



USER MANUAL

HPC312 – HPC324

Please read this manually carefully before using the system and hold on to it for future reference.

www.hpc-hydraulics.com

2022 V1



THANK YOU FOR CHOOSING HPC-HYDRAULICS

When installing and using the HPC levelling system, always carefully read this manual. Under no circumstances will HPC Hydraulics be liable for any direct or indirect damage resulting from the use or inability to use this documentation or this product.

HPC Hydraulics reserves the right to, at any time without prior or direct notification to the customer, to change parts of the product.

Do not remove the official registration number on the product. It must be used in the event of maintenance and warranty.

GENERAL SAFETY MEASURES

- Do not work under the vehicle when it is standing on jacks.
- Always ensure that the vehicle is blocked and unable to move before operating the hydraulic levelling system.
- If present, shut off the air suspension system, but do ensure that air remains in the bellows to prevent damage. Take measures to ensure that the pressure does not automatically adjust during levelling.
- Wear safety glasses during installation and checking of the system.
- Prevent body parts (such as eyes and hands) from coming into contact with the released fluids. The oil in the levelling system can be under high pressure, possibly causing serious injuries to the skin. Immediately consult a doctor in the case of an accident.
- Never carry out repairs yourself in the event of malfunctions and/or repairs to the hydraulic levelling system.

PRECAUTIONS BEFORE DRIVING

Every time before the vehicle is moved, visually inspect if the jacks are completely retracted. If this is not the case, please follow the jack retraction procedure.

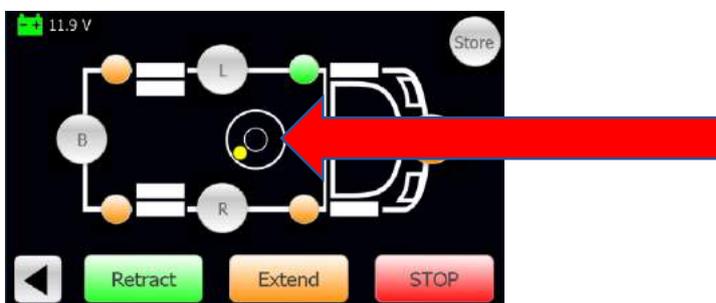


Do not exclusively rely on the system. The driver always remains responsible and must check that all jacks are retracted before driving away.

LEVELLING SAFETY MEASURES

- Park the vehicle on a surface that is as flat as possible.
- Check if the surface on which the jacks will rest is preferably flat, not slippery, and free of debris, rocks, etc.
- When parking on a soft surface, plates or blocks must be used under the bases of the jacks, to prevent the supports sinking into the ground.
- The handbrake must be engaged before the system can be operated. Without an engaged handbrake, the system will not function.
- The gear must be set to neutral or park.
- Ensure that the system has enough voltage. if necessary, start the vehicle during leveling if the voltage is insufficient.
- Maintain distance from the vehicle, slide-outs, awnings, doors, steps, etc. The vehicle can move in all directions when deploying or retracting the jacks.
- In order to achieve the most accurate result possible, it is advised to operate the system from outside the vehicle or otherwise avoid moving when inside the vehicle.
- Press the STOP button on the control panel at any time if the operation must be interrupted.
- If the operation has been interrupted, all jacks must be retracted. After that, you can start over.
- ALWAYS check if all jacks are resting properly on the ground.
- Disengage the vehicle's ignition when the system is ready.

Place blocks under the jacks when the yellow ball of the spirit level is outside the inner circle. This prevents the jacks from being irreparably damaged at maximum steering.



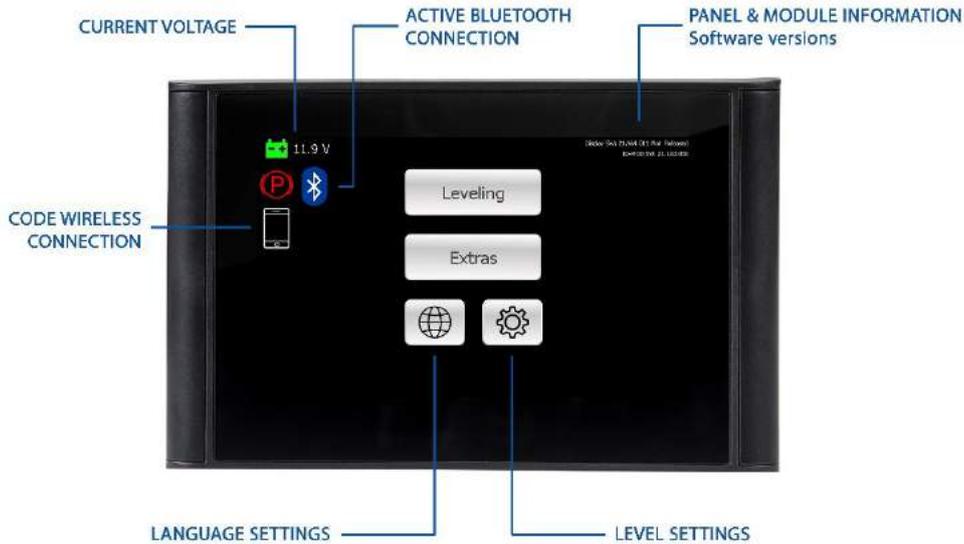
- NEVER MOVE THE VEHICLE WHEN ONE OR MORE JACKS ARE DEPLOYED.

