

THE McIntosh MX110 TUNER-PREAMPLIFIER IN EVERY WAY THE BEST!



MX110 \$399.00 CABINET \$25.00

The MX110 combines in one convenient instrument an FM Tuner, a Multiplex Decoder and a Stereo Preamplifier. You mount only this one unit, connect it to your power amplifier and speakers and you're ready to go.

The electronic circuits in the preamplifier are so skillfully engineered that a wave-form analysis at 3 volts output shows typically only 1/20th of 1% distortion 20 cycles through 20,000 cycles! The stability of the tuner circuits has been improved to the point that A.F.C. is no longer needed. Sensitivity is also increased over previous models. The MX110 uses a newly developed indicator which lights whenever the tuner is centered on a station broadcasting the 19KC carrier for multiplex stereo. The control circuit for the indicator responds only to the 19KC and is insensitive to noise.

The MX110 also uses the new, exclusive McIntosh PANLOC method installation. The PANLOC system gives you absolute ease of installation, operation, and maintenance. PANLOC is the first professional installation technique to be used on stereo instruments.

In the PANLOC system a metal shelf is mounted first, then the tuner slides into position on this shelf. Depressing the PANLOC buttons on the front panel locks the tuner firmly into place for normal operation. To unlock the tuner depress a second time the PANLOC buttons on the front panel. The tuner can now slide forward to the "ADJUST" position. The tuner will lock into this position approximately 3 inches from the mounting panel. Now you can adjust the level set controls and the panel light switch, both of which are mounted just behind the front panel. Depressing the ADJUST position holding latches allows the tuner to be taken out of the PANLOC shelf or to slide back into position against the mounting panel.

The MX110 is a model of convenience, careful planning and rigorous manufacturing methods.

MX110 SPECIFICATIONS

TUNER SPECIFICATIONS

SENSITIVITY

Better than 2.5 microvolts in accordance with IHFM standards.

FREQUENCY RESPONSE

Within $\frac{1}{2}$ db 20 to 20,000 cycles.

DISTORTION

Less than 0.5% at 100% modulation.

CAPTURE RATIO

1.7db.

RF AMPLIFIER

Cascode using Nuvistor in first stage.

IF AMPLIFIERS

Four stages; AGC used to insure that limiting occurs only in the limiter stages.

IF BANDWIDTH

200KC flat top response, down 3 db at 200KC.

LIMITERS

Two stages.

MUTING

IF injected; at least 60db quieting between stations.

ANTENNA INPUTS

300 ohms balanced, 75 ohms unbalanced.

TUNING INDICATOR

Electron Ray tube.

MULTIPLEX CHANNEL SEPARATION

Better than 30db at 1000 cycles.

MULTIPLEX FILTER

Greater than 40db suppression below 100% modulation of 19KC pilot and 38KC carrier.

MULTIPLEX INDICATOR

MPX stereo light activated by 19KC carrier.

MULTIPLEX TYPE

Peak-detecting, self-matrixing circuit.

PREAMPLIFIER SPECIFICATIONS

INPUT SENSITIVITY

AUX: 0.25 volt at 200K.

PHONO 1: 2.5 millivolts at 47K.

PHONO 2: 2.5 millivolts at 47K.

TAPE HEAD: 2.5 millivolts at 220K.

TAPE MONITOR: 0.25 volt at 100K.

DISTORTION

Less than 0.2% at rated output.

FREQUENCY RESPONSE

Within $\frac{1}{2}$ db 20 to 20,000 cycles.

HUM AND NOISE

High level inputs: 80db below rated output. Low level inputs: less than 3 microvolts at input terminals (audio tubes have DC on the filaments).

OUTPUTS

MAIN: 2.5 volts with rated inputs.

L + R: 2.5 volts.

TAPE: 0.9 volts from FM at 100% modulation

LEVEL SET CONTROLS

Individual Left and Right controls for AUX; PHONO 1; PHONO 2. (behind front panel on top).

TONE CONTROLS

Slip clutch for adjustment of each channel; Bass, ± 15 -18db at 50 cycles; Treble ± 15 db at 10,000 cycles.

GENERAL SPECIFICATIONS

TUBE AND SEMICONDUCTOR COMPLEMENT

1—6DS4 Nivistor 1st RF.

1—12AT7 2nd RF and Mixer.

1—6AB4 Oscillator.

1—6AU6 1st IF.

1—6AU6 2nd IF.

1—6AU6 3rd IF/1st Limiter.

1—6CS6 4th IF/2nd Limiter.

1—12AT7 Muting/L and R amplifier.

1—6HU6/EM87 Tuning Indicator.

1—6D10 FM Audio/Left and Right 1st Audio Amplifier.

1—6U8 MPX Amplifier/19KC Separator-Indicator Control.

1—12AU7 MPX 38KC Oscillator.

1—12AX7 Left Phono Preamplifier.

1—12AX7 Right Phono Preamplifier.

1—12AX7 Left and Right 2nd Audio Amplifier.

1—6U8 Left 3rd Audio Amplifier.

1—6U8 Right 3rd Audio Amplifier.

1—MA113 Transistor (Multiplex Indicator lamp Switch).

2—IN542 Diodes, Wide Band Discriminator.

4—IN542 Diodes, Balanced MPX Detector.

2—IN542 Diodes, Balanced Detector for MPX Indicator Light.

1—IN541 Diode, Muting and Tuning Indicator Detector.

1—IN541 Diode, AGC Clamp.

4—Selenium Rectifiers, High and Low Voltage Supply.

1—No. 1850 Lamp, MPX Indicator.

POWER REQUIREMENTS

75 watts, 50-60 cycles, 105-125 volts.

DIMENSIONS

CHASSIS: 16 inches wide, $5\frac{7}{16}$ inches high, 13 inches deep including connectors.

FRONT PANEL: 16 inches wide, $5\frac{7}{16}$ inches high.

KNOB CLEARANCE: $1\frac{1}{2}$ inches.

WEIGHT

Tuner-preamplifier only: $27\frac{1}{2}$ pounds.

In shipping carton: 36 pounds.

FINISH

Anodized gold and black front panel; chrome chassis.

INSTALLATION

Convenient professional PANLOC.

Franchised Dealer

McIntosh LABORATORY INC.

2 CHAMBERS STREET, BINGHAMTON, N. Y.

Phone—Area Code 607-723-5491