CCS OIL CATCH CAN KIT FOR C6 CORVETTE, 3.5 OZ

PART NO. CCS-GM-102

MADE IN USA



Important: Read these instructions in their entirety prior to installation.

For contact information, visit www.improvedracing.com

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Rev 250516

PARTS CHECK

- Visit the website product page to confirm vehicle application and confirm all parts have arrived by checking the images (Tap the QR code when viewing this manual on your phone, PC or tablet):

EXTRA CLAMPS & FITTINGS?

Additional clamps and quick connect fittings are supplied with this kit to support continual updates to LS engines. Refer to the section in the manual, GM PCV Hoses & Tubes, for instructions on how to use these parts.

INSTALLATION INSTRUCTIONS

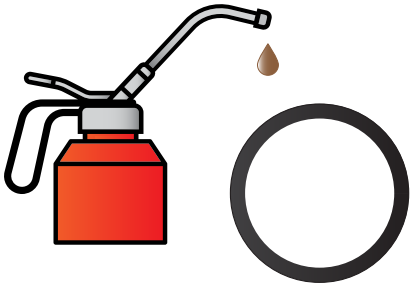
BEFORE YOU BEGIN

⚠ **WARNING: This product should be installed by a qualified mechanic.**

⚠ **WARNING: Improper installation could result in severe engine damage.**

Lubricate all quick connect fitting barbs before connecting the hoses.

Lubricate all visible O-rings prior to installation to prevent damage and ensure a leak-free seal.



Use aluminum tools to avoid damaging the aluminum fittings.

PREPARING THE CAR

WARNING: Confirm the car is not hot before starting installation.

1. Open the hood to access the engine compartment.
2. Remove the passenger side engine cover.
3. Disconnect the battery if there is a ring terminal fastened to the passenger cylinder head, shown in Figure 1.

Use zip-ties to secure battery wires from contacting the terminals.

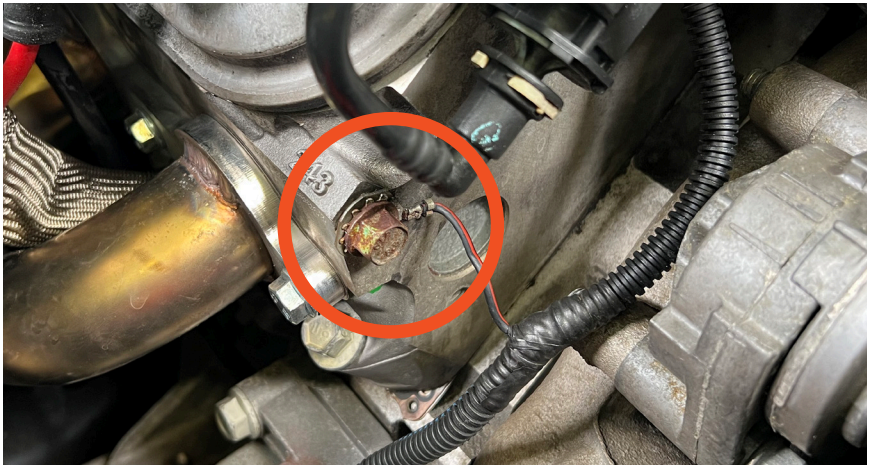


Figure 1 - Ring Terminal on Cylinder Head

4. Remove the screw from the cylinder head and relocate the ring terminal to the hole shown in Figure 2.

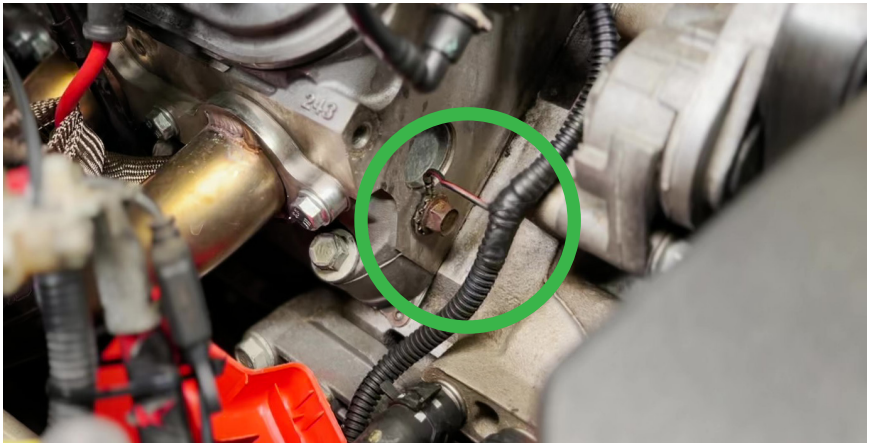


Figure 2 - Relocating Ring Terminal on Cylinder Head

5. Remove the factory PCV hose, highlighted orange in Figure 3:
    a. Consider removing the EVAP solenoid cylinder head bracket for more work space.
    b. Consider unplugging the MAF harness for more work space.
    c. Consider removing the vent line from the passenger valve cover and air intake bellows for more work space.
    d. Leave parts off/unplugged until reassembly.

