

# Clio II

Type

Sub-section

**XB0 X**

**38**

## **38** ELECTRONICALLY CONTROLLED HYDRAULIC SYSTEMS

- Engine: **XXX**
  - Gearbox: **XXX**
- Basic manual: M.R. 337**  
**DIAG section**

This Technical Note deals with the special features of the "speed signal" function integrated into the computer for the BOSCH 5.3 ABS system.

"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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The new **BOSCH 5.3** ABS computers fitted to the CLIO II have a "speed signal" function.

The computer is capable of providing a vehicle speed signal to all the users of this information in the vehicle (instrument panel, engine management,...).

This vehicle speed signal will replace that currently supplied by the speed sensor on the gearbox.

The ABS computer calculates the vehicle speed from the wheel speeds and the circumference of the tyres fitted to the vehicle.

The basic manual for the interpretation of faults and dealing with customer complaints is **the Diag. section of MR 337**.

**The fault finding part of this document completes the basic manual for the special features of the new ABS computer and brings up to date the customer complaints following simultaneous fitting of the "new generation" instrument panel.**

### **SPECIAL TOOLING REQUIRED FOR OPERATIONS ON THE ABS SYSTEM:**

- NXR or OPTIMA with May 99 update.  
(the special features of this computer cannot be accessed using the XR25 and cassette n° 18).
- Multimeter.

### **REMINDER:**

The instrument panel fitted to "CLIO II" is changing and becoming "active". It will carry out fault finding for ABS and brake warning light connections.

The instrument panel will illuminate the warning lights when the ABS computer is not connected.

The shunt in the ABS computer connector, which earthed the warning light lines when the computer was disconnected, disappears.

In the absence of the tyre circumference being programmed, a fault is recorded in the computer memory and the **ABS warning light flashes**. The ABS and Electronic Braking Distributor (REF) functions are assured but the vehicle speed is calculated using the maximum tyre circumference.

When dialogue is established between the fault finding tool and the ABS computer, the ABS and REF (Electronic Braking Distributor) functions are interrupted, causing a risk of loss of control of the vehicle during emergency braking. For these reasons, dialogue will be cut as soon as a speed of **6 mph** (10 km/h) is exceeded in order to reestablish the ABS and REF functions.

<b>DF014 present</b>	<u>Speed signal function not programmed</u>
<b>NOTES</b>	None.

The **BOSCH 5.3** ABS computer with "speed signal" function is capable of providing a vehicle speed signal to all the users of this information in the vehicle (instrument panel, engine management,...). This vehicle speed signal will replace that currently supplied by the speed sensor on the gearbox. The ABS computer calculates the vehicle speed from the wheel speeds and the circumference of the tyres fitted to the vehicle.

**The tyre circumference is to be programmed into the memory of the new computer. This is done by entering a value "X" using the fault finding tool and the command "CONFIGURATION OF WHEEL DIAMETER".**

Value of "X" :

165 / 70 / R13 175 / 70 / R13 175 / 60 / R14 165 / 65 / R14	<b>X = 108</b>
175 / 65 / R14 185 / 60 / R14 185 / 55 / R15 195 / 50 / R15	<b>X = 148</b>

Following entering of the value using the command "CONFIGURATION OF WHEEL DIAMETER", erase the computer memory then switch off the ignition. Check the "Speed signal value" parameter to see if the value entered is correct.

<b>AFTER REPAIR</b>	Erase the computer memory. Carry out another check using the fault finding tool.
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## Fault finding - Aid

**REPLACING THE COMPUTER:**

The **BOSCH 5.3** ABS computer with "speed signal" function is capable of providing a vehicle speed signal to all the users of this information in the vehicle (instrument panel, engine management,...). This vehicle speed signal will replace that currently supplied by the speed sensor on the gearbox. The ABS computer calculates the vehicle speed from the wheel speeds and the circumference of the tyres fitted to the vehicle.

**The tyre circumference is to be programmed into the memory of the new computer. This is done by entering a value "X" using the fault finding tool and the command "CONFIGURATION OF WHEEL DIAMETER".**

Value of "X" :

165 / 70 / R13 175 / 70 / R13 175 / 60 / R14 165 / 65 / R14	<b>X = 108</b>
175 / 65 / R14 185 / 60 / R14 185 / 55 / R15 195 / 50 / R15	<b>X = 148</b>

Following entering of the value using the command "CONFIGURATION OF WHEEL DIAMETER", erase the computer memory then switch off the ignition.

