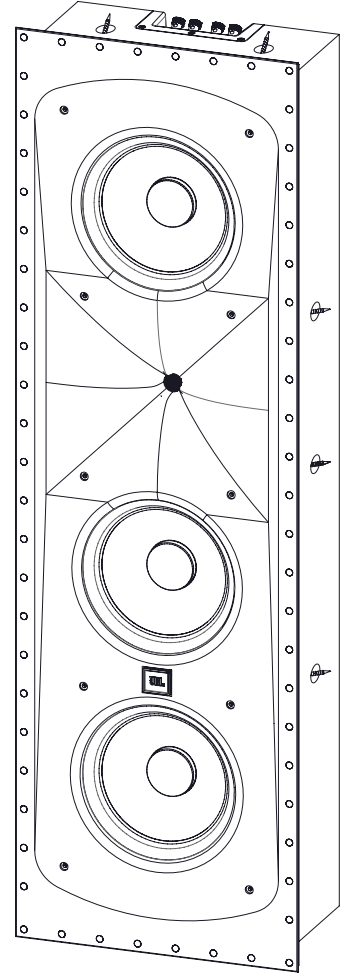




by HARMAN®

SYNTHESIS®



JBL® SCL-2

In-Wall Loudspeaker

OWNER'S MANUAL

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INTRODUCTION

THANK YOU for purchasing the JBL® SCL-2 In-Wall loudspeaker. For more than 70 years, JBL has provided audio equipment for homes, concert halls, recording studios and movie theaters around the world. JBL products are the hands-down choice of leading recording artists and sound engineers. The SCL-2 is the latest member of the JBL Synthesis Home Theater system. To get the best performance from your new loudspeaker, please read these instructions thoroughly.

IMPORTANT NOTES:

The SCL-2 requires a minimum 6-inch (152mm) wall depth.

The SCL-2 is not an appropriate speaker for ceiling use. Please consult your authorized JBL Synthesis dealer for product options regarding in-ceiling speakers

PACKAGE CONTENTS

The SCL-2 is shipped as two inner cartons within an outer carton.

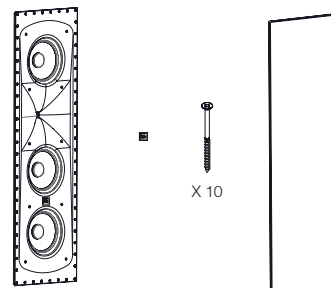
INNER CARTON 1 (BAFFLE) CONTENTS:

- 1 – SCL-2 Loudspeaker Baffle
- 1 – JBL Logo
- 10 – Baffle Screws
- 1 – Grille

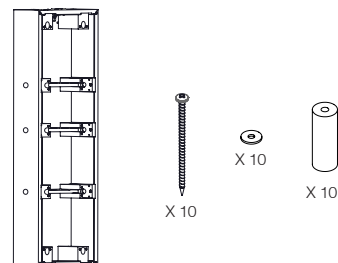
INNER CARTON 2 (BACK BOX) CONTENTS:

- 1 – Back Box
- 10 – Back Box Mounting Screws
- 10 – Rubber Bushings
- 10 – Metal Washers

If you suspect that there has been shipping damage, report it immediately to your dealer. We recommend that you keep the box and packing materials for future use.



Inner Carton 1 Contents:



Inner Carton 2 Contents:

SPEAKER PLACEMENT

Positioning your loudspeakers properly is critical in order to achieve the sonic performance of a home theater. Please read the following section for guidance in correct and optimal placement.

LEFT AND RIGHT SPEAKERS

The SCL-2 is a perfect choice to serve as front left and right main speakers in a multi-channel system. Since they have been designed for uniform coverage and maximum dispersion of sound, they should be placed with the center of the speakers at about the same height on screen as the actors to aid in the illusion that the actors' voices are coming directly from their on-screen images. Ideally, the speakers will be placed about 60 degrees apart from each other viewed from the listening position, so that the distance between the speakers is the same as each speaker's distance from the listener (Figure 1).

Although their acoustic coverage area allows mounting the speaker in any of the four possible orientations (horn above, below, to the left or to the right of the two woofers), the preferred orientation is with the horn above the two woofers (Figure 2). Ultimately, the best mounting orientation depends on the mounting location and room boundaries.

