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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 light computers of all **CLIO II** vehicles, 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 electrical wiring diagram of the function for the vehicle concerned,
- The tools listed under 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).
- Find 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 met, use the fault finding procedure to check the circuit of the faulty component, 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	<u>COMPUTER</u> DEF : Calibration of computer not carried out 1.DEF : Internal computer fault
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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>Check that the conditions required for initialisation are fully met:</p> <ul style="list-style-type: none">– 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.– Vehicle stopped.– Driver on board the vehicle. <p>Clear the fault memory.</p> <ul style="list-style-type: none">– Run the AC010 command. <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>
	If the fault reappears, replace the rear computer/sensor

1.DEF	<p>Where the fault reappears as present following:</p> <ul style="list-style-type: none">– the fault being cleared,– the ignition being switched off and on again. <p>Replace the rear computer/sensor, following the removal and refitting procedures described in Section 80 of the Workshop 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 check with 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>Fault finding procedure application conditions for stored faults: If the fault is declared present after:</p> <ul style="list-style-type: none">– the fault memory is declared present and a delay of 30 seconds with the engine running.– Ensure that the battery charge is sufficient and that the charge circuit is functioning correctly (11 volts < operating voltage < 14.5 volts).– The computer shows a fault present if the supply voltage is below 9 V.
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<p>Using a multimeter, measure the voltage at the xenon light computer terminal, track 2 (+ after ignition feed) and track 1 (earth). 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 higher than 9 V, replace the xenon light computer.</p>
<p>If the voltage shown by the multimeter is lower than 9 V, check the condition and continuity of the following lines:</p> <div><div>Track 1</div><div>—————▶</div><div>vehicle earth</div></div> <div><div>Track 2</div><div>—————▶</div><div>fuse board</div></div> <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 check with the diagnostic tool.</p>
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FAULT FINDING - INTERPRETATION OF FAULTS

DF009	<div>REAR HEIGHT SENSOR CIRCUIT</div> <div>1.DEF : Signal off limits 2.DEF : Inconsistent signal</div>
-------	--

NOTES	<div>Conditions for applying the fault finding strategy to the fault stored:</div> <div>If the fault is declared present after:</div> <div><div>– the fault being cleared,</div><div>– the ignition being switched off and on again.</div></div>
-------	--

1.DEF

<div>The sensor is fitted with upper and lower stops, these faults can only occur following a severe impact:</div> <div><div>– the rear axle,</div><div>or</div><div>– the sensor mounting.</div></div> <div>Ensure there is a mechanical connection between the sensor and the rear axle via the lever arm and the control lever. Repair if necessary.</div> <div>Check that the control lever is in good condition. Replace if necessary.</div> <div>Check the condition of the rear sensor mounting. Replace if necessary.</div> <div>If the control lever is not deformed, and the mounting does not show signs of deformation, replace the rear sensor.</div>
--

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

DF009	<div>REAR HEIGHT SENSOR CIRCUIT</div> <div>1.DEF : Signal outside the limits 2.DEF : Inconsistent signal</div>
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NOTES	<div>Fault finding application conditions for stored faults:</div> <div>If the fault is declared present after:</div> <div><div>– the fault is cleared,</div><div>– the ignition is switched off and then on again,</div><div>– then the vehicle is driven for more than 10 minutes.</div></div>
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2.DEF

<div>The sensor declares this fault present if the vehicle speed signal is higher than 2.5 mph (4 km/h) for more than 60 seconds without any change in the sensor charge.</div>
<div>Ensure there is a mechanical connection between the sensor and the rear axle via the lever arm and the control lever. Repair if necessary.</div> <div>Check that the control lever is in good condition. Replace if necessary.</div> <div>Check the condition of the rear sensor mounting and its upper and lower stops. Replace if necessary.</div> <div>If the sensor shows no mechanical defect, change the rear computer/sensor.</div>

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

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

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

DF013	<p><u>VEHICLE SPEED SIGNAL</u></p> <p>1.DEF : Open circuit, short circuit to + 12 V or fault with the ABS system.</p> <p>2.DEF : Signal inconsistent</p>
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NOTES	Contact present.
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1.DEF	<p>Ensure insulation against earth and the + 12 V supply of the vehicle speed signal line on track 4.</p> <p>Ensure continuity between track 4 of the xenon light 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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2.DEF	<p>This fault will be shown as present if the frequency on the speed signal line is too high.</p> <p>Ensure continuity and the absence of interference resistance on the vehicle speed signal line between track 4 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 diagnostic sequence on the ABS system if fitted to the vehicle.</p> <p>If the fault is still present, replace the xenon light computer.</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 check with the diagnostic tool.</p>
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FAULT FINDING - INTERPRETATION OF FAULTS

DF005	<div>CONTROL ELEMENT CIRCUIT</div> <div>CC.0 : Short circuit to earth CC.1 : Short circuit to + 12 V</div>
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NOTES	Contact present.
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CC.0	<div>Disconnect the xenon light computer connector and the headlight adjustment motor connectors. Check the insulation against earth of the trip line of the headlights on track 7 of the xenon light computer connector. If the insulation is not correct, rectify it.</div> <div>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.</div> <div>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.</div> <div>If the insulation is correct, replace the computer/rear height sensor.</div>
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AFTER REPAIR	<div>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 check with the diagnostic tool.</div>
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FAULT FINDING - INTERPRETATION OF FAULTS

DF005	<div>CONTROL ELEMENT CIRCUIT</div> <div>CC.0 : Short circuit to earth CC.1 : Short circuit to + 12 V</div>
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NOTES	Contact present.
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CC.1

<div>Disconnect the xenon light computer connector and the headlight adjustment motor connectors. Check the insulation against + 12 V of the trip line of the headlights on track 7 of the xenon light computer connector. If the insulation is not correct, rectify it.</div>
<div>If the insulation is correct, reconnect the right headlight adjustment motor, then recheck the insulation as described above. If the insulation against + 12 V is not correct, replace the adjustment motor.</div>
<div>If the insulation is correct, reconnect the left headlight adjustment motor, then recheck the insulation as described above. If the insulation against + 12 V is not correct, replace the adjustment motor.</div>
<div>If the insulation is correct, replace the computer/rear height sensor.</div>

AFTER REPAIR	<div>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 check with the diagnostic tool.</div>
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FAULT FINDING - CONFORMITY CHECK

NOTES	Only carry out this conformity check after a full check with the diagnostic tool (the values shown in this conformity check are only given as a guide). Conditions of implementation: contact present, dipped headlights on.
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Order	Function	Parameter or status Check or action		Display and notes	Fault finding
1	Height	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 aimer correctly; incorrect adjustment may result in strong glare.

FAULT FINDING - CUSTOMER COMPLAINTS

NOTES	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 _____ Fault Finding Chart 1

NO DIALOGUE WITH THE COMPUTER _____ Fault Finding Chart 2

FAULT FINDING - FAULT FINDING CHART

CHART 1	CONTROL OF THE HEIGHT OF ONE OR BOTH HEADLIGHTS IS NOT OPERATIONAL
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NOTES	<ul style="list-style-type: none">– Ignition on.– Deal with any faults which may be present in the system before using this chart.
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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 trip line of height adjustment motors (B1) and earth, run the AC012 Upper and lower position actuator check command. A voltage of around 10.5 V should be present for 4 seconds (lowering action). Then a voltage of around 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 trip line is functioning correctly except that no voltage is present on tracks C1 , replace the rear height sensor.

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

CHART 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.
Ensure the presence of + 12 volts before ignition on track 16 , + 12 volts after ignition on track 1 and an earth on tracks 4 and 5 of the diagnostic socket. Repair if necessary.
Check the insulation, continuity and absence of interference resistance of the connections between: Xenon light computer track 2 —————> + after ignition feed Xenon light computer track 1 —————> earth Xenon light computer track 5 —————> track 7 of the diagnostic socket (line K) Repair if necessary.

AFTER REPAIR	Check the operation of the system.
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IMMOBILISER

Fault finding - Introduction

This document describes the generic fault finding procedure applicable to all computers controlling 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 electrical wiring diagram of the function for the vehicle concerned,
- Workshop Repair Manual for the vehicle concerned,
- The tools listed under 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.).
- Find 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 met, use the fault finding procedure to check the circuit of the faulty component, 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 engine immobiliser is based on the recognition of a key by the inductive connection between the transponder built into the key and the transponder ring antenna every time a start command is issued.

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

The immobiliser is automatically activated following a delay of 10 seconds after every time the ignition is switched off.

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 recognised 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 (immobiliser code exchanged with the injection computer).

Recognition of keys in normal operation

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

IMMOBILISER

Fault finding - Introduction

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.

For any work carried out on the system, this code 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 metal insert**.
- The system can have up to 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 elements (UCH and keys) at the same time as it will not be possible to code these elements if either of them does not possess the original code of the vehicle in memory.**

- **There are three types of part on the vehicle**

* parts without codes

– Transponder ring

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

* coded parts

– The injection computer

The injection system receives codes from the UCH.

Programming takes place as soon as the key is inserted, 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 coded by an After-Sales procedure

– UCH and keys

Just fitting or introducing new or blank parts to a vehicle is not sufficient to program in 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 **engine immobiliser** system.
- In the **Command\Specific command** menu, run the **SC027: UCH programming** command.
- The tool shows **Remove the key from the ignition**.
- The tool shows **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 **UCH programming complete, 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 correct code and that you have presented a key from 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 been 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 conforms with 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 **engine immobiliser** system.
- In the **Command\Specific command** menu, run command **SC028: Card/key programming**.
- The tool shows **Remove the key from the ignition**.
- The tool shows **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 shows **Insert a key which has already been programmed on the vehicle** and the programming procedure starts.
- The tool displays **Warning: keys not present will no longer be active. Restart the procedure to reallocate them:** programming is in progress.
- The tool shows **Insert the key in the ignition switch and switch on, 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 prompts: **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 the old keys belonging to the vehicle or new **non-coded** keys.

- The tool shows **Writing data to memory**, the UCH is coded and the keys are programmed. Several seconds will elapse before this message appears.
- **WARNING:** the maximum delay between each operation is 5 minutes, otherwise the procedure will be cancelled and the tool will display the message **Procedure interrupted: warning, the keys allocated to the vehicle are the ones allocated before starting the procedure. The keys inserted before interruption of the procedure are no longer blank and can only be assigned to this vehicle**. This message also appears if there is loss of dialogue with the UCH or loss of battery power.

NOTE: when only the UCH is replaced, there is no operation to perform on the injection computer, as 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 interrupted: warning, the keys allocated to the vehicle are the ones allocated before the procedure was started. The keys inserted before procedure interruption are no longer blank and can only be assigned 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 P201 40-track connector:

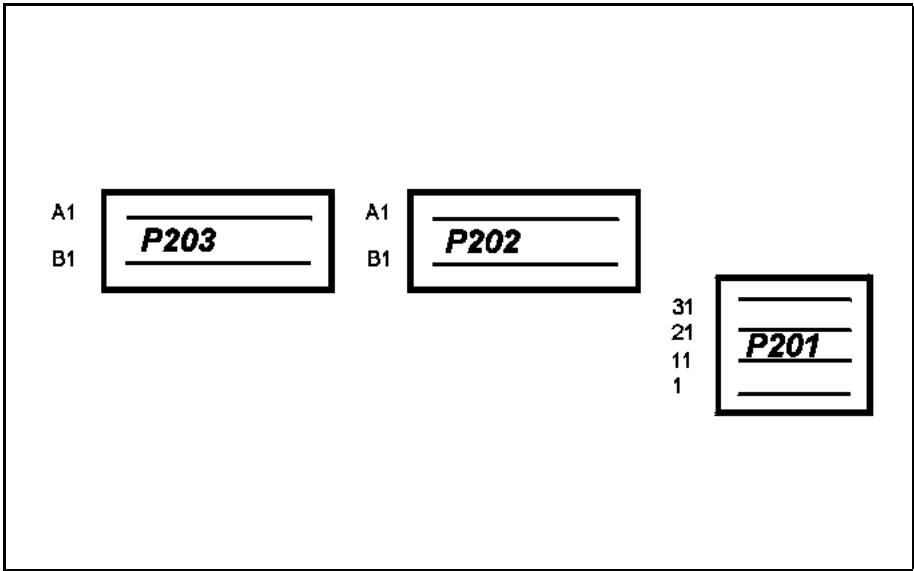
PIN	Signal
1	Side light relay output
2	Dipped beam input
3	Passenger side one-touch window lowering input
4	Passenger side one-touch window raising input
5	VERLOG LED output
6	Windscreen wiper interval timing input
7	+ battery feed
8	Transporter line input
9	CAN L
10	CAN H
11	Dipped beam relay output
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 feed
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 connector P202:

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 P203 15-track 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 for heated rear window
B2	Heated rear screen output
B3	Electric window input
B4	+ after ignition electric window output
B5	Passenger side one-touch window lowering output
B6	+ battery for passenger side one-touch window



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

NOTES	Fault declared present after ignition has been switched off. Special notes: if there is a fault stored check that whether there are any other faults present and clear them.
-------	--

Replace the UCH.

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

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

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

Check fuse F37 (10A) for the UCH supply. Replace it if necessary.
Check the connection and condition of the UCH P201 40-track 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 for insulation against +12 V on the connection: UCH P201 40-track connector track 14 —————> track 2 of the starter relay Repair if necessary.
Check the continuity and insulation of the following connections: ignition switch track 6 —————> track 3 of the starter relay starter relay track 5 —————> starter Repair if necessary.

AFTER REPAIR	Follow the instructions. Deal with any other faults. Clear the fault memory.
--------------	--

DF067 PRESENT OR STORED	<u>RING CONNECTION ---> DECODER</u> 1.DEF : key code invalid 2.DEF : no communication from the aerial or the transponder key
----------------------------------	---

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

1.DEF	Check parameter PR065: number of transponder keys programmed.
	Check status ET104 Key code valid, if Key code valid status is NO, reconfigure the keys using the diagnostic tool.
	Replace the key if necessary.

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

AFTER REPAIR	Follow the instructions. Deal with any other faults. Clear the fault memory.
--------------	--

DF069 PRESENT OR STORED	<u>DECODER CONNECTION ---> RING</u> CC.0 : short circuit to earth CC.1 : short circuit on + 12 V
----------------------------------	---

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

CC.0	Check the connection and the condition of the transponder ring connector. Repair if necessary.
	Check the connection and condition of the UCH P201 40-track connector. Repair if necessary.
	Disconnect the transponder ring connector and ensure that the transponder ring is supplied with + 12 V on track 3 . Repair if necessary.
	Check the continuity and insulation of the connection between: fuse box F28 (2A) —————> track 3 transponder ring Repair if necessary.

CC.1	Check the UCH connectors. Repair if necessary.
	Check the continuity connections between: earth —————> track 2 transponder ring UCH P201 40-track connector track 8 —————> track 4 transponder ring Repair if necessary.

AFTER REPAIR	Follow the instructions. Deal with any other faults. Clear the fault memory.
--------------	--

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

NOTES	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 the 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 track 15 —————> track 5 30-track instrument panel connector Repair if necessary.

AFTER REPAIR	Follow the instructions. Deal with any other faults. Clear the fault memory.
--------------	--

IMMOBILISER

Fault finding - Conformity check

NOTES

Only perform this conformity check after a complete check with the diagnostic tool. The values indicated in this conformity check are given for guidance purposes only.
Test conditions: **engine stopped, ignition on.**

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

NOTES	Only perform this conformity check after a complete check with the diagnostic 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:	UCH blank	NO	If the UCH blank status = YES see programming procedure.

STATUS TEST

By checking specific statuses, 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	<ul style="list-style-type: none">– 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	<ul style="list-style-type: none">– 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	<ul style="list-style-type: none">– The key is out of order or does not correspond with the type of vehicle.

ET154	<u>+ 12 V AFTER IGNITION PRESENT</u>
-------	--------------------------------------

NOTES	None.
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ET154 INACTIVE, ignition on

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

ET154 ACTIVE, ignition off

<p>With the ignition off, use a multimeter to confirm the absence of + 12 V at passenger compartment fuse holder F37. 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>
--------------	--

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

NOTES	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 status remains NO, try with another key belonging to the vehicle before carrying out any work.
--------------	--

ET103 NO: ignition on and key belonging to the vehicle

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 status changes to YES, replace the vehicle key. If the KEY CODE RECEIVED status remains NO, replace the transponder aerial.
If the fault is still present, replace the UCH.

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

ET104	<u>KEY CODE VALID</u>
-------	-----------------------

NOTES	<p>The status will be displayed as YES when the ignition is switched on (+ after ignition) with a key from the vehicle.</p> <p>If the status remains NO, try with another key belonging to the vehicle before carrying out any work.</p>
-------	--

ET104: NO despite presence of ignition and a key belonging to the vehicle

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 fault is still present, replace the whole set of vehicle keys.

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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ET153	<u>ENGINE IMMOBILISER ACTIVE</u>
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NOTES	<p>The immobiliser active status should change to inactive when the + after ignition is switched on.</p> <p>The immobiliser status should be active when the key is absent from the ignition switch.</p>
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ET153 ACTIVE despite the presence of a key in the ignition switch and + after ignition

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

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>
--------------	--

NOTES	This customer complaint should only be investigated after a complete check has been run using the diagnostic tool.
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- NO DIALOGUE WITH THE UCH _____ Fault Finding Chart 1
- THE STARTER MOTOR DOES NOT OPERATE _____ Fault Finding Chart 2

Fault Finding Chart 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 (lead in good condition), – The engine compartment and passenger compartment fuses.
Ensure the presence of + 12 volts before ignition on track 16 , + 12 volts after ignition on track 1 and earth on tracks 4 and 5 of the diagnostic socket. Repair if necessary.
Connect the bornier and check for insulation, continuity and for the absence of interference resistance on the connections:: UCH P201 40-track connector track 7 —————> fuse box UCH P201 40-track connector track 33 —————> + after ignition feed UCH 15-track P202 connector track B6 —————> earth UCH P201 40-track connector track 18 —————> track 7 of the diagnostic socket (line K) Repair if necessary.

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

IMMOBILISER
Fault finding - Fault Finding Chart

Fault Finding Chart 2	THE STARTER MOTOR 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 F37 (10A) for the UCH supply. Replace it if necessary.
Check the connection and condition of the UCH P201 40-track 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 for insulation against + 12 V on the connection: UCH P201 40-track connector track 14 —————> track 2 of the starter relay Repair if necessary.
Check the continuity and insulation of the following connections: immobiliser switch track 6 —————> track 3 of the starter relay starter relay track 5 —————> starter 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 on-board computer**, switch transfer to diagnostic mode by pressing the reset button of the odometer for 5 seconds after ignition.
- For versions **with on-board computer (ADAC)**, select fault finding mode by pressing the ADAC scroll 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: door status/injection coolant temperature criticality 2/airbag/airbag off/de-icing/fuel level low/injection criticality 1/preheating/pollution 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.

WARNING:

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 - INTRODUCTION

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 N°1**.

The indicator and warning lights which are not shown in this table are dealt with in **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 be indicated by the loss of several indications and several warning lights coming on (**see table in Appendix 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. (**Fault Finding Chart 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.

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.

PROCEDURE: Ignition off

- Connect the diagnostic tool and re-establish dialogue with the UCH **without switching the ignition on**.
- Configure 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.

PROCEDURE: Ignition off

- Disconnect the battery for at least 1 minute and then reconnect it.
- Connect the diagnostic tool and re-establish dialogue with the UCH **without switching the ignition on.**
- Configure 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
- Electronic stability program 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.

INSTRUMENT PANEL

Multiplex instrument panel

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FAULT FINDING - INTERPRETATION OF FAULTS

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

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

Multiplex computer	
Liquified petroleum gas (LPG)	LPG
DPO automatic gearbox	DPO
Sequential gearbox	Automatic gearbox
Airbag	Airbag
UCH	UCH
Carminat navigation aid system	Carminat
Electronic stability program	ESP
Instrument panel	Instrument panel

INSTRUMENT PANEL

Multiplex instrument panel

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FAULT FINDING - INTERPRETATION OF FAULTS

Multiplex network fault finding

Generators/receivers of information used by the instrument panel:

Appendix 1	Injection engine												
Multiplex computer >	F4R	D4F	K9K	F9Q	K4(M/J)	LPG	DP0	Auto- matic gearbox	Airbag	UCH	Carminat	ESP	Instru- ment panel
warning light no. 1								2		1			2
warning light no. 2	1	1	1	1	1								2
warning light no. 3									1				2
warning light no. 4									1				2
warning light no. 5										1			2
warning light no. 6						1							2
warning light no. 7	1	1	1	1	1								2
warning light no. 8	1	1	1	1	1								2
warning light no. 9							1	1		2			2
warning light no. 10													2
warning light no. 11													2
warning light no. 12	1	1	1	1	1								2
warning light no. 13											2		2
warning light no. 14												1	2
warning light no. 15		2				1							2
indicator no. 1	2	2	2	2	2				2	2	2		1
indicator no. 2	1	1	1	1	1	2	2	2				2	2
indicator no. 3	1	1	1	1	1	2	2	2					2
indicator no. 4	1	1	1	1	1								2
indicator no. 5							1	1		2			2
indicator no. 6						1							2

(1) Transmitter computer

(2) Receiver computer

WARNING:

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 instrument panel indicator 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.

INSTRUMENT PANEL

Multiplex instrument panel

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FAULT FINDING - INTERPRETATION OF FAULTS

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

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

Multiplex computer	
Liquified petroleum gas (LPG)	LPG
DPO automatic gearbox	DPO
Sequential gearbox	Automatic gearbox
Airbag	Airbag
UCH	UCH
Carminat navigation aid system	Carminat
Electronic stability program	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 2	Injection engine										
Transmitter computer >	F4R	D4F	K9K	F9Q	K4M	LPG	DP0	Automatic gearbox	Airbag	UCH	ESP
Fault Finding Chart >	1	1	1	1	1	2	3	4	5	6	7
Warning lights											
warning light no. 1										2	
warning light no. 2	2	2	2	2	2						
warning light no. 3									1		
warning light no. 4									2		
warning light no. 5										2	
warning light no. 6											
warning light no. 7	3	3	3	3	3						
warning light no. 9	2	2	2	2	2						
warning light no. 10							1	1			
warning light no. 11	2	2	2	2	2						
warning light no. 12									1		
warning light no. 13	2	2	2	2	2						
warning light no. 14											
warning light no. 15	1	1	1	1	1						1
warning light no. 16		2				1					
Indicators											
indicator no. 2	0	0	0	0	0						
indicator no. 3	0	0	0	0	0						
indicator no. 4	t-d	t-d	t-d	t-d	t-d						
indicator no. 5							2	2			

(0) indicator not functioning (1) warning light on (2) warning light off (3) lit for 3 seconds at + after ignition feed

WARNING:

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 in table no. 2), see **Fault Finding Chart 8**.

INSTRUMENT PANEL

Multiplex instrument panel

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FAULT FINDING - CUSTOMER COMPLAINTS

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

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

FAULT FINDING CHART 9	Faulty or inconsistent speedometer (information provided by the ABS system)
FAULT FINDING CHART 10	Faulty or inconsistent speedometer, information provided by the speed sensor on the box (F4R only)
FAULT FINDING CHART 11	No fuel level information on needle gauge (tank not empty) with reserve light on
FAULT FINDING CHART 12	Fuel level receiver pointer remains at maximum, tank not full
FAULT FINDING CHART 13	Fuel level gauge stuck whatever the fuel level; reserve warning light off
FAULT FINDING CHART 14	Oil level indication absent or incorrect and service warning light on
FAULT FINDING CHART 15	Battery charge and stop warning lights stay on
FAULT FINDING CHART 16	Immobiliser warning light stays on
FAULT FINDING CHART 17	Immobiliser warning light remains off
FAULT FINDING CHART 18	Oil pressure and stop warning lights come on at the same time
FAULT FINDING CHART 19	Power-assisted steering (PAS) warning light stays on

INSTRUMENT PANEL

Multiplex instrument panel

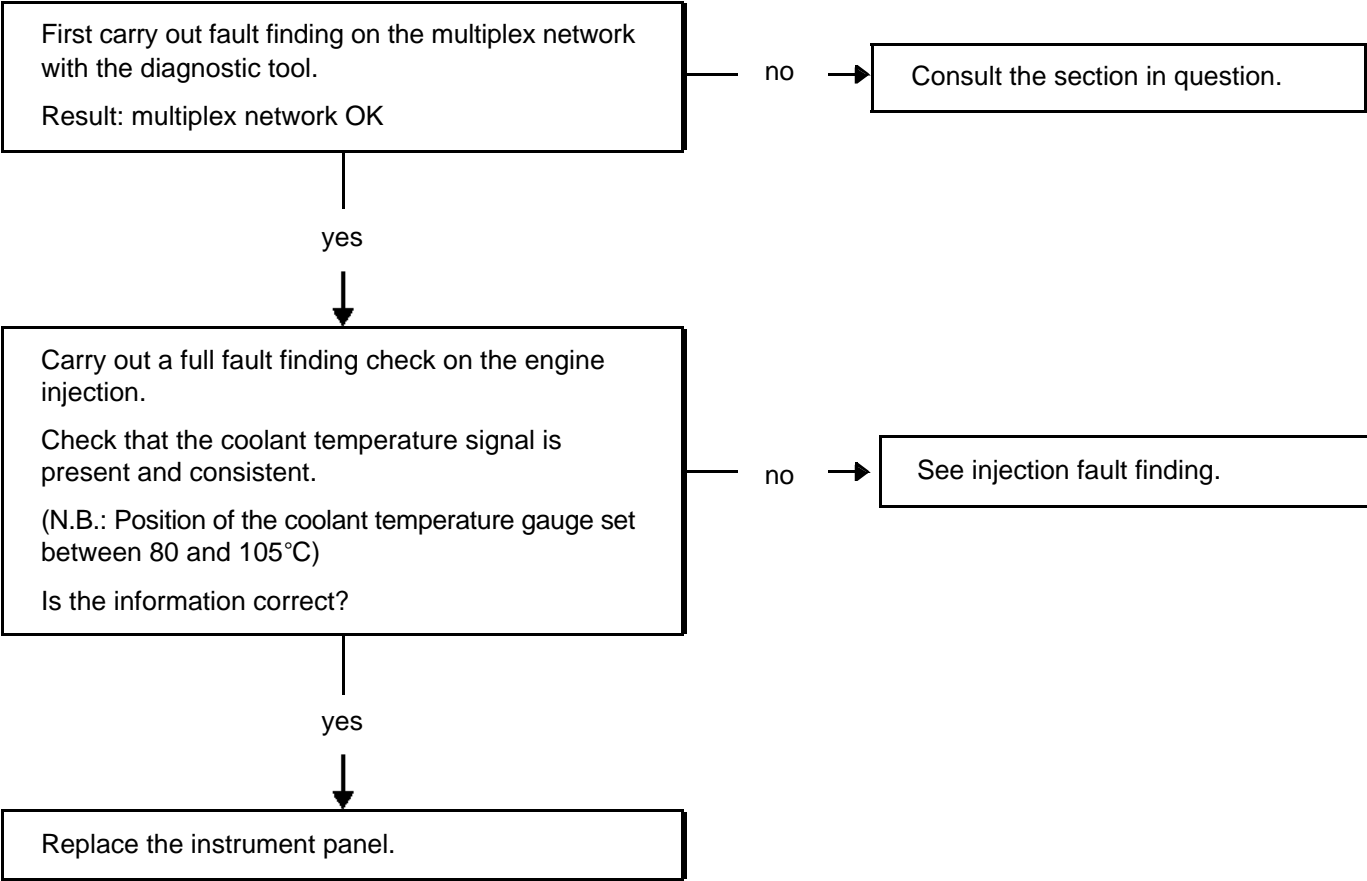
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FAULT FINDING - CUSTOMER COMPLAINTS

FAULT FINDING CHART 20	Power-assisted steering (PAS) warning light stays off
FAULT FINDING CHART 21	ABS warning light remains lit
FAULT FINDING CHART 22	ABS warning light remains off
FAULT FINDING CHART 23	Direction indicator and direction indicator warning light stay on
FAULT FINDING CHART 24	Main beam headlight warning light stays on or off
FAULT FINDING CHART 25	Dipped beam headlight warning light stays on or off
FAULT FINDING CHART 26	Front fog lights warning light stays on or off
FAULT FINDING CHART 27	Rear fog lights warning light stays on or off
FAULT FINDING CHART 28	Safety belt warning light stays on
FAULT FINDING CHART 29	Parking brake warning light stays on with no illumination of STOP warning light
FAULT FINDING CHART 30	Brake and stop warning lights on
FAULT FINDING CHART 31	SERVICE warning light stays on
FAULT FINDING CHART 32	The instrument panel does not function
FAULT FINDING CHART 33	ADAC and trip meter reset to zero every time the ignition is switched off

