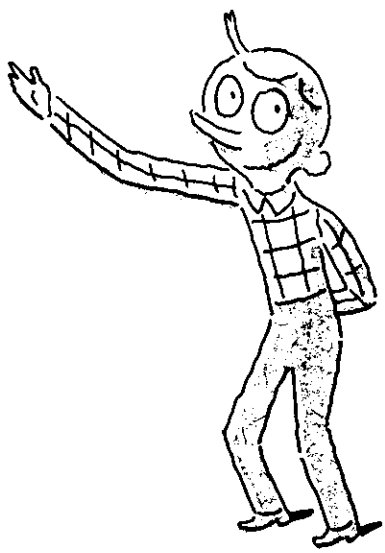
2

Using your Kenwood KR-X1000 THX® Receiver



KENWOOD

Contents

Safety first

Please read these safety instructions carefully. They can help prevent electrical shock, fire, and damage to the unit.

Safety symbols

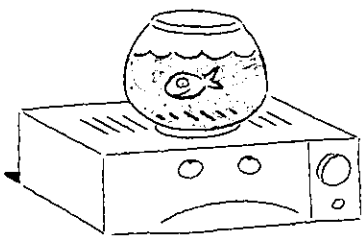
We've placed these safety symbols on the back of electrically-powered

units to alert you to the danger of electrical shock. Do NOT remove the cover or back of the unit, because there are operating electrical parts inside that can cause electrical shock. If the unit needs servicing, take it to qualified service personnel—do NOT try to open the unit and service it yourself.

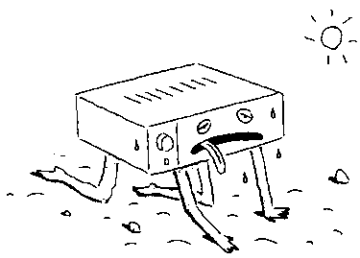
Safety precautions

For all units

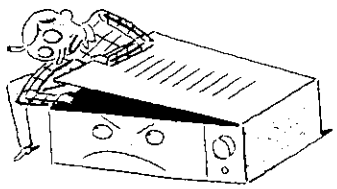
1 Dispose of the packaging materials properly. After you take the unit out of its shipping bag, dispose of the bag, keeping it out of the reach of children and animals. Be aware that the bag could cause suffocation.



2 Protect your unit from moisture. Don't place your unit near water—for example, a bathtub, kitchen sink, laundry tub, wet basement, or near a swimming pool.

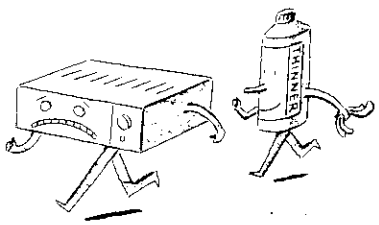


3 Keep your unit out of extreme hot and cold. Your unit may not work properly if it is used at extremely low or freezing temperatures. Don't place your unit near radiators, heat registers, stoves, or other heat sources.



4 Don't put objects or liquids into the unit! NEVER permit children to put anything into the unit.

5 NEVER try to open the unit or take it apart.

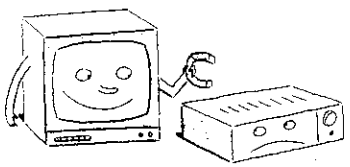


6 To clean, use a clean, dry cloth. To avoid damage, NEVER use volatile solvents such as alcohol, paint thinner, gasoline, benzene, and so on to clean the cabinet. If this is an electrically-powered unit, unplug it before cleaning.

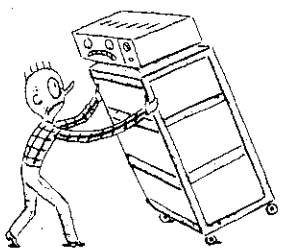
7 Do NOT attempt to service this unit. You should take the unit to qualified service personnel for repair when:

- Objects have fallen, or liquids have been spilled into the unit.
- The unit has been exposed to moisture.
- The unit doesn't appear to operate normally or exhibits a marked change in performance.
- The unit has been dropped or the case has been damaged.

8 To prevent distortion (and in some cases, discoloration of TV pictures), keep the unit away from sources of magnetic fields, such at TVs, radios, motorized toys, or magnetized objects. If the unit is magnetically-shielded (the manual will state this), it is not subject to these problems.

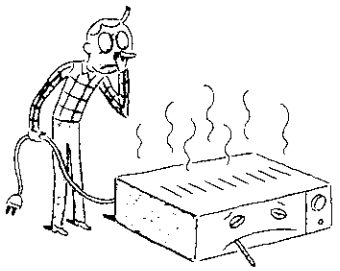


9 Do NOT place the unit on an unstable cart, shelf, stand, tripod, bracket, or table. If you mount the unit, follow the instructions in the manual and, if appropriate, use a mounting bracket recommended for the unit. If you place the unit on a moveable cart, use caution when moving the cart to avoid overturning it.

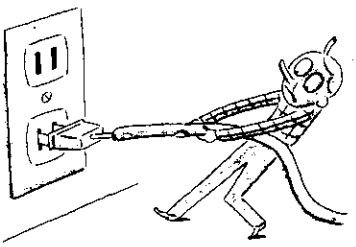


Additional safeguards for electrically-powered units

1 If you see smoke or smell anything unusual near your unit, turn OFF the entire system immediately, and unplug it from the wall. Then contact your Kenwood dealer or nearest service center.



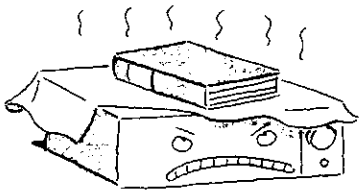
2 Only connect the unit to a power supply that matches that described in the technical specifications in the back of the manual that came with it. If you are not sure of the type of power supply in your home, ask your Kenwood dealer or your local power company for help. To avoid the possibility of fire or electrical shock, do NOT overload the electrical outlet or any extension cords.



3 Place the power supply cords in such a way that they will not be walked on or pinched by items placed against them. Never pull or stretch power cords, and use special care with the cords at the plugs, in a power outlet, and at the point they connect to the unit.

4 Each unit is equipped with a polarized power plug (with one blade wider than the other) that only fits one way into an electrical outlet, as a safety feature. If you cannot fit the plug into your electrical outlet, try turning the plug over. If it still doesn't fit, you may need to have an electrician replace your outlet with a new one that is UL-approved.

5 Each unit has ventilation openings to keep it from overheating. Do NOT cover or block these openings. Place the unit at least 6 in from the wall so that it is properly ventilated.



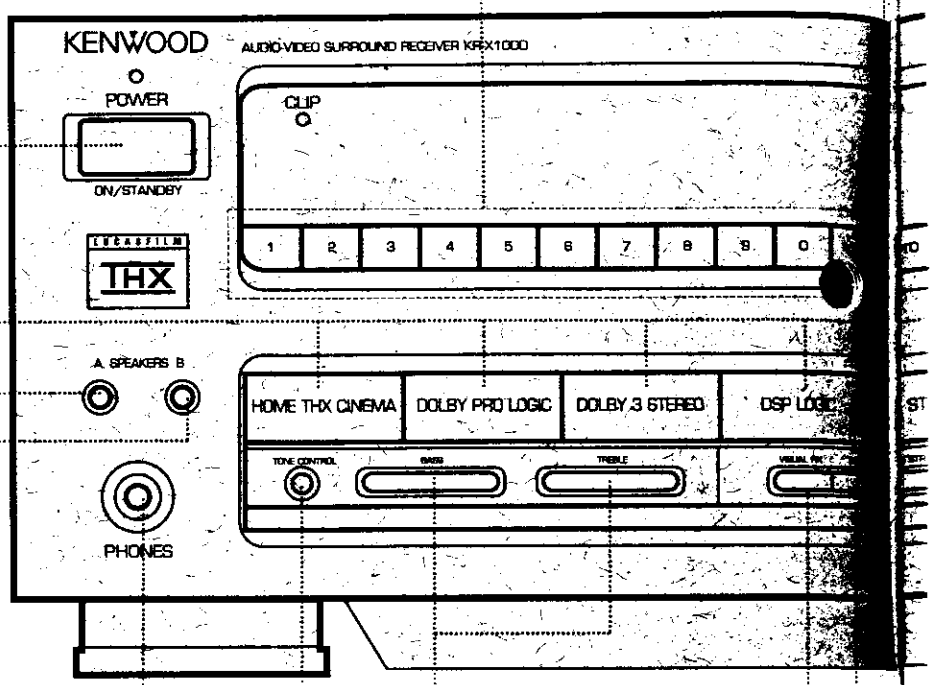
6 During lightning storms or when you leave the unit unattended and unused for long periods of time, unplug it from the wall outlet and any antenna or cable. This can prevent damage to the unit from lightening and power-line surges.

Using the front panel controls

Take a few minutes to familiarize yourself with the front panel controls. It'll make using your new receiver easier.

NUMBER buttons
Use to store and recall radio stations

AUTO button
Press to select the automatic tuning mode



POWER button
Press to turn the unit ON and OFF

AUDIO MODE buttons

- Press **HOME THX CINEMA, DOLBY PRO LOGIC, DOLBY 3 STEREO,** or **DSP LOGIC** to play movies in surround mode
- Press **STEREO** to play music
- Press **MONO** to play music and movies in mono mode

SPEAKERS buttons
Press to turn speaker systems A and B ON and OFF

PHONES jack
Use to plug in a headphone cable

TONE CONTROL button
Press to activate the bass and treble controls

BASS and TREBLE buttons
Press to increase or decrease bass and treble response

VISUAL FIX button
Press to hold a video signal while switching to another audio signal

TAPE 2 button
Press to listen to a tape on the tape deck connected to the Tape-2 inputs

BAND button
Press to switch between FM and AM

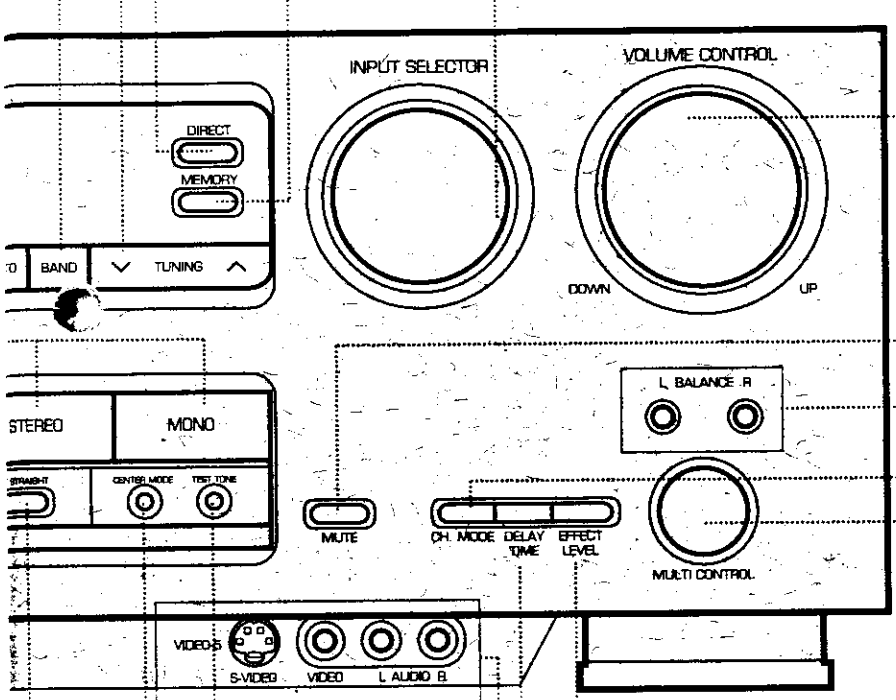
VOLUME CONTROL knob
Turn to increase or decrease the volume

TUNING buttons
Press ^ or v to tune in radio stations

DIRECT button
Press to tune a radio station using its call numbers

MEMORY button
Press to memorize a radio station preset

INPUT SELECTOR knob
Turn to select an audio or video source



BALANCE button
Press to adjust the volume balance between the left and right speakers in the STEREO mode

MUTE button
Press to mute the sound; press again to restore the sound

CHANNEL MODE button
Press to select each channel for adjustment during calibration and channel balancing

MULTI CONTROL knob
Turn to adjust the channel levels, delay time, and DSP LOGIC effect levels

EFFECT LEVEL button
Press to activate the DSP LOGIC effects for adjustment

TEST TONE button
Press to activate the test tone for calibration and channel balancing

DELAY TIME button
Press to activate the delay time adjustment while in HOME THX CINEMA, DOLBY PRO LOGIC, DOLBY 3 STEREO, or DSP LOGIC modes

CENTER MODE button
Press to select Center mode while in HOME THX CINEMA, DOLBY PRO LOGIC, DOLBY 3 STEREO, or DSP LOGIC modes

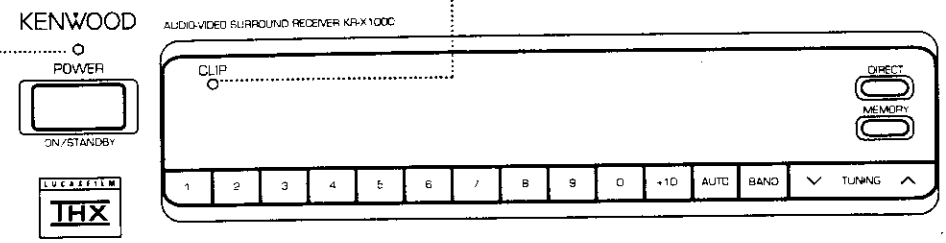
VIDEO-5 inputs
Connect a video playback source (such as a camcorder)

