ATTACHING WIRES TO THE BATTERY:
The same techniques described in the preceding section may be used to solder the wires to the battery or to battery connectors.

IMPORTANT: Take precautions if removing factory battery connectors. Connecting the battery washers will cause damage and/or void warranty. When soldering connectors to a battery pack, cut only one wire of the battery pack at a time to ensure that the exposed wires cannot short together.

HINT: If you are using connectors for both the battery and the motor, make sure that they are not the same so that you have a male and a female connector to the middle of the throttle/brake EPS and Dual Rate set to max so that your throttle direction is set to "normal".

Calibrating is really very simple, you just press and hold the MODE button for 5 seconds to enter radio calibrate, let the speed control work and “find” your neutral, then let it “find” your full throttle and full brake.

If you are unsure how to perform this procedure, follow the detailed steps outlined below. After calibrating to your radio, when the speed control power switch is turned on the unit will begin looking for the neutral signal. If a neutral signal is not found the ESC display will show flashing LED’s and you may have to re-calibrate the unit.

FACTORY RESET:

NOTE: Before Radio Calibration, ensure speed control is hooked up to the receiver, a charged battery is properly connected, and the transmitter is turned on. On your radio, set all trim adjustments to the middle, throttle/brake EPS and Dual Rate to set to max and ensure that your throttle direction is set to "normal".

The RS series has a built-in factory reset mode that resets all user programmable settings to the default values. To activate, turn the unit on, then press and hold INC button and then press hold MODE button simultaneously for 3 seconds. After 3 seconds the LEDs will flash on and off to indicate the factory reset is complete. After activating the factory reset mode also resets all the radio calibration settings to their default values.

1) Connect Speed Control to Receiver
Plug the speed control into the throttle channel of the receiver.

2) Connect Speed Control to Battery

Calibrating is really very simple, you just press and hold the MODE button for 5 seconds to enter radio calibrate, let the speed control work and “find” your neutral, then let it “find” your full throttle and full brake.

If you are unsure how to perform this procedure, follow the detailed steps outlined below. After calibrating to your radio, when the speed control power switch is turned on the unit will begin looking for the neutral signal. If a neutral signal is not found the ESC display will show flashing LED’s and you may have to re-calibrate the unit.

Quick Tune Example: Let’s say you want to use a 2 cell LiPo battery. To change the Voltage Cutoff from the default setting (1 = None) to setting 2 (2 = 6.0 Volt Cutoff), first follow step 1 above by pressing and releasing the MODE button 7 times.

Now press and release the INC button, the LED should show “MODE” button again. After 5 seconds pause, the values you selected will be saved in memory and the speed control will return to normal operation.

HINT: If you wish to set another Program Feature, press the “MODE” button again. The values you selected will be saved in memory and the speed control will return to normal operation.

RED BRAKE (MB) 1-13 1 (No Drag)

BLACK-BRAKE STRENGTH (BS) 1-13 4.5

USH CONTROL ANTIDRG (UC) 1-13 1 (OFF)

PC1- Brushed Mode Only

PC2 - Brushed Modell 2 Speed

PC3 - Brushed Mode Only

PC4 - Brushed Mode Only

PC5 - Brushed Mode Only

PC6 - Brushed Mode Only

PC7 - Brushed Mode Only

LIM - Linear

LIM - Linear

CUTOFF TRIM (U) 1-6 0.001

CUTOFF TRIM (P) 1-6 0.001

CUTOFF TRIM (M) 1-6 0.001

LED Display: The LEDs display light bars that display values in several ways. The LED display is shown at a value of 1-3, 1-7 and 0. One or two LEDs that “walk” up the display can show a greater range of 1-3, 1-7 and 0. Critical Settings (Motor Type and Voltage Cutoff) are indicated by multiple lights, making it easier to verify correct settings—pay close attention to these when adjusting.
The HotWire PC Interface (TT1450) unlocks the full potential of Tekin’s DS technology, this “Dual Drive” allows the speed control to start out in sensored mode then switch to sensorless mode at higher speeds. Dual Drive mode uses mechanical feedback at startup to ensure smooth transitions into sensorless drive. There is also a sensored only mode, this mode only uses the mechanical motor adjusted timing during start up.

