GX-370D

STEREO TAPE DECK

REVOLUTIONARY GLASS & CRYSTAL FERRITE HEADS
AUTOMATIC & MANUAL REVERSE RECORDING & PLAYBACK

This newest release from Akai employs three Glass & Crystal Ferrite Heads including two Record/Erase GX Combo Heads and one GX Playback Head, for the finest in recording and playback quality and endurance. Further, the unique symmetrical arrangement of these GX heads provides identical recording and playback characteristics in both normal and reverse directions. The combination of these outstanding heads and a Tape Selector Switch brings out the maximum response of high performance low noise tapes for startling progress in sound quality. An epoch-making direct capstan drive Servo-Control Motor and two eddy-current Outer Rotor Motors are employed in this model for the completion of an ideal drive mechanism. Moreover, a stout Impedance Roller provides tape speed stability and reduced wow and flutter. A real Compute-O-Matic recording level control for completely automatic level control and realistic sound reproduction. Sound Mixing, Sound-On-Sound, Sound-With-Sound provide an unlimited variety of recording techniques. Dub-Sync and mode change Remote Control Socket is also one of the many outstanding features of this quality stereo tape deck.

AKAI®

MANUFACTURED & DISTRIBUTED BY AKAI ELECTRIC CO., LTD./AKAI TRADING CO., LTD. OHTA-KU, TOKYO, JAPAN

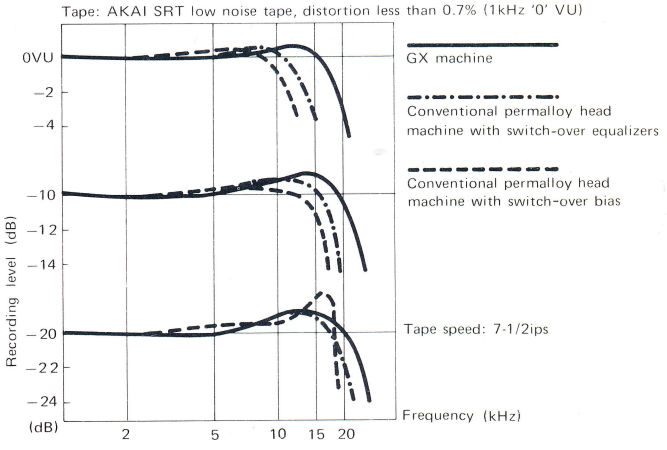
NOW THE RECORDING LEVEL CAN BE SI

Are you finding today's modern music more difficult to record than classical music? That's because today's modern music contains more high range notes and with tape recorders and tape decks to date, loss of high frequency signals was a problem even with high performance low noise tape. In order to record the high range notes in true fidelity, the recording level had to be lowered to around −10dB which resulted in tremendously poor signal-to-noise ratio.

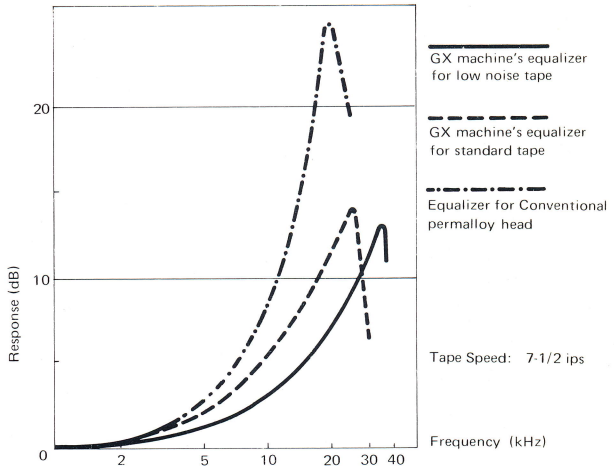
Akai has solved the problem in a "single swoop" with the GX (Glass & Crystal Ferrite) Head. With the new GX Head employed in this model, high range frequencies can be recorded in all their true fidelity covering 20,000Hz with low noise tape even while recording at 0dB level. In other words, with this completely new GX Head, high fidelity recording can be accomplished over the entire frequency spectrum for a wide dynamic range and excellent signal-to-noise ratio.

THE SECRET of this success lies in the head materials, superior processing technique and the focused-field recording system. The core of the GX 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, eliminates undue equalization and achieves wider dynamic range.

Recording levels and high-frequency characteristics
Tape: AKAI SRT low noise tape, distortion less than 0.7% (1kHz '0' VU)



Recording equalizer characteristics

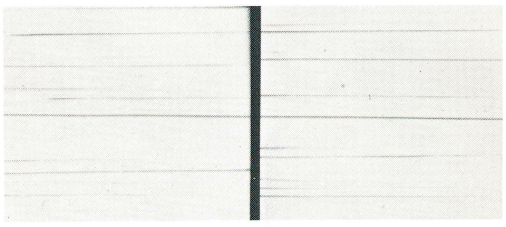


THE BEST SOUND FOR A LIFETIME

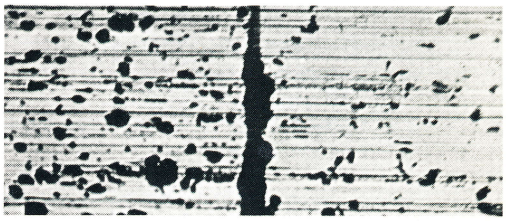
It has become well known that ferrite is the most suitable substance for the demanding characteristics of audio head material; i.e., it does not wear and magnetic loss is small.

