

**PART NO. 30051/30052/30053**

**LS1 F-Body Tuned-Length Header Systems**

**ADVANCED** - Installation requires professional-type tools and advanced automotive-service skills. If you lack experience with internal engine modifications, an Advanced installation is probably beyond your abilities. Cutting, drilling, wiring, welding, and following torque specs may be required.

**ESTIMATED INSTALLATION TIME** - Installation times are for a professional installer. Times may vary based on the skill level of the installer.

**ESTIMATED INSTALL TIME** - 8.3 hrs

**PART NO. 30049**

**Off-Road LS1 F-Body Tuned-Length Header Systems**

**#30049 PACKING LIST – OFF-ROAD HEADERS**

<u>Item#</u>	<u>Check</u>	<u>Quantity</u>	<u>Part Number</u>	<u>Description</u>
1	<input type="checkbox"/>	1	300300505C	Driver-side Header
2	<input type="checkbox"/>	1	300300506C	Passenger-side Header
3	<input type="checkbox"/>	1	310500110	Y-Pipe
4	<input type="checkbox"/>	1	*****	Instructions

**#30051 PACKING LIST – 1998-1999 LS1 F-BODY MODELS**

<u>Item#</u>	<u>Check</u>	<u>Quantity</u>	<u>Part Number</u>	<u>Description</u>
1	<input type="checkbox"/>	1	300300500C	Driver-side Header
2	<input type="checkbox"/>	1	300300504C	Passenger-side Header
3	<input type="checkbox"/>	1	30051K	EGR Extension Tube Kit
4	<input type="checkbox"/>	1	310500110	Y-Pipe
5	<input type="checkbox"/>	1	*****	Instructions

**#30052 PACKING LIST – 2000 LS1 F-BODY MODELS**

<u>Item#</u>	<u>Check</u>	<u>Quantity</u>	<u>Part Number</u>	<u>Description</u>
1	<input type="checkbox"/>	1	300300503C	Driver-side Header
2	<input type="checkbox"/>	1	300300501C	Passenger-side Header
3	<input type="checkbox"/>	1	310500110	Y-Pipe
4	<input type="checkbox"/>	1	*****	Instructions

**#30053 PACKING LIST – 2001 LS1 F-BODY MODELS**

<u>Item#</u>	<u>Check</u>	<u>Quantity</u>	<u>Part Number</u>	<u>Description</u>
1	<input type="checkbox"/>	1	300300503C	Driver-side Header
2	<input type="checkbox"/>	1	300300502C	Passenger-side Header
3	<input type="checkbox"/>	1	310500110	Y-Pipe
4	<input type="checkbox"/>	1	*****	Instructions

### #30054 Packing List – 1998-2001 Header Systems Installation Kit

<u>Item#</u>	<u>Check</u>	<u>Quantity</u>	<u>Part Number</u>	<u>Description</u>
1	<input type="checkbox"/>	1	12553047	EGR Gasket
2	<input type="checkbox"/>	2	12553617	A.I.R. Gaskets
3	<input type="checkbox"/>	2	12558573	Head Exhaust Gaskets
4	<input type="checkbox"/>	8	21000K	Nylon Wire Ties
5	<input type="checkbox"/>	24"	300838108	Heat Shield Tubing
6	<input type="checkbox"/>	4	308940020	3" Band Clamps
7	<input type="checkbox"/>	1	020402290	24" O2 Wire Harness Extension
8	<input type="checkbox"/>	1	020402280	12" O2 Wire Harness Extension

**NOTE: This installation kit must be used for installing PART NO. 30049, 30051, 30052, or 30053.**

**Warning:** SLP recommends allowing the vehicle to cool (not running) for five hours before beginning the installation. SLP recommends wearing safety glasses for the complete installation.

