

SUSPENSION MODULE



By



Installation and user manual per module
Easy Lift series "DxxxxxxXxxx" or "ExxxxxxXxxx"



User Manual



Dear Customer,

thank you for choosing Land Rover Passion and for purchasing the suspension module Easy Lift. This product has been designed and manufactured respecting the highest standards, enduring high quality performances, safety and user-friendliness.

Land Rover Passion recommends the installation of the module to be carried out by an a professional car electrician.

Do you need any assistance?

Should you need any assistance, please contact the dealer or Land Rover Passion directly to the following e-mail address:

support@landroverpassion.com

Warranty:

This product is under warranty to current laws. For any reference, please refer to the page “terms and conditions” on the following website:

<http://www.landroverpassion.com/termini-e-condizioni>

Product or manual modifications can be made without prior notice. Please check for any new version of this manual on our website www.landroverpassion.com

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Any requests must be send by email to info@landroverpassion.com



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In this regard, LRP di Massimiliano Berta wishes to advise users of the Easy Lift that as the accessory can modify the height values pre-set by the manufacturer of the vehicle for which Easy Lift is intended, it may render it less stable.

Do not drive the vehicle in an unstable state!

LRP di Massimiliano Berta disclaims any liability arising, even indirectly, from negligent and/or imprudent behavior. An example of such would be an attempt to access - for any reason - the part underneath the vehicle without previously adopting all the available safety measures designed to counteract an accidental variation in height.

LRP di Massimiliano Berta, both in its capacity as manufacturer and distributor, declines any direct and/or indirect liability for damage to property and/or injury to people in any way related to the use of Easy Lift in places open to public traffic.

By purchasing an Easy Lift module, you implicitly accept these terms, and specifically the waiver of liability outlined in this disclaimer, absolving LRP di Massimiliano Berta from any liability arising from the installation and use of Easy Lift.



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1. Package contents

Description	Q.ty	Picture
Easy Lift Module	1	
Controller	1	
Bypass harness	1	
Bypass plug	1	
Fixing plate for Discovery 3 (optional)	1	
Range Rover Sport Ashtray adapter (optional)	1	
Dual Lock Tape	1	

2. Installation manual

2.1. Installation of Bypass harness

Required tools:

- 1 Torx T20
- 1 Screwdriver
- 1 Socket wrench no. 10
- 1 Phillips-head screwdriver

Procedure:



- Ensure that the vehicle is on a flat surface and can't move accidentally
- In case of vehicle with automatic transmission, please select neutral gear "N"
- Disconnect the positive side of the car battery
- Remove the panel of the steering column, by grabbing it on the top part and pull it towards the seat
- Use the Torx 20 key and remove the control lever used to open the bonnet
- Use the screwdriver and remove the cover of the footrest. Use the socket wrench no. 10, unscrew the two bolts inside and completely remove the footrest
- Remove the plastic bulkhead on the side where the control lever for the bonnet was placed
- Use the Phillips screwdriver and remove the two screws located on the front of the panel positioned above the pedals and remove it. The panel is fixed by three pins into the sound deadener coating of the bulkhead behind the pedals and by a fixing clip toward the central tunnel. Remove it by pulling gently towards the pedals
- On the left bulkhead (on the right for RHD vehicle), on the upper side of the compartment of the steering column, it is now possible to see the suspension ECU one which features 4 connectors inserted:



- Remove the connector no. 1 and no. 4 from the ECU and insert them in the corresponding female connectors of the bypass harness, which is included in the supply
- Insert into the ECU the male connectors of Easy Lift's bypass harness
- Plug the harness to the Easy Lift module.

2.2. Installation of controller

2.2.1. DISCOVERY 3 L319-04

Required tools:

- 1 Phillips-head screwdriver

Procedure:

- Remove the gear knob, previously placed in Neutral position, by forcibly pulling it upwards
- Remove the Phillips head screw located in front of the hand-brake control
- Remove, by pulling upwards, the plate located behind the hand-brake control and drill it in the center, a 22mm diameter hole. In case it is bought as an optional, please replace it with the one previously drilled
- Gently lift the cover of the central console by pulling upwards simultaneously on both external anterior and posterior sides. Be careful with the harness below, it is not necessary to unplug them
- Remove the rubber glove box located in front of the gearshift and the underlying plastic
- Insert the controller in the hole of the drilled plate. Make sure the Led indicators face in the driving direction and insert again the plate in its original location
- Insert the wire of the controller in the space behind the hand-brake switch, and, make sure not to crush the wire, pass it into the central console and reach the Easy Lift module:



- Plug the connector of the controller to the Easy Lift module
- Connect again the positive battery terminal and check the lighting of the controller. Should you have any problem, check the correct placement of the module connectors and of the bypass harness and/or of the controller
- Re-install the cover of the central console and of the steering column by following backwards the procedure followed to remove them
- Use the Dual lock tape included in the supply and secure the Easy Lift module in a handy place in the compartment of the steering column
- Calibrate the Easy Lift module as explained on following point 3.2

2.2.2. DISCOVERY 4 L319-10

Required tools:

1 Phillips-head screwdriver

Procedure:

- Select Neutral gear and remove the gear knob by pulling it upwards
- Remove the cup holder located in the central tunnel and remove the relative housing by pulling it upwards
- Unscrew the two Phillips-head screws which are located in the central tunnel, under the cup holder removed
- Remove the little plastic bulkhead in the inner side of the glove box in the central tunnel
- Open the cover of the glove box or the fridge in the central tunnel
- Gently lift the corner of the central tunnel by pulling upwards on both external posterior sides. Be careful with the wiring below, it is not necessary to disconnect them
- Unhook the cigarette lighter power connector and, while pushing the metal body out, press the two clips highlighted in the pic below slightly from the inside so that you can easily remove it:



- Insert the wire of the controller in the space behind the hand-brake switch, and, make sure not to crush the wire, pass it into the central console and reach the Easy Lift module:



- Insert the controller in the plastic of the lighter. Make sure the Led indicators face in the driving direction
- Connect the controller connector to the Easy Lift module
- Connect again the positive battery terminal and check the lighting of the controller. Should you have any problem, check the correct placement of the module connectors and of the bypass harness and/or of the controller
- Re-install the cover of the central console and of the steering column by following backwards the procedure followed to remove them
- Use the Dual lock tape included in the supply and secure the Easy Lift module in a handy place in the compartment of the steering column
- Calibrate the Easy Lift module as explained on following point 3.2

2.2.3. RANGE ROVER SPORT L320-05

Required tools:

1 Phillips-head screwdriver

Procedure:

- Remove the car radio frame, inverted “U” shaped. In order to do this, grab the two side parts and pull them towards the centre of the vehicle
- Remove the two screws located down, toward the side of the car radio
- Select Neutral gear and remove the gear knob by pulling it upwards
- Open the cover of the glove box or the fridge in the central tunnel
- Gently lift the corner of the central tunnel by pulling upwards on both external posterior sides. Be careful with the wiring below, it is not necessary to disconnect them
- If you have bought the optional adapter, remove the original ashtray and drill the main plastic behind the ashtray as shown in the picture below:



- Alternatively, Unhook the cigarette lighter power connector and, while pushing the metal body out, press the two clips highlighted in the pic below slightly from the inside so that you can easily remove it:



- Insert the wiring of the controller through the remaining plastic of the lighter. Make sure not to crush the cabling, pass it into the central tunnel and reach the Easy Lift module
- Insert the wire of the controller in the space behind the hand-brake switch, and, make sure not to crush the wire, pass it into the central console and reach the Easy Lift module:



- Connect the controller connector to the Easy Lift module
- Connect again the positive battery terminal and check the lighting of the controller. Should you have any problem,

check the correct placement of the module connectors and of the bypass harness and/or of the controller

- Re-install the cover of the central console and of the steering column by following backwards the procedure followed to remove them
- Use the Dual lock tape included in the supply and secure the Easy Lift module in a handy place in the compartment of the steering column
- Calibrate the Easy Lift module as explained on following point 3.2

2.2.4. RANGE ROVER SPORT L320-10

Required tools:

- 1 Phillips-head screwdriver
- 1 Plastic lever

Procedure:

- Use the plastic lever and remove the frame of the car CD slot
- Remove the two screws located down, laterally, inside the slot just opened
- Select Neutral gear and remove the gear knob by pulling it upwards
- Open the cover of the glove box or the fridge in the central tunnel
- Gently lift the corner of the central tunnel by pulling upwards on both external posterior sides. Be careful with the wiring below, it is not necessary to disconnect them
- If you have bought the optional adapter, remove the original ashtray and drill the main plastic behind the ashtray as shown in the picture below:



- Alternatively, Unhook the cigarette lighter power connector and, while pushing the metal body out, press the two clips highlighted in the pic below slightly from the inside so that you can easily remove it:



- Insert the wiring of the controller through the remaining plastic of the lighter. Make sure not to crush the cabling, pass it into the central tunnel and reach the Easy Lift module
- Insert the wire of the controller in the space behind the hand-brake switch, and, make sure not to crush the wire, pass it into the central console and reach the Easy Lift module:



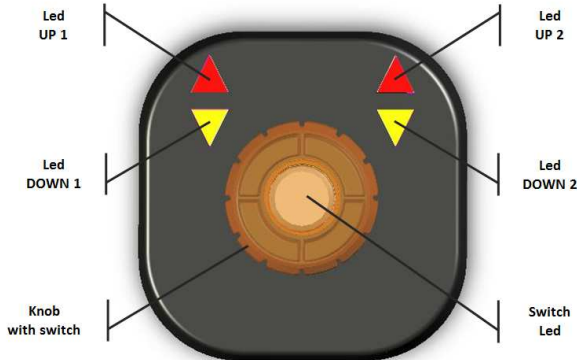
- Connect the controller connector to the Easy Lift module

- Connect again the positive battery terminal and check the lighting of the controller. Should you have any problem, check the correct placement of the module connectors and of the bypass harness and/or of the controller
- Re-install the cover of the central console and of the steering column by following backwards the procedure followed to remove them
- Use the Dual lock tape included in the supply and secure the Easy Lift module in a handy place in the compartment of the steering column
- Calibrate the Easy Lift module as explained on following point 3.2

3. Operating instructions

3.1. Description and general logics of the controller

The controller is made up of one knob and 4 Led indicators:



The multifunction knob of Easy Lift allows to select and activate the desired programs in a simple and intuitive way. The device has also a switch and a led signalling.

The green colour indicates the use of the “Standard” programs or, in case the other 4 Led are off, the “Neutral” status of the module. When the “Neutral” status is on, it does not affect the level of the vehicle.



“Neutral” status

The red colour indicates the use of the “Special” programs (only for Easy Lift Full Version).

When pressed, two fast flashes indicate that the command was received and the selected program will be activated.

From any state or program, by quickly pressing the knob twice, the Easy Lift module returns to Neutral (Quick Neutral function).

As described in detail below, the several lighting combinations of the 4 triangular Led indicate the selected program.

3.2. Module calibration

The calibration of the module is used to adapt and customize Easy Lift to the vehicle on which it is installed. It is mandatory to do in case of:

- new installation
- replacement of height sensor
- replacement of one or more air spring
- Calibration of the vehicle height in the workshop

PLEASE NOTE:

If the procedure is activated by mistake/accidentally, it is possible to stop it by clicking the knob twice. In case that any value has been memorized, it is mandatory to complete the process or do it again on a levelled surface.

- Place the vehicle on a flat, leveled surface in “Standard height” with straight wheels
- Leave the engine on and wait a few seconds
- Press and keep pressed the knob of the controller for at least 3 seconds, until the knob starts flashing red and green alternatively
- Press the knob one time, two red Led turn on, the knob keeps on blinking
- By using the Land Rover suspension switch, select the “Off Road” height. As soon as it is reached, press the knob one time. Two yellow Led turn on, the knob keeps on blinking
- By using the Land Rover suspension switch, select the “Access” height. As soon as it is reached, press the knob one time. All Led turn off and the knob becomes green
- By using the Land Rover suspension switch, select the “Standard” height
- Stop and turn on the engine

The calibration process is completed and the module is now ready to use.

3.3. Easy Lift versions

Easy Lift is available in three versions: Full, Plus and Lite. Such versions are aesthetically/visually identical; they differ according to the number of available features. In case you buy the *Plus* or *Lite* version, it is possible to buy the upgrade to the *Full* or *Plus* version at later stage.

Program	Description/height(*)	Full	Plus	Lite
Standard	<i>-30mm</i>	X	X	-
	<i>-20mm</i>	X	X	X
	<i>Neutral</i>	X	X	X
	<i>+35mm</i>	X	X	X
	<i>+55mm</i>	X	X	X
	<i>+70mm</i>	X	X	-
Specials	<i>Wheel alignment</i>	X	-	-
	<i>Extra Low</i>	X	-	-
	<i>Recovery</i>	X	-	-

(*)The reachable heights are indicative and could be different from vehicle to vehicle

It is possible to use the Easy Lift module in addition to the Land Rover heights, in order to increase the range of combinations and variations available. Thanks to the combination of the Land Rover “Off Road” height and Easy Lift +70mm, for example, it is possible to reach a total variation of about +125mm.

