

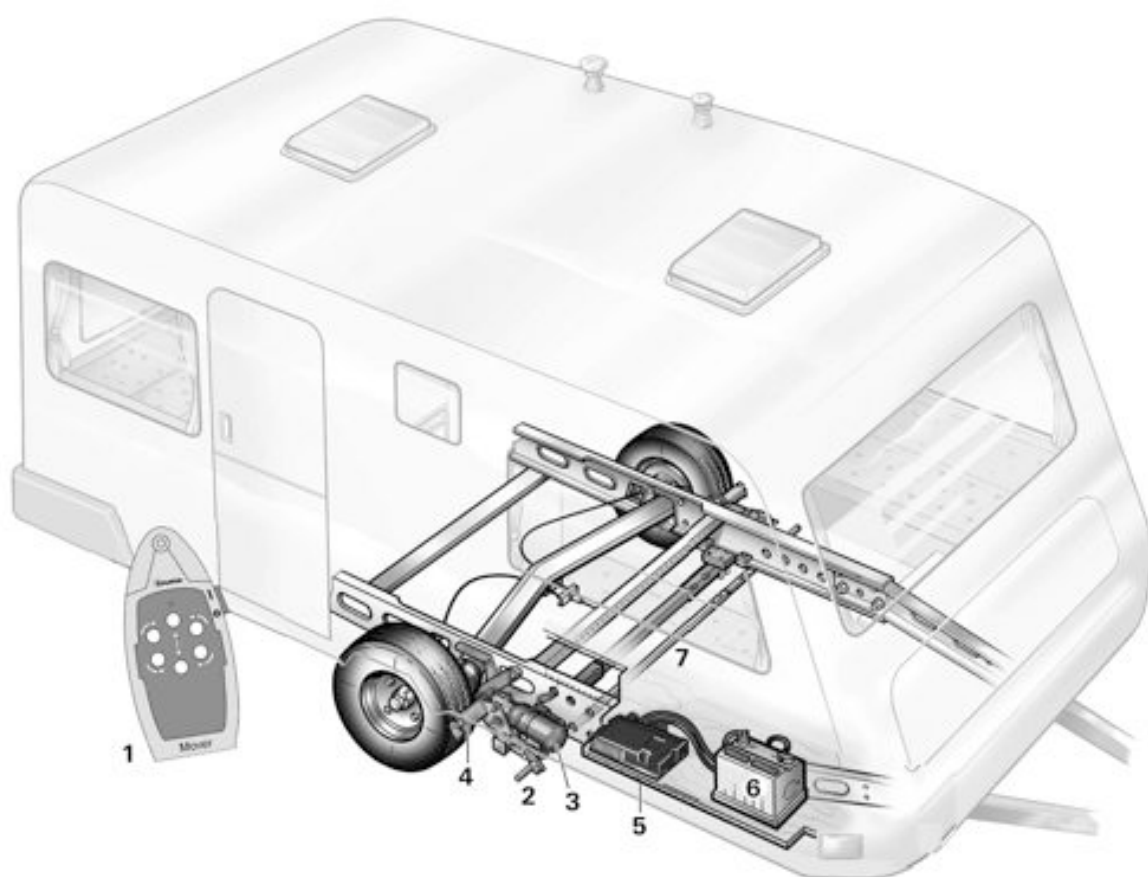
GB **Operating instructions**
Installation instructions

To be kept in the vehicle!

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Installation example

- 1 Remote handset
- 2 Toggle crank
- 3 Drive motor
- 4 Drive roller
- 5 Electronic control unit
- 6 Battery
- 7 Cross actuation device (Option)


Safety-related instructions

- Practice operating the Mover in an open area before using for the first time. **This to fully familiarise yourself with the handset / mover operation.**
- Always check tyres and drive rollers before using the equipment; remove sharp-edged stones and the like if necessary.
- No person must be present in the caravan during operation.
- **All persons (particularly children)** must remain outside the Mover operating area.
- The distance between the radio remote hand set and the centre of the caravan when manoeuvring must not exceed 10 m!
- In the event of malfunctions pull on the handbrake.
- To prevent the caravan from tipping, direct the tow hitch downhill when manoeuvring down a slope.
- After manoeuvring, always **apply the handbrake** first, **swivel the drive rollers away from the tyres** and **block the wheels** (particularly on downwards-sloping surfaces). The Mover is **not suitable for use as a parking brake** for a parked caravan.
- Ensure that remote radio control is protected from unauthorised access (particularly by children!).
- Never tow the caravan with the drive rollers applied. This can cause damage to the tyres, the towing vehicle and the drive units.
- All wheels and tyres on the caravan must be of the same size and design (max. tyre width 205 mm, wider tyres can be severely damaged by the rollers).
- In order to ensure that the Mover operates correctly, the distance between the tyres and the swivelled-out drive rollers must be 20 mm. All tyres must have the same inflation pressure as per the manufacturer's instructions (check at regular intervals!). If tyres are worn or new tyres are fitted, the distance between the drive rollers and the tyres may need readjusting (see "Installation of the drive units").
- Do **not** use the Mover as a support when jacking up the caravan, since this can damage the drive unit.
- Sensitive objects such as cameras, cassette players (Walkmans) etc. must not be kept in the stowage box near the control unit or the motor cable. They can be damaged by the electromagnetic fields.
- The empty weight of the vehicle increases by the weight of the Movers, which reduces the payload of the vehicle.