LINE STRAIGHT button
Press to bypass the bass and treble tone controls, and the surround sound circuitry

Reading the display

STANDBY indicator
When the unit is plugged into an AC wall outlet, this indicator lights up—you must still turn the unit's power ON, but anything programmed into memory will be saved as long as this indicator is ON

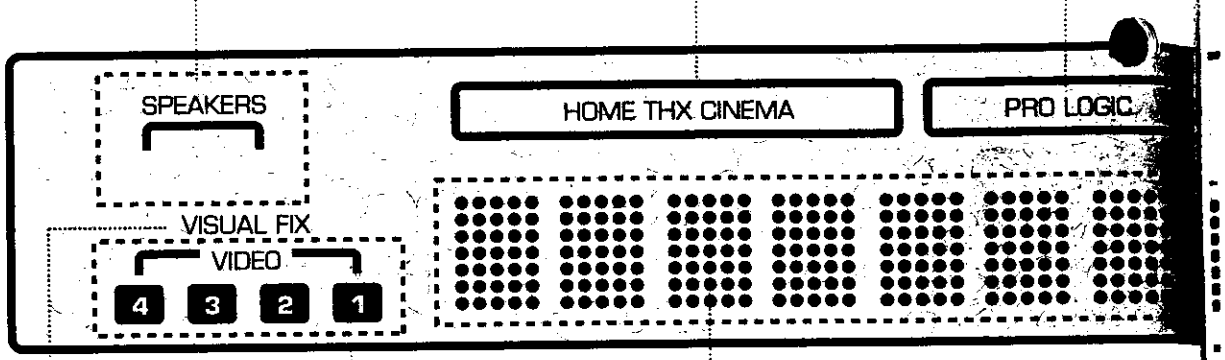
CLIP indicator
When flashing, shows that the input signal is too high and must be adjusted



SPEAKERS indicators
Shows that speaker system A or system B is active

HOME THX CINEMA indicator
Shows that HOME THX CINEMA mode is active

DOLBY PRO LOGIC indicator
Shows that DOLBY PRO LOGIC mode is active



VISUAL FIX indicator
Shows that visual fix is active

VIDEO 1, 2, 3, 4 indicator
Shows which video input is currently active

Display line
Shows frequency, input, radio band, radio station, surround mode, and volume

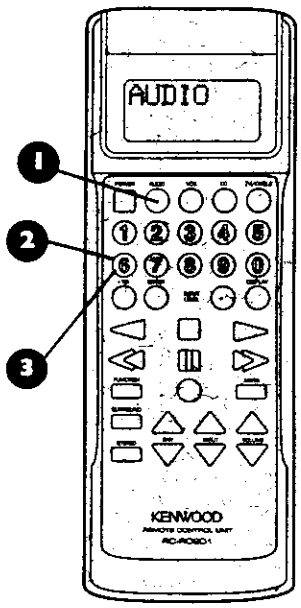
Dimming the front panel display

You can dim the display at 2 levels.

1 Press the AUDIO button to select AUDIO mode.

2 Press the 6 button to dim the receiver display. Press the 6 button again to further dim the display.

3 Press the 6 button a third time to return to the normal lighting level.

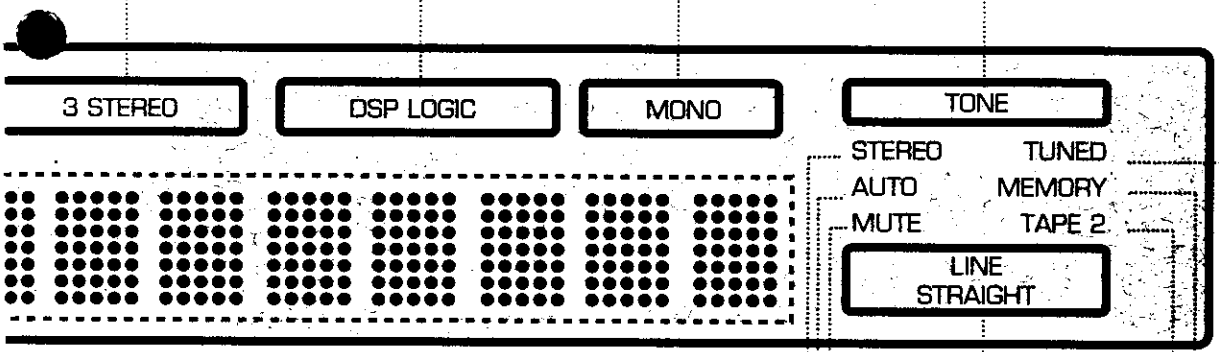


DOLBY 3 STEREO indicator
Shows that DOLBY 3 STEREO mode is active

DSP LOGIC indicator
Shows that DSP LOGIC mode is active

MONO indicator
Shows that MONO mode is active

TONE indicator
Shows that the bass and treble tone controls are active



LINE STRAIGHT indicator
Shows that line straight is active

STEREO indicator
Shows that a stereo station is being received

AUTO indicator
Shows that automatic tuning mode is active

MUTE indicator
When flashing, mute is active

TAPE 2 indicator
Shows that the TAPE 2 input is active

MEMORY indicator
Shows during radio station pre-setting

TUNED indicator
Shows that a radio station is being received

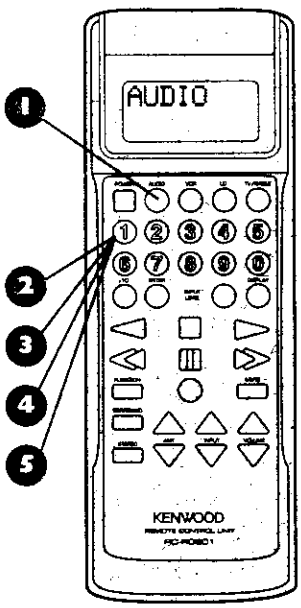
AVAIL VIA S-VIDEO & COMPOSITE

Displaying information on your TV screen

The KR-X1000 lets you use your TV screen to display information about your stereo system. You can see a list of the radio stations you have preset, or see the calibration levels of your system.

Scrolling through the information screens

Make sure your TV is ON.



1 Press the AUDIO button.

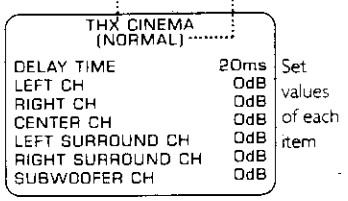
2 Press the I button to turn the information display ON.

On your TV screen, the words 'Information On' show that the information display is active.

3 Press the I button again to scroll to the Surround Information screen.

Surround mode: THX Cinema, Dolby Pro Logic, Dolby 3 Stereo

Center mode: Wide band, Normal, Phantom

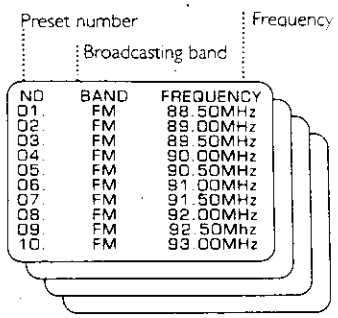


The Surround screen shows all of the current channel levels, delay time, and center channel mode.

For more information about these settings, and how to change them, see the **Setting Up Your Kenwood KR-X1000 THX Receiver** manual.

4 If you have the tuner selected as the input source, press the I button again to scroll to the Tuner Information screen.

On your TV screen, the first Tuner Memory screen shows the frequencies of preset stations 1 through 10. If you haven't preset a station, the frequency shows '87.50', which is the lowest frequency available.



- Press the I button again to scroll to the second, then the third, and then the fourth Tuner Memory screens to see preset stations 11 through 40.

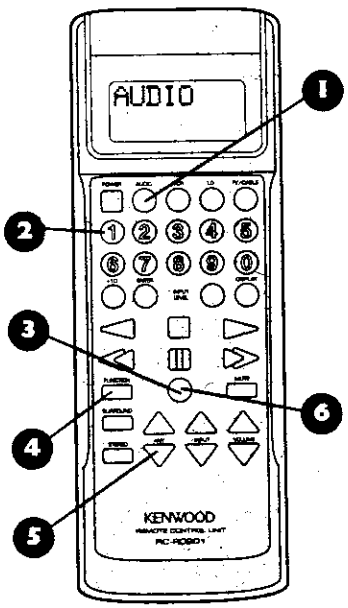
5 Press the I button again to turn the information display OFF.

On your TV screen, the words 'Information Off' show that the information display is no longer active.

Viewing the 'test tone' screen

The 'test tone' screen shows the current channel level settings and lets you adjust them if you want.

For complete instructions about changing channel levels, read 'Calibrating your system' in the **Setting Up Your Kenwood KR-X1000 THX Receiver** manual.



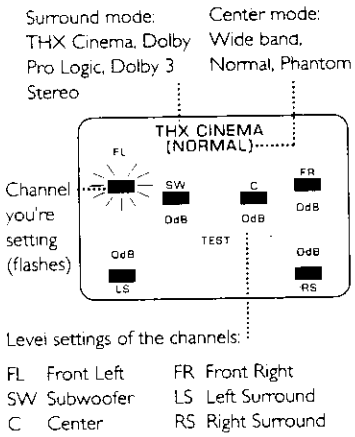
1 Press the AUDIO button.

2 Press the I button to turn the information display ON.

Any of the screens will work, including the blank screen that first shows 'Information On'.

3 Press the record button.

On your TV screen, the 'test tone' screen shows the Surround mode in use, the center channel mode setting, and the level of each channel in the system. You'll hear the 'pink noise' test tone on the channel that's flashing on the screen.



4 If you want to adjust the level of a channel, press the FUNCTION button I or more times until the icon for the channel you want to change begins to flash.

You can scroll through the channels in this order: LEFT, CENTER, RIGHT, RIGHT SURROUND, LEFT SURROUND, SUBWOOFER.

Important

If the center channel mode is set to PHANTOM, or if the SUBWOOFER PRE-OUT switch is set to OFF, the icons for these channels will not show on the screen.

5 Use the ANY keys to change the channel's volume level.

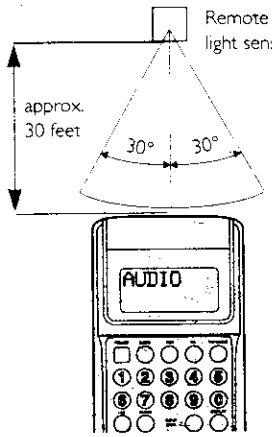
6 To exit, press the RECORD button again. Any changes you made will be saved.

Using the remote

You can use the controls on the remote of your Kenwood KR-X1000 to do virtually everything you can do from the front panel.

A few tips

- In most cases the operating range of the remote is approximately 30 feet (this depends on temperature, humidity, and other environmental conditions) and up to 30° on either side of the center of the receiver's remote control light sensor
- When the operating distance of the remote begins to get shorter, replace both batteries with new alkaline batteries



- 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 KR-X1000 or remove the light source

Important

The batteries that came with this unit are test batteries and may not last as long as regular batteries

DISPLAY
Shows information about your selection and its settings (it lights when you press a function button like AUDIO or SURROUND and turns OFF during idle periods to conserve power)

+10 button

- Press to select preset radio stations
- Used with the AUDIO button to show which surround mode is selected

POWER button
Press to turn the KR-X1000 ON or OFF

NUMBER buttons

- Press to select radio stations, TV channels, and CD and laser disc tracks
- Use to control the menu, dimmer, and display modes

STOP button

- When using a CD player, laser disc player, VCR, or cassette player, press to stop
- When watching TV or cable, press to mute the sound
- When using the FM/AM tuner, press to toggle between FM and AM
- Use to select the effect to be adjusted in DSP LOGIC mode

ENTER button
Use to enter information (such as setup codes or radio station call numbers)

PAUSE button

- When playing multiple CDs, press to skip a disc
- When using a laser disc player, VCR, or cassette player, press to pause
- When setting up the system, press to increase or decrease the surround channel delay time adjustment function

FUNCTION button

- When using the FM/AM tuner, press before using the number buttons to enter the call numbers of a station
- When using a VCR or TV, press to select the input active on that component
- When playing a laser disc, press to open and close the disc drawer
- When calibrating channel levels, use to control the channel mode function

RECORD button (red)

- When using a VCR or cassette deck, press to start recording
- When calibrating channel levels, press to turn the test tone ON or OFF

SURROUND button
Press to select a surround mode

STEREO button
Press to select STEREO mode

COMPONENT buttons
Use to choose an audio or video component to be controlled

- Press AUDIO to cycle among AUDIO, TUNER, CD, TAPE A, and TAPE B
- Press VCR to select either VCR 1 or VCR 2
- Press LD to select the laser disc player
- Press TV/CABLE to select either television or cable box

INPUT LEVEL button
Press to activate the input level adjustment of the selected source

