GX-F71

STEREO CASSETTE DECK
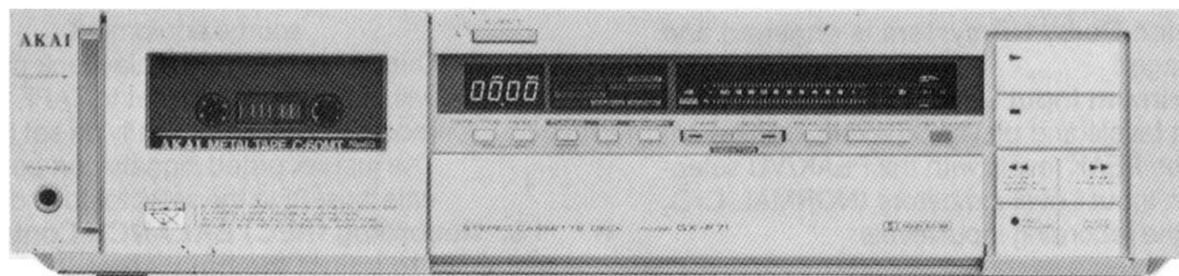
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┌─WARNING──────────────────────────────────────┐
│ To prevent fire or shock hazard, do not expose this appliance to │
│ rain or moisture.                             │
└──────────────────────────────────────────────┘
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Operator's Manual

AKAI

WARNING

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.

120V, 60 Hz for USA and Canada

220V, 50 Hz for Europe except UK

240V, 50 Hz for UK and Australia

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

VOLTAGE CONVERSION

Do Not Attempt This Conversion Yourself.

Voltage conversion (Models for Canada, USA, Europe, UK and Australia are not equipped with this facility). Each machine is preset at the factory according to destination, but some machines can be set to 110V, 120V, 220V or 240V as required. If your machine's voltage can be converted, refer the following voltage conversion to a qualified Service Repair Shop or professional service personnel.

1. Disconnect power cord.
2. Loosen holding screws of the top panel and the two top screws of the rear panel and remove top panel.
3. Remove short pin plug from present holes and replace in correct holes. Follow the markings explicitly.
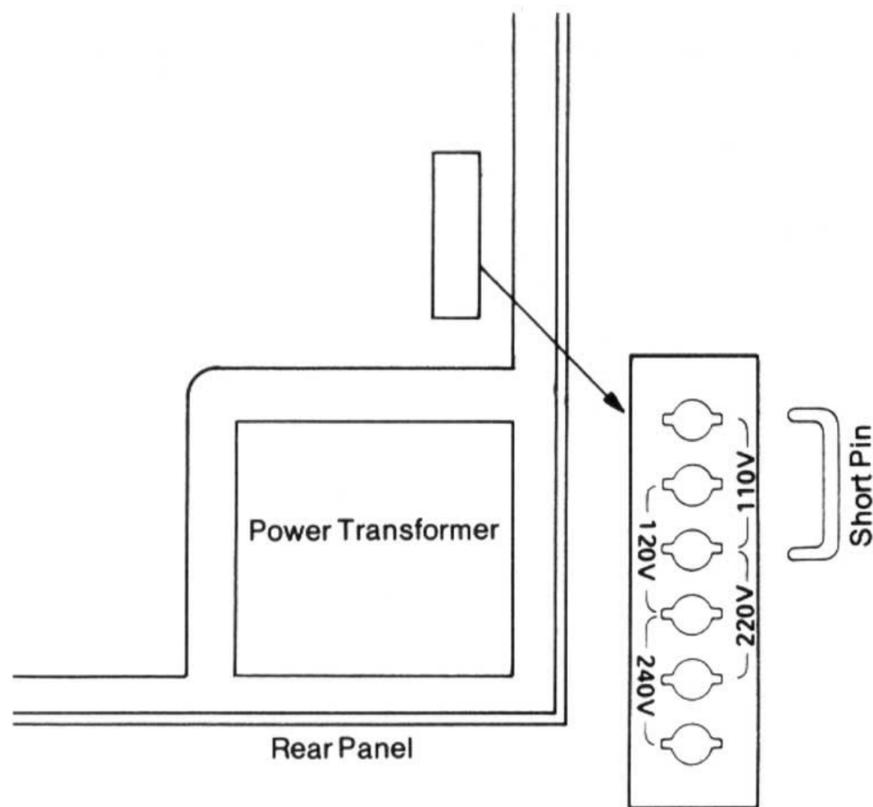
PRECAUTIONS

CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK).
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

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

The exclamation point within an equilateral triangle is intended to alert the user of the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

1. Use only household AC power sources.
   Never use DC power sources.
2. Always set the amplifier's volume control to minimum when turning on or off the deck.
3. Touching the plug with wet hands risks dangerous electric shocks. Always pull out by the plug and never the cord.
4. Make sure the power consumption of each audio component does not exceed wattage specified on the rear panel.
   Only connect other audio components.
5. Only let a qualified professional repair or reassemble the equipment. An unauthorized person might touch the internal parts and receive a serious electric shock.
6. Never allow a child to put anything, especially metal into this equipment. A serious shock or malfunction may occur.
7. If water is spilled on this equipment, disconnect and call your dealer.
8. Make sure the equipment is well ventilated and away from direct sunlight.
9. Keep away from heat (stoves, etc.) to avoid damage to the external surface and internal circuits.
10. Avoid spray-type insecticides which will damage the equipment and may ignite suddenly.
11. To avoid damaging the finish never use alcohol, paint thinner or others similar chemicals.
12. Always place the equipment on a flat and solid surface.
13. Please read this manual in its entirety and keep it handy for further reference.

This equipment confirms to No. 76/889/EEC standard.

DEW FORMATION

Dew is the term used for the formation of moisture on the very important transport section such as the head and the capstan when the deck is used in places where the humidity is high, subjected to sudden changes in temperature or moved from a cold place to a warm one. If the deck is used when dew is present, the tape will stick to the head and be ruined or tape will not be transported properly. In such cases, do not use the deck for approximately one hour until the deck is acclimatized.

CONTROLS
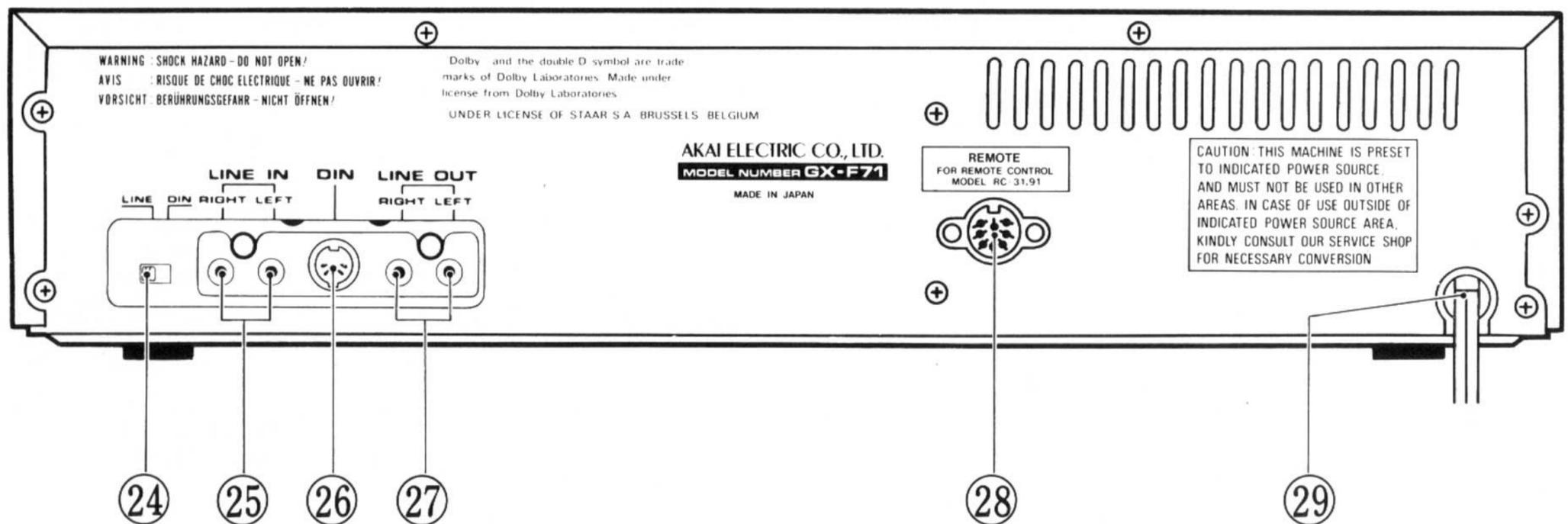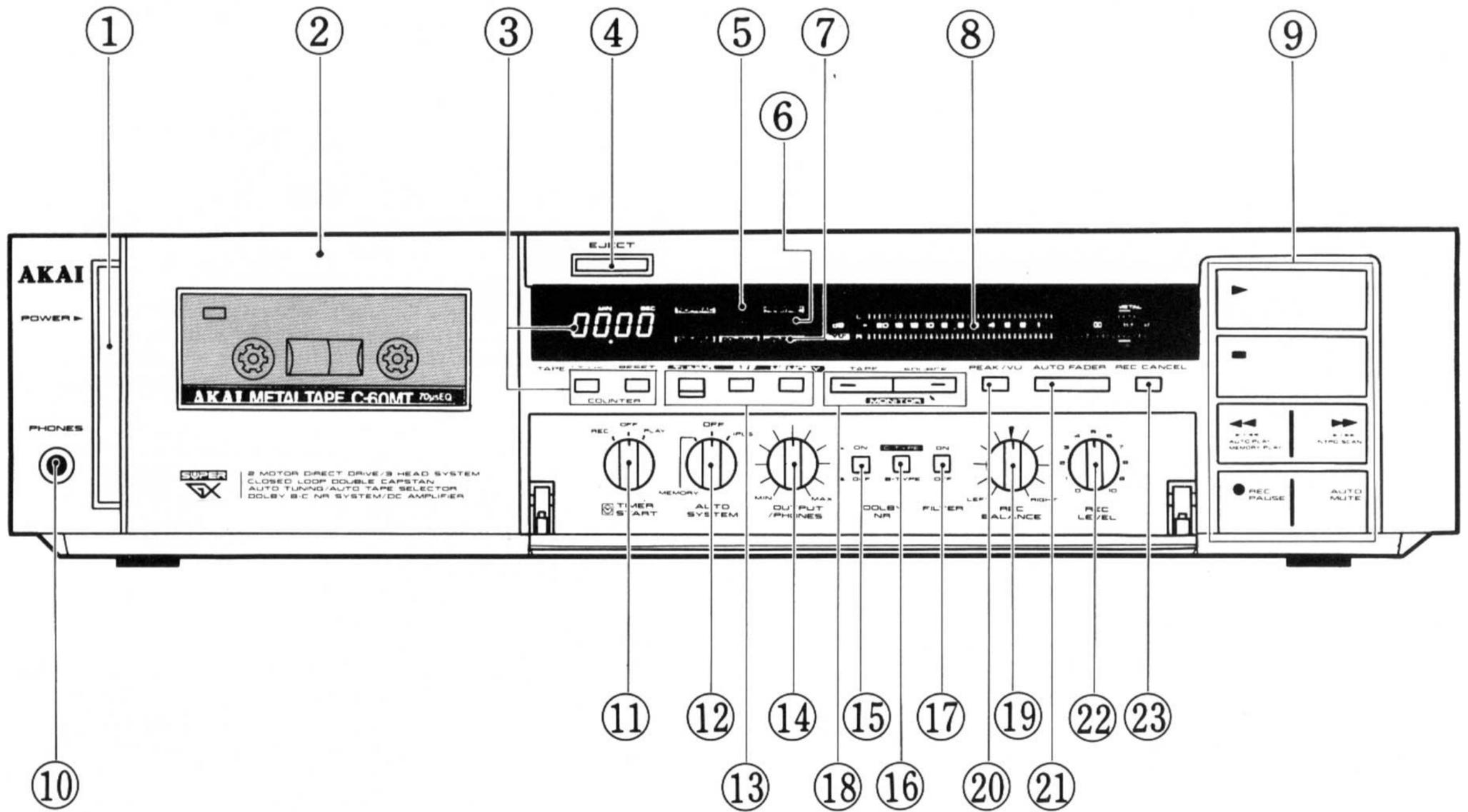
1. POWER Switch
Depress the switch to turn on the power and depress again to turn off the power. Depress only the upper part of the switch (near the word POWER).

