eSystem

Hint: Model specific installation guides can be found at www.scottoiler.com

Technical Support

www www.scottoiler.com

e-mail technical@scottoiler.com

☎ +44 (0)141 955 1100

Visit our pages on Facebook, YouTube, Twitter and flickr.

Scottoiler Ltd. 2 Riverside, Milngavie, Glasgow, G62 6PL, UK.   version 3.1

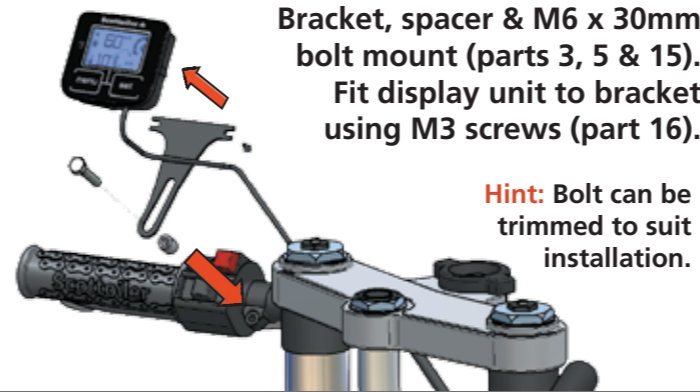## 1. Display Mounting   Choose the fitting best suited to your motorcycle.

Sticky fastener (part 4) fitting for any flat surface.

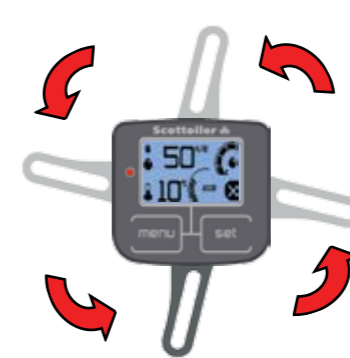**Hint:** Ensure all surfaces are clean & degreased before attaching fastener.

Bracket Mount. Fits to any existing M5/M6 bolt. Fit display unit to bracket (part 5) using M3 screws (part 16).

Bracket, spacer & M6 x 30mm bolt mount (parts 3, 5 & 15). Fit display unit to bracket using M3 screws (part 16).

Hint: Bolt can be trimmed to suit installation.

Bracket (part 5) can be rotated through 360° to allow four fitting options.

⚠ **Avoid hot exhaust and engine components**

2 . Dispenser Assembly   Choose the fitting best suited to your motorcycle. Some models of bike require adapter kits available free of charge from Scottoiler.
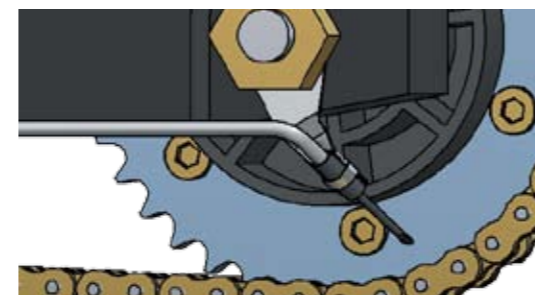
Hint: Nib should be lightly touching sprocket with slash cut facing out.
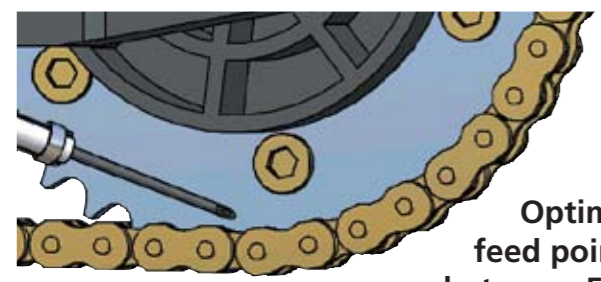
Optimum feed point is between 5 & 7 o'clock on the face of the rear sprocket.
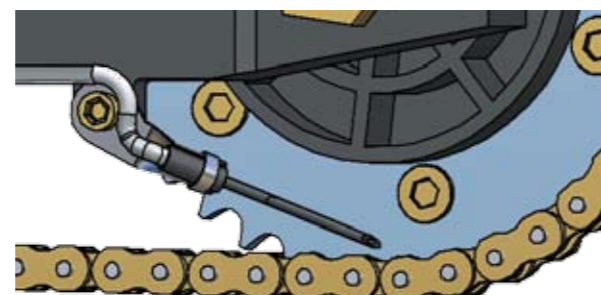
Bobbin mount (parts 14, 17 & 13/18)

Spindle mount (parts 14, 17 & 13/18)

Sprocket guard (parts 14, 17 & 13/18)

Use adhesive clips (part 8) and cable ties (part 12) to route tubing from dispenser assembly (part 14) to REP location.

