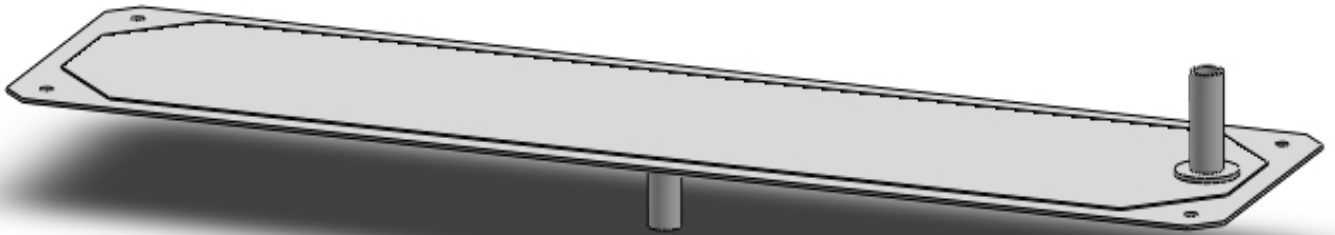


Universal Vent Bladder Kit for Differential & Transmission Applications



PN: L380180000

Parts List

Universal Differential Vent Bladder Kit (PN: L380180000)

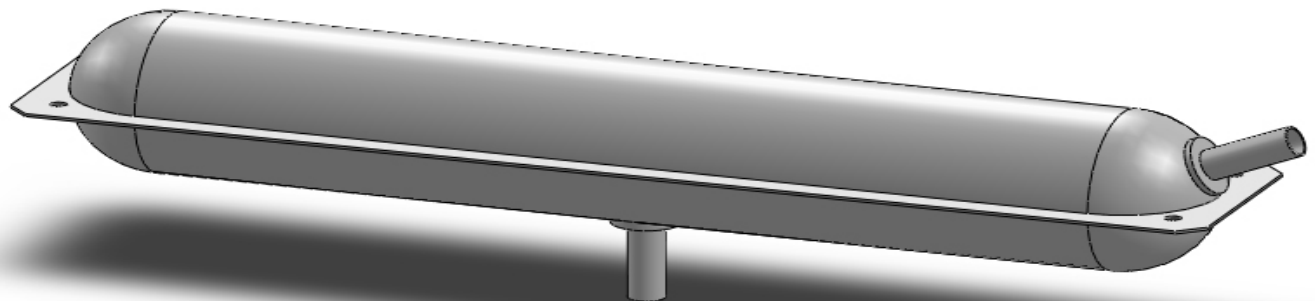
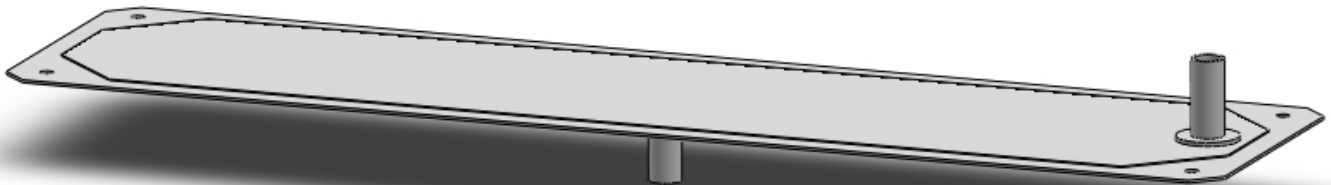
#	Description	Part Number
1	Differential vent bladder, rev. 2	XX04556-0010
1	1/4 to 1/2 hose joiner, stainless	WWG4HFL2
4	High-Pressure Rubber Hose, Buna-N, 1/4" ID X 1/2" OD, 300 PSI, per foot	5283K31
1	17.0 mm Oetiker clamp	52545K55
2	13.3 mm Oetiker clamp	52545K51
1	Instructions	N/A

