Siemens Industry, Inc.	KIT INSTALLATION INSTRUCTION

KIT PN's - TGX:16152-520 and TGX:16152-690

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Mounting a SIPART PS2 or ValvePAC 760 Valve Positioner on a Baumann 32/54/70 or Warren Size 49 Valve Actuator

This publication provides installation instructions to mount a Siemens SIPART® PS2 or ValvePAC™ 760 valve positioner to any of the above Baumann or Warren valve actuators and to install the mechanical feedback linkage. A typical PS2 installation is shown in Figure 1; a 760 installation appears in Figure 2.

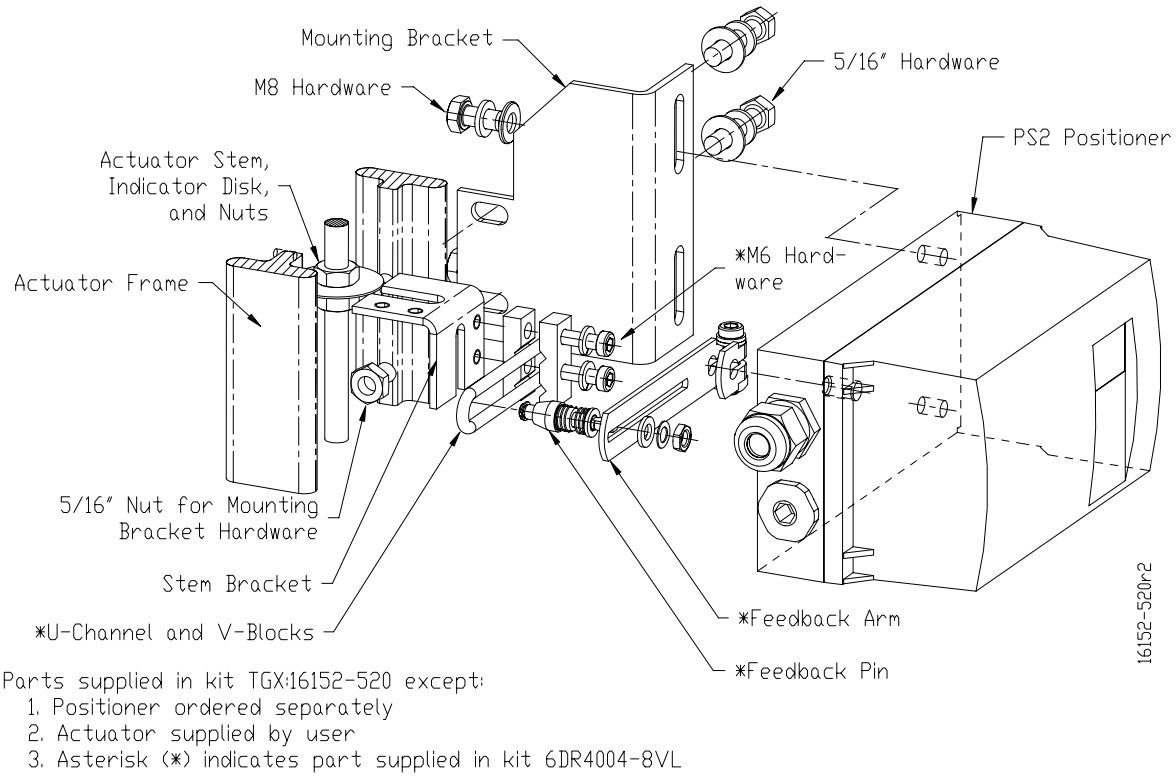

Figure 1 PS2 Installation

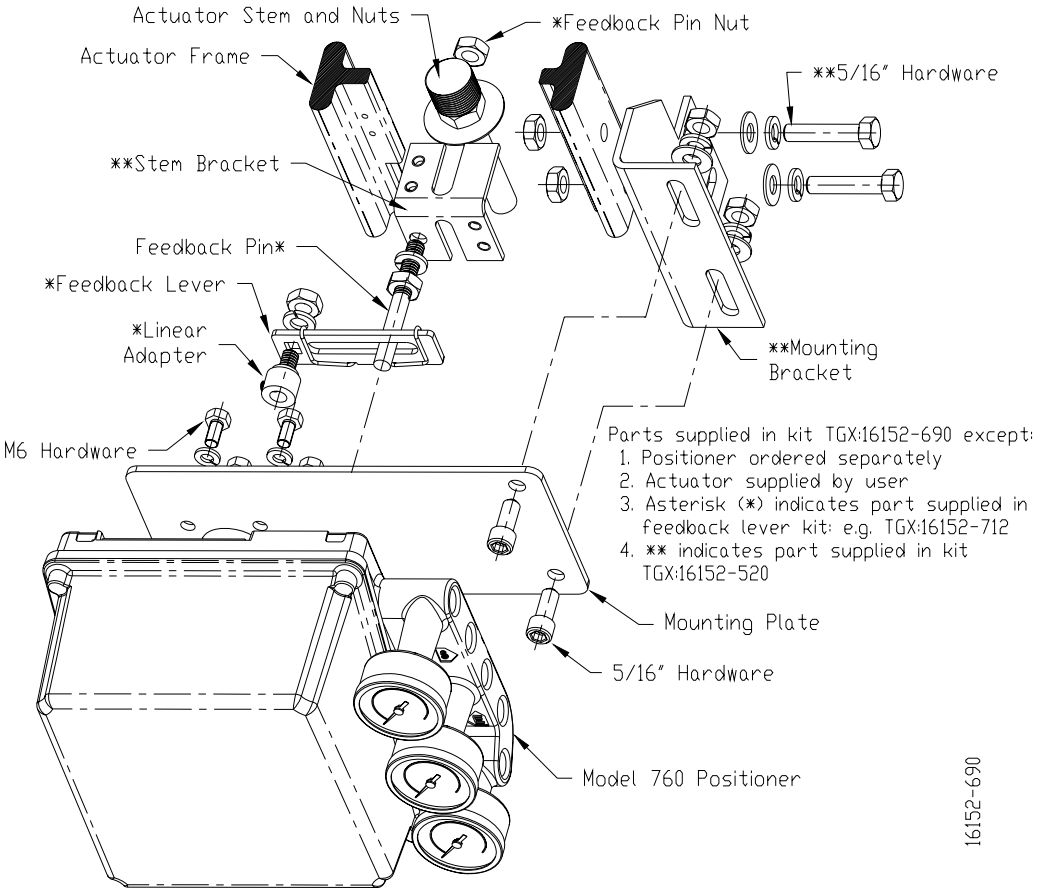

Figure 2 Model 760 Installation

Parts, Kit TGX:16152-520, for PS2 and 760 Installations

Description	Quantity
Mounting Bracket	1
5/16-18 x 1-1/2" Hex Head Screw*	2
5/16-18 x .625" Hex Head Screw*	2
5/16" Split Lockwasher	2
5/16" Flat Washer	2
Stem Bracket	1
M8 x 16 Bolt	2
M8 Flat Washer	2
M8 Split Lockwasher	2

* Select either 1-1/2" or .625" long screws for most secure installation, when both sizes are included in the kit.

Parts, Kit TGX:16152-690, for 760 Installations

Description	Quantity
Mounting Plate	1
5/16-18 x 0.75" Socket Head Cap Screw	2
5/16" Split Lockwasher	2
5/16" Flat Washer	2
5/16" Hex Nut	2
M6 x 12 Hex Head Screw	4
M6 Split Lockwasher	4

Installation

Refer to the following procedure and to the positioner and actuator installation instructions while performing the installation. The current revision of a positioner manual is available at the Siemens Internet site. See Customer/Product Support later in this Instruction for the URL.

Before beginning the installation, note the following cautions.

CAUTION	

Do not apply supply pressure to the actuator or the valve positioner during the installation process. Applying supply pressure before the equipment is properly mounted could cause unexpected movement that could lead to personal injury or equipment damage.

CAUTION	

Do not exceed the maximum actuator and valve positioner air pressures stated in the manufacturer's literature. Exceeding these ratings could cause personal injury or equipment damage.

In the following procedure, most steps are performed for PS2 installations and for 760 installations. Steps performed for a specific valve positioner are prefixed with the positioner model.