**Note:** The catalytic converters may appear to be partially plugged with powder. This is a normal result of the application process in which the washcoat is applied to the ceramic monolith. Once the catalytic converters are installed and upon starting the vehicle, the loose washcoat powder will immediately exit the catalytic converters.

## INSTALLATION INSTRUCTIONS

1. Remove the negative (-) lead from the vehicles battery.
2. From underside of vehicle, remove the four bolts that retain the crossbrace just below the front of the driveshaft. Loosen the 2 3/4" band clamp on the front of the intermediate pipe (just above where crossbrace was). Slide the intermediate pipe and rest of the exhaust system rearward in order to disengage the slip fit at the front of the intermediate pipe. It may be necessary to remove all of the other exhaust hangers behind intermediate pipe to separate the joint.
3. **REMOVAL OF Y-PIPE FROM VEHICLE:** On 1998-1999 vehicles, first unplug both electrical connectors to the two oxygen sensors along passenger side of pipe. On all years, unbolt the hanger bracket (making note of the brackets orientation) on the passenger side section. On 1998-1999 vehicles, remove the two nuts on the driver side converter outlet, and the three nuts at passenger side manifold outlet. On 2000-2001 vehicles, remove the four nuts at each side converter outlets. Remove the y-pipe from the vehicle. Carefully unscrew the two oxygen sensors from the 1998-1999 Y-pipes and set them aside.
4. **REMOVAL OF CONVERTER SECTION(S):** On 1998-99 vehicles, remove the driver side converter section by first unplugging the electrical connector to the oxygen sensor, then removing the three nuts that retain the converter section to the manifold outlet. On 2000-2001, remove BOTH converter sections as described above. CAREFULLY unscrew oxygen sensor(s) and set aside.

On 1998-1999 vehicles, unplug and remove the oxygen sensor from the driver side manifold. On 2000-2001 vehicles, remove oxygen sensors from both manifolds. Also, unscrew and remove the oil filter.

5. From the topside of the vehicle, remove all spark plug wires from the spark plugs AND ignition coils and set them aside. Unbolt the A.I.R. tube flanges from each side manifold top and pull A.I.R. tubes, on top of intake manifold, out of the way. Remove the oil dipstick and dipstick tube from the passenger side, and remove the passenger side bank of ignition coils as an assembly on their mounting bracket. Remove all eight spark plugs. On 1998-1999 vehicles, at the top front of the passenger side manifold, unbolt the EGR tube flange. On 2000 vehicles, unbolt the EGR tube flange located mid-way down the passenger side (cast iron) manifold. Remove all but the rear-most manifold-to-head bolts from each side manifold, then from the underside, remove the last bolt from each side, and remove the manifolds from the bottom of the vehicle.
6. **EXTENDING THE PASSENGER SIDE WIRING HARNESS:** Locate the small wire harness running from the PCM to the passenger side front oxygen sensor, crankshaft sensor, oil level sensor, and starter solenoid. Disconnect all of these wires and begin pulling them out of the black nylon wire loom. Unclip the plastic retainer that holds the loom to the side of the chassis box rail. Loosen and untape the wires all the way back to the PCM, and starting at the PCM, pull as much slack from all of the wires as possible, working towards the passenger side motor mount. When maximum extension of the wires is achieved, (re-tape as necessary) reinstall the wires into the loom and re-clip the loom to the side of the chassis box rail. Route the ends of all of the wires through the base of the passenger side motor mount. Split the 24" piece of heat shield tubing from the installation kit down the length of the tube with a pair of scissors. Carefully wrap and secure the heat shield tubing over the wire harness along its full length with the nylon wire ties.

(NOTE: Adding 8 inches of wire to the crankshaft sensor, oil level sensor, and starter solenoid wires by cutting and splicing in extensions within the harness can also be used to achieve the proper amount of length to reroute the wire harness.

