



RECALL ACTION

Recall Action Number:
BD148v3

Subject Reinforce ABS Modulator Pressure Reduction Valve Reaction Plates	Publication No.	BD148v3
	Model	Discovery Series II (LT) and Defender (LD) - Fitted with ABS
	Model Year	1999 to 2004
	VIN Range	<u>Discovery Series II</u> XA 900000 to XA 907213 VA 200000 to 4A 846247 XJ 920000 to 3J 920651 (CKD) <u>Defender</u> XA 159810 to YA 199999 YA 600000 to 4A 671407 2V 848879 to 2V 849999 (CKD) 2V 050000 to 3V 052562 (CKD)
	Date of Issue:	23/06/04

To:	All Land Rover NSCs/Importers
For the Attention of:	The Managing Director
Copies To:	The Service/Aftersales Director/Manager The Parts Director/Manager

RE: Reinforce ABS Modulator Pressure Reduction Valve Reaction Plates

Version 3 of this Recall Action has being issued to clarify the installation of the **ADDITIONAL** reaction plates, to check that the reaction plates have a recess in the center and to add DIDO to repair times for modulator replacement. Please destroy version 2 of this Recall Action and replace with this version 3.

Dear Colleagues

Reports have been received of brake operating difficulties where an increase in the brake pedal travel has been noted with a reduction in the level of vehicle deceleration. This behaviour is predominantly found in vehicles where off road use is a regular occurrence.

The concern, in the main, affects vehicles which are/have been used under arduous conditions like those found at Land Rover Experience Centres.

Land Rover has taken the decision to recall all sold Discovery and Defender vehicles in the above VIN range to install additional reaction plates to the ABS modulator.

Action to be Taken

For the UK market, Land Rover will, commencing 31st March 2004, contact those customers direct whose vehicles are affected by this Safety Recall. You are requested to make similar arrangements to contact the affected customers in your Market, following procedures that are appropriate to your particular Market and as required by local legislation. You are requested to base your letter to affected customers closely on the UK Customer Letter, but adapted to the requirements of your Market.

Discovery vehicles only - It is anticipated that this Safety Recall will be completed in conjunction with Safety Recalls BD149 and BD150 as the VIN ranges overlap. Customers requiring all three of these actions should only receive one letter, and will have all repairs completed at one visit.

Attached are the letters that will be used to mail UK customers. There are five letters required and these are summarised as follows:

Letter Number	Description & Recall Action Combination
1	Vehicles that require BD148, 149 & 150 - Discovery
2	Vehicles that require BD148 & 150 only - Discovery
3	Vehicles that require BD148 & 149 only - Discovery
4	Vehicles that require BD148 only - Discovery
5	Vehicles that require BD148 only - Defender

Parts Information

The relevant parts from Table 1 below should be ordered through Land Rover Parts following the normal procedure.

Table 1

Market	Part Number	Description	Quantity
All	SWO500010K	Modulator top plate kit	1
All	SRB101203	Valve assembly - modulator	1
All	SRB101552	Valve assembly - modulator	1

CAUTION: DO NOT INSTALL THE NEW REINFORCING COVERS FROM THE KIT IF THERE IS A HOLE RATHER THAN A RECESS IN THE CENTRE OF THE COVER.

Note: It is anticipated that less than 0.1% of vehicles will require a replacement modulator. As such, please do not order a modulator until you have determined that one is genuinely required.

Warranty information

Table 2

Europe / Rest Of the World

Complaint code D148

Description	SRO	Time	Parts	Qty
Inspect ABS modulator part number - no action required	70.65.89/39	0.1	N/A	N/A
Inspect ABS modulator part number - no action required	70.65.89/39	0.1	N/A	N/A
Drive In Drive Out	02.02.02	0.2		
Install additional ABS modulator reaction plates	70.65.89/38	0.3	SWO500010K	1
Install new ABS modulator - Discovery	70.65.49	1.4	SRB101203	1
Install new ABS modulator - Defender	70.65.49	0.9 (LHD) & 4.1 (RHD)	SRB101552	1
Install new ABS modulator - Discovery	70.65.49	1.4	SRB101203	1
Drive In Drive Out	02.02.02	0.2		
Install new ABS modulator - Defender	70.65.49	0.9 (LHD) & 4.1 (RHD)	SRB101552	1
Drive In Drive Out	02.02.02	0.2		



Drive in drive out may only be claimed when the vehicle is brought back into the workshop for this action alone to be undertaken. No drive in drive out allowance may be claimed when installing the additional ABS modulator reaction plates, as the time is inclusive of this allowance.

