

BRITPART



Operating Instructions

Contents

Getting started

Introduction	1
Software CD	2
Hardware configuration	2
Configuring the PC	3
Using LYNX diagnostic interface	4
Using the Diagnostic Software	6

Britpart diagnostics

Diagnostic interface	8
Reading and clearing fault codes	9
Reading live data	10
Actuator tests.....	14
Special functions	15
Troubleshooting.....	16
Cable identification	17
Product support	17

Contents

Appendix A: Menus

System Menu Structure	18
Menus - Diesel Engine	30
Menus - Petrol Engine	33
Menus - Transmission	40
Menus - Anti-lock Braking System (ABS)	44
Menus - Airbag	47
Menus - Climate control	49
Menus - Air Suspension	50
Menus - Chassis	53
Menus - Security	55
Menus - Steering Angle Sensor (SAS)	63
Menus - Service Reset	64
Menus - Electronic Parking Brake (EPB)	65
Menus - Fuel-Burning Heater	66
Menus - Global DTC Clear	67

Introduction

Congratulations on choosing the LYNX Diagnostics Interface. LYNX diagnostics enables information to be extracted from various vehicle control modules when connected via the vehicle's diagnostic connector.

Registration

A new LYNX Diagnostics Interface requires a security code to unlock the specific model(s). To register the LYNX Diagnostics Interface and to obtain your activation code, complete the activation form and Fax to +44 (0) 844 665 7605 or email lynx.reg@omitec.com. You will require your serial number (located on the back of the unit) and product key (located on the back of the unit) and/or the number on the unlock card.

After obtaining your security code, follow the procedure in the information sheet returned with the code to unlock LYNX Diagnostics Interface using the Tool Updates tab on the PC application.

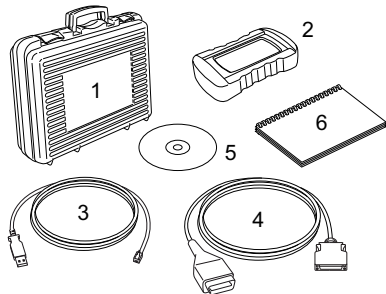
Note: If problems are encountered during the registration process, please contact product support lynx.support@omitec.com.

Product requirements

Certain requirements must be met prior to installing and using your new LYNX Diagnostics Interface software. Please ensure you have the following before proceeding;

1. A Microsoft Windows based PC with:
 - Microsoft Windows XP, Vista or Windows 7 operating system;
 - DVD drive;
 - 500 MB available hard disk space (minimum);
 - 1024 x 768 screen resolution (minimum).
2. Administrative Rights (only required for software installation).

Overview



The LYNX diagnostic interface kit includes:

1. Carry case with foam insert (only LYNX Pro)
2. LYNX Diagnostics Interface
3. USB cable
4. J1962 EOBD cable (DA6430/2)
5. LYNX Diagnostics Interface CD
6. Quick Start Guide

Getting started

Software CD

LYNX diagnostics interface installation

1. Insert the LYNX Diagnostics Interface CD into the drive.
2. The CD should auto-run and begin the installation. If it does not, navigate to the CD using 'Windows Explorer' and double-press 'Setup' to begin the installation manually.
3. Follow the on-screen instructions to install the application. Accept all options provided to achieve the default installation.

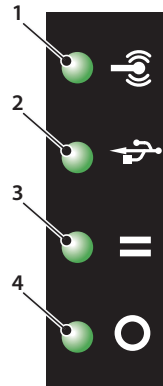
Hardware configuration

LYNX diagnostics interface

The LYNX Diagnostics Interface unit acts as an interface between the vehicle being tested and the software installed on the PC.

Externally, the LYNX Diagnostics Interface has a number of connectors and LEDs. It is operated from the PC screen.

LEDs alert the user to the unit's operational status.



1. Currently without function
2. USB connection
3. Vehicle communication status
4. Power

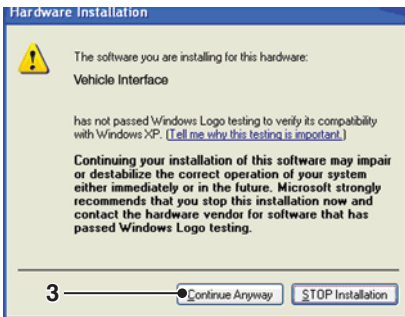
Configuring the PC

The PC must be set up to recognise the LYNX diagnostics interface. The LYNX diagnostics interface must be connected via USB to install the drivers.

USB connection

Follow the procedure below to connect the PC to the LYNX diagnostics interface.

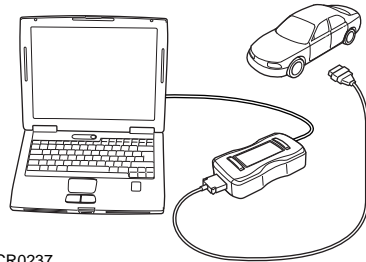
1. Connect one end of the cable to the LYNX diagnostics interface
2. Connect the other end of the cable to a spare USB port on the PC.



3. The drivers will install automatically. Press 'Continue Anyway' when prompted. The operating system will display a notification when the process is complete.

Connecting to a vehicle

Note: If the vehicle does not have a J1962 socket, the appropriate manufacturer diagnostic adapter cable will be required. See 'Cable identification', page 17.



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1. Connect the EOBD cable (DA6430/2) to the LYNX Diagnostics Interface.
2. Connect the appropriate manufacturer diagnostic cable to the EOBD cable, if necessary.
3. Connect the diagnostic cable to the vehicle's diagnostic socket.
4. Connect the LYNX Diagnostics Interface to a USB port on the PC.
5. Select the LYNX Diagnostics Interface icon from the desktop.

Getting started

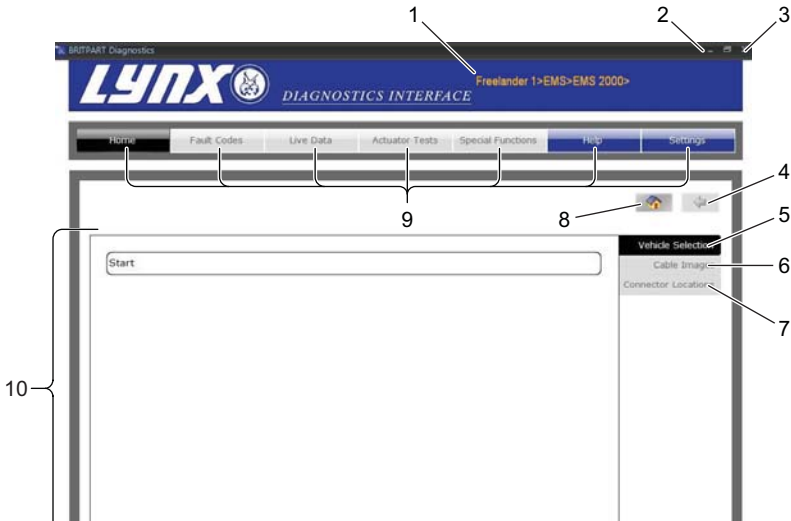
Using LYNX diagnostic interface

The screens have a number of icons and buttons which control the diagnostic functions.

This guide explains the common controls and information screens.

