Clio

Technical Note 3563A

XB0W

FAULT FINDING - Special notes on the CLIO II from June 2001 fitted with D4F engine Sequential gearbox

VDIAG No.: 0C

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21B **SEQUENTIAL GEARBOX**

This document presents the fault finding procedure applicable to sequential gearbox computers with VDIAG no.: 0C fitted on the CLIO II with D4F engine.

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

- **The Fault finding special features Technical Note for your vehicle,**
- **The electrical circuit 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 for identifying the system fitted on the vehicle (reading the computer type, program number, Vdiag number, 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 Fault interpretation 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 specified checks for dealing with each fault are therefore only to be performed if the fault declared by the diagnostic tool can be identified in the document by its type. 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 recorded as stored, the application conditions for the fault finding procedure appear in the Notes box. When these conditions are not satisfied, use the fault finding procedure to check the circuit of the faulty part, since the fault is no longer present on the vehicle. Perform the same operation when a fault is declared as stored by the diagnostic tool but is only interpreted in the documentation as a present fault.

- **Carry out the conformity check (appearance of possible faults not yet identified by the system's self-diagnostic routines) and apply the relevant fault finding strategies according to the results.**

- **Confirm the repair (customer complaint resolved).**

- **Use the Customer complaints fault finding procedures if the fault persists.**

Special tooling required for working on the sequential gearbox:

– Diagnostic tools (except XR 25).
– Multimeter.
– Sequential gearbox bornier: **Ele. 1589**.

X 65 SGB D4F 1.0

	COMPUTER
DF002 **PRESENT**	1.DEF : Internal electronic fault. 2.DEF : Main relay fault (integral to computer)

NOTES	**Special notes:** None.

Check the condition and the wiring of the earths on **tracks 1** and **2** on the **52 track** computer connector.

Check the condition and position of the sequential gearbox fuses in the engine compartment and the passenger compartment.

Check the connections on the **52-track** sequential gearbox computer connector.

Ensure the presence of **+ before ignition** on **track 27** of the **52 track connector**, check the continuity between **the engine fuse box** and **track 27**. Repair if necessary.

Ensure the presence of **+ after ignition feed** on **track 28** of the **52 track** connector, check the continuity between the **passenger compartment fuse box and track 28**. Repair if necessary.

Clear the computer memory, exit fault finding mode, switch off the ignition and wait 20 seconds.

Perform a new check using the diagnostic tool. If the fault persists, replace the sequential gearbox computer.

AFTER REPAIR	Clear the computer memory, switch off the ignition and wait 20 seconds. Perform a road test and then re-check with the diagnostic tool.

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| **DF005**

PRESENT | OIL PRESSURE SENSOR CIRCUIT
CO.0　:　Open circuit or short circuit to earth
CC.1　:　Short-circuit to + 12 volts
1.DEF　:　Inconsistency |

| *NOTES* | **Special notes:** None. |

| *CO.0 - CC.1* | *NOTES* | **Special notes:** None. |

Check the wiring of the sensor connector and computer wiring.

Check the continuity and insulation of the connections between:

Sensor connector **track A** ⟶ **Track 66** computer connector
Sensor connector **track B** ⟶ **Track 73** computer connector
Sensor connector **track C** ⟶ **Track 40** computer connector

If the connection is faulty:

Disconnect the intermediate **24-track** connector located on the hydraulic unit and check the condition of the wiring.

Check and ensure the continuity and insulation of the connections between:

Computer connector track 66 ⟶ **Track C1** intermediate connector
Computer connector track 73 ⟶ **Track C8** intermediate connector
Computer connector track 40 ⟶ **Track C5** Intermediate connector

Also check the insulation between these connections.

Check and ensure the continuity and insulation of the connections between:

Sensor connector **track A** ⟶ **Track C1** intermediate connector
Sensor connector **track B** ⟶ **Track C8** intermediate connector
Sensor connector **track C** ⟶ **Track C5** Intermediate connector

Also check the insulation between these connections.

If the fault persists, replace the oil pressure sensor on the sequential gearbox.

| *AFTER REPAIR* | Clear the computer memory then switch off the ignition and wait 20 seconds.
Perform a road test and then re-check with the diagnostic tool. |

X65 SGB D4F 1.0

DF005 **CONTINUED**	21B-4

1.DEF	*NOTES*	**Special notes:** None.

Check the oil level following the accumulator discharge procedure.

Check the pump supply fuse.

Check the pump relay with the fault finding tool using command **AC012** hydraulic pump relay. Replace if necessary.

Check that the pump assembly is operational using command **AC012**.

If the fault persists, replace the sensor.

Exit fault finding mode, switch off the ignition and wait 20 seconds, switch on the ignition and replace the pump assembly if the fault reappears.

AFTER REPAIR	Clear the computer memory then switch off the ignition and wait 20 seconds. Perform a road test and then re-check with the diagnostic tool.

X65 SGB D4F 1.0

DF039 **STORED**	<u>ENGINE SPEED SIGNAL</u>

NOTES	**Conditions for applying the fault finding procedure to stored faults:** The fault is declared present after the engine is started.

Check the injection system.

If no fault appears, apply fault finding procedure **DF025 Flywheel signal sensor circuit** described in the Technical Note dealing with this type of injection system.

AFTER REPAIR	Clear the computer memory, switch off the ignition and wait 20 seconds. Perform a road test and then re-check with the diagnostic tool.

X65 SGB D4F 1.0

DF048 STORED	VEHICLE SPEED SIGNAL 1.DEF : Consistency 2.DEF : No signal

NOTES	**Special notes: the fault can only be erased from the memory using the diagnostic tool after a road test where the vehicle speed signal is detected by the computer.**
	Conditions for applying the fault finding procedure to stored faults: The fault is declared present after a road test.

1.DEF	NOTES	**Special notes:** None.

Check that the primary speed sensor, the vehicle speed sensor and the engine speed sensor work correctly.

Check the mechanical condition of the clutch.

2.DEF	NOTES	**Special notes:** None.

Check that the mileometer works correctly when driving.

Check the condition and correct connection of the wiring on the sensor connector, the instrument panel connector and the computer connectors. Repair if necessary.

Check the continuity and insulation of the connections between:

Sensor connector **track B1** ⟶ **Track 36** of the sequential gearbox connector
Sensor connector **track A** ⟶ **Passenger fuse box terminals**
Sensor connector **track B1** ⟶ instrument panel display connector
Sensor connector **track B2** ⟶ **Vehicle earth**

Also check the insulation between these connections. Repair if necessary.

If the fault persists, replace the vehicle speed sensor on the sequential gearbox and apply the after repair procedure to erase this fault.

AFTER REPAIR	**A road test must be performed along with another check using the diagnostic tool to erase the vehicle speed signal fault.**

X 65 SGB D4F 1.0

DF057 **STORED**	<u>GEARBOX INPUT SPEED SENSOR CIRCUIT</u> 1.DEF : Consistency 2.DEF : No signal

NOTES	**Special notes: the fault can only be erased from the memory using the diagnostic tool after a road test where the vehicle speed signal is detected by the computer.**
	Conditions for applying the fault finding procedure to stored faults: The fault is declared present after a road test (in excess of 6 mph or 10 km/h).

