HIGH-TECH COMPONENTS FOR CARAVANS

GREATER SAFETY AND COMFORT FROM THE CHASSIS EXPERT.
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THAT WONDERFUL FEELING OF ARRIVING SAFELY.

VEHICLE TECHNOLOGY

Our vehicle technology products for motorhomes, caravans, commercial vehicles and commercial trailers guarantee the greatest safety and comfort. In any situation. With our premium solutions for vehicles in commercial use, we are meeting the most exacting customer requirements in terms of ergonomics.

For leisure vehicles we pave the way for a positive start to your holidays and a relaxed return home. We are always your reliable companion – for more joy on the road.

THE AL-KO COMPANY AND BRAND

AL-KO Vehicle Technology is a global technology company with approx. 2500 employees at more than 40 locations worldwide. Offering high-quality chassis components for trailers, leisure vehicles and light commercial vehicles, AL-KO stands for optimum ergonomics and functionality, highest comfort as well as innovations for greater driving safety. Due to the integration with the US company Dexter Axle, AL-KO Vehicle Technology has been part of DexKo Global Inc. since 2016. This union, which created the world’s largest manufacturer of axles and chassis components in the light segment, is on course to reach a turnover of one billion euros.

Safety, comfort and joy are important factors of life and the aims of our work. Our identity, which is visible both in the AL-KO brand and our products, is reflected in this. We live for quality! After all, we are completely committed to a central message: Our constant focus has been the improvement of our customers’ quality of life for over 85 years. That’s how we understand Quality for Life.

AL-KO

QUALITY FOR LIFE
HIGH-TECH COMPONENTS

YOUR RELIABLE COMPANION
IN EVERY SITUATION

SAFE
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ATC - AL-KO TRAILER CONTROL / ATC DISPLAY
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EURO DELTA AXLE Page 40

SHOCK ABSORBER / AAA PREMIUM BRAKE Page 18/19

JACK
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MAMMUT NEW: RANGER
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JOCKEY WHEELS
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SPARE WHEEL HOLDER
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BIG FOOT CORNER STEADIES
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MANOEUVRING HANDLE
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WEATHER PROTECTION
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SAFETY
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AKS™ 3004 AKS™ 1300
Page 16 Page 17

COMFORT

Enjoy your holiday. All AL-KO components are perfectly optimised for your chassis.

On the road and at the camping site, AL-KO's high-tech components always give you 100% reliable safety.
EXPERIENCE
AL-KO has been developing and producing products for over 85 years. These products meet the needs of all customers with sophisticated and proven technology.

COOPERATION
The ongoing collaboration of the AL-KO Development department with leading caravan manufacturers lays the foundation for improved safety and maximum driving comfort.
This know-how has made us a valued partner of the caravan industry across the globe.

AL-KO PRODUCTION
HIGHEST STANDARDS AND QUALITY
DRIVING SAFETY

GO YOUR OWN WAY!
Even when the road is bumpy – the tried-and-tested technology keeps your caravan safely on course in the direction of holiday and relaxation.
AL-KO 2LINK SYSTEM
- The starter package includes the 2LINK Box and smartphone app
- System for connecting chassis components to the smartphone
- The ATC status display is included free of charge in the starter package
- An overview of important safety functions while driving

2LINK APP
- Download the app free of charge from the App Store and Google Play Store
- Content:
  1. 2LINK functions: ATC status display already integrated.
  2. Levelling function available separately via an in-app purchase.
  3. Specific operating instructions

The 2LINK Box is installed in the area of the caravan’s drawbar. The box uses Bluetooth LE to send signals to the smartphone in the vehicle. Bluetooth LE is a wireless technology standard that can network devices in the surrounding area up to approx. 10 metres.
- Easy to retrofit
- 2LINK Box can be updated so that it always has the latest functions

**DRIVING SAFETY**

MORE SAFETY AND COMFORT WHEN TRAVELLING – THE AL-KO 2LINK CONNECTIVITY SYSTEM

The integrated electronic level makes it easy to manually level the caravan. The sensor integrated into the 2LINK Box recognises the current alignment of the caravan and the app displays the position directly on the smartphone display. Thus caravan owners can simply carry their mobile phones during alignment and get the information that they require right where it is needed: directly at the steadies.

For more information about 2LINK and the app, go to www.al-ko.com/2link

www.al-ko.com
DRIVING SAFETY

ATC – AL-KO TRAILER CONTROL
THE INNOVATIVE ANTI-SNAKING SYSTEM

SIMPLY CLEVER
Avoidance manoeuvres or side wind can cause caravans to start swinging. AL-KO Trailer Control actively works against these forces and gently brakes the caravan automatically. It is available ex works for new purchases and as a retrofit for nearly all caravans, as well as hobby caravans.

THE INNOVATIVE ANTI-SNAKING SYSTEM
The emergency system reacts automatically when the swaying of the vehicle combination exceeds limit values.
- Sensors react to small lateral accelerations.
- The caravan immediately brakes automatically. The driver barely notices this correction.
- The braking has the effect of returning the caravan to its lane automatically. The vehicle combination once again drives safely.

LED
A clearly visible green LED indicates the emergency system is fully functional.

KEEPING AN EYE ON SAFETY
The ATC indicates via radio that it is fully functional on an optical display in the towing vehicle. An optional display shows the data of the monitoring sensors. The driver can thus better detect dangerous driving statuses of the caravan and then adjust his driving style accordingly. Easy retrofitting for the available ATC is possible.

THE INNOVATIVE ANTI-SNAKING SYSTEM
The driving behaviour of the caravan is permanently controlled by the ATC. Sensors detect dangerous lateral movements directly on the caravan axle, even before an ESP system for trailers installed in the car is able to sense the pendulum movement. The caravan will immediately – without any action on the part of the driver – brake gently and return to a stable driving condition.

