

Latest project from Precision Chassis Works. Suby powered Radical.

After what seems like the longest few days of my life we have finished our latest Subaru swap. This time it was a JDM Spec C motor with a Porsche transaxle into a Radical SR3. This car started out powered by a stock Hayabusa motor with a final drive, and a sequential gear box. The whole thing weighed in at about 1300 lbs. The service life on the motor was very short (roughly 30 hours) and service costs were very high. Earlier in the year at Inde Motorsports Park the motor kicked a rod out of the block and the owner was at a cross roads. Seeing what PCW has done with our Boxster and Suby motor he was intrigued with the idea of Suby power in the Radical. It would be cheaper to maintain, far more reliable, and best of all much faster.

The project was cruising along a good pace until the owner decided he wanted to take the car to NASA Nationals in OH. At that point the project had to be kicked into high gear and the last few days have been a mad dash to finish the project but still keep a high level of quality. On Thur is didn't look like it was gonna happen but we kept on pushing through the set backs (and there were a lot of them) until we got it to fire up for the first time. Even though that seemed like a huge step we still had a long way to go from a running engine to a fully functioning race car. This morning at about 11 AM after the longest 3 days of my life with only 5 hours of sleep Kent backed the Radical out under it's own power. We put it on a trailer and set it off to get tuned. About an hour ago I got a text saying the car made 328/283 at the wheels. Keep in mind this car will only weight about 1500 lbs. To say it will be fast is an under statement.

The car was loaded on a trailer right after the dyno session and is on it's way to OH for nationals.

Here are a few pics and videos I took with my phone in the last few days. I'll see if Kent has anymore from the earlier stages of the car.

The entire build was done at [Precision Chassis Works](#) in Gilbert, AZ. (Official [Facebook Page](#))

This is when the thrash really started. Kent had to make the intercooler from just a core so it could be fitted under the stock bodywork. You can also see some of the new structure that was put in after we cut out some tubes to make room for the engine.



Here is a close up of the “engine bay”. The gold foil is heat protection for the chassis as well as the passenger compartment and the body. Everything in this car is a super tight fit with little room to spare.



Here you can see the exhaust and intercooler installed.



This in the new interior shots. The entire chassis harness was hand built from scratch. Jim is a wiring guru and we didn't have a single issue with the harness. The old dash was a hodge podge of crap. Not only did it look terrible but it wasn't very user friendly. With the new Racepak it is much cleaner, nicer, and easier to use. One of the down sides to the swap is the loss of the passenger seat, sometimes it's gotta be function over form.





Here is a video of the very first start. Now some people will start a car a few times fix some issues then video tape the “first” start. We did not do that, this is literally the very first time we fired this engine up. It is quite an amazing feat considering Kent had the entire engine harness pulled apart, took out what wasn’t needed, then lengthened the whole thing with wire from an other harness. This happened at 5AM Sat morning after a 18 hour day.

This is everything finished up and waiting to be driven under it’s own power for the first time. Once you see the car with the body work on you will see the packaging issue we were facing:



Only immediate give away to what lurks underneath is the exhaust and clever sticker. Other than those it looks like any other Radical.



Here is an under body shot looking up. You can see the Cosworth dry sump setup, hand built headers, and the gold foil on the chassis to keep the passenger compartment temps down. On the other side of the gold foil is the gas tank which also happens to be the back of the seats.

The first drive under it's own power! Seeing it up on the trailer and done was a HUGE relief. It proved the concept as a reality and I can't even express how proud I am to be part of this build.



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