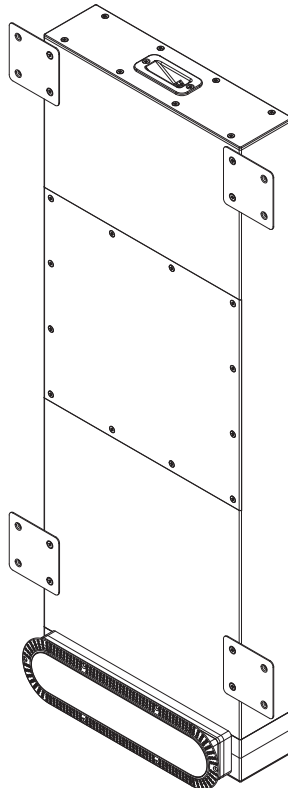




BLENDSCSUB10

PORTED BASS • INSTALLATION MANUAL



1



TABLE OF CONTENTS

Important Safety Instructions	I
Environmental Safety	III
1. Introduction	1
2. Specifications	2
3. What's Included	3
4. Linedrawings	3
5. Recommended Applications	3
6. Installation Tips & Guidance	4
7. Subwoofer Installation	5
7A. Retrofit Installation (Critical Dimensions) Steps	5
7B. New-Construction Installation Steps	6
* Testing the BlendsCSUB10 Ported Bass*	8
8. Troubleshooting	12
9. Technical Assistance	13
10. Warranty Coverage	13
11. Return Process	14

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.
10. The BLENDSCSUB10 is a large item.

TWO PEOPLE ARE RECOMMENDED TO HANDLE THE BLENDSCSUB10 DURING INSTALLATION.

CAUTION: READ BEFORE INSTALLING THIS PRODUCT

This manual contains detailed instructions required to install your BLENDSCSUB10 into a cavity wall.



WARNING

No attempt should be made to install a BLENDSCSUB10 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 BLENDSCSUB10 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 BLENDSCSUB10 when the general environment is clean and dust free. Keep the BLENDSCSUB10 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 BLENDSCSUB10
- 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 BLENDSCSUB10 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.
- During installation take care to use appropriate and suitable joint filling compounds to fill the gap between BLENDSCSUB10 and the surrounding surface. This gap should be no less than 2mm (1/16”) and no more than 5mm (3/16”) in width.

Inappropriate compounds used in such a joint can shrink and crack excessively and lose strength. Allow the joint to dry thoroughly before applying surface skim coats, as shrinking in the depth whilst drying could create a very slight embossed outline in the finished and decorated surface.

NOTE: The joint may be take several days to dry fully.

- As a general rule in the construction industry, any drying process should be gradual rather than forced with excessive heat, otherwise materials can lose strength and can crack.
- Origin Acoustics takes no responsibility for inappropriate use of materials and environmental conditions under which they are applied.



1. INTRODUCTION

Thank you for choosing the BLENDSCSUB10 Ported Bass. Our revolutionary in-wall subwoofer is fully hidden within the wall framing, except for the minimally visible, slim, slotted port.

This instruction booklet cover 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	BLENDSCSUB10
System Type	PORTED BASS (IN-WALL SUBWOOFER OPEN VIA CUSTOMIZABLE TRIM)
Driver	10" Neo-Magnet, Rigid Aluminum Cone, Rubber Surround, Shallow Woofer
Crossover	HPF: 25Hz (48dB/oct BW, LPF: 120Hz or less, 48dB/oct BW
Frequency Response	32Hz-120Hz • -10dB with Origin PRO DSP 37Hz-120Hz • -3dB with Origin PRO DSP
Maximum SPL @ 1m	113 dB Continuous Program • 116 dB Peak
Sensitivity, 2.83v/1m	90 dB
Power Handling	200W Program • 400W Peak
Recommended Amp Power	LF-50W - 400W @ 4 ohms (Amp must be limited to 200Wrms (28.3V) for protection
Rated Impedance	4 ohms
Input Connectors	Euro Block
Enclosure Material	Extruded Aluminum Enclosure
Mounting	Direct to Stud Mounting Plates

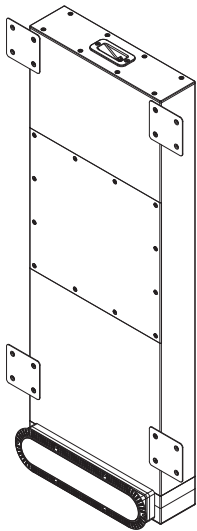
3. WHAT'S INCLUDED

The BLENDSCSUB10 Ported Bass includes:

