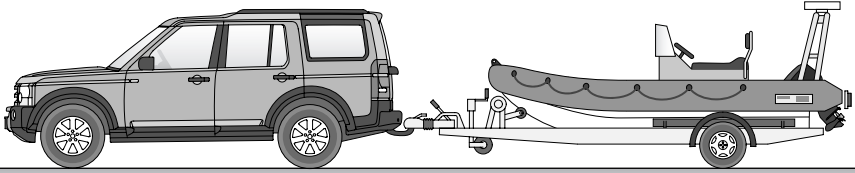







# Towing

## TOWING A TRAILER






E80894

### WARNINGS

-  Never exceed the maximum weights for either the vehicle or trailer. Doing so can cause accelerated wear and damage to the vehicle. It can also adversely affect vehicle stability and braking, which in turn can lead to loss of control and increased braking distance resulting in a rollover or crash.
-  To preserve handling and stability, only fit Land Rover approved towing accessories.
-  Never use towing eyes or lashing points to tow a trailer. They have not been designed for this purpose and doing so may cause them to fail resulting in injury or death.
-  When towing, do not exceed 100 km/h (60 mph), or 80 km/h (50 mph) if the temporary spare wheel is in use.
-  The nose weight, plus the combined weight of the vehicle's load carrying area and rear seat passengers, must never exceed the specified maximum rear axle load. Exceeding allowable vehicle and axle loads will increase the risk of tyre and suspension failure, increase vehicle brake stopping distance and adversely affect vehicle handling and stability. This may result in a crash or rollover.

### CAUTIONS

-  An equalising or other form of weight distributing hitch should not be used with your vehicle.
-  To avoid excessive clutch wear at low speeds, use low range on manual transmission vehicles when manoeuvring heavy trailers or performing hill starts.
-  When preparing your vehicle for towing, pay attention to any instructions provided by the trailer manufacturer.

**Note:** It is the driver's responsibility to ensure that the towing vehicle and trailer are being used correctly in accordance with manufacturer's recommendations and any applicable legislation.



The trailer warning indicator lamp illuminates as a bulb check when the starter switch is turned to position II and extinguishes when the engine is started. If the lamp does not flash with the direction indicators, the trailer bulb may be faulty.

# Towing

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## Trailer socket

Only connect approved electrical circuits, which are in good condition, to the appropriate vehicle socket. Connecting incorrect or faulty circuits may seriously damage the vehicle's electrical circuits.

The vehicle's electrical system is configured to support all towing requirements and the electrical socket fitted will comply with legal requirements for the specific territory.

All towing circuits are independently fused in the tow hitch fusebox. See **FUSE BOX LOCATIONS** (page 253).

***Note:** Rear parking sensors are automatically disabled when a trailer electrical connection is made.*

## Diesel engine vehicles

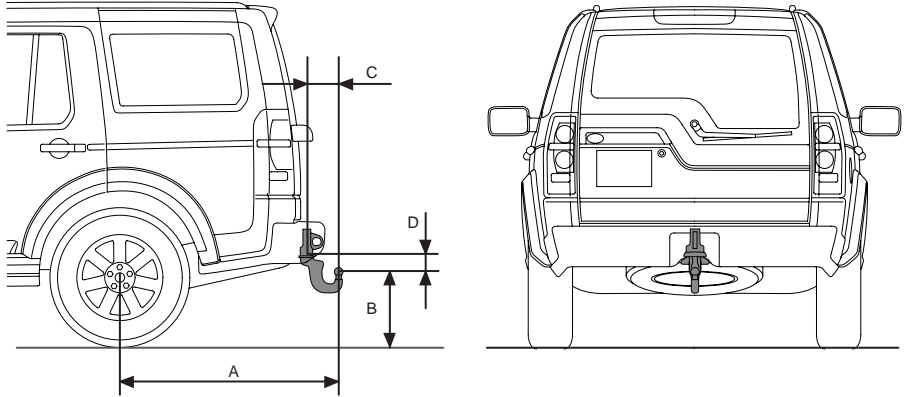
The diesel engine management system incorporates sensors to determine optimum performance. It is also designed to protect the engine when arduous conditions are encountered during towing. When ambient temperature exceeds 40°C (104°F) the engine coolant may increase above normal operating level. If this occurs, the management system will initiate a series of actions to restore normal operating condition. The actions may include;

- A message centre message;
- Engine performance reduction
- Air conditioning system cycling. The system temperature output will fluctuate between hot and cold in order to dissipate engine heat. If engine overheating persists the air conditioning will move to continuous heat output.

It is advisable to bring the vehicle and trailer to a convenient stop and allow the engine to idle until normal operating temperature is restored. Do not turn off the engine.

