



Sound Management Group

Specifications for Modular Sound Shadow® Sound Masking

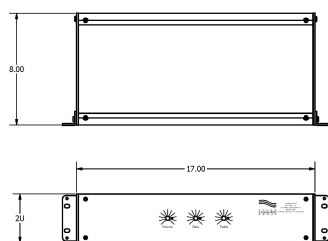
P.O. Box 6060 Hillsborough, NJ 08844 Tel.: (800) 221-0580 Fax: (908) 874-4525

www.soundmanagementgroup.com

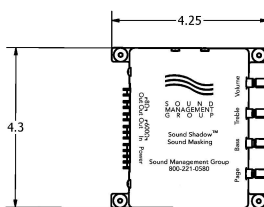
The Sound Shadow sound masking system is composed of a noise generator and amplifier. An optional octave band equalizer and paging interface may be added. It is pre-engineered to plug into a standard wall outlet.

Noise Generator:

Model M-101-RM (Rack Mount) and Model M-101 is an analog noise generator with true randomness and Gaussian distribution or equivalent. It is capable of producing an output level of 1 volt into 600 Ohms or 8 Ohms (0 dB M). The Master Control Unit M-101 provides a signal to as many as 16 speakers. Our Shadow Central system can provide a signal to an extensive number of speakers. All components meet applicable national codes. It shall have an adjustable low pass and high pass filter. The maximum intensity level shall be 90dB (A) to the NC 40 curve. The rack shall contain all the electronics in a standard RETMA 19in. rack.



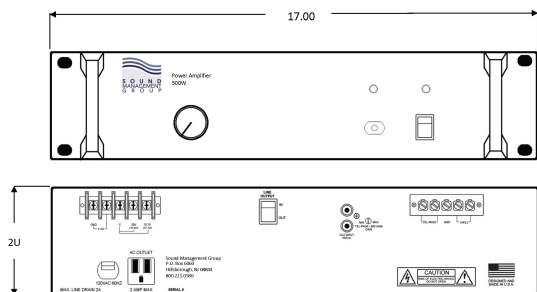
Model M-101-RM Noise Generator



Model M-101 Noise Generator

Amplifier:

The Audio Amplifier is powered to accommodate the number of speakers in the system it supplies a signal to.



Features:

- Multiple Protections including relay, short circuit, and A/C circuit breaker.
- Separate input gain control for 600 Ohm/ Tel-Page
- Transformer isolated outputs for 70.7 volt line operation.
- Rack Mount Standard

Specifications:

Power Output: 1.1 Watts RMS per speaker

Distortion: 0.3% THD

Outputs : 4 Ohm Direct or 70.7V line.

Frequency Response: +0, -1dB 20 – 20kHz, Direct Output; +0, -1dB 50 to 15kHz, 70.7V Output

Input Impedance: Tel-Page: 600Ω; High Impedance: 10K Ω

Input Sensitivity: Tel-Page 50mV; 600 Ω: 0.50V; High Impedance: 0.50 V.

Controls: Tel-Page, Master Gain, Power On-Off

Hum and Noise: 90dB below rated Output (Unweighted)

General:

Power Source: 120VAC 60Hz (240VAC – 50Hz Optional)

Finish: Flat Black

Dimensions: 19" W x 5.25" H x 13.5"D (48.2 cm x 13.3 cm x 34.3cm)



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Speaker Specifications:

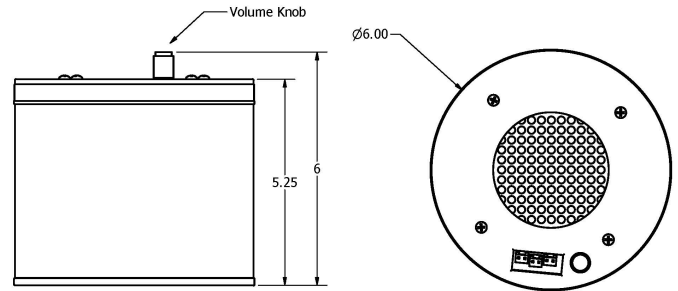
The speaker unit is rated to 2 watts and is designed to deliver up to an 88dBA level of sound when measured at four feet, axially from the speaker. A uniform spectrum of modified pink noise with speaker to speaker variation at less than ± 2 dB over any 1/3 octave band will be assured. For spectrum curves see curve data. The nominal response range is from 200Hz to 6KHz. The System is designed to deliver acceptable (44 to 52 dBA, with 48dBA optimal) at 48" above the floor to the workspace through very highly attenuative ceilings where the single pass STC rating approaches 40 dB.