Check the "Speed signal value" parameter to see if the value entered is correct.

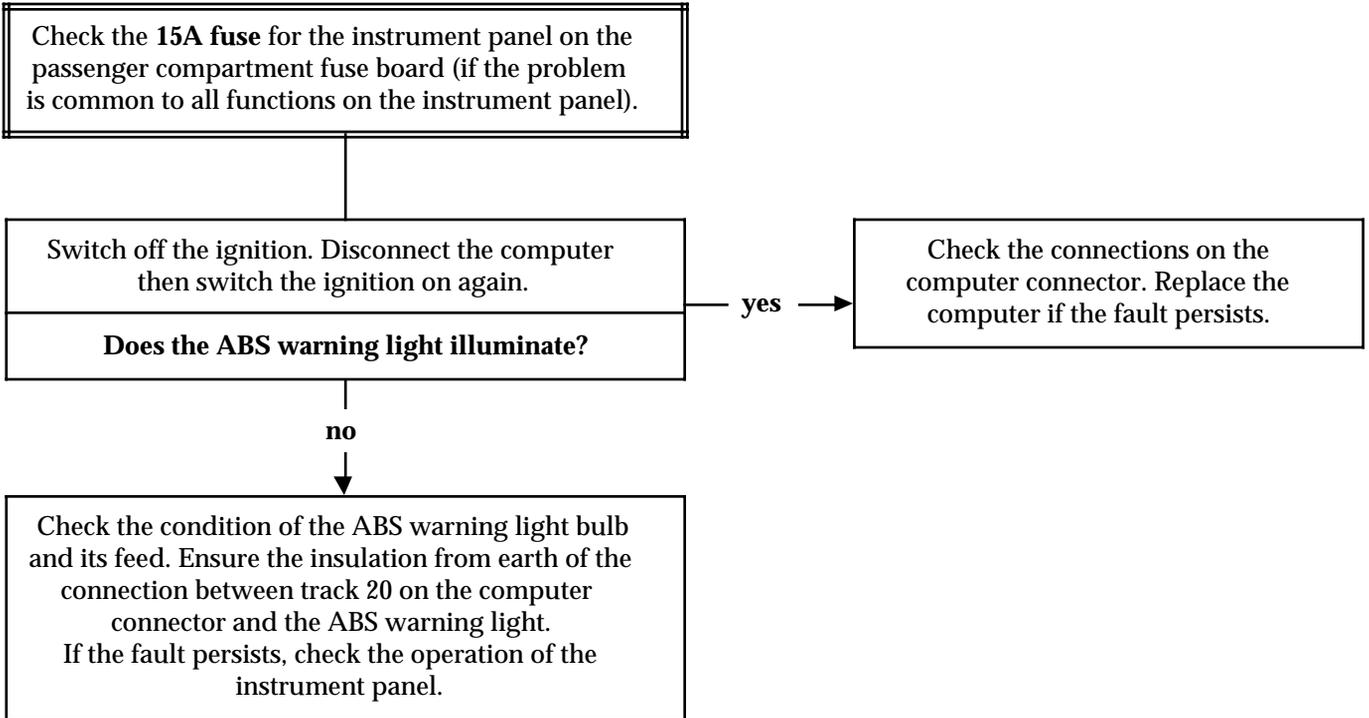
<b>NOTES</b>	Only carry out this conformity check after a complete check using the fault finding tool.
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Order	Function	Parameter / Status checked or action	Display / Notes	Diag.
1	Computer conformity	PR 012 COMPUTER NUMBER		None
2	Computer configuration	PR030 SPEED SIGNAL VALUE	Ensure that the value entered corresponds to the tyres fitted to the vehicle (refer to the section "Aid")	None
3	Operation of ABS and brake warning lights  Checking computer initialisation	Switch on ignition	Warning lights illuminate for 3 seconds when the ignition is switched on	None
4	Recognition of brake pedal positions	ET013 BRAKE PEDAL	Ensure the system recognises the positions "PRESSED" and "RELEASED"	MR337 Diag

