

# AKAI

Sales Information Manual

**Revolutionary AKAI 3-head,  
double capstan tape decks.**  
**The 'inside' story.**



# A Special Manual Just For You!



Our thanks to you, the worldwide agents and dealers of AKAI, for your great cooperation in the promotion of our products. Today, as a direct result of your efforts, AKAI products are bringing extra pleasure to many thousands of people of varied cultures and beliefs all over the world.

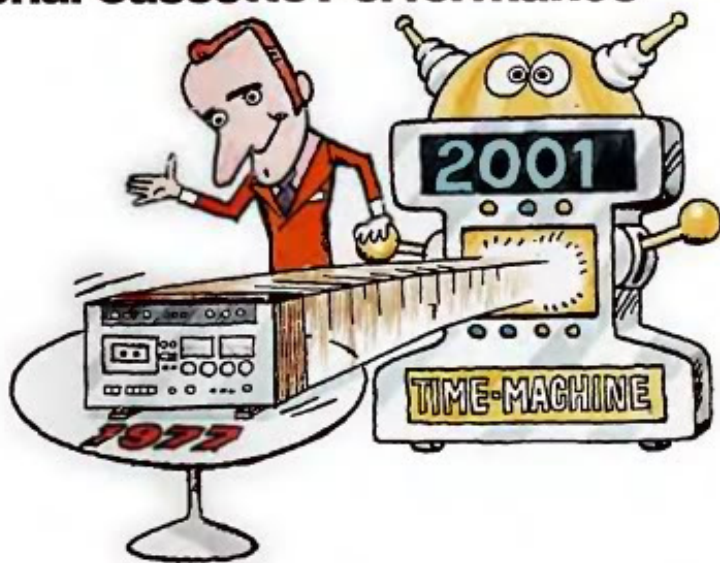
As an integral part of our '77 sales promotion campaign, we have prepared this information manual just for you to help you further promote sales of Akai 3-head cassette decks. It contains the 'inside'

story of these remarkable products presented in a clear, concise way so that you can become properly knowledgeable of the products and, thereby, instill in your customers the confidence in your recommendations needed to close sales. AKAI's well-known high quality and worldwide service back the outstanding performance of these decks to assure customer satisfaction – and, through satisfaction of your customers, you will achieve higher profits now and obtain repeat sales as the years go by.



# The AKAI 'TIME-MACHINE' Takes Your Customers into the Future

to Give Them the Exceptional Cassette Performance Desired and Right Now!!



TWO-HEAD  
ONE MOTOR  
SINGLE CAPSTAN

→ THREE-HEAD  
→ THREE MOTORS  
→ DOUBLE CAPSTAN

High quality cassette decks must advance to the use of three heads, double capstan (closed loop) drive and triple motors to achieve full exploitation of the convenience of the compact cassette. AKAI decks are there, in the future, right now to yield the kind of exceptional performance desired by critical users. For all practical

purposes, these fantastic decks equal the performance of reel-to-reel units and, what's more, they offer features going beyond what is normally found in reel-to-reel decks.

All of this technological development is a credit to AKAI's continuing tape recording development and research over the years. It is this accumulation of expertise which has now culminated in the development of a mass-produced, top quality, top performance cassette deck out stripping all of our competitors in every respect.



# Why AKAI's Three Major Design Improvements Yield Such Extraordinary Performance

## 2 HEADS → 3 HEADS

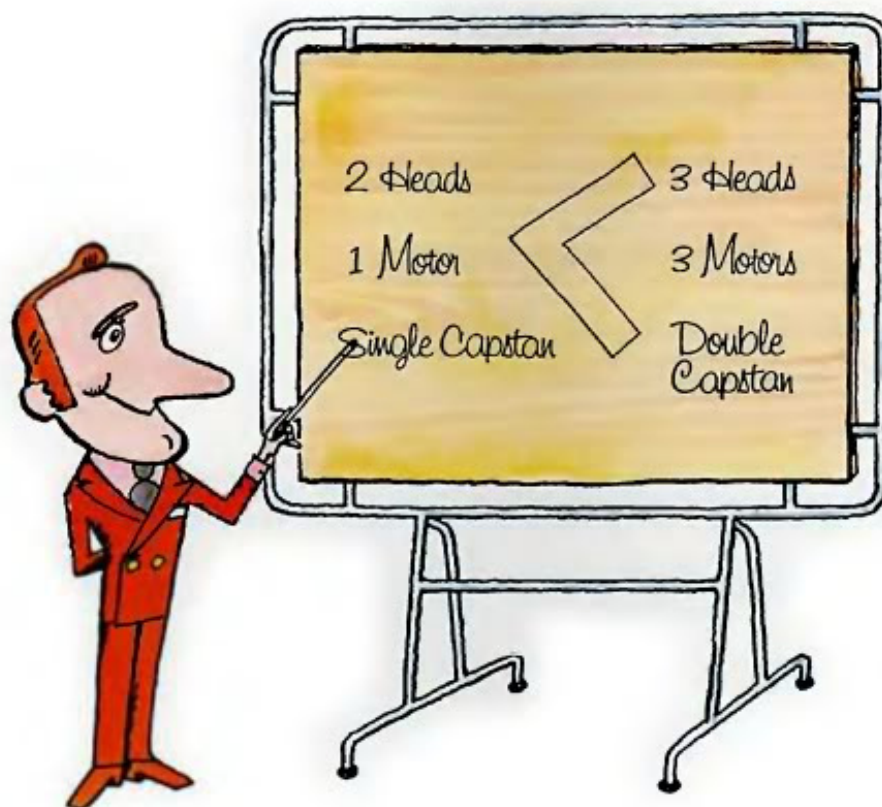
In the old 2-head systems, one head was used for erasing the tape prior to recording and the other had to serve alternately as both the recording head or the playback head. To serve both functions, performance had to be compromised since individual head designs are needed to achieve optimum performance. So, 2-head systems were optimized for playback but performed poorly for making recordings. The 3-head system lets the user retain optimum playback performance while allowing tapes to be recorded with performance equalling or often exceeding that of pre-recorded cassettes.

