LS2/LS3 C6 Corvette Oil Pan Baffle Kit

Part No. EGM-215

Made in USA

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

This product is designed for direct installation into the factory oil pans of the following vehicles:
- 2005-2013 Chevrolet Corvette (wet sump LS2 and LS3 engines)
- Other vehicles equipped with the C6 Corvette wet sump oil pan (current GM part # 12624617).

Installation Instructions

⚠️ Warning: This product should only be installed by a qualified mechanic. Improper installation could result in severe engine damage.

1. Wash the Improved Racing oil pan baffle and crank scraper with ordinary dish soap to remove any contaminants that may damage the engine. Rinse and dry with a lint-free towel.
   ⚠️ Warning: Failure to properly clean the baffle and scraper can lead to engine damage.
2. Drain the engine oil and remove the oil filter.
3. Refer to the instructions in the vehicle’s factory service manual to remove the oil pan.
4. Unbolt the oil pickup tube and set it aside.
5. Unbolt the factory windage tray and set it aside.
6. Secure the Improved Racing crank scraper loosely to the main caps using two windage tray nuts in the locations highlighted in Figure 1.

⚠️ Important: Note the correct crank scraper orientation. The arrow should be pointing towards the front (accessory drive) of the engine.

7. Use a wrench to slowly turn the crankshaft manually while checking carefully for interference between the crankshaft and the crank scraper. If any interference is observed, adjust the crank scraper’s position to eliminate the interference. In rare instances it may be necessary to use a hand file to remove some material from the crank scraper to eliminate interference. Ideally, there should be between 0.020” to 0.060” of clearance between the crank scraper and the crankshaft. Once the crank scraper is in position, torque the two nuts to 18 lb-ft.
   ⚠️ Warning: Be absolutely sure no physical contact occurs between the crankshaft and the crank scraper as this will result in severe engine damage.

8. Secure the Improved Racing oil pan baffle over the crank scraper using the windage tray nuts as shown in Figure 2 and torque to 18 lb-ft.

9. Optional but recommended: Replace the oil pickup tube O-ring with a new O-ring prior to installation.
10. Secure the oil pick up tube to the oil pump, then secure the oil pickup tube bracket to the main stud. Torque the oil pump bolt to 106 lb-in (8-9 lb-ft). Do not over-tighten! The pickup tube bracket nut must be secured from the side using a wrench. Torque the pickup tube bracket nut to 18 lb-ft. The completed assembly should resemble Figure 3.
11. Clean the oil pan thoroughly to remove any oil residue and sludge buildup.
level to drop below the full mark.
• If oil pressure drops still occur, consider adding an oil accumulator and overfilling the sump by up to 1 quart.
• Vehicles that sustain over 1.4 lateral G’s (significant aerodynamic assists and/or racing compound tires) and vehicles with high shift points should use a dry sump oiling system.

**Exhaust smoke:**
• When racing with an overfilled sump, it is common to see white or bluish smoke exiting the exhaust system. This is caused by excess oil entering the intake through the PCV system. We recommend installing an oil catch can on the PCV line to prevent this from happening.

**Draining the oil:**
• Run the engine for 2-3 minutes before draining the oil. This will help drain metal particles by suspending them in the oil prior to draining.
• Draining the oil with the baffle installed will take longer than usual. Allow the sump to drain for at least 10 minutes to ensure all of the oil has been removed.

12. Optional but recommended: Replace the oil pan gasket with a new gasket. To remove the old gasket, drill out the two aluminum rivets securing it to the oil pan.
13. Refer to the instructions in the vehicle’s factory service manual to reinstall the oil pan.
14. Replace the oil filter, tighten the drain plug and refill the sump with oil to the factory-recommended level.
15. Congratulations! You can now benefit from improved oil control. Be sure to follow the recommendations below for best results. Remember: **never** let the oil level drop below the “full” mark at the race track!

**Use and Precautions – Important!**

This product is designed to provide superior protection against oil starvation and sloshing over the stock oil pan baffle. The sources of oil starvation are varied and this product will not protect your engine from damage in all circumstances.

**Please follow these recommendations:**
• Install an oil pressure gauge with a low-pressure alarm the driver can hear or see. This is critical for preventing catastrophic engine damage and will help determine the limits of your setup.
• We recommend overfilling the sump by ½ quart prior to track events.
• Always top off oil levels between track sessions. Do not allow the oil level to drop below the full mark.
Lifetime Warranty
All products manufactured by Improved Racing are covered by a lifetime warranty. This
means that we guarantee our products for as long as the original purchaser owns it. Proof
of purchase is required.

Warranty covers:
1. Manufacturing and material defects.
2. Product or material failure occurring during normal use.

Warranty does not cover:
1. Any damage to the product, unless caused by a manufacturing or material defect.
2. Any failure or damage due to normal wear and tear.
3. Products modified in any way.
4. Products which have been discontinued for longer than 1 year and for which no
   replacement is available.
5. Products sold, but not manufactured, by Improved Racing. For assistance with these
   products, please refer to the original manufacturer’s warranty.
To file a claim, visit www.improvedracing.com and use the Contact Form. Once a claim is
filed, product will be either repaired, replaced or refunded by the manufacturer. Product
must be shipped at customer’s expense.

Returns
We offer a 30-day money-back guarantee. If you are unsatisfied with our product for any
reason, you may return it within 30 days of purchase for a full refund. Returns must be pre-
approved. Damaged items are not returnable, unless the product exhibits a manufacturing
defect or is damaged during shipping. To request a return, please visit our contact page
on our website at http://www.improvedracing.com. Shipping costs are non-refundable and
returned items must be shipped at customer’s expense.

Legal Notice and Terms of Sale
• The term “this product”, as used throughout this document, refers to the product listed
  on the cover page of this manual.
• This product is intended for off-road use only and does not necessarily meet required
  federal regulations for road-going vehicles.
• While care was taken in the design and development of this product, racing is a
dangerous activity and the purchaser assumes all risk and liability associated with the
use of this product. These risks include but are not limited to damage, loss, injury and/
or death.
• Improved Racing and its owner(s) are not liable for any losses or damages of any kind
  incurred while using this product.
• By purchasing this product, the purchaser agrees to the terms of this agreement.