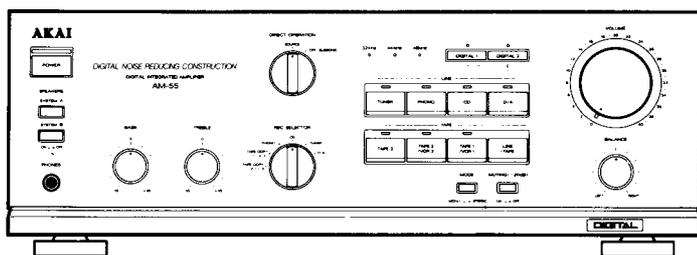


AKAI

AM-55

DIGITAL INTEGRATED AMPLIFIER

OPERATOR'S MANUAL (E)



To ensure optimum performance and listening enjoyment, please read this operator's manual thoroughly.

English	Page	1—20
Français	Page	21—40
Nederlands	Pagina	41—60
Español	Página	61—80

Akai—Creative At Heart.

Precautions and table of contents

2

WARNING

To prevent fire or shock hazard, do not expose this appliance to rain or moisture.

1-En

Power requirements

Power requirements for electrical equipment differ from area to area. Please ensure that your machine meets the power requirements in your area.

If in doubt, consult a qualified electrician.

220V, 50Hz for Europe except UK

240V, 50Hz for UK and Australia

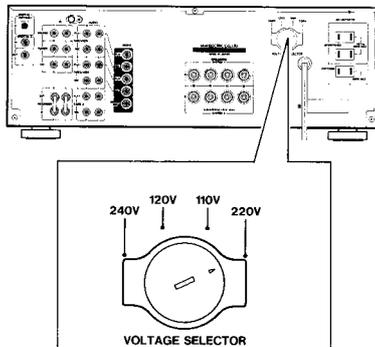
110V/120V/220V/240V, 50Hz/60Hz convertible for other countries.

Voltage conversion (Not on all models)

Models for Europe, UK and Australia are not equipped with this facility. Each unit is preset at the factory according to its destination, but some units can be adjusted to 110V, 120V, 220V or 240V as required.

If your unit's voltage can be converted:

Before connecting the power cord, turn the VOLTAGE SELECTOR located on the rear panel with a screwdriver until the correct voltage is indicated.



2-En

What you should know to protect yourself

- Never touch the plug with wet hands.
- Always pull out by the plug and never the cord.
- Only let a qualified professional repair or reassemble the amplifier. An inexperienced person might touch the internal parts and receive a serious electric shock.
- Never put anything, especially metal, into the amplifier.

Protect the amplifier too

- Use only a household AC power source. Never use a DC power source.
- If water is spilled on the amplifier, disconnect it and call your dealer.
- Make sure that the amplifier is well ventilated and away from direct sunlight.
- To avoid damage to the internal circuits and the external surface, keep it away from heat (stoves, etc.).
- Avoid using spray type insecticide near the amplifier as this may damage the finish or cause sudden ignition of the insecticide.
- To avoid damaging the finish, never use paint thinner or other similar chemicals to clean the amplifier.
- Place the amplifier on a flat and solid surface.
- If you do not plan to use the amplifier for a long period of time, disconnect the power cord.

Table of contents

Precautions and table of contents	2-3
Basic connections	4-5
Tape deck or video equipment connections	6-7
Digital equipment connections	8
Controls	9
Source playback	10-11
Basic operation	10
How to set the input select buttons	11
Operation details	12-13
Audio mute	12
Direct operation switch	12
Bass and treble tone control	12
Playback mode selection	13
Balance adjustment	13
On the speaker protection system	13
Recording	14-15
Basic operation	14
How to set the REC SELECTOR switch and input select buttons for recording	15
Sound insert function	16
Expanding your Hi-Fi system	17
Troubleshooting	18-19
Specifications	20
Features	20

Basic connections

4

Before connecting

- Turn off all the components before connecting.
- Connect the power cord last.
- Make sure that you connect the white PIN-plug to the left (white) jack and the red PIN-plug to the right (red) jack. The orange jacks are for digital input or output connections. The yellow jacks are for video signal input or output connections.
- Connect everything securely. Loose connections can lead to distortion.
- To prevent damage to the cords, connect and disconnect by holding the plug and not the cord.
- Make sure that the power cords and connection cords do not get tangled with each other. This can lead to distortion.
- If your turntable is equipped with an earth wire, connect it securely to the amplifier's \perp terminal.
- Do not remove the short pins from the PROCESSOR IN and OUT jacks when not in use.

On the AC OUTLETS (Voltage convertible models only)

For connection of audio equipment power cords (tuner, CD player, cassette deck, etc.).

The maximum connected power consumption is 200 Watts. Do not exceed the maximum power consumption indicated on the rear panel of the amplifier.

The power to the SWITCHED outlets is turned on and off by the amplifier's POWER button.

The power to the UNSWITCHED outlet is supplied when the power cord is connected to the household AC outlet.

Check the power consumption of the component you wish to connect before connecting it. Refer to the rear panel of the component or the specifications in the operator's manual.

IMPORTANT!

The illustrated power plugs and cords are intended for general reference. The power plug and cord used in your country may differ from the illustrations. (Example; U.K., Australia, U.S.A., Europe etc.)

25-E

Speaker system connection

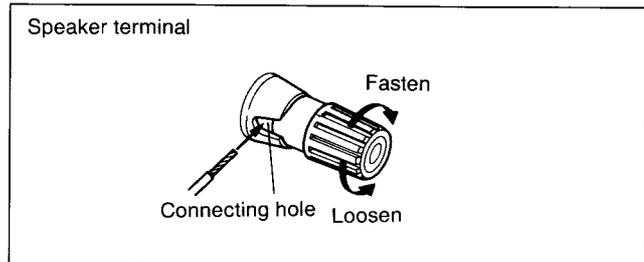
Before connecting

- Check the impedance of your speaker system.
When using one pair of speaker systems
Connect speakers with an impedance of 4 to 16 ohms.
When using two pairs of speaker systems at the same time
Connect speakers with an impedance of 8 to 16 ohms.
- The amplifier's red speaker terminals are the \oplus (positive) terminals and the black terminals are the \ominus (negative) terminals.
- The \oplus side of the speaker cable is marked to make it distinguishable from the \ominus side of the cable. Connect this marked side to the red \oplus terminal and the unmarked side to the black \ominus terminal.
- Prepare the speaker cords for connection by stripping off approximately 1 cm or less (no more as this could cause a short circuit) of the outer insulation.

How to connect

The SYSTEM A terminals correspond to the SYSTEM A switch and the SYSTEM B terminals correspond to the SYSTEM B switch.

- 1 Twist the wires together tightly.
- 2 Turn the terminal cap counter-clockwise to loosen it. The speaker terminal caps cannot be fully removed from the base.
- 3 Insert the wire into the connection hole fully and turn the terminal clockwise to securely connect it.



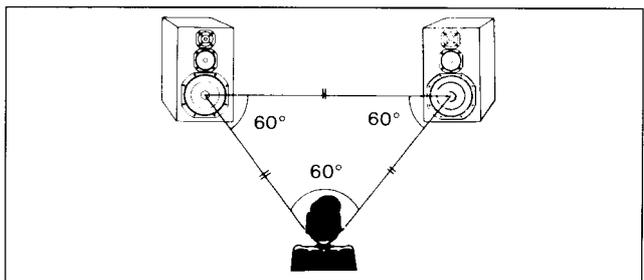
To prevent fire or damage, only connect speakers of 4 to 16 OHM or 8 to 16 OHM impedance to this unit.

10-En

The speaker system

Speaker placement

The playback characteristics of the speaker system(s) are greatly influenced by the placement and the room in which the speakers are used. For example, if the speaker system is placed near a hard wall, the bass will sound better but the treble might seem too strong. Play back some music without using the tone controls and move the speaker system around to find the best location. However, please keep the following in mind.



