

SW4.iw

Dual 10" In-Wall Subwoofer

Owner's Manual

TABLE OF CONTENTS

Introduction	2
General Information	3
Check Speaker and Parts	3
General Care of Your Subwoofer and Amplifier	3
Bass and Loudness Contour Controls	3
SW4.iw Location; Multiple Subs Location	3
Amplifier Location	4
Speaker Wire	4
Speaker Information	5
Subwoofer Design	5
Installing the SW4.iw With A2 Amplifier	6
Installing the SW4.iw With A3 Amplifier	8
SW4.iw Specifications	10
A2 Subwoofer Specifications	11
A3 Subwoofer Specifications	12
Warranty	13
Contacts	14

INTRODUCTION

Congratulations on your selection of the Induction Dynamics™ SW4.iw dual 10" in-wall subwoofer. The SW4.iw is a powered subwoofer, requiring the A2 subwoofer amplifier or a similar design

Built to the highest standards of perfection, the SW4.iw makes an excellent addition to any home theater, but to achieve the highest quality sound, we recommend using it in conjunction with Induction Dynamics speakers. For a full catalog, contact Induction Dynamics at sales@inductiondynamics.com or by calling toll free (866) 663-9770.

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 SW4.iw subwoofer.

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. Please ship the foam packing material to: Induction Dynamics, 10661 René, Lenexa KS 66215.

General Care of Your Loudspeaker and Amplifier

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 subwoofer 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 due to excessive cone excursion.

SW4.iw Location

The SW4.iw is designed to be built into walls. Since humans do not hear bass frequencies as directional, placement is flexible, but it is best to locate the subs near the front sound stage.

Where possible, it is generally best to use two subwoofers, each located in a different area of the room. In addition to improving efficiency and doubling the power handling, using two subwoofers creates a more even distribution of the low frequencies by reducing peaks and nulls. Two SW4.iws must be connected in series.

Amplifier Location

The A2 amplifier is best located in an equipment rack or shelving with other audio and video equipment. It is not recommended for placement behind walls or other limited access locations, where service may be restricted.

Speaker Wire

Use approved wire designed for in-wall or exposed use, as appropriate for your installation. For the SW4.iw, 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 (18/27)
up to 29'	12 gauge (65/30)
up to 51'	10 gauge (105/30)

SUBWOOFER INFORMATION

Subwoofer Design

Non-realistic, “boomy” bass frequencies are so prevalent in the home theater world that some listeners have never heard a well-tuned subwoofer. The “boom” occurs because every subwoofer has a natural resonance peak—that is, every subwoofer will naturally produce a narrow range of low frequencies at a higher volume than the rest. This “boom” drowns out higher frequencies your subwoofer produces, resulting in diminished performance and muddy, poor-quality bass.

Induction Dynamics® engineers its subwoofers with high-performance drivers and specialized filter circuits to eliminate resonance peaks and produce a fuller sound expressing all bass frequencies.

Most subwoofers do not attempt to reproduce ultra-low frequencies because of the distortion created by excess excursion. Induction Dynamics eliminates this distortion with a patented frequency-selective excursion limiter. The excursion limiter allows the subwoofer to produce ultra-low frequency sound but prevents the driver from overexerting and causing distortion that could ruin your listening experience; the limiter itself is transparent, operating only at specific frequencies without audibly switching on and off.