1.DEF	**NOTES**	**Special notes:** None.

Check that the primary speed sensor, the vehicle speed sensor and the engine speed sensor work correctly.

Check the mechanical condition of the clutch.

2.DEF	**NOTES**	**Special notes:** None.

Check that the mileometer works correctly when driving.

Check the wiring on the **52-track** computer connector and the sensor wiring. Repair if necessary.

Check the continuity and insulation of the connections between:
Sensor connector **track A** ⟶ **Track 38** computer connector
Sensor connector **track B** ⟶ **Track 50** computer connector

If the connection is faulty:
Disconnect the intermediate 24-track connector located on the hydraulic unit and check the condition of the wiring.

Ensure the continuity and insulation of the connections between:
Computer connector track 38 ⟶ **Track C7** Intermediate connector
Computer connector track 50 ⟶ **Track C6** Intermediate connector

Also check the insulation between these connections.

Check and ensure the continuity and insulation of the connections between:
Sensor connector **track A** ⟶ **Track C7** Intermediate connector
Sensor connector **track B** ⟶ **Track C6** Intermediate connector

Also check the insulation between these connections.

If the fault persists, replace the vehicle speed sensor on the sequential gearbox.

AFTER REPAIR	**A road test must be performed along with another check using the diagnostic tool to clear the gearbox input sensor fault.**

X 65 SGB D4F 1.0

DF062 **PRESENT**	<u>CAN fault</u> 1.DEF : CAN connection fault

NOTES	**Special notes:** None.

1.DEF	*NOTES*	**Special notes:** None.

Apply the fault finding procedure associated with the multiplex network test.

AFTER REPAIR	Clear the computer memory then switch off the ignition and wait 20 seconds. Perform a road test and then re-check with the diagnostic tool.

X 65 SGB D4F 1.0

| DF065
PRESENT | **PUMP RELAY CIRCUIT**
SC.0   : Short circuit to earth
CO.1   : Open circuit or short circuit to + 12 volts
1.DEF : Pump motor permanent control |

| NOTES | **Order of priority in the event of several faults:**
First, deal with fault **DF005 Oil pressure sensor circuit**. |

| *CC.0 - CO.1* | NOTES | **Special notes:** None. |

Ensure the presence and conformity of the relay in the engine fuse box.

Check the wiring on the pump relay connector and the **52-track** computer connector.

Check for the presence of **+ before ignition feed** between **tracks 2 and 3** of the relay. Repair if necessary.

Ensure continuity and insulation of the connection between:
Relay connector **track 1** ⟶ **Track 31** computer connector

Replace the pump relay if the fault persists.

| *1.DEF* | NOTES | **Special notes:** None. |

Check that **PR018** Hydraulic pressure when ignition is switched on is between 40 bar and 50 bar, if not, apply fault finding procedure **DF005**.

If the checks described in procedure DF005 are correct and parameter PR018 shows a value lower than the one given previously following the pump motor starting up, replace the pressure sensor.

Disconnect the relay and check for the absence of continuity between tracks **3 and 5** of the relay. Replace the relay if necessary (relay is glued).

Ensure the **insulation against + 12 volts** between track **5** of the relay and track **B** of the pump motor. Repair if necessary.

Check for the absence of **+ 12 after ignition** on track **1** of the relay.

Ensure the **insulation against + 12 volts** between **track 31** of the computer connector and track **1** of the relay mounting.
Repair if necessary.

If the checks show correct results and the computer is permanently supplying the pump motor, then replace the sequential gearbox computer.

| AFTER REPAIR | Clear the computer memory then switch off the ignition and wait 20 seconds.
Perform a road test and then re-check with the diagnostic tool. |

X 65 SGB D4F 1.0

| **DF067**

PRESENT | <u>LEVER POSITION SWITCH CIRCUIT</u>
SC.0 : Short circuit to earth
CO.1 : Open circuit or short circuit to + 12 volts |

| *NOTES* | **Special notes:** None. |

| *CC.0 - CO.1* | *NOTES* | **Special notes:** None. |

Check the condition and correct connection of the wiring on the lever connector and the **28** and **52-track** computer connectors.

Check and ensure the continuity and insulation of the connections between:

Switch connector	**track 1** ⟶	**Track 65** computer connector
Switch connector	**track 2** ⟶	**Track 26** computer connector
Computer connector	**track 6** ⟶	**Track 68** computer connector
Switch connector	**track 8** ⟶	**Track 67** computer connector
Switch connector	**track 9** ⟶	**Track 74** computer connector

Also ensure the insulation between these five connections. Repair if necessary.

Apply the fault finding procedure associated with states: **ET043**, **ET044**, **ET045**, **ET046** in the interpretation of states fault finding procedure.

| *AFTER REPAIR* | Clear the computer memory, switch off the ignition and wait 20 seconds.
Perform a road test and then re-check with the diagnostic tool. |

X 65 SGB D4F 1.0

DF068 **PRESENT**	<u>CLUTCH POSITION SENSOR CIRCUIT</u> SC.0 : Short circuit to earth CO.1 : Open circuit or short circuit to + 12 volts 1.DEF : Consistency

NOTES	**Special notes:** None.

CC.0 - CO.1	*NOTES*	**Special notes:** None.

Check the connection and condition of the sensor and the computer.

Check the continuity and insulation of the connections between:

Sensor connector **track A** ——▶ **Track 73** computer connector
Sensor connector **track B** ——▶ **Track 66** computer connector
Sensor connector **track C** ——▶ **Track 52** computer connector

If the connection is faulty:
Disconnect the intermediate **24-track** connector located on the hydraulic unit and check the condition of the wiring.

Check and ensure the continuity and insulation of the connections between:

Computer connector **track 73** ——▶ **Track C8** intermediate connector
Computer connector **track 66** ——▶ **Track C1** intermediate connector
Computer connector **track 52** ——▶ **Track C4** Intermediate connector

Also check the insulation between these connections. Repair if necessary.

Check and ensure the continuity and insulation of the connections between:

Sensor connector **track A** ——▶ **Track C8** Intermediate connector
Sensor connector **track B** ——▶ **Track C1** Intermediate connector
Sensor connector **track C** ——▶ **Track C4** intermediate connector

Also check the insulation between these connections. Repair if necessary.

Check the mechanical condition of the actuator (clutch cable seized or broken). Repair if necessary.
Using the diagnostic tool, issue the **AC014** command and check that the clutch fork moves correctly.
If the clutch fork does not move correctly, replace the clutch solenoid valve.
Replace the clutch position sensor if the fault persists.

AFTER REPAIR	Clear the computer memory then switch off the ignition and wait 20 seconds. Perform a road test and then re-check with the diagnostic tool.

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DF068 **CONTINUED**	21B-12

1.DEF	*NOTES*	**Special notes:** None.

