

# HIGH-TECH COMPONENTS FOR CARAVANS





	Page
Overview of AL-KO high-tech components .....	6
<b>Driving safety .....</b>	<b>10 -17</b>
2LINK.....	12
TPMS tyre pressure monitoring system .....	13
ATC - AL-KO Trailer Control.....	14
AKS™ 3004.....	15
Shock absorber .....	16
Soft-Ball.....	16
Bowden cables.....	16
AAA Premium Brake.....	17
<b>Anti-theft protection .....</b>	<b>18–21</b>
Safety Premium   Safety Compact   Safety Plus.....	20
Winterhoff anti-theft devices.....	20
Safe.....	21
Safety Compact for Premium corner steadies.....	21
Safety Ball .....	21
<b>Manoeuvring.....</b>	<b>22–27</b>
MAMMUT .....	24
RANGER.....	26
<b>Parking.....</b>	<b>28–35</b>
NEW: UP4.....	30
Corner steadies   Big Foot.....	32
Weather protection .....	33
Premium jockey wheel   manoeuvring handle .....	34
Winterhoff jockey wheels.....	35
<b>Breakdown assistance.....</b>	<b>36–37</b>
Jack.....	36
Spare wheel carrier   wheel chocks .....	37
<b>Chassis technology .....</b>	<b>38–43</b>
Delta semi-trailing arm axle .....	40
Hexagonal rubber suspension.....	41
<b>Technical data and prices .....</b>	<b>42–51</b>

# AL-KO

## QUALITY FOR LIFE



### FROM THE VILLAGE FORGE TO A GLOBAL CORPORATION

Our roots were planted in a small village smithy. The fact that a global corporation has emerged from these humble roots is also a result of our constant awareness of what our identity represents and what values the company has always embodied: Quality, innovation in product and process as well as reliability and sustainability in our internal and external customer relations. That is the basis of our pursuit for sustainable growth and quality leadership in our business fields.

Since 2016 we have been making our contribution to the DexKo Group, the world's leading manufacturers of axles and chassis components in the lightweight segment. We are proud to continue in successfully shaping this development together with DexKo and to convey our brand promise of quality, safety and comfort for our products and services to the world.



## 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.



# HIGH-TECH COMPONENTS

## YOUR RELIABLE COMPANION IN EVERY SITUATION

### SAFE

Page 21

### JACK

Page 36

### EURO DELTA AXLE Page 40

### SHOCK ABSORBER / AAA PREMIUM BRAKE Page 16/17

### ATC - AL-KO TRAILER CONTROL

Page 14

### MANOEUVRING SYSTEMS

Page 24 / 26

### 2LINK

Page 12

### JOCKEY WHEELS

Page 34



### COMFORT

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

## SAFETY

On the road and at the camping site, AL-KO's high-tech components always give you 100% reliable safety.



## SPARE WHEEL HOLDER

Page 37

## SUPPORT SYSTEMS

Page 33

## CORNER STEADIES

Page 32

## WEATHER PROTECTION

Page 35

## MANOEUVRING HANDLE

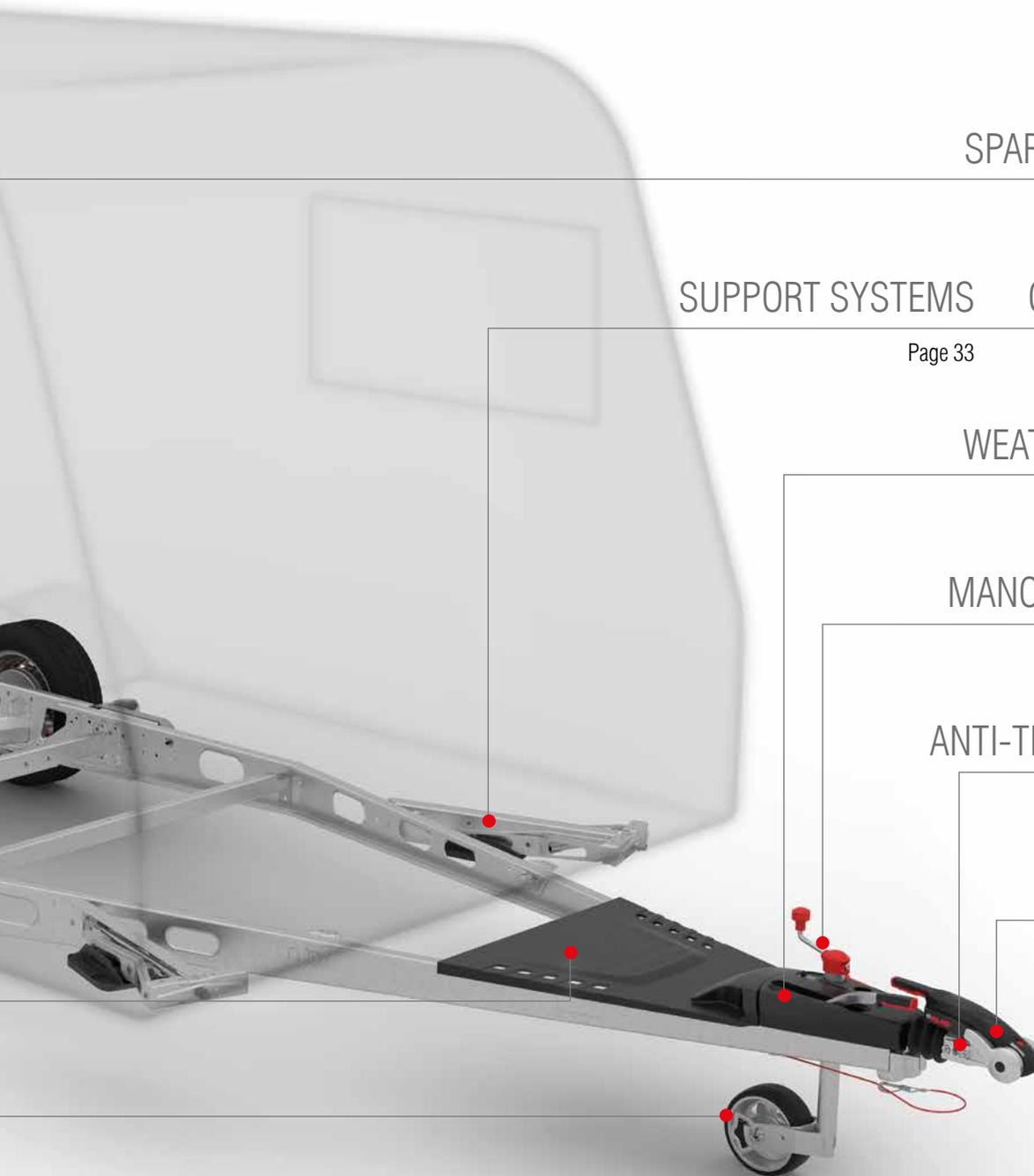
Page 34

## ANTI-THEFT PROTECTION

Page 20

## COUPLINGS

Page 15





## EXPERIENCE

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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.

