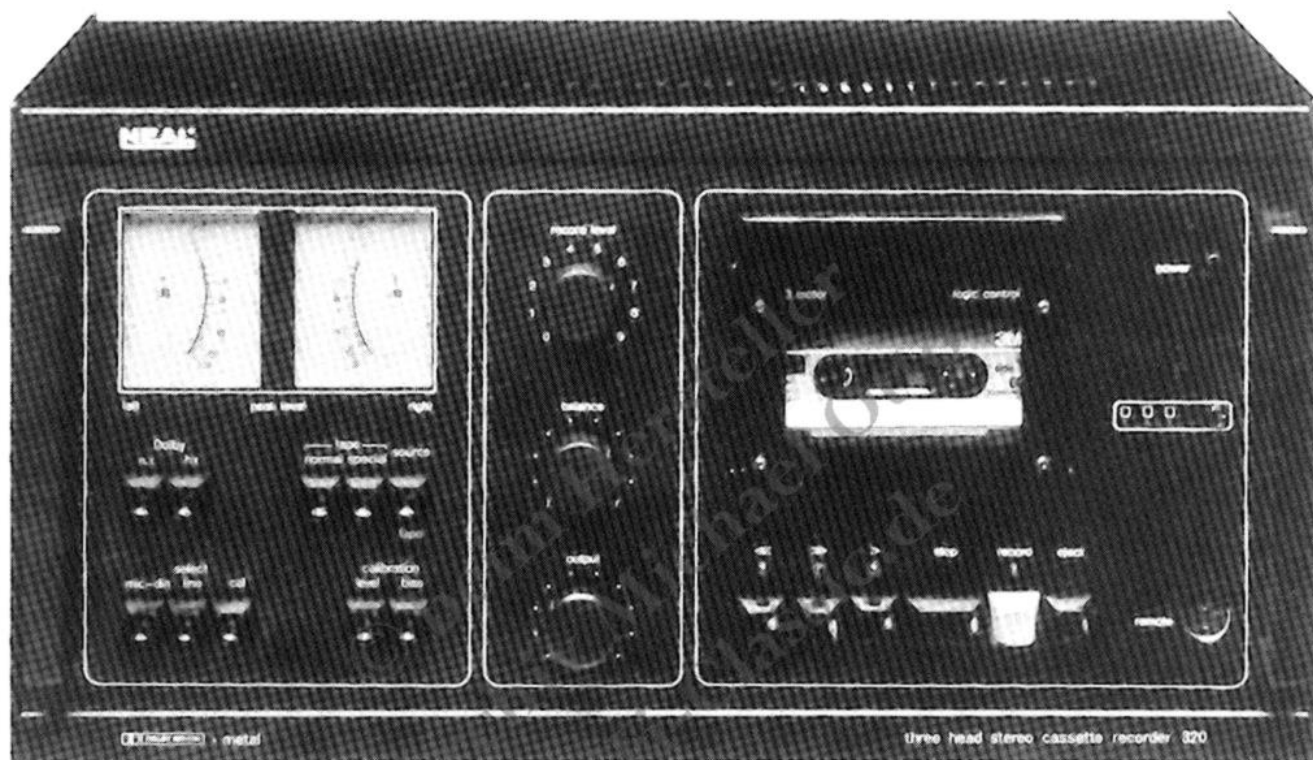


Professional cassette recorders for studio, audio visual & communications systems



320 Stereo Cassette Recorder

The 320 is a three head, three motor, logic controlled stereo cassette recorder designed to give a high performance over a long period under arduous conditions of use.

Built-in full calibration facilities allow the machine to be set up for any make of tape. A calibration oscillator is built in to provide a 500Hz signal for record calibration and level setting. A second calibration oscillator at 12kHz allows the bias to be optimised by a preset control.

The 320 incorporates the Dolby HX (Headroom Extension) system. Dolby HX varies the instantaneous bias and pre-emphasis such that high level high frequency signals can be recorded without compression. The HX improvement is preserved when replaying on any other machine.

