.

- Dubbing stops automatically when the side has been recorded.
- Remember to turn the DUBBING switch OFF after you've finished dubbing the tape.

### To pause dubbing

Press the PAUSE button for tape-well B.

### To resume dubbing

Press the PAUSE button for tape-well B again.

### To stop dubbing

Press the STOP/EJECT buttons for both tape-wells.



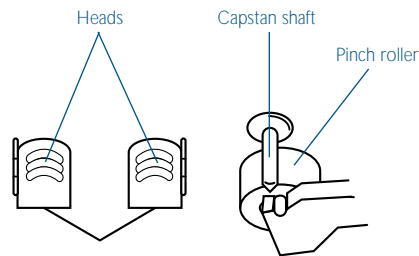
# Maintaining the cassette deck

Performing routine maintenance helps keep your cassette deck operating at peak performance.

## Cleaning the heads

We recommend that you clean the head assemblies, tape guides, capstans, and pinch rollers of both cassette wells after every 10 hours of use. For best results, use tape head cleaning fluid and long-handled cotton swabs. (Using alcohol to clean the pinch rollers may cause them to dry out over a long period of time.) Be careful not to press too hard during cleaning, because the parts are precisely aligned.

- 1 Open the cassette well doors.
- 2 Dip a swab into the cleaning fluid, and clean the surface of the heads.



- 3 Using a clean swab, clean the capstan shafts, making sure to clean all the way around them.
- 4 Using a clean swab, clean the pinch rollers, making sure to clean all the way around them. Use a clean swab to keep them from turning.

## Demagnetizing the heads

Since tape is magnetic, when the tape heads and capstan shaft contact the tapes, they become magnetized over time, increasing distortion. Playing tapes on a player with magnetized heads and capstans can also deteriorate the recordings on the tapes. For best performance, use a head demagnetizer to demagnetize the heads and capstans of both cassette wells.

# Troubleshooting guide

Sometimes things just don't seem to be working right.

## When this happens:

- First, look back over this manual to find the instructions for what you're trying to do. You may find the solution to your problem right there.
- If that doesn't work, look for the problem in this Troubleshooter's guide.
- If you have a problem with another component, check the manual for that unit.
- If you still can't solve the problem, call the store where you purchased your system, or call a Kenwood Authorized Service Center.

## To find a Kenwood Authorized Service Center

- Call 1-800-536-9663, in the continental US, 24 hours a day, 7 days a week.

## Receiver

### Remote doesn't operate

- Check the batteries, and replace them if needed.
- Check that the remote is close enough to the system; that the controlling angle is small enough; that there's no obstacle in between.
- Check that you've placed your CD, videotape, laser disc, or other source in the proper player.
- Check to make sure that the audio cables and system control cables are connected properly.

### No sound from the system

- Check that the volume is set at a proper level.
- Check that the mute is OFF.

- Check that the speakers are turned ON. If the speakers are ON, the speaker indicator is ON.
- Check that all your power cords are connected properly.
- Check that the speaker cables are connected properly.
- Check that the input cable from the source component is connected properly.
- Check that the shorting plugs have not been removed from the ADAPTER loop jacks.

### No sound from one of the speakers

- Check that the balance between the left and right speakers isn't set too far to one side.
- Check that the audio and speaker cables are connected properly.

### The STANDBY light blinks, but there is no sound

- Check that the speaker cables aren't short-circuited—that is, the (+) and (-) wires aren't touching each other. If they are, separate the wires.

### A hum when you select the PHONO input

- Check that the audio cables are plugged securely into the PHONO jacks.
- Check that the turntable is grounded on the rear panel. The ground wire should be connected to the screw labeled GND.

### None of the functions operate, or the display shows wrong information

- Reset the unit's microcomputer by unplugging the power cord from the AC outlet and plugging it back in while holding down the POWER button.

#### **You can't receive radio stations**

- Check that the station is tuned in properly.
- Check that the TUNER input is selected.
- Check that the antenna is connected properly.

#### **You can't receive a preset station by pressing the corresponding number buttons**

- Check that the TUNER input is selected.
- Check that the preset station is a receivable frequency.
- Check that the preset memory hasn't been cleared because the power cord was unplugged a long time. If so, preset the station again.

#### **Interference with reception**

- Check for interference from electrical appliances. If so, turn them OFF.
- Check for interference from the TV set. If so, turn it OFF, or move the antenna away from the TV.
- Check for interference from automobiles. If so, install the outdoor antenna away from roads.

### **CD player**

#### **Power light doesn't come on**

- Check that the power cord is properly plugged into the AC outlet on the back of the receiver.

#### **Player doesn't play a loaded CD**

- Check that the CD is loaded right-side up.
- Check that the CD isn't cracked or dirty.
- There may be condensation on the lens. Leave the player on for at least 1 hour before using it.

#### **No sound**

- Check that the CD is loaded properly.
- Check that the CD isn't cracked or dirty.

- Check that the PLAY mode is active (the PLAY indicator light should be ON).
- Check that the audio cables are connected properly.

#### **Skipping (mis-tracking)**

- Check that the CD isn't cracked or dirty.
- Make sure that the player isn't subjected to strong vibrations.

#### **CD automatically plays when power is turned on**

- Remove all CDs before turning the unit OFF. The player is designed to automatically begin playing when the power is turned ON.

### **Cassette deck**

#### **No sound when the PLAY button is pressed**

- Check that the tape isn't blank.
- Check that the tape is wound properly in the cassette case. If not, replace the tape.
- Check that the audio cables are connected properly.
- Check that the tape heads are clean.