# Towing

## Fixed - tow ball



E81325

## Tow ball dimensions

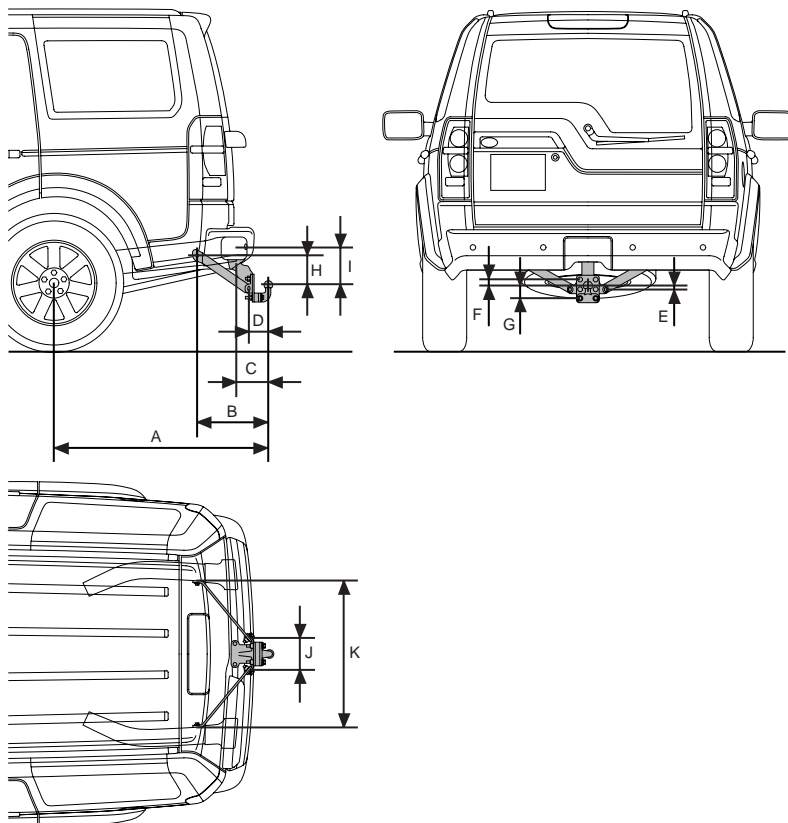
Ref.	Dimension	Metric	Imperial
A	Wheel centre to centre of tow ball	1,190 mm	46.9 in.
B	Ground to centre of tow ball	409 mm	16.1 in.
C	Centre of tow ball to tow bar attachment	170 mm	6.7 in.
D	Centre of tow ball to tow bar attachment	124 mm	4.9 in.

### **Note:**

*Dimensions refer to towing equipment officially released by Land Rover.*

# Towing

## Multi-height drop plate - tow bar



E81326

# Towing

## Tow ball dimensions

Ref.	Dimension	Metric	Imperial
A	Wheel centre to centre of tow ball (horizontal)	1,210 mm	47.64 in.
B	Centre of outer attachment points to centre of tow ball (horizontal)	403.6 mm	15.89 in.
C	Centre line of housing bayonet slot tip radius to centre of tow ball (horizontal)	192.4 mm	7.57 in.
D	Centre of inner attachment points to centre of tow ball (horizontal)	108 mm	4.25 in.
E	Centre of inner attachment points to centre of tow ball (vertical)	20 mm	0.79 in.
F	Centre of upper tow ball plate bolt to centre of tow ball (vertical)	36 mm	1.42 in.
G	Centre of lower tow ball plate bolt to centre of tow ball (vertical)	70 mm	2.76 in.
H	Centre of outer attachment points to centre of tow ball (horizontal)	167.3 mm	6.59 in.
I	Centre line of housing bayonet slot tip radius to centre of tow ball (vertical)	174.3 mm	6.86 in.
J	Distance between inner attachment point centres	180.5 mm	7.10 in.
K	Distance between outer attachment point centres	822.5 mm	32.38 in.

# Towing

## LEVELLING

To optimise stability, it is essential that the trailer is loaded so that it remains parallel to the ground, and with the towing hitch and trailer drawbar set at the same height. See **TOWING A TRAILER** (page 193). This is particularly important when towing twin axle trailers. Set the height of the drawbar hitch point so that the trailer is level when connected to the loaded vehicle.