ATC DISPLAY

Green: ATC ready to operate
Flashing yellow: ATC in action
Yellow permanent light: No reception from ATC transmitter
Red flashing: ATC permanently operating brake = visual inspection required
Red permanent light: ATC non-functional, overrun brake functional

www.al-ko.com

Deutscher Camping-Club e.V.
www.camping-club.de
DRIVING SAFETY

AKS™ 3004
FOUR FRICTION LININGS FOR BETTER LANE HANDLING

IMPROVED ERGONOMICS
Closing the stabilisation handle presses the four friction linings against the car’s towball from all sides. This four-fold increased friction suppresses snaking and pitching movements. The vehicle combination also comes to rest significantly quicker in an emergency situation.

VISIBLE CONTROL
1 Wear indicator for friction linings
2 If the green cylinder is visible, the AKS™ 3004 is mounted correctly
3 Wear indicator for the coupling

THE NUMBER 1 IN EUROPE!
Snaking or pitching movements of the caravan are effectively suppressed before they become serious. As the only anti-snaking coupling on the market, the AKS™ 3004 has four friction linings. That’s why it is used by most caravan manufacturers ex works.

The coupling and stabilisation handles are separate from one another. Therefore, the stabilisation function can be easily deactivated with a simple manual action. The caravan, however, still remains safely coupled.

AKS™ 1300
LANE HANDLING FOR LIGHT CARAVANS

THE COMPACT DESIGN
The AKS™ 1300 safety coupling effectively suppresses snaking and pitching movements of caravans up to 1,360 kg total weight. The ideal solution for light caravans.

Activating the stabilisation handle presses two friction linings against the car’s towball from the left and right. This increased friction suppresses snaking and pitching movements. In addition, the vehicle combination can be restored to stability faster in an emergency situation.

The coupling and stabilisation handles are separate from one another. Both are easily hand-operated. Therefore, the stabilisation function can be easily deactivated with a simple manual action. The caravan, however, still remains safely coupled.

MORE RESERVES
Both towbars increase the theoretical max. speed (note permitted max. speed) and improve the weight ratio for the 100 km/h approval (s. P. 51). The AKS™ 3004 and AKS™ 1300 do not have to be entered in the trailer’s papers in Germany.
DRIVING SAFETY

ORIGINAL ACCESSORIES

OCTAGON SHOCK ABSORBER
Optimal damping thanks to precise tuning. AL-KO octagon shock absorbers have overload protection and are characterised by high-quality seals and a special oil. They are precisely optimised for a clearly defined weight range and significantly improve the driving characteristics of the caravan. Trailer oscillations and “hoping” are reduced significantly.

SOFT-BALL
The soft rubber blend protects vehicles against scratches, shins against injuries and clothing from dirt. Available in a variety of colours.

IMPROVE EFFICIENCY
With the original AL-KO Longlife Bowden cables, the brakes respond with more sensitivity and less friction and the Bowden cables last longer. Just like the original AL-KO brake pads that are perfectly customised to the brakes. In short: additional reserves and more protection even for long holiday trips!

AAA PREMIUM BRAKE – THE HIGH-PERFORMANCE BRAKE

PREMIUM BRAKE WITH AUTOMATIC ADJUSTMENT
- The proven wheel brake with its far above average braking values is supplemented by the automatic adjustment function
- When driving in reverse, the adjustment is deactivated to prevent the brake from blocking
- Suitable for wheel brake types 2051 and 2361, and therefore for most caravans with AL-KO axles
- Quick and easy conversion by pre-mounted AL-KO screw system suitable for AL-KO axles

YOUR ADVANTAGE
- Greater driving safety by a braking distance up to 5 m shorter
- Greater driving comfort by smooth braking without a jolting motion
- Lower maintenance costs due to extended service intervals + dispensing with the first workshop visit after 1000 km
- No requirement to present to the inspection authorities once again following installation
- Tip: Change over to the AAA Premium Brake the next time you change your brake linings, if not before

AL-KO ORIGINAL COMPONENTS
Greater safety both for driving and braking. During servicing always insist on original AL-KO components. As a manufacturer of chassis, shock absorbers and Bowden cables, we know what really matters.

DRIVING SAFETY

SHORTER BRAKING DISTANCE, MORE SAFETY
The shorter the braking distance, the safer it is. The AAA Premium Brake automatically readjusts the brake as soon as there is too much play. Optimally set brakes ensure the best possible performance and the braking distance is thus shortened.

www.al-ko.com
ANTI-THEFT PROTECTION

SWITCH IT OFF!
Whether a short break or at the camping site, the safety accessories from AL-KO always offer you effective protection against theft.
ANTI-THEFT PROTECTION

SAFETY LOCKS –
THE EFFECTIVE GUARANTEE AGAINST THEFT

SAFETY PREMIUM –
THE NEW ANTI-THEFT
PROTECTION GENERATION

Safety Premium also meets the highest international safety standards such as the criteria for the “Sold secure Gold standard” (UK), “SBSC tested” (Sweden) and “SCM tested” (the Netherlands). The sturdy steel construction with powder-coated housing and a solid galvanised bolt (free of chromium(VI)) is supplied with two keys.

SAFETY COMPACT
The tried-and-tested solution offers protection both on the road and when parked. So the caravan remains secure even when taking a break.

SAFETY PLUS
With additional drill protection! Thanks to especially high-strength steel, additional reinforcements and the lock with drill protection, the Plus version offers even greater anti-theft protection even in unsafe areas. The red colour also means: This caravan is perfectly secured.

SAFETY-BALL
The Safety Ball supplements the AL-KO anti-theft devices on the towbar in stationary use. The hard plastic safety catch drops into the tow balls when uncoupled and prevents the spherical head engaging, thus also preventing unauthorised coupling.

FOR MORE SAFETY –
ANY TIME, ANYWHERE

COMFORTING PROTECTION FOR YOUR VALUABLES
Your property is secure against outside access behind solid steel walls. Only the double-bit safety key will open the stable round bolts of the safe door. Independent of power or batteries, the safe rests in the caravan, securing mounted under the vehicle floor via a mounting plate.

