



**»English - Electronic Levelling System
User Manual**

(1) LED display SLOPE IS TOO STEEP - In this position, the caravan cannot be levelled, as the ground on which it is standing is too uneven. Switch over if necessary to manual control.

(2) LED display INSUFFICIENT VOLTAGE - The battery has insufficient power or the voltage is inadequate to carry out the procedure safely.

(3) LED display WITHDRAW FRONT WHEEL - The caravan is too high at the front and the front wheel must be withdrawn. The LED display will go out.

(4) LED display SUPPORTS NOT (completely) WITHDRAWN - One or more of the supports extended has not been completely withdrawn.

(5) Button ON/OFF - this button is for switching the operating handset on and off.

(6) Button MANUAL OPERATION - The operating handset is in "Manual operation" mode.

(7) Button AUTOMATIC OPERATION ON - The purpose of this is to level the caravan automatically.

(8) Button WITHDRAW ALL SUPPORTS - Use this button to withdraw all supports automatically.

(9) LED display MANUAL OPERATION - This display indicates that adjusting the caravan to a level position can be carried out manually.

(10) Button LEFT SIDE - This controls extension of the left-hand-side supports.

(11) Button REAR END - This controls extension of the rear supports.

(12) Button FRONT END - This controls extension of the rear supports.

(13) Button RIGHT SIDE - This controls extension of the right-hand-side supports.

(14) LED display LEVEL - This indicates that the caravan is now positioned horizontally.

(15) Axle support

(16) Corner support

(17) Tow ball

(18) To the front

(19) Operating handset

(20) Pump housing

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» Foreword

The strategic vision of E&P Hydraulics, the designer of this levelling system, is that “Products must be 100% user-friendly and reliable”.

Now that you have acquired this product, the problems associated with getting your caravan into a stable position are finally a thing of the past. That means that the caravan doesn't move with every step you make inside it, and the caravan stays steady even in strong winds. No doors opening or closing of their own accord because of a sloping pitch. Water in the shower not running the wrong way, and no longer will you have the feeling you're not lying level in bed.

By pressing a single button, your caravan will, from now on, be adjusted fully automatically to a stable horizontal position. In less than two minutes, your caravan will be standing absolutely steady.

In addition, the E&P levelling system is intuitive to operate. It is a lightweight, compact and at the same time very solid product which is virtually maintenance-free. Before production commenced, exhaustive testing was carried out. However, should the product unexpectedly display any fault, you can at any time call on the guarantee and service-support provided by E&P Hydraulics and the service we offer. Despite the fact that our levelling system is simple to operate, is of outstanding quality and is easily serviced, instructions for use are naturally a necessity.

We consider it not only essential to inform you of what is possible with our product, but also to tell you what is not possible with our product. Please therefore read our instructions use carefully and thoroughly before putting the system into service.

Like any other system, the E&P levelling system has its limitations, and it is important that you are aware of these. Partial or complete lifting of a caravan is associated with major forces, and thus exercising appropriate care and having suitable understanding of the subject matter is essential. After all, the motto must be: “Safety first!”

Provided you observe the warnings and take the advice offered in these instructions, you will have many years' use and pleasure from this product.

Should you have any questions regarding these instructions, it is possible for you to contact us by telephone.

E&P Hydraulics,

Eric Klinkenberg & Pierre Blom

› Intended use

The levelling system is only to be used for creating a stable and horizontal position for the caravan.

The maximum slope on which it is possible to level the caravan is 8% (1 in 12-1/2).

With the electronic spirit-level, the caravan is adjusted horizontally over its complete width with the aid of axle supports and the suspension lifted for corresponding stability.

Then the caravan is adjusted horizontally in the longitudinal direction with the corner supports and the whole caravan stabilised with the help of a pressure button!

