



PM Series Loudspeakers 4" and 8"

PENDANT MOUNT LOUDSPEAKERS



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# **INSTALLATION INSTRUCTIONS**

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#### **SAFETY INSTRUCTIONS**

Please Read Carefully Before Installing or Operating

- · Read all instructions carefully
- · Heed all warnings
- Assure that the speaker is securely mounted

# Hearing Damage CAUTION:

All professional loudspeaker systems are capable of generating very high sound pressure levels. Use care with placement and operation to avoid exposure to excessive levels that can cause permanent hearing damage.

#### **SUSPENSION & MOUNTING**

Suspension or "flying" speaker systems requires training and expertise. Improper rigging of a flying speaker may result in injury, death, equipment damage, and legal liability. Installation **must** be carried out by fully qualified installers, in accordance with all required safety codes and standards at the place of installation.

A **5:1** design factor is a generally accepted minimum standard. However, legal requirements for overhead suspension vary by municipality, please consult your local safety standards office before installing any product. We also recommend that you thoroughly check any laws and bylaws prior to installation.

Loudspeakers flown in theaters, nightclubs, conference centers, or other places of work and entertainment must be provided with an independent, correctly rated and securely attached secondary safety — in addition to the principle suspension point(s). This secondary safety must prevent the loudspeaker from dropping more than (6") should the principle suspension device fail. If you lack the skills, training, and proper ancillary equipment to fly a speaker system, do not attempt to do so.

- Always assure power is off to amplifiers before making any connections
- Assure that all electrical equipment is properly grounded
- · Keep instructions for future reference
- Should any questions arise after reading this document, please call Atlas Sound Tech Support at 800-876-3333

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#### PM SERIES LOUDSPEAKERS

Thank you for your purchase of an Atlas Sound PM Series loudspeaker system. We have designed this product to be a reliable and versatile solution to your needs for years to come.

All models include a suspension cable system and concealment top cover to provide optimum aesthetics. Under this cover, hook up is provided via terminal block for 70.7V/100V transformer or direct coupled 8-ohm operation. To expand installation options the top cover also facilitates use of standard ceiling fan mount hardware. These inexpensive down pipe and canopy solutions are available at most Lowes or Home Depot home improvement store under the Fantec brand to provide installation ease regardless of ceiling material angle.



#### **FEATURES**

- Unique design allows for suspended cable mounting, or optional pipe mounting using standard ceiling fan hardware
- Attractive cylindrical enclosure will compliment any décor
- Distinctive top cover blends perfectly with enclosure while it conceals wiring providing a very clean appearance
- Input terminal connection with 70.7V/100V taps and 8 ohm

#### **APPLICATIONS**

The PM Series is ideal for Retail Outlets, Auditoriums, House of Worship, and Convention Center spaces and may be used for paging, announcements, background/foreground music, and/or internal communications.



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## **INSTALLATION VIA MOUNTING CABLES (INCLUDED)**

General considerations and hardware recommendations

CAUTION: PM series models weigh as much as 21 pounds (7.9kg) – model PM8CX. A fall from almost any height could result in serious injury or death. Assure that the speaker is firmly mounted to an object that can handle the weight of the PM speaker. The mounting surface the PM speaker is being attached to should be able to handle five or more times the weight of the PM speaker

The hardware employed must be safely and securely attached both to the loudspeaker and the structure in question, using only the mounting holes. A general rule for soft surface installations (wood beams) is to multiply the corresponding working load limit by 75%: the result will be approximate working load strength. Use thread locking compound for all installations.

**CAUTION:** Mounting the PM loudspeaker may require two people.

When in doubt contact a qualified structural/mechanical engineer for approval of the mounting materials and methods.

