



## Twin Air Powerflow Throttle Body Kit

### Configuration # 1:

Can significantly increase horsepower and throttle response in low to mid-range. This configuration uses the following parts supplied in the packaging: orange intake tube, shaft, butterfly valve (small diameter) and two bolts.

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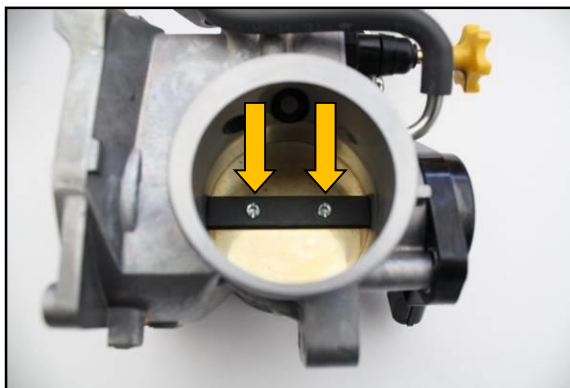
*(The tubes shown in this mounting instruction may be different than your application)*

### Instructions:

1. Remove your throttle body from your motorcycle. Check your motorcycle manual for reference.
2. Connect a TPS-tool (Throttle Positioning Sensor tool, Picture 13, also available from Twin Air) to the TPS-sensor connector; connect the cables as recommended in the TPS connection tables on page 3.
3. Write down the TPS-sensor position read-out on 0% throttle position before disassembling the TPS-sensor.

***You will need this value at step 13.***

4. Grind off the ends off the screws with a file. Remove the screws. (Picture 1 and 2)

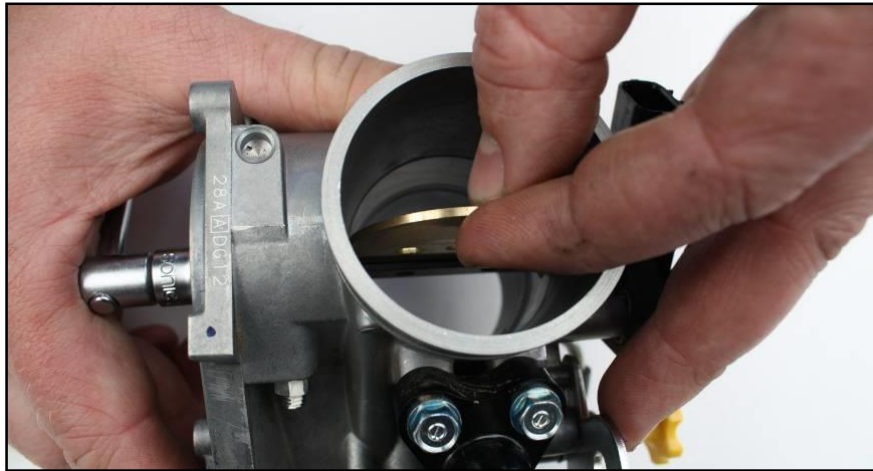


Picture 1



Picture 2

5. Remove the butterfly valve, by holding the throttle body at full throttle. (Picture 3)



Picture 3

6. Remove the screws that hold the TPS-sensor. Remove TPS-sensor. (Picture 4)



Picture 4

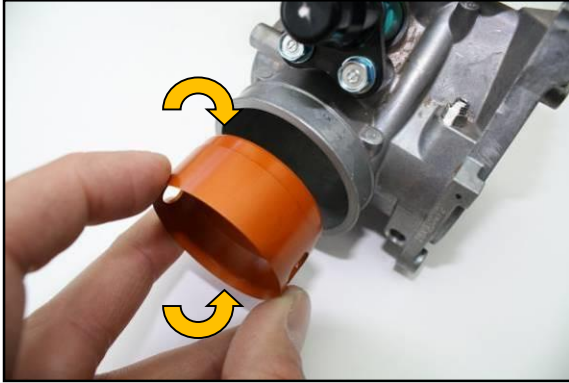
7. Remove the 11mm nut that holds the shaft. (Picture 5)