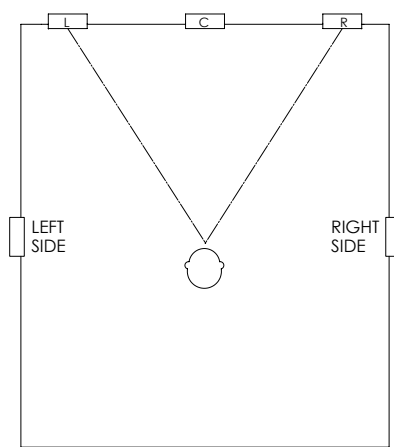


Figure 1

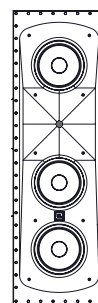


Figure 2

CENTER CHANNEL SPEAKER

The SCL-2 may be oriented either vertically or horizontally when used as a center channel speaker. If the speaker is being used with a perforated projection screen, it should be mounted behind the center of the screen with the horizontal center axis aligned as close as possible to the center axis of the Left and Right channel speakers (Figure 3).

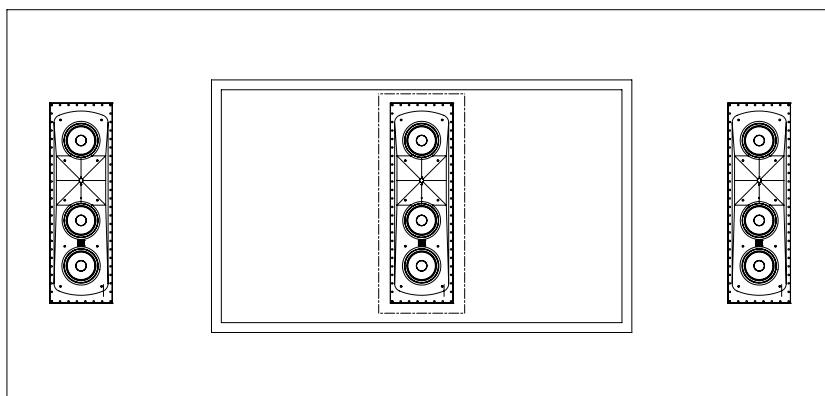


Figure 3

NOTE: Some perforated projection screens have a batten bar or crossbar centered across the screen frame (Figure 4). In such cases make sure the bar does not block the horn. Position vertically oriented speakers so that the bar crosses in front of the speakers at the edge of the horn closest to the central woofer.

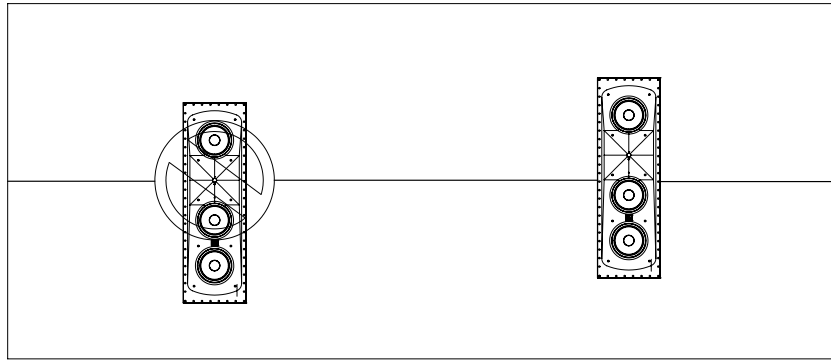


Figure 4

If a non-perforated projection screen, LCD/plasma/OLED display is being used in the installation, the SLC-2 may be used in horizontal orientation mounted directly below or above and as close as possible to the video display (Figure 5).

NOTE: It is extremely important to place the center, left and right speakers as close as possible to the same height. The horn in the center channel speaker should be no more than 2 feet (61cm) higher or lower than those in the left and right speakers. This preserves the localization integrity of “sound pans” in which the sound appears to move from left to center to right. If the program material also appears to travel up and down, it can destroy the illusion of lifelike panning effects. To mitigate the height difference between the center speaker the Left and Right channel speakers should be lowered slightly. You can also rotate the L & R SLC-2s 180-degrees (upside down) to achieve a better match of the acoustic height of all speakers (Figure 5).

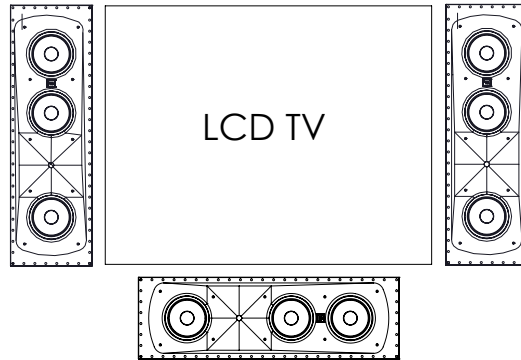


Figure 5

SURROUND SPEAKERS

The SCL-2 is an ideal choice for surround speakers as well. Placement of the surround speakers remains critical to achieve the best possible surround imaging.

