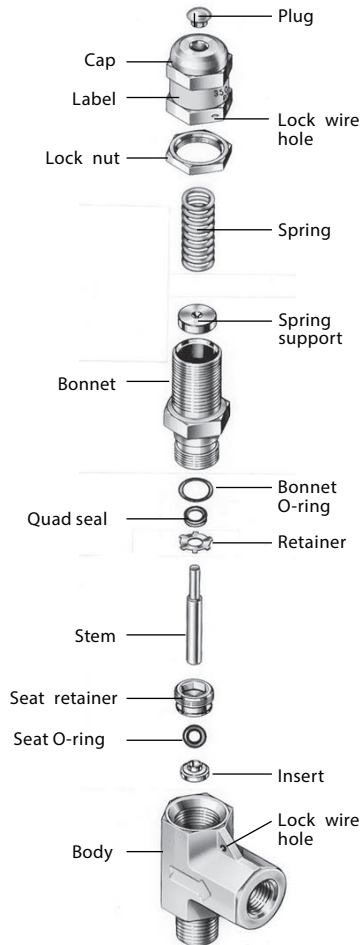


R3A Series Externally Adjustable Relief Valves Maintenance Instructions

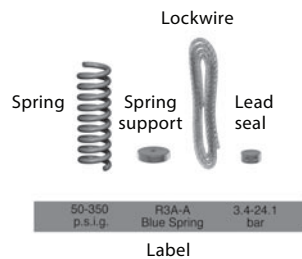
R3A Series Exploded View



Tools Required

Tool	Size	Part
Open-end wrench	3/4 in. Thin head (3/16 in. max)	Lock nut
	3/4 in.	Cap
Crow's foot	3/4 in. Thin head (3/16 in. max)	Lock nut
Hex bit socket	5/64 in.	Handle set screw
Torque wrench, capable of:	10 in.-lb (1.1 N-m)	Set screw
	100 in.-lb (11.3 N-m)	Lock nut
Pic	n/a	O-rings

Spring Kit



WARNING

Before servicing any installed valve, you must

- depressurize system
- cycle valve
- purge the valve



WARNING

Residual material may be left in the valve and system.



CAUTION

Do not scratch any sealing surfaces while following these instructions. Valve performance could be affected.

Definition of Symbols



Discard



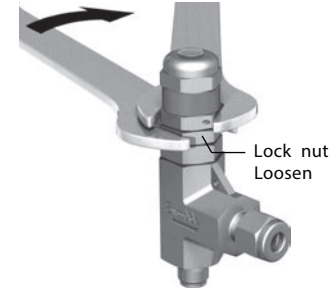
Lubricate

Spring Kit Identification

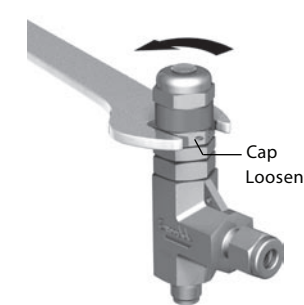
Spring Designator and Color	Set Pressure Range psig (bar)	Initial Cap Position (number of turns)
Spring Kit Basic		
A Blue	50 to 350 (3.4 to 24.1)	9
B Yellow	350 to 750 (24.1 to 51.7)	8.5
C Purple	750 to 1500 (51.7 to 103)	9
D Orange	1500 to 2250 (103 to 155)	6
E Brown	2250 to 3000 (155 to 206)	6
F White	3000 to 4000 (206 to 275)	6
G Red	4000 to 5000 (275 to 344)	6
H Green	5000 to 6000 (344 to 413)	6

Spring Installation

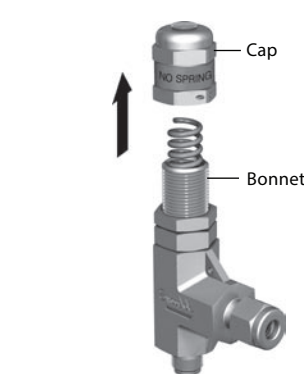
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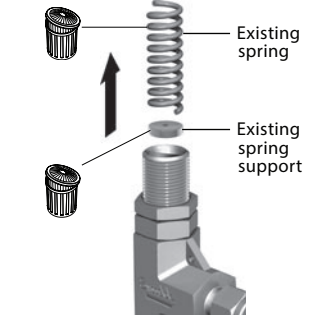
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3.