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1. OPERATION

1.1 GENERAL INFORMATION



Status and Symbols		Meaning
	Battery	The battery symbol indicates the actual measured voltage entering the IO module. The icon shows 3 colors. Green > 12V Orange ≤ 12V Red ≤ 11V
	Handbrake	The parking brake symbol shows whether the parking brake is applied or not. The system will not work if this symbol is not lit.
	Bluetooth	The bluetooth symbol only lights up when a wireless connection is active with, for example, a telephone or tablet.
	Phone/Tablet	The phone/tablet symbol will generate a code required to establish a wireless connection.
	Globe	Select this symbol to set a different language for the control panel.
	Gear	Select this symbol to adjust the level settings.
	Extras	Select this symbol to add options such as an extension room or other hydraulic options.
	Leveling	Select this symbol to use the different leveling options.
	Arrow Left	Previous screen.

1.2 START-UP



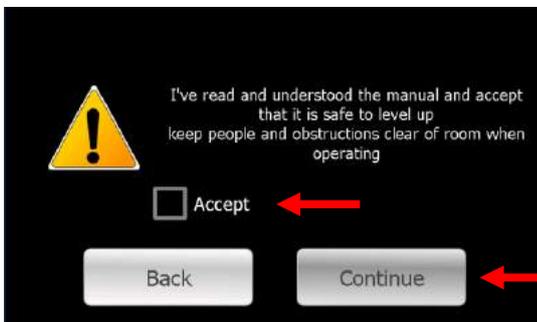
Web: www.hpc-hydraulics.com
Phone: 0031 541 222 444

When the system is started, the HPC logo will be displayed.

The screen will go into standby mode if it is not used for about a minute. By touching the screen, it will turn on again.



Tap the red lock until it turns green.

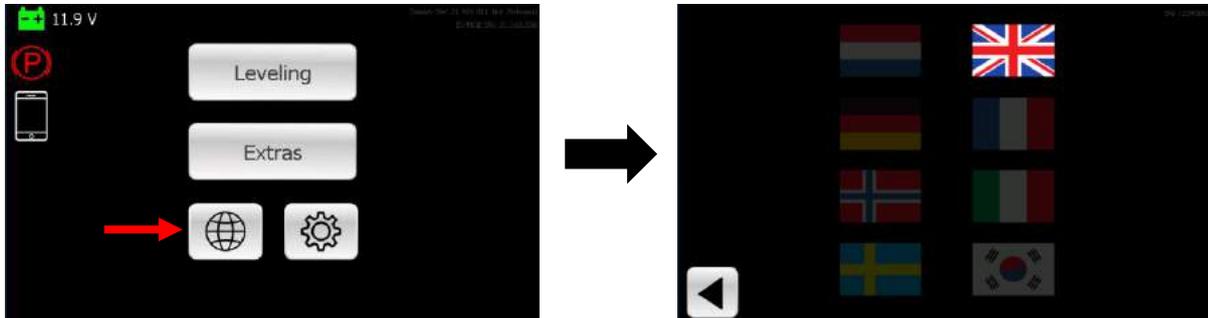


The left screen will appear. Accept by checking the box to indicate that the **safety warning** has been read and understood.

Press **[Continue]** to continue.

1.3 LANGUAGE SETTINGS

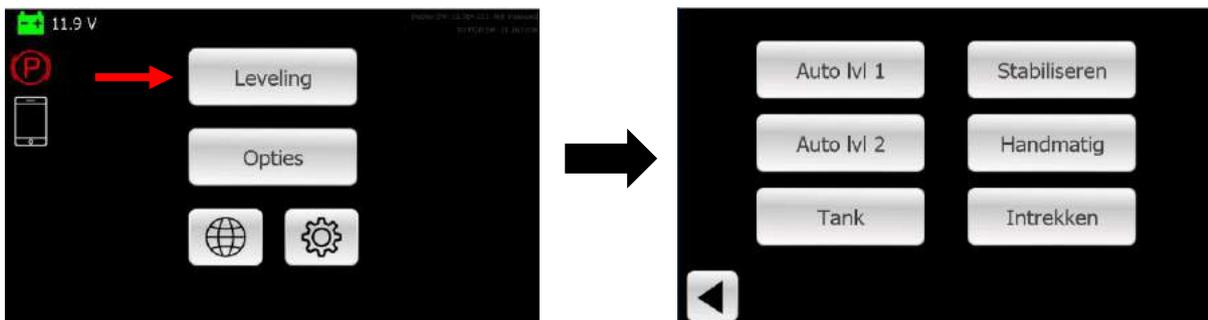
Usually the right language is preprogrammed. If this is not the case or if it needs to be changed, this can be done via the main menu. Select the following symbol as shown in the left image.



