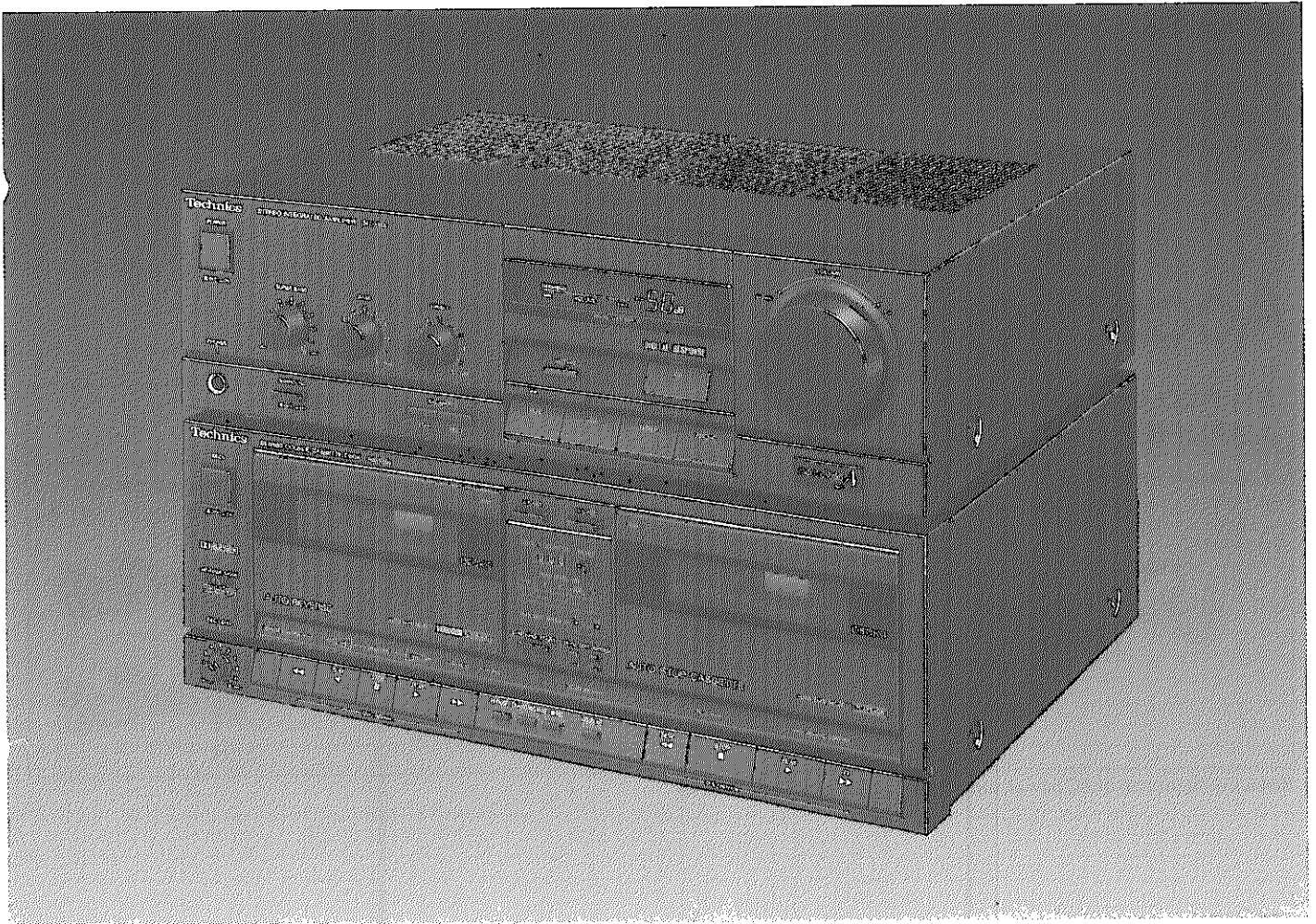


Technics

STEREO INTEGRATED AMPLIFIER
SU-X101
STEREO DOUBLE CASSETTE DECK
RS-X101

OPERATING INSTRUCTIONS



Notes:

- Specifications differ according to the area code.
- The "EB" area code, for example, indicates United Kingdom specifications.
- The "EB" indication is shown on the packing case and serial number tag.

Before operating these units, please read these instructions completely.

Dear Stereo Fan

We want to thank you for selecting this product and to welcome you to the growing family of satisfied Technics product owners around the world. We feel certain you will get maximum enjoyment

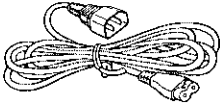

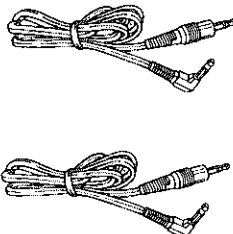
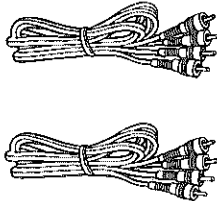
from this new addition to your home. Please read these operating instructions carefully, and be sure to keep them handy for convenient reference.

Contents

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Accessories

(Refer to pages 4 and 6)

STEREO INTEGRATED AMPLIFIER	STEREO DOUBLE CASSETTE DECK		
<ul style="list-style-type: none"> • AC power supply cord..... 1 	<ul style="list-style-type: none"> • 3-core flat cable... 1 	<ul style="list-style-type: none"> • L-type cables 2 	<ul style="list-style-type: none"> • Stereo connection cables 2 

Note: Configuration of AC power supply cord differs according to area.

For United Kingdom

("EB" area code model only)

The "EB" indication is shown on the serial number tag.

The plug of the AC power supply cord must only be connected to electronic apparatus equipped with suitable sockets.

Otherwise cut off and dispose of the plug, and fit an appropriate one in accordance with the instruction below.

Important

THE WIRES IN THIS MAINS LEAD ARE COLOURED IN ACCORDANCE WITH THE FOLLOWING CODE.

BLUE: NEUTRAL
BROWN: LIVE

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug proceed as follows. The wire which is coloured BLUE must be connected to the terminal which is marked with the letter N or coloured BLACK.

The wire which is coloured BROWN must be connected to the terminal which is marked with the letter L or coloured RED.

This apparatus was produced to BS 800.

Suggestions for Safety

■ Use a standard AC wall outlet

1. **Use from an AC power source of high voltage, such as for an air conditioner, is very dangerous.**

There is the possibility that a fire might be caused by making such a connection.

2. **A DC power source cannot be used.**

Be sure to check the power source carefully, especially on a ship or other place where DC is used.

■ Grasp the plug when disconnecting the power supply cord

1. **Wet hands are dangerous.**

A dangerous electric shock may result if the plug is touched by wet hands.

2. **Never place heavy items on top of the power supply cord, and never force it to bend sharply.**

■ AC outlet on rear panel (not equipped for some countries)

1. **Any equipment connected here should have the specified power consumption or less.**

This outlet is exclusively for the connection of other audio equipment, such as a tape deck. Be sure the power consumption does not exceed the wattage specified near the AC outlet.

2. **Never connect other electrical appliances, such as an iron or toaster.**

If appliances with a large power consumption are connected, an accident might occur as a result of overheating.

■ Place the unit where it will be well ventilated

Place this unit at least 10 cm (4") away from wall surfaces, etc. Be careful that curtains and similar materials do not obstruct the ventilation holes.

■ Avoid places such as the following:

In direct sunlight or in other places where the temperature is high.

In places where there is excessive vibration or humidity.

Such conditions might damage the cabinet and/or other component parts and thereby shorten the unit's service life.

■ Be sure to place the unit on a flat, level surface.

If the surface is inclined, a malfunction may result.

■ Never attempt to repair or reconstruct this unit

A serious electric shock might occur if this unit is repaired, disassembled or reconstructed by unauthorized persons, or if the internal parts are accidentally touched.

■ Take particular care if children are present

Never permit children to put anything, especially metal, inside this unit. A serious electric shock or malfunction could occur if articles such as coins, needles, screwdrivers, etc. are inserted through the ventilation holes, etc. of this unit.

■ If water is spilled on the unit

Be extremely careful if water is spilled on the unit, because a fire or serious electric shock might occur. Immediately disconnect the power cord plug, and consult with your dealer.

■ Avoid spray-type insecticides

Insecticides might cause cracks or "cloudiness" in the cabinet and plastic parts of this unit. The gas used in such sprays might, moreover, be ignited suddenly.

■ Never use alcohol or paint thinner

These and similar chemicals should never be used, because they might cause flaking or cloudiness of the cabinet finish.

