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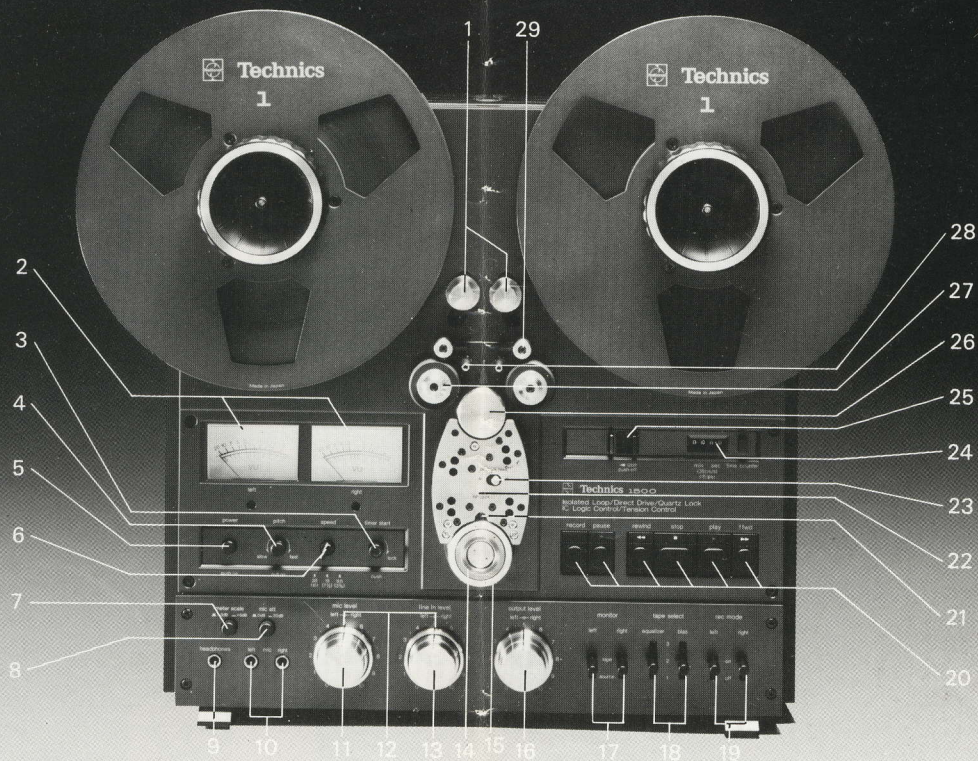
Mini Sales Handbook for **RS-1500US** "Isolated Loop" Tape Deck



Audio Tape Recorder Dept.

ARD-520501D Printed in Japan

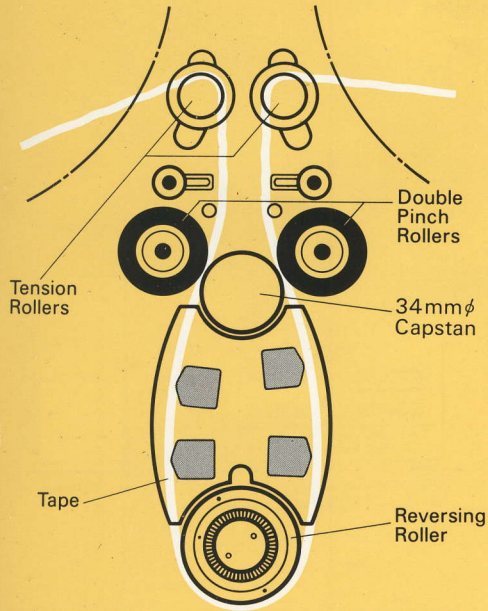
 **Technics**



- | | |
|-------------------------------------|--|
| 1. Tension Rollers | 16. Output Level Control |
| 2. VU Meters | 17. Monitor Switches |
| 3. Timer Start Switch | 18. Equalization and Bias Selectors |
| 4. Pitch Control | 19. Recording Mode Switches |
| 5. Power On/Off Switch | 20. Transport Function Buttons |
| 6. Tape Speed Selector | 21. Stroboscope Lamp and Markers |
| 7. Meter Scale Selector | 22. Head Assembly |
| 8. Mic Attenuator Switch | 23. 2-Track/4-Track Playback Head Switch |
| 9. Headphone Jack | 24. Real Time Tape Counter |
| 10. Microphone Jacks | 25. Cue (Edit) Lever |
| 11. Mic Recording Level Control | 26. Ultra-Large (34mm) Diameter Capstan |
| 12. Pre-Set Markers | 27. Double Pinch Rollers |
| 13. Line In Recording Level Control | 28. Guide Pins |
| 14. Edit Dial | 29. Tape Position Markers |
| 15. Reversing Roller | |

What Does "Isolated Loop" Mean?

