



AUDIO INSTALLATION Manual



Self-Installation Instructions

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Overview of Sound System

Summation

These are the self-installation instructions for your Retail Radio/Bose sound system. These instructions will guide you through installation and connection of your new audio system.

Equipment List:	Check Off	Tool Requirements:	Check Off
1 – Retail Radio Music Player	<input type="checkbox"/>	1 – Phillips head screwdriver	<input type="checkbox"/>
1 – TOA BG220 Amplifier	<input type="checkbox"/>	1 – Small Flat head screwdriver	<input type="checkbox"/>
4 – Bose DS16F Speakers	<input type="checkbox"/>	1 – Wire Strippers	<input type="checkbox"/>
4 – Bose DS16 Tile Bridges	<input type="checkbox"/>	1 – Wire Cutters	<input type="checkbox"/>
1 – Spool 250’ Speaker Wire	<input type="checkbox"/>	1 – Drywall Knife	<input type="checkbox"/>



Installation Instructions

These instructions are the self-installation instructions for your Retail Radio/Bose sound system. These instructions will guide you through installation and connection of your new audio system.

Step 1 – Determine the Location Music Player and Amplifier

Choose an area in the manager’s office that meets the following requirements to place the Retail Radio Music Player and Audio Amplifier.

- Locate a space that is within 4 ft. of the Ethernet Jack.
- Locate a space that is within 3 ft. of AC Power.
- Locate a space away from any heat source or moisture.
- Locate a space that allows easy access to change channels and adjust volume.

Step 2 – Speaker Layout

For the best performance, you will need to consider the following in order to give you even sound coverage. Proper spacing of the speakers determines how the sound will be heard. Please follow the formula below.

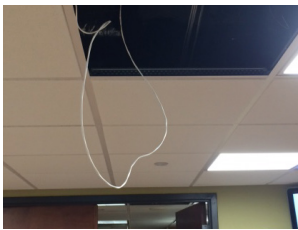
- Measure your ceiling Height to determine how far apart the speakers should be.
 - > For a 8 ft. ceiling we recommend the speakers to be placed 7 ft. apart from each other.
 - > For a 10 ft. ceiling we recommend the speakers to be placed 10 ft. apart from each other.
 - > For a 12 ft. ceiling we recommend the speakers to be placed 15 ft. apart from each other.
- Speakers should not go directly above the Food Service Line.
- Speakers should not be placed above Cashier.
- Speakers should not be placed above any Fan Blades if your store has them.

Attached are some basic speaker layouts to use as a reference.

Step 3 - Speaker Wiring Instructions

Locate the 18-2 White speaker wire and make sure you have your wire cutters for this portion of the installation.

- Remove the ceiling tiles for each speaker location and put the ceiling tiles aside for now.
- Start at the amplifier location and pull wire to the first speaker location. Please allow 3 ft. to 4 ft. of extra wire at both the amplifier and first speaker.

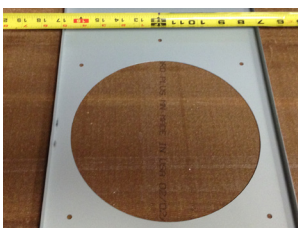


- Continue to run speaker to the remaining speakers and leave 3 to 4 ft. of slack for each speaker.
- Do not cut the wire at the last speaker location at this point.

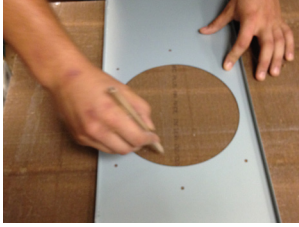
Step 4 – Cutting the Ceiling Tiles

A tape measure will be needed for this step.

- Measure the center of the ceiling tile and lay metal tile bridge over the ceiling tile.



- Take a pencil and draw a circle on the ceiling tile.



- Using your drywall knife cut a hole in the ceiling tile. You may want to put a garbage can underneath while you



Step 5 - Mounting Your Speaker to the Ceiling Tile

A Phillips and flat head screwdriver will be needed for this step.

- Remove your speaker from the box.
- Remove the grill from the speaker by pulling on the paper tabs.



- Adjust the Tap setting the Dial to 2W



- Take your cut tile and lay it over the top of the speaker and put the metal bracket over the speaker.



- Take your Philips head screwdriver and tighten screws on face of speaker so the tabs on the back of speakers get secured to the tile.



Step 6 - Connecting the Wire to the Speakers

You will need your Philips Head screwdriver and wire strippers for this step.

- Cut the wire in the middle and strip back the Red and Black covers about a 1/2".
- Join the Red wires together. Join the Black wires together.



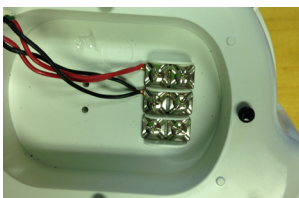
- On the back side of the speaker, loosen all 4 screws of the cover plate and remove plate.



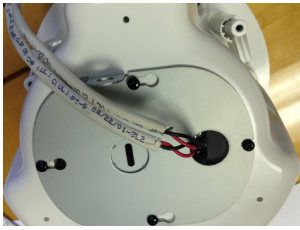
- Take the speaker wire and feed it thru the plenum cover and the cover plate.



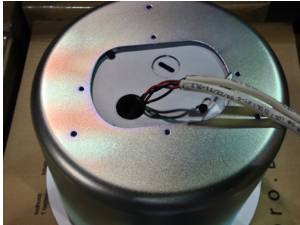
- Insert the pair of Red wires to 70v and the Black pair to Com.



- Place Cover plate back on speaker and tighten screws.



- Place Plenum cover on back of speaker.

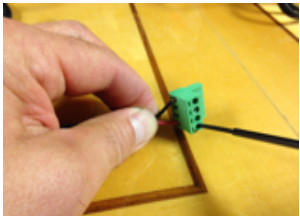


- Carefully place ceiling tile back in ceiling.

Step 7 - Connecting the Amplifier to the Speakers

You will need wire strippers and small screwdriver for this step.

- Locate the TOA Amplifier and remove it from the box and locate the bag of green connectors.
- Locate the speaker wire and strip back 3" of the white cover and a ¼" of the Red and Black cover.
- Find the 4 wire green connector and insert the Red and Black wire into the green connector and make SURE THE BLACK WIRE GOES INTO COMMON AND RED WIRE GOES INTO 70 V.



DO NOT PLUG INTO POWER YET.

Step 8 - Connecting Retail Radio to Amplifier

- Take the cable out of the Retail Radio Box and plug the Red and White cable into the back of the player.
- Take the Ethernet Cable and plug it into the Player (Picture 1) and then plug it into your Network.
- Take the other end of the cable and plug them into the Red and White connections marked Line 2 of the TOA amplifier. (Picture 2)



Amp Settings

First make sure that all your volume control knobs are turned down to zero on the front of the TOA BG220 Amplifier. Your Volume control knob being used will be the one marked Line 2. You will notice that there are bass and treble knobs below the volume control knobs to adjust once playing. These are currently set in the middle of the spectrum.

Retail Radio Settings

TBD Retail Radio

Connecting Power and use of system

- At this time you can plug in the power to the amplifier and the Retail Radio Player.
- The amplifier has 3 lights on the front Power, Signal, and Peak. The power light and signal light should be lit at this time.
- Slowly turn up your volume on Line 2 of the amplifier. At this time you should hear music. Please set the music at an appropriate level for the customers.
- If the system is turned up too loud you may see the Peak light come on red. This would be an indication that you are running the system too loud and should turn it down.

If there are any issues concerning your installation please contact:

Pro-Motion Technology

248 668 3100