

NS-P440/ NS-P446

(NS-P440/NS-P446: NX-E440 + NX-C440 +SW-P440)

*HOME CINEMA 5.1CH SPEAKER PACKAGE/
HOME CINEMA 6.1CH SPEAKER PACKAGE*



**OWNER'S MANUAL
MODE D'EMPLOI
BEDIENUNGSANLEITUNG
BRUKSANVISNING
MANUALE DI ISTRUZIONI
MANUAL DE INSTRUCCIONES
GEBRUIKSAANWIJZING**

CAUTION: READ THIS BEFORE OPERATING YOUR UNIT.

- 1 To assure the finest performance, please read this manual carefully. Keep it in a safe place for future reference.
- 2 Install the speakers in a cool, dry, clean place – away from windows, sources of heat, sources of excessive vibration, dust, moisture or cold. Avoid sources of electrical humming (e.g., transformers and motors). To prevent fire or electric shock, do not expose the speakers to rain or water.
- 3 To prevent the enclosure from warping or discoloring, do not expose the speakers to direct sunlight or excessive humidity.
- 4 Avoid installing the speakers where foreign objects may fall onto them and/or where they may be exposed to liquid dripping or splashing.
- 5 Do not place the following objects on top of the speakers:
 - Other components, as they might damage or discolor the surface of the speakers.
 - Burning objects (e.g., candles), as they might cause fire, damage to the speakers or personal injury.
 - Containers of liquid, as they might spill and cause electric shock to the user or damage to the speakers.
- 6 Do not place the speakers where they are liable to be knocked over or struck by falling objects. Stable placement will also ensure better sound.
- 7 Placing the speakers on the same shelf or rack as the turntable can result in feedback.
- 8 Secure placement or installation is the owner's responsibility. YAMAHA is not liable for accidents caused by improper placement or installation of speakers.
- 9 If you note distortion, reduce the volume control on your amplifier. Do not drive your amplifier to the point of "clipping". Otherwise, the speakers may be damaged.
- 10 When using an amplifier with a rated output power higher than the nominal input power of the speakers, care should be taken not to exceed the maximum input of the speakers.
- 11 Do not clean the speakers with chemical solvents as this might damage the finish. Use a clean, dry cloth.
- 12 Do not attempt to modify or fix the speakers. Contact qualified YAMAHA service personnel when service is needed. Do not open the cabinet under any circumstances.
- 13 Please read the "Troubleshooting" section regarding common operating errors before concluding that the speakers are faulty.
- 4 With the rear panel facing down on the floor or other surfaces.
- 4 When using a humidifier, be sure to avoid condensation inside this unit by allowing enough space around the unit and avoiding excess humidification. Condensation might cause fire, damage to the unit, and/or electric shock.
- 5 Do not cover the rear panel of this unit with a newspaper, tablecloth, curtain, etc. to avoid obstructing heat radiation. If the temperature inside the unit rises, it may cause fire, damage to the unit, or personal injury.
- 6 Do not plug this unit into a wall outlet until all connections are complete.
- 7 The voltage to be used must match that specified on the rear panel. Using this unit with a voltage higher than specified is dangerous and may cause fire, damage to the unit, and/or personal injury. YAMAHA is not responsible for damage resulting from use of this unit with a voltage other than specified.
- 8 Super-bass sound reproduced by this unit may cause a turntable to generate audio feedback. In this case, move the unit away from the turntable.
- 9 This unit may be damaged if certain sounds are continuously output at high volume level. For example, if 20Hz–50Hz sine waves from a test disc or bass sounds from an electronic instrument, etc. are continuously output, or if a turntable stylus touches the surface of a disc, reduce the volume level to prevent the unit from being damaged.
- 10 If you hear distorted noise (i.e., unnatural, intermittent "rapping" or "hammering" sounds) from this unit, reduce the volume level. Extremely loud movie soundtrack low frequency, bass-heavy sounds, or similarly loud popular music passages can damage this unit.
- 11 Vibration generated by super-bass sound may distort images on a TV. In this case, move the unit away from the TV set.
- 12 When disconnecting the power cord from the wall outlet, grasp the plug; do not pull the cord.
- 13 When you plan not to use this unit for a long period of time (i.e. vacation, etc.), disconnect the AC power plug from the wall outlet.
- 14 Install this unit near the wall outlet and where the AC power plug can be reached easily.

