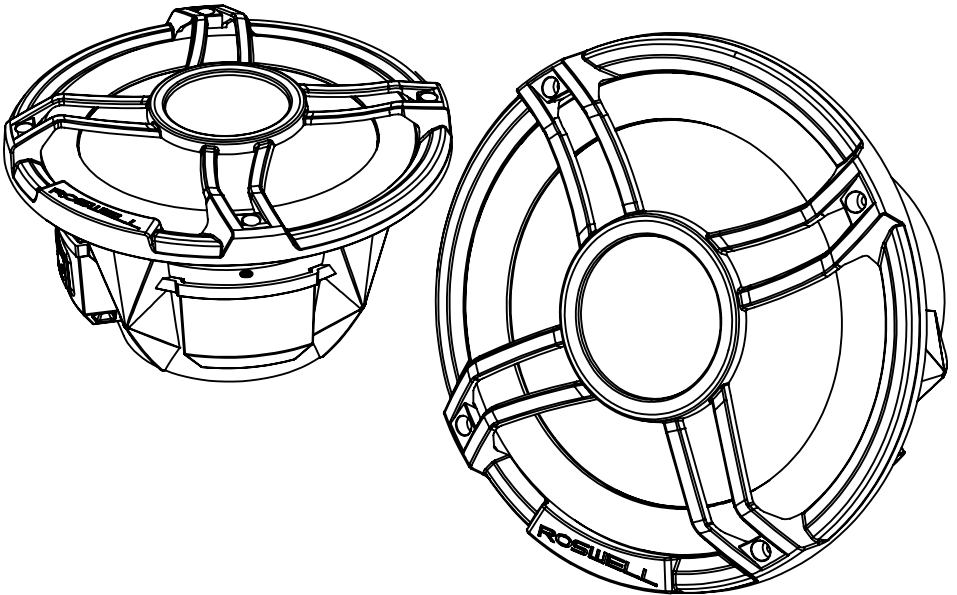


ROSWELL.

www.roswellmarine.com

RMA 10" & 12"

SUBWOOFER SERIES



RMA 10" / 12" Subwoofer Assembly Instructions

C920-1801 / C920-1811

Questions? 1-321-638-1331

info@roswellmarine.com

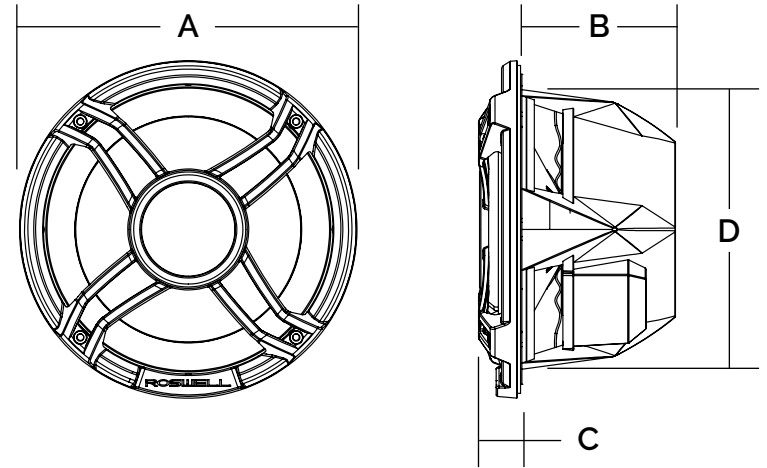
ROSWELL.

Welcome to the family.

Thank you for purchasing the world's best value marine subwoofer. After years of development and testing, we are proud to introduce the RMA Series marine subwoofers, built to outlast - and outperform - every other value marine subwoofer on the market. We at Roswell started a revolution in the wakeboard industry back in 1998, and have since expanded into marine audio and other branches of the marine industry. Even now, nearly 20 years later, we continue to push the boundaries.

We are fully committed to going past industry expectations every day to make your boating experience more enjoyable. With the input of our dealers, team riders, and boaters around the world, our goal remains to redefine the marine industry day in and day out. We will not be confined to our desks; we are out on the water testing our full line of products to ensure your days on the water are as hassle-free and enjoyable as possible.

