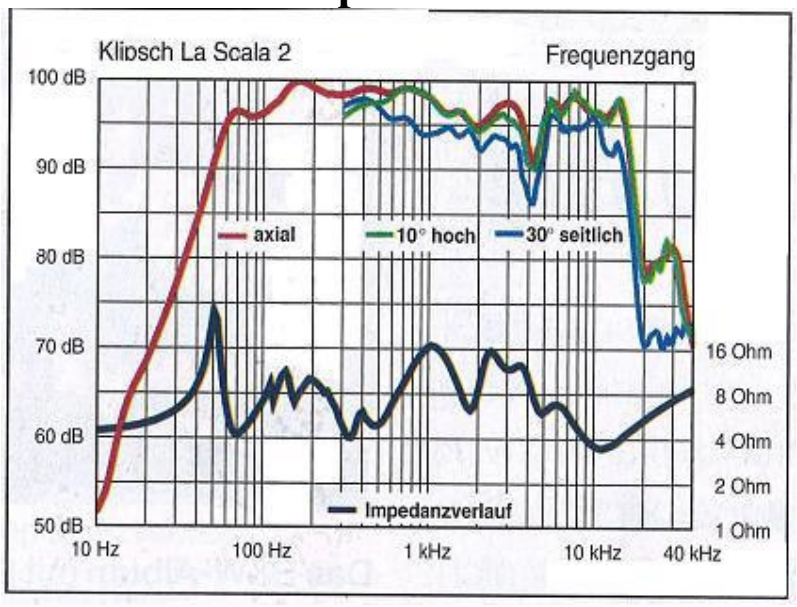
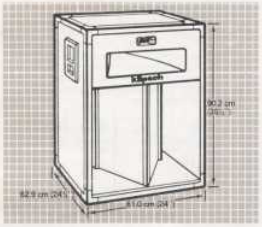
Klipsh Scala



A LEGEND IN SOUND®

klipsch la scala



industrial loudspeaker systems

The KLIPSCH LASCALA is a fully horn-loaded three-way system exhibiting high efficiency and minimal distortion. Its well-designed horns, with their low diaphragm excursion and remarkable efficiency, provide the effortless, clean sound that is characteristic of all Klipsch loudspeaker systems.

SPECIFICATIONS:

(Measured in a room of approximately 1000 ft³ except as noted.)

Total Modulation Distortion
3.0% Maximum at 110 dB at 3 meters
(70 Hz and 400 Hz mixed for equal output under free-space conditions)

Frequency Response
60 Hz — 17,000 Hz ± 5 dB
(Measured outdoors at 10 meters, 1 meter above the ground plane)
42 Hz — 17,000 Hz ± 5 dB
(Measured indoors)

Sound Pressure Level
(Nominal Impedance Assumed. SPL is 20 μPa. Measured under free-space conditions at a distance of three meters.)
1 Watt input: 96 dB SPL
200 Watts input: 119 dB SPL

Acoustic Power Output (maximum)
Low-frequency 15 acoustic watts (150 Hz)
Mid-frequency 5 acoustic watts (1,000 Hz)
High-frequency 0.4 acoustic watt (8,000 Hz)

Electrical Power Input (maximum continuous)
Broadband program: 200 watts
(Equal energy per octave, 40 Hz to 10 kHz)
Signal peaks as high as 10 dB above stated continuous maximum power input ratings are permitted with the provision that the power averaged over one second intervals must not exceed the stated limits. (Nominal 8 ohm impedance assumed.)

Nominal Average Beamwidth
100° Horizontal
54° Vertical

Nominal Directivity Factor and Index
R_H = 20 (also known as "Q")
D_I = 13 (D_I = 10 log R_H)
(The average of coverage angles from 250 Hz to 10 kHz in one-third octave bands is given as the nominal beamwidth value and is defined by points where the sound pressure level is 6 dB below the axial level at a distance of three meters. Measurements were made outdoors near a ground plane; the absence of which would be reflected in generally broader vertical angles of coverage.) See Figures 1 and 2.