## 1 MOTOR → 3 MOTORS

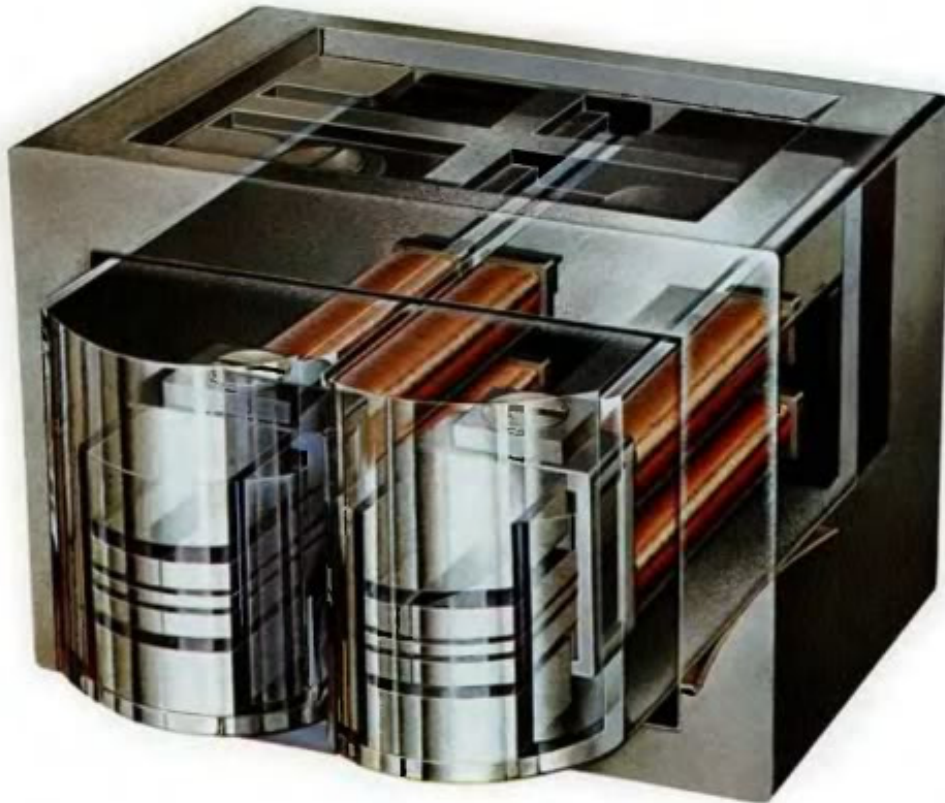
A single motor system relies on intricate, fixed ratio drive take-offs in order to provide the functions of take-up, fast forward, rewind and automatic shut-off. Each of these drive take-offs loads the motor in a different way, significantly affecting the smoothness of motor rotation and causing momentary overloading resulting in permanent wear changes of the motor. The AKAI 3-motor system provides an extremely accurate servo controlled motor only for driving the capstans with a separate motor for each of the cassette sprocket drives. In this way, accurate capstan speed with low flutter characteristics is provided and tape transport functions can be smoothly controlled for optimum tape care and operational flexibility.

## SINGLE CAPSTAN → DOUBLE CAPSTAN

The lower cost, single capstan tape drive system suffers from having only single point speed control. This control is not at the all-important head but rather, much after it. Thus, erratic motion of the supply spool and tape guide friction contribute to inconsistent tension and movement of the tape as it passes the head. Poor wow and flutter results with total drop-out sometimes during recording or playback. The AKAI double capstan system controls tape speed from both sides of the heads to insure total independence of tape movement across the heads, completely isolated from what is happening at the supply and take-up spools. Furthermore, accurate tape guides are used since the double capstan drive provides the power needed to overcome guide friction effects.



# The AKAI 3-Head 'Inside' Story



- **Recording and Playback Heads at Same Location**

Other manufacturers' 3-head systems use separate locations for the recording and playback heads which cause alignment problems and undue tape wear.

- **Optimized Gap Widths of 1 Micron for Playback and 4 Microns for Recording**

Two-head systems must use one and the same gap and gap width for both recording and playback.

- **Monitoring of Either Source or Tape is Provided**

Only source monitoring is possible with two-head systems during recording. By monitoring the tape with the AKAI 3-head system, recording quality can be instantly evaluated and adjusted without disturbing the progress of recording.

- **No Azimuth Adjustment Needed**

When 3-head system recording and playback heads are mounted in different locations, azimuth alignment controls must be provided *and used* to obtain satisfactory performance.

- **Wear-free, GX (Glass/Crystal Ferrite) Mirror Finished Heads**

Both the recording and playback heads make use of AKAI's renowned GX head material accurately polished to a mirror finish for low tape wear and dust pick-up to always provide truly professional recording and playback characteristics.



### 3-HEAD vs. 2-HEAD

**Q.** What are the principal advantages of a 3-head cassette deck over a 2-head deck?

**A.** First, you get better recording frequency response plus improved low noise performance. Even more important, you can directly monitor the recording process to accurately control the recording level which results in maximum use of the extended dynamic range with accompanying low distortion and low noise. Overall, buying an AKAI 3-head cassette deck is just like buying a high quality reel-to-reel deck whereas, purchase of any 2-head deck is, today, like investing in a wind-up wristwatch.