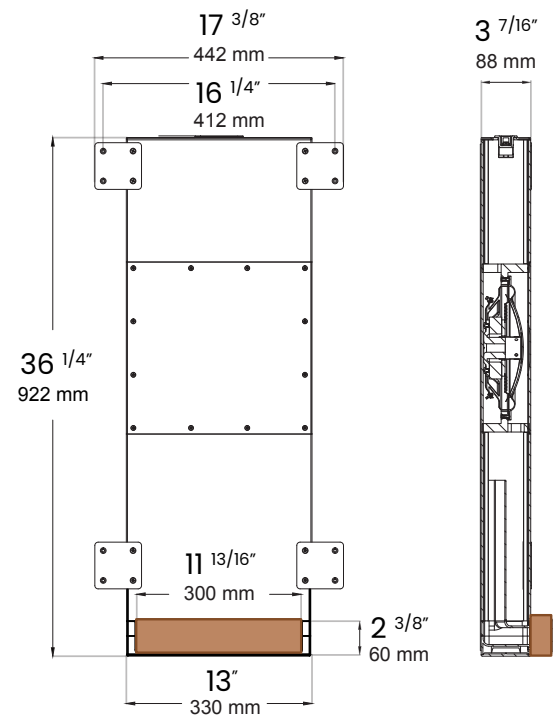
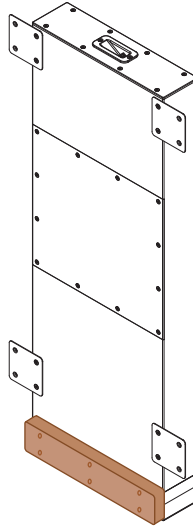
- Wood Protection Cover (1pc)
- Mounting Brackets (4pcs)
- Port Tube Spacer $\frac{1}{8}$ " (1pc)
- Port Tube Spacer $\frac{1}{4}$ " (1pc)
- Port Tube Spacer $\frac{1}{2}$ " (1pc)
- M4 x 8mm Stainless Steel Metal Screws (8 pieces)
- 1" Stainless Steel Wall Stud Screws (8 pieces)
- M3 x 30mm Screws (6 pieces)
- 1 x Metal Protection Plate
- 1 x Cut-Out Template
- 1 x Quick-Start Guide

4. LINEDRAWINGS

WITHOUT WOODEN PROTECTION COVER



WITH WOODEN PROTECTION COVER



5. RECOMMENDED APPLICATIONS

- The BLENDSCSUB10 Ported Bass **MUST** be installed in new construction during the PRE-WIRE PHASE.
- The BLENDSCSUB10 Ported Bass is designed to fit between 16" (406mm) on-center framing.

6. INSTALLATION TIPS & GUIDANCE

6A. CHOOSING A LOCATION

The best location for the BLENDSCSUB10 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 BLENDSCSUB10 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 BLENDSCSUB10 can be installed further from the speakers, if required.

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

6B. VIBRATION

During installation, remember that the BLENDSCSUB10 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 BLENDSCSUB10 or to wrap them in adhesive, acoustic foam to reduce the possibility of vibration.**

USE CLOSED FOAM TAPE, MEASURING 2MM X 20MM (1/4" X 3/4"), IN THE REAR OF THE BLENDSCSUB10 ENCLOSURE CONTACT SURFACE, TO PREVENT CONTACT VIBRATIONS.

6C. INSTALLATION HEIGHT

The BLENDSCSUB10 may be installed at any height within a wall, but for best performance and easiest installation, **IT IS HIGHLY RECOMMENDED TO POSITION THE BLENDSCSUB10 LOW IN THE WALL.**

6D. PHYSICAL PLACEMENT

USE ASSISTANCE to help support the cabinet when raising the BLENDSCSUB10 into your selected position on the wall studs. Check that the bracket fitting screws will land on the studs either side. The fixing screws supplied are for wood stud work. If you are fixing to a metal frame you will need use alternative self-drilling fixing screws (not supplied).

7. SUBWOOFER INSTALLATION

7A. RETROFIT INSTALLATION (CRITICAL DIMENSIONS) STEPS

Each building and location may require a slight different approach to preparing the opening for a BLENDSCSUB10 and making good the wall afterwards. Use these general instructions as guidelines for a retro-fit installation of the BLENDSCSUB10 into an existing cavity wall.

NOTE: BLENDSCSUB10 is NOT SUITABLE for retrofit into walls of SOLID CONSTRUCTION.

- Locate the studs either side of the area where the BLENDSCSUB10 will be mounted.
- Remove any skirting that passes across the mounting area.
- Ensure ALL plasterboard is removed from between the studs and a further 5mm (3/16") each side to a width of 410mm (16 1/8") to provide a seat for the BLENDSCSUB10 front panel.
- Check that the cavity dimensions meet the requirements: the BLENDSCSUB10 Ported Bass 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 BLENDSCSUB10.