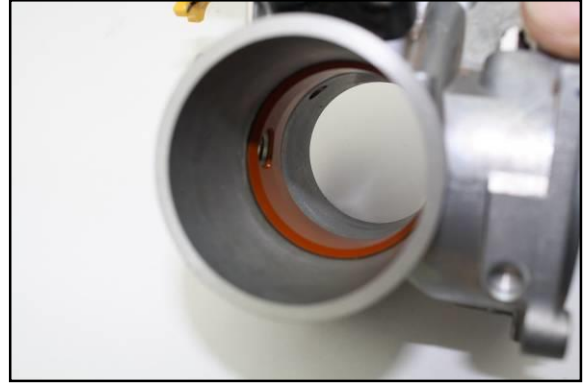
Picture 5

8. Remove the original shaft by pulling it out on the TPS-sensor side.

9. Insert the Twin Air throttle tube with the smaller side facing backwards. (Picture 6)  
Maneuverer it around to make sure the holes match. (Picture 7)

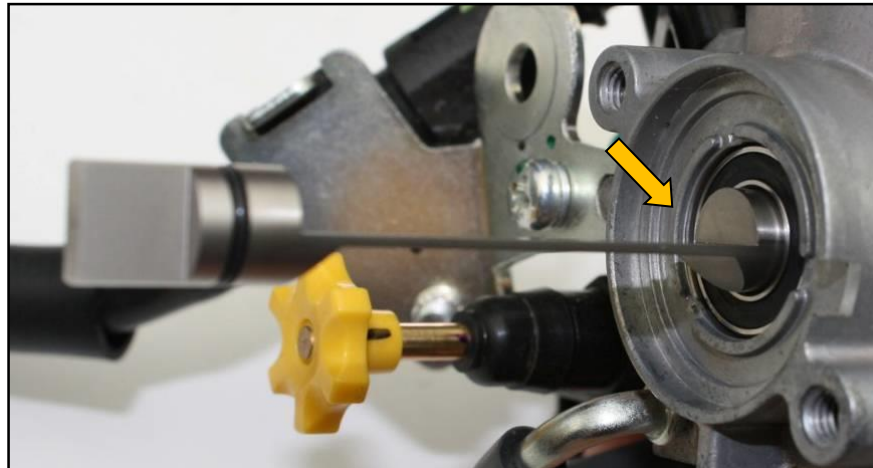


Picture 6



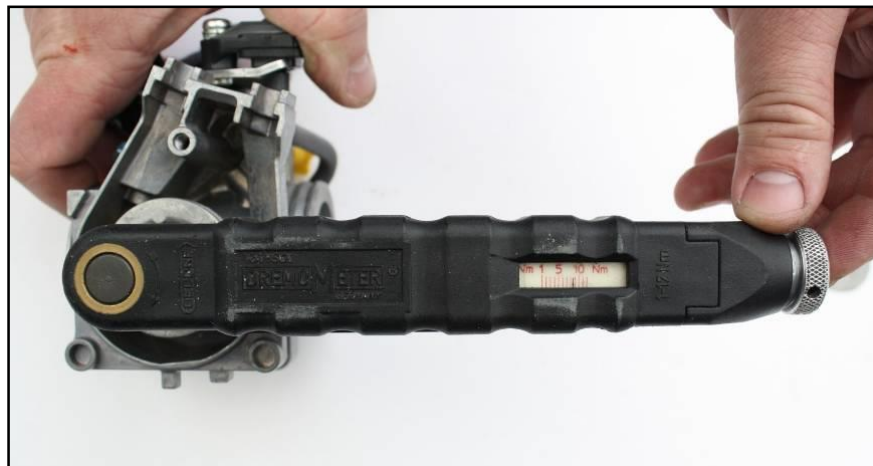
Picture 7

10. Slide in the Twin Air shaft from the TPS-sensor side as it was mounted originally.  
Insert the shaft with the flat side facing upwards. (Picture 8)



