

Technical write-up:

Capacitor & Motor Wiring Illustration

Technician:

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lease note:

This article is designed to be used as a reference guide and not a step by step how-to-guide.

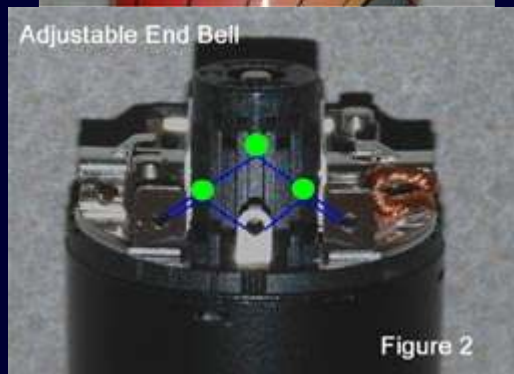
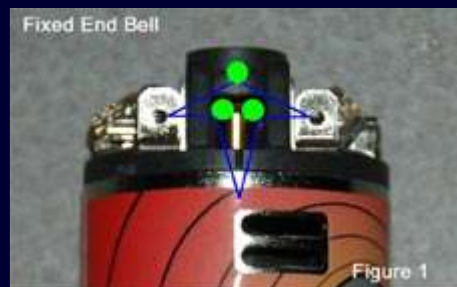
Let's get started...

There are several motors currently being used for crawling. Some of the most common motors used are the stock 540 Mabuchi/Johnson motors, 55x1 Modified Lathe Motors and the famous Kyosho Monster Meyhem.

We will be focusing primarily on the 55x1 Modified Lathe motors but I will indicate any necessary changes as they pertain to the other motors listed above.

Capacitors...

The first step is to solder on the capacitors. The type of capacitor used for this application is a 0.1 μ F (50V) capacitor. The type of end bell the motor has will determine how the capacitors are installed. The images below show the proper installation of the capacitors on each type of end bell.



Reversing Timing...

For the Juggernaut and TXT-1 type transmissions it is not necessary to reverse the

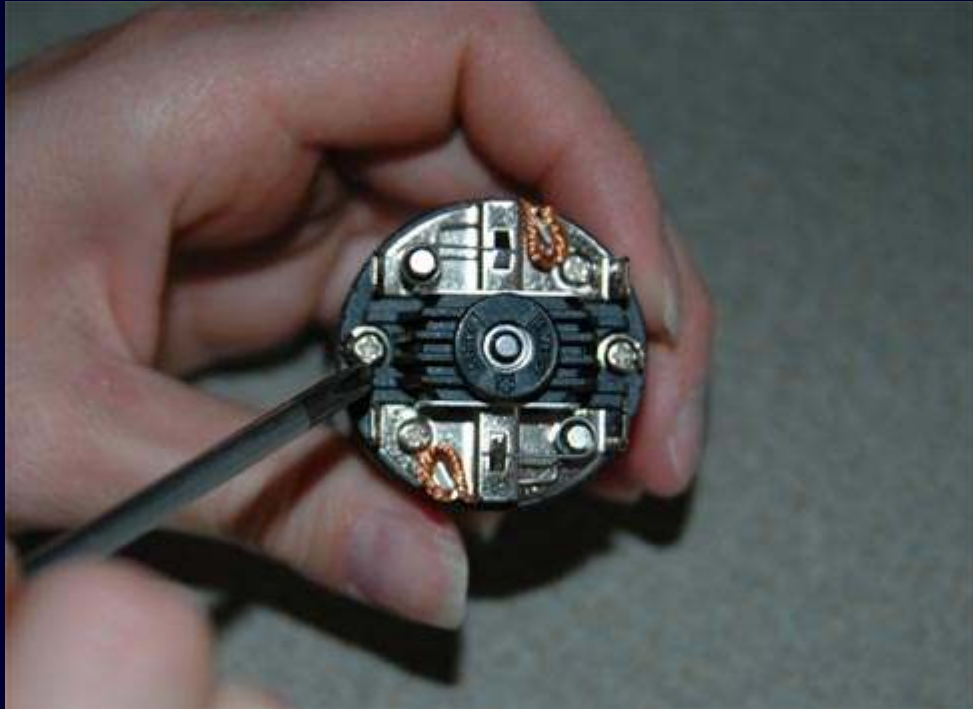
winding of one of the motors. However on the Clodbuster style tranny's it is.

