

HawkEye

Your new diagnostic tool for
Land Rover vehicles



User Manual

Bearmach HawkEye

Instruction Manual

04/2014 - EN (3.0)

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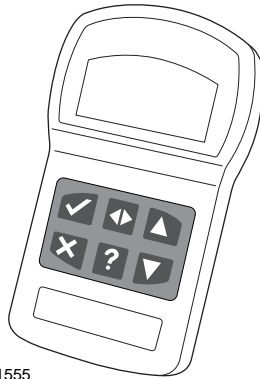
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Overview

Almost all new road vehicles, and many older vehicles, have multiple control modules that monitor and control different operations of the vehicle (e.g. Engine, Transmission, Body, Suspension). The HawkEye service tool can connect to these modules and move data: this lets the user find information (e.g. Diagnostic Trouble Codes) that might help in the diagnosis of system problems.



OM1555

The following vehicle coverage is possible:

- Defender
- Defender (L316)
- Freelander 1
- Freelander 2 (L359)
- Discovery 1
- Discovery 2
- Discovery 3 (L319)
- Discovery 4 (L319)
- Range Rover Classic
- Range Rover (P38a)
- Range Rover Sport (L320)
- Range Rover (L322)
- Range Rover Evoque (L538).

Introduction

How To Get Started

Connect the EOBD cable (BA 5071) to the HawkEye service tool and the vehicle's diagnostic connector. The display shows the software version number after connection is made.

Unlocking New Units

A security key is necessary to unlock the specific Land Rover model(s) in a new or updated HawkEye service tool. To get this key you must first register the HawkEye service tool. Send an email to technical.support@omitec.com. Include in this email the serial number of the unit, the Land Rover model(s) required and your contact data.

When you receive your security key, use this procedure to unlock the service tool:

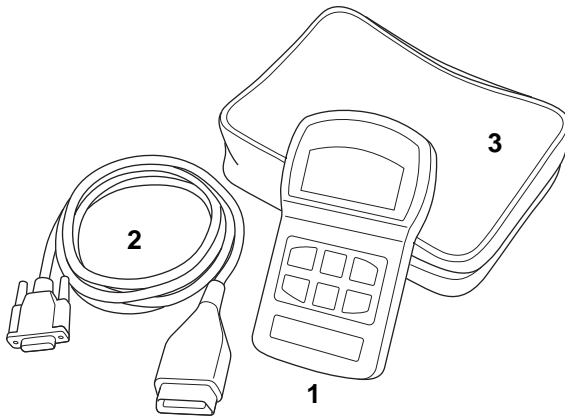
1. Press the ▲ or ▼ key to move to 'User Menu' in the Main menu and press ✓ to show the menu.
2. Press the ▲ or ▼ key to move to 'Security' in the User menu and press ✓ to show the menu.
3. Press the ▲ or ▼ key to move to 'Enter Security Key' in the Security menu and press ✓ to start this menu selection.
4. Use the ▲ and ▼ keys to move through the alpha/numeric character list to find the necessary key character.
5. Press the ✓ key to set the character for the security key.
If you make a mistake use the ◀▶ key to find and set the correct character. To enter the code again from the start, press the ✕ key.
6. When all the key's characters have been entered, the display will show "Correct Code?". Press ✓ to set the security key.
7. Disconnect the power supply to stop the HawkEye service tool.
8. Connect the power supply again to start the HawkEye service tool. The screen should now show a list of available applications.

Additional Models

To add vehicles to the HawkEye service tool, contact your local supplier.

Introduction

Kit Contents



OM1472

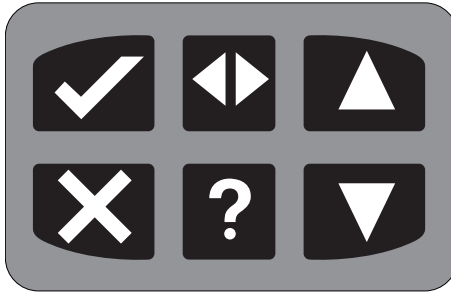
HawkEye kit

1. HawkEye service tool
2. J1962 cable (BA 5071)
3. Protective pouch
4. Quick Reference Guide (not shown).

Display Screen

The display of the HawkEye service tool is a backlit LCD that can show four rows of text. Each row can have a maximum of twenty characters.

Keypad



OM1473

Use the 6-button keypad to control the HawkEye service tool.

The table below identifies the keypad buttons and their functions.

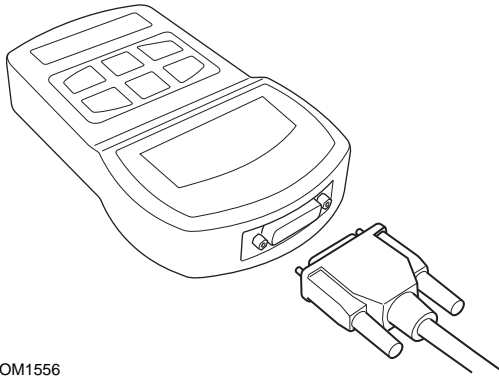
Key	Function
✓	Set a menu option, Continue or Yes.
✗	Exit a menu or No.
▲	Move up within a menu or text.
▼	Move down within a menu or text.
◀▶	Move left or right.
?	Provide context sensitive help (when available).

Easy Reset Facility

To set the HawkEye service tool again, without disconnection from the vehicle, press and hold the ✓, ✗, ▲ and ▼ keys down at the same time.

Introduction

Connection

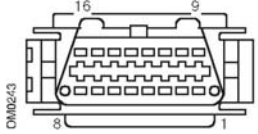
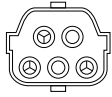


OM1556

The HawkEye service tool has a 15-way connector through which it can move data to the vehicle through various interface cables. Connection to the system is through either the vehicle's EOBD (J1962) diagnostic socket or by a specified system connector. Refer to the 'Vehicle Application List' to find the correct cable.

Always use the fixing screws to set a cable to the service tool. This is to prevent accidental disconnection while in use.

Diagnostic Connector Location

Connector	Connector Location	Connector Face View
J1962	In the driver / passenger footwell on: Defender (L316) Freelander Discovery 1, 2, 3, 4 Range Rover (P38a) Range Rover (L322) Range Rover Sport (L320) Range Rover Evoque (L538)	
	Under the driver / passenger seat on: Defender	
14CUX	Behind the driver side kick panel on: Discovery I (V8)	
	Under driver / passenger seat on: Range Rover Classic	

Troubleshooting

Follow the procedure below if data cannot be transmitted to the vehicle:

1. Make sure that the correct system has been selected from the menu.
2. Make sure that the cable identified by the Application List is in use.
3. Disconnect both ends of the cable and make sure that no pins are bent or snapped.
4. Turn the ignition switch to OFF and ON and connect the service tool to the vehicle.
Try to transmit data again.

If data still cannot be transmitted, contact the Product Support Team for help.

Introduction

Safety Precautions

Use the following rules below to make sure that the operator stays safe and to prevent damage to the vehicle's electrical and electronic components.

Equipment - before any test procedure on the vehicle is started, make sure that the HawkEye service tool, its harnesses and connectors are in good condition.

Polarity - always make sure that when the HawkEye service tool is connected to the vehicle battery that the correct polarity is used.

Always use the following procedure before a vehicle test:

- Make sure the handbrake/parking brake is on.
- Make sure that Neutral or Park is selected.
- Make sure test equipment and harnesses are kept away from HT leads.
- Make sure the operator and test equipment cannot make contact with moving parts.
- Make sure that the engine is operated in an environment that has sufficient ventilation.

User Menu



Use the ▲ and ▼ keys to move to the necessary menu and press ✓ for selection.

For more information, refer to 'HawkEye Menu Structure', page 31.

Note: Press ✕ to return to the Main menu.

DTC Lookup

Use this menu selection to find a DTC description.

To find a known DTC

1. Use the ◀▶ and ? keys to move the cursor under the necessary DTC character, then use the ▲ and ▼ keys to change the characters.
2. Press the ✓ key for the selection of the DTC.
3. Press ✕ to return to the User menu.

If the unit accepts the DTC, the display will show the full description (for example, *P0100 - Mass or Volume Air Flow 'A' Circuit*).

When more than one description is available, the display will show a separate menu for you to select the applicable description.

If a code is not accepted, the screen will show the message 'No Text Allocated for this Code'.

HawkEye Menus

Language Menu

The Language menu lets you change the software language when possible.

How to change to an alternative language

1. Use the ▲ and ▼ keys to move to the alternative language.
2. Press the ✓ key to set the selection.

Note: This menu is only available when the HawkEye service tool has access to other languages. If more languages are not available, the display will show the message 'Not Enabled' and then show the User Menu.

Self Test Menu

SELF TEST MENU	
1.	Full Self Test
2.	Flash Test
3.	Memory Test
4.	IIC Memory Test
5.	Vehicle Com Test
6.	PWM J1850 Test
7.	CAN Comms Test
8.	Key Pad Test
9.	Display Test
10.	Display All Clear

How to do a test

1. Use the ▲ and ▼ keys to highlight the type of test.
2. Press ✓ to set the selection of the type of test.
3. Follow the instructions on the display to do the test.
4. Press the ✓ or ✕ key to return to the Self Test menu.

Software Version Menu

This menu shows the version number of the HawkEye service tool software and then a list of all the service tool's software modules together with their version numbers.

How to find the software version

1. Use the ▲ and ▼ keys to move through the software module list.
2. Press the ✓ or ✕ key to return to the Self Test menu.

Security Menu

All the applications in the HawkEye service tool have their own security 'lock'. You must contact the Product Support team to get a security key that 'unlocks' an application. Enter this security key into the HawkEye service tool to make available the application. When the User Menu does not show an expected application, the cause could be that the security key has not been entered or that it has not been entered correctly.

Use the 'Security' menu to examine or enter a security key. The following menu will be shown:

```
                SECURITY
1.  Show SecurityKey
2.  Enter SecurityKey
3.  Unit Serial No.
```

Show SecurityKey

This selection shows the SecurityKey on the display:

1. Use the ▲ or ▼ key to move to 'Show SecurityKey' in the Security menu then press the ✓ key.
2. Press the ✓ or ✕ key to return to the Security menu.

If the security key is incorrect, the display will show 'Key is Invalid'. Press the ? key for more information.

HawkEye Menus

Enter SecurityKey

Use this menu to enter the security key and so unlock the functions in the HawkEye service tool:

1. Use the ▲ or ▼ key to move to 'Enter SecurityKey' in the Security menu then press the ✓ key.
2. Use the ▲ and ▼ keys to move through the alpha / numeric character list.
3. Press the ✓ key to enter each character.
When a mistake occurs, use the ◀▶ key and enter the correct character. To enter the code from the beginning, press the ✕ key.
4. Press the ✓ key when the display shows a request to set the security key.
5. Disconnect and then connect the power supply to stop and then start the HawkEye service tool. You can hold down the ✓, ✕, ▲ and ▼ keys at the same time to cause the same effect.

Note: Press the ? key to show the instructions on the display.

Note: The ✕ key can be pressed at any time to cancel input of the security key. The original security key will be kept by the HawkEye service tool.

Unit Serial No.

This menu selection shows on the display the serial number of the HawkEye service tool. If you have to contact Product Support for help you will have to give this number: the task to find the solution of technical problems is easier when this number is available.

The unit serial number will be the same as the number on the back of the unit. This number cannot be changed. Follow this procedure to find the unit's serial number:

1. Use the ▲ or ▼ key to move to the 'Unit Serial No.' selection in the Security menu and press the ✓ key.
2. When the unit serial number has been noted, press the ✕ key to return to the Security menu.

Anti-Lock Braking System (ABS)

- Land Rover vehicles

Longitudinal Acceleration Sensor Calibration

The calibration of this sensor is necessary in the following situations:

- The Longitudinal Acceleration Sensor has been replaced.
- The ABS / TC / ESP control module has been replaced.
- The ESP system does not operate correctly. This problem can be removed sometimes if you set the Longitudinal Acceleration Sensor again.

Airbag

- Land Rover Freelander 2 (L359) (2007-)

Restraints Build Mode Entry / Exit

Use this menu selection to put the Airbag / Restraint System into the 'build mode'. This is to help with safe maintenance and for repairs to be done without the risk of detonation of airbags or pretensioners. To return to normal operation after work has been completed on the system, take the Airbag / Restraints system out of the 'build mode'.

Crash Reset

This selection is necessary on vehicles where airbags have inflated when a crash has occurred. 'Crash Reset' removes the crash 'flag' in the Body Control Module. This is necessary to enable normal operation after repair of the vehicle and installation of a new airbag.

Land Rover Systems

Air Suspension System (Ride Level Module - RLM)

- Discovery 3, LR3 (L319) (2005 - 2009)
- Range Rover Sport (L320) (2005 - 2009)
- Range Rover (L322) (2006 - 2009)

The HawkEye service tool has these modes:

- Set Operating Mode.
- Set Tolerance Control Mode.
- Deflation Routines.

Set Operating Mode

Use this selection to set the RLM to different modes. Modes can be set under the 'Configuration' selection of the HawkEye service tool. The 'Live Data' menu selection of the HawkEye service tool can show the operating mode.

Pre-test conditions

- Set the ignition to ON.
- Connect an approved battery charger to make sure the power supply is constant.

Normal Mode

This is the normal operating mode for the RLM.

Manufacturing Mode

Usually this mode is used in the factory when the vehicle is assembled, but it can also be used when coil springs are installed instead of air springs. Put the control module in this mode to make sure that the control module continues to operate correctly: normal operation would be, for example, the regular update of height information. When this mode is set the air suspension controls and instruments will not function.

Note: If the vehicle is driven in any mode other than Normal Mode, the Air Suspension will NOT operate correctly.

Set Tolerance Control

Use this menu selection to set the RLM tolerance control. Tolerance control can be set under the 'Configuration' menu selection of the HawkEye service tool. The current state of tolerance control can be shown by the 'Live Data' selection of the HawkEye service tool.

Pre-test conditions

- Set the ignition to ON.
- Connect an approved battery charger to make sure the power supply is constant.

Normal Tolerances

This state is the normal operating mode for the Air Suspension system.

Tighter Tolerances

Use this state when another part of the vehicle is to be aligned or calibrated. Examples of the use of this state are:

- Wheel alignment.
- Adaptive Headlamp calibration.

Deflation Operations

The Deflation operations are:

- Deflate air springs.
- Deflate reservoir.
- Deflate all (air springs and reservoir).
- Exit deflate mode.

Use these operations when work must be done on the air suspension system; this will reduce the risk of personal injury caused by compressed air.

Pre-test conditions:

- Set the ignition to ON.
- Connect an approved battery charger to make sure the power supply is constant.



Caution: The vehicle moves down when the air suspension deflates. To prevent damage make sure all doors are closed.



Warning: The technician must carefully examine the air suspension system to make sure that air has been fully removed from the system. This task is necessary even if the HawkEye service tool shows that the operation has completed successfully. The procedure may need to be done more than one time to make sure all air is removed from the system. Failure to do so may cause personal injury.

Exit Deflate Mode

The technician **must** pressurise the air suspension system after the work has been completed. Use the 'Exit Deflate Mode' selection to start the normal operation of this system.

Land Rover Systems

Air Suspension System (EHC2)

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

The HawkEye service tool for the EHC2 air suspension system has three types of function:

- Actuators.
- Set Operating Mode.
- Deflation Routines.

Actuators

The HawkEye service tool can control different actuators. There are two types of procedure to control these actuators: Level Selection and Drive Outputs.

Level Selection

An alternative to the use of the ride height switch inside the vehicle, is to use the HawkEye service tool to set the air suspension system at different levels. These levels are:

- Access Level.
- Motorway Level.
- Standard Level.
- Off-road Level.

These levels help the diagnosis of faults in the ride height switch and wiring.

Pre-test conditions:

- The engine must be in operation.

Drive Outputs

The HawkEye service tool can control:

- Front right valve
- Front left valve
- Rear right valve
- Rear left valve
- Exhaust valve
- Reservoir valve
- Compressor valve
- High-pressure exhaust valve
- Front cross-link valve
- Rear cross-link valve
- Access LED
- Motorway LED

- Standard LED
- Off-road LED
- Hold LED.