SAFETY COMPACT FOR PREMIUM CORNER STEADIES FROM 2006 MODEL YEAR
Easy to use, 2-part, mechanical immobiliser for caravans.
The Safety Compact for Premium corner steadies prevents the steady legs from being cranked up. This secures the caravan into position. Simply turn the legs out, insert safety lock and push in lock. Now you can spend a nice, relaxing day at the beach or in the city. Ensures extra safety for longer downtimes, e.g. over the winter months!
MANOEUVRING

KEEP AN EYE ON EVERYTHING!

Park effortlessly and with millimetre-precision – with the MAMMUT for one-axle and tandem vehicles, manoeuvring is as easy as never before.
MANOEUVRING

MAMMUT / MAMMUT TANDEM
HIGH PRECISION WITH THE TEST WINNER

THE THUMB IS ALL
Only the AL-KO MAMMUT offers a caravan manoeuvring system with a joystick control. Contrary to button operation, you can use one hand to easily steer, accelerate and brake.

PLAYING IT SAFE
The system must be authorised before each use to prevent inadvertent operation. The remote must be held to the sensor to activate the system. After each switch-off, a new authorisation is required.

OPTIMAL GRIP
Two motors are integrated into every drive unit: one for the positioning drive and one for the wheel drive. One push of the button on the remote control and the drive rollers press against the wheels. The permanent electric control of the contact pressure ensures optimal grip under all conditions. The second motor in the drive housing is responsible for the wheel drive.

More ground clearance with an AL-KO CHASSIS embossed with “M” (single axle from 2010 model year, Tandem from model year 2015).

The MAMMUT housing is spray water proof and ensures secure functionality even in a moist environment (IP65).

Powerful, robust, compact: Powerful electric motors in each drive move the caravan wheels.

360° turns
Soft start
Soft stop
Obstacles up to 4 cm
Inclines up to 28% (single axle)
Infinitely variable control

Safety authorisation
On/Off

Adjustable speed and direction control via joystick

Remove MAMMUT drive from the wheel

Engage MAMMUT drive at the wheel

Control panel with battery (mobile home / remote control) and overload display
MANOEUVRING

RANGER / RANGER TANDEM

AL-KO QUALITY AND DESIGN AT AN AFFORDABLE PRICE

The new, powerful entry model for single-axle caravans up to 1.8 tonnes and tandem caravan up to 2.5 tonnes.
Millimetre-precise manoeuvring without needing anyone’s help. Even on uneven terrain.

- AL-KO quality and design
- Climbing power up to 18% (long inclines) / over 18% (short inclines, e.g. drive-on ramp)
- Perfect and tested AL-KO CHASSIS connection from Europe’s chassis market leader
- Soft start and soft stop
- Ergonomic remote control with lanyard
- Suitable for almost any caravan up to 1.8 t (single-axle) or 2.5 t (tandem)
- Protected mechanics
- Worldwide service network
- 5-year warranty (according to AL-KO Warranty Conditions)

MY SUITABLE MANOEUVRING SYSTEM

<table>
<thead>
<tr>
<th>MAMMUT</th>
<th>RANGER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric control</td>
<td>Manual control</td>
</tr>
<tr>
<td>Joystick remote control</td>
<td>Button remote control</td>
</tr>
<tr>
<td>M-connection / Underneath connection</td>
<td>Underneath connection</td>
</tr>
<tr>
<td>Aluminium housing (IP65)</td>
<td>Plastic housing</td>
</tr>
<tr>
<td>Electronics in drive</td>
<td>Electronics in caravan (storage space)</td>
</tr>
<tr>
<td>Aluminium rollers on both sides</td>
<td>Aluminium rollers on both sides</td>
</tr>
<tr>
<td>5-year warranty</td>
<td>5-year warranty</td>
</tr>
<tr>
<td>Total weight of caravan: 2.25 t / 3.0 t</td>
<td>Total weight of caravan: 1.8 t / 2.5 t</td>
</tr>
<tr>
<td>Maximum climbing power up to 28%</td>
<td>Maximum climbing power up to 18%</td>
</tr>
</tbody>
</table>

* Single-axle / Tandem
You can also rely on AL-KO at your destination: A number of components ensure that you can park your caravan safely and comfortably.
PARKING

CORNER STEADIES FOR GREATER STABILITY ON ANY SURFACE

Corner Steadies
Pressed sections, side bracings, strong, rolled trapezoidal threaded spindles and a thick hot-dip galvanisation make corner steadies from AL-KO nearly indestructible.

Premium 1250 kg long
Stabilform 1000 kg short

Safety Compact for Premium Corner Steadies from 2006 Model Year

Easy to use, 2-part, mechanical immobiliser for caravans. The Safety Compact for Premium corner steadies prevents the steady legs from being cranked up. This secures the caravan into position. Simply turn the legs out, insert safety lock and push in lock. Ensures extra safety for longer downtimes, e.g. over the winter months!

BIG FOOT SUPPORT FOOT
With the large footprint of 200 x 180 mm, the Big Foot prevents the steadies from sliding away or sinking in. Practical: When driving the support foot folds down snugly thereby saving space. Can be retrofitted to caravans with an AL-KO Chassis and Stabilform/Premium supports.

ADAPTER FOR BIG FOOT
When you frequently need the maximum steady height, then we recommend the optional adapters for the Big Foot. They bring the Big Foot 45 mm closer to the ground. Please note the decreased ground clearance in this area.

Comfort Kit
The clever trick for extending steadies. With the easy to retrofit Comfort kit, there is no longer any bending or kneeling when retracting or extending the steadies. The plastic profiles are adjusted and mounted once to the caravan. The cardan joint then enables you to operate the steadies with the crank even while standing.

www.al-ko.com
PARKING

PREMIUM JOCKEY WHEEL
THE STABLE MANOEUVRING TOOL

THE MANOEUVRING WHEEL
Especially recommended for manoeuvering systems
The special spherical wheel for easy manoeuvring on any surface.

- Extremely stable design:
  - I Load capacity up to 300 kg
  - I Runs over uneven ground
  - I Integrated wheel load indicator
  - I Easy to manoeuvre
  - I Smooth, removable crank

THE RIGHT WHEEL
FOR ALL APPLICATIONS
Stable, hot-dip galvanised jockey wheels with a crank thrust bearing are optimal solutions for any application due to different types of tyres.