The question was "which ferrite is perfectly ideal?". From merely examining the poly-ferrite and the single crystal ferrite, there was no distinguishable difference in hardness. However, as a result of numerous actual experiments wherein poly-ferrite was used over and over continuously for a period of time, it was discovered that minute composite particles eventually began to separate. Thus, Akai engineers realized that this situation would gradually worsen and lead to head gap damage. In the case of the single crystal ferrite, however, Akai discovered that this phenomenon was non-existent. Further, because it is comprised of only a single crystallized element, through a unique engineering process, Akai was able to reduce the noise peculiar to ferrite to a completely inaudible level. Due to the nature of the material construction (noiseless single crystal ferrite plus glass of the same wear characteristics), dust absolutely does not adhere to the head surface, thus preeminent wear-free characteristics are obtained.

This feature coupled with no loss of high frequency signals results in the ability to retain the excellent first period capabilities. That is to say, the revolutionary GX Head promises low distortion, and wide dynamic range performance permanently.



Gap environs of Single Crystal Ferrite Head



Gap environs of Poly-Ferrite Head

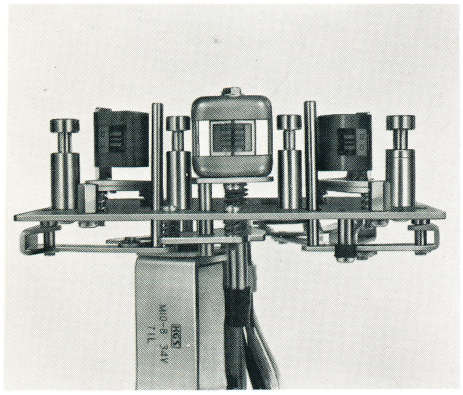
* After equal use/Enlarged to 800 times actual size

SET EVEN HIGHER

AUTOMATIC & MANUAL REVERSE RECORDING & PLAYBACK

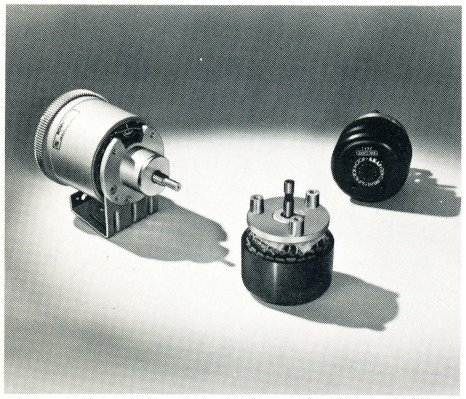
Automatic and manual reverse recording and playback features completely eliminate the necessity of inverting reels. One way or continuous reverse between two points can be effected by simply affixing a piece of sensing foil at desired reversing points. As the sensing foil passes the sensing poles, reverse is effected. The Akai reversing system differs from other reversing systems in that while reverse is being effected, the pinch wheel automatically separates from the capstan, suspending reel movement until the exact motor revolutions for correct tape speed is reached. Thus, tape speed is always accurately maintained, and annoying noise as the direction of the tape is changed is eliminated.
A manual reverse key has also been provided for your convenience.

IDENTICAL RECORDING & PLAYBACK CHARACTERISTICS IN BOTH DIRECTIONS



The unique and symmetrical arrangement of the head block provides a short tape path and eliminates tape friction for smooth and precisely accurate tape speed. The equi-distant symmetricity of the head block lay-out as well as the tape guides guarantee identical recording and playback characteristics in both directions. Further, the Recording/Erase GX Combo Heads are stationary so that head alignment is never a problem.

THREE HIGH QUALITY MOTORS



Model GX-370D employs a first rate quality 3-motor drive mechanism. The most crucially important capstan drive motor is an epoch-making direct capstan drive Servo-Control Motor which combines the winding control of the ordinary eddy-current motor and a speed detecting toothed cog-wheel into a single structure mechanism. Thus, the usual instrumental devices such as drive belt, idler, flywheel, etc., are eliminated and tape speed is stabilized. Because of the speed-adjusting completely electrical control circuit, revolutions are always perfectly adjusted for extremely accurate tape speed and reduced wow and flutter.
The two eddy-current outer rotor motors for supply and take-up reel drive eliminate tape stretch and allow smooth tape travel and ideal starting torque.

