

# AKAI

# GX-630D-SS

## 4-CH/2-CH COMPATIBLE STEREO TAPE DECK

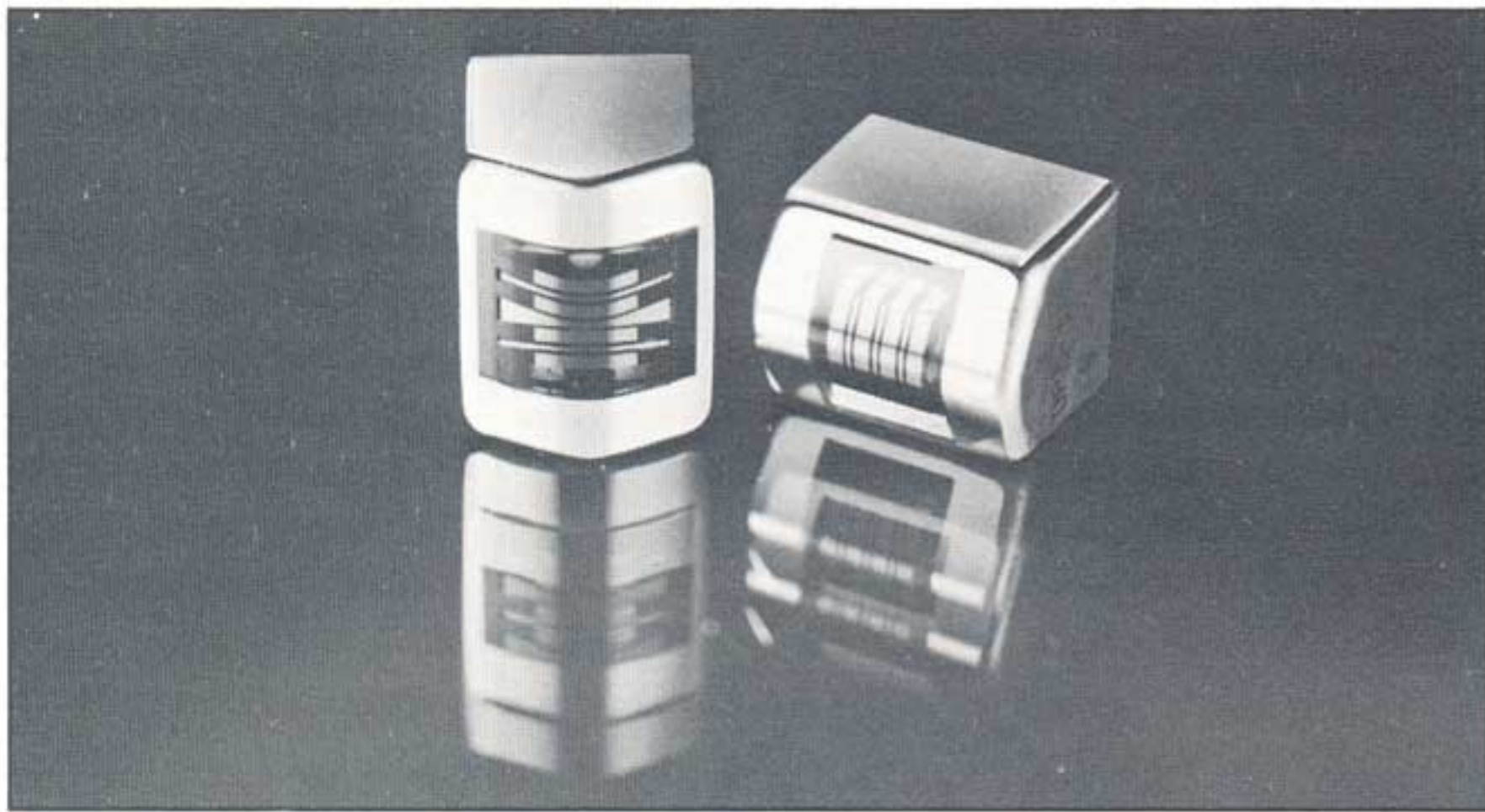
All GX Recording and Playback Head Quadra-Sync 4-channel stereo tape deck. A 4-CH/2-CH Mode Selector Switch instantly converts the unit for 4-channel or 2-channel performance. New CPG AC Servo Motor for direct capstan drive. 10-1/2" reel capacity.



