



## LOS9521 MSC 12SL 12T High Power Fwd/Rev ESC

**WARNING: THIS ESC WILL NOT SUPPORT A 2S LiPo 7.4V**

### Features

- High power FET control with proportional forward and reverse.
- High frequency design delivers smooth speed transition.
- Thermal Overload Protection prevents damage due to over-current conditions.
- Pre-wired with Tamiya battery plug and bullet-style motor connectors.
- Designed to operate with stock motors (12 turns or higher).
- Push-button programming makes setup a breeze.

### Specifications

Operation .....	Proportional forward, proportional reverse with braking delay
Input Voltage .....	4-cell (4.8 volts) to 6-cell (7.2 volts) DC
Peak Current .....	1000A
Continuous Current .....	250A
Full-On Resistance .....	0.0014Ω Forward 0.0028Ω Reverse
Frequency .....	1kHz
BEC output .....	5V DC, 1 amp max.
Overload Protection .....	Thermal
Dimensions .....	1.575" x 1.575" x 1.063" (40mm x 40mm x 27mm)
Weight .....	1.87 oz (53 g)

### Connecting the Battery

The MSC 12SL comes pre-wired with a Tamiya-style connector, compatible with most battery packs. Use battery packs from 4-cell (4.8-volt) to 6-cell (7.2-volt) sub-C size battery packs.

1. Be sure the on/off switch is in the "off" position.
2. Connect a fully charged battery pack to the speed control's battery connector.

### Adjusting the Transmitter

1. Set the "throttle reversing" switch to the NORMAL position.
2. Set the "throttle trim" to the CENTER position.

### Speed Control Programming

NOTE: While in the programming mode, no power is applied to the motor.

1. Turn on the transmitter's power switch. (Be sure the transmitter batteries are fully charged).
2. Turn the ESC switch on.
3. Press and release the setup button. The red and green LEDs will light.
4. Move the throttle to the full throttle position and press the programming button. The green LED will remain lit and the red LED will go out. (If the ESC does not sense throttle movement in 3 seconds by the transmitter, it will exit the programming mode and you will have to begin again.)
5. Now move the throttle to full reverse and press the programming button. The red LED will glow and the green LED will go out.
6. Return the throttle to neutral and press the programming button. The green LED will glow and the red LED will go out, indicating programming is complete.

During normal operation, the green LED indicates neutral and the red LED indicates full forward and full reverse.

### Troubleshooting Guide

Symptom	Solution
Steering servo operates but the motor does not run	Programming is not complete. Reprogram the ESC by following the programming instructions. Speed control connected to receiver incorrectly. Motor defective. Test motor independently, repair or replace as needed. Low batteries. Charge as needed. Overload Protection enabled. Check motor and connections.
Steering and motor do not function	Receiver wired incorrectly. Check polarity and orientation of control plugs. Batteries discharged. Recharge or replace.
Full speed not attainable	Transmitter adjusted improperly. ESC programmed incorrectly. Reprogram.
Motor slows but will not stop	Throttle trim may be set improperly. ESC program does not match transmitter. Reprogram ESC.
Reduced radio range/Interference	Motor capacitors broken/missing. Repair or replace. Motor noise. Move receiver further away from ESC, motor and wiring Transmitter batteries low. Replace batteries.