BAVSOUND®

Stage One Speaker Upgrade Installation Instructions for BMW X5 / X5 M '07-'13 (E70)

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/

- Optional: **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

Front Door Removal & Midrange Installation

1. Believe it or not, the front doors are very simple to remove. Starting on the passenger's side, identify the easy-to-locate screws, along the bottom of the panel. There are two of them, both of which are Torx T20. Remove these.

2. Now is also a good time to pop out the light on the underside of the panel as well. Using your plastic panel removal tool, carefully pry out the front edge (closest to the front of the car when the door is closed). The light will pop out, and you can unplug it. Place this aside in the area where you will also be keeping the screws.

3. Moving upwards, we remove the black plastic trim behind the door handle using our plastic panel removal tool. Start at the top, and it'll pop right out.

4. This will reveal another Torx T20. Remove it.

5. Again, using your plastic panel removal tool, carefully pry along the bottom edge of the door pull, as we're going to separate the front of the pull from the rear.

6. Once the initial separation begins, use your hand to remove the rest of the panel. Be firm but gentle in your pulling.

7. Once the door pull cover is removed, two more Torx T20 bolts will be revealed. Remove these, and the panel is ready to be separated from the door itself.

See, we told you it was easy!

8. We now want to begin removing the panel itself. Start with the front top edge, just below the tweeter mount. Using your hands (if you have small hands like the author here!) or your plastic panel removal tool, place your hand or tool behind the edge of the door panel and carefully pry outward.

You'll hear a pop, which is the first clip freeing itself from the door.

9. Once that top corner is removed, begin working your way around the panel until it is completely free. (The picture on the right shows you the blue "clips" that you'll be removing).

Take a firm grip while pulling in towards the car. The top edge is going to require a small amount of finesse, which you'll see as you get there. Don't force anything. It will come off, we promise.

10. With the panel freed, the first thing we'll do is unplug the speakers, window controls and lighting. Simply pull outward and away from the speaker/switch, and the connectors will free themselves.

11. Now, we need to pop out the door latch mechanism. It's easy, don't worry! Just place your fingers behind the switch as shown, and pull away from the panel.

12. With the panel free, take it to your workspace and prepare for the midrange installation. The midrange is attached using three Torx T20 screws. Remove these, and install your new Bavsound midrange. Simple!

NOTE: Now is the time to install your sound deadening if you chose to add it to your package. See our supplement on how to install sound deadening www.youtube.com by searching "Bavsound Sound Deadening."

13. Repeat the process with the driver's side door. Note that some variation between driver's side and passenger side is normal.

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Front Tweeter Installation

With the midranges installed, now we can install the front tweeters. You'll be amazed at just how simple this process is to handle.

1. Using your hand or plastic panel removal tool, pry on the bottom edge of the tweeter sail as shown.

2. With the front edge loose, push toward the rear of the door, freeing the rear lip of the tweeter panel.

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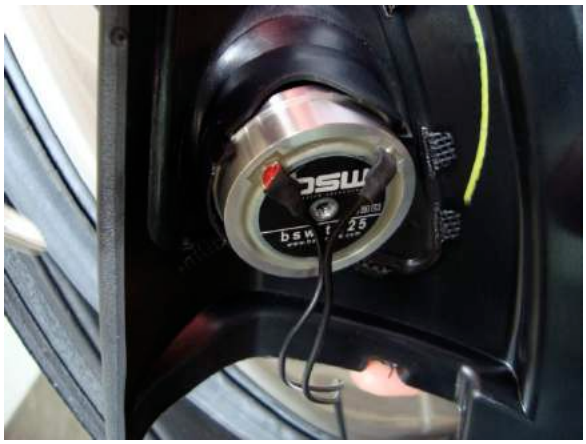
3. Now, you can start peeling back the upper section of the tweeter sail so that you can move the pod enough to swap out the tweeters.

4. Pry off the foam, and with the factory tweeter exposed, remove it using your angle pick tool. Carefully pry out at the attachment points, and the tweeter will free itself.

IMPORTANT! **Before** installing your new BAVSOUND tweeter, you **MUST** plug the included capacitor harness inline with the front tweeter or your tweeter **will NOT** function correctly.

