

Police Workshop Technical Newsletter 41



Welcome to the 41st edition of the Technical Newsletter for the Police workshops, the last edition of this Newsletter was published and distributed to all Police Forces on 10th August 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.

Names to contact in Volvo Car UK Limited:

Ian Reger (Special Vehicles Development Manager)
Tel: 01628 422498
Mobile No: 07889 428222
Fax: 01628 478258
Email: ian.reger@volvocars.com

Jant Mistry (Special Vehicles Aftersales Manager)
Tel: 01327 303584
Mobile No: 07710 588091
Email: jant.mistry@volvocars.com

Delia Cook (Special Vehicles Administrator)
Tel: 01628 422214
Fax: 01628 478258
Email: delia.cook@volvocars.com

Technical Information

D-TPMS Service required message, Fault tracing due to DTC on all models MY15-

The following information is valid for cars equipped Direct Tyre Pressure Monitor System (D-TPMS) from MY15-, which may have one or more DTC in Central Electrical Module (CEM) as listed below.

DTC Diagnostic Trouble Codes

ECU	DTC	Fault Type
CEM	C1A5893	
CEM	C1A6293	
CEM	C1A6093	
CEM	C1A5886	
CEM	C1D2105	
CEM	B106495	
CEM	B106595	
CEM	B106695	
CEM	B106795	

The presence of one or more DTC's indicate primarily a communication problem between TPMS sensor and the vehicle, preventing the CEM from identifying the TPMS sensors being used. It could also be due to incompatible or missing TPMS sensors.

Normally, the CEM will check existing TPMS sensors or learn new TPMS sensor IDs if the car been locked and parked for 15 minutes, but analysis shows that the CEM will not always carry out this check, which could set TPMS related DTC's.

A new CEM service software has been released for all cars to improve the TPMS sensor ID learning after the car has been parked for 15 minutes or more.

Note: The software was introduced in production from structure week 17, 2015.

In case the vehicle has the latest CEM software (SW) and problem still exists, it could indicate either a failure in the TPMS sensor or a communication issue between TPMS sensor and vehicle which may require further fault tracings, see SERVICE below.

Service:

Refer to information about TPMS system in VIDA 2015:

DESIGN AND FUNCTION:

VIDA -> INFORMATION -> PRODUCT SPECIFICATIONS -> DESIGN AND FUNCTION -> FUNCTION GROUP 38.

TPMS WORKSHOP TEST:

VIDA -> DIAGNOSTICS -> VEHICLE COMMUNICATION -> ADVANCED -> GENERAL -> WORKSHOP TEST (TPMS).

Note: If the above information is not found in VIDA 2015, then clear Vehicle Profile in VIDA and instead select Partner Group "AME" and manually select vehicle type and model year.

Complete the following TPMS fault tracing procedure:

First, visually check that all tyre valves are **Grey metal** (this will confirm it has D-TPMS on car). If a normal black tyre valve is fitted then it is the incorrect type so replace it with Volvo OE TPMS sensor (single unit P/N 31341893 or kit with four sensors P/N 31414189) and erase the DTC's and warning message in DIM.

Note: If all four TPMS sensors are missing, then there will be no warning message in Driver Information Module (DIM), however the DTCs will still be stored in CEM but without any notification to driver, this condition is called "Winter mode".

Order and download CEM UPGRADE software (SW) to make sure the latest software is being used.

Use Volvo TPMS diagnostic tool P/N 9513935:

A). Ping each TPMS sensor, read out sensor ID, tyre pressure and internal battery status.

B). Replace any defect TPMS sensors, or sensors with very low battery status.

Note: Use TPMS single sensor P/N 31341893, or kit with four sensors P/N 31414189.

If the workshop **does NOT** have any TPMS diagnostic tool:

A). Follow VIDA and the "TPMS Workshop Test" according to the VIDA reference above.

B). Replace the defect TPMS sensor, use single unit P/N 31341893.

Note: replacing all four sensors may not be accepted in Warranty claim so only replace the defective sensor.