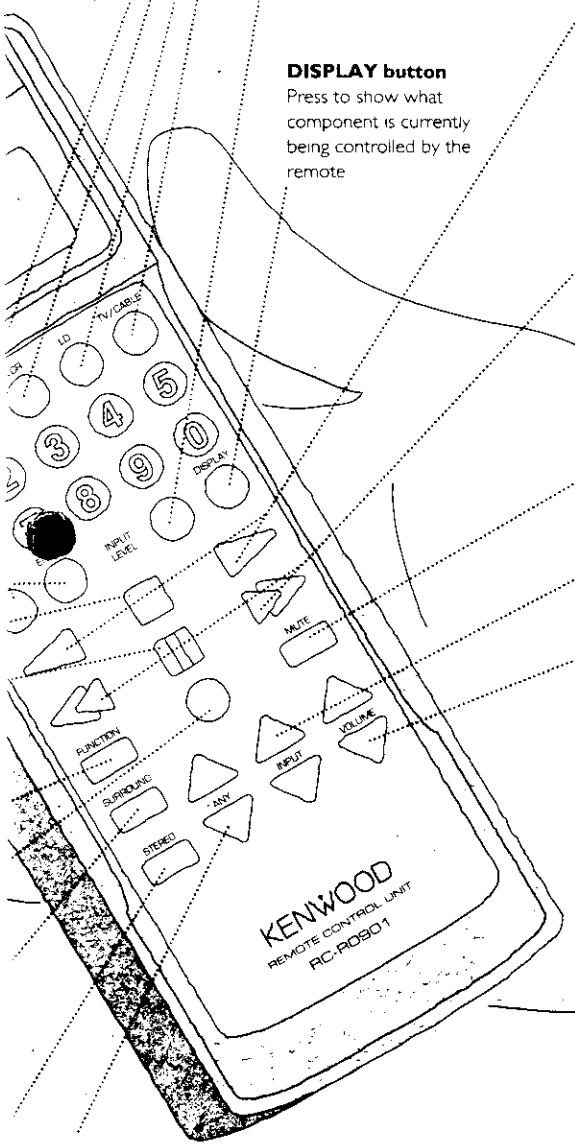
DISPLAY button
Press to show what component is currently being controlled by the remote

PLAY/REVERSE buttons

- When using the FM/AM tuner, use to cycle through the preset stations
- When using a laser disc player or VCR, press ▶ to play
- When using a cassette deck, press to play and reverse
- When using a TV, use to control the TV's volume
- When using a CD player, press ▶ to play and pause

FAST-FORWARD/REWIND buttons

- When using a VCR or cassette player, press ◀◀ or ▶▶ to fast-forward or rewind
- When using a CD player, press ◀◀ or ▶▶ to skip 1 track forward or backward
- When using a laser disc player, press ◀◀ or ▶▶ to scan forward or backward



MUTE button
Press to mute the sound, then press again to restore the sound

INPUT SELECTOR buttons
Press ▲ or ▼ to scroll through the selection of input sources

VOLUME CONTROL buttons
Press ▲ or ▼ to increase or decrease the volume

ANY buttons

- When using a VCR, TV, or cable, press ▲ or ▼ to move the channel selection up or down
- When using a laser disc player, press ▲ or ▼ to search forward or backward
- When calibrating channel levels, use ▲ or ▼ to increase or decrease the channel levels
- When adjusting delay time, use ▲ or ▼ to increase or decrease the delay time
- When adjusting the DSP Logic parameters, use ▲ or ▼ to increase or decrease the effect you're adjusting
- When adjusting input level, use ▼ to cycle the level between 0 dB, - 2 dB, -4 dB and -6 dB

Replacing the batteries

If the display on the remote doesn't light when you press a function button, the batteries are dead. We recommend replacing both batteries at the same time for longer battery life.

Important

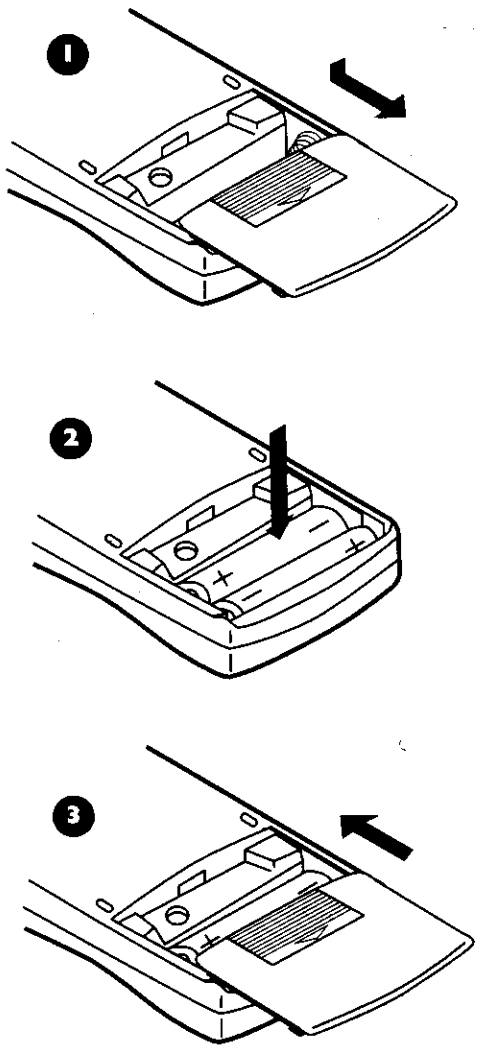
When you remove the batteries, you have about 3 minutes to replace them without losing the pre-programmed codes you have set up to control other video components. If you leave your remote without batteries for longer than 3 minutes, you'll need to reprogram any functions you've programmed into it. You'll never lose the functions that come programmed into the unit at the factory.

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 batteries.

Be sure to pay attention to the '+' and '-' signs when you're inserting the batteries.

3 Close the cover.



Setting up other manufacturers' video components

Your remote lets you enter a code so you can operate video components (TVs, VCRs, laser disc players and cable TV boxes) from many manufacturers.

Important

Read these instructions completely before starting so you know what to do next—you must finish steps 3, 4, and 5 within 5 seconds each.

1 Look at the list of manufacturers' setup codes on page 43 to find the code for your video component.

2 Choose the component by pressing the appropriate component buttons.

For example, press the VCR button to select VCR 1 or press it twice to select VCR 2.

3 Press the ENTER button within 5 seconds.

The display shows 'SET'.

4 Enter the setup code (using the number buttons) within 5 seconds.

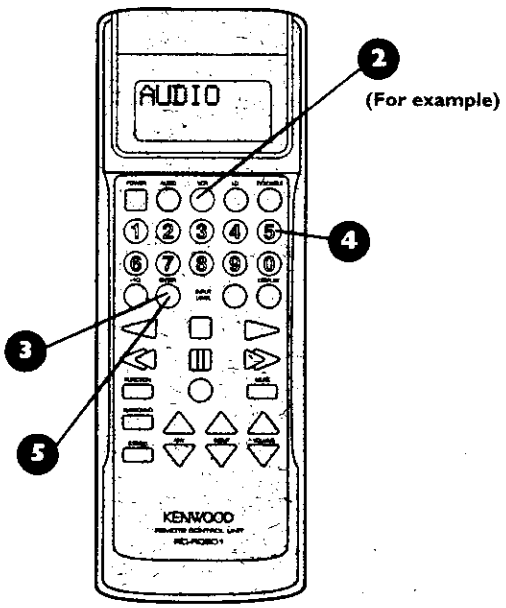
For example, to set up a VCR from Kenwood, enter 056, 061, or 082.

If you make a mistake, wait until the display clears and go back to step 2.

5 Press the ENTER button within 5 seconds.

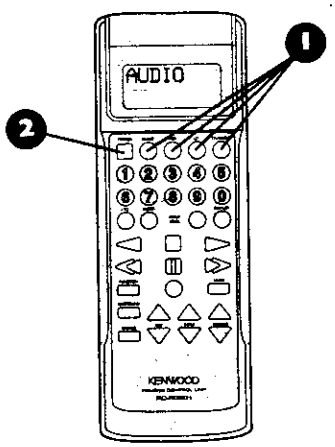
If the setup worked, the display shows 'OK'. If the setup did not work, the display shows 'NG'.

If you see 'NG', go back to step 4 within 5 seconds to try re-entering the setup code.



Controlling other manufacturers' components with your remote

After you've entered setup codes for your components, you can control these units directly with the remote.



To turn a component ON

1 Set the remote for the component you want to control by pressing the appropriate COMPONENT button.

For example, press the VCR button to select VCR 1 or press it again to select VCR 2.

2 Point the remote toward the component and press the POWER button.

3 Press the button for the function you want to operate. See the diagrams at right.

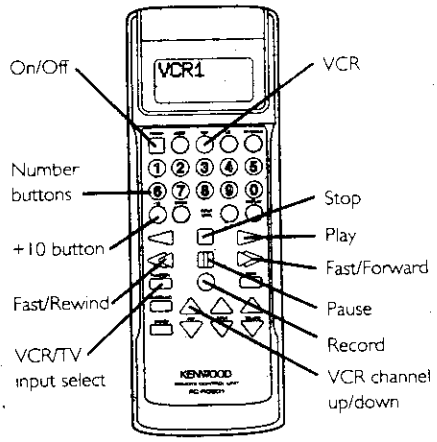
To turn a component OFF

1 Set the remote for the component you want to control by pressing the appropriate COMPONENT button.

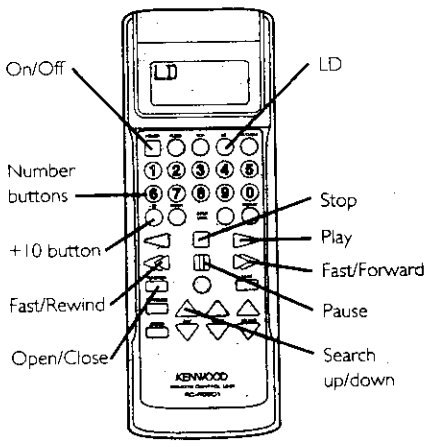
For example, press the VCR button to select VCR 1 or press it again to select VCR 2.

2 Press the POWER button.

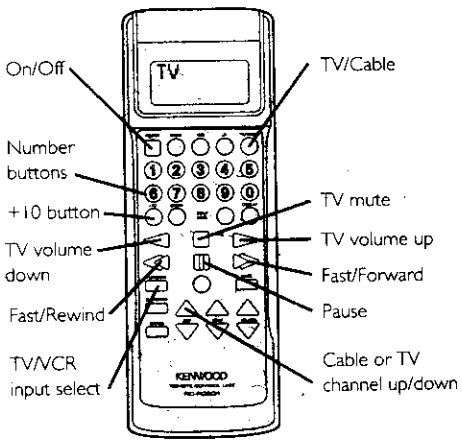
Controlling a VCR



Controlling a laser disc player



Controlling a TV or cable box



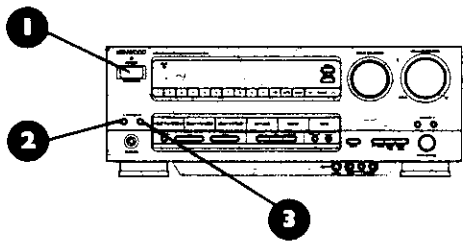
Using the basic audio functions

In this section, we'll take you through the basics of operating your KR-X1000 Receiver. This is all the easy stuff—you've probably already figured much of it out if you've been exploring the unit.

Selecting the A or B speaker systems

You can connect a single set of speakers, which becomes speaker system A, or you can add a second set, which becomes speaker system B.

- When you are in the surround modes (HOME THX CINEMA, DOLBY PRO LOGIC, DOLBY 3 STEREO), you can activate speaker system A.
- When you are in STEREO mode, you can activate speaker systems A or B or both.
- If you're using headphones, you can turn both speaker systems OFF.



1 Turn the power ON.

2 To turn speaker system A ON, press the SPEAKER A button.

The speaker A indicator lights.

- To turn speaker system A OFF, press the SPEAKER A button again.

3 To turn speaker system B ON, press the SPEAKER B button.

The speaker B indicator lights.

- To turn speaker system B OFF, press the SPEAKER B button again.

Speaker system output

The following chart shows which speakers are activated when you turn ON the A or B speaker systems.
ON = ■

	Front (A)	Front (B)	Surround	Center	Subwoofer*
A (surround)	■		■	■	■
A (stereo)	■				■
B (stereo)		■			■
A+B (stereo)	■	■			■

* Be sure that the SUBWOOFER PRE-OUT switch on the back of the unit is set to 'ON' if you're using a subwoofer.

Important

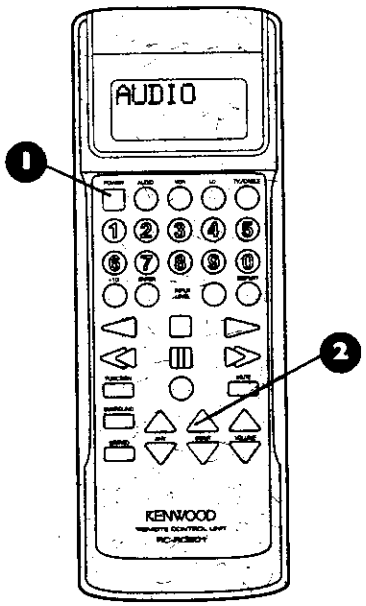
Speaker system B can only be used in STEREO or LINE STRAIGHT mode. It can not be used if the INTEGRATED/SEPARATED switch on the rear panel is set to SEPARATED.

Selecting the input source

You can play audio from as many as 10 different sources. These include:

- TUNER
- TAPE 1
- AUX
- VIDEO 1
- VIDEO 2
- VIDEO 3
- VIDEO 4
- VIDEO 5
- CD
- PHONO

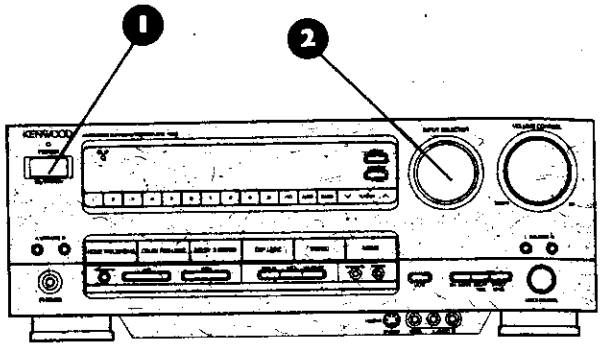
Using the remote



1 Turn the power ON.

2 Press the INPUT SELECTOR ▲ and ▼ buttons to scroll through the input sources.

Using the front panel



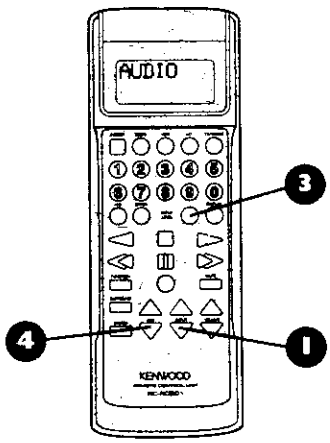
1 Turn the power ON.

