

FREQUENTLY ASKED QUESTIONS

Q. Is it (AL-KO Sensabrake™ EAS) complicated to install?

A. Not at all... if you already have overrun or surge brakes then installation is relatively fast and simple. If you have an unbraked trailer then a little more planning and additional equipment will be required. All AL-KO Sensabrake™ EAS units are provided with easy-to read installation instructions.

Q. What about my vehicle warranty –how will the installation affect it?

A. The installation of your EVO controller should be carried out by a suitably qualified automotive electrician. Installation is largely non-invasive and does not interfere or tap into the vehicles ABS or hydraulic systems. If in doubt check with your dealerships service department.

Q. Can I move the controller between towing vehicles?

A. Your EVO controller is designed to be permanently wired to each tow vehicle, this is done to eliminate any risk of the controller becoming accidentally disconnected which might otherwise jeopardize passenger and vehicle safety. It is strongly recommended that in multiple tow vehicle situations additional EVO in-car kits are installed.

Q. Where is AL-KO Sensabrake™ EAS made?

A. AL-KO Sensabrake™ EAS has been designed and manufactured in Australia. Development has been conducted with the assistance of the LTSA, New Zealand Transport Regulation body, specialist trailer manufacturers, and the Road Transport Industry In New Zealand.

Q. What's included in the AL-KO Sensabrake™ EAS kit?

A. The AL-KO Sensabrake™ EAS LT-1000 kit will include the actuator, an EVO in-car kit (auto or manual pedal), wiring loom, vehicle plugs and easy to follow installation instructions.

Q. I'm wanting to build a trailer with three axles, can I still use a AL-KO Sensabrake™ EAS?

A. Yes -but it is important to check the need for greater fluid displacement needs of trailers with more than two axles, or systems using larger than average discs and calipers. If in doubt please speak to your local AL-KO Customer Service Representative before ordering.

AL-KO Sensabrake™

The AL-KO Sensabrake™ EAS costs only a fraction of the traditional vacuum brake systems and will give all leisure or work equipment owners piece of mind when towing, for the safety of themselves, their family and other road users. Whilst it is a legal requirement to have the right braking system, surely to be able to tow your pride and joy with complete safety is all the more justification for AL-KO Sensabrake™ EAS –at last the trailer braking solution that everyone has been waiting for.

For further information please contact the AL-KO International on 1800 035 603.

Visit AL-KO website www.alko.com.au for more information or for your nearest AL-KO Sensabrake™ Authorised Distributor



Further information can be obtained by contacting
AL-KO on 1800 035 603 or by visiting: www.alko.com.au

AL-KO International Pty Ltd (ABN 96 003 066 813)

VIC: 67 Nathan Road, Dandenong South, 3175

NSW: 14 Toohey Road, Wetherill Park, 2164

QLD: 13 Union Circuit, Yatala, QLD, 4207

NZ: 1 Airpark Drive, Airport Oaks, Mangere, Auckland

Phone (03) 9767 3700

Phone (02) 8784 9400

Phone (07) 3386 6300

Phone (09) 255 5611

Fax (03) 9792 0877

Fax (02) 9725 4557

Fax (07) 3386 6399

Fax (09) 255 5612

AL-KO SENSABRAKE™

What is AL-KO Sensabrake™ EAS?

When AL-KO International announced in 2009 that it has purchased Sensabrake from New Zealand company Edge International, we set about ensuring that this Electronic Air/Hydraulic (Brake Actuation) System, EAS for short, was the best of it's kind on the market, and delivered features that the large and heavy Trailer owner would require.

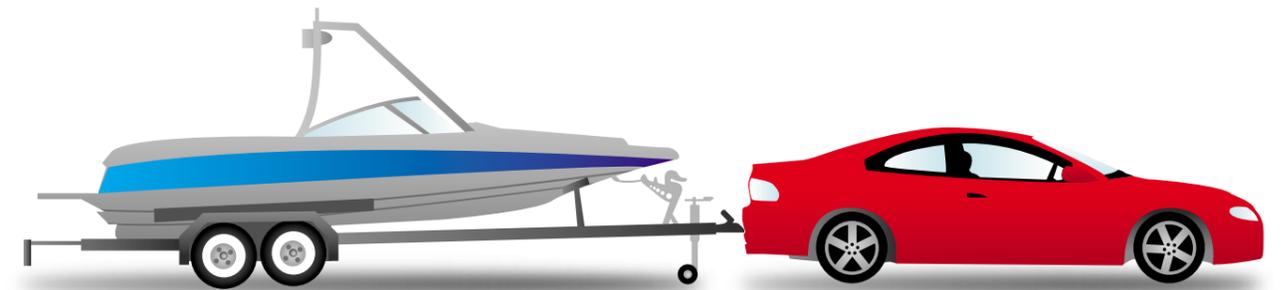
The new AL-KO Sensabrake™ EAS product range now features industry leading quality and performance standards that AL-KO, in Australia and internationally is renowned for.

