

Yamaha presents a series of high quality, great looking speakers designed to bring out the best of the latest HD sound sources. You'll also enjoy outstanding high fidelity music reproduction.



## High Sound Quality

- Designed to reproduce the full, dynamic sound of HD sources
- Woofers use light aluminum cones for extremely clear, high resolution bass sound
- 3cm (1-1/8") soft dome tweeter with Neodymium magnet

## Design

- Slim, precision-shaped cabinet with cool, high-tech sandblasted aluminum baffle front panel (NS-F310, NS-B310, NS-C310)
- Elegant design in a choice of three finishes to complement any interior
- Easy placement anywhere (NS-B310)
- The NS-F310, NS-B310, NS-C310 and NS-SW310 are offer with brown, black and birch finish available.

## Easy to Use

- Heavy duty, round, steel bass anchor speaker stands (NS-F310)
- Gold-plated brass-extruded speaker terminals (NS-F310)

## Subwoofer

- Advanced YST II (Yamaha Active Servo Technology II)
- PWM digital drive high efficiency amplifier
- Linear Port for smoother bass with less unwanted noise

Main Specifications	NS-F310	NS-B310	NS-C310
Type	2-way bass-reflex floorstanding speakers	Full-range acoustic suspension bookshelf speakers	2-way acoustic suspension center speaker
Woofers	Dual 8cm (3-1/8") aluminum cone	Dual 8cm (3-1/8") aluminum cone	Quad 6.5cm (2-1/2") aluminum cone
Tweeter	3cm(1-1/8") soft dome		3cm (1-1/8") soft dome
Magnetic Shielding	No	No	No
Frequency Response	50 Hz -45 kHz	80 Hz-35 kHz	90 Hz-45 kHz
Nominal Input Power	40 W	40 W	40 W
Maximum Input Power	120 W	120 W	120 W
Sensitivity	87 dB/2.83 V/1 m	87 dB/2.83 V/1 m	90 dB/2.83 V/1 m
Impedance	6 ohms	6 ohms	6 ohms
Dimensions (W x H x D)	236 x 1,050 x 236 mm 9-5/16" x 41-5/16" x 9-5/16"	107 x 200 x 127 mm 4-3/16" x 7-7/8" x 5"	440 x 94 x 125 mm 17-5/16" x 3-11/16" x 4-15/16"
Weight	8 kg; 17.6 lbs./unit	1.6 kg; 3.5 lbs./unit	2.9 kg; 6.4 lbs.

Main Specifications	NS-SW310
Type	Advanced YST II subwoofer
Dynamic Power	160 W
Frequency Response	26Hz-160 Hz
Driver	20cm (8") woofer
magnetic Shielding	Yes
Standby Power Consumption	0.5 W
Dimensions (W x H x D)	200 x 473 x 405 mm 7-7/8" x 18-5/8" x 15-15/16"
Weight	14kg; 30.9 lbs.

Product designs and specifications are subject to change without notice.



## HIGH SOUND QUALITY

### High Sound Quality for the HD Era

With more and more music and movie sources becoming high definition, such as digital broadcasting and Blu-ray Discs, your speakers have to keep pace. They have to be able to clearly reproduce the extra level of detail, clarity and depth that these sources provide. The NS-310 Series uses new materials and precision-designed cabinets to ensure the best possible sound from HD sources. Since these speakers are tuned for transparency, resolution and stereo positioning, they're superb for listening to your other hi-fi sources as well.

### Aluminum Cone Woofers

Bass response is outstanding, with high resolution and clear sound orientation, while the overall sound is transparent and highly detailed. The use of lightweight, high stiffness aluminum for the woofer diaphragm allows high speed cone movement for fast response to each sound (fast attack).

In addition, because the unit does not have magnetic shielding, a larger than normal magnet could be used, allowing more sound information to be extracted from the source for more realistic sound staging.



8cm (3-1/8") aluminum cone woofer (left) and 3cm (1-1/8") soft-dome tweeter (right)

### Soft Dome Tweeter

The 3cm (1-1/8") tweeter has a soft dome made by applying a thick coating to a lightweight material. With an upper limit of 50kHz, it provides exceptional high frequency response with sharp details and a clean, transparent sound. In addition, the magnet is an extra-powerful neodymium type. As a result, the tweeter is extremely light to

minimize sound loss, yet is highly durable.

## DESIGN

### Slim, Precision-Shaped Cabinet with Sandblasted Front Panel (NS-F310, NS-B310, NS-C310)

The cabinets are precision-shaped to efficiently produce rich and deep bass response, and prevent standing and diffracted waves. The height of the NS-F310 drivers was decided by taking into consideration the height of a typical TV display and the viewer's seated position. Sandblasted aluminum front panels give the speakers a cool, high-tech look.

### Easy Placement Anywhere (NS-B310)

The NS-B310 can be placed in a bookshelf or any convenient location. They can also be easily mounted on a wall or the ceiling.

## EASY-TO-USE

### Heavy-Duty, Round-Shaped Steel Bass Anchor (NS-F310)

The Bass Anchor uses heavy-duty round-shaped steel plate to provide stable support and also dampen vibrations that can adversely affect sound quality.



### Gold-Plated Brass-Extruded Terminals

Even the terminals of these speakers are high quality, being made of brass and gold-plated for higher signal conductivity.



## SUBWOOFER

### Advanced YST II for Awesome Deep Bass

Yamaha's newly developed Advanced YST II (Yamaha Active Servo Technology II) combines negative-impedance and constant-current principles to drive the speaker cone



with even tighter control than previously. Using Advanced Negative Impedance Converter (ANIC) circuits, this system dynamically optimizes effective speaker impedance to maintain excellent linearity. This means more stable and accurate low range response, not to mention higher sound pressure levels, for more natural and energetic bass reproduction.

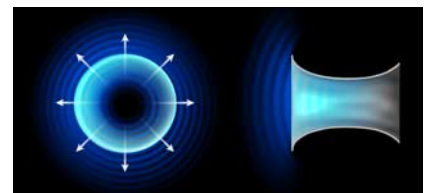
### PWM Digital Drive High Efficiency Amplifier

The NS-SW310 delivers high power outputs at deep bass levels, with excellent stability and low power consumption, even with its compact cabinet. This is made possible by a highly efficient power amplifier.

The power amplifier achieves superior conversion efficiency by supplying maximum power (minimizing power loss) from the power transistors according to the output level. It delivers stable power output with high efficiency while minimizing power consumption and heat production. It does not require an output filter coil, resulting in extremely low noise and distortion. High speed transient response is also excellent.

### Linear Port

The Linear Port helps to ensure smooth bass response, while minimizing extraneous noise.



Advanced YST II produces rich bass sound, and the addition of a Linear Port reduces extraneous noise for even higher quality.

### Other Notable Features

- Low 26–160Hz frequency response
- Auto standby with sensitivity selector (High, Low and Off)
- Phase control
- High cut filter