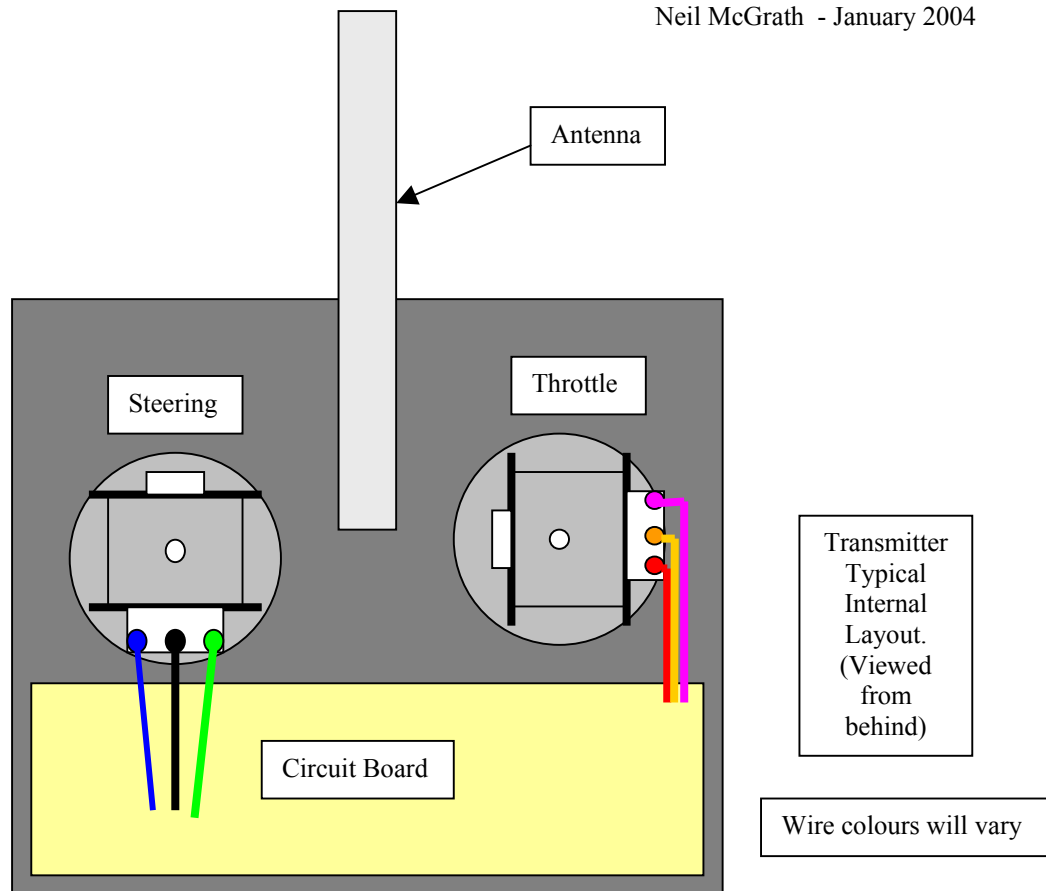


Add adjustable servo throw to your transmitter

Neil McGrath - January 2004

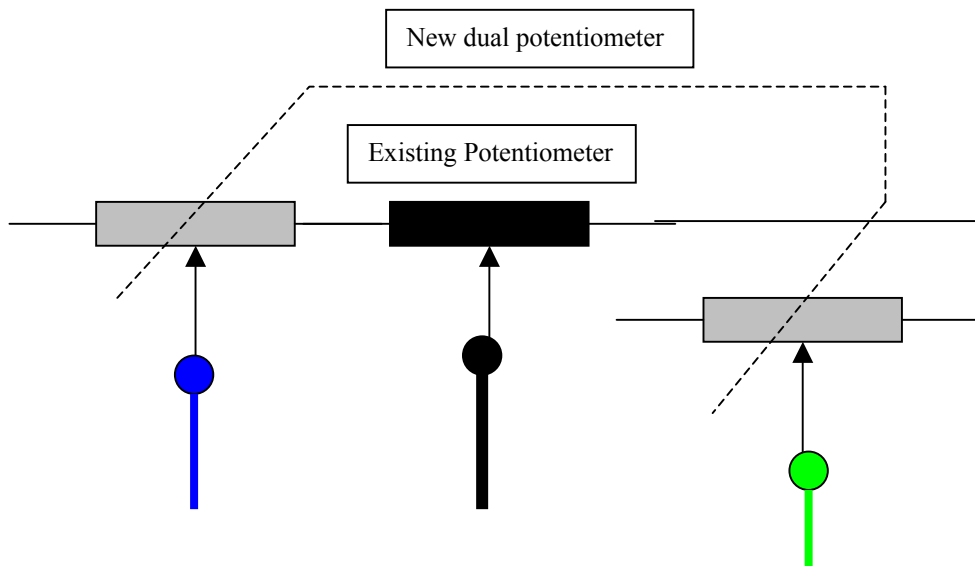


WARNING

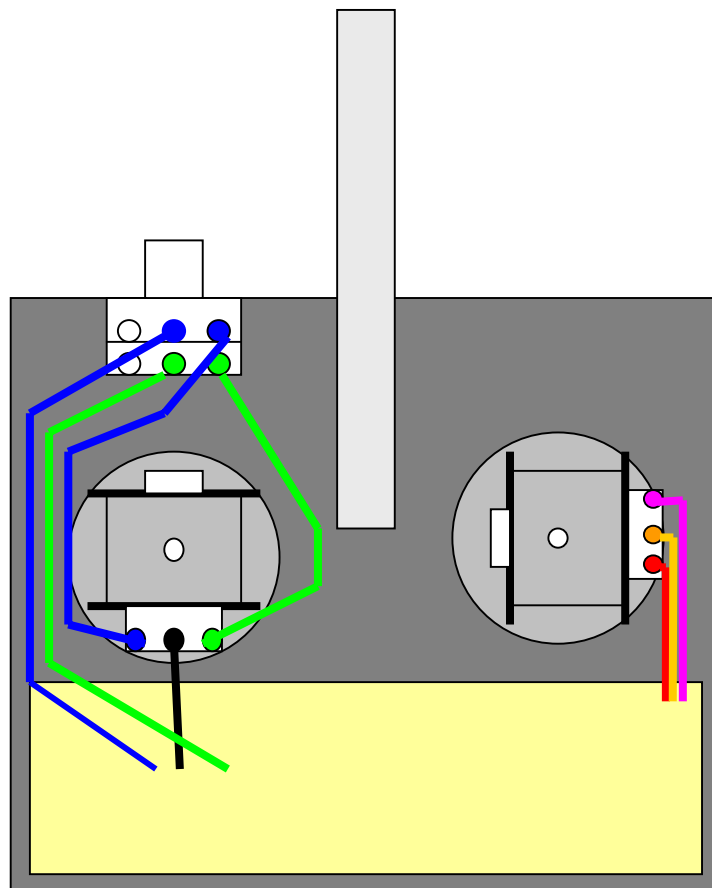
Before I start this explanation, I must stress that this method is only intended as a guide to how I managed to add adjustable servo throws to my transmitter. The transmitter modification is only intended for the more experimentally minded hobbyist, who is used to working with electrical wiring and electronic components. The modification was applied to a Maplin AM27MHZ transmitter. Other makes of transmitter use similarly rated components, which should work in the same way, but you must realise that I have no way of checking compatibility with other makes of equipment. Please note that you will invalidate any guarantees if you carry out this modification.

Method

1. Remove the batteries from your radio and remove the back panel.
2. The steering stick mechanism will be on the left and the throttle on the right.
3. On a two channel radio, a single small potentiometer will be attached to each of the stick mechanisms. This device is attached to three wires. Make a note of the colour of each of the wires.
4. A 4.7K Ohm miniature dual linear potentiometer is required. This should reduce the servo travel by about 2/3rds. Check that there is sufficient space within the transmitter case to mount the device. If there is insufficient space you could use a pair of pre-set potentiometers but you would need to open the transmitter to adjust the servo throw. Both pre-sets will need to be set to the same position or the servo trim will be affected. You could try to limit the servo travel further by using a 10k Ohm resistor. I have not tried this but would like to hear if it is successful.



5. Desolder the two outer wires from the potentiometer and connect to the new potentiometer as shown in the diagram. *Do not mount the potentiometer yet as you can reverse the modification if it does not work.*
6. Check your wiring , then replace the batteries in the transmitter.
7. Switch on and check the throw of your servo. Turning the potentiometer anti-clockwise should reduce the range of servo movement. You may need to adjust the servo trim slightly to keep it centred at different settings.
8. The same modification could also be applied to the throttle channel if required.
9. When you are satisfied that the modification is working correctly, drill the hole and mount the potentiometer, then screw the back on the transmitter.



If you do try this modification , please drop me a line stating the type of radio you are using and the success or otherwise of the procedure.