

**Applicant:**

Heath Company, a Division of DESA International Inc.  
2701 Industrial Dr.  
Bowling Green, KY. 42102

**Manufacturing Location:**

Heath Company LTD.  
Rm. 704 Star Centre  
443-451 Castle Peak Rd.  
Kwai Chung, Hong Kong

**Circuit Description**

The W-32A-TX is a Wireless Remote Control Transmitter to be sold to operate our Heath Zenith receivers that are used to control lighting, appliances and other similar loads. Currently, this transmitter will activate receivers in our SL-6132, SL-6133, SL-6135, SL-6136, SL-6138 and SL-6139 products. It will initially be packaged with the SL-6136-RX and SL-6139-RX receivers and case style may vary. A 9V battery powers the transmitter.

Two “channels” are available which correspond to two different crystal modulation frequencies, either of 2 sets; 28 kHz and 30 kHz or 32.768 kHz and 38 kHz (appropriately marked “A” and “B” or “D” and “E”). Note that future production may include other sets of crystals within the 28 k to 38 kHz range. There are two front cover push buttons (momentary contact) that individually activates a different channel (one at a time). The receivers are manufactured with one of the corresponding crystal frequencies installed and appropriately marked...“A” and “B” or “D” and “E”.

Transistors Q1 and Q2 form the crystal oscillator used for modulation in channel “B” and operate at either 30 kHz or 38 kHz (dependent on which set is used). Transistors Q3 and Q4 form the crystal oscillator used for modulation in channel “A” and operate at either 28 kHz or 32.768 kHz. These oscillators operate continuously at low power whenever the battery is installed. This eliminates the start-up drift of the modulation frequency, which could occur when the transmitter is activated.

Integrated Circuit (IC) “U1” sections –C and –D and U2 sections –B and –C form retriggerable monostables, which sets the minimum transmit time to approximately 150mS, eliminate contact bounce and short burst transmissions.

Transistor Q5 is the “rf” oscillator and is factory adjusted to 315 MHz by capacitor “VC”. The output is activated when pin 3 of U1 section –A is set at a logic high and deactivated when set at logic low. The antenna consists only of the small internal tuning loop and a PCB trace (foil).

### Alignment

There are no user accessible adjustments. During manufacture, adjusting the tuning capacitor “VC” to 315 MHz sets the carrier frequency.

### Service

There are no user serviceable parts in this product.

### List of Generated Frequencies

315 MHz “rf” oscillator stage

Modulation: crystal controlled, between 28 kHz and 38 kHz (as a set)  
i.e. 28 kHz and 30 kHz or 32.768 kHz and 38 kHz (operated one-at-a-time).