

SANSUI SD7000



ALL-NEW 4-TRACK 2-CHANNEL STEREO TAPE DECK

The Sansui SD-7000 is a towering achievement in the history of fine audio equipment development. It had to be. Nothing less complete or less advanced could have justified the years of intensive research, the countless number of man-hours, the hundreds of thousands of dollars spent. But the investment was worth it to Sansui. As it will be to you. Take any reputable maker's deck as a yardstick, even the most expensive. You'll find that the 3-motor, 4-head SD-7000 compares most favorably in features, in performance and in versatility. And you'll find things about it that are simply not available in any comparably priced unit. For example, like most quality decks, the SD-7000, with 15 to 25,000Hz in frequency

response at $7\frac{1}{2}$ ips, records only in the Forward mode, yet it plays back in both Forward and Reverse, and boasts a full relay and solenoid controlled tape transport section. In developing the SD-7000, Sansui engineers gave special weight to three major considerations—tape protection, superior tone quality and easy, responsive operation. Three years and ten prototype models came and went as they labored. But just how well they succeeded is already the talk of the audio industry. If you're thinking about rounding out your stereo system with a truly fine tape deck, audition the SD-7000 before you make any decisions. If you then choose another make we'd like to know what swayed you. For certain it will not have been quality.

* 3-MOTOR 4-HEAD *
* RELAY/SOLENOID CONTROLLED *
* FET PRE-AMP. *
* AUTO REVERSE/REPEAT/REWIND *

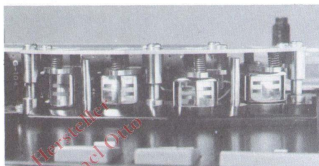
Sansui

TAPE PROTECTION

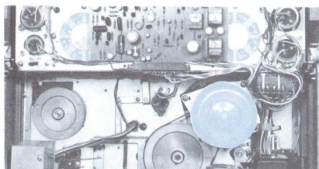
Time Delay Circuit: When the deck is switched from either Fast Forward or Rewind to Stop and then to Play, a special circuit triggers an approximately 1.3 sec. between-modes delay, reducing tape slack and eliminating the possibility of breaks.

Tape Tension Switch: Set at either 1 mil or $\frac{1}{2}$ mil, depending on the thickness of the tape being used. This device prevents the tape stretching that often results when excessive tension is applied to thin tape. It also ensures the tape contacts all heads with proper pressure.

Tape Shift Mechanism: Longer life of the tape and heads is ensured by Tape Shifters, which minimize resistance during fast forwarding or rewinding by pulling the tape away from the heads and removing the right hand tension arm. The mechanism is not activated during recording or playing.



Proper Motor Speed Regulation: To avoid detrimental excessive speeds in the Fast Forward or Rewind mode, the SD-7000 uses two six-pole induction motors for reel motors, ensuring that tape speed is properly governed. The third motor is for capstan drive.



No Accidental Erasures: The SD-7000 has a built-in safeguard to eliminate the possibility of accidental erasures of tapes. The Recording mode cannot be activated unless both the Record and Forward buttons are pressed simultaneously.

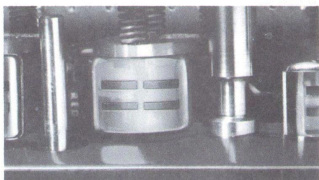


Built-in Reverse Signal Safeguard: With the SD-7000, you cannot unintentionally record a reverse signal in the middle of a tape. To record such signals you must use both hands, pulling the Reverse Signal Switch with one, and pushing the Forward button simultaneously with the other.



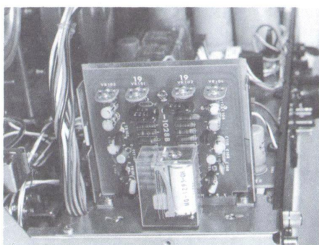
SUPERIOR TONE QUALITY

Wide-band, Contourless Heads: The SD-7000 is equipped with wide-band heads with exceptionally large cores, which permit a high input level and yet enable them to pick up very low frequencies below 20Hz. Contourless, they provide a very smooth low frequency response. Extremely accurate head-gap widths result in a frequency response of well over 20kHz, a high S/N ratio and low distortion.



