



Installation Manual  
**DS81-A / DS81-A-X**  
Dante System Network Enabled Speaker

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This set up guide contains installation instruction of the AMK DS81-A / DS81-A-X series of AMK's Dante System enabled network self amplified speaker. This speaker is designed to use in plenum rated ceiling spaces and can be dropped into standard square (2' x 2' or 600mm by 600mm) or rectangular (2' x 4" or 600mm by 1200mm) false ceiling tile space with a tile bridge.

### **Important Safety Instructions.**

**WARNING:** May result in serious injury. Installation and service must be performed by authorized personnel only

1. Read these instructions
2. Keep these instructions
3. Heed all warnings
4. Follow all instructions.
5. Do not use this speakers near water
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with manufacturer's instructions.
8. Do not install these speakers near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Use only attachments/accessories specified by manufacturer
10. If the speakers have not been used for some time, unplug the speakers. Or when there is a lightning storms, please unplug the speakers for safety.

### **Parts Check List.**

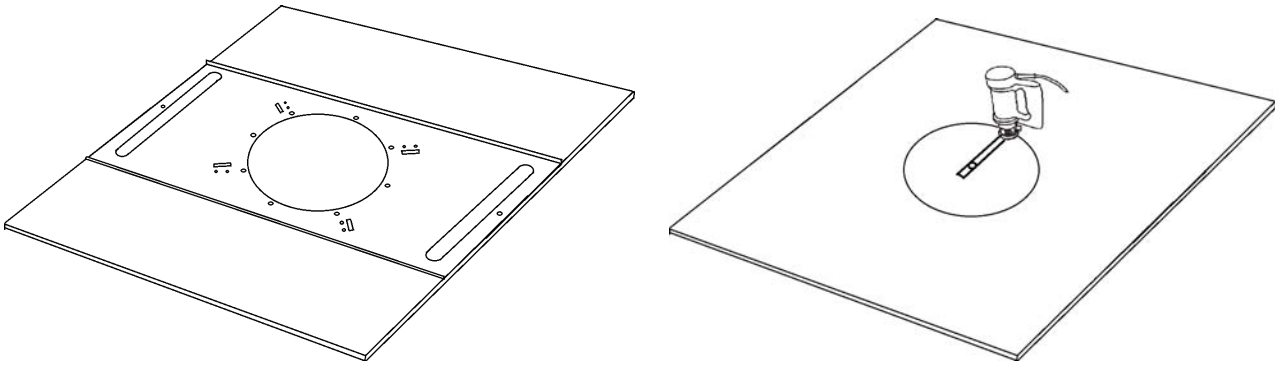
- 1 Speaker total with one main PoE operated speaker with three(1) passive speaker with enclosures (The speaker enclosures are UL 2043 listed part no: **PKG213-8QMA**)
- 1 Speaker Grille
- 1 Handy Box Cover
- 1 Electrically isolated ceiling tile bridge.

When removing the speakers from the packaging, please make sure that you keep the paint masking card board in a safe place for any painting that is to be done after the installation.

### **For Suspended Ceiling Installations**

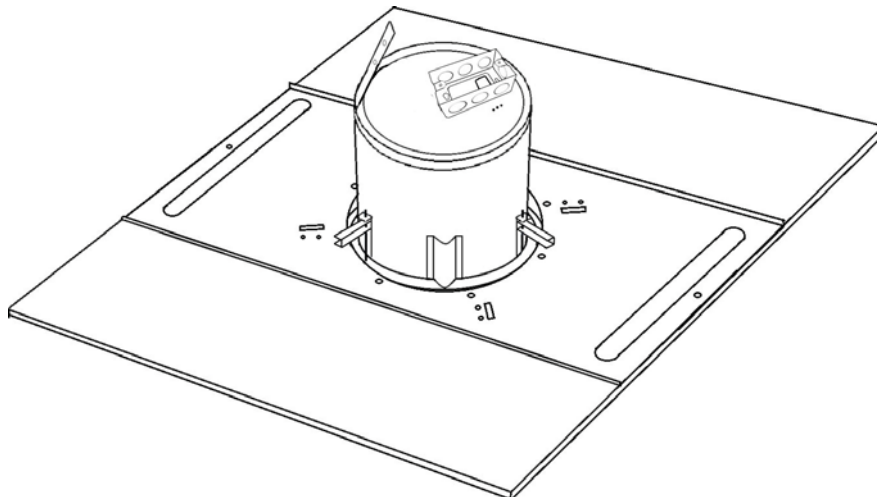
Remove the ceiling tile from the selected speaker location that is to be cut from the ceiling, and an adjacent ceiling tile for access.

Place the tile to be cut, finished side down, on a flat surface. Place the tile bridge, in the desired location, on back of the tile. Make sure the edges of the tile bridge will rest on the grid portion of the ceiling. Mark the speaker hole with pencil, using the hole of the tile bridge as the template.



Place the marked tile onto an empty open box or trashcan, to catch any debris. Please make sure to have appropriate clearance for the saw blade and cut the hole with a “plunge’ hand or power saw.

