

AKAI

GX-77

EE tape compatibility



EE
EXTRA EFFICIENCY

EE Tape

Redefines the Standards of Open Reel Excellence.

Open reel tape has always had significant advantages as a recording medium. It offers excellent reproduction quality, extended recording and playback capability, and the versatility of easy splicing and editing. But even with the finest open reel equipment, there are often limits at critical performance levels — limits that are inherent to the very nature of recording tape. Refinements are constantly being sought to minimize these limitations while boosting sensitivity and overall music-source fidelity. But it's not often that a meaningful breakthrough comes along.

EE tape is an exception. EE stands for extra efficiency. In performance terms it offers significant improvements in dynamic range, frequency response, and high frequency MOL. Improvements so outstanding that EE tape is redefining the standards of excellence in open reel deck performance.

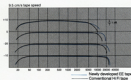
Until now, there really hasn't been an open reel tape fine enough to faithfully capture the superior sound reproduction quality of advanced audiophile discs. New high-speed master, direct-to-disc, and PCM (digital) recordings have so much dynamic range, brilliant musical detail and genuine fidelity to the original music source that conventional recording tape simply couldn't do justice to them. EE tape, however, has been developed to sufficiently match the quality of these superior disc recordings. It achieves the best reproduction quality available today with open reel tape.

EE tape is the result of extensive research and development carried out by two of the world's leading tape manufacturers in a joint effort with Akai. The difference between EE and other tape types lies in its magnetic particles. Their high-density cobalt-ferrite

composition provides enhanced remanence and high coercivity. EE tape is able to provide greater output, more dynamic range and broader frequency response. But more importantly, EE tape delivers startling musical detail and musical presence for a qualitative difference in sound.

Specifically, EE tape achieves a dramatic 5 dB improvement in MOL (Maximum Output Level) at 15 kHz. Throughout the high frequency range, MOL is substantially higher at all tape speeds. Music with high-level transients and high-frequency harmonics is accurately reproduced with an absolute minimum of distortion. So you can expect a full, powerful sound with no fear of clipping or tape saturation.

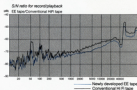
Fig. 1 Characteristic comparison of newly developed EE tape and conventional 1/4" tape



Frequency response with EE tape is extended way out to 33 kHz (± 3 dB) at a speed of 7 1/2 ips (19 cm/s). At 3 3/4 ips (9.5

cm/s), frequency response is equivalent to that of the finest conventional tape at 7 1/2 ips, or twice the speed. So with music rich in high frequencies, like highly amplified electronic music, virtually all the audio information contained in them is faithfully captured and reproduced, with no sign of strain.

EE tape also means a 2.5 dB S/N improvement at all frequencies, and a 3 dB



gain at high frequency levels. With a corresponding dynamic range increase of 5 - 6 dB, there's an audible difference in EE tape performance. Soft, quiet musical passages come through as they were played. Sudden crescendos and high-level peaks jump out with clarity and stunning musical presence for exceptionally lifelike performance.

Since EE tape requires a bias increase of about 30% over other conventional tapes, and a playback equalization of 35 μ s (at 7 1/2 ips), most decks aren't compatible with EE demands. Yet Akai has developed an exclusive position for these settings. And you'll find it on the astounding GX-77. This Akai/EE combination guarantees the finest frequency response, broadest dynamic range, and most consistently excellent reproduction quality available with open reel technology today.

The Akai GX-77 - Innovation, Compact Sophistication, and EE Performance.

The Akai GX-77 doesn't look like an ordinary high-performance open reel tape deck - for a very good reason. It isn't. Behind the unusually smart exterior styling lies a vast amount of technology and engineering know-how. It's one of Akai's very best machines. And we doubt you'll find more innovation packed into a single piece of equipment anywhere else.

EE tape compatibility is one example of what we mean. EE is the latest breakthrough in open reel tape technology. It offers unsurpassed dynamic range, higher

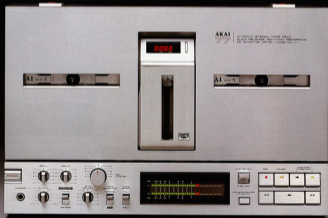
frequency response, and substantially higher output level.

