SONY®

Active Super Woofer

Operating Instructions



© 1998 by Sony Corporation

WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.

Do not install the appliance in a confined space, such as a bookcase or built-in cabinet.





This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

Â

This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

Owner's Record

The model number and serial numbers are located at the rear. Record these numbers in the spaces provided below. Refer to these numbers whenever you call upon your Sony dealer regarding this product.

Model No. SA-W305/W303 Serial No. _____

CAUTION

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

CAUTION

Use of this appliance with some systems may present a shock or fire hazard. Do not use with any units which have the following marking located near output. WARNING: HAZARDOUS ENERGY!

Note to CATV system installer:

This reminder is provided to call CATV system installer's attention to Article 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

For detailed safety precautions, see the leaflet "IMPORTANT SAFEGUARDS" included with this manual in the vinly bag.

Welcome!

Thank you for purchasing the Sony Active Super Woofer. Before operating this woofer, please read this manual thoroughly and retain it for future reference.

TABLE OF CONTENTS

Getting Started

Unpacking 4 Installation 4 Hooking Up the System 5

Basic Operations

Listening to the Sound 8 Adjusting the Sound 9

Additional Information

Precautions 10 Troubleshooting 10 Specifications 11

Unpacking

Check that you received the following items:

- Audio connecting cord (1)
- Speaker cord (2)

Installation

Since the human ear cannot detect the direction and position where the bass sound being reproduced by a woofer (below 150 Hz) comes from, you can install the woofer wherever you like in your room. To obtain a better bass reproduction, we recommend you to install the woofer on a solid floor where the resonance is unlikely to occur.

You can obtain a sufficient heavy bass reproduction from a single woofer. However if you use a couple of the woofers, you can obtain an even more effective heavy bass reproduction.

Notes

- Always install the woofer vertically, keeping a few centimeters from away the wall.
- Do not place an object on the woofer or sit on it.
- If the woofer is installed in the center of a room, the bass could be extreamely weakened. This is due to the influence of the standing wave of the room. If this happened, move the woofer away from the center of a room or eliminate the cause of the standing wave, by installing a bookshelf on the wall, etc.

Hooking Up the System

Overview

Use the LINE IN jack or the SPEAKER IN terminals of the woofer when you connect the amplifier.

- If your amplifier has one of the following types of output jacks, connect the LINE IN jack and the amplifier's jack using the supplied audio connecting cord.
 - MONO OUT jack
 - MIX OUT jack
 - SUB WOOFER output jack(s)
 - SUPER WOOFER output jack(s)
- If your amplifier does not have the above mentioned output jacks, connect the speaker terminals of the amplifier to the SPEAKER IN terminals instead.



Before you get started

- Turn off the power of the amplifier and the woofer before making any connection.
- Use the audio connecting cords that are supplied to the respective equipment. If there are not enough audio connecting cords to make the necessary connections, you need to purchase some optional audio connecting cords.
- Be sure to make connections firmly to avoid noise.
- Connect the AC power cord from the woofer to a wall outlet.
- You cannot connect the CENTER output jack for use with Dolby Pro Logic function to the woofer. Bass sound is not output with some Dolby Pro Logic modes.

Connecting to an amplifier with a single set of speaker terminals

If your amplifier is equipped with a single set of speaker terminals, connect the woofer to the amplifier, and then connect the front speakers to the woofer.

What cords will I need?

Speaker cord (supplied) (1 for each speaker)



Twist the stripped ends of the cord about $^{2}/_{3}$ inch (15 mm). Be sure to match the speaker cord to the appropriate terminal on the componentes: + to + and – to –. If the cords are reversed, the sound will be distorted and will lack bass. It is useful to decide that the speaker cord marked with a line is always the positive (+) and should be connected to the positive (+) terminal to avoid any improper connections.

Hookups

 Connect the woofer to the amplifier. Connect the SPEAKER IN terminals of the woofer to the amplifier's speaker terminals with the speaker cords. Be sure to connect both L and R channels.





2 Connect the front speakers to the woofer. Connect the speakers to the speaker terminals of the woofer.



Connecting to an amplifier with double(A+B) sets of speaker terminals

If your amplifier has double(A+B) sets of speaker terminals, connect both the woofer and the front speakers to the amplifier.

What cords will I need? Speaker cord (supplied) (1 for each speaker)



Twist the stripped ends of the cord about $^{2}/_{3}$ inch (15 mm).