2 Turn the INPUT SELECTOR knob to scroll through the input sources.

When an input source is displayed, it is selected for use.

Adjusting the input level

Setting the proper input level eliminates the distortion that occurs if a source component's output level is too high. When this happens, the CLIP indicator flashes, letting you know you should adjust the input level.



1 Select an input source using the INPUT buttons.

2 Play the selected input source.

3 Press the INPUT LEVEL button.

4 Press the ▼ ANY button to decrease the input level until the CLIP indicator does not light.

Each time you press the button, it reduces the level in -2 dB steps from 0 dB to -2 dB, -4 dB, -6 dB, and back to 0 dB.

5 When you're finished adjusting the input level, wait 5 seconds.

The setting is saved.

You can set the input level independently for each input source.

Adjusting the volume

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

Using the remote

- Press the ▲ VOLUME button to increase the volume, and the ▼ VOLUME button to decrease it.

Using the front panel

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

As you increase or decrease the volume level, the numbers on the display show the decibel level change.

Important

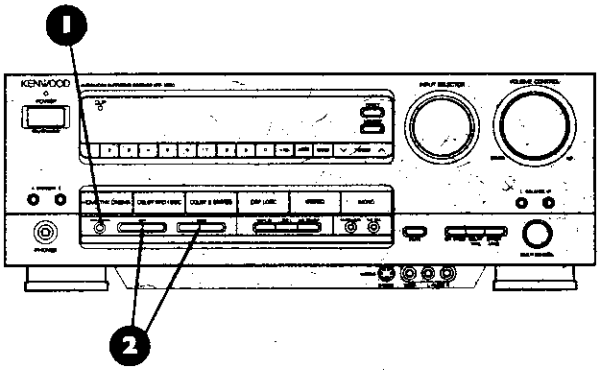
- Make sure mute is OFF (see the instructions for 'Muting the sound' on page 20).

- If you calibrated your system using a sound pressure level meter (according to the instructions in the **Setting Up Your KR-X1000 THX Receiver** manual), carefully-transferred films will play at the volume level intended by their creators when the volume control is set at 0 dB. Of course, you can set the volume to any level you're comfortable with.

- Music videos, TV shows, and CDs are not designed to be heard at a specific level. With some CDs, the volume level you set during calibration may be too high—and produce audible distortion called 'clipping'. Please be careful when adjusting the volume level for sources other than film soundtracks.

Adjusting bass and treble

You can increase or decrease the bass or treble at any time—while you are in STEREO mode.



1 Press the TONE CONTROL button.

The display will show 'TONE'.

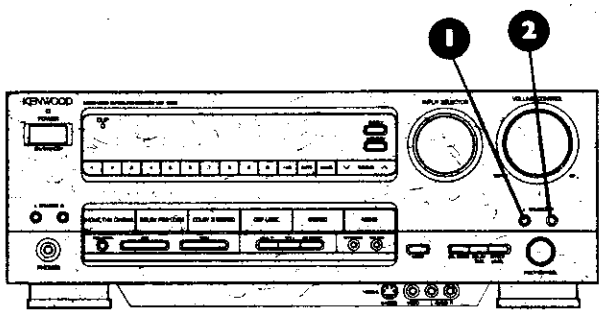
2 Adjust the BASS and TREBLE buttons.

Pressing on the left side of each button (-) decreases bass or treble and pressing on the right side of each button (+) increases them.

- If you want to cancel the bass and treble adjustments, press the TONE CONTROL button again.
- When you activate tone control again, the settings from your last session will be in effect.
- You can adjust the bass and treble at any time as long as tone control is active.

Adjusting left and right volume balance

You can adjust the volume balance between the left and right speakers at any time—while you are in STEREO mode, or while line straight is ON.



1 Press the L BALANCE button to decrease the volume of the right speaker, while holding the volume of the left.

2 Press the R BALANCE button to decrease the volume of the left speaker, while holding the volume of the right.

Muting the sound

You can turn the sound OFF (at times such as when the phone rings) and turn it ON again by muting

Using the remote or front panel

- Press the MUTE button to turn the sound OFF. The display flashes 'MUTE'.
- To turn the sound ON again, press the MUTE button a second time.

Playing Kenwood components (with system control)

If you have other Kenwood components connected to your KR-X1000 with system control connections, you can start playing them by touching a single button. Instead of setting the component as the input source on the KR-X1000, and then pressing PLAY on the component, you can do both at the same time. You can start play in either of these 2 ways:

- Press the INPUT button on the KR-X1000 for the source component.
- Press the PLAY button on the source component.

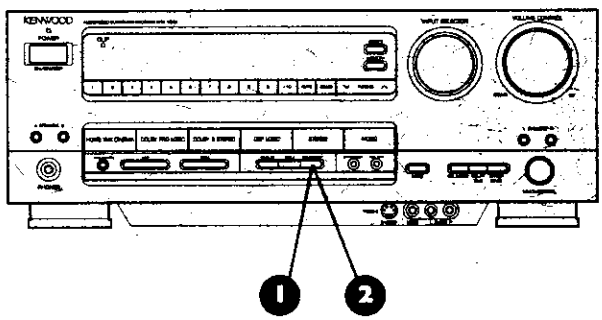
Bypassing tone controls and surround circuitry

Line straight bypasses the tone controls (bass and treble adjustments) and the surround sound circuitry—and lets you enjoy music with the purest sound quality.

1 When playing music, press the LINE STRAIGHT button.

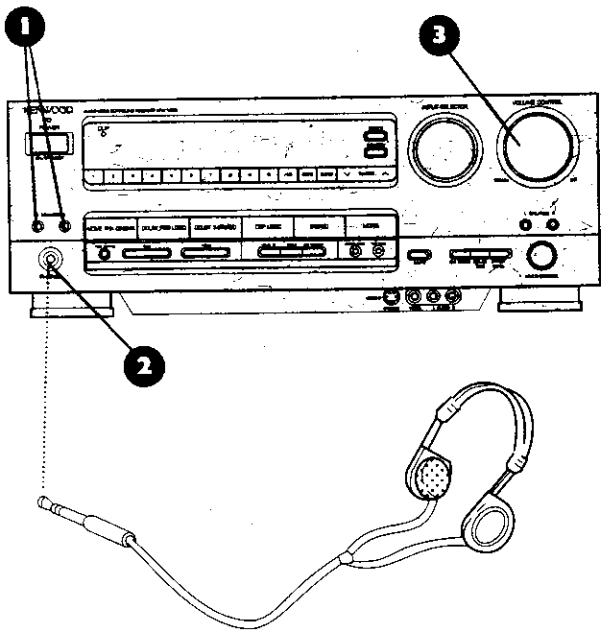
2 To cancel, press the LINE STRAIGHT button again.. The display returns to the last setting.

- You can't adjust the bass or treble with line straight ON.
- If you press one of the surround sound buttons, line straight is turned OFF.



Using headphones

You can listen to music (or the soundtrack of a film or TV) with headphones.



1 Turn both speakers A and B OFF.

2 Insert the headphone plug into the headphone jack.

3 Adjust the volume.

Important

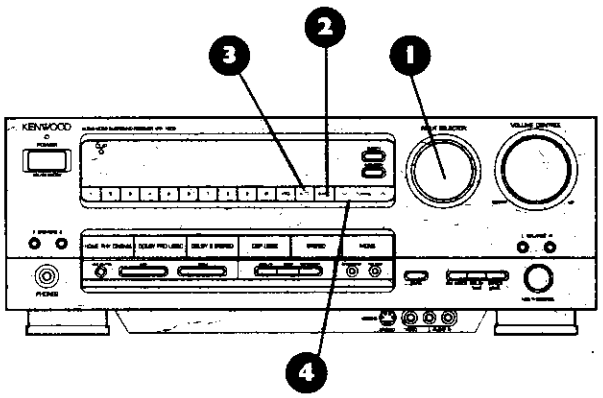
- Turn the volume down before switching speaker systems A or B back ON.
- You can use your headphones with the speakers ON, but be careful. The volume delivered through the headphones is usually lower than that delivered through typical speakers. When you turn the volume up for the headphones, you may turn it up high enough through the speakers that you will damage them—or your peace with your neighbors.

Using the AM/FM tuner

You can tune in radio stations in a number of ways, and you can store up to 40 stations in preset memory.

Tuning stations automatically

You can automatically find the strongest radio station signals.



1 Select the tuner.

2 Press the BAND button to select AM or FM.

3 Select the AUTO mode.

The AUTO indicator lights.

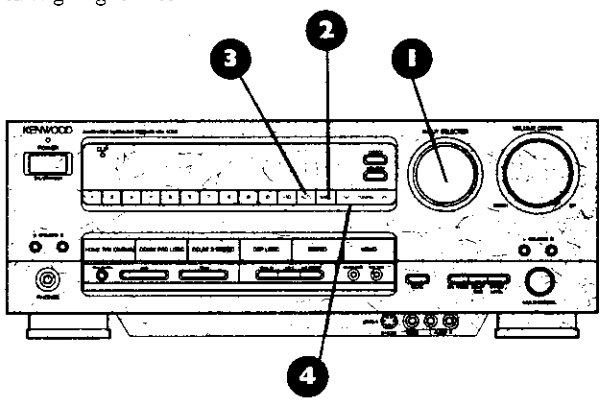
4 On the TUNING button, press ^ to move up the broadcast band, or v to move down the broadcast band.

The tuner will stop automatically when it finds a strong station, and the TUNED indicator lights. If the station is broadcasting in stereo, the STEREO indicator lights.

Press ^ or v 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. This can be helpful when you're trying to tune in a weak station that automatic tuning might miss.



1 Select the tuner.

2 Press the BAND button to select AM or FM.

3 Make sure you are in MANUAL mode. (Press the AUTO button so that the AUTO indicator is OFF.)

Important
The tuner receives stations only in mono during manual tuning.

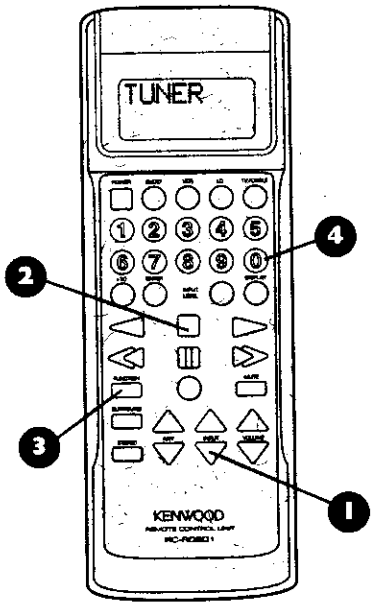
4 On the TUNING button, press ^ to move up the broadcast band, or v to move down the broadcast band.

The TUNED indicator lights when you receive a station.

Tuning stations by call number

If you know the frequency of the station you want, you can input it directly using the NUMBER buttons.

Using the remote



1 Use the INPUT buttons to select the tuner.

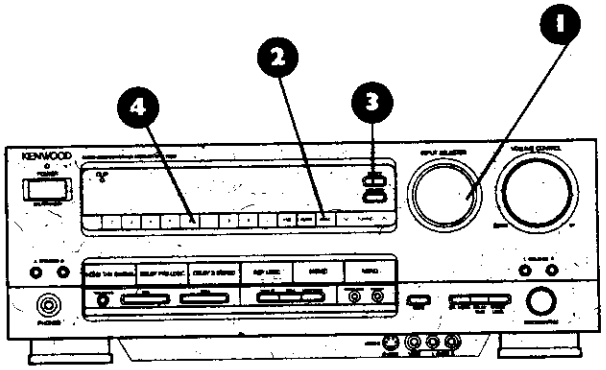
2 Press the STOP button to select AM or FM.

3 Press the FUNCTION button.

4 Enter the frequency (station call numbers) by pressing the NUMBER buttons.

5 If you make a mistake, repeat steps 3 and 4.

Using the front panel



1 Select the tuner.

2 Press the BAND button to select AM or FM.

3 Press the DIRECT button.

4 Enter the frequency (station call numbers) by pressing the NUMBER buttons.

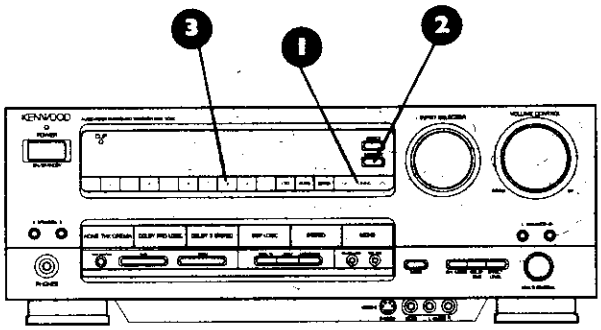
5 If you make a mistake, repeat steps 3 and 4.

Examples:

For this station	Enter this
FM 90 MHz	9,0,0
FM 102.5	1,0,2,5
AM 810	8,1
AM 1260	1,2,6

Storing preset stations

You can store up to 40 of your favorite radio stations in memory and recall them by pressing the number buttons.



1 Tune in the station you want to preset.

2 Press the MEMORY button.

The display shows 'INPUT NUMBERS'.

3 Within 5 seconds, enter the preset number you want to assign, using the number buttons.

For example, to select preset #15, push +10, then 5. To select preset #20, push +10, then +10, then 0.

