

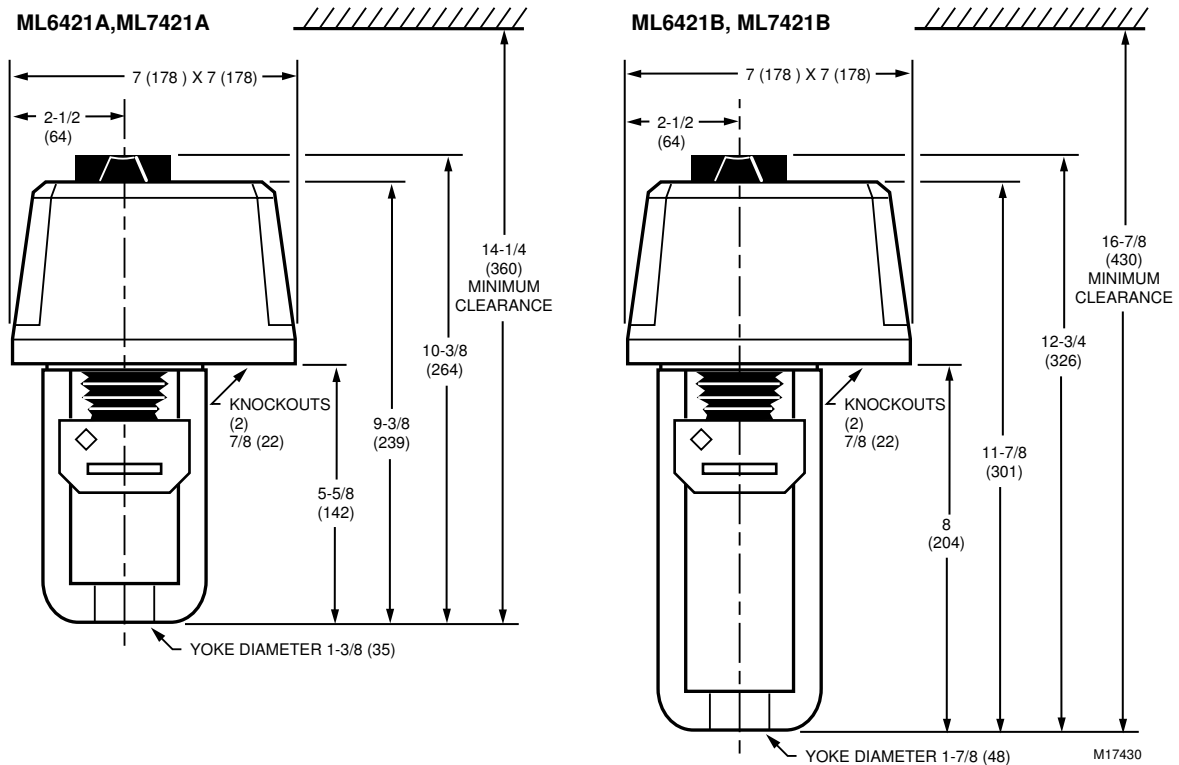


Fig. 1. Approximate dimensions of ML6421, ML7421 Electric Linear Valve Actuators in in. (mm).

INSTALLATION

When Installing this Product...

1. Read instructions carefully. Failure to follow them could damage the product or cause a hazardous condition.
2. Check ratings and description given in the specifications to make sure the product is suitable for your application.
3. Installer must be a trained, experienced service technician.
4. After installation is complete, check out product operation as provided in these instructions.



CAUTION

Electrical Shock or Equipment Damage Hazard.
Can shock individuals or short equipment circuitry.

Disconnect power supply before installation.

Location

Install the actuator in a location that allows enough clearance for mounting accessories and for servicing.



CAUTION

Equipment Damage Hazard.
Can damage actuator due to condensation or a valve gland leak.

Install the actuator in a position above horizontal.

Mounting

1. Place the actuator on the valve with the U-bolt around the valve collar. See Fig. 2.

IMPORTANT

When tightening the set screws, first tighten the right set screw. See Fig. 2.

2. Place the U-bolt against the valve collar and secure the actuator to the valve by turning each U-bolt nut clockwise.

NOTE: To assure even pressure on the collar, first tighten the nuts finger-tight and then alternate turning each U-bolt nut until both are snug.