Solid State Preamplifier, Fine Linearity:

Only quality silicon transistors are employed in the completely solid state preamplifier, which incorporates a 3-stage equalizer circuit, one of them an FET. The preamplifier's saturation level has been made far higher than the tape itself while the recording equalization in the high range is correspondingly small. Hence, as the quality of available tape improves, the signal-to-noise ratio can be substantially bettered by raising the recording level.



Impressive Bias Frequency, Low Distortion: The SD-7000 has a significant bias frequency of 100kHz, and the distortion of the bias waveform is a minuscule less than 1%. This results in recordings of exceptional quality, with tape distortion (record/playback) held below a low 1.2%.

Sturdy Mic Input Circuit: The microphone input circuit of the SD-7000 is designed to withstand very large inputs, permitting placement of microphones very close to musical instruments to capture every nuance of their sound.

Consistent High-end Frequency Response: Because of the very high saturation level of the SD-7000 heads in the high range, their frequency response heightens even when high inputs are fed. Consequently, high-end frequency response varies very little from the recording level, which means that the volume can be safely raised when recording jazz or other music in which high notes are emphasized.

VERSATILE, EASY-TO-OPERATE

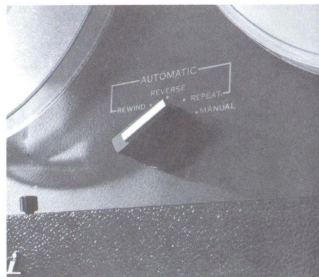
Complete Automatic Features: The SD-7000 provides not only Automatic Reverse and Automatic Repeat, but Automatic Rewind as well, a feature rarely found in even the costliest decks. These functions can all be triggered either by recorded inaudible 20Hz signals or by attached sensing strips. They work this way:

Rewind: The tape plays to the end in the forward direction, then is quickly rewound on the original reel.

Reverse: The tape plays to the end in the Forward direction, reverses and plays to the other end, and then stops.

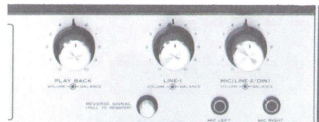
Repeat: The tape plays forward and then back continually until stopped by the operator.

Except when the machine is set for Repeat, the built-in automatic shut-off switch stops the tape motion when the desired function is completed.



Reverse Signal Recording Circuit: The SD-7000 is complete with a circuit for recording the inaudible 20Hz signals which trigger automatic operations. Simpler and less time consuming than attaching sensing strips, it eliminates unnecessary tape handling. However, sensing strips can be used if the operator prefers.

Three Types of Mixing: Utilizing the SD-7000's two line inputs, it is possible to mix inputs in any of three ways and to record any one combination. The possibilities are (1) line input 1 and microphone (2) line input 1 and line input 2 and (3) line input 1 and DIN connector.



New Automatically Resetting Reel Clamps: These newly developed reel clamps permit unprecedented ease of loading and unloading, and cannot be lost or misplaced. Secure reels by loading them, pulling the stoppers and turning them about 60 degrees. When reels are removed, the stoppers automatically reset themselves for reloading.



Feather-touch Controls: The Reverse, Rewind, Stop, Fast Forward and Forward Controls are the responsive, feather-touch type for quick, convenient operation. They are designed to fully exploit the unit's potential as a three-motor tape deck.

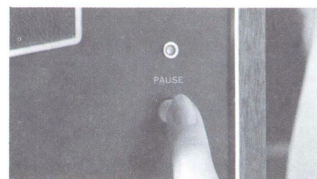


Reclining Stand: A special stand is provided to permit leaning the unit back at about a 30-degree angle, making it more easy to operate.

Remote Control Possible: An optional remote control unit can be connected to the SD-7000 to permit operating the Forward, Fast Forward, Stop, Rewind, Reverse and Pause modes at distances of up to 13 feet away. Great for relaxing in your favorite easy chair for uninterrupted stereo.

Tape Travel Direction Lamps: The SD-7000 incorporates a special circuit which holds one of playback heads and the capstan in a "live" or stand-by state, ready for instant use. Direction Lamps indicate the direction in which they will carry the tape when activated. This instant starting capability is particularly useful in locating specific selections quickly.

Self-Locking Pause Switch: A bonus feature rarely found on a three-motor tape deck, it is used to temporarily halt the tape during recording or playback. Particularly convenient for avoiding commercials and commentary when recording FM broadcasts. An indicator lamp above the switch lights up when the switch is used. The switch may be either pushed lightly to halt the tape momentarily, or pushed in all the way for locking. When released, the switch permits the resumption of recording without any tell-tale click.



