

## **Installation Manual**

LS Two-Piece Valve Covers
PFEVC-8579



Included Items	QTY
2 Piece LS Valve Cover Base w/Oil Cap	2
2 Piece LS Valve Cover Over Cover	2
Over Cover 12-Point Bolts	8
Over Cover Rubber Grommets	8
Gen I LS Coil Spacers	16
Gen V LS Coil Spacers	16
Coil Mounting Bolts – 1/4"-20 Thread	16

<u>WARNING</u>: PLEASE READ ALL INSTRUCTIONS BEFORE PROCEEDING. PROFLOW WILL NOT BE RESPONSIBLE FOR ANY DAMAGE AS A RESULT OF THE INCORRECT INSTALLATION OF THIS PRODUCT. IT IS RECOMMENDED THAT A QUALIFIED AUTOMOTIVE TECHNICIAN PERFORMS THIS INSTALLATION.



PHONE: 1300 879 879

## **Description:**

The Proflow Performance 2-Piece LS Valve Covers fit all LS1, LS2, LS3, LS6 and LS7 engines. These valve covers feature integrated coil mounts that were designed to fit gen I and gen V style LS coils (OEM and aftermarket).

These valve covers do not include valve cover mounting bolts or rubber grommets. You may reuse the factory bolt assemblies, or other factory hardware of your choice. Replacements may be necessary over time.



Figure 1 - Factory LS Valve Cover Hardware Assembly

## **Typical Installation:**

- 1. Disconnect the battery.
- 2. Remove any cosmetic engine/coil covers. Refer to the vehicles factory service manual for correct removal procedures. These covers will not be reinstalled.
- 3. Disconnect the plug from each coil by twisting and pulling on each wire boot and disconnect the main coil harness plug.
- Remove the coils, coil brackets, coil harness, PCV hose and existing valve covers from the car. Remove the original gaskets by gently pulling them out of the valve cover grooves.
- 5. Remove the valve cover bolts and grommets carefully. The original grommets will have softened and swelled over time. If reusing the original grommets and gaskets, clean with mild soap and warm water.
- 6. Reinstall the gaskets by working them into the grooves of the Proflow 2 piece valve cover bases. Press firmly to properly seat the gasket.
- 7. Reinstall the factory LS valve cover retention bolts by carefully working each hardware assembly (bolt, spacer, and grommet) into each valve cover base until the grommet is fully seated against the surface of each hole.
- 8. Install the valve cover bases onto the engine, ensuring the gasket remains seated in the valve cover groove. Evenly torque each valve cover bolt to 12 Nm.
- 9. Remove the corresponding rubber caps on the baffled ventilation tubes of the valve covers and reconnect the PCV hoses.
- 10. Remove the coil bodies from the original bracket and install them onto the corresponding mounting posts on each valve cover base. Be sure to use the correct spacers for your coil application and the included retention bolts. As shown in figure 2, different upper coil mounting holes are used for Gen I and Gen V style LS coil bodies. Torque each retention bolt to 12 Nm.



EMAIL: sales@proflow.com.au

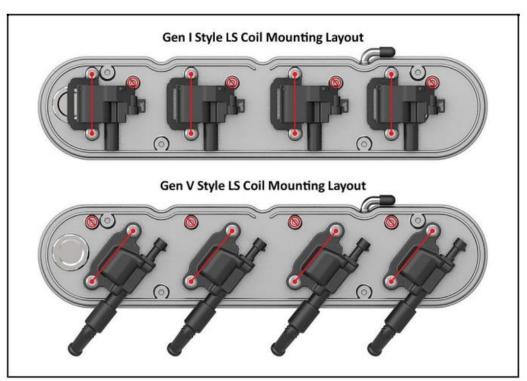


Figure 2

- 11. Remove the coil harnesses from the original brackets. Reconnect the coil harnesses to the individual coils that were mounted onto each valve cover base.
  - **NOTE:** If harnesses are accidentally switched, the firing order will be wrong which could cause misfire and engine damage.
- 12. Install the valve cover over-cover using the supplied bolts and rubber grommets. When installing the over-cover with Gen V coils, carefully slide the ends of the coils through the plug wire holes in the cover and then rotate the cover lengthwise to route it around the coils and wiring harness.
- 13. Reinstall the spark plug wires and rotate the boots for exhaust clearance. Ensure all electrical connectors are secure and reconnect the battery.
- 14. Start the engine and ensure there are no oil leaks.



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