



Stage One Speaker Upgrade Installation Instructions for BMW 7 Series '96-'01 (E38)



Want an easier install? Watch our videos first!

This is a supplement for the installation videos that you will find on our website (www.bavsound.com). Head to "Help > Installation Info."

There are details we go over in the installation videos that cannot possibly be covered as effectively through the written word. This guide is meant to help you in the garage. We still suggest taking your computer/tablet/phone to the car with you and streaming the videos to make sure everything goes off without a hitch. Now, let's get started!

What you'll need to complete the installation:

- **BAVSOUND Tool Kit** (or some variety thereof - the video highlights the tools needed for this particular installation) - <http://www.bavsound.com/product/414/361/BAVSOUND-Interior-Disassembly-Tool-Kit/>
- **Heat gun or hair dryer** (to dry your hair - only kidding - to heat up sound deadening for better pliability).
- **Tunes in the garage** (your choice)

Before you Begin

- Please review and familiarize yourself completely with these instructions before starting work on your vehicle!
- **Install all your speakers before you audition the Stage One.** Installing one speaker and then listening to the system to “see if it sounds better” is like putting one high performance shock on your car and taking it for a test drive. Feel free to test to make sure the connections were properly made after installing each speaker, but beyond that, keep the process moving along and audition it once all speakers have been installed.
- **Ensure that your bass and treble settings are set to their default middle positions before installing your new speaker upgrade.** Once you’ve installed your Stage One, you can reset the bass and treble settings to taste. Keep in mind that we generally recommend keeping them both very close to center as large adjustments introduce distortion into the audio signal and will lower performance of your system.
- **Perform the installation one door at a time.** Since there are many small parts that you’ll remove when completing the project, limiting the work you’re doing to one door will prevent you from confusing which parts go with what door.
- **Installation is essentially the reverse of the removal process outlined below.**
- **Variations occasionally occur,** so if anything seems out of line with what is contained in the pages that follow, don’t hesitate to contact us.

Ready? Let’s get started!

Part 1: Front Doors

Tips you'll want to know:

- As with most automotive door panels, the 7-Series door panels are held in place by round plastic plugs that snap into holes in the steel doorframe.
- There are also a series of spring steel clips along the top of the door.
- Finally, there are two (only one in the driver's door) plastic clips that snap onto metal spring steel plugs behind the interior handle used to close the door. These provide extra support for the panel. When the panel is removed, these plastic clips typically remain on the metal plug that is attached to the door panel.

Front Door Panel Removal:

1. Starting on driver's side door, locate and remove the black plastic screw cover immediately behind the interior chrome door handle. Use a medium sized precision flat-head screwdriver. Just push in and tilt up slightly while pulling.



2. Remove the Philips head screw. This may also be a Torx T20.



3. Now, CAREFULLY pry out the window controls using a small, flat head screwdriver.



4. We now need to remove the light on the underside of the door panel. Using your panel removal tool, pop the light out by prying on the inner and outer edges of the light. It will just pop out, at which point you'll simply unplug the light. This can be a bit trying, but once you figure out the first one, the other doors will be a breeze.

5. We'll now want to free the outer edges of the door panel. Unsnap the perimeter edges by carefully prying outward with your panel removal tool. We recommend starting on the front lower edge closest to the kick panel area. You will quickly see the way in which the panel attached, and once the first side is free, the rest will come off quite easily.



Rear Door Panel shown for reference

6. With all the perimeter clips free, we're ready to remove the panel. Firmly grasp the door panel at the top and pull the black leather top section toward the interior of the car. 5 metal clips along the top edge secure this top portion.

7. With or without the top fully disengaged from the clips, grasp the entire panel firmly at the bottom and at the door pull handle. Pull straight up and a little toward you, twisting the panel slightly counter-clockwise. The clips behind the door pull handle will disengage once the door has been lifted about 1.5" as the panel is lifted and rotated. You will also clear the door lock itself as you lift the panel.

8. Before you remove the panel completely, you will need to feed the chrome door handle through it's opening in the panel.

