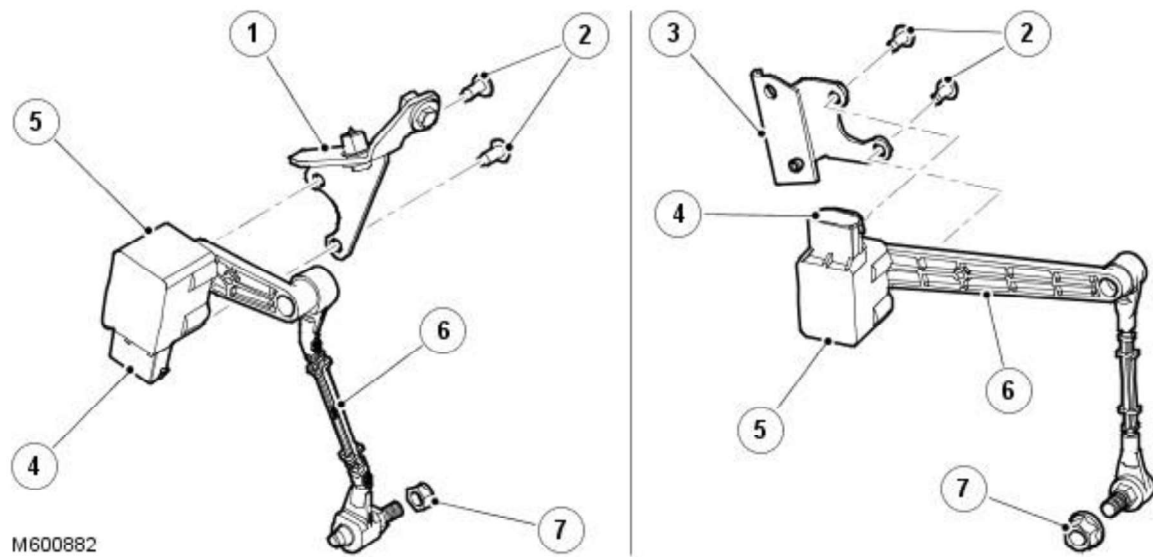


Height Sensors



Item	Part Number	Description
1	-	Bracket - front sensor
2	-	Screw
3	-	Bracket - rear sensor
4	-	Electrical connector
5	-	Sensor
6	-	Lever arm and drop link
7	-	Nut

A height sensor is fitted in each corner of the vehicle to monitor the ride height of the vehicle. The sensors are mounted on the front and rear subframes, with a mechanical link to the suspension lower arms. There are four different types of sensor fitted.

The front and rear sensors are handed and are colored coded for identification as follows:

- Right hand front and rear - black colored lever
- Left hand front and rear - white colored lever

If a height sensor is removed from its mounting position for servicing or replacement, the Land Rover approved diagnostic system must be used to recalibrate the system. Calibration will also be required if the suspension arm to which the sensor is connected is removed or replaced or if a replacement drop link is fitted.

A calibration routine is performed using the Land Rover approved diagnostic system to read the position of each corner of the vehicle and record the settings in the control module memory. Once set, the calibration is not required to be performed unless the air suspension control module is removed or replaced, a height sensor is removed or replaced or a suspension arm to which the sensor is connected is removed or replaced. If the removed height sensor is subsequently refitted, the calibration procedure will have to be performed to ensure the integrity of the system.

The height sensors are attached to brackets on the subframes and are connected to the lower arms by links. The links allow articulation of the arm to allow for suspension travel. Each sensor is connected by a six pin multiplug.

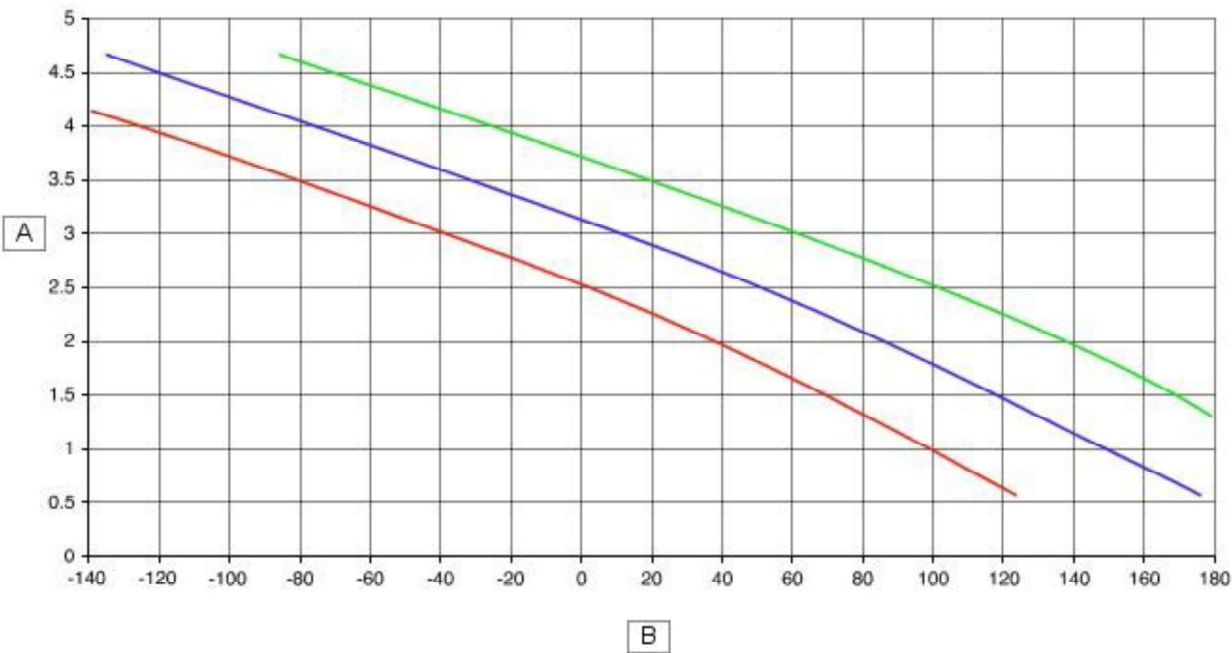
The front and rear sensor drop links are serviceable items.

