

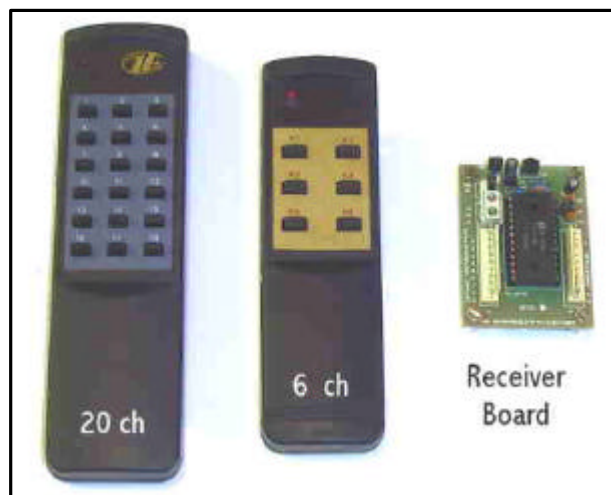
18 and 6 channel Infra-red remote control system

This infrared remote control system consists of a *remote control handset* and a *receiver board*. The operation distance is up to 15 meters in house. The Infrared link between the handset and the receiver board utilizes a 40 kHz carrier signal so as to increase immunity of the system.

Two versions are available. One has 18 channels and the other has 6 channels. The controlled outputs from the receiver board are TTL compatible.

The handset requires two 1.5V AA batteries which could last two years. The receiver board requires a 6-15V DC power supply and consumes 3 mA (output lines are not connected to any circuits).

The system is a remote control building block. It can be easily incorporated with user's circuits or devices. It has a wide range of applications in home and industry automation.



1. 18 channel remote control system

The 18 remotely controlled channels can be divided into three groups according to their waveform behavior from the receiver.

- Continuous high outputs - Pressing keys 1 to 6 on the handset continuously causes the corresponding output on the controller board to stay high.
- Single pulse outputs - Pressing keys 7 to 16 continuously causes the corresponding output only to produce a single low-to-high-then-low pulse.
- Latched outputs - Keys 17 and 18 generate latched logic status.

All outputs are TTL compatible. The pin functions of the controlled outputs are given in Figure 1. Physical sizes of the handset and the receiver board are given in Figure 3.

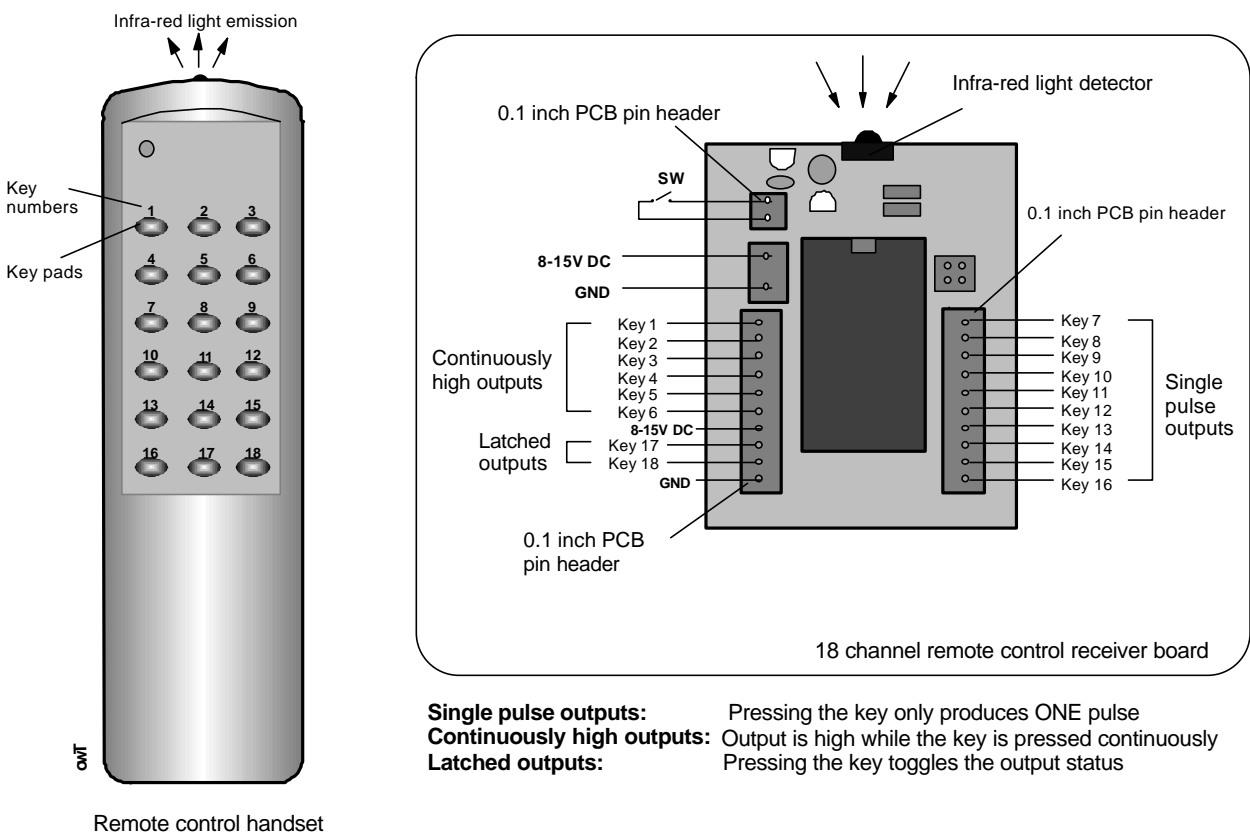


Figure 1 18 channel infra-red remote control system

2. 6 channel remote control system

The 6 remotely controlled channels are all continuously high outputs. Pressing any keys on the handset continuously causes the output to stay high. All outputs are TTL compatible. The pin functions of outputs on the controller board are given in Figure 2. Physical sizes of the handset and receiver board are shown in Figure 3.

