GS

English
Français
Deutsch
Svenska
Italiano
Español
Nederlands
Português
Русский

YAMAHA

Subwoofer
Caisson de Grave
Сабвуфер

NS-SW300
NS-SW200

Advanced Y·S·T

Owner's Manual EN
Mode d'emploi FR
Benutzerhandbuch DE
Bruksanvisning SV
Manuale di istruzioni IT
Manual de instrucciones ES
Gebruikershandleiding NL
Manual do Proprietário PT
Руководство пользователя RU

PRECAUTIONS

PLEASE READ CAREFULLY BEFORE USE.
BE SURE TO FOLLOW THESE INSTRUCTIONS.

The precautions listed below are to prevent risk of harm to the user and others, as well as to prevent property damage, and to help the user use this unit properly and safely. Be sure to follow these instructions.

After reading this manual, be sure to keep it in a safe place where it can be referenced at any time.

- Be sure to request inspections or repairs from the dealer where you purchased the unit or from qualified Yamaha service personnel.
- Yamaha cannot be held responsible for injury to you or damage of the products caused by improper use or modifications to the unit.
- This product is for ordinary homes. Do not use for applications requiring high reliability, such as managing lives, health care or high-value assets.

⚠ WARNING

This content indicates "risk of serious injury or death."

If you notice any abnormality

- If any of the following abnormalities occur, immediately turn off the power and disconnect the power plug.
  – The power cord/plug is damaged.
  – An unusual smell or smoke is emitted from the unit.
  – Foreign material gets into the interior of the unit.
  – There is a loss of sound during use.
  – There is a crack or damage in the unit.

  Continued use could cause electric shocks, a fire, or malfunctions. Immediately request an inspection or repair from the dealer where you purchased the unit or from qualified Yamaha service personnel.

Power supply

- Do not do anything that could damage the power cord.
  – Do not place it near a heater.
  – Do not bend it excessively or alter it.
  – Do not scratch it.
  – Do not place it under a heavy object.

  Using the power cord with the core of the cord exposed could cause electric shocks or a fire.
- Do not touch the power plug or cord if there is a chance of lightning. Failure to observe this may cause electric shocks.
- Use this unit with the power supply voltage printed on it. Failure to connect to an appropriate AC outlet may cause a fire, electric shocks, or malfunctions.
- Check the electric plug periodically and remove any dirt or dust which may have accumulated on it. Failure to observe this may cause a fire or electric shocks.
- When setting up the unit, make sure that the AC outlet you are using is easily accessible. If some trouble or malfunction occurs, immediately turn off the power switch and disconnect the plug from the AC outlet. Even when the power switch is turned off, as long as the power cord is not unplugged from the wall AC outlet, the unit will not be disconnected from the power source.
- If you hear thunder or suspect approaching lightning, quickly turn off the power switch and pull the power plug from the AC outlet. Failure to observe this may cause a fire or malfunctions.
- If not using the unit for long periods of time, be sure to pull the power plug from the AC outlet. Failure to observe this may cause a fire or malfunctions.

Installation

- Always fix the speaker cable to a wall or similar. If you catch your feet or hands on the cable, the speakers may fall or overturn, causing malfunctions or injuries.

Do not disassemble

- Do not disassemble or modify this unit. Failure to observe this may cause a fire, electric shocks, injury, or malfunctions.

Water warning

- Do not expose the unit to rain, use it near water or in damp or wet conditions, or place on it any containers (such as vases, bottles or glasses) containing liquids which might spill into any openings or places where water may drop. A liquid such as water getting into the unit may cause a fire, electric shocks, or malfunctions.
- Never insert or remove an electric plug with wet hands. Do not handle this unit with wet hands. Failure to observe this may cause electric shocks or malfunctions.

Fire warning

- Do not place any burning items or open flames near the unit, since they may cause a fire.

Handling

- Be careful not to drop or apply strong impact to this unit. Failure to observe this may cause electric shocks, a fire, or malfunctions.

⚠ CAUTION

This content indicates "risk of injury."

Power supply

- Do not use an AC outlet where the power plug fits loosely when inserted. Failure to observe this may cause a fire, electric shocks, or burns.
- When disconnecting the power plug, always hold the plug itself and not the cord. Pulling by the cord can damage it and cause electric shocks or a fire.
- Insert the power plug firmly all the way into the AC outlet. Using the unit when it is not plugged in sufficiently can cause dust to accumulate on the plug, causing a fire or burns.

Installation

- Do not place the unit in an unstable position where it might accidentally drop or fall over and cause injuries.
- When installing this unit, do not obstruct heat dissipation.
  – Do not cover it with any cloth.
  – Do not block this unit's ventilation holes (cooling slits).
  – Do not install the unit in other ways than indicated.
  – Do not use the device in a confined, poorly-ventilated location

  Failure to observe the above may trap heat inside the unit, causing a fire or malfunctions. Ensure that there is adequate space around the unit: at least 20 cm (8 in) on top, 20 cm (8 in) on the sides, and 20 cm (8 in) on the rear.
- Do not install the unit in places where it may come into contact with corrosive gases or salt air or places that have excessive smoke or steam. Doing so may result in malfunction.
- Avoid being near the unit during a disaster, such as an earthquake. Since the unit may turn over or fall and cause injury, quickly move away from the unit and go to a safe place.
- When transporting or moving the unit always use two or more people. Attempting to lift the unit by yourself may damage your back, result in other injury, or cause damage to the unit itself.
- Before moving this unit, be sure to turn off the power switch and disconnect all connection cables. Failure to observe this may damage the cables or cause you or someone else to trip and fall.

Hearing loss

- Do not use the unit for a long period of time at a high or uncomfortable volume level, since this can cause permanent hearing loss. If you experience any hearing loss or ringing in the ears, consult a physician.
- Before connecting the unit to other devices, turn off the power for all devices. Also, before turning the power of all devices on or off, make sure that all volume levels are set to the minimum. Failing to do so may result in hearing loss, electric shock, or device damage.
- When turning on the AC power in your audio system, always turn on the unit LAST, to avoid hearing loss and speaker damage. When turning the power off, the unit should be turned off FIRST for the same reason. Failure to observe the above may cause hearing impairment or speaker damage.

Maintenance

- Remove the power plug from the AC outlet before cleaning the unit. Failure to observe this may cause electric shocks.

Handling

- Do not touch the surface having this label. Doing so may cause burns. The label on the device indicates that the surface to which the label is attached may become hot during operation.

- Do not insert your hand or fingers into the bass reflex located on the right side of this unit. Failure to observe this may cause injury.
- Do not insert foreign materials such as metal or paper into the bass reflex located on the right side of this unit. Failure to observe this may cause a fire, electric shocks, or malfunctions.
- Do not do the following:
  – Stand on or sit on the equipment.
  – Put heavy items on top of the equipment.
  – Place the equipment in a stack.
  – Apply unreasonable force to buttons, switches, input/output terminals, etc.

  Failure to observe this may cause injuries or damage to the equipment.
- Avoid pulling the connected cables to prevent injuries or damage to the unit by causing it to fall.
- Do not operate the unit if the sound is distorting. Prolonged use in this condition could cause overheating and result in fire.

Notice

Indicates points that you must observe in order to prevent product failure, damage or malfunction and data loss.

Power supply

- If not using the unit for a long period of time, be sure to pull the power plug from the outlet. Even if this unit is turned of by [⏻] (Standby/On), a minute current is still flowing.

Installation

- Do not use this unit in the vicinity of other electronic equipment, such as a TV, radio, or mobile phone. Failure to observe this may cause this unit or the TV or radio to produce noise.
- Do not use this unit in a location that is exposed to direct sunlight that becomes extremely hot, such as near a heater, or extremely cold, or that is subject to excessive dust or vibration. Failure to observe this may cause the unit's panel to become deformed, the internal components to malfunction, or for operation to become unstable.