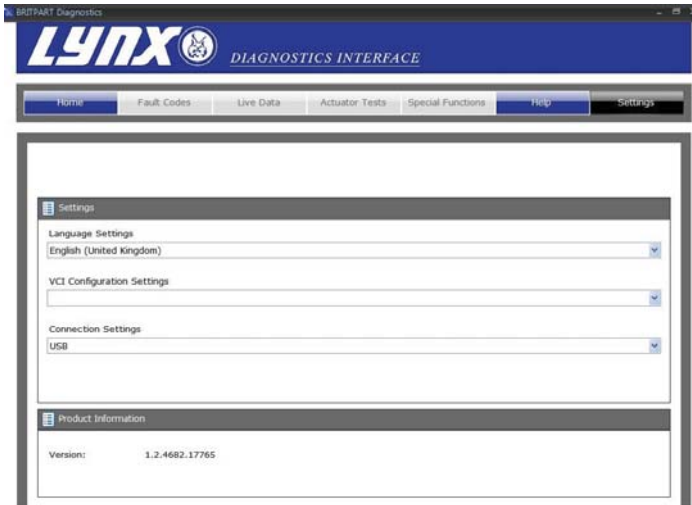
In the graphic below, the “Home” tab is selected and is highlighted in Black, the Home Page is displayed.

NOTE: All Tabs, Buttons and Icons are highlighted when available.



1. Vehicle tracking bar
2. Minimise screen
3. Shutdown
4. Go up one menu level
5. Vehicle selection tab
6. Cable identification
7. Diagnostic socket location
8. Home
9. Tabs
10. Vehicle selection field

Settings



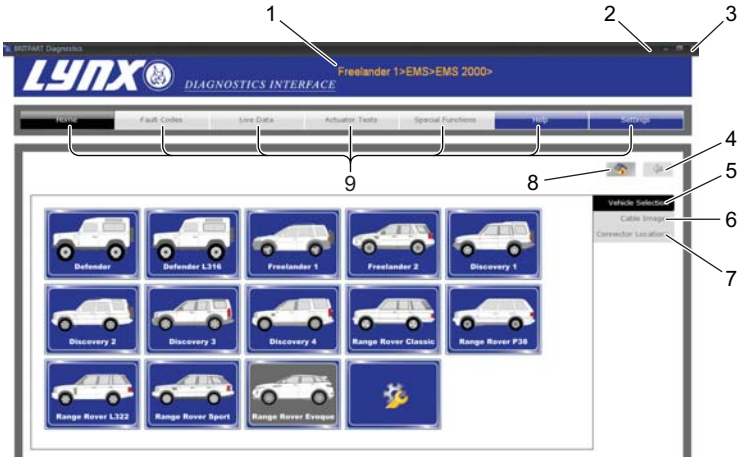
Language settings

The desired software language can be selected from the 'Settings' screen. When language settings are changed, the LYNX Diagnostics Interface may begin an update process upon communication with a vehicle. This is necessary to complete the language change and may take up to thirty minutes to complete.

Getting started

Using the Diagnostic Software

Selecting a Vehicle for Testing



1. Vehicle tracking bar
2. Minimise screen
3. Shutdown
4. Go up one menu level
5. Vehicle selection
6. Cable identification
7. Diagnostic socket location
8. Home
9. Tabs

Press the 'Go Up One Menu Level' button to return to the previous screen.

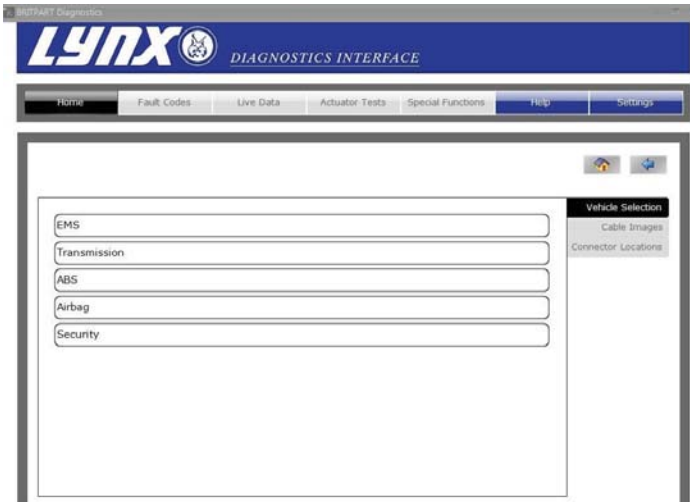
Diagnostic cables can be viewed by pressing the 'Cable Identification' button. Press the 'Diagnostic Connector Locations' to view location drawings for the vehicle's diagnostic connector.

Note: All tabs, buttons and icons are highlighted when available for use.

Press the 'Home' button on the 'Home' screen to show the 'Start' screen. Press the 'Start' option and the 'Vehicle Model' screen will be shown.

From the 'Vehicle Model' screen, select the relevant model and then the system for diagnosis. These options appear over a number of consecutive screens.

Selecting a Vehicle System for Testing



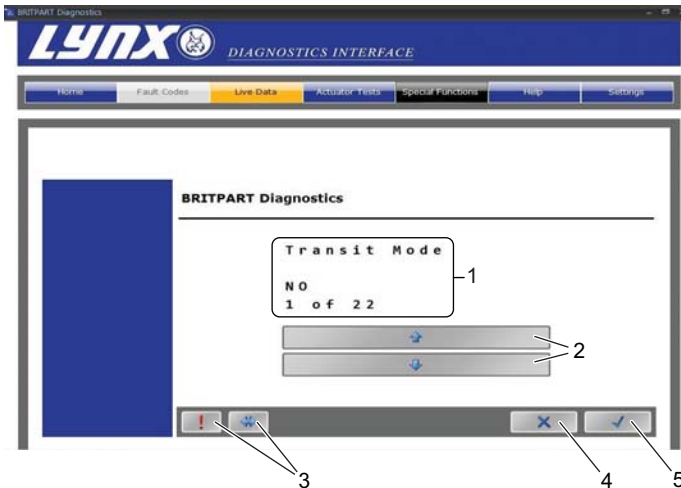
Once a vehicle has been selected, the screens will show the systems available for testing.

Selecting a system will automatically prompt the software to begin communication.

The communication LED on the Diagnostics Interface will begin to flash, confirming that the LYNX Diagnostics Interface is connecting to the system.

When the vehicle is ready for diagnostic tests, the diagnostic menu items will be highlighted.

Diagnostic interface



1. Options/results display
2. Scroll up/down
3. System dependant features
4. Cancel/back
5. Confirm/back

Some vehicle systems will be displayed in a different format to the standard layout. The options and results will be displayed within a system window which is controlled by on-screen buttons.

The 'Scroll Up / Down' buttons (2) are used to navigate through options and results. If information spans multiple screens, it will be indicated by a series of dots.

The 'Cancel / Back' button (3) returns to the previous screen.

The 'Confirm / Next' button (5) will confirm a selection or move to the next screen.

The 'System Dependent Feature' buttons (4) vary in their application and should only be used when instructed to do so by LYNX Diagnostics Interface.

Reading and clearing fault codes



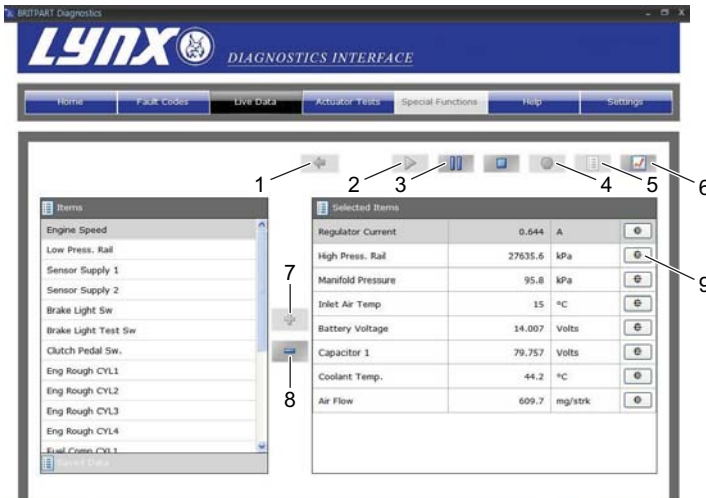
1. Refresh fault code list
2. Clear fault codes

When the vehicle system has been identified, the 'Fault Codes' menu item will become enabled where supported. This will allow fault codes to be read from the selected system. It is also possible to clear fault codes from the system.

