



# PROFESSOR MOTOR

Thanks for purchasing the “SCALE RACER ULTRA PRO” Electronic Controller PMTR2108

Intended application : HO, 1/32 & 1/24 Home & Club Racing Through Group 12

This model features the following high quality features

- **Recommended operating voltage range 14 to 19 volts DC**
- Wired for **POSITIVE** polarity tracks
- Variable Braking System (high quality 25 Ohm wire wound pot to vary brake performance)
- Variable Sensitivity System (high quality single turn wire wound pot to adjust sensitivity setting)
- Electronic “Supreme Series” high current capacity external transistor design with ultra wide range of control
- Fault tolerant ultra robust circuit design to protect against overload or short circuit damage
- High capacity dual external aluminum heat sinks with remote mount for reduced handle weight
- Fully functional in 2 wire (non-brake) applications
- Integral wire strain relief to reduce wire fatigue at bottom of controller handle
- Power pilot light LED system
- Integral blast relay system for better performance at WOT (wide open throttle)
- Electrically isolated heat sink system with shielded transistor to prevent accidental short circuits on controller posts
- 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
- Stainless steel hardware throughout
- Low friction carbon wiper button with gold plated ultra hard nickel plated contact surface requiring no lubrication

## Use & Care Instructions

- **Brake Adjust** – Adjust the red color-coded knob with the white line “up” for **MAXIMUM** braking effect. Turn that knob counter-clockwise to reduce braking effect.
- **IMPORTANT TECH TIP !** – When finished racing turn the brakes always to the “full on” position to allow the circuit breaker in the system to protect the brake potentiometer if accidentally misconnected when next racing
- **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 (more power to the car on initial application of the throttle).

## Routine Maintenance

1. Remove the front half of the controller case by loosening the three bolts
2. Clean all debris from the gold plated contacts with a Q-Tip and lighter fluid
3. Lube the controller pivot bushing with plastic compatible oil
4. Repeat this cleaning / lube process on a periodic basis (every 2-3 weeks) for best results.

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)