The Mover has been designed to cope with inclines of up to approx. 25 % bearing a gross weight of 1200 kg or 15 % bearing a gross weight of 1700 kg on a suitable surface.

Depending on the weight of the caravan, the Mover cannot overcome obstructions that are more than about 2 cm in height without assistance (please use wedges as a ramp).

Due to the nature of a radio signal, it can get corrupted by external terrain or objects. So there may be small areas around the caravan where the quality of reception reduces, hence the Mover may stop momentarily.

 When the Mover is switched off using the remote control the control unit remains in standby. In order to switch off completely the battery must be disconnected or an isolating switch installed.

Batteries

We recommend the use of so-called drive and lighting batteries. Gel batteries and round cell batteries are also suitable.

These batteries are designed for high power demands and have an extremely long service life. The maximum power consumption of the Mover on the steepest incline and carrying the maximum weight is 120 A. The correct choice of battery depends on the usage period and the scope of use (other consumers in caravan). For mover operation we recommend batteries with a capacity of approx. 60 Ah or more.


Example:

A fully charged lead-acid battery with a capacity of 60 Ah allows the Mover to be operated for approximately 30 minutes with a full load (depending on weight of caravan, battery type and terrain). On level terrain the Mover has average power consumption of approximately 30 A and therefore an operating time of approx. 2 hours.

The use of gel batteries or round cell batteries means that smaller batteries can be used.

Batteries with more capacity allow the equipment to be used for longer.

We recommend the use of chargers with the LuoU characteristic curve (e.g. Truma battery charger NT 12/ 3-18, part no. 39901-01). These chargers prevent the battery from being damaged because of overcharging, for example.

 Because of the limited charging current, the charger cannot be used for rapid charging.

Function description


Always observe the operating instructions and "Safety-related instructions" prior to starting! The vehicle owner is responsible for correct operation of the appliance.

Note that only single axle caravans are suitable.

The Mover is a manoeuvring system with which a caravan can be moved without the assistance of a towing vehicle.

It consists of two separate drive units, each of which has a 12 Volt DC motor. These units are attached to the frame of the vehicle near the wheels and are connected by lateral bars.

Once the drive rollers have been swivelled onto the tyres using the provided lever, the Mover is ready for operation. All operation takes place using the remote hand set. This transmits radio signals to the control unit. A separate 12 V lead-acid battery or suitable lead-gel battery (not included in scope of delivery) supplies the control unit with current.

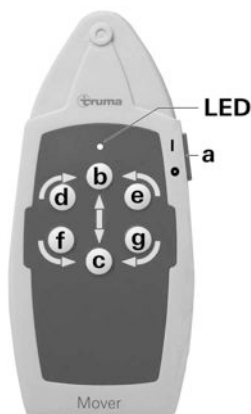
 For an ease of operation, as an option, a cross actuation device is available (please ask your dealer).

Remote Handset

a = On / Off slide switch

- ! On (green LED illuminates)
- Off (green LED goes off)

- b = Caravan forwards
(both wheels rotate in forwards direction)
- c = Caravan reverse
(both wheels rotate in reverse direction)
- d = Caravan right forwards
(left wheel rotates in forwards direction)
- e = Caravan left forwards
(right wheel rotates in forwards direction)
- f = Caravan right reverse
(left wheel rotates in reverse direction)
- g = Caravan left reverse
(right wheel rotates in reverse direction)



The caravan can be turned in a circle on the spot without moving forward:

- d + g = Turn caravan to the right
(left wheel rotates forwards + right wheel rotates backwards)
- e + f = Turn caravan to the left
(left wheel rotates backwards + right wheel rotates forwards)

The remote hand set automatically switches itself off after approx. 2 minutes if no button is pressed, or after 7 minutes if one of the movement buttons is permanently held down. The green LED goes off.

To reactivate the remote control, move slide switch to "Off" ● and then back to "On" ! after approximately 1 second.

There is no "On / Off" switch on the caravan to be operated.

Remote hand set LED flash codes and acoustic signal

LED "On" and no acoustic signal

System is ready for operation

LED "Off" and no acoustic signal

System off
(check remote hand set batteries if necessary)

LED "flashes" in combination with acoustic signal:

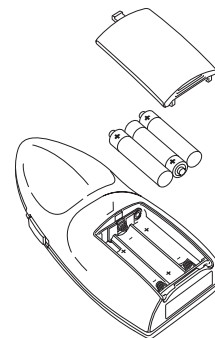
- for approx. 5 seconds after switching the remote hand set on, until the system is ready for operation.
- for approx. 10 seconds after switching the remote hand set on, then it is switched off again – unable to establish radio link to controller.
- every 3 seconds if the caravan battery has a low charge (finish manoeuvring as quickly as possible and charge battery).
- 5 times per second (5 Hz) if the caravan battery has under-voltage. No manoeuvring is possible until the battery voltage is above 11 V again (e.g. by means of recovery/battery charging).
- approx. 2 times per second with overcurrent / overtemperature (2 Hz). Switch remote hand set off and on again (wait for cooling down if necessary in the event of overtemperature).