■ Disconnect the power supply cord if the unit will not be used for a long time

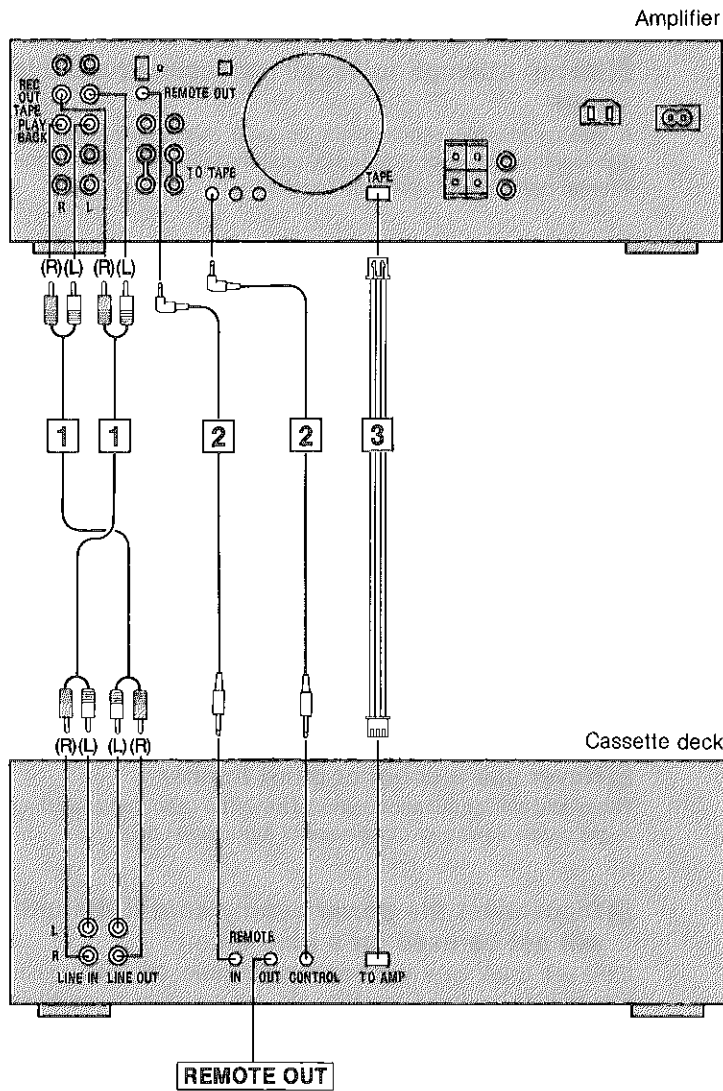
If the unit is left for a long time with the power ON, this will not only shorten its useful operation life, but may also cause other troubles.

■ If trouble occurs

If, during operation, the sound is interrupted or indicators no longer illuminate, or if abnormal odor or smoke is detected, immediately disconnect the power cord plug, and contact your dealer or an Authorized Service Center.

Connections

To connect the amplifier with the cassette deck



Make connections in the numbered sequence by using the included cables.

1 Connect the stereo connection cables.

2 Connect the L-type cables.

3 Connect the flat cable.

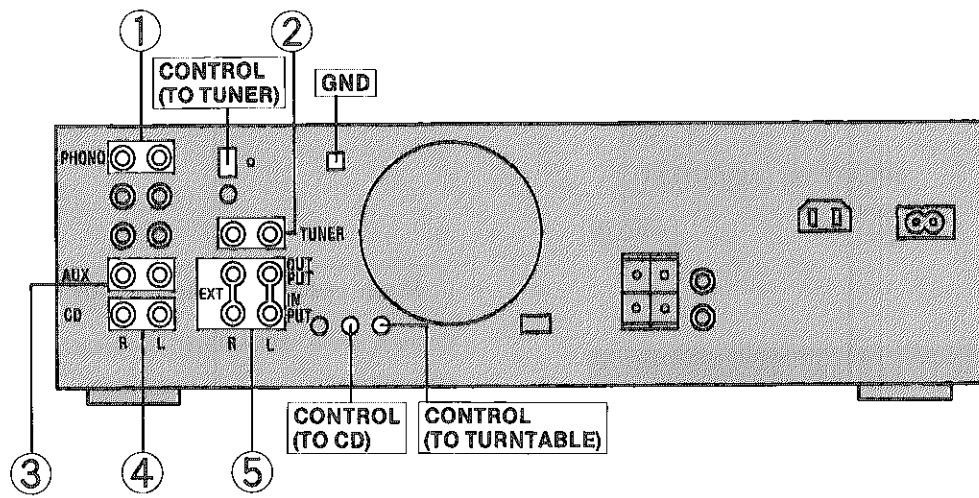
REMOTE OUT

Connect the L-type cable (not included) to the "REMOTE INPUT" terminal of the graphic equalizer.

Note:

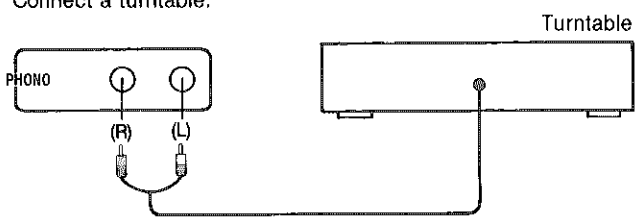
If the unit is not to be connected with the graphic equalizer, connect the L-type cable (included with the compact disc player) to the "REMOTE IN" terminal of the compact disc player.

To connect the amplifier with other units



1 "PHONO" terminals

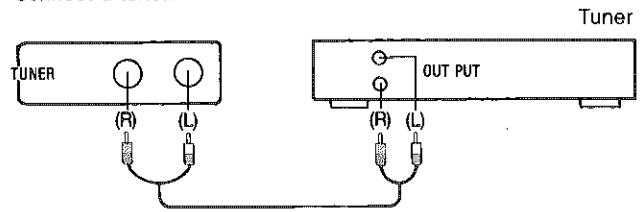
Connect a turntable.



- **"GND" terminal of the amplifier**
This terminal is for use with a turntable which has a ground wire.
- **"CONTROL (TO TURNTABLE)" terminal**
This terminal is used to connect a Technics turntable with the remote-control terminal.

2 "TUNER" terminals

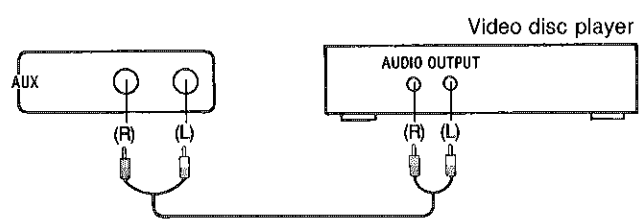
Connect a tuner.



- **"CONTROL (TO TUNER)" terminal**
This terminal is used to connect a Technics tuner with the control terminal.

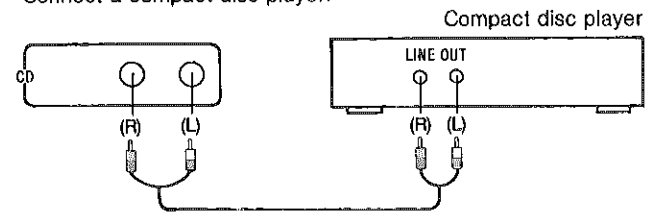
3 "AUX" terminals

Connect a video disc player (Only the audio is connectable), etc.



4 "CD" terminals

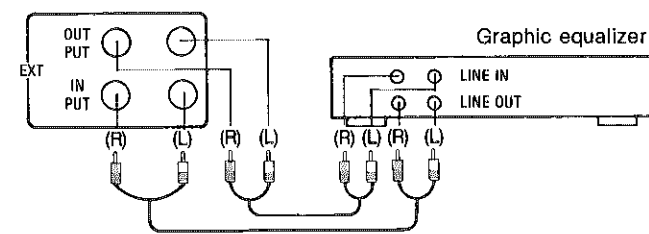
Connect a compact disc player.



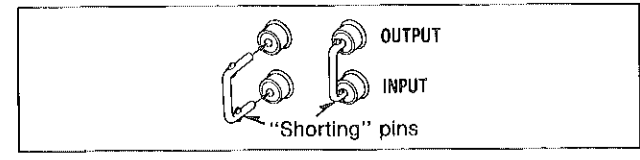
- **"CONTROL (TO CD)" terminal**
This terminal is used to connect a Technics compact disc player with the control terminal.

5 "EXT" terminals

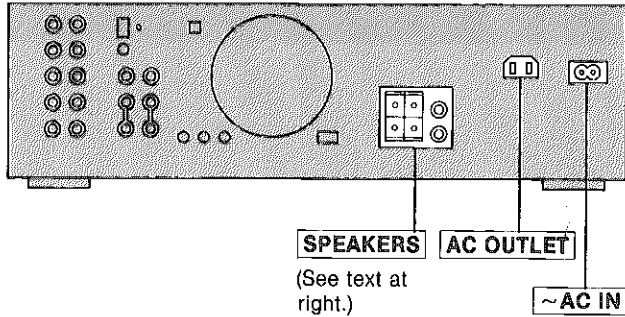
Connect a graphic equalizer.



Note:
When these terminals are not in use, be sure to insert the "shorting" pins (included).



