

DIGITAL PRESSURE TESTER(Pressure measurement)



Operation and Instruction Manual

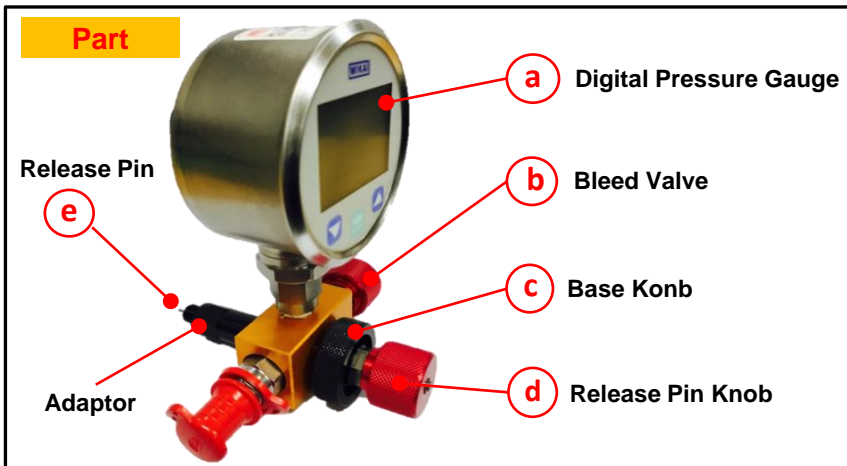
Model: Pressure tester (PT118)



Warning

- ✓ Follow the safety regulations of corresponding countries because nitrogen gas charging is high pressure.
- ✓ Nitrogen gas should be charged and inspected by a trained operator according to the manual.
- ✓ Charge nitrogen gas only.
(Do not charge gasses other than nitrogen and liquid nitrogen.)
- ✓ Wear safety glasses during work.
- ✓ Do not look into the gas inlet and pressure gauge directly.
- ✓ If there is any problem (assembly, damage, etc.), release the gas completely and then remove the gas spring that has a different stroke.
- ✓ Separation and assembly of the internal parts of the gas spring can be done by using the designated standard working tools and equipment while a user receives a proper training and fully understands the products to consider safety and preserve the quality of the products. Contact us for questions with regard to this.
- ✓ Follow the manual because false operation or mistake can cause gas pressure loss during the measurement of gas pressure.
- ✓ Make sure to refill or charge gas while the gas spring is assembled in the robot.
- ✓ Set the posture of H-axis(second axis) of the robot at 90° and cut the power of the controller.

○ Gas spring pressure measurement



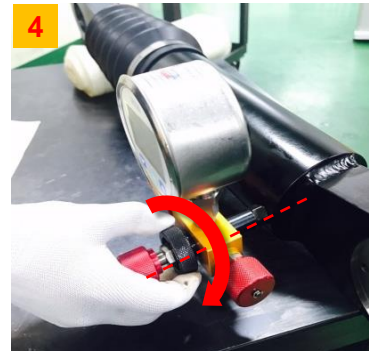
Press the Menu on/off button of the digital pressure gauge and then wait until a 0.0 bar is displayed.



Remove welding spatters and other foreign matters around the plug, and turn the plug of the gas inlet/outlet spring counterclockwise using a 5 mm wrench.



1. Check whether ⑥ are locked.
(Turn clockwise to close)
2. Remove foreign matters from adaptor screws.
(Check O-ring.)
3. Check if the ⑥ PIN sticks out.
4. If it sticks out, turn the ④ in a counterclockwise direction, careful not to stick out the ⑥.



Match the ⑥ of the digital pressure tester with the center of the gas in/outlet, and then turn the ④ clockwise to complete the connection.



Turn ④ clockwise and stop when the pressure value displays ⑦.

(Do not turn the ④ excessively because it will insert the ⑥ too far and cause damage to the check valve inside the gas spring.)



Check the gas pressure on the PT118 digital pressure gauge.



After checking the pressure, turn ④ counterclockwise to retract ⑥ from the check valve.



Turn the ⑥ counterclockwise to release residual gas in the digital pressure tester.

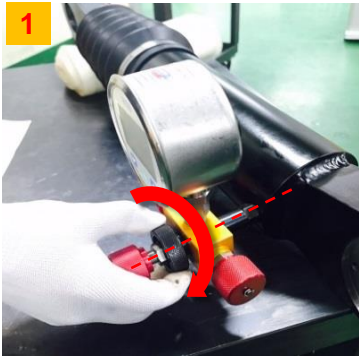


Turn the ④ of the digital pressure tester in a counterclockwise direction to separate it from Gas Spring.



Remove welding spatters and other foreign matters around the plug, and turn the plug of gas inlet/outlet spring clockwise to tighten it.

○ Actions for leakage because of failure to check valve



According to the gas spring pressure measurement manual, position the ② of digital pressure tester in the center of gas inlet/outlet spring and then turn ③ clockwise for full connection.



Turn ④ clockwise and stop when the pressure value displays ⑤.

(Do not turn the ④ excessively because it will insert the ② too far and cause damage to the check valve inside the gas spring.)



Turn ⑥ counterclockwise to release the gas completely from the digital pressure tester. Make sure to release any remaining gas.



★ Warning : If the gas spring is pressurized, do not forcibly remove the check valve.



Turn the check valve counterclockwise using a valve tightening tool to remove it.

★ Warning: Never look directly into the check valve hole.



Check Valve(left side) and Valve Tighten Tool(right side)



Remove the check valve using Long Nose Plier.



Connect the check valve to the gas spring using the valve tightening tool.



Turn the check valve clockwise using a valve tightening tool to connect it.

★ If you connect the check valve by force, the thread of the gas cylinder may be damaged.

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Charge the nitrogen gas at the reference pressure as specified in the nitrogen gas charge instruction manual.

○ Precautions when using PT118 pressure tester



1. Inspect the pressure gauge at regular intervals to see if it displays correct pressure.
2. Here are typical failures.
 - 1) The pressure is displayed as 0 bar even though the gas spring is pressurized.
 - 2) Metallic foreign matters in the thread cause leakage during pressure measurement.
 - 3) The adaptor may be damaged if the PT118 pressure tester is forcibly connected to the gas spring.
3. If the adaptor of the pressure tester is damaged, replace it with a new one.
4. Clean the metallic foreign matters from the thread of the pressure tester and plug.