

RENAULT

TECHNICAL NOTE 3435A

XXXX

GENERIC FAULT FINDING

AUTOLIV AIRBAG

ACU3.8

COMPUTER TYPE: ACU3.8

VDIAG No.: 08

77 11 298 102

AUGUST 2000

EDITION ANGLAISE

*The repair methods given by the manufacturer in this document are based on the technical specifications current when it was prepared.

The methods may be modified as a result of changes introduced by the manufacturer in the production of the various component units and accessories from which his vehicles are constructed.*

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Airbag and seat belt pretensioner

FAULT FINDING - INTRODUCTION

This document describes the fault finding strategy applicable to all AUTOLIV AIRBAG ACU 3.8 computers with VDIAG 08.

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

- This "Generic fault finding" Technical Note,
- The "Fault finding special features" Technical Note for your vehicle,
- The wiring diagram for operation of the vehicle concerned,
- The tools listed in the "special tooling required" list.

GENERAL APPROACH TO FAULT FINDING:

- Use of one of the fault finding tools to identify the system equipping the vehicle (to read the computer family, the program number, the vdiag, etc.).
- Finding the "Fault finding" documents corresponding to the system identified.
- Inclusion of information contained in the introductory sections.
- Reading the faults stored in the computer memory and using the "Interpretation of faults" section of the documents.
Reminder: Each fault is interpreted for a particular type of storage (fault present, fault stored, fault present or stored). The checks defined for handling each fault are therefore only to be performed if the fault stated by the fault finding tool is interpreted in the document for its type of storage. The storage type should be considered when using fault finding tool following ignition switch-off and switch-on.
If a fault is interpreted when it is stated to be "stored", the conditions for application of the fault finding appear in the "NOTES" box. When the conditions are not satisfied, use the fault finding to check the circuit of the faulty part since the fault is no longer present on the vehicle. Perform the same operation when a fault is stated as "stored" by the fault finding tool but is only interpreted in the documentation for 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.
- Validation of the repair (disappearance of the phenomenon reported by the customer).
- Use of the fault finding strategy for each "Customer complaint " if the problem persists.

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

- Fault finding tools (except XR25).
- Set of adapters and borniers for using the "Airbag and pretensioner wiring harness check" function on CLIP and NXR tools or the XRBAG for update N°6 (with the new orange 50 track adapter B52 at the base of the computer).
- Multimeter.

Airbag and seat belt pretensioner

FAULT FINDING - INTRODUCTION

Reminders

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

Without the fault finding 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.

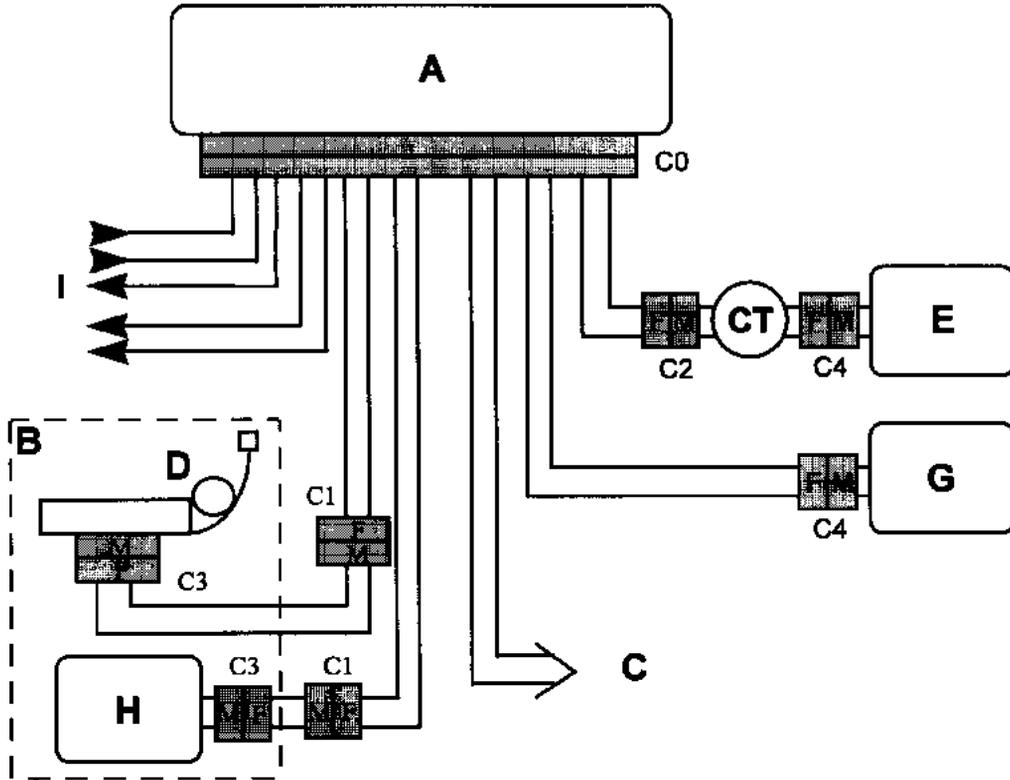
Before using a dummy ignition module, ensure that its resistance is between 1.8 and 2.5 ohms.

