

AH Series Stadium Subwoofer

AHSUB15S



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Safety Instructions

Please Read Carefully Before Installing or Operating

- Read all instructions carefully
- Heed all warnings
- Assure that the speaker is securely mounted

Hearing Damage

CAUTION: These professional loudspeaker systems is capable of generating very high sound pressure levels. Use care with placement and operation to avoid exposure to excessive levels that can cause permanent hearing damage.

Suspension & Mounting

Suspension or "flying" speaker systems requires training and expertise. Improper rigging of a flying speaker may result in injury, death, equipment damage, and legal liability. Installation must be carried out by fully qualified installers, in accordance with all required safety codes and standards at the place of installation.

A 5:1 design factor is a generally accepted minimum standard. However, legal requirements for overhead suspension vary by municipality, please consult your local safety standards office before installing any product. We also recommend that you thoroughly check any laws and bylaws prior to installation.

Loudspeakers flown in theaters, nightclubs, conference centers, or other places of work and entertainment must be provided with an independent, correctly rated and securely attached secondary safety — in addition to the principle suspension point(s). This secondary safety must prevent the loudspeaker from dropping more than (6") should the principle suspension device fail. If you lack the skills, training, and proper ancillary equipment to fly a speaker system, do not attempt to do so.

For additional information regarding the suspension of loudspeakers or to purchase rigging materials, please contact our friends at ATM Group, Inc., 1635 E. Burnett St. Signal Hills, CA 90755.

www.atmflyware.com

Telephone (562) 424-1100 and Fax (562) 424-3520

- Always assure power is off to amplifiers before making any connections
- Assure that all electrical equipment is properly grounded
- Keep instructions for future reference
- Should any questions arise after reading this document, please call Atlas Sound Tech Support at 800-876-3333

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Ground Installation

General considerations and hardware recommendations

Excellent results may be achieved by mounting the AHSUB15S under bleacher seating. Electronic delay is suggested to approximate time alignment of full range speakers with subwoofer(s) to the listener locations. Use AHSUBSTAND for this mounting configuration.

Overhead Suspension Installation

Remember that wind will add considerable torque to the point of attachment. The mounting surface the speaker is being attached to should be able to handle five or more times the weight of the AH speaker (7x recommended for locations subject to high wind forces).

The installer must ensure that the surface is capable of safely and securely supporting the load. The hardware employed must be safely and securely attached both to the loudspeaker and the surface in question. A general rule for soft surface installations (wood beams) is to multiply the corresponding working load limit by 75%: the result will be an approximate working load strength.

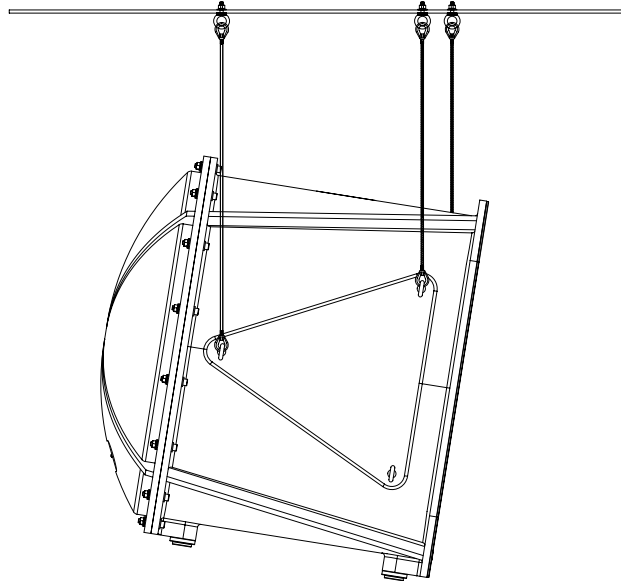
CAUTION: The AHSUB15S weighs 181 pounds (82.1kg). A fall from almost any height could result in serious injury or death. Assure that the speaker is firmly mounted to an object that can handle the weight. For on ground installation a 36" square 2" thick (minimum) concrete pad is suggested. If this pad is to be poured concrete, rebar anchors are suggested to allow chain or cable securing of the AHSUB15S for theft resistance.

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Suspended Installation Via Eyebolts (Included)

Using 1/4" Diameter Wire Rope



Note: Use of 1/4" load rated wire rope is suggested to provide a static working load limit of 1400lbs (635kg) and moving load limit of 875lbs (397kg) per point. 1/8" cable is not recommended as load limits are reduced to 400lbs (181kg) static, and 250lbs (113kg) moving.

Considerations for overhead suspension using AH Series eyebolts and wire rope:

1. Always apply the load to the eye in the plane of the eye.
2. Always use shoulder eyebolts for angular lifts.
3. Always tighten eyebolts securely against the load.
4. Apply first load to test the assembly. This load should be of equal or greater weight than the loads expected in use.
5. Use wire rope compression fittings & thimbles whenever possible and prepare terminations only as instructed by the manufacturer.
6. If wire rope clips are used, check and retighten to the manufacturer's recommended torque.

