

 **PIONEER**[®]

SX-750



Advanced, High Power AM/FM Stereo Receiver with Tonal Quality-Oriented Design Features.

For a practically-priced integrated receiver, Pioneer's SX-750 delivers an astonishing amount of state-of-the-art perfection. Conventionally, receivers have been considered inferior in terms of performance to integrated amplifiers and independent tuners. But the SX-750 is bound to alter this convention. Its pre-amplifier, power amplifier and tuner sections give first-rate performance specifications, the equal in many respects to separate components.

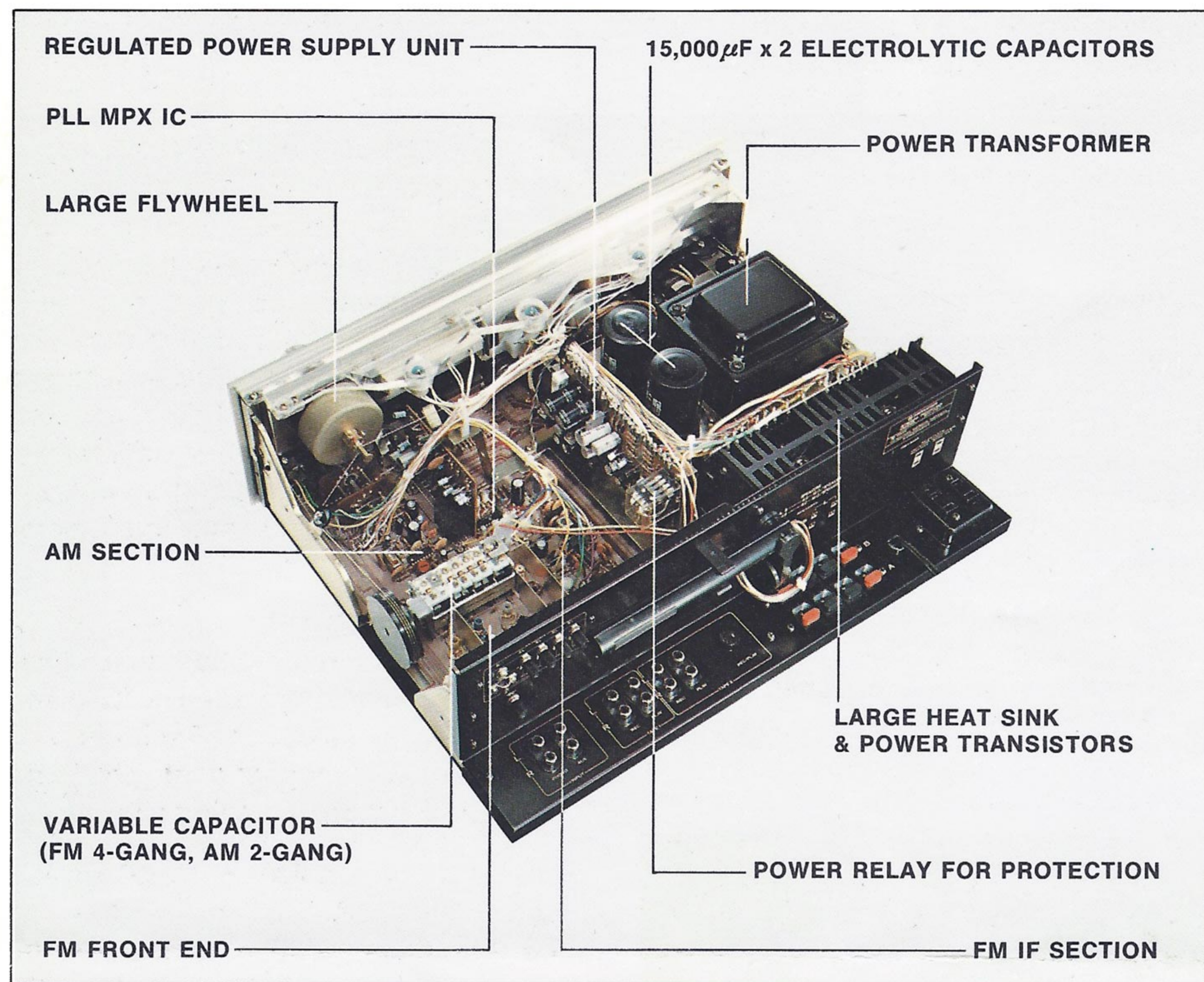
There is an abundance of power: continuous power output of 50 watts* per channel min. RMS at 8 ohms, from 20 to 20,000 Hertz with no more than 0.1% total harmonic distortion. Other design features contribute to the unit's overall stability and sensitivity. The input/output terminals and circuits of the pre-amplifier/tuner sections are laid out on one large printed circuit board, a process that

eliminates shielded input cords and enhances overall tonal quality. The FM front end uses a dual gate MOS type FET and a 4-gang variable capacitor for its high sensitivity and selectivity. The IF section combines up-to-the-minute circuits and differential amplifier ICs for its high signal/noise ratio and low distortion. The SX-750 by Pioneer: innovative, attractive, value-packed. Another model of efficiency in receiver design.

*Walnut grained vinyl top panel and side panels are used in the construction of this cabinet.

*Measured pursuant to the Federal Trade Commission's Trade Regulation Rule on Power Output Claims for Amplifiers.

