

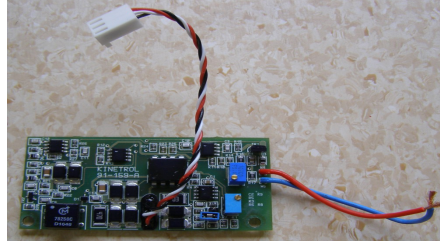
Title: Illustrated guide for retro fitting an Angle Retransmit Card to a Kinetrol EL Positioner

INTRODUCTION

These instructions are as a supplement to the Kinetrol maintenance instructions TD76 and explain how to fit an Angle Retransmit circuit board in to an EL Positioner.

Angle Retransmit

Spares Part Number – SP1018



Angle Retransmits can not be retro fitted to Atex Approved EL Positioners if they were not part of the original supply.

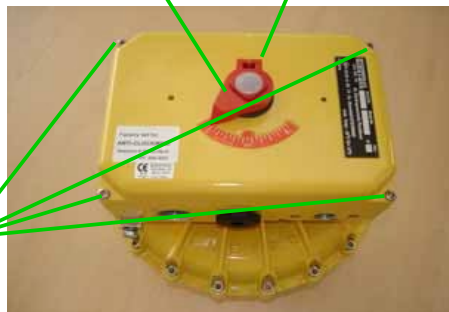
PART 1 – REMOVING THE CARRIER PLATE ASSEMBLY

- 1.1 Remove the screw from the red position indicator and slide the indicator upwards and away from the shaft. Remove the four retaining screws which hold the lid in place, the lid can then be removed.

Red position indicator

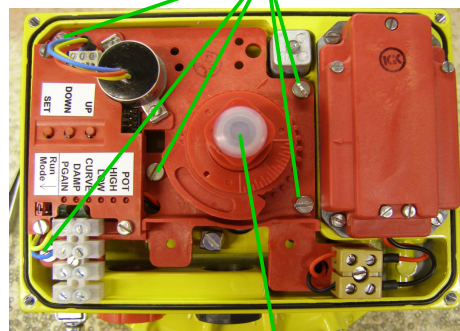
Position indicator screw location

Four lid retaining screws



- 1.2 Remove the white plastic plug from the top of the shaft and the 5 retaining screws holding down the carrier plate.

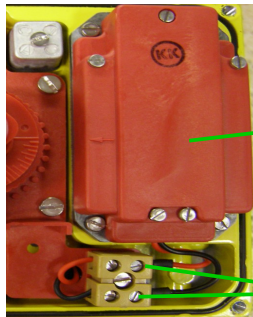
Carrier plate retaining screws



White Shaft Plug

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- 1.3 Disconnect the servo valve wires from the terminal block and pull free from the block. The servo valve can remain in place.



Servo valve

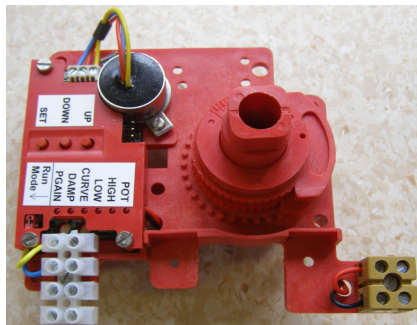
Disconnect servo valve red and black wires from the terminal block

- 1.4 With the white plug removed from the shaft you will see a screw at the bottom which can be undone.

Leave the screw in the shaft and lift the carrier plate upwards.



