



***Atlas Sound Strategy Series®
Surface Mount Loudspeakers***

SM42T-B

SM42T-W

SM52T-B

SM52T-W

SM82T-B

SM82T-W



**Atlas
Sound**

1601 Jack McKay Blvd. • Ennis, Texas 75119 U.S.A.
Telephone: 800.876.3333 • Fax: 800.765.3435



Thank you for choosing Atlas Sound Strategy Series® Surface Mount Loudspeakers

Atlas Sound manufactures the largest selection of commercial and professional sound products in the industry. For information on our other products, go to www.AtlasSound.com or call 800.876.3333.

General Description

All Atlas Sound Strategy Series speaker systems are designed to provide high fidelity, long life and installation convenience for commercial and residential applications. Because of their weather-resistant properties they are perfect for use indoors or out. The Atlas Sound Strategy Series surface mount speakers are available in 4", 5¼", and 8" woofer sizes for 70.7V / 100V / 8Ω systems, finished in black or white.

Features

- Includes internal, high efficiency 70.7V / 100V transformer (may be bypassed for 8Ω operation)
- Barrier strip input with weather resistant cover
- Bracket included for wall mounting
- Also compatible with optional mounting systems from Atlas Sound and others:
 - SM82T - Omnimount™ 30.0 series
 - Model 30.0WB is recommended for wall mounting
 - Other mounting systems must match 4½" (108mm) x 2" (51mm) , ¼"-20 insert spacing on bottom of speaker.
 - Mounting system must be rated to support at least 20 lbs (9Kg)
 - SM42T, SM52T - Atlas Sound SMBALLMOUNT (indoor use only) or Omnimount™ 10.0 series
 - Other mounting systems (single shaft or dual hole mount) may be used to match ¼"-20 insert(s) on rear of speaker. Dual hole mounting systems must match 2⅝" (60mm) OC, ¼"-20 insert spacing.
 - Mounting system must be rated to support at least 10 lbs (4.5Kg)

Placement

Outdoor Use

The materials used in the construction of the Strategy Series surface mount speaker systems are weather resistant. The hardware is brass, the grille is powder-coated aluminum, and the bracket is zinc plated, powder coated steel. The enclosure itself is shatter resistant. Adhering to these mounting guidelines will further extend the life of the product when installed outdoors:

- Whenever possible, mount the speaker under an eave or other protective overhang.
- Always aim the speaker at a slight downward angle to prevent water from accumulating on the speaker cone.
- Do not place the speaker in a location where water, snow or ice will accumulate on the speaker for extended periods of time.

Indoor Use

The Atlas Sound Strategy Series surface mount speaker system works very well when it is wall-mounted in indoor applications. When you place the speaker on a wall, you take advantage of the natural boundary effect that occurs when a speaker system is placed against one or more surfaces. This boundary effect will provide increased overall output. When you mount the speaker against one surface (on a wall), output will increase by 3dB. When you mount the speaker against two surfaces (on the wall near the ceiling or corner), you increase the output by 6dB. When you mount the speaker against three surfaces (in a corner near the ceiling), output will increase by 9dB.

Shelf Mounting

The bottom surface of the SM42T, SM52T, and SM82T are a flat 90° to the speaker baffle to maintain level surface when placing on shelves. All models can also be horizontally installed in any placement option.



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Down Firing

The SM Series speaker systems also work well in a down firing configuration for spaces utilizing open beam ceilings such as offices, restaurants and warehouses. When determining speaker spacing in down-firing installations, refer to the following chart:

Ceiling Height	Speaker Spacing			MAX SPL @ Highest Tap (with the Listener @ 3.5')		
	SM42T	SM52T	SM82T	SM42T	SM52T	SM82T
8'	6'	6'	–	97dB	102dB	–
9'	8'	8'	–	96dB	101dB	–
10'	9'	9'	6'	94dB	99dB	104dB
11'	10'	10'	6.5'	93dB	98dB	103dB
12'	12'	12'	7.5'	92dB	97dB	102dB
13'	13.5'	13.5'	8.5'	91dB	96dB	101dB
14'	15'	15'	9.5'	90dB	95dB	100dB
15'	16'	16'	10'	89dB	94dB	99dB
16'	–	17.5'	11'	–	93dB	98dB
17'	–	19'	12'	–	93dB	98dB
18'	–	20.5'	13'	–	92dB	97dB
19'	–	22'	14'	–	92dB	97dB
20'	–	23'	15'	–	91dB	96dB
25'	–	–	19'	–	–	94dB
30'	–	–	24'	–	–	92dB
SM42T = 90° Nominal Coverage at 2kHz						
SM52T = 90° Nominal Coverage at 2kHz						
SM82T = 65° Nominal Coverage at 2kHz						

Note: Using the above spacing suggestions will maintain good, even high frequency coverage, which translates into excellent intelligibility for voice reproduction and high fidelity music reproduction. To find out more about the formulas used to determine ceiling speaker spacing, check out the book Sound System Engineering by Don and Carolyn Davis. To find out more about the limits of wide dispersion loudspeakers, download the Atlas Sound white paper on the subject at <http://www.atlassound.com/Support/WhitePapers.aspx>.



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Installation

Fixed Install

The SM Series speaker systems include a versatile yet simple U-bracket designed to provide easy vertical or horizontal installation on just about any surface. The speaker may be installed using screws or bolts placed through the "Keyhole" shaped holes in the mounting bracket. The center $\frac{5}{8}$ "-27 hole allows wire to exit through the bracket when wall mounting, for a neat installation. The unused inserts on the bottom and top of the SM82T are M5 and on the rear of the SM52T are $\frac{1}{4}$ "-20. These openings can be used with forged eyebolt and an approved safety cable (wire rope sling) where redundant support is required for seismic considerations.

These parts are available through multiple sources.

Eyebolt, Lifting With Shoulder, Steel, Plain Finish, $\frac{1}{4}$ -20 In Thread Size, 1" Thread Length, 1" Shank Length, $\frac{1}{2}$ " Shoulder Diameter, $\frac{5}{32}$ " Shoulder Length, $\frac{3}{4}$ " Eye Inside Diameter, $1\frac{1}{4}$ " Eye Outside Diameter, $2\frac{3}{8}$ " Overall Length, 500 Lb Working Load Limit

Galvanized Steel Cable Spool, $\frac{1}{8}$ "

Sleeve N Thimble™ Kit for $\frac{1}{8}$ " Cable

Swage It Tool for $\frac{1}{16}$ ", $\frac{3}{32}$ ", and $\frac{1}{8}$ " - Cable Size

The mounting knobs included with the Surface Mount Speaker products may be easily interchanged with standard, $\frac{1}{4}$ "-20 vandal proof hardware.

TORX Drive Button Head $\frac{1}{4}$ " Machine Screw, Tamperproof, $\frac{1}{2}$ " Length

One-Way Round Head $\frac{1}{4}$ " Machine Screw, Tamperproof, $\frac{1}{2}$ " Length

Spanner Flat Head $\frac{1}{4}$ " Machine Screw, Tamperproof, $\frac{1}{2}$ " Length

Overhead Suspension

CAUTION: *Suspending any object is potentially dangerous and should be attempted only by individuals who have a thorough knowledge of the techniques and regulations of rigging objects overhead using ONLY hardware approved for this type of installation. Atlas Sound strongly recommends that Strategy Series Surface Mount enclosures only be suspended overhead when taking into account all current national, federal, state, and local regulations. It is the responsibility of the installer to insure that the speaker is installed according to those regulations. If the Strategy Series Surface Mount speaker is suspended, Atlas Sound strongly recommends that the system be inspected at least once a year. If any sign of weakness or damage is detected, remedial action should be taken immediately.*



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Painting the Speakers

The injection molded, polypropylene, talc impregnated cabinets can be painted to match your décor. You should prime the cabinet with two coats of a product such as Krylon™ Sandable Spray Primer #1318. You may use oil or water based house paint or spray paint. (Be sure to use appropriate exterior house paint for outdoor applications).