Connections

- If connecting external units, be sure to thoroughly read the manual for each unit and connect them in accordance with the instructions. Failure to properly handle a unit in accordance with the instructions could cause malfunctions.

Handling

- Do not place vinyl, plastic, or rubber products on this unit. Failure to observe this may cause discoloration or deformation in the panel of this unit.
- If the ambient temperature changes drastically (such as during unit transportation or under rapid heating or cooling) and there is a chance condensation may have formed in the unit, leave the unit for several hours without turning on the power until it is completely dry before use. Using the unit while there is condensation can cause malfunctions.

Maintenance

- If the temperature or humidity changes drastically, water droplets (condensation) may form on the unit surface. If water droplets form, immediately wipe them off with a soft cloth. If water droplets are left on the unit, they may be absorbed into the wooden parts, causing deformation.
- When cleaning the unit, use a dry, soft cloth. Using chemicals such as benzine or thinner, cleaning agents, or chemical scrubbing cloths can cause discoloration or deformation.

Information

About functions and data included in the unit

- Air may be blown out from the bass reflex port. This is not a malfunction. This occurs particularly often when outputting music with heavy bass.

About content in this manual

- This manual is for the following readers:
  – the users of the unit
- This manual uses the following signal words for the important information:

WARNING

This content indicates “risk of serious injury or death.”

CAUTION

This content indicates “risk of injury.”

NOTICE

Indicates points that you must observe in order to prevent product failure, damage or malfunction and data loss, as well as to protect the environment.

NOTE

Indicates notes on instructions, restrictions on functions, and additional information that may be helpful.

- The illustrations in this manual are for instructional purposes only.

Information for users on collection and disposal of old equipment:

This symbol on the products, packaging, and/or accompanying documents means that used electrical and electronic products should not be mixed with general household waste.

For proper treatment, recovery and recycling of old products, please take them to applicable collection points, in accordance with your national legislation.

By disposing of these products correctly, you will help to save valuable resources and prevent any potential negative effects on human health and the environment which could otherwise arise from inappropriate waste handling.

For more information about collection and recycling of old products, please contact your local municipality, your waste disposal service or the point of sale where you purchased the items.

For business users in the European Union:

If you wish to discard electrical and electronic equipment, please contact your dealer or supplier for further information.

Information on Disposal in other Countries outside the European Union:

This symbol is only valid in the European Union. If you wish to discard these items, please contact your local authorities or dealer and ask for the correct method of disposal.

The model number, serial number, power requirements, etc., may be found on or near the name plate, which is at the rear of the unit. You should note this serial number in the space provided below and retain this manual as a permanent record of your purchase to aid identification in the event of theft.

Model No.

Serial No.

(rear_en_01)

CONTENTS

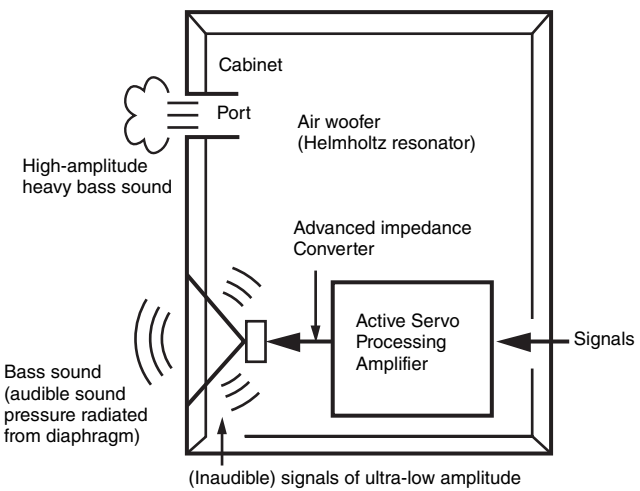
English

ADVANCED YAMAHA ACTIVE SERVO TECHNOLOGY II

In 1988, Yamaha brought to the marketplace speaker systems utilizing YST (Yamaha Active Servo Technology) to give powerful, high quality bass reproduction. This technique uses a direct connection between the amplifier and speaker, allowing accurate signal transmission and precise speaker control.

As this technology uses speaker units controlled by the negative impedance drive of the amplifier and resonance generated between the speaker cabinet volume and port, it creates more resonant energy (the "air woofer" concept) than the standard bass reflex method. This allows for bass reproduction from much smaller cabinets than was previously possible.

Yamaha's newly developed Advanced YST II adds many refinements to Yamaha Active Servo Technology, allowing better control of the forces driving the amplifier and speaker. From the amplifier's point of view, the speaker impedance changes depending on the sound frequency. Yamaha developed a new circuit design combining negative-impedance and constant-current drives, which provides a more stable performance and clear bass reproduction, without any murkiness.

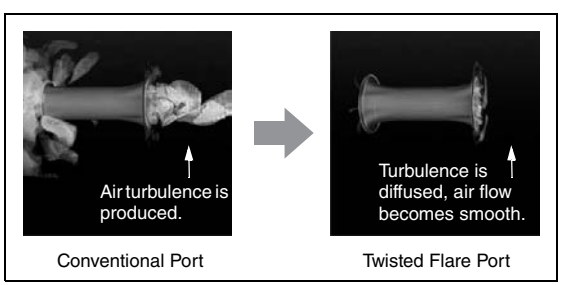


TWISTED FLARE PORT

Today's bass reflex speakers use a Helmholtz resonator to improve their bass reproduction. However when reproducing bass that is in the frequency region of this Helmholtz resonator, air moves violently in and out through the port between the interior and exterior of the speaker, sometimes producing noise due to the turbulent air flow at the end of the port.

The port and the cabinet resonate at a frequency that is determined by their dimensions and shape. On the other hand, turbulence in the air flow at the end of the port contains a broad range of frequency components that are not present in the input signal. This noise occurs because the broad range of frequency components includes components that match the resonant frequencies of the port and cabinet, causing strong resonance.

The Twisted Flare Port developed by Yamaha changes the way in which the port widens toward its end, and also adds a "twist" to suppress airflow turbulence at each end of the port and thus prevent noise from occurring.
This substantially reduces the "muddy sound" and "wind noise" that until now have been characteristic of bass reflex speakers, allowing bass to be reproduced clearly.



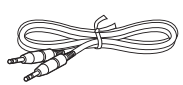
Air turbulence on both ends of the port creates noise

FEATURES

- This subwoofer system employs Advanced Yamaha Active Servo Technology II, which Yamaha has developed for the production of higher quality, super-bass sound. This super-bass sound adds a more realistic, theater-in-the-home effect to your stereo system.
- This subwoofer can easily be added to your existing audio system by connecting to either the speaker terminals or the line output (pin jack) terminals of the amplifier.
- For effective use of the subwoofer, the subwoofer's super-bass sound should be matched to the sounds of your front speakers. You can create the best sound quality for various listening conditions by using the HIGH CUT control and the PHASE switch.
- The Automatic power-switching function saves you the trouble of pressing the STANDBY/ON button to turn the power on and off.
- The subwoofer can be linked to a Yamaha component for simultaneous power on/off operation.
  Use the supplied system control cable to connect the subwoofer to a Yamaha component that features a system connector jack. When you turn on or off the power to the connected component, the subwoofer will also be turned on or off.
- The flared, gently twisting shape diffuses the vortex of air generated around the edge of the port, creating a smooth flow of air. This reduces extraneous noise not present in the original input signal, and provides clear, accurate low frequency reproduction.
- The subwoofer can also reproduce a bass sound that is appropriate for the source. (NS-SW300 only)
  It features a B.A.S.S. switch that enables you to select a bass effect that is suitable for the source.

SUPPLIED ACCESSORY

After unpacking, check that the following accessory is contained.