This unit features a magnetically shielded design, but there is still a chance that placing it too close to a TV set might impair picture color. Should this happen, move this unit away from the TV set.

As long as this unit is connected to the AC wall outlet, it is not disconnected from the AC power source even if you turn off this unit by POWER.

For SW-P440

- 1 Do not operate this unit upside down. It may overheat, possibly causing damage.
- 2 Do not use excessive force on switches, controls or connection wires. When moving this unit, first disconnect the power plug and the wires connected to other equipment. Never pull the wires themselves.
- 3 Since this unit has a built-in power amplifier, heat radiates from the rear panel. Place the unit away from walls, allowing at least 20 cm of space above, behind and on both sides of the unit to prevent fire or damage. Furthermore, do not position the unit

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■ About this manual

- This manual is printed prior to production. Design and specifications are subject to change in part for the reason of the improvements, etc. In this case, the product has priority.
- Some of the illustrations and names of the package contents, etc. written in this manual may differ from the actual products and the names written on the package, etc.

VOLTAGE SELECTOR

(For Asia and General models only)

The voltage selector switch on the rear panel of this unit must be set for your local main voltage **BEFORE** plugging this unit into the AC main supply.

Voltages are 110-120/220-240 V AC, 50/60 Hz

■ For U.K. customers

If the socket outlets in the home are not suitable for the plug supplied with this appliance, it should be cut off and an appropriate 3 pin plug fitted. For details, refer to “SPECIAL INSTRUCTIONS FOR U.K. MODEL” on this page.

Note

The plug severed from the mains lead must be destroyed, as a plug with bared flexible cord is hazardous if engaged in a live socket outlet.

■ SPECIAL INSTRUCTIONS FOR U.K. MODEL

IMPORTANT:

THE WIRES IN MAINS LEAD ARE COLOURED IN ACCORDANCE WITH THE FOLLOWING CODE:

Blue: NEUTRAL

Brown: LIVE

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

The wire which is coloured BLUE must be connected to the terminal which is marked with the letter N or coloured BLACK. The wire which is coloured BROWN must be connected to the terminal which is marked with the letter L or coloured RED. Make sure that neither core is connected to the earth terminal of the three pin plug.

Thank you for selecting this YAMAHA NS-P440/NS-P446 Speaker Package.

GETTING STARTED

The speaker package “NS-P440 and NS-P446” is designed for use in a multi-channel audio system such as a home theater system.

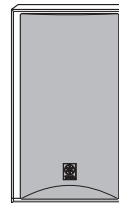
<NS-P440> includes four NX-E440 speaker systems, one NX-C440 speaker system and one SW-P440 subwoofer system.

<NS-P446> includes five NX-E440 speaker systems, one NX-C440 speaker system and one SW-P440 subwoofer system.

<NX-E440>

2-way acoustic-suspension speaker system used for the front and surround speakers (and surround center speaker for NS-P446)

NX-E440



For front and surround/surround back speaker

<NX-C440>

2-way acoustic-suspension speaker system used for the center speaker

NX-C440



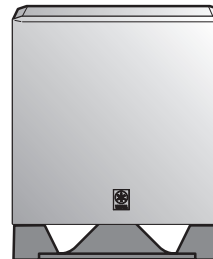
For center speaker

<SW-P440>

Active Servo Processing Subwoofer System with a built-in power amplifier

This subwoofer system employs Advanced Yamaha Active Servo Technology which YAMAHA has developed for reproducing higher quality super-bass sound (see page 9). This super-bass sound adds a more realistic, theater-in-the-home effect to your audio system.

SW-P440

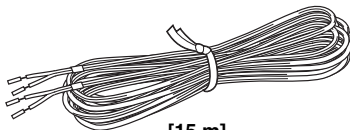


For subwoofer

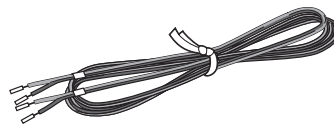
Supplied accessories

Please check to make sure all listed items are included.

