



MANUAL USER

For installation and use of leveling system
HPC112 & HPC124



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MANUAL FOR INSTALLATION HPC112 & HPC124

WARNING !

BEFORE FITTING READ THIS MANUAL CAREFULLY

DON'T WORK UNDER THE VEHICLE WHEN IT'S JUST STANDING ON IT'S HYDRAULIC JACKS. MAKE SURE THE VEHICLE CAN'T MOVE WHEN WORKING ON THE VEHICLE AND WHEN YOU USE THE LEVELING SYSTEM.

MAKE SURE NO ONE STANDS TOO CLOSE TO THE VEHICLE WHEN LEVELING

NEVER PLACE HANDS OR OTHER BODY PARTS CLOSE TO AN OILLEAK, THE PRESSURE CAN BE SO HIGH THAT IT PENETRATES YOUR SKIN

ALWAYS USE SAFETY GLASSES WHEN CONTROLLING THE SYSTEM TO PROTECT YOUR EYES FROM DIRT, METAL PARTS, OILLEAKS, ETC.

MAKE SURE ALL THE JACKS ARE COMPLETELY RETRACTED WHEN DRIVING YOUR VEHICLE, ALSO MAKE SURE THE FEET ARE SECURED LEVEL.

BELANGRIJK: INDIEN HET VOERTUIG EEN SLIDE-OUT HEEFT, LEES DAN DE PARAGRAAF VAN DE SLIDE-OUT DOOR.

IMPORTANT: WHEN THE VEHICLE HAS A SLIDE-OUT, READ THE SLIDE-OUT SECTION.

WHAT TO DO WITH WARRANTY CASES

THIS CAN'T BE INTERPRETED AS A WARRANTY STATEMENT

HPC-HYDRAULICS strives to achieve the highest possible satisfaction to its customers
Therefore, if you have a defect or a problem please proceed as follows

1e: Notify the dealer who installed the system, the dealer is fully aware of the system and can help you to solve your problems as fast as possible.

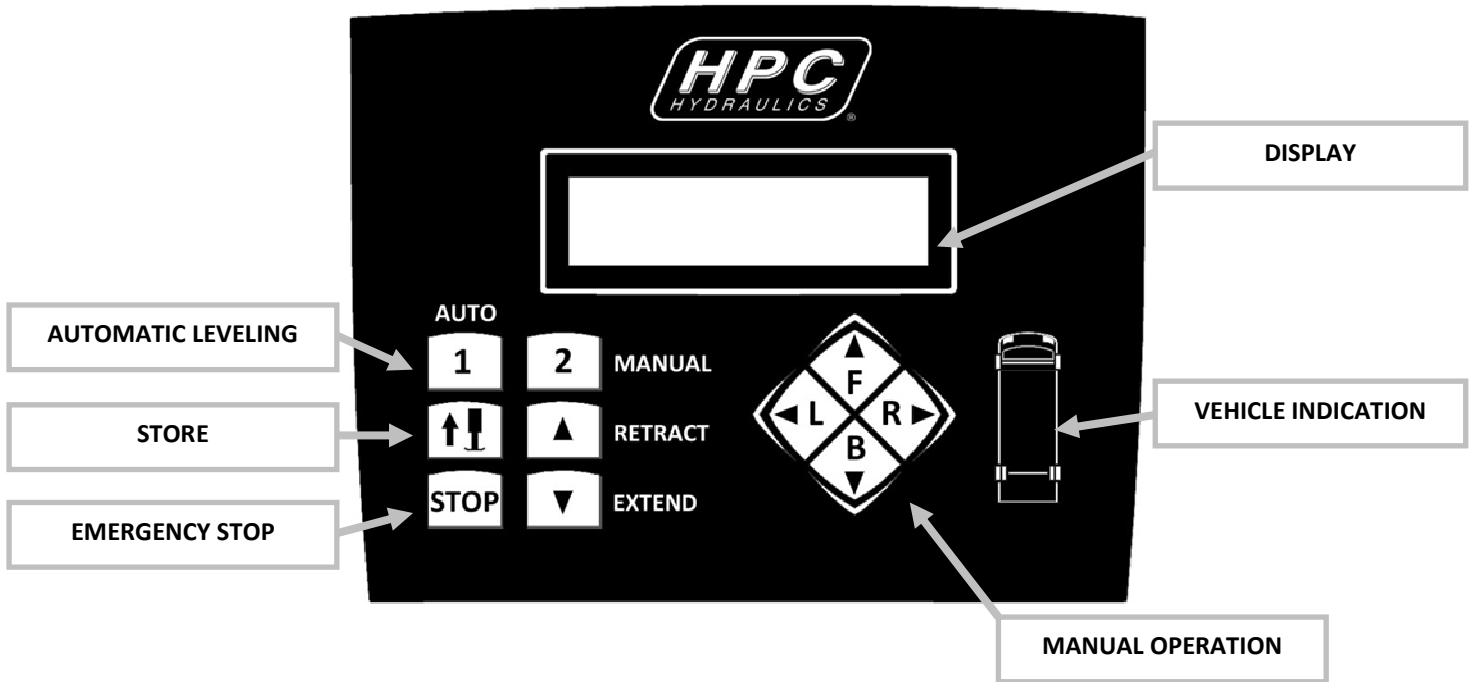
2e: If the dealer has no change to solve the problem himself please let the dealer contact us HPC-HYDRAULICS
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Make sure you give your name, the exact system that's installed on your vehicle, when it's installed and who installed the system. Please also inform us when and where we can reach you.

