

VALVCON
V-SERIES OPTION "K"
MECHANICAL BRAKE KIT
PART NUMBER VC099715

Installation, Maintenance and
Operating Instructions

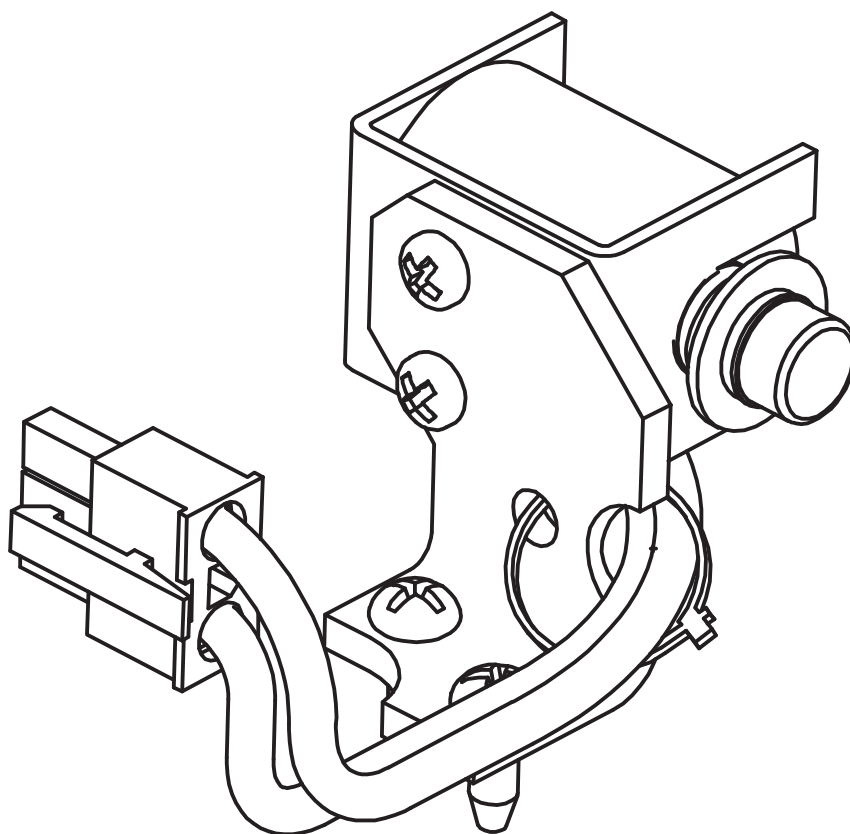


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READ THESE INSTRUCTIONS FIRST!

These instructions provide information about safe handling and operation of the actuator.
If you require additional assistance, please contact the manufacturer or manufacturer's representative.
Addresses and phone numbers are printed on the back cover.
See also www.metso.com/valvcon for the latest documentation.

SAVE THESE INSTRUCTIONS!

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1 GENERAL

This instruction manual contains important information regarding the installation, operation, and troubleshooting of Metso's Option "K" Mechanical Brake. Please read these instructions carefully and save them for future reference.

1.1 Description

The mechanical brake option is a holding brake that acts directly on the gear train, to lock the output of the actuator at all times when the motor is not powered. The Option "K" Brake uses the mechanical advantage of the 3000:1 gear reduction to lock the actuator output in position. It will hold against a force as great as the torque rating of the actuator. The Option "K" Brake draws 4 watts and is universal to all standard V- and I- Series actuators. It is simple to install with a plug-in connector and two Phillips mounting screws. No additional brackets are required.

The highly efficient Valvcon hardened steel spur gear system requires that the Option "K" Brake be installed on all butterfly valve and damper applications. It is also recommended on PVC ball valves and resilient seated valves.

The Option "K" Brake Kit, P/N VC099715 is universal to standard 115 VAC, 230 VAC, large enclosure, small enclosure V- & I-Series actuators.

This option will fit V/LV and I/LI actuators with the letter "N" preceding the voltage designator in the part number on the product nameplate.

No capacitor changes or additional customer wiring is required for brake installation & operation.

1.2 Operation

When power is supplied to the actuator motor, the brake solenoid withdraws the brake plunger from contact with the motor fan. The travel distance between the motor fan and the brake plunger should be approximately 0.025" during normal operation.

2 INSTALLATION

2.1 Tools Required

- Phillips screwdriver #1

2.2 Installation Instructions

1. Place spring over the pointed end of the brake plunger shaft. Insert the pointed end of the plunger into the round hole in the brake solenoid assembly where indicated in **(Figure 2)**.
2. Holding the plunger into the solenoid, secure the brake sub assembly to the upper mounting bracket with the two #6 screws. Properly positioned, the spring should push the plunger pad into contact with the edge of the motor fan. (If plunger is contacting between motor fan blades, the brake is not properly installed.)
3. Plug the brake assembly male connector into the female connector that is located in the upper corner of the Motor Board. Use the nylon wire tie to secure the wires to the upper mounting bracket to prevent interference with any other parts.

