

Clutch Testing/Verification

April 3, 2020|- Can Am X3 Turbo -, - Clutching -, - RZR Pro XP Turbo -, - RZR XP Turbo -

With a CVT clutch vehicle you must verify clutching performance with a peak RPM test after adding performance modifications, adding larger tires, and of course when setting up your AA clutch kit. This will ensure your setup is working properly for the best combination of power transfer and belt life. On your setup guideline we will list the proper window for peak RPM for your vehicle. Keep in mind this usually changes for a stock tune vs. one of our tunes as we allow vehicles to rev higher and make better power in higher RPM's.

Testing: find an open area or road where you can safely test. Do a wide open throttle run from a dead stop or a roll on (either works) and look at your tach to see where your max RPM is between 50-60mph.

Many times we will leave the clutch cover off and test on a road so any changed needed would be quicker. We are doing a 0-60+ MPH wide open throttle test. Often times with more powerful turbocharged UTV's we prefer to do a 10-15mph roll on start instead as you won't burn the tires off as bad. This is the best spot to check what we call peak RPM. This is our constant to tell us how the clutching is setup. You can be in 2wd or 4wd. Make sure you are within our guideline spec for RPM. If you are, great! If not, adjust weights accordingly.

AA clutch weight adjustment: If your RPM is too high you need to add more clutch weight. If your RPM is too low you need to remove clutch weight.

Don't be afraid to adjust! Simply mimic what our setup sheet calls for. Say your magnet setup was 4/3/3 but you needed more weight, It's really not going to change much going 4/4/3 or 4/3/4. Either would work great. Same with subtracting weight. Just try to keep the weight placement on the arm like we do, or if possible find another setup on the spreadsheet that has 1 more or less magnet and go with that. Many are afraid they will place the magnets in the wrong spot, and it's really not that crucial when adding or subtracting 1-2 magnets. Having the correct peak RPM is the 1st

thing to worry about, and then if it feels lacking in an area we can change magnet placement.

Dune clutching vs Trail Clutching: Dune setups like more RPM, while trail clutching often times likes a little less. We'll use an RZR Turbo as an example. When tuned, we call for 8400-8600 RPM peak. Anywhere in that range works great for dunes or trail. If you want to be overly picky with your setup the best trail setup is more in the 8400-8500 RPM range as you will get the best top speed, load the motor so it creates boost better, and get more belt pinch for lower speed crawling. Dune riding is more the opposite as you have a load (because of the soft sand) even at higher RPM, so you will see cooler belt temps and better performance with higher RPM around 8500-8600 in the dunes. This is true for most CVT vehicles when running on trails compared to sand. Moral of the story is if you have time to be picky with your clutch setup, use our lower end of the RPM range for trail riding, and our higher end for dunes/sand.