



BOOST BYPASS VALVE PROPER MOUNTING PROJECT STUTORIAL

2ND Generation Cadillac CTS-V (2009-2015)

Tool Requirements

- 10mm Socket
- Ratchet



[VIDEO AVAILABLE HERE!](#)
(Courtesy of Fasterproms)

Why Should I Inspect My Bypass valve?

Before adjusting the bypass actuator and arresting screw, it would be wise to understand the design intent and ramifications of incorrect adjustment.

1. On our CTS-V's the bypass actuator is primarily used for unloading the supercharger when boost is not required. I.e., when the engine has vacuum the actuator pulls the plate open so some air can bypass the rotors and feed the engine unhindered (as per Ben's posts).
 - Disconnecting a correctly operating bypass will not assist the engine to create more power (despite what some Ford forums may claim). In fact, it will usually cause an increase in IAT's & will certainly shorten the life of many components.
2. On the LS9 & LSA platform, the bypass actuator is also used for "bleeding" boost during some of the torque management strategies. If tweaking these strategies is desired, it should be done via tuning the software parameters - not via any mechanical means.
3. An incorrectly adjusted bypass system can cause the bypass throttle-plate to not seat (leak); jam/stick shut (not bypass immediately); pull over-center & jam/stick open (always bypass); self-destruct (cause the diaphragm to tear)

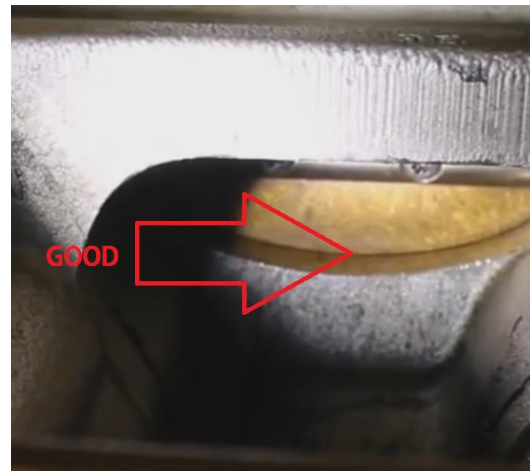
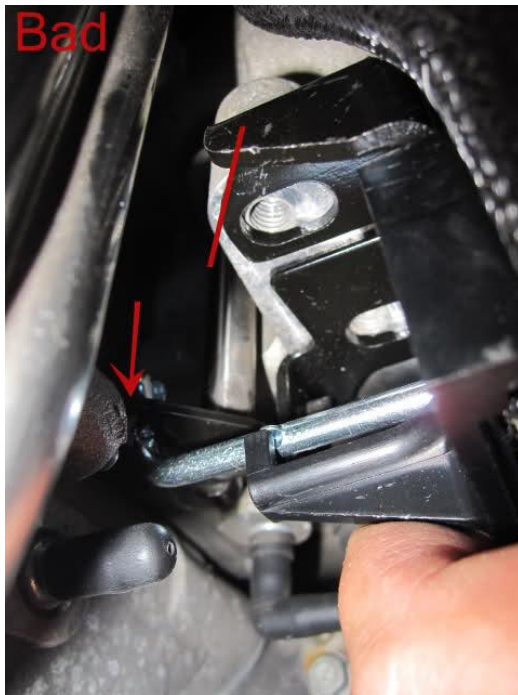
The correct adjustment of the bypass is to have 2.0-2.5mm of preload after the throttle plate is arrested. Therefore, the order of adjustments makes a difference.

Properly Mounting Boost Bypass Valve – Step by Step

(Photos courtesy of "Razorecko" on ctsvowners.com)