- If you've already assigned a preset number to a station, assigning a new number replaces the old station.

- To preset additional stations, repeat the steps above.

Tuning preset stations

You can tune in any station to which you assigned a preset number.

Using the remote

- Press the INPUT buttons to select the tuner, then press the NUMBER buttons to which the station is preset.

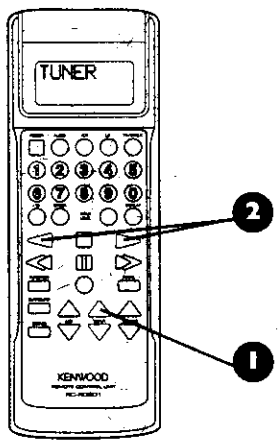
Using the front panel

- Use the INPUT SELECTOR to select the tuner, then the NUMBER buttons to which the station is preset.

The station's frequency (call numbers) show on the display.

Scrolling through preset stations

You can scroll through all preset stations in sequence.



1 Press the INPUT buttons to select the tuner.

2 Press the PLAY button to move to the next preset station or the REVERSE button to move to the previous preset station.

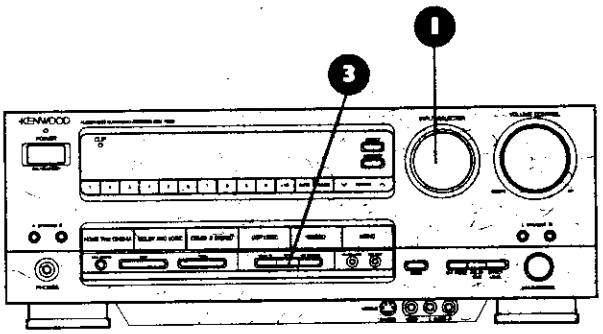
- Each time you press the button, the tuner finds the next preset station.

- If you press and hold the button, the tuner plays each preset station for about half a second before moving to the next.

Recording tapes

Recording from any source

If you have a cassette deck (or 2) connected to the KR-X1000, you can record from any music source, or from one deck to the other.



1 Select the SOURCE you want to record.

If you're recording on tape 1, you can't set the source to tape 1.

2 Set cassette deck 1 or 2 in the RECORD-PAUSE mode.

3 Play the source component and begin recording. (See the cassette deck user manual for more specific directions.)

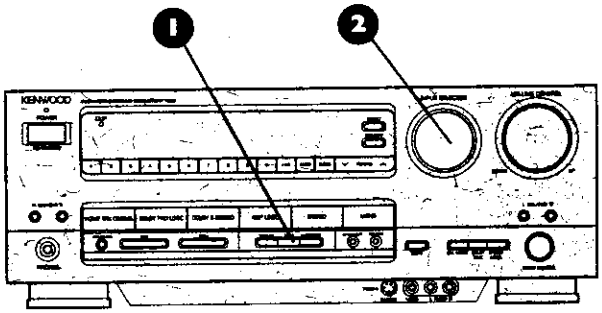
Important

You can't change the input source while you're recording from a Kenwood cassette deck connected by the system control. If you want to change the input source, stop the recording first.

Copying from tape-to-tape

You can copy a tape by recording from one single-well cassette player to another. If you're using a double-well cassette deck, read the user manual that came with that deck.

When dubbing from one tape to another, play the cassette deck connected to tape 1 and record on the cassette connected to tape 2.



1 Press the TAPE 2 button.

2 Select TAPE 1 as the source.

3 Play tape 1 and start recording on tape 2.

Important

You can also record from tape 2 to tape 1, changing these instructions as needed. However, you should select any source other than tape 1.

The audio modes

When to use what

Using one of the audio modes on the KR-X1000, you can get optimum sound from your system—no matter what you're listening to, or how many speakers you have.

Home THX Cinema

Home THX Cinema is the ultimate home theater experience. It uses Dolby Pro Logic decoding and proprietary circuitry specially developed by Lucasfilm, Ltd. to deliver the sound the movie's creators intended. It adjusts the movie's sound for the home theater environment, makes the surround sound more spacious, and delivers more even sound movement between speakers.

For more information, read 'Your THX Home Theater'.

- **Use it for** movies recorded in Dolby Surround (and some older films with the Dolby Stereo logo)
- **You'll need** left, right, l-surround, and r-surround speakers; a center speaker and subwoofer are optional

Dolby Pro Logic

Dolby Pro Logic is designed to recreate the surround sound from music videos and stereo TV broadcasts encoded in Dolby Surround (which don't need the 'room-sizing' effects of Home THX processing). It'll bring out the full effect of your Dolby Surround-encoded audio CDs—and even do a great job with standard CDs.

- **Use it for** music videos, stereo TV broadcasts, and audio CDs recorded in Dolby Surround
- **You'll need** left, right, l-surround, and r-surround speakers; a center speaker and subwoofer are optional

Dolby 3 Stereo

Dolby 3 Stereo takes Dolby Surround-encoded movies and decodes the sound for a system without surround speakers.

- **Use it for** movies recorded in Dolby Surround (and those older films recorded in Dolby Stereo), and Dolby Surround-encoded TV broadcasts and CDs
- **You'll need** left, right, and center speakers; a subwoofer is optional

DSP Logic

DSP Logic combines the surround sound of Dolby Pro Logic with Digital Signal Processing to let you personalize your listening environment. For more information about using DSP to change the listening characteristics, see 'Adjusting the DSP Logic settings'.

- **Use it for** audio CDs (and even video programs) recorded in Dolby Surround when you want to adjust the listening environment
- **You'll need** left, right, l-surround, and r-surround speakers; a center speaker and subwoofer are optional

Stereo

Stereo uses the left and right speakers for standard music playback.

- **Use it for** audio CDs (not recorded in Dolby Surround), cassette tapes, and records
- **You'll need** left and right speakers; a subwoofer is optional

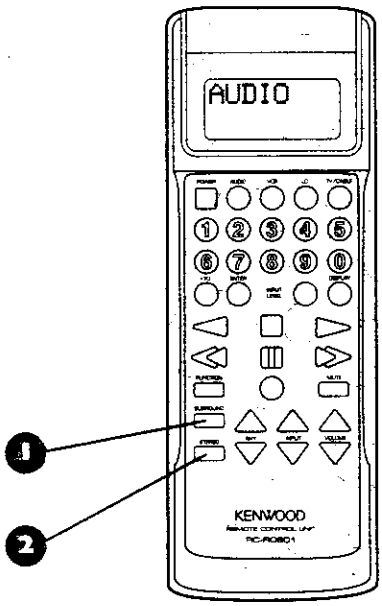
Mono

Mono sends all sound through the center speaker (or through the left and right speakers if you don't have a center speaker).

- **Use it for** old movies, old audio recordings, and non-stereo TV broadcasts
- **You'll need** center or left and right speakers

Selecting the audio modes

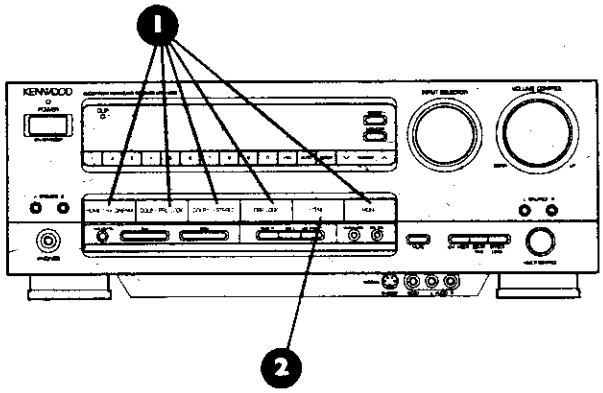
Using the remote



1 Press the SURROUND button to scroll through and select HOME THX CINEMA, DOLBY PRO LOGIC, DOLBY 3 STEREO, DSP LOGIC, or MONO.

2 Press the STEREO button to select STEREO mode.

Using the front panel



1 Select the appropriate button for HOME THX CINEMA, DOLBY PRO LOGIC, DOLBY 3 STEREO, DSP LOGIC, or MONO.

2 Press the STEREO button to select STEREO mode.

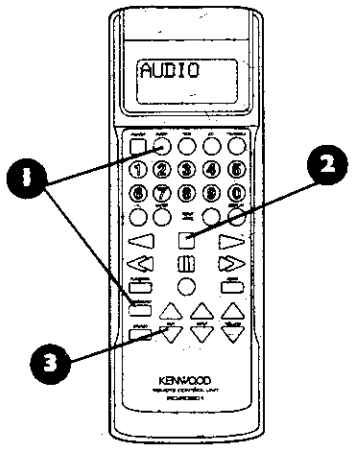
A few tips:

- If the balance of the speakers seems wrong, calibrate the system again, referring to page 13 of the **Setting Up Your KR-X1000 THX Receiver** manual.
- You can't set bass and treble tone controls while in the surround modes.
- In MONO mode, even a stereo source will be reproduced as mono (single channel) sound
- In MONO mode, if you do not have a center speaker and the center mode is set to PHANTOM, you'll hear mono audio from both the left and right speakers

Adjusting the DSP Logic settings

You can adjust the settings for the surround effect in DSP LOGIC mode. You can change the settings to account for the size of the room you are simulating, the amount of surround effect, and the 'hardness' (the amount of absorbtive material) of the walls in the room.

Using the remote



1 Press the AUDIO button to select AUDIO mode, then press the SURROUND button to select DSP LOGIC.

2 Press the STOP button to scroll through and select the setting you want to adjust.

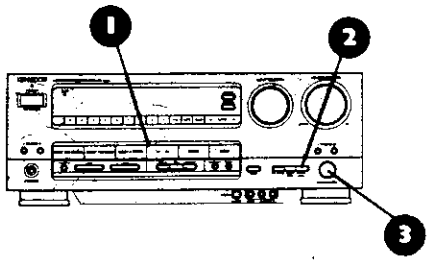
- Select ROOM SIZE to adjust the settings for the size of the room you are simulating
- Select EFFECT to vary the soundfield effect
- Select WALL to vary the hardness (amount of reflective material) of the walls in the room

3 Use the ANY buttons to adjust the settings to a level that sounds good to you.

- For ROOM SIZE, choose from 1 (small) through 3 (large)
- For EFFECT, choose from 1 (minimum) through 5 (maximum)
- For WALL, choose from 1 (soft, padded walls) through 3 (hard, non-padded walls)

4 When you're finished, wait 5 seconds for the settings to be saved.

Using the front panel



1 Press DSP LOGIC to select DSP LOGIC.

2 Press the EFFECT LEVEL button to scroll through and select the setting you want to adjust.

- Select ROOM SIZE to adjust the settings for the size of the room you are simulating
- Select EFFECT to vary the soundfield effect
- Select WALL to vary the hardness (amount of reflective material) of the walls in the room

3 Use the MULTI-CONTROL knob to adjust the settings to a level that sounds good to you.

- For ROOM SIZE, choose from 1 (small) through 3 (large)
- For EFFECT, choose from 1 (minimum) through 5 (maximum)
- For WALL, choose from 1 (soft, padded walls) through 3 (hard, non-padded walls)

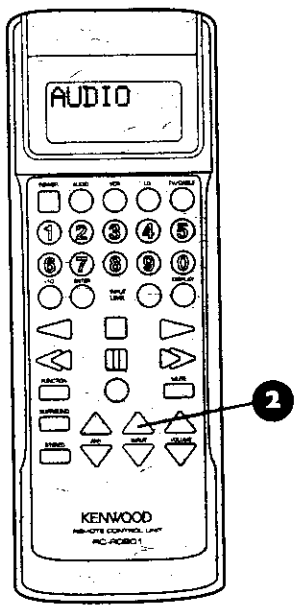
4 When you're finished, wait 5 seconds for the settings to be saved.

Using the basic video functions

Playing a videotape or laser disc

You can play a videotape or laser disc from any VCR or laser disc player connected to your KR-X1000.

Using the remote

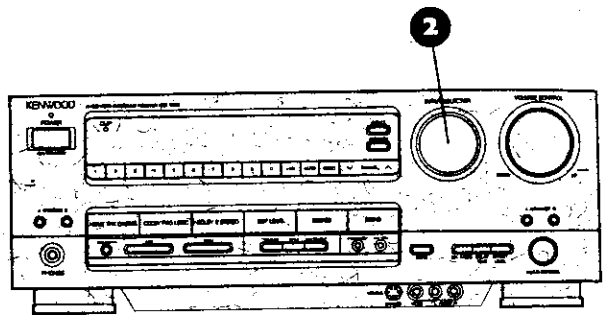


1 Turn the TV monitor ON.

2 Press the INPUT SELECTOR ▲ and ▼ buttons to select the input for the source component.

3 Play the videotape or laser disc in the VCR or laser disc player.

Using the front panel



1 Turn the TV monitor ON.

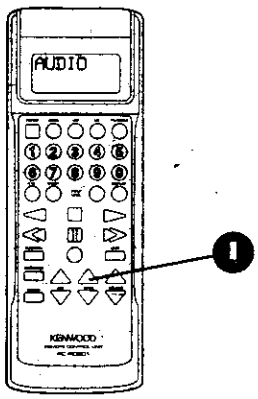
2 On the INPUT SELECTOR knob, select the input for the source component (VIDEO 1, VIDEO 2, and so on).

3 Play the videotape or laser disc in the VCR or laser disc player.

Recording from a video source

You can record from any video source connected to your KR-X1000 (such as a VCR, laser disc player, camcorder, or satellite tuner) onto a VCR connected to the receiver. The VCR can be connected to Video 1 or Video 2.

