

# The journey of safety

Safety, comfort and enjoyment has long defined the brand of AL-KO Australia & New Zealand as part of AL-KO Vehicle Technology Group, within DEXKO Global Inc, and the Australian journey of safety product development for the local market has been no different. Innovation is in their DNA, driven towards continual improvement to optimise solutions to offer best in class quality and safety for the customer and the final product user

Words Peter Hirtschulz



**P**roven by an history of market leading safety developments to suit the needs of a unique market, 2012 saw the release of a breakthrough technology that revolutionised caravan and towing safety in Australia with AL-KO Electronic Stability Control (ESC).

## Electronic Stability Control

The sophisticated AL-KO ESC system, similar to ESC in cars, responds to the driving behaviour of the caravan by monitoring for any dangerous sideways movements and takes preventative action - automatically applying the caravan's electric brakes

in a smooth and controlled manner (independent of the tow vehicle), to maintain stability of both the car and caravan & ensure early intervention for a safe recovery.

This was one of the most significant innovations in caravan safety ever released to the Australian market, and like ESC on cars, AL-KO ESC was a technology that sized the potential to increase safety enhancement as standard on all new caravans within a very short period.

The high level of interest from the public as a result of the AL-KO national advertising campaign and drive demonstrations drove a need for training a

national Certified Installer network to install and service the product.

While electric brakes were still fitted to the majority of caravans in the market, the growing popularity of caravans with hydraulic disc brakes led to calls for AL-KO in Australia and New Zealand to develop an ESC equivalent to suit this segment.

2017 saw the response from AL-KO engineers, announcing AL-KO have now achieved a breakthrough by creating a specific model of the ESC that can be combined with the AL-KO iQ7 Air electric/hydraulic brake actuator resulting in an equivalent system for AL-KO hydraulic disc brakes.



AL-KO ESC proving drive



AL-KO ESC system



AL-KO  
iQ7 actuator

Further explaining the development, AL-KO Technical & Manufacturing Manager Rob Funder said: *“In an emergency event where the ESC is activated, the ESC unit can now deliver the brake control signal to the AL-KO iQ7 actuator which converts this to a corresponding hydraulic pressure to activate the brakes. This solution is similar to the operation of power assisted disc brakes found in modern passenger vehicles and offers smooth braking and a fast response time.”*

This then made AL-KO ESC available for caravan manufacturers to fit to new caravans with AL-KO Hydraulic Disc Brakes and AL-KO iQ7 with an ATM of 1250-2000kg for single axle an ATM of 2000-4000kg for tandem axles.

This addition provided a safety solution that now covered 100% of market brake options ensuring everyone had access to this imperative safety technology.

**Tow Assist**

In 2019 AL-KO raised the safety benchmark by collaborating with Dexter Axle & Global automotive safety leader Bosch to develop a localised version of Tow Assist™ in Australia.

An innovative platform that brought the next generation of technologically oriented towing safety products. The system provides Anti-lock Braking (ABS), Evasive Action Control (EAC) an odometer function, as well as automotive-compatible sway mitigation. Whilst remaining installation-friendly for OEMs providing a platform for the future of towing safety.

Revolutionising the towing experience with Electric ABS Brakes, Tow Assist with trailer anti-lock braking,

utilizing the most performance out of each trailer brake while reducing the risk of tire skid or lockup and improving manoeuvrability to avoid obstacles. Tow Assist provides valuable mileage tracking with the built-in odometer function. Continually monitoring your trailer, Tow Assist's sway mitigation keeps the trailer in-line without any driver input. The system intuitively knows when to apply braking, maintaining trailer stability, without significantly reducing speed or skidding the tires.

*“Bringing ABS technology to caravans & trailers in Australia is long overdue and has been eagerly awaited by both the public and manufacturers,”* said Stefan Drew, Marketing Manager AL-KO Australia & New Zealand.

*“AL-KO is proud to be able to deliver this to the market in conjunction with Bosch, and we look forward to being able to offer a new level of safety and a more enjoyable towing experience to consumers.”*

*“Collaborating with Dexter has given us an opportunity to bring ABS technology and sway mitigation to a new vehicle segment,”* states David Schumacher, Vice president of Active safety systems, Bosch in North America. *“One that will increase the safety of towing trailers and RVs globally.”*

AL-KO Australia & New Zealand was excited to offer the Tow Assist system on a 12” electric brakes with initial sales efforts focused on OEM implementation for heavy vehicles, with after-market upgrade kits following soon after. The system incorporates a Tow Assist™ control module, power-axle wiring harnesses, indicator light, 12”x 2” Nev-R-Adjust® brake fitted with wheel speed sensor and brake drum with ABS tone ring cast-in.

Along with an electrical brake upgrade, Tow Assist is available for as many vehicles as possible offering this critical safety benefit to as many users as possible.

AL-KO's leading work has generated an industry revolution that many competitors now attempt to mimic, manufactures offer as a staple and has influenced consumers expectations on standard level of safety.



Rob Funder

**AL-KO ESC Module**

- Mounted underneath caravan near the axles.
- Fully encapsulated. Water proof & dust proof.
- Individually programmed to suit caravan specifications.

**Safety legacy in Australia**

AL-KO Australia & New Zealand are seen in Australia as the leader within the innervational safety space. Creating safe reliable foundations through engineering, electronic technology, chassis, suspension systems and brakes. The synergy benefits to this technology programme elevate the brand value of safety in the eyes of the manufacturer and consumer as the best of all safer travels and improved experiences on the roads.

*“We are all extremely proud of the safety legacy AL-KO has achieved in this space over the last decade here in Australia. We are honoured to be entrusted to continue this valuable work. Looking into the near future brings excitement for our next development in safety”* said Craig Henry, General Manager Innovation AL-KO Australia & New Zealand.



AL-KO ESC with Disc Brake proving drive