If workshop has TPMS diagnostic tool P/N 9513035:

Once all 4 TPMS sensors are working, program TPMS sensor ID's to CEM.

A). Connect OBD cable between TPMS diagnostic tool and vehicle OBD connector.

B). In the TPMS tool, select "OBD Relearn" and wait about 10 seconds for confirmation.

Note: For V40 / V40CC M/Y 2015- it is necessary to upgrade the TPMS diagnostic tool with new firmware.

If workshop **does not have** the TPMS diagnostic tool P/N 9513035:

The CEM must learn the TPMS sensors ID's manually by the following procedure:

A). Close all doors, lock the car with the remote control, and wait at least 15 minutes.

B). Unlock the car and start to drive the car for at least 15 minutes at speeds above 16MPH (20 km/h). Add extra time in case the car has to stop for traffic jam or red lights.

C). After the test drive the TPMS system should work normally without any TPMS warning messages in DIM, and the car can be returned to customer.

If TPMS diagnostic tool can read out all sensors, but CEM / VIDA cannot find all sensors:

A). Try a car battery reset.

B). Check if the car is equipped with tinting / sun protection film, open all door side windows while performing a test drive to check if the film have any influence. If TPMS system works with all side windows down, then it is necessary to remove the film to enable TPMS functionality.

Note: Some films contain metal which reduces wireless signals from TPMS sensors. Recommend to customer to only use tinting / sun protection films that does not contains any metal.

C). Check if the vehicle is equipped with any accessory using 433 MHz radio signals, such as wireless parking sensors, wireless parking camera, or any other wireless equipment that could interfere with the TPMS function. If any such system is found, test drive the car with the system disconnected.

D). Check that the remote receiver in the vehicle is working properly; it might be a good idea to swap a good unit from another car to perform the test.

Note: Many remote receivers are equipped with dual channels, one channel for the remote senders and one channel for the TPMS sensors (due to different radio frequency). If the remote senders are working well, it could still be a problem with the other channel for TPMS sensors.

E). Check actual part number printed on the TPMS sensor.

Remove the tyre from the rim (be careful not to damage the TPMS sensor). The correct part number printed on the TPMS sensor must be PN 31341171. If another incompatible sensor is used then it needs to be replaced with PN 31341893.

Note: Do not forget to balance the wheel after reinstalling the tyre on the rim.

<u>Model</u>	<u>Model Year (MY)</u>	<u>Chassis range</u>
V40	MY15-	184620 – 200633
V40CC	MY15	060573 – 065270
S60	MY15-	338627 – 354443
V60	MY15-	228942 – 249623
XC60	MY15-	651834 – 701000
V70	MY15-	317422 – 321938
XC70	MY15-	209219 – 218127
S80	MY15-	187416 – 189711

Knocking noise from rear suspension, loose spring aid in upper spring seat on S60/V60/XC60/V70 & XC70 MY11 models

There may be a knocking noise from the rear spring aid (bump stop rubber) if the spring aid is loose in the upper spring seat installation on S60, V60, XC60, V70 & XC70 MY11 models. Please see SERVICE below service solution.

SERVICE:

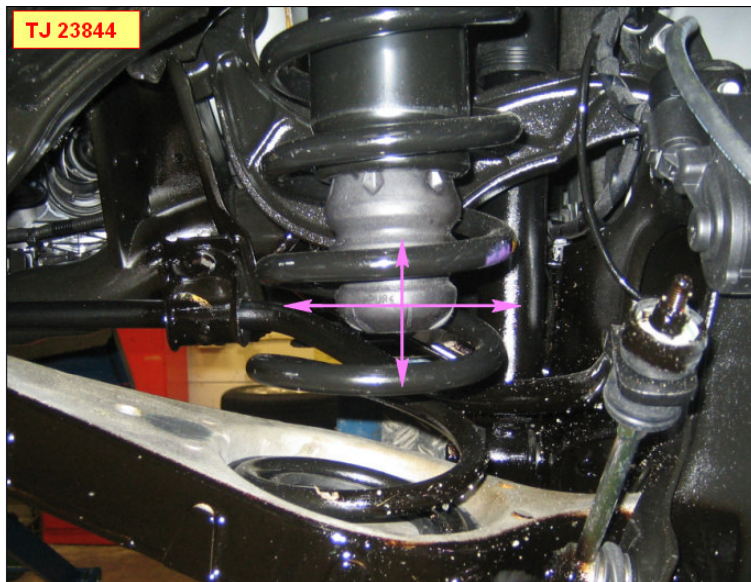
Verify the symptom by wiggling on the rear spring aid (see picture 1 below).