Pre-test conditions

- Set the ignition to ON and the engine OFF.

Set Operating Mode

The HawkEye service tool for the EHC2 system has four modes:

- Transport mode.
- Low Tolerance Mode (use for wheel alignment or to control the headlamp level).
- Production Mode (use to disable all control circuits in the system).
- Normal Mode (to cancel all the above three modes).

Modes can be set under the 'Service Functions' menu selection of the HawkEye service tool. The 'Live Data' menu selection of the HawkEye service tool shows which operation mode is on.

Pre-test conditions

- Set the ignition to ON.
- Connect an approved battery charger to make sure the power supply is constant.

Note: If the vehicle is used in any mode other than 'Normal Mode', the air suspension will not operate correctly.

Land Rover Systems

Deflation Routines

This system has seven deflation operations:

- Deflate right front
- Deflate left front
- Deflate right rear
- Deflate left rear
- Deflate front
- Deflate rear
- Deflate all.

Use these operations before the servicing of the air suspension system: this reduces the risk of injury caused by compressed air.

Pre-test conditions

- Set the ignition to ON.
- Connect an approved battery charger to make sure the power supply is constant.



Caution: The vehicle moves down when the air suspension deflates. To avoid damage, make sure all doors are closed.



Warning: The technician must carefully examine the air suspension system to make sure that air has been fully removed from the system. This task is necessary even if the HawkEye service tool shows that the operation has completed successfully. The procedure may need to be done more than one time to make sure all air is removed from the system. Failure to do so may cause personal injury.

Inflation

When servicing work has been completed the air suspension can be pressurised again, either by the selection of the related 'Inflation' operation or by an engine start.

When the engine starts, the air suspension system will become pressurised. The suspension at each of the vehicle's four corners will be set to the correct height for the currently selected level.

Inflation Routines

This system has seven inflation operations:

- Inflate right front
- Inflate left front
- Inflate right rear
- Inflate left rear
- Inflate front
- Inflate rear
- Inflate all.

Use these operations either when work has been completed on a part of the air suspension system or to try and set the level of the vehicle in an emergency repair situation.



Caution: The vehicle will move up when the air suspension system is pressurised. To avoid damage make sure all doors are closed.

Pre-test conditions

- Set the ignition to ON.
- Connect an approved battery charger to make sure the power supply is constant.

Note: These operations may need to be repeated more than one time to completely pressurise the part of the air suspension system that has been deflated.

Land Rover Systems

Steering Angle Sensor (SAS)

- Land Rover vehicles

Steering Angle Sensor (SAS) Calibration

To calibrate the SAS, use the 'SAS Calibration' menu selection and follow the instructions on the display.

Note: Calibrate the SAS after a wheel alignment, suspension adjustment or steering column replacement.

Longitudinal Acceleration Sensor Calibration

Use this operation in the following situations:

- The longitudinal acceleration sensor has been replaced.
- The ABS / TC / ESP control module has been replaced.
- There is an ESP system malfunction. Sometimes an ESP malfunction can be removed if you set this sensor again.

Service Reset

- Check application list for vehicles covered.

Land Rover has two Service Reset options: Service Interval Reset and Oil Degradation Counter Reset.

Service Interval Reset

This menu selection sets the indicator of the conventional service interval back to a start value. This has to be done **after** a full service has been completed on the vehicle.

Oil Degradation Counter Reset

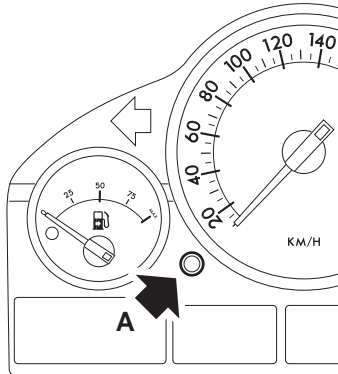
Only use this menu selection in vehicles that have Diesel Particulate Filters (DPF). This menu selection is not applicable to vehicles with petrol or LPG engines or diesel engines with no DPF.

Set the counter back to its original value only **after** the oil has been changed.

Manual Service Reset

- Range Rover (L322) (2002 - 2009) (except Japan and North America)

1. Switch ignition to OFF.



OM1257

2. Press and hold button **A**.
3. Turn the ignition switch to position I.
4. Keep button down for 5 seconds until the LCD display shows 'SIA RESET'.
5. The display will now show the distance to service and the type of service necessary (OIL SERVICE or INSPECTION).
6. Examine the distance to service. If the distance is less than the set value, go to step 7. If it is more than the set value, go to step 9.
7. Press button **A** one time. The display will show the date to service.
8. Examine the service date. If this date has not been touched, go to step 10. If it has been touched, go to step 11.
9. When the distance to service has been touched, press button **A** for 5 seconds. 'RESET' will flash on the display. Press button **A** again before 'RESET' has flashed five times: this is to set the service distance limit back to its initial value. The new distance to service will be shown for 5 seconds before the service date is shown.
10. Press button **A** one time to end the service interval check and to reset.
11. When the date for service limit has been touched, press and hold button **A** for 5 seconds. 'RESET' will flash on the display. Press button **A** again before 'RESET' has flashed five times: this is to set the service date limit to its new value. The new date to service will be displayed for 5 seconds before "end service" is shown.
12. Turn the ignition switch to OFF.

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Electronic Parking Brake (EPB)

- Discovery 3, LR3 (L319) (2005 - 2009)
- Range Rover Sport (L320) (2005 - 2010)
- Range Rover (L322) (2006 - 2010)
- Discovery 4, LR4 (2010)

There are four functions available under the 'Service Brakes' menu.

Unjam Electronic Parking Brake

This procedure should be used if one of the parking brake cables becomes detached or breaks while the vehicle is driven.

Pre-test conditions

- The vehicle must be stationary.
- The engine must be in operation and at idle speed.

After the technician has done the procedure they must examine the condition of the rear brake shoes and drums. If both are satisfactory, the technician should then refer to the Land Rover technical information.

Note: Part of this procedure puts the parking brake in the 'Mounting Position'. In 'Mounting Position' a red light in the instrument cluster will flash: this does not indicate a vehicle fault.

Mounting Position

The parking brake must be put in the 'Mounting Position' if any of the following procedures are to be done:

- Removal or installation of parking brake shoes.
- Adjustment of parking brake shoe and lining.

Note: This procedure must be done if new parking brake shoes are installed, new rear brake discs are installed or if the vehicle has been driven through mud for more than 50 miles.

- Change of parking brake cables.
- Removal or installation of parking brake actuator (to make sure parking brake cables can be connected and disconnected).

Pre-test conditions

- The vehicle must be stationary.
- Set the ignition to ON.
- Connect an approved battery charger to make sure the power supply is constant.

Follow the instructions on the display fully.

To exit the 'Mounting Position' mode, switch the parking brake on and off, two times.

Note: This procedure puts the parking brake in the 'Mounting Position'. In 'Mounting Position' a red light in the instrument cluster will flash: this does not indicate a vehicle fault.

Latching Position

This procedure may be necessary, to put the parking brake back in its latched position after the emergency release of the parking brake has been used.

Pre-test conditions

- The vehicle must be stationary.
- Set the ignition to ON.
- Connect an approved battery charger to make sure the power supply is constant.

Follow the instructions on the display fully and in the correct order.

Longitudinal Accelerometer Calibration

This procedure may be necessary after the longitudinal accelerometer has been replaced.

Pre-test conditions

- Set the ignition to ON.
- Connect an approved battery charger to make sure the power supply is constant.
- Put the vehicle on a level surface and make sure it remains stationary during the calibration procedure.
- Make sure the parking brake module is secured to the vehicle and that the parking brake is on.

Follow the instructions on the display fully.

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Electronic Parking Brake (EPB) - Disabling Manually

This procedure is necessary before work is done on the rear brake discs. When this procedure is done correctly, the control module retracts the brake caliper pistons.

1. Set the ignition to ON.
2. Press and hold the footbrake.
3. Press and hold the parking brake switch in the RELEASE position.
4. Turn the ignition switch to OFF and remove the key (when applicable).
5. Release the footbrake.
6. Release the parking brake switch.
7. Remove fuse number 8 from the fuse box to isolate the electrical circuit of the parking brake.

Electronic Parking Brake (EPB) - Enabling Manually

1. Install fuse number 8 into the fuse box to energise the electrical circuit of the parking brake.

Electronic Parking Brake (EPB) Shoes - Bedding In

This procedure must be done if new parking brake shoes are installed, new rear brake discs are installed or if the vehicle has been driven through mud for more than 50 miles.

1. Start the engine.
2. Press the footbrake three times within 10 seconds and keep down after the third application.
3. Use the parking brake four times and release it three times within 10 seconds to enter the 'Service Bedding In Procedure Mode'.

Note: The 'Service Bedding In Procedure Mode' will stay on until the next ignition cycle or until the vehicle speed exceeds 31mph (50km/h). If the mode is cancelled, repeat steps 1-3 to start the mode again.

4. Do ten stops from 19 - 22mph (30 - 35km/h) to bed-in the parking brake linings.

Note: The parking brake force will increase to the dynamic maximum when the switch is held in the ON position. If the switch is released the parking brake will then be released.



Caution: The EPB must be allowed to cool between each use. To do this, drive the vehicle for 500 yards (500 metres) at 19 - 22mph (30 - 35 kmh) or keep stationary for 1 minute without the use of the parking brake switch.

EDC Diesel Control Module (Range Rover (P38A))

Read Security Code

Use this function when a new BeCM has been installed (see BeCM section for details). The security code shown must be noted and entered into the new BeCM unit as the 'Immob Code' parameter.

This must be done **BEFORE** the BeCM is locked.

WARNING: The scan tool cannot unlock a BeCM after it has locked access to the unit's security code.

The engine will not start until both codes in the BeCM and EDC module are the same.

This function is only applicable to Range Rover (P38A) vehicles.

BECM - Body Control Module (Range Rover - P38A)

The following special functions are available for BeCM on the scan tool:

Programming

The BeCM has configurable parameters that the scan tool can change.

Most parameters are functional, such as 'Foglamps Fitted', 'Sunroof Fitted'. Other parameters relate to the vehicle configuration, such as engine type, gearbox type.

Some parameters also relate to security, and so can only be altered on a new or 'unlocked' BeCM module.

The lock state of the module can be found under the Programming - Security selection. This parameter can only be changed from 'Unlocked' to 'Locked'. This should be used when a new module has been installed and all parameters listed below have been entered correctly.

WARNING: When a BeCM has been locked the scan tool cannot unlock it.

Parameters only available under the 'unlocked' state are:

- VIN (last 6 digits).
- Immobiliser Code. For EDC and Motronic engine management systems, this must be entered into a new BeCM so the engine start synchronisation can work. For EDC systems, use the scan tool to find this code from the EDC system and enter this code as the parameter value. For the GEMS system, any code (0 - 65535) can be entered into this parameter. Enter the code and then use the 'Learn Security' menu selection (in the scan tool's GEMS module) to set the code.
- EKA Code. The Emergency Key Access number for the vehicle. This must be a four digit number, each digit must be 1 - 6: all digits must not be the same (e.g. 2222).
- Fob Code. This is a three-part Fob code which is made from the 14-digit barcode number found on the lockset and key fob. If a lockset is replaced a new Fob code

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must be entered. Only Land Rover dealers can give this code after they are given the 14-digit barcode number.

- ECU Lock Status: As mentioned previously this can only be changed from 'unlocked' to 'locked'. This should only be done when the correct VIN, Immob Code, EKA and Fob Code have been entered.

Note: An unlocked BeCM module will still operate correctly when attached to a vehicle, but the diagnostic coverage with other modules (HeVAC) may be decreased.

WARNING: Once locked a BeCM a scan tool cannot unlock the BeCM.

Actuators

There are a number of Actuators available on the scan tool for the BeCM. The scan tool can examine different types of output controlled by the BeCM (Warning lamps, electric windows, lights, gauges, wipers). This function can be very useful to help find electrical faults.

NA EMR Lamp Reset

This function is included in the Actuators menu, although it is more of a reset than an actuator.

The NA EMR Lamp is a warning lamp on the dashboard of the P38A. This lamp is only attached to vehicles sold in North America (US and Canada), and so is not used in the European market.

The EMR lamp will come on every 50,000 miles (or 80,000 km) when the emissions need to be examined.

Use this scan tool's function to set this lamp again.

How To Clean The Service Tool

Use the procedures below to clean and keep the service tool serviceable and to maintain its condition.



Caution: Never use solvents or other strong cleaning fluids to clean the HawkEye service tool. Strong solvents can damage the plastic casing.



Caution: The HawkEye service tool is not waterproof. Always dry the unit fully after it has been cleaned or if liquid has been spilled on it.

It is recommended that the following parts of the HawkEye service tool are examined and cleaned regularly:

- The case.
- The display screen.
- The keypad.
- Adapter cables and connectors.

Apply a mild detergent solution to a soft clean cloth and use to clean the HawkEye service tool, or any of its cables or connectors.



Caution: Disconnect the service tool from the vehicle or other sources of power supply before you clean the tool.

Display Screen

To clean the display, always use a soft, clean, antistatic cloth. If any stains or marks stay on the tool use a non-abrasive glass cleaner applied to a soft, clean cloth. Gently move the cloth across the display until the marks have been removed.

Software Updates

Software updates are available from a CD supplied with the tool or through the internet. Connect the service tool to a PC and load software updates into the tool. The cable to connect the service tool to the PC is supplied with the tool. Full instructions for loading the software updates to the service tool will be supplied with the upgrade.

Specification

HawkEye complies with ISO/DIS 15031 Part 4 as an EOBD service tool.

Voltage Requirements - 8.0 volts to 16.0 volts DC.

Current requirement - 750mA maximum.

Display - 20 characters by 4 lines LCD with LED back light.

Operating temperature range - 0°C to 50°C

General Information

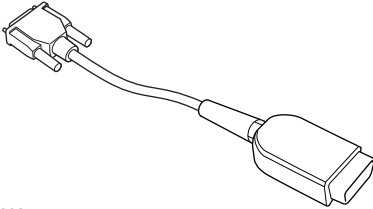
Declaration of Conformity

The HawkEye tool is CE marked and obeys the following directives.

- EN55022:1998 - ITE Emissions (Class A).
- EN50082-1:1998 - Generic EMC Immunity.
- EN60950:1992 - Safety Requirements.
- FCC47 Part 15 - Radio Frequency Devices (Class A).

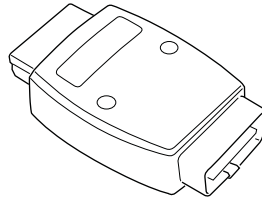
A copy of the Declaration of Conformity certificate is available on request from the manufacturer or your supplier.

Cable Identification



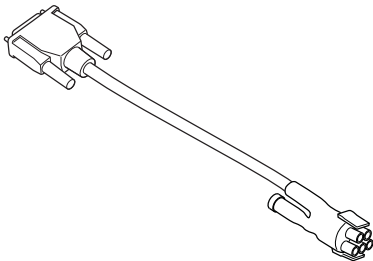
OM0987s

BA 5071 - J1962 cable (supplied with HawkEye diagnostic tool)



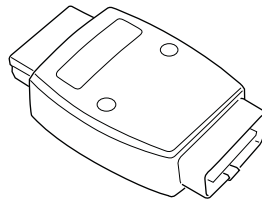
OM0995s

BA 5076 - Land Rover green adapter (10AS)



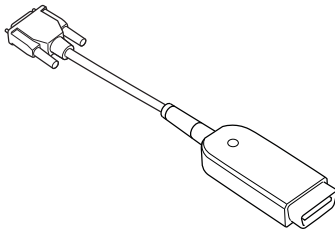
OM1002s

BA 5072 - Land Rover Lucas 14CUX cable



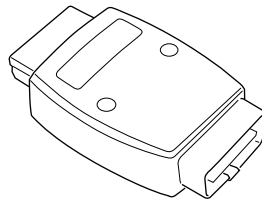
OM0995s

BA 5077 - Land Rover grey adapter (TEVES MK25, EWS 3)



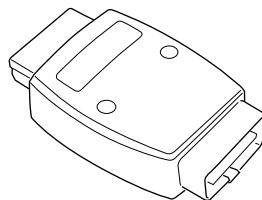
OM1006s

BA 5073 - Land Rover air suspension cable



OM0995s

BA 5078 - Land Rover red adapter (L322)



OM0995s

BA 5080 - Land Rover black adapter (Medium / Low Speed CAN)

HawkEye Menu Structure

The table below gives the main menu structure for the HawkEye service tool.

