

## Turbo Pro Wheelie Cycle#N1920

### 49.860MHz TRANSMITTER OPERATIONAL DESCRIPTION

The Wheelie cycle radio control transmitter is a low powered, hand held unit for controlling the movement of a toy vehicle. The transmitter is supplied by two 1.5 volt AA batteries. It is designed to operate on a single fixed frequency in the 49.82---49.90MHz band. See the attached block diagram and schematic.

Input switches trigger IC(U1) which produces the digital control signals that will modulate the carrier signal. The carrier signal is generated by a crystal oscillator circuit which is comprised of a 49.860MHz crystal (Y1) and a PNP transistor (Q2). The RF carrier signal is modulated by the digital control signal at the base of an RF amplifier stage (Q3). The stage is capacitive coupled (via C12 ) to the antenna through a “Pi” matching network comprised of C13 、 C14 、 T1 .The antenna is 15inches long and permanently attached.

The transmitter just likes the real motorbike controller and it has 6 control functions as below: Forward, Turbo, Brake, Turn left or right, and stunt. You can twist the right handle for transmitting the Forward signal, press the right button for implementing the Turbo function, press the left button for wheelie action, grasp the brake handle to stop the bike, and turn right or left by rotating the transmitter right or left for about 30 degree.

By the way, the left/right function is carried out by the IR control keys as showed on the block diagram and a LED acts as a power-on indicator.

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 transmitter.