IF THE INTER-STUD WIDTH IS GREATER THAN 380MM (15"), PACK THE STUD BOARD WITH ADDITIONAL TIMBER LENGTHS TO NARROW THE OPENING TO 380MM (15").

REMEMBER: CLEAN OUT THE CAVITY

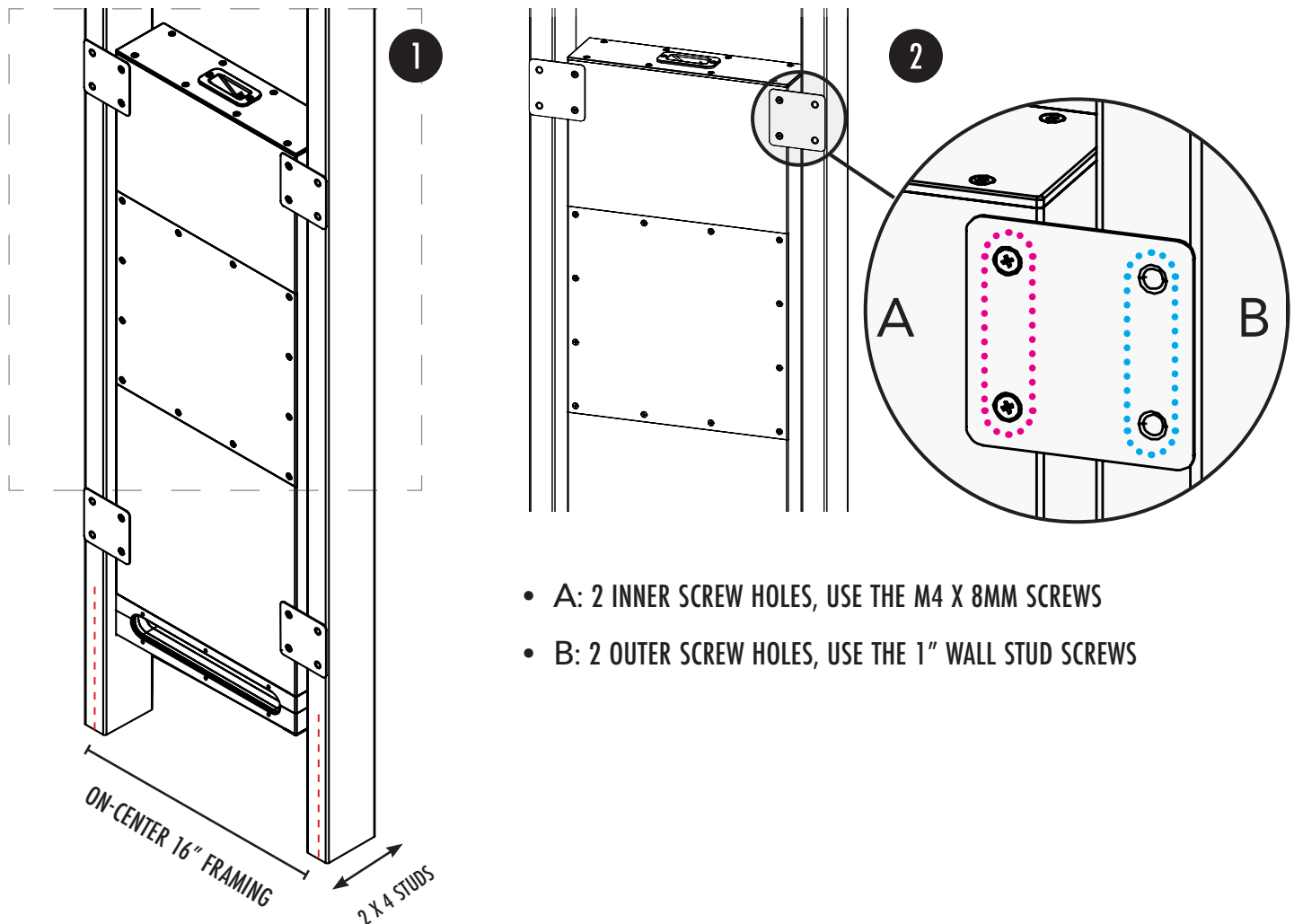
Before proceeding with installation thoroughly clean out the cavity.

Now, follow the remaining normal installation steps.

7B. NEW-CONSTRUCTION INSTALLATION STEPS

- The BLENDSCSUB10 Ported Bass **MUST** be installed in new construction during the PRE-WIRE PHASE.
- The BLENDSCSUB10 Ported Bass is designed to fit between 2" x 4" wall studs, with 16" (406mm) on-center framing (*Image 1*).