## ESSENTIAL TOWING CHECKS

- The trailer should be parallel to the ground when loaded.
  - When calculating the laden weight of the trailer, remember to include the weight of the trailer, plus the weight of the load.
  - If the load can be divided between the vehicle and trailer, loading more weight into the vehicle will generally improve stability. Do not exceed the vehicle's weight limits. See **TECHNICAL SPECIFICATIONS** (page 269).
  - Ensure that all applicable regulations and legislation are complied with when loading and towing a trailer.
  - Increase rear tyre pressures of the towing vehicle to those for maximum vehicle loading conditions. See **TECHNICAL SPECIFICATIONS** (page 269).
  - Ensure trailer tyre pressures are set to trailer manufacturer's recommendations.
  - If the vehicle is loaded to maximum Gross Vehicle Weight (GVW) the nose weight is limited to 150 kg (330 lbs).
  - If it is necessary to increase the nose weight, up to a maximum of 250 kg (550 lbs) the vehicle load should be reduced accordingly. This ensures that the GVW, and maximum rear axle load are not exceeded.
- Ensure that a suitable breakaway cable or secondary coupling is used. Refer to the trailer manufacturer's instructions for guidance.
  - Ensure that the tow ball is secure.
  - Check the operation of all trailer lights.

### WARNING



Do not loop the breakaway cable over the tow ball as it may slide off.

### Australia only

- **Tyre pressures** - Increase rear pressures of towing vehicle to those for Maximum Gross Vehicle Weight conditions.
- **Nose weight** - Must be a minimum of 7% of gross caravan/trailer weight, up to a maximum of 350 kg (722 lb).
- **Hitch height** - Must be set with the engine running, so that the caravan/trailer is level when connected to the vehicle.

# Towing

## RECOMMENDED TOWING WEIGHTS

### WARNING



Do not exceed the Gross Vehicle Weight (GVW), maximum rear axle weight, maximum trailer weight, or nose weight. Exceeding any of these limits could cause instability and loss of control. See **TECHNICAL SPECIFICATIONS** (page 269).

### Towing weights

Maximum permissible towed weights	On-road	Off-road
Unbraked trailers	750 kg (1 654 lb)	750 kg (1 654 lb)
Trailers with overrun brakes	3 500 kg (7 716 lb)	1 000 kg (2 205 lb)
Nose weight	150 kg (330 lb)	-

### Maximum towing/load limits

Gross Train Weight (Weight of Vehicle plus Trailer with Overrun Brakes)	6 680 - 6 730 kg	14 727 - 14 837 lb
Roof load (including the weight of roof rack)	75 kg	165 lb

**Note:** When towing the maximum permissible Gross Vehicle Weight can be increased by a maximum of 100 kg (220 lb) provided that the road speed is limited to 100 km/h (60 mph).

**Note:** When calculating rear axle loading, remember that the trailer nose weight, the load in the vehicle's luggage area, weight on the roof rack and the weight of the rear seat passengers must all be added together.

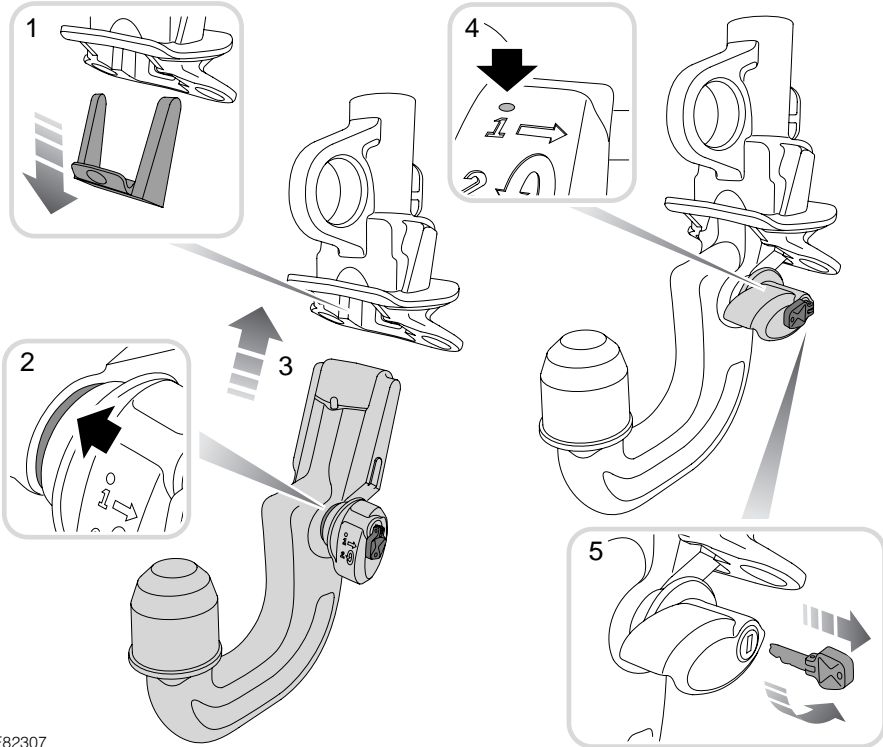
### Towing weights - Australia only

Australian regulations specify that the weight of a trailer must not exceed 1.5 times the towing vehicle's weight.

