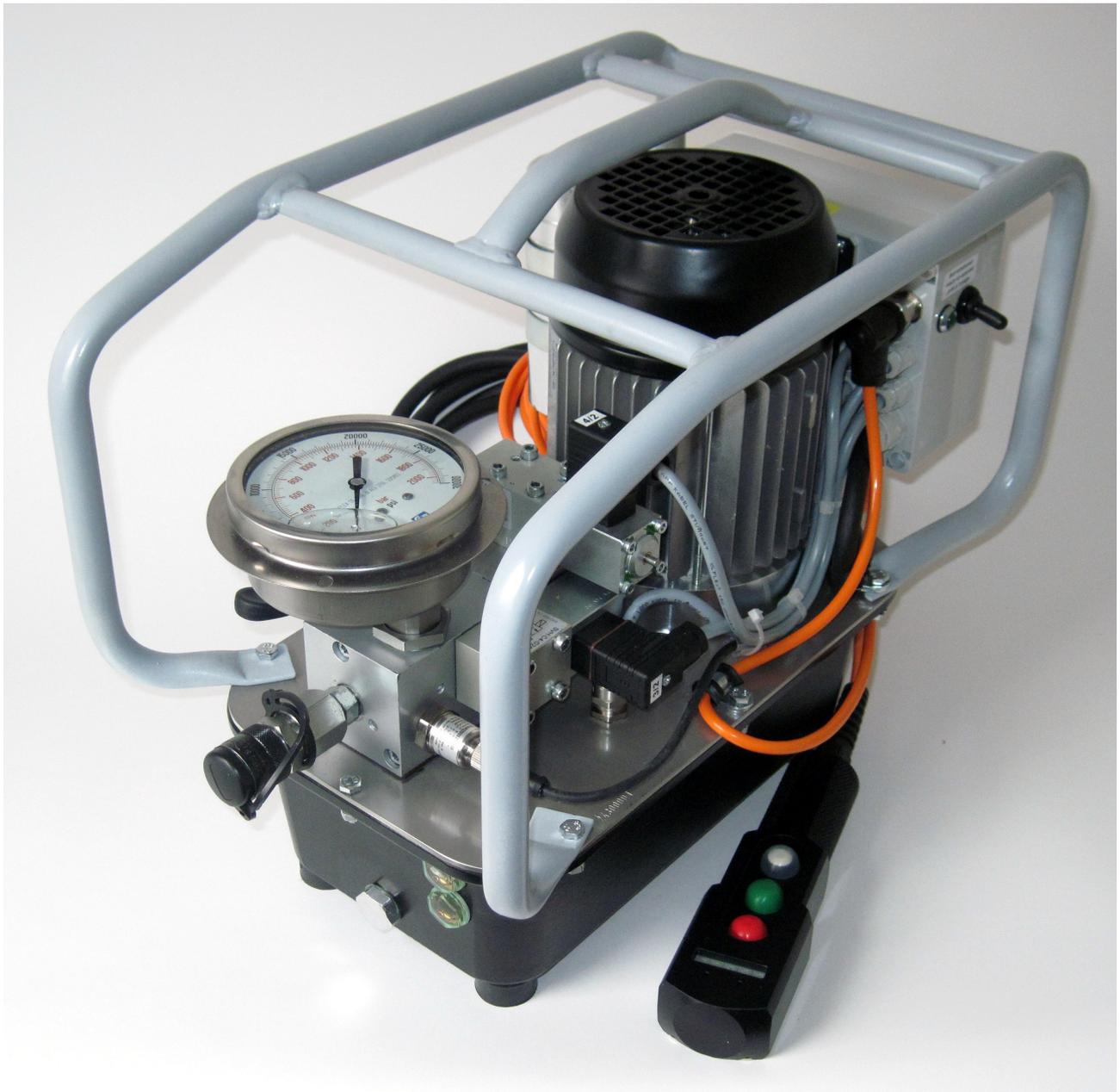


HYTORC®

Technologies



User manual HY-P15A / HY-T15A

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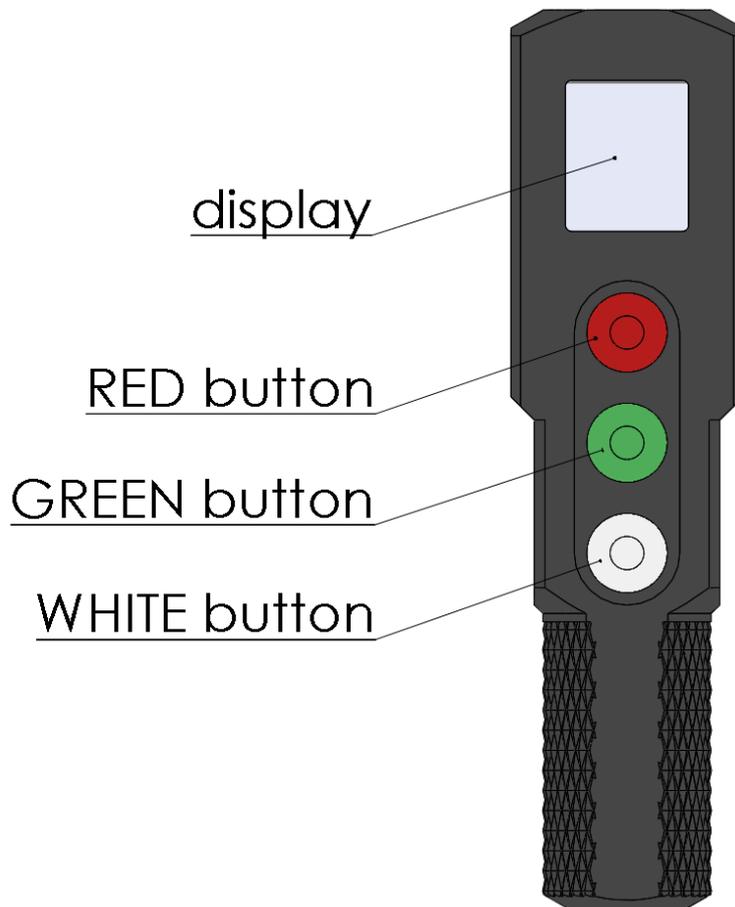
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1 Introduction

- With the HY-P15A or HY-T15A power unit you can utilize tensioners requiring up to 1500 bar (21755,66 psi). During operation the pump takes care of the pressure, making sure it stays constant over time. Thereby the preset elongation of your bolt will stay exactly the same.

