

Police Workshop Technical Newsletter 40



Welcome to the 40th edition of the Technical Newsletter for the Police workshops, the last edition of this Newsletter was published and distributed to all Police Forces on 9th April 2015.

We will issue a Newsletter approximately every three months to keep you updated with the technical information, specification changes, service solutions and some best practices, which should be carried out when working on your fleet of Volvos.

Please photocopy and pass this Newsletter on to all the relevant staff who maintain your Volvo cars.

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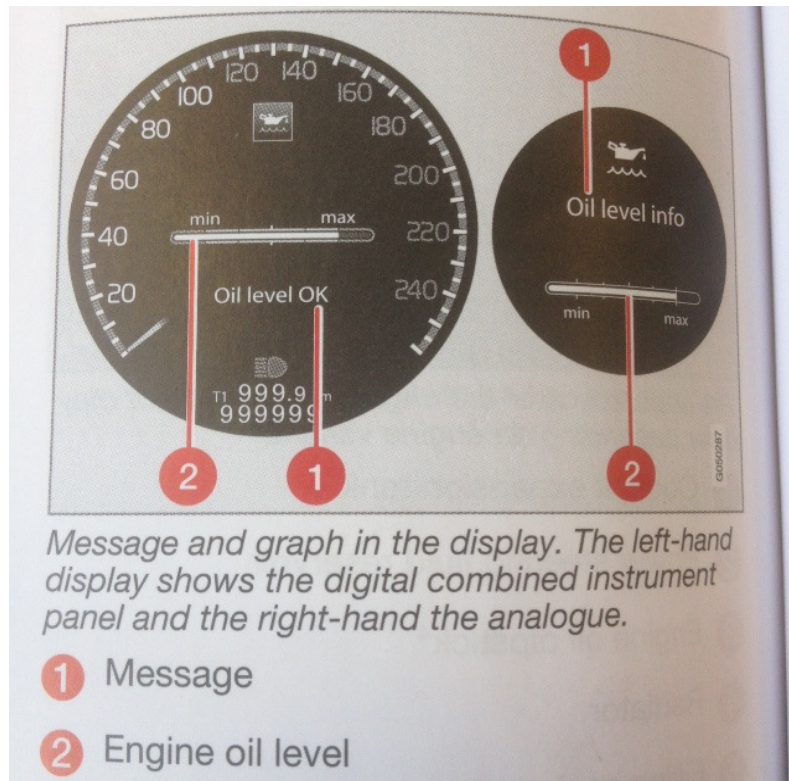
Technical Information

New version electronic oil level checking system on Drive-E 4-cylinder engines from MY16- models

We have introduced a new version electronic engine oil level checking system on our new Drive-E 4-cylinder Petrol and Diesel variants models from MY16- models. These new engines do not have a service dipstick fitted compared to the previous 5-cylinder engines and the checking procedure is different to the previous version that you are accustomed to.

With this new version you do not need to take action with respect to engine oil level before a text message is displayed on Driver Information Module (DIM) – i.e. only top-up the oil level if text message states “oil level low”.

There are two versions of the DIM's – analogue and digital – see illustration below of the types of display you will expect to see depending on DIM version.



The oil level is checked using the electronic oil level gauge with the thumbwheel on the indicator stalk.

The car must be parked on a flat level ground and engine switched off for at least a minimum of 10 minutes.

If the oil level needs to be checked then it should be carried out in accordance with the sequence on page 3.

1. Switch ignition on (position II).
2. Press OK button at the end of the indicator stalk.
3. Rotate the thumbwheel on the indicator stalk and select "Oil level". Press OK button on the end of indicator stalk.
4. You will see information displayed about the engine oil level.
5. Please only fill with the volume specified. If notified with text message "Low oil level", only top-up 0.25 litre at a time and check the oil level each time. **DO NOT OVERFILL.**
6. The oil level will adjust according to amount of oil topped-up. Please allow approximately 10 minutes for oil to settle in the sump in-between top-ups.

Note: this new version oil level adjusts according to the amount filled or topped-up.

Note: If text message "Oil service required" is shown, visit to a workshop is necessary, as the oil level may be too high.

Note: If the right conditions for measuring the oil level **are not met** (i.e. time after engine shutdown, the car is parked on incline, outside temperature, etc.) then text message on DIM will display "Not available". This does not mean that there is something wrong with the car's system so please check again that you have met the conditions for checking the oil level.

