



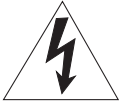

NS-WSW160

Wireless Subwoofer



Owner's Manual

IMPORTANT SAFETY INSTRUCTIONS

	CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN	
CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.		

■ Explanation of Graphical Symbols



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert you 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.



The exclamation point within an equilateral triangle is intended to alert you to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

- 1 Read these instructions.
- 2 Keep these instructions.
- 3 Heed all warnings.
- 4 Follow all instructions.
- 5 Do not use this apparatus near water.
- 6 Clean only with dry cloth.
- 7 Do not block any ventilation openings. Install in accordance with the manufacturer’s instructions.
- 8 Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 9 Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 10 Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- 11 Only use attachments/accessories specified by the manufacturer.
- 12 Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
- 13 Unplug this apparatus during lightning storms or when unused for long periods of time.
- 14 Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.



We Want You Listening For A Lifetime

Yamaha and the Electronic Industries Association’s Consumer Electronics Group want you to get the most out of your equipment by playing it at a safe level. One that lets the sound come through loud and clear without annoying blaring or distortion – and, most importantly, without affecting your sensitive hearing.

Since hearing damage from loud sounds is often undetectable until it is too late, Yamaha and the Electronic Industries Association’s Consumer Electronics Group recommend you to avoid prolonged exposure from excessive volume levels.



IMPORTANT

Please record the serial number of this unit in the space below.

MODEL:

Serial No.:

The serial number is located on the rear of the unit.

Retain this Owner’s Manual in a safe place for future reference.

FCC INFORMATION (for US customers)

1. 1 IMPORTANT NOTICE: DO NOT MODIFY THIS UNIT!

This product, when installed as indicated in the instructions contained in this manual, meets FCC requirements.

Modifications not expressly approved by Yamaha may void your authority, granted by the FCC, to use the product.

2. IMPORTANT: When connecting this product to accessories and/or another product use only high quality shielded cables. Cable/s supplied with this product MUST be used. Follow all installation instructions. Failure to follow instructions could void your FCC authorization to use this product in the USA.

3. NOTE: This product has been tested and found to comply with the requirements listed in FCC Regulations, Part 15 for Class "B" digital devices. Compliance with these requirements provides a reasonable level of assurance that your use of this product in a residential environment will not result in harmful interference with other electronic devices.

This equipment generates/uses radio frequencies and, if not installed and used according to the instructions found in the users manual, may cause interference harmful to the operation of other electronic devices.

Compliance with FCC regulations does not guarantee that interference will not occur in all installations. If this product is found to be the source of interference, which can be determined by turning the unit "OFF" and "ON", please try to eliminate the problem by using one of the following measures:

Relocate either this product or the device that is being affected by the interference.

Utilize power outlets that are on different branch (circuit breaker or fuse) circuits or install AC line filter/s.

In the case of radio or TV interference, relocate/reorient the antenna. If the antenna lead-in is 300 ohm ribbon lead, change the lead-in to coaxial type cable.

If these corrective measures do not produce satisfactory results, please contact the local retailer authorized to distribute this type of product. If you can not locate the appropriate retailer, please contact Yamaha Corporation of America A/V Division, 6600 Orangethorpe Ave., Buena Park, CA 90620.

The above statements apply ONLY to those products distributed by Yamaha Corporation of America or its subsidiaries.

- This device complies with Part 15 of the FCC Rules and Industry Canada licence-exempt RSS standard(s).
 - Operation is subject to the following two conditions: 1) this device may not cause harmful interference, and 2) this device must accept any interference received including interference that may cause undesired operation.
- See the "Troubleshooting" section at the end of this manual if interference to radio reception is suspected.

FCC WARNING

Change or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTICE

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This equipment complies with FCC/IC radiation exposure limits set forth for uncontrolled equipment and meets the FCC radio frequency (RF) Exposure Guidelines in Supplement C to OET65 and RSS-102 of the IC radio frequency (RF) Exposure rules. This equipment has very low levels of RF energy that it deemed to comply without maximum permissive exposure evaluation (MPE). But it is desirable that it should be installed and operated with at least 20 cm and more between the radiator and person's body (excluding extremities: hands, wrists, feet and ankles).

This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.