2 Remote control

2.1 Buttons



Menu:

- RED = Decrease
- GREEN = Enter
- WHITE = Increase

Workflow:

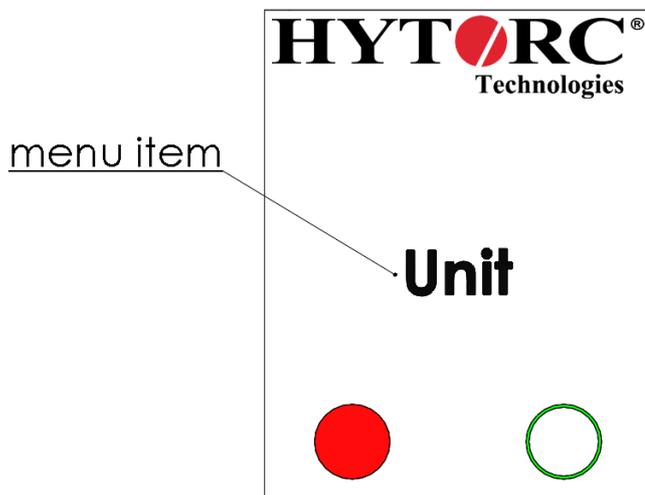
- RED = emergency stop, turns the motor off at any time.
- GREEN = pressure level control, hold to raise it.
- WHITE = automatic pressure, hold for one second to save the current pressure level, tap it to leave automatic mode and to relieve pressure.

2.2 Settings menu

- Press GREEN and WHITE while turning on the power switch of the pump to get access to the menu.