2. Cassette Receptacle
Depress the EJECT button to open the Cassette Receptacle. Depress any of the Operating buttons (except AUTO MUTE) and the Cassette Receptacle will close and the GX-F71 will go into whichever mode was depressed.
* If there is any tape slack, it will be taken up automatically after the Cassette Receptacle is closed.
* If the Cassette Receptacle is left open when the power is turned off, it will be closed automatically when the power is reapplied.
* Do not place any object in front of the Cassette Receptacle.
* During transportation, the Cassette Receptacle's lid may have moved slightly out of place. This can be easily corrected by pushing the lid with your hands. The lid is properly attached when it is even with the front and top panels.

3. FLD Tape COUNTER, TAPE/TIME Selector and RESET Button
Use the TAPE/TIME Selector to show tape travel in either minutes and seconds or in the conventional way. To reset the display to '0000', depress the RESET button.

4. EJECT Button
Cassette tape can be ejected directly from any mode.
As this is a power assisted eject system, the GX-F71 must be turned on for the eject system to function.

5. Tape Position Indicators
Interconnected with the auto tape selector. When a cassette tape is loaded, the indicator (NORMAL: Low noise or low noise high output, CrO$_2$: Chrome, or METAL: Metal) corresponding to the type of tape loaded will light.

6. Auto Tape Tuning Indicators
TEST: Flashes on and off during auto tape tuning mode.
READY: Lights when auto tape tuning is completed. The bias, equalization and sensitivity levels are set for the tape in use.
REFERENCE: Lights when the bias, equalization and sensitivity levels are set to Akai's reference values.
ERROR: Lights when the tape is not within the adjustable range.

7. DOLBY B and DOLBY C and FILTER Indicators
Lights depending on which Dolby NR system is engaged and whether the FILTER is engaged.

8. FLD Bar Meter with Maximum Input Level Indicators
Shows the recording input levels and playback levels. Can be set to show the VU levels or the PEAK levels with the PEAK/VU selector. Also include, Maximum Input Level indicators (NORMAL, CrO$_2$ and METAL) for setting of the recording input levels.

9. Operating Buttons
* For stable timer start operation, the Operating buttons will not be activated for approximately 5 seconds after the power is turned on.

Play (▶) Button with Indicator
Depress for playback.

Stop (■) Button
Depress to stop tape travel.
* The stop mode of GX-F71 is like the pause mode of conventional tape decks. The heads are still in contact with the tape while the pinch roller is released. Therefore, to momentarily suspend tape travel during playback, depress the Stop (■) button and not the REC/PAUSE button. If the REC/PAUSE button is depressed, the GX-F71 will go into recording standby mode.

Rewind (◀◀) Button
Depress to rewind the tape.
Depress along with the Play (▶) button for auto play or memory play operations.

Fast Forward (▶▶) Button
Depress to fast forward the tape.
Depress along with the Play (▶) button for intro scan operation.

Recording (REC)/PAUSE Button with Indicator
Depress to put the GX-F71 into recording standby mode.

AUTO MUTE Button
Depress during recording to put the GX-F71 into no-signal mode. No recording will be made on the tape for 4 seconds.

10. Headphone (PHONES) Jack
Accommodates stereo headphones of 8 ohms impedance for private headphone listening.

11. TIMER START Selector
TUNING: Set to this position for absentee recording with auto
REC tape tuning. Auto tape tuning is performed automatically before the GX-F71 goes into recording mode.
REC: Set to this position for absentee recording without auto tape tuning.
OFF: Set to this position for all other times when timer start operation is not to be engaged.
PLAY: Set to this position for timed playback.

12. AUTO SYSTEM Selector
MEMORY: Set to this position for memory playback or stop operation.
OFF: Set to this position and the GX-F71 will go into stop mode at the end or the beginning of the tape.
IPLS: Set to this position for IPLS operation.

13. TUNING and Reference (REF) Buttons
TUNING: Depress for auto tape tuning. The bias, equalization and sensitivity levels will be set for the tape in use.
REF: Depress this button and the bias, equalization and sensitivity levels will be set to Akai's reference values.
MEMORY: Depress this button to recall the bais, equalization and sensitivity levels set and memorized after auto tape tuning.
* The READY indicator will light.

14. OUTPUT/Headphone (PHONES) Control
To adjust line or headphone output levels during playback. Set to correspond with the amplifier's input levels.
* Not interconnected with the FLD Bar Meter.

15. DOLBY NR Switch
ON (▬): To turn on the Dolby NR circuit.
OFF (▮): To turn off the Dolby NR circuit.

16. DOLBY NR Selector
C-TYPE (▬): For recording or playback with Dolby C-type NR.
B-TYPE (▮): For recording or playback with Dolby B-type NR.

17. MPX FILTER Switch
ON (▬): Set to this position when recording with Dolby NR (C-type or B-type) from FM stereo broadcasts.
OFF (▮): Set to this position for all other times.

18. MONITOR Selector
TAPE: Set to this position to listen to the signals from the tape.
SOURCE: Set to this position to listen to the signals from the source equipment.
* During recording and playback modes, the MONITOR selector will automatically be set to TAPE and during recording standby mode, it will automatically be set to SOURCE.
* The just recorded signals can be compared to the source signals by setting the selector to and from TAPE and SOURCE.

19. Recording (REC) BALANCE Control (LEFT and RIGHT)
Use to adjust the balance of the left and right recording input levels.

20. PEAK/VU Selector
To set the FLD Bar Meter to show VU levels or PEAK levels.

21. AUTO FADER Button
Depress for auto fade-in or auto fade-out recording.

22. Recording (REC) LEVEL Control
Use to adjust the recording input levels.

23. Recording (REC) CANCEL Button
Depress this button during recording and the GX-F71 will rewind the tape to the beginning of the section that was being recorded and then go into recording standby mode.

24. LINE/DIN Selector (Some models do not have this facility.)
LINE: Set to this position for input from the LINE IN jacks.
DIN: Set to this position for input from the DIN jack.

25. LINE IN Jacks
Connect to the amplifier's output jacks for tape deck (TAPE REC jacks), or to the output jacks of another tape deck (LINE OUT jacks).

26. DIN Jack (Some models are not equipped with this facility.)
Can be used instead of the LINE IN and OUT jacks for connection with an amplifier through a DIN connection cord.

27. LINE OUT Jacks
Connect to the amplifier's input jacks for tape deck (TAPE PLAY jacks), or to the input jacks of another tape deck (LINE IN jacks).