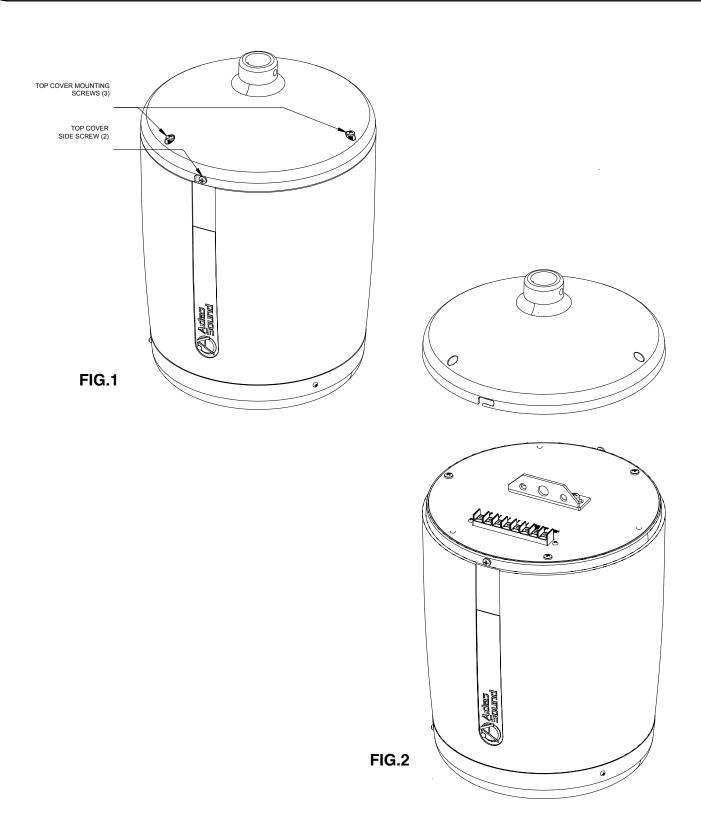
- 1. Remove the 3 top cover mounting screws, loosen the 2 side top cover screws rotate the top cover counterclockwise, and pull up to remove the top cover. (Fig 1 and 2)
- 2. Locate suitable support structure in the area the speaker is to be installed.
- 3. Route the bare end of the main support cable though the included clamp, then around the mounting structure, and back through the clamp. (Fig 3 and 4)
- 4. Adjust the cable length in the clamp so that the eyelet end of the cable is at the final height above the floor. (Fig 5)
- 5. (For PM8) Route the eyelet end of the main support cable through the top cover of the PM speaker, attach the included carabiner clip to the eyelet and the large mounting hole on the back of the PM speaker. (Fig 6a) (For PM4) Route the eyelet end of the main support cable through the top cover of the PM speaker, attach the eyelet to the large mounting hole on the back of the PM speaker using included mounting screw. (Fig 6b)
- 6. Repeat steps 1-4 for the safety cable and attach it the one of the smaller mounting holes on the support plate of the PM speaker with the included mounting screw. (Fig 6)
- 7. Route the speaker cable through the top cover and connect to the appropriate terminals.
- 8. Position the top cover over the side cover screws and rotate the cover clockwise to align the top cover mounting screw holes. Reinstall the 3 mounting screws, tighten and tighten the side cover screws.
- 9. Slide the top hole plug over the main support cable, safety cable, and speaker cable using the opening on the side of the plug. Then slide the plug down the cable and into the top cover hole. (Fig 7 and 8)

Note: If the speaker is being installed outdoors, seal plug with RTV silicone to prevent moisture from entering speaker.



