

S1.8

3-Way Freestanding Speaker

Owner's Manual

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INTRODUCTION

Congratulations on your selection of the Induction Dynamics S1.8 3-way loudspeaker. The S1.8 is engineered for smooth performance and high power handling as a bookshelf or freestanding speaker.

The S1.8 incorporates exclusive, patented S4X™ crossover and driver-control technology, which makes possible virtually perfect integration of drivers which are ideal for their intended frequencies. S4X also provides greatly increased control over frequency response, phase, and impedance, resulting in superior performance and imaging. Because of S4X technology, any of Induction Dynamics' speakers can be used to build a custom home theater system. Your S1.8 can be combined with any of our main, center, and surround speakers, be they in-wall, on-wall, or free-standing.

Your S1.8 incorporates an 8" Kevlar cone woofer with coated foam surround, a 3" soft dome midrange, and a 1.125" high-power soft dome tweeter.

The S1.8 is available in Rosewood Gloss, Black Satin, and Black Gloss standard finishes. Custom paints and stains are also available. Grille fabric is available in 63 room-complementing colors.

WARNINGS:

WARNING! - SHOCK HAZARD

**WARNING! - DO NOT OPEN
NO USER SERVICEABLE PARTS INSIDE
REFER SERVICING TO QUALIFIED PERSONNEL**

GENERAL INFORMATION

Please read these instructions thoroughly before attempting to install and operate the S1.8.

Check Speaker and Parts

Unpack and carefully check each loudspeaker. If you suspect damage from transit, report the problem immediately to your dealer and/or delivery service. If possible, save the shipping cartons for future use.

General Care of Your Loudspeaker

Whenever changing speaker wires, interconnect wires, or power cords, always turn off all equipment. To prevent fire or shock hazard, do not expose the amplifier to rain or excessive moisture. To avoid electric shock, do not open the amplifier. There are no user serviceable parts inside.

Your speakers and amplifier come in a high quality finish that is both attractive and durable. To clean, use a soft, damp cloth. If your drivers become dusty, dust them with a paintbrush or a brush vacuum attachment. Do not use a strong or abrasive cleaner.

The grille is covered in acoustic cloth. To keep your grille clear of debris, we recommend you use a lint roller (like you would use on clothes).

Bass and Loudness Contour Controls

Do not use bass or loudness contour controls. Induction Dynamics' subwoofers produce very low frequencies without these controls. Use of these controls will make the bass sound "boomy", obscure higher frequencies, and possibly cause damage.

S1.8 Location

S1.8 speakers are normally freestanding, but may also be used as bookshelf speakers. The height of the S1.8s should be determined by locating the tweeter at ear level. The tweeter reproduces high-frequency audio, which our ears perceive as most directional, so we are most attuned to their level and placement. Consider whether people will be sitting or standing in the listening area when placing the S1.8s.

A pair of S1.8s should be placed a few feet from the front wall of the listening area, six feet or more apart. Experiment with the distance between the two speakers to achieve an evenly spread sound stage. Speakers should be at the same height (with the tweeter at ear level). To optimize bass response, vary the distance of your S1.8 speakers from the front wall.

Stands

A speaker stand is not included with the S1.8, but is available for purchase through your authorized Induction Dynamics dealer. The companion stand for the S1 is the ST1.S18.

Speaker Wire

Use approved wire designed for in-wall or exposed use, as appropriate for your installation. For the S1.8, we recommend using high-quality speaker wire that is 12 gauge or lower, with easily visible polarity coding to make your connections. The following chart identifies minimum gauge requirements for various lengths. See your local dealer or installation contractor for more information.

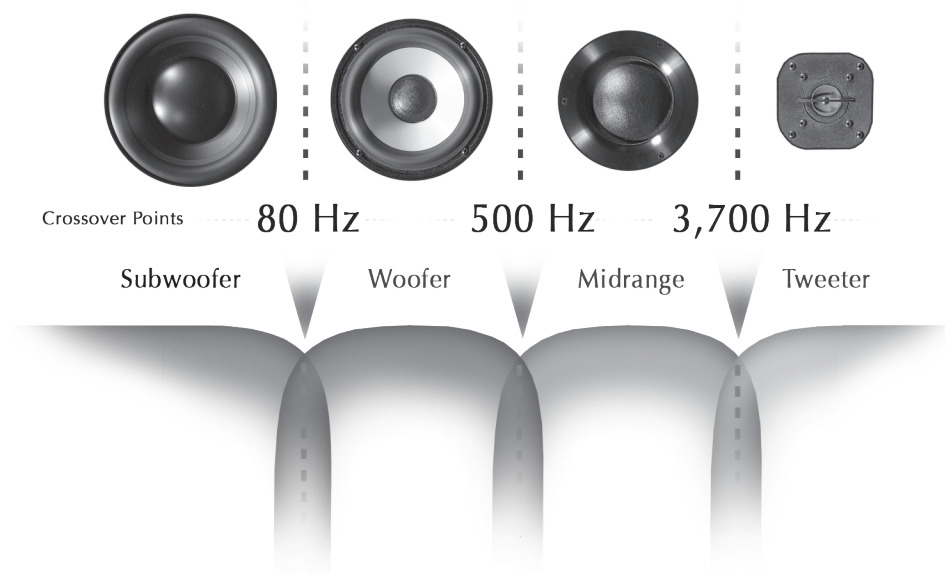
WIRE LENGTHS / MINIMUM GAUGE REQUIREMENTS	
Length (in feet)	AWG size & stranding
up to 18'	14 gauge (19/27)
up to 29'	12 gauge (65/30)
up to 51'	10 gauge (105/30)