System control cable (5 m x 1)

PLACEMENT

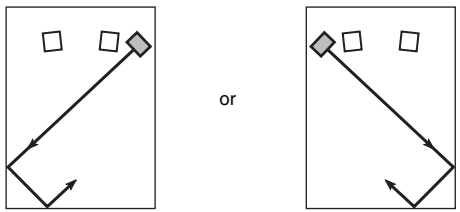
Since the low-end frequencies of audio signals feature long wavelengths, they are almost non-directional to human ears. The super-bass range does not create a stereo image. Therefore, a single subwoofer may be enough to produce a high-quality super-bass sound. However, using two subwoofers (similarly to L and R front speakers) can enhance your acoustic experience.

Subwoofer orientation

Place the subwoofer as shown in fig. A, B or C for the optimum effect. **: subwoofer** **: front speaker**

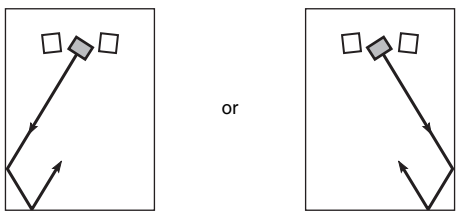
A Using one subwoofer

Place the subwoofer on the outside of either the left or right front speaker.



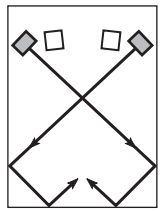
B Placing the subwoofer in between the left and right front speakers

If you are placing the subwoofer in between the left and right front speakers, position it slightly at an angle toward the wall for better effect.



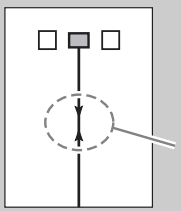
C Using two subwoofers

Place them on the outside of each front speaker.



NOTE

The placement shown in the figure below is also possible. However, if the subwoofer system is placed directly facing a wall, the bass effect may suffer due to phase cancellation caused by the interference between the direct and reflected sounds.



To prevent this from happening, place the subwoofer system at an angle. (Figures A, B, and C)

There may be a case that you cannot obtain enough super-bass sound from the subwoofer due to standing waves.

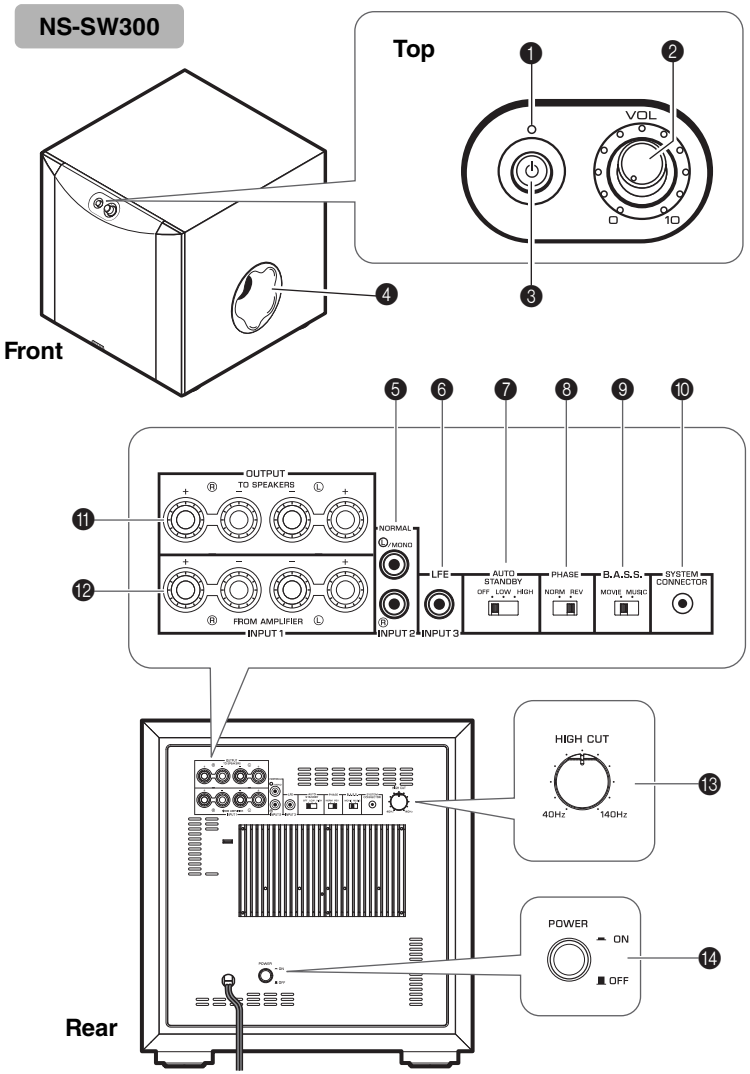
NOTE

- **This unit features a magnetically shielded design. However, there is still a chance that placing it too close to a CRT-type TV set might impair picture color. Should this happen, move this unit away from the TV set.**
- **If the speaker volume is very loud, furniture or window glass may resonate and the subwoofer itself may vibrate. In this case, lower the volume level. To limit resonance, use a thick curtain or similar cloth that tends to absorb sound vibrations effectively. Also, changing the subwoofer position may be helpful.**

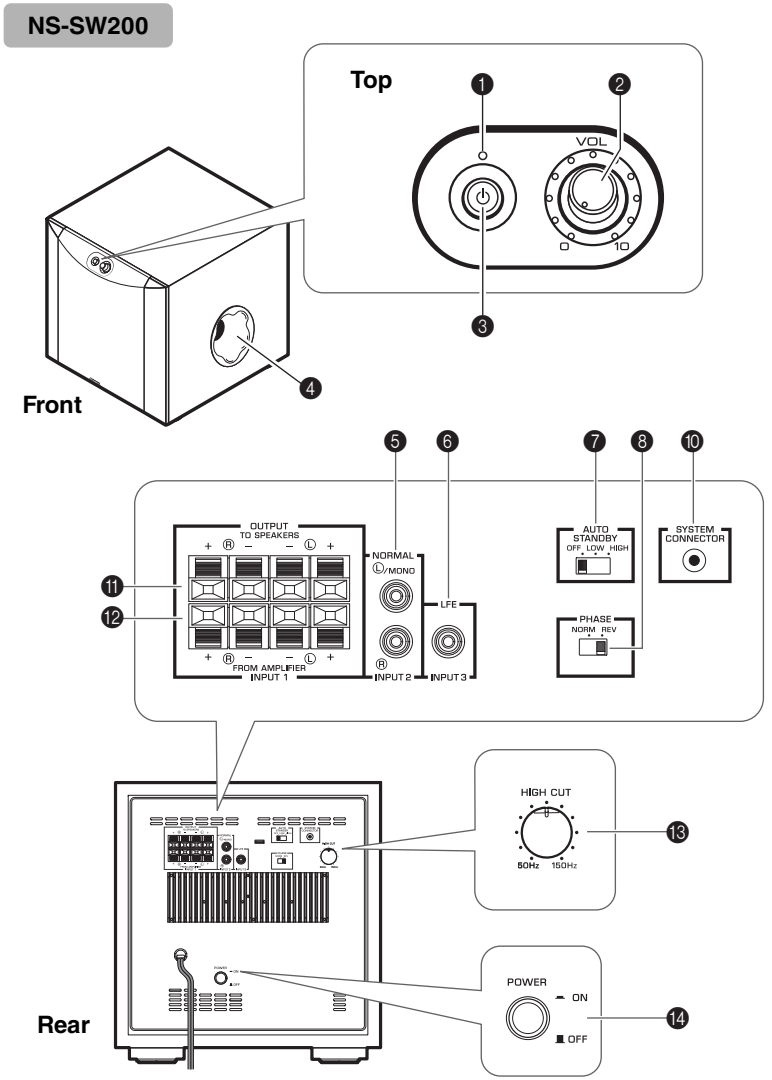
CONTROLS AND THEIR FUNCTIONS

Check the model number of your subwoofer on the label on the rear panel.