Some changes to the DDW claim submission system are to be introduced in the near future that will change the entry of some Service Action and Recall Action data. Upon introduction of the revised DDW claim submission system, the following warranty information will apply.

Warranty claims should be submitted quoting the program code applicable for your market together with the relevant option code from Table 3. This will result in payment of the stated time and, where applicable, parts/miscellaneous expense codes.

Direct Dealer Warranty (DDW)

Table 3

Program code	Market	Option	Description	SRO	Time	Parts	Qty
A148	Europe / ROW	A	Inspect ABS modulator part number - no action required	70.65.89/39	0.1	N/A	N/A
A148	Europe / ROW	K	Inspect ABS modulator part number - no action required	70.65.89/39	0.1	N/A	N/A
			Drive In Drive Out	02.02.02	0.2		
A148	Europe / ROW	B	Install additional ABS modulator reaction plates	70.65.89/38	0.3	SWO500010K	1
A148	Europe / ROW	C	Install new ABS modulator - Discovery	70.65.49	1.4	SRB101203	1
A148	Europe / ROW	D	Install new ABS modulator - Defender	70.65.49	0.9 (LHD) & 4.1 (RHD)	SRB101552	1
A148	Europe / ROW	E	Install new ABS modulator - Discovery	70.65.49	1.4	SRB101203	1
			Drive In Drive Out	02.02.02	0.2		
A148	Europe / ROW	F	Install new ABS modulator - Defender	70.65.49	0.9 (LHD) & 4.1 (RHD)	SRB101552	1
			Drive In Drive Out	02.02.02	0.2		
B148	USA / Canada	A	Inspect ABS modulator part number - no action required	70.65.89/39	0.1	N/A	N/A
B148	USA / Canada	K	Inspect ABS modulator part number - no action required	70.65.89/39	0.1	N/A	N/A
			Drive In Drive Out	02.02.02	0.2		

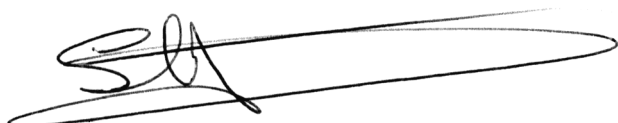
Program code	Market	Option	Description	SRO	Time	Parts	Qty
B148	USA / Canada	B	Install additional ABS modulator reaction plates	70.65.89/38	0.3	SWO500010K	1
B148	USA / Canada	C	Install new ABS modulator - Discovery	70.65.49	1.4	SRB101203	1
B148	USA / Canada	D	Install new ABS modulator - Defender	70.65.49	0.9 (LHD) & 4.1 (RHD)	SRB101552	1
B148	USA / Canada	E	Install new ABS modulator - Discovery	70.65.49	1.4	SRB101203	1
			Drive In Drive Out	02.02.02	0.2		
B148	USA / Canada	F	Install new ABS modulator - Defender	70.65.49	0.9 (LHD) & 4.1 (RHD)	SRB101552	1
			Drive In Drive Out	02.02.02	0.2		

The options codes that include drive in drive out, may only be claimed when the vehicle is brought back into the workshop for this action alone to be undertaken. No drive in drive out allowance may be claimed when installing the additional ABS modulator reaction plates, as the time is inclusive of this allowance.

Displaced parts should be returned to Land Rover following the normal warranty returns procedure.

Warranty claims should be submitted in accordance with the current Land Rover Warranty Policy and Procedures Manual and its amendments, unless stated otherwise in this Service Action.

Yours faithfully



S C Clift
Director - Service Operations

Attached: Appendix 1 - Workshop Procedure

Appendix 1 - Workshop Procedure

Follow the Workshop Procedure below to reinforce the ABS modulator pressure reduction valve reaction plates.

1. Turn off ignition, open bonnet and install wing protection covers.
2. Clean the area around the ABS modulator pressure reduction valve reaction plates.

Note: The following steps must NOT be carried out if a new specification modulator has been previously installed.

