



## **AW52 / AW82 OWNER'S MANUAL**

**MX  
AUDIO**  
1 Mitek Plaza  
Winslow, IL 61089  
815-367-3000  
800-225-5689

21A9512

## Thank you for choosing MTX All Weather Loudspeakers

All MTX speaker systems are designed to provide high fidelity, long life and installation convenience for commercial and residential applications. Because of their weather resistant properties, you can use them indoors or outdoors- wherever great sound is desired. For information on our other products, go to [www.mtx.com](http://www.mtx.com) or call 1-800-CALLMTX.

### PLACEMENT

#### Outdoor use:

The materials used in the construction of the MTX All Weather Speakers systems are weather resistant for use in even the harshest conditions. 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 just a few mounting guidelines will further extend the life of the product.

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 MTX All Weather 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) you increase output by 3dB. When you mount the speaker against two surfaces (on the wall near the ceiling) you increase the output by 6dB. When you mount the speaker against three surfaces (in a corner near the ceiling) you increase the output by 9dB. Please note that the AW52 and AW82 include magnetic shielding (bucking magnets) to minimize interference when placed near CRT monitors.

#### Shelf Mounting:

The bottom surface of the AW52 and AW82 is sloped to maintain level orientation when shelf mounted.

#### Down Firing:

The MTX All Weather 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 you can use the following chart:

#### AW52=120° nominal coverage (60° off axis) at 2 kHz

Ceiling Ht: 8'	Spkr Spacing: 11'	Max SPL @ 30W (Listener@3.5')	102dB
Ceiling Ht: 9'	Spkr Spacing: 13.5'	Max SPL @ 30W (Listener@3.5')	101dB
Ceiling Ht: 10'	Spkr Spacing: 16'	Max SPL @ 30W (Listener@3.5')	99dB
Ceiling Ht: 11'	Spkr Spacing: 18.5'	Max SPL @ 30W (Listener@3.5')	98dB
Ceiling Ht: 12'	Spkr Spacing: 21'	Max SPL @ 30W (Listener@3.5')	97dB
Ceiling Ht: 13'	Spkr Spacing: 23.5'	Max SPL @ 30W (Listener@3.5')	96dB
Ceiling Ht: 14'	Spkr Spacing: 25.5'	Max SPL @ 30W (Listener@3.5')	95dB

### LIMITED FIVE YEAR WARRANTY

MTX products purchased in the USA from an authorized MTX dealer are guaranteed against defects in material and workmanship for a period of FIVE YEARS, the warranty period begins the day the product is purchased by the end user. This warranty is limited to the original retail purchaser of the product. Product found to be defective during that period will be repaired or replaced by MTX at no charge. This warranty is void if it is determined that unauthorized parties have attempted repairs or alterations of any nature. Warranty does not extend to cosmetics or finish. Before presuming a defect is present in the product, be certain that all related equipment and wiring is functioning properly. MTX disclaims any liability for other incurred damages resulting from product defects. Any expenses in the removal and reinstallation of products are not covered by this warranty. MTX's total liability will not exceed the purchase price of the product. If a defect is present, your authorized MTX dealer may be able to effect repairs.

Proof of purchase is required when requesting service, so please retain your sales receipt and take a moment to register your product online at [mtx.com](http://mtx.com). Also, a Return Authorization number (RA) is required before shipping product back to MTX, call 800-556-2888 or 608-325-5560 for speaker RA's.

## Specifications:

### AW52

Frequency Response ( $\pm 3$ dB)	85 Hz to 20 kHz
Usable Low Frequency Limit (10dB Down Point)	65 Hz
Power Handling (RMS/Peak)	100W / 150W
Sensitivity (1W/1M)	90dB
Nominal Coverage Angle	90°H X. 90°V
Transducer Complement	
High Frequency	Dome Tweeter
Low Frequency	5 1/4" Hycone Treated Woofer
Crossover Frequency	4.5 kHz
Crossover Slope	12 dB/ Octave
Impedance	8 ohm
Input Connections:	(1) 1/4" Phone Jack and (1) 5-way Touch Proof Binding Post
Driver Protection (High Frequency)	PTC Protected
Materials	UV-Resistant Talc Impregnated Polypropylene Injection Molded Weatherproof Enclosure (White Finish) Perforated Powder Coated Aluminum Grille matches enclosure color
Weight (Less Bracket)	7.05lbs. (3.2kg)
Dimensions (Less Bracket)	10 3/16" (25.8cm)H X 6 7/8" (17.5cm)W X 5 7/8" (14.85cm)D