With Tekin’s RS series speed control you can quickly verify the settings and control the motors properly. Braking power can be tuned using the HotWire to ensure proper braking during high speed runs. This allows for a more consistent braking experience and can also be very helpful with free-spinning slotless motors. 

**LED INDICATOR (S) ERROR DESCRIPTION**

1. **NONE (LED1 ON)**. For NiCd/NiMh Cells. Use for 2 Cells LiPo (2S). 2) 6 Volts(LED1-LED2 ON). Use for 3 Cells LiPo (3S). 3) 9 Volts (LED1-LED3 ON). Use for 3 Cells LiPo (3S). 4) Custom (LED1-LED4 ON). HotWire required.

**SERVO WORKS, BRACKING DEAD**

- 1) Extreme profile, convex 2) QuickTune mode, Brake/Reverse Type is set to option 3. QuickTune mode, Brake/Reverse Type is set to option 3. The system is too aggressive for your application. Lower the Profile.
- 2) QuickTune mode, Brake/Reverse Type is set to option 2. QuickTune mode, Brake/Reverse Type is set to option 3. The system is too aggressive for your application. Lower the Profile.
- 3) The middle LED will be on steady then blink out every 2 seconds.
- 4) The middle LED will be on steady then blink out every 2 seconds.

**NO REVERSE**

- 1) QuickTune mode, Brake/Reverse Type is set to option 1. QuickTune mode, Brake/Reverse Type is set to option 3. 
- 2) The middle LED is on steady then blink out every 2 seconds. 
- 3) Bluetooth enabled and connected to the phone.
- 4) Bluetooth disabled and disconnected from the phone.

**NO RESPONSE**

- 1) Bluetooth enabled and connected to the phone.
- 2) Bluetooth disabled and disconnected from the phone.

**STUTTERING UNDER HEAVY ACCELERATION**

- 1) Bluetooth enabled and connected to the phone.
- 2) Bluetooth disabled and disconnected from the phone.

**BAD CONNECTOR/NEED TO CALIBRATE**

- 1) Bluetooth enabled and connected to the phone.
- 2) Bluetooth disabled and disconnected from the phone.

**BRUSHED MOTOR WIRING DIAGRAMS**

**Brushed Motor Wiring Diagrams**

**Forward and Reverse**

**Motor Type Setting**

4) Brushed Motor setting.

**Motor Type Settings**

3) Forward/Reverse.

4) Brushed Motor setting.

5) Forward/Reverse Delay.

6) Brushed Motor setting.

**For RS/RS Pro Brushed Connection, Refer to Fig 6**

- Connect the battery pack: BAT (+) to the speed control BAT (+) then BAT (+) to the speed control BAT (-).
- IMPORTANT: Before connecting the motor, first plug the speed control into the receiver, charge a battery and connect the control to the receiver.
- Turn on the speed control and perform a radio calibration.
- 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, 5-6, or 4-5-6. Set to option 1 if you do not know the motor type.
- Forward Only Wiring (use only Motor Type 4): Refer to Fig 7 and the instructions in the Soldering section of this manual. After reviewing these instructions, and checking wiring carefully!
- Connect the motor to the speed control, bad receiver plug connection, broken power switch, moisture in speed control: Unhook batteries and let the speed control dry.
- Receiver bad or getting very low noise and you should have no trouble with interference. If you do have interference, mount the speedo in an alternate location. Try to keep the receiver away from the batteries, power wires, metal or graphite.
- Damaged or disconnected power capacitor.
- The three-wire cable from speed control to receiver may be routed improperly, try rerouting. This speed control radiates extremely low noise and you should have no trouble with interference. If you do have interference, mount the speedo in an alternate location. Try to keep the receiver away from the batteries, power wires, metal or graphite.
- TEKIN, INC guarantees speed controllers to be free from factory defects in materials and workmanship for a period of 120 days from date of purchase, with the exception that radio must be in the neutral position.
- Incorrect motor type selected. Change motor type to correct mode setting.