Installation example

1 Remote control
2 Drive motor
3 Drive roller
4 Electronic control unit
5 Battery
6 Safety socket

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Safety instructions

– The Trumove S / T control systems may only be used for the Trumove S / T.
– Practice operating the Trumove S / T in an open area before using for the first time. This is to fully familiarise yourself with the remote control / mover operation.
– Always check tyres and drive rollers before using the equipment; remove sharp-edged stones and the like if necessary.
– The side slide switch on the remote control (ON / OFF) also serves as an “Emergency Stop switch”. Switch the side slide switch to “OFF” immediately in the event of any abnormalities, e. g. uncontrolled behaviour of the manoeuvring system.
– No person must be present in the caravan during operation.
– There must be no persons (particularly children) inside the turning and movement range (manoeuvring range) of the mobile home.
– When engaging and disengaging and while operating the Trumove S / T care must be taken to ensure that no hair, parts of the body, clothing or other parts on the body can become caught in moving and / or rotating parts (such as drive rollers).
– The distance between the radio remote control 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 coupling downhill when manoeuvring down a slope.
– After manoeuvring, always apply the handbrake first, disengage the drive rollers from the tyres and block the wheels (particularly on downwards-sloping surfaces). The Trumove S / T 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.
– In order to ensure that the Trumove S / T operates correctly, the distance between the tyres and the disengaged 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 Trumove S / T as a support when jacking up the caravan, since this can damage the drive unit.
– Sensitive objects such as cameras, DVD players 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 Trumove S / T, which reduces the payload of the vehicle.
– Remove plug from safety socket after manoeuvring, otherwise the battery will be discharged. Standby current with plug inserted approx. 200 mA. Standby current with plug removed < 1 mA.

General instructions

The Trumove S was developed for overcoming inclines of up to approx. 25 % with a gross weight of 1200 kg and 15 % with a gross weight of 2000 kg, and the Trumove T for overcoming inclines of up to approx. 25 % with a gross weight of 1200 kg and 10 % with a gross weight of 2250 kg on a suitable surface.

Depending on the weight of the caravan, the Trumove S / T cannot overcome obstructions that are more than about 3 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 is reduced, hence the Trumove S / T may stop momentarily.
When the Trumove S / T 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 switched off using the isolating switch.

Batteries

We recommend the Truma Mover® PowerSet which contains batteries with round cell technology and a matching charger to ensure optimum operation. Drive, lighting and gel batteries with adequate capacities are also suitable.

Recommended battery capacities

<table>
<thead>
<tr>
<th>Battery Type</th>
<th>Minimum Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Round cell technology</td>
<td>min. 55 Ah</td>
</tr>
<tr>
<td>Gel / AGM</td>
<td>min. 70 Ah</td>
</tr>
<tr>
<td>Lead-acid battery (liquid electrolyte)</td>
<td>min. 80 Ah</td>
</tr>
<tr>
<td><strong>Starter batteries are not suitable</strong></td>
<td></td>
</tr>
</tbody>
</table>

Batteries with a greater capacity allow longer operation.

Charger

To ensure that the batteries are charged to the optimum, we recommend the Truma charger BC 10 that is suitable for all battery types up to 200 Ah.

Battery care (also maintenance-free batteries)

The following points should be observed to extend the battery life:

- Batteries should be fully charged before and after they have been used.
- Disconnect from the power circuit in the case of longer standstills (e.g. with a circuit-breaker or by disconnecting the battery terminal).
- In the case of longer standstill periods, the battery must be disconnected and charged for 24 hours at the latest every 12 weeks.

Store fully charged batteries in a cool but frost-free place during the winter and recharge regularly (every 12 weeks)

Function description

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

Please note that the Trumove S is only suitable for single-axle towed vehicles, and the Trumove T is only suitable for dual-axle towed vehicles.

The Trumove S / T 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 engaged to the tyres using the remote control, the Trumove S / T is ready for operation. All operation takes place using the remote control. 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.

