

LUXMAN

T-115

Digital Frequency Synthesized AM/FM Tuner

A Brand-New Synthesized Tuner is Now Brought about in Moderate Price Bracket by LUX's Most Up-to-Date RF Circuit Techniques. An Easy-to-Read Electronic Digital Readout Displays the Exact Tuned Frequency without Drift.

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Archiv Michael-Otto*



LUX CORPORATION, JAPAN.

FEATURES

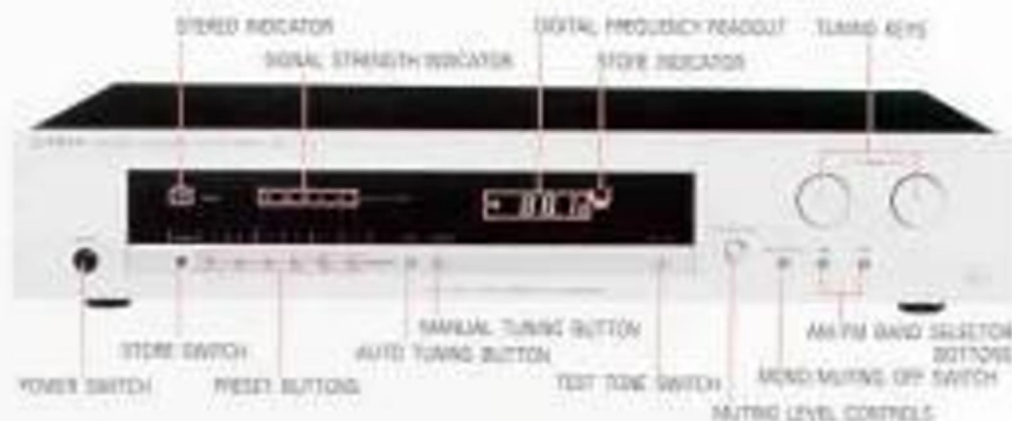
The most salient feature of the frequency synthesized tuner lies in its memory storage capability, enabling pre-selected tuning to be accomplished without the drawbacks of drift and instability which accompany a standard mechanical preset system.

The electronic memory circuit made it possible to store a desired receiving frequency in digital code thanks to the MOS IC's featured. Station selection thus become fast and entirely stable. 12 different stations can be selected by this electronic method, which are totally unaffected by ambient fluctuations of temperature or moisture.

An "auto" self-seeking tuning facility is provided, enabling the user to "cruise" up or down the frequency band, stopping automatically at every broadcast frequency reached. While the "manual" scanning facility is convenient when you want to tune in to the station whose broadcasting frequency is known. You can just keep pressing the "up" or "down" key until your desired station is reached.

To cope with high congestion of FM stations in central Europe, the "SK" version employs the anti-birdie filter which removes so-called "birdie" noise triggered by FM stations adjacent to the desired one.

Optimum recording level can be established by means of the test tone for recording. Thanks to the special polyester mylar film capacitors, a truly stable output of 440Hz at 50% modulation is always available.



CIRCUITRY

FM Section

Due to its sophisticated circuitry, the T-113 tuner is able to cope particularly well where FM station congestion is apparent. It uses the digital frequency synthesizer system, where the frequency synthesized oscillator is controlled by the PLL (Phase Locked Loop) and the receiving frequency is directly determined by a digital code, giving a tuning accuracy and stability hitherto not associated with conventional manual tuners.

The entire circuitry is optimized towards the highest sound quality. The front-end employs a dual varactor diode while the IF stage is composed of a MOS-FET stage, which not only ensures good input overload immunity but also provides high rejection, spurious rejection, etc. Furthermore, the RF IM distortion is greatly improved under full command of our vast knowledge so far accumulated. The operation

of the mixer stage is set up at the optimum point, and the FET buffer amp is used at the output of local oscillator for betterment of spurious response and stability.

A 3-stage ceramic filter is used at the IF stage to improve distortion and stability. Also at the FM detector circuit a new quadrature IC is employed, which help ameliorate S/N ratio, distortion, phase characteristics etc. At the MPX stage the special PLL circuit by means of IC is featured to prevent tonal deterioration normally caused by time delay, thus ensuring superb separation.

AM Section

The audio output portion is perfectly isolated from the signal output portion and controls the synthesizer. An IC having high integration degree is featured at the former portion, which ensures high input overload capability, signal-to-noise ratio, image & spurious rejection, etc. While the latter employs the exclusive ultra narrow bandwidth IC circuit to obtain an accurate and stable signal.

SPECIFICATIONS

[FM SECTION] (IEEE/IEF Standard)

Cable Sensitivity: 10.3dB (1.5μV) 50dB Quieting Sensitivity: 15.6dB (5.3μV) Signal-to-Noise Ratio at 65dB: 76dB Frequency Response: -14dB (30Hz - 15,000Hz) Distortion at 65dB: 100Hz 0.12% (mono) 0.3% (stereo), 1kHz 0.15% (mono) 0.3% (stereo), 4kHz 0.2% (mono) 0.4% (stereo) Capture Ratio at 65dB: 1.4dB Adjacent Channel Selectivity: 10dB Alternate Channel Selectivity: ±400kHz; 75dB Spurious Response Ratio: 85dB IF Response Ratio: 85dB Image Response Ratio: 70dB AM Suppression Ratio: 56dB Stereo Separation: 100Hz 40dB, 1kHz 45dB, 10kHz 35dB Subcarrier Product Ratio: 62dB SCA Rejection Ratio: 60dB Muting Threshold: 10μV - 100mV (variable) Output Level: 500mV

[AM SECTION]

Cable Sensitivity at 1MHz: 400Hz 30% mod.: 220μV/m Image Response Ratio at 1MHz: 50dB IF Response Ratio at 1MHz: 40dB Signal-to-Noise Ratio at 1MHz, 10μV/m, 400Hz 30% mod.: 50dB Distortion at 1MHz, 10μV/m, 400Hz 30% mod.: 0.5%

[GENERAL]

Power Consumption: 10W Dimensions: 438(W) x 112(D) x 85(H) mm (17.3" x 12.5" x 3.4") Weight: Net 3 kgs (11.0 lbs.) Gross 6 kgs (13.2 lbs.)

Specifications and appearance design subject to change without notice.

AUTHORIZED DEALER



LUX CORPORATION, JAPAN

1-1, 1-CHOME, SHINSEIJI NICHIMACHI
TOYONAKA-SHI, OSAKA, JAPAN
PHONE: 06-824-0004 CABLE: LUJIMAN TOYONAKA TELEX: J63694

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