

3014

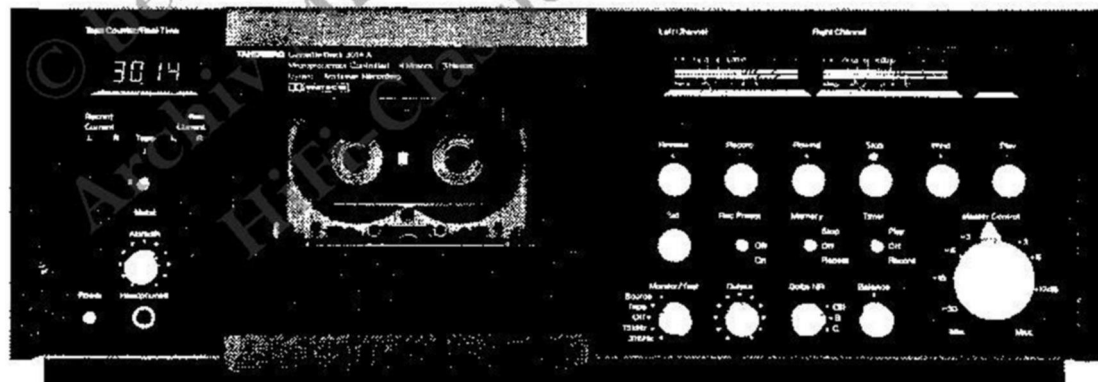
CASSETTE DECK

There are more demands on cassette technology today than ever before.

In designing and manufacturing the TCD 3014 A,

Tandberg's engineers combined significant advantages in performance with computer technology in an easy to use system.

The result is a deck with the most sophisticated micro-processor control system available today for true simplicity of operation.



Electronics

The TCD 3014 A uses no integrated circuits in the signal path except new, re-designed Dolby B and C NR* processors. Instead, individual components are selected for ultimate parameters of noise, sound quality, low distortion, gain and stability.

Polystyrene or polypropylene capacitors rather than electrolytic or ceramic types are used in all critical circuits that carry musical information to insure optimum sound quality.

The TCD 3014 A refuses to compromise musical

accuracy and uses phase compensating circuitry and ultra-wideband design to pass a signal with no audible degradation in sound or imaging.

* Trademark, Dolby Labs., Inc.

DYNEQ

DYNEQ® Tandberg's patented headroom extension system for tape recording, helps overcome the severe high frequency

limitations inherent in the cassette recording process. This is accomplished by a DYNAMIC record EQUALIZER which controls high

frequency boost during record to enable more signal on the tape without loss of highs or increase of intermodulation products.

ACTILINEAR

ACTILINEAR® II is a great breakthrough in eliminating "the cassette sound" as was Tandberg's proprietary Actilinear. Actilinear II

offers a totally re-designed transconductance amplifier which takes the music and bias signals as pure voltage and converts them to pure

current. Actilinear II is a research-grade amplifier with a bandwidth so wide that it can actually pass square wave bias frequencies.

Metering Circuits

The TCD 3014 A utilizes peak-reading meters which show high velocity peaks in all their subtlety (unlike bar graphs which generally leave large gaps between segments). Yet these meters have slow decay to give good averaging results as well as easy visibility. These meters will respond to a 2 milli-second peak within 1 dB and are full wave peak detectors regardless of phase. The meters on the Tandberg TCD 3014 A indicate the signal after this record equalization has been applied. Therefore, they monitor the signal being recorded on the tape, not the signal coming into the



record amplifier as most other recorders do. As all Tandberg cassette meters in the past, these are set to the new industry standard of 0 dB = 250 nWb/meter.

While the TCD 3014 A is recording, the source/tape

switch controls only the output of the deck; the meters show input levels to the tape at all times. This feature makes possible audible tape monitoring and simultaneous visual monitoring of input levels to the tape.

Counter

The electronic counter can be used to measure either revolutions of the tape or elapsed time in both wind modes and play/record. Instant switching with memory between revolution and real time counting is possible.

Timer play/timer record is available with an external clock. A built-in 6-second turn-on delay is programmed for all electronic circuits to stabilize before the transport can be engaged.

