

Meyer Sound Weather Protection

The Weather Protection option from Meyer Sound is intended to increase the useful life of Meyer Sound loudspeakers when they are installed outdoors and exposed to different and often harsh weather conditions. Our Weather Protection includes a penetrating treatment to raw wood, use of special primers, and plating on all steel parts used (or alternatively, the use of stainless steel hardware). Weather Protection is designed to prevent malfunctions caused by harsh operating environments and slows the accelerated wear and tear that naturally occurs in outdoor weather conditions.

When Is Weather Protection Advisable?

Weather Protection is strongly recommended for all permanent outdoor installations where loudspeakers are directly exposed to the elements. This includes desert and semi-arid climates, where protection against dust and sand is important, and where infrequent rainstorms can contribute to deterioration of loudspeaker components.

Weather Protection is also recommended when the loudspeakers are sheltered from direct exposure to precipitation but are nevertheless exposed to prolonged high humidity, fog or mist. Examples would be installations on covered outdoor terraces or pavilions.

Weather Protection is further advisable for portable or touring systems where any significant outdoor use is anticipated. Even though standard procedures may call for using external protective measures, often these are not implemented in time to prevent moisture intrusions that could lead to premature performance degradation of the loudspeaker.

Climate Variation and Owner Maintenance

The wear and tear on a loudspeaker will vary significantly with different climatic conditions. For example, a weather-protected loudspeaker installed in a sunlight-exposed location on an ocean pier will experience much harsher conditions than a loudspeaker in a similar installation that is shaded by trees and exposed only to rainfall. The constant exposure to direct UV radiation and salt air environment will cause a loudspeaker to wear more quickly than one with partial UV shielding and exposed only to freshwater moisture.

Wear can eventually affect the performance of the loudspeaker. It also affects aesthetics. For example, in salt air environments, the exterior grille can quickly show signs of oxidation, causing unsightly discoloration.

Apart from selecting suitable weather protection, the progress of wear and tear on the loudspeaker can be slowed by a regular schedule of inspection and cleaning. This is particularly necessary in harsh environments. Inspection and cleaning should include routine removal of any visible oxidation or environmental particulates, as these can accelerate metal corrosion or decay of the cabinet. If installed loudspeakers are not in use for an extended period, exterior protection or temporary removal and storage of the loudspeakers should be considered.

Benefits of Weather Protection

There are several benefits to selecting the Meyer Sound Weather Protection option:

Functionality – Weather Protection prolongs the service life of the loudspeaker by preventing premature degradation of internal components.

Safety – Weather Protection lessens the chance of electrical malfunctions or structural failures. WARNING: IT IS THE RESPONSIBILITY OF PURCHASERS/USERS/OPERATORS TO SELECT WEATHER PROTECTION WHEN APPROPRIATE FOR THEIR USE AND TO PERIODICALLY INSPECT THEIR LOUDSPEAKER INSTALLATIONS FOR ANY DETERIORATION THAT MAY LEAD TO SAFETY CONCERNS.

Aesthetics – Weather Protection slows wear and tear on the exterior of the loudspeaker in harsh conditions. Early signs of wear and tear on the exterior of the loudspeaker indicate over-exposure to the elements.

Standards Compliance – Weather Protection helps in meeting IP ratings for loudspeakers. IP ratings are an internationally recognized standard often used in installations involving our products. A further explanation of IP ratings is attached.

Weather Protection Components

Standard Weather Protection

Meyer Sound's standard Weather Protection includes the following components:

Wood treatment – Prior to cabinet manufacturing, the raw wood receives a special treatment that penetrates and stabilizes the wood fibers to withstand a wide range of temperatures and exposure to extreme humidity.

Cabinet finishing – The assembled cabinets receive a highly impervious finish that includes a sealing primer and a finishing topcoat. The coatings are applied on both surfaces, with one coat on the interior and two on the exterior. The final step is a two-part modified acrylic urethane similar to that used in military applications.

Driver treatment – All cone drivers are coated with a water-resistant sealant.

Exterior protection – Grille frames are coated to resist corrosion, and all components that mount to the cabinet use custom gaskets and stainless steel fasteners.

Removable rain hood – The rain hood is designed to shield connectors even in wind-driven rain.

Ultra Weather Protection

For installations in extremely harsh environments, Meyer Sound offers an Ultra Weather Protection option on a limited number of loudspeaker models. Ultra Weather Protection includes all of the components of standard Weather Protection, plus the following:

Extended cabinet finishing with extra thick proprietary coatings;

Special printed circuit board treatments; and

Use of corrosion-resistant hardware.

Ultra Weather Protection is recommended for applications where loudspeakers will experience exposure to a salt air environment or chemicals, that have no sheltering from corrosive spray or UV exposure, and that cannot be covered or removed during their service life. Examples would include cruise ship exterior areas, ocean-side visitor attractions, swimming pool areas, and themed attractions with wind-carried water spray.

Installation Practices

Meyer Sound assumes normal and accepted installation practices are used when installing Meyer Sound Loudspeakers outdoors. Deviation from such practices may cause weather protection to be ineffective and void the warranty for the loudspeaker.

Examples of unacceptable and acceptable installation practices include:

- Loudspeakers installed outdoors should not face upwards.
- Loudspeakers with a rain hood should be installed in such a way that the rain hood opening is not facing any direction but down.
- Meyer Sound-supplied rigging components should not be modified (for example, by drilling additional holes in a MUB for mounting to a wall). When an installer/integrator modifies a Meyer Sound supplied rigging component to support their installation method, it is considered compromised and out of warranty.
- All speaker cabling must be installed with a "drip-loop" or equivalent method to ensure that rain/water is NOT wicked towards the speaker.

If in doubt about an installation method, contact Meyer Sound Technical Support for assistance.

Always discuss the environmental conditions of your Meyer Sound installation with your Sales Manager and verify availability of Weather Protection on your speaker selection. The Sales Manager together with Technical Support will verify the appropriate level of weather protection for your speakers and related rigging hardware.

IP Ratings

IP stands for "Ingress Protection." The current format for expressing an IP rating is a 2-digit code. The first digit in an IP rating represents protection from solid objects. The second digit in an IP rating represents protection from water or moisture. Below is a chart of IP ratings and the corresponding definitions of the specified rating.

IP Rating Chart			
First Digit	Definition	Second Digit	Definition
Protection		Protection	
against solid		against liquids	
objects			
0	No protection	0	No protection
1	Protected against solid objects	1	Protected against vertically
	over 50mm.		falling drops of water.
2	Protected against solid objects	2	Protected against direct
	over 12mm.		sprays up to 15° from the
			vertical.
3	Protected against solid objects	3	Protected against direct
	over 2.5mm.		sprays up to 60° from the
			vertical.
4	Protected against solid objects	4	Protected against direct
	over 1mm.		sprays from all directions.
			Limited ingress permitted.
5	Protected against dust. Limited	5	Protected against low-
	ingress permitted.		pressure jets of water from
			all directions. Limited ingress
			permitted.
6	Totally protected against dust.	6	Protected against strong jets
			of water from all directions.
			Limited ingress permitted.
		7	Protected against the effect of
			temporary immersion
			between 15cm and 1m.
		8	Protected against the effect of
			long-term submersion of 1m
			or more.

Note:

IP ratings only apply to the "ENCLOSURE." A loudspeaker is considered an enclosure and as such we can apply an IP rating to it. Rigging hardware is not an enclosure and therefore IP ratings do not apply. Also, cable and cable-mount connectors used to connect to the speaker are NOT part of the enclosure and therefore not part of the IP rating. Only the chassis-mounted part of the connector is considered part of the enclosure.