

### Application

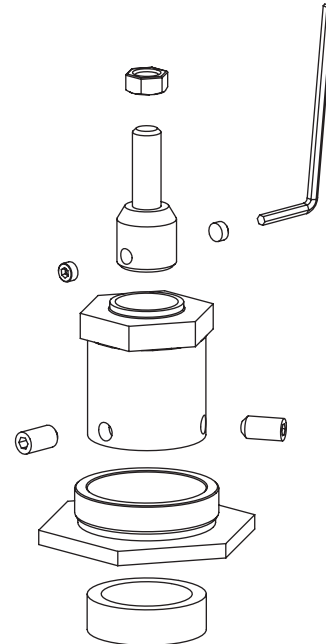
The AV-802 adapter kit enables mounting of Schneider Electric MK-2690 Series and Mx51-710x SmartX Actuators onto 1/2" and 3/4" Johnson Controls VTM and VG7000 Series valve bodies using the appropriate Schneider Electric valve linkage.

Figure-1 and Figure-2 list the Johnson VTM and VG7000 Series valves that are compatible with the AV-802 adapter kit, and Table-1 lists the compatible Schneider Electric actuators and linkages.

**Caution:** Johnson valves with packing caps require different kits for their specific bonnet configuration.

#### Warning:

- The AV-802 adapter kit is to be used **only** with the Schneider Electric actuators shown in Table-1. The use of other actuators is not acceptable due to valve stem force limitations.
- Depressurize the valve before removing the existing actuator and linkage and check integrity of the valve stem and plug by moving the stem up and down. If the valve stem and plug have been damaged, stem may blow out under pressure and cause injury and equipment damage.



### VTM Series 1/2" Johnson Valves

All combinations in Figure-1 use the AV-802 adapter kit to mount Schneider Electric actuators onto Johnson Controls 1/2" VTM Series valves. See Table-1 for the recommended actuators.

Johnson VTM Series slotted (unthreaded) stem valves – 5/16" stroke

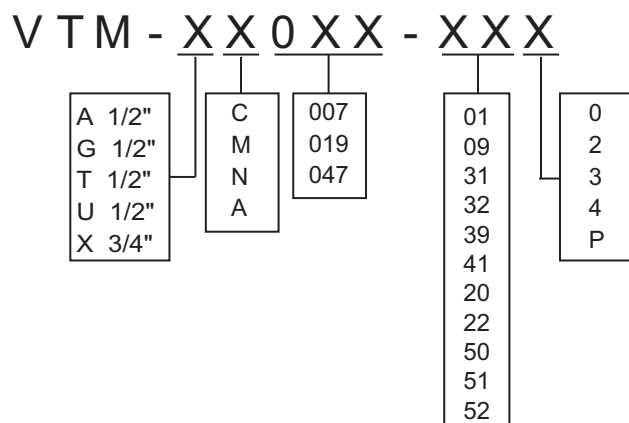


Figure-1 VTM Series Selection Guide.

### VG7 Series 1/2" and 3/4" Johnson Valves

All combinations in Figure-2 use the AV-802 adapter kit to mount Schneider Electric actuators onto Johnson Control 1/2" and 3/4" VG7 Series valves. See Table-1 for the recommended actuators.

Johnson VG7 Series threaded stem valves – 5/16" stroke

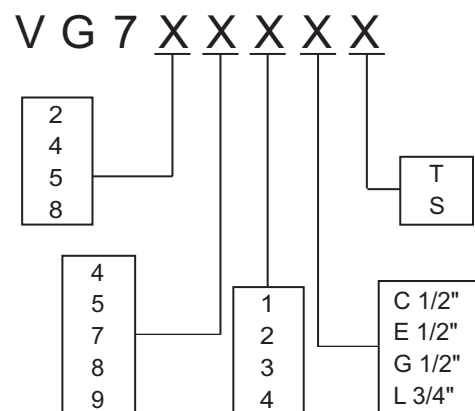


Figure-2 VG7 Series Selection Guide.

# VTM Valve Instructions

## Threaded Bonnet

Refer to Figure-3.