New engine oil specification for new 4-cylinder Drive-E engines (Petrol & Diesel variants) MY16- models

Volvo Car Corporation introduced new engines for all our models going forward (Petrol and Diesel) from MY16-. Some of these new engines are already in some of the current MY15 models

These new 4-cylinder Drive-E engines will have the recommended **Castrol Edge Professional SAE 0W-20 to specification VCC RBSO-2AE fully synthetic engine oil.**

This engine oil is specially developed by Castrol for our new Volvo engines in order to fulfil the requirements for the engine's service intervals – all engines are filled with specially adapted synthetic engine oil at the factory. The choice of oil has been made very carefully with regards to service life, starting characteristics, fuel consumption and environmental impact.

An approved engine oil must be used in order that Volvo recommended service intervals can be applied. Only use a prescribed grade of oil for **both** filling and oil change, otherwise you will risk affecting the service life of the engine.

Please only use Volvo recommended Castrol Edge Professional SAE 0W-20 to specification VCC RBSO-2AE on our new engines.

Use of additives in Volvo engines

Volvo Car Corporation (VCC) does not recommend the use of any additives for engine oil as it will cause premature wear of the engine. You must be aware that use of such products are not sanctioned by Volvo, nor do they form a part of any of our scheduled service routines. A warranty claim will be rejected if additives are found to be the cause of premature engine failure.

New 8-speed Automatic transmission on MY16- Police models

We have introduced the new 8-speed automatic transmissions on our models from MY16-.

The introduction of the All-new Drive-E powertrains are developed by Volvo in-house.

Volvo Special Vehicles have made the decision to only offer 8-speed automatic transmission (with paddle-shifts behind the steering wheel) on all Police specification models (Petrol and Diesel variants) from MY16-. There will be no more manual transmissions available on any Police specification models from MY16-.

For safety reason, we felt it was best to offer 8-speed automatic transmission with the paddle-shifts behind the steering wheel so that your drivers have full control of the cars in high-speed driving situations with both hands on the steering wheel.

Use of additives in Auto-transmissions

Volvo Car Corporation (VCC) does not recommend the use of any additives in auto-transmission as it will cause premature wear. You must be aware that the use of such products are not sanctioned by Volvo nor do they form a part of any of our scheduled service routines. Only use the recommended transmission oils listed in VIDA, please **DO NOT** use any other types of transmission oil as it will cause premature wear of the auto-transmission. A warranty claim will be rejected if additives or incorrect transmission oil are found to be the cause of premature wear in auto-transmissions.

Recommended Service Tools for the new V70/XC70 & V60 MY16-models

The following service tools are recommended for servicing your new V70, XC70 & V60 MY16- models with the All-New 4-cylinder Diesel and Petrol engines that are included in the new Crown Commercial Service (CCS) contract.

V70, XC70 & V60 D3, D4 & D5 MY16 – Models

<u>Part Number</u>	<u>Tool Description</u>	<u>Cost (RRP)</u>
9992810	Engine lifting Yoke (D3, D4, D5 & T5)	£394.50
9997503	Engine Lifting eye (D3, D4, D5 & T5)	£15.40
9995158	Engine Lifting Hook (D3, D4, D5 & T5)	£16.80
9997499	Oil filter spanner (D3, D4, D5 & T5)	£25.40
9997084	Fuel filter wrench (D3, D4 & D5)	£22.40
9997233	Timing belt position setter (D3, D4, D5 & T5)	£9.20
9997495	Crankshaft pulley counter-hold (D3, D4, D5 & T5)	£24.80
9512050	Anguler Torque Gauge (D3, D4, D5 & T5)	£70.00
9997278	Drain plug Wrench (Auto-transmission D3, D4, D5 & T5)	£8.10
9997363	Drain hose (Auto-transmission D3, D4, D5 & T5)	£28.40
9995782	Press tool for rear brake calipers (D3, D4, D5 & T5)	£42.60
9513014	Electric Parking Brake (EPB) Box (D3, D4, D5 & T5)	£83.00
9512955	Expansion tank cover (D3, D4, D5 & T5)	£38.00
9512957	Coolant Reservoir vacuum tool (D3, D4, D5 & T5)	£169.00

Before you order, please check your existing tools from your current fleet as some of the tools listed above are the same for V70, XC70 & S80 D5 models.

