



YAMAHA®

Concert Series™



**Loudspeaker
Systems**

Yamaha technology can make a living room sound like a 20,000 sq. ft. movie palace.

That's why you need a speaker system that covers all the angles.

When it comes to bringing home the real drama of a movie, seeing alone isn't believing. It takes sound as impressive as your picture to put you right in the middle of the action. And that takes both sophisticated electronics and superior speaker technology. Yamaha has years of experience at both.

Our components employ the most advanced surround-sound processing technology available today. And decades of Yamaha experience in sound field measuring and processing, custom integrated circuit design and audio microchip fabrication go even further—taking you where no home theater system has gone before.

Stepping up to the superior sound of home theater means expanding beyond the basic two-speaker set-up of a conventional stereo system. Which speakers to buy—and how many—depends on the kind of surround sound technology your A/V receiver or signal processor provides.

On the following pages, you'll find a complete family of Yamaha speakers. They're engineered with the expertise we've gained through decades as one of the world's leading manufacturers of fine musical instruments. And they're designed to work together as a system to let you hear all the performance your components were designed to deliver.

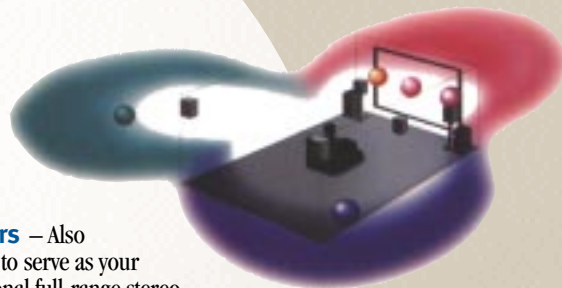
As the room illustrated on the following page shows, the speakers you'll need to create your own home theater fall into several basic categories.

Dolby® Pro Logic® – A big step beyond two-speaker stereo. One additional channel feeds two rear effects speakers, while another serves a center channel speaker. Dolby Pro Logic positions dialogue and effects around the room, so they closely match the action on screen.

Cinema DSP – The ultimate in home theater sound reproduction. Yamaha's exclusive Cinema DSP signal processing technology applies the vast library of sound field data we've amassed creating products for audio professionals, both on the stage and in the studio. When integrated with Dolby Digital Surround or DTS and Tri-Field Processing, Cinema DSP maintains the depth, openness and realism the director envisioned. While also preserving the directional relationships of every sound.

Dolby Digital Surround – Positions sounds with even greater precision. Separate, full-bandwidth channels serve each of your rear speakers, and low-bass signals are routed to a dedicated subwoofer. Front left, right and center channels complete the picture, surrounding you with an incredibly accurate sound image.

Tri-Field Processing – It's the secret to making a small room sound like a huge theater. And only Yamaha has it. Proprietary digital signal processing technology expands the apparent dimensions of your sound field, creating the unmistakable sensation of a first-run theater's acoustic spaciousness.



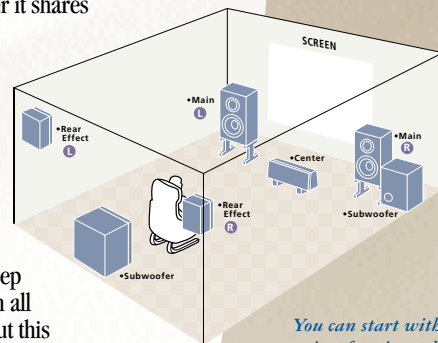
Main Speakers – Also designed to serve as your conventional full-range stereo speakers for audio-only performances, these create the basic stereo image at the front of your room. Alternatively, you can use small satellite speakers, along with a subwoofer, providing a full spectrum of sound from an easy-to-conceal speaker system.

Surround or Effects Speakers – Typically positioned toward the back of your room, these play a key supporting role in your home theater system. They generate the rear-channel sounds that make going to a movie theater a three-dimensional sonic experience. More elaborate systems may also add effects speakers at the front of the room for music DSP and enhanced movie applications.

