

# 1/6<sup>th</sup> Maximum Destruction #B9527

## 49.860MHz RECEIVER OPERATIONAL DESCRIPTION

1/6<sup>th</sup> Maximum Destruction car is a full function radio controlled toy car. It operates on 7.2 volts supplied by one rechargeable NICD battery (six 1.2V stack up batteries.). It is designed to operate on a single fixed frequency in 49.82- 49.90MHz band. See the attached block diagram and schematic.

The modulated RF signal from the transmitter induces an electrical signal into the car's permanently attached wire wound antenna. The electrical signal is selectively amplified by a super regenerative input circuit (Q1,L2,L3,C1,C2,C3,C5,C22). The signal is then capacitively coupled (via C7) to an integrated circuit (U1) where the signal is further amplified and decoded. The control signal is output from Pin6,Pin7,Pin10,Pin11.

The control signals from pin 10 and pin 11 are sent to driving circuit consisted of Q3,Q8,Q11,Q17, relay RL1 and RL2, the back motor will be driven forward or backward.

The control signals from pin 6 and pin 7 are sent to steering circuit consisted of Q4,Q5,Q6,Q7,Q9 and Q10, the front motor will be driven left and right. Servo PCB, Q14,Q20,Q21 control the steering motor to turn left or right, or control front wheel to center position when there is no left/right control signal.

All tuning and verifications are performed by the manufacturer and there are no adjustments that can be made by the user. No external ground is required or used with this receiver.