3. Push aside the stem button retaining clip and hold. See Fig. 2.
4. Lift the valve stem until the head of the valve stem button is inside the large slot of the stem button retaining clip on the actuator.
5. Release the stem button retaining clip to secure the stem button. Check to make certain the stem button is secured by the retaining clip.
6. Pull off the manual operation knob.
7. Remove the cover from the actuator using a Phillips or crosspoint screwdriver. See Fig. 3.

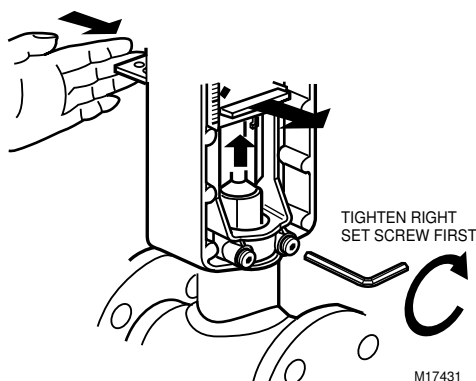


Fig. 2. Attaching actuator to valve.

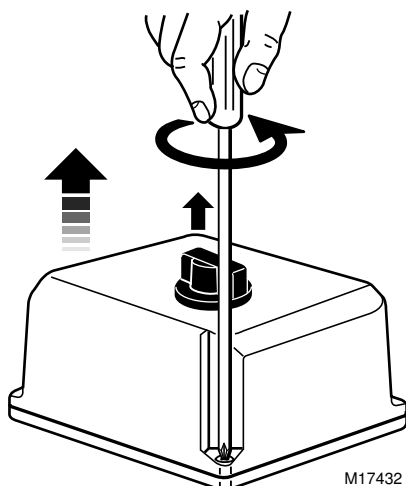


Fig. 3. Removing actuator cover.

Wiring



CAUTION

Electrical Shock or Equipment Damage Hazard.
Can shock individuals or short equipment circuitry.

Disconnect power supply before installation.

IMPORTANT

1. All wiring must comply with local electrical codes, ordinances and regulations.
2. Voltage and frequency of the transformer used with the actuator must correspond with the characteristics of the power supply and those of the actuator.

NOTE: See Fig. 5 through 8 for typical wiring hookups.

1. Feed power and control wires through the conduit connector located on the bottom of the actuator case.



CAUTION

Equipment Damage Hazard.
Conduit connection or removal can break an unsupported connector.

When removing or attaching conduit, use a wrench to support the motor connector.

2. Using the appropriate wiring diagram (see Fig. 5 through 8), connect power and control wires to the actuator. Make sure that all wiring is correct.
3. For the ML7421 only: Check selector plugs for proper settings. See Signal Input Failure section for details.
4. When wiring is complete, replace the actuator cover and control knob (see Fig. 9).
5. Apply power and control signals to the actuator.

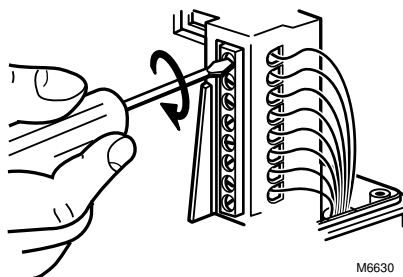


Fig. 4. Connecting wiring to the actuator.

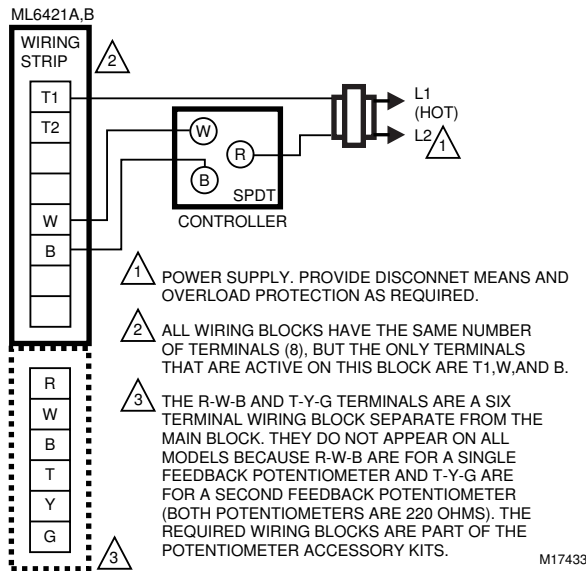


Fig. 5. ML6421 typical wiring diagram.