Check the connection and the condition of the sensor connections.

Check and ensure the continuity and insulation of the connections between:

Sensor connector **track A** ⟶ **Track 73** computer connector
Sensor connector **track B** ⟶ **Track 66** computer connector
Sensor connector **track C** ⟶ **Track 52** computer connector

Also ensure the insulation between these three connections.

Carry out a visual inspection of the sensor wiring and check the quality of the connections on the **52 and 28-track** connectors of the computer. Replace the clutch position sensor if necessary.

Using the diagnostic tool, ensure that **PR006** and **PR014** vary with the engine running. Repair if necessary.

If the checks are correct, replace the clutch position sensor.

If the fault persists, check that the clutch is not overheating.

AFTER REPAIR	Clear the computer memory then switch off the ignition and wait 20 seconds. Perform a road test and then re-check with the diagnostic tool.

X65 SGB D4F 1.0

DF069 **PRESENT**	SELECTION POSITION SENSOR CIRCUIT SC.0 : Short circuit to earth CO.1 : Open circuit or short circuit to + 12 volts

NOTES	**Special notes:** None.

CC.0 - CO.1	*NOTES*	**Special notes:** None.

Check the connection and condition of the sensor and the computer.

Check the continuity and insulation of the connections between:

Sensor connector **track A** ⟶ **Track 73** computer connector
Sensor connector **track B** ⟶ **Track 66** computer connector
Sensor connector **track C** ⟶ **Track 51** computer connector

If the connection is faulty:
Disconnect the intermediate **24-track** connector located on the hydraulic unit and check the condition of the wiring.

Check and ensure the continuity and insulation of the connections between:

Computer connector **track 73** ⟶ **Track C8** intermediate connector
Computer connector **track 66** ⟶ **Track C1** intermediate connector
Computer connector **track 51** ⟶ **Track C3** intermediate connector

Also ensure the insulation between these three connections. Repair if necessary.

Check and ensure the continuity and insulation of the connections between:

Sensor connector **track A** ⟶ **Track C8** intermediate connector
Sensor connector **track B** ⟶ **Track C1** intermediate connector
Sensor connector **track C** ⟶ **Track C3** intermediate connector

Also ensure the insulation between these three connections. Repair if necessary.

Remove the selection position sensor and check the wear of the potentiometer-actuator mechanical link. Repair if necessary.

If the checks show no faults, replace the selection position sensor.

AFTER REPAIR	Clear the computer memory, switch off the ignition and wait 20 seconds. Perform a road test and then re-check with the diagnostic tool.

X 65 SGB D4F 1.0

| **DF070**

PRESENT | ENGAGEMENT POSITION SENSOR CIRCUIT
SC.0 : Short circuit to earth
CO.1 : Open circuit or short circuit to + 12 volts |

| **NOTES** | **Special notes:** None. |

| **CC.0 - CO.1** | **NOTES** | **Special notes:** None. |

Check the connection and condition of the sensor and the computer.

Check the continuity and insulation of the connections between:

Sensor connector **track A** ———▶ **Track 73** computer connector
Sensor connector **track B** ———▶ **Track 66** computer connector
Sensor connector **track C** ———▶ **Track 39** computer connector

If the connection is faulty:
Disconnect the intermediate **24-track** connector located on the hydraulic unit and check the condition of the wiring.

Check and ensure the continuity and insulation of the connections between:

Computer connector **track 73** ———▶ **Track C8** intermediate connector
Computer connector **track 66** ———▶ **Track C1** intermediate connector
Computer connector **track 39** ———▶ **Track C2** intermediate connector

Also ensure the insulation between these three connections. Repair if necessary.

Check and ensure the continuity and insulation of the connections between:

Sensor connector **track A** ———▶ **Track C8** intermediate connector
Sensor connector **track B** ———▶ **Track C1** intermediate connector
Sensor connector **track C** ———▶ **Track C2** intermediate connector

Also ensure the insulation between these three connections. Repair if necessary.

Remove the selector position sensor and check the wear of the potentiometer-actuator mechanical link. Repair if necessary.

If the checks show no faults, replace the engagement position sensor.

| **AFTER REPAIR** | Clear the computer memory then switch off the ignition and wait 20 seconds.
Perform a road test and then re-check with the diagnostic tool. |

X 65 SGB D4F 1.0

DF071 PRESENT OR STOREDSTORED	<u>CLUTCH SOLENOID VALVE CIRCUIT</u> SC.0 : Short circuit to earth CC.1 : Short-circuit to + 12 volts CO : Open circuit

CO - CC.1 - CC.0	*NOTES*	**Conditions for applying the fault finding procedure to stored faults:** The fault is declared present following: engagement of all the gears, with the brake pedal depressed, engine stopped.

Check the connection and condition of the sensor and the computer.

Check the continuity and insulation of the connections between:
        Sensor connector **track 1**   ⟶   **Track 43** computer connector
        Sensor connector **track 2**   ⟶   **Earth** terminal on hydraulic block

If the connection is faulty:
Disconnect the intermediate **24-track** connector located on the hydraulic unit and check the condition of the wiring.

Check and ensure the continuity and insulation of the connection between:
        Computer connector **track 43**   ⟶   **Track B2** intermediate connector

Repair if necessary.

Check and ensure the continuity and insulation of the connection between:
        Sensor connector **track 1**   ⟶   **Track B2** intermediate connector

Repair if necessary.

If the checks are correct, replace the clutch solenoid valve.

AFTER REPAIR	Clear the computer memory then switch off the ignition and wait 20 seconds. Perform a road test and then re-check with the diagnostic tool.

X 65 SGB D4F 1.0

	ENGAGEMENT SOLENOID VALVE 1 CIRCUIT
DF072 **PRESENT** **OR** **STOREDSTORED**	SC.0 : Short circuit to earth CC.1 : Short-circuit to + 12 volts CO : Open circuit

		Conditions for applying the fault finding procedure to stored faults:
CO - CC.1 - CC.0	*NOTES*	The fault is declared present following: engagement of all the gears, with the brake pedal depressed, engine stopped.

Check the connection and condition of the sensor and the computer.

Check the continuity and insulation of the connections between:
>   Solenoid valve connector **track 1** ⟶ **Track 32** computer connector
>   Solenoid valve connector **track 2** ⟶ **Earth** terminal on hydraulic block

If the connection is faulty:
Disconnect the intermediate **24-track** connector located on the hydraulic unit and check the condition of the wiring.

Check and ensure the continuity and insulation of the connection between:
>   Computer connector **track 32** ⟶ **Track B5** intermediate connector

Repair if necessary.

Check and ensure the continuity and insulation of the connection between:
>   Sensor connector **track 1** ⟶ **Track B5** intermediate connector

Repair if necessary.

If the checks are correct, replace the engagement solenoid valve 1.

AFTER REPAIR	Clear the computer memory then switch off the ignition and wait 20 seconds. Perform a road test and then re-check with the diagnostic tool.