FOR CANADIAN CUSTOMERS

To prevent electric shock, match wide blade of plug to wide slot and fully insert.

This Class B digital apparatus complies with Canadian ICES-003.

POUR LES CLIENTS RÉSIDANT AU CANADA

Afin d'éviter les risques de décharges électriques, veillez à insérer à fond la large broche de la fiche dans la large fente de la prise de courant.

Cet appareil numérique de Classe B est conforme à la norme canadienne ICES-003.

Caution: Read this before operating this unit.

- To assure the finest performance, please read this manual carefully. Keep it in a safe place for future reference.
- Install this unit in a cool, dry, clean place - away from windows, heat sources, sources of excessive vibration, dust, moisture and cold. Avoid sources of humming (transformers, motors). To prevent fire or electrical shock, do not expose this unit to rain or water.
- The voltage to be used must be the same as that specified on the rear panel. Using this unit with a higher voltage than specified is dangerous and may cause a fire and/or electric shock.
- Do not use force on switches, controls or connection wires. When moving the unit, first disconnect the power plug and the wires connected to other equipment. Never pull the wires themselves.
- When not planning to use this unit for a long period (i.e., vacation, etc.), disconnect the AC power plug from the wall outlet.
- To prevent lightning damage, disconnect the AC power plug when there is an electric storm.
- Since this unit has a built-in power amplifier, heat will radiate from the rear panel. Place the unit apart from the 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 with the rear panel facing down on the floor or other surfaces.
- Do not cover the rear panel of this unit with a newspaper, a tablecloth, a curtain, etc., in order not to obstruct heat radiation. If the temperature inside the unit rises, it may cause fire, damage to the unit and/or personal injury.
- Do not place the following objects on this unit:
 - Glass, china, small metallic, etc.
If glass, etc., falls as a result of vibrations and breaks, it may cause bodily injury.
 - A burning candle etc.
If the candle falls as a result of vibration, it may cause fire and bodily injury.
 - A vessel containing water
If the vessel falls as a result of vibration and water spills, it may cause damage to the speaker, and/or you may get an electric shock.
- Do not place this unit where foreign material, such as dripping water. It might cause fire, damage to this unit, and/or personal injury.
- Never put a hand or a foreign object into the YST port located on the right side of this unit. When moving this unit, do not hold the port, as it might cause personal injury and/or damage to this unit.
- Never place a fragile object near the YST port of this unit. If the object falls or drops as a result of the air pressure, it may cause damage to the unit and/or personal injury.
- Never open the cabinet. It might cause an electric shock, since this unit uses a high voltage. It might also cause personal injury and/or damage to this unit. If something drops into the set, contact your dealer.
- When using a humidifier, be sure to avoid condensation inside this unit by allowing enough space around this unit or avoiding excess humidification. Condensation might cause fire, damage to this unit, and/or electric shock.
- Super-bass frequencies reproduced by this unit may cause a turntable to generate a howling sound. In such a case, move this unit away from the turntable.
- This unit may be damaged if certain sounds are continuously output at high volume level. For example, if 20 Hz-50 Hz sine waves from a test disc, bass sounds from electronic instruments, etc., are continuously output, or when the stylus of a turntable touches the surface of a disc, reduce the volume level to prevent this unit from being damaged.
- If you hear distortion (i.e., unnatural, intermittent “rapping” or “hammering” sounds) coming from this unit, reduce the volume level. Extremely loud playing of a movie soundtrack’s low frequency, bass-heavy sounds or similarly loud popular music passages can damage this speaker system.
- Vibration generated by super-bass frequencies may distort images on a TV. In such a case, move this unit away from the TV set.
- Do not attempt to clean this unit with chemical solvents as this might damage the finish. Use a clean, dry cloth.
- Be sure to read the “Troubleshooting” section regarding common operating errors before concluding that the unit is faulty.
- Install this unit near the wall outlet and where the AC power plug can be reached easily.

Radio waves may affect electro-medical devices.
Do not use this unit near medical devices or inside medical facilities.
Do not use this unit within 22 cm (9 inches) of persons with a heart pacemaker implant or defibrillator implant.

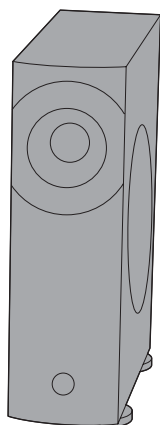
WARNING
TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE.

