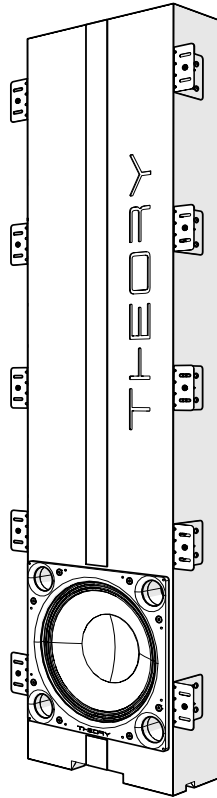


# iws12-6 Install Subwoofer



## QUICK START INSTALLATION GUIDE

Rev b 230726

**THEORY**  
THEORY AUDIO DESIGN

## LIMITED WARRANTY

Disclaimer : THEORY AUDIO DESIGN, LLC is not liable for any damage to loudspeakers or any other equipment that is caused by negligence or improper use or installation of this product, including damage caused by connecting Theory loudspeakers and subwoofers to third party amplifiers.

### **THEORY AUDIO DESIGN, LLC 5-Year Limited Loudspeaker and Subwoofer Warranty**

THEORY AUDIO DESIGN, LLC guarantees its loudspeaker and subwoofers products to be free from defective materials and/or workmanship for a period of five (5) years from the date of sale, and will replace defective parts and/or repair malfunctioning products under this warranty when the defect occurs under normal installation and use - provided that the unit is returned to our factory or one of our authorized service centers via prepaid transportation with a copy of proof of purchase (sales receipt). This warranty provides that the examination of the return must indicate, in our judgment, a manufacturing defect. This warranty does not extend to any product which has been subject to misuse, neglect, accident, improper installation or where the date code has been removed or defaced. THEORY shall not be liable for incidental and/or consequential damages. The warranty gives you specific legal rights. This limited warranty is not transferable. Customer may have rights which vary from state to state.

In the event that this product was manufactured for export and sale outside of the United States or its territories, then this limited warranty does not apply. Removal of the serial number on this product, or purchase of this product from an unauthorized dealer will void this limited warranty.

### **EXCLUSIONS**

To the extent permitted by law, the warranty set forth above is in lieu of, and exclusive of, all other warranties, express or implied, and is the sole and exclusive warranty provided by Theory Audio Design, LLC. All other express and implied warranties, including the implied warranties of merchantability, implied warranty of fitness for use, and implied warranty of fitness for a particular purpose are specifically excluded.

Theory Audio Design, LLC shall not be liable for consequential, incidental, economic, property, bodily injury, or personal injury damages arising from the product, any breach of this warranty or otherwise.

This warranty statement gives you specific legal rights, and you may have other rights which vary from state to state. Some states do not allow the exclusion of implied warranties or limitations of remedies, so the above exclusions and limitations may not apply. If your state does not allow disclaimer of implied warranties, the duration of such implied warranties is limited to period of THEORY'S express warranty

Periodically this warranty is updated. To obtain the most recent version of THEORY'S warranty statement, please call +1-949-245-0505.

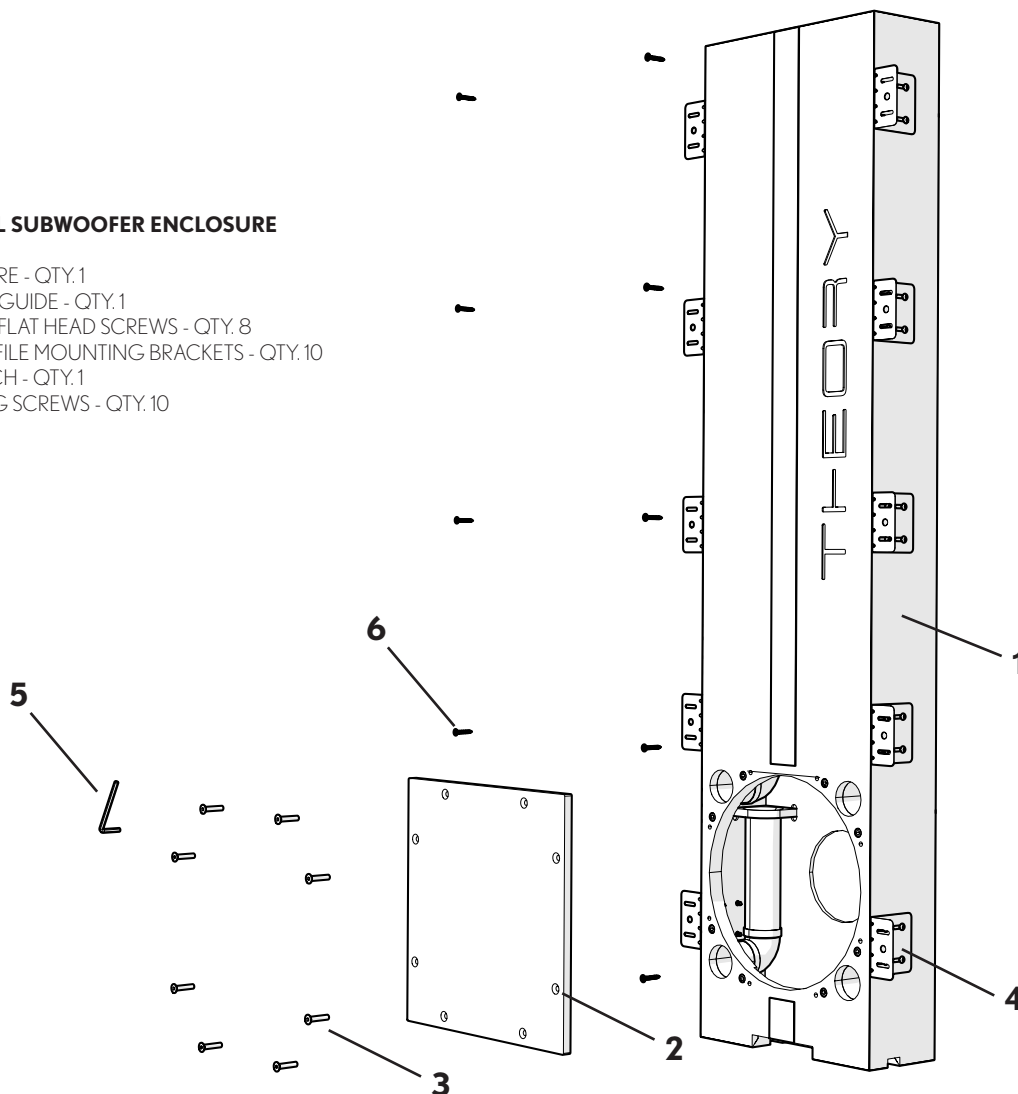
## IMPORTANT SAFETY INSTRUCTIONS

1. Read all instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Clean only with a dry cloth.
6. Install in accordance with manufacturer's instructions.
7. Do not install near any heat sources such as radiators, heat registers, stoves or other apparatus that produce heat.
8. Use only attachments/accessories specified by THEORY AUDIO DESIGN, LLC.
9. Use only with hardware, brackets, stands, and components sold with the apparatus or supplied by THEORY AUDIO DESIGN, LLC.
10. Mount only to solid architectural walls and ceilings.
11. USE SAFETY CABLE WHEN INSTALLING OVERHEAD.
12. Refer all servicing to qualified service personnel. Servicing is required when the apparatus is damaged in any way.
13. **Connect to Theory or Pro Audio Technology Amplified Loudspeaker Controllers ONLY. Do not connect to third-party amplifiers. Doing so will void the product warranty and potentially damage the loudspeaker.**