If the spring aid seems to be okay then continue fault tracing the car for other possible causes.

If the spring aid is loose; remove the spring aid from the spring seat and install two pieces of rubber material in the bottom of the spring seat (see picture 2 below).

Reinstall the spring aid and check that it is sitting tight in the spring seat.

Parts: PN 9444459 (X 4)




Model	Model Year (MY)	Chassis range
S60	MY11	014395 – 018052
V60	MY11	004788 – 006636
XC60	MY11	167088 – 172396
V70	MY11	186398 – 188363
XC70	MY11	102815 – 103480

Door mirror, play in mirror assembly on V40/V40CC/S60/V60/V70/XC70 & S80 models

Customer may experience play (tilting up/down, y-axis) in the outer door mirror assembly on V40 & V40CC MY13-, S60 & V60 MY11-, V70 MY08-, XC70 MY08- and S80 MY07- models.

Service:

In case of customer complaints please apply the following repair instructions.

 Volvo Car Customer Service		
Title	Rear view mirror external, adjustment	
Action	Product fix	Operation number: 98607-2
Issue	Date	Reason
1	2015-07	First issue

Affected vehicles

Model year	Model
2011, 2012, 2013, 2014, 2015	S60 (11-)
2014, 2015	S60L
2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015	S80 (07-)
2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015	S80L
2013, 2014, 2015	V40 (13-)
2013, 2014, 2015	V40 Cross Country
2011, 2012, 2013, 2014, 2015	V60
2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015	V70 (08-)

Materials

Materials	Qty.	Part No.	Notes
Repair kit	1.0	31442903	

Orientation view

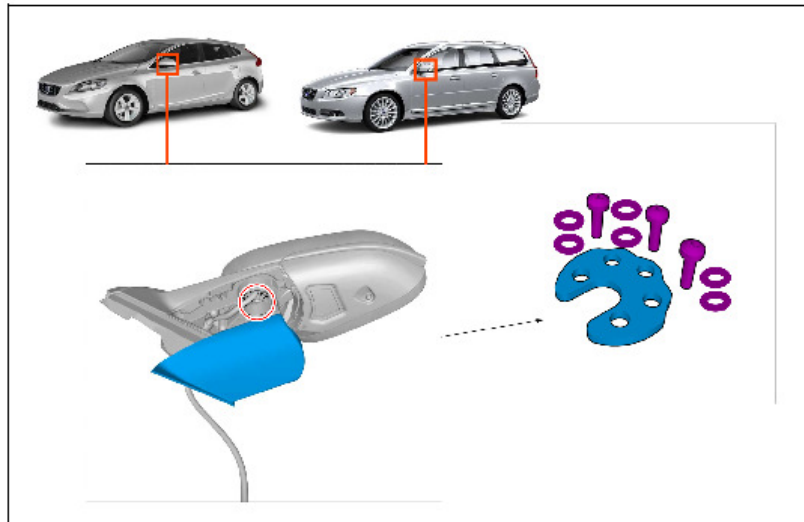
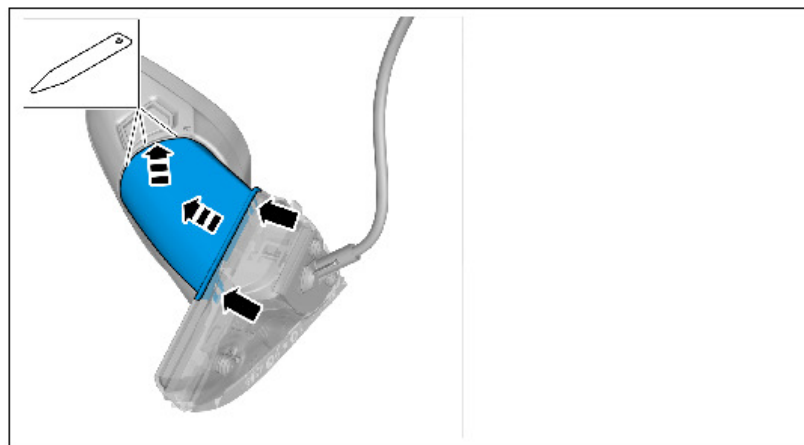


