

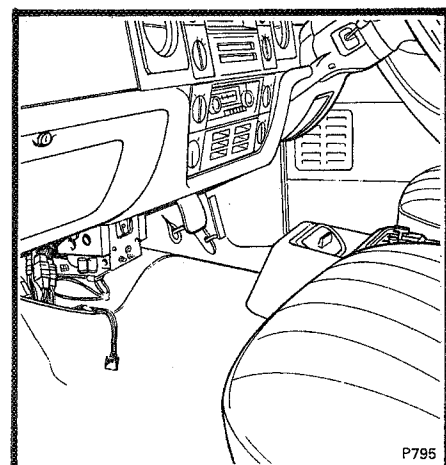
## Section C7

**System test and  
fault diagnosis**

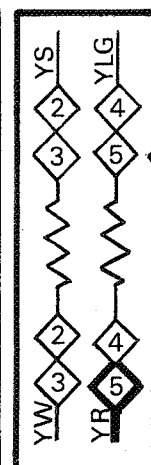
Lower sensor chain fault diagnosis

Fig. C40

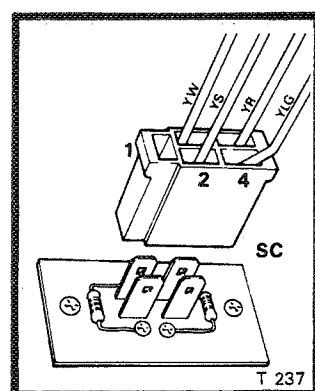
If a cable fault is indicated when using this chart,  
refer to next page to isolate the fault.



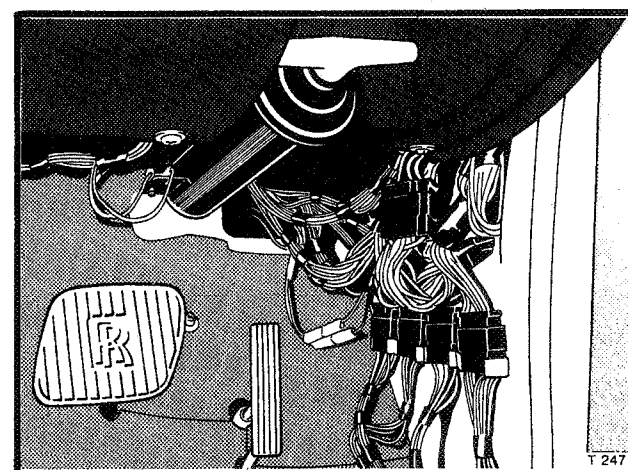
Location of sensor chain socket



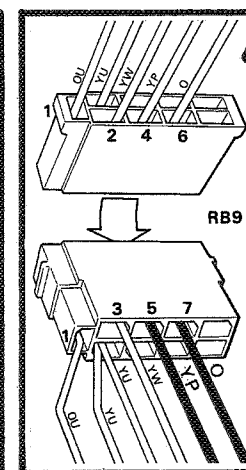
Sensor chain socket schematic diagram



Sensor chain socket



Location of right-hand body sockets



Right-hand body socket

**Start**

**Lower sensor chain check.** Set ACU switch to AUTO. Disconnect servo trim cover plug & measure resistance between yellow/red wire & a good earth. Referring to graph 5, is the resistance correct?

YES

**Lower sensor chain is correct**  
If temperature fault still exists, check servo settings, water tap and upper sensor chain.

NO

Set ACU switch to DEF. Does the resistance meter read more than 20 000Ω?

YES

There is an earth fault in the sensor chain. Disconnect the right-hand body socket and isolate fault. When fault is found, go back to START to check for other faults.

NO

**Knee roll sensor check**  
Disconnect the right-hand body socket & measure the resistance between the yellow/purple cable in pin 4 and the yellow/red cable at servo plug. Referring to graph 2, is the resistance correct?