Changing the batteries in the remote handset

Please be sure to use leak proof micro-batteries only, type LR 03, AAA, AM 4, MN 2400 (1.5 V).

When fitting new batteries ensure the polarity is correct!

! Dead and used batteries may leak and damage the remote handset! Remove the batteries if the handset is not going to be used for an extended period.



No claims under guarantee will be considered for damage caused by leaking batteries.

Before throwing away a defective handset, it is essential that the batteries are removed and disposed of in proper manner.

Manoeuvring the Caravan

! Please read the "Safety-related instructions" before using the Mover!

With the caravan free from the tow vehicle (handbrake on), engage the drive rollers by use of the 19 mm AF wrench provided or the steady leg brace. The action will be quite stiff and will snap into place. The movement required is just over 1/2 turn. Turn the wrench until it will turn no more without excessive force. Perform at both sides of caravan.

! Before operating the Mover, release the handbrake.

Move slide switch (a) on remote hand set to the "On" ! position – green LED flashes for 5 seconds in combination with the acoustic alarm until the control unit is ready for operation.

The six direction buttons provide movement in six directions – forward, reverse, left forward, left reverse, right forward, right reverse.

The "left forward" (e) and "right reverse" (f) or "right forward" (d) and "left reverse" (g) buttons can also be pressed simultaneously in order to turn the caravan in a circle on the spot without moving it forwards.

i The soft start / stop facility means that the caravan starts without jerking and is gently braked when stopping.

If the buttons are released or the radio signal is interfered with or becomes too weak, the caravan stops. Your Mover cannot be activated by radio devices or other Mover remote hand sets.

After starting up, the Mover moves at a uniform speed. The speed will increase a little when going downhill and decrease a little when going uphill.

Move slide switch on remote control to the "Off" ● position to switch the remote control and the Mover off.

i The slide switch also acts as an "Emergency stop" switch.

After manoeuvring, **first apply the handbrake** and then **swivel the drive rollers away from the tyres**.

Hitching to a tow car

It is totally possible to position the caravan's hitch to a stationary car tow ball using the Mover, but take some care.

Use the instructions above as your guide. Use the button controls to bring the caravan to the car (car handbrake "ON", and car in gear). Use a button stabbing technique to exactly position the hitch directly over the ball. Lower the hitch to the ball and engage in the normal way using the jockey wheel.

Prepare the caravan for towing as usual. **The caravan must not be towed with the drive rollers swivelled in.**

Maintenance

Please do not allow the drive units to become soiled with coarse road material. When you are cleaning the caravan, spray the Mover with a water hose to dissolve mud etc. Please ensure that no stones, twigs or the like become trapped in the equipment. The control unit does not require maintenance. Please keep the remote hand set in a dry place.

Every year (and / or before putting away for the winter), clean Mover as described, dry and lightly spray the drive unit guides with oil spray or a similar water-repelling lubricant. **Do not put lubricant on the rollers or the tyres!** Swivel the drive units in and out several times to allow the lubricant to penetrate all the guides. Do not park the caravan with the drive rollers swivelled in.

To prevent the battery from becoming totally discharged during long periods of inactivity it must be disconnected or switched off using the isolating switch and occasionally recharged. Charge the caravan battery before starting up.

It is extremely easy for you or your caravan dealer to perform the checking and maintenance of your Mover during the annual inspection of your caravan. If in doubt, please contact the Truma Services (see Truma Service Booklet or www.truma.com).

Checks

- Check the installation, wiring and connections for damage at regular intervals. The drive units must be able to move freely and be returned automatically to the safe idle position by the return spring when they are swivelled out. If this is not the case, examine drive units for soiling or corrosion at the guides and clean if necessary. Undo all moving parts as required and oil or spray with a lubricant such as WD40 to ensure that the equipment moves correctly and provides the full range of movement.
- After the annual inspection, check whether all motors react properly to the buttons on the remote control.
- At least every 2 years, an expert **must** check the Mover for rust, check that detachable parts are firmly attached and check that all safety-related parts are in good working order.

Trouble-shooting

Before calling customer service, please check the following:


Are the batteries in the remote handset in good condition?

Is the caravan battery in good condition and fully charged? Please note that battery performance can deteriorate rapidly at cold ambient temperatures.

Perform a reset by briefly disconnecting the battery (for approx. 10 seconds).

If the fault cannot be remedied, please contact your dealer or the Truma Service department (see Truma Service Booklet or www.truma.com).

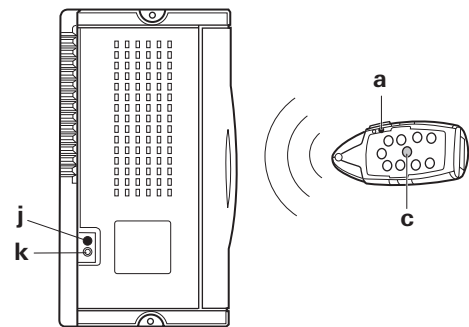
Synchronising the electronic control unit with the radio remote hand set

 The remote hand set and the control unit are synchronised with each other in the factory.

If the control unit or the remote hand set is replaced, they must be re-synchronised as described below.

Check the installation in accordance with the installation instructions and ensure that the drive rollers are **not** applied. Check that the battery is properly connected, check the condition of the battery and that a voltage of 12 V is present at the control unit.