**Fault finding - Fault charts**

<b>Chart 1</b>	<b>THE ABS WARNING LIGHT DOES NOT ILLUMINATE FOR 3 SECONDS WHEN THE IGNITION IS SWITCHED ON</b>
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<b>NOTES</b>	Only refer to this customer complaint after a complete check using the fault finding tool. The ABS and brake warning lights will illuminate if the earth connection is lost.
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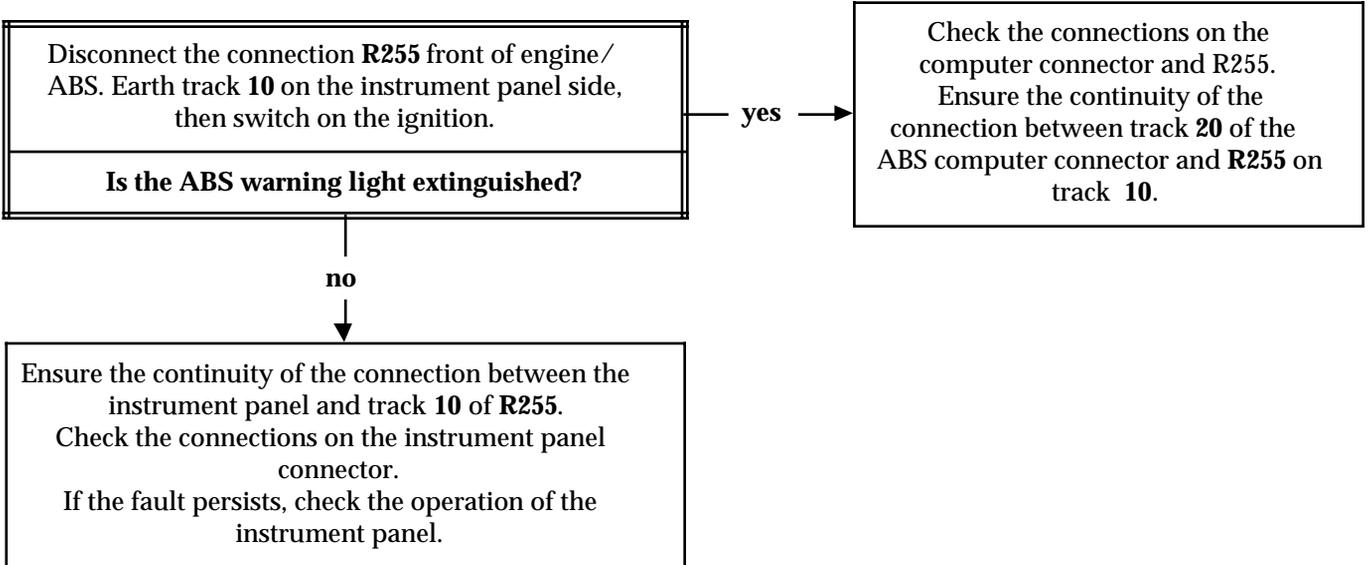


<b>AFTER REPAIR</b>	Carry out a road test then a check with the fault finding tool.
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**Fault finding - Fault charts**

<b>Chart 2</b>	<b>PERMANENT ILLUMINATION OF THE ABS WARNING LIGHT, IGNITION ON (with no fault declared by the fault finding tool)</b>
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<b>NOTES</b>	Only refer to this customer complaint after a complete check using the fault finding tool. The ABS and brake warning lights will illuminate if the earth connection is lost.
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<b>AFTER REPAIR</b>	Carry out a road test then a check with the fault finding tool.
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## Fault finding - Fault charts

<b>Chart 3</b>	<b>ABS AND/OR BRAKE WARNING LIGHTS ILLUMINATE AGAIN AFTER ENGINE HAS BEEN STARTED INTERMITTENT ILLUM. OF ABS AND/OR BRAKE WARNING LIGHTS WHILE DRIVING</b>
<b>NOTES</b>	Only refer to this customer complaint after a complete check using the fault finding tool. The ABS and brake warning lights will illuminate if the earth connection is lost.

Check the computer feed voltage : **9.5 volts < correct voltage < 17.5 volts.**

If necessary, carry out the following operations:

- Check the battery charge (check the charging circuit if necessary).
- Check the tightness and condition of the battery terminals.
- Check the ABS earths (tightness of the 2 earth bolts above the ABS assembly).