Subwoofer – It is specially designed to deliver thundering lows ordinary speakers can't touch—whether it shares a signal with other speakers, or gets its own dedicated bass channel from Dolby Digital Surround or DTS and our Cinema DSP. It generally comes with its own amplifier. Because deep bass fills a room from all directions, you can put this speaker almost anywhere in your home theater.

Center Channel Speaker – With Dolby Pro Logic, Dolby Digital Surround, DTS or our Cinema DSP, this speaker uses special information encoded on the soundtrack to fill in the sonic gap between your two main speakers. So the sounds of dialogue and effects that happen on your screen come from precisely that direction.

The proprietary Yamaha Tri-Field Processing technology used in our Cinema DSP lets you experience the acoustic spaciousness of a large theater, while hearing every creak, rumble, voice and musical note from exactly where the director intended.



You can start with pairs of main and surround speakers, then add to your home theater with a center channel speaker and subwoofer for even more impressive sound.

Weather Resistant Indoor/Outdoor Speakers

Great for the patio, balcony or any family living area, these 2-way bookshelf speaker systems use sealed enclosures made of UV-stable polypropylene, coupled with a sturdy aluminum grilles for all-conditions use. High compliance glass-filled woofer/midrange drivers deliver solid reproduction of the lower and midrange frequencies, while the upper end of the frequency range is handled by pure titanium, ferro-fluid-cooled tweeters.

Each speaker is magnetically shielded so it can be placed near your TV without degrading the picture via the stray magnetic fields that all speakers generate. To assure flexibility, durability and the best electrical connection possible, Yamaha has equipped the speakers with gold-plated, five-way binding posts. These connection posts can accept banana plugs or traditional speaker wire, plus a variety of other style connectors. The gold plating assures that once the connection is physically made, the electrical connection is not easily degraded by weather or other conditions.

For easy mounting, the speakers come with swivel mounting brackets. The NS-AW1 and 1W come in black or white micro-pebble finish, while the larger NS-AW2W is only available in white finish.



NS-AW2W
6-1/2" woofer with
1-1/2" tweeter



NS-AW1 and NS-AW1W
5" woofer with 1/2" tweeter



NS-AM100 Mini-Pro
8" woofer with 4x4 tweeter

Pro-Styling Monitors

Designed to provide the dramatic performance and the distinctive look of professional road-worthy speaker systems, the Mini-Pro's will bring performances to life. These powerhouse systems feature high-excursion polymer-coated woofers for clean, tight bass response under even the most demanding conditions. Professional style compression horn tweeters provide wide dispersion characteristics to ensure crisp, well-defined mids and highs. The NS-AM200's add a high-excursion polymer-coated midrange driver for even greater overall performance.

Each acoustic-suspension system is housed in a durable ACX black finish, high-temperature resistant cabinet designed to show minimum wear after years of hard use. Sturdy side-panel handles allow for easy handling and transporting, and 5-way gold-plated binding posts give exceptional flexibility so the speakers can be used with virtually any type of connecting cable or wire, from banana plugs to traditional end-stripped wire.

Oversized gold-colored, embossed Yamaha logos emphasize the performance strength of these power-hungry, uniquely designed speaker systems.



NS-AM200 Mini-Pro
12" woofer, 5 1/4" midrange
with 4x4 tweeter

Weather Resistant

Pro-Style Monitors

Versatile Bookshelf Speaker Systems

It's rare to come across bookshelf style speakers this size that sound as good as these. To call these "bookshelf" speakers impressive is an understatement. But what's even more impressive is their price. Representing an exceptional value no matter which system you prefer, both feature high-efficiency design utilizing high-polymer coated woofers and midrange (NS-A638) with new inverted dust caps for optimum driver protection at home.

Each system is magnetically shielded for use near your TV without degrading the picture via the stray magnetic field that all speakers generate. Convenient placement is further ensured by their compact, high-performance design. Put them anywhere and they'll bring down the house with their exciting performance.



