

HIFONICS®
C A R A U D I O
POWER FROM THE GODS

MT OLYMPUS

SUBWOOFERS

OLM800D2 / OLM800D4
OLM1600D2

H I F N I C S

MT OLYMPUS SERIES CAR AUDIO SUBWOOFERS

Congratulations on your purchase of the new Hifonics MT OLYMPUS Series High Power subwoofer system. The MT OLYMPUS subwoofer series offer superior sonic accuracy, intense high power sound quality with exotic build materials and outstanding good looks. These subwoofers are ideal for high power listening levels.

OLM800D2 / OLM800D4:

- One-Piece Pressed Paper Cone/Dustcap
- High Roll Santoprene Rubber Surround
- Reinforced Cone-Neck Joint
- Optimally Spaced Dual Spider Design
- Ultra Ridged Aluminum Die Cast Basket w/Polished Grey Finish
- Nickel Plated Push & Insert Speaker Terminals
- 2.5" High-Temp Voice Coil on an Aluminum Former
- 85oz High Energy Magnet
- Heat Dispersing Ported Back Plate

OLM1600D2:

- One-Piece Pressed Paper Cone/Dustcap
- Uniquely Designed Foam Surround
- Reinforced Cone-Neck Joint
- Optimally Spaced Dual Spider Design
- Ultra Ridged Aluminum Die Cast Basket w/Polished Grey Finish
- Nickel Plated Push & Insert Speaker Terminals
- 3" High-Temp Voice Coil on an Aluminum Former
- 182oz High Energy Magnet
- Heat Dispersing Ported Back Plate

As with all high quality car audio products, we recommend professional installation by an authorised 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.

**Check out our videos of new products, events and technical tutorials at
www.youtube.com/maxxsonicsusainc**

SUBWOOFER INSTALLATION AND WIRING 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.

Wiring

Wiring Parallel, Series or Parallel/Series will affect the final impedance at the amp and great care must be taken to ensure the amp is not driven below its intended impedance capabilities.

MT OLYMPUS SERIES

ELECTRICAL	OLM800D2	OLM800D4	OLM1600D2	
WIRING	Series	Series	Series	
NomZ	4.56	8.64	3.852	Ohm
Sd	0.0452	0.0452	0.0452	sqM
Revc	3.8	7.2	3.21	Ohm
BL	17.27	22.04	17.08	TxM
Vas	35.72	40.95	26.54	Liters
Cms	122.91	140.9	91.34	uM/N
Mms	242.73	205.83	291.4	Grams
Fo	29.14	29.55	30.86	Hz
Qms	8.404	7.177	5.5	
Qes	0.566	0.566	0.62	
Qts	0.53	0.525	0.56	
no	0.1506	0.18	0.121	%
SPL@1W	83.8	84.6	82.86	dB
SPL@2.83W	87.03	85.16	86.95	dB
Xmax/Over Hang	15	15	19.5	mm
Xmech/Suspension	25	25	33.5	mm
RMS	800	800	1600	Watts
PEAK	1600	1600	3200	Watts

CLOSED BOX DESIGNS (SEALED)

Standard Tight Bass-Small Box

Box Volume	1	1	1.25	Cubic Feet
Qtc	0.783	0.806	0.723	
F3	40	42	40	Hz

VENTED BOX DESIGNS (SLOT PORT)

Standard Tight Bass-Small Box

Box Volume	2	2	2.25	Cubic Feet
Fb	45	45	45	Hz
Slot Port (Height x Width)	12.5 x 1.75	12.5 x 1.75	12.5 x 2.25	Inches
Port Length	18.25	18.25	23	Inches
F3	35	35	34	Hz

Optimal Sound Quality-Flat Response

Box Volume	2.5	2.5	2.75	Cubic Feet
Fb	43	43	45	Hz
Slot Port (Height x Width)	12.5 x 2.5	12.5 x 2.5	12.5 x 2.75	Inches
Port Length	27	27	20	Inches
F3	33	34	34	Hz

SPL Design-Not For Daily Music

Box Volume	2.5	2.5	2.75	Cubic Feet
Fb	50	50	50	Hz
Slot Port (Height x Width)	12.5 x 3	12.5 x 3	12.5 x 3.5	Inches
Port Length	21	21	24	Inches
F3	37	38	37	Hz

FEATURES ARE SUBJECT TO CHANGE WITHOUT NOTICE

NOTE: All above box designs already account for subwoofer and port displacement.

Volume listed represents the volume of an empty box using 3/4" MDF.