YES

**The knee roll sensor is correct, now check ambient sensor.**

NO

Unfasten the fuseboard cover. Disconnect the Lucar connector from the knee roll sensor and measure the resistance across the sensor. Referring to graph 2, is the resistance correct?

YES

**Knee roll sensor is correct**  
Fault is in cables or connectors. After finding the fault, reconnect body socket, go back to START to check for other faults.

NO

Fit new sensor, reconnect body socket. Go back to START to check for other faults.

**Ambient sensor check**  
Measure resistance between yellow/purple in pin 5 and orange cable in pin 7. Referring to graph 6, is resistance correct?

NO

Remove trim on right-hand side of boot. Disconnect orange and yellow/purple Lucar connectors. Measure the resistance of cables to sensors. Referring to graph 6, is the resistance correct?

YES

**Ambient sensor is correct**  
Fault is in cables or connectors from body socket. After finding fault, reconnect Lucar and body sockets, go back to START to check for other faults.

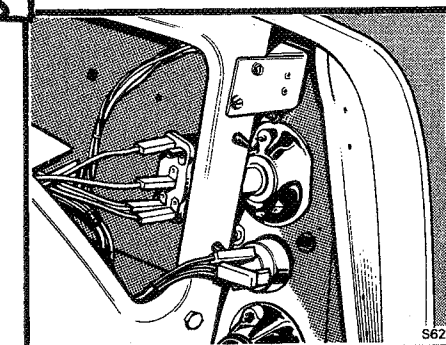
NO

Fit new sensors (upper & lower), reconnect Lucar connectors and body socket. Go back to START to check for other faults.

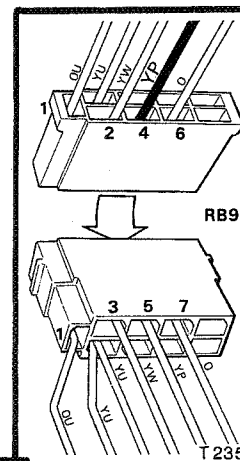
**Ambient sensor is correct**

Go back to START to check for other faults.

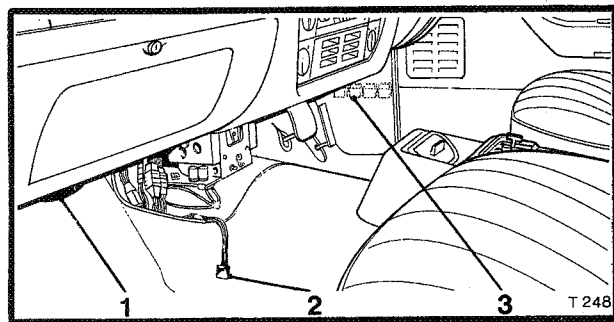
**These are landmarks. They show which part of the system has been proved correct.**