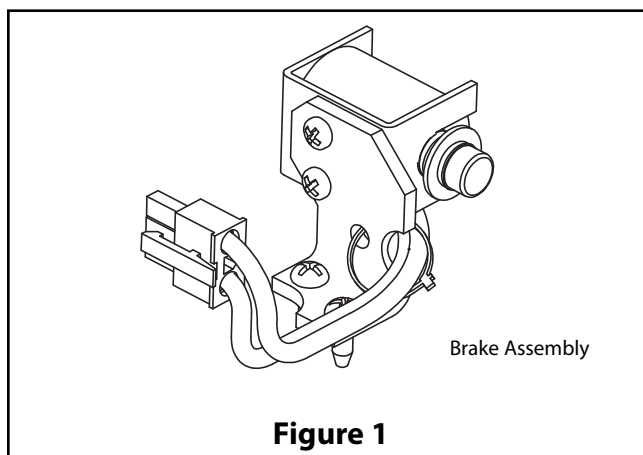


TABLE 1	
Parts List for Option "K" Mechanical Brake	
Part Description	Qty
Screw, #6-32X 3/8"	2
Wire Tie, Nylon	1
Brake Sub-Assembly	1
Spring	1
Plunger	1
Instruction Sheet	1

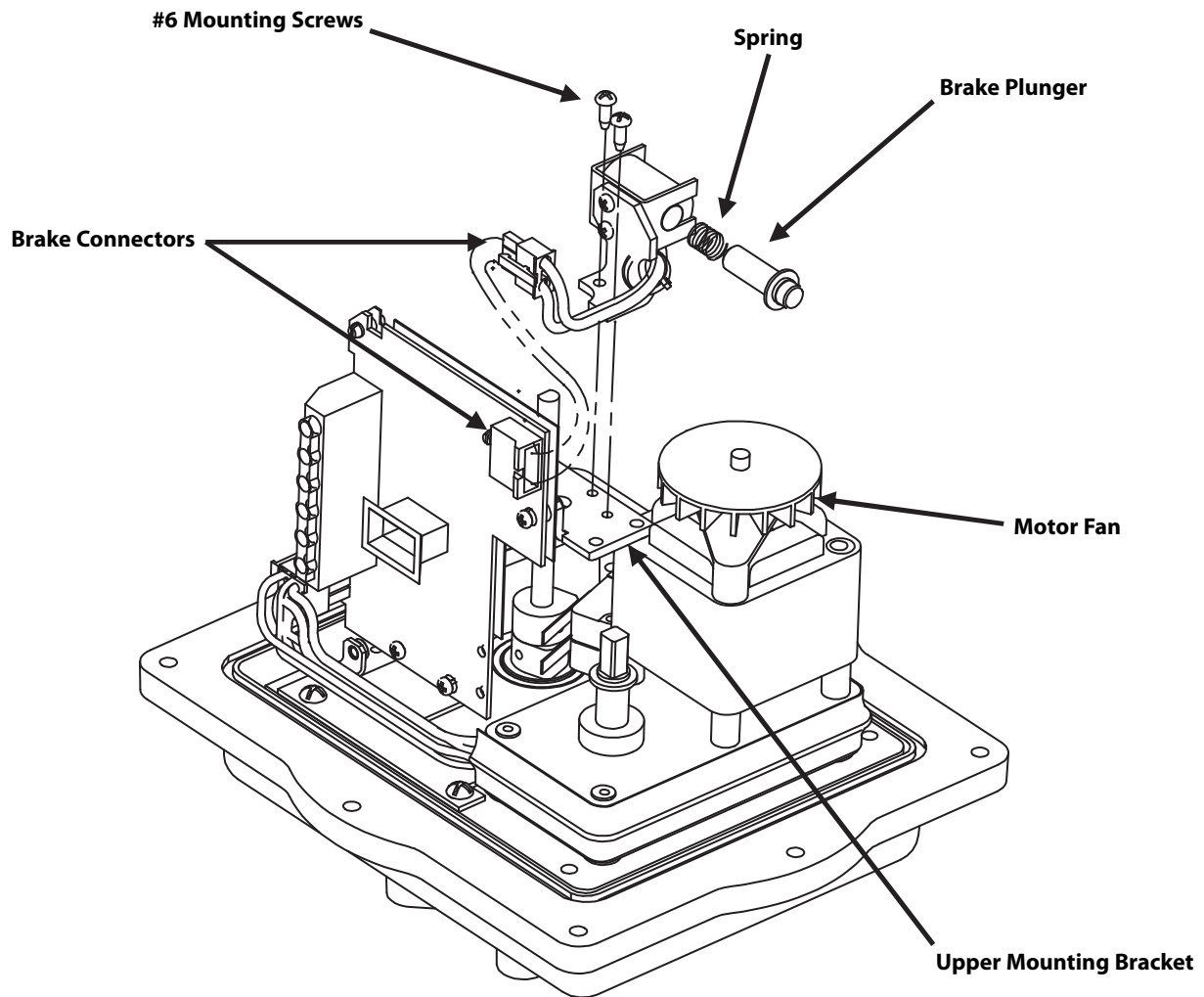


Figure 2

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