

# Disassembly of the Pop Action Pilot Valve. Series 810



# Disassembly Instructions. Increase special knowledge.

1. [Objectives](#) | 2. [Seal](#) | 3. [Cap and bug-screen](#) | 4. [Pilot Lifting Device](#) | 5. [Bonnet and pindle unit](#) | 6. [Body](#) | 7. [Seat](#) | 8. [Adjusting screw](#) | 9. [Manifold block](#)

Aim of this presentation is to show how to **disassemble the Pop Action Pilot Valve**.



# Disassembly Instructions. Removing the seal.

1. Objectives | 2. Seal | 3. Cap and bug-screen | 4. Pilot Lifting Device | 5. Bonnet and pindle unit | 6. Body | 7. Seat | 8. Adjusting screw | 9. Manifold block

## 1. Steps – Descriptions

- 1 Cut wire with combination pliers

Pull out seal

## 2. Supplies

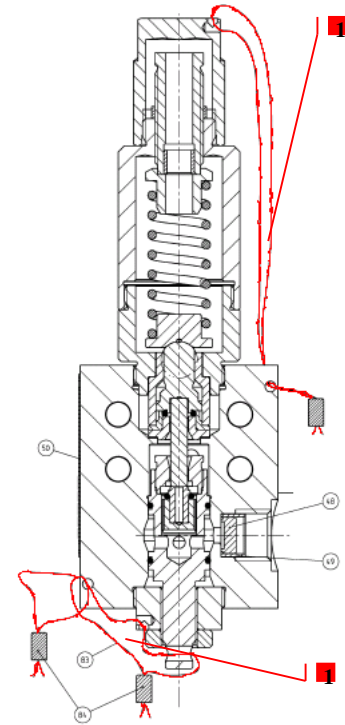
- None

## 3. Tools

- Combination pliers

## 4. Appliance

- None



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# Disassembly Instructions. Remove the cap and bug-screen.

1. Objectives | 2. Seal | 3. Cap and bug-screen | 4. Pilot Lifting Device | 5. Bonnet and pindle unit | 6. Body | 7. Seat | 8. Adjusting screw | 9. Manifold block

## 1. Steps – Descriptions

- 1** Loosen cap [40] and screw off While loosening cap [40] counter bonnet [9]
- 2** Unscrew and remove bug-screen [64] Option Test Gag:
- 3** Unscrew screw in the cap [40] While loosening test gag counter bonnet [9]

## 2. Supplies

- None

## 3. Tools

- Open-end wrench acc. to LID

## 4. Appliance

- Test bench



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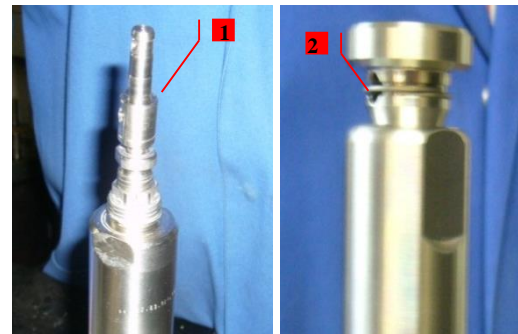
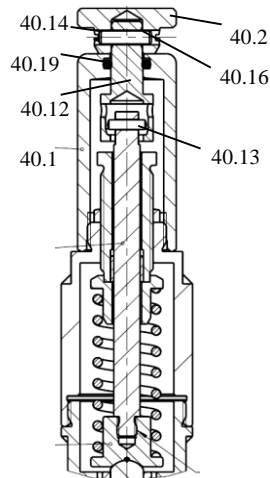
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# Disassembly Instructions. Disassembly of Pilot Lifting Device (optional only).

1. Objectives | 2. Seal | 3. Cap and bug-screen | 4. Pilot Lifting Device | 5. Bonnet and pindle unit | 6. Body | 7. Seat | 8. Adjusting screw | 9. Manifold block

## 1. Steps – Descriptions

- 2** Remove securing ring [40.14]  
Dismount roll pin [40.16]  
Dismount lifting button [40.2]
- 1** Loosen cap [40.1]  
Dismount parallel pin [40.13]  
Dismount space coupling [40.12]
- 3** Remove o-ring [40.19]



# Disassembly Instructions. Disassembly of Pilot Lifting Device (optional only).

1. Objectives | 2. Seal | 3. Cap and bug-screen | 4. Pilot Lifting Device | 5. Bonnet and pindle unit | 6. Body | 7. Seat | 8. Adjusting screw | 9. Manifold block

