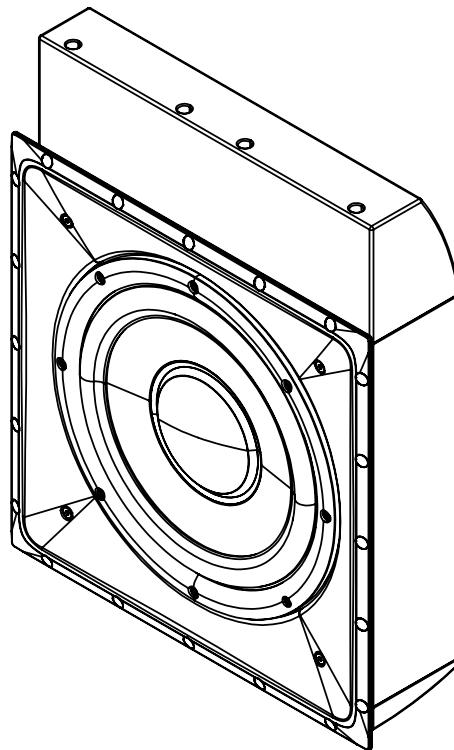




CSUBIW10R EX

RETROFIT IN-WALL SUBWOOFER • INSTALLATION MANUAL



1



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IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions before operating your unit.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Install this product in a cool, dry clean place - away from direct sunlight and heat source, vibration, dust and moisture.
6. Do not expose this unit to sudden temperature changes or locate it in an environment with high humidity. This is to prevent condensation forming inside which may cause damage to the unit.
7. Do not clean this unit with chemical solvent as this may damage the finish. Use a clean, dry or damp cloth.
8. Do not attempt to modify or manufacture if a fault should occur.
9. Ensure that any fixture structure will support the weight of this product.

CAUTION: READ BEFORE INSTALLING THIS PRODUCT

This manual contains detailed instructions required to install your CSUBIW10R EX into a cavity wall.



WARNING

No attempt should be made to install a CSUBIW10R EX within existing building structures unless you are certain that no electrical cables, water pipes, gas pipes or load-bearing joist will be cut through.

FIRE PROTECTION:

When making an intrusion into an internal wall to install a CSUBIW10R EX, be sure to check the appropriate regulations pertaining to the required fire rating. Depending on the location of the intrusion and the applicable regulations it may be necessary to build in or install additional fire rated components or products to surround the subwoofer. Origin Acoustics take no responsibility for the correct specification and installation of any such fire protection system that is required behind their loudspeakers.



CLEANLINESS DURING INSTALLATION:

Always install the CSUBIW10R EX when the general environment is clean and dust free. Keep the BLENDSCASUB10 protected in its shipping carton until cutting work is complete and the installation room has been cleaned down thoroughly.

WALL CONSTRUCTION QUALITY:

- Check the construction quality of the wall before installing the CSUBIW10R EX
- Surrounding wall-board should be securely fixed at regular intervals to a supporting framework of studs.
- If the wall-boards are not securely fixed and there is any clearance between the wall-board and studs, the CSUBIW10R EX may excite vibration and buzzing between the wall-board and supporting framework.
- If test shows that the wall-board is not securely fixed then it is essential to remedy this problem before commencing installation.

ENVIRONMENTAL SAFETY

- Before installing, ensure that the building is environmentally sealed, de-humidified to a maximum of RH50%, and a stable temperature of at least 61 degrees Fahrenheit (16 degrees centigrade)
- Please be aware that when this product is fitted in simple (stud or rafter with plasterboard/floorboard attached on either side) stud walls or wooden rafter ceiling/ floor structure. This energy can travel for some considerable distance up,down and along the structure. It is therefore recommended the product be fitted within acoustically isolated stud walls or ceiling sections where possible. Special care should be taken when installing the product in multi-occupancy buildings.
- Origin Acoustics takes no responsibility for inappropriate use of materials and environmental conditions under which they are applied.



1. INTRODUCTION

Thank you for your purchase!

At Origin Acoustics, we take pride in providing you with a high quality product. All of Origin Acoustics' speakers are designed to have excellent sound quality, longevity, and a simple installation process.

The Explorer Collection of loudspeakers from Origin Acoustics were developed to withstand the harsh conditions found in marine environments. This includes exposure to saltwater, extreme temperature changes and airborne humidity. They will produce amazing musical fidelity while spending family time on the lake or a trip on the open sea and they have the build quality to last for years in these situations.

This instruction booklet covers the necessary information for a smooth installation, including: the tools you will need, step-by-step instructions for installation, troubleshooting tips for any errors that may occur, and all warranty information. If for any reason you experience problems or if you have installation questions please call us at (844) 674-4461. Hours of operation are 8:00am to 5:00pm (Pacific Time), Monday through Friday.

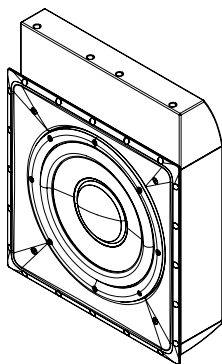
2. SPECIFICATIONS

MODEL	CSUBIW10R EX
PART	CSUBIW100REX
Description	Retrofit In-Wall Subwoofer
Woofers	10" (254mm) Rigid Aluminum w/ Rubber Surround
Crossover	HPF = 25Hz, 24dB/oct BW LPF = 120Hz or less, 24dB/oct BW
Frequency Response (with Origin PRO DSP)	32Hz-155Hz (-10dB) 39Hz-129Hz (-3dB)
Maximum SPL @ 1m, half space	111 dB Continuous, 114 dB Peak
Sensitivity, 2.83V/1m	85 dB
Power Handling @4ohms	200W Noise / 400W Program / 800W Peak
Rated Impedance	8Ω
Input Connectors	Gold Plated Spring Push Terminals
Enclosure	Extruded Aluminum
Amplifier Requirements	Origin PRO Amplifiers (ProA Series)

