

## New VPC-Ultimate TwinCam Installation Instruction 1999-2017 All Twin Cam model 6 studs,diaphragm spring clutch

**Installing by professional mechanics is highly recommended. If installed by individuals void all warranty.**

\*It needs primary cover grind some material off on 1999~ 2006 5 speed models. Bottom 2 Derby cover bolt holes on primary cover back side has to grind off about 2 mm.

\*It needs 3mm narrow derby spacer on Narrow primary cover bikes.

\*It needs 37807-03 diaphragm up to 110 cu.in. if the engine is enlarged from stock. For example: 96cuin to 110 cuin. Original 110 models like CVO,FXDLS equipped 37807-03 diaphragm so don't need to change diaphragm.

\*It needs SE diaphragm 37951-98 over 110cuin. Like 120,124 etc.

1 : Bike on jack stand straight up. Take battery negative cable off or take Maxifuse off. **Failure to do this may result in serious personal injury.**

2 : Take primary oil drain plug then drain primary oil. Then take primary cover off.(refer service manual)

3 : Loosen 6 retainer bolt little by little equally. Take retainer ,diaphragm spring, and pressure plate off.

Stock retainer,stock retainer bolts and stock pressure plate are no longer reuse.

Pic.1 stock retainer&bolts

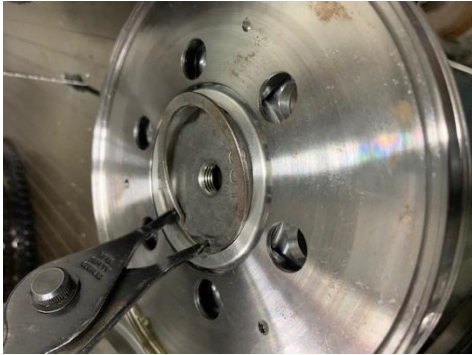
Pic.2 stock pressure plate



4 : Using snap ring pleyer to take adjuster bolt plate off. Replace that plate on New VPP(Variable Pressure Plate)

**Make sure the snap ring in the groove completely otherwise clutch dragging will occur.Pic.3&4**

Pic.3



Pic.4



5 : Weights inside VPP have angle one side only. Check **the angle facing black plate. It won't create centrifugal force if the angle facing aluminum silver plate.** Also aluminum silver plate has base ring. **No centrifugal force if there is No base ring.** Make sure there is base ring. Pic.5

Picture 5



6 : Align the two plates exactly. Pic.6

Pic.6



Pic.7



7 : Place VPP and diaphragm spring. It's easier to have someone's hand to hold diaphragm spring and pressure plate to install VPC(Variable pressure clutch)

Pic.8



8 : Install VPC with supplied bolts and washers. Tighten the bolts by hand equally. **Make sure the diaphragm is aligned to the clutch hub boss. Pic.9**

Pic.9 Correct



Pic.10 Incorrect **Diaphragm is not aligned to hub boss.**



Tighten all VPC bolts while checking diaphragm is aligned. Final torque is 10.2Nm~12.4Nm.

9 : Loosen clutch cable adjuster all the way.(Skip if hydraulic clutch model)  
Adjust clutch adjuster screw. Back out the clutch adjuster screw 1/2~1 turn.  
Then adjust clutch cable . Clutch lever free play at least 2mm.(refer service manual))

10 : Using old primary cover gasket, install primary cover with few screws to check clutch disengagement. Make sure nothing is contacted to the primary cover.  
Then replace primary cover with new gasket.

11 : Replace drain bolt then put primary oil. Then replace derby cover.

12 : connect battery negative terminal or maxifuse.

13 : Start the engine, make sure nothing is hitting.

14 : Grab the front brake then put it in 1<sup>st</sup> gear. Make sure clutch is fully disengaged. Then go for test ride.

We wish you have fun with New VPC-Ultimate TC. Thank you very much!

Kit contents:VPPx1,VPCx1, M6 boltx6,M6 washer x6

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