Defender	EMS	14CUX	See 'Petrol Engine - 14CUX', page 81
		GEMS	See 'Petrol Engine - GEMS', page 81
		TD5	See 'Diesel Engine - TD5', page 69
	ABS	WABCO 'D'	See 'ABS - WABCO 'D' (Cont'd)', page 95
	Security	10AS	See 'Security - 10AS', page 117

Defender (L316) (07 MY - 10 MY)	ECU	PCM (Powertrain Control Module)	See 'Diesel Engine - Diesel ECU PCM', page 71
	ABS	WABCO 'D'	See 'ABS - WABCO 'D' (Cont'd)', page 95
	Instruments	IPC (Instr't Panel Ctrl)	See 'Instrument Panel Control (IPC)', page 114
	Security	10AS	See 'Security - 10AS', page 117

Defender (L316) (11 MY)	ECU	PCM (Powertrain Control Module)	See 'Diesel Engine - Diesel ECU PCM', page 71
	ABS	WABCO 'D'	See 'ABS', page 98
	Instruments	IPC (Instr't Panel Ctrl)	See 'Instrument Panel Control (IPC)', page 114
	Security	10AS	See 'Security - 10AS', page 117

Defender (L316) (12 MY -)	ECU	PCM (Powertrain Control Module)	See 'Diesel Engine - Diesel ECU PCM', page 71
	ABS	WABCO 'D'	See 'ABS', page 98
	Instruments	IPC (Instr't Panel Ctrl)	See 'Instrument Panel Control (IPC)', page 114
	Security	10AS	See 'Security - 10AS', page 117

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Discovery 1	EMS	EDC 1.3.1	See 'Diesel Engine - EDC 1.3.1', page 77
		14CUX	See 'Petrol Engine - 14CUX', page 81
		GEMS	See 'Petrol Engine - GEMS', page 81
		MEMS 1.9	See 'Petrol Engine - MEMS 1.9', page 83
	ABS	WABCO 'C'	See 'ABS - WABCO 'C'', page 99
	Airbag	TRW SPS	See 'Airbag - TRW SPS', page 101
		TRW MPS	See 'Airbag - TRW MPS', page 101
	Security	10AS	See 'Security - 10AS', page 117
	Discovery 2	EMS	TD5
M 5.2.1			See 'Petrol Engine - M 5.2.1', page 85
Transmission		GS8.87.0/1	See 'Transmission - GS 8.87.0/1', page 88
ABS		WABCO 'D'	See 'ABS - WABCO 'D' (Cont'd 3)', page 97
Airbag		TRW Gen 4	See 'Airbag - TRW Gen 4', page 102
Security		BCU	See 'Security - BCU', page 120
Chassis		ACE (ROCK / ARC)	See 'Chassis - ACE', page 110

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Discovery 3 (L319)	EMS	Petrol	See 'Petrol Engine - EMS', page 86
		Diesel	See 'Diesel Engine - Diesel EMS PCM (Cont'd 2)', page 72
	Transmission	TCM (Transmission Control Module)	See 'Transmission - TCM', page 91
		RDCM (Rear Differential Ctrl Module)	See 'Transmission - RDCM', page 92
	Transfer Case	TCCM (Transfer Case Control Module)	See 'Menus - Transfer Case', page 93
	Adaptive Cruise Ctrl	CCM (Cruise Control Module)	See 'Menus - Adaptive Cruise Control', page 93
	ABS	ABS/DSC (Antilocking Brake System/ Dynamic Stability Ctrl)	See 'ABS/DSC (Cont'd)', page 100
	Steering Angle Sensor	SASM (Steering Angle Sensor Module)	See 'SASM', page 128
	Parking Brake	PBM (Park Brake Module)	See 'Menus - Parking Brake (PBM)', page 129
	Tyre Pressure Monitoring	TPMS (Tyre Pressure Monitoring System)	See 'Menus - Tyre Pressure Monitoring System (TPMS)', page 130
	All Terrain	ATCM (All Terrain Control Module)	See 'Menus - All Terrain Control Module (ATCM)', page 130
	Suspension	RLM (Ride Level Module)	See 'Ride Level Control Module (RLM)', page 108
	Airbag	RCM (Restraints Control Module)	See 'Airbag - RCM', page 102
	Climate Control	HVAC (Heating Ventilation Air Conditioning)	See 'Climate Control - HVAC (Cont'd)', page 104
	Body Controlller	BCM (Body Control Module)	See 'BCM', page 112
Instruments	IPC (Instrument Panel Control Module)	See 'Instrument Panel Control (IPC) (Cont'd)', page 114	
Lighting Control	FLM (Front Lighting Module)	See 'Front Lighting Module (FLM)', page 115	

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Discovery 3 (L319) (Continued)	Parking Aid	PAM (Parking Aid Module)	See 'Parking Aid Module (PAM)', page 116
	Fuel-Fired Heater	FFH (Fuel-Fired Heater)	See 'Fuel-Fired Heater', page 132
	Audio and Video	AAM (Audio Amplifier Module)	See 'Audio Amplifier Module (AAM)', page 136
		ACM (Audio Control Module)	See 'Audio Control Module (ACM)', page 136
		FEM (Front Electronic Module)	See 'Front Electronic Module (FEM)', page 136
		DACMC (Digital Audio Control Module 'C')	See 'Digital Audio Control Module 'C' (DACMC)', page 138
		SRM (Satellite Audio Unit Module)	See 'Satellite Audio Unit Module (SRM)', page 138
		TVM (Television Module)	See 'Television Module (TVM)', page 138
		REM	REM (Rear Entertainment Control Module)
	TEL	TEL (Cellular Telephone Control Module)	See 'Menus - Cellular Telephone Control Module (TEL)', page 139
	TMC	TMC (Traffic Message Channel Module)	See 'Menus - Traffic Message Channel Module (TMC)', page 140
	Service Functions	Service Reset	See 'Service Reset', page 141
	Global DTC Clear	HS-CAN BUS	See 'Global DTC Clear', page 141
		MS-CANBUS	See 'Global DTC Clear', page 141
	Global ECU Reset	HS-CANBUS	See 'Global ECU Reset', page 141
MS-CANBUS		See 'Global ECU Reset', page 141	

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Discovery 4 (10 MY - 11 MY)	EMS	Petrol V6 PCM (Power Train Control Module)	See 'Petrol Engine - EMS (Cont'd 2)', page 87
		Petrol V8 PCM	See 'Petrol Engine - EMS (Cont'd 2)', page 87
		Diesel V6 2.7 PCM	See 'Diesel Engine - Diesel EMS PCM (Cont'd 3)', page 72
		Diesel V6 3.0 PCM	See 'Diesel Engine - Diesel EMS PCM (Cont'd 5)', page 73
	Transmission	Petrol V6 TCM (Transmission Control Module)	See 'Transmission - TCM', page 91
		Petrol V8 TCM	See 'Transmission - TCM', page 91
		Diesel V6 2.7 TCM	See 'Transmission - TCM', page 91
		Diesel V6 3.0 TCM	See 'Transmission - TCM', page 91
		RDCM (Rear Differential Ctrl Module)	See 'Transmission - RDCM', page 92
	Transfer Case	TCCM (Transfer Case Control Module)	See 'Transfer Case - TCCM', page 93
	Adaptive Cruise Ctrl	CCM (Cruise Control Module)	See 'Adaptive Cruise Control - CCM', page 93
	ABS/DSC	ABS/DSC (Antilocking Brake System/ Dynamic Stability Ctrl)	See 'ABS/DSC (Cont'd 2)', page 100
	Steering Angle Sensor	SASM (Steering Angle Sensor Module)	See 'SASM (Cont'd)', page 128
	Parking Brake	PBM (Park Brake Module)	See 'Menus - Parking Brake (PBM)', page 129
All Terrain	ATCM (All Terrain Control Module)	See 'Menus - All Terrain Control Module (ATCM)', page 130	
Suspension	RLM (Ride Level Module)	See 'Ride Level Control Module (RLM) (Cont'd)', page 108	

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Discovery 4 (10 MY - 11 MY) (Continued)	Airbag	RCM (Restraints Control Module)	See 'Airbag - RCM', page 102
		OCS (Occupancy Classification System)	See 'Airbag - OCS', page 103
	Climate Control	HVAC (Heating Ventilation Air Conditioning)	See 'Climate Control - HVAC (Cont'd)', page 104
	Body Controlller	BCM (Body Control Module)	See 'BCM (Cont'd 2)', page 112
	Instruments	IPC (Instrument Panel Control Module)	See 'Instrument Panel Control (IPC) (Cont'd)', page 114
	Lighting Control	HCM (Headlamp Control Module)	See 'Headlamp Control Module (HCM)', page 115
		HCMB (Headlamp Control Module 'B')	See 'Headlamp Control Module 'B' (HCMB)', page 115
	Parking Aid	PAM (Parking Aid Module)	See 'Parking Aid Module (PAM)', page 116
	Immobiliser	IMMOBILISER	See 'Menus - Immobiliser', page 126
	Fuel-Fired Heater	FUEL_FIRED HEATER	See 'Fuel-Fired Heater', page 132
	Seating	DSM (Drivers Seat Module)	See 'Menus - Seating', page 133
	Doors	DDM (Drivers Door Module)	See 'Menus - Doors', page 134
		PDM (Passengers Door Module)	See 'Menus - Doors', page 134
	Keyless Locking	KVM (Keyless Vehicle Module)	See 'Menus - Keyless Vehicle Module (KVM)', page 135
	Audio and Video	AAM (Audio Amplifier Module)	See 'Audio Amplifier Module (AAM)', page 136
		ACM (Audio Control Module)	See 'Audio Control Module (ACM)', page 136
		FEM (Front Electronic Module)	See 'Front Electronic Module (FEM)', page 136
		FCDIM (Front Control / Display Interface Module)	See 'Front Control / Display Interface Module (FCDIM)', page 137

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Discovery 4 (10 MY - 11 MY) (Continued)	Audio and Video (Cont'd)	FCIM (Front Control Interface Module)	See 'Front Control Interface Module (FCIM)', page 137
		FCIMB (Front Control Interface Module 'B')	See 'Front Control Interface Module 'B' (FCIMB)', page 137
		DABM (Digital Audio Broadcast Module)	See 'Digital Audio Broadcast Module (DABM)', page 137
		DACMC (Digital Audio Control Module 'C')	See 'Digital Audio Control Module 'C' (DACMC)', page 138
		SRM (Satellite Audio Unit Module)	See 'Satellite Audio Unit Module (SRM)', page 138
		TVM (Television Module)	See 'Television Module (TVM)', page 138
		APIM (Accessory Protocol Interface Module)	See 'APIM', page 139
REM	REM (Rear Entertainment Control Module)	See 'Menus - Rear Entertainment Control Module (REM)', page 139	
TEL	TEL (Cellular Telephone Control Module)	See 'Menus - Cellular Telephone Control Module (TEL)', page 139	
SPRM	SPRM (Speech Recognition Control Module)	See 'Menus - Speech Recognition Control Module (SPRM)', page 140	
IPMB	IPMB (Image Processing Module 'B')	See 'Menus - Image Processing Module 'B' (IPMB)', page 140	
Service Functions	Service Reset	See 'Service Reset', page 141	
Global DTC Clear	HS-CAN BUS	See 'Global DTC Clear', page 141	
	MS-CANBUS	See 'Global DTC Clear', page 141	
Global ECU Reset	HS-CANBUS	See 'Global ECU Reset', page 141	
	MS-CANBUS	See 'Global ECU Reset', page 141	

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Discovery 4 (12 MY)	EMS	Petrol V6 PCM (Power Train Control Module)	See <i>'Petrol Engine - EMS (Cont'd 2)'</i> , page 87
		Diesel V6 2.7 PCM	See <i>'Diesel Engine - Diesel EMS PCM (Cont'd 3)'</i> , page 72
		Diesel V6 3.0 PCM	See <i>'Diesel Engine - Diesel EMS PCM (Cont'd 5)'</i> , page 73
	Transmission	Petrol TCM (Transmission Control Module)	See <i>'Transmission - TCM'</i> , page 91
		Diesel V6 2.7 TCM	See <i>'Transmission - TCM'</i> , page 91
		Diesel V6 3.0 TCM	See <i>'Transmission - TCM'</i> , page 91
		GSM (Gear Shift Module)	See <i>'Transmission - GSM'</i> , page 92
		RDCM (Rear Differential Ctrl Module)	See <i>'Transmission - RDCM'</i> , page 92
	Transfer Case	TCCM (Transfer Case Control Module)	See <i>'Transfer Case - TCCM'</i> , page 93
	ABS/DSC	ABS/DSC (Antilocking Brake System/ Dynamic Stability Ctrl)	See <i>'ABS/DSC (Cont'd 2)'</i> , page 100
	Steering Angle Sensor	SASM (Steering Angle Sensor Module)	See <i>'SASM'</i> , page 128
	Parking Brake	PBM (Park Brake Module)	See <i>'PBM'</i> , page 129
	All Terrain	ATCM (All Terrain Control Module)	See <i>'ATCM'</i> , page 130
Suspension	RLM (Ride Level Module)	See <i>'Ride Level Control Module (RLM) (Cont'd)'</i> , page 108	

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Discovery 4 (12 MY) (Continued)	Airbag	RCM (Restraints Control Module)	See 'Airbag - RCM', page 102
		OCS (Occupancy Classification System)	See 'Airbag - OCS', page 103
	Climate Control	HVAC (Heating Ventilation Air Conditioning)	See 'Climate Control - HVAC (Cont'd)', page 104
	Body Controlller	BCM (Body Control Module)	See 'BCM (Cont'd 2)', page 112
	Instruments	IPC (Instrument Panel Control Module)	See 'Instrument Panel Control (IPC) (Cont'd)', page 114
	Lighting Control	HCM (Headlamp Control Module)	See 'Headlamp Control Module (HCM)', page 115
		HCMB (Headlamp Control Module 'B')	See 'Headlamp Control Module 'B' (HCMB)', page 115
	Parking Aid	PAM (Parking Aid Module)	See 'Parking Aid Module (PAM)', page 116
	Immobiliser	IMMOBILISER	See 'Menus - Immobiliser', page 126
	Fuel-Fired Heater	FUEL_FIRED HEATER	See 'Fuel-Fired Heater', page 132
	Doors	DDM (Drivers Door Module)	See 'Doors - DDM', page 134
		PDM (Passengers Door Module)	See 'Doors - PDM', page 134
	Keyless Locking	KVM (Keyless Vehicle Module)	See 'KVM', page 135
	Audio and Video	FCDIM (Front Control / Display Interface Module)	See 'Front Control / Display Interface Module (FCDIM)', page 137
		FCIM (Front Control Interface Module)	See 'Front Control Interface Module (FCIM)', page 137
		FCIMB (Front Control Interface Module 'B')	See 'Front Control Interface Module 'B' (FCIMB)', page 137
IPMB (Image Processing Module 'B')		See 'Menus - Image Processing Module 'B' (IPMB)', page 140	

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Discovery 4 (12 MY) (Continued)	Service Functions	Service Reset	See 'Service Reset', <i>page 141</i>
	Global DTC Clear	HS-CAN BUS	See 'Global DTC Clear', <i>page 141</i>
		MS-CANBUS	See 'Global DTC Clear', <i>page 141</i>
	Global ECU Reset	HS-CANBUS	See 'Global ECU Reset', <i>page 141</i>
		MS-CANBUS	See 'Global ECU Reset', <i>page 141</i>