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

Airbag and seat belt pretensioner

CONFIGURATION SYSTEM FAULT FINDING - FICHE

Pretensioners (front), front and side (chest) airbags



- A** Central unit
- B** Driver's seat
- C** Front passenger seat
- D** Pretensioner
- E** Driver's airbag ignition module
- G** Passenger airbag ignition module
- H** Side airbag ignition module
- CT** Rotary switch
- + 12 volts / earth
- I** Warning light / Fault finding lines
Impact sensors / Impact information

FRONT AIRBAGS		
	Measuring point	Correct value
Driver	C0, C2 and C4	1.8 to 6.2 ohms
Passenger	C0 and C4	1.8 to 4 ohms
SIDE AIRBAGS AND PRETENSIONERS		
	Measuring point	Correct value
	C0, C1 and C3	1.8 to 4 ohms

Correct insulation value: display \geq 100 h. or 9999 flashing

Airbag and seat belt pretensioner

FAULT FINDING - INTERPRETATION OF FAULTS

DF 002 PRESENT	<u>Computer voltage supply</u> 1.DEF: Too many micro-breaks 2.DEF: Voltage not within tolerance
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NOTES	Special notes: Use the B52 adapter to operate on the computer connector.
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<i>1.DEF - 2.DEF</i>	NOTES	None
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Carry out the operations necessary to obtain the correct voltage supply to the computer:

10.5 Volts ± 0.1 < correct voltage < 16 Volts ± 0.1.

- Battery charge check.
- Charging circuit check.
- Check the tightening and the condition of the battery terminals.
- Computer earth check.
- Computer connection status + locking

AFTER REPAIR	Deal with any faults detected by the fault finding tool. Clear the computer memory.
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Airbag and seat belt pretensioner

FAULT FINDING - INTERPRETATION OF FAULTS

DF 003 PRESENT	<p><u>Driver's front airbag circuit</u></p> <p>CC : Short circuit CO : Open circuit CC.1 : Short circuit to 12 volts CC.0 : Short circuit to earth</p>
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NOTES	<p>Special notes: Never carry out measuring operations on ignition lines using any tool other than Clip, NXR or XRBAG. Use the B52 adapter to operate on the computer connector.</p>
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CO - CC.	NOTES	None
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Lock the computer using the fault finding command.
Switch off the ignition and remove the two mounting bolts from the steering wheel cushion.
Check that it is correctly connected.

Disconnect the airbag cushion and connect a dummy ignition module to the ignition module connector.
Switch on the ignition and carry out a check using the fault finding tool.
Replace the airbag cushion if the fault has been stored (fault no longer indicated).

With the ignition switched off, disconnect, then reconnect the connector for the rotary switch below the steering wheel.
Operate on the connections if the fault has been stored (fault indicated present).

The Clip, NXR or XRBAG tools **MUST** be used for measuring resistance to **point C2** of the driver's front airbag circuit (1.8 < correct resistance < 6.2 ohms).
If the value obtained is not correct, replace the rotary switch under the steering wheel.

Reconnect the rotary switch under the steering wheel, disconnect the computer connector and fit the **50 track adapter B52**.
The Clip, NXR or XRBAG tool **MUST** be used for checking resistance on the **wire marked A** on the adapter.
If the value obtained is not correct, check the 50 track connector connections (tracks 1 and 2) and replace the wiring if necessary.

