



# **2-way marine 6.5" & 6.9" system**

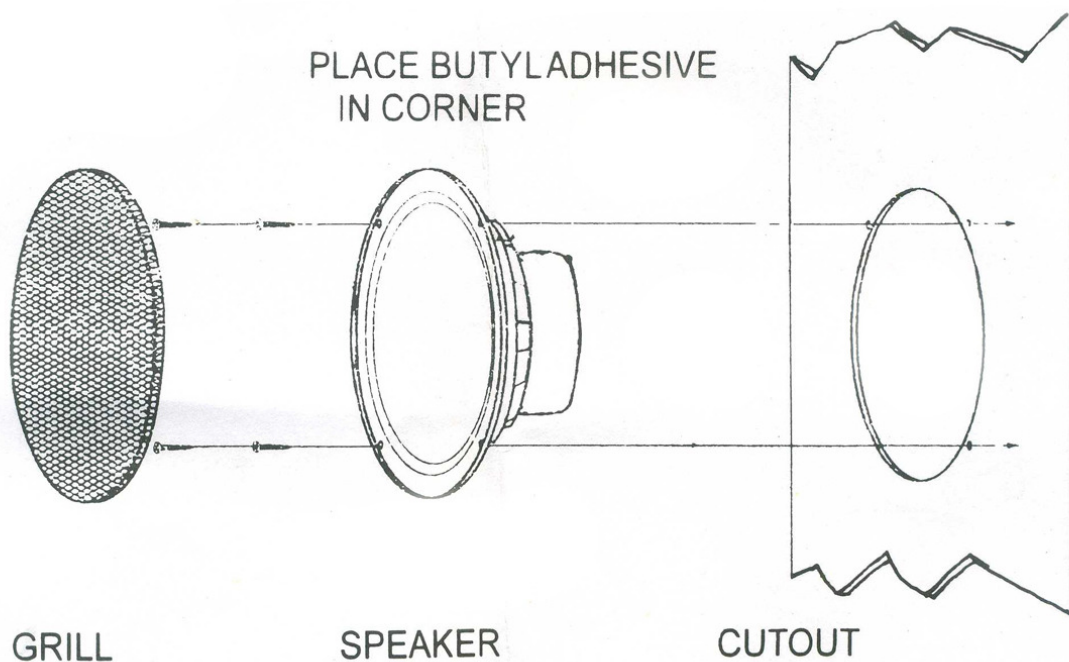
**Model: MS-652 & MS-692**

## **User Manual**

**[Zachry-audio.com](http://Zachry-audio.com)**

## INSTALLATION INSTRUCTIONS

1. Cut speaker mounting hole using template provided.
2. Attach the "+" speaker wire from the stereo (or amplifier) to the "+" terminal of the speaker (the "+" sign is imprinted on the speaker terminal strip).
3. Attach the "-" speaker wire from the stereo(or amplifier) to the "-" terminal of the speaker.
4. Remove front grill from speaker.
5. Fit the speaker into the speaker mounting hole (cutout in point #1 above).
6. Attach the speaker to boat using the stainless steel screws provided.
7. Apply the black butyl adhesive to the inside edge of the speaker as shown, to attach the grill to the speaker. This adhesive will stick, but will not harden so if necessary the grills may be removed in the future.
8. Replace the speaker grills, pressing them into the butyl adhesive.



## SPECIFICATIONS

### Thiele Small Parameters:

		unit	MS-652	MS-692
Nominal Impedance	Znom	ohms	4	4
DC Resistance	DCR	ohms	3.4	3.7
Resonant Frequency	Fs	Hz	80	55
Mechanical Q	Qms		2.99	3.23
Electrical Q	Qes		0.76	0.91
Total Q	Qts		0.61	0.71
Xmax (linear)	in		0.0512	0.0984
Xmax (mechanical)	in		0.0768	0.1476
Sensitivity 1 watt / 1 meter		dB	88	89
Effective Piston Area	Sd	m2	0.0122	0.0220
Acoustic Compliance	Vas	cf	0.3173	0.9355
Moving Mass	Mms	grams	9.12	21.10
Suspension Compliance	Cms	m/N	425	385
Motor Strength	BL	TM	4.55	5.48

### Magnet and Voice Coil Parameters:

Voice Coil Diameter	d	in	1	1.2
Voice Coil Length	hvc	in	0.299	0.433
Voice Coil Layers	n		2	2
Voice Coil Type			Kapton	Kapton
Continuous Power		watts	50	60
Maximum Power		watts	100	120

### Weights and Dimensions:

Magnet OD		in	3.15	3.94
Magnet Thickness		in	0.59	0.59
Magnet Weight		oz	10	14
Frame OD		in	6.42	9.37 x 6.61
Mounting Hole		in	5.53	8.82 x 6.06
Mounting Depth		in	2.5	3.27
Speaker Weight		lbs	1.96 /pc	3.15 /pc
Driver Displacement		in	92.63	141.70

### Crossover Specifications:

High-pass / Slope	Hz / dB	4K / 12	3.5K / 12
Low-pass / Slope	Hz / dB	Pass	Pass