

## **CIRCUIT DESCRIPTION**

MODEL: WT-SD

### **1. RECEIVER SECTION**

Radio frequency signal received by the Antenna (ANT1), passing through the low pass filter L1 and IFT. The RF signal then demodulated by the Oscillator and Demodulator circuit of Crystal (XTAL1) and transistor Q1. The demodulated audio signal is then amplified by audio amplifiers Q4, Q3, and Q2 and the audible sound is then produced by the speaker (SPK).

### **2. TRANSMITTER SECTION**

In the transmitter section, when the Push To Talk button (PTT) pushed, the speaker is switched to the MIC and it is connected to the input of the audio amplifiers Q4, Q3 and Q2 and the out put of Q2 drives the IFT which modulates the voltage of the crystal (XTL1) controlled oscillator Q1. The crystal controlled oscillator is the Q1 and is connected to the antenna via out put filter L1.

### **3. MORSE CODE TRANSMISSION**

When push the Morse code button (SK), the pulse signal generator (TH) generates the Morse code signals and passes to the antenna through the transmitter path.

### **4. POWER SUPPLY**

Supply voltage of 9v dc is needed to power “ON” whole circuitry by a 9v battery.