# AL-KO PRODUCTION HIGHEST STANDARDS AND QUALITY

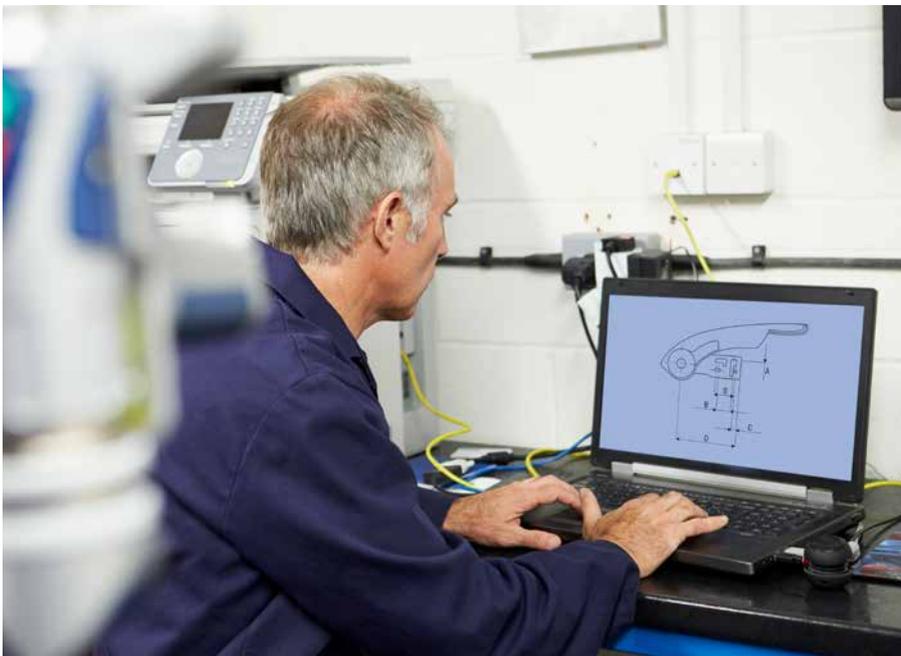
## COOPERATION

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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.

From component to product – precision and care define the manufacturing process



# DRIVING SAFETY





# DRIVING SAFETY



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

AL-KO 2LINK offers you the possibility of monitoring important safety functions on your smartphone while driving. The core element is the 2LINK box. Installed on the drawbar, it processes the data from the sensors in the chassis and transmits these to the 2LINK app that you can download free of charge in the app store or the Google Play store.



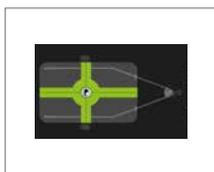
### THE 2LINK APP AT A GLANCE

- I ATC and tyre pressure (TPMS) status display already integrated
- I Spirit level function available free of charge
- I Service locator
- I Various operating manuals



#### ATC

The ATC status display warns the driver directly of system interventions and thus helps to detect dangerous driving situations and external influences earlier.



#### Spirit level

The integrated electronic spirit level makes it easy to manually level the caravan. The 2LINK box detects the current alignment of the caravan and shows the position directly on the smartphone display via the app.



#### Tyre pressure

The TPMS status display allows the driver to check the tyre pressure at any time while driving and is immediately warned of any pressure drop.





## AL-KO TPMS – THE TYRE PRESSURE ALWAYS IN YOUR SIGHTS

The optimum tyre pressure on your caravan has a significant influence on the cost-effectiveness, but more importantly also on the safety of your holiday trip. The new AL-KO tyre pressure monitoring system in combination with the AL-KO 2LINK box offers you the possibility of checking the tyre pressure on your smartphone at any time while driving, and hence of detecting a pressure drop in good time.



### OPTIMUM TYRE PRESSURE FOR OPTIMUM DRIVING

#### Driving with the right tyre pressure at all times offers crucial benefits:

- I Short braking distance
- I Better driving and cornering properties
- I Lower fuel consumption
- I Reduced tyre wear

### THE SIMPLE SOLUTION

The sensor of the AL-KO TPMS is installed directly on the wheel rim instead of a standard valve quickly and easily after removing the tyre.

If a battery is required, installation can be carried out by AL-KO Service or an authorised caravan dealer.



For more information about 2LINK and the app, go to [www.alko-tech.com/2link](http://www.alko-tech.com/2link)



# 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.



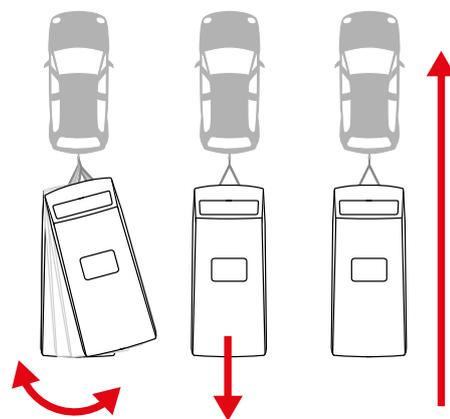
The ATC indicates via radio that it is fully functional on an optical display in the towing vehicle. An optional display shows the data of the monitoring sensors. The driver can thus better detect dangerous driving statuses of the caravan and then adjust his driving style accordingly. Easy retrofitting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

[www.alko-tech.com](http://www.alko-tech.com)

### THE INNOVATIVE ANTI-SNAKING SYSTEM

The emergency system reacts automatically when the swaying of the vehicle combination exceeds limit values.

- I Sensors react to small lateral accelerations.
- I The caravan immediately brakes automatically. The driver barely notices this correction.
- I The caravan is brought back into line and under control automatically. The vehicle combination once again drives safely.



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.



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

# DRIVING SAFETY



## AKS™ 3004

### FOUR FRICTION LININGS FOR BETTER LANE HANDLING

#### 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.



#### 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 comes to rest significantly quicker even in an emergency situation.



#### VISIBLE CONTROL

- 1 Wear indicator for friction pads
- 2 When the green cylinder is visible the AKS™ 3004 is correctly placed
- 3 Wear indicator for coupling



#### WS 3000

Specially developed friction elements are pressed axially under high spring pressure against the towball of the car, resulting in the enormous stability of the vehicle combination. As a result, the critical speed at which a vehicle combination becomes unstable and starts to yaw is permanently increased by up to 30%. Your safety advantage!



# DRIVING SAFETY

## ORIGINAL ACCESSORIES



### OCTAGON SHOCK ABSORBER

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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 "hopping" are reduced significantly.



### SOFT-BALL

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



### IMPROVE EFFICIENCY

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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!

## AL-KO ORIGINAL COMPONENTS

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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.

# AAA PREMIUM BRAKE – THE HIGH-PERFORMANCE BRAKE

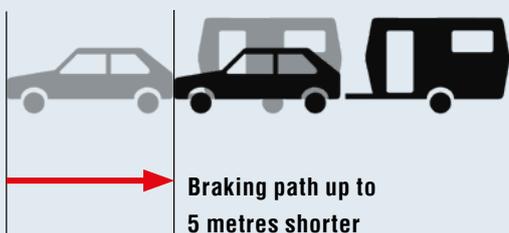


## PREMIUM BRAKE WITH AUTOMATIC ADJUSTMENT

- | 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 in AL-KO axles

## YOUR ADVANTAGE

- | **Greater driving safety** thanks to an up to 5 m shorter braking distance
- | **Greater driving comfort** thanks to smooth braking without a jolting motion
- | **Lower maintenance costs** thanks 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



## SHORTER BRAKING DISTANCE, MORE SAFETY

Every metre of shorter braking distance is a “bonus” in safety. 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.