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OPERATING PANEL



General

1. You can only control the control panel if the vehicle is on contact and the parking brake is operated. Pay good attention on the text in the display, it will help you leveling your vehicle. If the system has a malfunction it will also be shown on the screen.

Bediening

1. Button 1 (AUTO), This button will automatically level your vehicle.
2. Button 2 (MANUAL), this allows you to operate the jacks manually, please note that the jacks will always be operated in pairs when using manual control. After pressing the manual control button you have to use the manual operation buttons: F = front, B = back, L = left and R = Right. After selecting the side of the car you can use the retract and extend button to place the jacks however you want.
3. 'STORE' button, This button will retract all the jacks. Always make sure all the jacks are fully retracted and the feet are fixed. If not, use the 'STORE' button again.
4. 'STOP' button, this is the emergency button, if something goes wrong or you want the system to stop immediately, use this button.

After using the 'STOP' (emergency) button, retract the jacks using the 'store' button. After retracting all the jacks you can start over.

Malfunction

1. When faults codes are indicated on the display, look on page 13 what the fault code means. It will also show you what to do with the failure, what you can try yourself or if you need help from the company who build in the system.

OPERATION PROCEDURES

GENERAL INSTRUCTIONS

Park your vehicle on steady and flat surface as possible

Use plates or blocks on a soft surface where the jacks can sink into the ground

If the handbrake isn't engaged the control panel won't start and you can't use the leveling system.

The transmission needs to be in neutral or parking position.

Take enough distance from the vehicle when using the leveling system. The vehicle can move in all directions when extending or retracting the jacks.

When the system is running, don't walk or move in the vehicle. This can affect the leveling system.

Press the 'STOP' button on any moment you think you need to interrupt the system.

After using the emergency (STOP) button, you need to retract all the jacks before you can start over using the leveling system.

The system needs to be cleaned regularly, the turning points can be sprayed in with Teflon.

WARNING: do not move the vehicle when one or more jacks aren't fully retracted.

PROVISIONS BEFORE DRIVING

Before you start driving the system needs to be visually examined whether the jacks are fully retracted. If this is not the case, follow the procedure for retracting the jacks.

If the jacks still won't fully retract and aren't fixed, you need to contact your service dealer.

