# AIRKEWLD INSTALL GUIDE

## ENGINE BAY HARDLINE KIT

Application: Engine bay fuel plumbing · IDA Weber · IDF Weber · Dellorto · 7mm Dellorto · Kits 711 100 000–005

*Quick Reference · Engine-bay companion to AK-FL-001 chassis fuel line kit.*

| | |
|---|---|
| DOC | AK-FL-002 |
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## SPECS AT A GLANCE

**TUBING**
Pre-cut stainless steel
37° AN flares

**FITTINGS**
AN B-nut + tube sleeve
NO sealant on flare seats

**GAUGE**
Optional gauge adapter
sealant on gauge threads ONLY

**LEVEL**
Every line installed LEVEL
use a level — not by eye

## TOP 5 INSTALL MISTAKES

01. **Sealant on AN flare fittings.** AN fittings seat on the 37° flare — the seal IS the flare meeting the cone. Sealant on AN threads cruds the seat and CAUSES leaks. Sealant goes ONLY on the gauge port (NPT) and bulkhead fitting — not on any AN connection.
02. **Wrong flare angle (45° instead of 37°).** This kit uses 37° SAE/AN flares. A 45° automotive tool will create a flare that won't seat into AN cones. Verify the flaring tool you grab is 37° BEFORE you cut — re-flaring after a wrong cut means losing length you might not have.
03. **Forgetting the B-nut and tube sleeve before flaring.** Order is: slide B-nut FIRST → tube sleeve SECOND → flare LAST. Once the flare is made you can't add either piece — only fix is cut and re-flare. Burn the order into muscle memory.
04. **Lines not level.** Every line gets installed DEAD level — use the level in the tools list. Crooked lines stress the flares, create vibration cracks over time, and look amateur. Eyeballing it is how leaks start.
05. **Cutting before mocking up.** With a doghouse shroud the gap between fan shroud and carb is tiny. Mock up the fitting + 90° tube + B-nut BEFORE cutting to confirm clearance against the shroud and tin. Measure twice — you only get to cut each pre-cut tube once.

## TOOLS REQUIRED

- Vise grips (pinch tank line on removal)
- Tubing cutter (clean square cuts)
- 37° flaring tool (NOT 45° automotive)
- Uni-bit or deburr tool (bulkhead hole)
- Grease crayon or Sharpie (mark cuts)
- mm / inch ruler
- Level (every line set level)
- Teflon / white sealant (GAUGE + BULKHEAD ONLY)

## 1 REMOVE OLD LINES

01. Pinch the line coming out of the gas tank with vise grips (clamp at the chassis).
02. Remove the air cleaners.
03. Remove the clamps holding the old lines onto the carbs.
04. Pull the entire old gas-line configuration out of the engine bay.
05. Remove OEM gas eyelets / banjos from the carbs (early Dellorto + IDA banjos come off too).
06. 7mm Dellortos: SAVE the banjo bolts — they're reused with the new fittings.

**PRO TIP** ***Order of assembly is muscle memory:*** *B-nut → tube sleeve → flare. Slide the B-nut onto the tube FIRST. Slide the tube sleeve on SECOND. THEN flare the end. If you flare before adding either piece, the only fix is to cut the flare off and re-flare — and pre-cut tubing only has so much length to give. Burn the order in before you cut anything.*

| KIT VARIANTS · 3 CARB TYPES × 2 COLORS | | | | 711 100 000 – 005 |
|---|---|---|---|---|
| IDA WEBER | ● Black | 711 100 002 | ● Blue | 711 100 003 |
| IDF WEBER | ● Black | 711 100 004 | ● Blue | 711 100 005 |
| DELLORTO | ● Black | 711 100 000 | ● Blue | 711 100 001 |

## INSTALLATION FLOW

PHASES 2 – 6 · AN FITTINGS · CARB TUBING · BULKHEAD + VERTICAL · TEE + GAUGE · FLEX LINE & LEAK CHECK

### 2 AN FITTINGS ON CARBS

01. Install new AN fittings into the carb fuel inlets — DRY threads, NO sealant (the AN flare is the seal).
02. 7mm Dellortos: reuse the OEM banjo bolts with the new AN-style fittings supplied.
03. Snug only at this stage — final-tighten after the lines are flared and seated.
04. Repeat on both carbs before any tubing work.

### 3 CARB-SIDE TUBING (DRIVER + PASSENGER)

01. MOCK UP first: B-nut + tube sleeve onto the carb fitting, place a 90° pre-bent tube on top to judge firewall clearance.
02. Doghouse shroud users: that gap is tiny — verify clearance to fan shroud BEFORE cutting.
03. Grease-crayon mark the cut line where it meets the carb fitting.
04. Tubing cutter: clean square cut. Slide B-nut, then tube sleeve, then flare with the 37° tool (1/8" protruding).
05. Slide tube sleeve to flare — taper should sit clean. Install onto carb, level the line, snug B-nut.
06. Repeat on the opposite carb.

**PRO TIP** ***37° flares only — NEVER 45°.*** *Most automotive flaring tools are 45° SAE. AN fittings (every connection in this kit) are 37° aerospace. Verify the flaring tool you grab is the 37° tool BEFORE you cut. A 45° flare will not seat in an AN cone — fuel weeps no matter how tight you make the B-nut. Tools usually have the angle stamped on the body or yoke.*

### 4 BULKHEAD + VERTICAL DROP

01. Use the original front-tin gas-entry hole. Uni-bit (or deburr tool) the hole slightly larger so the bulkhead fitting passes through.
02. Install the bulkhead fitting; secure with the supplied AN nut on the inside.
03. Confirm the 90° elbow points STRAIGHT UP. Verify with the level.
04. Take the supplied 5" straight stainless tube — flare ONE end (B-nut + tube sleeve in the order from Pro Tip 1).
05. Install onto the bulkhead 90° fitting. Snug. Confirm vertical with the level — must be plumb.

### 5 TEE · GAUGE · CROSS LINE

01. Position the AN tee at the intersection of the bulkhead vertical and the carb-side line. Mark BOTH lines at the END of the flared edge (where flare turns into thread).
02. Remove both lines, cut at marks, slide B-nut + sleeve, flare, connect to tee — snug only.
03. Repeat the carb-side path to the passenger side (Phase 3 procedure).
04. Gauge: Teflon on the male NPT threads only; thread gauge into adapter. Place in gap between fan shroud and carb (best viewing).
05. Mark carb line at flare edge, cut + flare, install gauge adapter onto carb line, snug, level.
06. Long SS cross line: flare one end, install at driver tee, run across back of fan shroud to gauge adapter, mark, cut + flare, install.

**PRO TIP** ***The "no sealant on AN" rule.*** *Every connection in this kit is hydraulic — the 37° flare seat IS the seal. Sealant on AN threads doesn't help; it cruds up the seat and CAUSES leaks.* ***Two exceptions:*** *the gauge male threads (NPT — Teflon required) and the bulkhead fitting locknut (Teflon optional). Everywhere else: dry threads, seat the flare, snug + firm — not Popeye.*

### 6 FLEX LINE & LEAK CHECK

01. Verify every fitting fits clean dry. Final-tighten all snug + firm — no over-torque (B-nut + flare = leak).
02. Add a flex line from the bulkhead fitting to the chassis (connects to AK-FL-001). Available as a kit option.
03. Electric pump (Pump or Deluxe chassis kit): key ON without starting — pump runs. Carbureted no-pump: prime by adding fuel.
04. LEAK CHECK: run a finger UNDER each fitting. Wet finger = leak. Re-snug or re-flare. Then start the engine and re-check warm.