Power is continuously supplied to this unit as long as its power cable is plugged in. When this unit is turned off using an external audio device, it enters standby mode, a state in which it consumes very little power.

Contents

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Features of the Wireless Subwoofer NS-WSW160



The NS-WSW160 is a wireless subwoofer that supports Yamaha's proprietary yAired technology. It receives wireless signals from a yAired-enabled Yamaha device to output audio content from that device. Check our website for devices compatible with this unit.

yAired

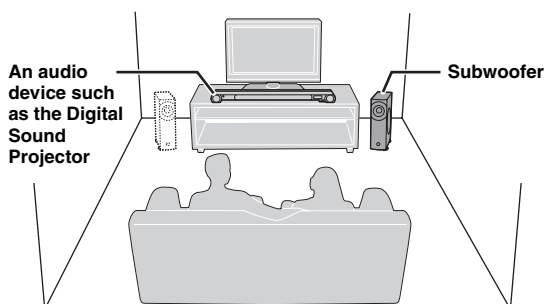
The "yAired" and "yAired" are trademarks of Yamaha Corporation.

Installing the subwoofer

Notes

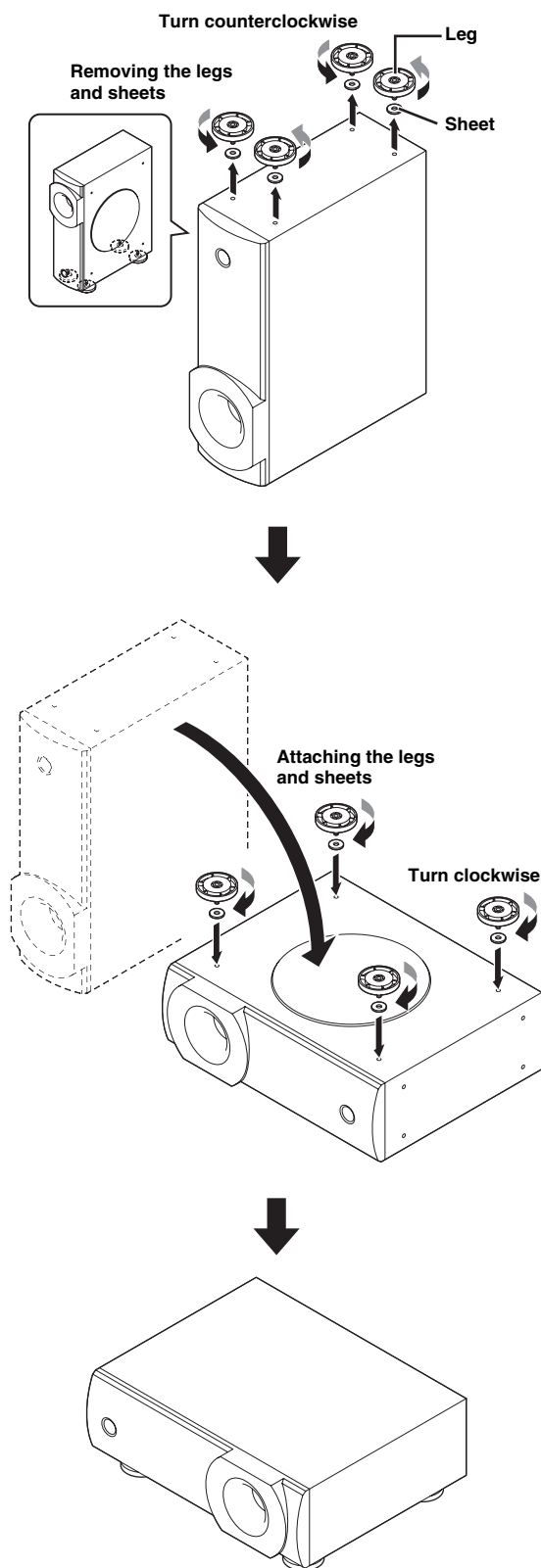
- The subwoofer requires sufficient space for heat discharge. When installing the subwoofer, be sure to leave a minimum space of 20 cm (7-7/8 in) of open space above and behind and to the sides of the subwoofer. Do not cover the subwoofer heat discharge unit on the back of the subwoofer.
- Be sure to install the subwoofer where it does not fall subject to vibrations, such as from an earthquake, and where it is out of the reach of children.
- When using a cathode-ray tube (CRT) TV, do not install this unit directly above your TV.
- If the picture on your TV screen becomes blurred or distorted, we recommend moving this unit away from your TV.