Replace cut ceiling tile in ceiling. Lay the tile bridge in the ceiling, lining up the hole in the tile bridge with the hole that was cut in the ceiling tile. **IT IS EXTREMELY IMPORTANT** to make sure the tile bridge is oriented so it is supported by the lip of the grid.

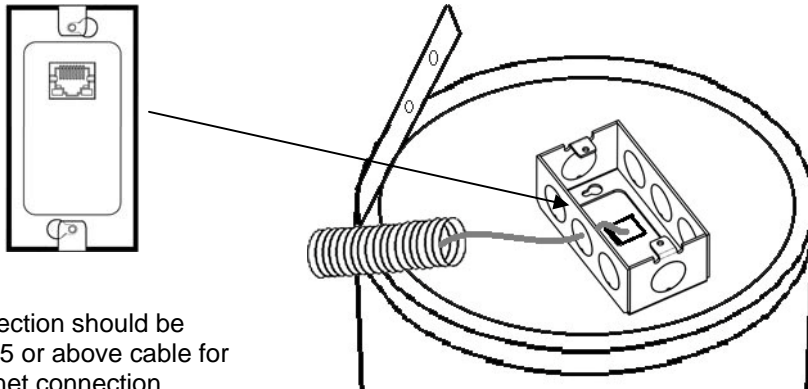


Fully insert the speaker from below through the hole in the tile and its tile bridge support, making sure to hold the speaker carefully to avoid damaging the speaker cone. Start tightening the screws on the face of the speaker can. Continue, checking to make sure the dog ears (flippers) are fully extended, and that the tile bridge is sitting flush against the tile. Make sure to keep a secure hold on the speaker until the dog ears are fully tightened, clamping securely onto the tile bridge and ceiling tile. **DO NOT OVER TIGHTEN!** Secure the speaker to structure above the ceiling with provided metal strap.

### Main Active Speaker Wire Connection:

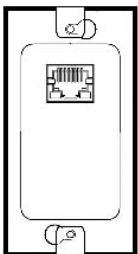
Connect the audio wires connecting active speakers to three passive speakers through conduit. Pre terminate the wire and connect the Phoenix plug to the wire. Punch the knockout on the side of the handy box. After the connection is made, make sure to close the handy box with the cover provided. The audio wires should be a two conductor wire with recommended 18 AWG wire.

Connect the Ethernet signal wires through conduit, terminate with RJ45 connector, punch the one of the knock out where RJ45 jack is located, than plug it into the speaker. After the connection is made, make sure to close the handy box with the cover provided.



The connection should be made Cat5 or above cable for the Ethernet connection.

### Three Light Indicators:



- Power
- Dante
- Status

When RJ45 connection is made, you should be seeing some lights blinking on the right side of the RJ45 connection handy box as shown.

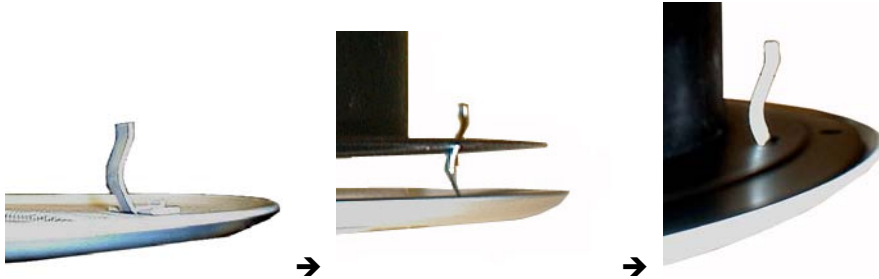
From top to bottom, it will be Power, Dante, and Status.

- Power: This shows the power coming from PoE+ network switch. If there is no power present, then the light will not turn green. The speaker must be running from PoE+ network switch in order to get the green light.
- Dante: This will blink red in the beginning as it is trying to connect with the computer system. When connection is made and Dante signal is confirmed, the light will turn green.
- Status: As the audio signal gets transmitted into the speaker system, the light will blink green as the signals go through.

### **Grille Installation:**

Align the tabs on the grille with three opening slots on the rim of the enclosure.

The end of the tabs on the grill, when correctly installed, will be slightly above the tile bridge and between the tile bridge and speaker. The grill will seat flush or level against the ceiling. Any gaps between the grill and ceiling may indicate that the tab in that area has not 'snapped' in place. Failure to make sure the grill is 'snapped' in place could lead to the grill falling out.



### **Painting the Grille:**

Use the paint masking card board provided if you need to paint the grille after the installation. Insert the paint mask between the grille and speaker enclosure then snap the grille.

After the spray paint is done, make sure to take the paint masking card board out by unsnapping the grille. If needed, use flat screw driver to pop the grille off from the side of the grille. Take the paint masking board out, and reinstall the grille.

### **Warranty**

The speakers should be not open, altered, tampered without the consulting with AMK, otherwise you will lose the warranty on the speaker. If the speaker is a need for additional support for seismic mounting, please consult with AMK.