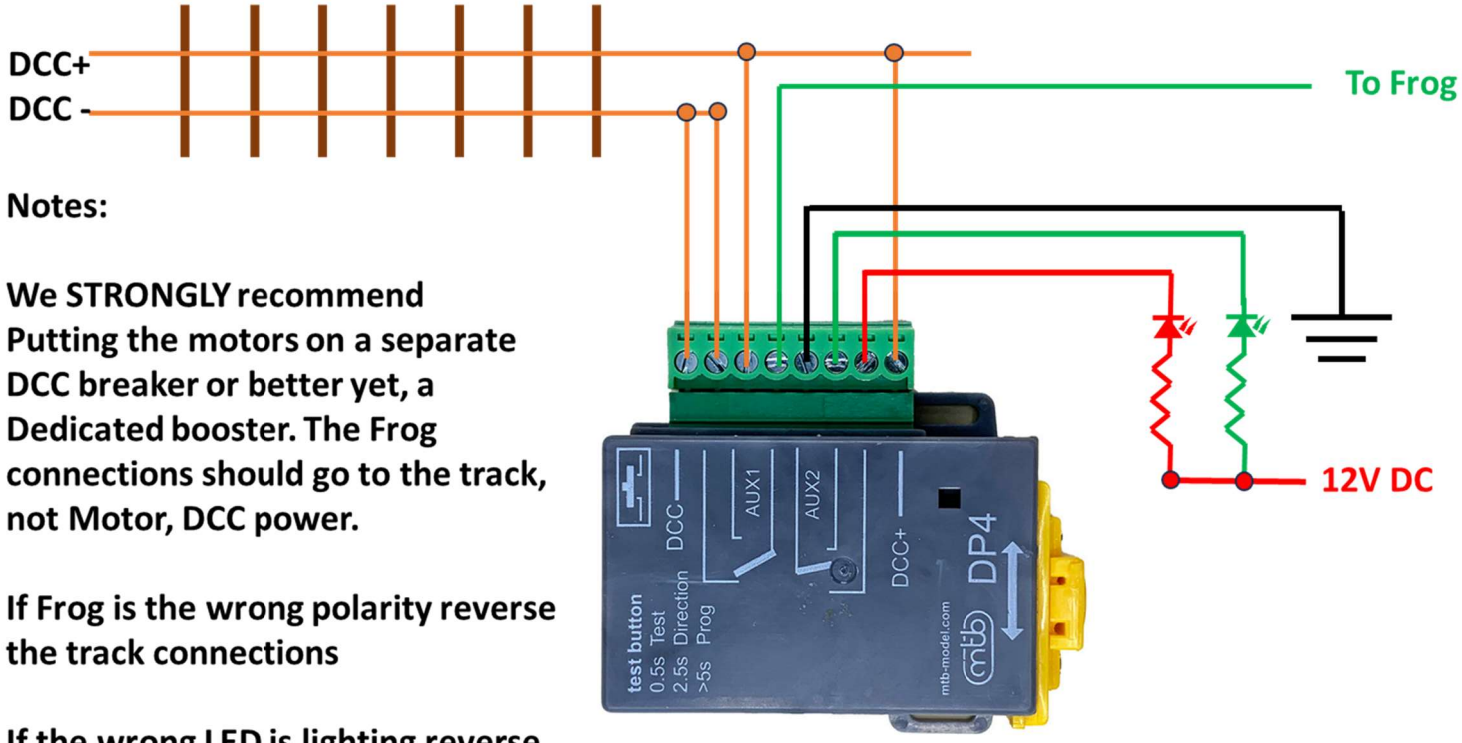
# DP4/DP10 Motor Quick Start Guide:

Thanks for trying an DP series motor! Here are a couple of things to remember:

1. DP[4/10] Motors are essentially MP[4/10] motors with internal accessory decoders. They draw power and control information from a DCC bus. We recommend you use a separate power station (booster) or at least a separate circuit breaker bus so that a locomotive running a switch won't short out the motor power, preventing you from clearing the short. Since they're powered by the DCC bus, **you can't put a bicolor LED in series with the motor**, (if you want LED control, use the 2nd contact for the LEDs).
2. The rigid actuating pin requires very precise alignment and, in many cases, moving the cam travel adjustment pin (factory setting is 6mm). I strongly recommend using music wire (0.032, 0.039 or 0.047) in place of the supplied rigid "rod-needle" pin. (See the one-sheet instructions or the back of our brochure on MP4 and MP10). K&S Metals sells music wire and it is available at most hobby shops and hardware stores. https://ksmetals.com/collections/music-wire
3. The "ears" on the DP4 are sized for metric M2.5 screws. These are available from specialty hardware vendors and major online marketplaces.
4. Your shipment should include a "goodie bag" that includes the "rod needle", spare cam pin(s) and the connector. These may be included in the bag with the switch motor. Do not lose the goodie bag: we have very limited supplies of extras and may not be able to get more until our next shipment. Note the cam pins must be griped carefully or they will fly off into Kadee-coupler-spring land or get eaten by the "carpet monster" <g>.
5. There is no "center off" position on MP/DP Motors, so when mounting the motor, check which end you're aligned with and position the motor so it's at one rail or the other. Using music wire (see 3 above) will make this easier. We also make mounting adapters with slots to aid this process. These adapters can be used as rigid drilling templates.
6. If you can position the motor so that you can get at the screw in the middle of the slider (that is: not up against a joist), you can finish alignment and then drop the pin to the desired height without having to cut anything. You can also adjust the side-to-side position by loosening and then tightening the two outboard screws on the slider.
7. There are lots of wiring examples and questions answered in the MP Motor Wiring and Control Application Note which can be found on any of the MP Motor product pages on our website or directly at https://www.modelrailroadcontrolsystems.com/content/MP%20Motor%20Wiring%20Application%20Note.pdf
8. If you have more questions, please contact us at sales@modelrailroadcontrolsystems.com
9. If you encounter a DCC control failure with a DP Motor (this is still a new product), please notify us immediately and we will send you a replacement in kind. I'll send you a return label (use the box the replacement came in) and please return the failed motor as soon as possible so we can inspect it and forward it to MTB. Please let us know what DCC system you are using, how far from the booster the motor is and anything that you feel may be impacting the DP's ability to respond to DCC commands.

https://www.modelrailroadcontrolsystems.com/switch-motors-drivers-mounts-etc/

# DP4/10 Connections




**Notes:**

**We STRONGLY recommend Putting the motors on a separate DCC breaker or better yet, a Dedicated booster. The Frog connections should go to the track, not Motor, DCC power.**

**If Frog is the wrong polarity reverse the track connections**

**If the wrong LED is lighting reverse the connections to the LEDs**