

**cerwin  
vega**  
mobile 

# **HED SHALLOW**

## **SUBWOOFER**



**HS102D/HS104D**  
**HS122D/HS124D**

## **USER MANUAL**

**MAKING IT LOUD SINCE 1954!**

## Cerwin Vega Mobile Speakers

Congratulations for purchasing Cerwin Vega Mobile speakers for your car audio system. You have chosen Cerwin Vega Mobile because you deserve the best!

Cerwin Vega Mobile speakers are designed and engineered to reproduce great sound quality for many years of listening enjoyment in your vehicle! We highly recommend that your new speakers be installed by an authorized Cerwin Vega Mobile dealer. Your authorized dealer can professionally assemble/disassemble the interior of your vehicle and set the proper speaker placement for ideal sound quality.

If you decide to install the speakers by yourself, please thoroughly read through this manual before getting started. This manual will help familiarize yourself with these speakers and guide you through the installation process and procedures.

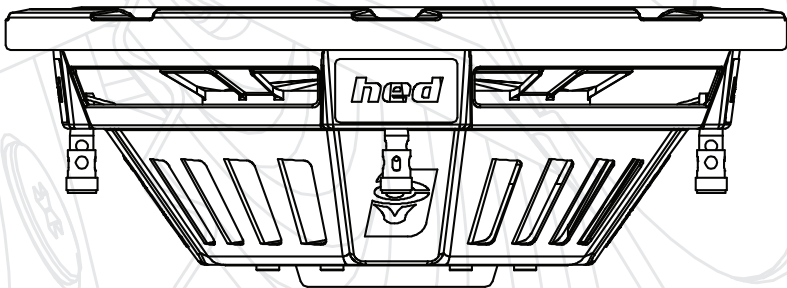
Please contact your local authorized Cerwin Vega Mobile dealer if you have any questions regarding the instructions in this manual.

## HS122D / HS124D - 12 INCH SUBWOOFER

- 12" Dual 2-ohm/4-ohm Shallow Subwoofer
- 1200W MAX / 250W RMS Power Handling
- Stamped Steel Slim-Mount Frame With Encapsulated Motor
- Vented Motor Structure For Optimal Thermal Heat Dissipation
- Poly-Cotton Spider With Spaced Woven In Tinsel Wires
- Oversized Parabolic Dustcap For Extreme Rigidity
- Unimount Gasket Surround

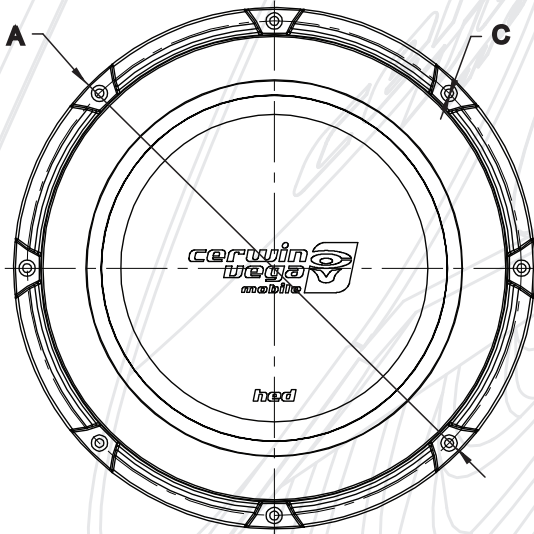
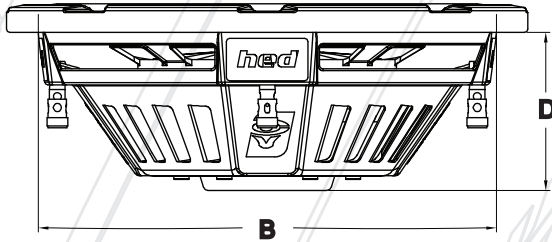
## HS102D / HS104D - 10 INCH SUBWOOFER

- 10" Dual 2-ohm/4-ohm Shallow Subwoofer
- 800W MAX / 200W RMS Power Handling
- Stamped Steel Slim-Mount Frame With Encapsulated Motor
- Vented Motor Structure For Optimal Thermal Heat Dissipation
- Poly-Cotton Spider With Spaced Woven In Tinsel Wires
- Oversized Parabolic Dustcap For Extreme Rigidity
- Unimount Gasket Surround