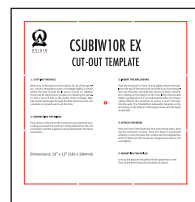
Cutout Dimensions	13" x 13" (330 x 330 mm)
Mounting Depth	3 ½" (88 mm)
Dimensions (Enclosure)	13" W x 17" H x 3 ½" D (330 W x 430 H x 88 D mm)
Grille Dimensions	14.375" x 14.375" (366 x 366 mm)

3A. WHAT'S INCLUDED

- Enclosure
- 4 x Screws
- Grille
- Bezel
- Cut Out Template



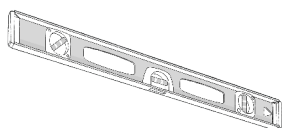
CSUBIW10 R EX



Cut Out Template

3B. WHAT'S REQUIRED

- Drywall Saw
- M5 Hex Wrench
- Speaker wire
- Tape measure
- Pencil
- Wire Stripper
- Drill
- Stiff Wire
- Stud Finder
- Fish Tape
- Spray Paint
- Compressed Air
- Drill Bit 1/8" (3mm)



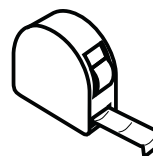
Level



Drill

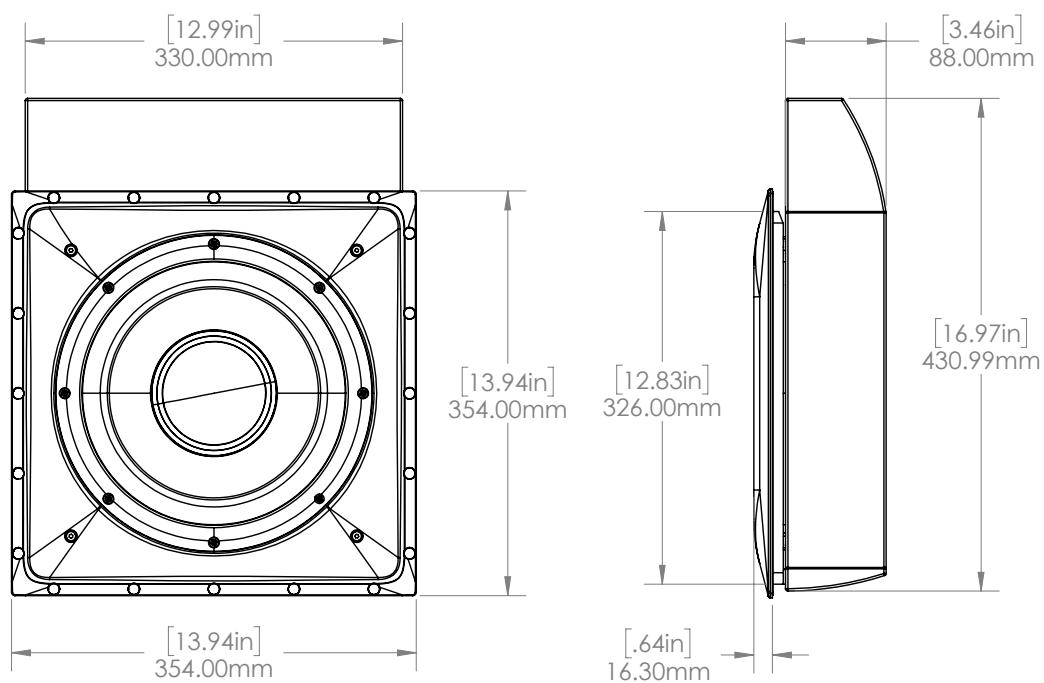
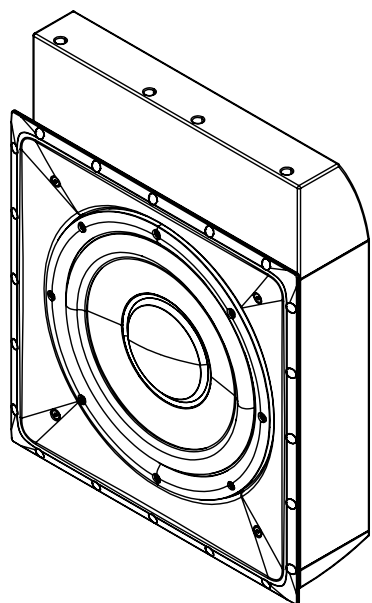


Screwdriver



Tape Measure

4. LINEDRAWINGS



5. RECOMMENDED APPLICATIONS

THE CSUBIW10R EX SUBWOOFER **MUST** BE INSTALLED IN A **RETROFIT** INSTALLATION.

6. INSTALLATION TIPS & GUIDANCE

6A. CHOOSING A LOCATION

The best location for the CSUBIW10R EX will always be close to the in-wall speakers it will partner, particularly where the listening position is not fixed (eg.: offices, demonstration areas etc.). A close location to the speakers will ensure that the path lengths to the listening are similar, maintaining a good volume balance between the speakers and the sub. However, as the low frequency bass sound from the CSUBIW10R EX is not directional, some flexibility is possible when the listening position is fixed and known (for example, seated in front of a screen). In this case the CSUBIW10R EX can be installed further from the speakers, if required.

The location of your subwoofer(s) will have a large impact on sound quality. As a general rule, subwoofers placed close to a corner of the room will tend to be more efficient and generate louder bass energy across the room. If you're installing two subwoofers in the room, the best option is one in each corner in the front.

After installation, the levels of sound from the speakers and subwoofer can be balanced to give equal volumes at the listening position.

6B. VIBRATION

During installation, remember that the CSUBIW10R EX produces deep base sound that can excite vibration in pipes and wires within the wall/ceiling and also in structure filled items such as lights. **It is good practice to securely fix wiring and pipes that run in cavities close to an CSUBIW10R EX or to wrap them in adhesive, acoustic foam to reduce the possibility of vibration.**

6C. INSTALLATION HEIGHT

The CSUBIW10R EX may be installed at any height within a wall, but for best performance and easiest installation, **IT IS HIGHLY RECOMMENDED TO POSITION THE CSUBIW10R EX LOW IN THE WALL.**

7. SUBWOOFER RETROFIT INSTALLATION

7A. RETROFIT PREPARATION (CRITICAL DIMENSIONS) STEPS

Each building and location may require a slight different approach to preparing the opening for a CSUBIW10R EX and making good the wall afterwards. Use these general instructions as guidelines for a retro-fit installation of the CSUBIW10R EX into an existing cavity wall.