The AL-KO Sensabrake™ EAS solves the dilemma as, by law, all trailers with a loaded weight exceeding two tonnes (2.5 tonnes in New Zealand) must incorporate power assisted brake application. **Until recently the most popular solution was to fit a vacuum or compressed air system to the tow vehicle, but not only is this very expensive it often also means that the warranty of the tow vehicle is voided.**

With the AL-KO Sensabrake™ Electronic Air/Hydraulic System (EAS), hydraulic disc brakes are now not only legal for towed vehicles and trailers over 2 tonne in Australia and 2.5 tonne in New Zealand, but also perform exceptionally well.

The AL-KO Sensabrake™ EAS is very easy to install either for a new trailer or an existing trailer. All electronic components are “plug and play” type for ease of installation and on the EVO Controller option, the unit incorporates full self diagnostic electronics.

The AL-KO Sensabrake™ EAS has been engineered to handle the most demanding trailer braking requirements and it's unique operation features ensure the highest product performance and reliability.



Independent test show that AL-KO Sensabrake™ EAS out performs other powered and hydraulic surge (override) brake systems
Stopping distance is shown in the following situations:

Speed of testing is at 80 kp/h / 50 mp/h

Boat weight is GVM 2160 kg / 4761 lb

Car only:

23m / 75^{ft}

Car and Boat with Sensabrake EAS

28m / 92^{ft}

Car and Boat with other Electric over hydraulic system

45m / 147^{ft}

Car and Boat with surge (override) braking system

44m / 144^{ft}

Car and Boat without brakes:

52m / 170^{ft}

QUALITY FOR LIFE

AL-KO Sensabrake™ EAS available

LT-1000 -EVO

The AL-KO Sensabrake™ EAS LT-1000 –EVO features an electronic control unit continually monitoring the state of the system to ensure safe operation.

The early detection of potential faults, such as, lack of air pressure, air leakage, inadequate power feed, excessive duty cycle, or trailer disconnection are all continually monitored with the driver informed of any such fault through the AL-KO Sensabrake™ EAS mouse.



LT-1000E –Electronic Controller compatible model

The AL-KO Sensabrake™ EAS LT-1000E –is designed to be fully integrated with your existing Electronic Brake Controller..

This model features a breakaway via the electric plug, and will work with any AL-KO approved ‘motion sensing’ electronic brake controller.

The LT-1000E is the perfect solution for towed vehicles already fitted with an AL-KO Approved Motion Sensing Electric Brake Controller



Breakaway

The AL-KO Sensabrake™ EAS hydraulic actuator incorporates breakaway intelligence, a safety feature that automatically activates the trailer brakes when the trailer is separated from the towing vehicle. Unlike other breakaway systems, this feature does not require additional componentry such as a safety activation cable or additional battery source. The AL-KO Sensabrake™ EAS breakaway system remains activated until the trailer is re-connected to the towing vehicle or the air pressure is dumped, and also holds the trailer firm for more than the minimum 15 minutes time required by law.

AL-KO Sensabrake™ EAS components

AL-KO Sensabrake™ EAS Actuators

A common downfall of some earlier competitors electro-hydraulic brake actuators is time-lag or delayed response time. This is due to the delay in receiving a signal from the controller and the time taken for the electric drive motor to pump enough fluid to activate the master cylinder. AL-KO has addressed this, not only through its advanced EVO electronic controller but, by utilising a compressed air reservoir to provide instant activation of the hydraulic master cylinder. This has resulted in an unparalleled response time.



AL-KO Sensabrake™ EVO Controller

The AL-KO Sensabrake™ EAS EVO Electronic Control Unit continually monitors the state of the system to ensure safe operation. The early detection of potential faults, such as, lack of air pressure, air leakage, inadequate power feed, excessive duty cycle, or trailer disconnection are all continually monitored with the driver informed of any such fault through the AL-KO Sensabrake™ EAS mouse. Intelligent electronics provide the EVO controller with the ability to also identify and control other hydraulic and electric braking systems (such as those used on caravans)



AL-KO Sensabrake™ Brake Pedal Pad

The Patented AL-KO Sensabrake™ Brake Pedal Pad incorporates a unique pressure sensitive film that enables accurate measurement of the force being applied to the towing vehicle brake pedal. There are significant benefits in utilizing the measurement of pad force over other control mechanisms, these being:

- A faster response time
- Ability to achieve smoother brake actuation
- Greater control in emergency situations
- True proportionality



The AL-KO Sensabrake™ pad mounts easily to the brake pedal of any towing vehicle and simply replaces the existing brake pad rubber.