28. REMOTE Jack
Connect the optional Remote Control Unit RC-91 or RC-31 to this jack for remote control operation.

29. Power Cord

FOR CUSTOMERS IN THE UK

IMPORTANT FOR YOUR SAFETY

The flex supplied with your machine will have either two wires or three as shown in the illustrations.

THREE CORE FLEX
WARNING
THIS APPARATUS MUST BE EARTHED
IMPORTANT

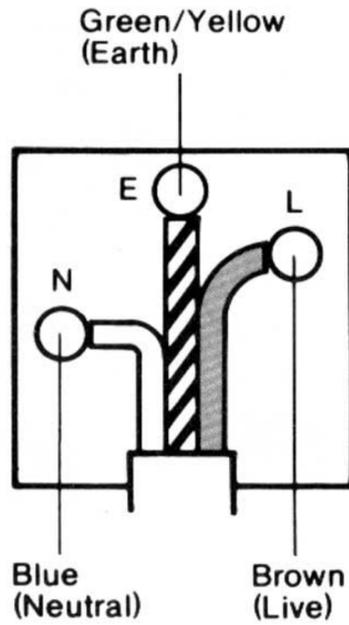The wires in this mains lead are coloured in accordance with the following code:

Green-and-yellow: Earth
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 green-and-yellow must be connected to the terminal in the plug which is marked by the letter E or by the safety earth symbol ⏚ or coloured green or coloured green-and-yellow.

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.

Green/Yellow (Earth)

E   L

N

Blue (Neutral)   **Brown (Live)**

TWO CORE FLEX
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.

Blue (Neutral)   **Brown (Live)**

L

N
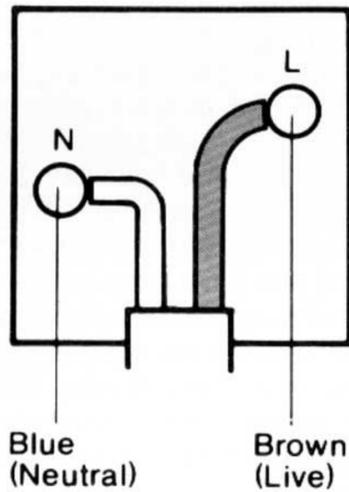
* Do not connect any wire to the larger pin marked E or ⏚ when wiring a plug. Ensure that all terminals are securely tightened and that no loose strands of wire exist.

FOR CUSTOMERS IN AUSTRALIA

If your machine comes with a three core power cord, FOR YOUR SAFETY.

1. Insert this plug only into an effectively earthed three-pin plug socket outlet.
2. If any doubt exists regarding the earthing, consult a qualified electrician.
3. Extension cords, if used, must be three core correctly wired.

FOR CUSTOMERS IN THE U.S.A.

SAFETY INSTRUCTIONS

1. **Read Instructions** — All the safety and operating instructions should be read before the equipment is operated.
2. **Retain Instructions** — The safety and operating instructions should be retained for future reference.
3. **Heed Warnings** — All warnings on the equipment and in the operating instructions should be adhered to.
4. **Follow Instructions** — All instructions for operating and use should be followed.
5. **Water and Moisture** — The equipment should not be used near water — for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, etc.
6. **Carts and Stands** — The equipment should be used only with a cart or stand that is recommended by Akai.
7. **Wall or Ceiling Mounting** — Akai does not recommend mounting the equipment on a wall or a ceiling.
8. **Ventilation** — The equipment should be situated so that its location or position does not interfere with its proper ventilation. For example, the equipment should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings; or, placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.
9. **Heat** — The equipment should be situated away from heat sources such as radiators, heat registers, stoves, or other equipments (including amplifiers) that produce heat.
10. **Power Sources** — The equipment should be connected to a power supply only of the type described in the operating instructions or as marked on the equipment.
11. **Grounding or Polarization** — The precautions should be taken so that the grounding or polarization means of an equipment is not defeated.
12. **Power-Cord Protection** — Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the equipment.
13. **Cleaning** — The equipment should be cleaned only as recommended by the manufacturer.
14. **Power Lines** — An outdoor antenna should be located away from power lines.
15. **Outdoor Antenna Grounding** — If an outside antenna is connected to the receiver, be sure the antenna system is grounded so as to provide some protection against voltage surges and built up static charges. Section 810 of the National Electrical Code, ANSI/NFPA No. 70—1981, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. See Figure 1.
16. **Nonuse Periods** — The power cord of the equipment should be unplugged from the outlet when left unused for a long period of time.
17. **Object and Liquid Entry** — Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.
18. **Damage Requiring Service** — The equipment should be serviced by qualified service personnel when:
    A. The power-supply cord or the plug has been damaged; or
    B. Objects have fallen, or liquid has been spilled into the equipment; or
    C. The equipment has been exposed to rain; or
    D. The equipment does not appear to operate normally or exhibits a marked change in performance; or
    E. The equipment has been dropped, or the enclosure damaged.
19. **Servicing** — The user should not attempt to service the equipment beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.

FIGURE 1
EXAMPLE OF ANTENNA GROUNDING AS
PER NATIONAL ELECTRICAL CODE INSTRUCTIONS
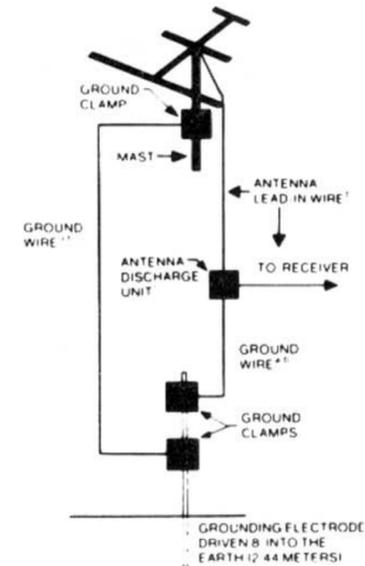
a
Use No. 10 AWG (5.3 mm²) copper, No. 8 AWG (8.4 mm²) aluminum, No. 17 AWG (1.0 mm²) copper-clad steel or bronze wire, or larger, as ground wire.

b
Secure antenna lead-in and ground wires to house with stand-off insulators spaced from 4 feet (1.22 m) to 6 feet (1.83 m) apart.

c
Mount antenna discharge unit as close as possible to where lead-in enters house.

CASSETTE TAPE

TAPE LOADING
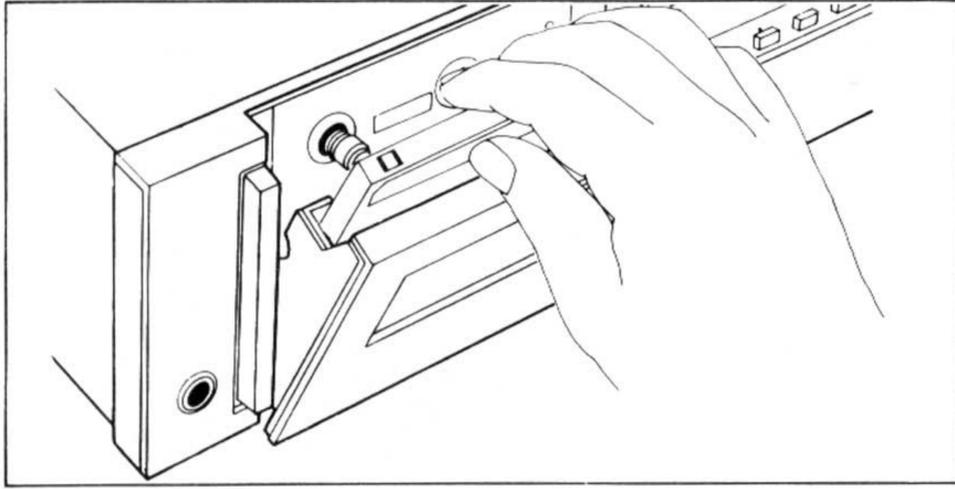
1. Depress the EJECT button to open the cassette receptacle.
2. Insert the cassette with tape facing the heads.
3. Depress any of the Operating buttons (except AUTO MUTE) to close the lid.

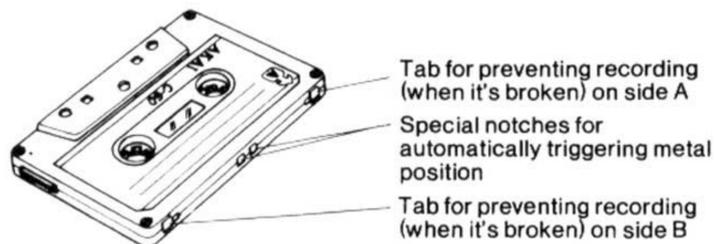## STANDARD REFERENCE AND RECOMMENDED TAPES

Types of Tape	Recommended Tapes	
Normal Position	AKAI	LN
	FUJI	FL, FX-I
	MAXELL	LN, UL, UD*, XL
		XLI, XLI-S
	SCOTCH	Dynarange
		Master I
	TDK	D, AD, OD
	BASF	LH, LH I
CrO₂ Position	TDK	SA*, SA-X
	FUJI	FX-II
	MAXELL	XLII, XLII-S
	SCOTCH	Master II
Metal Position	AKAI	MA*, MX*
	TDK	MA*, MA-R**
	MAXELL	MX
	FUJI	METAL
	SCOTCH	METAFINE