WARNING: do not only rely on the system, the driver remains fully responsible that it's safe to drive.

OPERATION PROCEDURES

AUTOMATIC LEVELING

1. Make sure the transmission is in neutral or parking position and make sure the handbrake is engaged. Stop the engine and turn the ignition key to 'accessories' position. If you haven't done the above, the control panel won't turn on.
2. Make sure the ground where the jacks are being place are free of debris, stones, etc..
3. Press button 1 (AUTO), the system will automatically level your vehicle. Make sure you know the general instruction!
4. If the vehicle is level, you can turn of the ignition, the control panel will turn off.
5. If the angle of the vehicle is too large, it is possible the system can't level the vehicle and will give a fault on your display (fault 12). This means the jacks are at their maximum stroke and can't level the vehicle. Use the 'store' button to retract all the jacks. When there's a malfunction in the system it needs to be reset. Reset the system by turning of the ignition and putting it back on. Move the vehicle to a better place so the vehicle is placed as level as possible and use filling blocks to max out the stroke of the jacks. Try the automatic leveling again. If it's still not working try the manual control.
6. When the vehicle stands level, turn of the ignition. The control panel will turn off. If you want to operate the system again, don't forget to turn back on the ignition as mentioned at position 1.

AUTOMATIC RETRACT

1. Make sure the control panel is turned on, if it isn't make sure the ignition and handbrake are turned on.
2. Press the 'store' button, the jacks will now automatically retract.
3. Make sure all the jacks are retracted and the foots are fixed straight, so they can't touch the ground when driving.
4. If this is not the case, press the 'store' button again. Check again if the jacks are fully retracted and the feet are fixed.
5. When the jacks are retracted properly, the handbrake can be loosened and it's now safe to drive.

OPERATION PROCEDURES

MANUAL CONTROL

1. Make sure the transmission is in neutral or parking position and make sure the handbrake is engaged. Stop the engine and turn the ignition key to 'accessories' position. If you haven't done the above, the control panel won't turn on.
2. Make sure the ground where the jacks are being place are free of debris, stones, etc..
3. Press button 2 (MANUAL)
4. To operate the system manually you need to choose a side of the vehicle, therefore you need to use the buttons: F, B, L en R. F = front, B = back, L = left en R = right
5. Choose the side you want to control, the jacks will always operate in pairs.
6. To extend or retract the jacks you need to use the buttons on the left 'EXTEND' and 'RETRACT'.
7. It's always possible to choose a different side of the vehicle, after choosing the side you can use the 'extend' and 'retract' to operate the jacks.
8. If it's not possible to level the vehicle manually, retract all the jacks using the 'store' button. Move the vehicle to a better place so the vehicle is placed as level as possible and use filling blocks to max out the stroke of the jacks.
9. When the vehicle stands level, turn of the ignition. The control panel will turn off. If you want to operate the system again, don't forget to turn back on the ignition as mentioned at position 1.

MAINTENANCE

OIL LEVEL

All maintenance must be done during normal inspection intervals.

The oil level should be checked before use, and after that every two years. When there's a leak in the system it needs to be sealed. The oil tank is located on the pump unit. The oil needs to be filled through the vent valve. Make sure that the environment is clean before unscrewing the lid and filling the oil.

The oil level needs to be 1 till 2,5 cm under the top of the oil reservoir.

Note: when the oil level is too high it can cause leakage through the vent valve.

The system uses HYDREX MV ARTIC 15 oil, When refilling the system only use the same oil, for questions please contact your dealer.

Do not use brake oil or normal hydraulic oil for jacks or lifting equipment.

The oil needs to be replaced every two years.

ELECTRIC SYSTEM

The car batteries must be charged and in good condition for the system to work correctly. The terminal connection should also be clean and tightened.

All electric connections must be corrosion-free and they make good contact. The ground connections need to be 100% correct for the system to work correctly.