9. You'll now need to unplug the various wiring harnesses that are attached to the panel. On the driver's window switch, two of the plugs are removed by pressing the release tab on top and sliding the plastic lever downward, freeing the plug. The other plug is removed by sliding the locktab away from the plug body and lifting upward, freeing the plug. *(The passenger side window switch is slightly easier to remove, but still use extreme caution when prying it out.)*



Rear door shown for reference; passenger front door is identical.

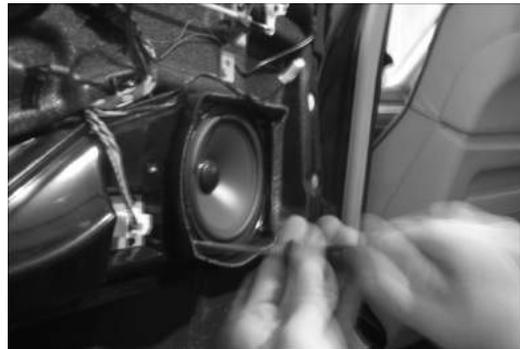
NOTE: *You can also remove the plugs by simply removing the entire panel and popping the switches upward using your fingers once the panel is removed. This will reduce the likelihood of cracking the edges of the switches.*

10. Lift the ashtray plugs upward to free them. When reinstalling the panel, the plugs can only be oriented one way, so you can't goof it up too badly.

11. The speakers (midrange and tweeter) can also simply be unplugged by pulling their corresponding harnesses apart.

Midbass (130mm / 5.25" Driver) Removal and Installation:

1. It doesn't get much easier than this! Remove the four (4) Torx T10 screws from the speaker, and unplug the driver. These may also be Philips head screws, again depending on what BMW had lying around the plant.



NOTE: You may encounter two sets of wires in the speaker enclosure. The longer of the two sets was for the factory phone to communicate with the speaker. Simply tape off the leads individually, and use the shorter set of wires to attach to your new speakers as described below.

2. Connect your new Bavsound midbass drivers. The larger terminal is positive, and the smaller terminal is negative.

- Connect the Green/Black to the Positive (+) terminal
- Connect the old Green wire to the Negative (-) terminal

3. Install the supplied foam gasket between the enclosure and the speaker. This will ensure an airtight seal, and allow the speaker to perform to the maximum of its capabilities.

NOTE: We are not replacing the midrange speaker in the car (larger of the two speakers mounted in the upper door panel.) It is actually an excellent speaker, and we were unable to improve upon its sound quality at a price point we felt would be appropriate for this Stage One upgrade.

Tweeter Removal/Installation

1. Begin by removing the OEM tweeter from its location by prying outward and upward using a small flat head screwdriver or the pick tool found in your BAVSOUND Tool Kit.



Front Door

2. Once removed, simply place the new tweeter in the same location and secure it using a few dabs of the included adhesive around the outer perimeter.

Reinstalling your Front Door Panel

Well, the hard part is over! You've done what you set out to do. Now, you've got to get it all back together. Make sure that you've plugged all of the associated plugs back into their respective locations, and that there aren't any wires hanging in front of the speaker.

With the door panel in hand, we recommend proceeding as follows:

1. Orient the door panel down over the vertical lock mechanism.
2. Toward the center of each door, you'll see a brass looking tab that will undoubtedly have a black plastic clip attached around it. This clip was attached to the door panel to the metal assembly bolted to each panel. Remove this by compressing the brass tab and sliding the black clip toward you. Reattach this clip to the door panel's metal assembly. This will ensure a snug fit when you reattach the door.
3. **Don't forget to plug in the midrange and tweeter.** It's easy to overlook it. Trust us, we know.

4. When you reattach the door, start at the top. Don't forget to pop the door handle back through the panel before you get too far.
5. Make sure that each plastic clip on the panel lines up with its corresponding hole on the door itself. You don't want to break those little guys if you can help it.
6. Give the door a solid once over using your hands. By this we mean pushing firmly around the outer edges with your hands, ensuring that everything is back together as it should be.