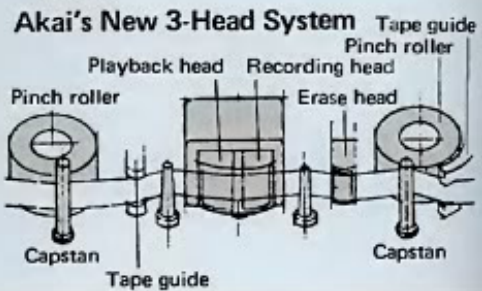
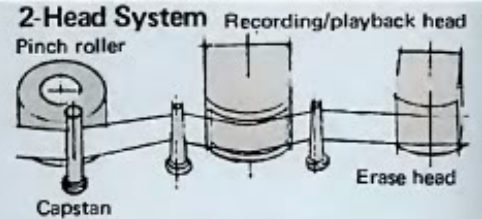
### AKAI'S 3-HEAD SYSTEM

**Q.** Other manufacturers make 3-head decks. Why are AKAI's 3-head decks better?

**A.** Other manufacturers' 3-head decks mostly use head materials inferior in quality to the AKAI GX heads and the recording and playback heads are located in different sections of the cassette. The inferior materials wear out more easily and cause tape wear as well as dust accumulation which cuts performance. Locating the heads in different cassette sections causes azimuth alignment problems contributing to poorer noise performance and a 'mushy' playback sound. AKAI's recording and playback heads are mounted together in the same cassette section eliminating azimuth alignment problems and, because the GX heads are super polished, wear and dust problems are almost completely removed.



### Opened Cassette In Play Mode



### THE AKAI 3-HEAD SYSTEM

#### Improved Frequency Response

Provided by optimum gap widths of 4 $\mu$  for recording and 1 $\mu$  for playback.

#### Low Noise Performance

GX ferrite heads with correct gap widths allow stronger signal recording and stronger signals to be obtained during playback thus minimizing tape noise.

#### Tape Monitoring

Separated heads for recording and playback allow fine recording adjustments based on actual tape playback signals.

### AKAI GX HEADS

GX stands for glass and crystal (ferrite) — powdered crystals of ferrite are made into a super hard ideal head core of low noise and high wear resistance characteristics by a special annealing method and then mounted and set in glass to form a single piece of head structure. Final grinding is accurately controlled and, in the process, a super-gloss mirror finish is given to the surface which contacts the tape. The resulting structure has the ideal magnetic characteristics, stability with age and temperature and is impervious to wear itself as well as providing a frictionless surface to contact with the tape, thus cutting tape wear. Since the surface is so highly polished, magnetic dust particles from the tape cannot adhere to the head thus reducing the possibility of reduced performance caused by poor contact between tape and head.

### TWO HEADS UNIQUELY MOUNTED TOGETHER

While, in concept, the joint mounting of two heads is simple, the actual development effort required significant expenditures of time and painstaking work to achieve the near optimum performance provided by the dual GX head arrangement. Mechanical tolerances for such small parts as the GX ferrite cores and the windings of the coils demanded new production techniques and, to provide more than sufficient isolation between the magnetic field of the recording head and the gap of the playback head, new approaches to magnetic shielding had to be developed. The resulting assembled structure is a technical breakthrough of the first order and well represents the accumulated experience resulting from AKAI's leading position in the recording industry for so many years.

## TAPE MONITORING

**Q.** Is this really a necessary feature or can I get along without it?

**A.** You can get along without it but, without it you may spoil many recording opportunities and waste a lot of your valuable time. This is probably more important to you than the small extra investment required to obtain a truly high quality AKAI deck having this and many other practical, time-saving features.

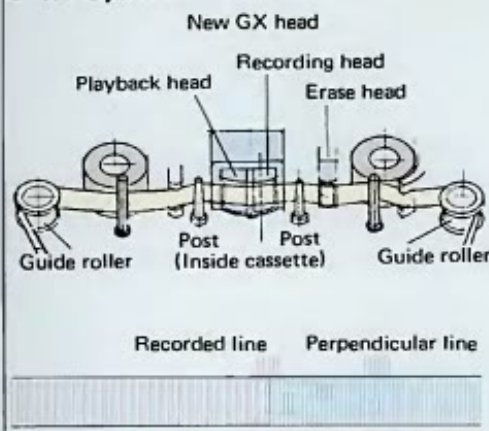
## AZIMUTH

**Q.** Other 3-head decks have a separate control for azimuth adjustment. Isn't it better to buy a deck with this feature on it?

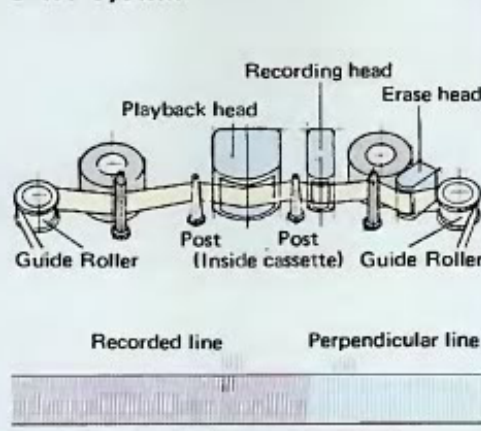
**A.** Absolutely not!! The fact that it's there means it needs to be used and you'd need to adjust it for every cassette and for each side too! The AKAI 3-head system with double capstan, closed loop drive completely eliminates azimuth adjustments because the recording and playback head gaps are almost in the same position and in perfect alignment with the tape at all times. You just can't make a recording (or playback) mistake with these decks.



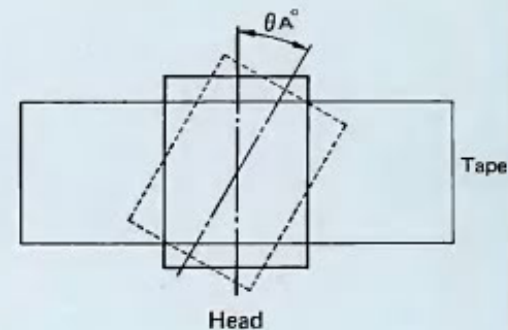
### Akai's 3-Head Double Capstan Drive System



### Independent 3-Head Double Capstan Drive System



### Azimuth Alignment



### TAPE MONITORING SYSTEM

Actually, it takes much more than just separate recording and playback heads to provide direct tape monitoring. Selector switching is needed and, for Dolby recording, a separate Dolby playback circuit is needed. All this is, of course, included and simply accessible by operating the single TAPE/SOURCE monitor switch. Technically, when recording adjustments are correct, you probably won't be able to distinguish between the two monitoring positions as the recording quality is so high. However, if the tape or recording head is overloading on music peaks, you'll notice it right away in the tape monitor position and, without stopping the recording process, you'll be able to immediately correct the level setting. Proper recording level settings cut distortion while retaining maximum signal-to-noise ratio performance.