Press the 'Refresh Fault Code List' button to refresh the list of fault codes.

Press the 'Clear Fault Codes' button to clear all fault codes.

Reading live data



1. Start live data
2. Pause live data
3. Stop live data
4. Record live data
5. List mode
6. Graph mode
7. Add live data items
8. Remove live data items
9. Alarms/triggers

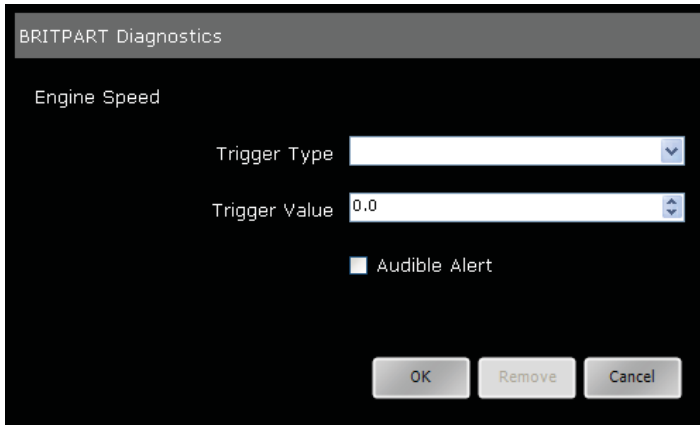
The 'Live Data' menu item allows the display and recording of current live data that is being output from the system.

To view the live data element, select the required item from the left side of the screen and press the 'Add live data

items' (7) button. It is possible to view up to eight different live data elements at a time.

The live data can be displayed in a list form or as a graph by pressing the 'List Mode' (5) or 'Graph Mode' (6) buttons respectively.

To record live data, press the 'Record Live Data' (4) button; this will request and immediately record the selected live data items. To save the live data recording, press 'Yes' when prompted, after recording has finished, and enter a description. Select the saved data tab to view the saved data.

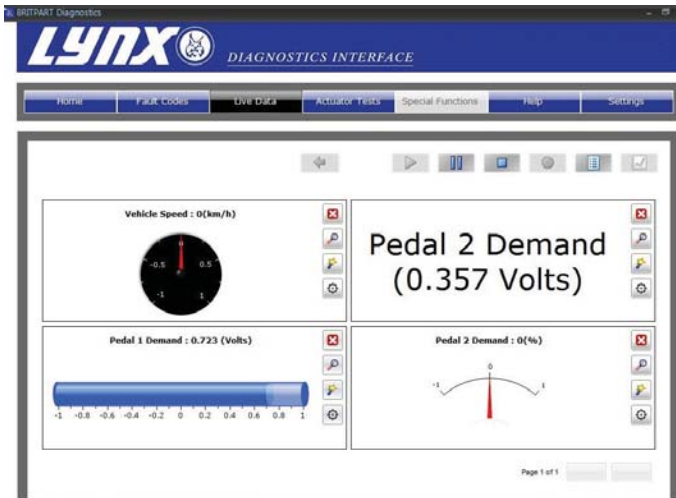


The 'Alarms / Triggers' screen allows the setting of an alarm to indicate when the reported value of a live data item has fallen within a user-defined range.

When the value falls within the defined range, the background of the live data item will change to red.

With the 'Audible Alert' option set, the PC will emit a 'beep' when the specified parameters have been met. When the value falls outside the specified range, the audible alert will cease but the background of the live data item will remain red.

To switch off an audible alarm, deselect the 'Audible Alert' option. Alternatively, press the 'Remove' button to remove the alarm completely.



In the graph view, the graphs will automatically scale to fill the available space on the screen. To enlarge the view of

a particular graph select the 'Zoom' icon to the right of the graph.



1



2



3



4



5



6



7



8



9

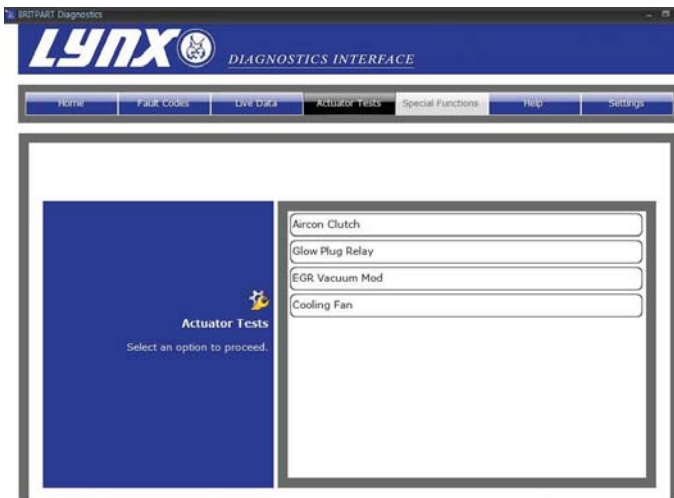


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1. Remove
2. Zoom
3. Change display type
4. Enable cross hair
5. View entire graph
6. Alarms/Triggers
7. Zoom in to axis
8. Zoom out from axis
9. Scroll left
10. Scroll right

Actuator tests



The 'Actuator Tests' screen allows operation of components within the selected system to be forced.

Choose the component to be activated and select the display button.

The operation of the component must be observed as the system provides no indication of whether the activation has been successful.

Special functions



The 'Special Functions' screen allows various system tests to be undertaken. The tests available will be determined by the system selected.

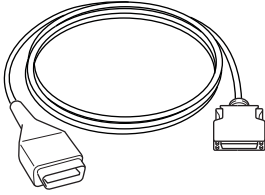
Troubleshooting

This table illustrates some of the most common causes of faults on the system.

Problem:	Check:
System will not install from the CD	<ul style="list-style-type: none">• Ensure the person installing the software has administration rights on the PC• Ensure all previous copies of LYNX diagnostic interface have been un-installed• Navigate to the DVD drive in 'Windows Explorer' and double press 'Setup' to launch the application.• Ensure the system is Windows XP Professional ,Windows Vista or Windows 7.
Communication problems between the LYNX diagnostic interface and the vehicle. A typical message may include; "Data Link Error".	<ul style="list-style-type: none">• Ensure vehicle ignition is switched on• Ensure correct cable is being used• Ensure vehicle system is supported by the LYNX diagnostic interface.• Ensure cable is correctly connected, particularly if external power to the connector is required.
COM port problems	<ul style="list-style-type: none">• Ensure cable is correctly connected, particularly if external power to the connector is required.• Check USB drivers are installed. See '<i>USB connection</i>', page 3.

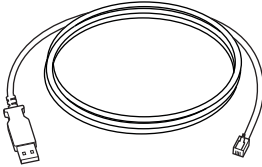
Cable identification

Standard cables



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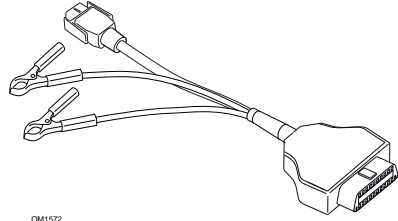
DA6430/2 - EOBD cable.