Helpful Tips: Length x Width x Height = Volume

1 Cubic Foot = 1728 Cubic Inches

Example: 14" Tall x 14" Wide x 18" Deep = 3528 Cubic Inches

3528 / 1728 = 2.04 Cubic Feet

Some port lengths may require an 'L' shape to obtain the required length stated above.

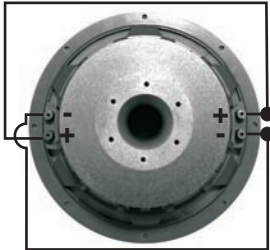
The F3 value represents the -3db cut off of the sub-enclosure combination in Hz.

Glossary of Terms

- Q The energy losses of relative damping (ratio of stored to dissipated energy or ratio of reactive to resistive energy).
- F_s Free air resonance of driver in Hz.
- Q_{ms} Mechanical Q.
- V_{as} Volume of air equivalent to driver from the rest position.
- C_{ms} Mechanical compliance of a loud speaker piston.
- M_{ms} Moving mass of total loud speaker piston assembly.
- X_{max} The maximum linear excursion of a loud speaker.
- S_d Surface area of the cone.
- D_{ia} The piston diameter of a loud speaker.
- Q_{es} Electrical Q of a system.
- R_e DC resistance.
- L_e VC inductance.
- P_e Maximum input power.
- Q_{ts} Total Q of the system.
- S_{ens} Sensitivity. An efficiency measurement in dB's.
- V_c Volume of a closed or sealed enclosure
- V_b Volume of a vented enclosure.
- F_c The resonant frequency of a closed or sealed system
- F_b The resonant frequency of a vented system
- F₃ The half-power (-3dB) frequency of a loud speaker enclosure
- Q_{tc} The Q of a loud speaker at F_c in a closed box, considering both it's electrical and mechanical resistance.
- Q_L The Q of a vented box, resulting from all box losses.
- D_V Diameter of vent.
- L_V Length of vent.
- H Height.
- W Width.
- D Depth