Isolated loop means that two pinch rollers acting upon a single oversized capstan isolate the tape portion between them completely from outside influences exerted, for example, by supply and take-up reel tension.

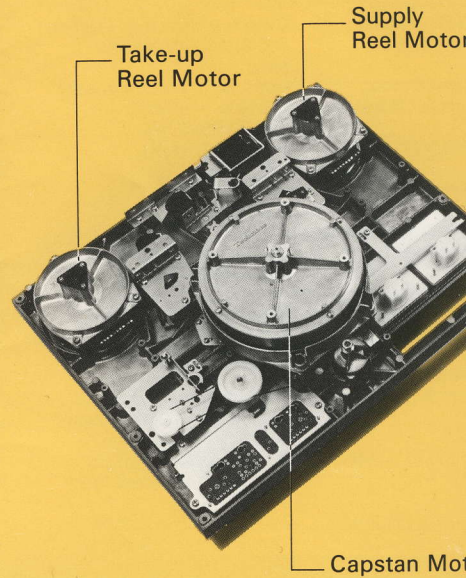


"Isolated Loop" Solves Tape Travel Problems

We designed a completely new vertical head configuration and then positioned two pinch rollers and a large diameter capstan above it, and a reversing roller below. This produced an isolated loop in which the tape path is controlled by the two pinch rollers acting upon the large diameter, directly driven capstan. By this ingenious method we succeeded in isolating the loop portion of the tape from the outside influences exerted by the take-up reel and back tension. The result is that tape speed and tension could be more accurately controlled and smoother tape travel than ever before possible was achieved. Also, since the tape within the loop is kept in firm contact with the heads and other surface, and passes through the minimum of open space, tape flutter is reduced to an almost zero level.

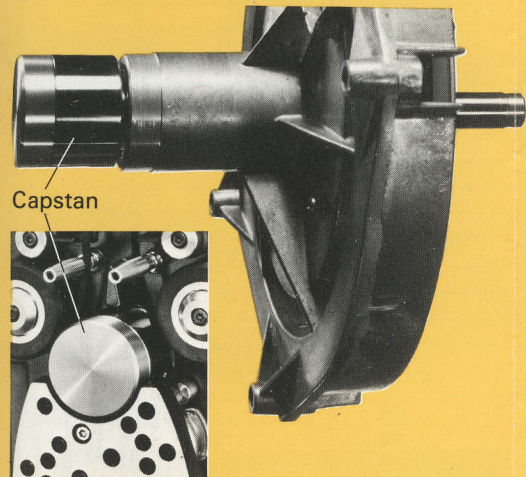
3 Direct-Drive System

In order to match the outstanding performance characteristics of the "Isolated Loop" tape transport system, we equipped the RS-1500US with an ultra slow motion DC motor to directly drive the capstan and with two direct-drive reel motors.



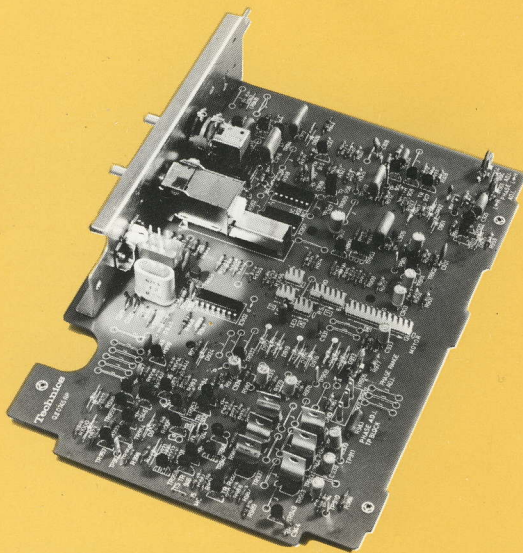
Super-Large, Precision-Machined 34 mm Diameter Capstan

Unique feature of this revolutionary tape transport system is the extremely large capstan. With 34 mm diameter, it is larger by far than any conventional capstan. And its precision-machined surface provides a much larger tape-to-capstan contact area that prevents tape slip and assures super-smooth tape travel. Also, since it is driven directly by a quartz-locked motor, all sources of vibration, wow and flutter are eliminated. Hence, the extremely low wow and flutter rating.