Using the remote

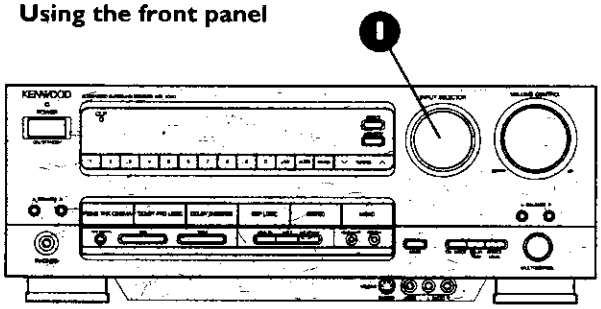


1 Press the INPUT SELECTOR ▲ and ▼ buttons to select the input for the source component.

2 Set the VCR to RECORD.

3 Play the video source.

Using the front panel



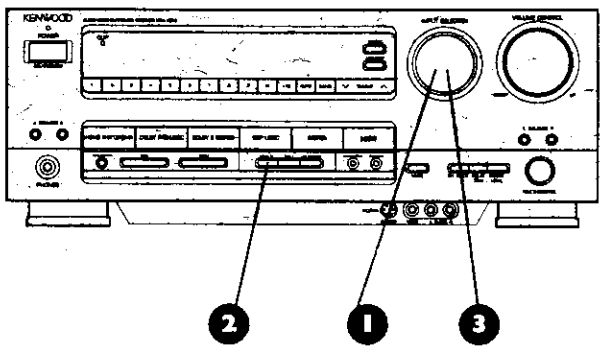
1 On the INPUT SELECTOR knob, select the input for the source component (VIDEO 1, VIDEO 2, and so on).

2 Set the VCR to RECORD.

3 Play the video source.

Playing video and audio from different sources

You can watch the picture from 1 input source while listening to the sound from any other input source (including laser disc, video, DBS, CD, tape, tuner).



1 Play any video input source.

2 Press the VISUAL FIX button.

3 Change to another input source.

The video from the first source will continue, while the audio from the second source will play.

- To switch the audio to the second source, press the VISUAL FIX button again.

Your THX home theater

A THX Home Theater System brings the magic of the original film soundtrack into your home. Unlike any other sound system, the THX Sound System recreates the true audio experience created by the director and sound engineers in the original studio dubbing sessions.

What is THX?

THX is a set of standards and technologies created by Lucasfilm Ltd., the company headed by George Lucas, the director and producer best known for the *Star Wars* films. The Home THX program, which certifies THX components, grew out of the original movie theater THX effort.

The letters 'THX' stand for '**T**omlinson **H**olman's e**X**periment' (more about that later). By coincidence, George Lucas' first feature-length film (a science fiction movie) was called *THX 1138*.

A bit of history

From the beginning of 'talkies', directors understood that sound was a critical element of a movie. Sound had the power to draw the viewers 'out of' the seats in which they sat, passively watching, and into the movie action.

Back in the 1940s when the movie studios owned their own theaters, it was easy to control sound quality. However, by the 1950s, everything changed. The studios were forced to sell their theaters after an anti-trust suit was brought against them by the government. As a result, the advancement of sound technology in movie theaters virtually stopped. It wasn't until 1975 that movie sound started to improve again. In that year, Dolby Stereo, a process that surrounds listeners in sound, was introduced by Dolby Laboratories. One of the first commercially successful movies to use Dolby Stereo was George Lucas' *Star Wars*, which debuted in 1977. With *Star Wars*, movie sound was changed forever. People were rushing to see movies with Dolby Stereo, confirming what directors knew all along—sound draws an audience into a movie like nothing else can.

In spite of the success of Dolby Stereo, quality control of sound was still virtually non-existent in the movie industry. Even the best theaters sounded different from one another and did not necessarily reproduce the sound the director intended. So, in 1983, George Lucas gave the 'green light' to his Technical Director, Tomlinson Holman, to create a new theater sound system that would follow the standards set by the Society of Motion Picture and Television Engineers. The result: the THX Sound System. Today, there are hundreds of THX theaters worldwide. And with the advent of the THX Home Theater System, the standard for movie theater sound excellence is also quickly becoming the standard for home theaters.

How to spot true THX sound

So what makes a THX Home Theater System so terrific? Lucasfilm, Ltd. has established guidelines to ensure that Home THX systems, properly installed, meet these 6 criteria:

1 **Dialog intelligibility.** Dialog is always clear and easy to understand—even in the midst of loud sound effects, and during the most hushed conversation.

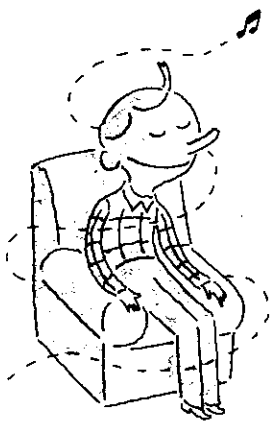
2 **Good sound localization.** Sound matches the action, so that, for example, the sound of breaking glass is located near the image of the shattering window.

3 **Diffuse surround sound.** Sounds—such as the wind blowing or rain falling—don't sound as if they're coming from a specific speaker, distracting the listeners and removing them from the environment of the film.

4 **Full and flat frequency response.** THX sound systems match the range of the original movie soundtrack as closely as possible.

5 **Full dynamic range.** The ability to reproduce both soft and loud sounds with equal clarity.

6 **Evenness of sound movement along all axes.** Sound movement, such as a train traveling from one side of the screen to the other, is even along the entire expanse of the screen (or from the screen to the rear of the room).



Putting all the pieces together

Your Kenwood KR-X1000 THX Receiver gets you off to a great start. It's designed to work with your other home theater components to bring the magic of movies into your home. Of course there are a number of other components that will help you perform that trick (some required, some optional). These might come from a number of manufacturers and they'll vary to suit your taste and listening environment, so we won't talk specifics. To truly transform your listening room, however, we recommend that you use Kenwood THX-certified home theater audio components.

Video source(s)

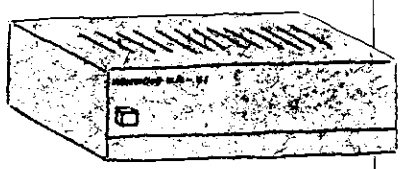
You've got some choices here—a laser disc player, a hi-fi VCR, satellite receiver, cable TV, or some other source (such as a video camera). You get the picture. The resolution and quality of your home theater viewing will depend on the video source you choose. To date, laser disc players provide the best quality. You'll want a laser disc player and/or VCR that can reproduce 2-channel stereo over a wide dynamic range. Your VCR should reproduce 'hi-fi' formats (such as VHS hi-fi) in addition to regular linear audio tracks. When watching television or cable, look for the Dolby Surround logo in the opening credits, or check your television listing. You can get a list of Dolby Surround TV programs and movie releases in Dolby Stereo or Dolby Stereo digital from the Dolby Forum on the America Online service.

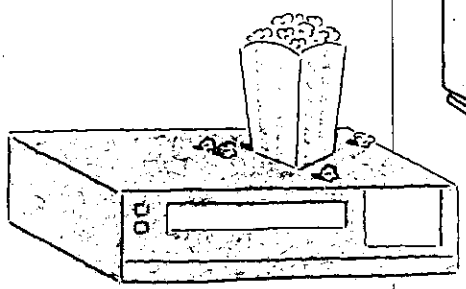
Kenwood KR-X1000 THX Receiver

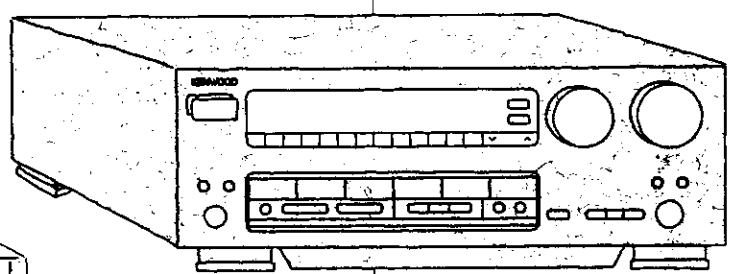
The 'brains' behind your THX home theater, this high-fidelity component incorporates proprietary THX Cinema circuitry as well as Dolby Pro Logic, Dolby 3 Stereo, and DSP Logic surround modes. It also acts as a selector for your video and audio components, and provides amplification for the front and surround speakers.

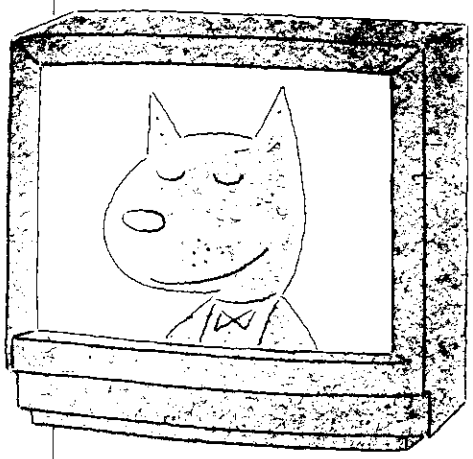
Kenwood KM-X1000 THX Power Amplifier

Add real 'muscle' to your home theater with 1 or more KM-X1000 amplifiers. The KM-X1000 can be configured to power a subwoofer (like the SW-X1)—or to increase the power to your other speakers.







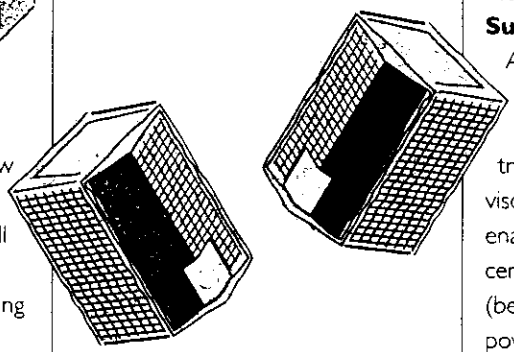


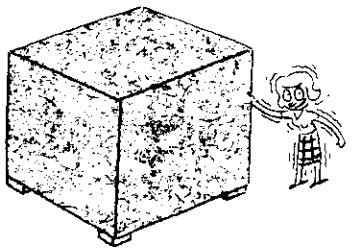
Monitor

Whether you choose a direct-view television, a rear-view projection unit, or a projector and screen will depend on things like the picture quality and resolution you're looking for, the size of the room you're working with, and the amount of money you have to spend. To really feel involved in a movie, we recommend a screen size of at least 32 inches.

Kenwood LS-X1S THX Surround Speakers

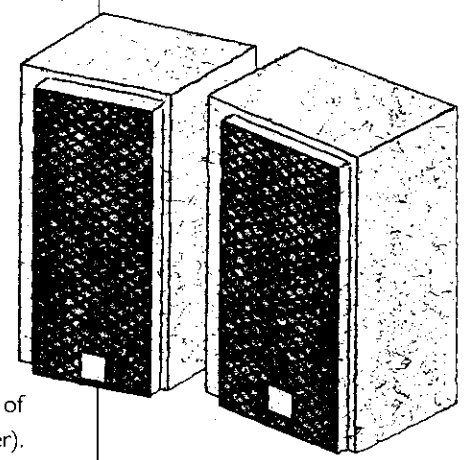
Step right into the movie scene by surrounding yourself with sound. Effective surround speakers envelop the listener in sound rather than give the impression that sound is coming from a specific speaker location.





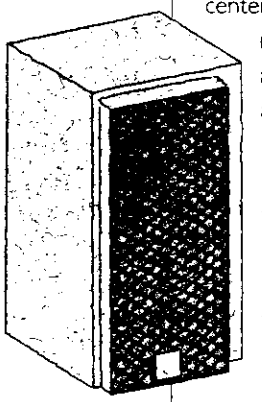
Kenwood SW-X1 THX Subwoofer

Adding the low-end energy that makes the action come alive, the SW-X1 reproduces a soundtrack's low-frequency signals for visceral bass you can feel! It also enables you to use smaller left, center, and right front speakers (because they no longer have the power-intensive job of reproducing bass). Or, if you want, you can add a powered subwoofer.



Kenwood LS-X1F THX Front Speakers

These 3 front speakers (left, center, right) provide optimum stereo imaging and sound localization, and more accurate pans (that is, sound moving from one side of the screen to the other). Having 3 front speakers also provides seating position flexibility.



Preparing a room for your THX home theater

The Home THX system makes it easy to get great sound in almost any room, but there are some basic guidelines you should follow before setting up your equipment.

Measure your room

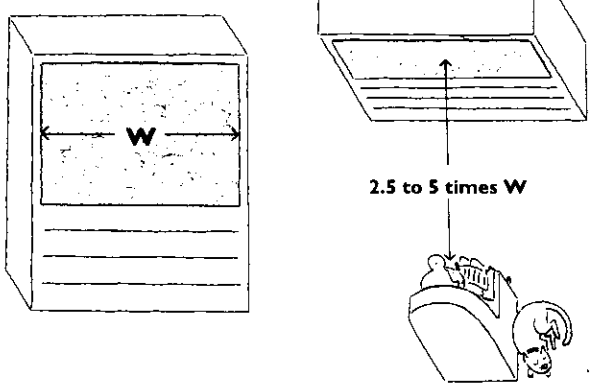
Measure to be sure your room is within the optimal size range: 3,000 cubic feet to 6,000 cubic feet. Calculate this figure by multiplying the length by the width by the height of the room (L x W x H = total cubic feet). If the room is much too small or large, consider another room, or ask for professional assistance.

Set up your screen or television

Your screen or television is the center of your Home THX theater. Place it out of natural or artificial lights, especially those close to the viewers. Subdued lighting is best for viewing; you can cover windows with heavy drapes and use dimmer switches to control lights that can't be moved.