To identify a new specification modulator, note the service part number on top of the modulator (see Fig. 1 and 2). If the following service part numbers have been noted, no further action is required:

- SRB101203 - (Discovery Series II)
- SRB101552 - (Defender)

Also, if the following production part numbers are noted, no further action is required:

- SRB500051 - (Discovery Series II)
- SRB500041 - (Defender)

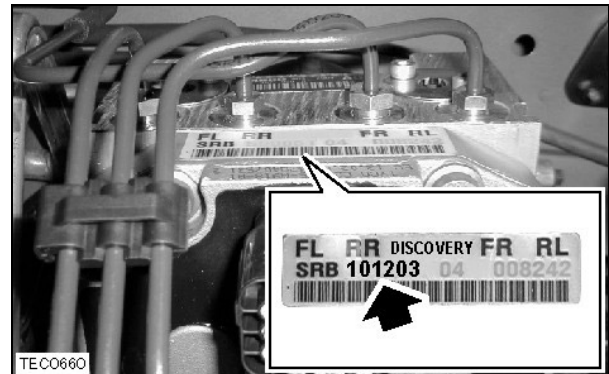


Fig. 1



Fig. 2

3. Remove and discard four Allen screws securing the pressure reduction valve reaction plates (arrowed in Fig. 3).
 - If an Allen screw cannot be removed then the ABS modulator must be replaced. Refer to the appropriate Workshop Manual, Brakes, Modulator Unit - ABS, repair number 70.65.49 and replace the ABS modulator.

CAUTION: DO NOT REMOVE THE EXISTING REDUCTION VALVE REACTION PLATES.



Fig. 3

4. Install the additional reinforcing covers on the top of the existing reduction valve reaction plates (recess facing downwards), making sure the recess in the cap clears the plastic clip (see Fig. 4).

CAUTION: DO NOT INSTALL THE NEW REINFORCING COVERS FROM THE KIT IF THERE IS A HOLE RATHER THAN A RECESS IN THE CENTRE OF THE COVER.

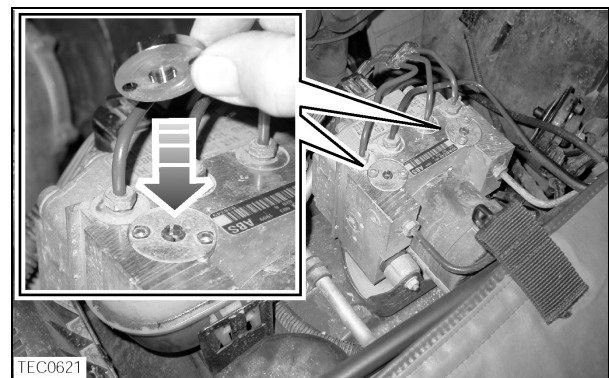


Fig. 4

5. Install new Allen screws (arrowed in Fig. 5) and tighten to 6 Nm (4 lb.ft).

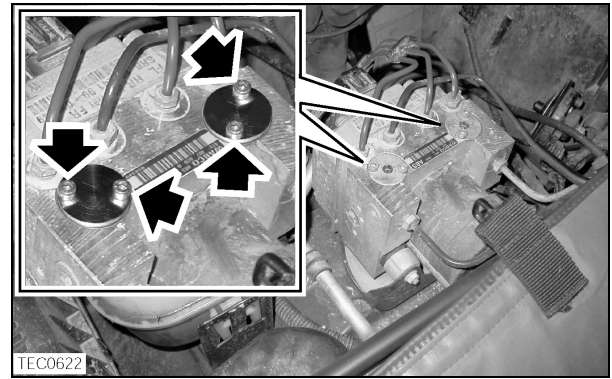


Fig. 5

Appendix 2 - Example Customer Letter 1

Date as postmark

Our ref Recall ABD148/ABD149/ABD150

IMPORTANT
DISCOVERY SERIES II SAFETY RECALL
Subject: Anti-lock Braking (ABS) - System Operation
Subject: Active Cornering Enhancement (ACE) - Torque Over Check
Subject: Throttle 'Butterfly' Sticking - V8 Petrol Models Only

Anti-lock Braking - System Operation

Land Rover have received a small number of reports of decreased braking efficiency during brake pedal application on Discovery models. Analysis of these reports has identified that a brake fluid leak may occur from the ABS modulator cover plates.

This condition in most cases is more prevalent on vehicles that are used in continuous arduous conditions. As a precaution Land Rover as part of their continuous improvement programme are undertaking a quality inspection on the modulators and will be modifying the cover plates to prevent this concern from arising.

Active Cornering Enhancement (ACE) - Torque Over Check

Land Rover have identified a concern associated with ACE system high pressure pipe connection to the system pump. The fixing which secures the high pressure pipe to the pump may loosen and under certain conditions may allow a fluid leak, which would revert the vehicle handling back to non-ACE operation.