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Freelander 1	EMS	Petrol (1998-2001) MEMS 1.9	See 'Petrol Engine - MEMS 1.9', page 83
		Petrol (2001-2006) MEMS 3	See 'Petrol Engine - MEMS 3', page 84
		Petrol (2001-2006) KV6 EMS 2000	See 'Petrol Engine - EMS 2000', page 82
		Petrol (2001-2006) KV6 MS43	See 'Petrol Engine - MS43', page 85
		Diesel (1998-2001) EDC 1.3.1	See 'Diesel Engine - EDC 1.3.1', page 77
		Diesel (2001-2006) TD4 DDE 4.0	See 'Diesel Engine - DDE 4.0', page 78
	Transmission	JATCO FPO	See 'Transmission - JATCO FTO', page 88
	ABS	WABCO 'D'	See 'ABS - WABCO 'D'', page 94
		ABS MK20	See 'ABS - MK20 / MK25', page 98
		ABS MK25	
	Airbag	Autoliv AC4	See 'Airbag - Autoliv AC4', page 101
		Siemens SRE Smart	See 'Airbag - Siemens SRE Smart', page 101
	Security	CCU	See 'Security - CCU', page 118
		EWS 3D	See 'Security - EWS 3D', page 118
	Fuel-Fired Heater	FUEL_FIRED HEATER	See 'Fuel-Fired Heater', page 131

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Freelander 2 (07 MY - 10 MY)	EMS	Petrol	See 'Petrol Engine - EMS (Cont'd 2)', page 87
		Diesel	See 'Diesel Engine - EMS', page 78
	Transmission	TCM (Transmission Control Module)	See 'Transmission - TCM', page 91
		RDCM (Rear Differential Ctrl Module)	See 'Transmission - RDCM', page 92
	ABS	ABS/DSC (Antilocking Brake System / Dynamic Stability Ctrl)	See 'ABS/DSC', page 100
	Steering Angle Sensor	SASM (Steering Angle Sensor Module)	See 'SASM', page 128
	All Terrain	ATCM (All Terrain Control Module)	See 'ATCM', page 130
	Airbag	RCM (Restraints Control Module)	See 'Airbag - RCM (Cont'd)', page 102
		OCS (Occupancy Classification System)	See 'Airbag - OCS', page 103
	Climate Control	HVAC (Heating Ventilation Air Conditioning)	See 'Climate Control - HVAC (Cont'd)', page 104
	Body Controller	BCM (Body Control Module)	See 'BCM', page 113
	Instruments	IPC (Instrument Panel Control Module)	See 'Instrument Panel Control (IPC) (Cont'd)', page 114
	Lighting Control	HCM (Headlamp Control Module)	See 'Headlamp Control Module (HCM)', page 115
	Parking Aid	PAM (Parking Aid Module)	See 'Parking Aid Module (PAM)', page 116
	Fuel-Fired Heater	FUEL_FIRED HEATER	See 'Fuel-Fired Heater', page 132
	Seating	DSM (Drivers Seat Module)	See 'Menus - Seating', page 133
	Doors	DDM (Drivers Door Module)	See 'Doors - DDM', page 134
		PDM (Passengers Door Module)	See 'Doors - PDM', page 134
	Trailer Module	TRM (Trailer Module)	See 'Menus - Trailer Module (TRM)', page 135

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Freelander 2 (07 MY - 10 MY) (Continued)	Infotainment	ICM (Infotainment Control Module)	See 'Menus - Infotainment Control Module (ICM)', page 140
	Service Functions	Service Reset	See 'Service Reset', page 141
	Global DTC Clear	HS-CAN BUS	See 'Global DTC Clear', page 141
		MS-CANBUS	See 'Global DTC Clear', page 141
	Global ECU Reset	HS-CANBUS	See 'Global ECU Reset', page 141
		MS-CANBUS	See 'Global ECU Reset', page 141

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Freelander 2 (11 MY -)	EMS	Petrol	See 'Petrol Engine - EMS (Cont'd 2)', page 87
		Diesel	See 'Diesel Engine - EMS (Cont'd)', page 79
	Transmission	TCM (Transmission Control Module)	See 'Transmission - TCM', page 91
		RDCM (Rear Differential Ctrl Module)	See 'Transmission - RDCM', page 92
	ABS	ABS/DSC (Antilocking Brake System / Dynamic Stability Ctrl)	See 'ABS/DSC', page 100
	Steering Angle Sensor	SASM (Steering Angle Sensor Module)	See 'SASM', page 128
	All Terrain	ATCM (All Terrain Control Module)	See 'ATCM', page 130
	Airbag	RCM (Restraints Control Module)	See 'Airbag - RCM (Cont'd)', page 102
		OCS (Occupancy Classification System)	See 'Airbag - OCS', page 103
	Climate Control	HVAC (Heating Ventilation Air Conditioning)	See 'Climate Control - HVAC (Cont'd)', page 104
	Body Controller	BCM (Body Control Module)	See 'BCM', page 113
	Instruments	IPC (Instrument Panel Control Module)	See 'Instrument Panel Control (IPC) (Cont'd)', page 114
	Lighting Control	HCM (Headlamp Control Module)	See 'Headlamp Control Module (HCM)', page 115
	Parking Aid	PAM (Parking Aid Module)	See 'Parking Aid Module (PAM)', page 116
	Fuel-Fired Heater	FFH (Fuel-Fired Heater)	See 'Fuel-Fired Heater', page 132
	Seating	DSM (Drivers Seat Module)	See 'Seating - DSM', page 133
	Doors	DDM (Drivers Door Module)	See 'Doors - DDM', page 134
		PDM (Passengers Door Module)	See 'Doors - PDM', page 134
	Trailer Module	TRM (Trailer Module)	See 'Menus - Trailer Module (TRM)', page 135

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Freelander 2 (11 MY -) (Continued)	Infotainment	ICM (Infotainment Control Module)	See 'Menus - Infotainment Control Module (ICM)', page 140
	Service Functions	Service Reset	See 'Service Reset', page 141
	Global DTC Clear	HS-CAN BUS	See 'Global DTC Clear', page 141
		MS-CANBUS	See 'Global DTC Clear', page 141
	Global ECU Reset	HS-CANBUS	See 'Global ECU Reset', page 141
		MS-CANBUS	See 'Global ECU Reset', page 141

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Range Rover (L322) (02 MY - 05 MY)	EMS	Petrol	See 'Petrol Engine - EMS', page 86
		Diesel	See 'Diesel Engine - EMS (Cont'd 2)', page 80
	Transmission	ZF/EGS 8602	See 'Transmission - ZF / EGS 8602', page 89
		GM5/EGS20	See 'Transmission - GM5 / EGS20', page 90
	ABS/DSC	ABS/DSC (Antilocking Brake System / Dynamic Stability Ctrl)	See 'ABS - Bosch 5.7', page 99
	Steering Angle Sensor	SAS (Steering Angle Sensor Module)	See 'SAS', page 127
	Air Suspension	EHC2	See 'Air Suspension - EHC2', page 106
	Airbag	MRS 4	See 'Airbag - TRW MRS 4', page 102
	Climate Control	HVAC (Heating Ventilation Air Conditioning)	See 'Climate Control', page 104
	Body Electrics	GM3 BCM (Body Control Module)	See 'BCM', page 112
	Security	Immobiliser	See 'Security - Immobiliser', page 125
	Fuel-Fired Heater	FFH (Fuel Fired Heater)	See 'Fuel-Fired Heater', page 131
	Audio and Video	AAM (Audio Amplifier Module)	See 'Audio Amplifier Module (AAM)', page 136
		ACM (Audio Control Module)	See 'Audio Control Module (ACM)', page 136
		FEM (Front Electronic Module)	See 'Front Electronic Module (FEM)', page 136
CDP (Compact Disc Player)		See 'Compact Disk Player (CDP)', page 136	
SRM (Satellite Audio Unit Module)		See 'Satellite Audio Unit Module (SRM)', page 138	
TVM (Television Module)		See 'Television Module (TVM)', page 138	
REM	REM (Rear Entertainment Control Module)	See 'Menus - Rear Entertainment Control Module (REM)', page 139	

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Range Rover (L322) (02 MY - 05 MY) (Continued)	TEL	TEL (Cellular Telephone Control Module)	See 'Menus - Cellular Telephone Control Module (TEL)', page 139
	TMC	TMC (Traffic Message Channel Module)	See 'TMC', page 140
	Service Functions	Service Reset	See 'Menus - Service Reset', page 141
	Global DTC Clear	HS-CAN BUS	See 'Global DTC Clear', page 141
		MS-CANBUS	See 'Global DTC Clear', page 141
	Global ECU Reset	HS-CANBUS	See 'Global ECU Reset', page 141
		MS-CANBUS	See 'Global ECU Reset', page 141

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Range Rover (L322) (06 MY)	EMS	Petrol	See 'Petrol Engine - EMS', page 86
		Diesel	See 'Diesel Engine - EMS (Cont'd 2)', page 80
	Transmission	Petrol - TCM	See 'Transmission - TCM', page 91
		Diesel - GM5/EGS20	See 'Transmission - GM5 / EGS20', page 90
	Transfer Case	TCCM (Transfer Case Control Module)	See 'Transfer Case - TCCM', page 93
	ABS/DSC	Petrol	See 'ABS - Petrol', page 99
		Diesel	See 'ABS - Diesel', page 99
	Steering Angle Sensor	Petrol	See 'SAS (Cont'd)', page 127
		Diesel	See 'SAS', page 127
	Tyre Pressure Monitoring	TPMS (Tyre Pressure Monitoring System)	See 'Menus - Tyre Pressure Monitoring System (TPMS)', page 130
	Suspension	RLM (Ride Level Control Module)	See 'Ride Level Control Module (RLM)', page 108
	Airbag	MRS 4	See 'Airbag - TRW MRS 4', page 102
	Climate Control	Air Conditioning	See 'Climate Control', page 104
	Body Electrics	GM3 BCM (Body Control Module)	See 'BCM', page 112
	Instruments	IPC (Instrument Panel Control Module)	See 'Instrument Panel Control (IPC) (Cont'd)', page 114
	Lighting Control	FLM (Front Lighting Module)	See 'Front Lighting Module (FLM)', page 115
	Security	Immobiliser	See 'Security - Immobiliser', page 125
	Fuel-Fired Heater	FFH (Fuel Fired Heater)	See 'Fuel-Fired Heater', page 131
	Remote Driver Utility	RDUM (Remote Driver Utility Module)	See 'RDUM', page 135

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Range Rover (L322) (06 MY) (Continued)	Audio and Video	AAM (Audio Amplifier Module)	See 'Audio Amplifier Module (AAM)', page 136
		ACM (Audio Control Module)	See 'Audio Control Module (ACM)', page 136
		FEM (Front Electronic Module)	See 'Front Electronic Module (FEM)', page 136
		CDP (Compact Disc Player)	See 'Compact Disk Player (CDP)', page 136
		SRM (Satellite Audio Unit Module)	See 'Satellite Audio Unit Module (SRM)', page 138
		TVM (Television Module)	See 'Television Module (TVM)', page 138
	REM	REM (Rear Entertainment Control Module)	See 'Menus - Rear Entertainment Control Module (REM)', page 139
	TEL	TEL (Cellular Telephone Control Module)	See 'Menus - Cellular Telephone Control Module (TEL)', page 139
	TMC	TMC (Traffic Message Channel Module)	See 'TMC', page 140
	Service Functions	Service Reset	See 'Service Reset', page 141
	Global DTC Clear	HS-CAN BUS	See 'Global DTC Clear', page 141
		MS-CANBUS	See 'Global DTC Clear', page 141
	Global ECU Reset	HS-CANBUS	See 'Global ECU Reset', page 141
		MS-CANBUS	See 'Global ECU Reset', page 141

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Range Rover (L322) (07 MY - 09 MY)	EMS	Petrol	See 'Petrol Engine - EMS', page 86
		Diesel	See 'Diesel Engine - Diesel EMS PCM (Cont'd 4)', page 72
	Transmission	Petrol - TCM	See 'Transmission - TCM', page 91
		Diesel - RDCM	See 'Transmission - RDCM', page 92
	Transfer Case	TCCM (Transfer Case Control Module)	See 'Transfer Case - TCCM', page 93
	ABS/DSC	ABS/DSC (Antilocking Brake System / Dynamic Stability Ctrl)	See 'ABS/DSC (Cont'd)', page 100
	Steering Angle Sensor	SASM (Steering Angle Sensor Module)	See 'SASM', page 128
	Parking Brake	PBM (Park Brake Module)	See 'Menus - Parking Brake (PBM)', page 129
	Tyre Pressure Monitoring	TPMS (Tyre Pressure Monitoring System)	See 'Menus - Tyre Pressure Monitoring System (TPMS)', page 130
	All Terrain	ATCM (All Terrain Control Module)	See 'ATCM', page 130
	Suspension	RLM (Ride Level Control Module)	See 'Ride Level Control Module (RLM)', page 108
	Airbag	RCM (Restraints Control Module)	See 'Airbag - RCM', page 102
		OCS (Occupancy Classification System)	See 'Airbag - OCS', page 103
	Climate Control	HVAC (Heating Ventilation Air Conditioning)	See 'Climate Control - HVAC', page 104
		RHVAC (Rear Heating Ventilation Air Conditioning Control Module)	See 'Climate Control - RHVAC', page 104
	Body Electrics	GM3 BCM (Body Control Module)	See 'BCM', page 112
Instruments	IPC (Instrument Panel Control Module)	See 'Instrument Panel Control (IPC) (Cont'd)', page 114	

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Range Rover (L322) (07 MY - 09 MY) (Continued)	Lighting Control	FLM (Front Lighting Module)	See 'Front Lighting Module (FLM)', page 115
	Security	Immobiliser	See 'Security - Immobiliser', page 125
	Fuel-Fired Heater	FFH (Fuel Fired Heater)	See 'Fuel-Fired Heater', page 132
	Seating	DCSM (Drivers Climate Seat Module)	See 'Seating - DCSM', page 133
	Running Board Ctrl	RBM (Running Board Control Module)	See 'Running Board - RBM', page 134
	Remote Driver Utility	RDUM (Remote Driver Utility Module)	See 'RDUM', page 135
	Audio and Video	AAM (Audio Amplifier Module)	See 'Audio Amplifier Module (AAM)', page 136
		ACM (Audio Control Module)	See 'Audio Control Module (ACM)', page 136
		FEM (Front Electronic Module)	See 'Front Electronic Module (FEM)', page 136
		CDP (Compact Disc Player)	See 'Compact Disk Player (CDP)', page 136
		SRM (Satellite Audio Unit Module)	See 'Satellite Audio Unit Module (SRM)', page 138
		TVM (Television Module)	See 'Television Module (TVM)', page 138
	REM	REM (Rear Entertainment Control Module)	See 'Menus - Rear Entertainment Control Module (REM)', page 139
	TEL	TEL (Cellular Telephone Control Module)	See 'Menus - Cellular Telephone Control Module (TEL)', page 139
TMC	TMC (Traffic Message Channel Module)	See 'TMC', page 140	

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Range Rover (L322) (07 MY - 09 MY) (Continued)	Service Functions	Service Reset	See 'Service Reset', page 141
	Global DTC Clear	HS-CAN BUS	See 'Global DTC Clear', page 141
		MS-CANBUS	See 'Global DTC Clear', page 141
	Global ECU Reset	HS-CANBUS	See 'Global ECU Reset', page 141
		MS-CANBUS	See 'Global ECU Reset', page 141

