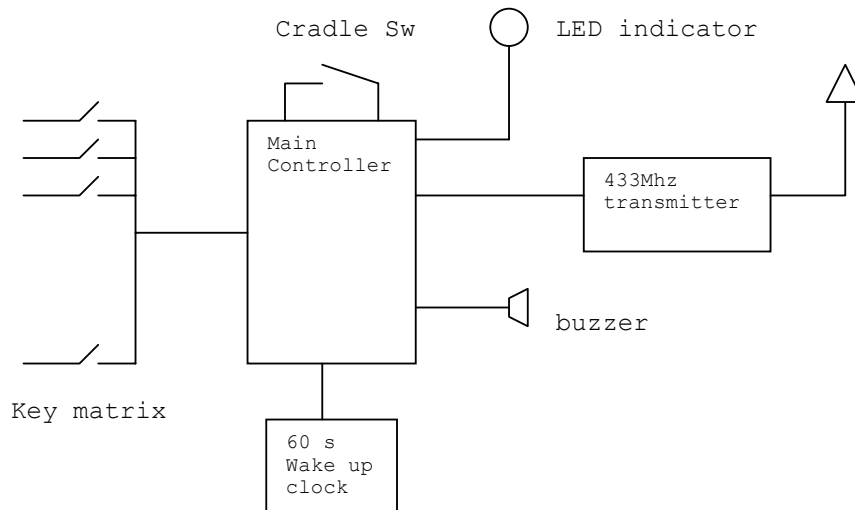


Principle of Operation of SI676/IU676

Transmitter



Standby Mode

Under standby condition the controller is in sleep mode and power to the transmitter is switched off. The 60 seconds wake up clock is running all the time and will generate an interrupt signal to the main controller every 60 seconds.

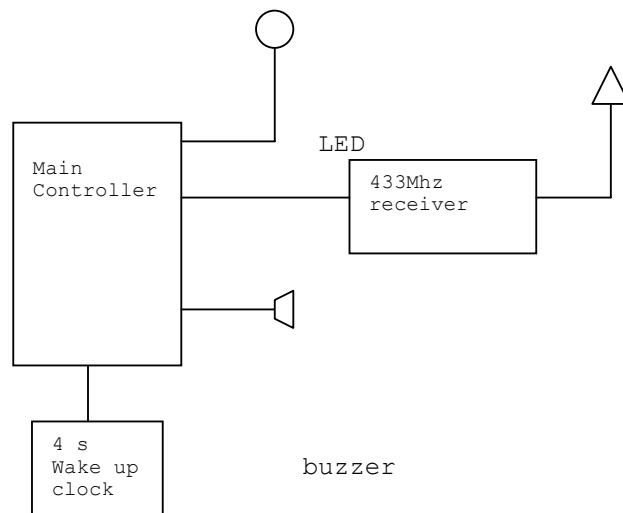
Transmit Mode

When the user press any button, the main controller will wake up turn on the power for the transmitter. Then it sends an ID code corresponding to the position of the key pressed. The transmission is repeated for 4.5 seconds and then the main controller switch off the power to the transmitter. The LED is turned on to indicate that RF transmission is active. The controller will enter standby mode after transmission is completed to save power.

Off Cradle Alert

If the transmitter is off the mounting cradle, an interrupt will wake up the controller to start a timer. After the first two minutes and every six minutes afterwards, the controller will generate an audio signal to alert the user that the transmitter is not sitting on the cradle.

Receiver



Standby Mode

The main controller will be in sleep mode and the receiver power is turned off during standby mode. Every 4 seconds the clock circuit will generate an interrupt signal to wake up the controller. The controller will then turn on the RF receiver and wait for a valid data code from the transmitter. If there is no valid code detected within 30ms, it will then turn off the receiver and enter sleep mode again.

Receiving Mode

When the controller recognizes a valid data code from the transmitter, it will generate a two tone audio signal and flash the LED as well to indicate that a valid code is received. The audio and visual signals will last for 3-5 seconds before the controller enters standby mode again.