NS-SW300



NS-SW200



CONTROLS AND THEIR FUNCTIONS

❶ Indicator

Green: The subwoofer is turned on.

Red: The Automatic power-switching function has activated, and the subwoofer is in standby mode.

Off: The subwoofer is turned off.

❷ VOLUME control (☞ page 11)

Adjusts the volume level. Turn the control clockwise to increase the volume, and counterclockwise to decrease the volume.

❸ STANDBY/ON switch

While the POWER switch is ON, press this switch to turn on the power to the subwoofer. The indicator will light up green. Press the switch again to turn off the power to the subwoofer. The indicator will turn off.

> The subwoofer uses a small amount of power in standby mode.

❹ Port (☞ page 1)

Outputs super-bass sound.

❺ INPUT2 (NORMAL) terminals (☞ page 5)

Used to input line level signals from the amplifier.

❻ INPUT3 (LFE) terminal (☞ page 6)

If your amplifier (or receiver) can cut off high frequencies from signals sent to the subwoofer, connect the amplifier to the subwoofer's INPUT3 (LFE) terminal.

The HIGH CUT control ⓭ has no effect on signals input to the INPUT 3 LFE terminal.

❼ AUTO STANDBY (HIGH/LOW/OFF) switch (☞ page 10)

This switch is originally set to the OFF position. By setting this switch to the HIGH or LOW position, the subwoofer's automatic power-switching function operates. If you do not need this function, leave this switch in the OFF position.

NOTE

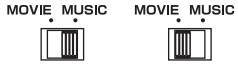
Be sure to set the POWER switch to OFF before you set the AUTO STANDBY switch.

❽ PHASE switch (☞ page 11)

This switch is to be set to the REV (reverse) position. However, depending on your speaker system or listening conditions, there may be a case when better sound quality is obtained by setting this switch to the NORM (normal) position. Select the best position by ear.

❾ B.A.S.S. (Bass Action Selector System) switch (NS-SW300 only) (☞ page 11)

When this switch is set to MUSIC, the bass sound in audio software is well reproduced. When the switch is set to MOVIE, the bass sound in video software is well reproduced.



❿ SYSTEM CONNECTOR jack (☞ page 10)

Connect the supplied system control cable here. If you use the system control cable to connect a subwoofer to a Yamaha component (that features a system connector jack), turning on or off the power to the connected component automatically turns the subwoofer on or off.

⓫ OUTPUT (TO SPEAKERS) terminals (☞ page 7)

Can be used for connecting to the main speakers. Signals at the INPUT1 terminals are sent to these terminals.

⓬ INPUT1 (FROM AMPLIFIER) terminals (☞ page 7)

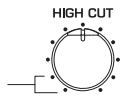
Used to connect the subwoofer with the speaker terminals of the amplifier.

⓭ HIGH CUT control (☞ page 11)

Adjusts the high frequency cut off point.

Frequencies higher than the frequency selected by this control are all cut off (and not output).

* One graduation of this control represents 10 Hz.



⓮ POWER switch

During normal usage, set this switch to ON. If you plan not to use the subwoofer for a long period of time, set the switch to OFF.

CONNECTIONS

Choose one of the following connection methods most suitable for your audio system.

1 Choose this method if your amplifier has line output (pin jack) terminal(s). (☞ page 5, 6)

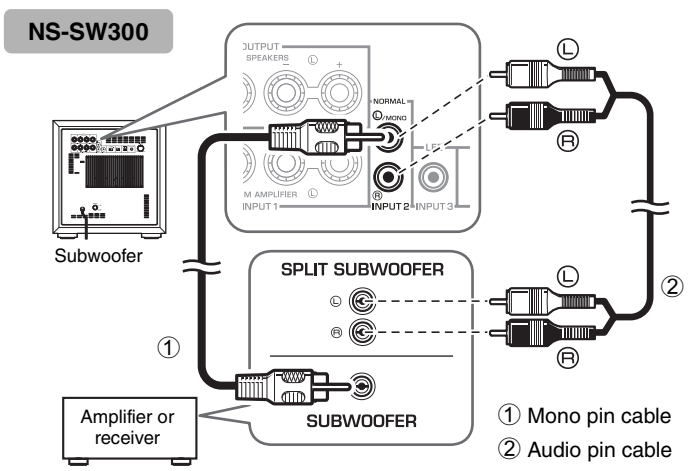
2 Choose this method if your amplifier has no line output (pin jack) terminals. (☞ page 7, 8)

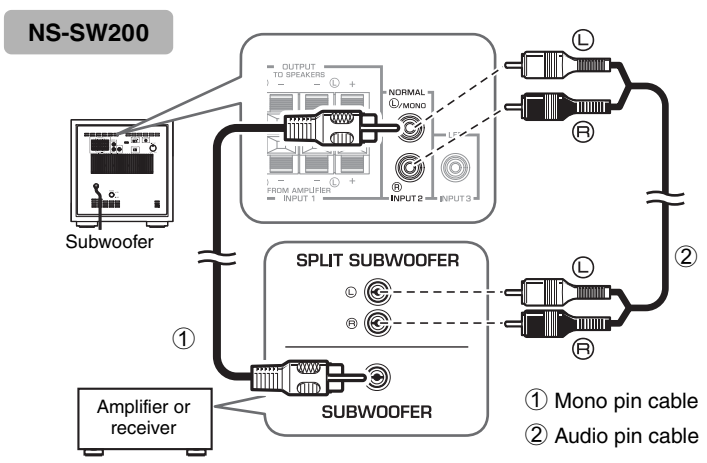
NOTICE

- **Unplug the subwoofer and other audio/video components before making connections, and do not plug them in until all connections are completed.**
- **Connecting methods and terminal names on your component (such as an amplifier or receiver) may be different from those used in this book. Please refer to the owner's manual that came with your component.**
- **All connections must be correct, that is to say L (left) to L; R (right) to R; "+" to "+" and "–" to "–".**

1 Connecting to line output (pin jack) terminal(s) of the amplifier

Example: Connecting one subwoofer





Use a **commercially-available Mono pin cable** (①) or a **commercially-available Audio pin cable** (②) to make the connections.

- Connect the SUBWOOFER (or LOW PASS, etc.) terminal on the rear of the amplifier (or AV receiver) to the Ⓛ/MONO INPUT2 terminal of the subwoofer using a commercially-available Mono pin cable (①).

Alternatively,

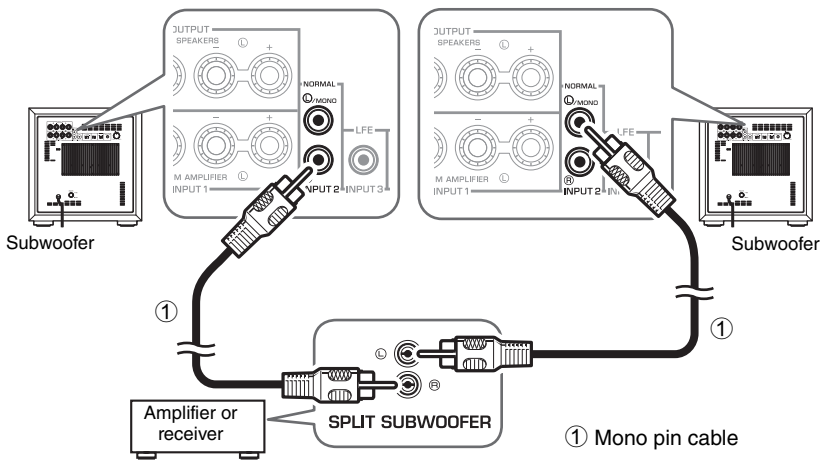
- When connecting the subwoofer to the SPLIT SUBWOOFER terminals (featuring L and R channels) on the rear panel of the amplifier, use a commercially-available Audio pin cable (②) to connect the Ⓛ/MONO INPUT2 terminal to the "L" side, and the Ⓡ INPUT2 terminal to the "R" side of the SPLIT SUBWOOFER terminals.