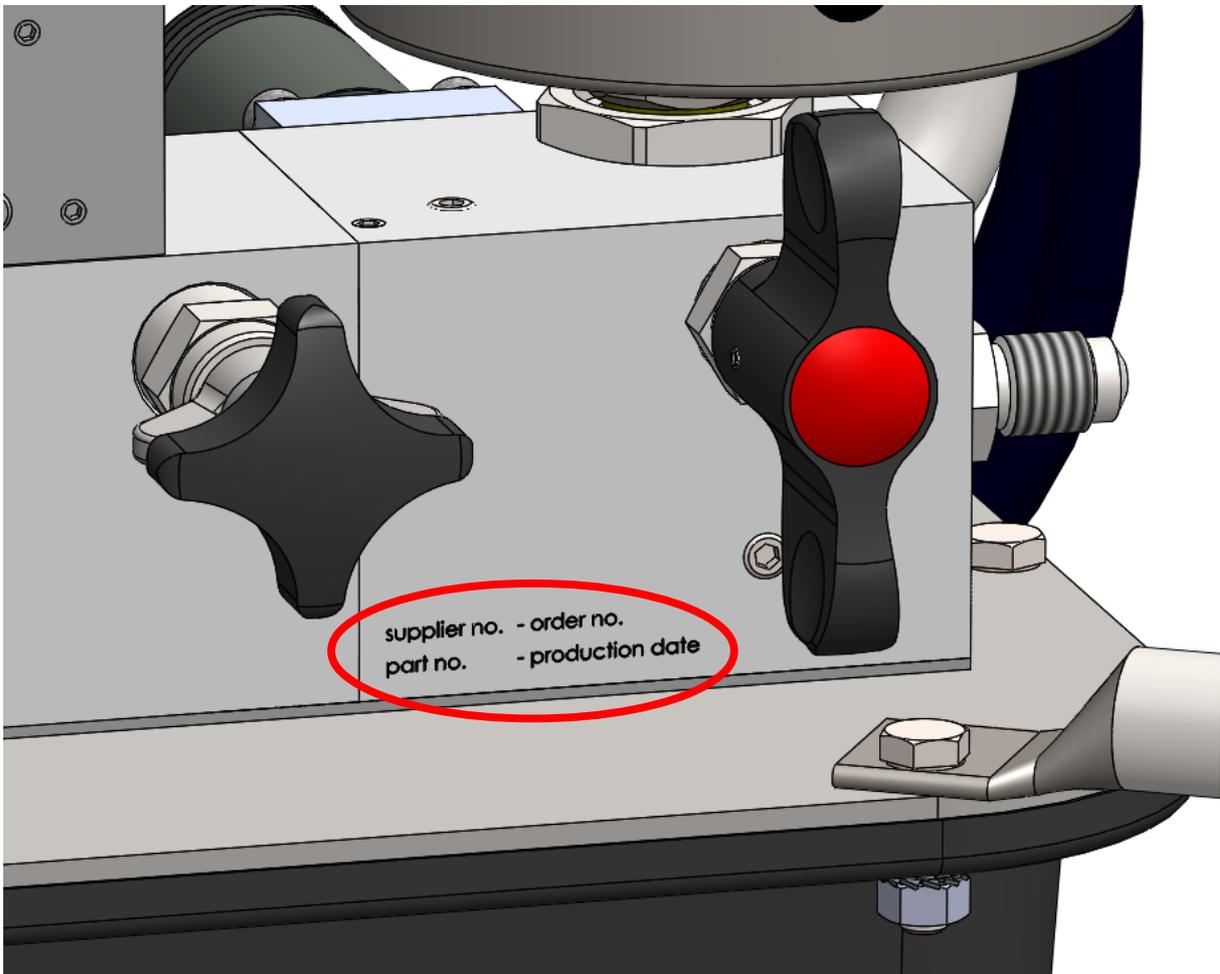
- Use the buttons on the remote control to select a menu item.



- HP-BI: Select the software version depending on the mounted valve block (see 2.3 Valve block detection).
 - Unit: Select the main pressure unit.
 - Round: The shown pressure value can be rounded. Select the increment. A value between 1-100 is available.
 - RunTi: Select the time in seconds until the motor will be automatically stopped after relieving the pressure. A value between 1-60 is available.
 - Exit: Exit the menu.
- There is no return function in the menu. Press GREEN=Enter without changing the value to return.

2.3 Valve block detection

- Detect the version of the mounted valve block by checking its identification field.



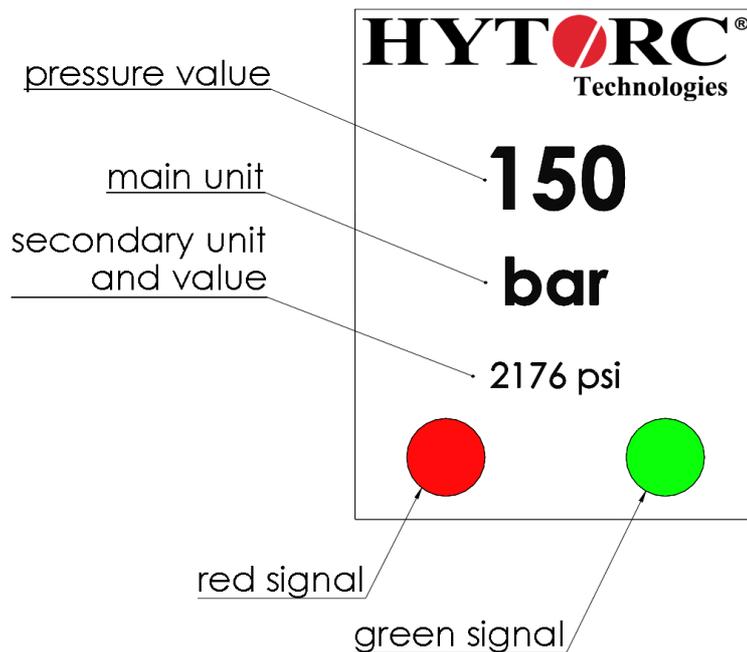
supplier no.	order no.
part no.	production date

- The part number will show the version of the valve block. Example:
 - 2 06660 **02** > Version 02
- Information: Valve blocks of version 01 or lower have no identification field.
- Select the software version depending on the valve block version.

