

# CLIO

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## **8** Electrical equipment

**80** FRONT HEADLIGHTS

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# Electrical equipment

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### FAULT FINDING - INTRODUCTION

This document describes the generic fault finding procedures applicable to the xenon bulb computers on **CLIO II** vehicles with all engine types.

The following are required for carrying out fault finding on this system:

- The Generic Fault Finding Technical Note
- Workshop Repair Manual for the vehicle concerned,
- The wiring diagram of the function for the vehicle concerned,
- the tools listed under the heading Special tooling required.

### GENERAL APPROACH TO FAULT FINDING

- Use of one of the diagnostic tools to identify the system installed in the vehicle (reader for the xenon light family of computers).
- Locate the Fault finding documents corresponding to the system identified.
- Take note of information contained in the introductory sections.
- Read the faults stored in the computer memory and use the Interpretation of faults section of the documents.  
**Reminder:** Each fault is interpreted for a particular type of storage (fault present, fault stored in memory, fault present or stored). The checks defined for dealing with each fault are therefore only to be performed if the fault declared by the diagnostic tool is interpreted in the document for its type of storage. The storage type should be considered when using the diagnostic tool after the ignition has been switched off and switched back on. If a fault is interpreted when it is declared as stored, the conditions for applying fault finding appear in the NOTES box. If the conditions are not satisfied, use the fault finding strategy to check the circuit of the faulty part since the fault is no longer present on the vehicle. Perform the same operation when a fault is declared as stored by the diagnostic tool but is only interpreted in the documentation as a present fault.
- Perform the conformity check (appearance of possible incorrect operations not yet stated by the system's self diagnosis procedure) and apply the associated fault finding strategy according to results.
- Confirm the repair (customer complaint disappears).

### SPECIAL TOOLING REQUIRED FOR WORKING ON THE DISCHARGE BULB SYSTEM:

- **Diagnostic tools: CLIP or NXR (only).**
- **Multimeter.**
- **Headlight beam adjuster.**

### FAULT FINDING - INTERPRETATION OF FAULTS

DF001	<p><u>COMPUTER</u></p> <p>DEF: Computer calibration not carried out 1.DEF: Internal computer fault</p>
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NOTES	Ignition on.
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DEF	<p>Check the programming of the computer under the reading the configuration menu (engine type).</p> <p><b>Check that the conditions required for initialisation are fully met:</b></p> <ul style="list-style-type: none"> <li>– Rear sensor within the correct height range (the vehicle should be in a horizontal plane under normal load conditions (luggage compartment empty)). The linkage of the sensor control should not be damaged.</li> <li>– Vehicle stopped.</li> <li>– Driver on board the vehicle.</li> </ul> <p>Clear the fault memory.</p> <ul style="list-style-type: none"> <li>– Enter command <b>AC010</b>.</li> </ul> <p>The computer performs the initialisation process: it stores the reference height and sets the actuators to the maximum rod extension position.</p> <p>Adjust the height of the lights following the method described in the help notes.</p> <p>If the fault reappears, replace the rear computer/sensor</p>
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1.DEF	<p>Where the fault reappears as present following:</p> <ul style="list-style-type: none"> <li>– the fault being cleared,</li> <li>– The ignition being switched off and on again.</li> </ul> <p>Replace the rear computer/sensor, following the removal and refitting procedures described in <b>Section 80</b> of the Repair Manual.</p> <p>Perform configuration and calibration as defined in the "Help" section of these instructions.</p>
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AFTER REPAIR	<p>Deal with any other faults.</p> <p>Delete any faults stored and adjust the height of the lights following the method described in the help notes.</p> <p>Switch off the ignition and carry out a road test followed by a test using the diagnostic tool.</p>
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### FAULT FINDING - INTERPRETATION OF FAULTS

DF015	<u>COMPUTER SUPPLY VOLTAGE TOO LOW</u>
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NOTES	<p>Conditions for applying fault finding procedures to stored faults: If the fault is declared present after:</p> <ul style="list-style-type: none"> <li>– the fault memory is declared present and a delay of <b>30 seconds</b> with the engine running.</li> <li>– Ensure that the battery charge is sufficient and that the charge circuit is functioning correctly (<b>11 volts &lt; operating voltage &lt; 14.5 volts</b>).</li> <li>– <b>The computer shows a fault present if the supply voltage is less than 9 V.</b></li> </ul>
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<p>Using a multimeter, measure the voltage at the xenon bulb computer terminal, <b>track 2 (+ after ignition feed)</b> and <b>track 1 (earth)</b>. The voltage should be approximately the same as the battery voltage. Check the condition of the connectors and that the electrical contacts are not oxidised.</p>
<p>If the voltage shown by the multimeter is greater than <b>9 V</b>, replace the xenon bulb computer.</p>
<p>If the voltage shown by the multimeter is less than <b>9 V</b>, check the condition and continuity of the following lines:</p> <p><b>Track 1</b> —————&gt; <b>vehicle earth</b>  <b>Track 2</b> —————&gt; <b>fuse board</b></p> <p>Repair if necessary.</p>

AFTER REPAIR	<p>Deal with any other faults. Clear the stored faults. Switch off the ignition and carry out a road test followed by a test using the diagnostic tool.</p>
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### FAULT FINDING - INTERPRETATION OF FAULTS

<b>DF009</b>	<b><u>REAR HEIGHT SENSOR CIRCUIT</u></b> 1.DEF: Signal off limits 2.DEF: Inconsistent signal
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<b>NOTES</b>	<b>Condition for applying the fault finding procedure to a stored fault:</b> If the fault is declared present after: – the fault being cleared, – The ignition being switched off and on again.
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<b>1.DEF</b>	<p>The sensor is fitted with upper and lower stops, these faults can only occur following a severe impact:</p> <ul style="list-style-type: none"><li>– the rear axle,</li></ul> <p>or</p> <ul style="list-style-type: none"><li>– the sensor mounting.</li></ul> <p>Ensure there is a mechanical connection between the sensor and the rear axle via the lever arm and the control lever. Repair if necessary.</p> <p>Check that the control lever is in good condition. Replace if necessary.</p> <p>Check the condition of the rear sensor mounting. Replace if necessary.</p> <p>If the control lever is not deformed, and the mounting does not show signs of deformation, replace the rear sensor.</p>
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<b>AFTER REPAIR</b>	<p>Deal with any other faults.</p> <p>Delete any faults stored and adjust the height of the lights following the method described in the help notes.</p> <p>Switch off the ignition and carry out a road test followed by a test using the diagnostic tool.</p>
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### FAULT FINDING - INTERPRETATION OF FAULTS

<b>DF009</b>	<u>REAR HEIGHT SENSOR CIRCUIT</u> 1.DEF: Signal off limits 2.DEF: Inconsistent signal
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<b>NOTES</b>	<b>Conditions for applying fault finding procedures to stored faults:</b> If the fault is declared present after: <ul style="list-style-type: none"><li>– the fault being cleared,</li><li>– The ignition being switched off and on again.</li><li>– Then the vehicle is driven for more than <b>10 minutes</b>.</li></ul>
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<b>2.DEF</b>	<p>The sensor declares this fault present if the vehicle speed signal is greater than 2 mph (4 km/h) for more than <b>60 seconds</b> without any change in the sensor charge.</p> <p>Ensure there is a mechanical connection between the sensor and the rear axle via the lever arm and the control lever. Repair if necessary. Check that the control lever is in good condition. Replace if necessary. Check the condition of the rear sensor mounting and its upper and lower stops. Replace if necessary. If the sensor shows no mechanical defect, change the rear computer/sensor.</p>
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<b>AFTER REPAIR</b>	<p>Deal with any other faults. Delete any faults stored and adjust the height of the lights following the method described in the help notes. Switch off the ignition and carry out a road test followed by a test using the diagnostic tool.</p>
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### FAULT FINDING - INTERPRETATION OF FAULTS

<b>DF019</b>	<u>DIPPED HEADLIGHTS SIGNAL CIRCUIT</u> CO: Open circuit
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<b>NOTES</b>	Contact present.
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<b>CO</b>	Check for the presence of a <b>+12 V</b> voltage (dipped headlights on) and an earth (dipped headlights off) on passenger compartment fuse F9. Repair if necessary.
	Check the continuity between <b>track 6</b> of the xenon bulb computer and passenger compartment fuse F9. Repair if necessary.
	If the fault is still present, replace the xenon light computer.

<b>AFTER REPAIR</b>	Deal with any other faults. Delete any faults stored and adjust the height of the lights following the method described in the help notes. Switch off the ignition and carry out a road test followed by a test using the diagnostic tool.
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### FAULT FINDING - INTERPRETATION OF FAULTS

<b>DF013</b>	<u>VEHICLE SPEED SIGNAL</u> 1.DEF: Open circuit, short circuit to <b>+12 V</b> or fault with the ABS system. 2.DEF: Signal inconsistent
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<b>NOTES</b>	Contact present.
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<b>1.DEF</b>	<p>Check the insulation against earth and against the <b>+12 V</b> supply of the vehicle speed signal line on <b>track 4</b>.</p> <p>Check the continuity between <b>track 4</b> of the xenon bulb computer and the vehicle speed sensor unit or the ABS (if fitted).</p> <p>If all the electrical consumers connected to the vehicle speed information system are faulty (e.g.: electric PAS, radio, instrument panel etc.), and the speed signal line is working correctly, replace the vehicle speed sensor on the box or carry out a complete fault finding procedure on the ABS (if fitted to the vehicle).</p> <p>If the fault is still present, replace the xenon light computer.</p>
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<b>AFTER REPAIR</b>	<p>Deal with any other faults.</p> <p>Delete any faults stored and adjust the height of the lights following the method described in the help notes.</p> <p>Switch off the ignition and carry out a road test followed by a test using the diagnostic tool.</p>
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### FAULT FINDING - INTERPRETATION OF FAULTS

<b>DF013 CONTINUED</b>	
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<b>2.DEF</b>	<p>This fault will be shown as present if there is an excessive frequency on the speed information line.</p> <p>Check the continuity and the absence of interference resistance on the vehicle speed signal line between <b>track 4</b> of the rear sensor/computer and the vehicle speed sensor unit or the ABS (if fitted).</p>
	<p>If all the electrical consumers connected to the vehicle speed information system are faulty (e.g.: electric PAS, radio, instrument panel etc.), and the speed signal line is working correctly, replace the vehicle speed sensor on the box or carry out a complete fault finding procedure on the ABS (if fitted to the vehicle).</p>
	<p>If the fault is still present, replace the xenon light computer.</p>

<b>AFTER REPAIR</b>	<p>Deal with any other faults.</p> <p>Delete any faults stored and adjust the height of the lights following the method described in the help notes.</p> <p>Switch off the ignition and carry out a road test followed by a test using the diagnostic tool.</p>
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### FAULT FINDING - INTERPRETATION OF FAULTS

<b>DF005</b>	<u>ACTUATOR CONTROL CIRCUIT</u> CC.0: Short circuit to earth CC.1: Short circuit on + 12 V
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<b>NOTES</b>	Contact present.
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<b>CC.0</b>	Disconnect the xenon light computer connector and the headlight adjustment motor connectors. Check the insulation against earth of the control line of the headlights on <b>track 7</b> of the xenon bulb computer connector. If the insulation is not correct, rectify it.
	If the insulation is correct, reconnect the right headlight adjustment motor, then check the insulation as described above. If the insulation against earth is not correct, replace the adjustment motor.
	If the insulation is correct, reconnect the left headlight adjustment motor, then check the insulation as described above. If the insulation against earth is not correct, replace the adjustment motor.
	If the insulation is correct, replace the computer/rear height sensor.

<b>AFTER REPAIR</b>	Deal with any other faults. Delete any faults stored and adjust the height of the lights following the method described in the help notes. Switch off the ignition and carry out a road test followed by a test using the diagnostic tool.
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### FAULT FINDING - INTERPRETATION OF FAULTS

<b>DF005 CONTINUED</b>	
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<b>NOTES</b>	Contact present.
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<b>CC.1</b>	<p>Disconnect the xenon light computer connector and the headlight adjustment motor connectors.</p> <p>Check the insulation against <b>+12 V</b> of the control line of the headlights on <b>track 7</b> of the xenon bulb computer connector.</p> <p>If the insulation is not correct, rectify it.</p>
	<p>If the insulation is correct, reconnect the right headlight adjustment motor, then recheck the insulation as described above.</p> <p>If the insulation against <b>+12 V</b> is not correct, replace the adjustment motor.</p>
	<p>If the insulation is correct, reconnect the left headlight adjustment motor, then recheck the insulation as described above.</p> <p>If the insulation against <b>+12 V</b> is not correct, replace the adjustment motor.</p>
	<p>If the insulation is correct, replace the computer/rear height sensor.</p>

<b>AFTER REPAIR</b>	<p>Deal with any other faults.</p> <p>Delete any faults stored and adjust the height of the lights following the method described in the help notes.</p> <p>Switch off the ignition and carry out a road test followed by a test using the diagnostic tool.</p>
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### FAULT FINDING - CONFORMITY CHECK

<b>NOTES</b>	<p>Only carry out this conformity check after a <b>full check</b> with the diagnostic tool (the values shown in this conformity check are only given as a guide).</p> <p><b>Conditions of implementation: contact present, dipped headlights on.</b></p>
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Order	Function	Parameter or status Check or action		Display and notes	Fault finding
1	Initial	PR018:	Rear height	X = rear height	The value should immediately change in line with the vehicle load. It will be equal to 10 after programming.
2		PR005:	Initial rear height	X = 10	The value is always equal to 10
3		PR020:	Position of the control elements	X = height of the headlights	The value should change in line with the vehicle load after 10 seconds
4	Speed	PR019:	Vehicle speed	X = vehicle speed	The value should correspond to the vehicle speed.

### DIAGNOSTICS - HELP

#### Help:

Having stored the reference position, it is necessary to adjust the height of the headlights using a headlight aimer in accordance with the values inscribed on the headlight.

The reference height is stored with the driver on board, while the adjustment is carried out with the vehicle unladen, with a full tank of the preferred fuel.

**It is essential to adjust the headlight aligner correctly; incorrect adjustment may result in strong glare.**

**FAULT FINDING - CUSTOMER COMPLAINTS**

<b>NOTES</b>	Only consult this customer complaint after a complete check using the diagnostic tool.
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**CONTROL OF THE HEIGHT OF ONE OR BOTH HEADLIGHTS IS NOT OPERATIONAL** \_\_\_\_\_ **ALP 1**

**NO DIALOGUE WITH THE COMPUTER** \_\_\_\_\_ **ALP 2**

### FAULT FINDING - FAULT FINDING CHART

ALP 1	<b>CONTROL OF THE HEIGHT OF ONE OR BOTH HEADLIGHTS IS NOT OPERATIONAL</b>
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NOTES	<ul style="list-style-type: none"> <li>– Ignition on.</li> <li>– Deal with any faults which may be present in the system before using this chart.</li> </ul>
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Disconnect the headlight adjustment motors.  
Check for the presence of a **+12 V** supply on **track C1** of both motors.  
Repair if necessary.

Check for the presence of an earth on **track A1** of both motors.  
Repair if necessary.

While measuring the voltage present between the control line of the height adjustment motors (B1) and earth, run command **AC012 Upper and lower position actuator check**.

A voltage of approximately **10.5 V** should be present for **4 seconds** (lowering action).

Then a voltage of approximately **1 V** should be present for **3 seconds** (raising action).

If the voltage is correct, replace the headlight height adjustment motors.

If there is no voltage present, check the continuity on the computer-controlled line between the two motors and the computer/rear height sensor; repair if necessary.

If the control line is functioning correctly and no voltage is present on **tracks C1**, replace the rear height sensor.

AFTER REPAIR	Check the system operation.
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### FAULT FINDING - FAULT FINDING CHART

ALP 2	NO DIALOGUE WITH THE COMPUTER
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NOTES	None.
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Try the diagnostic tool on another vehicle.
Check: – the connection between the diagnostic tool and the diagnostic socket (lead in good condition), – The engine compartment and passenger compartment fuses.
Check for the presence of <b>+12 volts before ignition feed</b> on <b>track 16</b> , <b>+12 volts after ignition feed</b> on <b>track 1</b> , and an <b>earth</b> on <b>tracks 4 and 5</b> of the diagnostic socket. Repair if necessary.
<b>Check the insulation, continuity and absence of interference resistance of the connections between:</b> Xenon bulb computer <b>track 2</b> —————> <b>+ after ignition feed</b> Xenon bulb computer <b>track 1</b> —————> <b>earth</b> Xenon bulb computer <b>track 5</b> —————> <b>track 7</b> of the diagnostic socket (line K) Repair if necessary.

AFTER REPAIR	Check the system operation.
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This document describes the generic fault finding procedure applicable to all computers for the CLIO II immobiliser function, for all engines except F9Q.

To carry out fault finding on this system, it is essential to have the following items:

- The wiring diagram of the function for the vehicle concerned,
- Workshop Repair Manual for the vehicle concerned,
- the tools listed under the heading Special tooling required.

### GENERAL APPROACH TO FAULT FINDING

- Use one of the diagnostic tools to identify the system fitted to the vehicle (to read the computer group, the program number, the Vdiag, etc.).
- Locate the Fault finding documents corresponding to the system identified.
- Take note of information contained in the introductory sections.
- Read the faults stored in the computer memory and use the Interpretation of faults section of the documents.  
**Reminder:** Each fault is interpreted for a particular type of storage (fault present, fault stored in memory, fault present or stored). The checks defined for dealing with each fault are therefore only to be performed if the fault declared by the diagnostic tool is interpreted in the document for its type of storage. The storage type should be considered when using the diagnostic tool after the ignition has been switched off and switched back on.  
If a fault is interpreted when it is declared as stored, the conditions for applying fault finding appear in the NOTES box. If the conditions are not satisfied, use the fault finding strategy to check the circuit of the faulty part since the fault is no longer present on the vehicle. Perform the same operation when a fault is declared as stored by the diagnostic tool but is only interpreted in the documentation as a present fault.
- Perform the conformity check (appearance of possible incorrect operations not yet stated by the system's self diagnosis procedure) and apply the associated fault finding strategy according to results.
- Confirm the repair (customer complaint disappears).
- Use the fault finding procedure for each Customer complaint if the fault persists.

### SPECIAL TOOLING REQUIRED:

- Diagnostic tool (except XR25).
- Bornier.
- Multimeter.

## **OPERATIONAL SPECIFICATIONS**

The immobiliser system is based on the recognition of a key by the inductive connection between the transponder built into the key and the transponder loop aerial every time starting is requested.

The key is authenticated when the transponder aerial detects the correct code, when the vehicle is in the protected status (immobiliser active).

After each switch-off of the ignition, the immobiliser is automatically activated after a delay of 10 seconds.

NOTE: for Belgium, the delay is one second.

## **OPERATION**

- In this mode, transponder authentication is initiated by the transponder aerial detecting the key (+ After ignition).
- When the user puts his key into the ignition switch and switches on, the UCH asks for the key number via the transponder ring.
- In response to this request, the key gives its unique number to the UCH.
- If this response is recognised by the UCH (meaning that the key has been programmed into the UCH), the UCH sends the key a message (challenge).
- The key deciphers the message. If the message is recognised, the key sends back its response.  
The UCH compares the response with the value stored in its memory.  
If this response is recognized by the UCH, then the authentication is successful.  
All data exchanged between the key and the UCH is encrypted.
- Once key authentication is successful, the UCH authorises operation of the engine management computer (exchange of an immobiliser code with the injection computer).

**Recognition of keys in normal operation**

	<b>IMMOBILISER WARNING LIGHT</b>
vehicle protected (without After Ignition)	indicator light flashes at 1 Hertz
key recognised, injection system unprotected	warning light comes on constantly for 3 seconds then goes out
key recognised, injection system protected or blank	warning light remains lit after 3 seconds
key not recognised	warning light flashes at 4 Hertz.

**PROGRAMMING THE TRANSPONDER KEY AND RADIO-FREQUENCY**

All the programming procedures carried out by After-Sales must be performed after entering the vehicle After-Sales code on the diagnostic tool.

- There is no number marked on the key.
- On delivery the vehicle does not have a label showing the code.

When working on this system, this repair code number may be requested from the local assistance network (see **Technical Note 3315E**).

**When requesting the code number, it is essential to provide the vehicle's VIN as well as its fabrication number. This allows the operator to identify the vehicle in order to provide the correct code.**

- Spare keys are supplied **uncoded, without a number and without a metal insert**.
- The system may have up to a maximum of four keys.  
The remote control and the battery have no effect on the immobiliser, **only the transponder** enables the immobiliser function.
- **In the event of a key being stolen or lost, one or more of the vehicle's keys can be deallocated. The customer may also request deallocation. They can be reallocated to the same vehicle if necessary.**

**WARNING**

- It is impossible to replace two components (UCH and keys) at the same time because it will not be possible to code these components if none of them has the vehicle's original code in its memory.

- There are three types of part on the vehicle

- \* **parts without codes**

- **Transponder aerial**

- Only this component can be transferred from one vehicle to another without any precautions.

- \* **parts with codes**

- **The injection computer**

- The injection system receives codes from the UCH.

- Programming takes place as soon as the key is introduced, without any action on the part of the operator or the RENAULT agent. Programming a code into this part means it cannot be used on any other vehicle.

- \* **parts which are coded using an After-Sales procedure**

- **UCH and keys**

- Just fitting or introducing new or blank parts to a vehicle is not sufficient to program a code. As long as the After-Sales programming procedure has not been carried out, these parts remain blank.

- On the other hand, if the programming procedure is carried out, the parts are coded and therefore unusable on another vehicle.

## **PROGRAMMING PROCEDURE**

### **Programming the UCH**

The UCH programming procedure is performed using the diagnostic tool

- Establish dialogue with the **Immobiliser** system.
- In the **Command, Specific command** menu, run command **SC027: UCH programming**.
- The tool displays **Remove the key from the ignition**.
- The tool displays **"Please enter the After-Sales code"**. With the ignition off, enter the After-Sales secret code (12 hexadecimal characters) and confirm it.
- If the code format is correct, the tool displays **Insert a key which has already been programmed to the vehicle** and the programming procedure starts.
- The tool displays **UCH programming completed, please start key programming procedure**. The UCH is coded. You must now enter key programming mode to allocate the other keys (maximum of four). Several seconds may elapse before this message appears.

### **WARNING**

The maximum time delay between operations is 5 minutes, otherwise the procedure is cancelled.  
**Once the UCH has been coded, it will be impossible to clear or program a new UCH code.**

## **SPECIAL CASE**

If the screen displays:

- **"The After-Sales code entered does not correspond to the key inserted. Check that you have entered the code correctly and you have inserted a key belonging to the vehicle."**  
The code read is incorrect or the UCH has already been coded on another vehicle, see ET110: Blank UCH. Check the code then try entering the data again.
- **The UCH is not blank; please start the key programming procedure.**  
The UCH has already been coded on this vehicle.
- **Check the After-Sales code:** the format of the code entered is incorrect. Check, then try entering the data again.
- **"UCH programming failure, key not usable on this vehicle".**  
The code introduced by this key does not correspond with the present vehicle.
- **The key inserted is blank. Please insert another key already programmed on the vehicle.**  
The key is blank, insert a key already coded on this vehicle.
- **The injection code does not correspond with the key code. Make sure that the multiplex network is not faulty, that the injection system is operating and that the injection system is not blank.**  
The injection code is absent or does not correspond with the code entered.
  - Check the connection between the injection computer and the UCH.
  - check that the computer is the correct one for the vehicle.

### **KEY ALLOCATION PROCEDURE**

**IMPORTANT:** in the event that not all the keys are available, it will be necessary to carry out a reprogramming procedure later with all the keys.

- Establish dialogue with the **Immobiliser** system.
- In the **Command, Specific command** menu, run command **SC028: Card/key programming**.
- The tool displays **Remove the key from the ignition**.
- The tool displays **"Please enter the After-Sales code"**. With the ignition off, enter the After-Sales secret code (12 hexadecimal characters) and confirm it.
- If the code format is correct, the tool displays **"Insert a key which has already been programmed on the vehicle"** and the programming procedure starts.
- The tool displays **Warning, keys not inserted will no longer be active, restart the procedure to reallocate them**: Programming is in progress.
- The tool displays **Insert the key in the ignition switch and switch on the ignition, then confirm**. Switch on the ignition with a new key or an old key from the vehicle. The screen displays **1 key programmed**. Confirm and then **remove the key from the ignition switch**.
- The tool asks: **Would you like to program another key?**
- To allocate additional keys, switch on the ignition for a few seconds with the other vehicle keys to be programmed (four maximum), then confirm. The screen displays **2, 3 or 4 keys programmed**, then **Remove the key from the ignition**.

### **WARNING**

These must be old keys belonging to the vehicle or new **non-coded** keys.

- The tool displays **"Writing data to memory"**: the UCH is coded and the keys are assigned. Several seconds will elapse before the appearance of this message.
- **IMPORTANT:** the maximum time delay between each operation is 5 minutes, otherwise the procedure will be cancelled and the tool will display the message **Procedure interrupted: important, the keys allocated to the vehicle are the ones allocated before the procedure was started. The keys inserted before the procedure was interrupted are no longer blank and cannot be allocated to this vehicle**. This message also appears if communication with the UCH is lost or the battery is cut off.

NOTE: there is no operation to perform on the injection computer when the UCH alone is replaced, it retains the same immobiliser code.



## **SPECIAL CASE**

If the screen displays:

- **"The UCH is blank. Please start the UCH programming procedure"**: the UCH is blank. It is impossible to allocate keys to an uncoded UCH.
- **"Check the After-Sales code"**: the format of the code entered is incorrect. Check, then try entering the data again.
- If the key does not correspond to the vehicle UCH, the tool will display **Procedure cancelled: important, the keys assigned to the vehicle are the ones assigned before the procedure was started. The cards inserted before the procedure was interrupted are no longer blank and may only be allocated to this vehicle.**

## **CODING THE INJECTION COMPUTER**

The injection computer is supplied uncoded. It will therefore have to be programmed with the code of the engine immobiliser system when fitted, to enable the vehicle to start.

Simply switch on the ignition for a few seconds without starting the engine. Switch the ignition off; the immobiliser will be activated after a few seconds (red immobiliser indicator light flashes).

## **WARNING**

**With this engine immobiliser, the vehicle keeps its immobiliser code for life.**

**In addition, this system does not have a security code.**

**Consequently, it is forbidden to carry out tests with injection computers borrowed from stores and subsequently returned.**

**The programmed code cannot be cleared.**

### Pin-out and connections

There are 3 connectors, as follows:

Black 40-track P201 connector:

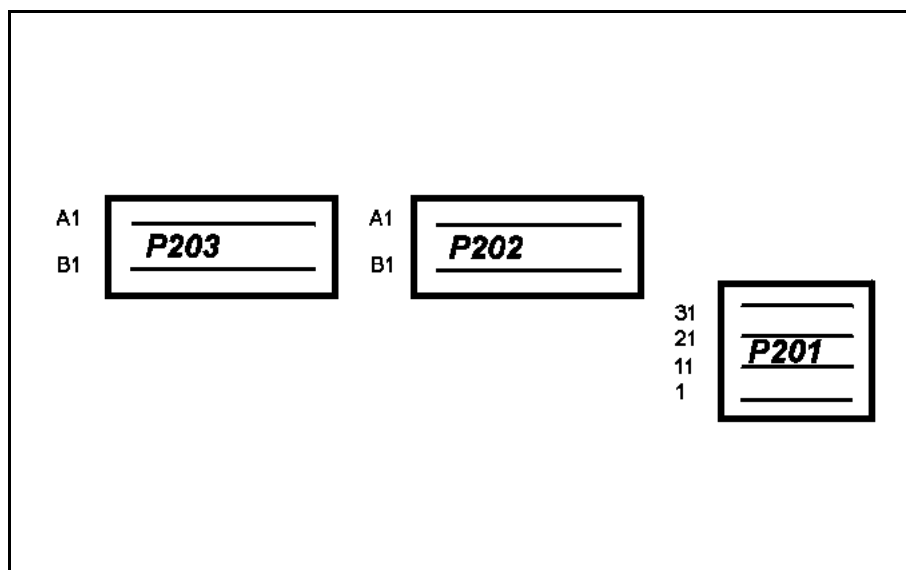
PIN	Signal
1	Side light relay output
2	Dipped beam input
3	Passenger side one-touch window lowering input
4	Passenger side one-touch window raising input
5	VERLOG LED output
6	Windscreen wiper sequencing input
7	+ battery feed
8	Transporter line input
9	CAN L
10	CAN H
11	Dipped beam relay output
12	Main beam input
13	Rain sensor serial line
14	Starter relay output
15	Electric door locking LED output
16	Rear wiper park switch input
17	Windscreen wiper park switch input
18	K diagnostic line
19	CAN L
20	CAN H
21	Windscreen wiper high-speed input
22	Windscreen wiper low-speed input
23	Relay plate
24	Rear screen washer input
25	Windscreen washer input
26	Side light input
27	Left-hand side indicator input
28	Right-hand side indicator input
29	Hazard warning light input
30	Rear door switch input
31	Hazard warning light output
32	Reverse gear switch input
33	+ after ignition
34	Rear screen wiper input
35	Heated rear screen input
36	Electric door locking input
37	Driver one-touch window lowering input
38	Driver one-touch window raising output
39	Luggage compartment door switch input
40	Front door switch input

Clear 15-track P202 connector:

PIN	Signal
<b>A1</b>	Windscreen wiper high-speed output
<b>A2</b>	+ after ignition for rear screen wiper
<b>A3</b>	+ battery for lighting management
<b>A4</b>	+ after ignition for windscreen wiper
<b>A5</b>	Headlight 1 washer pump relay output
<b>A6</b>	+ battery for timed supply
<b>A7</b>	Headlight 2 washer pump relay output
<b>A8</b>	Courtesy light output
<b>A9</b>	Footwell light output
<b>B1</b>	Passenger side one-touch window raising output
<b>B2</b>	Driver side one-touch window lowering output
<b>B3</b>	+ battery for driver side one-touch window
<b>B4</b>	Earth
<b>B5</b>	Driver side one-touch window raising output
<b>B6</b>	Earth

Black 15-track P203 connector:

PIN	Signal
<b>A1</b>	+ battery for direction indicators
<b>A2</b>	Left hand direction indicator output
<b>A3</b>	Right hand direction indicator output
<b>A4</b>	Electric door locking output
<b>A5</b>	Main beam relay output
<b>A6</b>	Electric door unlocking output
<b>A7</b>	+ battery for electric door locking
<b>A8</b>	Rear screen wiper output
<b>A9</b>	Front wiper low speed output
<b>B1</b>	+ after ignition for heated rear window
<b>B2</b>	Heated rear screen output
<b>B3</b>	Electric window input
<b>B4</b>	+ after ignition electric window output
<b>B5</b>	Passenger side one-touch window lowering output
<b>B6</b>	+ battery feed for one-touch window raise, passenger side



<b>DF039 PRESENT OR STORED</b>	<u>UCH INTERNAL ELECTRICAL FAULT</u>
--	--------------------------------------

<b>NOTES</b>	Fault declared present after ignition has been switched off. <b>Special note:</b> if there is a fault stored, check whether there are any other faults present and clear the faults.
--------------	---

Replace the UCH.
------------------

<b>AFTER REPAIR</b>	Follow the instructions to confirm repair. Deal with any other faults. Clear the fault memory.
---------------------	--

# IMMOBILISER

## Fault finding – Interpretation of faults

82

<b>DF051 PRESENT OR STORED</b>	<b><u>STARTER RELAY</u></b> CC.1: short-circuit to +12 V
--	---

<b>NOTES</b>	Conditions for applying the fault finding procedure to stored faults. The fault is declared present after the starter has been actuated.
--------------	---

Check fuse <b>F37 (10A)</b> for the UCH supply. Replace it if necessary.
Check the connection and condition of the P201 40-track UCH connector. Repair if necessary.
Check the connection and condition of the connector of the starter relay located beneath the engine compartment. Repair if necessary.
Check the insulation to +12 V of the connection: UCH P201 40-track connector <b>track 14</b> —————> <b>track 2</b> starter relay Repair if necessary.
Ensure the continuity and insulation of the connections between: immobiliser switch <b>track 6</b> —————> <b>track 3</b> starter relay starter relay <b>track 5</b> —————> <b>starter</b> Repair if necessary.

<b>AFTER REPAIR</b>	Follow the instructions. Deal with any other faults. Clear the fault memory.
---------------------	--

<b>DF067 PRESENT OR STORED</b>	<b><u>RING CONNECTION ---&gt; DECODER</u></b> 1.DEF: key code invalid 2.DEF: no dialogue from the ring or the transponder key
--	---

<b>NOTES</b>	Conditions for applying the fault finding procedure to stored faults. The fault is declared present when the ignition is switched on (+ after ignition). <b>Special notes in the event of stacked faults:</b> In the case of stacked fault DF067 ring connection ---> decoder and DF069 decoder connection ---> ring, give priority to fault DF069.
--------------	--

<b>1.DEF</b>	Check parameter PR065 number of transponder keys programmed.
	Check state ET104 "key code valid", if "key code valid" state is NO, reconfigure the keys using the diagnostic tool.
	Replace the key if necessary.

<b>AFTER REPAIR</b>	Follow the instructions. Deal with any other faults. Clear the fault memory.
---------------------	--

<b>DF067 CONTINUED</b>	
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<b>2.DEF</b>	Check parameter PR065 number of transponder keys programmed.
	Check state ET104 "key code valid", if "key code valid" state is NO, reconfigure the keys using the diagnostic tool.
	Check the connection and the condition of the transponder aerial connector. Repair if necessary.
	Check the connection and condition of the P201 40-track UCH connector. Repair if necessary.
	Check the insulation, continuity and resistance of the connections between: UCH P201 40-track connector <b>track 8</b> —————> <b>track 4</b> transponder ring <b>earth</b> —————> <b>track 2</b> transponder ring fuse box <b>F28 (2 A)</b> —————> <b>track 3</b> transponder ring Repair if necessary.
	Replace the key if necessary.

<b>AFTER REPAIR</b>	Follow the instructions. Deal with any other faults. Clear the fault memory.
---------------------	--

## Fault finding – Interpretation of faults

<p><b>DF069 PRESENT OR STORED</b></p>	<p><u>DECODER CONNECTION ---&gt; RING</u> CC.0: short circuit to earth CC.1: Short circuit to +12V</p>
---	--

<p><b>NOTES</b></p>	<p>Conditions for applying the fault finding procedure to stored faults. The fault is declared present when the ignition is switched on (+ after ignition). <b>Special notes in the event of stacked faults:</b> In the case of stacked fault DF067 ring connection ---&gt; decoder and DF069 decoder connection ---&gt; ring, give priority to fault DF069.</p>
---------------------	--

<p><b>CC.0</b></p>	<p>Check the connection and the condition of the transponder aerial connector. Repair if necessary.</p>
	<p>Check the connection and condition of the UCH P201 40-track connector. Repair if necessary.</p>
	<p>Disconnect the transponder ring connector and ensure that the <b>+12 V</b> supply is correct on <b>track 3</b> of the transponder ring. Repair if necessary.</p>
	<p>Check the continuity and insulation of the connection between:</p> <div style="display: flex; align-items: center; justify-content: center;"> <div style="text-align: center;">fuse box <b>F28 (2 A)</b></div> <div style="margin: 0 10px;">→</div> <div style="text-align: center;"><b>track 3</b> transponder ring</div> </div> <p>Repair if necessary.</p>

<p><b>AFTER REPAIR</b></p>	<p>Follow the instructions. Deal with any other faults. Clear the fault memory.</p>
----------------------------	---



<b>DF069</b> <b>CONTINUED</b>	
----------------------------------	--

CC.1	Check the UCH connectors. Repair if necessary.					
	<p>Check the continuity of the connections:</p> <table><tr><td><b>earth</b></td><td>—————→</td><td><b>track 2</b> transponder ring</td></tr><tr><td>UCH P201 40-track connector <b>track 8</b></td><td>—————→</td><td><b>track 4</b> transponder ring</td></tr></table> <p>Repair if necessary.</p>	<b>earth</b>	—————→	<b>track 2</b> transponder ring	UCH P201 40-track connector <b>track 8</b>	—————→
<b>earth</b>	—————→	<b>track 2</b> transponder ring				
UCH P201 40-track connector <b>track 8</b>	—————→	<b>track 4</b> transponder ring				

<b>AFTER REPAIR</b>	<p>Follow the instructions. Deal with any other faults. Clear the fault memory.</p>
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# IMMOBILISER

## Fault finding – Interpretation of faults

82

<b>DF105 PRESENT OR STORED</b>	<u>IMMOBILISER INDICATOR LIGHT CIRCUIT</u> CC.0: short circuit to earth CC.1: short circuit to +12V
--	---

<b>NOTES</b>	Conditions for applying the fault finding procedure to stored faults. The fault is declared present when the ignition is switched on (+ after ignition).
--------------	---

Check the connection and condition of the instrument panel connector. Repair if necessary.
Check the connection and condition of the UCH P201 40-track connector. Repair if necessary.
Check the continuity and insulation of the connection between: UCH P201 40-track connector <b>track 15</b>  <b>track 5</b> of the 30-track instrument panel connector Repair if necessary.

<b>AFTER REPAIR</b>	Follow the instructions. Deal with any other faults. Clear the fault memory.
---------------------	--

**NOTES**

Only check the conformity after a complete check with the fault finding tool. The values indicated in this conformity check are given as examples.  
Test conditions: **Engine stopped, ignition on.**

Order	Function	Parameter or status Check or action		Display and notes	Fault finding
<b>1</b>	power supply	<b>PR002:</b>	battery voltage	<b>12 V &lt; X &lt; 12.5 V</b>	<b>If there is a problem:</b> carry out a fault finding test on the charge circuit.
		<b>ET154:</b>	+12V present after ignition feed	<b>YES</b>	<b>If there is a fault:</b> refer to the fault finding procedure for status <b>ET154</b> .
<b>2</b>	engine immobiliser	<b>PR065:</b>	number of transponder keys programmed	<b>2 keys</b> on leaving the factory, programming of up to <b>4 keys</b> in After-Sales	<b>None.</b>
		<b>ET103:</b>	key code received	status <b>YES</b> after ignition switched on	<b>If there is a fault:</b> refer to the fault finding procedure for status <b>ET103</b> .
		<b>ET104:</b>	key code valid	status <b>YES</b> after ignition switched on	<b>If there is a fault:</b> refer to the fault finding procedure for status <b>ET104</b> .
		<b>ET153:</b>	immobiliser active	<b>NO</b>	<b>If there is a fault:</b> refer to the fault finding procedure for status <b>ET153</b> .
		<b>ET167:</b>	Engine immobiliser indicator light	<b>OFF</b>	<b>If there is a fault:</b> apply the <b>fault finding procedure</b> for <b>DF105</b> Immobiliser warning light fault.

# IMMOBILISER

## Fault finding – Conformity check

82

### NOTES

Only check the conformity after a complete check with the fault finding tool. The values indicated in this conformity check are given as examples.  
Test conditions: **Engine stopped, ignition on.**

Order	Function	Parameter or status Check or action		Display and notes	Fault finding
3	programming	ET178:	Blank UCH	NO	If the UCH blank status = <b>YES see programming procedure.</b>

### STATE TEST

By checking specific States, it is possible to determine the fault on a vehicle by means of the various pieces of information provided.

**ET154: +12 V after ignition present**

**ET103: key code received**

**ET104: key code valid**

**ET153: immobiliser active**

If ET154 status active  
ET103 status YES  
ET104 status YES  
ET153 status NO

- Check the injection with the tool and check whether the injection computer is locked.
- Check for problems on the multiplex network.

If ET154 status active  
ET103 status YES  
ET104 status NO  
ET153 status NO

- The coded key does not belong to the vehicle.
- If the key does belong to the vehicle, reallocate the keys.
- If the key still does not work, replace the key.

If ET154 status active  
ET103 status NO  
ET104 status NO  
ET153 status NO

- The key is out of service or does not correspond with the type of vehicle.

<b>ET154</b>	<u>+12 V AFTER IGNITION PRESENT</u>
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<b>NOTES</b>	None.
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### **ET154 INACTIVE, ignition on**

Check fuse **F37 (10A)** in the passenger compartment unit.  
With the ignition on, use a multimeter to check for the presence of +12 V at fuse holder **F37**.  
Repair if necessary.

With the ignition on, use a multimeter to check for +12 V on **track 33** of the UCH P201 40-track connector.  
If the voltage is present, replace the UCH.

If there is no voltage, check the continuity and insulation against earth between **track 33 of the UCH P201 40-track connector and the 10A fuse of the passenger compartment fuse box**.  
Repair if necessary.

### **ET154 ACTIVE, ignition off**

With the ignition off, use a multimeter to check that there is no +12 V on passenger compartment fuse holder **F37**.  
Repair if necessary.

If the voltage is absent, replace the UCH.

<b>AFTER REPAIR</b>	Carry out another fault finding check on the system. Deal with any other faults. Clear the stored faults.
---------------------	---

<b>ET103</b>	<u>KEY CODE RECEIVED</u>
--------------	--------------------------

<b>NOTES</b>	<p>Ensure there are no present or stored faults. The status will be displayed "YES" when the ignition is switched on (+ after ignition) with a valid key. If the state remains NO, try another key assigned to the vehicle before performing any operation.</p>
--------------	---

<b>ET103 NO: ignition on and key belonging to the vehicle</b>
---

Check that status ET154 "+12 V after ignition present" is active with the ignition on.
Remove any metal objects from the key-ring and try again.
Switch on the ignition with the key of another vehicle, changing the key inserts. If the KEY CODE RECEIVED state changes to YES, replace the vehicle key. If the KEY CODE RECEIVED state remains NO, replace the transponder aerial.
If the problem persists, replace the UCH.

<b>AFTER REPAIR</b>	<p>Carry out another fault finding check on the system. Deal with any other faults. Clear the stored faults.</p>
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<b>ET104</b>	<u>KEY CODE VALID</u>
--------------	-----------------------

<b>NOTES</b>	The status will be displayed "YES" when the ignition is switched on (+ after ignition) with a key from the vehicle. If the state remains NO, try another key assigned to the vehicle before performing any operation.
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<b>ET104: NO despite presence of ignition and a key belonging to the vehicle</b>
--

Check that status ET154 "+12 V after ignition present" is active with the ignition on.
Reallocate the keys with the After-Sales code. If the problem persists, replace the whole set of vehicle keys.

<b>AFTER REPAIR</b>	Carry out another fault finding check on the system. Deal with any other faults. Clear the stored faults.
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<b>ET153</b>	<u>ENGINE IMMOBILISER ACTIVE</u>
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<b>NOTES</b>	<p>The immobiliser active State should change to <b>inactive</b> when the + after ignition is switched on.</p> <p>The immobiliser State should be <b>active</b> when the key is absent from the ignition switch.</p>
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<b>ET153 ACTIVE despite the presence of a key in the ignition switch and + after ignition</b>
---

<p>Check there is no fault before dealing with this State.</p>
<p>Check that status <b>ET154 "+ 12 V after ignition"</b> really is <b>ACTIVE</b> with the ignition on.</p> <p>Deal with State <b>ET154</b> if it is <b>INACTIVE</b> with the ignition on.</p>
<p>Verify state <b>ET103 "key code received"</b> and state <b>ET104 "key code valid"</b> with ignition on.</p> <p>If statuses <b>ET103</b> and <b>ET104</b> are <b>YES</b>, carry out a fault finding procedure on the injection computer.</p> <p>If status <b>ET103</b> is <b>NO</b>, deal with this status first.</p> <p>If status <b>ET103</b> is <b>YES</b> and status <b>ET104</b> is <b>NO</b>, deal with <b>ET104</b> first.</p>

<b>AFTER REPAIR</b>	<p>Carry out another fault finding check on the system.</p> <p>Deal with any other faults.</p> <p>Clear the stored faults.</p>
---------------------	--

# IMMOBILISER

## Fault finding – Customer complaints

82

### NOTES

This customer complaint should only be investigated after a complete check has been run using the diagnostic tool.

NO DIALOGUE WITH THE UCH

ALP 1

THE STARTER MOTOR DOES NOT OPERATE

ALP 2

# IMMOBILISER

## Fault finding – Fault Finding Chart

82

ALP 1	NO COMMUNICATION WITH THE UCH
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NOTES	None.
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Try the diagnostic tool on another vehicle.
Check: <ul style="list-style-type: none"><li>– the connection between the diagnostic tool and the diagnostic socket (lead in good condition),</li><li>– The engine compartment and passenger compartment fuses.</li></ul>
Check the presence of <b>+ 12 volts before ignition</b> on <b>track 16</b> , <b>+ 12 volts after ignition</b> on <b>track 1</b> and an <b>earth</b> on <b>tracks 4 and 5</b> of the diagnostic socket. Repair if necessary.
Connect the bornier and check the <b>insulation, continuity and absence of interference resistance of the connections</b> :  UCH P201 40-track connector <b>track 7</b> —————> fuse box UCH P201 40-track connector <b>track 33</b> —————> <b>+ after ignition</b> UCH P202 15-track connector <b>track B6</b> —————> <b>earth</b> UCH P201 40-track connector <b>track 18</b> —————> <b>track 7</b> of the diagnostic socket (line K)  Repair if necessary.

AFTER REPAIR	Check using the diagnostic tool.
--------------	----------------------------------

# IMMOBILISER

## Fault finding – Fault Finding Chart

82

ALP2	THE STARTER DOES NOT RUN
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NOTES	Only consult this customer complaint after a complete check using the diagnostic tool. Check the bulbs.
-------	--

Check fuse <b>F37 (10A)</b> for the UCH supply. Replace it if necessary.
Check the connection and condition of the P201 40-trackUCH connector. Repair if necessary.
Check the connection and condition of the connector of the starter relay located beneath the engine compartment. Repair if necessary.
Check the insulation to +12 V of the connection: UCH P201 40-track connector <b>track 14</b> —————> <b>track 2</b> starter relay Repair if necessary.
Ensure the continuity and insulation of the connections between: immobiliser switch <b>track 6</b> —————> <b>track 3</b> starter relay starter relay <b>track 5</b> —————> <b>starter</b> Repair if necessary.

AFTER REPAIR	Check using the diagnostic tool.
--------------	----------------------------------

### FAULT FINDING - INTRODUCTION

#### Integrated Self-test:

The Clio II instrument panel is fitted with an on-board self-diagnostic sequence. This makes it possible to visually test the various indicators and warning lights controlled by the system inside the instrument panel.

Activation of all sectors of the automatic transmission display.

Activation of all segments of the mileometer and on-board computer (ADAC) display.

Activation of all the needle indicators.

Activation of all the warning lights controlled by the microprocessor.

Activation of the internal audible warning on the instrument panel.

- For models **without a trip computer**, fault finding mode is obtained by pressing the reset button of the odometer for 5 seconds under + after ignition.
- For versions **with a trip computer (ADAC)**, fault finding mode is obtained by pressing the ADAC sequence button when switching on + after ignition.