NOTE: CSUBIW10R EX is NOT SUITABLE for retrofit into walls of SOLID CONSTRUCTION.

- Locate the studs either side of the area where the CSUBIW10R EX will be mounted.
- Remove any skirting that passes across the mounting area.
- Check that the cavity dimensions meet the requirements: the CSUBIW10R EX is designed to fit between 2" x 4" wall studs, with 16" (406mm) on-center framing.

The width between the studs must be as specified, to provide a mounting surface for the CSUBIW10R EX.

REMEMBER: CLEAN OUT THE CAVITY

Before proceeding with installation thoroughly clean out the cavity.

Now, follow the remaining normal installation steps.

7B. ROUTING THE WIRE

Plan how you'll route the wire to the desired speaker location. There are several methods for routing the wire and you may need to combine several of them.

Under the Carpet:

One option is to lift up the carpet and use tape wire to route the wire under the carpet.

Behind the Baseboard:

The wire can be routed behind the baseboard by cutting a groove out of the back of the baseboard, or by buying special baseboard designed for concealing wires.

Through an Attic, Crawlspce or Basement:

When available you can route the wire through an attic or crawlspace.

Through walls:

When running wires through a wall be sure to avoid all obstacles such as AC wiring, pipes, and ducts.

7C. INSTALLATION OF WIRE TO FROM AMPLIFIER THE SUBWOOFER

- *Route cable from the amplifier to the speaker location. Whenever possible, feed the cable DOWN from the ceiling above.*

- *For runs of 50 feet (15m) or less, use 16 gauge wire.*
- *For runs longer than 50 feet (15m), use 14 gauge wire.*

- *When routing cables, ensure cables are tied to the structure to avoid vibration, etc.*

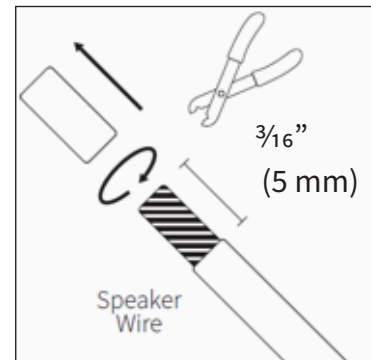
- *Strip $\frac{3}{16}$ inches (5 mm) of the cable insulation off both ends of the wires.*

- To avoid stray strands, twist them at the end.

- *Connect the speaker wire to the amplifier, but don't plug in the AC power just yet.*

- Route this wire to the subwoofer location.

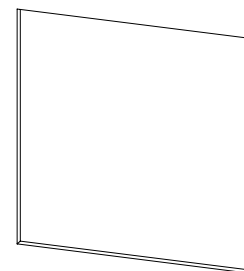
- Continue subwoofer wiring in the following step.



7D. CUTTING THE WALLBOARD HOLE

Once you've decided on the subwoofer's location, use the template to trace a rectangle lightly in pencil where the hole should be.

- If you're unsure on whether there may be obstacles (such as pipes or wires) where you plan on installing the speaker, drill a $\frac{1}{8}$ inch hole in the center of the rectangle, then put a bent coat hanger through the hole to feel around. If there are no obstacles, use a keyhole or drywall saw to cut the hole.



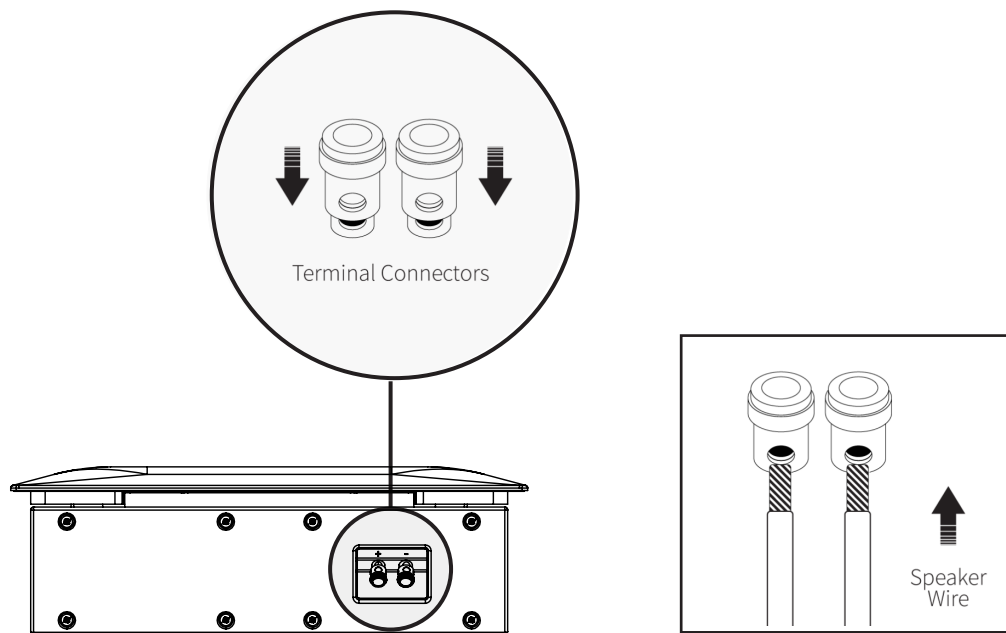
CLEANLINESS DURING INSTALLATION:

Any vibration or other noise found during test should be investigated and cured before continuing with installation.