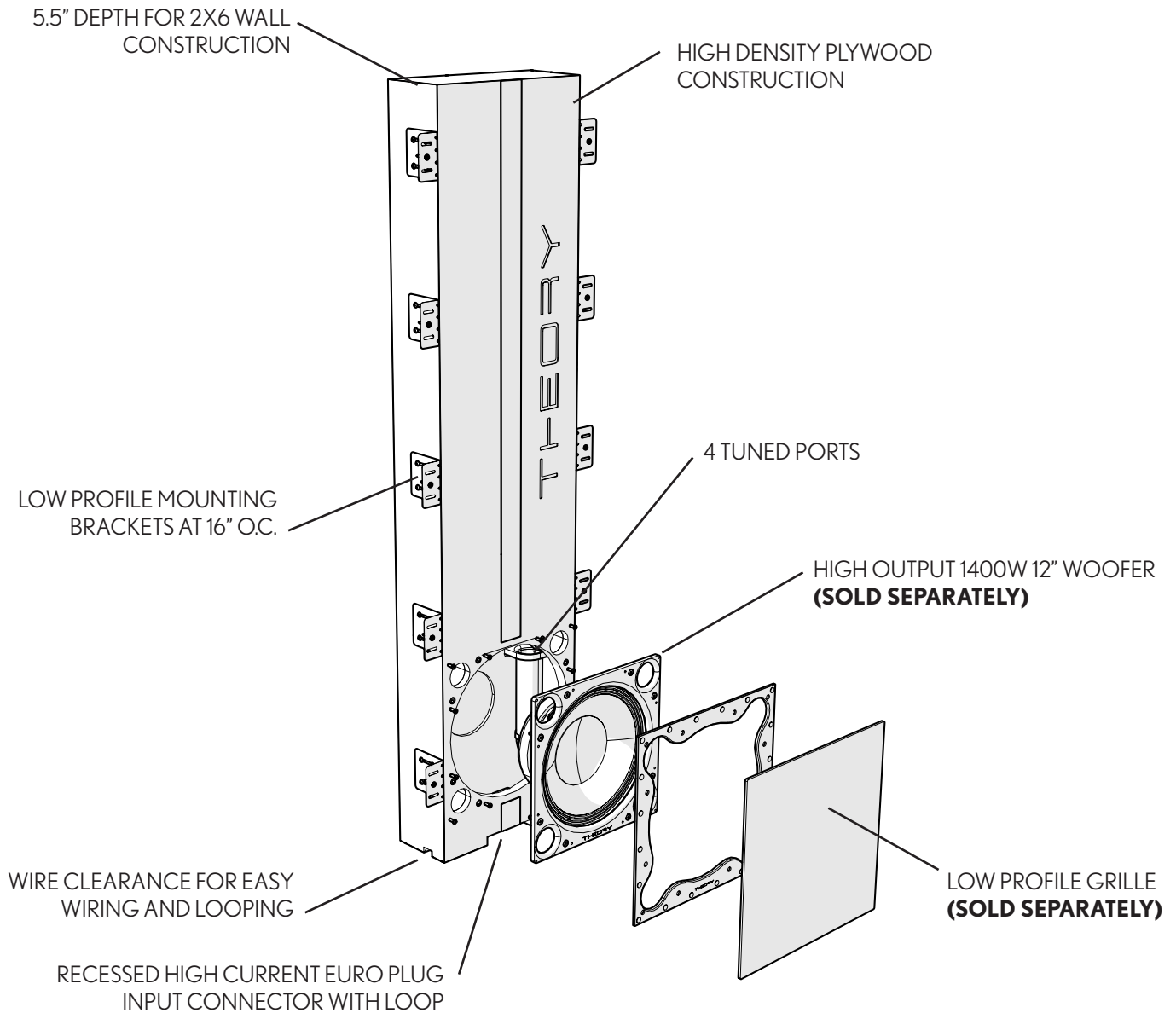
## PARTS LEGEND - iws12-6 ENCLOSURE

### PARTS LIST - iws12-9-ENCL SUBWOOFER ENCLOSURE

1. iws12-9 ENCLOSURE - QTY:1
2. iws12-9 DRYWALL GUIDE - QTY:1
3. M6 HEX SOCKET FLAT HEAD SCREWS - QTY: 8
4. iws12-6 LOW PROFILE MOUNTING BRACKETS - QTY:10
5. 4mm HEX WRENCH - QTY:1
6. PHILIPS HEAD LAG SCREWS - QTY: 10



PRODUCT FEATURES



**iws12-6 IS PART OF A SYSTEM OF MODULAR PRODUCTS FROM THEORY**

The iws12-6 Subwoofer System is comprised of the iws12-6-ENCL Enclosure and the iws12-SPKR Speaker Assembly. These components are sold separately as part of the iws12 range of Theory Modular Subwoofer Systems.

## OPERATING MODES - SAFETY CONSIDERATIONS

### OPERATING MODES - SAFETY CONSIDERATIONS

Your Theory iws12-6 Subwoofer system operates at 8-ohms nominal impedance. Two iws12-6 Subwoofers systems can be safely operated wired in parallel on a single Theory Amplified Loudspeaker Controller channel. Do not exceed two units wired in parallel per channel.

Your Theory iws12-6 Subwoofer system requires extensive signal processing and therefore must be driven by Theory Amplified Loudspeaker Controllers only. Theory loudspeakers and Loudspeaker Controllers work together as a system.

**DO NOT CONNECT YOUR THEORY LOUDSPEAKER TO THIRD PARTY AMPLIFIERS AS DOING SO WILL VOID THE LOUDSPEAKER WARRANTY.**

## 1 - INSTALLATION OPTIONS

### 1a. IN-WALL WITHIN STRETCHED FABRIC ROOMS

The iws12-6 enclosure is designed to mount to the front surface of 16" on-center 2" x 6" studs. Behind stretched fabric, no grille is necessary.