#### IMPORTANT:

It is essential to carry out an instrument panel self-test to check that the indicators and warning lights are operating correctly.

The computer-controlled warning lights covered by the self-test are: opening element status / coolant temperature injection level 2 / airbag / airbag off / de-icing / fuel level low / injection level 1 / preheating / emission control / automatic gearbox fault / STOP / SERVICE / cruise control / tyre pressure monitor / ABS system / electronic stability program / LPG.

The dual-coloured warning lights (amber/green) light up at the same time during the self-test; this results in an abnormal warning light colour (speed limiter control warning light, LPG warning light).

Failure of any of the warning lights requires replacement of the instrument panel.

## FAULT FINDING - INTRODUCTION

**IMPORTANT:**

Warning lights which are controlled via a wire link (conventional control by means of a wire connecting the warning light to the computer) are not tested by the instrument panel.

In order to test these, use a diagnostic tool (CLIP or NXR) and use the "test fault warning light" command mode of the computer controlling the warning light to be checked.

**FAULT FINDING****Special notes:**

The Clio II instrument panel controls part of its display by means of information collected via the multiplex network. This information is listed by transmitting computer in each column and by receiving warning light on each line in the **table in appendix No. 1**.

The indicator and warning lights which are not shown in this table are dealt with in the **fault finding charts 9 to 33** (wiring fault finding information).

A multiplex network fault may be shown by several statuses:

- 1 The loss of a message from a computer due to a breakdown of the multiplex network between the node point (intersection of the network between all the computers) and the transmitter computer, or an internal failure of the transmitter computer.  
This will result in the loss of several indicator lights and cause several warning lights to illuminate (**see table in Appendix No. 2**).
- 2 The loss of a large part of the signals of the instrument panel conducted via the multiplex network, due to a breakdown of the multiplex network between the node point and the instrument panel (receiver) or an internal failure of the instrument panel. (**ALP 8**)
- 3 The loss of all of the data transmitted via the multiplex network due to a short circuit of the network, manifested by a substantial instance of defect mode operation by all the computers connected to the networks.  
For an electrical conformity check on the multiplex network, refer to the section concerned.

### FAULT FINDING - INTRODUCTION

#### Instrument panel configuration

- When the instrument panel is replaced it is configured automatically once the ignition is switched on. The UCH sends to the instrument panel the configuration stored in its memory from the previous instrument panel.

If the instrument panel is not configured, an "instrument panel not configured" fault (DF130) will appear on the UCH.

- 1) In the event of a replacement of the instrument panel and the UCH at the same time, it will be necessary to take appropriate action using a diagnostic tool.

#### **METHOD: Ignition off**

- Connect the diagnostic tool and establish dialogue with the UCH **without switching on the ignition**.
- Carry out configuration of the UCH (CF719).
- Switch the ignition on and off to enter the new parameters.

### FAULT FINDING - INTRODUCTION

- 2) In the event of an alteration to the configuration of the instrument panel, it will be necessary to take appropriate action using a diagnostic tool.

#### METHOD: Ignition off

- Disconnect the battery for at least 1 minute, then reconnect it.
- Connect the diagnostic tool and establish dialogue with the UCH **without switching on the ignition**.
- Carry out configuration of the UCH (CF719).
- Switch the ignition on and off to enter the new parameters.

Instrument panel parameters which can be configured are:

- Engine type: petrol or diesel
- Presence or absence of LPG
- Traction control present or absent
- Tyre pressure monitor present or absent
- Clock present or absent
- Speed information generator (ABS system or sensor on the gearbox)

Configuration is carried out using a network diagnostic tool (Clip or NXR). The tool is connected to the UCH on line K and transmits the instrument panel configuration frame by means of the multiplex network.

To configure the instrument panel, access the configuration command mode via the diagnostic tool.



### FAULT FINDING - INTERPRETATION OF FAULTS

Warning lights:	
Doors open	warning lights no. 1
Coolant temperature + injection level 2 fault	warning lights no. 2
Airbag	warning lights no. 3
Airbag deactivated	warning lights no. 4
Heated rear screen	warning lights no. 5
Low fuel level	warning lights no. 6
Preheating + injection criticality 1	warning lights no. 7
Pollution control	warning lights no. 8
Automatic gearbox fault	warning lights no. 9
STOP	warning lights no. 10
SERVICE	warning lights no. 11
Cruise control	warning lights no. 12
Tyre pressure monitor	warning lights no. 13
Traction control system	warning lights no. 14
Liquified petroleum gas (LPG)	warning lights no. 15

Indicators	
Vehicle speed	indicators no. 1
Rev counter	indicators no. 2
Coolant temperature	indicators no. 3
On-board computer test mode (ADAC)	indicators no. 4
Automatic gearbox ratio engaged	indicators no. 5
Gauge information (LPG)	indicators no. 6

**FAULT FINDING - INTERPRETATION OF FAULTS**

Multiplex computer	
Liquified petroleum gas (LPG)	LPG
DPO automatic gearbox	DPO
Sequential gearbox	Automatic gearbox
Airbag	Airbag
UCH	Passenger Compartment Unit
Carminat navigation aid system	Carminat
Traction control system	ESP
Instrument panel	Instrument panel

### FAULT FINDING - INTERPRETATION OF FAULTS

Multiplex network fault finding

Generators/receivers of information used by the instrument panel:

Appendix no. 1	Injection engine												
Multiplex computer >	F4R	D4F	K9K	F9Q	K4(M/J)	LPG	DP0	Automatic gearbox	Airbag	Passenger Compartment Unit	Carminat	ESP	Instrument panel
warning lights no. 1								2		1			2
warning lights no. 2	1	1	1	1	1								2
warning lights no. 3									1				2
warning lights no. 4									1				2
warning lights no. 5										1			2
warning lights no. 6						1							2
warning lights no. 7	1	1	1	1	1								2
warning lights no. 8	1	1	1	1	1								2
warning lights no. 9							1	1		2			2
warning lights no. 10													2
warning lights no. 11													2
warning lights no. 12	1	1	1	1	1								2
warning lights no. 13											2		2
warning lights no. 14												1	2
warning lights no. 15		2				1							2
indicators no. 1	2	2	2	2	2				2	2	2		1
indicators no. 2	1	1	1	1	1	2	2	2				2	2
indicators no. 3	1	1	1	1	1	2	2	2					2
indicators no. 4	1	1	1	1	1								2
indicators no. 5							1	1		2			2
indicators no. 6						1							2

(1) Transmitter computer

(2) Receiver computer

#### IMPORTANT:

In the event of a failure of an **indicator or warning light** on the instrument panel, consideration should be given to whether the data has been correctly transmitted on the multiplex network as it is transmitted along with several items of data in one message (frame).

Therefore, either the indicator on the instrument panel is faulty, or the message is wrong.

- The message may be incorrect because of faulty interpretation of the transmitter computer (e.g.: faulty coolant temperature sensor) or an internal fault in the transmitter computer.
- Using table no. 1, isolate the computer transmitting the data and carry out an initial **complete fault finding procedure** on this computer before carrying out any work on the instrument panel.

### FAULT FINDING - INTERPRETATION OF FAULTS

Warning lights	
Opening element status	warning lights no. 1
Coolant temperature + injection level 2 fault	warning lights no. 2
Airbag	warning lights no. 3
Airbag deactivated	warning lights no. 4
Heated rear screen	warning lights no. 5
Fuel low level	warning lights no. 6
Preheating + injection criticality 1	warning lights no. 7
Pollution control	warning lights no. 8
Automatic gearbox fault	warning lights no. 9
STOP	warning lights no. 10
SERVICE	warning lights no. 11
Cruise control	warning lights no. 12
Tyre pressure monitor	warning lights no. 13
Traction control system	warning lights no. 14
Liquified petroleum gas (LPG)	warning lights no. 15

Indicators	
Vehicle speed	indicators no. 1
Rev counter	indicators no. 2
Coolant temperature	indicators no. 3
On-board computer test mode (ADAC)	indicators no. 4
Automatic gearbox ratio engaged	indicators no. 5
Gauge information (LPG)	indicators no. 6

**FAULT FINDING - INTERPRETATION OF FAULTS**

Multiplex computer	
Liquified petroleum gas (LPG)	LPG
DPO automatic gearbox	DPO
Sequential gearbox	Automatic gearbox
Airbag	Airbag
UCH	Passenger Compartment Unit
Carminat navigation aid system	Carminat
Traction control system	ESP
Instrument panel	Instrument panel

## FAULT FINDING - INTERPRETATION OF FAULTS

Defect mode and lighting of warning lights when there is loss of communication with the transmitting computer:

Appendix no. 2	Injection engine										
Transmitting computer>	F4R	D4F	K9K	F9Q	K4M	LPG	DP0	Automatic gearbox	Airbag	Passenger Compartment Unit	ESP
<b>ALP &gt;</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
<b>Warning lights</b>											
Warning lights no. 1										2	
Warning lights no. 2	2	2	2	2	2						
Warning lights no. 3									1		
Warning lights no. 4									2		
Warning lights no. 5										2	
Warning lights no. 6											
Warning lights no. 7	3	3	3	3	3						
Warning lights no. 9	2	2	2	2	2						
Warning lights no. 10							1	1			
Warning lights no. 11	2	2	2	2	2						
Warning lights no. 12									1		
Warning lights no. 13	2	2	2	2	2						
Warning lights no. 14											
Warning lights no. 15	1	1	1	1	1						1
Warning lights no. 16		2				1					
<b>Indicators</b>											
Indicators no. 2	0	0	0	0	0						
Indicators no. 3	0	0	0	0	0						
Indicators no. 4	t-d	t-d	t-d	t-d	t-d						
Indicators no. 5							2	2			

(0) indicator not functioning  
ignition feed

(1) warning light on

(2) warning light off

(3) lit for 3 seconds with + after

**IMPORTANT:**

**Loss of a message** is often shown by the failure of **several indicators** and some computers, which require the missing data for their operation, go into defect mode.

Check the multiplex network using a diagnostic tool (NXR or CLIP) or isolate the transmitting computer by referring to appendix no. 2.

To do this, draw up a list of the faulty indicators on the instrument panel and refer to the relevant fault finding chart shown in the column.

- A loss of the multiplex connection between the network node and the instrument panel will be interpreted by all the indicators and warning lights as operation in defect mode (combination of all the columns of Table no. 2), see **ALP 8**.

### FAULT FINDING - CUSTOMER COMPLAINTS

Finding faults on warning lights and indicators controlled by the multiplex network:

ALP 1	Coolant temperature gauge and / or rev counter at zero
	<b>Message from: injection computer</b>
ALP 2	No LPG fuel gauge display and / or LPG warning light on
	<b>Message transmitted by: LPG computer</b>
ALP 3	Ratio engaged indicator not operational and / or automatic gearbox fault warning light on
	<b>Message transmitted by: Automatic transmission computer</b>
ALP 4	Ratio engaged indicator not operational and / or sequential gearbox fault warning light on
	<b>Message transmitted by: sequential gearbox computer</b>
ALP 5	Airbag and service fault warning light on
	<b>Message from: airbag computer</b>
ALP 6	Door status indicator and / or de-icing indicator does not light up
	<b>Message transmitted by: UCH</b>
ALP 7	ESP fault warning light on and service warning light off 4 seconds after switching on the ignition
	<b>Message transmitted by: ESP computer</b>
ALP 8	ESP / SERVICE / airbag / automatic gearbox (if present) / LPG (if present) warning light, coolant temperature and rev counter indicator at zero

**FAULT FINDING - CUSTOMER COMPLAINTS**

**Fault finding on warning lights and indicators controlled by wire connection:**

<b>ALP 9</b>	Speedometer faulty or inconsistent (signal supplied by the ABS)
<b>ALP 10</b>	Faulty or inconsistent speedometer, information provided by the speed sensor on the box (F4R only)
<b>ALP 11</b>	The fuel level indicator does not display full
<b>ALP 12</b>	Added fuel not taken into account (excluding full tank)
<b>ALP 13</b>	Indicator locked during driving (excluding mechanical)
<b>ALP 14</b>	Fault without warning light illuminated (without fuel added since the fault)
<b>ALP 15</b>	Fault without warning light illuminated (with fuel added since the fault)



# INSTRUMENT PANEL

## Multiplex instrument panel

**83**

### FAULT FINDING - CUSTOMER COMPLAINTS

<b>ALP 16</b>	Fault with late warning
<b>ALP 17</b>	Oil level indication absent or incorrect and SERVICE warning light on
<b>ALP 18</b>	Battery charge and stop warning lights stay on
<b>ALP 19</b>	Immobiliser warning light stays on
<b>ALP 20</b>	Immobiliser warning light remains off
<b>ALP 21</b>	Oil pressure and stop warning lights come on at the same time
<b>ALP 22</b>	Power-assisted steering (PAS) warning light stays on
<b>ALP 23</b>	Power-assisted steering (PAS) warning light stays off
<b>ALP 24</b>	ABS warning light remains lit
<b>ALP 25</b>	ABS warning light remains off

**FAULT FINDING - CUSTOMER COMPLAINTS**

<b>ALP 26</b>	Indicator and indicator warning light stay on
<b>ALP 27</b>	Main beam headlight warning light stays on or off
<b>ALP 28</b>	Dipped beam headlight warning light stays on or off
<b>ALP 29</b>	Front fog lights warning light stays on or off
<b>ALP 30</b>	Rear fog lights warning light stays on or off
<b>ALP 31</b>	Safety belt warning light stays on
<b>ALP 32</b>	Parking brake warning light stays on with no illumination of STOP warning light

# INSTRUMENT PANEL

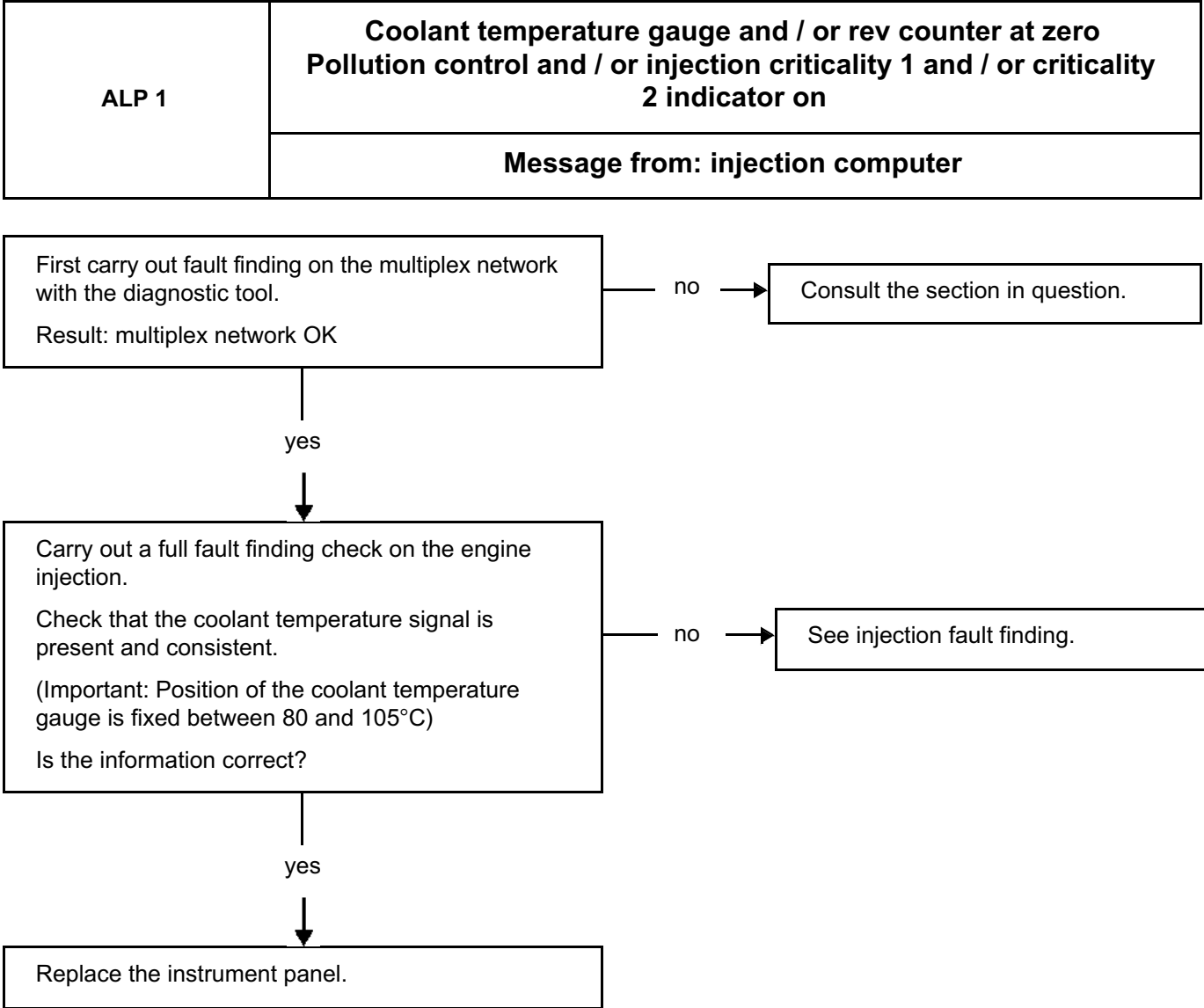
Multiplex instrument panel

83

FAULT FINDING - CUSTOMER COMPLAINTS

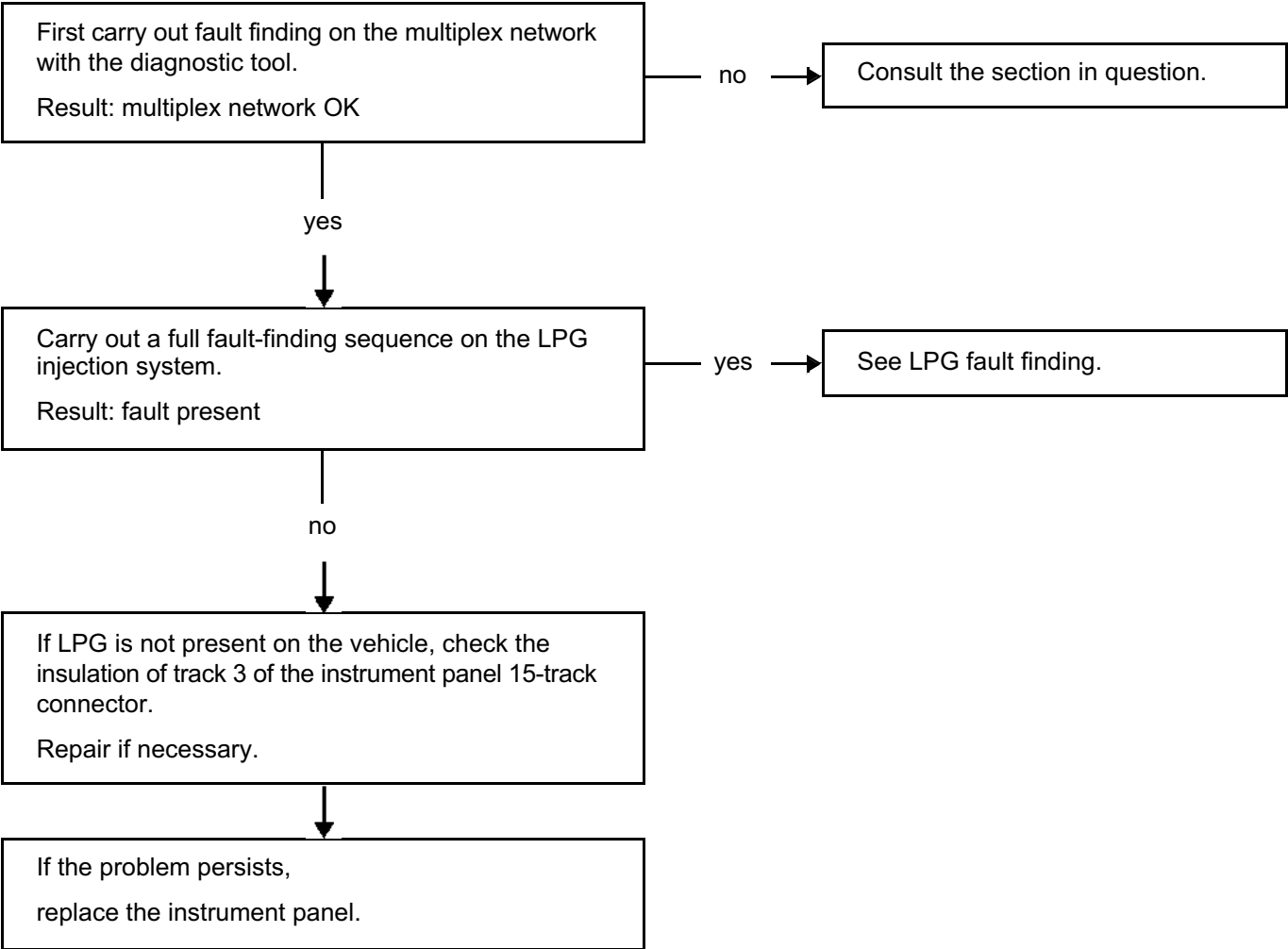
ALP 33	Brake and stop warning lights on
ALP 34	The SERVICE warning light remains lit
ALP 35	The instrument panel does not function
ALP 36	ADAC and trip meter reset to zero every time the ignition is switched off

**FAULT FINDING - FAULT FINDING CHART**



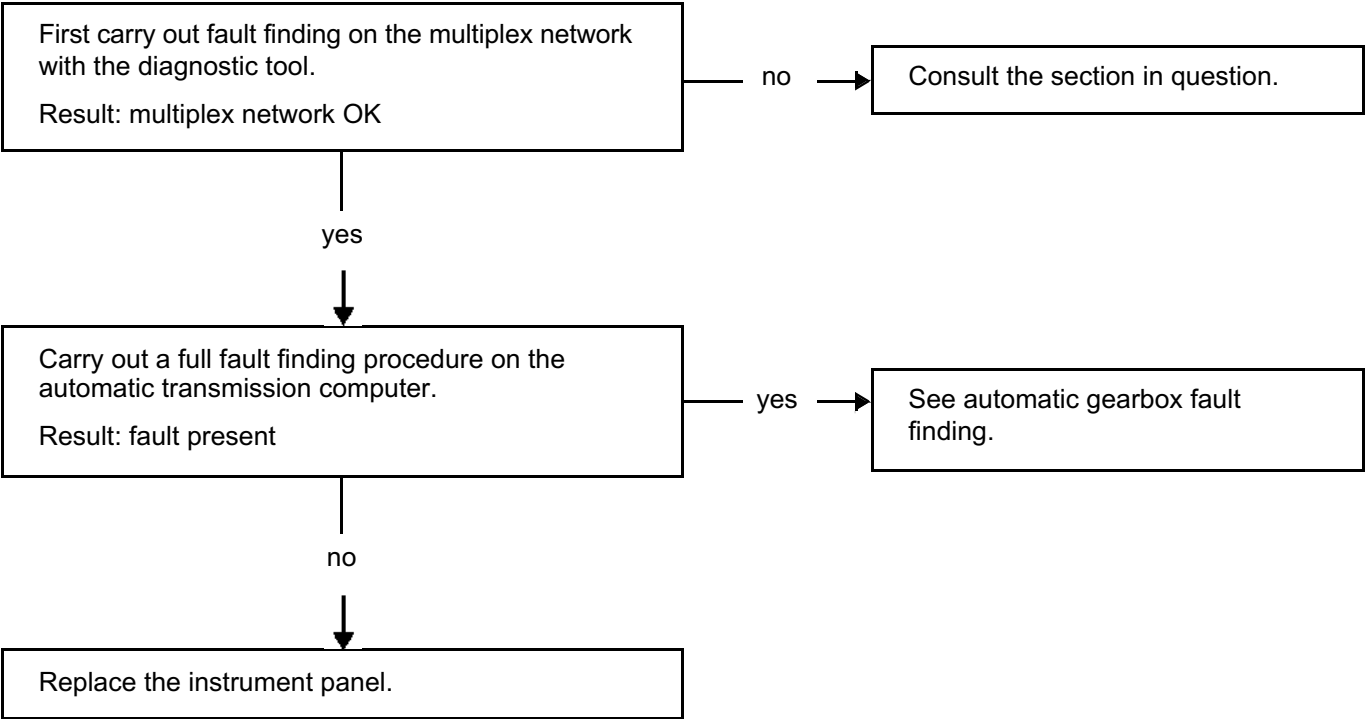
**FAULT FINDING - FAULT FINDING CHART**

<b>ALP 2</b>	<b>No LPG fuel gauge display and / or LPG warning light on</b>
	<b>Message transmitted by: LPG computer</b>



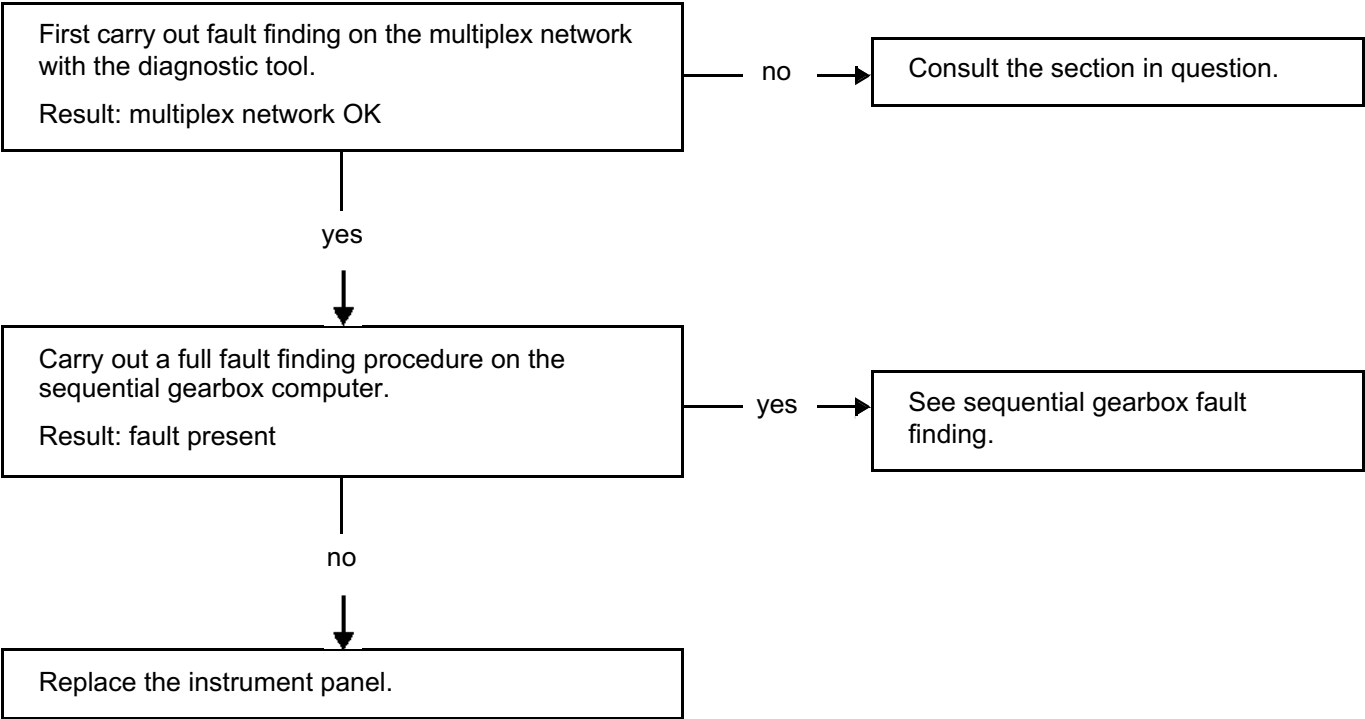
**FAULT FINDING - FAULT FINDING CHART**

ALP 3	<b>Ratio engaged indicator not operational and / or automatic gearbox fault warning light on</b>
	<b>Message transmitted by: automatic gearbox computer</b>



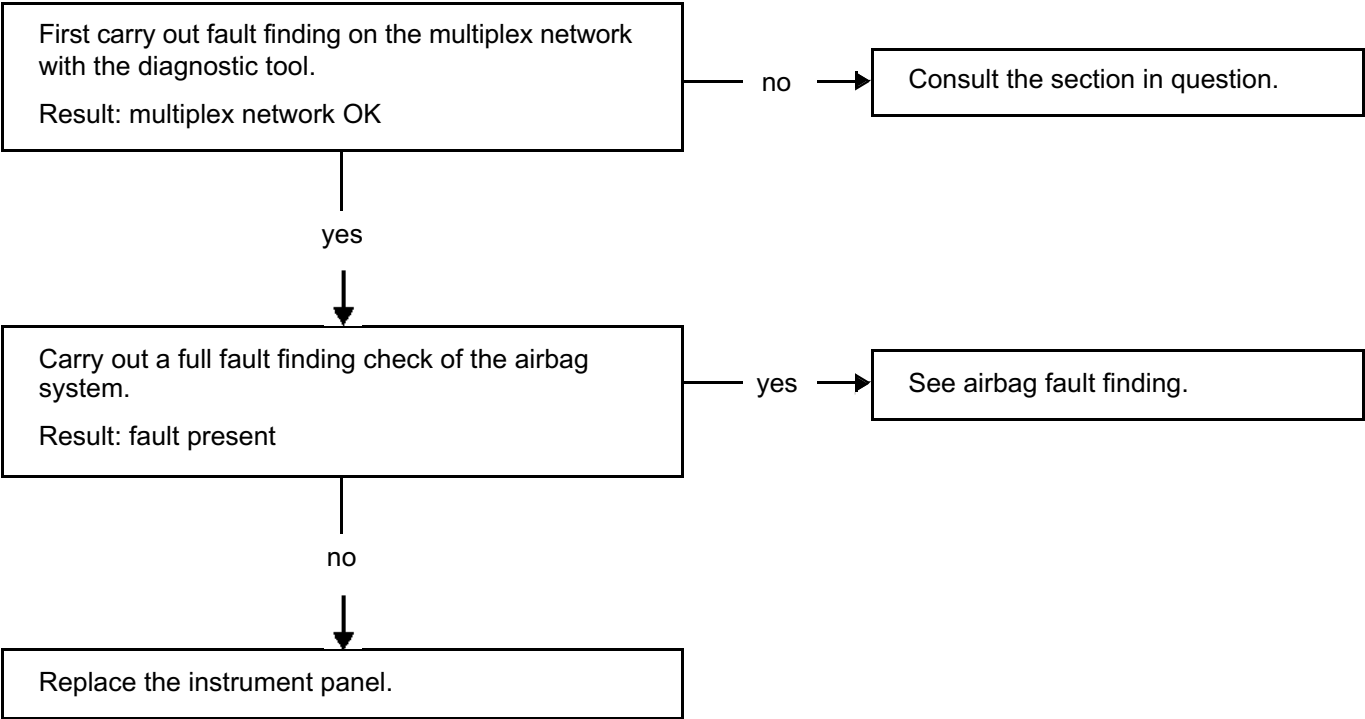
**FAULT FINDING - FAULT FINDING CHART**

ALP 4	Ratio engaged indicator not operational and / or sequential gearbox fault warning light on
	Message transmitted by: sequential gearbox computer



**FAULT FINDING - FAULT FINDING CHART**

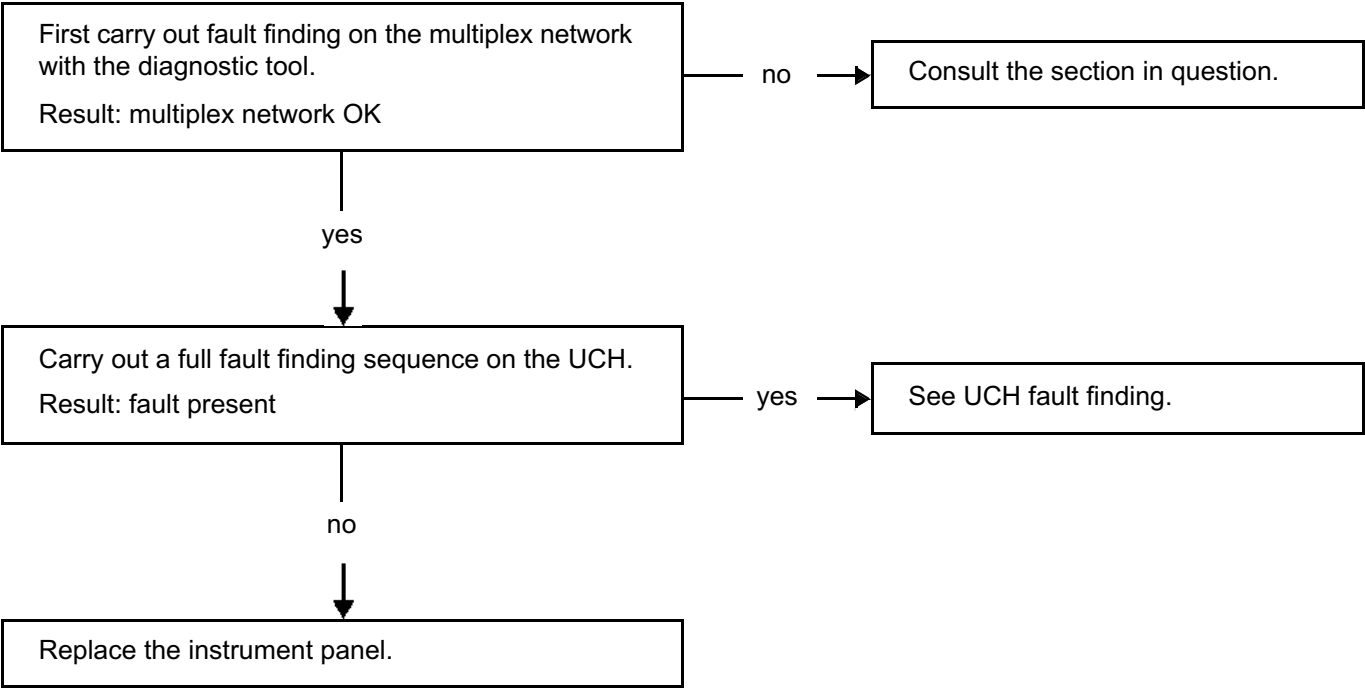
ALP 5	Airbag and service fault warning light on
	Message from: airbag computer





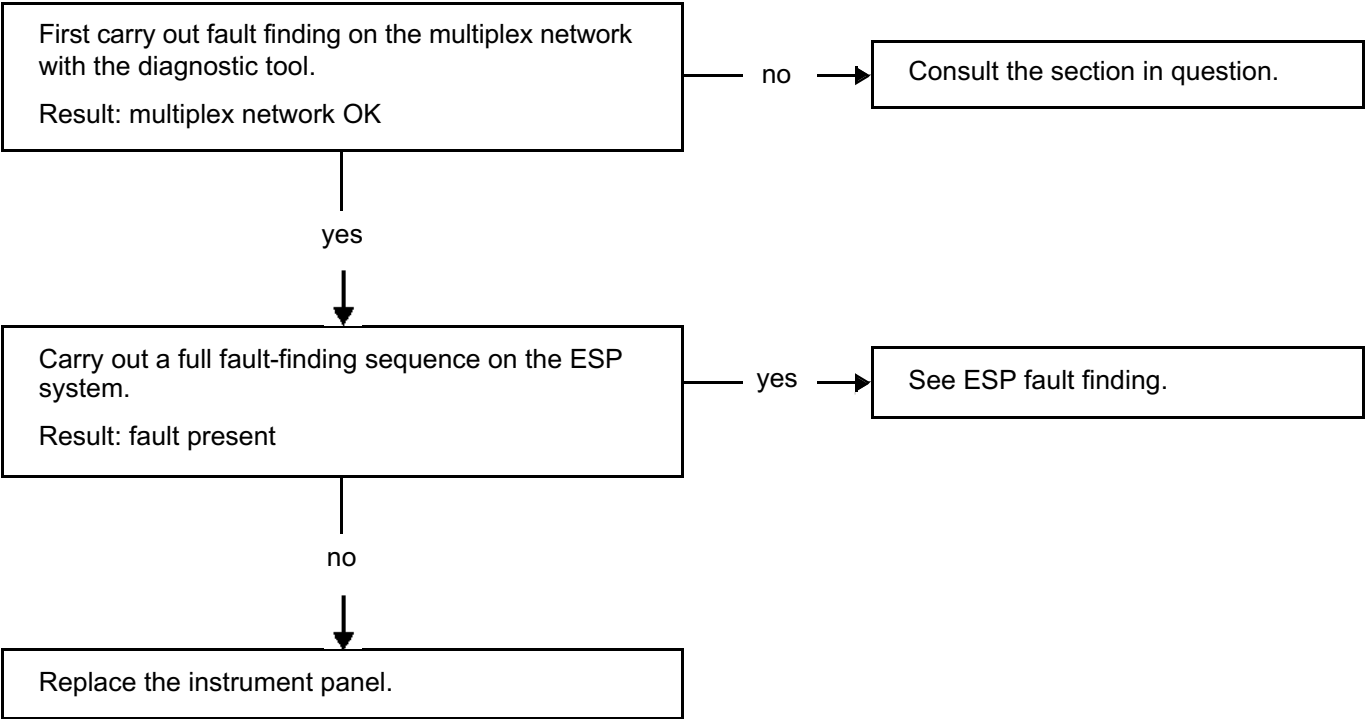
**FAULT FINDING - FAULT FINDING CHART**

<b>ALP 6</b>	<b>Door status indicator and / or de-icing indicator does not light up</b>
	<b>Message from: UCH</b>



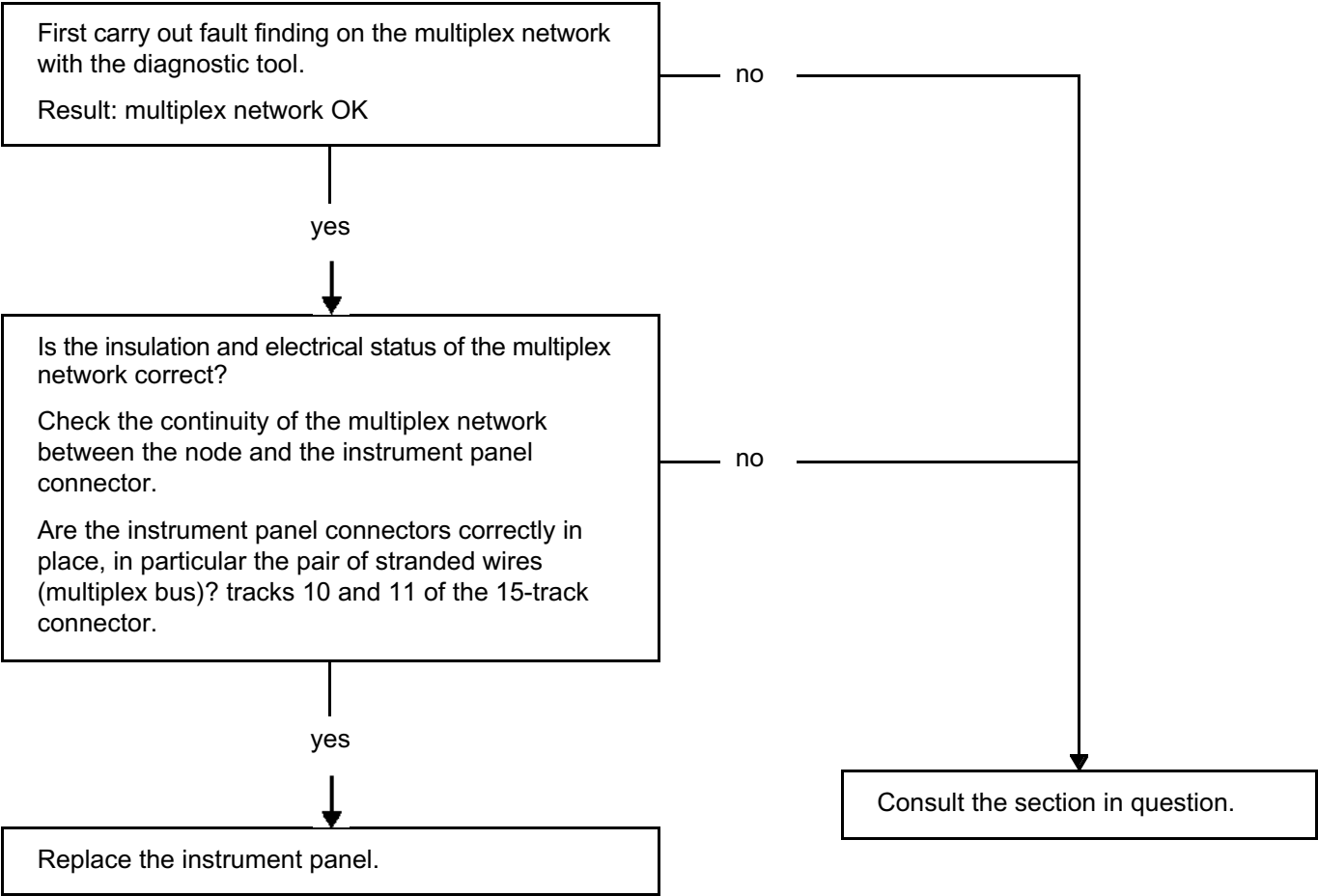
**FAULT FINDING - FAULT FINDING CHART**

ALP 7	<b>ESP fault warning light on and service warning light off 4 seconds after switching on the ignition</b>
	<b>Message transmitted by: Trajectory correction system</b>