Place the speaker system (left channel speaker marked "L" and right channel speaker marked "R"):

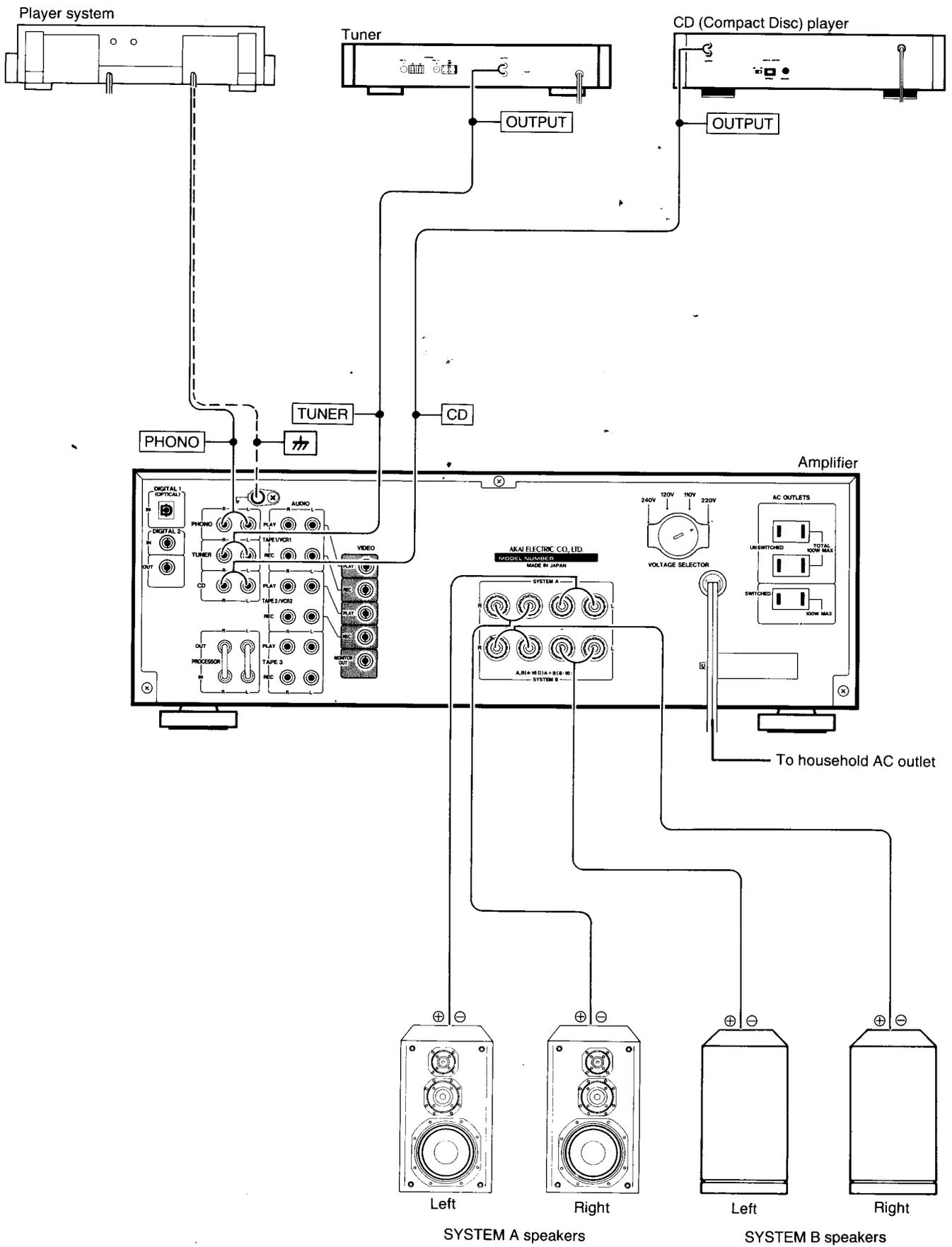
- On a flat and solid surface which does not transmit too many vibrations.
- In a place that is well ventilated and not very humid.
- Away from direct sunlight and heat sources (stoves, etc.).
- Away from your turntable.

To prevent damage to the speaker system

- Do not raise the volume excessively.
- Turn off the amplifier when connecting or disconnecting.
- Do not touch the speaker's diaphragms.

Note

If the speaker system is placed too close to the monitor TV the magnetic flux from the system will cause the TV screen to turn slightly red or pink. To avoid this the speaker system should be placed a little distance away from the TV.



Cassette deck and video cassette recorder connections

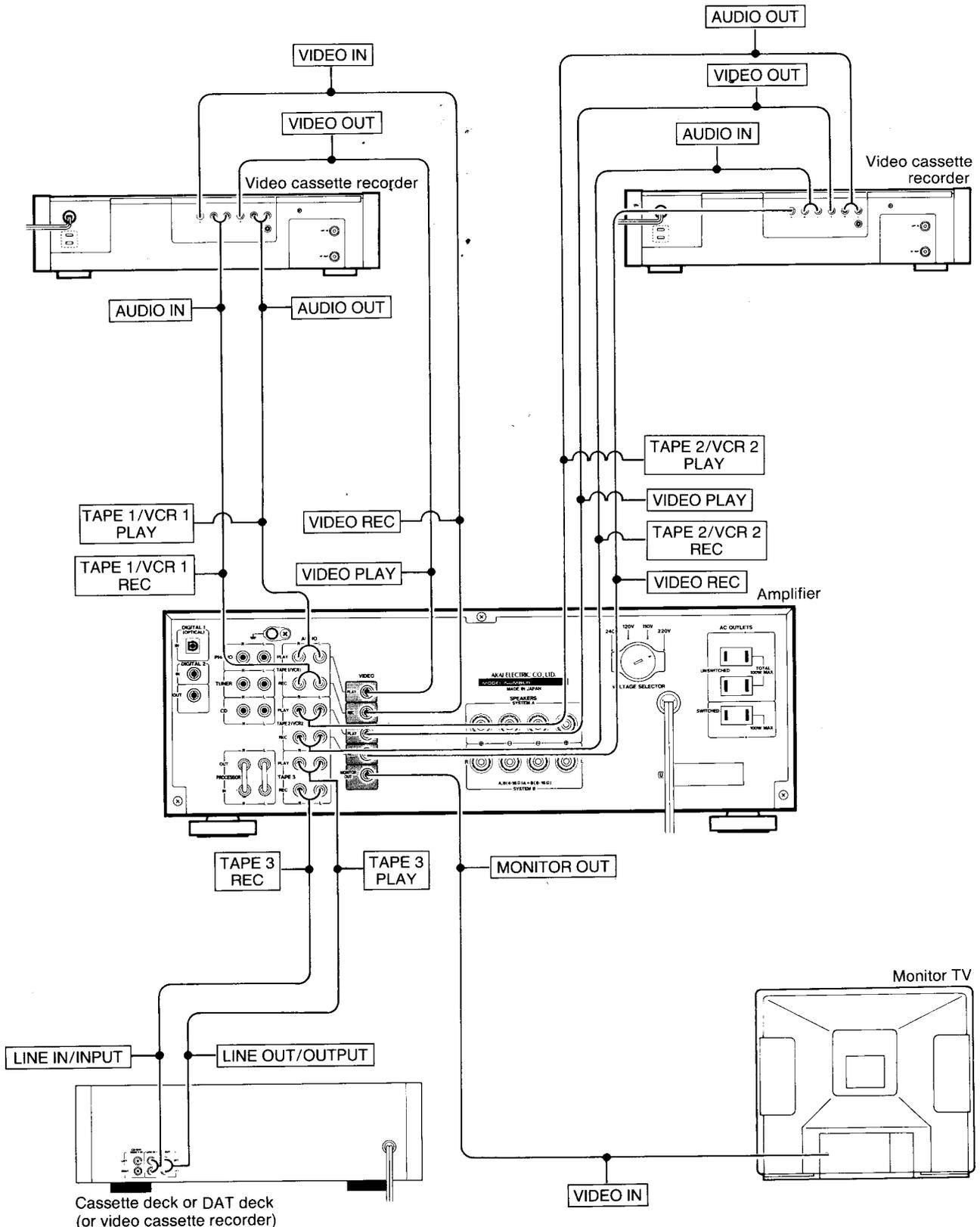
Before connecting

- Turn off all the components.
- AV (Audio and video) connection cables are recommended for the video cassette recorder and amplifier connections.
- Video connection cables can also be used for connection of a video cassette recorder or player to the video input and output jacks.
- Do not disconnect the TV antenna or CATV cable when connecting a video cassette recorder.

- If your video cassette recorder is a monaural sound type, use stereo-mono conversion cords (available in Hi-Fi stores) for connection to the amplifier.

