

# IPT Series Manual NVT Needle Valve

## Service Instructions

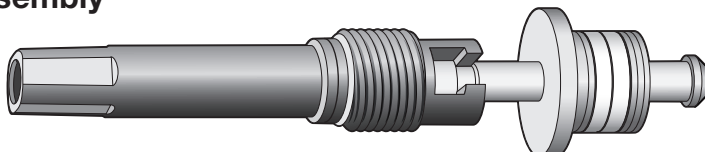


### NVT Kit Contents

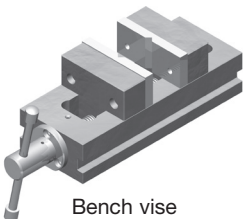



This kit contains the stem assembly shown below.

**NOTE:** The image below may vary from the actual stem assembly. Compare the kit contents with the original stem assembly in the valve as well as the packing sequence found on page 2. Moly-lithium grease is required for repair, but is not included with the kit.

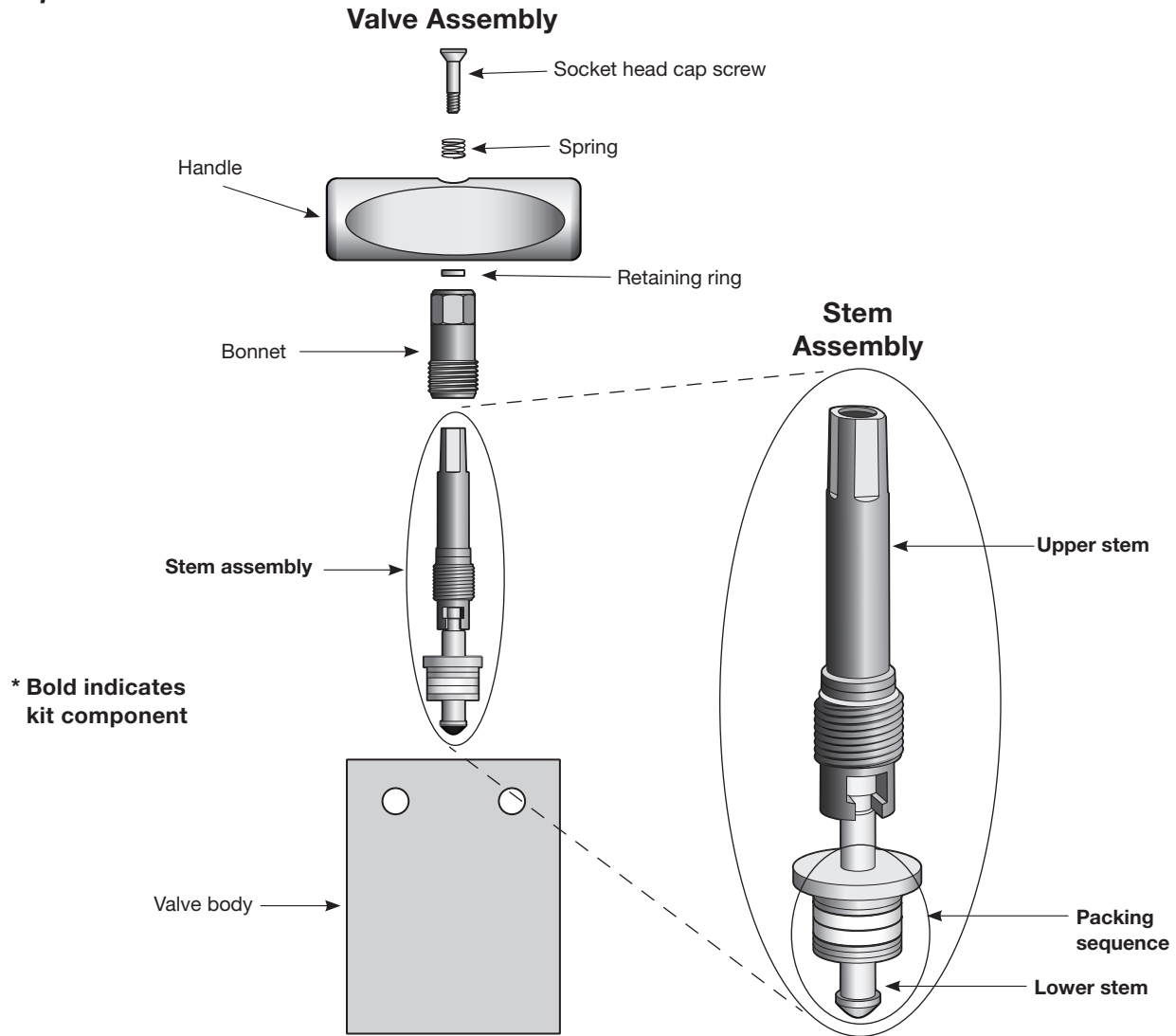
### Stem Assembly



### Tools Required

Part	Size	Tool
Valve body	—	 Bench vise
Bonnet	capable of 75 ft·lb (101 N·m)	 Torque wrench
	5/8 in.	 Crow's foot adapter
Socket head cap screw	—	 T20 Torx® bit

## Exploded View



## Stem Series Packing Sequence

A, B, E and G Stem Series	
Component	Packing
1 Packing gland	
2 Lower stem	
3 Top packing washer	
4 Packing ring	
5 Bottom packing washer	

Y Stem Series	
Component	Packing
1 Packing gland	
2 Lower stem	
3 Top packing washer	
4 Packing ring	
5 Bottom packing washer	

