

LUXMAN

T-112

Acculock CLL AM/FM Stereo Tuner

LUX's exclusive C.L.L. circuit offers perfect accuracy and unconditional stability in FM tuning, which interacts with the ACCULOCK system to provide a mechanical lock on the tuning knob when the station is precisely tuned in.



LUX CORPORATION, JAPAN.

1) ACCULOCK System

The ACCULOCK system employed synchrodes at the tuning circuit exactly by the tuning point. This is made possible by means of an extremely narrow capture range set at the C.L.L. circuit. Correct tuning operation is much more difficult and less accurate with conventional tuning methods which depend on a center-tuning meter.

The ACCULOCK detects an exact center tuning point affording a control voltage at the C.L.L. circuit, which triggers a mechanical lock on the tuning knob. This is a very unique system in which the tuning knob is temporarily locked with a positive response (about 1 sec.) at the exact tune-in point at the knob is gradually turned to locate an FM station. Precise tuning to a station is possible with an incomparable accuracy compared with that of various visual tuning systems.

Acculock
Tuning Knob



2) Ideal C.L.L. Tuning System

The unit employs our exclusive C.L.L. System to provide high tuning accuracy and stability of all FM frequencies. Generally speaking, in the case of quartz lock synthesizer systems renowned for exact and stable tuning, only the local oscillator or front end is partially controlled. To make an excellent tuner as a whole it is necessary to enhance stability at the IF and FM detector stages by other methods. With



our C.L.L. circuitry total control is effected throughout all stages from front-end to IF and detector circuits in accordance with the crystal controlled transmission frequency of a broadcasting station. In other words, this may be called the ideal tuning system, offering more accurate and stable tuning than quartz lock and synthesizer systems.

In addition, C.L.L. circuitry, like a PLL (Phase Locked Loop) circuit, has the capture range to the center frequency of the FM station and the required lock range to achieve a stable receiving condition. This makes it possible to maintain a constant lock in fluctuating conditions. A power feedback circuit once the signal wave of an FM station is within the capture range and only the signal wave is in lock range. Thus, even if tuning drift is triggered by fluctuation of ambient conditions, strong feedback is applied to follow the crystal-controlled transmission frequency of the FM station, and unconditionally stable reception is always enjoyed. In addition, the C.L.L. circuit incorporates a lock-retaining circuit, and no fresh locking is needed when power is turned off and on once

the set is turned on.

3) Circuitry for Sonic Excellence

The front-end is composed by MOS FET's to procure high input overload capacity. At the IF stage ceramic filter low in distortion and high in selectivity is employed which has good group delay characteristics. A new quadrature IC at the detector stage provides low distortion and high S/N ratio in wider bandwidth. Also PLL IC used at the stereo rectifier stage realizes high separation. All of them contribute to improvement of sonic quality.

4) Test Tone Switch

Recording test tone circuit is convenient for the "off-the-air" monitoring by adjusting the recording level to obtain a reading on the VU meter of the recording tape deck. The built-in calibrator produces a test tone of the level equivalent to 440Hz, 50% modulation at the output terminal.

5) Other Features

FM muting function removes FM interstation noises. FM reception can be selected according to the distance of broadcast stations.

SPECIFICATIONS

<FM SECTION> (IEEE/IEE Standard) Usable Sensitivity: 10 JdBF (1 μ V) 50dB Quietng. Sensitivity: 15.8dB (1.4 μ V) Signal-to-Noise Ratio at 55dB: 7.2dB Frequency Response: 300Hz - 15kHz (+1dB) Distortion at 65dB: 100Hz 0.15% (Mono), 0.2% (Stereo), 1kHz 0.15% (Mono), 0.2% (Stereo) 6kHz 0.3% (Mono), 0.4% (Stereo) Capture Ratio at 65dB: 1.4dB Adjacent Channel Selectivity: 17dB Alternate Channel Selectivity: >40dB 75dB Spurious Response Ratio: 90dB IF Response Ratio: 100dB Image Response Ratio: 15dB AM Suppression Ratio: 55dB Stereo Separation: 100Hz 30dB 1kHz 45dB (34dB with mod filter) 10kHz 35dB Subcarrier Product Ratio: 62dB SCA Rejection Ratio: 60dB Muting Threshold: ON or LOCAL

Output Level: 50mV <AM SECTION> Usable Sensitivity at 1MHz, 400Hz 10% mod: 20 μ V/m Image Response Ratio at 1MHz: 50dB IF Response Ratio at 1MHz: 40dB Signal-to-Noise Ratio at 1MHz, 10 μ V/m, 400Hz 10% mod: 50dB Distortion at 1MHz, 10 μ V/m, 400Hz: 10% mod: 0.5% <GENERAL> Power Consumption: 10W Dimensions: 438(W) x 321(D) x 85(H) mm (17.3(W) x 12.6(D) x 3.3(H) in.) Weight: Net 5.5 kgs (12.1 lbs.) Gross 6.5 kgs (14.3 lbs.)