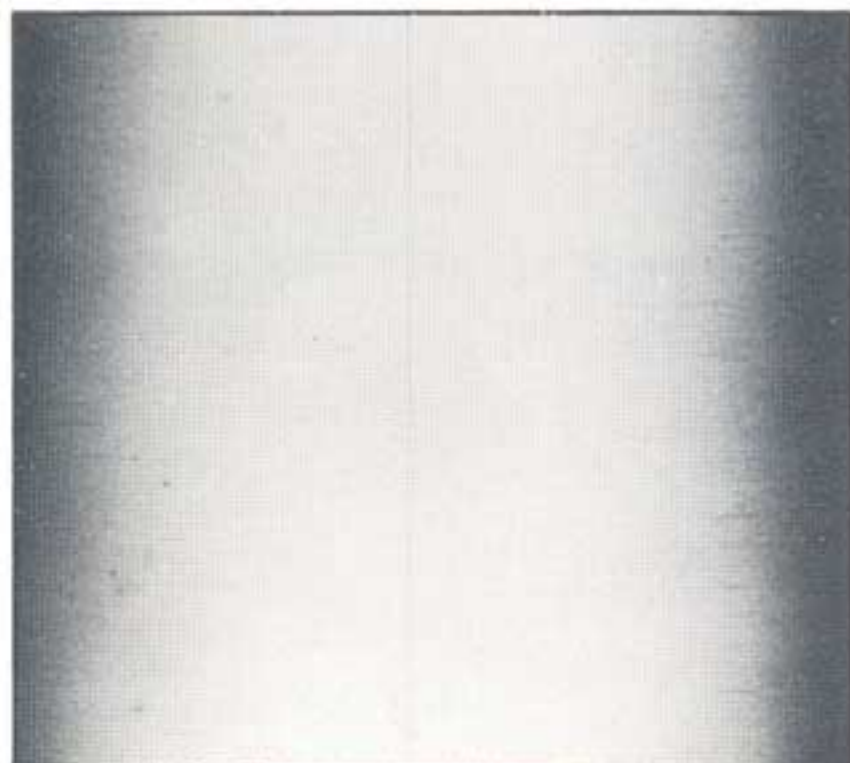
# GX HEAD CPG AC SERVO MOTOR SYSTEM

## S/N RATIO BETTER THAN 54dB. LESS T

### 4-CHANNEL/2-CHANNEL GX HEAD FOCUSED FIELD RECORDING AND PLAYBACK SYSTEM



The GX-630D-SS employs all GX Recording and Playback Heads for incomparable four and two channel stereo performance. The cores of the GX (glass and crystal ferrite) Heads are made of low noise crystal ferrite which has proven far superior to conventional head core materials. This is a non-porous material so that there is nothing to cause cracking or chipping of material from the head surface and, thus, there is no gap damage. This also means that the magnetic properties peculiar to ferrite can be utilized for high electronic conversion capabilities resulting in better high range frequency characteristics. The nature of this material enabled Akai engineers to construct a perfectly lineal shallow head gap and an acute angle head surface contour for perfect head-to-tape contact wherein the tape is exposed only to the part of the head's sharply focused magnetic field for improved head sensitivity and the elimination of sound drop-out. The core of the GX Head is mounted and set in pure glass of the same extraordinary hardness so that the head surface is always kept free of dust and magnetic particles, thus assuring wear-free characteristics for lasting new machine performance.



Gap environs of Crystal Ferrite Head. Gap environs of poly ferrite head.