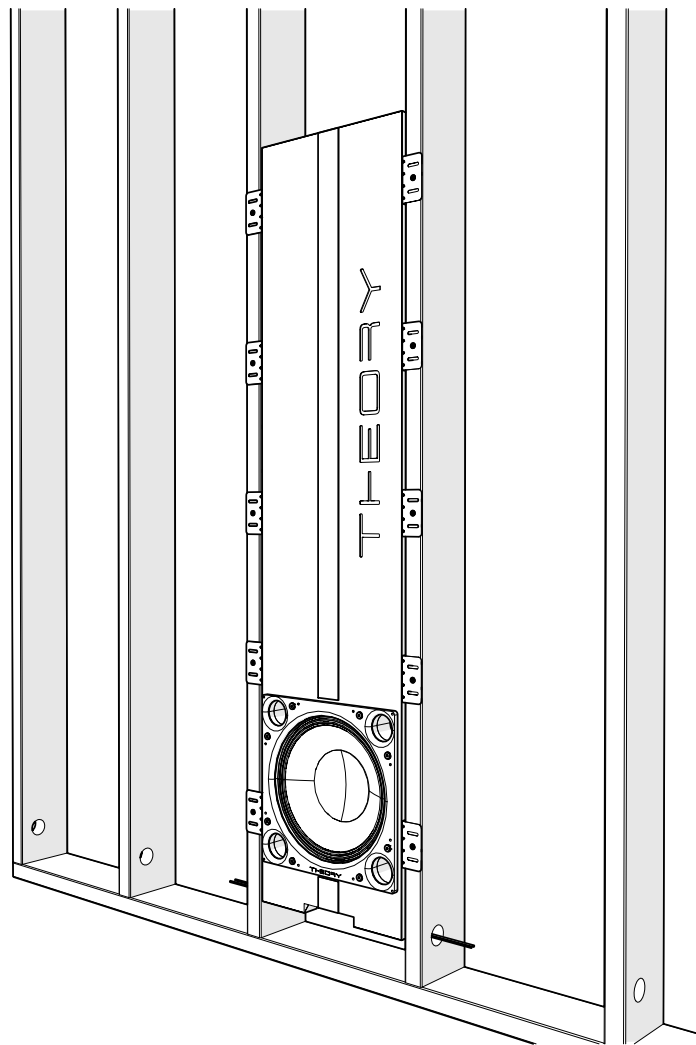
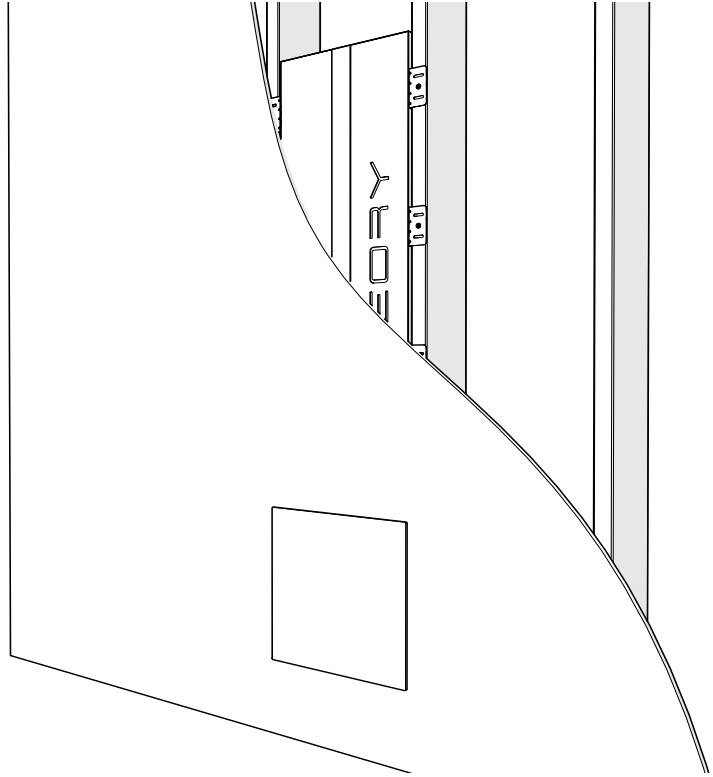


FIGURE 1a. The iws12-6 can be anchored within a 2" x 6" stud wall via the included low profile mount brackets.

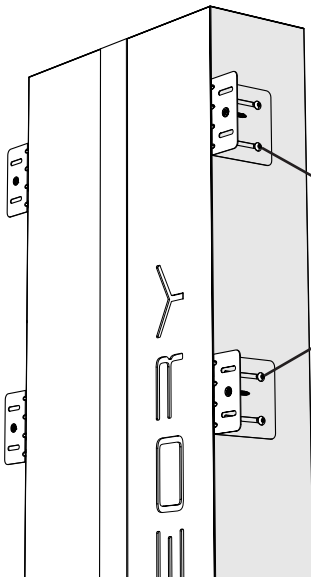
**1 - INSTALLATION OPTIONS (cont'd)**

**1a. IN-WALL WITHIN DRYWALL WALL CONSTRUCTION**

The iws12-6 enclosure is designed to mount to the front surface of 16" on-center 2" x 6" studs. Drywall can then be used to finish the wall concealing the subwoofer within. An optional low-profile perforated grille (sold separately) is available to create a nearly "invisible" appearance.



**FIGURE 1b.** The iws12-6 can be anchored within a 2" x 6" stud wall via the included low profile mount brackets. A low profile perforated metal grille is available (sold separately).



**CAUTION! DO NOT REMOVE SCREWS  
DOING SO WILL CREATE A LEAK THAT WILL  
CAUSE AUDIBLE DISTORTION**

**FIGURE 1c.** Leave all bracket-enclosure mount screws in place. Removing them will create a leak into the enclosure that will create audible distortion.

**2 - ENCLOSURE INSTALLATION**

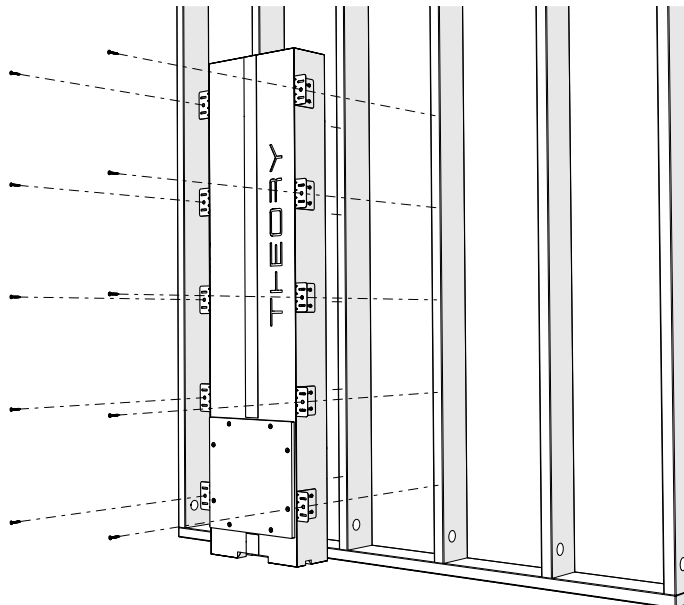
**3a. MOUNT ENCLOSURE**

Leaving the drywall guide in place, mount the enclosure between 16" O.C. 2" x 6" architectural studs using the supplied Phillips head lag screws. Make sure to leave 3" or more gap between the bottom of the subwoofer enclosure and the wall base plate to allow clearance for wiring the speaker. Securely fasten all 10 brackets to the studs using the supplied lag screws.

