



## Instruction Guide and User Manual Ghost Series In-Ceiling Architectural Speakers

GP-4, GG-4, GP-6, GG-6, GC-6, GP-8, GG-8, GC-8, GPD-6, GGD-6

**ghost**™  
*heard but not seen*



Patent No. US 7,543,681 B2

Thank you for purchasing this TruAudio product. Like all of our products, if installed correctly, these speakers will bring you years of outstanding audio and video listening. Please make sure you take the time to read the complete instruction manual before starting the installation. If you have any questions, concerns or comments, call our main office, 888-858-1555 and thanks again.

**Please NOTE:** These speakers should only be installed by a TruAudio Certified Dealer. If these are NOT being installed by one of these dealers, the warranty could be void.

### Unpacking and Inspection

These in-ceiling loudspeakers are packaged extremely well to make sure no damage occurs during shipping. Carefully open the box and remove the speakers. Inspect them immediately for any kind of damage. The speakers should have left our warehouse in perfect condition so any damage must be reported to your dealer or to TruAudio right away. Please contact us immediately at 1.888.858.1555

All service to these products **MUST** be done by TruAudio or a TruAudio Authorized repair center. If you try to do any kind of repair, This will void the warranty!



## Choosing the Speaker Location

Before you install your speakers you should take careful consideration their location. Make sure to note location of lighting fixtures, electrical, plumbing and any other obstructions. If the house was pre-wired at construction time, make sure you know where the speaker cable is located in the wall or ceiling.

**Wall Placement:** When placing your speakers into the wall, if possible, they should be mounted facing toward the listening area. Take in consideration where the furniture is located when finalizing where the speaker will be installed. Remember that with this type of "built-in" architectural speaker, once the hole is cut for the speaker installation, it is very costly to move the location.

## Preparation before Speaker Installation

If your home was pre-wired for speakers at construction time, you might have used TruAudio rough-in kits (RC series) prior to drywall at each speaker location. (There should also be speaker cable at this location). After the drywall is installed and the hole is cut, the speaker is then easily installed. Once the hole is cut in the drywall, the pre-wired speaker cable should be somewhere in the wall/ ceiling near the hole. If you did use rough-in speaker rings, move on to "Speaker Installation". If the speaker hole has not been cut from the drywall please read the following instructions: If the house is at the point of actual "Speaker installation", speaker cable should already be run to each speaker location even if the hole is not cut.

Find the location to where the speaker wire was pre-wired to. Check the area for obstructions such as plumbing, heating ducts or electrical wiring.

Locate the wood studs or joists nearest the desired location and make sure they will not interfere with speaker location. Use the supplied speaker cutout to get the recommended dimension of the hole needed for that particular speaker. Position the cutout in the desired location and outline the speaker opening to be cut. If you are not sure of possible obstructions, cut a small hole in the center of your outline. This will allow you to check for obstructions. If there are no problems with your mounting location, proceed and cutout the outlined hole. At this point, you should be able to see or find the speaker cable. Pull the cable through the hole.

If the wall or ceiling is not already insulated, we suggest using TruAudio model FE-24, an inwall foam enclosure that will greatly improve the speakers sound. Other options for sound dampening material would include typical insulation or Dacron. If this material has a foil layer, position the foil away from the speaker magnet.

## Speaker Installation

These speakers are mono so you will need two speakers for stereo sound, one for the right channel and one for the left. There should be a two conductor speaker cable pre-wired to each of the speaker locations. Make sure you find each of the speaker cables and pull them through the cut speaker holes. Remove the speaker from the box and inspect for any damage.

**If there is any damage, contact TruAudio immediately, 888-858-1555.**

**Backbox Option:** The Ghost series speakers offer an optional backbox (BB-6p or 8p) that can be purchased separately. If you are using the backbox, now is the time to attach them to the speakers. Please follow the instructions that come with the backbox.

**Preparing the speaker cable:** You should have located the speaker cable by now, so it's time to prep it for connection to the speaker. Strip back the outside insulation so the individual conductors are showing. Depending on the cable, there should be two or four separate conductors. Strip back the insulation on each conductor to show the bare copper wire. We suggest stripping enough so that 3/8" of copper wire is showing. Push down each post and insert the speaker cable. The posts will be located on the back of the speaker on the crossover. Make sure that only BARE wire is touching the speaker post once it slides back into place. All TruAudio products feature gold push binding posts which are quick and simple to use and also are great for conducting speaker signal.

**Caution: Make sure to observe polarity, R + (positive) from the amp or volume control to speaker R + and R - (negative) to R -. Make sure to do the same for the left channel.**

When connecting the other end of the speaker cable to the amplifier or receiver make sure to observe the same polarity as you did at the speaker connection.

To prepare the speaker for the actual installation, turn all the mounting toggles (dog ears) in toward the speaker frame. This will allow the speaker to easily fit into the pre-cut hole. Put the speaker into the hole (the speaker cable should be connected) and make sure the speaker cable stays connected to the speaker. Carefully tuck the speaker cable up into the hole as you put the speaker into place. Hold it in place with one hand and with your other hand carefully tighten the mounting screws evenly to secure the speaker. As you tighten the screws, the dog ears will flip into position to grip into the drywall. DO NOT

over tighten the mounting screws. This will cause damage to the mounting toggle and the speaker will not stay in place.