7E. CONNECTING SPEAKER WIRE TO THE SUBWOOFER & INSERTING BINDING POST CONNECTIONS

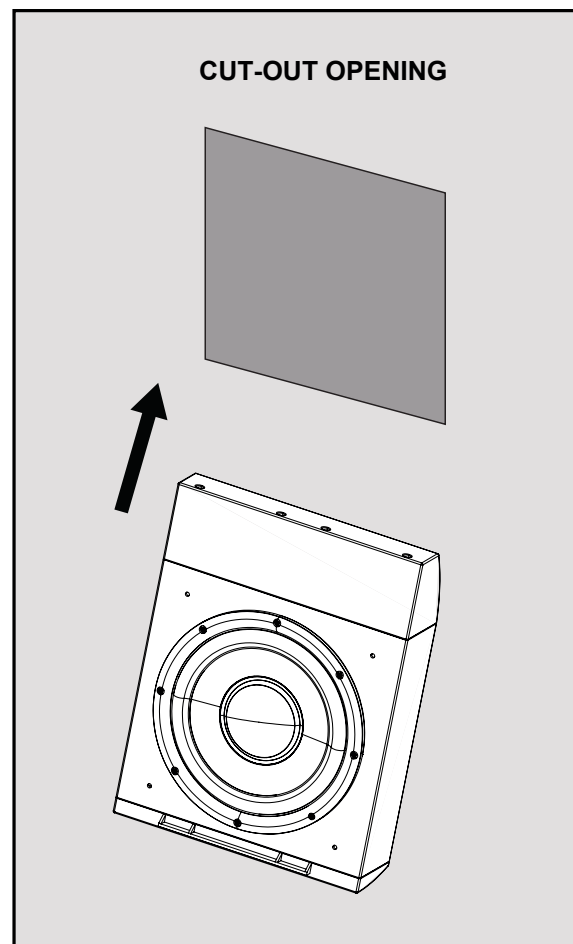
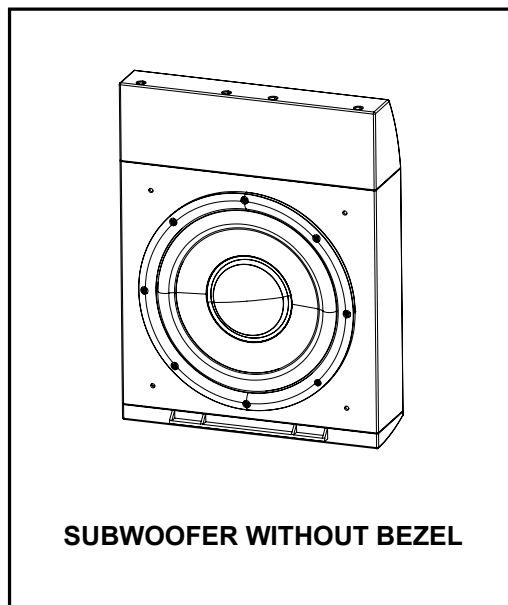
Depending on how you ran the wires to the subwoofer location, the wires can be attached to the connectors at the bottom or top of the enclosure.

- Route the wire, then loop the wire and zip tie into the enclosure, and connect the wires to the binding post.
- Push down on the top of the connector and insert the wire, making sure that the positive is being attached to the red connection and the negative is being attached to the black connection.
- ***Pay attention to speaker wire polarity, Positive (+) and Negative (-), when wiring to the amplifier speaker wires.***

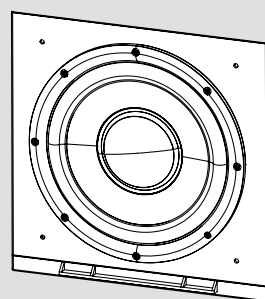
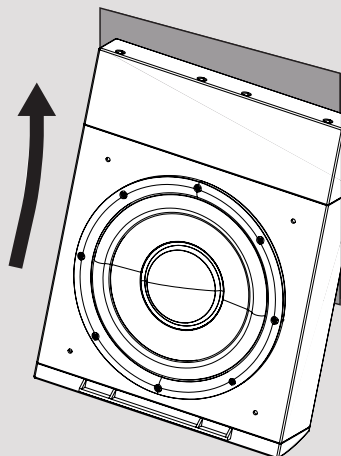


7F. INSERT THE ENCLOSURE

- Hold the enclosure in front of and slightly below the hole.
- Insert the top of the enclosure and slide it up.
- Push the bottom into the hole, and slide the enclosure down until the lip is resting on the bottom of the hole.
- *If the internal wall depth is greater than 3½" you will need to place some foam rubber behind the enclosure to assure it won't fall back into the wall.*
- *The CSUB10R EX subwoofer depends on the lip resting on the bottom of the square hole until the bezel is attached.*