NS-A638
8" woofer, 4" midrange
with 3/4" tweeter



NS-A528
6" woofer with 3/4" tweeter



NS-A738 (birch finish)
8" woofer, 4" midrange
with 3/4" tweeter

Performance Line Speakers

Main Speakers

Bass-reflex in design, these floor-standing main speaker systems are sure to bring new levels of excitement to your family's Home Theater experience. Whether it's a video/music performance or a movie night, this new series offers more than you'd expect for their affordable price. New aluminum drivers are used throughout the system for maximum performance and durability, further enhanced by the use of inverted protective dust caps. And these speakers look every bit as good as they sound, featuring profile radius-wrapped black finish cabinets, gray baffle fronts and satin cloth grilles. Gold-plated 5-way binding posts for total connection versatility complete these outstanding speaker systems.



NS-A200XT

8" woofers (2),
4-1/4" midrange, 1" tweeter



NS-A100XT

6-1/2" woofers (2),
4-1/4" midrange,
1" tweeter

NS-A60X

Ideal where space is a concern, but high performance is desired, these systems use new aluminum woofers, midranges and tweeters for enhanced Home Theater sound for their compact size. Inverted dust caps are used for driver protection in the home environment. The speakers are magnetically shielded for convenient placement near your video screen without the chance of picture distortion from the stray magnetic fields all speaker systems generate.



NS-A60X

8" woofer, 5-1/4" midrange, 3/4" tweeter

Center Channel Speaker System

Setting new standards for price and performance, the NS-AC40X is ideally suited for Yamaha systems equipped with Dolby Digital and DTS. It features new aluminum woofers and tweeters, with inverted aluminum dust caps for optimum performance and protection at home. A built-in tweeter attenuator allows you adjust the dialog to your personal taste with ease. The system is magnetically shielded for use above or below your video screen/TV without the chance of picture distortion. 5-way binding posts ensure wiring type flexibility.



NS-AC40X

5-1/4" woofers (2) with 1" tweeter

Music and Video Subwoofer Systems

YST-SW160 — Our Finest Subwoofer for Music or Video

A great way to supplement the low end of any sound system. The YST-SW160 features Yamaha's Advanced Active Servo Technology, a complementary amplifier/speaker system utilizing negative impedance feedback in the amp and a Helmholtz resonator in the speaker to provide strong and accurate bass from small speakers. Dual 8-inch drivers and 150 watt amplifier assures enough power to deliver movie theater-like bass effects, while the dual drivers translates power into clear bass sound from 20 to 160 Hz. The subwoofer is magnetically shielded so it can be placed near a TV monitor or receiver without fear that it will degrade the picture. The user adjustable continuously variable high-cut filter sets the highest frequency the subwoofer will deliver. It can be set anywhere from 40 to 140 Hz. This allows the sub's output to be matched to the other speakers in the system and the room's acoustics for a seamless presentation. The volume control permits the perfect matching of the sub's output to the overall volume of the system. For convenience, the YST-SW160 has a signal sensing circuit. When the subwoofer detects an audio signal, it turns its power on. When it senses no signal for several minutes, it shuts itself off. The phase normal/reverse switch makes it easy to phase the subwoofer with the other speakers in your system. The entire system is designed so the unit can be oriented either vertically or horizontally, making placement within the room easy. Two sets of inputs allow this versatile subwoofer to accept either line level or speaker level input signals, while three-way speaker terminals accept banana plug and a variety of other connectors, as well as traditional speaker wire.



YST-SW160



YST-SW90

YST-SW90 Powerful Bass for Music or Video

The YST-SW90 also features Yamaha's Advanced Active Servo Technology a complementary amplifier/ speaker system utilizing negative impedance feedback to provide strong and accurate bass from small speakers. A 100 watt amplifier and an 8" spruce cone driver deliver strong bass response for music and home theater sound from 23 to 170 Hz. The subwoofer is magnetically shielded so it can be placed near a TV monitor or receiver. The user adjustable continuously variable high-cut filter sets the highest frequency the subwoofer will deliver, from 50 to 150 Hz. This allows the sub's output to be matched to the other speakers in the system and the room's acoustics for a seamless presentation. The volume control permits the perfect matching of the sub's output to the overall volume of the system. For convenience, the YST-SW90 has a signal sensing circuit. When the subwoofer detects an audio signal, it turns its power on. When it senses no signal for several minutes, it shuts itself off. The phase normal/reverse switch makes it easy to phase the subwoofer with the other speakers in your system. The subwoofer can be oriented either vertically or horizontally, making placement within the room easy. Two sets of inputs allow the unit to accept either line level or speaker level input signals, while three-way speaker terminals accept banana plug and a variety of other connectors, as well as traditional speaker wire.

