

LEAS STABILISER

Anti-Snaking Device for Caravans and Trailers



Don't let this happen to you!

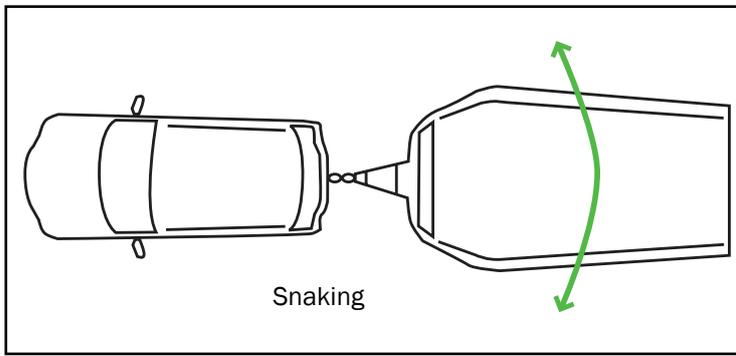
Highlights:

- Applies caravan/trailer brakes in critical snaking situations.
- Suitable for any caravan or trailer up to 2.5 tonnes.
- Peace of mind while towing especially in adverse weather conditions.
- Stand-alone power supply from towing vehicle avoids overload on existing plug.
- Designed and manufactured in Germany.



Conrad Anderson

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LEAS provides stability while towing without losing flexibility. It brakes the caravan/trailer helping to bring the vehicle under control.

Sudden hard braking, gusting winds and sharp steering, even at slow speed can cause snaking movements, which can result in jack-knifing or rolling.

The LEAS stabiliser is very popular in Germany and comes recommended by the German consumer association "Stiftung Warentest", the German test institute "TUV-Rhineland" and the German auto club "ADAC".

How it Works

The LEAS Stabiliser works using a large spring charged by a cam on an electric motor, when the snake is detected the motor turns the cam and the spring is released. This activates 20% of the vans braking capability. Once the lateral movement of the snake is no longer detected the motor turns the cam and the spring is recharged ready for the next release.

The LEAS Stabiliser

If you have ever experienced a 'snaking situation' while towing a caravan or trailer you should see the benefit of the LEAS stabiliser. The LEAS stabiliser works on the same principle as ESP (Electronic Stability Assistance) on a car, by applying controlled braking in critical situations. It is an electro-mechanical device, which detects the start of a snaking movement and immediately applies the brakes of the caravan or trailer.

Unlike other anti-snake devices, which work as constant friction dampers on every movement, the LEAS Stabiliser applies the caravan/trailer brakes only when lateral movement is detected. This is performed using the patented electronic movement sensor and motor assembly.



Image above shows: Car towing a caravan fitted with the anti-snaking device.