SPEAKER INFORMATION

S4X™ Crossover

The heart of Induction Dynamics® is found in the S4X™ Super Fourth-Order Crossover. The patented S4X inductively couples crossover coils and optimizes each driver's performance, individually and interactively with the other drivers. This greatly increases control over driver range, frequency response, phase and impedance. Because S4X produces such a steep crossover slope—and thus a flatter frequency response—Induction Dynamics is able to use the best possible drivers for each range of frequencies, allowing us to sonically match every speaker in our lineup and to create speaker models able to perform in any combination and in any acoustic environment.

The S4X' optimized frequency response means music that moves dramatically up and down in pitch will never fade in or out, but rather maintain its power as it seamlessly crosses over from one driver to the next. It also means that frequencies critical to human speech (frequencies that deliver consonants like "S" and "C") will sound as natural coming from your speakers as they would in real life—making dialogue from movies and television sound crisp and clearly understood.



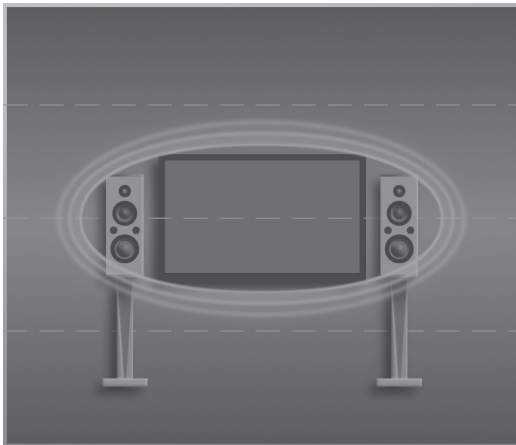
Above: The S4X crossover routes audio signal to their intended drivers at specific frequencies (500 Hz, 3700 Hz). Because the S4X produces such a steep crossover slope, Induction Dynamics is able to use the best possible drivers for each frequency range. Subwoofer crossover points are generally selectable through your subwoofer amplifier. Induction Dynamics recommends a subwoofer crossover point between 50 - 60 Hz.

Wide Angle™ Phase Alignment

In each crossover region, which spans approximately one octave, the sound from two different drivers must be added together. This simple fact creates problems in most speakers, because the phase must be matched, not just on axis, but also off axis in order to create a large “sweet spot” for the listener. Most speakers’ drivers are only optimized on-axis, using measurements from a microphone placed at a single point in front of the speaker. This produces a horizontal zone in which the sound is optimized; however there may be drastic differences in sound quality along the vertical axis—meaning there may be a loss of sound quality if you stand up, sit, or otherwise move out of the optimized zone.

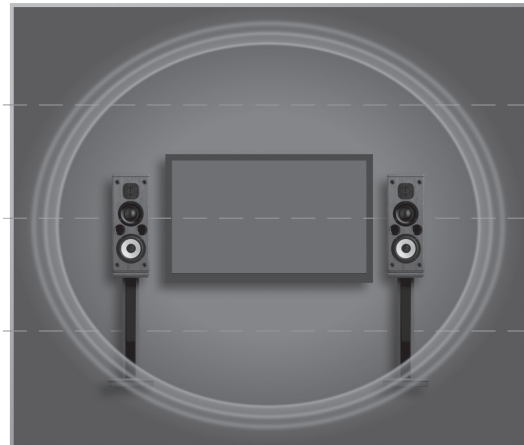
Induction Dynamics® eliminates phase differences with respect to height through our Wide Angle™ phase alignment technology. Because our patented circuitry provides additional variables that can help control phase, Wide Angle finds the one optimization solution that produces a flat frequency response along the vertical axis, when the microphone (or listener’s ear) is moved up and down vertically. This means you experience true audio perfection whether you’re standing, sitting, or lying down.

CONVENTIONAL SPEAKER SYSTEM



Most conventional speaker designs have a small and horizontally narrow “sweet spot” caused by inaccurate phase matching of the drivers. The best quality sound can be heard only within a very confined area. Outside of this area the sound quality can drastically decrease, becoming muddy or indistinct.