NOTE

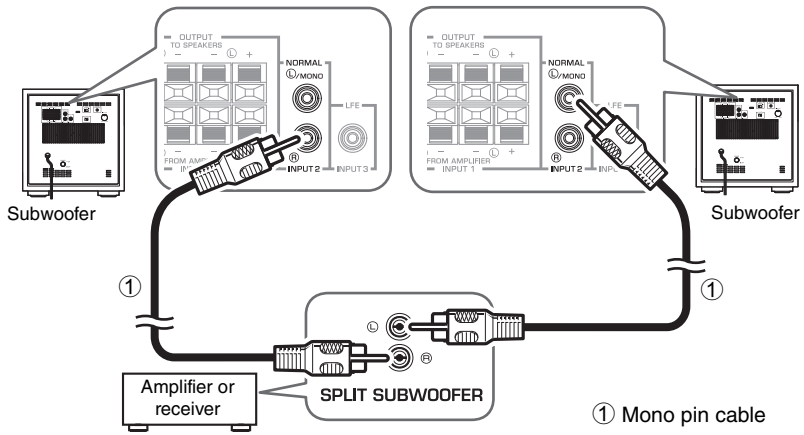
Audio signals input from the Ⓛ/MONO and Ⓡ INPUT 2 terminals on the subwoofer will not be output from the OUTPUT (TO SPEAKERS) terminals.

Example: Connecting two subwoofers

NS-SW300



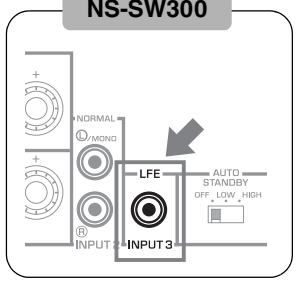
NS-SW200



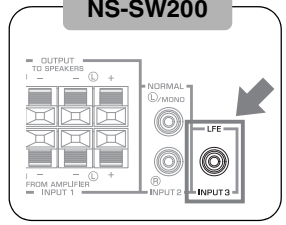
Connecting to the INPUT3 (LFE) terminal

If your amplifier (or receiver) can cut off high frequencies from signals sent to the subwoofer, connect the amplifier to the subwoofer's INPUT3 (LFE) terminal.
This will promote higher sound quality because the signal routing in the subwoofer is shortened by bypassing the built-in HIGH CUT circuit.

NS-SW300



NS-SW200



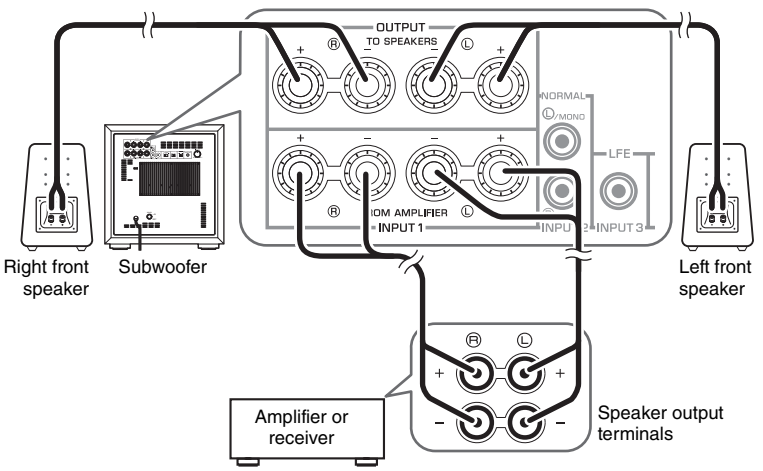
2 Connecting to speaker output terminals of the amplifier

■ Example: Connecting the subwoofer to an amplifier that features one set of speaker output terminals

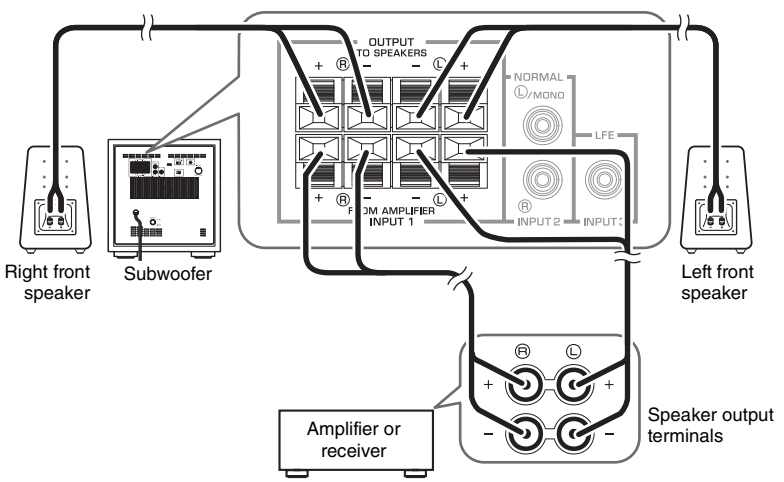
Use speaker cables to connect the speaker output terminals of the amplifier to the subwoofer's INPUT 1 (FROM AMPLIFIER) terminals. Connect the front speakers to the subwoofer's OUTPUT (TO SPEAKERS) terminals. Although the subwoofer is connected between the front speakers and the amplifier, the sound volume or quality will not be affected.

Connecting one subwoofer

NS-SW300

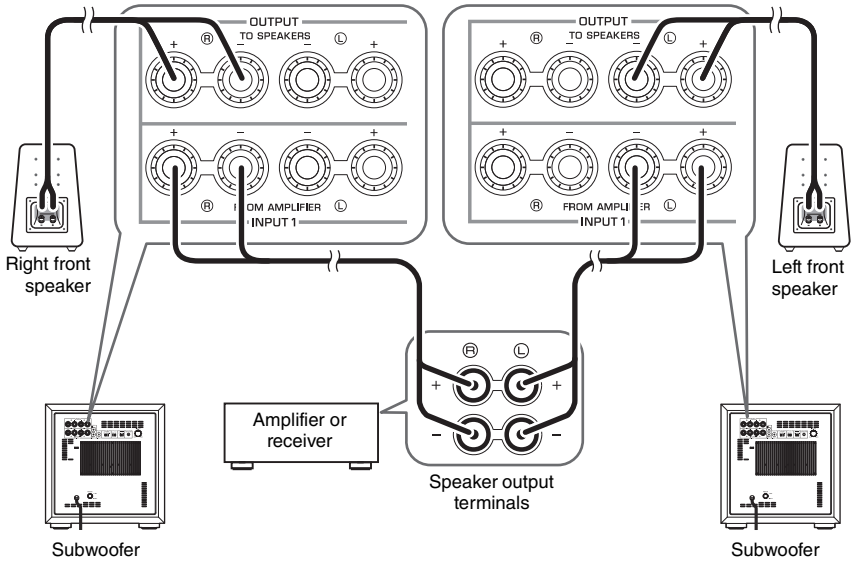


NS-SW200

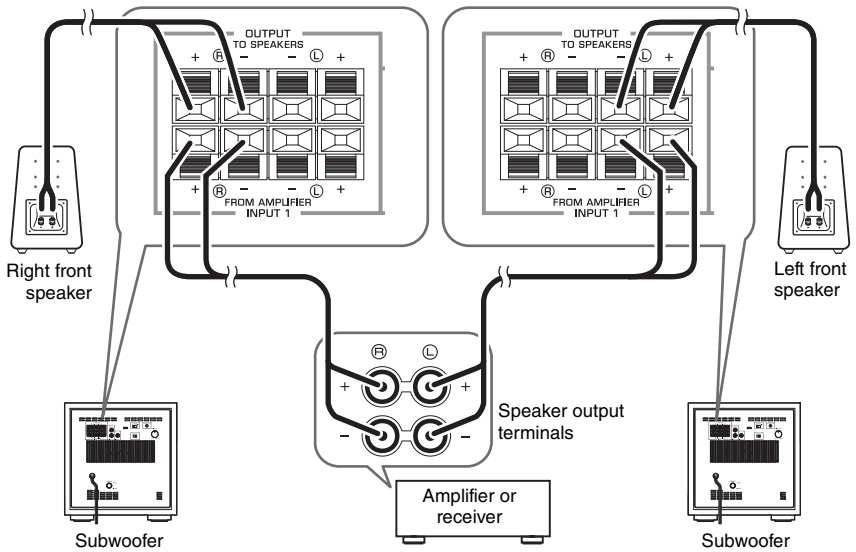


Connecting two subwoofers

NS-SW300



NS-SW200



■ Example: Connecting the subwoofer to an amplifier featuring two sets of speaker output terminals (A and B) that can output sound signals simultaneously

Set the amplifier so that both sets of speaker output terminals (A and B) will output sound signals simultaneously. Then, connect the front speakers to terminals A, and connect the subwoofer to terminals B.