Service check-sheet for V70/ XC70 & V60 MY16- Police models

I have developed a new service check-sheet for our All-New 4-cylinder Powertrains on V70, XC70 & V60 MY16- Police specification models. This is available for our diesel variant models only so if you require it then please email me as my profile on page 1 of this newsletter.

In the meantime, please continue to use the following service check-sheets for your current fleet, which are still in service.

<u>Model/Model Year</u>	<u>Variant</u>	<u>Part number</u>
New V70 & XC70 MY08-	2.5T & T6 (Petrol)	97001512
New V70 & XC70 MY08-MY09	2.4D & D5 (Diesel)	97001513
New V70 & XC70 MY10-	2.4D, D3 & D5 (Twin-turbo)	97001552
Road test sheet	All models	97001078

Volvo Cars Technical Information Shop (TIS) for purchasing tooling and literature

Volvo Cars Technical Information Shop (TIS) is accessible for companies that are working professionally with repair and maintenance on Volvo cars. This TIS website is also available to Independent Repairers like yourselves who would like to purchase technical literature and information. Please go on website <https://tis.volvocars.biz/tis/main.do> and log on to access the on-line shop. Once you have logged on successfully, you will need to remember your log on ID and password for future reference to TIS.

The site is also available to car customers who are interested in purchasing service and repair information for their Volvo cars or who would like to order owners information such as Wiring Diagrams, VIDA Diagnostics, Pocket Data Booklets, Chemical Catalogue, Owner's Manual, CD for Volvo Standard Times Guide (VSTG CD) for repair times and operation numbers, etc.

Please note that purchases on TIS will require a credit card payment. If this is not possible for your organisation then you can still order these items via your local Volvo dealer.

Wiring Diagrams for New V70 & XC70 MY08- models

If you are already a VIDA subscriber, Electronic Wiring Diagrams (EWD) is already available on VIDA for all current models.

If you require wiring diagram manuals then these can be purchased as CD (EWD) from TIS or from your local dealer under the following TP numbers:

<u>EWD Manual</u>	<u>Model/Model Year</u>
TP 39115202	V70 MY08 & S80 MY08
TP 39127202 (Supplement)	V70 MY08, XC70 MY08 & S80 MY08
TP 39128202	V70 MY09, XC70 MY09 & S80 MY09
TP 39138202 (Supplement)	V70 MY09, XC70 MY09 & S80 MY09
TP 39152202	V70 MY10, XC70 MY10 & S80 MY10
TP 39161202 (Supplement)	V70 MY10, XC70 MY10 & S80 MY10
TP 39180202	V70 MY11, XC70 MY11 & S80 MY11
TP 39194202 (Supplement)	V70 MY11, XC70 MY11 & S80 MY11
TP 39213201	V70 MY12, XC70 MY12 & S80 MY12
TP 39251202	V70 MY13, XC70 MY13 & S80 MY13
TP 39260202 (Supplement)	V70 MY13, XC70 MY13 & S80 MY13
TP 39294002	All models MY13
TP 39349002	All models MY14
TP 39367202	All models MY15

V70/XC70 & S80 MY08- Pocket Data Booklets for Technical Information

You will require the Pocket Data Booklet for New V70 model technical specifications. These Pocket Data Booklets are ideal for servicing and repairs as they have all the technical specification details and are handy to carry around in your pocket for quick reference guide.

Please order the booklet through TIS or from your local dealer as listed below.

<u>TP NUMBER</u>	<u>DESCRIPTION</u>
0314031	S80 (MY07-)/New V70 (MY08) & New XC70 (MY08)
0328031	V70 (MY08-)/XC70 (MY08-)/XC60 (MY09-)
0329031	C30/C70/S40/V50/S60/V60/XC60/V70/XC70/S80 & XC90 MY11
0330031	C30/C70/S40/V50/S60/V60/XC60/V70/XC70/S80 & XC90 MY12
0331031	C30/C70/S40/V40/V50/S60/V60/XC60/V70/XC70/S80 & XC90 MY13
0332201	All models MY14
0333201	All models MY15

Intermittent Tailgate handle function on V70 & XC70 MY08 – MY16 models

We have reports of intermittent function of the electronic tailgate handle when opening and/or closing the tailgate on V70 & XC70 MY08 – MY16 models. Please follow advice below under SERVICE.