## 2. Supplies

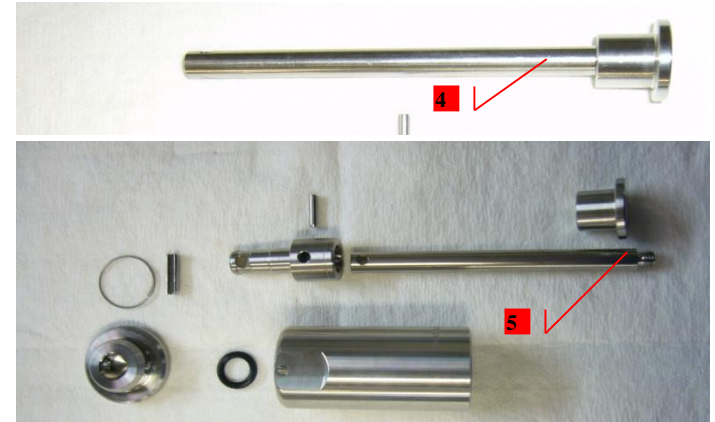
- None

## 3. Tools

- Open-end wrench acc. to LID
- Drift pin

## 4. Appliance

- Test bench



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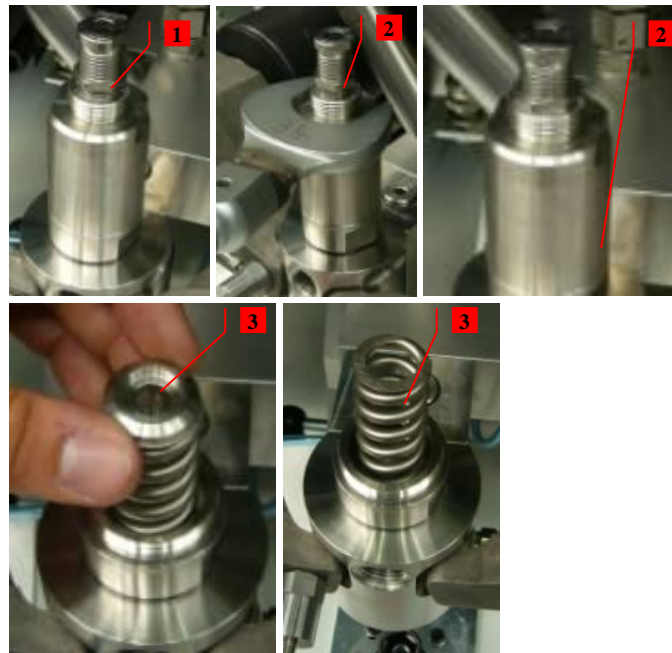
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# Disassembly Instructions. Disassembly of the bonnet and spindle unit.

1. Objectives | 2. Seal | 3. Cap and bug-screen | 4. Pilot Lifting Device | 5. Bonnet and pindle unit | 6. Body | 7. Seat | 8. Adjusting screw | 9. Manifold block

## 1. Steps – Descriptions

- 1** Loosen lock nut [19]  
Apply an open-end wrench in a counterclockwise direction on adjusting screw [18] until no more pressure can be felt from spring.
- 2** Loosen bonnet [9] with open-end wrench and screw it off
- 3** Remove (upper) spring plate [16], spring and (lower) spring plate [17]



# Disassembly Instructions. Disassembly of the bonnet and spindle unit.

1. Objectives | 2. Seal | 3. Cap and bug-screen | 4. Pilot Lifting Device | 5. Bonnet and spindle unit | 6. Body | 7. Seat | 8. Adjusting screw | 9. Manifold block

## 2. Supplies

- None

## 3. Tools

- Open-end wrench acc. to LID

## 4. Appliance

- Test bench





# Disassembly Instructions Disassembly of the bonnet.

1. Objectives | 2. Seal | 3. Cap and bug-screen | 4. Pilot Lifting Device | 5. Bonnet and pindle unit | 6. Body | 7. Seat | 8. Adjusting screw | 9. Manifold block

## 1. Steps – Descriptions

- 1 Screw adjusting screw unit out of bonnet [9]
- 2 Screw off lock nut [19]
- 3 Detach PTFE-bushing out of adjusting screw [18]

## 2. Supplies

- None

## 3. Tools

- If necessary, in case of sluggishness an open-end wrench

## 4. Appliance

- Test bench

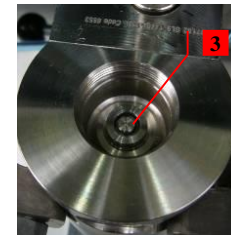
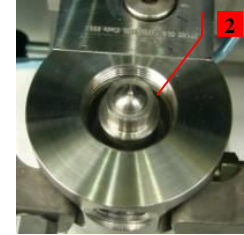


