



SPECIFICATIONS

POWER OUTPUT:
 60 watts RMS continuous power, 30 watts per channel with both channels operating simultaneously with 8 ohms load at any frequency from 20 Hz to 20,000 Hz.
 48 watts per channel at 16 ohms load, (1000 Hz)
 25 watts per channel at 16 ohms load, (1000 Hz)
 150 watts IHF total music power at 4 ohms load.
 120 watts IHF total music power at 8 ohms load.
 180 watts ±1 dB both channels at 4 ohms load.
 140 watts ±1 dB both channels at 8 ohms load.

HARMONIC DISTORTION:
 Less than 0.5% at rated output from 20 Hz to 20,000 Hz

INTERMODULATION DISTORTION: (60 Hz and 7,000 Hz 4:1)
 Less than 0.3% at rated output or at any level of less than rated output.
 Less than 0.1% at -3 dB rated output.

FREQUENCY RESPONSE:
 High level input: 20 Hz to 50,000 Hz ±1 dB

SENSITIVITY: (for rated output at 8 ohms load)

PHONO 1:	2.5 mV
PHONO 2:	0.06 mV / 2.5 mV (Switchable)
MIC:	2.5 mV
AUX 1, 2:	200 mV
TUNER:	200 mV
TAPE PLAY A, B:	200 mV
MAIN AMP, INPUT:	1 V

INPUT IMPEDANCE: (at 1,000 Hz)

PHONO 1 (2.5 mV):	30 K ohms, 50 K ohms (Switchable)
PHONO 2 (0.06 mV):	200 ohms
PHONO 2 (2.5 mV):	50 K ohms
MIC:	100 K ohms
AUX 1, 2:	100 K ohms
TAPE PLAY A, B:	100 K ohms
MAIN AMP, INPUT:	50 K ohms

SIGNAL TO NOISE RATIO: (below rated output)

PHONO 1 (2.5 mV):	65 dB
PHONO 2 (0.06 mV):	45 dB
PHONO 2 (2.5 mV):	65 dB
MIC:	67 dB
AUX, TUNER, TAPE PLAY:	77 dB

Noise at minimum volume control: 0.5 mV at 8 ohms, 0.0003 milliwatts.

MAXIMUM INPUT SIGNAL:
 310 mV (P-P 1000 Hz) at PHONO 1 input.

OUTPUT IMPEDANCE: (at Speaker Terminal)
 0.25 ohms from 50 Hz to 10,000 Hz

DAMPING FACTOR:
 90 at 16 ohms load.
 45 at 8 ohms load.

LOW FILTER: (for rumble) 80 Hz Cutoff, 12 dB per octave.
HIGH FILTER: (for scratch) 7,000 Hz cutoff, 12 dB per octave.

BASS CONTROL: ±10 dB at 100 Hz with 2 dB step switch.
TREBLE CONTROL: ±10 dB at 10,000 Hz with 2 dB step switch

INPUT:
 Pair of Phono 1, Phono 2, MIC, AUX 1, 2, Tape Play A, B, 4 channel and Main Amp. Inputs.

OUTPUT:
 2 pairs of stereo speaker outputs (4 to 16 ohms), pre-amp. outputs, Tape Recording outputs A and B, DIN standard Tape Rec/Play connector A and B, Switched and Unswitched AC outlets, and 4 channel output.

CONTROLS:
 Phono 1, Impedance Selector Switch, Phono 2 Level Switch, Input Selector Switch, Tape monitor Switch, Speaker Selector Switch, Volume Control, Balance Control, Bass Control Switch, Treble Control Switch, Muting Switch (-20 dB), Loudness Contour Switch, Low Filter Switch, High Filter Switch, Stereo Mode Switch, NULL Balance Switch and PRE-MAIN Separate Switch.

SPECIAL FEATURES:

- Direct coupling power amplifier.
- Tape monitor and Dubbing Switch for 2 tape recorders.
- Low level Phono input (0.06 mV) for Moving coil type or Low level output cartridges.
- 2 set of Stereo Speaker terminals and front panel Speaker selector switch.
- 4 channel input, output terminals, and volume control.
- Phono input impedance selector.
- 2 dB step tone controls switch.
- Null Balance switch.
- Power transistor protection circuit.
- -20 dB muting switch.
- Light-up input indicators.
- Pre-amp. output.
- Main amp. input.
- Stereo phone jack on front panel.

POWER CONSUMPTION:
 AC 110 - 120/220-240 volts 50/60 Hz
 15 watts quiescent, 200 watts at full power.

DIMENSION: (not including control Knobs)
 Width 16-15/16", Height 5-5/32", Depth 11-1/16"

WEIGHT: 20 Lbs.

Refer to KA-7002 on X13-1010-11.

CAUTION: This schematic diagram is useful from serial No. 430,001.