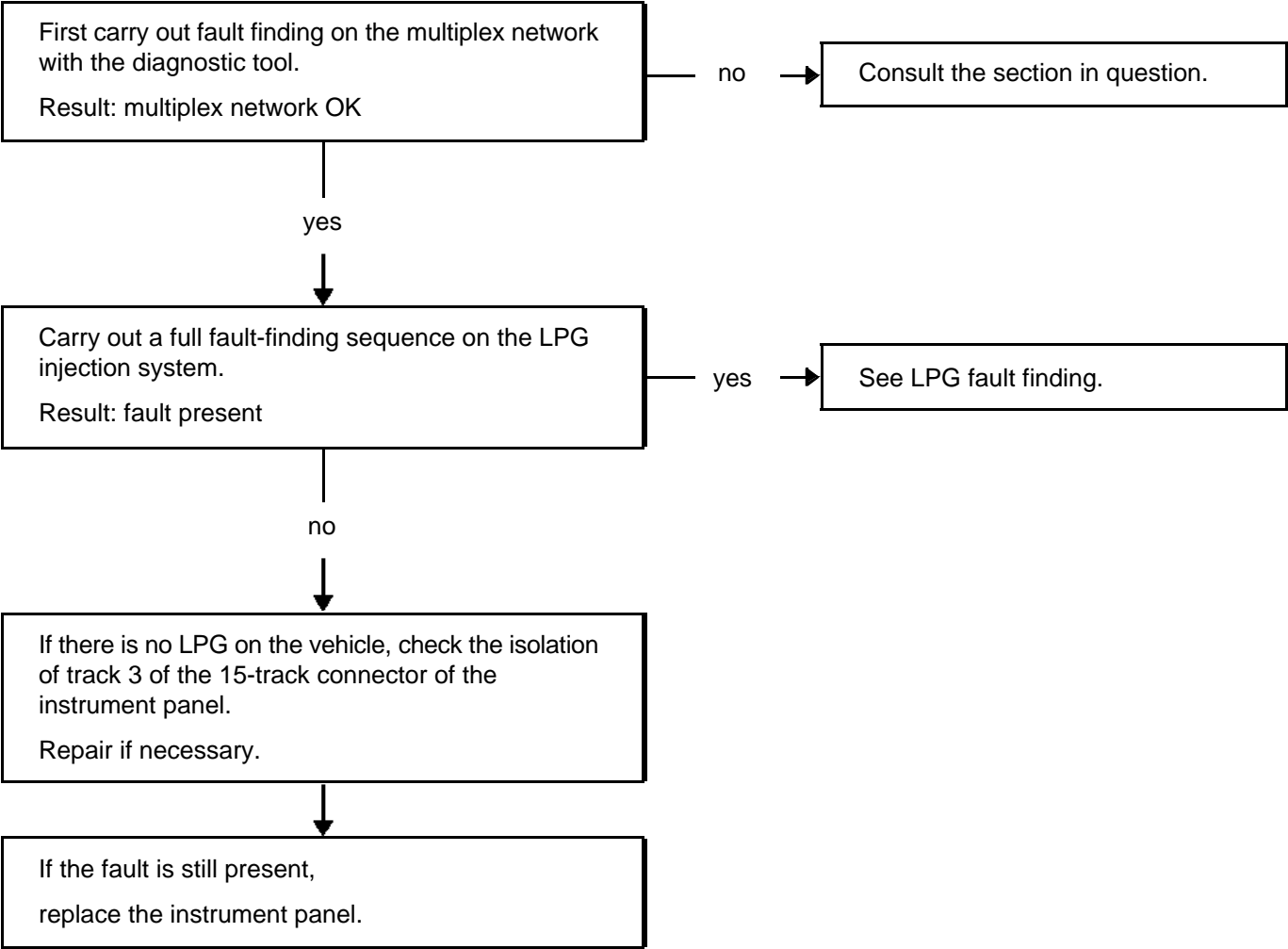
FAULT FINDING - FAULT FINDING CHART

FAULT FINDING CHART 1	Coolant temperature gauge and/or rev counter at zero Pollution control and/or injection criticality 1 and/or criticality 2 indicator on
	Message from: injection computer



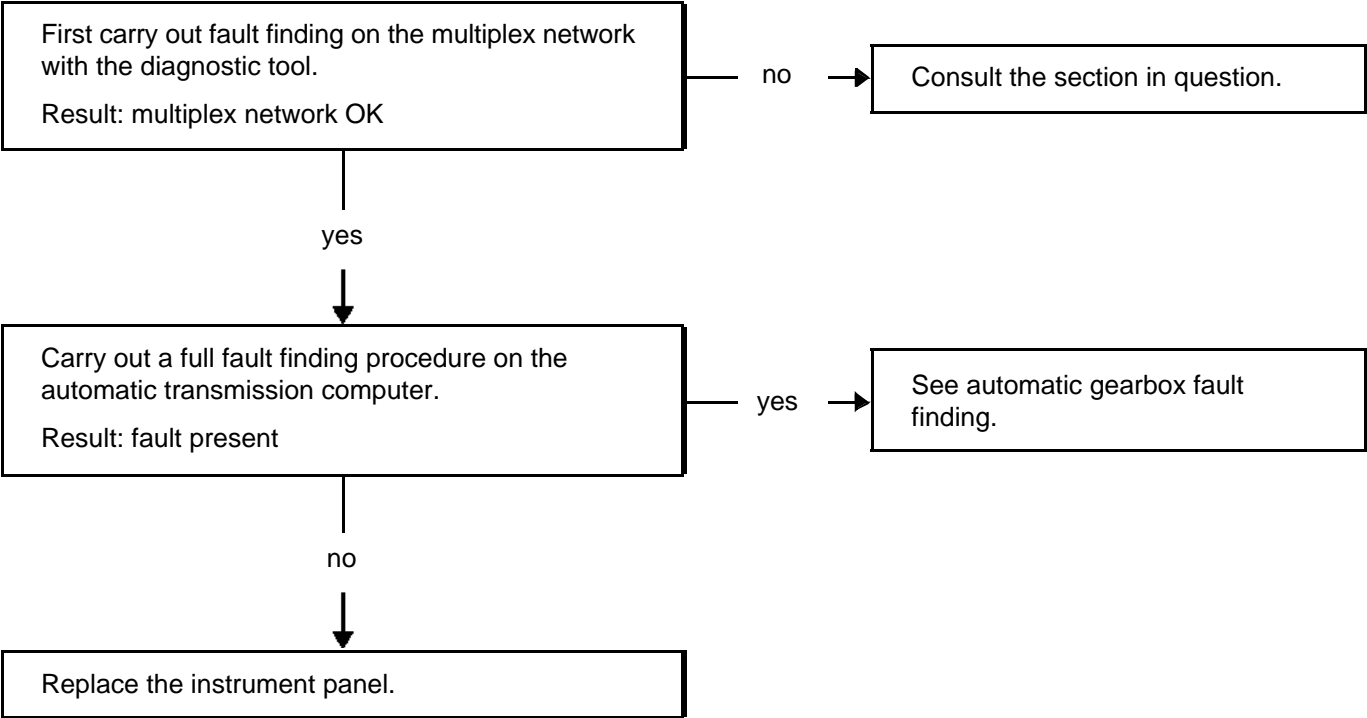
FAULT FINDING - FAULT FINDING CHART

FAULT FINDING CHART 2	No LPG fuel gauge display and/or LPG warning light on
	Message transmitted by: LPG computer



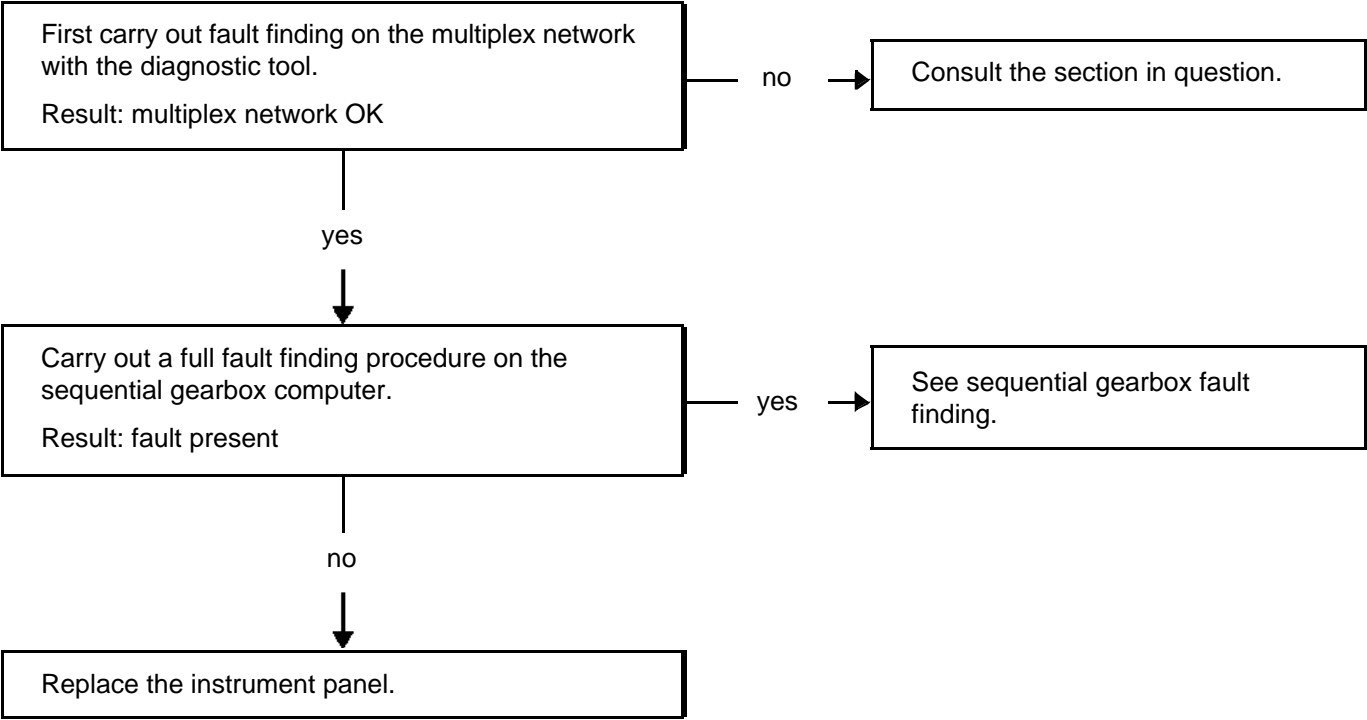
FAULT FINDING - FAULT FINDING CHART

FAULT FINDING CHART 3	Ratio engaged indicator not operational and/or automatic gearbox fault warning light on
	Message transmitted by: automatic gearbox computer



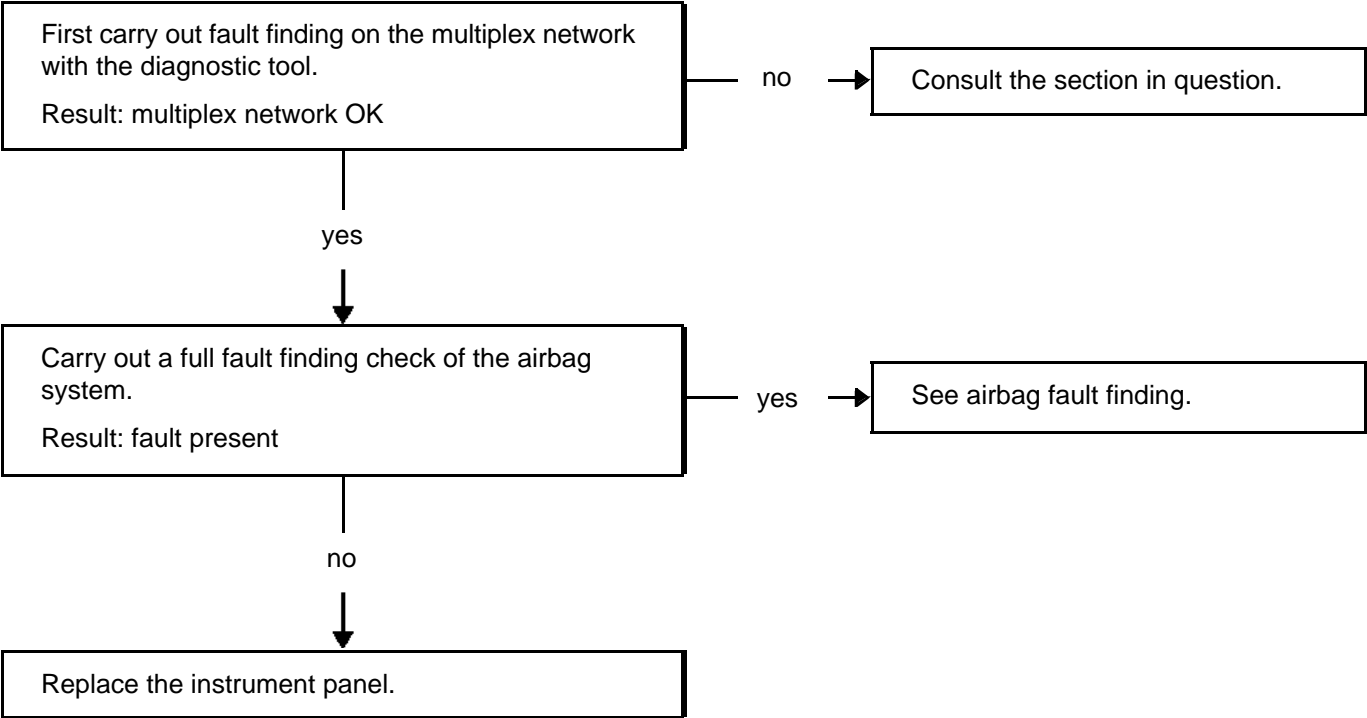
FAULT FINDING - FAULT FINDING CHART

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



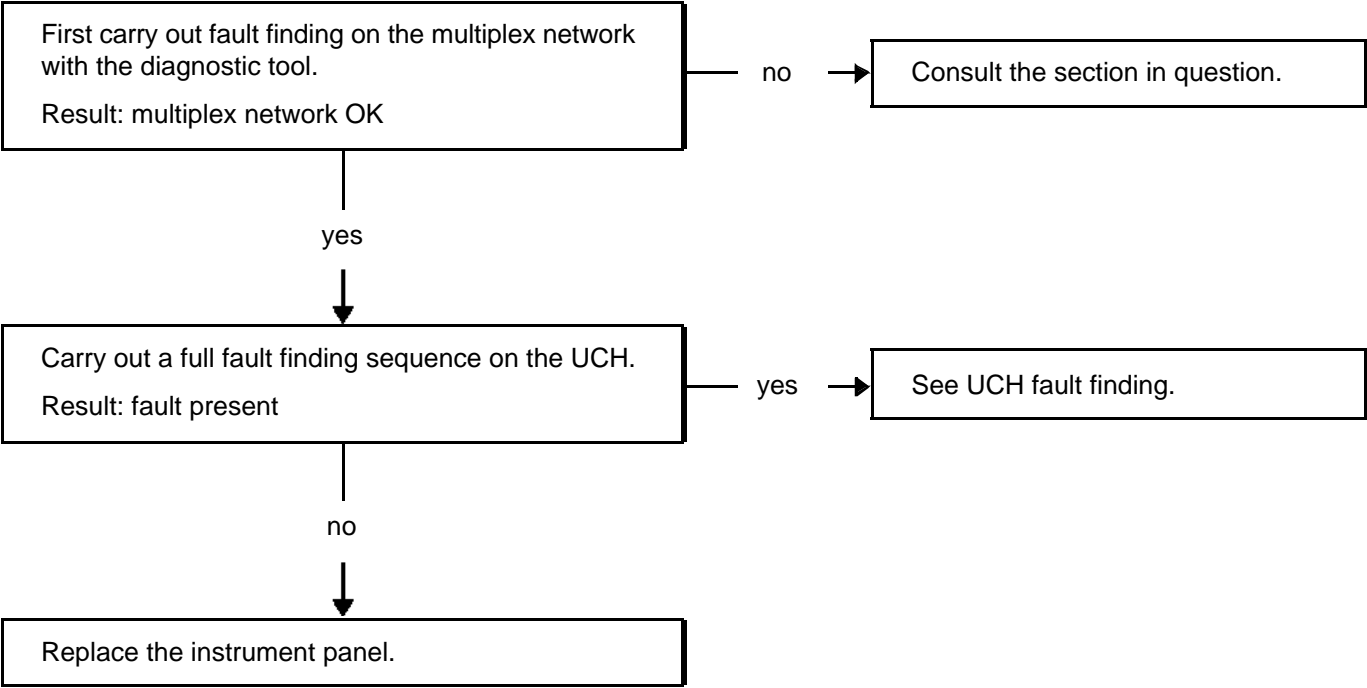
FAULT FINDING - FAULT FINDING CHART

FAULT FINDING CHART 5	Airbag and service fault warning light on
	Message from: airbag computer



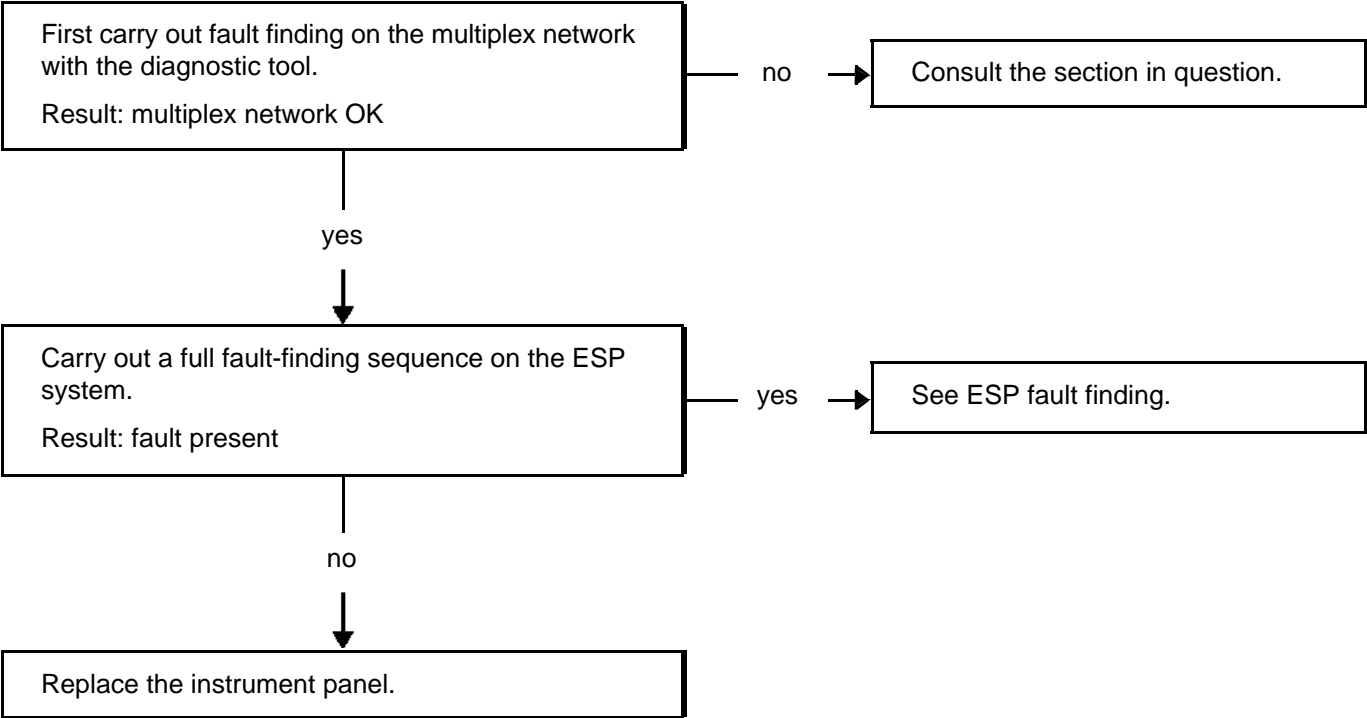
FAULT FINDING - FAULT FINDING CHART

FAULT FINDING CHART 6	Door status indicator and/or de-icing indicator does not light up
	Message from: UCH



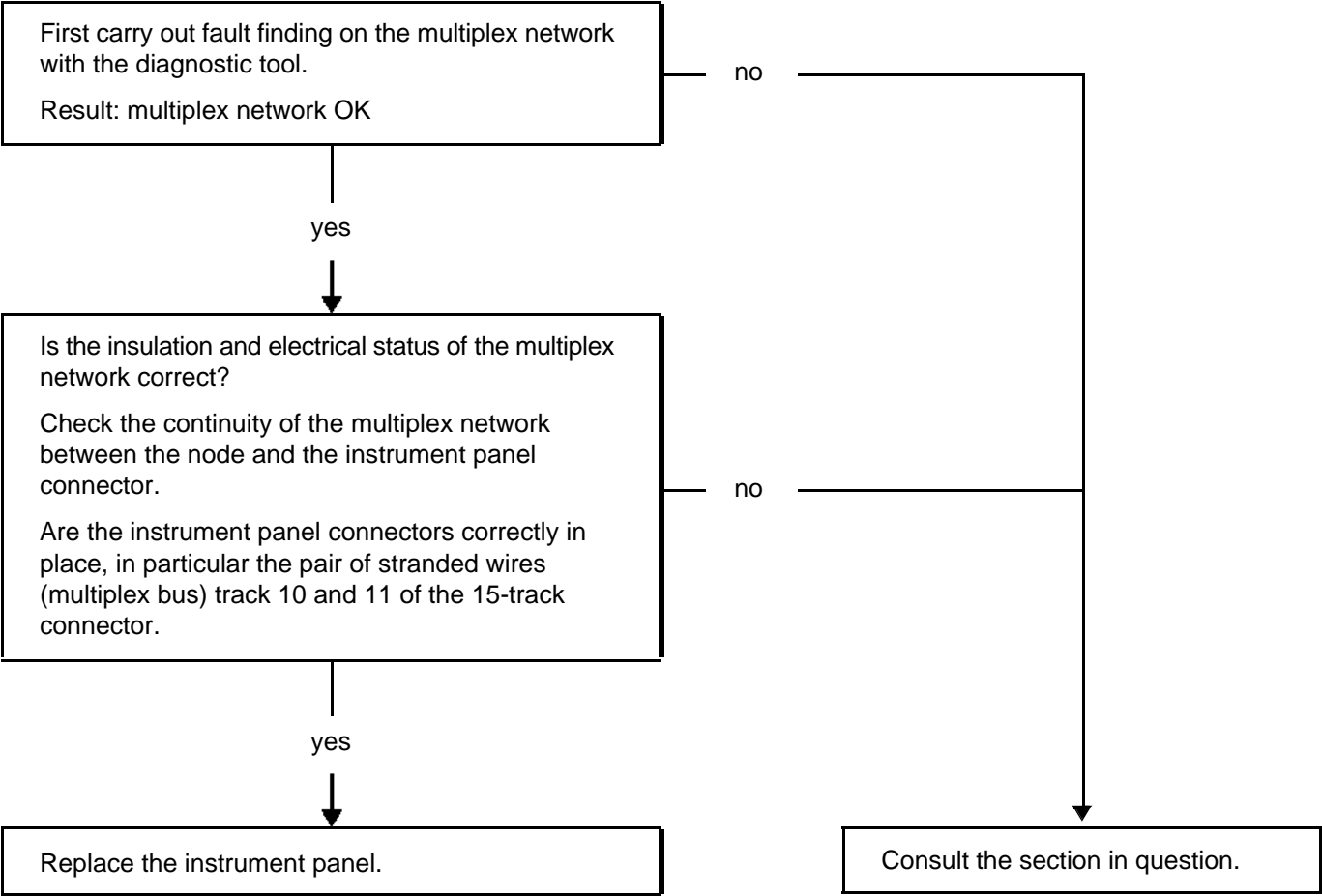
FAULT FINDING - FAULT FINDING CHART

FAULT FINDING CHART 7	ESP fault warning light on and service warning light off 4 seconds after switching on the ignition
	Message transmitted by: Electronic stability program

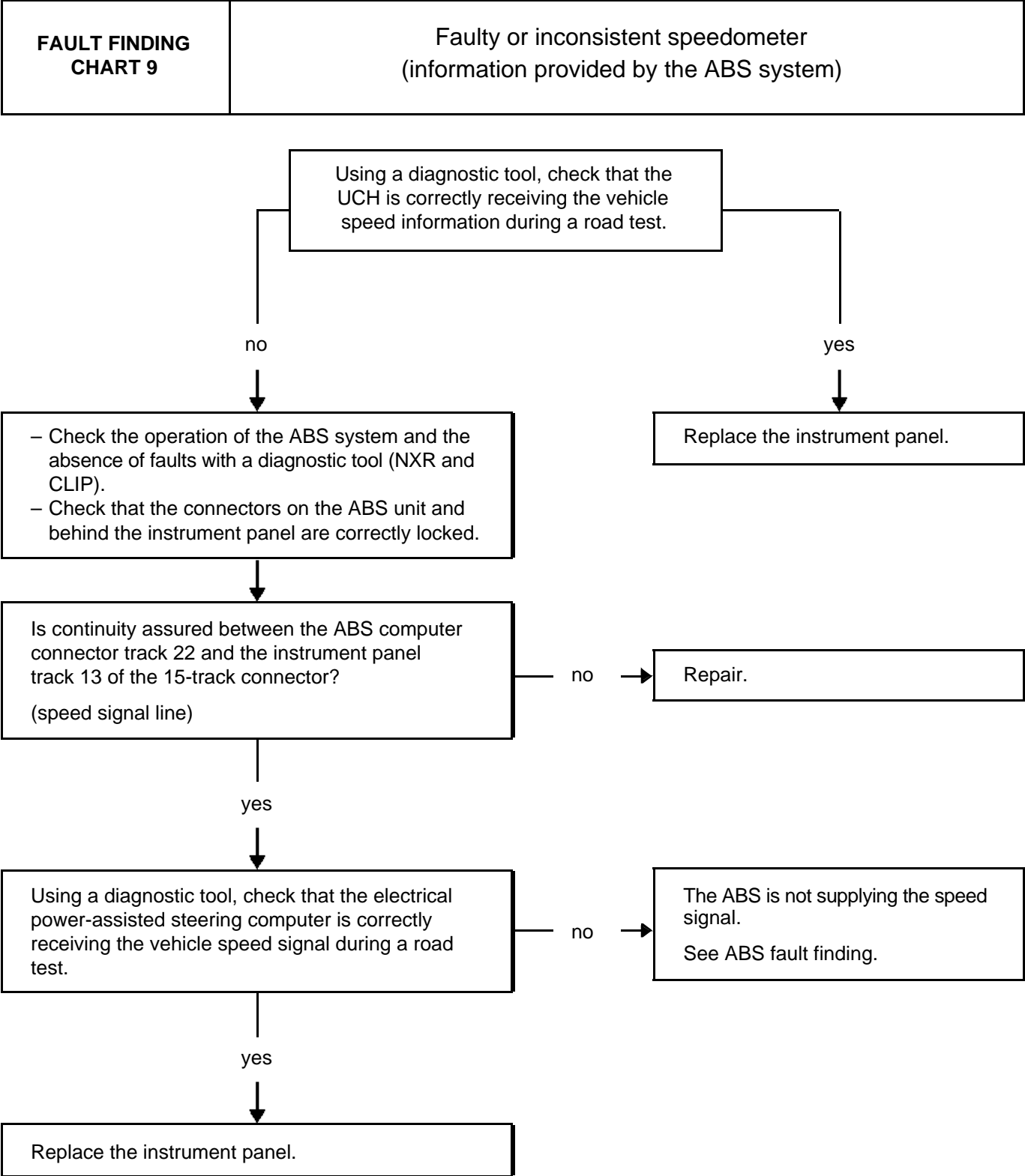


FAULT FINDING - FAULT FINDING CHART

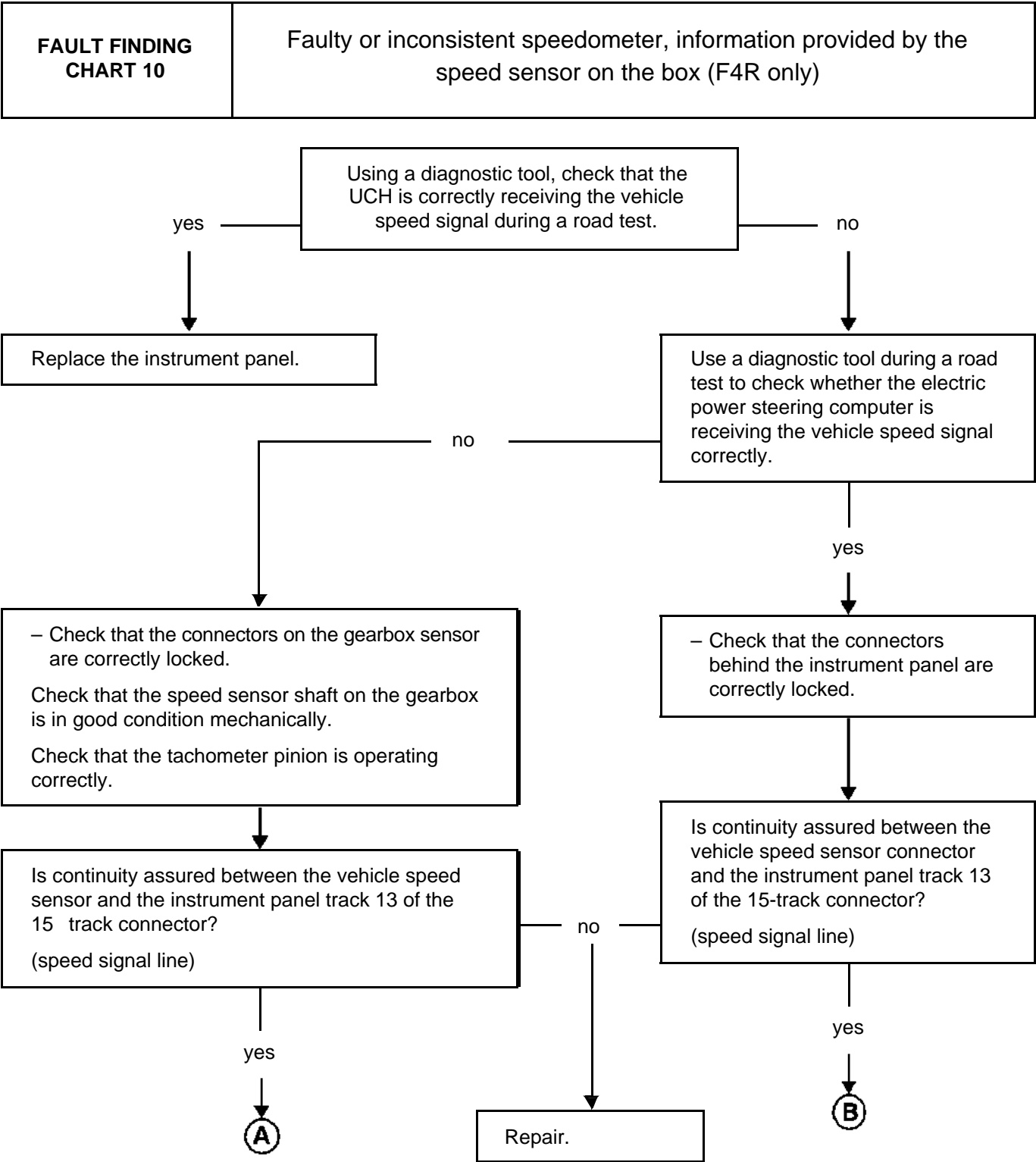
FAULT FINDING CHART 8	ESP/SERVICE/airbag/automatic gearbox (if present)/LPG (if present), injection criticality 1/injection criticality 2/pollution control warning light on Coolant temperature gauge and rev counter at zero
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FAULT FINDING - FAULT FINDING CHART