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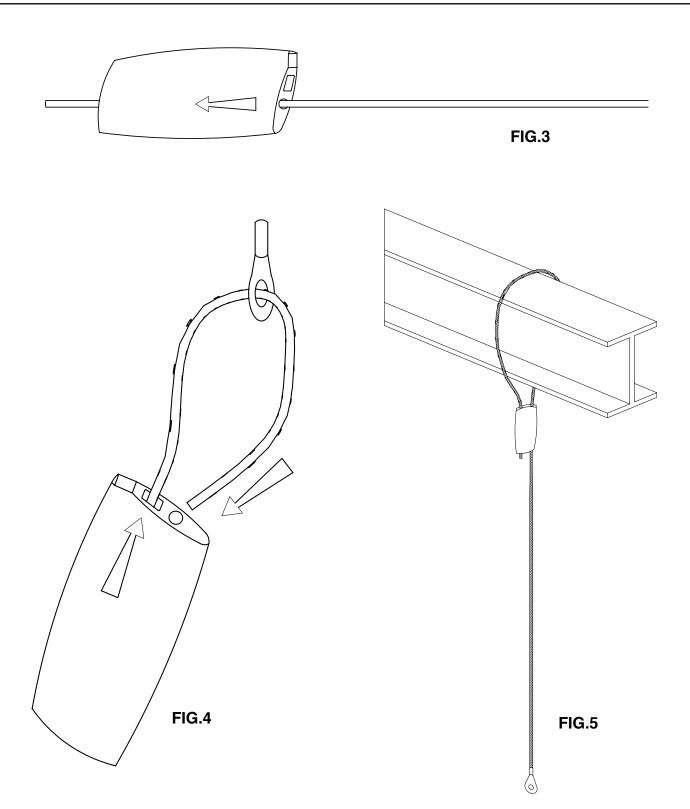


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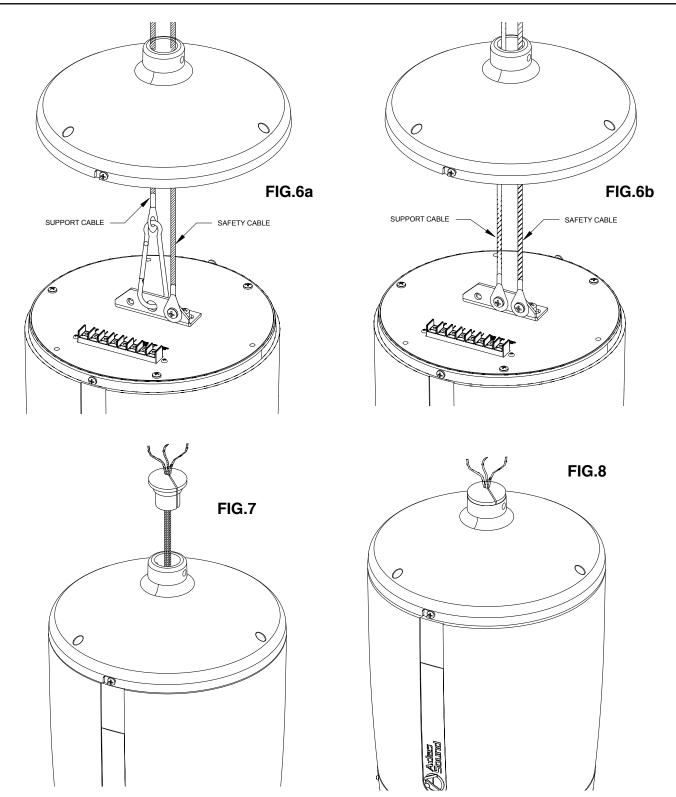
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# PM SERIES LOUDSPEAKERS 4" AND 8"

# **INSTALLATION INSTRUCTIONS**





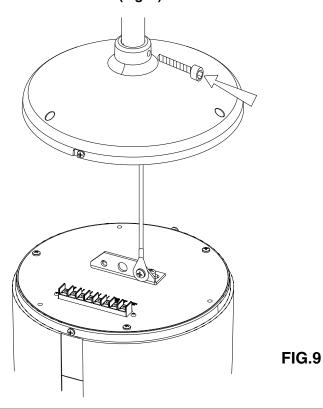
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# SUSPENDED INSTALLATION VIA DOWN PIPE (NOT- INCLUDED) Using 3/4" Diameter Ceiling Fan Hardware

Atlas Sound's PM series speaker may also be installed using industry standard ceiling fan hardware. This hardware is available at most local hardware stores. Using this type of installation allows speaker cable and safety cable to be concealed with the down pipe providing a very clean installation.