YST-SW45 — Natural Sound Subwoofer

Using the same Advanced Active Servo Technology as the 90 and 160, the YST-SW45 incorporates a 70 watt amplifier and 8" spruce cone driver to deliver a frequency range of 30 to 200 Hz. The subwoofer is magnetically shielded, with a user adjustable continuously variable high-cut filter that allows the sub's output to be matched to the other speakers in the system and the room's acoustics. The volume control permits the perfect matching of the sub's output to the overall volume of the system. For convenience, the YST-SW45 also features the signal sensing circuit. Again, the unit can be oriented either vertically or horizontally, making placement within the room easy. Three-way speaker terminals accept banana plug and a variety of other connectors, as well as traditional speaker wire.



YST-SW45



Center/Surround Speaker Package

NS-P60

Expand your Home Theater experience by supplementing your existing stereo speaker set-up with this convenient 3-speaker package. Our NS-C55 center channel dialog speaker is a 2-way acoustic suspension design with dual 5" woofers and a 7/8" dome tweeter. Can accommodate banana plug or traditional stripped-end wire (included), and is magnetically shielded for use near or on your TV without the chance of picture distortion via stray magnetic fields. The NS-E55 surround speakers are also acoustic suspension design, utilizing 4" woofers and 7/8" dome tweeters for a perfect match-up and increased home enjoyment with movies as well as music.

Home Theater Speaker Element Package

CLS-150 — High Performance Six-Element Home Theater Speaker System

The six-speaker complement of the CLS-150 includes five identical Yamaha NS-A425A speakers providing the Main, Center, and Rear Effects channels, plus a Yamaha Active Servo Technology subwoofer, providing the low bass. You are assured of complete timbre matching, because all speakers are identical, so they provide the same tonality. There is no chance that the bass response of one speaker will overpower another and unbalance the theatrical effect. Each two-way speaker delivers full-range frequency response from 60 to 22,000 Hz, ± 3 dB. For easy speaker placement, Yamaha's NS-A425A's can be wall or shelf mounted vertically or horizontally. Five-way speaker binding posts make cable connection just as easy. The NS-A425A's are magnetically shielded, so they can be placed near or on a TV or video monitor without degrading the picture via stray magnetic fields. The low bass for the CLS-150 is provided by the Yamaha SW-4 Advanced Active Servo Technology subwoofer. It features a 10" driver and 100 watt amplifier to deliver the sonic punch needed for home theater. The subwoofer will automatically activate when its circuitry senses an audio signal and will turn off when the signal has ceased for several minutes. A continuously variable high-cut filter operating between 50 and 150 Hz makes it easy to match the subwoofer to the other speakers and the room acoustics for a seamless sonic presentation.



CLS-150

NS-AW1 & NS-AW1W — All-Weather Speaker

Midrange/Woofer	5" High Compliance Glass Filled Cloth Woofer, Magnetically Shielded
Tweeter	1/2" Pure Titanium Balanced Dome
Suggested Amp. Power	60 W Nominal Power, 120 W Music Power
Frequency Response	55 Hz to 22 kHz \pm 3 dB
Sensitivity	86 dB/W/M
Impedance	6 ohms
Dimensions (W x H x D) / Wt.	5-7/8" x 8-1/2" x 5-1/2" / 4 lbs.

NS-AW2W — All-Weather Speaker

Midrange/Woofer	6-1/2" High Compliance Glass Filled Cloth Woofer, Magnetically Shielded
Tweeter	1" Pure Titanium Balanced Dome
Suggested Amp. Power	80 W Nominal Power, 160 W Music Power
Frequency Response	45 Hz to 20 kHz
Sensitivity	86 dB/W/M
Impedance	6 ohms
Dimensions (W x H x D) / Wt.	7-1/8" x 11" x 8-3/8" / 8 lbs.

