	Date	
	07/17	JLRP00100
	Service Compliance Notification	
Subject **Service Indicator Message and Oil Dilution**	Models	**All**

To: **All Authorized Repairers, National Sales Companies, Regional offices and Importers**

For the Attention of: **The Managing Director**

Copies to: **The Service/After-Sales Director/Manager**
The Parts Director/Manager
The New Car Sales Director / Manager

Dear Colleagues,

This communication has been published to provide more information about the Service Indicator Message (SIM) and Oil Dilution issues which affect 16-17MY Jaguar Land Rover vehicles.

Issues:

1. Service Indicator Message (SIM) not displaying

The 'Service Required' message, which should be displayed on the Instrument Cluster when a service interval is approaching, is not visible when engine cranking commences from ignition off. (Note, the 'Service Required' message can still be correctly revealed by turning on the ignition only by pressing the start/stop button without the brake pedal depressed. 'Service Required' messages are also provided to the 'In Control Remote' application that may have been activated on a customer's mobile device).

2. Early Service due to Oil Dilution:

A customer may experience the 'Service Required' message displayed on the instrument cluster or InControl App before the published nominal service interval in the brochure / marketing material due to oil dilution. Continued vehicle operation with high oil dilution will result in engine failure.

3. Service Message Reset

A retailer does not currently have the ability to reset the service message counter for oil dilution only. If a vehicle comes in earlier than the published service interval for an oil service, a counter reset will zero the distance, time and oil dilution counters.

Vehicles Affected

Model	Issue	
	Service Indicator Message Not Displaying (Campaigns H007 / N010 / N020)	Oil Dilution Counter and Early Service Requirements (Campaign N025)
L405 Range Rover	15-16MY	16-17MY with 3.0L diesel, EU6b and NAS markets
L494 Range Rover Sport	15-16MY	16-17MY with 3.0L diesel, EU6b and NAS markets
L462 All-New Discovery	-	17MY with 3.0L diesel, EU6b and NAS markets
L538 Range Rover Evoque	16MY	16-17MY with 2.0L diesel, EU6b markets
L550 Discovery Sport	16MY	16-17MY with 2.0L diesel, EU6b markets
X152 F-TYPE	16-17MY	-
X260 XF	16MY	-
X760 XE	16MY	-
X351 XJ	16MY	-

Causes:

1. SIM Message not displaying

The issue lies with an incompatibility between the Powertrain Control Module (PCM) and Instrument Cluster behaviour during certain starting conditions:

- The instrument cluster reads the service interval to judge if a message should be displayed at the point where Power mode changes to crank or engine running.
- Whilst ignition is in accessory mode, the PCM can return to sleep mode. It will then be re-woken when cranking is requested and at that point will send out an initial value for mileage to service of 32,000km, meaning the message will not appear.

2. Early Service due to Oil Dilution

The 'Service Required' message is being displayed early due to oil dilution, caused by a higher than expected number of partial Diesel Particulate Filter (DPF) regeneration cycles.

- Duration / distance to complete a full regeneration on 3.0L diesel Range Rover / Range Rover Sport / All-New Discovery and 2.0L diesel Evoque / Discovery Sport is longer than on 2.0L diesel XE / XF, increasing the likelihood of an interrupted regeneration when a customer ends their journey.
- Due to hardware and architecture differences between model lines, the amount of post injection required to achieve a similar burn rate is much higher on 3.0L diesel Range Rover / Range Rover Sport / All-New Discovery and 2.0L diesel Evoque / Discovery Sport in comparison to 2.0L diesel XE / XF.
- This combines to significantly increase the Fuel In Oil (FIO) contribution for each successful regeneration event.
- Combined with the increased post injection requirement and increased impact of interrupted regeneration on oil dilution, FIO increases at a much faster rate on the Land Rover models.
- Oil dilution at 6.1% will trigger the 'Service Required' message. Based on a customer's driving style and usage, this value may be reached in advance of the service interval that was quoted in the online marketing and brochure for the vehicle (3.0L diesel Range Rover / Range Rover Sport – 16k miles (26k km) / 12 months or 2.0L diesel Evoque / Discovery Sport – 21k miles (34k km) / 24 months)
- The Handbook states that, depending on the type and style of driving that the vehicle is subjected to, the indicator may display a service message at a shorter distance than shown in the service interval plans. This

clause was never stated in any of the marketing literature so early service requirements may lead to customer dissatisfaction.