CR0226

USB cable.

Optional cables



OM1572

DA6430/3 - 14CUX cable

Product support

For product support by email, please send details of any query to lynx.support@omitec.com.

Appendix A: Menus

System Menu Structure

The table below details the LYNX diagnostics interface main menu structure.

Defender	EMS	CUX14	See 'Petrol Engine - 14CUX', page 33
		GEMS	See 'Petrol Engine - GEMS', page 34
		TD5	See 'Diesel Engine - TD5', page 30
	ABS	WABCO 'D'	See 'ABS - WABCO 'D'', page 44
	Security	10AS	'Security - 10AS', page 55
Defender (L316)	EMS	See 'Diesel Engine - Diesel EMS', page 31	
	ABS	WABCO 'D'	See 'ABS - WABCO 'D'', page 44
	Security	10AS	See 'Security - 10AS', page 55
Discovery I	EMS	CUX14	See 'Petrol Engine - 14CUX', page 33
		GEMS	See 'Petrol Engine - GEMS', page 34
		MEMS 1.9	See 'Petrol Engine - MEMS 1.9', page 35
		EDC 1.3.1	See 'Diesel Engine - EDC 1.3.1', page 31
	ABS	WABCO 'C'	See 'ABS - WABCO 'C'', page 46
	Airbag	TRW SPS	See 'Airbag - TRW SPS', page 47
	Security	10AS	See 'Security - 10AS', page 55

Appendix A: Menus

Discovery II	EMS	M 5.2.1	See 'Petrol Engine - M 5.2.1', page 38
		TD5	See 'Diesel Engine - TD5', page 30
	Transmission	GS8.87.0/1	See 'Transmission - GS 8.87.0/1', page 40
	ABS	WABCO 'D'	See 'ABS - WABCO 'D'', page 44
	Airbag	TRW Gen 4	See 'Airbag - TRW Gen 4', page 48
	Security	BCU	See 'Security - BCU', page 57
	Chassis	ACE (ROCK / ARC)	See 'Chassis - ACE', page 53
Discovery 3	EMS	Petrol	See 'Petrol Engine - Petrol EMS', page 39
		Diesel	See 'Diesel Engine - Diesel EMS', page 32
	Transmission	See 'Transmission', page 43	
	ABS	See 'ABS', page 46	
	Airbag	See 'Airbag', page 48	
	EPB	See 'EPB', page 65	
	Service Reset	See 'Service Reset', page 64	
	Steering Angle	See 'SAS', page 63	
	Security	See 'Security - Body', page 62	
	Chassis	See 'Chassis', page 53	
Fuel-Burning Heater	See 'Fuel-Burning Heater', page 66		

Appendix A: Menu

Discovery 4	EMS	Petrol	See 'Petrol Engine - Petrol EMS', page 39
		Diesel	See 'Diesel Engine - Diesel EMS', page 32
	Transmission	ZF HP26 ZF HP28	See 'Transmission', page 43
	ABS	See 'ABS', page 46	
	Airbag	See 'Airbag', page 48	
	Climate control	See 'Climate Control', page 49	
	EPB	See 'EPB', page 65	
	Body electrics	See 'Security - Body', page 62	
	Service Reset	See 'Service Reset', page 64	
	Immob. (Steer.Lock)	See 'Security - VIM', page 62	
	Chassis	See 'Chassis', page 53	
	Fuel-Burning Heater	See 'Fuel-Burning Heater', page 66	
	HSCAN Clear DTCs	See 'Global DTCs', page 67	
	MSCAN Clear DTCs	See 'Global DTCs', page 67	

Appendix A: Menus

Freelander 1	EMS	MEMS 1.9	See 'Petrol Engine - MEMS 1.9', page 35
		MEMS 3	See 'Petrol Engine - MEMS 3', page 37
		EMS 2000	See 'Petrol Engine - EMS 2000', page 34
		MS43	See 'Petrol Engine - MS43', page 38
		EDC 1.3.1	See 'Diesel Engine - EDC 1.3.1', page 31
		DDE 4.0	See 'Diesel Engine - DDE 4.0', page 31
	Transmission	JATCO	See 'Transmission - JATCO', page 40
	ABS	WABCO 'D'	See 'ABS - WABCO 'D'', page 44
		ABS MK20	See 'ABS - MK20 / MK25', page 45
		ABS MK25	
	Airbag	Autoliv AC4	See 'Airbag - Autoliv AC4', page 47
		Siemens SRE Smart	See 'Airbag - Siemens SRE Smart', page 47
	Security	CCU	See 'Security - CCU', page 56
		EWS 3D	See 'Security - EWS 3D', page 56

Appendix A: Menus

Freelander 2	EMS	Petrol	See <i>'Petrol Engine - Petrol EMS'</i> , page 38
		Diesel	See <i>'Diesel Engine'</i> , page 32
	Transmission	See <i>'Transmission'</i> , page 40	
	ABS	See <i>'ABS'</i> , page 45	
	Airbag	See <i>'Airbag'</i> , page 47	
	Climate control	See <i>'Climate Control'</i> , page 49	
	Service Reset	See <i>'Service Reset'</i> , page 64	
	SASM	See <i>'SAS'</i> , page 63	
	Security	See <i>'Security'</i> , page 57	
	Fuel-Burning Heater	See <i>'Fuel-Burning Heater'</i> , page 66	

Appendix A: Menus

Range Rover (L322) 02MY - 05MY	EMS	Petrol	See <i>'Petrol Engine - ME 7.2', page 39</i>
		Diesel	See <i>'Diesel Engine - DDE 4.0', page 32</i>
	Transmission	Petrol	See <i>'Transmission - ZF / EGS 8602', page 41</i>
		Diesel	See <i>'Transmission - GM5 / EGS20', page 42</i>
	ABS	See <i>'ABS - Bosch 5.7', page 46</i>	
	Airbag	See <i>'Airbag - TRW MRS 4', page 48</i>	
	Climate control	See <i>'Climate Control', page 49</i>	
	Body Electrics	See <i>'Security - GM3 Body Electrics', page 59</i>	
	Service Reset	See <i>'Service Reset', page 64</i>	
	Steering Angle Sensor	See <i>'SAS', page 63</i>	
	Security	See <i>'Security - EWS 3D', page 56</i>	
	Air Suspension	See <i>'Air Suspension - EHC2', page 51</i>	
Fuel-Burning Heater	See <i>'Fuel-Burning Heater', page 66</i>		

Appendix A: Menus

Range Rover (L322) 06MY	EMS	Petrol	See 'Petrol Engine - Petrol EMS', page 39
		Diesel	See 'Diesel Engine - DDE 4.0', page 32
	Transmission	Petrol	See 'Transmission', page 43
		Diesel	See 'Transmission', page 43
	ABS	Petrol	See 'ABS', page 46
		Diesel	See 'ABS - Bosch 5.7', page 46
	Airbag	See 'Airbag - TRW MRS 4', page 48	
	Climate control	See 'Climate Control', page 49	
	Service Reset	See 'Service Reset', page 64	
	Body Electrics	See 'Security - GM3 Body Electrics', page 59	
	Steering Angle Sensor	Petrol	See 'SAS', page 63
		Diesel	See 'SAS', page 63
	Security	See 'Security - GM3 Body Electrics', page 59	
	Air Suspension	See 'Chassis', page 53	
	Fuel-Burning Heater	See 'Fuel-Burning Heater', page 66	