### THE SECRET OF AKAI'S NO AZIMUTH ADJUSTMENT

Mostly, azimuth error creeps into the recording/playback process due to a.) wide separation between the recording head location and the playback head location and, b.) the interposition of the unchangeable molded plastic posts (inside the cassette) between the two heads. These posts have an uncontrolled taper (or slanted, conical surface) in order to be able to easily remove the cassette halves from the manufacturing molds. This taper causes the magnetic tape to twist as it crosses the heads and, if the recording and playback heads are in different locations, the twisted relationship of the tape to the gap of each head is different for recording and playback. This is further aggravated when the reverse side of the cassette is used as the taper of the posts and twist is likewise reversed thus normally requiring readjustment of azimuth for the flip side of a cassette. By mounting both recording and

playback heads together, in one location, AKAI has completely cancelled the variable azimuth alignment effects introduced by the inaccuracy of the plastic parts of the cassette. This also means higher signal output during playback with relatively less tape noise and simultaneous signal phasing for sparkling clarity of tone as compared with the 'mushy' sound produced when 'reading' the tape over too large a time (tape distance) as when azimuth alignment is not correct.

## GAP WIDTH

**Q.** If it's necessary to minimize the distance between the recording and playback gaps to eliminate azimuth adjustments, isn't a single head with only one gap better?

**A.** Yes and no. If you only consider azimuth problems you're right but, there's so much more in terms of better performance available when you use separate heads and when each has its own special gap width. The AKAI GX heads have a recording gap of 4 microns and a playback gap of 1 micron providing extended frequency response. Also important is the ability to directly monitor recording through the separate playback head in order to 'peak' adjustments and thus optimize recordings.

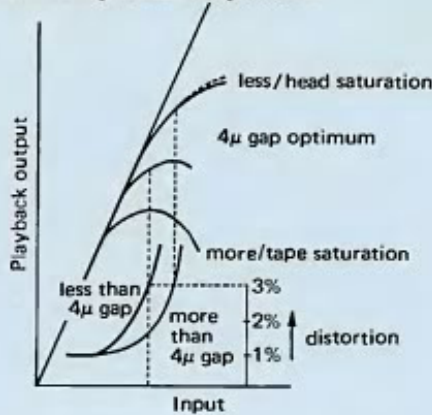


## RECORDING COSTS

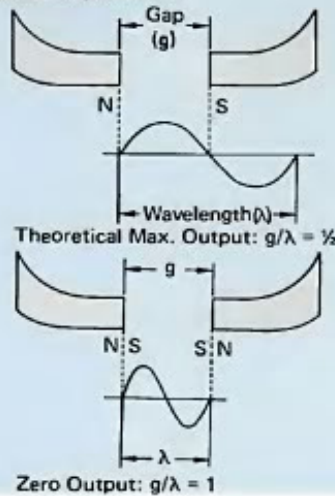
**Q.** Isn't it true that most component type cassette decks give about the same performance and, if so, why should I buy one that's more expensive?

**A.** No, there are big performance differences between different manufacturers' decks but they're often hard to identify from some of the manufacturers' specifications. These differences are in broader frequency response and lower noise characteristics. With the AKAI 3-head system, use of low noise LN cassettes results in performance which can only be equalled (and not always) by other manufacturers' decks when using CrO<sub>2</sub> cassettes. Putting it bluntly, the extra expense of owning an AKAI pays big dividends either by providing you with better performance or, by allowing you to use the less expensive tapes and attain the same performance.

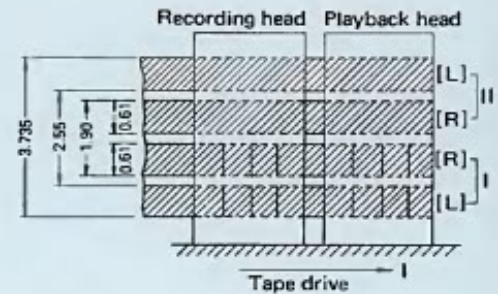
### Input, Output Characteristics vs. Recording Head Gap Width



### Playback Gap Width



### How The Tracks of A Cassette Tape Are Used.



- Unit: mm
- As viewed from the coated surface

## GAP WIDTH DETERMINATION

**Recording** – gap width is determined as that which provides the maximum playback output consistent with low distortion requirements. Above 4µ, the magnetic tape material becomes easily saturated resulting in distortion while, below 4µ, the magnetic head material becomes easily saturated resulting in distortion. Thus, recording gap width selection can be seen to be a sort of matching of the tape material to the head material for optimum performance.

**Playback** – gap width is determined almost exclusively by the upper limit of high frequency response required. Since the tape speed is fixed at 4.75cm/sec and it is required to reproduce frequencies up to and including 19,000 Hz, the theoretical maximum playback output at that frequency will be obtained using a gap width of 1µ. This is just narrowing the area of the tape being examined by the head just as you would look closer at an oil painting to find the painter's brush strokes – increased detail means higher frequencies.





