

**SERVICE INFORMATION**

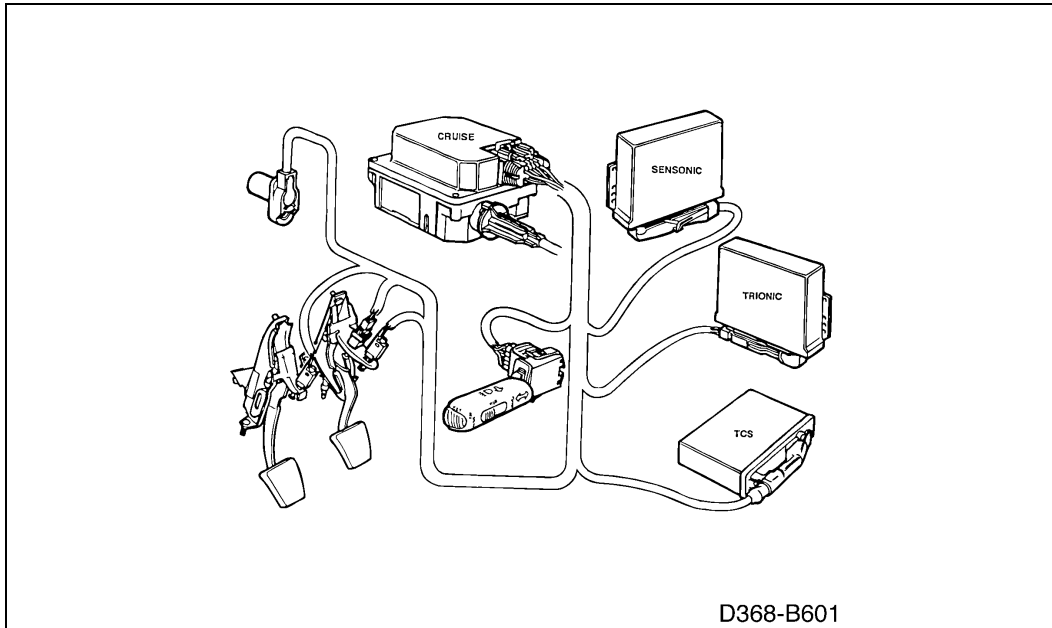
**Number:** 368-1594

**Year:** 1995

**Month:** FEBRUARI

**Market:** ALL

## Fault diagnosis, Cruise Control on cars with Saab Sensonic



### Cars concerned

All Saab 900 M94- models equipped with Saab Sensonic (automatic clutch operation).

### Background

Service Manual 3:5 "Electrical system, Cruise Control" has no section covering fault diagnosis and the diagnostic procedure for cars equipped with Saab Sensonic. This SI therefore contains a diagnostics schedule for all cars and a specific fault diagnosis procedure for the Cruise Control system on cars with Saab Sensonic. In other respects, proceed as described in Service Manual 3:5 "Electrical system, Cruise Control"

### Procedure

Use the diagnostics schedule on the next page to find out where the fault is located.

### Diagnosis

To carry out fault diagnosis, use the Cruise Control switches and the clutch and brake pedals. On cars with automatic transmission or Saab Sensonic, use the Cruise Control switches, the brake pedal and the selector lever or gear lever.

Start fault diagnosis by checking:

- 1 The fuses.
- 2 The +54 power supply.
- 3 The ground connections.
- 4 The connections in the control module connector for possible pin slide-out.

**Carry out fault diagnosis in the diagnostics mode.** To enter diagnostics mode, see the table below.

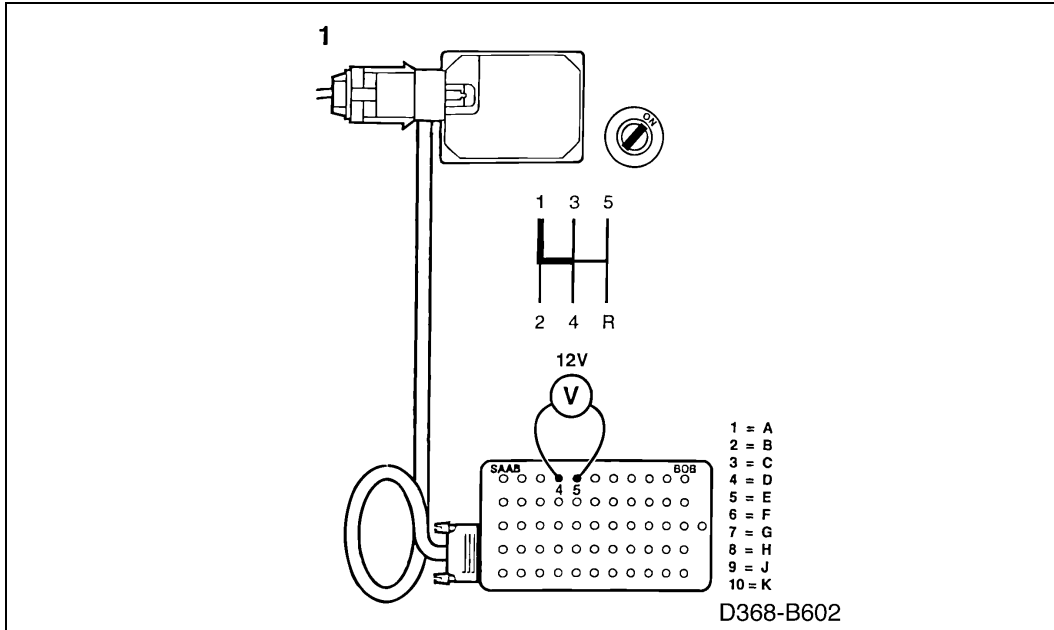
**To leave the diagnostics mode.** Accelerate to a speed above 32 km/h (20 mph) or switch off the ignition. If you make a mistake while in diagnostics mode you will be returned automatically to point 5 and have to start from there once again.