- 1 Remove the grilles and brackets.
- 2 Mask the speaker components and input terminal area with newspaper and masking tape.
- 3 Apply two thin primer coats to the speaker cabinets and knobs. (The brackets do not require a primer coat.)
- 4 After the primer coats are completely dry, paint the cabinets, brackets and knobs. Be careful not to paint the input terminals!

Painting the Grilles

If you choose to pain the grilles, you must remove the grille before painting.

SM42T: Using a paper clip bent into a "hook" shape, insert it into a grille near the corner and pull the grille away from the cabinet.

SM52T: Using a paper clip bent into a "hook" shape, insert it into a grille near the corner and pull the grille away from the cabinet.

SM82T: Remove all screws around the outside of the grille to remove the grille from the cabinet.

Apply two thin coats of paint (primer is not required), be careful not to let the paint clog the holes in the grilles.

8Ω Connections

The SM42T, SM52T, and SM82T loudspeakers include an 8Ω switch position.

CAUTION: Do not set switch to 8Ω position when speakers are wired in 70.7V / 100V Systems.

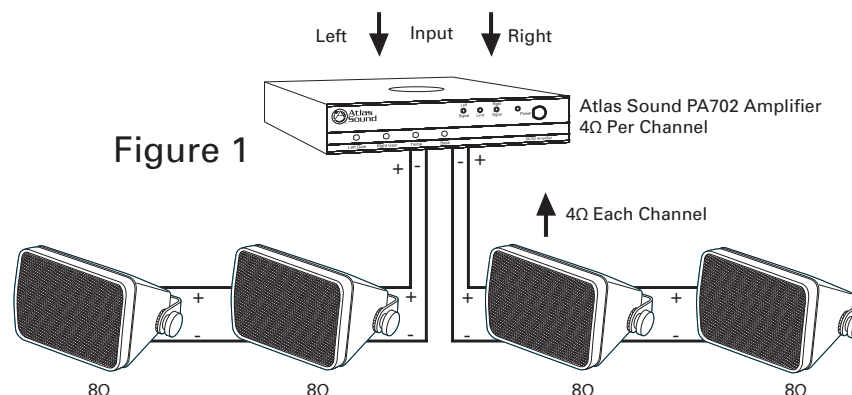
The SM42T, SM52T, and SM82T include a two pole barrier strip housed by a weather-resistant cover. The barrier strip is designed to accept either spade connectors or bare wire.

Amplifier limitations will dictate how many SM42T / SM52T / SM82T speakers may be connected. Most consumer amplifiers are rated to operate at a 4Ω minimum output impedance per channel (Check the back panel of the amplifier or the amplifier owners manual to verify). With this arrangement, two SM Series speakers may be connected in parallel to each channel of the amplifier (two 8Ω speakers per channel = a 4Ω load). (See Figure 1)

Be sure to use good quality, un-shielded twisted pair speaker cable to connect the amplifier to the speaker(s) (#14AWG for runs <80', #12AWG for runs >80'). Standard ZIP style speaker cable may also be used if twisted pair cable is not available.

DO NOT USE SHIELDED INSTRUMENT STYLE (Guitar) CABLES TO CONNECT SPEAKERS.

When making the connections, be sure to maintain proper polarity between speakers. (Red wire to red (or +) terminal - black wire to black (or -) terminal where applicable). Atlas Sound offers several auto-former speaker selectors (Atlas Sound ASL series) and volume controls (Whisper Touch series) that will allow you to connect multiple pairs (up to 6) of 8Ω loudspeakers without damaging your amplifier. Contact your dealer or factory for details.