Remote control

- **a** = On / Off slide switch
  - **I** = On (green LED illuminates)
  - **O** = 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)

**Trumove S only**

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)

**Trumove T only**

Turning on the spot without moving forward is not possible because of the two axles. Pressing the **d, g, e or f buttons causes the Trumove T to move in a circle, whereby the outer motor runs continuously and the inner motor pulsates.

**Trumove S / T**

- **h** = Two-hand operation, engage drive rollers
- **i** = Two-hand operation, disengage drive rollers

To engage and / or disengage the drive rollers both keys always need to be pressed at the same time for about 3 seconds (safety lag) until the drive rollers start to engage or disengage.

The keys can be released again when the drive rollers move toward the direction of the respective final position. The drive rollers reach their final position automatically.

Pressing the two buttons for disengaging whilst the Trumove S / T is engaging causes the procedure to be aborted. The drive rollers will disengage and automatically move to the end position.

The remote control switches off:

- after approx. 2 minutes, if no button is pressed
- after approx. 7 minutes, if one of the movement buttons is permanently held down. The green LED goes off.

To re-activate the remote control, move slide switch to “Off” O and then back to “On” I after approximately 1 second.

There is no “On / Off” switch on the caravan to be operated.
Remote control 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 control batteries if necessary)

LED “flashes” in combination with acoustic signal
– for approx. 5 seconds after switching the remote control on, until the system is ready for operation.
– for approx. 10 seconds after switching the remote control on, then it is switched off again – 7-pin or 13-pin safety plug not connected to safety socket or 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 voltage is low. No manoeuvring is possible until the battery voltage is above 11 V again (e.g. by means of recovery / battery charging). The drive rollers can also be disengaged with a voltage of less than 11 V.
– approx. 2 times per second with overcurrent / overtemperature (2 Hz). Switch remote control off and on again (wait for cooling down if necessary in the event of overtemperature).

Changing the batteries in the remote control

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 control! Remove the batteries if the remote control 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 remote control, it is essential that the batteries are removed and disposed of in a proper manner.

Manoeuvring the caravan

Please read the “Safety instructions” before using the Trumove S / T!

Apply handbrake with caravan uncoupled.

Unplug 7-pin or 13-pin plug from vehicle and plug into safety socket of caravan.

For safety reasons the Trumove S / T can only be operated if the 7-pin or 13-pin plug of the caravan has been plugged into the safety socket.

In the event of an error, the 7-pin or 13-pin plug should not be removed from the safety socket as otherwise the electronic protection function is deactivated.

If there is a fault in both caravan brake lights, the power circuit of the safety socket is not closed. In this case the Trumove S / T cannot be operated.

Switch remote control on – green LED flashes for 5 seconds in combination with the acoustic alarm until the control unit is ready for operation.

Simultaneously press the two buttons (h) for engaging, which starts after approx. 3 seconds (safety delay).

Use the position indicator to check whether both drive rollers have been correctly applied (arrow of yellow position indicator is above the line that is closest to the tyre).

⚠️ Before operating the Trumove S / T, release the handbrake.

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

With the Trumove S 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.

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 Trumove S / T cannot be activated by radio devices or other Mover® remote controls.

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

After manoeuvring, first apply the handbrake and then disengage the drive rollers from the tyres.

Move slide switch on remote control to the “Off” position to switch the remote control and the Trumove S / T off.

The slide switch also acts as an “Emergency stop” switch.

Remove plug from safety socket after manoeuvring, otherwise the battery will be discharged. Standby current with plug inserted approx. 200 mA.

Coupling to a towing vehicle

It is possible to position the caravan’s coupling to a stationary car tow ball using the Trumove S / T, 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 coupling directly over the ball. Lower the coupling to the ball and engage in the normal way using the jockey wheel.

Prepare the caravan for towing as usual. The caravan must never be towed with the drive rollers engaged.

Maintenance

Please do not allow the drive units to become soiled with coarse road material. When you are cleaning the caravan, spray the Trumove S / T 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 control in a dry place.