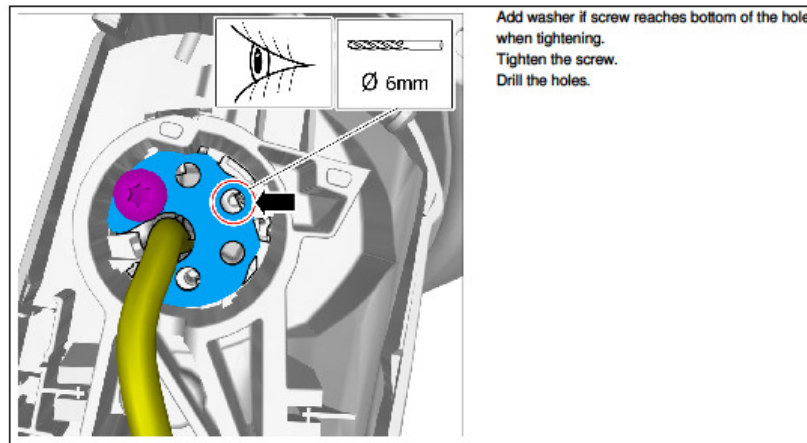
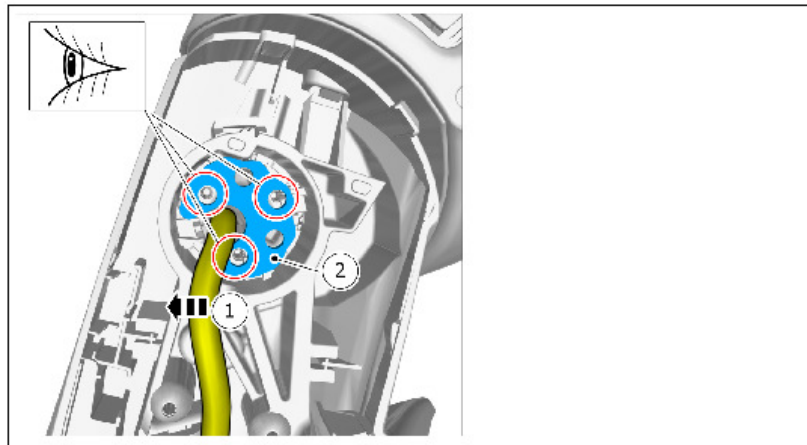
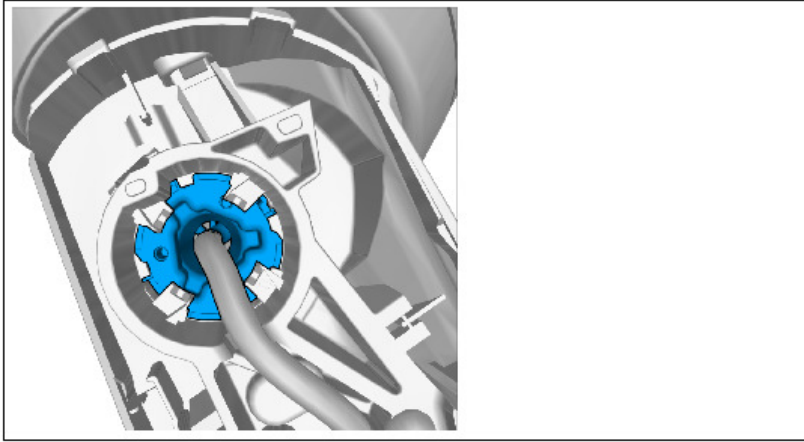
Image philosophy

			<ul style="list-style-type: none"> 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.