5. Snap the new Bavsound tweeter into place, reinstall the foam, and voila!

NOTE: *In some cases, the foam may not fit with the new tweeter installed. You may need to modify the foam around the tweeter, or leave it out.*

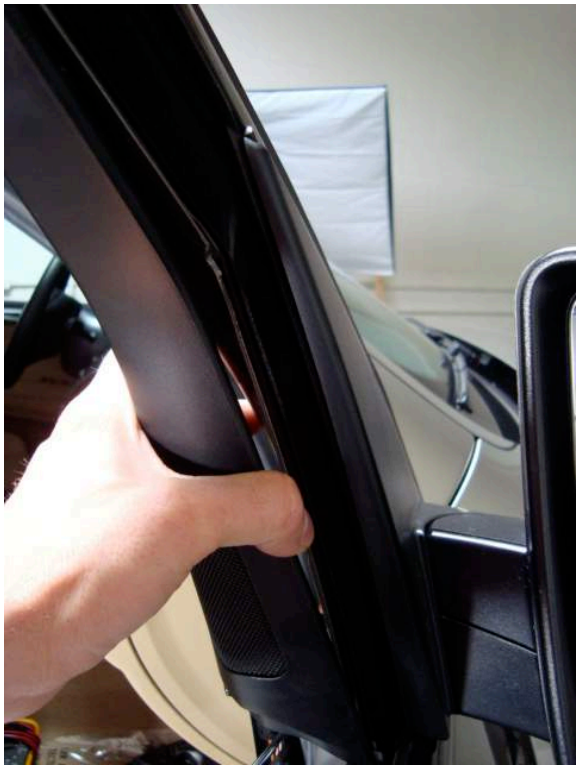


6. Now, snap the upper edges of the tweeter sail back onto the door, and carefully note how the rear edge of the tweeter pod needs to hook into the groove before you attempt to snap the pod into place.

7. With the pod snapped back into place, you're now ready to reinstall the door panel.

BE SURE to connect the BAVSOUND tweeter to your new midrange speaker when you're reattaching the door panel.

Don't forget to plug ALL of your connections back into place, as well as your door handle. We recommend starting the attachment process on the top edge of the door panel, and slowly working your around by ensuring the clips are aligned with the holes in the door before firmly pressing inward, securing the panel for good.



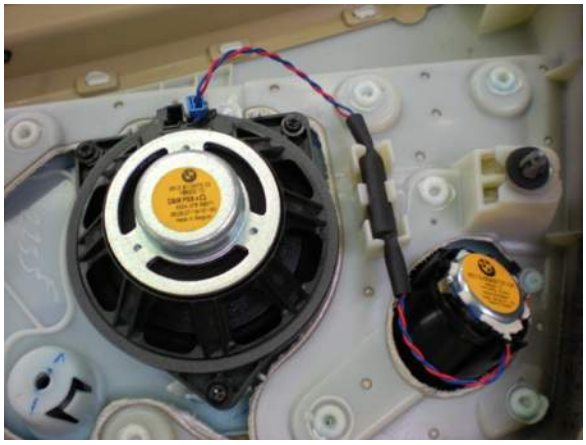
Part 2: Rear Doors, D-Pillar, and Center Channel

Rear Doors

NOTE: *The door panel removal process for the rear doors is the same as the front doors. Therefore, please refer back for a refresher course, although we bet you can do it from memory now!*

Midrange / Tweeter Installation:

1. With the panel removed, you'll notice the midrange mounts the same way as the front door. This will make things easy, as you already know how to handle things. The tweeter, while slightly different in appearance, still mounts the same way albeit with just a little bit of glue. So, pry the glue off and pop out the factory tweeter.



IMPORTANT! **Before** installing your new BAVSOUND tweeter, you **MUST** plug the included capacitor harness inline with the front tweeter or your tweeter **will NOT** function correctly.

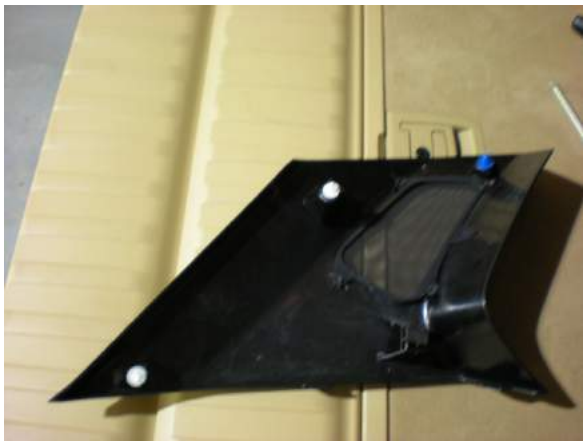
2. The new Bavsound tweeter will snap right into the housing, and for good measure, you may want to dab a couple of drops of glue to secure the tweeter. Not necessary, but some of us believe there's no such word as "overkill." Plug the tweeter into the midrange.