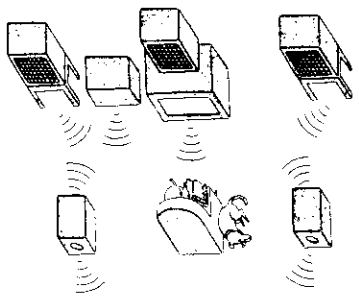
The seating area should be placed parallel to the screen, set back about 2.5 to 5 times the width of your screen. Optimal seating is a compromise between clarity and involvement. The farther back you sit, the better the clarity. The farther forward, the more visual involvement. Experiment with distance until you find the location within these guidelines that best suits your preference.

Leave room for the front speakers to be arranged with reasonable symmetry to the adjacent walls.



The ideal viewing distance is 2.5 to 5 times the width of your screen.

Leave plenty of room between the screen and the walls to minimize sound reflections from the speakers. (See the manuals that came with your speakers for specific space requirements and placement instructions.)



Place your components close to the screen. People naturally aim the remote at the screen, so it's best to put the components near it. This also makes the system easier to connect—and you won't need longer cables. However, if your components won't fit near the screen (or if all the display screens distract you), you can put them in a more convenient spot and place a 'remote sensor' near your screen to carry the remote signal.

Make sure your electronic components have good ventilation. Kenwood components may be stacked as long as they are a reasonable distance (enough to allow unimpeded air flow) from walls and other objects that might block ventilation. We'd recommend that you place the KR-X1000 on the top of the stack.

Fine-tuning the sound of your system

You're probably already enjoying the superb sound of your THX home theater. But perhaps you'd secretly like to be a sound engineer or you have a challenging room environment that needs a little extra effort. The most common complaints about room acoustics are room reflections, echoes, rattles, background noise, and standing waves. Luckily, you can do a lot to improve the acoustics of your room with simple solutions.

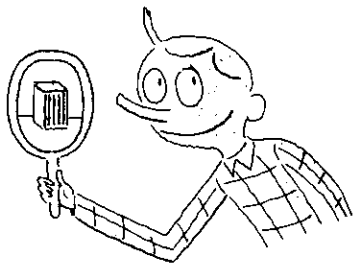
Moving furniture and speakers

The most troublesome room reflections are usually created when sounds waves from the front (left, center, right) speakers bounce off the floor, ceiling, and walls. You'll be happy to know THX-certified front speakers are specially designed to minimize these reflections.

To reduce floor reflections, place a thick, absorptive carpet between the front speakers and the listening area. To reduce reflections from the walls, rotate the left and right speakers inward, toward the center of the seating area.

Installing sound-absorbing material

If moving the furniture and rotating the speakers isn't enough, place heavy draperies on the walls and well stuffed furniture against them. You can easily find the best place for these materials.



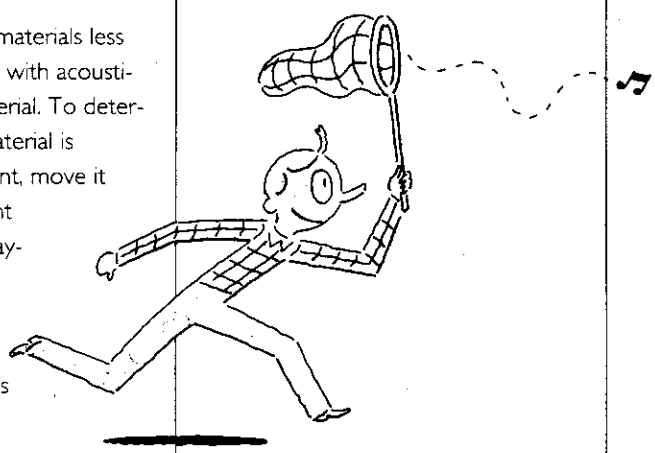
Get a small hand mirror and someone else to hold it. Sit in the primary listening position. Then, have your mirror-holding friend slowly slide the mirror along the wall. When you can see any of the front speakers reflected in the mirror, have your friend mark the wall at the mirror. Place the furniture or absorptive materials at this mark.

To make absorptive materials less unsightly, cover them with acoustically-transparent material. To determine whether the material is acoustically transparent, move it back and forth in front of a speaker while playing chapter 6 of the WOW! disc (more on this later) or the 'hiss' between stations on your FM tuner. You should hear no difference in sound.

Installing diffusers

You can also try using 'diffusers' rather than absorptive material. Diffusers will reflect sound randomly, removing or minimizing annoying reflections. Before you run out and buy commercially available diffusers, try natural diffusers, such as large bookcases, couches, overstuffed chairs, wall hangings, etc. Place these diffusers where you would have placed absorptive material.

Large areas of glass can also cause all sorts of problems. You probably have curtains over these windows already. Keep them closed tightly when using your home theater. If this doesn't solve your problems, add insulated liners (like they have in hotel rooms) or replace your curtains with insulated drapes.



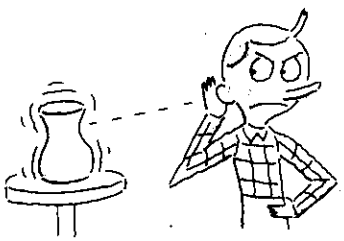
Fixing slap echoes

Slap echoes are just that—echoes from sharp sounds, like slaps.

To find slap echoes, walk slowly through the room away from the listening area. Clap your hands and listen for a sound bouncing between the walls. Or, play the hand claps in chapters 17 and 18 of the WOW! disc.

You can get rid of slap echoes by placing absorptive material behind the front speakers and diffusers such as bookcases, or large furniture in the rear and around the sides of the room.

Fixing rattles and other background noise



A few common sources of rattles are furniture, loose window frames, lamps, light fixtures, frames, ventilation system, and objects on shelves. The best way to identify the rattles in your room is to use the Rattle Test on the WOW! disc (chapter 16). During the slowly changing tone sweep, listen for rattles.

Once you know where rattles are located, you can eliminate them fairly easily. Remove knickknacks or cover their bottoms with felt. Tighten offending fixtures. Pad your windows with felt. You get the idea.

You may also want to search out (and destroy) background noise. Take steps to get rid of or minimize sounds that affect your ability to clearly hear your system's audio. For example, seal doors and windows to block out street noise, or maybe turn off the air conditioner while you're listening to your system.

And finally: standing waves

Standing waves, the frequency at which your room tends to vibrate of its own accord, can create some tricky acoustical problems.

Putting any speaker in a corner can stimulate all of the available standing waves. If you have a subwoofer, be flexible with it. Try it in several different locations before you determine which is the best place to avoid stirring up standing waves.

You can also reduce standing waves by trying to 'break up' corners. Place a stuffed chair, bookcase, or other substantial furnishing in the corners and listen to what happens. If you're into a high-tech look, you can place a column of thick absorptive material in the corners (covered by acoustically-transparent cloth). The column of material should be at least 1 foot on each side and go from floor to ceiling. You can also run an absorptive panel diagonally across the corner, leaving open space behind it.

If you've tried all of the above suggestions and your room is still plagued by standing waves, consider hiring a trained acoustician to find the individual solution for your home theater.

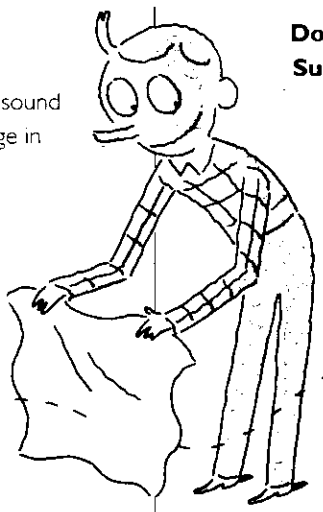
Using the WOW! disc

Lucasfilm, Ltd. has produced a laser disc designed to demonstrate and test your THX home theater system. Called WOW!, the disc has chapters with audio and video test signals that can be used to fine-tune your home theater system and room acoustics. It also includes educational chapters about THX audio systems, a fascinating look at how film soundtracks are made, and a great action-packed montage of scenes from various Lucasfilm movies.

If you have a laser disc player and would like to get a WOW! disc, contact your Kenwood dealer.

Talking THX

(A handy glossary of THX terms)



Acoustically transparent cloth
Material through which sound will travel with no change in tone quality.

Background noise
Noise generated by the environment, such as traffic, air conditioning, motors, and so on.

Decibel (dB)
A numeric expression of the relative intensity of a sound or signal. 1 dB is usually considered the smallest change in sound level perceptible to the human ear.

Diffusers
Objects that reflect sound randomly.

Dolby Pro Logic Surround
A circuit that actively decodes the 2-track Dolby Stereo soundtrack encoded on theatrical movie releases (and Dolby Surround television programming) into 4 discrete channels (left, center, right, and surround).

Dolby Stereo
The process of encoding a feature film's 2-channel soundtrack with professional noise reduction and 4 channels of information: left, center, right, and surround. The theater's corresponding equipment then decodes the 2 channels back into left, center, right, and surround.

Dolby Surround
The simple circuit designed for home use by Dolby Laboratories to decode the Dolby Stereo-encoded 2 channels of a feature's soundtrack into left, right, and surround. Dolby Surround is sometimes also used to identify home video software with soundtracks that have been Dolby Stereo encoded.

Dubbing stage
The room in a studio (essentially a small movie theater) where the final elements of a film's soundtrack are assembled and mixed together. The director, producer, and sound designer make their decisions in this room about the level, tonal quality, and placement of each sound.

Dynamic range
The ability of a system to reproduce sounds in a wide range of volume levels without unwanted noise in the quietest passages or distortion in the loudest passages.

Front speakers
Left, center, and right speakers placed above (center) and to the sides (left, right) of the viewing screen.

Input
Signal into a component.

Intelligibility
Clarity of dialogue, both in quiet passages and amid loud sound effects.

Null
The point between 2 drivers in a dipole speaker where there's no directional sound.

Output
Signal out of a component.

Pan
The movement of a sound image. This can be in the left-center-right axis, or in the axis between these channels and the surrounds.

Pink noise
A test signal that lets the user adjust the sound pressure level of each channel to be even at a specific seating position.

Rattles
Structural resonances (rattling pictures, knickknacks, and so on) that an audio system may stimulate due to its broad frequency response and wide dynamic range. They are particularly prominent for sounds in the lower frequencies and can sound like distortion.

Room reflections
Reflection of sounds off the floor, ceiling, and side walls of a room.

S-video
Video components that deliver maximum picture quality and resolution by keeping the contrast and color signals separate.

Slap echoes
Sounds that tend to bounce back and forth between parallel walls many times before they die out, causing a characteristic bright, 'zingy' sound and interfering with the intended tonal balance and acoustic nature of the soundtrack.

Sound pressure level meter
An instrument used to measure the decibel (dB) level of sound.

Standing wave
A phenomenon that occurs when sound is reflected back and forth between 2 walls. The waves interfere with each other, producing locations where the decibel level is high and other places where the decibel level is low. Standing waves are particularly troublesome for bass sound.

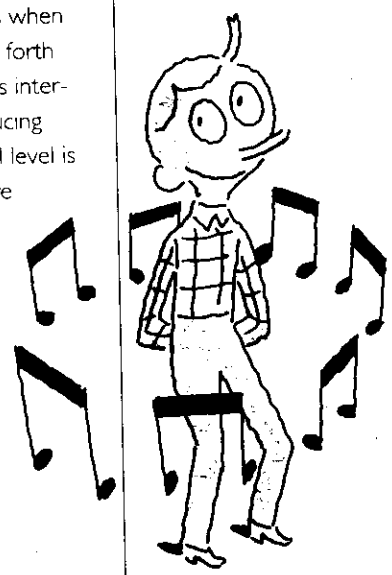
Stereo imaging
Placing a sound source in the proper location on the imaginary sound field (formed between the left and right speakers) so that it matches the location at which it was originally recorded.

Subwoofer
A large speaker dedicated to reproducing very low-frequency sounds.

Surround sound
Non-directional sound that envelops the listener.

Tweeter
A small speaker that reproduces high-frequency sounds.

Woofer
A speaker that reproduces low-frequency sounds.



Troubleshooter's 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 are 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 still can't solve the problem, call the store where you purchased your unit or call a Kenwood-authorized repair service.
- If you have a problem with another component, check the manual for that unit.

Problems with the remote

Remote won't operate

- Check the batteries, and replace them if needed.
- Check to make sure the audio cords and system control cords are connected properly.
- Check that the remote is close enough to the main 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 that the setup codes for non-Kenwood components are set up correctly.
- If you're recording a tape in the cassette deck, wait until it's done recording.

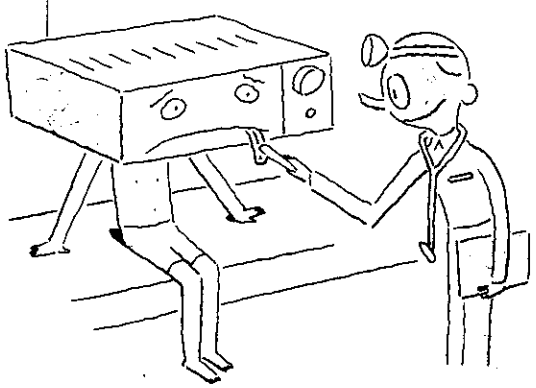
Problems with the receiver

No sound from the system

- Check that the speaker cables are properly connected.
- Check that the volume is set at a proper level.
- Check that the mute is OFF (if it's ON, the MUTE indicator is blinking).
- Check that at least one of the speaker systems (A or B) is turned ON.
- Check that the TAPE 2 button is OFF.

No sound from one of the speakers

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



No sound from the surround speaker(s) and/or center speaker or the sound is abnormally low

- Check that one of the surround modes is ON.
- Check that center channel mode is not set to PHANTOM.
- Check that the LEFT SURROUND, RIGHT SURROUND, and CENTER channel levels are properly calibrated.
- Check that the speaker cables are connected properly.