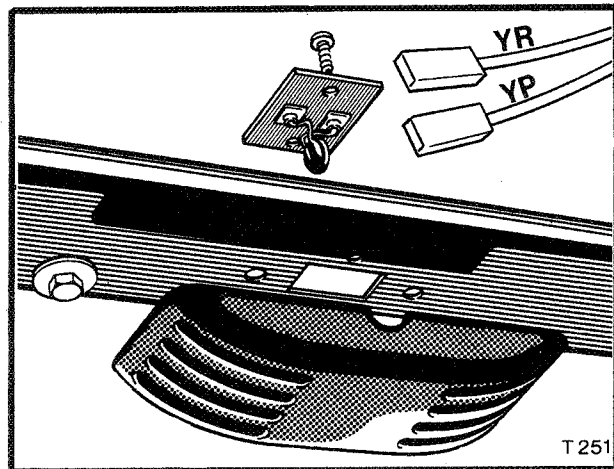
Location of ambient sensor connection



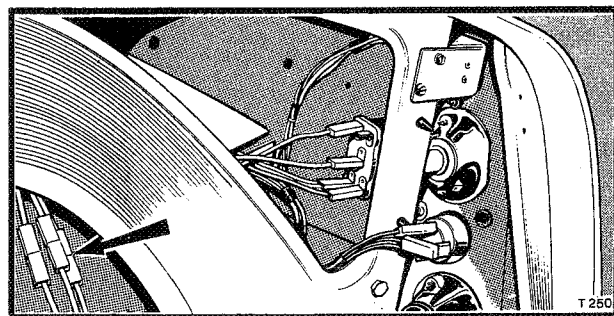
Knee roll sensor



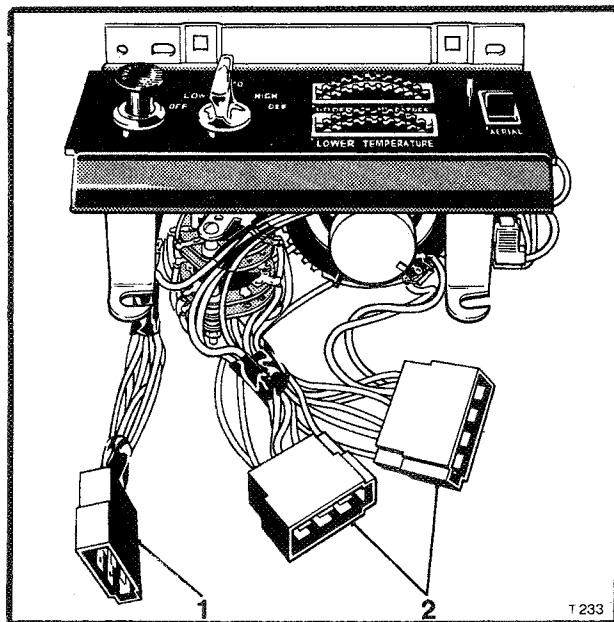
1. Knee roll sensor 2. Sensor chain socket  
3. Right-hand body sockets



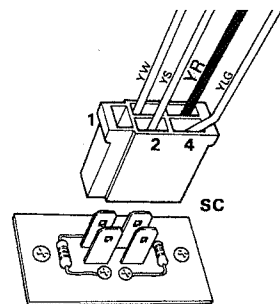
Knee roll sensor



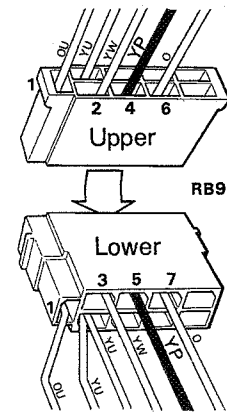
Outside temperature connectors



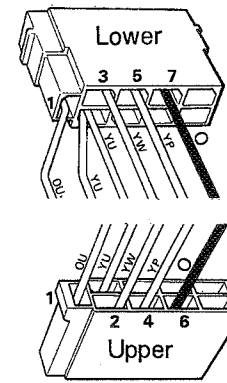
1. Hazard switch socket  
2. A.C.U. sockets



Sensor chain socket



Right-hand body socket



Right-hand body socket

## Resistance meter connection

Meter connected between pin 5 of sensor chain socket and 'A' post earth.

Meter connected between pin 5 of sensor chain socket and yellow/red cable at knee roll sensor.

Meter connected between yellow/purple cable at knee roll sensor and 'A' post earth.

Meter connected between yellow/purple cable at knee roll sensor and pin 4 of right-hand body socket.

Meter connected between pin 5 of right-hand body socket and yellow/purple connection of outside temperature sensor.