NS-AM100 Mini Pro

Woofer	8" High-Excursion Polymer Coated
Tweeter	4" x 4" Compression Horn
Suggested Amp. Power	70 W Nominal Power, 210 W Music Power
Frequency Response	45 Hz to 20 kHz
Sensitivity	92 db/2.83V,1m
Impedance	6 ohms
Dimensions (W x H x D) / Wt.	10-1/4" x 16-1/2" x 12-7/8" / 26.5 lbs.

NS-AM200 Mini Pro

Woofer	12" High-Excursion Polymer Coated
Midrange	5-1/4" High-Excursion Polymer Coated
Tweeter	4" x 4" Compression Horn
Suggested Amp. Power	90 W Nominal Power, 270 W Music Power
Frequency Response	40 Hz to 20 kHz
Sensitivity	92 db/2.83V,1m
Impedance	6 ohms
Dimensions (W x H x D) / Wt.	15-1/4" x 22-1/2" x 17-7/8" / 48 lbs.

NS-A528 — Bookshelf Speaker

Midrange/Woofer	6" Hi-Polymer Coated Cone w/Inverted Dust Cover, Magnetically Shielded
Tweeter	3/4" Dome, Ferro-fluid Cooled
Suggested Amp. Power	30 W Nominal, 60 W Music Power
Frequency Response	95 to 20 kHz \pm 3.5 dB
Sensitivity	90 dB/W/M
Impedance	8 ohms
Dimensions (W x H x D) / Wt.	8" x 12" x 9-5/8" / 7.75 lbs.

NS-A638 & NS-A738 (Birch finish) — Bookshelf Speaker

Midrange/Woofer	4" Cone / 8" Hi-Polymer Coated Cone, both w/Inverted Dust Covers, Magnetically Shielded
Tweeter	3/4" Dome, Ferro-fluid Cooled
Suggested Amp. Power	70 W Nominal, 140 W Music Power
Frequency Response	90 to 20 kHz \pm 3.5 dB
Impedance	8 ohms
Sensitivity	91 dB/W/M
Dimensions (W x H x D) / Wt.	10-1/2" x 16-3/16" x 13" / 14 lbs. 6 oz.

NS-A200XT

Woofer	Dual 8" Aluminum with Inverted Dust Cap
Midrange	4-1/4" Aluminum with Inverted Dust Cap
Tweeter	1" Aluminum Dome Tweeter
Suggested Amp. Power	110 W Nominal Power, 220 W Music Power
Frequency Response	35 to 20 kHz
Sensitivity	89 dB/W/M
Impedance	6 ohms
Dimensions (W x H x D) / Wt.	10-1/2" x 42" x 12-1/4" / Wt. 42.5 lbs.

NS-A100XT

Woofer	Dual 6-1/2" Aluminum with Inverted Dust Cap
Midrange	4-1/4" Aluminum with Inverted Dust Cap
Tweeter	1" Aluminum Dome Tweeter
Suggested Amp. Power	100 W Nominal Power, 200 W Music Power
Frequency Response	40 to 20 kHz
Sensitivity	89 dB/2.83V,1m
Impedance	6 ohms
Dimensions (W x H x D) / Wt.	9" x 37-3/4" x 11-3/8" / Wt. 35.5 lbs.

NS-A60X

Woofer	8" Aluminum with Inverted Dust Cap
Midrange	5-1/4" Aluminum with Inverted Dust Cap
Tweeter	1" Aluminum Dome Tweeter
Suggested Amp. Power	70 W Nominal Power, 140 W Music Power
Frequency Response	60 to 20 kHz
Sensitivity	89 dB/2.83V,1m
Impedance	6 ohms
Dimensions (W x H x D) / Wt.	10-1/2" x 20" x 12-1/4" / Wt. 22 lbs.

NS-AC40X

Woofer	Dual 5-1/4" Aluminum w/Inverted Dust Cap
Tweeter	1" Aluminum Dome Tweeter
Suggested Amp. Power	70 W Nominal Power, 160 W Music Power
Frequency Response	80 to 20 kHz
Sensitivity	89 dB/2.83V,1m
Impedance	6 ohms
Dimensions (W x H x D) / Wt.	19-1/2" x 7-1/2" x 7-7/8" / Wt. 15 lbs.

