YAMAHA

YST-SW011

Advanced YST and QD-Base Subwoofer

NEW PRODUCT BULLETIN

QD-Bass, Advanced YST, Large (20cm; 8”) Driver and 100W of Power Give This Subwoofer Massive Bass Capabilities for Home Theater.

Advanced Y·S·T

QD·Bass TECHNOLOGY

Cherry finish available in some areas

Silver finish available in some areas

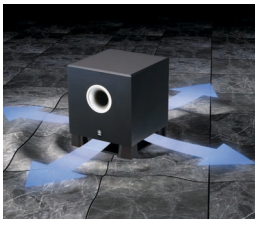
- Advanced YST (Yamaha Active Servo Technology)
- QD-Bass (Quatre Dispersion Bass) Technology
- Linear Port for Minimizing Extraneous Noise
- Powerful 20cm (8”) Multi-Range Driver with Magnetic Shielding
- 100 W Dynamic Power

Main Specifications

Dynamic Power	100 W
Output Power (5 ohms, 100Hz, 10% THD)	50 W
Frequency Response	30–200 Hz
Driver	20cm (8”) multi-range
Dimensions (W x H x D)	290 x 360 x 303 mm $11^{7}/_{16}$” x $14^{3}/_{16}$” x $11^{15}/_{16}$”
Weight	10 kg; 22 lbs.

QD-Bass Technology Allows Free Placement

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 bandpass 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.

Advanced YST for Awesome Deep Bass

Yamaha's patented Advanced Active Servo Technology (Advanced YST) generates incredible bass from small speaker enclosures. Advanced YST is the ideal method of combining amplifiers and speakers for maximum performance. This system's advanced negative impedance converters intelligently adjust the negative impedance generation as the speaker moves, creating a hard, rigid cone that prevents deep resonant waves from leaking out of the speaker cone. This means the full power of the waves is forced out through the air port, resulting in clear, powerful bass.

New Linear Port

The Linear Port provides smooth bass response during playback and minimizing extraneous noise.

Large (20cm; 8") Driver with Magnetic Shielding

The powerful, multi-range driver is exceptionally large (20cm; 8") for this class of subwoofer. Magnetic shielding means there is no distortion-causing interference when the speaker is placed near a TV or other monitor.

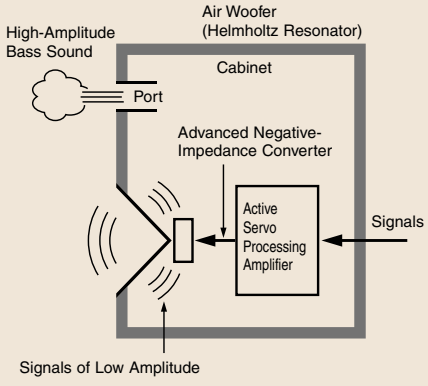
Advanced YST Brings You Super Bass.

The effectiveness of Advanced YST (Yamaha Active Servo Technology) is based upon two principles: the Helmholtz Resonator and negative-impedance drive. Active Servo Processing speakers reproduce the bass frequencies through an "air woofer," which is a port or opening in the speaker cabinet. This port is used instead of, and performs the functions of, a conventional woofer. Low amplitude signals inside the cabinet can, due to the Helmholtz Resonance principle, be output from this port as high amplitude waves if the design is such that the size of the port and the volume of the cabinet are in a certain proportion. In addition, the wave amplitudes inside the cabinet must be precise and of sufficient power, in order to overcome the "load" presented by the air within the cabinet.

This is accomplished by employing an amplifier that is capable of supplying special signals. If the electrical resistance of the voice coil could be reduced to zero, the movement of the speaker unit would become linear with respect to signal voltage. To achieve this, a special negative-impedance output drive amplifier is used, so the impedances cancel out and become zero.

By employing negative-impedance drive circuits, the amplifier is able to generate precise, low-amplitude low frequency waves with superior damping characteristics. These waves are then radiated from the cabinet opening as high amplitude signals. This amplifier/speaker combination is capable of reproducing an extremely wide range of frequencies with excellent sound quality and low distortion.

The Advanced YST takes this concept a stop further by adopting Advanced Negative Impedance Converter (ANIC) circuits. These circuits allow the converter to dynamically vary in order to select the optimum values for speaker impedance variation. With these new circuits, Advanced Yamaha Active Servo Technology provides more stable performance and higher sound pressure levels than the former system, resulting in more natural and energetic bass reproduction.



• Product designs and specifications are subject to change without notice.