Ensure the continuity of the connection between track **20** on the ABS computer connector and the ABS warning light.

Ensure the continuity of the connection between track **21** on the ABS computer connector and the brake warning light.

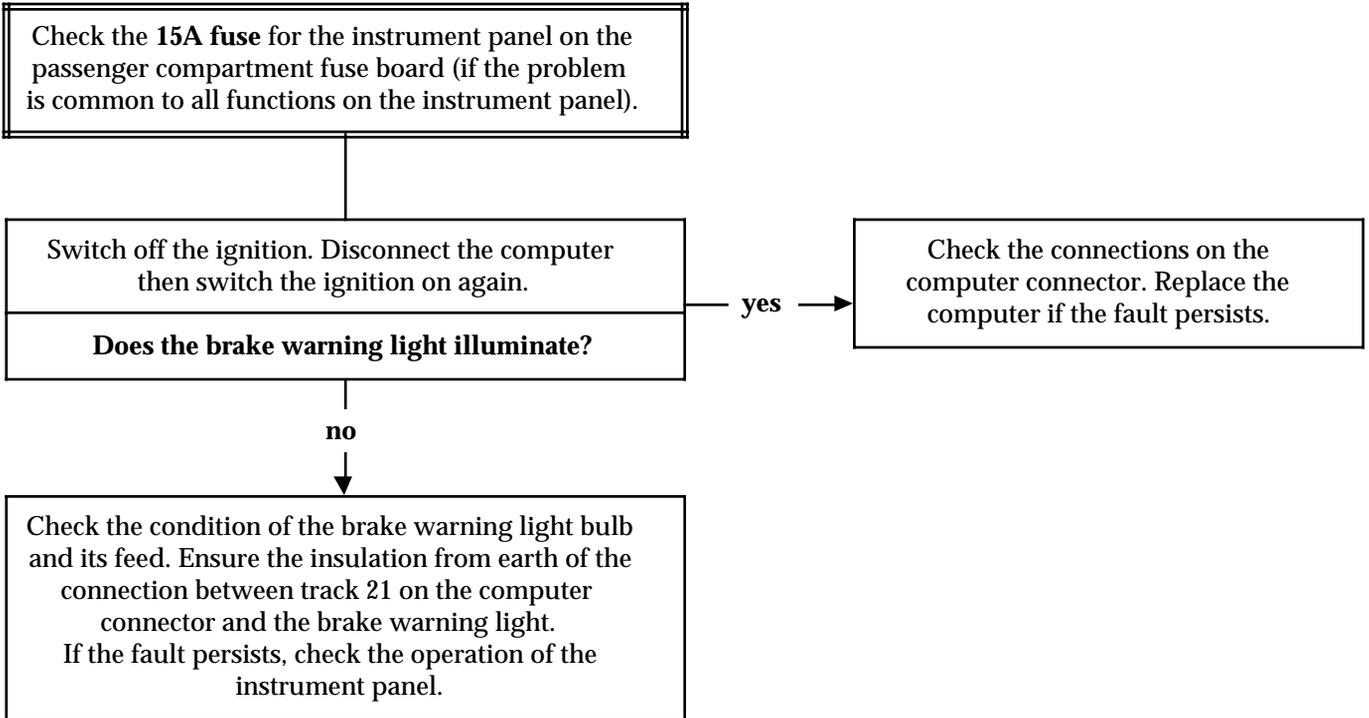
Check the connections on these 2 connections.

<b>AFTER REPAIR</b>	Carry out a road test then a check with the fault finding tool.
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**Fault finding - Fault charts**