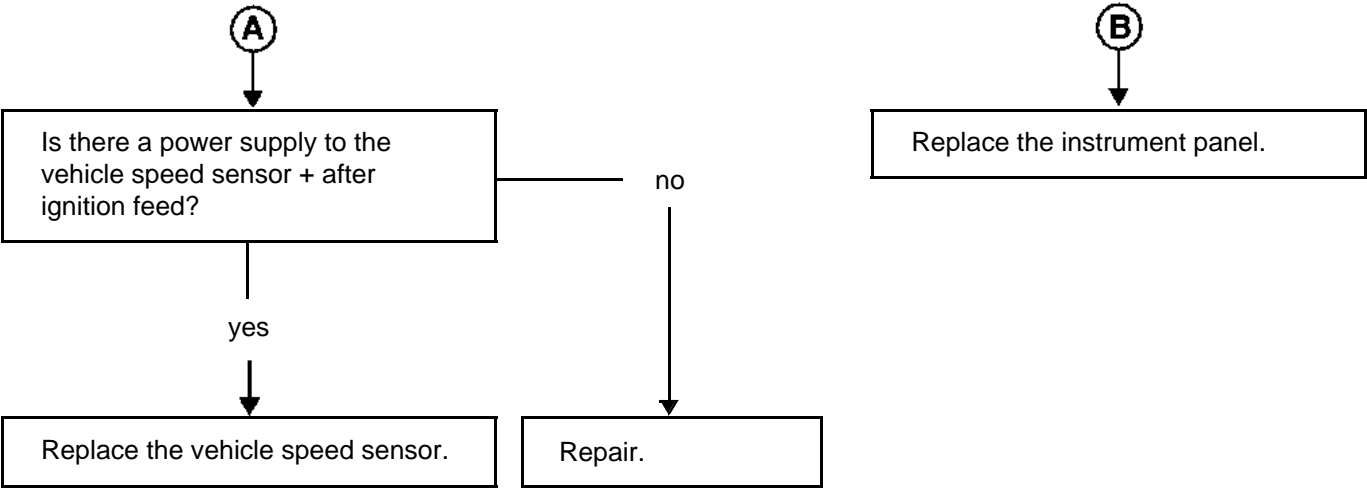


FAULT FINDING - FAULT FINDING CHART

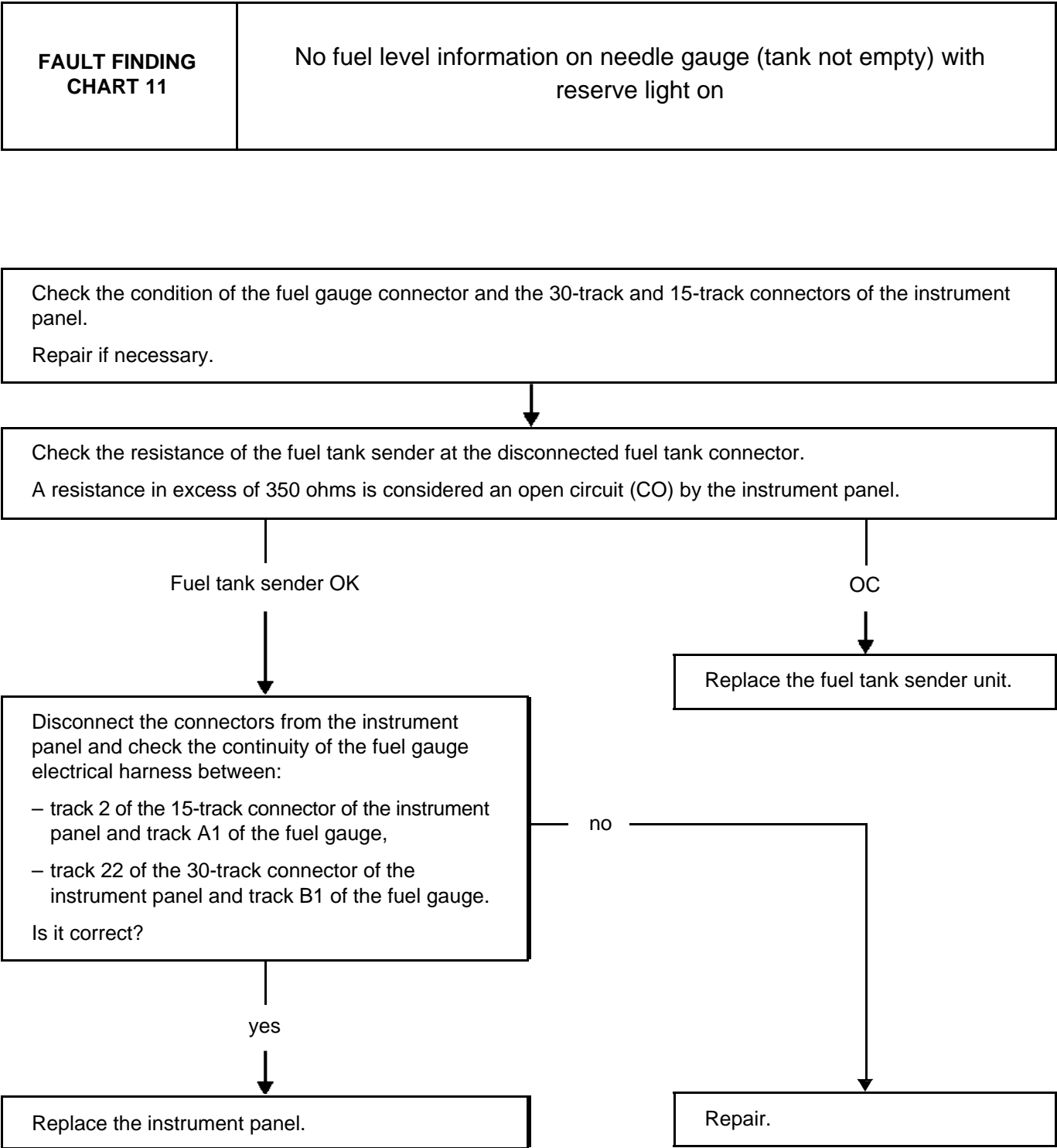


FAULT FINDING - FAULT FINDING CHART

<p>FAULT FINDING CHART 10</p> <p>CONTINUED</p>	
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FAULT FINDING - FAULT FINDING CHART

