

Installation, Set-Up for SM12SUB70

Surface Mount Subwoofer

General Description

The Atlas Sound SM12SUB70 is designed for 8Ω and 70.7V distributed audio applications where low frequency enhancement is desired. This model features a unique compact cabinet design with multiple ¼"-20 inserts to allow easy suspension or wall mounting.

The SM12SUB70 includes a built in 18dB / octave three-pole passive crossover network coupled to a long-excursion 12" woofer housed in multi-angle wood enclosure system. The passive crossover eliminates the need for a separate crossover or dedicated amplifier to power the speaker.

Other features include

- Multiple ¼"-20 inserts, providing fly points for a variety of mounting configurations
- Includes internal, high efficiency, 60 watt 70.7V/100V transformer (may be bypassed for 8Ω operation)
- Barrier strip input for 70.7V/100V/8Ω or parallel 4 pole Speak-On™ input, (for 8Ω operation only)
- Unique input panel allows use of standard 4" square box cover (Raco 753 or eq.) for applications where flex conduit is required for termination
- Fuse protection
- Attractive, yet heavy-duty grille assembly
- Durable, rough-coat finish
- Optional bracket for wall mounting
- Omnimount™ compatible

Applications

- High-level foreground music systems
- General live sound reinforcement (installed or portable)

Unpacking

As part of our commitment to providing you the highest quality product possible we make sure every Atlas Sound product is carefully tested and inspected before being shipped from our factory. Please inspect your loudspeaker for any damage that may have occurred during shipping. In the event of shipping damage notify your freight carrier immediately.

Amplifier Considerations for 8Ω operation

PLEASE NOTE: The input barrier strip includes a jumper which when removed activates the 8Ω input on the barrier strip and the Speak-On™ jacks.

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

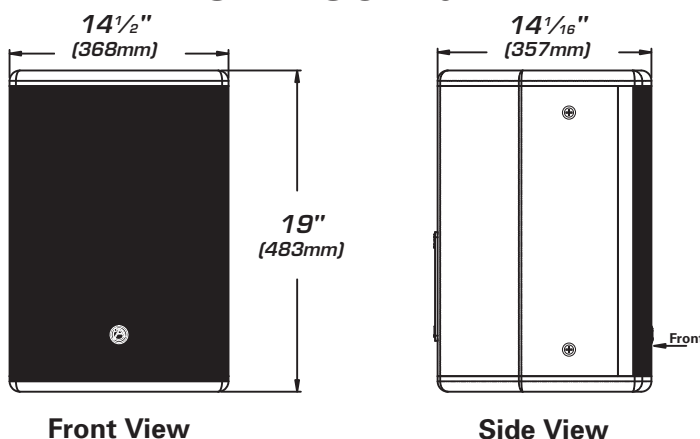
For increased headroom and dynamic reproduction, the amplifier's output should match or exceed the peak power rating of the speaker system.

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.

Technical Specifications

Power Handling	250 watts RMS
Transformer Taps	7.5, 15, 30 & 60 watts
Frequency Response	45Hz – 125Hz (±6dB)
Sensitivity (1 W/1 M)	89dB
Dispersion	Omni
Crossover Type	18db / Octave
Crossover Frequency	120Hz
Woofer	12", 8Ω Long Excursion
Height	19" (483mm)
Width	14½" (368mm)
Depth	14⅛" (357mm)
Weight	38 lbs (17.17kg)

SM12SUB70



Hook-up

For 70.7V terminations a barrier strip is provided to accommodate (2) #14 stranded cables. All tap selections are clearly marked on the input cup. Connection is made to the common terminal (-) and the desired power tap (+).

This barrier strip also includes a jumper which should only be removed to activate the 8Ω input on the barrier strip and the Speak-On™ jacks.

The pins of the 2 Speak-On™ sockets identified on the rear of the input panel are paralleled for connecting additional subwoofers.

Pin 2+ is Positive

Pin 2- is Negative

Pins 1+ and 1- are looped through.

For a worldwide list of Neutrik (Speak-On™) distributors, see <http://www.neutrik.com/>

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Surface Mount Subwoofer

Please note that the input terminal cup includes corner threaded inserts to accommodate standard four square electrical box cover (RACO #753 or equivalent). The cover allows for conduit connections directly to the input cup.

