

Installation Tips for Best Performance

To ensure best performance from this product DO NOT install the receiver on or next to a metallic surface. If this is unavoidable then the antenna will need to be brought clear of the metal via a coaxial cable (RG58). This cable should terminate at a 434Mhz antenna. Circuit Level makes a suitable external antenna (ANT-01). Inquire with your supplier. If range is poor and interference from another source has been eliminated try moving or re-orientating the receiver.

Specifications

Operating Voltage	9 to 24VDC, 9 to 24VAC
Current Consumption @ 12VDC	Standby 9mA, All relays 58mA
@ 24VDC	Standby 15mA, All relays 88mA
@ 16VAC	Standby 14mA, All relays 87mA
Physical Dimensions	Bulkhead case 108x70x34
Case Material	ABS plastic
Output Channels	4
Output Ratings	SPDT relay 1 Amp switching maximum @ 24VDC. Contacts are voltage free.
Reverse Polarity Protection	Yes (diode)
RF Operating Frequency	433.92mhz
RF Signal Type (Data Transfer)	On Off Keying (OOK)
	Keeloq™ Code Hopping
Coding Combinations	4.2 billion
Learning Capacity (RF Devices)	170 fobs
Country of Manufacture	Australia

Warranty

Circuit Level Electronics (Aust) Pty Ltd warrants this product to be free from defects in materials and workmanship for a period of **3 Years** from date of purchase. We will in the event of failure repair or replace the product at our sole discretion. This warranty does not apply in the event of accidental damage, abuse, misuse, non approved purpose or act of God. This warranty is given in addition to any rights allowed by New South Wales law.

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Circuit Level Electronics (Aust) Pty Ltd
ABN 51 074 517 570



Circuit Level Electronics reserves the right to change specifications without notice in the interest of product development.

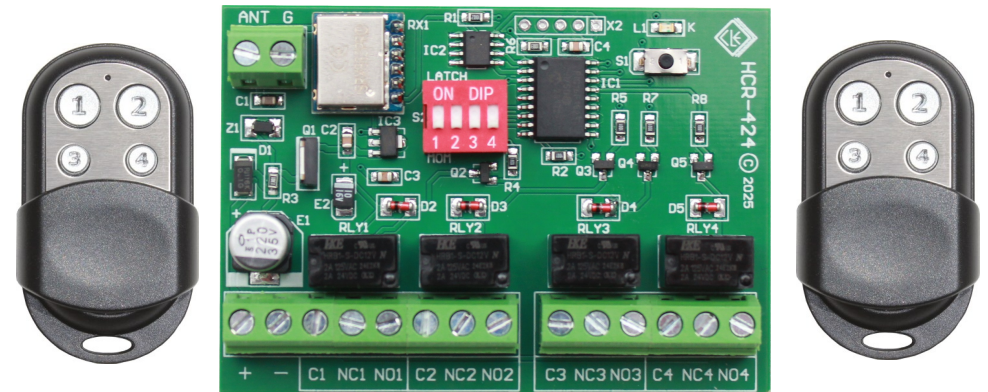


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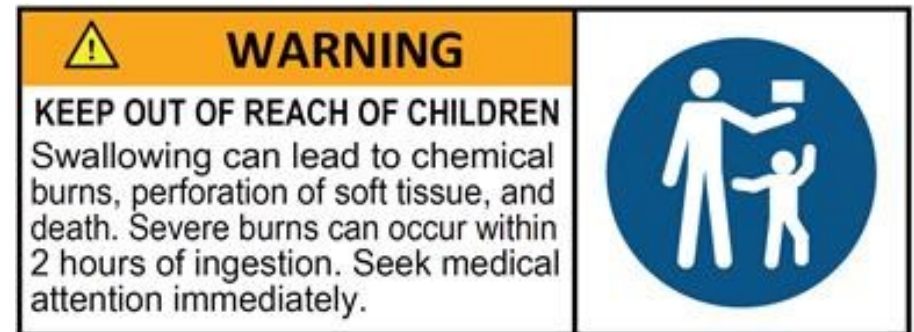
HCR- 424

4 Channel Receiver Controller



HCR-424K Kit shown above includes 2 x HCT-4P fobs.