Press the reset button (k) on the control unit and hold down (red LED – j – flashes slowly), and after approx. 5 seconds the LED (j) starts to flash rapidly. Then release the reset button and press and hold down the caravan reverse button on the remote hand set (c) within 10 seconds, simultaneously switching on the remote hand set using the slide switch (a).



The remote hand set and the control unit are synchronised to each other. After successful synchronisation, the red LED flashes rapidly.

Manufacturer's terms of warranty

1. Case of warranty

The manufacturer grants a warranty for malfunctions in the appliance which are based on material or production faults. In addition to this, the statutory warranty claims against the seller remain valid.

A claim under warranty shall not pertain:

- for parts subject to wear and in cases of natural wear and tear,
- as a result of using parts that are not original Truma parts in the units,
- as a consequence of failure to respect the manufacturers instructions for installation and use,
- as a consequence of improper handling,
- as a consequence of improper transport packing.

2. Scope of warranty

The warranty is valid for malfunctions as stated under item 1, which occur within 24 months after conclusion of the purchase agreement between the seller and the final consumer. The manufacturers will make good such defects by subsequent fulfilment, i.e. at their discretion either by repair or replacement. In the event of manufacturers providing service under warranty, the term of the warranty shall not recommence anew with regard to the repaired or replaced parts; rather, the old warranty period shall continue to run. More extensive claims, in particular claims for compensatory damages by purchasers or third parties, shall be excluded. This does not affect the rules of the product liability law.

The manufacturer shall bear the cost of employing the Truma customer service for the removal of a malfunction under warranty – in particular transportation costs, travelling expenses, job and material costs, as long as the service is carried out by an authorised Truma Dealer.

Additional costs based on complicated removal and installation conditions of the appliance (e.g. removal of furniture or parts of the vehicle body) do not come under warranty.

Rollers carry 24 months warranty against manufacturing defects. Take care to remove sharp stones from your tyres prior to using your Mover.

3. Raising the case of warranty

In the event of faults, in principle the Truma Service Centre is to be notified: Truma UK Limited, 2000 Park Lane, Dove Valley Park, Foston, South Derbyshire DE65 5BG.

In Germany, always notify the Truma Service Centre if problems are encountered; in other countries the relevant service partners should be contacted (see Truma Service Booklet or www.truma.com). Complaints must be specified. In addition, the correctly completed warranty certificate must be presented or the Serial number of the appliance and the date of purchase specified.

In order to allow the manufacturer to check whether it is a warranty case, the end consumer must take or send the device to the manufacturer at his own risk.

In instances of the device being sent to the works, dispatch is to be effected by freight transport. In cases under warranty, the works shall bear the transport costs or the costs of delivery and return. If the damage is deemed not to be a warranty case, the manufacturer shall notify the customer and shall specify repair costs which shall not be borne by the manufacturer; in this case, the customer shall also bear the shipping costs.

Conformity Declaration

1. Manufacturer master data

Name: Truma Gerätetechnik GmbH & Co. KG
Address: Wernher-von-Braun-Str. 12, D-85640 Putzbrunn

2. Product identification

Type / Model:
Auxiliary drive **Euro Mover, Caravan Mover, Twin Mover**

3. Complies with the requirements of the following EC directives

- 3.1 R&TTE directive (1999/5/EC)
- 3.2 Low voltage directive (73/23/EEC)
- 3.3 EMC directive (89/336/EEC, 2004/108/EC)
- 3.4 Interference suppression in motor vehicles (72/245/EEC, 2006/28/EC)

and is marked with the type approval number e1 03 4230 and the CE-mark.

Euro Mover / Caravan Mover:
Class 1, optional frequency 434 MHz or 868 MHz.

Euro Mover Tandem:
Class 1, frequency 868 MHz.

Countries:

AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MT, NL, NO, PL, PT, RO, SE, SI, SK.

4. Basis of proof of conformity

EN300220-2:2006, EN300220-1:2006 (R&TTE art. 3.2), EN301489-1:2005, EN301489-3:2002 (EMC art. 3.1b), EN61000-4-2:2001, EN61000-4-3:2006, EN61000-4-6:2001, EN55022:2003 (Class B), ISO 7637-2:2004, EN60950:2001, 2006/28/EC

5. Monitoring body

Federal Office for Motor Traffic

6. Information concerning position of undersigned



Signature: Dr. Schmöll
Executive Manager, Technology

Putzbrunn, 12.07.2007

Installation instructions

Read the installation instructions prior to starting work and follow them carefully!

Please ensure that no metal chips or other contaminants get into the controller during installation.

Intended use

The Caravan Mover is designed for use with single-axle caravans with a total weight of up to 1700 kg.

The Caravan Mover weighs approximately 30 kg.

Check the towing load of your vehicle and the gross weight of your caravan in order to establish whether they are designed for the additional weight.

Approval

The Truma Caravan Mover II has design approval, and a general operating permit (ABE) has been issued for Germany. Acceptance by a vehicle expert is not required (except when installing the low chassis kit). The ABE can be requested from Truma and must be carried in the vehicle in Germany.

The Mover complies with the vehicle engine interference suppression directive 72/245/EEC with supplements 2004/104/EC, 2005/83/EC and 2006/28/EC and bears type approval number: e1 03 4230.