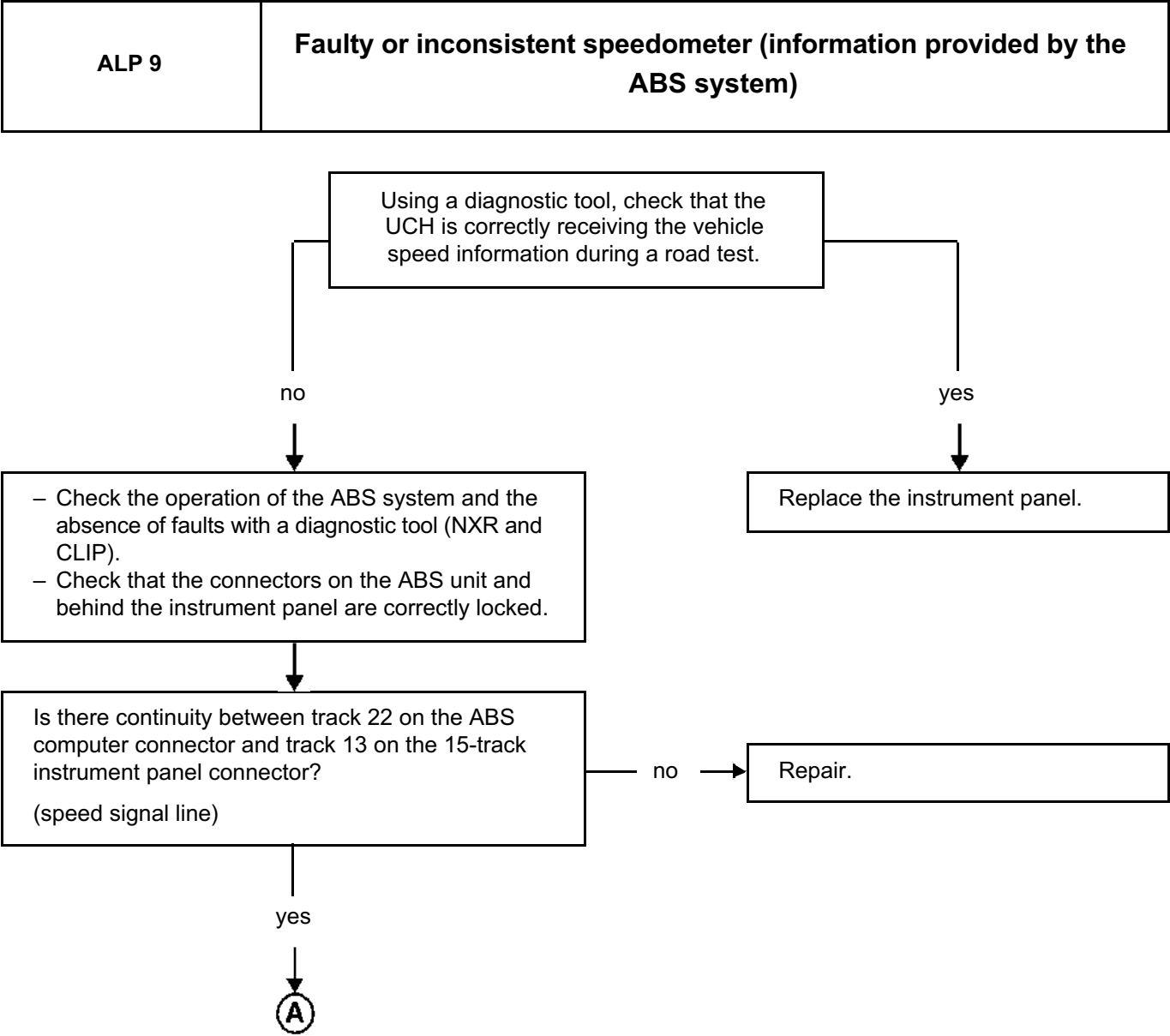


**FAULT FINDING - FAULT FINDING CHART**

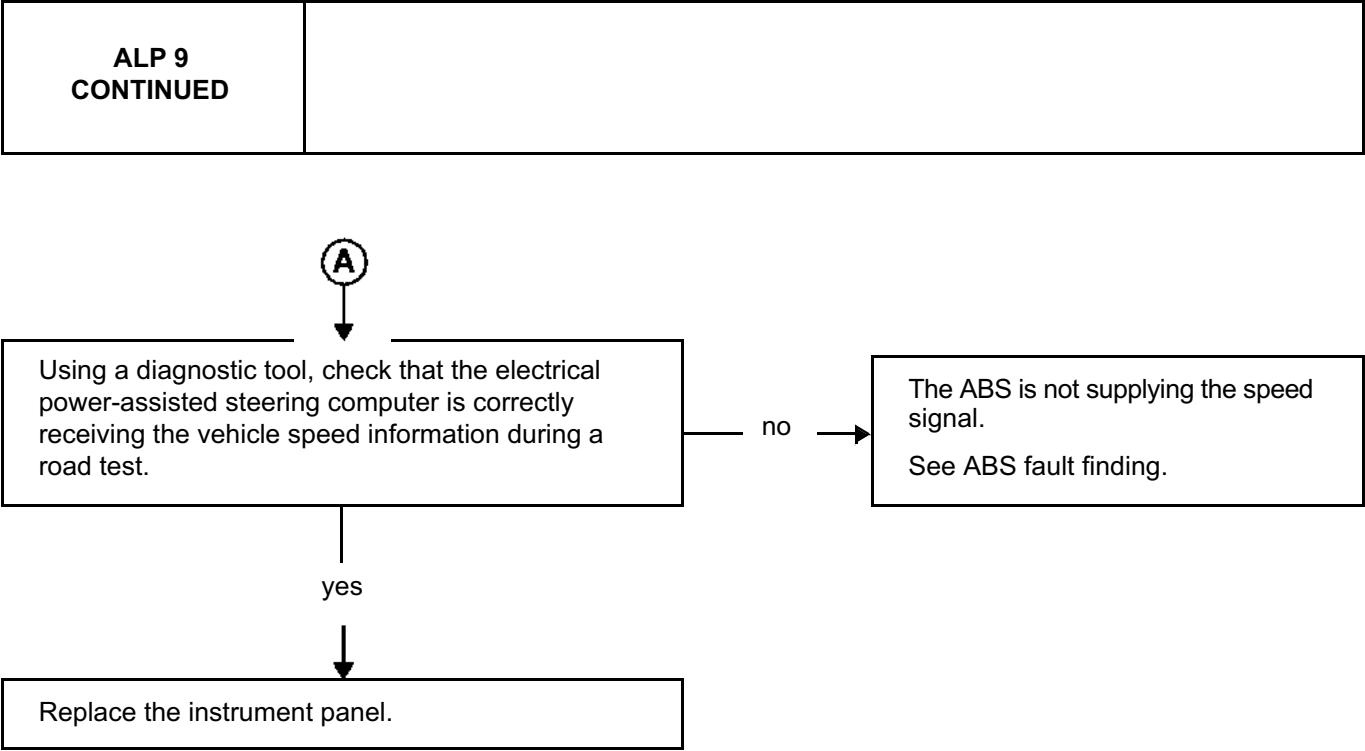
<b>ALP 8</b>	<b>ESP / SERVICE / air bag / automatic gearbox (if present) / LPG (if present) injection criticality 1 / injection criticality 2 / antipollution indicator lit</b>  <b>Coolant temperature gauge and rev counter at zero</b>
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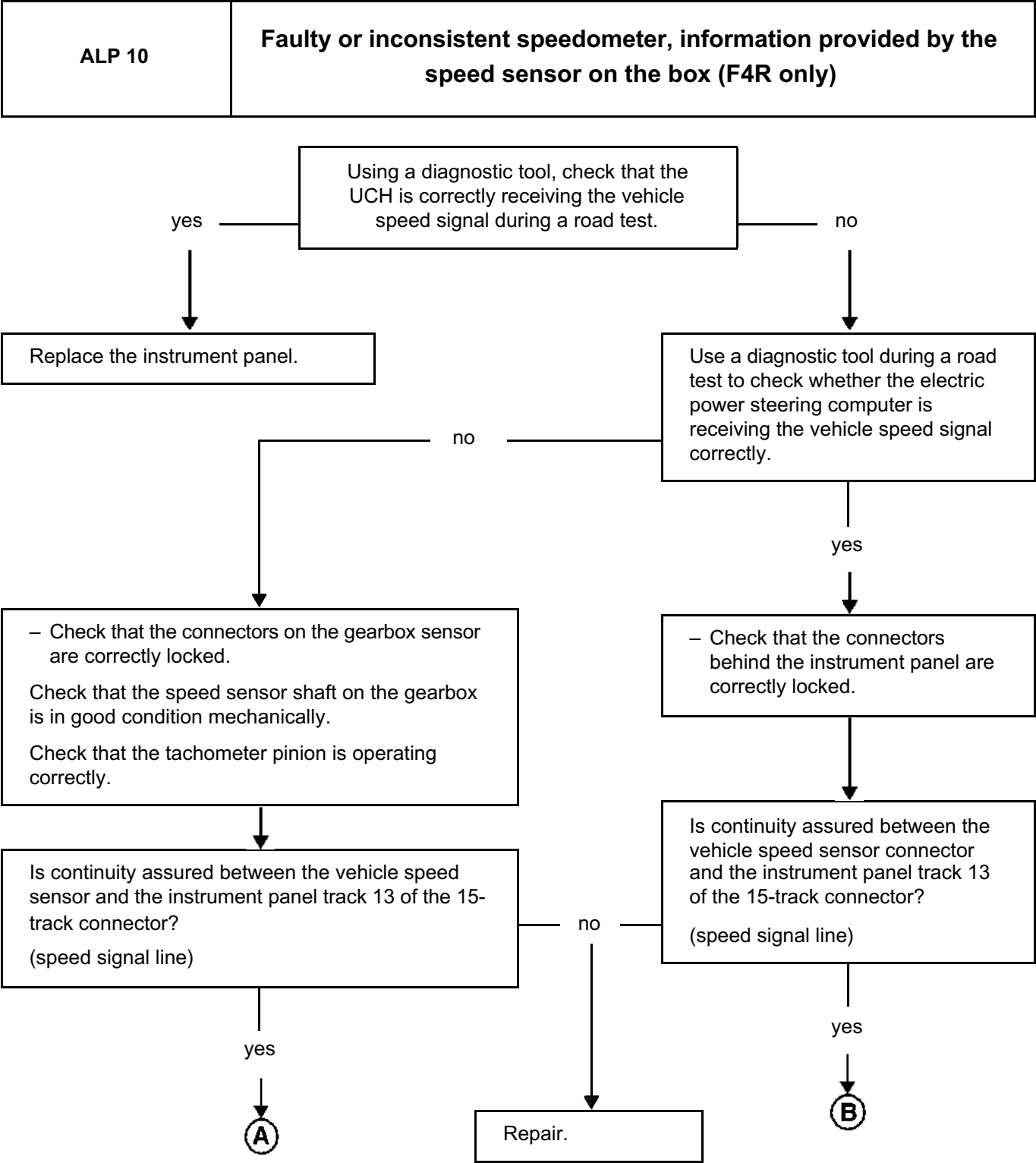
**FAULT FINDING - FAULT FINDING CHART**



FAULT FINDING - FAULT FINDING CHART

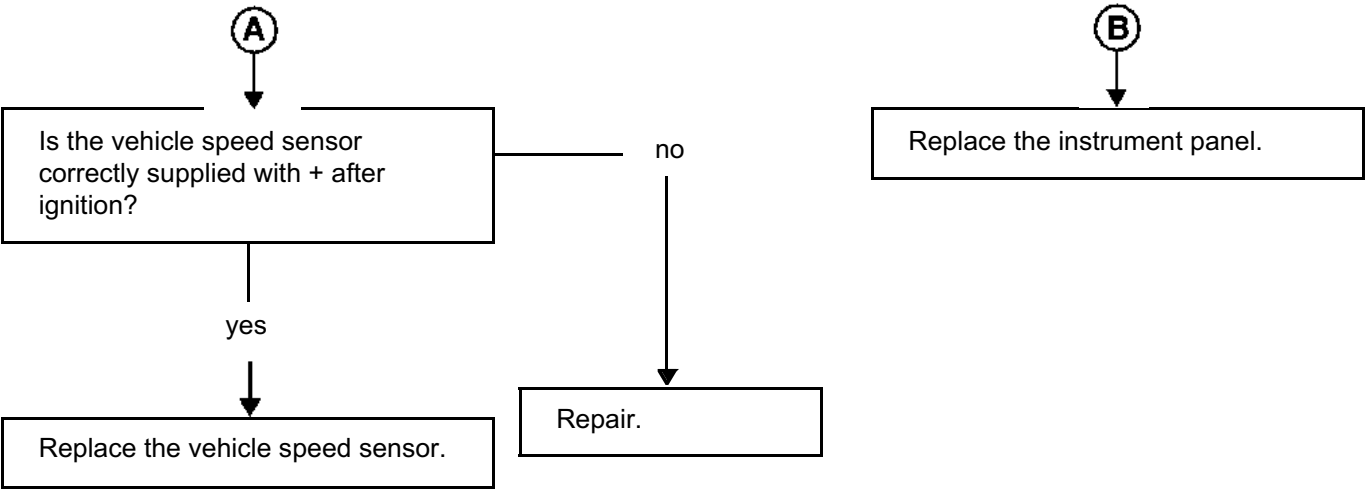


**FAULT FINDING - FAULT FINDING CHART**



FAULT FINDING - FAULT FINDING CHART

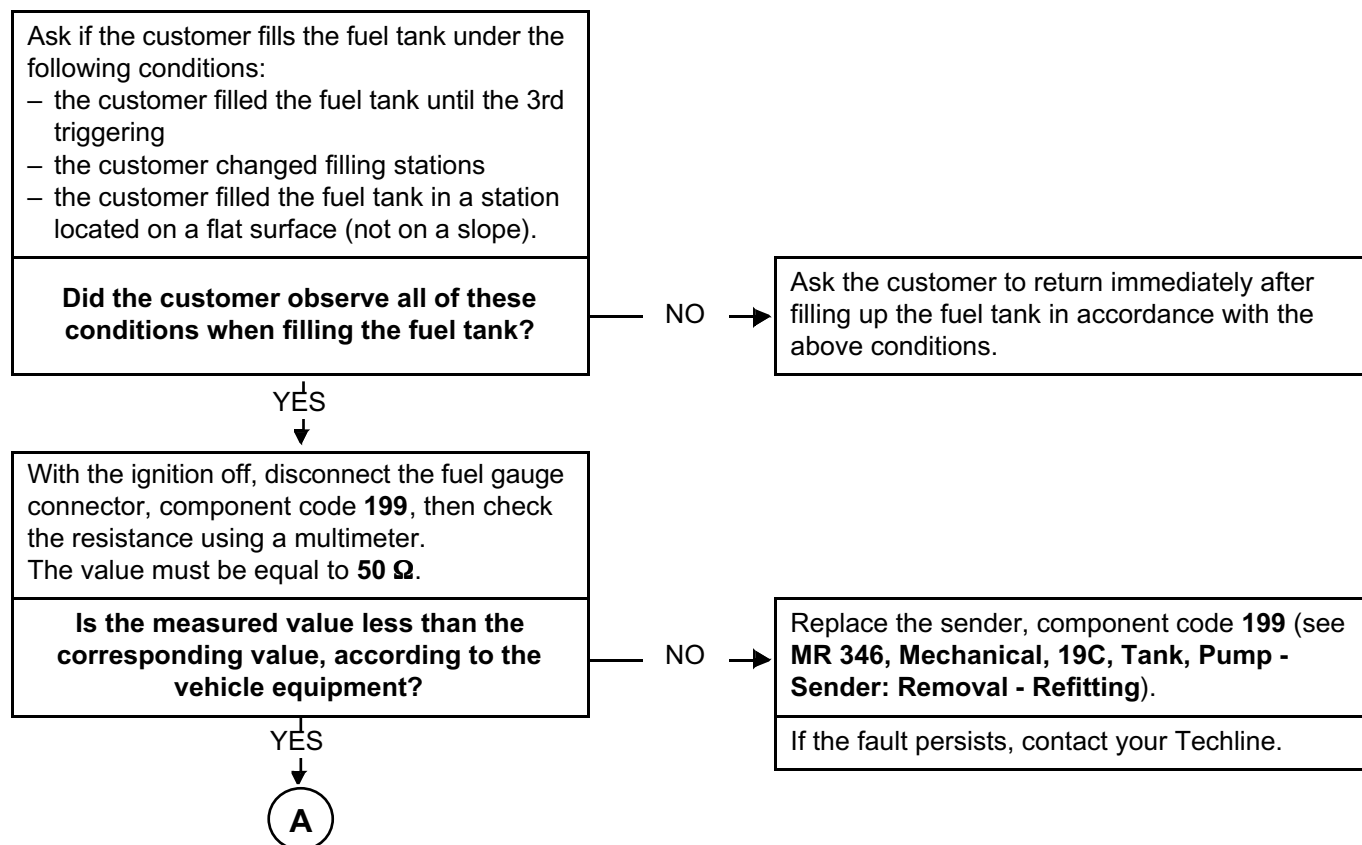
ALP 10 CONTINUED	
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### FAULT FINDING - FAULT FINDING CHART

ALP 11	The fuel level indicator does not display full
--------	--

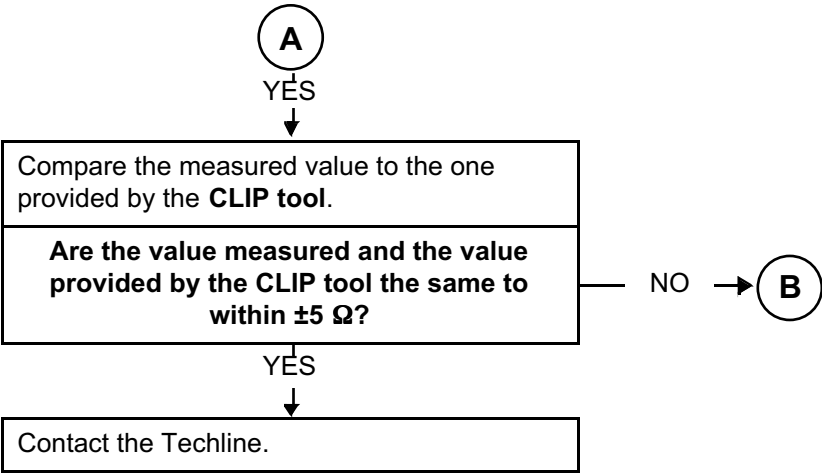
NOTES	Fuel must be topped up with the vehicle ignition off (advise the customer to remove the key).
	Ideally, the customer must fill with at least <b>15 l</b> .
	See <b>wiring diagram Technical Note, CLIO II ph 3</b>



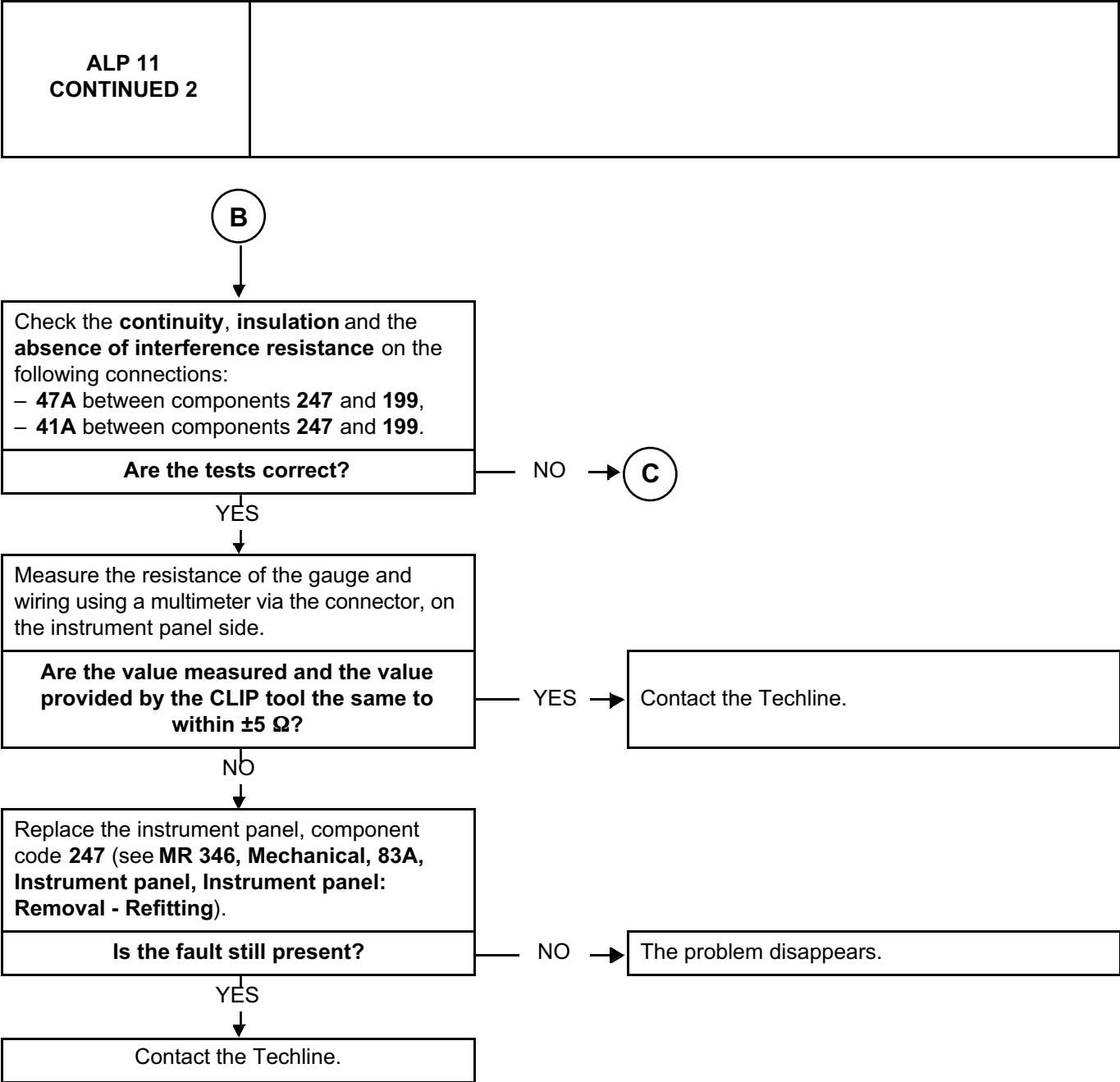


FAULT FINDING - FAULT FINDING CHART

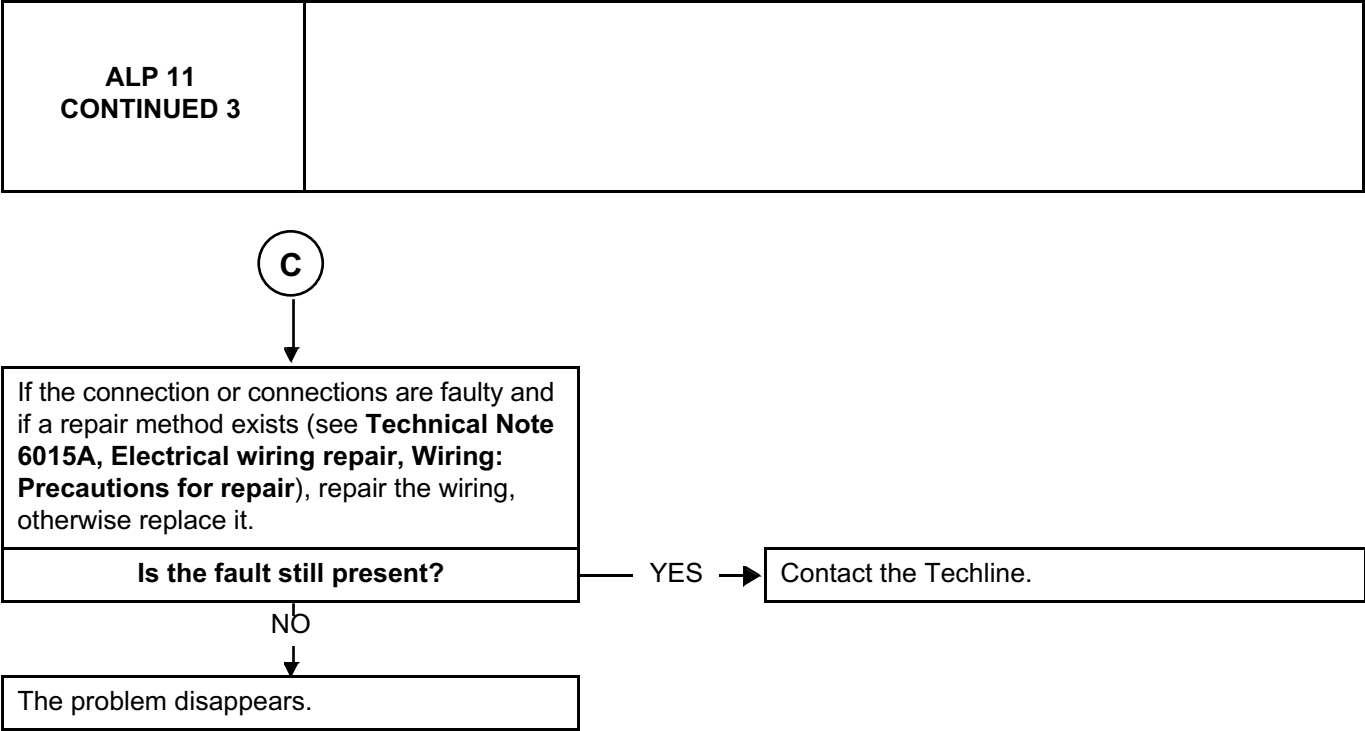
ALP 11 CONTINUED 1	
-----------------------	--



FAULT FINDING - FAULT FINDING CHART



FAULT FINDING - FAULT FINDING CHART



**FAULT FINDING - FAULT FINDING CHART**

<b>ALP 12</b>	<b>Added fuel not taken into account (excluding full tank)</b>
---------------	--

<b>CONDITION</b>	None.
------------------	-------

Consult the interpretation of **ALP11 The fuel level indicator does not display full.**

**FAULT FINDING - FAULT FINDING CHART**

<b>ALP 13</b>	<b>Indicator locked during driving (excluding mechanical)</b>
---------------	---

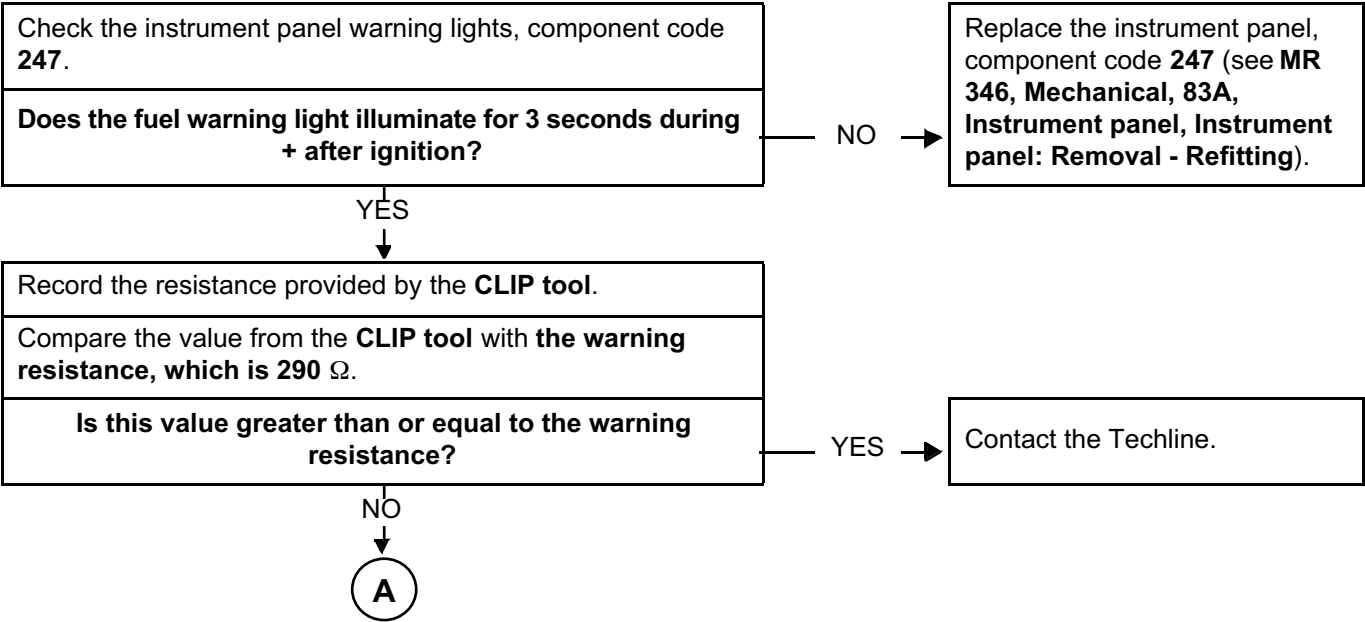
<b>CONDITION</b>	For economical driving, the blocks on the display may remain illuminated or the needle may remain jammed up to <b>120 miles (200 km)</b> .
------------------	--

Check that no mechanical elements are jammed.
If the fault involves the panel at the top of the display or if the needle is locked on a full tank: check that the customer has travelled a sufficient amount of <b>miles (km)</b> for the block at the top of the display to go out or for the needle to move from the full section.
Ensure that the fuel pump did not trigger more than <b>3</b> times when the customer filled the tank.
If the fault is still present or the needle or display is blocked at a mark other than the full tank mark, contact the Techline.

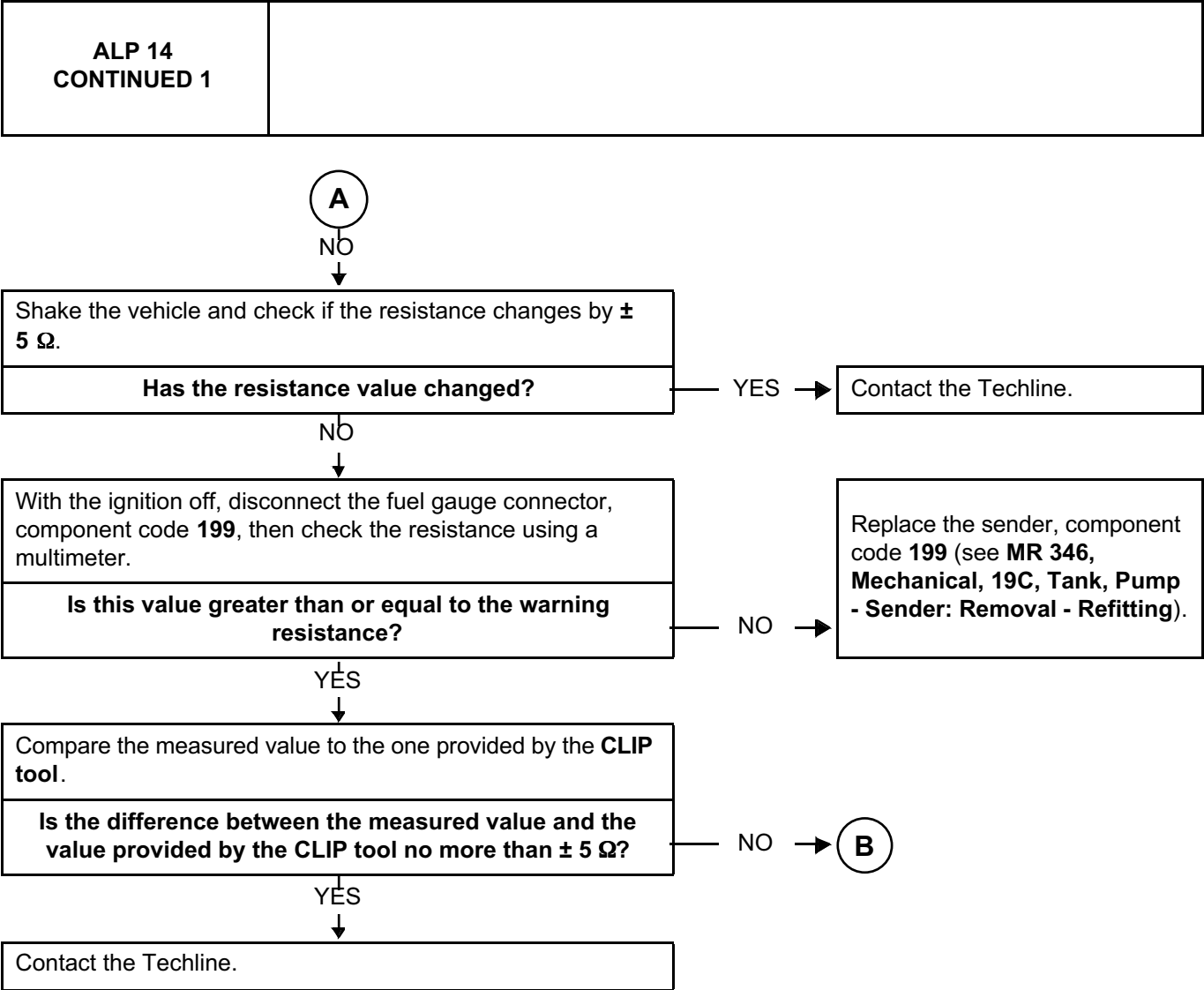
**FAULT FINDING - FAULT FINDING CHART**

<b>ALP 14</b>	<b>Fault without warning light illuminated (without fuel added since the fault)</b>
---------------	---

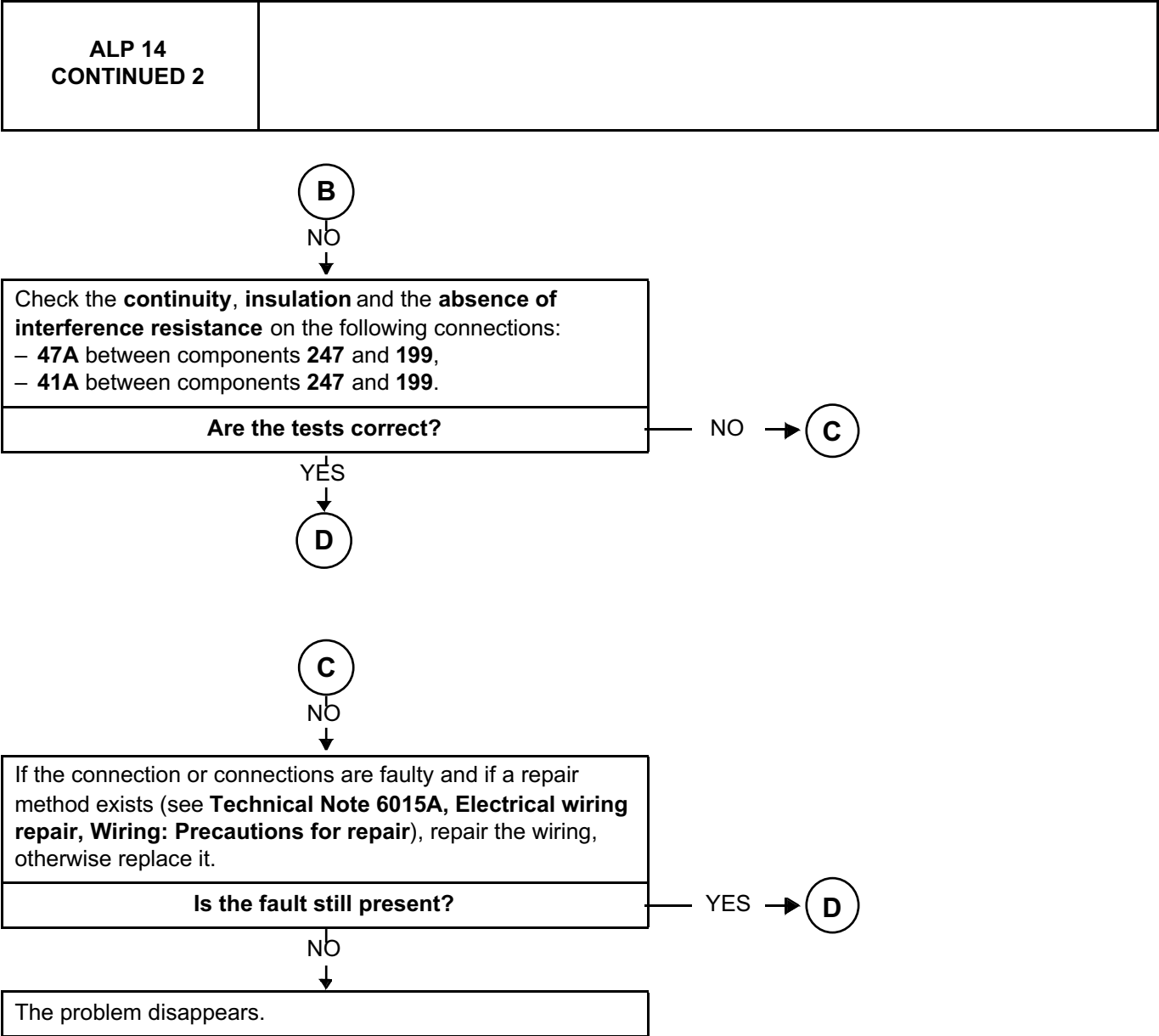
<b>NOTES</b>	Put the vehicle in + after ignition.
	See wiring diagram Technical Note, CLIO II ph 3.



FAULT FINDING - FAULT FINDING CHART

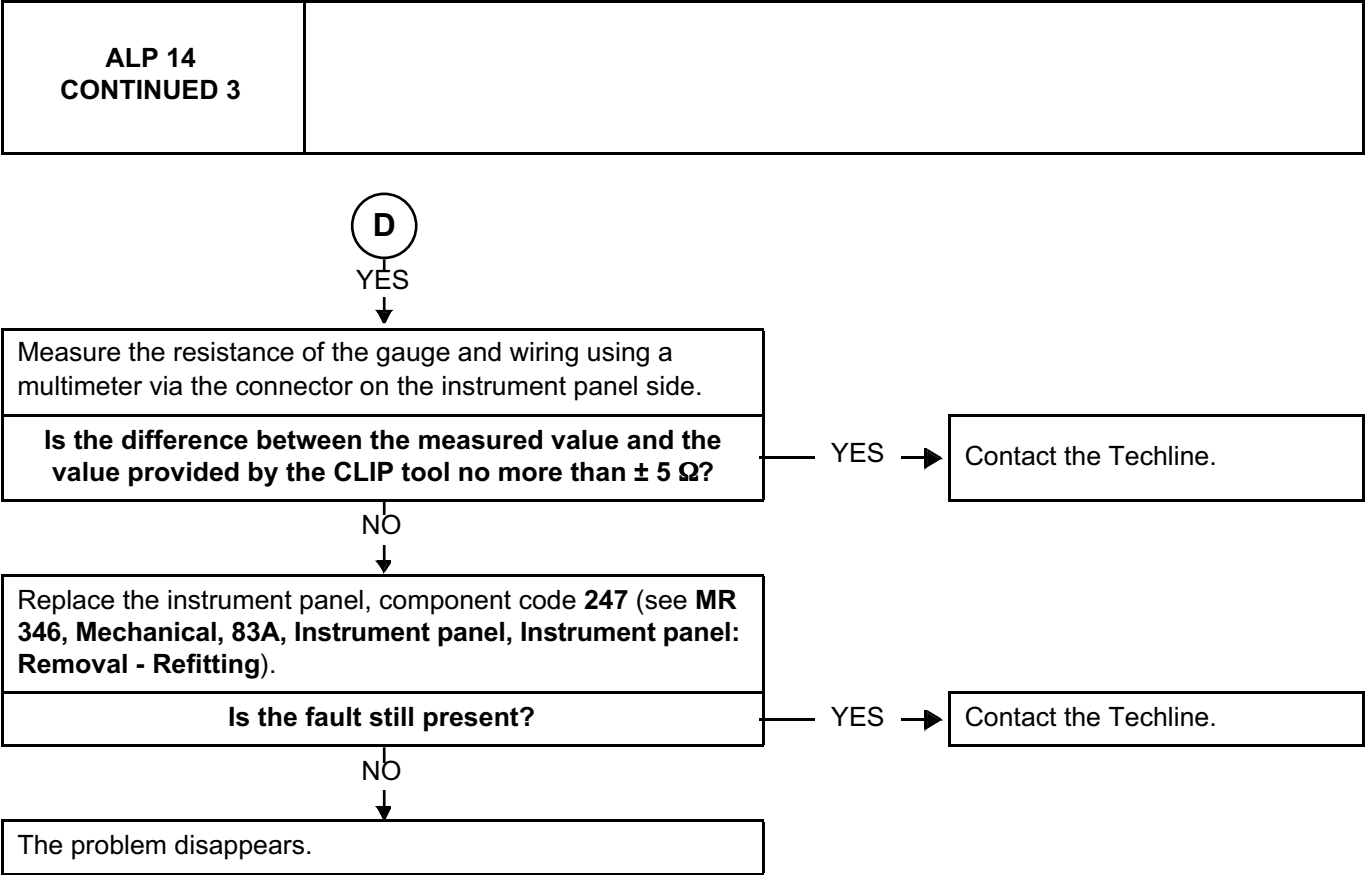


FAULT FINDING - FAULT FINDING CHART





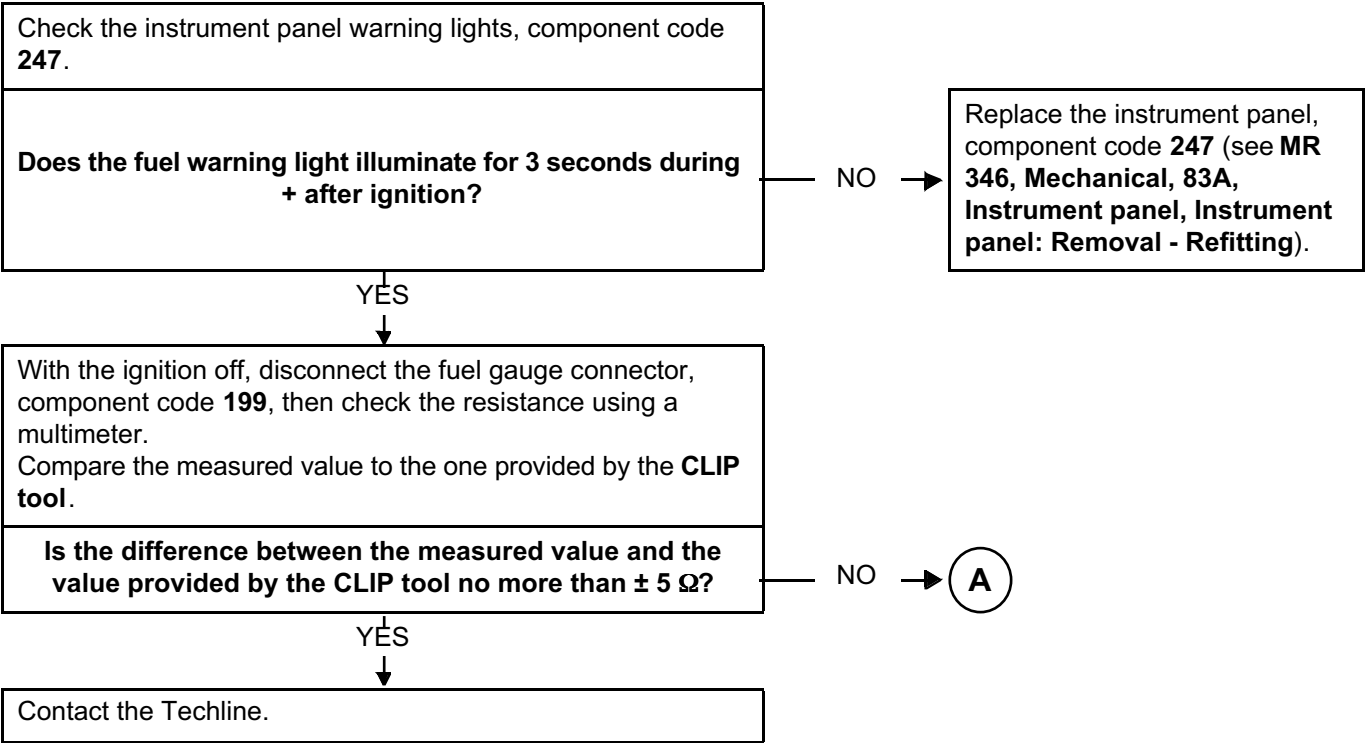
FAULT FINDING - FAULT FINDING CHART



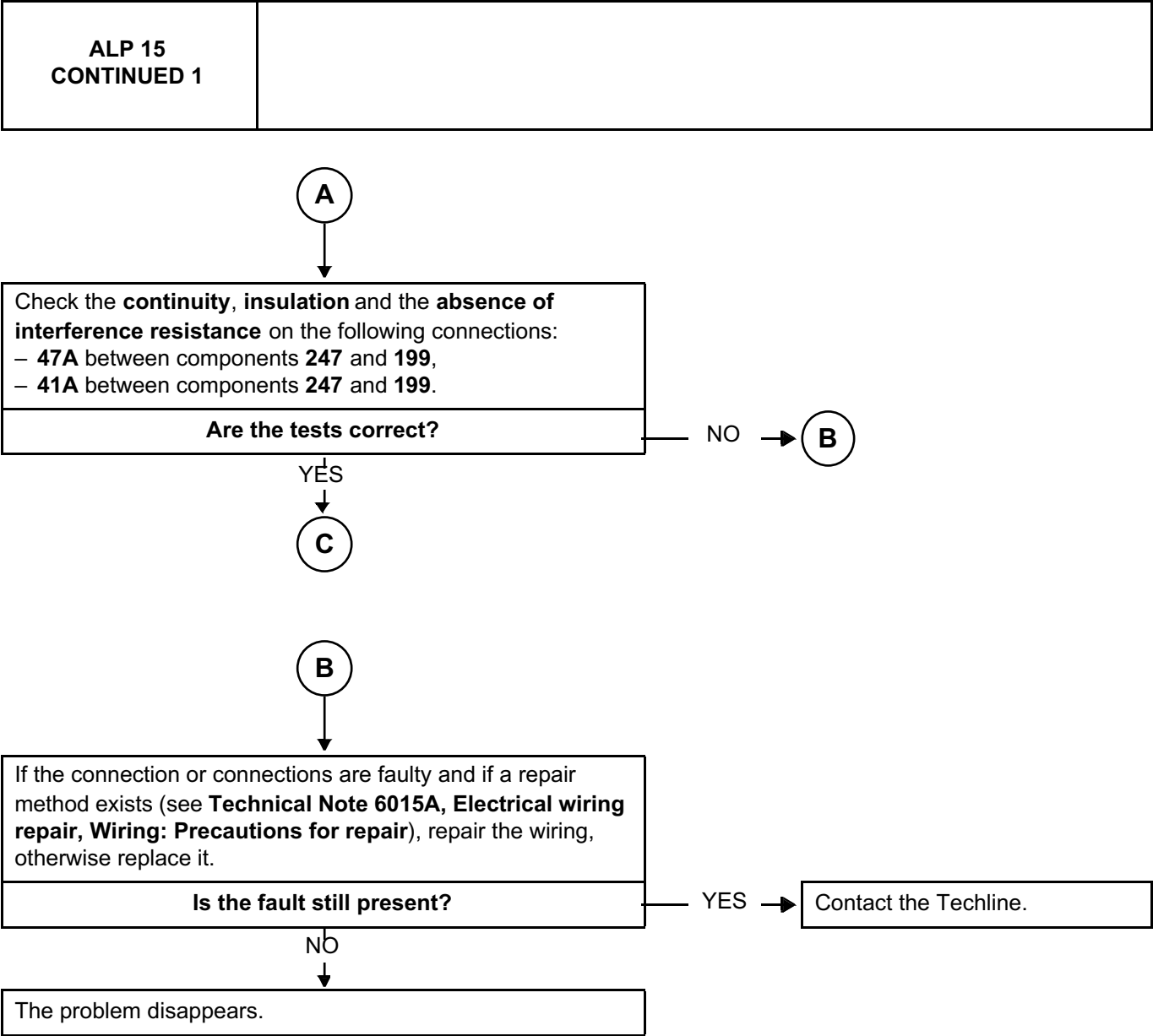
**FAULT FINDING - FAULT FINDING CHART**

<b>ALP 15</b>	<b>Fault without warning light illuminated (with fuel added since the fault)</b>
---------------	--

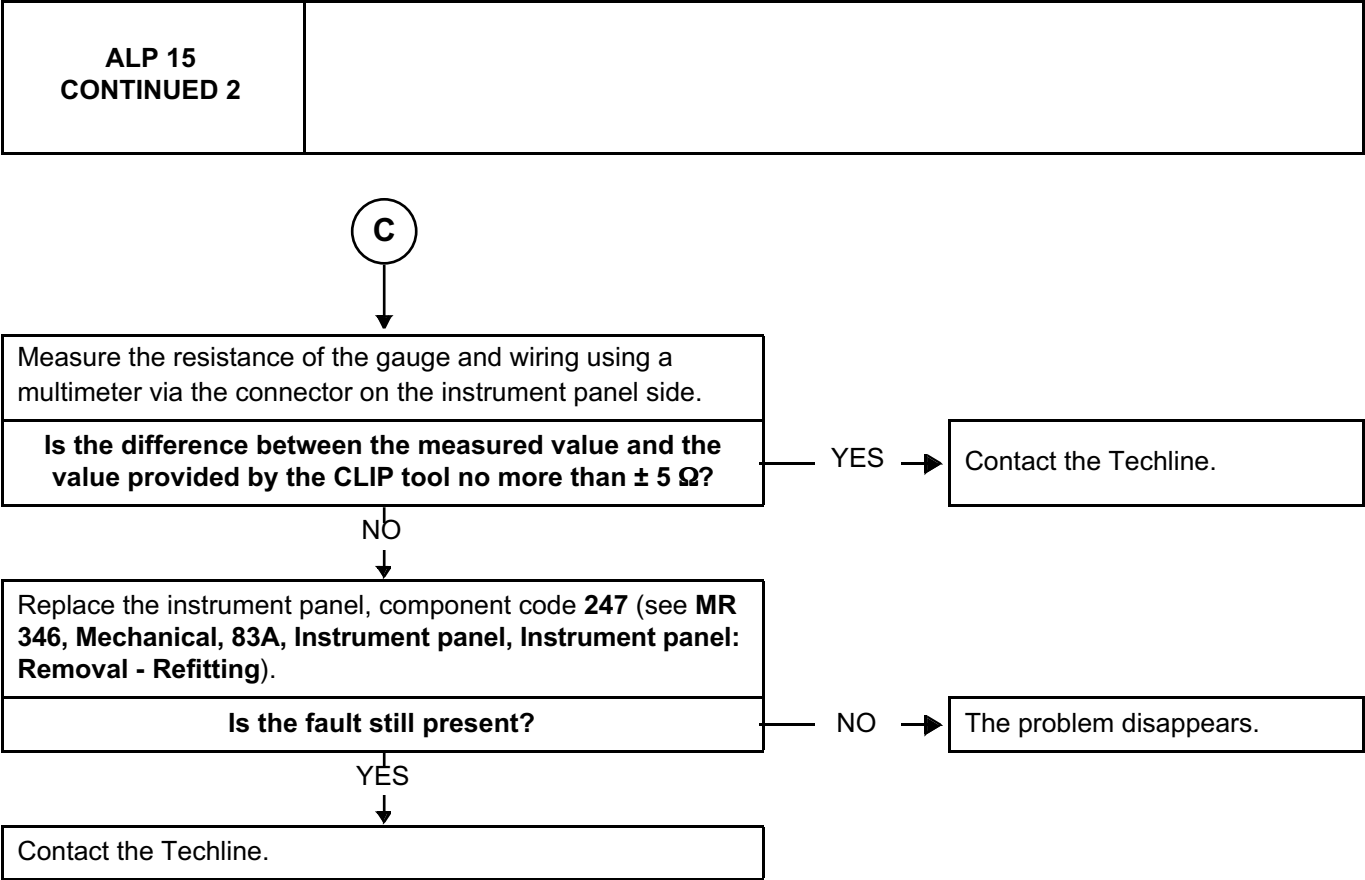
<b>NOTES</b>	Put the vehicle in + <b>after ignition</b> .
	See <b>wiring diagram Technical Note, CLIO II ph 3</b> .



