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AMK Commercial Series

## PSA 802

Self Amplified 6.5" Coaxial Loudspeaker Assembly



The **AMK PSA802** powered speakers feature a 30 watt Class D digital design amplifier, with > 75% efficiency for the main speaker. These units are available as single master speakers or sets with an unpowered companion speaker (**PSA802-P**) The speaker combines high performance, power handling, and a very smooth response.

The loudspeaker driver, CX802, is one of the few transducers in the commercial sound industry that produces and meets the standards of recording studio. Excellent dispersion, wide bandwidth, and a smooth frequency response make this the top choice for today's overhead commercial applications.

There are wide ranges of the application for this unit, especially in educational markets and corporate boardrooms where direct input of the signal from the processor is desired (i.e., projectors, laptops, or any line level device)

### Features:

- \* All metal construction, including baffle
- \* High performance 6½" coaxial loudspeaker with wide dispersion
- \* Self powered with 20 watt Class D amplifier
- \* **UL Listed (UL 1480, UL 2043) PK-213-8QM Enclosure**

## Innovative Features

Each system includes a renowned AMK Coaxial loudspeaker like those already installed in hundreds of locations

### Easy to install

- All-metal swivel mounting system allows standard installation of speakers without having to align the enclosure to the tile bridge
- This installation procedure is quick and unique to the industry
- Architecturally pleasing white perforated metal grille that uses a unique metal spring system for a "no visible hardware finished look and the ease of a "snap on" installation

### Safety

- The use of all-metal attachment parts makes for an overall safer installation
- All-metal swivel prevents breakage of swivel during installation
- All-metal swivel mounting system is not easily compromised by fire

### Sound

- The plenum compatible back enclosure is designed to maximize the performance of this studio quality speaker

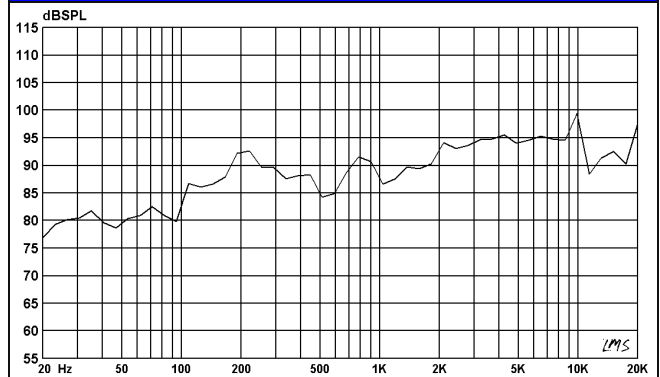
### Specifications

<b>Frequency Response</b>	55 Hz - 20 kHz
<b>Voice-coil diameter</b>	1"
<b>Average Beamwidth @ 2 kHz</b>	110 deg.
<b>Magnet Weight</b>	20 oz
<b>Magnet Material</b>	Barium Ferrite
<b>Tweeter</b>	13mm Polyamide Soft Dome
<b>Woofer Cone</b>	Polypropylene
<b>Surround Material</b>	Inverted Rubber
<b>Crossover Frequency</b>	5.5 kHz
<b>Depth of the Enclosure</b>	7 in.
<b>Diameter of the Grille</b>	12.75 in.
<b>Enclosure Mounting</b>	Metal Swivel Clamp

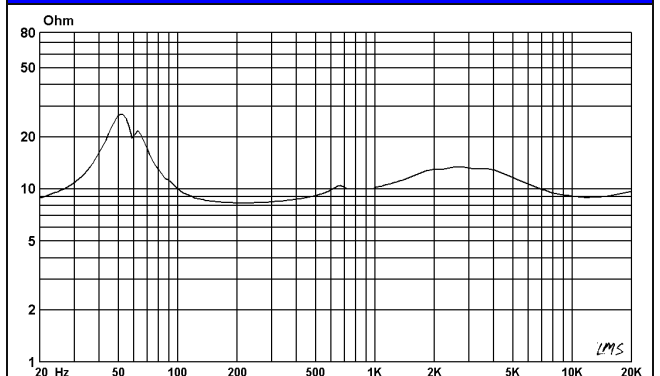
### Amplifier Specifications

<b>Amplification</b>	30 watt Class D design amplifier
<b>Amplifier Efficiency</b>	> 75%
<b>Total Harmonic Distortion</b>	< 0.2%
<b>Signal to Noise Ratio</b>	>95dB
<b>Protection</b>	Protected as to short circuit to supply and ground, as well as minimum current
<b>Controls</b>	Input potentiometer level adjustment