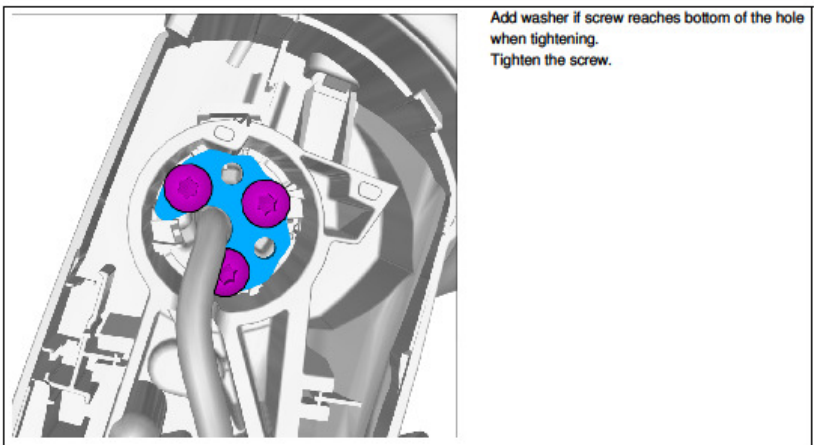
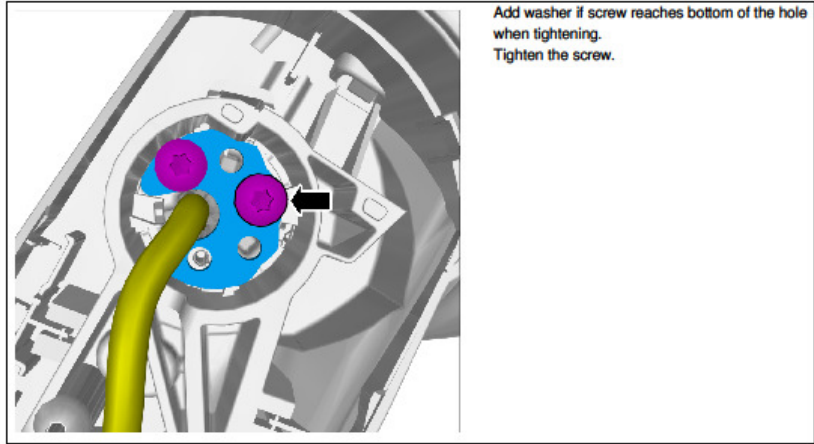
On both sides.

Remove rear-view mirror external , refer to:
 Removal, replacement and installation
 8 - Body and interior
 84 - Exterior trim, glass, weatherstrips
 846 - outside mirrors





Add washer if screw reaches bottom of the hole when tightening.
Tighten the screw.
Drill the holes.



Check for correct operation.

Model

V40
 V40CC (Cross-Country)
 S60
 V60
 V70
 XC70
 S80

Model Year (MY)

MY13-
 MY13-
 MY11-
 MY11-
 MY08-
 MY08-
 MY07-

Chassis range

000174 – 999999
 000102 – 999999
 000194 – 999999
 001147 – 999999
 000395 – 999999
 000400 – 999999
 000850 – 999999

AC system, unusual noise when AC compressor is running on S60/V60/XC60/V70/XC70 & S80 MY11-MY16 models

We have reports of unusual noise coming from AC compressor when Air conditioning is used on S60, V60, XC60, V70, XC70 & S80 MY11 – MY16 models.

PRODUCT MODIFICATION:

New AC hose with integrated muffler implemented in car factories from structure week 25, 2015 for all 5-cylinder Diesel variant engines. Latest spare parts will be available from structure week 29, 2015.