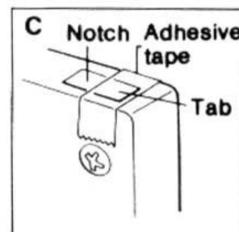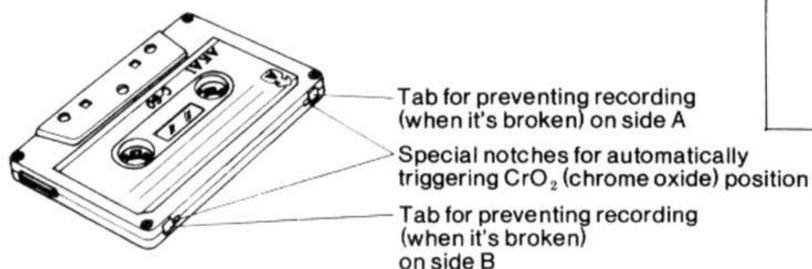* C-60 tapes with this mark are the standard reference tapes.
** Do not use TDK MA-R cassette tapes which do not have special notches for automatically triggering metal position.
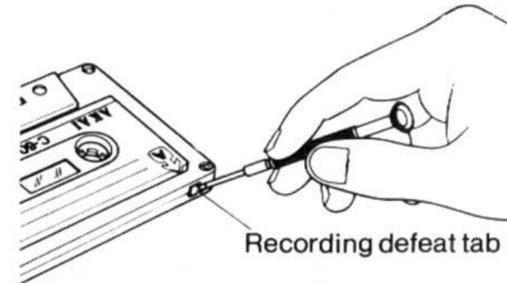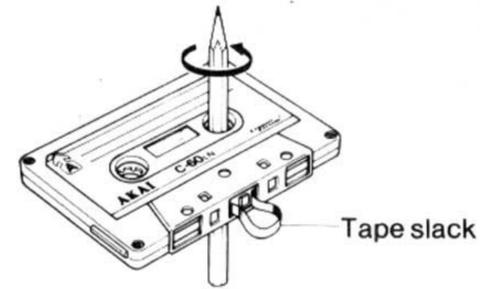
CASSETTE TAPE CARE

Tape slack

Recording defeat tab

* Do not use cassette tape of inferior quality.
* Heads should be kept clean and demagnetized at all times.
* Before using a cassette tape, confirm whether tape slack exists. As tape slack causes the tape to twist or tangle around the pinch wheel and capstan, take up slack if necessary.
* Recording cannot be made on the leader tape. Therefore, when using a new cassette tape, be sure to forward the tape slightly so that the leader tape is not in the head path.
* Tapes which have been stored in a hot moist place for a period of time or cassette tape with bent cases should not be used. Such tapes may curl or have greasy places altering tape speed and preventing proper performance. Always store tapes in a cool, dry place.
* Do not touch the tape with your fingers as high frequency signals cannot be recorded in places which are not clean on the tape.
* Cassette tapes are equipped with a break-out tab (recording defeat tab) for both A and B sides. When these tabs have been removed to protect an important recording, no further recording can be made on the tape unless the cavities are plugged or covered with a piece of tape.

AUTO TAPE SELECTOR

A Cassette tape for metal position

Tab for preventing recording (when it's broken) on side A
Special notches for automatically triggering metal position
Tab for preventing recording (when it's broken) on side B

B Cassette tape for CrO₂ (chrome oxide) position

Tab for preventing recording (when it's broken) on side A
Special notches for automatically triggering CrO₂ (chrome oxide) position
Tab for preventing recording (when it's broken) on side B

C Notch Adhesive tape Tab

When a tape is loaded, the indicator (CrO₂: Chrome, NORMAL: Low noise and low noise high output, or METAL: Metal) corresponding to the type of tape loaded will light. At the same time, the bias and equalization and sensitivity levels will be automatically set to Akai's reference values.

* After loading a cassette, confirm that the indicator lit corresponds to the type of tape written on the cassette.
* Chrome and metal position tape cassettes without notches for triggering their respective tape positions can not obtain good recording results with this deck. Use of ferri-chrome position tapes are not recommended.
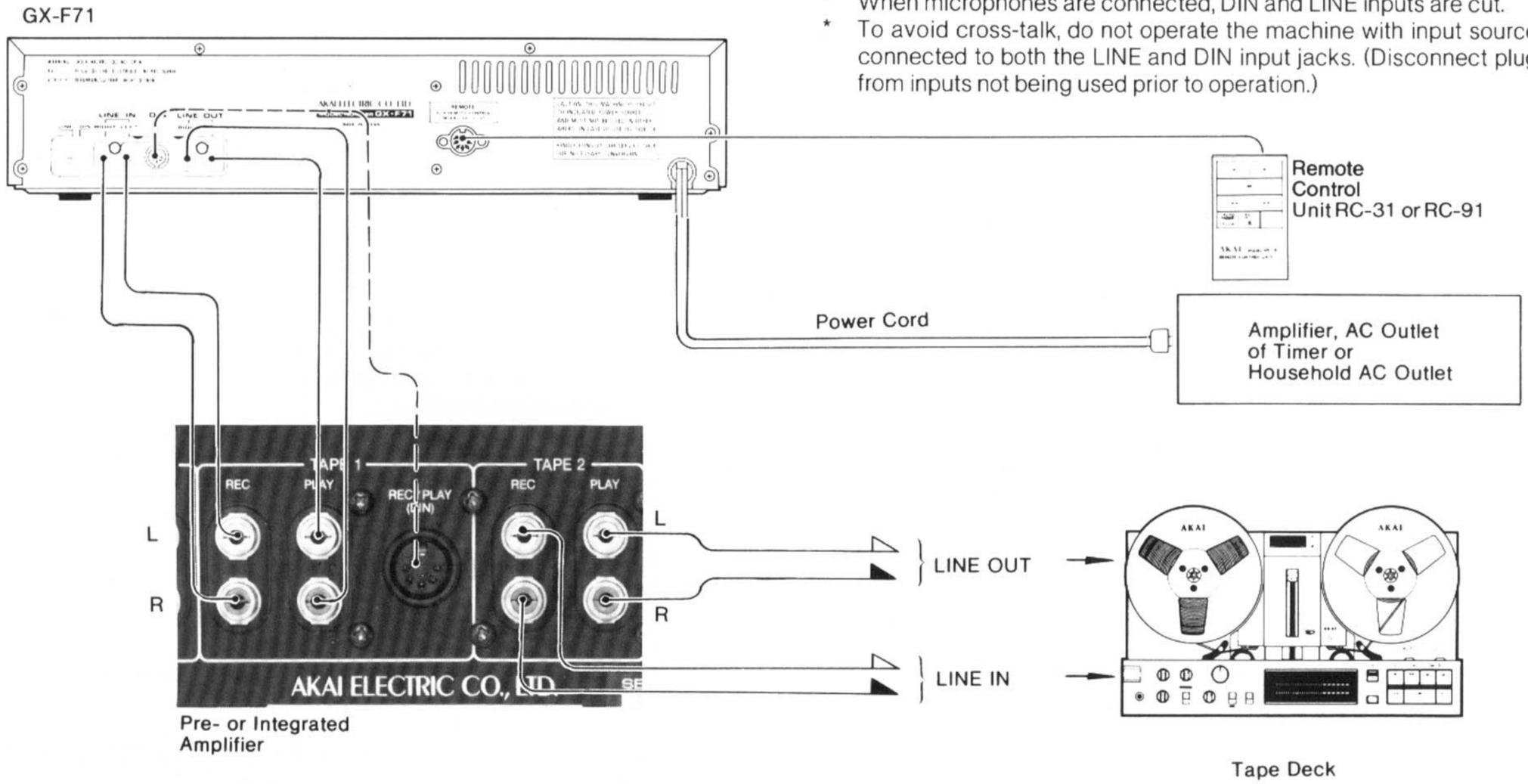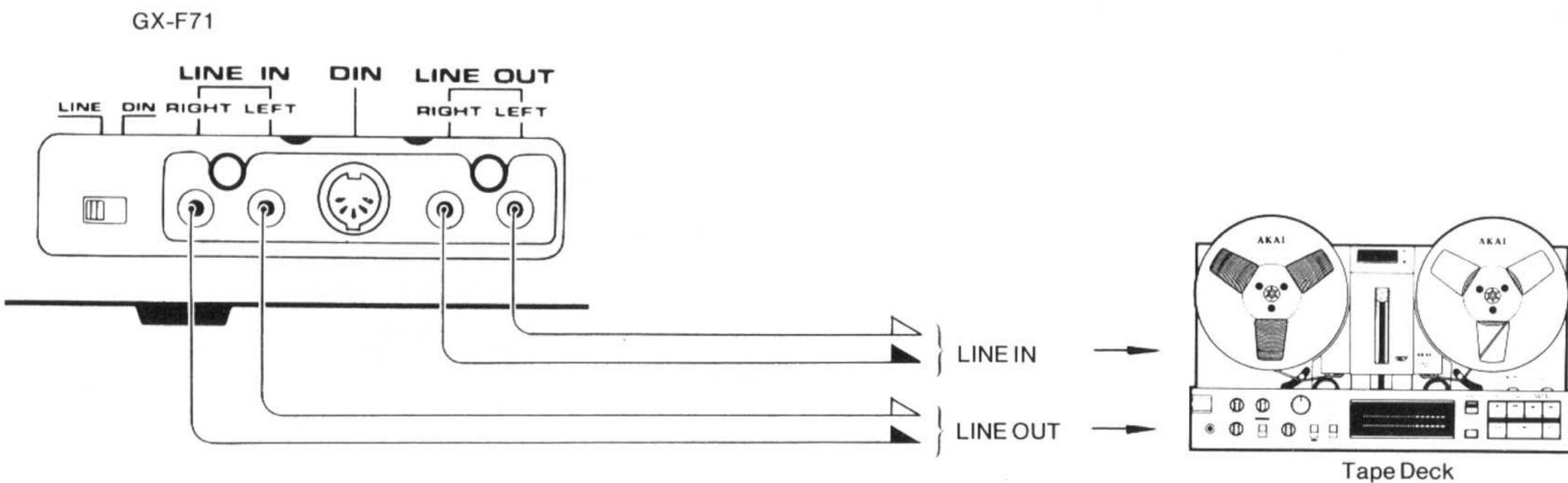
CONNECTIONS

BASIC CONNECTION

PLACEMENT

If the deck, tuner and amplifier are placed on top of each other, humming noise may result during playback. Also beat noise may result during recording of AM broadcasts. In such cases, change the position of the deck. Akai recommends that a space the size of an amplifier be placed between the deck and the tuner or the amplifier.