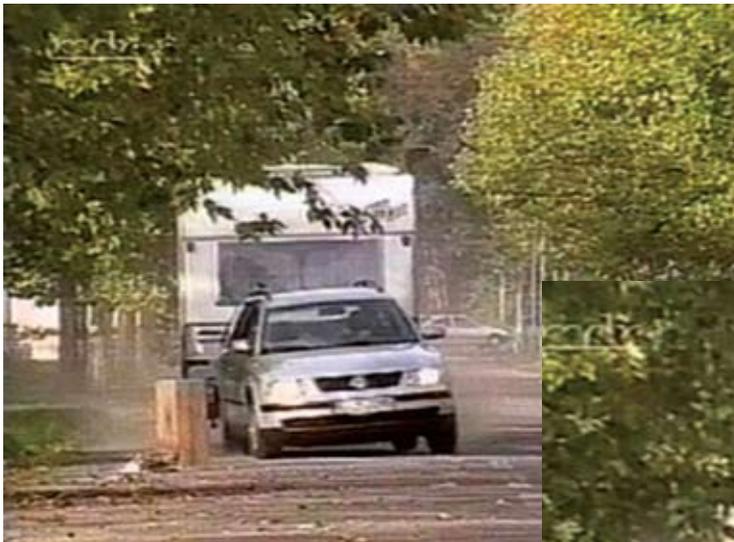
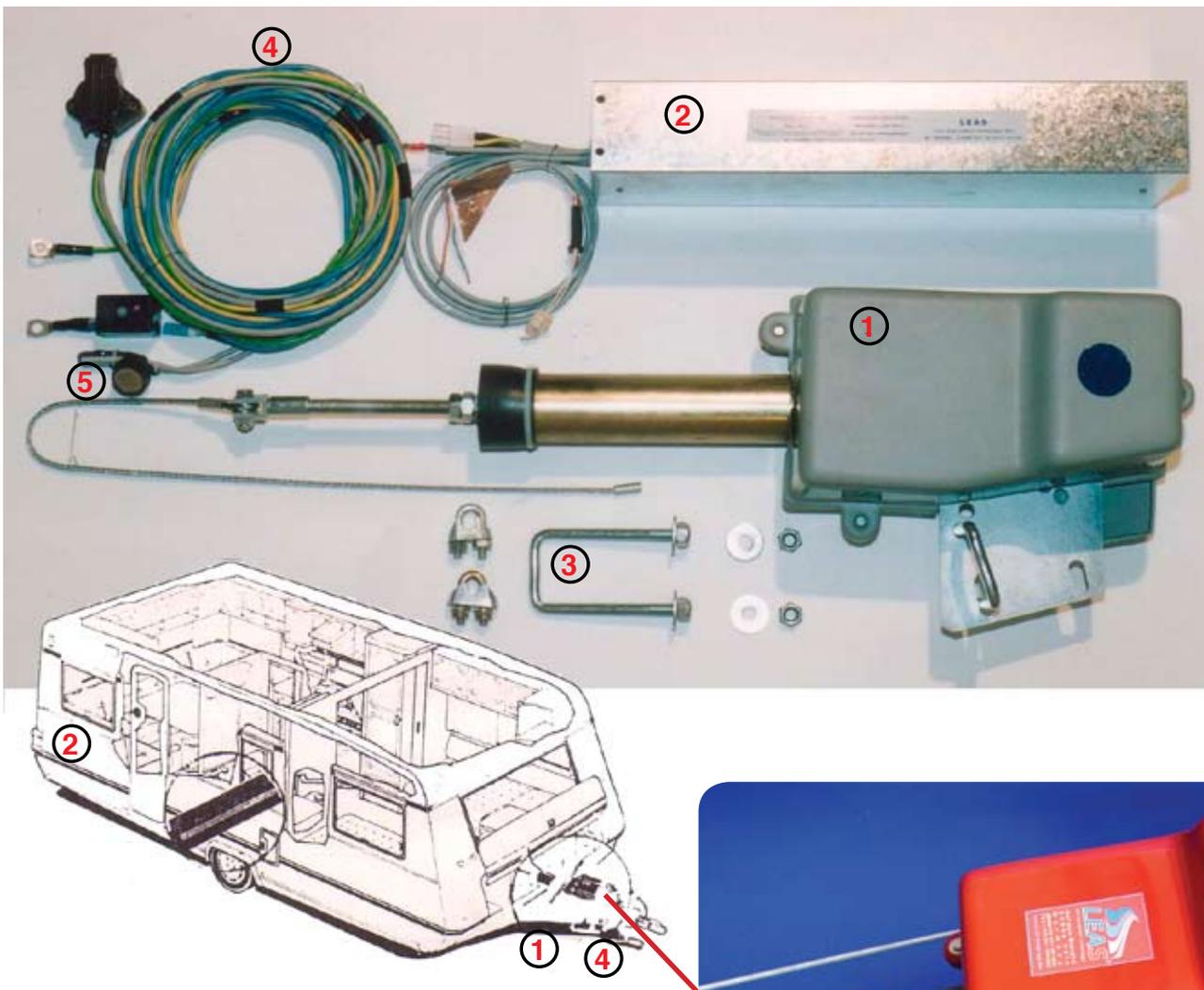


Image above shows: Car swerving to avoid the obstacle.



Image right shows: The stabiliser in action. In normal circumstances the caravan is liable to topple or roll. With the LEAS Stabiliser the car avoids the obstacle and the van follows safely in line with the car.