X 65 SGB D4F 1.0

DF073 **PRESENT** **OR** **STORED**	<u>ENGAGEMENT SOLENOID VALVE 2 CIRCUIT</u> CC.1 : Short-circuit to + 12 volts SC.0 : Short circuit to earth CO : Open circuit

CO - CC.1 - CC.0	***NOTES***	**Conditions for applying the fault finding procedure to stored faults:** The fault is declared present following: engagement of all the gears, with the brake pedal depressed, engine stopped.

Check the connection and condition of the solenoid valve and computer connections. Check the continuity and insulation of the connections between:

        Solenoid valve connector **track 1** ⎯⎯⎯▶ **Track 44** computer connector
        Solenoid valve connector **track 2** ⎯⎯⎯▶ **Earth** terminal on hydraulic block

If the connection is faulty:
Disconnect the intermediate **24-track** connector located on the hydraulic unit and check the condition of the wiring.

Check and ensure the continuity and insulation of the connection between:
        Computer connector **track 44** ⎯⎯⎯▶ **Track B3** intermediate connector

Repair if necessary.

Check and ensure the continuity and insulation of the connection between:
        Sensor connector **track 1** ⎯⎯⎯▶ **Track B3** intermediate connector

Repair if necessary.

If the checks are correct, replace engagement solenoid valve 2.

AFTER REPAIR	Clear the computer memory then switch off the ignition and wait 20 seconds. Perform a road test and then re-check with the diagnostic tool.

X 65 SGB D4F 1.0

	SELECTION SOLENOID VALVE 1 CIRCUIT
DF074 **STORED**	CC.1 : Short-circuit to + 12 volts CO.0 : Open circuit or short circuit to earth

CO.0 - CC.1	*NOTES*	**Conditions for applying the fault finding procedure to stored faults:** If **DF077** is present with **DF074** stored, first apply the fault processing procedure below. If only **DF074** is stored, apply the fault finding procedure below, if the fault is present following engagement of all the gears, brake pedal depressed, engine stopped.

Check the connection and condition of the sensor and the computer.

Check the continuity and insulation of the connections between:

      Solenoid valve connector **track 1**   ⟶   **Track 29** computer connector

      Solenoid valve connector **track 2**   ⟶   **Earth** terminal on hydraulic block

If the connection is faulty:
Disconnect the intermediate **24-track** connector located on the hydraulic unit and check the condition of the wiring.

Check and ensure the continuity and insulation of the connection between:

      Computer connector **track 29**   ⟶   **Track B4** intermediate connector

Repair if necessary.

Check and ensure the continuity and insulation of the connection between:

      Sensor connector **track 1**   ⟶   **Track B4** intermediate connector

Repair if necessary.

If the checks are correct, replace selection solenoid valve 1.

AFTER REPAIR	Clear the computer memory then switch off the ignition and wait 20 seconds. Perform a road test and then re-check with the diagnostic tool.

X 65 SGB D4F 1.0

	SOLENOID VALVE SELECTION CIRCUIT 2
DF075 **STORED**	CC.1 : Short-circuit to + 12 volts CO.0 : Open circuit or short circuit to earth

CO.0 - CC.1	*NOTES*	**Conditions for applying the fault finding procedure to stored faults:** If **DF077** is present with **DF075** stored, first apply the fault processing procedure below. If only **DF075** is stored, apply the fault finding procedure below, if the fault is present following engagement of all the gears, brake pedal depressed, engine stopped.

Check the connection and condition of the sensor and the computer.

Check the continuity and insulation of the connections between:

        Solenoid valve connector **track 1** ⟶ **Track 3** computer connector

        Solenoid valve connector **track 2** ⟶ **Earth** terminal on hydraulic block

If the connection is faulty:
Disconnect the intermediate **24-track** connector located on the hydraulic unit and check the condition of the wiring.

Check and ensure the continuity and insulation of the connection between:

        Computer connector **track 3** ⟶ **Track B6** intermediate connector

Repair if necessary.

Check and ensure the continuity and insulation of the connection between:

        Sensor connector **track 1** ⟶ **Track B6** intermediate connector

Repair if necessary.

If the checks are correct, replace selection solenoid valve 2.

AFTER REPAIR	Clear the computer memory then switch off the ignition and wait 20 seconds. Perform a road test and then re-check with the diagnostic tool.

X 65 SGB D4F 1.0

	CLUTCH CONTROL
DF076 **STORED**	1.DEF : Clutch overheating

NOTES	**Processing priority in the event of a number of faults:** Deal with other faults declared present first.
	Conditions for applying the fault finding procedure to stored faults: The fault is declared present when the clutch is used under severe conditions (prolonged driving up hill).

Clear the fault if it is the only one to be stored and ensure the clutch has not glazed by driving the vehicle forwards at low load and then on a gradient.

If the clutch slips, proceed as follows:
– pull away a number of times at low load and check that the PROGRESSIVENESS signal changes.
– if the problem persists, replace the clutch.

AFTER REPAIR	Clear the computer memory then switch off the ignition and wait 20 seconds. Perform a road test and then re-check with the diagnostic tool.

X 65 SGB D4F 1.0

DF077 PRESENT OR STOREDSTORED	GEARBOX CONTROL 1.DEF : Automatic mode fault 2.DEF : Mechanical fault

NOTES	**Processing priority in the event of a number of faults:** Deal with other faults declared present first.
	Conditions for applying the fault finding procedure to stored faults: The fault is declared present when the clutch is used under severe conditions (prolonged driving up hill).

1.DEF	*NOTES*	**Special notes:** None.

Problem associated with the injection, deal with the engine injection diagnostic part.

If there are no faults in the engine, this fault is only due to forward movement with significant skidding on a slippery road followed by a return to tyre adhesion.

Clear this fault and perform a road test.

2.DEF	*NOTES*	**Special notes:** None.

Ensure there are no faults with a selection or engagement sensor, repair if necessary.

On the hydraulic unit and through the inspection cover, check that the gearbox control is correctly clipped in (follow the method described in the Workshop Repair Manual). Carry out the necessary repairs.

Check that there is no water in the gearbox oil. Repair if necessary.

Control problem inside the gearbox. Repair or replace the gearbox.

If it is difficult to select gears, especially reverse gear, apply the fault finding procedure for **PR018** described in the conformity check.

AFTER REPAIR	Clear the computer memory then switch off the ignition and wait 20 seconds. Perform a road test and then re-check with the diagnostic tool.

X65 SGB D4F 1.0

DF078 **PRESENT** **OR** **STORED**	<u>HYDRAULIC CONTROL</u> 1.DEF : Pressure too low 2.DEF : Pump fault 3.DEF : Slow pressure loss 4.DEF : Pressure accumulator fault 5.DEF : Rapid pressure loss

NOTES	**Processing priority in the event of a number of faults:** Deal with other faults declared present first.
	Conditions for applying the fault finding procedure to stored faults: The fault is declared as present during a road test.

1.DEF	**NOTES**	**Special notes:** None.

Pressure level below a pressure threshold. Problem linked to a lack of oil (internal or external leak) or to a pump failure. Repair or replace if necessary.