The Mover complies with EMC directive 89/336/EEC and low voltage directive 73/23/EEC.

The remote hand set and the receiver comply with the requirements of the R&TTE directive 1999/5/EC.

The technical and administrative regulations of the country in which the vehicle is initially registered must be complied with when the Mover is being installed.

Any modifications to the unit, or the use of spare parts and accessories that are important to the operation of the system that are not original Truma parts and failure to follow the installation and operating instructions will cancel the warranty and indemnify Truma from any liability claims. In addition to this, the operational approval for the device will be cancelled.

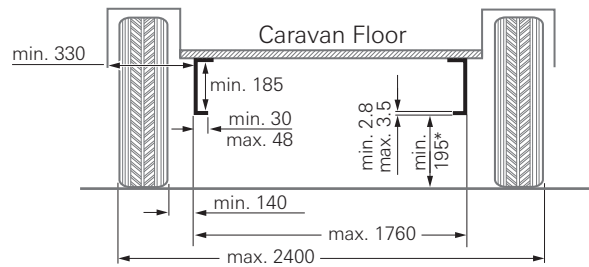
Tools and facilities required

To install the unit you will need:

- 13 mm AF socket / wrench, 13 mm AF combination spanner
- Torque wrench (automotive size)
- Cable cutter / Crimping tool
- Power drill / screwdrivers / 25 mm hole cutter
- Portable 2 tonne trolley jack and axle stands to suit
- Appropriate lighting

Minimum installation dimensions

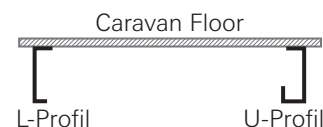
The equipment can only be fitted to caravans / trailers within the following dimensions.



all dimensions in mm

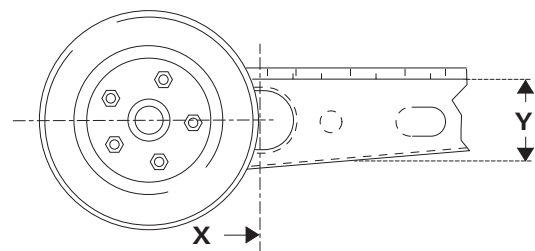
* with fully loaded vehicle

i A distinction is made between L-profiled and U-profiled chassis as shown in the illustration.



Measuring the chassis height

The chassis height (Y) is measured at point (X)



Determining the installation type

1. Standard installation

Standard installation is used with an L-profile chassis and a frame height (Y) of approx. 185 mm. **No special accessories** are required.

2. Installation on a chassis with U-profile

Standard installation is used with a U-profile chassis and a frame height (Y) of approx. 185 mm. A **U-profile chassis kit** is needed to compensate for the profile edge.

3. Installation on a chassis with L-profile and frame height of between 140 and 185 mm

With a chassis with a frame height (Y) of 140 mm to 185 mm, 1, 2 or 3 **spacer plate sets** and the **U-bolt extension kit** are needed to compensate for the height.

4. Installation on a chassis with U-profile and frame height of between 140 and 185 mm

The **U-profile chassis kit**, 1, 2 or 3 **spacer plate sets** and the **U-bolt extension kit** are required to compensate for the U-profile **chassis** edge and the height.

5. Installation on a chassis with L- and U-profiles with frame height of less than 140 mm

On a chassis with a frame height (Y) of less than 140 mm a **low chassis kit** must be fitted to compensate the height.



In Germany, the low chassis kit installation must be accepted by a vehicle expert.

6. The **AL-KO Vario III / AV installation kit** must be used with the AL-KO Vario III / AV chassis with a frame thickness of less than 2.8 mm.

Special accessory installation

1. U-bolt extension kit

(for **chassis** with **L-profile**, frame height **from 140 to 185 mm**)

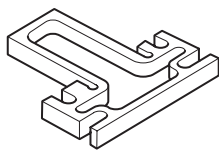
U-bolts, nuts and washers,
part no. 60010-00100.



1.1. Spacer plate kit (two 15 mm spacer plates)

for height compensation
max. 45 mm (3 plates) at
each side (e.g. installed
behind axle)

part no. 60010-66000.



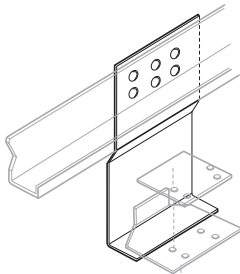
2. Low chassis kit

for height compensation for
caravan / trailer with frame height of
less than 140 mm,

part no. 60010-64900.



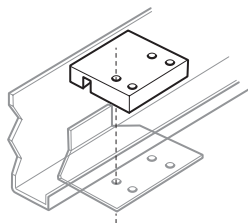
In Germany, this installation
kit **must be accepted by**
a vehicle expert.



3. U-profile chassis kit

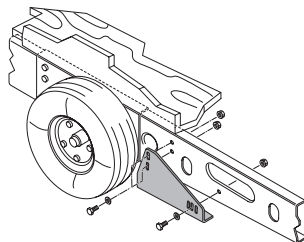
(for chassis with **U-profile**,
frame height **approx. 185 mm**)

U-bolt with clamping plates and
self-locking nuts, stoppers
part no. 60010-09200.



