

Jacking and Lifting - Jacking

Description and Operation

General



WARNING: The following instructions must be adhered to before raising the vehicle off the ground:

- Position vehicle on a solid, level surface.
- Apply the parking brake.
- Select 'P' - PARK on automatic transmission selector.
- Select 'N' - Neutral on manual transmission.



WARNING: If the drive shaft(s) are to be disconnected, it will be necessary to raise all four wheels off the ground in order that the shaft(s) can be rotated. DO NOT use the customer jack and ensure that the vehicle is adequately supported on axle stands. With the vehicle raised, it will be necessary to release the park brake and select Neutral - 'N' in the main transmission to enable the drive shaft(s) to be rotated.

• CAUTIONS:



To avoid damage to the underbody components of the vehicle, the following instructions must be adhered to:



Do not position jacks or axle stands under the following components:

- Body structure other than any approved jacking or lifting points
- Rear subframe
- Bumpers
- Fuel lines
- Fuel tank
- Brake lines
- Front or rear suspension arms
- Steering linkage
- Rear differential unit
- Transmission
- Engine oil pan - See note below

• **NOTE:** For certain repair operations, it may be necessary to support the engine under the oil pan. In this case, a block of hardwood or a rubber pad must be positioned on the jack lifting pad to protect the oil pan.

Hydraulic jack

• WARNINGS:



Before commencing work on underside of vehicle, ensure that axle stands are correctly positioned and vehicle is securely supported.



Always chock the rear wheels when jacking the front of the vehicle.

A hydraulic jack with a minimum lifting capacity of 1500 kg, (3,300 lbs) must be used.

Raising and Supporting the Vehicle

To assist in raising the vehicle, use the customer jacking points on the sill or on the trolley jack position at the rear of the front subframe as indicated in the following illustrations.

Raising the front of the vehicle

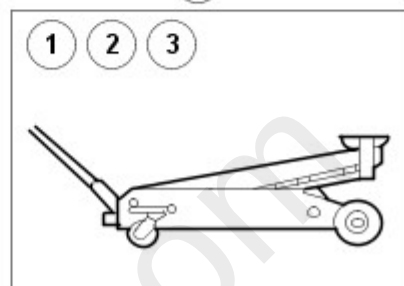
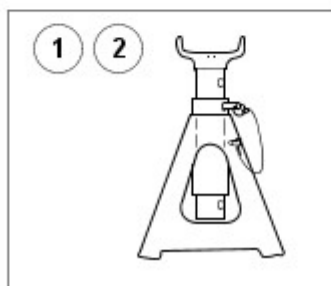
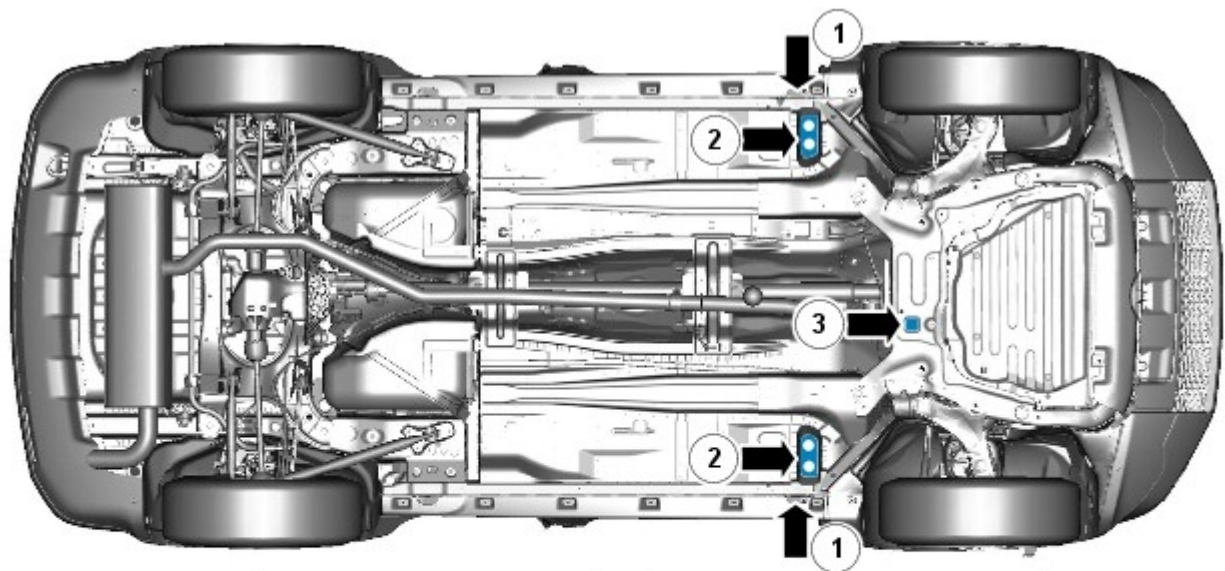


