

Variable Pressure Clutch Installation Instruction

V P 6 8 / 8 4 / 9 5 F O R ' 9 8 A N D L A T E R H A R L E Y - D A V

Note: VP Performance Kits and VP Charger Kits Requires removing the outer primary cover to change the diaphragm spring. Non-stock derby covers (including any special or '03 anniversary cover) and 3 holes derby covers may require a derby cover spacer. Clutch pull becomes heavier as RPM increases. Will fit models equipped with H-D hydraulic clutch.



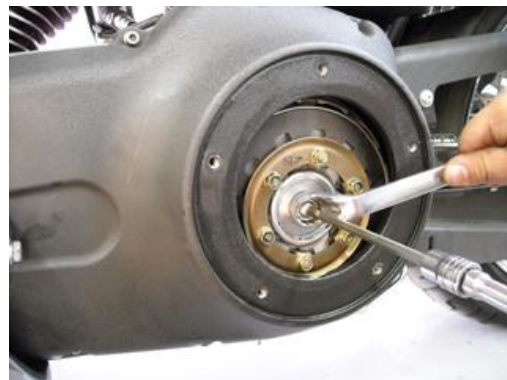
1. Turn cable adjuster until there is a large amount of free play at the clutch hand lever.



2. Remove derby cover.



3. Loosen lock nut on the clutch adjuster screw.



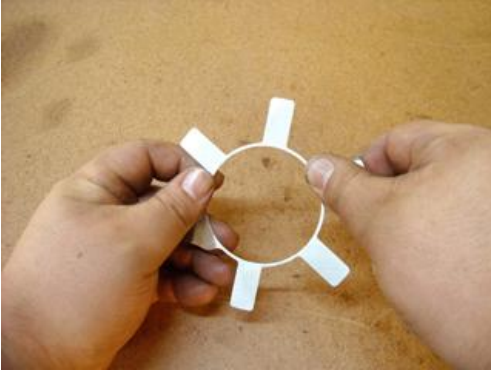
4. Adjust clutch adjuster screw. To take up all free play, turn screw inward (clockwise) until gently seated. Activate the clutch lever to verify the balls of Ball & Ramp (in right side transmission) are seated in the ramps. Back out adjuster screw (counterclockwise) 3/4 to 1 turn. Tighten lock nut while holding adjuster screw with an Allen wrench.



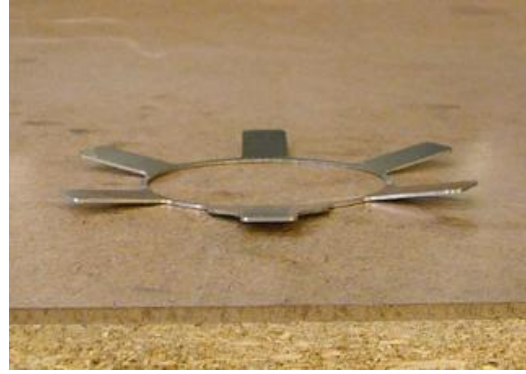
5. Loosen the spring retainer evenly a little at a time using a 10 mm socket wrench.



6. Pull the spring retainer and remove it.



7. Bend the 6 base plate tabs slightly outward.



8. Showing bented base plate.



9. Install base plate. Starting with widest tab on the base plate insert it inside the diaphragm spring.



10. Ensure that it is seated all the way in.



11. Install the VP

clutch. if you install it from one of the bottom levers first then it will go in easily.



12. Use the provided bolts and tighten evenly with a 5 mm Allen wrench. Ensure the diaphragm spring is not out of position and start tightening the bolts. Finally, tighten to a torque of 90-110 in-lbs (10.2-12.4 Nm).



13. Adjust the clutch cable. Ensure free play of 1/8" or more at the clutch lever pivot between the clutch holder and lever without pulling the cable.



14. Install derby cover gasket (Parts#AIM003-001) and derby cover. Tighten bolts to 84-108in-lbs (9.5-12.2 Nm).



Tech Note: You can use 18 mm spark plug socket to tighten lock nu t.



Tech Note: Adjusting adjuster screw with using 18 mm spark plug socket.



Advanced Innovative Machinery

AIM Corp. PERFORMANCE PRODUCTS VP-LT & VP-IV

Parts#VP026-95IV / VP027-84IV / VP028-68IV For '98 and later 6 Studs Style Clutch

Please read and become familiar with the instructions prior to the install.

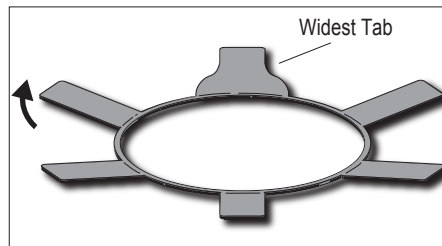
Note; Non-Stock Derby Cover (including any special or '03 Anniversary Cover) and '15 and later **Narrow Primary Cover** and **3 holes derby cover** may require a derby cover spacer.

1. Stand the bike upright using a jack. This will prevent any oil leaking out of the primary cover. Then, remove the derby cover.

Skip *Number 2* if your bike has a Hydraulic Clutch System.