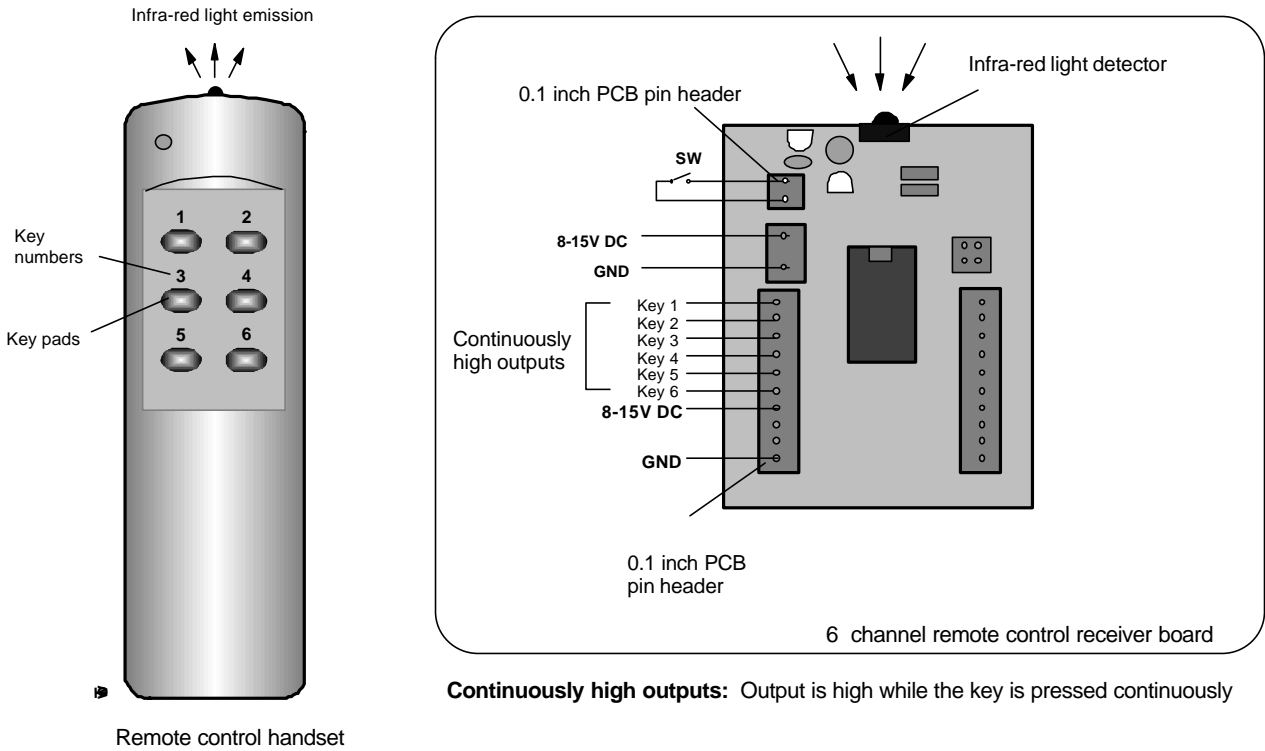
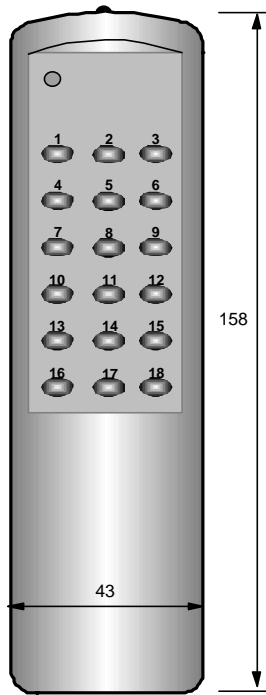


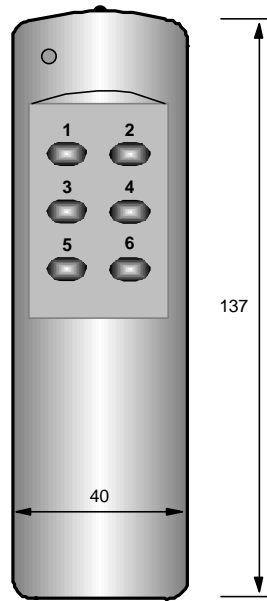
Figure 2 6 channel infra-red remote control system

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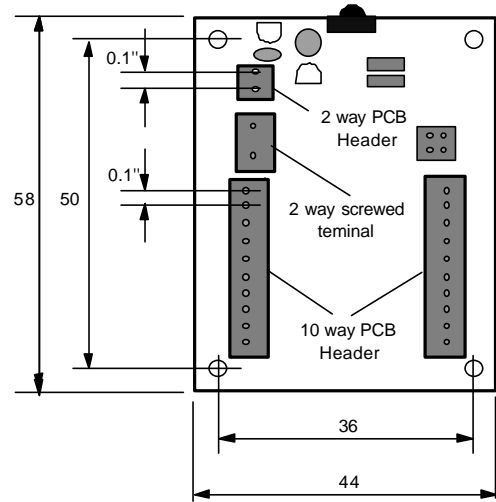
3 Physical sizes of handsets and receiver board



18 channel Remote control handset



6 channel remote control handset



18/6 channel receiver board

Figure 3 Physical sizes of handset and receiver board