3.4. Standard Programs - Heights variation

By starting from the Neutral position, rotate the knob **CLOCKWISE** and in sequence select the following variations:

Rotation	Height	Led status
	+35mm	
	+55mm	
	+70mm (Full and Plus version only)	

Rotate the knob **COUNTERCLOCKWISE** select the following variation in sequence:

Rotation	Height	Led status
	-20mm	
	-30mm (Full and Plus version only)	

It is always possible to activate a variation without necessarily pass from the previous or from the neutral position.

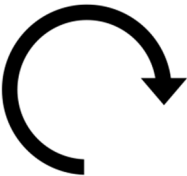


After selecting the wished program, this must be activated within 3 secs by pressing one time the knob otherwise the module returns to the previous status. In order to confirm the control has been received, the knob will quickly flash two times.

Due to the logics of Land Rover ECU, the more the required variation is wide, the more quick will be the feedback of the vehicle. Small variations, for example the change from -20mm to -30mm, can require more seconds before being active.



3.5. Special Programs (version Full)

To access to the selection of the special programs it is necessary to press the knob two times (double click) from the Easy Lift Neutral position. The Led of the knob becomes red.

By rotating the knob CLOCKWISE, it is possible to select in sequence the following special programs:

Rotation	Program	Led status
	<i>Wheel alignment</i>	
	<i>Recovery</i>	 (blinking)

By rotating the knob COUNTERCLOCKWISE, it is possible to select the Extra Low program:

Rotation	Program	Led status
	<i>Extra Low</i>	

Once selected the wished program, this must be activated within 3 secs by click one time otherwise the module comes back to the previous status. In order to confirm the control has been received, the knob will quickly flash two times.

3.5.1. WHEEL ALIGNMENT PROGRAM

The program allows to carry out the wheel alignment without going necessary before and after to the dealership to set suspension in tight mode, this will grant not only save money but also time saving.

It must be activated whilst the engine is on and the vehicle located on wheel alignment lift. Once such program is activated, the engine can be switched off.



The program must not to be used whilst the vehicle is running. At the end of the operations please remember to deactivate it by pressing the knob two times.

3.5.2. RECOVERY PROGRAM

Depending on the type of electrical failure occurred to the pneumatic suspension system, the program allows to rise the car to a height slightly lower than the standard running height; this allows to drive up to the closest assistance garage.



The program has to be used only in case of emergency and for short periods. In case of missing air in the circuit, the program must not be used.

3.5.3. EXTRA LOW PROGRAM

The program allows to lower the vehicle from the Standard Height to the minimum reachable limit, just before the DTC system shows and saves corner sensor failures. It is necessary to use it only to ease the access of people with reduced mobility and/or ease the loading/unloading of the car.



The program must not be used whilst the vehicle is running.

3.6. Neutral switch



In case of need, as well as with the Controller, Easy Lift can always be returned to Neutral position also by pressing the white button installed on the side of the control unit.



4. Troubleshooting

Problem	Possible cause	Possible solution
The controller doesn't turn on	The connectors of the bypass harness and of the controller are not correctly inserted in the Easy Lift module	Verify and correctly insert the connectors
	The original Land Rover suspensions ECU (EAS) is not electrically connected	Verify the 5.0 Amp fuse nr. 35 positioned in the fuse box behind the main glow box
“Recovery” program doesn't lift the vehicle	The type of fault occurred to the vehicle is not compatible with the function	In case the fault occurred to the system does not allow the use of the vehicle's compressor, it's not possible to act in order to do the correction Estimate the preferable choice between proceeding to the nearest assistance point and stopping driving
	There is no air in the pneumatic circuit / Air in the pneumatic circuit is missing	
Using the Recovery program, the vehicle has lifted mainly on the back axis	The air in the pneumatic circuit at the moment of activation of the program is insufficient to lift the vehicle completely.	
Using the Extra Low program the vehicle indicates “Extended mode”	Maybe the original calibration of the suspensions is not correct and, when the function is activated, one or more sensors surpass the limit normally allowed	The calibration of the suspensions is not mandatory since, even when this anomaly is showed, the system does not lift the vehicle. Once the Extra Low program is no more needed, reset Easy Lift in Neutral position and use the Land Rover suspensions command to leave the extended modality.