Hookups

 Connect the front speakers to the amplifier. Connect the speakers to your amplifier's speaker terminals (A).



2 Connect the woofer to the amplifier. Connect the SPEAKER IN terminals of the woofer to the amplifier's speaker terminals (B) using speaker cords (supplied).



When using the double (A +B) sets of speakers, make sure that you select the "A +B" position with your amplifier.

Note

When you are using speaker terminal (A) only (front speaker only) or when the power of the amplifier is turned off, turn down the volume or turn off the power of the woofer otherwise, hum noise may be heard.

Connecting to an amplifier with a special jack for a super woofer

If your amplifier has a special jack for a super woofer (like a MONO OUT jack, MIX OUT jack, SUB WOOFER jack or SUPER WOOFER jack), connect the LINE IN jack of the woofer to one of those jacks.

What cords will I need? Audio connecting cord (supplied) (1)



When using this woofer for both left (L) and right (R) channels



Connecting the AC power cord

Connect the AC power cord from the woofer and from your amplifier to a wall outlet.

Hookups

Connect the MONO OUT jack of your amplifier to the LINE IN jack of the woofer with the supplied audio connecting cord.



Note

If the output level of your amplifier is not large enough, the sound may not be loud enough. In this case, connect the speaker terminals of the amplifier directly to the SPEAKER IN terminals of the woofer.

Listening to the Sound



Turn on the amplifier and select the program source.

Press POWER.

The woofer turns on and the POWER indicator lights up in green.

3 Play the program source.

Adjust the VOLUME so that sound from front speakers is not distorted.

If it is distorted, the sound from the woofer will also be distorted.

To turn off the power

Press POWER to release the switch.

If you hear noise when you turn off the woofer, turn down the LEVEL of the woofer, or turn off the amplifier before turning off the woofer.

Note

Never set the amplifier's tone control (BASS, TREBLE, etc.) or the equalizer output to a high level or input sinewaves of 20 Hz to 50 Hz recorded on a commerciallyavailable test disc or special sound (bass sound of electronic musical instrument, pop noise of analog disc turntable, sound with abnormally enhanced bass, etc.) in a high level to this unit. These actions may cause damage to the speakers.

When a special disc containing abnormally enhanced bass is played, noise may be output in addition to the original sound. In such a case, decrease the sound level.

Note

The sub woofer output signal (DOLBY digital (AC-3) signal) of the digital surround processor sold singularly is set 10 dB higher by Dolby laboratories Licensing Corporation. In the case of using normally, adjust the sub woofer level.

Adjusting the Sound

You can adjust the sound of the woofer to suit the sound of your front speakers. Reinforcing the bass sound gives you a greater sense of atmosphere.



Adjust the cut-off frequency.

Note

If the sound distorts when you turn on the bass reinforcement from your amplifier (such as, DBFB, GROOVE, the graphic equalizer, etc.), turn off the bass reinforcement and adjust the sound.

Note

Selecting NORMAL or REVERSE with the PHASE button reverses the polarity and may provide better bass reproduction in certain listening environments (depending on the type of front speakers, the position of the woofer and the adjustment of the cut-off frequency). It may also change the expanse and tightness of the sound, and effect the feeling of the sound field. Select the setting that provides the sound you prefer when listening in your normal listening position.

Turn the CUT OFF FREQ control, depending on the reproduction 80Hz frequencies of your front speakers. Refer to the following when adjusting. 140Hz 65Hz ① Typical very small sized speakers: 5 – 7 cm dia. ② Typical small sized speakers: 8 –15 cm dia. 50Hz 200Hz ③ Typical medium sized speakers: 16 –24 cm dia. ④ Typical large sized speakers: more than 25 cm dia. To make the most of the low level converter function of Dolby digital, turn the CUT OFF FREQ as high as possible when playing back the Dolby digital (AC-3). Adjust the volume level of the woofer. Turn the LEVEL control so that you can hear the bass sound a little more than before. Do not raise the bass excessively as this will result in the loss of balance and depth. To increase the volume, turn the control clockwise. To decrease the volume, turn the control counterclockwise. Play your favorite song and movie. Male vocal tunes and voice containing bass sounds are most suitable for adjustment. Turn the volume for front speakers to the same level as usual. When playing a movie, raise the volume higher than the level for music to produce a more powerful sound. Select the phase polarity. Press the PHASE button to select the phase polarity. Repeat steps 1 to 4 to adjust for your preference. Once you have adjusted the woofer to the settings you desire, use the VOLUME control on the amplifier to adjust the volume of the woofer with that of the other speakers. You don't need to adjust the woofer settings when you change the volume level of the amplifier.