SEE IMAGE FOR CRITICAL INSTALL DIMENSIONS:



- A: 2 INNER SCREW HOLES, USE THE M4 X 8MM SCREWS
- B: 2 OUTER SCREW HOLES, USE THE 1" WALL STUD SCREWS

1. MOUNTING SUBWOOFER INTO FRAME

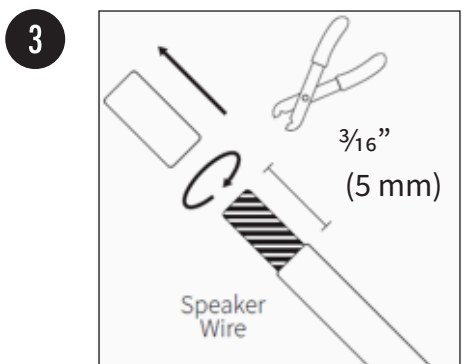
- First secure the 4 mount brackets onto the subwoofer enclosure (*Image 2*).
- Use the **2 INNER SCREW HOLES (A)** on each mount bracket to secure the speaker to the bracket, using the M4 x 8mm screws.
- Now, secure the subwoofer enclosure, in between the two side studs, in the desired framing location.
- Use the **2 OUTER SCREW HOLES (B)** on each mount bracket to secure the bracket and speaker to the wall studs, using the 1" Wall Stud Screws.

2. INSTALLATION OF WIRE TO THE AMPLIFIER

- Route cable from the amplifier to the speaker location. Whenever possible, feed the cable **DOWN** from the ceiling above.
- 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 (**Image 3**).
- Connect the speaker wire to the amplifier, but do not turn on amplifier just yet.

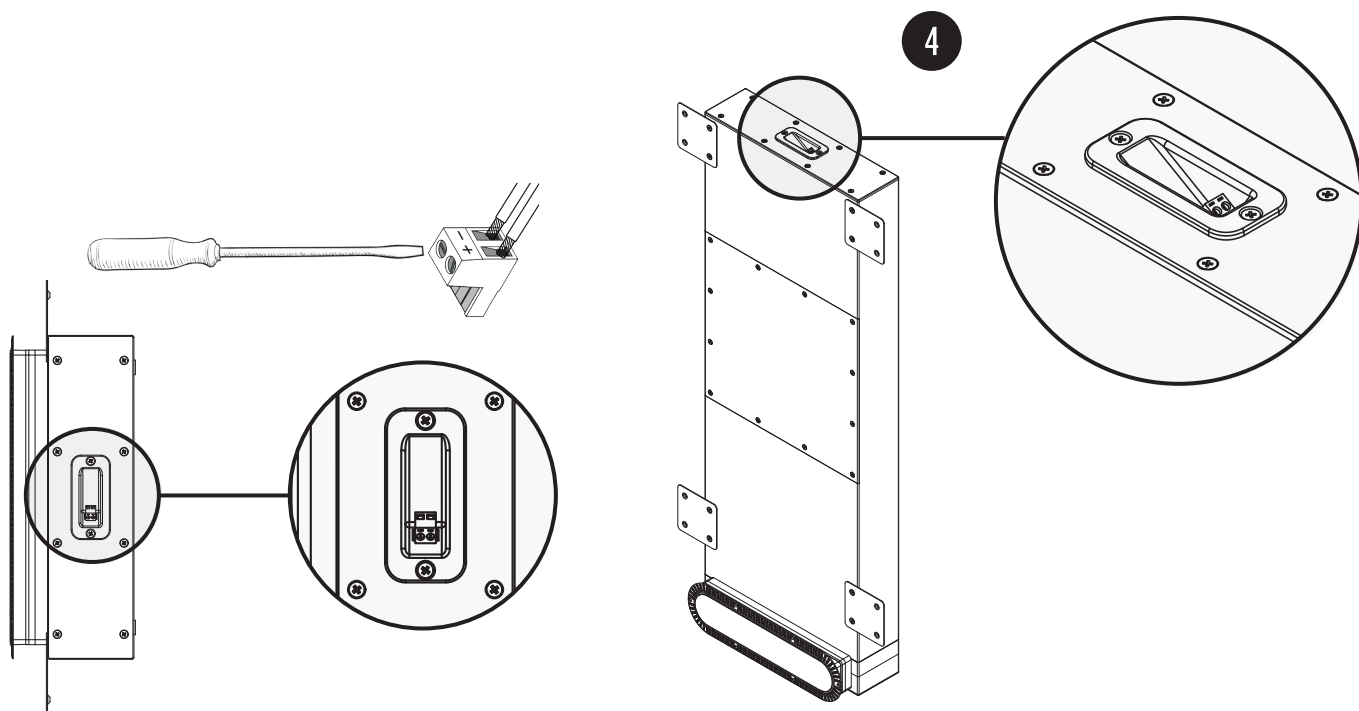
• For runs of 50 feet (15m) or less, use 16 gauge wire.