Valve block version	Software version
00 - 01	01
02	02
03	03

- If the table does not include the detected valve block version please contact the HYTORC Technologies support to get an updated manual.

2.4 Display signals



- Red signal
 - continuous
 1. No pressure hold saved.
 - blinking
 1. The pump is raising the pressure up the hold.
 2. Emergency Stop is pressed.
 3. Pressure not completely released (>15bar).
- Green signal
 - continuous
 1. Pressure hold is initialized. Pump is not running.
 - blinking
 1. Pump is controlling the pressure level. Pressure level is stable.

3 Workflow

3.1 Preparation

1. Connect the pump to the electrical grid.
2. Close the pressure relief valve.



3. Connect a suitable hose on the hydraulic coupling of the pump.
4. Turn on the power switch.



5. Start the pump by pressing the GREEN button on the remote control.

3.2 Set pressure maximum by valve

1. Regulate the pressure maximum by adjusting the pressure valve. Screw it out/in to lower/raise the maximum pressure cap of the pump.



2. To detect the current pressure cap, raise the pressure up by holding GREEN. The pressure cap is shown on the remote control display, when the pressure value doesn't raise any more.

3. Always set the required pressure level from bottom to top while holding GREEN, i.e. by screwing in the pressure valve. Fix the wing nut to the pressure valve when the required pressure level has been reached.
4. Important: Lowering the pressure cap (screwing out) while holding GREEN causes in a discrepancy between the shown and the real pressure value.

3.3 Initialization of the pressure hold

1. Hold GREEN to raise the pressure level.
2. Additionally hold WHITE for about one second to save the current pressure level. The saved pressure value can be used in automatic mode of the pump.

3.4 Automatic operation tensioners

1. Connect the tensioner to the hose.
2. Hold GREEN until reaching the saved pressure level. The pump will switch to automatic mode by itself. The green signal on the display will start blinking to show the pump is operating in automatic mode. Release the GREEN button. While operating in automatic mode, the pump will hold the pressure by starting and stopping the motor. Whenever the pressure drops more than 30 bar below the saved pressure level, the pump will raise it automatically.

3.5 Relief of pressure

1. Press the WHITE button to release the pressure. Please notice, it takes some time to release the pressure and to retract the tensioner. The pump has to be running during this process.
2. Optionally press WHITE to stop the motor after the tensioner is completely retracted. Otherwise the motor will stop by itself automatically after a chosen time (see 2.2 Settings menu).
3. Press WHITE again to restart the pressure release, e.g. if the tensioner is not retracted completely.

3.6 Emergency case

- Press the RED button to stop the motor at any time.
- Open the relief valve to manually release the pressure e.g. if the pump gets out of electrical power.

