



## U<sup>X</sup> Subwoofers

U<sup>X</sup>12

U<sup>X</sup>10



### 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 **U<sup>X</sup> Subwoofers**.

We recommend you have your new **U<sup>X</sup> 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 **U<sup>X</sup> Subwoofers** responsibly. Very loud music can cause permanent hearing loss.

### U<sup>X</sup> SUBWOOFER FEATURES:

- **Graphite Injected Cone-** for stiffness, strength, durability and stability during high power operation at extreme temperatures.
- **The Butyl Rubber Surround** has superior damping characteristics and will last longer than foam surrounds
- **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..
- **Vented, extended pole piece-** keeps the voice coil cool during long excursions at high power.
- **Bumped back plate-** makes sure the voice coil never bottoms out.

## II. Package Contents

- 1 **U<sup>X</sup> Subwoofer**
- Instruction manual and warranty card.

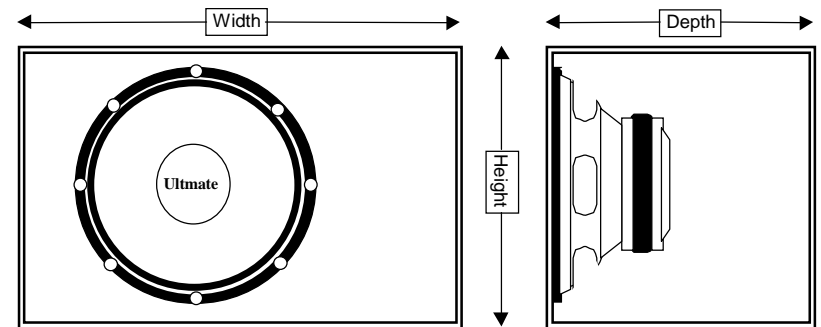
### III. Specifications

Model	U <sup>X</sup> 12	U <sup>X</sup> 10
Size	12"/305mm	10"/254mm
Impedance	4Ω	4Ω
Frequency Response	24Hz-500Hz	27Hz-800Hz
Fs	24.3Hz	29Hz
Vas- ft <sup>3</sup> /Liter	4.4ft <sup>3</sup> / 125.2 Liters	2.2ft <sup>3</sup> / 62.35 Liters
Xmax	0.3" / 7mm	0.3"/7mm
Qts	.45	.40
Sensitivity	90dB	89dB
Power-	300 Watts	200 Watts
Cone	Graphite injected	Graphite injected
Surround	Butyl	Butyl
Frame	Steel	Steel
Mounting Depth(In.)	5.12"	4.5"
Mounting Depth(mm)	130mm	114.3mm

## IV. Installation- Sealed Enclosures

- Sealed enclosures provide excellent performance with **U<sup>X</sup> 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			
U <sup>X</sup> 12	Recommended Internal Volume	Driver Displacement	Total Internal Volume
<b>Optimum</b>	<b>1.25ft<sup>3</sup>/35.38L</b>	<b>0.14ft<sup>3</sup>/4.08L</b>	<b>1.39ft<sup>3</sup>/39.46L</b>
<b>Minimum</b>	<b>1.00ft<sup>3</sup>/28.32L</b>	<b>0.14ft<sup>3</sup>/4.08L</b>	<b>1.14ft<sup>3</sup>/32.40L</b>
U <sup>X</sup> 10	Recommended Internal Volume	Driver Displacement	Total Internal Volume
<b>Optimum</b>	<b>1.00ft<sup>3</sup>/28.32L</b>	<b>0.08ft<sup>3</sup>/2.27L</b>	<b>1.08ft<sup>3</sup>/30.59L</b>
<b>Minimum</b>	<b>0.75ft<sup>3</sup>/21.24L</b>	<b>0.08ft<sup>3</sup>/2.27L</b>	<b>0.83ft<sup>3</sup>/23.51L</b>

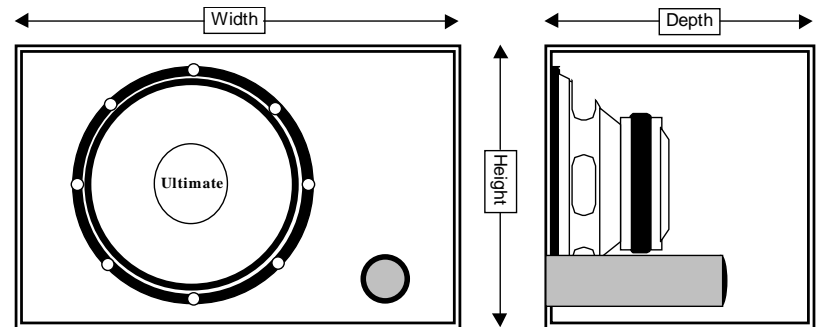


$\text{Internal Volume(ft}^3\text{)} = \frac{(\text{in Inches})\text{Internal Width X Depth X Height}}{1728}$ $\text{Internal Volume(L)} = \frac{(\text{in Centimeters})\text{Internal Width X Depth X Height}}{1000}$
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## V. Installation- Ported Enclosures

- 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.
- Make sure there is at least 2" between the end of the port and the adjacent wall of the enclosure.

Recommended Vented Enclosures	
U <sup>X</sup> 12	
Volume	2.00ft <sup>3</sup> / 56.6L
Driver Displacement	0.14ft <sup>3</sup> / 4.0L
Port Displacement	0.05ft <sup>3</sup> /1.42L
Total Enclosure Volume	2.19ft <sup>3</sup> /62.02L
Port Diameter	3"/76mm
Port Length	10.5"/265.65mm
Tuning	27Hz
F <sub>3</sub>	34Hz
U <sup>X</sup> 10	
Volume	1.35ft <sup>3</sup> / 38.21L
Driver Displacement	0.08ft <sup>3</sup> /2.27L
Port Displacement	0.06ft <sup>3</sup> /.85L
Total Enclosure Volume	1.49ft <sup>3</sup> / 41.33L
Port Diameter	3"/76mm
Port Length	11"/ 278mm
Tuning	33Hz
F <sub>3</sub>	36Hz



See the supplied warranty card for service information

Call 888-909-9988 for technical assistance.