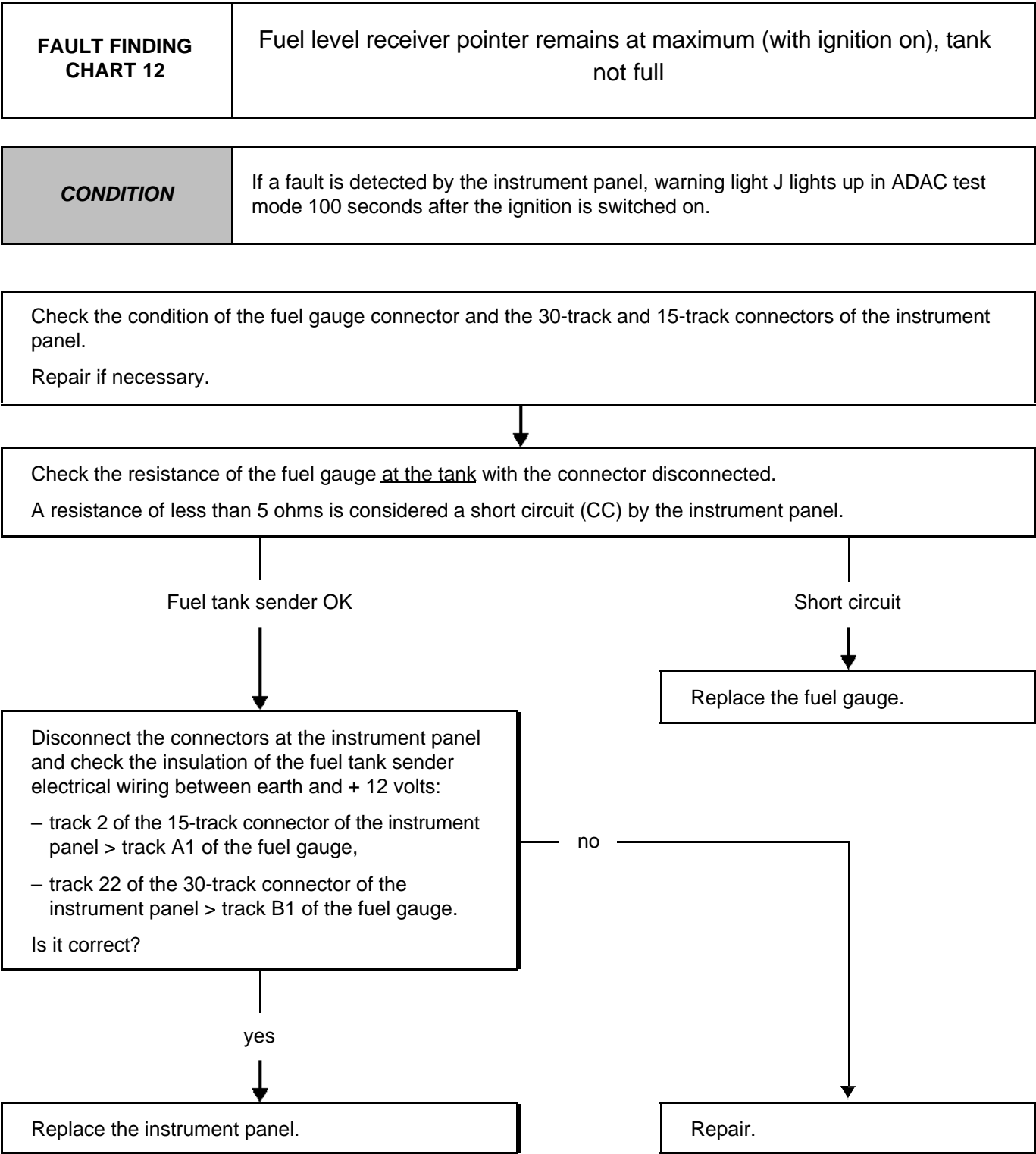


INSTRUMENT PANEL

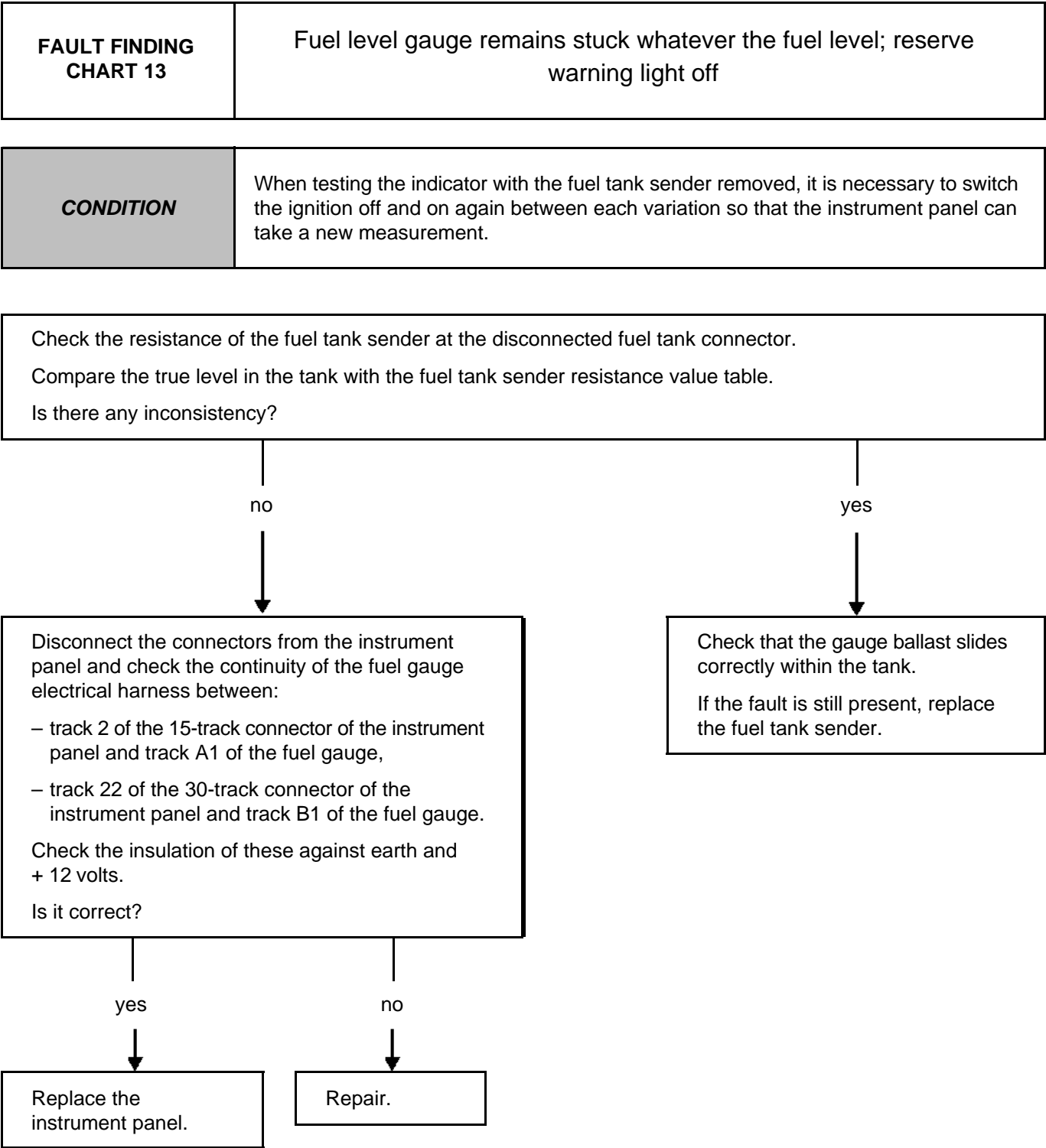
Multiplex instrument panel

83

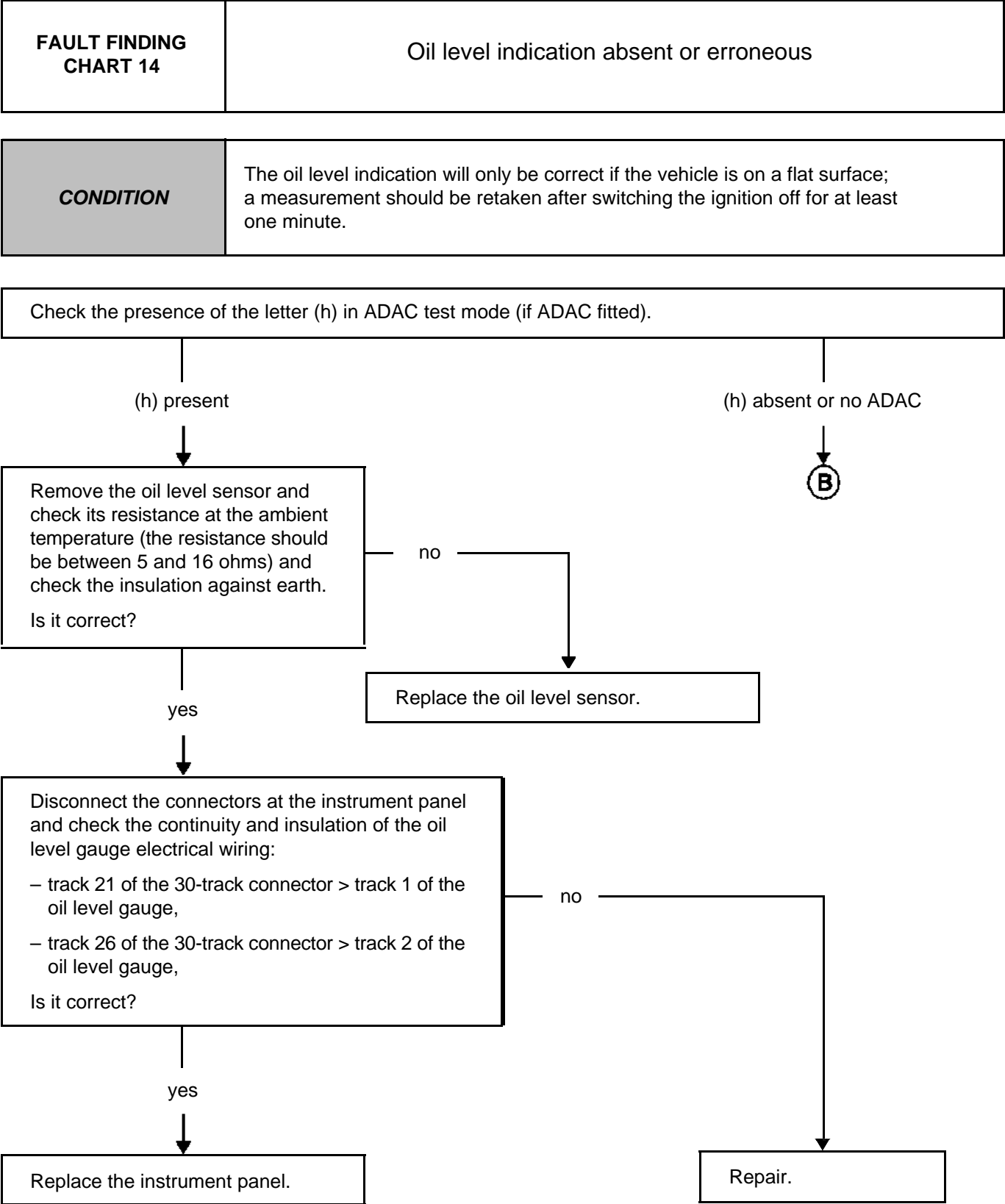
FAULT FINDING - FAULT FINDING CHART



FAULT FINDING - FAULT FINDING CHART

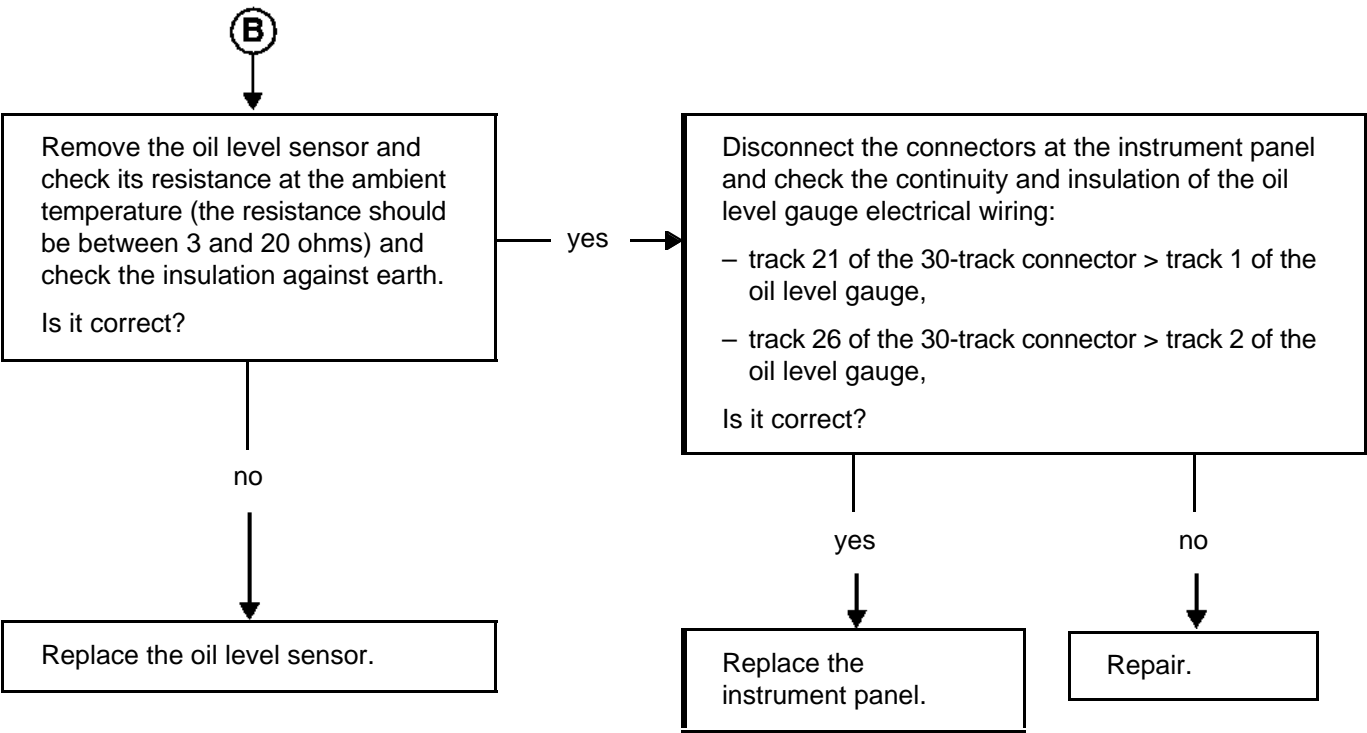


FAULT FINDING - FAULT FINDING CHART

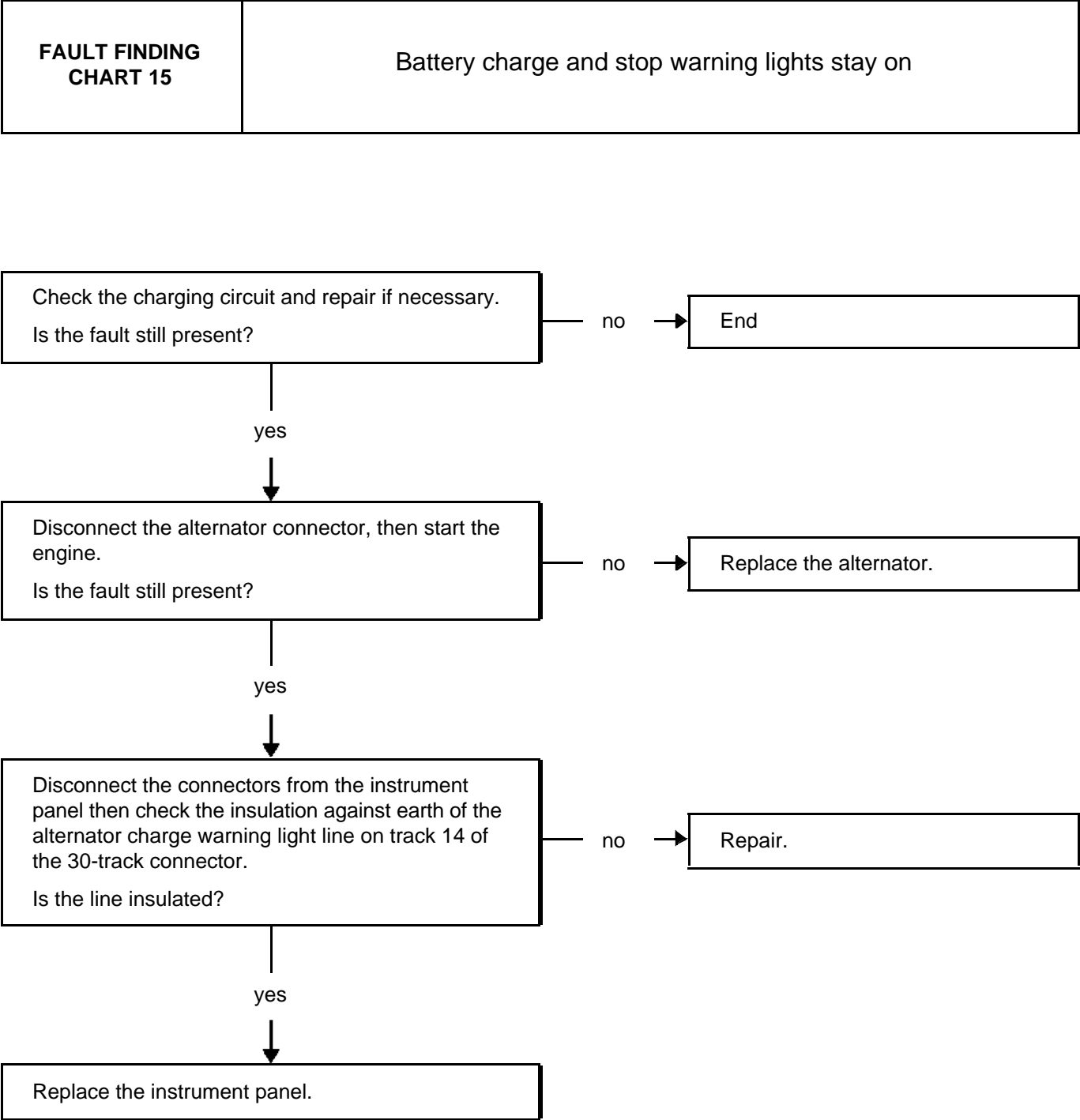


FAULT FINDING - FAULT FINDING CHART

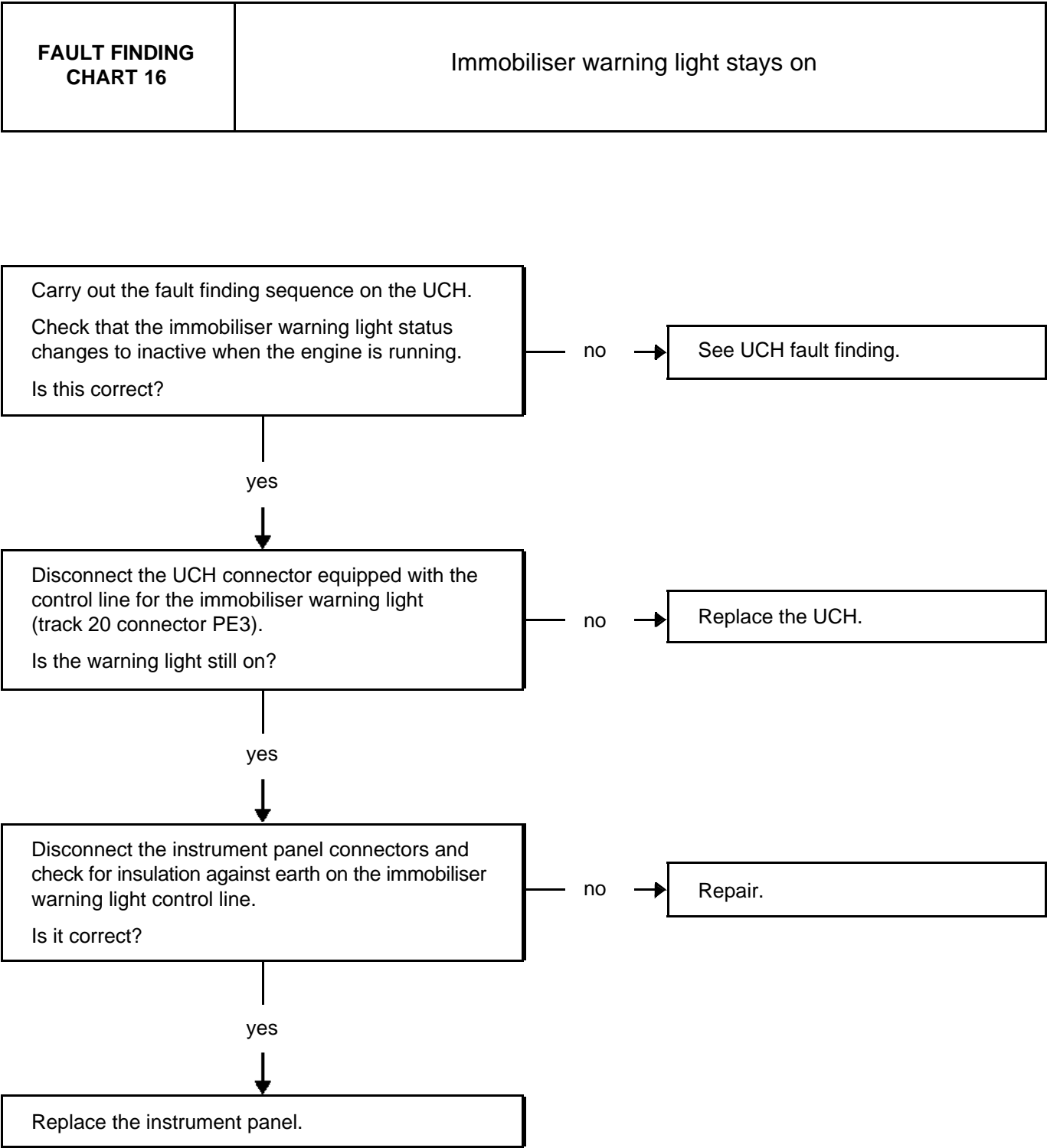
<p>FAULT FINDING CHART 14</p> <p>CONTINUED</p>	
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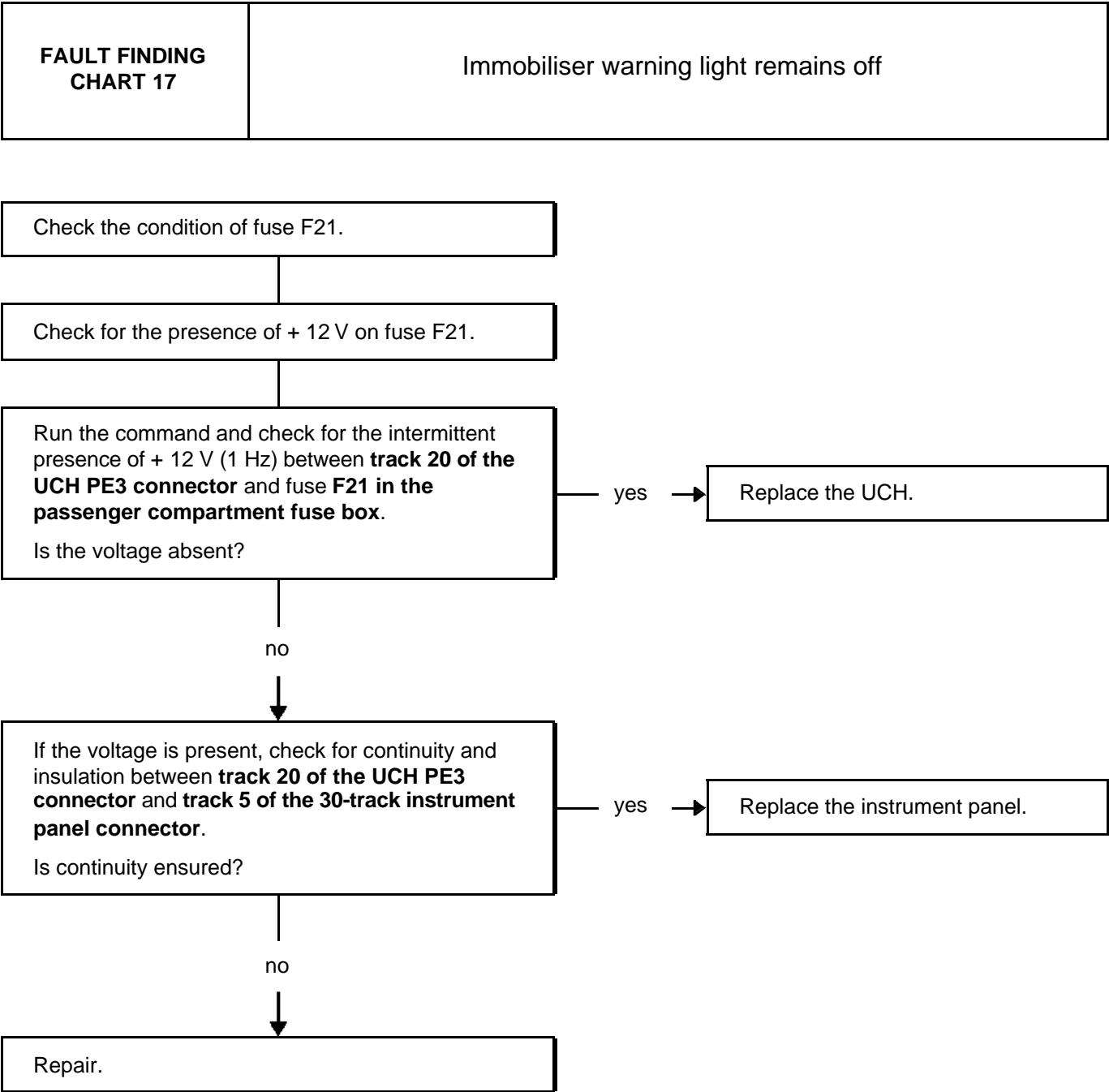
FAULT FINDING - FAULT FINDING CHART



FAULT FINDING - FAULT FINDING CHART

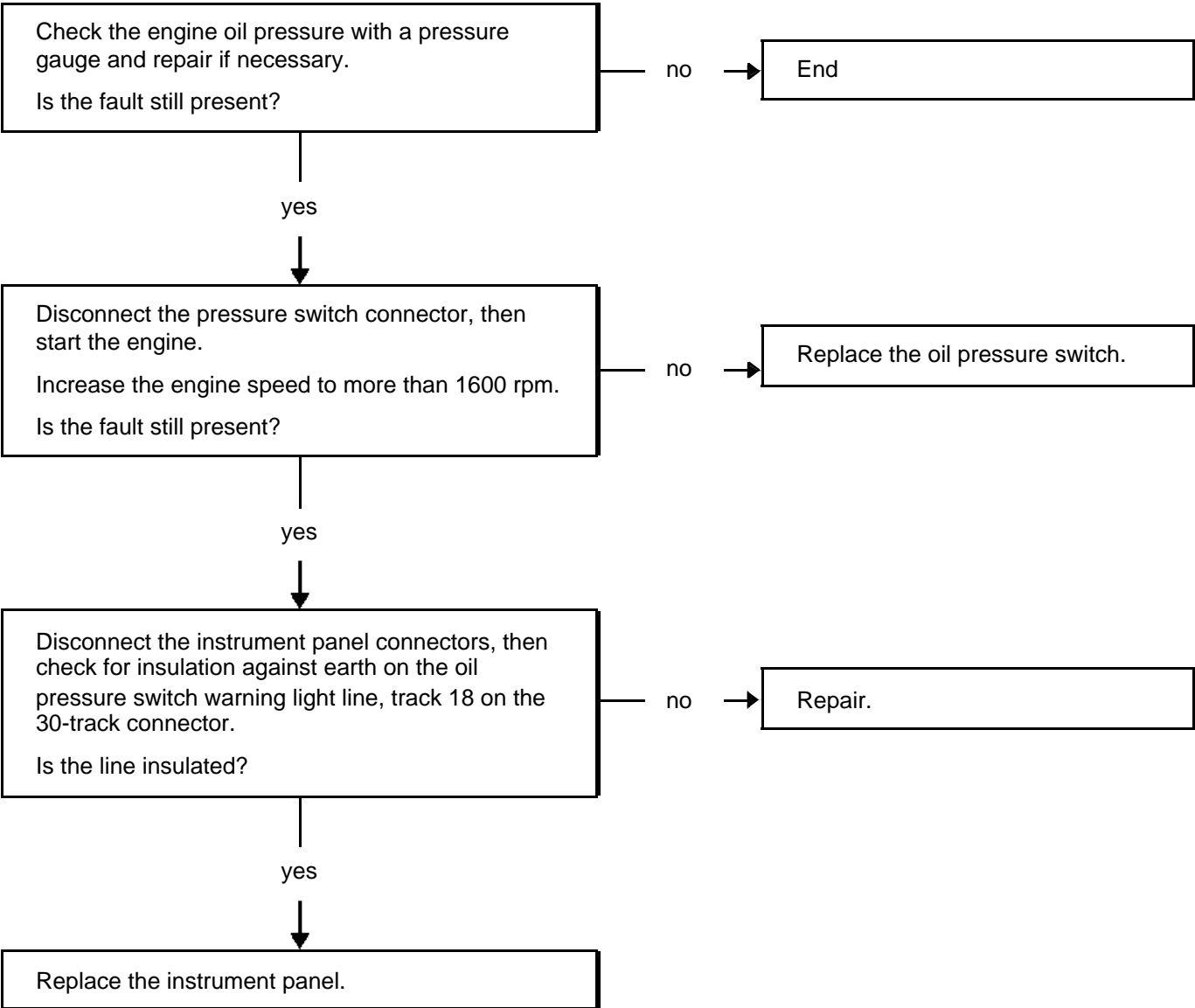


FAULT FINDING - FAULT FINDING CHART

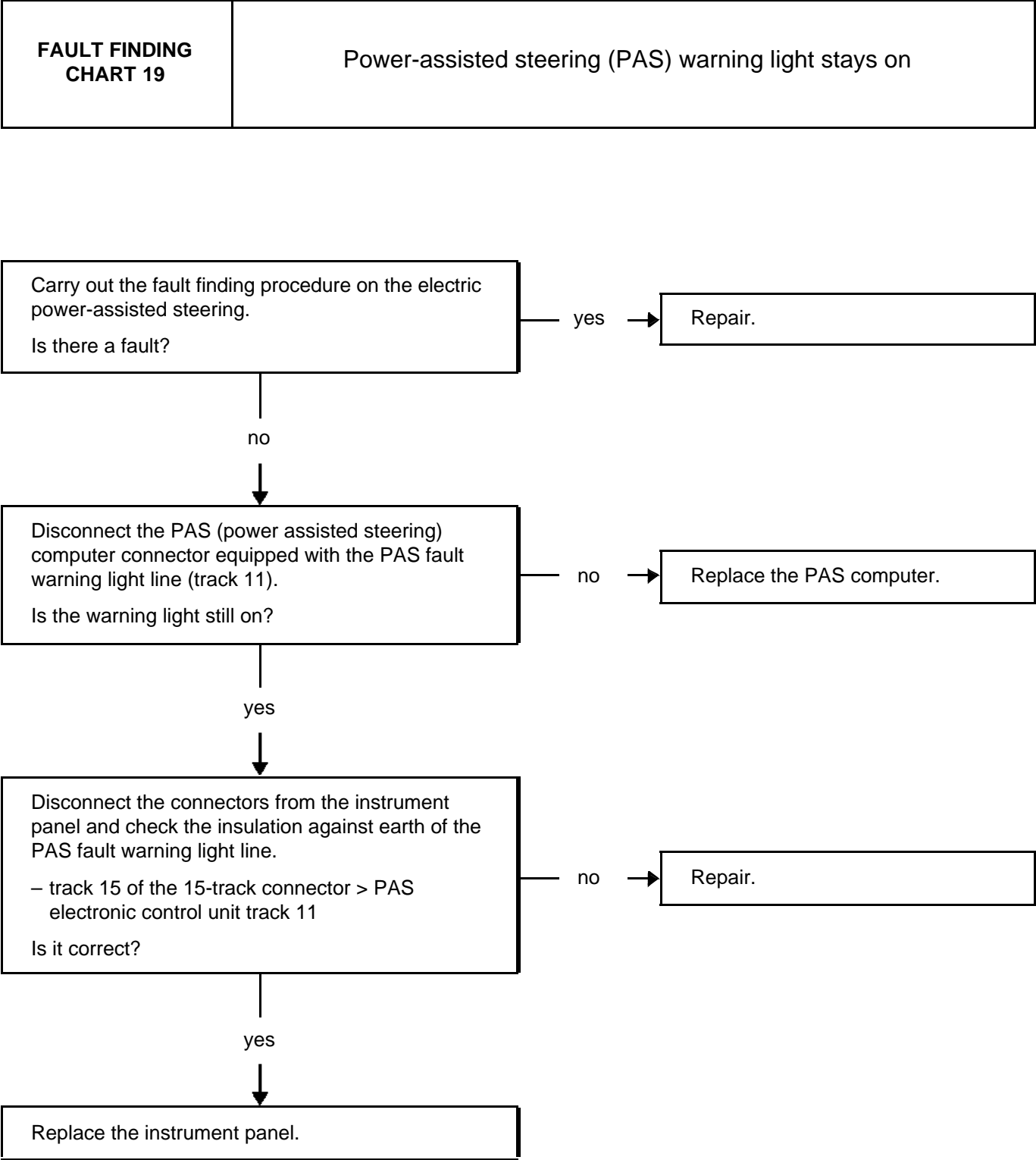


FAULT FINDING - FAULT FINDING CHART

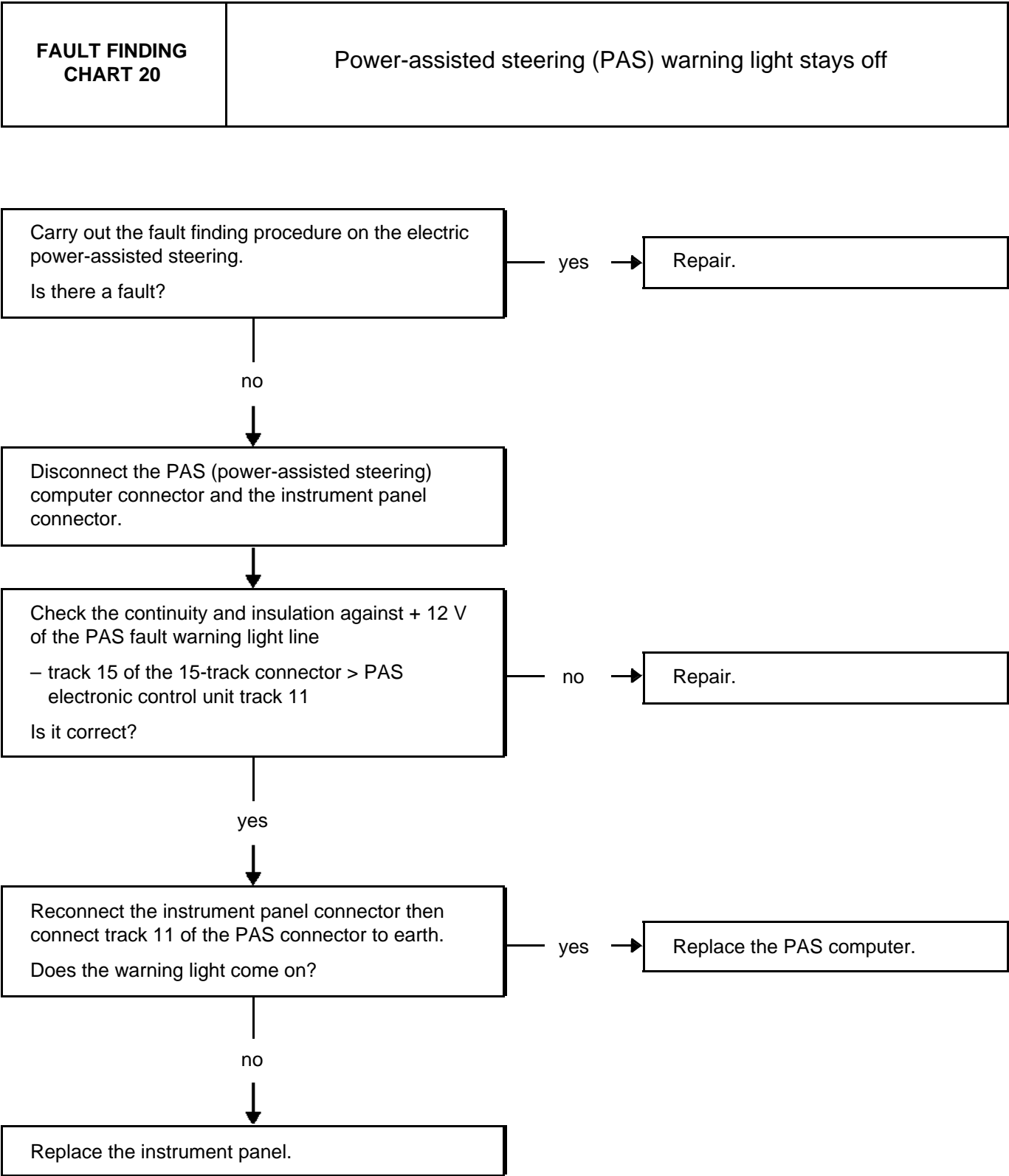
FAULT FINDING CHART 18	Oil pressure and stop warning lights come on at the same time
CONDITION	The instrument panel only takes account of the information from the oil pressure switch in respect of an engine speed in excess of 1600 rpm.