<b>Chart 4</b>	<b>THE BRAKE WARNING LIGHT DOES NOT ILLUMINATE FOR 3 SECONDS WHEN THE IGNITION IS SWITCHED ON</b>
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<b>NOTES</b>	Only refer to this customer complaint after a complete check using the fault finding tool. The ABS and brake warning lights will illuminate if the earth connection is lost.
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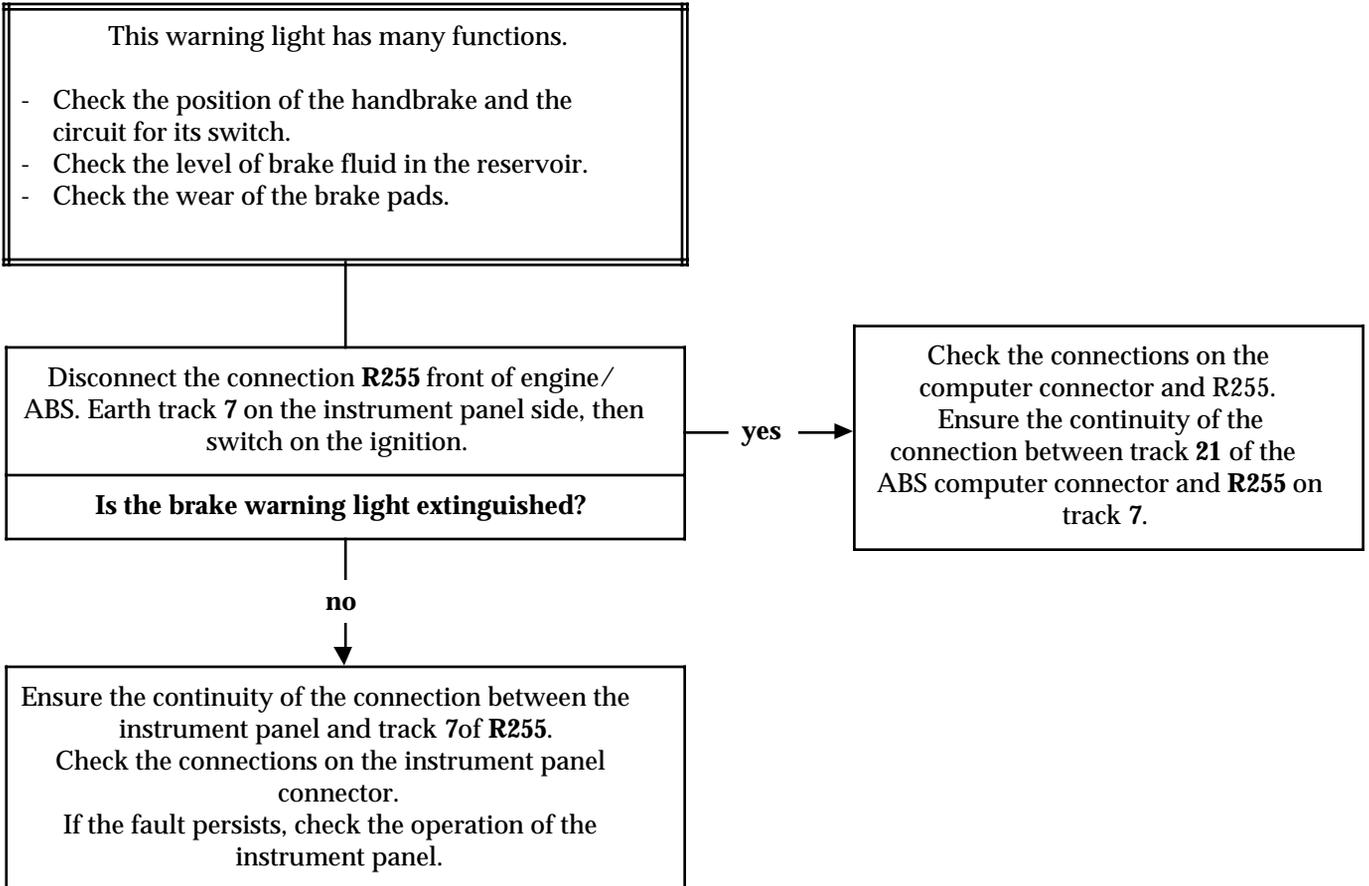


<b>AFTER REPAIR</b>	Carry out a road test then a check with the fault finding tool.
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## Fault finding - Fault charts

<b>Chart 5</b>	<b>PERMANENT ILLUMINATION OF THE BRAKE WARNING LIGHT, IGNITION ON</b>
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<b>NOTES</b>	Only refer to this customer complaint after a complete check using the fault finding tool. The ABS and brake warning lights will illuminate if the earth connection is lost.
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<b>AFTER REPAIR</b>	Carry out a road test then a check with the fault finding tool.
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