

---

Subject: Re: 3 PI build

Posted by [BFP](#) on Wed, 22 Jan 2014 20:37:54 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

The next job was to cut the woofer holes and make the recess for flush mounting the horn.

The woofers were pretty easy. I used a Jasper Jig mounted on a plunge router to make the recess then the through hole. For a 4012 HO woofer I went with the 11 1/16in. size for the through hole and for the recess I went 12 7/16 in. The recess is about 9/16" deep. The woofer is listed as 12.38" diameter so you may get it to fit with 12 3/8 but I went with the larger hole to be sure. Since I am going with a black baffle any small gap will not be noticeable.

To do the recess for the horn I made a pattern and used a bushing on the router to cut the recess from the pattern.

It's a 3 step process. First you rout around the outside of the horn flare. In the post above you can see the horn flare face down, bolted to a piece of 1/4" MDF which became the first pattern. This creates an over sized pattern. You then rout around the inside of that pattern to create a second smaller pattern. That pattern is oversized by the diameter of the bit used to create the patterns. You then use the smaller pattern to rout out the recess around the horn opening in the baffle. You need to use a bushing to compensate for the size. So if you are again using a 1/4" bit you use a 3/4" bushing which gives you the correct offset and a perfectly sized recess for the horn. It's a lot of work and may not be worth it for many people.

Here you can see the large pattern clamped down and the just routed 2nd pattern in the centre.

The recess and a gasket. Don't forget to add depth to the recess for a gasket.

With the horn in place.

---

### File Attachments

- 1) [DSCF9555.jpg](#), downloaded 8585 times
  - 2) [DSCF9567.jpg](#), downloaded 8685 times
  - 3) [DSCF9566.jpg](#), downloaded 8668 times
-