

R2-W12D2/D4

12" R-Series "R2" Subwoofer

ALPINE



PRODUCT OVERVIEW

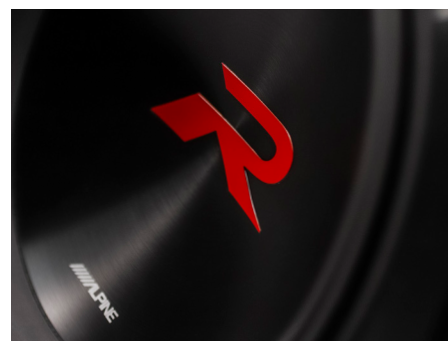
The next generation of sound performance is here with the new R-Series subwoofers featuring a larger motor structure for more accurate and authoritative bass.

PRODUCT FEATURES

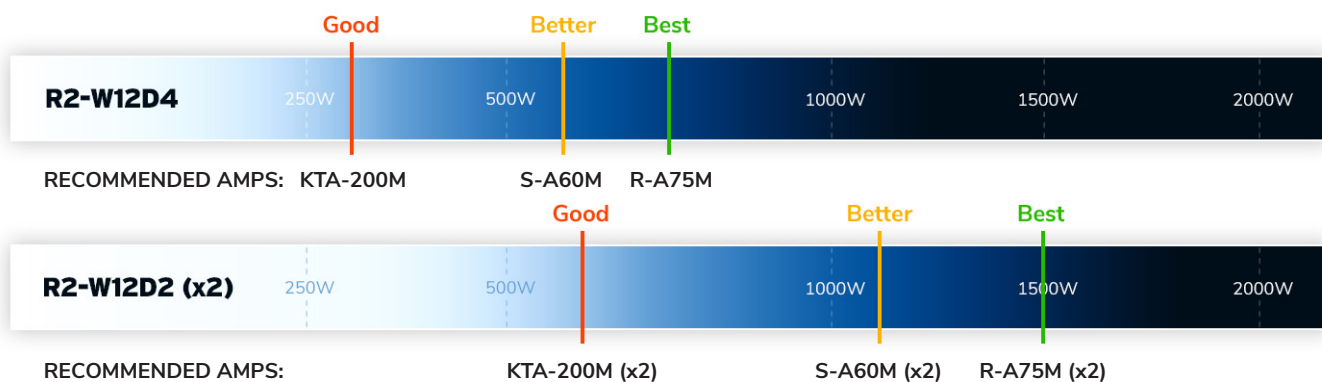
New Motor Structure – The new R-Series subwoofers now feature larger, double-stacked magnets that contribute more motor force for deeper bass and tighter bass control compared to the previous generation.

Oversized Dust Cap – The new hybrid poly ceramic composite dust cap ensures rigidity while also providing incredible internal damping (vibration absorption) to smooth out the bass response and reproduce tight bass.

Increased Accuracy – Alpine's High Amplitude Multi-Roll (HAMR) Surround Technology allows the cone to efficiently move air while staying cool resulting in incredible accuracy from the subwoofer.



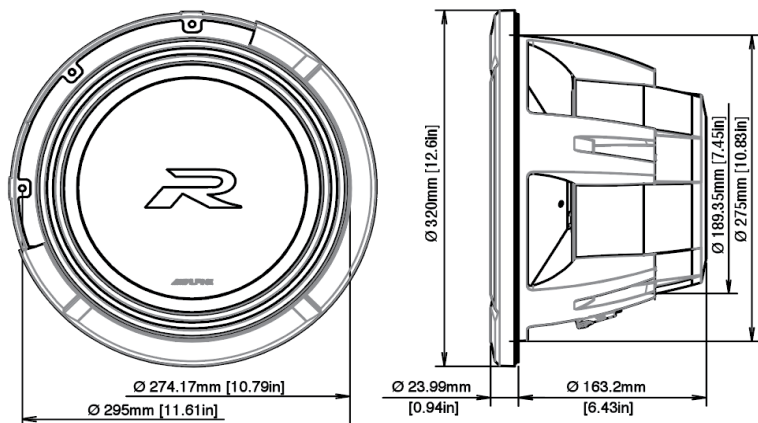
POWER RANGE: 300-750W



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GENERAL SPECS

- Size: 12"
- Dimensions: 11.61" x 11.61" x 6.43"
- Frequency Response: 24Hz - 200Hz
- Power Range: 300W - 750W RMS
- Power Handling: 750W RMS / 2250W Peak
- Magnet Weight: 144 oz
- Voice Coil Diameter: 65.5 mm (2.6")

R2-W12D2 - THIELE-SMALL PARAMETERS

- | | |
|-------------------------------------|-------------------------|
| • Sensitivity (1W/1m): | 85 dB |
| • DC Resistance (R_e): | $1.9\Omega + 1.9\Omega$ |
| • Free Air Resonance (F_s): | 29 Hz |
| • Equivalent Stiffness: | 36.9 L |
| • Mechanical Q (Q_{ms}): | 6.32 |
| • Electrical Q (Q_{es}): | 0.44 |
| • Total Q (Q_{ts}): | 0.41 |
| • Cone Area (S_d): | 479 cm ² |
| • Linear Excursion (X_{max}): | 20 mm |
| • Mechanical Travel (X_{mech}): | 72 mm |

BOX SPECS

SEALED BOX RANGE:

Net Internal Volume: 0.55 - 1.0 ft³

RECOMMENDED SEALED BOX:

External Dimensions: 14" x 14" x 11"

Gross Internal Volume: 0.85 ft³

Net Internal Volume: 0.75 ft³

D2 - F3, Qtc: 43 Hz, 0.65

D4 - F3, Qtc: 39 Hz, 0.84

VENTED BOX RANGE:

Net Internal Volume: 1.0 - 1.5 ft³

Fb, Tuning: 33-37 Hz

RECOMMENDED VENTED BOX:

External Dimensions: 12.5" x 14" x 25.5"

Gross Internal Volume: 1.91 ft³

Vent Area (W x H): 18.75 in² (12.5" x 1.5")

Vent Length: 22"

Vent Displacement: 0.36 ft³

Net Internal Volume (Vb): 1.45 ft³

D2 - F3, Ripple, Fb: 29 Hz, 4.3 dB, 36 Hz

D4 - F3, Ripple, Fb: 28 Hz, 5.8 dB, 36 Hz

R2-W12D4 - THIELE-SMALL PARAMETERS

- | | |
|-------------------------------------|-------------------------|
| • Sensitivity (1W/1m): | 84.6 dB |
| • DC Resistance (R_e): | $3.5\Omega + 3.5\Omega$ |
| • Free Air Resonance (F_s): | 30 Hz |
| • Equivalent Stiffness: | 32.8 L |
| • Mechanical Q (Q_{ms}): | 6.51 |
| • Electrical Q (Q_{es}): | 0.55 |
| • Total Q (Q_{ts}): | 0.51 |
| • Cone Area (S_d): | 479 cm ² |
| • Linear Excursion (X_{max}): | 20 mm |
| • Mechanical Travel (X_{mech}): | 72 mm |