- 1.5 The carrier plate can now be removed and lifted free from the housing



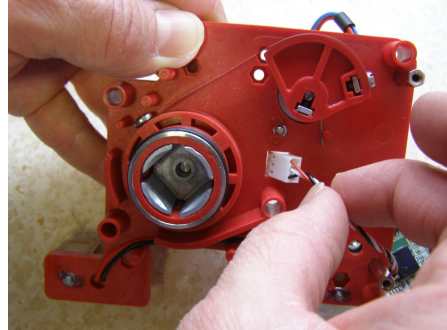
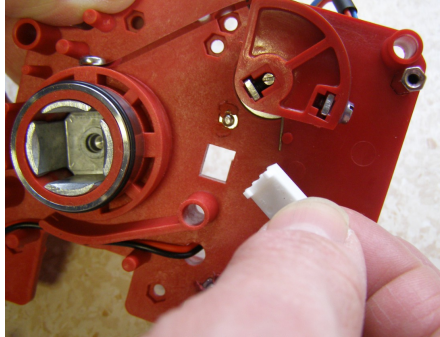
- 1.6 With the circuit has been removed, it is advisable to mark the position of positioner shaft with a permanent marker to ensure the shaft remains in the same position.



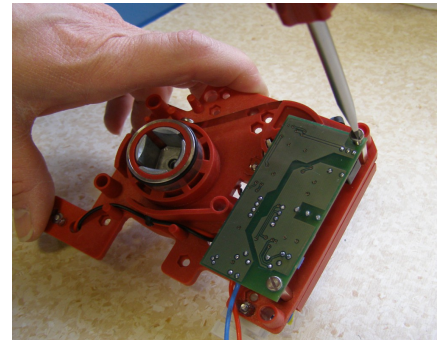
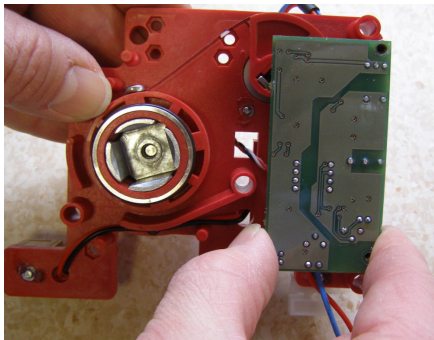
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PART 2 – FITTING THE ANGLE RETRANSMIT ON TO THE EL CARRIER PLATE

- 2.0 Turn the carrier plate over and thread the white connector plug on the angle retransmit circuit through the square hole in the centre of the carrier plate.

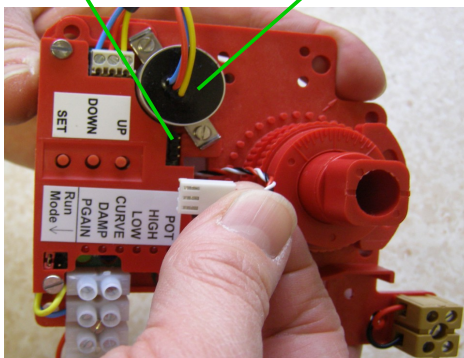


- 2.1 With the bottom of the angle retransmit board now facing you, secure the board with the Two screws provided on to the two pillars on the right hand side of the carrier plate. Use a small amount of thread lock compound to help secure the board in to position.



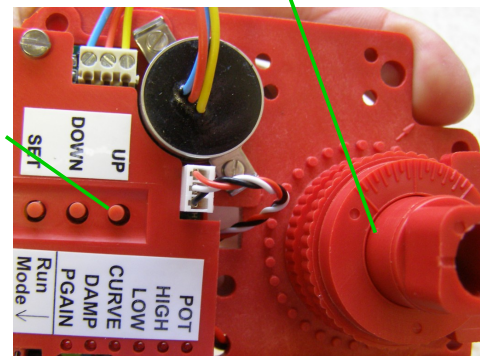
- 2.2 Turn the board back over and push the white connector from the angle retransmit on to the three pins located next to the pot. The white plug only fits one way, with the two legs of the plug facing away from the up button and towards the coupling, do not force the plug on.