If the checks carried out have not shown the presence of a fault, check on the base of the airbag computer for the presence of the 7 shunt opening pins for the 50 track connector.
Check the connection status on the computer.
Check the status of the 50 track connector (locking system, ...).

AFTER REPAIR	<p>Erase the computer memory then turn off the ignition. Carry out the check again using the tool and, if there is no fault, unlock the computer. Destroy the driver's front airbag module if it has been replaced (tool Elé. 1287).</p>
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Airbag and seat belt pretensioner

FAULT FINDING - INTERPRETATION OF FAULTS

DF 003 PRESENT CONTINUED	
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CC.1 - CC.0	NOTES	None
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Lock the computer using the fault finding command.
Switch off the ignition and remove the two mounting bolts from the steering wheel cushion.
Check the condition of the trigger wire.

The Clip, NXR or XRBAG tools **MUST** be used for measuring insulation appropriate to the type of fault at **point C2** of the driver's front airbag circuit.
If the value obtained is not correct, replace the rotary switch under the steering wheel.

Reconnect the rotary switch under the steering wheel, disconnect the computer connector and fit the **50 track adapter B52**.
The Clip, NXR or XRBAG tools **MUST** be used for measuring the insulation appropriate to the type of fault on the **wires marked A** on the adapter.
If the value obtained is not correct, check the 50 track connector connections (tracks 1 and 2) and replace the wiring if necessary.

AFTER REPAIR

Erase the computer memory then turn off the ignition.
Carry out the check again using the tool and, if there is no fault, unlock the computer.
Destroy the driver's front airbag module if it has been replaced (tool **Elé. 1287**).

Airbag and seat belt pretensioner

FAULT FINDING - INTERPRETATION OF FAULTS

DF 004 PRESENT	<u>Passenger's front airbag circuit</u> CC : Short circuit CO : Open circuit CC.1 : Short circuit at +12 Volts CC.0 : Short circuit to earth
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NOTES	Special notes: Never carry out measuring operations on ignition lines using any tool other than Clip, NXR or XRBAG. Use the B52 adapter to operate on the computer connector.
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CO - CC	NOTES	None
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Lock the computer using the fault finding command.
 Switch off the ignition, disconnect the computer connector and fit the **50 track adapter B52**.
 The Clip, NXR or XRBAG tools **MUST** be used for measuring the resistance on the **wires marked B** of the adapter (1.8 < correct resistance < 4 ohms).

Is the value obtained correct?

YES

If the value obtained is correct on **wire B** of the adapter, check on the base of the airbag computer for the presence of the 7 shunt opening pins on the 50 track connector.
 Check the connection status on computer.
 Check the status of the 50 track connector (locking system, connections, ...).

NO

If the value obtained is not correct on **wire B** of the adapter, check the connections on the 50 track connector (tracks 3 and 4).

If the value remains wrong, switch off the ignition and carry out the necessary removals to access the wiring of the passenger's airbag module (Twingo: remove the dashboard - Mégane: remove the top of the dashboard). Disconnect the passenger airbag ignition module, connect a dummy ignition module to the ignition module connector then re-measure the resistance on the **wire marked B** of the adapter.
 If the value obtained is correct, replace the passenger's airbag module.
 If the value obtained is not correct, replace the airbag wiring.

AFTER REPAIR	Reconnect the computer and the ignition module of the passenger's airbag module, then switch on the ignition again. Erase the computer memory then turn off the ignition. Carry out the check again using the tool and, if there is no fault, unlock the computer. Destroy the passenger's front airbag module if it has been replaced (tool Elé. 1287).
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Airbag and seat belt pretensioner

FAULT FINDING - INTERPRETATION OF FAULTS

<p>DF 004 PRESENT</p> <p>CONTINUED</p>	
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CC.1 - CC.0	NOTES	None
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Lock the computer.
Switch off the ignition, disconnect the computer connector and fit the **50 track adapter B52**.
The Clip, NXR or XRBAG tools **MUST** be used for measuring the insulation appropriate to the type of fault on the **wires marked B** on the adapter.

Is the value obtained correct?