5.1-CHANNEL SYSTEMS

Surround speakers should be placed in the side walls no closer to the screen than the first row of viewing chairs. If there are two rows of chairs, these speakers should be placed between the two rows. Surround speakers should be placed higher than the seating area, at least 2 feet above seated ear level (Figure 6).

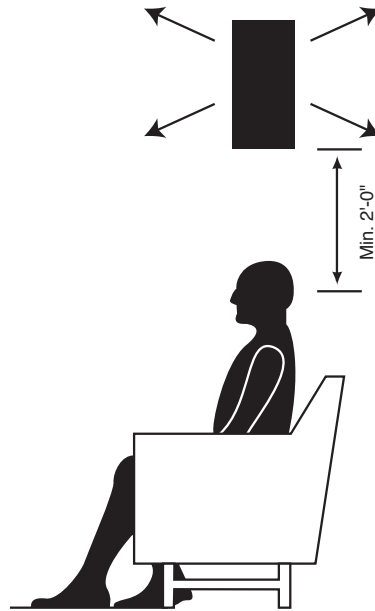


Figure 6

7.1-CHANNEL SYSTEMS

In a 7.1-channel system, two speakers are added for rear fill, in addition to the surround speakers in a 5.1-channel system. The two additional speakers are placed on the rear wall or near the rear wall in the ceiling (Figure 7).

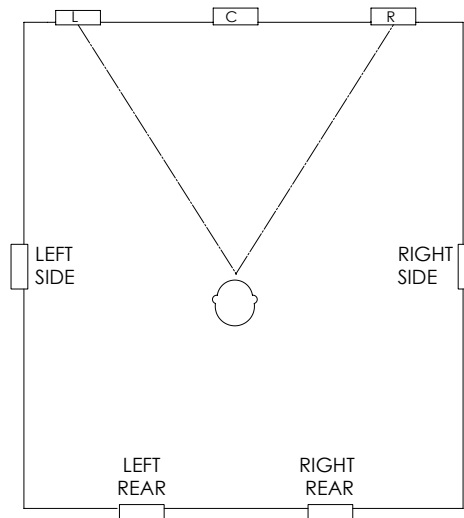


Figure 7

GENERAL INSTALLATION NOTES

1. Identify all wiring connections to rear enclosure and to baffle network.
2. Choose from the wiring options (single wire, bi-wire, bi-amp) before installation.
3. Note that this speaker requires a minimum of 6-inch (152mm) wall depth.

CONNECTING THE SPEAKERS TO AMPLIFICATION

To connect the Synthesis SCL-2 loudspeakers to power amplifier(s) or receiver, use two-conductor insulated speaker wire.

WIRE LENGTH	RECOMMENDED SIZE
Up to 20 ft.	14-gauge
Up to 30 ft.	12-gauge
Greater than 30ft.	10-gauge

The SCL-2 spring-loaded binding posts can accommodate up to #10 AWG stranded wire.

PREPARING THE HOOK-UP WIRE

1. Determine the distance between your amplifier and the most distant speaker in each group (fronts, surrounds, rear surrounds).
2. Make the hookup wires for all speakers in each group this same length, even if one speaker is much closer to your amplifier than the farthest one to maintain proper channel balance. Remember to make extra wires for bi-amp or bi-wire usage should you opt for either method.
3. Run wires through walls to the mounting positions.
4. Strip off 3/8" of insulation from both ends of each conductor and twist each set of stranded wires into a tightly bunched spiral.
5. Speakers and electronics terminals have corresponding positive (+) and negative (-) terminals. Most manufacturers of speakers and electronics, including JBL, Inc., use red to denote the (+) terminal and black for the (-) terminal. Please confirm before connecting.

It is important to connect all speakers identically: (+) on the speaker to (+) on the amplifier and (-) on the speaker to (-) on the amplifier. Wiring any one speaker "out of phase" (+ to - and - to +) to other speakers in the system results in thin sound, weak bass and poor imaging.