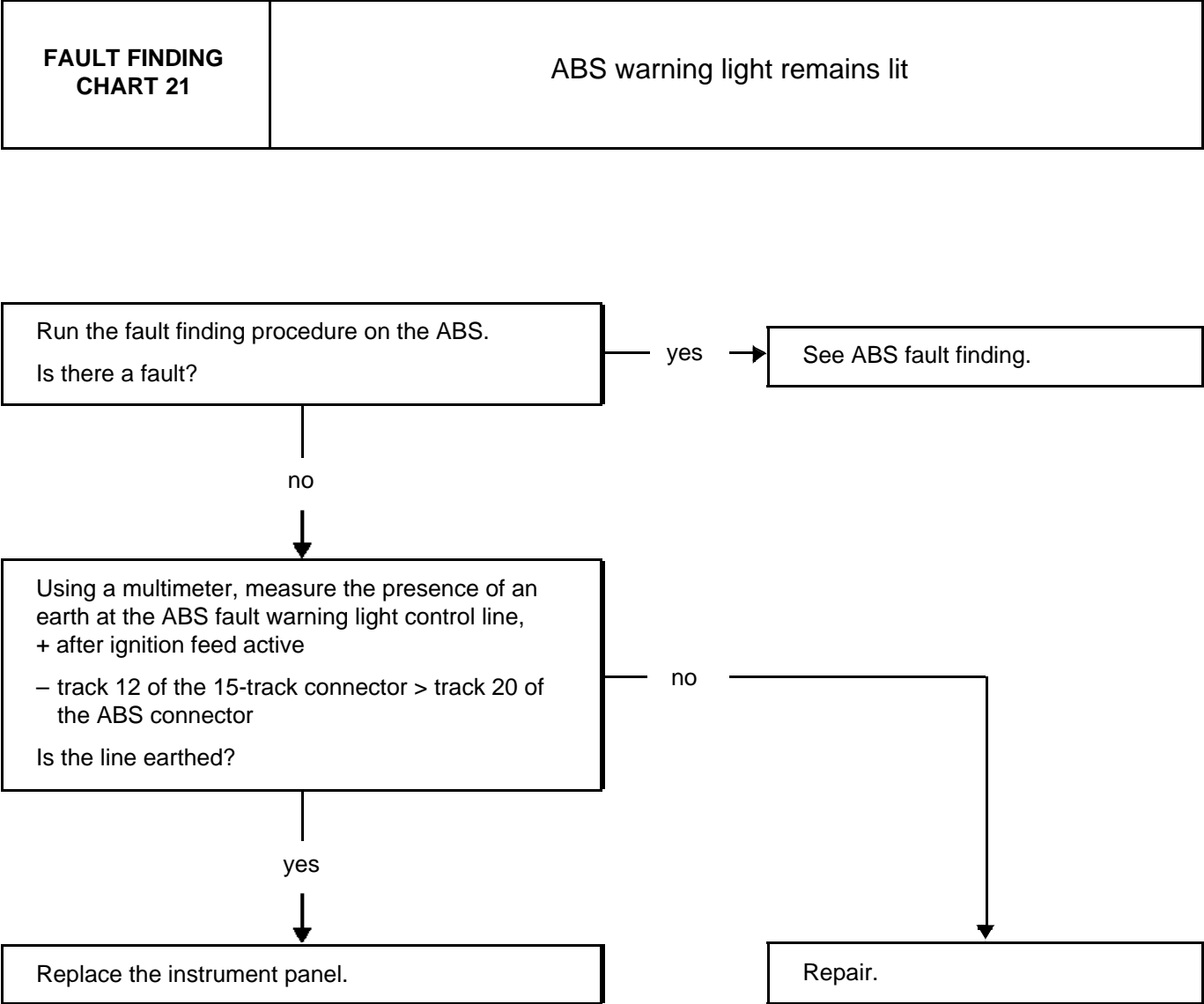
FAULT FINDING - FAULT FINDING CHART



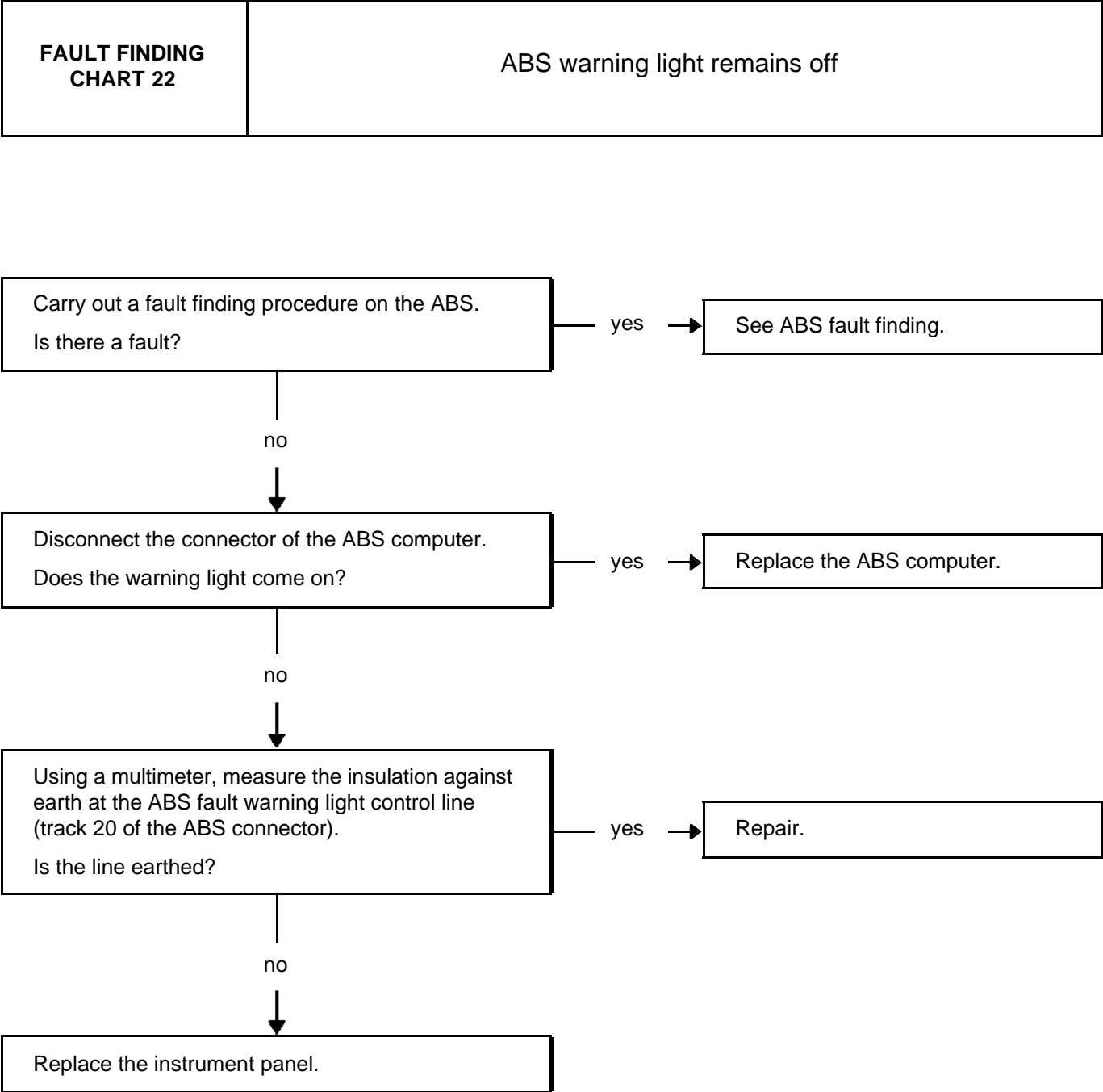
FAULT FINDING - FAULT FINDING CHART



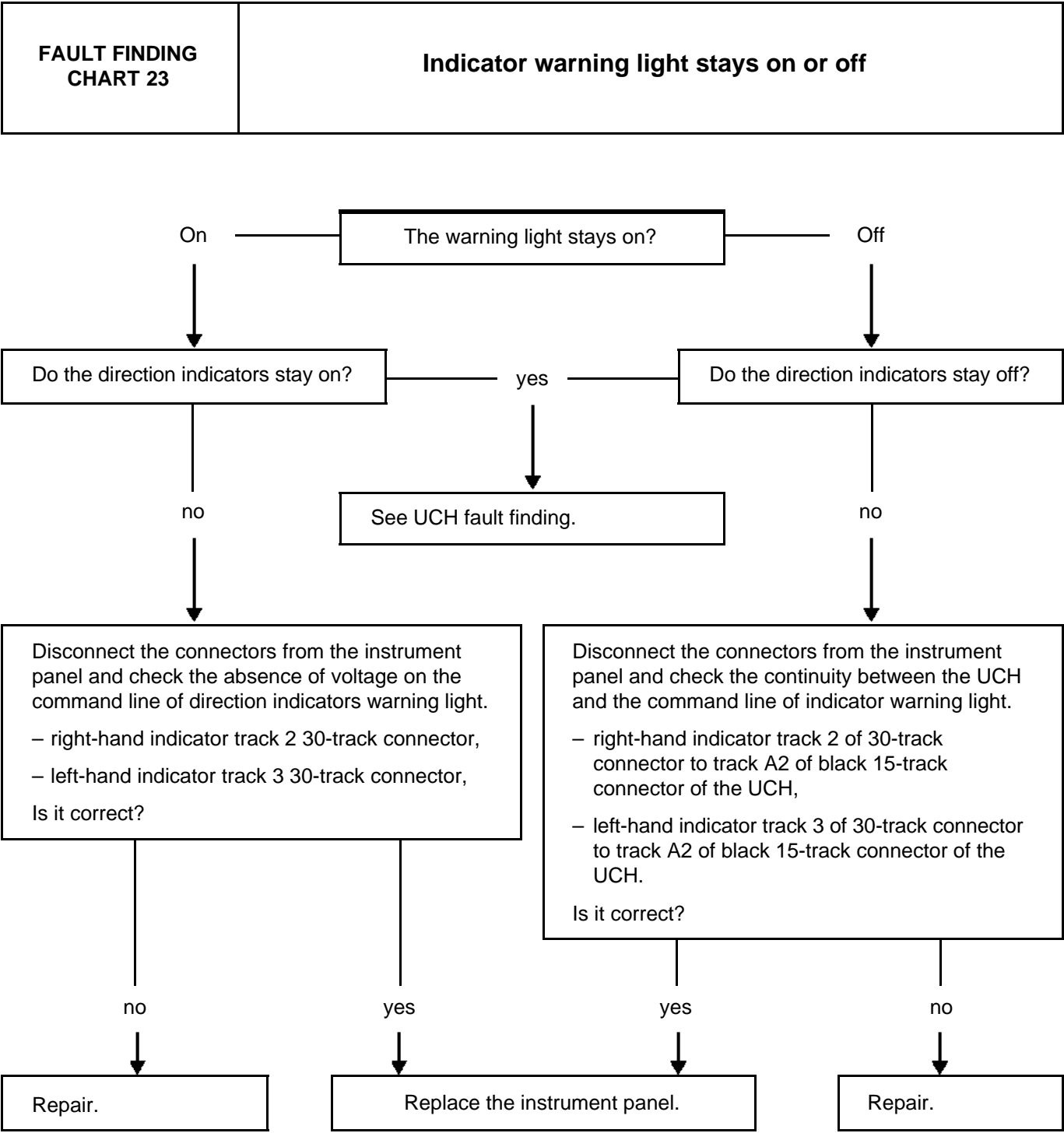
FAULT FINDING - FAULT FINDING CHART



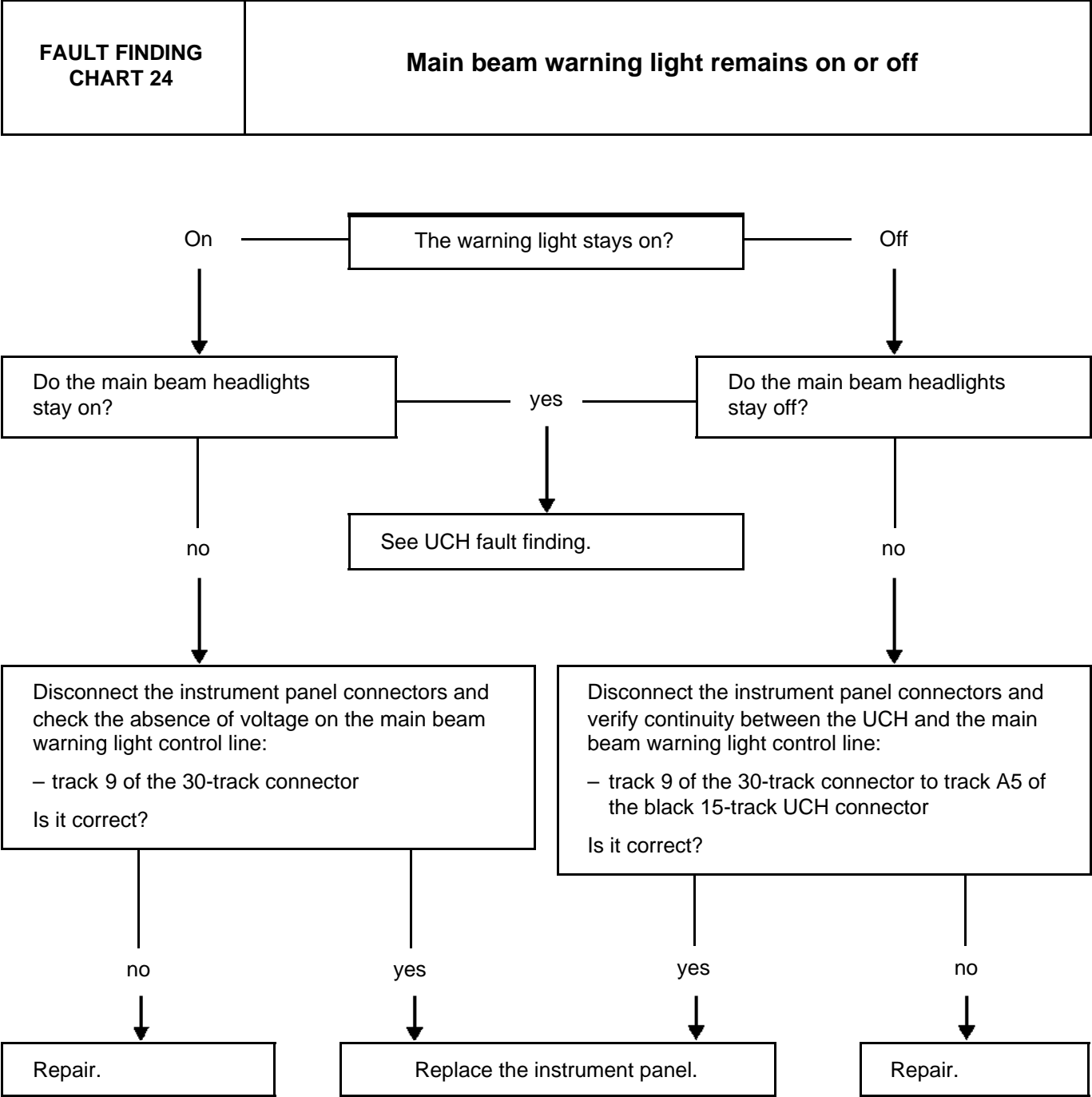
FAULT FINDING - FAULT FINDING CHART



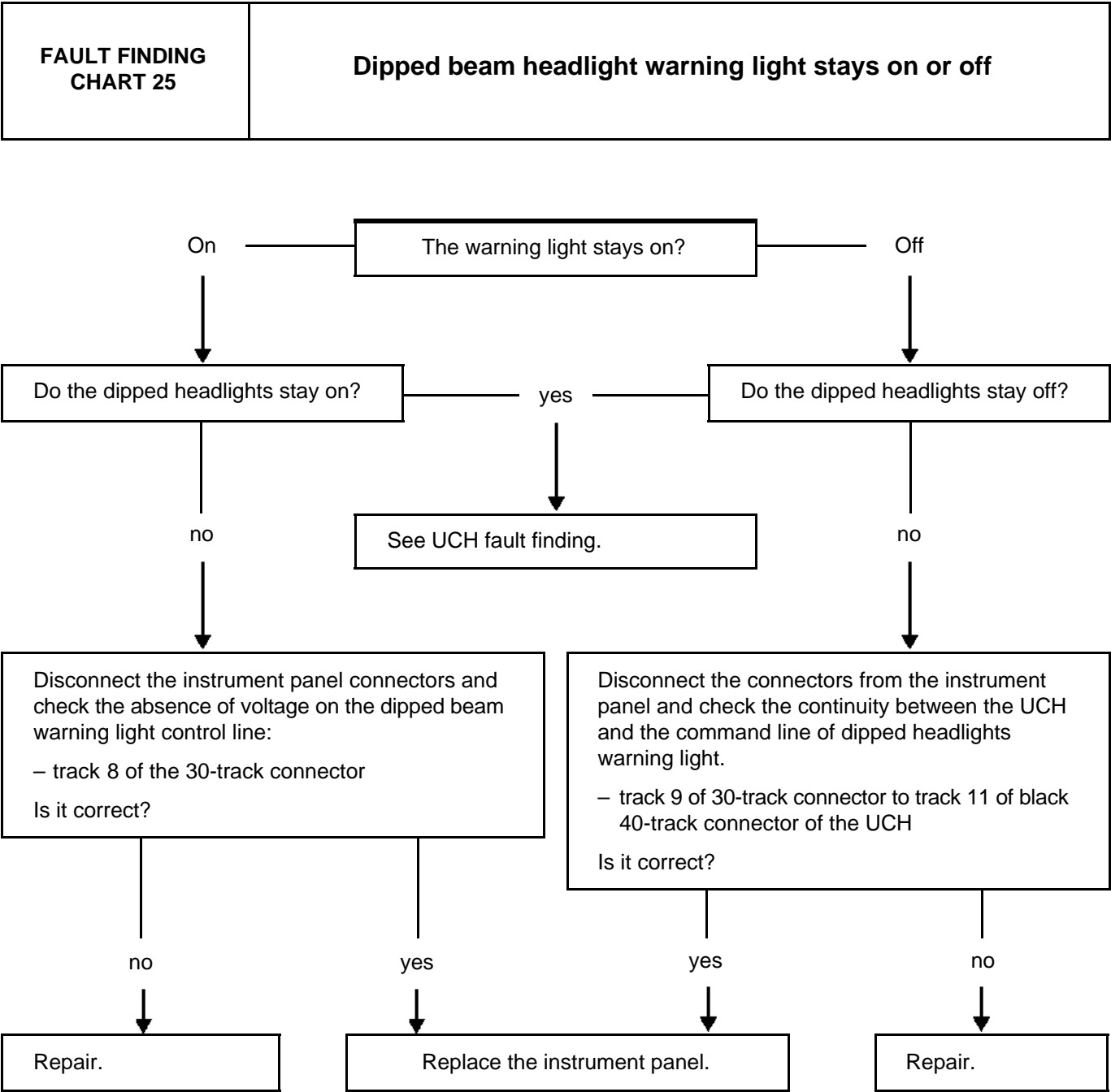
FAULT FINDING - FAULT FINDING CHART



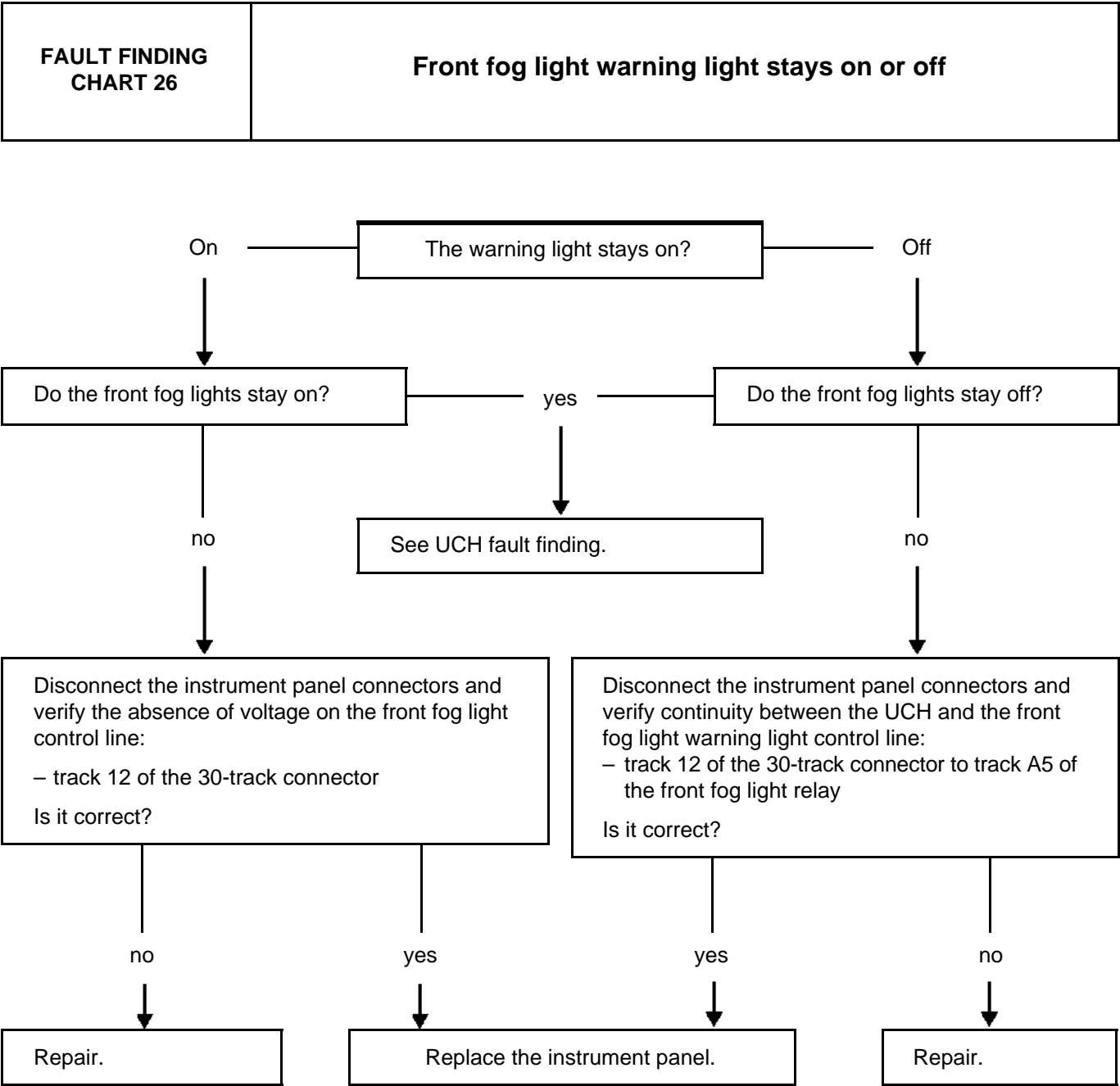
FAULT FINDING - FAULT FINDING CHART



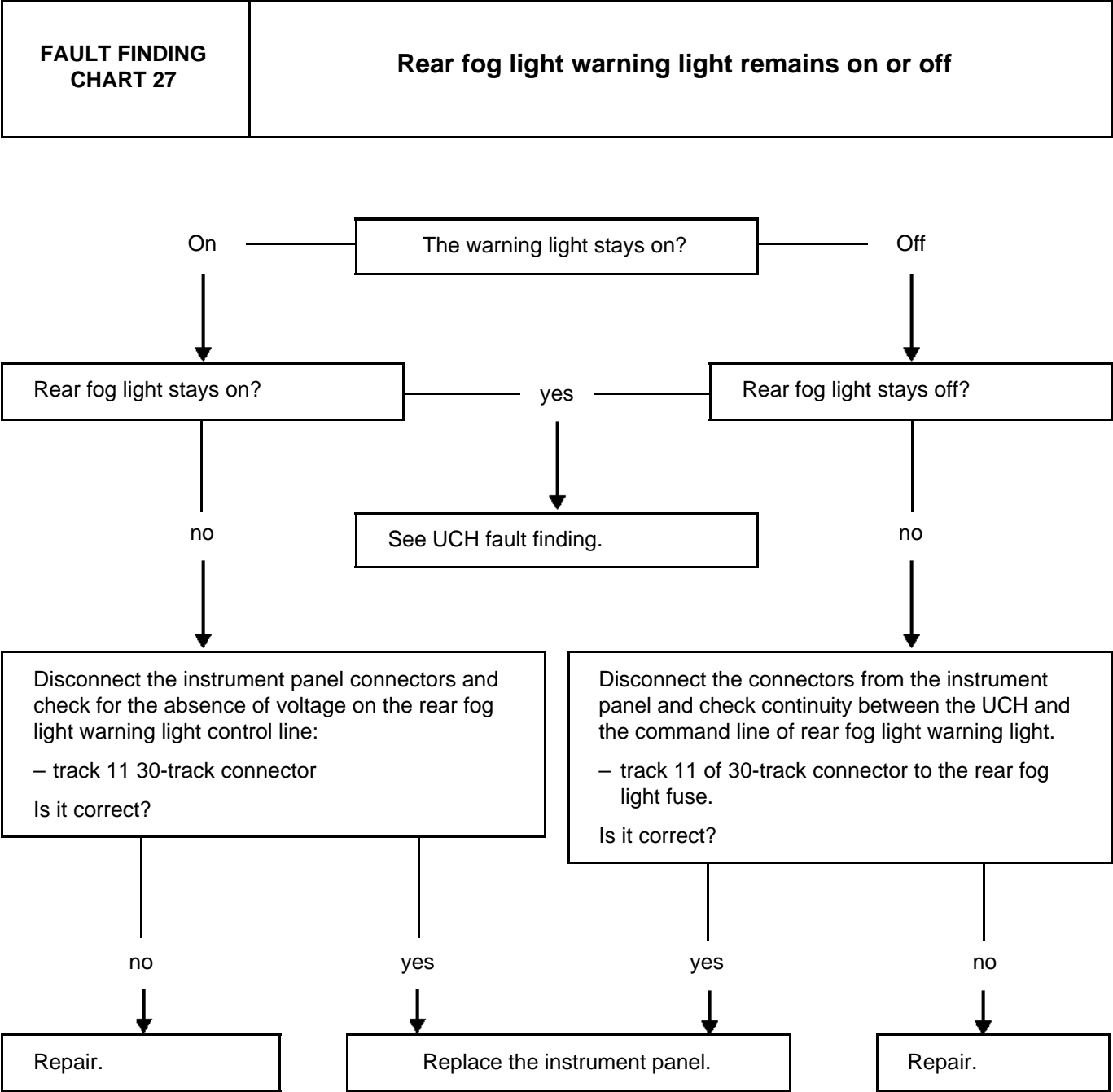
FAULT FINDING - FAULT FINDING CHART



FAULT FINDING - FAULT FINDING CHART

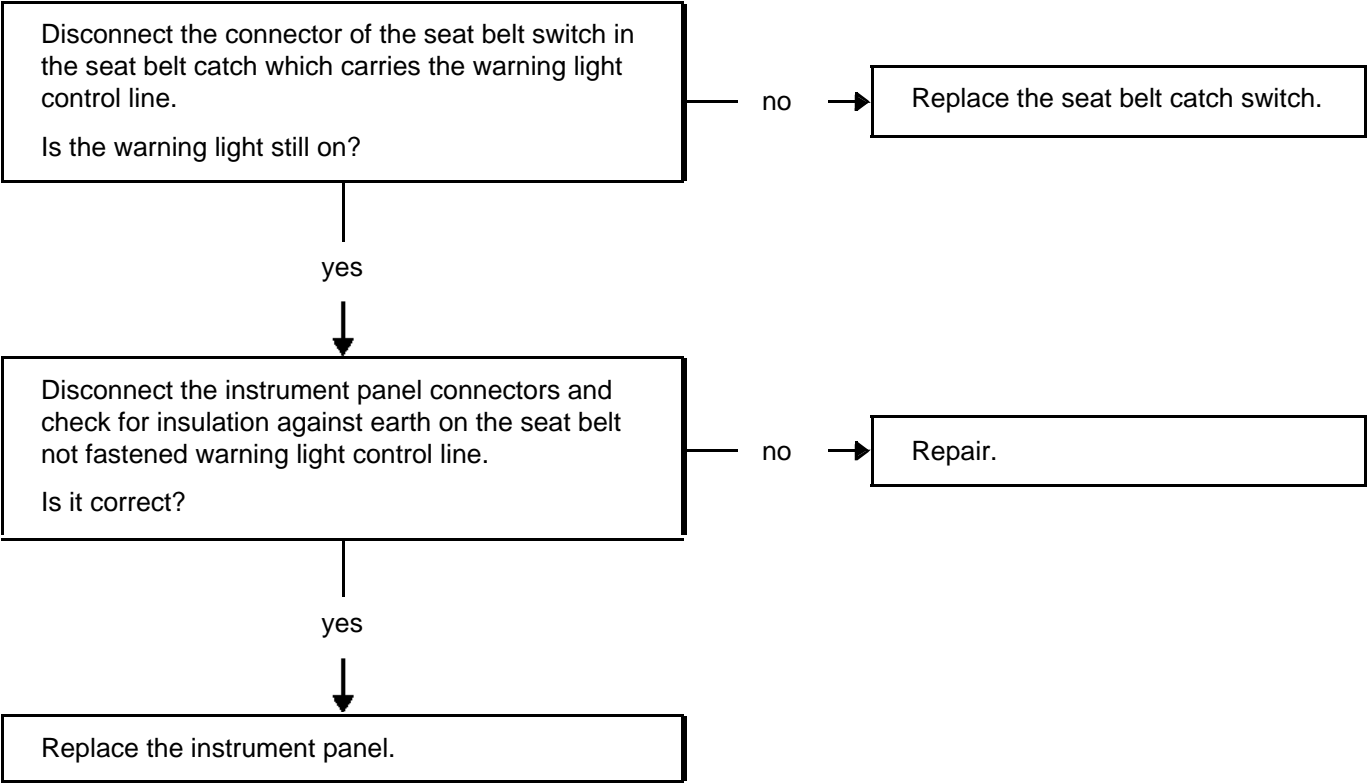


FAULT FINDING - FAULT FINDING CHART



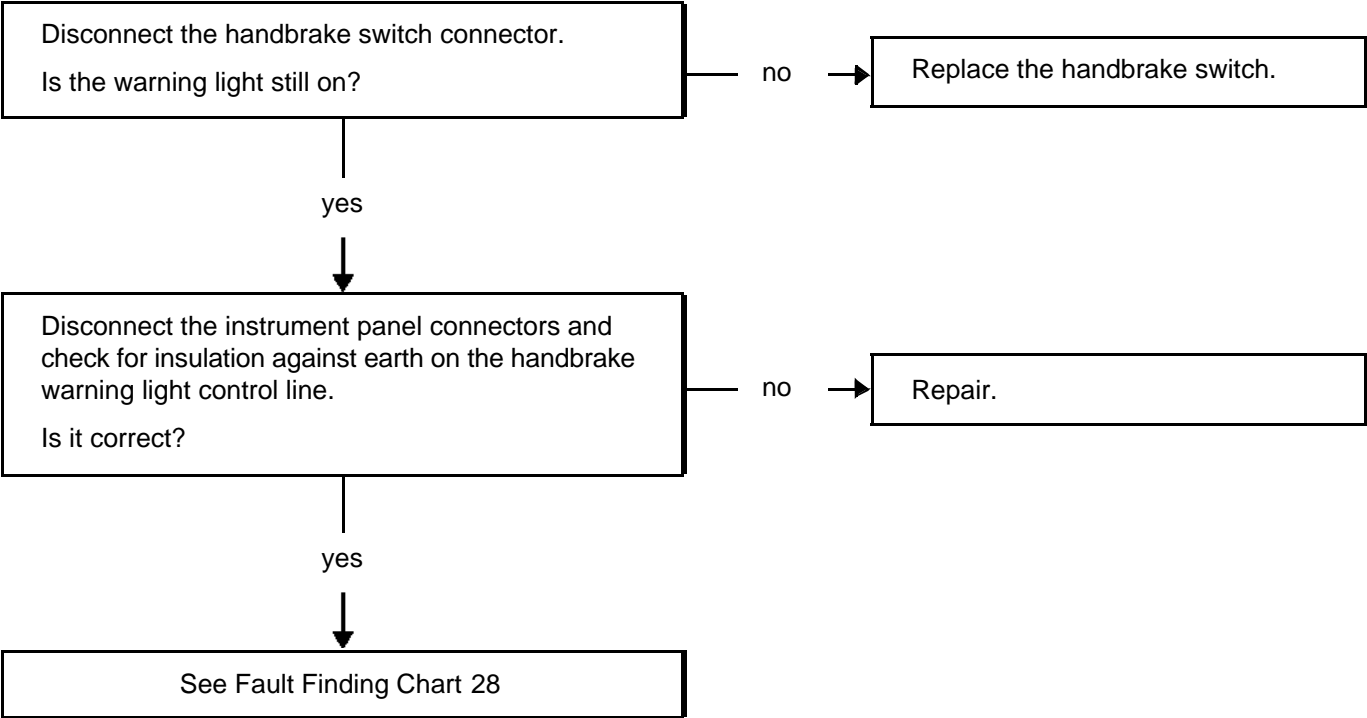
FAULT FINDING - FAULT FINDING CHART

FAULT FINDING CHART 28	Seat belt not fastened warning light remains lit
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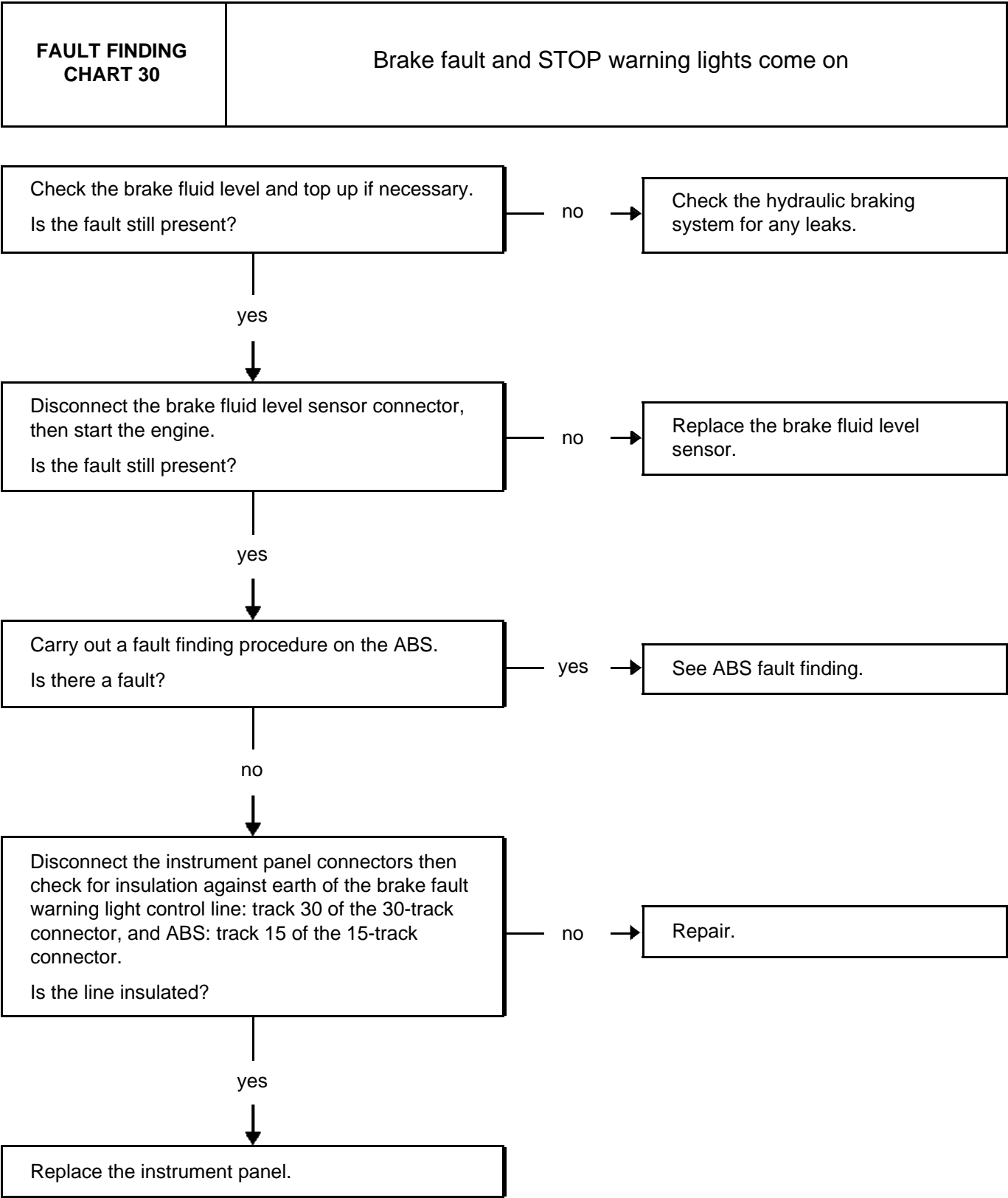