# ANTI-THEFT PROTECTION





# 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.

## WINTERHOFF ANTI-THEFT DEVICES



### ROBSTOP WS 3000 PLUS

Reinforced, hardened design with special lock cylinders and certificates.



### ROBSTOP WS 3000

Standard version without certificates.



## FOR MORE SAFETY – ANY TIME, ANYWHERE



### COMFORTING PROTECTION FOR YOUR VALUABLES

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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 PRODUCTION DATE

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**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 even with longer downtimes, e.g. over the winter months!



### SAFETY-BALL

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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.

# MANOEUVRING





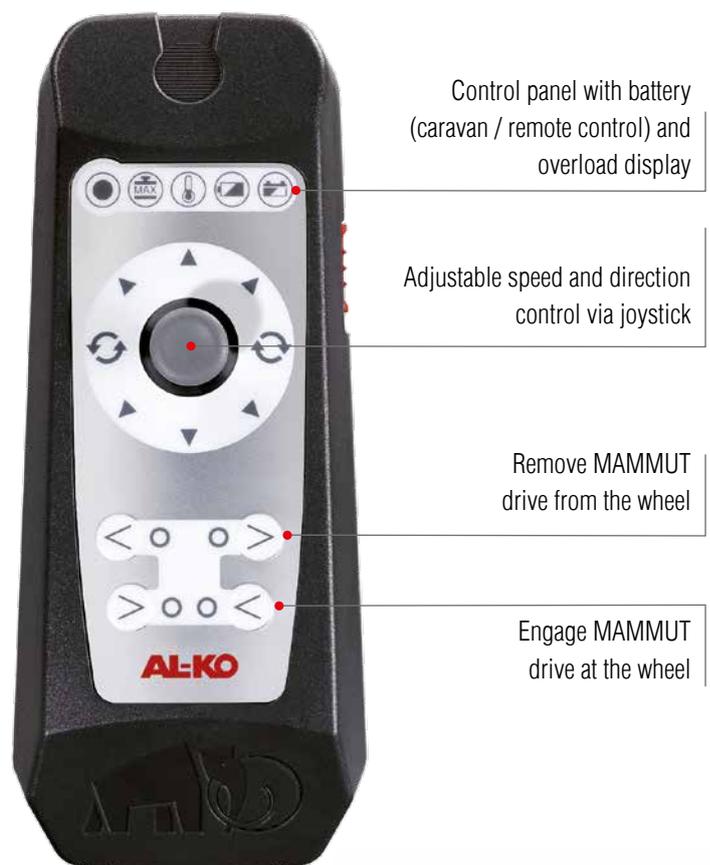
# MANOEUVRING

## MAMMUT / MAMMUT TANDEM GREAT PRECISION WITH MAXIMUM GROUND CLEARANCE



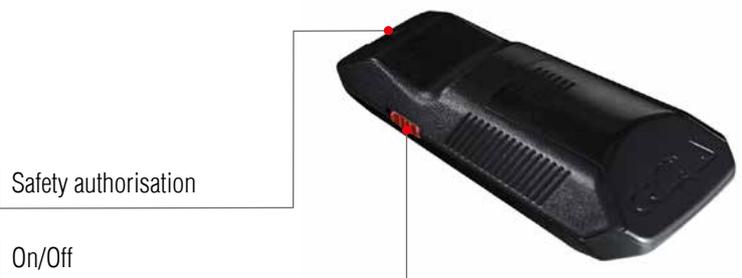
### FINGERTIP MANOEUVRING

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 paired to prevent inadvertent operation. The remote is simply held against the sensor on the drawbar to activate the system.



360° turns



Soft start  
Soft stop



Obstacles up to  
4 cm



Inclines up to  
28% (single  
axle)



Infinitely  
variable control  
axle



More ground clearance with an AL-KO CHASSIS with the embossed "M" (single axle from model year 2010, tandem from model year 2015).



The sturdy aluminium housing of the MAMMUT is splash-proof (IP65) and guarantees a reliable function at all times even under adverse conditions.



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



## 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 sturdy sandblasted drive rollers mounted in double bearings press against the wheels. The permanent electronic control of the contact pressure ensures optimal grip under all conditions. The second motor in the drive housing is responsible for the wheel drive.

# MANOEUVRING

## RANGER / RANGER TANDEM

### AL-KO QUALITY AND DESIGN AT AN AFFORDABLE PRICE

The new, powerful entry-level model for single axle caravans up to 1.8 t and tandem caravans up to 2.5 t. Millimetre-precise manoeuvring without needing anyone's help. Even on uneven terrain.

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



360°  
turns



Soft start  
Soft stop



Obstacles  
up to 2 cm



Inclines  
up to 18 %



- Direction control via buttons
- Green status LED light
- On/Off
- Battery (caravan / remote control) and overload display

## MY SUITABLE MANOEUVRING SYSTEM

MAMMUT	RANGER
Electric control	Manual control
Joystick remote control	Button remote control
M-connection / underneath connection	Underneath connection
Aluminium housing (IP65)	Plastic housing
Electronics in drive	Electronics in caravan (storage space)
Aluminium rollers on both sides	Aluminium rollers on both sides
5-year warranty	5-year warranty
Gross weight of caravan*: 2.25 t / 3.0 t	Gross weight of caravan*: 1.8 t / 2.5 t
Maximum gradeability up to 28%	Maximum gradeability up to 18%

\* Single-axle / Tandem

### Our tip:

RANGER and UP4 are unbeatable in a package, because both systems can be operated with just one remote control!

See page 30 / 31



# PARKING





# PARKING



## UP4 ELECTRONIC SUPPORT SYSTEM

### DEVELOPED FOR CAMPING TODAY!

With UP4 from AL-KO, you raise the legs of your caravan and adjust them precisely by remote control. It was never so quick, easy and safe. UP4 is more than just a further technical accessory. It upgrades your holiday.

because you spare your back and nerves and can start to relax as soon as you arrive at the camp site. Your neighbours will envy you!

#### **I One step faster**

No matter how fast you can crank: The UP4 electronic support system does it faster. And more conveniently.

#### **I One step more convenient**

Lower and adjust the legs simply by remote control. Spares your back. And your nerves.

#### **I One step more stable**

With UP4 you compensate unevenness electrically and the BIG FOOT is already included. For secure standing and greater stability whatever the ground.

#### **I One step more intelligent**

Combine the UP4 with the RANGER: Elegant parking and manoeuvring in future with just one remote control.



## AN EVOLUTIONARY STEP AHEAD!

UP4, the new electronic support system for caravans up to 2.5 t, is carefully designed right down to the last detail. And the best of all: UP4 can be retrofitted on your AL-KO CHASSIS at any time.