Operation note

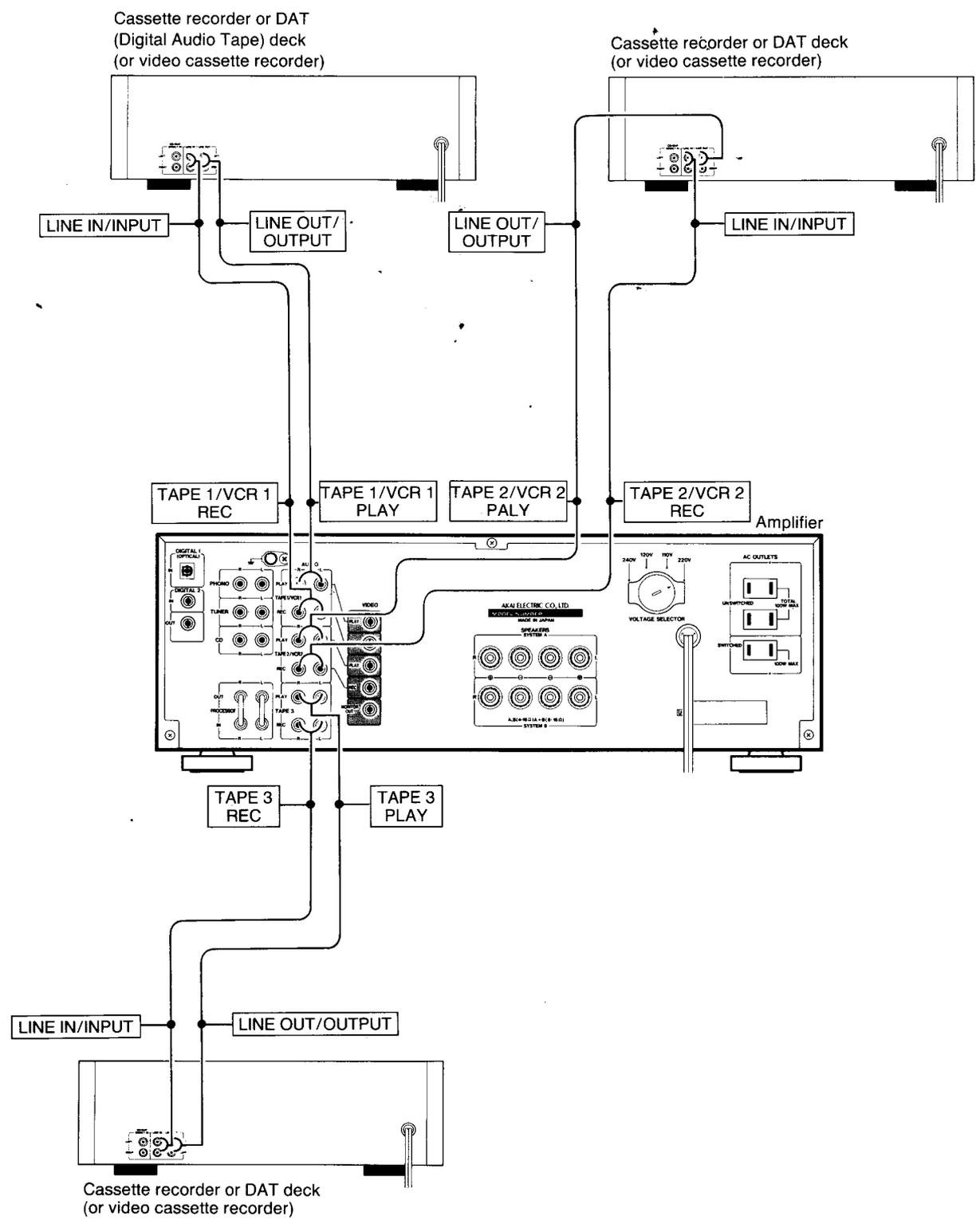
Set the input selector of your monitor TV to VIDEO or EXT. IN during audio and video playback. For normal TV viewing, return the input selector to TV.



Tape deck connections

Before connecting

- Refer to "Before connecting" on pages 4 and 6.
- Turn off all the components.

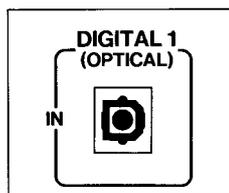


Digital equipment connections

8

Before connecting

- Turn off all the components.
- The digital audio signal is a composite signal made up of the left and right channel signals. For this reason, separate left and right INPUT and OUTPUT terminals are not necessary.
- Always replace the terminal cap of the DIGITAL 1 (OPTICAL) terminal when not in use.
- When connecting components to the DIGITAL 2 IN and OUT jacks, use video connection cords or digital connection cords available in Hi-Fi stores.
- If your video disc player is equipped with an optical output terminal, you can connect it to the DIGITAL 1 (OPTICAL) terminal of the amplifier.
- If your CD player is equipped with both an optical terminal and analog output jacks, we recommend that connection only be made to the optical terminal for best sound reproduction.

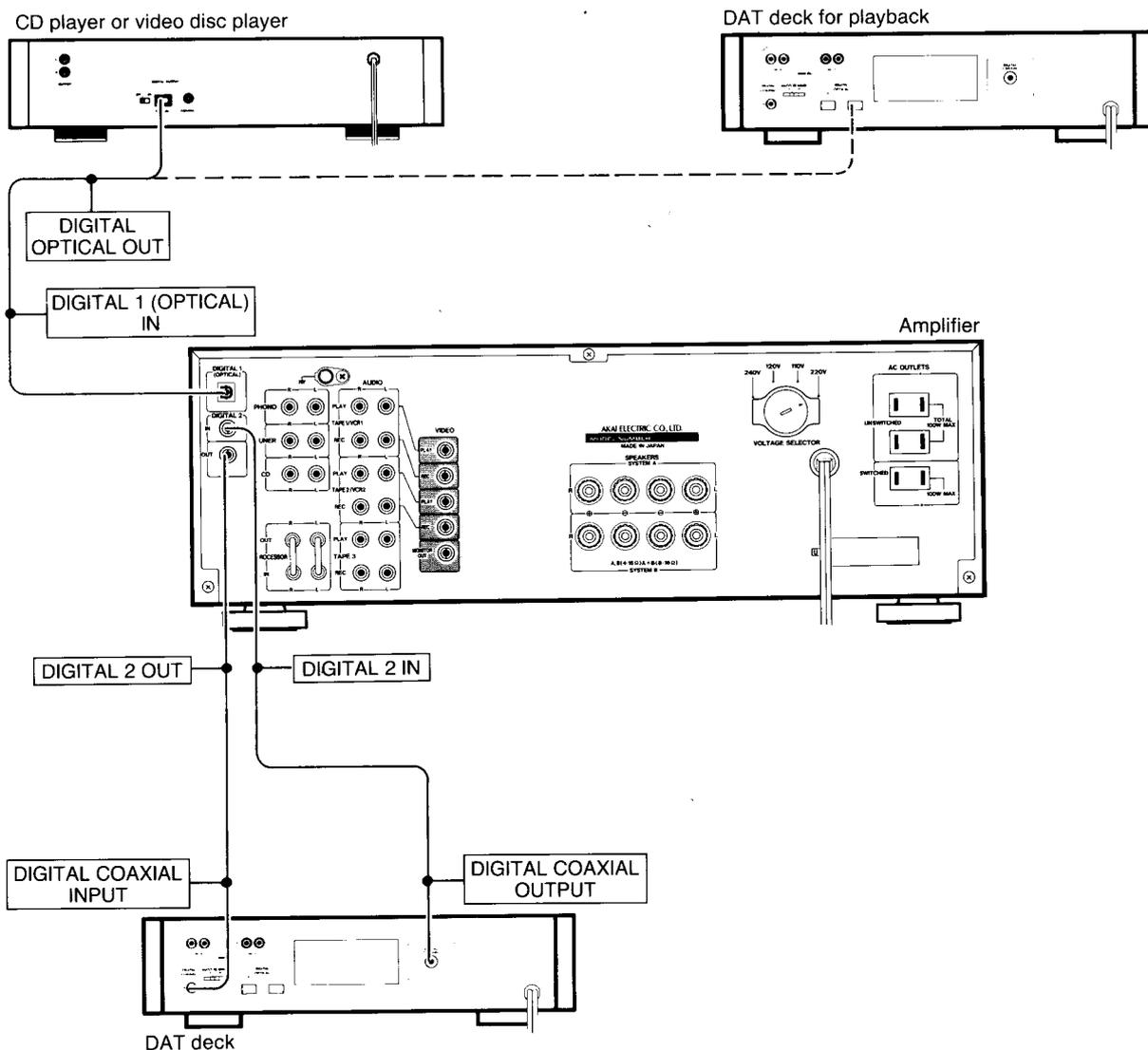


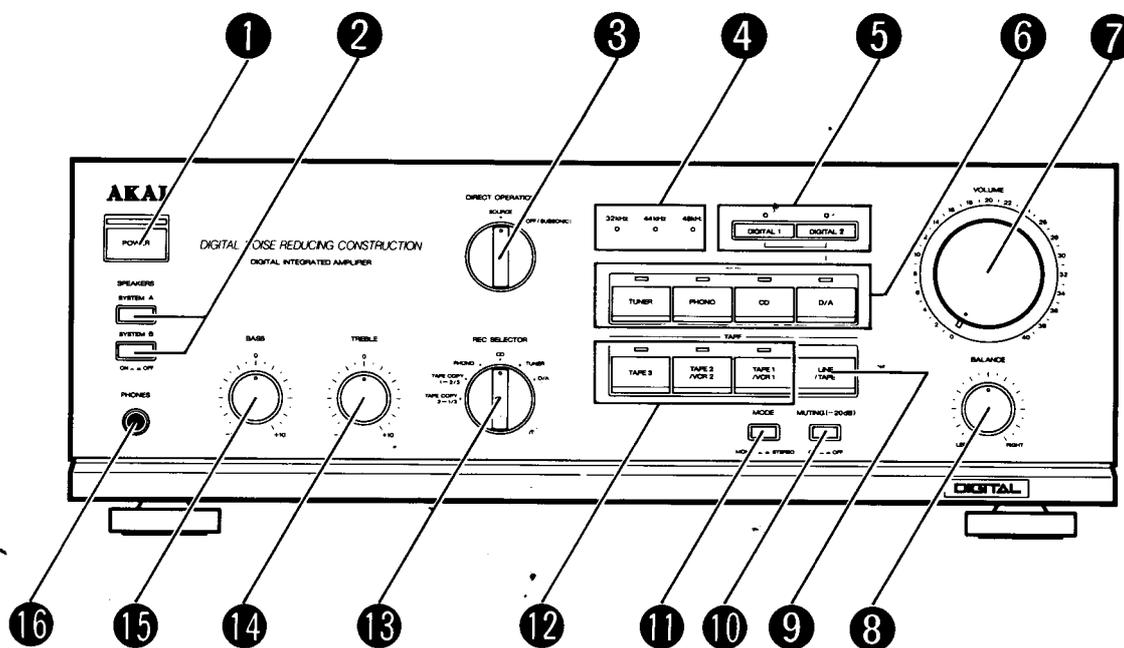
On the DIGITAL 1 (OPTICAL) input terminal

This terminal is for digital source playback. Connect a CD player, DAT deck or video disc player which has an optical output terminal.

