



- ### 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 4 ohms load (1000 Hz)
 25 watts per channel at 16 ohms load (1000 Hz)
 150 watts HF total music power at 4 ohms load
 120 watts HF 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)**
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|------------------|-----------------------------|
| PHONO 1: | 0.06 mV (2.5 mV Switchable) |
| PHONO 2: | 2.5 mV |
| AUX 1, 2: | 200 mV |
| TUNER: | 200 mV |
| TAPE PLAY A, B: | 100 K ohms |
| MAIN AMP. INPUT: | 1 V |
- INPUT IMPEDANCE: (at 1,000 Hz)**
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|-------------------|-----------------------------------|
| PHONO 1 (2.5 mV): | 30 K ohms, 60 K ohms (Switchable) |
| PHONO 2 (2.5 mV): | 200 ohms |
| PHONO 2 (2.5 mV): | 50 K ohms |
| MIC: | 50 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): | 45 dB |
| PHONO 2 (0.06 mV): | 45 dB |
| PHONO 2 (2.5 mV): | 67 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
 48 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, CTR 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 Control 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 Damping Switch for 4 tape recorders.
 - Low level Phono input (0.06 mV) for Moving coil type or Low level output cartridge.
 - 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.
 - Power transistor protection circuit.
 - 20 dB muting switch.
 - Light-up input indicators.
 - The amp. output.
 - Main amp. input.
 - Stereo phone jack on front panel.
- POWER CONSUMPTION:**
 AC 110 - 120/220-240 volts 50/60 Hz
 15 watts minimum, 200 watts at full power
- DIMENSION: (not including control knobs)**
 Width 18-1/16", Height 5-5/16", 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.