# Disassembly Instructions Disassembly of the body.

1. Objectives | 2. Seal | 3. Cap and bug-screen | 4. Pilot Lifting Device | 5. Bonnet and pindle unit | 6. **Body** | 7. Seat | 8. Adjusting screw | 9. Manifold block

## 1. Steps – Descriptions

- 1** Screw off bonnet, base part [10] with open-end wrench
- 2** Remove piston guide [11] and guide [2]
- 3** Remove plunger [15]
- 4** Remove (upper) seat, exhaust [13] and (lower) seat, exhaust [14]



# Disassembly Instructions Disassembly of the body.

1. Objectives | 2. Seal | 3. Cap and bug-screen | 4. Pilot Lifting Device | 5. Bonnet and pindle unit | 6. **Body** | 7. Seat | 8. Adjusting screw | 9. Manifold block

## 6. Remove gasket [35]

### 2. Supplies

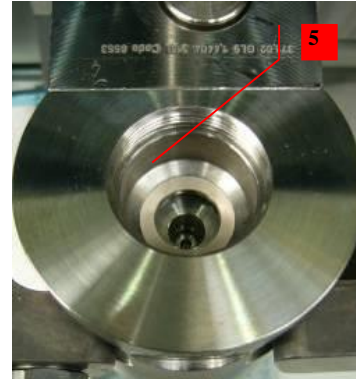
- None

### 3. Tools

- Open-end wrench acc. to LID

### 4. Appliance

- Test bench



# Disassembly Instructions Disassembly of the seat.

1. Objectives | 2. Seal | 3. Cap and bug-screen | 4. Pilot Lifting Device | 5. Bonnet and pindle unit | 6. Body | 7. **Seat** | 8. Adjusting screw | 9. Manifold block

## 1. Steps – Descriptions

- 1 Separate seat by pulling (upper) seat, exhaust [13] and (lower) seat , exhaust [14] apart

## 2. Supplies

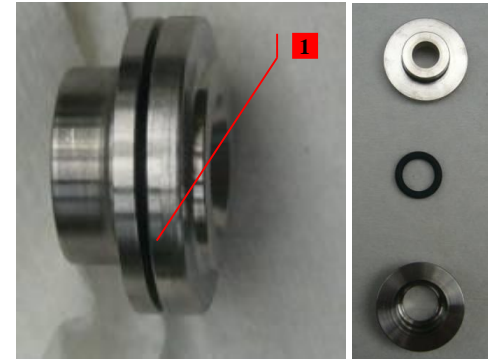
- None

## 3. Tools

- None

## 4. Appliance

- None



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# Disassembly Instructions Removing the adjusting screw.

1. Objectives | 2. Seal | 3. Cap and bug-screen | 4. Pilot Lifting Device | 5. Bonnet and pindle unit | 6. Body | 7. Seat | 8. Adjusting screw | 9. Manifold block

## 1. Steps – Descriptions



Measure adjustment of adjusting screw [12] to establish same adjustment after refinishing pilot valve

- 1** Loosen and remove counter nut [21]
- 2** Loosen nut [20] of adjusting screw [12]
- 3** Pull out adjusting screw [12]

## 2. Supplies

- None



# Disassembly Instructions Removing the adjusting screw.

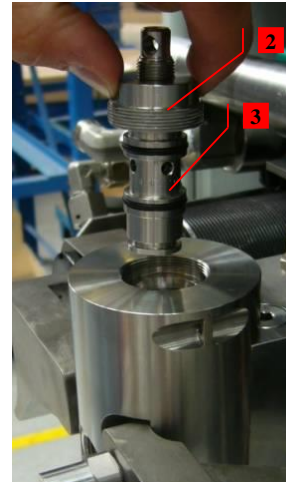
1. Objectives | 2. Seal | 3. Cap and bug-screen | 4. Pilot Lifting Device | 5. Bonnet and pindle unit | 6. Body | 7. Seat | 8. Adjusting screw | 9. Manifold block

## 3. Tools

- Hook tool for O-rings
- Open-end wrench acc. to LID

## 4. Appliance

- Test bench



# Disassembly Instructions Disassembly of the adjusting screw.

1. Objectives | 2. Seal | 3. Cap and bug-screen | 4. Pilot Lifting Device | 5. Bonnet and pindle unit | 6. Body | 7. Seat | 8. Adjusting screw | 9. Manifold block

## 1. Steps – Descriptions

- 1** Unscrew nut [20] of adjusting screw [12] with open-end wrench
- 2** Remove O-rings with hook tool
- 3** Place adjusting screw [12] in assembling aid pilot (optional: parallel vice with aluminium jaws).  
Unscrew seat, feeding [5] and screw it off the adjusting screw [12] with open-end wrench



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# Disassembly Instructions Disassembly of the adjusting screw.