The 320 has two peak reading meters and Dolby B noise reduction. Each channel has three inputs, microphone, low level line, and high level line. The outputs are fixed level line and a controlled headphone/high level line output giving in excess of 8dBm.

Complete remote control of all deck functions via the remote socket on the front panel enables either simple remote control or programmed operation using external circuitry. The stop sensor can be used to switch on a second recorder if required.

The recorder can be supplied to special order with balanced inputs and/or outputs and XLR connectors. Accessories available include a remote control unit and a kit for mounting the recorder in a 19 inch rack.

320 Technical Specification

Tape transport

Type	NEAL 3-motor heavy duty mechanism, solenoid operated and logic controlled.
Tape speed	1.875 in/s (4.76 cm/s).
Fast wind and rewind times	Less than 50 seconds for C60 cassette.
Wow & Flutter	Less than 0.09% rms DIN weighted.
Cassette protection	Fully automatic complete disengagement of mechanism at end of tape or in the event of a stalled defective cassette.

Controls

Input selectors	Select either microphone, low level line (DIN) or high level line inputs.
Record level	Dual ganged potentiometers at outputs of input amplifiers.
Balance	Gives infinite left right control of recording balance.
Phones output	Dual ganged potentiometers controlling headphone (high level line) output.
Dolby n.r.	Operates Dolby Noise Reduction circuits.
Dolby hx	Operates Dolby hx circuits.
Tape - Normal Special	Select different bias levels, recording pre-emphasis and replay networks for either ferric or chrome/metal tape by solid state switching.
Tape - Source.	Switches outputs to recording or replay signal.
Calibration - Level	Switches on 500Hz recording signal for level calibration.
Calibration - Bias	Switches on 12kHz recording signal for bias calibration.

Meters

Type	Twin peak reading meters. Electronic time constants are 2ms rise time and 400ms fall time.
Calibration	OdB corresponds to 220nWb/m flux density.

Recording amplifiers

Input	Input for OdB recording level	Input impedance	Socket
Microphone	300 μ V	2k ohms	¼" jacks
High level line	100mV	20k ohms	phono
Low level line	3mV	10k ohms	5 pin DIN
Overload margin on all inputs better than 40dB.			

Replay amplifiers

Frequency	Characteristic	Output level	Output impedance	Socket
	Special	70/3180 μ s		
	Normal	120/3180 μ s		
Line output	600mV fixed	1k ohms		phono
DIN output	600mV fixed	1k ohms		5 pin DIN
Headphone/ high level line	4V controlled	50 ohms		¼" 3 contact jack
Output levels referred to 220nWb/m flux density. All outputs protected against short circuit.				

Frequency response

Normal Ferric Oxide tape:	35Hz - 14000Hz (+1 -3dB)
Special Ferric Oxide, Chromium Dioxide and metal tape:	35 Hz - 15000Hz (+1 -3dB)

Crosstalk

Record on left (right), replay on right (left), better than 37dB.

Signal to noise ratio

Signal to noise ratios (CCIR weighted) referred to 3% third harmonic distortion. Dolby hx off, Dolby n.r. off: Special tape: 57dB. Normal tape: 57dB. Dolby hx on, Dolby n.r. on: Special tape: 66dB. Normal tape: 66dB.

Power supplies

220-250V, 50Hz or 105-125V, 60Hz.

Dimensions

450 x 226 x 225mm.

Weight

8kg (17½lb).

*Dolby is a trade mark of Dolby Laboratories Inc. The Company reserve the right to improve this specification without notice.

NEAL

MANUFACTURED BY

LEE JAMES ELECTRONICS LTD.,
Unit 24, Royal Industrial Estate,
Jarrow, Tyne & Wear, England, NE32 3HR.
Telephone: (091) 489 9379.

SELETRONIC

audio en audiovisueel special-apparaat

Pletterij 3

1185 ZK AMSTELVEEN

Tel. (020) 434311 - Tx 15728 SELTR.NL