Connections (continued)



AC outlet ("AC OUTLET")

Do not connect video equipment (such as a TV, etc.) to the AC outlet of this unit. (This outlet is intended for audio equipment.) Do not exceed the indicated power ratings when connecting to this outlet.

"SWITCHED" outlet:

Power is controlled by the power switch. Audio equipment rated up to 60 W can be connected here.

Note:

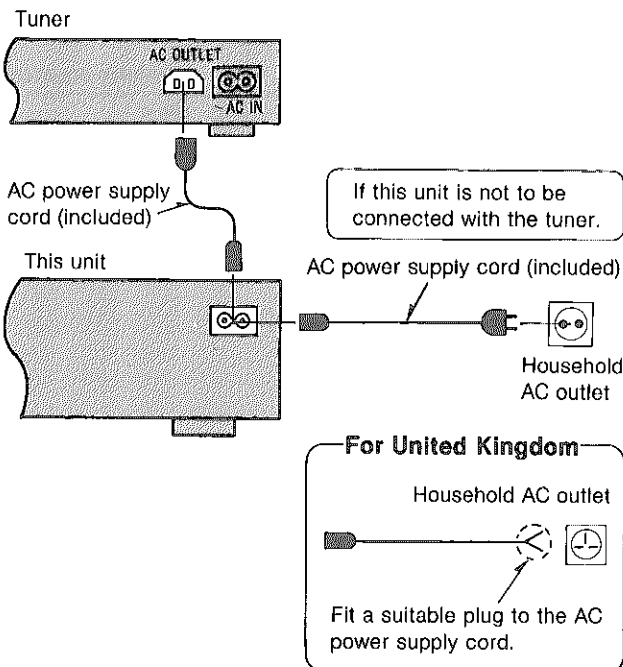
The configuration of the AC outlet differs according to area.

AC power supply cord

Connect the AC power supply cord (included) after all other cables and cords are connected.

Note:

Configuration of the AC outlet and AC power supply cord differ according to area.



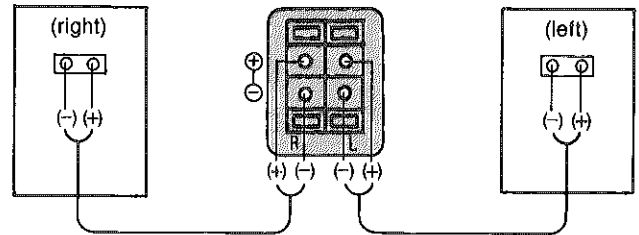
Connection of speaker systems

Two pairs of speaker systems (main, surround-sound) can be connected to the amplifier.

Speaker systems that can be connected (to any of the speaker connection terminals of the amplifier) are speaker systems with an impedance of 8 to 16 ohms.

Main speaker systems (not included)

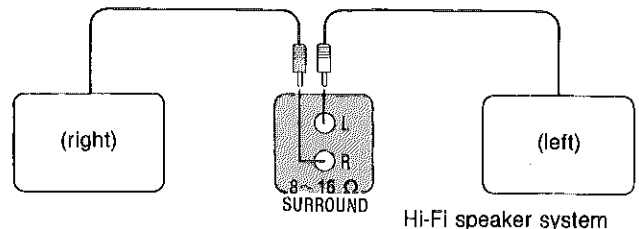
Connect to the "SPEAKERS" terminals.



Surround-sound speaker systems (not included)

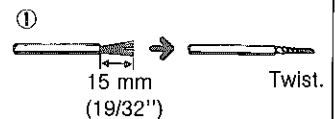
Connect to the "SURROUND" terminals.

Be sure to connect both speaker systems. If only one side is connected, no sound will be heard.

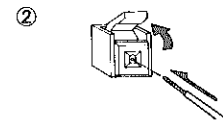


To connect cords to terminals

① Strip off the outer covering, and twist the center conductor.



② Tilt the lever back and insert the cord.



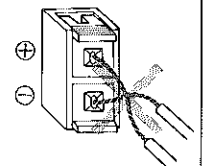
③ Close the lever and pull the cord gently to be sure that it is secure.

Note:

Be sure to only connect positive (+) cords to positive (+) terminals, and negative (-) cords to negative (-) terminals.

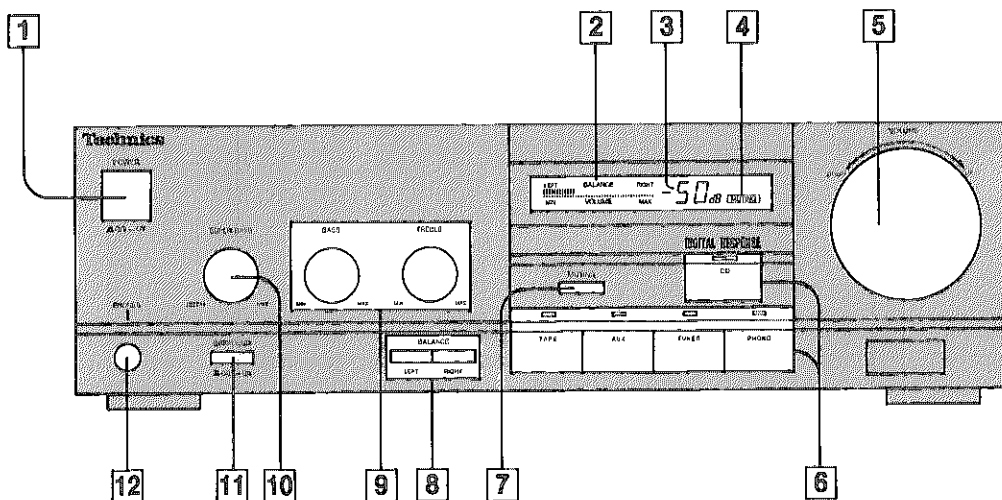
Note:

To prevent damage to circuitry, never short-circuit the plus (+) and minus (-) speaker cords.



Front Panel Controls and Functions

STEREO INTEGRATED AMPLIFIER



1 Power switch (POWER)

2 Volume level/balance indicator (BALANCE/VOLUME)

This indicator usually shows the volume level; when the balance control is pressed, however, the position of balance level is displayed for five seconds, after which the display returns again to indication of the volume level.

3 Volume-level indicator

The volume level is indicated in decibels (dB). The dB indication numerically shows the attenuation characteristic of the amplifier; the indication ranges from “- - dB” (minimum) to “0 dB” (maximum). The volume level becomes greater as the indication proceeds from -76 to -74 to -72 dB.

4 Muting Indicator (MUTING)

This indicator will illuminate when the audio muting switch is pressed.

5 Volume control (VOLUME)

6 Input selectors/indicators

These selectors are used to select the sound source to be heard, such as a disc, radio broadcast, etc. The corresponding indicator illuminates during operation to indicate the selected sound source.

7 Audio muting switch (MUTING)

This switch is used to temporarily reduce the volume level (approx. 1/10).

8 Balance controls (BALANCE)

These buttons are used to adjust the left/right volume balance. If both (“LEFT” and “RIGHT”) balance controls are pressed at the same time, the balance will be set to the center automatically.

9 Tone controls (BASS/TREBLE)

The bass control is used to adjust the low-frequency sound range, and the treble control is used to adjust the high-frequency sound range.

10 Super bass control (SUPER BASS)

This control is used to adjust the ultra-low frequency sound range.

11 Surround-sound switch (SURROUND)

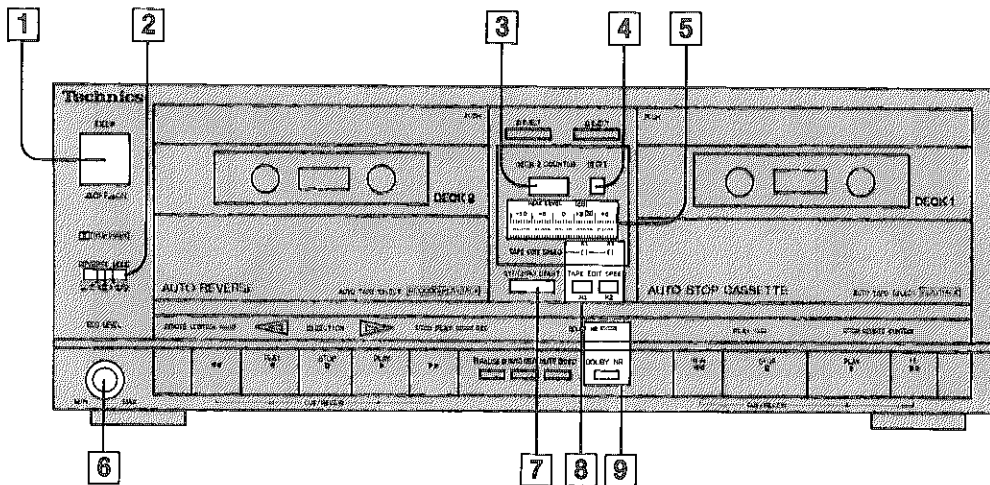
This switch is used to switch the surround sound effect ON and OFF.

