

New Soavo-1 model featuring a lustrous, mirror-surface Yamaha Piano Black finish (same process as used on Yamaha grand pianos) to complement the beautiful music reproduction.

## Soavo 1

3-Way Bass-Reflex Floorstanding Speaker System



The prestigious EISA (European Imaging and Sound Association) Awards are chosen by media representatives from 18 European countries.

- The Soavo-1 is offer with Yamaha Piano Black, dark brown, brown birch, natural birch, or black finish.



Soavo™ Concept: A speaker that can reproduce music that offers the reality of "Natural Sound."



### Yamaha Piano Black Finish

This glossy, lustrous black finish is applied using the same techniques developed over many decades of manufacturing beautiful grand pianos. It provides a perfect visual complement to the smooth, rich sound you enjoy from the speakers.

### Drivers

- Yamaha's exclusive Advanced PMD diaphragm (woofers and midrange)
- Aluminium dome tweeter with DC-Diaphragm™
- Edge-wound ribbon wire voice coil
- Spider and surround (woofers and midrange) by Kurt Müller
- Neodymium midrange and tweeter magnets
- Carved wooden port

### Cabinet

- Non-parallel surfaces
- Three-way mitered-joint construction
- Two-chamber cabinet (woofer and midrange separated by slanted partition) with vertical bracing
- Yamaha Piano Black finish
- Chamfered tweeter baffle and diecast aluminium tweeter plate

### Networks

- Independent direct crossover connection
- Highest quality parts including Solen capacitor

### Main Specifications

Type	3-way bass-reflex floorstanding
Woofers	Dual 16cm (6-1/2") Advanced PMD cone
Midrange Driver	13cm (5") Advanced PMD cone
Tweeter	3cm (1") aluminium dome with DC Diaphragm™
Frequency Response	35 Hz-50 kHz
Nominal Input Power	50 W
Maximum Input Power	200 W
Sensitivity	89 dB/2.83 V/1 m
Crossover Frequencies	450 Hz, 4.5 kHz
Impedance	6 ohms
Dimensions (W x H x D)	349 x 1,051 x 487 mm (with stand); 13-3/4" x 41-3/8" x 19-3/16"
Weight	29.5 kg; 65 lbs./unit

Product designs and specifications are subject to change without notice.

### Graceful Soavo design by Toshiyuki Kita

Working in both Japan and Milan, Toshiyuki Kita has designed many successful products for German, Italian and Japanese manufacturers. His designs are in the permanent collections of museums all over the world, including the Museum of Modern Art in New York and the Centre Georges Pompidou in Paris.

He also designs traditional Japanese crafts.

**Soavo Concept: Delivering Natural Sound**  
 Yamaha has utilised its vast expertise in music, acoustics and especially as the world's leading manufacturer of musical instruments to develop a new high performance speaker: the Soavo-1. Yamaha has a half-century of experience in creating "Natural Sound" speakers and other audio components, and the Soavo-1 not only embodies but re-energises the Natural Sound concept.

Our primary goal was to achieve realistic reproduction of music. We accomplished this through a combination of advanced design technology, the selection of superior materials, and an extensive testing/tuning process.

The Soavo-1 sound is characterised by: no colouration, so the sound is completely unembellished; high resolution, for good detail even at low levels; transparency, for a crisp, bracing feeling; and a deep stereo image with well balanced depth and width.

In addition, the Soavo-1 has a lustrous, mirror-surface Yamaha Piano Black finish. Its beautiful exterior matches its smooth, luxurious sound.

## DRIVERS

### Design Refinements for Truly Superior Sound

Each of the original Soavo-1 drivers (woofer, midrange and tweeter) have been redesigned. Most notably, magnets, cone thickness and surround materials (foam rubber to solid rubber) have been refined to provide sound with greater detail and smoothness in all frequency ranges.

### A-PMD Woofer and Midrange Cones

Yamaha's exclusive A-PMD (Advanced Polymer-injected Mica Diaphragm) cones are extremely light, rigid and sturdy thanks to the use of a low specific gravity material called PMP (Poly-Methyl-Pentene) that is much lighter than the commonly used



Advanced PMD cone woofer



Aluminium dome tweeter with diecast aluminium tweeter plate (top left), aluminium dome tweeter (top right) and DC-Diaphragm (bottom)

polypropylene. It provides very fast response time (sound rise and fall), as well as excellent midrange clarity and bass response. Outstanding internal loss characteristics decrease unwanted resonances to achieve the smooth frequency response that results in natural sounding vocals. Yamaha's original base material also contributes to the beautiful quality of sounds in the vocal range.