WIDE ANGLE™ PHASE ALIGNMENT



Patented Wide Angle™ Phase Alignment circuitry provides precise phase matching of the drivers, noticeably expanding the “sweet spot” both horizontally and vertically. Listeners are immersed in a large sound field and enjoy clear, undistorted sound regardless of their position relative to the speakers.

MULTI-CHANNEL (HOME THEATER) INSTALLATION

Speaker Placement

5.1 System

A 5.1 system consists of a front left, front right, surround left, surround right, center channel, and subwoofer channel. An S1.8 functions equally well as mains or surrounds. In a home theater configuration, the main left and right channels should be placed a few feet from the front wall as close to listening height as possible. The surround channels should be placed to either side of the listening area or behind the listening area at listening height.

6.1 System

A 6.1 system has the same basic channels as a 5.1 system, with the addition of a rear center channel placed directly behind the listening area.

7.1 System

A 7.1 system has the same basic channels as a 5.1 system, with the addition of a left rear surround and right rear surround.

S1 Speaker Connection

Connect the proper output on your home theater processor or receiver to the binding posts on the S1.8 using normal polarity (red to red and black to black).

S1.8 SPECIFICATIONS

Type:	3-way freestanding loudspeaker.
Crossover:	Exclusive patented S4X Driver Control Technology.
Crossover Frequencies:	500, 3700 Hz
Nominal Impedance:	4 Ohms (2.5 minimum)
Frequency Response:	50-20,000 Hz
Sensitivity (2.83 V @ 1M):	90 dB
SPL (1 W / 1 M):	87 dB
Power Handling:	200 W
Magnetic Shielding:	No
Tweeter:	1.125" high-power soft dome
Midrange:	3" soft dome
Woofers:	8" Kevlar cone with coated foam surround
Subwoofer:	N/A
Binding Posts:	Gold-plated; #4 AWG Max
Enclosure:	Ported
Optional Accessories:	ST1.S18 stand

WARRANTY

Induction Dynamics, Inc. warrants the S1.8 against defects in materials and workmanship for a period of seven years from the date of original retail purchase. Induction Dynamics, Inc. will repair or replace any S1.8 that does not meet this warranty.

This warranty may be registered by mailing a copy of the retail sales receipt to Induction Dynamics, Inc. at the address below. Please write the serial number along with the name and address of the retailer from whom you purchased the speaker(s) and/or amplifier(s). This may be done at the time of purchase or before requesting repair service under this warranty.

To obtain repair service, call or write to Induction Dynamics, Inc. at the phone number or address below. You will be given a return authorization number. Please mark this number clearly on the outside of the package(s) for identification. Packages that are not marked with a return authorization number on the outside may not be accepted by Induction Dynamics, Inc. Please pack each S1.8 in a substantial shipping container with plenty of protective foam. If possible, use the original shipping container and packing material. For repairs covered by and performed under this warranty, Induction Dynamics, Inc. will pay for the return shipping charges. This warranty covers defects in materials and workmanship, and does not cover damage or failure resulting from accident, misuse, or shipment. The warranty is void if the S1.8 is serviced or altered by anyone other than Induction Dynamics, Inc. the sole remedy for breach of this warranty shall be repair or replacement.

Limits and Exclusions: There are no warranties except as mentioned above. Neither Induction Dynamics, Inc. nor anyone else who has been involved in the creation, production, or sale of this product shall be liable for any direct, indirect, consequential or accidental damages arising out of the use or inability to use this product, or arising out of breach of this warranty. Induction Dynamics, Inc. makes no other warranties, express or implied, including without limitation warranties of merchantability or fitness for a particular purpose. There are no warranties that extend beyond the description on the face hereof.

Induction Dynamics
Customer Service Department
8005 W. 110th St., Suite 208
Overland Park, KS 66210
USA

Phone: 855.663.5600
Fax: 913.663.3200

CONTACTS

Manufacturer Information

If you have any questions, contact Induction Dynamics by phone at 855-663-5600, 8:00 a.m.- 5:00 p.m. CST, fax at 913-663-3200, email at sales@inductiondynamics.com, or write to:

Induction Dynamics
Customer Service Department
8005 W. 110th St., Suite 208
Overland Park, KS 66210
USA

Note: Please do not ship your loudspeaker for service without obtaining prior approval and return authorization number. See warranty for further information.

Retailer Information

To help simplify your record keeping, please fill out the following information about the retailer you bought your Induction Dynamics products from. Additionally, you may staple, tape, or glue a copy of your receipt to the next page.

Retailer name (company or individual): _____

Address: _____

City: _____

State: _____

Zip or Postal code: _____

Phone: _____

Email: _____

Date of purchase: _____

Serial number: _____

To simplify your record keeping,
please glue, staple, or tape your receipt
to this page.

Audio Perfection Realized



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