Stereo Mono L-R Recording Mode Switch: Rapid variation of volume in the left and right channels makes it difficult to determine in advance the optimum recording level for stereo music. But by setting this switch in the Mono L+R position, the operator can observe both channels simultaneously on the VU meters and select the best possible volume level. The switch also permits easy channel balancing.

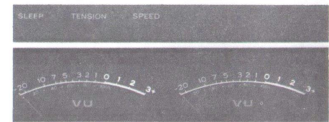


Output Attenuator Switch: Because the standard 0.775V output level of tape decks far exceeds the usual line input levels of a preamplifier or tuner, the volume control of the amplifier must be turned down and adjusted every time its tape monitor switch is turned on. The SD-7000 has a built-in attenuator on its rear panel to permit the matching of its output level to other program sources.

Sleep Switch: When activated, this automatically cuts off power to the tape deck after the current tape has played as programmed and has been wound up on the takeup reel. In addition, since the AC outlet on the rear panel is also controlled by this switch, any component plugged in is also automatically turned off.

Headphone Jack and Volume Control: An 8 Ω impedance stereo headphone set, such as the Sansui SS-20 or SS-2, can be plugged in for monitoring or private listening. It has a separate volume control which prevents the complete negation of sound even when turned fully counterclockwise.

Large, Bright VU Meters: Lighted from the rear, like the panels of quality receivers, the SD-7000's VU meters have exceptionally large scales for easy reading and add to the professional appearance of the unit. Recording and Playback levels are determined at a glance.



600 Ω Microphone Inputs: The SD-7000 is complete with side panel inputs for high-impedance microphones. The Sansui A-603 microphone transformers (available as optional extras) can be coupled to these inputs if the use of professional 600 Ω balanced microphones is desired.



Source/Playback Tape Monitor Switch: Permits ready comparison of the original program source and the recorded sound as it is reproduced by the playback head. Useful for simply determining the quality of a recording.

Separate Volume and Balance Controls: Line input 1, line input 2 and the playback circuits are all equipped with separate 2-in-1 volume and balance controls, with the outer ring governing balance and the inner knob regulating volume.

Precision Impedance Roller: Smoother tape travel and minimized wow and flutter are achieved through the use of an extremely high precision finished impedance roller.

Full Range of Accessories: The SD-7000 comes complete with a full range of accessories, including a dust cover, head cleaner, reel, connection cords, oil, splicing tape and sensing foil.

Other Features: The unit also includes such advanced features as automatic tape shifters, a tension arm with an automatic shut-off switch, 4-digit tape counter, push-pull type 100kHz bias oscillator and a DIN socket.

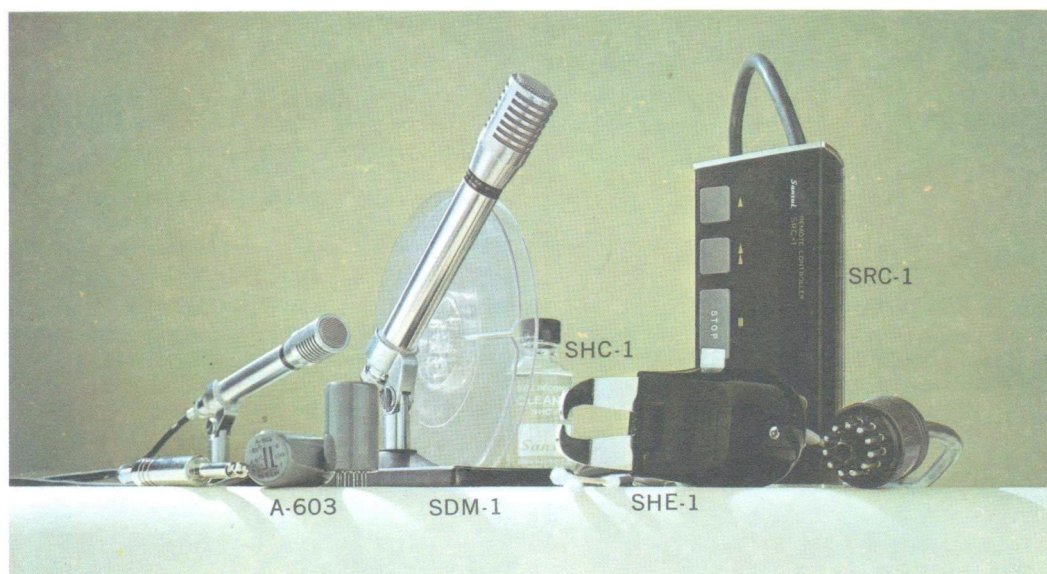
Here it is in its full context. Note how beautifully the SD-7000 fits in with the rest of Sansui's top-of-the-line components, the 180 watt 5000A stereo tuner amplifier, 80 watt 5-way 6-speaker SP-3000 stereo speaker systems, SR-3030BC turntable and SS-20

