## **OWNER'S MANUAL**



## 10TW1-2 / 10TW1-4 Subwoofer Driver

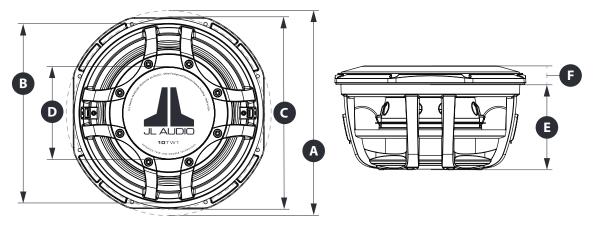
Congratulations on your purchase of a JL Audio subwoofer component. Your JL Audio subwoofer is a precision loudspeaker which has been engineered to produce the highest quality sub-bass performance in your vehicle. Authorized JL Audio dealers have extensive technical information for many different applications 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 10TW1-2 / 10TW1-4

U.S. PATENTS: #6,095,280 #8,374,379 #5,734,132 | Other U.S. & Foreign patents pending.



10TW1 SUBWOOFER PHYSICAL SPECIFICATIONS				
Nominal Diameter:	10.0 in 250 mm			
Overall Diameter (A):	10.375 in 264 mm			
Mounting Hole Diameter (B):	9.0625 in 230 mm			
Bolt Hole Circle (C):	9.7 in 246 mm			
Magnet Diameter (D):	4.54 in 115 mm			
Mounting Depth (E):	4.36 in 111 mm			
Frontal Grille Protrusion (F):	0.87 in 22 mm			
Net Weight:	10.5 lbs 4.8 kg			
Driver Displacement:	0.047 ft <sup>3</sup> 1.33 litres			

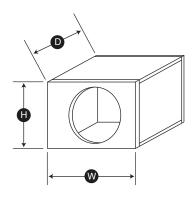
SUBWOOFER	10TW1-2	10TW1-4
	41.45 Hz	38.09 Hz
Free Air Resonance (Fs):	41.43 NZ	30.09 FIZ
Electrical "Q" (Qes):	0.696	0.639
Mechanical "Q" (Qms):	9.702	10.070
Total Speaker "Q" (Qts):	0.649	0.601
Equivalent Compliance (Vas):	0.364 ft <sup>3</sup> 10.31 litres	0.429 ft <sup>3</sup> 12.15 litres
One-way, Linear Excursion (Xmax)*:	0.40 in 10 mm	0.40 in 10 mm
Efficiency (1W/1m)**:	82.5 dB SPL	82.2 dB SPL
Effective Piston Area (Sd):	41.602 in <sup>2</sup> 0.0268 m <sup>2</sup>	41.602 in <sup>2</sup> 0.0268 m <sup>2</sup>
DC Resistance (Re):	2.428 ohm	3.516 ohm
Nominal Impedance:	2 ohm	4 ohm
Power Handling (continuous):	300 W	300 W

 $<sup>{}^*\</sup>mathit{Xmax}\,\mathsf{specifications}\,\mathsf{are}\,\mathsf{derived}\,\mathsf{via}\,\mathsf{one-way}\,\mathsf{voice}\,\mathsf{coil}\,\mathsf{overhang}\,\mathsf{method}\,\mathsf{with}\,\mathsf{no}\,\mathsf{correction}\,\mathsf{factors}\,\mathsf{applied}.$ 

All specifications are subject to change without notice.

<sup>\*\*</sup> 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"!

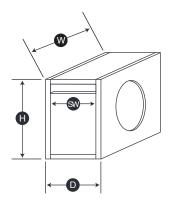
SUBWOOFER	RECOMMENDED SEALED ENCLOSURES				
	Volume (net int.)	External Dimensions (Width x Height x Depth)	<b>F3</b> (Hz)	Fc (Hz)	Qtc
10TW1-2	0.35 ft <sup>3</sup> 9.91 litres	16.125 in x 14.00 in x 5.25 in 410 mm x 356 mm x 133 mm	48.31	59.21	0.927
10TW1-4	0.35 ft <sup>3</sup> 9.91 litres	16.125 in x 14.00 in x 5.25 in 410 mm x 356 mm x 133 mm	47.24	56.83	0.897

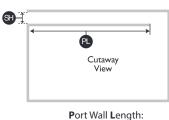


SUBWOOFER	RECOMMENDED PORTED ENCLOSURES					
	Volume (net int.)	Enclosure External Dimensions (Width x Height x Depth)	Slot Port Internal Dimensions (Slot Width x Slot Height x Effective Port Length)	Tune to: (Hz)	<b>F3</b> (Hz)	
10TW1-2	0.625 ft <sup>3</sup> 17.7 litres	26.625 in x 16.00 in x 5.25 in 676 mm x 406 mm x 133 mm	3.75 in x 1.875 in x 22.50 in 95 mm x 48 mm x 572 mm	35	30.56	
10TW1-4	0.625 ft <sup>3</sup> 17.7 litres	26.625 in x 16.00 in x 5.25 in 676 mm x 406 mm x 133 mm	3.75 in x 1.875 in x 22.50 in 95 mm x 48 mm x 572 mm	35	30.77	

- •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.
- All 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 and, in the case of a ported enclosure, use **two times** the recommended port(s).
- •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.





20.8125 in (529 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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