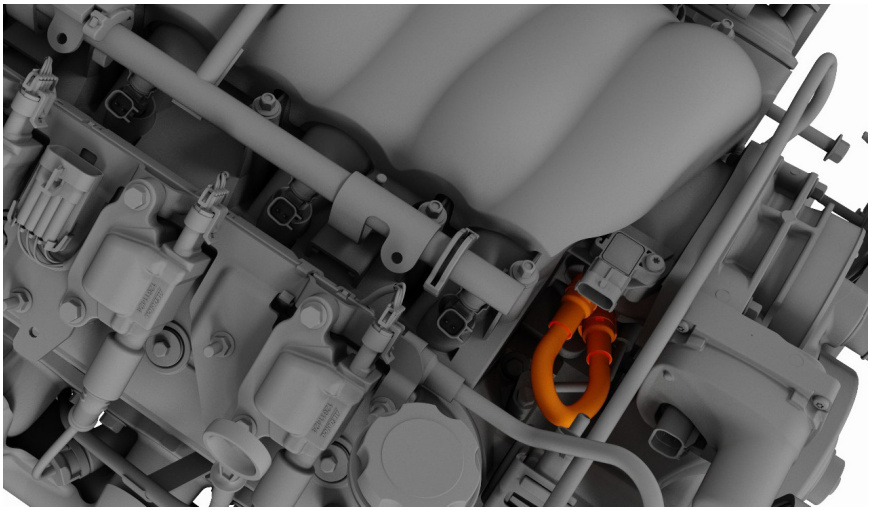


Figure 3 - Factory PCV Hose Location

6. Set the hose aside: This part will no longer be used.

INSTALLING THE BRACKET & CAN

1. Review the included CCS product manual.
2. Use a 15mm tool to install the spacer and bracket onto the passenger cylinder head using the long screw from the kit, shown in Figure 4.

The bracket and spacer interlock with each other, and to the corner of the cylinder head, shown in Figure 4.

3. Torque the screw to 33 lb-ft (44 N-m).
4. Fasten the 90° catch can bracket onto the engine bracket using a 10mm tool and all three M6 flange screws from the kit.

Secure the lanyard cord with one of the screws.

5. Torque the screws to 100 lb-in (11 N-m).

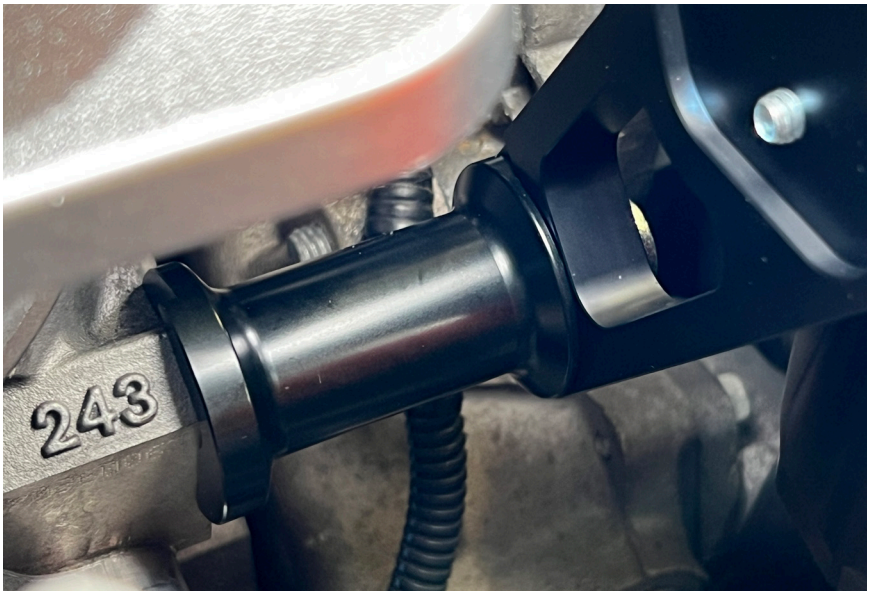


Figure 4 - Bracket & Spacer Interlock

6. Insert the catch can through the large hole in the mounting bracket.
7. Position the catch can pin into the bracket hole shown in Figure 5.