## REEL-TO-REEL vs. CASSETTE

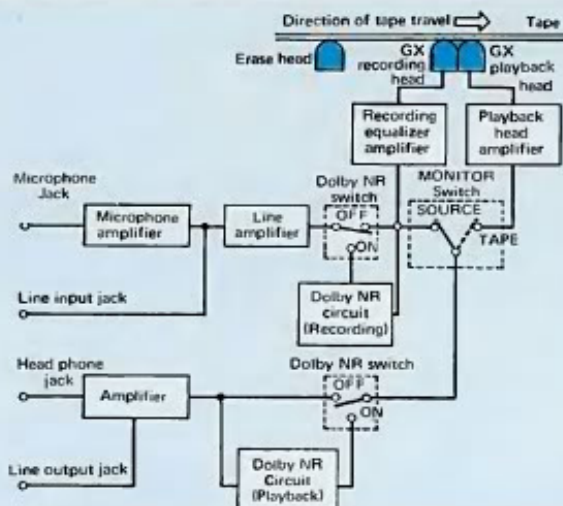
**Q.** Aren't I still better off to invest in a good open reel deck rather than in an AKAI 3-head cassette deck even though the performance is, as you say, about equal between them?

**A.** Perhaps. Each has its own merits depending on your individual application but, keep in mind the convenience not only of carrying cassettes but also the ready availability of both blank and pre-recorded tapes. Portable cassette recorders also are convenient and you'll want to playback tapes thus recorded as well as tapes you make directly from records and FM. Tape changing time and procedures are simpler and faster with cassettes so there's less chance of missing important recordings taken from radio. Cassettes are the now and the future – investment in an AKAI top performance cassette deck is, after all, a 'sound' investment.

## COMPATIBILITY OF SYSTEMS

**Q.** I understand that 3-head decks must use tapes recorded using only that system and don't work properly for tapes made on 2-head recorders; is this right?

**A.** No, quite the contrary is actually the case. Tapes recorded on 2-head recorders actually playback better on the AKAI 3-head decks due to the use of the 1 micron playback gap. Tapes recorded using the AKAI 3-head system playback better on 2-head machines than do tapes which are both recorded and played back on 2-head machines because the recording quality of the tape is not changed during playback and thus, the more accurate 3-head recording process yields, basically, better recorded tapes!

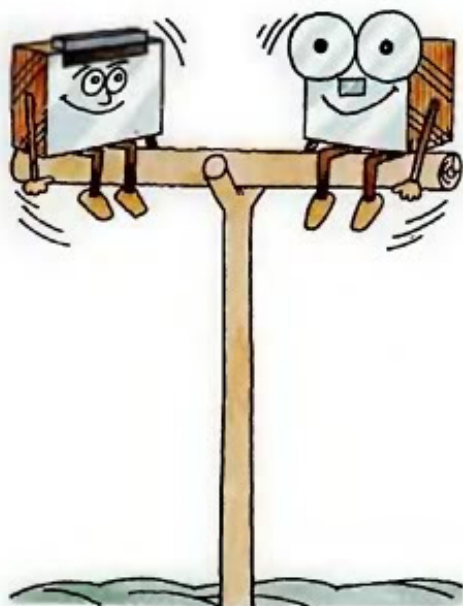


## STANDARD REFERENCE AND RECOMMENDED TAPES LIST

Tape Selector Position	Reference Tape	Recommended Tapes	
LN (Low Noise) Position	FUJI FL C-60	AGFA GEVAERT	Super C-60, C-90
			SFD C-60, C-90
		BASF	LH C-60, C-90
			LHS C-60, C-90
		FUJI	FL C-60, C-90
		MAXELL	LN C-60, C-90
			UD C-60, C-90
		SCOTCH	LH C-60, C-90
			LD C-60, C-90
			TDK
		SD C-60, C-90	
		ED C-60, C-90	
CrO <sub>2</sub> (Chrome) Position	BASF Chromdioxide C-60	BASF Chromdioxide	C-60, C-90
		TDK SA	C-60, C-90
FeCr Position	SONY Duad C-60	BASF Ferrochrom	C-60, C-90
		SONY Duad	C-60, C-90

## SELLING POINTS OF THE AKAI 3-HEAD SYSTEM

- Improved Frequency Response
- Low Noise Performance
- Tape Monitoring
- No Azimuth Adjustment
- Low Head and Tape Wear
- Lower Recording Costs
- Low Dust Pickup
- Full Compatibility
- Reel-to-reel Performance with Cassettes



# The AKAI 3-Motor, Double Capstan 'Inside' Story



- **3-motor System Upgrades Cassette Deck Performance Just As It Does for Quality Reel-to-reel Decks**

Use of three motors removes drive design compromises and allows proper timing of the motor controls yielding super-smooth tape drive for accurate recording and playback with tape vibration and jitter significantly reduced (low wow and flutter).

- **Double Capstan System Forms a Closed Loop at the Heads**

With one capstan on either side of the heads, a closed loop is formed around the tape in this area. Inherent in the unique double capstan system design, a slight tension is applied to the tape between the capstans thus totally isolating it from any cassette friction or spool drive effects.

- **AC Servo Controlled Capstan Drive Motor Provides Constant Speed with Low Wow and Flutter**