FAULT FINDING - FAULT FINDING CHART

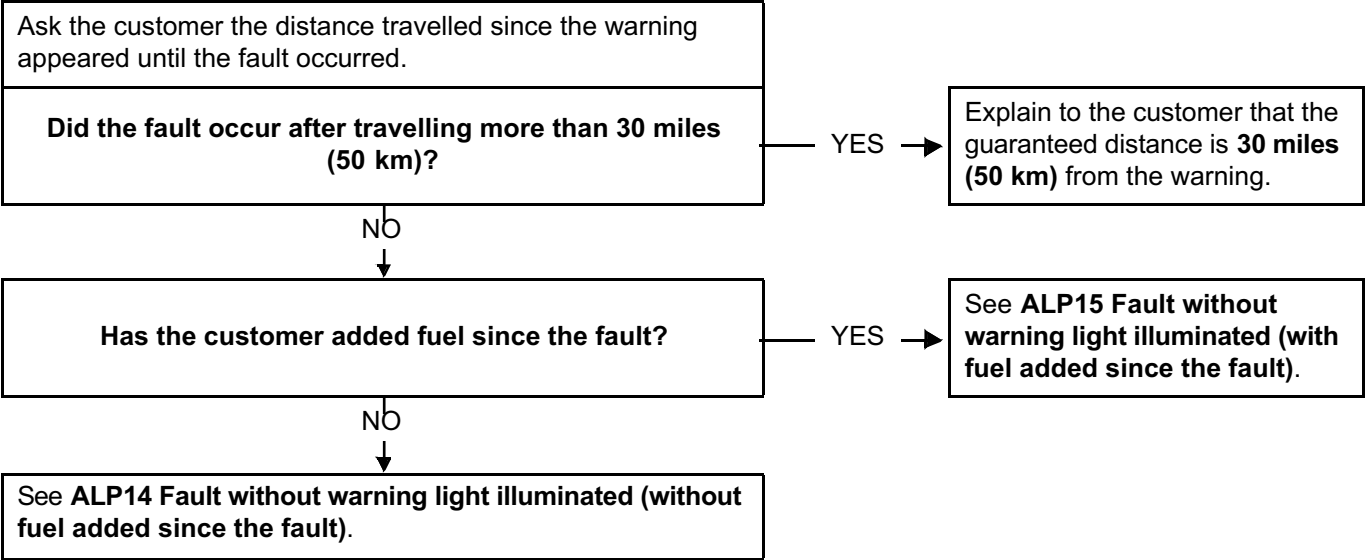


**FAULT FINDING - FAULT FINDING CHART**



**FAULT FINDING - FAULT FINDING CHART**

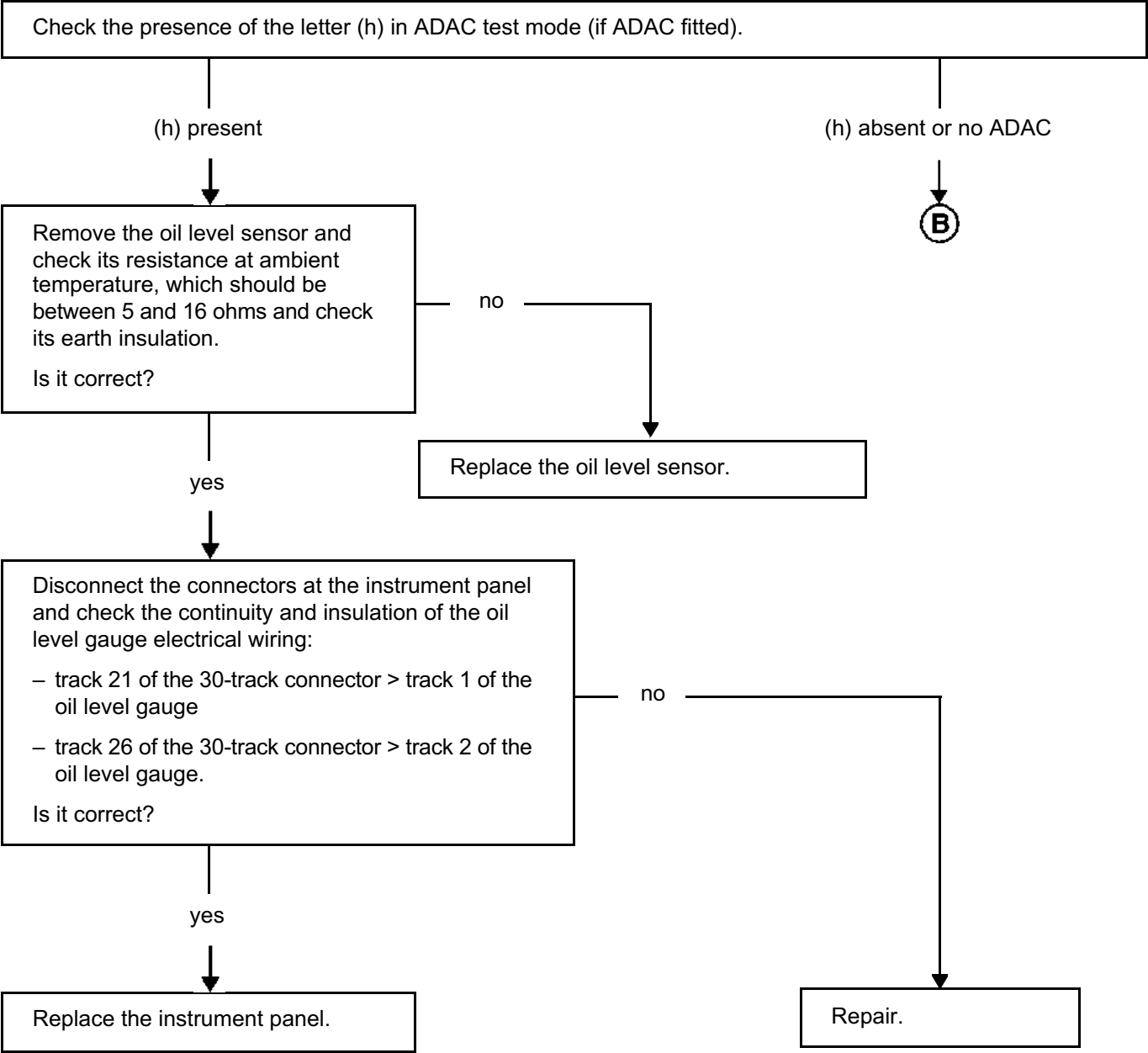
<b>ALP 16</b>	<b>Fault with late warning</b>
<b>NOTES</b>	None.



**FAULT FINDING - FAULT FINDING CHART**

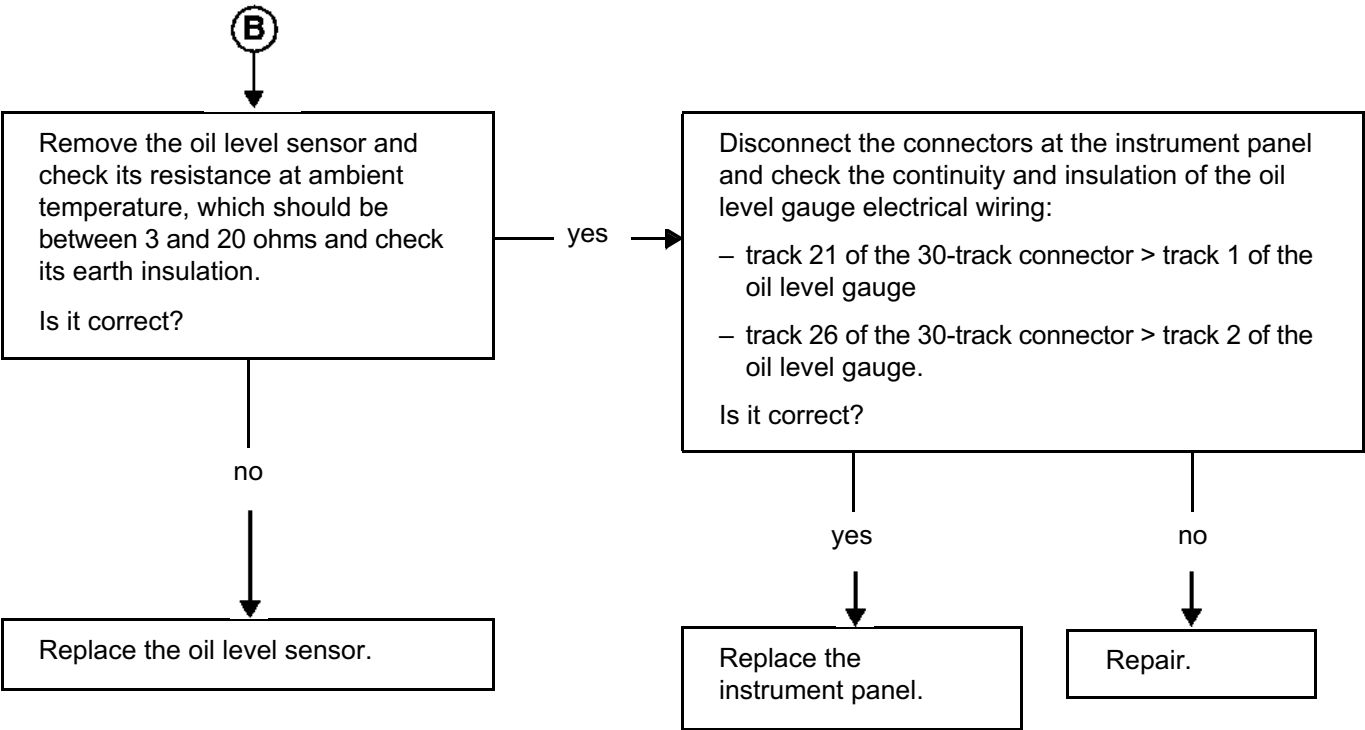
<b>ALP 17</b>	<b>Oil level indication absent or erroneous</b>
---------------	---

<b>CONDITION</b>	The oil level indication will only be correct if the vehicle is on a flat surface; a measurement should be retaken after switching the ignition off for at least one minute.
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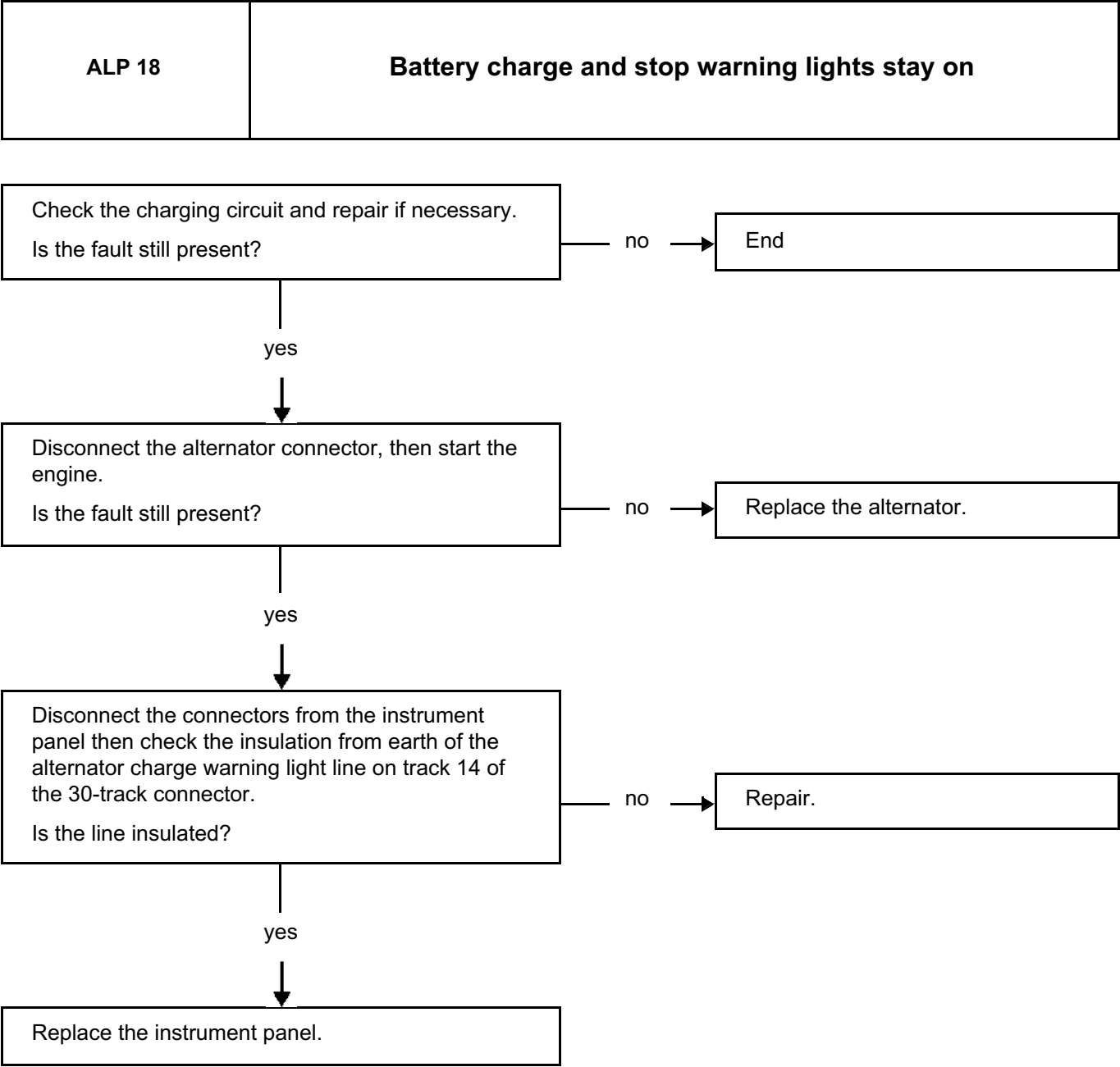


FAULT FINDING - FAULT FINDING CHART

ALP 17 CONTINUED	
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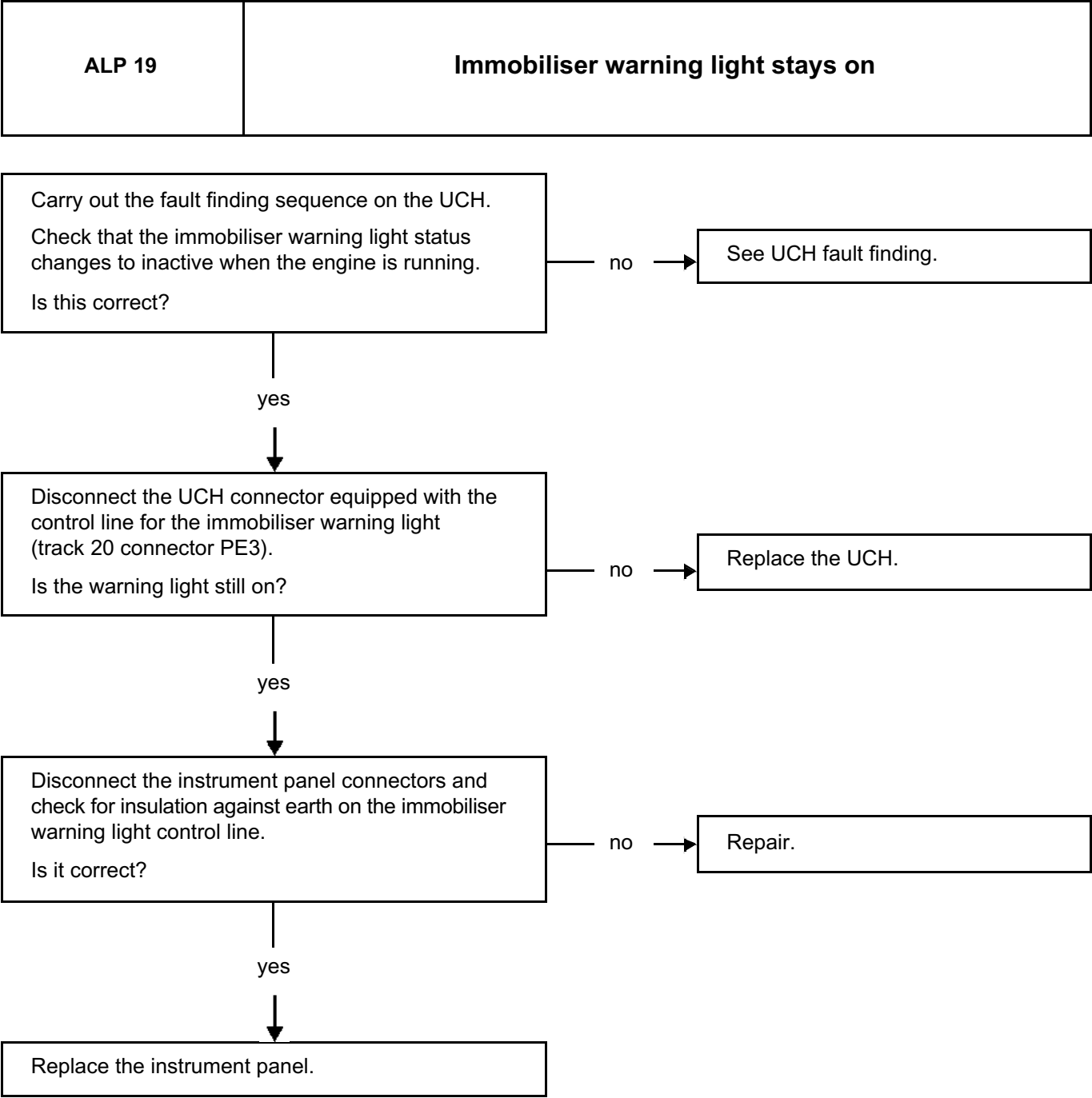


**FAULT FINDING - FAULT FINDING CHART**

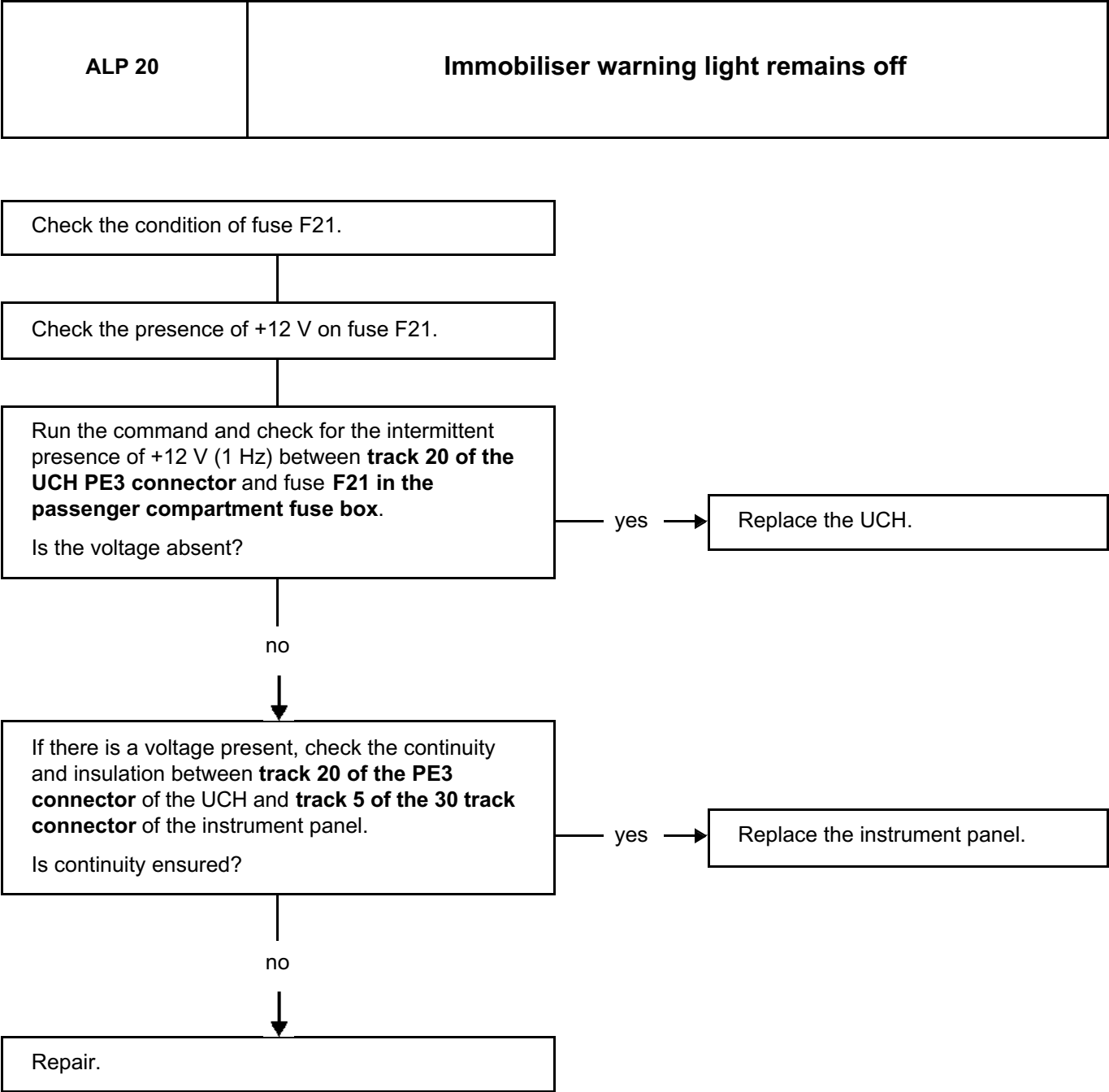




**FAULT FINDING - FAULT FINDING CHART**



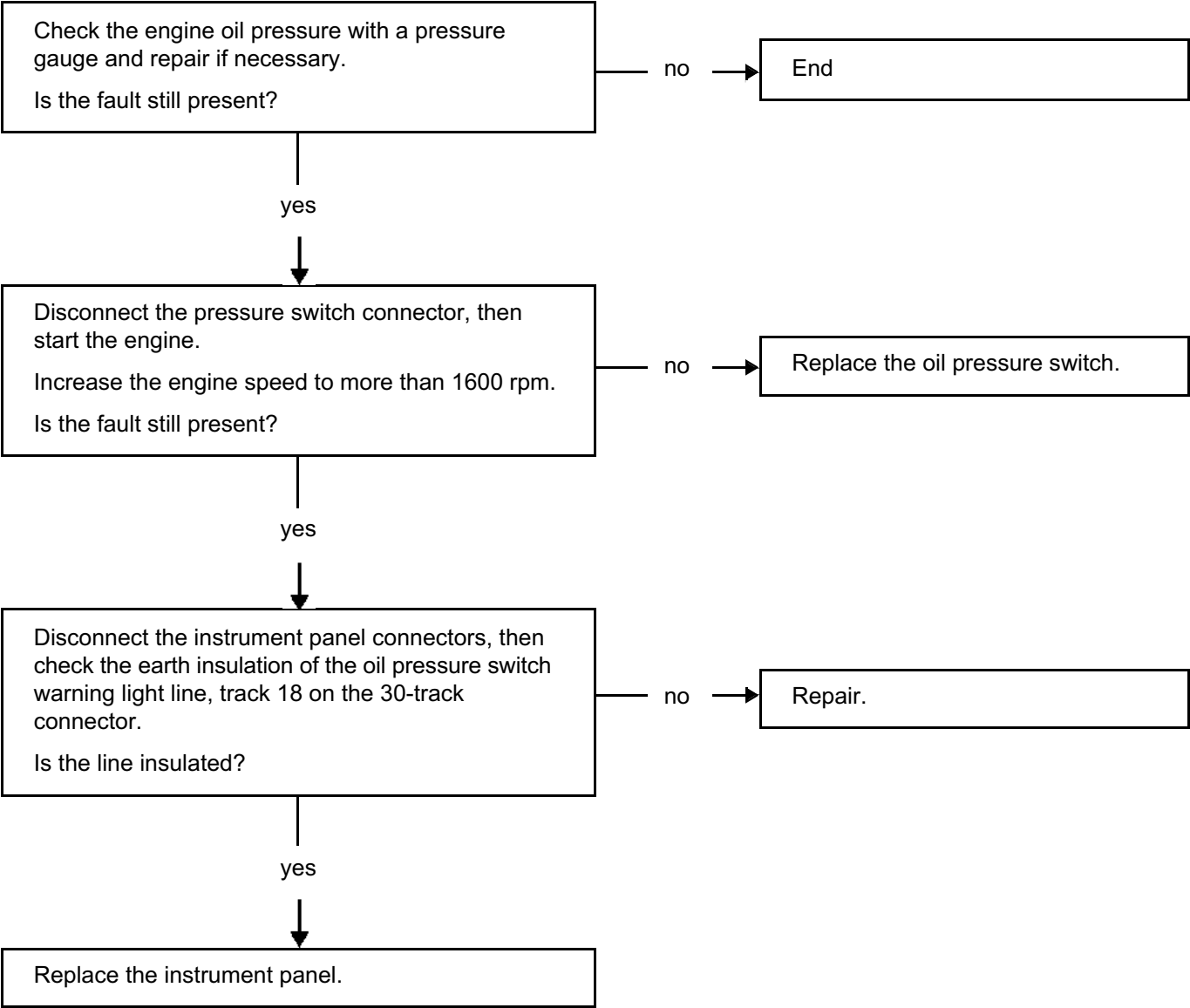
FAULT FINDING - FAULT FINDING CHART



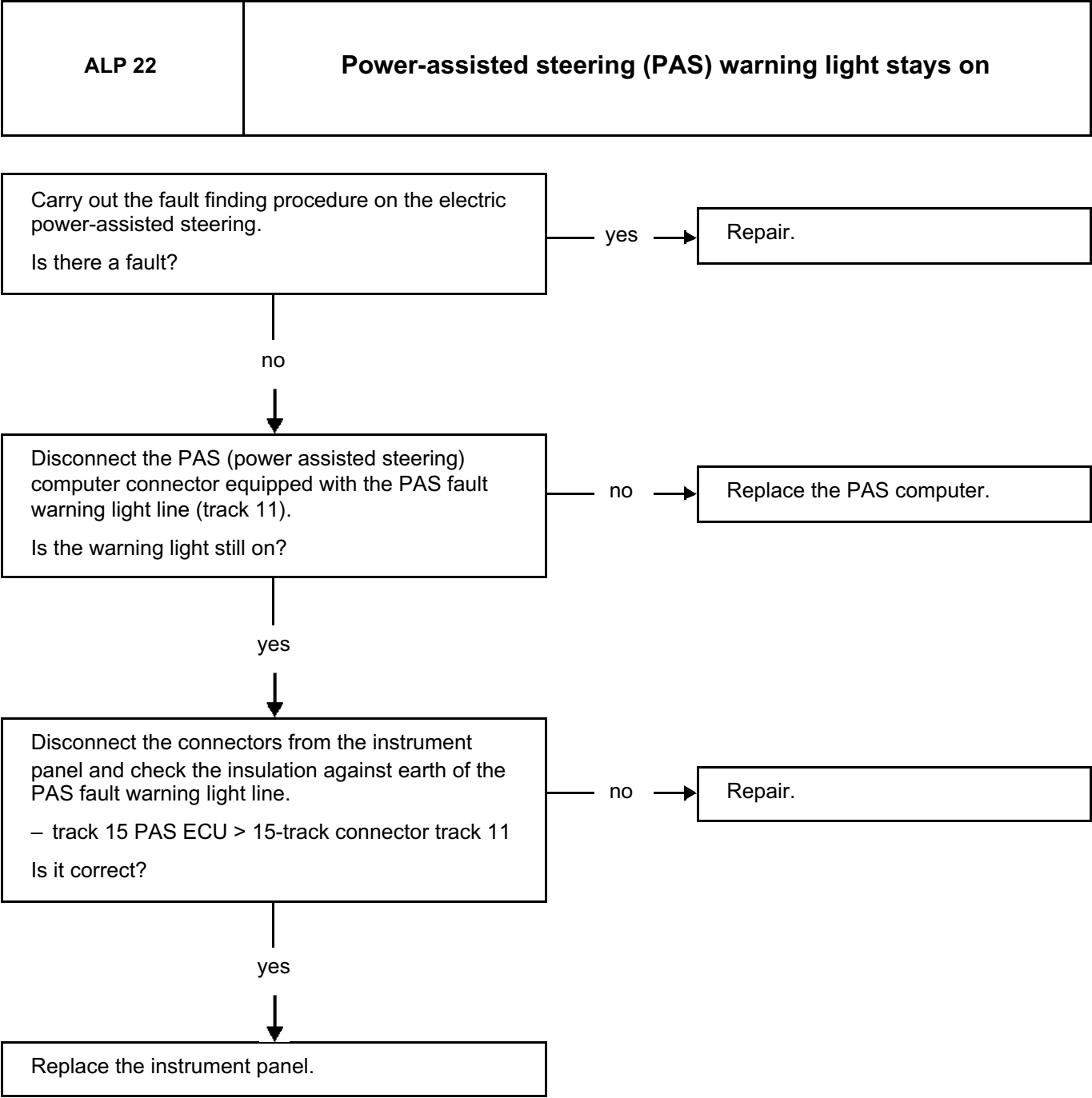
**FAULT FINDING - FAULT FINDING CHART**

<b>ALP 21</b>	<b>Oil pressure and stop warning lights come on at the same time</b>
---------------	--

<b>CONDITION</b>	The instrument panel only registers the oil pressure switch signal when the engine speed is higher than 1600 rpm.
------------------	---

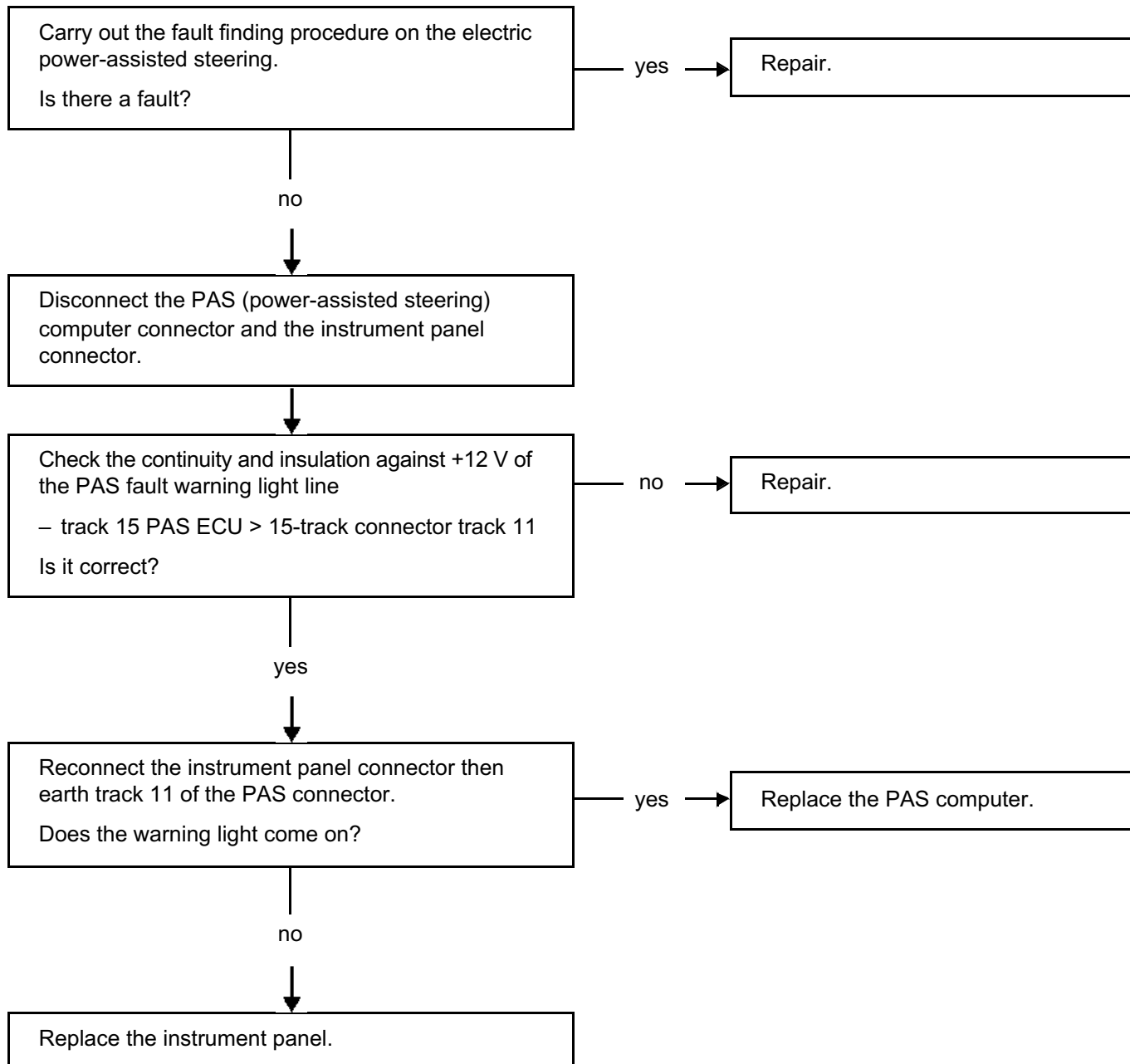


**FAULT FINDING - FAULT FINDING CHART**



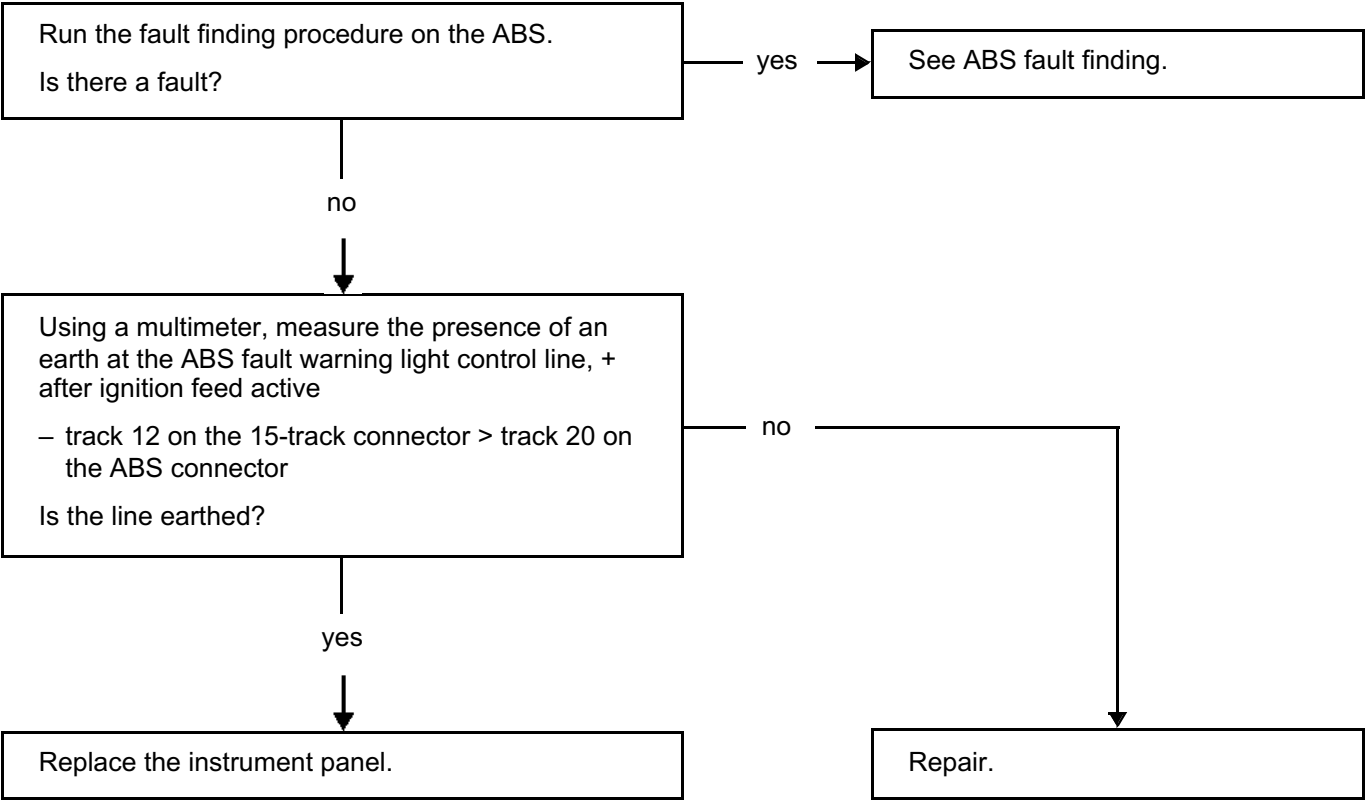
### FAULT FINDING - FAULT FINDING CHART

ALP 23	Power-assisted steering (PAS) warning light stays off
--------	---

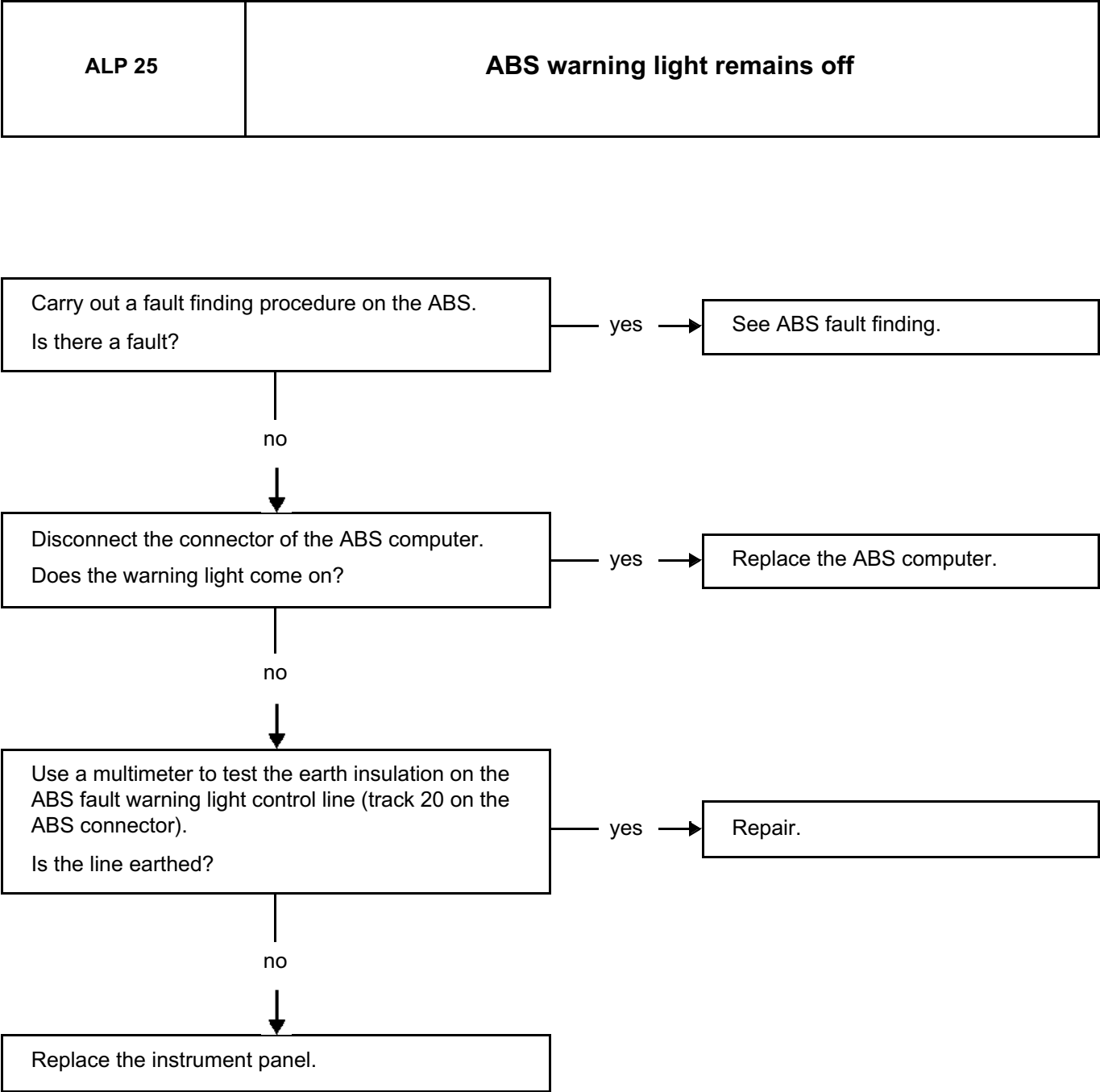


**FAULT FINDING - FAULT FINDING CHART**

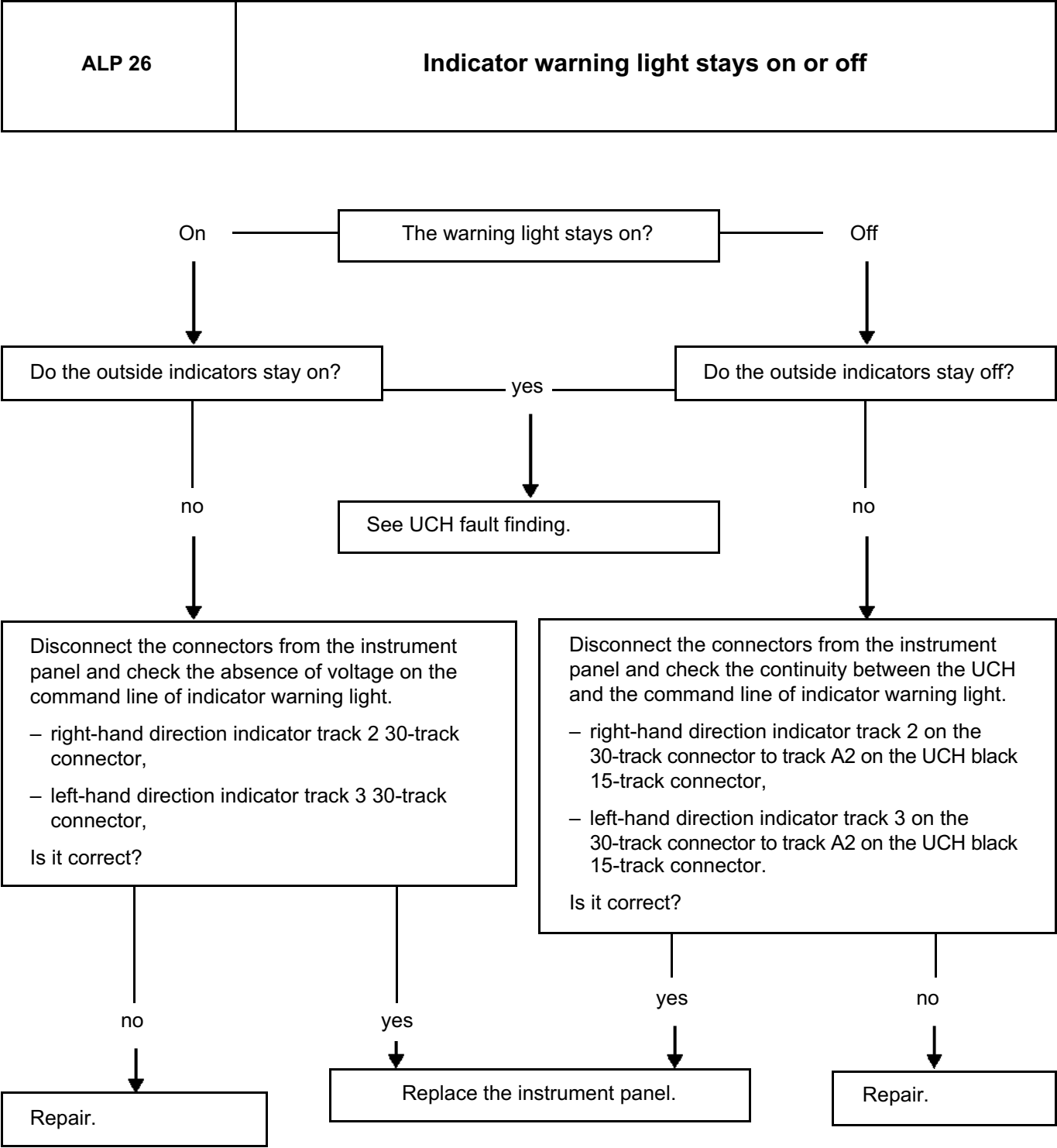
<b>ALP 24</b>	<b>ABS warning light remains lit</b>
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**FAULT FINDING - FAULT FINDING CHART**

