

18 KL 1851 SUB

SWETON®



The **18 KL 1851 SUB** represents a new benchmark in high-performance subwoofers, purpose-built for professionals who demand deep, distortion-free bass with brutal impact and outstanding reliability. Engineered around a 5.12-inch voice coil and capable of handling a massive 2000W AES power, this driver is ideal for extreme SPL applications while remaining cost-efficient and compact.

The frequency response graph shows a strong and controlled output between 45 Hz to 500 Hz, with a relatively flat and musical response between 50 Hz to 200 Hz, making it an excellent choice for tight low-end reinforcement without unwanted boominess.

The Klippel Analyzer System confirms the driver's exceptional linearity and durability, with ensuring mechanical stability even under demanding loads. The BI product of 32.88 N/A and a moving mass of 312.8g strike the perfect balance for both SPL and transient response.

Recommended Enclosure Designs:

Enclosure Type	Volume (Net)	Port Size (Dia x Length)	Tuning Frequency
Vented Reflex	115–125 L	Ø150 mm x 150 mm (single)	38–42 Hz
4th Order Bandpass	Front: 40 L, Rear: 80 L	Dual Ø100 mm 200 mm	Tuned at 40 Hz
6th Order Bandpass*	Front: 30 L@75Hz, Rear: 100L@35Hz	Custom ports	Extreme SPL use

Bandpass enclosures are technically feasible and recommended for extreme performance applications like DJ rigs and processions.

Crossover Recommendations:

Type	HPF	LPF
Subwoofer	30–35 Hz (24 dB/oct)	90–120 Hz (24 dB/oct)

- Recommended crossover point for pairing with mid-bass drivers: 90 Hz
- Works best with digital crossover/DSP for fine-tuning phase and slope alignment.

Applications:

- High SPL Subwoofer Systems
- Outdoor DJ and Roadshow Setups
- Procession Rigs & PA Systems
- Festivals and Open-Air Events
- Cinema Subwoofer Arrays
- Ideal for use in 4th/6th order bandpass designs where loudness + reliability are key.

Why Choose 18 KL 1851 SUB?

- **Massive Power Handling** – 2000W AES rating ensures performance under intense gigs.
- **Deep Controlled Bass** – Tight response up to 500 Hz with optimized damping.
- **Extreme Durability** – Backed by rigorous Klippel validation for mechanical & thermal stability.
- **Cost-Effective Engineering** – Designed to deliver premium performance with affordability in mind.
- **Flexibility in Enclosure Options** – Reflex, 4th and 6th order bandpass configurations supported.
- **High Efficiency (η_0)** – At 1.66%, this driver delivers more SPL per watt, reducing the amplifier load.

SPECIFICATIONS & PARAMETERS

Specifications

Nominal Diameter	464 mm
Nominal Impedance	8 Ω
Nominal Power Handling (AES)	2000 W
Program Power	4000 W
Sensitivity (1W/1m)	94 dB
Frequency Range	45-1500 Hz
Magnet Material	Ferrite
Voice Coil Diameter	130 mm (5.12 in)
Winding Material	COPPER
Former Material	GLASS FIBRE
Winding Type	In/Out

Mounting Info

Overall Diameter	490 mm
Bolt Circle Diameter	470 mm
Baffle Cutout Diameter	410 mm
Depth	190 mm
Flange and Gasket Thickness	17 mm
Gross Weight	26 Kgs

Parameters

Resonant Frequency	Fs	45 Hz
DC Resistance	Re	5.57 Ω
Electrical Q	Qes	0.45
Mechanical Q	Qms	18.82
Total Q	Qts	0.44
Compliance Equivalent Volume	Vas	87.56 Ltrs
Peak Diaphragm Displacement Volume	Vd	1.26 Ltrs
Effective Surface Area of Cone	Sd	1237.86 cm ²
Reference Efficiency	η_0	1.66%
Moving Mass including air load	Mms	312.80 gms
Motor Strength	Bl	32.88 T-m
Voice Coil Inductance	Le	1.31 mH
Efficiency Bandwidth Product	EBP	100 Hz
Voice Coil Overhang	Xmax	± 10.15 mm

Recone Kit

Recone Kit Number	REC18KL1851SUB
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Z(f,x=0) Impedance