SX-750

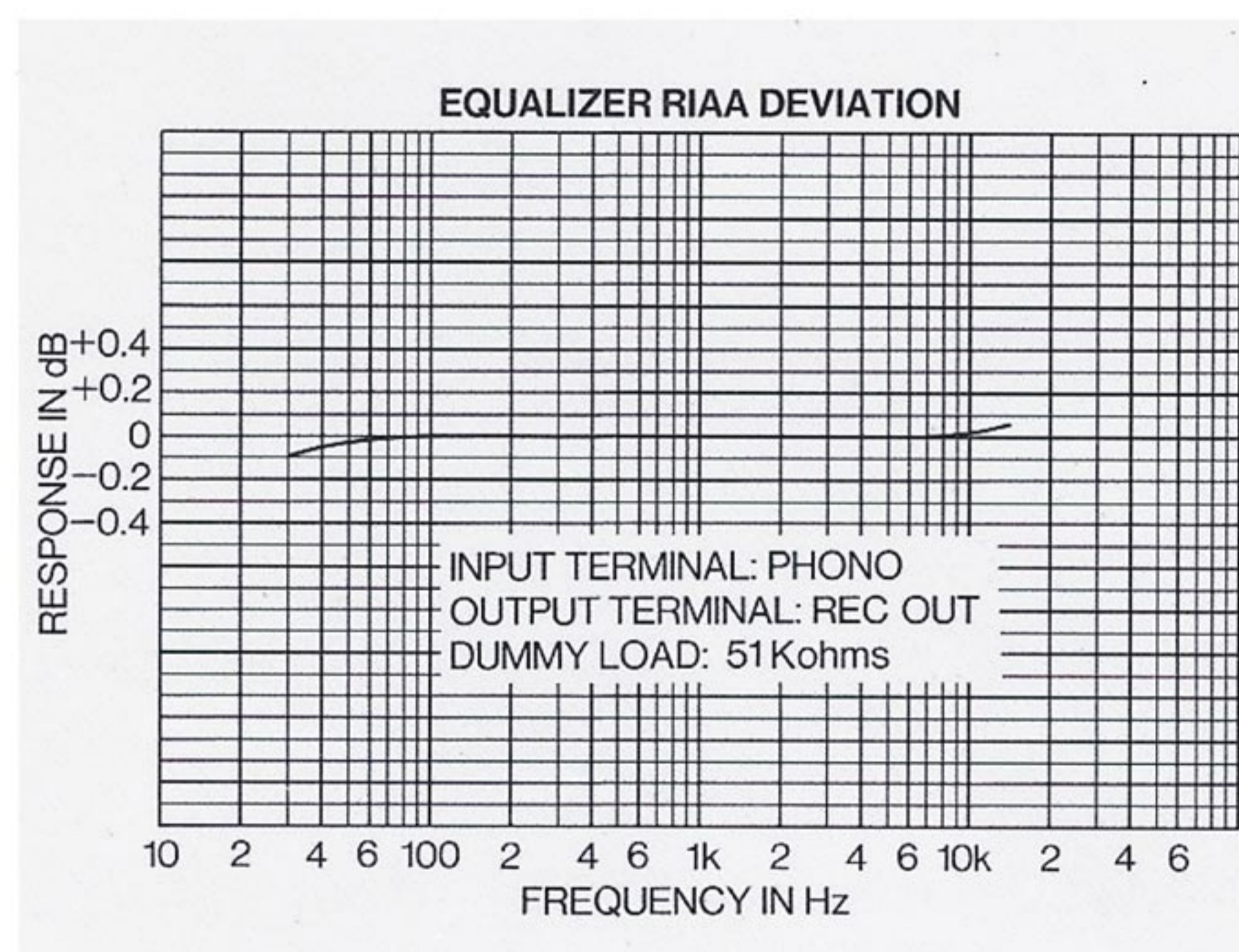


PREAMPLIFIER SECTION WIDE DYNAMIC RANGE EQUALIZER FOR IMPROVED TONAL QUALITY



The equalizer section of the SX-750 is highly efficient, with the equalizer circuit possessing a wide dynamic range at minimal distortion, even when large output voltage cartridges are used for record reproduction. A 3-stage direct-coupled flat amplifier with first stage differential amplifier, 3-stage direct coupling powered by a plus-minus split power supply system is employed in the equalizer section. Selected metal film resistors and styrol capacitors with less than 2% tolerance are used to ensure that RIAA deviation is precise within $\pm 0.2\text{dB}$. With this value, flat characteristics fully equivalent to a high class preamplifier can be obtained to ensure natural high fidelity reproduction of recorded sources. A phono overload level of 200mV is achieved (1kHz, RMS,

distortion 0.1%). This is further assurance that your recorded music will be reproduced with a wide dynamic range at minimal distortion.



LOW-NOISE IC FOR OUTSTANDING TONE QUALITY IN CONTROL SECTION

A low noise IC is used in the tone control section to suppress distortion. The tone control itself is the tone quality-oriented CR type circuit, with BASS/TREBLE variable in 11 steps. Because the knobs are the clickstop type, you may return to the original set positions with precision. The tone control defeat switch employed in this circuit instantly cancels

the tone control function, which enables you to obtain a flat response by bypassing the tone control circuit.



TWO TAPE INPUT/OUTPUT CIRCUITS AND TAPE DUPLICATE SWITCH

The SX-750 delivers perfect tape duplicating versatility. Since the unit has two pairs of tape recording/monitoring facilities, connection of two tape decks and simultaneous recording is possible. At time of playback, a lever type monitor switch makes it possible to select either TAPE 1 or TAPE 2. There is also a tape duplicate switch which lets you freely copy a tape from one deck to the other or vice versa, permitting a listener to enjoy another musical source while duplicating. This also lets you edit anything recorded by an open reel deck and then re-record it with a cassette deck.

HIGH CUT FILTER

The SX-750 is equipped with a high cut filter which is effective for eliminating undesirable noise about 6kHz in the high frequency range.

LOUDNESS CONTOUR FOR IMPROVED TONE QUALITY AT LOW LISTENING LEVELS

The human ears become insensitive to low and high frequencies when volume is employed at low listening levels. The SX-750 has a loudness contour switch which automatically complements the lows and highs during sound reproduction at low listening levels, thus enhancing musical enjoyment.