### FREQUENCY RESPONSE



### IMPEDANCE CURVE



## MODEL OPTIONS

Model	Power Supply	Power Connection	Input Connection	Signal Input	Slave input/output connections
<b>PSA802-SM</b>	External 24Volt	2.5mm N jack	Two RCA phono jacks	Stereo to Mono unbalanced	Screw terminal block connectors
Added Suffixes: <b>PSA802-SM-P</b> (Set of Powered and Companion Speaker) <b>PSA802-SM-RVC</b> (Powered speaker with the remote control) <b>PSA802-SM-RVC-P</b> (Set of powered speaker with the remote control and a companion speaker)					
<b>PSA802-OM</b>	External 24Volt	2.5mm N jack	One RCA phono jack	One unbalanced Input	Screw terminal block connectors
Added Suffixes: <b>PSA802-OM-P</b> (Set of Powered and Companion Speaker) <b>PSA802-OM-RVC</b> (Powered speaker with the remote control) <b>PSA802-OM-RVC-P</b> (Set of powered speaker with the remote control and a companion speaker)					
<b>PSA802-RPS</b>	External 24Volt w/ Screw Terminal	3.81mm two position Phoenix type connector	Two RCA phono jacks	Stereo to Mono unbalanced	Screw terminal block connectors
Added Suffixes: <b>PSA802-RPS-P</b> (Set of Powered and Companion Speaker) <b>PSA802-RPS-RVC</b> (Powered speaker with the remote control) <b>PSA802-RPS-RVC-P</b> (Set of powered speaker with the remote control and a companion speaker)					
<b>PSA802-RPM</b>	External 24Volt w/ Screw Terminal	3.81mm two position Phoenix type connector	One RCA phono jack	One unbalanced Input	Screw terminal block connectors
Added Suffixes: <b>PSA802-RPM-P</b> (Set of Powered and Companion Speaker) <b>PSA802-RPM-RVC</b> (Powered speaker with the remote control) <b>PSA802-RPM-RVC-P</b> (Set of powered speaker with the remote control and a companion speaker)					
<b>PSA802-MD</b>	External 24Volt w/ Screw Terminal	3.81mm two position Phoenix type connector	3.5mm Mini jacks	Stereo to Mono unbalanced	Screw terminal block connectors
Added Suffixes: <b>PSA802-MD-P</b> (Set of Powered and Companion Speaker) <b>PSA802-MD-RVC</b> (Powered speaker with the remote control) <b>PSA802-MD-RVC-P</b> (Set of powered speaker with the remote control and a companion speaker)					
<b>PSA802-MD2</b>	External 24Volt w/ Screw Terminal	3.81mm two position Phoenix type connector	Two 3.5mm Mini jacks	Stereo to Mono unbalanced	Screw terminal block connectors
Added Suffixes: <b>PSA802-MD2-P</b> (Set of Powered and Companion Speaker) <b>PSA802-MD2-RVC</b> (Powered speaker with the remote control) <b>PSA802-MD2-RVC-P</b> (Set of powered speaker with the remote control and a companion speaker)					
<b>PSA802-RPM</b>	12 Volt for external higher amperage multi unit supply (User option for power source)	3.81mm two position Phoenix type connector	One RCA phono jack	One unbalanced Input	Screw terminal block connectors
Added Suffixes: <b>PSA802-RPM-P</b> (Set of Powered and Companion Speaker) <b>PSA802-RPM-RVC</b> (Powered speaker with the remote control) <b>PSA802-RPM-RVC-P</b> (Set of powered speaker with the remote control and a companion speaker)					
<b>PSA802-JFS</b>	External 24Volt	2.5mm N jack	3.81mm four position Phoenix type connector	Stereo to Mono unbalanced	Screw terminal block connectors
Added Suffixes: <b>PSA802-JFS-P</b> (Set of Powered and Companion Speaker) <b>PSA802-JFS-RVC</b> (Powered speaker with the remote control) <b>PSA802-JFS-RVC-P</b> (Set of powered speaker with the remote control and a companion speaker)					
<b>PSA802-JFM</b>	External 24Volt	2.5mm N jack	3.81mm three position Phoenix type connector	One balanced Input	Screw terminal block connectors
Added Suffixes: <b>PSA802-JFM-P</b> (Set of Powered and Companion Speaker) <b>PSA802-JFM-RVC</b> (Powered speaker with the remote control) <b>PSA802-JFM-RVC-P</b> (Set of powered speaker with the remote control and a companion speaker)					
<b>PSA802-CFS</b>	External 24Volt w/ Screw Terminal	3.81mm two position Phoenix type connector	3.81mm four position Phoenix type connector	Stereo to Mono unbalanced	Screw terminal block connectors
Added Suffixes: <b>PSA802-CFS-P</b> (Set of Powered and Companion Speaker) <b>PSA802-CFS-RVC</b> (Powered speaker with the remote control) <b>PSA802-CFS-RVC-P</b> (Set of powered speaker with the remote control and a companion speaker)					
<b>PSA802-CFM</b>	External 24Volt w/ Screw Terminal	3.81mm two position Phoenix type connector	3.81mm three position Phoenix type connector	One balanced Input	Screw terminal block connectors
Added Suffixes: <b>PSA802-CFM-P</b> (Set of Powered and Companion Speaker) <b>PSA802-CFM-RVC</b> (Powered speaker with the remote control) <b>PSA802-CFM-RVC-P</b> (Set of powered speaker with the remote control and a companion speaker)					
<b>PSA802-CFM-2</b>	External 24Volt w/ Screw Terminal	3.81mm two position Phoenix type connectors	(2) 3.81mm three position Phoenix type connector	Two balanced Inputs	Screw terminal block connectors
Added Suffixes: <b>PSA802-CFM-2-P</b> (Set of Powered and Companion Speaker) <b>PSA802-CFM-2-RVC</b> (Powered speaker with the remote control) <b>PSA802-CFM-2-RVC-P</b> (Set of powered speaker with the remote control and a companion speaker)					
<b>PSA802-CFM-4</b>	External 24Volt w/ Screw Terminal	3.81mm two position Phoenix type connectors	(4) 3.81mm three position Phoenix type connector	Four balanced Inputs	Screw terminal block connectors
Added Suffixes: <b>PSA802-CFM-4-P</b> (Set of Powered and Companion Speaker) <b>PSA802-CFM-4-RVC</b> (Powered speaker with the remote control) <b>PSA802-CFM-4-RVC-P</b> (Set of powered speaker with the remote control and a companion speaker)					