M and W Stem Series	
Component	Packing
1 Packing gland	
2 Lower stem	
3 Top packing washer	
4 Nylon packing ring	
5 Packing ring	
6 Bottom packing washer	

Note: Reference the ordering number to determine the **stem assembly** series.

Example: NVT4H1V**Y**3D

↑  
Stem assembly series

## Instructions

### ⚠ WARNING

Before removing the valve from service, to avoid personal injury, you must:

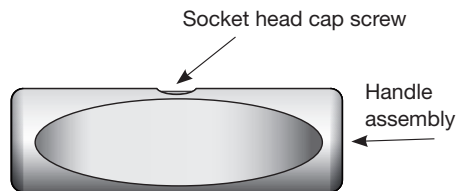
- Depressurize the system.
- Cycle the valve.
- Purge system to remove any residual system media left in valve.

### NOTICE

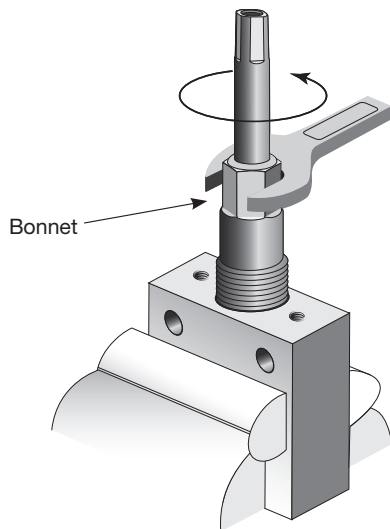
Do not scratch any sealing surfaces while following these instructions. Scratches on the sealing surfaces may affect valve performance.

### Disassembly

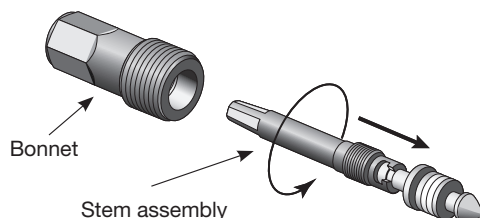
1. Remove the valve from the system.
2. Place the valve in the vise.
3. Loosen the **socket head cap screw** and remove the **handle assembly**.



4. Loosen and remove the **bonnet**.



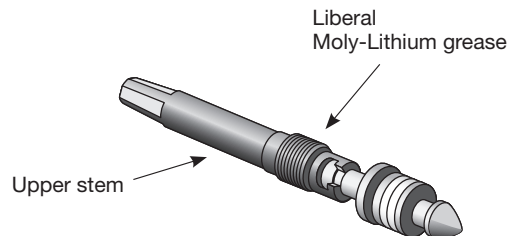
5. Remove the **stem assembly**.