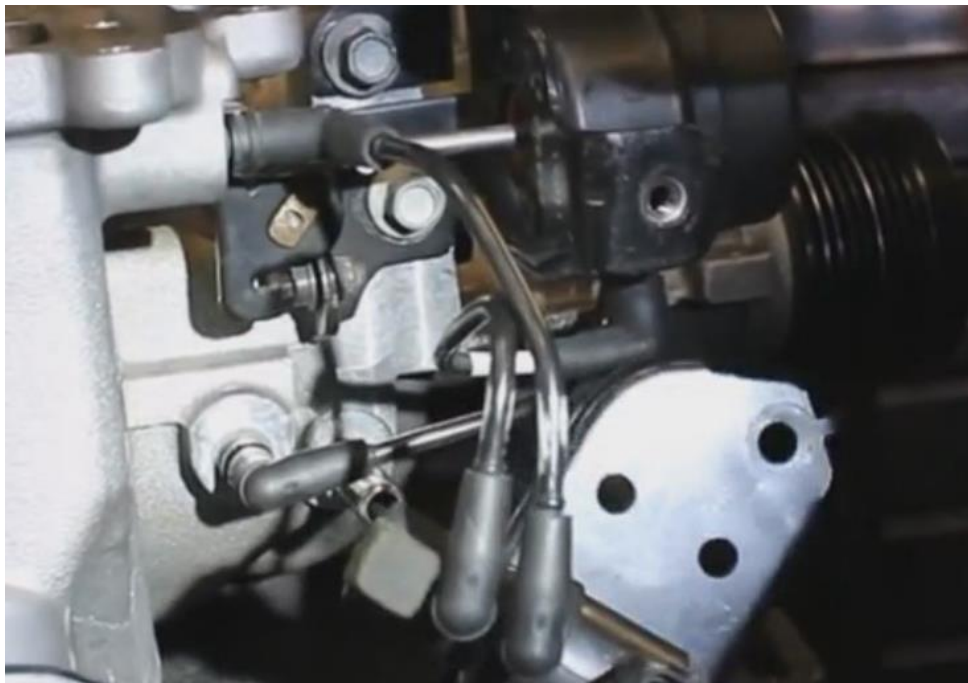
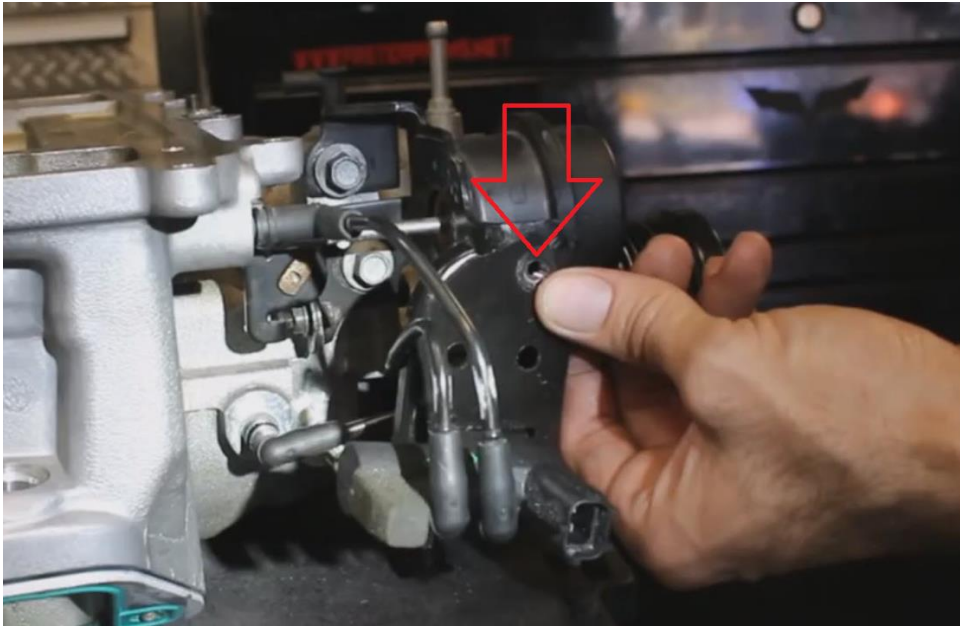
Step 1 - Inspect your Boost Bypass Valve

- a. This is something that everyone that has every had their boost bypass bracket moved needs to check. When checking my boost bypass valve bracket I noticed that it was bolted with the bracket shifted away from the motor.
At this time I had 4 threads showing on my adjustment screw before it lightly touched the plate. Shifting forward the whole bypass valve with its bracket it moved the entire actuator arm and than I realized that if its mounted with the bracket too far back it will pull the arm on its own. Meaning you can play around with the screw all you want but if the bracket is not correctly mounted the actuator arm will be slightly pulled.
From adjusting the bracket I went from 4 threads to touch the plate to 1 thread to touch the plate. I can see this being an issue with some people having boost problems so i'll let the photos do the talking.....