MANOEUVRING HANDLE
The smart complement to the jockey wheel. Uncoupled caravans have never been easier to move.
The manoeuvring handle also prevents loss of the jockey wheel when towing in case a locking bar has not been tightened enough. Can be easily retrofitted to all jockey wheels with an outer tube diameter of 48 mm.

WEATHER PROTECTION PREMIUM
FOR OVERRUN HITCHES AND COUPLINGS

WEATHER PROTECTION LARGE
Weather Protection ensures optimum protection of components thanks to its high-quality material made of spun-dyed acrylic fabric and dirt and water-repellent Cleangard coating.

WEATHER PROTECTION SMALL
Weather Protection offers optimal protection for the AKS 1300 and AKS 3004. It is made from an impressive breathable, dirt-repellent fabric. The integrated eyelets ensure easy securing.

Product line Plus with thrust bearing and hot-dip galvanisation

Solid rubber
- 150 kg

Soft rubber
- 150 kg

Air
- 200 kg

Solid rubber
- 300 kg
MECHANICAL JACK

A special plug-in system prevents the jack from slipping while changing a tyre. Special insertion pockets are additionally supported against the floor of the caravan, thus protecting the chassis + structure. Load capacity up to 1,000 kg. Suitable for caravans up to 2,000 kg total weight. Can be retrofitted to caravans with an AL-KO CHASSIS from 1980 model year onwards.

HYDRAULIC JACK

Heavy caravans now get the right support. As the only manufacturer, AL-KO brings to market a certified vehicle lifting system for tandem caravans up to 3,000 kg total weight. Suitable for and can be retrofitted to tandem caravans with an AL-KO CHASSIS from 1980 model year onwards.

SPARE WHEEL HOLDER

The weight optimised spare wheel holder puts the spare wheel under the caravan. This creates more storage space in the towbar box. The installation under the base directly behind the axle lowers the centre of gravity, thus improving driving behaviour. Can be retrofitted to caravans with an AL-KO CHASSIS from 1985 model year onwards. No TÜV certification or approval required.
CHASSIS TECHNOLOGY

TRUST THE CHASSIS MARKET LEADER

Over three million chassis, six million overrun hitches and 25 million axles demonstrate our competence as the world’s largest manufacturer of caravan chassis technology.
SAFETY FIRST
Maximum safety when cornering, during roll movements, when overtaking, with side and tail wind. Maintenance-free. Proven standard for high-quality caravans for more than 15 years.

DELTA AXLE WE INCLUDE
DRIVING SAFETY

WE’VE FIGURED IT OUT
The Delta axle acts against centrifugal force: The individual wheels mounted on arms move about the axle located at an angle in space during suspension compression and rebound. The force acting on the wheel on the outside of the corner is transmitted via the swing arm onto the axle stub of the wheel with the effect that it increases its toe-in and negative camber. The wheel braces itself against the centrifugal force, thus supporting the vehicle on the inside.

HEXAGONAL RUBBER SUSPENSION
As standard for caravans with an AL-KO CHASSIS – cannot be retrofitted. Ensures optimum driving behaviour of the caravan. More driving comfort via long suspension travel. Robust, durable and easy to maintain. Very good shock absorption; the suspension settles down quickly and increased driving safety.

AS STANDARD FOR NEARLY ALL CARAVANS WITH AN AL-KO CHASSIS
### TECHNICAL DATA AND PRICES

Technical data and prices (manufacturer’s recommended retail price), incl. 19% VAT as of 01/2017

**AL-KO 2LINK SYSTEM**

<table>
<thead>
<tr>
<th>Designation</th>
<th>Order no.</th>
<th>Sales price €</th>
</tr>
</thead>
<tbody>
<tr>
<td>AL-KO 2LINK System</td>
<td>1 731 216</td>
<td>149.00</td>
</tr>
</tbody>
</table>

Suitable for all ATCs (including ATC-Hobby) from 2017. For older ATCs, a software update is possible at AL-KO customer centres in the northern + southern regions (price for software update on request). The levelling function is available via an in-app purchase in the store.

**ATC TRAILER CONTROL**

**ATC installation in AL-KO chassis**

<table>
<thead>
<tr>
<th>AL-KO chassis</th>
<th>Total weight min. – max. kg</th>
<th>Unladen weight min. kg</th>
<th>Order no.</th>
<th>Sales price €</th>
</tr>
</thead>
<tbody>
<tr>
<td>750 – 1,000</td>
<td>500</td>
<td>1 223 022</td>
<td>769.00</td>
<td></td>
</tr>
<tr>
<td>1,001 – 1,300</td>
<td>800</td>
<td>1 223 022</td>
<td>769.00</td>
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<tr>
<td>1,301 – 1,500</td>
<td>1,000</td>
<td>1 223 023</td>
<td>769.00</td>
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<tr>
<td>1,501 – 1,800</td>
<td>1,100</td>
<td>1 223 287</td>
<td>769.00</td>
<td></td>
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<td>1,801 – 2,000</td>
<td>1,300</td>
<td>1 225 186</td>
<td>769.00</td>
<td></td>
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<td>1,300 – 1,600</td>
<td>1,000</td>
<td>1 223 161</td>
<td>769.00</td>
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<td>1,601 – 2,000</td>
<td>1,200</td>
<td>1 223 162</td>
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<td>2,501 – 2,800</td>
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<td>1 730 034</td>
<td>769.00</td>
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</tr>
</tbody>
</table>

**ATC installation in hobby caravan (from model year 1997) with Knott-axle**

<table>
<thead>
<tr>
<th>Hobby caravan</th>
<th>Total weight min. – max. kg</th>
<th>Unladen weight min. kg</th>
<th>Order no.</th>
<th>Sales price €</th>
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</thead>
<tbody>
<tr>
<td>750 – 1,000</td>
<td>500</td>
<td>1 225 429</td>
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<tr>
<td>1,001 – 1,300</td>
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<td>1,301 – 1,600</td>
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<td>1 225 430</td>
<td>749.00</td>
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<tr>
<td>1,601 – 1,900</td>
<td>1,100</td>
<td>1 225 431</td>
<td>749.00</td>
<td></td>
</tr>
</tbody>
</table>

**ATC display, order no. 1 225 304, sales price € 135.00**

Suitable for all ATCs (including ATC-Hobby) from 2010. For older ATCs, a software update is possible at AL-KO customer centres in the northern + southern regions (price for software update on request).

