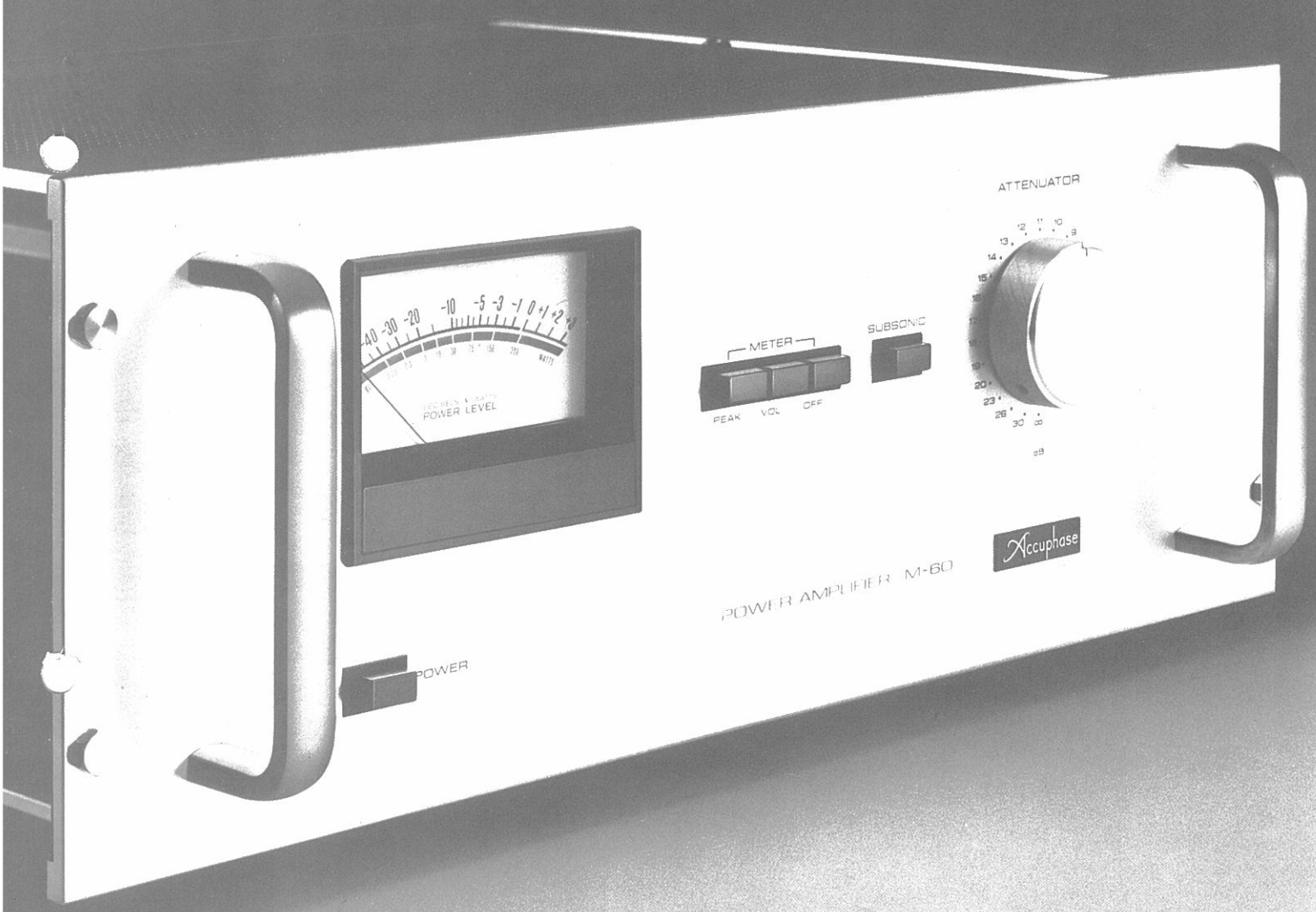
Accuphase M-60

MONOPHONIC POWER AMPLIFIER



It should be noted that a high power amplifier not only serves the function of delivering faithful sound reproduction at high output levels, but also contributes to improved reproduction of sound details and sonority at normal sound reproduction levels.

To do this, an amplifier must have superb characteristics even at very low output levels. Thus, a high power amplifier with outstanding characteristics from low to high output levels is essential for true quality reproduction of music, and such an amplifier is gaining acceptance today among audio connoisseurs, not as a luxury, but as a necessity.

The ACCUPHASE Monophonic Power Amplifier Model M-60 was completed after extensive engineering efforts in which perfection was sought without compromises. Monophonic design was chosen to completely eliminate any possibility of inter-channel interferences from power supply circuit and wirings, and also to feature a handy weight so that it can be handled even by one person. The M-60 provides 19" rack mounting facilities and a cannon type input terminal for studio monitor or PA system applications.

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***Monophonic Design Advantage for No Inter-Channel Interference.**

A high power amplifier capable of high outputs as large as 600W stereo (8 ohms) tends to have inter-channel interferences, and to cause excessive power supply fluctuation. This necessitates an extra heavy duty power transformer, as well as elaborate heat sinks, which increase the weight and costs of such amplifiers. The M-60 has utilized the advantage of special monophonic design to eliminate these problems.

***Every Stage Push-Pull Driven for Greatly Improved Stability, Linearity and Dynamic Range.**

The M-60 employs an extravagant, push-pull lineup from input to output, that has been credited as a key factor for the outstanding tone quality of the Model P-300. It helps minimize disorder in phase over a wide frequency range, and maintains extremely excellent linearity over a wide dynamic range. Moreover, the push-pull driven lineup guarantees good stability against fluctuation in temperature and power supply voltage. As a result, a constant, ideal operation can be expected.