Every year (and / or before putting away for the winter), clean Trumove S / T 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! Engage and disengage the drive units several times to allow the lubricant to penetrate all the guides. Do not park the caravan with the drive rollers engaged.
Tuning the electronic control unit to the radio remote control

remote control

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

If the control unit or the remote control 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. Please ensure that the caravan plug has been plugged into the safety socket.

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 control (c) within 10 seconds, simultaneously switching on the remote control using the slide switch (a).

Emergency disengaging function

If the caravan battery has become so discharged that disengaging cannot be performed using electrical means, or a fault has occurred, the drive motors can be disengaged manually.

Prise out the plastic cap (m) at the rear end of the motor using a screwdriver. Place the socket wrench (size 7 mm – included in scope of delivery) onto the hexagon bolt and disengage the drive unit by turning anticlockwise. Repeat procedure at the opposite side.

Once the battery has been recharged the rollers can be engaged again electrically.

Troubleshooting

Check that the batteries in the remote control are in good condition!

Check whether the caravan plug has been plugged into the safety socket!

Check whether the caravan battery is in good condition and is fully charged! Please note that battery performance can deteriorate considerably at cold ambient temperatures.

Check whether the flat fuse (20 A) for the engagement motors is OK. If the fuse is defective, check the engagement motor connecting cables at the controller for possible short circuiting!

Perform a reset (approx. 10 seconds – briefly disconnect battery, move isolating switch to “OFF” and then back to “ON”, or disconnect and reconnect safety plug)!

If this does not solve the problem, please contact the Truma Service.

Technical data

Operational voltage
12 V DC

Current consumption
average approx. 35 A maximum 150 A

Stand by consumption
< 1 mA

Remote control frequency
Class 1, 868 MHz

Speed
approx. 17 cm per second (depending on weight and incline)

Weight
approx. 33 kg

Fuse engagement motors
Blade fuse 20 A

Fuse in positive supply cable
150 A

Area of operation Trumove S
Single axle caravans with a total weight up to 2000 kg

Area of operation Trumove T
Dual axle caravans with a total weight up to 2250 kg

Right to effect technical modifications reserved!
Declaration of conformity

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

2. Device identification
Model / Version:
Trumove S / T manoeuvring aid

3. Complies with the requirements of the following EC directives
3.1 R&TTE directive (1999/5/EC)
3.2 EMC directive (2004/108/EC)
3.3 Radio Interference in Vehicles 72/245/EEC (with the supplements)
3.4 End of Life Vehicles (2000/53/EC)
and bears the type approval number e1 03 4473 and the CE symbol.

Trumove S / T
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 (EMV art. 3.1b),
EN61000-4-2:2001, EN61000-4-3:2006, EN61000-4-6:2001,
2004/104/EG, 2005/83/EG, 2006/28/EG, 2006/42/EG,
2000/53/EG

5. Monitoring body
Federal Office for Motor Traffic

6. Signatory details
Signature: Mathias Venschott
Head of product centre climate and manoeuvring systems
Putzbrunn, 22.04.2013

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 apply
– 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 Truma 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 60 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 re-commence 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, 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 60 months warranty against manufacturing defects. Take care to remove sharp stones from your tyres prior to using your Mover®.

3. Making a claim under the warranty
The distributor’s address is:
Truma UK Limited
2000 Park Lane, Dove Valley Park
Foston
South Derbyshire DE65 5BG.

Complaints must be specified. Please also specify the device serial number and date of purchase.

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.
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.

⚠️ In the case of screws with sealants, steps must be taken to ensure that the thread is free of grease / oil.

Intended use

The Trumove S is designed for use on single-axle caravans with a gross weight of up to 2000 kg, and the Trumove T is designed for use on dual-axle caravans with a gross weight of up to 2250 kg.

The Trumove S / T weighs approx. 33 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 Trumove S / T satisfies other requirements stated in the EC directives and standards (see declaration of conformity).

The technical and administrative regulations of the country in which the vehicle is initially registered must be complied with when the Trumove S / T 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, 17 mm socket wrench, ring spanner or open-jawed spanner
- Allen key 4
- Torque wrench (5 – 50 Nm)
- 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

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

Fig. 6

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

Measuring the frame height

A frame height of min. 170 mm is required about 340 mm from the outer edge of the tyre at the height of the wheel hub / centre.