1. Refer to Figure 1 (PS2) or Figure 2 (760) and loosen the lower actuator stem nut.
2. Insert the stem bracket (kit TGX:16152-520) between the actuator indicator disk and the lower stem nut. Use the narrowest slot that allows the bracket to straddle the stem. Tighten the stem nut only enough to hold the bracket in place.
3. PS2:
    1) Using two M6 screws and lockwashers (kit 6DR4004-8VL), mount two V-blocks and the U-channel to the stem bracket. Assemble as shown in Figure 1.
    2) Fasten the feedback pin to the feedback arm with the supplied flat washer, lockwasher and nut (kit 6DR4004-8VL). Tighten the hardware only enough to hold the pin in place.
    3) Place the feedback arm on the positioner input shaft and tighten the hardware.
4. 760:
    1) Thread a nut onto the feedback pin (kit TGX:16152-712). Place a split lockwasher on the pin and insert the pin into the stem bracket as shown in Figure 2. Thread a second nut onto the pin and tighten the nut.
    2) Place the linear adapter on the positioner input shaft. Fasten the adapter's setscrew on the flat of the input shaft. A thread locking solution may be applied to the setscrew. The adapter should not contact the mounting plate or the positioner base.
    3) Fasten the feedback arm to the linear adapter with the supplied lockwasher and nut.
5. Fasten the mounting bracket to the actuator frame using two 5/16 screws, lockwashers and nuts. For PS2, use either 1-1/2" or .625" long screws, as appropriate for a secure installation (kit TGX:16152-520).

6. PS2 – Mount the positioner as follows:
    1) Refer to Figure 1 and fasten the PS2 to the mounting bracket using two M8 screws, flat washers and split lockwashers (kit TGX:16152-520). While attaching the positioner, guide the feedback pin into the U-channel. When the hardware is tightened, the pin's spring should be compressed approximately 3/16" to 1/4" (4.5mm to 6.5mm).
    2) Locate the positioner in the bracket's slotted holes so the feedback arm will be approximately perpendicular to the valve stem at the mid-stroke position. Loosen the 5/16" screws as needed.
7. 760 – Mount the positioner as follows:
    1) Refer to Figure 2 and, using four M6 screws and lockwashers (kit TGX:16152-690), fasten the mounting plate to the 760.
    2) Fasten the mounting plate to the mounting bracket using two 5/16 socket head cap screws, flat washers, lockwashers and nuts (kit TGX:16152-690).
    3) Refer to Figure 2 and place the positioner against the mounting bracket and actuator.
    4) Rotate the feedback lever against the feedback pin and measure the length of pin that extends beyond the lever. The pin must extend beyond the lever by a minimum of 1/8" but must not contact the positioner or other component throughout the range of motion of the linkage. (The pin should be perpendicular to the lever.)
    5) To shorten the pin, mark the pin where it is to be cut and remove the pin from the actuator. Cut the pin to length and remove any burs from the cut end; a slight bevel will make inserting the pin into the lever slot easier. Do not score the pin where it will ride in the feedback lever slot.

       Then fasten the pin to the stem bracket and tighten the locking nuts.
    6) Fasten the positioner and mounting plate to the mounting bracket using two 5/16" socket head cap screws, flat washers, split lockwashers, and nuts.
    7) Locate the positioner in the bracket's slotted holes so the feedback arm will be approximately perpendicular to the valve stem at the mid-stroke position. Loosen the 5/16" screws as needed.
8. Tighten all hardware.
9. Read the "Cautions" on page 2 and then apply the appropriate air pressures to fully stroke the valve. Exercise the positioner/actuator assembly to ensure that:
    - The feedback lever is approximately perpendicular to the actuator stem at mid-stroke. As needed, loosen mounting hardware and slide the positioner along the bracket's slotted holes until the feedback arm is approximately perpendicular to the valve stem.
    - The feedback linkage does not prevent the valve from fully stroking.
    - The feedback pin moves freely within the U-channel or feedback lever for the entire valve stroke.
    - All linkage hardware is tight.
10. Once the feedback linkage moves freely for the entire stroke, make necessary electrical and pneumatic connections and then proceed to the positioner setup/calibration procedure in the appropriate manual.

Customer/Product Support

Online Support Request	http://www.siemens.com/automation/support-request
Technical Support	1-800-333-7421; 8 a.m. to 4:45 p.m. eastern time, Monday through Friday (except holidays)
Customer Service & Returns	1-800-365-8766 (warranty and non-warranty)
Public Internet Site	http://www.usa.siemens.com/pi
Technical Publications in PDF	Click the above link to go to the PI home page. Click **Support** and then **Manuals** and then, under "Additional Manuals," select the product line (e.g. Control Solutions)

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