Procedure	CRUISE lamp	Check
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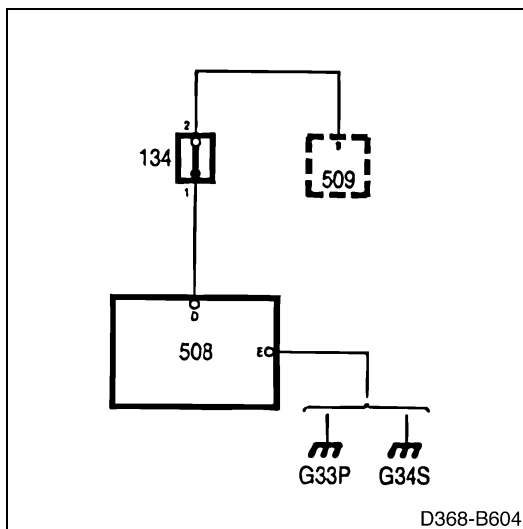
1	The engine should be switched off and the handbrake applied.		
2	Automatic: selector lever in N (P, R). Manual: clutch pedal depressed.		
3	Move the switch to TIP and hold it there while starting the engine.  The Cruise lamp should light up to confirm that you are in diagnostics mode.	Lights up Does not light up	
4	Release the TIP button	Goes out Does not go out	TIP function
5	Press the SET button	Lights up Does not light up	SET function
	Release the SET button	Goes out Does not go out	SET function
7	Move the switch to the RES/ position	Lights up Does not light up	RESUME function
8	Release RES/	Goes out Does not go out	RESUME function
9	Move the switch to the ON/OFF position	Lights up Does not light up	ON/OFF function
10	Release ON/OFF	Goes out Does not go out	ON/OFF function
11	Automatic: move the selector lever to D (3, 2, 1) Manual: release the clutch pedal Sensonic: select reverse gear (R)	Lights up Does not light up	Automatic: Gear selector position sensor Manual: Clutch pedal switch Sensonic: signal from control module
12	Depress the brake pedal	Goes out Does not go out	Brake pedal switch
13	Release the brake pedal	Lights up Does not light up	Brake pedal switch
14	Automatic: move the selector lever to N (P, R) Manual: depress the clutch pedal Sensonic: select neutral (N)	Goes out Does not go out	Automatic: Gear selector position sensor Manual: clutch pedal switch Sensonic: signal from control module
15	Depress the brake pedal for about 5 seconds. After about 5 seconds:	Lights up Does not light up Goes out Does not go out	Brake light switch Control module

16	Release the brake pedal	Throttle opens briefly Throttle does not open	Stepping motor/cable
17	Drive off slowly	Lamp flashes in time with speed Lamp does not flash	Speed signal