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Range Rover (L322) (10 MY -)	EMS	Petrol	See 'Petrol Engine - EMS (Cont'd 2)', page 87
		Diesel V8 3.6 PCM (Power-Train Control Module)	See 'Diesel Engine - Diesel EMS PCM (Cont'd 4)', page 72
		Diesel V8 4.4 PCM (Power-Train Control Module)	See 'Diesel Engine - Diesel EMS PCM (Cont'd 7)', page 75
	Transmission	TCM (Trans Control Module)	See 'Transmission - TCM', page 91
		RDCM (Rear Differential Ctrl Module)	See 'Transmission - RDCM', page 92
		Diesel V8 4.4 - GSM (Gear Shift Module)	See 'Transmission - GSM', page 92
	Transfer Case	TCCM (Transfer Case Control Module)	See 'Transfer Case - TCCM', page 93
	Adaptive Cruise Ctrl	CCM (Cruise Control Module)	See 'Adaptive Cruise Control - CCM', page 93
	ABS/DSC	ABS/DSC (Antilocking Brake System / Dynamic Stability Ctrl)	See 'ABS/DSC (Cont'd)', page 100
	Steering Angle Sensor	SASM (Steering Angle Sensor Module)	See 'SASM', page 128
	Parking Brake	PBM (Park Brake Module)	See 'Menus - Parking Brake (PBM)', page 129
	Suspension	RLM (Ride Level Control Module)	See 'Ride Level Control Module (RLM) (Cont'd)', page 108
		ADCM (Adaptive Damping Control Module)	See 'Adaptive Damping Control Module (ADCM)', page 109
	All Terrain	ATCM (All Terrain Control Module)	See 'ATCM', page 130
	Airbag	RCM (Restraints Control Module)	See 'Airbag - RCM', page 102
		OCS (Occupancy Classification System)	See 'Airbag - OCS', page 103

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Range Rover (L322) (10 MY -) (Continued)	Climate Control	HVAC (Heating Ventilation Air Conditioning)	See ' <i>Climate Control - HVAC (Cont'd)</i> ', page 104
		RHVAC (Rear Heating Ventilation Air Conditioning Control Module)	See ' <i>Climate Control - RHVAC</i> ', page 104
	Body Controller	BCM (Body Control Module)	See ' <i>BCM (Cont'd)</i> ', page 112
	Instruments	IPC (Instrument Panel Control Module)	See ' <i>Instrument Panel Control (IPC) (Cont'd)</i> ', page 114
	Lighting Control	HCM (Headlamp Control Module)	See ' <i>Headlamp Control Module (HCM)</i> ', page 115
		HCMB (Headlamp Control Module 'B')	See ' <i>Headlamp Control Module 'B' (HCMB)</i> ', page 115
	Parking Aid	PAM (Parking Aid Module)	See ' <i>Parking Aid Module (PAM)</i> ', page 116
	Object Detection	SODL (Side Object Detection Module Left)	See ' <i>Side Object Detection Module Left (SODL)</i> ', page 116
		SODR (Side Object Detection Module Right)	See ' <i>Side Object Detection Module Right (SODR)</i> ', page 116
	Security	Immobiliser	See ' <i>Security - Immobiliser</i> ', page 125
	Fuel-Fired Heater	FFH (Fuel Fired Heater)	See ' <i>Fuel-Fired Heater</i> ', page 132
	Seating	DSM (Drivers Seat Module)	See ' <i>Seating - DSM</i> ', page 133
		DSCSM (Drivers Climate Seat Module)	See ' <i>Seating - DSCSM</i> ', page 133
		PSM (Passengers Sear Module)	See ' <i>Seating - PSM</i> ', page 133
		RDCSM (Rear Climate Seat Module)	See ' <i>Seating - RDCSM</i> ', page 133
	Doors	DDM (Drivers Door Module)	See ' <i>Doors - DDM</i> ', page 134
		PDM (Passengers Door Module)	See ' <i>Doors - PDM</i> ', page 134

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Range Rover (L322) (10 MY -) (Continued)	Keyless Locking	KVM (Keyless Vehicle Module)	See 'KVM', page 135
	Running Board Ctrl	RBM (Running Board Control Module)	See 'Running Board - RBM', page 134
	Remote Driver Utility	RDUM (Remote Driver Utility Module)	See 'RDUM', page 135
	Audio and Video	AAM (Audio Amplifier Module)	See 'Audio Amplifier Module (AAM)', page 136
		ACM (Audio Control Module)	See 'Audio Control Module (ACM)', page 136
		FEM (Front Electronic Module)	See 'Front Electronic Module (FEM)', page 136
		CDP (Compact Disc Player)	See 'Compact Disk Player (CDP)', page 136
		DABM (Digital Audio Broadcast Module)	See 'Digital Audio Broadcast Module (DABM)', page 137
		DACMC (Digital Audio Control Module 'C')	See 'Digital Audio Control Module 'C' (DACMC)', page 138
		SRM (Satellite Audio Unit Module)	See 'Satellite Audio Unit Module (SRM)', page 138
		TVM (Television Module)	See 'Television Module (TVM)', page 138
		APIM (Accessory Protocol Interface Module)	See 'APIM', page 139
	REM	REM (Rear Entertainment Control Module)	See 'Menus - Rear Entertainment Control Module (REM)', page 139
	TEL	TEL (Cellular Telephone Control Module)	See 'Menus - Cellular Telephone Control Module (TEL)', page 139
TMC	TMC (Traffic Message Channel Module)	See 'TMC', page 140	

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Range Rover (L322) (10 MY -) (Continued)	Service Functions	Service Reset	See 'Service Reset', page 141
	Global DTC Clear	HS-CAN BUS	See 'Global DTC Clear', page 141
		MS-CANBUS	See 'Global DTC Clear', page 141
	Global ECU Reset	HS-CANBUS	See 'Global ECU Reset', page 141
		MS-CANBUS	See 'Global ECU Reset', page 141

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Range Rover (P38a)	EMS	M 5.2.1	See 'Petrol Engine - M 5.2.1', page 85
		GEMS	See 'Petrol Engine - GEMS', page 81
		EDC 1.3.1	See 'Diesel Engine - EDC 1.3.1 (Cont'd)', page 77
	Transmission	GS8.87.0/1	See 'Transmission - GS 8.87.0/1 (Cont'd)', page 88
		GS2-38	See 'Transmission - GS 2-38', page 89
	ABS	WABCO 'C'	See 'ABS - WABCO 'C'', page 99
		WABCO 'D'	See 'ABS - WABCO 'D' (Cont'd 2)', page 96
	Airbag	TRW SPS	See 'Airbag - TRW SPS', page 101
		TRW MPS	See 'Airbag - TRW MPS', page 101
		TRW Gen 4	See 'Airbag - TRW Gen 4', page 102
	Climate Control	Air Conditioning	See 'Climate Control', page 104
	Chassis	Air Suspension	See 'Air Suspension - Airsus', page 105
	Body Electrics	BeCM	See 'Security - BeCM Body Electronics', page 123

Range Rover Classic	EMS	14CUX	See 'Petrol Engine - 14CUX', page 81
	Chassis	Air Suspension	See 'Air Suspension - Airsus', page 105

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Range Rover Sport (L320) (06 MY - 09 MY)	EMS	Petrol	See 'Petrol Engine - EMS (Cont'd 2)', page 87
		Diesel	See 'Diesel Engine - Diesel EMS PCM (Cont'd 2)', page 72
	Transmission	TCM (Trans Control Module)	See 'Transmission - TCM', page 91
		RDCM (Rear Differential Ctrl Module)	See 'Transmission - RDCM', page 92
	Transfer Case	TCCM (Transfer Case Control Module)	See 'Transfer Case - TCCM', page 93
	Adaptive Cruise Ctrl	CCM (Cruise Control Module)	See 'Adaptive Cruise Control - CCM', page 93
	ABS/DSC	ABS/DSC (Antilocking Brake System / Dynamic Stability Ctrl)	See 'ABS/DSC (Cont'd)', page 100
	Steering Angle Sensor	SASM (Steering Angle Sensor Module)	See 'SASM', page 128
	Parking Brake	PBM (Park Brake Module)	See 'Menus - Parking Brake (PBM)', page 129
	Tyre Pressure Monitoring	TPMS (Tyre Pressure Monitoring System)	See 'Menus - Tyre Pressure Monitoring System (TPMS)', page 130
	Dynamic Response	ARCM (Dynamic Response Module)	See 'Dynamic Response Module (ARCM)', page 109
	All Terrain	ATCM (All Terrain Control Module)	See 'ATCM', page 130
	Suspension	RLM (Ride Level Control Module)	See 'Ride Level Control Module (RLM) (Cont'd)', page 108
	Airbag	RCM (Restraints Control Module)	See 'Airbag - RCM', page 102
	Climate Control	HVAC (Heating Ventilation Air Conditioning)	See 'Climate Control - HVAC (Cont'd)', page 104
	Body Controller	BCM (Body Control Module)	See 'BCM (Cont'd 2)', page 112
	Instruments	IPC (Instrument Panel Control Module)	See 'Instrument Panel Control (IPC) (Cont'd)', page 114
	Lighting Control	FLM (Front Lighting Module)	See 'Front Lighting Module (FLM)', page 115

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Range Rover Sport (L320) (06 MY - 09 MY) (Continued)	Parking Aid	PAM (Parking Aid Module)	See <i>'Parking Aid Module (PAM)'</i> , page 116
	Fuel-Fired Heater	FFH (Fuel Fired Heater)	See <i>'Fuel-Fired Heater'</i> , page 132
	Audio and Video	AAM (Audio Amplifier Module)	See <i>'Audio Amplifier Module (AAM)'</i> , page 136
		ACM (Audio Control Module)	See <i>'Audio Control Module (ACM)'</i> , page 136
		FEM (Front Electronic Module)	See <i>'Front Electronic Module (FEM)'</i> , page 136
		DACMC (Digital Audio Control Module 'C')	See <i>'Digital Audio Control Module 'C' (DACMC)'</i> , page 138
		SRM (Satellite Audio Unit Module)	See <i>'Satellite Audio Unit Module (SRM)'</i> , page 138
		TVM (Television Module)	See <i>'Television Module (TVM)'</i> , page 138
	REM	REM (Rear Entertainment Control Module)	See <i>'Menus - Rear Entertainment Control Module (REM)'</i> , page 139
	TEL	TEL (Cellular Telephone Control Module)	See <i>'Menus - Cellular Telephone Control Module (TEL)'</i> , page 139
	TMC	TMC (Traffic Message Channel Module)	See <i>'TMC'</i> , page 140
	Service Functions	Service Reset	See <i>'Service Reset'</i> , page 141
	Global DTC Clear	HS-CAN BUS	See <i>'Global DTC Clear'</i> , page 141
		MS-CANBUS	See <i>'Global DTC Clear'</i> , page 141
	Global ECU Reset	HS-CANBUS	See <i>'Global ECU Reset'</i> , page 141
MS-CANBUS		See <i>'Global ECU Reset'</i> , page 141	

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Range Rover Sport (L320) (10 MY -11 MY)	EMS	Petrol	See 'Petrol Engine - EMS (Cont'd 2)', page 87
		Diesel V6	See 'Diesel Engine - Diesel EMS PCM (Cont'd 6)', page 74
		Diesel V8	See 'Diesel Engine - Diesel EMS PCM (Cont'd 3)', page 72
	Transmission	Petrol TCM (Trans Control Module)	See 'Transmission - TCM', page 91
		Diesel V6 TCM (Trans Control Module)	See 'Transmission - TCM', page 91
		Diesel V8 TCM (Trans Control Module)	See 'Transmission - TCM', page 91
		RDCM (Rear Differential Ctrl Module)	See 'Transmission - RDCM', page 92
	Transfer Case	TCCM (Transfer Case Control Module)	See 'Transfer Case - TCCM', page 93
	Adaptive Cruise Ctrl	CCM (Cruise Control Module)	See 'Adaptive Cruise Control - CCM', page 93
	ABS/DSC	ABS/DSC (Antilocking Brake System / Dynamic Stability Ctrl)	See 'ABS/DSC (Cont'd 2)', page 100
	Steering Angle Sensor	SASM (Steering Angle Sensor Module)	See 'SASM', page 128
	Parking Brake	PBM (Park Brake Module)	See 'Menus - Parking Brake (PBM)', page 129
	Dynamic Response	ARCM (Dynamic Response Module)	See 'Dynamic Response Module (ARCM)', page 109
	All Terrain	ATCM (All Terrain Control Module)	See 'ATCM', page 130
	Suspension	RLM (Ride Level Control Module)	See 'Ride Level Control Module (RLM) (Cont'd)', page 108
		ADCM (Adaptive Damping Cntrl Module)	See 'Adaptive Damping Control Module (ADCM)', page 109
	Airbag	RCM (Restraints Control Module)	See 'Airbag - RCM', page 102
		OCS (Occupancy Classification System)	See 'Airbag - OCS', page 103

Appendix A: Menus

Range Rover Sport (L320) (10 MY -11 MY) (Continued)	Climate Control	HVAC (Heating Ventilation Air Conditioning)	See ' <i>Climate Control - HVAC (Cont'd)</i> ', page 104
	Body Controller	BCM (Body Control Module)	See ' <i>BCM (Cont'd 2)</i> ', page 112
	Instruments	IPC (Instrument Panel Control Module)	See ' <i>Instrument Panel Control (IPC) (Cont'd)</i> ', page 114
	Lighting Control	HCM (Headlamp Control Module)	See ' <i>Headlamp Control Module (HCM)</i> ', page 115
		HCMB (Headlamp Control Module 'B')	See ' <i>Headlamp Control Module 'B' (HCMB)</i> ', page 115
	Parking Aid	PAM (Parking Aid Module)	See ' <i>Parking Aid Module (PAM)</i> ', page 116
	Security	Immobiliser	See ' <i>Security - Immobiliser</i> ', page 125
	Fuel-Fired Heater	FFH (Fuel Fired Heater)	See ' <i>Fuel-Fired Heater</i> ', page 132
	Seating	DSM (Drivers Seat Module)	See ' <i>Seating - DSM</i> ', page 133
	Doors	DDM (Drivers Door Module)	See ' <i>Doors - DDM</i> ', page 134
		PDM (Passengers Door Module)	See ' <i>Doors - PDM</i> ', page 134
	Keyless Locking	KVM (Keyless Vehicle Module)	See ' <i>KVM</i> ', page 135
	Audio and Video	AAM (Audio Amplifier Module)	See ' <i>Audio Amplifier Module (AAM)</i> ', page 136
		ACM (Audio Control Module)	See ' <i>Audio Control Module (ACM)</i> ', page 136
		FEM (Front Electronic Module)	See ' <i>Front Electronic Module (FEM)</i> ', page 136
FCIM (Front Control Interface Module)		See ' <i>Front Control Interface Module (FCIM)</i> ', page 137	
FCIMB (Front Control Interface Module 'B')		See ' <i>Front Control Interface Module 'B' (FCIMB)</i> ', page 137	

Appendix A: Menus

Range Rover Sport (L320) (10 MY -11 MY) (Continued)	Audio and Video (Cont'd)	DABM (Digital Audio Broadcast Module)	See ' <i>Digital Audio Broadcast Module (DABM)</i> ', page 137
		DACMC (Digital Audio Control Module 'C')	See ' <i>Digital Audio Control Module 'C' (DACMC)</i> ', page 138
		SRM (Satellite Audio Unit Module)	See ' <i>Satellite Audio Unit Module (SRM)</i> ', page 138
		TVM (Television Module)	See ' <i>Television Module (TVM)</i> ', page 138
APIM	APIM (Accessory Protocol Interface Module)	See ' <i>APIM</i> ', page 139	
REM	REM (Rear Entertainment Control Module)	See ' <i>Menus - Rear Entertainment Control Module (REM)</i> ', page 139	
TEL	TEL (Cellular Telephone Control Module)	See ' <i>Menus - Cellular Telephone Control Module (TEL)</i> ', page 139	
IPMB	IPMB (Image Processing Module 'B')	See ' <i>Menus - Image Processing Module 'B' (IPMB)</i> ', page 140	
Service Functions	Service Reset	See ' <i>Service Reset</i> ', page 141	
Global DTC Clear	HS-CAN BUS	See ' <i>Global DTC Clear</i> ', page 141	
	MS-CANBUS	See ' <i>Global DTC Clear</i> ', page 141	
Global ECU Reset	HS-CANBUS	See ' <i>Global ECU Reset</i> ', page 141	
	MS-CANBUS	See ' <i>Global ECU Reset</i> ', page 141	