› Safety

The following safety precautions must be observed when positioning the caravan

- The caravan must be unhitched from its towing vehicle.
- Apply the caravan hand-brake securely.
- Make sure that when the system is being operated, no-one is present in the vicinity of the caravan.
- Do not use any additional supports underneath the axle and corner supports.
- Never use the levelling system for the purpose of changing wheels or for servicing and inspection activities.
- The hydraulic system was designed for levelling the caravan.
- Place no blocks during either manual or automatic levelling.
- Make sure that when levelling is being carried out, no-one is in the caravan.
- An acoustic signal will be sounded during the levelling process.
- The program can be stopped at any time by pressing the on/off switch on the control unit.
- Before driving off, check to make sure that all supports have been withdrawn

› Operating instructions

Before taking into service, the following points must be observed

- The load on the supports (17) is not to exceed 100 kg.
- Make sure that the ground is sufficiently even, and that there are no holes and/other obstructions present.
- Place the caravan on a firm footing, otherwise the axle supports may sink into the ground.
- It is important that when you use the system the caravan is standing facing slightly downhill (18).
- Never use the system when there is anything attached to the caravan, such as an awning or a canopy.

› Calibration (setting the zero point)

Calibrating the electronic spirit-level.

The system was calibrated by your dealer before you bought it.

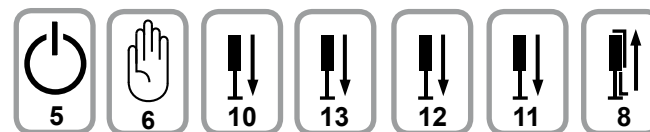
If you wish to adjust the calibration at a later time or park the caravan at a particular angle, it is possible to set a new position by following the method described below:

› Manually setting the caravan in a horizontal position

- Switch on the control unit (5)
- Switch on the manual control (6)
- First the caravan must be brought into a horizontal position on the left and righthand sides (10/13)
- There now follows the setting of the horizontal position with respect to the front and rear ends (12). Please note that, due to the weight of the load imposed on the caravan, the corner supports must never be set on the ground without the axle supports taking the main load.
- Switch off the control unit (5).

› The caravan is now standing horizontally and you can now define the zero point as follows

- Switch on the control unit (5).
- Press the button “FRONT” (12) five times.
- Press the button “REAR” (11) five times.
- Now all LEDs are lit.
- You are now in “Calibration” mode.
- Press the button “WITHDRAW” (8) three times.
- Switch the control unit off. Calibration is now completed.



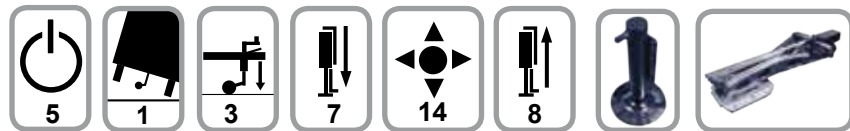
Automatic operation

Automatic deployment (extension) of the axle and corner supports

- Step 1 Before starting, please read the information in the chapter “Safety” on page 41.
- Step 2 Switch on the system (5).
- Step 3 If the lamp (No. 1) lights up, it means that the caravan is leaning on its axle too far to one side. In this case, automatic levelling is not possible; please refer to the chapter “manual operation”.
- Step 4 In automatic levelling, the caravan must be tilted a few degrees forwards. The system will indicate whether you have positioned the caravan level enough. If you have not, the lamp (3 / support wheel) will light, and the system cannot be started automatically. The support wheel must then be wound down.
- Step 5 Now press the button for “Automatic operation”. The axle and corner supports will move and the levelling has started. There is an acoustic signal emitted during the levelling process.
- Step 6 When the acoustic signal stops, the system has completed the levelling process and a green lamp will light (14).
- Step 7 Switch off the system using the on/off button. If you should forget this, the unit will switch itself off automatically after four minutes. The levelling process is now completed.

Automatic withdrawal of the axle and corner supports

- Step 1 Before starting, please read the chapter “Safety” on page 41.
- Step 2 Switch on the system (5).
- Step 3 Press the button “Withdraw supports” (8). The axle and corner supports will now be withdrawn and you will hear an acoustic signal.
- Step 4 When the acoustic signal stops, the system has completed the withdrawal of the supports.
- Step 5 Switch off the system using the on/off button. If you should forget this, the unit will switch itself off automatically after four minutes. Check whether the supports have been fully withdrawn.