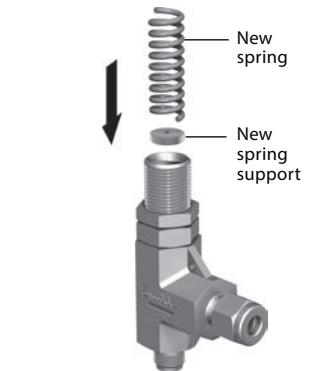


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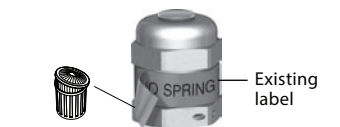


5. Make sure all components are clean.

6.

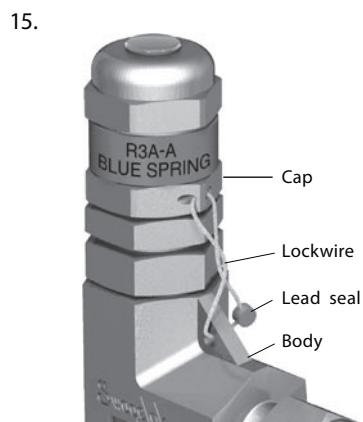
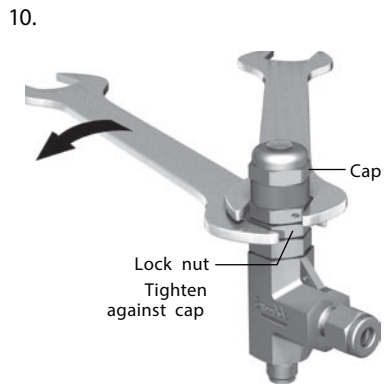
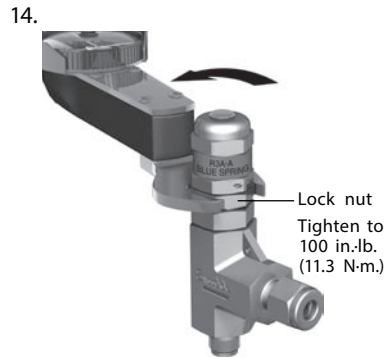
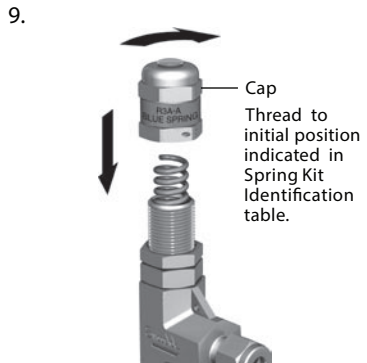


7.



8.





11. Test for set pressure.

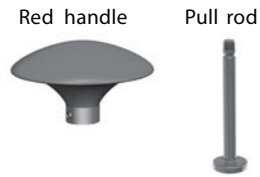
12. To adjust set pressure, relieve system pressure and loosen lock nut .

- To increase set pressure, tighten cap as needed.
- To decrease set pressure, loosen cap as needed.

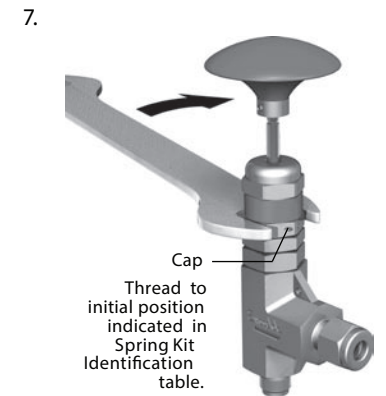
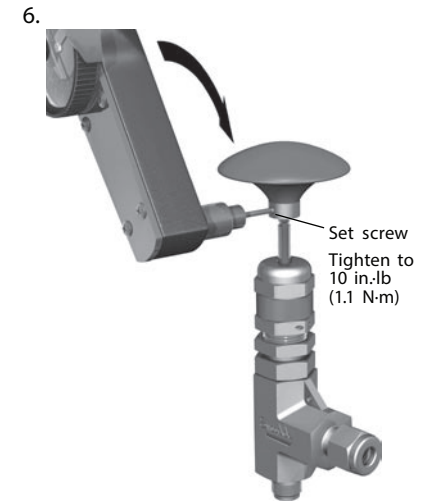
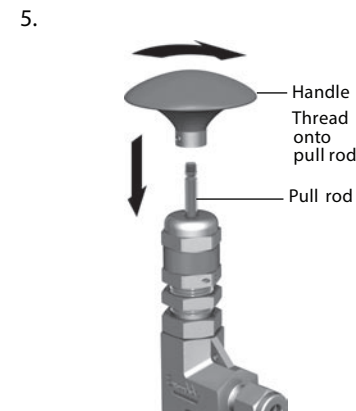
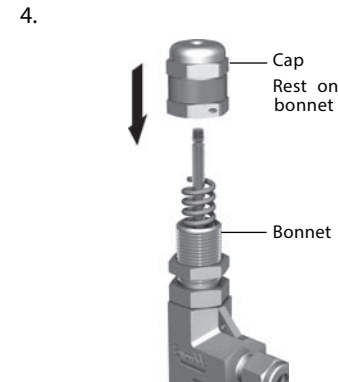
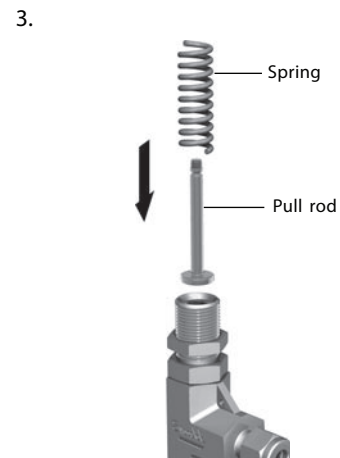
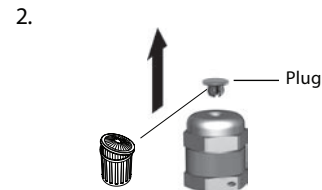
13. Repeat steps 10 through 12 as necessary to obtain desired set pressure.

