When SLS compressor operation is required, the ECU provides a battery supply to energise the SLS relay located in the engine compartment fusebox. When the relay contacts close, a 12 V supply passes through fusible link 9 in the engine compartment fusebox, through the relay contacts and operates the air supply unit compressor. The ECU will then supply power to operate one or both air control valve solenoids and/or the exhaust valve solenoid to inflate or deflate the air springs as required. The compressor does not need to be powered to deflate the air springs.

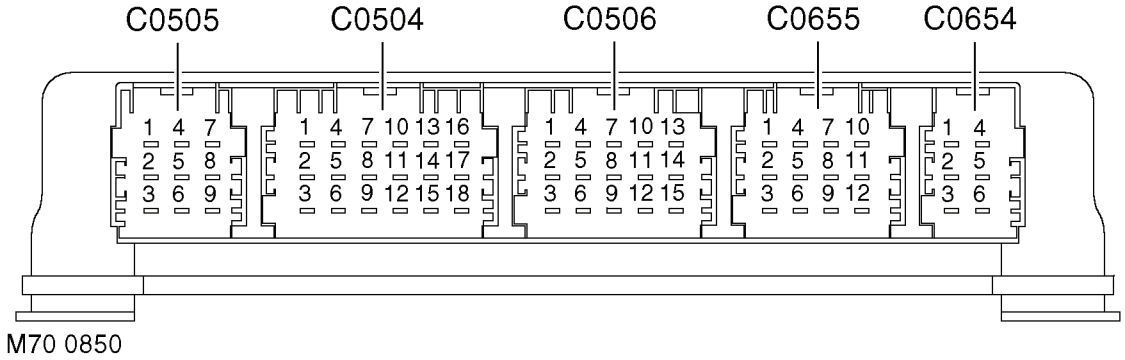
The ECU also controls the operation of the SLS audible warning, the SLS warning lamp and the ORM warning lamp. When the ignition is switched to position II, the ECU performs a three second bulb check and illuminates the SLS and ORM warning lamps in the instrument pack to check for operation. When the system is operating or a fault is sensed by the ECU, the ECU will operate the appropriate warning lamp and audible warning as required. The audible warning is operated by the Body Control Unit (BCU) when it receives a signal from the SLABS ECU. The audible warning is emitted from a speaker at the rear of the instrument pack.

Depressing the ORM switch for a minimum of 0.5 seconds, completes an earth which the ECU uses as a signal to initiate the ORM if conditions allow. When the ECU starts ORM, the same earth that was completed by the ORM switch is pulled to earth by the ECU to activate the ORM warning lamp. The ECU checks for a further operation of the ORM switch by continuously and very quickly removing the earth for the ORM warning lamp. If the ORM switch is operated for more than 0.5 seconds, the ECU will detect this and de-activate the ORM.

The SLS part of the SLABS ECU also uses the road speed data generated within the SLABS ECU by the ABS system. Operation of ORM and extended mode are road speed sensitive and use the ABS signal to monitor the vehicle speed.

When the accessory remote handset is used for the SLS lower and raise functions, the handset transmits RF signals which are received by the same RF receiver used for the alarm/remote door locking system. The RF receiver passes this data as a 25 Hz PWM signal to the BCU. The BCU then transmits this data to the SLABS ECU as raise or lower data. TestBook is required to program the BCU for remote handset operation.

SLABS ECU connector pin details



Connector/Pin No.	Description	Input/Output
C0504		
1	Battery supply	Input
2	Ignition supply	Input
5	K line (diagnostics)	Input/Output
12	Earth	Input
C0654		
1	Left height sensor supply	Output
2	Left height sensor earth	Input
3	Left height sensor signal	Input
4	Right height sensor supply	Output
5	Right height sensor earth	Input
6	Right height sensor signal	Input
C0655		
1	Driver's door switch	Input
2	Passenger and tail door switches	Input
3	Left air valve	Output
4	Right air valve	Output
5	Exhaust valve	Output
6	Air compressor (SLS relay)	Output
7	Audible warning	Output
8	SLS warning lamp	Output
11	ORM switch/ORM warning lamp	Input/Output
12	Remote handset raise/lower signal	Input
Connectors and pins not listed are either not used or used by the brakes system. ☞ **BRAKES, DESCRIPTION AND OPERATION, Description.**		

Failure modes

Failures are indicated by the SLS warning lamp in the bottom left corner of the instrument pack illuminating continuously in an amber colour. The following tables show the type of system failures and their effects on the system operation.

Height sensors

Failure	Effect
Sensor output stuck at 5 V	Vehicle will not level
Sensor output stuck at 0 V	Vehicle will not level
Mechanical link between radius arm and sensor broken	Vehicle will not level

Door Switch Inputs

Failure	Effect
Harness leads for open doors are are broken or shorted to V Batt.	Air suspension levels when one or more doors are open
Harness leads to door(s) shorted to earth	Air suspension will not level