* Turn off all the components before connecting.
* When microphones are connected, DIN and LINE inputs are cut.
* To avoid cross-talk, do not operate the machine with input sources connected to both the LINE and DIN input jacks. (Disconnect plugs from inputs not being used prior to operation.)

GX-F71

Remote Control Unit RC-31 or RC-91

Power Cord

Amplifier, AC Outlet of Timer or Household AC Outlet

TAPE 1 TAPE 2

REC PLAY REC/PLAY (DIN) REC PLAY

LINE OUT

LINE IN

AKAI ELECTRIC CO., LTD.

Pre- or Integrated Amplifier

Tape Deck

WHEN TAPE DUBBING (CONNECTING DIRECTLY TO ANOTHER DECK)

GX-F71

LINE DIN LINE IN DIN LINE OUT
RIGHT LEFT   RIGHT LEFT

LINE IN

LINE OUT

Tape Deck

CONNECTING A PAIR OF HEADPHONES

Headphones

PHONES

RECORDING

BASIC RECORDING PROCEDURE

Confirm before operation:
* All the components are properly connected.
* The TIMER START selector is set to OFF.
* The cassette tape's recording defeat tabs are not broken. If they are, cover the holes with pieces of adhesive tape.
* Best results are obtained with tapes listed on the STANDARD REFERENCE AND RECOMMENDED TAPES on page 5.
* The cassette tape must have special notches for triggering its tape position.
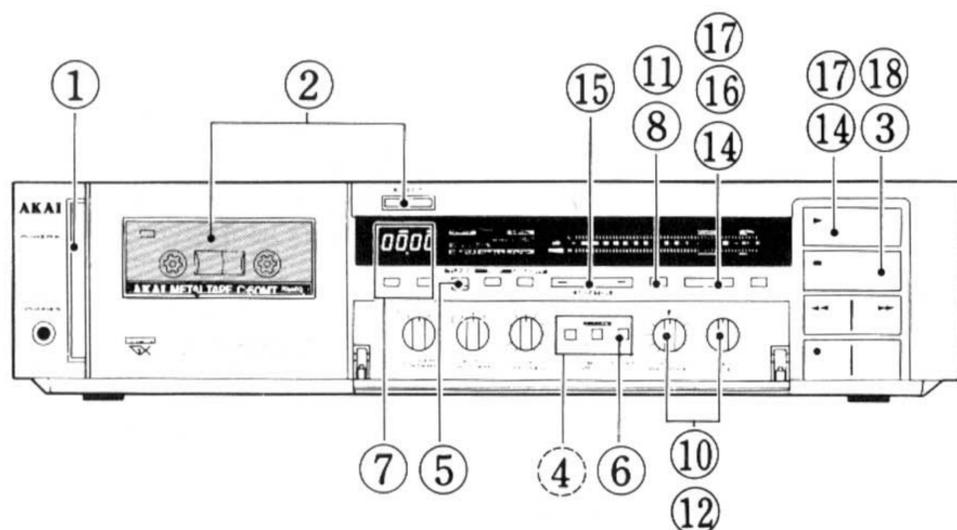
Loading the cassette tape:
1. Depress the POWER switch to turn on the power.
2. Depress the EJECT button and load the cassette tape.
   * New tape gives best results.
3. Depress the Stop (■) button.
   * The Cassette Receptacle will close automatically.
   * If the cassette tape is not loaded properly, the cassette tape will be ejected.
   * If there is any tape slack, it will be taken up automatically.
   * The Tape indicator corresponding to the type of tape loaded will light. The REFERENCE indicator will light to indicate that the bias, equalization and sensitivity levels are set to Akai's reference values.

To set the bias, equalization and sensitivity levels to the tape in use (auto tape tuning):
   * The GX-F71 must be in the stop mode.
4. Depress the TUNING button.
   * The TEST indicator will flash on and off during auto tape tuning.
   * When the auto tape tuning is completed, the READY indicator will light and the values set will be memorized. The memory is retained as long as the power is applied. After auto tape tuning, the GX-F71 will go into recording standby mode.
   * As long as the READY indicator is lit, the values are set to the tape in use. When the REFERENCE indicator lights, they are set to Akai's reference values.
   * Once the values are memorized, they can be recalled anytime by depressing the MEMORY button. However, if auto tape tuning is performed again for another tape, values for that tape will be memorized and the previous memory will be erased.
   * If the ERROR indicator lights: a) use another tape; or b) reperform auto tape tuning; or c) depress the REF button and set the values to Akai's reference values.

TO PAUSE DURING RECORDING

Simple pause:
Depress the REC/PAUSE button. The GX-F71 will go into recording standby mode. The REC/PAUSE button's indicator will remain lit, but the Play (▶) button's indicator will flash on and off. To resume recording, depress the Play or the AUTO FADER button.

Pause from auto mute:
Depress the AUTO MUTE button. The GX-F71 will go into no-signal mode for 4 seconds. The REC/PAUSE will flash on and off and nothing will be recorded on the tape. After creating this 4 seconds of blank space, the GX-F71 will go into recording standby mode. To resume recording, depress the Play or the AUTO FADER button.
* This 4 second of blank space is necessary for IPLS and Intro Scan operations during playback.

5. If recording with Dolby NR is desired:
   a) Turn ON (▬) the DOLBY NR switch.
   b) Select the type of Dolby NR desired: C-TYPE (▬) or B-TYPE (▬).
      * The use of C-TYPE NR results in greater improvement in S/N than the use of B-TYPE NR.
6. If recording from FM stereo broadcast, turn ON (▬) the MPX FILTER switch.
7. Set the FLD Tape COUNTER to show tape travel in minutes and seconds or in the conventional way with the TAPE/TIME selector. Depress the RESET button to reset to '0000'.

Setting the recording levels:
* If starting recording without auto tape tuning, depress the REC/PAUSE button to put the GX-F71 into recording standby mode.
8. Set the FLD Bar Meter to show VU levels with the PEAK/VU selector.
   * The VU indicator will light.
9. Play back the source equipment.
10. Adjust the REC BALANCE and the REC LEVEL controls so that the VU levels are around the 0 dB.
11. Set the FLD Bar Meter to show PEAK levels with the PEAK/VU selector.
    * The PEAK indicator will light.
12. Adjust the REC BALANCE and the REC LEVEL controls so that the PEAK levels read up to, but not exceed the +7 dB.
    * Refer to SETTING THE RECORDING LEVELS on page 8.
13. Set the source equipment to play back from the beginning.

Normal recording:
14. Depress the Play (▶) button and the GX-F71 will go into recording mode.

Auto fade-in recording:
14. Depress the AUTO FADER button. The recording levels will gradually increase (for 4 seconds) to the levels that were set.
    * Therefore, when the tape is played back, the volume will increase gradually.
15. To compare the just recorded signals with the source signals, set the MONITOR selector to and from TAPE and SOURCE.

Auto fade-out recording:
16. During recording, when the AUTO FADER button is depressed, the recording levels will gradually decrease (for 4 seconds). Then the GX-F71 will create a 4 seconds of blank space which is necessary for the IPLS and Intro Scan operations during playback. After creating this blank space, the GX-F71 will go into recording standby mode.
    * Therefore, when the tape is played back, the volume will decrease gradually.
17. To resume normal recording, depress the Play (▶) button, or to go into auto fade-in recording, depress the AUTO FADER button.
18. To stop recording, depress the Stop (■) button.

ADDED ON RECORDING

During playback, depress the Play (▶) button which is lit and the REC/PAUSE button simultaneously and GX-F71 will go into recording standby mode without stopping the tape travel.
* Confirm that the cassette's recording defeat tabs are intact and if they are broken, cover the holes with pieces of adhesive tape.

RECORDING CANCEL SYSTEM

When the REC CANCEL button is depressed during recording, the deck will rewind the tape to the beginning of the section that was being recorded and go into recording standby mode after creating 4 seconds of blank space.

* There must be a blank space of 4 seconds before the beginning of the section for the Recording Cancel System to detect. Use the AUTO MUTE button to create this necessary blank space.

Note concerning Recording Cancel System:

In some recordings like classics, there may be breaks of 4 seconds or more during a selection or there may be some parts where the sound is very low for 4 seconds or more. Such sections may be detected as blank spaces during recording cancel operations.

