

FUNCTIONAL DESCRIPTION OF THE LIBRA BELL PUSH TRANSMITTER (D260, D261, D264 & D265)

- The basic function of the unit is to generate a coded RF transmission once the push button has been depressed.
- Pressing the push button wakes the microcontroller, which firstly enables the RF transmitter circuitry (giving it time to settle, and so be stable when data is later applied). The microcontroller then reads the position of the 2/4 note tone select switch and the 8 way house code DIP switch.
- A data-stream is generated that essentially contains information on the switch positions, this is fed to the RF circuitry. Data is encoded in a style similar to Manchester coding, with an effective data rate of 1040bps. Each transmission lasts 1.2sec in which the data is repeated 35 times.
- The RF transmitter circuitry is crystal based, using an IC that features a phase locked loop, and is therefore very stable. The transmit carrier frequency is 433.920MHz, and on–off keyed modulation (ASK) is used. The RF signal is radiated by an integral antenna.
- D260 and D261 models include an LED which is illuminated whilst the unit is making a transmission.
- The whole unit is powered by a single 3.0V CR2032 lithium coin cell battery.