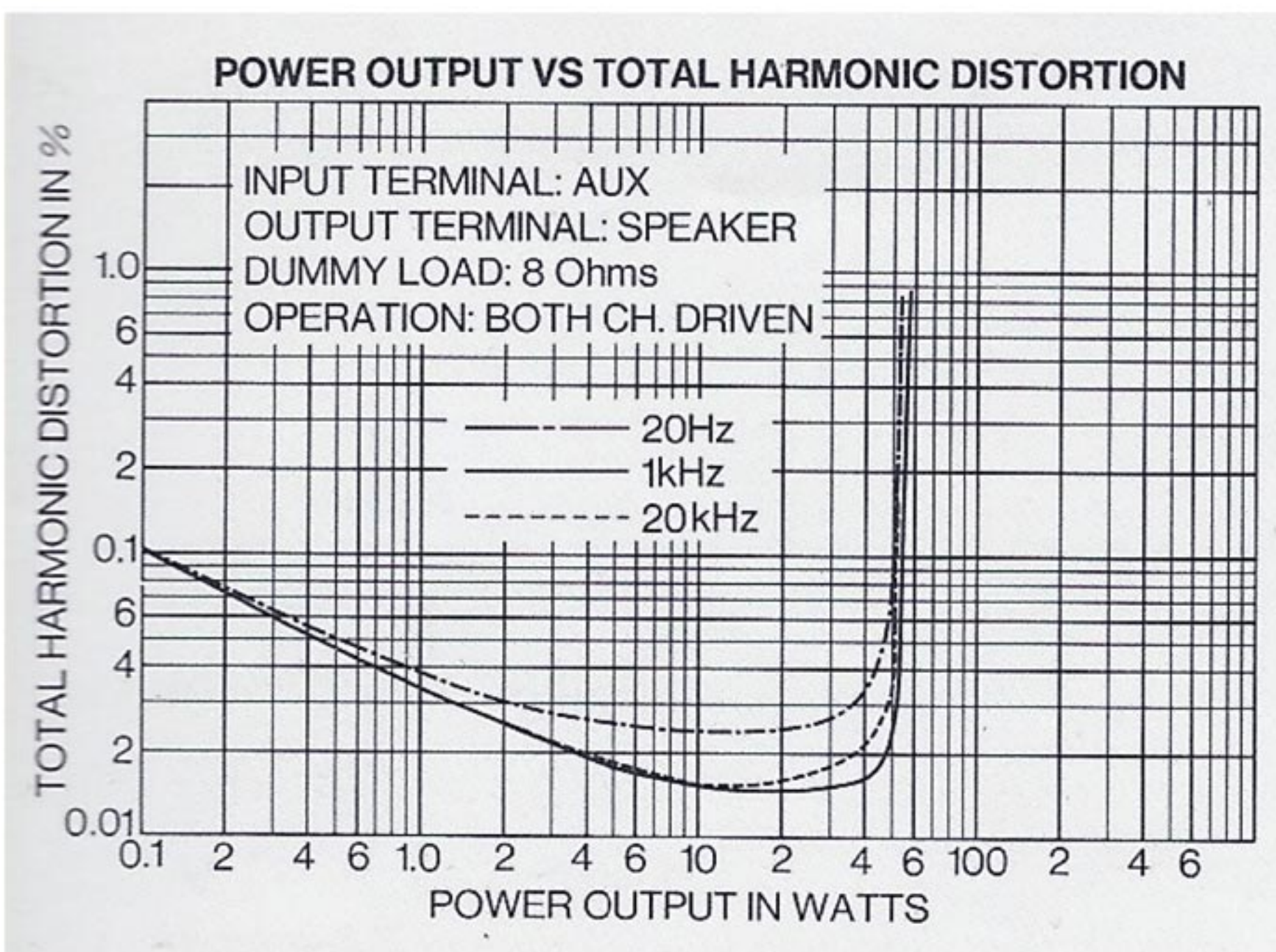
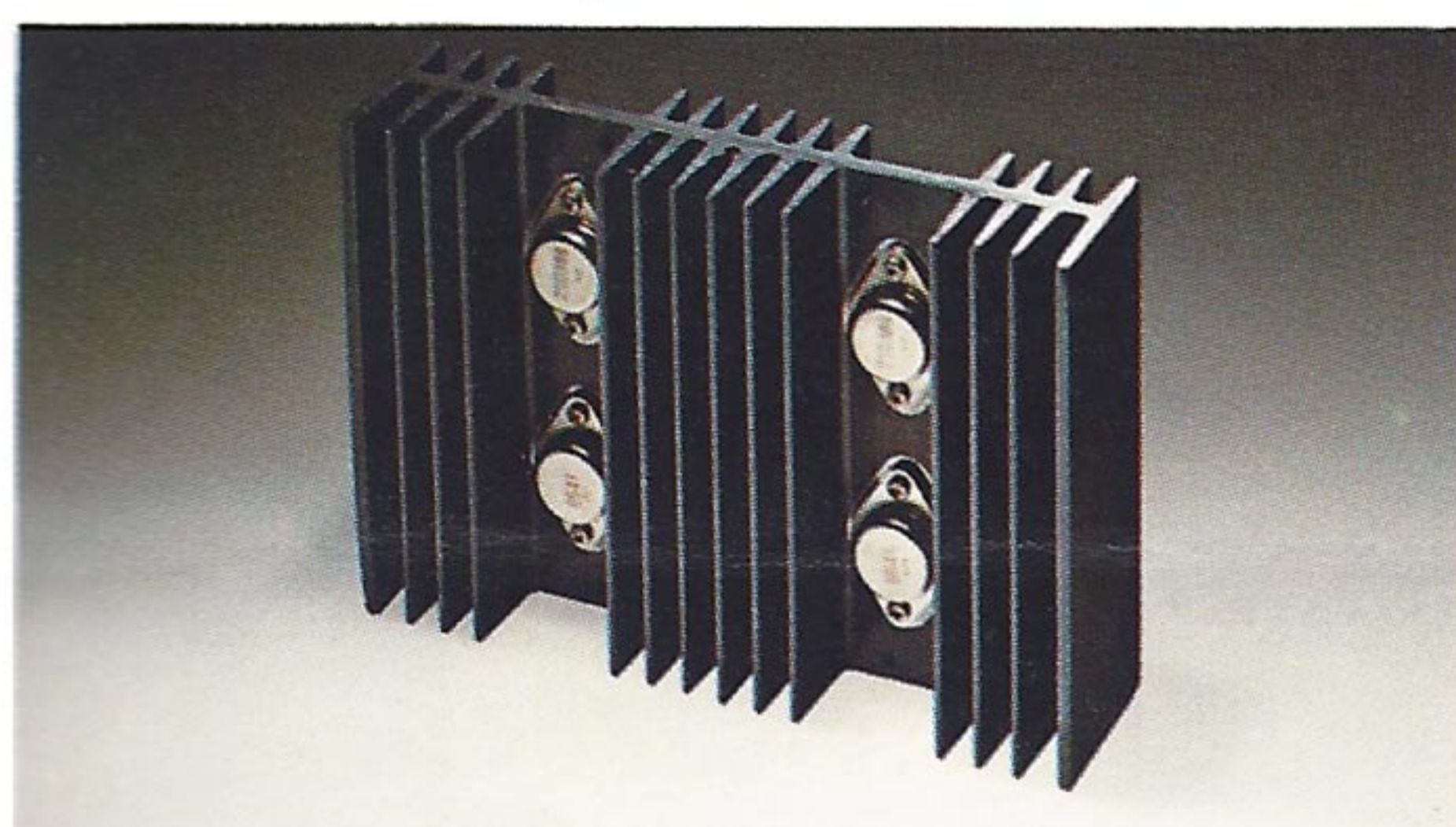
MIC JACK