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Line Matching Transformer Connections

The SM42T, SM52T, and SM82T include a two pole barrier strip housed by a weather-resistant cover. The barrier strip is designed to accept either spade connectors or bare wire. We recommend #18AWG for wire runs up to 500', 16AWG for wire runs of 500' to 1000', and #14AWG for runs over 1000'. Building codes often dictate that speaker wire must be plenum rated or run in conduit. Be sure to check your local codes before installation.

The SM42T, SM52T, and SM82T are equipped with line matching transformers. These types of speakers require an amplifier capable of driving a 70.7V line in order to ensure that the wattage taps selected will be appropriate. If your amplifier is not rated for 70.7V output, you may use the Atlas Sound AF140 autoformer configured as a step-up transformer for this purpose. Contact your dealer for details.

Connect the speaker cable to the + and – barrier strip terminals on the back of the SM42T / SM52T / SM82T.

Using a small screwdriver, adjust the wattage selector switch on the back of the SM42T / SM52T / SM82T to the desired wattage tap.

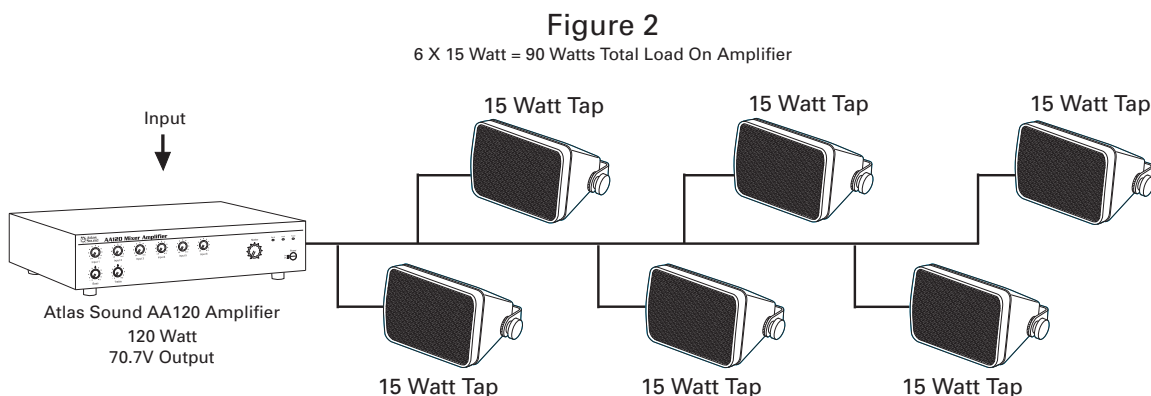
CAUTION: DO NOT SET SWITCH TO 8Ω POSITION WHEN SPEAKERS ARE WIRED IN 70.7V / 100V SYSTEMS

Quantity of speakers per amplifier will be dictated by the amplifier's wattage rating (at least 20% headroom should be allowed for extended range program material such as paging or digital music sources) i.e. a 120W amplifier will power six speakers tapped at 15 Watts each. (90 Watts total on line + 20% headroom = 108 Watts, total < 120W). (See Figure 2)

Maintenance and Care

Atlas Sound Surface Mount series loudspeakers have been designed and manufactured for years of trouble-free service.

You can clean your Surface Mount series loudspeaker with a dampened soft cloth or paper towel. If the speaker is mounted high on a wall or ceiling, use a broom or duster to gently brush it off. Spraying the speaker with high-pressure water is not recommended and will void the warranty.



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Specifications

SM42T

Frequency Response	115Hz – 16kHz (±5dB)
Usable Low Frequency Limit (10dB Down Point)	78Hz
Power Handling in 70.7V / 100V Systems	2 – 16 Watts
Power Handling in 8Ω Switch Position	30W RMS
Sensitivity (1W / 1M)	88dB
Nominal Coverage Angle	90° x 90°