Fig. 7

All dimensions in mm.
* for a loaded vehicle with a max. allowed gross weight
** for U-profile

Determining the installation type

1. Standard installation
Standard installation for chassis with a U or L-profile and a frame height of min. 170 mm. No special accessories are required.

2. Installation in a chassis with a U or L-profile and frame height between 110 mm and less than 170 mm
The spacer set 30 mm (up to 140 mm frame height) or spacer set 60 mm (less than 140 mm frame height) is required to compensate for the height difference.

3. Installation with chassis with U-profiles or L-profiles with frame height of less than 110 mm
A low chassis kit needs to be used to compensate for the height difference for chassis with a height of less than 110 mm.

4. 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.

5. For attachment in front of the axle on the AL-KO chassis M with adjustable beams
The AL-KO chassis M adapter set (part no. 60030-38600) must be used in order to compensate for overlapping frame edges

6. For attachment in front of the axle on the AL-KO chassis M with continuous frame
The AL-KO chassis M adapter set (part no. 60031-02000) must be used in order to compensate for overlapping frame edges

7. Installation with Eriba Touring chassis
The Eriba Touring mounting set is needed for the Eriba Touring chassis.

8. For attachment behind the axle on the Eriba Troll chassis
The Eriba Troll mounting set is needed for the Eriba Troll chassis.

9. Installation on chassis with L-profile and with a limited amount of space
The short mounting system is required to compensate for the height (30 or 60 mm) with substructures such as tanks.
Special accessory installation

1. Spacer set 30 mm
To compensate for the height difference for caravans / trailers with a frame height of less than 170 mm and up to 140 mm, part no. 60030-95000.

2. Spacer set 60 mm
To compensate for the height difference for caravans / trailers with a frame height of less than 140 mm and up to 110 mm, part no. 60030-95100.

3. Low chassis kit
To compensate for the height difference for caravans / trailers with a frame height of less than 110 mm and / or for bridging struts, part no. 60010-64900.

4. Low chassis kit, short
For compensating the height difference for caravans / trailers with a frame height of less than 110 mm, part no. 60030-37600.

5. AL-KO Vario III / AV Installation kit
For caravans with AL-KO Vario III / AV Chassis (frame thickness less than 2.8 mm) mandatory, part no. 60010-21500.

6. AL-KO Chassis M adapter kit for chassis with axial displacement with a permitted gross weight of 1800 kg
Mounting set to compensate for frame edges for caravans with AL-KO Chassis M. Mounting set is needed for mounting in front of the axle, part no. 60030-38600.

7. AL-KO Chassis M adapter kit for chassis with a continuous frame and a permitted gross weight of 1900 kg to 2000 kg
Mounting set to compensate for frame edges for caravans with AL-KO Chassis M. The mounting set is needed for mounting in front of the axle, Part no. 60031-02000.

8. Mounting set for Eriba-Touring
Part no. 60030-09000

9. Eriba Troll mounting set
The Eriba Troll Mounting Set allows the Mover® to be mounted behind the axis on an Eriba Troll caravan/trailer. Part no. 60031-03000

10. Short mounting system
Replacement for standard mounting system if this cannot be used due to lack of space and to compensate for the height (30 or 60 mm) of substructures such as tanks. Part. no. 60031-20000
11. Mud guard set (no illustration)
Replacement for the standard mud guards, if these cannot be adapted to the Trumove S / T.
Part. no. 60031-08200

⚠️ Installation is not possible in some cases because of attachments to the underbody. Contact your dealer if necessary.

⚠️ The Trumove S / T is not approved for installation on caravans / trailers with any other chassis!

ℹ️ Detailed installation instructions are provided with the relevant mounting set.

No holes may be drilled into or welding work performed on the vehicle frame (except when using the low chassis kit* and the Eriba-Touring mounting set). Under no circumstances remove any suspension components from the chassis.