①

Program B — Blank — Program A
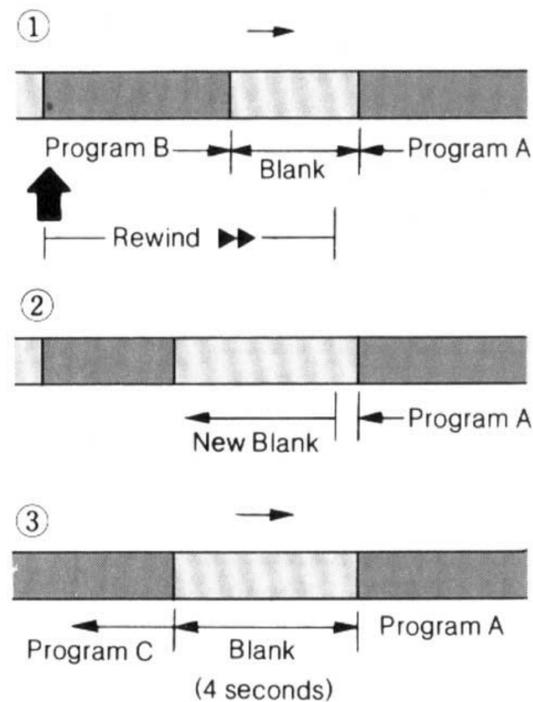
Rewind ▶▶

Depress the REC CANCEL button anytime during recording (arrow in illustration).

The deck will rewind the tape to near the beginning of the blank space.

②

New Blank — Program A

The deck will create 4 seconds of blank space and then go into recording standby mode.

③

Program C — Blank — Program A
(4 seconds)

Depress the flashing Play (▶) button to begin recording.

SETTING THE RECORDING LEVELS

To enjoy good playback, the tape must be recorded in a way which will utilize the full characteristics of the tape. To obtain good signal-to-noise ratio and dynamic range, set the recording levels as high as possible. However, distortion will be added if the levels are too high, and if the levels are too low, tape noise such as tape hiss will become noticeable. As the recording levels should be set according to music source and the type of tape used, set the recording levels by using the Maximum Input Level indicators (interconnected with the auto tape selector) and by setting the FLD Bar Meter to show the VU levels and then the PEAK levels.

### Basic way to set the recording levels

* VU levels will be the basis, so set the FLD Bar Meter to show VU levels with the PEAK/VU selector.
1. When using tapes for NORMAL position, adjust the REC LEVEL and REC BALANCE controls so that VU levels are around 0 dB.
2. Set the FLD Bar Meter to show PEAK levels with the PEAK/VU selector.
3. Adjust the REC LEVEL control so that the PEAK levels are around +7 dB.

The FLD Bar Meter changes with each tape position in a way shown below so that good recording levels can be set. The recording levels should be set according to music source and the type of tape. Therefore, please keep in mind what is shown below.

A) When using tapes for NORMAL position, adjust so that the maximum recording input levels do not reach the line under the NORMAL Maximum Input Level indicator.

VU meter	M.I.L. Indicator
NORMAL	
0 2 ∞ 4 5 6 7 8	10

PEAK meter	
NORMAL	
8 6 5 4 3 2 1 0 1 2 ∞	
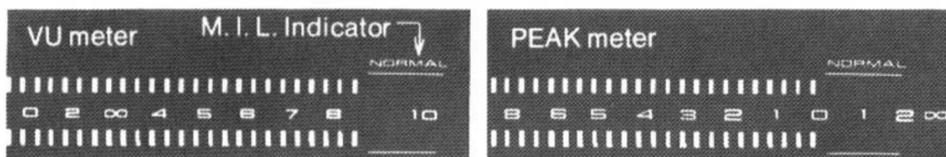
B) When using tapes for CrO₂ (chrome oxide) position, adjust so that the maximum recording input levels do not reach the line under the CrO₂ Maximum Input Level indicator.

VU meter	
CrO₂	
∞ 4 5 6 7 8 10 12	

PEAK meter	
CrO₂	
6 5 4 3 2 1 0 1 2 ∞ 4	
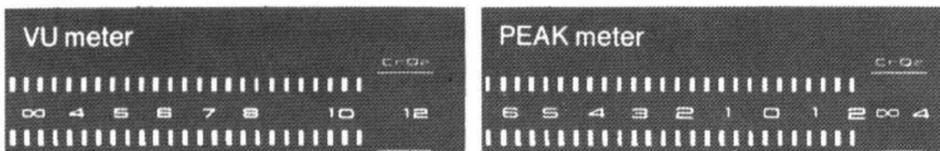
C) When using tapes for METAL position, adjust so that the maximum recording input levels do not reach the line under the METAL Maximum Input Level indicator.

VU meter	
METAL	
4 5 6 7 8 10 12 +16	

PEAK meter	
METAL	
4 3 2 1 0 1 2 ∞ 4 6+ 8	
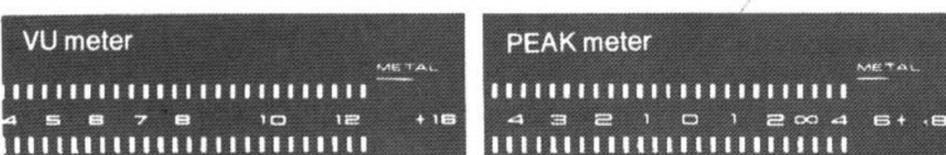
Generally, the performance of tapes is such that, higher the frequency lower the saturation level. Thus at high frequency, the maximum recording input levels should be low. Specially, when recording live or classical music which has many high frequency parts, set the recording levels at slightly lower level.

PEAK METER

* ### Response time of peak and VU meters
  The peak meter shows the peak (maximum) levels of input signal and the VU meter shows the average value of input signal. As the listening characteristics of man is close to that of an average value of sound volume, many audio equipment such as mixing amplifier, tape deck, broadcast equipment use VU meters. The peak meter has a response time of 8 msec against 300 msec for VU meter. Response time is the time it takes for a sudden input of 0 dB signal to reach nearly (99%) the 0 dB level of meter.

* ### Ordinary input signal
  Ordinary audio signal is made from complex wave forms. As defined under the DIN standard, when a VU meter shows a signal at 0 VU, the peak levels of this signal are at around 8 dB ±5 dB. Therefore, the peak levels can not be detected by a VU meter. Thus, if a signal has peak levels of more than 8 dB, and is recorded only using a VU meter, distortion will result.

* ### Advantages of peak meter
  A peak meter can sufficiently indicate the peak levels which can not be indicated by a VU meter. Therefore, by keeping the peak levels within the reference level (peak meter: +7 dB), distortion can be avoided. By monitoring the peak levels, the dynamic range of tape can be fully brought out.
  This unit is equipped with a PEAK/VU selector so that the bar meter can become a peak or a VU meter at a touch of a button. As defined under the DIN standard, the reference level of VU (0 VU) corresponds to the +7 dB on the peak meter.

TAPE MONITOR

3-head system has 3 independent heads (one for recording, one for playback and another for erasing) and 2 amplifiers (one for recording and another for playback). Such system allows for comparison of the just recorded signals with the source signals. By setting the MONITOR selector to TAPE, the just recorded signals can be monitored. By setting it to SOURCE, the source signals can be monitored. Therefore, use the MONITOR selector to obtain good recording results. This MONITOR selector automatically sets itself to TAPE during recording and playback modes and to SOURCE during recording standby mode.

PLAYBACK

Confirm before operation:
- All the components are properly connected.
- The TIMER START selector is set to OFF.
- The MPX FILTER switch is turned OFF (▮).
- The cassette tape's recording defeat tabs are broken.
- If the REC/PAUSE button is depressed during playback, the GX-F71 will go into recording standby mode.
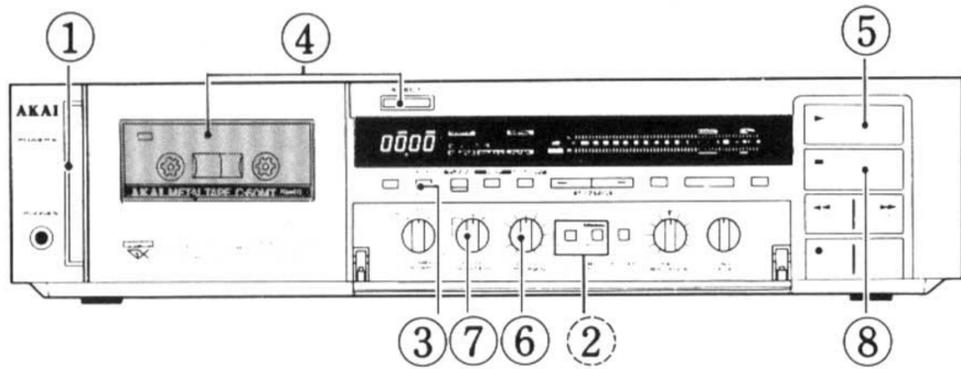
1. Depress the POWER switch to turn on the power.
2. If the tape was recorded with Dolby NR, turn ON (▬) the DOLBY NR switch and set the DOLBY NR selector to the position it was set during recording.
   * If the tape was recorded with conventional DOLBY NR, set the DOLBY NR selector to B-TYPE.
3. Depress the RESET button to reset the TAPE COUNTER to '0000' for easy tape indexing.
4. Depress the EJECT button and load the pre-recorded tape.
5. Depress the Play (▶) button.
   The Cassette Receptacle will close; if there is any tape slack, it will be taken up, and the GX-F71 will go into playback mode.
6. Adjust the OUTPUT/PHONES control.
   * Refer to HOW TO ADJUST THE OUTPUT/PHONES CONTROL on page 9.
7. For Auto System and Intro Scan operations, refer to AUTO SYSTEM on page 9.
8. To stop playback, depress the Stop (■) button.
   * To rewind the tape, depress the Rewind (◀◀) button.
   * To fast forward the tape, depress the Fast Forward (▶▶) button.