Appendix A: Menus

Range Rover (L322) 07- 09 MY	EMS	Petrol	See <i>'Petrol Engine - Petrol EMS'</i> , page 39
		Diesel	See <i>'Diesel Engine - Diesel EMS'</i> , page 32
	Transmission	See <i>'Transmission'</i> , page 43	
	ABS	See <i>'ABS'</i> , page 46	
	Airbag	See <i>'Airbag'</i> , page 48	
	EPB	See <i>'EPB'</i> , page 65	
	Service Reset	See <i>'Service Reset'</i> , page 64	
	Steering Angle Sensor	<i>'SAS'</i> , page 63	
	Body Electrics	See <i>'Security - GM3 Body Electrics'</i> , page 59	
	Chassis	See <i>'Chassis'</i> , page 53	
	Fuel-Burning Heater	See <i>'Fuel-Burning Heater'</i> , page 66	

Appendix A: Menus

Range Rover (L322) 10 MY	EMS	Petrol	See <i>'Petrol Engine - Petrol EMS'</i> , page 39
		Diesel	See <i>'Diesel Engine - Diesel EMS'</i> , page 32
	Transmission	See <i>'Transmission'</i> , page 43	
	ABS	See <i>'ABS'</i> , page 46	
	Airbag	See <i>'Airbag'</i> , page 48	
	Climate control	See <i>'Climate Control'</i> , page 49	
	EPB	See <i>'EPB'</i> , page 65	
	Steering angle	See <i>'SAS'</i> , page 63	
	Body electrics	See <i>'Security - Body'</i> , page 62	
	Service Reset	See <i>'Service Reset'</i> , page 64	
	Immob. (Steer.Lock)	See <i>'Security - VIM'</i> , page 62	
	Chassis	See <i>'Chassis'</i> , page 54	
	Fuel-Burning Heater	See <i>'Fuel-Burning Heater'</i> , page 66	
	HSCAN Clear DTCs	See <i>'Global DTCs'</i> , page 67	
	MSCAN Clear DTCs	See <i>'Global DTCs'</i> , page 67	

Appendix A: Menus

Range Rover (P38a)	EMS	M 5.2.1	See 'Petrol Engine - M 5.2.1', page 38
		GEMS	See 'Petrol Engine - GEMS', page 34
		EDC 1.3.1	See 'Diesel Engine - EDC 1.3.1', page 31
	Transmission	GS8.87.0/1	See 'Transmission - GS 8.87.0/1', page 40
		GS2-38	See 'Transmission - GS 2-38', page 40
	ABS	WABCO 'C'	See 'ABS - WABCO 'C'', page 46
		WABCO 'D'	See 'ABS - WABCO 'D'', page 44
	Airbag	TRW SPS	See 'Airbag - TRW SPS', page 47
		TRW Gen 4	See 'Airbag - TRW Gen 4', page 48
	Climate control	See 'Climate Control', page 49	
	Chassis	Air Suspension	See 'Climate Control', page 49
	Body electrics - BeCM	See 'Security - BeCM Body Electronics', page 60	
Range Rover Classic	EMS	14CUX	See 'Petrol Engine - 14CUX', page 33
	Chassis	Air Suspension	See 'Climate Control', page 49

Appendix A: Menus

Range Rover Sport (L320) - 06 - 09 MY	EMS	Petrol	See ' <i>Petrol Engine - Petrol EMS</i> ', page 39
		Diesel	See ' <i>Diesel Engine - Diesel EMS</i> ', page 32
	Transmission	See ' <i>Transmission</i> ', page 43	
	ABS	See ' <i>ABS</i> ', page 46	
	Airbag	See ' <i>Airbag</i> ', page 48	
	Climate control	See ' <i>Climate Control</i> ', page 49	
	EPB	See ' <i>EPB</i> ', page 65	
	Service Reset	See ' <i>Service Reset</i> ', page 64	
	Steering Angle Sensor	See ' <i>SAS</i> ', page 63	
	Security	See ' <i>Security - Body</i> ', page 62	
	Chassis	See ' <i>Chassis</i> ', page 53	
	Fuel-Burning Heater	See ' <i>Fuel-Burning Heater</i> ', page 66	

Appendix A: Menus

Range Rover Sport (L320) 10 MY	EMS	Petrol	See <i>'Petrol Engine - Petrol EMS'</i> , page 39
		Diesel	See <i>'Diesel Engine - Diesel EMS'</i> , page 32
	Transmission	See <i>'Transmission'</i> , page 43	
	ABS	See <i>'ABS'</i> , page 46	
	Airbag	See <i>'Airbag'</i> , page 48	
	Climate control	See <i>'Climate Control'</i> , page 49	
	EPB	See <i>'EPB'</i> , page 65	
	Body electrics	See <i>'Security - Body'</i> , page 62	
	Service Reset	See <i>'Service Reset'</i> , page 64	
	Immob. (Steer.Lock)	See <i>'Security - VIM'</i> , page 62	
	Chassis	See <i>'Chassis'</i> , page 53	
	Fuel-Burning Heater	See <i>'Fuel-Burning Heater'</i> , page 66	
	HSCAN Clear DTCs	See <i>'Global DTCs'</i> , page 67	
	MSCAN Clear DTCs	See <i>'Global DTCs'</i> , page 67	

Appendix A: Menus

Menus - Diesel Engine

Diesel Engine - TD5

- Defender
- Discovery II

Read Faults / DTCs		
Clear Faults / DTCs		
Live Data		
Circuit Tests	Injector 1 Test	
	Injector 2 Test	
	Injector 3 Test	
	Injector 4 Test	
	Injector 5 Test	
	CM Check	
	EGR Vacuum Mod	
	EGR Inlet Thrott.	
	Turbo Wastegate	
	MI Lamp	
	Glow Plug Lamp	
	Glow Plug Relay	
	Tachometer	
	Temperature Gauge	
	Fuel Pump	
	A/C Clutch Drive	
Fan(s) Test		
Programming	Immobilisation	Immob. NOT Fitted
		Immob. Fitted
	Read Injector	
	Set Injector	Injector 1
		Injector 2
		Injector 3
		Injector 4
		Injector 5
	Set Throttle	Throttle 2 Track
		Throttle 3 Track

Diesel Engine - Diesel EMS

- Defender (L316) (2007 -)

Read Faults / DTCs
Clear Faults / DTCs
Live Data
Circuit Tests

Diesel Engine - EDC 1.3.1

- Freelander 1
- Discovery I
- Range Rover (P38a)

Read Faults / DTCs	
Clear Faults / DTCs	
Live Data	
Circuit Tests	Engine Stop
	Boost Pres Wasteg
	A/Con. Comp. Relay
	EGR Valve
	Pre-Heater Relay
	Pre-Heater W/Lamp
	Diagnostic Lamp
	Fuel Pump
Read CM Details	
Security code	

Diesel Engine - DDE 4.0

- Freelander 1

Read Faults / DTCs	
Clear Faults / DTCs	
Live Data	
Actuators	Aircon Clutch
	Glow Plug Relay
	EGR Vacuum Mod
	Cooling Fan

Appendix A: Menus

Diesel Engine

- **Freelander 2 (L359)**

Read Faults / DTCs
Clear Faults / DTCs
Live Data
Oil Change
ECM Data

Diesel Engine - DDE 4.0

- **Range Rover (L322) (2002 - 2006)**

Read Faults / DTCs	
Clear Faults / DTCs	
Live Data	
ECM Data	
Actuators	EGR Control
	Pre-Supply Pump
	Glow Time Relay
	Charge Air Control
	Cooling Fan

Diesel Engine - Diesel EMS

- **Discovery 3**
- **Range Rover (L322) (2007 - 2009)**
- **Range Rover Sport (L320)**