Repeat the process with your passenger door, and your front speakers will be installed!

Let's move on to the rear doors!

(See next page)

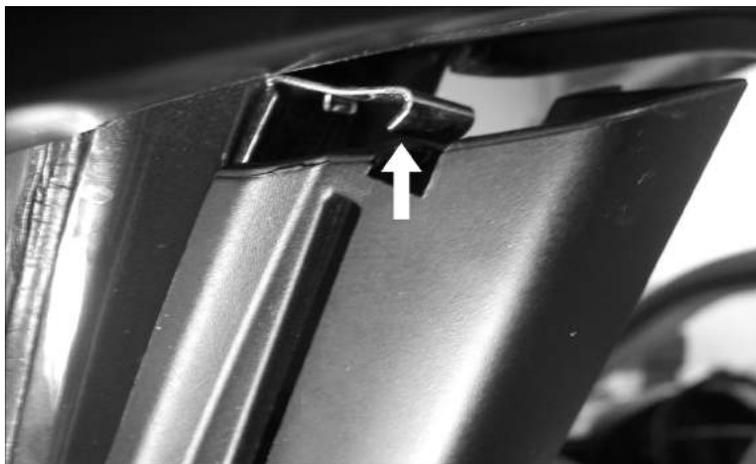
Part 2: Rear Doors

IMPORTANT! Your rear doors are removed in the same way as the front doors, with one exception. There may be sunshades on your rear doors, which will need to be removed first if present.

Removing Sunshades from Rear Doors:

NOTE: The larger sunshades that run vertically do not need to be removed.

1. Make sure your rear windows are rolled down. You'll need to locate the small pinhole at the top of the sunshade that covers the smaller window in the door. It's on the inside toward the front of the car.
2. Using a small straight pick, you'll feel around in the hole for a metal clip. This needs to be lifted upward. This part can take some time, but you'll quickly realize the methodology necessary to get this thing off.
3. Once you've lifted the metal clip upward, the sunshade will just fall toward you and you'll simply lift it slightly upward to remove it.



Midbass (130mm / 5.25" Driver) Removal and Installation:

Rear midbass drivers are installed exactly the same way as the front speakers. See page 7.

Tweeter Removal/Installation

As for the rear tweeter installation, it's much like the front as well.

1. Pry out the tweeter, again using the included BAVSOUND pick or small screwdriver.



2. Place the new tweeter over the location where the factory tweeter was located and apply several dabs of the included adhesive around the outer perimeter.



(Continue on next page)

Rear Door Panel Reinstallation Tips:

1. This may seem obvious, but don't forget to plug the tweeter back in. It's easy to do.
2. You'll want to have the vertical sunshade fixed in its up position when putting the panel back on. It will just make it easier for you. Believe us.
3. Be very careful to line up the perimeter snaps around the outer edges of the door panel before firmly pressing the panel back into place. These clips can break fairly easily.
4. See the rest of the tips above in the front door section. As you've probably figured out by now, it's all very similar.
5. When reattaching the horizontal sunshade, attach the bottom section first by inserting the lower edge down into its housing, and then snapping the top section into place.

HALLELUJAH!

You've now completed your BAVSOUND Stage One Speaker Upgrade!

Head up front, put on your favorite album, and go for a drive.

Enjoy your new BAVSOUND system!

Love your new Stage One? Let us know!

Tweet us [@bavsound](https://twitter.com/bavsound) with hashtag #StageOne or #bavsound and tell us what you think!

Troubleshooting

If you're experiencing an issue with your new speakers, please carefully read through this guide, as it covers almost any issue that you are likely to encounter. (If the guide doesn't resolve these issues for you, please feel free to contact us - www.bavsound.com).

ISSUE #1: No Sound from Speaker

One of three things is most likely happening, and they are listed in order of most common occurrence along with how to correct them:

Possible Cause 1: The wiring on the plug-n-play connector is misaligned.