- The 'Service Required' message will also display distance remaining to the next service. This message can change in line with the distance since last service, time since last service or current oil dilution value. This means the distance to next service value can change independently of the actual distance covered by the vehicle since last service.

3. Service Message Reset

Three counters are capable of requesting the service message on the instrument panel.

- Distance to next service
- Time to next service
- Oil dilution (diesel only) (requested if > 6.1%) (Varies across engines)

Current service reset function:-
The JLR Approved Diagnostic Tools currently offer the technician two applications to reset the service message.

- Reset oil service counter
- Service interval reset

Although the applications are named differently they send the same command to the PCM. This resets all three values associated with the service message.

Actions Required:

1. SIM Message not displaying

Three campaigns have been launched to correct the Instrument Cluster software and enable the 'Service Required' message to display when the engine is cranked from ignition off:

- H007 – Customer Satisfaction Programme for Jaguar models
- N010 – Customer Satisfaction Programme for Land Rover models
- N020 – Owner Notified Programme for Land Rover models. Analysis completed by Powertrain Engineering has identified a population of vehicles with oil dilution at 6% or greater. If these vehicles continue to run without an oil change, there is a further risk of engine damage. These customers are to be proactively notified of the action via letter.

- Special software applications have been released to the JLR Approved Diagnostic Tools to reduce time taken to complete the software update to 0.1 hours. The process for using these applications is detailed with the Service Instructions for each of the campaigns.
- Upon completion of these actions, more customers will be made aware of the early service requirements on 3.0L diesel Range Rover / Range Rover Sport & 2.0L diesel Evoque / Discovery Sport in EU6b markets (due to the correct messaging).

2. Early Service due to Oil Dilution

Provide free oil and filter changes to customers who bought 16-17MY 3.0L diesel Range Rover / Range Rover Sport or 2.0L diesel Evoque / Discovery Sport models in good faith based on the internet and brochure descriptions of reaching published service intervals – this includes leasing companies which base their costs on servicing and service plans.

- Upon completion of N010 or N020, if the service message is displayed and the vehicle has completed less than 90% if its service interval, an oil and filter change can be completed as part of the campaign repair. (See Appendix I for full details)
- Marketing brochure and internet sites have been updated from 1st June 2017 to set future customer expectation that service intervals will depend on driving style and usage.
- Following completion of the campaigns, the customer will be expected to bring their vehicle in to a retailer once the 'Service Required' message is displayed on the Instrument Cluster or InControl App. The retailer should use the JLR Approved Diagnostic Tool to determine if an 'Oil Service' or 'Full Service' is required based on the % oil dilution and time and distance covered since last full service. Any additional oil services that are required on top of published full service intervals/current service plans (up to 50,000 miles or 80,500 km) can be provided to the customer free of charge using Goodwill. This applies to the following models only:
  - 16-17MY 3.0L diesel Range Rover / Range Rover Sport with a warranty start date prior to 1st June 2017
  - 16-17MY 2.0L diesel Evoque / Discovery Sport with a warranty start date prior to 1st June 2017

- Oil services required on these models outside of the specified period, or on any other Jaguar Land Rover vehicles not specified above, should be charged directly to the customer.

3. Service Message Reset

A separate campaign will be launched to update the Powertrain Control Module software to split the Oil Dilution and Time/Distance Service counters so they can be reset independently. This change is strategy going forward will enable a retailer to reset the Service Message for an oil service only earlier than the vehicle's published service interval. A full service can then be carried out at the normal time/mileage point.