Read Faults / DTCs
Clear Faults / DTCs
Live Data
ECM Data

Diesel Engine - Diesel EMS

- Discovery 4 (319) 2010 MY
- Range Rover (L322) 2010MY
- Range Rover Sport (L320) 2010 MY

Read Faults / DTCs
Clear Faults / DTCs
Live Data
ECM Data

Menus - Petrol Engine

Petrol Engine - 14CUX

- Defender
- Discovery I
- Range Rover Classic

Read Faults / DTCs	
Clear Faults / DTCs	
Live Data	
Actuators	Injectors
	Fuel Pump
Learn security	
Configuration	Reset adaptations

Appendix A: Menus

Petrol Engine - GEMS

- Defender
- Discovery I
- Range Rover (P38a)

Read Faults / DTCs	
Clear Faults / DTCs	
Live Data	
Actuators	MI Lamp
	Fuel Pump
	Purge Valve

Petrol Engine - EMS 2000

- Freelander 1

Read Faults / DTCs	
Clear Faults / DTCs	
Live Data	
Actuators	Main Relay
	Injector 1
	Injector 2
	Injector 3
	Injector 4
	Injector 5
	Injector 6
	Fuel Pump Relay
	A/C Clutch
	Cooling Fan Relay
	Purge Canister
	Over Speed Relay
	Stepper Motor
	Prime Fuel Line
VIS Balance	
VIS Butterfly	
ECM Data	

Petrol Engine - MEMS 1.9

- Freelander 1
- Discovery I

Read Faults / DTCs
Clear Faults / DTCs
Live Data

Appendix A: Menus

Actuators	Temperature Gauge
	Fuel Pump
	PTC Heater
	Air Conditioning
	Idle Solenoid
	ORFCO Solenoid
	Pulse Air Valve
	EGR Valve
	Purge Valve
	O2 Sensor Heater
	Emiss. Fail Lamp
	Turbo Boost Cont
	Fuel Used
	Fan Control 1
	Fan Control 2
	VVT - Inc Period
	Back Pres. Valve
	Var. Geom. Inlet
	Anti RunOn Valve
	Tachometer
	Boost Gauge
	SW Throttle Sw
	VVT - Dec Period
	Fan Control 3
	Test Ign. Coils
	Injectors
	Ambient Air Lamp
	Cruis Dis Relay
	Hill Desc Relay
	RevLite-Caterham

Petrol Engine - MEMS 3

- Freelander 1

Read Faults / DTCs	
Clear Faults / DTCs	
Live Data	
ECM Data	
Actuators	Main Relay
	Fuel Pump Relay
	MI Lamp
	A/C Clutch
	Radiator Fan
	Auxiliary Fan
	US O2 Heater
	DS O2 Heater
	Engine Bay Fan
	Warning Lamp
	Tachometer
	Injector 1
	Injector 2
	Injector 3
Injector 4	

Appendix A: Menu

Petrol Engine - MS43

- Freelande 1

Read Faults / DTCs	
Clear Faults / DTCs	
Live Data	
ECM Data	
Actuators	Cooling Fan
	Fuel Pump
	DMTL Pump
	DMTL Valve
	DMTL Heater
	Purge Valve
	A/C Clutch
	MI Lamp

Petrol Engine - Petrol EMS

- Freelande 2 (L359)

Read Faults / DTCs
Clear Faults / DTCs
Live Data
ECM Data

Petrol Engine - M 5.2.1

- Discovery II
- Range Rover (P38a)

Read Faults / DTCs	
Clear Faults / DTCs	
Live Data	
ECM Data	
Actuators	Fuel Pump
	Condenser Fan
	CVS Valve
	E Box Fan

Petrol Engine - ME 7.2

- Range Rover (L322)

Read Faults / DTCs	
Clear Faults / DTCs	
Live Data	
Actuators	Fuel Injector 1
	Fuel Injector 2
	Fuel Injector 3
	Fuel Injector 4
	Fuel Injector 5
	Fuel Injector 6
	Fuel Injector 7
	Fuel Injector 8
	Map Thermostat
Tank Vent. Valve	
A/C Compressor	
ECM Data	

Petrol Engine - Petrol EMS

- Discovery 3 (L319)
- Range Rover (L322) (2006)
- Range Rover (L322) 2007-2009
- Range Rover (L322) 2010
- Range Rover Sport (L320) 2006 - 2009
- Range Rover Sport (L320) 2010
- Discovery 4 (L319) 2010

Read Faults / DTCs
Clear Faults / DTCs
Live Data
ECM Data

Appendix A: Menus

Menus - Transmission

Transmission - JATCO

- **Freelander 1**

Read Faults / DTCs
Clear Faults / DTCs
Live Data

Transmission

- **Freelander 2 (L359)**

Read Faults / DTCs
Clear Faults / DTCs
Live Data
ECM Data

Transmission - GS 8.87.0/1

- **Discovery II**
- **Range Rover (P38a)**

Faults Codes / DTCs	Read Faults / DTCs
	Clear Faults / DTCs
Live Data	
ECM Data	

Transmission - GS 2-38

- **Range Rover (P38a)**

Faults Codes / DTCs	Read Faults / DTCs
	Clear Faults / DTCs
Live Data	
ECM Data	

Transmission - ZF / EGS 8602

- Range Rover (L322) (2002 - 2005)

Read Faults / DTCs	
Clear Faults / DTCs	
Live Data	
Actuators	Solenoid Valve 1
	Solenoid Valve 2
	Solenoid Valve 3
	Pressure Act. 1
	Pressure Act. 2
	Pressure Act. 3
	Pressure Act. 4
	Pressure Act. 5
	Shiftlock
Instruments	
ECM Data	

Appendix A: Menus

Transmission - GM5 / EGS20

- Range Rover (L322) (2002 - 2006)

Read Faults / DTCs	
Clear Faults / DTCs	
Live Data	
Actuators	Pressure Act. 1
	Pressure Act. 4
	Solenoid Valve 1
	Solenoid Valve 2
	Solenoid Valve 3
	Shiftlock
	Reversing Light
	Eng. Intervention
	Park (P) Lamp
	Reverse (R) Lamp
	Neutral (N) Lamp
	Drive (D) Lamp
	1st Gear (1) Lamp
	2nd Gear (2) Lamp
	3rd Gear (3) Lamp
	4th Gear (4) Lamp
	5th Gear (5) Lamp
	Sport (S) Lamp
	Economy (E) Lamp
	Manual (M) Lamp
Economy (A) Lamp	
Fault Indication	
ECM Data	

Transmission

- **Discovery 3 (L319)**
- **Discovery 4 (L319) 2010 ZF HP26 / ZF HP28**
- **Range Rover Petrol (L322) 2006**
- **Range Rover (L322) 2007 - 2009**
- **Range Rover (L322) 2010**
- **Range Rover Sport (L320) 2006 - 2009**
- **Range Rover Sport (L320) 2010**

Read Faults / DTCs
Clear Faults / DTCs
Live Data
ECM Data

Appendix A: Menus

Menus - Anti-lock Braking System (ABS)

ABS - WABCO 'D'

- Defender
- Defender (L316) (2007 -)
- Freelander 1
- Discovery II
- Range Rover (P38a)

Read Faults / DTCs	
Clear Faults / DTCs	
Live Data	
Circuit Tests	Inlet Valve RF
	Outlet Valve RF
	Wheel Test RF
	Hydraulics RF
	Inlet Valve LF
	Outlet Valve LF
	Wheel Test LF
	Hydraulics LF
	Inlet Valve RR
	Outlet Valve RR
	Wheel Test RR
	Hydraulics RR
	Inlet Valve LR
	Outlet Valve LR
	Wheel Test LR
	Hydraulics LR
	Supplies / Grounds
	ABS Warning Lamp
	TC Warning Light
	Brake Warn. Lamp
Shuttle Valve Sw.	
Valve Relay	
Pump Relay	
HDC Info. Light	

