

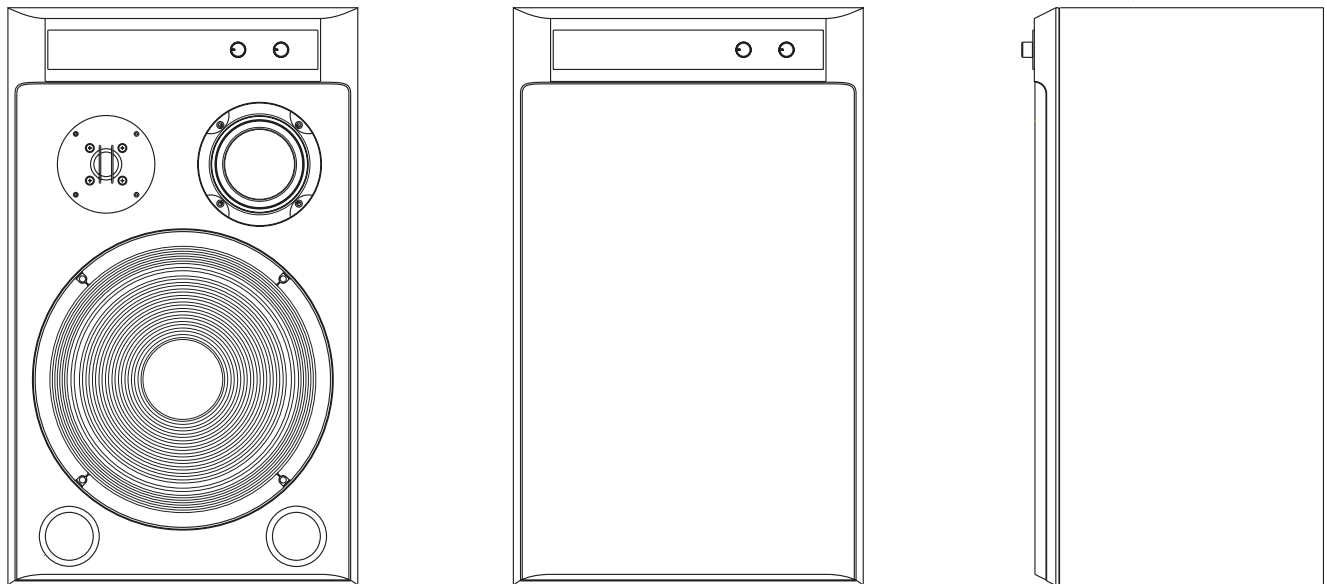


12 Inch 3-Way Studio Monitor

Model 4312SX

Owner's Manual

The 4312SX is an upgraded version of the classic 4312 Studio Monitor. It incorporates a new inverted dome midrange driver and a new dome high frequency driver whose response has been extended to 40 KHz.



JBL Incorporated

Studio Monitor Model 4312SX

1: Introduction

Thank you for purchasing the **JBL 3-Way Studio Monitor 4312SX**.

In order to better understand and correctly use this product, please thoroughly read this Owner's Manual before using the product.

2: Unpacking

The product should have been delivered complete in appearance and functionality. However, if you find any scratches or defects, please directly contact the store where you purchased the product.

We recommend that you keep the original box and packing material after unpacking. Please note that if a product must be shipped for a repair service, JBL Incorporated will not be responsible for any damage incurred during shipping caused by insufficient packing.

3: Installation

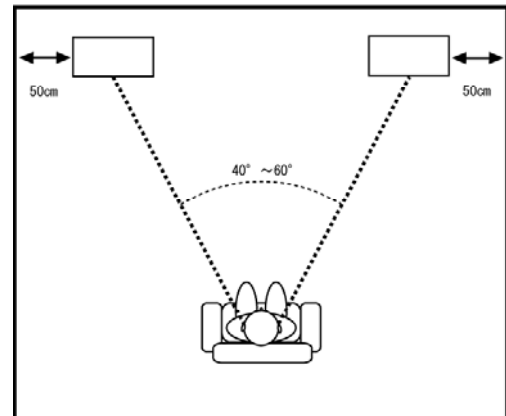
Avoid placing the monitors near power amplifiers or radiators that generate large amounts of heat, or in very humid or dusty places, and any places exposed to direct sunlight. Also place them on a firm, solid floor.