Three pins connection Pot



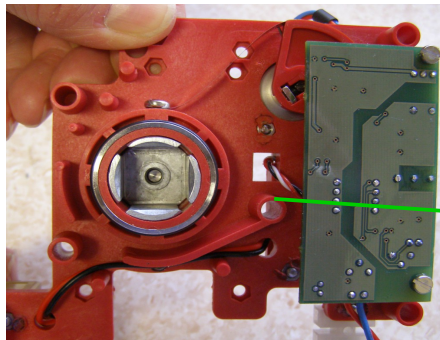
Coupling

Up button



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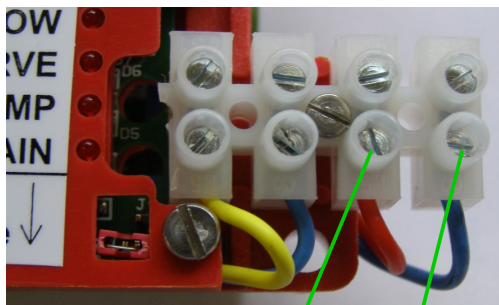
- 2.3 Turn the board back over and ensure that cables from the white connector are moved away from the carrier plate leg.



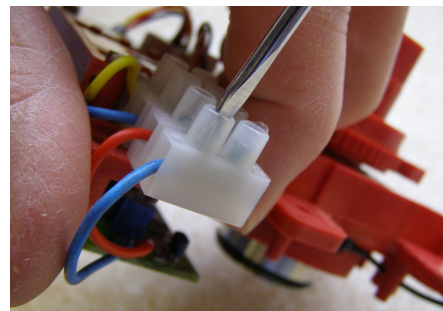
Ensure the cable does not get caught on the leg

- 2.4 Turn the carrier plate over and you are now ready to connect the red and blue wires from the angle retransmit circuit board.

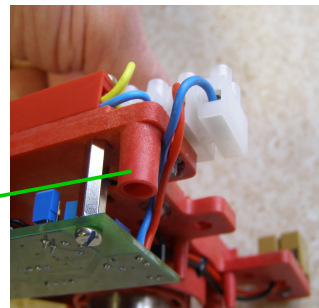
Connect the red wire into the third terminal connection.
Connect the blue wire into the fourth terminal connection



Red wire from AR Blue wire from AR



- 2.5 Ensure the red and blue wires are moved out of the way of the carrier plate leg.

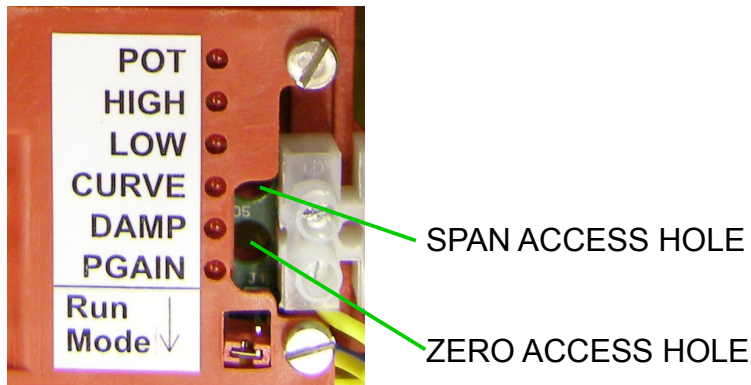


Carrier plate leg

- 2.6 The complete carrier plate now including the angle retransmit can be fitted back into the EL Positioner box, refit the central screw, and the plastic white shaft cap, the 5 x screws holding the carrier plate assembly and reconnect the wires to the servo valve assembly (the reverse of sections 1.1 to 1.3 of these instructions).

PART 3 – SETTING THE ANGLE RETRANSMIT

3.0 It is now necessary to set the angle retransmit, first you need to access the ZERO and SPAN pots which are accessible using a small instrument screwdriver through the two access holes in the positioner circuit.



3.1 Connect the air supply, positioner signal and angle retransmit current.

3.2 To set the ZERO, move the positioner to its minimum signal position (usually 4mA), and set the ZERO preset pot to the desired retransmit current.

3.3 Then set the SPAN by moving the positioner to its maximum sign position (usually 20mA) and adjust the SPAN preset to give the desired retransmit current.

3.4 Recheck and adjust these two settings until both are correct – as SPAN is adjusted it has a small effect on the ZERO and vice-versa.

If you are using the unit with restricted travel please refer to TD76 4.14 for details.