Find a visual difference between the two conductors of each pair of speaker wires. Differentiating marks can be a different color wire (copper or silver); a strand of yarn in one conductor; thin, raised ribs on one part of the outer insulation; or a printed marking on one part of the outer insulation. It doesn't matter which of the two strands go to the (+) and (-) on the speakers and amplifiers, as long as all speakers are connected identically positive (+) to positive (+), negative (-) to negative (-) (Figure 9).

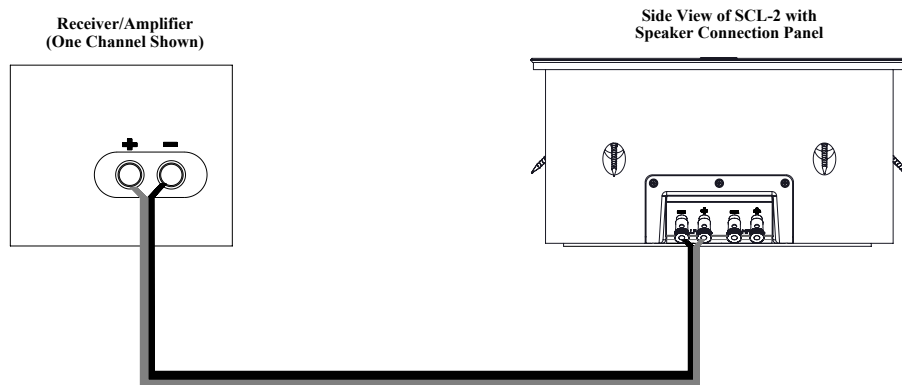


Figure 9

BI-WIRE OR BI-AMPLIFIER OPTIONS

The SCL-2 has two sets of connectors to allow for bi-wire or bi-amp operation.

1. Cut two pair of wires for each bi-wired speaker.
2. Mark both ends of the wire pairs intended for low frequency use as "LF," and both ends of the wire intended for high frequency use as "HF." Then run the two sets of wire to the mounting position.
3. Connect "HF" labeled pair to the speaker's "HF" input, and the "LF" labeled pair to the "LF" input. (Figure 10)
4. Before installing the speaker that will be bi-wired or bi-amplified, remove the two blue jumpers, Bi-amp Jumper Hot and Bi-amp Jumper Ground (Figure 11). The blue jumpers are located on the terminal cup on the inside of the back box. Squeeze the connectors for the jumpers just below where the wire is crimped to the connector to release the connector lock. If this doesn't work, slide the plastic boot back onto the wire and depress the lever for the lock with a ballpoint pen or small tool while pulling gently on the wire.
5. Proceed to install the back box and speaker following the instructions elsewhere in this manual.