•Settings

Start the setup using a recorded sound source that has a distinct virtual center image. Once the center point between the speakers is obtained by measuring equal distances from the left and right speakers, adjust the distance between the listening position and the speakers, as well as the distance between right and left speakers, so that a precise center image is obtained.

These monitors are designed to reproduce the most accurate stereo sound stage when the interior angle between the lines connecting from each speaker to the listener is between 40 to 60 degrees. Additionally, it is ideal that a distance of approximately 50 cm or more is maintained from the left and right walls.

The center of the speaker's sound image is in the vicinity of the **HF** (high-frequency) unit. Set the speakers so that the **HF** unit is aligned at ear-level. In addition, to avoid acoustical interference with the floor surface, it is recommended that you set a sturdy base (cube or block shaped) with a thickness of 5 – 20 cm under the speakers.



4: Connection

*Caution

When connecting the speakers to the amplifier, always do so after turning off the power. Connecting the speakers while the power is on may damage the amplifier or the speakers.

The positive terminals of the speaker have a red ring, and the negative terminals have a black ring. Be sure to connect without mistaking the polarity. The speakers are designed so that when a positive signal is applied to the positive terminal, the woofer moves in the forward direction (positive phase operation).

In order to safely and securely connect to the terminals, we recommend that you use the Y terminals or banana plugs on the cable ends.

5. Attenuator Adjustment

Independent, continuous variable attenuators are used for each unit to adjust the MF (mid-frequencies) and HF (high-frequencies) levels to the speaker's woofer level. Make adjustments appropriate to the reverb in the actual room, and to your liking. In general, for most speakers, it takes about 1 – 2 months after initial use until the unit's vibration system yields optimum performance. As the level balance is expected to initially change with use, we recommend that you readjust the level accordingly.

6: Attaching the Grills

The speakers are shipped with the grill installed.

The purpose of the grill is to protect the units. The grill may be removed and re-attached as necessary.

7: Maintenance

- When doing any maintenance, wipe the surface of the cabinet with a dry cloth to remove dust. Damp cloth or cleaning paper may dull the finish on the cabinet surface. Do not use volatile liquids such as benzene, paint thinner, alcohol, etc, and do not spray insecticide near it.
- If dust gets into the grill netting, use a vacuum cleaner to remove it. In doing so, adjust the suction power of the vacuum cleaner so that it does not suction too strongly. Furthermore, do not wash the grill in water. The grill may sag or its color may become uneven.
- If the surface of the speaker unit becomes dusty, use a soft, dry calligraphy brush or a paint brush to carefully sweep the dust away. Never use a damp cloth.
- The speaker system is a durable consumer good. In particular, the edges of the woofer, which support rapid movement of the paper cone, undergo a great level of stress, and there is a limit to the number of years of its practical use. Also, the speakers' lifespan may be shortened by the effects of temperature, humidity or ultra-violet radiation. Please avoid exposing the speaker to strong lighting such as from lighting equipment or direct sunlight and avoid placing the speakers in high temperatures such as near the air conditioner exhaust pipe or a heat radiator.

8: Specifications

Type	3-way Bookshelf
Units used	30 cm pure pulp cone woofer 2213H 100 mm titanium diaphragm MF 904 25 mm pure titanium dome AW025
Impedance	6 Ω
Allowable input	200 W (RMS)
Output sound pressure level	93 dB (2.83 V/1m)
Frequency response	45 Hz – 40 KHz (-6 dB)
Crossover frequencies	400 Hz, 3800 Hz
Dimensions (W x H x D)	362 x 597 x 298 mm
Weight	21.8 kg