PERKO[®] Cat. Nos. 0660, 0661, 0662, 0663, 0780, 0781, 0782, 0783, 0790 & 0791 Series Sealed Caps with Vacuum Pressure Relief (VPR) and Fuel Fills for EPA & CARB Fuel Systems

Installation and Operation Instructions PLEASE READ ALL INSTRUCTIONS BEFORE PROCEEDING

These fills meet the new CARB and EPA requirements of U.S.C.G. Safety Standards (July 31, 2011) for 40 CFR Parts 9, 60, 80 et al. Control of Diurnal Emissions From Nonroad Spark-Ignition Engines and Equipment and in Title 13, Section 2855 of the California Code of Regulations. California Executive Order #RM-17-021.

WARNING: Do not attempt to use these non-vented caps and/or fill and cap assemblies on older vented boats. <u>Cap and fill body</u> threads on these sealed non-vented fills have been changed and <u>are incompatible with older style vented fills</u>.

NOTE: The vent line on these fills functions when the cap is removed, during the actual filling process, when the engine is running, when air temperature drops, and if pressure in the tank exceeds 1.0 psi. Inspect the fill components annually for signs of damage and wear. The system will not seal properly if o-ring in cap is cracked or worn. Check to be sure the opening of the pressure relief valve is clear of debris (See Diagram 3 on back). The caps for these fills have a vacuum pressure relief valve (VPR) that automatically relieves excess pressure in the tank due to expansion and contraction of fuel vapors.

1. Select mounting location:

- In accordance with A.B.Y.C., U.S. Coast Guard and E.P.A. requirements and regulations.
- Surface must be flat and provide adequate clearance to remove the cap.
- Allow for adequate clearance under fill for routing fill and vent hose, which must be selected and installed in accordance with A.B.Y.C. requirements and U.S. Coast Guard Safety Standards for Small Boat Fuel Systems (33 CFR 183).
- CONSIDER THE LIMITATIONS OF A MARINE FUEL VENT: DO NOT locate on a surface that can become substantially submerged or flooded, otherwise water can be drawn into the system during vent operation. An accessory mounting ring (PERKO Cat. No. 0540RNGBLK) is available to raise the fill/vent above the mounting surface.
- Attach mounting template to selected mounting surface and orient for desired position of fill/vent connections and for ease of insertion of the fuel nozzle into the fill neck. Drill where indicated. Be sure to drill the 3/4 inch hole before drilling the 2-1/16 inch hole.

NOTE: The 2-1/16" dimension of the larger hole is sized to provide mounting surface support to the fill body. DO NOT use larger size cutter or drill.

- 3. Mount fill using #8 pan head screws. Caulk if necessary.
- 4. Attach and clamp 1-1/2 inch fill hose and 5/8 inch vent hose in accordance with the above referenced standards.
- 5. Pull the tether and attachment ring out from the fill and snap onto the center of the cap into a groove that allows it to swivel.

NOTE: Plastic fuel fills should <u>NOT</u> be grounded.

(1). American Boat & Yacht Council, Inc.
613 Third Street, Suite 10
Annapolis, MD 21403

(2). U.S. Coast Guard Washington, D.C. 20593 (or your local C.G. office)

(3). E.P.A. 401 "M" Street S.W. Washington, D.C. 20460 (4). California Air Resource Board P.O. Box 2815 Sacramento, CA 95812-2815

Instructions for Installing Fuel Fills

- **Note:** Perko's fills come with tethers attached to the fill body, but not to the cap. This eliminates the need to unscrew the tether before pressure testing a boat.
 - 1. Fills are packed with caps installed. Tethers are fixed in the fill bodies but not attached to the cap.
 - 2. Install the fill as indicated in the installation instructions #1 thru #4.
 - 3. Once the pressure test is done, pull the tether and attachment ring out from the fill body and snap onto the cap by hand (see Diagram 1). The ring snaps over the ridge as indicated in Diagram 2.
 - 4. Once attached, the ring allows the cap to turn freely without binding or twisting the tether. See Diagram 3.





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