NOTE

If your amplifier features two sets of speaker output terminals that do NOT output sound signals simultaneously, please refer to the example for connecting an amplifier that has only one set of speaker output terminals (see the figure on the left).

Connecting to the INPUT1/OUTPUT terminals of the subwoofer

WARNING

To avoid accidents resulting from tripping over loose speaker cables, fix them to the floor. Always fix the speaker cable to a wall or similar. If you catch your feet or hands on the cable, the speakers may fall or overturn, causing malfunctions or injuries.

NOTICE

- **Do not let the bare speaker wires touch each other, because this could damage the subwoofer or the amplifier.**

NOTE

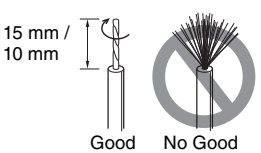
- **Make sure that the "+" and "–" polarity markings of the speaker cables are observed and set correctly. If these cables are reversed, the sound will be unnatural and lack bass.**
- **If the connections are faulty, no sound will be heard from the subwoofer or the speakers. Do not insert the insulation into the hole. Sound may not be produced.**

■ Before connecting

Remove the insulation at the tip of the speaker cable, then twist the core wires together so that they will not become disarrayed and short-circuited.

NS-SW300 Remove about 15 mm (5/8") of insulation.

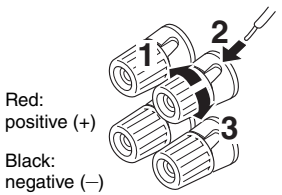
NS-SW200 Remove about 10 mm (3/8") of insulation.



■ How to connect

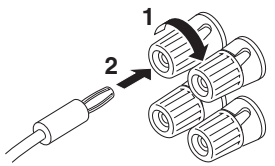
NS-SW300

1. Loosen the terminal's knob, as shown in the figure.
2. Insert the bare wire.
3. Tighten the knob.
4. Test the firmness of the connection by pulling lightly on the cable at the terminal.



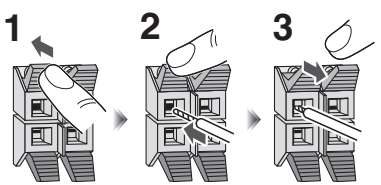
■ NS-SW300
Connecting the banana plug (U.S.A., Canada and Australia models only)

1. Tighten the terminal knob.
2. Simply insert the banana plug into the terminal.



NS-SW200

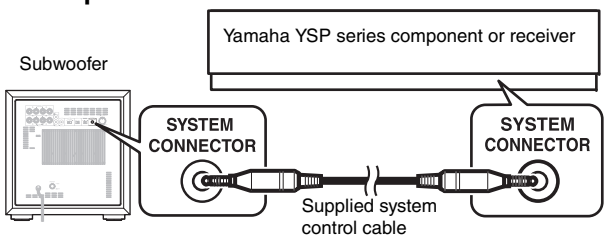
1. Press and hold the terminal's tab, as shown in the figure.
2. Insert the bare wire.
3. Release your finger from the tab to allow it to lock securely on the cable's wire end.
4. Test the firmness of the connection by pulling lightly on the cable at the terminal.



System connections

If you use the included system control cable to connect a subwoofer to a Yamaha component (that features a system connector jack such as a YSP series component or Yamaha receiver), turning on or off the power to the connected component automatically turns the subwoofer on or off.

Connection example



How the System Connection works

Turning on the power to the connected component will automatically turn on the subwoofer.

*** The indicator lights green.**

Turning off the power to the connected component will automatically turn off the subwoofer.

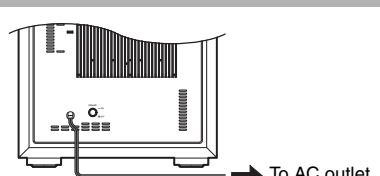
*** The indicator turns off.**

NOTE

- **For this feature to be available, the POWER switch on the rear panel and the STANDBY/ON switch on the top panel (☞ page 3) must be set to ON.**
- **Powering on/off via the system connection takes priority over the Automatic power-switching function. (While the unit is turned on, the Automatic power-switching function is enabled.)**
- **To modify the settings of the connected components, please refer to the owner's manual that came with the respective component.**

Plugging the subwoofer into an AC outlet

After all connections are completed, plug the subwoofer and other audio/video components into AC outlets.



AUTOMATIC POWER-SWITCHING FUNCTION

This function automatically places the subwoofer in standby mode if the subwoofer does not detect a signal from the amplifier for a certain period of time. The subwoofer automatically turns on as soon as it detects a signal from the amplifier.

The Automatic power-switching function works as follows when the AUTO STANDBY (HIGH/LOW/OFF) switch is set to LOW or HIGH. (Normally, set the switch to LOW.)

How the Automatic power-switching function works

The subwoofer automatically enters standby mode if it does not receive an input signal (*1) from the amplifier for 7 or 8 minutes (*2).

*** The indicator color changes from green to red.**

When the subwoofer detects an input signal (*1) from the amplifier, the subwoofer automatically turns on. *** The indicator color changes from red to green.**

*1 When the Automatic power-switching function is enabled, the subwoofer will detect a bass signal input of below 200Hz (such as sound effects of explosion in action movies, bass guitar or bass drum sound, etc.).

*2 This value may vary depending on the system environment. For example, it may be affected by noise generated from other equipment.

NOTE

For this feature to be available, the POWER switch on the rear panel and the STANDBY/ON switch on the top panel (☞ page 3) must be set to ON.

Setting the AUTO STANDBY switch

NOTE

Be sure to set the POWER switch to OFF before you set the AUTO STANDBY switch.

LOW: The Automatic power-switching function activates at a certain level of input signal. To enable the function, select this position.

HIGH: If the Automatic power-switching function does not work well when the AUTO STANDBY switch is set to LOW, select this position. If the function still does not work, slightly raise the LFE LEVEL on the amplifier.

OFF: The Automatic power-switchingy function may unexpectedly activate due to the system environment, for example, if the subwoofer detects noise generated from the peripheral components. In this case, select this position to disable the Automatic power-switching function, and manually turn the unit on or off by using the POWER switch.