* In the case of the AL-KO Vario III / AV Chassis, never drill into the vehicle frame even if the flat frame kit is used.

Choice of location

The Trumove S / T should preferably be installed in front of the axle, but can also be installed behind the axle under special circumstances (e.g. lack of space). Only the bolts that are provided must be used to secure the Mover® (or the add-on parts provided as special accessories).

Mud guards

When a Trumove S / T is fitted, the existing mud guards may have to be moved or adapted (max. distance between tyre / mud guard 300 mm).

If the original mud guards cannot be used, the Truma mud guard set (part no. 60031-08200) must be used and adapted.

ℹ️ The mud guards are installed behind the axle. No mud guards are required in front of the axle.

Determining the cut-out dimensions

Fig. 20

Cut out the template on the last page of the installation instructions, place it onto the mud guard, transfer the contours and cut out.

ℹ️ Pay attention to left and right sides.

If necessary, make recesses in mud guard for apron contour and attach mud guard to underside of caravan 300 mm from tyre.

Installation of the drive units

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

The wheels and tyres that are fitted to the caravan must be of the same size and model and inflated as per the manufacturer’s instructions.

Remove all components from packing and place on the floor.

Fig. 21

The provided factory plates (f) must be attached on the left and right sides of the cross strut between the drive unit retaining plates.

Fig. 22

Mark connection pipe in the centre. Loosely attach the drive assemblies to the connection pipe.

ℹ️ Do not screw in the supplied threaded bolts (g) yet.
Fig. 23
Place the drive units with the crossbar and attachment set (b) onto the vehicle frame and screw tight with the two screws (c) so that it is just possible to slide along the frame.

⚠️ The gripper (a) must lie completely flat on the chassis frame.

Fig. 24

Fig. 25
Position the drive rollers so that they are approximately at the height of the wheel hub / centre.

Driving direction

Fig. 26
If there is a height difference, Truma has 30 mm and 60 mm spacer sets in its accessory program to compensate for the height difference.
Spacer set 30 mm, part no. 60030-95000,
Spacer set 60 mm, part no. 60030-95100.
Ensure there is enough clearance to the ground (min. 110 mm).

The correct distance can be set between the tire and the roller (20 mm) with the provided spacer by sliding the (disengaged) drive units in the longitudinal direction. The movable middle tube makes it possible to adapt to the width of the frame.

Fig. 27
Slide drive units in lateral direction so that the maximum amount of tire tread is covered.
Ensure that there is adequate clearance between the gearbox and the tire / shock absorber so that they do not touch.

Fig. 28
⚠️ The minimum clearance with the drive units engaged is 10 mm.

After positioning correctly, slightly tighten the screws (c) of the attachment set and then check the defined distances again. During this, the weight of the caravan must be on the tires.

Place the adjustable connection pipe in the centre (use the marking) and fix each side with 2 threaded bolts (g) M8 x 12 (15 Nm).

⚠️ The threaded bolts are coated with sealant, and may therefore only be bolted in once.

Recheck that the distance to the tires is 20 mm (when the wheels are under load). Then tighten the 2 screws of the attachment set (M10) alternately with a torque of 25 Nm.

Fig. 29
⚠️ The screws are coated with a sealant and may therefore only be screwed in once.

Fit covering plates
Place covering plate onto housing and fix in position with 3 guide pins in each case (knock in with a hammer or screwdriver handle).
Installing the position indicator
Push the position indicator into the two holes in the gearbox.

Fig. 30

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 automotive electrician.

The electrical installation must comply with the technical and administrative provisions of the respective country in which it is used (e.g. EN 1648-1). National regulations and guidelines must be observed.

Two high-power cables for the drive motor and a two-wire cable for the engagement motor are pre-attached to each motor. 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 diameter 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.

Wiring diagram with micro switch in the safety socket

Connecting diagram

1. Safety socket with the micro switch
2. Engagement motors
3. Fuse
4. Safety contact
5. Drive motors
6. Battery

Installation in front of axle (Top-down view)

Fig. 31

Installation behind axle (Top-down view)

Fig. 32

Connecting the drive motors

When installing the motor cables, please ensure there is no danger that they may become torn or damaged.