PRODUCT MODIFICATION:

A clip to fixate the cable to the roof has been introduced after end chassis limit listed on page 11.

SERVICE:

In case of customer complaints, inspect terminal 7 (Black/Orange wire) in connector 74/602 before following normal fault tracing information in VIDA.

If terminal 7 in connector 74/602 is affected, repair the connection according to the following instructions on pages 8 - 10.



Volvo Car Customer Service

Title	Tailgate Wiring Harness	Page	1 (4)
Action	Product fix	Operation number:	98603-2

Issue	Date	Reason
1	2015-05	First issue

Affected vehicles

Model year	Model
2008	V70 (08-)
2008	XC70 (08-)

MATERIALS

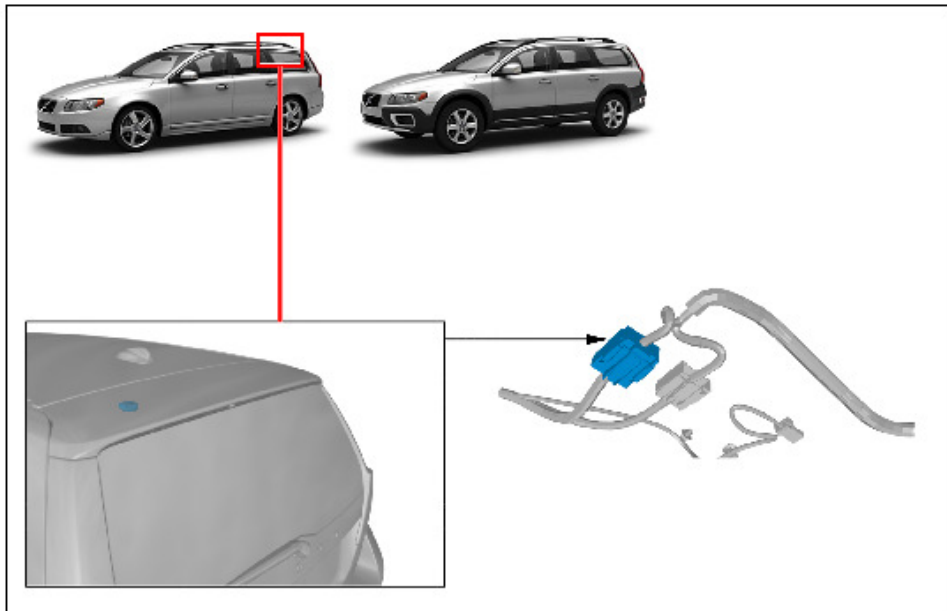
Materials	Qty.	Part No.	Notes
Electrical tape	0.1	9511028	
Splice	2.0	9130476	
Electric cable	0.1	970663	

Color symbols

Note! This colour chart displays (in colour print and electronic version) the importance of the different colours used in the images of the method steps.

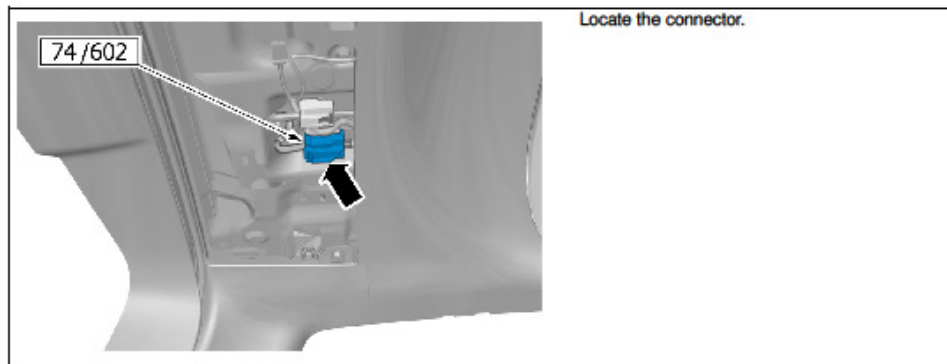
- 1 . Used for focused component, the component with which you will do something.
- 2 . Used as extra colors when you need to show or differentiate additional parts.
- 3 . Used for attachments that are to be removed/installed. May be screws, clips, connectors, etc.
- 4 . Used when the component is not fully removed from the vehicle but only hung to the side.
- 5 . Used for standard tools and special tools.
- 6 . Used as background color for vehicle components.