Hint: Use IPA Wipe (part 9) to degrease surfaces before adhering.
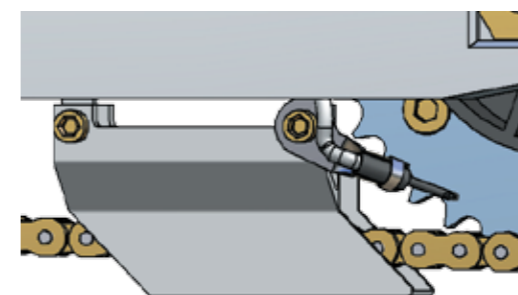
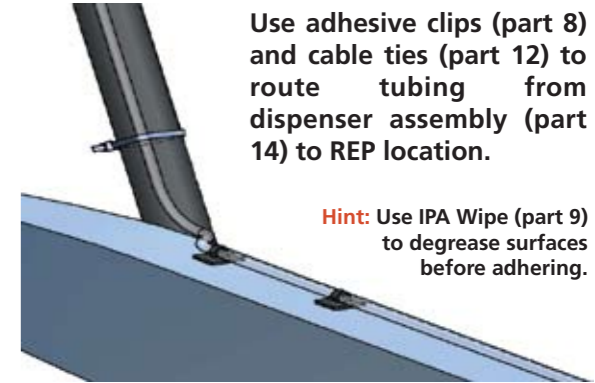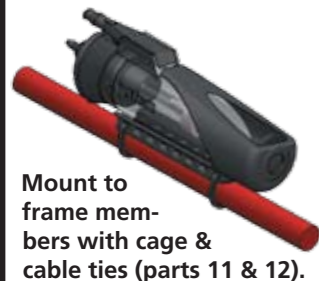**Hint:** The rigid black PVC tubing on the dispenser assembly (part 14) can be trimmed to achieve a neater install.
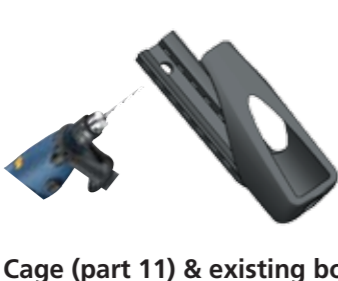
3. Reservoir Electronic Pump (REP)

Mount REP with nozzle inclined upwards and filling hole accessible.

Mount to frame members with cage & cable ties (parts 11 & 12).

A hole can be drilled anywhere on the spine which allows mounting with a bolt.

Cage (part 11) & existing bolt

Attach check valve (part 6) to dispenser tubing and ensure tubing reaches REP but **do not** connect check valve to REP at this stage.
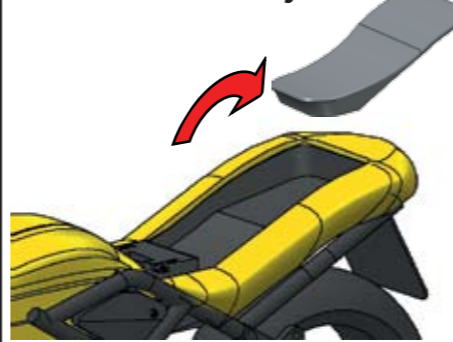
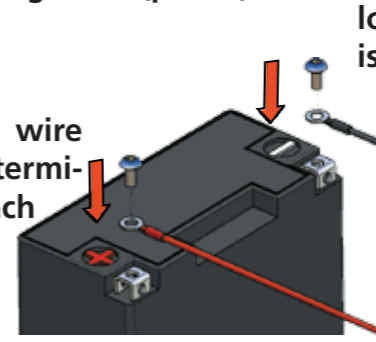**Do not** connect check valve to REP until after priming!