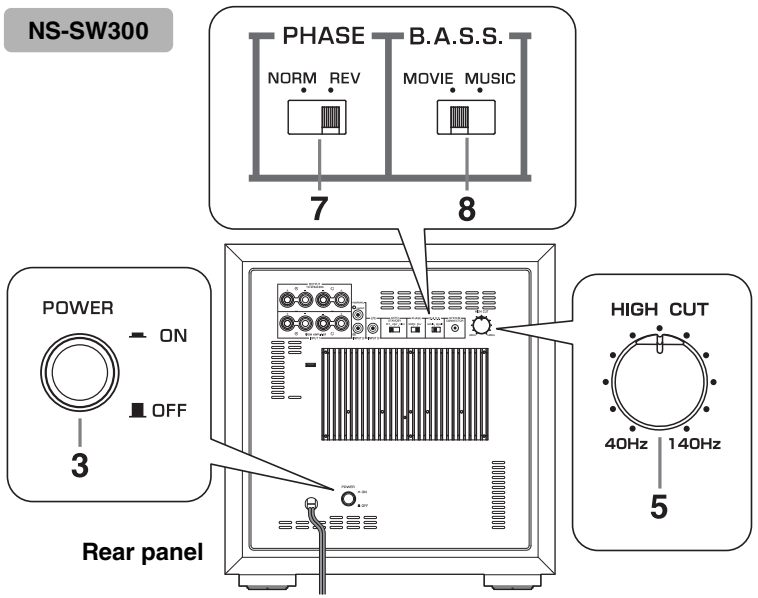
NOTE

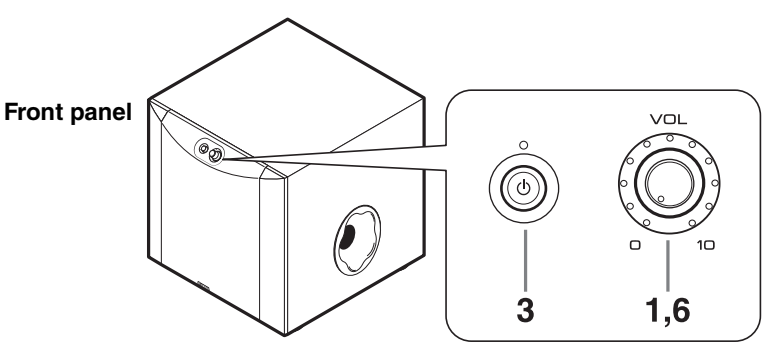
- **The subwoofer uses a small amount of power in auto-standby mode.**
- **If you plan not to use the subwoofer for a long period of time, set the POWER switch on the rear panel to OFF, or unplug the power cable from the AC outlet.**

ADJUSTING THE BALANCE

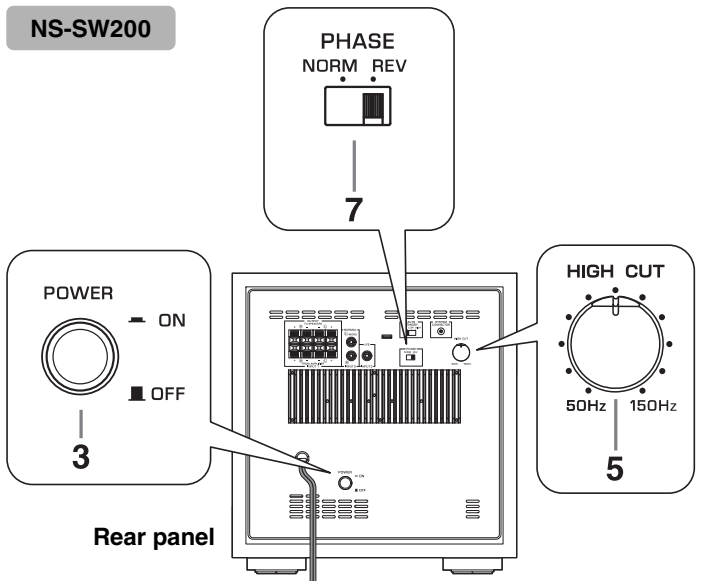
To achieve natural sound with an effective super-bass component, you must adjust the volume and tone balance between the subwoofer and the front speakers. Follow the procedure described below. If your amplifier or other component connected to the system features subwoofer settings, make the appropriate settings on that component.

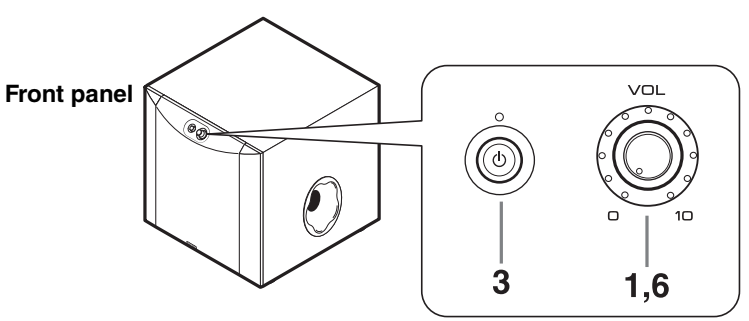
NS-SW300





NS-SW200





ADJUSTING THE BALANCE

1. Set the VOLUME control to minimum (0).
2. Turn on the power to the component(s) connected to the subwoofer.
   If the component is connected to the subwoofer's SYSTEM CONNECTOR jack, turn on the power to that component.
3. Make sure that the POWER switch is set to the ON position, then set the STANDBY/ ON switch to ON.
   * The indicator lights green.
4. Play a source that contains low-frequency components and adjust the output level of the front speakers using the amplifier's volume control to the desired listening level. (Set all tone controls to flat.)
5. Adjust the HIGH CUT control to the position where the desired response can be obtained.
   Normally, set the control to a level a little higher than the front speaker's rated minimum reproducible frequency*.
   * The front speaker's rated minimum reproducible frequency can be looked up in the speakers' catalog or owner's manual.
   * The HIGH CUT control has no effect on signals input to the INPUT 3 LFE terminal. (☞ page 6)
6. Increase the volume gradually to adjust the volume balance between the subwoofer and the front speakers.
   Normally, set the control to a level where you can obtain a little more bass effect than when the subwoofer is not used.
7. Set the PHASE switch to the position which yields the more natural (or preferable) phasing.
8. Set the B.A.S.S. switch to "MOVIE" or "MUSIC" according to the played source. (NS-SW300 only)
   MOVIE:
   When a movie type source is played, the low-frequency effects are enhanced to allow listeners to enjoy a more powerful sound. (The sound will be richer and deeper.)
   MUSIC:
   When an ordinary music source is played, the excessive low-frequency components are cut off to make the sound clearer. (The sound will carry less bass and reproduce the melody line more clearly.)

NOTE

Once the volume balance between the subwoofer and the front speakers is adjusted, you can adjust the volume of your entire sound system by using the amplifier's volume control. However, if you replace the front speakers, you will need to make this adjustment again.

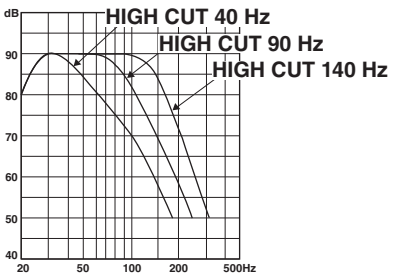
PHASE switch

In most situations, set this switch to select the reverse mode. However, depending on your speaker systems or listening condition, there may be a case when better sound quality is obtained by selecting the normal mode. Select the better mode by monitoring the sound.

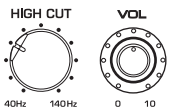
Subwoofer frequency characteristics

The figures below show the optimum adjustment of each control and the frequency characteristics when the subwoofer is combined with a typical front speaker system.