# MODEL OPTION CONFIGURATIONS

## PSA802-SM

**Stereo to mono unbalanced**

Two RCA phono jacks  
(stereo to mono unbalanced)

Screw terminal block  
connectors for companion  
speaker connection

2.5 N jack for  
12volt 1.5A  
power input

Seismic  
metal  
strap

Input level  
adjustment



The speaker comes with one  
2.5N jack desk top power  
supply w/ 7 ft cord set. UL  
listed

## PSA802-OM

**One unbalanced input**

One RCA phono jack  
(One unbalanced input)

Screw terminal block  
connectors for companion  
speaker connection

2.5 N jack for  
12volt 1.5A  
power input

Seismic  
metal  
strap

Input level  
adjustment



The speaker comes with one  
2.5N jack desk top power  
supply w/ 7 ft cord set. UL  
listed

## PSA802-RPS

**Stereo to mono unbalanced**

Two RCA phono jacks  
(stereo to mono unbalanced)

Screw terminal block  
connectors for companion  
speaker connection

3.81mm two position  
Phoenix type connector  
for 12volt 1.5A power  
input

Seismic  
metal  
strap

Input level  
adjustment



The speaker  
comes with one  
screw mount with  
the eyebolt for  
secure mount to  
the power outlet.  
This is light weight,  
24VDC 1.0A power  
supply.

