HIFONICS®
CAR AUDIO
POWER FROM THE GODS

ZEUS

SUBWOOFERS

HIFONICS

ZEUS SERIES
CAR AUDIO SUBWOOFERS

Congratulations on your purchase of the new Hifonics ZEUS Series subwoofer system. The ZW12D4 subwoofer brings big bass at an affordable price!

- **12” Round Subwoofer**
- **Rigid Polypropylene Cone & Dust Cap**
- **Blue Foam Surround**
- **Blue Nomex Spider**
- **Stamp Steel Frame**
- **1.5” High Temp Voice Coil**
- **DVC 4-Ohm**
- **Spade Style Speaker Terminals**
- **27 oz Vented Motor**
- **Protective Rubber Magnet Wrap**
- **Operates In Sealed & Ported Enclosures**

As with all high quality car audio products, we recommend professional installation by an authorized Hifonics dealer. Your dealers knowledge and experience can ensure a problem free and cosmetically integrated installation.
If you choose to install the subwoofers yourself, please read the entire manual very carefully.

SUBWOOFER INSTALLATION DIRECTIONS

Enclosure Materials

Typically, 5/8" or 3/4" MDF (Medium Density Fiber Board) is best for most applications. 3/4" MDF is recommended.

Enclosure Build Materials

Connecting joints need to be glued and screwed to ensure no air escapes and joints do not separate under high pressure. Mitered and rabbit joints also help to ensure the enclosure joints are secure.

Bracing

Internal bracing is also recommended to prevent flexing and to strengthen the enclosure.
Note: The volume taken up by the bracing should be added to the total enclosure interior volume.
There are two common bracing methods.
1. Corner Bracing: These help prevent the connection joints from separating under heavy vibration and air pressure.
Use 1" x 1" MDF at all interior joints
2. Diagonal Bracing: These internal braces connect the top side to the bottom side as well front side to back side. This prevents the wood from bowing or pushing outwards.
Use 1" x 2" with 1" surface contact that is glued and screwed.

HIFONICS ZEUS SERIES SUBWOOFERS

Parameters	ZW12D4	
Wiring	Series	Coils
NomZ	8.172	Ohm
Sd	0.0499	sqM
Revc	6.81	Ohm
BL	9.88	TxM
Vas	108.3	Liter
Cms	306.4	uM/N
Mms	112.5	Grams
Fs	27.14	Hz
Qms	5.9	
Qes	1.34	
Qts	1.09	
no	0.156	%
SPL@1W	83.95	dB
Xmax	6.7	mm
Rms	300	Watts
Maxx	600	Watts
CLOSED BOX DESIGNS (SEALED)		
Standard		
Box Volume	1	Cubic Feet
Qtc	2.207	
F3	41	Hz
VENTED BOX DESIGNS (ROUND PORT)		
Standard		
Box Volume	1.5	Cubic Feet
Fb	40	Hz
Port Size (inside diameter)	3	Inches
Port Length	6.25	Inches
F3	39	Hz

FEATURES ARE SUBJECT TO CHANGE WITHOUT NOTICE

NOTE: All above box volumes are internal values and already include subwoofer and port displacement.

The F3 value represents the -3db cut off of the enclosure in Hz.

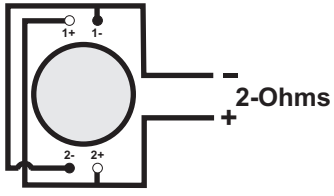
Polyfill may be added to sealed enclosures to reach the desired Q-Value.

Glossary of Terms

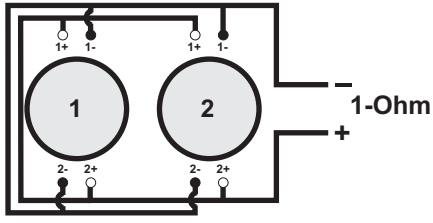
Q The energy losses of relative damping (ratio of stored to dissipated energy or ratio of reactive to resistive energy).
Fs Free air resonance of driver in Hz.
Qms Mechanical Q.
Vas Volume of air equivalent to driver from the rest position.
Cms Mechanical compliance of a loud speaker piston.
Mms Moving mass of total loud speaker piston assembly.
Xmax The maximum linear excursion of a loud speaker.
Sd Surface area of the cone.
Dia The piston diameter of a loud speaker.
Qes Electrical Q of a system.
Re DC resistance.
Le VC inductance.
Pe Maximum input power.
Qts Total Q of the system.
Sens Sensitivity. An efficiency measurement in dB's.
Vc Volume of a closed or sealed enclosure
Vb Volume of a vented enclosure.
Fc The resonant frequency of a closed or sealed system
Fb The resonant frequency of a vented system
F3 The half-power (-3dB) frequency of a loud speaker enclosure
Qtc The Q of a loud speaker at Fc in a closed box, considering both it's electrical and mechanical resistance.
QL The Q of a vented box, resulting from all box losses.
DV Diameter of vent.
LV Length of vent.
H Height.
W Width.
D Depth

DVC 4-Ohm Coil Wiring

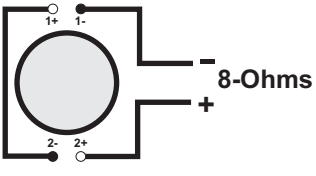
PARALLEL COILS



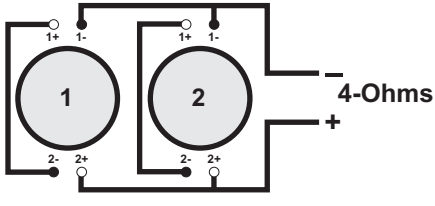
PARALLEL COILS / PARALLEL SUBS



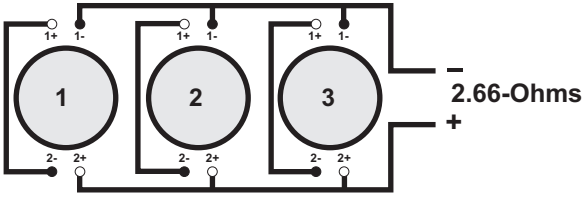
SERIES COILS



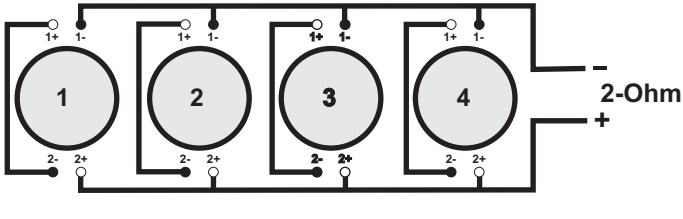
SERIES COILS / PARALLEL SUBS



SERIES COILS / PARALLEL SUBS



SERIES COILS / PARALLEL SUBS



Subwoofer Dimensions