The loss of fluid would be progressively accompanied by amber and red warning lights on the instrument console. In extreme circumstances, should the vehicle continue to be driven and sufficient fluid be expelled into the engine bay and an ignition source is present, the fluid could ignite.

Throttle 'Butterfly' Sticking - V8 Petrol Models Only

Investigations at Land Rover have revealed that there is a remote possibility that V8 petrol engined Discovery models could have been fitted with a throttle body that may in certain circumstances cause the throttle spindle within the assembly to stick when the throttle pedal is released. Should this occur, the throttle may stick in an open position.

In most cases all that will be required is a visual inspection to determine the manufacturing date of the throttle body housing. Should the date code be within the affected range, the throttle body will be replaced with a quality-assured part.

Land Rover are therefore implementing a recall action on all Discovery models that are likely to exhibit these concerns. The action that we are taking on your vehicle is shown below:

- Fit new cover plates to the ABS modulator.
- Inspect the high pressure pump fixing for evidence of fluid leaks and where necessary a new fixing and sealing washers will be fitted.
- Inspect the manufacturing date code of the throttle body and where necessary replace the component for a quality assured part.

What should you do?

Please contact your Land Rover dealer to arrange an appointment to have this work completed on your vehicle. This work will be carried out free-of-charge.

If you no longer own the vehicle we would be grateful if you will complete the 'Change of Ownership' slip attached to this letter, returning the slip to Land Rover immediately in the enclosed 'Freepost' envelope. This will enable us to make contact with the new owner.

Should you have any queries or concerns that your local dealer cannot address, please contact Land Rover Customer Care on 08705 000500, and they will be pleased to help.

This recall action is being taken in accordance with the 'Code of Practice' concerning vehicle defects which has been drawn up by the Vehicle Operator and Services Agency and the Society of Motor Manufacturers and Traders. The response rate to this recall will be closely monitored by the Vehicle Operator and Services Agency.

We ask that you please treat this matter with the urgency it requires. Land Rover regrets any inconvenience this recall may cause and thank you for your co-operation.

Yours sincerely



M Mulholland
Customer Care Manager
Land Rover UK



DISCOVERY SERIES II SAFETY RECALL

Subject: Anti-lock Braking (ABS) - System Operation – ABD148

Subject: Active Cornering Enhancement (ACE) – Torque Over Check – ABD149

Subject: Throttle 'Butterfly' Sticking - V8 Petrol Models Only – ABD150

VEHICLE IDENTIFICATION NUMBER

REGISTRATION NUMBER

1. Vehicle sold - new owner details below
2. Vehicle stolen and not recovered
3. Vehicle scrapped

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Please tick appropriate box

NEW OWNER DETAILS

Please print clearly using capital letters only

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Appendix 3 - Example Customer Letter 2

Date as postmark

Our ref Recall ABD148/ABD150

IMPORTANT
DISCOVERY SERIES II SAFETY RECALL
Subject: Anti-lock Braking (ABS) - System Operation
Subject: Throttle 'Butterfly' Sticking - V8 Petrol Models Only

Anti-lock Braking - System Operation

Land Rover have received a small number of reports of decreased braking efficiency during brake pedal application on Discovery models. Analysis of these reports has identified that a brake fluid leak may occur from the ABS modulator cover plates.

This condition in most cases is more prevalent on vehicles that are used in continuous arduous conditions. As a precaution Land Rover as part of their continuous improvement programme are undertaking a quality inspection on the modulators and will be modifying the cover plates to prevent this concern from arising.

Throttle 'Butterfly' Sticking - V8 Petrol Models Only

Investigations at land rover have revealed that there is a remote possibility that v8 petrol engined discovery models could have been fitted with a throttle body that may in certain circumstances cause the throttle spindle within the assembly to stick when the throttle pedal is released. Should this occur, the throttle may stick in an open position.

In most cases all that will be required is a visual inspection to determine the manufacturing date of the throttle body housing. Should the date code be within the affected range the throttle body will be replaced with a quality-assured part.

Land Rover are therefore implementing a recall action on all Discovery models that are likely to exhibit these concerns. The action that we are taking on your vehicle is shown below:

- Fit new cover plates to the ABS modulator.
- Inspect the manufacturing date code of the throttle body and where necessary replace the component for a quality assured part.

What should you do?

Please contact your Land Rover dealer to arrange an appointment to have this work completed on your vehicle. This work will be carried out free-of-charge.