2. Adjust the clutch push rod with the stock retainer plate in place. Back off the cable adjuster until the adjuster is fully collapsed and loosen the clutch adjuster lock nut. Tighten the clutch adjuster screw in until it gently bottoms out. Then back it out 1/2 to 1 turn, and tighten the lock nut. See **Picture 1**.
3. Jack the rear wheel up just enough for the rear wheel to move freely, then shift into 5th or 6th gear. This will make it easier to rotate the rear wheel.
4. See **Picture 2 & Picture 3**. Rotate the rear wheel until you have aligned 2 of the clutch studs bolts horizontally to the bottom to the ground.
5. Loosen the spring retainer plate screws evenly a little at a time using a 10mm socket wrench. Remove the retainer plate.
6. Bend the 6 star shim tabs slightly outward to follow the pressure plate concave shape.

Don't worry if you bend it too much. Try your best to match the pressure plate angle.

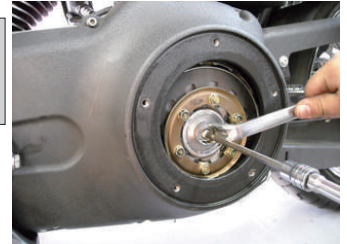


7. See **Picture 4**. Install the star shim. Starting with the wide tab, insert it behind the diaphragm spring making sure all tabs are behind the spring and is mounted over the lip on the pressure plate.
8. Put the diaphragm spring back onto the pressure plate if it fell off. Rotate the diaphragm spring and align it into the threaded tower in the clutch inner hub.
9. Align the VP Clutch. Place the VP Clutch on the diaphragm spring to ensure the spring and shim is not out of position. See **Picture 5**. Start from the bottom bolts. Align the bottom #1 bolt, then put #2 bolt in and thread it in by hand. You may have to pry the VP to compress the spring to align the holes if using a stiffer spring. Install all provided bolts and tighten evenly with 5mm allen wrench until bolt head touches the VP retainer plate surface.

If you have difficulty aligning more than one bolt hole when using a stiffer spring, see the following steps.

- 9-1 See **Picture 6**. Rotate the rear wheel until we can align one of the clutch studs bolts at the bottom to the ground.

Picture.1



Picture.2



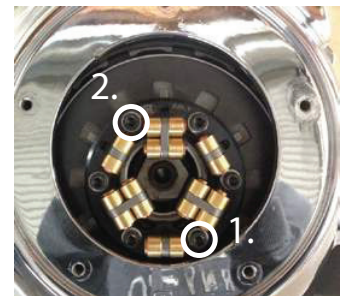
Picture.3



Picture.4



Picture.5



9-2 **See Picture 7.** Place the VP Clutch on diaphragm spring to ensure the diaphragm spring is not out of position. Start from the 5 o'clock bolt, align the hole then thread the bolt it in by hand. Then tighten up the bolt about half way with a 5mm allen wrench. Make sure the bolt is going in straight otherwise you may damage the thread.

9-3 Push the left bottom side in and turn the VP retainer counter clockwise until it aligns with the 10 o'clock post. Also you can push in and rotate the VP Clutch with 5mm allen wrench with extension. **See Picture 8.** Thread in bolt by hand and then tighten down five turns.

9-4 Loosen the 5 o'clock position bolt but **don't** remove it.

10. Then install remaining screws tightening in a star like pattern until the bolts touch the plate.

11. Check the diaphragm spring alignment again. **See Picture 9.** You can check the diaphragm spring position from the side. Make sure there is no binding between the threaded tower and the spring tabs. If the spring tabs are not aligned rotate the spring with a small flat head screw driver between the spring tabs and the threaded tower. The spring should rotate unless the screws are too tight. **See Picture 10.**

Tighten down all the mounting screws without aligning the diaphragm spring may cause damage on the threaded posts, bolts and spring.

12. Tighten all screws evenly 1 turn at a time in a star like pattern, finally torque to 90-110 in.lbs (10.2-12.4Nm).

Skip Section 13 if your bike has a Hydraulic Clutch System.

13. Adjust the clutch cable. Ensure that it has free play of 1/8in. or more at the clutch lever pivot between the clutch holder and lever without pulling on the cable.

Skip Section 14 if using O-ring style derby cover gasket.

14. **See Picture 11.** Cut out inner side of the dish style derby cover gasket with scissors.

VP Clutch weights may hit the dish style derby cover gasket without this modification. Also you can use our special designed gasket for VP Clutch, #AM003-001.

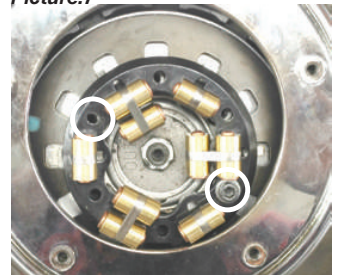
15. Check the derby cover clearance using the derby cover template or guage, #VP001-004. You can download the template from the Instruction page on our website. If you are using a factory stock derby cover you do not need any spacer. (except '03 Anniversary Cover, '15 and later **Narrow Primary Cover** and **3 holes derby cover**)

16. Install the derby cover gasket, derby cover spacer (if necessary) and derby cover. Tighten 5 bolts alternately and finally torque to 84-108 in.lbs (9.5-12.2Nm).

Picture.6



Picture.7



Picture.8



Picture.9



Picture.10



Picture.11