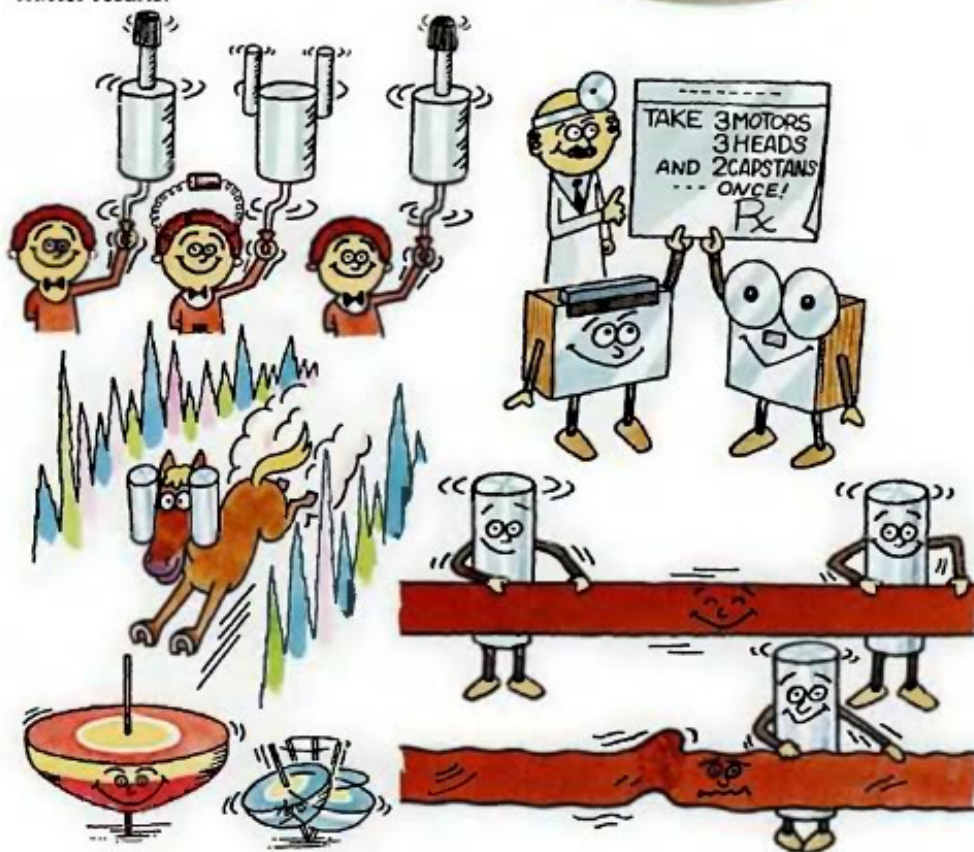
The same type of servo mechanism feedback control as is used in aircraft and missile applications has been applied to the capstan drive motor. This tightly maintains the tape drive speed at a constant and, also removes minor variations which normally produce poor wow and flutter performance.

- **Extra Large Double Flywheels Damp Capstan Rotation for Added Smoothness of the Tape Drive**

By staggering the flywheels, extra large diameters (77mm) could be used. Just as in the case of a toy top, large diameters and heavy weight means rotational stability due to the larger inertia effect.

- **Two Slotless DC Spool Drive Motors Provide Smooth Operation**

Totally balanced winding techniques on a cylindrical, slotless armature permit uniform armature and field interaction. The use of a slotless armature allows good mechanical balance to be achieved for overall smooth operation and low wow and flutter results.



### 3-MOTOR vs. 1-MOTOR

**Q.** What are the principal advantages of a 3-motor cassette deck over a single motor deck?

**A.** From the standpoint of performance, annoying wow and flutter effects caused by uneven tape drive are greatly reduced. Also, as extra benefits, pitch control, rewinding time control, tape setting and many other fully automatic logic operated drive control functions are made possible by using the 3-motor system.

### POWER vs. ACCURACY

**Q.** Isn't one good, strong drive motor better than using three separate ones?

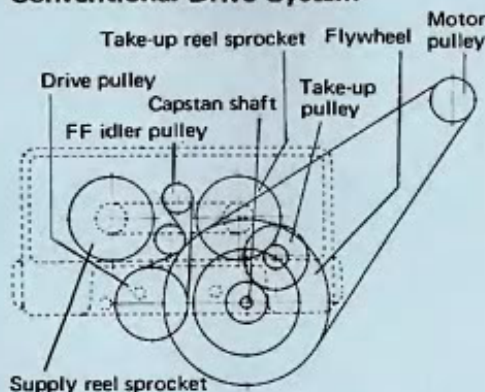
**A.** Power isn't the answer; accuracy is what's required. A single, accurate servo motor delivers good performance but, incorporating three motors in a tape deck permits the exclusive use of the precision capstan drive servo motor to provide extra accuracy and stability in moving the tape across the heads. The other, less critical, tasks of providing take-up, fast forward and rewind drive can then be handled by two other quality, individual motors each of which is directly associated with one of the cassette sprocket holes. This sharing of functions also permits the use of fully electronic sensi-touch drive controls.



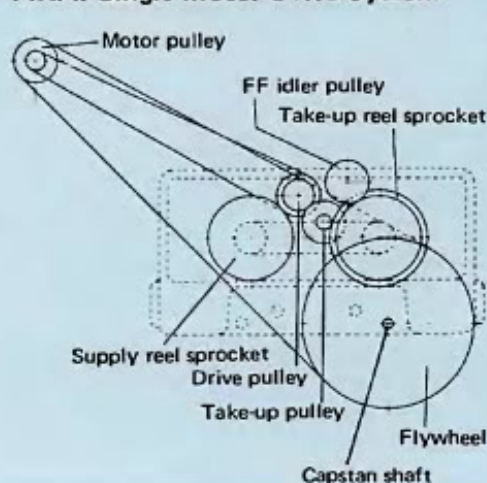
**CPG Servo Motor**



**Conventional Drive System**



**AKAI Single Motor Drive System**



### THE AKAI 3-MOTOR SYSTEM

#### Super-low Wow and Flutter Characteristics

Provided by a CPG type AC servo controlled motor dedicated to the capstan drive function.

#### Sensi-touch Logic Operated Drive Controls

With appropriate drive changeover pauses to protect tapes.

#### Tape Setting

To assure proper double capstan tensioning at the very start of play and to provide instant and smooth stopping for accurate recording and playback control.

#### Faster Rewind and Fast Forward Times

Faster, but consistent with tape wear considerations.

