

MATCH THE ACTUAL CONTROLLER / OS BEFORE A TRIAL

GM Gen III – Start & Idle Adjustments

P01/P59 or LS1-style definitions with the named controls present. Self-service starting examples; confirm your actual controller, cam and units.

1. Before the first trial

Keep your original read untouched. Save each trial separately. Work in your own vehicle file. Change one control at a time; retain unused/factory-zero regions. Slow cranking or an engine that never fires needs separate power, trigger, fuel and mechanical checks. These running-idle adjustments are not cranking-fuel fixes.

2. Set a realistic warm target

Engine > Idle > RPM: find Target Idle Speed/Idle RPM and verify ECT, P/N and in-gear rows. Gulf Coast's published Gen III Truck Norris benchmark is 750 RPM in P/N and Drive. For that matching cam, a below-750 target can be tried at 750 in the affected warm cells. Blend neighboring temperatures. Keep it only if idle improves without excessive converter push; otherwise restore. This is a workshop benchmark, not every engine's required target.

3. Correct the actual base-airflow cells

Engine > Idle > Airflow > Base Running Airflow > Idle Airflow: verify g/s versus ECT and gear/P-N. HPA's Gen III LS1 method uses a scanner histogram with the same temperature labels. Collect settled airflow, separately for each state. Update only populated matching cells. Arithmetic example: current 7.0 g/s, repeated settled requirement 8.0 g/s to trial 8.0 there. Keep unmeasured cells. Gulf Coast's Truck Norris warm benchmark is 8.5-9.5 g/s; displacement was unspecified, so measured need controls.

4. Check release and gear changes

After steady idle improves, check a small stationary throttle release and P/N-to-gear response. Undo the latest airflow increase if RPM hangs, creeps excessively or oscillates more. A release-only dip is not proof that every BRAF cell needs more air. Gen III follower/decay controls differ from the E38/E67 torque table; do not copy that table or a HEMI recipe.

5. Self-service or a paid upgrade

Downloads include self-service information, not personal troubleshooting or file/log review. Eligible paid upgrades credit the verified amount actually paid for the file; you pay the balance. Base: rough startup/idle/initial driving, two revisions. Full Custom: Jason's datalog review and refinements for the purchased setup, up to five revisions.



Want us to handle the tune?

A download includes self-service written guidance only. Personal troubleshooting, individual file/log review and tune changes require a paid upgrade within the chosen package. We deduct the verified amount actually paid for your eligible file; you pay the remaining balance.

[See your paid upgrade options](#)

Sources and example scope

[Gulf Coast / Michael Gilmore - Gen III Truck Norris benchmarks](#)

[HPA webinar 217 - Gen III histogram method, 13:04-18:53](#)

Apply only to the identified controller/OS and matching control definition. Examples are starting trials, not a finished tune, compatibility approval or guaranteed repair. Personal JRJ troubleshooting, file/log review and changes require a paid upgrade.