### **RAKO CONTROLS**

WIRELESS MODULE OVERVIEW



#### Introduction

For the easiest possible installation solution Rako wireless systems communicate using radio signalling with keypads and other control devices sending commands to receiver modules.

The wireless module installation can be used with or without specialist wiring making it an ideal "retro-fit" solution.



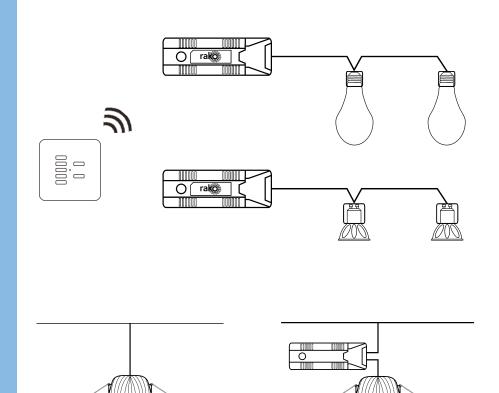
For mains dimmable lamps the RMT500 (trailing edge) or RML250/500 (leading edge) modules can be fitted through a standard 50mm downlight cutout. The existing switch should be removed and the switched live given permanent power.

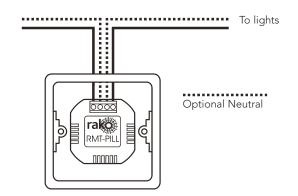
<u>Leading and trailing edge</u> <u>explained</u>

### Wall lights or pendants

The RMT-PILL dimmer module can be used for circuits where access to the wiring is particularly difficult. For example a pendant fitting, where the only access to the live feed is in a backbox. The RMT-PILL dimmer fits into a (deep) UK back box, and can be used either with or without a neutral connection.

When used without a neutral connection only fittings without a driver can be used (not LEDs).





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### Higher load dimmers

The RMT1200 or RML1200 can control up to 1200W. Being a larger unit it will not fit through a downlight cutout and will need more careful locating.

## Switching

For non-dimmable loads Rako provides the RMS800.

#### NB

These units are not designed for use with curtain or blind motors, instead RACUBs should be used.

# LED control

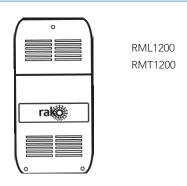
The RLED range of modules allow direct control of either constant voltage (CV) or constant current (CC) LEDs avoiding the need for 3rd party drivers (guaranteeing good visual performance).

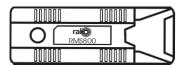
The RLEDCV range controls CV LEDs (usually LED tape) fed with either a 12V or 24V power supply.

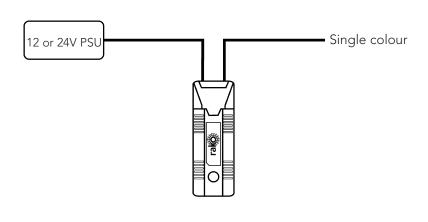
The RLEDCV range and RLEDCC range are both available in four channel variants to control RGBW fitting type.

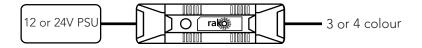
#### LEDs application sheet

How LEDs work









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#### **Broadcast dimming**

Rako's digital dimmer modules are designed to dim ballasts compatible with 1-10V, DSI or DLI - Digital Lighting Interface, compatible with EN62386. These ballasts are dimmed via a control pair with a switched mains supply available if required. The appropriate Rako module for this type of ballast is the RDA800.

### Addressable digital dimming

The Rako system also supports addressable digital ballasts with the RSR-DMX for DMX and RSR-DLI for digitally addressable drivers.

Both can be used to control up to 16 channels in a single room.

#### Curtain and blind

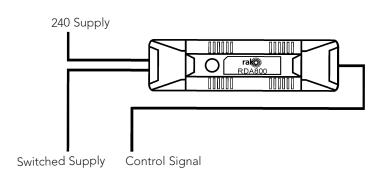
The RACUB is Rako's all purpose curtain and blind control module capable of controlling mains, 24V DC and contact closure input blinds.

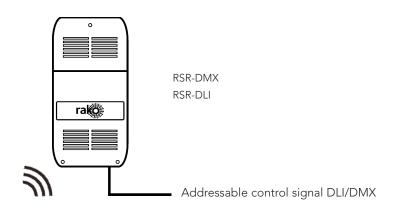
Two internally pre wired versions are available for ease of wiring of the two most common types of blinds.

