AKAI

GX-747

EE tape compatibility



EE

EXTRA EFFICIENCY

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EE Tape. When Fine Recording Has to Be Even Better.



GX-747

Akai's GX-747 Expands the Range of Dynamic Open Reel Performance with Extraordinary Sophistication and Unsurpassed EE Reproduction Quality.

This is truly audiophile equipment; and it deserves the careful scrutiny of the serious recordist. After hearing its exceptional reproduction quality, you'll know this is a thoroughly well-conceived approach to the delicate process of critical recording. And we're sure you'll realize, after putting the GX-747 through its paces, that you've got your hands on a superior open reel deck. Because we already know just how much advanced technology, dynamic performance and versatility it has to offer.

You'll find the GX-747 unique in more ways than one. It's compatible with EE tape – the latest breakthrough in open reel tape technology. EE offers unmatched dynamic range, higher frequency response, and greater output level. The GX-747 also features an elaborate, yet wonderfully simple-to-operate electronic counting system that automatically regulates a host of memory, location and timing functions. Unlike ordinary tape counters, these operate on an elapsed-time basis. And there's the uncommon luxury of Auto Reverse with continuous playback, giving you virtually unlimited, uninterrupted listening potential.

All of what you'd expect to find in a top-of-the-line open reel deck is here – a precision-aligned, ultra-stable transport system, sophisticated, positive-operation controls, and loads of convenience features. Give the GX-747 a close look; then you'll know what you've been missing.





Reverse Selector
Switchable to a variety of tape travel directions in either mode.

Pitch Control
Permits fine tape speed adjustment.

Full Sized 10 1/2" Reels

Auto Release, Auto Lock Tension Arms

Cue and Review Lever

Reel Size Selector

Power Switch

LED Bar Graph
Includes peak hold to give you precise monitoring of recording levels without delay or overshoot.

Headphone Jack

Output Control
Lets you adjust for optimum level matching between deck output and amplifier input. Also regulates volume to the headphones.

Timer Start Switch
Turned to either the play or record mode, it will activate automatic operation of the deck when connected with an optional timer unit.

Monitor Switch
Allows you to instantly switch between source and tape output, for monitoring as you record.

Tape Speed Selector Switch

LED Digital Display
Gives you real time readings up to 5 hours, 59 minutes, 59 seconds.

Multi-Function Counter Control Panel
Gives you complete command over varied timing and auto stop functions with ease and precision.

Bias Adjuster
Allows you to fine tune the bias level in order to get the maximum performance from different normal position tape types.

Feather-Touch, Full Microcomputer Logic Controls

Auto Rec Mute Switch

Line/MIC Mixing Controls
Independent level controls for microphone and line input add mixing flexibility.

Left and Right Microphone Input Jacks

L/R Track Selectors
These let you record through the left and right channels separately or at the same time.

Tape Selector Switch
For EE tape compatibility simply set it to the "EE" position; conventional tapes take the "NORMAL" setting.

A New Breakthrough in Open Reel Performance

EE—It Brings Out the Best That Tape Has to Offer

There's a special position for EE tape on the GX-747, specifically designed to handle the higher bias and lower equalization settings necessary for optimum EE performance. Because no other tape can achieve the expanded dynamic range, improved frequency response and superior MOL characteristics that EE can, this Akai/EE combination means incredible new performance highs. So you'll be able to capture all the brilliance of superior audiophile discs on tape. And since EE tape quality is so high, reproduction performance at 3-3/4 ips rivals that of any other tape at 7-1/2 ips. This plus Auto Reverse on the GX-747 makes it possible to quadruple the available playback/recording time, compared with any non-reversing deck using 10-1/2'' reels and the 7-1/2 ips tape speed, without sacrificing quality. And of course, when not taping with the EE position, the GX-747 also gives superior results with any other fine conventional open reel tape.

Multi-Function Memory/Timing Microcomputer Control



The GX-747 features a sophisticated, microcomputer-controlled memory/timing system that operates on a ''real-time'' (elapsed-time) basis. A bright, easy-to-read digital display tracks tape travel in hours, minutes and seconds, unlike conventional tape counters. And since the GX-747 can give you 6 full hours of continuous record or playback with Auto Reverse (see below), the tape counter runs continuously up to 5 hrs., 59 min., 59 sec.