If you no longer own the vehicle we would be grateful if you will complete the 'Change of Ownership' slip attached to this letter, returning the slip to Land Rover immediately in the enclosed 'Freepost' envelope. This will enable us to make contact with the new owner.



Should you have any queries or concerns that your local dealer cannot address, please contact Land Rover Customer Care on 08705 000500, and they will be pleased to help.

This recall action is being taken in accordance with the 'Code of Practice' concerning vehicle defects which has been drawn up by the Vehicle Operator and Services Agency and the Society of Motor Manufacturers and Traders. The response rate to this recall will be closely monitored by the Vehicle Operator and Services Agency.

We ask that you please treat this matter with the urgency it requires. Land Rover regrets any inconvenience this recall may cause and thank you for your co-operation.

Yours sincerely

A handwritten signature in black ink, appearing to read "M Mulholland", followed by a period.

M Mulholland
Customer Care Manager
Land Rover UK



DISCOVERY SERIES II SAFETY RECALL

Subject: Anti-lock Braking (ABS) - System Operation – ABD148

Subject: Throttle 'Butterfly' Sticking - V8 Petrol Models Only – ABD150

VEHICLE IDENTIFICATION NUMBER

REGISTRATION NUMBER

1. Vehicle sold - new owner details below
2. Vehicle stolen and not recovered
3. Vehicle scrapped

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Please tick appropriate box

NEW OWNER DETAILS

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Appendix 4 - Example Customer Letter 3

Date as postmark

Our ref Recall ABD148/ABD149

IMPORTANT
DISCOVERY SERIES II SAFETY RECALL
Subject:- Anti-lock Braking (ABS) - System Operation
Subject:- Active Cornering Enhancement (ACE) – Torque Over Check

Anti-lock Braking - System Operation

Land Rover have received a small number of reports of decreased braking efficiency during brake pedal application on Discovery models. Analysis of these reports has identified that a brake fluid leak may occur from the ABS modulator cover plates.

This condition in most cases is more prevalent on vehicles that are used in continuous arduous conditions. As a precaution Land Rover as part of their continuous improvement programme are undertaking a quality inspection on the modulators and will be modifying the cover plates to prevent this concern from arising.

Active Cornering Enhancement (ACE) - Torque Over Check

Land Rover have identified a concern associated with ACE system high pressure pipe connection to the system pump. The fixing which secures the high pressure pipe to the pump may loosen and under certain conditions may allow a fluid leak, which would revert the vehicle handling back to non-ACE operation.

The loss of fluid would be progressively accompanied by amber and red warning lights on the instrument console. In extreme circumstances, should the vehicle continue to be driven and sufficient fluid be expelled into the engine bay and an ignition source is present, the fluid could ignite.

Land Rover are therefore implementing a recall action on all Discovery models that are likely to exhibit these concerns. The action that we are taking on your vehicle is shown below:

- Fit new cover plates to the ABS modulator.
- Inspect the high pressure pump fixing for evidence of fluid leaks and where necessary a new fixing and sealing washers will be fitted.

What should you do?

Please contact your Land Rover dealer to arrange an appointment to have this work completed on your vehicle. This work will be carried out free-of-charge.

If you no longer own the vehicle we would be grateful if you will complete the 'Change of Ownership' slip attached to this letter, returning the slip to Land Rover immediately in the enclosed 'Freepost' envelope. This will enable us to make contact with the new owner.

Should you have any queries or concerns that your local dealer cannot address, please contact Land Rover Customer Care on 08705 000500, and they will be pleased to help.

This recall action is being taken in accordance with the 'Code of Practice' concerning vehicle defects which has been drawn up by the Vehicle Operator and Services Agency and the Society of Motor Manufacturers and



Traders. The response rate to this recall will be closely monitored by the Vehicle Operator and Services Agency.

We ask that you please treat this matter with the urgency it requires. Land Rover regrets any inconvenience this recall may cause and thank you for your co-operation.

Yours sincerely

A handwritten signature in black ink, appearing to read "M Mulholland".

