

FREE SAMPLE

The opening pages of

LS/LT Conversion: GM A-Body 1964-1972

Read these pages exactly as they appear in the full guide.
Nothing here is rewritten or summarised — it is the product itself,
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Factory-Correct Restoration Reference

LS/LT Conversion Guide — GM A-Body 1964–1972

Model Year 2026

Recipient cars	Chevelle/El Camino, GTO, Cutlass, Skylark/GS (1964–72 A-Body)
Donor engines	Gen III/IV LS (donor-first) · crate LS3 · Gen V LT
Highlights	13-chapter plan; gotchas named; worksheets included
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)

Every LS swap that goes wrong goes wrong here, before a wrench turns: the buyer prices an engine and discovers — in that order — the oil pan, the accessory drive, the fuel system, the wiring, the cooling, and the tune. This chapter puts the whole bill on the table first. Three roads lead into a 1964–72 A-Body (Chevelle/El Camino, GTO/Tempest/LeMans, Cutlass, Skylark/GS), and they are priced and risked differently.

- **Donor-first (Bill's approved path, and this guide's default):** a salvage truck 5.3 or 6.0 (LM7/LQ4) or an F-body/Corvette LS1/LS6 with its harness, PCM, and accessories. Cheapest entry; the unknowns are mileage, accessory completeness, and harness condition. The audit you do on the donor (compression, oil condition, accessory inventory) is Chapter 2 work.
- **Crate:** a new LS3 (430 hp from GM's published rating) or Connect-and-Cruise-type package with controller. Known quantity, real money, warranty. The swap hardware (pan, mounts, fuel, cooling) is the same bill either way — the crate buys certainty about the engine only.
- **Gen V LT:** the direct-injected LT1 6.2 (455 hp, GM's published rating) or truck L83/L86. Newer, more efficient, and a different job: high-pressure fuel hardware, VVT/AFM behavior, and Gen V accessory packaging. It has its own chapter (Chapter 4) because bolting it in like an LS is the expensive mistake.

The line items first-timers miss (planning ranges, not promises — prices move with salvage markets): the retrofit oil pan and pickup; the mount kit and transmission crossmember; the accessory-drive brackets if the donor drive doesn't fit; the EFI fuel system end to end (tank module or pump, lines, regulator, filters); radiator and fans sized for the new engine; the harness (reworked donor vs standalone) and the PCM edits (VATS delete at minimum); exhaust from the manifolds back; a driveshaft measurement and usually a new shaft; and the tune. If the total is beyond the budget, the honest alternative this guide endorses is the restoration guide for your car and a rebuilt original drivetrain — a finished car beats a stalled swap at every car show on earth.



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

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

The recipient car gets inspected before the donor engine gets purchased. Baseline, with go/no-go criteria:

- **Frame:** the A-body's perimeter frame, checked at the steering-box mount, the front crossmember, and the rear coil-spring pockets. Cracks or section loss = repair first (the restoration guides cover frame work). The engine's torque didn't change the rules; it raised the stakes.
- **Steering:** identify the box and linkage (manual vs power, and which linkage generation). The 1964–67 cars place the engine more than an inch closer to the crossmember and steering linkage than 1968–72 cars — the documented reason early cars are the tight ones, and why your mock-up count (Chapter 11) is higher on a '65 than on a '70.
- **Firewall:** note whether the car has the factory A/C evaporator case. That plastic box on the passenger side of the firewall decides your header shortlist (Chapter 8) and your A/C future. Measure it; photograph it.
- **Electrical:** the car's 1960s wiring stays for lights and body; the engine gets its own harness and power feeds. Plan the battery and charging capacity for fans, pump, and ECM before the first start checklist (Chapter 13).
- **Ride height:** record it. Driveshaft length and pinion angle are measured at final ride height (worksheet A), and springs you plan to change change every number after them.

Chapter 3 — Fitment: Putting an LS in a 1964–72 A-Body

Mounts and position. Swap plate/mount systems place the LS from the stock small-block location to forward positions; the documented guidance is stock or slightly rearward for header and pan fit. On 1964–67 cars the tighter bay makes mount selection a clearance tool: adapter plates plus slightly taller mounts (the documented quarter-inch-taller solid or poly mount trick) buy pan-to-linkage room on early cars. Decide rubber, polyurethane, or solid by use — solids transmit vibration a street car doesn't need; the choice is recorded in the worksheet, not discovered at the first red light.

Oil pan — the A-body's first gotcha, handled here instead of Chapter 10 because it decides the mount conversation. Stock F-body and truck pans foul the A-body crossmember and steering linkage. The market's answer is the cast retrofit pan: Holley's 302-2 is listed for 1964–72 A-body applications, with a 3.62-inch maximum crank stroke (no LS7, no big strokers), a 5.7-quart sump, its matched pickup, an F-body windage tray (GM 12558253, with the tray's front quarter trimmed per the instructions) , and a specific dipstick/tube (Holley 302-15 or the LS3 pieces, GM 12669528/12625031). MEASURE ON YOUR CAR: pan-to-linkage clearance at full steering lock, with the engine at its final mount height — Holley's own documentation warns the engine position may need up/down or fore/aft adjustment depending on steering configuration.

Accessory drive. Three balancer offsets exist (Corvette closest to the block, F-body/GTO mid, truck tallest/furthest), and the donor's drive decides your bracket shopping: Holley's spacer kits (21-1 Corvette, 21-2 F-body/GTO, 21-3 truck/2010-up Camaro) exist precisely because one bracket set must serve all three offsets. The A-body frame rail and the truck drive's height are the classic conflict; the Corvette drive is the compact answer and the priced one.

Transmission tunnel and crossmember. The A-body tunnel swallows the period automatics and the 4L60E without drama; the 4L80E, 6L80, and the big-case manuals (T56/TR-6060/TKX conversions vary) get