## PSA802-RPM

**One unbalanced input**

One RCA phono jack  
(One unbalanced input)

Screw terminal block  
connectors for companion  
speaker connection

3.81mm two position  
Phoenix type connector  
for 12-24volt power  
input

Seismic  
metal  
strap

Input level  
adjustment



The speaker  
comes with one  
screw mount with  
the eyebolt for  
secure mount to  
the power outlet.  
This is light weight,  
24VDC 1.0A power  
supply.

## PSA802-MD

**Stereo to mono unbalanced**

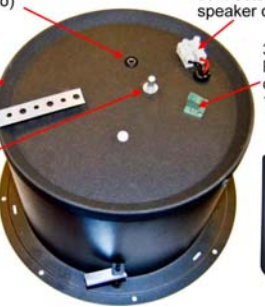
3.5mm stereo mini jack  
(Unbalanced stereo signal  
combined into mono)

Screw terminal block  
connectors for companion  
speaker connection

3.81mm two position  
Phoenix type  
connector for 12volt  
1.5A power input

Seismic  
metal  
strap

Input level  
adjustment



The speaker  
comes with one  
screw mount with  
the eyebolt for  
secure mount to  
the power outlet.  
This is light weight,  
24VDC 1.0A power  
supply.

## PSA802-MD2

**Stereo to mono unbalanced**

(2) 3.5mm stereo mini jacks  
(Unbalanced stereo signal  
combined into mono)

Screw terminal block  
connectors for companion  
speaker connection

3.81mm two position  
Phoenix type  
connector for 12volt  
1.5A power input

Seismic  
metal  
strap

Input level  
adjustment



The speaker  
comes with one  
screw mount with  
the eyebolt for  
secure mount to  
the power outlet.  
This is light weight,  
24VDC 1.0A power  
supply.

# MODEL OPTION CONFIGURATIONS

(For powered unit)