### Aluminium Dome, DC-Diaphragm™ Tweeter

The high-performance 3cm (1") tweeter features a dome made of aluminium, with Yamaha's DC-Diaphragm that integrates the diaphragm and voice coil. It is extremely light yet durable, and transmits large amounts of sound information (highly detailed sound) for a denser sound field. The neodymium magnet is compact yet powerful. You'll enjoy highs that are crisp and clear at all power levels

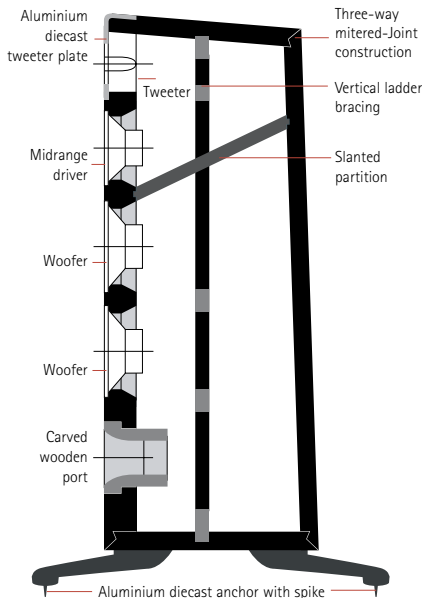
### Selected High Performance Parts

The edgewise-wound ribbon wire voice coil contributes to high resolution, exceptional sound detail and excellent imaging. The spider is a high performance model made by Kurt Müller. The midrange driver is powered by a newly designed, compact and powerful neodymium magnet. Diecast aluminium baskets ensure solid support for high stiffness, improving sound image localisation and depth reproduction.

### Carved Wooden Port

The wooden port is carved from high quality wood, and has thick walls and a flared shape, for smooth sound flow, low port noise and a spacious and massive bass feel.

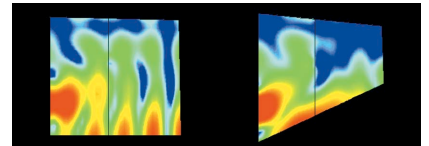
Cabinet has non-parallel surfaces, with internal slanted partition and vertical bracing.



## CABINET

### Innovative Cabinet Design

One of the keys to Soavo's ability to deliver Natural Sound music reproduction is the cabinet design. While maximising sound clarity and imaging, the designers strived to drastically reduce internal standing waves and produce an expansive sound with an exceptional feeling of depth. Their solution was to create a cabinet with non-parallel sides, divide the woofer and midrange sections by a slanted partition, and strengthen the interior with large, vertical ladder-type bracing.



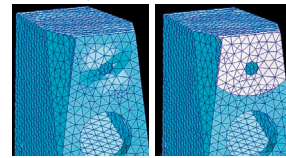
Sound Pressure Distribution Inside the Midrange Driver  
 Left: Ordinary enclosure; Right: Non-parallel surfaces The image on the left shows that there are standing waves. The non-parallel surfaces restrict standing waves, preventing degradation of midrange sound.

### Three-Way Mitered-Joint Construction

Yamaha's excellence in woodworking is used to good advantage in the three-way mitered construction of the cabinet joints. This technique ensures extremely tight joints so the entire cabinet behaves as a single unit, providing tight bass reproduction.

### Tweeter Plate

A diecast aluminium tweeter plate isolates the tweeter from cabinet vibration and provides a solid attachment for the tweeter unit, preventing unwanted movement, so the high range sound is clear and transparent, with no colouration.



Without plate vs. with plate

The diecast aluminium tweeter plate is very effective in damping the vibrations that occur during high frequency output.

### Diecast Aluminium Stands

The Soavo-1 is equipped with diecast aluminium stands that provide the necessary solid floor contact for stability.

## NETWORKS

### Independent Direct Crossover Connections

Yamaha's scrupulous attention to the sound of Soavo-1 is seen in the design of the network circuit. It uses the highest quality parts, including Solen metalised polypropylene capacitors and large iron-core coil with carefully selected wire. Furthermore, these parts are connected by directly soldering each one individually, instead of using printed circuit boards. This contributes to the speaker's rich and vivid sound.



Woofer crossover network.