A Mic jack is provided on the front panel. When the function switch of the receiver is set at the AUX/MIC position, insertion of a microphone jack gives priority to MIC, and disconnects AUX.

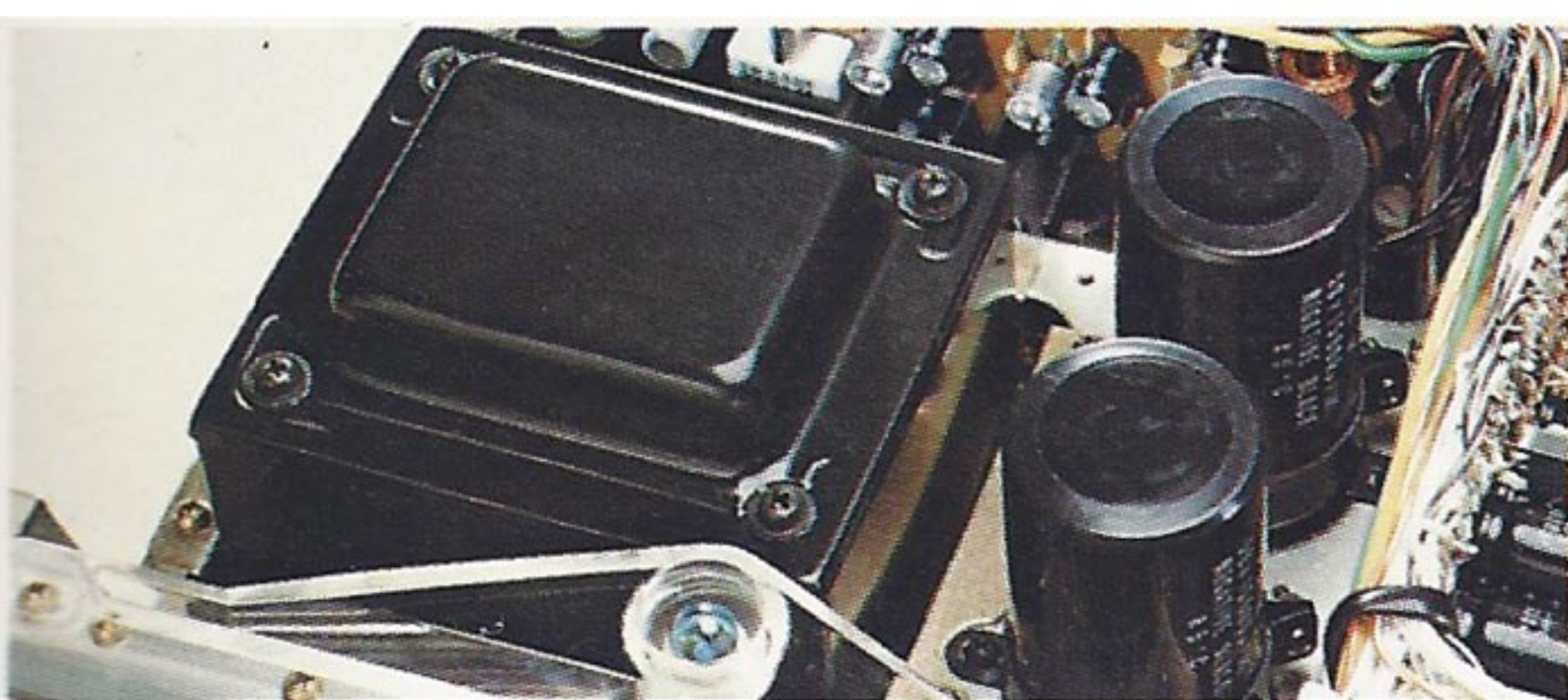
POWER AMPLIFIER SECTION BIG POWER OUTPUT WITH TONE QUALITY-ORIENTED CIRCUIT DESIGN

The power section of the SX-750 is the direct-coupled OCL circuit with a first-

stage differential amplifier powered by a plus-minus split power supply. This delivers **continuous power output of 50 watts* per channel min. RMS at 8 ohms, from 20 to 20,000 Hertz, with no more than 0.1% total harmonic distortion.** This is the continuous power output obtainable in both channels driven over the entire 20-20,000 audible frequency bandwidth and is the value that can absolutely be guaranteed for music reproduction. With such substantial power output, even inefficient speaker systems will reproduce with clarity. Provided in the differential amplifier section of the OCL circuit are dual transistors with excellent properties. These not only elevate power but also suppress distortion. The result is total harmonic distortion at time of rated power output that can be suppressed to a value of no more than 0.1%. You can always enjoy music with distortion-free tonal quality during full power operation or low level output.