## COMBINATION REMOTE CONTROL FOR UP4 AND RANGER



Manual control of the height via buttons

On/Off

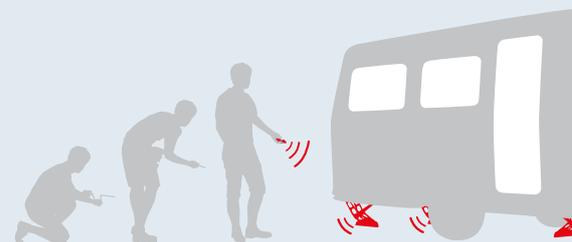
Automatic lowering of the support legs

### TECHNICAL DATA UP4

Power supply	12 Volt DC
Average current consumption	6 amps
Maximum current consumption	24 amps
Remote control transmitter frequency	868MHz
Additional weight	approx. 17.5 kg System weight approx. 40 kg (without battery)
Min. permissible gross weight of the caravan	800 kg
Max. permissible gross weight of the caravan	2,500 kg
Support power source (battery)	12V, 20Ah (min.)
Remote control power source (battery)	PP3 9V

### One step safer!

Extended at just the push of a button and thus ideally protected against theft. A special adapter prevents unauthorised manual resetting.



# 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



### 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 on caravans with an AL-KO chassis and Stabilform or 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.



## WEATHER PROTECTION PREMIUM FOR OVERRUN HITCHES AND COUPLINGS



### WEATHER PROTECTION LARGE

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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

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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.

# PARKING



## PREMIUM JOCKEY WHEEL THE STABLE MANOEUVRING TOOL

### THE MANOEUVRING WHEEL

#### Particularly recommended for manoeuvring systems

The special spherical wheel allows easy manoeuvring on any surface.

Extremely stable design:

- | Load capacity up to 300 kg
- | Runs over uneven ground
- | Integrated wheel load indicator
- | Easy to manoeuvre
- | Easy-running, removable crank

#### Product line Plus with thrust bearing and hot-dip galvanisation

The products from the PLUS category impress with high-quality workmanship, reliability, high-quality materials and long service life. Their high level of stability and smart technical details fulfil the high requirements in the day-to-day use of trailers. All products have a higher degree of functions and are very user-friendly and appealing in their design.



Solid rubber

△  
150 kg



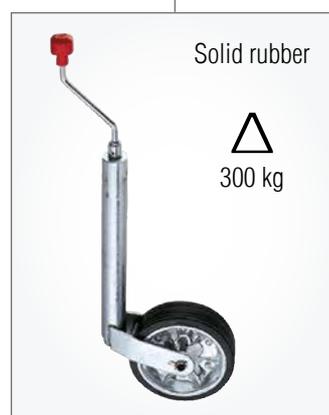
Soft rubber

△  
150 kg



Air

△  
200 kg



Solid rubber

△  
300 kg



### 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.

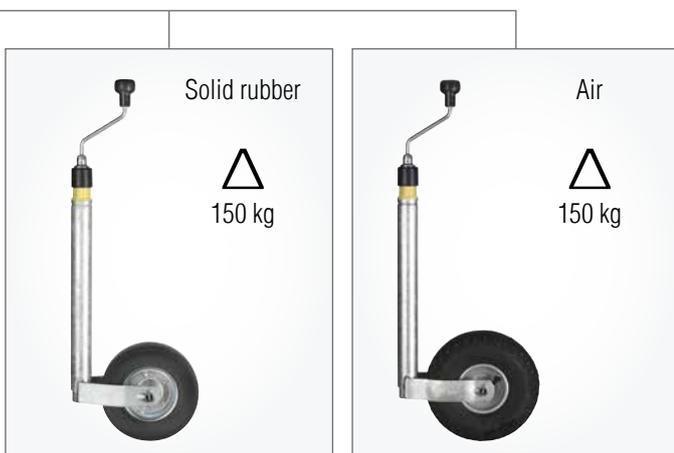


## THE RIGHT WHEEL FOR ALL APPLICATIONS

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



**WINTERHOFF**  
QUALITY TRAILER SYSTEMS



### Integrated load indicator



## SECURING SYSTEM

The Winterhoff BS-KLE 48 securing system secures your jockey wheel while driving.

# BREAKDOWN ASSISTANCE

## CAR JACK AND SPARE WHEEL HOLDER



### 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 gross weight. Can be retrofitted to caravans with an AL-KO CHASSIS from 1980 production date onwards.



### HYDRAULIC JACK

Heavy caravans now get the right support. AL-KO is the only manufacturer to market a certified vehicle lifting system for tandem caravans up to 3,000 kg gross weight. Suitable for and can be retrofitted to tandem caravans with an AL-KO CHASSIS from 1980 production date 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 AL-KO CHASSIS from 1985 production date onwards. No TÜV certification or approval required.



## WHEEL CHOCKS

Wheel chocks are essential for any trailer – in many cases they are required by law. AL-KO offers a range of wheel chock variants for securing parked trailers – from the metal variant through to plastic wheel chocks.

# CHASSIS TECHNOLOGY





# CHASSIS TECHNOLOGY

## DELTA AXLE WE INCLUDE DRIVING SAFETY

### SAFETY FIRST

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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.



### WE'VE FIGURED IT OUT

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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

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As standard for caravans with AL-KO CHASSIS – cannot be retrofitted. Ensures optimum driving behaviour of the caravan. Increased driving comfort due to 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 AL-KO CHASSIS**

# TECHNICAL DATA AND PRICES

Technical data and prices (manufacturer's recommended retail price), incl. 19% VAT  
as of 08/2018

## AL-KO 2LINK SYSTEM

Page 12

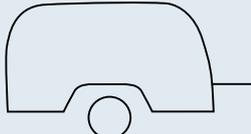
Designation	Part no.	Sales price €
AL-KO 2LINK SYSTEM (incl. spirit level function)	1 731 216	139.–
AL-KO 2LINK TPMS EA	1 732 453	129.–
AL-KO 2LINK TPMS Upgrade TA / TPMS ET	1 732 454	75.–

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

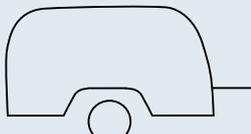
## ATC TRAILER CONTROL

Page 13

### ATC installation in AL-KO chassis

AL-KO chassis	Gross weight min. – max. kg	Unladen weight min. kg	Part no.	Sales price €
	750–1,000	500	1 223 022	769.–
	1,001–1,300	800	1 223 022	769.–
	1,301–1,500	1,000	1 223 023	769.–
	1,501–1,800	1,100	1 223 287	769.–
	1,801–2,000	1,300	1 225 186	769.–
	1,300–1,600	1,000	1 223 161	769.–
	1,601–2,000	1,200	1 223 162	769.–
	2,001–2,500	1,600	1 223 288	769.–
	2,501–2,800	1,800	1 730 034	769.–

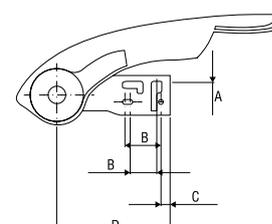
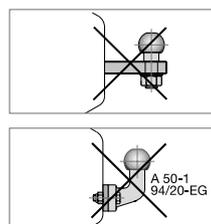
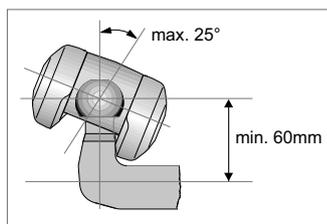
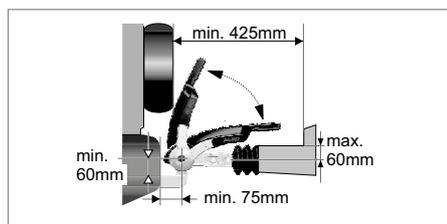
### ATC installation in hobby caravan (from model year 1997) with Knott axle