Specifications and appearance design subject to change without notice.

AUTHORIZED DEALER



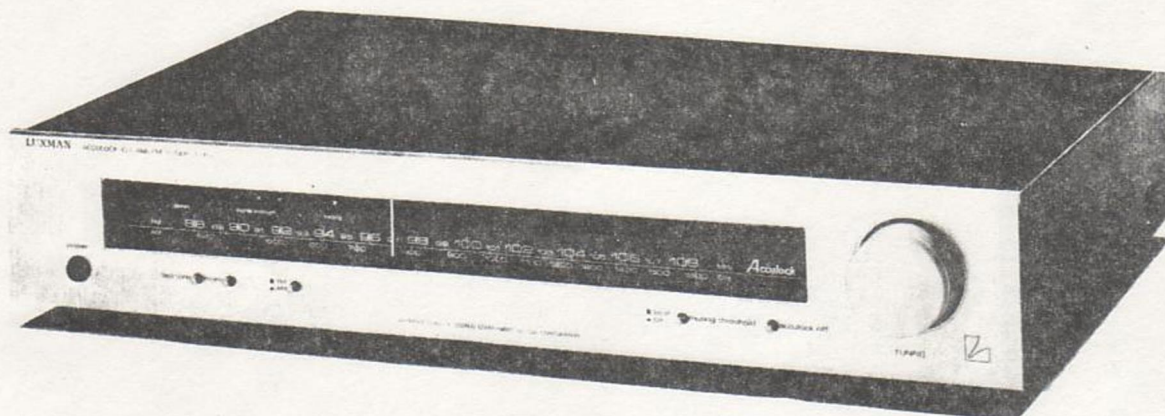
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Printed in Japan

LUXMAN T-112

ACCULOCK C.L.L. AM/FM STEREO TUNER



- * Tuning Lock System (ACCULOCK) * C.L.L. Circuit * Center Indicator
- * Signal Strength Indicator * FM Muting Level Selector
- * Test Tone Switch

SPECIFICATIONS (TARGET)

[FM SECTION]

50dB QUIETING SENSITIVITY/15.8dBf(3.4 μ V) *IHF USABLE SENSITIVITY/
10.3dBf(1.8 μ V) *SIGNAL-TO-NOISE RATIO/73dB *FREQUENCY RESPONSE/
30Hz - 15kHz (-1dB) *TOTAL HARMONIC DISTORTION/0.15%(100Hz,mono)0.2%
(100Hz, stereo)0.15%(1kHz,mono)0.2%(1kHz, stereo)0.3%(6kHz,mono)0.4%
(6kHz, stereo) *CAPTURE RATIO/1.4dB *ADJACENT CHANNEL SELECTIVITY/
10dB *ALTERNATE CHANNEL SELECTIVITY/75dB *SPURIOUS RESPONSE RATIO/
90dB *IF REJECTION RATIO/100dB *IMAGE REJECTION RATIO/75dB *AM
SUPPRESSION RATIO/55dB *STEREO SEPARATION/38dB(100Hz)45dB(1kHz)38dB
(10kHz) *SUBCARRIER PRODUCT RATIO/62dB *SCA REJECTION RATIO/60dB
*MUTING LEVEL/DX or LOCAL *OUTPUT LEVEL/700mV *OUTPUT IMPEDANCE/
220 ohms

[AM SECTION]

IHF USABLE SENSITIVITY/200 ohms *IMAGE RATIO/50dB *IF REJECTION
RATIO/40dB *SIGNAL-TO-NOISE RATIO/50dB *TOTAL HARMONIC DISTORTION/
0.5% *OUTPUT LEVEL/0.25V

[GENERAL]

POWER REQUIREMENT/10W *DIMENSIONS/438(W) x 312(D) x 85(H)mm(17-1/4"x
12-9/32"x3-11/32") *WEIGHT/net 5.5kgs(12.1 lbs.) gross 6.5kgs(14.3
lbs.)

---Specifications and appearance design subject to
change without notice---



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