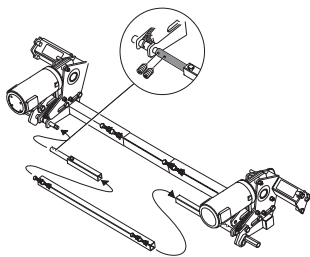
4. AL-KO Vario III / AV Installation kit

for caravans with
AL-KO Vario III / AV Chassis
2.8 mm) **mandatory**,
part no. 60010-21500.



5. Cross actuation device

(for swivelling both drive units
against the wheels from one
side and releasing them again)
connecting tube, middle tube,
nuts, bolts, grub screws,
part no. 60010-18500.



**The Caravan Mover is not approved for installation
on caravans / trailers with any other chassis!** Any
drilling (exception: when using low chassis kit) or welding to
the chassis is not allowed. Under no circumstances remove
any suspension components from the chassis.

Choice of location

We recommend to fit the Mover in front of the axle. Under
special circumstances (for example lack of space) the Mover
can also be fitted behind the axle. Only the provided U-bolts
must be used to attach the Mover (or the U-bolt extension
special accessory).

The frame of the vehicle must be kept free of rust and
heavy soiling and without any damages to the suspension
components.

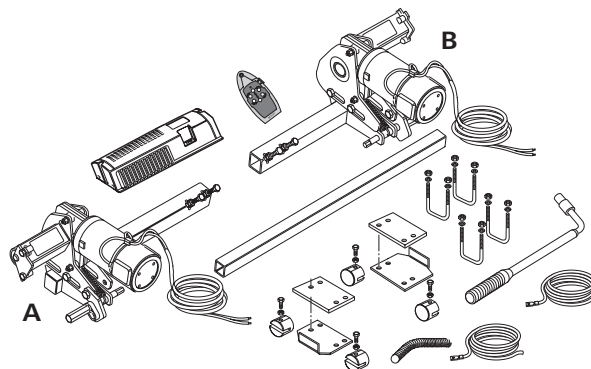
The caravan must be fitted with the same size and type of tyre
on each wheel; to ensure the wheel diameter is identical, we
recommend to install and set up the mover only with new
tyres, these are to be inflated to manufacturer's specifications.

Installation of the drive units



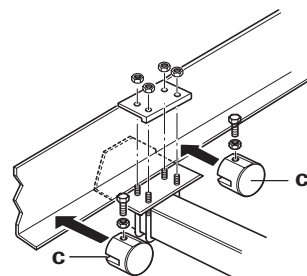
The AL-KO Vario III / AV installation kit (part no. 60010-
21500) must be used for caravans with the AL-KO
Vario III / AV chassis (frame thickness less than 2.8 mm). For
installation see instructions provided with installation kit.

Remove all components from packing and place on the floor.

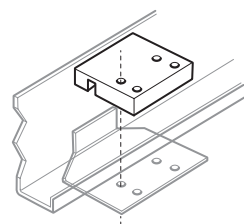


Loosely screw all components together to form a cross strut.
Nuts must be no more than finger-tight.

Place the assembly loosely to the chassis with the exception
of the stoppers (c – stoppers are attached when installation is
complete).



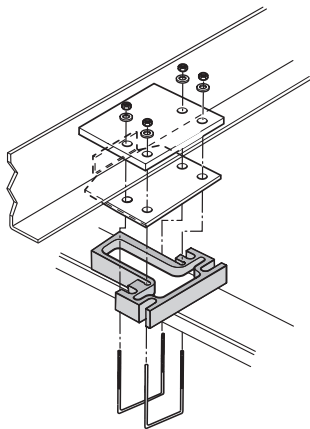
For chassis with U-profile frame, use U-profile chassis kit
(part no. 60010-09200) instead of clamping plates pro-
vided for standard installation. Fit the two clamping plates to
the frame as shown in the illustration and attach using the
U-bolts and nuts provided in the installation kit. (The provided
stoppers replace the standard stoppers (c) and are attached
when installation is complete).



Position drive rollers such that they are in front of or behind
the tyres at wheel hub height (middle of wheel). No height
compensation is required for the standard installation (frame
height approx. 185 mm).

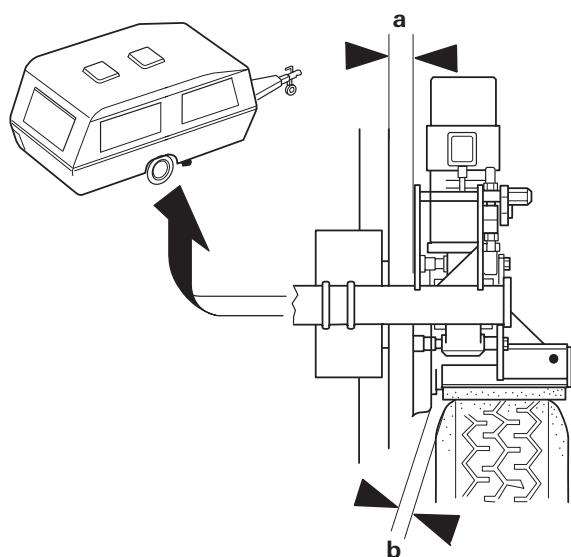
With frame heights of 140 mm to 185 mm, use U-bolt
extension kit (part no. 60010-00100) and spacer plate set
(part no. 60010-65000) to set the drive rollers to the correct
height (middle of wheel).