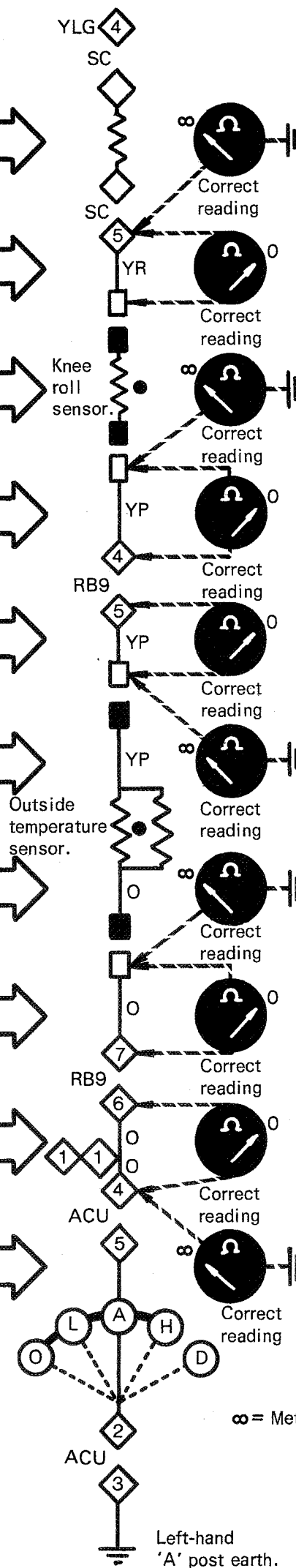
Meter connected between yellow/purple connection of outside temperature sensor and boot earth.

Meter connected between boot earth and orange connection of outside temperature sensor.

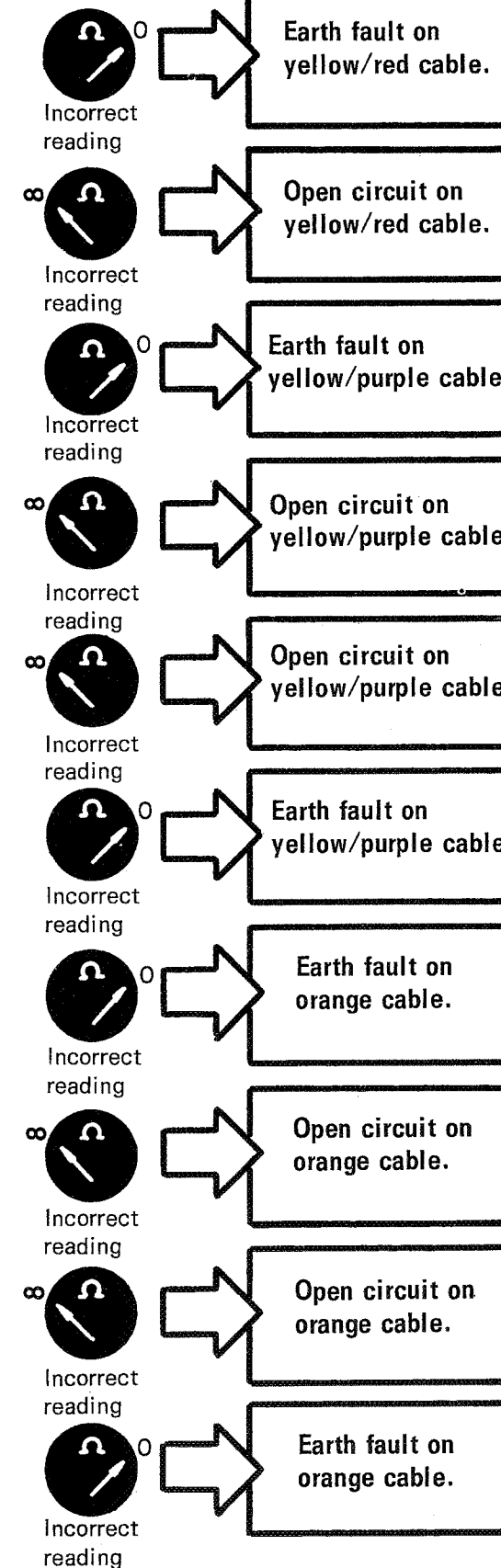
Meter connected between orange connection of outside temperature sensor and pin 7 of right-hand socket.

Meter connected between pin 6 of right-hand body socket and pin 4 of ACU socket (orange cable).

Meter connected between pin 4 of ACU socket (orange cable) and 'A' post earth.



## Fault location



$\infty$  = Meter reading over 100 000  $\Omega$