

QuickTune™ MODES CONT	IMPORTANT LED CODES	TROUBLESHOOTING CONT	BRUSHLESS MOTOR WIRING DIAGRAM	BRUSHLESS MOTORS
 LED6: MOTOR TYPE Brushless, Fwd/Brk (LED1 ON) Brushless, Fwd/Immediate Rev (LED1-LED2 ON) Brushless, Fwd/Brk/Rev Delay (LED1-LED3 ON) Brushed, Fwd/Brk/Rev (LED1-LED5 ON) Brushed, Fwd/Brk/Rev Delay (LED1-LED6 ON) Brushed, Fwd/Brk/Rev Delay (LED1-LED7 ON) Brushed, Fwd/Brk/Rev Delay (LED1-LED7 ON) ED7: VOLTAGE CUTOFF Immoration LED7: VOLTAGE CUTOFF Immoration LED7: VOLTAGE CUTOFF MPORTANT If using LiPo batteries, ensure a proper Voltage Cutoff is programmed. 3.2 Volts (LED1 ON). 1 Cell LiPo (1S) and NiCd/NiMh 6.4 Volts (LED1-LED3 ON). Use for 2 Cells LiPo (2S) 9.6 Volts (LED1-LED3 ON). Use for 3 Cells LiPo (3S) LED Display: The LED light bar displays values and settings on your speed control in a few ways. Settings with a range of 1-7 are shown by just one LED at a time. Settings with a vider range of 1-13 are shown by a combination of 1 and 2 LEDs at the same time. While adjusting, the LEDs will "walk" up the ladder in a way that 1 will be lit, followed by 1&2, then 2, then 2&3 and so on. Critical settings (such as Motor Type and Voltage Cutoff) are always indicated by multiple LEDs at a time to ensure proper adjustment. 	Your ESC is an intelligent piece of equipment and can usually tell you exactly what the problem is. Refer to this section should your ESC show you any LED sequence out of the ordinary. You can also go to www.teamtekin.com/eschelp.html to see these codes in action. Each code will FLASH rapidly:ALL LEDS FLASHING BREASENo signal from receiver. Check that receiver bind light is on and ESC is plugged into CH2.LEDS 1, 2, 6 & 7 BREASEWrong motor type, motor wire disconnected or internal short in ESC or motor detected. Check motor wire solder joints and plugs. Motor wire disconnected.LEDS 1, 2 & 3 BREASELOW neutral signal. Adjust radio trims to center and perform radio calibration.LEDS 5, 6 & 7 BREASEHIGH neutral signal. Adjust radio trims to center and perform radio calibration.LEDS 1, 3 & 5 BREASELOW VOLTAGE CUTOFF. Battery voltage is below programmed voltage cutoff. Charge battery.	 LEDS 1, 2, 6 & 7 FLASHING Wrong Motor Type Selected. Internal ESC or Motor Short Detected. Loose or cold solder joint on a motor wire. Try a different brushless motor. NO REVERSE Motor Type set to MT1 (no reverse.) Motor Type set to MT3 (reverse delay.) Needs 1 full second in neutral before reverse will activate. NO BRAKES Check transmitter Low Throttle EPA adjustments. Check for proper radio calibration. All LEDs should flash at full throttle and full brakes/reverse. MOTOR RUNS WITH NO THROTTLE INPUT Set transmitter throttle trim to 0. If anything other than 0 is needed, perform a radio calibration with the trim at 0. 	TO MOTOR SENSOR PORT USED WITH HOTWIRE ON / OFF SWITCH ON / OFF SWITCH TO RADIO RECEIVER MOTOR TYPE (MT) SETTINGS FIGURE 6.	 For RS/RS Pro Brushless Connection, Refer to Figure 6. 1) Wiring: Connect A, B and C wires from the motor to the A, B and C posts on the ESC, verify this is correct for proper function. Determine whether you would prefer to use connectors from ESC to motor. Refer to the instructions in the Soldering section of this manual for more information and refer to Figures 3 & 6. 2) Connect the battery pack: BATT (+) to ESC BATT (+) then BATT (-) to the ESC BATT (-). 3) Select Motor Type: Press and release the MODE button 6 times to get to the MOTOR TYPE selection in the user settings. Press and release the INC button once to view the current motor type selected (brushless types are indicated by LEDs 1-3 lit). If necessary, continue to press and release the INC button to scroll through the motor types until brushless motor type is selected. 4) Power off the ESC and connect the motor wires if using plugs, matching colors appropriately if applicable. <i>Remember (A - A, B - B and C - C ALWAYS.)</i> 5) Power on the ESC, listen for the arming chime.
