



WL212



THEORY AND SPECIFICATIONS

For the general user, as well as those with a more technical knowledge, these sections briefly describe the high points of the design incorporated in the LUXMAN tuner WL-212.

Even this cursory view should reveal the high degree to which the present state of the art has been incorporated in the design, human engineering and electronic performance of this unit.

The highly specialized FM section of the WL-212 is based upon a 4 gang FET cascode varactor tuner, providing manual and pre-set tuning. Due to the use of premium parts and advanced circuitry, exceptional sensitivity and selectivity have been achieved in its performance and combined with high reliability.

The following intermediate frequency amplifier is outstanding in its features and design concept. Three ultra-high gain integrated circuits, in combination with crystal filters, provide an exceptional IF amplifier.

The special broadband detector completes the signal part, providing a signal of unusually low distortion and noise to the multiplex section.

The multiplex section incorporates integrated circuits for low distortion and noise-free amplification of the stereo signal. Specialized filter circuits eliminate all unwanted signals and noises, and are then processed by an amplifier for optimum noise-free separation in stereo reception.

The most remarkable part of the FM section is precision tuning for complete noise suppression. Unlike its counterparts in the high fidelity market the LUXMAN tuner is tuned via computer. This simply means that if the receiver is tuned off station there will be only silence; or if you tune quickly across the dial there will be no sound. A computer circuit evaluates the signal strength, distortion and the perfect center tuning. Then and only then, when the "CENTER TUNE LIGHT" is illuminated, the audio is silently and instantly turned on. When the unit is tuned silently to

another station, and the optimum tuning point is reached, the "CENTER TUNE LIGHT" lights and the sound turns on without the clicks and pops normally associated with muting circuits. Actually, this is not muting in the conventional sense of the term, because the computerized circuit works at all signals and does not sacrifice sensitivity to achieve muting action. In the WL-212, full, perfect muting is accomplished at 5 Volts.

The sensitivity is set at the factory. The muting switch included in the WL-212 is actually an on/off switch. This means that by moving the switch to "MUTING ON" all stations not in the immediate metropolitan area will be eliminated, avoiding the clogging of stations across the dial. This performance is especially notable, many tuners and receivers, available on the market today, showing much less capability. Additional evidence of the tuner's superiority will be found on the reverse showing the performance specifications of the tuner.

AM SECTION

While the performance of the AM section of most receivers tends to be ignored, or not considered to the same degree as the FM section, this is not so in the WL-212. In this tuner, the AM section receives the same technical treatment as the FM section and the same computing network is used in combination with the center tune light, to assure performance comparable to the FM. The computerized logic circuit, which provides inter-station noise suppression without

reducing sensitivity, is fully active on AM as well. We believe this may be called "the first high fidelity AM". Without detailing the circuitry and detector used for AM, suffice it to state that the AM circuitry is of such nature that the only possible way, at the present state of the art, to improve the WL-212's AM reception would be to allow the station to broadcast a wider bandwidth than the FCC permits.

AUDIO AND POWER SUPPLY SECTION
The WL-212 tuner provides all the flexibility required for the finest component tuners as to variations in the outputs. Besides a pair of ordinary signal outputs, the WL-212 has an output jack for a headphones. The 80 milliwatt power output allows direct use of any low-impedance headphones. At the power supply source voltage stabilizer of high efficiency is adopted, which ensures unvarying performance against fluctuation of mains voltage within 10% allowance.

DESCRIPTION AND SPECIFICATIONS

MECHANICAL

- Extruded front panel with endballs.
- Three dimensional dial separate AM/FM illumination.
- Anodized aluminum knobs.
- Push-buttons black.
- Pre-set push-buttons black with silver insert.
- Size: 19.0" length x 6.5" high at 10.5" deep.

ELECTRICAL

- Outputs: 1, 2 headphone jack
- Secondary switches: Mode stereo mono
- Filter switches: Noise, muting on/off
- Presets: for FM: 1 manual, 5 pre-sets.
- Level set: Output, headphone

INDICATORS

- Light indication separately: AM, FM.
- Light indicator: Stereo.
- Light indicator: Center tune
- Field strength meter: Back lit.
- AM dial: Light on AM only.
- FM dial: Light on FM only.
- Pointer: Illuminated on AM and FM.
- Pre-set dial: Back lit on FM only.

RF SECTION

- Tuning range
- IHF Sensitivity
- Image ratio
- IF rejection
- Capture ratio
- Selectivity
- S/N ratio
- Frequency response
- FM stereo separation
- Carrier leak
- Distortion: 100% mod.
- FM Antenna impedance
- Output level

FM SECTION

- 87.5 to 108.5 MHz
- 1.8 μ V
- 70 dB
- 70 dB
- 1.2 dB
- 50 dB
- 60 dB
- 30 Hz to 15 kHz
- 36 dB
- 40 dB
- mono: 0.25%
- stereo: 0.5%
- 300 Ω / 75 Ω
- 1.2 V (400 c/s, 100% mod.)

AM SECTION

- 525 to 1,600 KHz
- 350 μ V/m
- 60 dB
- 60 dB
-
-
- 40 dB
- 50 Hz to 4 kHz
-
-
-
-
- 0.4 V (400 c/s, 30% mod.)

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