YST-SW-160 — Dual 8" Powered Subwoofer

Woofer	8" Cone x 2, Magnetically Shielded Built-in 150 Watt Amplifier Yamaha Advanced Active Servo Technology
Frequency Response	20 Hz to 160 Hz
High-Cut Filter	Continuously Variable from 40 to 140 Hz
Dimensions (W x H x D) / Wt.	9-1/4" x 23-3/4" x 18-1/4" / 44 lbs.

YST-SW-90 — 8" Powered Subwoofer

Woofer	8" Spruce Cone, Magnetically Shielded Built-in 100 Watt Amplifier Yamaha Advanced Active Servo Technology
Frequency Response	23 Hz to 170 Hz
High-Cut Filter	Continuously Variable from 40 to 140 Hz
Dimensions (W x H x D) / Wt.	9-1/4" x 19-1/4" x 16-1/4" / 31 lbs.

YST-SW-45 — 8" Powered Subwoofer

Driver	8" Spruce Cone, Magnetically Shielded Built-in 70 Watt Amplifier Yamaha Advanced Active Servo Technology
Frequency Response	30 Hz to 20 Hz
High-Cut Filter	Continuously Variable from 50 to 150 Hz
Dimensions (W x H x D) / Wt.	10" x 13-3/4" x 11-3/4" / 18.2 lbs.

NS-P60 — Center/Surround Speaker Package

NS-C55 — Center Channel	
Woofer	Dual 5" High-Compliance Glass Filled Cloth
Tweeter	7/8" Dome Tweeter
Suggested Amp. Power	60 W Nominal, 180 W Music Power
Frequency Response	70 to 30 kHz
Sensitivity	89 dB/W/M
Impedance	6 ohms
Dimensions (W x H x D) / Wt.	18-1/2" x 10-7/16" x 6-7/8" / 7.5 lbs.

NS-E55 — Surround Speakers

Woofer	4" High-Compliance Glass Filled Cloth
Tweeter	7/8" Dome Tweeter
Suggested Amp. Power	50 W Nominal, 150 W Music Power
Frequency Response	80 to 30 kHz
Sensitivity	89 dB/W/M
Impedance	6 ohms
Dimensions (W x H x D) / Wt.	5-7/8" x 10-7/16" x 6-3/16" / 4.8 lbs.

CLS-150 — Home Theater Speaker System

NS-AP425A — Main Speaker Package (5) main, center & surround	
Woofer	4" Grey Polymer Coated Woofer Magnetically Shielded, A/V Ready
Tweeter	1/2" Ferro-Fluid Cooled
Suggested Amp. Power	60 W Nominal Power, 120 W Music Power
Acoustic Suspension Design	
Speaker Sensitivity	88 dB/W/M
Frequency Response	60 Hz to 22 kHz \pm 3 dB
5-way Binding Post for Flexible Connectivity	
Dimensions (W x H x D) / Wt.	6" x 9" x 4-1/4" / 3.8lbs. ea.

SW-4 — Powered Subwoofer

Woofer	10" Woofer w/Built-in 100 Watt Advanced YST Power Amplifier Magnetically Shielded, A/V Ready
Frequency Response	25 Hz to 200 Hz
High Cut Continuously Variable From	50 Hz to 150 Hz
Dimensions (W x H x D) / Wt	14-1/2" x 18-1/4" x 15-1/4" / 38 lbs



WHERE HOME THEATER LIVES

Visit us at our web site:
<http://www.yamaha.com>

Yamaha Electronics Corporation, USA
P.O. Box 6660, Buena Park, CA 90622

©2000 Yamaha Electronics Corporation, USA.
Cinema DSP is a trademark of Yamaha
Electronics Corporation. DTS Digital Surround
is a registered trademark of DTS Technology.
® Dolby Pro Logic and Dolby Digital are
trademarks of Dolby Laboratories Licensing
Corporation. Specifications subject to change
without notice due to product improvements.

Loud Speaker Systems