COMPUTE-O-MATIC

Model GX-370D is equipped with the well-known Akai Compute-O-Matic system for use when automatic adjustment of recording input level is desired. Formerly, a system called automatic gain control which was developed to avoid troublesome manual input level adjustment was very popular. However, because this system produced only flat sound, it was difficult to distinguish voices recorded from a distance or from close range.
The Akai Compute-O-Matic recording level control system is a real automatic and efficient system which automatically adjusts the maximum sound level to be recorded to "O" VU and other levels are then adjusted proportionately. In other words, when the Compute-O-Matic Set Button is depressed, the recording indicator stops at maximum. This maximum level becomes "O" VU, and other levels are proportionately adjusted.

INSTANT DUAL MONITORING

The Tape and Source Monitor Switches provided on front panel enable instant comparison of signal input and the actual recording being made. A simple switching to and from SOURCE (for monitoring source) and TAPE (for monitoring recording the instant it is made) provides immediate indication of recording quality. A convenient front panel headphone jack is also provided for monitoring.

SOUND-ON-SOUND & SOUND-WITH-SOUND

Sound-on-sound is the transfer of previously recorded material from one track to another, accumulating as many individual recordings on a single track as is desired. Use for fun or professional purposes.
Sound-with-sound is the recording of material on one track while monitoring pre-recorded material on the opposite track. Convenient for language training, etc.

BUILT-IN SOUND MIXER

Another important feature of this model is the built-in microphone-line mixing circuit. Independent line and microphone recording level controls and input jacks enable signals from microphones and signals from other sources to be blended and recorded simultaneously on the tape. Just imagine recording your own voice accompanied by your favorite orchestra.

PROFESSIONAL TYPE VU METERS

Two large independent and illuminated VU Meters are positioned on front panel to provide accuracy in checking the recording and playback levels.

AUTOMATIC STOP/SHUT-OFF

When the tape comes to the end, the automatic stop circuit is activated to stop reel movement. If the Automatic Shut-Off Button is depressed, the power of the entire unit will be cut off at the end of the tape. A convenient feature to be utilized when the unit is left unattended.

DIRECT FUNCTION CHANGE SYSTEM

This model employs a direct function change control system for speedy mode selection. The necessity of depressing the Stop Key before changing modes is eliminated. Further, the controls are equipped with individual colored lights which indicate each operating mode.

REMOTE CONTROL SOCKET/DUB-SYNC CONTROL

With optional accessory RC-16, all operating modes can be remote-controlled. This remote control socket can also be used for remote control dubbing from another tape recorder equipped with the same type socket. Further, if the handy extra outlet on the rear panel is used for connecting to the other machine, because it is inter-connected with the Shut-Off Switch, automatic shut-off can be effected on both machines.

OTHER OUTSTANDING FEATURES

include Pause Control for tape editing, Index Counter with Reset Button for easy and speedy locating of recordings, Universal Voltage Selector for world-wide operability, Din Jack connections, etc.

STANDARD ACCESSORIES

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

TECHNICAL DATA

Track System	4-track 2-channel stereo/monaural
Reel Capacity	Up to 7" reel
Tape Speed	7-1/2 and 3-3/4 ips (±0.5%)
Wow & Flutter	Less than 0.07% RMS at 7-1/2 ips Less than 0.10% RMS at 3-3/4 ips
Equalization	Correct equalization for playback of tapes recorded to NAB curve.
Frequency Response	30 Hz to 26,000 Hz (±3 dB) at 7-1/2 ips (Akai SRT Tape), 30 Hz to 22,000 Hz (±3 dB) at 3-3/4 ips (Akai SRT Tape), 30 Hz to 24,000 Hz (±3 dB) at 7-1/2 ips (Regular Tape), 30 Hz to 19,000 Hz (±3 dB) at 3-3/4 ips (Regular Tape)
Distortion	Less than 1.5% (1,000 Hz "O" VU)
Signal-To-Noise Ratio	Better than 50 dB
Erase Ratio	Better than 70 dB
Bias Frequency	100 kHz
Heads	(3): Two GX combination recording & erase heads, one GX playback head
Motors	(3): 2-speed servo-control outer-rotor motor for direct 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 1,200 ft. tape at 60/50 Hz
Recording Capacity	Two hours stereo recording using a 1,200 ft. tape at 3-3/4 ips.
Output Jacks	Line (2): 1.23 V("O" VU)/100 Ω, required load impedance: more than 20 kΩ Phone (1): 30 to 40 mV/8 Ω
Input Jacks	Microphone (2): 0.8 mV/10 kΩ Line (2): 100 mV/150 kΩ
Din Jack	0.4 V/70 mV (high) 7 mV (Low), 68 Ω
Semi-Conductors	Transistors: 65 Diodes: 49
Integrated Circuits	2
Power Requirements	100 V to 240 V A.C., 50/60 Hz
Power Consumption	130 W
Dimensions	445(W) x 503(H) x 252(D) mm (18.2 x 20.5 x 10.3")
Weight	25.5 kg (56 lbs.)

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

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