FAULT FINDING - FAULT FINDING CHART

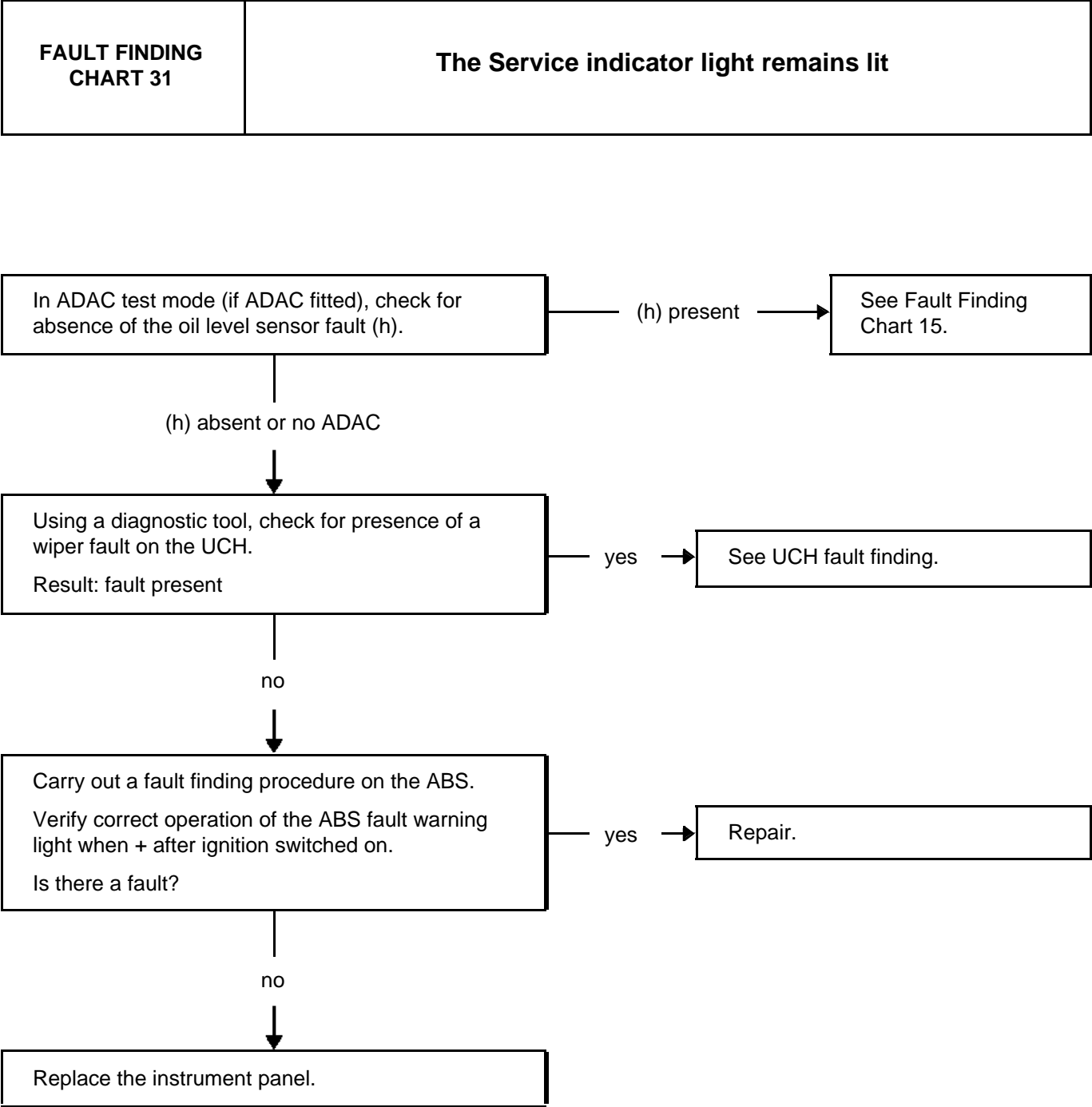
FAULT FINDING CHART 29	Brake fault warning light remains on without lighting of the STOP warning light
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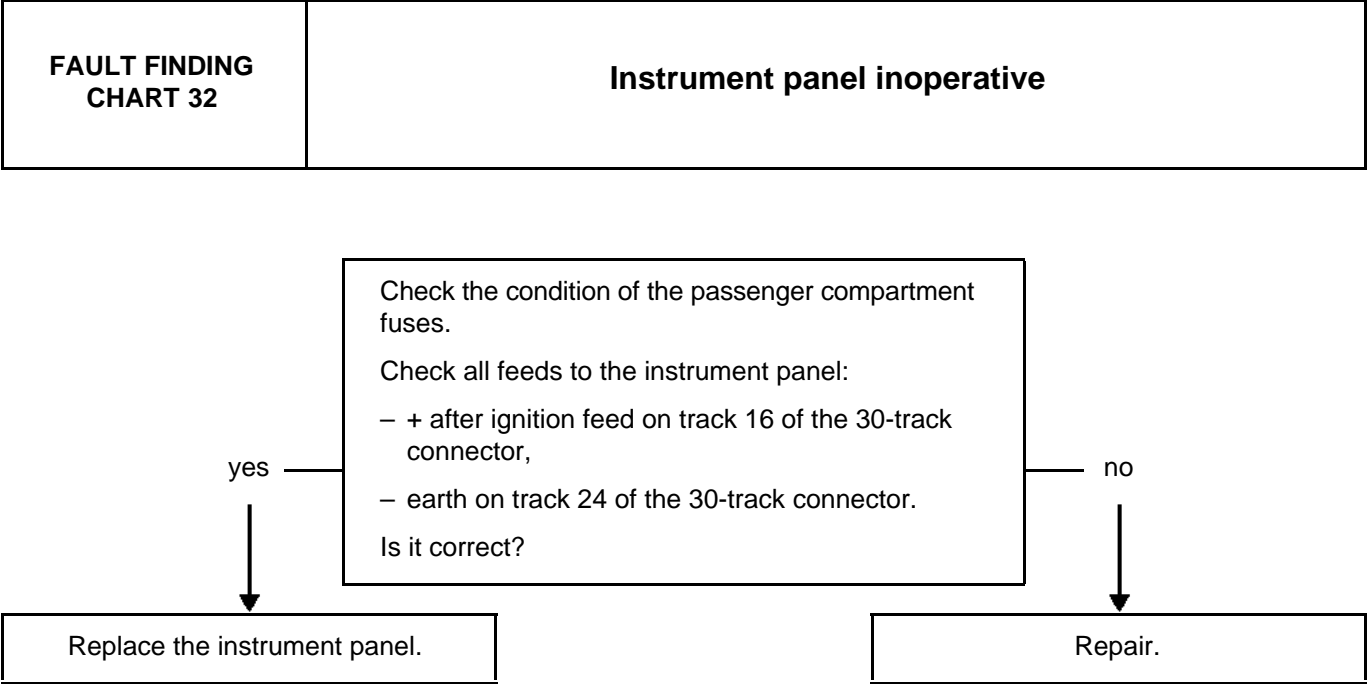
FAULT FINDING - FAULT FINDING CHART



FAULT FINDING - FAULT FINDING CHART

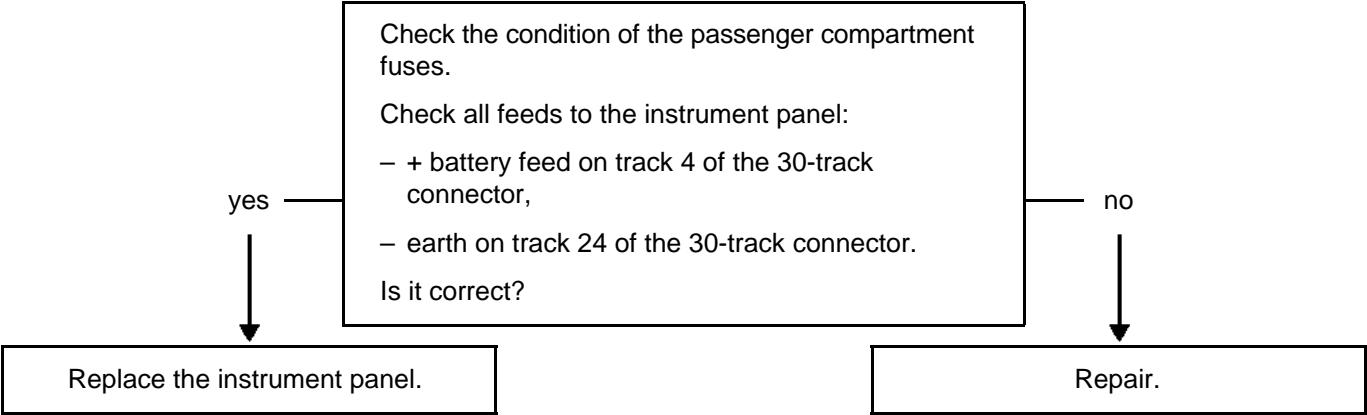


FAULT FINDING - FAULT FINDING CHART



FAULT FINDING - FAULT FINDING CHART

FAULT FINDING CHART 33	ADAC and trip mileage recorder are reset to zero each time the ignition is switched off
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FAULT FINDING - INTRODUCTION

This document describes the generic fault finding procedures applicable to all the computers for the UCH functions of all CLIO II phase 2 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 electrical wiring diagram of the function for the vehicle concerned,
- The tools listed under 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.).
- Find 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, stored fault, 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 met, use the fault finding procedure to check the circuit of the faulty component, since the fault is no longer present on the vehicle. Perform the same procedure 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 is still present.

SPECIAL TOOLING REQUIRED:

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

FAULT FINDING - INTRODUCTION

FUNCTIONS REQUIRED

UCH FEATURES REQUIRED	Entry level 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 (ARABIA)	*		
windscreen wiper low speed	*	*	*
windscreen wiper high speed	*	*	*
variable timing allowed (not if rain sensor present)		*	
park position input for windscreen wiper	*	*	
rain sensor		*	
light sensor (except cold countries)		*	
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	*	*	
radio frequency system (two key remote control)	*	*	
encoded transponder/engine immobiliser	*	*	
fault finding	*	*	
immobiliser warning light connected by wire	*	*	
vehicle speed multiplex signal	*	*	
timed headlight washer (cold countries) except Denmark		*	
daytime running lights (cold countries)	*	*	
one-touch driver/passenger electric windows	* / -	* / *	*
activation of factory-fitted alarm			
starter relay	*	*	
after ignition relay	*	*	*

FAULT FINDING - INTRODUCTION**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.

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 the wiper stalk in the rear intermittent position; the interval between two wipes is 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 control the timing of the headlight washer. It should only control them if the lighting stalk is in the dipped headlights or main beam headlight position and a headlight washer command is activated for more than 0.5 seconds. The period of activation 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 off position, the appearance of + after ignition feed causes illumination of 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.

Switching the side lights on and off twice within less than 4 seconds confirms 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 P201 40-track 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 fault finding 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 direction indicator input
28	Right-hand direction 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 feed
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

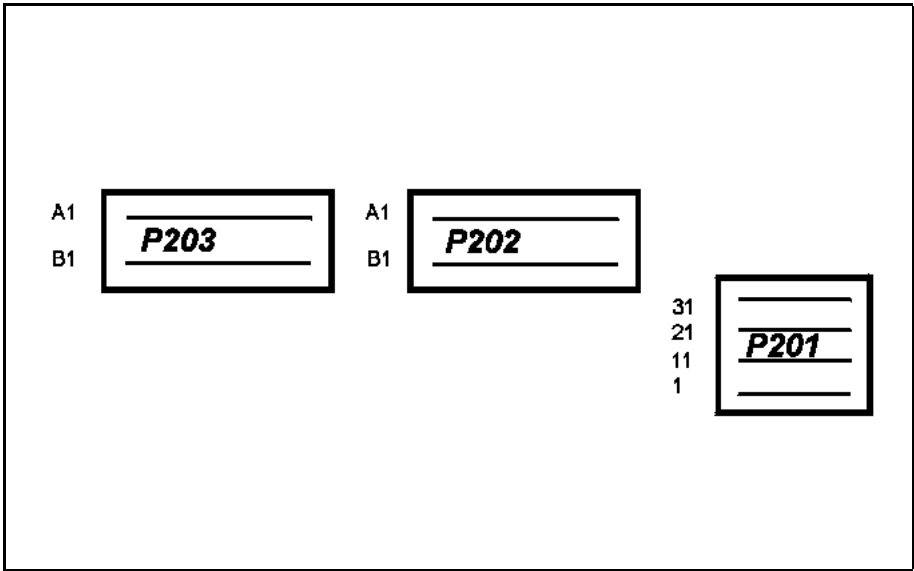
FAULT FINDING - INTRODUCTION

Clear P202 15-track 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 P203 15-track 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 for passenger side one-touch window



FAULT FINDING - INTERPRETATION OF FAULTS

DF039 PRESENT	<u>UCH INTERNAL ELECTRONIC FAULT</u>
--------------------------	--------------------------------------

NOTES	The fault is declared present when the ignition is switched off. Special features: if there is a fault stored, check whether there are any other faults present and clear them.
--------------	--

Replace the UCH.

AFTER REPAIR	Deal with any other faults. Clear the fault memory.
---------------------	--

FAULT FINDING - INTERPRETATION OF FAULTS

DF120 PRESENT OR STORED	<u>REAR SCREEN WIPER PARK POSITION</u>
----------------------------------	--

NOTES	Condition for applying the fault finding strategy to the stored fault. The fault is declared present following operation of the windscreen wiper.
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Check whether the windscreen wiper or rear screen wiper park position status 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 following connections for insulation and continuity, and the absence of interference resistance: <div>UCH P201 40-track connector track 16 —————> track 2 rear screen wiper motor earth —————> track 3 rear wiper motor</div> Repair if necessary.
Check the motor. Check the wiper fitting. Replace the windscreen wiper motor if necessary.

AFTER REPAIR	Follow the instructions. Deal with any other faults. Clear the fault memory.
--------------	--

FAULT FINDING - INTERPRETATION OF FAULTS

DF128 PRESENT OR STORED	<u>VEHICLE SPEED NOT AVAILABLE</u>
----------------------------------	------------------------------------

NOTES	None. Special features: if there is a fault stored, check whether there are any other faults present and clear them.
-------	---

Is the vehicle speed signal present on the instrument panel?
--

YES	Carry out a multiplex network fault finding procedure (see Section 88 Multiplex network harness).
-----	---

NO	Carry out the fault finding procedure on the airbag circuit. Repair if necessary.
	Carry out a fault finding procedure on the ABS system and the instrument panel. Repair if necessary.

AFTER REPAIR	Deal with any other faults. Clear the fault memory.
--------------	--

FAULT FINDING - INTERPRETATION OF FAULTS

DF130 PRESENT OR STORED	<u>INCORRECT CONFIGURATION OF THE INSTRUMENT PANEL</u>
--	--

NOTES	<p>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.</p>
--------------	---

Carry out an instrument panel configuration (see Section 83: Instrument panel).

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

FAULT FINDING - INTERPRETATION OF FAULTS

DF131 PRESENT OR STORED	<u>ELECTRIC DOOR LOCK BUTTON CIRCUIT</u> CC.0 : short circuit to earth
----------------------------------	---

NOTES	Application of the fault finding procedure to the stored fault. Fault appears when the door locking button is pressed.
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Check that locking button status ET038 is active when central door locking is activated. Check that unlocking button status ET039 is active when door unlocking is activated.
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 track 36 —————→ track B1 electric door locking button earth —————→ track A2 electric door locking button</div> Repair if necessary.
If the fault is still present, replace the UCH.

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

DF132 PRESENT OR STORED	<u>MAIN BEAM HEADLIGHT RELAY CONTROL CIRCUIT</u> CC.1 : short circuit on + 12 V
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NOTES	Vehicle fitted with running lights, rain sensor or light sensor Condition for applying the fault finding procedure to the stored fault. The fault is declared present following operation of the main beam headlights.
--------------	---

<p>With the ignition on, check for the presence of + 12 V at terminals B3 and B1 of the main running light relay. If the relay is not supplied, check for the presence of + 12 V at terminals A3 and A1 of the running lights side lights relay. If there is no supply to track A3 check the following connection:</p> <p>track A3 —————> fuse box</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>track B2 —————> track 5 UCH P203 15-track connector</p> <p>Repair if necessary.</p>	

AFTER REPAIR	Follow the instructions. Deal with any other faults. Clear the fault memory.
---------------------	--

FAULT FINDING - INTERPRETATION OF FAULTS

DF133 PRESENT OR STORED	<u>DIPPED BEAM HEADLIGHTS RELAY CONTROL CIRCUIT</u> CC.1 : short circuit on + 12 V
--	--

NOTES	Vehicle fitted with running lights, rain sensor or light sensor Condition for applying the fault finding strategy to the stored fault. The fault is declared present following operation of the main beam headlights.
--------------	--

With the ignition on, check for the presence of +12 V at terminals A3 and A1 of the running lights dipped headlights 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 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: track A2 —————> track 11 UCH P201 40-track connector Repair if necessary.	

AFTER REPAIR	Follow the instructions. Deal with any other faults. Clear the fault memory.
---------------------	--

FAULT FINDING - INTERPRETATION OF FAULTS

DF134 PRESENT OR STORED	<u>SIDE LIGHTS RELAY CONTROL CIRCUIT</u> CC.1 : short circuit on + 12 V
--	--

NOTES	Vehicle fitted with running lights, rain sensor or light sensor Condition for applying the fault finding strategy to the stored fault. The fault is declared present following operation of the side lights control.
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<p>With the ignition on, check for the presence of + 12 V at terminals A3 and A1 of the running lights side lights relay.</p> <p>If there is no supply to track A3 check the following connection:</p> <p>track A3 —————> fuse box</p> <p>(See wiring diagram of the vehicle concerned).</p> <p>Repair if necessary.</p>	
<p>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.</p> <p>If the fault is still present, check the insulation and continuity of the following connection:</p> <p>track A2 —————> track 1 UCH P201 40-track connector</p> <p>Repair if necessary.</p>	

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

DF135 PRESENT OR STORED	<u>HEADLIGHT WASHER 1 RELAY CONTROL CIRCUIT</u> CC.1 : short circuit on + 12 V
NOTES	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 dipped or main beam 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 track A5 fuse box (F33) 20A</div><div>→ →</div><div>track B2 headlight washer 1 relay tracks B5 and B1 headlight washer relay</div></div> 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

DF136 PRESENT OR STORED	<u>HEADLIGHT WASHER 2 RELAY CONTROL CIRCUIT</u> CC.1 : short circuit on + 12 V
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NOTES	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 dipped or main beam 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 track A7 fuse box (F33) 20A</div><div><div>→ track A2 headlight washer 2 relay → tracks A5 and A1 headlight washer relay</div></div></div> 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

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

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

DF145 PRESENT OR STORED	<u>DOORS AND TAILGATE LOCKING WARNING LIGHT CIRCUIT</u> CC.0 : short circuit to earth CC.1 : short circuit to + 12 V
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NOTES	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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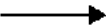
Check that the doors and tailgate locking status indicator light ET217 comes on when central door locking is actuated.
Check the connection and condition of the UCH P201 40-track connector and replace it if necessary.
Check the insulation and continuity of the connections: <div>UCH P201 40-track connector track 15 —————> track B3 electric door lock button passenger compartment fuse box —————> track B2 electric door lock button</div> 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

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

AFTER REPAIR	Deal with any other faults. Clear the fault memory.
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FAULT FINDING - CONFORMITY CHECK

NOTES

Only perform this conformity check after a complete check with the diagnostic tool.
The values indicated in this conformity check are given for guidance purposes only.
Test conditions: **engine stopped, ignition on.**

Order	Function	Parameter or status Check or action		Display and notes	Fault finding
1	Power supply	PR002:	battery voltage	12 < X < 12.5 volts	if there is a problem: carry out a fault finding procedure on the charging circuit.
		ET002:	+ 12 V after ignition	PRESENT	in the event of a problem: consult the fault finding procedure for status ET002
		ET001:	+ 12 V accessories	PRESENT	None.
		ET242:	engine running	NO	None.
2	Lighting	ET020:	side lights control	ACTIVE during side lights control	if INACTIVE: consult the fault finding procedure for status ET020
		ET029:	right-hand direction indicator control	ACTIVE during right-hand direction indicator control	if INACTIVE: consult the fault finding procedure for status ET029
		ET028:	left-hand direction indicator control	ACTIVE during left-hand direction indicator control	if INACTIVE: consult the fault finding procedure for status ET028
		ET022:	hazard warning lights control	ACTIVE during hazard lights control	if INACTIVE: consult the fault finding procedure for status ET022
		ET231:	low light detection	NO	in the event of a problem: consult the fault finding procedure for status ET231

FAULT FINDING - CONFORMITY CHECK

NOTES

Only perform this conformity check after a complete check with the diagnostic tool.
The values indicated in this conformity check are given for guidance purposes only.
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	ACTIVE during windscreen washer control	if INACTIVE: consult the fault finding procedure for status ET032
		ET035:	windscreen wiper timer	ACTIVE with windscreen wiper control in intermittent position	if INACTIVE: consult the fault finding procedure for status ET035
		ET005:	windscreen wiper park position	ACTIVE with windscreen wiper control in intermittent position during each pause of the windscreen wipers	in the event of a problem: perform the fault finding procedure on windscreen wiper park position fault DF119
		ET051:	windscreen wiper low speed control	ACTIVE with windscreen wiper control in low speed position	if INACTIVE: consult the fault finding procedure for status ET051
		ET052:	windscreen wiper high speed control	ACTIVE with windscreen wiper control in high speed position	if INACTIVE: consult the fault finding procedure for status ET052

FAULT FINDING - CONFORMITY CHECK

NOTES

Only perform this conformity check after a complete check with the diagnostic tool.
The values indicated in this conformity check are given for guidance purposes only.
Test conditions: **engine stopped, ignition on.**

Order	Function	Parameter or status Check or action		Display and notes	Fault finding
3	Wipers (continued)	ET031:	rear screen washer control	ACTIVE during rear screen washer control	if INACTIVE: consult the fault finding procedure for status ET031
		ET036:	rear screen wiper intermittent facility	ACTIVE with rear screen wiper control in intermittent position	if INACTIVE: consult the fault finding procedure for status ET036
4	Doors and boot lid	ET192:	front door	OPEN when front door is open	in the event of a problem: consult the fault finding procedure for status ET192
		ET111:	rear door	OPEN when rear door is open	in the event of a problem: consult the fault finding procedure for status ET111
		ET240:	luggage compartment open	YES when luggage compartment is open	in the event of a problem: consult the fault finding procedure for status ET240
		ET217:	doors and tailgate locking warning light	ON when doors and tailgate are locked OFF when doors and tailgate are unlocked	in the event of a problem: consult the fault finding procedure for status ET217

FAULT FINDING - CONFORMITY CHECK

NOTES

Only perform this conformity check after a complete check with the diagnostic tool. The values indicated in this conformity check are given for guidance purposes only.
Test conditions: **engine stopped, ignition on.**

Order	Function	Parameter or status Check or action		Display and notes	Fault finding
4	Doors and tailgate (continued)	ET010:	valid radio frequency key	YES status during locking or unlocking of the vehicle by remote control.	in the event of a problem: consult the fault finding procedure for status ET010
		ET193:	RF frame received	YES status during locking or unlocking of the vehicle by remote control.	in the event of a problem: consult the fault finding procedure for status ET193
		ET012:	source of last doors and tailgate command	TRF during locking with the remote control CPE during locking using the central door locking switch	None
		ET105:	last doors and tailgate command	UNLOCKING LOCKING	None
5	Speed	PR001:	vehicle speed	X in Km/ h	in the event of a problem: perform the fault finding procedure on incorrect vehicle speed fault DF129
6	Switch	ET008:	heated rear screen button	ACTIVATED when the rear screen heater is activated	in the event of a problem: consult the fault finding procedure for status ET008
		ET245:	driver's window lift push button	LOWERING RAISING HALTED	in the event of a problem: consult the fault finding procedure for status ET245

FAULT FINDING - CONFORMITY CHECK

NOTES	Only perform this conformity check after a complete check with the diagnostic tool. The values indicated in this conformity check are given for guidance purposes only. Test conditions: engine stopped, ignition on.
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Order	Function	Parameter or status Check or action		Display and notes	Fault finding
6	Switch (continued)	ET244:	passenger window lift push button	LOWERING RAISING HALTED	in the event of a problem: consult the fault finding procedure for status ET244
		ET141:	reverse gear engaged	YES NO	in the event of a problem: consult the fault finding procedure for status ET141

FAULT FINDING -INTERPRETATION OF STATUSES

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

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

ET002 ACTIVE ignition off

With the ignition switched off, use a multimeter to check for the absence of + 12 V in the passenger compartment fuse holder. Repair if necessary.
If the voltage is absent, 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

ET008	<u>REAR DE-ICING SWITCH</u>
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NOTES	There must be no present or stored faults. Switch on the ignition. Activate the heated rear screen and check that the heated rear screen status button is ACTIVATED .
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ET008 HALT button activated

Check fuse F30 (30A) for the heated rear screen. Replace it if necessary.
Check the connection and status of the connector for the heated screen button. Replace it if necessary.
With the button pressed, use a multimeter to check for the presence of earth on track 35 of the UCH P201 40 track connector. Repair if necessary.
If there is no voltage, check for continuity and insulation between track 35 of the P201 40-track connector and the heated screen button. Repair if necessary.
Replace the de-icing switch.

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

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

Resynchronise the keys switching the ignition on (+ after ignition feed).
<p>If the fault is still present and if ET193 RF FRAME RECEIVED status is shown as YES, replace the keys. If the fault is still present, 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

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


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 must be ACTIVE .
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ET022 INACTIVE	Check the F22 (15A) fuse for the direction indicator supply. 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 following connection: hazard warning lights switch track 2 —————> earth Repair if necessary.
	Check the connection for continuity and insulation and for the absence of interference resistance: hazard warning lights switch track 3 —————> track 29 of the UCH P201 40 track connector Repair if necessary.
	Check that the hazard warning lights switch is working correctly.

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

ET023	<u>DIPPED HEADLIGHTS CONTROL</u>
NOTES	<p>Only on high-end UCH.</p> <p>There must be no present or stored faults.</p> <p>Activate the dipped headlights control.</p> <p>The status must be ACTIVE.</p>
ET023 INACTIVE	<p>Check the connection and condition of the light stalk connector.</p> <p>Replace it if necessary.</p>
	<p>Check the connection and condition of the UCH P201 40-track connector.</p> <p>Replace it if necessary.</p>
	<p>Check the continuity and insulation of the following connection:</p> <p>UCH P201 40-track connector track 2  lighting stalk track B4</p> <p>Repair if necessary.</p>
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>

FAULT FINDING -INTERPRETATION OF STATUSES

ET024	<u>MAIN BEAM HEADLIGHT CONTROL</u>
NOTES	<p>Only on high-end UCH. There must be no present or stored faults. Activate the side lights control. The status must be ACTIVE.</p>
ET024 INACTIVE	<p>Check the connection and condition of the light stalk connector. Replace it if necessary.</p>
	<p>Check the connection and condition of the UCH P201 40-track connector. Replace it if necessary.</p>
	<p>Check the continuity and insulation of the following connection: UCH P201 40-track connector track 12 —————▶ stalk track B7 Repair if necessary.</p>
AFTER REPAIR	<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






ET028 ET029	<u>LEFT-HAND DIRECTION INDICATOR CONTROL</u> <u>RIGHT-HAND DIRECTION INDICATOR CONTROL</u>
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NOTES	There must be no present or stored faults. Switch on the ignition. Operate the left-hand or right-hand direction indicator. The status must be ACTIVE .
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ET028 or ET029 INACTIVE	Check the F22 direction indicator supply fuse (15A). Replace it if necessary.
	Check the connection and condition of the direction indicator stalk connector. Replace the connector if necessary.
	Check the continuity of the following connection: direction indicator stalk track A6 —————→ earth Repair if necessary.
	Disconnect the UCH P201 40-track connector with the left-hand or right-hand direction indicator in operation. Check the continuity and insulation of the following connections: right-hand direction indicator stalk track A5 —————→ track 28 UCH P201 40-track connector left-hand direction indicator stalk track A7 —————→ track 27 UCH P201 40-track connector 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

ET031	<u>REAR SCREEN WASHER 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 must be ACTIVE .
ET031 INACTIVE	Check the fuses F13 (20A) . Replace it if necessary.
	Check the connection and condition of the windscreen wiper stalk connector. Replace the connector if necessary.
	Check the continuity and insulation of the following connections: UCH P201 40-track connector track 24  wiper stalk track B1 earth  wiper stalk track B5 + after ignition feed  wiper stalk tracks B4 and A7 Repair if necessary.
	Check the correct operation of the washer pump, in particular the continuity and insulation of the following connections: pump track 2  track A4 wiper stalk pump track 1  track B1 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




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 must be ACTIVE .
ET032 INACTIVE	Check the F4 (20A) fuses. Replace it if necessary.
	Check the connection and condition of the windscreen wiper stalk connector. Replace it if necessary.
	Check the continuity and insulation of the following connections: UCH P201 40-track connector track 25  wiper stalk track A4 earth  wiper stalk track B5 + after ignition feed  wiper stalk tracks B4 and A7 Repair if necessary.
	Check the correct operation of the washer pump, in particular the continuity and insulation of the following connections: pump track 2  track A4 wiper stalk pump track 1  track B1 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>									
NOTES	<p>Only on high-end UCH.</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 RAISE.</p> <p>When the Lower button is pressed the status must be LOWER.</p> <p>When there is no operation of the electric window button the status must be RELEASED.</p>									
<p>Check the connection and condition of the UCH P201 40-track connector.</p> <p>Replace it if necessary.</p>										
<p>Check the connection and condition of the electric window switch connector.</p> <p>Replace it if necessary.</p>										
<p>Check the continuity and insulation of the following connections:</p> <table><tr><td>40 track UCH connector track 3</td><td>————→</td><td>track A3 electric window switch connector</td></tr><tr><td>UCH 40-track connector track 4</td><td>————→</td><td>track B1 electric window switch connector</td></tr><tr><td>earth</td><td>————→</td><td>track A2 electric window switch connector</td></tr></table> <p>Repair if necessary.</p>		40 track UCH connector track 3	————→	track A3 electric window switch connector	UCH 40-track connector track 4	————→	track B1 electric window switch connector	earth	————→	track A2 electric window switch connector
40 track UCH connector track 3	————→	track A3 electric window switch connector								
UCH 40-track connector track 4	————→	track B1 electric window switch connector								
earth	————→	track A2 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>
NOTES	There must be no present or stored faults. Switch on the ignition. Put the wiper stalk in the intermittent wipe position. The status must be ACTIVE .
ET035 INACTIVE	Check the F4 (20A) fuses. Replace it if necessary.
	Check the connection and condition of the wiper control connector. Replace it if necessary.
	Check the continuity and insulation of the following connections: <div>UCH P201 40-track connector track 6  wiper stalk track A6 earth  wiper stalk track B5 + after ignition feed  wiper stalk tracks B4 and A7</div> 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

ET036	<u>REAR SCREEN WIPER INTERMITTENT WIPE</u>
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 ACTIVE .
ET036 INACTIVE	Check the F13 fuse (20A) . Replace it if necessary.
	Check the + after ignition feed of stalk tracks A7 and B4 . Repair if necessary.
	Check the continuity and insulation of the following connections: <div>UCH P201 40-track connector track 34  stalk track B2 UCH P201 40-track connector track 16  rear screen wiper motor track 2</div> Repair if necessary.
AFTER REPAIR	Carry out another fault finding check on the system. Deal with any other faults. Clear the stored faults.