In addition to this extended real-time display capability, the microcomputer also gives you versatile memory/timing control functions, like Memory Reverse. This allows you to reverse tape travel at any desired point on the tape, in either record or playback. You can preset any Memory Reverse position in advance—either by entering the digits of the desired time or by commanding that the current position be used. Then, the next time the tape reaches that designated point on the tape counter, tape travel direction will be automatically reversed and playback or recording will continue in the opposite direction back to the ''0'' point on the tape. Auto ''0'' Stop, another automatic memory feature, lets you rewind to any preset ''0'' position on the tape counter at the push of a button. The tape will rewind at high speed, then slow down gradually and stop precisely at the ''0'' point for you. Count Up is another useful feature. With it, you can set the counter to continue counting up to the 6 hour point, even though the tape is travelling in the reverse direction, when operating in the Auto Reverse or continuous mode. And the Lap Counter lets you measure isolated sections on the tape independent of the real-time display, without losing the overall real-time position.



Uninterrupted Performance

With Auto Reverse, there's no need to flip over the reels at the end of the tape, because tape travel is automatically reversed, either at the end of the tape or a preset reverse point, in either playback or record. So side changes go unnoticed. And with the Reverse Selector switch, you have the option of one-way or two-way recording or playback, or continuous playback for super long-play capability. You can sit down to a total of 3 hours recording time at $7^1/_2$ ips (19 cm/s), or 6 full hours at $3^3/_4$ ips (9.5 cm/s). Uninterrupted. And you can play it all back for as long as you like, without ever having to make a move.

6-Head System Featuring Akai GX

Auto Reverse is made possible with the GX-747's six heads. The separate record and playback heads for each tape direction are high-performance Akai GX. GX heads are made from low-noise crystal ferrite and super-hard glass, a combination that is more durable than conventional Sendust or permalloy heads. You'll get extra years of undiminished performance. In addition, the head's magnetic characteristics provide improved high-frequency response, wider dynamic range and improved signal-to-noise ratio, while their shape reduces the contour effect for flatter low-frequency response. And crystal ferrite's inherent ability to resist dust ensures near-perfect tape-to-head contact.

3-Motor Direct Drive Transport

Three independent motors in the GX-747 are used to drive the capstan, supply reel and take-up reel, so each of these functions can be precisely controlled for optimum stability of tape travel. The AC servo DD capstan motor is extremely stable, keeping wow and flutter to a negligible level. The center capstan ensures optimum tape travel in either the forward or reverse directions. And the new motorized tension arms make difficult tape threading a thing of the past, working to maintain perfect tape tension during fast winding.

Feather-Touch, Microcomputer Logic Controls

A light touch activates these controls to effortlessly operate the transport mechanism. Tape travel direction is verified by a lighted indicator, and the standby mode is in effect when the indicator is blinking. Direct mode changes between any two transport functions are possible. So you can jump quickly from one to the other without fear of damage to the tape or transport.

Auto Rec Mute

This makes it simple to achieve precise spacing of selections during recording. For the professional touch. When the rec mute button is depressed, the deck mutes the input signal and records a 4-second blank space on the tape, while an indicator flashes at one second intervals. Then, the rec standby mode is automatically engaged, and the GX-747 waits for your next move.

Unparalleled Convenience and Versatility

There's more to be seen, and heard, with the GX-747. A cue and review function lets you monitor the tape during fast forward or rewind, so locating a particular selection on the tape doesn't mean endless sampling and rewinding. A bright, 24-segment LED bar graph with 1-second peak hold lets you monitor level setting



with ease. There's no delay or overshoot. And the display is accurate and easy to read for real control convenience. There's also a monitor switch, L/R track selectors, a bias adjuster, line/mic mixing controls, and a timer start switch. In all, these give you an incredible amount of recording and playback flexibility.



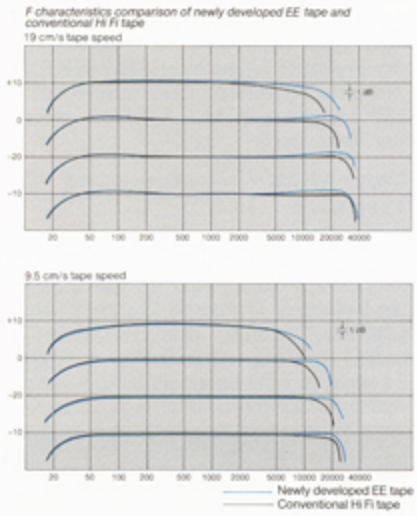
Flip-up panel conceals infrequently used controls to create a sleek, stylish appearance.

