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|--------------------|----------------|--------------|---|
| Description | Air compressor | Model | Discovery 3 / Discovery 4 / Range Rover Sport |
| Make | Land Rover | | |

General information

The Removal and installation of air suspension components may require specialist tooling and knowledge. To do so independent of this advice is at your own risk. Removal and installation only to be performed by fully qualified professionals. Failure to rectify any leaks will seriously reduce the lifespan of the product and may cause the warranty to be void.



During the fitting of new suspension components safety is paramount. When working on a vehicle of any type, all precautions must be taken to ensure the vehicle is correctly immobilized and properly lifted and supported during any work.

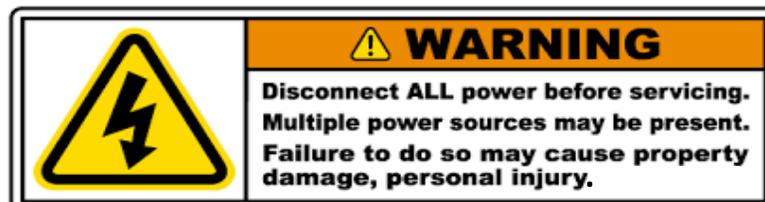


The air suspension system on your vehicle is pressurized. Air suspension components may retain some residual air pressure. To relieve pressure slowly remove the air valve/fittings, only fully remove fitting once pressure is released.

AT ALL TIMES HAND, EAR AND EYE PROTECTION MUST BE WORN



WARNING: DO NOT REMOVE ANY FITTINGS WHILST AIR SUSPENSION SYSTEM IS ACTIVE OR IGNITION IS SWITCHED ON. Whilst working on any vehicle electrical system, precautions need to be taken to isolate batteries and any component capable of generating or discharging an electrical charge as to prevent personal injury or damage to property.



Product information

This conversion kit is designed as an upgrade to the original Hitachi type compressor and also as a direct replacement for the AMK compressor. This kit is a full 'plug and play' conversion with **no requirement to upgrade the software**. This compressor kit will operate with any previously fitted compressor. It also includes pipe repair kits for both the feed and exhaust pipes this means you can simply cut the existing pipes at the required length and join the new hoses on, saving valuable time.

Parts list

- Upper and lower compressor cover
- Compressor with mounting bracket
- X 3 airline pipes
- X 2 push fit airline connectors
- X 3 body mounting hardware
- X 3 cover mounting hardware
- X 2 airline inserts
- Air fitting
- Electrical relay



Removal process

1. Set the vehicle steering to straight ahead.
2. Raise the vehicle, making sure the correct lifting points are used.
3. Remove the compressor relay (fig.1). Dispose of the old relay. **Do not fit new relay** until compressor has been changed.



fig.1

4. Remove the fixing screws holding the lower acoustic box cover to the body (fig.2). Once these are removed, release the five tabs that hold the lower section to the top section of the acoustic box. Discard old acoustic box.



fig.2

5. Disconnect the main power and sensor connectors (fig.3). Be mindful not to pull on the wires as this can cause damage and compressor malfunction.

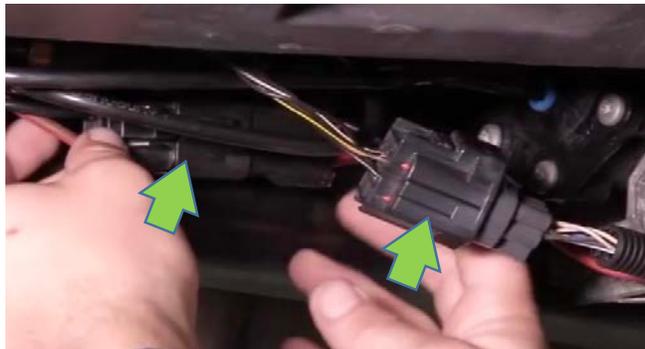


fig.3

Due to variations on the air suspension system fitted to the Discovery 3, Discovery 4 and the Range Rover Sport models there may be a choice of three variants of compressor. The removal instructions differ on each of the 3 compressors. Please identify the appropriate compressor fitted to your vehicle and follow the removal instructions accordingly.