Speaker cables

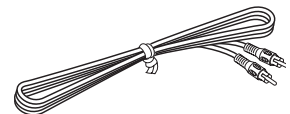


[15 m]
(for NS-P440 x2)
(for NS-P446 x3)

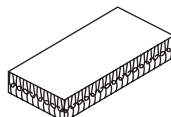


[4 m] x3

Subwoofer cable



[5 m] x1



Fasteners x2
(for NX-C440)



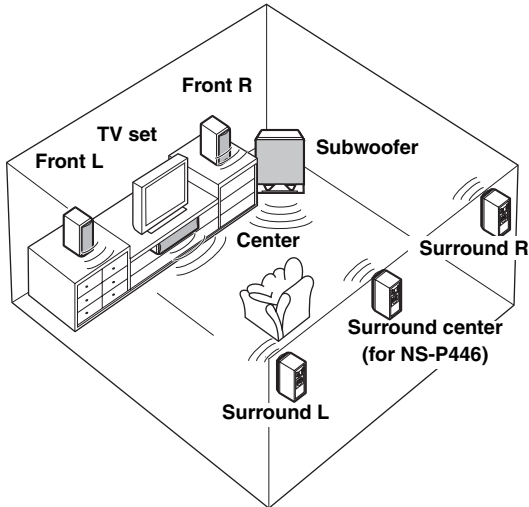
Non-skid pad x 1 set (4 pcs)
(for SW-P440)

SETTING UP THE SPEAKERS

Before making connections, place all speakers in their respective positions. The positioning of the speakers is important because it controls the whole sound quality of your audio system.

Place the speakers depending on your listening position by following the instructions below.

Placing speakers



Front speakers: On both sides of your TV set. Approximately at the same height as the TV set.

Surround speakers:

Behind your listening position, facing slightly inward. About 1.8 m (approx. 6 feet) from the floor.

Center speaker: Precisely between the front speakers.

You can place the center speaker on top of the TV if the top is flat, on the floor under the TV, or inside the TV rack. Be sure to place the speaker in a stable position.

Surround center speaker (for NS-P446):

Precisely between the surround speakers.

Subwoofer:

The position of the subwoofer is not so critical because bass sound is not highly directional. Refer to "Placing the subwoofer (SW-P440)" on page 5 for a recommended positioning of the subwoofer.

<NS-P440>

This speaker package employs a 6 speaker configuration: 2 front speakers, a center speaker, 2 surround speakers and a subwoofer.

The front speakers carry most of the music/sound effects. The center speaker emits center sound such as dialog, and the surround speakers provide the surround/ambient effects. The subwoofer adds the low-frequency bass sound.

<NS-P446>

This speaker package employs a 7 speaker configuration: 2 front speakers, a center speaker, 2 surround speakers, a surround center speaker and a subwoofer.

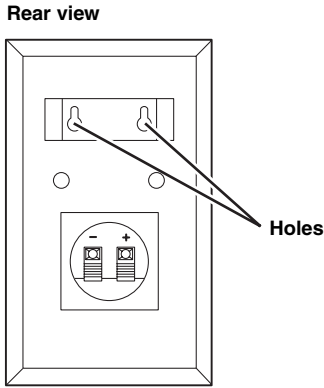
The front speakers carry most of the music/sound effects. The center speaker emits center sound such as dialog, and the surround and surround center speakers provide the surround/ambient effects. The subwoofer adds the low-frequency bass sound.

Note

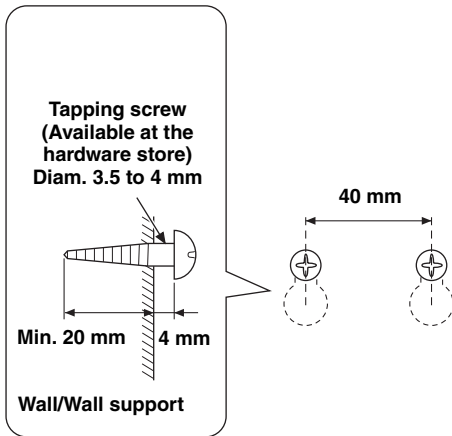
The same speakers (NX-E440) are used for the front and surround speakers and surround center speakers (for NS-P446).

Mounting the speakers on the wall (NX-E440)

You can mount the speakers on a wall. To mount the speakers on a wall, use the holes of the brackets attached on the back panels of the speakers.

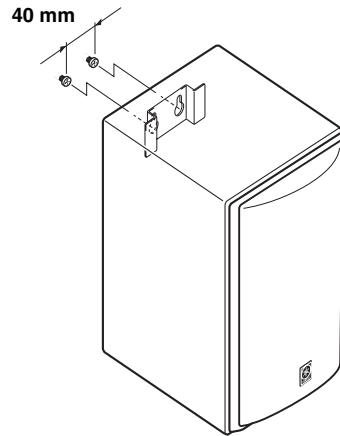


- 1 Fasten two screws into a firm wall or wall support at the interval shown below.