YES	If the value obtained is correct on wire B of the adapter, check the status of the connections on computer.
NO	If the value obtained is not correct on wire B of the adapter, check the connections on the 50 track connector (tracks 3/4).
	If the value remains incorrect, replace the airbag wiring.

AFTER REPAIR	Reconnect the computer and the ignition module of the passenger's airbag module, then switch on the ignition again. Erase the computer memory then turn off the ignition. Carry out the check again using the tool and, if there is no fault, unlock the computer. Destroy the passenger's front airbag module if it has been replaced (tool Elé. 1287).
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Airbag and seat belt pretensioner

FAULT FINDING - INTERPRETATION OF FAULTS

DF 010 PRESENT	<p><u>Fault warning light circuit</u></p> <p>CC.1 : Short circuit to 12 volts CO.0 : Open circuit or short circuit to earth</p>
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NOTES	Special notes: Use the 50 track B52 adapter to operate on the computer connector.
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CC.1	NOTES	None
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Lock the computer using the fault finding command.
Check the condition of the warning light bulb.
Ensure insulation against **+12 volts** of the connection between the warning light and **track 10** of the 50 track connector.

CO.0	NOTES	None
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Warning light extinguished after ignition

Lock the computer using the fault finding command.
Check the condition of the warning light bulb.
Ensure the continuity of the connection between the warning light and **track 10** of the 50 track connector.
Ensure that **12 volts** reach the warning light.
If the checks carried out did not show the presence of a fault, disconnect the computer connector and fit the **50 track adapter B52** . Use Clip, NXR or XRBAG tool to test the operation of the instrument panel warning light from the **grey wire marked 1** on the adapter.
If it is possible to illuminate the warning light using the tool, replace the airbag computer (consult the "Aid" section for this operation).
If it is impossible to operate the warning light, repeat the preceding checks.

Warning light illuminated after ignition

Lock the computer using the fault finding command.
Disconnect the airbag computer and check the presence, on the base, of the 7 pins which open the connector shunts.
Ensure insulation against **earth** of the connection between the warning light and **track 10** of the 50 track connector

AFTER REPAIR	<p>Erase the computer memory then turn off the ignition. Carry out the check again using the tool and, if there is no fault, unlock the computer.</p>
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Airbag and seat belt pretensioner

FAULT FINDING - INTERPRETATION OF FAULTS

DF 016 PRESENT	<u>Computer configuration</u>
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NOTES	None
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This fault indicates a mismatch between the computer configuration and the vehicle equipment detected by the computer. The computer detects the presence of an element additional to its configuration.

Modify the computer configuration using the command:

- NXR: "System components configuration",
- CLIP and OPTIMA: "Configuration of ignition modules".

AFTER REPAIR	Erase the computer memory then turn off the ignition. Check again using the fault finding tool.
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Airbag and seat belt pretensioner

FAULT FINDING - INTERPRETATION OF FAULTS

DF 028 PRESENT	<u>Passenger airbag status indicator light circuit</u> CC.1 : Short circuit to 12 volts CO.0 : Open circuit or short circuit to earth
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NOTES	Special notes: Use the 50 track B52 adapter to operate on the computer connector.
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CC.1	NOTES	None
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Lock the computer using the fault finding command.
 Check the condition of the warning light bulb.
 Ensure insulation against **+12 volts** of the connection between the warning light and **track 10** of the 50 track connector.

CO.0	NOTES	None
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Warning light extinguishes after ignition

Lock the computer using the fault finding command.
 Check the condition of the warning light bulb.
 Ensure the continuity of the connection between the warning light and track **47** of the 50 track connector.
 Ensure that **12 volts** reach the warning light.
 If the checks carried out did not show the presence of a fault, disconnect the computer connector and fit the **50 track adapter B52**. Use Clip, NXR or XRBAG tool to test the operation of the instrument panel warning light using the **grey wire marked 2** on the adapter.
 If it is possible to illuminate the warning light using the tool, replace the airbag computer (consult the "Aid" section for this operation).
 If it is impossible to operate the warning light, repeat the preceding checks.