INSTALLING THE SW4.IW WITH A2 AMPLIFIER

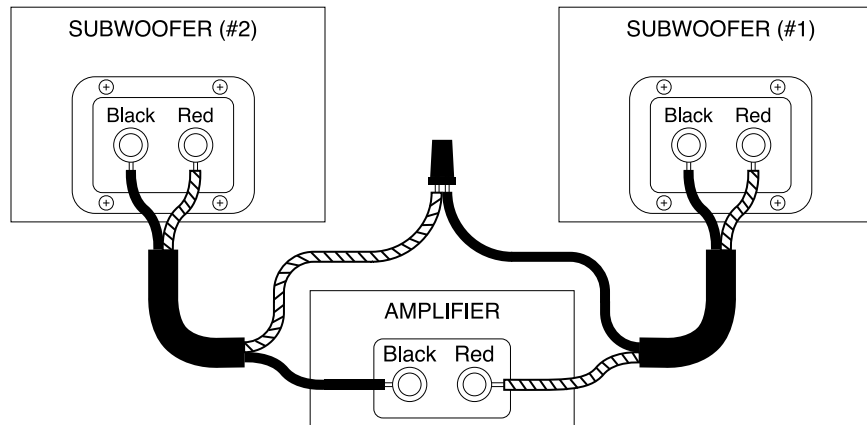
The A2 is designed to be used with audio/video pre-amplifiers and receivers that have their own built-in low frequency crossover circuits. These circuits typically have a low pass rolloff of 12dB/octave or 24 dB/octave. The best crossover frequency setting is usually 60 Hz (12 dB/octave low pass) or 70 Hz (24 db/octave low pass). Ultimately, the crossover frequency setting is best determined by consulting your own ears.

Connecting the A2 to Your SW4.iw

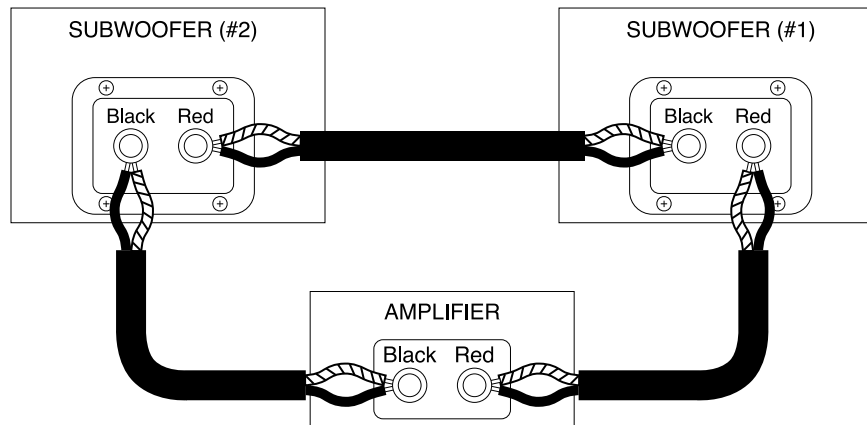
1. Turn off the power to each piece of equipment before making any connections.
2. Using high-quality interconnect cables with RCA type terminations, connect the "SUBWOOFER OUT" on the audio/video preamplifier or receiver to "IN" on the A2. If using a single subwoofer, proceed to step 3; if using two subwoofers, skip step 3 and proceed to step 4.
3. Using high-quality speaker wire (consult the chart on page 4), connect the black binding post on the A2 to the black binding post on the SW4.iw subwoofer and connect the red binding post on the A2 to the red binding post on the SW4.iw subwoofer. Proceed to step 5.
4. If using a single A2 with two subwoofers, the subs must be connected in series. In this configuration, the two 4-ohm loads will combine to create an 8-ohm load. Connect the red binding post of the A2 amplifier to the red binding post on the first subwoofer, and the black binding post on the A2 amplifier to the black binding post on the second subwoofer. Then connect the black binding post on first subwoofer to the red binding post on the second subwoofer. Three subwoofer connection methods are shown on the opposite page. Proceed to step 5.
5. Connect the amplifier to a 120-volt, single phase, 60-Hz, grounded power supply using the power cord provided. For best results, use a dedicated power circuit for your amplification equipment.
6. Phase Check: Listen to the subwoofer(s) and higher frequency speakers together. Then, reverse the speaker wires on the back of the subwoofer (black to red and red to black). This reverse connection is 180° out of phase with the normal connection. One of these two arrangements will sound noticeably louder in the low-frequency range. The louder arrangement is the proper phase alignment for your installation.

7. Volume Adjustment: The subwoofer volume level may be adjusted by using the control in the menu of the audio/video preamplifier or receiver. The subwoofer volume level may be measured using a sound level meter, a real time analyzer, or adjusted by ear. An easy technique is to set the level just below where it starts to sound “boomy”.