Transducer Complement

High Frequency	1" (25mm) Dome Tweeter
Low Frequency	4" Polypropylene Woofer
Crossover Frequency	4 kHz
Crossover Slope	6dB / Octave
Input Connections	2 Pole Barrier Strip with Weather-resistant Cover
Driver Protection (High Frequency)	Atlas Sound PolyGuard™
Materials	UV-Resistant Talc Impregnated Polypropylene Injection Molded Weatherproof Enclosure. (Black or White Finish) Perforated Powder Coated Aluminum Grille Matches Enclosure Color
Weight (Less Bracket)	1.5lbs (.68kg)
Height	7" (17.78cm)
Width	5" (12.7cm)
Depth	5 ¹⁵ / ₁₆ " (15.03cm)



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Specifications

SM52T

Frequency Response	85Hz – 20kHz (±3dB)
Usable Low Frequency Limit (10dB Down Point)	65Hz
Power Handling in 70.7V / 100V Systems	1 – 30 Watts selectable in 3dB Steps
Power Handling in 8Ω Switch Position	100 Watts RMS
Sensitivity (1W / 1M)	90dB
Nominal Coverage Angle	90° x 90°

Transducer Complement

High Frequency	1" (25mm) Dome Tweeter
Low Frequency	5¼" Hycone Treated Woofer
Crossover Frequency	4.5kHz
Crossover Slope	12dB / Octave
Input Connections	2 Pole Barrier Strip with Weather-resistant Cover
Driver Protection (High Frequency)	Atlas Sound Poly Guard™
Materials	UV-Resistant Talc Impregnated Polypropylene Injection Molded Weatherproof Enclosure. (Black or White Finish) Perforated Powder Coated Aluminum Grille Matches Enclosure Color
Weight (Less Bracket)	8.4lbs. (3.8kg)
Height	10⅝" (25.8cm)
Width	6⅞" (17.5cm)
Depth	5⅞" (14.85cm)



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Specifications

SM82T

Frequency Response	65Hz – 20kHz (±3dB)
Low Frequency 3dB Down Point	65Hz
Usable Low Frequency Limit (10dB Down Point)	51Hz
Power Handling in 70.7V / 100V Systems	2 – 60 Watts selectable in 3dB Steps
Power Handling in 8Ω Switch Position	150 Watts RMS
Sensitivity (1W / 1M)	92dB
Nominal Coverage Angle	65°H x 65°V

Transducer Complement

High Frequency	1" Exit Compression Driver
Low Frequency	8" Hycone Treated Woofer
Crossover Frequency	2.2kHz
Crossover Slope	12dB / Octave
Input Connections	2 Pole Barrier Strip with Weather-resistant Cover
Driver Protection (High Frequency)	Atlas Sound Poly Guard™
Materials	UV-Resistant Talc Impregnated Polypropylene Injection Molded Weatherproof Enclosure. (Black or White Finish) Perforated Powder Coated Aluminum Grille Matches Enclosure Color
Weight (Less Bracket)	18.08lbs. (8.2kg)
Height	16½" (41.9cm)
Width	9⅞" (23.0cm)
Depth	8⅞" (21.49cm)



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Notes

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Limited 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.

The warranty on the Atlas Sound Strategy Series Surface Mount Speakers shall extend from the date of purchase for a period of five years. Atlas Sound will solely, at its discretion, replace at no charge or repair free of 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, lightning discharge, or malfunctions when products have been 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 included with the returned product(s) 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 transportation 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.

Atlas Sound does not assume, or does it authorize any other person to assume or extend on its behalf, any other warranty, obligation or liability. This warranty gives you specific legal rights and you may have other rights which vary from state to state.

Returns: —We will accept returned merchandise for the following two reasons:

1. Claims under our Limited Warranty.
2. Errors in shipment by Atlas Sound.

No merchandise will be accepted for return without prior authorization. Unauthorized returns will be refused and placed in the hands of the carrier at the expense of the shipper.

Any credit will be issued in the form of a credit memo.

Even though we make every effort to avoid errors, we reserve the right to correct typographical, photographic, clerical or printing errors, and to change specifications to improve products and/or manufacturing methods.

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www.AtlasSound.com

Tech Support 1.800.876.3333

Specifications are subject to change without notice.

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