For the stock 540 Mabuchi/Johnson style motors this can be done by simply wiring the motor backwards (positive to negative and negative to positive). For the Monster Meyhem motors they are available as a reverse rotation motor and can be purchased as such. On motors with an adjustable timing you can simply reverse the timing 180 degrees in order to reverse the rotation. Below is a brief illustration, showing how to reverse the timing.

The first step is to mark the can of the motor with a line that matches the 0 degree timing mark on the end bell. Most adjustable end bell motors have two 0 degree timing marks, one across from the other. This will allow you to rotate the end bell 180 degrees accurately.



Once the can is marked you will then want to loosen the end bell screws.



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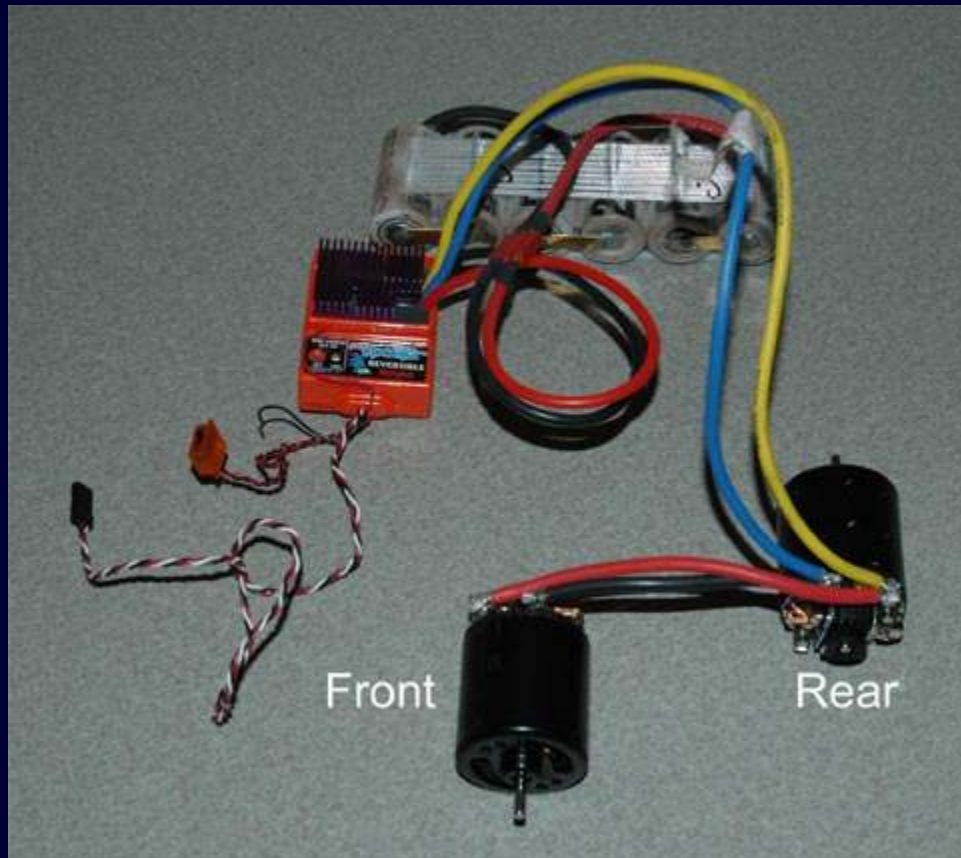
At this point you can then tighten the end bell screws to finish the process.

Wiring...

Let's now take a look at wiring up the motors for a Clodbuster style crawler. Remember

that a Clodbuster based crawler requires that the rear motor turn opposite of the front i.e. reverse winding.

The illustration below shows the proper wiring for a parallel sequence.



Notice how the wiring from the Electronic Speed Control is soldered to the rear motor. A common problem with this wiring setup is that the motor with the most amount of resistance stalls, typically the rear. By wiring up the rear motor first you are effectively provide power to that motor first thereby reducing the motor stall effect.

I hope that the illustrations where helpful. If you have any comments or questions, send them to:

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