BIG POWER SUPPLY SECTION WITH WIDE MUSICAL SOUND RANGE



The power section of this receiver is further upgraded by the use in the power supply section of a pair of large 15,000 μ F electrolytic capacitors. The SX-750 is the first receiver in its class to use such oversized capacitors, which

excel in voltage regulation while extending the musical sound range all the way to the lowest frequencies.

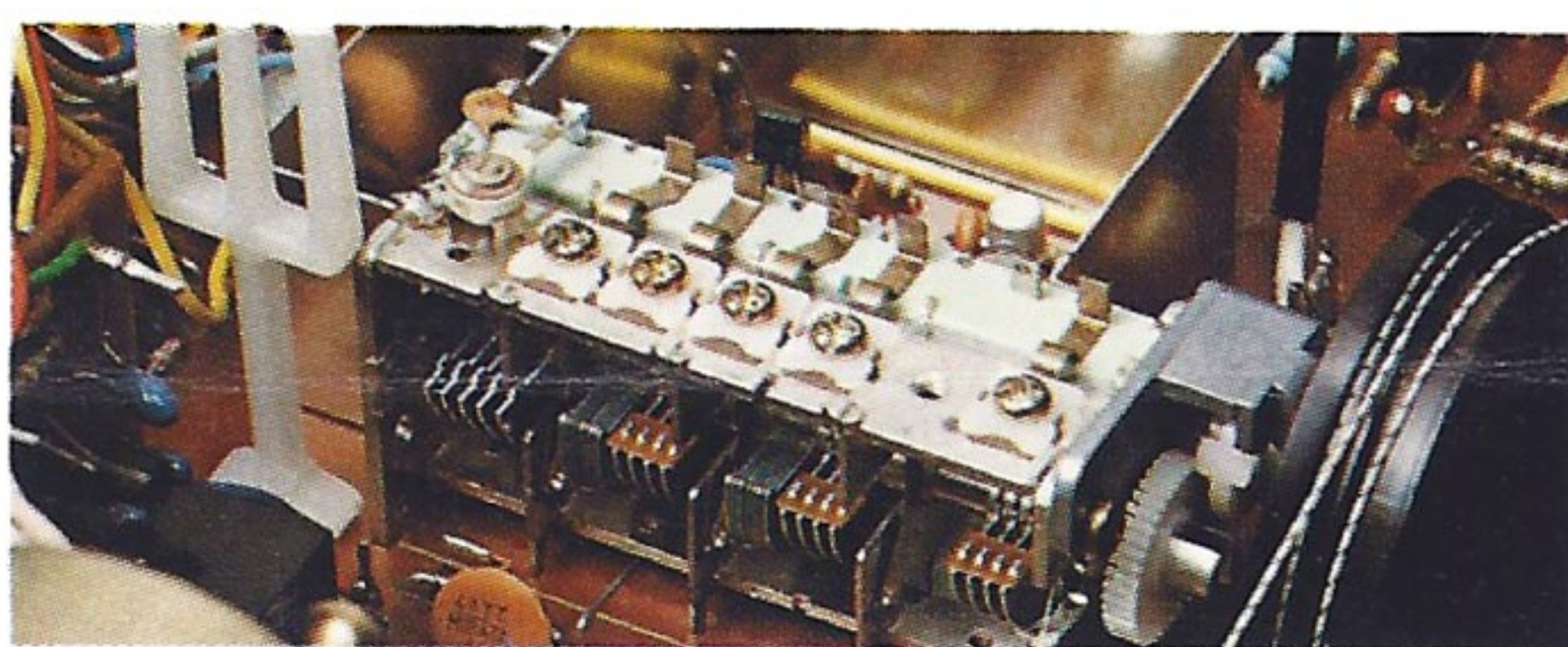
TWO PAIRS OF SPEAKER CONNECTIONS

A and B speaker terminals are provided. A four-position selector switch on the front panel permits the following speaker selection: OFF, A, B, AND A+B. The speakers may be driven independently or simultaneously. The OFF position is provided for the convenience of headset listening.