Appendix A: Menus

Range Rover Sport (L320) (12 MY -)	EMS	Petrol	See 'Petrol Engine - EMS (Cont'd 2)', page 87
		Diesel	See 'Diesel Engine - Diesel EMS PCM (Cont'd 6)', page 74
	Transmission	Petrol TCM (Trans Control Module)	See 'Transmission - TCM', page 91
		Diesel V6 TCM (Trans Control Module)	See 'Transmission - TCM', page 91
		Diesel V8 TCM (Trans Control Module)	See 'Transmission - TCM', page 91
		GSM (Gear Shift Module)	See 'Transmission - GSM (Cont'd)', page 92
		RDCM (Rear Differential Ctrl Module)	See 'Transmission - RDCM', page 92
	Transfer Case	TCCM (Transfer Case Control Module)	See 'Transfer Case - TCCM', page 93
	Adaptive Cruise Ctrl	CCM (Cruise Control Module)	See 'Adaptive Cruise Control - CCM', page 93
	ABS/DSC	ABS/DSC (Antilocking Brake System / Dynamic Stability Ctrl)	See 'ABS/DSC (Cont'd 2)', page 100
	Steering Angle Sensor	SASM (Steering Angle Sensor Module)	See 'SASM (Cont'd)', page 128
	Parking Brake	PBM (Park Brake Module)	See 'Menus - Parking Brake (PBM)', page 129
	Dynamic Response	ARCM (Dynamic Response Module)	See 'Dynamic Response Module (ARCM)', page 109
	All Terrain	ATCM (All Terrain Control Module)	See 'ATCM', page 130
	Suspension	RLM (Ride Level Control Module)	See 'Ride Level Control Module (RLM) (Cont'd)', page 108
ADCM (Adaptive Damping Cntrl Module)		See 'Adaptive Damping Control Module (ADCM)', page 109	

Appendix A: Menus

Range Rover Sport (L320) (12 MY -) (Continued)	Airbag	RCM (Restraints Control Module)	See 'Airbag - RCM', page 102
		OCS (Occupancy Classification System)	See 'Airbag - OCS', page 103
	Climate Control	HVAC (Heating Ventilation Air Conditioning)	See 'Climate Control - HVAC (Cont'd)', page 104
	Body Controller	BCM (Body Control Module)	See 'BCM (Cont'd 2)', page 112
	Instruments	IPC (Instrument Panel Control Module)	See 'Instrument Panel Control (IPC) (Cont'd)', page 114
	Lighting Control	HCM (Headlamp Control Module)	See 'Headlamp Control Module (HCM)', page 115
		HCMB (Headlamp Control Module 'B')	See 'Headlamp Control Module 'B' (HCMB)', page 115
	Parking Aid	PAM (Parking Aid Module)	See 'Parking Aid Module (PAM)', page 116
	Security	Immobiliser	See 'Security - Immobiliser (Cont'd)', page 125
	Fuel-Fired Heater	FFH (Fuel Fired Heater)	See 'Fuel-Fired Heater', page 132
	Seating	DSM (Drivers Seat Module)	See 'Seating - DSM', page 133
	Doors	DDM (Drivers Door Module)	See 'Doors - DDM', page 134
		PDM (Passengers Door Module)	See 'Doors - PDM', page 134
	Keyless Locking	KVM (Keyless Vehicle Module)	See 'KVM', page 135
	Rear Gate / Trunk	RGTM (Rear Gate/ Trunk Module)	See 'RGTM', page 135
	Audio and Video	FCDIM (Front Control/ Display Interface Module)	See 'Front Control / Display Interface Module (FCDIM)', page 137
		FCIM (Front Control Interface Module)	See 'Front Control Interface Module (FCIM)', page 137
		FCIMB (Front Control Interface Module 'B')	See 'Front Control Interface Module 'B' (FCIMB)', page 137

Appendix A: Menus

Range Rover Sport (L320) (12 MY -) (Continued)	IPMB	IPMB (Image Processing Module 'B')	See ' <i>Menus - Image Processing Module 'B' (IPMB)</i> ', page 140
	Service Functions	Service Reset	See ' <i>Service Reset</i> ', page 141
	Global DTC Clear	HS-CAN BUS	See ' <i>Global DTC Clear</i> ', page 141
		MS-CANBUS	See ' <i>Global DTC Clear</i> ', page 141
	Global ECU Reset	HS-CANBUS	See ' <i>Global ECU Reset</i> ', page 141
		MS-CANBUS	See ' <i>Global ECU Reset</i> ', page 141

Appendix A: Menus

Range Rover Evoque (L538)	EMS	Petrol	See 'Petrol Engine - EMS (Cont'd 2)', page 87
		Diesel	See 'Diesel Engine - Diesel EMS PCM (Cont'd 8)', page 76
	Transmission	TCM (Transmission Control Module)	See 'Transmission - TCM (Cont'd 2)', page 91
		GSM (Gear Shift Module 'B')	See 'Transmission - GSM (Cont'd)', page 92
		GSMB (Gear Shift Module)	See 'Transmission - GSMB', page 92
		RDCM (Rear Differential Ctrl Module)	See 'Transmission - RDCM', page 92
	ABS	ABS/DSC (Antilocking Brake System / Dynamic Stability Ctrl)	See 'ABS/DSC (Cont'd)', page 100
	Steering Angle Sensor	SASM (Steering Angle Sensor Module)	See 'SASM (Cont'd 2)', page 128
	Parking Brake	PBM (Park Brake Module)	See 'PBM (Cont'd)', page 129
	Power Steering	PSCM (Power Steering Control Module)	See 'Menus - Power Steering Control Module (PSCM)', page 130
	Suspension	ADCM (Adaptive Damping Cntrl Module)	See 'Adaptive Damping Control Module (ADCM)', page 109
	All Terrain	ATCM (All Terrain Control Module)	See 'ATCM', page 130
	Airbag	RCM (Restraints Control Module)	See 'Airbag - RCM', page 102
		OCS (Occupancy Classification System)	See 'Airbag - OCS', page 103
	Climate Control	HVAC (Heating Ventilation Air Conditioning)	See 'Climate Control - HVAC (Cont'd)', page 104
	Body Controller	BCM (Body Control Module)	See 'BCM (Cont'd)', page 112
	Instruments	IPC (Instrument Panel Control Module)	See 'Instrument Panel Control (IPC) (Cont'd)', page 114

Appendix A: Menus

Range Rover Evoque (L538) (Continued)	Lighting Control	HCM (Headlamp Control Module)	See ' <i>Headlamp Control Module (HCM)</i> ', page 115
		HCMB (Headlamp Control Module 'B')	See ' <i>Headlamp Control Module 'B' (HCMB)</i> ', page 115
	Parking Aid	PAM (Parking Aid Module)	See ' <i>Parking Aid Module (PAM)</i> ', page 116
	Object Detection	SODL (Side Object Detection Module Left)	See ' <i>Side Object Detection Module Left (SODL)</i> ', page 116
		SODR (Side Object Detection Module Right)	See ' <i>Side Object Detection Module Right (SODR)</i> ', page 116
	Security	Immobiliser	See ' <i>Security - Immobiliser (Cont'd)</i> ', page 125
	Fuel-Fired Heater	FFH (Fuel-Fired Heater)	See ' <i>Fuel-Fired Heater (Cont'd)</i> ', page 132
	Seating	DSM (Drivers Seat Module)	See ' <i>Seating - DSM</i> ', page 133
		PSM (Passengers Sear Module)	See ' <i>Seating - PSM</i> ', page 133
	Doors	DDM (Drivers Door Module)	See ' <i>Doors - DDM</i> ', page 134
		PDM (Passengers Door Module)	See ' <i>Doors - PDM</i> ', page 134
	Keyless Locking	KVM (Keyless Vehicle Module)	See ' <i>KVM</i> ', page 135
	Rear Gate / Trunk	RGTM (Rear Gate/ Trunk Module)	See ' <i>RGTM</i> ', page 135

Appendix A: Menus

Range Rover Evoque (L538) (Continued)	Audio and Video	AAM (Audio Amplifier Module)	See 'Audio Amplifier Module (AAM)', page 136
		ACM (Audio Control Module)	See 'Audio Control Module (ACM)', page 136
		FCDIM (Front Control / Display Interface Module)	See 'Front Control / Display Interface Module (FCDIM)', page 137
		FCIMB (Front Control Interface Module 'B')	See 'Front Control Interface Module 'B' (FCIMB)', page 137
		DABM (Digital Audio Broadcast Module)	See 'Digital Audio Broadcast Module (DABM)', page 137
		SRM (Satellite Audio Unit Module)	See 'Satellite Audio Unit Module (SRM)', page 138
		TVM (Television Module)	See 'Television Module (TVM)', page 138
	REM	REM (Rear Entertainment Control Module)	See 'Menus - Rear Entertainment Control Module (REM)', page 139
	IPMB	IPMB (Image Processing Module 'B')	See 'Menus - Image Processing Module 'B' (IPMB)', page 140
	Service Functions	Service Reset	See 'Service Reset', page 141
	Global DTC Clear	HS-CAN BUS	See 'Global DTC Clear', page 141
		MS-CANBUS	See 'Global DTC Clear', page 141
	Global ECU Reset	HS-CANBUS	See 'Global ECU Reset', page 141
MS-CANBUS		See 'Global ECU Reset', page 141	

Menus - Diesel Engine

Diesel Engine - TD5

- Defender
- Discovery 2

Read DTCs	
Clear 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	

Appendix A: Menus

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 ECU PCM

- Defender (L316) (2007 - 2010, 2011 MY)

Read DTCs			
Clear DTCs			
Live Data			
Configuration	Speed Limitation	Tyre Size	Tyre 205/80R16
			Tyre 235/85R16
			Tyre 7.5R16
Maintenance	Injectors	Injectors - Read Injector	Injector 1
			Injector 2
			Injector 3
			Injector 4
		Injectors - Injector Program	Injector 1
			Injector 2
			Injector 3
		Injectors - Pilot Corr. Learn	Injector 4
			Injection Pump
ECM Data			

Diesel Engine - Diesel ECU PCM (Cont'd)

- Defender (L316) (2012 MY -)

Read DTCs	
Clear DTCs	
Live Data	
Maintenance	Oil Change
ECM Data	

Appendix A: Menus

Diesel Engine - Diesel EMS PCM (Cont'd 2)

- Range Rover Sport (L320) (2006 - 2009 MY)

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

Diesel Engine - Diesel EMS PCM (Cont'd 3)

- Range Rover Sport V8 (L320) (2010 - 2011 MY)
- Discovery 4 V6 2.7 (2010 - 2011, 2012 MY -)

Read DTCs	
Clear DTCs	
Live Data	
Maintenance	DPF Regeneration
	DPF Replacement
	Fuel Lift Pump
ECM Data	

Diesel Engine - Diesel EMS PCM (Cont'd 4)

- Range Rover (L322) (2007 - 2009 MY)
- Range Rover V8 3.6 (L322) (2010 MY -)
- Discovery 3 (L319)

Read DTCs	
Clear DTCs	
Live Data	
Maintenance	Oil Change
	DPF Regeneration
	DPF Replacement
	Fuel Lift Pump
ECM Data	

Diesel Engine - Diesel EMS PCM (Cont'd 5)

- Discovery 4 V6 3.0 (2010 - 2011, 2012 MY -)

Read DTCs				
Clear DTCs				
Live Data				
Maintenance	DPF Regeneration			
	DPF Replacement			
	EGR ReplacementB1			
	EGR ReplacementB2			
	Fuel Lift Pump			
	Injectors	Injectors - Read Injector	Injector 1	
			Injector 2	
			Injector 3	
			Injector 4	
			Injector 5	
			Injector 6	
		Injectors - Injector Program	Injector 1	
			Injector 2	
			Injector 3	
			Injector 4	
			Injector 5	
			Injector 6	
O2 Catalyst				
O2 Sensor				
Throttle Vlv Act				
TurbineShutOffVlv				
WaterInFuel reset				
ECM Data				

Appendix A: Menus

Diesel Engine - Diesel EMS PCM (Cont'd 6)

- Range Rover Sport V6 (L320) (2010 - 2011 MY)
- Range Rover Sport (L320) (2012 MY -)

Read DTCs			
Clear DTCs			
Live Data			
Maintenance	DPF Regeneration		
	DPF Replacement		
	DPF DiffPressSens		
	EGR Replacement		
	Fuel adapt. Reset		
	Fuel Lift Pump		
	Injectors	Injectors - Read Injector	Injector 1
			Injector 2
			Injector 3
			Injector 4
			Injector 5
			Injector 6
		Injectors - Injector Program	Injector 1
			Injector 2
			Injector 3
			Injector 4
			Injector 5
			Injector 6
	O2 Catalyst		
	O2 Sensor		
	Oil Change		
Throttle Vlv Act			
TurbineShutOffVlv			
WaterInFuel Reset			
ECM Data			

Diesel Engine - Diesel EMS PCM (Cont'd 7)

- Range Rover V8 4.4 (L322) (2010 MY -)

Read DTCs				
Clear DTCs				
Live Data				
Maintenance	DPF Regeneration			
	DPF Replacement			
	EGR ReplacementB1			
	EGR ReplacementB2			
	Fuel Lift Pump			
	Injectors	Injectors - Read Injector	Injector 1	
			Injector 2	
			Injector 3	
			Injector 4	
			Injector 5	
			Injector 6	
			Injector 7	
			Injector 8	
	Injectors	Injectors - Injector Program	Injector 1	
			Injector 2	
			Injector 3	
			Injector 4	
			Injector 5	
			Injector 6	
			Injector 7	
Injector 8				
O2 Catalyst				
O2 Sensor				
Throttle Vlv Act				
TurbineShutOffVlv				
WaterInFuel reset				
ECM Data				

Appendix A: Menus

Diesel Engine - Diesel EMS PCM (Cont'd 8)

- Range Rover Evoque (L538)

Read DTCs			
Clear DTCs			
Live Data			
Maintenance	DPF Regeneration		
	DPF Replacement		
	DPF DiffPressSens		
	EGR Replacement		
	Fuel adapt. Reset		
	Fuel Lift Pump		
	Injectors	Injectors - Read Injector	Injector 1
			Injector 2
			Injector 3
			Injector 4
		Injectors - Injector Program	Injector 1
			Injector 2
			Injector 3
			Injector 4
	O2 Catalyst		
O2 Sensor			
Oil Change			
Throttle Vlv Act			
TurbineShutOffVlv			
WaterInFuel reset			
ECM Data			

Diesel Engine - EDC 1.3.1

- **Freelander 1** (1998-2001)

Read DTCs	
Clear DTCs	
Live Data	
Circuit Tests	Diagnostic Lamp
	Timing Solenoid
	A/Con. Comp. Relay
	High Fan
	Low Fan
	EGR Valve
Read CM Details	
Security Code	

Diesel Engine - EDC 1.3.1 (Cont'd)

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

Read DTCs	
Clear DTCs	
Live Data	
Circuit Tests	Diagnostic Lamp
	Timing Solenoid
	A/Con. Comp. Relay
	EGR Valve
Read CM Details	
Security Code	

Appendix A: Menus

Diesel Engine - DDE 4.0

- **Freelander 1 (2001-2006)**

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

Diesel Engine - EMS

- **Freelander 2 (L359) (2007 - 2010 MY)**

Read DTCs			
Clear DTCs			
ECM Data			
Live Data			
Maintenance	Boost Press. Act.		
	DPF Regeneration		
	DPF Replacement		
	DPF DiffPressSens		
	DPF AirTempSensor		
	EGR Replacement		
	Fuel adapt. Reset		
	Injectors	Injectors - Read Injector	Injector 1
			Injector 2
			Injector 3
			Injector 4
		Injectors - Injector Program	Injector 1
			Injector 2
			Injector 3
			Injector 4
O2 SensorReplace			
Oil Change			
Throttle Vlv Act			

Diesel Engine - EMS (Cont'd)

- Freelander 2 (L359) (2011 MY -)

Read DTCs				
Clear DTCs				
Live Data				
Maintenance	DPF Regeneration			
	DPF Replacement			
	DPF DiffPressSens			
	DPF AirTempSensor			
	EGR Replacement			
	Fuel adapt. Reset			
	Injectors	Injectors - Read Injector	Injector 1	
			Injector 2	
			Injector 3	
			Injector 4	
		Injectors - Injector Program	Injector 1	
			Injector 2	
			Injector 3	
			Injector 4	
O2 Catalyst				
Oil Sensor				
Throttle Vlv Act				
TurbineShutOffVlv				
ECM Data				

Diesel Engine - EMS (Cont'd 2)