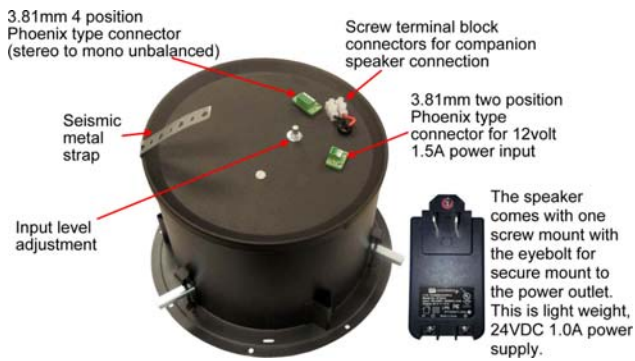
## PSA802-JFS Stereo to Mono unbalanced



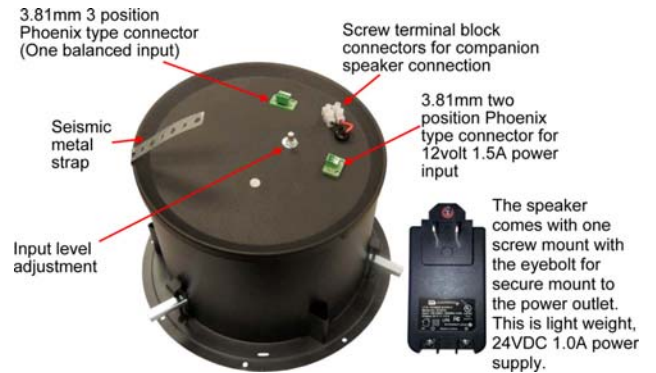
## PSA802-JFM One balanced input



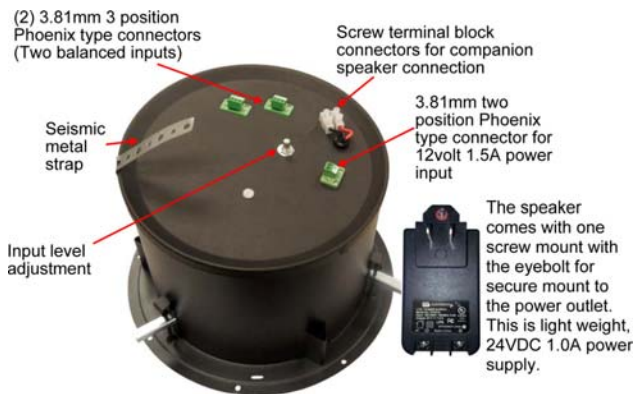
## PSA802-CFS Stereo to Mono unbalanced



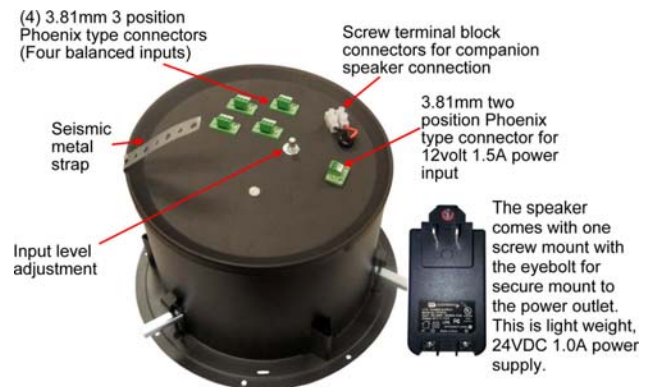
## PSA802-CFM One balanced input



## PSA802-CFM Two balanced inputs

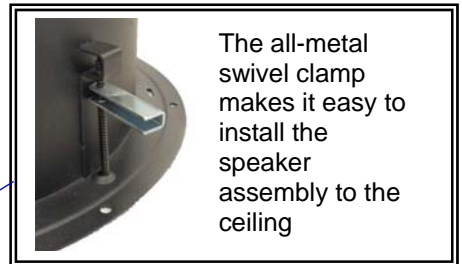
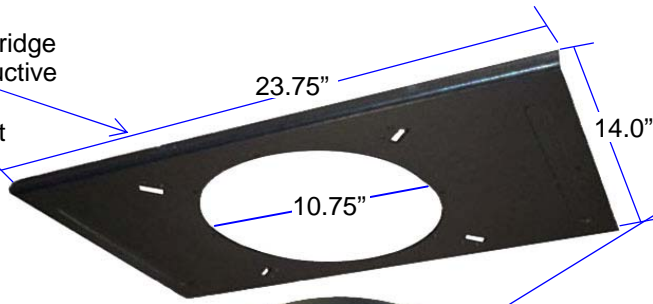


## PSA802-CFM-4 Four balanced inputs



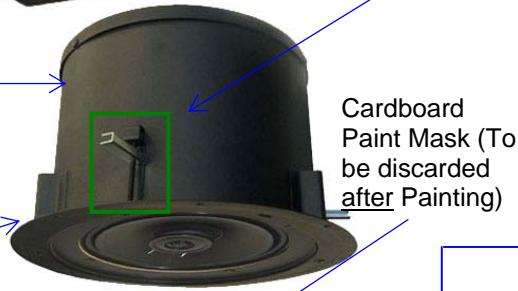
# PSA802 ILLUSTRATION

Standard Ceiling Tile Bridge  
Treated with non conductive  
paint material to inhibit  
flow of electrical current  
on the ceiling grid to  
the main speaker  
enclosure