Note

- When you are not using the DIGITAL 1 (OPTICAL) input terminal do not remove its terminal cap. The terminal cap protects the D/A (Digital to Analog) converter inside the amplifier from dust and outside light. Do not lose this terminal cap.
- Keep the inside of the optical terminal clean.
- When connecting the optical fiber cable, make sure it is firmly inserted into the terminal.





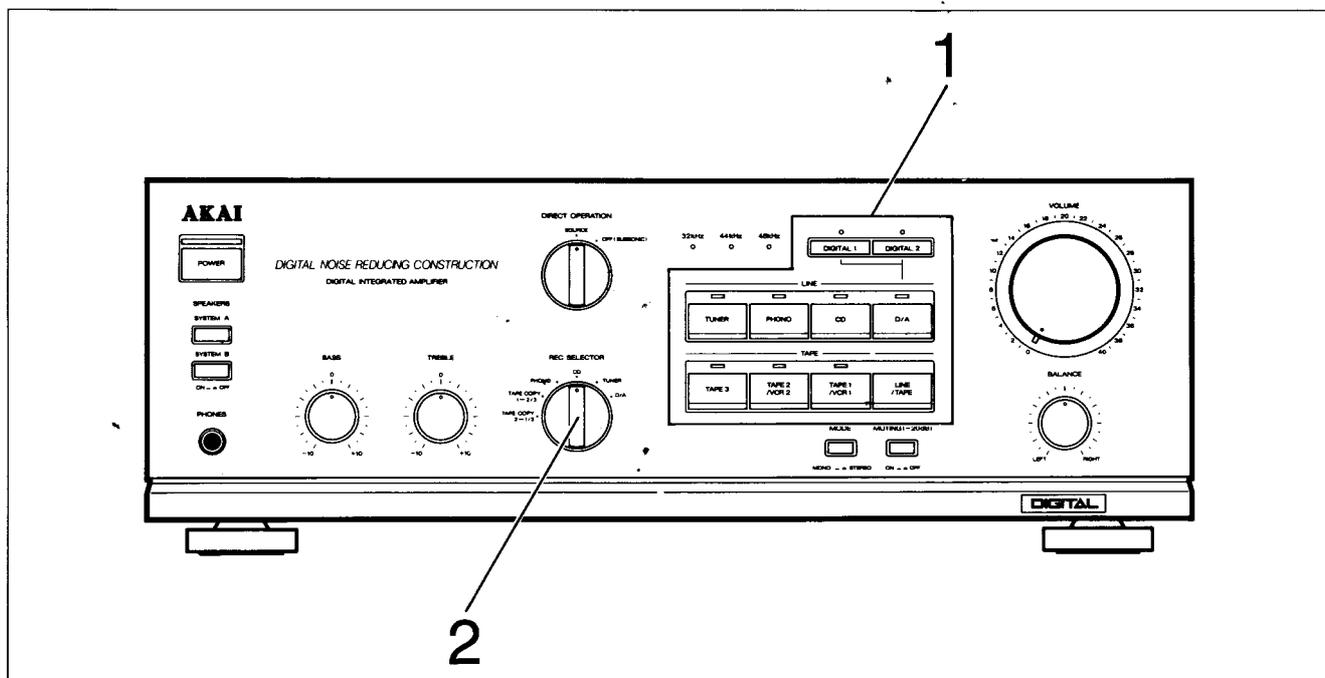
- ❶ POWER Button and Indicator**
To turn the power on and off.
- ❷ SPEAKERS SYSTEM A/B Switch (ON/OFF)**
To select the speaker system. For headphone listening, turn both switches to ON. When using two pairs of speaker systems at the same time, turn both switches to OFF.
- ❸ DIRECT OPERATION Switch (SOURCE/OFF (SUBSONIC))**
To select the playback operation mode. Set the switch to SOURCE for pure sound playback of the source. Set the switch to OFF if you wish to use the MODE switch, BASS, TREBLE or BALANCE controls to adjust the sound.
- ❹ Sampling Frequency Indicators (32kHz/44kHz/48kHz)**
Tells you the sampling frequency of the digital source being played back.
- ❺ Digital Input Select Buttons and Indicators (DIGITAL 1, DIGITAL 2)**
To select the digital input source.
- ❻ LINE Input Select Buttons and LINE Indicators (TUNER, PHONO, CD, and D/A)**
To select the playback source you wish to listen to.
- ❼ VOLUME Control**
To adjust the volume level. The 40 position is the maximum volume output of the amplifier.
- ❽ BALANCE Control (LEFT/RIGHT)**
To adjust the left and right channel balance. Normally set this control to its center click position.
- ❾ LINE/TAPE Select Button**
To turn the tape select button on and off.
- ❿ MUTING (-20dB) Switch (ON/OFF)**
To reduce the volume instantly during playback without using the VOLUME control.
- ⓫ MODE Switch (MONO/STEREO)**
To select between the stereo and monaural playback mode.
- ⓬ TAPE Select Buttons and TAPE Indicators (TAPE 1/VCR 1, TAPE 2/VCR 2 and TAPE 3)**
To select the cassette deck, DAT deck or video cassette recorder being used for playback.
- ⓭ REC SELECTOR Switch (TAPE COPY 2 → 1/3, TAPE COPY 1 → 2/3, PHONO, CD, TUNER and D/A)**
To select the playback source for recording.
- ⓮ TREBLE Tone Control**
To adjust the high note (treble) level. When set to 0, the control is ineffective.
- ⓯ BASS Tone Control**
To adjust the low note (bass) level. When set to 0, the control is ineffective.
- ⓶ PHONES Jack**
For headphone listening. Connect the headphone plug to the jack.

Source playback

10

Before beginning

- Set the VOLUME control to 0.
 - Set the MUTING switch to .
 - Set the MODE switch to .
 - Set the REC SELECTOR switch to CD (or to a position where a component is not connected).
- Turn on all the components. After the amplifier's power has been turned on, the amplifier cannot be used for a few seconds while the protection circuit is engaged.
 - To view video playback, set the TV to the video monitor mode.



Operation

- 1 Depress the SYSTEM A or B switch accordingly. If your speaker system is connected to the A speaker terminals, set the SYSTEM A switch to .
- 2 Set the DIRECT OPERATION switch to SOURCE or OFF (SUBSONIC). The SOURCE position is recommended for pure sound quality playback.
- 3 Select a playback source with the LINE input select buttons, digital input select buttons or tape select buttons as follows:

For broadcast reception	Press the TUNER button
For record playback	Press the PHONO button
For compact disc playback	Press the CD button
For digital signal source playback	Press the D/A button first, then press the DIGITAL 1 or 2 button
For DAT, audio cassette tape or video cassette tape playback	Press the LINE/TAPE button on, then press the tape select button of the source you wish to play back

- 4 Play back the selected source.
- 5 Adjust the playback volume with the VOLUME control.
- 6 **After playback is finished**
Turn the volume down first, then turn the power off by depressing the POWER button.

How to set the input select buttons

1 Digital source playback

The following connection is for digital playback of CD or DAT cassettes. The amplifier's DIGITAL 1 terminal or DIGITAL 2 jacks must be used for connection.

- 1 Set the LINE/TAPE button to off.
The TAPE indicator of the tape select button that was last depressed will go off.
- 2 Press the D/A button.
The LINE indicator will light up.
- 3 Press the DIGITAL 1 or 2 button to select the digital source as follows:

For a component connected to the DIGITAL 1 terminal	Press the DIGITAL 1 button
For a component connected to the DIGITAL 2 jack	Press the DIGITAL 2 button

- 4 Start digital source playback.

During digital source playback

The sampling frequency indicators light up during digital source playback to indicate the source's sampling frequency.

Note

The sampling frequency signal is an important frequency necessary for analog to digital signal conversion during recording. It is also important during playback when the digital signal is re-converted to the analog signal with the D/A converter. The standard sampling frequencies are 48kHz, 44.1kHz and 32kHz.

* The 44kHz indicator will light up during 44.1kHz sampling frequency source playback.

