

**Belimo to
Trol a Temp EWC MAN
8 terminal motor retrofit kits.
Mounts a Belimo LMB 24 vac motor
in place of original motor.
Instructions. Rev 1 Copyright
Retrozone Inc 2019. web:
retrozone.com**



Figure A: Remove motor from inside of plastic plastic case by removing two through-screws.

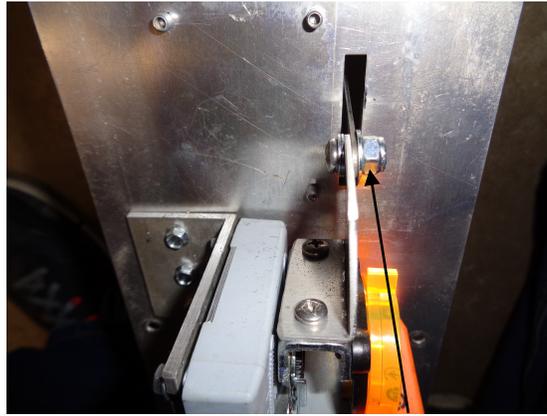
Then disconnect push-pull shaft by removing C-clip.

Carefully locate three rivets holding plastic motor case onto damper body, then insert flat bladed screw driver by rivet and carefully pry plastic case off of damper.



By hand, push in and pull out the push-pull drive shaft to make sure it fully opens and closes, and moves freely.

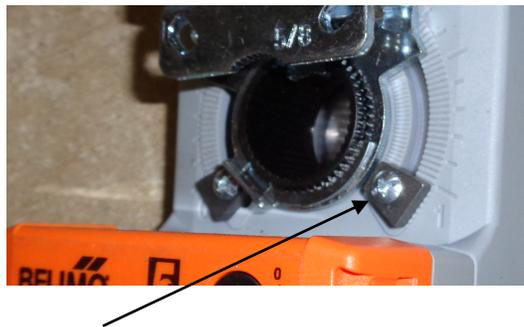
Then take a marker and mark the full open and full close positions on the push-pull shaft. These marks will be used to help adjust the motor travel when installed.



Attach push-pull shaft to bell crank on motor, using the the provided hardware and self locking nut. Do not overtighten so that the push-pull rod can pivot.

Use black push button clutch on motor to rotate motor half way open.

Position motor so that push-pull shaft is generally centered in damper opening. Then mark the three attachment holes of mounting bracket onto damper plate. Pre-drill with 1/8 drill bit or use self tapping screws with drill to attach.



Note the travel limiting blocks that should be adjusted to limit the travel of the powerful motor, to avoid damage or increased wear to damper linkage.

Depress the black clutch button on motor and rotate motor fully open to fully closed. With a screw driver, and observing the black marks on push-pull shaft made earlier, adjust travel limiting blocks so that the limiting blocks stop motor travel, just slightly before damper is fully open or closed.

The installer can also use these same travel limiting blocks to allow any amount of damper leakage desired, which was not possible with the OEM motor being replaced.



Push-Pull damper linkage.

Motor travel limiting blocks-adjust to limit travel of motor to limit wear on damper linkage.

0/1 Reversing Switch: set this switch so that damper is open when no thermostat is calling for air, on most zoning panels

Clutch: Depress clutch so motor can be manually rotated open and closed.

Connecting to zone panels or thermostats: Also see “technical support” at retrozone.com for additional information.

1. The Belimo LMB24 motor needs only three wires to operate. On many Trol a Temp and EWC panels, from Panel to motor: m1 to motor 1, M4 to motor 2, and M6 to Motor.
2. On zone panels with damper outputs marked C, NO or NC (Common, Normally Open, Normally Closed): C common to Motor 1, NO Normally Open to motor 2, NC Normally Closed to motor
3. Motors connected directly to thermostats: Thermostats Common (24v -) to motor 1, Thermostat R (24v+) to motor 2, Thermostat Y jumpered to W and then to motor 3.
4. Notes: On most modern zone panels, dampers should open when there is no call for heat and air, ie the HVAC system is at rest. If the motor closed the damper when the system is at rest, use the 0/1 reversing switch to cause damper to open.