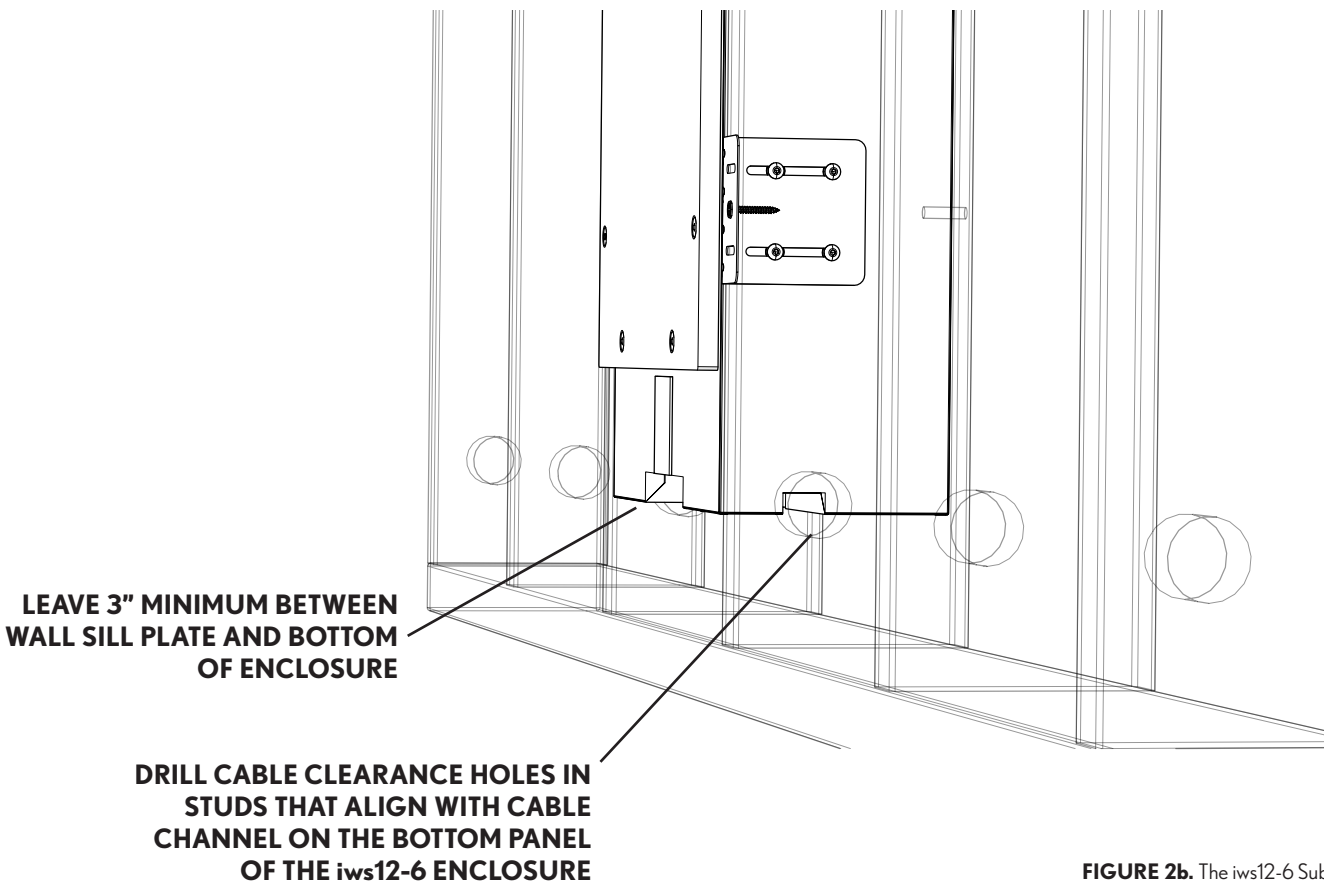
**MAKE SURE TO FASTEN ALL 10 BRACKETS TO THE WALL STUDS OR OTHER STRUCTURAL MEMBERS.**

**THE iws12-6 ENCLOSURE WILL INCREASE THE STIFFNESS OF THE WALL BETWEEN AND AT THE LOCATION OF THESE STUDS.**

**DO NOT REMOVE BRACKET MOUNT SCREWS FROM ENCLOSURE AS THIS WILL CREATE A LEAK THAT WILL CAUSE AUDIBLE DISTORTION.**



**FIGURE 2a.** Securely mount iws12-6 ENCLOSURE to architectural wall studs using 10 Phillips lag screws provided leaving a minimum 3" gap between closure bottom and wall base plate.



**FIGURE 2b.** The iws12-6 Subwoofer System installed with clearance at the bottom of the enclosure to facilitate wiring of the unit.

### 3 - WIRING ENCLOSURE

#### 3a. CONNECTING THE SUBWOOFER

The iws12-6 Subwoofer System, though shallow in depth, is an extremely powerful system and can easily handle input powers of up to 1500W. As such, 12 gauge speaker wire or larger should be used.

Do not use speaker wire smaller than 12ga.

##### Remove Euro plug.

Remove the high-current Euro plug from the receptacle at the bottom of the enclosure. **See Figure 3a.**

##### Route speaker wire through wall studs and connect to Euro plug.

Route the speaker wire through the holes in the studs. Connect the speaker wire leads to the Euro plug using the screw clamps in the plug openings. Make sure to observe correct audio polarity as indicated on the plug itself.

##### Insert Euro plug into Euro socket.

Once the wires are properly secured into the Euro plug, insert the plug securely into the Euro socket inside the recess in the iws12-6 enclosure. **See Figure 3b.**

##### Ready for Drywall (Drywall installations only).

Once the enclosure has been installed and wired as detailed above, the wall is ready to receive drywall (see section 5).

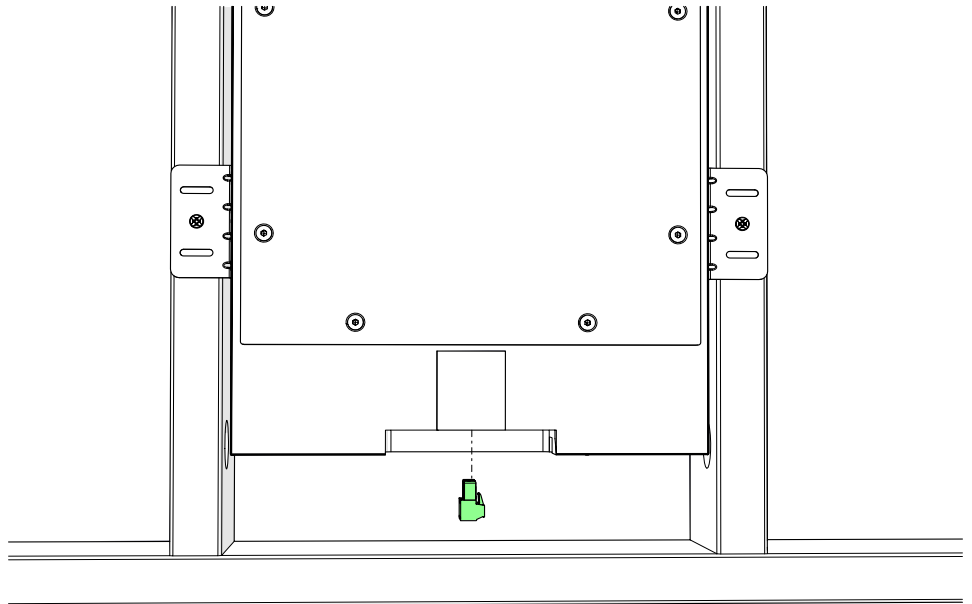


FIGURE 3a. Remove the Euro plug.

