

THE HAFLER 110

CONTROL. PREAMPLIFIER



REFINEMENT IN ENGINEERING, IN EXECUTION, IN APPEARANCE, AND IN SOUND

The David Hafler name has long been recognized as the hallmark of audio excellence coupled with exceptional value. The first Hafler preamplifier, the DH-101, has earned worldwide recognition for pace-setting audio performance in the past 4 years. The new DH-110 offers an advanced alternative based on the DH-101 circuit. It operates all discrete devices (no integrated circuits in the signal path) in a full complementary symmetry format. It contains numerous circuit refinements, and delivers an accuracy of sound that challenges comparison at any price. Its new features and elegant appearance, inside and out, are offered at a modest cost increment which assures that the Hafler reputation for extraordinary return is uncompromised.

The DH-110 provides:

DISTINCTION—visual and tactile

- High technology styling
- Simple rack mounting capability
- The simplicity of a single active circuit board
- Velvet-smooth controls and switches

NEW FEATURES

- Step-action precision volume control
- Switchable high-pass filter
- Integral muting circuit
- High impedance front panel jack for most headphones
- Simple tape facilities
- Two pairs of audio outputs—one switched by the headphone jack

MEANINGFUL REFINEMENTS FOR ENHANCED PERFORMANCE

- Low distortion, low dielectric loss capacitors
- Increased phono acceptance level

- Low impedance power supply
- Precise phono equalization
- Increased separation
- Sockets for phono loading capacitors
- Internal grounding of unused inputs for lower crosstalk
- Full power bandwidth to 200 kHz

What is most significant is that the modestly higher cost is largely reflected in direct improvements in individual components: a more precisely balanced step action volume control; selector switches with silver plated contacts for long-term noise-free operation; positive, smooth controls; and higher quality, more accurate capacitors for lowest distortion.

Audible results are what count. If the rest of your music system is of commensurate quality, adding the DH-110 will deliver an exceedingly accurate rendition of the input signal. You may observe improvement in the following areas:

- A sense of increased 'space' around each instrument, clarifying the 3-dimensional image in high quality recordings.
- The acoustical characteristics of the original recording environment are more accurately presented in the reproduced 'sound stage'.
- Voices and instruments are more precisely located. They do not wander about the stage.
- The re-creation of transients is more articulate. They are clearer, seeming to evolve from, and fade into, a background of utter silence.

Every effort has been made to provide a versatile control center of impeccable pedigree, pleasing appearance, and ease of installation. The kit builder will also find it vastly simpler to build, in large part because so much has been preassembled so that it could be tested in every aspect of performance. Completing it will be an enjoyable evening of accomplishment. It's a significant step to sonic perfection in your home.

SPECIFICATIONS

The numbers in parentheses refer to the paragraph in the IHF specifications manual which defines the test procedure.

PHONO PREAMP SECTION

Rated Output: 3 Vrms, 8 Hz—105 kHz

Maximum Output (3.5):

12 Vrms, 20 Hz—20 kHz at recording output

Total Harmonic Distortion:

Less than 0.0006% @ 1 kHz, 3 Vrms

Frequency Response (3.13):

+0, -0.25 dB, 20 Hz—20 kHz

RIAA Equalization Accuracy:

+0, -0.1 dB, 30 Hz—15 kHz

Full Power Bandwidth: -6 dB, 4 Hz—210 kHz

Sensitivity (3.7): 12.5 millivolts

Maximum Input Signal @ 1 kHz (3.8):

300 millivolts; [3 V @ 20 kHz]

Gain: 34 dB @ 1 kHz

Input Impedance: 47,000 ohms in parallel with 30 pF;

user adjustable. Plug-in capacitors are installed to increase this to 150 pF on Phono 1;

250 pF on Phono 2

Signal to Noise, weighted (3.12): 87 dB

Slew Rate: 12 volts per microsecond

LINE AMPLIFIER SECTION

Rated Output: 3 Vrms, 4 Hz—210 kHz

Maximum Output (3.5): 14 Vrms, 20 Hz—20 kHz

Total Harmonic Distortion (3.4):