- N025 – Customer Satisfaction Programme campaign for 3.0L diesel Range Rover / Range Rover Sport / All-New Discovery and 2.0L diesel Evoque / Discovery Sport models (16-17MY in EU6b & NAS markets). This will be a staggered launch with the repair being available for Range Rover, Range Rover Sport and All-New Discovery from mid-July 2017 and then mid-August 2017 for Evoque and Discovery Sport.
- JLR Approved Diagnostic Tool apps will be updated concurrently to allow the Service Message to be reset for oil dilution independently of distance and time (See Appendix III for app screen layouts).
- 'Oil service only' check sheets will be available in TOPIx.
- Note, 3rd party tools will not be able to reset the time/mileage counters following this software update.

If you have any questions in respect to oil dilution, please direct your queries via the normal channels (RAM, RTM, CRC) as applicable in your market.

Yours faithfully,



Stuart Woodcock
Technical Service Engineering Manager

APPENDIX I - N010/N020 OIL CHANGE APPLICABILITY

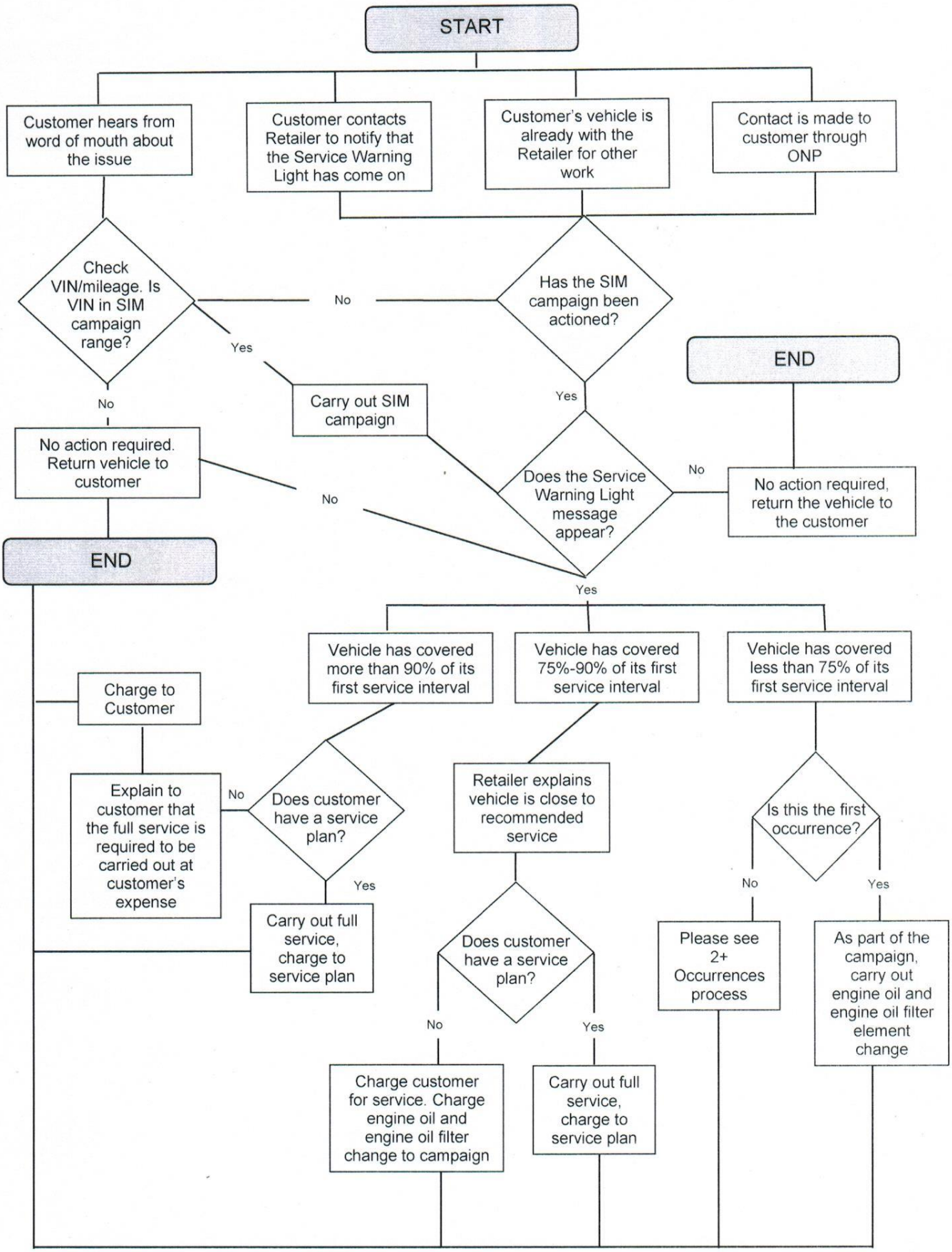
Only applies to 2.0L diesel and 3.0L diesel Land Rover vehicles within these campaigns.

