

### Ducati vSystem

C.A.R.B. E.O. No. D-674

Register your limited warranty online @ www.scottoiler.com/guarantee

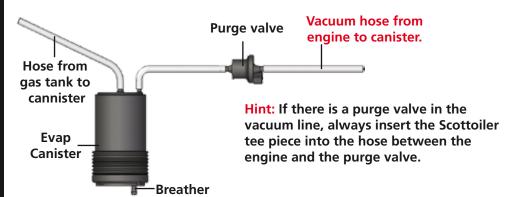


To comply with CARB regulations, the CARB Sticker (part A) must be stuck onto either the bike near the RMV (reservoir), or onto the reservoir itself.

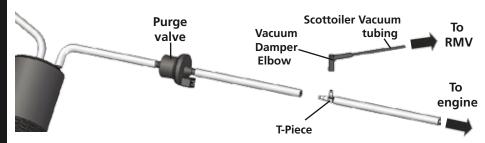
#### **1a. Vacuum Connection - California spec models**

Models of motorcycles sold in California are equipped with evaporative emissions canisters which collect gas vapor from the gas tank.

On these models there will be a vacuum hose from the engine to this canister, and also a hose from the gas tank to this canister.



Locate the vacuum hose from the engine to the canister. Cut into vacuum hose and insert T-piece. Depending on the diamter of the tube, you will use either the 4mm tee piece (part B), or the 6mm tee piece (part C). Fit the Scottoiler vacuum tubing (part 3) into the small side of the damper elbow (part 4) & press the larger side of the damper elbow onto T-piece.



Hint: Ensure all connections are firmly made, and lubricate the damper elbow with a little Scottoil for easier installation.

Hint: Model specific details and photos of vacuum connections can be found online at www.scottoiler.com









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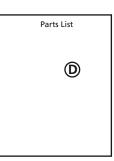
#### **Parts List**

The parts in this kitbag are to be used in conjuction with the main Ducati vSystem kit, and will be required for California spec. models only. Follow step 1a. to make the vacuum connection, then follow the general kit instuctions for steps 2 onward.









- A) Scottoiler CARB E.O. Sticker
- B) 4mm tee piece
- C) 6mm tee piece
- D) Fitting Instruction

#### **Frequently Asked Questions (FAQ)**

Does this system satisfy the requirements of the Californian Air Resource Board?

Yes. Scottoiler have submitted the vSystem kit to the Californian Air Resource Board and have received an Exemption Order (E.O.). The E.O. number is printed on the enclosed sticker (Part A). This sticker should be fixed to the bike near the reservoir (RMV) or actually onto the reservoir (RMV) itself to comply with the CARB requirements for this product.

### **Technical Support**







www.scottoiler.com support@scottoiler.com

n 1-866-995-9



# Ducati vSystem

# **Technical Support**

technical@scottoiler.com





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#### 1. Vacuum Connection

1. Referring to the model specific installation guide for your bike, locate the vacuum screw which will be on the inlet tract.

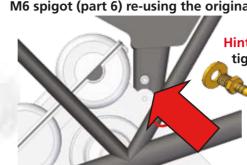
These can be found at www.scottoiler.com





2. Remove the vacuum screw and replace it with the M6 spigot (part 6) re-using the original washer.

www.scottoiler.com



Hint: Do not over tighten spigot.

> 3. Push the black vacuum tubing (part 3) fully into the end of the vacuum damper elbow (part 4).

4. Push the vacuum damper elbow (part 4) securely onto the spigot. Hint: Lubricate damper elbow for easier installation.



3. Clean the swingarm, then using the

IPA wipe (part 18) degrease 2 small

#### 2. Reservoir Metering Valve (RMV)

1. Fit the RMV (part 1) into the cage (part 7) and push fully into place. Hold the RMV in cage against the frame member or under the seat, for a test fit.

Hint: Remember to allow clearance for removal of filler plug.

