### BOSCH AUTO BOX GS2.38 - System Overview

The Bosch GS 2.38 Electronic Gearbox control system has only ever been found to be fitted to the P38 Range Rover. It is only fitted to this vehicle whenever it is Automatic and has either a Gems Petrol engine management or an EDC Diesel engine management system. After 1999 the P38 petrol engine management was changed to Motronic 5.2.1which has CAN bus communication capability ECU. However as the GS 2.38 does not have Can bus capability the system used in this vehicle was changed to the GS8.87.1 This system has quite limited self diagnostic capability.



#### **BOSCH AUTO BOX GS2.38 - Known Fitments**

Vehicle Make	Vehicle Model	Vehicle Variant	Diagnostic lead	Compatibility Level
Land Rover	Range Rover MKII P38	Petrol < 1999	Green OBD Lead	Verified
Land Rover	Range Rover MKII P38	Diesel > 2002	Green OBD Lead	Verified

## BOSCH AUTO BOX GS2.38 - Diagnostic Capabilities - Read Faults/Clear Faults)

This function reads the fault code memory. The ECU can self detect up to 44 different problems with itself, its wiring and its associated sensors, storing the respective code if it detects any malfunction or reading outside of pre defined acceptable limits. Not all stored faults may cause the fault warning lamp to illuminate. By clicking the Clear Faults button this requests the ECU to clear the listed faults.

# BOSCH AUTO BOX GS2.38 - Diagnostic Capabilities (Settings)

Values, configuration settings, and other stored information which can be read from the ECU, edited and then rewritten back. Read settings can also be stored as a standard HTML page for reference. These pages can then later be re loaded and re written back to the ECU. Please note that some values may be read only due to the fact that they are supplied from the ECU's ROM or are internally calculated.

- Manufacturer: This is the name of the manufacturer of the ECU.
- ZF Part Number: This is the ZF part number that can be read on the cover of the ECU.
- Hardware revision: This is the hardware version which denotes the processor and circuit board type.
- Land Rover Part Number: This is Land Rover's part number for this ECU.
- Manufacturer's Part Number: This is the manufacturer's part number.
- Steptronic gear change:

# **BOSCH AUTO BOX GS2.38 - Diagnostic Capabilities (Inputs)**

- Vehicle Speed (Km/h): This is the speed of the vehicle in km/h.
- Vehicle Speed (mph): This is the speed of the vehicle in mph.
- Out Shaft Speed: This is the output shaft speed in km/h of the automatic gearbox
- Out Shaft Speed: This is the output shaft speed in mph of the automatic gearbox
- Engine Speed: This is the current engine speed in rpm.
- Throttle Position (%): This is the status of the throttle.
- Engine Power: This is the power of the engine read from the gearbox ECU.
- Battery (V): This shows the battery voltage of the automatic gearbox ECU input.
- Mode:
- HI/LOW range:
- Current Gear: This shows if the gear selection is in Park, Neutral, Drive or Reverse.