A screen with different flags will appear. The highlighted flag is the language that is currently set. Select the desired flag; it will be highlighted.

Press ◀ to go back to the previous screen.

1.4 LEVELING FUNCTIONS



Auto lvl 1 Automatic levelling based on a pre-set value.

Auto lvl 2 Automatic setting based on a pre-set value. This setting is not necessarily level.

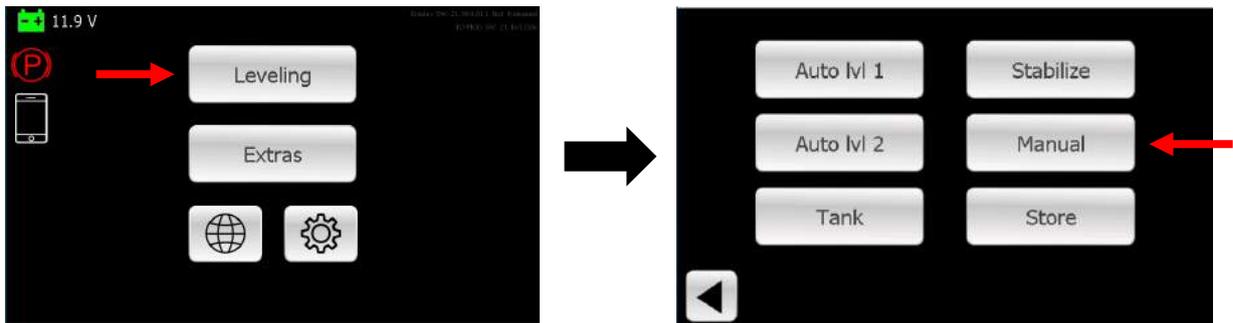
Tank Automatic programmed slant intended to drain waste water.

Stabilize Automatically deploying the jacks based on pressure. The vehicle will not be lifted, and the wheels will stay on the ground.

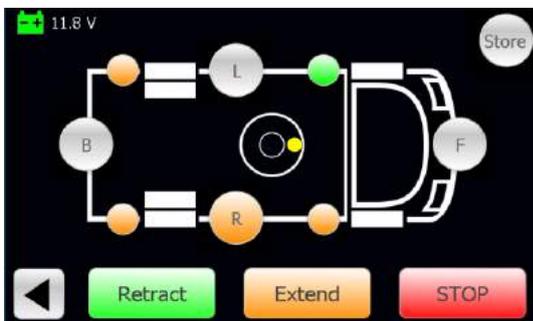
Manual Manually operating the jacks. This is always done per two jacks.

Retract Automatically retract all jacks.

1.5 MANUAL AND AUTOMATIC CONTROLS



In the main screen, press **[Leveling]**. A new option will appear. Select **[Manual]** and the screen below will appear.