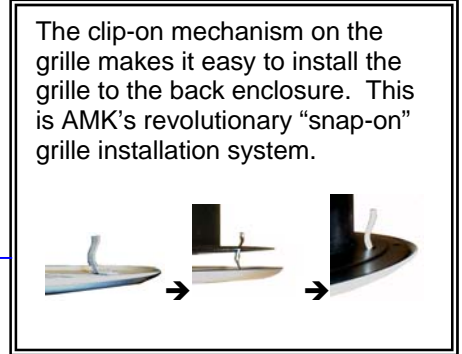


The all-metal  
swivel clamp  
makes it easy to  
install the  
speaker  
assembly to the  
ceiling

Plenum Compatible  
Back Enclosure  
**NFPA-70** National  
Electric Code, **UL 1480**  
and **UL 2043**, Speakers  
for Fire Protective  
Signaling Systems

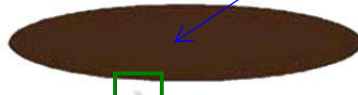


Cardboard  
Paint Mask (To  
be discarded  
after Painting)

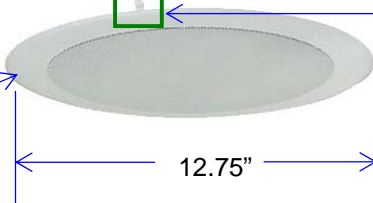


The clip-on mechanism on the  
grille makes it easy to install the  
grille to the back enclosure. This  
is AMK's revolutionary "snap-on"  
grille installation system.

Guide for alignment of  
enclosure to tile bridge  
for grille installation

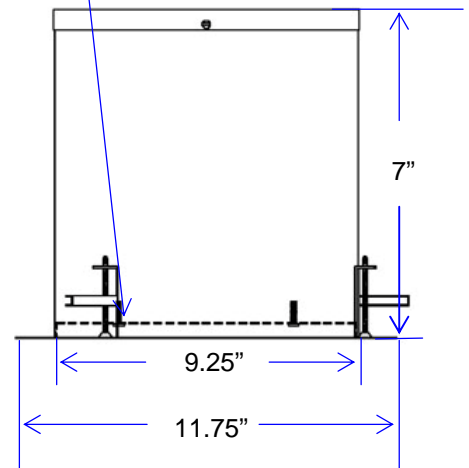


Recessed speaker baffle plate



White Perforated  
Metal Grille

12.75"



## Power Supplies



For use with PSA802-SM, PSA802-OM, PSA802-JFS, PSA802-JFM



For use with PSA802-CFS, PSA802-CFM, PSA802-RPS, PSA802-RPM

## Architect's & Engineer's Specifications

The powered loudspeaker system shall be **AMK PSA 802(-\_\_\_\_\_)**. The speaker shall feature a 30watt Class D design amplifier, with >75% efficiency for the speaker. The powered speaker assembly in the system shall be of the coaxial type with an 8" woofer of polypropylene, an inverted rubber surround, and a 1" polyamide soft dome tweeter mounted on a post. The loudspeaker system shall have a white metal round grille that screws into the rim of the mounting enclosure. The system shall have input potentiometer for level adjustment.

The transducer in the loudspeaker system shall be AMK CX 802 coaxial loudspeaker. The woofer shall have a 20 oz. Barium Ferrite magnet. The two reproducer sections shall be coupled through a built-in capacitor bypass crossover. The crossover frequency shall be at 5.5 kHz. The low frequency reproducer shall have 1" (25.4mm) voice coil and the high frequency reproducer shall have 0.51" (13mm) voice coil.

The system shall have a frequency response of 55 Hz- 20 kHz (+/- 5dB). The power handling shall be 40watts at 8 ohm impedance. The sensitivity shall be 91dB at 1watt / 1meter.

The depth of the enclosures shall be 7 inches. The rim diameter shall be 11.75". The enclosure diameter shall be 9.25". The depth of the enclosures shall not exceed 11.75". The system shall include a tile bridges. The system shall have a metal strap for attachment to the structure for seismic protection.

The total weight of the each unit system shall not exceed 10.0 lbs.

The loudspeaker system shall be AMK Innovations model **PSA 802(-\_\_\_\_\_)**.

**Conforms to EIA Standards: RS-276-A, RS-278-B, RS-426-A**

## Polar Responses

