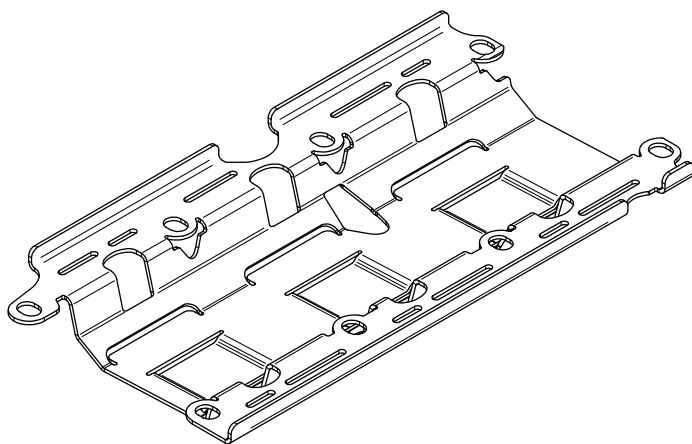




## PERFORMANCE ALUMINUM WINDAGE TRAY FOR GM LS / VORTEC ENGINES

**PART NO. EGM-243**

MADE IN USA

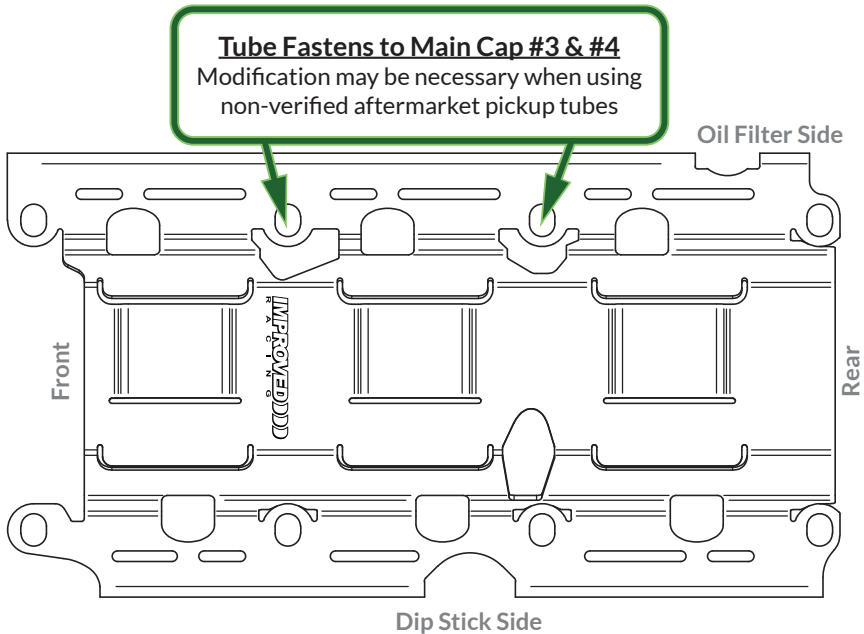


Important: Read these instructions in their  
entirety prior to installation.

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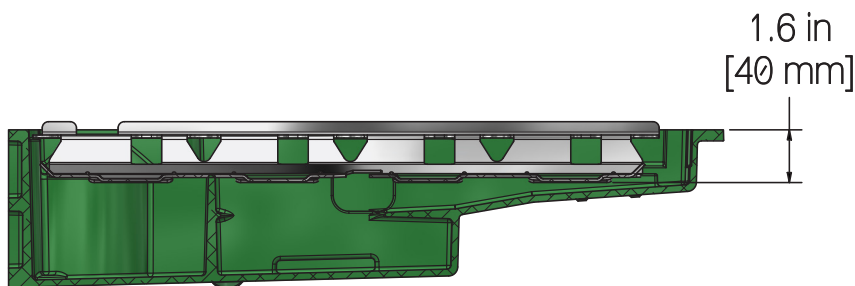
## APPLICATIONS

- 1997+ LS / Vortec engines with factory or aftermarket bottom ends, equipped with the oil pans shown in Table 1.
  - Installs into LS / Vortec engines with stroke up to 4.000".
  - CAD-verified to fit the oil pans listed in Table 1.
  - CAD-verified to fit the Holley 302-2 and 303-3 oil pans.
- This part may install with aftermarket oil pans if:
  - The aftermarket pan uses an oil pickup tube (screen) from a vehicle listed in Table 1.
  - The aftermarket pan uses dip stick hardware from a vehicle listed in Table 1.
  - The aftermarket oil screen fastens to the main cap locations shown in Figure 1.



**Figure 1 - Pickup Tube Fastening Locations for EGM-243**

- Look at Figure 2 to verify the aftermarket pan is deep enough.
  - Ignoring oil pan gasket thickness, there should be at least 1.60" of clearance from the gasket surface.