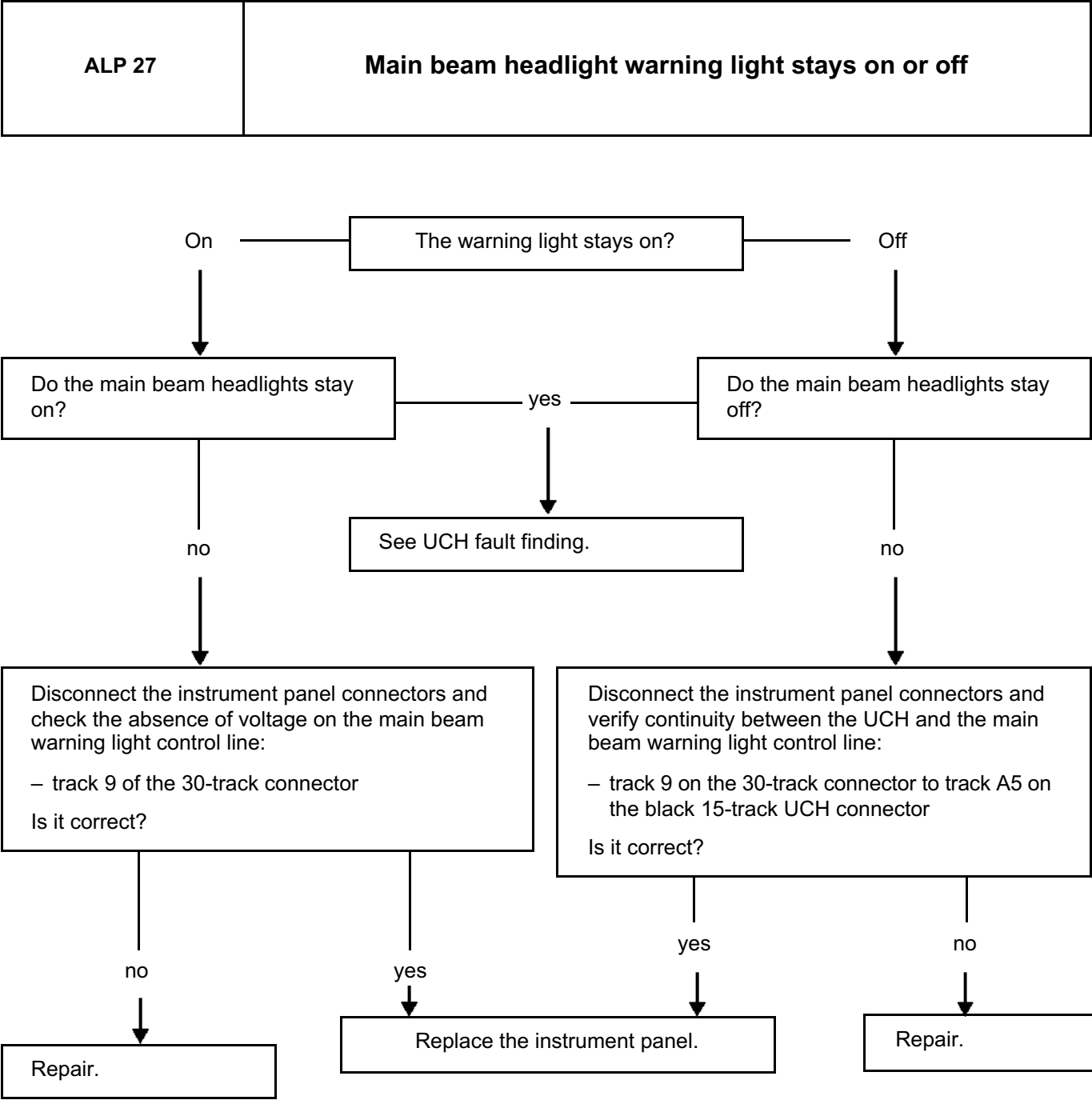


**FAULT FINDING - FAULT FINDING CHART**

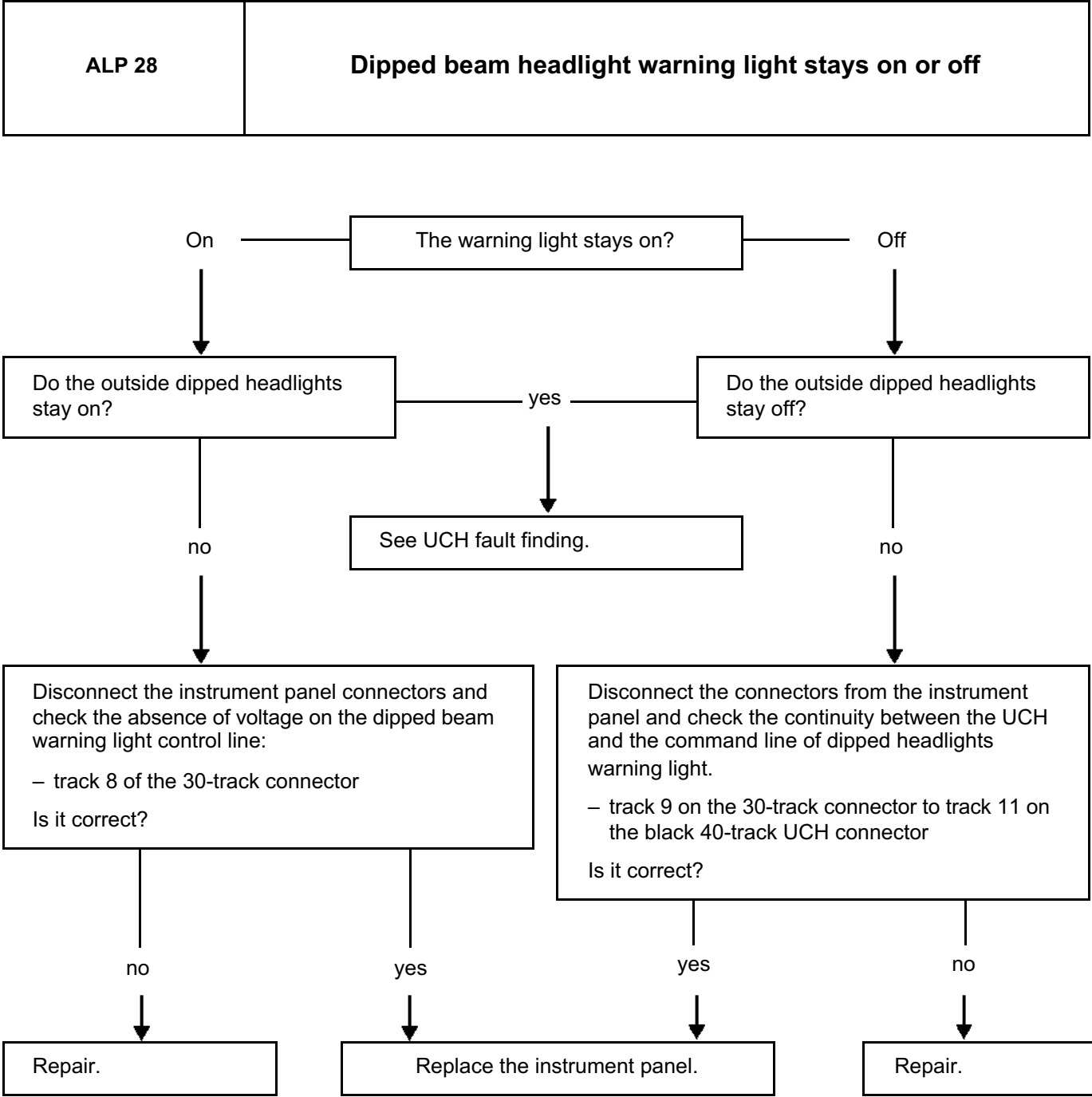




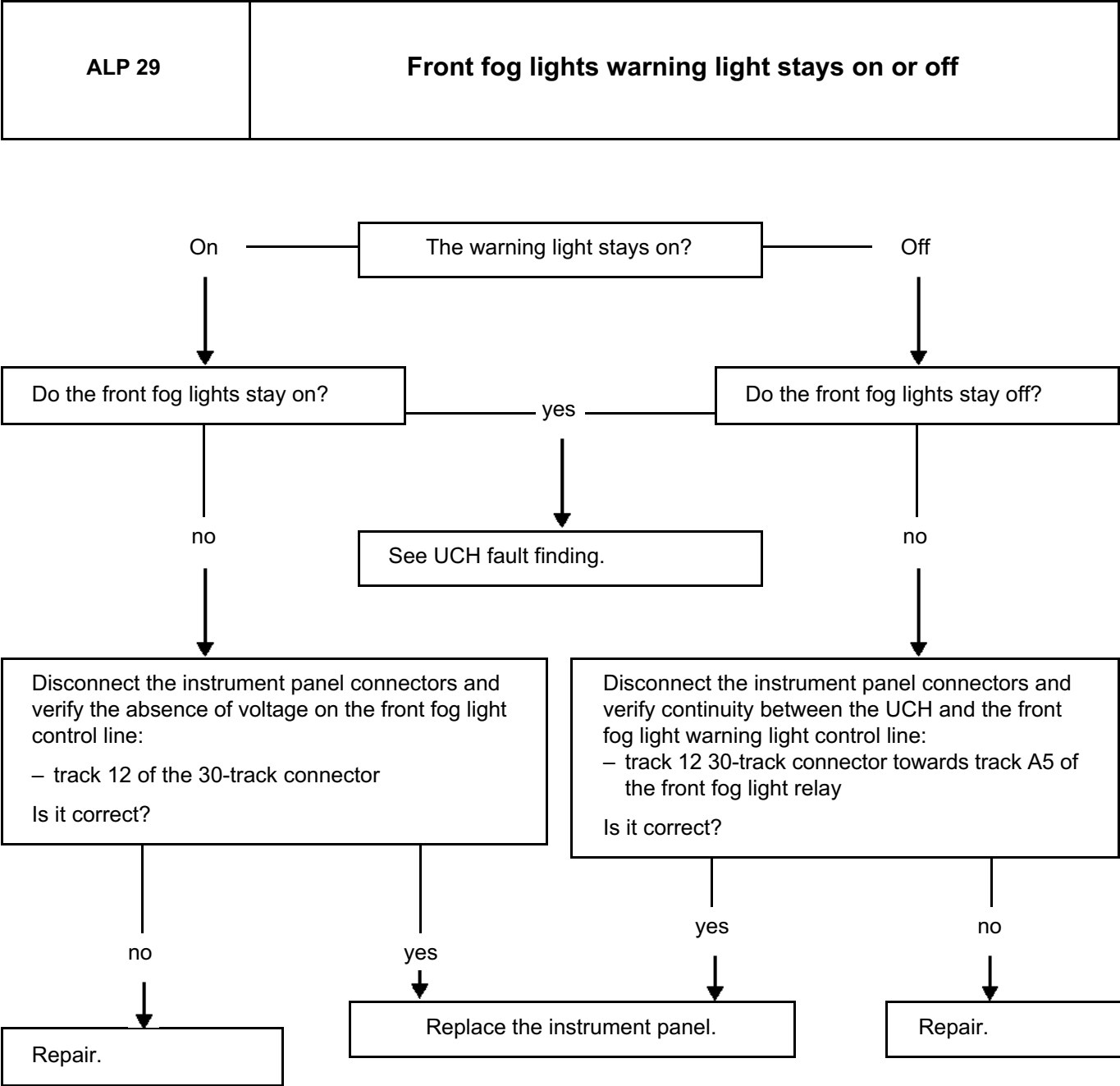
**FAULT FINDING - FAULT FINDING CHART**



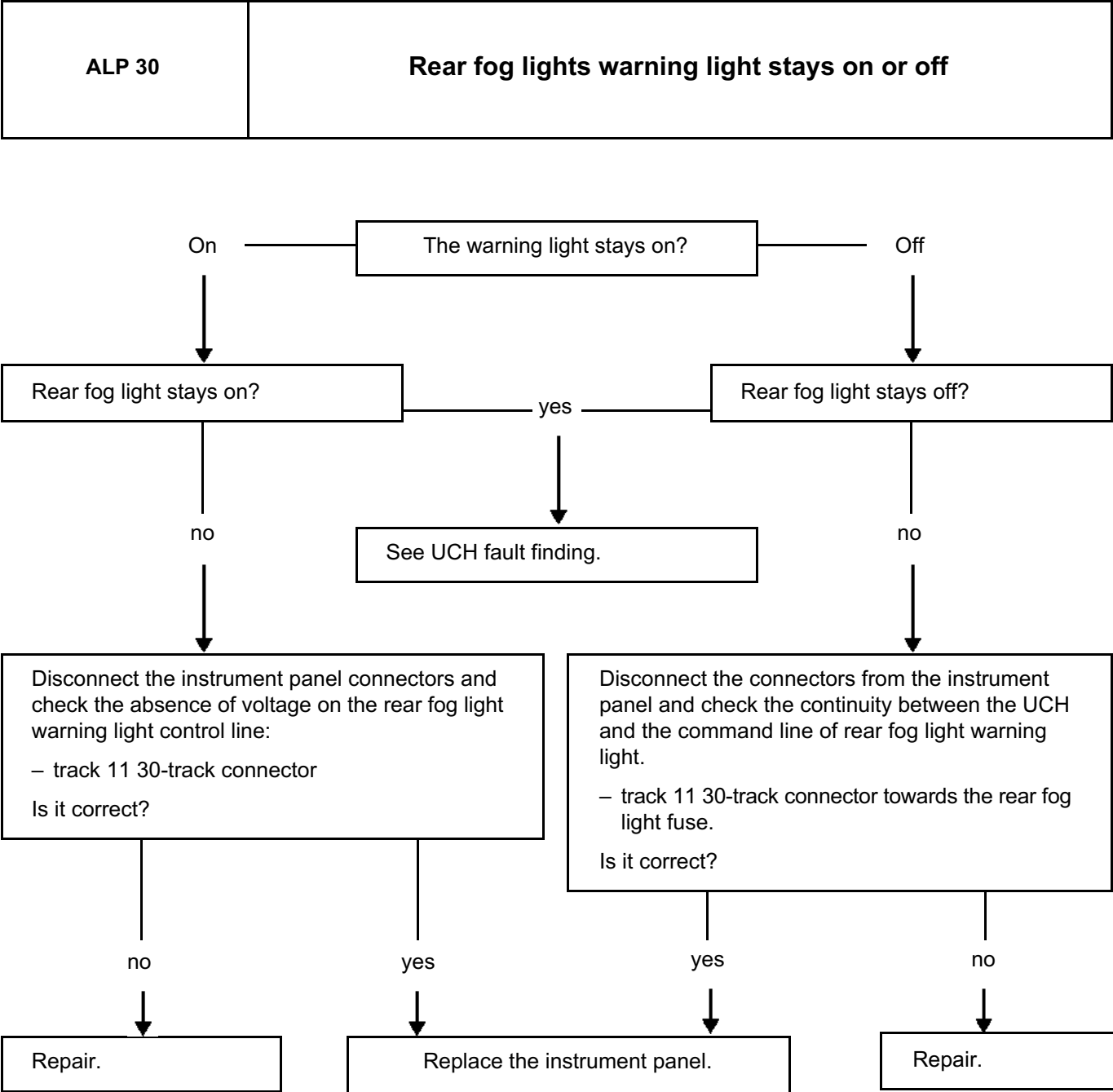
**FAULT FINDING - FAULT FINDING CHART**



**FAULT FINDING - FAULT FINDING CHART**

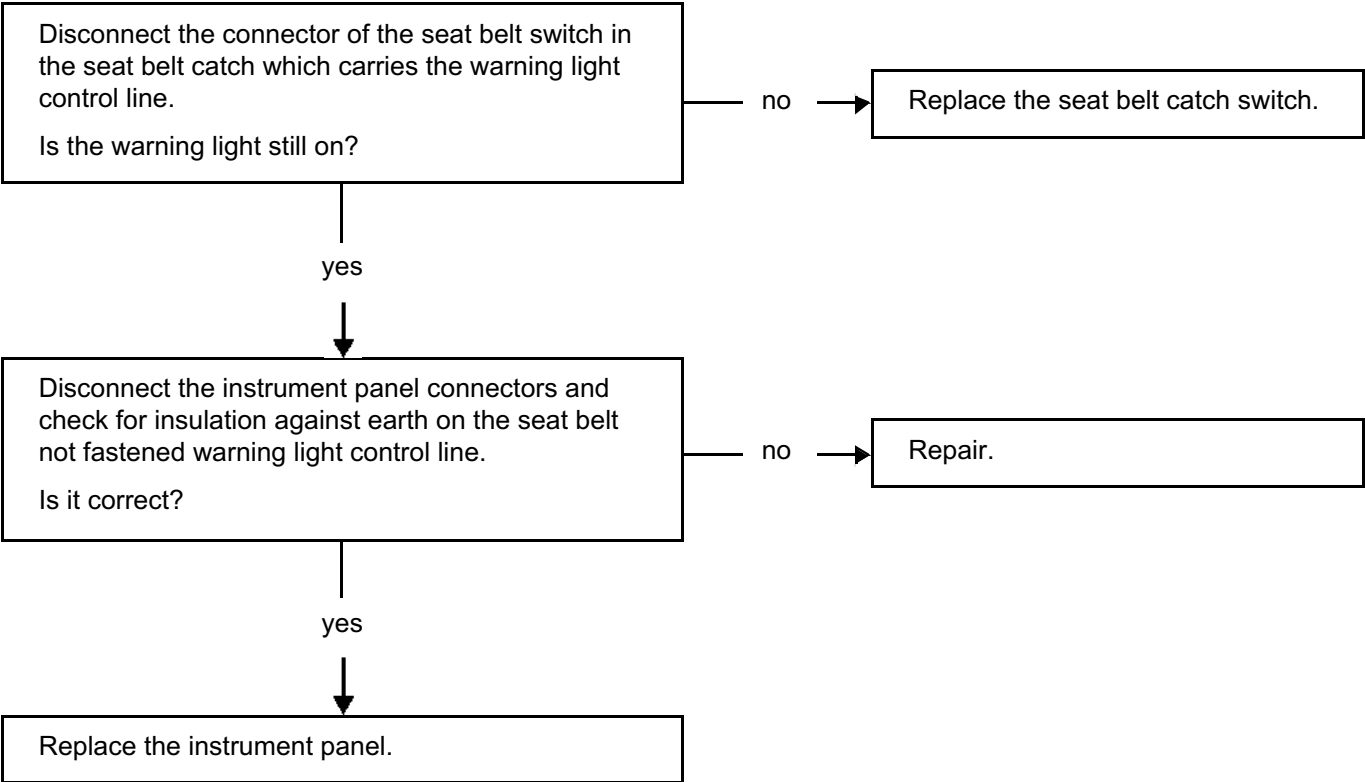


**FAULT FINDING - FAULT FINDING CHART**



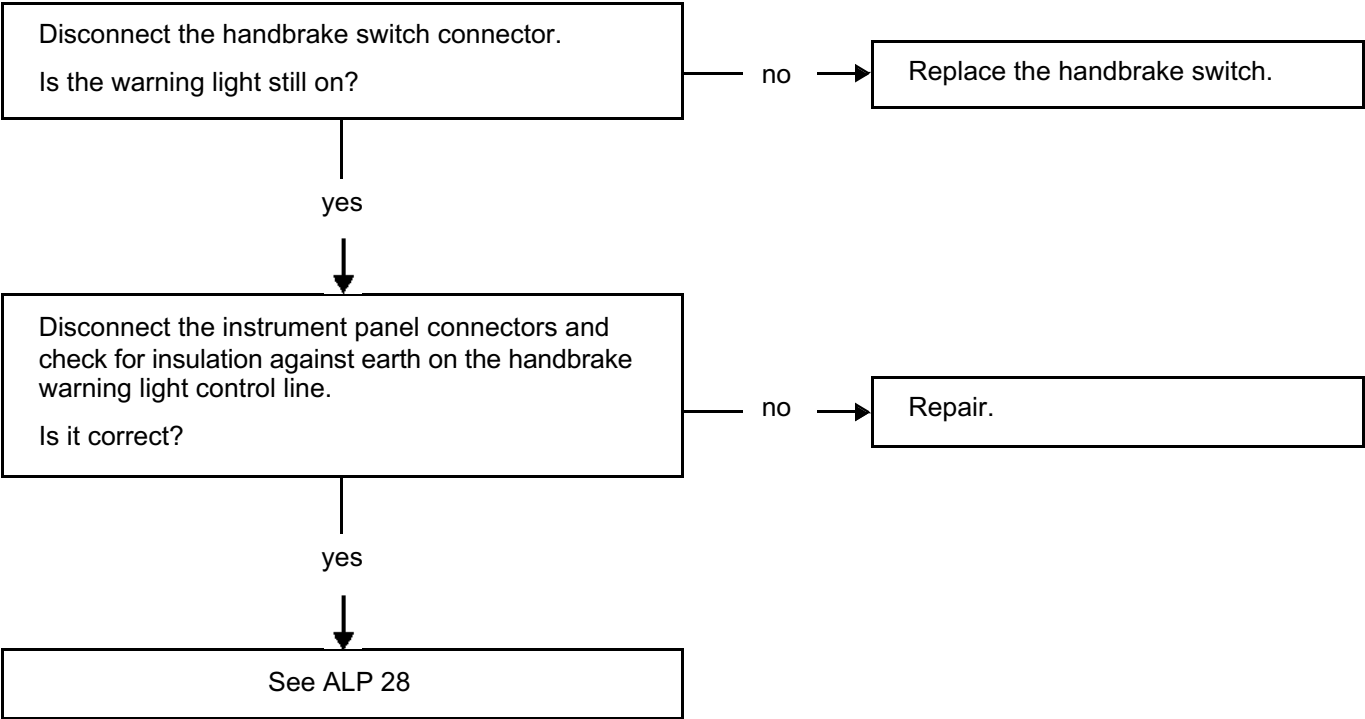
**FAULT FINDING - FAULT FINDING CHART**

ALP 31	Seat belt not fastened warning light remains lit
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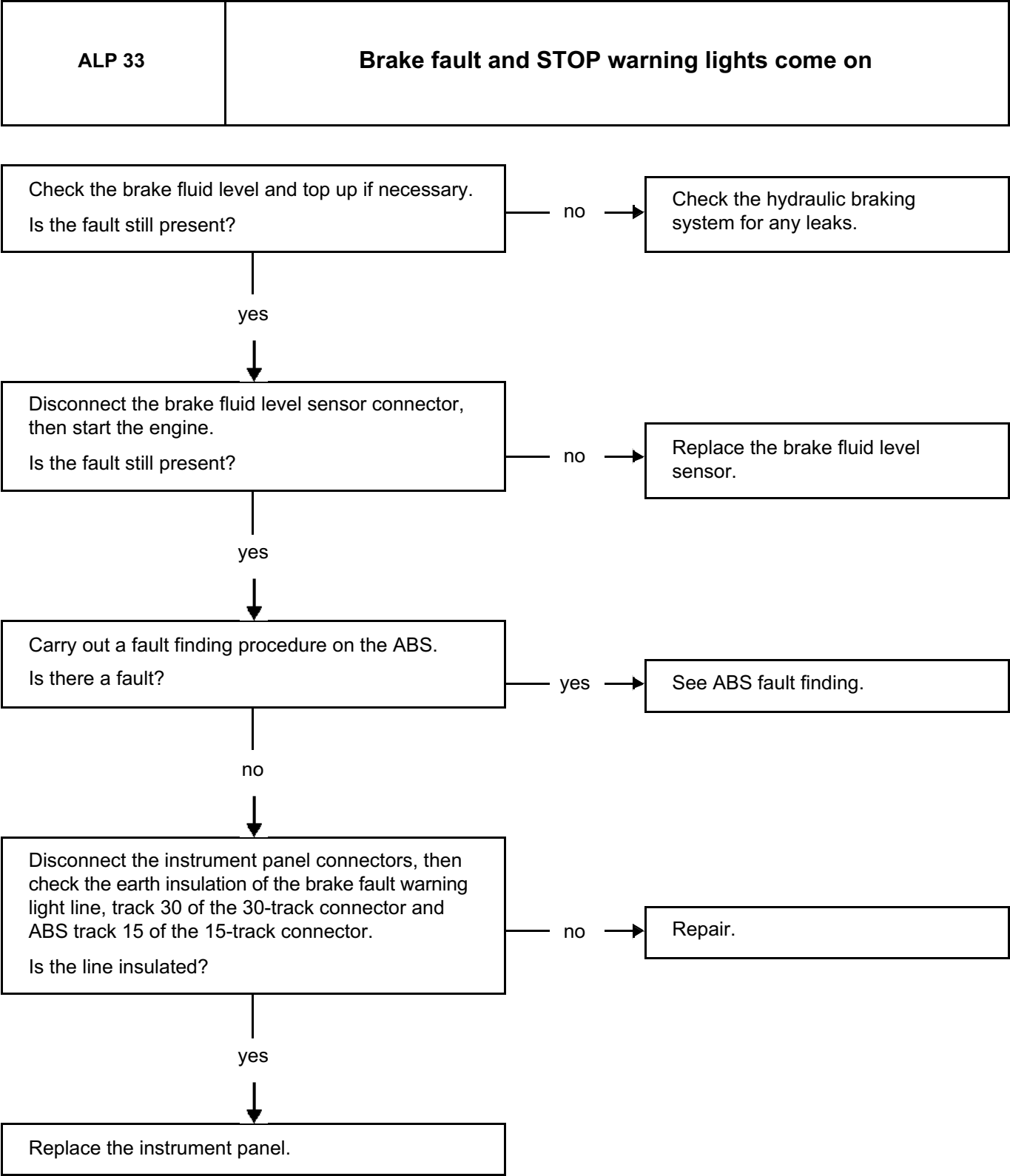


**FAULT FINDING - FAULT FINDING CHART**

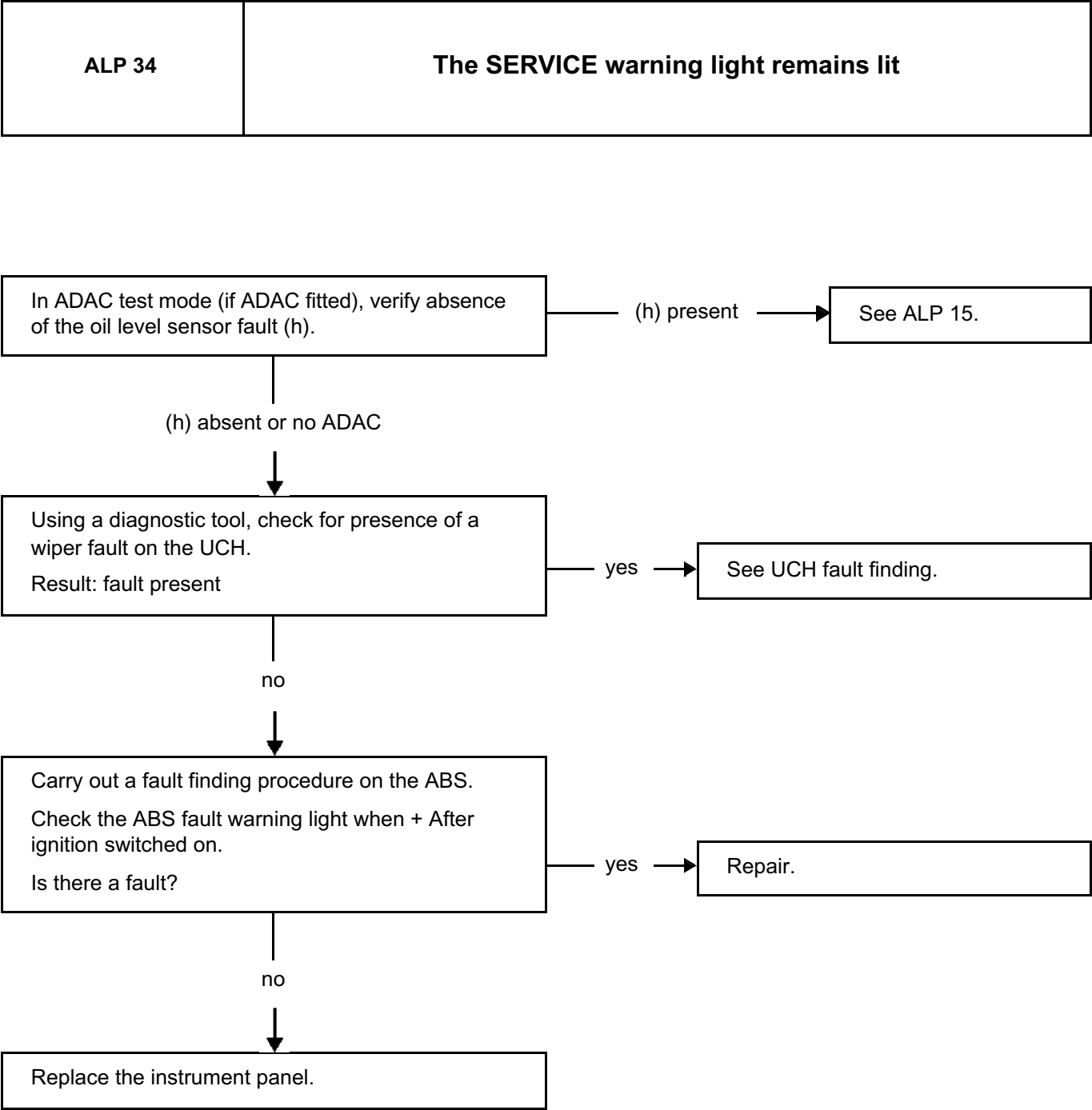
ALP 32	Brake fault warning light remains on without lighting of the STOP warning light
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**FAULT FINDING - FAULT FINDING CHART**

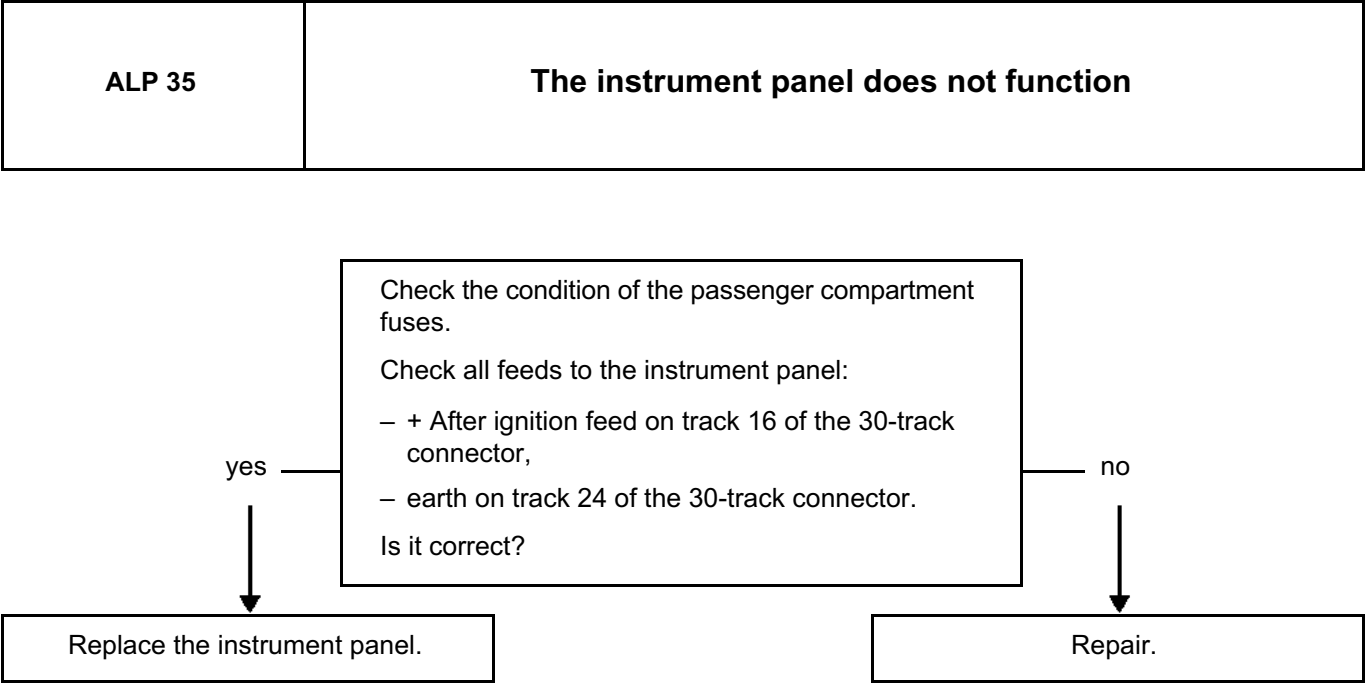


**FAULT FINDING - FAULT FINDING CHART**



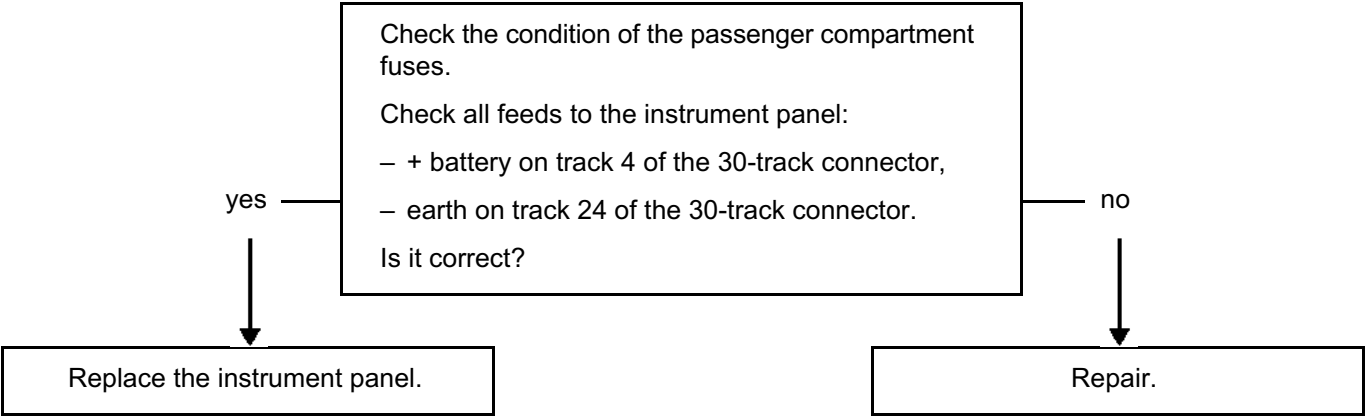


**FAULT FINDING - FAULT FINDING CHART**



**FAULT FINDING - FAULT FINDING CHART**

ALP 36	<b>ADAC and trip meter reset to zero every time the ignition is switched off</b>
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### FAULT FINDING - INTRODUCTION

This document contains the general fault finding procedures applicable to all the computers for the UCH functions of all phase 2 CLIO II vehicles, all engine types except F9Q.

To carry out fault finding on this system, it is essential to have the following items:

- Workshop Repair Manual for the vehicle concerned,
- The wiring diagram of the function for the vehicle concerned,
- the tools listed under the heading Special tooling required.

### GENERAL APPROACH TO FAULT FINDING:

- Use one of the diagnostic tools to identify the system fitted to the vehicle (to read the computer group, the program number, the Vdiag, etc.).
- Locate the Fault finding documents corresponding to the system identified.
- Take note of information contained in the introductory sections.
- Read the faults stored in the computer memory and use the Interpretation of faults section of the documents.  
**Reminder:** Each fault is interpreted for a particular type of storage (fault present, fault stored in memory, fault present or stored). The checks defined for dealing with each fault are therefore only to be performed if the fault declared by the diagnostic tool is interpreted in the document for its type of storage. The storage type should be considered when using the diagnostic tool after the ignition has been switched off and switched back on.  
If a fault is interpreted when it is declared as stored, the conditions for applying fault finding appear in the NOTES box. If the conditions are not satisfied, use the fault finding strategy to check the circuit of the faulty part since the fault is no longer present on the vehicle. Perform the same operation when a fault is declared as stored by the diagnostic tool but is only interpreted in the documentation as a present fault.
- Perform the conformity check (appearance of possible incorrect operations not yet stated by the system's self diagnosis procedure) and apply the associated fault finding strategy according to results.
- Confirm the repair (customer complaint disappears).
- Use the fault finding procedure for each Customer complaint if the fault persists.

### SPECIAL TOOLING REQUIRED:

- diagnostic tool (except XR25),
- bornier,
- multimeter.

**FAULT FINDING - INTRODUCTION**  
FUNCTIONS REQUIRED

UCH FEATURES REQUIRED	Basic UCH	High-end UCH	hard-wired relays
indicators and hazard warning lights	*	*	
interior lighting (timed) with radio frequency locking	*	*	
supervisor type interior supply	*	*	*
control of audible signal integrated in the instrument panel	*	*	
side lights feed input for lights on reminder buzzer	*	*	
overspeed function ( <b>ARABIA</b> )	*		
windscreen wiper low speed	*	*	*
windscreen wiper high speed	*	*	*
variable timing allowed ( <b>not if rain sensor present</b> )		*	
park position input for windscreen wiper	*	*	
rain sensor		*	
light sensor ( <b>except cold countries</b> )		*	
automatic headlights		*	
rear screen wiper	*	*	*
rear park position input	*	*	
reverse input	*	*	
heated rear screen timing	*	*	*
control of heated rear screen warning light by multiplex system			
control of door and tailgate locking/unlocking	*	*	*
radio frequency control of electric central door locking	*	*	
management of doors and tailgate locking when driving	*	*	
unlocking on impact	*	*	
door locking warning light	*	*	
door open warning light to the instrument panel by multiplex system	*	*	

### FAULT FINDING - INTRODUCTION

#### FUNCTIONS REQUIRED

UCH FEATURES REQUIRED	Basic UCH	High-end UCH	hard-wired relays
radio frequency system (two key remote control)	*	*	
encoded transponder / engine immobiliser	*	*	
fault finding procedure	*	*	
immobiliser warning light connected by wire	*	*	
vehicle speed multiplex signal	*	*	
timed headlight washer <b>(cold countries) except Denmark</b>		*	
daytime running lights <b>(cold countries)</b>	*	*	
one-touch driver / passenger electric windows	* / -	* / *	*
activation of factory-fitted alarm			
starter relay	*	*	
after ignition relay	*	*	*

#### UCH functions

#### WINDSCREEN WIPERS

##### Variable timing of windscreen wiper

Only functions with ignition on and if the switch is on intermittent position; it is implemented at low speed.

A 5-position (1 to 5) ISO selector, located on the wiper stalk, modifies the series resistance on the control line. The UCH should, as a result of this signal, vary the interval between two wipes, corresponding to the pause time between the two wipes.

**FAULT FINDING - INTRODUCTION**

Wiper interval as a function of the ring position.

Ring position	Interval between wipes
1 slow interval	14 seconds
2	10 seconds
3	6 seconds
4	3 seconds
5 fast interval	1 second

**Timing of rear screen wiper**

The rear screen wiper timer function is only operational with the ignition on and if the wiper stalk is in the rear intermittent position; the interval between two wipes is equal to 5 seconds.

Rear screen wiper timing triggered by reverse gear.

The presence of + after ignition feed with reverse gear engaged and the front wiper control set to low or high speed or intermittent is equivalent to a rear wiper timing signal.

The absence of any one of these conditions will stop the timing.

The UCH remains in rear wiper timing mode for as long as reverse gear is selected.

**Rain sensor**

The rain sensor allows automatic operation of the wipers and the control of the wiper speeds as a function of the quantity of water on the windscreen.

A series connection controls the rain and light sensor. This sensor is installed in the windscreen.

The sensor is activated by setting the wiper stalk to intermittent on position.

If the wiper stalk is already in the intermittent on position when the ignition is switched on, the rain sensor is inhibited.

The function is released again by resetting the wiper stalk to intermittent on position.

On the other hand, if the low speed or high speed commands are present when the ignition is switched on, these commands are accepted.

### FAULT FINDING - INTRODUCTION

#### LIGHTING

##### Headlight washers

Cold countries functions with the high-end UCH: the unit should ensure the timing of the headlight washer. It should only control them if the lights stalk is in the dipped headlights or main beam headlight position and if a headlight washer command is activated for a period of more than 0.5 seconds. The activation period of the headlight washer pump relay is 800 milliseconds. The pump should be activated in one direction then the other, alternate control.

##### Daytime running lights

Functions for cold zones with the top of range UCH: When the lighting stalk is in the park position, the appearance of + after ignition feed switches on the side lights and dipped headlights. The other functions are identical to the French version.

##### Light sensor

The light sensor allows the dipped headlights to be switched on as a function of the amount of light.

The connection is common with the rain sensor.

It is possible to activate or deactivate the function by means of the lighting stalk.

Two cycles of switching the side lights on and off in less than 4 seconds confirm the initiation or cancellation of the function by an audible signal.

The lights are only switched on automatically when the engine is running.

**FAULT FINDING - INTRODUCTION****Pin-out and connections**

The connectors, three in all, are as follows:

Black 40-track P201 connector:

PIN	Signal
1	Side light relay output
2	Passenger side one-touch window lowering input
3	Front door switch input
4	Passenger side one-touch window raising input
5	VERLOG LED output
6	Windscreen wiper sequencing input
7	+ battery feed
8	Transporter line input
9	CAN L
10	CAN H
11	Dipped beam relay output
12	Main beam input
13	Rain sensor serial line
14	Starter relay output
15	Electric door locking LED output
16	Rear wiper park switch input
17	Windscreen wiper park switch input
18	K diagnostic line
19	CAN L
20	CAN H
21	Windscreen wiper high-speed input
22	Windscreen wiper low-speed input
23	Relay plate
24	Rear screen washer input
25	Windscreen washer input
26	Side light input
27	Left-hand side indicator input
28	Right-hand side indicator input
29	Hazard warning light input
30	Rear door switch input
31	Hazard warning light output
32	Reverse gear switch input
33	+ after ignition
34	Rear screen wiper input
35	Heated rear screen input
36	Electric door locking input
37	Driver one-touch window lowering input
38	Driver one-touch window raising output
39	Luggage compartment door switch input
40	Dipped beam input



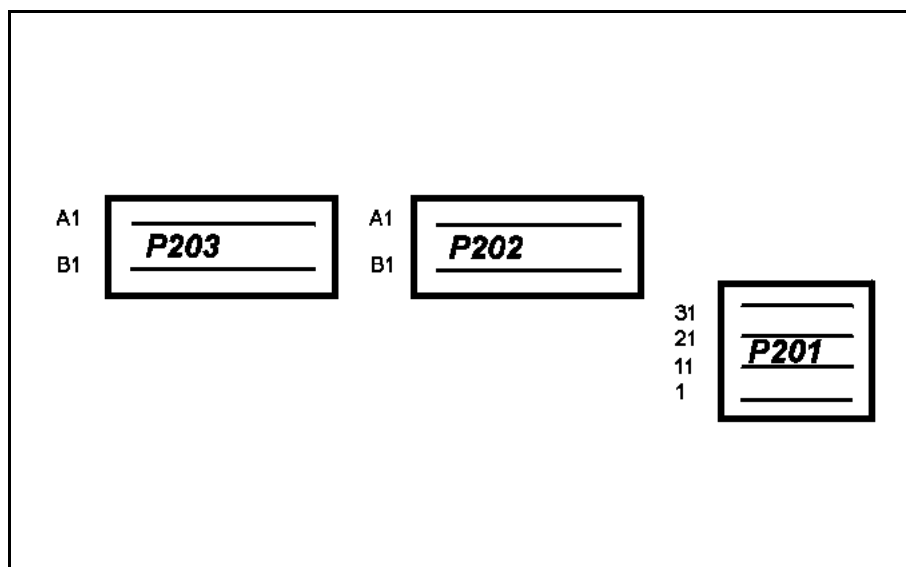
## FAULT FINDING - INTRODUCTION

Clear 15-track P202 connector:

PIN	Signal
A1	Windscreen wiper high-speed output
A2	+ after ignition for rear screen wiper
A3	+ battery for lighting management
A4	+ after ignition for windscreen wiper
A5	Headlight 1 washer pump relay output
A6	+ battery for timed supply
A7	Headlight 2 washer pump relay output
A8	Courtesy light output
A9	Footwell light output
B1	Passenger side one-touch window raising output
B2	Driver side one-touch window lowering output
B3	+ battery for driver side one-touch window
B4	Earth
B5	Driver side one-touch window raising output
B6	Earth

Black 15-track P203 connector:

PIN	Signal
A1	+ battery for direction indicators
A2	Left hand direction indicator output
A3	Right hand direction indicator output
A4	Electric door locking output
A5	Main beam relay output
A6	Electric door unlocking output
A7	+ battery for electric door locking
A8	Rear screen wiper output
A9	Front wiper low speed output
B1	+ after ignition supply for LARC
B2	LARC output
B3	Electric window input
B4	+ after ignition electric window output
B5	Passenger side one-touch window lowering output
B6	+ battery feed for one-touch window raise, passenger side



# ELECTRONIC ASSISTANCE EQUIPMENT

Passenger Compartment Unit

UCHCLIO2 phase2 1.0

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## FAULT FINDING - INTERPRETATION OF FAULTS

<b>DF119 PRESENT OR STORED</b>	<u>WINDSCREEN WIPER PARK POSITION</u>
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<b>NOTES</b>	Condition for applying the fault finding strategy to the stored fault. The fault is declared present following operation of the windscreen wiper. Intermittent operation of the windscreen wipers at low speed (timing not being followed).
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Check whether the windscreen wiper or rear screen wiper park position state <b>ET005 is active</b> every time the wiper arm reaches the idle position then switches to inactive.
Check the connection and condition of the UCH connectors and replace the connector if necessary.
Check the insulation, continuity and absence of interference resistance of the connections: <div style="display: flex; align-items: center; margin-left: 40px;"><div style="text-align: right; margin-right: 10px;">UCH P201 connector <b>track 17</b> <b>earth</b></div><div style="margin-right: 10px;"><div style="border-top: 1px solid black; width: 50px; margin-bottom: 2px;"></div><div style="border-top: 1px solid black; width: 50px; margin-bottom: 2px;"></div></div><div style="display: flex; flex-direction: column; align-items: center;"><div style="margin-bottom: 5px;">➔</div><div style="margin-bottom: 5px;">➔</div></div><div style="text-align: left;"><b>track 1</b> windscreen wiper motor <b>track 5</b> windscreen wiper motor</div></div> <p>Repair if necessary.</p>

<b>AFTER REPAIR</b>	Follow the instructions. Deal with any other faults. Clear the fault memory.
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## FAULT FINDING - INTERPRETATION OF FAULTS


<p>DF120 PRESENT OR STORED</p>	<p><u>REAR SCREEN WIPER PARK POSITION</u></p>
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<b>NOTES</b>	<p>Condition for applying the fault finding strategy to the stored fault.</p> <p>The fault is declared present following operation of the windscreen wiper.</p>
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Check whether the windscreen wiper or rear screen wiper park position state **ET006 is active** every time the wiper arm reaches the idle position then switches to inactive.

Check the connection and condition of the UCH connectors and replace the connector if necessary.

Check the insulation, continuity and absence of interference resistance of the connections:

UCH P201 40-track connector **track 16**  **track 2** rear screen wiper motor  
**earth**  **track 3** rear screen wiper motor

Repair if necessary.

Check the motor.  
Check the wiper fitting.  
Replace the windscreen wiper motor if necessary.

<b>AFTER REPAIR</b>	<p>Follow the instructions.</p> <p>Deal with any other faults.</p> <p>Clear the fault memory.</p>
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**FAULT FINDING - INTERPRETATION OF FAULTS**

<b>DF128 PRESENT OR STORED</b>	<u>VEHICLE SPEED NOT AVAILABLE</u>
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<b>NOTES</b>	None. Special features: if there is a fault stored check whether there are any other faults present and clear them.
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Is the vehicle speed signal present on the instrument panel?
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<b>YES</b>	Carry out a diagnostic check on the multiplex network: see Section 88 "multiplex network wiring".
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<b>NO</b>	Carry out the fault finding procedure on the airbag circuit. Repair if necessary.
	Carry out a diagnostic check on the ABS system and the instrument panel. Repair if necessary.