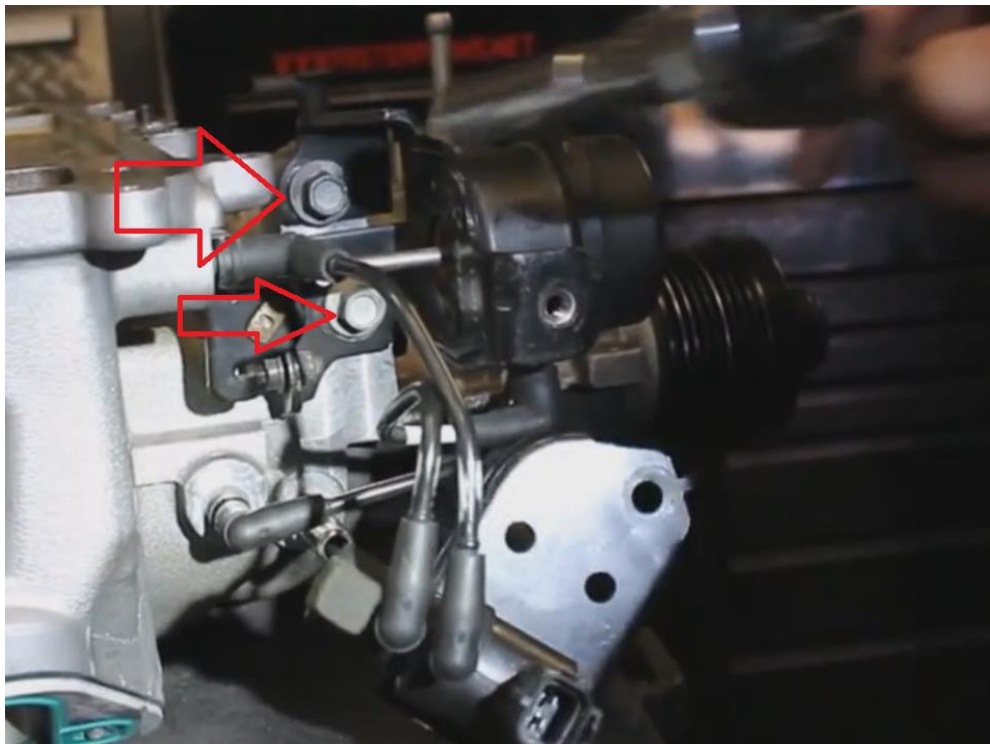
Step 2 - Remove the First 10mm Bolt

- a. Completely remove the 10mm bolt shown in the photo below and allow the part to dangle.



Step 3 - Loosen the next two (2) 10mm Bolts

- a. Loosen the two (2) 10mm bolts shown in the photo below (enough to move the bracket/plate around) but do not remove them completely.



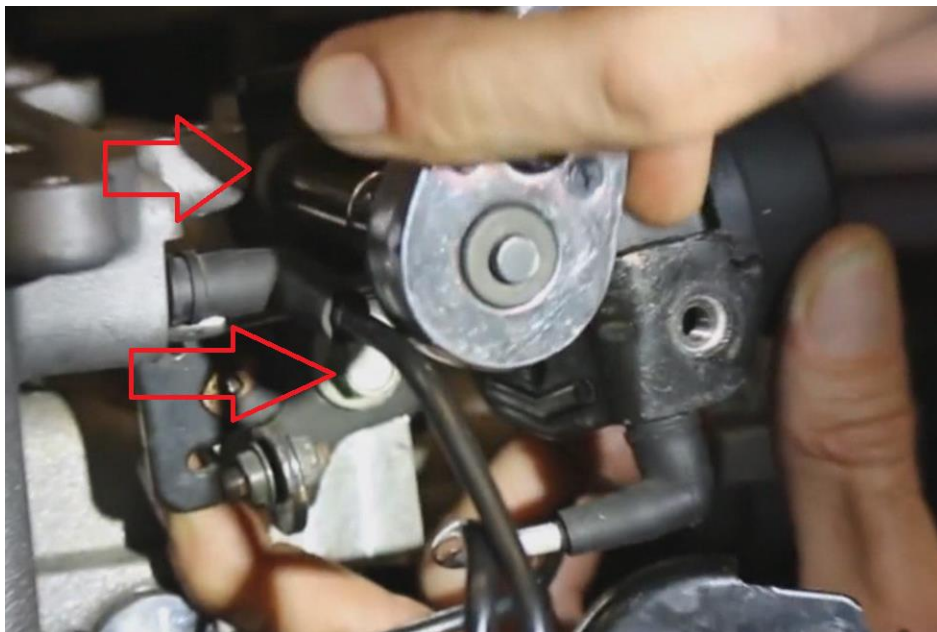
Step 4 - Reset the location of the bracket

- a. Rotate the entire part counter-clockwise by pushing the top against the rear of the car and pulling the bottom part outwards.