- 2 Hang the speaker by mounting the holes on the protruding screws.

Make sure that the screws are securely affixed by the narrow parts of the holes.



Caution

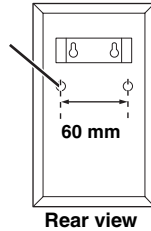
- Each speaker weighs as follows
..... 1.4 kg
- Do not mount the speakers on thin plywood or a wall composed of a soft surface material. If mounted, the screws may pull out of the flimsy surface and the speakers may fall. This may damage the speakers or cause personal injury.
- Do not affix the speakers to a wall using nails, adhesives, or any other unstable hardware. Long-term use and vibrations may cause the speakers to fall.
- To avoid accidents resulting from tripping over loose speaker cables, fix the cables to the wall.
- Select an appropriate position on the wall to mount the speaker so that no one will injure his/her head or face.

Installing the speakers on wall/ ceiling brackets or speaker stands (NX-E440)

You can also use the screw holes on the rear panel or the bottom of the speakers to install the speakers on commercially available wall/ceiling brackets or speaker stands (if you do not use the attached mounting brackets).

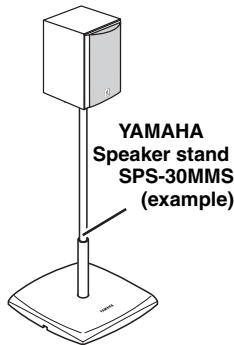
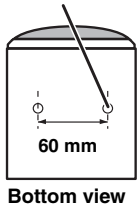
■ Using commercially available wall/ ceiling brackets

A screw with a diameter of 6 mm can be used.
(Hole depth: 15 mm)



■ Using commercially available speaker stands

A screw with a diameter of 4 mm can be used.
(Hole depth: 9 mm)



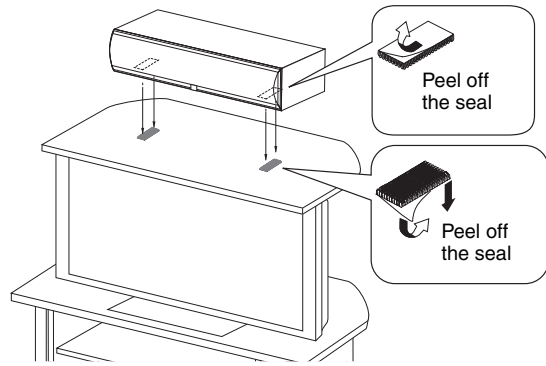
* The YAMAHA speaker stand SPS-30MMS may not be available in some areas.

Placing the speaker (NX-C440)

When placing the speaker on top of the TV rack, etc., attach the provided fasteners at two points on the bottom of the speaker and on the top of the TV.

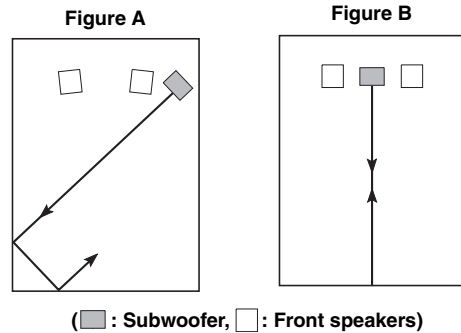
Notes

- Do not place the center speaker on top of a TV whose area is smaller than the bottom of the speaker. If placed, the speaker may fall and cause injury.
- Do not place the center speaker on top of a TV if the top is inclined.
- Do not touch the adhesive surface after peeling off the seal as this will weaken its adhesive strength.
- Thoroughly wipe clean the surface where the fastener is to be applied. Note that adhesive strength is weakened if the surface is dirty, oily or wet and that this may cause the center speaker to fall.



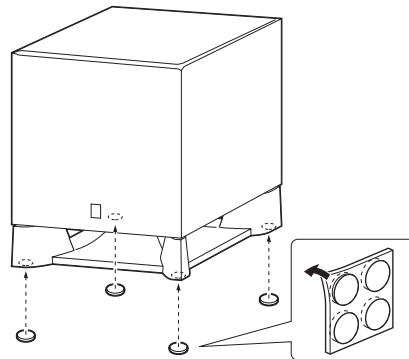
Placing the subwoofer (SW-P440)

It is recommended to place the subwoofer on the outside of either the right or the left front speaker (figure A). The placement shown in figure B is also possible, however, if the subwoofer is placed directly facing the wall, the bass sound may lessen because the sound from the subwoofer and the sound reflected by the wall may cancel out each other. To prevent this from happening, face the subwoofer obliquely to the wall.



