

STEREO TAPE DECK-



# "AS TRANSPARENT AS POLISHED GLASS AND AS CLEAR AS SPARKLING CRYSTAL" DESCRIBES GX SOUND.

That description was intended from the very beginning and, in fact, reflects the properties of the head material itself (glass and crystal ferrite). The GX-221D employs two of these GX Heads plus top quality parts for absolute mechanical dependability and lasting GX performance. A Tape Selector Circuit enables the employment of low noise tape for a high frequency response coverage to 25,000 Hz. Sound-on-sound recording for professional or fun use. Automatic and manual reverse playback, Automatic Stop and Shut-Off, Pause Control. Tape/Source Monitor Switch for instant dual monitoring, Din Jack.





### GLASS AND CRYSTAL FERRITE HEAD

# Gap environs of Single Crystal Ferrite Head Gap environs of Poly-Ferrite Head

\* After equal use/Enlarged to 800 times actual size

This model employs Akai's new and amazing GX recording and playback heads to bring you unequalled high fidelity performance. With the Glass & Crystal Ferrite Heads, clear highs can be recorded and played back in all their true fidelity covering 25,000 Hz with low noise tape. The core of this quality head is made of single crystal ferrite and is mounted and set in glass. The superior high range characteristics are contributable to the structure of the head gap which focuses the magnetic field into a sharp oblong radius. This focused field recording system minimizes high frequency loss and undue equalization for a wider dynamic range. Further, the wear-free GX Head materials guarantee lasting "new machine performance".

### THREE MOTORS



Akai's highly efficient hysteresis synchronous capstan motor and two eddy-current outer rotor motors for supply and take up reel drive assure smooth tape travel with proper tape tension and ideal starting torque. The capstan motor is an oil circulating self-lubricating motor of which the oil circulating speed is adjusted naturally according to motor revolutions and temperature for smooth shaft rotation. This feature and the unique winding characteristics of the motor for tape stability provides long, trouble-free operation. Further the two interior cellulose fiber mechanisms also act as filters to keep the oil clean during the circulating process, adding to the motor's already epochmaking endurance characteristics.

## AUTOMATIC AND MANUAL REVERSE PLAYBACK

For continuous playback in both directions, simply apply a piece of sensing foil to the tape at desired reversing points. When the foil comes in contact with the sensing pins, reverse is effected. Therefore, troublesome inverting of reels by hand during playback is eliminated. Manual reverse is also provided for extra convenience.

### TAPE SELECTOR SWITCH

The inclusion of a Tape Selector Switch enables the use of Akai's SRT (super range tape) or other make low noise tape. The SRT circuit works to change the recording equalization according to the tape and brings out the maximum response of low noise tape. The combination of GX Head features and Akai SRT tape makes a startling difference in tone quality and extends the high frequency response of this machine to cover an amazing 25,000 Hz.

### INSTANT DUAL MONITORING

The combination of a Tape Monitor Switch and three heads facilitates instant dual monitoring for comparison of signal input and the actual recording being made. A simple switching of the Tape Monitor Switch to and from Tape and Source position during monitoring provides immediate confirmation of recording quality for truly professional recording results.

### SOUND-ON SOUND RECORDING

This feature facilitates the accumulation of as many individual recordings on a single track as is desired. Record on track 1 and rewind tape. While monitoring the first recording through headphones, record on track 3. Both recordings will merge on track 3. This recording process can be repeated as many times as is desired by switching 1-4/3-2 Track Selectors. Record your own voice accompanied by your favorite orchestra or other interesting musical compilations.

### **AUTOMATIC STOP & SHUT-OFF**

The Automatic Stop/Shut-Off feature of the unit provides complete peace of mind when the recorder is left unattended. Simply set Switch to STOP or SHUT-OFF to stop reel movement or cut off the power of the unit at the end of the tape.

### PAUSE LEVER WITH START BUTTON

Momentarily stops tape travel during recording or playback mode. Especially convenient when editing tape. Lift lever when certain portions of a program are not desired. Easy Start Button release.

### OTHER FEATURES

include Index Counter with reset button, built-in Reel Retainers, large and precise VU Meters.

### STANDARD ACCESSORIES

Empty Reel 1, Connection Cord 1, Sensing Tape 1, Spare Fuse 1 set, Operator's Manual 1.

### **TECHNICAL DATA**

Track System: 4-track 2-channel stereo/ monaural system. Reel Capacity: Up to 7" reel Tape Speed: 7-1/2, 3-3/4 and 1-7/8 ips (±0.7%) Wow & Flutter: Less than 0.08% RMS at 7-1/2 ips; Less than 0.12% RMS at 3-3/4 ips; Less than 0.20% RMS at 1-7/8 ips Equalization: Correct equalization for playback of tapes recorded to NAB curve. Frequency Response: 30 Hz to 25,000 Hz (±3 dB) at 7-1/2 ips; 30 Hz to 20,000 Hz (±3 dB) at 3-3/4 ips; 30 Hz to 10,000 Hz (±3 dB) at 1-7/8 ips (Using Akai SRT Tape). 30 Hz to 23,000 Hz (±3 dB) at 7-1/2 ips; 30 Hz to 19,000 Hz (±3 dB) at 3-3/4 ips; 30 Hz to 9,000 Hz (±3 dB) at 1-7/8 ips (Using regular tape) Distortion: Less than 1.5% (1000 Hz "0" VU) Signal to Noise Ratio: Better than 50 dB Erase Ratio: Better than 70 dB Cross-Talk: Better than 65 dB (monaural); Better than 50 dB (stereo) Bias Frequency: 100 kHz Heads: (3): 4-track GX recording and playback heads, 4-track erase head Motors: (3): One hysteresis synchronous 3-speed motor for capstan drive and two 6-pole eddy-current outer rotor motors for supply and take-up reel drive Fast Forward & Rewind Time: 60/75 sec. using a 1200 ft. tape at 60/50 Hz Recording Capacity: 4 hours stereo recording using a 1200 ft tape at 1-7/8 ips Output Jacks: Line (2): 1.23 V ("0" VU)/100 Ω (Required load impedance: more than 20 k $\Omega$ ; Phone (1): 30 to 40 mV/8 Ω Input Jack: Microphone (2): 0.2 mV/10 k $\Omega$ ; Line (2): 50 mV/150 k $\Omega$  Din Jack: 0.4 V/50 mV (High)/2 mV (Low) Semi-Conductors: Transistors: 24; Diodes: 14 Integrated Circuits: Linear IC: 2 Power Requirements: 100 V to 240 V A.C., 50/60 Hz Power Consumption: 90 W Dimensions: 440(W) x 425(H) x 220(D) mm (17.4 x 16.7 x 8.7") Weight: 20.2 kg (44.4 lbs.)

C5372ADAG17/B1S2072

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<sup>\*</sup>For improvement purposes, specifications and design are subject to change without notice.