# Towing

## DETACHABLE TOW BALL

### Fitting the tow ball



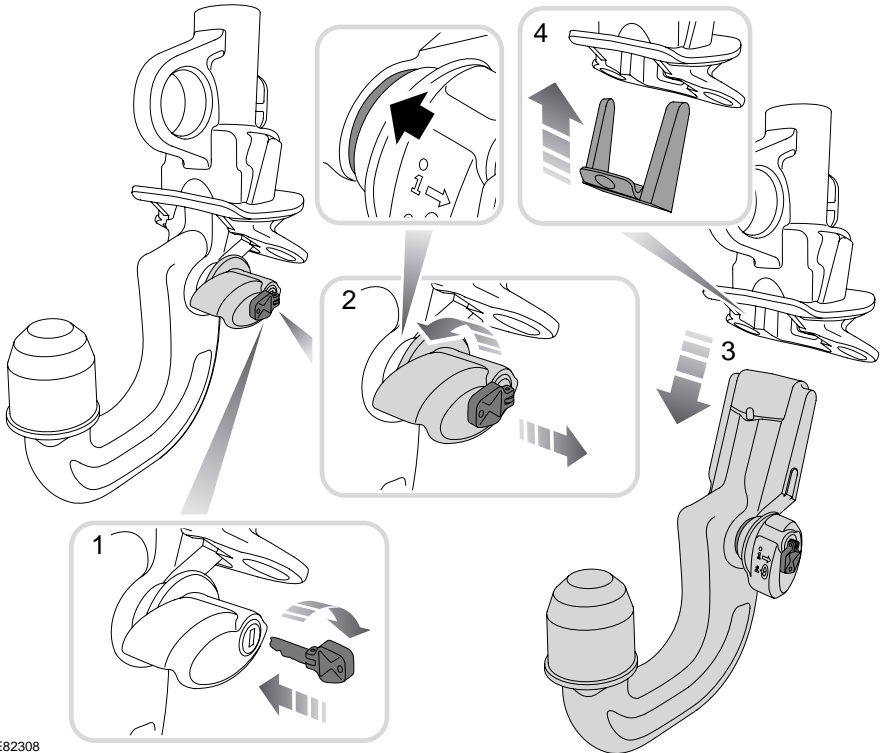
E82307

1. Remove the protective cover from the tow ball mounting and stow it in the tow ball storage area.
2. The tow ball can only be installed when the green locking lever is in the unlocked position.
3. Insert the tow ball into the mounting and push firmly upwards until the tow ball locks into position.
4. The red marker must be completely covered by the green locking lever.
5. Turn the key counterclockwise to lock the tow ball before towing. Remove the key and store in a safe place.



# Towing

## Removing the tow ball



E82308

1. Insert the key and turn it clockwise to unlock.
2. Pull the handle outwards and rotate counterclockwise until a click is heard. The marker on the handle must show red.
3. Carefully lower the tow ball and place it in its stowage area and fully secure it.
4. Replace the protective towing cover in the tow ball mounting. Press the bottom of the cover to fix it in position.

**Note:** The key can not be removed when the tow ball has been detached.

# Towing

## TOW BALL STOWAGE

### WARNING

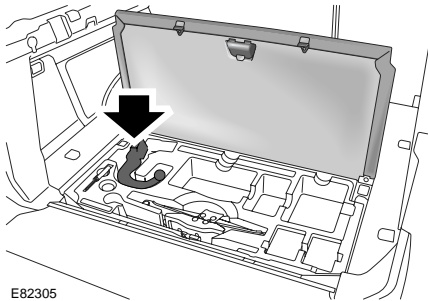


The tow ball is heavy, care must be taken when handling it. When handling the tow ball, hold the bottom of the component. Locking into position occurs automatically and causes the locking lever to rotate under spring pressure.

Your vehicle is fitted with a towing housing which will accept a detachable tow ball. The following illustrations show a UK and Rest of the World tow ball.

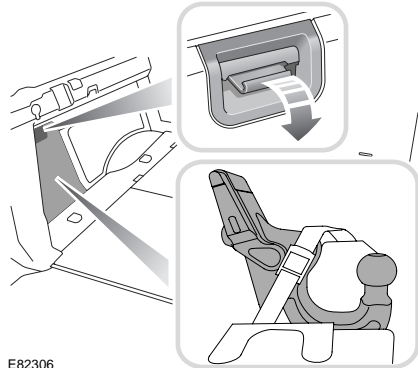
**Note:** An Australian tow ball is visually different, but is stowed in the same place.

### 5-seat models



E82305

### 7-seat models



E82306

The tow ball is stowed under an access cover in the loadspace floor (5-seat models) or behind an access cover on the left-hand side of the loadspace (7-seat models).