Hobby caravan	Gross weight min. – max. kg	Unladen weight min. kg	Part no.	Sales price €
	750–1,000	500	1 225 429	749.–
	1,001–1,300	800	1 225 429	749.–
	1,301–1,600	1,000	1 225 430	749.–
	1,601–1,900	1,100	1 225 431	749.–

## AKS™ 3004 SAFETY COUPLING

Page 14

Type Perm. gross weight	Holes	Connection A Ø mm	W mm	C mm	D mm	Weight kg	Part no.	Sales price €
AKS™ 3004 up to 3,000 kg tongue weight 150 kg	horizontal* cross**	35 + 50 45 + 50	50 + 54 40	11 18	168	4.2	1 225 158	369.–
Safety three-pack***	horizontal* cross**	35 + 50 45 + 50	50 + 54 40	11 18	168	5.4	1 225 155	399.–



## OCTAGON AXLE SHOCK ABSORBER

Page 16

Single axle	Tandem axle	Colour	Weight kg	Part no.	Sales price/item €
up to 900 kg	up to 1,600 kg	green	1.3	244 084	42.–
up to 1,350 kg	up to 2,700 kg	blue	1.3	244 085	42.–
up to 2,000 kg	up to 3,500 kg	red	1.3	244 086	42.–
up to 4,000 kg	up to 7,500 kg	black	1.5	244 087	42.–

## SOFT-BALL

Page 16

For trailer hitch	Colour	Weight kg	Part no.	Sales price €
with 50 mm ball	red	0.055	605 307	4.80
with 50 mm ball	black	0.055	1 310 913	4.80
with 50 mm ball	blue	0.055	1 337 726	4.80
with 50 mm ball	aluminium	0.055	1 651 589	5.50

## AAA PREMIUM BRAKE

Page 17

Designation	Part no.	Sales price €
Scope of delivery: Compl. set for wheel brakes with bolted-on standard brake shield from 1999 onwards.		
Wheel brake 2051 (SA up to 1,500 kg / TA up to 2,800 kg)	1 730 026	219.–
RB 2361 (SA up to 2,000 kg / TA up to 3,500 kg)	1 730 298	299.–



Designation	Weight kg	for AKS™ 1300		for AKS™ 2000		for AKS™ 2004/3004		for AK 160, Ø 35 mm		for AK 160/300/ 350, Ø 50 mm	
		Part no.	Sales price €	Part no.	Sales price €	Part no.	Sales price €	Part no.	Sales price €	Part no.	Sales price €
Shackle lock**	0.2							247 589	17.50	247 589	17.50
Barrel lock**	0.1	245 737	28.–	1 224 478	12.50						
Universal shackle lock**	1.0							1 224 081	44.50	1 224 081	44.50
Safety Compact silver	1.4	1 310 944	75.–			1 310 892	75.–	1 310 943	75.–	1 310 890*	75.–
Safety Plus red	1.5	1 225 258	159.–	247 632	230.–	1 225 260	159.–	1 225 261	159.–	1 225 257*	159.–
Safety Premium***	4.9	1 730 540	175.–			1 730 541 (AKS 3004)	169.–	1 730 538	175.–	1 730 539 (AK 160)	175.–
	4.9									1 730 540 (AK 300)	175.–

\* Cannot be used with AK 350 \*\* not illustrated \*\*\* Version UK ("Sold Secure"); Sweden (SBSC) + Netherlands (SCM) versions on demand

## WINTERHOFF ANTI-THEFT DEVICES

Designation	suitable for	Certificates*	Weight kg	Part no.	Sales price/ item €
ROBSTOP WS 3000	WS 3000 from production date 08-2002	–	1.48	1860170 (W1551)	99.–
ROBSTOP WS 3000 PLUS	WS 3000 from production date 08-2002	Sold Secure Gold (UK), SCM (NL)	1.92	1860171 (W1553)	169.–

\* Sweden version (SBSC) on demand



ROBSTOP WS 3000



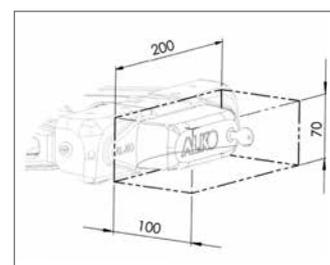
ROBSTOP WS 3000 PLUS

External dimensions Length x width x height mm	Volume Litres	Weight kg	Part no.	Sales price/ item €	Type	Colour	Weight kg	Part no.	Sales price/ item €
300 x 240 x 200	14	12.5	245 091	149.–	Safety-Ball	Red	0.1	605 305	7.90

## ANTI-THIEF DEVICE SAFETY COMPACT FOR CORNER STEADIES

Single axle	Tandem axle	Colour	Weight kg	Part no.	Sales price/ item €
Corner steadies Premium 1,250 kg, from production date 2006	2 units	electrogalvanised	0.8	1 222 515	79.–

Required operating space



## 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 16 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")

The permitted total mass of the caravan may not exceed the empty mass of the towing vehicle:	Current regulation from 22.10.2005 with AKS	Previous regulation from 15.10.1998 without AKS
For unbraked trailers up to 750 kg	X = 0.3	X = 0.3
<b>For caravans</b>	<b>X = 1.0</b>	<b>X = 0.8</b>
For other braked trailers	X = 1.2	X = 1.1

**Therefore:** Permitted gross weight of trailer = **tare weight** of towing vehicle · X (factor)

**Example:** 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

**In short:** + 20% / 320 kg thanks to AKS!

### Requirements for braked caravan

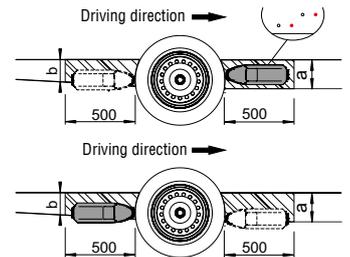
- I SO-approved stabilisation equipment or other approved technical equipment
- I Hydraulic axle shock absorber
- I The highest possible imposed load of the (vehicle) is should be utilised
- I Tyres for min. 120 km/h (speed category L)
- I Tyres younger than 6 years (manufacture date)

### Requirements for the towing vehicle

- I ABS (ALB) equipment
- I Approved up to a max. of 3.5 t total mass

# "MAMMUT" MANOEUVRING SYSTEM

Type	Weight kg	Part no.	Sales price €
M20	32	1 730 367	2,299.-
S21	42	1 730 368	2,399.-
S22	42	1 730 369	2,399.-



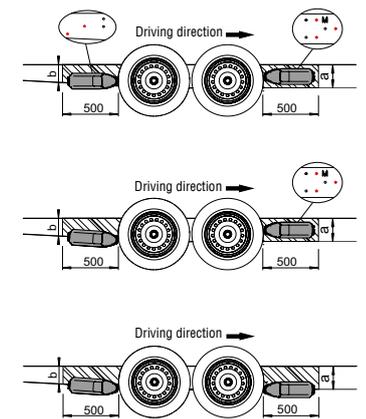
Max. permitted gross weight caravan 2.25 t, max. climbing power (gross weight): 15% (2.0 t) / 17% (1.8 t) / 28% (1.2 t)

	Installation in front of axle		Installation behind axle		
	Yes	No	Yes	No	
	"M" in front of axle from model year 2010		"M" behind axle		
Height a > 184 mm	M20	S21		S21	Height b > 184 mm
Height a = 125-184 mm	S22	S22		S22	Height b = 125-184 mm
Height a < 125 mm	<b>S23</b>	<b>S23</b>		<b>S23</b>	Height b < 125 mm

Height a / b: Bottom edge of the frame until interference contour (steps, water pipe, etc.)