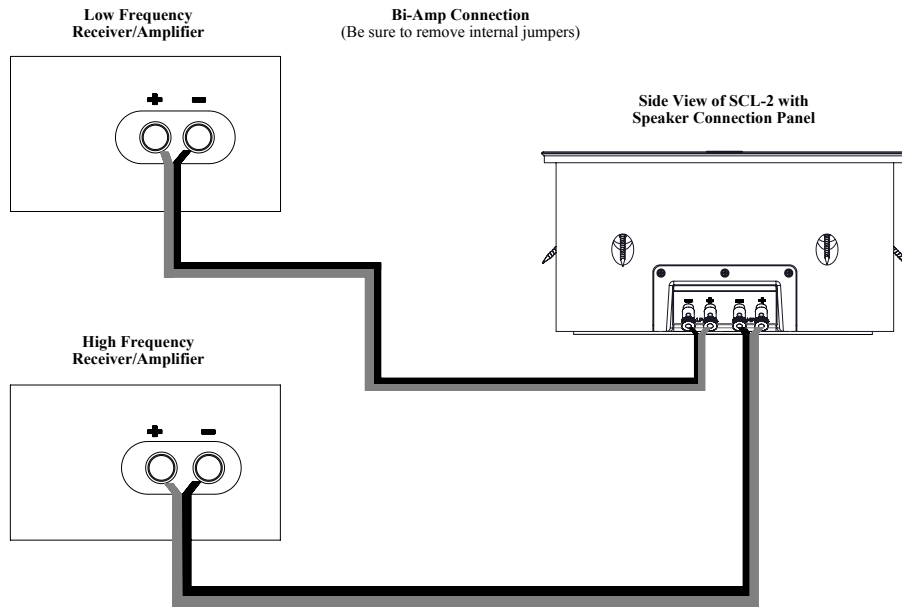


Figure 10

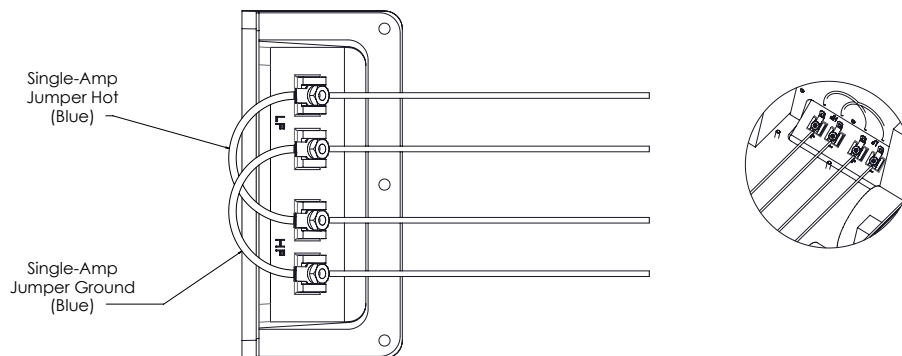


Figure 11

BACK BOX INSTALLATION

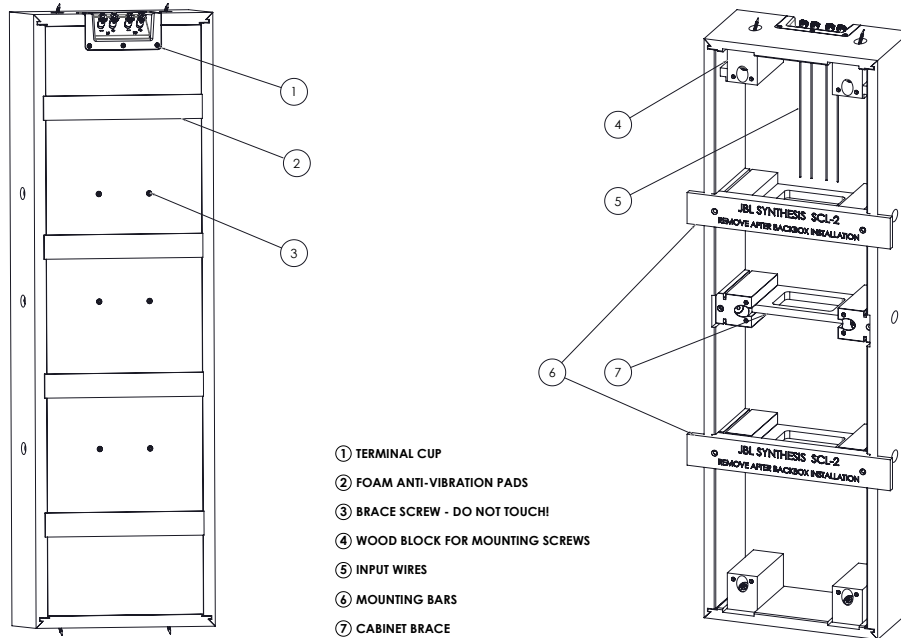


Figure 12

IMPORTANT NOTES:

The JBL SYNTHESIS SCL-2 speaker requires a minimum 6-inch (152mm) wall depth.

The SCL-2 is a large, heavy loudspeaker. Installation will go more smoothly and safely with two people. We strongly suggest enlisting the aid of a helper when installing this product.

The crossover with Molex connector is at one end of the back box. Be sure to orient the back box in the correct orientation to achieve the desired horn alignment (horn up, down, left, right) and speaker orientation before cutting existing drywall or installing the back box (Figure 13).

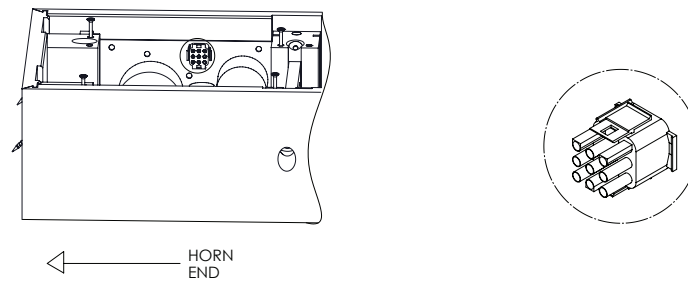


Figure 13

For vertical orientation mounting, the SCL-2 should be located between two wall studs.

If you need to cut through existing wall studs, make sure in advance that they are not load bearing studs.

