

SM8CXT & SM12CXT

Surface Mount 8" & 12" Speaker Systems

General Description

The Atlas Sound SM8CXT and SM12CXT are designed for 8Ω and 70.7V distributed applications where high output and accurate sound reproduction are required. Both models feature a unique compact cabinet design with multiple ¼"-20 inserts to allow easy suspension or wall mounting. The dual angle design also allows the systems to be used as a short or long throw stage monitor system.

The SM8CXT includes the Atlas Sound 8CXT60 compression driver coaxial loudspeaker. The SM12CXT includes the Atlas Sound 12CXT60 compression driver coaxial loudspeaker. Originally conceived for high ceiling distributed systems, these systems exhibit incredible efficiency and fidelity. Both models utilize a uniquely designed conical wave-guide high frequency director providing accurate 90° coverage in the 2kHz octave band.

Features

- 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 for Low and High Frequency Drivers
- Attractive, Yet Heavy-Duty Grille Assembly
- Durable Black or White, Rough-Coat Finish
- Optional Bracket for Wall Mounting
- Omnimount™ Compatible

Applications

- School Auditoriums, Gymnasiums & Cafeteriums
- Church Sanctuary Systems (F.O.H. and/or Monitors)
- 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

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

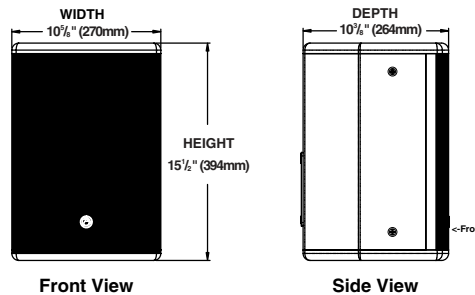
Consult your amplifier owner's manual to confirm power output at the rated impedance. Atlas Sound speaker system specifications list RMS power handling. As a reference, peak power = RMS x 1.414. These ratings should be considered in selecting the best amplifier to power the speaker system.

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

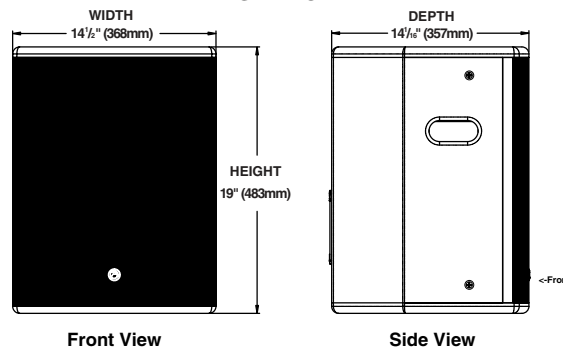
For increased headroom and dynamic reproduction, the amplifier's output should match or exceed the peak power rating of the speaker system.

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.

SM8CXT



SM12CXT



Specifications

Model	SM8CXT	SM12CXT
Frequency Response (±3dB)	60Hz - 15kHz	55Hz - 15kHz
Power Handling	150 Watts RMS	250 Watts RMS
Transformer Taps	7.5, 15, 30, & 60 Watts	7.5, 15, 30, & 60 Watts
Sensitivity (1W / 1M)	92dB	99dB
Maximum SPL @ 1 Meter (Rated Power @ 8Ω)	114dB	123dB
Nominal Driver Impedance	8Ω	8Ω
Dispersion (2kHz Octave Range)	90°	90°
Height	15 1/2" (394mm)	19" (483mm)
Width	10 1/8" (270mm)	14 1/2" (368mm)
Depth	10 1/8" (264mm)	14 1/8" (357mm)
Weight	19 lbs (8.62kg)	39 lbs (17.7kg)
LF Transducer		
Basket Material	Cast Aluminum	Cast Aluminum
Cone Material	Polypropylene	Treated Paper
Surround Material & Dampening	Thermal Plastic Elastomer	Cloth Edge
Voice Coil Diameter	2" (51mm)	2 1/2" (63.5mm)
Magnet Weight	34oz	70oz
HF Comp. Driver		
Diaphragm Material	Titanium	Titanium
Voice Coil Diameter	1" (25mm)	2" (51mm)
Voice Coil Former Material	Kapton®	Kapton®
Voice Coil Material	Copper	Copper
Throat Diameter	.925" (23.5mm)	1" (25mm)
Magnet Weight	20oz	40oz

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Hook-Up

For 70.7V terminations, a barrier strip is provided to accommodate two #14 strand-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 inputs 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 and are paralleled for connecting additional speakers or subwoofers

Pin 1+ is Positive Pin 1- is Negative

Adding Passive Subwoofers

Pins 1+, 1-, 2+ 2- are connected internally between the two speak-on connectors allowing use of 4 conductor speaker wire to the full range loudspeaker (pins 1+, 1- for full range) with a "through" connection to a subwoofer like the Atlas Sound SM8SUB70 (pins 2+, 2- for sub). For a worldwide list of Neutrik distributors see <http://www.neutrik.com>

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 (8Ω 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 (Neutrik Connector ONLY).

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

Suspension or flying speaker systems require 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 you 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 SM8CXT & SM12CXT systems contain 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
1635 East Burnett Street
Office: 562.424.1100
Fax: 562.424.3520

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

Optional C-brackets are available for wall or surface mounting of the SM8CXT and the SM12CXT. For the SM8CXT specify the SM8CBKT mounting bracket. For the SM12CXT specify the SM12CBKT.

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 SM8CXT and the Omnimount™ 60 Series for the SM12CXT.

Stand Mounting

The optional Atlas Sound SSA7 can be used with the top or bottom 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 20A fuse installed in both the LF and HF socket. This high current fuse functions as a through connection and offers no protection. If fuse protection is desired please replace the 20A fuse with the following values. For the SM8CXT: 3A LF Fuse / 2A HF Fuse. For the SM12CXT: 4A LF Fuse / 4A HF Fuse.

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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