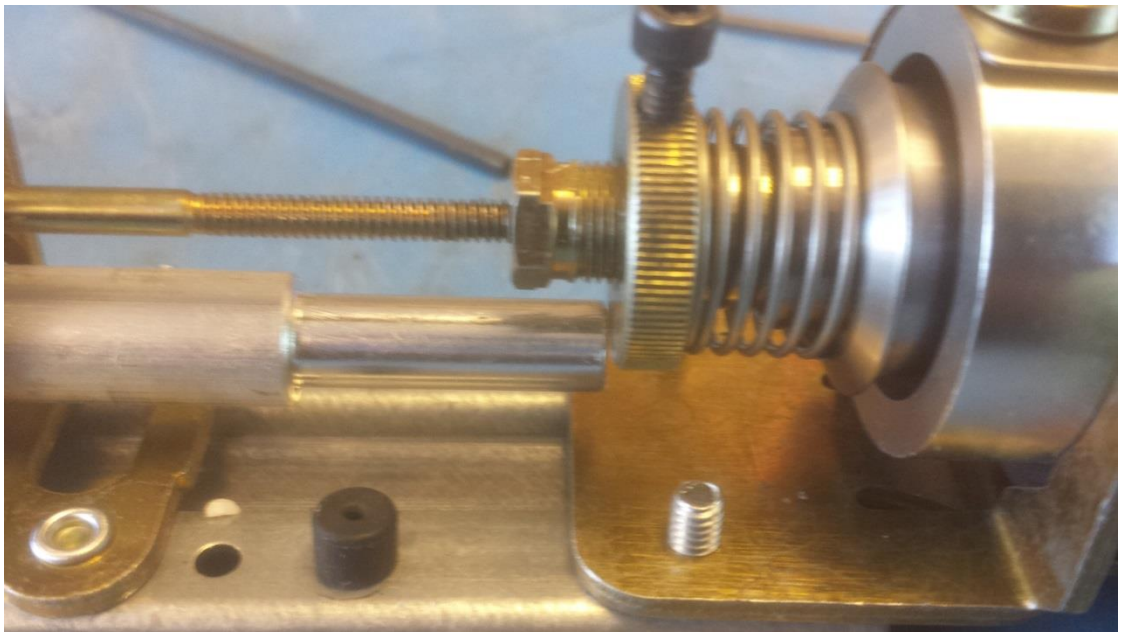
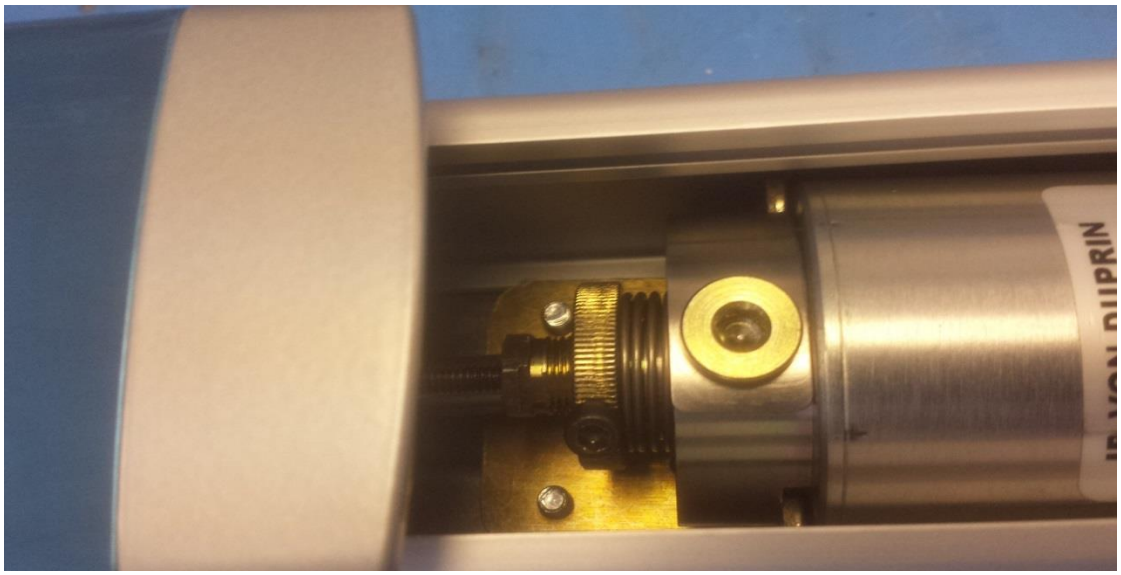
## EL DEVICE SET UP

The following instructions and descriptions will allow you to set up the Von Duprin EL Device and to test the correct operation.