■ Use the non-skid pads

Put the provided non-skid pads at the four corners on the bottom of the subwoofer to prevent the subwoofer from moving by vibrations, etc.

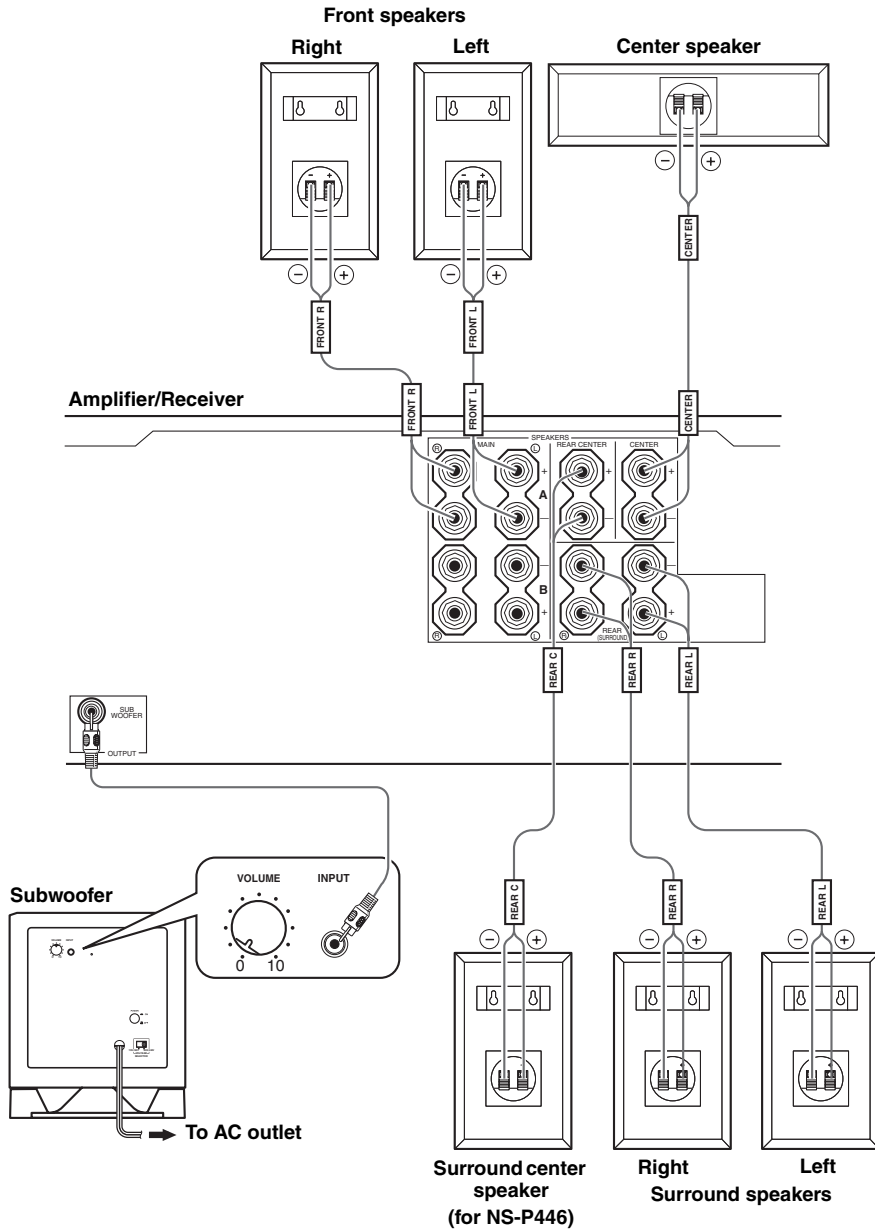


CONNECTIONS

Caution

Plug in the subwoofer and other audio/video components after all connections are completed.