Following the Instrument Cluster (IC) software update, check if the 'Service Warning' message appears when cranking the engine.

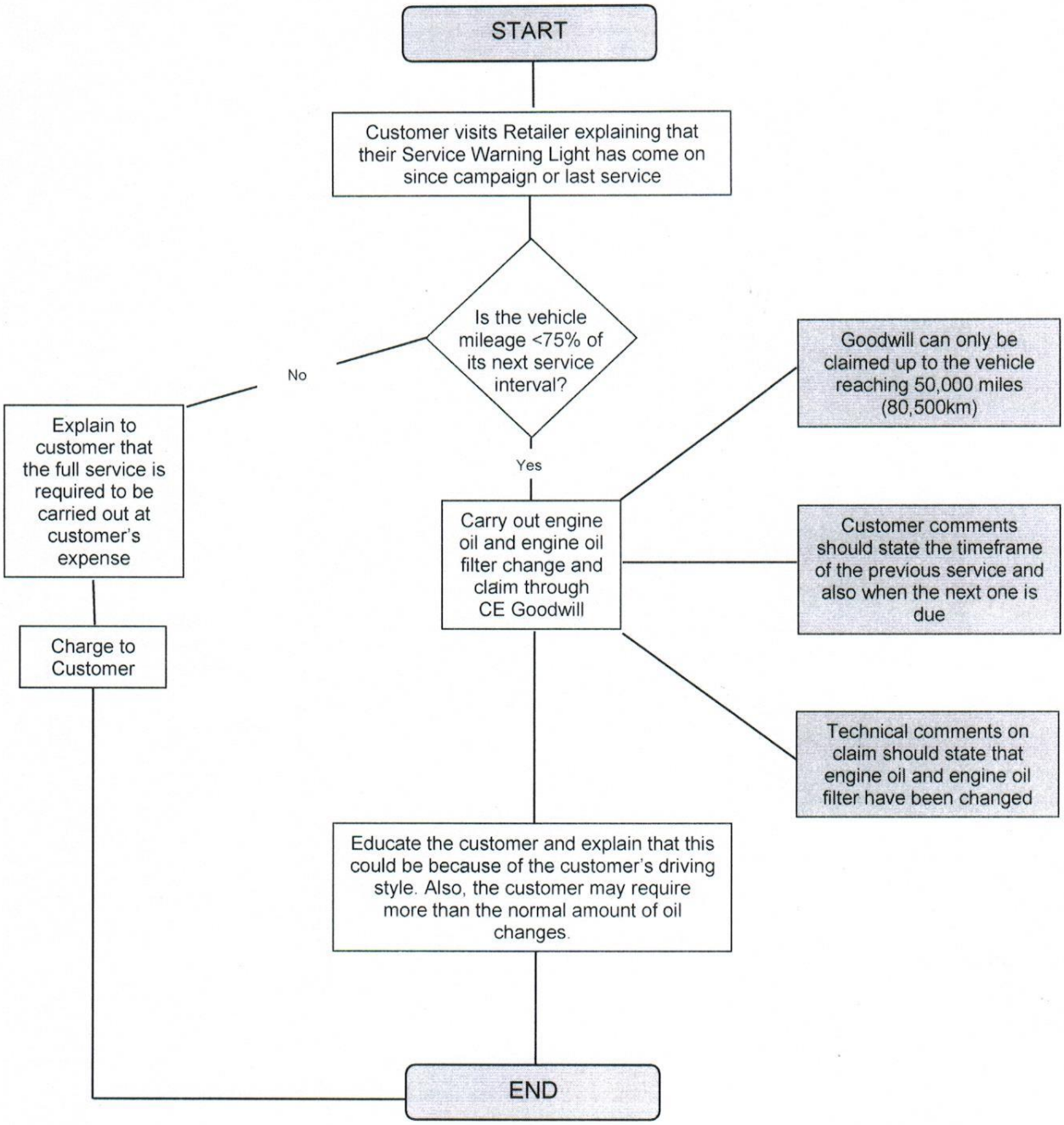
- If the 'Service Required' message appears on the Instrument Cluster (IC) when cranking the engine and the vehicle has covered less than 75% of its next service interval (refer to table below), complete an engine oil and engine oil filter element change as part of this campaign.
- If the vehicle is between 75% and 90% of its next service interval (refer to table below), complete an engine oil and engine oil filter element change as part of this campaign and contact the customer to arrange for a full service to be carried out (excluding an engine oil and engine oil filter element change) at the customer's expense.
- If the 'Service Required' message appears on the Instrument Cluster (IC) when cranking the engine and the vehicle has covered more than 90% of its next service interval (refer to table below), arrange for a full service to be carried out at the customer's expense.
- If the 'Service Required' message does not appear on the Instrument Cluster (IC) when cranking the engine, return the vehicle to the customer.