If Hitachi type compressor is fitted

1. To release, depress the blue collar and pull the airline out (fig.4)



fig.4

2. Remove the airline at the valve block (fig.5) discard the old pipe work and replace using the air fitting and 'J' shaped pipe supplied in the kit.



fig.5

3. Remove the inlet and exhaust pipes by depressing the metal collars and pulling the pipes out (fig.6).

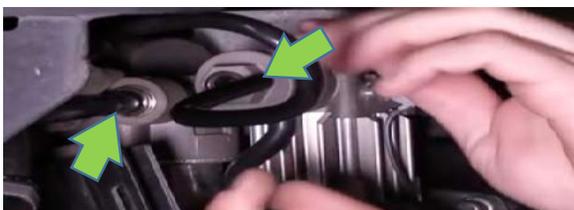


fig.6

4. Remove the compressor and mounting bracket by undoing the 3 mounting bolts (fig.7). Discard complete unit including bracket and mounting hardware.



fig.7

HITACHI REMOVAL PROCESS COMPLETE

If AMK Gen 1 type compressor is fitted

1. Disconnect and remove the airline from both the compressor and the valve block (fig.8). The old airline can then be discarded.



fig.8

2. Remove the inlet pipe (green arrow) by depressing the white tabs on the side of the pipe and pulling up. To remove the exhaust pipe (red arrow) depress the collar ring down and pull the pipe from the housing (fig.9)

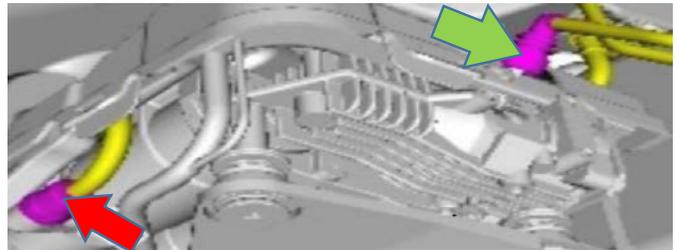


fig.9

3. Remove the compressor and mounting bracket by undoing the 3 mounting bolts (fig.10). Discard complete unit including bracket and mounting hardware.

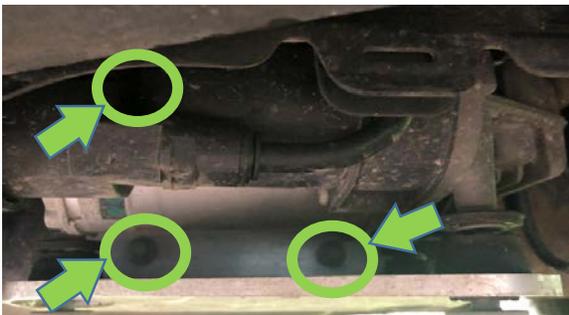


fig.10

4. Remove the old collet and air fitting from the end of the air line, discard both the collet and air fitting. (fig.11)

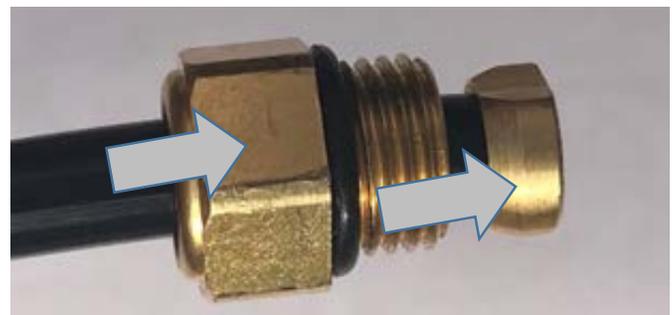


fig.11

AMK GEN 1 REMOVAL PROCESS COMPLETE

If AMK Gen 2 type compressor is fitted

1. Disconnect and remove the airline from both the compressor and the valve block (fig.12). The old airline can then be discarded.



fig.12

2. Remove the inlet pipe (green arrow) by undoing the air fitting. To remove the exhaust pipe (red arrow) depress the collar ring down and pull the pipe from the housing (fig.13)



fig.13

3. Remove the compressor and mounting bracket by undoing the 3 mounting bolts (fig.14). Discard complete unit including bracket and mounting hardware.