Appendix A: Menus

Circuits Tests (continued)	HDC Fault Light
	Brake Light Relay
	Speedometer
	SLS RR Valve
	SLS LR Valve
	SLS Exhaust Valve
	SLS Cmpress Relay
	SLS RR Height
	SLS LR Height
	SLS Audible Warn
	SLS Warning Light
	OFF Road Light
	TC Valve NC
	TC Valve NO
	Isolation Inlet
Rough Road Signal	
Programming	Configuration
	Transportation

ABS - MK20 / MK25

- Freelander 1

Read Faults / DTCs
Clear Faults / DTCs
Live Data

ABS

- Freelander 2 (L359)

Read Faults / DTCs	
Clear Faults / DTCs	
Live Data	
Configuration	SAS Calibration
	Long. Accel. Calib.
ECM Data	

Appendix A: Menus

ABS - WABCO 'C'

- Discovery I
- Range Rover (P38a)

Read Faults / DTCs	
Clear Faults / DTCs	
Live Data	
Circuit Tests	ABS Warning Lamp
	ETC Info Lamp
	Wheel Test LF
	Wheel Test LR
	Wheel Test RF
	Wheel Test RR
	Ignition Valves
	ETC Valves

ABS - Bosch 5.7

- Range Rover (L322) (2002 - 2006)

Read Faults / DTCs
Clear Faults / DTCs
SAS Calibration

ABS

- Discovery 3 (L319)
- Discovery 4 (L319) 2010
- Range Rover (L322) 2006 - 2010
- Range Rover Sport (L320) 2006 - 2010

Read Faults / DTCs
Clear Faults / DTCs
Live Data
ECM Data

Menus - Airbag

Airbag - Autoliv AC4

- Freelandr 1

Read Faults / DTCs
Clear Faults / DTCs
ECM Data

Airbag - Siemens SRE Smart

- Freelandr 1

Read Faults / DTCs
Clear Faults / DTCs
ECM Data

Airbag

- Freelandr 2 (L359)

Read Faults / DTCs		
Clear Faults / DTCs		
ECM Data		
Configuration	Airbag Build Mode	Entry
		Exit
	Crash Reset	

Airbag - TRW SPS

- Discovery I
- Range Rover (P38a)

Read Faults / DTCs
Clear Faults / DTCs
ECM Data

Appendix A: Menus

Airbag - TRW Gen 4

- **Discovery II**
- **Range Rover (P38a)**

Read Faults / DTCs
Clear Faults / DTCs
ECM Data

Airbag - TRW MRS 4

- **Range Rover (L322) (2002 - 2006)**

Read Faults / DTCs
Clear Faults / DTCs
ECM Data

Airbag

- **Discovery 3 (L319)**
- **Discovery 4 (L319) 2010**
- **Range Rover (L322) 2007 - 2010**
- **Range Rover Sport (L320) 2006 - 2010**

Read Faults / DTCs
Clear Faults / DTCs
ECM Data

Menus - Climate control

Climate Control

- Range Rover (P38a)
- Range Rover (L322) 2002 - 2006
- Range Rover (L322) 2006 - 2009

Read Faults / DTCs
Clear Faults / DTCs

Climate Control

- Freelander 2 (L359)
- Discovery 4 (L319) 2010
- Range Rover (L322) 2006 - 2010
- Range Rover Sport (L320) 2006 - 2010

Read Faults / DTCs
Clear Faults / DTCs
ECM Data

Appendix A: Menu

Menus - Air Suspension

Air Suspension - Airsus

- Range Rover Classic
- Range Rover (P38a)

Read Faults / DTCs	
Clear Faults / DTCs	
Live Data	
Circuit Tests	Compressor
	Left Front Valve
	Right Front Valve
	Left Rear Valve
	Right Rear Valve
	Inlet Valve
	Exhaust Valve
	EAS Manual
	EAS Fault
	SLOW 35 MPH MAX
	SLOW 20 MPH MAX
	Inhibit Lamp
	High Profile Lamp
	Standard Lamp
	Low Profile Lamp
Access Lamp	
Maintenance	Transportation
	High Lock Mode
Calibration	

Air Suspension - EHC2

- Range Rover (L322) (2002 - 2005)

Read Faults / DTCs		
Clear Faults / DTCs		
Live Data		
Actuators	Access Level	
	Motorway Level	
	Standard Level	
	Offroad Level	
	FR Corner Valve	
	FL Corner Valve	
	RR Corner Valve	
	RL Corner Valve	
	Reservoir Valve	
	Exhaust Valve	
	Compressor Relay	
	Hi. Pres. Exhst. Val	
	Rear Cross-Link	
	Front Cross-Link	
	Access Indict. LED	
	Motorway LED	
	Standard LED	
Off-Road LED		
Hold LED		
Service Functions	Operational Mode	Transport Mode
		Production Mode
		Wheel Alignm. Mode
		Normal Mode
	Deflate	Deflate All
		Deflate Front
		Deflate Rear
		Deflate FL Corner
		Deflate FR Corner
		Deflate RL Corner
		Deflate RR Corner

Appendix A: Menus

Service Functions (continued)	Inflate	Inflate All
		Inflate Front
		Inflate Rear
		Inflate FL Corner
		Inflate FR Corner
		Inflate RL Corner
		Inflate RR Corner
ECM Data		

Menus - Chassis

Chassis - ACE

- Discovery II

Read Faults / DTCs	
Clear Faults / DTCs	
Live Data	
Actuators	Warning Lamp
	Main Relay
	Direct. Ctl. Valve 1
	Direct. Ctl. Valve 2
Calibration	Upper Lateral Acc
	Lower Lateral Acc
	Both Lateral Acc
Bleeding	Front Axle
	Rear Axle
	Full Bleed
System Test	

Chassis

- Discovery 3 (L319)
- Range Rover (L322) 2006 - 2009
- Range Rover Sport (L320) 2006 - 2009

Read Faults / DTCs		
Clear Faults / DTCs		
Live Data		
Configuration	Operational Mode	Production Mode
		Normal Mode
	Tolerance Control	Normal / Standard
		Tight/Wheel-Align
	Deflate	Deflate Springs
		Deflate Reservoir
		Deflate All
		Exit Deflate Mode
ECM Data		

Appendix A: Menus

Chassis

- **Discovery 4 (L319) 2010**
- **Range Rover (L322) 2010**
- **Range Rover Sport (L320) 2010**

Read Faults / DTCs
Clear Faults / DTCs
ECM Data
Live Data

Menus - Security

Security - 10AS

- Defender
- Defender (L316) (2007 -)
- Discovery I

Live Data	
Programming	GEMS Immobilisation
	Spider Immobilisation
	EDC Immobilisation
	DDS Immobilisation
	Catalyst Overheat Warning
	Land Rover Defender
	Discovery Interior Lights
	Defender Interior Lights
	Pulsed Horn
	Hazards ON Alarm Triggered
	Hazards ON Alarm Arm / Disarm
	Passive Immobilisation
	CDL Operative With Alarm Armed
	Immobiliser Off With Ignition
	Disarm Alarm / Immob. With Key
	Disarm Alarm Only with Key
Unlock Vehicle - No Disarm	
Mislock Sounder	
LED Indication of Alarm Trigger	
Transmitters	