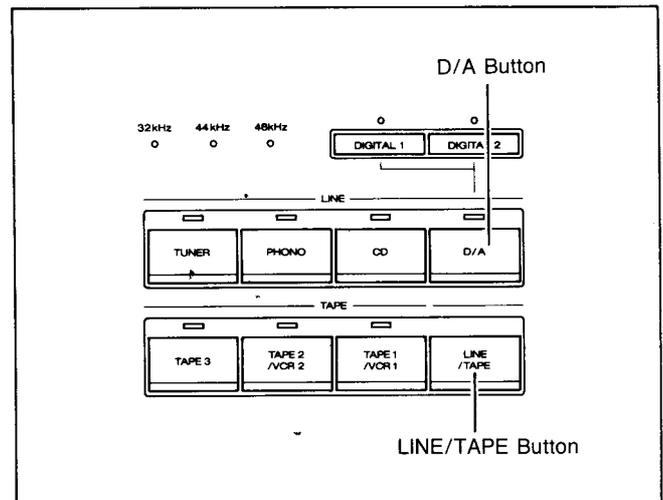
2 Line source playback

- 1 Set the LINE/TAPE button to off.
The TAPE indicator of the tape select button that was on will go off.
- 2 Press the TUNER, PHONO or CD button to select the playback source as follows:

For broadcast reception	Press the TUNER button
For record playback	Press the PHONO button
For compact disc playback with analog signal*	Press the CD button

* When your CD player is connected to the CD jacks.

- 3 Start source playback or tune in a station.



3 Audio cassette tape, DAT cassette or video cassette tape playback

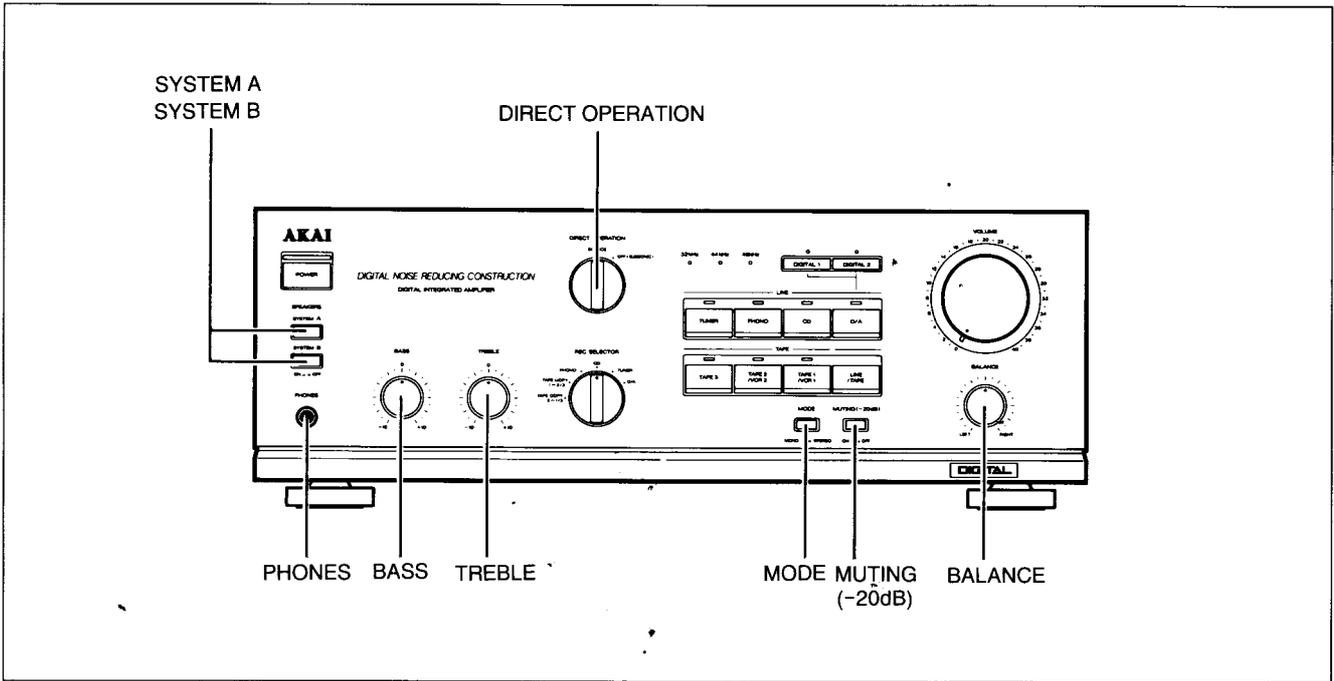
- 1 Press the LINE/TAPE button to on.
The TAPE indicator of the tape select button that was last depressed will light up.
- 2 Press the tape select button of the source you wish to play back as follows:

For a deck or video cassette recorder connected to the TAPE 1/VCR 1 jacks	Press the TAPE 1/VCR 1 button
For a deck or video cassette recorder connected to the TAPE 2/VCR 2 jacks	Press the TAPE 2/VCR 2 button
For a deck connected to the TAPE 3 jacks	Press the TAPE 3 button

- 3 Start tape playback.

Note

After audio or video cassette tape playback has finished, press the LINE/TAPE button to off (the TAPE indicator will go off).



1 The DIRECT OPERATION Switch

Set to SOURCE

- The subsonic filter, tone control circuit, mode switch circuit and balance control circuit are by-passed.

Set to OFF(SUBSONIC)

- The playback signal is routed through the subsonic filter, tone control circuit, mode switch circuit and balance control circuit.

Note

- This switch is used to help improve sound quality by selecting the shortest circuit route through the amplifier that the playback signal has to travel.
- The subsonic filter removes any low frequency signals of less than 18Hz that are present in the playback signals.

When the woofer is vibrating slowly during record playback

Set the DIRECT OPERATION switch to OFF(SUBSONIC). The subsonic filter is activated to remove ultra low frequency noise, rumble, humming noise, etc.

After record playback has finished, set the DIRECT OPERATION switch to SOURCE.

2 MUTING: Reducing playback volume instantly

Press the MUTING switch to . The playback volume will be instantly reduced.

To resume the normal volume level

Press the MUTING switch again.

The muting system can be used to instantly reduce playback volume without using the VOLUME control for convenience during a sudden phone call etc..

Note

During muting, the volume level is reduced by -20dB (1/10) from the set volume level.

3 Playback mode selection

1 Set the DIRECT OPERATION switch to OFF(SUBSONIC).

2 Press the MODE switch as follows:

For monaural sound reproduction	Set to 
For stereo sound reproduction	Set to 

Note

Leave the switch to  for stereo sound reproduction.

4 Tone adjustment during playback

- 1 Set the DIRECT OPERATION switch to OFF (SUBSONIC).
- 2 Use the BASS and TREBLE tone controls as follows:

Adjusting bass notes	Use the BASS tone control
	To increase the level . Turn the control toward +10
	To decrease the level . Turn the control toward -10
To defeat the control . Set to 0	
Adjusting high notes	Use the TREBLE tone control
	To increase the level . Turn the control toward +10
	To decrease the level . Turn the control toward -10
To defeat the control . Set to 0	

5 Left and right channel volume balance adjustment

- 1 Set the DIRECT OPERATION switch to OFF (SUBSONIC).
- 2 Use the BALANCE control as follows:

To decrease the right channel volume	Turn the control to the LEFT
To decrease the left channel volume	Turn the control to the RIGHT

Adjusting the left and right channel speaker balance

- 1 Set the DIRECT OPERATION switch to OFF (SUBSONIC).
- 2 Set the playback mode to the monaural playback mode by depressing the MODE switch to **■**.
- 3 Start playback and use the BALANCE control to adjust the sound of the left and right channel speakers to the same level.
- 4 When the balance adjustment is finished, set the MODE switch to the stereo sound playback mode (**■**) by depressing the switch again.

Protection circuit

This amplifier includes a built-in protection circuit that is activated to protect the speakers from noise damage when the amplifier's power is turned on. The protection circuit also functions during playback to protect the speakers from overloading, and to protect the circuit from damage. When speakers with less than rated impedance are used, the protection circuit will short-circuit the ⊕ (positive) and ⊖ (negative) speaker cords. When the protection circuit is engaged, the output signal will be cut automatically.

6 Listening with a pair of headphones

- 1 Set both the the SYSTEM A and B switches to **■**.
- 2 Connect the headphones to the PHONES jack.
- 3 Adjust the volume with the VOLUME control.

Caution

- Do not listen for long periods of time at high volume levels, as this may damage your hearing.
- When connecting a pair-of headphones during playback, turn down the volume first.

7 Using a graphic equalizer or surround processor connected to the amplifier

Set the DIRECT OPERATION switch to OFF (SUBSONIC) before beginning playback of the source.

Note

Output signal levels of graphic equalizers and surround processors differ from unit to unit. Because of this, playback volume levels will increase or decrease suddenly if the position of the DIRECT OPERATION switch is changed during playback. If you wish to change the setting of the DIRECT OPERATION switch during playback, first turn down the volume with the VOLUME control.

