

OWNER'S MANUAL



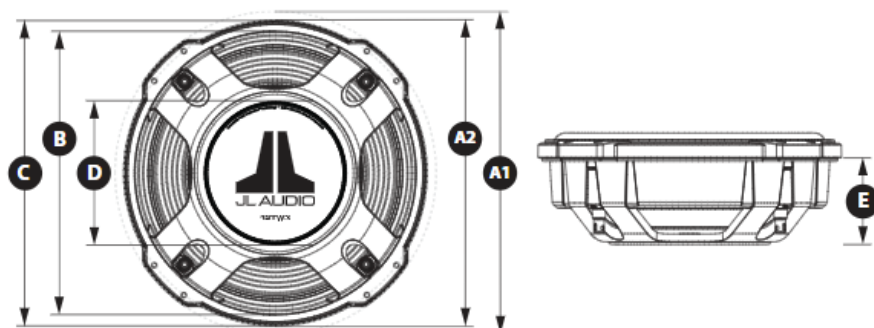
12TW3 Subwoofer Driver

Congratulations on your purchase of a JL Audio subwoofer component. Your JL Audio subwoofer is a precision loudspeaker which has been engineered to produce the highest quality sub-bass performance in your vehicle. Authorized JL Audio dealers have extensive technical information for many different applications of your new speaker. They also have the knowledge, skills and tools to build a high-quality enclosure that will maximize the performance of your speaker. We highly recommend that you have your enclosure built by an authorized JL Audio dealer.

Inside you will find specifications and two recommended enclosures for your speaker; one is a sealed enclosure, the other is a ported design. Both types of enclosures will give you excellent sound quality and low-frequency extension. The sealed enclosure is a better choice if space is extremely tight, but the ported enclosure will produce 3dB more output at the same power if you have the extra space to work with.



JL AUDIO 12TW3-D4 / 12TW3-D8



12TW3 SUBWOOFER PHYSICAL SPECIFICATIONS	
Nominal Diameter:	12.0 in 300 mm
Overall Major Diameter (A1):	13.2 in. 335 mm
Overall Minor Diameter (A2):	12.5 in 318 mm
Mounting Hole Diameter (B):	11.625 in. 295 mm
Bolt Hole Circle (C):	12.5 in. 318 mm
Magnet Diameter (D):	6.125 in 156 mm
Mounting Depth (E):	3.5 in 89 mm
Net Weight:	14.9 lbs 6.8 Kg
Driver Displacement:	0.029 ft ³ 0.82 liters

SUBWOOFER	12TW3-D4	12TW3-D8
Free Air Resonance (Fs):	26.460 Hz	32.660 Hz
Electrical "Q" (Qes):	0.558	0.715
Mechanical "Q" (Qms):	10.766	10.071
Total Speaker "Q" (Qts):	0.531	0.668
Equivalent Compliance (Vas):	1.72 ft ³ 48.73 litres	1.205 ft ³ 34.12 litres
One-way, Linear Excursion (Xmax)*:	0.60 in 15.2 mm	0.60 in 15.2 mm
Efficiency (1W/1m)**:	84.11 dB SPL	84.23 dB SPL
Effective Piston Area (Sd):	83.517 in ² 0.0539 m ²	83.517 in ² 0.0539 m ²
DC Resistance (Re)***:	9.280 ohm	14.800 ohm
Nominal Impedance:	Dual 4-ohm voice coils	Dual 8-ohm voice coils
Power Handling (continuous):	400 W	400 W

* Xmax specifications are derived via one-way voice coil overhang method with no correction factors applied.

** Efficiency (1W/1m) is not an accurate indicator of a subwoofer's output capability and should not be used as a comparison to other subwoofers to determine which one is "louder"!

*** Re (DC resistance) is measured with the voice coils in series, for parallel-wired specification divide Re by 4. All other specifications remain the same.

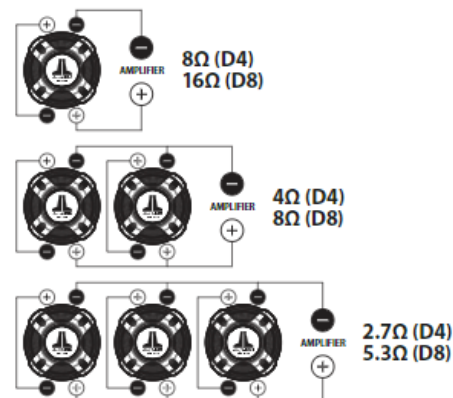
All specifications are subject to change without notice.

12TW3 Dual Voice Coil Wiring

Please Note: The TW3 is a dual voice coil driver. BOTH voice coils must be connected to the amplifier (in series or parallel) for the speaker to operate properly. To accomplish this, each TW3 features a pair of main input connection push-terminals for each voice coil. Verify that the connections are properly configured based on these wiring diagrams to achieve the desired load prior to sending signal to the subwoofer.