4. Power Connections

Note: connections MUST be made directly to battery terminals to provide an uninterrupted power supply, or the system WILL NOT function correctly.
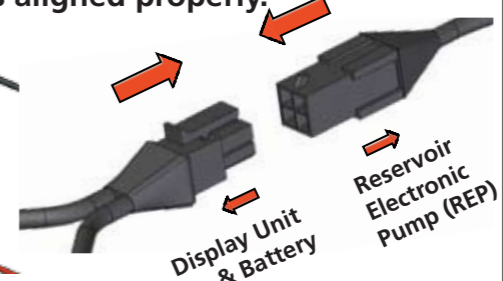
Locate bike battery.

Connect wiring loom (part 1) to battery.

Attach **RED** wire to the +ve terminal and attach **B L A C K** wire to the -ve terminal.

Connect REP (part 7) to wiring loom (part 1). Ensure that the clip is aligned properly.

Display Unit & Battery

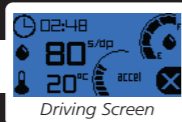Reservoir Electronic Pump (REP)

5. REP Filling

Fill REP using bottle & spout (part 19).

Attach breather assembly (part 2) to REP (part 7).

6. Initial Setup

A Press and hold 'menu' button to manually start the eSystem. The 'Driving Screen' shows with information required during general usage.

Driving Screen

B Press 'menu' and the additional reservoir screen is displayed. If you have a Lube Tube select this, if you have an HCR select this. If no extra capacity, leave as None.

Additional Reservoir

C Press 'menu' until you reach the Reservoir Menu. Press 'set' once to set the bar at 100%. Do this every time you refill the reservoir.

Reservoir Menu

D Press 'menu' until you reach the Prime Menu. Press 'set' to initiate a 60 second prime cycle. Repeat this step until oil starts dripping from your REP spigot.

Note: It is important to carry out this step before the check valve is attached.

E Attach the check valve (part 6) to the REP nozzle ensuring arrow is pointing in direction of flow. Repeat step D until oil drips from dispenser nib. This can take several cycles depending on tubing length.

It is **vital** for effective performance that the check valve is present in the oil dispenser line.

F Top up your REP with oil using the bottle and spout (part 19). Then re-set the 'Reservoir' menu to ensure it reads 100%. This will ensure the oil level guage remain accurate.

G Press 'menu' until you reach the Calibration Menu.   Ensure your bike is upright and steady. Press 'set' to calibrate the unit. (Note: The engine should NOT be running).

Calibration Menu

H There is one further menu option, the Oiling Threshold menu. This is set to '6' as default. It is not necessary to adjust this setting initially, however it may be used to make the oiler more or less sensitive to acceleration.

Threshold Menu

I Finally, set the clock screen. Press 'menu' until you reach the clock screen, then press 'set' to change the time. To move to the next digit press for 3 seconds then release.

Clock Menu
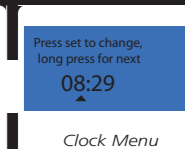
J Press 'menu' until you reach the 'Driving Screen'. Press 'set' repeatedly until the flow rate is at your desired level. Recommended rate is 50 - 60 s/dp.

