

EXTRA INSTRUCTIONS

J+J ACTUATOR WITH POSITIONER

These instructions are to be read in conjunction with the Installation, Operation and Maintenance instructions for STANDARD POWER OPEN/ POWER CLOSE actuators.

***** WARNING *****

Read these instructions BEFORE you start to handle the actuator AS INCORRECT OPERATION OF THE MANUAL OVERRIDE CAN CAUSE IRREPARABLE DAMAGE WHICH WILL INVALIDATE ANY WARRANTY.

INSTALLATION:

As per standard power open/ power close actuators. We reiterate our dislike of physical travel stops. If you proceed to use physical travel stops, ensure they are set to take effect BEYOND the travel limit of the actuator. If not, the actuator will break as it tries to drive the valve to the next internal cam. Damage of this type will not be covered by our warranty.

All J+J electric actuators are fitted with external Din plugs for electrical connection, eliminating the need to remove the actuator's cover to connect the actuator electrically. Removing the cover, unless directed to do so by J+J (or their distributor), is likely to result in the warranty being invalidated.

OPERATION:

Irreparable damage can very easily be caused to the J+J actuators fitted with positioners due to incorrect operation. The positioners are factory set at 0 – 90 degrees and should not, under normal circumstances, require further adjustment. **DO NOT, under any circumstances, attempt to adjust the positioner.** If in any doubt, call your distributor.

1. Connect as per the wiring diagram affixed to the side of the actuator. If in any doubt, contact your supplier for wiring details BEFORE you attempt to wire the Din plugs. All connections are made via the external Din plugs and there is no need to remove the actuator cover to connect electrically. Removal of the cover may invalidate any warranty.
2. Connect the control signal input (and output, if required) cables to the control Din plug, ensuring that the polarity of the control signal is as per the wiring diagram affixed to the side of the actuator.
3. If required, connect the volt free position confirmation cables as per the wiring diagram affixed to the side of the actuator. Note we have shown the supply to the position confirmation plug as the same as the power supply to the actuator – this is a suggestion only and any normal control voltage (eg: 24DC) can be applied to these volt free contacts.
4. Ensuring there is no physical restriction to the free rotation of the actuated assembly, apply continuous power to the power Din plug, and a control signal to the control Din plug. Standard control signals are:
4-20mA positioners: 4mA closed, 12mA mid position 20mA open
0-10v positioners: 0 V closed, 5 V mid position 10 V open
If the output signal is being used, check that the output equals the input signal.
5. Changing the control signal will cause an equal percentage movement of the actuator, ie: 12mA = 45 degrees movement, or 5 V = 45 degrees movement, for standard 90 degree actuators.
A local visual position indicator on the top of the actuator will show the actuator's position.
If the actuator does not respond to control signal changes, check the polarity of the control signal wiring as incorrectly wired control signal plugs will cause incorrect operation of the positioner.
6. For emergency use, a manual override is supplied, operated by the use of the MAN/ AUTO selector lever fitted to the side of the actuator. Operation of the manual override is as per the standard instructions, but extreme caution must be used when operating the 'modulating' actuator in 'MAN' as incorrect use due to over rotation WILL damage the positioner and WILL invalidate the warranty;

EXTRA INSTRUCTIONS – DPS2000 POSITIONER

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******* WARNING – USE OF MANUAL OVERRIDE *******

An internally fitted gearwheel is fixed to the actuator's output shaft – this gear is the physical link from the positioner's circuitry to the actual output shaft position, and is used to compare the digital input position with the actual shaft position. This gear is connected to an internally fitted feedback potentiometer which has a MAXIMUM ROTATION OF 110 DEGREES. Rotation beyond this will irreparably damage the potentiometer, causing failure of the positioner, and invalidate any warranty.

IT IS ABSOLUTELY CRITICAL THEREFORE, NOT TO ROTATE THE ACTUATOR BEYOND THE 0° TO 90° LOGOS MARKED ON THE TOP OF THE ACTUATOR AS SHOWN BELOW

CLOSED (0°)



OPEN (90°)



MAINTENANCE:

As per the standard Installation, Operation and Maintenance Instructions.

TROUBLESHOOTING:

For information, every ISO9000 manufactured J+J actuator is fully function tested at the factory prior to being distributed, and are supplied in purpose-made polystyrene protective cartons to protect against transit damage.

Fault: The actuator does not respond to any control voltage supplied

- Check the following:
- a. Power supply voltage matches actuator nameplate/ label
 - b. Control signal voltage matches actuator nameplate/ label
 - c. Din plugs are correctly wired, with correct polarity, and fitted to din plug base
 - d. Actuator is in 'AUTO' (power cut to motor in 'MAN')

(In all reversible models, a safety cut out switch operated by the manual override selector lever, cuts power to the motor. If you have operated the actuator by use of the manual override and cannot restart the actuator, check that the manual override selector lever has been reset in the 'AUTO' position.)

Fault: The actuator only moves a few degrees when given maximum/minimum control signals

- Check the following:
- a. The polarity of the control signal din plug cables
 - b. The actuator may have been over rotated (see above warnings)

MANUFACTURER'S PRODUCT SUPPORT

J+J actuators are fully supported in the UK and Ireland and manufacturer's representatives can attend site to assist with 'problems', however a call out charge is made and expenses are recovered if the fault is proven to be 'user generated' due to non adherence to these IOM's. An order number MUST be issued to cover these charges BEFORE they will attend. Should the fault be due to manufacturing or material defects, no charge will be made. Should you damage the positioner by over rotating the actuator whilst in manual override, it *may* be possible to have the positioner re-calibrated by returning it to the manufacturer. All costs incurred are chargeable.

Thank you for ordering the J+J reversible electric actuator with positioner. Correctly applied, installed, connected and operated in accordance with these instructions, your J+J actuator with positioner should give you reliable and trouble free performance.

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