#### PARALLEL OPERATION

Two iws12-6 Subwoofer Systems may be safely operated wired in parallel to a single Theory Amplified Loudspeaker Controller channel.

The Euro plug allows for easy "looping" to the second subwoofer via it's parallel output connections.

Using the second (unused) set of "+" and "-" connections on the input Euro Plug, run two-conductor speaker wire from this plug to the input Euro plug of the second iws12-6 Subwoofer. **Figure 3b.**

**DO NOT PARALLEL MORE THAN TWO iws12-6 SUBWOOFER SYSTEMS ON A SINGLE AMPLIFIER CHANNEL.**

**ALWAYS USED TWISTED 12 GAUGE SPEAKER WIRE OR LARGER. (CABLE JACKET and TWISTING OMITED FOR CLARITY).**

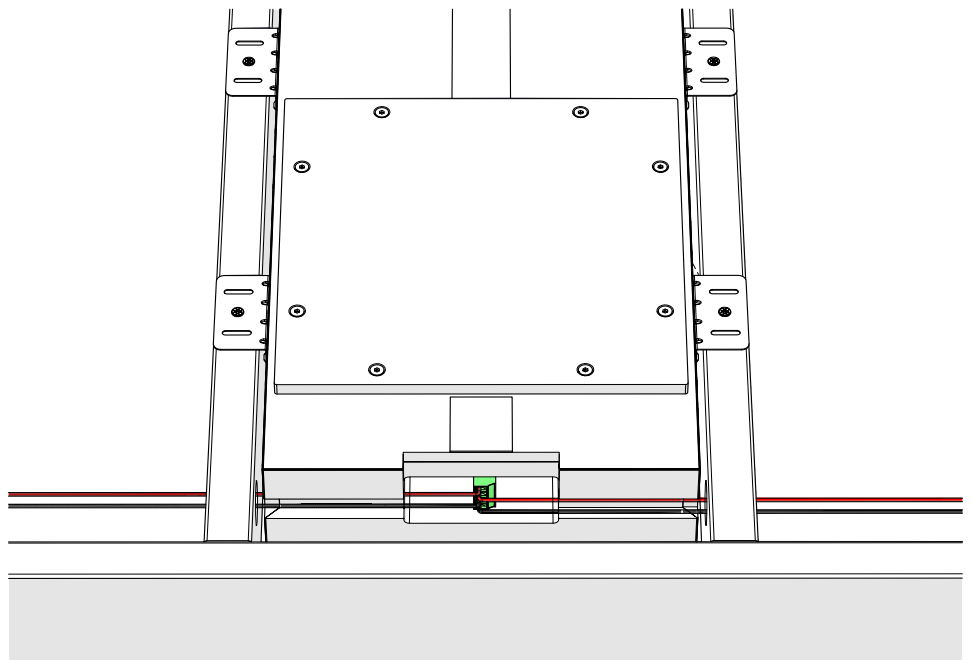


FIGURE 3b. Connect speaker wire to Euro plug and reinsert the plug into the socket in the recessed opening on the bottom of the enclosure. Parallel "loop" wiring shown.



### 3 - WIRING ENCLOSURE (cont'd)

#### 3a. CONNECTING TWO SUBWOOFERS IN PARALLEL

The Euro input plug has four connections - two may be used for "input" signal from the audio amplifier and the other two may be used as "outputs" to loop the amplifier signal to up to **one** more iws12-6 Subwoofer System. See figure 3c.

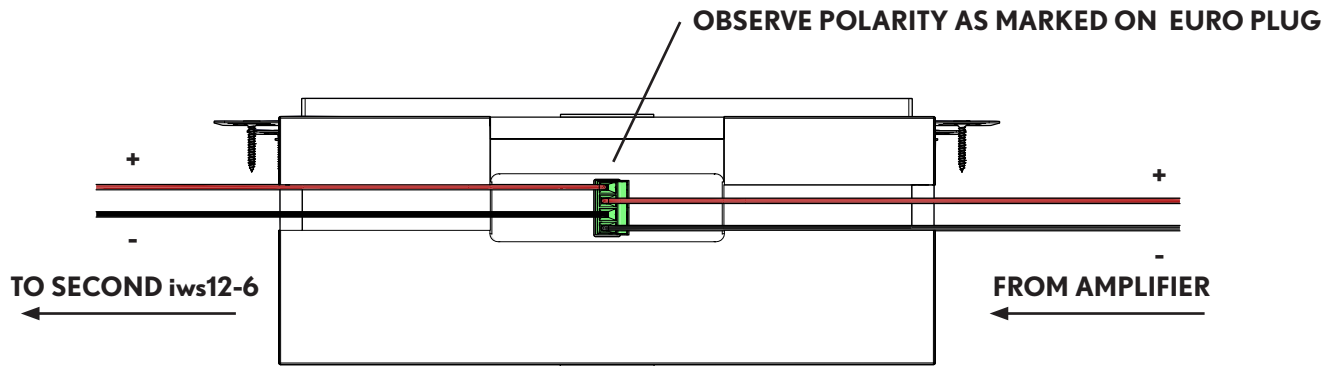


FIGURE 3c. Closeup of parallel wiring.  
(Wall omitted)

### 4 - DRYWALL INSTALLATION

#### 4a. INSTALL DRYWALL

Once the iws12-6 Enclosure has been installed into the wall as described in Section 2 and wired according to Section 3, drywall may be installed and the wall can be finished normally. Cut the drywall tight around the Drywall Guide to insure a clean final appearance.

**MAKE SURE TO LEAVE THE DRYWALL GUIDE IN PLACE DURING ALL PHASES OF CONSTRUCTION. THIS WILL PREVENT THE iws12-6 ENCLOSURE FROM BEING CONTAMINATED BY BUILDING MATERIALS.**