• For runs longer than 50 feet (15m), use 14 gauge wire.



3. INSTALLATION OF WIRE TO THE SUBWOOFER

- Depending on how you ran the wires to the speaker location, the wires can be attached to the 2-PIN Connector at one end of the enclosure (**Image 4**).
- Use a small flat head screwdriver to tighten the phoenix connector screw, to secure the wire.
- **The BLENDSCSUB10 Subwoofer uses a singular 2PIN connector and uses 2 x wire conductors.**
- **Pay attention to speaker wire polarity, Positive (+) and Negative (-), when wiring to the amplifier speaker wires.**



4. TEST SPEAKER SOUND

- Remove the Wooden Protection Cover.
- Turn on the amplifier and set the DSP for the BLENDSCSUB10. Play audio to confirm that you are getting low frequency, and pay attention to check for any rattling or vibration noise.

NOW IS THE TIME TO CORRECT POTENTIAL ISSUES.

- Replace the Wooden Protection Cover back into the Port Tube Opening.

BEFORE WALL FINISHING, TEST EACH SPEAKER WITH MUSIC/PINK NOISE FROM AMPLIFIED SOUND SOURCE AT LISTENING VOLUME, TO ENSURE FULL SPEAKER FUNCTIONALITY

WE RECOMMEND TESTING THE SYSTEM AT THIS TIME TO ENSURE THE SPEAKER IS INSTALLED AND WORKING PROPERLY.

AT THIS POINT THE BLENDSCSUB10 IS READY TO BE FULLY TESTED:

TESTING THE BLENDSCSUB10 PORTED BASS:



CAUTION!

The BLENDSCSUB10 Ported Bass must only be tested with DSP protection applied by using a DSP equipped amplifier, or a non-DSP amplifier within external Digital Signal Processor. Using an amplifier with no protection may permanently damage the BLENDSCSUB10.

- Connect the amplifier to the cable from the BLENDSCSUB10 Ported Bass. The minimum DSP specification should include: MAX output RMS limiter 28 Vrms
- High-Pass Filter Crossover at 25Hz, 48dB/ BW
- Low-Pass Filter Crossover at 120 or less Hz, 48dB/ BW
- If already installed, disconnect any other system speakers.
- Play a signal with high bass context. A low frequency sweep test signal is also useful at this stage.
- Increase the volume level and listen carefully for vibrations or other noises locate the source of these and rectify the problem.
- If speakers are installed, connect them up
- Test the complete system to confirm that the sound from the subwoofer integrates well with the other speakers.

