THEORY OF OPERATION AND
CIRCUIT DESCRIPTION
MODEL 81-315LM
SINGLE FUNCTION, REMOTE CONTROL TRANSMITTER

(Please refer to enclosed schematic drawing: 195D1573)

The 81-315LM transmitter consists of a low power RF oscillator (Q1 and associated components), a digital encoder (U1 and related components), and on/off switches.

The RF oscillator, Q1, is of the grounded base type. C3, C5, C2, L2, and the copper loop set the center frequency of the oscillator at 315MHz. C4 and C7, with the internal capacitance of Q2, establish feedback levels and harmonic suppression. R3, R4 and R5 establish dc operating conditions on Q2 and help improve temperature stability. U1 and related components generate a digital code. This code is used in the companion receiver to identify a particular transmitter or functions. The 3.0 volt battery circuit is equipped with an automatically releasing (normally off) push-button switch. S4 supplies voltage to U1.

The digital signal at U1 (pin 4) is randomly programmed at our factory location.