2.DEF	**NOTES**	**Special notes:** None.

Case of excessive pump operation:
– Internal or external leak in the circuit. For an external leak, locate the leak and repair if necessary. For an internal leak, replace the hydraulic unit.
– Accumulator diaphragm porous or punctured: replace the accumulator.

3.DEF	**NOTES**	**Special notes:** None.

Slight internal leak: replace the clutch solenoid valve. If the fault persists, replace the hydraulic unit.
Slight external leak: repair or replace the faulty component.

4.DEF	**NOTES**	**Special notes:** None.

Accumulator diaphragm porous or punctured: replace the accumulator.

5.DEF	**NOTES**	**Special notes:** None.

Check for the presence of a significant external leak. Repair if necessary.
Check the electrical connection of the **24-track** connector on the block, the wiring, the connections and the fuse.
Component seizing or wear. Replace the hydraulic valve block.

AFTER REPAIR	Clear the computer memory then switch off the ignition and wait 20 seconds. Perform a road test and then re-check with the diagnostic tool.

X 65 SGB D4F 1.0

DF080 **PRESENT**	BATTERY VOLTAGE 1.DEF: Supply voltage too low

1.DEF	**NOTES**	**Special notes:** None.

Check that the sequential gearbox supply fuse is correctly positioned and in good condition in the engine interconnection unit.

Measure the battery voltage and check the charging circuit. Repair if necessary.

Ensure that the battery and its connections are in good condition (condition and tightness of the terminal connectors).

Check the engine earths on the vehicle. Repair if necessary.

AFTER REPAIR	Clear the computer memory then switch off the ignition and wait 20 seconds. Perform a road test and then re-check with the diagnostic tool.

X 65 SGB D4F 1.0

DF082 **PRESENT**	<u>BRAKE LIGHT AND SWITCH CIRCUIT</u> CO : Open circuit

CO	***NOTES***	**Special notes:** None.

Check for the presence and condition of the brake light fuse in the passenger compartment fuse box.

Ensure that the connector is correctly connected, check the condition of the wiring as well as that of the computer. Repair if necessary.

Check the adjustment of the brake lights switch on the pedals.

Ensure the continuity, with the pedal depressed, between **tracks A3** and **B1** of the switch. Replace the switch if necessary.

Ensure there is no continuity, with the pedal released, between tracks A3 and B1 of the switch. Replace the switch if necessary.

If the fault persists, ensure the continuity of the connection between:
        Switch **track A3** ⟶ **Track 69** 28-track computer connector

Also ensure the insulation to earth.

AFTER REPAIR	Clear the computer memory then switch off the ignition and wait 20 seconds. Perform a road test and then re-check with the diagnostic tool.

X 65 SGB D4F 1.0

DF107 DF108 DF144 DF145 DF146 DF147 STORED	MULTIPLEX SIGNALS 1.DEF: Incorrect parameters

NOTES	**Conditions for applying the fault finding procedure to stored faults:**
	The fault is declared present after:
	       The computer fault memory has been cleared.
	       The ignition has been switched off and on again.
	       Starting the engine.

For **DF107 Engine speed multiplex signal**, check the injection system. If no fault appears apply fault finding procedure **DF025 Flywheel signal sensor circuit** described in the Technical Note dealing with this type of injection system.

For **DF108 Multiplex medium torque signal** and **DF146 Multiplex unreduced torque signal** and **DF147 Multiplex expected torque signal** check the injection system.

For the **DF144 Water temperature multiplex signal** check the ignition system. If no fault appears, apply fault finding procedure **DF004 Coolant temperature sensor circuit** described in the Technical Note dealing with this type of injection system.

For **DF145 Pedal position multiplex signal** check the injection system. If no fault appears, apply the **DF125 Pedal track sensor circuit 1 and DF126 pedal track sensor circuit 2** described in the Technical Note dealing with this type of injection system.

AFTER REPAIR	Clear the computer memory then switch off the ignition and wait 20 seconds. Perform a road test and then re-check with the diagnostic tool.

X 65 SGB D4F 1.0

DF148 **STORED**	<u>INFO. SECONDARY BRAKE MULTIPLEX CONTACT</u> 1.DEF: Incorrect parameters

NOTES	**Conditions for applying the fault finding procedure to stored faults:**
	The fault is declared present after:
	       The computer fault memory has been cleared.
	       The ignition has been switched off and on again.
	       Starting the engine.

Check for the presence and condition of the brake light fuse in the passenger compartment fuse box.

Ensure that the connector is correctly connected, check the condition of the wiring as well as that of the computer. Repair if necessary.

Check the adjustment of the brake lights switch on the pedals.

Ensure the continuity, with the pedal depressed, between **tracks A3** and **B1** of the switch. Replace the switch if necessary.

Ensure there is no continuity, with the pedal depressed, between **tracks A3** and **B1** of the switch. Replace the switch if necessary.

Ensure the continuity, with the pedal depressed, between **tracks A1** and **B3** of the switch. Replace the switch if necessary.

Ensure there is no continuity, with the pedal depressed, between **tracks A1** and **B3** of the switch. Replace the switch if necessary.

Check the insulation and continuity of the connection between:
        Switch **track B3**   ⟶   connector injection computer

If the fault continues, apply the injection system fault finding procedure.

AFTER REPAIR	Clear the computer memory then switch off the ignition and wait 20 seconds. Perform a road test and then re-check with the diagnostic tool.

X 65 SGB D4F 1.0

DF149 **DF150** **STORED**	<u>MULTIPLEX CONNECTIONS</u> 1.DEF： Incorrect parameters

NOTES	**Conditions for applying the fault finding procedure to stored faults:** The fault is declared present after: 　　　The computer fault memory has been cleared. 　　　The ignition has been switched off and on again. 　　　Starting the engine.

Check for the presence and condition of the brake light fuse in the passenger compartment fuse box.

Apply the multiplex network test using the diagnostic tool.

AFTER REPAIR	Clear the computer memory then switch off the ignition and wait 20 seconds. Perform a road test and then re-check with the diagnostic tool.

X 65 SGB D4F 1.0

| **DF153**
PRESENT
OR
STOREDSTORED | REVERSING LIGHTS CONTROL
CO   : Open circuit
CC.1 : Short-circuit to + 12 volts
CO.0 : Open circuit or short circuit to earth |

| **CO - CC.0 - CO.1** | **NOTES** | **Conditions for applying the fault finding procedure to stored faults:**
The fault is declared present following the running of **AC094** reversing lights command using the diagnostic tool. |

Ensure the presence and conformity of the relay in the engine fuse box.

Check the wiring on the reversing lights mounting relay connections and the 52-track computer connector.

Check for the presence of **+ after ignition** between **tracks 1** of the relay and the vehicle earth. Repair if necessary.

Ensure continuity and insulation of the connection between:

Relay connector **track 2** ⟶ **Track 41** computer connector

If the checks do not reveal any faults, check the presence of **12 volts** on the relay connector between **tracks 1 and 2** running command **AC094 reversing lights** using the diagnostic tool.