**Versions in italics** = note ground clearance, consultation and installation by AL-KO + dealer

Type	Weight kg	Part no.	Sales price €
TM400	67 kg	1 730 287	4,099.-
TM410	77 kg	1 730 288	4,199.-
TM420	77 kg	1 730 289	4,199.-
TM401	74 kg	1 730 238	4,199.-
TM402	74 kg	1 730 054	4,199.-
TS411	84 kg	1 730 237	4,299.-
TS412 / TS421	84 kg	1 730 233	
TS422	84 kg	1 730 049	

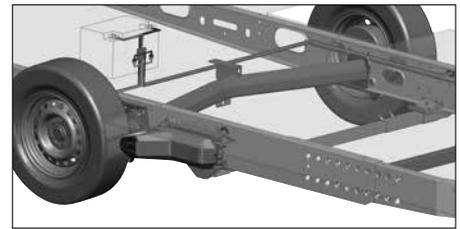
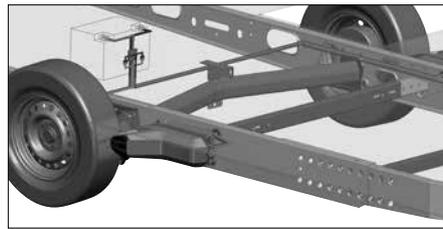
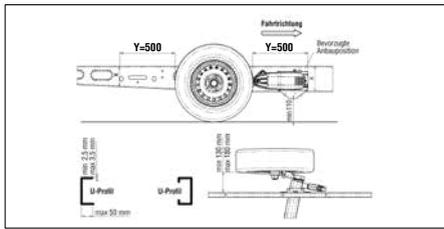


Max. permitted gross weight caravan 3.0 t, max. gradeability (gross weight): 15% (3.0t)

Installation in front of + behind axle					
	"M" in front of axle from model year 2010		2 holes behind the axle as per fig. (from model year 2015)		
	Yes	No	Yes	No	
Height a > 184 mm	TM400 TM401 TM402 <b>TM403</b>		X	X	Height b > 125 mm Height b > 184 mm Height b = 125-184 mm Height b < 125 mm
Height a > 184 mm	TM410	TS411 TS412 <b>TS413</b>	X	X	Height b > 125 mm Height b > 184 mm Height b = 125-184 mm Height b < 125 mm
Height a = 125-184 mm	TM420 TS421 TS422 <b>TS423</b>	TS421 TS422 <b>TS423</b>	X	X	Height b > 125 mm Height b > 184 mm Height b = 125-184 mm Height b < 125 mm
Height a < 125 mm	<b>TM430</b> TS431 <b>TS432</b> <b>TS433</b>	TS431 <b>TS432</b> <b>TS433</b>	X	X	Height b > 125 mm Height b > 184 mm Height b = 125-184 mm Height b < 125 mm

Height a / b: Bottom edge of the frame until interference contour (steps, water pipe, etc.)

**Version in italics** = note ground clearance, consultation and installation by AL-KO + dealer



M20 (fig. MAMMUT)

S21 (fig. MAMMUT)

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.

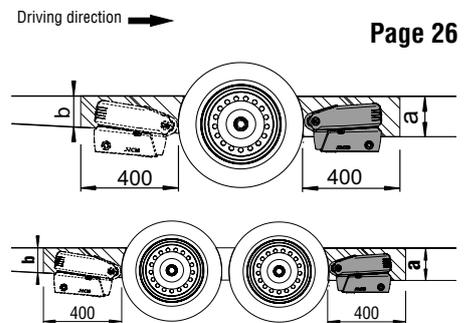
## "RANGER" MANOEUVRING SYSTEM

Type	Axles	Weight kg	Part no.	Sales price €
S21 (single axle)	1	37	1 731 051	1,190.–
TS411 (tandem)	2	74	1 731 211	2,234.–

Max. perm. gross caravan weight: 1.8 t (S21) / 2.5 t (TS411); max. gradeability 18% at 1.5 t (S21) or 1.8 t (TS411)

Clearance (a/b) min. 193 mm from the bottom edge of the frame until interfering contour (steps, water pipe etc.).

For clearance less than 193 mm, use distance plates item no. 1731063 (see installation accessories).



## OPTIONAL INSTALLATION ACCESSORIES MAMMUT / RANGER

Add-on kit for variant S/TS*	Contents	recommended for MAMMUT	recommended for RANGER	Part no.	Sales price €
Add-on kit AL-KO Vario III AV / IV AV (installation behind the axle, reinforcement of frame profile 2 mm)**	2 reinforcement plates with fixing bolts	X	X	1224882	36.–
Add-on kit AL-KO Vario III AV / IV AV (installation in front of the axle, overlapping adapter)***	2 adapter plates with fixing bolts	–	X	1731042	98.–
Add-on kit AL-KO Vario II (installation in front of the axle, overlapping adapter)***	2 adapter plates with bolted fasteners	–	X	1731044	92.–
Add-on kit for frame height (X) less than 185 mm and more than 150 mm	3 x 2 spacer plates each 10 mm with fixing bolts	X	–	1224883	87.–
Add-on kit for frame height (X) less than 193 mm and more than 147 mm****	2 spacer plates each 15 mm with fixing bolts	–	X	1731063	31.–

\* 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

# 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

# UP4



Page 30

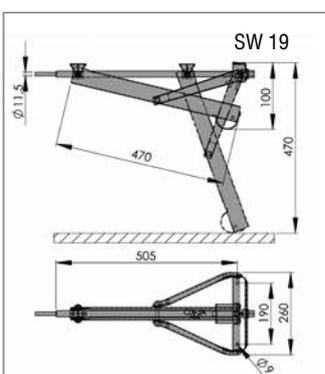
Designation	Additional weight kg	Part no.	Sales price € / Set
UP4	approx. 17.5 System weight approx. 40 kg (without battery)	1731376	1,099.–