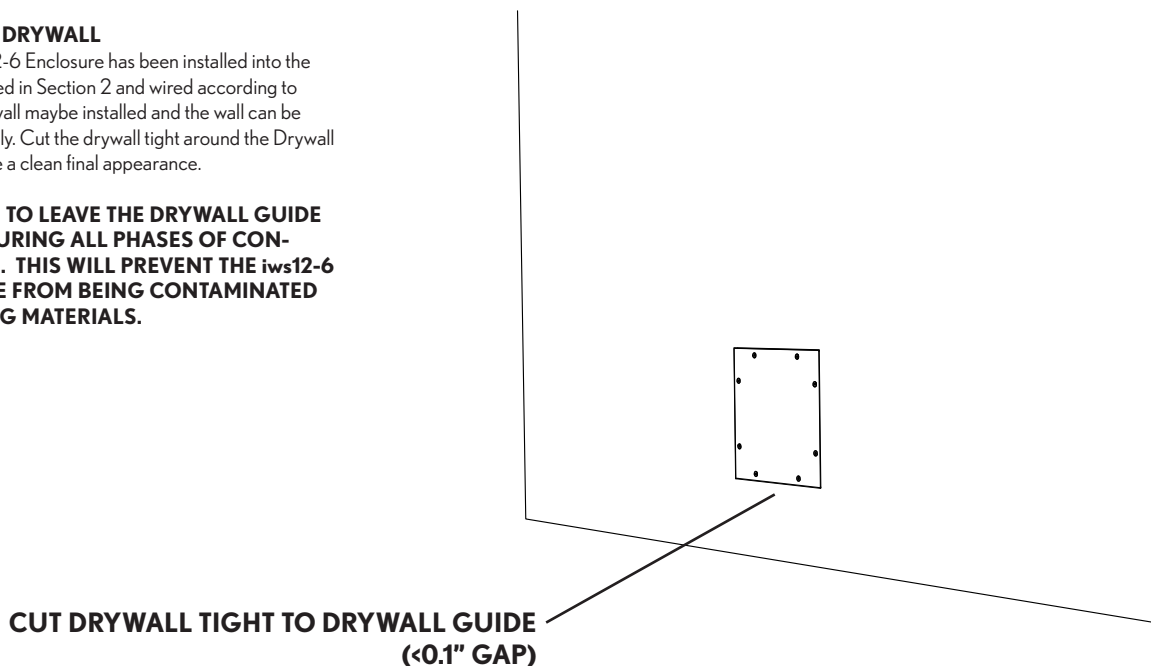
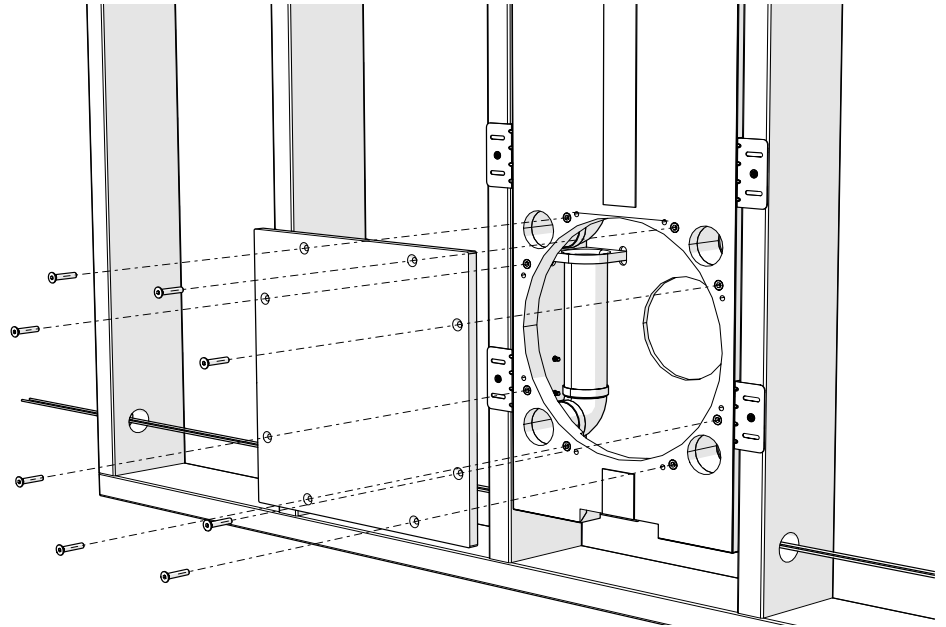


FIGURE 4a. Cut drywall tight around the iws12-6 Drywall Guide (<0.1" gap).

**5 - INSTALLING SPEAKER ASSEMBLY - STRETCH FABRIC FINISH**

**5a. REMOVE DRYWALL GUIDE**

Using the supplied 4mm hex wrench remove and retain the 8 flat head screws and remove the Drywall Guide. See Figure 5a.



**FIGURE 5a.** Before installing the speaker assembly (sold separately), remove the drywall guide. Retain the socket flat head screws.

**5b. INSTALL SPEAKER ASSEMBLY**

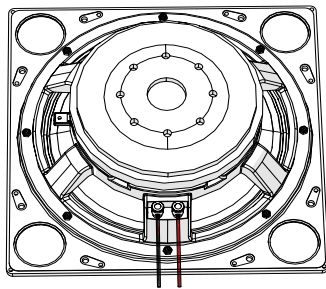
**Connect subwoofer driver to enclosure wire harness.**

Connect the enclosure wire harness to the speaker assembly driver terminals making sure to connect the red (positive) wire to the red (positive) driver input, and the black (negative) wire to the black (negative) driver input. See Figure 5b.

**Install speaker assembly into enclosure.**

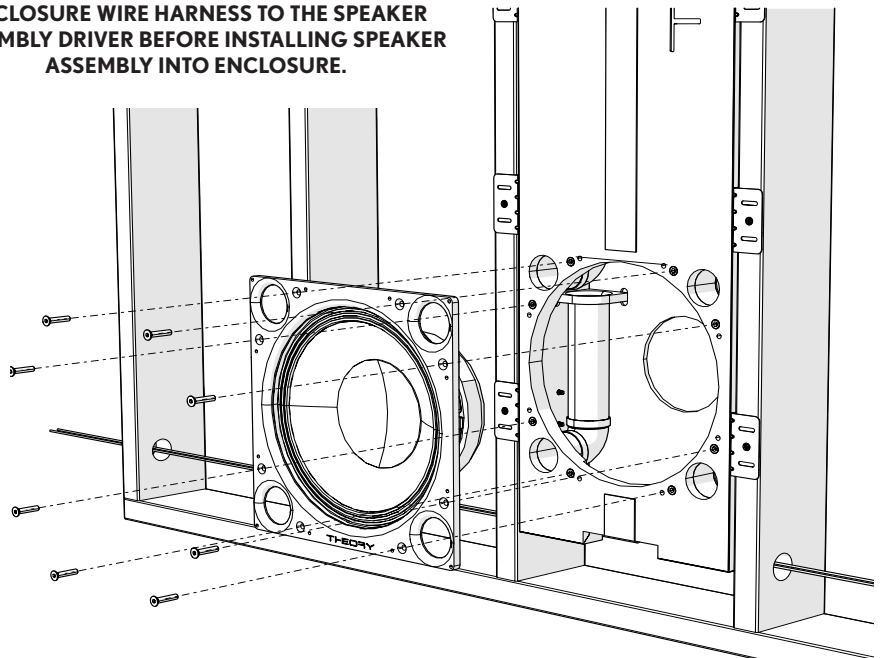
Install the iws12-SPKR Speaker Assembly using the flat head screws provided with the iws12-SPKR kit. The rubber gasket attached to the back of the driver baffle will insure a tight seal is achieved. Tighten all 8 screws uniformly and securely. See Figure 5c.

Once the speaker assembly has been installed into the iws12-6 Enclosure, the wall is ready to receive fabric to complete the installation.



**FIGURE 5b.** Connect the enclosure wire harness to the speaker assembly driver input terminals observing proper electrical polarity.