***Heavy Duty, Large Energy Power Supply**

The extremely heavy, large sized power transformer that is employed withstands continuous 450W outputs unperturbedly into 4 ohms load. Together with high voltage charged into two of the 22,000 μF filter capacitor used, it produces an energy of as large as 152 joules, while the P-300 that provides an output of 400W in total into 4 ohms, produces an energy of 120 joules. This large energy has created greatly improved output characteristics at low frequency and no muddiness at fortissimo.

***Logarithmic Scale Peak Level Output Meter**

A logarithmic scale output meter is used to enable output power readings directly from 3mW to 300W. The peak level indication and volume level indication is switchable.

***Subsonic Filter to Eliminate Noise below Audible Range**

Ultra low frequency noises or shocks will, due to high output, create intermodulation, or may damage speakers. To eliminate such disturbances, a subsonic filter has been incorporated that is designed to provide sharp cutoff below 17 Hz with an 18dB/Oct. slope.

***1dB Step Attenuator**

Instead of potentiometer type volume control, a 24-step type attenuator is employed. It attenuates by 1dB to 20dB, and henceforward to 23dB, 26dB, 30dB and infinity. Even when inattentively touched, its solid switching system will prevent any possibility of accidental speaker damage.

***Cannon Type Input Connector**

In addition to regular phono type jacks, a cannon type connector is provided for a better and surer connection.

***Provision for Ventilation Fan Installation**

A ventilation fan, even at its lowest speed, will disturb music listening in a quiet atmosphere. The M-60 employs effective heat sinks that provide good ventilation and natural air flow, and are capable of dissipating large amounts of heat. Therefore, a ventilation fan is not required under normal conditions, but a provision is made for fan installation for such cases where installation in an inefficiently ventilating condition is unavoidable, or where a long, continuous operation at high output power is required.

***Guaranty Specifications**

Performance Guaranty:
All Accuphase product specifications are guaranteed as stated.

POWER OUTPUT:

(from 20Hz to 20,000Hz with no more than 0.1% total harmonic distortion):

450 watts, min. RMS, at 4 ohms
300 watts, min. RMS, at 8 ohms
150 watts, min. RMS, at 16 ohms

TOTAL HARMONIC DISTORTION:

(from 20Hz to 20,000Hz at any power output from 1/4 watt to rated power): 4 ohms; 0.1% max.
8 ohms; 0.1% max.
16 ohms; 0.1% max.

INTERMODULATION DISTORTION:
will not exceed 0.1% at rated power output for any combination of frequencies between 20Hz and 20,000Hz

FREQUENCY RESPONSE:
20Hz to 20,000Hz; +0, -0.2dB at rated power output
2Hz to 90,000Hz; +0, -3dB at rated power output

DAMPING FACTOR: 45 (at 8 ohms load, 20Hz to 20,000Hz)

RISE TIME: 3 μSec.

SLEWING RATE: 25 V/μSec.

INPUT SENSITIVITY AND IMPEDANCE:
2.0 Volts, 100 Kohms, for rated output at the maximum level control

HUM AND NOISE: 100dB below rated output

OUTPUT LOAD IMPEDANCE: 4, 8 and 16 ohms

SUBSONIC FILTER: cutoff frequency: 17Hz, 18dB/oct.

POWER LEVEL METER:
switchable for Volume Level and Peak Level.
calibrated to read 0dB = 300 watts into 8 ohms load and capable of directly reading down to -50dB (3 mW)

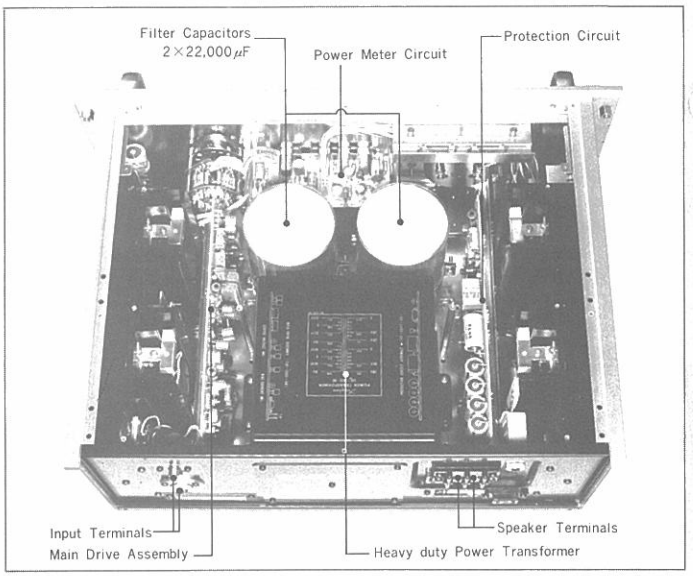
ATTENUATOR: precision, 1dB stepping type

POWER REQUIREMENT:
voltage selector for 100V, 117V, 220V, 240V 50/60Hz operation
Consumption: 65 watts at zero signal output
540 watts at rated output (8 ohms load)
800 watts at rated output (4 ohms load)

SEMICONDUCTOR COMPLEMENT: 47 transistors, 51 diodes, 3 IC's

DIMENSIONS:
482mm (19 inches) wide, 170mm (6-11/16 inches) high,
345mm (13-9/16 inches) deep
*mountable on 19" standard rack. rack mount pitch; 100mm (4")
rack inside horizontal measurement; 430mm (16-15/16")

WEIGHT:
27kgs (59.4 lbs) net, 32kgs (70.4 lbs) in shipping carton



Accuphase
KENSONIC LABORATORY INC.

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