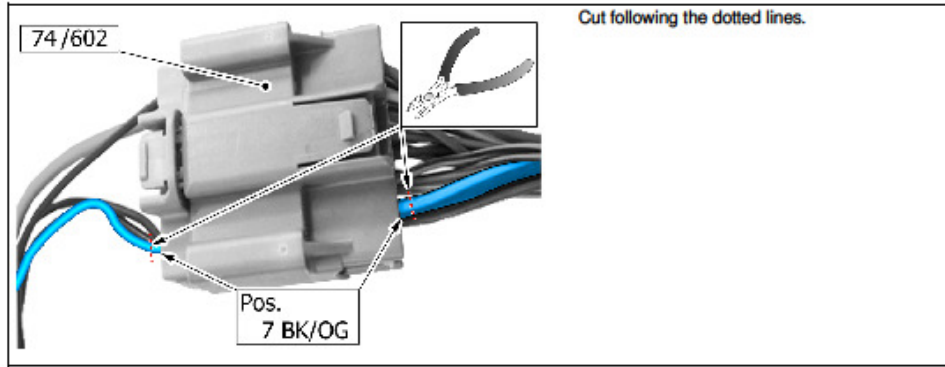
Orientation view



Repair

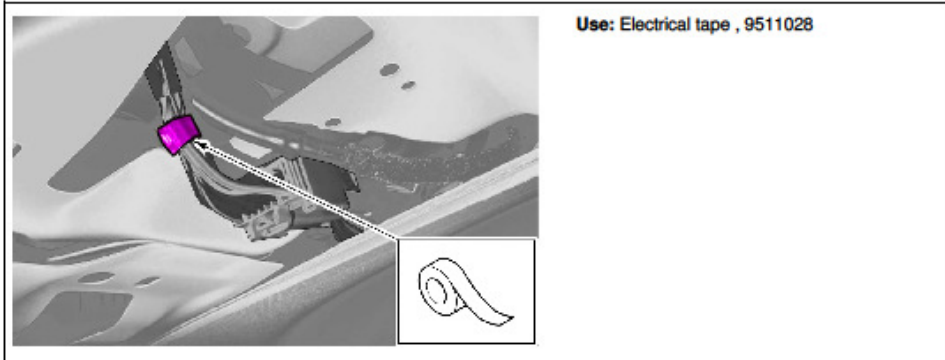
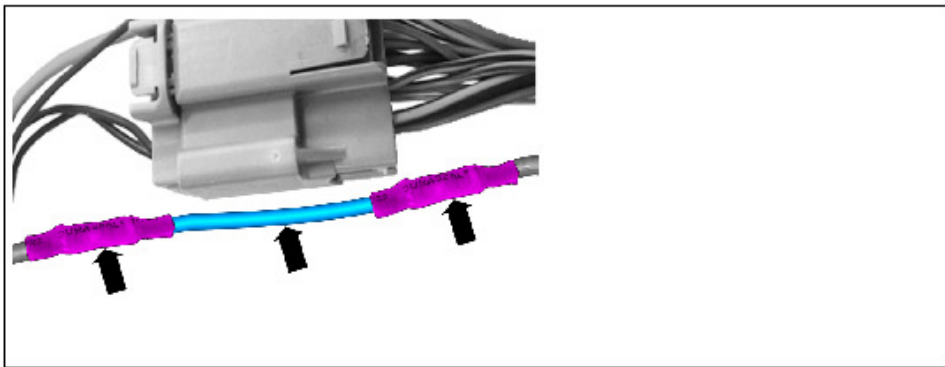
Remove panel, roof sill , refer to:
Removal, replacement and installation
8 - Body and interior
85 - Interior
851 - upholstery for wall/door, side, rear
shelf, luggage rack





Installation

Carry out splicing of wire , refer to:
 Cleaning, Inspection and Adjustment
 3 - Electrical system
 37 - Cables and fuses
 371 - cables



To install, reverse the removal procedure.

