



# PROFESSOR MOTOR

Thank you for purchase of the Professor Motor “CLUB RACER SEMIPRO” Model Electronic Controller - PMTR2121

Intended application : HO 1/32 & HO, home, club and commercial track racing through JK Falcon & 16D Motors

This model features the following high quality features

- Recommended operating voltage range 14 to 19 volts DC
- **POSITIVE POLARITY** (not for direct connection to home set power base)
- Variable Sensitivity system with single knob external adjusting knob
- Low friction brass/steel trigger bushing system
- “Platinum Series” ultra robust design features
- Self resetting electronic circuit breaker to help prevent damage from accidental short circuit
- Extra long, heavy duty 13 gage super flexible, high temp silicone controller leads
- Solid copper alligator clips with color coded vinyl insulating boots
- High impact polycarbonate plastic molded handle
- Low friction silver wiper button with nickel plated wiper contacts
- Stainless steel hardware throughout
- Upgradeable modular design

#### Use & Care Instructions

- Sensitivity Adjust - Adjust the silver color-coded knob with the white line “up” for MINIMUM sensitivity. Turn that knob counter-clockwise to increase the sensitivity (provide more power to the car on initial application of the throttle).

**Caution !** : Regular maintenance is required to keep the controller contacts clean and free from foreign objects & debris. Failure to properly clean, lube and maintain the contacts will cause the controller to fail, will allow the car to be driven without the throttle being depressed and can result in the wire wound pots used for sensitivity control (or brakes if added) becoming short circuited & damaged. Please take this warning seriously and follow this process to keep the contacts clean & properly lubricated :

1. Remove the front half of the controller case by loosening the three bolts
2. Clean all debris from the nickel-plated contacts and surrounding area with a Q-Tip and lighter fluid
3. The sliding contacts can **MUST** be CAREFULLY lubricated to reduce contact wear and provide a smoother controller action (every 1-2 weeks of racing) as follows :
  - a. Place a SMALL amount of SUPER LUBE PTFE Oil on the end of a Q-Tip & apply to the nickel contacts where the silver alloy contact travels
  - b. Cycle the trigger a few times
  - c. Use a Q-Tip with lighter fluid to remove any excess lube outside of the area where the contacts meet (remove 90% of the lube you just applied)
  - d. Examine the contact area to insure that cotton fibers from the Q-Tip are removed and that residual lube is minimal & barely visible
4. Repeat this cleaning / lube process on a frequent basis (every 1-2 weeks) for best results.

- Periodic Maintenance – lube the trigger pivot bushing with plastic compatible oil

#### Optional Upgrades

- Power Relay System PMTR2037 – more positive low resistance path at Wide Open Throttle
- Variable brake system (PMTR2039/2040/2041 – 2040 recommended for scale 1/32 racing)
- Power relay system (PMTR2037)
- Power pilot light (PMTR2030)
- Heat sink (PMTR2001)

For technical information, questions or the latest catalog of available service parts and upgrades please visit us on the World Wide Web : [www.professormotor.com](http://www.professormotor.com)