# CORNER STEADIES

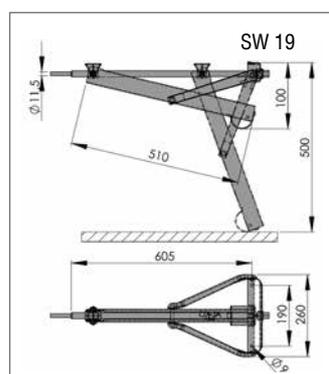
Page 32

Designation	Static load capacity in kg	PTW of the trailer kg	Surface treatment	Weight kg	Part no.	Sales price €
Compact 800 kg short	max. 800	max. 1,600	hot-dip galvanised	3.4	205 808	50.50
Compact 800 kg long	max. 800	max. 1,600	hot-dip galvanised	3.6	205 817	60.50
Stabilform 1000 kg short	max. 1,000	max. 2,000	hot-dip galvanised	4.2	267 265	97.50
Premium 1250 kg long	max. 1,250	max. 2,500	hot-dip galvanised	4.95	1 221 694	109.–
Extending crank WAF 19 mm, length 665 mm	–	–	hot-dip galvanised	1	205 520	16.50
Mounting rail*			hot-dip galvanised	0.5	294 370	29.50
Retaining tab*			hot-dip galvanised	0.05	365 100	4.60

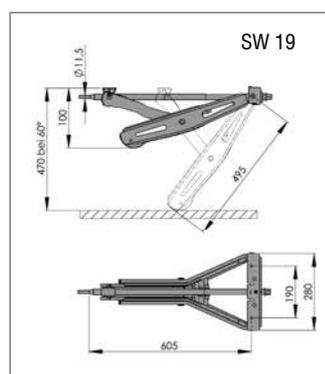
\* for fitting to other chassis



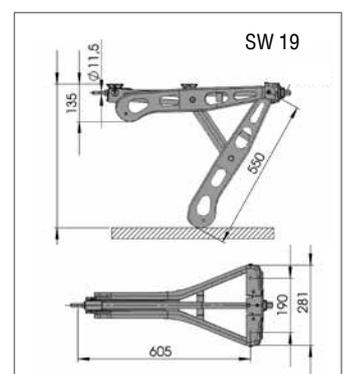
Part no. 205 808



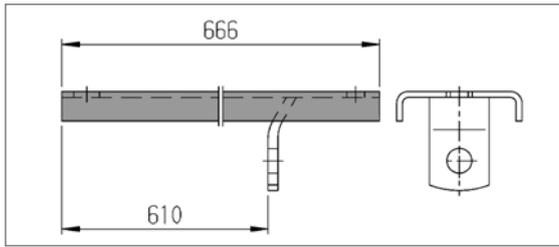
Part No. 205 817



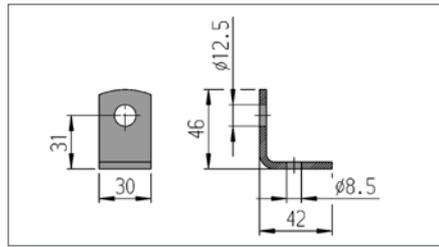
Part No. 267 265



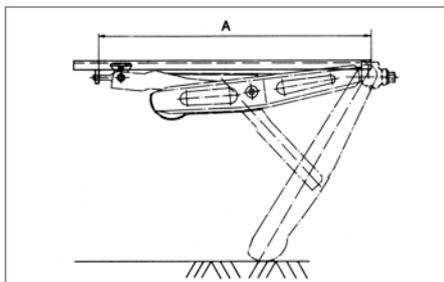
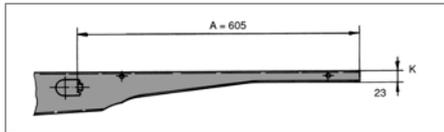
Part no. 1 221 694



Part No. 294 370

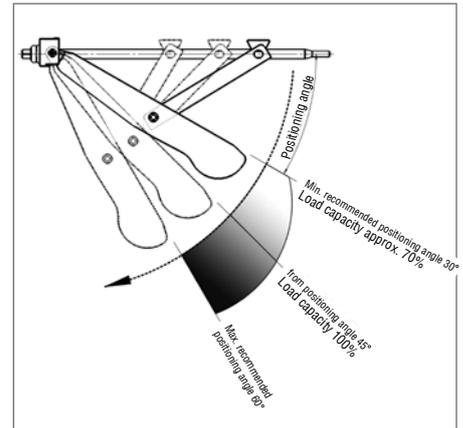


Part No. 365 100



AL-KO Stabilform steadies or Premium corner steadies can be retrofitted on all caravans with AL-KO chassis built from production date 1989 onwards.

**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



AL-KO corner steadies achieve their maximum load capacity from a positioning angle of 45° onwards. If the corner steady is positioned at a very flat angle (e.g. 30°), the load capacity will be reduced (see diagram).

## COMFORT KIT

Usable for	Weight kg	Part no.	Sales price €
All extendable corner steadies with hexagon AF 19	2.3	1 210 506	69.-



## BIG FOOT

Designation	Weight kg	Part no.	Sales price € / Set
Big Foot support foot*	2.5	1 212 458	99.-
Adapter 45 mm for Big Foot*	2.5	1 213 899	79.-



\* suitable for Stabilform and Premium corner steadies

## WEATHER PROTECTION

Designation	Suitable for	Weight kg	Part no.	Sales price €
PREMIUM weather protection	Overrun hitch V and square AL-KO and competitors	0.3	1 730 474	39.50
Weather protection	AL-KO ball couplings and ball couplings from the competition	0.09	1 730 820	49.50
Weather protection	AKS 1300 / 2004 / 3004 / 3504	0.19	1 730 821	49.50

Page 32

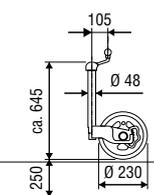
Page 33

## PREMIUM PRODUCT LINE JOCKEY WHEELS\*

Page 34

Static load capacity kg	Dynam. load capacity kg	Wheel mm	Rim	Weight kg	Part no.	Sales price €
300	180	230 x 80 solid rubber	Steel	9.8	1 221 695	139.-

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



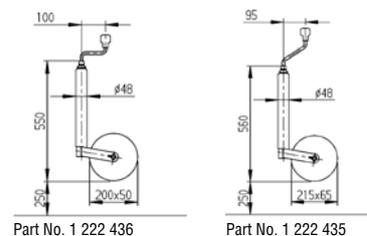
Part No. 1 221 695

## PLUS PRODUCT LINE JOCKEY WHEELS\* – AL-KO

Page 34

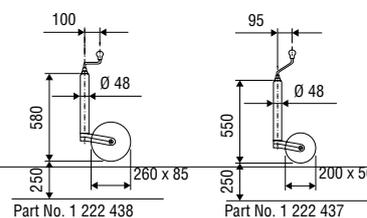
Load capacity static kg	Load capacity dynamic	Wheel mm	Rim	Weight kg	Part no.	Sales price €
150	90	200 x 50 solid rubber	Steel	5	1 222 436	30.-
150	90	215 x 65 soft rubber	Plastic	5	1 222 435	41.50
200	120	260 x 85 air	Steel	5	1 222 438	62.-
300	180	200 x 50 solid rubber	Steel	7	1 222 437	69.50