**DO NOT FORGET TO CONNECT THE THE ENCLOSURE WIRE HARNESS TO THE SPEAKER ASSEMBLY DRIVER BEFORE INSTALLING SPEAKER ASSEMBLY INTO ENCLOSURE.**



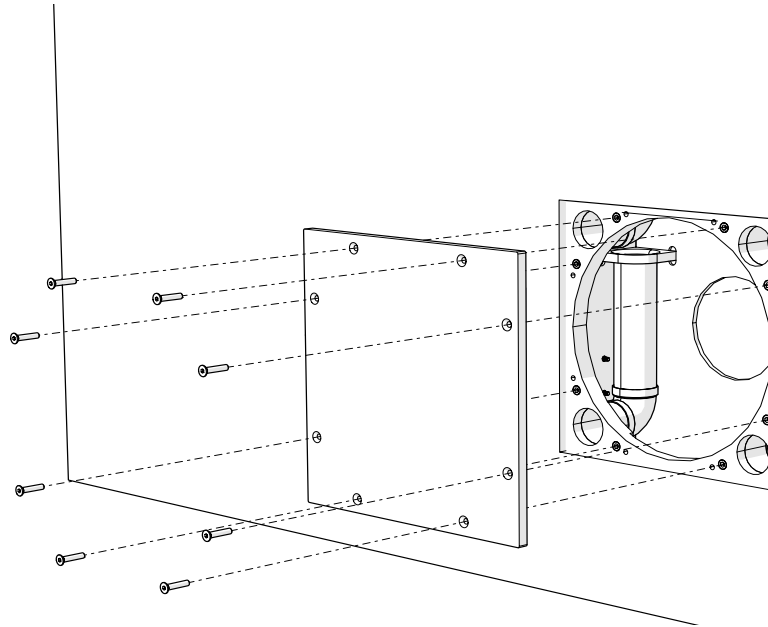
**FIGURE 5c.** Connect the enclosure wire harness to the speaker assembly driver input terminals and install speaker assembly into enclosure using provided screws.

## 6 - INSTALLING SPEAKER ASSEMBLY - DRYWALL FINISH

### 6a. REMOVE DRYWALL GUIDE

Using the supplied 4mm hex wrench remove and retain the 8 flat head screws and remove the Drywall Guide.

Keep the Drywall Guide in a safe place in case the wall needs to be painted in the future. The drywall guide can be used to protect the Speaker Assembly during painting if desired. See Figure 6a.



**FIGURE 6a.** Once construction is 100% completed, remove the drywall guide. Retain the socket flat head screws.

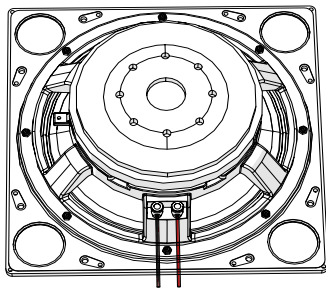
### 6b. INSTALL SPEAKER ASSEMBLY

#### Connect subwoofer driver to enclosure wire harness.

Connect the enclosure wire harness to the speaker assembly driver terminals making sure to connect the red (positive) wire to the red (positive) driver input, and the black (negative) wire to the black (negative) driver input.

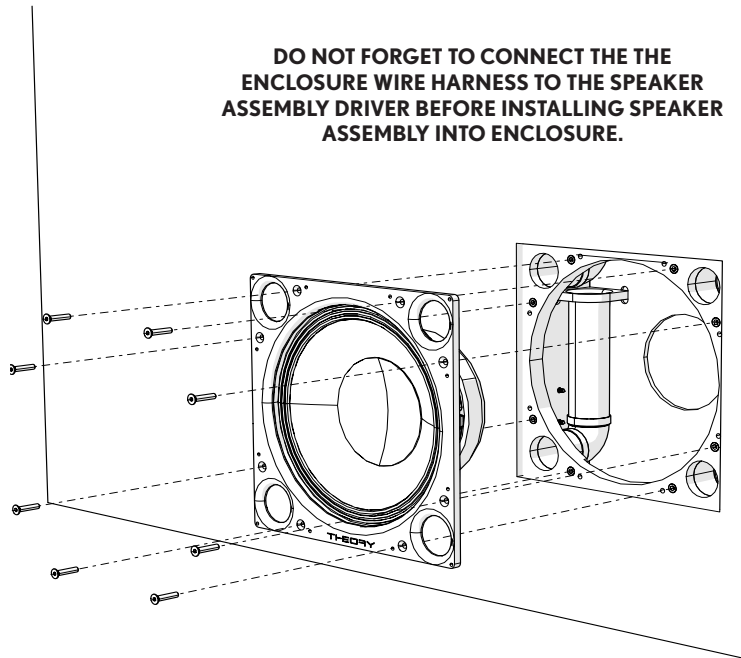
#### Install speaker assembly into enclosure.

Install the iws12-SPKR Speaker Assembly using the M5 flat head screws provided with the iws12-SPKR kit. The rubber gasket attached to the back of the driver baffle will insure a tight seal is achieved. Tighten all 8 screws uniformly and securely. See Figure 6b.



**FIGURE 6b.** Connect the enclosure wire harness to the speaker assembly driver input terminals observing proper electrical polarity.

**DO NOT FORGET TO CONNECT THE THE ENCLOSURE WIRE HARNESS TO THE SPEAKER ASSEMBLY DRIVER BEFORE INSTALLING SPEAKER ASSEMBLY INTO ENCLOSURE.**



**FIGURE 6c.** Connect the enclosure wire harness to the speaker assembly driver input terminals and install speaker assembly into enclosure using provided screws.

**7 - INSTALLING OPTIONAL PERFORATED METAL GRILLE (DRYWALL ONLY)**

**7a. INSTALL GRILLE FRAME (SOLD SEPARATELY)**

Once construction has been completed and the speaker assembly has been connected to the enclosure wire harness and installed into the enclosure, mount the black plastic Grille Frame to the Speaker Assembly baffle using the 12 socket flange-head screws and plastic spacers supplied with the iws12-GRILLE kit. (Refer to Grille Kit Quick Start Guide for more info.)

Refer to **Table 1** for guidance on which spacers to use for your wall configuration.

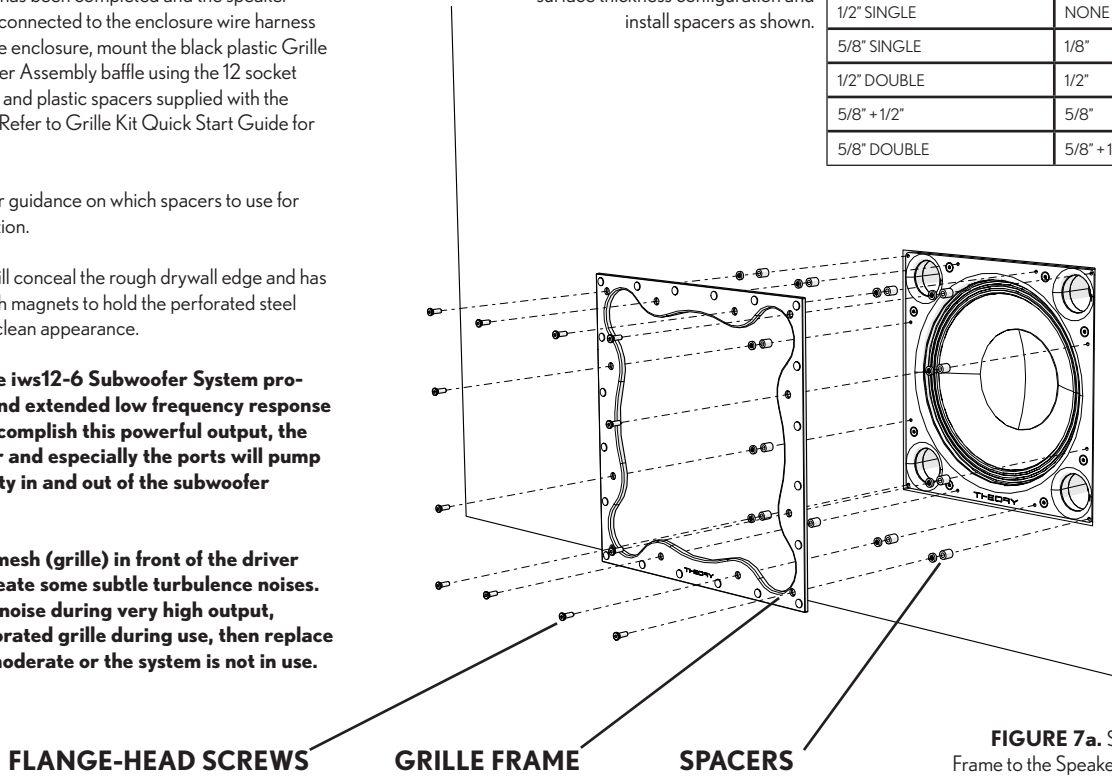
The Grille Frame will conceal the rough drywall edge and has built-in high strength magnets to hold the perforated steel grille in place for a clean appearance.

