

Secure Wireless Remote Control SWRC2A

A low-power, secure, wireless remote-control system using AES Encryption and a low-energy, robust and attack-resistant communication protocol.

The SWRC2A system comprises one WMBU1A hand-held controller and one WMRUxA slave module. It provides a highly secure wireless ON/OFF function which cannot be circumnavigated by any form of analysis of the RF signal.

The system is designed to be used to control equipment such as audio or video recorders where absolute confidence of the control system is required. Due to the highly secure nature of the wireless protocol, the system is equally suited to keyless entry applications.

The SWRC2A system is designed for battery operation with an expected remote-module battery-life of at least 2 years¹. In addition to the ON/OFF function, it provides the user with status information including the state of the output (on or off) and battery condition (remaining percent capacity) allowing the user to verify the condition of the remote system at any time.

Features

- ◆ Secure Link using AES Encryption
- ◆ Immune to RF record / replay attack
- ◆ Immune to RF random data attack
- ◆ Small remote-unit size
- ◆ Low Power (>2 years¹ battery-life)
- ◆ Open-Drain, Logic or RS232 interface
- ◆ Custom RF Frequency available²
- ◆ Option 1A: SMA antenna connector
- ◆ Option 2A: Integrated CHIP antenna
- ◆ 100m LOS range at -10dBm Tx Power
- ◆ 500m LOS range at +10dBm Tx Power
- ◆ Display of remote output state
- ◆ Display of remote battery condition
- ◆ Supplied pre-paired and ready to go
- ◆ Pairing can be changed if required

Applications

- ◆ Audio Video ON/OFF Control
- ◆ Keyless Entry



WMBU1A Specifications (controller)

Unless otherwise stated: Temp = 20°C, Battery = 2 x E91, remote-unit = 1A model with helical whip as shown above.

Size excluding antenna (mm)	38 x 24 x 109
Battery-Life ¹	>2 years
Typical LOS Range (-10dBm power)	100m
Typical LOS Range (+10dBm power)	500m
Standard Operating Frequency	868MHz
Custom Frequency Range ² MHz	160 to 950

Note. Specifications are subject to change without notice.



WMRUxA Specifications (remote unit)

Unless otherwise stated: Temp = 20°C, Battery = 2 x E91

1A Size without antenna (mm)	57 x 16 x 7
2A Size (mm)	59 x 16 x 7
Battery-Life ¹	>2 years
Switching Current	5mA Max
Logic Control Voltage	3.3V

Note. Specifications are subject to change without notice.

1. Assuming 10 commands per day and 2 x E91 batteries.

2. Custom frequency systems in this range are available to special order. Contact RHDC Services Ltd for more details.