

1SD82T



Testing the Future

LABORATORIES, INC.

EXHIBIT B

BLOCK DIAGRAM / EXPOSITORY STATEMENT

LSDB2T

DoorKing Inc.
Corporate Offices & Manufacturing
120 Glasgow Avenue Inglewood, California 90301



Telephone Entry
Systems

PC Programmable
Systems

Gate Operators

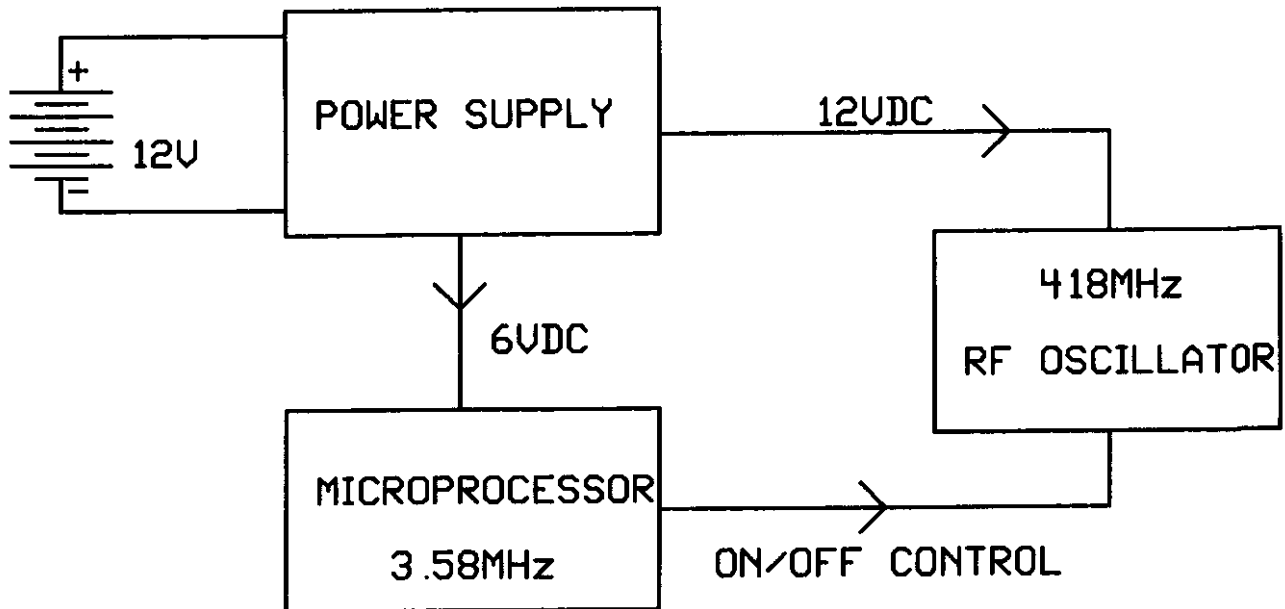
Parking Gate
Operators

Radio Controls

Card Readers

Digital Locks

TRANSMITTER BLOCK DIAGRAM



DoorKing Inc.
Corporate Offices & Manufacturing
120 Glasgow Avenue Inglewood, California 90301



Telephone Entry
Systems

October 16, 1998

PC Programmable
Systems

Description of Transmitter Operation:

Gate Operators

The transmitter consists of three sections: 1. The power supply. 2. Microprocessor. 3. The RF oscillator.

Parking Gate
Operators

1. Power Supply consists of a small 12VDC battery which supplies the RF oscillator and a 6VDC regulator which reduces the battery voltage for use by the microprocessor.
2. Microprocessor consists of a single chip 8 bit Motorola device which stores the serial number of the transmitter and gates on and off the RF oscillator to transmit the serial number.
3. RF Oscillator is a Colpits circuit consisting of a single transistor stabilized by a SAW (surface acoustic wave) resonator running at 418MHz

Radio Controls

Card Readers

Description of Schematic Diagram:

Digital Locks

The power supply consists of the battery(BT1), the switch(SW1) and led(D1)and 6VDC regulator consisting of R1,D2,Q1,R2. The 12VDC is supplied to the RF oscillator while the 6VDC is supplied to the microprocessor.

The microprocessor(IC1) is manufactured by Motorola. It runs at a frequency of 3.58MHz supplied by ceramic resonator(Y1). The serial number of the transmitter is stored within IC1 and is output on pins 9,10,11,12 when power is applied to the transmitter. By making pins 9-12 high(6VDC) the RF transmitter is turned on. By making pins 9-12 low(0VDC) the RF oscillator is turned off. IC1 turns on the RF oscillator in 1ms bursts with timing between the bursts of 3,6,9ms making the ones and zeros of the data.

The RF oscillator, which runs at 418MHz consists of R3,C1,Q2,C2,C3,R4,SW1. This is a SAW stabilized colpits oscillator. The antenna consists of a circular shaped etch on the printed circuit board approximately 2 inches long.