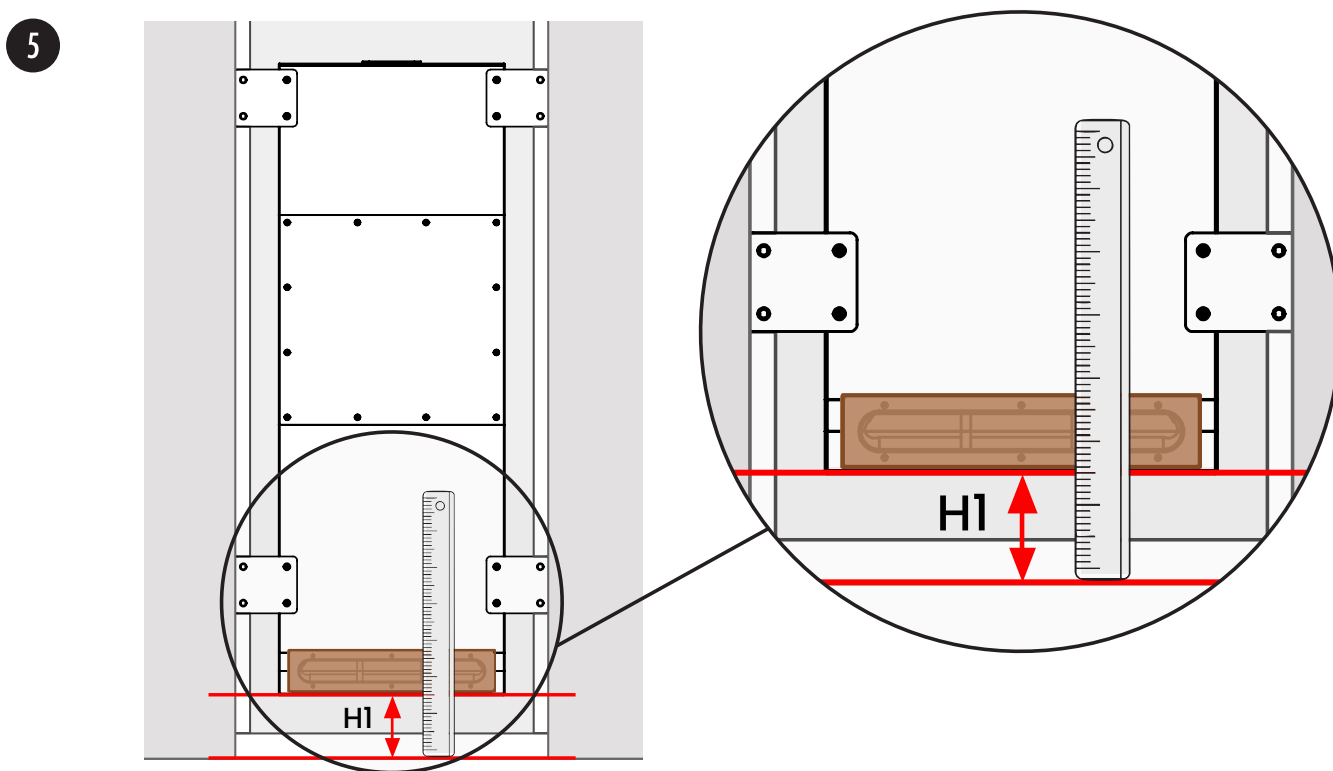


CLEANLINESS DURING INSTALLATION:

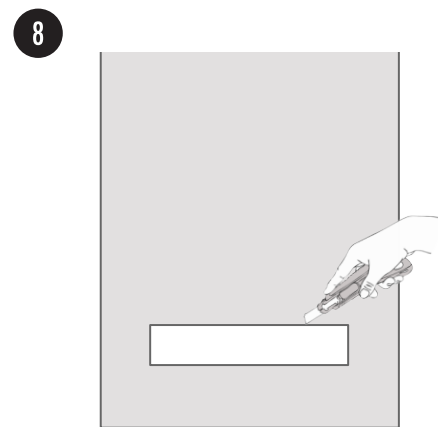
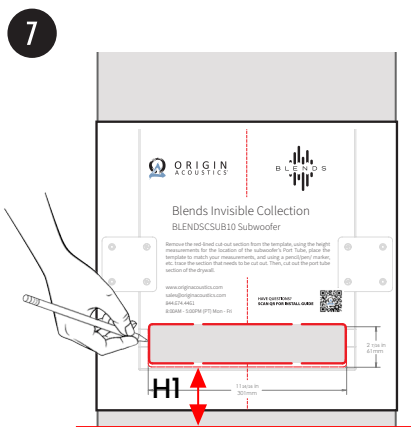
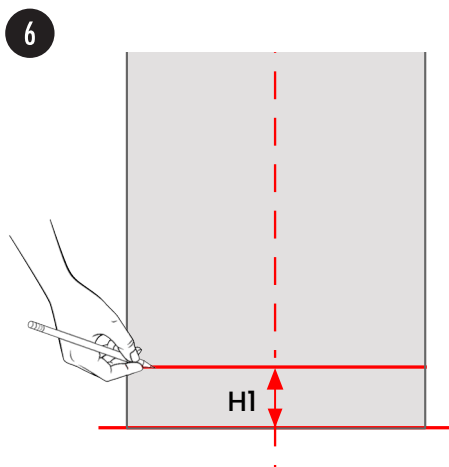
Any vibration or other noise found during test should be investigated and cured before continuing with installation.

5. PORT-TUBE EXIT & CUSTOMIZABLE TRIM INSTALLATION

- Use a tape measure or ruler to accurately take a height measurement from the floor to the base of the Port Tube Exit (with Wood Protection Cover) on the subwoofer (H1). (*Image 5*).