12 Headphones jack (PHONES)

Front Panel Controls and Functions

(continued)

STEREO DOUBLE CASSETTE DECK



Controls common to both tape decks

1 DECK ON/OFF switch (DECK)

2 Reverse-mode selector (REVERSE MODE)

This selector can be used for selection of the reverse mode (for either playback or recording).

3 Tape counter (DECK 2 COUNTER)

Indicates the amount of tape movement.

4 Tape counter reset button (RESET)

This button can be used to reset the tape counter indication to "000".

5 Input level meter (PEAK LEVEL)

During playback, this meter indicates the level of the recorded sound source.

During recording, it indicates the level being recorded, adjusted by the recording-level controls.

6 Recording-level control (REC LEVEL)

This control can be used to regulate the recording level of tape deck 2.

7 Synchro-start button (SYNCHRO START)

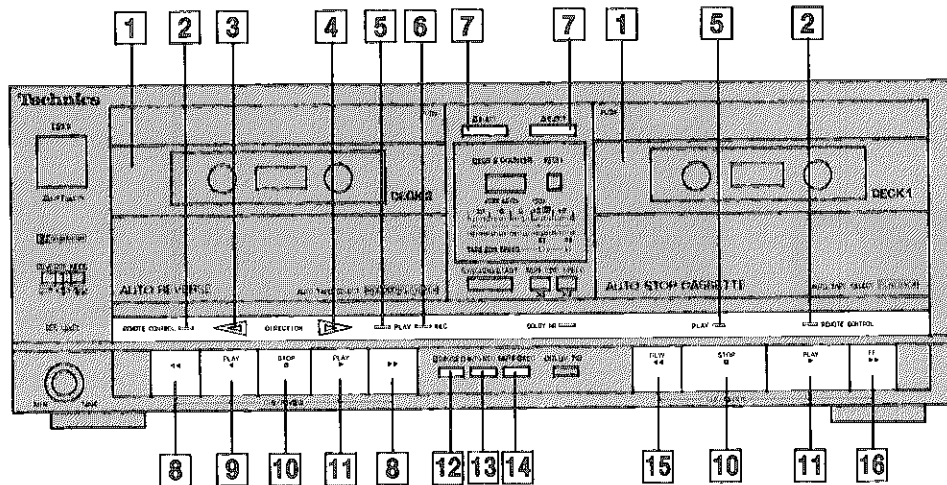
This button can be used to start a tape-to-tape recording, simultaneously starting tape deck 1 (the playback deck) and tape deck 2 (the recording deck).

8 Edit-recording tape-speed buttons/indicators (TAPE EDIT SPEED)

These buttons can be used to select the recording speed when a tape-to-tape recording is made.

9 Dolby noise-reduction button/indicator (DOLBY NR)

This button is used to reduce the "hissing" noise heard from the tape.



Controls applicable to tape deck 1 and/or 2

1 Cassette holder

2 Remote-control indicator (REMOTE CONTROL)

This indicator illuminates to indicate that this tape deck can now be controlled by the remote-control transmitter.

3 Reverse-side indicator (◀)

This indicator illuminates, during playback or recording on tape deck 2, to indicate that side "B" of the tape is being used.

4 Forward-side indicator (▶)

This indicator illuminates, during playback or recording on tape deck 2, to indicate that side "A" of the tape is being used.

5 Playback indicator (PLAY)

When this indicator illuminates steadily, it indicates that this tape deck is in the playback mode or the recording mode (for tape deck 2 only). When it flashes continually, this is an indication that tape deck 2 is in the pause mode or the recording stand-by mode.

6 Recording Indicator (REC)

This indicator illuminates to indicate that tape deck 2 is in the recording stand-by mode or is recording.

7 Eject button (▲ EJECT)

This button can be used to open the cassette holder.

8 Fast-forward/cue, rewind/review buttons (◀◀/▶▶)

These buttons are used to advance or rewind the tape. During playback these buttons are used to cue or review while listening to the contents at high speed. (Refer to page 12.)

9 Reverse-side playback button (◀/PLAY)

This button can be used to start the playback or recording (of deck 2 only) of side "B" of the cassette in this tape deck. (The tape will then begin moving in the right-to-left direction.)

10 Stop button (■/STOP)

This button can be used to stop tape movement.

11 Forward-side playback button (▶/PLAY)

This button can be used to start the playback or recording (of tape deck 2 only) of side "A" of the cassette in this tape deck. (The tape will then begin moving in the left-to-right direction.)

12 Pause button (|| PAUSE)

This button can be used to temporarily stop the tape playback or recording, on tape deck 2 only.

13 Automatic-record-muting button (⊙ AUTO REC MUTE)

This button can be used to make (during recording) a silent interval on the tape, on tape deck 2 only.

14 Record button (● REC)

This button can be used to change tape deck 2 to the recording stand-by mode.

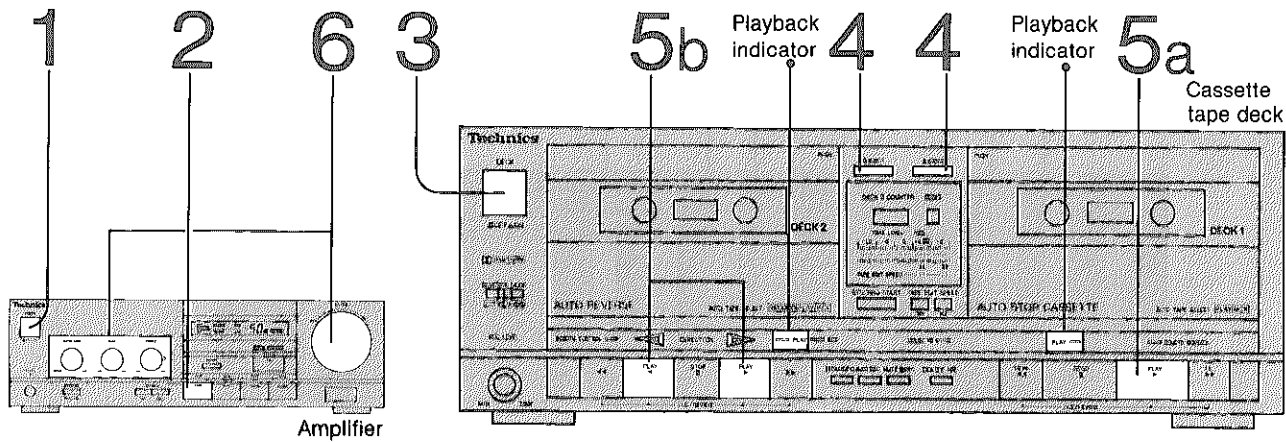
15 Rewind/review button (REW/◀◀)

This button is used to rewind the tape. During playback this button is used to review the contents at high speed. (Refer to page 12.)

16 Fast-forward/cue button (FF/▶▶)

This button is used to advance the tape. During playback this button is used to cue the contents at high speed. (Refer to page 12.)

Listening to Tapes

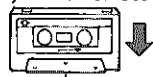


1 Switch ON the power switch of the amplifier.

2 Press the input selector on the amplifier marked "TAPE".
(The indicator will illuminate.)

3 Switch ON the DECK ON/OFF switch.

4 Press the eject button for the tape deck ("1" or "2") to be used for playback, and then insert the cassette tape.
(The part of the cassette where the tape is exposed should face downward.)



5a Press the playback button.
(The playback indicator will illuminate, and playback will begin.)

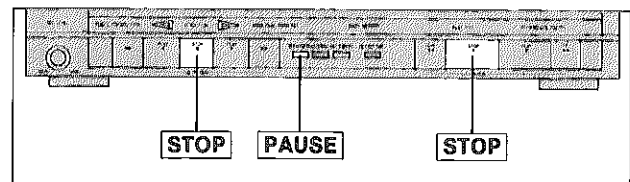
5b **tape deck 2 only**

PLAY/▶ : Plays side "A". (side facing outward)

PLAY/◀ : Plays side "B".

(The playback indicator will illuminate, and playback will begin.)

6 Adjust the volume level and the tone quality as desired.
(Refer to page 13.)



■ To temporarily stop playback (tape deck 2 only)

PAUSE Press the pause button.

(The playback indicator will begin flashing.)

To resume playback, press the playback button corresponding to the side of the tape being played back.

■ To stop playback

STOP Press the stop button.

(The playback indicator will switch OFF.)

■ Notes

- Tape deck 1 and tape deck 2 cannot be used for playback at the same time.
- Do not press the eject button while the tape is moving; to do so might cause a malfunction or damage the tape.
- While tape deck 2 is being used to make a recording, tape deck 1 can be used for fast-forwarding or rewinding a tape only.
- If the playback button of one of the decks is pressed while the other deck is in the play mode, playback of the first deck will stop.
- If noise is heard while listening to a tape, switch OFF the power of the compact disc player, if one is connected.

