

Ultimate[®]

KW Subwoofers

KW1200

KW1000



Installation and Operation Guide

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I. Introduction

You have purchased a very sophisticated subwoofer manufactured by **Ultimate® Sound**. Founded in 1975, **Ultimate® Sound** makes speakers for every car audio application, speakers for marine environments, enclosed speaker systems, amplifiers, accessories and other products. Our tradition of leadership and innovation in the audio industry continues with innovative products like **KW Subwoofers**.

We recommend you have your new **KW Subwoofers** installed by a professional. Professional installation shops have the equipment to do the job correctly, and the experience to recommend the best mounting locations in your vehicle.

Please use your new **KW Subwoofers** responsibly. Very loud music can cause permanent hearing loss.

KW SUBWOOFERS FEATURE:

- **20mm one way Cone Travel-** For high output at the longer wave lengths of very low frequencies.
- **Kapton™ Voice Coil Former-** Higher power handling than aluminum voice coil formers.
- **4 Layer voice coil windings-** Keep more wire in the magnetic gap for more output.
- **Deep-draw Basket-** To accommodate the long excursion capability of the suspension and voice coil.
- **Cast Aluminum Basket-** Keeps the voice coil perfectly aligned even at extreme power levels and eliminates stray magnetic fields that waste power.
- **Butyl Rubber Surround-** Superior damping characteristics and will last longer than foam surrounds
- **Vented, extended pole piece-** Keeps the voice coil cool during long excursions at high power.
- **Perimeter Venting-** For additional air circulation and cooling.

II. Package Contents

- 1pc **KW Subwoofer**
- Instruction manual and warranty card.

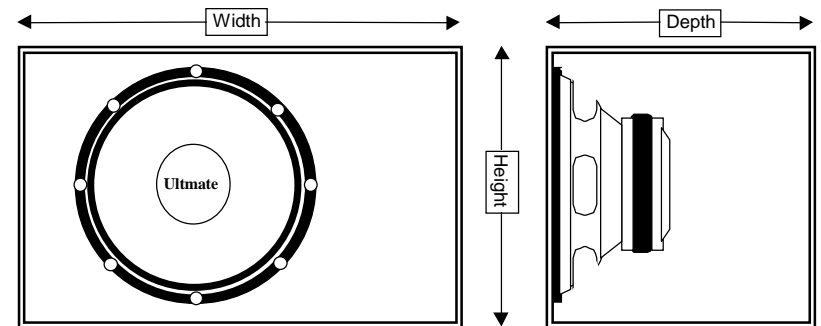
III. Specifications

Model	KW1200	KW1000
Size	12"/305mm	10"/254mm
Impedance	Dual 3Ω	Dual 3Ω
Frequency Response	20Hz- 350Hz	20Hz- 350Hz
Voice Coil	3"/ 75mm	3"/ 75mm
Magnet	Dual Stacked 220 oz.	Dual Stacked 220 oz.
Fs	20Hz	30Hz
Vas- ft ³ /Liter	1.34ft ³ / 37.91 Liters	0.51 ft ³ / 14.58 Liters
Xmax	20mm one way	20mm one way
Qts	0.32	0.41
Sensitivity	90dB	86dB
Power- RMS	1000 Watts	800 Watts
Power- MAX	2000 Watts	1600 Watts
Cone	Non Pressed Paper Fiber	Non Pressed Paper Fiber
Surround	Butyl	Butyl
Frame	Cast Aluminum	Cast Aluminum
Mounting Depth(In.)	7.25"	6.75"
Mounting Depth(mm)	184.15mm	171.45mm

IV. Installation- Sealed Enclosures

1. Sealed enclosures provide excellent performance with **KW Subwoofers**. They are the simplest enclosures to design and build. We recommend you choose a sealed design if you have not built subwoofer enclosures before. Remember to glue and screw all joints, using enough glue to make sure all joints are air tight. Loosely fill the enclosure with fiberglass, poly-fill, or cotton damping material.

Recommended Sealed Enclosures			
KW1200	Recommended Internal Volume	Driver Displacement	Total Internal Volume
Optimum	0.8ft ³ / 22.66L	0.16ft ³ / 4.53L	0.96ft ³ / 27.19L
Minimum	0.6ft ³ / 16.99L	0.16ft ³ / 4.53L	0.76ft ³ / 21.52L
KW1000			
Optimum	0.6ft ³ / 16.99L	0.1ft ³ / 2.83L	0.7ft ³ / 19.82L
Minimum	0.4ft ³ / 9.91L	0.1ft ³ / 2.83L	0.5ft ³ / 14.16L



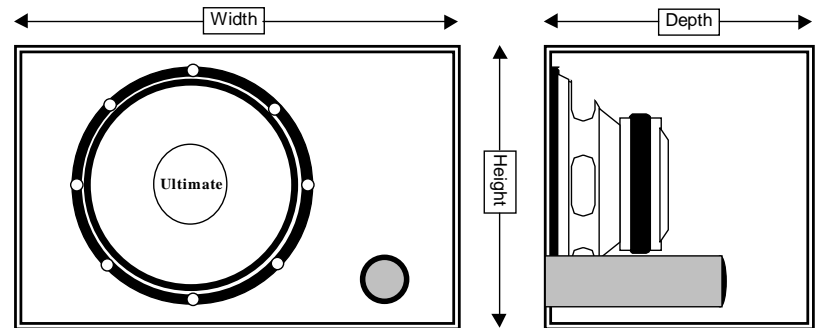
$$\text{Internal Volume(ft}^3\text{)} = \frac{(\text{in Inches})\text{Internal Width X Depth X Height}}{1728}$$

$$\text{Internal Volume(L)} = \frac{(\text{in Centimeters})\text{Internal Width X Depth X Height}}{1000}$$

V. Installation- Ported Enclosures

1. Ported enclosures use a tuned vent to get additional output at the tuning frequency. Smaller ports than recommended may cause noise from air turbulence. Flared ports will produce less turbulence and noise. Remember to glue and screw all joints, using enough glue to make sure all joints are air tight.
2. Make sure there is at least 2" between the end of the port and the adjacent wall of the enclosure.

Recommended Vented Enclosures	
Optimum Volume KW1200	
Volume	1.5ft ³ / 42.45L
Driver Displacement	0.16ft ³ / 4.53L
Port Displacement	0.118ft ³ /3.34L
Total Enclosure Volume	1.778ft ³ / 50.32L
Port Diameter	4"/101mm
Port Length	14"/355mm
Tuning	33Hz
F ₃	29Hz
Optimum Volume KW1000	
Volume	1.00ft ³ / 28.3L
Driver Displacement	0.1ft ³ /2.83L
Port Displacement	0.064ft ³ /1.81L
Total Enclosure Volume	1.164ft ³ / 32.94L
Port Diameter	3"/76mm
Port Length	13"/ 330mm
Tuning	32Hz
F ₃	27Hz



See the supplied warranty card for service information

Call 888-909-9988 for technical assistance.