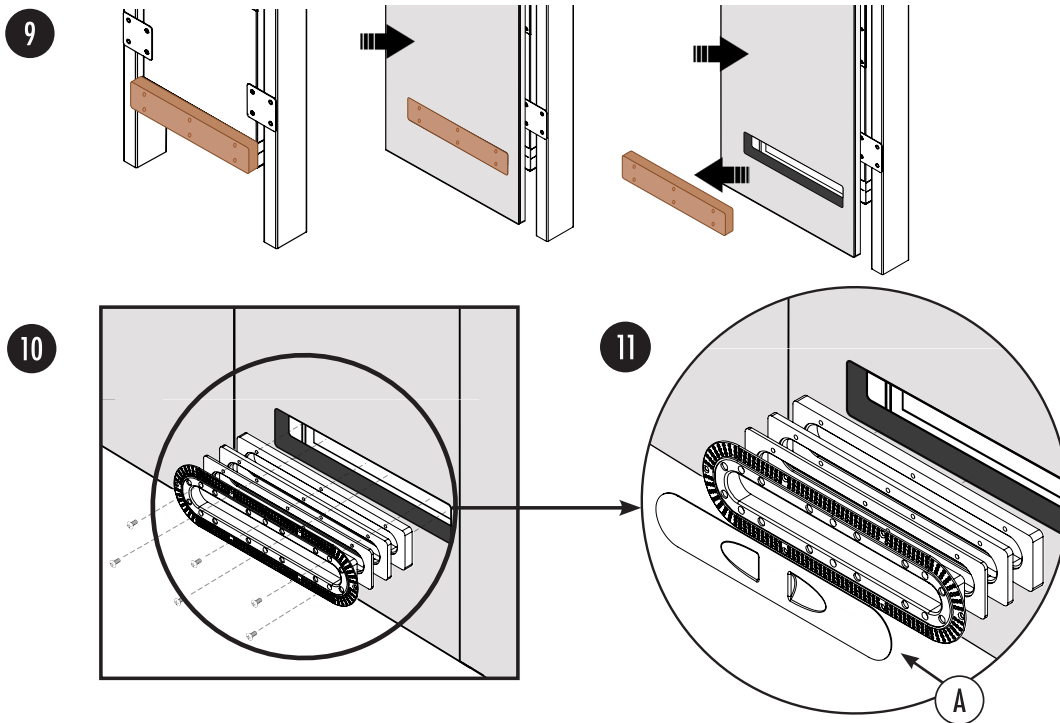


- Take the wall board and use the height measurement to the bottom of the Port Tube Exit (H1), as a reference line to place and center the Cut-Out Template on the wall board (assuming that the subwoofer is centered in the opening). (*Images 6 & 7*)
- Next, trace along the inside of the Cut-Out Template to transfer the exact cut-out area on the wall board. (*Image 7*). Cut-Out Opening dimensions should be 11 1/16" W x 2 7/16" H (301 mm L x 61mm H).
- Use a saw to cut-out the Port-Tube Exit area from the wall board (*Image 8*).



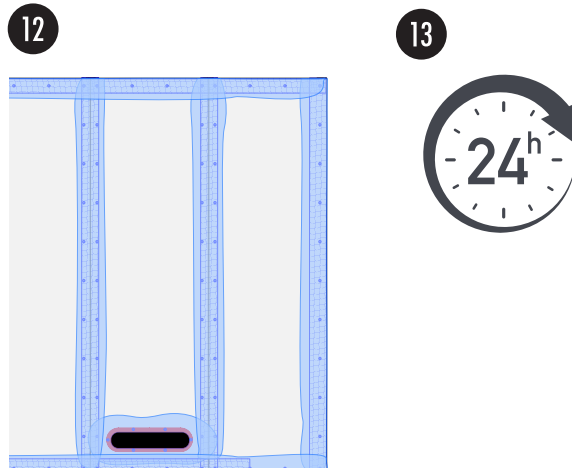
6. FIT & SECURE DRYWALL

- Take the wall board with the cut-out opening for the Port-Tube and test fit the wall board panel over the Wood Protection Cover, to check that the opening fits. Adjust if needed.
- Next, secure the wall board into the framing studs. Then, remove the Wood Protection Cover (**Image 9**) so that the spacers and the Customizable Trim Ring can be added. (**Image 10**). Ensure they fit snugly, so the Customizable Trim Ring sits flush with the wall board panel, and secure with the **6 x M3 screws**.
- Next, place the Metal Protection Plate (A) inside the Customizable Trim Ring opening, to protect the Port-Tube from any debris during the mud process (**Image 11**).