**The Keyfobs in this kit contain coin cell Lithium batteries.
In an emergency Dial 000.**



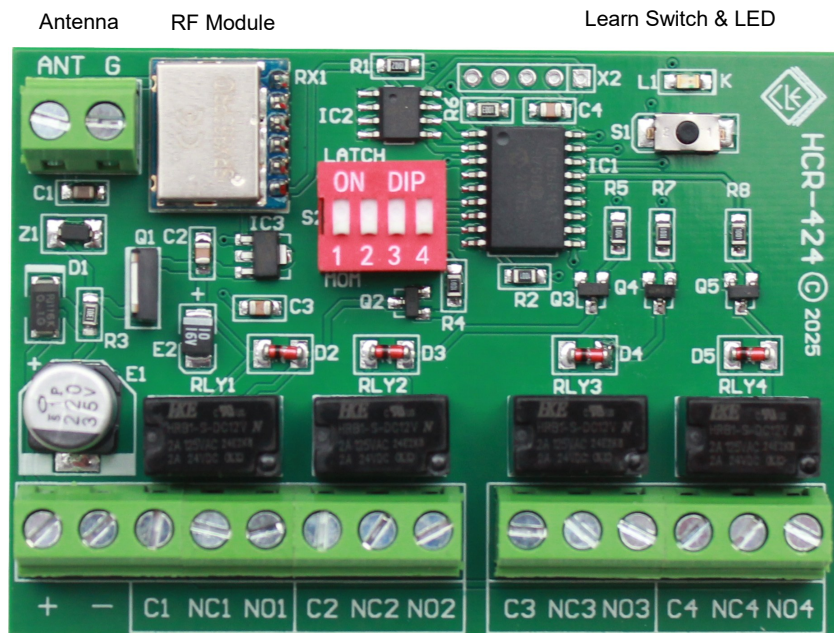
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Overview

The HCR-424 is a general purpose UHF receiver operating on 433.92mhz. Four single pole double throw (SPDT) outputs are available to control external devices. The receiver is designed for use with 4 channel keyfobs. This system uses code hopping technology for secure RF transmissions.

This revision is also a renaming of the product to bring it in line with our other receivers. The **HCR-424 and HCR-15 are fully compatible with each other.**

PCB Layout



Power
9 - 24VDC
9 - 24VAC

Relay connections

HCR- 424 Kit

The HCR-424K is a kit containing a HCR- 424 receiver and TWO (2) HCT-4P slide cover fobs. These fobs are already learned to the receiver with output relays set as momentary. ie: all DIP switches in the OFF position.

Learning Fobs

This receiver is code learning therefore making the addition of extra transmitters an easy task. Fobs supplied in kits are already learned to the receiver. In this case skip Step 1. The HCR- 424 can learn up to 170 fobs.

1. If the receiver is being set up for the first time it is advisable to clear the EEPROM memory. To do this hold down the LEARN/DELETE switch on the PCB. The LED will light and then extinguish after 4 seconds. The EEPROM is now empty.
2. Press the LEARN/DELETE switch briefly. The LED will flash rapidly.
3. LEARN a fob to the receiver by pressing a button on the fob. The LED will stop flashing whilst a signal is received and then give ONE flash after you let go the button to indicate successful learning of the fob.
4. Learn additional transmitters or exit by pressing the LEARN/DELETE switch once. LED off. If you forget to exit learn mode (flashing LED) the receiver will do so automatically after 20 seconds of no activity.

Deleting Fobs

Press and Hold the Learn/Delete switch. The LED will come on. When the LED extinguishes (approx 4 seconds) all codes stored in the EEPROM memory have been erased. It is not possible to delete individual fobs.

Relay Setup

Each of the four relays can operate as either **momentary** (operates whilst a transmission is received) or **latching** (changes state with each transmission). The **4 way DIP switch** is used to set operation. With the switch corresponding to the relay set to the ON position the relay will LATCH. With the switch in the OFF position (default) the relay will operate in momentary mode.

Power

The HCR-424 is designed to operate from 9 to 24VDC and 9 to 24VAC.

IMPORTANT NOTE:

At 24VDC only TWO outputs can safely latch. At 24VAC only 1 output can safely latch. The power drawn if more outputs are latching will exceed the rating for the on board transistor regulator. If latching functions are required on all outputs at 24V then we recommend the HCR-100 receiver.