Optional Accessories

Optional Remote Control unit (RC-21)
Optional AC Adapter (MP-515)

Even with a fine open reel deck, the tape itself is often a limiting factor in critical recording applications. Until now, there really hasn't been an open reel tape good enough to thoroughly capture the excellent sound reproduction quality of advanced audiophile disc technology. New high-speed master, direct-to-disc, and PCM (digital) recordings have so much dynamic range, brilliant musical detail and genuine music-source fidelity that recording tape simply couldn't do them justice.

But no longer. A remarkable new development in open reel tape that meets these demanding standards is now available. It's an extraordinary high performance tape offering significant improvements in dynamic range, frequency response and high frequency MOL. Improvements so

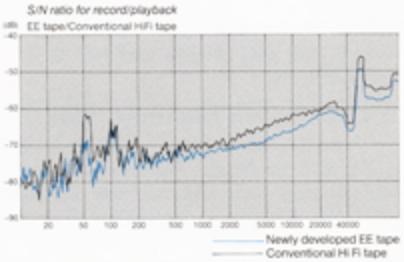


outstanding that EE tape, when used properly with compatible decks, will more than live up to these superior audiophile discs. Improvements so noticeable that musically, you'll realize more pure performance with EE tape than you ever thought possible.

EE tape isn't just a new product – it's an R&D breakthrough. EE tape was achieved by two of the world's leading tape manufacturers in a combined effort with Akai. The critical difference between EE and other tape formulas lies in the magnetic particles themselves. Their high-density cobalt-ferrite composition provides enhanced remanence and high coercivity. EE tape yields greater output, broader dynamic range and wider frequency response. More importantly, EE tape provides performance that makes a qualitative difference in the sound you actually experience, no matter how demanding the music source.

Specifically, EE tape achieves a dramatic 5 dB improvement in MOL (Maximum Output Level) at 15 kHz. Throughout the high-frequency range there is substantially better MOL at all tape speeds. This means that music with high-level transients and high-frequency harmonics is accurately recorded and reproduced with an absolute minimum of distortion. So you can expect full, powerful sound without clipping or tape saturation.

Frequency response with EE tape is extended way out to 33 kHz (±3 dB) at a speed of 7½ ips (19cm/s). At 3¾ ips (9.5cm/s), frequency response is equivalent to that of the finest conventional open reel tape at 7½ ips (19cm/s), or twice the speed.



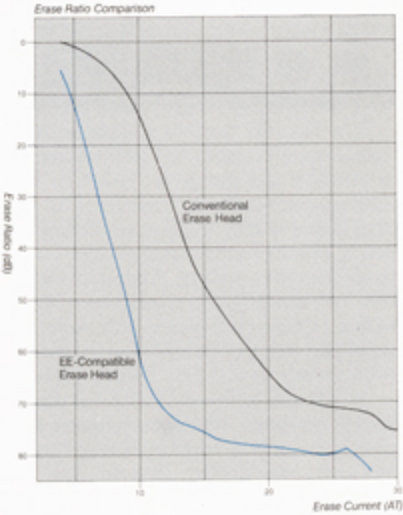
So with music rich in high frequencies, like highly amplified electronic music, virtually all the audio information contained in the source is retained and released, with no sign of strain.

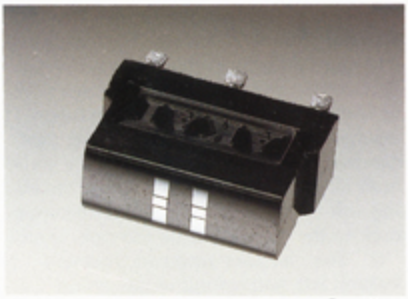
EE tape also means a 2.5 dB S/N improvement at all frequencies, and a 3 dB gain at high frequency levels. With a corresponding dynamic range increase of 5 – 6 dB, there's an audible difference in EE tape performance. Soft, quiet musical passages come through with ultra-low noise, for concert-hall realism. Sudden crescendoes and high-level peaks jump out with clarity and stunning musical presence.