Lambda Loading, another innovation on the GX-77, is an Akai exclusive that brings a radically different approach to open reel deck design. It's a sophisticated tape loading and transport guidance system that challenges the conventional wisdom of the traditional open reel format. Loading the GX-77 is as easy and convenient as handling cassettes, yet transport performance is strictly top-line open reel.

And there's quite a bit more. Notably, the

Auto Reverse mechanism with continuous playback capability, an elapsed-time digital counter, leather-touch logic controls and remote control capability.

You'd think the startling performance of EE tape alone would make the GX-77 an exceptional machine. But we went further, giving it the convenience of cassette deck operation and the open reel quality that comes only with Akai's finest. There's not much more you could ask for in an open reel deck.



Loaded with Convenience, Performance, and Compact Versatility – the GX-77



Real Time Digital Counter
Display

7" Reels

Power Tension Arms

Power Switch

Headphone Jack

Independent L/R Input
Level Controls

Allows you to mix the input
signal levels for each channel
separately.

Output Level Control

Controls headphone volume
and lets you match deck output
level with amplifier input level.

Monitor Switch

Gives you instant switching
between source and output, for
monitoring as you record.

Rev. Adjust

Rev. Master Control
Lets you control the input
levels to both channels
simultaneously.

Tape Selective Switch

For I.E. tape compatibility, just
switch to the "I.E." position.
"NORMAL" is for
conventional tapes.

Tape Speed Selector

Car and Reelset Lever

Loading Roller Actuator
The source of control for the
Lambda Loading system, it
automatically guides the tape
into and out of the head block
with smooth precision.

LED Bar Graph Meter
With 16 segments and peak
hold. Gives you accurate level
monitoring without delay or
overshoot in an easy-to-read
display.

Head Block with Lambda
Loading
Guides the tape into position.

Feather-Touch
Microcomputer Logic
Controls

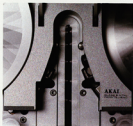
Reverse Selector
Switches to continuous
playback, two-way or
one-way recording and playback.

Timer Start Switch
Activates operation of the deck
in either play or record mode
when connected with an
optional timer unit.

EE Tape for Incredible New Performance Highs

EE tape offers the finest music reproduction quality currently available with open reel tape, and there's a special "EE" position for it on the GX-77. Akai has developed an exclusive setting for the higher bias and lower equalization required for optimum performance with EE tape. You can capture the dramatic performance of advanced audiophile discs on EE tape, because it recreates their brilliance as no other tape can. When not recording with the EE position, the GX-77 also gives you outstanding results with any other fine conventional open reel tape.

Unparalleled Convenience with Open Reel Performance

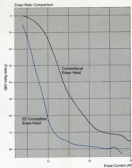


Akai's new tape loading system on the GX-77 is a breakthrough in open reel deck convenience and efficiency. Unlike conventional transport systems, the GX-77 automatically feeds tape upwards and into contact with the heads. They're placed between the reels, not below them. There's almost no manual effort involved. A power assisted loading roller mechanism smoothly guides the tape up into the head block with unerring accuracy. Tape travel is positive and stable over a precisely determined path, with almost complete isolation from the reels and constant tape tension, for greatly reduced modulation distortion. The tape transport system maintains perfect speed with negligible wow and flutter, and there's an impressive, efficient manner about the way this system goes to work. But the best thing about GX-77 is the ease and convenience it gives to tape threading at just the push of a button. And the head block cover flips up for easy head maintenance.

Quick Reverse with 6-Head System, for Long Playback Times

Auto reverse lets you forget about changing the reels at the end of the tape, because tape travel is automatically reversed in either playback or record. And the Reverse Selector switch gives you the options of one-way or two-way recording/playback, or continuous playback for tremendous long-play capability. It lets you record for a total of 4 hours at 3 3/4 ips (9.5 cm/s, 2400 ft.), or select unlimited, uninterrupted playback.