M Mulholland
Customer Care Manager
Land Rover UK

**DISCOVERY SERIES II SAFETY RECALL****Subject: Anti-lock Braking (ABS) - System Operation – ABD148****Subject: Active Cornering Enhancement (ACE) – Torque Over Check – ABD149**

VEHICLE IDENTIFICATION NUMBER

REGISTRATION NUMBER

1. Vehicle sold - new owner details below
2. Vehicle stolen and not recovered
3. Vehicle scrapped

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Please tick appropriate box

NEW OWNER DETAILS*Please print clearly using capital letters only*

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Appendix 5 - Example Customer Letter 4

Date as postmark

Our ref Recall ABD148

IMPORTANT
DISCOVERY SERIES II SAFETY RECALL
Subject: Anti-lock Braking (ABS) - System Operation

Anti-lock Braking - System Operation

Land Rover have received a small number of reports of decreased braking efficiency during brake pedal application on Discovery models. Analysis of these reports has identified that a brake fluid leak may occur from the ABS modulator cover plates.

This condition in most cases is more prevalent on vehicles that are used in continuous arduous conditions. As a precaution Land Rover as part of their continuous improvement programme are undertaking a quality inspection on the modulators and will be modifying the cover plates to prevent this concern from arising.

Land Rover are therefore implementing a recall action on all Discovery models that are likely to exhibit this concern.

What should you do?

Please contact your Land Rover dealer to arrange an appointment to have this work completed on your vehicle. This work will be carried out free-of-charge.

If you no longer own the vehicle we would be grateful if you will complete the 'Change of Ownership' slip attached to this letter, returning the slip to Land Rover immediately in the enclosed 'Freepost' envelope. This will enable us to make contact with the new owner.

Should you have any queries or concerns that your local dealer cannot address, please contact Land Rover Customer Care on 08705 000500, and they will be pleased to help.

This recall action is being taken in accordance with the 'Code of Practice' concerning vehicle defects which has been drawn up by the Vehicle Operator and Services Agency and the Society of Motor Manufacturers and Traders. The response rate to this recall will be closely monitored by the Vehicle Operator and Services Agency.

We ask that you please treat this matter with the urgency it requires. Land Rover regrets any inconvenience this recall may cause and thank you for your co-operation.

Yours sincerely



M Mulholland
Customer Care Manager
Land Rover UK



DISCOVERY SERIES II SAFETY RECALL

Subject: Anti-lock Braking (ABS) - System Operation – ABD148

VEHICLE IDENTIFICATION NUMBER

REGISTRATION NUMBER

1. Vehicle sold - new owner details below
2. Vehicle stolen and not recovered
3. Vehicle scrapped

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Please tick appropriate box

NEW OWNER DETAILS

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Appendix 6 - Example Customer Letter 5

Date as postmark

Our ref Recall ABD148

IMPORTANT
DEFENDER 90/110 SAFETY RECALL
Subject:- Anti-lock Braking (ABS) - System Operation

Anti-lock Braking - System Operation

Land Rover have received a small number of reports of decreased braking efficiency during brake pedal application on Defender models. Analysis of these reports has identified that a brake fluid leak may occur from the ABS modulator cover plates.

This condition in most cases is more prevalent on vehicles that are used in continuous arduous conditions, As a precaution Land Rover as part of their continuous improvement programme are undertaking a quality inspection on the modulators and will be modifying the cover plates to prevent this concern from arising.

Land Rover are therefore implementing a recall action on all Discovery models that are likely to exhibit this concern.

What should you do?

Please contact your Land Rover dealer to arrange an appointment to have this work completed on your vehicle. This work will be carried out free of charge.

If you no longer own the vehicle we would be grateful if you will complete the 'Change of Ownership' slip attached to this letter, returning the slip to Land Rover immediately in the enclosed 'Freepost' envelope. This will enable us to make contact with the new owner.

Should you have any queries or concerns that your local dealer cannot address, please contact Land Rover Customer Care on 08705 000500, and they will be pleased to help.

This recall action is being taken in accordance with the 'Code of Practice' concerning vehicle defects which has been drawn up by the Vehicle Operator and Services Agency and the Society of Motor Manufacturers and Traders. The response rate to this recall will be closely monitored by the Vehicle Operator and Services Agency.

We ask that you please treat this matter with the urgency it requires. Land Rover regrets any inconvenience this recall may cause and thank you for your co-operation.

Yours sincerely



M Mulholland
Customer Care Manager
Land Rover UK

**DEFENDER 90/110 SAFETY RECALL****Subject: Anti-lock Braking (ABS) - System Operation – ABD148**

VEHICLE IDENTIFICATION NUMBER

REGISTRATION NUMBER

1. Vehicle sold - new owner details below
2. Vehicle stolen and not recovered
3. Vehicle scrapped

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Please tick appropriate box

NEW OWNER DETAILS*Please print clearly using capital letters only*

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