WARNING: Always chock the rear wheels when jacking the front of the vehicle.

Apply the parking brake.

Select 'P' - Park on automatic transmission selector.

Select 'N' - Neutral on manual transmission.



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Position lifting pad of jack beneath the jacking point located on the rear of the front subframe, position 3.

With vehicle at desired height, carefully lower jack until vehicle rests on axle stand(s), position 1 or 2.



WARNING: Before commencing work on underside of vehicle, ensure that axle stands are correctly positioned and vehicle is securely supported.



CAUTION: Position suitable material between axle stands and the sill to prevent damage.

Reverse procedure when removing vehicle from stands.

Raising the rear of the vehicle

All vehicles

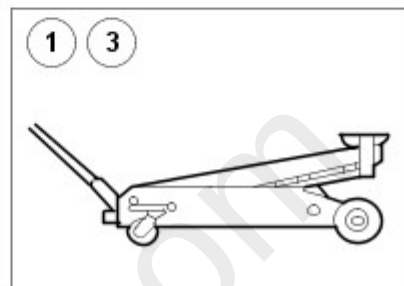
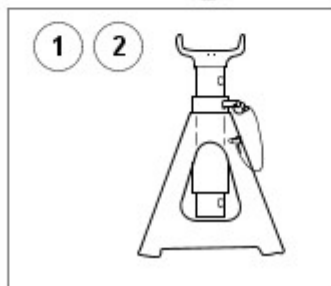
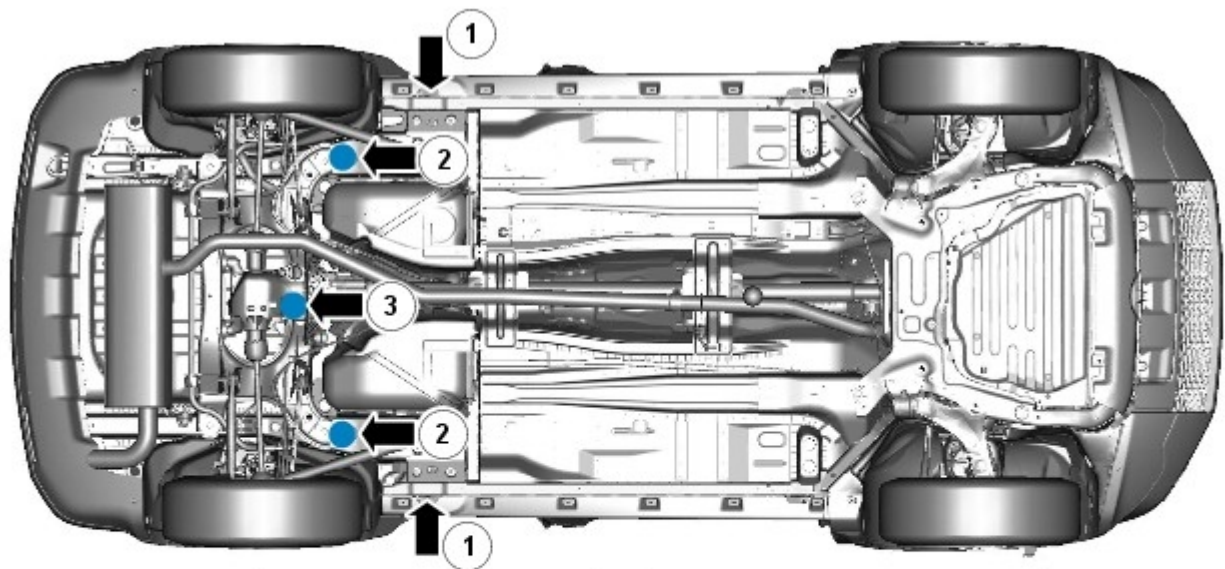


WARNING: Always chock the front wheels when jacking the rear of the vehicle.