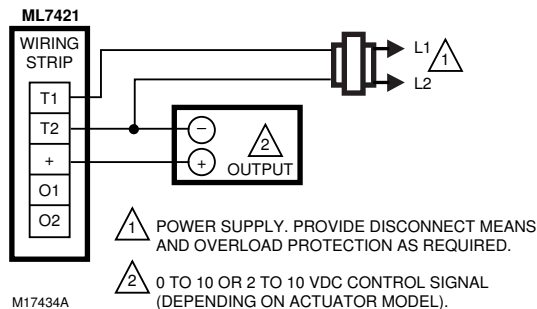


Fig. 6. ML7421 typical wiring diagram.

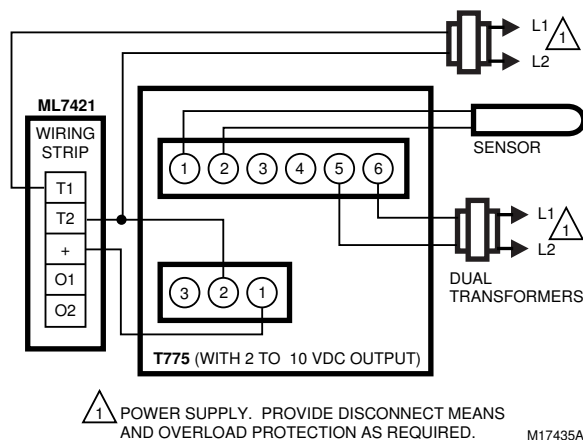


Fig. 7. ML7421 wiring using voltage input control and separate transformers.

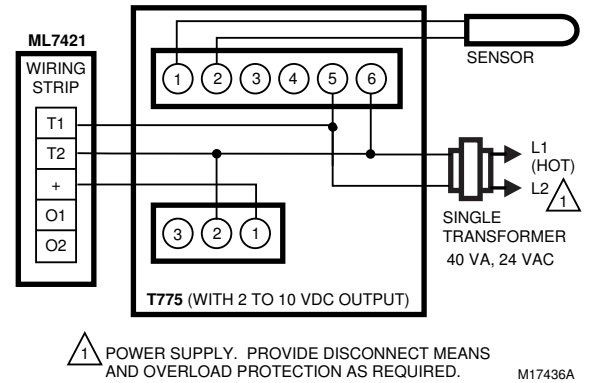


Fig. 8. ML7421 wiring using voltage input control and a common transformer.

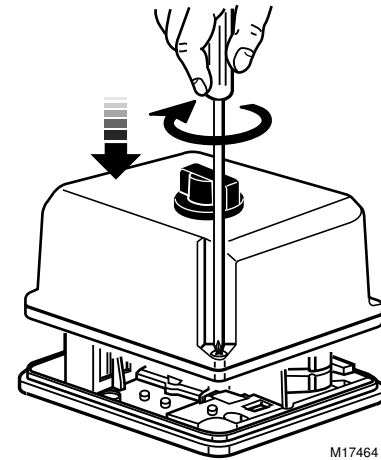


Fig. 9. Replacing actuator cover.

Auxiliary Potentiometers

The 43191679 Auxiliary Potentiometers can be used as feedback potentiometers and to provide remote indication of the valve position. See the Accessories section for part numbers. See Installation Instructions packed with the potentiometers for details.

Auxiliary Switches

The 43191680 Dual Auxiliary Switch can be used on both the ML6421 and ML7421 Electric Linear Valve Actuators. Switching points are adjustable over the full actuator stroke. For example, the switch can be used to switch pumps or to provide remote indication of any stroke position. See the Installation Instructions packed with the auxiliary switch for details.

IMPORTANT

Use the 43191680 Dual Auxiliary Switch only with 24 Vac applications.