THROTTLE PROFILES	TROUBLESHOOTING HINT: When powered on, the ESC emits an all-systems-go chime if it is	 SENSOR CHECKER Observe the right three LEDs (5, 6 & 7) while rotating the motor shaft slowly. You should see the three LEDs rotate 	BRUSHED MOTOR WIRING DIAGRAM FORWARD / REVERSE	BRUSHED MOTORS
 Mildest profile - concave Mild profile - concave Mild profile - concave Linear profile (DEFAULT) Aggressive profile - convex Most Aggressive profile - convex BAG BRAKE: Increased drag brake settings help by allowing you to concentrate less on braking, more on driving a good line and can also be very helpful with free-spinning slotless motors. BRAKE STRENGTH: Reducing your brake strength helps control skidding during heavy braking and on loose surfaces. NEUTRAL WIDTH: A tight neutral width can interfere with correct operation of Drag Brake and Push Control if your radio trigger does not return precisely to the same neutral position. TIMING PROFILES: These are a huge performance increase and can damage equipment when not used properly. Too much Boost can cause problems and Boosting modified motors needs to be done with care and a proper setup. Correct Provide Motor Profile Action and power delivery strength. 2WD cars will typically need a lower value than 4WD to maintain proper traction, depending on the track surface.	 HINT: When powered on, the ESC emits an all-systems-go chime if it is connected correctly to the motor and radio. Check the above chart for any codes that may be present. NO LIGHTS COME ON Check battery charge and polarity. Verify that the switch is in the ON position. Check all solder joints and plugs for a good connection. Unplug your servo from your receiver. A shorted servo can cause power up issues. Unplug sensor harness and fan, possible sensor board short. Check ESC receiver plug for proper polarity. Re-flash ESC with HotWire. Incomplete or interrupted updates can "brick" the ESC. ALL LEDS FLASHING Check that transmitter and receiver are properly bound. Check ESC receiver plug for correct polarity and that it is plugged into CH2. WILL NOT CALIBRATE Check that transmitter batteries and replace if necessary. Reverse throttle channel on transmitter if necessary. 	motor shaft slowly. You should see the three LEDs rotate through as each sensor is activated. With the RS Pro you can quickly verify your ESC and sensored motor are communicating properly with the on-board sensor checker feature. Simply observe the right three LEDs (5, 6 & 7) while rotating the motor shaft slowly. If the sensor cable is plugged in and the sensors are operating correctly, you should see the three LEDs rotate through as each sensor is activated. This indicates that all sensors are functioning properly and the system is good to go. Should a sensor go bad or the cable become disconnected while driving, the RS Pro will automatically default to sensorless drive mode, allowing you to finish the race. ONLINE HELP For further assistance with soldering or programming your Tekin ESC, please visit out YouTube Channel and Facebook. www.youtube.com/tekinracing www.facebook.com/teamtekin www.teamtekin.com	PORWARD / REVERSE PORWARD / REVERSE PORWARD / REVERSE PORWARD / REVERSE NOT USED IN BRUSHED MODE PROGRAM PORT USED WITH HOTWIRE ON / OFF SWITCH TO RADIO RECEIVER FIGURE 7. FIGURE 7.	 For Brushed Wiring Configurations Refer To Figs 7 or 8. 1) Wiring: Forward/Reverse Wiring (Motor Types 5&6): Refer to Fig. 7, connect motor NEG (-) terminal to speed control (C) post, then connect motor POS (+) terminal to ESC (A) post. NOTE: Speed control (B) post is not used. 2) Forward Only Wiring (use only Motor Type 4): Refer to Fig. 8. Connect all 3 ESC motor outputs (ABC) together, then connect them to the NEG (-) terminal to the BATT (+) terminal on the ESC. 3) Connect the battery pack: BATT (+) to the speed control BATT (+) then BATT (-) to the speed control BATT (-). 4) Select Motor Type: Press and release the MODE button 6 times to get to the MOTOR TYPE selection in the user settings. Press and release the INC button once to view the current motor type selected (brushed types are indicated by LEDs 1-4, 1-5, or 1-6 lit—See QuickTune Modes section for motor type details). 5) Power off the ESC and connect the arming chime.