**Adjust the Tweeter:** This series of in-ceiling speakers offer swivel tweeters so they are more versatile for different applications. After the location of the speaker is determined and the speaker is installed, adjust the tweeters toward the listening area. Sometimes, depending on the installation, it might be necessary to reflect the sound off a wall or ceiling.

**Adjust the Level Control:** Some of the Ghost series offer level control to adjust the high and low output. If your speaker offer this, the switches are located on the front face of the speaker. You can adjust these controls to get more or less high frequency and more or less bass. Adjust the switch to each setting until you get the desired amount of high frequency and then do the same for the bass. We suggest starting at -3dB and then from there you can increase or decrease the desired level. The adjustments are -6dB, -3dB and 0dB.

**Grill installation:** Remove the grill from the box and install it onto the speaker. Align the grills edges to the outer edge of speaker and allow magnets to attach grill to speaker, carefully push the grill on. Make sure to check all the way around the grill to ensure its sitting on the speaker evenly.

## Painting the Speaker

If you are going to paint your speakers, we suggest painting the grills before Installation. This is one of the advantages of the Ghost series speakers, that the speaker itself does not need to be painted, only the grill. The Ghost series is a frameless speaker and will save time on labor since the grill can be painted before hand and be ready for install that the same time as the installation of the speakers.

When painting the grills, it is VERY IMPORTANT that you remove the cloth like material (Dacron) from the grill before painting, and then you can paint the grills lightly and be careful not to clog the holes. Depending on the thickness of the paint, you may want to thin it slightly. This will help prevent clogging the grill holes. Another suggestion is finding a spray paint that will match and paint the grill with that. Your local hardware store should have a good selection of spray paints. Do not paint the grill while it's still on the speaker, paint them separately.

SoundVision Technologies dba TRUAUDIO

## PRODUCT WARRANTY

*All in-wall, in-ceiling, outdoor speakers, volume controls and freestanding loudspeakers have a limited lifetime warranty. This warranty includes lifetime parts and repair labor on all components. Powered subwoofers and active electronics have a one (1) year limited warranty. This warranty includes one (1) year parts and repair labor on all components. TRUAUDIO's obligation under these warranties is limited to repairing or replacing any component found defective in material or workmanship under normal conditions of use. These warranties shall not apply to products which have been abused, modified, disassembled, or repaired by anyone other than TRUAUDIO or one of its appointed service centers. Products to be repaired under this warranty must be returned to the factory or designated service center with all transportation and insurance charges pre-paid.*

It is the policy of TRUAUDIO to continuously incorporate improvements into our products. All specifications are subject to change without notice. If you have any questions regarding this or any other TRUAUDIO products, please call 1-888-858-1555, Monday – Friday, 7:00 am – 6:00 pm MST.

TRUAUDIO Speaker Systems, St. George, Utah, 84790  
Office: 435.986.1574 Fax: 435.251.9815



**GP-4 In-ceiling, 2 way**  
**Woofers:** 4 1/2" white polypropylene  
**Tweeter:** 3/4" silk soft dome, swivel  
**Power:** 5 - 55 watts  
**Impedance:** 8 ohms  
**Frequency Response:** 65 - 20k Hz  
**Sensitivity:** 90 dB (2.83 volts @ 1 meter)  
**EQ Adjustments:** Tweeter & woofer 0, -3, -6  
**Grill Type:** Ghost style, frameless  
**Grill Material:** Powder coated steel  
**Finish Dimensions:** 7 1/2" (189.04 mm) diameter, 3 5/8" (92.69mm) deep  
**Cutout Dimension:** 6 11/16" (170.2 mm) diameter



**GG-4 In-ceiling, 2 way**  
**Woofers:** 4 1/2" white glass fiber  
**Tweeter:** 3/4" titanium, swivel  
**Power:** 5 - 70 watts  
**Impedance:** 8 ohms  
**Frequency Response:** 60 - 20k Hz  
**Sensitivity:** 90 dB (2.83 volts @ 1 meter)  
**EQ Adjustments:** Tweeter & woofer 0, -3, -6  
**Grill Type:** Ghost style, frameless  
**Grill Material:** Powder coated steel  
**Finish Dimensions:** 7 1/2" (189.04 mm) diameter, 3 5/8" (92.69mm) deep  
**Cutout Dimension:** 6 11/16" (170.2 mm) diameter



**GP-6 In-ceiling, 2 way**  
**Woofers:** 6 1/2" white polypropylene  
**Tweeter:** 1" silk soft dome, swivel  
**Power:** 5 - 100 watts  
**Impedance:** 8 ohms  
**Frequency Response:** 51 - 20k Hz  
**Sensitivity:** 91 dB (2.83 volts @ 1 meter)  
**EQ Adjustments:** Tweeter & woofer 0, -3, -6  
**Grill Type:** Ghost style, frameless  
**Grill Material:** Powder coated steel  
**Finish Dimensions:** 9" (229.3 mm) diameter, 4" (104 mm) deep  
**Cutout Dimension:** 8 3/16" (208.3 mm) diameter