Manual Override Conversion

Manual Override Kit



1. Follow steps 1 through 4 in the Spring Installation section. Springs A, B, or C can be reused in step 3.









8. To adjust set pressure, see steps 10 through 13 in the Spring Installation section.

R3A Series Externally Adjustable Relief Valves

Maintenance Instructions

Tools Required

Tool	Size	Part
		
Open-end wrench	3/4 in. Thin head (3/16 in. max)	Lock nut
	3/4 in.	Cap, Bonnet nut
	7/8 in.	Body wrench pad
		
Crow's foot	3/4 in.	Bonnet nut
		
Hex wrench	5/16 in.	Seat retainer
		
Hex bit socket	5/16 in.	Seat retainer
		
Torque wrench, capable of:	250 in.-lb (28.2 N-m)	Seat retainer
	600 in.-lb (45.2 N-m)	Bonnet nut
		
Pic	n/a	O-rings

Seal Kit



WARNING

Before removing any installed valve, you must

- depressurize system
- cycle valve
- purge valve



WARNING

Residual material may be left in the valve and system.



CAUTION

Do not scratch any sealing surfaces while following these instructions. Valve performance could be affected.

Definition of Symbols



Discard

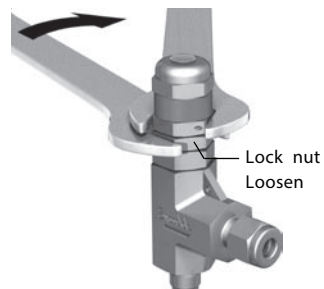


Lubricate
With system compatible lubricant

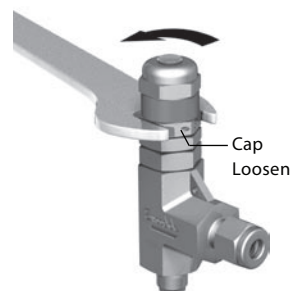
Seal Replacement

1. Remove valve from system.

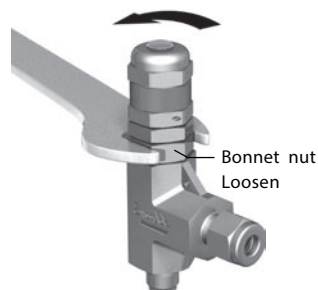
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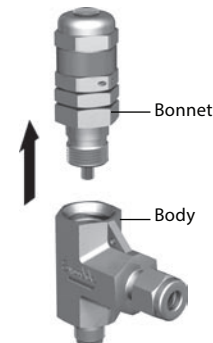
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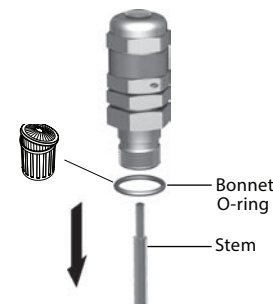
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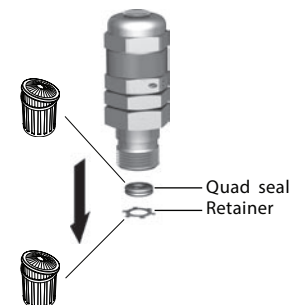
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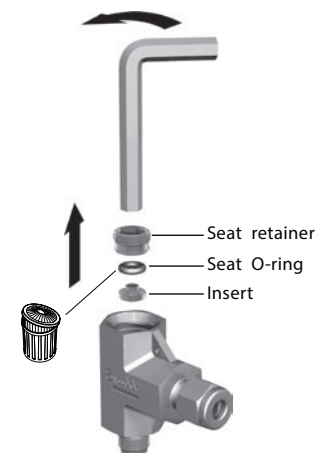
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7.