1. Objectives | 2. Seal | 3. Cap and bug-screen | 4. Pilot Lifting Device | 5. Bonnet and pindle unit | 6. Body | 7. Seat | 8. Adjusting screw | 9. Manifold block

Pull (upper) disc feeding [7] and (lower) disc feeding [8] out of adjusting screw [12]

Pull (upper) disc, feeding [7] out of (lower) seat feeding [8]

Remove O-Ring 6,07x1,78 [30] from (upper) disc feeding [7]

## 2. Supplies

- None

## 3. Tools

- Open-end wrench acc. to LID
- Hook tool for O-ring
- Drift pin



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# Disassembly Instructions Disassembly of the adjusting screw.

1. Objectives | 2. Seal | 3. Cap and bug-screen | 4. Pilot Lifting Device | 5. Bonnet and pindle unit | 6. Body | 7. Seat | 8. Adjusting screw | 9. Manifold block

## 4. Appliance

- Parallel vice with aluminium jaws or as recommended with Assembling aid (60S.2512.4012)

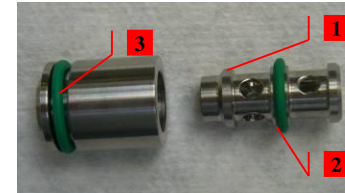
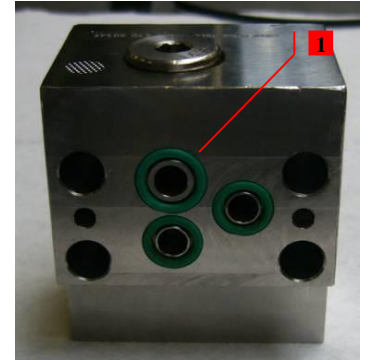
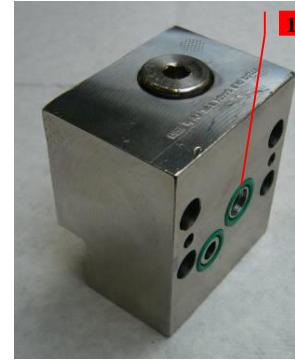


# Disassembly Instructions Disassembly of the manifold block.

1. Objectives | 2. Seal | 3. Cap and bug-screen | 4. Pilot Lifting Device | 5. Bonnet and pindle unit | 6. Body | 7. Seat | 8. Adjusting screw | 9. Manifold block

## 1. Steps – Descriptions

- 1 Remove piston [24.3], bushing [24.2] and O-rings
- 2 Remove O-rings of piston [24.3]
- 3 Remove O-rings of bushing [24.2]
- 4 Screw off lock screw [24.7] and take out gasket [24.8]



# Disassembly Instructions Disassembly of the manifold block.

1. [Objectives](#) | 2. [Seal](#) | 3. [Cap and bug-screen](#) | 4. [Pilot Lifting Device](#) | 5. [Bonnet and pindle unit](#) | 6. [Body](#) | 7. [Seat](#) | 8. [Adjusting screw](#) | 9. **Manifold block**

## 2. Supplies

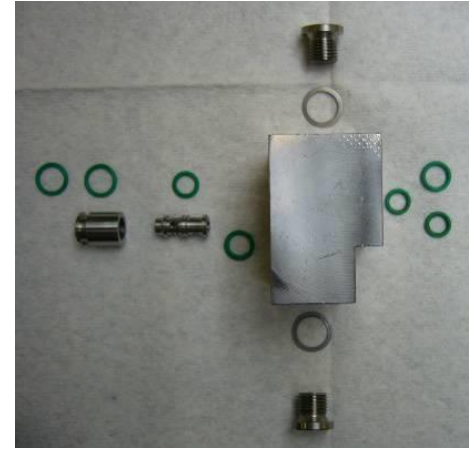
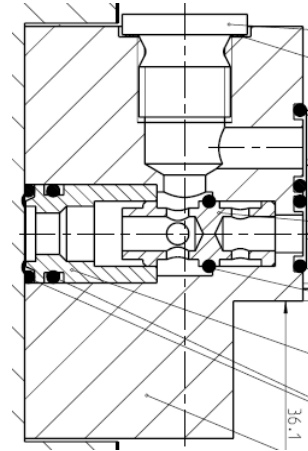
- None

## 3. Tools

- Allen key acc. to LID
- Hook tool for O-rings

## 4. Appliance

- Parallel vice with aluminium jaws
- Test bench



**Disassembly of the Pop Action Pilot  
Valve Series 810. Thank you.**



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