Apply the parking brake.

Select 'P' - Park on automatic transmission selector.

Select 'N' - Neutral on manual transmission.



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Vehicles with four-wheel drive

On vehicles with four-wheel drive, position lifting pad of jack beneath the rear jacking point located on the rear differential support bracket, position 3.

With vehicle at desired height, position axle stand(s) as illustration and carefully lower jack until vehicle rests on axle stand(s), position 1 or 2.

Vehicles with two-wheel drive



CAUTION: With no central jacking point at the rear it is not possible to raise both sides of the vehicle at once.

On vehicles with two-wheel drive, position lifting pad of jack beneath the rear jacking point located on the body, position 1.

With vehicle at desired height, position axle stand(s) as illustration and carefully lower jack until vehicle rests on axle stand(s), position 2.

All vehicles



WARNING: Before commencing work on underside of vehicle, ensure that axle stands are correctly positioned and vehicle is securely supported.



CAUTION: Position suitable material between axle stands and body to prevent damage.

Reverse procedure when removing vehicle from stands.

Jacking and Lifting - Lifting

Description and Operation

Two-Post Lift

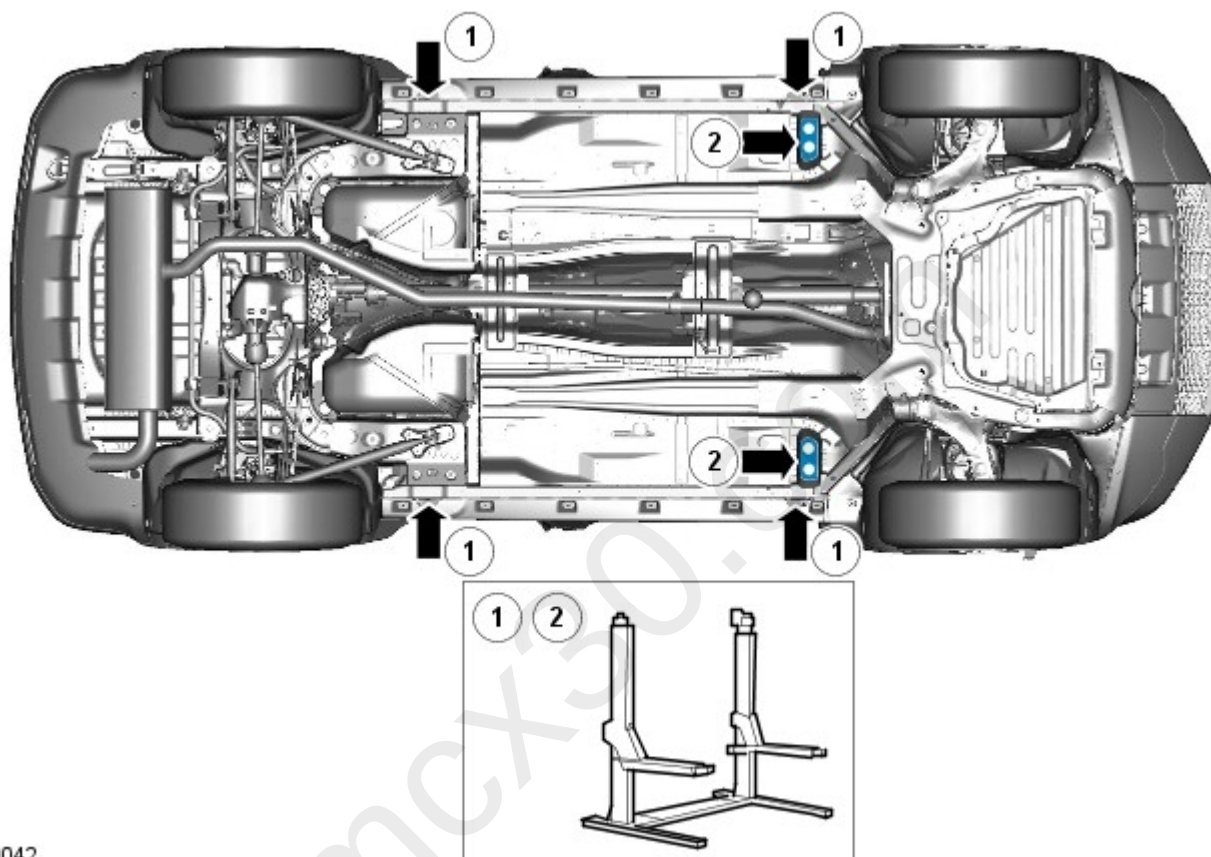


WARNING: Make sure that the vehicle is stable before commencing work.



CAUTION: If the drive shaft(s) are to be removed, release the parking brake and select NEUTRAL 'N' in the transmission in order that the shaft(s) can be rotated when the vehicle is raised to the desired height.

1. Position the vehicle with the centre of the lift pillars aligned approximately with the front of the driver/passenger seat cushions.



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Item	Part Number	Description
