



NANO/COM

DESIGNERS AND MANUFACTURERS OF CUTTING EDGE AUTOMOTIVE DIAGNOSTIC EQUIPMENT.

FUNCTIONS DESCRIPTION MANUAL

Coverage	Nanocom 1 and EVO
ECU	Motronic V8 engine
List of Functions	<ul style="list-style-type: none">○ Faults○ Settings○ Inputs○ Outputs○ Utility<ul style="list-style-type: none">Learn Security CodeReset Adaptive Values

DIAGNOSTIC FUNCTIONS OF THE MOTRONIC V8 (DISCOVERY II)

All the diagnostic functions have to be performed with the Ignition turned on stage II and the engine may be running or stopped.

FAULTS FUNCTIONS

The Motronic V8 ECU has the READ FAULTS and CLEAR FAULTS to read and clear the fault codes. We do not give any faults explanation or suggestions, in order to avoid giving wrong information to the user, we think in fact that the faults codes must be collocated in the context of the car which they come from.

SETTINGS FUNCTION

Settings page covers information like:

Land Rover P/N	Bosch Software Revision Level	Revision Address	
Coding Index	Part NO	Diagnostic Index	Bus Index
Hardware Code	Supplier No	Production No	Plant Id
Plant Address	ISN Address	Production Year/Week	Immobilisation Code
Software Code	Modification Code	Record History Information last 15 records	

INPUTS FUNCTION

This section is divided in 5 sub sections:

1 AIR AND FUELLING

- **MAFS:**
- **Injector time:**
- **Fuel pump**
- **Idle air:**
- **IACV drive**
- **Idle load air:**
- **AV trim bank A:**
- **AV trim bank B:**
- **Load air:**
- **Fuel cut off**
- **Fuel trim A:**
- **Fuel trim B**
- **Idle trim A:**
- **Idle trim B:**
- **Multi trim A:**
- **Multi trim B:**
- **Secondary air**
- **Adaptive purge: Purge rate:**
- **Purge status:**
- **Leak rate:**
- **Tank pressure:**
- **Filtered fuel tank pressure:**
- **Fuel enrichment:**
- **Fuel level:**

2 SWITCHES AND STATES

- **Loop status:**
- **Evap system:**
- **Mil lamp:**
- **Catalyst test**
- **Crank phase 1**
- **Crank phase 2:**

- Crank phase 3:
- Crank phase 4:
- Crank error:
- Full load:
- Immobiliser state:
- Start state:
- Condenser fan:
- Idle state
- Purge canister:
- Purge test:
- O2 sensor test
- O2 heating test:
- Compressor switch:
- Compressor:
- Accelerator enrich
- CAN faults:
- CAN status:
- Ignition switch:
- Air con switch

3 ROUGHNESS AND TIMING

- Roughness cylinder 1 to 8
- Cylinder misfire 1 to 8
- Ignition advance cylinder 1 to 8
- Ignition advance
- Dwell angle
- Tooth count
- Misfire sum
- Knock average
- Knock detect

4 OXYGEN SENSING

- Downstream trim bank A
- Downstream trim bank B
- Lambda A output
- Lambda B output
- Upstream shunt voltage
- Downstream shunt voltage
- Upstream O2 heater resistance
- Downstream O2 heater resistance
- Downstream sensor bank A
- Downstream sensor bank B
- Upstream O2 sensor bank A
- Upstream O2 sensor bank B
- Upstream O2 sensor bank A min
- Upstream O2 sensor bank B min
- Upstream O2 sensor bank A max
- Upstream O2 sensor bank B max
- O2 bank A period
- O2 bank B period
- Upstream heat status
- Downstream heat status
- O2 sensor ready
- O2 heater ready
- O2 Ageing status

5 GENERAL INPUTS

- Engine speed
- Target engine speed
- Road speed
- Engine load
- Engine torque
- Coolant temperature
- Internal temperature
- Air temperature
- Throttle open
- Closed throttle
- Test errors
- Total resets
- Unexpected resets
- OBD trip count
- Battery voltage
- Operating time
- Autobox
- Gearbox range
- Gearbox switch
- ECU fan:
- Catalyst A
- Catalyst B
- Catalyst
- Catalyst status:
- Catalyst conversion test
- Rough road volts
- Rough road status
- Compensation gradient
- Decay gradient
- Build up gradient
- SAI pump status
- SAI system
- SAI solenoid valve
- Active leak diagnostic

OUTPUTS FUNCTION

This function has 4 options which can be tested by selecting ON or OFF

Fuel pump relay
 Electronics box fan
 Condenser fan
 CVS valve

LEARN SECURITY CODE FUNCTION

This function forces the Motronic ECU to learn the incoming code from the BCU in a Discovery Series II as its correct mobilization code.

RESET ADAPTIVE VALUES FUNCTION

The adaptive values should be reset if any of the following components have been renewed or rectified: fuel injector, lambda sensor, fuel pump, fuel rail, MAFS, inlet manifold, after fixing an air leak or if a new ECU was fitted.