



FOOSE Series Subwoofers

FD10D2
FD12D2

FD10D4
FD12D4

Installation Manual

Specifications

Woofers Specifications													
		FD10D2			FD10D4			FD12D2			FD12D4		
Impedance		1 ohm	2 ohm	4 ohm	2 ohm	4 ohm	8 ohm	1 ohm	2 ohm	4 ohm	2 ohm	4 ohm	8 ohm
DC Resistance	Re	1 ohm	2 ohm	4 ohm	1.8 ohm	3.8 ohm	7.2 ohm	1 ohm	2 ohm	4 ohm	1.8 ohm	3.8 ohm	7.2 ohm
Free Air Resonance	Fs	30			30			28			28		
Q Electrical Resistance	Qes	.634	1.23	.627	.670	1.36	.668	.704	1.38	.703	.738	1.50	.731
Q non Electrical Resistance	Qms	6.26	6.02	5.97	6.93	6.90	7.08	7.56	7.83	7.33	6.74	6.83	6.71
Total Q	Qts	.576	1.02	.567	.611	1.14	.610	.644	1.18	.642	.665	1.30	.659
Compliance	Vas	48.49	47.86	51.83	48.01	47.60	46.38	83.35	83.70	82.07	79.76	80.13	85.59
Linear Excursion	Xmax	8 mm			8 mm			8 mm			8 mm		
Cone Area	Sd	330cm ²			330cm ²			490cm ²			490cm ²		
Sensitivity 1 w @ 1 meter	SPL	88db			88db			89db			89db		
Power Handling RMS		250 W			250 W			300 W			300 W		
Max Power Handling		500 W			500 W			600 W			600 W		
Enclosure Recommendations													
Sealed Enclosure													
Optimum Sealed		1.0 cuft			1.0 cuft			1.5 cuft			1.5 cuft		
Small Sealed		0.5 cuft			0.5 cuft			1.0 cuft			1.0 cuft		
Ported Enclosure													
Volume		1.0 cuft			1.0 cuft			1.5 cuft			1.5 cuft		
Port Frequency		43 Hz			43 Hz			37 Hz			37 Hz		
Port Area and Length		3"X8"			3"X8"			3"X8"			3"X8"		

Calculating Enclosure Volume

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 $\frac{3}{4}$ " 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 $12" \times 14" \times 9" = 1512$
- 2) Next you must convert cubic inches into cubic feet. To do this, you must divide the cubic inch total by 1728". Example $1512 \div 1728 = .875$ 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: $\frac{3}{4}" \times 2" = 1.5"$
- 2) Next subtract 1.5" from each of the outside measurements of the box. Width $12" - 1.5" = 10.5"$. Height $14" - 1.5" = 12.5"$. Depth $9" - 1.5" = 7.5"$
- 3) Multiply the new totals (H x W x 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.

ARC AUDIO WARRANTY AND SERVICE GUIDELINES

ARC AUDIO warrants all new speakers and subwoofers against defects in material and workmanship for a period of **NINETY (90) DAYS** from the original date of purchase on all over the counter purchases not installed by an **AUTHORIZED ARC AUDIO RETAILER**. On all FD (Foosé Designs) models, the limited warranty is **EXTENDED NINE (9) MONTHS** additional from the original purchase date if the product is originally installed by an **AUTHORIZED ARC AUDIO RETAILER** and is accompanied by a valid copy of the original receipt showing a charge for the installation. This warranty is not transferable and applies only to the **original retail purchaser** of the product from an authorized ARC AUDIO retailer. Upon inspection by ARC AUDIO should services be necessary under this warranty for any reason due to manufacture defects ARC AUDIO will, at its sole discretion, repair or replace the defective product with new or similar conditioned product at no charge.

THIS WARRANTY DOES NOT COVER INSTALLATION OR DAMAGE RESULTING FROM ACCIDENT, MISUSE, ABUSE, IMPROPER WIRING, OPERATION OUTSIDE OF UNIT OUTSIDE OF MANUFACTURERS SPECIFICATIONS, OR AGAINST INSTRUCTIONS IN OWNERS MANUAL. IN ADDITION ANY PRODUCT THAT HAS BEEN OPENED, TEMPERED WITH OR MODIFIED, OR IF ANY SERIAL NUMBERS HAVE BEEN REMOVED WILL NOT BE COVERED BY ANY PART OF THE MANUFACTURERS WARRANTY.

All warranty returns should be sent to ARC AUDIO freight prepaid and must be accompanied by proof of purchase (a copy of the original sales receipt). Direct returns from consumers or non-authorized retailers will be refused unless specifically authorized by ARC AUDIO with a valid return authorization number.

ALL warranty returns must be packed in original packaging and be accompanied by a copy of the original sales receipt. Product damaged in shipment due to improper packaging will not be covered under this warranty and the customer or retailer will be charged full cost to repair the specific piece of product back to a like new or similar condition.

In no event will ARC AUDIO be liable for incidental, consequential, or other damages resulting from the use of this product, this includes but is not limited to, damage of hearing, property or person, damage based upon inconvenience or on loss of use of the product, and to the extent permitted by law, damages for personal injury. This warranty gives you specific legal rights, and you may have other rights, which vary from state to state. This warranty applies to products sold and used in the United States of America. In all other countries please contact your distributor.

For warranty and non-warranty repairs, send to:

**ARC Audio
4719 Green Leaf Cr. #4
Modesto CA, 95356**



ARC Audio Technical Support can be reached at
209-543-8706