SERVICE:

In case of customer complaints, install the new AC hose muffler according to VIDA Parts Catalogue.

P/N31407977 for 5-cylinder Petrol engines between build structure week 20, 2011 – 19, 2013

P/N31436536 for 5-cylinder Petrol engines between build structure weeks 20, 2013 – 26, 2014

P/N31407976 for 5-cylinder Diesel engines between build structure week 46, 2010 – 25, 2015

P/N31436537 for 6-cylinder Petrol engines between build structure weeks 20, 2011 – 26, 2014

Please note that I have only listed Police specification models below.

<u>Model</u>	<u>Model Year (MY)</u>	<u>Chassis range</u>
V60 D5 (engine codes 82 & 83)	MY12 – MY16	035001 – 999999
V70 D5 (engine code 70)	MY10 – MY11	118001 – 212999
XC70 D5 (engine code 70)	MY10 – MY11	074001 – 117999
V70 D5 (engine codes 82 & 83)	MY12 – MY16	213001 – 999999
XC70 D5 (engine codes 82 & 83)	MY12 – MY16	118001 – 999999
V70 T6 (engine code 90)	MY12 – MY16	213001 – 999999

Deletion of Pocket Data Booklets

Pocket Data Booklets (PDB's) are deleted and will no longer be produced by Volvo Car Corporation. The last PDB published was for the New XC90 2016 launched in Q2, 2015.

Volvo Cars updates the cars / specifications and information in a much higher frequency today compared to when the PDB was created. This makes the information in the PDB's invalid and out of date in a short time after print.

The latest information for the service, parts catalogue and repairs are now only available in VIDA 2015. Please refer to VIDA 2015 for all your latest service, parts & technical information and vehicle diagnostics.

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 40 (issued on 10th August 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
A29576	V60 MY16 V70 MY16	Fuel Injectors (4-cylinder Diesel engines)	V60: 0294040 – 0295048 V70: 0352066 – 0353178	31 st December 2017
A29620	V70 MY15 XC70 MY15 S80 MY15	Rear Silencers	V70: 312041 – 314968 XC70: 204041 – 207249 S80: 186023 – 186835	31 st December 2017
A29621	V70 MY15 XC70 MY15 S80 MY15	Rear Silencer (Left-hand side)	V70: 131875 – 315041 XC70: 205351 – 207220 S80: 186158 – 186245	31 st December 2017
A49619	V60 PHEV MY13 – MY16	ERAD Software Upgrade	V60 PHEV: 084635 – 311544	31 st December 2017
S39478	V40 MY13 – MY15 V40CC MY13 – MY15 S60 MY11 – MY15 V60 MY11 – MY15 XC60 MY11 – MY15 V70 MY11 – MY15 XC70 MY11 – MY15 S80 MY11 – MY15	Sensus Connected Touch (SCT)	V40: 000397 – 152738 V40CC: 000215 – 048549 S60: 000399 – 313243 V60: 001362 – 204401 XC60: 161109 – 606770 V70: 215586 – 307119 XC70: 120506 – 198698 S80: 152993 – 183608	30 th June 2016
S39649	XC90 MY16	Heated Steering Wheel	XC90: 000617 – 018756	31 st December 2017
S49642	V40CC MY13 – MY15 S60 MY13 – MY15 V60 MY13 – MY16 V60CC MY15 – MY16 XC60 MY13 – MY16 V70 MY13 – MY16 XC70 MY13 – MY16 S80 MY13 – MY16	DEM Upgrade	V40 CC: 000044 – 066392 S60: 170123 – 348287 V60: 090013 – 241650 V60CC: 000001 – 000013 XC60: 365022 – 681199 V70: 213104 – 323074 XC70: 134025 – 214295 S80: 165102 – 188737	31 st December 2017
S89651	XC90 MY16	Hood Release Cable	XC90: 000491 – 011941	31 st December 2017
S89696	XC90 MY16	POT Cable Clip	XC90: 000491 – 028726	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