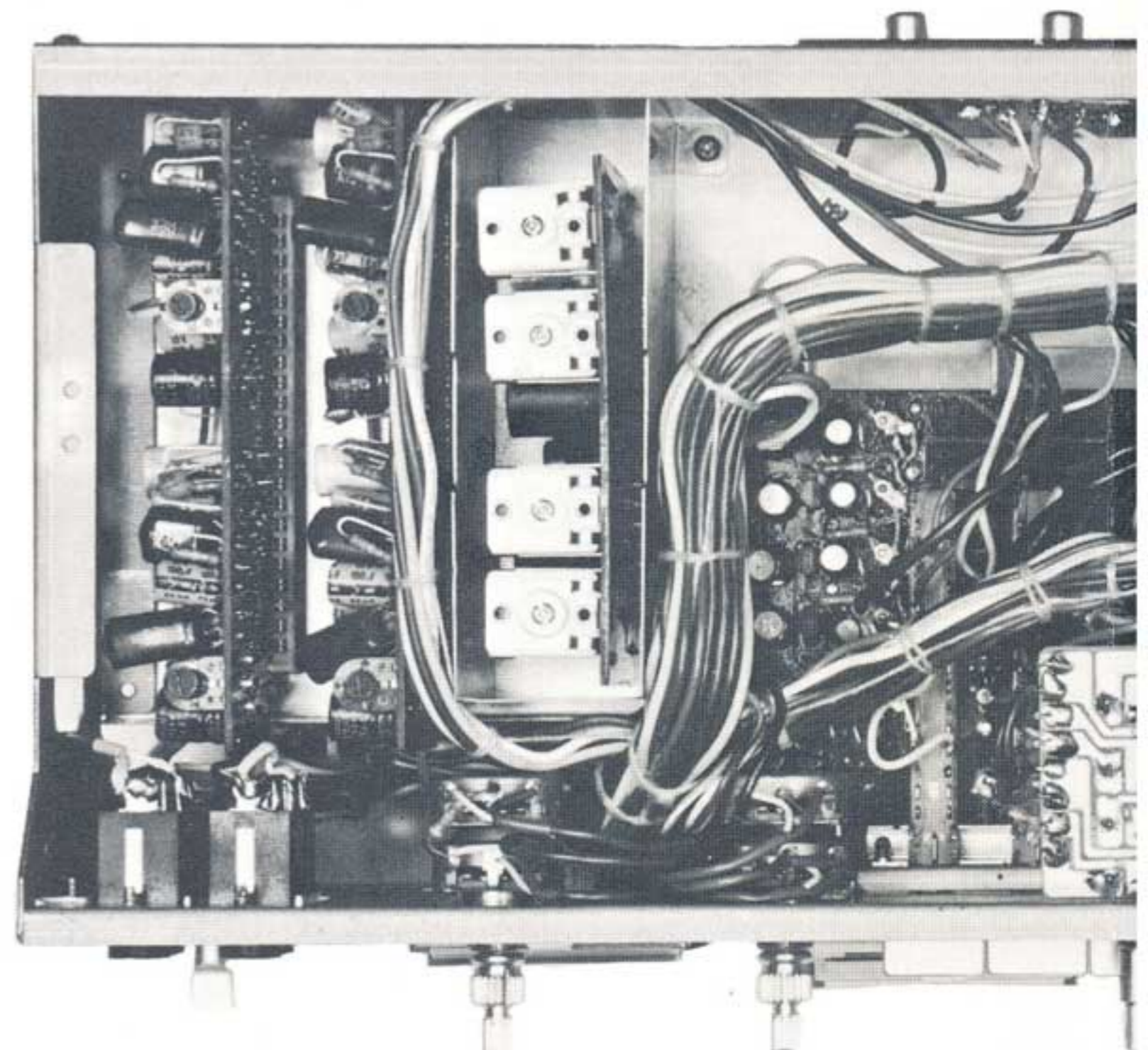