**Note:** For valves without slotted stems, skip steps 1 and 2 of the following steps.

1. Connect the stem adapter to the stem using the two installed short 10-32 cone point set screws and Tool-118 (provided).
2. Tighten to 15 in-lb. (finger tighten and then tighten 1/4 turn).
3. Slide the actuator locking nut on to the adapter, threaded side up.
4. Thread the adapter onto the valve body. (Do not install the three 10-32 set screws. The screws are to be used on unthreaded bonnets only.)
  - a. If the adapter does not bottom against the bonnet shoulder, install the bonnet spacer under the adapter.
  - b. Tighten the adapter firmly.
5. Proceed to "Install the Actuator."

**Note:** The AV-802 can also be used for VG7xxxCT, VG7xxxET, VG7xxxGT, and VG7xxxLT 1/2" and 3/4" two and three way globe valves by following steps 3 through 5 (using just the adapter and actuator locking nut).

## Install the Actuator

1. Install the selected actuator and linkage (if required) the same as you would on a Schneider Electric valve. Refer to Table- 1 on page 4 for the required linkage and actuator installation documentation.

**Note:** There is no need to rotate the actuator at installation. Orient the actuator first and then tighten the actuator locking nut into the actuator.

2. Check the operation.

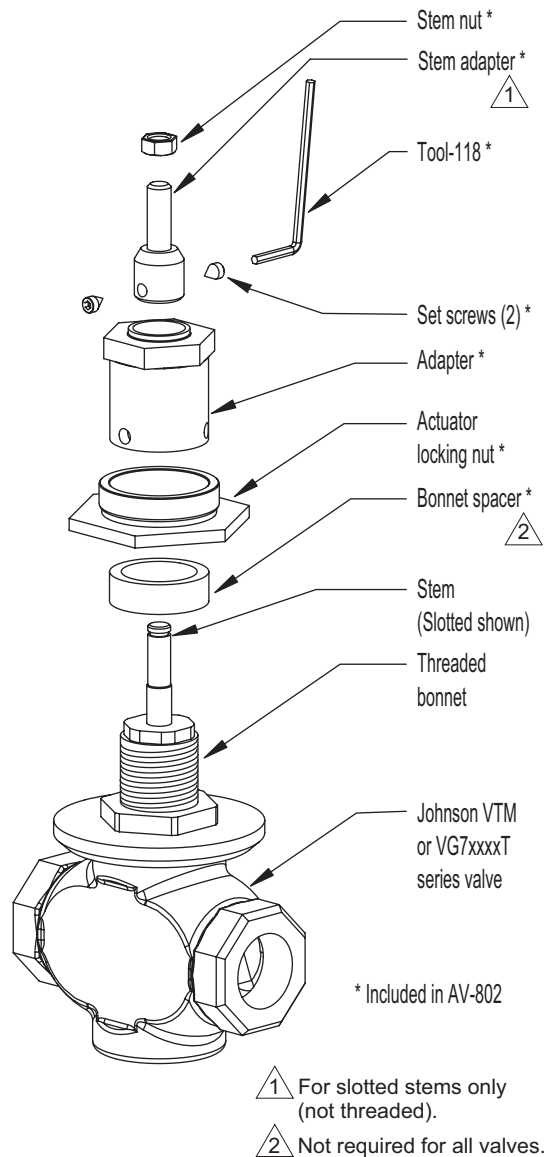


Figure-3 Adapter Assembly for VTM 1/2" Valves with Threaded Bonnet.

# VG7000 Valve Instructions

## Unthreaded Bonnet

Refer to Figure-4.

**Note:** For VG7xxxT valves without slotted stems, skip steps 1 and 2 of the following steps.

1. Connect the stem adapter to the stem using the two installed short 10-32 cone point set screws and Tool 118 (provided).
2. Tighten to 15 in-lb. (finger tighten and then tighten 1/4 turn).
3. Slide the actuator locking nut onto the adapter, threaded side up.
4. Slide the adapter onto the valve body.
5. Install and tighten the three 10-32 cup point set screws with Tool-118 (provided).
6. Tighten the set screws to 20 in-lb. (finger tighten and then tighten 1/2 turn).
7. Proceed to "Install the Actuator."

## Install the Actuator

1. Install the selected actuator and linkage (if required) the same as you would on a Schneider Electric valve. Refer to Table-1 for the required linkage and actuator installation documentation.

**Note:** There is no need to rotate the actuator at installation. Orient the actuator first and then tighten the actuator locking nut into the actuator.