# Specifications

Dimension	Unit	HS102D/HS104D	HS122D/HS124D
Total Diameter (A)	in. (mm)	10.54" (267.9mm)	12.57" (319.4mm)
Mounting Diameter (B)	in. (mm)	9.23" (234.4mm)	11.14" (283mm)
Screw Hole Dia. (C)	in. (mm)	0.216" (5.5mm)	0.216" (5.5mm)
Mounting Depth. (D)	in. (mm)	3.54" (90mm)	3.81" (97mm)
Displacement (ft <sup>3</sup> /L)	in. (mm)	0.032 ft <sup>3</sup> (0.92L)	0.035 ft <sup>3</sup> (1.05L)



## Thiele/Small Parameters

Parameter (unit)	HS102D	HS104D	HS122D	HS124D
SPL (dB)	83.1	82.7	85.0	85.0
Re ( $\Omega$ ) [series]	1.5/1.5	3.0/3.0	1.5/1.5	3.0/3.0
Qms	5.0	5.5	5.5	5.0
Qes	0.95	1.10	1.05	1.13
Qts	0.80	0.92	0.88	0.92
Fs (Hz)	34.0	35.2	30.0	31.0
Vas (L)	23.0	23.0	50.9	50.9
Cms (mm/N)	0.141	0.140	0.13	0.13
Mms (g)	155.0	145	220	205
Sd (m <sup>2</sup> )	0.034	0.034	0.053	0.053
BL (T*M)	10.2	13.2	10.9	14.6
Xmax (mm)	7.4	7.4	8.9	8.3
Pwr (W) NOM/MAX	200/800	200/800	250/1200	250/1200

## IMPORTANT NOTE - WOOFER BREAK IN

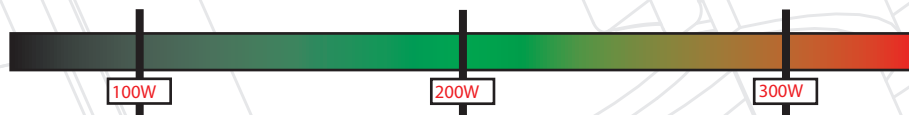
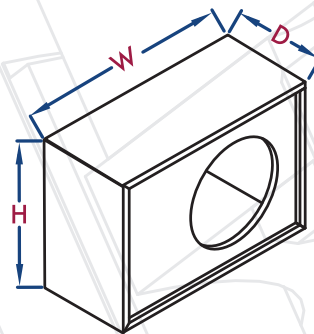
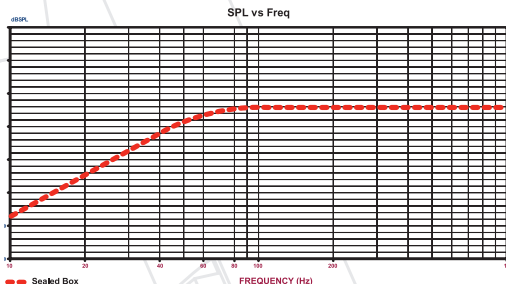
After you complete the wiring, break in your subwoofer properly. Play the sub at low to medium volume with music that has good low frequency information for approximately 20 hours to condition it before you turn up the volume.

This will improve the sub's performance and lifespan.

# RECOMMENDED ENCLOSURES

## Enclosures

SUBWOOFER SIZE (All measurements are calculated (Using 3/4" MDF))	SEALED ENCLOSURE		PORTED ENCLOSURE			
	Volume (net int.)	External Dimensions Width x Height x Depth	Volume (net int.)	Enclosure External Dimensions Width x Height x Depth	Slot Port Internal Dimensions Port Width x Port Height x Port Length	Port Extension Length "PE"
HS102/4D	0.65 ft <sup>3</sup> 18.2 litres	22" x 12" x 6.75" 406mm x 305mm x 162mm	N/A	N/A	N/A	N/A
HS122/4D	0.85 ft <sup>3</sup> 23.8 litres	22" x 14.75" x 7" 508mm x 381mm x 175mm	N/A	N/A	N/A	N/A



### MINIMUM RMS POWER (100W BLACK AREA)

This lower amount of power will increase the longevity of the woofer, but will decrease the amount of output volume.

### RECOMMENDED RMS POWER (200W GREEN AREA)

This is the optimum amount of power to provide the perfect balance output volume and woofer longevity.

### MAXIMUM RMS POWER (300W RED AREA)

This is the maximum amount of power the woofer is designed to operate safely under. Only a moderate volume increase is gained (< 7dB) at this higher power level. Operating Beyond this power level will void your warranty.

Learn more about subwoofers and boxes we have.