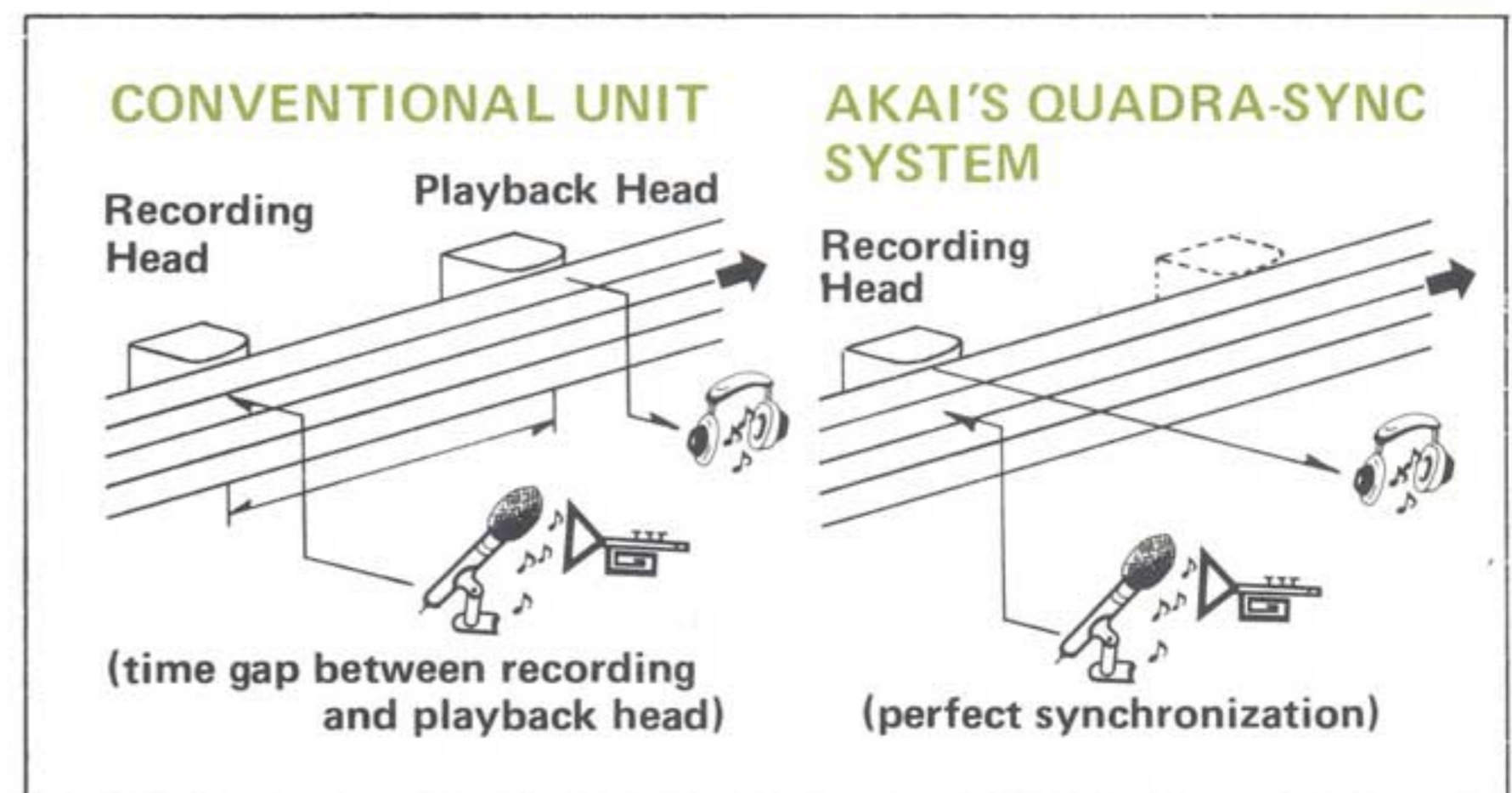
### 10-1/2" REEL CAPACITY