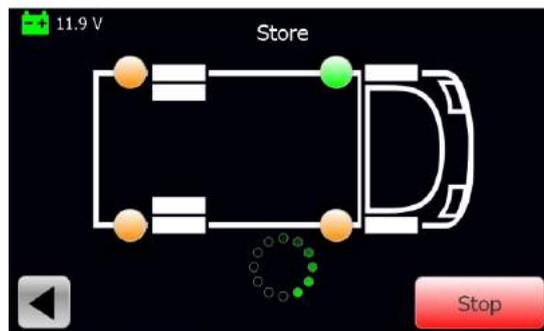
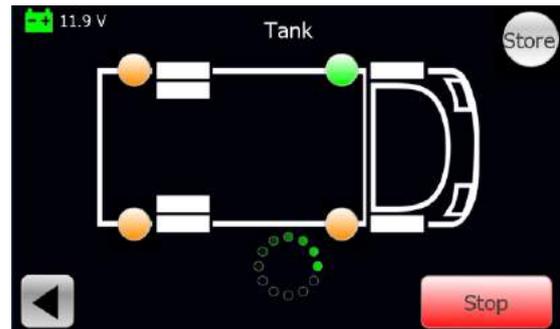
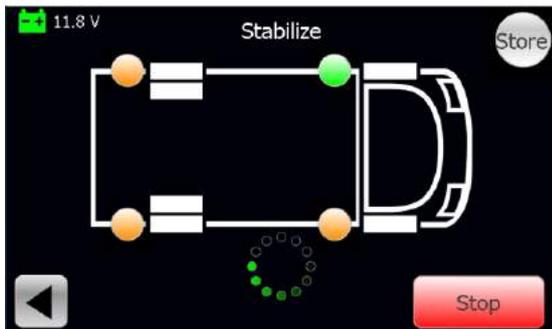
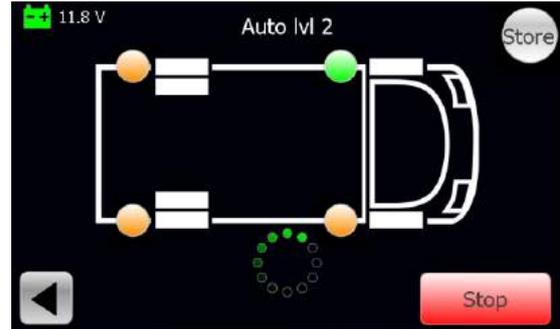
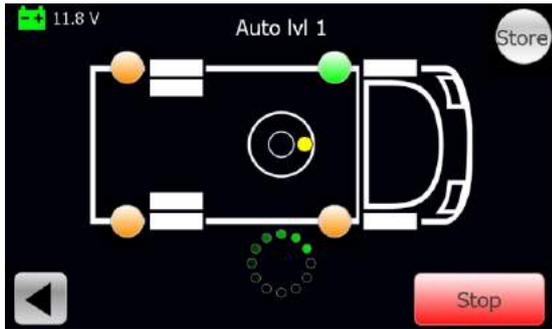


The jacks are controlled in pairs, **Left**, **Right**, **Front**, and **Back**. Select the side to be controlled by pressing the letter. It will highlight. Use the buttons **[Retract]** and **[Extend]** to operate the jacks.

Use the button **[IN]** to automatically retract all jacks.

The jacks will show different colors depending on their position.

- | | |
|-------------------|--|
| Green | The jacks are fully retracted. |
| Orange | The jacks are between the retracted and deployed position. |
| Orange (blinking) | The jacks are moving. |
| Blue | The jacks are deployed. |



During automatic levelling, the function can always be interrupted by pressing the STOP button. When the jacks have not yet reached the ground, the levelling function can be resumed. If the jacks touch the ground, they will first have to be retracted before starting levelling again.

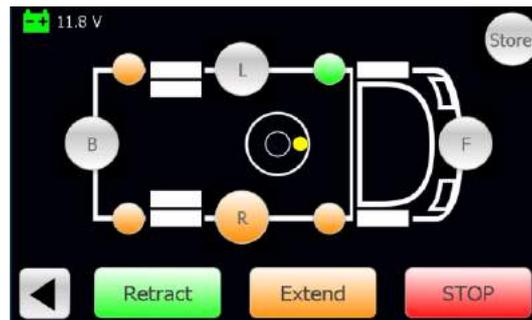
Auto lvl 1 has a visual level when the function is engaged. The other level functions do not have a visual level. The yellow dot is the graphical representation of the level. When the yellow dot is in the center of the small circle, the vehicle will be in the saved position.

As long as the function is active, a green circle will be visible to indicate that the function is still active. When the function is completed, it will show **READY**. After 10 seconds, the screen will return automatically. This can also be done manually by pressing ◀.

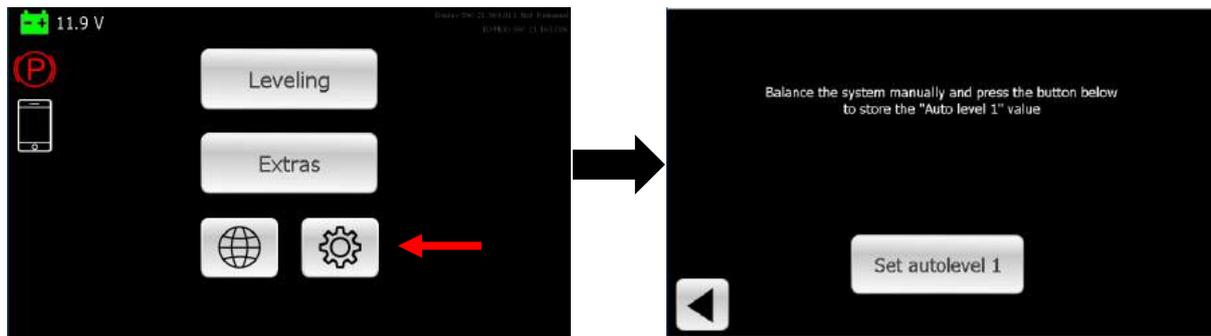
1.6 CHANGING AUTOLEVEL 1 EN AUTOLEVEL 2

The programmed level value can be changed, if it does not meet the requirements. **Please note**, HPC-Hydraulics and the dealer are not responsible for injuries, damage, etc. caused by values changed by the user.