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 grounding wire should be connected to the GND terminal).

The STANDBY indicator blinks, but there is no sound

- Check that the speaker cords aren't short-circuited (any of the + and - wires touching each other). If they are, get rid of points where the wires touch.

Problems with the FM/AM tuner

Radio stations can't be received

- Check that the antenna is connected.
- Check that the station you want is properly tuned in.

A preset station can't be received by pressing the corresponding number keys

- Check that you've preset a station with a receivable frequency.
- Check that the preset memory wasn't cleared because the power cord was unplugged a long time—if so, preset the station again.
- Check that the TUNER input is selected.

The system has interference

- Check for disturbance from automobiles—if so, install the outdoor antenna away from the road.
- Check for disturbance from electrical appliances—if so, turn them OFF.
- Check for disturbance from the TV set—if so, move the system or the TV.

Other problems not listed here

If you have problems with your KR-X1000 THX Receiver that aren't listed here, or that you can't fix yourself, please contact the store where you purchased the unit. They should be able to help you get the unit to work properly, or make arrangements to do so.

For a dealer near you, call 1-800-KENWOOD

Setup codes for components from other manufacturers

Important

The setup codes are designed to be compatible with several models from each manufacturer. One of the setup codes should work for your model. However, some setup codes may be incompatible with particular models, or you may only be able to operate certain functions.

VCR setup codes

Maker	Setup code
Aiko	293
Aiwa	015
Akai	056, 064, 068, 076, 257
Anam	045, 177
Anam National	045
Audiovox	052
Bell & Howell	119
Blaupunkt	045
Broksonic	136, 199, 226, 376
Canon	050, 182
Capehart	035
Carver	096
CCE	087, 293
Craig	062, 255, 286
Curtis Mathes	050
Daewoo	035, 060, 061, 102, 293
Daytron	035
Dynatech	015
Emerson	015, 017, 052, 076, 136, 199, 223, 224, 226, 227, 309, 310, 376
Fisher	062, 069, 081, 119
Funai	015
Garrard	015
GE	050, 075, 080
General	067
Go Video	247, 294
Goldstar	033, 052, 053
Gradiente	015
Harmon-Kardon	053, 090
Hitachi	015, 056, 057, 080, 120, 181
JCL	050
Jensen	056
JVC	023, 056, 082
Kenwood	053, 056, 061, 082
Lloyd	015
Logik	087
LXI	052
Magnavox	015, 050, 054, 096, 125, 164
Marantz	050, 053, 096
Marta	052
MEI	050
Memorex	015, 050, 052, 054, 061, 062, 063, 119
MGA	058, 076
MGN Technology	255
Minolta	057, 120
Mitsubishi	058, 076, 090, 188, 229, 257
MTC	015, 255
Multitech	015, 087
NAD	073
National	045
NEC	053, 055, 056, 065, 082, 097
Nikko	052
Noblex	255
Optimus	063, 073
Optonica	063, 077
Panasonic	045, 050, 092, 111, 177, 397
Penney	050, 052, 053, 055, 057, 255
Pentax	057, 080, 120
Philco	050
Philips	050, 077, 096, 125
Pilot	052
Pioneer	073, 082
Portland	035
Pulsar	054
Quartz	06
Quasar	050, 092, 111
Radio Shack	015, 052
RCA	050, 057, 080, 092, 111, 120, 164, 217
RCA Unified	075
Realistic	015, 050, 052, 061, 062, 063, 077, 081, 119, 255
Ricoh	049
Runco	054
Samsung	060, 068, 255
Sansui	056, 082, 097, 286
Sanyo	061, 062, 119, 255
Scott	060, 136, 199, 225, 227
Sears	050, 052, 057, 061, 062, 069, 081, 119, 120
Sharp	063, 077
Shintom	087
Sony	047, 048, 049, 050
STS	057
Sylvania	050, 058, 096, 125
Symphonic	015
Tandy	015, 119
Tatung	056
TEAC	015, 056
Technics	050, 177
Teknika	015, 050, 052, 067
Toshiba	058, 060, 081, 225, 227
Totevision	052, 255
Unitech	255

Maker	Setup code
Vector Research	053, 055
Victor	023, 056, 082
Video Concepts	055, 076
Videosonic	255
Wards	015, 050, 057, 062, 063, 077, 087,164, 227, 255
Yamaha	053, 056
Zenith	048, 049, 054

Laser disc player setup codes

Maker	Setup code
Aiwa	218
Carver	079
Denon	187
Funai	218
Goldstar	187
Kenwood	251, 273
Magnavox	079, 232, 256
Marantz	079
Mitsubishi	074
NAD	074
Panasonic	219, 245
Philips	079
Pioneer	074
RCA	366
Realistic	218
Sharp	016
Sony	208, 216
Yamaha	232

TV setup codes

Maker	Setup code
A-Mark	018
Admiral	108
Aiko	107
Akai	045, 113
Anam	018, 019, 195
Anam National	070
AOC	018, 034, 045, 067, 152, 200
Archer	018
Audiovox	018, 195
Bell & Howell	031, 169
Broksonic	018
Candle	045, 061, 071, 201
Capehart	067
Capetronic	018, 045
Carver	069
Citizen	045, 054, 061, 063, 071, 075, 107, 201, 295
Concerto	071
Contec	173, 195, 200
Craig	195
Crown	054, 063, 195
Curtis Mathes	045, 054, 063, 075, 169
CXC	195
Daewoo	034, 054, 063, 106, 107, 406, 466
Daytron	054, 063
Dynatech	064
Emerson	173, 192, 193, 194, 195, 196, 197, 198, 200, 251, 285, 295, 297, 478
Envision	045
Fisher	169, 174
Fortress	108
Fujitsu	194
Funai	194, 195
Futuretech	195
GE	036, 042, 044, 062, 066, 070, 189, 193, 297
General	201
Goldstar	016, 017, 034, 045, 054, 063, 071, 121, 193
Hallmark	193
Hitachi	053, 071, 110, 112, 160, 166, 188, 242
Infinity	069
JBL	069
Jensen	065
JVC	051, 068, 197
Kamp	231
Kawasho	231, 323
Kenwood	045
Kloss	039, 061
KMC	121
KTV	054, 063, 195, 200, 232, 295
Logik	031
Luxman	071
LXI	062, 069 163, 169 171
Magnavox	035, 039, 043, 045, 069, 111, 201, 202
Marantz	045, 069
Matsui	232
Matsushita	066, 265
Memorex	031, 169 193
MGA	034, 045, 165, 170, 193
Mitsubishi	034, 113, 165, 170, 193
MTC	034, 045, 064, 071, 075, 106, 200
Multitech	064, 232
NAD	171, 181
NEC	034, 045, 051, 071, 185
Nicamagic	231
Nikko	045, 107, 332
Onwa	195
Optonica	108, 180
Onon	251
Panasonic	066, 069, 070, 177, 265, 353
Penney	017, 033, 034, 036, 045, 047, 054, 062, 063, 075, 125, 150, 164, 171
Penny	018, 066
Philco	034, 035, 039, 043, 045, 069, 201, 202
Philips	015, 069
Pioneer	053, 181
Portland	034, 054, 063, 107
Proton	018, 046, 054, 063, 067, 193
Pulsar	032
Quasar	066, 070, 265
Radio Shack	047, 180, 195
RCA	033, 034, 044, 053, 150, 189, 412
RCA Unified	062
Realistic	169
Rhapsody	231
Runco	032, 045
Sampo	045, 067, 115, 125
Samsung	034, 045, 047, 054, 063, 071, 075
Sanyo	161, 169, 174

Maker	Setup code
Scott	194, 195, 251
Sears	062, 069, 071, 161, 163, 164, 169, 171, 174, 186 193, 194
Sharp	108, 180
Signature	031
Sony	015, 026, 095, 126, 288
Soundesign	193, 195, 201
Spectricon	018, 152
SSS	034, 195
Starlite	195
Supre-Macy	061
Sylvania	035, 039, 043, 045, 069, 080, 201, 202
Symphonic	186
Tandy	054, 063, 108, 233
Tatung	018, 064, 070
Technics	066, 265
Technwood	071
Teknika	031, 034, 054, 063, 071, 075, 107, 165, 194, 195, 201, 327, 337
Tera	046
TMK	071, 193
Toshiba	051, 075, 164, 169, 171
Tosonic	200
Totevision	054, 063
Ultra	406
Universal	036, 042
Vector Research	045
Victor	051, 068, 265
Video Concepts	113
Vidtech	034, 193
Viking	061
Wards	031, 034, 035, 036, 042, 043, 044, 045, 069, 071, 111, 180, 189, 193, 194, 202
Yamaha	034, 045
Zenith	031, 032
Zonda	018

Cable setup codes

Maker	Setup code
ABC	022, 026, 028, 032
Antronix	222
Archer	054, 168, 222
Century	168
Citizen	168
Colour Voice	040, 046
Comband	247, 248
Comtronics	055, 075
Contec	034
Eastern	017
Electricord	093
Garrard	168
GC Electronics	222
GE	247, 248
Gemini	030, 072, 085, 257
General Instrument	026
Hamlin	024, 035, 049, 274, 288
Hitachi	026
Jasco	168
Jerrold	018, 026, 027, 029, 030, 039, 041, 062, 113, 291
Macom	048
Magnavox	042
Memorex	015
Movie Time	078, 093, 171
Northcoast	329
NSC	078, 085, 171
Oak	022, 034, 263
Panasonic	036, 122
Paragon	015
Philips	040, 042, 043, 044, 045, 046, 075, 168, 305
Philips Ecg	257
Pioneer	038, 159, 275
Popular Mechanics	415
Pulsar	015
RCA	036
Realistic	222
Regal	035, 274, 288, 294
Regency	017
Rembrandt	085
Runco	015

Maker	Setup code
Samsung	055, 159
Scientific Atlanta	021, 023, 032, 292, 342
Signal	030, 055
Signature	026
SI Marx	055
Sprucer	036, 322
Standard Components	111
Starcom	018, 030, 062, 113
Stargate	030, 055
Sylvania	016
Tandy	273
Tatung	112
Teknika	161
Telecaption	236
Texscan	016, 111
Tocom	027, 028, 074
Toshiba	015
Tusa	030
TV86	078
Unika	168, 222
United Artists	022
United Cable	018
Universal	054, 092, 093, 168, 206, 222, 337
Videoway	265
Vidtech	259
Viewstar	042, 075, 078, 226, 273, 304
Zenith	015, 069

KR-X1000 THX Receiver specifications

Important
Due to product upgrades, specifications may be changed without notice.

Power amp section

Power Ratings (Stereo)
125 watts per channel minimum RMS, both channels driven, at 6 ohms from 20 Hz to 20 kHz with no more than 0.08% total harmonic distortion. (FTC)

Power Ratings (Surround)

Left and Right
130 watts per channel minimum RMS, both channels driven, at 6 ohms, 1 kHz, with no more than 0.08% total harmonic distortions (FTC)

Center
130 watts minimum RMS, at 6 ohms, 1 kHz, with no more than 0.08% total harmonic distortion (FTC)

Surround
80 watts per channel minimum RMS, both channels driven, at 6 ohms, 1 kHz, with no more than 0.08% total harmonic distortion (FTC)

Main in (front, center, surround): 940 mV at 16 k-ohms

Preamp section

Rated output voltage (pre out): 940 mV (20 Hz to 20 kHz, 0.01%)

Frequency response:
Line (CD, aux, tape): 5 Hz to 100 kHz, +0 dB, -3 dB

Signal-to-noise ratio (IHF A):
Phono (mm): 76 dB
Line (CD, aux, tape): 96 dB

Input sensitivity/impedance:
Phono (mm): 2.5 mV at 47 k-ohms
Line (CD, aux, tape): 200 mV at 47 k-ohms

Output level/impedance:
Tape Rec: 200 mV at 330 ohms
Pre-out (front, center, surround, subwoofer): 940 mV at 500 ohms

Tone control:
Bass: ± 8 dB (at 100 Hz)
Treble: ± 8 dB (at 10 kHz)

FM tuner section

Tuning frequency range: 87.5 MHz to 108.0 MHz

Usable sensitivity (IHF): 13.2 dBf (1.2 µV at 75 ohms)

50 dB quieting sensitivity
Stereo: 41.2 dBf (32 µV at 75 ohms)

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

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

Selectivity (IHF ± 400 kHz): 50 dB

Stereo separation (IHF at 1 kHz): 40 dB

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

AM tuner section

Tuning frequency range: 530 kHz to 1,700 kHz

Usable sensitivity: 12 µV / (500 µV at 1 m)

Total harmonic distortion: 0.7%

Signal-to-noise ratio: 48 dB

Selectivity: 30 dB

Video section

Television format: NTSC

Video (composite): 1 Vp-p at 75 ohms

S-Video (luminance signal): 1 Vp-p at 75 ohms
(chromance signal): 0.286 Vp-p at 75 ohms

General

Power consumption: 6.5 amps (650 watts)

Switched AC outlets: 2 (1.6 amps total max.)

Dimensions:
Width: 17 5/16 in (440 mm)
Height: 6 5/8 in (169 mm)
Depth: 16 13/16 in (427 mm)
Weight (net): 36.4 lb (16.5 kg)

Licensing

Manufactured under license from Dolby Laboratories Licensing Corporation. Additionally licensed under 1 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 DD symbol are trademarks of Dolby Laboratories Licensing Corporation.

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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

CATV 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.

DOC Class-B Compliance

This digital apparatus does not exceed the CLASS B limits for radio noise emissions from digital apparatus as set out in the radio interference regulations of the Canadian Department of Communications.

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