Connections:
The speed controller can be connected to the motor by soldering or with high quality connectors. Always use new connectors, which should by soldered carefully to the cables and insulated with heat shrink tubing. It is possible to extend the cables to the motor battery pack up to a maximum of 16cm.
• Solder controller to the motor wires
• Solder appropriate connectors to the battery wires
• Insulate all soldered connectors with heat shrink tubing
• Plug the servo connector into the receiver throttle channel
Installing the controller:
Install the speed controller in the model so that it is isolated from vibration and shock, using Velcro or double sided foam tape. Allow space around it for cooling. Make sure there is sufficient cooling of the motor and speed controller by ducting air trough adequate holes from the outside airflow.
When connecting the speed controller to the battery pack, care should be taken to ensure that multiple touches of the connectors are not made.
Using the speed controller:
• Switch ON the transmitter and check the throttle channel settings are +/-100% (for the computers radios). Set the throttle to closed or brake position.
• Switch on the speed controller or just connect the power pack.
• You must hear a 'beep'. Between switching on and the 'beep' the throttle stick must not be moved. If you do not hear a 'beep', switch off, disconnect the power, wait for 5 seconds and repeat the procedure.
• If you do not hear 'beep' again, check the following:
  o Is the servo connector plugged into throttle channel ?
  o Is the throttle stick in "closed" position (off) ?
  o Is the throttle channel in "normal" position?
• The position of "full throttle" will be adjusted automatically
Warning: once the battery pack is connected, handle the model with extreme care! Ensure that you are well clear of the propeller at all times. Rotating propellers are extremely dangerous! Always connect the motor battery pack just before flight and disconnect it immediately after landing the model. Warning: Even when the switch is "off" remember the battery pack may be connected, handle the model with extreme care and stay well clear of the propeller!
Setting the brake:
• The ESC is supplied with brake on.
• How to change the brake
  o Switch on the TX and move the stick to "full throttle"
  o Connect the power pack and turn on the receiver switch (if used)
  o Wait 5 seconds, you will hear 4 beeps (••••)
  o Move the throttle stick to closed position
  o You will hear 2 "beeps" (••) to confirm the brake is off. You will hear these two "beeps" after each controller activation.
  o If you want to activate the brake, disconnect the battery pack and repeat the procedure.
Setting the Timing mode:
• You can change the timing for optimal efficiency for your type of brushless motor.
  Soft Timing: for 2,4,6 pole motors
  Hard Timing: for 6 and more pole motors
• How to change the timing:
  o Switch on the TX and move the stick to full throttle
  o Connect the power pack and turn on the receiver switch
  o Wait 5 seconds, you will hear 4 beeps (••••)
  o Wait another 5 seconds
  o You will hear 5 times a single "beep" – Soft timing (•••••)
  o 5 times two "beeps" – Hard timing (••,••,••,••,••)
  o Set the timing mode by moving the throttle stick to the "closed" position between the 1st and 5th "beep" of the desired timing mode.
  o The new timing mode will be confirmed by a single "beep"(with brake on) or double "beep" (with brake off)
  o The timing mode is now saved and will not change after disconnecting the battery pack.
  o If you want to change the timing mode again, disconnect the motor battery pack and repeat the procedure.
Cut off setting for Nixx or Lixx:
• The speed controller will turn-off the motor when the power pack voltage falls under 5V or reaches 0,7 V/cell (Nixx) or 2.7V/cell (Lixx) "Auto detect".
Notes about operation and Warranty:
• Reversing the motor direction is achieved by exchanging the position of any two wires connected to the motor.
• Do not exceed the 10 cells or 4-5 servos when using BEC.
• Temperature overload protection is built into the ESC, it turns off the motor when the temperature reaches 100°C.
• Do not connect the ESC to just 'any' kind of power source. Take care to ensure the right polarity of NiCd, NiMH or Lithium power packs only.
• Respect the polarity of your battery while connecting the ESC, the speed controller will be severely damaged if the polarity is incorrect and WILL NOT be covered under warranty.

ET0149 Etronix ESC Programming Card
ET0150 Etronix 8A Brushless ESC
ET0151 Etronix 12A Brushless ESC
ET0152 Etronix 18A Brushless ESC
ET0153 Etronix 25A Brushless ESC
ET0154 Etronix 30A Brushless ESC
ET0155 Etronix 40A Brushless ESC
ET0156 Etronix 45A Brushless ESC (no BEC)
ET0157 Etronix 60A Brushless ESC (no BEC)
ET0158 Etronix 70A Brushless ESC (no BEC)

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• LI-XX CUT-OFF FUNCTION

• 3A BEC OUTPUT OR OPTO

• FOR USE WITH ALL TYPES OF BRUSHLESS MOTORS

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