TUNER SECTION

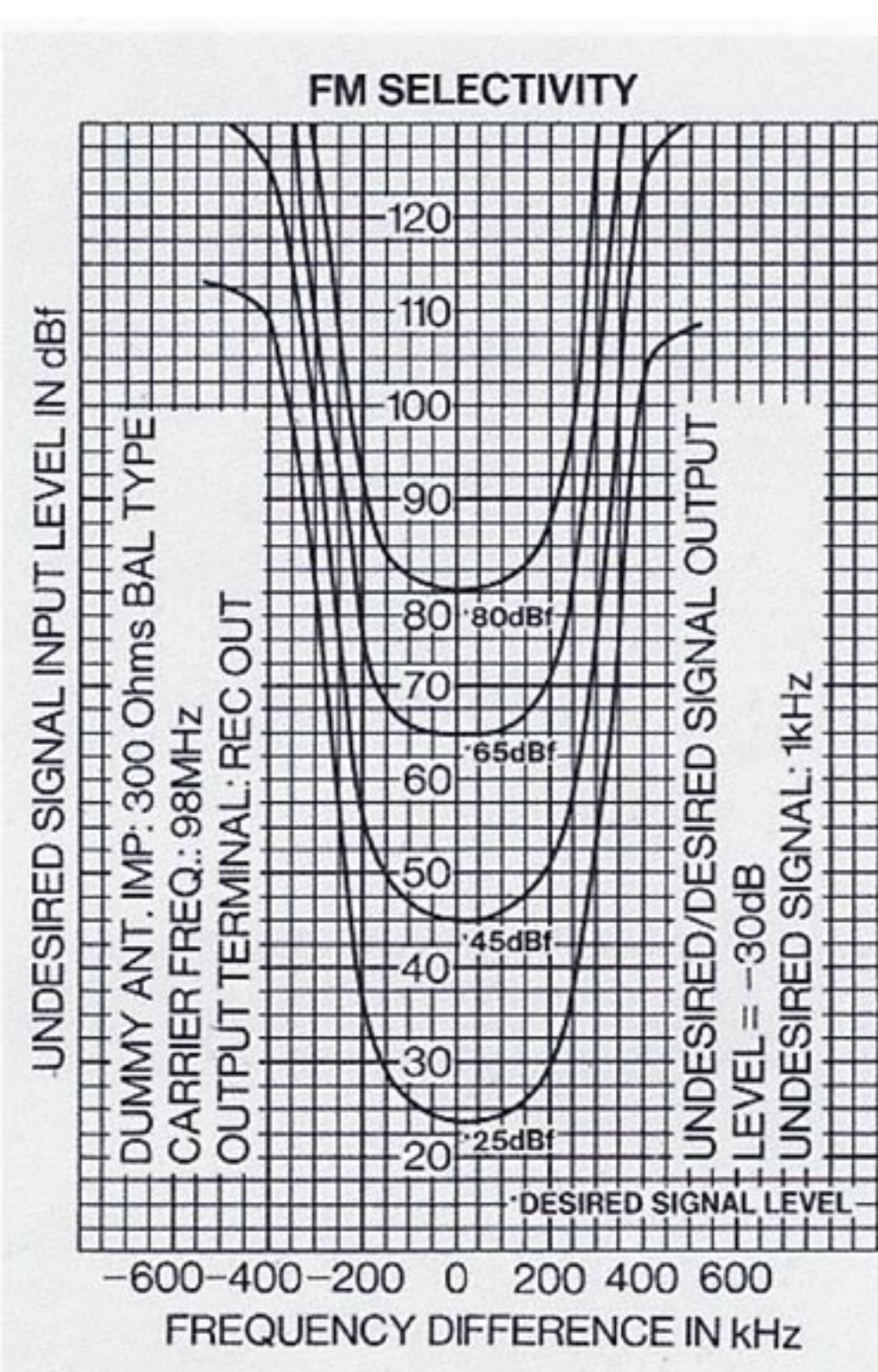
HIGH SENSITIVITY FM FRONT END WITH DUAL GATE MOS TYPE FET

The FM front end of the SX-750 is a combination of an RF amplifier which adopts a dual gate MOS type FET in the first stage and a 4-gang variable capacitor. Use of a low noise FET contributes to the usable sensitivity, of 10.7dBf(1.9 μ V), excellent selectivity, image response ratio of more than 80dB, spurious response ratio of more than 90dB – all performance specifications that rank with the very best of independent, first-class tuners.



IF SECTION WITH 3 ICs AND CERAMIC FILTERS FOR HIGH S/N AND LOW DISTORTION

The IF section uses a special IC and two differential amplifier ICs combined with three ceramic filters to form a 5-stage limiter circuit. This section is responsible for improved FM selectivity, helps eliminate jamming, noise and also rejects alternate channel interference and eliminates AM noise by application of sufficient limiters. It boasts of 80dB selectivity (IHF), 1.0dB capture ratio and 55dB AM suppression. Additionally, a



new design that employs a ratio detecting circuit in addition to ICs ensures a S/N ratio of more than 67dB and low distortion of no more than 0.3% (1kHz) during stereo operation. Additionally, perfect impedance matching of three ceramic filter pieces expands tuning width, preventing distortion by deviation during tuning.

PHASE-LOCKED LOOP CIRCUIT IN MPX SECTION

A PLL (Phase-Locked Loop) is a loop circuit that complements the drift of switching signals, so that the MPX switching signals produced in the tuner are always in the same phase with the pilot signals transmitted from the broadcast station. It ensures beautiful stereo reproduction, stable separation characteristics, and is impervious to temperature fluctuation.

FM MUTING CIRCUIT

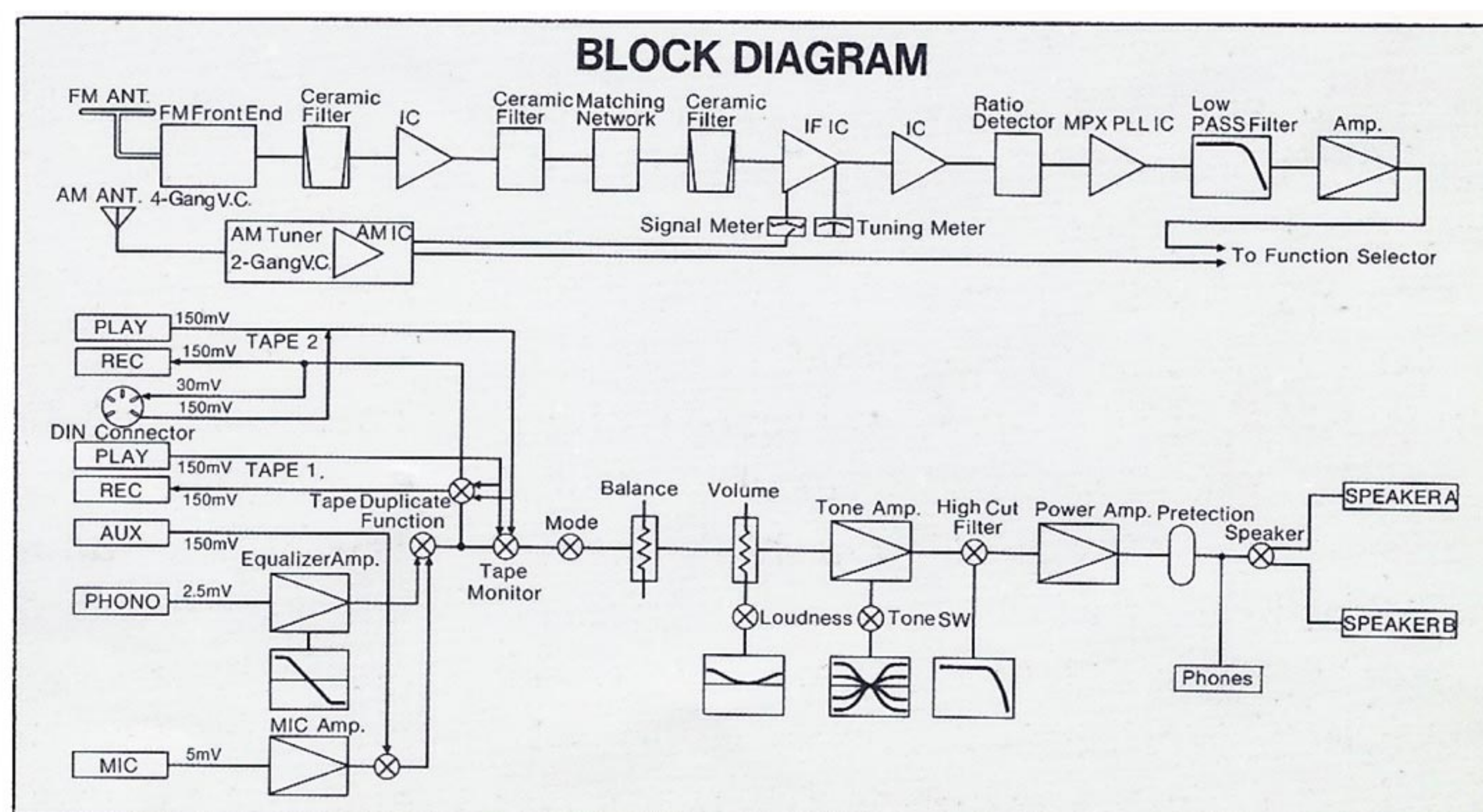
An FM muting circuit is built-in to eliminate unpleasant interstation noise at the time of station selection. Each channel of this circuit is independent, providing FM muting without annoying click noise.

