



AIRTRONICS®

ES-01

Electronic Speed Controller with Reverse

Operating Manual



FET Micro Electronic Speed Control with Reverse for 1/20th and 1/24th Scale Cars

Thank you for purchasing Sanwa/Airtronics ES-01 Micro ESC. Please read through these instructions carefully and take note of cautions and handling of this ESC in order to achieve full performance. Please keep this instruction with you for quick reference.

SAFETY PRECAUTIONS

1. This device is designed for Sanwa/Airtronics Radio Control systems. Functionality of another radio manufacturer may differ from Sanwa/Airtronics radio control systems. Carefully check the function of the radio when a brand other than Sanwa/Airtronics is used.
2. Never reverse the polarity of the Nicad battery connection to this ESC. Reverse connection will cause significant damage.
3. Never operate your radio control car in wet conditions (i.e. During rain, traveling through water puddles, etc.). Water or any type of liquid will cause damage to this ESC.

IMPORTANT

Counter measure for noise from electric motor. Noise suppressing beads (supplied with ES-01 ESC) must be inserted onto both motor wires. (please refer to the diagram.) Place the noise suppressing beads at nearest position on the electric motor unit. NEVER take off the noise suppressing capacitors which should be originally fitted on the electric motor. (noise suppressing capacitors are not supplied with ES-01 ESC unit.)

Z-connector (colored blue)

This ES-01 unit is equipped with Z-connectors. Previous S-connector (Black connector) has different polarity. If using the Sanwa/Airtronics Black receiver then the S to Z adapter part number 99399Z must be used or damage to the electronic components will occur.

CAUTION

- Receiver installation:
1. Avoid placing the receiver near the electric motor, ESC, and Nicad battery.
 2. If there is radio interference, try changing the position of the receiver to eliminate the interference. (e.g. lengthwise, sideways vertical or upright)
 3. Never mount the receiver with the crystal on the bottom.
 4. Avoid placing the Nicad battery wire harness or electric motor wire harness near the receiver, it may cause some radio interference.

Antenna wire

Avoid placing the antenna wire near the motor wire harness or the battery harness wire. Be sure that the antenna exits the body of the car and is positioned straight up. Do not cut off the excessive length of the antenna wire or wad it up inside of the car. If the Antenna gets shortened the control distance of the car also becomes shorter.

CAUTION

Be careful to insert the connectors from the ESC wire harness into the proper slots on the receiver. See illustration.

ADJUSTMENT OF SPEED CONTROL

1. It is recommended to remove the pinion gear from the electric motor and/or make sure the car is on a stand before adjusting. This helps prevent any accidents.
2. Connect both of the ESC wires and the battery wire to the receiver as shown in the illustration. Turn on the transmitter and ESC switch. Be sure to turn on the transmitter switch first then turn on the ESC switch. When you turn the system off, be sure to turn off the ESC switch first then turn off the transmitter switch.
3. Set the servo reverse switch to the normal position on the transmitter.
4. If transmitter is equipped with EPA(End point adjustment) set the throttle in the forward position at 50%.
5. With the throttle trigger or stick in the neutral position adjust the throttle trim to find where the motor stops turning (neutral position). This completes the setting of the ES-01 ESC.

TECHNICAL DATA

- Power Supply: 6.0V - 7.2V
 Maximum Current: 12A
 Continuos: 3.6A
 Voltage Loss: 0.4V at 25 centigrade at 2 Amps continuous
 Dimension: 22mm x 28.5mm x 17mm
 Weight: 10 grams
 Connector: Z-connector