- Range Rover (L322) (2002 - 2005, 2006 MY)

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

Menus - Petrol Engine

Petrol Engine - 14CUX

- Defender
- Discovery I
- Range Rover Classic

Read DTCs	
Clear DTCs	
Live Data	
Actuators	Injectors
	Fuel Pump

Petrol Engine - GEMS

- Defender
- Discovery I
- Range Rover (P38a)

Read DTCs	
Clear DTCs	
Live Data	
Actuators	MI Lamp
	Fuel Pump
	Purge Valve
Learn Security	
Configuration	Reset Adaptions

Petrol Engine - EMS 2000

- **Freelander 1** (2001-2006)

Read DTCs	
Clear 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** (1998-2001)
- **Discovery I**

Read DTCs	
Clear DTCs	
Live Data	
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** (2001-2006)

Read DTCs	
Clear 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	

Petrol Engine - MS43

- **Freelander 1** (2001-2006)

Read DTCs	
Clear 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 - M 5.2.1

- **Discovery 2**
- **Range Rover (P38a)**

Read DTCs	
Clear DTCs	
Live Data	
ECM Data	
Actuators	Fuel Pump
	Condenser Fan
	CVS Valve
	E Box Fan
Maintenance	Reset Adaptions
Security Code	

Petrol Engine - EMS

- Range Rover (L322) (2002 - 2005 MY)

Read DTCs	
Clear 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 - EMS (Cont'd)

- Range Rover (L322) (2006, 2007 - 2009 MY)
- Discovery 3 (L319)

Read DTCs		
Clear DTCs		
Live Data		
Maintenance	Reset Adaptions	All Adaptions
		MainFuel adaption
		RearLambda Adapt.
		ISC Adaption
		ATP Estimation
		Flywheel Adaption
		DMTL test results
ECM Data		

Petrol Engine - EMS (Cont'd 2)

- **Freelander 2 (L359) (2007 - 2010, 2011 MY -)**
- **Range Rover Sport (L320) (2006 - 2009, 2010 - 2011, 2012 MY -)**
- **Range Rover (L322) (2006, 2007 - 2009, 2010 MY)**
- **Range Rover Evoque (L538)**
- **Discovery 4 V6 & V8 (2010 - 2011 MY)**
- **Discovery 4 (2012 MY)**

Read DTCs
Clear DTCs
Live Data
ECM Data

Menus - Transmission

Transmission - JATCO FTO

- **Freelander 1**

Read DTCs
Clear DTCs
Live Data

Transmission - GS 8.87.0/1

- **Discovery 2**

Read Faults	
Clear Faults	
Live Data	
Maintenance	Reset Adaptions
	Read VIN
	Program VIN
ECM Data	

Transmission - GS 8.87.0/1 (Cont'd)

- **Range Rover (P38a)**

Read Faults	
Clear Faults	
Live Data	
Maintenance	Reset Adaptions
	Read VIN
	Program VIN
	Read Tune
	Program Tune
ECM Data	

Transmission - GS 2-38

- Range Rover (P38a)

Fault Codes	Read DTCs
	Clear DTCs
Live Data	
ECM Data	

Transmission - ZF / EGS 8602

- Range Rover (L322) (2002 - 2005 MY)

Read DTCs	
Clear 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	

Transmission - GM5 / EGS20

- Range Rover (L322) (2002 - 2005 MY)
- Range Rover (L322) (Diesel only - 2006 MY)

Read DTCs	
Clear 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 - TCM

- Range Rover Sport (L320) (2006 - 2009 MY)
- Range Rover Sport (L320 - Petrol Only) (2010 - 2011, 2012 MY -)
- Range Rover Sport V6 & V8 Diesel (L320) (2010 - 2011, 2012 MY -)
- Range Rover (L322 - Petrol Only) (2006 MY)
- Range Rover (L322) (2007 - 2009, 2010 MY)
- Discovery 3 (L319)
- Discovery 4 V6 & V8 Petrol (2010 - 2011 MY)
- Discovery 4 Petrol (2012 MY -)
- Discovery 4 V6 2.7 & V6 3.0 Diesel (2010 - 2011, 2012 MY -)

Read DTCs
Clear DTCs
Live Data
ECM Data

Transmission - TCM (Cont'd)

- Freelander 2 (L359) (2007 - 2010, 2011 MY -)

Read DTCs	
Clear DTCs	
Live Data	
Maintenance	Reset Adaptions
ECM Data	

Transmission - TCM (Cont'd 2)

- Evoque (L538)

Read DTCs	
Clear DTCs	
Live Data	
Maintenance	Oil Service
ECM Data	

Transmission - GSM

- Range Rover (Diesel V8 4.4 only) (L322) (2010 MY -)

Read DTCs
Clear DTCs
Live Data
ECM Data

Transmission - GSM (Cont'd)

- Range Rover Sport (L320) (2012 MY -)
- Range Rover Evoque (L538)
- Discovery 4 (2012 MY -)

Read DTCs
Clear DTCs
ECM Data

Transmission - GSMB

- Range Rover Evoque (L538)

Read DTCs
Clear DTCs
ECM Data

Transmission - RDCM

- Freelander 2 (L359) (2007 - 2010, 2011 MY -)
- Range Rover Sport (L320) (2006 - 2009, 2010 - 2011, 2012 MY -)
- Range Rover (L322) (2007 - 2009, 2010 MY -)
- Range Rover Evoque (L538)
- Discovery 3 (L319)
- Discovery 4 (2010 - 2011, 2012 MY -)

Read DTCs
Clear DTCs
ECM Data

Menus - Transfer Case

Transfer Case - TCCM

- Range Rover Sport (L320) (2006 - 2009, 2010 - 2011, 2012 MY -)
- Range Rover (L322) (2006, 2007 - 2009, 2010 MY -)
- Discovery 3
- Discovery 4 (2010 - 2011, 2012 MY -)

Read DTCs
Clear DTCs
ECM Data

Menus - Adaptive Cruise Control

Adaptive Cruise Control - CCM

- Range Rover Sport (L320) (2006 - 2009, 2010 - 2011, 2012 MY -)
- Range Rover (L322) (2010 MY -)
- Discovery 3
- Discovery 4 (2010 - 2011 MY)

Read DTCs
Clear DTCs
ECM Data

Menus - Anti-lock Braking System (ABS)

ABS - WABCO 'D'

- Frelander 1

Read DTCs	
Clear 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
	HDC Info. Light
	HDC Fault Light
	Brake Light Relay
	Shuttle Valve Sw.
Valve Relay	
Pump Relay	
Programming	New ABS CM
Bleeding	
ABS CM Data	

ABS - WABCO 'D' (Cont'd)

- Defender
- Defender (L316) (2007 - 2010 MY)

Read DTCs	
Clear 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
Programming	New ABS CM
Bleeding	
ABS CM Data	

ABS - WABCO 'D' (Cont'd 2)

- Range Rover (P38a)

Read DTCs	
Clear DTCs	
Live Data	
Circuit Tests	Inlet Valve RF
	Outlet Valve RF
	Wheel Test RF
	Inlet Valve LF
	Outlet Valve LF
	Wheel Test LF
	Inlet Valve RR
	Outlet Valve RR
	Wheel Test RR
	Inlet Valve LR
	Outlet Valve LR
	Wheel Test LR
	Supplies / Grounds
	ABS Warning Lamp
	TC Warning Light
	Brake Warn. Lamp
	Speedometer
	Valve Relay
	Pump Relay
	TC Valve NC
	TC Valve NO
	Isolation Inlet
	Isolation Outlet
Rough Road Signal	
Valve Relay	
Pump Relay	
Programming	New ABS CM
ABS CM Data	

ABS - WABCO 'D' (Cont'd 3)

- Discovery 2

Read DTCs	
Clear 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
	HDC Info. Light
	HDC Fault Light
	Brake Light Relay
	Speedometer
	Shuttle Valve Sw.
	Valve Relay
	Pump Relay

Circuit Tests (Continued)	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
Programming	New ABS CM
	Configuration
	Calibration
	Transportation
	SLS Production
Bleeding	
ABS CM Data	

ABS

- **Defender (L316) (2011, 2012 MY)**

Read DTCs
Clear DTCs
ECM Data

ABS - MK20 / MK25

- **Freelander 1**

Read DTCs
Clear DTCs
Live Data

ABS - WABCO 'C'

- Discovery I
- Range Rover (P38a)

Read DTCs	
Clear 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 - 2005 MY)

Read DTCs
Clear DTCs
SAS Calibration

ABS - Petrol

- Range Rover (L322) (2006 MY)

Read DTCs
Clear DTCs
SAS Calibration

ABS - Diesel

- Range Rover (L322) (2006 MY)

Read DTCs
Clear DTCs
ECM Data

ABS/DSC

- **Freelander 2 (L359) (2007 - 2010, 2011 MY -)**

Read DTCs	
Clear DTCs	
Live Data	
Configuration	SAS Calibration
	Long. Accel. Calib.
	Lateral Accel.Cal
ECM Data	

ABS/DSC (Cont'd)

- **Range Rover Sport (L320) (2006 - 2009 MY)**
- **Range Rover (L322) (2007 - 2009, 2010 MY -)**
- **Range Rover Evoque (L538)**
- **Discovery 3 (L319)**

Read DTCs
Clear DTCs
Live Data
ECM Data

ABS/DSC (Cont'd 2)

- **Range Rover Sport (L320) (2010 - 2011, 2012 MY -)**
- **Discovery 4 (L319) (2010 - 2011, 2012 MY -)**

Read DTCs	
Clear DTCs	
Live Data	
Maintenance	Yaw Rate
ECM Data	

Menus - Airbag

Airbag - Autoliv AC4

- Freelandr 1

Read DTCs
Clear DTCs
ECM Data

Airbag - Siemens SRE Smart

- Freelandr 1

Read DTCs
Clear DTCs
ECM Data

Airbag

- Freelandr 2 (L359)

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

Airbag - TRW SPS

- Range Rover (P38a)
- Discovery I

Read DTCs
Clear DTCs
ECM Data

Airbag - TRW MPS

- Range Rover (P38a)
- Discovery I

Read DTCs
Clear DTCs

Airbag - TRW Gen 4

- Range Rover (P38a)
- Discovery 2

Read DTCs
Clear DTCs
ECM Data

Airbag - TRW MRS 4

- Range Rover (L322) (2002 - 2005, 2006 MY)

Read DTCs
Clear DTCs
ECM Data

Airbag - RCM

- Range Rover Sport (L320) (2006 - 2009, 2010 - 2011, 2012 MY -)
- Range Rover (L322) (2007 - 2009, 2010 MY -)
- Range Rover Evoque (L538)
- Discovery 3 (L319)
- Discovery 4 (2010 - 2011, 2012 MY -)

Read DTCs
Clear DTCs
ECM Data

Airbag - RCM (Cont'd)

- Freelander 2 (L359) (2007 - 2010, 2011 MY -)

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

Airbag - OCS

- Freelander 2 (L359) (2007 - 2010, 2011 MY -)
- Range Rover Sport (L320) (2010 - 2011, 2012 MY -)
- Range Rover (L322) (2007 - 2009, 2010 MY -)
- Range Rover Evoque (L538)
- Discovery 4 (2010 - 2011, 2012 MY -)

Read DTCs
Clear DTCs
ECM Data

Menus - Climate Control

Climate Control

- Range Rover (L322) (2002 - 2005, 2006 MY)
- Range Rover (P38a)

Read DTCs
Clear DTCs

Climate Control - HVAC

- Range Rover (L322) (2007 - 2009 MY)

Read DTCs
Clear DTCs

Climate Control - HVAC (Cont'd)

- Freelander 2 (L359) (2007 - 2010, 2011 MY -)
- Range Rover Sport (L320) (2006 - 2009, 2010 - 2011, 2012 MY -)
- Range Rover (L322) (2010 MY -)
- Range Rover Evoque (L538)
- Discovery 3 (L319)
- Discovery 4 (2010 - 2011, 2012 MY -)

Read DTCs
Clear DTCs
ECM Data

Climate Control - RHVAC

- Range Rover (L322) (2007 - 2009, 2010 MY -)

Read DTCs
Clear DTCs
ECM Data

Menus - Air Suspension

Air Suspension - Airsus

- Range Rover Classic
- Range Rover (P38a)

Read DTCs	
Clear 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 MY)

Read DTCs			
Clear 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			

Service Functions (Cont'd)	Inflate	Inflate All
		Inflate Front
		Inflate Rear
		Inflate FL Corner
		Inflate FR Corner
		Inflate RL Corner
		Inflate RR Corner
ECM Data		

Menus - Suspension

Ride Level Control Module (RLM)

- Range Rover (L322) (2006, 2007 - 2009 MY)
- Discovery 3

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

Ride Level Control Module (RLM) (Cont'd)

- Range Rover Sport (L320) (2006 - 2009, 2010 - 2011, 2012 MY -)
- Range Rover (L322) (2010 MY -)
- Discovery 4 (2010 - 2011, 2012 MY -)

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

Adaptive Damping Control Module (ADCM)

- Range Rover Sport (L320) (2010 - 2011, 2012 MY -)
- Range Rover (L322) (2010 MY -)
- Range Rover Evoque (L538)

Read DTCs
Clear DTCs
ECM Data

Dynamic Response Module (ARCM)

- Range Rover Sport (L320) (2006 - 2009, 2010 - 2011, 2012 MY -)

Read DTCs
Clear DTCs
ECM Data

Menus - Chassis

Chassis - ACE

- **Discovery 2**

Read DTCs	
Clear 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

- Range Rover (L322) (2006, 2007 - 2009 MY)
- Range Rover Sport (L320) (2006 - 2009 MY)

Read DTCs		
Clear 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		

Chassis

- Range Rover (L322) (2010 MY)
- Range Rover Sport (L320) (2010 MY)

Read DTCs
Clear DTCs
Live Data
ECM Data

Menus - Body Controller (BCM)

BCM

- Range Rover (L322) (2002 - 2005, 2006, 2007 - 2009 MY)
- Discovery 3 (L319)

Read DTCs
Clear DTCs
Live Data
ECM Data

BCM (Cont'd)

- Range Rover (L322) (2010 MY -)
- Range Rover Evoque (L538)

Read DTCs	
Clear DTCs	
Configuration	Battery Mngmt
	Reset
ECM Data	

BCM (Cont'd 2)

- Range Rover Sport (L320) (2006 - 2009, 2010 - 2011, 2012 MY -)
- Discovery 4 (2010 - 2011, 2012 MY -)

Read DTCs	
Clear DTCs	
Live Data	
Configuration	Battery Mngmt
	Reset
ECM Data	

BCM

- Freelander 2 (2007 - 2010, 2011 MY -)

Read DTCs	
Clear DTCs	
Live Data	
Maintenance	Crash Reset
	Battery Change
ECM Data	

Menus - Instruments

Instrument Panel Control (IPC)

- Defender (L316) (2007 - 2010, 2011, 2012 MY -)

Read DTCs
Clear DTCs
Live Data
ECM Data

Instrument Panel Control (IPC) (Cont'd)

- Freelander 2 (2007 - 2010, 2011 MY -)
- Range Rover Sport (L320) (2006 - 2009, 2010 - 2011, 2012 MY -)
- Range Rover (L322) (2006, 2007 - 2009, 2010 MY -)
- Range Rover Evoque (L538)
- Discovery 3 (L319)
- Discovery 4 (2010 - 2011, 2012 MY -)

Read DTCs
Clear DTCs
Service Reset
ECM Data

Menus - Lighting Control

Front Lighting Module (FLM)

- Range Rover Sport (L320) (2006 - 2009 MY)
- Range Rover (L322) (2006, 2007 - 2009 MY)
- Discovery 3 (L319)

Read DTCs
Clear DTCs
ECM Data

Headlamp Control Module (HCM)

- Freelander 2 (2007 - 2010, 2011 MY -)
- Range Rover Sport (L320) (2010 - 2011, 2012 MY -)
- Range Rover (L322) (2010 MY -)
- Range Rover Evoque (L538)
- Discovery 4 (2010 - 2011, 2012 MY -)

Read DTCs
Clear DTCs
ECM Data

Headlamp Control Module 'B' (HCMB)

- Range Rover Sport (L320) (2010 - 2011, 2012 MY -)
- Range Rover (L322) (2010 MY -)
- Range Rover Evoque (L538)
- Discovery 4 (2010 - 2011, 2012 MY -)

Read DTCs
Clear DTCs
ECM Data

Menus - Parking Aid

Parking Aid Module (PAM)

- Freelander 2 (2007 - 2010, 2011 MY -)
- Range Rover Sport (L320) (2006 - 2009, 2010 - 2011, 2012 MY -)
- Range Rover (L322) (2010 MY -)
- Range Rover Evoque (L538)
- Discovery 3 (L319)
- Discovery 4 (2010 - 2011, 2012 MY -)

Read DTCs
Clear DTCs
ECM Data

Menus - Side Object Detection

Side Object Detection Module Left (SODL)

- Range Rover (L322) (2010 MY -)
- Range Rover Evoque (L538)

Read DTCs
Clear DTCs
ECM Data

Side Object Detection Module Right (SODR)

- Range Rover (L322) (2010 MY -)
- Range Rover Evoque (L538)

Read DTCs
Clear DTCs
ECM Data

Menus - Security

Security - 10AS

- Defender
- Defender (L316) (2007 - 2010, 2011, 2012 -)
- Discovery I

Live Data	
Programming	MEMS/TD5
	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	

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

Read DTCs
Clear DTCs
Live Data
ECU Data
Key Programming
Synchronise ECU

Security

- **Freelander 2 (L359)**

Read DTCs	
Clear DTCs	
ECM Data	
Live Data	
Configuration	Crash Reset

Security - BCU

- Discovery 2

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	

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 - BeCM Body Electronics

- Range Rover (P38a)

Read DTCs		
Clear 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		
Message Display	Fuel Gauge Calib	
	Temperature Gauge	
	Warning Buzzer	
	Instrument Illum.	