**GG-6 In-ceiling, 2 way**  
**Woofers:** 6 1/2" white glass fiber  
**Tweeter:** 1" titanium, swivel  
**Power:** 5 - 125 watts  
**Impedance:** 8 ohms  
**Frequency Response:** 43 - 20k Hz  
**Sensitivity:** 91 dB (2.83 volts @ 1 meter)  
**EQ Adjustments:** Tweeter & woofer 0, -3, -6  
**Grill Type:** Ghost style, frameless  
**Grill Material:** Powder coated steel  
**Finish Dimensions:** 9" (229.3 mm) diameter, 4" (104 mm) deep  
**Cutout Dimension:** 8 3/16" (208.3 mm) diameter



**GP-8 In-ceiling, 2 way**  
**Woofers:** 8" white polypropylene  
**Tweeter:** 1" silk soft dome, swivel  
**Power:** 5 - 125 watts  
**Impedance:** 8 ohms  
**Frequency Response:** 42 - 20k Hz  
**Sensitivity:** 91 dB (2.83 volts @ 1 meter)  
**EQ Adjustments:** Tweeter & woofer 0, -3, -6  
**Grill Type:** Ghost style, frameless  
**Grill Material:** Powder coated steel  
**Finish Dimensions:** 10 1/2" (267.84 mm) diameter, 4 3/16" (106.06 mm) deep  
**Cutout Dimension:** 9 13/16" (248.9 mm) diameter



**GG-8 In-ceiling, 2 way**  
**Woofers:** 8" white glass fiber  
**Tweeter:** 1" titanium, swivel  
**Power:** 5 - 150 watts  
**Impedance:** 8 ohms  
**Frequency Response:** 34 - 20k Hz  
**Sensitivity:** 91 dB (2.83 volts @ 1 meter)  
**EQ Adjustments:** Tweeter & woofer 0, -3, -6  
**Grill Type:** Ghost style, frameless  
**Grill Material:** Powder coated steel  
**Finish Dimensions:** 10 1/2" (267.84 mm) diameter, 4 3/16" (106.06 mm) deep  
**Cutout Dimension:** 9 13/16" (248.9 mm) diameter



**GC-6 In-ceiling, 2 way**  
**Woofers:** 6.5" carbon fiber  
**Tweeter:** 1" titanium, swivel  
**Power:** 5 - 150 watts  
**Impedance:** 8 ohm  
**Frequency Response:** 35 - 22K Hz. (+/-3 dB)  
**Sensitivity:** 92 dB (2.83 volts /1 meter, +3dB)  
**EQ Adjustments:** Tweeter & woofer 0, -3, -6  
**Grill Type:** Ghost style, frameless  
**Grill Material:** Powder coated steel  
**Finish Dimensions:** 9" (229mm) diameter, 4" (104mm) deep  
**Cutout Dimension:** 8.19" (208mm) diameter



**GC-8 In-ceiling, 2 way**  
**Woofers:** 8" carbon fiber  
**Tweeter:** 1" titanium, swivel  
**Power:** 5 - 175 watts  
**Impedance:** 8 ohm  
**Frequency Response:** 30 - 22K Hz. (+/-3 dB)  
**Sensitivity:** 93 dB (2.83 volts /1 meter, +3dB)  
**EQ Adjustments:** Tweeter & woofer 0, -3, -6  
**Grill Type:** Ghost style, frameless  
**Grill Material:** Powder coated steel  
**Finish Dimensions:** 10.5" (268mm) diameter, 4.19" (106mm) deep  
**Cutout Dimension:** 9.81" (248mm) diameter



**GPD-6 In-ceiling, Stereo**  
**Woofers:** 6 1/2" white polypropylene  
**Tweeter:** Dual 1" silk soft dome, swivel  
**Power:** 5 - 100 watts  
**Impedance:** 8 ohms  
**Frequency Response:** 52 - 20k Hz  
**Sensitivity:** 91 dB (2.83 volts @ 1 meter)  
**EQ Adjustments:** Tweeter & woofer 0, -3, -6  
**Grill Type:** Ghost style, frameless  
**Grill Material:** Powder coated steel  
**Finish Dimensions:** 9" (229.3 mm) diameter, 4" (104 mm) deep  
**Cutout Dimension:** 8 3/16" (208.3 mm) diameter



**GGD-6 In-ceiling, Stereo**  
**Woofers:** 6 1/2" white glass fiber  
**Tweeter:** Dual 1" titanium, swivel  
**Power:** 5 - 150 watts  
**Impedance:** 8 ohms  
**Frequency Response:** 34 - 20k Hz  
**Sensitivity:** 91 dB (2.83 volts @ 1 meter)  
**EQ Adjustments:** Tweeter & woofer 0, -3, -6  
**Grill Type:** Ghost style, frameless  
**Grill Material:** Powder coated steel  
**Finish Dimensions:** 9" (229.3 mm) diameter, 4" (104 mm) deep  
**Cutout Dimension:** 8 3/16" (208.3 mm) diameter