

R2ESIA06

Equipment description

The Handset is a battery powered thermostat with a Liquid Crystal Display (LCD). The Handset utilises Radio Frequency technology to communicate with the Evaporative Cooler Power module (ECP05) and Cooler Power Module (CPMD). By sensing the room temperature and controlling the operations of the fan and pump via the ECP05 and CPMD, the Handset can be used to control the comfort level of a building. In addition, the Handset provides features like programmable time operations, pump and drain valve control, Water manager operation, time of day clock, economy mode, automatic and manual control modes.

Specifications

Battery Requirements

(Note these can change based on processor and transmitter selection)

Operating Voltage	: 4.5v d.c.
Batteries	: 3 x 1.5v d.c. (AAA alkaline)
Battery life	: minimum 2000 hours of operation (2 years)
Memory Backup	: 3 minutes after batteries removed once “Battery Low” is indicated, assuming no buttons are pressed

Operating Temperature

Operating temperature	: 0 °C to 40 °C
Storage temperature	: 0 °C to 50 °C
Relative humidity	: 0 to 85% non condensing

Transmission Frequency And Range

Carrier frequency	: 433.92 ±0.4 MHz
Signal frequency	: 300 Hz
RF Output Power	: 5.8uW max
Modulation	: ASK
Range	: 50 metres

Periodic Transmission

When operating	: sends the data packet once every 2 minutes to 10 minutes
When off	: none

Data Packet

Packet size	: 3 x 6 byte packets (8 bits per byte), total 18 bytes
Byte 1	: Preamble 0ffH fixed
Byte 2	: Header 0aaH fixed
Bytes 3 - 5	: Data 00H to 07fH variable
Byte 6	: CRC (last byte) 00H to 0ffH variable