#### Longer Life for All Parts and Overall Trouble-free Operation

### AKAI'S CAPSTAN DRIVE CPG TYPE AC SERVO MOTOR

Specially designed just for application to the AKAI top performance cassette decks, this 6-pole AC servomotor provides high torque output with a large moment of inertia which means that its rotation is basically highly stable under widely varying load conditions. An integral CPG (Center Pole frequency Generator) consisting of a 40-tooth, shaft mounted yoke and a matching fixed cage yields 40 highly accurately timed pulses per single rotation. These pulses are used by the servo control amplifier circuit to adjust the power delivered to the motor, thereby precisely fixing the motor's rotational speed so as to always obtain the same number of CPG pulses per unit of time. The high amplification of the servo control circuits makes the motor control very 'tight', i.e., slight load variations are rapidly detected and correction is almost instantaneous. The two main benefits obtained are that the average

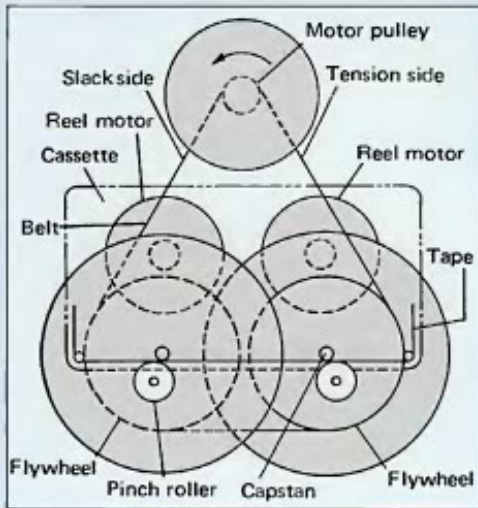
rotational speed is highly stable and that the instantaneous rotational speed can vary very little from the average speed. This is the first main step toward reduction of wow and flutter effects.



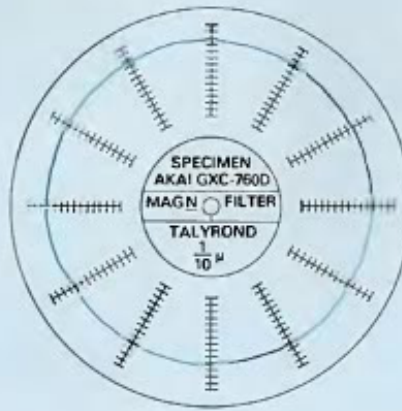
## SINGLE vs. DOUBLE CAPSTANS

**Q.** My reel-to-reel deck has just a single capstan. Why do you need to have a double capstan on a cassette deck?

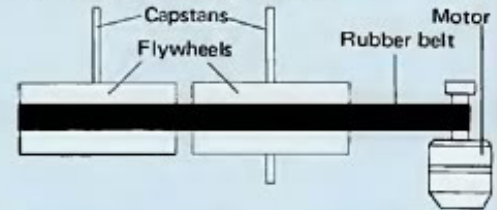
**A.** The tape guide system is an integral part of a reel-to-reel deck whereas, in a cassette deck, it's partly built-into the plastic case of the cassette. The original cassette design didn't anticipate the high performance usage now possible and therefore, the tape contacting surfaces in the cassette are rather crude by comparison. Also, the spool turning action in a cassette is fairly 'sloppy'. Use of double capstans located at either side of the heads isolates the tape crossing the heads from any vibrations at the spools and allows controlled guiding of the tape within the head area. That's why it's called a closed loop double capstan system.



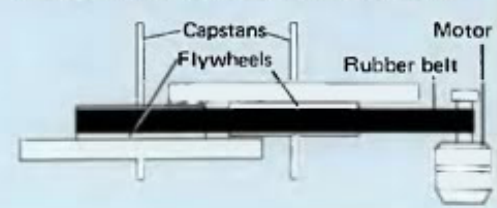
## Talyrond Graph



## Conventional Flywheels



## Staggered Construction Flywheels



## AKAI'S SPOOL DRIVE SLOTLESS DC MOTORS

Ordinary DC motors have irregularly shaped cores and unevenly distributed windings. To get away from the effects of motor vibration and uneven speed which can cause 'pile-up' and resulting binding of the tape within the plastic cassette, AKAI developed a new slotless DC motor design. These motors use a special slotless cylindrical core with the windings evenly distributed over the entire surface. The resulting motor is balanced mechanically yielding naturally smooth rotation and, since the magnetic field is uniform, torque output is constant which also makes for smooth rotation. Overall, the smooth take-up and winding operation provided by these slotless motors contributes to the reduction of wow and flutter.

## AKAI'S CLOSED LOOP DOUBLE CAPSTAN SYSTEM

Examination of a double capstan drive system readily reveals some potential problems which would occur if the design were not highly accurate. For example, tape could build-up between the two capstans causing loss of tape contact with the heads — or, too much tension could be applied causing tape stretching with signal distortion and rapid wear of both tape and heads. The high precision in the AKAI system results in matching capstan diameters of  $3\text{mm} \pm 0.1$  microns for even and accurate tape drive. Since the 'pulling' capstan is driven from the tension side and the 'pushing' capstan is connected to the slack side of the motor belt, a very slight tension is automatically maintained on the tape between the two belt-locked capstans. Thus, good tape-to-head contact is maintained and tape motion within the closed loop is freed from other cassette vibration effects.

## AKAI'S STAGGERED FLYWHEELS

Since the capstan-to-capstan distance is fixed by the design of the cassette, it would appear that the flywheel diameters are limited to that size, or about 45mm each. However, by staggering the main bulk of the flywheels, AKAI has achieved flywheel diameters of 77mm which means higher inertia for smoother capstan rotation and resistance to loading variations. Again, this results in constant drive speed and is the second main step toward achievement of the exceptionally low wow and flutter performance of these decks.

## CASSETTE VARIATIONS

Q. Will the AKAI closed loop double capstan 3-head system provide the same level of performance regardless of which company's tape is used?

A. That question shows that you're really thinking now. There are differences in the dimensions and shapes of the plastic parts of the cassette as you look at various manufacturers' products. These variations do affect performance in different ways. To the extent that these differences cause performance variations in decks with single capstans, in AKAI closed loop double capstan decks the result is almost total freedom from such effects. Remember also that the AKAI 3-head decks, with recording and playback heads at the same location, further remove such cassette variation effects as compared with other manufacturers' 3-head recorders.