AL-KO Sensabrake™ EVO Controller Mouse

The unique ‘panic’ button incorporated into the AL-KO Sensabrake™ EVO Controller mouse enables the driver of the towing vehicle to have total control when in a trailer sway situation. The ‘panic’ button applies light braking, for a short period of time, to the trailer independent to that of the car therefore reducing the possibility of jack-knifing and enabling the driver to maintain control. The gain control lever also incorporated into the Mouse enables instant adjustment of trailer braking characteristics. (For applications above 3,500K in NZ, the gain control can be blanked to meet legal requirements)



AL-KO Sensabrake™ EAS accessories

Park Brake Kit

A great accessory for simply parking your trailer, the AL-KO Sensabrake™ Park Brake assembly easily attaches to the Trailers mechanical brake calipers if fitted.



12V –24V converter

Vehicles operating a 24 volt system must utilise the AL-KO Sensabrake™ 24-12VDC converter. Failure to do so will void any warranty claim.



Features and Benefits

Proportional braking control	Smoother braking without surges. Brakes operate in all surface conditions providing a safer and more comfortable ride
Built-in Breakaway protection	Helps to stop your runaway trailer from striking another vehicle, person, or property
1000psi hydraulic pressure	Huge stopping power to safely bring large vehicle combinations to a stop in the least amount of time
Built-in panic button	In a sway situation the panic button aids the driver to correct an otherwise dangerous situation faster
In-cab gain control	Simple slide control gives the driver the opportunity of adjusting brake pressure to suit heavy or light loads
Pressure sensitive brake pedal	Measures actual braking pressure giving a more precise and proportional braking response
Robust moulded composite housing	Designed not to rust or corrode under the harshest of conditions
Easy installation	Saves time and money by utilising a largely non-invasive procedure
External brake fluid level	Check fluid levels at a glance to save time
Optional park brake assembly	Integrated design means easy installation where required
Fast activation time	Better braking performance reducing stopping distance during emergency braking
Made in Australia	Designed and made in Australia for Australasian conditions.

FREQUENTLY ASKED QUESTIONS

Q. How do I know what type of brakes I need?

A. You'll need to know the GVM of your trailer, that's the total weight including what it will carry at any given time. Be sure to include any fuel, water or other equipment that may be loaded on the boat or trailer. If it's over 2,000kg (in Aust) or 2,500kg (in NZ) you are legally required to have an independant, effective braking system and breakaway brake.

Q. I'm not sure how much my trailer weighs, how can I find out?

A. In most town's the local refuse transfer station has a weighbridge and generally don't mind you weighing your trailer...just call them and check before visiting, and remember when weighing it to allow for any extras like fuel and water that you might carry!

Q. How much can my car tow?

A. Your vehicle has a manufacturers maximum tow rating for both braked, and unbraked trailers. You should never exceed this. Where the maximum permissible weight certified on the towbar is less than the vehicle manufacturers rating, use this weight.

Q. What's the difference between a direct and indirect brake?

A. A direct brake operates in unison with the tow vehicles own service (foot) brake providing proportional braking regardless of road condition. An indirect brake requires an action from the tow vehicle, for example slowing down, before it provides any braking response.

Q. I have a 24 volt truck –can I still use AL-KO Sensabrake™ EAS?

A. No problems, just be sure to request a AL-KO Sensabrake™ 24 volt –12 volt DC converter with your order.

Q. I have electric brakes on my caravan, can I still use AL-KO Sensabrake™ EAS?

A. You would have to make some very big changes to incorporate a full hydraulic system, but what you can do is install an EVO in-car kit and have the benefit of true proportional braking and all other features of the product.

Q. What is a breakaway brake?

A. The breakaway brake is a device designed to instantly apply the trailer brakes in the event that it becomes separated from the tow vehicle. With AL-KO Sensabrake™ EAS the breakaway brake is an integrated part of the actuator and requires no additional cables or batteries to operate.

Q. What does the mouse do?

A. The AL-KO Sensabrake™ EAS mouse is designed to fulfil three main functions
(i). It incorporates a panic button which can be used to assist the driver to correct a sway situation by applying a light amount of braking pressure to the trailer brakes only, for a short time..
(ii) It provides a means of adjusting brake gain (sensitivity)
(iii) It provides a means of system status communication through a series of audible and visual alerts.

Q. How do I order a AL-KO Sensabrake™ EAS?

A. It's important to ensure when ordering the LT-1000 EAS or LT-1000E EAS that you carefully specify whether the pedal is auto or manual, and whether a park brake kit is required. Speak to your local AL-KO Customer Service Representative for further information or to order.