

J2

Instructions: Adjusting the cams at 0° & 90° Model **J2-20**



Doc: J2.20-CAMS/01

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IMPORTANT NOTE: Under normal circumstances there should be no need to adjust the actuator cams - they are factory set at 0 and 90 degrees. If you do need to adjust the cams, follow these instructions carefully as damage caused by non-adherence will invalidate any warranty. Once the cover is removed, do not adjust any other components within the actuator as this will cause malfunction and will invalidate any warranty.

Remove the actuator cover

- 1 Disconnect the electric supply to the actuator
- 2 Lift off the flat black handle on the top of the actuator (push fits over a pin in the shaft)
- 3 Remove the pin from the shaft
- 4 Remove the 6 cap head cover securing screws
- 5 Lift the cover upwards until it clears the shaft, but before lifting the cover off completely, note the path of the internal cables
- 6 Lift the cover off completely. Ensure the cover shaft seal 'O' ring and retaining clip are not lost when lifting off the cover.

Explanation of the cams

There are 4 cams fixed to the drive shaft with stainless steel circlips

The lower two cams are the motor control cams for the final open and closed positions

The upper two cams are for the volt free end of travel confirmation remote signals

If any of the motor cams are adjusted, the corresponding end of travel confirmation cam will also require adjusting

Bottom cam (1st cam): Final closed position, motor control switch, rotates clockwise into switch

Next Cam (2nd cam): Final open position, motor control switch, rotates counter-clockwise into switch

Next cam (3rd cam): End of travel closed confirmation switch, rotates clockwise into switch

Top cam (4th cam): End of travel open confirmation switch, rotates counter-clockwise into switch

Adjusting the cams

Only qualified electricians should make the adjustment as power needs to be connected to make and check the adjustment whilst the cover is removed, and therefore live terminals are exposed during the adjusting process.

The cams are secured to the output shaft with stainless steel circlips which create an interference fit of the plastic cams to the shaft.

They are adjusted using a special tool which simply forces the cam to move around the fixed shaft.

Only very slight movement of the cam on the shaft is required.

Check the direction of rotation of the cam relative to the switch it is activating as the open and closed cams activate in opposite directions.

Adjustments are by trial and error, move them a little and check the result by powering up the actuator and stroking it.

Repeat until the desired position is set.

(When you have more experience of adjusting the cams, they can be adjusted whilst the power is on - holding the tool in place whilst the actuator is stroked forces the cam to move as the shaft rotates.)

**** Warning : Take care not to knock the large vertical cylindrical capacitor in the corner of the PCB near the cams when adjusting the cams as it will break away from the PCB and the actuator will be irreparable.****

Replace the cover

- 1 If, when removing the cover, the cover shaft seal and retaining clip remained on the shaft, remove them from the shaft by sliding them off, and refit them into the recess in the top of the inside of the cover (O ring seal first, then the plastic C clip).
- 2 Align the cover over the base and before pushing the cover over the shaft, ensure the cable path is the same as when the cover was removed, otherwise the cables can get trapped between the top of the motor and the cover.
- 3 Gently push the cover over the shaft, and ensuring that no cables have been trapped between the cover and the base, push the cover down fully. If the cables are trapped, the cover will not smoothly sit down on the base.
- 4 Replace the 6 cover cap head screws.
- 5 Replace the pin through the shaft.
- 6 Push the black handle over the pin.
- 7 Ensure the DIN plug seals are replaced when refitting the DIN plugs, failing to do so will allow water ingress and invalidate the warranty.