If the voltage is correct, replace the reversing lights relay.

If the voltage is incorrect, replace the computer.

| **AFTER REPAIR** | Clear the computer memory, switch off the ignition and wait 20 seconds.
Perform a road test and then re-check with the diagnostic tool. |

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	NOTES	Only check the conformity after a full check using the diagnostic tool.

Order	Function	Parameter or state Check or action	Display and notes	Fault finding
1	Diagnostic tool dialogue		SGB	**FAULT FINDING CHART 1**
2	Automatic mode not pressed detection	**ET029:** Automatic mode	**ACTIVE** state not confirmed, automatic mode button not pressed	**ET029**
3	Automatic mode pressed detection	**ET029:** Automatic mode	**ACTIVE** state not confirmed automatic mode button pressed	**ET029**
4	Lever position contact detection	**ET043:** Lever contact No. 0 **ET044:** Lever contact No. 1 **ET045:** Lever contact No. 2 **ET046:** Lever contact No. 3	**Closed or open** contact state according to position of gear lever	**ET044** **ET043** **ET046** **ET045**
5	Hydraulic pressure	**PR018:** Hydraulic pressure	at **20°C** and above: **40 to 50 bar** at **-30°C 35 to 42 bar**	**DF005**
6	Clutch progressiveness	**PR096:** Clutch progressiveness	from **1000 to 14000** Initial value: **7500**	**DF071** **DF076**
7	Accelerator pedal position	**PR022:** Accelerator pedal position	**0** < pedal position < **100**	**See injection diagnostics**
8	Clutch position	**PR015:** Clutch position	**6.3%** < Clutch position < **90%**	**DF068**
9	Selector lever in N position	**PR016:** Selector lever position	**40%** < selection position < **60%**	**DF069**
10	Engagement position in N	**PR017:** Engagement position in N	**41%** < Engagement position < **63%**	**DF070**

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ET043 ET044 ET045 ET046	LEVER CONTACT NO.0
	LEVER CONTACT NO.1
	LEVER CONTACT NO.2
	LEVER CONTACT NO.3

NOTES	**Special notes:** None.

LEVER POSITION	CONTACT STATES	RESISTANCE MEASURED ON THE BLACK 10-TRACK CONNECTOR GEAR LEVER SIDE
Lever in neutral **ET012** Stb confirmed	**ET043**: OPEN **ET044**: OPEN **ET045**: OPEN **ET046**: OPEN	Between **tracks 1 and 2** $\approx$ **2.7 k**Ω Between **tracks 1 and 8** $\approx$ **2.7 k**Ω Between **tracks 1 and 9** $\approx$ **2.7 k**Ω Between **tracks 1 and 6** $\approx$ **2.7 k**Ω
Neutral position maintained **ET012** N confirmed	**ET043**: OPEN **ET044**: CLOSED **ET045**: CLOSED **ET046**: OPEN	Between **tracks 1 and 2** $\approx$ **2.7 k**Ω Between **tracks 1 and 8** $\approx$ **470** Ω Between **tracks 1 and 9** $\approx$ **470** Ω Between **tracks 1 and 6** $\approx$ **2.7 k**Ω
R position maintained **ET012** R confirmed	**ET043**: OPEN **ET044**: OPEN **ET045**: CLOSED **ET046**: CLOSED	Between **tracks 1 and 2** $\approx$ **2.7 k**Ω Between **tracks 1 and 8** $\approx$ **2.7 k**Ω Between **tracks 1 and 9** $\approx$ **470** Ω Between **tracks 1 and 6** $\approx$ **470** Ω
+ position maintained **ET012** + confirmed	**ET043**: CLOSED **ET044**: CLOSED **ET045**: OPEN **ET046**: OPEN	Between **tracks 1 and 2** $\approx$ **470** Ω Between **tracks 1 and 8** $\approx$ **470** Ω Between **tracks 1 and 9** $\approx$ **2.7 k**Ω Between **tracks 1 and 6** $\approx$ **2.7 k**Ω
- position maintained **ET012** - confirmed	**ET043**: OPEN **ET044**: CLOSED **ET045**: OPEN **ET046**: CLOSED	Between **tracks 1 and 2** $\approx$ **2.7 k**Ω Between **tracks 1 and 8** $\approx$ **470** Ω Between **tracks 1 and 9** $\approx$ **2.7 k**Ω Between **tracks 1 and 6** $\approx$ **470** Ω

Replace the gear lever unit if one of the contacts is faulty.

X65 SGB D4F 1.0

	AUTOMATIC MODE
ET029	

NOTES	**Special notes:** None.

ACTIVE STATE Button released

Check the wiring and correct connection of the gear lever. Repair if necessary.

Check that there is no continuity on the gear lever connector between **tracks 8 and 9** in the released position. If there is continuity, replace the switch.

Ensure insulation against earth of the connection between:
        Switch connector **track 9** ⟶ **Track 77** computer connector

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INACTIVE STATE Button pressed

Check the wiring and correct connection of the gear lever. Repair if necessary.

Check the continuity on the gear lever between **tracks 8 and 9** in the pressed position. If there is no continuity, replace the switch.

Ensure the presence of earth on **track 8** on the gear lever connector.

Ensure continuity of the connection between:
        Switch connector **track 9** ⟶ **Track 77** computer connector

FOR THE PROGRAMMING AND BLEEDING OPERATIONS NECESSARY WHEN REPLACING PARTS REFER TO THE INSTRUCTIONS SPECIFIED IN THE REPAIR MANUAL.

REPLACING THE COMPUTER:

– **BEFORE REPLACING THE COMPUTER:**

Take a reading of the **PR147** value from the replacement computer with the diagnostic tool.
Take a reading of the **ID024** NEW CLUTCH FITTING DATE READING value with the diagnostic tool.

– **AFTER REPLACING THE COMPUTER:**

Carry out the following operations with the diagnostic tool:

– **PARAMETER:** **VP008** PROGRAM SELECTION / ENGAGEMENT ZONES.
– **PARAMETER:** **VP014** ENTER CLUTCH INITIAL CLOSED POSITION. **(Use this command to store the value noted previously in PR147.)**
– **PARAMETER:** **VP013** ENTER NEW CLUTCH FITTING DATE. **(Use this command to store the value noted previously in ID024.)**

WHEN REPLACING THE CLUTCH:

Carry out the following commands:

– **CLEAR:** **RZ008** CLUTCH INITIAL CLOSED POSITION.
– **PARAMETER:** **VP013** ENTER NEW CLUTCH FITTING DATE.

SPECIAL FEATURE:

Identification **ID024** (read date of fitting new clutch) is equal to **555555** if the original clutch has not been replaced and the date of replacement has not been entered.

NOTES	Only consult the customer complaints after a complete check using the fault finding tool.