Manually set the vehicle to the desired position.



Go back to the main screen and select the sprocket.



Select the setting that has to be adjusted, **Auto lvl 1** or **Auto lvl 2**.

A screen with the buttons **Set autolevel 1** or **Set autolevel 2** will appear.

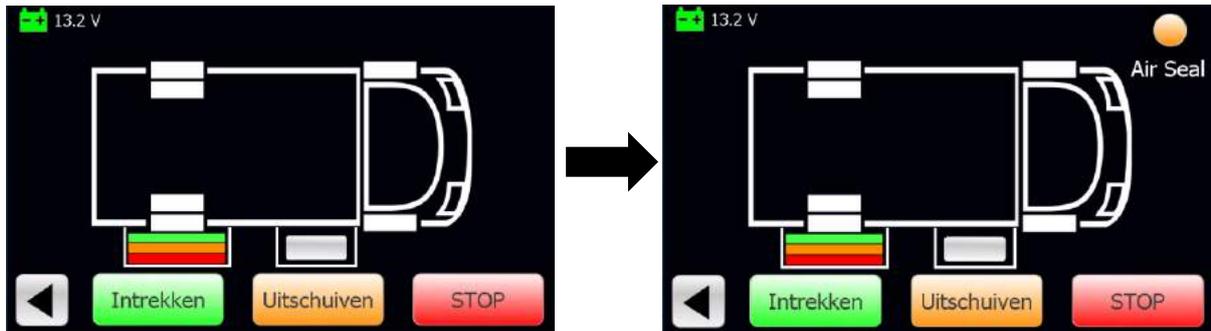
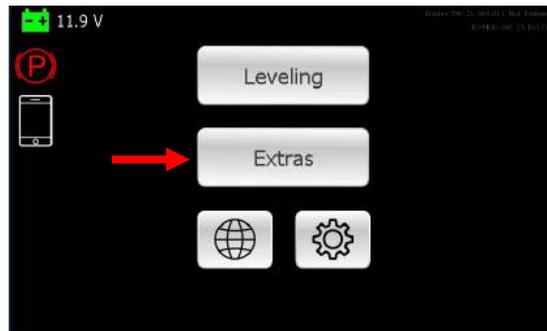
When you press the button, it will briefly turn green. The value is now stored.

Press ► to go back to the main screen.

2. ADDITIONAL OPTIONS

2.1 OPERATING SLIDE-OUTS

In order to operate the slide-outs, you must select **[Extras]** in the main screen.



A screen will appear with one or more active slide-outs. In order to operate the slide-out, it must first be selected.

Please note that when using an Air Seal, a red, orange, or green button will be displayed in the top right corner. This button will first have to turn green before the slide-out can be operated.

When you press on the slide-out, colored bars will be displayed.

- Green** the slide-out is fully retracted.
- Orange** the slide-out is between retracted and fully extended.
- Red** the slide-out has reached its maximum range.

Only one slide-out can be operated at a time.

2.2 HPC APP INSTALLATION AND OPERATION

Wireless controls for the levelling system are possible via Bluetooth in combination with the HPC Hydraulics app. It is available for iOS and Android.

iOS – installation

Download the HPC app in the App Store.
Click on the icon as shown to the right.



Use the search function to find the HPC app in the App Store.



The app.  is intended for the control panel with HPC logo. It was delivered until the end of 2017.



The app.  belongs to the control panel without HPC logo. This concerns the panel that was delivered after 2017.



Android - installation

Download the HPC app in the Play Store.
Click on the icon as shown to the right.



Use the search function to find the HPC app in the Play Store.

Install the HPC app on the smartphone or tablet.

There are 2 apps for Android;



The app.  is intended for the control panel with HPC logo. It was delivered until the end of 2017.



