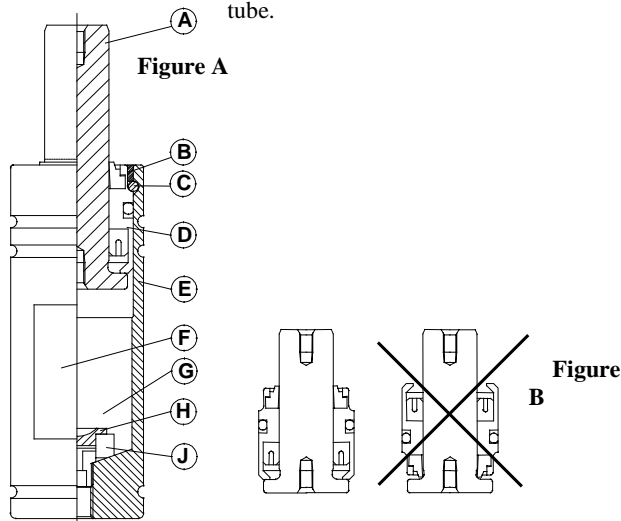


Service Tools

Seal Kit P/N	Lock Ring Tool	Socket	Rod Extraction Tool	Service Gauge Assembly	Charge Fitting
T2SK2-180	T2TK-180-LRT	T2TK-180-SOC	T2TK-180-RET	MGA-3000	T2-90/180-M6

Warnings

- Failure to exhaust all gas pressure prior to disassembly could result in serious injury.
- The maximum charging pressure is 180 bar (2610 psi).
- Never use extreme force on the gas spring.
- Keep the gas spring protected from dirt, drawing fluids, and grinding dust.
- Direct the valve port away from yourself and others.
- Do not attempt to disassemble the spring until the gas is discharged and the piston rod is compressed inside the cylinder tube.



Inspection

1. Clean the cylinder tube (E) and piston rod (A). Visually inspect both components. There should be no scratches or dents on the inside surface of the tube or piston rod. If defects exist, replace the parts.

Assembly

2. Unpack seal kit T2SK2-180. **Note:** If you have a T2-180 spring with the charge port in the rod, you need seal kit part number T2SK-180. Contact customer service to order the correct seal kit.
3. Install the charging ring (J) on to the screw (H). **Note:** This charging assembly (H & J) is symmetrical and works in any orientation. From inside the cylinder, use a blade end screwdriver to thread the charging assembly (H & J) into the charge port. Thread the screw in the clockwise direction until it bottoms out on the base of the cylinder tube (E).
4. Lightly oil the seals on the guide (D). Fit the guide on the piston rod (A) so the small diameter of the guide is positioned toward the top of the piston rod.
5. Lightly oil the inside diameter of the cylinder tube to prevent damage to the o-ring on the guide (D). Fill the cylinder tube with 2ml of oil.
6. Insert the rod/ guide assembly into the cylinder tube (E). Tap down the guide using a socket and rubber mallet until the lock ring groove is exposed.
7. Fit the lock ring (C) into the lock ring groove by pushing one end of the ring into the groove and knocking the other end with a mallet until it snaps into place. You can hear a clicking sound when the ring snaps into place.

Discharging Instructions

1. Use a 3mm Allen key to unscrew the M6 screw (H) 3 ½ turns in the clockwise direction. **Note:** If the screw is turned more than 3 ½ revolutions in the clockwise direction, it may loosen, fall inside the spring, and prevent further disassembly.
2. Verify all pressure is exhausted from the spring by tapping the piston rod inside the spring.

Disassembly

3. Using a socket and rubber mallet, tap the guide (D) into the cylinder tube (E) until the lock ring (C) is exposed.
4. Remove the colored dirt protection ring (B).
5. Remove the lock ring (C) using the lock ring tool. Bend the lock ring upwards and inwards.
6. Using the rod extraction tool, clamp the tool on the end of the piston rod (A) and pull the rod/guide assembly from the cylinder tube (E).
7. Remove the rod extraction tool from the rod. Remove the guide (D) from the rod (A).
8. Unthread the charging screw (H) from the charging ring (J).
9. Save the piston rod (A) and the cylinder tube (E).

8. Clamp the rod extraction tool on the end of the rod (A) and pull the rod/ guide assembly upward until the top of the guide is flush with the top of the cylinder tube (E). See figure B. **Note:** It may be necessary to temporarily open the charging screw (H) to pull the rod/guide assembly in place. Be careful not to drain the oil when the charging assembly is open.



Warning: If the top of the guide is not in line with the top of the cylinder tube, the assembly is incorrect. DO NOT charge the spring. Charging an incorrectly assembled spring could result in serious injury.

9. Fit the color-coded ring (B) in the space between the cylinder tube wall and the top of the guide.

Charging Instructions

10. Verify the charging screw (H) is fully bottomed in the counter clockwise direction.
11. Close the bleed down valve on the MGA-3000 service gauge assembly.
12. Thread the charge fitting into the charge port. Attach the MGA-3000 to the charge fitting.
13. Open the valve on the nitrogen bottle and slowly charge the spring to the desired pressure.
14. Close the valve to the nitrogen bottle. Disconnect the service gauge assembly and unscrew the charge fitting from the spring.