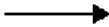
FAULT FINDING - INTERPRETATION OF STATUSES

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

FAULT FINDING - INTERPRETATION OF STATUSES

ET052	<u>WINDSCREEN WIPER HIGH SPEED CONTROL</u>
NOTES	<p>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 ACTIVE.</p>
ET052 INACTIVE	<p>Check the F4 (20A) fuses. Repair if necessary.</p>
	<p>Check the + after ignition feed of stalk tracks A7 and B4. Repair if necessary.</p>
	<p>Check the continuity and insulation of the following connection: UCH P201 40-track connector track 21  stalk track A1 Repair if necessary.</p>
AFTER REPAIR	<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

ET141	<u>REVERSE GEAR ENGAGED</u>
NOTES	<p>There must be no present or stored faults. Switch on the ignition. With reverse gear engaged the status must be ACTIVE.</p>
Manual gearbox	<p>Check the connection and condition of the UCH P201 40-track connector. Replace the connector if necessary.</p>
	<p>Check the continuity and insulation of the following connection: UCH P201 40-track connector track 32  gear lever switch Repair if necessary.</p>
Automatic gearbox	<p>Perform a fault finding procedure on the multiplex network, see section 88 "Multiplex network cabling".</p>
AFTER REPAIR	<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

ET192 ET111	<u>FRONT DOORS</u> <u>REAR DOORS</u>
NOTES	Check that no fault is present. Open the front and rear doors.
Check that for each open door the corresponding status is active and for each closed door the corresponding status is inactive.	
Check the connection of the door harness and the passenger compartment harness and the continuity and insulation between: the lock concerned and the UCH the lock concerned and earth Repair if necessary (see wiring diagram of the vehicle concerned).	
Open the door, disconnect the lock and close the lock. Check the continuity between the earth input track and the UCH track. Pull the handle to open the lock and check that there is no longer continuity between the earth input track and the UCH track. In the event of a fault, replace the lock.	
Check that the lock is fitted into the striker properly.	

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

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

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

ET217	<u>DOORS AND TAILGATE LOCKING INDICATOR LIGHT</u>
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NOTES	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 status is ON; if the status remains OFF, check the insulation, continuity and absence of interference resistance of the following connections:	
UCH P201 40-track connector track 15 fuse box F21 (5A)	<div>————→ track B3 door locking button</div> <div>————→ track B2 door locking button</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

ET231	<u>LOW</u>						
NOTES	<p>Only on high-end UCH. There must be no present or stored faults. The rain and light sensors are not separable. Switch on the ignition. When the light level is low the status must be YES. Switch a light on in front of the light sensor: the status must change to NO.</p>						
<p>Check fuse F3 (15A). 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 the after ignition feed to the rain sensor at track A2. Repair if necessary.</p>							
<p>Check the continuity and insulation of the following connections:</p> <table><tr><td>UCH P201 40-track connector track 13</td><td>—————▶</td><td>rain sensor track B2</td></tr><tr><td>earth</td><td>—————▶</td><td>rain sensor track A3</td></tr></table> <p>Repair if necessary.</p>		UCH P201 40-track connector track 13	—————▶	rain sensor track B2	earth	—————▶	rain sensor track A3
UCH P201 40-track connector track 13	—————▶	rain sensor track B2					
earth	—————▶	rain sensor track A3					

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

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

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

FAULT FINDING CHART 1

Lights

- direction indicators do not operate FAULT FINDING CHART 2
- side lights do not operate FAULT FINDING CHART 3
- dipped headlights do not operate FAULT FINDING CHART 4
- main beam headlights do not operate FAULT FINDING CHART 5
- front fog lights do not operate FAULT FINDING CHART 6
- rear fog lights do not operate FAULT FINDING CHART 7

Wipers, windscreen washers, de-icing

- low speed windscreen wipers do not operate FAULT FINDING CHART 8
- high speed windscreen wipers do not operate FAULT FINDING CHART 9
- rear screen wiper does not operate. FAULT FINDING CHART 10
- rear screen de-icing does not operate FAULT FINDING CHART 11

FAULT FINDING - FAULT FINDING CHART

FAULT FINDING CHART 1	NO COMMUNICATION WITH THE UCH
NOTES	None.
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.	
Ensure the presence of + 12 volts before ignition on track 16 , + 12 volts after ignition on track 1 and an earth on tracks 4 and 5 of the diagnostic socket. Repair if necessary.	
Check the computer connections.	
Connect the bornier and check the insulation, continuity and for the absence of interference resistance of the following connections: <div>UCH P201 40-track connector track 7 —————> fuse box UCH P202 15-track connector track B6 —————> earth UCH P201 40-track connector track 18 —————> track 7 of the diagnostic socket (line K)</div> Repair if necessary.	

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



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

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

FAULT FINDING CHART 3	SIDE LIGHTS DO NOT OPERATE
NOTES	Only consult this customer complaint after a complete check using the diagnostic tool. Check the bulbs. Check the type of UCH installed in the vehicle (relayed or non-relayed lighting).
High-end UCH with relay- controlled lighting	<div>Activate the side lights control and check that status ET020 side lights control is active; if not refer to the section on how to deal with this status.</div> <div>Check fuses F26 (10A) and F27 (10A) for the side lights supply. Replace them, if necessary.</div> <div>Check the continuity of the link: lighting stalk track B1 → track 26 UCH P201 40-track connector Repair if necessary</div> <div>Activate the AC100 side lights relay command. Listen to check that the relay operates correctly.</div>
YES	<div>Check the continuity of the following connections: side lights running lights relay track A5 → fuse box F26 and F27 fuse box F26 and F27 → side lights harness See wiring diagram for the vehicle concerned. Repair if necessary.</div>
NO	<div>Check the continuity of the following connection: UCH P201 40-track connector track 1 → track A2 running lights side lights relay Repair if necessary.</div> <div>Check that the relay is functioning correctly.</div>
AFTER REPAIR	Check the operation of the system.

FAULT FINDING - FAULT FINDING CHART

<div>FAULT FINDING CHART 3 CONTINUED</div>	
<div>NOTES</div>	<div>Only consult this customer complaint after a complete check using the diagnostic tool. Check the bulbs.</div>
<div>Basic UCH with non-relayed controlled lighting</div>	<div>Check fuses F26 (10A) and F27 (10A) for the side lights supply. Replace them, if necessary.</div> <div>Check the continuity connections between: <div>lighting stalk track B1  fuse box F26 and F27 fuse box F26 and F27  side lights harness</div><div>See wiring diagram for the vehicle concerned. Repair if necessary.</div></div>
<div>AFTER REPAIR</div>	<div>Check the operation of the system.</div>

FAULT FINDING - FAULT FINDING CHART

FAULT FINDING CHART 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 status ET023 dipped headlights control is active; if not refer to the section on how to deal with this status.
	Check fuses F9 (10A) and F10 (10A) for the dipped headlights supply. Replace them, if necessary.
	Check the continuity of the link: <div>lighting stalk track B4 —————→ track 2 UCH P201 40-track connector</div> Repair if necessary.
	Activate the AC098 dipped headlights relay command. Listen to check that the relay operates correctly.
YES	Check the continuity of the following connections: <div>dipped headlights relay track A5 —————→ fuse box F9 and F10 fuse box F9 and F10 —————→ dipped headlights harness</div> See wiring diagram for the vehicle concerned.
NO	Check the continuity of the following connection: <div>UCH P201 40-track connector track 11 —————→ track A2 dipped headlight running lights relay</div> Repair if necessary. Check that the relay is functioning correctly.
AFTER REPAIR	Check the operation of the system.



FAULT FINDING - FAULT FINDING CHART

<div>FAULT FINDING CHART 4 CONTINUED</div>	
<div>NOTES</div>	<div>Only consult this customer complaint after a complete check using the diagnostic tool. Check the bulbs.</div>
<div>Basic UCH with non- relayed controlled lighting</div>	<div><div><div>Check the dipped headlights supply fuses F9 (10A) and F10 (10A). Replace them, if necessary.</div><div>Check the continuity connections between:<div><div>lighting stalk track B4<div>→</div><div>fuse box F9 and F10</div></div><div>fuse box F9 and F10<div>→</div><div>side lights harness</div></div></div><div>See wiring diagram for the vehicle concerned. Repair if necessary.</div></div></div></div>
<div>AFTER REPAIR</div>	<div>Check the operation of the system.</div>

FAULT FINDING - FAULT FINDING CHART

FAULT FINDING CHART 5	MAIN 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	<p>Activate the main beam headlights control and check that status ET024 main beam headlights control is active; if not refer to the section on how to deal with this status.</p> <p>Check fuses F11 (10A) and F12 (10A) for the main beam headlights supply. Replace them, if necessary.</p> <p>Check the continuity of the link: lighting stalk track B7 —————→ track 12 UCH P201 40-track connector</p> <p>Repair if necessary.</p> <p>Activate the AC099 main beam headlight relay command. Listen to check that the relay operates correctly.</p>
YES	<p>Check the continuity of the following connections:</p> <p>running lights main relay track B5 —————→ fuse box F11 and F10 fuse box F11 and F12 —————→ dipped headlights harness</p> <p>See wiring diagram for the vehicle concerned.</p>
NO	<p>Check the continuity of the following connection: UCH P203 15-track connector track A5 —————→ track B2 main running lights</p> <p>Repair if necessary.</p> <p>Check that the relay is functioning correctly.</p>
AFTER REPAIR	Check the operation of the system.



FAULT FINDING - FAULT FINDING CHART

FAULT FINDING CHART 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 fuses F11 (10A) and F12 (10A) for the main beam headlights supply. Replace it if necessary.
	Check the continuity connections between: <div>lighting stalk track B7  fuse box F11 and F12 fuse box F11 and F12  main beam headlight harness</div> See wiring diagram for the vehicle concerned. Repair if necessary.
AFTER REPAIR	Check the operation of the system.

FAULT FINDING - FAULT FINDING CHART

FAULT FINDING CHART 6	FRONT FOG LIGHTS DO NOT OPERATE
NOTES	Only consult this customer complaint after a complete check using the diagnostic tool. Check the bulbs.
Check fuse F18 (20A) and repair if necessary.	
Front fog lights activated. Check the + after ignition feed of the front fog light relay on track A1 . Repair if necessary.	
<div>Check the continuity and insulation of the following connections:</div> <div><div><div>earth</div><div>fuse supply (F18)</div><div>front fog lights</div></div><div><div>→</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></div> <div>Replace the relay if necessary.</div>	
AFTER REPAIR	Check the operation of the system.

FAULT FINDING - FAULT FINDING CHART

FAULT FINDING CHART 7	REAR FOG LIGHTS DO NOT OPERATE
NOTES	Only consult this customer complaint after a complete check using the diagnostic tool. Check the bulbs.
Check fuse F23 (15A) and repair if necessary.	
Check the continuity and insulation of the following connections: <div>lighting stalk track A3  fuse box F23 fuse box F23  rear fog lights</div> Repair if necessary.	
AFTER REPAIR	Check the operation of the system.

FAULT FINDING - FAULT FINDING CHART

FAULT FINDING CHART 8	LOW SPEED FRONT WINDSCREEN WIPERS DO NOT OPERATE
NOTES	Check the fault. Only consult this customer complaint after a complete check using the diagnostic tool.
Switch on the ignition. Activate the AC064 low speed windscreen wipers command and check operation of the windscreen wipers. Does the windscreen wiper operate?	
YES	Check the + after ignition feed to the stalk on track A7 . Repair if necessary.
	Check the continuity and insulation of the following connection: lighting stalk track A2 —————→ track 22 UCH P201 40-track connector Repair if necessary.
NO	Check fuse F4 (20A) . Repair if necessary.
	Check the + after ignition feed of stalk tracks A7 and B4 . Repair if necessary.
	Check the + after ignition feed on track A4 UCH P202 15-track connector. Repair if necessary.
	Check the continuity and insulation of the following connection: lighting stalk track A2 —————→ track 22 UCH P201 40-track connector Repair if necessary.
	Check the continuity and insulation of the following connections: UCH P203 15-track connector track A9 —————→ track 3 windscreen wiper motor earth —————→ track 5 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 operation of the system.

FAULT FINDING - FAULT FINDING CHART

FAULT FINDING CHART 9	HIGH SPEED FRONT WINDSCREEN WIPERS DO NOT OPERATE
NOTES	Check the fault. Only consult this customer complaint after a complete check using the diagnostic tool.
Activate the AC065 high speed windscreen wipers command and check operation of the windscreen wipers. Does the windscreen wiper operate?	
YES	Check the + after ignition feed to the stalk on track A7 . Repair if necessary.
	Check the continuity and insulation of the following connection: lighting stalk track A1 —————→ track 21 UCH P201 40-track connector Repair if necessary.
NO	Check fuse F4 (20A) . Repair if necessary.
	Check the + after ignition feed on stalk tracks A7 and B4 . Repair if necessary.
	Check the + after ignition feed on track A4 UCH P202 15-track connector. Repair if necessary.
	Check the continuity and insulation of the following connection: lighting stalk track A1 —————→ track 21 UCH P201 40-track connector Repair if necessary.
	Check the continuity and insulation of the following connections: UCH P202 15-track connector track A1 —————→ track 4 windscreen wiper motor earth —————→ track 5 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 operation of the system.

FAULT FINDING - FAULT FINDING CHART

FAULT FINDING CHART 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 the AC029 rear screen wiper command and check operation of the rear windscreen wiper. Does the windscreen wiper operate?	
YES	Check the + after ignition feed to the stalk on track B4 . Repair if necessary.
	Check the continuity and insulation of the following connection: lighting stalk track B2 —————→ track 34 UCH P201 40-track connector Repair if necessary.
NO	Check the F3 (15A) fuse. Repair if necessary.
	Check the + after ignition feed on stalk tracks A7 and B4 . Repair if necessary.
	Check the + after ignition feed on track A2 UCH P202 15-track connector. Repair if necessary.
	Check the continuity and insulation of the following connection: lighting stalk track B2 —————→ track 34 UCH P201 40-track connector Repair if necessary.
	Check the continuity and insulation of the following connections: UCH P203 15-track connector track A8 —————→ track 1 rear wiper motor earth —————→ track 3 rear 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 operation of the system.

FAULT FINDING - FAULT FINDING CHART

FAULT FINDING CHART 11	REAR SCREEN DE-ICING DOES NOT OPERATE
NOTES	Only consult this customer complaint after a complete check using the diagnostic tool.
Activate the heated rear screen control. And check that status ET008 heated rear screen button is activated . If not, refer to the section dealing with this status.	
Check fuse F30 (30A) . Repair if necessary.	
Activate the AC043 rear screen heating command. Can you hear the relay operate correctly?	
YES	<div>Check the continuity and insulation of the following connections:</div> <div>UCH P203 15-track connector track B2 → heated rear screen</div> <div>earth → heated rear screen</div> <div>Repair if necessary.</div>
NO	Replace the UCH.
AFTER REPAIR	Check the operation of the system.

DESCRIPTION OF THE FAULT FINDING STAGES

DESCRIPTION OF THE MULTIPLEX NETWORK

The multiplex network consists of a pair of twisted wires connected to several vehicle computers. The two wires are known as 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 running the test.
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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.

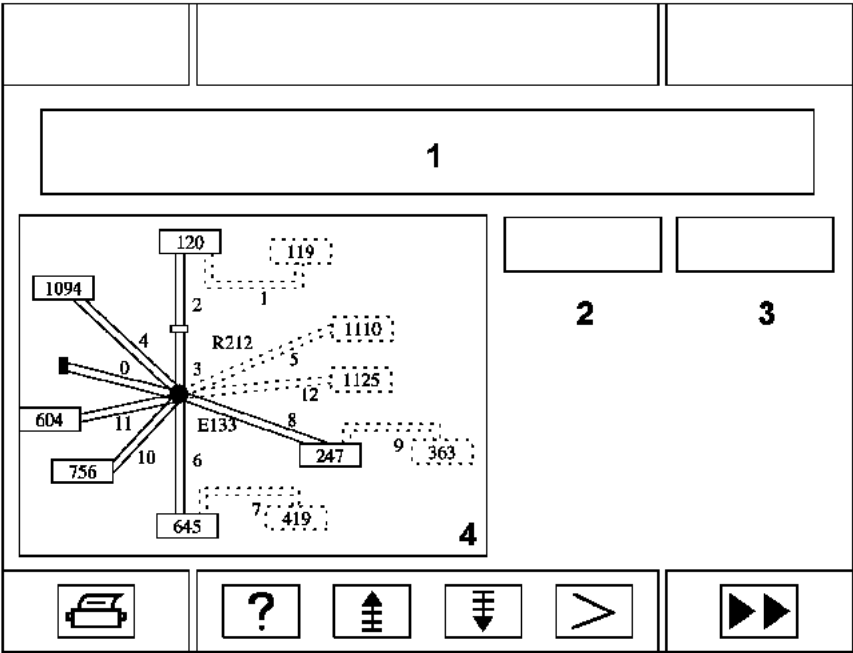
If no configuration is detected, check the supply lines to the computers (in particular the airbag and UCH), and, after checking and repairing the supply lines if necessary, refer to the "Multiplex network out of order" fault finding procedure.

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 wire, or connector).



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- 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
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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 DIAGNOSED** section to make sure that these segments are functioning correctly.

FAULT FINDING - 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.
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Finding the fault type	NOTES	Use the diagram of the multiplex network of the vehicle (diagram of the diagnostic socket).
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Measure the resistance between tracks 6 and 14 of the diagnostic socket. What is the resistance?

0 ohm	The two lines are short-circuited. Refer to the section "Help with finding network short circuits".
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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 "Help with finding network short circuits".
-------------------------	---

Open circuit	Disconnect the injection computer and check that both tracks of the multiplex network are continuous with the diagnostic socket:
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YES	Check the resistance between the 2 network tracks at the injection computer. If the resistance is not about 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.
----	---

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.
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FAULT FINDING - MULTIPLEX SEGMENT FAULT

NOTES	<p>First check that the computer at the end of the segment has a correct <u>power supply</u> (earth, battery +, + accessories or + after ignition feed). <u>Always check the computer specification</u> . Care: the tool may not be able to precisely identify the faulty segment. It will suggest several in order of failure probability. Start by handling the first segment.</p>
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<p>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 resolved?</p>
--

NO	Are there other faulty segments?
YES	Deal with the other faulty segments using the same procedure.
NO	<p>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).</p>

AFTER REPAIR	<p>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.</p>
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FAULT FINDING - SEGMENT NOT DIAGNOSED

NOTES	<p>On this vehicle, the only segments which cannot be diagnosed are:</p> <ul style="list-style-type: none">– diagnostic socket segment– the steering wheel angle sensor segment– the Central Communication Unit (data communication/multimedia option) <p>If there are others, check that all the computers have been correctly identified. <u>Reminder: the instrument panel is not diagnosable and does not have a K line but is nevertheless present on the multiplex network.</u></p>
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<p>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.</p>
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AFTER REPAIR	<p>Clear the fault memory. Follow the instructions to confirm repair. Deal with any other faults.</p>
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FAULT FINDING - HELP WITH FINDING NETWORK SHORT CIRCUITS

NOTES	<p>Use the vehicle multiplex network diagram (diagram on diagnostic socket).</p> <p>Switch off the ignition and remove the ignition key.</p> <p>Check that the side lights are off.</p> <p>Wait 1 minute.</p> <p>In the event of a short-circuit to + battery, leave the battery connected.</p>
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<p>The procedure consists of gradually disconnecting the network components and isolating the faulty section.</p> <p>Disconnect the grey passenger compartment/engine connection (R67)</p> <ul style="list-style-type: none">– 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 passenger compartment/engine/ABS connector (R107). <p>Which is the faulty section?</p> <p>After each disconnection:</p> <ul style="list-style-type: none">– Check whether the fault has disappeared (in which case, replace the computer),– Check the condition of the connectors and clips and their insulation.– Reconnect.
--

engine	<p>The recommended order of disconnecting the engine computers is as follows:</p> <ul style="list-style-type: none">– First disconnect the automatic gearbox or LPG computer.– Disconnect the injection computer and identify the faulty section:<ul style="list-style-type: none">injection - automatic gearbox or LPGinjection - passenger compartment connection
passenger compartment	<p>The recommended order of disconnecting passenger compartment computers is as follows:</p> <p>Disconnect:</p> <ul style="list-style-type: none">The instrument panel.The Central Communication Unit (if the option is fitted).The steering wheel angle sensor.The airbag.The UCH.

FAULT FINDING - HELP WITH FINDING NETWORK SHORT CIRCUITS

If the fault has not disappeared, check the condition of the harness.
If the fault is not visible, replace the harness.

		Input			Output		
		Connector	Can H	Can L	Connector	Can H	Can L
D7F, F4P, F4R injection	S2000	Black	A4	A3			
K4M, K4J injection	Sirius 34	Black	A27	A57	Black	A26	A25
D4F injection	5NR	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	Sequential gearbox	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 lit. 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 entered 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 each time there is a change to the multiplex network wiring for this vehicle.

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

- Choice of the vehicle's computers present on the network

There are as standard:

- the airbag,
- the injection computer,
- the 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).

Restart the multiplex network test.

19585

In column (4), the desired configuration for the computer selected.

88-10

FAULT FINDING - INTRODUCTION

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

In order to implement fault finding on this system, it is essential to have the following items available:

- 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 (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, stored fault, 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 met, use the fault finding procedure to check the circuit of the faulty component, since the fault is no longer present on the vehicle. Perform the same procedure 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 fault finding procedure) and implement the relevant fault finding strategies according to the results.
- Confirm the repair (disappearance of the fault reported by the customer).
- Use the fault finding strategy for each Customer complaint if the fault is still present.

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

- Diagnostic tools (except XR25).
- Adapters and borniers kit for use with the Checking airbags and pretensioners wiring harnesses function of CLIP and NXR tools or the latest update of XRBAG containing the new **B54 50-track** adapter, the **Elé. 1617 8-track** adapter, and the **10-track** rotary switch adapter.
- 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.

FAULT FINDING - INTRODUCTION

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.

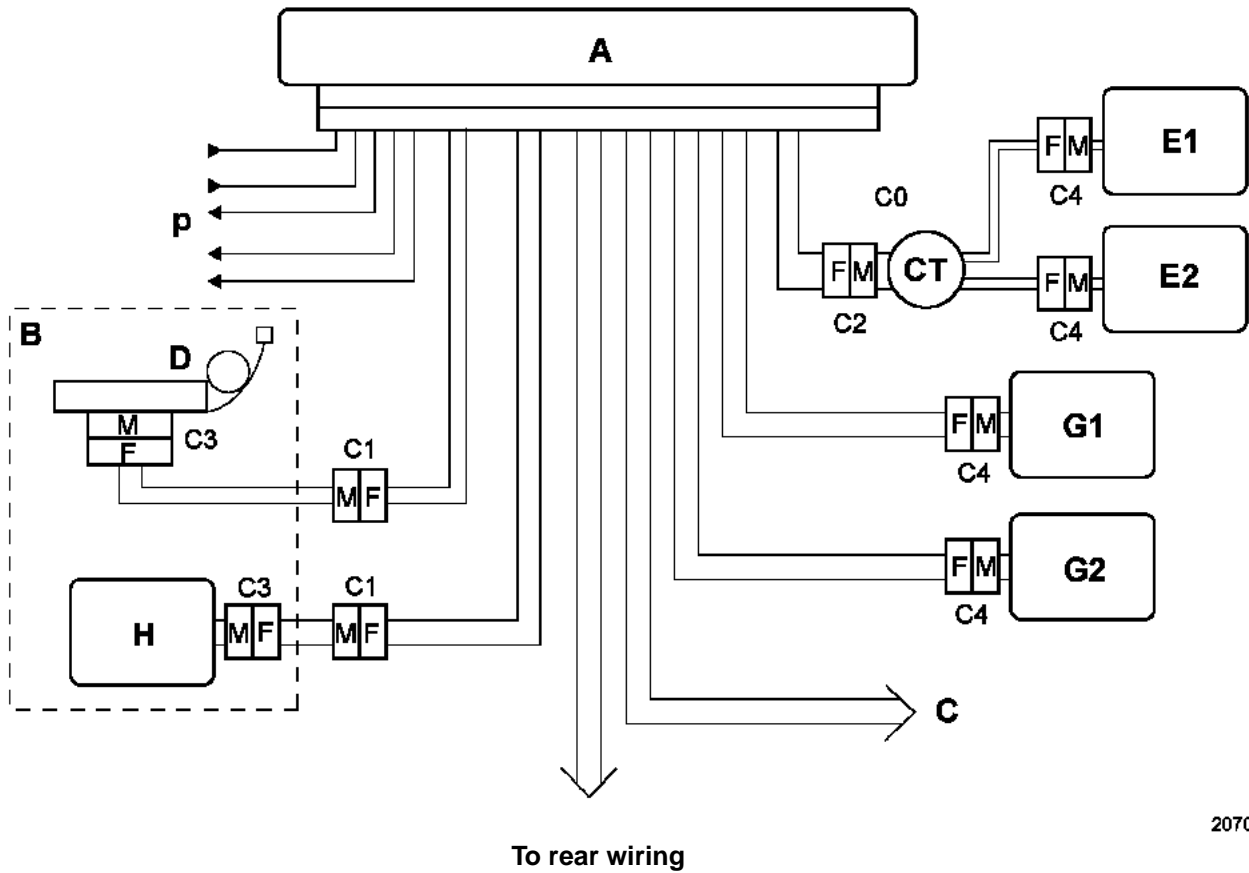
Before using a dummy ignition module, ensure that its resistance is between 1.8 and 2.5 ohms.

Ensure during the operation that the voltage supply to the computer does not drop below 10 volts.