NOTE: Figure 14 is a terminal cup-end view of the backbox with measurements to help guide you in cutting a hole or holes through the stud framing to run your speaker wires to the terminals of the SCL-2.”

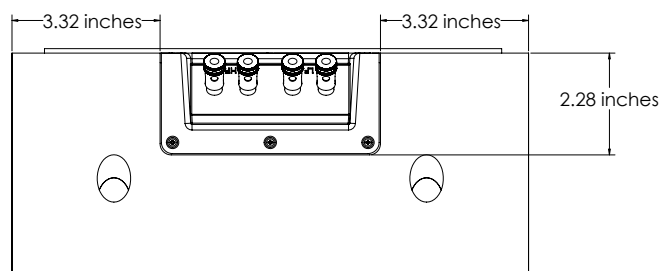


Figure 14

VERTICAL ORIENTATION INSTALLATION STEPS:

(For horizontal orientation installation skip to next page)

1. Cut a hole in the drywall from existing stud to existing stud that is 46 inches (117cm) high. This allows sufficient clearance to install 2x6s to the side studs and install top and bottom 2x6 caps.
2. Use 2x6s to create a frame with 38.25" x 11.5" (971.6mm x 292.1mm) internal dimensions (Figure 15). Secure to existing studs with nails or woodscrews.
3. Install new drywall up to the edge of the new 2x6 frame (post-drywall installations only). Some spackle and tape work will be required.
4. Connect the signal wires to the terminals on top of the back box as described on Page 6
5. Orient the back box so that the input terminals are closest to where you want the horn to be located.
6. Lift the back box into the space defined by the frame. **DO NOT USE THE MOUNTING BARS TO LIFT THE BACK BOX;** lift the back box by the cabinet braces.
7. Allow the mounting bars to rest on the drywall to establish the proper back box depth. In new construction installations, tack a piece of scrap drywall onto the 2x6 frame to establish box depth.
8. Use drywall or wood screws to secure the mounting bars to the frame or studs under the drywall. The mounting bars temporarily hold the back box in position.
9. Install rubber bushings into the top, bottom and middle mounting holes. Place a metal washer onto each 5" deck screw and insert the screws through the rubber bushings into the adjoining 2x6 frame. Tighten the screws enough to expand the isolator mounts (bushings), but do not tighten beyond this point.
10. Make sure the back box is securely attached to the frame and then remove the mounting bars completely. Discard.
11. Repeat step 8 with the remaining mounting holes

Move to BAFFLE ASSEMBLY WIRING AND INSTALLATION on Page 11.

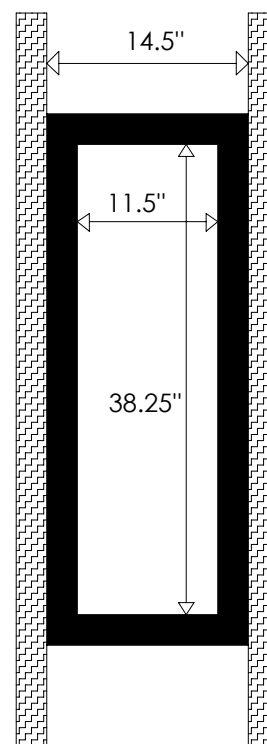


Figure 15

HORIZONTAL ORIENTATION INSTALLATION STEPS:

IF INSTALLING IN NEW CONSTRUCTION (PRE-DRYWALL), SKIP STEP 1

1. Cut a 46" wide x 14.5" high (971.6mm x 292.1mm) hole in the drywall. The center of the hole should align with the center of the video display.
2. Cut completely through the wall studs that fall inside the space needed for the SCL-2 (Figure 16). **MAKE SURE IN ADVANCE THAT THEY ARE NOT LOAD BEARING STUDS.**
3. Use 2x6s to create a frame with 38.25" x 11.5" (971.6mm x 292.1mm) internal dimensions (Figure 17). Secure to existing studs with nails or woodscrews.
4. Install new drywall up to the edge of the new 2x6 frame (post-drywall installations only). Some spackle and tape work will be required.
5. Connect the signal wires to the terminals on top of the back box as described on Page 6.
6. Orient the back box so that the input terminals are closest to where you want the horn to be located.
7. Lift the back box into the space defined by the frame. **DO NOT USE THE MOUNTING BARS TO LIFT THE BACK BOX;** lift the back box by the cabinet braces.
8. Allow the mounting bars to rest on the drywall to establish the proper back box depth. In new construction installs, tack a piece of scrap drywall on the nearest studs to establish box depth.
9. Use drywall or wood screws to secure the mounting bars to the studs under the drywall. The mounting bars temporarily hold the back box in position.
10. Install rubber bushings into the left, right and middle mounting holes. Place a metal washer onto each 5" deck screw and insert the screws through the rubber bushings into the adjoining 2x6 frame. Tighten the screws enough to expand the isolator mounts (bushings), but do not tighten beyond this point.
11. Make sure the back box is securely attached to the frame and then remove the mounting bars completely. Discard.
12. Repeat step 8 with the remaining mounting holes.