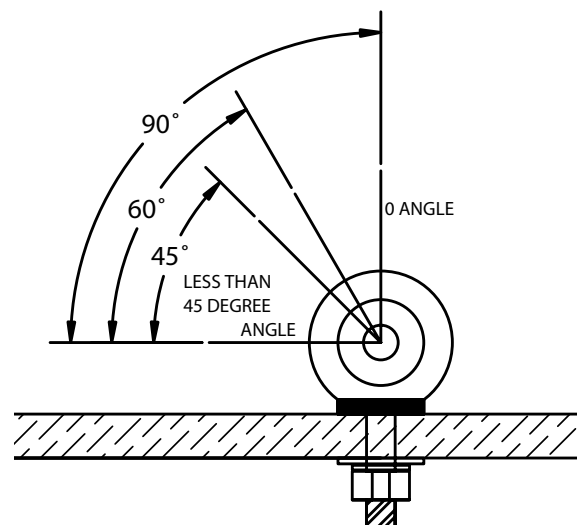
Eyebolt Working Load Limits

1/4" Shank (Provided with
AHSUB15S)

90° angle: 650lbs (295kg)

60° angle: 420lbs (191kg)

45° angle: 195lbs (88kg)



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Speaker Cable Recommendations And Connection Instructions

Wire Gauges

For very short distance speaker cable runs (less than 25') 16-gauge, stranded, twisted pair speaker cable may be used. For speaker cable runs between 25' and 75', 14-gauge, stranded, twisted pair speaker cable is recommended. For speaker cable runs greater than 75', 12-gauge, stranded, twisted pair speaker cable is necessary. For runs exceeding 150', please contact tech support for proper wire gauge.

Input connections are provided on a convenient recessed terminal block located on the bottom of the loudspeaker. This terminal block includes a clear weather resistant cover which should be re-installed after terminating the speaker cabling to prevent corrosion in outdoor applications.

Allow an adequate service loop for this connection to allow tilt of the loudspeaker. If the speaker is tilted above parallel to the ground, water may collect in the speaker cabinet causing damage — the product should not be installed tilted upwards!

Amplifier Considerations

Consult your amplifier owner's manual to confirm power output at the rated impedance.

The AHSUB15S exhibits an 8Ω (nominal) impedance.

(x2) AHSUB15S paralleled will present a 4Ω load to the amplifier.

(x3) AHSUB15S paralleled will present a 2.66Ω load to the amplifier.

(x4) AHSUB15S paralleled will present a 2Ω load to the amplifier.

ATLAS SOUND speaker system specifications list RMS power handling.

As a reference, peak power = RMS x 1.414.

These ratings should be considered in selecting the best amplifier to power the speaker system.

For general use, amplifier output should match or exceed the RMS rated power of the speaker system (250 Watts).

For increased headroom and dynamic reproduction, the amplifier's output should match or exceed the peak power rating of the speaker system (354 Watts). In situations where experienced professionals are operating the speaker system with proper limiting and frequency control devices inserted into the signal path and adjusted properly, amplifier output may meet, but should not exceed 2x the RMS power rating of the speaker system (500 Watts). Utilizing the Atlas Sound model CP700 power amplifier will allow you to easily match required power ratings for most any installation. Visit www.AtlasSound.com for more details on this product.



Cup for Speaker Hook Up

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Specifications

MODEL	POWER RATING RMS	FREQUENCY RES. ± 5 dB	SOUND LEVEL		DISPERSION	IMPEDANCE	DIMENSIONS	WEIGHT
			RP/1M	1W/1M				
AHSUB15S	250 Watts RMS	55Hz to 120Hz	127dB	103dB	Omni	8 Ω	30.56"H (776mm) 30"W (762mm) 28.1"D (714mm)	181 lbs (82.1kg)

Troubleshooting

PROBLEM	POSSIBLE CAUSE	REMEDY
There is no sound	Power off. Equipment setting is wrong. Volume set too low.	Assure that power is applied to all equipment in system. Check that routing (input/output) controls are set correctly. Check that volume level is above minimum.
	Loose connection.	Check system from start to finish for crossed wires, loose connection, etc. On the AH location check for correct connection.
Low sound level	Setting/volume control is set too low. Connection is shorted or bad.	Check volume levels or amplifiers and related equipment (equalizer). Check that connections aren't partially shorted/corroded.
Sound cuts in and out	System overload/oscillation intermittent connection.	Check for overload condition or bad connection.
Distortion at increased levels	Amplifier/speaker overdriven.	Check that power to speaker isn't over limits. Check that amplifier isn't overdriven. Reduce power to amplifier slightly.

Call Atlas Sound tech support at 1-800-876-3333 with any additional questions.