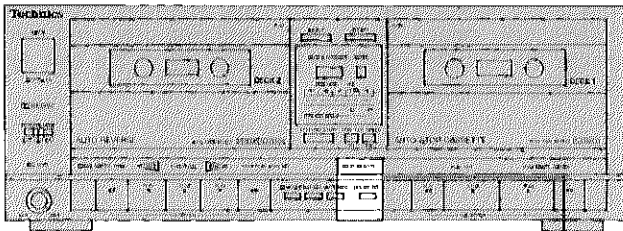
To switch the power of the entire system ON and OFF:

Use the power switch of the amplifier.

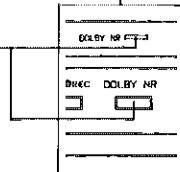
(The power for the cassette deck is supplied from the amplifier.)

Even when the deck on/off switch (of the cassette deck) is in the "OFF" position, the cassette deck is not separated from mains.

To listen to a Dolby NR recorded tape



Set the Dolby noise-reduction button to ON.
(The indicator will illuminate.)




About the Dolby noise-reduction recording/playback system

The Dolby noise-reduction system is a system designed to effectively reduce the annoying high-frequency "hissing" noise typically heard from tapes if this system is not used. During recording, the system functions to increase the level of the high-frequency part of the sound, and then, during playback, that same portion is weakened and returned to the previous level.

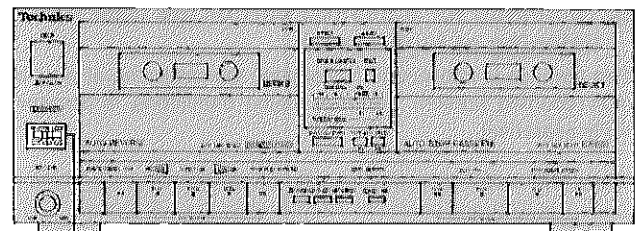
■ Dolby B-type noise-reduction system

Noise is reduced to about one-third.

Use this system when playing back tapes recorded by the Dolby noise-reduction system, such as prerecorded music tapes, etc.

Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
"DOLBY" and the double-D symbol  are trademarks of Dolby Laboratories Licensing Corporation.

Various playback functions



The reverse-mode selector can be used to select either of three different playback functions.

↔ Make this setting to playback only one side of a cassette tape.

When the playback has finished, tape movement will stop automatically.

↻ For tape deck 2

Make this setting to playback both sides of a cassette tape continuously.

This playback will continue eight times for each side (unless the stop button is pressed sooner).

(One "time" is counted when side "B" of the tape finishes playback, so if playback by this method is started from side "B", side "A" will play only seven times.)

For tape deck 1

Make this setting to playback only one side of a cassette tape continuously.

(After completion of play in the "A" side, the tape will be automatically rewound.)

This playback will continue eight times for one side (unless the stop button is pressed sooner).

∞ Make this setting to playback both sides of a tape cassette in tape deck 2 and only one side of a tape cassette in tape deck 1 continuously. (This is called "series playback".)

This method is convenient for enjoyment of a long period of uninterrupted background music.

Both sides (from side "A" to side "B") of the tape in tape deck 2 are played first, and then only one side of the tape in tape deck 1. (After completion of play of the "A" side by tape deck 1, the tape will be automatically rewound.) The playback will continue eight times for each side of tape deck 2 and one side of tape deck 1. (unless the stop button is pressed sooner.)

(One "time" is counted when side "A" of the tape in tape deck 1 finishes playback, so if playback by this method is started from tape deck 1, the tape in tape deck 2 will play only seven times. Likewise, if playback by this method is started from side "B" of the tape in tape deck 2, side "A" of the tape in tape deck 2 will be played only seven times.)

Listening to Tapes

(continued)

To locate and play a certain tune

To search for a desired part of the tape while listening at high speed

This function is convenient for locating the beginning of a tune (non-recorded portion), because sound monitoring is possible while searching.

Press and hold the rewind/review, or fast-forward/cue button (deck 1 or 2) during playback. Normal playback will resume from the point where the button is released.

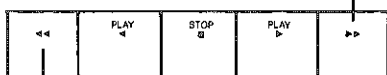
Automatic-tape-select function

This unit is equipped with the automatic-tape-select feature; it automatically detects the type of tape being used, and then makes the suitable adjustments accordingly of the bias for recording and equalization.

During playback of side "A" (forward) (▶):

For tape deck 2

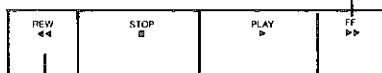
Press to cue (or fast-forward).



Press to review (or rewind).

For tape deck 1

Press to cue (or fast-forward).

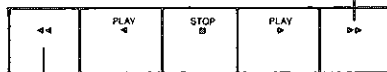


Press to review (or rewind).

During playback of side "B" (reverse) (◀): (deck 2 only)

For tape deck 2

Press to review (or rewind).



Press to cue (or fast-forward).

Note:

The cue/review function causes sounds to become high pitched. During this function, be sure to decrease the amplifier's volume level to prevent damage to the speaker system's tweeters.

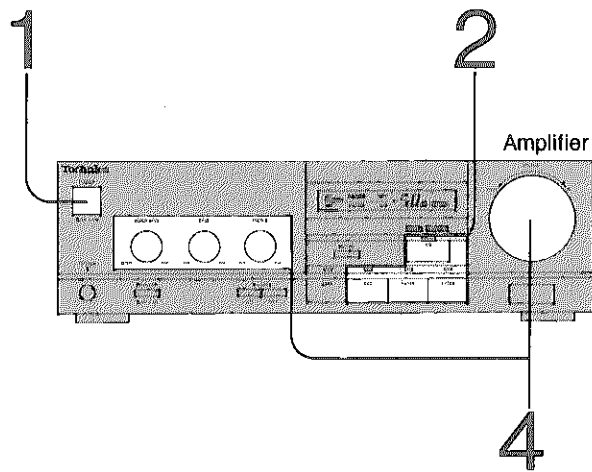
To fast-forward or rewind the tape

While in the stop mode, press the appropriate button (as shown in the figures above).

Note:

Cassette tapes in tape deck 1 and tape deck 2 can be advanced or rewound at the same time.

Listening to Other Sources



1 Switch ON the power switch.

2 Select the sound source.

CD: Press to listen to compact discs.

AUX: Press to listen to sound from equipment connected to the "AUX" terminals.

TUNER: Press to listen to radio broadcasts.

When this unit is used in combination with the Technics tuner model ST-X301L, note that there is an automatic change to "TUNER" when the tuning control, a preset channel button or a band selectors of the tuner is pressed.

PHONO: Press to listen to phono discs.

3 Begin the operation of that unit.

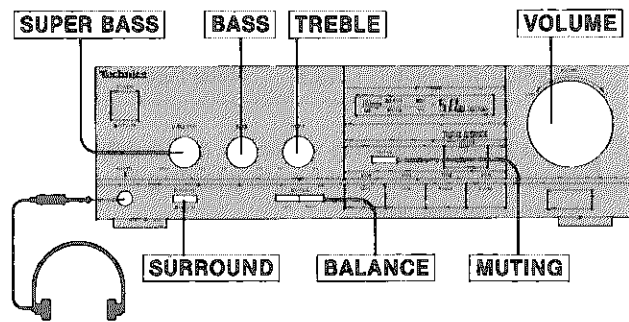
(Refer to the operating instructions of each component.)

4 Adjust the volume level and the tone quality as desired. (See below.)

Notes:

- To prevent noise while listening to an FM or AM broadcast, switch OFF the compact disc player and turntable.
- It is recommended that the power to the compact disc player be switched OFF when it is not being used.

Standard Operations



Headphones (not included) (See below.)

SUPER BASS

Adjust the ultra-low frequency sound to the desired tone quality.

MUTING

Press this button to temporarily reduce the volume level.

(The muting indicator will illuminate.)

This is convenient to use if a visitor comes or the telephone rings. Press once again to return to the previous volume level.

BALANCE

Adjust the balance of the left/right volume.

The sound volume of right/left speakers will be displayed on the volume level/balance indicator for five seconds.

TREBLE

Adjust the high-frequency sound to the desired tone quality.

BASS

Adjust the low-frequency sound to the desired tone quality.

During recording:

Operating on other controls or switches than the surround-sound switch has no influence upon recording.

When listening to music

VOLUME

Adjust the volume level.

SURROUND

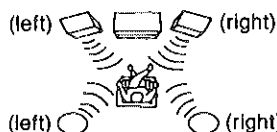
Set to the "ON" position to activate the surround-sound effect.

Note:

The surround-sound effect is only effective for phono discs, compact discs, tapes that are recorded in stereo, and for FM and other broadcasts that are broadcast in stereo. It has no effect for monaural AM broadcasts, or for any other monaural source.

When listening to a sound source recorded by the surround-sound method, set this switch to the "OFF" position.

