

# AVLELEC

www.SoundmaskingInstallation.com

## AM1200

Sound Masking System



### Specifications

<b>Type:</b>	Self-Contained Audio Masking System
<b>Speakers:</b>	Two 2" x 4", 200Hz – 4kHz
<b>Filter Selection:</b>	Selectable White, Pink Noise
<b>Level Control:</b>	Internal Speaker, External Amplifier Output
<b>Amplifier:</b>	Class D, 2 x 12W @ 70.7V (416Ω Load)
<b>Hi-Cut Control:</b>	Variable 1kHz – 7kHz 6dB Per Octave
<b>Supply Voltage:</b>	UL Rated External Inline 24VDC Power Supply
<b>Panel Finish:</b>	Black
<b>Mounting:</b>	Four Holes for Wall Mount, 2 Brackets for Suspension Mount
<b>Dimensions:</b>	Chassis: W 7.25" (184mm) with mounting tabs, H 2.68" (68mm), D 6" (152mm)
<b>Weight:</b>	Unit 3.0 lbs (1.35Kg), Shipping 3.5lbs (1.55Kg)

### Features

- Self-Contained Audio Masking System
- Compact Enclosure Design
- Features Two Efficient Wide Range 2" x 4" Speakers
- Internal 12W x 2 Channel Class D Amplifier
- External 12W 70.7V Amplifier Output to Feed Other Speakers
- Selectable White and Pink Noise Analog Generators
- Variable Hi-Cut Filter
- External UL Rated 24VDC Power Supply
- Four Mounting Holes for Wall Mount Applications
- 2 Removable Hanger Handles for Suspended Mounting
- UL2043 Suitable for Use in Air-Handling Spaces

### Application

The AM1200 Sound Masking System is a highly versatile system for use on small projects. It has two built-in speakers set as a horizontal array and a 12 Watt amplifier that can be used to power remote masking speakers through a 70.7V output. Each of the two types of speakers has a separate level control and the system has a Hi-Cut filter as well as a Pink or White basic noise source.

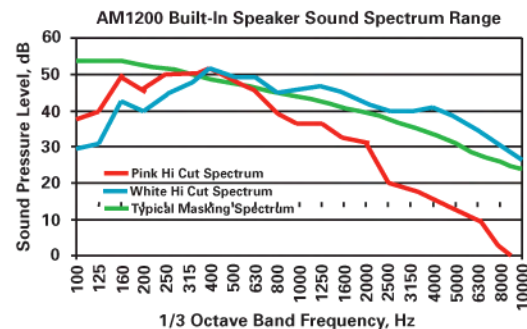
The cabinet is only 2½" high so it fits into a small ceiling plenum or under a shallow raised floor. It has two mounting supports so that it can be suspended in a higher ceiling plenum. It has four mounting holes so that it can be mounted on most surfaces.

### Level Range

The unit has a wide range of levels. When measured at eight inches the level can be set as low as 47dB(A) and above 97dB(A). Because it can be set to very low levels, it can be used in situations where there is no intervening structure. Because it can be set to very high levels, it can be used to penetrate gypsum board ceiling or raised floors.

### Spectrum Contour

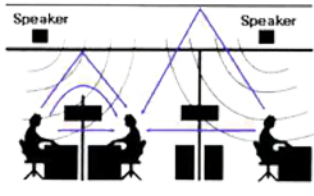
The unit has a Pink/White switch as well as a Hi-Cut filter. This gives the unit a wide range of frequency spectra from which to choose. The figure shows that range as compared to a typical sound masking spectrum used in commercial offices. The measurement was made in a live room so some bumps show in the spectrum. The deviation at low frequencies is not critical as speech intelligibility extends only down to 160Hz and even its contribution at that frequency is quite small.



### Project Size and Speakers

The AM1200 is a one channel, one zone system for small projects. With a 12 Watt amplifier, up to 20 remote speakers can be attached safely (approximately 5000 ft²). The recommended speakers are:

1. M1000. These are designed for normal use in closed ceiling plenums, in open ceiling plenums, or under raised floors.
2. M2000-LP. They are designed for use in a ceiling plenum or under a raised floor that is as small as four inches. It is only 2½" inches high.
3. M2000-SM. They are vibration transducers that are designed to attach to surfaces and vibrate them.



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### Applications for the AM1200

#### Commercial Offices

One speaker application

- Pink Noise
- Filter Fully Clockwise
- Output B Fully Counterclockwise
- Use Output A

Open Offices with speakers above suspended ceiling

- Pink Noise
- Filter Fully Clockwise
- Use Output B to M1000 or M2000-LP Speakers
- Output A Fully Counterclockwise

Closed Offices with speakers above suspended ceiling

- Pink Noise
- Filter Fully Clockwise
- Use Output B to M1000 or M2000-LP Speakers
- Output A Fully Counterclockwise

#### Home Use

Unit At Window

- Pink Noise
- Filter Fully Clockwise
- Output B Fully Counterclockwise
- Output A Set for Acceptability

Unit Under Bed

- Pink Noise
- Filter Fully Clockwise
- Output B Fully Counterclockwise
- Output A Set for Acceptability

#### Travel Use

Unit Near Hotel or Motel Window

- Pink Noise
- Filter Fully Clockwise
- Output B Fully Counterclockwise
- Output A Set for Acceptability

#### Inside Single Doctor/Psychiatrist's Office

Single Speaker Hidden in Room

- Pink Noise
- Filter Fully Clockwise
- Output B Fully Counterclockwise
- Output A Set for Acceptability

#### Doctor's Office Suite

Speakers in Ceiling Plenum of Examination and Waiting Rooms

- Pink Noise
- Filter Fully Clockwise
- Output B to M1000 or M2000-LP Speakers
- Output A Fully Counterclockwise

#### Pharmacies

Unit Mounted on Wall Above Window at About Ten Feet

- Pink Noise
- Filter Fully Clockwise
- Output B set Fully Counterclockwise
- Output A Set For Acceptability

#### Traveling Secure Facility

Secure protection is often needed temporarily at hotels and other meeting rooms where walls, doors, and windows need to be protected. A portable security masking system is required. The AM1200 can be used to power the M2000-SM vibration maskers attached to the surfaces to be protected. They can be removed simply when finished.

- White Noise
- Filter Fully Clockwise
- Output B Set to 2 Volts
- Output A Fully Counterclockwise

#### Permanent Secure Facility

Secure protection is often needed permanently at only one room where a large system is too expensive to install. The AM1200 can be used to power the M2000-SM vibration maskers attached to the surfaces to be protected.

- White Noise
- Filter Fully Clockwise
- Output B Set to 2 Volts
- Output A Fully Counterclockwise

#### Architect and Engineer Specifications

The analog masking system shall be AVLELEC Model AM1200. It shall be a self-contained system with the ability to power external speakers. The AM1200 shall have two internal 2" x 4" speakers. The frequency response shall be 200Hz – 4kHz. The speakers shall be powered by a Class D 12 Watt amplifier channel. AM1200 shall be powered by an UL approved external inline 24VDC power supply. The AM1200 shall be capable of producing either analog pink or white noise. The Hi-Cut filter shall be adjustable from 1kHz – 7kHz at 6dB per octave. The AM1200 shall have an 12W 70.7V amplifier output with separate level control. The unit shall have four mounting holes along with hanging brackets. The AVLELEC AM1200 shall be used as a stand-alone unit or to power additional 70.7V speakers. Finish shall be black semi-gloss epoxy.