NO DIALOGUE WITH THE DIAGNOSTIC TOOL

  No dialogue with the sequential gearbox computer   **FAULT FINDING CHART 1**

SEQUENTIAL GEARBOX OPERATIONAL PROBLEMS IMMOBILISING THE VEHICLE

  Cannot select a forward or reverse gear when stationary   **FAULT FINDING CHART 2**

  Cannot select Neutral   **FAULT FINDING CHART 2**

  Impossible to start engine with gear engaged, even with brake pedal depressed   **FAULT FINDING CHART 2**

  Not possible to engage or disengage a gear   **FAULT FINDING CHART 3**

  Engine can only be started if brake pedal depressed   **FAULT FINDING CHART 3**

  Semi-automatic mode not possible   **FAULT FINDING CHART 3**

  Engine stalls when brake pedal is depressed   **FAULT FINDING CHART 3**

OPERATING PROBLEMS WITH THE SEQUENTIAL GEARBOX NOT IMMOBILISING THE VEHICLE

  Cannot access automatic mode if semi-automatic mode was previously selected   **FAULT FINDING CHART 4**

  Cannot access semi-automatic mode if automatic mode was previously selected   **FAULT FINDING CHART 4**

  Automatic mode cannot be selected when starting the engine again   **FAULT FINDING CHART 4**

  No reversing lights   **FAULT FINDING CHART 5**

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OPERATING PROBLEMS WITH THE SEQUENTIAL GEARBOX NOT IMMOBILISING THE VEHICLE

21B-34

No creep — **FAULT FINDING CHART 6**

Brake lights on permanently — **FAULT FINDING CHART 6**

Forward or reverse gear can be selected without depressing the brake pedal — **FAULT FINDING CHART 6**

Loss of automatic mode — **FAULT FINDING CHART 7**

Vehicle does not move forward, engine running — **FAULT FINDING CHART 8**

Inadequate reaction to full load request — **FAULT FINDING CHART 9**

Clutch chatter — **FAULT FINDING CHART 10**

Display not working when driving — **FAULT FINDING CHART 11**

Display and acoustic warning function erratically — **FAULT FINDING CHART 12**

Vehicle jumps when engine is started — **FAULT FINDING CHART 13**

X65 SGB D4F 1.0

| FAULT FINDING CHART 1 | No dialogue with the sequential gearbox computer |

| NOTES | **Special notes:** Only consult this customer complaint after a complete check using the diagnostic tool |

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 car, it may be that a faulty computer is disrupting diagnostic line **K**.
Disconnect the computers one at a time to locate the fault.
Check the voltage of the battery and carry out the operations necessary to obtain a voltage which is to specification (**9.5 volts < U battery < 17.5 volts**).

Check for the presence and condition of the sequential gearbox fuses on the passenger compartment fuse plate (3A) and in the engine fuse box (20A).
Check that the computer connector is properly connected and check the condition of its wiring.
Check the sequential gearbox earths (quality, oxidation, tightness of earth bolts beneath the hydraulic unit).
Check that the computer is correctly supplied:

– **Earth on tracks 1 and 2** of the 52-track connector.
– **+ before ignition on track 27** of the 52-track connector.
– **+ after ignition feed on track 28** of the 52-track connector.

Check that the diagnostic socket is correctly supplied:
– **+Before ignition on track 16**.
– **Earth on track 5**.

Check and ensure the continuity and insulation of the connection between:
Computer connector **track 49** ⟶ **track 7** diagnostic socket.

If dialogue is still not established after these various checks, replace the sequential gearbox computer.

| AFTER REPAIR | Clear the computer memory then switch off the ignition and wait 20 seconds. Perform a road test and then re-check with the diagnostic tool. |

X65 SGB D4F 1.0

| **FAULT
FINDING
CHART 2** | **Cannot select a forward or reverse gear when stationary.**
Cannot select Neutral.
Cannot start engine when gear engaged,
even with brake pedal depressed. |

| *NOTES* | **Special notes:** Only consult this customer complaint after a complete check using the diagnostic tool |

Check for the presence and condition of the brake light switch supply fuse on the passenger compartment fuse board. Repair if necessary.

Ensure that the brake lights switch connector is correctly connected, check the condition of the wiring as well as that of the computer. Repair if necessary.

Check the adjustment of the brake lights switch on the pedals.

Ensure the continuity, with the pedal depressed, between **tracks A3** and **B1** of the switch. Replace the switch if necessary.

Ensure there is no continuity, with the pedal released, between tracks A3 and B1 of the switch. Replace the switch if necessary.

If the fault persists, ensure the continuity of the connection between:
        Switch **track A3** ⟶ **Track 69** 28-track computer connector.

Also ensure the insulation to earth.

| *AFTER REPAIR* | Clear the computer memory then switch off the ignition and wait 20 seconds.
Perform a road test and then re-check with the diagnostic tool. |

X65 SGB D4F 1.0

| **FAULT FINDING CHART 3** | **Not possible to engage or disengage a gear.**
Engine can only be started if brake pedal depressed
Semi-automatic mode not possible.
Engine stalls when brake pedal is depressed. |

| *NOTES* | **Special notes:** Only consult this customer complaint after a complete check using the diagnostic tool |

Check the **+ after ignition supply** and the sequential gearbox computer **earths**.

Check that the gear lever is not seized or damaged or even broken. Replace the lever if necessary.

Apply the fault finding procedure for **ET043**, **ET044**, **ET045**, **ET046** in the interpretation of states section.

If the fault persists,check the injection system using the diagnostic tool.

| *AFTER REPAIR* | Clear the computer memory then switch off the ignition and wait 20 seconds.
Perform a road test and then re-check with the diagnostic tool. |

BVR X65 D4F 1.0

FAULT FINDING CHART 4	**Cannot access automatic mode if semi-automatic mode was previously selected.-** **Cannot access semi-automatic mode if automatic mode was previously selected.** **Automatic mode cannot be selected when starting the engine again**

NOTES	**Special notes:** Only consult this customer complaint after a complete check using the diagnostic tool.

ACTIVE STATE Button released

Check the wiring and correct connection of the gear lever. Repair if necessary.

Check that there is no continuity on the gear lever connector between **tracks 8 and 9** in the released position. If there is continuity, replace the switch.

Ensure insulation against earth of the connection between:

        Switch connector **track 9** ⟶ **Track 77** computer connector

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INACTIVE STATE Button pressed

Check the wiring and correct connection of the gear lever. Repair if necessary.

Check the continuity on the gear lever between **tracks 8 and 9** in the pressed position. If there is no continuity, replace the switch.

Ensure the presence of earth on **track 8** on the gear lever connector.

Ensure continuity of the connection between:

        Switch connector **track 9** ⟶ **Track 77** computer connector

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AFTER REPAIR	Clear the computer memory then switch off the ignition and wait 20 seconds. Perform a road test and then re-check with the diagnostic tool.

X65 SGB D4F 1.0

| **FAULT
FINDING
CHART 5** | **No reversing lights.** |

| *NOTES* | **Special notes:** Only consult this customer complaint after a complete check using the diagnostic tool
The display should indicate that R is engaged. |

Check for the presence of **+ after ignition** on **track 3** of the reverse gear relay mounting.