<b>AFTER REPAIR</b>	Deal with any other faults. Clear the fault memory.
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**FAULT FINDING - INTERPRETATION OF FAULTS**

<b>DF130 PRESENT OR STORED</b>	<u>INCORRECT CONFIGURATION OF THE INSTRUMENT PANEL</u>
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<b>NOTES</b>	The fault is declared present when the ignition is switched on. Special features: if there is a fault stored check whether there are any other faults present and clear them.
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Carry out instrument panel configuration (see instrument panel, Section 83).
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<b>AFTER REPAIR</b>	Follow the instructions. Deal with any other faults. Clear the fault memory.
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### FAULT FINDING - INTERPRETATION OF FAULTS

<p><b>DF131 PRESENT OR STORED</b></p>	<p><u>ELECTRIC DOOR LOCK BUTTON CIRCUIT</u> CC.0: short circuit to earth</p>
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<p><b>NOTES</b></p>	<p>Application of the fault finding procedure to the stored fault. Fault appears when the door locking button is pressed.</p>
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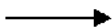
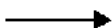
<p>Check that locking button state <b>ET038 is active</b> when door locking is activated. Check that unlocking button state <b>ET039 is active</b> when door unlocking is activated.</p>	
<p>Check the connections and condition of the P201 40-track connector of the UCH and replace the connector if necessary.</p>	
<p>Check the insulation and continuity of the connections:</p> <div style="display: flex; align-items: center; justify-content: center;"> <div style="text-align: center;"> <p>UCH P201 40-track connector <b>track 36</b> <b>earth</b></p> </div> <div style="margin: 0 10px;"> <p>→</p> </div> <div style="text-align: center;"> <p><b>track B1</b> electric door locking button <b>track A2</b> electric door locking button</p> </div> </div> <p>Repair if necessary.</p>	
<p>If the fault persists, replace the UCH.</p>	

<p><b>AFTER REPAIR</b></p>	<p>Follow the instructions. Deal with any other faults. Clear the fault memory.</p>
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FAULT FINDING - INTERPRETATION OF FAULTS

<b>DF132 PRESENT OR STORED</b>	<u>MAIN BEAM HEADLIGHT RELAY CONTROL CIRCUIT</u> CC.1: Short circuit to +12V
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<b>NOTES</b>	<b>Vehicle fitted with running lights, rain sensor or light sensor</b> Condition for applying the fault finding strategy to the stored fault. The fault is declared present following operation of the main beam headlights.
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<p>With the ignition on, check for the presence of +12 V at terminals <b>B3</b> and <b>B1</b> of the main running light relay. If the relay has no supply, check the presence of +12V at terminals <b>A3</b> and <b>A1</b> of the side running light relay. If there is no supply to <b>track A3</b> check the following connection:</p> <p><b>track A3</b>            <b>fuse box</b></p> <p>(See wiring diagram of the vehicle concerned). Repair if necessary.</p>	
<p>If the running lights main relay is properly supplied, swap the running lights main relay with the running lights side lights relay. If the fault changes to stored, replace the relay. If the fault is still present, check the insulation and continuity of the following connection:</p> <p><b>track B2</b>            <b>track 5 UCH P203 15-track connector</b></p> <p>Repair if necessary.</p>	

<b>AFTER REPAIR</b>	Follow the instructions. Deal with any other faults. Clear the fault memory.
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**FAULT FINDING - INTERPRETATION OF FAULTS**

<b>DF133 PRESENT OR STORED</b>	<u>DIPPED BEAM HEADLIGHTS RELAY CONTROL CIRCUIT</u> CC.1: Short circuit to +12V
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<b>NOTES</b>	<b>Vehicle fitted with running lights, rain sensor or light sensor</b> Condition for applying the fault finding strategy to the stored fault. The fault is declared present following operation of the main beam headlights.
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With the ignition on, check for the presence of +12 V at terminals <b>A3</b> and <b>A1</b> of the running lights dipped headlights relay. If there is no supply to <b>track A3</b> check the following connection:  <b>track A3      —————&gt;      fuse box</b>  (See wiring diagram of the vehicle concerned). Repair if necessary.	
If the dipped beam running lights relay is properly supplied, swap the dipped beam relay with the side lights running lights relay. If the fault changes to stored, replace the relay. If the fault is still present, check the insulation and continuity of the following connection:  <b>track A2      —————&gt;      track 11 UCH P201 40-track connector</b>  Repair if necessary.	

<b>AFTER REPAIR</b>	Follow the instructions. Deal with any other faults. Clear the fault memory.
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## FAULT FINDING - INTERPRETATION OF FAULTS

<b>DF134 PRESENT OR STORED</b>	<u>SIDE LIGHTS RELAY CONTROL CIRCUIT</u> CC.1: Short circuit to +12V
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<b>NOTES</b>	<b>Vehicle fitted with running lights, rain sensor or light sensor</b> Condition for applying the fault finding strategy to the stored fault. The fault is declared present following operation of the side lights control.
--------------	---

With the ignition on, check for the presence of +12 V at terminals **A3** and **A1** of the side lights running lights relay.

If there is no supply to **track A3** check the following connection:

**track A3** —————> **fuse box**

(See wiring diagram of the vehicle concerned).

Repair if necessary.

If the side lights running lights relay is properly supplied, swap the side lights relay with the dipped beam running lights relay. If the fault changes to stored, replace the relay.

If the fault is still present, check the insulation and continuity of the following connection:

**track A2** —————> **track 1** UCH P201 40-track connector

Repair if necessary.

<b>AFTER REPAIR</b>	Follow the instructions. Deal with any other faults. Clear the fault memory.
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**FAULT FINDING - INTERPRETATION OF FAULTS**

<b>DF135 PRESENT OR STORED</b>	<u><b>HEADLIGHT WASHER 1 RELAY CONTROL CIRCUIT</b></u> CC.1: Short circuit to +12V
--	---

<b>NOTES</b>	Vehicle fitted with daytime running lights or discharge bulbs. Application of the fault finding procedure to the stored fault. The fault is declared present with the lighting stalk in the dipped headlights or main beam headlights position during operation of the windscreen washer for more than 0.5 seconds.
--------------	---

Check the condition of the 20A direction indicator supply fuse (F33).
Check the connection and condition of the UCH P202 15-track connector and replace it if necessary.
Check the insulation and continuity of the connections: <div><div>P202 15-track connector <b>track A5</b> fuse box (<b>F33</b>) <b>20 A</b></div><div>—————&gt; —————&gt;</div><div><b>track B2</b> headlight washer 1 relay <b>tracks B5 and B1</b> headlight washer relay</div></div> Repair if necessary.

<b>AFTER REPAIR</b>	Follow the instructions. Deal with any other faults. Clear the fault memory.
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**FAULT FINDING - INTERPRETATION OF FAULTS**

<b>DF136 PRESENT OR STORED</b>	<u><b>HEADLIGHT WASHER 2 RELAY CONTROL CIRCUIT</b></u> CC.1: Short circuit to +12V
--	---

<b>NOTES</b>	Vehicle fitted with daytime running lights or discharge bulbs. Application of the fault finding procedure to the stored fault. The fault is declared present with the lighting stalk in the dipped headlights or main beam headlights position during operation of the windscreen washer for more than 0.5 seconds.
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Check the condition of the 20A direction indicator supply fuse (F33).
Check the connection and condition of the UCH P202 15-track connector and replace it if necessary.
Check the insulation and continuity of the connections: <div><div>P202 15-track connector <b>track A7</b> fuse box (<b>F33</b>) <b>20 A</b></div><div>—————&gt; —————&gt;</div><div><b>track A2</b> headlight washer 2 relay <b>tracks A5 and A1</b> headlight washer relay</div></div> Repair if necessary.

<b>AFTER REPAIR</b>	Follow the instructions. Deal with any other faults. Clear the fault memory.
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FAULT FINDING - INTERPRETATION OF FAULTS

DF138 PRESENT OR STORED	<u>RAIN SENSOR</u>
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NOTES	Application of the fault finding procedure to the stored fault. Fault declared present with wiper stalk in intermittent position. <b>Special note:</b> service warning light (orange) comes on if the UCH does not detect the rain sensor. If the rain sensor is faulty, a fixed interval of 5 seconds is applied at low speed.
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Check the insulation, continuity and absence of interference resistance of the connections between:	
fuse box <b>F3 (15 A)</b>	—————▶ <b>track 1</b> rain sensor
<b>earth</b>	—————▶ <b>track 2</b> rain sensor
UCH P201 40-track connector <b>track 13</b>	—————▶ <b>track 3</b> rain sensor
Repair if necessary.	

AFTER REPAIR	Follow the instructions. Deal with any other faults. Clear the fault memory.
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FAULT FINDING - INTERPRETATION OF FAULTS

<b>DF145 PRESENT OR STORED</b>	<u>DOORS AND TAILGATE LOCKING WARNING LIGHT CIRCUIT</u> CC.0: short circuit to earth CC.1: short circuit to +12V
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<b>NOTES</b>	Condition for applying the fault finding strategy to the stored fault. The fault is declared present following the warning light command.
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Check that the doors and tailgate locking status indicator light <b>ET217 comes on</b> when central door locking is actuated.
Check the connections and condition of the P201 40-track connector of the UCH and replace the connector if necessary.
Check the insulation and continuity of the connections: <div>UCH P201 40-track connector <b>track 15</b>        <b>track B3</b> electric door locking button passenger compartment fuse box                <b>track B2</b> electric door locking button</div> Repair if necessary.

<b>AFTER REPAIR</b>	Follow the instructions. Deal with any other faults. Clear the fault memory.
---------------------	--

FAULT FINDING - INTERPRETATION OF FAULTS

<b>DF146 PRESENT OR STORED</b>	<u>INDICATOR SUPPLY</u>
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<b>NOTES</b>	None.
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Check the condition of the 15A (F22) fuse for the direction indicator supply.
Check the connections and condition of the P203 15-track connector of the UCH and replace the connector if necessary.
Check the insulation and continuity of the connection between: fuse box (F22) 15 A    ➔    track A1 P203 15-track connector Repair if necessary.

<b>AFTER REPAIR</b>	Deal with any other faults. Clear the fault memory.
---------------------	--

### FAULT FINDING - CONFORMITY CHECK

<b>NOTES</b>	<p>Only check the conformity after a complete check with the fault finding tool. The values indicated in this conformity check are given as examples.</p> <p>Test conditions: <b>Engine stopped, ignition on.</b></p>
--------------	---

Order	Function	Parameter or status Check or action		Display and notes	Fault finding
1	Power supply	PR002:	battery voltage	12 < X < 12.5 volts	<b>if there is a problem:</b> carry out a fault finding test on the charging circuit.
		ET002:	+ 12V after ignition feed	PRESENT	<b>in the event of a problem:</b> consult the fault finding procedure for state <b>ET002</b>
		ET001:	+ 12V accessories	PRESENT	None.
		ET242:	the engine is running	NO	None.



### FAULT FINDING - CONFORMITY CHECK

<b>NOTES</b>	Only check the conformity after a complete check with the fault finding tool. The values indicated in this conformity check are given as examples. Test conditions: <b>Engine stopped, ignition on.</b>
--------------	--

Order	Function	Parameter or status Check or action		Display and notes	Fault finding
2	Lighting	ET020:	side lights control	<b>ACTIVE</b> when side lights are switched on	<b>if INACTIVE:</b> refer to the fault finding procedure for status <b>ET020</b>
		ET029:	right indicator control	<b>ACTIVE</b> when the right-hand indicator is switched on	<b>if INACTIVE:</b> refer to the fault finding procedure for status <b>ET029</b>
		ET028:	left indicator control	<b>ACTIVE</b> when the left-hand indicator is switched on	<b>if INACTIVE:</b> refer to the fault finding procedure for status <b>ET028</b>
		ET022:	hazard warning lights control	<b>ACTIVE</b> when the hazard warning lights are switched on	<b>if INACTIVE:</b> refer to the fault finding procedure for status <b>ET022</b>
		ET231:	low light detection	<b>NO</b>	<b>in the event of a fault:</b> refer to the fault finding procedure for status <b>ET231</b>

## FAULT FINDING - CONFORMITY CHECK

**NOTES**

Only check the conformity after a complete check with the fault finding tool. The values indicated in this conformity check are given as examples.  
Test conditions: **Engine stopped, ignition on.**

Order	Function	Parameter or status Check or action		Display and notes	Fault finding
3	Windscreen wiper	ET032:	windscreen washer control	<b>ACTIVE</b> when the windscreen washer is switched on	<b>if INACTIVE:</b> refer to the fault finding procedure for status <b>ET032</b>
		ET035:	windscreen wiper timer	<b>ACTIVE</b> when the windscreen wiper control is in intermittent position	<b>if INACTIVE:</b> refer to the fault finding procedure for status <b>ET035</b>
		ET005:	windscreen wiper park position	<b>ACTIVE</b> with the windscreen wiper switch in intermittent position during each pause of the windscreen wipers	<b>in the event of a fault:</b> apply the <b>fault finding procedure</b> for windscreen wiper park position fault <b>DF119</b>
		ET051:	windscreen wiper low speed control	<b>ACTIVE</b> when the windscreen wiper control is in low speed position	<b>if INACTIVE:</b> refer to the fault finding procedure for status <b>ET051</b>
		ET052:	windscreen wiper high speed control	<b>ACTIVE</b> when the windscreen wiper control is in high speed position	<b>if INACTIVE:</b> refer to the fault finding procedure for status <b>ET052</b>

## FAULT FINDING - CONFORMITY CHECK

**NOTES**

Only check the conformity after a complete check with the fault finding tool. The values indicated in this conformity check are given as examples.  
Test conditions: **Engine stopped, ignition on.**

Order	Function	Parameter or status Check or action		Display and notes	Fault finding
3	Windscreen wiper (continued)	ET031:	rear screen washer control	<b>ACTIVE</b> when the rear screen washer is switched on	<b>if INACTIVE:</b> refer to the fault finding procedure for status <b>ET031</b>
		ET036:	rear screen wiper intermittent facility	<b>ACTIVE</b> with rear screen wiper control in intermittent position	<b>if INACTIVE:</b> refer to the fault finding procedure for status <b>ET036</b>
4	Opening elements	ET192:	front door	<b>OPEN</b> when the front doors are open	<b>in the event of a fault:</b> refer to the fault finding procedure for status <b>ET192</b>
		ET111:	rear door	<b>OPEN</b> when the rear doors are open	<b>in the event of a fault:</b> refer to the fault finding procedure for status <b>ET111</b>
		ET240:	luggage compartment open	<b>YES</b> when luggage compartment is open	<b>in the event of a fault:</b> refer to the fault finding procedure for status <b>ET240</b>
		ET217:	doors and tailgate locking warning light	<b>ILLUMINATED</b> when opening elements are locked <b>OFF</b> when opening elements are unlocked	<b>in the event of a fault:</b> refer to the fault finding procedure for status <b>ET217</b>

## FAULT FINDING - CONFORMITY CHECK

**NOTES**

Only check the conformity after a complete check with the fault finding tool. The values indicated in this conformity check are given as examples.  
Test conditions: **Engine stopped, ignition on.**

Order	Function	Parameter or status Check or action		Display and notes	Fault finding
4	Opening elements (continued)	ET010:	valid radio frequency key	<b>YES</b> status during locking or unlocking of the vehicle by remote control.	<b>in the event of a fault:</b> refer to the fault finding procedure for status <b>ET010</b>
		ET193:	RF frame received	<b>YES</b> status during locking or unlocking of the vehicle by remote control.	<b>in the event of a fault:</b> refer to the fault finding procedure for status <b>ET193</b>
		ET012:	source of last doors and tailgate command	<b>TRF</b> during locking with the remote control <b>CPE</b> during locking using the central door locking switch	None.
		ET105:	last doors and tailgate command	<b>UNLOCKING</b> <b>LOCKING</b>	None.
5	Speed	PR001:	vehicle speed	<b>X</b> in Km/h	<b>in the event of a fault:</b> apply the <b>fault finding procedure</b> for incorrect vehicle speed fault <b>DF129</b>

FAULT FINDING - CONFORMITY CHECK

NOTES	Only check the conformity after a complete check with the fault finding tool. The values indicated in this conformity check are given as examples. Test conditions: <b>Engine stopped, ignition on.</b>
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Order	Function	Parameter or status Check or action		Display and notes	Fault finding
6	Switch	ET008:	heated rear screen button	<b>PRESSED</b> when the rear screen heater is activated	<b>in the event of a fault:</b> refer to the fault finding procedure for status <b>ET008</b>
		ET245:	driver's window lift push button	<b>LOWERING</b> <b>RAISING</b> <b>RELEASED</b>	<b>in the event of a fault:</b> refer to the fault finding procedure for status <b>ET245</b>
		ET244:	passenger window lift push button	<b>LOWERING</b> <b>RAISING</b> <b>RELEASED</b>	<b>in the event of a fault:</b> refer to the fault finding procedure for status <b>ET244</b>
		ET141:	reverse gear engaged	<b>YES</b> <b>NO</b>	<b>in the event of a fault:</b> refer to the fault finding procedure for status <b>ET141</b>

FAULT FINDING -INTERPRETATION OF STATUSES

ET002	<u>+12V AFTER IGNITION FEED</u>
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ET002 INACTIVE, ignition on

<p>Check the passenger compartment fuse. Use a multimeter to check the presence of + 12 V at the fuse holder with the ignition on. Repair if necessary.</p>
<p>Use a multimeter to check the presence of + 12 V on track 33 of the UCH 40-track connector with the ignition on. If the voltage is present, replace the UCH.</p>
<p>If there is no voltage, check the continuity and insulation against earth between <b>track 33 of the UCH P201 40-track connector and fuse F21 (SA) of the passenger compartment fuse box.</b> Repair if necessary.</p>

ET002 ACTIVE ignition off

<p>With the ignition off, use a multimeter to check for the absence of a + 12V supply at passenger compartment fuse port. Repair if necessary.</p>
<p>If the voltage is absent, replace the UCH.</p>

AFTER REPAIR	<p>Carry out another fault finding check on the system. Deal with any other faults. Clear the stored faults.</p>
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### FAULT FINDING -INTERPRETATION OF STATUSES

<b>ET008</b>	<u>REAR DE-ICING SWITCH</u>
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<b>NOTES</b>	<p>There must be no present or stored faults.</p> <p>Switch on the ignition.</p> <p>Activate the heated rear screen and check that the status of the heated rear screen button is <b>PRESSED</b>.</p>
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<b>ET008 HALT button activated</b>
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<p>Check fuse F30 (30A) for the heated rear screen.</p> <p>Replace it if necessary.</p>
<p>Check the connection and status of the connector for the heated screen button.</p> <p>Replace it if necessary.</p>
<p>With the button pressed, use a multimeter to check for the presence of an earth on <b>track 35</b> of P201 40-track connector of the UCH.</p> <p>Repair if necessary.</p>
<p>If there is no voltage, check the continuity and insulation between <b>track 35</b> of the UCH P201 40-track connector and the heated screen button.</p> <p>Repair if necessary.</p>
<p>Replace the de-icing switch.</p>

<b>AFTER REPAIR</b>	<p>Carry out another fault finding check on the system.</p> <p>Deal with any other faults.</p> <p>Clear the stored faults.</p>
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## FAULT FINDING -INTERPRETATION OF STATUSES

ET010	<u>VALID RADIO FREQUENCY KEY</u>
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NOTES	Check that no fault is present. State declared is <b>YES</b> when the remote control is pressed. If the state declared is <b>NO</b> switch ignition off and on, and retry with another vehicle key.
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If ET010 stays at NO: when the remote control is pressed

Resynchronize the keys switching the ignition on (+ after ignition feed).

If the problem persists and if **ET193 RF FRAME RECEIVED** status is shown as **YES**, replace the keys.  
If the problem persists, replace the UCH.

AFTER REPAIR	Carry out another fault finding check on the system. Deal with any other faults. Clear the stored faults.
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FAULT FINDING -INTERPRETATION OF STATUSES

ET020	<u>SIDE LIGHTS CONTROL</u>
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NOTES	<p><b>Only on high-end UCH.</b> There must be no present or stored faults. Activate the side lights control. The status should be <b>ACTIVE</b>.</p>
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ET020 INACTIVE	Check the connection and condition of the light stalk connector. Replace it if necessary.
	Check the connection and condition of the P201 40-track connector of the UCH. Replace the connector if necessary.
	Ensure the continuity and insulation of the connection between: UCH P201 40-track connector <b>track 26</b> —————> stalk <b>track B1</b> Repair if necessary.

AFTER REPAIR	Carry out another fault finding check on the system. Deal with any other faults. Clear the stored faults.
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FAULT FINDING -INTERPRETATION OF STATUSES

ET022	<u>HAZARD WARNING LIGHTS CONTROL</u>
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NOTES	There must be no present or stored faults. Activate the hazard warning light control. The status should be <b>ACTIVE</b> .
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ET022 INACTIVE	Check the F22 <b>(15 A)</b> supply fuse for the direction indicators. Replace it if necessary.
	Check the connection and condition of the connector of the hazard warning light switch. Replace the connector if necessary.
	Check the continuity of the connection between hazard warning lights switch <b>track 2</b> → <b>earth</b> Repair if necessary.
	Check the insulation, continuity and the absence of interference resistance on the connection: hazard warning lights switch <b>track 3</b> → <b>track 29</b> UCH P201 40-track connector Repair if necessary.
	Check the operation of the hazard warning lights control.

AFTER REPAIR	Carry out another fault finding check on the system. Deal with any other faults. Clear the stored faults.
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**FAULT FINDING -INTERPRETATION OF STATUSES**

<b>ET023</b>	<u>DIPPED HEADLIGHTS CONTROL</u>
<b>NOTES</b>	<p><b>Only on high-end UCH.</b> There must be no present or stored faults. Activate the dipped headlights control. The status should be <b>ACTIVE</b>.</p>
<b>ET023 INACTIVE</b>	<p>Check the connection and condition of the light stalk connector. Replace it if necessary.</p>
	<p>Check the connection and condition of the P201 40-track connector of the UCH. Replace it if necessary.</p>
	<p>Ensure the continuity and insulation of the connection between: UCH P201 40-track connector <b>track 2</b> → stalk <b>track B4</b> Repair if necessary.</p>
<b>AFTER REPAIR</b>	<p>Carry out another fault finding check on the system. Deal with any other faults. Clear the stored faults.</p>




**FAULT FINDING -INTERPRETATION OF STATUSES**

<b>ET024</b>	<u>MAIN BEAM HEADLIGHT CONTROL</u>
<b>NOTES</b>	<p><b>Only on high-end UCH.</b> There must be no present or stored faults. Activate the side lights control. The status should be <b>ACTIVE</b>.</p>
<b>ET024 INACTIVE</b>	<p>Check the connection and condition of the light stalk connector. Replace it if necessary.</p>
	<p>Check the connection and condition of the P201 40-track connector of the UCH. Replace it if necessary.</p>
	<p>Ensure the continuity and insulation of the connection between: UCH P201 40-track connector <b>track 12</b>        stalk <b>track B7</b> Repair if necessary.</p>
<b>AFTER REPAIR</b>	<p>Carry out another fault finding check on the system. Deal with any other faults. Clear the stored faults.</p>

### FAULT FINDING -INTERPRETATION OF STATUSES

<p><b>ET028</b></p> <p><b>ET029</b></p>	<p><u>LEFT-HAND INDICATOR CONTROL</u></p> <p><u>RIGHT-HAND INDICATOR CONTROL</u></p>
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<p><b>NOTES</b></p>	<p>There must be no present or stored faults.</p> <p>Switch on the ignition.</p> <p>Operate the left or right direction indicator.</p> <p>The status should be <b>ACTIVE</b>.</p>
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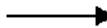




<div>ET028 or ET029 INACTIVE</div>	<div>Check the F22 (15A) fuse for the direction indicator supply. Replace it if necessary.</div>
	<div>Check the connection and condition of the indicator stalk connector. Replace the connector if necessary.</div>
	<div>Check the continuity of the connection between direction indicator stalk <b>track A6</b>  <b>earth</b> Repair if necessary.</div>
	<div>Disconnect the UCH P201 40-track connector while right or left indicator is operating. Ensure the continuity and insulation of the connections between: <div><div>right-hand direction indicator stalk <b>track A5</b>  <b>track 28</b> UCH P201 40-track connector</div><div>left-hand direction indicator stalk <b>track A7</b>  <b>track 27</b> UCH P201 40-track connector</div></div> Repair if necessary.</div>

<p><b>AFTER REPAIR</b></p>	<p>Carry out another fault finding check on the system.</p> <p>Deal with any other faults.</p> <p>Clear the stored faults.</p>
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FAULT FINDING -INTERPRETATION OF STATUSES




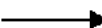

ET031	<u>REAR SCREEN WASHER CONTROL</u>
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NOTES	There must be no present or stored faults. Switch on the ignition. Put the windscreen wiper stalk in the rear screen wash position. The status should be <b>ACTIVE</b> .
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ET031 INACTIVE	Check fuses <b>F13 (20 A)</b> . Replace it if necessary.
	Check the connection and condition of the windscreen wiper stalk connector. Replace the connector if necessary.
	Ensure the continuity and insulation of the connections between: <div>UCH P201 40-track connector <b>track 24</b>        windscreen wiper stalk <b>track B1</b></div> <div><b>earth</b>        windscreen wiper stalk <b>track B5</b></div> <div><b>+ after ignition</b>        windscreen wiper stalk <b>track B4 and A7</b></div> Repair if necessary.
	Check the correct operation of the washer pump, in particular the continuity and insulation of the following connections: <div>pump <b>track 2</b>        <b>track A4</b> windscreen wiper stalk</div> <div>pump <b>track 1</b>        <b>track B1</b> windscreen wiper stalk</div> Repair if necessary.

AFTER REPAIR	Carry out another fault finding check on the system. Deal with any other faults. Clear the stored faults.
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FAULT FINDING -INTERPRETATION OF STATUSES

ET032	<u>WINDSCREEN WASH CONTROL</u>
NOTES	There must be no present or stored faults. Switch on the ignition. Put the windscreen wiper stalk in the rear screen wash position. The status should be <b>ACTIVE</b> .
ET032 INACTIVE	Check fuses <b>F4 (20 A)</b> . Replace it if necessary.
	Check the connection and condition of the windscreen wiper stalk connector. Replace it if necessary.
	Ensure the continuity and insulation of the connections between:  UCH P201 40-track connector <b>track 25</b>  windscreen wiper stalk <b>track A4</b>  <b>earth</b>  windscreen wiper stalk <b>track B5</b>  <b>+ after ignition</b>  windscreen wiper stalk <b>track B4 and A7</b>  Repair if necessary.
	Check the correct operation of the washer pump, in particular the continuity and insulation of the following connections:  pump <b>track 2</b>  <b>track A4</b> windscreen wiper stalk  pump <b>track 1</b>  <b>track B1</b> windscreen wiper stalk  Repair if necessary.
AFTER REPAIR	Carry out another fault finding check on the system. Deal with any other faults. Clear the stored faults.

FAULT FINDING -INTERPRETATION OF STATUSES

ET034	<u>POSITION OF PASSENGER SIDE ELECTRIC WINDOW BUTTON</u>
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NOTES	<p><b>Only on high-end UCH.</b></p> <p>There must be no present or stored faults.</p> <p>Switch on the ignition.</p> <p>When the raise button is pressed, the status must be <b>RAISE</b>.</p> <p>When the lower button is pressed, the status must be <b>LOWER</b>.</p> <p>When there is no operation of the electric window button, the status must be <b>RELEASED</b>.</p>
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<p>Check the connection and condition of the P201 40-track connector of the UCH. Replace it if necessary.</p>									
<p>Check the connection and condition of the electric window switch connector. Replace it if necessary.</p>									
<p>Ensure the continuity and insulation of the connections between:</p> <table><tr><td>UCH 40-track connector <b>track 3</b></td><td>—————▶</td><td><b>track A3</b> electric window switch connector</td></tr><tr><td>UCH 40-track connector <b>track 4</b></td><td>—————▶</td><td><b>track B1</b> electric window switch connector</td></tr><tr><td><b>earth</b></td><td>—————▶</td><td><b>track A2</b> electric window switch connector</td></tr></table> <p>Repair if necessary.</p>	UCH 40-track connector <b>track 3</b>	—————▶	<b>track A3</b> electric window switch connector	UCH 40-track connector <b>track 4</b>	—————▶	<b>track B1</b> electric window switch connector	<b>earth</b>	—————▶	<b>track A2</b> electric window switch connector
UCH 40-track connector <b>track 3</b>	—————▶	<b>track A3</b> electric window switch connector							
UCH 40-track connector <b>track 4</b>	—————▶	<b>track B1</b> electric window switch connector							
<b>earth</b>	—————▶	<b>track A2</b> electric window switch connector							

AFTER REPAIR	<p>Carry out another fault finding check on the system.</p> <p>Deal with any other faults.</p> <p>Clear the stored faults.</p>
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FAULT FINDING -INTERPRETATION OF STATUSES

ET035	<u>WINDSCREEN WIPER TIMER</u>
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NOTES	There must be no present or stored faults. Switch on the ignition. Put the wiper stalk in the intermittent wipe position. The status should be <b>ACTIVE</b> .
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ET035 INACTIVE	Check fuses <b>F4 (20 A)</b> . Replace it if necessary.
	Check the connection and condition of the wiper stalk connector. Replace it if necessary.
	Ensure the continuity and insulation of the connections between: <div><div>UCH P201 40-track connector <b>track 6</b></div><div>→</div><div>windscreen wiper stalk <b>track A6</b></div></div> <div><div><b>earth</b></div><div>→</div><div>windscreen wiper stalk <b>track B5</b></div></div> <div><div><b>+ after ignition</b></div><div>→</div><div>windscreen wiper stalk <b>track B4 and A7</b></div></div> Repair if necessary.

AFTER REPAIR	Carry out another fault finding check on the system. Deal with any other faults. Clear the stored faults.
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FAULT FINDING -INTERPRETATION OF STATUSES

ET036	<u>REAR SCREEN WIPER INTERMITTENT WIPE</u>
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NOTES	There must be no present or stored faults. Switch on the ignition. Engage reverse gear and operate the wiper (low speed, high speed or intermittent wipe). The status must be <b>ACTIVE</b> .
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ET036 INACTIVE	Check the <b>F13 fuse (20A)</b> . Replace it if necessary.
	Check the + after ignition feed to the switch on <b>tracks A7</b> and <b>B4</b> . Repair if necessary.
	Ensure the continuity and insulation of the connections between: <div>UCH P201 40-track connector <b>track 34</b> —————&gt; stalk <b>track B2</b> UCH P201 40-track connector <b>track 16</b> —————&gt; rear screen wiper motor <b>track 2</b></div> Repair if necessary.

AFTER REPAIR	Carry out another fault finding check on the system. Deal with any other faults. Clear the stored faults.
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FAULT FINDING -INTERPRETATION OF STATUSES

ET051	<u>WINDSCREEN WIPER LOW SPEED CONTROL</u>
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NOTES	There must be no present or stored faults. Switch on the ignition. Switch the wiper stalk to the low speed position: the status should be <b>ACTIVE</b> .
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ET051 INACTIVE	Check fuses <b>F4 (20 A)</b> . Repair if necessary.
	Check the + after ignition feed of stalk on tracks <b>A7</b> and <b>B4</b> . Repair if necessary.
	Ensure the continuity and insulation of the connection between: UCH P201 40-track connector <b>track 22</b> —————> stalk <b>track A2</b> Repair if necessary.

AFTER REPAIR	Carry out another fault finding check on the system. Deal with any other faults. Clear the stored faults.
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FAULT FINDING -INTERPRETATION OF STATUSES

ET052	<u>WINDSCREEN WIPER HIGH SPEED CONTROL</u>
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NOTES	There must be no present or stored faults. Switch on the ignition. Switch the wiper stalk to the high speed position: the status should be <b>ACTIVE</b> .
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ET052 INACTIVE	Check fuses <b>F4 (20 A)</b> . Repair if necessary.
	Check the + after ignition feed of stalk on tracks <b>A7</b> and <b>B4</b> . Repair if necessary.
	Ensure the continuity and insulation of the connection between: UCH P201 40-track connector <b>track 21</b>  stalk <b>track A1</b> Repair if necessary.

AFTER REPAIR	Carry out another fault finding check on the system. Deal with any other faults. Clear the stored faults.
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FAULT FINDING -INTERPRETATION OF STATUSES

ET141	<u>REVERSE GEAR ENGAGED</u>
NOTES	There must be no present or stored faults. Switch on the ignition. With reverse gear engaged, the status must be <b>ACTIVE</b> .
Manual gearbox	<p>Check the connection and condition of the P201 40-track connector of the UCH. Replace the connector if necessary.</p> <p>Ensure the continuity and insulation of the connection between: UCH P201 40-track connector <b>track 32</b> —————▶ gear lever switch Repair if necessary.</p>
Automatic gearbox	Carry out a fault finding procedure on the multiplexed network. refer to section 88: Multiplex network wiring.

AFTER REPAIR	Carry out another fault finding check on the system. Deal with any other faults. Clear the stored faults.
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### FAULT FINDING -INTERPRETATION OF STATUSES

ET192 ET111	<u>FRONT DOORS</u> <u>REAR DOORS</u>
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<b>NOTES</b>	Check that no fault is present. Open the front and rear doors.
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Check that for each open door the corresponding state is active and for each closed door the corresponding state is inactive.
<p>Check the connection of the door and passenger compartment wiring, and the continuity and insulation between:</p> <ul style="list-style-type: none"> <li>the lock concerned and the UCH</li> <li>the lock concerned and earth</li> </ul> <p><b>Repair if necessary</b> (see wiring diagram for the vehicle concerned).</p>
<p>Open the door, disconnect the lock and close the lock.</p> <p>Check the continuity between the earth input track and the UCH track.</p> <p>Pull the handle to open the lock and check that there is no longer continuity between the earth input track and the UCH track.</p> <p>In the event of a fault, replace the lock.</p>
Check that the lock engages into the striker plate properly.

<b>AFTER REPAIR</b>	<p>Carry out another fault finding check on the system.</p> <p>Deal with any other faults.</p> <p>Clear the stored faults.</p>
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## FAULT FINDING -INTERPRETATION OF STATUSES

ET193	<u>RF FRAME RECEIVED</u>
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NOTES	Check that no fault is present. State declared is <b>YES</b> when the remote control is pressed. If the state declared is <b>NO</b> switch ignition off and on, and retry with another vehicle key.
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**ET193 NO: when the remote control unit is operated.**



Press the remote control button of another vehicle in the same family (CLIO II 07/01> or TRAFIC 09/01>) or blank key: Check that the state changes to **YES** when it is pressed.  
if **status YES**, replace the remote control of the vehicle being serviced.  
If **status NO** is displayed, replace the **UCH**.

AFTER REPAIR	Carry out another fault finding check on the system. Deal with any other faults. Clear the stored faults.
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**FAULT FINDING -INTERPRETATION OF STATUSES**

<b>ET217</b>	<u>DOORS AND TAILGATE LOCKING INDICATOR LIGHT</u>
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<b>NOTES</b>	There must be no present or stored faults. Get in the vehicle and lock the doors using the electric door lock button.
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Verify that when the electric door lock button is pressed that the corresponding state is ON; if the state remains OFF, check the insulation, continuity and absence of interference resistance of the following connections: <div>UCH P201 40-track connector <b>track 15</b>            <b>track B3</b> electric door locking button fuse box <b>F21 (5 A)</b>                                            <b>track B2</b> electric door locking button</div> Repair if necessary.	
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<b>AFTER REPAIR</b>	Carry out another fault finding check on the system. Deal with any other faults. Clear the stored faults.
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## FAULT FINDING -INTERPRETATION OF STATUSES

ET231	<u>LOW LIGHT DETECTION</u>
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<p><b>NOTES</b></p>	<p><b>Only on high-end UCH.</b>          There must be no present or stored faults.  <b>The rain and light sensors are not separable.</b>          Switch on the ignition.          When the light level is low, the status should be <b>YES</b>. Switch a light on in front of the light sensor: the status should change to <b>NO</b>.</p>
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<p>Check fuse <b>F3 (15 A)</b>. Repair if necessary.</p>
<p>Check the operation of the rain sensor by pouring water in front of it, with automatic intermittent wipe activated. If the windscreen wipers come on, replace the sensor.</p>
<p>Check + after ignition feed to the rain sensor on track <b>A2</b>. Repair if necessary.</p>
<p>Ensure the continuity and insulation of the connections between:</p> <div style="display: flex; align-items: center; justify-content: center; margin: 10px 0;"> <div style="text-align: right; padding-right: 10px;"> <p>UCH P201 40-track connector <b>track 13</b></p> <p><b>earth</b></p> </div> <div style="display: flex; flex-direction: column; align-items: center; margin: 0 10px;"> <div style="width: 50px; height: 10px; background-color: black; margin-bottom: 5px;"></div> <div style="width: 50px; height: 10px; background-color: black; margin-bottom: 5px;"></div> </div> <div style="text-align: left; padding-left: 10px;"> <p>rain sensor <b>track B2</b></p> <p>rain sensor <b>track A3</b></p> </div> </div> <p>Repair if necessary.</p>

<b><i>AFTER REPAIR</i></b>	<p>Carry out another fault finding check on the system.</p> <p>Deal with any other faults.</p> <p>Clear the stored faults.</p>
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FAULT FINDING -INTERPRETATION OF STATUSES

ET240	<u>LUGGAGE COMPARTMENT OPEN</u>
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NOTES	<p>There must be no present or stored faults. Open the luggage compartment: the luggage compartment open status should be <b>YES</b>. Close the luggage compartment: the luggage compartment open status should be <b>NO</b>.</p>
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Check that for each open door the corresponding state is active and for each closed door the corresponding state is inactive.						
<p>Check the connection of the rear harness and the passenger compartment harness.</p> <p>Check the connection of the luggage compartment harness and the rear harness and the continuity and insulation between:</p> <table><tr><td>the rear luggage compartment lock <b>track 1</b></td><td>————→</td><td><b>track 39</b> UCH P201 40-track connector</td></tr><tr><td>the rear luggage compartment lock <b>track 2</b></td><td>————→</td><td><b>earth</b></td></tr></table> <p>Repair if necessary (see wiring diagram of the vehicle concerned).</p>	the rear luggage compartment lock <b>track 1</b>	————→	<b>track 39</b> UCH P201 40-track connector	the rear luggage compartment lock <b>track 2</b>	————→	<b>earth</b>
the rear luggage compartment lock <b>track 1</b>	————→	<b>track 39</b> UCH P201 40-track connector				
the rear luggage compartment lock <b>track 2</b>	————→	<b>earth</b>				
<p>Open the luggage compartment, disconnect the lock and close it.</p> <p>Check for continuity between <b>track 2</b> earth input and <b>track 1</b> of the UCH.</p> <p>Pull the handle to open the lock and check that there is no longer continuity between the earth input track and the UCH track.</p> <p>In the event of a fault, replace the lock.</p>						
Check that the lock engages into the striker plate properly.						

AFTER REPAIR	<p>Carry out another fault finding check on the system. Deal with any other faults. Clear the stored faults.</p>
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FAULT FINDING -INTERPRETATION OF STATUSES

ET245	<u>POSITION OF DRIVER SIDE ELECTRIC WINDOW BUTTON</u>
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NOTES	<p>There must be no present or stored faults. Switch on the ignition. When the raise button is pressed, the status must be <b>RAISE</b>. When the lower button is pressed, the status must be <b>LOWER</b>. When there is no operation of the electric window button, the status must be <b>RELEASED</b>.</p>
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<p>Check the connection and condition of the electric window switch connector. Replace the connector if necessary.</p>										
<p>Check the connection and condition of the P201 40-track connector of the UCH. Replace it if necessary.</p>										
<p>Ensure the continuity and insulation of the connections between:</p> <table><tr><td>UCH 40-track connector <b>track 37</b></td><td>————→</td><td><b>track 5</b> electric window switch white connector</td></tr><tr><td>UCH 40-track connector <b>track 38</b></td><td>————→</td><td><b>track 6</b> electric window switch black connector</td></tr><tr><td><b>earth</b></td><td>————→</td><td><b>track 4</b> electric window switch black connector</td></tr></table> <p>Repair if necessary.</p>		UCH 40-track connector <b>track 37</b>	————→	<b>track 5</b> electric window switch white connector	UCH 40-track connector <b>track 38</b>	————→	<b>track 6</b> electric window switch black connector	<b>earth</b>	————→	<b>track 4</b> electric window switch black connector
UCH 40-track connector <b>track 37</b>	————→	<b>track 5</b> electric window switch white connector								
UCH 40-track connector <b>track 38</b>	————→	<b>track 6</b> electric window switch black connector								
<b>earth</b>	————→	<b>track 4</b> electric window switch black connector								

AFTER REPAIR	<p>Carry out another fault finding check on the system. Deal with any other faults. Clear the stored faults.</p>
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FAULT FINDING - CUSTOMER COMPLAINTS

NOTES	These customer complaints should only be investigated after a complete check has been run using the diagnostic tool.
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No dialogue with the UCH	ALP 1
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Lights	
direction indicators do not operate	ALP 2
side lights do not operate	ALP 3
dipped beam headlights do not operate	ALP 4
main beam headlights do not operate	ALP 5
front fog lights do not operate	ALP 6
rear fog lights do not operate	ALP 7

Wipers, washers, de-icing	
low speed windscreen wipers do not operate	ALP 8
high speed windscreen wipers do not operate	ALP 9
rear screen wiper does not operate	ALP 10
rear screen de-icing does not operate	ALP 11

FAULT FINDING - FAULT FINDING CHART

ALP 1	NO COMMUNICATION WITH THE UCH
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NOTES	None.
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Try the diagnostic tool on another vehicle.
Check: – the connection between the diagnostic tool and the diagnostic socket (wiring in good condition), – the engine and passenger compartment fuses.
Check the presence of <b>+ 12 volts before ignition</b> on <b>track 16</b> , <b>+ 12 volts after ignition</b> on <b>track 1</b> and an <b>earth</b> on <b>tracks 4 and 5</b> of the diagnostic socket. Repair if necessary.
Check the computer connections.
Connect the bornier and check the <b>insulation, continuity and interference resistance of the connections between:</b> <div>UCH P201 40-track connector <b>track 7</b>       fuse box UCH P202 15-track connector <b>track B6</b>       <b>earth</b> UCH P201 40-track connector <b>track 18</b>       <b>track 7</b> of the diagnostic socket (line K)</div> Repair if necessary.

AFTER REPAIR	Check the system operation.
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FAULT FINDING - FAULT FINDING CHART

ALP 2	INDICATORS DO NOT OPERATE
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NOTES	Only consult this customer complaint after a complete check using the diagnostic tool. Check the bulbs.
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Check the condition of the fuses and change them if necessary.
Activate the hazard warning light control and check that state <b>ET022 hazard warning lights control</b> is active; if not refer to the section on how to deal with this state. Activate the right-hand or left-hand direction indicators and check that the right-hand direction indicator switch and left-hand direction indicator switch statuses <b>ET228</b> and <b>ET229</b> are active. If not, refer to the section about these states.
Check the condition of the UCH P203 15-track connector. Replace it if necessary.
Check the continuity of the following connections: <div>UCH P203 15-track connector <b>track A2</b> —————▶ <b>left-hand direction indicator</b> UCH P203 15-track connector <b>track A3</b> —————▶ <b>right-hand direction indicator</b></div> Repair if necessary.

AFTER REPAIR	Check the system operation.
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FAULT FINDING - FAULT FINDING CHART

ALP 3	SIDE LIGHTS DO NOT OPERATE
NOTES	<p>Only consult this customer complaint after a complete check using the diagnostic tool.</p> <p>Check the bulbs.</p> <p>Check the type of UCH installed in the vehicle (relayed or non-relayed lighting).</p>
High-end UCH with relay-controlled lighting	Activate the side lights control and check that state <b>ET020 side lights control</b> is active; if not refer to the section on how to deal with this state.
	Check side lights supply fuses <b>F26 (10 A) and F27 (10 A)</b> . Replace them if necessary.
	Check the continuity of the connection: <div>stalk <b>track B1</b> → <b>track 26 UCH P201</b> 40-track connector</div> Repair if necessary
	Run command <b>AC100 Side lights relay</b> . Listen to check that the relay operates correctly.
YES	<p>Check the continuity of the following connections:</p> <div>running lights side lights relay (daytime running lights) <b>track A5</b> → <b>fuse box F26 and F27</b> fuse box <b>F26 and F27</b> → <b>side lights wiring harness</b></div> <p>See wiring diagram for the vehicle concerned.</p> <p>Repair if necessary.</p>
AFTER REPAIR	Check the system operation.

FAULT FINDING - FAULT FINDING CHART

ALP 3 CONTINUED	
NOTES	Only consult this customer complaint after a complete check using the diagnostic tool. Check the bulbs.
NO	<p>Check the continuity of the connection between UCH P201 40-track connector <b>track 1</b> —————&gt; <b>track A2</b> running lights side lights relay</p> <p>Repair if necessary.</p> <p>Check that the relay is functioning correctly.</p>
Basic UCH with non- relayed controlled lighting	<p>Check side lights supply fuses <b>F26 (10 A)</b> and <b>F27 (10 A)</b>. Replace them if necessary.</p> <p>Check the continuity of the connections:</p> <p>stalk <b>track B1</b> —————&gt; <b>fuse box F26 and F27</b> fuse box <b>F26 and F27</b> —————&gt; <b>side lights wiring harness</b></p> <p>See wiring diagram for the vehicle concerned. Repair if necessary.</p>
AFTER REPAIR	Check the system operation.



FAULT FINDING - FAULT FINDING CHART

ALP 4	DIPPED BEAM HEADLIGHTS DO NOT OPERATE
NOTES	Only consult this customer complaint after a complete check using the diagnostic tool. Check the bulbs.
High-end UCH with relay-controlled lighting	Activate the dipped headlights control and check that state <b>ET023 dipped headlights control</b> is active; if not refer to the section on how to deal with this state.
	Check the dipped headlights supply fuses <b>F9 (10 A) and F10 (10 A)</b> . Replace them if necessary.
	Check the continuity of the connection: stalk <b>track B4</b> → <b>track 2 UCH P201</b> 40-track connector  Repair if necessary.
	Run command <b>AC098 Dipped headlights relay</b> . Listen to check that the relay operates correctly.
YES	Check the continuity of the following connections: dipped headlights relay <b>track A5</b> → <b>fuse box F9 and F10</b> fuse box <b>F9 and F10</b> → <b>dipped headlights wiring harness</b>  See wiring diagram for the vehicle concerned.
AFTER REPAIR	Check the system operation.

FAULT FINDING - FAULT FINDING CHART

ALP 4 CONTINUED	
NOTES	Only consult this customer complaint after a complete check using the diagnostic tool. Check the bulbs.
NO	<p>Check the continuity of the connection between UCH P201 40-track connector <b>track 11</b> —————&gt; <b>track A2</b> dipped headlight running light relay</p> <p>Repair if necessary.</p> <p>Check that the relay is functioning correctly.</p>
Basic UCH with non- relayed controlled lighting	<p>Check the dipped headlights supply fuses <b>F9 (10 A)</b> and <b>F10 (10 A)</b>. Replace them if necessary.</p> <p>Check the continuity of the connections:</p> <p>stalk <b>track B4</b> —————&gt; <b>fuse box F9 and F10</b> fuse box <b>F9 and F10</b> —————&gt; <b>side lights wiring harness</b></p> <p>See wiring diagram for the vehicle concerned.</p> <p>Repair if necessary.</p>
AFTER REPAIR	Check the system operation.

### FAULT FINDING - FAULT FINDING CHART

<b>ALP 5</b>	<b>MAIN BEAM HEADLIGHTS DO NOT OPERATE</b>
<b>NOTES</b>	Only consult this customer complaint after a complete check using the diagnostic tool. Check the bulbs.
<b>High-end UCH with relay-controlled lighting</b>	Activate the main beam headlights control and check that state <b>ET024 main beam headlights control</b> is active; if not refer to the section on how to deal with this state.
	Check the main beam headlights supply fuses <b>F11 (10 A) and F12 (10 A)</b> . Replace them if necessary.
	Check the continuity of the connection: stalk <b>track B7</b> → <b>track 12 UCH P201</b> 40-track connector  Repair if necessary.
	Run command <b>AC099 Main beam headlights relay</b> . Listen to check that the relay operates correctly.
<b>YES</b>	Check the continuity of the following connections: running light main relay <b>track B5</b> → <b>fuse box F11 and F10</b> fuse box <b>F11 and F12</b> → <b>dipped headlights wiring harness</b>  See wiring diagram for the vehicle concerned.
<b>NO</b>	Check the continuity of the connection between UCH P203 15-track connector <b>track A5</b> → <b>track B2 main running light</b>  Repair if necessary.  Check that the relay is functioning correctly.
<b>AFTER REPAIR</b>	Check the system operation.

