

43191679-101 and 43191679-102 Auxiliary Potentiometers

INSTALLATION INSTRUCTIONS

APPLICATION

The 43191679-101 and 43191679-102 Auxiliary Potentiometers can be used as feedback potentiometers and to provide remote indication of the valve position. These potentiometers are used with valve actuators as shown in Table 1. Fig. 1 illustrates the parts furnished with these potentiometers.

Table 1. Auxiliary Potentiometers.

Actuator	Stroke	Single 220 Ohm Potentiometer ^a
ML6421A	3/4 in.	43191679-101
ML6421B	1-1/2 in.	43191679-102

^a Potentiometer range is 135 ohms over nominal 3/4 in. or 1-1/2 in stroke.

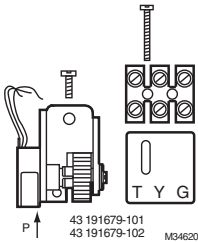


Fig. 1. Auxiliary potentiometer parts.

INSTALLATION

When Installing this Product...

1. Read these instructions carefully. Failure to follow them could result in the equipment not operating properly.
2. Check the part numbers in Table 1 to be sure that the product is suitable for your application.
3. The installer must be a trained, experienced service technician.
4. After completing installation, use these instructions to check product operation.



CAUTION

Disconnect the power supply to the auxiliary potentiometer and actuator before beginning installation to prevent electrical shock or equipment damage.

Mounting, Connecting, and Adjusting

1. Remove the cover from actuator.
2. If a potentiometer is already installed, remove it and replace it with a dual potentiometer.
3. Install new potentiometer beneath the large actuator gear so the potentiometer gear engages the flat disk-shaped gear. See Fig. 2.

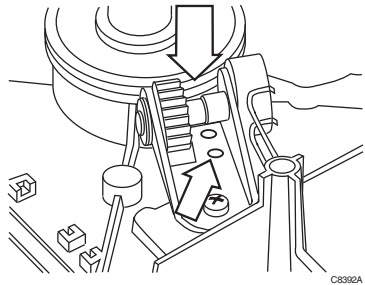


Fig. 2. Installing new potentiometer.

4. Secure potentiometer with Phillips screwdriver through hole in actuator bracket. See Fig. 3.

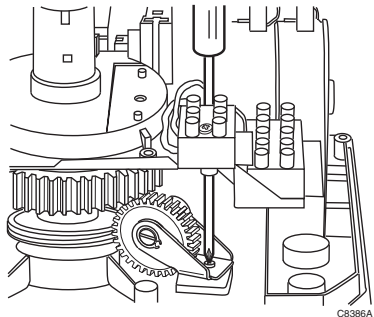


Fig. 3. Securing potentiometer.



5. Install terminal block and label for potentiometer. See Fig. 4.

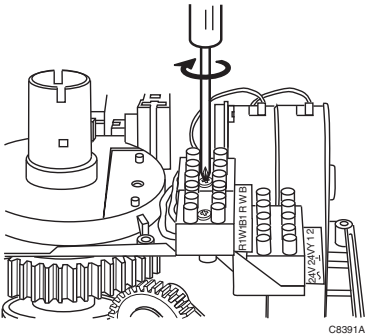


Fig. 4. Installing terminal block and label for potentiometer.

6. For ML6421A, B, connect wiring from the auxiliary potentiometer to the terminal block(s). See Fig. 5.

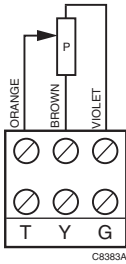


Fig. 5. Wiring for ML6421A, B with single potentiometer.

7. For 3/4 in. stroke actuators, drive the actuator shaft fully up and fully down. This automatically adjusts the potentiometer. See Fig. 6.

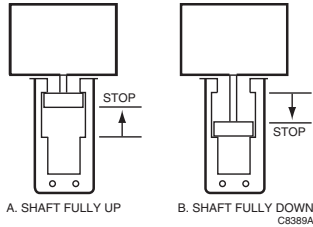


Fig. 6. Drive actuator shaft fully up and fully down.

8. For 1-1/2 in. stroke actuators, drive the actuator shaft fully up and measure the resistance across terminals R and W as shown. Adjust this resistance to 20.5 ohms. See Fig. 7.

WIRING

Route field wiring in through the conduit opening in the bottom of the actuator, connect to the potentiometer terminal block as shown in Fig. 7 and according to the job drawings, and replace the actuator cover.

⚠ CAUTION

Disconnect the power supply to the auxiliary potentiometer and actuator before wiring to prevent electrical shock or equipment damage.

All wiring must comply with local codes, regulations, and ordinances.

CHECKOUT

Drive actuator shaft fully up and fully down and check the operation of the auxiliary potentiometer, e. g., feedback in the control system or remote indication of the valve position.

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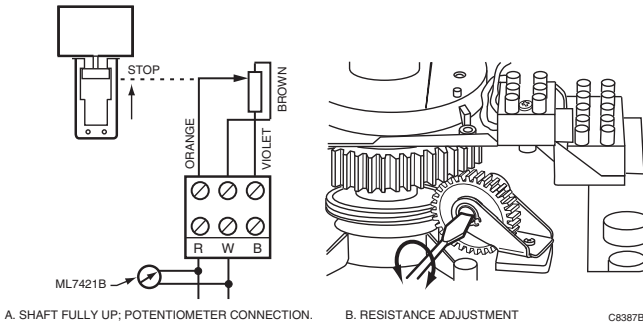


Fig. 7. Drive actuator shaft fully up and adjust resistance to 20.5 ohms.

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