2. Secure the cage in position using the cable ties provided.

Route the vacuum tubing to the top of

the RMV. Trim. Push the end of the vacuum tubing into the top of the RMV.

#### 3. Dispenser Assembly

Place a Scottoiler sticker on the chain guard to alert mechanics to the presence of a Scottoiler system.

by clamping around the black nylon

Carefully position the nib between

6 and 8 o'clock, on the inside face

of the rear sprocket with the slash

cut facing away from the sprocket.

Take care to avoid the sprocket bolts.

sleeve using the jubilee clip (part 12).

2. Secure the clear dispenser assembly

(part 14) to the dispenser plate (part 11)



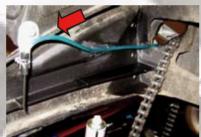
(which secures the slipper strip.) Fit the dispenser plate and washer between the slipper strip and the swing arm and secure using the original bolt.

#### 3b) Monster 696:-

1. Remove the screw on the inside of swingarm which secures the chain guard. Fit the small dispenser plate (part 21) and secure using the original bolt. (It is not necessary to remove the wheel, this is for illustrative purposes only.)



1. Remove the screw on the underside of the swingarm (which secures the slipper strip.) Fit the small dispenser plate (part 21) between the slipperstrip and the swing arm and secure using the original bolt.



2. Secure the clear dispenser assembly (part14) to the small dispenser plate (part 21) by clamping around the black nylon sleeve using the jubilee clip (part 12). Carefully position the nib between the 6 and 8 o'clock position on the outside surface of the rear sprocket, with the slash cut facing away from the sprocket. Take care to avoid sprocket bolts.



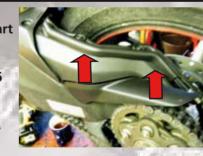
2. Secure the black dispenser assembly (part 20) to the small dispenser plate (part 21) by clamping around the black nylon sleeve using the jubilee clip (part 12). Carefully position the nib between the 6 and 8 o'clock position on the inside surface of the rear sprocket, with the slash cut facing away from the sprocket. Take care to avoid sprocket bolts.



areas on the swingarm. Use self adhesive clips (part 13) to route delivery tubing. Route delivery tubing (part 14) neatly towards the RMV and secure to frame sections or similar using the cable ties (part 9). Trim to length and push firmly onto the spigot at the bottom of



3. Clean the swingarm, then using the IPA wipe (part 18) degrease 2 small areas on the swingarm. Use self adhesive clips (part 13) to route delivery tubing. Route delivery tubing (part 14) neatly towards the RMV and secure to frame sections or similar using the cable ties (part 9). Trim to length and push firmly onto the spigot at the bottom of the RMV.



achieved.

3. Route the slim black nylon delivery tubing through the brake line tunnel and mushroom the end by holding over a small flame. (See next section.) Fit the 1m length of clear delivery tubing (part 19) to the spigot on the bottom of the RMV. Ensure it is pushed fully home. Route clear tube to meet black nylon delivery tube, trim & fit.

# 3c) Continued...

Multistrada 1000 & 1100; Monster 1100, Diavel and Panigale:

Mushroom the end of the small dispenser assembly by holding it close to the flame of a match or lighter, and turning it so that an even 'mushroom' shape is formed.

This will act as a barb. Once cool, trim clear tube to length and push the newly mushroomed end in 1cm.