**FAULT FINDING - FAULT FINDING CHART**

ALP 5 CONTINUED	
NOTES	Only consult this customer complaint after a complete check using the diagnostic tool. Check the bulbs.
Basic UCH with non- relayed controlled lighting	Check the main beam headlights supply fuses <b>F11 (10 A) and F12 (10 A)</b> . Replace it if necessary.
	Check the continuity of the connections: <div>stalk <b>track B7</b>                      ➡    <b>fuse box F11 and F12</b> fuse box <b>F11 and F12</b>           ➡    <b>main beam headlights wiring harness</b></div> See wiring diagram for the vehicle concerned. Repair if necessary.
AFTER REPAIR	Check the system operation.

FAULT FINDING - FAULT FINDING CHART

ALP 6	FRONT FOG LIGHTS DO NOT OPERATE
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NOTES	Only consult this customer complaint after a complete check using the diagnostic tool. Check the bulbs.
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Check fuse <b>F18 (20A)</b> and replace if necessary.
Front fog lights activated. Check the + after ignition feed of the front fog light relay on <b>track A1</b> . Repair if necessary.
Ensure the continuity and insulation of the connections between: <div><div>earth</div><div>supply fuse (F18)</div><div>front fog lights</div><div>→</div><div>→</div><div>→</div><div>track A2 front fog light relay</div><div>track A3 front fog light relay</div><div>track A5 front fog light relay</div></div> Replace the relay if necessary.

AFTER REPAIR	Check the system operation.
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FAULT FINDING - FAULT FINDING CHART

ALP 7	REAR FOG LIGHTS DO NOT OPERATE
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NOTES	Only consult this customer complaint after a complete check using the diagnostic tool. Check the bulbs.
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Check fuse <b>F23 (15A)</b> and replace if necessary.
Ensure the continuity and insulation of the connections between: <div>light stalk <b>track A3</b>     <b>fuse box F23</b> fuse box <b>F23</b>          rear fog light</div> Repair if necessary.

AFTER REPAIR	Check the system operation.
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FAULT FINDING - FAULT FINDING CHART

ALP 8	LOW SPEED FRONT WINDSCREEN WIPERS DO NOT OPERATE
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NOTES	Check the fault. Only consult this customer complaint after a complete check using the diagnostic tool.
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Switch on the ignition. Activate command <b>AC064 low speed windscreen wipers</b> and check operation of the windscreen wipers. Does the windscreen wiper operate?
--

YES	Check the + after ignition feed of the stalk, track <b>A7</b> . Repair if necessary.
	Ensure the continuity and insulation of the connection between: stalk <b>track A2</b> → <b>track 22</b> UCH P201 40-track connector Repair if necessary.

AFTER REPAIR	Check the system operation.
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FAULT FINDING - FAULT FINDING CHART

ALP 8 CONTINUED	
NO	Check fuse <b>F4 (20 A)</b> . Repair if necessary.
	Check the + after ignition feed of stalk on tracks <b>A7</b> and <b>B4</b> . Repair if necessary.
	Check the + after ignition feed of the stalk <b>track A4</b> UCH P202 15-track connector. Repair if necessary.
	Ensure the continuity and insulation of the connection between: stalk <b>track A2</b> —————→ <b>track 22</b> UCH P201 40-track connector Repair if necessary.
	Ensure the continuity and insulation of the connections between: UCH P203 15-track connector <b>track A9</b> —————→ <b>track 3</b> windscreen wiper motor <b>earth</b> —————→ <b>track 5</b> windscreen wiper motor Repair if necessary.
	Check that the motor operates correctly.
	Check that the wiper mechanism and motor are not jammed. Repair if necessary.
AFTER REPAIR	Check the system operation.



FAULT FINDING - FAULT FINDING CHART

ALP 9	HIGH SPEED FRONT WINDSCREEN WIPERS DO NOT OPERATE
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NOTES	Check the fault. Only consult this customer complaint after a complete check using the diagnostic tool.
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Activate command <b>AC065 high speed windscreen wipers</b> and check operation of the windscreen wipers. Does the windscreen wiper operate?
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YES	Check the + after ignition feed of the stalk, track <b>A7</b> . Repair if necessary.
	Ensure the continuity and insulation of the connection between: stalk <b>track A1</b> → <b>track 21</b> UCH P201 40-track connector Repair if necessary.

AFTER REPAIR	Check the system operation.
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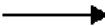


FAULT FINDING - FAULT FINDING CHART

ALP 9 CONTINUED	
NO	Check fuse <b>F4 (20 A)</b> . Repair if necessary.
	Check the + after ignition feed of stalk on tracks <b>A7</b> and <b>B4</b> . Repair if necessary.
	Check the + after ignition feed of the stalk <b>track A4</b> UCH P202 15-track connector. Repair if necessary.
	Ensure the continuity and insulation of the connection between: stalk <b>track A1</b> —————→ <b>track 21</b> UCH P201 40-track connector Repair if necessary.
	Ensure the continuity and insulation of the connections between: UCH P202 15-track connector <b>track A1</b> —————→ <b>track 4</b> windscreen wiper motor <b>earth</b> —————→ <b>track 5</b> windscreen wiper motor Repair if necessary.
	Check that the motor operates correctly.
	Check that the wiper mechanism and motor are not jammed. Repair if necessary.
AFTER REPAIR	Check the system operation.

FAULT FINDING - FAULT FINDING CHART

ALP 10	REAR SCREEN WIPER DOES NOT OPERATE
NOTES	Check the fault. Only consult this customer complaint after a complete check using the diagnostic tool.
Switch on the ignition. Activate command <b>AC029 rear screen wiper</b> and check operation of the rear windscreen wiper. Does the windscreen wiper operate?	
YES	Check the + after ignition feed of the stalk, track <b>B4</b> . Repair if necessary.
	Ensure the continuity and insulation of the connection between: stalk <b>track B2</b> → <b>track 34</b> UCH P201 40-track connector Repair if necessary.
AFTER REPAIR	Check the system operation.

### FAULT FINDING - FAULT FINDING CHART



ALP 10 CONTINUED	
NO	Check fuse <b>F3 (15 A)</b> . Repair if necessary.
	Check the + after ignition feed of stalk on tracks <b>A7</b> and <b>B4</b> . Repair if necessary.
	Check the + after ignition feed of the stalk <b>track A2</b> UCH P202 15-track connector. Repair if necessary.
	Ensure the continuity and insulation of the connection between: stalk <b>track B2</b>  <b>track 34</b> UCH P201 40-track connector Repair if necessary.
	Ensure the continuity and insulation of the connections between: UCH P203 15-track connector <b>track A8</b>  <b>track 1</b> rear screen wiper motor <b>earth</b>  <b>track 3</b> rear screen wiper motor Repair if necessary.
	Check that the motor operates correctly.
	Check that the wiper mechanism and motor are not jammed. Repair if necessary.
AFTER REPAIR	Check the system operation.

FAULT FINDING - FAULT FINDING CHART

ALP 11	REAR SCREEN DE-ICING DOES NOT OPERATE
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NOTES	Only consult this customer complaint after a complete check using the diagnostic tool.
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Activate the heated rear screen control. And check that status <b>ET008 Heated rear screen button</b> is <b>pressed</b> . If not, refer to the section dealing with this state.
Check fuse <b>F30 (30 A)</b> . Repair if necessary.
Run command <b>AC043 Heated rear screen</b> . Can you hear the relay operate correctly?

YES	Ensure the continuity and insulation of the connections between: <div>UCH P203 15-track connector <b>track B2</b>  heated rear screen <b>earth</b>  heated rear screen</div> Repair if necessary.
NO	Replace the UCH.

AFTER REPAIR	Check the system operation.
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**DESCRIPTION OF THE FAULT FINDING PHASES****DEFINITION OF THE MULTIPLEX NETWORK**

The multiplex network consists of a twisted pair of wires connected to several vehicle computers. These two wires are called CAN H and CAN L (connections 133 B and 133 C). Two of the computers on the network have an internal resistance of 120 ohms between the two wires: these computers are the injection computer and the UCH.

More than 200 data items are passed through this network. They are transmitted by some computers and used by others.

For example: the injection computer transmits the engine speed, which is then displayed by the instrument panel computer.

**TESTING THE MULTIPLEX NETWORK:****NOTES**

Switch on the ignition and wait 10 seconds before starting the test.

**This step is the essential starting point for any computer fault finding procedure.**

It ensures that the network is correctly connected to the terminals of each computer and that the information is correctly sent to it and received by it.

The network test is the only function which can be selected after the choice of vehicle type.  
After the network test, the other functions become accessible once more.

### 0 - Failure of the test

It is possible that the network test cannot be carried out.

To perform the test, the tool interrogates the **airbag** and **UCH** computers to find out the topology version (layout) of the network and the computers present on the network of the vehicle under repair.

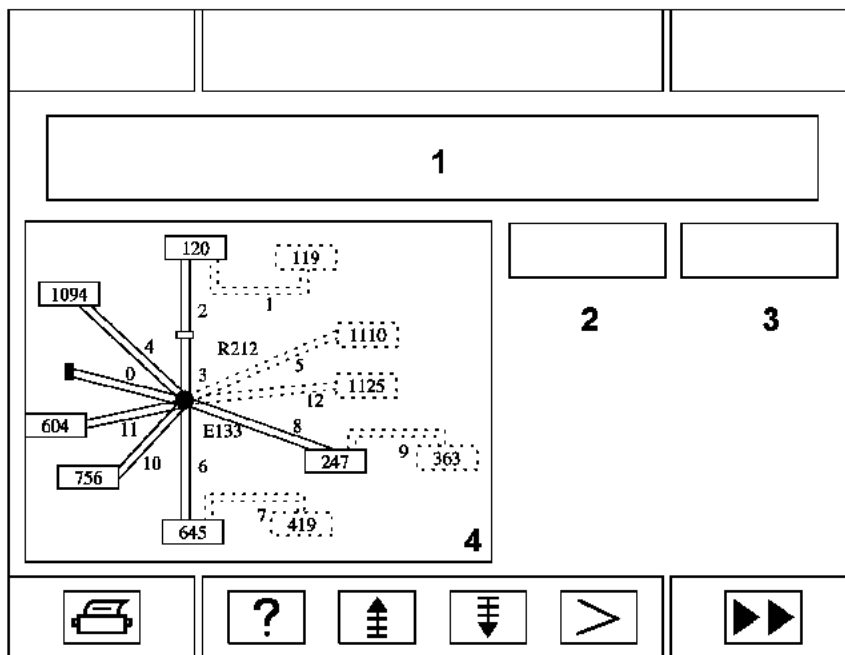
If no configuration is detected, check the supply lines to the computers (in particular the airbag and UCH), and, after checking and repairing the supply lines if necessary, refer to the "Multiplex network out of order" fault finding procedure.

If the configurations are inconsistent between the computers, the tool asks the user to reconfigure the computers. Refer to the **"Network configuration" section**.

### 1 - Result of the test

The tool displays a diagram of the network showing the faulty, not diagnosed and good segments (see screen below).

A segment is the length of the CAN H and CAN L twisted pair connecting two components (computer, cable joint, or connector).



19586

1 Result of the test

2 and 3: list of the faulty segments and/or computers not recognised

4: diagram of the network:

green segment: segment functional  
 red segment: faulty segment  
 black segment: segment not diagnosed

green computer: present and recognised  
 red computer: recognised but not present  
 white computer: not diagnosable



**FAULT FINDING - INTRODUCTION****2 - Handling faulty segments****a) All the segments are faulty or not diagnosed:**

The tool offers two screens: one with a diagram of the network with the faulty segments and the other with a diagram of the network and the computers not recognised (incorrect specification), not detected (have not responded to the tool), or not diagnosable (diagnosis not possible with the tool but present on the multiplex network).

You can switch from one diagram to the other at any time.

If all the segments are faulty and no computer has responded, there is a problem with the power supply to the computers.

Deal with faults according to the procedure shown in the section:  
**"MULTIPLEX NETWORK OUT OF SERVICE".**

**b) Only a few segments are faulty**

The tool offers two screens:

One with the network diagram showing the faulty segments and the other with the network diagram showing the computers not recognised (computers not meeting the specification) not detected (not responding to the tool) or not diagnosable.

You can switch from one diagram to the other at any time.

**If there is a computer not recognised or not detected at the ends of the faulty segments, first check the power supply lines and the specification of the computers by performing a fault finding procedure of the computer.**

Deal with faults according to the procedure shown in the section:  
**"MULTIPLEX SEGMENT FAULT".**

**3 - Absence of faults, or segments which cannot be diagnosed:**

If no fault is reported by the diagnostic tool, it is advisable to refer to the **SEGMENT NOT PROCESSED** section to make sure that these segments are functioning correctly.

**DIAGNOSTICS - MULTIPLEX NETWORK OUT OF SERVICE****NOTES**

First check that the computers are getting power.  
Switch off the ignition, remove the key, check that the side lights are off and wait 1 minute.  
Take the measurements via the diagnostic socket of the vehicle.

**Finding the fault  
type****NOTES**

Use the diagram of the multiplexed network of the vehicle  
(diagram of the diagnostic socket).

Measure the resistance between tracks 6 and 14 of the diagnostic socket.

**What is the resistance?**

**AFTER REPAIR**

Perform another multiplexed network test.  
Clear the stored faults on all the computers connected to the network.  
Deal with any other faults.  
The immobiliser LED may be lit. In this case, leave the ignition on for 30 seconds, switch it off, and wait at least 1 minute. Turn the ignition on again, the light should go out. If it does not, refer to the injection computer fault finding procedure.

## DIAGNOSTICS - MULTIPLEX NETWORK OUT OF SERVICE

0 ohms	The two lines are short-circuited. Refer to the section <b>"Help with finding short circuits on the network"</b> .
Between 60 and 130 ohms	For track 6 and track 14, measure earth continuity and the voltage. Establish which track is short-circuited to earth or to + battery. Refer to the section <b>"Help with finding short circuits on the network"</b> .
Open circuit	Disconnect the injection computer and check that both tracks of the multiplex network are continuous with the diagnostic socket:
YES	Check the resistance between the 2 network tracks on the injection computer. If the resistance is not approximately 120 ohms => replace the computer.
NO	Choose the tracks of another computer as a reference (e.g. UCH) and repeat the measurement. If you get the same result, the CAN cable joints may be damaged. In this case, check the continuity of the whole multiplex network. If the wire joints are damaged, replace the passenger compartment harness.

<b>AFTER REPAIR</b>	Perform another multiplexed network test. Clear the stored faults on all the computers connected to the network. Deal with any other faults. The immobiliser LED may be lit. In this case, leave the ignition on for 30 seconds, switch it off, and wait at least 1 minute. Turn the ignition on again, the light should go out. If it does not, refer to the injection computer fault finding procedure.
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## DIAGNOSTICS - MULTIPLEX SEGMENT FAULT

## NOTES

First check that the computer at the end of the faulty segment is properly supplied (earth, + battery, + accessories or + after ignition).

Always check the computer conformity

**Important:** the tool may not be able to precisely identify the faulty segment. It will suggest several in order of failure probability. **Start by dealing with the first segment.**

Disconnect the ends of the segment.

(If one of the ends is a cable joint, the two wires cannot be disconnected.

In this case, disconnect a computer located at the end of a good segment, starting from the cable joint, for example: On Board Diagnostic socket)

Check the continuity of both tracks (see help table on the next page).

Check the condition of the connectors.

Reconnect and try again.

Has the fault been rectified?

NO

Are there other faulty segments?

YES

Deal with the other faulty segments using the same procedure.

NO

First replace the computer at the end of the segment having the highest probability of being faulty.  
If in doubt, always replace the computers with an impedance LAST (UCH and injection).

## AFTER REPAIR

Perform another multiplexed network test.

Clear the stored faults on all the computers connected to the network.

Deal with any other faults.

The immobiliser LED may be lit. In this case, leave the ignition on for 30 seconds, switch it off, and wait at least 1 minute. Turn the ignition on again, the light should go out. If it does not, refer to the injection computer fault finding procedure.

## FAULT FINDING - SEGMENT NOT DIAGNOSED

## NOTES

**On this vehicle, the only segments which cannot be diagnosed are:**

- diagnostic socket segment
- the steering wheel angle sensor segment
- the Central Communication Unit  
(data communication/multimedia option)

**If there are others, check that all the computers have been correctly identified.**

**Reminder: the instrument panel is not diagnosable and does not have a K line  
but is nevertheless present on the multiplex network.**

To test the other segments, simply switch on the ignition and open the driver's door.

It must be shown as open on the central display.

Refer to the appropriate section of the Information/Navigation system.

In the event of a fault, refer to the **"Multiplex segment fault"** section.

## AFTER REPAIR

Clear the fault memory.

Follow the instructions to confirm repair.

Deal with any other faults.

## DIAGNOSTICS - HELP WITH FINDING NETWORK SHORT CIRCUITS

## NOTES

**Use the diagram of the multiplex network of the vehicle (diagram of the diagnostic socket).**

Switch off the ignition and remove the ignition key.

Verify that the side lights are off.

Wait 1 minute.

In the event of a short-circuit to + battery, leave the battery connected.

The procedure consists of gradually disconnecting the network components and isolating the faulty section.

**Disconnect the grey passenger compartment/engine connection (R 67)**

- Check the condition of the connector connections on the engine side and the connector connections on the passenger compartment side.
- Check whether the fault has disappeared on the passenger compartment side and engine side.
- Carry out the same steps for the **passenger compartment/engine/ABS connector (R107)**.

**Which is the faulty section?**

After each disconnection:

- Verify whether the fault has disappeared (in which case, replace the computer),
- Check the condition of the connectors and clips and their insulation.
- Reconnect.

## engine

The recommended order of disconnecting the engine computers is as follows:

- First disconnect the automatic gearbox or LPG computer.
- Disconnect the injection computer and identify the faulty section:
  - injection - automatic gearbox or LPG
  - injection - passenger compartment connection

passenger  
compartment

The recommended order of disconnecting passenger compartment computers is as follows:

Disconnect:

The instrument panel.

The Central Communication Unit (if the option is fitted).

The steering wheel angle sensor.

The airbag.

The UCH.

### DIAGNOSTICS - HELP WITH FINDING NETWORK SHORT CIRCUITS

**If the fault has not disappeared**, check the condition of the wiring.

If the fault is not visible, **replace the wiring**.

		Input			Output		
		Connector	CAN H	CAN L	Connector	CAN H	CAN L
D7F, F4P, F4R injection	S 2000	Black	A4	A3			
Injection K4M, K4J	Sirius 34	Black	A27	A57	Black	A26	A25
Injection D4F	5 NR	Black	J4	H3	Black	J3	K9
LPG injection	Sagem 4C	Brown	A2	A1			
K9K injection	LVCR	Black	A4	A3			
F9Q injection	EDC15VM+	Black	A7	A6			
Automatic gearbox	DP0	Black	38	39			
Sequential gearbox	BVR	Black	45	33			
ABS/ESP	ESP 5.7	Black	24	40			
Carminat		Black	6	7			
Steering wheel angle sensor		Black	3	2			
Airbag	AB 8.2	Grey	1	26			
UCH	Sagem	Brown	20	19	Brown	10	9
Instrument panel	Sagem	Red	10	11			
Connector R67	Clip holder	Black	8	9			
Connector R107	Clip holder	Black	13	12			

#### AFTER REPAIR

Perform another multiplexed network test.  
 Clear the stored faults on all the computers connected to the network.  
 Deal with any other faults.  
 The immobiliser warning light may be on. In this case, leave the ignition on for 30 seconds, switch it off, and wait at least a minute. Turn the ignition on again, the light should go out. If it does not, refer to the injection computer fault finding procedure.

**NETWORK CONFIGURATION INCONSISTENT:****NOTES**

On this vehicle, the computers containing the configuration are:

- the UCH
- the airbag

The configuration is detected with the ignition on.

It is run automatically during a network test, when the tool detects a fault on one of the computers.

It can be run from the network test result screens (button at bottom right of screen).

The tool displays the two configurations: the UCH and the airbag.

Select the computer to be modified.

The tool displays the configuration of the other computer at the same time.  
(see screen on next page)

The steps are as follows:

- choice of network topology version

this is the multiplex network diagram version. This version is increased with each development change of the multiplex network harness for this vehicle.

This information is available in the world vehicle database or in the other computer.

- choice of computers present on the network

There are as standard:

- the airbag,
- the injection computer,
- UCH,
- the instrument panel (computer not diagnosable by the tool).

+ the vehicle options:

- the "Navigation or Information System" Central Communication Unit (computer not diagnosable by the tool),
- the automatic gearbox or sequential gearbox,
- LPG,
- the ABS if ESP fitted,
- the steering wheel angle sensor (computer not diagnosable by the tool).





### FAULT FINDING - INTRODUCTION

This document describes the fault finding procedures applicable to all BOSCH AB8.2E AIRBAG computers with VDIAG 10 fitted to Clio II vehicles.

To carry out fault finding on this system, it is essential to have the following items:

- The wiring diagram of the function for the vehicle concerned,
- the tools listed under the heading Special tooling required.

### GENERAL APPROACH TO FAULT FINDING:

- Use one of the diagnostic tools to identify the system fitted to the vehicle (to read the computer group, the program number, the Vdiag, etc.).
- Locate the Fault finding documents corresponding to the system identified.
- Take note of information contained in the introductory sections.
- Read the faults stored in the computer memory and use the Interpretation of faults section of the documents.  
Reminder: Each fault is interpreted for a particular type of storage (fault present, fault stored, fault present or stored). The checks defined for dealing with each fault are therefore only to be performed if the fault declared by the diagnostic tool is interpreted in the document for its type of storage. The storage type should be considered when using the diagnostic tool after the ignition has been switched off and switched back on.  
If a fault is interpreted when it is declared as stored, the conditions for applying fault finding appear in the NOTES box. If the conditions are not satisfied, use the fault finding strategy to check the circuit of the faulty part since the fault is no longer present on the vehicle. Perform the same operation when a fault is declared as stored by the diagnostic tool but is only interpreted in the documentation as a present fault.
- Carry out the conformity check (appearance of possible faults not yet identified by the system's self-diagnostic procedure) and apply the relevant fault finding procedures according to the results.
- Confirm the repair (customer complaint disappears).
- Use the fault finding procedure for each Customer complaint if the fault persists.

### FAULT FINDING - INTRODUCTION

#### Special tooling required for operations on the airbag and seat belt pretensioner systems:

- Diagnostic tools (except XR 25).
- Kit of adaptors and borniers for use with the "Checking airbags and pretensioners electrical harnesses" function of CLIP and NXR tools or the latest update of XRBAG containing the new **B54 50-track** adaptor, the **Elé. 1617 8-track** adaptor, and the **10-track** rotary switch adaptor.
- Multimeter.
- **Modifying the series of new airbag ignition module connectors entails modifying the dummy ignition module.**

#### LOCAL MODIFICATION OF THE DUMMY IGNITION MODULE:

- **Remove the ignition module from its red support and remove one of the two brown locking notches.**

#### Reminders:

During operations on the airbag/seat belt pretensioner systems it is vital that you lock the computer using the diagnostic tool to prevent any risk of accidental triggering (all the ignition lines will be inhibited). The locked mode is signalled when the instrument panel warning light comes on.

Without the diagnostic tool, switch off the ignition and remove the supply fuse from the system, then wait at least 2 seconds for the power reserve capacity to discharge.

Never measure the airbag or pretensioner ignition lines with any device other than the XRBAG or by the "Airbag and pretensioner wiring harness check" function on the CLIP and NXR tools.

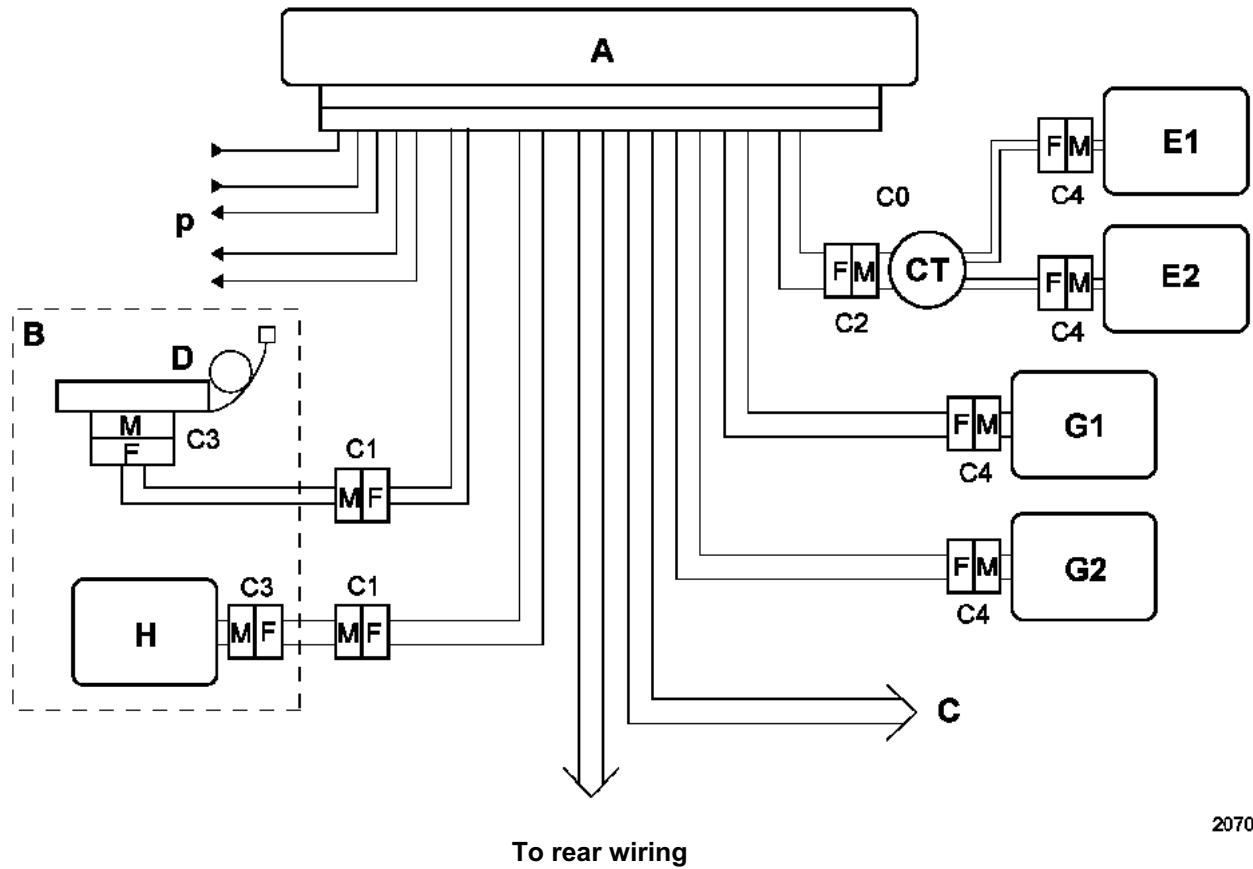
Before using a dummy ignition module, ensure that its resistance is between 1.8 and 2.5 ohms

During the operation, ensure that the computer supply voltage does not fall below 10 volts.

### FAULT FINDING - INTRODUCTION

### FAULT FINDING - SYSTEM CONFIGURATION DIAGRAM (FRONT part)

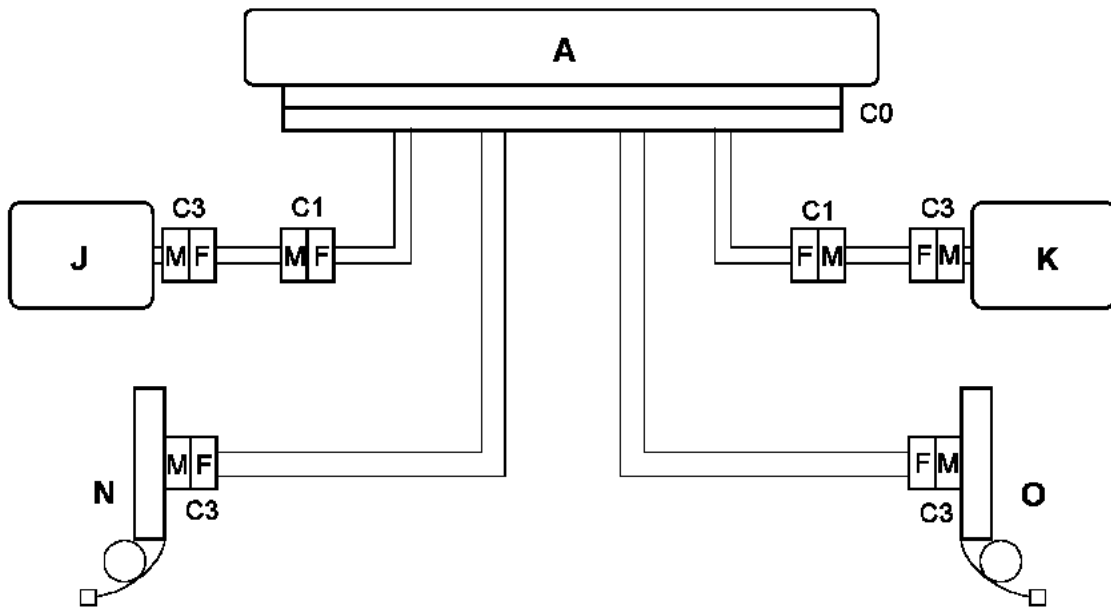
Front and chest airbags + front pretensioners.



### FAULT FINDING - INTRODUCTION

### FAULT FINDING - SYSTEM CONFIGURATION DIAGRAM (REAR part)

Side (curtain) airbags + rear pyrotechnic inertia reels in central unit.



20708

FAULT FINDING - INTRODUCTION

- A

B

C

D

E

G

H

Central unit

Driver's seat

Front passenger seat

Buckle pretensioner

Driver's front airbag ignition module

Passenger's front airbag ignition module

Front side airbag ignition module
- J/K

N/O

CT

P

Curtain airbag ignition modules

Rear seat belt inertia reels

Rotary switch

+ 12 volts/Earth

Warning light/Diagnostic lines

Impact sensors/Impact information

FRONT AIRBAGS		
	Measuring point	Correct value
Driver	C0, C2 and C4	1.8 to 7.3 ohms
Passenger	C0 and C4	0.8 to 4.8 ohms
SIDE AIRBAGS AND PRETENSIONERS		
	Measuring point	Correct value
	C0, C1 and C3	0.8 to 4.8 ohms

Correct insulation value: display > = 100 h or 9999 flashing.

FAULT FINDING - INTERPRETATION OF FAULTS

<b>DF001 PRESENT</b>	<u>COMPUTER</u> 1.DEF: Internal electronic fault
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<b>NOTES</b>	<b>Special notes:</b> None.
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Replace the computer (consult the "Help" section for this operation).

<b>AFTER REPAIR</b>	None.
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### FAULT FINDING - INTERPRETATION OF FAULTS

<p><b>DF002 PRESENT</b></p>	<p><u>Computer voltage supply</u></p> <p>1.DEF: Voltage too low 2.DEF: Voltage too high 3.DEF: Too many micro-breaks</p>
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<p><b>NOTES</b></p>	<p><b>Special notes:</b> Use adaptor B54 for working on the computer connector (<b>wire 1</b>).</p>
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<p><b>1.DEF - 2.DEF - 3.DEF</b></p>	<p><b>NOTES</b></p>	<p>None.</p>
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Carry out the operations necessary to obtain the correct computer voltage:

**10.5 volts ± 0.1 < correct voltage < 16 volts ± 0.1.**

- Check the battery charge.
- Check the charge circuit.
- Check the tightening and the condition of the battery terminals.
- Check the computer earth.
- Check the condition of the computer and that it is locked.

<p><b>AFTER REPAIR</b></p>	<p>Deal with any faults displayed by the diagnostic tool. Clear the computer memory, then switch the ignition off and re-test with the diagnostic tool.</p>
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### FAULT FINDING - INTERPRETATION OF FAULTS

<p><b>DF028 PRESENT</b></p>	<p><u>Passenger's airbag status warning light circuit</u> 1.DEF: Fault finding performed by the instrument panel.</p>
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<p><b>NOTES</b></p>	<p><b>Special notes:</b> None.</p>
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Apply the fault finding procedure relevant to this fault in the instrument panel fault finding information section.

<p><b>AFTER REPAIR</b></p>	<p>Clear the computer memory then switch off the ignition. Carry out the check again using the diagnostic tool and, if there are no faults, unlock the computer.</p>
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### FAULT FINDING - INTERPRETATION OF FAULTS

<b>DF034 PRESENT</b>	<u>Computer locked</u> 1.DEF: Locking by diagnostic tool.
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<b>NOTES</b>	<b>Special notes:</b> None.
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Using the diagnostic tool actuate control **VP007** to unlock the airbag computer.

<b>AFTER REPAIR</b>	Clear the computer memory then switch off the ignition. Check again using the diagnostic tool.
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### FAULT FINDING - INTERPRETATION OF FAULTS

<p><b>DF060 PRESENT</b></p>	<p><u>Multiplex network</u></p>
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<p><b>NOTES</b></p>	<p>None.</p>
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Apply the fault finding procedure for the multiplex network.

<p><b>AFTER REPAIR</b></p>	<p>Clear the computer memory then switch off the ignition. Check again using the diagnostic tool.</p>
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### FAULT FINDING - INTERPRETATION OF FAULTS

<b>DF062 PRESENT</b>	<u>Configuration of side sensors.</u>
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<b>NOTES</b>	None.
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This fault indicates an inconsistency between the computer configuration and the vehicle equipment detected by the computer. The computer has detected the presence of an element additional to its configuration. Carry out a reading of the configuration under the heading "READING THE CONFIGURATION". Modify the computer configuration, adapting it to the equipment level of the vehicle.

<b>AFTER REPAIR</b>	Clear the computer memory then switch off the ignition. Check again using the diagnostic tool.
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## FAULT FINDING - INTERPRETATION OF FAULTS

<b>DF065 PRESENT</b>	<u>Driver's seat position sensor circuit.</u> CO.1: Open circuit or short circuit to 12 volts CC.0: Short circuit to earth 1.DEF: Detection of signal outside upper or lower limit
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<b>NOTES</b>	<b>Special notes:</b> Use 50-track adaptor B54 for working on the computer connector.
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<b>CO.1 - CC.0 - 3.DEF</b>	<b>NOTES</b>	None.
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Lock the computer using the command on the diagnostic tool.

Check the connections on the **grey 16-track** connector under the seat (**tracks A2 and B2**). Repair if necessary.

Disconnect the **grey 16-track** connector under the seat, measure the resistance between **tracks A2 and B2** with the seat in the fully forward and fully back positions.

In the fully forward position, the resistance is approximately: **400 ohms**

In the fully back position, the resistance is approximately: **100 ohms**

**Are the values correct?**

<b>AFTER REPAIR</b>	Reconnect the computer, the seat position sensor, and the under-seat connector, then switch on the ignition. Clear the computer memory then switch off the ignition. Carry out the check again using the diagnostic tool and, if there are no faults, unlock the computer.
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**FAULT FINDING - INTERPRETATION OF FAULTS**

<b>DF065 CONTINUED</b>	
<b>NO</b>	<p>Check the connection and the condition of the sensor connections. Check and ensure the continuity and insulation of the connections between:</p> <p><b>Track A2    —————&gt;    Track A1 Sensor connector</b> <b>Track B2    —————&gt;    Track A2 Sensor connector</b></p> <p>If the checks are correct, replace the seat position sensor.</p>
<b>YES</b>	<p>Check the wiring again on the seat connector (<b>track A2 and B2</b>) as well as on the 50-track connector (<b>tracks 19 and 20</b>).</p> <p>Disconnect the computer connector and fit the B54 50-track test adaptor. Check and ensure the continuity and insulation of the connections between:</p> <p><b>Computer Track 19    —————&gt;    Track A2 16-track connector under seat</b> <b>Computer Track 20    —————&gt;    Track B2 16-track connector under seat</b></p> <p>If the value obtained is incorrect, the wiring is faulty between the computer and the seat connector (C0/C1). Replace the wiring if necessary.</p>

<b>AFTER REPAIR</b>	<p>Reconnect the computer, the seat position sensor, and the under-seat connector, then switch on the ignition. Clear the computer memory then switch off the ignition. Carry out the check again using the diagnostic tool and, if there are no faults, unlock the computer.</p>
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### FAULT FINDING - INTERPRETATION OF FAULTS

<p><b>DF068 PRESENT</b></p>	<p><u>Passenger's front side airbag circuit</u> CC: Short circuit CO: Open circuit CC.1: Short circuit to 12 volts CC.0: Short circuit to earth 1.DEF: Short circuit between ignition lines</p>
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<p><b>NOTES</b></p>	<p><b>Priorities in dealing with a number of faults:</b> In the event of 1.DEF short circuit between 2 ignition lines, follow the procedure below and the procedure for the second fault, to localise the short circuit.</p>
	<p><b>Special notes:</b> Never carry out any procedures on trigger lines using any tool other than CLIP, NXR or XRBAG. Use the B54 adaptor to work on the computer connector (<b>Cable F</b>).</p>

<p><b>CO - CC</b></p>	<p><b>NOTES</b></p>	<p>None.</p>
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<p>Lock the computer. Disconnect the brown <b>2-track</b> connector underneath the passenger seat and check the connections on the connector. The CLIP, NXR or XRBAG tool must be used for measuring the resistance at <b>point C1</b>. <b>Is the value obtained correct?</b></p>
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<p><b>AFTER REPAIR</b></p>	<p>Reconnect the computer and the ignition module of the passenger's front side airbag module then switch on the ignition. Clear the computer memory then switch off the ignition. Carry out the check again using the diagnostic tool and, if there are no faults, unlock the computer. Destroy the side air bag module if it has been replaced (tool <b>Elé. 1287</b>).</p>
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### FAULT FINDING - INTERPRETATION OF FAULTS

<p><b>DF068</b> <b>CONTINUED 1</b></p>	
<p><b>NO</b></p>	<p>Check the seat connector connections. Remove the trim from the passenger seat and check that the side airbag ignition module is connected correctly.</p> <p>Disconnect the airbag ignition module for the side airbag module, connect a dummy ignition module to the ignition module connector then re-measure the resistance at <b>point C1</b>.</p> <ul style="list-style-type: none"> <li>– If the value obtained is correct, replace the passenger's front side airbag module.</li> <li>– If the value obtained is still incorrect, replace the wiring between points <b>C1/C3</b> (seat wiring).</li> </ul>
<p><b>YES</b></p>	<p>Check the connections again on the seat connector as well as on the 50-track connector (<b>tracks 9 and 34</b>).</p> <p>Reconnect the under-seat connector. Disconnect the computer connector and fit the <b>B54 50-track adaptor</b>. The Clip, NXR or XRBAG tool <b>MUST</b> be used for checking resistance on the wire marked <b>F</b> on the adaptor.</p> <ul style="list-style-type: none"> <li>– If the fault persists, the wiring is faulty between the computer and the passenger's seat (<b>C0/C1</b>).</li> </ul> <p>Replace the wiring if necessary.</p>

<p><b>AFTER REPAIR</b></p>	<p>Reconnect the computer and the ignition module of the passenger's front side airbag module then switch on the ignition. Clear the computer memory then switch off the ignition. Carry out the check again using the diagnostic tool and, if there are no faults, unlock the computer. Destroy the side air bag module if it has been replaced (tool <b>Elé. 1287</b>).</p>
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### FAULT FINDING - INTERPRETATION OF FAULTS

DF068 CONTINUED 2	
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CC.1 - CC.0	NOTES	None.
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Lock the computer.  
Disconnect the brown **2-track** connector underneath the passenger seat and check the connections on the connector.  
CLIP, NXR or XRBAG must be used for measuring the insulation appropriate to the type of fault at point **C1**.  
**Is the value obtained correct?**

NO	<p>Check the seat connector connections. Remove the trim from the passenger seat and check that the side airbag ignition module is connected correctly.</p> <p>Disconnect the ignition module from the side airbag module, connect a dummy ignition module to the ignition module connector and measure the insulation appropriate to the type of fault again at point <b>C1</b>.</p> <ul style="list-style-type: none"> <li>– If the value obtained is correct, replace the passenger's front side airbag module.</li> <li>– If the value obtained is still incorrect, replace the wiring between points <b>C1/C3</b> (seat wiring).</li> </ul>
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AFTER REPAIR	<p>Reconnect the computer and the ignition module of the passenger's front side airbag module then switch on the ignition. Clear the computer memory then switch off the ignition.</p> <p>Carry out the check again using the diagnostic tool and, if there are no faults, unlock the computer.</p> <p>Destroy the side air bag module if it has been replaced (tool <b>Elé. 1287</b>).</p>
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### FAULT FINDING - INTERPRETATION OF FAULTS

<p><b>DF068</b> <b>CONTINUED 3</b></p>	
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<p><b>YES</b></p>	<p>Check the connections again on the seat connector as well as on the 50-track connector (<b>tracks 9 and 34</b>).</p>
	<p>Reconnect the under-seat connector. Disconnect the computer connector and fit the <b>B54 50-track adaptor</b>. The Clip, NXR or XRBAG tools <b>MUST</b> be used for measuring the insulation appropriate to the type of fault on the <b>wires marked F</b> on the adaptor.</p> <ul style="list-style-type: none"> <li>– If the fault persists, the wiring is faulty between the computer and the passenger's seat (<b>C0/C1</b>).</li> </ul> <p>Replace the wiring if necessary.</p>

<p><b>AFTER REPAIR</b></p>	<p>Reconnect the computer and the ignition module of the passenger's front side airbag module then switch on the ignition. Clear the computer memory then switch off the ignition. Carry out the check again using the diagnostic tool and, if there are no faults, unlock the computer. Destroy the side air bag module if it has been replaced (tool <b>Elé. 1287</b>).</p>
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### FAULT FINDING - INTERPRETATION OF FAULTS

<p><b>DF071 PRESENT</b></p>	<p><u>Driver's front airbag circuit 2</u></p> <p>CC: Short circuit CO: Open circuit CC.1: Short circuit to 12 volts CC.0: Short circuit to earth 1.DEF: Short circuit between ignition lines</p>
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<p><b>NOTES</b></p>	<p><b>Priorities in dealing with a number of faults:</b> In the case of 1.DEF Short-circuit between 2 ignition lines, use the following approach and that for the second fault to locate the short-circuit.</p>
	<p><b>Special notes:</b> Never carry out any procedures on trigger lines using any tool other than CLIP, NXR or XRBAG. Use the B54 adapter to work on the computer connector (<b>Cable D</b>).</p>

<p><b>CO - CC</b></p>	<p><b>NOTES</b></p>	<p>None.</p>
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<p>Lock the computer using the command on the diagnostic tool. Switch off the ignition and remove the steering wheel airbag. Check that it is correctly connected.</p>
<p>Disconnect the <b>green</b> connector on the steering wheel cushion and connect 1 dummy ignition module to the igniter connector. Switch on the ignition and carry out a check using the diagnostic tool. Replace the airbag if the fault has become stored (fault no longer declared present).</p>
<p>With the ignition switched off, disconnect and reconnect the connector of the rotary switch at the steering wheel. Check the connections if the fault has become stored (fault no longer declared present).</p>

<p><b>AFTER REPAIR</b></p>	<p>Reconnect the computer and the ignition modules of the steering wheel airbag, then switch on the ignition. Clear the computer memory then switch off the ignition. Carry out the check again using the diagnostic tool and, if there are no faults, unlock the computer. Destroy the driver's front air bag module if it has been replaced (tool <b>Elé. 1287</b>).</p>
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### FAULT FINDING - INTERPRETATION OF FAULTS

<p><b>DF071</b> <b>CONTINUED 1</b></p>	
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Fit the 10-track test adaptor to the rotary switch (point C2 **tracks 9 and 10**).  
CLIP, NXR or XRBAG must be used for measuring the resistance on **cable A**.  
If the value obtained is incorrect, replace the rotary switch under the steering wheel.

Reconnect the rotary switch under the steering wheel, disconnect the computer and check the connector connections (**tracks 5 and 30**).  
Fit the **B54 50-track adaptor**.  
The Clip, NXR or XRBAG tool **MUST** be used for measuring the resistance on adaptor **wire D**.  
If the value obtained is incorrect, the wiring is faulty between the computer and the rotary switch connector (C0/C2). Replace the wiring if necessary.

<p><b>AFTER REPAIR</b></p>	<p>Reconnect the computer and the ignition modules of the steering wheel airbag, then switch on the ignition. Clear the computer memory then switch off the ignition. Carry out the check again using the diagnostic tool and, if there are no faults, unlock the computer. Destroy the driver's front air bag module if it has been replaced (tool <b>Elé. 1287</b>).</p>
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### FAULT FINDING - INTERPRETATION OF FAULTS

DF071 CONTINUED 2	
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CC.1 - CC.0	NOTES	None.
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Lock the computer using the command on the diagnostic tool.  
Switch off the ignition and remove the steering wheel airbag.  
Check the condition of the ignition line wires.

Fit the 10-track test adaptor to the rotary switch (point C2 **tracks 9 and 10**).  
The CLIP, NXR or XRBAG tool **MUST** be used for correctly measuring the insulation for the type of fault on **cabl** **A**.  
If the value obtained is incorrect, replace the rotary switch under the steering wheel.

Reconnect the rotary switch under the steering wheel, disconnect the computer and check the connector connections (**tracks 5 and 30**).  
Fit the **B54 50-track adaptor**.  
The CLIP, NXR or XRBAG tool **MUST** be used to carry out the correct insulation measurement for the type of fault on adaptor **wire A**.  
If the value obtained is incorrect, the wiring is faulty between the computer and the rotary switch connector (C0/C2). Replace the wiring if necessary.