### AW82

Frequency Response ( $\pm 3$ dB)	65 Hz to 20 kHz
Usable Low Frequency Limit (10dB Down Point)	51 Hz
Power Handling (RMS/Peak)	150W / 225W
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	2.2 kHz
Crossover Slope	12dB/ Octave
Impedance	8 ohm
Input Connections	(1) 1/4" Phone Jack and (1) 5-way Touch Proof Binding Post
Driver Protection (High Frequency)	PTC Protected
Materials	UV-Resistant Talc Impregnated Polypropylene Injection Molded Weatherproof Enclosure. (White Finish) Perforated Powder Coated Aluminum Grille matches enclosure color
Weight (Less Bracket)	16.32lbs. (7.4kg)
Dimensions (Less Bracket)	16 1/2" (41.9cm)H X 9 1/16" (23.0cm)W X 8 7/16" (21.49cm) D

Ceiling Ht: 15'	Spkr Spacing: 25'	Max SPL @ 30W (Listener@3.5')	94dB
Ceiling Ht: 16'	Spkr Spacing: 30.5'	Max SPL @ 30W (Listener@3.5')	93dB
Ceiling Ht: 17'	Spkr Spacing: 33'	Max SPL @ 30W (Listener@3.5')	93dB
Ceiling Ht: 18'	Spkr Spacing: 35.5'	Max SPL @ 30W (Listener@3.5')	92dB
Ceiling Ht: 19'	Spkr Spacing: 38'	Max SPL @ 30W (Listener@3.5')	92dB
Ceiling Ht: 20'	Spkr Spacing: 40.5'	Max SPL @ 30W (Listener@3.5')	91dB

### AW82=100° nominal coverage (50° off axis) at 2 kHz

Ceiling Ht: 8'	Spkr Spacing: 7.5'	Max SPL @ 30W (Listener@3.5')	107dB
Ceiling Ht: 9'	Spkr Spacing: 9.5'	Max SPL @ 30W (Listener@3.5')	106dB
Ceiling Ht: 10'	Spkr Spacing: 11'	Max SPL @ 30W (Listener@3.5')	104dB
Ceiling Ht: 11'	Spkr Spacing: 12.5'	Max SPL @ 30W (Listener@3.5')	103dB
Ceiling Ht: 12'	Spkr Spacing: 14.5'	Max SPL @ 30W (Listener@3.5')	102dB
Ceiling Ht: 13'	Spkr Spacing: 16'	Max SPL @ 30W (Listener@3.5')	101dB
Ceiling Ht: 14'	Spkr Spacing: 17.5'	Max SPL @ 30W (Listener@3.5')	100dB
Ceiling Ht: 15'	Spkr Spacing: 19.5'	Max SPL @ 30W (Listener@3.5')	99dB
Ceiling Ht: 16'	Spkr Spacing: 21'	Max SPL @ 30W (Listener@3.5')	98dB
Ceiling Ht: 17'	Spkr Spacing: 22.5'	Max SPL @ 30W (Listener@3.5')	98dB
Ceiling Ht: 18'	Spkr Spacing: 24.5'	Max SPL @ 30W (Listener@3.5')	97dB
Ceiling Ht: 19'	Spkr Spacing: 26'	Max SPL @ 30W (Listener@3.5')	97dB
Ceiling Ht: 20'	Spkr Spacing: 28'	Max SPL @ 30W (Listener@3.5')	96dB
Ceiling Ht: 25'	Spkr Spacing: 36'	Max SPL @ 30W (Listener@3.5')	94dB
Ceiling Ht: 30'	Spkr Spacing: 44.5'	Max SPL @ 30W (Listener@3.5')	92dB

## Installation

### Fixed Install:

The MTX All Weather 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 "L" shaped holes in the mounting bracket. The center 5/8"-27 hole allows wires to exit through the bracket when wall mounting, for a neat installation. The unused inserts on the bottom of the cabinet (AW82) or rear of the cabinet (AW52) may be used with standard 1/4"-20 forged eyebolt and an approved safety cable (wire rope sling) where redundant support is required for seismic considerations. These parts are available through many sources including Grainger Corporation. ([www.Grainger.com](http://www.Grainger.com)).

