

STUNT SCOOTER # 97595

27.145MHz TRANSMITTER OPERATIONAL DESCRIPTION

The Stunt Scooter radio control transmitter is a low powered, hand held unit for controlling the movement of a toy scooter. The transmitter is powered by a 9 volt battery. It is designed to operate on a single fixed frequency in the 26.96 – 27.28 MHz band. See the attached block diagram and schematic.

Input switches trigger an integrated circuit (U1) which produces the digital control signals which will modulate the carrier signal. The carrier signal is generated by a crystal oscillator/ amplifier circuit comprised of a 27.145 MHz crystal (X1) and a npn transistor (Q1). The RF carrier signal is modulated by the digital control signal at the base of an RF amplifier stage (Q2). The modulated output of the RF amplifier stage is capacitively coupled (via C7) to the antenna through a “ pi “ matching network comprised of C8, L1 and C9. The whip antenna is 8 inches long and permanently attached.

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