An example of connections



Connecting the speaker cables and the subwoofer cable

Connect the front, center and surround speakers (and surround center speaker for NS-P446) to the speaker output terminals of your amplifier/receiver with the provided speaker cables. The provided speaker cables have labels marked FRONT L, FRONT R, CENTER, REAR L, REAR R (and REAR C for NS-P446).

Caution

Before connecting the speakers and the subwoofer, make sure that the power of the subwoofer and the amplifier/receiver is turned off.

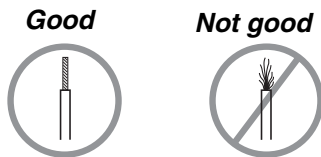
Note

For connections, keep the speaker cables as short as possible. Do not bundle or roll up the excess part of the cables. If the connections are faulty, no sound will be heard from the speakers.

■ Front speakers and Center speaker

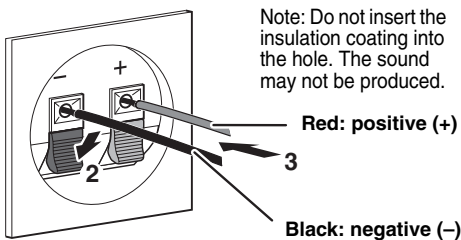
Use the provided speaker cables (4 m). One side of the speaker cable is red and the other side is black.

- 1 Remove approximately 10 mm of insulation from the end of each speaker cable and twist the exposed wires of the cable together to eliminate the risk of a short-circuit.



- 2 Press and hold the tab of the terminal, as shown in the figure of step 3.

- 3 Insert the bare wire.



- 4 Release your finger from the tab to allow it to lock securely on the wire end of the cable.

- 5 Test the firmness of the connection by pulling lightly on the cable at the terminal.

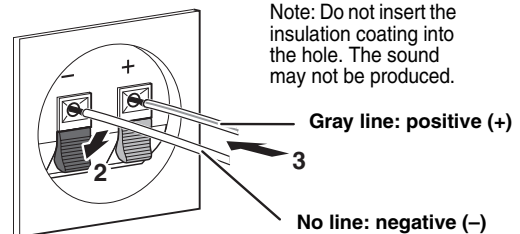
Note

Do not let the bare speaker wires touch each other as this could damage the speaker and/or the amplifier.

■ Surround speakers and Surround center speaker (for NS-P446)

Use the provided speaker cables (15 m). One side of the speaker cable has a gray line and the other side has no line.

The connection method is the same with Front speakers and Center speaker. Read from 1 to 5 on left column on this page.



Note

Do not let the bare speaker wires touch each other as this could damage the speaker and/or the amplifier.

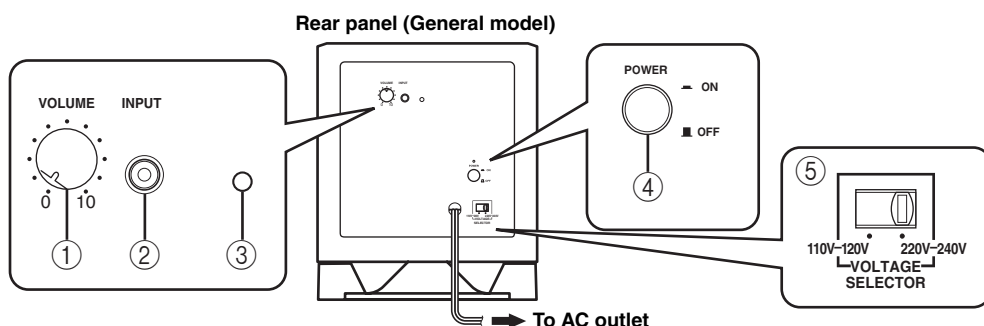
■ SUBWOOFER

Connect the subwoofer to the subwoofer pre out jack of the amplifier/receiver.

■ Connecting components and the subwoofer to AC plug

After you complete the connection, plug the amplifier/receiver, TV or other outlet component and the subwoofer into an AC outlet of appropriate voltage.

USING THE SUBWOOFER (SW-P440)



Controls and their functions

① VOLUME control

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

② INPUT jack

Used to input unamplified bass signals from the amplifier/receiver (see “An example of connections” on page 6).

③ POWER indicator

Lights up while the subwoofer is turned on and goes off when the subwoofer is turned off.

④ POWER switch

Press inward to the ON position to turn on the power of the subwoofer. Press again to release it outward to the OFF position to turn off the subwoofer.