FAULT FINDING - INTRODUCTION

FAULT FINDING - SYSTEM CONFIGURATION DIAGRAM (FRONT part)

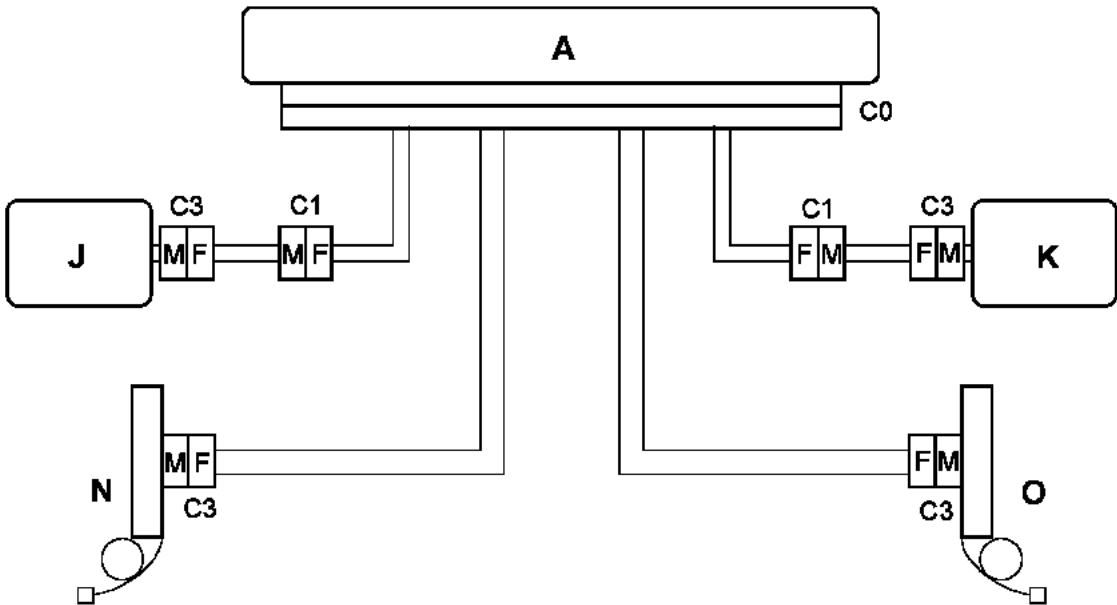
Front and chest airbags + front pretensioners.



FAULT FINDING - INTRODUCTION

FAULT FINDING - SYSTEM CONFIGURATION DIAGRAM (REAR part)

Side (curtain) airbags + rear seat belt retractors in central unit.



20706

- A

Central unit
- B

Driver's seat
- C

Front passenger seat
- D

Buckle pretensioner
- E

Driver's front airbag ignition module
- G

Passenger's front airbag ignition module
- H

Front side airbag ignition module
- J/K

Curtain airbag ignition modules
- N/O

Rear pyrotechnic inertia reels
- CT

Rotary switch
- +12 volts / Earth
- P

Warning light/Diagnostic lines
- Impact sensors/Impact signal

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

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

AFTER REPAIR	None.
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FAULT FINDING - INTERPRETATION OF FAULTS

DF002 PRESENT	<u>Computer supply voltage</u> 1.DEF : Voltage too low 2.DEF : Voltage too high 3.DEF : Excessive micro-break
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NOTES	Special notes: Use adapter B54 for working on the computer connector (wire 1).
-------	--

1.DEF - 2.DEF - 3.DEF	NOTES	None.
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<p>Carry out the operations necessary to obtain the correct computer supply voltage: 10.5 volts ± 0.1 <correct voltage < 16 volts ± 0.1.</p> <ul style="list-style-type: none">– Battery charge check.– Charging circuit check.– Check on tightness and condition of the battery terminals.– Check the computer earth.– Check the condition of the computer and that it is locked.

AFTER REPAIR	Deal with any faults detected by the diagnostic tool. Clear the computer memory, then switch the ignition off and re-test with the diagnostic tool.
--------------	--

FAULT FINDING - INTERPRETATION OF FAULTS

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

AFTER REPAIR	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.
--------------	--

FAULT FINDING - INTERPRETATION OF FAULTS

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

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

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

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

DF062 PRESENT	<u>Configuration of side sensors.</u>
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NOTES	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 a component 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.

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

DF065 PRESENT	<u>Driver's seat position sensor circuit.</u> CO.1 : Open circuit of short circuit to 12 volts CC.0 : Short circuit to earth 1.DEF : Signal detection off limits, above or below
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NOTES	Special notes: Use 50-track adapter B54 for working on the computer connector.
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CO.1 - CC.0 - 3.DEF	NOTES	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 fully forward and reclined positions.

In the fully forward position, the resistance is approximately: **400 ohms**
In the fully reclined position, the resistance is approximately: **100 ohms**

Are the values correct?

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

FAULT FINDING - INTERPRETATION OF FAULTS

DF068 PRESENT	<u>Passenger's front side airbag circuit</u> CC : Short circuit OC : 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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NOTES	<p>Priorities when dealing with a number of faults: In the case of a 1.DEF short-circuit between 2 ignition lines, use the following procedure in combination with that for the second fault to locate the short-circuit.</p> <p>Special notes: 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 (Cable F).</p>
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OC - CC	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 resistance at **point C1**.
Is the value obtained correct?

NO	<p>Check the seat connector connections. Remove the trim from the front 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 point C1. – If the value obtained is correct, replace the passenger chest front side airbag module. – If the value obtained is still incorrect, replace the wiring between points C1/C3 (seat wiring).</p>
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YES	<p>Check the wiring again on the seat connector as well as on the 50-track connector (tracks 9 and 34).</p> <p>Reconnect the under-seat connector. Disconnect the computer connector and fit the 50-track adapter B54. The Clip, NXR or XRBAG tool must be used for checking resistance on the wire marked F on the adapter. – If the fault is still present, the wiring is faulty between the computer and the passenger seat (C0/C1). Replace the wiring harness if necessary.</p>
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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. Carry out the check again using the diagnostic tool and, if there are no faults, unlock the computer. Destroy the chest side airbag module if it has been replaced (tool Elé. 1287).</p>
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FAULT FINDING - INTERPRETATION OF FAULTS

DF068 CONTINUED	
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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.
The CLIP, NXR or XRBAG tool must be used for measuring the insulation appropriate to the type of fault at point **C1**.
Is the value obtained correct?

NO

Check the seat connector connections.
Remove the trim from the front passenger seat and check that the side airbag ignition module is connected correctly.

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 **C1**.

- If the value obtained is correct, replace the passenger chest front side airbag module.
- If the value obtained is still incorrect, replace the wiring between points **C1/C3** (seat wiring).

YES

Check the wiring again on the seat connector as well as on the 50-track connector (**tracks 9 and 34**).

Reconnect the under-seat connector.
Disconnect the computer connector and fit the **50-track adapter B54**. The Clip, NXR or XRBAG tool must be used for measuring the insulation appropriate to the type of fault on the **wire marked F** on the adapter.

- If the fault is still present, the wiring is faulty between the computer and the passenger seat (**C0/C1**).

Replace the wiring harness if necessary.

AFTER REPAIR	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 chest side airbag module if it has been replaced (tool EIé. 1287).
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FAULT FINDING - INTERPRETATION OF FAULTS

DF071 PRESENT	<u>Driver's front airbag circuit 2</u> CC : Short circuit OC : 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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NOTES	Priorities when dealing with a number of faults: In the case of a 1.DEF Short-circuit between 2 ignition lines, use the following procedure in combination with that for the second fault to locate the short-circuit.
	Special notes: 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 (Cable D).

OC - CC	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 that it is correctly connected.
Disconnect the green 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).
With the ignition switched off, disconnect and reconnect the connector of the rotary contact beneath the steering wheel. Check the connections if the fault has become stored (fault no longer declared present).
Fit the 10-track control adapter to the rotary switch (point C2 tracks 9 and 10). The CLIP, NXR or XRBAG tool must be used for measuring the resistance on wire A . If the value obtained is incorrect, replace the rotary contact beneath the steering wheel.
Reconnect the rotary switch under the steering wheel, disconnect the computer and check the connector's connections (tracks 5 and 30). Fit the B54 50-track adapter. The CLIP, NXR or XRBAG tool MUST be used for measuring the resistance on adapter 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 harness 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 airbag module if it has been replaced (tool Elé. 1287).
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FAULT FINDING - INTERPRETATION OF FAULTS

DF071 PRESENT CONTINUED	
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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 control adapter 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 cable A . If the value obtained is incorrect, replace the rotary contact beneath the steering wheel.
Reconnect the rotary switch under the steering wheel, disconnect the computer and check the connector's connections (tracks 5 and 30). Fit the B54 50-track adapter. The CLIP, NXR or XRBAG tool MUST be used to carry out the correct insulation measurement for the type of fault on adapter 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 harness 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 airbag module if it has been replaced (tool Elé. 1287).
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FAULT FINDING - INTERPRETATION OF FAULTS

DF072 PRESENT	<u>Driver's front airbag circuit 1</u> CC : Short circuit OC : 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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NOTES	Priorities when dealing with a number of faults: 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.
	Special notes: 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 (Cable C).

OC - CC	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 that it is correctly connected.
Disconnect the orange 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).
With the ignition switched off, disconnect and reconnect the connector of the rotary contact beneath the steering wheel. Check the connections if the fault has become stored (fault no longer declared present).
Fit the 10-track checking adapter to the rotary switch (point C2 tracks 6 and 7). The CLIP, NXR or XRBAG tool MUST be used for measuring the resistance on wire B . If the value obtained is incorrect, replace the rotary contact beneath the steering wheel.
Reconnect the rotary switch under the steering wheel, disconnect the computer and check the connector's connections (tracks 4 and 29). Fit the B54 50-track adapter. CLIP, NXR or XRBAG must be used for checking the resistance on wire C of the adapter. If the value obtained is incorrect, the wiring is faulty between the computer and the rotary switch connector (C0/C2). Replace the wiring harness 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 airbag module if it has been replaced (tool Elé. 1287).
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FAULT FINDING - INTERPRETATION OF FAULTS

DF072 PRESENT CONTINUED	
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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 checking adapter to the rotary switch (point C2 tracks 6 and 7). The CLIP, NXR or XRBAG tool must be used for measuring the insulation for the type of fault on wire B . If the value obtained is incorrect, replace the rotary contact beneath the steering wheel.
Reconnect the rotary switch under the steering wheel, disconnect the computer and check the connector's connections (tracks 4 and 29). Fit the B54 50-track adapter. CLIP, NXR or XRBAG must be used for the insulation measurement appropriate to the type of fault, on wire C of the adapter. If the value obtained is incorrect, the wiring is faulty between the computer and the rotary switch connector (C0/C2). Replace the wiring harness 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 airbag module if it has been replaced (tool Elé. 1287).
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FAULT FINDING - INTERPRETATION OF FAULTS

DF074 PRESENT	<u>Passenger front airbag circuit 2</u> CC : Short circuit OC : Open circuit CC.1 : Short circuit to 12 volts CC.0 : Short circuit to earth 1.DEF : Short circuit between ignition lines
--------------------------	---

NOTES	Priorities when dealing with a number of faults: 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.
	Special notes: 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 (Cable B).

OC - CC	NOTES	None.
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Lock the computer using the command on the diagnostic tool. Switch off the ignition and remove the passenger's airbag. Check that it is correctly connected.
Disconnect the green 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).
If the value is incorrect: Disconnect the computer and check the connector connections (tracks 3 and 28). Fit the B54 50-track adapter. The CLIP, NXR or XRBAG tool must be used for measuring the resistance on wire B of the adapter. If the value obtained is incorrect, the wiring is faulty between the computer and the passenger airbag connectors (C0/C4). Replace the wiring harness if necessary. If the value obtained is correct, check the computer connections again.

AFTER REPAIR	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's front airbag module if it has been replaced (tool Elé. 1287).
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FAULT FINDING - INTERPRETATION OF FAULTS

DF074 PRESENT CONTINUED	
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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 passenger's airbag. Check that it is correctly connected.
Disconnect the green 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).
If the value is incorrect: Disconnect the computer and check the connector connections (tracks 3 and 28). Fit the B54 50-track adapter. CLIP, NXR or XRBAG must be used for the insulation measurement appropriate to the type of fault, on wire B of the adapter. If the value obtained is incorrect, the wiring is faulty between the computer and the passenger airbag connectors (C0/C4). Replace the wiring harness if necessary. If the value obtained is correct, check the computer connections again.

AFTER REPAIR	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's front airbag module if it has been replaced (tool Elé. 1287).
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FAULT FINDING - INTERPRETATION OF FAULTS

DF075 PRESENT	<u>Passenger front airbag circuit 1</u> CC : Short circuit OC : Open circuit CC.1 : Short circuit to 12 volts CC.0 : Short circuit to earth 1.DEF : Short circuit between ignition lines
--------------------------	---

NOTES	Priorities when dealing with a number of faults: 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.
	Special notes: 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 (Cable A).

OC - CC	NOTES	None.
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Lock the computer using the command on the diagnostic tool. Switch off the ignition and remove the passenger's airbag. Check that it is correctly connected.
Disconnect the orange 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).
If the value is incorrect: Disconnect the computer and check the connector connections (tracks 2 and 27). Fit the B54 50-track adapter. The Clip, NXR or XRBAG tool MUST be used for measuring the resistance on adapter wire A . If the value obtained is incorrect, the wiring is faulty between the computer and the passenger airbag connectors (C0/C4). Replace the wiring harness if necessary. If the value obtained is correct, check the computer connections again.

AFTER REPAIR	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's front airbag module if it has been replaced (tool Elé. 1287).
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FAULT FINDING - INTERPRETATION OF FAULTS

DF075 PRESENT CONTINUED	
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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 passenger's airbag. Check that it is correctly connected.
Disconnect the orange 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).
If the value is incorrect: Disconnect the computer and check the connector connections (tracks 2 and 27). Fit the B54 50-track adapter. The CLIP, NXR or XRBAG tool MUST be used to carry out the correct insulation measurement for the type of fault on adapter wire A . If the value obtained is incorrect, the wiring is faulty between the computer and the passenger airbag connectors (C0/C4). Replace the wiring harness if necessary. If the value obtained is correct, check the computer connections again.

AFTER REPAIR	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's front airbag module if it has been replaced (tool Elé. 1287).
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FAULT FINDING - INTERPRETATION OF FAULTS

DF077 PRESENT	<u>Driver's side airbag circuit</u> CC : Short circuit OC : Open circuit CC.1 : Short circuit to 12 volts CC.0 : Short circuit to earth 1.DEF : Short circuit between ignition lines
--------------------------	---

NOTES	<p>Priorities when dealing with a number of faults: In the case of a 1.DEF short-circuit between 2 ignition lines, use the following procedure in combination with that for the second fault to locate the short-circuit.</p> <p>Special notes: 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 (Cable E).</p>
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OC - CC	NOTES	None.
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Lock the computer.
Disconnect the brown **2-track** connector under the driver's seat and check the connector wiring.
CLIP, NXR or XRBAG must be used for measuring the resistance 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 airbag ignition module for the side airbag module, connect a dummy ignition module to the ignition module connector then re-measure the resistance at point C1. – If the value obtained is correct, replace the driver's chest front side airbag module. – If the value obtained is still incorrect, replace the wiring between points C1/C3 (seat wiring).</p>
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YES	<p>Repeat the check of the seat connector wiring and the 50-track connector wiring (tracks 8 and 33).</p> <p>Reconnect the under-seat connector. Disconnect the computer connector and fit the 50-track adapter B54. The CLIP, NXR or XRBAG tool MUST be used for measuring the resistance on the wire marked E on the adapter. – If the fault is still present, the wiring is faulty between the computer and the driver's seat (C0/C1). Replace the wiring harness if necessary.</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 chest side airbag module if it has been replaced (tool Elé. 1287).</p>
---------------------	---

FAULT FINDING - INTERPRETATION OF FAULTS

DF077 PRESENT CONTINUED	
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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 connector wiring.
The CLIP, NXR or XRBAG tool 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 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 C1.</p> <ul style="list-style-type: none">– If the value obtained is correct, replace the driver's chest front side airbag module.– If the value obtained is still incorrect, replace the wiring between points C1/C3 (seat wiring).
YES	<p>Repeat the check of the seat connector wiring and the 50-track connector wiring (tracks 8 and 33).</p> <p>Reconnect the under-seat connector. Disconnect the computer connector and fit the B54 50-track adapter. The Clip, NXR or XRBAG tool must be used for measuring the insulation appropriate to the type of fault on the wire marked E on the adapter.</p> <ul style="list-style-type: none">– If the fault is still present, the wiring is faulty between the computer and the driver's seat (C0/C1). <p>Replace the wiring harness if necessary.</p>

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.</p> <p>Carry out the check again using the diagnostic tool and, if there are no faults, unlock the computer.</p> <p>Destroy the chest side airbag module if it has been replaced (tool EIé. 1287).</p>
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FAULT FINDING - INTERPRETATION OF FAULTS

DF091 PRESENT	<u>Airbag locking switch circuit</u> CO.1 : Open circuit or short circuit to 12 volts CC.0 : Short circuit to earth 1.DEF : Signal detection off limits, above or below
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NOTES	Special notes: Use 50-track adapter B54 for working on the computer connector. Lock the computer using the command on the diagnostic tool.
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CO.1 - CC.0 - 1.DEF	NOTES	None.
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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 connections. Ensure continuity and insulation of the connections between:</p> <p>Bornier B54 terminal 21 —————> track 6 locking switch connector Bornier B54 terminal 22 —————> track 3 locking switch connector</p>
<p>Replace the locking switch if the fault is still present.</p>

AFTER REPAIR	<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

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

AFTER REPAIR	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

DF177 PRESENT	<u>Driver side rear inertia reel circuit.</u> CC : Short circuit OC : 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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NOTES	Priorities when dealing with a number of faults: In the case of a 1.DEF short-circuit between 2 ignition lines, use the following procedure in combination with that for the second fault to locate the short-circuit.
	Special notes: 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 (Cable K).

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

AFTER REPAIR	<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 seat belt inertia reel has been replaced, destroy the old one (Elé. 1287 tool).</p>
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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 white 2-track connector of the driver side rear pyrotechnic inertia reel is correctly connected (situated below the rear parcel shelf attachments, behind the rear wing soundproofing). Disconnect the white 2-track connector and check its connections with the connector. The CLIP, NXR or XRBAG tool must be used for correctly measuring the insulation for the type of fault at point C1 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 its wiring (tracks 16 and 41). Fit the B54 50-track adapter. The CLIP, NXR or XRBAG tool must be used for correctly the insulation for the type of fault on wire K of the adapter. If the value obtained is incorrect, the wiring is faulty between the computer and the white 2-track intermediate union (C0/C1). 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 seat belt inertia reel has been replaced, destroy the old one (Elé. 1287 tool).</p>
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FAULT FINDING - INTERPRETATION OF FAULTS

DF178 PRESENT	<u>Rear passenger side seat belt retractor circuit</u> CC : Short circuit OC : 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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NOTES	Priorities when dealing with a number of faults: In the case of a 1.DEF short-circuit between 2 ignition lines, use the following procedure in combination with that for the second fault to locate the short-circuit.
	Special notes: 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 (Cable L).

OC - CC	NOTES	None.
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<p>Lock the computer. Switch off the ignition and check that the white 2-track connector of the rear passenger side seat belt inertia reel is correctly connected (located below the rear parcel shelf fixings, behind the rear wing soundproofing). Disconnect the white 2-track connector and check its connections with the connector. The CLIP, NXR or XRBAG tool must be used for checking resistance at point C1 of the rear passenger side seat belt 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 wiring on the connector (tracks 42 and 17). Fit the B54 50-track adapter. CLIP, NXR or XRBAG must be used for checking the resistance on wire L of the adapter. If the value obtained is incorrect, the wiring is faulty between the computer and the white 2-track intermediate union (C0/C1). 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 seat belt inertia reel has been replaced, destroy the old one (Elé. 1287 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 white 2-track connector of the rear passenger side seat belt inertia reel is correctly connected (located below the rear parcel shelf fixings, behind the rear wing soundproofing). Disconnect the white 2-track connector and check its connections with the connector. The CLIP, NXR or XRBAG tool MUST be used for measuring the insulation appropriate to the type of fault at point C1 of the rear passenger side seat belt 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 wiring on the connector (tracks 42 and 17). Fit the B54 50-track adapter. The CLIP, NXR or XRBAG tool MUST be used to carry out the correct insulation measurement for the type of fault on adapter wire L. If the value obtained is incorrect, the wiring is faulty between the computer and the white 2-track intermediate union (C0/C1). 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 seat belt inertia reel has been replaced, destroy the old one (Elé. 1287 tool).</p>
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FAULT FINDING - INTERPRETATION OF FAULTS

DF179 PRESENT	<u>Driver's side front side sensor circuit.</u> CC : Short circuit 1.DEF : No signal
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NOTES	Special notes: Use 50-track adapter B54 for working on the computer connector.
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CC	NOTES	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 connections.
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.

1.DEF	NOTES	None.
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Replace the driver's side sensor.

AFTER REPAIR	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

DF180 PRESENT	<u>Passenger side front side sensor circuit.</u> CC : Short circuit 1.DEF : No signal
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NOTES	Special notes: Use 50-track adapter B54 for working on the computer connector.
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CC	NOTES	None.
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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 wiring on the computer (**tracks 37 and 38**).
Check the condition of the 50-track connector (locking system, wiring, etc.).
Ensure continuity and insulation of the connections between:

Bornier B54 terminal 37

—————>

track 2 sensor connector

Bornier B54 terminal 38

—————>

track 1 sensor connector

Also check the insulation between these connections.

1.DEF	NOTES	None.
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Replace the passenger side sensor.

AFTER REPAIR	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

DF183 PRESENT	<u>Driver's side front buckle pretensioner circuit.</u> CC : Short circuit OC : 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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NOTES	Priorities when dealing with a number of faults: In the case of a 1.DEF short-circuit between 2 ignition lines, use the following procedure in combination with that for the second fault to locate the short-circuit.
	Special notes: 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 (Cable G).

OC - CC	NOTES	None.
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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).
Reconnect the pretensioner. Disconnect the grey 16-track connector beneath the driver's seat and check the connections of the connector (tracks A7 and A8). Fit the 8-track adapter to the wiring harness at point C1 . The CLIP, NXR or XRBAG tool MUST be used for measuring the resistance on adapter wire D . If the value obtained is incorrect, the wiring is faulty between the grey 16-track union and the driver's seat buckle pretensioner (C1/C3). Replace the wiring harness if necessary.
Reconnect the 16-track connector. Disconnect the computer and check the wiring on the connector (tracks 10 and 35). Fit the B54 50-track adapter. The CLIP, NXR or XRBAG tool must be used for measuring the resistance on wire G of the adapter. If the value obtained is incorrect, the wiring is faulty between the computer and the passenger's 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).
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FAULT FINDING - INTERPRETATION OF FAULTS

DF183 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 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 grey 16-track connector beneath the driver's seat and check the connections of the connector (tracks A7 and A8). Fit the 8-track adapter to the wiring harness 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 adapter wire D. If the value obtained is incorrect, the wiring is faulty between the grey 16-track union and the driver's seat buckle pretensioner (C1/C3). Replace the wiring harness if necessary.</p>
<p>Reconnect the 16-track connector. Check the wiring again on the grey 16-track intermediate connector (tracks A7 and A8) and on the 50-track connector (tracks 10 and 35). Fit the B54 50-track adapter. The CLIP, NXR or XRBAG tool must be used for measuring the insulation appropriate for the fault type on wire G of the adapter. If the fault is still present the wiring is faulty between the computer and the grey 16-track intermediate union (C0/C1). Replace the wiring harness.</p>

AFTER REPAIR	<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 Elé. 1287).</p>
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FAULT FINDING - INTERPRETATION OF FAULTS

DF184 PRESENT	<p><u>Passenger side front buckle pretensioner circuit.</u></p> <p>CC : Short circuit OC : 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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NOTES	<p>Priorities when dealing with a number of faults: In the case of a 1.DEF short-circuit between 2 ignition lines, use the following procedure in combination with that for the second fault to locate the short-circuit.</p>
	<p>Special notes: 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 (Cable H).</p>

OC - CC	NOTES	None.
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<p>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's seat buckle pretensioner if the fault becomes stored (fault no longer declared present).</p>
<p>Reconnect the pretensioner. Disconnect the grey 16-track connector beneath the passenger seat and check the connections of the connector (tracks A7 and A8). Fit the 8 track adapter to the wiring harness at point C1. The CLIP, NXR or XRBAG tool MUST be used for measuring the resistance on adapter wire D. If the value obtained is incorrect, the wiring is faulty between the grey 16-track union and the passenger seat buckle pretensioner (C1/C3). Replace the wiring harness if necessary.</p>
<p>Reconnect the 16-track connector. Disconnect the computer and check the wiring on the connector (tracks 11 and 36). Fit the B54 50-track adapter. The CLIP, NXR or XRBAG tool must be used for measuring the resistance on wire H of the adapter. 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.</p>

AFTER REPAIR	<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 Elé. 1287).</p>
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FAULT FINDING - INTERPRETATION OF FAULTS

DF184 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 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's seat buckle pretensioner if the fault becomes stored (fault no longer declared present).</p>
<p>Reconnect the pretensioner. Disconnect the grey 16-track connector beneath the passenger seat and check the connections of the connector (tracks A7 and A8). Fit the 8 track adapter to the wiring harness 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 adapter wire D. If the value obtained is incorrect, the wiring is faulty between the grey 16-track union and the passenger seat buckle pretensioner (C1/C3). Replace the wiring harness if necessary.</p>
<p>Reconnect the 16-track connector. Check the wiring 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 adapter. The CLIP, NXR or XRBAG tool must be used for measuring the insulation appropriate for the fault type on wire H of the adapter. If the fault is still present, the wiring is faulty between the computer and the grey 16-track intermediate union (C0/C1). Replace the wiring harness.</p>

AFTER REPAIR	<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 Elé. 1287).</p>
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FAULT FINDING - INTERPRETATION OF FAULTS

DF187 PRESENT	<u>Configuration of ignition lines</u>
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NOTES	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 a component 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.

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

DF188 PRESENT	<u>Configuration of locking passenger airbag</u>
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NOTES	Special notes: 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 a component 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.

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

DF189 PRESENT	<u>Configuration of seat position sensors</u>
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NOTES	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 a component 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.

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

DF191 PRESENT	<u>Fault warning light consistency</u>
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NOTES	Special notes: None.
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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.

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

DF192 PRESENT	<u>Passenger's airbag status warning light consistency</u> 1.DEF : Inconsistency.
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NOTES	Special notes: None.
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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.

AFTER REPAIR	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

DF193 PRESENT	<u>Change of status of passenger airbag locking</u>
NOTES	Special features: The vehicle user has 10 seconds after switching on the + after ignition feed to block 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.
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.	

AFTER REPAIR	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

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

AFTER REPAIR	None.
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FAULT FINDING - CONFORMITY CHECK

NOTES	Only perform this conformity check after a complete check with the diagnostic 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	Fault Finding Chart 1
2	Computer conformity	Vehicle type parameter	CLIO II Phase II 06	DF001
3	Computer configuration	Use of "READING THE CONFIGURATION" commands	Ensure that the computer configuration defined corresponds to the vehicle equipment.	None
4	Warning light operation Computer initialisation check.	Ignition on	Warning light comes on for 3 seconds when the ignition is switched on	DF165

FAULT FINDING - 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 on the instrument panel lights up.

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 side frontal airbag circuit 1. (Wire C of the B54)
- L2:** Driver's side frontal airbag circuit 2. (Wire D of the B54)
- L3:** Passenger side frontal airbag circuit 1. (Wire A of the B54)
- L4:** Passenger side 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:** Rear driver's side seat belt inertia reel circuit. (Wire K of the B54)
- L8:** Rear passenger side seat belt inertia reel circuit. (Wire L of the B54)
- L9:** Driver's chest front side airbag circuit. (Wire E of the B54)
- L10:** Passenger chest front side airbag circuit. (Wire F of the B54)

FAULT FINDING - FAULT FINDING CHART

Fault Finding Chart 1	ABSENCE OF DIALOGUE WITH THE AIRBAG COMPUTER
NOTES	None.
<p>Try to establish dialogue with a computer on another vehicle to make sure that the diagnostic 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 fault finding line K. Proceed by successive disconnections to locate this computer. Check the battery voltage and carry out the necessary operations to obtain a correct voltage (10.5 volts < battery voltage< 16 volts).</p>	
<p>Check the presence and condition of the airbag computer supply fuse. Check that the computer connector is properly connected and check the condition of its connections. Check that the supply to the computer is correct:</p> <ul style="list-style-type: none">– Disconnect the airbag computer and fit 50-track adapter B54 (Wire 1).– Check and ensure the presence of + after ignition feed between the terminals marked earth and + after ignition feed.	
<p>Check that the power supply to the diagnostic socket is correct:</p> <ul style="list-style-type: none">– + Before ignition on track 16.– Earth on tracks 4 and 5. <p>Check the continuity and insulation of the lines of the diagnostic socket/airbag computer connection:</p> <ul style="list-style-type: none">– Between the terminal marked K and track 7 of the diagnostic socket.	
<p>If dialogue is still not established after these various checks, replace the airbag computer (refer to the Help section for this operation).</p>	
AFTER REPAIR	When communication is established, deal with any faults indicated.