For height compensation clamp 1 to 3 spacer plates between
the cross strut and the vehicle frame (maximum of 3 plates).
Use the extended U-bolts for installation.

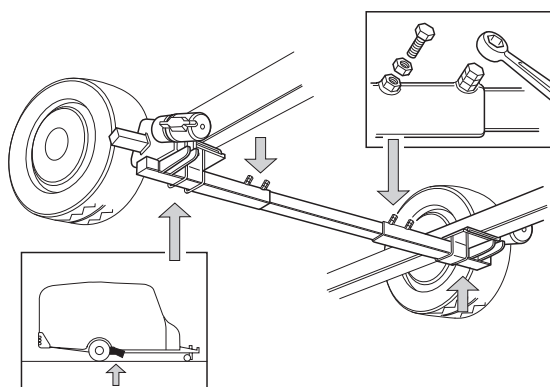


For greater height differences, a low chassis kit (part no. 60010-09400) is available from Truma as a special accessory – for installation see instructions provided with low chassis kit.

Create an adequate distance of min. 10 mm between the motor drive and the chassis (a) and to tyre (b) by moving the drive units to the side so that they do not come into contact with each other.



Move adjustable middle tube into a central position and tighten the 2 bolts at the side a little.

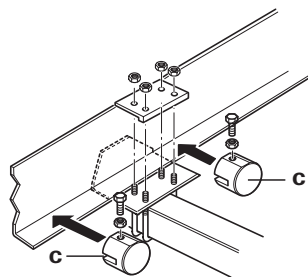


Create the correct distance between the tyre and the roller (20 mm) with the provided spacer by moving the drive units in the longitudinal direction.

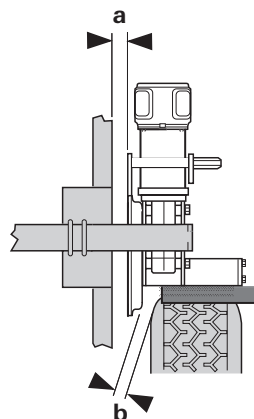
Once the drive units have been correctly positioned, tighten the U-bolt nuts a little and then check that the distance between the rollers and the tyres is 20 mm. The weight of the caravan must be on the wheels when doing this. Check that there is adequate floor clearance.

Re-check the distance of 20 mm from the tyres (with weight on wheels) and then tighten the nuts on the U-bolts (20 Nm for W/F 13 mm), and the 4 bolts of the middle tube (15 Nm).

After installing in the correct position, fit stoppers (c) immediately in front of and behind the retaining plates. The stoppers prevent the Mover from sliding on the vehicle frame during operation.



When the rollers are applied the minimum distance for dimensions "a" and "b" is 10 mm.



Once the Mover has been correctly fitted and secured, the one-sided operating facility that is available as a special accessory can be installed as described in the provided installation instructions.

Installation of motor cables and control unit

The Mover is only suitable for connection to 12 V batteries (DC voltage)!



Remove battery cable terminals and disconnect any external electrical power before starting work. If you are unsure about the electrical installation, have it checked out by a qualified Auto Electrician.

Pre-fitted, each motor has two heavy-duty cables (6 mm²). Mark the respective motor connecting cables (motor A or B – see also wiring diagram) and temporarily route to the intended control unit installation position on the underbody of the caravan. An example of a suitable location for the control unit is in a bed stowage box in close proximity to the manoeuvring system, **at least 40 cm away from the battery.**

Insert control unit into stowage box and secure with the supplied chipboard screws (5 x 16).

Drill a 25 mm Ø hole on the floor of the caravan for leading the cables through, approx. 150 mm from the control unit terminal strip.



Take care to avoid any chassis members, gas pipes and electrical wires!

Drill hole and lead cables through floor of caravan to control unit in such a way that they cannot chafe (particularly when leading through metal panels). This can be done using protective tubes, which will prevent the cables from being damaged.