Optional Items

Description	Part number
1/4 to 1/2 hose joiner, stainless	WWG4HFL2
1/2 to 1/2 hose joiner, stainless	5670K15
1/4" NPT breather vent - porous bronze	9833K22
High-Pressure Rubber Hose, Buna-N, 1/4" ID X 1/2" OD, 300 PSI, per foot	5283K31
High-Pressure Rubber Hose, Buna-N, 1/2" ID X 3/4" OD, 300 PSI, per foot	5283K13
13.3 mm Oetiker clamp	52545K51
17.0 mm Oetiker clamp	52545K55

Tools & Materials Required

- Hose cutter
- Oetiker clamp pliers (or equivalent)
- Scissors



Thank you for purchasing the Lingenfelter Performance Engineering (LPE) Universal Vent Bladder Kit. Some vehicles, under higher load or higher speed use, may have issues with fluid leaks from the differential and/or transmission vent. This bladder kit has been designed as a solution to those problems. The LPE Universal Vent Bladder Kit is also the perfect solution for vehicles that are required to have a closed differential system by their sanctioning body. This product can also be used to provide a closed vent system for vehicles that may have drivetrain components, such as differentials and transmissions, that may become submerged in water.

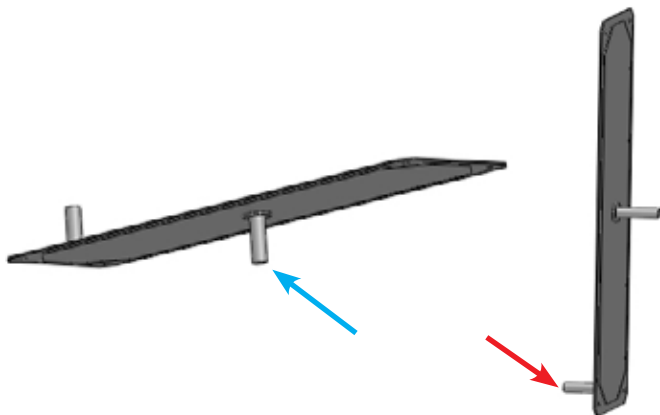
The universal bladder is designed to expand to 2.25 liters, enough to account for the thermal expansion in most light or medium duty differentials, including the AAM 241mm (9.5") differential. These instructions include a broad explanation on how to install the kit, as well as a specific example (2010-2013 Camaro) that shows how the bladder may be oriented on the vehicle.

Read the entire instruction manual before beginning installation. Many of the stock parts will be used in reassembly.

For some applications, different fittings and tube sizes may be required. Make sure to check the size of any applicable fittings, such as the differential hose fitting, to determine the correct fittings and hose sizes before beginning installation.

The following instructions assume that all necessary underbody components have been removed to allow for adequate clearance.

Generic installation instructions for the LPE Vent Bladder Kit:

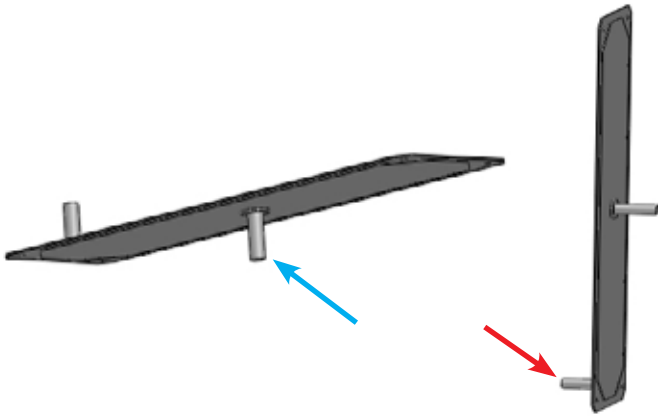


1. The LPE differential bladder was designed to allow for both vertical and horizontal orientation in the vehicle. If the bladder will sit horizontally in your application, cut the tip off of the center breather (blue arrow). If the bladder will sit vertically in your application, cut the tip off of the end breather (red arrow). In both orientations, the breather that has been cut off must be the lowest point so that the bladder's contents can drain back into the differential.