Warning light illuminated after ignition

Lock the computer using the fault finding command.
 Disconnect the airbag computer and check the presence, on the base, of the 7 pins which open the connector shunts.
 Ensure insulation against **earth** of the connection between the warning light and **track 47** of the 50 track connector

AFTER REPAIR	Erase the computer memory then turn off the ignition. Carry out the check again using the tool and, if there is no fault, unlock the computer.
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Airbag and seat belt pretensioner

FAULT FINDING - INTERPRETATION OF FAULTS

DF 039 PRESENT	<p><u>Driver's side sensor circuit</u></p> <p>CC.0 : Short circuit to earth 2.DEF : No communication 3.DEF : Communication disturbed 4.DEF : Defective sensor</p>
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NOTES	Special notes: Use the 50 track B52 adapter to operate on the computer connector.
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CC.0 - 2.DEF - 3.DEF	NOTES	None
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Lock the computer using the fault finding command.
 Check that the driver's side sensor is connected correctly and check the connections.
 Check the computer connections status (tracks 21 and 22),
 Check the status of the 50 track connector (locking system, connections, ...).

Ensure continuity and the insulation of the connections between:

Bornier B52 **terminal 21** \longrightarrow **track 1** sensor connector
 Bornier B52 **terminal 22** \longrightarrow **track 2** sensor connector

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

AFTER REPAIR	<p>Reconnect the computer and the driver's side sensor then switch on the ignition again. Erase the computer memory then turn off the ignition. Carry out the check again using the tool and, if there is no fault, unlock the computer.</p>
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Airbag and seat belt pretensioner

FAULT FINDING - INTERPRETATION OF FAULTS

DF 040 PRESENT	<u>Passenger's side sensor circuit</u> CC.0 : Short circuit to earth 2.DEF : No communication 3.DEF : Communication disturbed 4.DEF : Defective sensor
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NOTES	Special notes: Use the 50 track B52 adapter to operate on the computer connector.
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CC.0 - 2.DEF - 3.DEF	NOTES	None
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Lock the computer using the fault finding command.
 Check that the passenger's side sensor is connected correctly and check the connections.
 Check the computer connections status (tracks 23 and 24),
 Check the status of the 50 track connector (locking system, connections, ...).

Ensure continuity and the insulation of the connections between:
 Bornier B52 **terminal 23** —————▶ **track 1** sensor connector
 Bornier B52 **terminal 24** —————▶ **track 2** sensor connector

4.DEF	NOTES	None
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Replace the passenger's side sensor.

AFTER REPAIR	Reconnect the computer and the passenger's side sensor then switch on the ignition again. Erase the computer memory then turn off the ignition. Carry out the check again using the tool and, if there is no fault, unlock the computer.
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Airbag and seat belt pretensioner

FAULT FINDING - INTERPRETATION OF FAULTS

DF 062 PRESENT	<u>Side sensors configuration</u>
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NOTES	None
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This fault indicates a mismatch between the computer configuration and the vehicle equipment detected by the computer. The computer detects the presence of an element additional to its configuration.

Modify the computer configuration using the command:

- NXR: "System components configuration",
- CLIP and OPTIMA: "Side sensors configuration".

AFTER REPAIR	Erase the computer memory then turn off the ignition. Check again using the fault finding tool.
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Airbag and seat belt pretensioner

FAULT FINDING - INTERPRETATION OF FAULTS

DF 068 PRESENT	<p><u>Passenger's front chest side airbag circuit</u></p> <p>CC : Short circuit CO : Open circuit CC.1 : Short circuit to 12 volts CC.0 : Short circuit to earth</p>
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NOTES	<p>Special notes: Never carry out measuring operations on ignition lines using any tool other than Clip, NXR or XRBAG. Use the 50 track B52 adapter to operate on the computer connector.</p>
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CO - CC	NOTES	None
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Lock the computer.
The Clip, NXR or XRBAG tools **MUST** be used for measuring resistance to **point C1** (seat connector) of the passenger's front chest side airbag module line (1.8 < correct resistance < 4 ohms).

Is the value obtained correct?