SLIDE INWARD AT AN UPWARD ANGLE

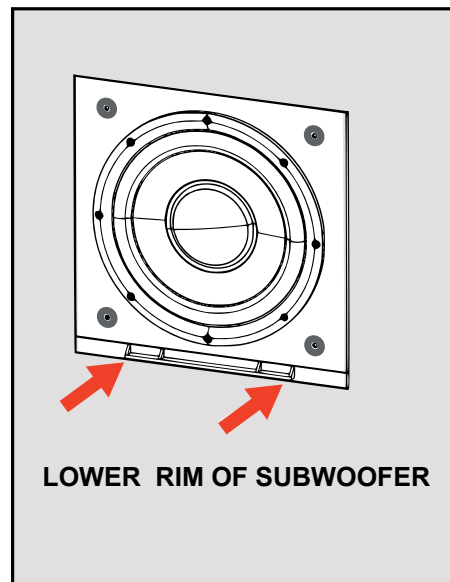
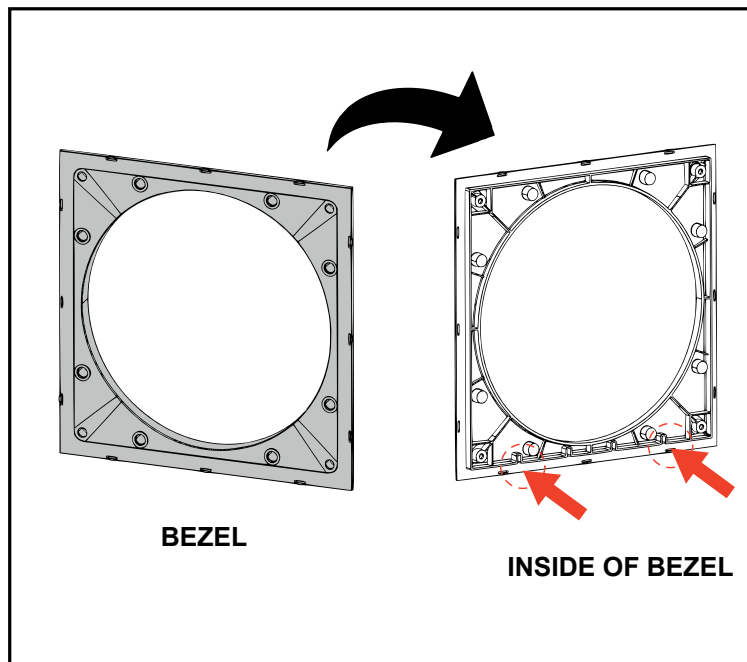
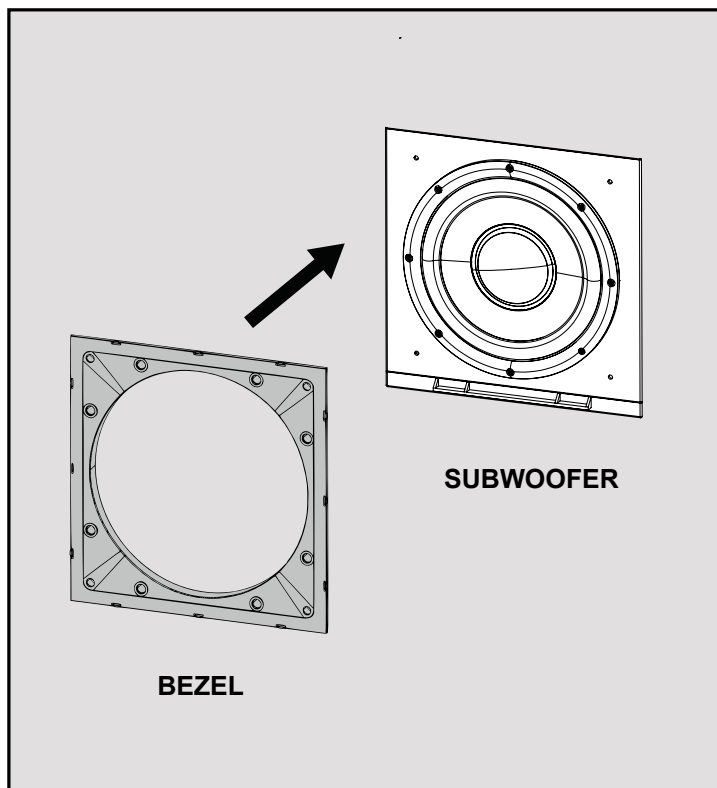


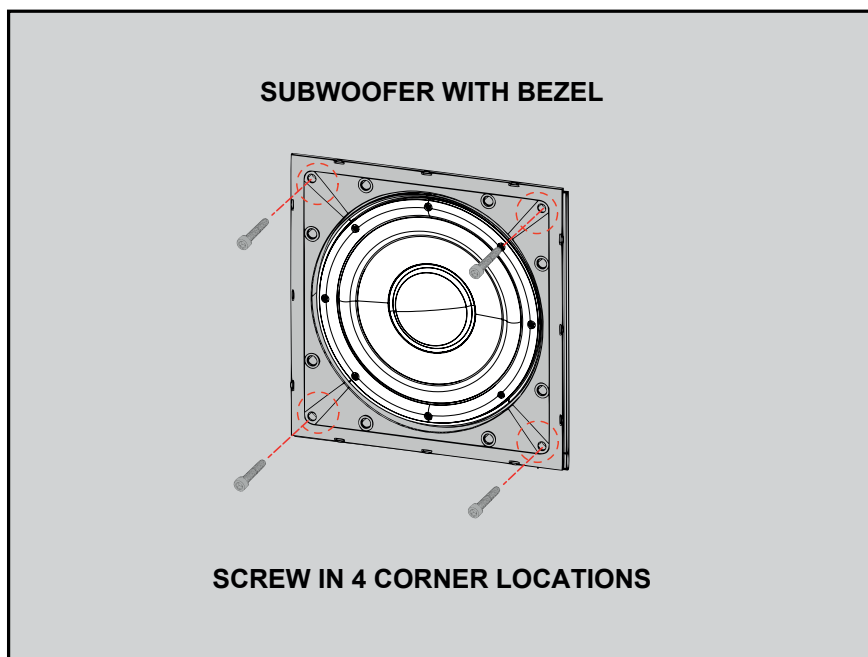
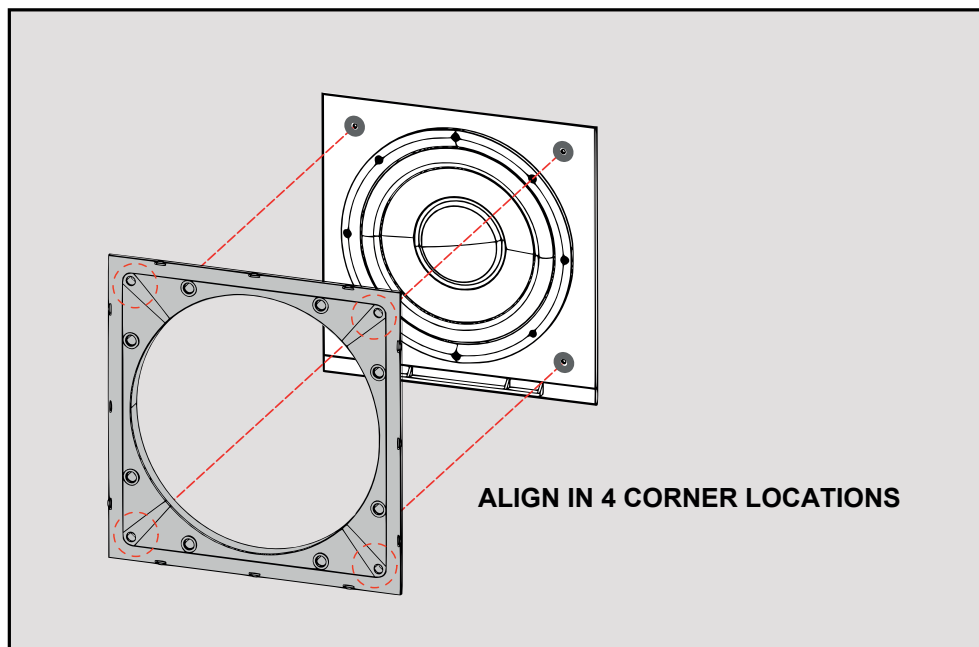
**INSTALLED SUBWOOFER
(WITHOUT BEZEL)**

7G. ATTACH THE BEZEL

Only one side of the bezel will nest onto the lip that is holding the enclosure in place. Once the bezel is positioned properly, screw it in place with the four screws in each of the four corner locations, using a hex wrench.