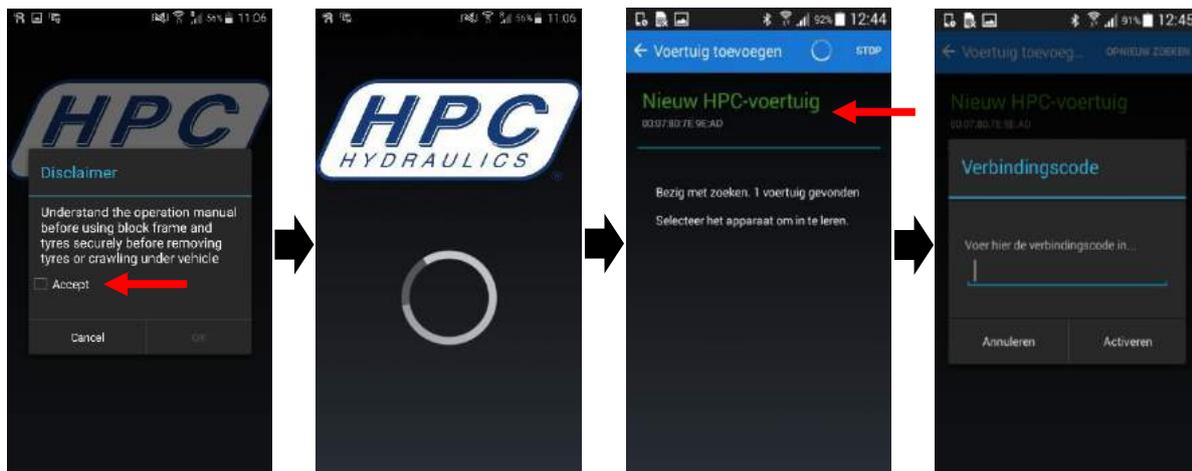
The app.  belongs to the control panel without HPC logo. This concerns the panel that was delivered after 2017.

The phone must now first be interfaced with the HPC control panel.

Check if **Bluetooth** has been activated on the phone or tablet.

Open the App. A warning will first appear. Accept this message.

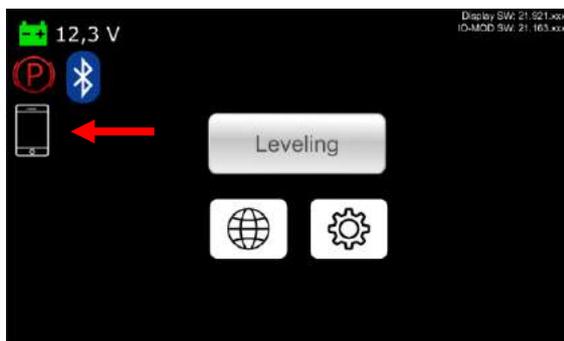
The app will automatically use the language the phone is set to. If this language is not available, the language is automatically set to English.



It may take a moment for the app to detect the control panel. **New HPC vehicle** will appear on the screen. Click on the text.

You will be prompted for a **Connection code**.

Select the **Phone symbol** on the control panel.

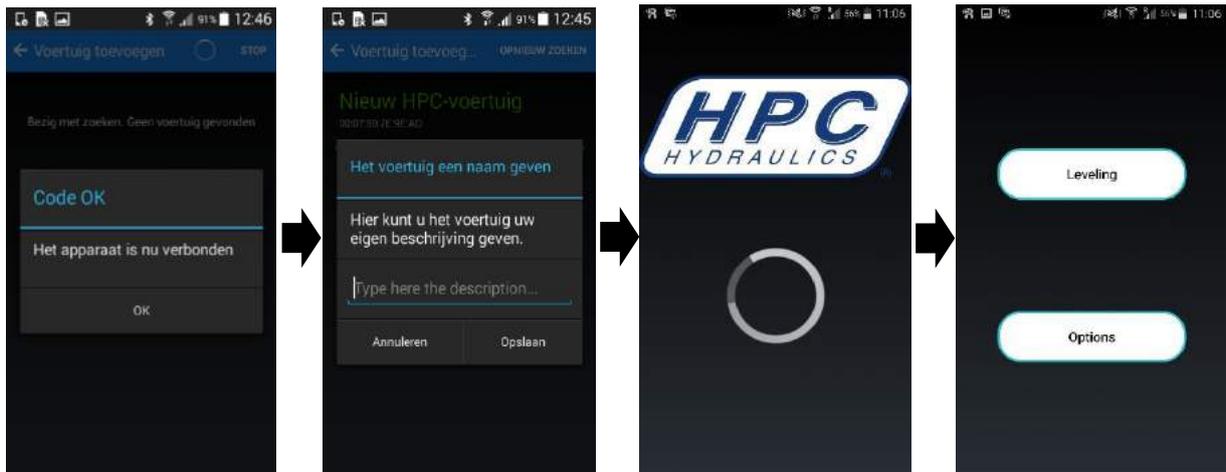


A code will appear. Enter the code and select **Activate**.

A message will appear in the app that the device has been connected. Press **OK** to continue.