stereo headphones. But there's more than surface beauty here. There is also a consistency of technology, a consistency of flawless performance, with the same Sansui care lavished on each of the components.



Optional Extras: The following equipment is available as optional extras: Remote Control Unit (Model SRC-1), 50k Ω /600 Ω microphone (Model SDM-1), microphone trans-

former (Model A-603), head demagnetizer (Model SHE-1) and head cleaner (Model SHC-1).



SPECIFICATIONS

TRACK SYSTEM: 4-track 2-channel stereo/mono

REEL SIZE: 7" maximum

TAPE SPEEDS: 7½ ips and 3¾ ips

TAPE SPEED ACCURACY:

0.5% at 7½ ips and 3¾ ips

HEADS:

4-track 2-channel ERASE

4-track 2-channel RECORD

4-track 2-channel FORWARD

PLAY

4-track 2-channel REVERSE

PLAY

MOTORS:

Two-speed hysteresis synchronous type for capstan drive (4-pole/8-pole)

6-pole induction type for each reel drive

FAST WIND TIME:

Approximately 100 seconds for 1,800 ft. tape (at 50Hz)

WOW AND FLUTTER:

Less than 0.06% at 7½ ips

(WRMS)

Less than 0.10% at 3¾ ips

(WRMS)

FREQUENCY RESPONSE:

15-25,000Hz (20-20,000Hz $\pm$ 2

dB) at 7½ ips

15-15,000Hz (30-10,000Hz $\pm$ 2

dB) at 3¾ ips

S/N RATIO:

Better than 60dB (3% THD level to weighted noise)

CROSSTALK:

Better than 45dB (channel to channel, at 1,000Hz)

Better than 60dB (between adjacent tracks, at 1,000Hz)

HARMONIC DISTORTION:

PLAYBACK AMPLIFIER:

Better than 0.15% at 1,000Hz, 1.2V output

TAPE DISTORTION (record/playback):

Better than 1.2% at 1,000Hz,

0 VU

Better than 3% at 1,000Hz,

+6 VU

ERASURE:

Better than 60dB

INPUT SENSITIVITY AND IMPEDANCE:

MICROPHONE: 0.5mV minimum (50k Ω)

(0.05mV minimum at 600 Ω , with Sansui A-603 microphone transformer)

LINE-1 & -2:

70mV minimum (100k Ω)

DIN:

14mV minimum (100k Ω)

OUTPUT:

LINE & DIN: 1.2V maximum (0 VU=0.775V and 0 VU=0.225V switchable)

HEADPHONES: 10mW (8 Ω)

BIAS OSCILLATOR FREQUENCY: 100kHz

MIXING: Microphone and Line-1/Line-1 and Line-2/Line-1 and DIN

SWITCHES:

OPERATING: REVERSE/REWIND/STOP/FAST FORWARD/FORWARD

PAUSE: OFF/ON

SLEEP: OFF/ON

TAPE SPEED: 7½ ips / 3¾ ips

TAPE TENSION: 1Mil / ½ Mil

RECORDING MODE:

STEREO/MONO L+R

MONITOR: PLAYBACK/SOURCE

AUTOMATIC: REWIND/ REVERSE/ REPEAT / MANUAL

SEMICONDUCTORS:

38 Transistors: 1 Zener Diode: 23 Diodes:

POWER REQUIREMENTS:

POWER VOLTAGE: 100/110/120/200/220/240V 50/60Hz

POWER CONSUMPTION: 130W

DIMENSIONS: 21½"(535mm)H x 17½"(435mm) W x 10½"(260mm)D

WEIGHT: 59.5 lbs. (27kg)