2. In some cases, it may be desirable to run a vent hose from the bladder to a higher point on the vehicle. If this is required for your application, simply cut the tip off of the breather to connect to the differential and connect a hose to the breather. On the other end of the hose attach a breather fitting.

3. Select a location for the bladder on the vehicle that will allow the fluid to be gravity-fed back into the differential or transmission. Mount the bladder (PN: XX04556-0010) to the vehicle where desired.



4. Press the 1/4" to 1/2" hose joiner (PN: WWG4HFL2) into the bladder tube selected in the previous step. Secure the hose joiner to the bladder using a 17.0mm Oetiker clamp (PN:52545K55). Tighten the clamp with a pair of Oetiker clamp pliers (or equivalent).



5. After test fitting the rubber hose (PN: 5283K31) from the bladder to where it will connect to the differential, cut the hose to length.



6. Using the two (2) 13.3mm Oetiker clamps (PN:52545K51) and the correct length of hose, connect the hose to the hose joiner and the differential.





OPTIONAL STEP: If installing the breather fitting, run a second hose from the bladder to a higher point on the vehicle so that the fluid drains back down to the bladder. Attach the breather fitting to the hose and use an Oetiker clamp to secure them together.

WARNING: Be sure to protect the bladder from exposure to hot exhaust components. If needed, install a heat shield between the exhaust and the bladder.

Installation of the LPE Universal Vent Bladder Kit is now complete.

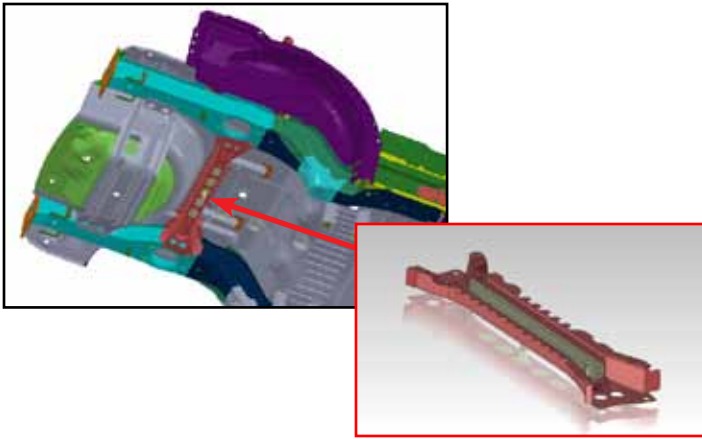
Installation of the LPE Vent Bladder Kit on the 2010-2013 Camaro



1. Using a floor jack to support the weight of the subframe, remove the four (4) rear subframe bolts. Slowly lower the subframe. Lowering the rear subframe will provide adequate clearance for installation.



2. Place the bladder (PN: XX04556-0010) into the undercarriage of the vehicle. For 5th generation Camaros, LPE generally recommends placing the bladder in the vehicle's frame, just above the differential. Make sure that the bladder's cut breather tube is protruding downward from the frame, as shown in the adjacent picture.



3. These CAD illustrations show the location where the bladder should be mounted onto the underside of the Camaro. The part of the frame that will house the bladder is colored red while the bladder is colored gold.



4. Connect the bladder to the differential and reinstall the rear subframe.

NOTE: If installing the LPE vent bladder kit on a 2010-2013 Camaro equipped with the LPE 9.5" Differential, a larger inner diameter hose may be required as the latest iteration of the 9.5" differential has an enlarged hose fitting.

Installation of the Universal Vent Bladder Kit in a 2010-2013 Camaro is now complete.

For additional product installation information and technical support, contact LPE or your LPE products distributor. You can also find technical support and usage discussions regarding this product and many other LPE products in our Internet forums:

<http://www.lingenfelter.com/LPEforumfiles>

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