Make sure the screws are snug but use care to not overtighten.



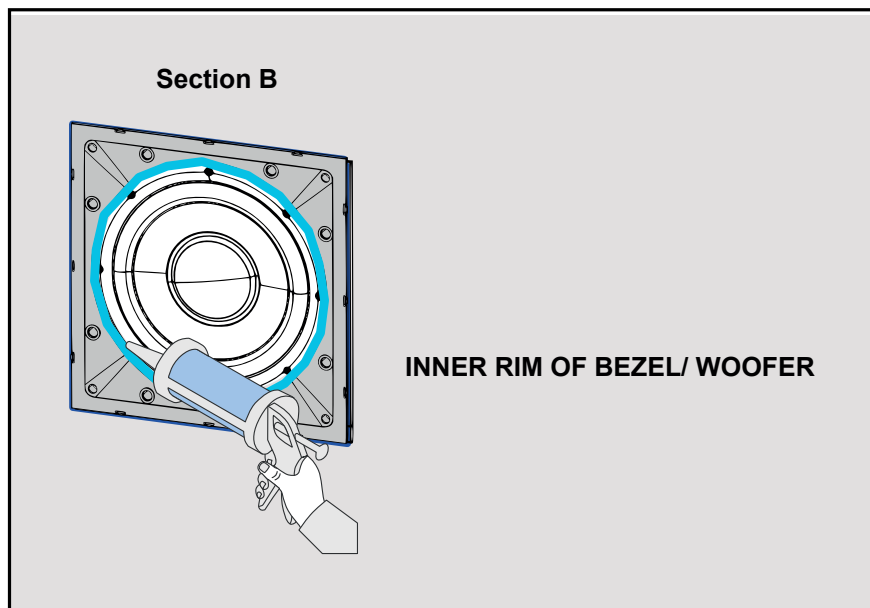
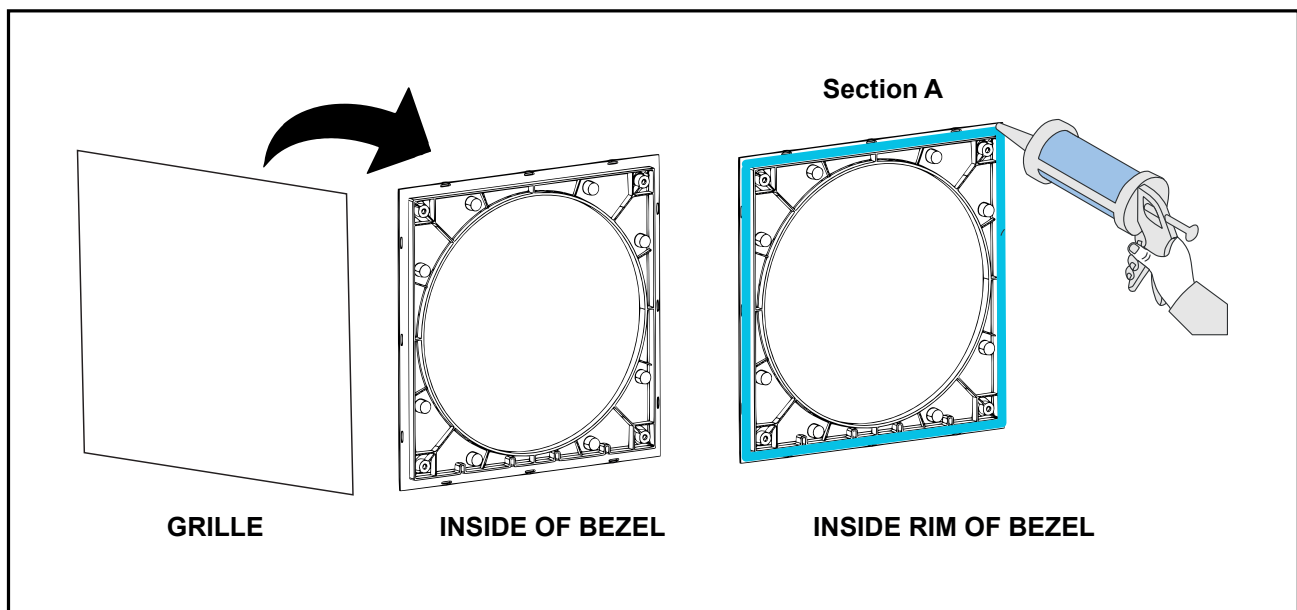


7H. SILICONE SEALANT:

In all applications where moisture is a concern, extra precautions are recommended to be taken - to completely seal the installation area location and the subwoofer.

