In the information below I will explain in more depth the issue of what’s going on. The TPS is overthrowing causing it to go out of range in the Rheostat within the TPS. When this happens the ECU does not know what to do and goes into a protection mode and shut the engine off for a split second until it’s back within range of the TPS. We have seen some faulty TPS sensors is causing these issues and my recommendation would be to replace it. When setting the TPS we recommend limiting the travel to only 110% when holding the vehicle at full throttle by the throttle pedal, more than likely this is the way the car is set up at this point but when the TPS fails overthrows internally causing this issue. This is best adjusted at the panel box with the throttle pedal stop We know the Rheostat inside the TPS fails at 114%. When we first saw this happen on a car here at Spring Mountain’s, we thought it was an issue of the throttle opening to much but after extensive research we have found that the TPS is to be at fault.

The second thing we see is the ACT sensor has gone faulty also. This may cause issues with air fuel and ignition curves causing the engine to lose power. This is not an uncommon failure as temperature in vibration seem to knock out the sensor from time to time. This sensor along with the TPS sensor will directly affect the horsepower in a drivability of the vehicles. I would be curious wants this is corrected to see if your lap times improve back to what you were used to.

Wanted to touch on the bearing update within the transmission also. We have done extensive research along with Radical motorsports to make sure that this update would not affect anything other than increasing engine longevity. When we stamp the motor with an “X” basically what that is saying is that we have upgraded the input shaft bearing to a larger bearing and signifies that the oil inside the engine needs to be MOTUL 300V Factory Line 4T 15W60. We have run many engines on the dyno showing no horsepower loss due to this upgrade.

These are the notes we have made from the data:

Attached are a few pictures of the issue shown on the car. First the pictures of in car video you can clearly see one moment that the car has 100% throttle and then as soon as the "shifting issue" happens he has 0% throttle. This is because when the throttle position sensor goes over 114 percent it will go back to zero. This is almost always because of a faulty throttle position sensor(TPS). The immediate lurch from full throttle to no fuel delivery can feel quite foreign and is easily mistaken for a gear issue. Also note in the next picture of the data from the ECU, here is an example of the TPS going from 114 to 0 immediately. The 4th picture is just zoomed in on one of these throttle position overthrow events. This happened a few times during the last data file. As well as having a TPS issue, there is also an ACT issue. The Air Charge Temperature (ACT) sensor in an SR3 should be a mostly flat gradual increase in temperature however it is clearly changing temperature values quickly. This sensor is failing as well.