



KAR Series Subwoofers

**KAR10
KAR12**

**KAR10D
KAR12D**

Installation Manual

Specifications

Woofers Specifications					
		KAR10	KAR10D	KAR12	KAR12D
Impedance		4 ohm	4x4ohm	4 ohm	4x4 ohm
DC Resistance	Re	3.6 ohm	1.8 ohm	3.6 ohm	1.8 ohm
Free Air Resonance	Fs	29.7	28.8	23.6	25.5
Q Electrical Resistance	Qes	.759	.889	.889	.965
Q non Electrical Resistance	Qms	6.145	4.781	6.173	5.384
Total Q	Qts	.676	.749	.680	.818
Compliance	Vas	47.86L	57.26L	117.64L	108.60L
Linear Excursion	Xmax	13 mm	13 mm	13 mm	13 mm
Cone Area	Sd	360cm2	360cm2	523cm2	523cm2
Sensitivity 1 w @ 1 meter	SPL	86db	86db	87db	87db
Power Handling RMS		200 W	200 W	250 W	250 W
Max Power Handling		400 W	400 W	500 W	500 W
Enclosure Recommendations					
Sealed Enclosure					
Optimum Sealed		1.0 cuft	1.0 cuft	1.0 cuft	1.0 cuft
Small Sealed		0.5cuft	0.5 cuft	.65 cuft	.65 cuft
Ported Enclosure					
Volume		1.0 cuft	1.0cuft	1.5 cuft	1.5 cuft
Port Frequency		50 Hz	50 Hz	50 Hz	40 Hz
Port Area and Length		3"X5.4"	3" X5.4"	3" X5.7"	3"X5.7"

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.

LIMITED WARRANTY

Before shipping this product back for service call for a Return Authorization number. This number must be clearly marked on the outside of the box.

Terms & Conditions: ARC Audio warrants the unit to be free of any material defects or defects in workmanship for a period of one year and will repair this unit or any part thereof only if it proves to be defective as a result of normal use. In order to receive warranty service on this product, the owner must promptly register by filling in and mailing the Warranty Registration Card.

Our obligation under this warranty is limited to repairing only the defective components of the unit thereof when it is returned, shipping prepaid, to ARC Audio.

This warranty is to be considered void if the unit has been tampered with, connected contrary to the installation instructions in the owner's manual, altered, damaged by improper input voltages or polarity, defaced, or treated in a negligent manner.

All returns must be sent freight prepaid, along with \$10.00 to cover return shipping and handling.

Out of warranty service is available after the warranty expires. Cost of repair is based on current repair labor rates, plus the cost of shipping and handling. When returning for repair, pack the unit securely and send prepaid and insured to the address below. ARC Audio is not responsible for damage incurred during shipping.

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**