

# DiamondBack Airboat'RX Function Description

**Product No: H2552**

**Product name: SWAMP BLASTER™ Airboat**

**Customer: Mattel**

**Ver: US**

The DiamondBack Airboat requires 9.6v batteries for full function operating Left / Right steering Forward / Back. It is composed of the following parts.

## **1.Voltage Regulator.**

Comprise a NPN transistor Q2, zener diode D1, ON / OFF switch and its associated components.

## **2.RF receiver.**

Comprise a transistor Q1, coil L2 and its associated components.

## **3.RF receiver Amplifier.**

Use SPRC206A's (U1) two inverter amplifiers, the two inverters' gain depend on the external resistor and capacitor.

## **4.Decoder.**

Comprise SPR206A and its associated components, the SPR206A decodes the serial bit-stream data and interprets the information as output data to control the motor driver 1 and driver 2.

## **5.Driver 1.**

Forward / Back motor driver, comprise transistor Q9, Q12, relay RL1, RL2 and its associated components.

## **6.Driver 2.**

Left / Right motor driver, comprise transistor Q3, Q8 and its associated components.

## **7.Protection.**

Comprise Q13 and its associated components, turn off the motor driver circuit when the batteries' voltage lower than 6V.