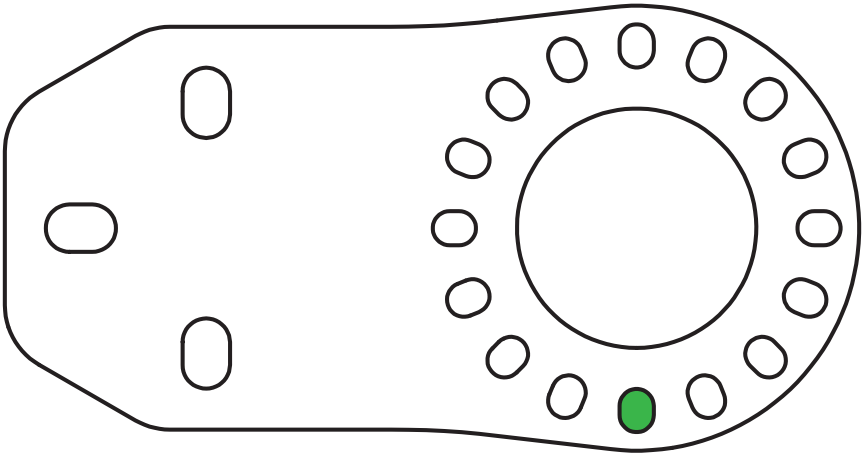


Figure 5 - Correct Bracket Hole for Pin on Top of Catch Can

8. Thread the nut onto the catch can and tighten with a ⅝" (16mm) wrench.

When hand tightening, smear a dab of anti-seize around the threads to guarantee the nut is properly tightened.

9. Thread each adapter fitting into the catch can.
10. Torque the fittings between 13 to 16 lb-ft (17 to 22 N-m).

GM PCV HOSES & TUBES

The PCV hose / tube may vary between LS engines offered in the C6 Corvette. This section explains how to connect the lines for each PCV connection.

- Engines with the Style #1 PCV hose shown in Figure 6 should install the included hoses without adding fittings.



Figure 6 - Style #1 PCV Hose: Included Hoses Directly Adapt

- Engines with the Style #2 PCV tube shown in Figure 7 require installing the extra quick-connect fittings included in the kit onto the lines.



Figure 7 - Style #2 PCV Hose: Insert & Crimp Extra Fittings into Included Lines

CONNECTING THE LINES: STYE #1

1. Connect the shorter hose as follows:
    a. Install a worm-drive hose clamp onto the hose.
    b. Connect the hose to the valley cover.
    c. Connect the 45° fitting to the catch can “IN” port.
2. Connect the longer hose as follows:
    a. Connect the 90° fitting to the catch can “OUT” port.
    b. Install a worm-drive hose clamp onto the hose.
    c. Connect the hose to the intake manifold.
3. Gently-tighten all hose clamps using a 7mm tool.

CONNECTING THE LINES: STYLE #2

1. Install the quick-connect fittings on the valley cover and intake manifold.
2. Push the hose onto the fittings and determine whether the included hoses require shortening.
3. If necessary, trim the hoses for a better fit.
4. Remove the quick connect fittings from the valley cover and intake manifold to prepare for crimping.

Confirm the buttons are usable before crimping.

5. Crimp the fittings to the hose using the Oetiker clamps.

Wire cutters can be used to crimp the Oetiker clamps if crimping pliers are not available.

The included worm-drive hose clamps are also suitable.

6. Connect the shorter hose as follows:
    a. Connect the 45° fitting to the catch can “IN” port.
    b. Connect the straight fitting to the valley cover.
7. Connect the longer hose as follows:
    a. Connect the 90° fitting to the catch can “OUT” port.
    b. Connect the straight fitting to the intake manifold.

COMPLETING THE INSTALL

1. Confirm all mounting hardware is properly fastened.

2. Confirm all hoses are properly connected
3. Attach the safety lock clip to the lanyard.
4. Reinstall any vent lines or EVAP removed for installation.
5. Reconnect the battery, if necessary.
6. Replace the engine cover.
7. Start the vehicle and check for signs of a vacuum leak.
    a. Troubleshoot and check connections if necessary.
8. Confirm the safety lock clip is installed in the can before closing the hood.

Installation is now complete. Thank you for purchasing an Improved Racing product!