The effect by using surround-sound speaker systems



An effect similar to the dynamic sound of a concert hall

When listening through headphones

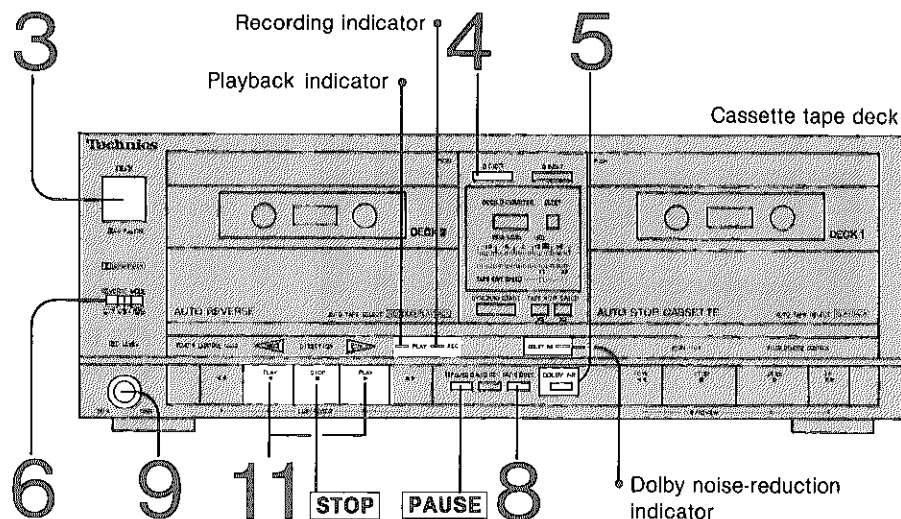
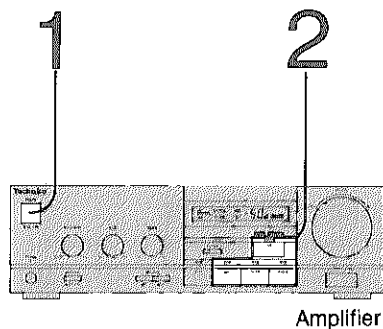
- Reduce the volume level before connecting headphones.
- Sound from the speakers will not be heard when the headphones are connected to the headphones jack.
- Avoid listening for a long time at a volume level so high that it irritates the ears.

After listening is finished

Use the volume control to reduce the volume level and switch OFF the power of each unit.

Recording (tape deck 2 only)

Your attention is drawn to the fact that recording pre-recorded tapes or discs on other published or broadcast material may infringe copyright laws.



1 Switch ON the power switch of the amplifier.

2 Select the program source to be recorded.

3 Switch ON the DECK ON/OFF switch.

4 Press the eject button, and then insert the cassette to be used for recording. (The part of the cassette where the tape is exposed should face downward.)

5 To record with the Dolby noise-reduction system, press the Dolby noise-reduction button.

(The indicator will illuminate.)

6 Select the side(s) of the tape (one side only or both sides) upon which the recording is to be made.

- Make this setting to record on one side only.**
At this setting, the recording will stop at the end of one side of the tape.
- Make this setting to record on both sides.**
The recording will be made on side "B" after recording on side "A"; the tape will stop at the end of side "B".

7 The sound source to be recorded should be played before the recording is started in order to adjust the recording level.

8 Press the record button.

(The recording indicator will illuminate and the playback indicator will flash continuously; the unit will be in the recording stand-by mode.)

9 Adjust the recording level.

Adjust so that the indication of the input level meter occasionally is as high as shown below.

Normal, CrO ₂ tape	+3	Metal tape	+6
-------------------------------	----	------------	----

10 Stop the play being done so as to adjust the recording level, and begin playing the sound source once again.

If the compact disc player or turntable being used has the Technics synchro-recording feature, the recording will begin precisely when the play begins. (Refer to "Synchro-recording" on page 16.)

11 Press the playback button.

- If only one side of the tape is to be recorded, press the playback button that corresponds to that side.
 - To record on both sides of the tape, press the "A"-side playback button (▶).
- (The playback indicator will illuminate steadily, and the recording will begin.)

Note:

Switch OFF (by pressing the corresponding edit-recording tape-speed button) whichever edit-recording tape-speed indicator that is illuminated.

To temporarily stop recording

PAUSE Press the pause button.

(The playback indicator will begin flashing.)

To resume recording, press the playback button corresponding to the side of the tape being recorded upon.

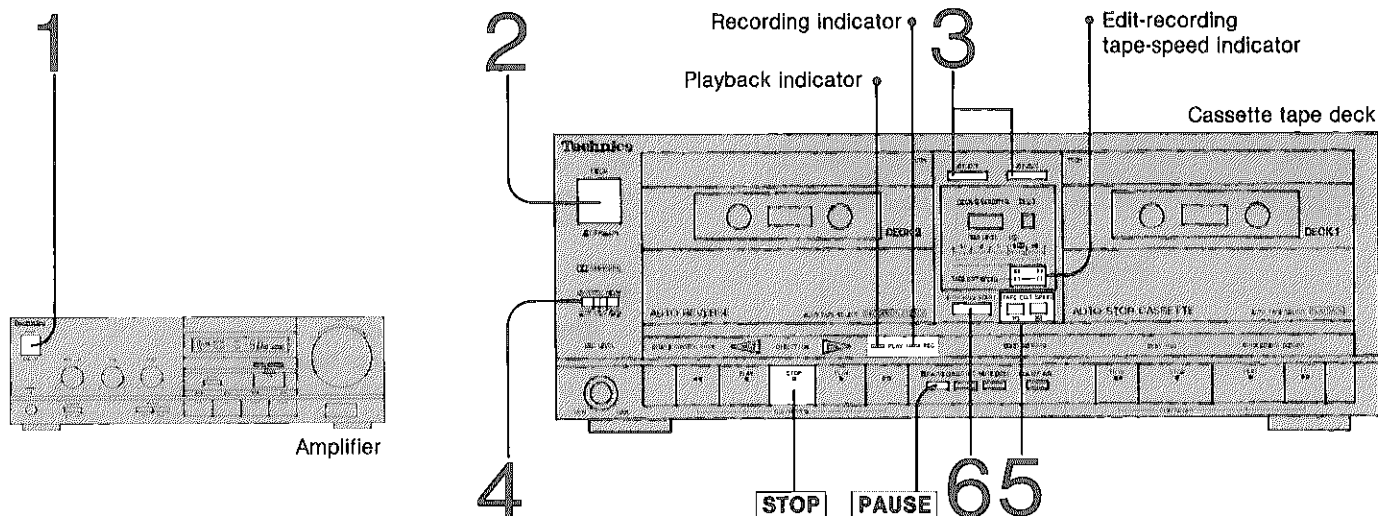
To stop recording

STOP Press the stop button.

Note:

Do not switch to another sound source by using an input selector on the amplifier during recording, because to do so will cause the recorded sound to be interrupted.

Edit-Recording



1 Switch ON the power switch of the amplifier.

2 Switch ON the DECK ON/OFF switch.

3 Insert the cassette to be used for recording into tape deck 2, and then insert the cassette to be played back (as the source of the recording) into tape deck 1.

4 Select the side(s) of the tape (one side only or both sides) upon which the recording is to be made.

☐ Make this setting to record on one side only.

At this setting, the recording will stop at the end of one side of the tape.

↔ Make this setting to record on both sides.

The recording will be made on side "B" after recording on side "A"; the tape will stop at the end of side "B". (When the playback in the "A" side by tape deck 1 has finished, tape movement in tape deck 1 will stop and tape deck 2 will change to the recording stand-by mode.)

5 Select the speed at which the recording will be made.

[An edit-recording tape-speed indicator will illuminate.]

×1: For operation at the normal tape speed.

×2: For operation at the high tape speed.

6 Press the synchro-start button.
(The edit-recording will begin.)

In order to avoid an operation error, be sure to press the edit-recording tape-speed button corresponding to the edit-recording tape-speed indicator that is illuminated after the edit-recording is finished, and check to be sure that the indicator (above the button) is switched OFF.

Notes

- Edit-recordings cannot be made from tape deck 2 to tape deck 1.
- The recording level of the original (playback) tape, and the Dolby noise-reduction effect on the original tape, will be recorded to the new tape just as they were in the original recording.
- Because the Dolby noise-reduction system has no effect during edit-recording, the treble control on the amplifier should be set to a reduced setting if you want to listen to the sounds of a tape originally recorded by the Dolby noise-reduction system while making an edit-recording.
- While an edit-recording is in progress, you can enjoy some other source. Select the desired sound source by using an input selector on the amplifier, and start the performance.

■ To temporarily stop an edit-recording

PAUSE Press the pause button.