---

**AKS™ 3004 SAFETY COUPLING**

<table>
<thead>
<tr>
<th>Type</th>
<th>Perm. total weight</th>
<th>Holes</th>
<th>Connection</th>
<th>W mm</th>
<th>C mm</th>
<th>D mm</th>
<th>Weight kg</th>
<th>Order no.</th>
<th>Sales price €</th>
</tr>
</thead>
<tbody>
<tr>
<td>AKS™ 3004 up to 3,000 kg torque weight 150 kg</td>
<td>horizontal* cross**</td>
<td>35 + 50 45 + 50</td>
<td>50 + 54 40</td>
<td>11</td>
<td>18</td>
<td>168</td>
<td>4.2</td>
<td>1 225 156</td>
<td>369.00</td>
</tr>
<tr>
<td>Safety three-pack***</td>
<td>horizontal* cross**</td>
<td>35 + 50 45 + 50</td>
<td>50 + 54 40</td>
<td>11</td>
<td>18</td>
<td>168</td>
<td>5.4</td>
<td>1 225 156</td>
<td>399.00</td>
</tr>
</tbody>
</table>

Weather protection small (black) for tow balls 1 730 820 49.50
Weather protection small (black) for AKS 1 730 821 49.50
Weather protection large (light grey) for drawbar 1 730 474 39.00

* for AL-KO overrun hitches ** for other overrun hitches *** AKS™ 3004 + Safety Compact + Safety Ball

**AKS™ 1300 SAFETY COUPLING**

<table>
<thead>
<tr>
<th>Type</th>
<th>Perm. total weight</th>
<th>Holes</th>
<th>Connection</th>
<th>W mm</th>
<th>C mm</th>
<th>D mm</th>
<th>Weight kg</th>
<th>Order no.</th>
<th>Sales price €</th>
</tr>
</thead>
<tbody>
<tr>
<td>AKS™ 1300 up to 1,360 kg imposed load 100 kg</td>
<td>horizontal* cross**</td>
<td>35 + 50 45 + 50</td>
<td>50 + 54 40</td>
<td>11</td>
<td>18</td>
<td>168</td>
<td>3.5</td>
<td>1 225 288</td>
<td>299.00</td>
</tr>
</tbody>
</table>

Weather protection small (black) for tow balls 1 730 820 49.50
Weather protection small (black) for AKS 1 730 821 49.50
Weather protection large (light grey) for drawbar 1 730 474 39.00

* for AL-KO overrun hitches ** for other overrun hitches *** AKS™ 3004 + Safety Compact + Safety Ball
## OCTAGON AXLE SHOCK ABSORBER

<table>
<thead>
<tr>
<th>Single axle Tandem axle Colour</th>
<th>Weight kg</th>
<th>Order no.</th>
<th>Sales price/item €</th>
</tr>
</thead>
<tbody>
<tr>
<td>up to 900 kg up to 1,600 kg</td>
<td>Green</td>
<td>244 084</td>
<td>41.00</td>
</tr>
<tr>
<td>up to 1,350 kg up to 2,700 kg</td>
<td>blue</td>
<td>244 085</td>
<td>41.00</td>
</tr>
<tr>
<td>up to 2,000 kg up to 3,500 kg</td>
<td>Red</td>
<td>244 086</td>
<td>41.00</td>
</tr>
<tr>
<td>up to 4,000 kg up to 7,500 kg</td>
<td>Black</td>
<td>244 087</td>
<td>41.00</td>
</tr>
</tbody>
</table>

## WHEEL CHOCK AND HOLDER

<table>
<thead>
<tr>
<th>Type</th>
<th>Wheel load per chock + half axle load kg</th>
<th>stat. tyre radius max. mm</th>
<th>Order no.</th>
<th>Sales price/item €</th>
</tr>
</thead>
<tbody>
<tr>
<td>UK 10 K*</td>
<td>up to 315 mm</td>
<td></td>
<td>249 422</td>
<td>3.40</td>
</tr>
<tr>
<td>HA 10 K*</td>
<td></td>
<td></td>
<td>249 423</td>
<td>1.20</td>
</tr>
</tbody>
</table>

* This chock/holder Halter not subject to DIN 76051.

## AAA PREMIUM BRAKE

<table>
<thead>
<tr>
<th>Designation</th>
<th>Order no.</th>
<th>Sales price €</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wheel brake 2051 (EA up to 1500 kg / TA up to 2800 kg)</td>
<td>1 730 025</td>
<td>219.00</td>
</tr>
<tr>
<td>Wheel brake 2361* (EA up to 2000 kg / TA up to 3500 kg)</td>
<td>1 730 298</td>
<td>299.00</td>
</tr>
</tbody>
</table>

* Scope of delivery: Compl. set for wheel brakes with bolted-on standard brake shield from 1999 onwards.

