

Gen 3 non-JBL Door Speaker Upgrade

Speakers

My goal is to make a major improvement over the stock non-JBL system without going high end. So far I have upgraded the door speakers, improved the door acoustics and gotten a very big improvement in sound quality. I still have the dashboard speakers to do and a Rosen Nav to install.

I used Pioneer TS-A1673R 6.5 inch 3-way speakers. I bought them from Crutchfield for \$49.95/pair on sale and they came with a wiring harness adapter and mounting adapter I think that was an end of line sale so they may not be available for long.

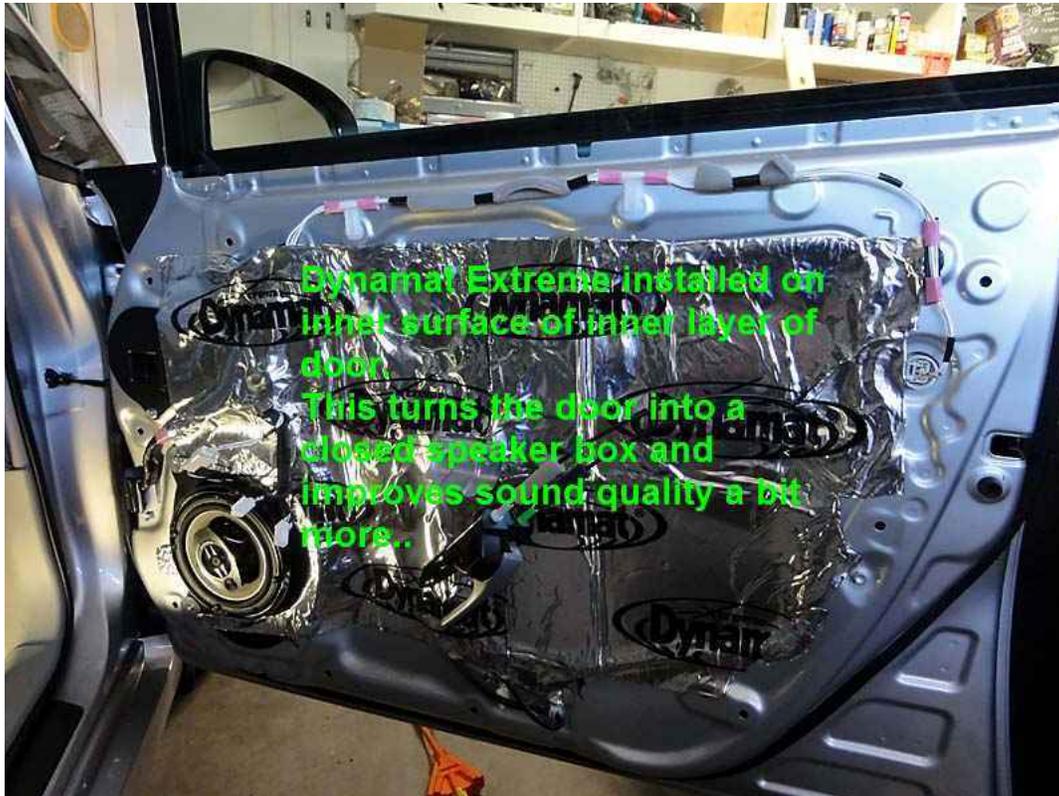
I used those speakers because Revhigh had good results with them. <http://priuschat.com/forums/gen-iii-2010-prius-audio-electronics/90703-quick-cheap-speaker-sound-deadening-upgrade.html> The stock non-jbl speakers are bad enough that any decent 4 ohm speaker would be a major improvement. There are lots of good speakers out there.

Front Door Speakers

I did some step by step comparisons as I upgraded the front door speakers so I could be sure it wasn't my imagined brilliance fooling me into thinking I had done something better than I had done. The steps and observation are in the following table.

Left Door	Right Door	Observations
Pioneer TS-A1673R speaker. Dynamat Extreme on inside of outer door skin. Door panel installed	Stock	Wow! A big improvement easily confirmed by adjusting balance full left to full right. Much cleaner sound, stronger mid range and highs.
Same as above	Pioneer speaker, Dynamat Extreme on inside of outer door skin. Access holes in door closed with plywood. Door panel off.	Another obvious improvement. Some more volume, improve mid and bass
Same as above	Above + Dynamat Extreme on inner panel of door, covering plywood.	Some more improvement. But not as much as previous steps
Same as above	Above plus door panel installed	May have lost a bit from installing the door panel with the restrictive factory grill. Hard to tell. Still a real big improvement from stock.
Upgrade to same as right door	Same as above	\$50 for front door speakers, about \$50 for sound deadener. A well spent \$100.