HOW TO ADJUST THE OUTPUT/PHONES CONTROL

When an external amplifier is employed, it is necessary to match the line output level of the GX-F71 to the playback level of the external amplifier so that when a tape is played back the amplifier's volume control need not be readjusted.
1. Consider the listening level of FM broadcast through the amplifier as standard.
2. Playback a prerecorded tape.
3. Set the Monitor selector of the amplifier to Tape and listen to the tape.

4. If the listening level is different from that of the standard listening level, adjust the deck's OUTPUT/PHONES control.
5. Set the Monitor selector of the amplifier to Source and listen to the standard listening level.
6. If the listening level from the tape is still different from the standard listening level, adjust the OUTPUT/PHONES control again.
7. Repeat steps 3 to 6 until there is no difference.

AUTO SYSTEMS

The Intro Scan system and IPLS detect the beginning of selection by the volume level and the time constant (the length of silence). For this reason, the intervals between each selection must be at least 4 seconds long. During recording, use the AUTO MUTE button to create these necessary blank spaces.
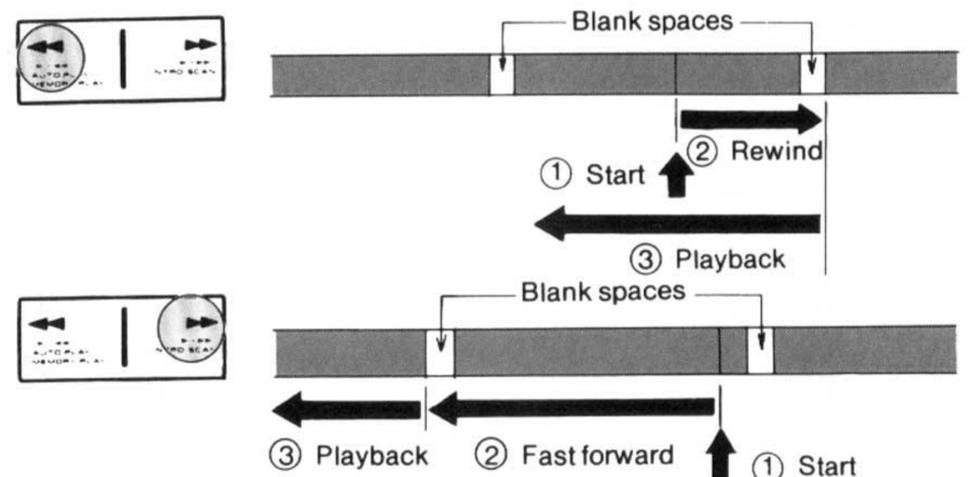
Intro Scan
1. Any time during playback, depress the Play (▶) and Fast Forward (▶▶) buttons simultaneously.
   * The GX-F71 will fast forward the tape until it encounters a blank space. Then it will automatically playback the tape for 10 seconds. After playing back for 10 seconds, it will fast forward the tape to the next blank space and then go into another 10 seconds of playback, and so on until the end of the tape.
   * To stop intro scan operation, depress the Stop (■) button.
2. When the desired selection is played back, depress the Play (▶) button to resume normal playback.
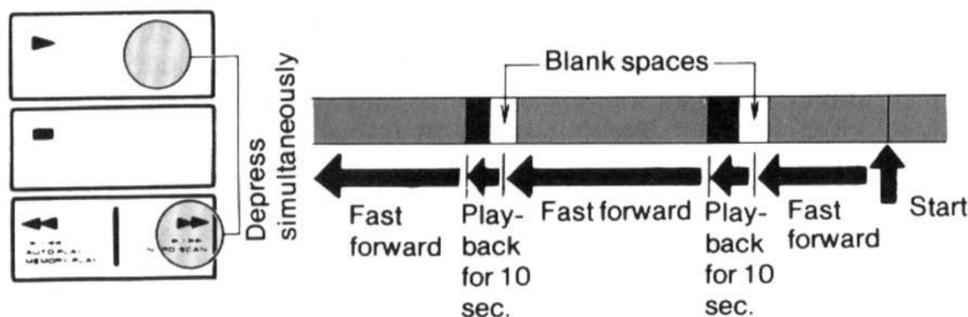
IPLS (Instant Program Locating System)
1. Set the AUTO SYSTEM selector to IPLS.
2. Any time during playback, depress the Rewind (◀◀) button.
   * The GX-F71 will rewind the tape to the beginning of the selection and then begin playback automatically.
   Any time during playback, depress the Fast Forward (▶▶) button.
   * The GX-F71 will fast forward the tape to the beginning of the next selection and then begin playback automatically.

Notes on Intro Scan and IPLS
In some recordings like classics, there may be breaks of 4 seconds or more during a selection or there may be some parts where the sound is very low for 4 seconds or more. Such sections may be detected as blank spaces between selections.
With some live recordings, there may be applause between the selections. Such sections will not be detected as blank spaces between selections.

Auto Play

When the Play (▶) and Rewind (◀◀) buttons are depressed simultaneously, the GX-F71 will rewind the tape to the beginning of the tape and then begin playback automatically.

Memory Stop

1. During playback or recording, depress the RESET button and reset the TAPE COUNTER to '0000'.
2. Set the AUTO SYSTEM selector to MEMORY.

3. Depress the Rewind (◀◀) button.
   * The GX-F71 will rewind the tape to near '9999' and stop.

Memory Play

Proceed as in Memory Stop but in step 3, depress the Play (▶) and Rewind (◀◀) buttons simultaneously.
* The GX-F71 will rewind the tape to near '9999' and then begin playback automatically.

ABSENTEE RECORDING AND TIMED PLAYBACK

Integrated Amplifier

LINE OUT · PLAY · LINE IN · REC

Power Cord

Power Cord

Speakers

Timer

Power Cord

AC Outlet

Tuner

1. Set the timer to OFF (or similar mode: follow directions for your particular timer) when connecting the deck and other components.
2. Turn on all the components connected to the timer and make adjustments.
   * Refer to each component's operator's manual.
   * For GX-F71:
     Absentee recording: Refer to RECORDING on page 7 and adjust the recording levels. Then depress the Stop (■) button to put the GX-F71 into stop mode.
   **Timed playback:** Refer to PLAYBACK on page 9 and adjust the output level. Then depress the Stop (■) button to put the GX-F71 into stop mode.
3. Set the timer to the desired time and set to TIMER (follow directions for your particular timer). The deck and other components will be turned off.
4. Set the TIMER START selector to TUNING REC for absentee recording with auto tape tuning, REC for absentee recording without auto tape tuning or to PLAY for timed playback.
   * Set to OFF for all other times.
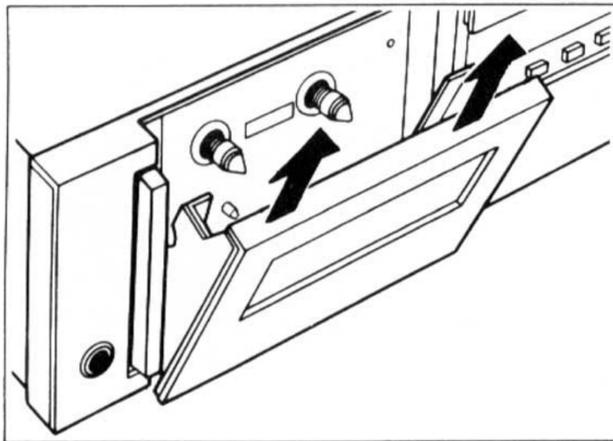   * When set to TUNING REC, set the timer to turn on a few minutes before the time the recording is to take place.
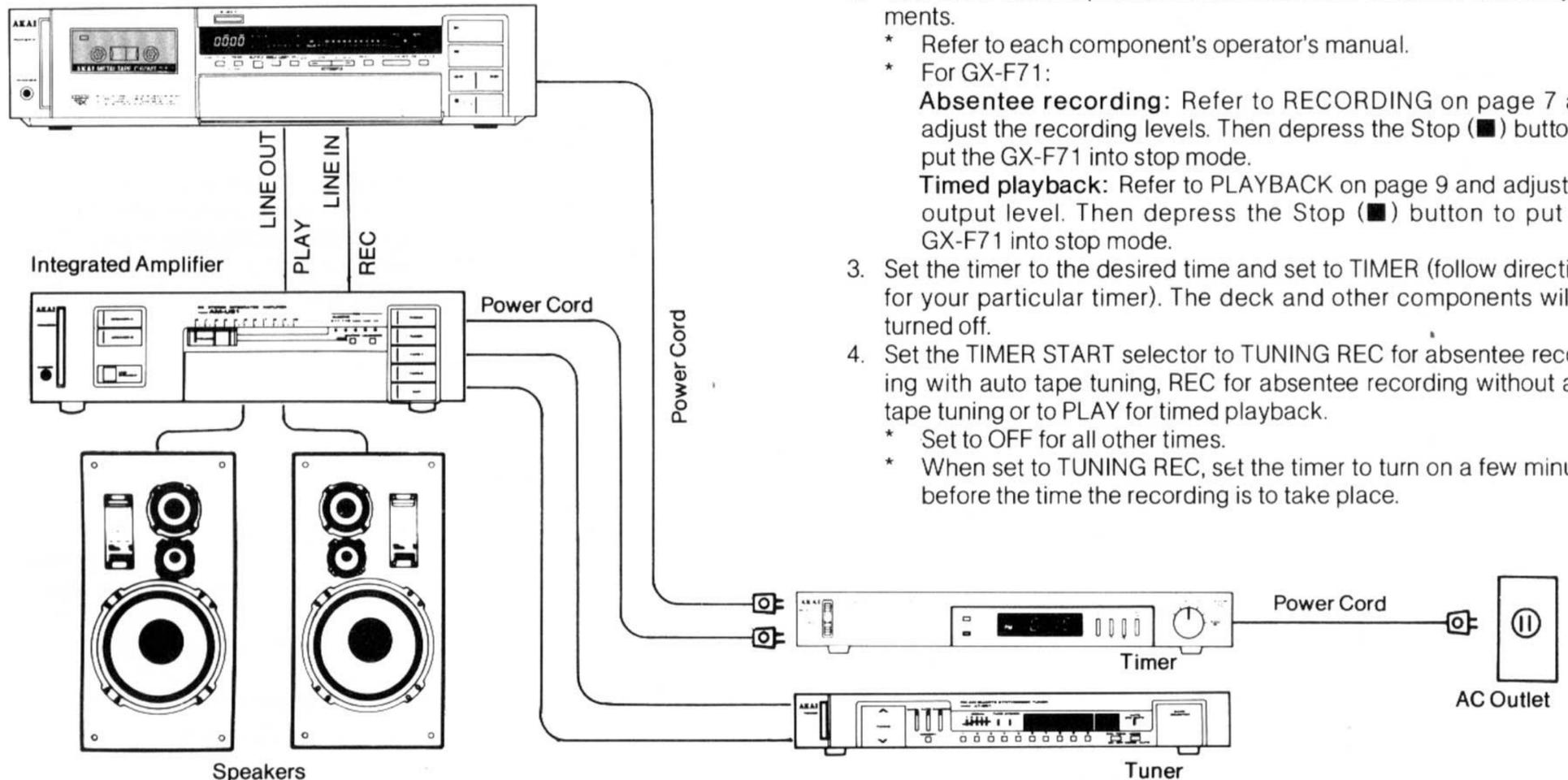
MAINTENANCE

