



## Early Light Industrial Co., Ltd

TEL: 852-29448866 EXT 354

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Project No. : #0302

Model Name : Breakdancer

Frequency: 27.145, 40.685 & 49.86 MHz

Date: 8,OCT, 2003

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REV : 00

### Electronics Department

### (CIRCUIT DESCRIPTION)

#### CIRCUIT DESCRIPTION:

##### **IN TRANSMIT MODE:**

When TX unit is switched "ON", A CW signal is transmitted. The frequency oscillated by Y1 and modulated RF signal output from IC1 pin 5(RFO) is coupled through L2 to antenna.

IC2 (EM58300) is sound chip IC. Pin 17 output the audio sound and amplified by Q1 to speaker.

The low pass filter made up of C6, T1 & C7, which is connected to the antenna. The modulation is provided by IC1. The modulated RF signal will be send out if either SW1 or SW2 is pressed.

3XAA= 4.5V Alkaline Battery supplies energy.

##### **IN RECEIVE MODE:**

Q101 is the Supper regenerator & detector, ZD1 & IC101 are the precision voltage regulator, IC102 is the signal decoder. Q102, 103 are the tunnels of the motor driver. Q104, 105, 106, and 107 are the current driver of the motor. Energy is supplied by 4x1.5V AA size alkaline battery.

#### ANTENNA AND GROUND CIRCUITRY.

This unit makes use of an external 8-inch antenna, the antenna is inductively coupled, and the unit relies on the Ground trace of the printed circuit board. No external ground is provided.

3 X AA=4.5V Alkaline battery supplies energy.