Mechanical settings

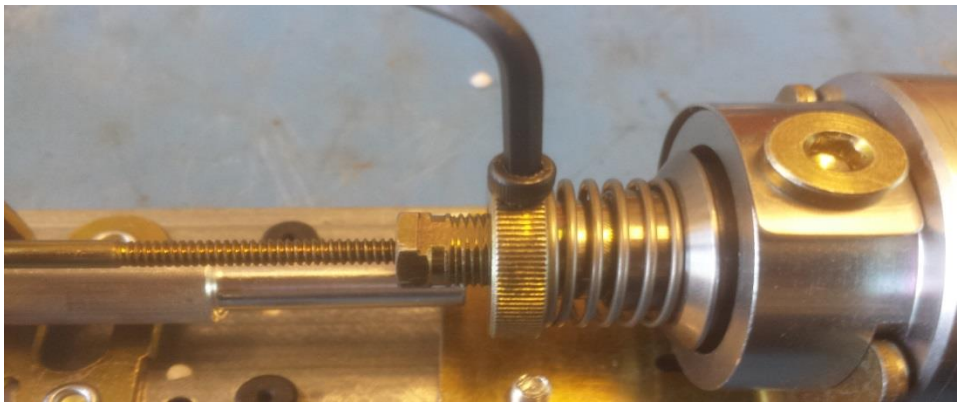


This photo shows the normal position of the plunger and dogging rod, with the latch released. If you now push the push bar you will see the plunger retract. The aluminium rod should have minimum clearance here and act on the latch positively through the dogging rod and when the push bar is fully depressed the plunger should be as below and the latch fully retracted:



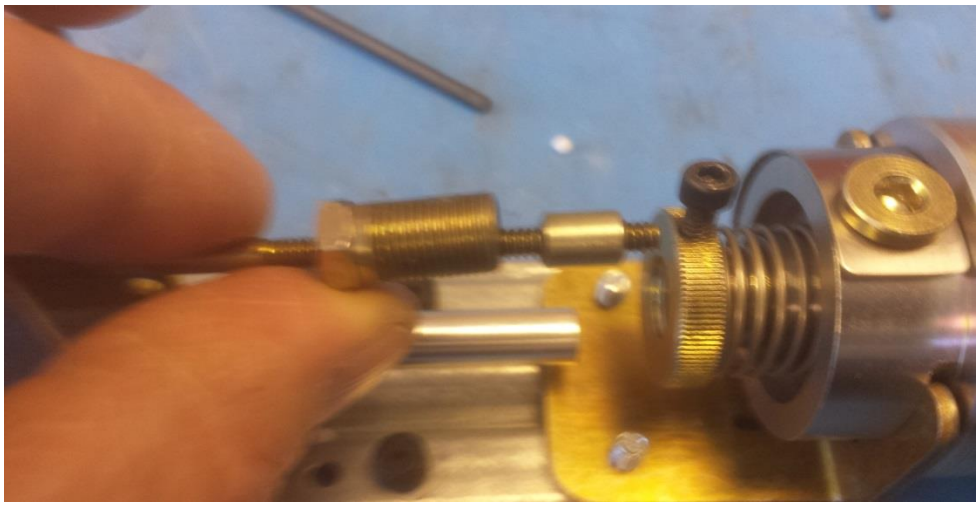
Adjustment

If the plunger is not home correctly after the push bar is depressed or the latch is not retracted , adjustment will need to be made to the overall length of the dogging rod.



Undo the cap head locking nut and undo the retainer nut as below

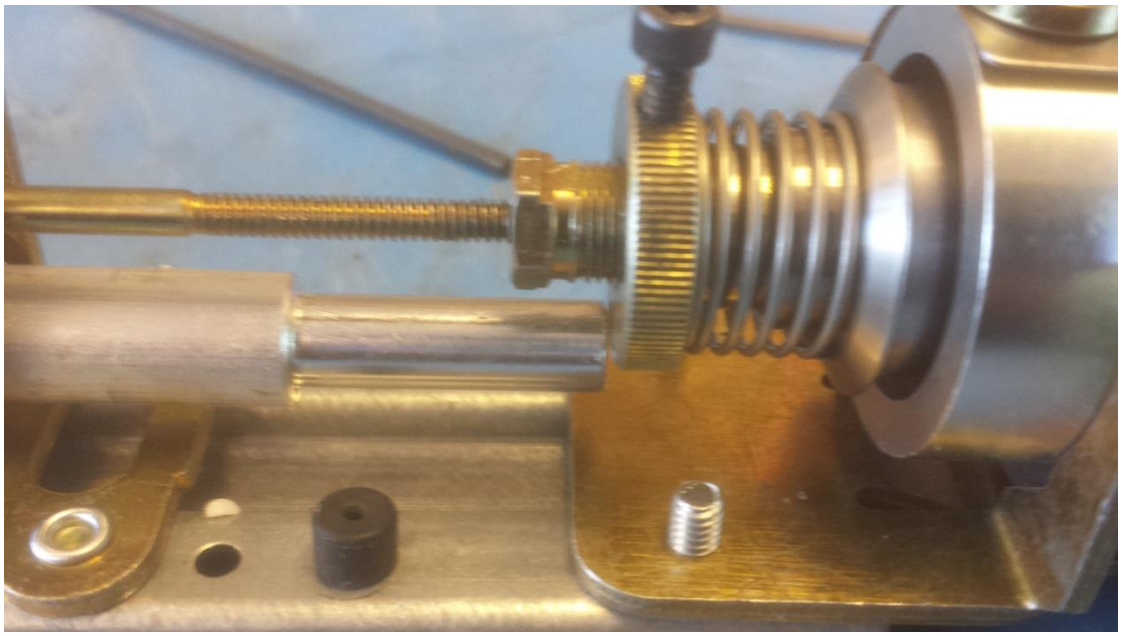
This will give access to the dogging rod threads



