

HW12D4
Sealed Enclosure
Box Volume 1.15cu ft.
Ported Enclosure
Box Volume 1.42cu ft.
Box Tuning 39 Hz
Port Diameter 4in
Port Length 18in



CAPTIVATING MIND, BODY, ! Som

HW12D4
Installation Instructions / Owner's Manual

## DB

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## INTRODUCTION

Congratulations on your purchase of a HYPNOTIC state-of-the-art subwoofer component. Your selection of a HYPNOTIC car audio product indicates a true appreciation of fine musical reproduction. Whether adding to an existing system or including a HYPNOTIC subwoofer in a new system, you are certain to notice immediate performance benefits.

## KEEP YOUR SALES RECEIPT

Take this time to attach your sales receipt to the manual and put in a safe place. In case of any unforeseen reason this product may need warranty service, your receipt will be necessary to establish purchase date. For detailed warranty information please refer to enclosed warranty card.

## RECOMMENDATION

A speaker's performance is only as good as it's enclosure. Proper installation, enclosure size and crossover frequency will maximize the overall performance of the subwoofer. To properly design and build an enclosure, knowledge of wood working as well as the proper tools are required. We highly recommend that you have your enclosure built by an authorized HYPNOTIC retailer. However, if you decide to install it yourself, we have included the parameters of each driver and recommended enclosure sizes. If after reviewing the enclosed information you have any addition questions, please feel free to contact our technical dept.

## WARNING!

Exposure to high pressure levels can cause hearing loss or damage. Listening to your system at loud levels while driving, will impair your ability to hear traffic sounds and emergency vehicles. Use common sense when listening to your system.

While installing your subwoofer enclosure in the vehicle, securely fasten it to the frame or floorpan. If the enclosure is not secured properly, there is danger of it becoming a projectile in a collision.

| PRODUCT SPECIFICATIONS |  |
| :--- | :--- |
|  | HW12D4 |
| (FS) | 32.810 Hz |
| (Qts) | 0.833 |
| (Qms) | 3.926 |
| (VAS) | 79.838 L |
| (Xmax) | 12 mm |
| (Re) | $3.2 \Omega \times 2$ |
| (Pe) | $350 / 1500$ |
| (QES) | 1.057 |
| (SPL) | 86.1 dB |
| (Cms) | $199.456 \mathrm{~mm} / \mathrm{N}$ |
| (BL) | $12.134 \mathrm{~N} / \mathrm{A}$ |
| (Mms) | 117.969 g |

## CALCULATING ENCLOSURES

It is difficult to give exact box dimensions that are universal for all cars and trucks. It is for this reason that you must be able to calculate the space in which you have available in order to achieve the proper air volume required.

It is recommended to build your enclosure from 3/4" thick MDF (medium density fiberboard). Make sure the enclosure is sealed airtight.

## Calculating External Volume

1.) To calculate box volume, measure the outside Width $x$ Height $x$ Depth of the enclosure. Example $12 " \times 14 " \times 9 "=1512 "$ cubic inches
2.) Next you must convert cubic inches into cubic feet. To do this, you must divide the cubic inches total by 1728 ". Example $1512^{\prime \prime} \div 1728=.875$ cubic feet

## Calculating Internal Volume

1.) To calculate the internal (net) volume of the above box you must first multiply the thickness of the wood you are using by Two(2). Example 3/4" x 2= 1.5"
2.) Next subtract 1.5 from each of the outside measurements of the box.
Width Height Depth

12-1.5 = $10.5 \quad 14-1.5=12.5 \quad 9-1.5=7.5$
3.) Multiple the new totals ( $\mathrm{H} \times \mathrm{W} \times \mathrm{D}$ ) Example: $10.5 \times 12.5 \times 7.5=984.375$
4.) Next you must convert cubic inches into cubic feet. To do this, you must divide the cubic inch total by 1728". Example $984.375 \div 1728=.5696$ cubic feet.

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