*Size 21, 1/4" X 1" Forged Eyebolt- Grainger Part Number: 2G692*

*Galvanized Steel Cable Spool, 1/8"- Grainger Part Number: 4KH26*

*Sleeve N Thimble™ Kit for 1/8" Cable, -Grainger Part Number: 4KH28*

*Swage It Tool for 1/16", 3/32", and 1/8"- Cable Size- Grainger Part Number: 4KH08*

The mounting knobs included with the speaker product may be easily interchanged with standard, 1/4"-20 vandal proof hardware. Grainger Corporation is also a good source for torx head, spanner head or one-way security bolts. ([www.Grainger.com](http://www.Grainger.com))

*TORX Drive Button Head 1/4" Machine Screw, Tamperproof, 1/2" Length- Grainger Part Number: 5JD16*

*One-Way Round Head 1/4" Machine Screw, Tamperproof, 1/2" Length- Grainger Part Number: 5JC82*

*Spanner Flat Head 1/4" Machine Screw, Tamperproof, 1/2" Length- Grainger Part Number: 5JC94*

When you have an installation challenge that the U-bracket will not accommodate, we suggest you contact our friends at OMNIMOUNT systems ([www.omnimountsys.com](http://www.omnimountsys.com))

tems.com) to select one of their quality swivel mount products (25 Series for AW52, 75 Series for AW82).

## 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. MTX strongly recommends that 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 speaker is suspended, MTX 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.*

## Near Field Live Sound Monitoring

A standard 5/8"-27 thread insert is included on the U-bracket to facilitate mounting on Atlas Sound microphone stands for use as a near-field live sound monitor.

## Painting the Speakers:

The injection molded, polypropylene, talc impregnated cabinets can be painted to match your decor. 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 terminals 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:

Remove and paint the grilles before inserting them onto the frames:

**AW52:** 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.

**AW82:** Remove all screws around the outside of the grille to remove the grille from the cabinet.

Apply (2) thin coats of paint (primer is not required) be careful not to let the paint clog the holes in the grilles.

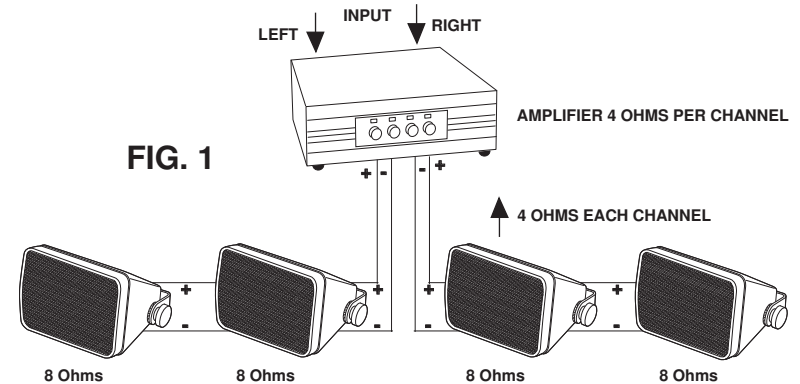
## Connections:

### AW52/AW82

The AW52 and AW82 loudspeakers include (1) 5-way binding post and (1) 1/4" phone jack. Both inputs are paralleled together to allow daisy chaining with the two-connector types. The binding post is designed to accept up to 12#awg stranded cable or standard MDP style banana plugs.

Amplifier limitations will dictate how many AW52/AW82 speakers may be con-

nected. Most consumer amplifiers are rated to operate at a 4 ohm minimum output impedance per channel (Check the back panel of the amplifier or the amplifier owners manual to verify). With this arrangement, (2) AW52/AW82 speakers may be connected in parallel to each channel of the amplifier (two 8 ohm speakers per channel= a 4 ohm load). (See Fig. 1).



Be sure to use a good quality, unshielded 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 terminals- black wire to black terminal where applicable).

## Maintenance and Care

Your MTX All Weather Speakers have been designed and manufactured for years of trouble-free service. You can clean your loudspeakers 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 a high-pressure water is not recommended.

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