

Valvcon™ Option "Z"

Handwheel override kit

P/N VC009097 for actuators 150-600 IN-LB & P/N
VC009098 for actuators 1000-3000 IN-LB

Installation, maintenance and
operating instructions



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READ THESE INSTRUCTIONS FIRST!

These instructions provide information about safe handling and operation of the valve.

If you require additional assistance, please contact the manufacturer or manufacturer's representative.

SAVE THESE INSTRUCTIONS!

Addresses and phone numbers are printed on the back cover.

1. GENERAL

This instruction manual contains important information regarding the installation, maintenance and troubleshooting of the Valvcon™ Handwheel Override Option (order code “Z”). Please read these instructions carefully and save them for future reference.

1.1 DESCRIPTION

The Handwheel Override option provides manual operation when power is not available. The handwheel is disengaged from the geartrain and does not turn during normal operation. When the handwheel is pushed down, it disengages the motor from the geartrain and allows manual operation.

1.2 SAFETY PRECAUTIONS

WARNING

DO NOT EXCEED THE ACTUATOR PERFORMANCE LIMITATIONS!
EXCEEDING THE TORQUE LIMITATIONS MARKED ON THE ACTUATOR IDENTIFICATION NAMEPLATE LABEL MAY CAUSE DAMAGE TO THE ACTUATOR AND/OR FINAL DRIVE ELEMENT.

WARNING

DO NOT EXCEED THE ACTUATOR ELECTRICAL LIMITATIONS!
EXCEEDING THE ELECTRICAL LIMITATIONS MARKED ON THE ACTUATOR IDENTIFICATION NAMEPLATE LABEL MAY CAUSE DAMAGE TO THE ACTUATOR AND/OR PERSONAL INJURY.

WARNING

BEWARE OF MOVEMENT OF THE FINAL DRIVE ELEMENT AND ANY LINKAGE BETWEEN IT AND THE ACTUATOR! KEEP HANDS, OTHER PARTS OF THE BODY, TOOLS AND OTHER OBJECTS OUT OF THE WAY OF MOVING PARTS. FAILURE TO DO THIS MAY RESULT IN DAMAGE OR PERSONAL INJURY!

WARNING

ACTUATORS SHOULD BE PROPERLY GROUNDED AND WIRED IN ACCORDANCE WITH LOCAL ELECTRICAL CODE; SEE IDENTIFICATION NAMEPLATE LABEL FOR MAXIMUM CURRENT DRAW.

This option will fit V, I, ADC, QX and Q6 Series actuators.

2. INSTALLATION

2.1 TOOLS REQUIRED

- Hex Wrench – 5mm (Small Enclosure)
- Hex Wrench – 6mm (Large Enclosure)

2.2 INSTALLATION INSTRUCTIONS

WARNING

WHENEVER WORKING INSIDE THE ACTUATOR BE SURE TO FOLLOW ALL GUIDELINES, AND HEED ALL WARNINGS IN THIS OPTION KIT INSTALLATION MANUAL. BE SURE TO READ AND FOLLOW THE INSTRUCTIONS SUPPLIED WITH THE ACTUATOR CAREFULLY, AND HEED ANY ADDITIONAL WARNINGS.

WARNING

DANGEROUS VOLTAGES ARE PRESENT INSIDE THE ACTUATOR COVER UNLESS THE POWER SUPPLY TO THE ACTUATOR HAS BEEN SHUT OFF OR DISCONNECTED. USE EXTREME CAUTION WHENEVER WORKING ON THE ACTUATOR WITH THE COVER REMOVED.

WARNING

WHENEVER WORKING INSIDE THE ACTUATOR, CARE MUST BE TAKEN TO AVOID DAMAGE TO THE MACHINED FLANGE SURFACES ON THE COVER AND BASE CASTINGS. FAILURE TO DO SO CAN VOID THE ACTUATOR'S ENVIRONMENTAL CERTIFICATION.

WARNING

USE CARE WHENEVER WORKING WITH THE ACTUATOR COVER REMOVED, DAMAGE, SCRATCHES, OR DENTS ON THE MACHINED FLANGE SURFACES OF THE ENCLOSURE MAY VOID COMPLIANCE WITH NEMA, CSA, UL, AND/OR IEC SPECIFICATIONS

1. Remove cover.
2. Remove existing “solid” override shaft from cover bushing or from motor shaft if still attached to motor shaft.
3. Install the bottom piece of the “two-piece” shaft on the motor shaft and then install the top piece of the shaft onto the bottom piece of the shaft.
4. Align cover so that the override shaft will pass through the override bushing and carefully push it down so that the cover flange contacts the base flange.
5. Once the cover is properly seated, tighten the screws to secure the cover; a cross pattern is recommended for uniform distribution of load.
6. If the position indicator is not seated to the output/cam shaft, turn until it drops into place in order to ensure accurate visual position indication.
7. Install handwheel onto square on top piece of “2-piece” override shaft and tighten set screws.

3. OPERATION

To use the Handwheel Override option, the user must push the handwheel down, disengaging the motor from the geartrain. Once disengaged, the handwheel drives the actuator output directly. Note: the direction that the handwheel is turned will not always match the direction that the output is driven, see small and large detail below).

WARNING

MANUAL OVERRIDE OF THE ACTUATOR IS INTENDED FOR USE WHEN POWER IS NOT AVAILABLE.

USING THE HANDWHEEL WHEN POWER IS STILL PRESENT AT THE ACTUATOR COULD RESULT IN DAMAGE OR PERSONAL INJURY!

3.1 SMALL ENCLOSURE, (150 – 600 IN•LB ACTUATORS):

Turning clockwise, (as viewed from the top of the actuator) will drive the output in the counter-clockwise direction. Turning counter-clockwise, (as viewed from the top of the actuator) will drive the output in the clockwise direction.

3.2 LARGE ENCLOSURE, (1000 – 3000 IN•LB ACTUATORS):

Turning clockwise, (as viewed from the top of the actuator) will drive the output in the clockwise direction. Turning counter-clockwise, (as viewed from the top of the actuator) will drive the output in the counter-clockwise direction.

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For more information www.neles.com/trademarks

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TABLE 1

P/N VC009097 Small Enclosure (150 – 600 in•lb)

Description	Qty
HANDWHEEL	1
SCREW, 1/4-20 X 1/4L, HEX	2
INSTRUCTION MANUAL	1
SHAFT, 2PC O-RIDE, LOWER, SM	1
PIN, DOWEL, 1/8 X 1.25"	1
SHAFT, 2PC O-RIDE, UPPER, SM	1
O-RING, O-RIDE SHAFT, SM	1
RETAINING CLIP, O-RIDE, SM	1
SPRING, 0.12 OD, 0.024WD, 1.25 L	1

TABLE 2

P/N VC009098 Large Enclosure (1000 – 3000 in•lb)

Description	Qty
HANDWHEEL	1
SCREW, 1/4-20 X 1/4L, HEX	2
INSTRUCTION MANUAL	1
SHAFT, 2PC O-RIDE, LOWER, LG	1
PIN, DOWEL, 3/16" X 1.25"	1
SHAFT, 2PC O-RIDE, UPPER, LG	1
O-RING, O-RIDE SHAFT, LG	1
RETAINING CLIP, O-RIDE, LG	1
SPRING, 0.18 OD, 0.035WD, 1.5 L	1