Driving Screen
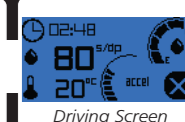
Scottoiler® eSystem

Quick Setup Guide

3.1

Parts List

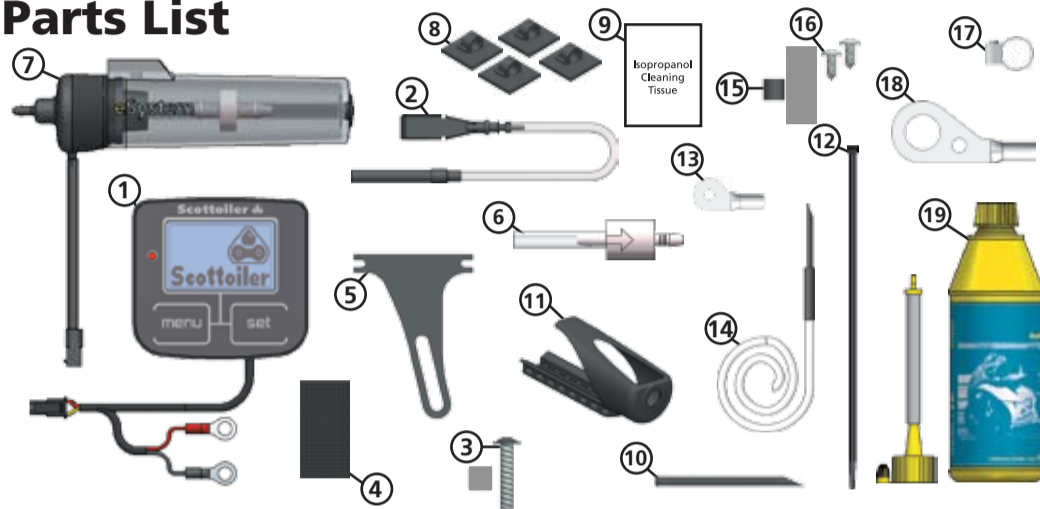|				
1.	Display Unit & Wiring Loom	(SA-0700)	11. Reservoir Cage	(SA-0600)
2.	Breather Assembly	(SA-0010)	12. Cable Ties (6 assorted)	(SA-0015)
3.	M6 x 30mm Bolt	(RM-240090)	13. Small Dispenser Plate	(RM-150062)
4.	Sticky Fastener	(SC-0085)	14. Dispenser Assembly	(SA-0024)
5.	Display Bracket	(RM-240035)	15. Black 5mm Spacer	(RM-240070)
6.	Check Valve	(SA-0735)	16. M3 screws (x2)	(SA-0790)
7.	Reservoir Electronic Pump (REP)	(SO-0090)	17. Dispenser Plate Clip	(RM-150065)
8.	Adhesive Clip (x4)	(SA-0175)	18. Dispenser Plate	(RM-150060)
9.	IPA Wipe	(RM-100125)	19. Scottoil & Spout	(SA-0008)
10.	Spare Dispenser Nibs (x2)	(SA-0075)		

Hints & Tips

- Clean & pre-coat your chain. For best results clean your chain, using paraffin or similar, before fitting the Scottoiler. Then lightly oil the chain from the bottle using a rag or brush, this builds a film which allows the oil from the Scottoiler to reach both sides of the chain. One to two drops per minute will maintain this film of oil on the chain.

- Check your chain regularly & adjust flow rate. The eSystem displays flow rate as seconds between drops (s/dp) but this should only be considered as a relative guide. The volume of a drop is dependent on many factors (i.e. surface tension, dispenser geometery, etc.) therefore the flow rate displayed on the Display Unit should be considered a starting point and the chain condition checked and adjusted at regular intervals to ensure a good coating of oil. 20 seconds between drops(20 spd) is the HIGHEST setting (fastest flow rate), 180 seconds between drops (180 spd) is the LOWEST. For 'no' flow, set to 'Ø'

- Always use the correct oil. The eSystem is a viscosity independent system therefore both Scottoil Blue (Standard) and Red (High Temperature) can be used. Care has to be taken at low temperatures (i.e. below 12°C) as the Red oil becomes extremely thick and can no longer be pumped accurately. At temperatures over 20°C Red oil is recommended as it can provide a thicker film of oil on the chain, therefore providing better lubrication.

Frequently Asked Questions

1. How does the eSystem regulate flow? Unlike the vacuum powered Scottoiler vSystem, the eSystem is powered with a direct connection to the battery. This provides power for the Display Unit which in turn powers an electromagnetic pump. This pump has a small constant volume enabling the eSystem to provide a consistent, accurate rate of flow.

2. Will the eSystem oil when my bike is stationary? No, the eSystem Display Unit houses a triple-axis accelerometer which accurately measures the acceleration and vibration of the bike. By monitoring these patterns the oiler knows when the engine is on and when the bike is moving. This means it will only power on when the engine is started and only starts oiling when the bike starts to move. Even at constant cruising speeds the accelerometer has enough vibration feedback to allow it to recognise movement. On occasion, at extended traffic light stops, smoother bikes might see the unit turn off briefly before coming on again when you move off.

3. Can I increase the oil capacity? Yes, the Scottoiler Magnum HCR increases capacity by up to eight times. The HCR is fitted behind the number plate and will give up to 10 000 extra miles between refills. Alternatively, the Scottoiler 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 give up to 6000 extra miles between refills.

4. 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.

5. 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.

