

### Transmitter Circuit Description

Q1, crystal Y1, R2, R5, C1 and L1 produce a 49.86MHz common-emitter crystal oscillator. The RF oscillator delivers the 49.86MHz carrier power through the coupling capacitor C2 to the base of the modulated amplifier Q2. The intelligence signal created by the IC TX2C is added together with the carrier to form the modulated signal, which subsequently amplified by the buffer/modulated amplifier.

A filter and matching network consists of C6, C8, C13, L3, L4 and L5 suppresses the harmonics and allows maximum power of the 49.86MHz region coupled to the antenna with proper output impedance. The antenna is a 9 1/2 inches long spring type steel wire. There is no external ground connection. The ground is on the circuit board only. Electric power of the transmitter is supplied by a 9 volt primary storage cell.