The smooth threaded end stop is the determinig factor and should be threaded on with 7 threads showing(as a start point) to the right, before threading the retainer nut back into the knurled nut, you may wish to use threadlock here once set.

Check Operation

Once reinstalled, secure the locking nut(cap head) on the flat edge of the retainer ring.



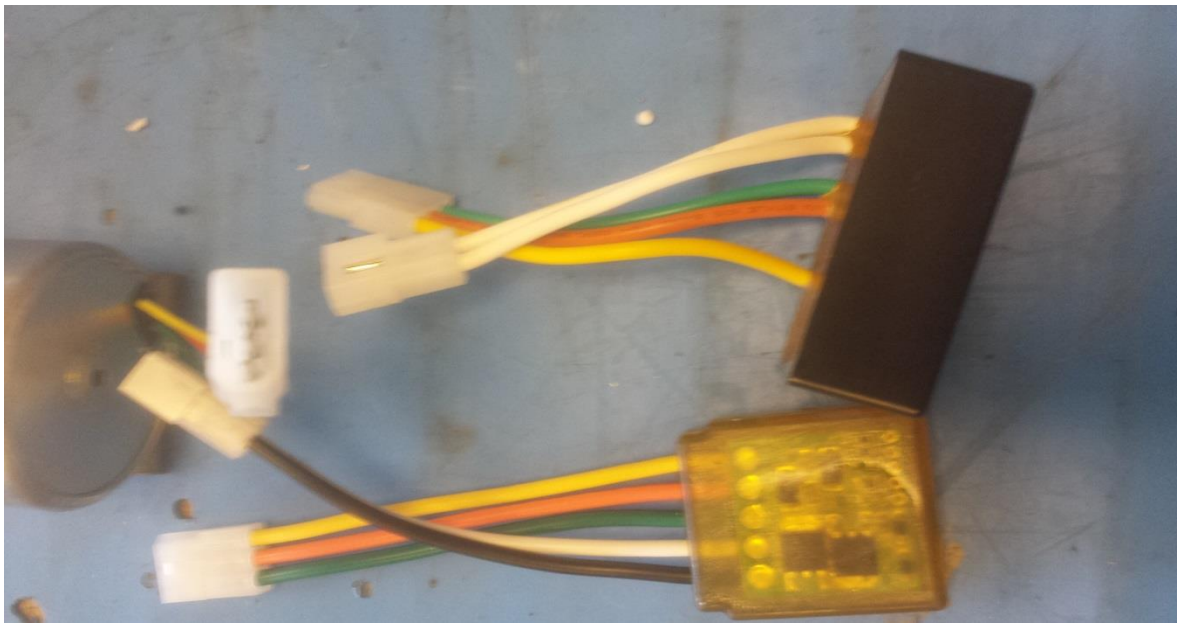
If you now push the push bar you will see the plunger retract. Release the push bar and now hold the knurled nut and by hand, push the plunger into the solenoid fully and check the latch is fully retracted. There shouldn't be much play here and positive movement of the latch should be felt and the gap above should also be minimal. The aluminium rod should have minimum clearance here and act on the latch positively through the dogging rod and when the push bar is fully depressed the plunger should be as below and the latch fully retracted

Once all of the mechanical operation has been tested and set. This is now complete and the electical operation can be checked.

Electrical Operation

The device is 24v d.c and requires a voltage for longer than 2 seconds to operate correctly. Any access control signal must be set to this as a minimum, ideally longer.

When voltage is applied the POTTED CCT BKR a timer is set, this applies voltage to both coils within the solenoid and provides the required power for half a second to retract the plunger into the solenoid and retract the latch. After this half a second the plunger should be in the solenoid and latch retracted enough for a single coil inside the solenoid to hold the latch retracted.



Resistive value

The solenoid has three wires, orange(centrepin) is common connected to both sides of the coils and green and yellow are the other ends of 2 coils. The readings on OHMS of these coils will be from orange to green and orange to yellow and in the range of 116 to 120 Ohms. This will prove the coils and solenoid.

Now if 24V is applied the latch will retract fully and hold in the solenoid for as long as the voltage is applied to the black and white cables (not polarity conscious).

As the mechanical set up has been checked, a constant voltage supply guaranteed and the solenoid winding verified. The only component at fault will be the Potted Circuit breaker.