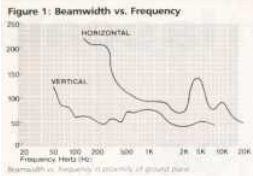
Drive Components
Woofer: One KLIPSCH 15" K-43 Low frequency Driver
Midrange: One KLIPSCH 0.7" K-55 (K-400 Horn)
Tweeter: One KLIPSCH K-77 Horn Tweeter

Crossover
The Type AA Crossover Network balances the system response. Nominal crossover frequencies are 400 Hz and 6 kHz.

Woofer: 6 dB/octave rolloff above 400 Hz
Midrange: 6 dB/octave rolloff below 400 Hz and 3 dB attenuation provided by voltage transformation
Tweeter: 18 dB/octave rolloff below 6 kHz with zener diode protection

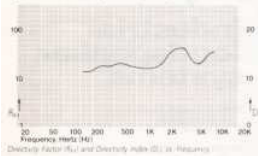
Impedance
Nominal: 8 ohms
Minimum: 4.9 ohms at 90 Hz
See Figure 3

Figure 1: Beamwidth vs. Frequency



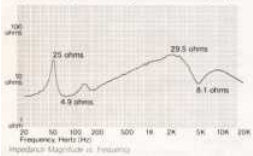
Beamwidth vs. Frequency in proximity of ground plane.

Figure 2: Directivity vs. Frequency



Directivity Factor (R_H) and Directivity Index (D_I) vs. Frequency.

Figure 3: Impedance Magnitude vs. Frequency

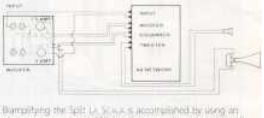


Impedance Magnitude vs. Frequency

CABINETS
The Industrial KLIPSCH LA SCALA (LSI) version is available in a number of road-ready finishes: "textured black paint (-BB), textured black paint with aluminum trim and die-cast corner protectors (-BT), and covered with T-5 oil fiberglass and aluminum trim (-BG).

A recessed connector panel provides "double banana" five-way binding posts for easy hook-up. The system is electrically protected by a .3 amp fast blow fuse.

The Industrial KLIPSCH LA SCALA (LSI) is offered in a "split" version, designated in each finish by an added "S". The woofer (LF) section and squawker-tweeter (HF) section are also available individually. In a normal stacking configuration, the specifications are essentially unchanged. Spatial separation or unequal numbers of bass and treble sections will obviously alter directivity, impedance and frequency response characteristics. The HF section incorporates a passive crossover network with 3 amp fast blow fuse for woofer protection, 1.5 amp fast blow fuse for midrange protection, and zener diode circuitry for prevention of tweeter overload.



Biamplifying the Split LA SCALA is accomplished by using an electronic crossover at 400 Hz. Crossover slope should be 18 dB per octave on both low pass and high pass filters. Maximum broadband program power is 150 watts for the low-frequency and 50 watts for the high-frequency section.

Dimensions and Weight: *(Dimensions for "BG" finish)*

	Height	Depth
LSI-BG	90.2cm 35½"	62.9cm 24¾"
LSI-BG-HF	30.2cm 11¾"	62.9cm 24¾"
LSI-BG-LF	63.8cm 25¼"	62.9cm 24¾"

	Width (front, rear)	Net Wt.
LSI-BG	61.0cm 24"	68.5kg 151lbs
LSI-BG-HF	61.0cm 12.7cm 24", 5"	24.0kg 53lbs
LSI-BG-LF	61.0cm 24"	48.5kg 107lbs

Power Handling
The officially accepted power test procedure for low-frequency drivers is described in the EIA RS-426 Standard. This 8-hour test uses white noise that has been filtered to obtain 6 dB/octave slopes below 40 Hz and above 318 Hz. After extensive experience with this test, we have found that, while its thermal properties are adequate, white noise's mechanical stresses do not cause the fatigue associated with today's professional sound requirements.

However, at a given voltage level (PWR = V^2/Z), a broadband pink noise signal will result in substantially quicker mechanical fatigue than obtained by EIA noise. Also, these types of failures more closely match those experienced in today's professional installations (cone tear, rim fatigue, voice coil former tear, epoxy failure, etc.). For this reason, combined with the fact that our drivers have dramatically increased thermal properties, we have rated our loudspeaker drivers based upon pink noise power testing.

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