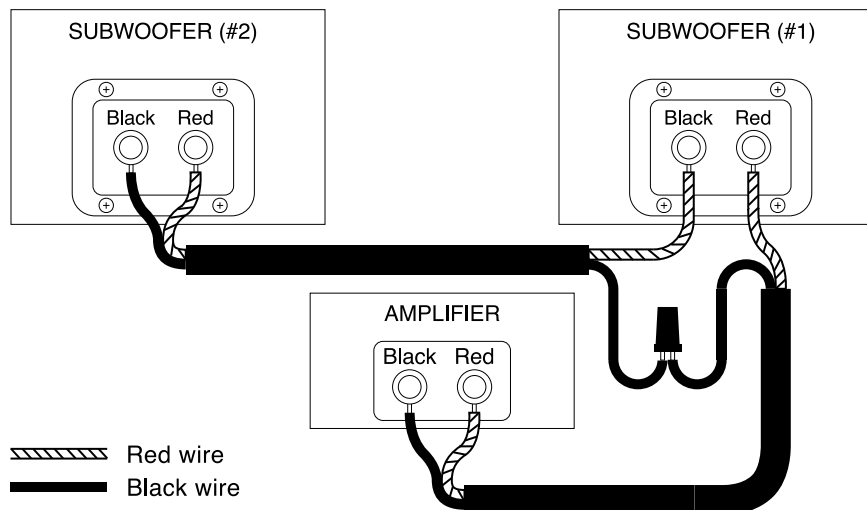
Method 1:



Method 2:



Method 3:



 Red wire
 Black wire

SW4.IW SPECIFICATIONS

Type:	Powered subwoofer
Driver Control:	High-saturation filter circuit to eliminate resonance peaks
Nominal Impedance:	4 Ohms (2.5 minimum)
Frequency Response:	25 - 150 Hz
Sensitivity (2.83 V @ 1M):	81 dB
SPL (1 W / 1 m):	78 dB
Power Handling:	400 W
Magnetic Shielding:	No
Drivers:	dual 10" laminated cone with rubber surround and 54-oz. magnet
Binding Posts:	Gold-plated; #4 AWG Max
Enclosure:	Sealed
Optional Accessories:	ST2.SW4.iw dual-post subwoofer stand

A2 SPECIFICATIONS

Type:	Class AB Bipolar Subwoofer Amplifier
Driver Control:	Patented non-distorting, frequency-selective excursion limiter
Frequency Response:	20 Hz - 20 kHz, +/- 0.25 dB
Harmonic Distortion:	< 0.078% (@ 1 kHz, 1 Watt)
Voltage Gain (dB) S/N:	36 dB (internally switchable to 26 dB)
Damping Factor:	95 dBA
Input Impedance:	400 Ohms @ 60 Hz
Output Load:	2.5 K Ohms minimum
Power Output (Continuous) 2.5 Ohms / 4 Ohms / 8 Ohms	700 Watts / 520 Watts / 300 Watts
Inputs:	1 RCA (RCA plus XLR optional)
Output Binding Posts:	Gold Plated; #10 AWG max, or Banana Plugs
Power Requirements:	120 V AC, 6A slow-burn fuse
Auto On/Off	Auto power down if no signal for 20 minutes (turn-on sensitivity 2 mV)

WARRANTY

Induction Dynamics, Inc. warrants the SW4.iw subwoofer, A2 amplifier, and/or A3 amplifier 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 SW4.iw subwoofer, A2 amplifier, and/or A3 amplifier 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 SW4.iw subwoofer, A2 amplifier, and/or A3 amplifier 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 SW4.iw subwoofer, A2 amplifier, and/or A3 amplifier 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: _____

Audio Perfection Realized



INDUCTION DYNAMICS®

8005 W. 110th Street, Suite 208
Overland Park, KS 66210
Tel: (855) 663-5600
Fax: (913) 663-3200
www.inductiondynamics.com

© Induction Dynamics®, August 2013