For technical reasons, the drive motor connecting cables have been prefabricated (no crimping required) and must not be shortened or extended.

The two drive motor cables must be of the same length to ensure that the drive output of the Trumove S / T is uniform! Excess cable must be routed in wavy lines without looping.

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 engagement motors

The positive connection (r) of the 2-wire motor connection cables has been marked with a red longitudinal line along the cable insulation.

Mark motor cables A + B and route to control unit (shorten cables to same length if necessary).

Slide spade connector sleeve insulation over the cables (e.g. black for motor A and transparent for motor B). Crimp on spade connector sleeves, slide on spade connector sleeve insulation and connect as shown in connecting diagram.

Installing the isolating switch

Install isolating switch in a suitable location (near the battery) in the positive lead between the battery and the controller.

– A hole with a diameter of 25 mm is required for installation.
– Turn key anticlockwise until it reaches the end position and remove.
– Slide isolating switch through hole and secure with either the provided chipboard screws (5 x 16 mm) or the M6 x 30 bolts and M6 self-locking nuts.
– Cut the positive lead of the battery and crimp the provided pipe-type cable shoes to both ends of the cut cable.
– Insert key again and move to “OFF”. Screw cable with pipe-type cable shoes to isolating switch. Connecting order: Pipe-type cable shoe, spring washer, nut.

Fig. 33

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 7 Nm ±1).

Connecting the battery

Liquid electrolyte batteries need to be placed in a separate box with an external venting system. The fuse for the positive line needs to be connected outside the box. The gel and AGM batteries do not need a separate box. Observe the installation regulations of the battery manufacturer.

The cables leaving the terminal need to be installed separately from each other until after the fuse in the plus line.

![Connecting the battery](image)

Route battery connecting cables (only use the original Truma cables included in the delivery) to control unit and securely attach using the provided clips and screws.

![Route battery connecting cables](image)
Fig. 36
Secure safety socket to the (plastic) shaft cover of the caravan with 4 bolts, nuts and washers.

Fig. 37
⚠️ No holes must be drilled in the chassis.
Alternatively, the safety socket can be secured using the two worm drive hose clamps.

Fig. 38
Lay one wire to the control unit (this may have to be shortened), crimp the flat connector and then connect as shown in the wiring diagram.

Lay the second wire to the control unit (this may have to be shortened), crimp the ring lug and then screw to the negative terminal of the battery as shown in the wiring diagram.

The connection to the control unit follows the following sequence – nut, ring lug, negative battery connection, nut, ring lug cable safety socket, nut.

Re-check whether all cables are correctly connected, attached using the provided clips and cannot chafe.

Commissioning the Trumove S / T

Check whether the battery is fully charged for operating the Trumove S / T 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 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.

Plug the 7-pin or 13-pin plug into the safety socket.

If there is a fault in both caravan brake lights, the power circuit of the safety socket is not closed. In this case the Trumove S / T cannot be operated.

Move slide switch on remote control to the "On" position. This switches the remote control 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 control. The remote control switches itself off after about 2 minutes if no buttons are pressed.

Check whether both drive motors are stationary. Press the "forwards" button with the remote control switched on – both drive motors must now move in the forward direction.

Engage the drive rollers against the tyres by using the remote control.

Please ensure that there are no obstructions beneath the caravan, then release the handbrake. Now check all functions as per the operating instructions.

Apply caravan handbrake. Disengage the drive rollers and move slide switch on remote control to the "Off" position to switch the remote control and the Trumove S / T off. Re-check distance between drive rollers and tyres. Adjust if necessary.

⚠️ The distance between the disengaged drive rollers and the tyres is 20 mm.

Warnings

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.
Shown left side in the direction of travel

Trumove S / T

Outside edge
In Germany, always notify the Truma Service Centre if problems are encountered; in other countries the relevant service partners should be contacted (see www.truma.com).

Having the equipment model and the serial number ready (see type plate) will speed up processing.