A Reel Size Selector and standard accessory 10-1/2" reel hub adapters facilitate the use of 5, 7, or 10-1/2" reels. Further, this model features "quick tension" wherein ideal take-up and back tension is applied to the reels at the beginning of tape start for smooth operation regardless of reel size.

### AKAI'S QUADRA-SYNC RECORDING FOR PERFECT SOUND SYNCHRONIZATION

This model incorporates Akai's unique Quadra-Sync recording system. As shown in the figure, on conventional units, sound monitored through headphones comes from the playback head. Therefore, to date, even though there were several kinds of multiple recording systems, because of the short time necessary for the tape to travel from the recording head to the playback head, sound synchronization was impossible.

However, with Akai's Quadra-Sync system, the sound monitored is produced from the recording head, i.e., any of the recording head tracks can be switched to playback mode at will by means of the Track 1,2,3 and 4 QUADRA-SYNC SELECTOR SWITCHES for monitoring during recording on another track. Thus, program material on one track can be perfectly synchronized with any or all of the 3 remaining tracks. Use for professional split rehearsals or recording sessions, or to form a one-man combo or a quartet with a single voice, etc. The uses to which Quadra-Sync can be applied are as unlimited as the imagination of the operator.



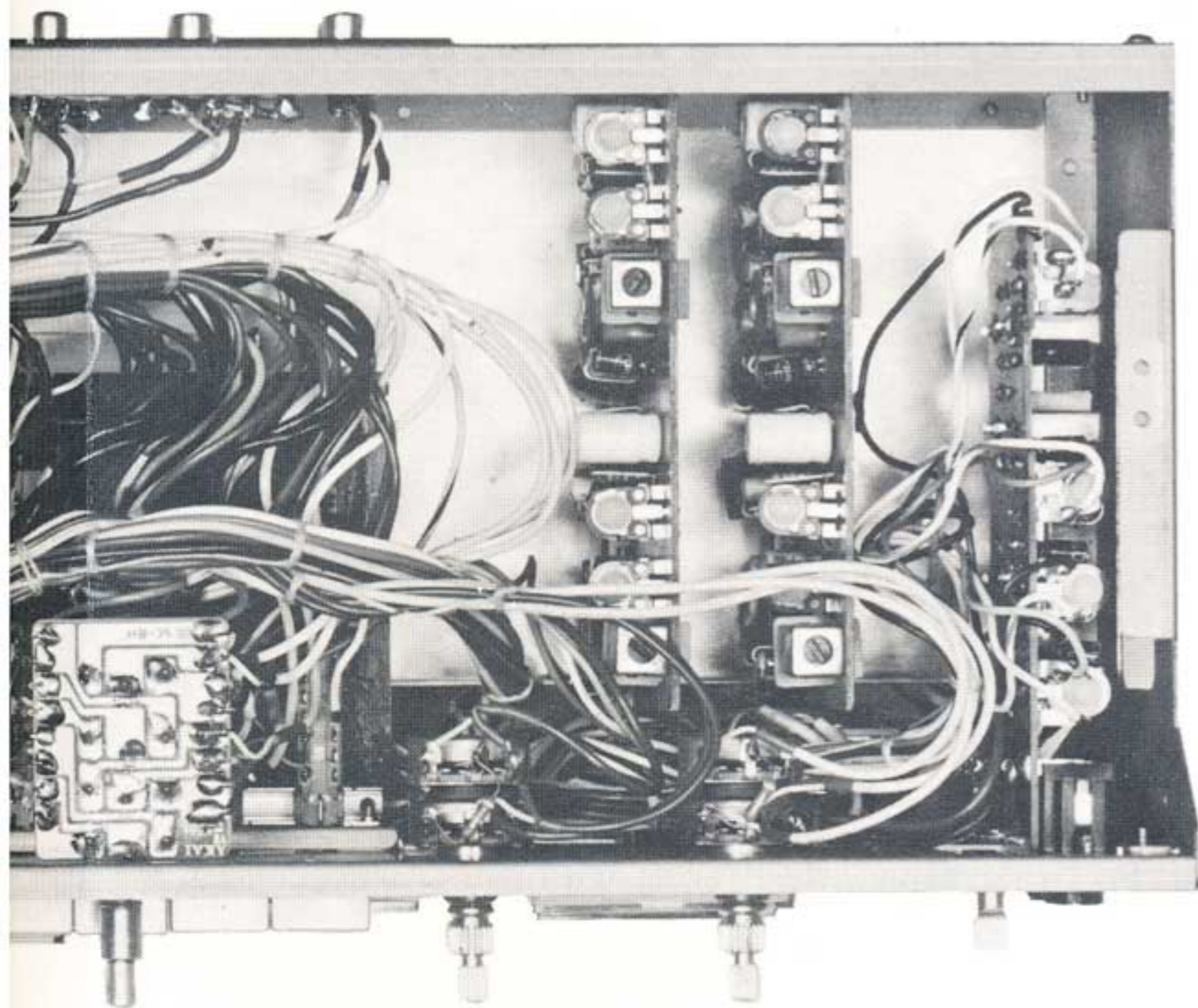
# TEM. DISTORTION LESS THAN 0.5%. THAN 0.06% WOW AND FLUTTER!