**ATTENTION: The iws12-6 Subwoofer System provides powerful and extended low frequency response (to 24Hz!) To accomplish this powerful output, the subwoofer driver and especially the ports will pump air at high velocity in and out of the subwoofer enclosure.**

**Placing a metal mesh (grille) in front of the driver and ports can create some subtle turbulence noises. To eliminate this noise during very high output, remove the perforated grille during use, then replace when output is moderate or the system is not in use.**

**TABLE 1.** Identify your drywall or wall surface thickness configuration and install spacers as shown.

DRYWALL THICKNESS	SPACER(S)
1/2" SINGLE	NONE
5/8" SINGLE	1/8"
1/2" DOUBLE	1/2"
5/8" + 1/2"	5/8"
5/8" DOUBLE	5/8" + 1/8"

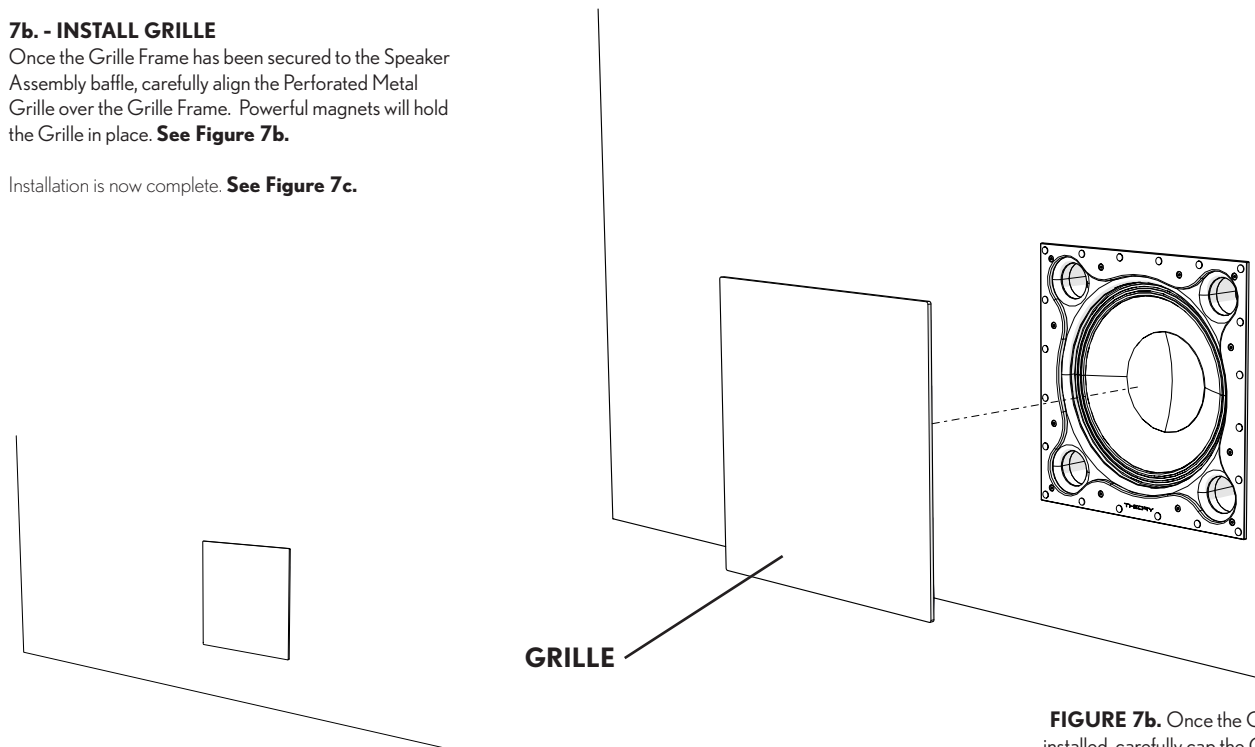


**FIGURE 7a.** Secure the plastic Grille Frame to the Speaker Assembly baffle using the socket flange-head screws and spacers supplied with the grille kit.

**7b. - INSTALL GRILLE**

Once the Grille Frame has been secured to the Speaker Assembly baffle, carefully align the Perforated Metal Grille over the Grille Frame. Powerful magnets will hold the Grille in place. **See Figure 7b.**

Installation is now complete. **See Figure 7c.**



**FIGURE 7b.** Once the Grille Frame has been installed, carefully cap the Grille over the Frame. Powerful magnets will hold it in place.

**FIGURE 7c.** Installation is complete.

## 5 - SPECIFICATIONS

<b>OPERATION:</b>	Passive, 8-ohms (up to two may be wired in parallel per amp channel) Requires 1 Theory Loudspeaker Controller Amplifier Channel
<b>DRIVERS:</b>	1 x 12" Theory 4" Voice Coil Long Throw Woofer
<b>MOUNTING POINTS:</b>	Low-Profile Steel Angle Mounting Brackets (10x)
<b>BANDWIDTH:</b>	24Hz - 125Hz, -3dB
<b>SENSITIVITY:</b>	95.5dB/W
<b>POWER HANDLING:</b>	700W (AES); 1400W (Continuous)
<b>POWER REQUIREMENTS</b>	Requires Theory Amplified Loudspeaker Controller
<b>MAXIMUM OUTPUT:</b>	124dB SPL @ 1m (AES); 127dB @ 1m (Continuous)
<b>NOMINAL IMPEDANCE:</b>	8-ohms
<b>COLORS:</b>	Black
<b>DIMENSIONS:</b>	60" H x 14" W x 5.5" D (Enclosure Only) 60" H x 14" W x 5.9" D (Enclosure w Speaker Assembly)
<b>WEIGHT:</b>	43 lbs. Each (Enclosure Only) 65 lbs. Each (Enclosure w Speaker Assembly)
<b>INCLUDED ACCESSORIES:</b>	Drywall Guide
<b>OPTIONAL ACCESSORIES:</b>	Paintable Perforated Metal Grille Kit

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