Appendix A: Menu

Security - CCU

- Frelander 1

Live Data	
Circuit Tests	CCU Int Buzzer
	Horn
	Alarm LED
	Door Open W/Lamp
	Seat Belt W/Lamp
	H/Brake Warn Lamp
	Courtesy Light
	Tail Fog Lamps
	Hazard Relay
	Driver Door Motor
	D'able Lock Motors
	Unlock Motors
	Tail Window Down
	Tail Window Up
	Front Wiper Slow
	Wiper F'ward Rel
	Wiper Reverse Rel
	Tail Door Act
	Win Heater Relay
	Crank Enable

Security - EWS 3D

- Frelander 1
- Range Rover (L322) (2002 - 2005)

Fault Codes / DTCs	Read Faults / DTCs
	Clear Faults / DTCs
Live Data	
ECM Data	

Security

- **Freelander 2 (L359)**

Read Faults / DTCs	
Clear Faults / DTCs	
ECM Data	
Live Data	
Configuration	Crash Reset

Security - BCU

- **Discovery II**

Live Data	
Circuit Tests	Horn
	Fuel Flap
	Alarm LED
	Ign Interlock
	Crank Enable
	Lock Doors
	Unlock Doors
	Superlock Doors
	Single Pt. Entry
	Front LH Window
	Front RH Window
	Rr Window Enable
	Sunroof Enable
	Front Wipe Enable
	Rear Wiper Enable
	H/Lamp Power Wash
	Front Fogs Relay
	LH Ind. Enable
	RH Ind. Enable
	Shift Interlock
	Transfer Neutral
Sounder	
Check Engine Lamp	
LH Ind Warn Lamp	

Appendix A: Menu

Circuit Tests (continued)	RH Ind Warn Lamp
	Check ACE Lamp
	Manual Lamp
	Diff. Lock Lamp
	Oil Pressure Lamp
	H/Temp Warn. Lamp
	Sport Warn Lamp
	Trans. Temp Lamp
	Alternator W/Lamp
	Trailer Indicator
	HDC Select W/Lamp
	ABS Warning Lamp
	Traction W/Lamp
	Check HDC W/Lamp
	Brake Warn. Lamp
	Seat Belt W/Lamp
	Glow Plug W/Lamp
	Check SLS W/Lamp
	Heated Rr Window
	Heat Rr Win Lamp
Heated Front Lamp	
Transmitters	
Programming	Gearbox
	Front FOG
	Shift Interlock
	DRL
	Wash Wipe
	Key In Warning
	Electric Seat
	Electric Windows
	Heated Fr Screen
	Rear Win / Sun Roof
	Autographics
	HDC/SLABS
	Courtesy Lamps
	Error Warning

Programming (continued)	Seat Belt W/Lamp
	Seatbelt Sound
	Bulb Failure
	Superlock
	Unlocking
	Alarm Disarm
	Inertia Switch
	Speed Locking
	Volumetric
	Alarm
	Passive
	Hazards
	Mislock
	Alarm Sound
	Bath Robe Lock
	Alarm Tampered
	Eng. Immobilised
	Low Battery Warn
EKA	

Security - GM3 Body Electrics

- Range Rover (L322)

Read Faults / DTCs
Clear Faults / DTCs
Live Data
ECM Data

Appendix A: Menus

Security - BeCM Body Electronics

- Range Rover (P38a)

BeCM

Read Faults / DTCs		
Clear Faults / DTCs		
Live Data		
Vehicle params	Security	
	Other	
Actuators	Warning Lamps	Alternator Charge
		Cruise Active
		EFI
		Traction Control
		Low Oil Pressure
		Service Engine
		Low Fuel Gauge
		Brake Failure
		ABS Warning Lamp
		Trailer DI
		Air Susp Warning
		Eng Temp Gauge
		Lights On
		Seat Belt W/Lamp
		LH Indicator
		RH Indicator
		Main beam
	Fuel Gauge Calib	
	Temperature Gauge	
	Warning Buzzer	
	Instrument Illum.	

Appendix A: Menus

Actuators - continued	Lights	Main beam
		Dipped beam
		Driving Lights
		Left Side Lamp
		Right Side Lamp
		Left indicator
		Right indicator
		Fog lights
		Rear fog lights
		Reversing lights
		Num plate light
		Courtesy Lamps
		Electric Windows
	FR Window	
	RL Window	
	RR Window	
	Sunroof	
	Horn	
	Wash Wipe	Front Wiper Fast
		Front Wiper slow
		Front Washer Spray
		Rear Wiper
		Rear Washer
	Headlamp WashWipe	
	Locking	LHF Door Lock
		RHF Door Lock
Rear Doors Lock		
Fuel Filler Cap		

Appendix A: Menus

Security - GM3 Body Electrics

- Range Rover (L322) 2006 - 2009

Read Faults / DTCs
Clear Faults / DTCs
Live Data
ECM Data

Security - Body

- Discovery 3 (L319)
- Discovery 4 (L319) 2010
- Range Rover (L322) 2010
- Range Rover Sport (L320) 2006 - 2010

Read Faults / DTCs
Clear Faults / DTCs
Live Data
ECM Data

Security - VIM

- Discovery 4 (L319) 2010
- Range Rover (L322) 2006 - 2010
- Range Rover Sport (L320) 2010

Read Faults / DTCs
Clear Faults / DTCs
ECM Data

Menus - Steering Angle Sensor (SAS)

SAS

- Range Rover (L322) 2002 - 2005
- Range Rover (L322 - Diesel Only) 2006

Read Faults / DTCs
Clear Faults / DTCs
SAS Calibration

SAS

- Discovery 3 (L319)
- Range Rover (L322 - Petrol Only) 2006
- Range Rover (L322) 2007 - 2009
- Range Rover Sport (L320) 2006 - 2009

Read Faults / DTCs	
Clear Faults / DTCs	
Configuration	SAS Calibration
ECM Data	

SAS

- Freelander 2 (L359)
- Range Rover (L322) 2010

Read Faults / DTCs
Clear Faults / DTCs
ECM Data

Appendix A: Menus

Menus - Service Reset

Service Reset

- Freelander 2 (L359)
- Range Rover (L322) 2006 - 2010
- Discovery 3 (L319)
- Discovery 4 (L319)
- Range Rover Sport (L320) 2006 - 2010

Service Reset

Service Reset

- Range Rover (L322) (2002 - 2005)

Oil Reset
Distance Reset
Time Reset

Menus - Electronic Parking Brake (EPB)

EPB

- Discovery 3 (L319)
- Discovery 4 (L319)
- Range Rover (L322) 2007 - 2010
- Range Rover Sport (L320) 2006 - 2010

Read Faults / DTCs	
Clear Faults / DTCs	
Live Data	
Service Brakes	Unjam EPB
	Mounting Position
	Latching Position
	Long. Accel. Calib.
ECM Data	

Appendix A: Menus

Menus - Fuel-Burning Heater

Fuel-Burning Heater

- Range Rover (L322) 2002 - 2009

Read Faults / DTCs	
Clear Faults / DTCs	
Live Data	
Actuators	Everything Off
	Water Pump On
	Air Fan Full Load
	Glow Plug On
	Dosing Pump On
	Aircon Fan On
FBH On	
ECM Data	

Fuel-Burning Heater

- Freelander 2 (L359)
- Discovery 3 (L319)
- Discovery 4 (L319)
- Range Rover (L322) 2010
- Range Rover Sport (L320) 2006 - 2010

Read Faults / DTCs
Clear Faults / DTCs
Live Data
ECM Data

Menus - Global DTC Clear

Global DTCs

- Discovery 4 (L319)
- Range Rover (L322) 2010
- Range Rover Sport (L320) 2010

Global DTCs clear

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