Should the sound be cut during playback:

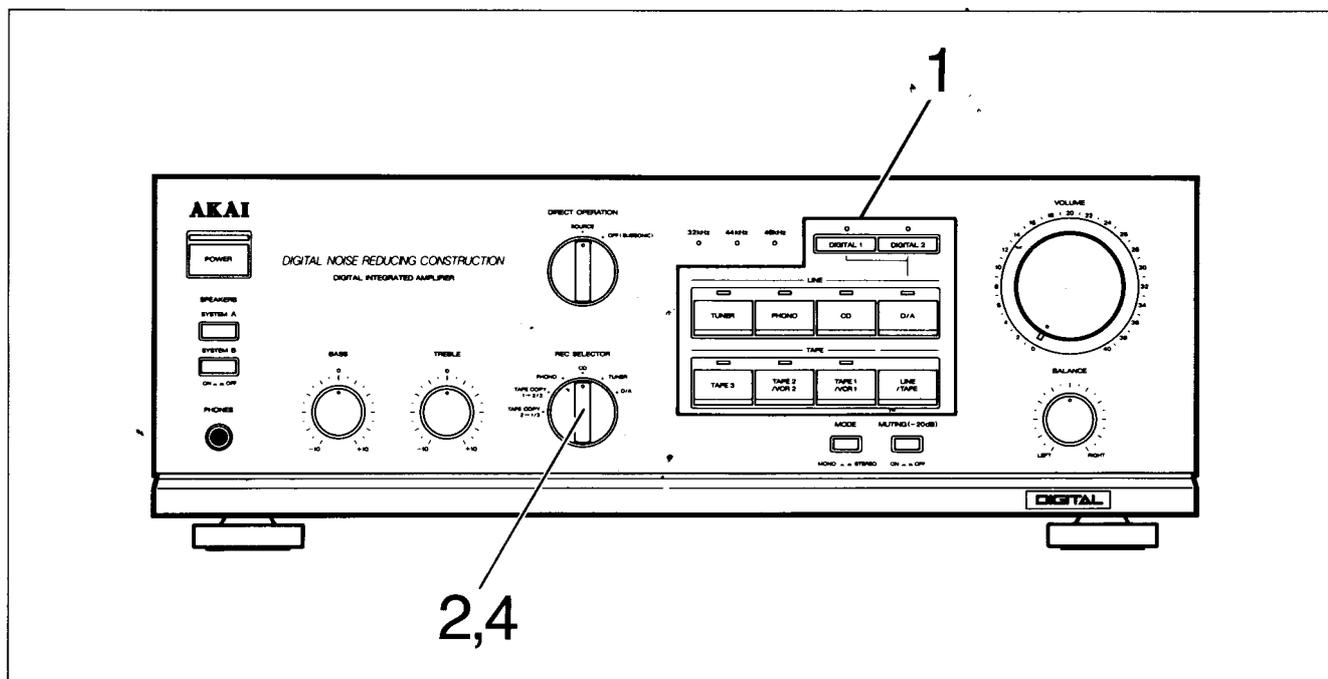
- 1 Turn off the amplifier.
- 2 Check for and correct the cause.
- 3 Turn the amplifier back on.

Required speaker impedance

When using one set of speakers (Set the SYSTEM A or B switch to ■).	Use speakers with an impedance of 4 to 16 ohms
When using two sets of speakers at the same time (Set both the SYSTEM A and B switches to ■).	Use speakers with an impedance of 8 to 16 ohms

Before beginning

- Turn on all the components.
- If using a DAT deck for recording set it for analog recording.



Operation

1 Select the playback source with the digital input select buttons, LINE input select buttons, or the TAPE select buttons (use the LINE/TAPE button to switch between the LINE and TAPE select buttons). Refer to "Playback operation" and "How to set the input select buttons" on page 10 and 11.

2 Select the recording source with the REC SELECTOR as follows:

For digital source recording	Set to D/A first, then press the DIGITAL 1 or DIGITAL 2 button
For broadcast recording	Set to TUNER
For CD recording	Set to CD
For record disc recording	Set to PHONO
To record from a deck or video cassette recorder connected to the TAPE 1/VCR 1 jacks	Set to TAPE COPY 1 → 2/3
To record from a deck or video cassette recorder connected to the TAPE 2/VCR 2 jacks	Set to TAPE COPY 2 → 1/3

3 First adjust the recording level of the cassette deck or DAT deck, then start regular recording.

4 **After recording is finished**
Set the REC SELECTOR switch to CD (or to a position where a component is not connected) and turn off the power.

During recording

- Do not touch the REC SELECTOR switch or digital input select buttons as this will interfere with recording. If you are recording from a digital source, do not touch the digital input select button.
- If you wish to listen to another source while recording, select that source with the digital input select buttons, LINE input select buttons, or TAPE select buttons (use the LINE/TAPE button to switch between the LINE and TAPE select buttons).
- If you are using a tape deck that has 3 heads, you can monitor the sound as it is being recorded by setting the LINE/TAPE button to on, then pressing the tape select button that corresponds to the recording deck you wish to monitor.
- During recording, the VOLUME control, BALANCE control, BASS and TREBLE tone controls, MODE and MUTING switch can be used. If you wish to adjust the mode, tone and balance, set the DIRECT OPERATION switch to OFF (SUBSONIC) **before recording**. The signals being recorded will not be affected by these adjustments.

How to set the REC SELECTOR switch and input select buttons for recording

1 Recording from a digital source

Use the following operation to record from a digital source. The recorded signal will be converted from a digital signal to analog signal by the D/A converter.

- 1 Set the REC SELECTOR switch to D/A.
- 2 Press the DIGITAL 1 or 2 button as follows:

For a component connected to the DIGITAL 1 terminal	Press the DIGITAL 1 button
For a component connected to the DIGITAL 2 jacks	Press the DIGITAL 2 button

- 3 Start recording first, then start digital source playback.

Note

Do not press the digital input select button during recording, as this will cause interruption.

2 Recording from a pre-recorded tape (Tape dubbing)

- 1 Set the REC SELECTOR switch to the TAPE COPY 1 → 2/3 or TAPE COPY 2 → 1/3 position as follows:

To record from a deck or video cassette recorder connected to the TAPE 1/VCR 1 jacks	Set to TAPE COPY 1 → 2/3
To record from a deck or video cassette recorder connected to the TAPE 2/VCR 2 jacks	Set to TAPE COPY 2 → 1/3

- 2 To start tape dubbing, set the cassette deck, DAT deck or video cassette recorder as follows:

When the REC SELECTOR switch is set to TAPE COPY 1 → 2/3

Deck or video cassette recorder connected to the TAPE 1/VCR 1 jacks	Set to the playback mode
Deck or video cassette recorder connected to the TAPE 2/VCR 2 and TAPE 3 jacks	Set to the recording mode

When the REC SELECTOR switch is set to TAPE COPY 2 → 1/3

Deck or video cassette recorder connected to the TAPE 2/VCR 2 jacks	Set to the playback mode
Deck or video cassette recorder connected to the TAPE 1/VCR 1 and TAPE 3 jacks	Set to the recording mode

- 3 Start recording first, then start playback of the pre-recorded tape.

If you wish to use the Hi-Fi video cassette recorder for audio sound recording, set the input select button of the video cassette recorder to the external or simulcast recording position before recording.

3 Video tape dubbing

- 1 Set the LINE/TAPE button to on. The indicator of the TAPE selector button that has been selected will light up.

- 2 Select the video cassette recorder being used for playback of the prerecorded tape by depressing the TAPE 1/VCR 1 or TAPE 2/VCR 2 button.

- 3 Set the REC SELECTOR switch as follows:

Prerecorded video cassette playback with a video cassette recorder connected to the TAPE 1/VCR 1 jacks	Set the REC SELECTOR switch to TAPE COPY 1 → 2/3
Prerecorded video cassette playback with a video cassette recorder connected to the TAPE 2/VCR 2 jacks	Set the REC SELECTOR switch to TAPE COPY 2 → 1/3

- 4 Start recording first, then start playback of the prerecorded video cassette.

Note for video tape dubbing

Set the recording video cassette recorder's input selector to the external input recording mode before tape dubbing. After tape dubbing has finished, set the input selector to the TV tuner recording mode. If the input selector is not set to the TV tuner recording mode, TV program recording and timer-controlled TV program recording will not function.

4 Digital tape dubbing

Recording a digital source on DAT cassette tape

Set the DAT deck to the digital recording mode before proceeding with the following operation.

- 1 Press the DIGITAL 1 button.
- 2 Set the DIGITAL 2 OUTPUT connected DAT deck into the recording mode, then set the DIGITAL 1 connected DAT deck into the playback mode.