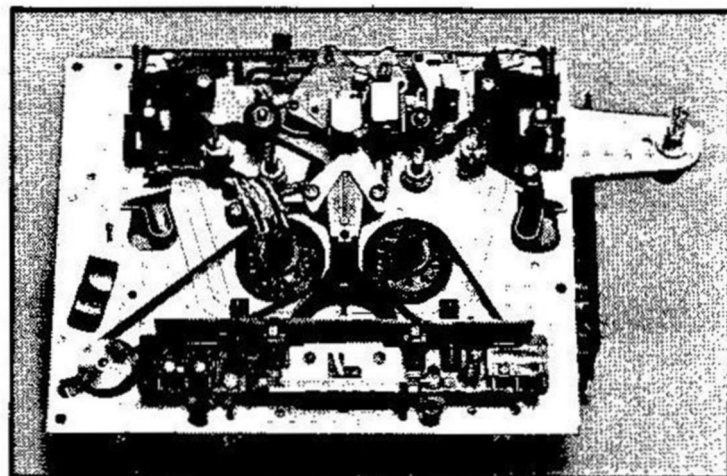


Tape transport

The TCD 3014 A features four servo controlled motors in the tape transport system linked to sensors which monitor the speed and direction of the tape. The sensors then apply the proper voltage to insure accurate tape handling.

In fast-forward or rewind both the supply-side motor and the take-up motor speeds are controlled. This means that a constant speed is maintained at all times in both wind and rewind functions.

The transport mechanism offers superb construction. It is built on a 5 mm thick aluminum baseplate rolled under 40 tons of pressure to eliminate stress and greatly increase strength. It also features an 8.2 and an 8.4 cm diameter flywheel, a dual-capstan, closed-loop drive system,



and a cassette locking mechanism which guarantees accurate positioning of the tape every time.

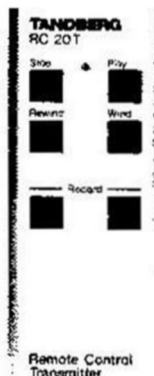
The TCD 3014 A transport also features:

- Tandberg built, discrete three-head system.

- Azimuth alignment for all tapes utilizing a built-in test system,
- Linear motor drive to position the head bridge and pinch rollers to tape accurately.

Remote Control

A wireless infrared remote control allowing most functions (including flying start/record) with the built-in receiver section (optional).



Accessories

Optional side panels in rosewood to unify the TCD 3014 A with the rest of the Series 3000 A line.

Machined extruded aluminum professional rack mounts are also available.

Technical Data

Supply voltage:	230 V $\pm$ 10%, 50 Hz 115 V $\pm$ 10%, 60 Hz
Power consumption:	50 watts
Tape speed:	1 7/8 ips
Speed tolerance*:	$\pm$ 0.5%
Wow and flutter:	
WRMS (Play)	0.06%
WRMS (Rec. — Play)	0.09%
DIN — IEC	0.12%
Frequency response:	
Metal IV	18 Hz — 23 kHz
(— 20 dB)	$\pm$ 1.5 dB
With Dolby C NR	$\pm$ 3.0 dB
Tape II	18 Hz — 20 kHz
(— 20 dB)	$\pm$ 1.5 dB
Tape I	18 Hz — 20 kHz
(— 30 dB)	$\pm$ 1.5 dB
Harmonic distortion — 250 nW/m, Dolby B NR:	
Metal IV	< 1%
Tape II	< 2%
Tape I	< 1.5%
Signal-to-noise ratio, A-curve weighted (Dolby C NR):	
Metal IV	> 74 dB
Erase (1 kHz):	
Metal IV	> 80 dB
Crosstalk:	
Side A — B (1 kHz)	> 80 dB
Track 1 — 2 (1 kHz)	> 40 dB
Inputs:	
Input impedance	150 kohm
Sensitivity:	
Low	100 mV
High	10 mV
Outputs:	
Minimum load impedance/max. voltage at unloaded output	
Play 700 mV (Fixed line output)	100 ohm/700 mV
Play Variable (Variable line output)	100 ohm/0 — 4 V
Headphones	8 ohm/3.5 V
Dimensions:	
Width	43.5 cm (17 1/8")
Height	16.6 cm (6 9/16")
Depth	35.0 cm (13 3/4")
Weight	9.8 kg (21.6 lbs)

* At nominal mains voltage and normal operating temperature.

Specifications are subject to change for further improvement without notice.

YOUR AUTHORIZED TANDBERG REPRESENTATIVE

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