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



Part No. 1 222 436

Part No. 1 222 435



Part No. 1 222 438

Part No. 1 222 437

## ACCESSORIES

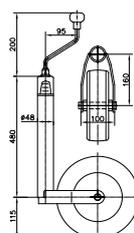
Page 34

Designation	Weight kg	Part no.	Sales price €
Manoeuvring handle with Ø 48 mm outer tube	0.2	1 210 182	22.-
Securing system BS-KLE 48	0.13	1 860 693 (W 1950)	14.65

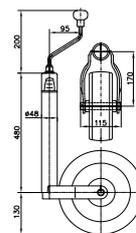
## PLUS PRODUCT LINE JOCKEY WHEELS\* – WINTERHOFF

Page 35

Load capacity static kg	Load capacity dynamic kg	Wheel mm	Rim	Weight kg	Part no.	Sales price €
150	90	225 x 70 solid rubber	Steel	6.62	1 860 924 (W 6095)	69.-
150	90	260 x 85 air	Steel	5.57	1 860 925 (W 6097)	89.-



Part No. 1 860 924



Part No. 1 860 925

## JACK

Page 36

Static load capacity in kg	Initial height mm	Lifting height mm	Final height mm	Weight kg	Part no.	Sales price €
800	85	290	375	4.5	246 059 (with box)	159.-
1,000	85	290	375	5.5	1 222 530 (with attachments)	179.-
1,500	200	190	390	4.5	1 730 240 (bracket)*	79.50
2,000	170	213	383	3.7	1 730 395 (hydr. jack)**	125.-

\*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).

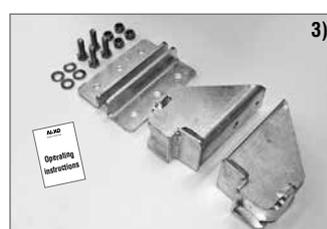
\*\*not illustrated



1)



2)



3)

- 1) Scope of delivery 800 kg kit part no. 246 059
- 2) Scope of delivery 1,000 kg kit part no. 1 222 530
- 3) Scope of delivery 1,500 kg kit part no. 1 730 240

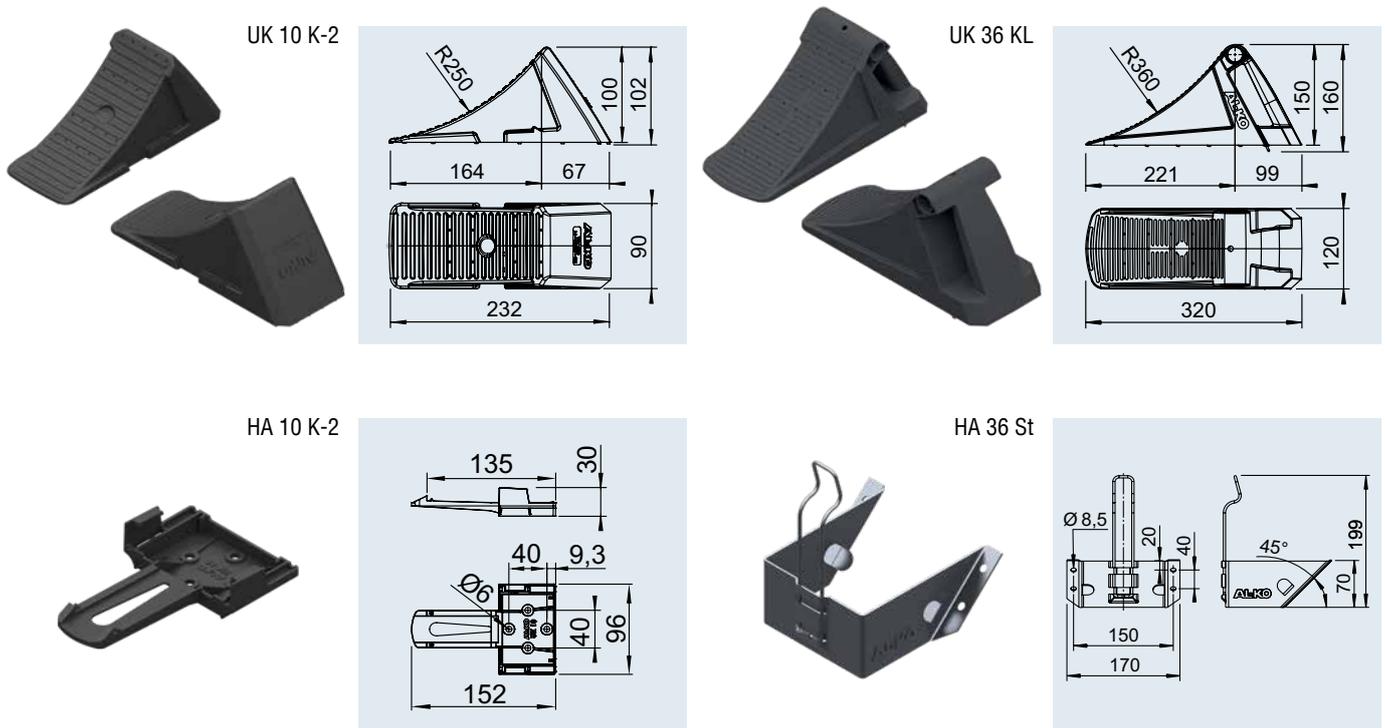
Dimension X mm	75	85	95	105	115	125	Frame gap mm	Implementation	Weight kg	Part no.	Sales price €	
EH1	Tyre width* mm	155	165	175	185	195	205	1050 – 1250	A	6.4	1 555 934	155.–
								1250 – 1550	B	6.8	1 555 943	159.–
								1450 – 1850	C	7.7	1 555 955	163.–
EH1 BR	175	185	195	205	215	215	1265 – 1515	D	6.8	1 556 005	169.–	
							1465 – 1815	E	7.7	1 556 010	179.–	
<b>Retrofit accessory kit EH2</b>									1.85	294 284	39.50	

\* Tyre widths are only reference 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!

Dimension X for determining the maximum possible tyre

# WHEEL CHOCKS AND HOLDERS

Type	Material/colour	Wheel load per chock = half axle load kg	Static wheel radius max.	Weight kg	Part no.	Sales price/item €
Wheel chock UK 10 K-2	Plastic, black	800	up to 310 mm	0.18 kg	1 237 250	3.50
Holder HA 10 K-2 for UK 10 K-2	Plastic, black	–	–	0.03 kg	1 237 251	1.20
Wheel chock UK 36 KL	Plastic, black	1,600 kg	up to 360 mm	0.60 kg	1 235 990	10.–
Holder HA 36 St for UK 36 steel and plastic	Metal, Sendzimir-galvanised	–	–	0.50 kg	244 376	6.50





## AL-KO CLUB

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"Every euro one point" is the rule for AL-KO Club members. Valid for the purchase of AL-KO, E&P, SAWIKO and Winterhoff accessories. There are valuable rewards from the AL-KO Vehicle Technology product range for the bonus points.

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 AL-KO, E&P, SAWIKO and Winterhoff can also be won by all AL-KO Club members on an annual basis.

Membership of the AL-KO Club is free and can be cancelled at any time. Becoming a member is easy: Register free at [www.alko-tech.com/club](http://www.alko-tech.com/club) and profit from the many advantages.

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