- 1. Remove the 3 top cover mounting screws, loosen the 2 side top cover screws rotate the top cover counterclockwise, and pull up to remove the top cover. (Fig. 1 and 2)
- 2. Locate suitable support structure in the area the speaker is to be installed.
- 3. Mount the ceiling mount canopy and down pipe per manufacturer instructions.
- 4. Screw the PM speaker top cover onto the bottom of the down pipe, install the safety screw though the side of the top cover and through the end of the down pipe. (Fig. 9)
- 5. Route the bare end of the safety cable though the included clamp, then around a suitable support structure, and back through the clamp. (Fig. 3 and 4)
- 6. Route the eyelet end of the safety cable through down pipe and the cover of the PM speaker, attach the eyelet to one of the smaller mounting holes on the support plate of the PM speaker with the included mounting screw. (Fig. 9)
- 7. Route the speaker cable through the down pipe and connect to the appropriate terminals.
- 8. Position the speaker under the top cover, align the side cover screws and rotate the speaker clockwise to align the top cover mounting screw holes. Reinstall the 3 mounting screws, tighten and tighten the side cover screws. (Fig. 9)





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# **INSTALLATION INSTRUCTIONS**

## **SPECIFICATIONS**

| MODEL  | POWER<br>RATING                       | 70.7V TAPS                        | FREQUENCY<br>RESPONSE | SENSITIVITY<br>(1W/1M) | DISPERSION<br>ANGLE | WOOFER<br>MAG. WT. | WOOFER  | HF DRIVER  | DIMENSIONS  | ENCLOSURE<br>VOLUME  | WEIGHT                |
|--------|---------------------------------------|-----------------------------------|-----------------------|------------------------|---------------------|--------------------|---|--|---|----------------------|-----------------------|
| PM4FA  | 25 Watts<br>(Transformer<br>Limited)  | 1, 2, 4, 8, 16                    | 75Hz-20kHz<br>(±7dB)  | 88dB Average           | 130°                | 10oz (311g)        | 4" Ploy Cone<br>Butyl Rubber<br>Surround                  | Coaxially Mounted PEI<br>Dome Tweeter                  | 9.25" (235mm) Dia.<br>13.87" (352mm)<br>Overall Height  | 478 Cubic<br>Inches  | 10 lbs.<br>(3.73kg)   |
| PM8GD  | 15 Watts<br>(Transformer<br>Limited)  | 1, 2, 4 & 8                       | 55Hz-15kHz<br>±5dB    | 96dB Average           | 120°                | 10oz. (311g)       | 8" Treated<br>Paper                                       | Coaxially Mounted 3"<br>Treated Paper                  | 12.25" (311mm) Dia.<br>16.62" (422mm)<br>Overall Height | 1075 Cubic<br>Inches | 14 lbs.<br>(5.23kg)   |
| PM8FA  | 70 Watts<br>(Transformer<br>Limited)  | 1.9, 3.8, 7.5,<br>15, 30 &<br>60W | 55Hz-20kHz<br>±5dB    | 90dB Average           | 100°                | 21oz. (653g)       | 8" W/ Poly-<br>propolene<br>Cone & SBR<br>Surround        | Coaxially Mounted PEI<br>Dome Tweeter                  | 12.25" (311mm) Dia.<br>16.62" (422mm)<br>Overall Height | 1075 Cubic<br>Inches | 16.5 lbs.<br>(6.16kg) |
| PM8CX  | 150 Watts<br>(Transformer<br>Limited) | 1.9, 3.8, 7.5,<br>15, 30 &<br>60W | 48Hz-18kHz<br>±10dB   | 92dB Average           | 90°                 | 25oz. (800g)       | 8" W/ Poly-<br>propolene<br>Cone & TPE<br>Surround        | Coaxially Mounted 1"<br>Titanium Compression<br>Driver | 12.25" (311mm) Dia.<br>16.62" (422mm)<br>Overall Height | 1075 Cubic<br>Inches | 21 lbs.<br>(7.84kg)   |
| PM8SUB | 150W<br>(Transfomer<br>Limited)       | 1.9, 3.8, 7.5,<br>15, 30 &<br>60W | 46Hz-160kHz<br>±5dB   | 92.1dB Average         | OMNI                | 25 oz. (800g)      | 8" w/ Treated<br>Paper Cone &<br>Polyurethane<br>Surround | N/A  | 12.25" (311mm) Dia.<br>16.62" (422mm)<br>Overall Height | 1075 Cubic<br>Inches | 21 lbs.<br>(7.84kg)   |