Wire Gauges (8 operation)

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.

Wire Gauges (70.7V operation)

Use 18/2 stranded twisted (plenum rated if necessary per local code) for speaker cable runs up to 2000'. For distances over 2000' please consult your cable supplier for suggested wire gauges.

Overhead Suspension Installation

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 the required safety codes and standards that are applied at the place of installation. 5:1 design factor is a generally accepted design standard, however, legal requirements for flying 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.

If you lack the skills, training, and proper ancillary equipment to fly a speaker system do not attempt to do so.

The Atlas Sound SM12SUB70 system contains multiple ¼"-20 inserts to allow most any suspension angle conceivable.

ONLY LOAD RATED & CERTIFIED HARDWARE (EYEBOLTS & CABLE) SHOULD BE USED IN THE INSTALLATION OF THIS PRODUCT.

These products are available from:

Adaptive Technologies Group - West Coast
1635 East Burnett Street, Signal Hill, CA 90755 USA
Tel (562) 424-1100 Fax (562) 424-3520

Adaptive Technologies Group - East Coast
PO BOX 38, Hicksville, NY 11802-0038 USA
Tel (562) 424-1100 Fax (562) 424-3520

www.allenproducts.com

Loudspeakers flown in theatres, 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.

Surface mounting

The SM12CBKT is an Optional C-bracket for wall/surface mounting of the SM12SUB70. Whenever the loudspeaker is mounted to a surface using the optional "C" bracket 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, using only the mounting holes. If you are unsure of the integrity of the mounting surface please seek assistance from architects, structural engineers or other specialists.

Omnimount™

Inserts are provided on the top, bottom and back of both models to accommodate Omnimount™ brackets. Use the Omnimount™ 30 series for the SM12SUB70.

Stand Mounting

The optional Atlas Sound SSA7 can be used with the top and bottom cabinet inserts to facilitate stand mounting for portable use.

Hearing Damage

CAUTION: These professional loudspeaker systems are 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.

Outdoor Use

The systems should not be flown or used in permanent outdoor applications under any circumstances.

Fuse Protection

Units are shipped with a 20 A fuse installed. This high current fuse functions as a through connection and offers no protection. If fuse protection is desired please replace the 20 A fuse with a 4 A fuse slow-blow type (AGC or 3AG type). Please note that for 70V operation the internal transformer with a maximum tap of 60 watts nullifies the need for fuse protection.

Warranty

All products manufactured by Atlas Sound are warranted to the original dealer/installer, industrial or commercial purchaser to be free from defects in material and workmanship and to be in compliance with our published specifications, if any. "This warranty shall extend from the date of purchase for a period of five years on all Atlas Sound products except as follows: one year on electronics and control systems; one year on replacement parts. Additionally, fuses and lamps carry no warranty."

Atlas Sound will solely at its discretion, replace at no charge defective parts or products when the product has been applied and used in accordance with our published operation and installation instructions. We will not be responsible for defects caused by improper storage, misuse (including failure to provide reasonable and necessary maintenance), accident, abnormal atmospheres, water immersion, lighting discharge, or malfunctions when products have modified or operated in excess of rated power, altered, serviced or installed in other than a workmanlike manner. The original sales invoice should be retained as evidence of purchase under the terms of this warranty. All warranty returns must comply with our returns policy set forth below.

When products returned to Atlas Sound do not qualify for repair or replacement under our warranty, repairs may be performed at prevailing costs for material and labor unless there is indeed a written request for an estimate of repair costs before any non-warranty work is performed. In the event of replacement or upon completion of repairs, return shipment will be made with the transport charges collect.

EXCEPT TO THE EXTENT THAT APPLICABLE LAW PREVENTS THE LIMITATION OF CONSEQUENTIAL DAMAGES FOR PERSONAL INJURY, ATLAS SOUND SHALL NOT BE LIABLE IN TORT OR CONTRACT FOR ANY DIRECT, CONSEQUENTIAL OR INCIDENTAL LOSS OR DAMAGE ARISING OUT OF THE INSTALLATION, USE OR INABILITY TO USE THE PRODUCTS. THE ABOVE WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

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