- To prevent sound reflecting off of walls, angle the subwoofer slightly toward the center of the room.
- If the subwoofer is placed directly facing a wall and your listening position is in the center of the room, you may not be able to obtain enough bass sound from the subwoofer. This is because "standing waves" are forming between the two parallel walls and cancelling out the bass sounds.
- When installing the subwoofer on a rack, be sure the rack is strong enough to support the subwoofer and that it leaves sufficient space for heat discharge.
- Subwoofer performance may be affected if the subwoofer is placed on a metal rack, or if there is a metal plate between the subwoofer and the device to which the subwoofer is connected wirelessly.
- The subwoofer can also be placed on its side (see p. 2).



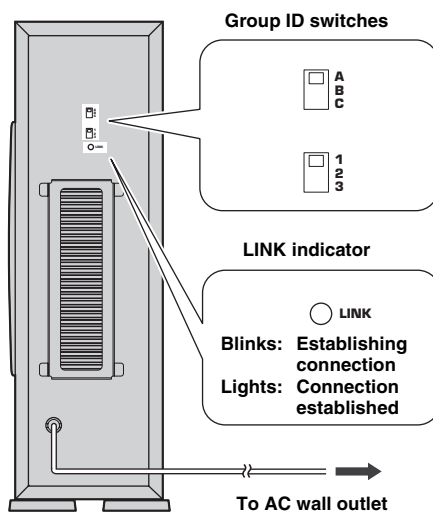
Positioning the subwoofer on its side

The subwoofer can be laid on its side when positioned on a rack.



Connecting the subwoofer wirelessly

To connect the subwoofer to other yAired-enabled Yamaha devices wirelessly, the same group ID must be assigned to all the devices. The default group ID of the subwoofer is A1. The LINK indicator lights when the subwoofer is on and the subwoofer and other devices are connected wirelessly.



Troubleshooting

If this product doesn't work as expected, look for a possible cause below. If the issue you are experiencing is not listed, or you cannot resolve it after reading through these instructions, disconnect the power cable and contact an authorized Yamaha dealer or service center.

Problem	Cause	Remedy
No sound from the subwoofer.	The subwoofer is not connected wirelessly.	Make sure the power cable is connected properly. Check if the LINK indicator lights on the rear of the subwoofer (➤p. 2). When the indicator does not light, check that devices to be connected wirelessly are assigned the same group ID.
	The volume of the subwoofer is low.	Increase the volume of the subwoofer with the volume control for subwoofer on the connected device wirelessly.
The subwoofer is too quiet.	The source material doesn't contain much bass.	Try playing source material that contains more bass.
		Reposition the subwoofer (➤p. 1).

Specifications

Type	Advanced Yamaha Active Servo Technology	Power supply	[U.S.A. and Canada models]	AC 120 V, 60 Hz
Driver	16 cm (6-1/2 in) cone woofer non-magnetic shielding type	[Taiwan model]	AC 110–120 V, 60 Hz	
Output power	75 W (100 Hz, 5 Ω, 10% T.H.D)	[Australia model]	AC 240 V, 50 Hz	
Dynamic power	130 W	[U.K., Europe and Russia models]	AC 230 V, 50 Hz	
Frequency response	30 Hz–200 Hz	[China model]	AC 220 V, 50 Hz	
Wireless		[Korea model]	AC 220 V, 60 Hz	
Frequency	2.4 GHz	[Asia model]	AC 220–240 V, 50/60 Hz	
Transmission Range	Approx. 20 m (66 ft) (without interference)	Power consumption		70 W
		Dimensions (W x H x D)		
		Upright positioning		145 × 446 × 371 mm (5-3/4 × 17-1/2 × 14-5/8 in)
		Positioned on side		435 × 146 × 371 mm (17-1/8 × 5-3/4 × 14-5/8 in)
		Weight		9.0 kg (19.8 lbs)

Specifications are subject to change without notice.