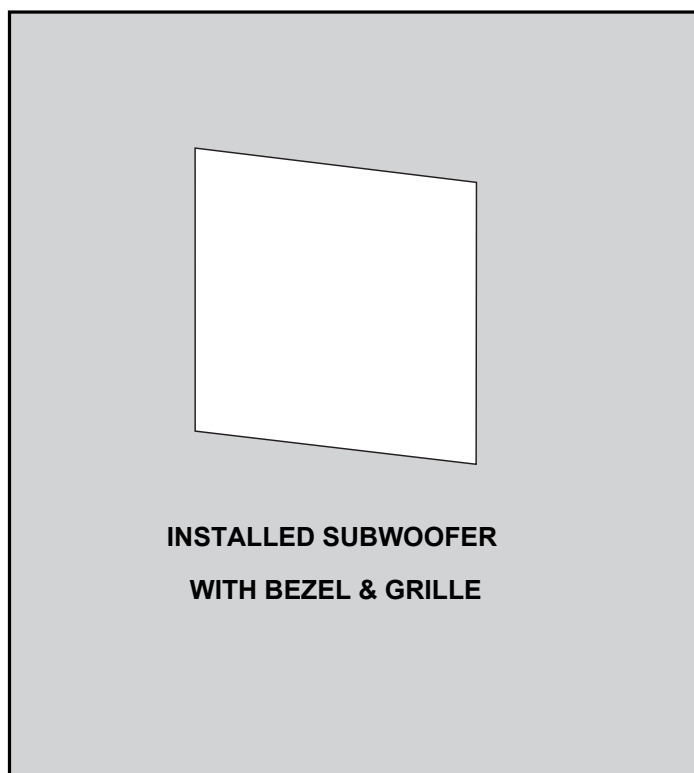
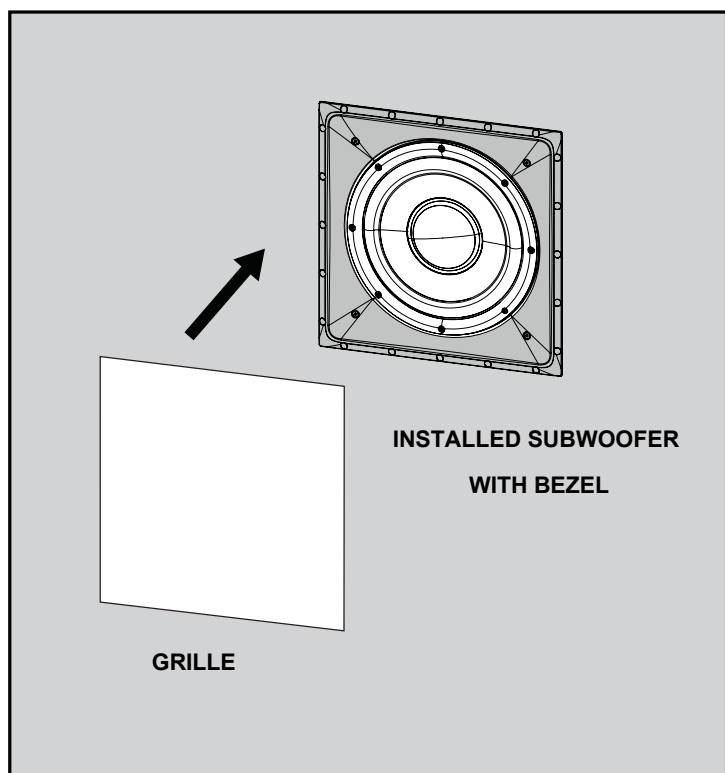
It is strongly recommended that you add a liberal bead of **MARINE GRADE SILICONE SEALANT** and apply on the inner border/perimeter of the Bezel (**Section A - where the EVA gasket is located**). Before you install on the bezel, add silicone sealant on the section in **between the bezel opening and the woofer edge - Section B**).

This will improve weather resistance and also assure that mechanical vibrations, and water ingress, like those common in watercraft or high moisture areas.



7I. MOUNTING THE GRILLE

Line up the grille with the front of the bezel and allow the grille to attach via the magnets.



7J. TEST SPEAKER SOUND

AT THIS POINT THE CSUBIW10R EX IS READY TO BE FULLY TESTED:

1. Turn on your ProA amplifier and set the DSP profile for the CSUBIW10R EX.
 2. Mute or disconnect any other system speaker
 3. Play a signal with high bass content, a low frequency sweep test signal is also useful at this stage.
 4. Increase the volume level and listen carefully for vibrations or other noises, locate the source of these and rectify the problem before continuing, (if you have more the one subwoofer installed, test one at a time).
 5. If speaker are installed un-mute or connect them
- Test the complete system to confirm that the sound from the subwoofer integrates well with the other speakers (adjust gain if needed).



It is recommended that the CSUBIW10R EX is only used with a DSP equipped amplifier, and if using a non-DSP amplifier then use together with external DSP equipment. Using an amplifier with no protection may permanently damage the CSUBIW10R EX.

Connect the amplifier to the cable from the CSUBIW10R EX. The minimum DSP specification are as follows:

- MAX output RMS limiter 37 Vrms
- High-Pass Filter Crossover at 25Hz, 24dB oct/BW
- Low-Pass Filter Crossover at 120 or less Hz, 24dB oct/BW

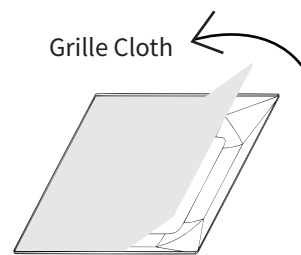
7K. OPTIONAL: PAINTING THE GRILLE

In some situations the speakers may look better if the color matched the walls or trim in the room. This can be accomplished by painting the grille.

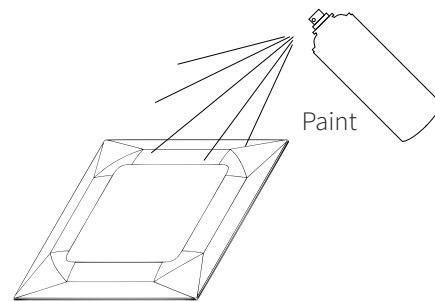
The grille must be painted with spray paint, and most hardware stores will mix a can of paint to match whatever color you need.

Before painting, carefully remove the thin cloth on the underside of the grille. Lightly spray the front of the grille with the paint from a distance, being careful not to plug any of the holes.

Diluting the paint with paint thinner will lessen the risk of filling any holes. If a hole gets plugged use a can of compressed air to open it. Once the paint is dry, put the cloth back on the grille.



Grille Backside



Grille Frontside

8A. AMPLIFIER & SYSTEM SET UP

The CSUBIW10R EX has been designed to be installed with Origin PRO Amplifiers for a seamless, optimal listening experience, with ready-to-go, dedicated DSP profiles.

Select and set up the corresponding DSP profile to each speaker, for optimum sound and bass control.

Scan the QR code below or see docs.originacoustics.com to access the correct DSP profile.