### 4. RMV Filling

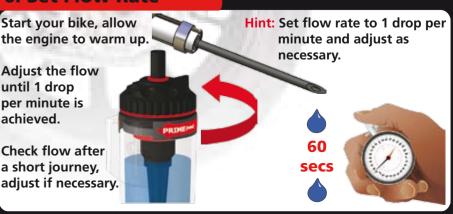


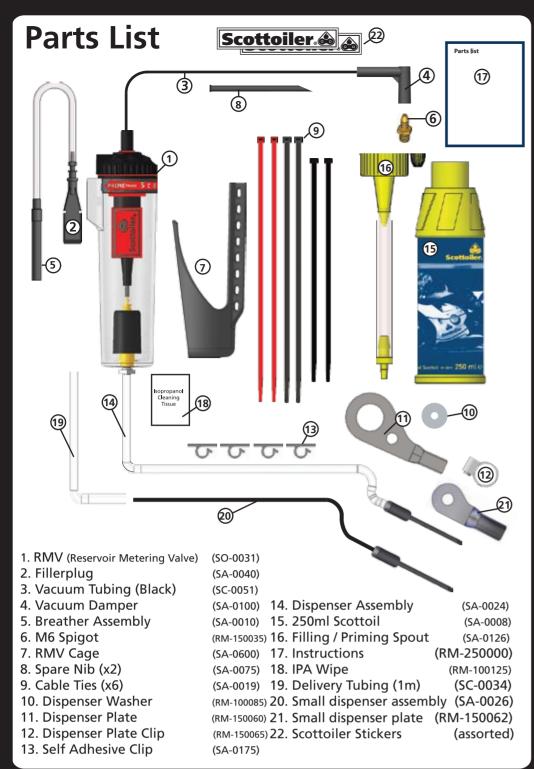
### 5. System Priming

Press the fillerplug into the RMV and set the RMV to **PRIME** shown overleaf.

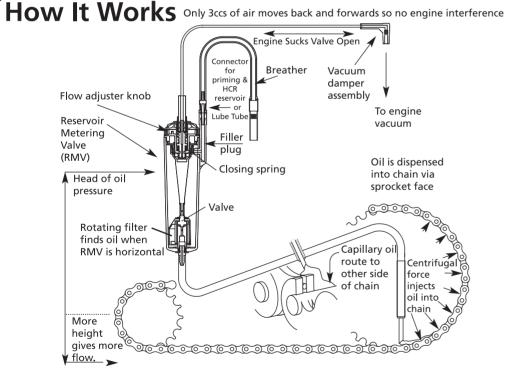
Connect spout (part 18) to the fillerplug and squeeze bottle to force oil down the delivery line using the air pressure. Force oil down the delivery line until no air bubbles remain. Attach breather assembly (part 5) to filler plug and route breather pipe up and over as Hint: Hold bottle upright.

#### 6. Set Flow Rate





Scottoiler operates a policy of continual design improvements as such contents may vary.

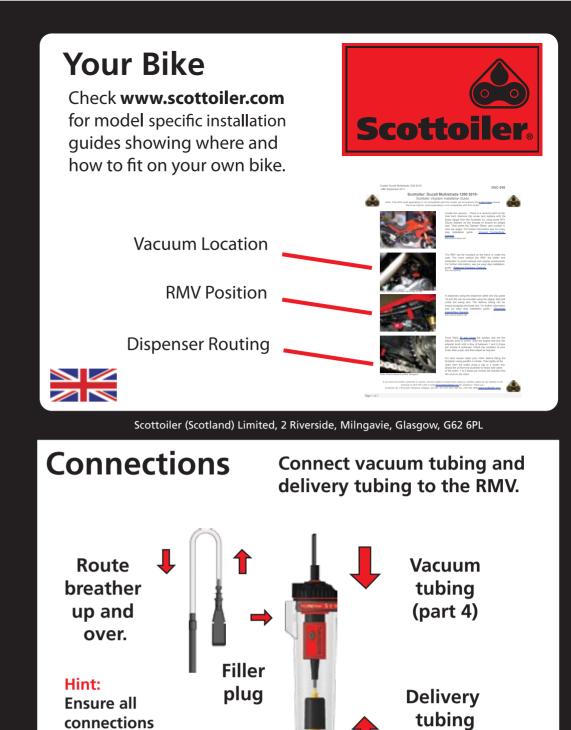


**How does the Scottoiler work?** The Scottoiler Ducati kit is vacuum operated. When the motorcycle engine is running vacuum is generated, this lifts a diaphragm which in turn opens the valve. Whilst open the valve allows oil to drip feed under gravity down the delivery tube to the chain via the rear sprocket. There is metering built into the valve to provide adjustment to control the rate at which oil is dispensed. It is not a pump.