Model
 V70
 XC70

Model Year (MY)
 MY08 – MY16
 MY08 – MY16

Chassis range
 000395 – 351283
 000400 – 239793

WARRANTY & RECALL

Quality Bulletins & Service Campaigns

Please contact your local Volvo dealer on a **monthly basis** to check if there are any outstanding Quality Bulletins and Service Campaigns for vehicles on your fleet. This is now a **mandatory procedure** and it is your responsibility to carry out these checks. All you need to do is phone your local dealer with the registration number of the vehicles and they will supply you the details of any outstanding Campaigns and pre-book your vehicles to have the work carried out at the earliest opportunity.

If there is a recall specific to Police specification vehicles then you will be contacted directly by VOLVO CAR UK LTD with details of the recall and list of affected vehicles.

On the next page, you will find the latest Quality Bulletins and Service Campaigns for your information. This list contains recent updated and new bulletins which have recently released since the last Police Workshop Newsletter 39 (issued on 9th April 2015).

Please note that the chassis range is an indication only. Specific vehicles involved are listed on the QW90 which can only be accessed by your local dealer. This current list of Quality Bulletins and some information may change without prior notice.

Please also note that the QB list is **NOT** a Safety Recall. You should contact your local dealer and book the work in at the earliest opportunity without it affecting your fleet operations.

Abbreviations in QB content list:

A= Active Service Campaign. Police Authorities should contact the dealer pro-actively for completion of the work at the earliest opportunity.

S= Service Campaign. Police Authorities should contact dealer at first opportunity or next dealer workshop visit.

It is your responsibility to contact your local dealer on a regular monthly basis to make sure that all of your vehicles are completed and brought up to date.

List of Quality Bulletins

QB No.	Vehicle	Description	Chassis Range	Closing Date
S29634	S60 MY15 V60 MY15 V70 MY15	EVAP Valve Engine designations B4164T, T2, T3	S60: 358821 – 360231 V60: 259053 – 259477 V70: 331291 – 331522	30 th June 2017
S29636	V40 MY15 V40CC MY15 S60 MY14 – MY15 V60 MY14 – MY15 XC60 MY14 – MY15 V70 MY14 – MY15 XC70 MY14 – MY15 S80 MY14 – MY15	ECM Upgrade Petrol engines only – codes AG, 27, 40 & 49	V40: 170001 – 252368 V40CC: 056009 – 080457 S60: 278017 – 369489 V60: 158338 – 272182 XC60: 514907 – 763407 V70: 286888 – 337455 XC70: 178508 – 231584 S80: 178164 – 192882	30 th June 2017
S29649	S60 MY15 – MY16 V60 MY15 XC60 MY15 S80 MY15 XC90 MY16	ECM Upgrade Petrol engines only – codes 26 and A2	S60: 297745 – 392858 V60: 158359 – 214010 XC60: 554909 – 626554 S80: 180973 – 184731 XC90: 000476 – 005628	30 th June 2017
S29644	V40 MY16 V40CC MY16 S60 MY16 V60 MY16 XC60 MY16 V70 MY16 XC70 MY16 S80 MY16	ECM Upgrade Petrol engines only – codes AG, BL, 21, 28, 29, 37, 40, 41, 49 and 57.	V40: 270070 – 279825 V40CC: 090063 – 093088 S60: 390082 – 394755 V60: 285080 – 290308 XC60: 775060 – 792899 V70: 346039 – 349454 XC70: 235045 – 238205 S80: 195007 – 195658	31 st December 2017
S39641	S60 MY15 V60 MY15 XC60 MY15	Adapter kit	S60: 300015 – 349632 V60: 190279 – 257963 XC60: 594929 – 757538	31 st December 2017
S89646	XC90 MY16	Release strap, 2 nd row seat	XC90: 000491 – 004647	31 st December 2017

Product Quality issues

If you have any product quality problems then please contact Jant Mistry. Jant will contact your local Volvo dealer and request a TIE technical report in order to control the problem. We **MUST** have a TIE report so that the information and/or failed materials can be processed.

We need your technician's help in identifying any quality and safety problems and reporting it to your local Volvo dealer. With your help we can monitor and improve the quality of the Volvo product.

And finally AOB

I thought I would leave this subject until last, as it is very important...

If you have identified a safety related issue with a vehicle then you MUST contact Jant Mistry at VCUK in the first instance.

Clearly, VCUK will not comment on problems experienced unless we have this opportunity of initial inspection before dismantling of the vehicle or involvement of any other parties takes place.

This Newsletter was produced by Jant Mistry