1	-	Two post lift locations - Customer jacking points
2	-	Optional, Two-post front lift locations - Body mounting used in vehicle production

2. Extend the lifting arms and position the pad of each lifting arm beneath the approved points.

3. Raise the vehicle until the wheels are just clear of the ground and check that the pads of each lifting arm are still correctly positioned.

4. Raise the vehicle to the desired height.

5. Ensure the vehicle is correctly supported with the lifting pads in full contact with the approved points.

Vehicle on wheels - Four-Post Ramp

• WARNINGS:



If the drive shaft(s) are to be disconnected, it will be necessary to raise all four wheels off the ramp in order that the shaft(s) can be rotated. Refer to the 'Wheel Free Lift - Four-Post Ramp' section below for lifting instructions then release the parking brake and select NEUTRAL in the transmission.



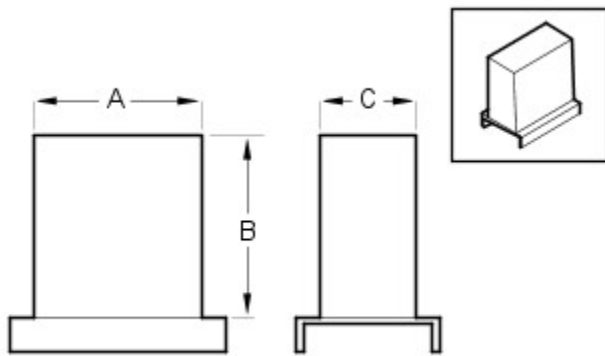
Do not push the vehicle backwards and forwards along the ramp in order to gain access to the drive shaft fixings.

Position the vehicle on the ramp with the front and rear wheels equidistant from the ends of the ramp. Chock the wheels, select NEUTRAL in the transmission and where practical, apply the parking brake.

Wheel-Free Lift - Four-Post Ramp

• NOTE: To enable the vehicle to be supported correctly on the wheel-free longitudinals, it will be necessary to produce 2 off each of the support blocks to the dimensions given in the accompanying illustrations. The supporting part of each block must be manufactured from suitable hardwood or metal and the 'U' shaped base of each block must be manufactured from metal. Note that it is essential to ensure that the 'U' shaped base of each block is wide enough to fit over the wheel free longitudinals.

