

2003 Boxster Stereo Upgrade (October 2012)

I know this issue has been brought up many times and information abounds in many places, but I just wanted to share my experience so that others may (hopefully) benefit.

I have a MY 2003 Boxster base, which has the Bose speaker option (option code 680, digital sound package). It uses the MOST bus system, and consists of the following:

Porsche (Becker) CDR-23 head unit

Bose 6 channel amp in the front trunk (MOST fiber optic link between the head unit and amp)

Dash: Bose 4 inch speakers with separate tweeters

Doors: Bose 4 inch speakers in custom made enclosures

Rear Deck: Bose 5 ¼ inch (wired as subs), with 2 inch tweeters

The system sounded okay when cranked up but what I really wanted was the connectivity a newer head unit would give (Bluetooth for phone, aux input and USB input for iPhone, etc), and I really wanted a system with a high-end sound as a Porsche should have!

Just for reference, I listen mainly to classic and modern rock, so I didn't need or want anything with pounding bass that the car next to me can hear and feel, but I wanted a nice, clear sound with sufficient separation to create a nice balanced sound field.

I won't go into detail on what I did to get there, so let me just say I went through a pretty lengthy (and expensive) trial and error process to get to the end result. Which is why I'm writing this up, because if anyone can benefit from this, hopefully it will save you some time and money if this is the type of system you might be looking for.

So what I eventually ended up with is as follows:

Kenwood KDC-848BT Head Unit (\$200)

Rockford Fosgate PBR300X4, 4-Ch Amp (\$180)

Rockford Fosgate PBR300X2, 2-Ch Amp (\$180)

Dash speakers: Pioneer TS-D1002R, 4 inch 2-way (\$60)

Door speakers: Earthquake SWS-6.5X shallow mount subwoofers (\$130)

Rear Deck speakers: Pioneer TS-A-1304C, Component Speakers, 5 ¼ inch main and ¾ inch tweeters (\$60)

Dynamat for the doors: 12 sq ft (\$90)

Other miscellaneous connectors, wiring, etc: (\$50)

I want to put in a plug here for Sonic Electronix where I purchased most of the system. Their online store had everything at great prices with fast shipping and they also accepted a return without a glitch.

Total cost (DIY): approximately \$950

I know there are many Porsche owners that may not want to do this but actually, the only places I did something to the base metal of main parts of the car was I drilled a couple holes into the sheet metal on the inside of the doors, and the speaker wiring under the front hood was cut from the original plug and spliced into the harnesses that came with the amplifiers. I also had to cut off the connectors from the speaker wiring in the doors and crimp on some female spade type connectors to connect to the new

speakers. Other than that, I didn't do anything that couldn't be reversed back to original if necessary. And all of the speaker wiring could be spliced back together if necessary. I also drilled mounting holes for the amplifiers in the bracket that held the original amplifier in the front trunk, but that bracket can be easily replaced.

Head Unit

The head unit is a single DIN Kenwood mounted directly where the Becker unit was in the console. There are a lot of good head units out there so this can be a personal preference and most should mount the same way this one did. The power comes from the fuse box at location E-1, using a fuse-to-wire adapter purchased at a local auto parts store. The wire from this was run around under the top edge of the carpet and around into the center console compartment. I could not find any other wiring in the radio location that powers the unit as it should. The head unit is supposed to power on when the key is turned to accessory, and then remain on when the key is turned off and only turns off when the key is actually removed. Power from the fuse box location E-1 will do this.

I used standard 6 foot long audio RCA cables to go from the head unit to the trunk area. There are 3 sets, one for front, one for rear and one for the subs in the doors. They go through a large rubber grommet that is in the firewall pretty much directly behind the head unit and just behind the battery. In fact, after removing the battery (which is a must to do this right), you can ask a friend to fish the wires through from the trunk side, and they can pretty easily be brought in through the grommet and into the area where the head unit is installed. There is also a signal wire (blue) that needs to go into the trunk with the RCA cables as well, which comes from the head unit to activate the amps when it fires up. I ran one wire into the trunk, then split it into two wires, one for each amp.

You will also need an adapter to connect the European style antenna connector from the Boxster to the head unit, and again, this can be purchased from almost any auto parts store.

I mounted the microphone for the phone into one of the unused plugs just to the left of the head unit (see photos) and it works very well in that location.



Amplifiers and Front Trunk

The two amplifiers were mounted back-to-back on the original amplifier mounting bracket. I used four plastic spacers beneath the mounting holes for each one so they are about ¼ inch off the surface to help air flow around them to dissipate heat. I've checked the amps after driving with the system cranked up and the amps only get warm and not too hot.