Notes for digital tape dubbing

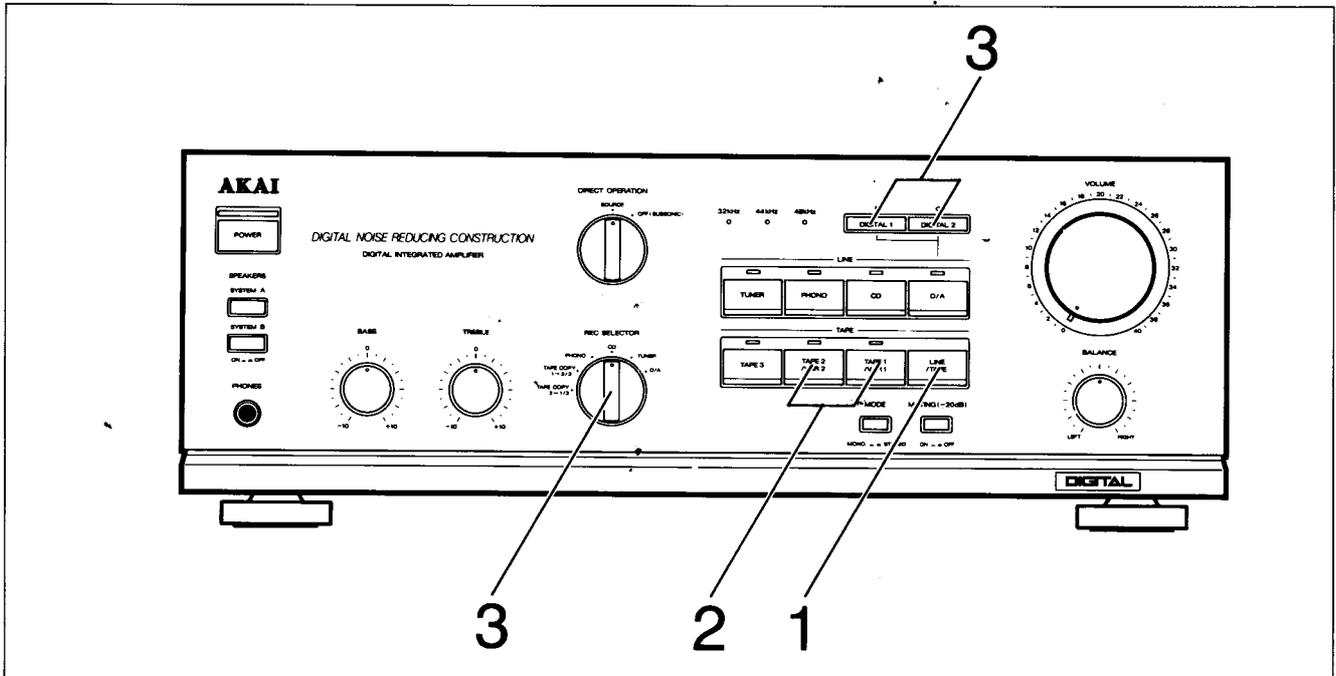
- It is not necessary to set the REC SELECTOR switch to the D/A position before digital recording.
- Compact disc recording will not be performed when using digital connections.
- Digital sources that have been recorded with a recording protection (recording inhibit) signal cannot be recorded digitally. Refer to your DAT deck's operator's manual for further details.

Sound insert function

During video source playback, you can select the sound track separately with the sound insert function. This function is only for the VIDEO jack equipped model (the West German model does not include VIDEO jacks.)

Before beginning

- Turn on all the components.
- Set the amplifier to the playback mode. Refer to "Source playback" on page 10.
- Set your monitor TV to the video monitor mode.



Operation

- 1 Set the LINE/TAPE button to on. The indicator of the TAPE select button which has been selected will light up.
- 2 Select the video source by pressing the TAPE 1/VCR 1 or TAPE 2/VCR 2 button.

Playback with a video cassette recorder connected to the TAPE 1/VCR 1 jacks	Press the TAPE 1/VCR 1 button
Playback with a video cassette recorder connected to the TAPE 2/VCR 2 jacks	Press the TAPE 2/VCR 2 button

- 3 Select the sound insert source with the REC SELECTOR switch as follows:

For digital source playback	Set to the D/A position first, then press the DIGITAL 1 or 2 button
For broadcast sound	Set to TUNER
For CD playback sound	Set to CD
For record playback	Set to PHONO
For playback sound of deck or video cassette recorder connected to the TAPE 1/VCR 1 jacks	Set to TAPE COPY 1 → 2/3
For playback sound of deck or video cassette recorder connected to the TAPE 2/VCR 2 jacks	Set to TAPE COPY 2 → 1/3

- 4 Start playback of audio and video sources for sound insert playback.
- 5 After sound insert playback is completed, set the REC SELECTOR switch to CD (or to a position where a component is not connected).

Sound insert recording

After setting the amplifier for sound insert playback, set the connected video cassette recorder to the recording mode to start recording. The recorded video cassette tape's sound track will be replaced with the other selected sound source.

Example:

Original video cassette played back with the TAPE 1/VCR 1 jacks connected video cassette recorder
 Set the TAPE 2/VCR 2 connected video cassette recorder to the recording mode for sound insert recording.

Important

Do not touch the REC SELECTOR switch or input select buttons as this will interfere with recording. If you are recording from a digital source, do not touch the digital input select button.

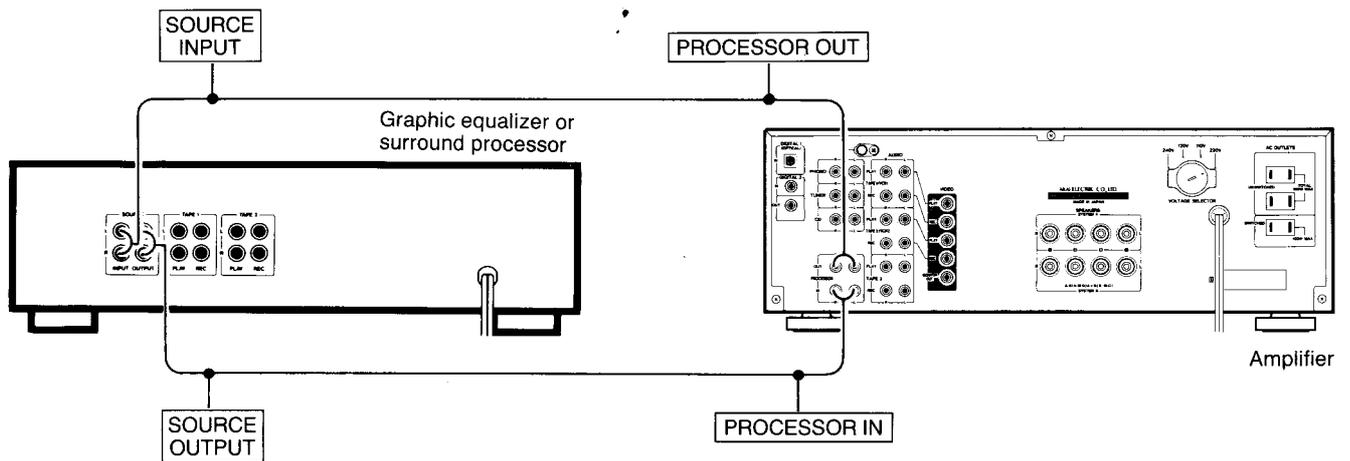
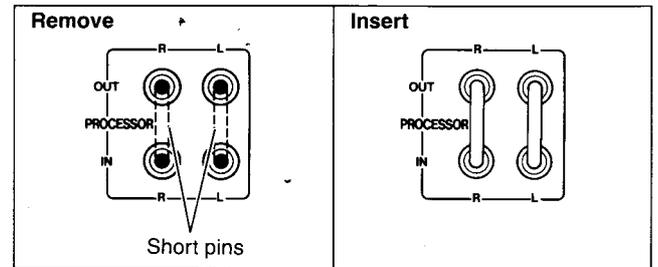
The PROCESSOR IN and OUT jacks can be used for the connection of an optional graphic equalizer or surround processor.

Before connecting

- Turn off all the components.
- For connections, use two audio connection cords.

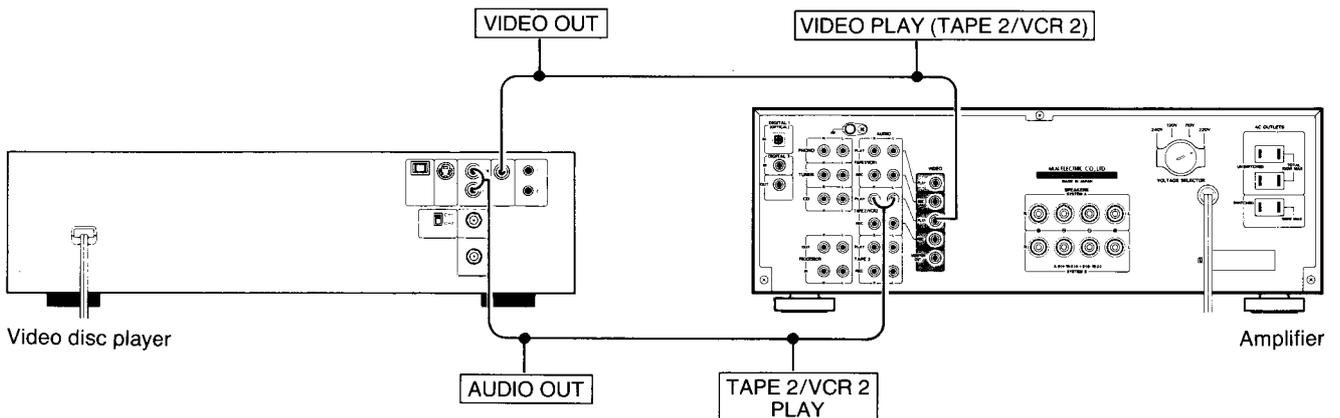
About the short pins

- The short pins connect the pre-amp. and power-amp. sections of the integrated amplifier. Only remove these pins when connecting a graphic equalizer or surround processor.
- Do not lose these pins.
- When replacing these pins, insert them in the PROCESSOR IN and OUT jacks as illustrated.