Precautions

On safety

- Before operating the woofer, be sure that the operating voltage of your woofer is identical with that of your local power supply.
- Unplug the woofer from the wall outlet if it is not to be used for an extended period of time. To disconnect the cord, pull the cord by grasping the plug. Never pull the cord itself.
- Should any liquid or solid object fall into the woofer, unplug the woofer and have the woofer checked by qualified personnel before operating it any further.
- AC power cord must be changed only at the qualified service shop.

When turning on or off an amplifier or other equipment Lower the volume of the amplifier to minimum.

To avoid damaging the woofer

- Be careful in setting the volume control of the amplifier to avoid an excessive input power.
- Do not attempt to open the enclosuer or remold speaker units and networks.
- The grill net is not removable. Do not remove it.

In case color irregularity is observed on the nearby TV screen

With the magnetically shielded type of the speaker system, the speakers can be installed near a TV set. However, color irregularity may still be observed on the TV screen depending on the type of your TV set.

If color irregularity is observed...

 \rightarrow Turn off the TV set once, then turn it on after 15 to 30 minutes.

If color irregularity is observed again...

→Place the speakers further apart from the TV set.

When howling occurs

Relocate the speaker or turn down the volume of the amplifier.

On installation

- Do not install the woofer near heat sources such as radiators or air ducts, or in a place subject to direct sunlight, excessive dust, mechanical vibration or shock.
- Good ventilation is essential to prevent internal heat build-up in the woofer. Place the woofer in a location with adequate air circulation. Do not place the woofer on a soft surface or too close to a wall as this may obstruct the ventilation hole on the back.

On cleaning the cabinet

Clean the cabinet with a soft cloth lightly moistened with water. Do not use any type of abrasive pad, scouring powder or solvent such as alcohol or benzine.

If you have any questions or problems concerning your woofer that is not covered in this manual, please consult your nearest Sony dealer.

Troubleshooting

If you experience any of the following difficulties while using the woofer, use this troubleshooting guide to help you remedy the problem. Should any problem persist, consult your nearest Sony dealer.

There's no sound.

- → Check that this woofer and components are connected correctly and securely.
- ➡ Turn LEVEL clockwise to turn the volume up.
- \rightarrow Reset the level.

The sound has suddenly stopped.

➡ The speaker cords may have short-circuited. Connect the cords properly.

The sound is distorted.

- → The input signal is imperfect.
- → The input signal level is too high.
- → Set the CUT OFF FREQ as high as possible when playing back the Dolby digital (AC-3).

Severe hum or noise is heard.

- \rightarrow Connect the ground wire of the turntable properly.
- ➡ The contacts between the plugs of the connecting cords and the corresponding jacks have not been made properly. Connect the plugs firmly.
- ➡ The audio system is picking up some noise from a TV set. Move the audio system away from the TV set or turn the TV set off.

Additional Information

Specifications

Audio power specifications POWER OUTPUT AND TOTAL HARMONIC DISTORTION:

With 6 ohms loads, from 20 - 150 Hz; rated 60 watts (SA-W305)/50 watts (SA-W303) per channel minimum RMS power, with no more than 0.8 % total harmonic distortion from 250 milliwatts to rated output.

System

- Type Active Super Woofer (magnetically shielded design)
- Speaker unit

Woofer: 16cm dia. (63/8 in.) x 1

Practical maximum output SA-W305: 60 W (50 Hz) SA-W303: 50 W (50 Hz)

 $\begin{array}{c} \text{Reproduction frequency range} \\ 28-200 \ Hz \end{array}$

 $\begin{array}{l} \mbox{High frequency cut-off frequency} \\ 50 \ Hz - 200 \ Hz \end{array}$

Phase selector NORMAL, REVERSE

Inputs

Input jacks LINE IN: Input pin jack SPEAKER IN: Input terminals

General

Power requirements 120V, 60 Hz

Power consumption 35 W

Dimensions Approx. 205 x 380 x 365 mm (w/h/d) $(8^{1/8} x 15 x 14^{3/8} in.)$

Mass 9.5 kg (20lb 15oz)

Supplied accessories

Audio connecting cord (1 phono plug – 1 phono plug) (1) Speaker cord (2)

Design and specifications are subject to change without notice.