Less than 0.001%, 20 Hz—20 kHz

Frequency Response (3.13):

+0, -0.1 dB, 20 Hz—20 kHz

Full Power Bandwidth: -6 dB, 2 Hz—420 kHz

Sensitivity (3.7): 50 millivolts

Maximum Input Signal @ 1 kHz (3.8):

14 Vrms; volume control @ -20 dB

Gain: 20 dB \pm 1 dB

Input Impedance: Greater than 25,000 ohms

Signal to Noise, weighted (3.12): 90 dB

Slew rate: 12 volts per microsecond

Rise Time: 2.5 microseconds maximum, Phono in/Line

out, 10 Vp-p, 1 kHz square wave; load is

10,000 ohms in parallel with 10 nF

Crosstalk (3.14): down 72 dB, any input to any output

Separation (4.2): greater than 82 dB @ 1 kHz; greater

than 52 dB @ 20 kHz

Gain Tracking Error (4.4): less than 0.5 dB

Maximum Output Noise:

less than 350 microvolts, wideband

less than 95 microvolts, 'A' weighted

[with 1 Kohm input termination, volume full CW]

Bass Control: \pm 17 dB @ 20 Hz, moving inflection, variable turnover

Treble Control: \pm 17 dB @ 20 kHz, shelving @ 5 kHz, fixed turnover

Filter Response: -3 dB @ 25 Hz; -6 dB @ 15 Hz; -12 dB @ 8.2 Hz; -25 dB @ 3 Hz

Filter Cutoff (3.13.2.2.1; 3.13.2.2.2):

25 Hz; -12 dB/octave

GENERAL SPECIFICATIONS

Semiconductors: 30 transistors, 3 ICs, 12 diodes, 2 LEDs

Inputs: 2 Phono, Tuner, Auxiliary, 2 Tape recorders, EPL

Outputs: 2 Tape (buffered), 2 Line, EPL, Headphone Jack

Controls: Volume, Balance, Bass, Treble, Input Selector, Phono 1/2 Selector, Monitor Selector, Mono-Stereo, Filter, External Processor Loop, Tone Control Engage, Power

Intermodulation Distortion:

Both SMPTE and CCIF IMD at operating levels from phono input to line output are below the residual of currently available instrumentation

AC Supply Voltage: 100—130 and 200—260 VAC, 50/60 Hz

Power Consumption: 3.5 watts

AC Convenience Outlets:

3 switched, 5 amp continuous, 72 amp surge;

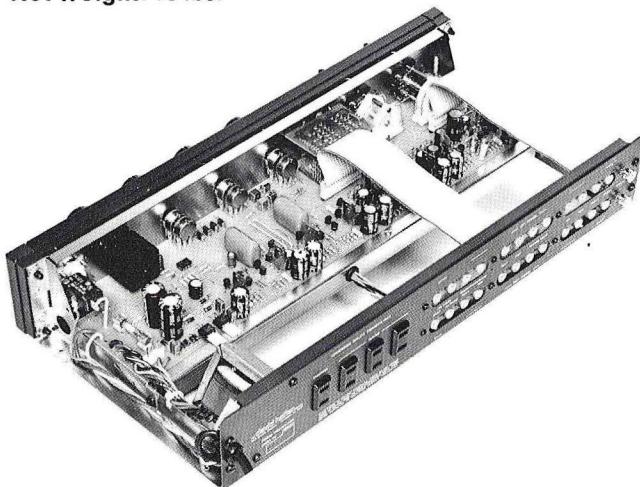
1 unswitched, 5 amp continuous

Size: 17" wide x 3" high x 8½" deep

19" rack mounting accessories included

Shipping Weight: 12.5 lbs.

Net Weight: 10 lbs.



THE **DAVID HAFLER** COMPANY

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