Service Interval	75% of Service interval	90% of Service interval
6,500 km (4,000 Miles)	4,875 km (3,000 Miles)	5,850 km (3,600 Miles)
10,000 km (6,200 Miles)	7,500 km (4,600 Miles)	9,000 km (5,600 Miles)
13,000 km (8,000 Miles)	9,750 km (6,000 Miles)	11,700 km (7,200 Miles)
26,000 km (16,000 Miles)	19,500 km (12,000 Miles)	23,400 km (14,500 Miles)
32,000 km (20,000 Miles)	24,000 km (15,000 Miles)	28,800 km (18,000 Miles)
34,000 km (21,000 Miles)	25,500 km (16,000 Miles)	30,600 km (19,000 Miles)

APPENDIX II –
SERVICE PROPOSAL STEPS FIRST OCCURENCE

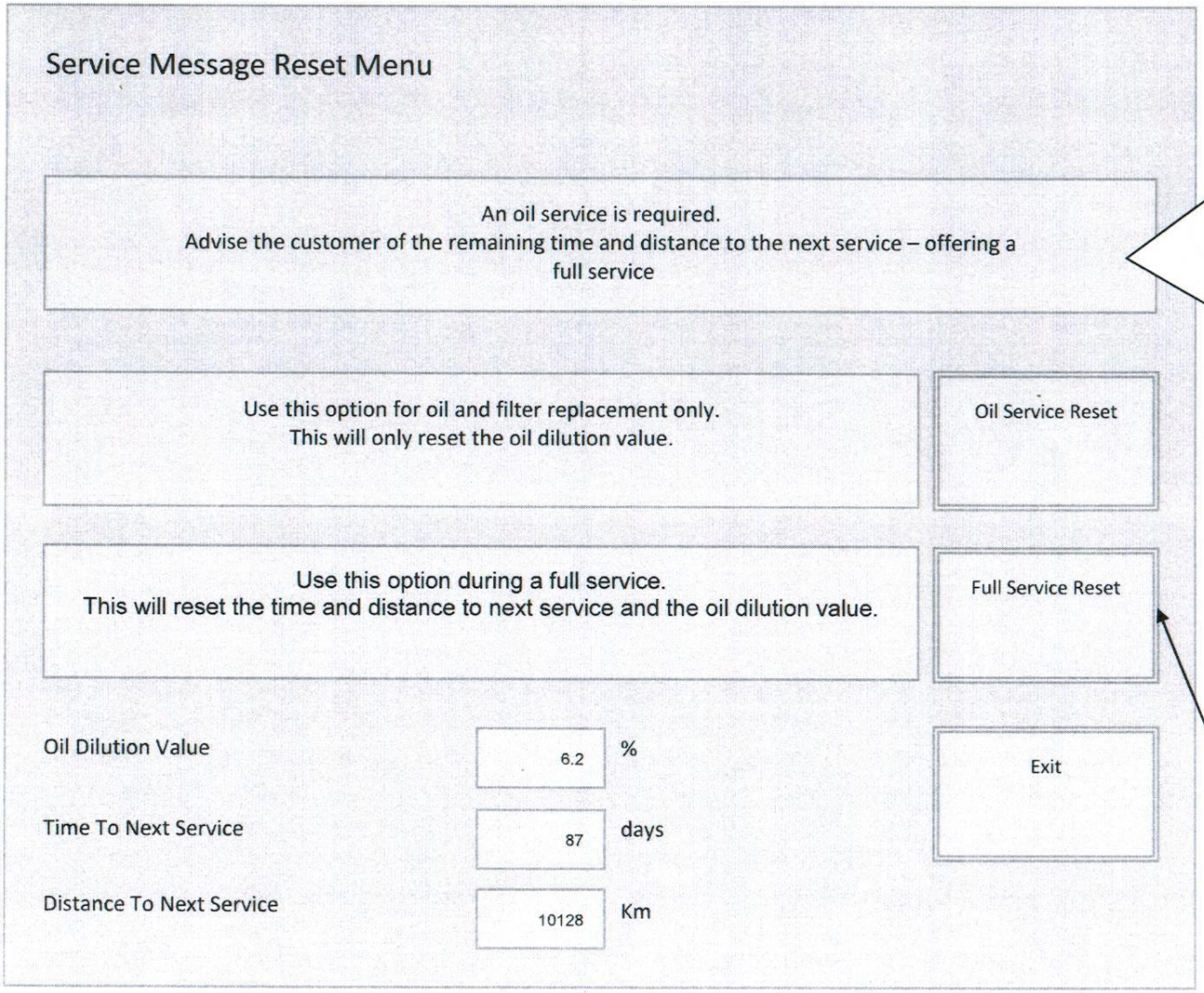


SERVICE PROPOSAL STEPS 2+ OCCURRENCES



APPENDIX III - JLR APPROVED DIAGNOSTIC TOOL APPLICATION SCREEN LAYOUT

SYMPTOM DRIVEN DIAGNOSTICS (SDD)



Field will state why the service message is displayed using text shown below:

1. The service message is not displayed. A Reset is not required.
2. Oil dilution has exceeded the recommended value. An Oil Service is recommended
3. An Oil Service is required. Advise the customer of the remaining time and distance to next service – offering a full service
4. A full service is recommended

The user can select buttons for the required reset.

ECU Diagnostics > Service > **Service Message Reset**

Oil Service required.
Advise the customer of the remaining time and distance to the next service – offering a full service

Oil Service Reset: Use this option for oil and filter replacement only. This will only reset the oil dilution value.

Full Service Reset: Use this option during a full service. This will reset the time and distance to next service and the oil dilution value.

Item	Value
Oil Dilution Value	6.2 %
Time to Next Service	87 days
Distance to Next Service	10128 km

Oil Service Reset

Full Service Reset

Exit