- ① Actuating motor
- ② Sensing & control unit
- ③ U-bolt
- ④ Electric cable
- ⑤ Buzzer

General Description

The LEAS (Lubs Electronic Trailer Stabiliser) comprises a spring actuator with actuating motor⁽¹⁾, the corresponding sensing control⁽²⁾, and electronic control unit (ECU). The spring actuator and actuating motor are attached by means of two U-bolts⁽³⁾ to the front of the A-frame of the trailer. The cable at the end of the spring actuator is clamped under slight tension to the main brake rod of the trailer. The actuating motor is enclosed in a protective housing. The ECU is installed transversely and as far rearward as possible either inside or outside the trailer. It is connected to the actuating motor by means of an electric cable⁽⁴⁾. Supplied is a buzzer⁽⁵⁾ to be fitted in the tow vehicle. It emits a continuous buzz when the system has deployed and the trailer brake is applied so alerting the driver.

Power is supplied by the towing vehicle. How this is done is described under item 2.5. The sensor unit (ECU) continuously monitors the dynamic stability of



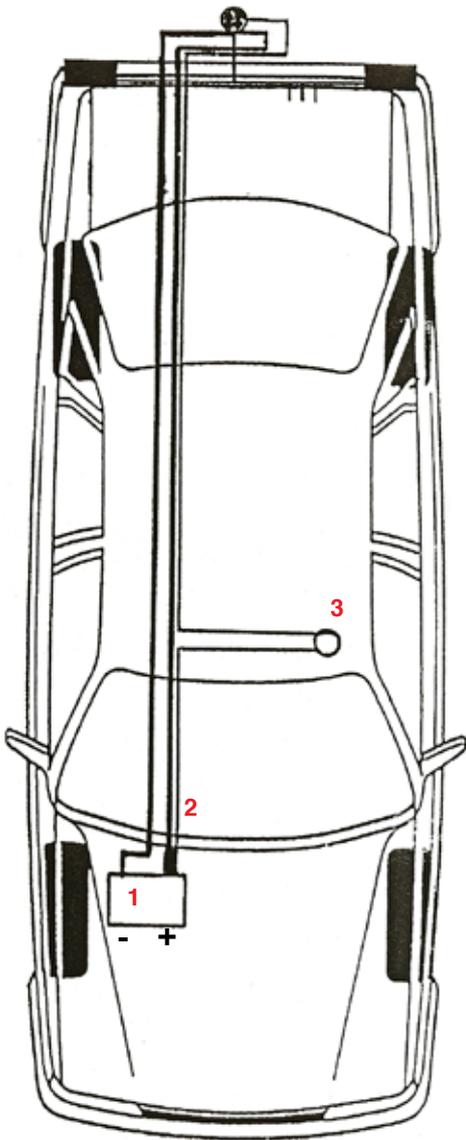
the trailer. As soon as the trailer becomes unstable (i.e. snaking occurs) the electronic control unit gives a signal to the actuating motor to release the spring and thus activate the braking system of the trailer (with 20% of its full braking performance). The car/trailer combination is stretched and reverts to a stable condition. The acoustic warning signal ensures that the driver knows that the braking system has been deployed by the LEAS unit.

After snaking has been brought under control, a cam on the actuator is rotated back into its stand-by position by means of the electric motor and this reloads the spring ready for further use. The process is then complete.

For installation queries please contact us during office hours on our Freephone Number: 0800 279 0085.

Positioning

The lateral movement sensor is positioned at the rear of the caravan/trailer, with the electric motor and high power spring on the A-frame at the front. Power for the system is taken directly from the towing vehicle engine battery, as the required amperage is too great to be taken through a normal tow hitch connector.



- 1: Battery
- 2: Fuse holder
- 3: Mount buzzer to the drivers seat

The cable terminals of the plug and socket are assigned as follows:

No 31 = negative

No 54 = positive

No 58 = L lead to the acoustic warning signal inside the vehicle
(Pos. 36)



Image montage shows the LEAS stabiliser being fitted to a caravan. Fitting instructions supplied with kit.

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