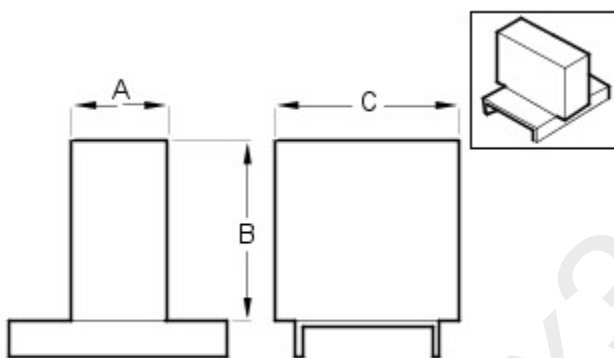
Front support block dimensions



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Item	Part Number	Description
A	-	130 mm (5.118 in)
B	-	160 mm (6.299 in)
C	-	90 mm (3.543 in)

Rear support block dimensions

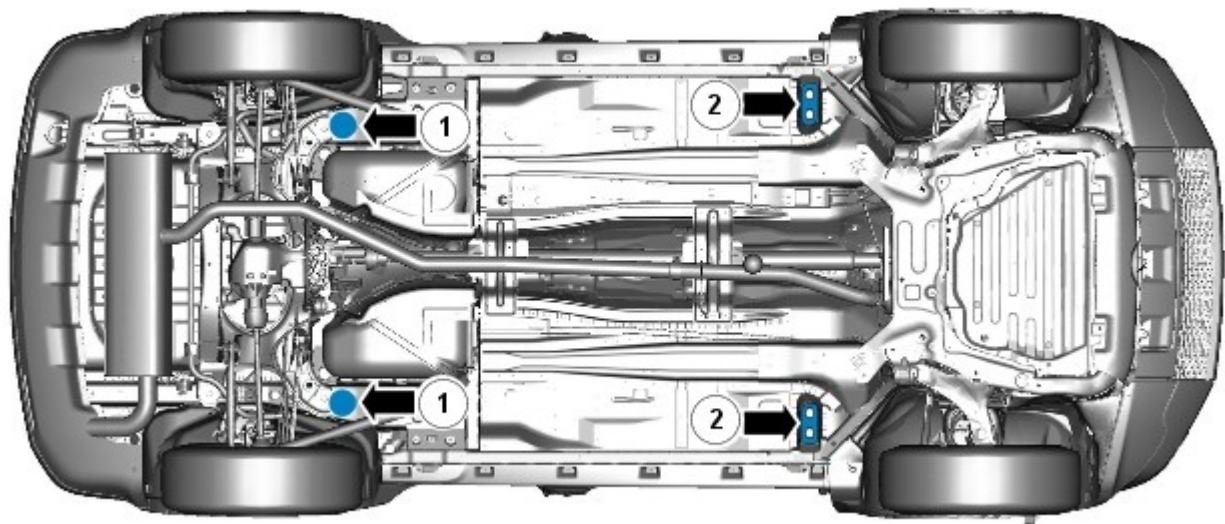


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Item	Part Number	Description
A	-	50 mm (1.1968 in)
B	-	190 (7.480 in)
C	-	110 (4.330 in)

Raising and Supporting the Vehicle

1. Position vehicle on ramp.
2. Apply parking brake.
3. Raise ramp to required height
4. Align the wheel-free longitudinals and position the support blocks beneath the positions shown



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Engage wheel-free and lower ramp until weight of vehicle rests on support blocks and road wheels are just clear of ramp.

Ensure that vehicle is correctly supported on all four support blocks, that blocks are still correctly positioned and are in full contact with the body mounting points.