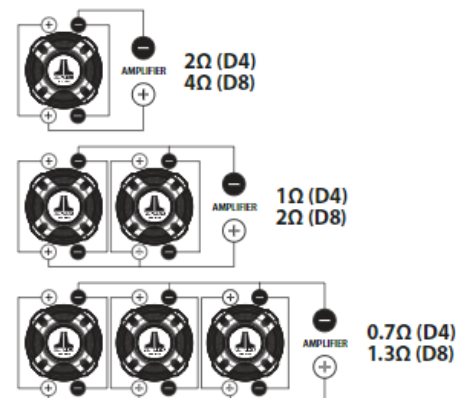
Voice Coils Wired in Series

(Multiple speakers wired in Parallel)

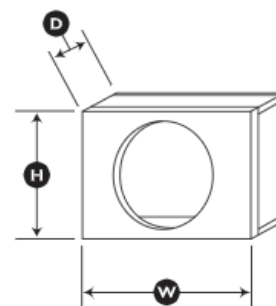


Voice Coils Wired in Parallel

(Multiple speakers wired in Parallel)



SUBWOOFER	RECOMMENDED SEALED ENCLOSURE				
	Volume (net int.)	External Dimensions (Width x Height x Depth)	F3 (Hz)	Fc (Hz)	Qtc
12TW3-D4	0.80 ft ³ 22.7 liters	21.25 in x 16 in x 6.5 in 540 mm x 406 mm x 165 mm	37.99	46.97	0.9426
12TW3-D8	1.00 ft ³ 28.3 liters	25 in x 16.625 in x 6.5 in 635 mm x 422 mm x 165 mm	38.27	48.50	0.9919



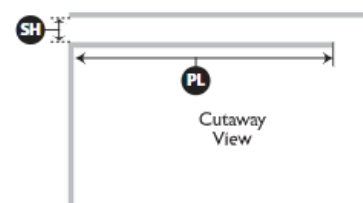
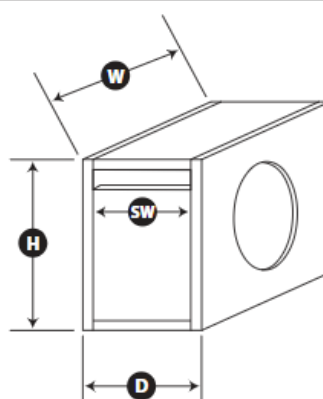
SUBWOOFER	RECOMMENDED PORTED ENCLOSURE				
	Volume (net int.)	Enclosure External Dimensions (Width x Height x Depth)	Slot Port Internal Dimensions (Slot Width x Slot Height x Slot Length)	Tune to: (Hz)	F3 (Hz)
12TW3-D4	0.95 ft ³ 26.9 liters	30 in x 16.625 in x 6.5 in 762 mm x 422 mm x 165 mm	5 in x 2.5 in x 31.25 in 127 mm x 64 mm x 794 mm	32.14	32.52
12TW3-D8	1.3 ft ³ 36.8 liters	34 in x 17 in x 6.75 in 864 mm x 432 mm x 171 mm	5.25 in x 2.375 in x 24 in 133 mm x 60 mm x 610 mm	31.00	29.79

• The enclosure recommendations listed are **external** dimensions which assume the use of 3/4" (19mm) thick material. If you are using 5/8" (16mm) thick material, subtract 1/4" (6.5mm) from each dimension. Do not use any material with a thickness of less than 5/8" (16mm) as this may compromise the rigidity of the enclosure.

• Enclosure volumes listed are **net internal** volumes! Box volume displacement, port displacement and brace displacement must be added to obtain the final gross internal volume. All enclosure dimensions listed have already taken this into account.

• When using **two** subwoofers in a common enclosure simply **double** the required volume.

• We recommend the use of this speaker in a **bi-amplified system** using high-quality satellite speakers and amplifiers. We do not recommend the use of this subwoofer with a passive crossover (coil), as this type of device will adversely affect performance.



Port Wall Length:
12TW3-D4: 26 in (660 mm)
12TW3-D8: 22.0625 in (560 mm)
(End correction accounted for)

CAUTION

Prolonged exposure to sound pressure levels in excess of 100dB can cause permanent hearing loss. This high-performance speaker can exceed this level. Please exercise restraint in its operation in order to preserve your ability to enjoy its fidelity.

When installing a subwoofer in your vehicle, it is extremely important to secure the enclosure firmly. We recommend bolting the enclosure through the metal of the floorpan or the frame of the vehicle with large diameter washers for reinforcement. If an enclosure is not firmly attached, it can become a projectile in a collision. This is particularly important in a hatchback, station wagon, sports utility vehicle, or van.

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