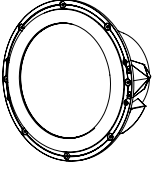
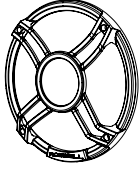

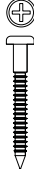
If you have any questions about your subwoofers or questions regarding installation, please contact your authorized Roswell dealer. If you have further questions, please don't hesitate to contact us directly at (321)-638-1331 OR by emailing support@roswellmarine.com.



DESCRIPTION	10" SPECS	12" SPECS
A (overall diameter)	11.16" / 283 mm	13.16" / 334 mm
B (mounting depth)	5.08" / 129 mm	6.38" / 162 mm
C (grill height)	1.43" / 36 mm	1.56" / 40 mm
D (basket diameter)	9.25" / 235 mm	11.22" / 285 mm





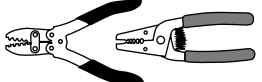

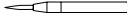
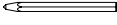
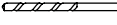


FEATURES:

- Extreme salt and UV resistance
- Klippel® optimized motor structure for maximum power handling and sound quality
- Custom machined wire terminals allow for rock-solid wire connections
- Marine grade construction for extreme durability
- 12" woofer features built-in impedance selector switch to simplify wiring

PACKAGE CONTENTS			
			
A x1	B x1	C x1	D x8
RMA Series Subwoofer	RMA Subwoofer Grill	Cut out template	#10 x 2.0" (12") #10 x 1.75" (10") Stainless Screws

PREPARATION

- For safety, turn off the audio system and battery switch prior to beginning installation. If your vessel does not have a battery switch, simply disconnect the negative lead from the battery terminal.
- Use extreme caution before cutting and drilling holes to avoid damaging fuel lines, hydraulic lines, or existing electrical components.
- If additional wiring is required, we recommend using at least 12 gauge wiring and running all wires prior to installing the speaker. Longer runs may require 10 gauge wire to prevent negative impacts on sound quality. Leave some slack in the wire to allow for easier installation and to prevent tension on the wire.
- Avoid running wires near sharp edged surfaces. Never run wires exposed on the deck, protecting the wires behind cover offers the best protection from marine elements. If wires must be routed through metal or fiberglass walls, use rubber grommets to protect the wire.
- All wiring should be done by a qualified marine technician.

TOOLS REQUIRED					
					
Dust Mask	Safety Glasses	Power Drill	Jigsaw / Air-saw	Wire Strippers / Crimps	
					
Masking Tape	Center Punch	Pen / Pencil	5/32" & 3/8" Drill Bit	Countersink Bit	Phillips #1 & #2 Screwdriver

RECOMMENDED ENCLOSURE DESIGNS

To ensure your subwoofer installation results in the highest possible performance, please carefully note the following information

RMA subwoofers are designed to be extremely flexible and are able to work in a variety of enclosures, including no enclosure at all. This is referred to as an 'infinite baffle' or 'free-air' installation. In an infinite baffle configuration, the key to good sound is ensuring the sound wave coming from the front of the speaker cone is acoustically isolated from the sound wave coming from the rear of the cone. In other words, if your chosen mounting location is located near a vent, door, or any permanent opening allowing the free movement of air from the inside (rear of the cone) to the outside (front of the cone), you will likely experience poor output as the low-frequency sound waves run into each other and cancel each other out.

If you do not have a location that allows for good isolation of the front and rear sound waves, we recommend installing your RMA subwoofer in the largest sealed enclosure that is practical to fit in your chosen installation location. However, a ported enclosure will allow for greater output, on average offering a +3dB increase over a sealed enclosure, with the tradeoff being that the enclosure is more complex to design and build. If you wish to build a ported enclosure, see the table on the next page for some recommended enclosure configurations.

WARNING

These speakers are capable of producing sound pressure levels (SPL) in excess of 100 dB, even in an open-air environment like a boat. Sound pressures at or above these levels can easily cause permanent hearing damage or loss. Use safe listening practices and protect your ears.

WARNING

Roswell recommends audio components be professionally tuned for optimal performance and lifespan. Improper tuning can damage speakers and *IS NOT* covered by warranty. A professional audio installer can make your system more efficient, durable and provide a better sounding system.

