



# Siemens SQM5 Actuator Setup and Calibration

1. With the linkages removed from the driven device (damper, burner throttle, etc), set the device in the minimum signal (4mA) position. Mark the shaft location. Set the device in the maximum signal (20mA) position. Mark the shaft location. These marks will be used for the end of travel positions during calibration.
2. Install the connecting linkage from the actuator shaft to the driven device.
3. Insure that all fasteners are tight, including setscrews, bolts, etc.
4. Verify that the Man/Auto selector switch is in the Man position.
5. The driven device should be in the minimum signal (4mA) position. For example, a burner throttle should be in the low fire position. If not, push in the silver shaft release button located to the right of the Man/Auto switch. The actuator shaft and linkage can be manually rotated when the button is pressed. After the shaft/linkage has been manually set to the minimum position, re-engage the shaft by pushing the shaft release button downwards.

Toggle Switch To Manually Drive Actuator Open/Close

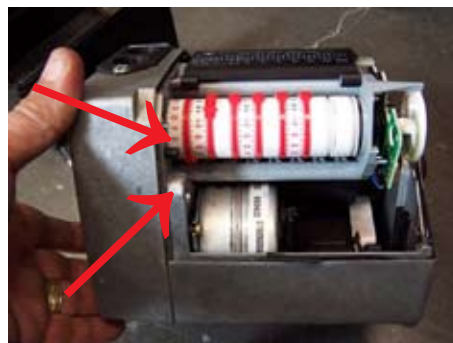


Shaft Release

Man/Auto Selector

6. Verify that the cam drum "0" mark on the cam drum position scale (left scale on the cam drum) is aligned with the gray actuator position indicating pointer. If the cam drum is not aligned properly, press in the cam drum release button and rotate the cam drum until aligned.

Cam Drum Position Scale

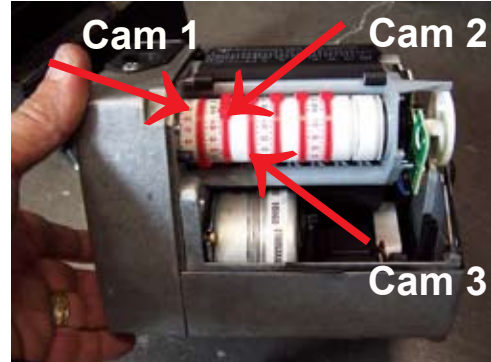


Cam Drum Release



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- By using the toggle switch located to the left of the Man/Auto switch, drive the actuator to the maximum position (switch cam 1) and minimum position (switch cam 2). Adjust the switch cams as needed to get the full travel of the driven device (typically 90°). Switch cam 1 will typically be set to 90° and switch cam 2 will typically be set to 0°.

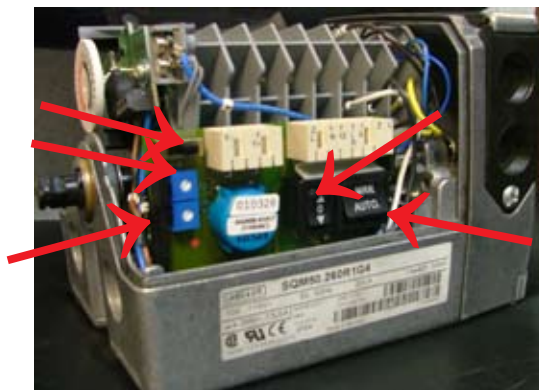


- Set the Man/Auto switch to the auto position.
- Adjust switch cam 3 to 0 degrees.
- Set the OPE/MAX/MIN slide switch to the MIN position. The blue MIN trim pot can now be adjusted to the required minimum position (4mA).
- Set the OPE/MAX/MIN slide switch to the MAX position. The blue MAX trim pot can now be adjusted to the required maximum position (20mA).
- Repeat steps 8 and 9 until the correct minimum and maximum positions are adjusted.
- Return the slide switch to the OPE position.

OPE/Max/Min  
slide switch

MAX trim pot

MIN trim pot



Manual drive  
toggle switch

Man/auto  
selector

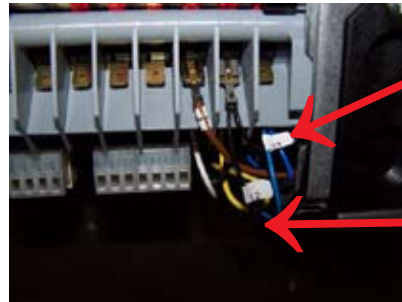


# Siemens SQM5 Actuator

## Setup and Calibration

### Reverse actuator rotation:

1. Start with the actuator in the minimum signal (4mA) position.
2. Reverse the motor wires labeled 12 and 21. connect black wire 12 to switch I, terminal 21. Connect double blue wire 21 to switch II, terminal 12.

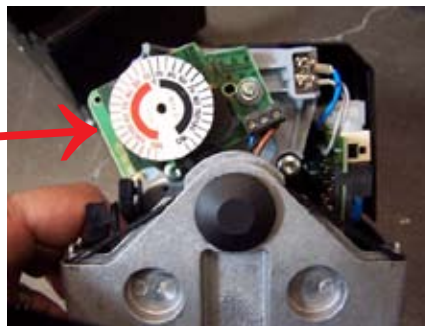


Motor wire 21

Motor wire 12

3. Position the "0" mark of the drum cam scale in line with the position indicating pointer. (See #4 above).
4. Pull off the white plastic potentiometer dial. Unscrew the shaft of the potentiometer gear One turn and push the screw in, to open the clamping bushing on the back of the pot gear.

Plastic Potentiometer Dial



5. Rotate the gear until the line marked "0" shows at the potentiometer indicator pointer.
6. Tighten the shaft screw and remount the potentiometer dial on the gear shaft with 0 lined up with the potentiometer indicator pointer.
7. Disconnect the blue and brown pot meter wires and connect the brown wire to the left terminal of the pot meter kit and the blue wire to the right terminal.
8. Adjust all switch cams to the desired settings using the RED cam drum scales in combination with the DOUBLE switch cam pointers.

For further information, availability, please contact your nearest MEGTEC office by visiting [www.megtec.com](http://www.megtec.com) and click on parts and upgrades or email to [info@megtec.com](mailto:info@megtec.com).