

MP Motor Quick Start Guide:

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

1. MP Motors are not servos (they don't need a servo controller) and they are not stall motors. MP Motors draw about 150 mA for 3 seconds while moving -- this is more than many stall motor controllers such as the Hare* by DCC Specialties, or the Switchit/Switch8 from NCE, can supply. It also means **you can't put a bicolor LED in series with the motor**, (if you want LED control, use an MP4, 5, or 10 and use the 2nd contact for the LEDs) as they shut off and draw no power until you move the motor again. The closest thing to MPs are the old PFM/Fulgerex machines.
2. I strongly recommend using 12VDC to power these switch motors. We offer 12V "wall warts" but you can buy them at the same prices we do from any of the on-line marketplaces and save yourself a few dollars.
3. 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>
4. The "ears" on MP1, MP4 and MP5 are sized for metric M2.5 screws. These are available from specialty hardware vendors and major online marketplaces.
5. Your shipment should include a "goodie bag" that includes the "rod needle", spare cam pin(s) and the connector (except MP1 which has a fixed terminal block). 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 gripped carefully or they will fly off into Kadee-coupler-spring land or get eaten by the "carpet monster" <g>.
6. There is no "center" position in MPs, 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 also be used as rigid drilling templates.
7. 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.
8. The easiest control method is to use the 3-wire connection and an SPDT toggle switch.
9. 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>
10. If you have more questions, please contact us at sales@modelrailroadcontrolsystems.com

*We offer the Jack Wabbit Quad from DCC Specialties that works well with MP Motors.