⑤ VOLTAGE SELECTOR switch (For Asia and General models)

If the preset setting of the switch is incorrect, set the switch to the proper voltage range (110 V-120 V or 220 V-240 V) of your area.

Caution

Be sure to unplug the subwoofer before setting the VOLTAGE SELECTOR switch.

Adjusting the subwoofer

Before using the subwoofer, adjust the subwoofer to obtain the optimum volume balance between the subwoofer and the other speakers by following the procedures described below.

- 1 Rotate the VOLUME control counterclockwise to the 0 position.**
- 2 Turn on the power of all the other components.**
- 3 Press the POWER switch inward to the ON position.**
The POWER indicator lights up.
- 4 Play a source that contains bass signal and adjust the volume control of the amplifier/receiver to the desired listening level.**
- 5 Rotate the VOLUME control gradually to adjust the volume balance between the subwoofer and the other speakers.**

Note

Once the volume balance between the subwoofer and the other speakers is adjusted, you can adjust the volume of your whole audio system by using the volume control of the amplifier/receiver. However, if you change the speakers or the system configuration, you must make this adjustment again.

Advanced Yamaha Active Servo Technology II

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

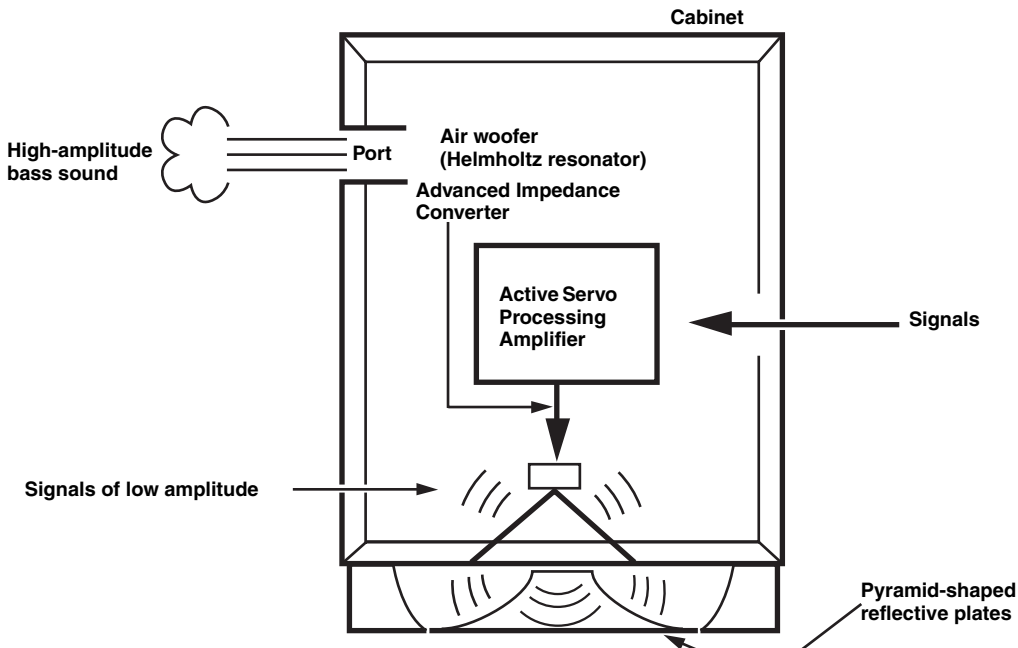
As this technology uses speaker units controlled by the negative impedance drive of the amplifier and resonance generated between the cabinet capacity volume and port, it creates more resonant energy (the “air woofer” concept) than the standard bass reflex method. This allows for bass reproduction from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

QD-BASS TECHNOLOGY

QD-BASS (Quatre Dispersion Bass) technology uses down-firing drivers with square, pyramid-shaped reflective plates to radiate the sound efficiently in four horizontal directions. The reflective plates (not used in competitors' down-firing subwoofers) negate any effects caused by the floor surface and reduce resonance between sound waves reflected from the floor and the unit. Also, most other systems use circular cones, but by radiating in four directions to avoid the legs of the cabinet, QD-BASS reduces turbulence caused by reflection from the legs. Changing the height of the square pyramid varies the acoustic load, permitting relatively simple high-cut adjustment and improved band pass properties.

The QD-BASS system provides extraordinary power and smooth frequency response from an extremely compact unit. It also allows greater freedom of placement, since the sound radiates with equal effectiveness in all directions.