WARNING: Make sure that the vehicle is stable before commencing work

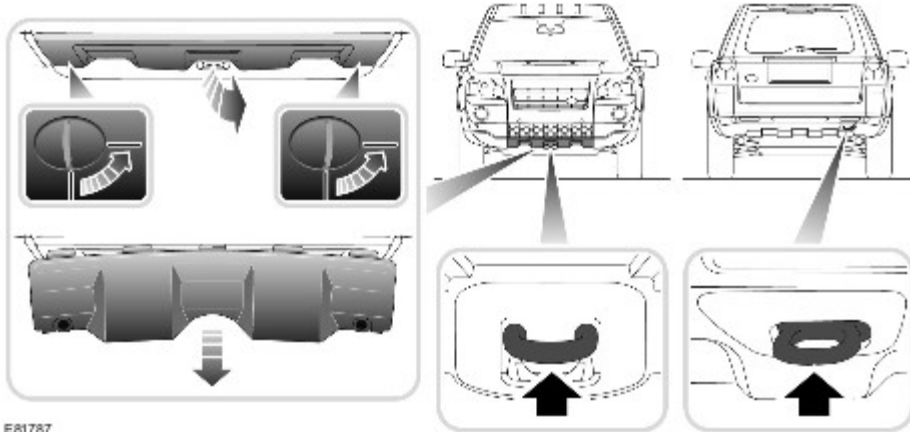
Jacking and Lifting - Vehicle Recovery

Description and Operation

Towing Points



CAUTION: The single towing points at the front and rear of the vehicle are designed for vehicle recovery purposes only and must NOT be used to tow a trailer or caravan.



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The front towing eye is accessible after releasing the 2 toggle fasteners securing the towing eye access panel and removing the panel.



CAUTION: Ensure that during towing, the towing attachment does not contact the bumper.

The rear towing eye is accessible after releasing the 2 toggle fasteners securing the towing eye access panel and removing the panel.



CAUTION: This towing eye should only be used for towing another vehicle or for recovery purposes.

Towing the vehicle on four wheels

• WARNINGS:



Ensure that the remote control remains docked whilst the vehicle is being towed. Removing the remote control will engage the steering lock, which will prevent the vehicle from steering correctly.



If the engine cannot be run whilst the vehicle is being towed, there will be no power assistance for the steering or brakes. This will result in greater effort being required to steer or slow the vehicle, and greatly increased stopping distances.

• CAUTIONS:



The vehicle should only be towed with four wheels on the ground. Towing with two wheels on the ground will result in serious damage to the transmission.



The vehicle should only be towed for a maximum of 80 km (50 miles), at a maximum speed of 80 km/h (50 mph). Towing for a greater distance, or at a higher speed may result in serious damage to the transmission.

• **NOTE:** The recommended recovery method is to raise all four wheels.

Towing procedure

1. The vehicle should be parked on firm level ground, with the park brake on, and the gear selector in P if an automatic gearbox is fitted.

2. Secure the towing attachment from the recovery vehicle to the front towing eye.



CAUTION: Leaving the ignition switched on for extended periods will cause the battery to drain.

3. Dock the remote control, and switch on the ignition.

4. Apply the foot brake, and select neutral.

5. With the footbrake still applied, release the park brake.

6. The vehicle can now be towed a maximum of 80 km (50 miles) at a maximum speed of 80 km/h (50 mph).
7. Upon arrival at the destination, ensure wherever possible that the vehicle is parked on firm level ground.
8. Apply the park brake, and place the selector lever into the P position.
9. Switch off the ignition, and remove the remote control.



WARNING: Use extreme caution when detaching towing equipment. Vehicle movement is possible which can result in serious injuries.

10. Remove the towing attachment from the towing eye.

Lashing Points

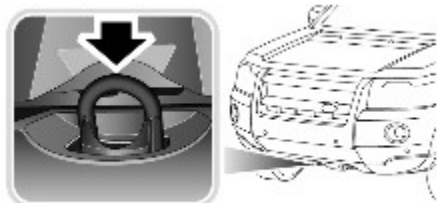
- **WARNINGS:**



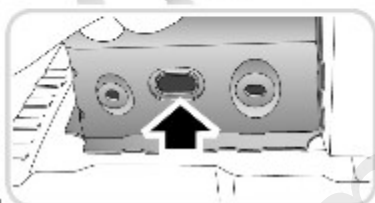
Use the lashing points at the front and rear of the vehicle, DO NOT secure lashing hooks or restraints to any other part of the vehicle.



The front and rear lashing points must only be used for securing the vehicle during transportation.



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The graphics show the front and rear lashing points.

Transporting by trailer



CAUTION: Use the lashing points at the front and rear of the vehicle, DO NOT secure lashing hooks or restraints to any other part of the vehicle.

Position the vehicle, apply the parking brake and select 'N' - Neutral. The recommended method for recovery/transportation of the vehicle, is on a transporter or trailer designed for that purpose.