Each sensor comprises a sensor body which contains a single track rotary potentiometer, a lever arm and a drop link. The sensor is supplied with a reference voltage from the air suspension control module which measures the returned voltage to determine the sensor arm position. On the front height sensors the voltage decreases as the vehicle height increases. On the rear sensors the voltage increases as the vehicle height increases.

The sensors can be checked by applying 5V across the positive and negative terminals and measuring output signal which should be a nominal 57mV ± 3% per degree of sensor arm movement.

The following graph shows the vehicle height displacement from normal against output voltage for the front height sensors. The (blue) center line represents the "nominal" condition but depending on tolerances, the actual line may lie anywhere between the (green) upper and (red) lower lines.

Front Height Sensor

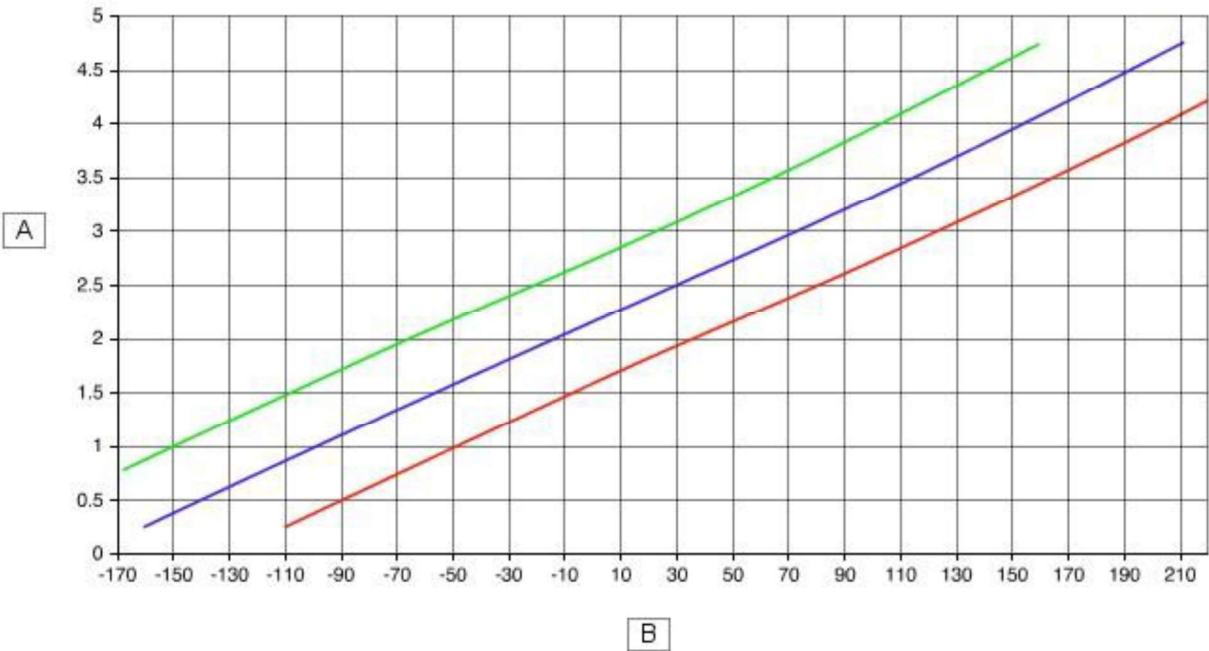


E61680

Item	Part Number	Description
A	-	Volts (V)
B	-	Displacement from normal height (mm)

The following graph shows the vehicle height displacement from normal against output voltage for the rear height sensors. The (blue) center line represents the "nominal" condition but depending on tolerances, the actual line may lie anywhere between the (green) upper and (red) lower lines.

Rear Height Sensor



E61681

Item	Part Number	Description
A	-	Volts (V)
B	-	Displacement from normal height (mm)