YES	<p>Check the seat connector connections (point C1). Visually inspect the seat wiring. Reconnect point C1.</p> <hr/> <p>Disconnect the computer connector and fit the 50 track adapter B52. The Clip, NXR or XRBAG tool MUST be used for checking resistance on the wire marked I on the adapter.</p> <ul style="list-style-type: none"> - If the value obtained is not correct, check the 50 track connector connections (tracks 18 and 19) and replace the wiring if necessary. - If the value obtained is correct on wire I of the adapter, check on the base of the computer for the presence of the 7 shunt opening pins on the 50 track connector. <p>Check:</p> <ul style="list-style-type: none"> - the status of the computer connections, - the status of the 50 track connector (locking system, connections, ...).
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NO	<p>Check the seat connector connections. Strip the passenger seat and check that the airbag ignition module is connected correctly.</p> <hr/> <p>Disconnect the passenger front chest side airbag ignition module, connect a dummy ignition module to the ignition connector and remeasure the resistance to point C1 using a fault finding tool.</p> <ul style="list-style-type: none"> - If the value obtained is correct, replace the passenger's front chest side airbag module. - If the value obtained is still incorrect, replace the wiring between points C1 and C3 (seat wiring).
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AFTER REPAIR	<p>Reconnect the computer and the ignition module of the passenger's airbag module, then switch the ignition on again. Erase the computer memory then turn off the ignition. Carry out the check again using the tool and, if there is no fault, unlock the computer. Destroy the chest side airbag module if it has been replaced (tool Elé. 1287).</p>
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Airbag and seat belt pretensioner

FAULT FINDING - INTERPRETATION OF FAULTS

DF 068 PRESENT CONTINUED	
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CC.1 - CC.0	NOTES	None
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Lock the computer.
The Clip, NXR or XRBAG tool **MUST** be used for measuring the insulation appropriate to the type of fault at **point C1** (seat connector) of the passenger's front chest side airbag module.

Is the value obtained correct?

YES	<p>Check the seat connector connections (point C1). Visually inspect the seat wiring. Reconnect point C1.</p> <hr/> <p>Disconnect the computer connector and fit the 50 track adapter B52. The Clip, NXR or XRBAG tools MUST be used for measuring the insulation appropriate to the type of fault on the wire marked I on the adapter. – If the value obtained is not correct, check the 50 track connector connections (tracks 18 and 19) and replace the wiring if necessary.</p>
NO	<p>Check the seat connector connections. Replace the wiring between points C1 and C3 (seat wiring).</p>

AFTER REPAIR	<p>Reconnect the computer and the ignition module of the passenger's front chest side airbag module, then switch the ignition on again. Erase the computer memory then turn off the ignition. Carry out the check again using the tool and, if there is no fault, unlock the computer. Destroy the chest side airbag module if it has been replaced (tool Elé. 1287).</p>
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Airbag and seat belt pretensioner

FAULT FINDING - INTERPRETATION OF FAULTS

DF077 PRESENT	<p><u>Driver's front chest side airbag circuit</u></p> <p>CC : Short circuit CO : Open circuit CC.1 : Short circuit to 12 volts CC.0 : Short circuit to earth</p>
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NOTES	<p>Special notes: Never carry out measuring operations on ignition lines using any tool other than Clip, NXR or XRBAG. Use the 50 track B52 adapter to operate on the computer connector.</p>
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CO - CC	NOTES	None
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Lock the computer.
 The Clip, NXR or XRBAG tools **MUST** be used for measuring resistance to **point C1** (seat connector) of the driver's front chest side airbag module line (1.8 < correct resistance < 4 ohms).

Is the value obtained correct?

YES	<p>Check the seat connector connections (point C1). Visually inspect the seat wiring. Reconnect point C1.</p>
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Disconnect the computer connector and fit the **50 track adapter B52**.
 The Clip, NXR or XRBAG tool **MUST** be used for checking resistance on the **wire marked H** on the adapter.

- If the value obtained is not correct, check the 50 track connector connections (tracks 16 and 17) and replace the wiring if necessary.
- If the value obtained is correct on **wire H** of the adapter, check on the base of the computer for the presence of the 7 shunt opening pins on the 50 track connector.
 Check the connection status on the computer.
 Check the status of the 50 track connector (locking system, connections, ...).

NO	<p>Check the seat connector connections. Strip the driver's seat and check that the chest side airbag ignition module is connected correctly.</p>
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Disconnect the driver's front chest side airbag ignition 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 front chest side airbag module.
- If the value obtained is still incorrect, replace the wiring between **points C1 and C3** (seat wiring).

