

Project Astro

Project Astro encapsulates some of the work I have done on my 1997 Chevy Astro during a month of Summer 2018.

When I purchased the Chevy Astro sometime during mid-summer, I knew it was in rough condition (and because of which, I got the van for less than half of their asking price). Just from the test drive, I knew it was going to need some TLC on the engine, replacement of the front brakes, and replacement of a wheel bearing. Besides that, the vehicle looked quite spectacular for Iowa weather, a little rust, but not terrible. It drove very well, and for the caliber of it's engine and transmission, still have 50-70% of it's life left.

First thing I needed to do was take care of the engine. The first start of the day, it would take almost 10 seconds of cranking before it would get it's first spark and start running. At first, I thought this was due to a failing fuel injector. I set out to replace its old CPI (Central Port Injection) to a newer MPFI (Multi Point Fuel Injection) Injector.

First thing, get to engine. With the Chevy Astro (and GMC Safari) it's almost completely inaccessible from the front.



This means going through the dog house inside of the van.



Alright, great. Three hours of bending your arm in terrible ways to reach bolts, and you have access to the old injector.



Just swap that out...



And now it looks much better.

This made the van run much much better, and I saw an actual increase in my fuel economy. It also felt like it made more power.

However... It still had a starting issue. After 30 minutes of poking through engine values being outputted to my OBDii reader, I finally found a value that had not triggered an engine code, but was clearly very wrong. The coolant sensor was reading -200 degrees C at all times. \$20 and a swap of a sensor later, the engine was no longer flooding itself with fuel when trying to start.

As of now, I haven't had more time to dedicate to Project Astro (well, nothing big). One of it's wheels was repainted, and it got a new head unit. That's been about it. Project Astro had to be put on the back burner due to college starting again (my evenings are rarely free) and with it getting cold outside.

More to come soon!