

# Steering Cooler Kit Installation Instructions

Vehicle: Toyota Land Cruiser 80 (1991-1997) and Lexus LX450 (1996-1997)

## Safety

Work on a cool engine. Support the vehicle safely if lifting. Clean up spilled ATF immediately.

## Tools and Supplies Needed

- Basic metric hand tools (8mm, 10mm, 12mm typical)
- Hose cutters or a sharp utility knife
- Catch pan and rags
- Pliers or hose clamp pliers
- ATF for power steering (use what you normally run for the 80 Series)
- Jack and jack stands or a lift
- Safety glasses and gloves

## Installation Steps

- 1 **Prep the vehicle:** Park on level ground or position on a lift.
- 2 Disconnect the negative battery terminal (battery ground).
- 3 **Recommended:** Drain the steering fluid by removing one return line from the steering box or the original cooler and draining into a catch pan.
- 4 Remove the original factory "paper clip" power steering cooler from the vehicle. In some cases it is easier to cut it to speed removal.
- 5 Remove the return lines from the power steering reservoir and the steering box.
- 6 Install one end of the new 3/8 inch hoses: one to the reservoir return port and one to the steering box return port. Ensure each hose is fully seated.
- 7 Install the split flexible protective cover on both hoses and route them to the original cooler location.
- 8 Attach the new cooler to the bracket using the supplied 1/4 inch flat head bolts and lock nuts.
- 9 Mount the cooler and bracket assembly to the vehicle using three 8mm bolts: two into the factory threaded holes and one through-hole using a washer and an 8mm lock nut.
- 10 Cut both hoses to the desired length. Make sure hoses are not rubbing sharp corners, hot components, or engine pulleys.
- 11 Install and tighten clamps on all hose connections (both ends of both hoses).
- 12 Fill the reservoir with fresh ATF and bleed the system before starting the engine (front tires off the ground if possible, engine off, turn steering lock-to-lock slowly several times). Recheck fluid level and top off as needed.

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- 13 Start the engine, complete the bleeding procedure (slow lock-to-lock), then recheck fluid level and inspect for leaks at all connections and around the cooler.

### Final Checks

- Verify hoses have clearance and do not contact sharp edges, pulleys, or moving parts.
- Verify clearance with aftermarket bumpers, winches, or custom radiators/skid plates.
- After a short test drive, recheck for leaks and recheck fluid level.

### Important Note

This kit is not recommended for steering systems with existing issues such as: leaking steering box, leaking high pressure line, blocked reservoir filter, leaking reservoir cup, or a leaking/failing pump. Make sure all of the above are in good condition before and during installation.