Picture 8

11. Tighten the nut that holds the shaft and **do not over tighten** (Max 8Nm).  
(Picture 9)



Picture 9



## Mounting Instructions Powerflow Throttle Body Kit Honda

12. Insert the Twin Air butterfly valve. Use the smaller valve for this configuration (configuration #1).

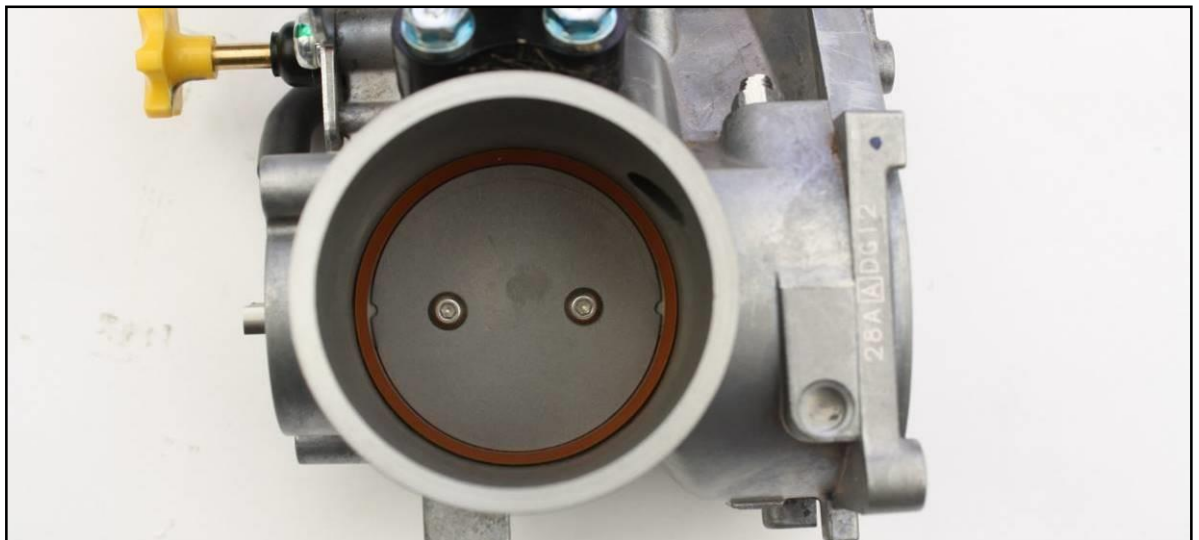
Open the throttle to 100% and slide in the valve into its place, close the throttle to 0%, apply Loctite to the supplied hex-socket screws and screw into the valve, do not fully tighten the screws before you make sure that the valve closes properly and does not have a sticky feeling when opening the throttle. (when the valve does have a sticky feeling to it or it does not close properly you will have to adjust it at the bolts) Do not over tighten the hex-socket screws (Max 1Nm). (Picture 10, 11 and 12)



Picture 10



Picture 11



Picture 12

13. Put the TPS-sensor back on the throttle body and tighten it down with the screw until the TPS-tool reads out the original position **as noted at step 3**.
14. Remount your throttle body to the bike (check your motorcycle manual for reference), set up your idle rpm speed.
  - In some cases, mapping changes may be needed after installation of the Powerflow Throttle Body Kit to optimize performance.



**TPS connection tables:**

Connect the TPS-tool pins to the TPS-sensor pins as shown in below tables.

Extra information:

- When turning on the TPS-tool unconnected, 1 . will appear on the display.
- Measurement range 0-20k ohm.

Yamaha YZF 450 2010-2013	
TPS-sensor:	TPS-tool pins:
Black	Black
Yellow	Red

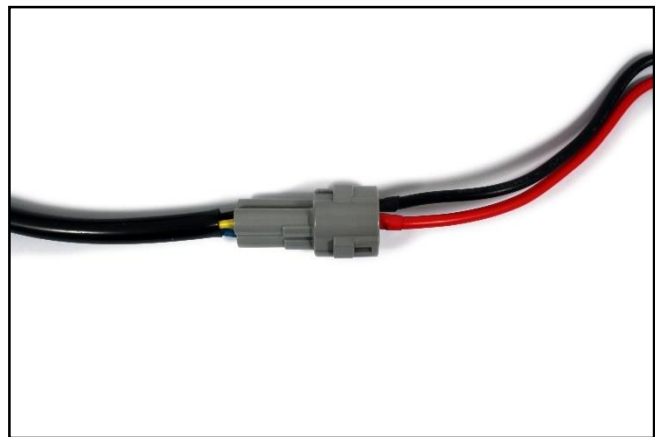
Kawasaki KXF 250 2011-2012 KTM SXF 250 2011-2012 SXF 350 2011-2012 KTM EXC 250/350/450/500 2012-2015	
TPS-sensor:	TPS-tool pins:
Top	Black
Middle	Red

Kawasaki KXF 250 2013-2015 450 2009-2015 KTM SXF 250 / 350 / 450 2013-2015 Suzuki RMZ 250 2009-2015 RMZ 450 2008-2015	
TPS-sensor:	TPS-tool pins:
Black	Black
Yellow	Red

Honda CRF 250 2013-2015 CRF 450 2011-2015 Yamaha YZF 250/450 2014/2015	
TPS-sensor:	TPS-tool pins:
Bottom	Black
Middle	Red



Picture 13



Picture 14