AFTER REPAIR	<p>Reconnect the computer and the ignition module of the driver's front chest side airbag ignition module, then switch the ignition on again. Erase the computer memory then turn off the ignition. Carry out the check again using the tool and, if there is no fault, unlock the computer. Destroy the chest side airbag module if it has been replaced (tool Elé. 1287).</p>
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Airbag and seat belt pretensioner

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.
The Clip, NXR or XRBAG tool **MUST** be used for measuring the insulation appropriate to the type of fault at **point C1** (seat connector) of the driver's front chest side airbag module.

Is the value obtained correct?

YES	<p>Check the seat connector connections (point C1). Visually inspect the seat wiring. Reconnect point C1.</p> <hr/> <p>Disconnect the computer connector and fit the 50 track adapter B52. The Clip, NXR or XRBAG tools MUST be used for measuring the insulation appropriate to the type of fault on the wire marked H on the adapter. – If the value obtained is not correct, check the 50 track connector connections (tracks 16 and 17) and replace the wiring if necessary.</p>
NO	<p>Check the seat connector connections. Replace the wiring between points C1 and C3 (seat wiring).</p>

AFTER REPAIR	<p>Reconnect the computer and the ignition module of the driver's front chest side airbag ignition module, then switch the ignition on again. Erase the computer memory then turn off the ignition. Carry out the check again using the tool and, if there is no fault, unlock the computer. Destroy the chest side airbag module if it has been replaced (tool Elé. 1287).</p>
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Airbag and seat belt pretensioner

FAULT FINDING - INTERPRETATION OF FAULTS

DF079 PRESENT	<p><u>Front pretensioners circuit</u></p> <p>CC : Short circuit CO : Open circuit CC.1 : Short circuit to 12 volts CC.0 : Short circuit to earth</p>
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NOTES	<p>Special notes: Never carry out measuring operations on ignition lines using any tool other than Clip, NXR or XRBAG. Use the 50 track B52 adapter to operate on the computer connector.</p>
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CO	NOTES	None
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Lock the computer.

Switch off the ignition and check that the driver and passenger pretensioner ignition modules are connected correctly.

Disconnect the ignition module of the driver's pretensioner and connect a dummy ignition module to the ignition module connector.

Switch on the ignition and carry out a check using the fault finding tool.

Replace the driver's pretensioner if the fault has been stored (fault no longer indicated).

Then carry out the same operation on the Passenger's pretensioner (if not a driver's side fault).

The Clip, NXR or XRBAG tool **MUST** be used for measuring the insulation appropriate to the type of fault at **point C1** (seat connector) of the driver's pretensioner line ($1.8 < C1 < 4$ ohms).

If the value obtained is not correct, replace the wiring between **points C1 and C3** (seat wiring).

Then carry out the same measurement on the passenger's pretensioner line (if not a driver's side fault).

Disconnect the computer connector and fit the **50 track adapter B52**.

The Clip, NXR or XRBAG tools **MUST** be used for measuring the resistance on the **wires marked D (passenger) and C (driver)** on the adapter.

If one of the values obtained is not correct, check the connections on the 30 track connector (tracks 6/7 for wire D and 5/30 for wire C) and replace the wiring if necessary.

AFTER REPAIR	<p>Reconnect the computer and the ignition module of the pretensioner, then switch on the ignition again.</p> <p>Erase the computer memory then turn off the ignition.</p> <p>Carry out the check again using the tool and, if there is no fault, unlock the computer.</p> <p>Destroy the pretensioner if it has been replaced (tool Elé. 1287).</p>
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Airbag and seat belt pretensioner

FAULT FINDING - INTERPRETATION OF FAULTS

DF079 PRESENT CONTINUED	
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CC.1 - CC.0	NOTES	None
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Lock the computer.
 Disconnect the ignition module of the driver's pretensioner and connect a dummy ignition module to the ignition module connector.
 Switch on the ignition and carry out a check using the fault finding tool. If the fault has been stored (fault no longer indicated), check the condition of the seat wiring.
 Replace the driver's pretensioner if the wiring is not faulty.
 Then carry out the same operation on the Passenger's pretensioner (if not a driver's side fault).