TEMPERATURE MONITOR	 NO STEERING OR THROTTLE Check battery voltage and polarity. 	HotWire TM 3.0 ESC PROGRAMMER	BRUSHED MOTOR WIRING DIAGRAM	WARRANTY / REPAIR
The On-Board Temperature Monitor works to provide you with important feedback on ESC temperature helping you to adjust gearing and avoid long term heat damage. To use; 1) The ESC must be calibrated to your transmitter and must be in neutral. 2) The middle LED will be on steady then blink out every 2 seconds. *Blinky mode will show LEDs 3 & 5 blinking rapidly in neutral and Locked Spec Mode will show LEDs 3, 4 & 5 blinking rapidly.* 3) At the moment that the center LED blinks out, one or more of the other LEDs will light up. 4) LED Temperature readings: LED1 LED1-2 LED1-3 LED1-4 LED1-5 LED1-6 LED1-7 Ambient 120*F 140*F 160*F 180*F 200*F 220*F Should your ESC show all 7 LEDs, stop driving and let it cool. The ESC will go into Thermal Shutdown if it is not allowed to cool down. You may need to lower your gearing, lower your Boost settings, change to a higher turn motor or repair any binding in the drivetrain. Continuous use at high temperatures and multiple "thermals" can damage the ESC.	 Check battery voltage and polarity. Check that transmitter and receiver are properly bound. Check that transmitter and receiver are properly bound. Check receiver plugs for correct polarity or damaged wires. STEERING WORKS, NO THROTTLE Check for Low Voltage Cutoff code. Check battery voltage. Check motor connections, try another motor if possible. Check ESC plug for correct polarity and damaged wires. THROTTLE WORKS, NO STEERING Shorted or broken servo. Check servo plug for correct polarity and damaged wires. Replace servo. MOTOR RUNS IN REVERSE Check transmitter throttle reverse setting. Verify motor wires are connected A - A, B - B and C - C. Wiring improperly while running a sensored motor with the sensor harness will damage the ESC. Motor Type 7 can be used to reverse the motor rotation for cars that may need it. Usually these will be the ones with the motor mounted up front on the left side of center. 	The HotWire 3.0 PC/Bluetooth Interface (TT1452) unlocks the full potential of your Tekin ESC. Connect via Bluetooth to your iOS or Android device for full adjustability of your ESC settings on the fly. Offering a wide range of adjustable features and options, you can fully customize your setup to any particular track and any driving conditions. The HotWire can also be used to download Tekin Driver setups from the website and load them directly into your ESC. The HotWire makes it easy to load custom setups and save your own for any track and any car. Setup notes can be applied and saved with each user-created ESC profile so you can have the exact same setup you had before. Tekin frequently releases new firmware for ESCs, which can be downloaded from the website and flashed to the ESC. This means a longer lifespan for your ESC! With access to tons of features not fully accessible from the onboard interface, the HotWire is a must have item. User-defined Throttle and Brake Frequency, Custom Throttle Profiles, Custom Voltage Cutoffs, Custom Boost and Turbo settings, adjustable RPM Ranges for Boost and Turbo, a new Datalogging feature and a programmable HV BEC can all be tuned via the HotWire Bluetooth on PC and handheld devices. Check out more at <u>www.teamtekin.com/hotwire.html</u>	WITE TO NEGWITE TO NEGOCOOODOCOODOCOOODOCOOODOCOOODOCOOODOCOOODOCOOODOCOOODOCOODOCOOODOCOOD	TEKIN, INC. guarantees ESCs to be free from factory defects in materials and workmanship for a period of 180 days from date of purchase, when verified by sales receipt. This warranty does not cover: suitability for specific application, components worn by use or improper voltage, tampering, misuse, or shipping. Our warranty liability shall be limited to repairing unit to our original specifications. Because we have no control over the installation or use of this product, in no case shall we be liable for damages. Additionally, these items void the warranty: Reversing battery polarity Allowing water or moisture into the ESC. Incorrect wiring or use inconsistent with the instructions. WARRANTY SERVICE: For warranty work, you MUST CLAIM WARRANTY on A COMPLETELY FILLED OUT PRODUCT SERVICE FORM and include a VALID CASH REGISTER or DIGITAL RECEIPT with purchase date, dealer name & phone# on it, or an invoice from previous service. If warranty provisions have been voided, there will be service charges. REPAIR: Before sending your speed control in for service, please review the Instructions and Troubleshooting sections. After reviewing these instructions, if your speed control still requires service, please contact our customer service department for additional assistance. NOTE: Hobby dealers or distributors are not authorized to additional assistance.