

### VR / VS ACTUATOR POSITION STOP ADJUSTMENTS

1. Remove actuator cover, lifting vertically. DO NOT rotate.
2. Four cams are present. The lower two cams are for position stops and the upper two cams provide position output.
3. Use of output position switches is optional and not required.
4. Output cams are always set approximately 10° ahead of stop positions.
5. Cams are held in place on the main shaft by friction provided by the spring clip force.
6. Black lower cam is for close setting. White second up cam is for open setting.
7. Cams can be rotated by gripping with needle nose pliers or with a special CR-TEC cam tool. Contact CR-TEC to obtain tools.
8. Power the actuator open and close to observe the turn direction and where it stops. Close turns are clockwise, and open turns are counter-clockwise.
9. If it stops early, retard the cam slightly to allow more travel.
10. If it turns too far, advance the cam slightly to reduce travel.
11. It usually takes a few setting attempts to make position stops perfect.
12. Replace actuator cover lowering into place vertically. DO NOT rotate.
13. Mechanical stops are visible M8 bolts and lock nuts. They provide a last chance stop should position switches fail. When the actuator hits a mechanical stop, an electronic torque limiter powers off the actuator. The actuator can be re-activated by reversing direction electrically, or just by switching power off and on. Repeatedly driving an actuator into mechanical stops will eventually break internal gears. *Mechanical stops are factory set and not recommended to be user adjusted.*
14. Contact CR-TEC for additional assistance and technical support.