2. Check the operation.

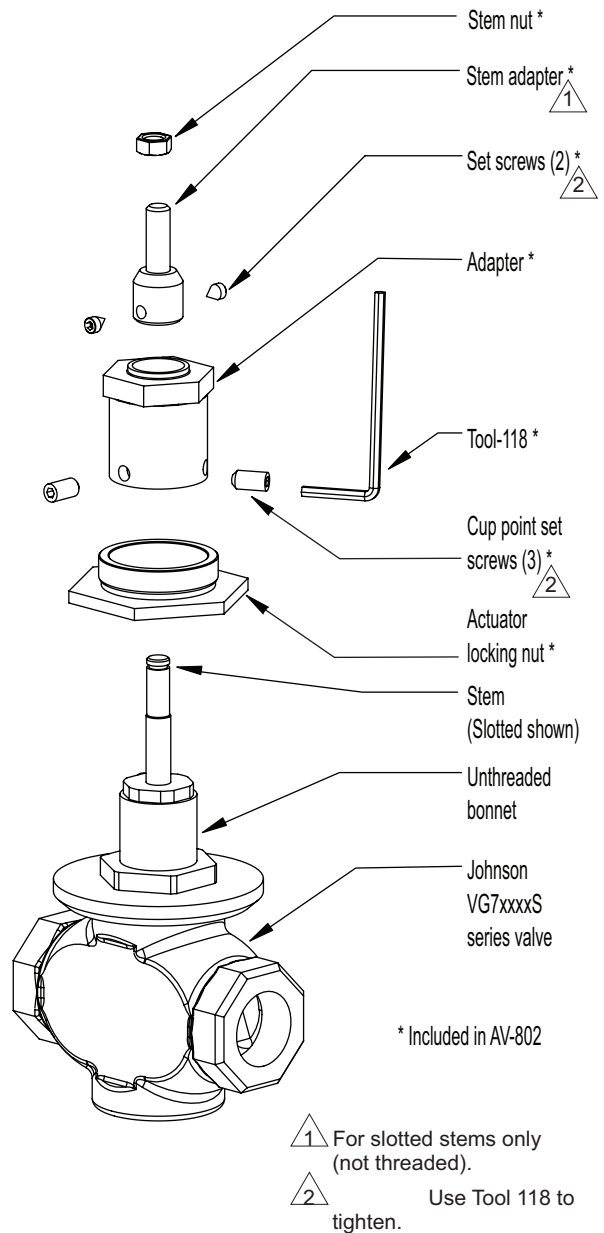


Figure-4 Adapter Assembly for VG7 Series 1/2" or 3/4" Valves with Unthreaded Bonnet.

**Table - 1: Compatible Schneider Electric Actuators and Linkages<sup>a</sup>**

Schneider Electric Actuator Family <sup>a</sup>	Description	Required Schneider Electric Valve Linkage		Actuator General Instructions Sheet
		Part No.	General Instructions Sheet	
MK-2690 <sup>b</sup>	6 Square Inch Pneumatic <sup>c</sup> 3-7 psig (70 lb <sub>f</sub> extended, 10 lb <sub>f</sub> retracted) 5-10 psig (50 lb <sub>f</sub> extended, 20 lb <sub>f</sub> retracted) 8-13 psig (30 lb <sub>f</sub> extended, 40 lb <sub>f</sub> retracted)	AV-7400	F-26236	F-13893
MA51-710x MF51-710x MS51-710x	SmartX Actuator (Linear - 105 lb <sub>f</sub> ) 2-position, floating, proportional Vdc, proportional mAdc	None (Included in actuator)		F-27169

<sup>a</sup>Use only these Schneider Electric actuators. See Warning on page 1. Consult actuator General Instructions sheets for complete actuator specifications.

<sup>b</sup>AK-42309-500 positive positioner may also be used (see F-22909 General Instructions or F-27383 Schneider Electric Pneumatic Products catalog for further information).

<sup>c</sup>Forces are nominal and based on 0 to 20 psig to the actuator.

## Maintenance Parts

All valve body maintenance parts must be obtained from the manufacturer, Johnson Controls.

Actuator and linkage maintenance parts may be obtained from Schneider Electric. Consult the actuator's General Instructions sheets in Table-1 for further information.