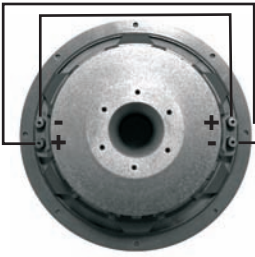
**OLM800D2 / OLM1600D2
DVC 2-Ohms**

PARALLEL



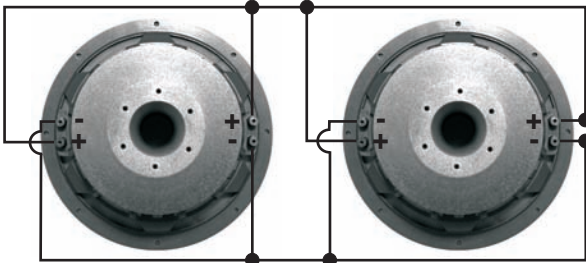
$\pm 1\text{-Ohm}$

SERIES



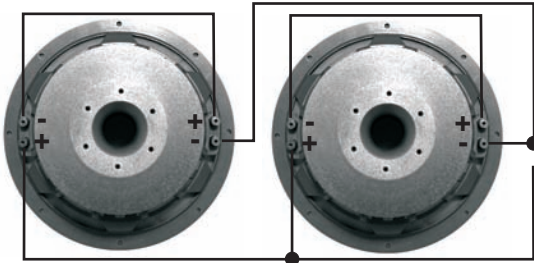
$\pm 4\text{-Ohms}$

PARALLEL COILS / PARALLEL SUBS



$\pm .5\text{-Ohms}$

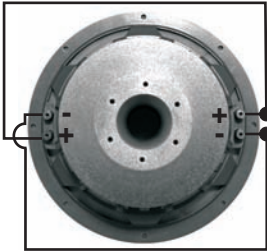
SERIES COILS / PARALLEL SUBS



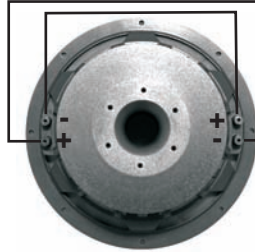
$\pm 2\text{-Ohms}$

**OLM800D4
DVC 4-Ohms**

PARALLEL

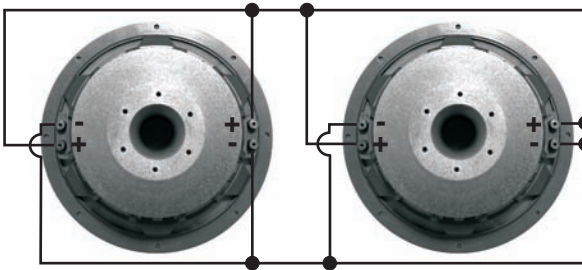


SERIES



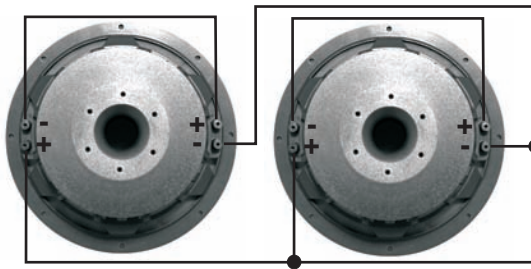
±2-Ohms **±8-Ohms**

PARALLEL COILS / PARALLEL SUBS



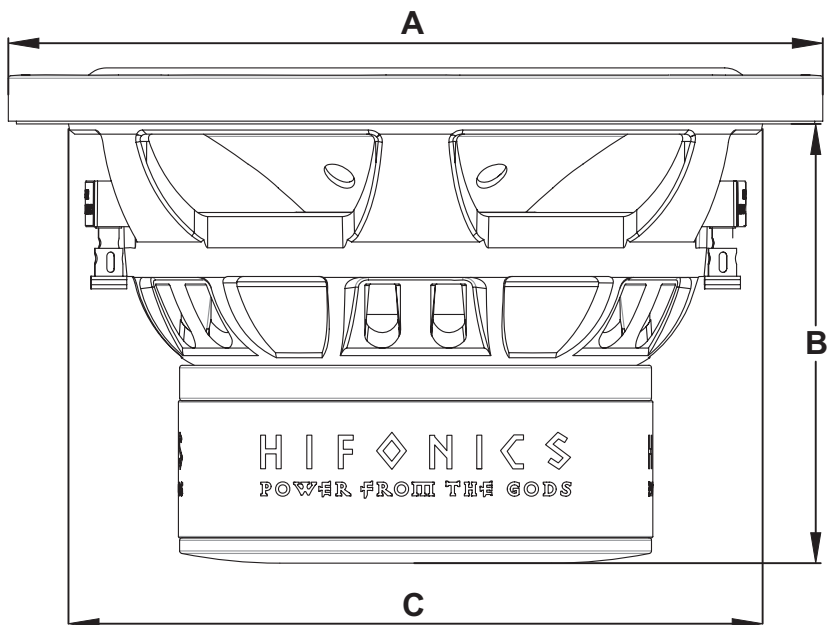
±1-Ohm

SERIES COILS / PARALLEL SUBS



±4-Ohms

MT Olympus Series Subwoofer Dimensions



MODEL	A Outside Diameter	B Mounting Depth	C Cutout Diameter
OLM800D2	12.64"	6.03"	10.77"
OLM800D4	12.64"	6.03"	10.77"
OLM1600D2	12.64"	6.82"	10.77"

NOTE: There must be atleast 2" of clearance from the back of the subwoofer to the enclousre.

Maxxsonics Limited Warranty

As the manufacturer of Maxxsonics, MB Quart, Autotek, Crunch and Hifonics car audi products, Maxxsonics USA Inc. Warrants to the original consumer purchaser the amplifier to be free from defects in material and workmanship for one (1) Year from date of purchase.

All other parts and accessories of the system are warranted to be free from defects in material and workmanship for one (1) year from date of purchase. Maxxsonics will repair or replace at it's option and free of charge during the warranty period, any system component that proves defective in materials and workmanship under normal installation, use and service provided that the product is returned to the authorized Maxxsonics dealer from where it was purchased. A photo copy of the original receipt must accompany the product being returned.

Valid purchase receipts will contain the name and address of the authorized reseller.

Any damage to the product as a result of misuse, abuse, accident, incorrect wiring, improper installation, alteration of date code or bar code labels, revolution, natural disaster, or any sneaky stuff because someone messed up, repair or alteration out side of our factory or authorized service centers and any thing else you have done that you should not have done is not covered.

This warranty is limited to defective parts and specifically excludes any incidental or consequential damages connected therewith. This warranty is not to be construed as an insurance policy.

Warranty on installation labor, removal, re-installation and freight charges are not the responsibility of Maxxsonics USA Inc.

Warranty products damaged as a result of insufficient or improper packing materials are not covered by this limited warranty and such damaged product will be returned "as is" at the expense of the owner.



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