If you wish to connect your video disc player to the amplifier

The TAPE 2/VCR 2 PLAY and VIDEO PLAY jacks can be used for connection.



Troubleshooting

Problem	Check point
<p>No power. No sound. No picture.</p>	<ul style="list-style-type: none"> ● Amplifier connections are not correct. Check the amplifier connections. ● SYSTEM A or B SPEAKERS switch is set to ■. Set the switch to ■. ● VOLUME control is set to 0. Set the VOLUME control to the appropriate position. ● Input select buttons, digital input select buttons or tape select buttons are not set to the correct playback source. Select the correct source you wish to play back by depressing the appropriate button. ● LINE/TAPE button is set to on during digital source playback, record playback or broadcast reception. Set the button to off. ● LINE/TAPE button is set to off during audio cassette tape or video cassette tape playback. Set the button to on. ● The short pins have been removed from the PROCESSOR IN and OUT jacks. Replace the short pins. ● Connected video cassette recorder and monitor TV are not set to playback and monitoring mode. Set them to playback and monitoring mode.
<p>No sound after the power is turned on.</p>	<ul style="list-style-type: none"> ● The protection system is engaged. Wait a few seconds.
<p>VOLUME SCALE indicates a higher volume level than can be heard.</p>	<ul style="list-style-type: none"> ● The MUTING switch is set to ■. Set the switch to ■.
<p>No sound after the power is turned on (even after playback volume adjustment).</p>	<ul style="list-style-type: none"> ● The protection system is engaged. Stop playback as soon as possible, turn off the power, and then check the speaker cord connections. Connect a speaker system with an impedance of lower than 8 ohms, or turn down the playback volume. Connect a speaker system with an impedance of over 8 ohms, or turn the SYSTEM A or B switch to ■.
<p>Humming noise is heard during record playback.</p>	<ul style="list-style-type: none"> ● The player system's earth wire (if included) is not connected or output cords are not connected firmly. Connect the earth wire to the ⏏ terminal and connect the output cords firmly.
<p>Bass or stereo sound is not reproduced fully.</p>	<ul style="list-style-type: none"> ● Speaker system connections are not correct. Check the polarity of the connections.
<p>Deck will not play back.</p>	<ul style="list-style-type: none"> ● The LINE/TAPE button is not set to on. Set it to on. ● The TAPE select button is not set properly. Press the TAPE select button you wish to use for playback. ● The deck is not in the playback mode. Set the deck to the playback mode.

Problem	Check point
Digital source playback cannot be performed.	<ul style="list-style-type: none"> ● Connections are not proper or the digital jacks are not used for connection. Check the connections and change them if necessary. Connections should be made with video or digital connection cables. ● The D/A button is not depressed. Press the button. ● The digital input button is not set to the appropriate position. Set it to the proper position. ● The LINE/TAPE button is left to on. Press the LINE/TAPE button off.
Bass control, treble control, balance control and MODE switch are not effective.	<ul style="list-style-type: none"> ● The DIRECT OPERATION switch is set to SOURCE. Set it to OFF (SUBSONIC).
Playback is monaural (same sound output from the left and right channel speaker system).	<ul style="list-style-type: none"> ● The MODE switch is set to . Leave the switch to  during stereo sound playback.
The woofer's diaphragm is vibrating slowly during record playback.	<ul style="list-style-type: none"> ● Warped record is being played back. Set the DIRECT OPERATION switch to the OFF (SUBSONIC) position to remove subsonic noise.
Recording cannot be performed.	<ul style="list-style-type: none"> ● Decks are not properly connected. Check the connections. ● The REC SELECTOR switch is not set to the appropriate position. Set it to the proper position.
Tape dubbing cannot be performed.	<ul style="list-style-type: none"> ● The REC SELECTOR switch is not set to TAPE COPY 1 → 2/3 or 2 → 1/3. Set the switch to the appropriate position.
Digital recording cannot be performed.	<ul style="list-style-type: none"> ● Connections are not proper or the digital input and output jacks are not being used. Check the connections and change them if necessary. Connections should be made with video or digital connection cables. ● The DAT deck is not in the digital recording mode. Set the deck to the digital recording mode. ● The digital source is protected from recording. Play back the source in the analog mode for recording.
Video tape dubbing is not performed.	<ul style="list-style-type: none"> ● LINE/TAPE button and TAPE 1/VCR 1 or TAPE 2/VCR 2 button is not set properly. Press the LINE/TAPE button to on, then select the playback source with TAPE 1/VCR 1 or TAPE 2/VCR 2 button before recording. ● REC SELECTOR is not set to the video tape dubbing position. Set the switch to TAPE COPY 1 → 2/3 or TAPE COPY 2 → 1/3 position before recording. ● Input selector of your video cassette recorder is not set properly. Set the input selector to the external source recording mode before recording.
Video cassette sound track is replaced by other audio sound after video cassette recording.	<ul style="list-style-type: none"> ● REC SELECTOR switch was not set to the appropriate position during video tape dubbing. Set the switch to the appropriate position.
Connected graphic equalizer or surround processor is not effective.	<ul style="list-style-type: none"> ● The DIRECT OPERATION switch is not set to OFF (SUBSONIC). Set the switch to OFF (SUBSONIC).

Should a problem persist, write down the model and serial numbers and all pertinent data regarding warranty coverage as well as a clear description of the existing trouble. Then contact your nearest authorized Akai service station.

Keep the cabinet clean

- Clean the cabinet with a soft, dry cloth.
- If the cabinet is very dirty, clean it with a mild detergent.
- Never use paint thinner, etc. to clean the cabinet as this may damage the finish.

Specifications

20

Power output	120W + 120W (DIN, 4ohms, 1kHz, 1%) 80W + 80W (FTC, 8ohms, 30Hz to 20kHz, 0.05%)
Power band width	5Hz to 60kHz/0.1%
Total harmonic distortion	0.005% (1kHz, 8 ohms)
Phono max. input level	160mV
Frequency response	5Hz to 100kHz (+0dB, -3dB)
Tone control	
Treble	±8dB (10kHz)
Bass	±8dB (100Hz)
Input sensitivity/Impedance	
Phono (MM)	2.5mV/47k ohms
Tuner, etc.	150mV/47k ohms
Output level/Impedance	
Tape rec out	150mV/1k ohms
Damping factor	45 (1kHz, 8ohms)
Residual noise	0.1mV (A-filter)
S/N	
Phono (MM)	85dB
Tuner, etc.	101dB
Channel separation	60dB (1kHz)/50dB (10kHz)
Audio mute	-20dB
Required speaker impedance	
A or B	4 to 16 ohms
A and B	8 to 16 ohms

(D/A section)

Sampling frequency	32kHz/44.1kHz/48kHz
Digital filter	8fs, 18bit
D/A converter	18bit, 2 DAC
Digital input level/Impedance	
Coaxial	0.5Vp-p/75 ohms
Optical	-14 to -23dBm
Frequency response	5Hz to 20kHz (±0.3dB)
Dynamic range	96dB
Total harmonic distortion	0.002%
Channel separation	102dB
Power requirements	220V, 50Hz for Europe except UK 240V, 50Hz for UK and Australia 110V/120V/220V/240V, 50/60Hz convertible for other countries
Dimensions	425(W)×156(H)×370(D)mm (16.7×6.1×14.6 inches)
Weight	10.8 kg (23.8 lbs)

* For improvement purposes, specifications and design are subject to change without notice.

Features

- 120 W+120W(DIN) output power DC power amplifier.
- Dual pole DC servo incorporated DC power amplifier.
- Dual (left and right) channel 18 bit D/A converter.
- 8 times over sampling digital filter.
- Optical and coaxial digital interface connection system.
- Digital output jack for digital recording connection or digital sound processor system (DSP) connection.
- Digital noise reducing construction and high rigid construction.
- Direct operation switch with built-in subsonic filter operation position.
- Video cassette recorder and monitor TV connectable.
- Sound insert function.
- Audio mute (-20 dB).
- Bass and treble tone control.
- PROCESSOR input and output jacks for surround processor or graphic equalizer connection.
- Recording selector switch.
- 3 cassette deck connection capable amplifier.
- 2 sets of speaker system terminals.
- Electronic muting and speaker protection system.
- Gold plated phones jack.