NS-SW300

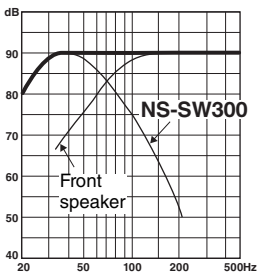


■ When combined with 10 cm (4") or 13 cm (5") acoustic suspension, 2-way system front speakers



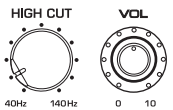
(70 Hz)

(REV)

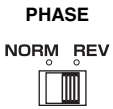


Frequency response graph*

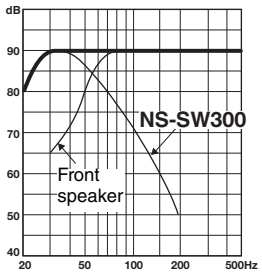
■ When combined with 20 cm (8") or 25 cm (10") acoustic suspension, 2-way system front speakers



(50 Hz)

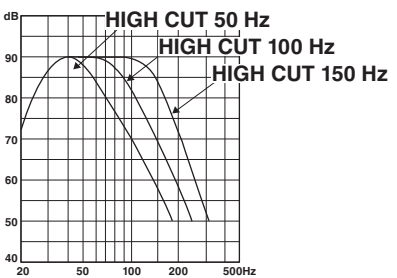


(REV)

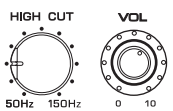


Frequency response graph*

NS-SW200

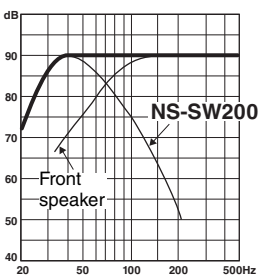


■ When combined with 10 cm (4") or 13 cm (5") acoustic suspension, 2-way system front speakers



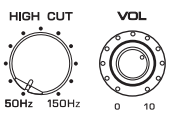
(70 Hz)

(REV)

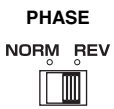


Frequency response graph*

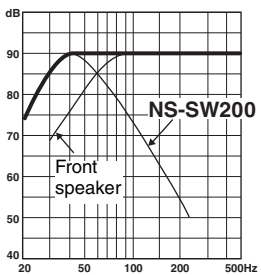
■ When combined with 20 cm (8") or 25 cm (10") acoustic suspension, 2-way system front speakers



(50 Hz)



(REV)



Frequency response graph*

* These diagrams do not depict actual frequency response characteristics.

TROUBLESHOOTING

Refer to the chart below if this unit does not function properly.

If the instructions given below do not help, or if the problem you are experiencing is not listed below, turn off the power to the unit, disconnect the power cord and contact an authorized Yamaha dealer or service center.

Problem	Cause	What to Do
Power is not supplied even though the STANDBY/ON switch is set the ON position.	The power plug is not securely connected.	Connect it securely.
	The POWER switch is set to the OFF position.	Set the POWER switch to the ON position.
	A system connected component is turned off.	Turn on the system connected component.
The unit cannot be operated.	Electric shock (such as a lightning strike or excessive static electricity) or power supply voltage drop has caused the internal microcomputer to freeze.	Once set the POWER switch to the OFF position and then set the POWER switch to the ON position.
The subwoofer does not turn on automatically via the system connection.	The system control cable is not connected properly or securely.	Connect the system control cable properly.
	The POWER switch is set to OFF.	Set the POWER switch to ON.
No sound.	The volume is set to minimum.	Increase the volume.
	Speaker cables are not connected securely.	Connect speaker cables securely.
Low range sound is too soft or not heard.	Speaker cables are not connected correctly.	Connect them correctly, that is L (left) to L; R (right) to R; "+" to "+" and "–" to "–".
	The PHASE switch is not set correctly.	Set the PHASE switch to the other position.
	A source sound with little bass frequency content is being played.	Play a source sound with bass frequencies. Set the HIGH CUT control to a higher position.
	The sound is influenced by standing waves.	Relocate the subwoofer or change its positioning angle.
	No bass frequency content is being output from the amplifier.	Check the bass output setting of the amplifier.

Problem	Cause	What to Do
The volume automatically decreases, or the unit turns off.	The temperature of the unit has abnormally increased due to the following causes. • The unit is used continuously at a high volume. • The unit is used in a location with a high temperature. • The unit is set up and used in a poorly ventilated location.	• Decrease the volume. If the problem does not improve, turn off the unit, wait until it cools down, and then turn it on again. • Do not set up the unit in a location exposed to direct sunlight or where the temperature becomes extremely high (for example, near a heater). • Turn off the unit, and when the temperature of the unit has sufficiently decreased, set up the unit in a well-ventilated location and turn it on again.
Even though the STANDBY/ON switch is pressed to turn on the unit, the indicator simply flashes red and does not turn on.	The protection circuit was activated due to an internal failure.	Unplug the power cable from the AC outlet, and then plug it in again. If the problem does not improve, contact an authorized Yamaha dealer or service center.
The subwoofer does not turn on automatically.	The POWER switch is set to the OFF position.	Set the POWER switch to the ON position.
	The STANDBY/ON switch is set to the STANDBY position.	Set the STANDBY/ON switch to the ON position.
	The AUTO STANDBY switch is set to the OFF position.	Set the AUTO STANDBY switch to the HIGH or LOW position.
	The level of input signal is too low.	Set the AUTO STANDBY switch to the HIGH position, and increase the output level of the amplifier.
	No bass frequency content is being output from the amplifier.	Check the bass output setting of the amplifier.

Problem	Cause	What to Do
The subwoofer does not enter standby mode automatically.	Noise generated from external appliances etc., is activating the subwoofer.	Move the subwoofer farther away from such appliances, and/or reposition the connected speaker cables. Set the AUTO STANDBY switch to the HIGH or LOW position.
	The AUTO STANDBY switch is set to the OFF position.	Set the AUTO STANDBY switch to the HIGH or LOW position.
The subwoofer enters standby mode unexpectedly.	The level of input signal is too low.	Set the AUTO STANDBY switch to the HIGH position, and increase the output level of the amplifier.
The subwoofer turns on unexpectedly.	Noise generated from external appliances etc., is activating the subwoofer.	Move the subwoofer farther away from such appliances, and/or reposition the connected speaker cables. If the AUTO STANDBY switch is set to HIGH, set it to LOW. Alternatively, set the AUTO STANDBY switch to the OFF position.
An object has fallen into the port.	Do not try to remove the object. Attempting to remove the object may cause a malfunction.	Contact an authorized Yamaha dealer or service center.

SPECIFICATIONS

NS-SW300

Type ..... Advanced Yamaha Active Servo Technology II
Driver ..... 25 cm (10") cone woofer
Magnetic shielding type
Amplifier Output (100 Hz, 5 ohms, 10% THD) ..... 250 W
Frequency Response ..... 20 Hz–160 Hz
Power Supply
U.S.A. and Canada models ..... AC 120 V, 60 Hz
Taiwan, Brazil, and Central and South America models
..... AC 110–120/220–240 V, 50/60 Hz
Australia model ..... AC 240 V, 50 Hz
U.K., Europe, Russia, and Middle East models ..... AC 230 V, 50 Hz
Asia and General models ..... AC 220–240 V, 50/60 Hz
Power Consumption ..... 80 W
Standby Power Consumption ..... 0.3 W or less
Dimensions (W × H × D) ..... 350 × 366 × 420 mm (13-3/4" × 14-3/8" × 16-1/2")
Weight ..... 18.0 kg (39.7 lbs.)

NS-SW200

Type ..... Advanced Yamaha Active Servo Technology II
Driver ..... 20 cm (8") cone woofer
Magnetic shielding type
Amplifier Output (100 Hz, 5 ohms, 10% THD) ..... 130 W
Frequency Response ..... 28 Hz–200 Hz
Power Supply
U.S.A. and Canada models ..... AC 120 V, 60 Hz
Taiwan, Brazil, and Central and South America models
..... AC 110–120/220–240 V, 50/60 Hz
Australia model ..... AC 240 V, 50 Hz
U.K., Europe, Russia, and Middle East models ..... AC 230 V, 50 Hz
Asia and General models ..... AC 220–240 V, 50/60 Hz
Power Consumption ..... 67 W
Standby Power Consumption ..... 0.3 W or less
Dimensions (W × H × D) ..... 290 × 306 × 351 mm (11-3/8" × 12" × 13-7/8")
Weight ..... 11.2 kg (24.7 lbs.)

The contents of this manual apply to the latest specifications as of the publishing date.
To obtain the latest manual, access the Yamaha website then download the manual file.