Open reel tape has always had significant advantages as a recording medium – like high level reproduction quality, extended playback and recording time, and ease of editing and splicing.

Now, the introduction of EE tape has made another big difference. Bringing open reel performance to the highest level yet, it guarantees the broadest dynamic quality available with tape today.

EE tape requires a bias increase of about 30% over other tapes, a playback equalization of 35 μs (at 7½ ips or 19 cm/s) and extra erasing power, and most decks don't have a tape selector position compatible with these demands. But Akai has designed an exclusive setting which employs special erase heads and sophisticated circuitry for EE tape into two of its top-line decks. And you'll find it on the astounding GX-747. With EE tape, you get the most true-to-life music reproduction attainable. When fine recording has to be even better.





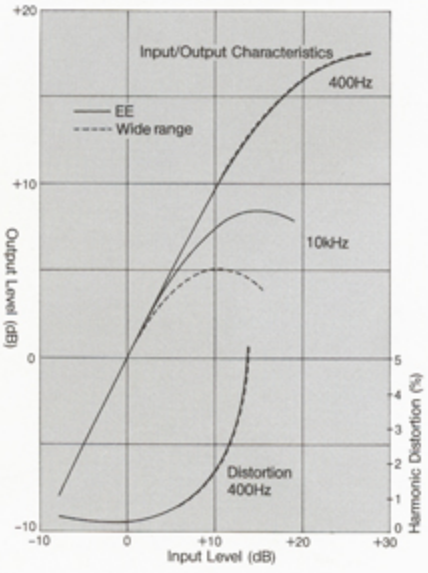
Erase Head

Specifications GX-747

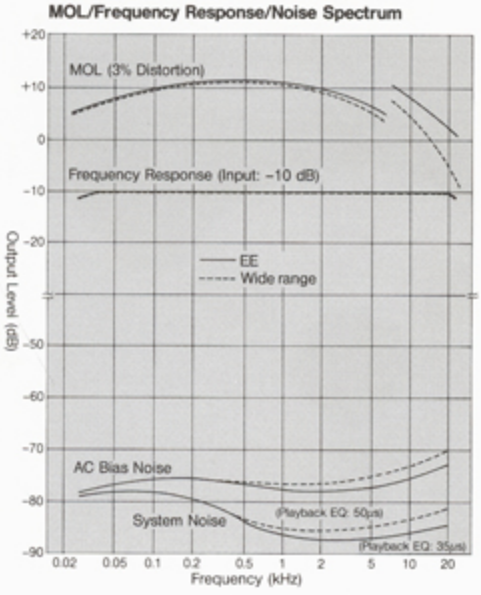
Track System	4-Track, 2-Channel Stereo System
Reel Capacity	10½" and 7"
Motors	1 AC Servo Capstan Motor 2 AC Eddy Current Reel Motors
Heads	2 GX recording, 2 GX playback, 2 Erase
Tape Speed	7½ ips (19 cm/s, ±0.8%), 3¾ ips (9.5 cm/s, ±1.0%)
Wow & Flutter	Less than 0.03% WRMS, 0.07% DIN 45500 at 7½ ips (19cm/s) Less than 0.04% WRMS, 0.09% DIN 45500 at 3¾ ips (9.5cm/s)
Tape Winding Time	75 sec. for 1200 feet.
Frequency Response	25 – 33,000 Hz ±3 dB/–20 VU at 7½ ips (19cm/s) 25 – 26,000 Hz ±3 dB/0 VU at 7½ ips (19cm/s) 25 – 25,000 Hz ±3 dB/–20 VU at 3¾ ips (9.5cm/s) 25 – 15,000 Hz ±3 dB/0 VU at 3¾ ips (9.5cm/s)
Signal-to-Noise Ratio	Better than 65 dB at 7½ ips (19cm/s) DIN 45500
Harmonic Distortion	Less than 0.4% at 7½ ips (19cm/s)
Input Jacks	MIC:0.25 mV (input impedance 5.0 k-ohms) Required mic impedance: 600 ohms Line: 70 mV (input impedance 100 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 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) × 493 (H) × 256 (D) 17.3" × 19.4" × 10.1"
Weight	23.2 kg (51.2 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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