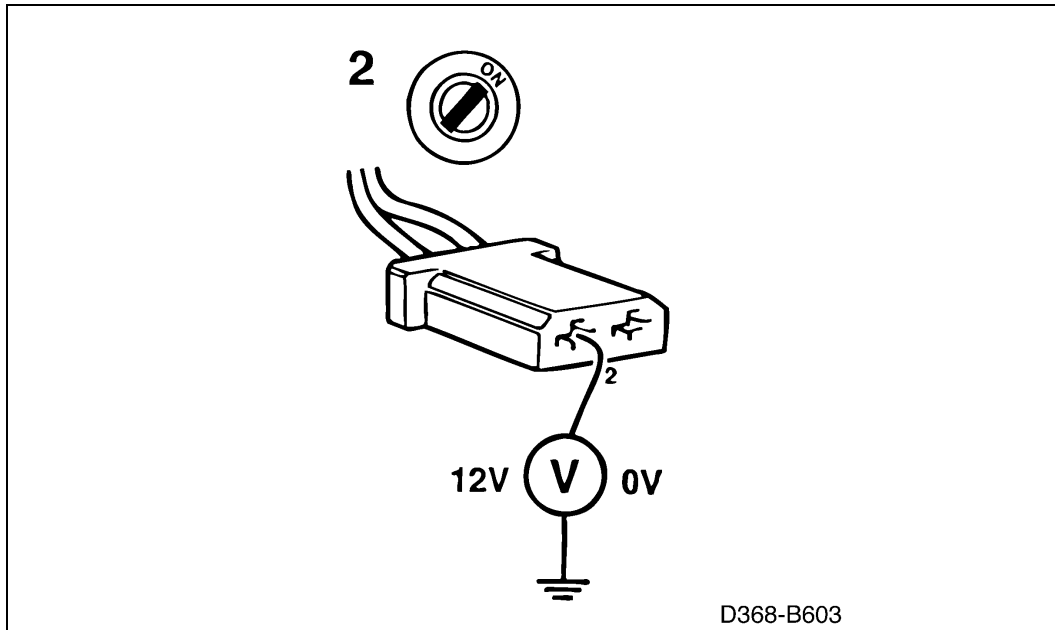
**Checking the pedal switch**



- 1 Connect a BOB and check that a reading of 12 V is obtained across terminal D (4) of the Cruise Control connector and a good ground when the gear lever is in 1st gear.



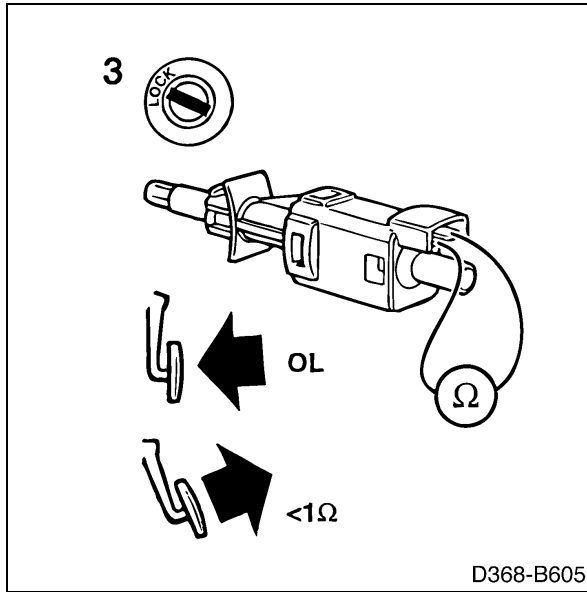
- 2 If the reading obtained is not OK, check that about 12 V is present on terminal 2 of the brake pedal switch when the gear lever is in 1st gear or a reading of 0 V when it is in neutral.



If the reading obtained is OK, continue with point 3.

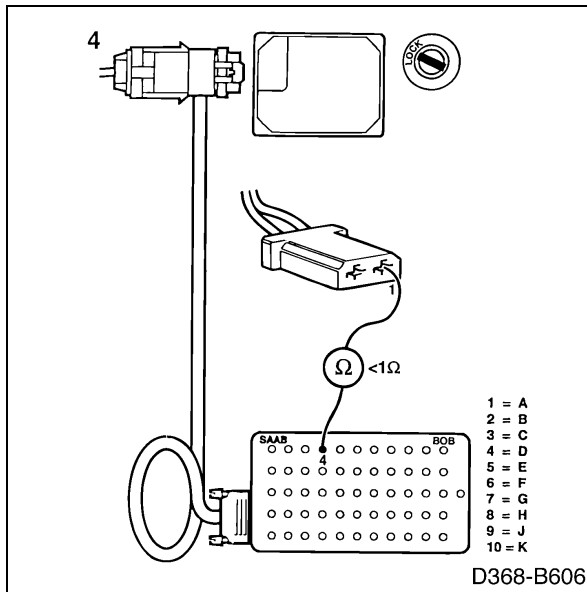
If the reading obtained is not OK, proceed to Service Manual 4:4 "Automatic clutch operation, Saab Sensonic"

- 3 Take resistance readings across terminals 1 and 2 of the brake pedal switch with the brake pedal released and depressed.



If a reading of  $> 1$  ohms is obtained with the pedal released, adjust the pedal switch or change it.  
Depressing the pedal breaks the circuit. If a resistance reading is obtained, change the pedal switch.

- 4 Check the wiring between the Cruise Control system's control module and the pedal switch for continuity or a short circuit. Take a resistance reading across terminal 1 of the pedal switch and terminal D (4) of the Cruise Control.



The resistance should be  $\leq 1$  ohms.

To check other components, see Service Manual 3:5 "Electrical system, Cruise Control".