1.0 DESCRIPTION

1.1 The Model MDKP transmitter is a low-power communication device operating at a frequency of 318.00 MHz. The signal is a binary-coded, pulse position type A1D modulated transmission which has an information rate of approximately 167 bits per second (bps).

1.2 The MDTK is intended for use as a wireless alternative for AM-KP and designed to work with any 318 MHz Megacode compatible receivers such as the Linear MDR, MRDM, AKR-1. The transmitter has twelve buttons in the front. Ten buttons are used to enter a programmable security code and the "#" button is used to transmit a RF pulse modulated code sequence and the "*" has no function and is not being used.

1.3 The RF transmission code is programmed by the IO numeric keys on the keypad. The user programs a unique "Personal Access Code" (PAC) that when entered will enable the RF transmitter and send a RF signal to the Megacode receiver. Each PAC code is unique and may be used to control different receivers or different channels of the same receiver. The PAC code consists of between 1 and 6 digits. Leading zeros are added to PAC codes of less than 6 digits. An all zero PAC code is disallowed, but leading zeros are permitted for a non-zero PAC code.

1.4 The code is retained for 30 seconds and if the "#" key is pressed during that time the code is present with shunt SH1 in place for regular mode. This is to allow control of the door in case of an obstruction or other emergency situation. Without shunt SH1 in place, the code is transmitted immediately and is not retained for 30 seconds if the "#" key is pressed during the time the code is present.

1.5 Each press of the "#" button allows a maximum 2 second sequence of a Megacode formatted RF transmission. For factory test purposes transmit jumper WJ1 is shorted and allows the transmitter to transmit continuously. After initial factory testing, WJ1 is cut and the microprocessor lockout is enabled. Pressing the "#" button first or pressing it two times in succession at any point in the cycle illuminates the keyboard Lighted Emitting Diodes (LEDs) for operation in low light levels. A 9-volt lithium battery is used to power the keypad and a 5-year life is expected without the shunt SH1 in place for power saving mode.

2.0 FUNCTION

2.1 A 9-volt Lithium battery (BT1) provides power to a 5-volt regulator (U1) through power gate Q1. When any button on the keypad is pressed microprocessor U2 is enabled. The microprocessor has a power up reset circuit R5/C11 that initializes the microprocessor and starts the keypad decoder programmed sequence. Power is maintained for 30 seconds after the last keystroke by latch,