

FREE SAMPLE

The opening pages of

LS/LT Conversion: GM F-Body 1967-1969

Read these pages exactly as they appear in the full guide.
Nothing here is rewritten or summarised — it is the product itself,
so you can judge the depth before you spend a dollar.

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Factory-Correct Restoration Reference

LS/LT Conversion Guide — GM F-Body 1967–1969

Model Year 2026

Recipient cars	Camaro, Firebird (1967–69 F-Body)
Donor engines	Gen III/IV LS (donor-first) · crate LS3 · Gen V LT
Highlights	Rear-steer pan plan; subframe mock-up method; worksheets
Price	\$29.95 — PDF download at checkout

Every specification in this guide was checked against factory literature, marque references, period road tests, and documented survivor cars. Where sources disagree or the record is silent, this guide says so rather than guessing.

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Inside This Guide

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Chapter 1 — The Decision: Donor, Crate, or Gen V LT (Read This First)

The first-generation F-Body — 1967–69 Camaro and Firebird — is the LS swap the brochures make look easiest and the tape measure makes honest. The bay looks wide. It is also shallow, the steering linkage lives behind the crossmember exactly where an oil pan wants to be, and the whole front of the car hangs on a bolt-on subframe that decides every clearance you will fight. This chapter puts the whole bill on the table before the first bolt turns, the way this family does it for every body.

- **Donor-first (this guide's default, per the family decision):** a salvage truck 5.3 or 6.0 (LM7/LQ4 class) or — the packaging gift — a 1998–2002 Camaro/Firebird LS1 with its harness, PCM, and accessory drive. The F-body donor's drive was packaged for a low, tight bay and brings the friendliest starting point; the truck donor is the budget path and the taller one. The unknowns on any donor are mileage, accessory completeness, and harness condition — audited in Chapter 2 before money moves.
- **Crate:** a new LS3 (430 hp, GM's published rating) or a controller-package crate with its wiring and calibration. It buys certainty about the engine only. The pan, mounts, fuel, cooling, and tune below are the same bill either way.
- **Gen V LT:** the direct-injected LT1 6.2 (455 hp, GM's published rating) and its truck siblings. Newer and more efficient, and a different job — high-pressure fuel hardware, VVT/AFM behavior, Gen V accessory packaging. It gets its own chapter (Chapter 4). Bolting an LT in like an LS is the expensive way to learn the difference.

The line items first-timers miss (planning ranges, not promises — salvage and parts prices move): the retrofit oil pan and matched pickup (Chapter 3 names the documented one for this chassis); the swap mount brackets and transmission crossmember; accessory-drive correction (alternator clearance at the crossmember, Chapter 3); the EFI fuel system end to end; radiator, shroud, and fans; the harness (reworked donor vs standalone) and the PCM edits; headers that clear the steering box; a driveshaft re-measurement after the crossmember moves; and the tune. Restoring this car first? The RestoreEssentials restoration guides for 1967, 1968, and 1969 Camaro and for 1967, 1968, and 1969 Firebird are the companion volumes — restore it with those, convert it with this one. If the honest total busts the budget, finishing the car with its original drivetrain beats a stalled swap at every cruise night on earth.



Note. If you only have \$X: spend it in this order — (1) the right pan and mounts for this subframe, (2) the fuel system done once at full pressure spec, (3) cooling, (4) the PCM edits, (5) cosmetics. A swap that starts, cools, and charges on day one can be dressed for a decade. A pretty engine that boils in traffic is yard art with license plates.

Chapter 2 — What You Start With: The F-Body Baseline

Inspect the recipient car before the donor engine gets purchased. Pass/fail criteria, not vibes:

- **Subframe condition:** the front subframe is removable, which makes it inspectable. Mounting holes elongated, crossmember damage, and rot at the body-mount faces = repair or replace the subframe first. Everything you bolt to it inherits its truth.
- **Steering identity:** manual or power box, and the rear-steer center link behind the crossmember. The link's position is the pan-clearance referee (Chapter 3). Note the box ratio if known — a quick-ratio box is a shakedown improvement, not a fitment fix.
- **Body structure:** rocker and floor condition where subframe connectors would land, if you plan them. Higher-torque donors twist a unibody that was adequate for a 1967 small-block; connectors are a documented stiffening step, and convertibles start with the least structure of all. Decide with the donor's torque in the picture, honestly.
- **Firewall:** whether the car carries the factory A/C evaporator case on the passenger side. It shapes the header shortlist (Chapter 8) and your A/C future. Measure it; photograph it.
- **Ride height:** record it as the car will be driven. Driveshaft length and pinion angle are measured at final height (Worksheet A); springs you plan to change change every number after them.
- **The donor audit** (family discipline): compression or a running demonstration, oil condition, and a signed accessory inventory — alternator, starter, power-steering pump, MAF, drive-by-wire pedal where applicable, PCM, harness completeness. 'Complete pullout' is a sales phrase; the checklist is the contract.

Chapter 3 — Fitment: Putting an LS in a 1967–69 F-Body

The engine lives in the subframe, so the subframe sets the rules. Swap bracket systems for this chassis (the Hooker Blackheart 12618HKR class) are documented as a bolt-in family: brackets, transmission crossmembers, headers, Holley pans, and Holley accessory drives designed to work together. Mixing mount systems casually is how clearances that were engineered away come back. Pick a system, use its documentation as the baseline, and measure your car against it.

Oil pan — the F-body's first gotcha, handled here because it referees everything else. Rear-steer linkage behind the crossmember leaves no room for a deep front pan section. The documented bolt-in-compatible answers with the Blackheart brackets are the Holley 302-2 F-body retrofit pan, a notched stock F-body pan, and fabricated steel pans of the same envelope. The Holley 302-1 also installs but requires notching the engine crossmember for its stroker-capable front dimensions — a permanent modification to fix a parts choice; the 302-2 exists so you don't. 302-2 specifics from Holley's documentation: maximum crank stroke 3.62 in (no LS7, no big-stroker builds), 5.7-quart sump (6.2 total with filter), GM F-body windage tray 12558253 with the documented pickup-clearance modification (or a full tray with the front quarter removed), and Holley 302-15 or LS3 dipstick/tube (GM 12669528/12625031). MEASURE ON YOUR CAR: pan-to-center-link clearance at full steering lock in both directions, engine at final mount height — Holley's own notes warn the engine position may need up/down or fore/aft adjustment depending on steering configuration.