

# **RL3 & RL4 Relief Valve**

## Maintenance Instructions

## **Spring Kit Contents**



### **Seal Kit Contents**



### **Manual Override Kit Contents**





#### WARNING

If the valve is disconnected from a system, it must be depressurized, cycled, and purged.



#### CAUTION

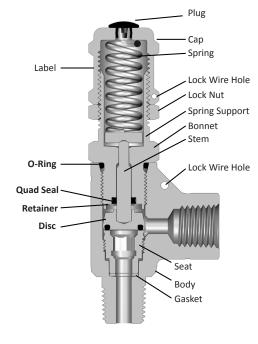
Care should be taken to not scratch or damage sealing surfaces.

# **Spring Kit Instructions**

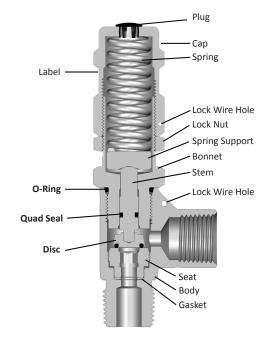
- 1. Remove valve from system.
- 2. Loosen lock nut and remove cap from bonnet.
- 3. Remove the **spring** and discard.
- 4. Insert the new spring.
- 5. Thread the **cap** onto the **bonnet** 9 turns.
- 6. Proceed to Adjusting the Set Pressure.

## Seal Kit Instructions

- 1. Remove valve from system.
- 2. Loosen bonnet.
- 3. Remove **bonnet** from **body**.
- 4. Remove disc from body and discard.



RL3



RL4

- 5. Remove stem and **O-Ring** from **bonnet**. Discard **O-Ring**.
- 6. RL3 Only: Remove retainer and discard.
- 7. Remove quad seal and discard.
- 8. Make sure all parts are clean before reassembly.
- 9. Install new **quad seal** (lubricate with system compatible lubricant).
- RL3 Only: Install new retainer (teeth of retainer must face away from quad seal).
- 11. Install new **O-Ring** onto **bonnet** (lubricate with system compatible lubricant).
- 12. Lubricate tip of **stem** and insert into **bonnet**.
- 13. Install new disc on stem.
- 14. With components upside-down, thread **bonnet** into **body.**
- 15. Tighten bonnet to RL3: 400 in.·lb (45.2 N·m)
  RL4: 600 in.·lb (67.8 N·m)
- 16. Proceed to Adjusting the Set Pressure.



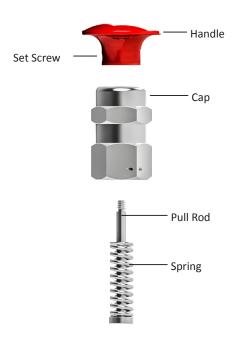
## **Manual Override Conversion**

- 1. Remove valve from system.
- 2. Loosen lock nut and remove cap from bonnet.
- 3. Remove plug from cap and discard.
- 4. Remove **spring** from **bonnet**.
- 5. Remove **spring support** and discard.
- 6. Install pull rod into bonnet.
- 7. Place spring over pull rod.
- 8. Place cap over pull rod, resting it on bonnet.
- 9. Screw handle onto pull rod. Tighten set screw on handle to 10 in.·lb (1.1 N·m) with 5/64 in. hex bit.
- 10. Thread the cap onto the bonnet 9 turns.
- 11. Proceed to Adjusting the Set Pressure.

# **Adjusting the Set Pressure**

**NOTE:** Adjust the set pressure before installing the valve in a system

- 1. Tighten lock nut against the cap.
- 2. Test set pressure.
- 3. Adjustment of set pressure:
  - Relieve system pressure and loosen lock nut.
  - Turn cap clockwise to increase set pressure.
  - Turn cap counterclockwise to decrease set pressure.
- 4. Repeat steps 1 through 3 until desired pressure is obtained.
- 5. With backup wrench on cap, tighten lock nut to 100 in.·lb (11.3 N·m).
- 6. Install valve in system.



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