HR824 MK2 Specifications

Enclosure

Materials and Construction:
¾-inch (19 mm) thick MDF cabinet construction with internal bracing to add to cabinet stiffness.

Piano-black gloss finish.

Die-cast aluminum exponential wave guide for controlled, wide dispersion from high-frequency driver and Zero Edge Baffle™ to minimize diffraction around the cabinet edges.

Open cell adiabatic “foam fill” acoustical damping material absorbs internal reflections, preventing delayed sound coloration.

Flush-mount connector system allows monitor to be placed against a wall without need for connector clearance.

Transducers

Low-frequency driver:
Diameter: 8.75 inches (222mm)
Sensitivity (2.83V, 1 m): 91 dB SPL
Nominal Impedance: 4 ohms
Voice Coil Diameter: 1.6 inches (40 mm)
Frame: Die-cast magnesium
Magnet: Ferrite
Fully shielded: Ferrite opposing magnet

High-frequency driver:
Sensitivity (2.83V, 1m): 91 dB SPL
Nominal Impedance: 6 Ω
Power Handling (Long Term/Program): 20/50 watts
Frequency Range: 1.6 kHz to 22 kHz
Diaphragm/Suspension: Titanium with polymer suspension
Voice Coil Diameter: 1.0 inch (25.4 mm)
Magnet: Neodymium
Bucking Magnet: Ferrite opposing magnet

Passive Radiator:
6-inch x 12-inch (152mm x 305mm) mass-loaded elliptical flat piston with variable thickness filleted edge rubber surround.

Crossover Section

Crossover Type: Modified Linkwitz-Riley, 24 dB/octave @ 1900 Hz

Amplifier Section

Low-frequency power amplifier
Rated Power (at 1 kHz with 1% THD): 150 watts
Rated Load Impedance: 4 ohms
Burst Power Output: 350 watts
rated THD (1W to –1 dB of rated power): 0.1%
Slew Rate: 35V/µS
Distortion (THD, SMPTE IMD, DIM 100): < 0.035%
Signal-to-Noise (20 Hz-20 kHz, unweighted, referenced to 150W into 4Ω): > 102 dB
Cooling: Convection
Design: Class AB, Parametric Servo Feedback

High-frequency power amplifier
Rated Power (at 1 kHz with 1% THD): 100 watts
Rated Load Impedance: 6 ohms
Burst Power Output: 210 watts
Rated THD (1W to –1 dB of rated power): 0.1%
Slew Rate: 35V/µS
Distortion (THD, SMPTE IMD, DIM 100): < 0.035%
Signal-to-Noise (20 Hz-20 kHz, unweighted, referenced to 100 W into 6 ohms): > 102 dB
Cooling: Convection
Design: Conventional Class AB

System Specifications

Input Type: Balanced Differential (XLR and 1/4” TRS)
Unbalanced (RCA)
Input Impedance: 20 kΩ Balanced
10 kΩ Unbalanced
Input Protection: RFI and Level Protected
Maximum Input Level: +20 dBu
Low Frequency Filter:
–3 dB @ 37 Hz, 2nd-order transitional high-pass filter
–3 dB @ 47 Hz, 4th-order Chebyshev high-pass filter
–3 dB @ 80 Hz, 4th-order Butterworth high-pass filter
HF Equalization: ±2 dB @ 10 kHz, shelving
Acoustic Space:
A position: –4 dB @ 50 Hz, shelving
B position: –2 dB @ 50 Hz, shelving
C position: Flat
Compressor:
Independent high and low frequency overload detection
Low Line Voltage Shut Down: 60% of Nominal Line
Thermal Protection: Amplifier Shut-Down, Auto Reset
Muting: 5 seconds at turn-on
Driver Protection: Independent LF and HF Detection
Overall Compression
**Acoustic Section**

Free-Field Frequency Response:
- ±1.5 dB, 37 Hz to 20 kHz
- Lower cutoff frequency: -3 dB @ 35 Hz
- Upper cutoff frequency: -3 dB @ 22 kHz
- Sound Pressure Level at 1 meter:
  - ~7.5 dBu into balanced input: 100 dB SPL @ 1m
- Maximum peak SPL per pair: 120 dB SPL @ 1m
- Maximum short term SPL on axis:
  - half space 80 Hz to 2.5 kHz: 111 dB SPL @ 1m
- Residual noise (maximum gain, 600Ω source, 20 Hz-20 kHz bandwidth): < 8 dB SPL @ 1m

**Rated Line Input Voltage and Power:**

- Power consumption: 8 watts
- Standby mode: 18 watts
- Musical Program, Loud mix: 135 watts
- US: 120 VAC, 60 Hz
- Europe: 240 VAC, 50 Hz
- Korea: 220 VAC, 60 Hz
- Japan: 100 V, 50-60 Hz
- Rated Power (For UL-6500, CSA-E65-94, EN-60065): 150 watts

**Physical Properties**

- Height: 16.8 in/42.5 cm
- Width: 10.8 in/27.3 cm
- Depth Enclosure: 11.4 in/29.0 cm
- Depth Overall: 13.8 in/35.1 cm
- Weight: 34.6 lb/15.7 kg

LOUD Technologies is always striving to improve our products by incorporating new and improved materials, components and manufacturing methods. Therefore, we reserve the right to change these specifications at any time without notice.
The following are trademarks or registered trademarks of LOUD Technologies Inc.: The Mackie logo, HR Series, Zero Edge Baffle, and the Running Man.

THX and pm3 are trademarks of THX Ltd. which may be registered in some jurisdictions. All rights reserved.

Lucasfilm is a trademark of Lucasfilm Ltd.

This manual also contains names and marks of other companies which belong to those respective companies, and are hereby acknowledged.

HR824 MK2 design protected under the following patent: DES. 387,351

©2007 LOUD Technologies Inc. All Rights Reserved.