

18 KL 1860 SUB

SWETON®



Introducing the **18 KL 1860 SUB**, the flagship model of our next-generation KL Series. Engineered with precision, this 18-inch subwoofer is equipped with a massive 6-inch voice coil, pushing the boundaries of power handling and thermal resilience. Designed for professionals demanding ultra-high output, tight low-end response, and robust reliability, the 18 KL 1860 is ideal for large-scale concerts, DJ setups, processions, and touring systems.

With an AES power rating of 2500 watts, it delivers monumental energy handling while maintaining excellent thermal control, thanks to its advanced Klippel-verified motor and suspension design.

Despite a higher free-air resonance frequency (F_s) of 57Hz, this subwoofer performs exceptionally in real-world sub-bass applications. This is made possible by a high moving mass ($M_{ms} = 365$ g) and strong motor force ($BL = 38$ N/A), allowing it to extend well below F_s once loaded into an appropriately tuned enclosure. The ported or bandpass cabinet shifts the effective system resonance downward, enabling powerful output in the 35–90

Hz range—exactly where deep bass is needed. High F_s also ensures better transient response, crucial for punchy low-end performance in outdoor and high-SPL applications.

Recommended Enclosure Designs:

Type	Volume (Net)	Port Size (Dia × Length)	Tuning Frequency
Vented (Standard)	130–150 litres	Ø160 mm × 220 mm	~38 Hz
Horn-Loaded	Possible (Long throat with flare rate matched to F_s)		
6th Order Bandpass	Front chamber: 40 L, Rear chamber: 80 L (Tuned to 36–80 Hz)	Dual ported	
Sealed (Optional)	80–100 litres	–	N/A

Recommended Crossover Points:

Filter Type	Frequency Range	Slope
Low Pass	80–120 Hz	24 dB/oct
High Pass	30–40 Hz (subsonic)	18–24 dB/oct

Applications:

- Touring PA Systems
- DJ Subwoofer Rigs
- Processions and Mobile Events
- Outdoor Bass Reinforcement
- Large Venue Sound Reinforcement.

Why Choose the 18 KL 1860 SUB?

- **Uncompromised Power:** True 2500W AES rating ensures you can run harder and louder for longer.
- **6-Inch Voice Coil:** Offers immense heat dissipation, reducing risk of coil burnout during extended play.
- **High X_{max} + High V_d :** Nearly 1 litre of air displaced with every stroke ensures thundering bass.
- **Stiff Suspension + BL Control:** Maintains cone stability even under brutal loads.
- **Ideal for Outdoor Use:** High Qms and reinforced suspension make it perfect for processions, DJ events, and public address applications.
- **Klippel Certified Quality:** Backed by precise Klippel analysis for distortion, thermal behaviour, and compliance decay limits.

SPECIFICATIONS & PARAMETERS

Specifications

Nominal Diameter	490 mm
Nominal Impedance	8 Ω
Nominal Power Handling (AES)	2500 W
Program Power	5000 W
Sensitivity (1W/1m)	94 dB
Frequency Range	50-2000 Hz
Magnet Material	Ferrite
Voice Coil Diameter	152 mm (6.0 in)
Winding Material	COPPER
Former Material	GLASS FIBRE
Winding Type	In/Out

Mounting Info

Overall Diameter	490 mm
Bolt Circle Diameter	472 mm
Baffle Cutout Diameter	422 mm
Depth	195 mm
Flange and Gasket Thickness	17 mm
Gross Weight	47 Kgs

Parameters

Resonant Frequency	Fs	57 Hz
DC Resistance	Re	5.86 Ω
Electrical Q	Qes	0.53
Mechanical Q	Qms	18.49
Total Q	Qts	0.52
Compliance Equivalent Volume	Vas	45.67 Ltrs
Peak Diaphragm Displacement Volume	Vd	0.95 Ltrs
Effective Surface Area of Cone	Sd	1237.86 cm ²
Reference Efficiency	η_0	1.54%
Moving Mass including air load	Mms	365.00 gms
Motor Strength	Bl	38.0 T-m
Voice Coil Inductance	Le	1.20 mH
Efficiency Bandwidth Product	EBP	108 Hz
Voice Coil Overhang	Xmax	± 7.70 mm

Recone Kit

Recone Kit Number	REC18KL1860SUB
-------------------	----------------

Z(f,x=0) Impedance