## SOFT-BALL

<table>
<thead>
<tr>
<th>For towing hitch Colour</th>
<th>Weight kg</th>
<th>Order no.</th>
<th>Sales price €</th>
</tr>
</thead>
<tbody>
<tr>
<td>with 50 mm ball Red</td>
<td>0.055</td>
<td>605 307</td>
<td>4.60</td>
</tr>
<tr>
<td>with 50 mm ball Black</td>
<td>0.055</td>
<td>1 310 913</td>
<td>4.60</td>
</tr>
<tr>
<td>with 50 mm ball blue</td>
<td>0.055</td>
<td>1 337 726</td>
<td>4.60</td>
</tr>
<tr>
<td>with 50 mm ball aluminium</td>
<td>0.055</td>
<td>1 651 589</td>
<td>5.30</td>
</tr>
</tbody>
</table>

## SAFETY-BALL

<table>
<thead>
<tr>
<th>Type</th>
<th>Colour</th>
<th>Weight kg</th>
<th>Order no.</th>
<th>Sales price €</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety-Ball</td>
<td>Red</td>
<td>0.1</td>
<td>605 305</td>
<td>7.90</td>
</tr>
</tbody>
</table>

## SAFETY ACCESSORIES

<table>
<thead>
<tr>
<th>Designation</th>
<th>Weight kg</th>
<th>for AKSTM 1300</th>
<th>for AKSTM 2000</th>
<th>for AKSTM 2004/3004</th>
<th>for AK 160, Ø 35 mm</th>
<th>for AK 160/300, Ø 50 mm</th>
<th>Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shackle lock**</td>
<td>0.2</td>
<td>247 589</td>
<td>16.50</td>
<td>247 589</td>
<td>17.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Barrel lock**</td>
<td>0.1</td>
<td>245 737</td>
<td>26.50</td>
<td>1 224 478</td>
<td>11.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Universal shackle lock**</td>
<td>1.0</td>
<td>1 224 081</td>
<td>42.50</td>
<td>1 224 081</td>
<td>43.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Safety Compact silver</td>
<td>1.4</td>
<td>1 310 944</td>
<td>69.50</td>
<td>1 310 892</td>
<td>69.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Safety Plus red silver</td>
<td>1.5</td>
<td>1 225 258</td>
<td>149.00</td>
<td>247 632</td>
<td>155.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Safety Premium***</td>
<td>4.9</td>
<td>1 730 540</td>
<td>163.00</td>
<td>1 730 541 (AKS 3004)</td>
<td>170.00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* cannot be used with AK 350 ** fig. top *** UK version ("SoldSecure")

## SAFE

<table>
<thead>
<tr>
<th>Type</th>
<th>Colour</th>
<th>Weight kg</th>
<th>Order no.</th>
<th>Sales price €</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wheel load per chock + half axle load kg</td>
<td>300 x 240 x 200</td>
<td>14</td>
<td>12.5</td>
<td>245 081</td>
</tr>
</tbody>
</table>

## ANTI-THEFT DEVICE SAFETY COMPACT FOR CORNER STEADIES

<table>
<thead>
<tr>
<th>Single axle Tandem axle Colour</th>
<th>Weight kg</th>
<th>Order no.</th>
<th>Sales price €</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corner steadies Premium 1,250 kg, from model year 2006</td>
<td>2 units</td>
<td>electrogalvanised</td>
<td>0.8</td>
</tr>
</tbody>
</table>

Required operating space
### MAMMUT MANOEUVRING SYSTEM

<table>
<thead>
<tr>
<th>Type</th>
<th>Weight</th>
<th>Order no.</th>
<th>Sales price €</th>
</tr>
</thead>
<tbody>
<tr>
<td>M20</td>
<td>32</td>
<td>1 730 367</td>
<td>2,299.00</td>
</tr>
<tr>
<td>S21</td>
<td>42</td>
<td>1 730 368</td>
<td>2,399.00</td>
</tr>
<tr>
<td>S22</td>
<td>42</td>
<td>1 730 369</td>
<td>2,399.00</td>
</tr>
</tbody>
</table>

Max. permitted total weight caravan 2.25 t, max. climbing power (total weight): 15% (2.0 t) / 17% (1.8 t) / 28% (1.2 t)

**Installation in front of axle**
- M in front of axle from model year 2010
  - Height a ≥ 184 mm
  - Height a < 125-184 mm
  - Height a < 125 mm

**Installation behind axle**
- M behind axle
  - Height b ≥ 184 mm
  - Height b < 125 mm
  - Height b = 125–184 mm

Max. permitted total weight caravan 3.0 t, max. climbing power (total weight): 15% (3.0 t)

<table>
<thead>
<tr>
<th>Type</th>
<th>Axles</th>
<th>Weight</th>
<th>Order no.</th>
<th>Sales price €</th>
</tr>
</thead>
<tbody>
<tr>
<td>TM400</td>
<td>1</td>
<td>1 730 287</td>
<td>4,099.00</td>
<td></td>
</tr>
<tr>
<td>TM410</td>
<td>2</td>
<td>1 730 289</td>
<td>4,199.00</td>
<td></td>
</tr>
<tr>
<td>TM420</td>
<td>3</td>
<td>1 730 290</td>
<td>4,199.00</td>
<td></td>
</tr>
</tbody>
</table>

**Height a / b: Bottom edge of the frame until interference contour (steps, water pipe, etc.)
- Height a < 125 mm
- Height a = 125–184 mm
- Height a > 184 mm
- Height b > 125 mm
- Height b < 125 mm
- Height b = 125–184 mm
- Height b > 184 mm

The S and TS variants can be used for AL-KO and third-party chassis under the following conditions:
- The frame profile must be a U or C profile and have a material thickness of 2.5 to 3.5 mm. The distance between outside edge of the frame to the inside of the tyre must be a min. 130 mm for the Mammut and a min. 85 mm for the Ranger. The remaining ground clearance must be a min. of 110 mm.