The 6-head system on the GX-77 makes it possible. Four of them are Akai GX heads — one each for forward record, forward playback, reverse record and reverse playback. With the 2 erase heads, they're in perfect symmetry for stable tape travel with



Erase Head

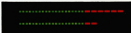
no chance of error or misalignment — even during rapid shifts in tape direction. And the superiority of Akai GX heads is already well known. With their low-noise crystal ferrite and hardened glass construction, they're incredibly durable, and provide an overall wider response with greater sensitivity and detail.

Feather-touch, Microcomputer Logic Controls



The control panel is every bit as smooth and sophisticated as the transport mechanism it commands. Lighted indicators inform you of the transport mode engaged, and a blinking light reminds you that you're in either the forward or reverse standby mode. Direct switching means you can instantly shift modes without first hitting the stop button, so fast changes can be made without harming the tape or the transport itself. And these controls lock on when engaged, so you can operate the deck with an optional timer unit in either play or record at preset times.

Precise Level and Timing Displays



A large, easy-to-read 16-segment LED bar graph is right up front on the GX-77. It monitors the recording levels with unflinching accuracy. More efficient than ordinary VU meters, it shows you the precise level of each channel without overshoot or delay. A one second max hold function gives you that extra edge in setting the proper level. And an electronic digital counter operates on a "real-time" (clapped-time) basis.

Additional Features

- Source/tape monitor switch
- Cue and review functions
- Rec master control
- Removable dust cover

Optional Accessories

- Optional Remote Control Unit: RC-21

Specifications GX-77



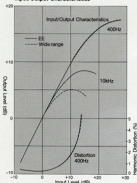
Track System	4-Track, 2-Channel Stereo System
Reel Capacity	Up to 7"
Motors	1 FG Servo DC Capstan Motor 2 DC Reel Motors
Heads	2 GX recording, 2 GX playback, 2 erase
Tape Speed	7½ ips (±0.8%), 3¾ ips (±1.0%)
Wow & Flutter	Less than 0.03% WRMS, 0.07% DIN 45500 at 7½ ips (19 cm/s) Less than 0.04% WRMS, 0.10% DIN 45500 at 3¾ ips (9.5 cm/s)
Tape Winding Time	80 sec. at 1200 feet
Frequency Response	25 - 33,000 Hz ±3 dB/-20 VU at 7½ ips (19 cm/s) 25 - 26,000 Hz ±3 dB/0 VU at 7½ ips (19 cm/s) 25 - 25,000 Hz ±3 dB/-20 VU at 3¾ ips (9.5 cm/s) 25 - 15,000 Hz ±3 dB/0 VU at 3¾ ips (9.5 cm/s)
Signal-to-Noise Ratio	Better than 63 dB at 7½ ips (19 cm/s) DIN 45500

Harmonic Distortion	Less than 0.5% at 7½ ips (19 cm/s)
Input Jack	Line: 70 mV (input impedance 47 k-ohms)
Output Jacks	Line: 0.775 V at 0 VU Required load impedance: more than 20 k-ohms Phone: 1.3 mW/8 ohms at 0 VU
DIN Jack	Input: 2.0 mV (input impedance 10 k-ohms) Output: 0.3 V Required load impedance: more than 20 k-ohms
Dimensions	440 (W) × 244 (H) × 227 (D) mm 17.3" × 9.6" × 8.9"
Weight	17.0 kg (37.5 lbs.)
Power Requirements	U.S.A. and Canada: 120 V, 60 Hz European Countries: 220 V, 50 Hz U.K. and Australia: 240 V, 50 Hz Other Countries: 110/120/220/240 V switchable 50/60 Hz

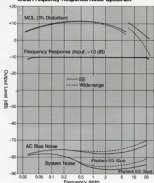
Specifications EE Tape



Input/Output Characteristics



MOL/Frequency Response/Noise Spectrum



- * The empty reel and tape shown in the photographs are optional accessories.
- * The contents of this leaflet are not to be treated as representative as to current availability of products as described or as to products actually offered for sale.
- * Recording and playback of material may require consent.

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AKAI ELECTRIC CO., LTD.
 12-14, 2-chome, Higashi-Kojima,
 Ohta-ku, Tokyo, Japan