### **TROUBLESHOOTING**

PROBLEM POSSIBLE CAUSE REMEDY

| There is no sound              | Power off. Equipment setting is wrong. Volume set too low.              | Assure that power is applied to all equipment in system. Check that routing (input/output) controls are set correctly. Check that volume level is above minimum. |  |  |
|--------------------------------|---|--|--|--|
| There is no sound              | Loose connection.   | Check system from start to finish for crossed wires, loose connection, etc. On the PM location check for correct connection.                                     |  |  |
| Low sound level                | Setting/volume control is set too low.<br>Connection is shorted or bad. | Check volume levels or amplifiers and related equipment (equalizer). Check that connections aren't partially shorted/corroded.                                   |  |  |
| Sound cuts in and out          | System overload/oscillation intermittent connection.                    | Check for overload condition or bad connection.  |  |  |
| Distortion at increased levels | Amplifier/speaker overdriven.   | Check that power to speaker isn't over limits. Check that amplifier isn't overdriven. Reduce power to amplifier slightly.  |  |  |
| Speaker makes "buzzing" noise  | Hardware loose or speaker damaged.                                      | Make sure speaker grille is tight. Check other hardware connections. Check speakers for loose parts or speaker damage.   |  |  |

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# **INSTALLATION INSTRUCTIONS**

| NOTES |
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## **Limited Five Year Warranty**

All products manufactured by Atlas Sound are warranted to the original dealer/installer, industrial, or commercial purchaser to be free from defects in material and workmanship and to be in compliance with our published specifications, if any. "This warranty shall extend from the date of purchase for a period of five years on all Atlas Sound products, including SOUNDOLIER brand, and ATLAS SOUND brand products except as follows: one year on electronics and control systems; one year on replacement parts; and one year on Musician Series stands and related accessories. Additionally, fuses and lamps carry no warranty." Atlas Sound will solely at its discretion, replace at no charge or repair free of charge defective parts or products when the product has been applied and used in accordance with our published operation and installation instructions. We will not be responsible for defects caused by improper storage. misuse (including failure to provide reasonable and necessary maintenance), accident, abnormal atmospheres, water immersion, lightning discharge, or malfunctions when products have been modified or operated in excess of rated power, altered, serviced or installed in other than a workman like manner. The original sales invoice should be retained as evidence of purchase under the terms of this warranty. All warranty returns must comply with our return policy set forth below. When products returned to Atlas Sound do not qualify for repair or replacement under our warranty, repairs may be performed at prevailing costs for material and labor unless there is included with the returned product(s) a written request for an estimate of repair costs before any non-warranty work is performed. In the event of replacement or upon completion of repairs, return shipment will be made with the transportation charges collect.

EXCEPT TO THE EXTENT THAT APPLICABLE LAW PREVENTS THE LIMITATION OF CONSEQUENTIAL DAMAGES FOR PERSONAL INJURY, ATLAS SOUND SHALL NOT BE LIABLE IN TORT OR CONTRACT FOR ANY DIRECT, CONSEQUENTIAL OR INCIDENTAL LOSS OR DAMAGE ARISING OUT OF THE INSTALLATION, USE OR INABILITY TO USE THE PRODUCTS. THE ABOVE WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

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