HIGH PERFORMANCE IC USED IN AM TUNER SECTION

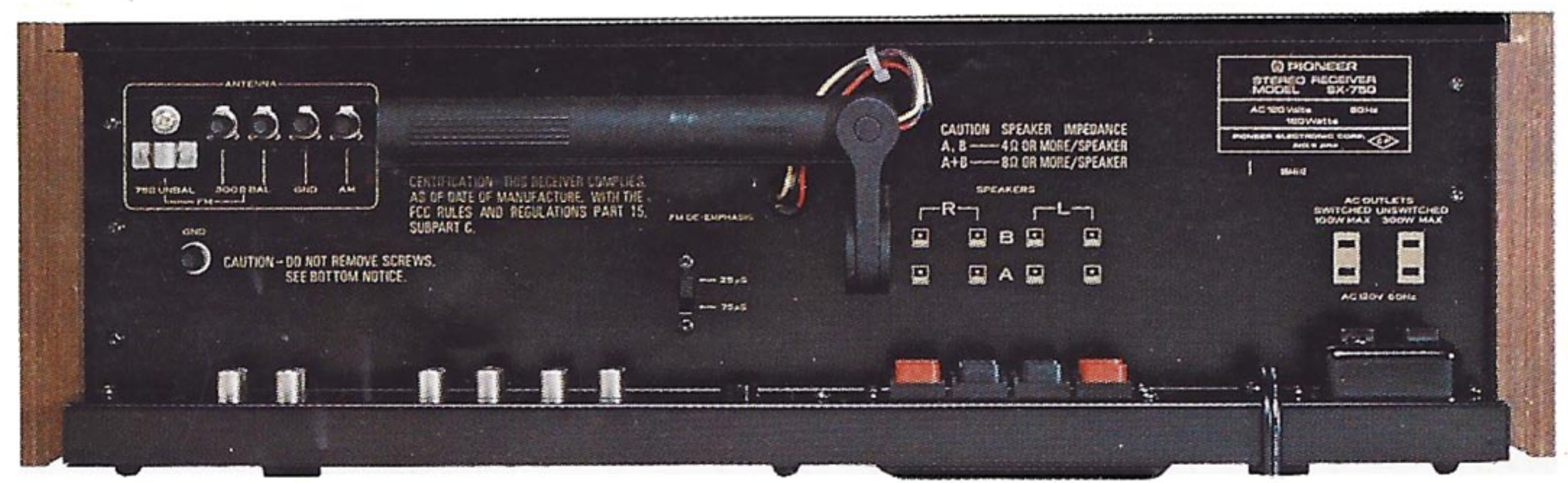
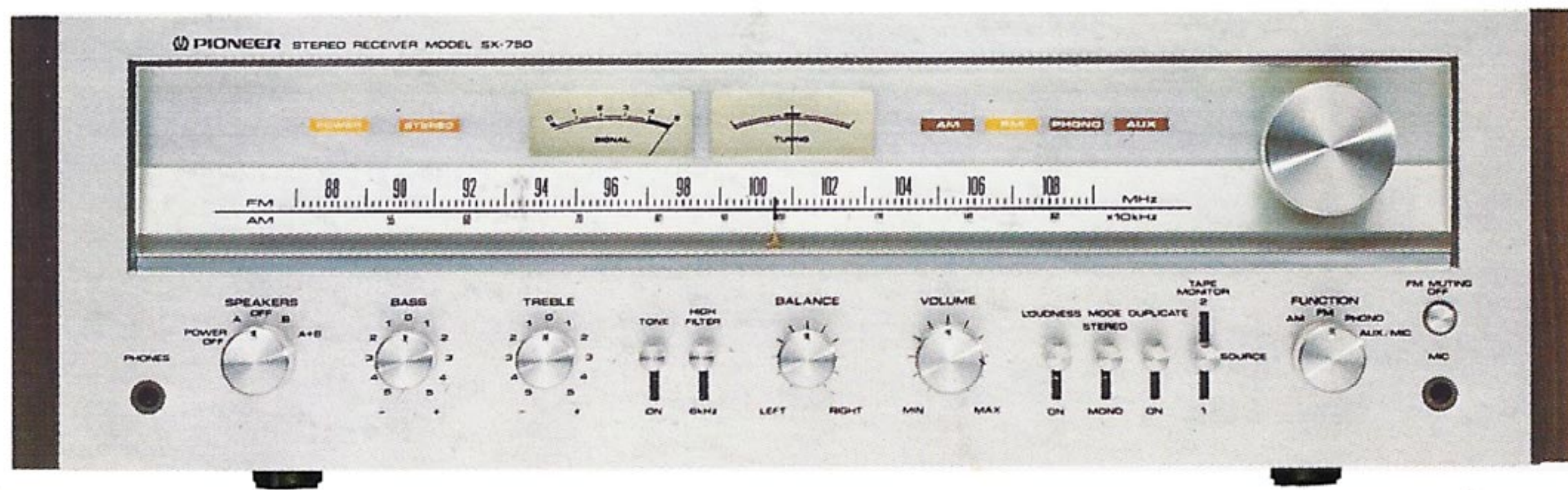
The AM tuner section of the SX-750 consists of a special IC first stage RF amplifier and a 2-gang variable capacitor. Thus, regardless of signal strength, excellent reception and fine tonal quality are assured.

