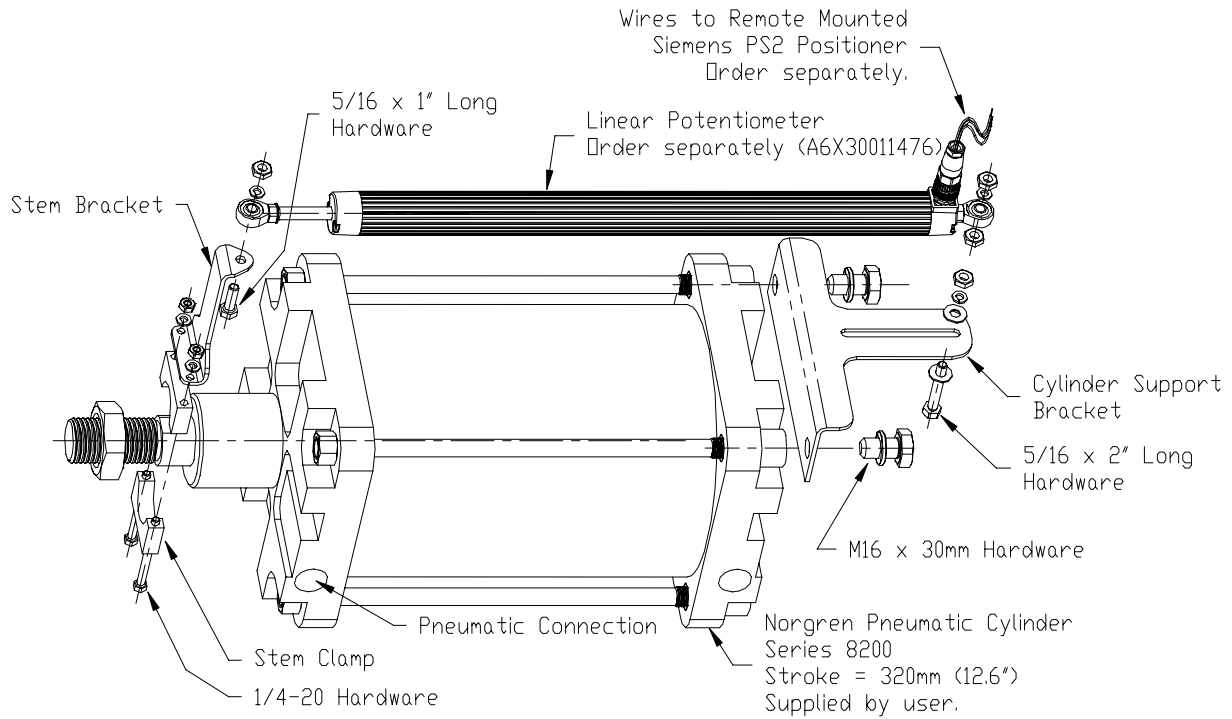


Kit PN TGX:16152-560

15900-740
Rev 1
October 2006

**MOUNTING A LINEAR POTENTIOMETER ON A
NORGREN SERIES 8200 PNEUMATIC CYLINDER**

This publication provides installation instructions to mount a linear potentiometer on a Norgren Series 8200 pneumatic cylinder with a 320 mm (12.6") stroke. The Siemens PS2 valve positioner is remote mounted and derives its input signal from the potentiometer. Refer to the Siemens SIPART PS2 User Manual to install the valve positioner.



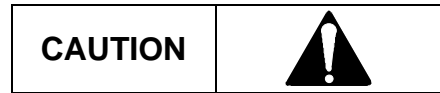
KIT PARTS, TGX:16152-560

Description	Quantity	Description	Quantity
Cylinder Support Bracket	1	5/16-16 Hex Nut	4
Stem Bracket	1	5/16 Medium Lockwasher	3
Stem Clamp	1	5/16 Flat Washer	2
M16 x 30 mm Hex Hd Screw DIN933-A2	2	1/4-20 x 3" Hex Hd Screw	2
M16 Split Lockwasher	2	1/4-20 Hex Nut	2
5/16 x 2" Hex Hd Screw	1	1/4 Medium Lockwasher	2
5/16 x 1" Hex Hd Screw	1		

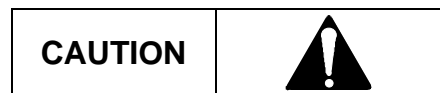
INSTALLATION

Refer to the following procedure and to the positioner, linear potentiometer, and pneumatic cylinder installation instructions while performing the installation. The current revision of the positioner instruction is available at the Siemens Internet site. See Contact Information later in this Instruction for the URL.

Before beginning the installation, note the following cautions.



Do not apply supply pressure to the cylinder 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.



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

1. Open kit and check the contents against the Kit Parts list and the drawing on page 1.
2. From the kit, get the cylinder support bracket, two M16 x 30 mm hex head screws and two M16 split lockwashers. Fasten the bracket to the pneumatic cylinder as shown.
3. Get a 5/16 x 2" hex head screw, two 5/16 flat washers, a 5/16 lockwasher and two 5/16 nuts. Place a flat washer on the screw and insert the screw upward through the slot in the bracket. Place a flat washer and a lockwasher on the screw and then thread the 5/16 nut onto the screw. Do not tighten at this time. Loosely thread a second 5/16 nut onto the screw.
4. Get the stem bracket, stem clamp, and 1/4-20 hardware. Assemble these items as shown on page 1. Position the stem clamp at the end of the unthreaded portion of the cylinder stem; the clamp must not restrict or limit movement of the stem. Tighten hardware only enough to hold the bracket and clamp in place.
5. Get a 5/16 x 1" hex head screw, two 5/16 lockwashers and two 5/16 nuts. Also get the linear potentiometer.
6. Mount the linear potentiometer:
 - 1) Place the fixed (wired) end of the linear potentiometer on the 5/16 screw extending upward from the cylinder support bracket. Install a 5/16 lockwasher and nut on the screw. Support the movable end of the potentiometer.
 - 2) While supporting the movable end of the potentiometer, insert a 5/16 screw upward through the stem bracket and place the movable end of the linear potentiometer on the 5/16 screw. Install a 5/16 lockwasher and nut on the screw.
7. Adjust the location of the linear potentiometer:
 - 1) For best accuracy, the axis of the potentiometer should be parallel to that of the pneumatic cylinder. Adjust the stem bracket position and cylinder support bracket 5/16 hardware as needed.
 - 2) Position the 5/16 screw in the cylinder support bracket to set potentiometer travel to accommodate pneumatic cylinder stem travel.
8. Wire the linear potentiometer to the PS2 input terminals. Refer to the PS2 user manual for connections.

9. Tighten all hardware.
10. Read the “Cautions” on page 2 and then apply the appropriate air pressures to fully stroke the cylinder and valve. Exercise the PS2 and the pneumatic cylinder/linear potentiometer assembly to ensure that the pneumatic cylinder fully strokes.
11. Make necessary electrical and pneumatic connections and then proceed to the PS2 setup instructions found within the PS2 manual.

CONTACT INFORMATION

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For Product Support Outside of the U.S.A.

Visit the Siemens public Internet site (see the above table for the URL), locate “Customer Support Process Instrumentation,” and click on the Contact Tech Support link to access the Global Support link.

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