### RANGER MANOEUVRING SYSTEM

<table>
<thead>
<tr>
<th>Type</th>
<th>Axes</th>
<th>Weight</th>
<th>Order no.</th>
<th>Sales price €</th>
</tr>
</thead>
<tbody>
<tr>
<td>S21</td>
<td>1</td>
<td>1 731 051</td>
<td>1,190.00</td>
<td></td>
</tr>
<tr>
<td>TS411</td>
<td>2</td>
<td>1 731 211</td>
<td>2,190.00</td>
<td></td>
</tr>
</tbody>
</table>

Max. perm. total weight caravan: 1.8 t (S21) / 2.5 t (TS411) max. climbing power 18 % at 1.5 t (S21) or 1.8 t (TS411)

<table>
<thead>
<tr>
<th>Add-on kit for variant S/TS*</th>
<th>Contents</th>
<th>Recommended for MAMMUT</th>
<th>Recommended for RANGER</th>
<th>Order no.</th>
<th>Sales price €</th>
</tr>
</thead>
<tbody>
<tr>
<td>Add-on kit AL-KO Vario III AV / IV AV (installation behind the axle, reinforcement of frame profile 2 mm)**</td>
<td>2 reinforcement plates with bolted fasteners</td>
<td>X</td>
<td>X</td>
<td>1224882</td>
<td>36.00</td>
</tr>
<tr>
<td>Add-on kit AL-KO Vario III AV / IV AV (installation in front of the axle, overlapping adapter)**</td>
<td>2 adapter plates with bolted fasteners</td>
<td>X</td>
<td>X</td>
<td>1731042</td>
<td>98.00</td>
</tr>
<tr>
<td>Add-on kit for frame height (X) less than 185 mm and more than 150 mm</td>
<td>3 x 2 spacer plates each 10 mm with bolted fasteners</td>
<td>X</td>
<td>X</td>
<td>1224883</td>
<td>87.00</td>
</tr>
</tbody>
</table>

* the area of application of the variant S / TS can be expanded with add-on kits.
** if required, with spacer plates 1224883 or 1731063
*** if required, with spacer plates 1731063
**** can be combined with a max. of 3 spacer plates.
**BATTERY**

AL-KO recommends AL-KO maintenance-free, lead rechargeable batteries with gel or fleece technology (AGM)* for Mammut and Ranger manoeuvring drives. If the battery is only used for the AL-KO manoeuvring system (Mammut or Ranger), it should have a charge capacity of at least 80 Ah (single-axle) or 100 Ah (tandem). Fully charged, it can manoeuvre for two hours on even terrain or half an hour at max. load. As an alternative, an AGM battery with spiral cell technology (e.g. Optima)* can also be used. For this, we recommend a capacity of at least 66 Ah.

With tuned charging technology

---

**CORNER STEADIES**

<table>
<thead>
<tr>
<th>Designation</th>
<th>Static load capacity in kg</th>
<th>PTW of the trailer kg</th>
<th>Surface treatment</th>
<th>Weight kg</th>
<th>Order no.</th>
<th>Sales price €</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compact 800 kg short</td>
<td>max. 800</td>
<td>max. 1,600</td>
<td>hot-dip galvanised</td>
<td>3.4</td>
<td>205 808</td>
<td>49.00</td>
</tr>
<tr>
<td>Compact 800 kg long</td>
<td>max. 800</td>
<td>max. 1,600</td>
<td>hot-dip galvanised</td>
<td>3.6</td>
<td>205 817</td>
<td>59.00</td>
</tr>
<tr>
<td>Stabilform 1000 kg short</td>
<td>max. 1,000</td>
<td>max. 2,000</td>
<td>hot-dip galvanised</td>
<td>4.2</td>
<td>267 265</td>
<td>95.00</td>
</tr>
<tr>
<td>Premium 1250 kg long</td>
<td>max. 1,250</td>
<td>max. 2,500</td>
<td>hot-dip galvanised</td>
<td>4.95</td>
<td>1 221 694</td>
<td>105.00</td>
</tr>
<tr>
<td>Extending crank SW19 mm, length 665 mm</td>
<td>–</td>
<td>–</td>
<td>hot-dip galvanised</td>
<td>1</td>
<td>205 520</td>
<td>16.00</td>
</tr>
<tr>
<td>Mounting rail*</td>
<td></td>
<td></td>
<td>hot-dip galvanised</td>
<td>0.5</td>
<td>294 370</td>
<td>29.00</td>
</tr>
<tr>
<td>Retaining tab*</td>
<td></td>
<td></td>
<td>hot-dip galvanised</td>
<td>0.05</td>
<td>365 100</td>
<td>4.50</td>
</tr>
</tbody>
</table>

* for fitting to other chassis

---

**COMFORT KIT**

In all caravans with AL-KO chassis built from year of manufacture 1989 onwards, AL-KO Stabilform steadies or Premium corner steadies can be retrofitted.

Check dimension "A" and "K":
- Dimension A = 605 mm = possible
- Dimension A = 505 mm = not possible
- Dimension K = 23 mm = possible
- Dimension K = 30 mm = not possible

**BIG FOOT**

In all caravans with AL-KO chassis built from year of manufacture 1989 onwards, AL-KO Stabilform steadies or Premium corner steadies can be retrofitted.

*suitable for Stabilform and Premium corner steadies

---

**www.al-ko.com**
PREMIUM PRODUCT LINE JOCKEY WHEELS*

<table>
<thead>
<tr>
<th>Static load capacity</th>
<th>Dynam. load capacity</th>
<th>Wheel mm</th>
<th>Rim</th>
<th>Weight kg</th>
<th>Order no.</th>
<th>Sales price €</th>
</tr>
</thead>
<tbody>
<tr>
<td>300</td>
<td>180</td>
<td>230 x 80</td>
<td>Plate</td>
<td>9.8</td>
<td>1 221 695</td>
<td>135.00</td>
</tr>
</tbody>
</table>

*Corrosion protection: hot-dip galvanised; wheel bearings: Slide bearings; swing arm suspension; removable crank and wheel

PLUS PRODUCT LINE JOCKEY WHEELS*

<table>
<thead>
<tr>
<th>Static load capacity</th>
<th>Dynam. load capacity</th>
<th>Wheel mm</th>
<th>Rim</th>
<th>Weight kg</th>
<th>Order no.</th>
<th>Sales price €</th>
</tr>
</thead>
<tbody>
<tr>
<td>150</td>
<td>90</td>
<td>200 x 50</td>
<td>Plate</td>
<td>5</td>
<td>1 222 436</td>
<td>29.00</td>
</tr>
<tr>
<td>150</td>
<td>90</td>
<td>215 x 65</td>
<td>Plastic</td>
<td>5</td>
<td>1 222 435</td>
<td>40.50</td>
</tr>
<tr>
<td>200</td>
<td>120</td>
<td>260 x 85</td>
<td>Plate</td>
<td>5</td>
<td>1 222 438</td>
<td>60.50</td>
</tr>
<tr>
<td>300</td>
<td>180</td>
<td>200 x 50</td>
<td>Plate</td>
<td>7</td>
<td>1 222 437</td>
<td>67.50</td>
</tr>
</tbody>
</table>