6. I want to move my Scottoiler onto a new bike, are spare parts available separately? Yes, the full range of spare parts, fittings and accessories are available online at www.scottoiler.com or by telephoning Sales on +44 (0)141 955 1100. Alternatively, contact your local Scottoiler dealer who can order the parts on your behalf.

Driving Screen

The driving screen is the default screen that provides you with the information you require during general use of the eSystem. The following information is displayed;

Flow rate: The flow rate represents the time in seconds between drops of oil. The recommendation is for 50 - 60 seconds but this can be set from 20 (fastest flow) - 180 (slowest flow) seconds per drop or OFF(⊘). Pressing 'set' will cycle through the settings.
Note: The flow rate will default to 'OFF' when oil reservoir is empty.

Pump LED: The pump LED will flash every pump stroke.

Temperature: The ambient temperature is displayed in degrees Celsius (°C).

Oil Level: Displays the current level of oil present in the reservoir(s).

clock — flowrate — oil level — pump LED — mode — temperature — accelerometer
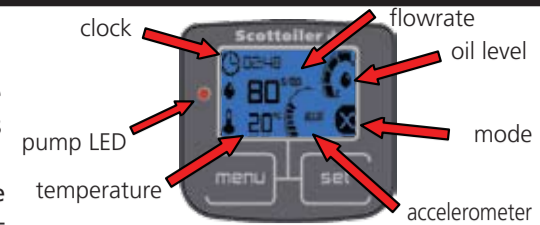
Mode: Indicates which mode the eSystem is currently operating in;
- **X - Manual:** The unit has been powered on without the engine running.
- **✓ - Startup:** The unit has sensed that the engine is running.
- **⇧ - Oiling:** The unit has sensed that the motorcycle is in motion and is oiling the chain.

Accelerometer: Your acceleration is used to sense the motion of the motorcycle and to turn oil flow on and off. In addition the display also gives an instantaneous representation of accelerometer readings shown in g-force.

Priming Menu

The prime menu allows you to run the oiler at a high rate to prime the oil delivery tubing. When 'set' is pressed the system will prime for 60 seconds. Priming can be stopped at any time by pressing the 'set' button again. Prime will only function if the reservoir is not empty and the Reservoir Menu shows at least 25%.

The prime setting is usually only required on first installation but can also be used to remove air bubbles from your oil line and to test the oiler when stationary.

Additional Reservoir Menu

Scottoiler offer a range of additional reservoirs that are compatible with the eSystem. These reservoirs increase the oil capacity of the system. Therefore, in order to keep the oil level indicator accurate it is possible to 'add-on' one of these reservoirs.

The standard screen will show 'None' meaning there are no additional reservoirs in use. By pressing the 'set' button this option will cycle through the available additional reservoirs and let the eSystem know its new capacity.

Note: When an additional reservoir is in place the oil level gauge will display the overall capacity of the system. Therefore, when both the eSystem reservoir and the additional reservoir are full the oil level should be set to 100%.

Oil Level Menu

The oil level menu allows you to set the quantity of oil present in the reservoir. By pressing the 'set' button the reservoir bar will fill from 0% to 100% in 25% increments. The eSystem knows the quantity of each oil drop and the reservoir volume therefore can keep track of your oil level and inform you when it is running low. Note that when the reservoir level is 0% (i.e. empty) the oiler will stop the flow of oil to protect the pump.

Every time the eSystem reservoir is refilled or topped up the reservoir menu should be reset to show this change.

Calibration Menu

In order for the triple axis accelerometer to be able to sense directional acceleration it requires to be calibrated so that it can 'learn' its static position. To calibrate press 'set' on the Calibration Menu screen.

When calibrating, the motorcycle should be upright (i.e. not on a side stand) and held steady. Calibration is only required on first installation or if the display unit is moved to a new location or mounting position.

Oiling Threshold Menu

The eSystem has an internal threshold that corresponds roughly to speed that is used to switch the unit into 'oiling' (⇧) mode. The eSystem should switch to this mode between 20 – 30mph. On smooth motorcycles the unit might not switch mode until higher speed. In this case the oiling threshold speed can be altered from this menu. The default is level 6 but if you need to lower the switching speed then press 'set' to cycle to a lower number. If you need to raise the switching speed then press 'set' to cycle to a higher number.

Note: Care has to be taken not to lower the threshold to a level where it will start oiling before the motorcycle starts to move.