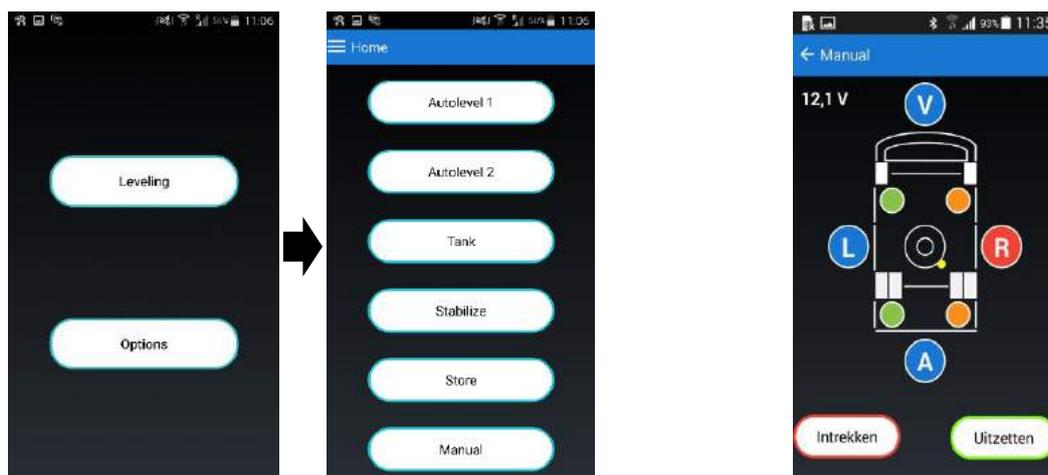
It is possible to give the vehicle a unique name. This will make it easy to identify in the future. This can be changed later.

The app will now launch.



When the app has launched, the main screen will appear with two options: **Leveling** and **Extras**.

Leveling shows all the options that are also available on the control panel. For slide-outs and to change settings, select **Options**.



With the exception of manual operation, a screen will appear showing a cross. The system can be interrupted at any time by pressing ✖. If the operation has been completed properly, a ✓ will appear.

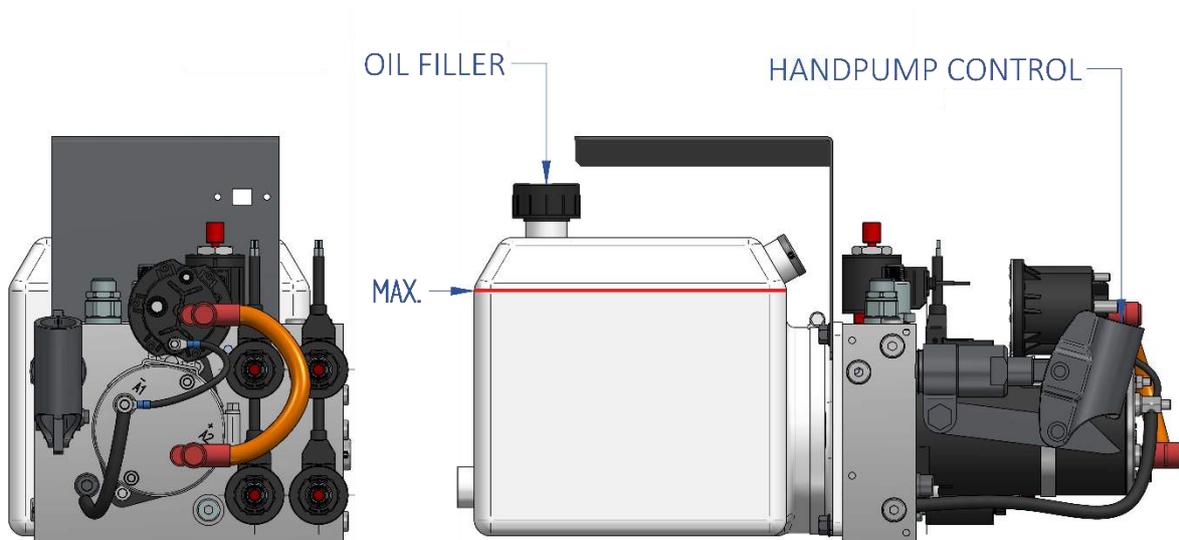
If the system is interrupted, the operation can be resumed. PLEASE NOTE: if the jacks already reach the ground, they first have to be fully retracted. This can be done using the **[Store]** function.

Via the function **[Manual]** (manual control), the jacks can be operated manually. This works the same way as on the control panel. Select the side (letter) that has to be controlled and select **Retract** or **Extend**.

3. MAINTENANCE

3.1 OIL

The oil level has to be checked regularly. The system is closed. Without leaks, the oil level will not change much. Ensure that the oil level is checked when the jacks are fully retracted. The maximum oil level is shown below.



The system is filled with HPC-extreme ZH-M oil. Do not use any other oil than ZH-M. If necessary, please contact your dealer. The warranty will be voided if another oil is used.

Change the oil every five years.

3.2 ELECTRICAL

For a properly function, the battery has to be in good condition. Always ensure the battery is charged properly.

All electrical connections have to be free of corrosion and connected properly. Also remember to check the earth connections. Especially if these have been connected to the chassis or another spot outside the vehicle.

