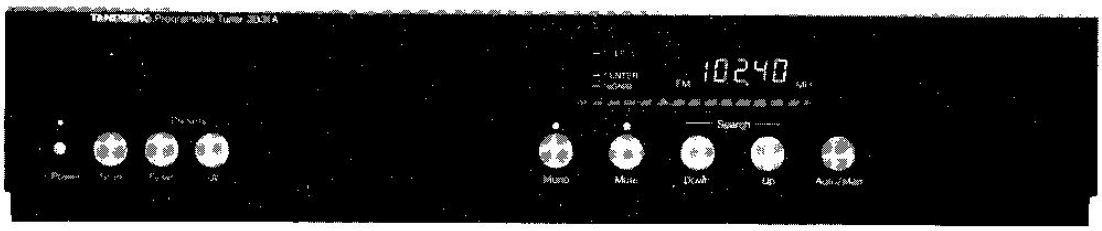
Technical Paper

Programable Tuner TPT 3031A

3031

TUNER

The new digital tuner TPT 3031A is the result of long term development in the Tandberg labs. This new digital tuner offers a high degree of stability in combination with an easy-to-read, and accurate LED display.



The front end

The front end employs ganged, tuned circuits where DC voltage controlled capacitance diodes are used as tuning elements, and Dual-Gate MOSFETs are used in the RF stages. This achieves stable, accurate tuning and good sensitivity combined with superior headroom. The TPT 3031A utilizes 4 tuned circuits to prevent Mirror Image (21.4 MHz) and other out of band distortion.

Programming unit

In addition to the main tuning, there is a second stage which stores 16 pre-tuned FM stations in an electronic memory. This pre-tuning system is based on microprocessor technology to achieve maximum S/N ratio and frequency stability.

Easy operation

The TPT 3031A offers both manual and automatic tuning. Advanced microprocessor technology limits the number of buttons to a minimum, and all functions are easy to control with a logical lay-out. The display incorporates LED's indicating signal-strength, center-tuning and stereo-reception.

The audio circuit

To make a good tuner takes a special knowledge of radio frequency technology, but in many cases the audio section is neglected in terms of component quality and design criteria. The TPT 3031A Tuner shares the design-philosophy of the other well recognized high-end products in the Tandberg 3000-series. Design highlights are carefully selected components.

Full remote operation

The TPT 3031A Tuner is built for full remote operation, like several other new Tandberg products. The optional RC-3000 Remote Control operates all these different units from one single transmitter. The remote control offers direct access to all presets. To secure the set against unattended re-programming, all presets must be set/programmed on the tuner itself.

Technical Data

Tandberg Programable Tuner TPT 3031A

Power requirements:		110 – 115 V/220 – 230 V/240 V ± 10 %, 50/60 Hz
Power consumption:		20 W
Dimensions:	Width:	17 1/8" (43.5 cm)
	Depth:	13 3/4" (35.0 cm)
	Height:	3 1/4" (8.3 cm)
	Weight:	10.7 lbs (4.85 kg)

Technical Data according to IHF-T-200, 1975 IEEE Std. 185, 1975

Tuning range:		87.5 – 108 MHz
Usable sensitivity:	Mono	1.1 uV/75 ohm
50 dB quieting sensitivity:	Mono	2 uV/75 ohm
	Stereo	20.0 uV/75 ohm
Signal-to-noise ratio:	Mono	82 dB
	Stereo	78 dB
Muting threshold:		15 uV/75 ohm
Muting hysteresis:		15 dB
Stereo threshold:		1 uV/75 ohm
Frequency response:	Mono	+0.5 dB – 1 dB
	Stereo	+0.5 dB – 1 dB
Distortion at 50 dB quieting:	Mono	0.2 %
	Stereo	0.3 %
Distortion at 65 dBf (0.5 mV/75 ohm at 1 kHz):	Mono	0.15 %
	Stereo	0.15 %
Distortion at 65 dBf	Stereo	0.4 %
Intermodulation distortion:	Mono	0.2 %
	Stereo	0.2 %
Capture ratio, selectively measured:		1.0 dB
Adjacent channel selectivity ± 200 kHz:		14 dB
Alternate channel selectivity ± 400 kHz:		> 100 dB
Spurious response ratio:		> 90 dB
Image response ratio, balanced:		> 100 dB
RF intermodulation:		> 70 dB
AM suppression ratio:		> 70 dB
Stereo separation (60 Hz to 10 kHz, selectively measured):		> 45 dB
Subcarrier product ratio:		70 dB
19 kHz suppression:		70 dB
38 kHz suppression:		100 dB
Center LED on:		20 dBf
Signal LED on:		30 dBf

Specifications are subject to change without notice.

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