

Delacruz Motorsports Pre-Tuning Checklist

Make sure you have read and understand everything on this page. If you have questions, ask before coming in for a tune. I will expect that everything in this list is up to par unless you tell me prior to making your tuning appointment.

Compression Test:

In my opinion, you should know the health of your motor before having it tuned. Your engine should be healthy before putting it through a rigorous tuning or track session. This will also give you a 'baseline' to monitor throughout the life of your engine.

Approximately 'Healthy' numbers –

- 8:1-8.5:1 compression: 150-170 psi per cylinder
- 8.5:1~9.5:1 compression: 170-210 psi per cylinder
- 9.5:1~11:1 compression: 210-275 psi per cylinder
- 11:1+ compression: 250+ per cylinder (highly depends on cams being used)

The tested numbers shouldn't vary any more than 10% from cylinder to cylinder.

Leak Down Test

Similar to a compression test, it's another measure of your engine's health. There shouldn't be any more of a leak down % than 10% in any one cylinder. If you are seeing more than 10%, try to find where the air is leaking. You can do this by listening or feeling at the dipstick hole or by taking off the radiator cap and watching for bubbles in the coolant. Air in the dipstick points to the piston rings, ring lands or the pistons themselves. Air in the coolant points to head gasket issues, or cracked or sinking sleeves.

Engine Timing

With a timing light, set the engine at idle to Honda spec'd base timing. Generally this is between 16-18 degrees for most motors. Please see a Honda service manual for your particular motor. If you have a hybrid...it will be up to you to determine what base timing should be set on your motor. I expect this will be done before you arrive for your tuning appointment.

Valve Adjustment

Another thing that should be set before arriving for your tuning appointment. See the specs again from Honda for what the valve lash should be set to on your motor. Set the valves on a fully cold engine only as metal expands when heated which could throw off your settings when performing a valve adjustment on a warm motor. Again, I expect this is done before you arrive.

Check Engine Lights

A car should be free from any check engine light issues before arriving unless cleared by me before you arrive. Most of the time the only check engine light I can eliminate and effectively tune is for an Oxygen sensor. All other sensors should be operating and wired correctly when you arrive for your tune.