## 4-CHANNEL/2-CHANNEL MODE SELECTOR

Switch-over to 4-CH or 2-CH operation is as simple as setting the 4-CH/2-CH Mode Selector according to desired operation. When set to 2-CH mode, rear channel input and output is cut for perfect 2-channel stereo.

## NEW CPG AC SERVO MOTOR FOR DIRECT CAPSTAN DRIVE

This model employs a 3 motor drive system with Akai's new CPG (center pole frequency generated) AC Servo Motor for direct capstan drive. Merits of the CPG system include greater inertia and increased output for a quiet motor with perfectly accurate motor revolutions. This coupled with the elimination of rubber belts and flywheels results in the realization of a 0.06% wow and flutter factor. Two eddy current outer rotor motors complete the drive system for completely stable performance and excellent tone quality. Impedance Roller and Tension Levers also add to tape travel stability.



## QUICK PAUSE CONTROL

When Pause Mode is effected, the tape remains in contact with the heads and the pinch roller separates from the capstan only slightly so that when the Pause Lever is released, re-start is fast and smooth. Pause Control is especially convenient for editing tape.

## FEATHER-TOUCH FULL DIRECT FUNCTION CHANGE CONTROL

Feather-touch Full Direct Function Change Control for speedy mode change. This feature includes direct function change to recording mode for easy add-on recording.

## FOUR EACH MIC AND LINE INPUT LEVEL CONTROLS FOR DIVERSIFIED SOUND MIXING

Individual microphone and line input controls for limitless mixing techniques. These professional type controls can be varied during regular or Quadra-Sync recording for special sound effects. Front and Rear channel Output Controls. Individual Track Indicator Lamps.

## PITCH CONTROL

Modify musical tone during recording or playback. Particularly convenient for adjusting pitch during Quadra-Sync recording. Also convenient for musical instruction or adjusting pitch during duet or trio performance, etc. Musical interval can be changed by up to  $\pm 1$  semi-tone ( $\pm 5\%$  of tape speed).

## AUTOMATIC STOP FOR OPERATING SAFETY

The Automatic Stop/Tension Arm drops at the end of the tape, activating an automatic stop mechanism which completely stops reel movement for operating safety.

## TAPE SELECTOR SWITCH

Facilitates use of high performance Low Noise or Wide Range Tape.

## REMOTE CONTROL OF ALL OPERATING FUNCTIONS

A rear panel Remote Control Jack accommodates Akai optional accessory Remote Control Unit RC-17 for remote control of all operating functions. Model RC-17 Remote Control Unit can also be used together with a timer for absentee recording.

## EXPANDED VU METER SCALES

Expanded VU Meter Scales enable precise input level adjustment for more professional recording results.

## CONVENIENT LIFT-UP TYPE HEAD COVER

## FRONT AND REAR CHANNEL HEADPHONE JACKS

## TECHNICAL DATA

Track System . . . . .	4 track 4/2 channel compatible stereo system.
Reel Capacity . . . . .	Up to 10-1/2" reel.
Tape Speed . . . . .	7-1/2 and 3-3/4 ips. ( $\pm 0.7\%$ )
Pitch Control . . . . .	$\pm 5\%$
Wow and Flutter . . . . .	Less than 0.06% RMS at 7-1/2 ips. Less than 0.09% RMS at 3-3/4 ips.
Frequency Response . . . . .	30 to 21,000 Hz $\pm 3$ dB at 7-1/2 ips. 30 to 15,000 Hz $\pm 3$ dB at 3-3/4 ips.
Distortion . . . . .	Less than 0.5% at 7-1/2 ips. (1,000 Hz "0" VU)
Signal to Noise Ratio . . . . .	Better than 54 dB (measured via tape with peak recording level of +6 VU).
Erase Ratio . . . . .	Better than 70 dB.
Bias Frequency . . . . .	100 kHz.
Heads . . . . .	(4): One 4 TR, 2-CH/4-CH GX playback head. One 4 TR, 2-CH/4-CH GX recording head. One Front CH erase head. One Rear CH erase head.
Motors . . . . .	(3): One AC Servo motor for capstan drive, two eddy current motors for reel drive.
Fast Forward and Rewind Time . . . . .	120 sec. using 2,400 ft tape.
Output Jacks . . . . .	Line (2): 0.775 V (0 VU) Required load impedance: More than 20 k ohms. Phone (1): 30 m V/8 ohms.
Input Jacks . . . . .	Microphone (2): 0.25 m V/10 k ohms. Line (2): 70 m V/150 k ohms.
Semi-conductors . . . . .	Transistors 65, Diodes 63, ICs 4.