JACKS

During installation and at least once a year the jacks need to be sprayed with Teflon when in a retracted position!

Keep the jacks clean and occasionally spray the pivot points in with Teflon.

VISUAL INSPECTION

Periodically check the system for leaks, damage and parts such as bolts and nuts. Check if the hoses aren't damaged by sharp parts and if they aren't placed close to the exhaust.

Check if the jacks can't hit anything when they are in the retracted position. The jacks need to be checked every month, the system will work better and will have a longer life time when the jacks are occasionally cleaned from dirt and mud.

OPERATING CONTROL

Check the operating instructions, only operate the system under these rules.

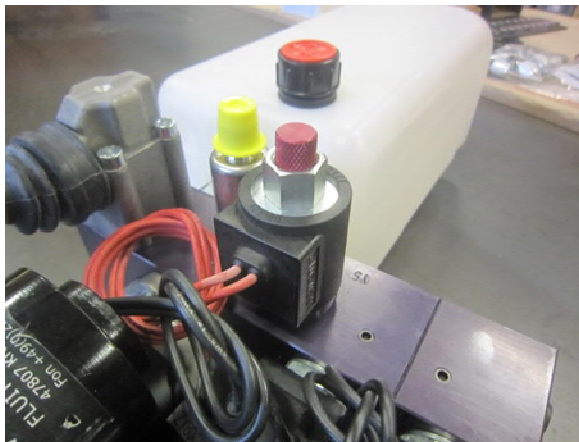
Retract all the jacks, make sure all the jacks are fully retracted and the feet are fixed.

EMERGENCY CONTROL

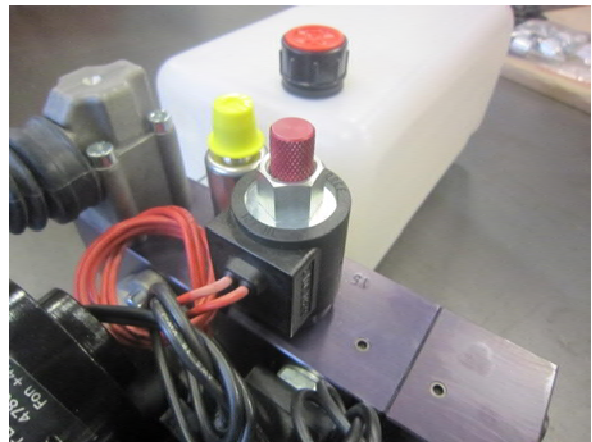
MANUAL CONTROL

When the system fails, for example, a fault in the system or the battery does not work, then you can the system very simple hand operated. Note that you always have the correct procedures when you extend or retract the jacks. The procedures can be found in the chapter: Control procedures.

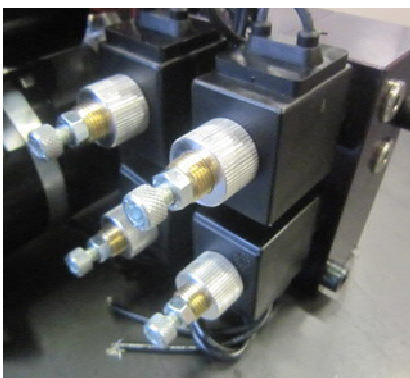
1. The pump has a total of five valves (depending on the system), four are used for extend the jacks and one for retract of the hydraulic jacks.
2. Figures 1 and 3, show how the valves are standing when the system is in use.
3. If you want to use the manual . Considering of you want retract the system or extend the system. For extend the system the valve muss stay as shown in Figure 1 . Would you like retract the system the valve muss stay, as shown in Figure 2.
4. Now, the valve of the relevant cylinder must be turned up, so that it can be operated. On the connector to the valve indicates you can see which valve is for which cylinder.
5. If you open the valve from a cylinder you must rotate the nut, see Figure 4.
6. Turn the entire button to the right, so that the bold goes inside, see Figure 5.
7. Use the lever to operate the jacks.
8. When you finish the operation, do not forget to turn the valves close again as in figures 1 and 3 will appear.
9. Always check that the jacks are fully retracted and locked!