7. **INSTALLING THE DRIVER SIDE HEADER:** From the underside of the vehicle, SLOWLY AND CAREFULLY, put the header up into place. Note the tight points and/or interference points as header is installed. It may be necessary to remove the bolts that hold the transmission cross-brace to the chassis, and with the assistance of a helper, pry the rear of the transmission over toward the passenger side of vehicle as header is being inserted. Use a new gasket from the installation kit, and the bolts removed earlier from manifold(s) to LOOSELY mount the header to the cylinder head (collector end of header should be able to move up and down and side to side slightly).
8. Install passenger side header in a similar fashion to the driver side header, and once both are in place, re-bolt the transmission cross-brace and tighten (if removed).
9. **INSTALLATIONS USING PART #31037 - CATALYTIC CONVERTERS:** Install each catalytic converter, with a 3" band clamp over the inlet (notched) end of the catalytic converter, onto the collector outlets of each header. Be sure converters are fully seated and oriented so the word Atop@ (heat-shielded side) is facing up toward the floor pan of vehicle. The band clamps should be oriented so their draw-down bolts are both facing inward, with the nuts down. DO NOT fully tighten band clamps yet.
10. Install the remaining two 3" band clamps over the inlet (notched) ends of Y-pipe, orienting them as on the converters or test pipes. Put the y-pipe up into position, and start the slip joint on the DRIVER SIDE FIRST, engaging it approximately 3/4" of an inch, THEN engage the passenger side slip joint. Grasp the rear (outlet) end of Y-pipe and push forward while wiggling pipe up and down slightly, until both slip joints are fully seated. DO NOT fully tighten the two band clamps yet.
11. Re-attach the cross-brace that sits below the outlet end of Y-pipe. Tighten the bolts to 35 FT/LBS. Connect the slip joint at the inlet end of the intermediate pipe over the outlet end of the new Y-pipe. DO NOT fully tighten the 2-3/4" band clamp at this joint yet.

12. From the topside of the vehicle, begin tightening all of the header to cylinder head bolts on both sides to 11 FT/LBS on the first pass and 18 FT/LBS on the second pass. The rearmost bolt on each side is most accessible from the underside of vehicle. When all bolts are torqued properly, re-install the hanger on the Y-pipe in the reverse direction it was originally in, and position the Y-pipe outlet end so a space of approximately 5/8 of an inch exists between the cross-brace topside and the cone area at rear of Y-pipe. All four 3" band clamps can now be torqued to 40 FT/LBS, as well as the 2 3/4" band clamp on intermediate pipe.
13. **INSTALLING OXYGEN SENSORS AND OXYGEN SENSOR SIMULATORS:** Carefully screw an oxygen sensor into each header collector, and into each side of Y-pipe just behind the inlet slip joints. Torque all 4 oxygen sensors to 31 FT/LBS. Attach the 24" long oxygen sensor extension harness to the driver side oxygen sensor in the HEADER, and the 12" long extension harness to the passenger side oxygen sensor in the HEADER. When installing CATALYTIC CONVERTERS, connect the rear (Y-pipe) set of oxygen sensors to each side of chassis harness. Secure the front two extension harnesses: to chassis and through the motor mount on the DRIVER SIDE and along the bottom edge of transmission and engine (under starter) on the PASSENGER SIDE.
14. Re-install/re-connect all parts and wires removed in step numbers 6 and 7 and replace oil filter. On 1998-1999 vehicles, install the EGR extension tube between the flange mid-way down the passenger side header, and EGR valve in front of the passenger side bank of ignition coils. Use new gaskets on each end of the extension tube and fasten to the header with the hex bolts provided. Using the provided new gaskets, reinstall both A.I.R. tubes to the headers.
15. Double check that all connections, bolts, nuts, wires and clamps are tight and that there are proper clearances around all pipes. Reconnect the negative lead to battery and start the vehicle. As system warms up, inspect thoroughly around headers and y-pipe. Minor smoke may be noticed as oils burn off all pipes. This is normal and should stop within 2-3 minutes.