

OPTIMUS®

Cat. No. 40-1029

Dual Voice Coil 12-Inch Subwoofer

Your Optimus Dual Voice Coil 12-Inch Subwoofer lets you increase the bass response of your home or car sound system. It is ideal for custom speaker or replacement use. Its unique dual-wound coil design lets you connect it in a variety of ways.

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FEATURES

12-Inch Polypropylene-Coated Paper Woofer with 20-Ounce Barium-Ferrite Magnet — provides tight, floor-rumbling bass down to 30 Hz that you can feel as well as hear.

1³/₈-Inch, Dual-Wound, High-Temperature Copper Voice Coil — withstands high output from your amplifier and high temperature after extended play.

Extra-Long-Throw Voice Coil — delivers clean, solid bass sound.

120 Watts Max Power Handling Capacity — provides excellent sound reproduction and up to 60 watts RMS per channel when connected to both channels of a stereo amplifier.

MOUNTING

You can install the subwoofer from the front or back of an enclosure so it is flush with the baffle's surface.

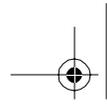
Seal the mounting surface so air cannot leak around the subwoofer.

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For instructions on mounting and sealing the subwoofer, see our "Building Speaker Systems" book (RadioShack Cat. No. 62-1087, not supplied), available at your local RadioShack store.

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CONNECTIONS

The subwoofer's dual-wound coils have two sets of terminals so you can connect:

- one subwoofer to both left and right stereo amplifier channels
- two subwoofers, one to each stereo amplifier channel
- one subwoofer to a monaural amplifier

Cautions:

- Be sure to match polarity (+ to + and - to -) between the subwoofer and the audio source.
- When mounting the subwoofer in a vehicle, be sure all wiring is fully protected from sharp edges. Be sure the audio system is off when connecting any wires, and leave enough slack in the wires so they can reach the terminals easily.

Connecting Two Subwoofers to a Stereo Amplifier

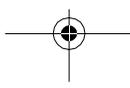
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Connecting One Subwoofer to a Monaural Amplifier

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Connecting One Subwoofer to a Stereo Amplifier

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SPECIFICATIONS

Nominal Impedance	4 or 8 ohm $\pm 20\%$
Frequency Response	30 Hz–5 kHz
Free Air Resonance (Fs) Frequency	34 Hz
Infinite Baffle Resonance Frequency	31 Hz
Piston Area (SD)	0.0553 m ²
Maximum Power	120 W
Power Handling	60W RMS
Flux Density (BL)	7.41
DC Voice Coil Resistance (RE, ohms)	3.4 ohms/6.8 ohms
Voice Coil Inductance (LVC at 1 kHz)	0.22/0.84 mH
SPL	85 or 88 ± 3 db/1W/1m
Moving Mass (Mms)	52.21 g
Electrical Q Factor (QES)	3.09/1.55
Mechanical Q Factor (QMS)	5.03
Total Q Factor	1.89/1.18
Equivalent Acoustic Volume (VAS)	163.5 L
Mechanical Suspension Compliance (CMS, UM/N)	413.2 UM/N
Mechanical Mass of Cone Assembly and Free Air Load	1.8 oz (52.21 g)
Mechanical Mass of Cone Assembly Only	1.4 oz (39.62 g)
Peak-to-Peak (Maximum) Linear Excursion	⁵ / ₃₂ Inch (4.00 mm)
Cutout	10 ²⁹ / ₃₂ Inches (27.7 cm)
Depth	5 ¹ / ₃₂ Inches (12.8 cm)
Magnet Weight	20 oz (567 gm)
Speaker Weight	63 oz (1.786 kg)

Specifications are typical; individual units might vary. Specifications are subject to change and improvement without notice.



Limited Ninety-Day Warranty

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Some states do not allow the limitations on how long an implied warranty lasts or the exclusion of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

In the event of a product defect during the warranty period, take the product and the RadioShack sales receipt as proof of purchase date to any RadioShack store. RadioShack will, at its option, unless otherwise provided by law: (a) correct the defect by product repair without charge for parts and labor; (b) replace the product with one of the same or similar design; or (c) refund the purchase price. All replaced parts and products, and products on which a refund is made, become the property of RadioShack. New or reconditioned parts and products may be used in the performance of warranty service. Repaired or replaced parts and products are warranted for the remainder of the original warranty period. You will be charged for repair or replacement of the product made after the expiration of the warranty period.

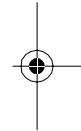
This warranty does not cover: (a) damage or failure caused by or attributable to acts of God, abuse, accident, misuse, improper or abnormal usage, failure to follow instructions, improper installation or maintenance, alteration, lightning or other incidence of excess voltage or current; (b) any repairs other than those provided by a RadioShack Authorized Service Facility; (c) consumables such as fuses or batteries; (d) cosmetic damage; (e) transportation, shipping or insurance costs; or (f) costs of product removal, installation, set-up service adjustment or reinstallation.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

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