

MATCH THE ACTUAL CONTROLLER / OS BEFORE A TRIAL

GM Gen IV - Start & Idle Adjustments

E38/E67 main branch; early LS2 E40 uses the separate RPM-only branch below. Match the actual file's controller/OS, table function and units.

1. Before editing

Keep the original read and save trials separately. Change one relevant control at a time; preserve unused/factory-zero regions. These are conditional examples, not a finished calibration. Never substitute HEMI voltage settings, change fueling/spark/protections indiscriminately, or treat a slow-crank/no-fire condition as ordinary running idle.

2. E38/E67 · Needs pedal to catch

Engine > Idle > Airflow: find Startup Airflow and confirm g/s plus actual ECT/runtime axes. VCM Performance documents +1-2 g/s. Proposed narrower first trial: +1 g/s in the active affected start-temperature/runtime region, with a smooth handoff; example 10.0 to 11.0. Test without adding fuel or delay changes simultaneously. Restore if startup flares, hangs or gains no benefit. Narrow cell selection is our adaptation of the broader published example.

3. E38/E67 · Short of air near idle

Engine > Idle > Airflow > Base Running Airflow > Airflow Final Minimum: confirm g/s against RPM and gear. HPA's E38/HS108D worked example adds 2 g/s through the likely idle region to 1200 RPM and blends 1200-1600. Use only the relevant row/near-idle cells when the observed shortage supports it. Test steady idle and a small stationary throttle release. Undo if RPM hangs, speed rises unnecessarily or the dip persists.

4. Matching DBW definition · Cold authority limit

Only when cold RPM remains below target and throttle authority is visibly saturated: verify effective-area Percentage Max under Idle > Airflow. HPA demonstrates 1.9% to 2.5%; this is not actual throttle-position percentage. Use only a matching definition/start value. Restore if control worsens. Do not jump to 10-15% or apply this to every poor idle.

5. Early LS2/E40 · Separate RPM trial

Do not transfer the E38/E67 airflow recipe. Confirm E40's actual desired-idle RPM table. A proposed warm-state trial is 750 to 800 RPM, using HP Tuners' published +50-RPM adjustment method on a matching target definition. Blend adjacent temperatures and undo if ineffective or excessively pushy. The vendor article is not an E40-specific startup-airflow recipe; no such preset is supplied here.



6. Paid service boundary

No personal download support or file/log review is included. Eligible paid upgrades credit the file payment; balance remains due. Base: rough startup/idle/initial driving with two revisions. Full Custom: datalog review/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

[VCM Performance - E38/E67 startup example](#)

[HPA E38 worked example - Step 3, 10:23-11:25](#)

[HPA webinar 217 - matching Percentage Max example](#)

[HP Tuners - common +50-RPM target adjustment example](#)

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.