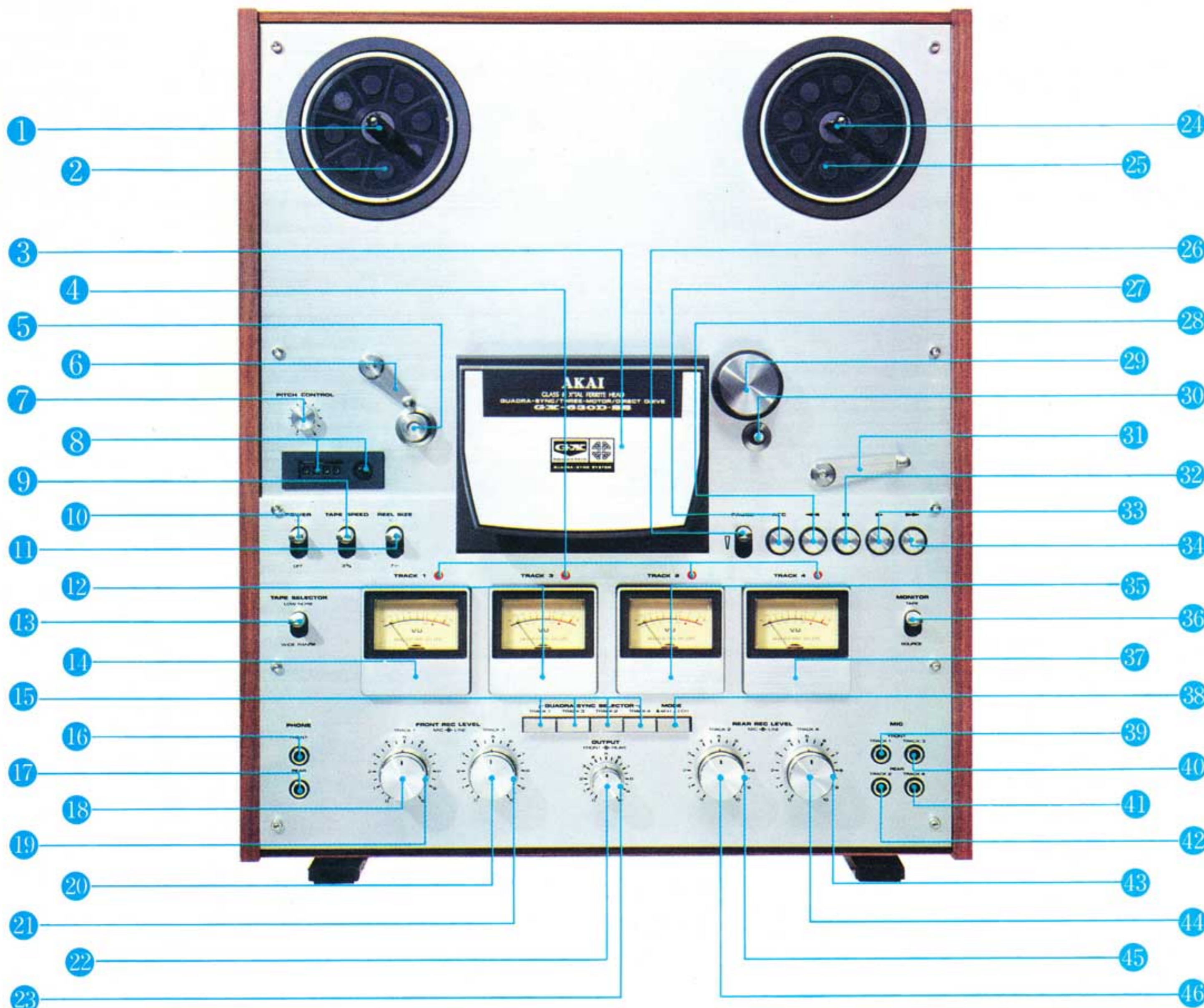
Power Requirements . . . . .	U.S. and Canada Models: 120 V, 60 Hz only. CEE Models: 220 V, 50 Hz only. Other Models: 100 to 240 V, 50/60 Hz. (Switchable)
Dimensions . . . . .	440(W) x 527(H) x 240(D) mm (17.3 x 20.7 x 9.4")
Weight . . . . .	20.7 kg (45.5 lbs.)