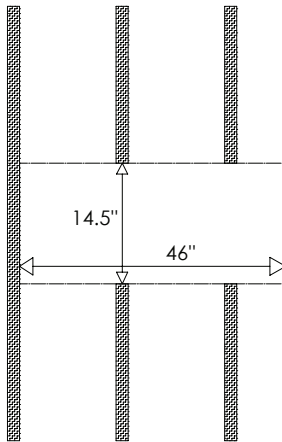


Figure 16

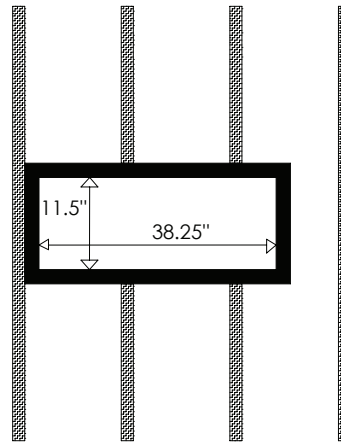


Figure 17

BAFFLE WIRING AND INSTALLATION

CONNECTING THE BAFFLE TO THE BACK BOX

The SCL-2 requires hook up of wires from the baffle to the back box enclosure. The bundle of wires connected to the baffle is pre-terminated with a Molex plug that plugs into the corresponding Molex socket inside the back box. Once the back box has been installed and the baffle is ready for installation, snap the Molex plug into the socket (Figure 18).

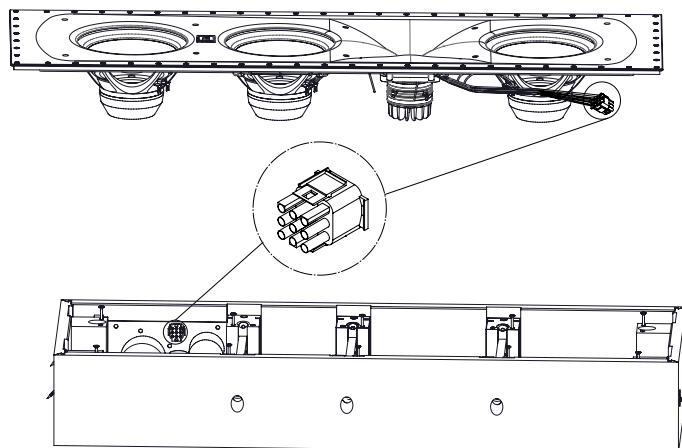


Figure 18

NOTE: The baffle in this figure is oriented purely to show the Molex connection on the baffle wires and the crossover in the backbox. Correct orientation is actually with the horn toward the crossover end of the backbox (Therefore, the baffle in the illustration above would actually be rotated 180 degrees from what you see in the image above in order to align properly with the back box).

WARNING:

DO NOT OVER-TIGHTEN BAFFLE MOUNTING SCREWS! If using power tools to secure the baffle screws, use the lowest torque setting - enough to pull the baffle to the wall where the gasket just touches the mounting surface. For proper sealing of gasket and vibration isolation, hand tighten screws the rest of the way to approximately 8 to 16 in-lbs maximum. (This is equivalent to approximately 1/2 - screw head rotation from when baffle gasket just touches enclosure and wall surface).

1. Connect the speaker baffle signal wire bundle Molex plug to the Molex socket in the back box. The connectors are keyed to only allow correct connection. **DO NOT FORCE.**
2. Orient the SCL-2 so the horn is close to the terminal cup.
3. Position the baffle assembly into the back box. The baffle gasket should be seated on the back box edge. **CAUTION:** Make sure to carefully guide terminal connection wires when inserting the baffle to prevent pinching the wires during assembly.
4. Attach the baffle to the back box with the ten supplied screws (Figure 19). Start with tightening the center mounting screws.
5. Secure perimeter baffle mounting screws and tighten (See WARNINGS concerning over-tightening screws!).
6. Remove JBL Logo adhesive back and insert onto the grille with proper orientation.
7. Place the zero bezel metal onto baffle. Align the top edge and then let the grille gently 'drop' onto the baffle as it is pulled in place by the magnets. Magnets on the baffle will secure grill. Be sure the grille sits flush with the wall all the way around; a grille sitting up on the baffle could fall off during operation.