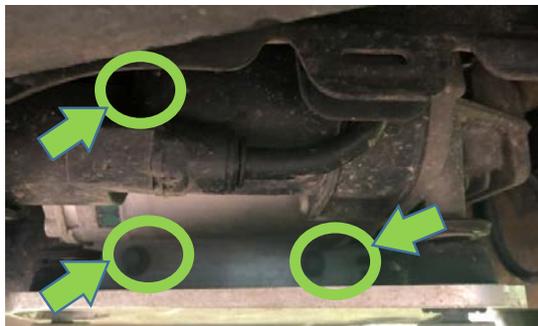


fig.14

4. Remove the old collet and air fitting from the end of the air line, discard both the collet and air fitting. (fig.15)

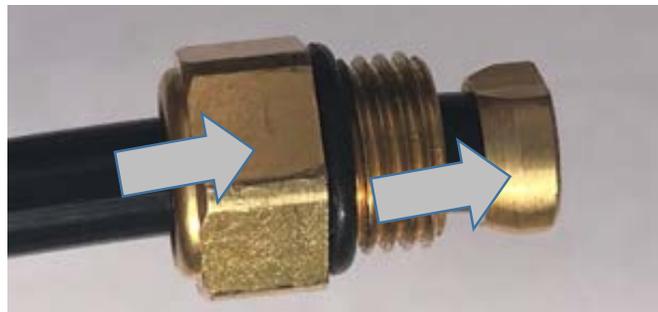


fig.15

AMK GEN 2 REMOVAL PROCESS COMPLETE

Pre-installation process

Before the compressor is re-fitted to the vehicle the original inlet and exhaust pipes require preparation. This is the same for all 3 variants. As this kit covers three different variants of the compressor the pipes need to be trimmed to a universal length. Fig.16 shows the pipes trimmed to the required length. You must ensure there is minimum 50mm of clean, undamaged straight pipe work. This is to ensure the push fit connectors are able to grip and hold on to the pipe work.



fig.16

Installation process

1. The installation process is to be performed in the reverse order to the removal process for the AMK gen 2 compressor, using fig.14, 13 and 12 as a guide. Finish the installation by using the initial steps 5 through to 1.
2. The new air fitting is premounted on the new compressor, unscrew it and fit it to the air line. When refitting the air fitting, ensure that there is 2-3mm of air line coming out from the bottom of the collet. This ensures the collet bites into the air line and reduces the risk of the air line being blown out from the compressor when under pressure/operation. (fig.17)



This fitting method could cause the air line to dislodge from the collet causing an air leak or detachment from the air spring.



This fitting method ensures a strong connection and prevents the air line from coming loose and causing an air leak.

fig.17

3. Once the compressor is completely refitted lower the vehicle to the normal ride height. KEEP THE VEHICLE SUPPORTED, DO NOT FULLY LOWER THE VEHICLE LIFT.
4. Start the engine and allow to idle for 2 minutes and allow the air pressure to build up.
5. Then select the raising function of the vehicles air suspension. Only fully lower the vehicle to the ground when it raises under its own power. Tighten all nuts and bolts to the manufacturers specifications and check all air lines and components for leaks and adjust if necessary.
6. Clear all previous diagnostic trouble codes using approved vehicle manufacturer diagnostic software.
7. Road test the vehicle and recheck for air leaks and trouble codes after. Air suspension may require recalibration and/or ride height adjustment. It is advised that a wheel alignment is carried out.

INSTALLATION PROCESS COMPLETE