Message Display (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		

Security - Immobiliser

- Range Rover (L322) (2002 - 2005, 2006, 2007 - 2009 MY)

Read DTCs
Clear DTCs
Live Data
ECM Data

Security - Immobiliser (Cont'd)

- Range Rover Sport (L320) (2010 - 2011, 2012 MY -)
- Range Rover (L322) (2007 - 2009, 2010 MY -)
- Range Rover Evoque (L538)

Read DTCs
Clear DTCs
ECM Data

Menus - Immobiliser

Immobiliser

- Discovery 4 (2010 - 2011 MY, 2012 MY -)

Read DTCs
Clear DTCs
ECM Data

Menus - Steering Angle Sensor (SAS)

SAS

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

Read DTCs
Clear DTCs
SAS Calibration

SAS (Cont'd)

- Range Rover (L322 - Petrol Only) (2006 MY)

Read DTCs	
Clear DTCs	
Configuration	SAS Calibration
ECM Data	

SAS (Cont'd 2)

- Range Rover (L322) (2010 MY)

Read DTCs
Clear DTCs

SASM

- **Freelander 2 (L359) (2007 - 2010 MY, 2011 MY -)**

Read DTCs
Clear DTCs
Configuration
ECM Data

SASM (Cont'd)

- **Range Rover Sport (L320) (2006 - 2009, 2010 - 2011, 2012 MY -)**
- **Range Rover (L322) (2007 - 2009, 2010 MY -)**
- **Discovery 3**
- **Discovery 4 (2010 - 2011, 2012 MY -)**

Read DTCs	
Clear DTCs	
Configuration	SAS Calibration
ECM Data	

SASM (Cont'd 2)

- **Range Rover Evoque (L538)**

Read DTCs
Clear DTCs
Live Data
ECM Data

Menus - Parking Brake (PBM)

PBM

- Range Rover Sport (L320) (2006 - 2009, 2010 - 2011, 2012 MY -)
- Range Rover (L322) (2007 - 2009, 2010 MY -)
- Discovery 3 (L319)
- Discovery 4 (2010 - 2011, 2012 MY -)

Read DTCs	
Clear DTCs	
Live Data	
Service Brakes	Unjam EPB
	Mounting Position
	Latching Position
	Long. Accel. Calib.
	Rear disc change
Brake bedding-in	
ECM Data	

PBM (Cont'd)

- Range Rover Evoque (L538)

Read DTCs	
Clear DTCs	
Configuration	EPB Service Pos.
	Exit Service Pos.
	Caliper Assy Test
	Long. Accel. Calib.
ECM Data	

Menus - Tyre Pressure Monitoring System (TPMS)

TPMS

- Range Rover Sport (L320) (2006 - 2009 MY)
- Range Rover (L322) (2006, 2007 - 2009 MY)
- Discovery 3 (L319)

Read DTCs
Clear DTCs
ECM Data

Menus - All Terrain Control Module (ATCM)

ATCM

- Freelander 2 (L359) (2007 - 2010, 2011 MY -)
- Range Rover Sport (L320) (2006 - 2009, 2010 - 2011, 2012 MY -)
- Range Rover (L322) (2007 - 2009, 2010 MY -)
- Range Rover Evoque (L538)
- Discovery 3 (L319)
- Discovery 4 (2010 - 2011, 2012 MY -)

Read DTCs
Clear DTCs
ECM Data

Menus - Power Steering Control Module (PSCM)

PSCM

- Range Rover Evoque (L538)

Read DTCs
Clear DTCs
ECM Data

Menus - Fuel-Fired Heater

Fuel-Fired Heater

- Range Rover (L322) (2002 - 2005, 2006 MY)

Read DTCs	
Clear 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-Fired Heater

- Freelander 1

Read DTCs	
Clear DTCs	
Live Data	
Actuators	Heater
	Coolant pump
	Glow Plug
	Combustion fan
	Dosing Pump
Prime Dosing Pump	
ECM Data	

Fuel-Fired Heater

- Freelander 2 (L359) (2007 - 2010, 2011 MY -)
- Range Rover Sport (L320) (2006 - 2009, 2010 - 2011, 2012 MY -)
- Range Rover (L322) (2007 - 2009, 2010 MY -)
- Range Rover Evoque (L538)
- Discovery 3 (L319)
- Discovery 4 (2010 - 2011, 2012 MY -)

Read DTCs
Clear DTCs
Live Data
ECM Data

Fuel-Fired Heater (Cont'd)

- Range Rover Evoque (L538)

Read DTCs
Clear DTCs
ECM Data

Menus - Seating

Seating - DSM

- Freelander 2 (L359) (2007 - 2010, 2011 MY -)
- Range Rover Sport (L320) (2010 - 2011, 2012 MY -)
- Range Rover (L322) (2010 MY -)
- Range Rover Evoque (L538)
- Discovery 4 (2010 - 2011 MY)

Read DTCs
Clear DTCs
ECM Data

Seating - DCSM

- Range Rover (L322) (2007 - 2009, 2010 MY -)

Read DTCs
Clear DTCs
ECM Data

Seating - PSM

- Range Rover (L322) (2010 MY -)
- Range Rover Evoque (L538)

Read DTCs
Clear DTCs
ECM Data

Seating - RDCSM

- Range Rover (L322) (2010 MY -)

Read DTCs
Clear DTCs
ECM Data

Menus - Doors

Doors - DDM

- Freelander 2 (L359) (2007 - 2010, 2011 MY -)
- Range Rover Sport (L320) (2010 - 2011, 2012 MY -)
- Range Rover (L322) (2010 MY -)
- Range Rover Evoque (L538)
- Discovery 4 (2010 - 2011, 2012 MY -)

Read DTCs
Clear DTCs
ECM Data

Doors - PDM

- Freelander 2 (L359) (2007 - 2010, 2011 MY -)
- Range Rover Sport (L320) (2010 - 2011, 2012 MY -)
- Range Rover (L322) (2010 MY -)
- Range Rover Evoque (L538)
- Discovery 4 (2010 - 2011, 2012 MY -)

Read DTCs
Clear DTCs
ECM Data

Menus - Running Board

Running Board - RBM

- Range Rover (L322) (2007 - 2009, 2010 MY -)

Read DTCs
Clear DTCs
ECM Data

Menus - Keyless Vehicle Module (KVM)

KVM

- Range Rover Sport (L320) (2010 - 2011, 2012 MY -)
- Range Rover (L322) (2010 MY -)
- Range Rover Evoque (L538)
- Discovery 4 (2010 - 2011, 2012 MY -)

Read DTCs
Clear DTCs
ECM Data

Menus - Trailer Module (TRM)

TRM

- Freelander 2 (L359) (2007 - 2010, 2011 MY -)

Read DTCs
Clear DTCs
ECM Data

Menus - Remote Driver Utility Module (RDUM)

RDUM

- Range Rover (L322) (2006, 2007 - 2009, 2010 MY -)

Read DTCs
Clear DTCs
ECM Data

Menus - Rear Gate / Trunk Module (RGTM)

RGTM

- Range Rover Sport (L320) (2012 MY -)
- Range Rover Evoque (L538)

Read DTCs
Clear DTCs
ECM Data

Menus - Audio and Video

Audio Amplifier Module (AAM)

- Range Rover Sport (L320) (2006 - 2009, 2010 - 2011 MY)
- Range Rover (L322) (2002 - 2005, 2006, 2007 - 2009, 2010 MY -)
- Range Rover Evoque (L538)
- Discovery 3 (L319)
- Discovery 4 (2010 - 2011 MY)

Read DTCs
Clear DTCs
ECM Data

Audio Control Module (ACM)

- Range Rover Sport (L320) (2006 - 2009, 2010 - 2011 MY)
- Range Rover (L322) (2002 - 2005, 2006, 2007 - 2009, 2010 MY -)
- Range Rover Evoque (L538)
- Discovery 3 (L319)
- Discovery 4 (2010 - 2011 MY)

Read DTCs
Clear DTCs
ECM Data

Front Electronic Module (FEM)

- Range Rover Sport (L320) (2006 - 2009, 2010 - 2011 MY)
- Range Rover (L322) (2002 - 2005, 2006, 2007 - 2009, 2010 MY -)
- Discovery 3 (L319)
- Discovery 4 (2010 - 2011 MY)

Read DTCs
Clear DTCs
ECM Data

Compact Disk Player (CDP)

- Range Rover (L322) (2002 - 2005, 2006, 2007 - 2009, 2010 MY -)

Read DTCs
Clear DTCs
ECM Data

Front Control / Display Interface Module (FCDIM)

- Range Rover Sport (L320) (2012 MY -)
- Range Rover Evoque (L538)
- Discovery 4 (2010 - 2011, 2012 MY -)

Read DTCs
Clear DTCs
ECM Data

Front Control Interface Module (FCIM)

- Range Rover Sport (L320) (2010 - 2011, 2012 MY -)
- Discovery 4 (2010 - 2011, 2012 MY -)

Read DTCs
Clear DTCs
ECM Data

Front Control Interface Module 'B' (FCIMB)

- Range Rover Sport (L320) (2010 - 2011, 2012 MY -)
- Range Rover Evoque (L538)
- Discovery 4 (2010 - 2011, 2012 MY -)

Read DTCs
Clear DTCs
ECM Data

Digital Audio Broadcast Module (DABM)

- Range Rover Sport (L320) (2010 - 2011 MY)
- Range Rover (L322) (2010 MY -)
- Range Rover Evoque (L538)
- Discovery 4 (2010 - 2011 MY)

Read DTCs
Clear DTCs
ECM Data

Digital Audio Control Module 'C' (DACMC)

- Range Rover Sport (L320) (2006 - 2009, 2010 - 2011 MY)
- Range Rover (L322) (2010 MY -)
- Discovery 3 (L319)
- Discovery 4 (2010 - 2011 MY)

Read DTCs
Clear DTCs
ECM Data

Satellite Audio Unit Module (SRM)

- Range Rover Sport (L320) (2006 - 2009, 2010 - 2011 MY)
- Range Rover (L322) (2002 - 2005, 2006, 2007 - 2009, 2010 MY -)
- Range Rover Evoque (L538)
- Discovery 3 (L319)
- Discovery 4 (2010 - 2011 MY)

Read DTCs
Clear DTCs
ECM Data

Television Module (TVM)

- Range Rover Sport (L320) (2006 - 2009, 2010 - 2011 MY)
- Range Rover (L322) (2002 - 2005, 2006, 2007 - 2009, 2010 MY -)
- Range Rover Evoque (L538)
- Discovery 3 (L319)
- Discovery 4 (2010 - 2011 MY)

Read DTCs
Clear DTCs
ECM Data

Menus - Accessory Protocol Interface Module) (APIM)

APIM

- Range Rover Sport (L320) (2010 - 2011 MY)
- Range Rover (L322) (2010 MY -)
- Discovery 4 (2010 - 2011 MY)

Read DTCs
Clear DTCs
ECM Data

Menus - Rear Entertainment Control Module (REM)

REM

- Range Rover Sport (L320) (2006 - 2009, 2010 - 2011 MY)
- Range Rover (L322) (2002 - 2005, 2006, 2007 - 2009, 2010 MY -)
- Range Rover Evoque (L538)
- Discovery 3 (L319)
- Discovery 4 (2010 - 2011 MY)

Read DTCs
Clear DTCs
ECM Data

Menus - Cellular Telephone Control Module (TEL)

TEL

- Range Rover Sport (L320) (2006 - 2009, 2010 - 2011 MY)
- Range Rover (L322) (2002 - 2005, 2006, 2007 - 2009, 2010 MY -)
- Discovery 3 (L319)
- Discovery 4 (2010 - 2011 MY)

Read DTCs
Clear DTCs
ECM Data

Menus - Traffic Message Channel Module (TMC)

TMC

- Range Rover Sport (L320) (2006 - 2009 MY)
- Range Rover (L322) (2002 - 2005, 2006, 2007 - 2009, 2010 MY -)
- Discovery 3 (L319)

Read DTCs
Clear DTCs
ECM Data

Menus - Speech Recognition Control Module (SPRM)

SPRM

- Discovery 4 (2010 - 2011 MY)

Read DTCs
Clear DTCs
ECM Data

Menus - Image Processing Module 'B' (IPMB)

IPMB

- Range Rover Sport (L320) (2010 - 2011, 2012 MY -)
- Range Rover Evoque (L538)
- Discovery 4 (2010 - 2011, 2012 MY -)

Read DTCs
Clear DTCs
ECM Data

Menus - Infotainment Control Module (ICM)

ICM

- Freelander 2 (L359) (2007 - 2010, 2011 MY -)

Read DTCs
Clear DTCs
ECM Data

Menus - Service Reset

Service Reset

- Freelander 2 (L359) (2007 - 2010, 2011 MY -)
- Range Rover Sport (L320) (2006 - 2009, 2010 - 2011, 2012 MY)
- Range Rover (L322) (2002 - 2005, 2006, 2007 - 2009, 2010 MY -)
- Range Rover Evoque (L538)
- Discovery 3 (L319)
- Discovery 4 (2010 - 2011, 2012 MY -)

Service Reset

Menus - Global DTC Clear

Global DTC Clear

- Freelander 2 (L359) (2007 - 2010, 2011 MY -)
- Range Rover Sport (L320) (2006 - 2009, 2010 - 2011, 2012 MY -)
- Range Rover (L322) (2002 - 2005, 2006, 2007 - 2009, 2010 MY -)
- Range Rover Evoque (L538)
- Discovery 3 (L319)
- Discovery 4 (2010 - 2011, 2012 MY -)

HS-CANBUS

MS-CANBUS

Menus - Global ECU Reset

Global ECU Reset

- Freelander 2 (L359) (2007 - 2010, 2011 MY -)
- Range Rover Sport (L320) (2006 - 2009, 2010 - 2011, 2012 MY -)
- Range Rover (L322) (2002 - 2005, 2006, 2007 - 2009, 2010 MY -)
- Range Rover Evoque (L538)
- Discovery 3 (L319)
- Discovery 4 (2010 - 2011, 2012 MY -)

HS-CANBUS

MS-CANBUS

Bearmach Limited

Unit 8, Pantglas Industrial Estate, Bedwas, Caerphilly,
CF83 8GE United Kingdom

Tel: +44 (0) 2920 856550 Fax: +44 (0) 2920 865586

email: bearmach@bearmach.com