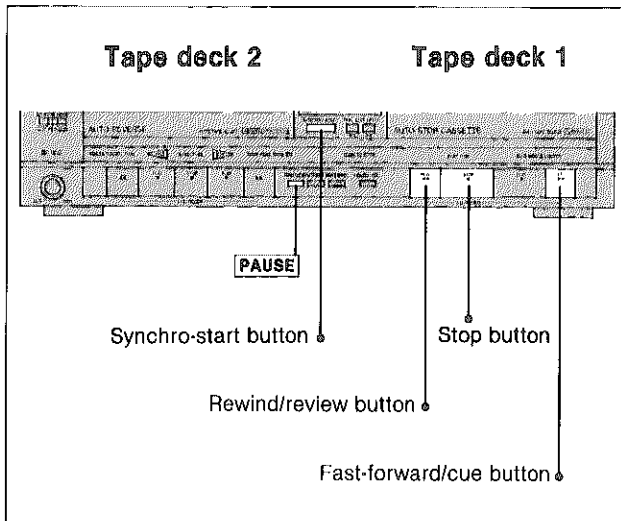
(The playback indicator will begin flashing, and playback will continue on tape deck 1.)

To resume recording, press the playback button corresponding to the side of the tape being recorded upon.

■ To stop an edit-recording

STOP Press the stop button of tape deck 2.

Edit-Recording (continued)



■ To omit unwanted material during edit-recording

PAUSE Press the pause button.

Tape deck 2 will change to the recording stand-by mode, and playback will continue on tape deck 1.

When the tape reaches a point where you want to record, press the playback button corresponding to the side of the tape being recorded.

■ To locate a certain tune while an edit-recording is being made

1. Press the stop button of tape deck 1.

(A silent interval of about 4 seconds will then be made on the tape in tape deck 2, and then tape deck 2 will change to the recording stand-by mode.)

2. Press the fast-forward/cue or rewind/review button of tape deck 1 and locate the desired tune.

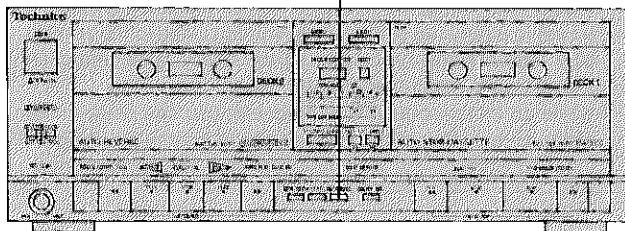
3. To resume recording, press the synchro-start button.

Convenient Features for Recording

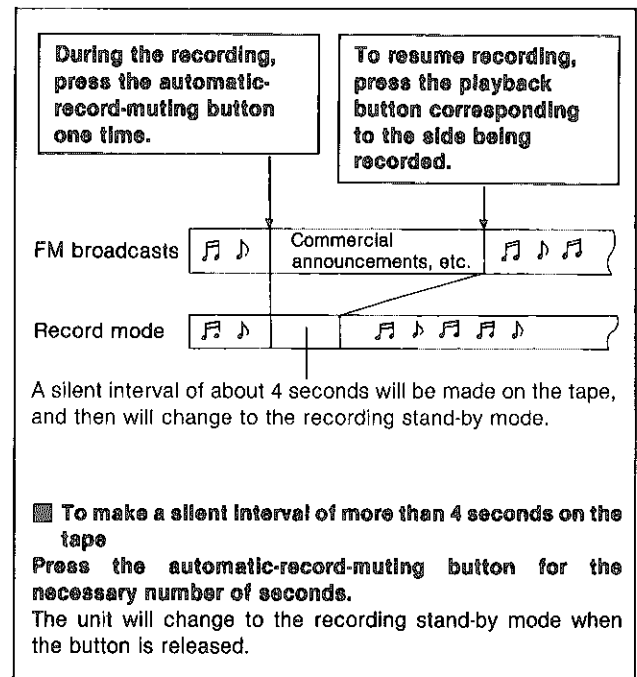
Automatic-record-muting function

By simply pressing the automatic-record-muting button while a recording is being made, a silent interval (which is necessary for locating the beginning of a tune) can be made.

Automatic-record-muting button



This feature is also convenient for omitting, during recording, unwanted material such as commercial messages, etc.



Synchro-recording

This is a convenient feature that, when this unit is in the recording stand-by mode, will start the recording automatically when the compact disc player or turntable begins playing. When the play stops, a silent interval of about 4 seconds will be made, and the tape deck will change to the recording stand-by mode.

This synchro-recording feature can only be used in combination with a Technics compact disc player or turntable that also has the synchro-recording function.

Timer Recording/Playback

If this unit is connected to the tuner (ST-X301L) with the audio timer, recording of radio broadcasts or tape playback will automatically begin at the preset time.

(See the operating instructions of the tuner for detailed information.)

Note:

Playback of one deck only can only be done by deck 2.

Timer recording (tape deck 2 only)

1. Prepare for recording.

Follow steps 1 through 9 of "Recording" on page 14. After adjusting the recording level, press the stop button.

Check the tape side ("A" or "B") to be recorded on to be sure it is correct.

2. Set the tuner to the desired recording-start time and select the recording mode (REC).

(At the set time, the power will be switched on and the input selector of the amplifier will be switched to "TUNER"; the recording will then begin.)

■ After setting the timer

Check to be sure that the power switch of the amplifier and the DECK ON/OFF switch of the cassette deck are set to the "ON" position.

Timer playback

Series playback (tape deck 2 and then tape deck 1) is also possible.

1. Rewind the tape to the position from which you want playback to begin.

(Refer to pages 10–12.)

Check the tape side ("A" or "B") to be played back to be sure it is correct.

2. Set the tuner to the desired playback-start time and select the playback mode (PLAY).

(At the set time, the power will be switched on and the input selector of the amplifier will be switched to "TAPE"; the playback will then begin.)

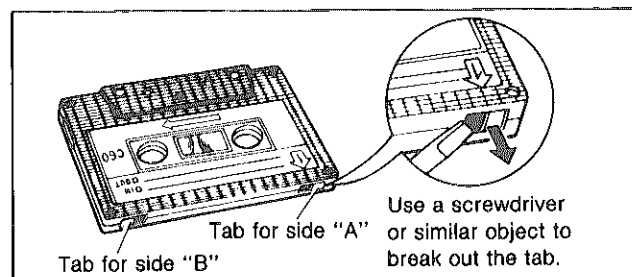
■ After setting the timer

Check to be sure that the power switch of the amplifier and the DECK ON/OFF switch of the cassette deck are set to the "ON" position.

After Recording

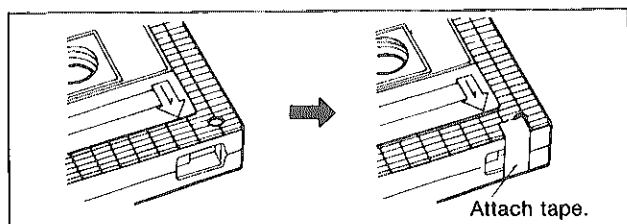
To prevent erasure of recorded sounds

Remove the erase-prevention tabs (thus preventing recording).



■ To re-record on a protected cassette

Cover the slot with adhesive tape.



To erase recorded sounds

When new recordings are made on a recorded tape, all sounds recorded on that portion of the tape are automatically erased. To erase a tape without making a new recording, follow the steps below.

1. Insert the recorded cassette into the cassette holder of tape deck 2.

2. Set the recording-level controls to "0".

3. Set the reverse-mode selector to either one-side only (↔) or both sides (↔↔).

4. Switch OFF the Dolby noise-reduction button. (The indicator will then switch OFF.)

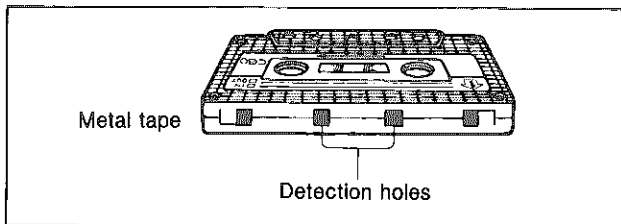
5. Press the record button.

6. Press the playback button corresponding to the side to be erased.

About Cassette Tapes

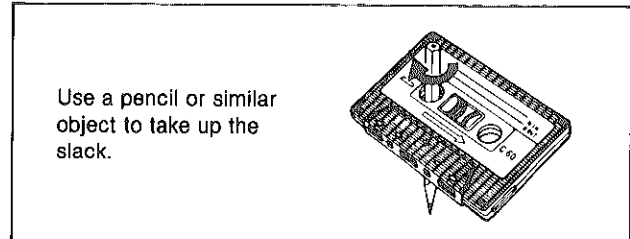
Avoid the following types of tapes

- **120-minute (or longer) tapes**
Because this tape is very thin, it might stretch during use, become tangled with rotating parts in this unit, and/or tape movement might not be stable.
- **Fe-Cr tape (TYPE III)**
The high range will be emphasized and a flat frequency response characteristic cannot be obtained.
- **Metal tape without detection holes in the cassette**
Recordings will be very distorted. (There is no playback problem, however.)