6. Discard the **stem assembly**.
7. Clean the **valve body** and **bonnet**.

### Valve Reassembly

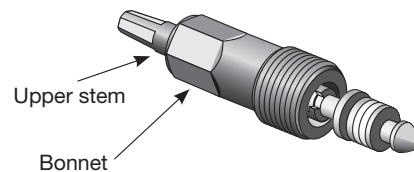
1. Apply **Moly-Lithium grease** liberally to the outside diameter (OD) threads of the **upper stem**.



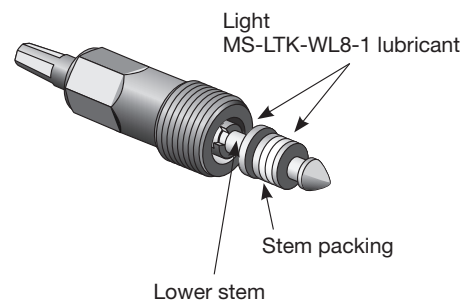
2. Assemble the **bonnet** onto the upper **stem** until bottomed.

### NOTICE

To prevent damage to the sealing area during reassembly, thread the stem to the fully open position prior to insertion into the valve body.



3. Apply the **MS-LTK-WL8-1** lubricant, sold separately, lightly to the **packing** and **packing rings** of the exposed **lower stem**.

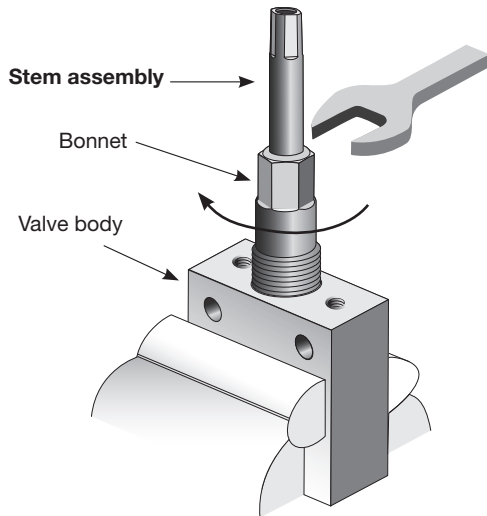


- Refer to the stem series components found on page 2 to confirm the proper sequence of the **stem assembly**. Reference the ordering number to determine the **stem assembly** series.

Example: NVT4H3V**M**60

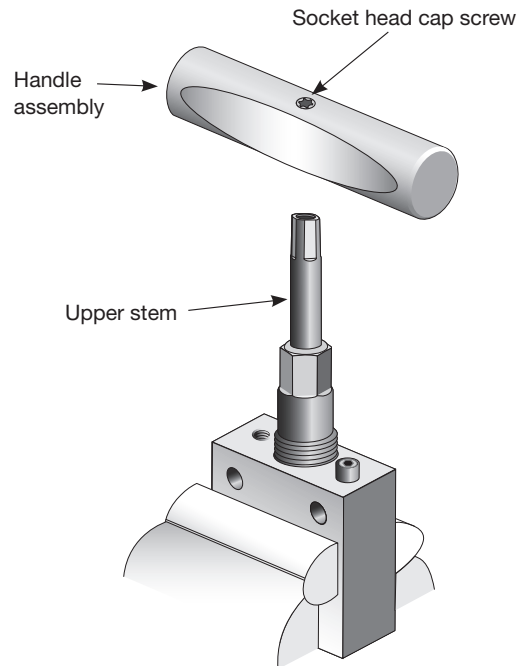
↑  
Stem assembly series

Insert the **stem assembly** into the **valve body**.  
Torque the **bonnet** according to the torque chart below.



Required Torque ft·lb (N·m)	
Stem Series	Bonnet
A, E, G	45 to 50 (61.0 to 67.7)
B	70 to 75 (94.9 to 102)
M, Y	60 to 65 (81.3 to 88.1)

- Place the handle assembly onto the **upper stem**. Torque the **socket head cap screw** according to the torque chart below.



Required Torque ft·lb (N·m)
Socket Head Cap Screw
3.0 to 4.0 (4.1 to 5.4)

For additional information, see [swagelok.com](http://swagelok.com).