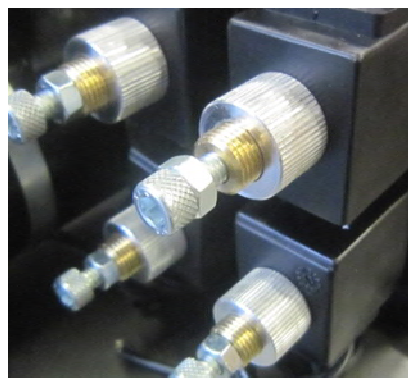
Afbeelding 1



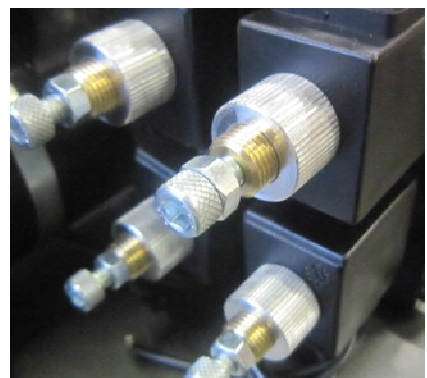
Afbeelding 2



Afbeelding 3



Afbeelding 4



Afbeelding 5

TROUBLESHOOT

THE SYSTEM DOESN'T TURN ON

The system and control panel aren't working

- Make sure the handbrake is engaged
- Is the ignition or vehicle on contact
- Does the battery have sufficient power
- Check the wiring of the system

THE CONTROL PANEL WORKS, BUT THE JACKS DON'T RETRACT

Won't the jacks operate automatic or manually, check the following:

- Make sure the pump is running during operation, if not check the wiring
- Check the oil level

Does the control panel give a fault (malfunction) on the display, check below what the problem is:

Storingen	Omschrijving
1	Malfunction pump
2	Malfunction level sensor (x- of y waarde < 1)
3	Malfunction time-out cross-direction
4	Malfunction time-out length-direction
5	Reserved
6	Failure to withdraw cylinders front (timeout)
7	Failure to withdraw cylinders back(timeout)
8	Malfunction cylinder 1 (First extend)
9	Malfunction cylinder 2 (First extend)
10	Malfunction cylinder 3 (First extend)
11	Malfunction cylinder 4 (First extend)
12	Exces Slope/ over pressure lower > SP
13	Maulfunction rejusting (timeout)
14	Reserved
15	Reserved
16	Reserved
17	Malfunction redraw cylinder 1
18	Malfunction redraw cylinder 2
19	Malfunction redraw cylinder 3
20	Malfunction redraw cylinder 4

If there are any other problems or malfunctions please contact your dealer. If your dealer has no direct answer, let the dealer contact us and we will solve this problem together.

When you want to delete the fault and want to operate again, the system needs to be reset. This can be done by turning of the ignition (contact) of the vehicle and turn it back on.

TROUBLESHOOT

The system doesn't turn on

Verklaring	Omschrijving
1	Pump runs too long or the pressure can't build up fast enough
2	Malfunction level sensor
3	Leveling long side takes too long
4	Leveling short side takes too long
5	
6	Retract cylinders front is taking too long
7	Retract cylinders back is taking too long
8	Pressure cylinder (left back) is not building up fast enough
9	Pressure cylinder (left front) is not building up fast enough
10	Pressure cylinder (right front) is not building up fast enough
11	Pressure cylinder (left front) is not building up fast enough
12	The angle is too large to level (max stroke is reached)
13	Re pressuring is taking too long
14	
15	
16	
17	Retract cylinder (left back) is taking too long
18	Retract cylinder (left front) is taking too long
19	Retract cylinder (right front) is taking too long
20	Retract cylinder (right back) is taking too long