## MOTOR RELIABILITY

Q. Is it ever necessary to lubricate all three motors?

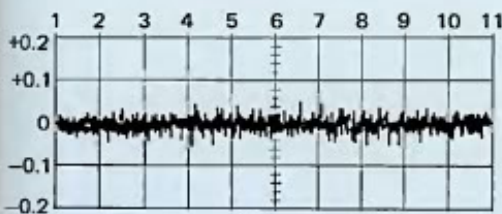
A. Even after prolonged use, the factory lubrication is adequate. But, you should let our service people have it every once in awhile for routine inspection just to make sure everything's in good working condition. This will maintain the reliability of the deck giving you long operating life with dependable listening characteristics.

## PITCH CONTROL

Q. How do you use the pitch control?

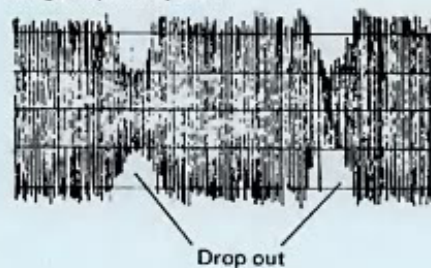
A. Pitch control functions during playback only to provide up to  $\pm 5\%$  speed changes to adjust the playback pitch of inaccurately made tapes or to allow shifting of the pitch to match musical instruments such as a piano. A center click-stop is provided to easily set the playback speed equal to the recording speed.

### Test Data of Wow/Flutter Characteristics



### Recording/Playback Level (10 K Hz signal)

Single capstan system



Closed loop double capstan system



## AZIMUTH

Using double capstans to form a closed loop results in a slight tensioning of the tape in the head area. Two more benefits are obtained from this in addition to the better head contact and freedom from external vibration and friction. Firstly, the tape is accurately positioned as it passes the heads. Secondly, consider the twist given to the tape as it passes over the slightly conical posts in the cassette. Without this tension, the tape tension at the post nearest the single 'pulling' capstan would be greater allowing the tape to bend away from the heads. However, in the double capstan closed loop, the tension at each post is the same allowing the tape passing the heads to maintain a uniform, right-angled relationship with both heads' gaps thereby reducing azimuth effects. Thus, with AKAI's 3-head, closed loop double capstan system, azimuth alignment is totally unnecessary.



**MODEL GXC-570D, 3-HEADS/  
3-MOTORS/DOUBLE CAPSTAN/  
DOUBLE DOLBY/ADR**

- GX Heads
- AC Servo Capstan Drive Motor
- VU or Peak Meter Selection
- Mic & Line Mixing
- Multiplex Filter & Limiter
- Double Dolby w/Calibration
- Pitch & Winding Speed Controls
- Repeat & Memory Playback
- Sensi-touch Drive Controls
- Remote Control Socket

Wow & Flutter: Less than 0.06% wrms

Frequency Response: 35 Hz to

15 kHz (LN)

16 kHz (CrO<sub>2</sub>)

19 kHz (Fe-Cr)

S/N Ratio: 52 dB minimum

(LN, +5VU, Dolby off)

Dimensions: 440W x 255H x 225D mm

17.3 x 10.0 x 8.9 inches

Weight: 13.5 kg (28.5 lbs.)



**MODEL GXC-760D, 3-HEADS/  
3-MOTORS/DOUBLE CAPSTAN/  
DOUBLE DOLBY/ADR**

- GX Heads
- AC Servo Capstan Drive Motor
- Peak Reading Check Button
- Mic & Line Mixing
- Multiplex Filter
- Double Dolby w/Calibration
- Memory Rewind
- Push-button Drive Controls
- Remote Control Socket

Wow & Flutter: Less than 0.06% wrms

Frequency Response: 35 Hz to

15 kHz (LN)

16 kHz (CrO<sub>2</sub>)

19 kHz (Fe-Cr)

S/N Ratio: 51 dB minimum

(LN, +5VU, Dolby off)

Dimensions: 440W x 142H x 306D mm

17.3 x 5.6 x 12.0 inches

Weight: 11.1 kg (24.4 lbs.)



**MODEL GXC-740D, 3-HEADS/  
1-MOTOR/DOUBLE CAPSTAN/  
DOUBLE DOLBY/ADR**

- GX Heads
- AC Servo Drive Motor
- Peak Level Indicator
- Mic & Line Mixing
- Multiplex Filter
- Double Dolby w/Calibration
- Memory Rewind
- Lever Key Drive Controls

Wow & Flutter: Less than 0.07% wrms

Frequency Response: 30 Hz to  
15 kHz (LN)  
16 kHz (CrO<sub>2</sub>)  
18 kHz (Fe-Cr)

S/N Ratio: 50 dB minimum  
(LN, +5VU, Dolby off)

Dimensions: 440W x 142H x 306D mm  
17.3 x 5.6 x 12.0 inches

Weight: 10.5 kg (23.1 lbs.)



**MODEL GXC-325D, 3-HEADS/  
1-MOTOR/DOUBLE CAPSTAN/  
DOUBLE DOLBY/ADR**

- GX Heads
- AC Servo Drive Motor
- Peak Level Indicator
- Mic & Line Mixing
- Limiter
- Memory Rewind
- Mechanical Key Drive Controls
- Tape Run Indicator

Wow & Flutter: Less than 0.055% wrms

Frequency Response: 30 Hz to  
15 kHz (LN)  
16 kHz (CrO<sub>2</sub>)  
19 kHz (Fe-Cr)

S/N Ratio: 51 dB minimum  
(LN, +5VU, Dolby off)

Dimensions: 442W x 142H x 301D mm  
17.4 x 5.6 x 11.9 inches

Weight: 8.6 kg (18.9 lbs.)



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