

## Operation Description

### **Transmitter mode:**

The transmitter of the Hydro Xtreme Raceway is powered by a 9V battery. And it is operate at 49.860 MHz. While push the controller stick, it can transmit different radio signal to the receiver to go different direction.

Refer to the circuit diagram, the circuit description is listed below:

- TX2B and associated circuit act as signal encoder.
- X1, Q2 and associated circuit act as oscillator.
- Q1 and associated circuit act as amplifier.
- L2, C8, C15, C16 and associated circuit act as low pass filter.

### **Receiver mode:**

The receiver of the Hydro Xtreme Raceway is powered by a 1.2V rechargeable battery. And it is operated at 49.860MHz. While switch on, it can receive radio signal from the transmitter continuously.

Refer to the circuit diagram, the circuit description is listed below:

- RX2C and associated circuit act as signal decoder.
- Q1 and associated circuit act as RF receiver.
- Q2-Q9 and associated circuit act as motor driving.