**Figure 2 - Minimum Aftermarket Oil Pan Depth**

- Expect to trim the tray for aftermarket tubes.
  - Use a marker and cutting tool to remove small pieces until 1/8" clearance is confirmed.
- ⚠ DOES NOT fit 4.125" stroke engines.**
- ⚠ DOES NOT fit LS engine blocks using stepped main caps, such as Dart Industry's LS Next engine blocks.**
- Table 1 lists the part numbers for all oil pans EGM-243 is verified to fit:

GM Part Number	Factory Oil Pan for These Vehicles
12628771, 12598151 and 12558762	Chevrolet Camaro V8 (1998-2002) Pontiac Firebird V8 (1998-2002) Chevrolet Express 2500 & 3500 (2009) GMC Express 2500 & 3500 (2009) Chevrolet LCF (2016-2018)
12631828, 12605814 and 12598152	Cadillac CTS-V (2004-2015)

**Table 1 - EGM-243 Verified Fitment Oil Pans**

## PARTS LIST & HARDWARE

Qty	Part Number	Description
1	EGM-243	Windage Tray
7	HSP-1009	Reducer Bushing for Factory Main Studs
8	HNT-1018	M8 Lock Nut for Factory Main Studs

# TECHNICAL SPECIFICATIONS

Maximum Operating Temperature	302°F (150°C)
Minimum Operating Temperature	-22°F (-30°C)
Dimensions	Refer to Figure 3
Weight	15 oz (425 g)
Tray Material	5052-H32 Aluminum Sheet
Bushing Material	6061-T6 Billet Aluminum

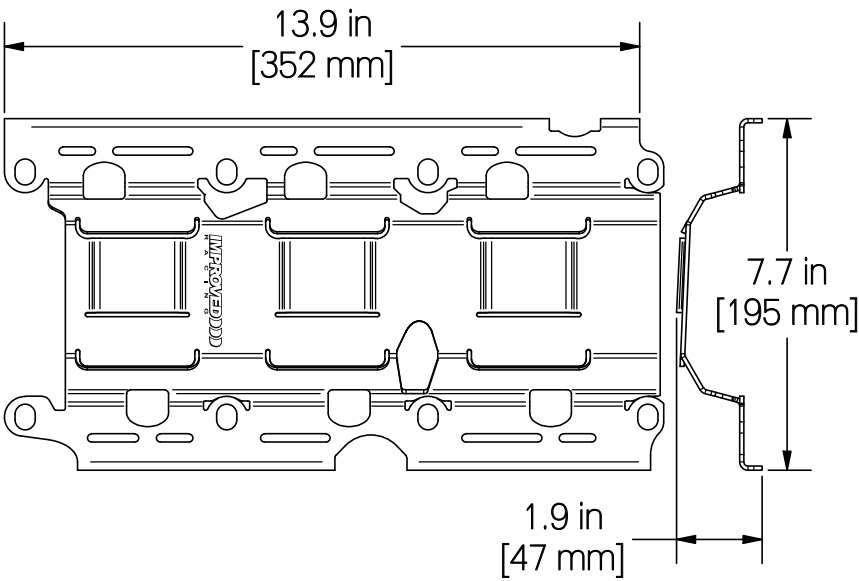


Figure 3 - EGM-243 Dimensions

## BEFORE YOU BEGIN

- ⚠ WARNING: NEVER work under a vehicle supported by only a jack.**
- ⚠ WARNING: This product should only be installed by a qualified mechanic. Improper installation could result in severe engine damage.**

## INSTALLATION INSTRUCTIONS

1. Review the vehicle's service manual and follow the steps to remove the oil pan and windage tray.
2. Use brake cleaner or compressed air to remove contaminants from the production process.
3. Install the new windage tray:
  - a. Factory main studs must use adapters like Figure 4 shows.
  - b. Aftermarket main studs may continue without adapters.

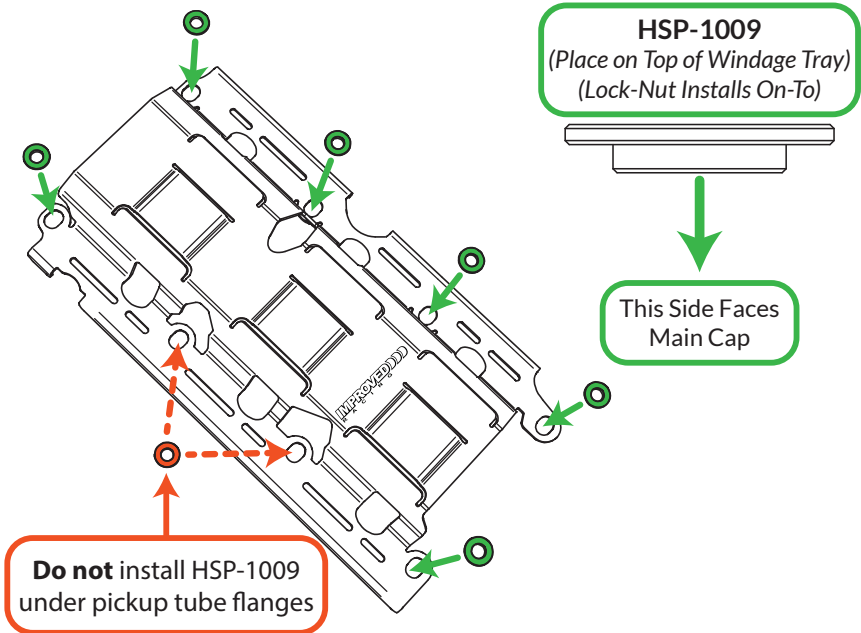




Figure 4 - Installing HSP-1009 for Factory Main Studs

4. Lightly-secure the new windage tray for a test fit:
  - a. Factory main studs should use the included M8 lock nuts.
  - b. Aftermarket studs should use the nuts supplied with the stud kit.
-  **CAUTION:** Turn the engine clockwise by the crank pulley using a 24mm (15/16") socket and breaker bar to confirm clearance between the new windage tray and rotating assembly. Loosen and adjust the new tray until clearance is confirmed.
5. When no interference is confirmed, torque the nuts to 18 lb-ft (24 N-m).

6. Perform the remaining steps in the vehicle's service manual to reinstall the oil pickup tube and oil pan.

 **CAUTION:** Ensure the oil pickup tube flanges are flush with the oil pump and the new windage tray.

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