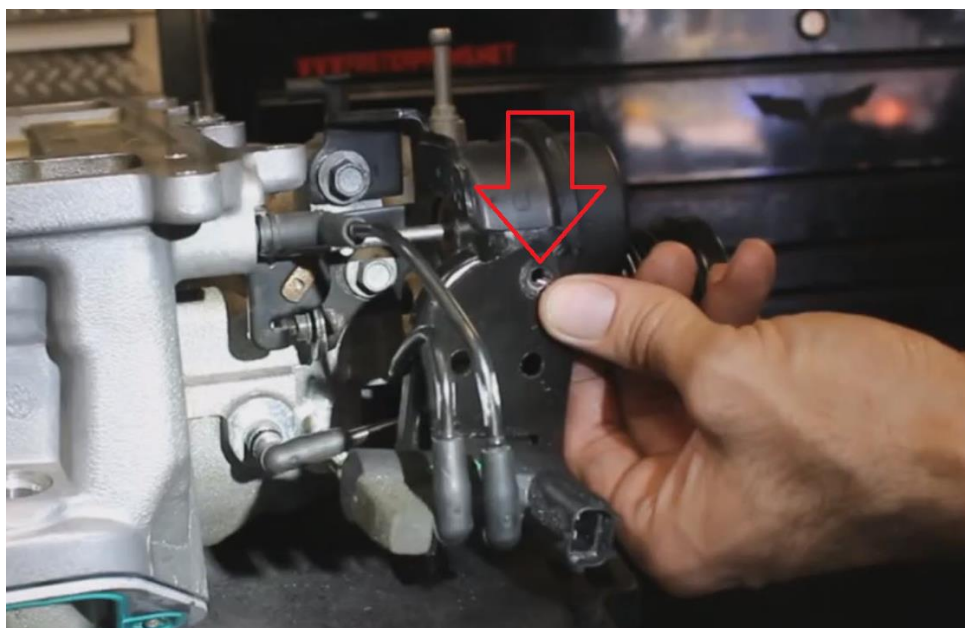


Step 5 - Retighten the Two 10mm screws

- a. While still holding the part in your hand, turned counterclockwise, tighten the two (2) 10mm screws shown in the photo.

**Step 6 - Retighten last 10mm bolt**

- a. Retighten the last 10mm bolt shown in the photo below.





A Cadillac V-Series Owner's Social Network and Community

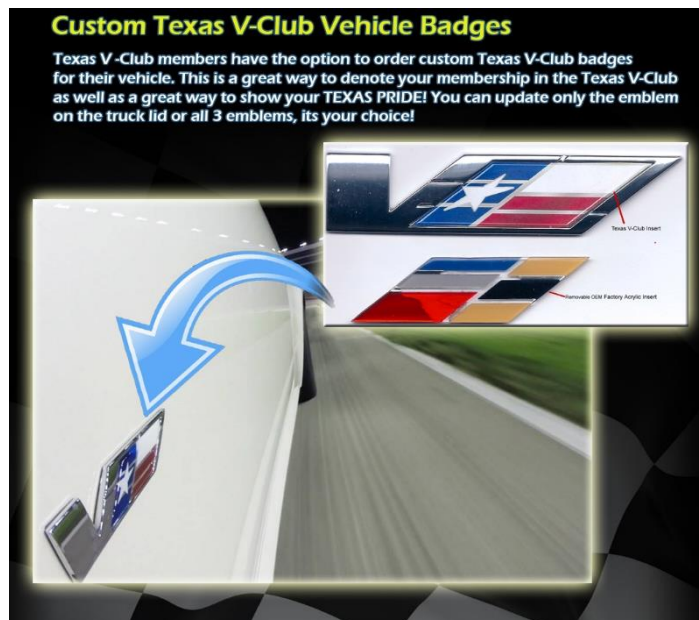
Interested in joining the Texas V-Club?

Whether you have a first generation V or a late model V sedan, coupe or wagon you are welcome to submit an application to join the Texas V-Club. Full membership is limited to V owners who reside in Texas and the club consists of four chapters located in DFW, Houston, Austin and San Antonio. Affiliate memberships are also open to non-residents of Texas.

Joining our club provides each member exclusive private access to our website "member's only" pages, monthly meets, public and private club events (i.e. track rentals) as well as discounts to our sponsors. You also have the opportunity to replace your V badges with custom made Texas V club badges (see photo below). Click [HERE](#) for more details on joining.

Visit our website at www.TexasVClub.com

Visit our Facebook at www.facebook.com/texasvclub



**** DISCLAIMER ****

Conclusions drawn from the information and data portrayed in this website are the sole responsibility of the user. Although care has been taken to ensure that our data and information is up to date and accurate, it is provided "as-is" and we give no warranty, express or implied, as to the accuracy, reliability, utility or completeness of this information. Users of this data assume all responsibility and risk for use of the data and the information made available via this website. Most of this data has undergone substantial editing and review prior to posting, but not all errors or inaccuracies may have been detected. Consequently, V-Tipniques data should be regarded as provisional as subsequent reviews may result in significant revisions to the data. Data users are cautioned to consider carefully the provisional nature of the information before using it for decisions or modifications to their vehicles.

We ask that any errors or problems found by the users be reported to our Club Administrator or Social Media Director. We will make reasonable efforts to correct errors brought to our attention and may update or make changes to the documents provided at any time without notice.

This information and data is the result of efforts by many V-Owners, Performance Shops, Tuners and Forum users. Our objective is to share what is commonly considered as public data and where appropriate, we have attempted to acknowledge the efforts of authors or product vendors.