



SPEAKER SYSTEM AS312

Owner's Manual

Thank you for purchasing the YAMAHA AS312 Speaker System. To obtain maximum performance from your YAMAHA speaker system and ensure many years of trouble-free operation, we recommend that you read this Owner's Manual thoroughly before use.

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Precautions

AVOID EXCESSIVE HEAT, HUMIDITY, DUST AND VIBRATION

When choosing a location for your speakers, avoid the following:

- Direct sunlight, high temperatures (such as near heaters), or excessively low temperatures
- High humidity
- Areas subject to excessive dust accumulation and vibration
- Non-level or unstable surfaces

HOW TO POWER UP YOUR SOUND SYSTEM

To avoid damage to your speakers and other parts of your system, when you turn on your system, ALWAYS turn the power amp on last! This will avoid loud damaging pops that will annoy your audience and blow your speakers. When you power down, the amplifier should ALWAYS be turned off first to avoid the same problems.

MAKE SURE THE POWER IS OFF BEFORE MAKING OR REMOVING CONNECTIONS

Always turn the power switches of system components OFF prior to connecting or disconnecting cables. Failure to do so may result in damage to speakers as well as to connected equipment.

DISCONNECT CABLES BEFORE MOVING THE SYSTEM

To prevent short circuits or breakage of cables, always disconnect cables prior to moving system equipment.

MATCH CONNECTOR POLARITY

When using two or more speaker systems, be sure to match the polarity (+/-) of the speaker system connectors to those at the amplifier. If the polarities do not match, the sounds produced by the speakers will interfere with each other, making it impossible to achieve a well-balanced sound field.

KEEP THIS OWNER'S MANUAL IN A SAFE PLACE FOR FUTURE REFERENCE



This product, when used in combination with amplification and/or additional loudspeakers, is capable of producing sound levels that could cause permanent hearing loss.

DO NOT operate at high volume levels or at a level that is uncomfortable. If you experience any discomfort or ringing in the ears, or suspect a hearing loss, you should consult an audiologist.

TO PROTECT YOUR SPEAKERS

When choosing a power amplifier to use with your speakers, make sure that its power output matches the speakers' power capacity (refer to the Specifications on page 4). Even if the amplifier's power output is lower than the speaker's PRGM (program) power capacity, the speaker may be damaged when clipping of a high input signal occurs.

The following may cause damage to the speakers:

- Feedback caused when using a microphone
- Continuous high-sound pressure level produced by electronic instruments
- Continuous high-power output distorted signals
- Popping noises caused by turning on equipment, or by connecting or disconnecting system components while the amplifier is turned on

PROTECT SWITCH

The AS312 speaker system has a protect switch circuit that limits excessive input to the speaker components. If you do not hear the upper frequency range from the AS312, turn off the power to the speaker component, wait a few minutes, then turn on the power. Doing so will reset the protect switch, allowing sound to be output from the speakers. If the protect switch circuit operates several times and you still do not hear the high range sound from the AS312, lower the volume.

CAUTION!

The AS312 speaker system has a socket to allow stand mounting. Use care to fully extend the legs of the stand on a solid, level surface.

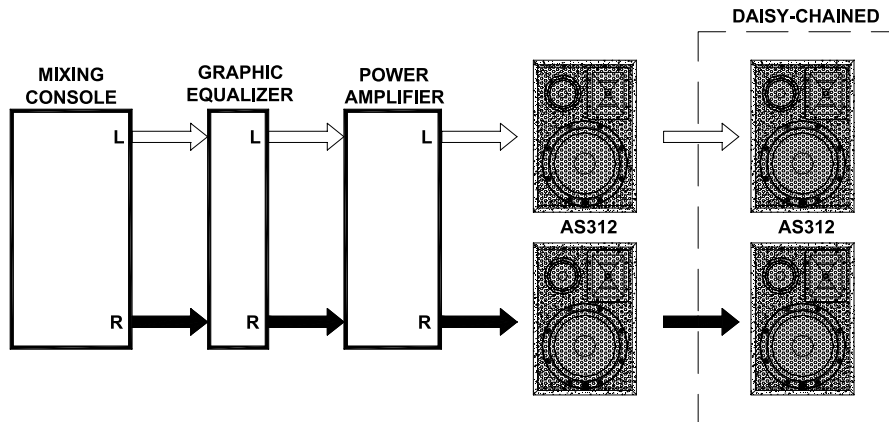
SPEAKER HANDLES

The handles on your speakers are for transportation. They are not designed for suspension or hanging.

Connecting the Speakers

CONNECTION EXAMPLE

The illustration below shows the audio connections for a standard setup using two speaker systems.



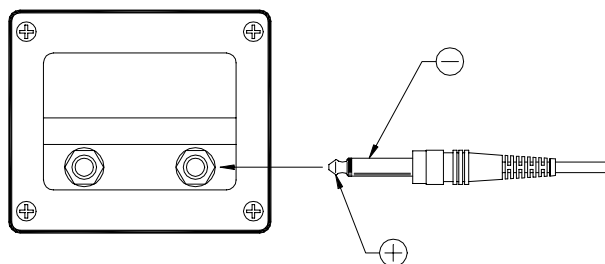
DAISY-CHAINING SPEAKERS

The AS312 speaker system is equipped with two input terminals that are internally connected in parallel. This configuration allows one of the phone jacks to receive signals from the power amplifier and the other phone jack to send the signals to the second speaker.

- The AS312 speaker system has nominal impedance of 8Ω (ohms).
- For daisy-chaining speakers, use a power amplifier that is designed to provide stable performance at a load impedance of 4Ω (ohms) or less and do not daisy-chain more than two speaker systems.

PHONE PLUG WIRING

The standard input terminals for this unit are ¼" phone jacks. Connect the speaker leads as shown in this diagram:



Caution: Use only unshielded speaker cable with stranded conductors to connect speakers to the terminals on a power amplifier. The use of audio cable not rated as sufficient for the amplifier's maximum output level can create a potential fire hazard.

Specifications

Type	3-WAY Acoustic Suspension
Drivers: Woofer	12" Laminated Long Throw Woofer with Rubber Surround
Mid Range	4-1/4" Laminated Long Throw Mid Range with Rubber Surround
Tweeter	1" Throat Compression Horn
Frequency Response (-10dB)	50 Hz – 20 kHz
Impedance	8 Ohms
Nominal Input*	90 Watts
Maximum Input	360 Watts
Sensitivity (1W, 1m)	90dB
Crossover Frequencies	1kHz, 5kHz (12dB/Octave)
Dimensions (HxWxD approx.)	22-9/16" x 15-3/8" x 16-5/8"
Weight	44 lbs.
Finish	ACX Dura-Finish, Textured Black

*EIA RS-426

Specifications subject to change without notice due to product improvements.

AS312