\* Specifications determined with Scotch # 211 Tape.  
\* For improvement purposes, specifications and design are subject to change without notice.

## STANDARD ACCESSORIES

Pin Plug Connection Cords . . . . .	2
10-1/2" Reel Hub Adapters . . . . .	1 set
10-1/2" Empty Reel . . . . .	1
Spare Fuses . . . . .	1 set
Operator's Manual . . . . .	1

\* Spare fuses not included with CEE, CSA, UL and LA models.



1. BUILT-IN REEL RETAINER (left)
2. SUPPLY REEL TABLE
3. HEAD COVER
4. INDIVIDUAL TRACK RECORDING INDICATOR LAMPS
5. IMPEDANCE ROLLER
6. TAPE TENSION LEVER
7. PITCH CONTROL
8. INDEX COUNTER AND RESET BUTTON
9. TAPE SPEED SELECTOR
10. POWER SWITCH
11. REEL SIZE SELECTOR
12. TRACK 3 VU METER
13. TAPE SELECTOR SWITCH
14. TRACK 1 VU METER
15. TRACK 1, 2, 3, & 4 QUADRA-SYNC SELECTOR SWITCHES
16. FRONT CHANNEL HEADPHONE JACK
17. REAR CHANNEL HEADPHONE JACK
18. TRACK-1 MIC INPUT LEVEL CONTROL
19. TRACK 1 LINE INPUT LEVEL CONTROL
20. TRACK 3 MIC INPUT LEVEL CONTROL
21. TRACK 3 LINE INPUT LEVEL CONTROL
22. FRONT CHANNEL OUTPUT LEVEL CONTROL
23. REAR CHANNEL OUTPUT LEVEL CONTROL
24. BUILT-IN REEL RETAINER (right)
25. TAKE-UP REEL TABLE
26. PAUSE SWITCH
27. RECORDING (REC) BUTTON
28. REWIND BUTTON
29. PINCH WHEEL
30. CAPSTAN
31. AUTOMATIC STOP/TAPE TENSION LEVER
32. STOP BUTTON
33. PLAY BUTTON
34. FAST FORWARD BUTTON
35. TRACK 2 VU METER
36. TAPE MONITOR SWITCH
37. TRACK 4 VU METER
38. 4CH/2CH MODE SELECTOR SWITCH
39. TRACK 1 MICROPHONE JACK
40. TRACK 3 MICROPHONE JACK
41. TRACK 4 MICROPHONE JACK
42. TRACK 2 MICROPHONE JACK
43. TRACK 4 LINE INPUT LEVEL CONTROL
44. TRACK 4 MIC INPUT LEVEL CONTROL
45. TRACK 2 LINE INPUT LEVEL CONTROL
46. TRACK 2 MIC INPUT LEVEL CONTROL

C35S7593075A1

DISTRIBUTED BY  
**AKAI AMERICA, LTD.**  
2139 E. Del Amo Blvd.,  
Compton, Calif., 90220, U.S.A.  
TELEPHONE: (213)537-3880  
TELEX: 67-7494

MANUFACTURED & DISTRIBUTED BY  
**AKAI ELECTRIC CO., LTD.**  
**AKAI TRADING CO., LTD.**  
12-14, 2-chome, Higashi-Kojiya,  
Ohta-ku, Tokyo, Japan