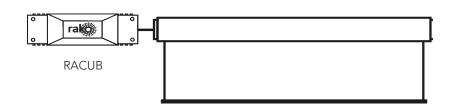
The RACUB2L is pre wired for use with mains motors with 2 inputs.

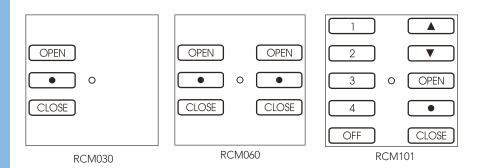
The RACUB24DC is pre wired for use with 24V polarity switching motors.

These modules are usually controlled by 3 or 6 button wall plates. The RCM101 can be used when combined lighting and blind control is desired from a single keypad.









## **RAKO CONTROLS**

WIRFIESS MODULE OVERVIEW



#### **RCM**

RCM keypads are addressed using switches on the rear of the modules.

The keypad always communicates with a single room. Additional functionality can be activated by pressing and holding different button combinations. For example: House Master off and Channel mode.

Advanced keypad features application sheet

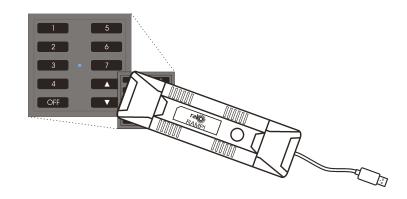




### **RNC**

The RNC keypads are fully programmable via NFC technology. The RAMPI and Rasoft Pro are required to address these keypads.

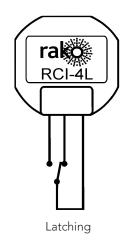
Once addressed any button can communicate with any room and channel within the Rako system. A button can also be programmed to talk to multiple rooms/circuits with a single press.

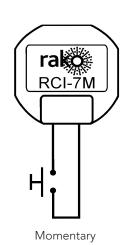


## Integrating with 3rd party switches

The RCI interface allows 3rd party latching and momentary switches to transmit wireless Rako commands.

They are programmed in via NFC in much the same way as the RNC keypads. Two options are available for different switch types: the RCI-7M for momentary switches and the RCI-4L for latching switches.





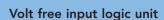
## RAKO CONTROLS

WIRELESS MODULE OVERVIEW



### **PIRs**

Presence sensing is achieved either directly with a RAPIR or by using a RAMVR which can be integrated with 3rd party PIRs (either mains or contact closure).



The RMR-VF allows mechanical switches and logic levels to add additional control of a Rako Wireless system. This includes inputs from Alarm sensors, PIR modules, Thermo sensors, Light detectors. In fact anything that can provide an electrical contact or a DC logic output.

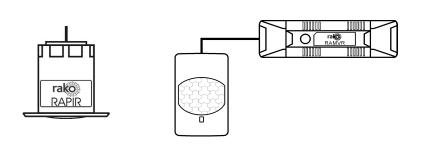
### Signal repeater booster

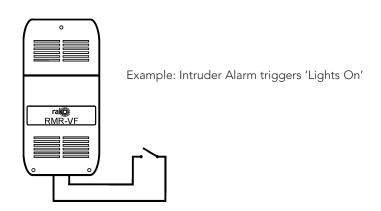
Where range may be an issue, due to particularly long transmission distance, the WRB100 repeater unit can be used. The WRB100 is supplied with a 9-12V dc power supply and re-transmits Rako wireless signals, increasing transmission range where necessary.

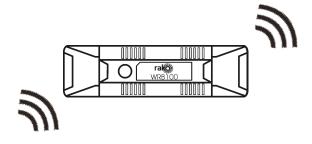
### **RAMPI**

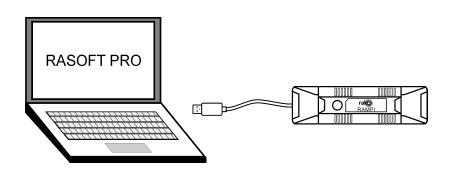
A RAMPI plugs into a USB port and allows control and programming from Rasoft Pro. It also allows for NFC programming for products such as the RNC and RCI range.

Wireless module programming guide









## **RAKO CONTROLS**

### Wireless module overview



### Bridge

The Bridge comes in two varieties when used with a wireless system.

The RA-Bridge operates as a network interface, allowing system control from the Rako App and other IP based control systems. It also stores the Rasoft project file.

The RTC-Bridge performs all the roles of an RA-Bridge in addition to: events, holiday mode, wireless mappings and macros.

All types of Bridge can be used to program systems via the Rasoft Pro software.

See Bridge application sheet for more information on Bridge functionality and usage.

Bridge application sheet