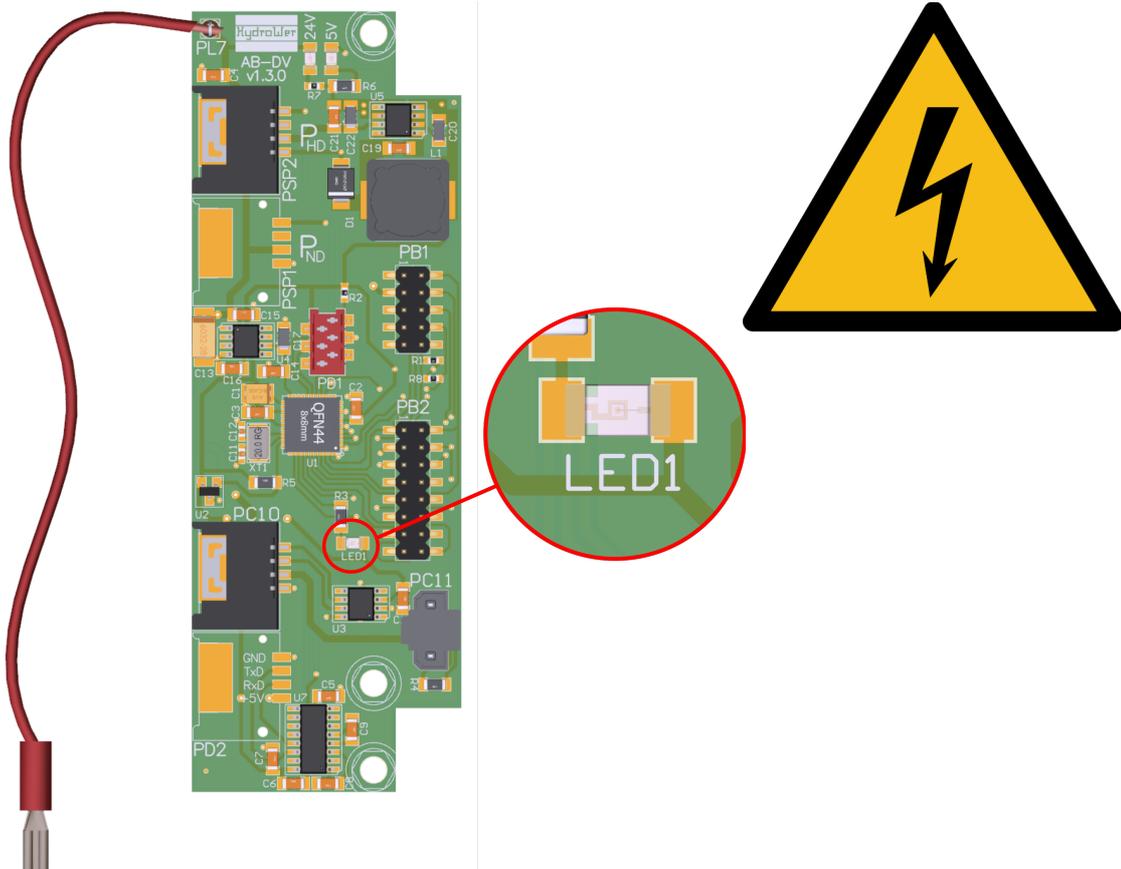
4 Troubleshooting

4.1 Operating LED error codes

- The operation LED indicates an error by flashing twice.



- The status LED1 on the AB-DV board specifies the error via a flashing frequency. The board is inside the electrical control. Beware of mains voltage!



4.1.1 Button pressed at start

- The status LED1 flashes **4 times**.
 - ➔ Error: The electric control detects a pressed remote control button when starting the pump.
- Did you accidentally press a remote control button when you started the pump?
 - ➔ Restart the pump. Pay special attention not to press any button.
- Is one of the remote control buttons damaged?
 - ➔ Check if all buttons are equipped with rubber caps. A missing rubber cap can cause the button to become stuck.
- Did none of the clues help you?
 - ➔ Please contact Hytorc support to find a solution to this problem.

4.1.2 Remote control not found

- The status LED1 flashes **5 times**.
 - ➔ Error: The remote control could not be found.
- Is the remote control connected?
 - ➔ Check the plug connector on the electrical control unit.
 - ➔ Unplug/replug the connector of the remote control. Check the connection pins of the plug connection for signs of corrosion.
- Is there any voltage on the remote control?
 - ➔ The display of the remote control is active when voltage is applied.
- Are all connections in the electrical control connected?
 - ➔ A circuit diagram can be found in the operating manual of the pump.
- Have you recently installed spare parts in the electrical part of the pump?
 - ➔ Check especially the correct installation of the spare parts.
- Did none of the clues help you?
 - ➔ Please contact Hytorc support to find a solution to this problem.

4.2 Mechanical problem

4.2.1 Abnormal behavior of the pressure level

Error 01 description:

- The pressure level does not drop although the green button is released. the automatic function is not active.
- The pressure level does not drop to zero.

Error 01 solution:

- ➔ The set software version probably does not match the mounted valve block version. please follow the instructions in chapters 2.2 and 2.3 to adjust the software version to the valve block.

Error 02 description:

- The pressure level does not increase above 300bar.

Error 02 solution:

- ➔ The 2/3 way solenoid valve is probably not working. Check that the pin is moving as you build up pressure by pressing GREEN. You can feel the pin moving under the rubber cap (see figure, red marking) or remove the rubber cap for a moment.
- ➔ If the pin does not move:
 - Check the electrical connection to the 2/3 way solenoid valve. Is the connector correctly connected? Is the cable or connector damaged? Is voltage applied?
 - If no electrical interference is detectable, the solenoid valve is probably damaged. please contact Hytorc support for a spare part request.
- ➔ If the pin does move:
 - Is the maximum pressure set to 300bar? Please check the setting of the pressure relief valve. Follow the instructions in chapter 3.2.
 - Please contact Hytorc support to find a solution to this problem.