3. Re-install the door panel. Voila!

Rear D-Pillars

(Logic7, Harman Kardon, DIRAC, and EPS equipped vehicles only)

For reference before starting: The photo on the right shows the three points of attachment (1 blue clip, 2 white clips).



1. Using your panel removal tool, carefully pry out the rear D Pillar starting at the top edge. Use your hands to remove the panel.

2. With the panel removed, detach the midrange/tweeter pod by removing the three Philips head screws that attach it to the body.

3. Take the pod to your workspace. Remove the three 8mm nuts that attach the factory midrange.

4. Pry the factory tweeter out of it's housing using your right angle pick.

IMPORTANT! **Before** installing your new BAVSOUND tweeter, you **MUST** plug the included capacitor harness inline with the front tweeter or your tweeter **will NOT** function correctly.

5. Attach the new Bavsound midrange to the panel, and snap the new Bavsound tweeter into the housing (just like the rear door panel). Plug the tweeter into the midrange. Revel in your success.

6. Take the housing back to the car, plug in the midrange, and screw the housing back down to the body. Reinstall the panel. Smile.

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Center Channel

(All vehicles except "Base" Audio vehicles)

NOTE: This part is super easy, but you must be VERY careful when removing the grille that sits atop your center channel drivers. It is VERY thin, and can be broken very easily if you aren't SUPER careful. The good news is that now you know to be careful, so you won't break it. If you do break it, it's only ~$12.

1. Using your plastic panel removal tool, CAREFULLY being prying between the grille and the dashboard, as shown below. The picture on the right shows the clips that you'll be "freeing" from the dashboard. Carefully work your way around the grille until it's loose, and finish the removal using your hands.

2. The midrange/tweeter housing is attached using 4 Torx T20 screws. Remove these, unplug the assembly, and take the pod to your workstation.

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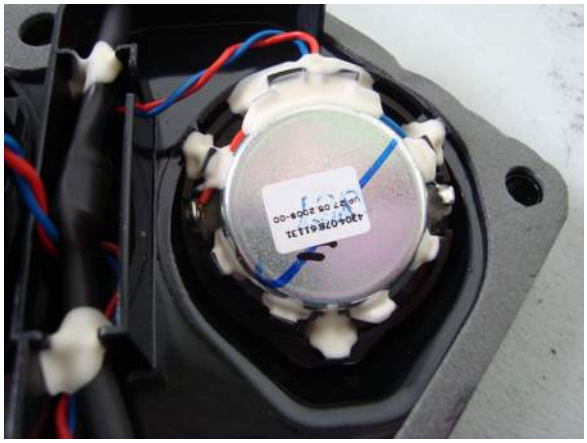
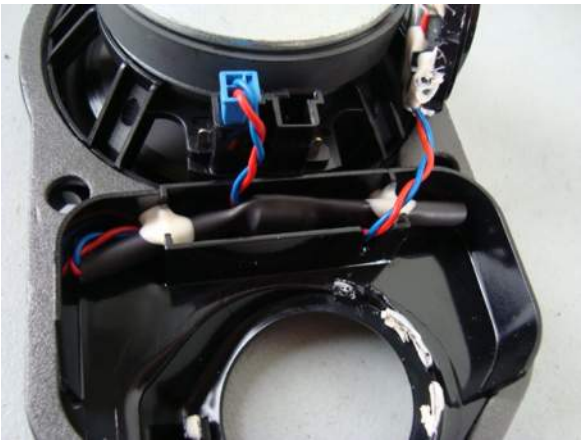
3. Pry out the tweeter using your right angle pick. Snap the new Bavsound tweeter into the housing, and drop the new Bavsound midrange into the midrange location. Plug the tweeter into the midrange.





4. Head back over to the X5, and plug the midrange into the factory connector. Reattach the housing, snap the grille back in, and pat yourself on the back.

WOOHOO!

You've now completed your BAVSOUND Stage One Speaker Upgrade!
Head up front, put on your favorite album, and go for a drive.

And most importantly, enjoy your new BAVSOUND system!

Love your new Stage One? Let us know!

Tweet us @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 midrange 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!