- Depending on your TV and other equipment you wish to connect, identify the Audio OUT from your source (RCA or SPIDIF connection) and connect to the ProA Analog or Digital INPUT.
- Set up the ProA amplifier input and output routing, using the amplifier GUI, and select the corresponding DSP profiles.
- Connect the speakers with the ProA amplifier using speaker wire. Insert the wires into the connectors, making sure that the positive wire is being attached to the red connector and the negative wire is being attached to the black connector. If the negative and positive wires are switched, speaker performance will be drastically impacted.
- Connect the amplifier to the power supply. **Double check all the wiring before turning on.**

PLEASE CONTACT OUR CUSTOMER SERVICE FOR ANY INQUIRIES REGARDING THE SETUP.

8B. PERFECTING THE SYSTEM

Turn on the amplifier. Calibrate all the speakers in the system according to the amplifier's manufacturer's instructions.

MAKING AMPLIFIER ADJUSTMENTS

1. From your ProA amplifier, select the DSP profile according to the speaker that its connected. Select the correct input source and adjust the gains accordingly

2. "Phase" adjustment should come next. This adjustment can have a subtle effect, but it is worth doing. You won't need to sweat getting it exact; the important thing is to avoid getting it wrong.

When tuning by ear:

a. If you are using a home theater receiver, during set-up there will be section asking you to enter the distance from the listener to the speakers. You should do this before proceeding. If you are using a receiver that does not have this feature, don't worry, the following steps will still get everything right.

b. For source material, a test CD with an 80Hz or 100Hz test tone (either sine wave or $\frac{1}{3}$ octave pink noise) is best but anything with constant bass can also work well.

c. Set the volume so that the bass level sounds approximately right to slightly bass heavy.

d. You will want to be in the critical listening area. Have a helper adjust the phase control until the bass level sounds the loudest. If you are using music or video tracks for this test, listen for the mid-bass level as the low bass will be unaffected. At this stage you're listening for the loudest bass, not the best.

3. When tuning by measurement, you will use the same method as above except:

a. Replace your ear with an SPL meter. An inexpensive SPL meter works fine or you can download a free app for use on your phone.

b. Unfortunately, the music CD with constant bass won't work here. You will need to use a test CD.

9. TROUBLESHOOTING

If possible, it's often good to try to isolate the problem first. For example, if you're playing a DVD on a television and there's no sound, try connecting an MP3 player to the system to see if that works. If it does work, then the problem is with the television, DVD player, or the cables connecting them. If it doesn't work, the problem will be with the amplifier, speakers, or those cables.

Problem	Possible Cause
No Sound	The volume may be turned down or muted. Check the volume settings on both the amplifier and the television/computer/CD player/etc.
No Sound	Make sure the proper source is selected on the amplifier or receiver.
No Sound	Check the cord connecting the amplifier with the source. The cord may be damaged or plugged into the wrong input or output.
No Sound	Check the wires connecting the amplifier with the speakers. Make sure they're connected properly and not damaged in any way.
Poor Sound Quality	If you hear something like static, or the sound is cutting in and out, check the audio cables. If the problem increases when a cable is being moved, then the cable is most likely faulty or not connected properly.
Poor Sound Quality	Today's audio systems may have several places to adjust the volume, for example your MP3 player may have a volume control, and your amplifier may also have one. Check to be certain that the volume isn't turned up past 80% on any device.
Poor Sound Quality	Try changing sources to be certain that the selection you've chosen is a good quality recording.

10. TECHNICAL ASSISTANCE

If you have any questions or concerns about installing or using this product, you can reach us through one of the following methods:

Phone:

(844) 674-4461

Hours of operation: 8:00am - 5:00pm (Pacific Time), Mon - Fri

Email:

sales@originacoustics.com (Warranty/ Sales Inquires) • support@originacoustics.com (Tech Support)

If you are having technical trouble, please include the model number and briefly explain what steps you took to resolve the problem in your email, or be prepared to answer these questions over the phone. If you are considering returning the product, it's required that you contact Origin Acoustics prior to any return attempts. This way we can determine if the issue can be resolved without returning the product, or if needed we can provide instructions and support for the return process.

11. WARRANTY COVERAGE

Origin Acoustics warrants to the original retail purchaser only that for a period of Five (5) years from the original date of purchase. This Origin Acoustics product will be free from defects in materials and workmanship, provided the speaker was purchased from an Origin Acoustics authorized dealer.

If the product is determined to be defective, it will be repaired or replaced at Origin Acoustics' discretion. If the product must be replaced yet it is no longer manufactured, it will be replaced with a model of equal to or greater value that is the most similar to the original. If this is the case, installing the replacement model may require mounting modifications; Origin Acoustics will not be responsible for any such related costs.

REQUIREMENTS & WARRANTY COVERAGE

This warranty may not be valid if the product was purchased through an unauthorized dealer. This warranty only applies to the individual that made the original purchase, and it cannot be applied to other purchases. The purchaser must be prepared to provide proof of purchase (receipt). This warranty will not be valid if the identifying number or serial number has been removed, defaced, or altered.

***Please refer to docs.originacoustics.com for the latest warranty information.**

NOT COVERED BY WARRANTY

- Accidental damage
- Damage caused by abuse or misuse
- Damage caused by attempted repairs/modifications by anyone other than Origin Acoustics or an authorized dealer
- Damage caused by improper installation
- Normal wear, maintenance, and environmental issues
- Damage caused by voltage inputs in excess of the rated maximum of the unit
- Damage inflicted during the return shipment

12. RETURN PROCESS

Before making any return attempts, it is required that you first contact Origin Acoustics. Return product to Origin Acoustics or your dealer, either in person or by mail. It's preferable if the product is returned in the original packaging. If this isn't possible, the customer is responsible for insuring the shipment for the full value of the product.

This warranty is in lieu of all other expressed or implied warranties. Some states do not allow limitations on implied warranties, so this may not apply depending on the customer's location. (For more information, see Magnuson-Moss Warranty Act.)



6975 S Decatur BLVD, Las Vegas, NV 89118 • originacoustics.com • 844-674-4461

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