TROUBLESHOOTING

Refer to the chart below when this speaker package does not function properly. If the problem you are experiencing is not listed below or if the instructions given below do not help, disconnect the AC power plug and contact your authorized YAMAHA dealer or service center.

■ General

Problem	Cause	Remedy
No sound.	Speaker cables are not connected securely.	Connect them securely.
Sound level is too low.	Speaker cables are not connected correctly.	Connect them correctly, that is L (left) to L, R (right) to R, “+” to “+” and “-” to “-”.

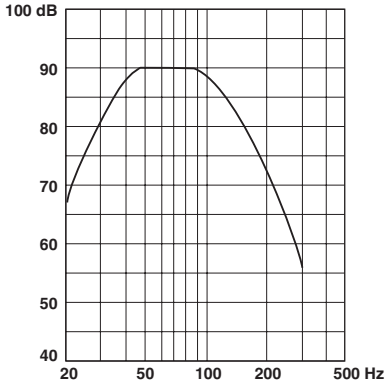
■ For SW-P440

Problem	Cause	Remedy
Power is not supplied.	The power plug is not connected securely.	Connect it securely.
	The POWER switch is set to the OFF position.	Press the POWER switch inward to the ON position.
No sound.	The VOLUME control is set to the 0 position.	Rotate the VOLUME control clockwise.
	The subwoofer cables is not connected securely.	Connect it securely.
Sound level is too low.	A source that contains few bass signal is played.	Play a source that contains bass signal.
	“Standing waves” have been developed between two parallel walls and they cancel the bass sound.	Face the subwoofer obliquely to the wall or break up the parallel surface by placing bookshelves, etc. along the walls.

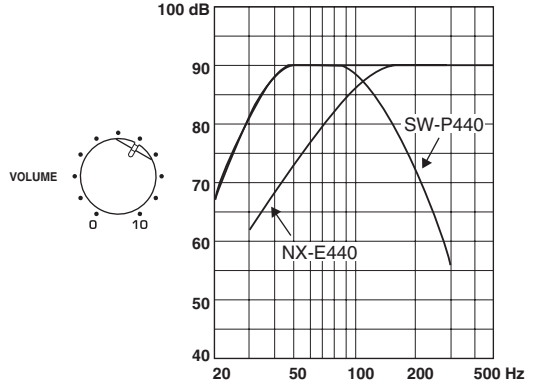
SPECIFICATIONS

■ Frequency characteristics

The following graph displays the frequency characteristics of the SW-P440 subwoofer.



The following graph displays the frequency characteristics of the SW-P440 subwoofer combined with NX-E440 speakers.



NX-E440, NX-C440

- Type 2-way acoustic-suspension speaker system
Magnetically shielded type
- Driver
 - <NX-E440> 8 cm cone woofer x 1
2.5 cm balanced-dome tweeter x 1
 - <NX-C440> 7 cm cone woofer x 2
2.5 cm balanced-dome tweeter x 1
- Nominal Input Power 40 W
- Maximum Input Power
 - <NX-E440> 80 W
 - <NX-C440> 100 W
- Impedance 6 Ω
- Frequency Response 65 Hz to 40 kHz
- Sensitivity
 - <NX-E440> 80 dB/2.83 V/m
 - <NX-C440> 82 dB/2.83 V/m
- Dimensions (W x H x D)
 - <NX-E440> 118 mm x 198 mm x 137 mm
 - <NX-C440> 285 mm x 99 mm x 130 mm
- Weight
 - <NX-E440> 1.4 kg
 - <NX-C440> 1.9 kg

SW-P440

- Type Advanced Yamaha Active Servo Technology II
- Driver 16 cm cone woofer
Magnetically shielded type
- Amplifier Output 50 W/5 Ω
- Dynamic Power 100 W/5 Ω
- Input Impedance 12 KΩ
- Frequency Response 30 Hz to 180 Hz
- Power Supply
 - [U.S.A. and Canada models] AC 120 V, 60 Hz
 - [U.K. and Europe models] AC 230 V, 50 Hz
 - [Australia model] AC 240 V, 50 Hz
 - [Asia and General models] AC 110-120/220-240 V, 50/60 Hz
- Power Consumption 45 W
- Dimensions (W x H x D) 280 mm x 325 mm x 296 mm
- Weight 8.2 kg

* Specifications are subject to change without notice due to product improvements.