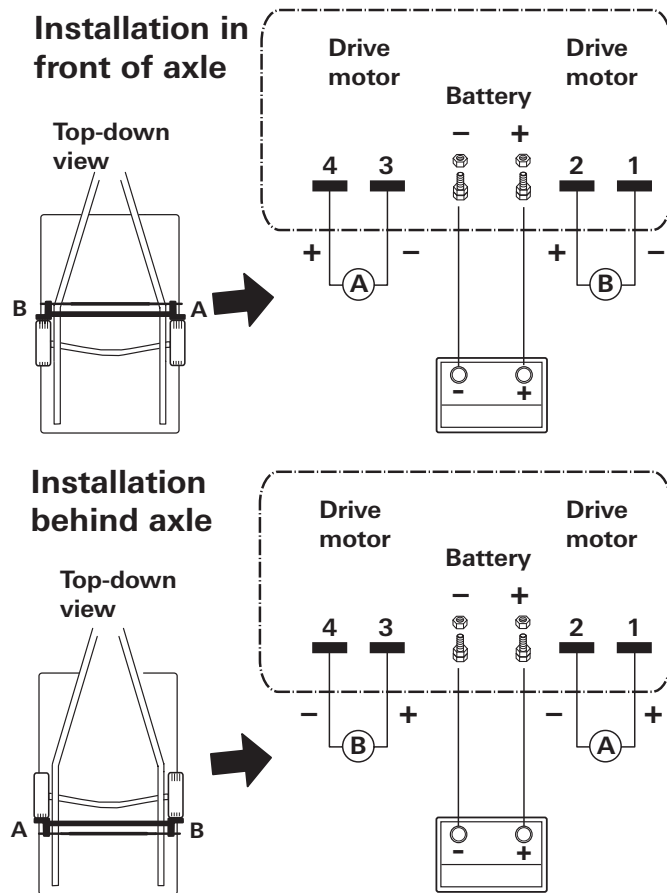


The drive motors move during operation. To compensate for this, the **cables** should be secured **loosely** with a little play in this area in order to prevent cable stretching. **No** cables must be routed over the control unit!

Secure cables to chassis and / or underbody using the supplied clips and screws.

Seal hole in vehicle underbody using plastic body sealant.

Connecting diagram



Connecting the drive motors

Cut motor cable of drive motor that is furthest away from control unit to length. Shorten the motor cable of the nearest drive motor to **the same length**. The two drive motor cables must be of the same length to ensure that the drive output of the Mover is uniform! Excess cable must be routed in wavy lines without looping.

Crimp the provided flat plugs onto the drive motor cables. Release flap at control unit terminal strip by pressing and connect cables as shown in wiring diagram (**red = positive, black = negative**). Please ensure that the connections are made properly!

Connecting the battery

Route battery connecting cables (10 mm²) to control unit and securely attach using the provided clips and screws.

i The battery connecting cables must not be extended. They must be routed separately from the motor cables, and must **not** run over the control unit.

Route battery connecting cables so that they do not chafe (particularly at leadthroughs through metal panels). Use suitable leadthrough grommets for protection in order to prevent damage to cables. Connect battery connecting cables to the existing battery terminals (**red = positive, black = negative**).

The connection to the control unit (as per the connecting diagram) must take place in the order – nut, battery connection ring, nut (torque 10 Nm ± 1).

Commissioning the Mover

Check whether the battery is fully charged for operating the Mover and that the isolating switch is in the “ON” position.

Park the caravan outside on an open, level surface and apply the handbrake. Ensure that the rollers are disengaged from the road tyres and the corner steadies are raised.

Connect battery terminals to battery, check that all cables are secure and not hot or indicating signs of short circuits, etc.

Move slide switch on remote hand set to the “On” **I** position. This switches the remote hand set on – green LED flashes for 5 seconds in combination with the acoustic alarm until the control unit is ready for operation. If LED does not illuminate, check polarity and condition of batteries in remote hand set. The remote hand set switches itself off after about 2 minutes if no buttons are pressed.

Check whether both drive motors are stationary. With the remote hand set switched on, and no more than 2 m away from the control unit, press the “Forwards” button. Both drive motors must now move in the forwards direction.

Move slide switch on remote control to the “Off” **0** position to switch the remote control and therefore the Mover off.

Move drive rollers against the tyres using the provided swivelling lever. Turn the swivelling lever until it mechanically engages and cannot be turned any further without using excessive force (end position approximately horizontal).

Ensure that there are no obstacles around the caravan, release the handbrake and switch the remote control on. Now check all functions several times according to the operating instructions.

Move slide switch on remote hand set to the “Off” **0** position to switch the remote hand set and the Mover off. Apply caravan brake. Release drive rollers using swivelling lever and re-check distance between roller and tyre. Adjust if necessary.

i The distance between the swivelled-out drive rollers and the tyres is 20 mm.

Warning information

The yellow sticker with the warning information, which is enclosed with the appliance, must be affixed by the installer or vehicle owner to a place in the vehicle where it is clearly visible to all users (e.g. on the wardrobe door)! Ask Truma to send you a sticker, if necessary.

Technical data

Designation

Caravan Mover II

Area of operation

Single axle caravans with a total weight up to 1700 kg

Operational voltage

12 V DC

Current consumption

Average approx. 30 A

Maximum 120 A

Stand by consumption

< 20 mA

Remote hand set frequency

Class 1, 868 MHz

Speed

Approx. 22 cm per second (depending on weight and incline)

Maximum tyre width

205 mm

Weight

Approx. 30 kg



Right to effect technical modifications reserved!



Caravan Mover II





In Germany, always notify the Truma Service Centre if problems are encountered; in other countries the relevant service partners should be contacted (see Truma Service Booklet or www.truma.com). Having the equipment model and the serial number ready (see type plate) will speed up processing.

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Caravan Mover II

Garantiekarte
Guarantee Card
Bon de Garantie
Certificato di Garanzia
Garantiebon
Garantikort
Tarjeta de garantía

Händler-Adresse
Dealer's address
Adresse du commerçant
Timbro del rivenditore
Dealeradres
Forhandleradresse
Dirección del comerciante

Verkaufsdatum
Date of sale
Date de vente
Data di vendita
Verkoopdatum
Salgsdato
Fecha de venta

Fabrik-Nummer
Serial number
No. de fabrication
No. di matricola
Serie-nummer
Seriennummer
Número de fábrica