After opening the Cassette Receptacle with the EJECT button, depress the POWER switch to turn off the power.
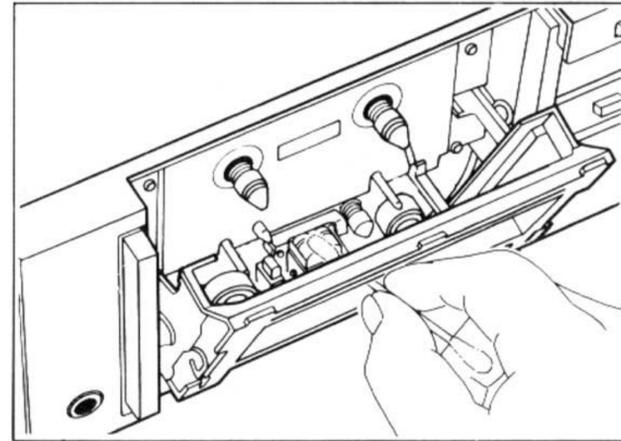
1. REMOVING THE RECEPTACLE LID

The receptacle lid can be removed by lifting the lid up.
* Be sure to use both hands.
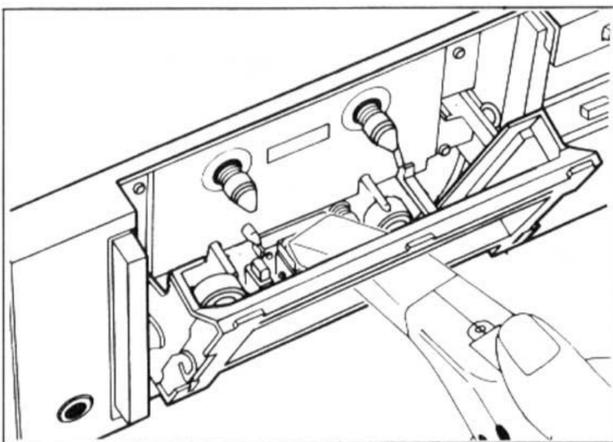
2. HEAD CLEANING

Clean the heads with a cotton swab stick which has been dipped in Akai Cleaning Fluid (Akai Cleaning Kit HC-550P). Also clean the pinch wheel, capstan, and other parts over which the tape travels.
* If Akai Cleaning Fluid is not available, use alcohol.

Do not use other chemical cleaners as the rubber parts will deteriorate.

3. HEAD DEMAGNETIZING

The steel pole pieces which form part of the recording and playback heads become slightly magnetized after several recording and playback hours and as a result, the tape is partially erased at high frequencies. Therefore, head demagnetizing is recommended periodically.

4. REPLACING THE RECEPTACLE LID
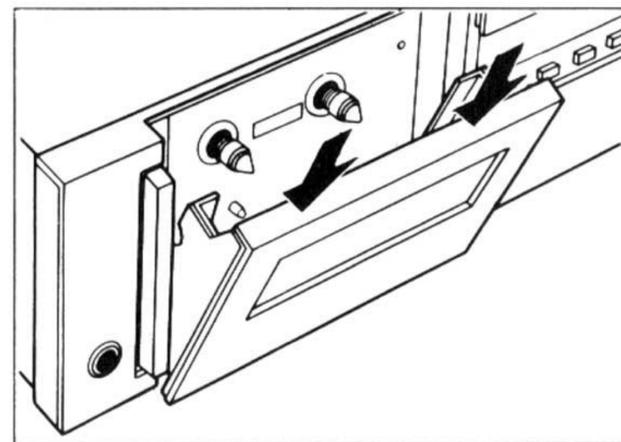
To replace the lid onto the holder, slide down the lid over the holder.
* Do not insert a cassette tape with the receptacle lid off.
* The receptacle lid is properly attached when it is even with the front and top panels.

TROUBLE SHOOTING

The conditions listed below do not indicate mechanical failure of your unit. If your machine exhibits any of these conditions, check for trouble as indicated.

EJECT button will not function
* Power is not being supplied. Turn on the power.

Recording button will not function
* Cassette is not loaded.
* Recording defeat tabs are removed. Plug or cover cavities.

Tape will not run
* Power is not being supplied. Check power cord and POWER switch.
* Tape slack. Take up slack as mentioned in "Cassette Tape Care".

Auto tape tuning will not take place
* Deck not in stop mode. Depress the Stop (■) button.
* Recording defeat tabs are removed. Plug or cover cavities.

Noisy Sound
* Heads are dirty. Clean following head cleaning instructions.
* Heads are magnetized. Demagnetize following head demagnetizing instructions.

Previous recording will not erase
* Erase head dirty. Clean following head cleaning instructions.

Distorted sound
* Recording level is too high. Set as explained under Recording.

Playback cannot be effected
* Connections are incorrect.
* Controls are not properly adjusted or positioned. Check external amplifier controls.
* REC/PAUSE button is depressed.

Recording will not take place
* Dirty head. Clean following head cleaning instructions.
* Connections are incorrect.
* Controls are not properly positioned or adjusted. Check external source controls.
* Deck in recording standby mode.

The correct indicator will not light when chrome or metal position tape is loaded
* Old cassette used. Use a new cassette with notches for triggering CrO_2 or metal position.

IPLS, REC CANCEL and Intro Scan will not take place properly
* Blank spaces not 4 seconds long. Use the AUTO MUTE button to create the blank spaces.

Tape stops or plays back during fast forward or rewind
* AUTO SYSTEM selector set to MEMORY or IPLS. Set to OFF.

Should there be a problem with your machine, write down the model and serial numbers and all pertinent data regarding warranty coverage as well as a clear description of the existing trouble and contact your nearest authorized Akai Service Station or the Service Department of Akai Electric Company, Tokyo, Japan.

SPECIFICATIONS

Track System	4 Track 2 Channel Stereo System
Tape	Philips Type Cassette
Tape Speed	4.76 cm/s ± 1.0% (1-7/8 ips. ± 1.0%)
Heads	Super GX head for recording × 1 Erase head × 1
Motors	FG servo D.C. motor for direct capstan drive × 1 D.C. motor for reel drive × 1
Wow & Flutter	0.08% WTD (DIN) 0.028% WRMS
Tape Winding Time	90 sec. using a C-60 cassette tape
Frequency Response	Normal: 20 to 17,000 Hz ± 3 dB (−20 VU) CrO_2: 20 to 18,000 Hz ± 3 dB (−20 VU) Metal: 20 to 21,000 Hz ± 3 dB (−20 VU)
Frequency Range	Normal: 15 to 18,000 Hz CrO_2: 15 to 20,000 Hz Metal: 15 to 21,000 Hz
Signal to Noise Ratio	Metal: Better than 60 dB (measured via tape with peak recording level) Dolby B-type NR switch ON: Improves up to 5 dB at 1 kHz, 10 dB above 5 kHz Dolby C-type NR switch ON: Improves up to 15 dB at 500 Hz, 20 dB at 1 kHz to 10 kHz
Harmonic Distortion	1 kHz, 3rd harmonic distortion Metal: Less than 0.8%

Input	Line: 70 mV (input impedance: 47 kohms)
Output	Line: 410 mV at 0 VU Required load impedance: more than 20 kohms Phone: 1.3 mW/8 ohms at 0 VU
DIN	Input: 2.0 mV (input impedance: 10 kohms) Output: 410 mV Required load impedance: more than 20 kohms
Power Requirements	120V, 60 Hz for USA and Canada 220V, 50 Hz for Europe except UK 240V, 50 Hz for UK and Australia 110V/120V/220V/240V, 50/60 Hz switchable for other countries
Dimensions	440(W) × 100(H) × 377(D)mm (17.3 × 3.9 × 14.8″)
Weight	7.4 kg (16.3 lbs)

STANDARD ACCESSORIES

Connection Cords .... 1 set
Operator's Manual 1

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