#### **None of the operation buttons work**

- Make sure that a tape has been inserted into the well.
- Make sure the cassette well door is completely closed.
- Make sure that the tape isn't fully wound to the end. If it is, reinsert the tape facing the other direction.
- Check that the tape is wound properly in the cassette case. If not, replace the tape.

#### **Recordings sound dull**

- Check that the tape heads are clean.
- The recording level may be too high. Set the recording level according to the section 'Setting the recording level' on page 34.

- Make sure that Dolby Noise Reduction isn't activated when playing tapes recorded with no Dolby Noise Reduction.

#### **Recordings are distorted**

- The recording level may be too high. Set the recording level according to the section 'Setting the recording level' on page 34.

#### **Pressing the REC and PLAY buttons simultaneously doesn't start recording**

- Make sure that the recording-activation tabs have not been removed from the tape.
- Make sure that the cassette well door is completely closed.
- Check that the recording level isn't set to minimum.
- Check that the tape isn't fully wound to the end.

#### **Tape noise (hiss) level is high**

- Make sure that the proper Dolby Noise Reduction is selected for play.
- Make sure that the head is demagnetized properly.
- The tape may have been recorded at too low a recording level. If so, record it again at a higher level.

#### **Sound is 'sour', with unstable pitch**

- Make sure that the capstans and pinch rollers are clean.
- Make sure that the tape is wound properly in the cassette case.

#### **None of the functions operate, or the display shows wrong information**

- Reset the unit's microcomputer by unplugging the power cord from the AC outlet and plugging it back in while holding down the STOP button.

# Specifications

## Receiver (KR-596)

### Power amp section

100 watts per channel minimum RMS, both channels driven, at 8 ohms, from 40 Hz to 20 kHz, with no more than 0.09% total harmonic distortion (FTC)

### Pre amp section

Signal-to-noise ratio (IHF-A)  
Phono: 70 dB  
CD, Tape, Video: 95 dB

Input sensitivity/impedance  
Phono: 3.5 mV/47 k-ohms  
CD, Tape, Video: 200 mV/47 k-ohms

### Tone controls

Bass:  $\pm 10$  dB at 100 Hz  
Treble:  $\pm 10$  dB at 10 kHz

### FM tuner section

Tuning frequency range:  
87.5 MHz ~ 108 MHz

Useable sensitivity (IHF):  
13.2 dBf (1.2 mv at 75 ohms)

50 dB quieting sensitivity (stereo):  
41.2 dBf (3.2 mv at 75 ohms)

Total harmonic distortion (1 kHz)  
Stereo: 0.7%  
Mono: 0.6%

Signal-to-noise ratio at 65 dBf (IHF)  
Stereo: 68 dB  
Mono: 75 dB

Selectivity (IHF + 400 kHz): 50 dB

Stereo separation at 1 kHz (IHF):  
40 dB

Frequency response:  
30 Hz ~ 15 kHz, +0.5 dB, -3.0 dB

### AM tuner section

Tuning frequency range:  
530 ~ 1700 kHz

Usable sensitivity:  
12 mv/(500 mV/m)

Total harmonic distortion: 0.7%

Signal-to-noise ratio: 48 dB

Selectivity: 30 dB

### General

Power consumption: 2.3 A

AC outlet (2 switched): 200 W  
1.6 A max. total

Dimensions  
Width: 17-5/16"  
Height: 7-9/16"  
Depth: 11-13/16"  
Weight (net): 23.1 lb

## CD player (DP-R896)

### Format

Laser: Semiconductor laser

Channel format: 2 channel

Disc rotation speed: 200 ~ 500 rpm  
(CLV)

D/A converters: Dual 1 Bit

Oversampling digital filter:  
8 fs (352.8 kHz)

### Performance

Frequency response: 4 Hz ~ 20 kHz,  
+1.0 dB

Signal-to-noise ratio: >96 dB

Dynamic range: >94 dB

Total harmonic distortion + noise:  
<0.007% (1 kHz)

Channel separation: >90 dB (1 kHz)

Wow and flutter: Unmeasurable

Output level/impedance:  
2.0 V/3.3 k-ohms

### General

Power consumption: 10 W

Dimensions  
Width: 17-5/16"  
Height: 5-1/16"  
Depth: 15-7/16"  
Weight (net): 11 lb

## Cassette deck (KX-W595)

### Format

Track system: 4 track, 2 channel

Recording system: AC bias  
(105 kHz)

### Heads

Well-A: Playback head x 1  
Well-B: Record/playback head x 1,  
Erase head x 1

### Performance

Wow and flutter: 0.3% (WRMS)

Fast-wind time: Approx 110  
seconds (C-60 tape)

Frequency response:  
Normal tape: 30 Hz ~ 13 kHz, +3 dB  
High-bias tape: 30 Hz ~ 13 kHz, +3 dB

Signal-to-noise ratio: (3% 3rd  
harmonic distortion, high bias tape):  
Dolby NR OFF: >57 dB  
Dolby B NR ON: >66 dB

Harmonic distortion (315 Hz,  
250 nWb/m, high bias tape): <1%

Input sensitivity/impedance:  
122.8 mV/47 k-ohms

Output level/impedance:  
775 mV/3.3 k-ohms

### General

Power consumption: 12 W

Dimensions  
Width: 17-5/16"  
Height: 5-1/16"  
Depth: 9-13/16"  
Weight (net): 8.8 lb

## Speakers (JL-506)

### Drivers

Woofer: 10" cone-type  
Midrange: 3" cone-type  
Tweeter: 1" dome-type

Power handling: 140 watts

### General

Dimensions  
Width: 12-5/8"  
Height: 35-7/16"  
Depth: 9-1/2"  
Weight (net): 23.1 lbs

Because Kenwood follows a policy of continuous product improvement, these specifications may be changed without notice.

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