*Corrosion protection: hot-dip galvanised; crank with thrust block; wheel bearings: slide bearing

MANOEUVRING HANDLE

<table>
<thead>
<tr>
<th>Usable for</th>
<th>Weight kg</th>
<th>Order no.</th>
<th>Sales price €</th>
</tr>
</thead>
<tbody>
<tr>
<td>All jockey wheels with Ø 48 mm outer tube</td>
<td>0.2</td>
<td>1 210 182</td>
<td>21.50</td>
</tr>
</tbody>
</table>

JACK

<table>
<thead>
<tr>
<th>Static load capacity in kg</th>
<th>Initial height mm</th>
<th>Lifting height mm</th>
<th>Front height mm</th>
<th>Weight kg</th>
<th>Order no.</th>
<th>Sales price €</th>
</tr>
</thead>
<tbody>
<tr>
<td>800</td>
<td>85</td>
<td>290</td>
<td>375</td>
<td>4.5</td>
<td>1 246 059 (with box)</td>
<td>155.00</td>
</tr>
<tr>
<td>1,000</td>
<td>85</td>
<td>290</td>
<td>375</td>
<td>5.5</td>
<td>1 222 530 (with attachments)</td>
<td>175.00</td>
</tr>
<tr>
<td>1,500</td>
<td>200</td>
<td>190</td>
<td>390</td>
<td>4.5</td>
<td>1 730 240 (bracket)*</td>
<td>79.50</td>
</tr>
<tr>
<td>2,000</td>
<td>170</td>
<td>213</td>
<td>383</td>
<td>3.7</td>
<td>1 730 395 (Hydr. Jack)**</td>
<td>119.00</td>
</tr>
</tbody>
</table>

*Only for use on caravans with a tandem chassis and in combination with a hydraulic jack (min. 2,000 kg load capacity, stamp Ø 28 - 40mm, flat head or groove, crank height, see table).

**not illustrated

SPARE WHEEL HOLDER

<table>
<thead>
<tr>
<th>Dimension X (mm)</th>
<th>75</th>
<th>85</th>
<th>95</th>
<th>105</th>
<th>115</th>
<th>125</th>
<th>Frame gap (mm)</th>
<th>Imple-</th>
<th>Weight kg</th>
<th>Order no.</th>
<th>Sales price €</th>
</tr>
</thead>
<tbody>
<tr>
<td>EH1</td>
<td>155</td>
<td>165</td>
<td>175</td>
<td>185</td>
<td>195</td>
<td>205</td>
<td>1000 - 1250</td>
<td>A</td>
<td>6.4</td>
<td>1 555 934</td>
<td>149.00</td>
</tr>
<tr>
<td>EH1 BR</td>
<td>175</td>
<td>185</td>
<td>195</td>
<td>205</td>
<td>215</td>
<td>215</td>
<td>1260 - 1515</td>
<td>D</td>
<td>6.8</td>
<td>1 556 005</td>
<td>165.00</td>
</tr>
</tbody>
</table>

** Tyre widths are only guidance values due to permitted tolerances in the production of tyres. With a tyre width of 215 mm, it is possible for jamming between the tyre and frame when the spare wheel holder is pulled out. Therefore, the ability to use the spare wheel holder must be checked before installation!

TIP: RETROFIT FOR 100 KM/H PERMIT

Today, many caravans come ex works prepared for the advantageous 100 km/h permit. However, almost all caravans that do not come ex works with the corresponding preparation can get this permit with just a few simple retrofits. You will find the required shock absorbers on page 18 of this catalogue as well as the ISO-certified stabilisation equipment on pages 14 + 15. Along with the desired 100 speed permit, this components also provide enhanced safety and driving comfort. The correct imposed load also is a deciding factor for the stability of the vehicle combination. The AL-KO Premium jockey wheel makes this easy to check. It has an integrated imposed load scale. Thus a glance is all that’s required when coupling to see if the greatest imposed load is being utilised.

This is how you determine the mass ratio (factor “X”)

\[ \text{Permitted total mass of caravan} = \text{empty mass of towing vehicle} \times X \]

Therefore:

- **With AKS:** Permitted total mass of caravan = empty mass of towing vehicle 1,600 kg x 1 = 1,600 kg
- **Without AKS:** Permitted total mass of caravan = empty mass of towing vehicle 1,600 kg x 0.8 = 1,280 kg

Summary:

+ 20% / 320 kg thanks to AKS!

Requirements for braked caravans

- ISO-approved stabilisation equipment or other approved technical equipment
- Hydraulic axle shock absorber
- The highest possible imposed load of the (vehicle) is should be utilised
- Tyres for min. 120 km/h (speed category L)
- Tyres younger than 6 years (manufacture date)

Requirements for the towing vehicle

- ABS (ALB) equipment
- Approved up to a max. of 3.5 t total mass.
“Every euro one point” is the rule for AL-KO Club members. In fact for the purchase of AL-KO Vehicle Technology and SAWIKO accessories. There are valuable rewards for bonus points from the AL-KO product range.

And the replacement programme is not the only advantage of an AL-KO Club membership. Club members will also receive the AL-KO Club newsletter via e-mail on a regular basis. Along with first-hand information, you could also win attractive prizes, e.g. regarding tickets to the large Caravanning trade show in Germany.

Other high-quality, material prizes from the product ranges of SAWIKO and AL-KO Vehicle Technology will also be awarded to all AL-KO Club members on an annual basis.

Membership to the AL-KO Club is free and can be cancelled at any time. Becoming a member is easy: Register free at www.al-ko.com/club and profit from the many advantages.