Ensure continuity and insulation of the connection between:
> Relay mounting **Track 5** ⟶ **Rear lights**

Replace the relays if the fault persists.

| *AFTER REPAIR* | Clear the computer memory then switch off the ignition and wait 20 seconds.
Perform a road test and then re-check with the diagnostic tool. |

X65 SGB D4F 1.0

FAULT FINDING CHART 6	**No creep.** **Brake lights on permanently.** **Forward or reverse gear can be selected without depressing the brake pedal**

NOTES	**Special notes:** Only consult this customer complaint after a complete check using the diagnostic tool In a case where there is no creep, if the customer has heard the buzzer whilst driving, it is normal for creep to be prohibited (clutch overheating). The clutch must be allowed to cool before checking that creep is once again active. Apply the following procedure if the fault persists.

Check for the presence and condition of the brake light fuse in the passenger compartment fuse box.

Ensure that the connectors for the brake switch and handbrake switch are correctly connected and check the condition of the wiring as well as that of the computer. Repair if necessary.

Check the adjustment of the brake lights switch on the pedals.

Ensure the continuity, with the pedal depressed, between **tracks A3** and **B1** of the switch. Replace the switch if necessary.

Ensure there is no continuity, with the pedal released, between **tracks A3** and **B1** of the switch. Replace the switch if necessary.

If the fault persists, ensure the continuity of the connection between:
Switch **track A3** ⟶ **Track 69** 28-track computer connector

Check the condition of the handbrake switch on its support.

Also ensure the insulation to earth.

Ensure **the continuity**, with the handbrake applied, between **track 1** of the switch and vehicle **earth**. Replace the switch if necessary.

Ensure **there is no continuity**, with the handbrake released, between **track 1** of the switch and vehicle **earth**. Replace the switch if necessary.

If the fault persists, ensure the continuity of the connection between:
Switch **track 1** ⟶ **Track 71** 28-track computer connector

Also ensure the insulation to earth.

AFTER REPAIR	Clear the computer memory then switch off the ignition and wait 20 seconds. Perform a road test and then re-check with the diagnostic tool.

X65 SGB D4F 1.0

FAULT FINDING CHART 7	**Loss of automatic mode**

NOTES	**Special notes:** Only consult this customer complaint after a complete check using the diagnostic tool

Injection fault of severity 1 sent by the engine management computer on a CAN connection.

Check the petrol injection using the diagnostic tool.

AFTER REPAIR	Clear the computer memory then switch off the ignition and wait 20 seconds. Perform a road test and then re-check with the diagnostic tool.

X65 SGB D4F 1.0

FAULT FINDING CHART 8	**Vehicle does not move forward, engine running**

NOTES	**Special notes:** Only consult this customer complaint after a complete check using the diagnostic tool

Apply the fault finding procedure associated with the multiplex network test.

AFTER REPAIR	Clear the computer memory then switch off the ignition and wait 20 seconds. Perform a road test and then re-check with the diagnostic tool.

X65 SGB D4F 1.0

| FAULT
FINDING
CHART 9 | **Inadequate reactivity to full load request** |

| *NOTES* | **Special notes:** Only consult this customer complaint after a complete check using the diagnostic tool |

Carry out a road test and check for a hard point on the accelerator pedal under full load and on consecutive down-changing.

If the hard point is noticeable on the pedal but not when down-changing, perform another road test with the selector in automatic mode.

If down-changing is still not active, check using the diagnostic tool that **PR022** under full load is approximately **100**.

If the value is less than **100**, check the operation of the pedals (pedal travel problem or pedal potentiometer damage).

If the fault persists check the injection system using the diagnostic tool.

| *AFTER REPAIR* | Clear the computer memory then switch off the ignition and wait 20 seconds.
Perform a road test and then re-check with the diagnostic tool. |

X65 SGB D4F 1.0

| **FAULT
FINDING
CHART 10** | **Clutch chatter** |

| *NOTES* | **Special notes:** Only consult this customer complaint after a complete check using the diagnostic tool |

If the clutch chatters on light acceleration after the vehicle has been started and is pulling away in a forwards gear on the flat, you need to reset the clutch progressivity as explained below.

With the engine running, lock the handbrake, engage 1$^{st gear}$, and let the engine run at idle speed for **10 minutes** (without applying any pressure to the brake pedal).

After performing this procedure, drive off with the engine cold and then with the engine warm to check that there has been an improvement.

| *AFTER REPAIR* | Clear the computer memory then switch off the ignition and wait 20 seconds.
Perform a road test and then re-check with the diagnostic tool. |

X65 SGB D4F 1.0

FAULT FINDING CHART 11	**Display not working when driving**

NOTES	**Special notes:** Only consult this customer complaint after a complete check using the diagnostic tool

Check the sequential gearbox supply fuses.

Check that the earths and the wiring are not damaged.

AFTER REPAIR	Clear the computer memory then switch off the ignition and wait 20 seconds. Perform a road test and then re-check with the diagnostic tool.

X65 SGB D4F 1.0

| FAULT
FINDING
CHART 12 | **Display and acoustic warning function erratically** |

| *NOTES* | **Special notes:** Only consult this customer complaint after a complete check using the diagnostic tool |

– The acoustic warning is active:
  – when the front doors are opened,
  – if the clutch overheats while the vehicle is being driven,
  – if the sequential gearbox programming has not been carried out.
– The "foot on brake" pictograph is active:
  – when the engine is stopped by a gear lever request or if the lever is accidentally shifted to the neutral position while the vehicle is being driven.

Carry out a road test to recreate the customer complaint.

Carry out the following programming:
  – **VP008 Program selection / engagement zones.**
  – Program the biting point with command:
    RZ003 Program biting point.

Exit fault finding mode and switch off the ignition.

Wait **1 minute** and resume dialogue with the computer.

Shift the gear lever to neutral (Stb).

Start the engine.

Wait **10 seconds** without changing gear (to programme the clutch biting point).

Monitor that the programming is carried out successfully using the following state:

ET062 Programme biting point = Done.

Repeat the procedure if unsuccessful.

| *AFTER REPAIR* | Clear the computer memory then switch off the ignition and wait 20 seconds.
Perform a road test and then re-check with the diagnostic tool. |

X65 SGB D4F 1.0

FAULT FINDING CHART 13	**Vehicle jumps when engine is started**

NOTES	**Special notes:** Only consult this customer complaint after a complete check using the diagnostic tool

If a gear is engaged as soon as the engine is started, check the oil level in the sequential gearbox circuit.

Ensure that the brake pedal switch is functioning correctly and that the gear lever contacts are in good condition (using the diagnostic tool, consult **ET043, ET044, ET045, ET046**).

Ensure the actuator and the clutch fork are functioning correctly (damage, seizing, part breakage, etc.).

Carry out a complete check using the diagnostic tool.

AFTER REPAIR	Clear the computer memory then switch off the ignition and wait 20 seconds. Perform a road test and then re-check with the diagnostic tool.

X65 SGB D4F 1.0