ENCLOSURE SPECIFICATIONS

12"

Ported Enclosure

Load	Volume	Port Ø	Port Length	F-3
Ported	42L (1.50ft³)	10cm (4.0")	27.5cm (10.875")	40Hz
Ported	56L (2.00ft³)	10cm (4.0")	19.5cm (7.625")	40Hz
Ported	70L (2.50ft³)	10cm (4.0")	19.5cm (7.625")	35Hz

10"

Ported Enclosure

Load	Volume	Port Ø	Port Length	F-3
Ported	28L (1.00ft³)	10cm (4.0")	45cm (17.75")	40Hz
Ported	42L (1.50ft³)	10cm (4.0")	27.5cm (10.75")	35Hz
Ported	56L (2.00ft³)	10cm (4.0")	27.5cm (10.75")	35Hz

T/S PARAMETERS

	10"	12"
Nominal Impedance	4Ω	Dual 4Ω
Frequency Response	35 Hz - 300 Hz	32 HZ - 250 HZ
Power	250 Watts RMS	500 Watts RMS
Sensitivity	88 dB @ 1W/1M	88 dB @ 1W/1M
Fs (Hz)	35.0	32.0
Re (Ohms)	3.50	6.34 (series) 1.60 (parallel)
Qts	0.54	0.77
Vas (l)	43.00	41.30
SPL (dB)	88.0	88.0
SD (sq. cm)	360	547
Xmax (mm)	11.0	12.0

INSTRUCTIONS

Follow these illustrated steps to ensure proper installation of your RMA Series Speakers.
Note: Required tools for each step are listed in the left column under each steps letter.

A Locate a suitable area to mount the speaker in your vessel. Ensure the area is large enough to evenly mount the speaker and grill. Ensure the area behind the mounting area is spacious enough to allow proper fit and air flow.

B Use the cut out template (C) to locate and mark the area for the speakers.

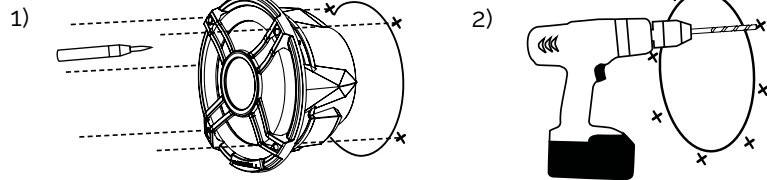
NOTE: If cutting through gelcoat/fiberglass, use extreme caution to avoid cracking the gelcoat. We recommend you tape off the **entire** area with low-tack masking tape. Cut slowly and carefully.

C First use the 3/8" drill bit and drill to start the hole, then cut the mounting hole using jigsaw or air-saw using a high TPI blade.

D **12" Sub only:** Set the impedance selector to match your amp. Remove the two screws holding the impedance switch cover plate in place. Select either 8 Ohm or 2 Ohms and then re-install the switch cover.

E

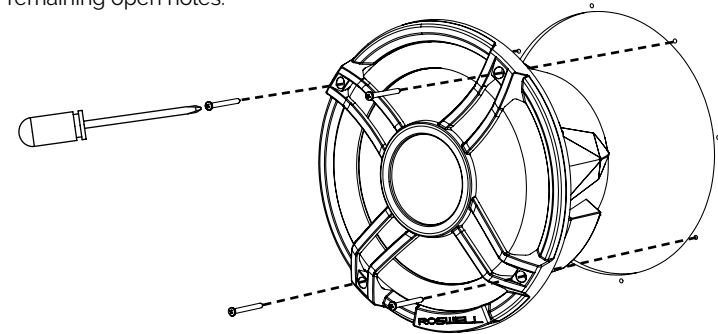
Place the sub into the mounting cutout to ensure it will fit. Remove additional material if needed. Once the sub fits properly, align the sub to the desired orientation and use a center punch or pencil to mark the mounting holes for the screws to secure the sub. Remove sub from the cutout and drill the holes with either a 5/32" drill bit (soft materials like wood or MDF) or a 11/64" bit (harder materials like fiberglass).



NOTE: If drilling through fiberglass/gelcoat, be sure to run the drill in reverse until you are through the gelcoat, switch the drill into forward and finish drilling as normal. Then come back with a countersink bit and remove the gelcoat surrounding the hole. This will help avoid cracking/damaging the gelcoat around the mounting location.