**How does this affect the engine?** It doesn't. The Scottoiler's output is not affected by engine speed, throttle opening and so on. The vacuum chamber is a sealed unit and does not affect the running of the bike. Upon starting the engine the valve will open, this requires 3cc of air to be moved in order to lift the diaphragm, which stays up until the engine is switched off. It is not unusual to see the diaphragm pulsating with very low revs, particularly on singles and twins, don't confuse this for a pumping action, it is not a pump.

#### **Limited Warranty**

The Scottoiler vSystem is warranted to the original purchaser of the product that it will be free from defects in workmanship and materials under normal use for a period of two years from the date that the product was first purchased. This Limited Warranty covers the repair or replacement of the product only. In order to make a claim you must first have registered your warranty at www.scottoiler.com, then contact Scottoiler directly with your claim. This does not affect your legal rights.



1. Which products are suitable for my bike? Visit our website www.scottoiler.com and select your bike 'Manufacturer' and 'Model'. Select the kit you want and download the installation guide PDF.

(part 14 or 19)

are firmly

made.

- 2. What oil should I use to refill my Scottoiler? In ambient temperatures between 0 and 30 degrees Celcius we recommend Scottoil Traditional Blue and in ambient temperature between 20 and 40 degrees Celcius (68 and 104 degrees Farenheit) we recommend Scottoil High Temperature Red. Scottoil features a very low tack additive thus not attracting dirt. Scottoiler cannot guarantee the compatibility of our systems using any other manufacturers oils as the materials used are tested for compatibility with Scottoil only.
- **3. When should I refill my RMV (Reservoir Metering Valve)?** If you refill the oiler before it runs dry you won't have to prime the dispenser tube. The Reservoir Metering Valve takes around ten seconds to top up with 50ml of oil which should last up to 1,500 miles.
- **4. Can I increase the capacity?** Yes, the Magnum High Capacity Reservoir increases capacity by up to eight times. The HCR is fitted behind the number plate and the combined increased capacity will give up to 10,000 additional miles between refills. Alternatively, the Lube Tube flexible high capacity reservoir increases combined capacity by up to four times. The Lube Tube can be fitted into any dead space on the bike and will mean up to 6,000 additional miles between refills.
- **5. Will the Scottoiler only oil one side of my chain?** No. The oil is fed to the chain via the sprocket face where it splits over the inner side plates. Some of the oil is diverted onto the o-rings and the remainder feeds under the roller onto the bushing. Capillary action will then draw the oil across the chain. For best results clean thoroughly with paraffin or recommended chain cleaner then lightly coat the chain with Scottoil from the bottle, wipe off the excess with a rag and set the flow rate to one drop per minute to maintain this film of oil.
- **6. Will I get oil on my tyre?** No, A flow rate of approximately one drop per minute applied via the sprocket face will provide an oil-film which will not pollute the running surface of the tyre and will give a dramatic improvement in chain life. In conditions where high levels of dust, sand or heavy rain are present more oil flow will be necessary to extend chain life.
- **7. When do I need to adjust flow?** Temperature change will alter the flow rate of the oiler. The oil will flow more quickly in warm temperatures as it will get thinner. The oil will flow more slowly in cold temperatures as it will get thicker. It is important to monitor the flow rate with temperature change and adjust flow accordingly.
- **8. I want to move my Scottoiler onto my new bike, are the spare parts available separately?** Yes, the full range of spare parts, fittings and accessories are available online at www.scottoiler.com or by telephoning Scottoiler on +44 (0)141 955 1100
- **9. If you have any questions please refer to the Scottoiler website.** Tampering with or dismantling the Scottoiler will invalidate your warranty.