AFTER REPAIR	<p>Reconnect the computer and the ignition modules of the steering wheel airbag, then switch on the ignition.</p> <p>Clear the computer memory then switch off the ignition.</p> <p>Carry out the check again using the diagnostic tool and, if there are no faults, unlock the computer.</p> <p>Destroy the driver's front air bag module if it has been replaced (tool <b>Elé. 1287</b>).</p>
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### FAULT FINDING - INTERPRETATION OF FAULTS

<p><b>DF072 PRESENT</b></p>	<p><u>Driver's front airbag circuit 1</u></p> <p>CC: Short circuit CO: Open circuit CC.1: Short circuit to 12 volts CC.0: Short circuit to earth 1.DEF: Short circuit between ignition lines</p>
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<p><b>NOTES</b></p>	<p><b>Priorities in dealing with a number of faults:</b> In the case of 1.DEF Short-circuit between 2 ignition lines, use the following approach and that for the second fault to locate the short-circuit.</p>
	<p><b>Special notes:</b> Never carry out any procedures on trigger lines using any tool other than CLIP, NXR or XRBAG. Use the B54 adapter to work on the computer connector (<b>Cable C</b>).</p>

<p><b>CO - CC</b></p>	<p><b>NOTES</b></p>	<p>None.</p>
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<p>Lock the computer using the command on the diagnostic tool. Switch off the ignition and remove the steering wheel airbag. Check that it is correctly connected.</p>
<p>Disconnect the <b>orange</b> connector on the steering wheel cushion and connect 1 dummy ignition module to the igniter connector. Switch on the ignition and carry out a check using the diagnostic tool. Replace the airbag if the fault has become stored (fault no longer declared present).</p>
<p>With the ignition switched off, disconnect and reconnect the connector of the rotary switch at the steering wheel. Check the connections if the fault has become stored (fault no longer declared present).</p>

<p><b>AFTER REPAIR</b></p>	<p>Reconnect the computer and the ignition modules of the steering wheel airbag, then switch on the ignition. Clear the computer memory then switch off the ignition. Carry out the check again using the diagnostic tool and, if there are no faults, unlock the computer. Destroy the driver's front air bag module if it has been replaced (tool <b>Elé. 1287</b>).</p>
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### FAULT FINDING - INTERPRETATION OF FAULTS

#### DF072 CONTINUED 1

Fit the **10-track** test adaptor to the rotary switch (point C2 **tracks 6 and 7**).  
The CLIP, NXR or XRBAG tool must be used for measuring the resistance on  **cable B**.  
If the value obtained is incorrect, replace the rotary switch under the steering wheel.

Reconnect the rotary switch under the steering wheel, disconnect the computer and check the connector connections (**tracks 4 and 29**).  
Fit the **B54 50-track adaptor**.  
CLIP, NXR or XRBAG must be used for checking the resistance on  **cable C** of the adaptor.  
If the value obtained is incorrect, the wiring is faulty between the computer and the rotary switch connector (C0/C2). Replace the wiring if necessary.

#### AFTER REPAIR

Reconnect the computer and the ignition modules of the steering wheel airbag, then switch on the ignition.  
Clear the computer memory then switch off the ignition.  
Carry out the check again using the diagnostic tool and, if there are no faults, unlock the computer.  
Destroy the driver's front air bag module if it has been replaced (tool **Elé. 1287**).

### FAULT FINDING - INTERPRETATION OF FAULTS

DF072 CONTINUED 2	
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CC.1 - CC.0	NOTES	None.
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Lock the computer using the command on the diagnostic tool.  
Switch off the ignition and remove the steering wheel airbag.  
Check the condition of the ignition line wires.

Fit the **10-track** test adaptor to the rotary switch (point C2 **tracks 6 and 7**).  
The CLIP, NXR or XRBAG tool must be used for measuring the insulation appropriately for the type of fault on **cabl** **B**.  
If the value obtained is incorrect, replace the rotary switch under the steering wheel.

Reconnect the rotary switch under the steering wheel, disconnect the computer and check the connector connections (**tracks 4 and 29**).  
Fit the **B54 50-track adaptor**.  
CLIP, NXR or XRBAG must be used for the insulation measurement appropriate to the type of fault, on **cabl** **C** of the adaptor.  
If the value obtained is incorrect, the wiring is faulty between the computer and the rotary switch connector (C0/C2). Replace the wiring if necessary.

AFTER REPAIR	<p>Reconnect the computer and the ignition modules of the steering wheel airbag, then switch on the ignition.</p> <p>Clear the computer memory then switch off the ignition.</p> <p>Carry out the check again using the diagnostic tool and, if there are no faults, unlock the computer.</p> <p>Destroy the driver's front air bag module if it has been replaced (tool <b>Elé. 1287</b>).</p>
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### FAULT FINDING - INTERPRETATION OF FAULTS

<p><b>DF074 PRESENT</b></p>	<p><u>Passenger's front airbag circuit 2</u></p> <p>CC: Short circuit CO: Open circuit CC.1: Short circuit to 12 volts CC.0: Short circuit to earth 1.DEF: Short circuit between ignition lines</p>
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<p><b>NOTES</b></p>	<p><b>Priorities in dealing with a number of faults:</b> In the case of 1.DEF Short-circuit between 2 ignition lines, use the following approach and that for the second fault to locate the short-circuit.</p>
	<p><b>Special notes:</b> Never carry out any procedures on trigger lines using any tool other than CLIP, NXR or XRBAG. Use the B54 adapter to work on the computer connector (<b>Cable B</b>).</p>

<p><b>CO - CC</b></p>	<p><b>NOTES</b></p>	<p>None.</p>
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<p>Lock the computer using the command on the diagnostic tool. Switch off the ignition and remove the passenger airbag. Check that it is correctly connected.</p>
<p>Disconnect the <b>green</b> connector on the passenger airbag and connect 1 dummy ignition module to the igniter connector. Switch on the ignition and carry out a check using the diagnostic tool. Replace the airbag if the fault has become stored (fault no longer declared present).</p>

<p><b>AFTER REPAIR</b></p>	<p>Reconnect the computer and the connectors of the passenger airbag module then switch on the ignition. Clear the computer memory then switch off the ignition. Carry out the check again using the diagnostic tool and, if there are no faults, unlock the computer. Destroy the passenger front air bag module if it has been replaced (tool <b>Elé. 1287</b>).</p>
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**FAULT FINDING - INTERPRETATION OF FAULTS**

<b>DF074</b> <b>CONTINUED 1</b>	
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<p>If the value is incorrect: Disconnect the computer and check the connector connections (<b>tracks 3 and 28</b>). Fit the <b>B54 50-track adaptor</b>. CLIP, NXR or XRBAG must be used for measuring the resistance on <b> cable B</b> of the adaptor. If the value obtained is incorrect, the wiring is faulty between the computer and the passenger airbag connectors (C0/C4). Replace the wiring if necessary. If the value obtained is correct, check the computer wiring again.</p>
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<b>AFTER REPAIR</b>	<p>Reconnect the computer and the connectors of the passenger airbag module then switch on the ignition. Clear the computer memory then switch off the ignition. Carry out the check again using the diagnostic tool and, if there are no faults, unlock the computer. Destroy the passenger front air bag module if it has been replaced (tool <b>Elé. 1287</b>).</p>
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### FAULT FINDING - INTERPRETATION OF FAULTS

<b>DF074</b> <b>CONTINUED 2</b>	
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<b>CC.1 - CC.0</b>	<b>NOTES</b>	None.
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<p>Lock the computer using the command on the diagnostic tool. Switch off the ignition and remove the passenger airbag. Check that it is correctly connected.</p>
<p>Disconnect the <b>green</b> connector on the passenger airbag and connect 1 dummy ignition module to the igniter connector. Switch on the ignition and carry out a check using the diagnostic tool. Replace the airbag if the fault has become stored (fault no longer declared present).</p>
<p>If the value is incorrect: Disconnect the computer and check the connector connections (<b>tracks 3 and 28</b>). Fit the <b>B54 50-track adaptor</b>. CLIP, NXR or XRBAG must be used for the insulation measurement appropriate to the type of fault, on <b>cable B</b> of the adaptor. If the value obtained is incorrect, the wiring is faulty between the computer and the passenger airbag connectors (C0/C4). Replace the wiring if necessary. If the value obtained is correct, check the computer wiring again.</p>

<b>AFTER REPAIR</b>	<p>Reconnect the computer and the connectors of the passenger airbag module then switch on the ignition. Clear the computer memory then switch off the ignition. Carry out the check again using the diagnostic tool and, if there are no faults, unlock the computer. Destroy the passenger front air bag module if it has been replaced (tool <b>Elé. 1287</b>).</p>
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### FAULT FINDING - INTERPRETATION OF FAULTS

<p><b>DF075 PRESENT</b></p>	<p><u>Passenger's front airbag circuit 1</u></p> <p>CC: Short circuit CO: Open circuit CC.1: Short circuit to 12 volts CC.0: Short circuit to earth 1.DEF: Short circuit between ignition lines</p>
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<p><b>NOTES</b></p>	<p><b>Priorities in dealing with a number of faults:</b> In the case of 1.DEF Short-circuit between 2 ignition lines, use the following approach and that for the second fault to locate the short-circuit.</p>
	<p><b>Special notes:</b> Never carry out any procedures on trigger lines using any tool other than CLIP, NXR or XRBAG. Use the B54 adapter to work on the computer connector (<b>Cable A</b>).</p>

<p><b>CO - CC</b></p>	<p><b>NOTES</b></p>	<p>None.</p>
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<p>Lock the computer using the command on the diagnostic tool. Switch off the ignition and remove the passenger airbag. Check that it is correctly connected.</p>
<p>Disconnect the <b>orange</b> connector on the passenger airbag and connect 1 dummy ignition module to the igniter connector. Switch on the ignition and carry out a check using the diagnostic tool. Replace the airbag if the fault has become stored (fault no longer declared present).</p>
<p>If the value is incorrect: Disconnect the computer and check the connector connections (<b>tracks 2 and 27</b>). Fit the <b>B54 50-track adaptor</b>. The Clip, NXR or XRBAG tool <b>MUST</b> be used for measuring the resistance on adaptor <b>wire A</b>. If the value obtained is incorrect, the wiring is faulty between the computer and the passenger airbag connectors (C0/C4). Replace the wiring if necessary. If the value obtained is correct, check the computer wiring again.</p>

<p><b>AFTER REPAIR</b></p>	<p>Reconnect the computer and the connectors of the passenger airbag module then switch on the ignition. Clear the computer memory then switch off the ignition. Carry out the check again using the diagnostic tool and, if there are no faults, unlock the computer. Destroy the passenger front air bag module if it has been replaced (tool <b>Elé. 1287</b>).</p>
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### FAULT FINDING - INTERPRETATION OF FAULTS

<p><b>DF075</b> <b>CONTINUED</b></p>	
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<p><b>CC.1 - CC.0</b></p>	<p><b>NOTES</b></p>	<p>None.</p>
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<p>Lock the computer using the command on the diagnostic tool. Switch off the ignition and remove the passenger airbag. Check that it is correctly connected.</p>
<p>Disconnect the <b>orange</b> connector on the passenger airbag and connect 1 dummy ignition module to the igniter connector. Switch on the ignition and carry out a check using the diagnostic tool. Replace the airbag if the fault has become stored (fault no longer declared present).</p>
<p>If the value is incorrect: Disconnect the computer and check the connector connections (<b>tracks 2 and 27</b>). Fit the <b>B54 50-track adaptor</b>. The CLIP, NXR or XRBAG tool MUST be used to carry out the correct insulation measurement for the type of fault on adaptor <b>wire A</b>. If the value obtained is incorrect, the wiring is faulty between the computer and the passenger airbag connectors (C0/C4). Replace the wiring if necessary. If the value obtained is correct, check the computer wiring again.</p>

<p><b>AFTER REPAIR</b></p>	<p>Reconnect the computer and the connectors of the passenger airbag module then switch on the ignition. Clear the computer memory then switch off the ignition. Carry out the check again using the diagnostic tool and, if there are no faults, unlock the computer. Destroy the passenger front air bag module if it has been replaced (tool <b>Elé. 1287</b>).</p>
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### FAULT FINDING - INTERPRETATION OF FAULTS

<b>DF077 PRESENT</b>	<u>Driver's front side airbag circuit</u> CC: Short circuit CO: Open circuit CC.1: Short circuit to 12 volts CC.0: Short circuit to earth 1.DEF: Short circuit between ignition lines
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<b>NOTES</b>	<b>Priorities in dealing with a number of faults:</b> In the event of 1.DEF short circuit between 2 ignition lines, follow the procedure below and the procedure for the second fault, to localise the short circuit.
	<b>Special notes:</b> Never carry out any procedures on trigger lines using any tool other than CLIP, NXR or XRBAG. Use the B54 adapter to work on the computer connector ( <b>Cable E</b> ).

<b>CO - CC</b>	<b>NOTES</b>	None.
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Lock the computer. Disconnect the brown <b>2-track</b> connector under the driver's seat and check the connections on the connector. The CLIP, NXR or XRBAG tool must be used for measuring the resistance at <b>point C1</b> . <b>Is the value obtained correct?</b>
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<b>NO</b>	Check the seat connector connections. Remove the trim from the driver's seat and check that the side airbag ignition module is correctly connected.
	Disconnect the airbag ignition module for the side airbag module, connect a dummy ignition module to the ignition module connector then re-measure the resistance at <b>point C1</b> . – If the value obtained is correct, replace the driver's front side airbag module. – If the value obtained is still incorrect, replace the wiring between points <b>C1/C3</b> (seat wiring).

<b>AFTER REPAIR</b>	Reconnect the computer and the ignition module of the driver's front side airbag module then switch on the ignition. Clear the computer memory then switch off the ignition. Carry out the check again using the diagnostic tool and, if there are no faults, unlock the computer. Destroy the side air bag module if it has been replaced (tool <b>Elé. 1287</b> ).
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### FAULT FINDING - INTERPRETATION OF FAULTS

<p><b>DF077</b> <b>CONTINUED 1</b></p>	
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<p><b>YES</b></p>	<p>Check the seat connector connections. Remove the trim from the driver's seat and check that the side airbag ignition module is correctly connected.</p> <p>Disconnect the airbag ignition module for the side airbag module, connect a dummy ignition module to the ignition module connector then re-measure the resistance at <b>point C1</b>.</p> <ul style="list-style-type: none"> <li>– If the value obtained is correct, replace the driver's front side airbag module.</li> <li>– If the value obtained is still incorrect, replace the wiring between points <b>C1/C3</b> (seat wiring).</li> </ul> <p>Check the connections again on the seat connector as well as on the 50-track connector (<b>tracks 8 and 33</b>).</p> <p>Reconnect the under-seat connector. Disconnect the computer connector and fit the <b>B54 50-track adaptor</b>. The CLIP, NXR or XRBAG tool <b>MUST</b> be used for measuring the resistance on the <b>wire marked E</b> on the adapter.</p> <ul style="list-style-type: none"> <li>– If the fault persists, the wiring is faulty between the computer and the driver's seat (<b>C0/C1</b>).</li> </ul> <p>Replace the wiring if necessary.</p>
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<p><b>AFTER REPAIR</b></p>	<p>Reconnect the computer and the ignition module of the driver's front side airbag module then switch on the ignition. Clear the computer memory then switch off the ignition. Carry out the check again using the diagnostic tool and, if there are no faults, unlock the computer. Destroy the side air bag module if it has been replaced (tool <b>Elé. 1287</b>).</p>
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### FAULT FINDING - INTERPRETATION OF FAULTS

DF077 CONTINUED 2	
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CC.1 - CC.0	NOTES	None.
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Lock the computer.  
Disconnect the brown **2-track** connector under the driver's seat and check the connections on the connector. The CLIP, NXR or XRBAG tool must be used for measuring the insulation appropriately for the type of fault at point **C1**.  
**Is the value obtained correct?**

NO	<p>Check the seat connector connections. Remove the trim from the driver's seat and check that the side airbag ignition module is correctly connected.</p> <p>Disconnect the ignition module from the side airbag module, connect a dummy ignition module to the ignition module connector and measure the insulation appropriate to the type of fault again at point <b>C1</b>.          – If the value obtained is correct, replace the driver's front side airbag module.          – If the value obtained is still incorrect, replace the wiring between points <b>C1/C3</b> (seat wiring).</p>
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AFTER REPAIR	<p>Reconnect the computer and the ignition module of the driver's front side airbag module then switch on the ignition. Clear the computer memory then switch off the ignition. Carry out the check again using the diagnostic tool and, if there are no faults, unlock the computer. Destroy the side air bag module if it has been replaced (tool <b>Elé. 1287</b>).</p>
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### FAULT FINDING - INTERPRETATION OF FAULTS

<p><b>DF077</b> <b>CONTINUED 3</b></p>	
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<p><b>YES</b></p>	<p>Check the seat connector connections. Remove the trim from the driver's seat and check that the side airbag ignition module is correctly connected.</p>
	<p>Disconnect the ignition module from the side airbag module, connect a dummy ignition module to the ignition module connector and measure the insulation appropriate to the type of fault again at point <b>C1</b>.</p> <ul style="list-style-type: none"> <li>– If the value obtained is correct, replace the driver's front side airbag module.</li> <li>– If the value obtained is still incorrect, replace the wiring between points <b>C1/C3</b> (seat wiring).</li> </ul>
	<p>Check the connections again on the seat connector as well as on the 50-track connector (<b>tracks 8 and 33</b>).</p>
	<p>Reconnect the under-seat connector. Disconnect the computer connector and fit the <b>B54 50-track adaptor</b>. The CLIP, NXR or XRBAG tools <b>MUST</b> be used for correctly measuring the insulation for the type of fault on the <b>wire marked E</b> on the adaptor.</p> <ul style="list-style-type: none"> <li>– If the fault persists, the wiring is faulty between the computer and the driver's seat (<b>C0/C1</b>).</li> </ul> <p>Replace the wiring if necessary.</p>



<p><b>AFTER REPAIR</b></p>	<p>Reconnect the computer and the ignition module of the driver's front side airbag module then switch on the ignition. Clear the computer memory then switch off the ignition. Carry out the check again using the diagnostic tool and, if there are no faults, unlock the computer. Destroy the side air bag module if it has been replaced (tool <b>Elé. 1287</b>).</p>
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### FAULT FINDING - INTERPRETATION OF FAULTS

<p><b>DF091 PRESENT</b></p>	<p><u>Airbag locking switch circuit</u> CO.1: Open circuit or short circuit to +12 volts CC.0: Short circuit to earth 1.DEF: Detection of signal outside upper or lower limit</p>
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<p><b>NOTES</b></p>	<p><b>Special notes:</b> Use 50-track adaptor B54 for working on the computer connector. Lock the computer using the command on the diagnostic tool.</p>
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<p><b>CO.1 - CC.0 - 1.DEF</b></p>	<p><b>NOTES</b></p>	<p>None.</p>
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<p>Check the condition of the computer connections. Check the condition of the 50-track connector (locking system, wiring, etc.). Check that the locking switch is correctly connected and check its wiring. Ensure continuity and insulation of the connections between:</p> <p style="text-align: center;">             Bornier B54 <b>terminal 21</b>        <b>track 6</b> locking switch connector              Bornier B54 <b>terminal 22</b>        <b>track 3</b> locking switch connector         </p> <p>Replace the locking switch if the fault persists.</p>		
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<p><b>AFTER REPAIR</b></p>	<p>Reconnect the computer and the locking switch, then switch on the ignition. Clear the computer memory then switch off the ignition. Carry out the check again using the diagnostic tool and, if there are no faults, unlock the computer.</p>
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### FAULT FINDING - INTERPRETATION OF FAULTS

<p><b>DF165 PRESENT</b></p>	<p><u>Airbag fault warning light circuit</u> 1.DEF: Fault finding performed by the instrument panel.</p>
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<p><b>NOTES</b></p>	<p><b>Special notes:</b> None.</p>
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Apply the fault finding procedure relevant to this fault in the instrument panel fault finding information section.

<p><b>AFTER REPAIR</b></p>	<p>Clear the computer memory then switch off the ignition. Carry out the check again using the diagnostic tool and, if there are no faults, unlock the computer.</p>
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### FAULT FINDING - INTERPRETATION OF FAULTS

<b>DF177 PRESENT</b>	<u>Driver side rear inertia reel circuit.</u> CC: Short circuit CO: Open circuit CC.1: Short circuit to 12 volts CC.0: Short circuit to earth 1.DEF: Short circuit between ignition lines
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<b>NOTES</b>	<b>Priorities in dealing with a number of faults:</b> In the event of 1.DEF short circuit between 2 ignition lines, follow the procedure below and the procedure for the second fault, to localise the short circuit.
	<b>Special notes:</b> Never carry out any procedures on trigger lines using any tool other than CLIP, NXR or XRBAG. Use the B54 adapter to work on the computer connector ( <b>Cable K</b> ).

<b>CO - CC</b>	<b>NOTES</b>	None.
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<p>Lock the computer.            Switch off the ignition and verify that the <b>white 2-track</b> connector of the driver side rear pyrotechnic inertia reel is correctly connected (situated below the rear parcel shelf mountings, behind the rear wing soundproofing).            Disconnect the white 2-track connector and check its connections with the connector.            The CLIP, NXR or XRBAG tools must be used for measuring the resistance at <b>point C1</b> of the driver side rear pyrotechnic inertia reel.            If the value obtained is incorrect, the driver side rear pyrotechnic inertia reel is faulty.            Replace the driver side rear pyrotechnic inertia reel.</p>
<p>If the value obtained is correct, reconnect the white 2-track connector.            Disconnect the computer connector and check the connector connections (<b>tracks 16 and 41</b>).            Fit the <b>B54 50-track</b> adaptor. The CLIP, NXR or XRBAG tool must be used for measuring the resistance on <b>cable K</b> of the adaptor.            If the value obtained is incorrect, the wiring is faulty between the computer and the white 2-track intermediate connector (<b>C0/C1</b>).            Replace the wiring harness.</p>

<b>AFTER REPAIR</b>	Reconnect the computer and the seat belt inertia reel, then switch on the ignition again. Clear the computer memory then switch off the ignition. Carry out the check again using the diagnostic tool and, if there are no faults, unlock the computer. If the pyrotechnic inertia reel has been replaced, destroy the old one ( <b>Elé. 1287</b> tool).
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FAULT FINDING - INTERPRETATION OF FAULTS

DF177 CONTINUED	
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CC.1 - CC.0	NOTES	None.
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<p>Lock the computer. Switch off the ignition and check that the <b>white 2-track</b> connector of the driver side rear pyrotechnic inertia reel is correctly connected (situated below the rear parcel shelf mountings, behind the rear wing soundproofing). Disconnect the white 2-track connector and check its connections with the connector. The CLIP, NXR or XRBAG tools must be used for measuring the insulation appropriately for the type of fault at <b>point C1</b> of the driver side rear pyrotechnic inertia reel. If the value obtained is incorrect, the driver side rear pyrotechnic inertia reel is faulty. Replace the driver side rear pyrotechnic inertia reel.</p>
<p>If the value obtained is correct, reconnect the white 2-track connector. Disconnect the computer connector and check the connector connections (<b>tracks 16 and 41</b>). Fit the <b>B54 50-track</b> adaptor. The CLIP, NXR or XRBAG tool must be used for measuring the insulation appropriately for the type of fault on <b>cable K</b> of the adaptor. If the value obtained is incorrect, the wiring is faulty between the computer and the white 2-track intermediate connector (<b>C0/C1</b>). Replace the wiring harness.</p>

AFTER REPAIR	<p>Reconnect the computer and the inertia reel, then switch the ignition on. Clear the computer memory then switch off the ignition. Carry out the check again using the diagnostic tool and, if there are no faults, unlock the computer. If the pyrotechnic inertia reel has been replaced, destroy the old one (<b>Elé. 1287</b> tool).</p>
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### FAULT FINDING - INTERPRETATION OF FAULTS

<b>DF178 PRESENT</b>	<u>Rear passenger side seat belt retractor circuit</u> CC: Short circuit CO: Open circuit CC.1: Short circuit to 12 volts CC.0: Short circuit to earth 1.DEF: Short circuit between ignition lines
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<b>NOTES</b>	<b>Priorities in dealing with a number of faults:</b> In the event of 1.DEF short circuit between 2 ignition lines, follow the procedure below and the procedure for the second fault, to localise the short circuit.
	<b>Special notes:</b> Never carry out any procedures on trigger lines using any tool other than CLIP, NXR or XRBAG. Use the B54 adaptor to work on the computer connector ( <b>Cable L</b> ).

<b>CO - CC</b>	<b>NOTES</b>	None.
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<p>Lock the computer.</p> <p>Switch off the ignition and check that the <b>white 2-track</b> connector of the passenger side rear pyrotechnic inertia reel is correctly connected (located below the rear parcel shelf mountings, behind the rear wing soundproofing).</p> <p>Disconnect the white 2-track connector and check its connections with the connector.</p> <p>The CLIP, NXR or XRBAG tools must be used for measuring the resistance at <b>point C1</b> of the passenger side rear pyrotechnic inertia reel.</p> <p>If the value obtained is incorrect, the rear passenger side seat belt inertia reel wiring is faulty.</p> <p>Replace the rear passenger side seat belt inertia reel.</p>
<p>If the value obtained is correct, reconnect the white 2-track connector.</p> <p>Disconnect the computer connector and check the connector connections (<b>tracks 42 and 17</b>).</p> <p>Fit the <b>B54 50-track</b> adaptor. CLIP, NXR or XRBAG must be used for checking the resistance on the <b>L line</b> of the adaptor.</p> <p>If the value obtained is incorrect, the wiring is faulty between the computer and the white 2-track intermediate connector (<b>C0/C1</b>).</p> <p>Replace the wiring harness.</p>

<b>AFTER REPAIR</b>	<p>Reconnect the computer and the seat belt inertia reel, then switch on the ignition again.</p> <p>Clear the computer memory then switch off the ignition.</p> <p>Carry out the check again using the diagnostic tool and, if there are no faults, unlock the computer.</p> <p>If the pyrotechnic inertia reel has been replaced, destroy the old one (<b>Elé. 1287</b> tool).</p>
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FAULT FINDING - INTERPRETATION OF FAULTS

DF178 CONTINUED	
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CC.1 - CC.0	NOTES	None.
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<p>Lock the computer. Switch off the ignition and check that the <b>white 2-track</b> connector of the passenger side rear pyrotechnic inertia reel is correctly connected (located below the rear parcel shelf mountings, behind the rear wing soundproofing). Disconnect the white <b>2-track</b> connector and check its connections with the connector. The CLIP, NXR or XRBAG tool must be used for measuring the insulation appropriately for the type of fault at <b>point C1</b> of the passenger side rear pyrotechnic inertia reel. If the value obtained is incorrect, the rear passenger side seat belt inertia reel wiring is faulty. Replace the rear passenger side seat belt inertia reel.</p>
<p>If the value obtained is correct, reconnect the white 2-track connector. Disconnect the computer connector and check the connector connections (<b>tracks 42 and 17</b>). Fit the <b>B54 50-track</b> adaptor. CLIP, NXR or XRBAG must be used for the insulation measurement appropriate to the type of fault, on the <b>L line</b> of the adaptor. If the value obtained is incorrect, the wiring is faulty between the computer and the white 2-track intermediate connector (<b>C0/C1</b>). Replace the wiring harness.</p>

AFTER REPAIR	<p>Reconnect the computer and the seat belt inertia reel, then switch on the ignition again. Clear the computer memory then switch off the ignition. Carry out the check again using the diagnostic tool and, if there are no faults, unlock the computer. If the pyrotechnic inertia reel has been replaced, destroy the old one (<b>Elé. 1287</b> tool).</p>
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## FAULT FINDING - INTERPRETATION OF FAULTS

<b>DF179 PRESENT</b>	<u>Driver's side front side sensor circuit</u> CC: Short circuit 1.DEF: No signal
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<b>NOTES</b>	<b>Special notes:</b> Use 50-track adaptor B54 for working on the computer connector.
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<b>CC</b>	<b>NOTES</b>	None.
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Lock the computer using the command on the diagnostic tool.  
Check that the driver's side sensor is connected correctly and check its wiring.  
Check the condition of the wiring on the computer (**tracks 12 and 13**).  
Check the condition of the 50-track connector (locking system, wiring, etc.).  
Ensure continuity and insulation of the connections between:

Bornier B54 **terminal 12** —————→ **track 2** sensor connector  
Bornier B54 **terminal 13** —————→ **track 1** sensor connector

Also check the insulation between these connections.

<b>1.DEF</b>	<b>NOTES</b>	None.
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Replace the driver's side sensor.

<b>AFTER REPAIR</b>	Reconnect the computer and the driver's side sensor then switch on the ignition again. Clear the computer memory then switch off the ignition. Carry out the check again using the diagnostic tool and, if there are no faults, unlock the computer.
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### FAULT FINDING - INTERPRETATION OF FAULTS

<b>DF180 PRESENT</b>	<u>Passenger side front side sensor circuit</u> CC: Short circuit 1.DEF: No signal
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<b>NOTES</b>	<b>Special notes:</b> Use 50-track adaptor B54 for working on the computer connector.
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<b>CC</b>	<b>NOTES</b>	None.
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<p>Lock the computer using the command on the diagnostic tool.            Check that the passenger's side sensor is connected correctly and check its wiring.            Check the condition of the connections on the computer (<b>tracks 37 and 38</b>).            Check the condition of the 50-track connector (locking system, wiring, etc.).            Ensure continuity and insulation of the connections between:</p> <p style="margin-left: 40px;">             Bornier B54 <b>terminal 37</b>        <b>track 2</b> sensor connector              Bornier B54 <b>terminal 38</b>        <b>track 1</b> sensor connector           </p> <p>Also check the insulation between these connections.</p>		
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<b>1.DEF</b>	<b>NOTES</b>	None.
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Replace the passenger's side sensor.		
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<b>AFTER REPAIR</b>	Reconnect the computer and the passenger's side sensor then switch on the ignition again. Clear the computer memory then switch off the ignition. Carry out the check again using the diagnostic tool and, if there are no faults, unlock the computer.	
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### FAULT FINDING - INTERPRETATION OF FAULTS

<b>DF183 PRESENT</b>	<u>Driver's side front buckle pretensioner circuit</u> CC: Short circuit CO: Open circuit CC.1: Short circuit to 12 volts CC.0: Short circuit to earth 1.DEF: Short circuit between ignition lines
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<b>NOTES</b>	<b>Priorities in dealing with a number of faults:</b> In the event of 1.DEF short circuit between 2 ignition lines, follow the procedure below and the procedure for the second fault, to localise the short circuit.
	<b>Special notes:</b> Never carry out any procedures on trigger lines using any tool other than CLIP, NXR or XRBAG. Use the B54 adaptor to work on the computer connector ( <b>Cable G</b> ).

<b>CO - CC</b>	<b>NOTES</b>	None.
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<p>Lock the computer.</p> <p>Switch off the ignition and check that the ignition module of the driver's seat buckle pretensioner is correctly connected.</p> <p>Disconnect the ignition module of the pretensioner and connect a dummy ignition module to the ignition module connector.</p> <p>Switch on the ignition and carry out a check using the diagnostic tool.</p> <p>Replace the driver's seat buckle pretensioner if the fault becomes stored (fault no longer declared present).</p>
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<b>AFTER REPAIR</b>	<p>Reconnect the computer and the pretensioner, then switch on the ignition again.</p> <p>Clear the computer memory then switch off the ignition.</p> <p>Carry out the check again using the diagnostic tool and, if there are no faults, unlock the computer.</p> <p>Destroy the pretensioner if it has been replaced (tool <b>Elé. 1287</b>).</p>
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### FAULT FINDING - INTERPRETATION OF FAULTS

<p><b>DF183 CONTINUED 1</b></p>	
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Reconnect the pretensioner.

Disconnect the **grey 16-track** connector under the driver's seat and check the connections of the connector (**tracks A7 and A8**).

Fit the **8-track adaptor** to the wiring at point **C1**.

The Clip, NXR or XRBAG tool **MUST** be used for measuring the resistance on adaptor **wire D**.

If the value obtained is incorrect, the wiring is faulty between the **grey 16-track** connector and the driver's seat buckle pretensioner (**C1/C3**). Replace the wiring if necessary.

Reconnect the 16-track connector.

Disconnect the computer connector and check the connector connections (**tracks 10 and 35**).

Fit the B54 50-track adaptor. The CLIP, NXR or XRBAG tool must be used for measuring the resistance on **cable G** of the adaptor.

If the value obtained is incorrect, the wiring is faulty between the computer and the passenger seat buckle pretensioner (**C0/C1**).

Replace the wiring harness.

### AFTER REPAIR

Reconnect the computer and the pretensioner, then switch on the ignition again.

Clear the computer memory then switch off the ignition.

Carry out the check again using the diagnostic tool and, if there are no faults, unlock the computer.

Destroy the pretensioner if it has been replaced (tool **Elé. 1287**).

### FAULT FINDING - INTERPRETATION OF FAULTS

<b>DF183 CONTINUED 2</b>	
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<b>CC.1 - CC.0</b>	<b>NOTES</b>	None.
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<p>Lock the computer. Switch off the ignition and check that the ignition module of the driver's seat buckle pretensioner is correctly connected. Disconnect the ignition module of the pretensioner and connect a dummy ignition module to the ignition module connector. Switch on the ignition and carry out a check using the diagnostic tool. Replace the driver's seat buckle pretensioner if the fault becomes stored (fault no longer declared present).</p>
<p>Reconnect the pretensioner. Disconnect the <b>grey 16-track</b> connector under the driver's seat and check the connections of the connector (<b>tracks A7 and A8</b>). Fit the <b>8-track adaptor</b> to the wiring at point <b>C1</b>. The CLIP, NXR or XRBAG tool MUST be used to carry out the correct insulation measurement for the type of fault on adaptor <b>wire A</b>. If the value obtained is incorrect, the wiring is faulty between the <b>grey 16-track</b> connector and the driver's seat buckle pretensioner (<b>C1/C3</b>). Replace the wiring if necessary.</p>
<p>Reconnect the 16-track connector. Check the connections again on the <b>grey 16-track intermediate connector (tracks A7 and A8)</b> and on the 50-track connector (<b>tracks 10 and 35</b>). Fit the B54 50-track adaptor. The CLIP, NXR or XRBAG tool must be used for measuring the insulation appropriately for the type of fault on <b>cable G</b> of the adaptor. If the fault is still present, the wiring is faulty between the computer and the <b>grey 16-track</b> intermediate connector (<b>C0/C1</b>). Replace the wiring harness.</p>

<b>AFTER REPAIR</b>	<p>Reconnect the computer and the pretensioner, then switch on the ignition again. Clear the computer memory then switch off the ignition. Carry out the check again using the diagnostic tool and, if there are no faults, unlock the computer. Destroy the pretensioner if it has been replaced (tool <b>Elé. 1287</b>).</p>
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### FAULT FINDING - INTERPRETATION OF FAULTS

<p><b>DF184 PRESENT</b></p>	<p><u>Passenger side front buckle pretensioner circuit</u>            CC: Short circuit            CO: Open circuit            CC.1: Short circuit to 12 volts            CC.0: Short circuit to earth            1.DEF: Short circuit between ignition lines</p>
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<p><b>NOTES</b></p>	<p><b>Priorities in dealing with a number of faults:</b>            In the event of 1.DEF short circuit between 2 ignition lines, follow the procedure below and the procedure for the second fault, to localise the short circuit.</p>
	<p><b>Special notes:</b> Never carry out any procedures on trigger lines using any tool other than CLIP, NXR or XRBAG.            Use the B54 adaptor to work on the computer connector (<b>Cable L</b>).</p>

<p><b>CO - CC</b></p>	<p><b>NOTES</b></p>	<p>None.</p>
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Lock the computer.  
 Switch off the ignition and check that the ignition module of the passenger's seat buckle pretensioner is correctly connected.  
 Disconnect the ignition module of the pretensioner and connect a dummy ignition module to the ignition module connector.  
 Switch on the ignition and carry out a check using the diagnostic tool.  
 Replace the passenger seat buckle pretensioner if the fault becomes stored (fault no longer declared present).

<p><b>AFTER REPAIR</b></p>	<p>Reconnect the computer and the passenger seat buckle pretensioner, then switch on the ignition again. Clear the computer memory then switch off the ignition.            Carry out the check again using the diagnostic tool and, if there are no faults, unlock the computer.            Destroy the pretensioner if it has been replaced (tool <b>Elé. 1287</b>).</p>
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FAULT FINDING - INTERPRETATION OF FAULTS

<b>DF184 CONTINUED 1</b>	
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<p>Reconnect the pretensioner. Disconnect the <b>grey 16-track</b> connector under the passenger seat and check the connections of the connector (<b>tracks A7 and A8</b>). Fit the <b>8-track adaptor</b> to the wiring at point <b>C1</b>. The Clip, NXR or XRBAG tool <b>MUST</b> be used for measuring the resistance on adaptor <b>wire D</b>. If the value obtained is incorrect, the wiring is faulty between the <b>grey 16-track</b> connector and the passenger seat buckle pretensioner (<b>C1/C3</b>). Replace the wiring if necessary.</p>
<p>Reconnect the 16-track connector. Disconnect the computer connector and check the connector connections (<b>tracks 11 and 36</b>). Fit the B54 50-track adaptor. The CLIP, NXR or XRBAG tool must be used for measuring the resistance on <b>cable H</b> of the adaptor. If the value obtained is incorrect, the wiring is faulty between the computer and the passenger seat buckle pretensioner (<b>C0/C1</b>). Replace the wiring harness.</p>

<b>AFTER REPAIR</b>	<p>Reconnect the computer and the passenger seat buckle pretensioner, then switch on the ignition again. Clear the computer memory then switch off the ignition. Carry out the check again using the diagnostic tool and, if there are no faults, unlock the computer. Destroy the pretensioner if it has been replaced (tool <b>Elé. 1287</b>).</p>
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### FAULT FINDING - INTERPRETATION OF FAULTS

<b>DF184 CONTINUED 2</b>	
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<b>CC.1 - CC.0</b>	<b>NOTES</b>	None.
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Lock the computer.  
Switch off the ignition and check that the ignition module of the passenger's seat buckle pretensioner is correctly connected.  
Disconnect the ignition module of the pretensioner and connect a dummy ignition module to the ignition module connector.  
Switch on the ignition and carry out a check using the diagnostic tool.  
Replace the passenger seat buckle pretensioner if the fault becomes stored (fault no longer declared present).

Reconnect the pretensioner.  
Disconnect the **grey 16-track** connector under the passenger seat and check the connections of the connector (**tracks A7 and A8**).  
Fit the **8-track adaptor** to the wiring at point **C1**.  
The CLIP, NXR or XRBAG tool MUST be used to carry out the correct insulation measurement for the type of fault on adaptor **wire A**.  
If the value obtained is incorrect, the wiring is faulty between the **grey 16-track** connector and the passenger seat buckle pretensioner (**C1/C3**). Replace the wiring if necessary.

Reconnect the 16-track connector.  
Check the connections again on the **grey 16-track intermediate connector (tracks A7 and A8)** and on the 50-track connector (**tracks 11 and 36**).  
Fit the B54 50-track adaptor. The CLIP, NXR or XRBAG tool must be used for measuring the insulation appropriately for the type of fault on **cable H** of the adaptor.  
If the fault is still present, the wiring is faulty between the computer and the **grey 16-track** intermediate connector (**C0/C1**).  
Replace the wiring harness.

<b>AFTER REPAIR</b>	Reconnect the computer and the passenger seat buckle pretensioner, then switch on the ignition again. Clear the computer memory then switch off the ignition. Carry out the check again using the diagnostic tool and, if there are no faults, unlock the computer. Destroy the pretensioner if it has been replaced (tool <b>Elé. 1287</b> ).
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### FAULT FINDING - INTERPRETATION OF FAULTS

<p><b>DF187 PRESENT</b></p>	<p><u>Configuration of ignition lines</u></p>
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<p><b>NOTES</b></p>	<p>None.</p>
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This fault indicates an inconsistency between the computer configuration and the vehicle equipment detected by the computer. The computer has detected the presence of an element additional to its configuration. Carry out a reading of the configuration under the heading "READING THE CONFIGURATION". Modify the computer configuration, adapting it to the equipment level of the vehicle.

<p><b>AFTER REPAIR</b></p>	<p>Clear the computer memory then switch off the ignition. Check again using the diagnostic tool.</p>
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### FAULT FINDING - INTERPRETATION OF FAULTS

<p><b>DF188 PRESENT</b></p>	<p><u>Configuration of locking passenger airbag</u></p>
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<p><b>NOTES</b></p>	<p><b>Special notes:</b> None.</p>
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This fault indicates an inconsistency between the computer configuration and the vehicle equipment detected by the computer. The computer has detected the presence of an element different from its configuration. Carry out a reading of the configuration under the heading "READING THE CONFIGURATION". Modify the computer configuration, adapting it to the equipment level of the vehicle.

<p><b>AFTER REPAIR</b></p>	<p>Clear the computer memory then switch off the ignition. Check again using the diagnostic tool.</p>
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### FAULT FINDING - INTERPRETATION OF FAULTS

<b>DF189 PRESENT</b>	<u>Configuration of seat position sensors</u>
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<b>NOTES</b>	None.
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This fault indicates an inconsistency between the computer configuration and the vehicle equipment detected by the computer. The computer has detected the presence of an element additional to its configuration. Carry out a reading of the configuration under the heading "READING THE CONFIGURATION". Modify the computer configuration, adapting it to the equipment level of the vehicle.

<b>AFTER REPAIR</b>	Clear the computer memory then switch off the ignition. Check again using the diagnostic tool.
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### FAULT FINDING - INTERPRETATION OF FAULTS

<p><b>DF191 PRESENT</b></p>	<p><u>Fault warning light consistency</u></p>
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<p><b>NOTES</b></p>	<p><b>Special notes:</b> None.</p>
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This fault indicates an inconsistency between the status of the warning light and the command from the airbag computer.  
Consult the fault finding procedure relevant to this fault in the instrument panel fault finding information section.

<p><b>AFTER REPAIR</b></p>	<p>Clear the computer memory then switch off the ignition. Check again using the diagnostic tool.</p>
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### FAULT FINDING - INTERPRETATION OF FAULTS

<p><b>DF192 PRESENT</b></p>	<p><u>Passenger's airbag status warning light consistency</u> 1.DEF: Inconsistency.</p>
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<p><b>NOTES</b></p>	<p><b>Special notes:</b> None.</p>
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This fault indicates an inconsistency between the status of the warning light and the command from the airbag computer.  
Consult the fault finding procedure relevant to this fault in the instrument panel fault finding information section.

<p><b>AFTER REPAIR</b></p>	<p>Clear the computer memory then switch off the ignition. Carry out the check again using the diagnostic tool and, if there are no faults, unlock the computer.</p>
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### FAULT FINDING - INTERPRETATION OF FAULTS

<p><b>DF193 PRESENT</b></p>	<p><u>Change of status of passenger airbag locking</u></p>
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<p><b>NOTES</b></p>	<p><b>Special notes:</b> The vehicle user has 10 seconds after switching on the + after ignition feed to inhibit the passenger airbag with the key. After this time, the computer will store this fault and light up the warning light on the instrument panel. Switching the ignition off and on again will block this fault.</p>
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Set the locking switch to the desired position, switch the ignition off and wait for a few seconds. Switch the ignition back on and clear the computer memory.

<p><b>AFTER REPAIR</b></p>	<p>Clear the computer memory then switch off the ignition. Carry out the check again using the diagnostic tool and, if there are no faults, unlock the computer.</p>
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**FAULT FINDING - INTERPRETATION OF FAULTS**

<b>DF194 PRESENT</b>	<u>Computer to be replaced following impact</u> 1.DEF: Locking following impact
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<b>NOTES</b>	None.
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Replace the air bag computer (refer to the Help section for this operation).

<b>AFTER REPAIR</b>	None.
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**FAULT FINDING - CONFORMITY CHECK**

<b>NOTES</b>	Only check the conformity after a complete check with the fault finding tool.
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Order	Function	Parameter/status checked or action	Display and notes	Fault finding
1	Diagnostic tool dialogue	-	Airbag AB 8. 2E	ALP1
2	Computer conformity	Vehicle type parameter	CLIO II Phase II 06	DF001
3	Computer configuration	Use the following commands: CONFIGURATION READING	Ensure that the computer configuration defined corresponds to the vehicle equipment.	None
4	Warning light operation Computer initialisation check.	Switch on the ignition	Warning light comes on for 3 seconds when the ignition is switched on	DF165

### DIAGNOSTICS - HELP

#### Replacing the airbag computer

The airbag computers are sold in locked mode to avoid all risk of accidental triggering (all ignition lines are disabled).

The locked mode is signalled when the airbag fault warning light lights up on the instrument panel.

Follow this procedure when replacing an airbag computer:

- Ensure that the ignition is switched off.
- Replace the computer.
- Modify the computer configuration if necessary.
- Switch off the ignition.
- Carry out a check using the diagnostic tool.
- Unlock the computer only if no faults are indicated by the diagnostic tool.

#### DEFINITION OF TRIGGERING LINES:

- L1:** Driver's frontal airbag circuit 1. (Wire C of the B54)
- L2:** Driver's frontal airbag circuit 2. (Wire D of the B54)
- L3:** Passenger frontal airbag circuit 1. (Wire A of the B54)
- L4:** Passenger frontal airbag circuit 2. (Wire B of the B54)
- L5:** Driver's side front buckle pretensioner circuit. (Wire G of the B54)
- L6:** Passenger side front buckle pretensioner circuit. (Wire H of the B54)
- L7:** Driver side rear inertia reel circuit. (Wire K of the B54)
- L8:** Passenger side rear inertia reel circuit. (Wire L of the B54)
- L9:** Driver's front side chest-level airbag circuit. (Wire E of the B54)
- L10:** Passenger front side chest-level airbag circuit. (Wire F of the B54)



### FAULT FINDING - FAULT FINDING CHART

<b>ALP 1</b>	<b>ABSENCE OF DIALOGUE WITH THE AIRBAG COMPUTER</b>
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<b>NOTES</b>	None.
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Try to establish dialogue with a computer on another vehicle to make sure that the fault finding tool is not faulty. If the tool is not causing the fault and dialogue cannot be established with any other computer on the same vehicle, it may be that a faulty computer is disrupting diagnostic line **K**.

Proceed by successive disconnections to locate this computer.

Check the battery voltage and carry out any operations necessary to obtain a correct voltage (10.5 volts < battery voltage < 16 volts).

Check the presence and condition of the airbag computer supply voltage fuse.

Check that the computer connector is properly connected and check the condition of its wiring.

Check that the supply to the computer is correct:

- Disconnect the airbag computer and fit the **B54 50-track adaptor (Wire 1)**.
- Check and ensure the presence of **+ after ignition feed** between the terminals marked **earth** and **+ after ignition feed**.

<b>AFTER REPAIR</b>	When communication is established, deal with any faults indicated.
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FAULT FINDING - FAULT FINDING CHART

ALP 1 CONTINUED	
<p>Check that the diagnostic socket is correctly supplied:</p> <ul style="list-style-type: none"><li>– <b>+ before ignition feed on track 16.</b></li><li>– <b>Earth on tracks 4 and 5.</b></li></ul> <p>Check the continuity and insulation of the lines of the diagnostic socket/air bag computer connection:</p> <ul style="list-style-type: none"><li>– Between the terminal marked <b>K</b> and <b>track 7</b> of the diagnostic socket.</li></ul>	
<p>If dialogue is still not established after these various checks, replace the air bag computer (refer to the Help section for this operation).</p>	

AFTER REPAIR	When communication is established, deal with any faults indicated.
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