The Clip, NXR or XRBAG tool **MUST** be used for measuring the insulation appropriate to the type of fault at **point C1** (seat connector) of the driver's pretensioner line.
 If the value obtained is not correct, replace the wiring between **points C1 and C3** (seat wiring).
 Then carry out the same measurement on the passenger's pretensioner line (if not a driver's side fault).

Disconnect the computer connector and fit the **50 track adapter B52**.
 The Clip, NXR or XRBAG tools **MUST** be used for measuring the insulation appropriate to the type of fault on the **wires marked D (passenger) and C (driver)** on the adapter.
 If one of the values obtained is not correct, check the connections on the 30 track connector (tracks 6/7 for wire D and 5/30 for wire C) and replace the wiring if necessary.

If the checks carried out have not shown the presence of a fault on one of the pretensioner circuits, check on the base of the airbag computer for the presence of the 7 shunt opening pins for the 50 track connector.
 Check the connection status on computer.
 Check the status of the 50 track connector (locking system, ...).

AFTER REPAIR	Reconnect the computer and the ignition module of the pretensioner, then switch on the ignition again. Erase the computer memory then turn off the ignition. Carry out the check again using the tool and, if there is no fault, unlock the computer. Destroy the pretensioner if it has been replaced (tool Elé. 1287).
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Airbag and seat belt pretensioner

FAULT FINDING - INTERPRETATION OF FAULTS

DF094 to DF 156 PRESENT OR STORED	<u>Computer fault</u>
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NOTES	None
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Replace the airbag computer (consult the "Aid" section for this operation).

AFTER REPAIR	None.
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Airbag and seat belt pretensioner

FAULT FINDING - CHECKING CONFORMITY

NOTES	Only check the conformity after a full check using the fault finding tool.
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Order	Function	Parameter / state checked or action	Display / notes	Diag
1	Fault finding tool dialogue		<div style="border: 1px solid black; padding: 5px; display: inline-block;"> AIRBAG ACU 3.8 </div>	CHART 1
2	Computer Conformity	Configuration "Vehicle type"	Twingo <div style="border: 1px solid black; padding: 2px 10px; display: inline-block; margin-left: 20px;">0</div> Mégane <div style="border: 1px solid black; padding: 2px 10px; display: inline-block; margin-left: 20px;">7</div>	DF 094
3	Computer configuration	Use of commands: NXR: "System components configuration", CLIP and OPTIMA: "Ignition module configuration" "System components configuration" "Side sensors configuration"	Ensure that the computer configuration defined in the "Current" column corresponds to the vehicle equipment.	None.
4	Warning light operation Computer initialization check.	Switch on the ignition	3 second illumination of the warning light when ignition is switched on	None.

FAULT FINDING - AID

REPLACING THE AIRBAG COMPUTER

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

The "locked" mode is signalled by the illumination of the airbag fault warning light on the instrument panel.

When replacing an airbag computer, follow this procedure:

- 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 fault finding tool.
- Unlock the computer only if the fault indicated by the fault finding tool is absent.

Airbag and seat belt pretensioner

FAULT FINDING - FAULT CHARTS

CHART 1	ABSENCE OF DIALOGUE WITH THE AIRBAG COMPUTER
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NOTES	None.
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Ensure that the fault finding tool is not the cause of the fault by trying to communicate with a computer on another vehicle. If the tool is not the cause of 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 lines **K** and **L**. Disconnect the connections one at a time to locate the fault.
Check the battery voltage and carry out the operations necessary to obtain the correct voltage (**10.5 volts < U battery < 16 volts**).

Check the presence and status of the airbag computer supply voltage fuse.
Check the computer connector connection and its condition.
Check that the computer is correctly supplied:
– Disconnect the airbag computer and fit the **50 track adapter B52**.
– Check and ensure the presence of **+after ignition feed** between the terminals marked **earth** and **+ after ignition feed**.

Check the diagnostic socket is fed correctly:
– **+before ignition feed on track 16**.
– **Earth on track 5**.
Check the continuity and insulation of the lines of the airbag computer / fault finding socket connection:
– Between the terminal marked **K** and **track 7** of the fault finding socket.

If dialogue is still not established after these various checks, replace the airbag computer (consult the section on "Support" for this operation).

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