HCR-W4IP65 Antenna installation

The HCR-W4IP65 is supplied with the antenna tube removed from the IP65 case.
Slide the tube with rubber seal down over the antenna wire and into the cable gland ensuring that it seats correctly. Now fit and tighten the cable gland nut so as to ensure a watertight fit.
If an external antenna is being fitted the tube should be removed and the coaxial cable fed through the cable gland to the terminal block. Again ensure correct sealing around the cable.

Specifications

Operating Voltage	9 to 25VDC
Current Consumption @ 12VDC	10mA maximum
Physical Dimensions	IP65 Case 160mm x 90mm x 55mm
	Antenna 130mm
	Bulkhead case 108x70x34
Case Material	ABS plastic
Output Channels	4
Output Options	Shunt selectable
INT	10k pull up to 5VDC
REMOVED	Open collector
EXT	+ 5VDC out terminal active for user selectable external pull ups
Reverse Polarity Protection	Yes (diode)
RF Operating Frequency	433.92mhz
RF Signal Type (Data Transfer)	On Off Keying (OOK)
	Keeloq_{TM} Code Hopping
Coding Combinations	4.2 billion
Memory Capacity	32,000 active fobs
Country of Manufacture	Australia
Compliance	C Tick (Aust) AS4268

Warranty

Circuit Level Electronics (Aust) Pty Ltd warrants this product to be free from defects in materials and workmanship for a period of **2 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.

Made in Australia
By
Circuit Level Electronics (Aust) Pty Ltd
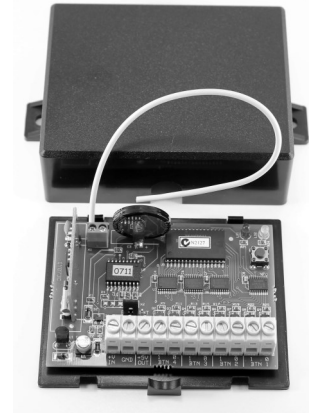ABN 51 074 517 570

HCR-W4
4 Channel 26 Bit Wiegand Receiver

Standard Version
(Indoor) HCR-W4

IP65 Version
(Outdoor) HCR-W4IP65

Overview

This product is designed to provide a convenient high security RF interface to an access control system which recognises the Wiegand 26 bit protocol. The HCR-W4 may operate in one of two modes.

Mode 1:

The received signal is decoded into a 26 bit Wiegand number and the output corresponding to the button pressed on the fob (1, 2, 3, 4) presents this Information for input to the access control system. In this mode up to 4 entry/exit points may be controlled from the one receiver.
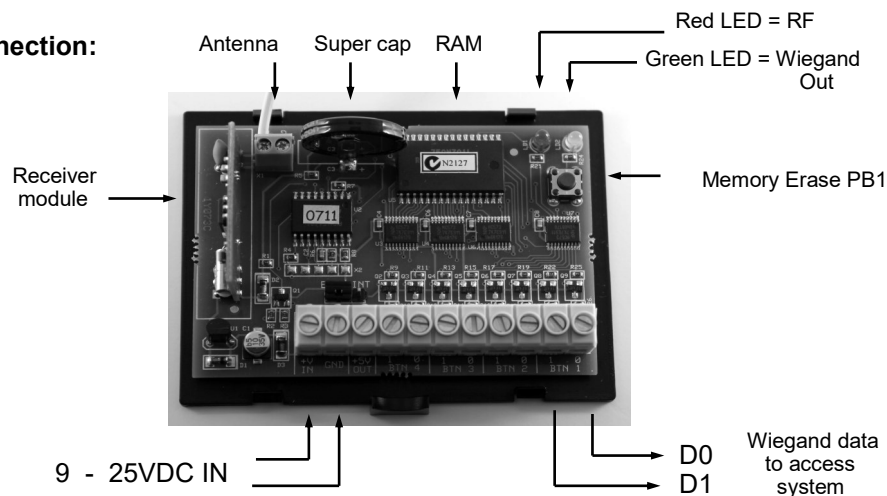
Mode 2:

The received signal is decoded into a 26 bit Wiegand number and output on "BTN 1". Each button on the fob increments the user number by one (1).
Eg: Fob is programmed as Site 123 with button 1 on the fob outputting user 456. Button 2 will then be User 457, button 3 user 458 and button 4 user 459.

Note: The above modes of operation are determined by the fob programming in the factory. The HCR-W4 can manage up to 32,000 fobs in an active users data-base. Inactive users are automatically deleted. The HCR-W4 will only function with fobs supplied by Circuit Level Electronics programmed with Wiegand.
The HCR-W4 has an onboard 4Mb super capacitor backed RAM which manages all fobs. The super capacitor backup will provide a minimum 24 hours backup in hostile (high temperature) environments. In normal operating conditions (~ 25 deg C) backup in excess of 7 days can be expected.

Connection:

Antenna   Super cap   RAM

Red LED = RF

Green LED = Wiegand Out

Receiver module

Memory Erase PB1

9 - 25VDC IN

D0
D1

Wiegand data to access system

Installation and Setup

1. Select the site for the receiver which allows connection to the wiegand input of the access system. This site should be clear of metallic objects as much as possible. The antenna should be in free air. In the case of the HCR-W4IP65 being mounted at a metal gate post, the antenna should be brought clear of the post.

Note: An external 434Mhz antenna may be connected to the small terminal block in place of the wire aerial. This connection should be via RG58 50 Ohm co-axial cable. Connect the centre conductor to "A" and the shield to "G".

2. Connect receiver to a DC power source (9-25VDC) and connect the wiegand output/s of the receiver to the access system.

3. The HCR-W4 has 3 pins just above the terminal block. This set of pins allows different configuration of the wiegand outputs to suit different access systems. With the jumper in the "EXT" position (default) the D0/D1 lines are not connected to a voltage source and the internal 5 volt supply is routed through to the terminal marked "+5V OUT". This will suit most applications where the access system provides the voltage source. With the jumper in the "INT" position, the D0/D1 lines are connected to the internal +5V through 10K Ohm resistors. If the HCR-W4 is not reporting the correct site/user to the access system then the INT jumper position should remedy this. If the HCR-W4 is required to source +5V, but the internal 10K Ohm resistors are insufficient, then, with the jumper in the "EXT" position resistors may be wired externally from each D0/D1 terminal to the +5V OUT terminal.

4. Power up the receiver and then press PB1, the PCB switch, three (3) times, holding down on the third press. After 4 seconds the RED and GREEN LEDs will flash together for approximately 15 seconds. This function is clearing the RAM memory. Once the flashing stops the GREEN LED will be lit. Press the switch PB1 once and the LEDs will extinguish.

5. The HCR-W4 is now ready to "LEARN" fobs. Simply press a button on the fob and observe the LEDs on the receiver. On the first press the RED LED will light indicating RF reception of a valid signal. Press the same button again and the RED LED will light as before with/followed by the GREEN LED indicating output of a wiegand transmission.

6. Repeat step 5 for all required fobs. Note, at no time is it necessary to press PB1 on the receiver. Learning requires simply two (2) button presses from a compatible fob.

7. Test operation.