3.3 JACKS

Remove any sand, snow, ice, mud, and/or other contamination. This impedes the operation of the system.

Protect the piston rods periodically with a silicone lubricant. If the supports have been extended for a longer period of time, it may be necessary to re-lubricate the piston rods when stored.

Protect the jacks, jack holders, and hose connections with a wax coating. Apply it to the parts when the jacks are retracted.

Periodically check the system for damage to the piston rods, leaks, and parts like bolts and nuts. Also check the hydraulic hoses for damage.

Check if the jacks are not touching anything when they are retracted.

Check if the jacks fully retract.

4. EMERGENCY CONTROLS

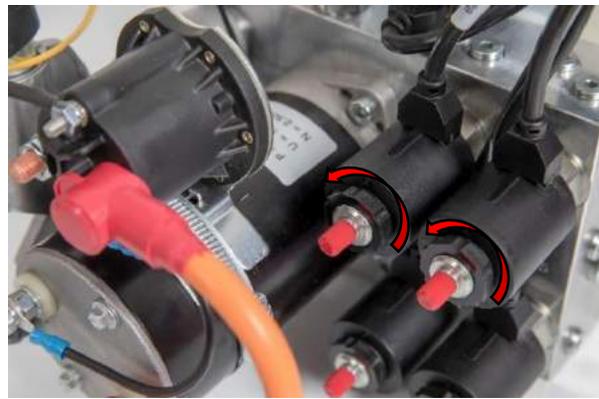
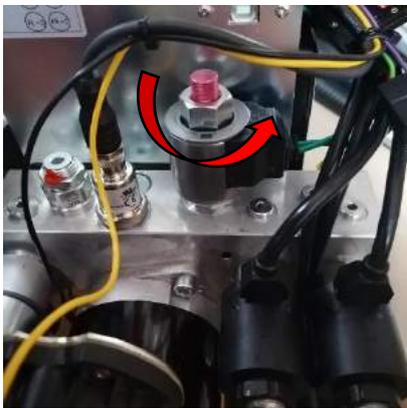
In the event of an electrical malfunction, the system can always be easily operated manually, **without tools**. Note that the correct procedures are followed for retracting or deploying the jacks.

Retracting the jacks

- Open the 4 valves by manually turning them anticlockwise.
- Use the lever in order to operate the jacks.
- After operating the jacks, close all the valves. (turn clockwise)
- When retracting, check if the jacks are fully retracted and locked in place.

Extending the jacks

- On the pump, open the top valve by manually pushing it in and turning it anticlockwise.
- Open the other 4 valves by manually turning them anticlockwise.
- Use the lever in order to operate the jacks.
- After operating the jacks, close all the valves. (turn clockwise)
- When retracting, check if the jacks are fully retracted and locked in place.



4.2 TROUBLESHOOT

Description	Cause	Solution
The control panel will not turn on	No power	Turn on the vehicle's ignition Check the wiring Check the connectors
The system stops while levelling.	Too low power	Start the vehicle Charge the battery Replace the battery
The system is controlling the wrong jacks	Hoses connected incorrectly Orientation set incorrectly External level set incorrectly	Connect the right jacks Set the orientation correctly Set the external level correctly
The jacks are only turned on	Handbrake not engaged Handbrake not set correctly Handbrake icon not visible on control panel	Engage the handbrake Set the electronic settings for the handbrake signal correctly
One or more jacks are not reaching the ground	Insufficient or no oil in tank Pressure not set correctly Pump valve defective No contact between control and valves Press fitting pressed too tight	Top up oil Increase the pressure of the jacks Clean, repair, or change a valve Check the cable for loss of voltage Check the press fittings
One or more jacks are not fully retracting	Valve on the pump is not fully closed Press fitting pressed too tight	Check the valves Increase the pressure of the jacks Check the press fittings
Automatic levelling function terminated prematurely	The jacks have reached the maximum range and are not yet level	Retract all jacks and use blocks to increase the range
Wireless controls via the app not working	No connection between system and smartphone/tablet	Wrong HPC app has been installed. Bluetooth not turned on on phone/tablet There is already an active connection with another device; close the HPC app on this device.

5. DEALER INFORMATION

To facilitate maintenance and repair, it is easy for the company that will work with it to know where important components are located. For this we would like to ask the company that does the mounting to fill in the list below.

Also fill in the information on the next page, so that the customer knows who to contact with questions or problems.

Date of assembly:

Company name:

Connection of the 16 squared power cable from the pump

Board Battery

Starter Battery

Location of the 80 AMP fuse holder

(it should be placed as close to the pump as possible)

.....

Connection of the (red) ACC power cable from the control panel

.....

Location of the pump

.....

Surface used to program Auto lvl 1

(e.g. floor, kitchen unit)

.....

Surface used to program Auto lvl 2

.....



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