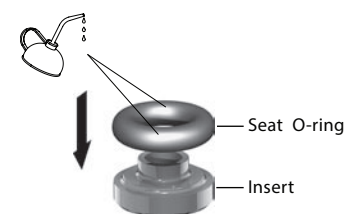


8.

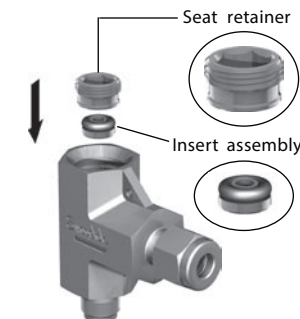


9. Make sure all components are clean.

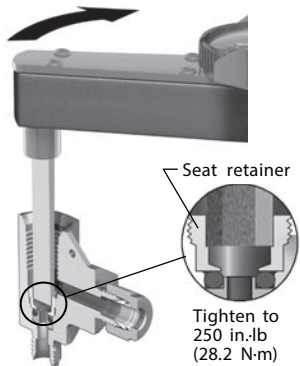
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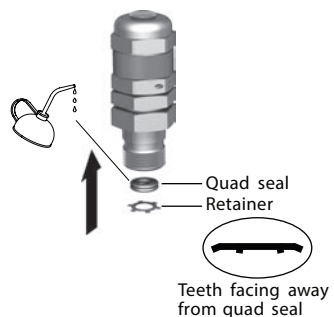
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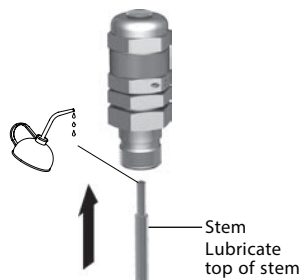
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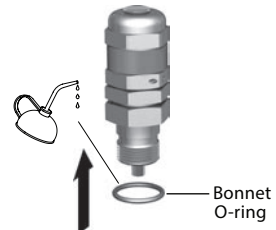
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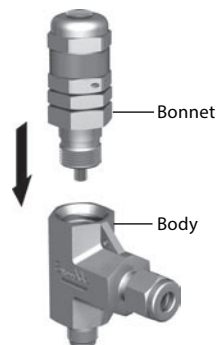
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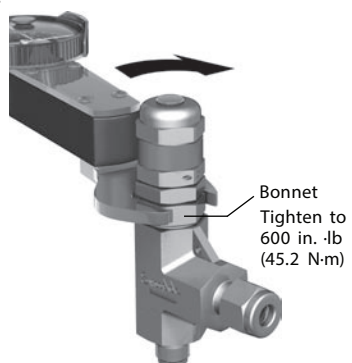
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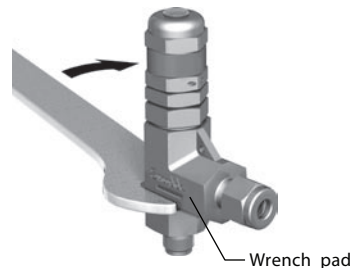


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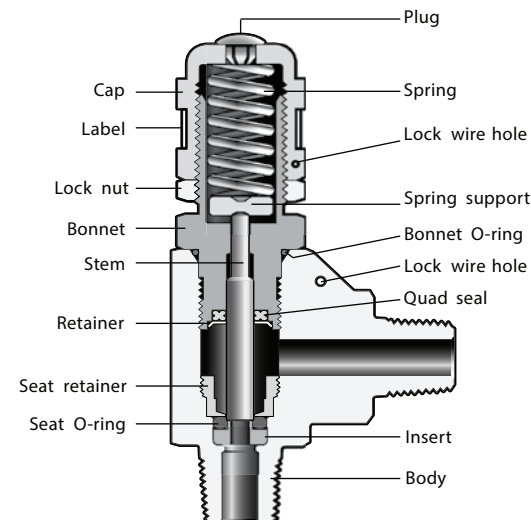


18. To adjust set pressure, see steps 10 through 13 in the Spring Installation section.

19. Install valve in system. Grip valve on wrench pad during installation.



R3A Series Cutaway



⚠ Pijtersen proportional relief valves should never be used as code safety relief valves.

⚠ Some system applications require relief valves to meet specific safety codes. The system designer and user must determine when such codes apply and whether these relief valves conform to them.

⚠ Pijtersen proportional relief valves are not "Safety Accessories" as defined in the Pressure Equipment Directive 97/23/EC:



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