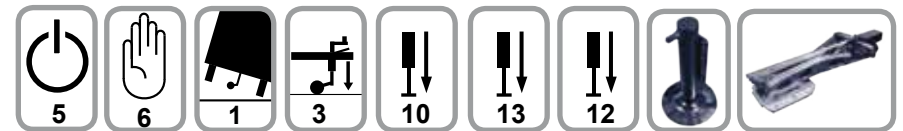
Manual operation

Manually extension of the axle and corner supports

- Step 1 Before starting, please read the chapter “Safety” on page 41.
- Step 2 Switch on the system (5) and press “Manual operation” (6).
- Step 3 If the lamp (No. 1) lights up, it means that the caravan is leaning on its axle to one side. In this case, levelling will have to be carried out manually, although this is also possible even when the lamp is not lit.
- Step 4 When levelling manually, the caravan must be tilted a few degrees forwards. The system will indicate whether you have parked the caravan level enough. If you have, the lamp (3 / support wheel) will light, and the system can be started.
- Step 5 When a lamp (arrows Nos. 10, 13) lights up, it may be necessary to place a wooden block under the axle support. Extend the axle support by pressing the button 10 or 13 continuously. It will stop of its own accord as soon as the caravan is standing horizontally. The lamp (arrow) will no longer be lit.
- Step 6 Now press the button “FRONT” (12), holding it down until the lamp (arrow) is no longer lit. Now, seen lengthways, the caravan is now in a level position. This process too is halted automatically.
- Step 7 Now press the button “REAR” (11), until the supports are in contact with the ground.
- Step 8 Now set both axle supports on the ground.
- Step 9 Switch off the system using the on/off button. If you should forget this, the unit will switch itself off automatically after four minutes. The levelling process is now completed.

Withdrawal of the axle and corner supports

Due to safety precautions, withdrawal of the corner supports of the caravan is only possible when the manual operation lamp is not lit. If you press the manual operation button again, this will turn it off. Now press the button “Withdraw” (8) and keep it pressed until all supports are withdrawn. You will hear an acoustic signal while the supports are being withdrawn.



» Troubleshooter

Problem	Possible Causes	Possible solution
The system fails to start. The red battery lamp lights up. When the red battery lamp lights continuously, the installation is switched off for four minutes.	Battery voltage inadequate	Recharge the battery, Charger is defective or there is no voltage being supplied.
The supports do not extend towards the ground even when the pump is running.	Oil level in the oil tank is too low. The support valve is not working. There is no electronic connection between the control and the support valve, or there is a loss of signal.	Check the oil level, and top up with oil as necessary. Cleaning, repair and exchange Check wiring for loss of voltage

» Maintenance

- Turn the system off before removing grease and sand
- Remove sand and grease the inside of the corner support when necessary (16).
- Pump unit (19) or pump housing caravan is not clean with pressure washer!

» Guarantee

There is a 24 months guarantee on the complete system.

IN THE FOLLOWING CIRCUMSTANCES, THE GUARANTEE BECOMES INVALID

- Misuse, damage caused by accidents, collisions and careless handling
- Dismantling the system
- Use of the wrong battery voltage
- Use for any other than the intended purpose
- Refilling with an incorrect oil (use of any oil other than Pentosin CHF 202)
- Outward and visible signs of damage

The Guarantee is invalidated if the purchaser fits foreign components to the system, if he has adjusted the system incorrectly, or in case of misuse and careless handling. This includes use for any purpose other than that for which it was designed, overloading, damage caused by accidents, improper loading or incorrect load distribution and damage caused by improper use or maintenance, connection to incorrect components or attempted repairs by persons other than an accredited E&P dealer. Furthermore, this Guarantee does not extend to cover personal injury or damage caused through force majeure, commercial use or modifications undertaken to the product. Nor is it valid for products sold off as special offers and / or disposed of already having defects. In addition, the Guarantee is invalid if the identification markings of the product applied by the manufacturer are altered or rendered illegible.