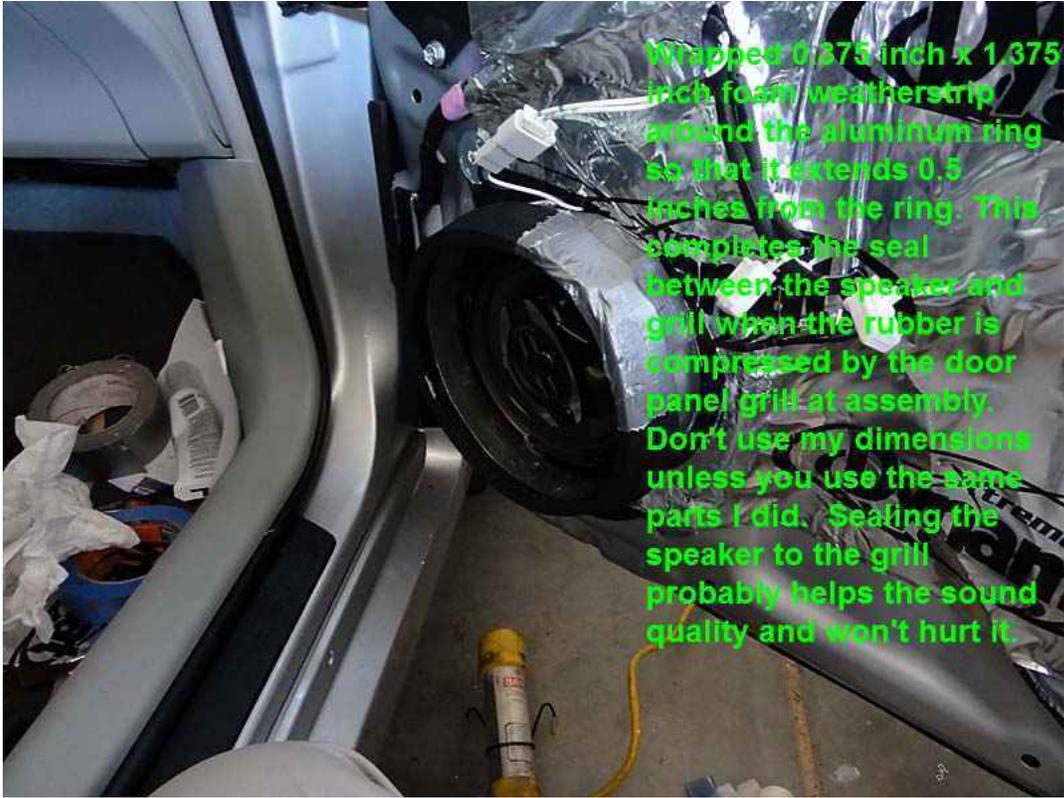




Dynafit Extreme installed on inner surface of inner layer of door. This turns the door into a closed speaker box and improves sound quality a bit more..



Fabricated 0.024" thick x 1/8 inch tall aluminum ring as part of seal between speaker and grill in door panel. It has nominal 0.25 inch clearance from the grill and is secured to the Crutchfield speaker mount by a slip fit and silicon sealer/caulk.



Wrapped 0.375 inch x 1.375 inch foam weatherstrip around the aluminum ring so that it extends 0.5 inches from the ring. This completes the seal between the speaker and grill when the rubber is compressed by the door panel grill at assembly. Don't use my dimensions unless you use the same parts I did. Sealing the speaker to the grill probably helps the sound quality and won't hurt it.

Rear Speakers



Best guess marking
job, ready for first
cut



Notch cut in
adapter to clear
door panel
mounting feature

For the rear, I did the same installation as the front except I had to trim the Crutchfield adapter.

The rear speaker installation gave an improvement in the rear nearly as good as the front installation did in the front. They also do make some improvement to sound quality in the front seat, They make the car sound bigger inside.

After this picture was taken, I added Dynamat Extreme to the area of the door shown in the picture, same as the front.