Speaker Mounting:

The speaker mounting shall be by means of the supplied single S-jack chain and eye hook. The nominal 3' chain assures uniform dispersion of the sound provided the interior plenum space is 48" high minimum with speakers on 16 foot centers maximum. Sound Management Group will advise on spacing configurations on plenums under 48" in height.

Speaker Connections:

The interconnecting means built into the speaker allow for easy inter-wiring with pre-wired polarized connectors, thus saving installation time and preventing wiring errors. These connectors allow either "daisy chained" or "branched" speaker wiring, to give flexibility in installing wiring.



Plenum Speaker

1/3 Octave Band Frequency	Octave Band Sound Pressure Level
200	+10 to +14
250	+9 to +12
315	+8 to +10
400	+6 to +9
500	+4 to +7
630	+3 to +4
800	+1 to +2
1000	+1 to 0
1250	+2 to -1
1600	+5 to -3
2000	+8 to -4
2500	+10 to -6
3150	+13 to -8
4000	-16 to -10
5000	-18 to -11

Octave Band Graphic Equalizer E

This option allows the installer/tuner to achieve virtually any spectrum distribution of the masking sound. While the basic options are frequently within the preferred spectrum, a more tailored audio spectrum may be preferred. The SoundShadow® E-101 1/3 octave 28-band graphic equalizer enables this precise tuning.



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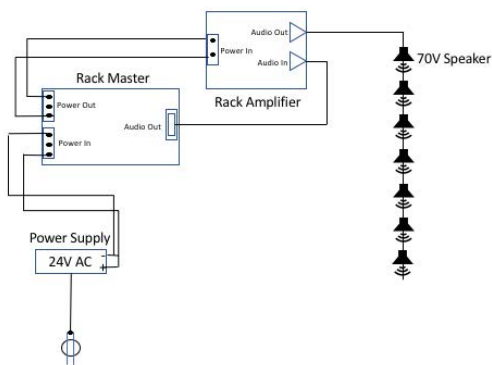
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Wiring

All wiring consists of jacketed 18 gauge Teflon or equivalent "low smoke" producing wire to NEC 725b Class 2. See common wiring diagram.



Speaker Wiring

The speaker wiring is easily accomplished by connecting polarized two pin IDC connectors at each end with the nominal length of 20' being standard. Custom lengths can be provided as required.

Transformer Wiring

The transformer wiring shall have a polarized five pin IDC connector at the master control end, a spade connector configuration will be assembled for the transformer end of the wire set.

Paging Wiring

The paging wiring using the optional connector consists of a polarized three pin IDC connector and the same Teflon wire as previously specified. A shielded wire set is not required due to the paging voltages being at 2 to 3 v RMS typical.

Sound Shadow® by Sound Management Group provides state of the art technology to the field of acoustical design with sound masking systems:

Modular or Central Masking Systems

Sound Shadow® masking systems deliver a uniform level of properly tuned masking sound.

Installation and relocation is easy, most components "snap" together.

Entire system is powered by a standard 120v wall outlet.

Built in the U.S.A and comes with a 10 year warranty.

Our system has a pleasing tone quality that produces a subtle "hum" not a "hiss" that most less quality systems produce.

Our system evenly disperses sound with zero "hot spots" or "dead spots."

Advanced: Solid State Circuitry and digital masking source are contained within one master unit to control zones of up to 4,000 square feet each. Each zone is independently controlled from a source within the zone or at a central location.

Unobtrusive: Sound Shadow® masking units can be placed above a drop ceiling, flush mounted in drywall or mounted in an exposed deck providing function without compromising aesthetics.

Installation Timed Attenuator TV

Sound Shadow® system has an optional feature that will allow the volume to be ramped up over a period from 5 to 15 days. The masking volume will start below ambient and ramp-up at 1/4 decibel steps over the period selected until it reaches the desired final volume. Ideal for occupied space where the introduction of masking should not be perceived by the occupants.

Optional Features: Paging and Alarms

Sound Shadow® can easily be configured to include paging and emergency alarm features. Paging is via a code-protected dial up number, allowing authorized personnel to make announcements over the masking system. In addition to the paging feature, it is possible to pre-record messages which can then be activated using the secure dial-in line.