7. ADDING MUD

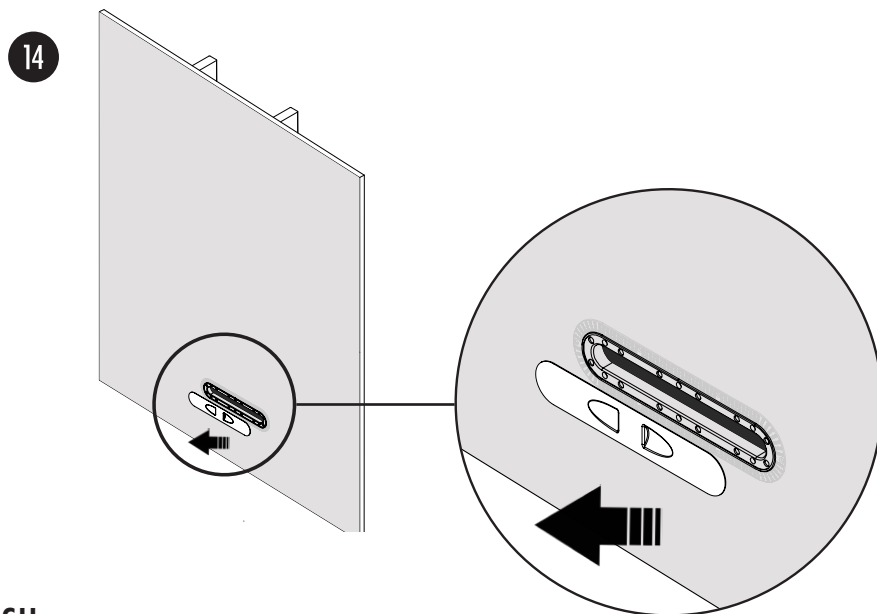
- Now the drywall can be prepared/textured according to the required final room finish. You can add mud over the Customizable Trim Ring opening, as well as add the mud over the rest of the wall (**Image 12**).
- Apply the mud surface material, plaster & paint, over the Customizable Trim, and use mesh tape to cover any installation seams. Apply joint compound and level out compound to conceal seams. Make sure to mud up to the rim of the trim ring spacer. Ensure the environment is dry enough to allow the plaster skim coats to dry within 24 hours, not days (**Image 13**).



8. SAND SMOOTH

- Once dry, sand around the port perimeter, with fine grit sandpaper, to remove any mud plaster that may have fixed around the port opening. When the perimeter is completely smooth, use a vacuum cleaner to remove any dust that may have entered into the port.
- Once sanding is done, remove the Metal Protection Plate (A) and clean the area, to prepare it for final painting.

(Image 14)



9. PAINT AND FINISH

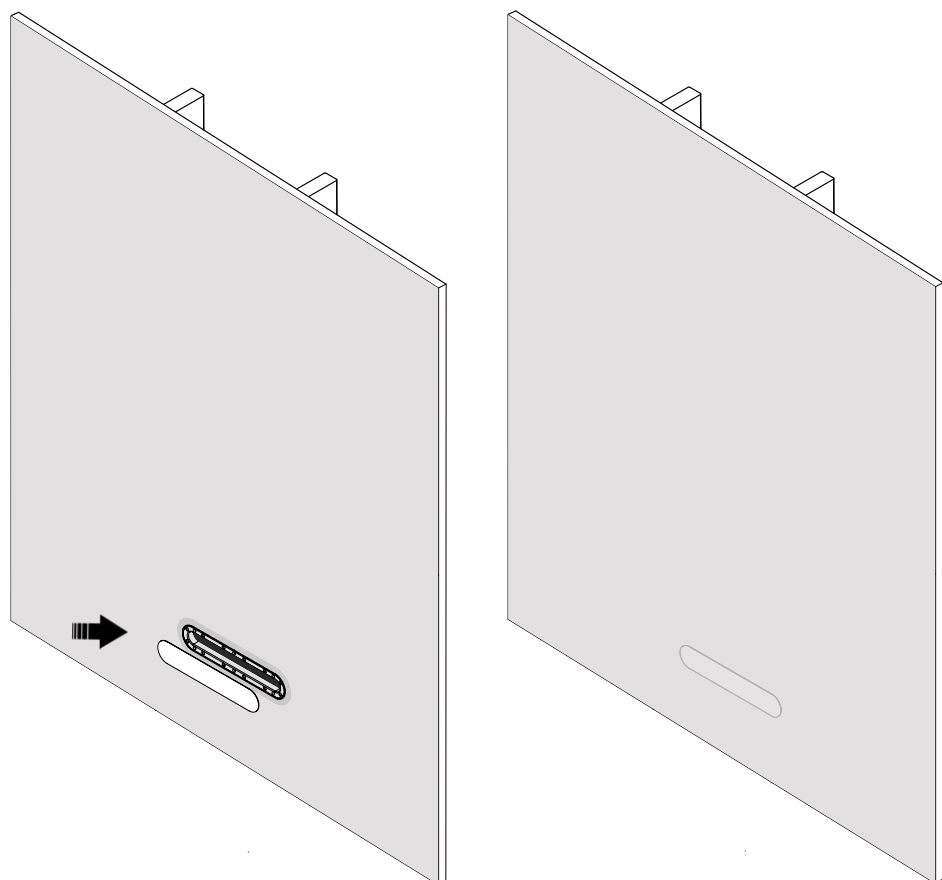
- Once the sanding has been perfected, the face panel is ready for painting. (Image 15). Finalize by adding the paintable grille. (Image 16)

15



PAINT & FINISH

16



8. 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.

9. 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

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.

10. 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

13. 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.)