TWO-METER SYSTEM FOR PRECISE RECEPTION

Like all expensive independent tuners, the SX-750 employs a two-meter system. One is a signal strength meter, the other a center tuning meter. The unit also features a sharp metallic 200kHz calibrated linear long FM band scale to facilitate precise tuning, and employs a large high-inertia flywheel to ensure a smooth tuning feel.



*Measured pursuant to the Federal Trade Commission's Trade Regulation Rule on Power Output Claims for Amplifiers.



SX-750 SPECIFICATIONS

AMPLIFIER SECTION

Continuous Power Output is 50 watts* per channel, min. RMS at 8 ohms or 60 watts* per channel at 4 ohms from 20 to 20,000 Hertz with no more than 0.1% total harmonic distortion.

Total Harmonic Distortion:	No more than 0.1%
(20 to 20,000 Hertz, from AUX)	(continuous rated power output)
	No more than 0.05%
	(25 watts per channel power output, 8 ohms)
	No more than 0.05%
	(1 watt per channel power output, 8 ohms)
Intermodulation Distortion:	No more than 0.1%
(50 Hertz: 7,000 Hertz = 4:1, from AUX)	(continuous rated power output)
	No more than 0.05%
	(25 watts per channel power output, 8 ohms)
	No more than 0.05%
	(1 watt per channel power output, 8 ohms)
Damping Factor:	30 (20 to 20,000 Hertz, 8 ohms)

Input (Sensitivity/Impedance)

PHONO:	2.5mV/50 Kohms
MIC:	5mV/50 Kohms
AUX:	150mV/50 Kohms
TAPE PLAY 1:	150mV/50 Kohms
TAPE PLAY 2:	150mV/50 Kohms
TAPE PLAY 2 (DIN connector):	150mV/50 Kohms

PHONO Overload Level (T.H.D. 0.1%)

PHONO:	200mV (1kHz)
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Output (Level/Impedance)

TAPE REC 1:	150mV
TAPE REC 2:	150mV
TAPE REC 2 (DIN connector):	30mV/80 Kohms
SPEAKER:	A, B, A+B
HEADPHONES:	Low impedance

Frequency Response

PHONO (RIAA Equalization):	30 to 15,000Hz, ± 0.2 dB
AUX, TAPE PLAY:	10 to 50,000Hz, +0dB -1dB

Tone Control

BASS:	+8dB, -7dB (100Hz)
TREBLE:	+9dB, -7dB (10kHz)

Filter:

HIGH:	6kHz (6dB/oct.)
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Loudness Contour:

	+6dB (100Hz), +3dB (10kHz)
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(volume control set at -40dB position)

Hum & Noise (IHF, short-circuited A network, rated power)

PHONO:	70dB
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AUX, TAPE PLAY:	90dB
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FM TUNER SECTION

Usable Sensitivity:	Mono: 10.7dBf (1.9 μ V), Stereo: 19.0dBf (4.9 μ V)
50dB Quieting Sensitivity:	Mono: 17.2dBf (4.0 μ V), Stereo: 39.2dBf (50 μ V)
Signal-to-Noise Ratio (at 65dBf):	Mono: 72dB, Stereo: 67dB
Distortion (at 65dBf)	
100Hz:	Mono: 0.15%, Stereo: 0.3%
1kHz:	Mono: 0.15%, Stereo: 0.3%
6kHz:	Mono: 0.4%, Stereo: 0.4%
Frequency Response:	30 to 15,000Hz +0.2dB, -2.0dB
Capture Ratio:	1.0dB
Alternate Channel Selectivity:	80dB
Spurious Response Ratio:	90dB
Image Response Ratio:	80dB
IF Response Ratio:	100dB
AM Suppression Ratio:	55dB
Muting Threshold:	14.0dBf (2.8 μ V)
Stereo Separation:	40dB (1kHz), 30dB (30 to 15kHz)
Subcarrier Product Ratio:	62dB
SCA Rejection Ratio:	62dB
Antenna Input:	300 ohms balanced, 75 ohms unbalanced

AM TUNER SECTION

Sensitivity:	300 μ V/m (IHF, ferrite antenna), 15 μ V (IHF, ext. antenna)
Selectivity:	35dB
Signal-to-Noise Ratio:	50dB
Image Response Ratio:	40dB
IF Response Ratio:	65dB
Antenna:	Built-in ferrite loopstick antenna

SEMICONDUCTORS

FET:	1
ICs:	7
Transistors:	42
Diodes:	40

MISCELLANEOUS

Power Requirements:	For U.S.A. and Canada: 120V 60Hz only, For other countries: 220/240V (switchable) 50Hz or 110/120/220/240V (switchable) 50-60Hz
Power Consumption:	160 watts (UL), 300 VA (CSA), 430 watts (Max.)
Dimensions:	Without package: 18-29/32(W) x 5-7/8(H) x 14-19/32(D) inches 480(W) x 149(H) x 371(D)mm
Weight:	Without package: 30 lb. 3 oz./13.7kg

NOTE: Specifications and design subject to possible modification without notice.

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PIONEER®

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