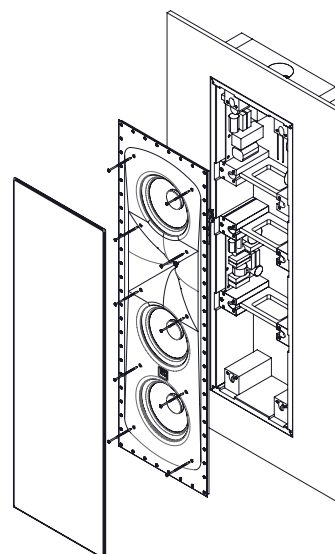


Figure 19

SPECIFICATIONS

SPECIFICATIONS	SCL-2
Speaker Type:	2½-way in-wall loudspeaker
Low Frequency Transducer:	Three 8" (200mm) cast-frame, Advanced Aluminum Matrix cone woofers
High Frequency Transducer:	D2415K, 1.5" (38mm), dual annular ring Teonex® diaphragm compression driver mounted to Sonoglass® horn/baffle
Maximum Recommended Amplifier Power:	445 Watts RMS (CEA-426B specification, calculated onto the SCL-2 rated load impedance)
Frequency Response (-6dB on-axis):	57Hz – 25kHz
Coverage Area(-6dB @ 20KHz): Coverage Area (-6dB @10KHz):	80 x 70 Degrees (Hor x Vert) 100 x 100 Degrees (Hor x Vert)
Sensitivity (2.83V@1m):	92dB
Nominal Impedance:	6 Ohm
Crossover Frequency:	225Hz; 1.3kHz
Enclosure type:	Sealed in-wall mount with included back box
Inputs:	Dual gold-plated binding posts
Finished Dimensions With Grille (H X W X D):	40.2" x 12.8" x 6.13" (1020.8mm x 325.5mm x 155.6mm)
Cutout Dimensions With Back Box (H X W):	38.25" x 11.5" (971.6mm x 292.1mm)
Mounting Depth With Backbox:	5.82" (147.8mm)
Weight:	53.5 lb (24.3 kg)
Finishes:	Matte Black with white paintable grille

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Veillez visiter JBLSYNTHESIS.COM pour obtenir le mode d'emploi en d'autres langues.

Para obter o manual do usuário em outros idiomas, acesse JBLSYNTHESIS.COM

Ga naar JBLSYNTHESIS.COM voor de handleiding in andere talen.

Gå til JBLSYNTHESIS.COM for bruksanvisning på flere språk.

Если вам требуется дополнительные версии руководства пользователя на других языках, посетите сайт JBLSYNTHESIS.COM.

別の言語に対応したユーザーマニュアルを読むには、[JBL SYNTHESIS.COM](http://JBLSYNTHESIS.COM)にアクセスしてください。

사용자 설명서에 대한 추가 언어 지원은 JBLSYNTHESIS.COM에서 확인하십시오

请访问 JBLSYNTHESIS.COM 以获取其他语言版本的用户手册。

Visita JBLSYNTHESIS.COM para obtener el manual de usuario de soporte en idiomas adicionales.

Weitere Sprachfassungen der Bedienungsanleitung findest Du unter JBLSYNTHESIS.COM.

Si prega di visitare JBLSYNTHESIS.COM per i manuali di istruzioni in altre lingue.

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Страна происхождения:	Китай
Импортер в Россию:	ООО "ХАРМАН РУС СиАйЭс", Россия, 127018, г.Москва, ул. Двинцев, д.12, к 1
Гарантийный период:	1 год
Информация о сервисных центрах:	www.harman.com/ru тел. +7-800-700-0467
Срок службы:	5 лет
	Товар не подлежит обязательной сертификации
Дата производства:	Дата изготовления устройства определяется по двум буквенным обозначениям из второй группы символов серийного номера изделия, следующих после разделительного знака «-». Кодировка соответствует порядку букв латинского алфавита, начиная с января 2010 года: 000000-MY0000000, где «M» - месяц производства (А - январь, В - февраль, С - март и т.д.) и «Y» - год производства (А - 2010, В - 2011, С - 2012 и т.д.).



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www.jblsynthesis.com

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