The Quartz Oscillator Phase Locked Servo Control of the Capstan Motor

The unvaryingly constant rotational speed of the capstan is the result of precision manufacture of all associated parts and, most importantly, the quartz oscillator controlled and phase locked servo system employed to keep motor speed consistently at the rated value.



Other Features:

- IC logic control
- VU meters with meter scale selector (+3dB or +6dB)
- Real time tape counter indicating minutes and seconds
- Pitch control ($\pm 6\%$)
- Timer start for absentee recording
- Tape speed selector (9.5, 19, 38 cm/second)
- Mic attenuator switch to prevent overload of recording amplifier
- Equalization & bias selectors
- Stroboscope lamp and markers for monitoring actual tape travel speed
- 2-track/4-track playback switch
- Tape position markers for easy editing
- Edit dial in editing and splicing
- Cue button
- AC/DC operation

Optional Accessories:

- | | |
|-----------|---------------------|
| RP-9100 | Carrying case |
| RP-9110 | Dust cover |
| RP-9120 | Wooden side panels |
| RP-9130 | Shelf brackets |
| RP-9690 | Remote control unit |
| RP-10A | Empty reel |
| RT-10B218 | Blank tape |
| RP-086 | Battery adaptor |

Open Reel Deck Comparison Chart

	Technics RS-1500US	Revox A-700	Tandberg 10XD	TEAC A-7300/2T	AKAI GX-650D
List Price					
Tape Speed	3	3	3	2	3
Wow & Flutter 38 cm/s	$\pm 0.035\%$ DIN 0.018% WRMS	$\pm 0.06\%$ DIN	$\pm 0.07\%$ DIN 0.04% WRMS	0.04% WRMS	0.035% WRMS
19 cm/s	$\pm 0.06\%$ DIN 0.03% WRMS	$\pm 0.08\%$ DIN	$\pm 0.09\%$ DIN 0.06% WRMS	0.05% WRMS	(N/A)
Speed Deviation	$\pm 0.1\%$	$\pm 0.1\%$	$\pm 0.3\%$	(N/A)	(N/A)
Speed Fluctuation	0.05%	0.1%	(N/A)	(N/A)	(N/A)
F. Response 38 cm/s	30~30kHz (± 3 dB)	30~22kHz ($+\frac{2}{-3}$ dB)	30~25kHz (± 3 dB)	30~28kHz (± 3 dB)	40~30kHz
19 cm/s	20~25kHz (± 3 dB)	30~20kHz ($+\frac{2}{-3}$ dB)	30~22kHz (± 3 dB)	30~24kHz (± 3 dB)	(N/A)
S/N	NAB WTD (+6dB) 60dB	ASA A WTD (+6dB) 65dB	IEC A WTD (DIN) 67dB	60dB	58dB
Distortion (OVU)	0.8%	0.6%	2%	0.8%	0.9%
Isolated Loop	○	×	×	×	Closed loop W-capstan
Quartz Lock	○	○	×	×	×
Stroboscope	○	×	×	×	×
Automatic Tension Control	○	○	×	×	×
Pitch Control	○	○ (w. optional cont.)	○ (w. optional cont.)	○	×
Real Time Counter	○	○	×	○	×
DC Operation	○	×	×	×	×
4TR. PB head	○	×	×	×	(4-TR. only)
Tape Selector	3-BIAS/3-EQ	×	×	3-BIAS/3-EQ	2-position
Peak Meter/Ind.	×	○	○	×	×
Repeat/Auto PB	×	○	×	×	×
Memory Rewind	×	×	×	○	×
Bias Head	×	×	○	×	×
Dolby NR	×	×	○	×	○
Mono-Stereo SW	×	○	×	×	○
S-O-S SW	×	×	○	×	○
Input Selector	×	○	×	○	×
Bass/Treble Control	×	○	×	×	×
Ferrite Head	×	×	×	×	○
Direct-Drive Capstan	○	○	×	○	×
Capstan Motor	DC (Q-Lock)	AC (Q-Lock)	DC	DC	AC
Reel Motor	DC	AC	(N/A)	AC	AC

(N/A): Information Not Available