Step 1. Check for alignment of wires from their factory plug through the BAVSOUND connector. Do they line up (see below)?

Step 2a. If the connections line up, go ahead and plug the factory speaker back in to confirm operation. If the factory speaker works, and the wires in the plug are aligned, the speaker is defective. We need to get you a new speaker!

Step 2b. If the connections don't line up, you'll need to move them so polarity is correct and the positions are correct. On our wires, the Red Stripe is positive, while the solid black is negative, while on the BMW side of the plug that following holds true:

- Black Stripes, Red Stripes, White Stripes, Purple Stripes are Positive.
- Solid wires are negative, as are wires with Brown Stripes or Grey Stripes.

Possible Cause 2: The speaker connections are being shorted out.

Check to make sure that no speaker terminal is touching metal. This can cause the speaker to not function, as it is effectively grounded (shorted) out (most common in midbass speakers).

If you find that this was the case, place electrical tape over the terminals to prevent future mishaps. If the entire system has no sound after the installation of new speakers, we almost know for sure that there is a speaker whose terminals are grounded out. Let's check by disconnecting each speaker until the music comes back on and we've isolated the problem speaker.

Possible Cause 3: The amplifier may be broken.

If there was a speaker or location in your system which didn't play before installing the Stage One, this is probably the issue.

If this was the case, and you were trying to fix the problem by purchasing new speakers, we may need to look at the factory amplifier, as it is most likely the culprit.

Is the entire side (left front, right rear, right front, left rear) not working, or is it a particular speaker that was not working? Most likely it was a single speaker.

If an entire side is not working, make sure, especially on the tweeters that you just installed, that neither the positive or negative terminals are touching metal. This can contribute to an entire side (channel) not working properly.

ISSUE #2: Distorted Sound coming from new Speaker

1. **Where are the bass/treble settings on the radio/EQ?** Flatten out the settings to ensure no pre-amp distortion is the cause of the problem. If you're using the radio to test the speakers, go ahead and use a CD or directly connected iPod instead.
2. **Are speaker terminals touching ground (metal)?** Where is the distortion coming from? A single speaker, an entire side (channel), or the entire system? Its best at this point to go back and disconnect each speaker until the distortion goes away. The most likely culprits are the front tweeters.
3. **Was the factory speaker distorted as well?** If a single speaker was distorting, the most likely culprit is the amplifier. We may need to explore replacing/repairing your factory amplifier.

ISSUE #3: Lack of Bass Response

A common occurrence when a mid bass speaker is wired “out of phase”. This means that the positive (+) and negative (-) are backwards on the plug and play connections.

Here we’ll want to check alignment of the connectors as they come together between the speaker and the factory plugs. The lack of bass response generally is due to one speaker being out of phase and the other speaker(s) being in phase.

The easy fix is checking these connections to make sure that positives go to positive and negatives go to negatives. Basically, double check your wiring on each speaker. If one speaker is out of phase, the bass response of the entire vehicle can be compromised.

ISSUE #4: Too Much Treble, Harshness, or Brightness

Where are the bass/treble settings on the radio/EQ? Go ahead and flatten out the settings to ensure no pre-amp distortion is the cause of the problem. If you’re using the radio to test the speakers, try using a CD or directly connected iPhone or iPod instead.

ISSUE #5: Missing Product(s)

If you feel that a product or accessory is missing, let’s check a few things before we send out replacements. It’ll save everyone a lot of time!

1. **Please check to make sure that nothing has gone unnoticed in the packaging.** If you’re calling from your office and don’t have access to the package, please bring the package to the office the next day so that we can go over with you exactly what was supposed to be in the packages that we shipped out to you. Sometimes our shipping department uses filler boxes in packages to ensure that your products aren’t damaged in shipping, and often times those boxes are mistaken for missing products.
2. **If indeed a product is missing, firstly please accept our apologies.** We try our best to ensure that all orders are filled as they should be, but we’re only human. Please contact us (www.bavsound.com) and we’ll get it resolved for you shortly!