The power to the amps comes directly from the battery, and for this I bought standard 10 gauge automotive wire as well as a large fuse holder and a 30 amp fuse for each amp. I also used 10 gauge wire for the ground for each amp which goes around the inside of the trunk down to a ground stud and nut on the right side of the trunk underneath the trunk liner.

I used all of the existing speaker wiring and even though it's pretty thin, it worked quite well and I didn't notice any degradation of sound or any wires that seemed to be getting hot.

I cut the wires from the old amplifier plug harness and also removed the old fiber optic wire completely that used to go between the original head unit and the amplifier. It basically gets in the way and since I wasn't going to use it, I removed it. Again, all of this can be reversed, although you would have to splice the speaker wiring back together.

Note that the rear deck speakers were originally wired with the two 5 ¼ inch speakers joined in parallel as "subs" and the two tweeters also joined in parallel, so there was no left or right separation. Since there are four wires total to the back deck, I re-wired the configuration to have the new Pioneer component speakers to be left and right as would normally be done for rear speakers.

Dash

To mount the speakers in the dash I removed the original Bose main speakers but left the tweeters in place. I did modify the original plastic mounting "hold-downs" with a Dremel by basically removing everything in the ID of the mount out to just a bit smaller than the OD of the speakers. On the speakers, I removed the four corners and tried to round them off as good as possible with tin snips and a file. When the speakers were installed, they fit very well and the plastic hold-downs basically catch the out

edge of the speaker between the hold-down and the main mount. Hard to describe, but once you start into it, you'll see how it goes.

There are some instructions in the Renntech forum that is listed in the sources in this article.



Doors

I won't go into a ton of detail on the modifications required in the doors, as there are already several people who have done this and posted in several forums. There is a particularly good one listed in my source stuff. I have seen in many forum posts where most people are installing 6 ½ inch speakers and that's about as large a speaker that will fit comfortably with the stock door panels. For your door speakers, make sure they are shallow enough to fit, because just behind the magnets there is a window channel/support and if the speakers mount too deeply they may interfere with it.

Basically, I used ½ inch hardwood plywood to mount the subs into the doors. The 6 ½ inch Earthquake SWS subs fit perfectly into the space and there was sufficient clearance in the back to not interfere with the window channel just behind the speaker and in the front to not interfere with the speaker grill on the door panel.

I covered the speaker mount area with Dynamat as well as the inside of the door outer shell. When this was done, it basically turns the door into an enclosure, even though it's not completely enclosed. It not only sounded great when done, but the door sounds much more solid when it's closed.

Sorry, I did not take photos for this portion.

Rear Deck

I actually liked the way the back deck was set up, with the two 5 ¼ inch speakers mounted facing down against the engine cover mat and the two tweeters facing out directly, one from each side all the way to the left and right. I installed the new Pioneers exactly the same way, and in fact the 5 ¼ inch Pioneer main units fit directly into the mounts with no modification. Since the main speakers are acting like subs, the sound actually comes out the back of them through the center port of the rear deck.

For the tweeters, I made small flat mounting plates using some plastic electrical box covers purchased from Home Depot, and drilled them to match the old openings. The new tweeters were meant to be pressed into an opening, so I made holes in the plastic plates at just the right size to press them in place. Be careful with the size because you want them to fit tight. If you ream the holes even the least bit too much, the tweeters will come loose and you'll have to glue them in place.

As mentioned earlier in the "Amplifiers and Front Trunk" section, I rewired the speakers into a left and right configuration and to do this I had to modify the wiring harness inside the back deck. Again, this can be reversed, but you would have to pretty much replace the wiring harness if you do it like I did. You could also just remove the old harness and keep it intact, and put in new wires if you wanted to do it that way but you would need to find a connector somewhere to connect the rear deck to the wiring harness connector on the right side where the original connection is made.

I'm not familiar with the aftermarket type of rear deck, but if your car doesn't already have one, I've read in several forums where one is available on eBay that works quite well. I would highly recommend adding a rear speaker deck if you don't already have one as it will make a significant difference in the sound as it surrounds you in the car.



Info Sources:

<http://carltonbale.com/cars/porsche-boxster/porsche-boxster-audio-upgrade/>

Pelican Parts articles

986 Forum

<http://www.renntech.org/forums/index.php?showtopic=6617>

Results!

When completed, I was extremely happy with the sound and it was exactly what I was looking for. A very high-end sound with clear highs, sufficient bass and a very special sound field. The bass from the Earthquake SWS subs is great and sufficient to pound the doors if need be. I can play CD's, CD's with MP3 songs burned onto them, USB drive with music, my iPhone in iPod mode, my iPhone with Pandora streaming, etc.