H

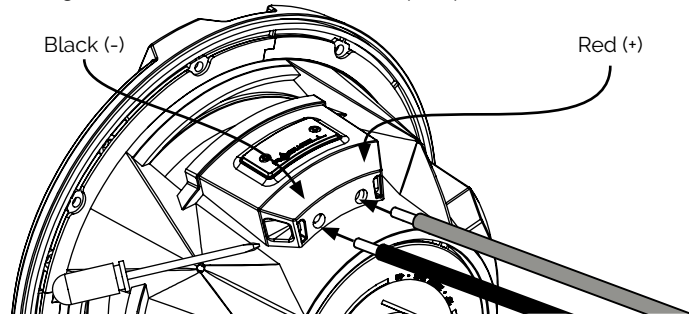
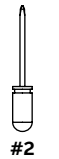
Place the grill on the basket and use a #2 phillips screw driver secure the subwoofer to the mounting location using (4) phillips-head screws through the 4 remaining open holes.



Enjoy your new Roswell sub!

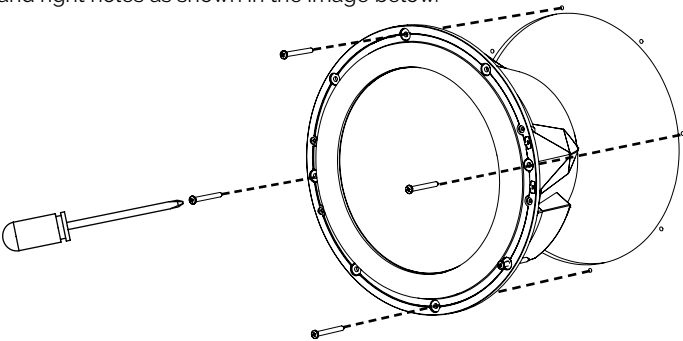
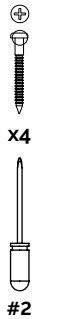
G

Connect the main power wires to the subwoofer either from the sides or from the rear. Tighten the wire screws down with a phillips or flat head screwdriver.



H

Without the grill on the sub use a #2 phillips screw driver secure the subwoofer to the mounting location using (4) phillips-head screws. Use the top, bottom, left and right holes as shown in the image below.



USE AND CARE

This subwoofer is built to the highest standards of marine durability. However, it is still a sensitive piece of electronic equipment. When cleaning, avoid hosing down the subwoofer directly. Simply wiping the subwoofer down with a damp cloth should be sufficient to ensure years of enjoyment.

ROSWELL LIMITED WARRANTY

Roswell warrants all new RMA Series Subwoofers against defects in material and workmanship for a period of TWO (2) YEARS from the original date of purchase. This warranty is not transferable and applies only to the original retail purchaser from an authorized Roswell retailer. Upon inspection by Roswell, should service be necessary under this warranty for any reason due to manufacturer defects, Roswell will, at our own 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 THE MANUFACTURERS RECOMMENDATIONS OR SPECIFICATIONS, OR AGAINST INSTRUCTIONS IN OWNERS MANUAL. IN ADDITION, ANY PRODUCT THAT HAS BEEN OPENED, TAMPERED WITH OR MODIFIED, OR IF ANY SERIAL NUMBERS HAVE BEEN REMOVED, WILL NOT BE COVERED BY ANY PART OF THE MANUFACTURES WARRANTY.

All warranty claims must first be made in direct contact with Roswell's warranty department. When first contact is made the warranty representative will issue an RA # to open a claim. All warranty returns should be sent to Roswell freight prepaid and must be accompanied by proof of purchase (a copy of original sales receipt). Direct returns from consumers or non-authorized retailers will be refused unless specifically authorized by Roswell with a valid return authorization number (RA#).

All warranty returns should be packed in the original packaging and must be accompanied by a copy of the original sales receipt. Product damage during shipping will not be covered under this warranty. The customer or retailer may choose to have this damage repaired at the normal "Out of Warranty" repair cost.

In no event will Roswell 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 of 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 applies to products being sold and used in the United States of America and Canada. In all other countries please contact your authorized Roswell representative.

For warranty and non-warranty repairs, please contact Roswell Global Inc.:

Phone: 1-321-638-1331

Email: warranty@roswellmarine.com