Notes about the handling of cassettes

If the tape in the cassette is loose, the tape can easily break during use or otherwise be damaged.
Never touch the tape itself, or attempt to pull it out of the cassette.



Avoid tape storage in the following places

Tape can be damaged if it is stored in places such as described below.

- Where the temperature is high (95° F/35° C or higher) or where the humidity is high (80% or higher).
- Where there is a strong magnetic field (near a speaker, on top of a TV, etc.).
- In direct sunlight.

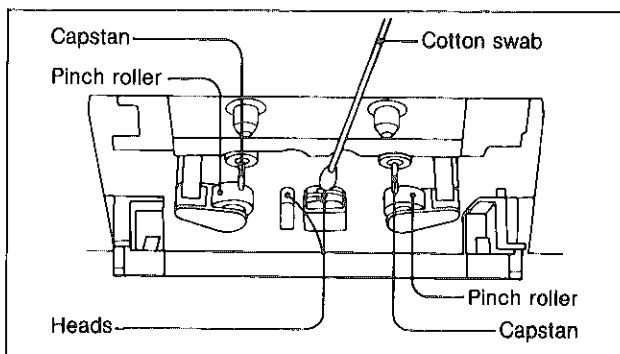
Maintenance

Head care

To assure good sound quality for recording and playback, be sure to clean the heads after approximately every 10 hours of use.

- 1) Press the power switch to switch OFF the power supply.
- 2) Press the eject button.
- 3) Clean the heads, pinch roller and the capstan shaft of each deck with a cotton swab (or with a soft, lint-free cloth) slightly moistened with alcohol.

Do not use any solution other than alcohol for head cleaning.



Head demagnetization

In order to maintain good sound quality during recording and playback, it is recommended that the heads should be demagnetized if distortion or poor sound quality persist after cleaning the heads.

If the heads become magnetized, they could create noise in recordings, loss of high-frequency response, or erasure of valuable recordings. Several types of head demagnetizers are available and may be purchased at local electronics supply stores. Follow the instructions that are supplied with the device.

- Do not bring any type of metal objects or tools such as magnetic screwdrivers in contact with the head assembly.

Maintenance of external surfaces

To clean this unit, use a soft, dry cloth.

For very dirty surfaces, dip a soft cloth in a weak soap-and-water solution and wring well. After cleaning, wipe with a soft, dry cloth. Never use alcohol, paint thinner, benzene, or a chemically treated cloth to clean this unit.

Such chemicals may damage the unit's finish.

Technical Specifications

Note: Specifications are subject to change without notice. Weight and dimensions are approximate.

STEREO INTEGRATED AMPLIFIER SU-X101 (DIN 45 500)

■ AMPLIFIER SECTION

DIN power output	2 × 40 W (8 Ω)
1 kHz THD: 1 %	
Total harmonic distortion	
rated power at 1 kHz	1 % (8 Ω)
Harmonic distortion	
half power at 1 kHz	0.03 % (8Ω)
Residual hum and noise	0.5 mV
Damping factor	30 (8 Ω)
Input sensitivity and impedance	
PHONO	3 mV/47 kΩ
TUNER, AUX, TAPE	200 mV/22 kΩ
CD	300 mV/15 kΩ
Maximum input voltage (1 kHz, RMS)	
PHONO	120 mV
S/N (rated power 8 Ω)	
PHONO	73 dB (IHF, A: 79 dB)
TUNER, CD, AUX, TAPE	84 dB (IHF, A: 83 dB)
Frequency response	
PHONO	RIAA standard curve
	±0.8 dB (30 Hz~15 kHz)
TUNER, CD, AUX, TAPE	15 Hz~50 kHz (-3 dB)
Tone controls	
BASS	50 Hz, +10 dB~-10 dB
TREBLE	20 kHz, +10 dB~-10 dB

Muting	-20 dB
Super bass	70 Hz, 0~+10 dB
Output voltage	
TAPE REC OUT	200 mV
Channel balance, AUX 250 Hz~6,300 Hz	±1.0 dB
Channel separation, AUX 1 kHz	55 dB
Headphones output level and impedance	421 mV/330 Ω
Load impedance	
MAIN	8 Ω~16 Ω
SURROUND	8 Ω~16 Ω

■ GENERAL

Power consumption	230 W
Power supply	AC 50 Hz/60 Hz, 240 V
Dimensions (W × H × D)	360 × 106.2 × 304 mm (14-3/16" × 4-3/16" × 12")
Weight	5.3 kg (11.7 lb.)

Note:

Total harmonic distortion is measured by the digital spectrum analyzer.

STEREO DOUBLE CASSETTE DECK RS-X101

■ CASSETTE DECK SECTION

Deck system	Stereo cassette deck
Track system	4-track, 2-channel
Heads	
(tape deck 2) rec/play	Permalloy head
erasing	Double-gap ferrite head
(tape deck 1) play	Permalloy head
Motors	
(tape deck 2) Capstan/reel table drive	DC servo motor
(tape deck 1) Capstan/reel table drive	DC servo motor
Recording system	AC bias
Bias frequency	80 kHz
Erasing system	AC erase
Tape speeds	4.8 cm/sec. (1-7/8 ips)
Frequency response (w/o Dolby NR)	
NORMAL	30 Hz~16 kHz
	40 Hz~15 kHz (DIN)
CrO ₂	30 Hz~16 kHz
	40 Hz~15 kHz (DIN)
METAL	30 Hz~18 kHz
	40 Hz~17 kHz (DIN)

S/N (signal level = max recording level, CrO₂ type tape)

Dolby B NR ON	66 dB (CCIR)
Dolby NR OFF	56 dB (A weighted)
Wow and flutter	0.1 % (WRMS)
Fast forward and rewind times	Approx. 110 seconds with C-60 cassette tape
Input sensitivity and impedance	
LINE	60 mV/47 kΩ
Output voltage and impedance	
LINE	400 mV/800 Ω

■ GENERAL

Power consumption	15 W
Dimensions (W × H × D)	360 × 129 × 285 mm (14-3/16" × 5-3/32" × 11-7/32")
Weight	3.5 kg (7.7 lb.)

Troubleshooting Guide

Before requesting service for this unit, check the chart below for a possible cause of the problem you are experiencing. Some simple checks or a minor adjustment on your part may eliminate the problem and restore proper operation. If you are in doubt about some of the check points, or if the remedies indicated in the chart do not solve the problem, refer to the directory of Authorized Service Centers (enclosed with this unit) to locate a convenient service center, or consult your Technics dealer for instructions.

Problem	Probable cause(s)	Suggested remedy
While using the tape deck		
Tape moves but no sound is heard.	The volume control of the amplifier is set to its minimum position.	• Adjust the volume control to the desired level.
	The input selector of the amplifier is not set to the "TAPE" position.	• Set to the "TAPE" position.
Distorted sound.	The recording level is too high.	• Select the appropriate recording level.
Poor sound quality (especially in the high treble and low bass ranges)	The correct Dolby noise-reduction button is not set.	• Set it to the correct position.
Sound is low, poor tone, intermittent sound, noise.	Heads, capstan and/or pinch roller are dirty, or tape is damaged.	• Clean the heads, capstan and/or pinch roller, or try a new cassette.
Recording is not possible.	The recording level control is at the "0" position.	• Select the appropriate recording level.
	One of the edit-recording tape-speed indicators is illuminated.	• Switch OFF (by pressing the corresponding edit-recording tape-speed button) whichever edit-recording tape-speed indicator that is illuminated.

Problems noted at all times		
No sound is heard when the power is switched ON.	The power cord plug is not completely inserted.	• Confirm that the power cord plug is connected completely.
	Connections are incomplete or incorrect to the speaker systems, etc.	• Check to be sure that all connection wires are correctly connected.
	The incorrect input selector has been pressed.	• Check to be sure that the correct selector is pressed.
When listening to stereo sound, the sound lacks depth (i.e. thin bass, tinny sound).	One of the speakers is connected out of phase [(+)→(-), (-)→(+)].	• Reconnect the speakers maintaining proper polarity is correct [i.e., (+)→(+), (-)→(-)].
When listening to stereo sound, the left and right sounds are reversed.	The left and right speaker connections, source connections, or graphic equalizer connections are reversed.	• Check all connections and correct them if necessary.
A low-pitched noise ("hum" or "buzz") is heard.	The power cord or a fluorescent light, etc., is near the connection wires.	• Try separating this unit as far as possible from the electric appliance.
Sound is not heard from one of the speaker systems.	The speaker wires are disconnected.	• Check and correct the connections of the speaker wires.
	The balance control is set too far to one side.	• Set so that sounds are heard at the center, between the speaker systems.
Sound stops during a performance, or no sound is heard when the power is switched ON.	The protection circuitry has functioned because the positive and negative speaker connection wires are "shorted" or speaker systems with an impedance less than the indicated rated impedance of the amplifier are used.	• Switch OFF the power, and, after determining and correcting the cause, switch ON the power once again. • Use speaker systems of the proper impedance rating.

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