application sheet
RAKO CONTROLS
OVERVIEW - WHAT IS SCENE SETTING?
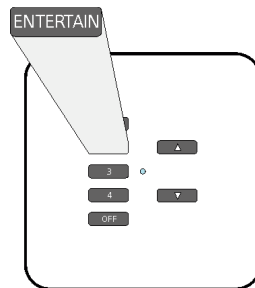
rako

OUR AIM

To provide a fully featured lighting control system with modular design giving both simple retro-fittable wireless installation or centralised wired solutions, which all work seamlessly together.
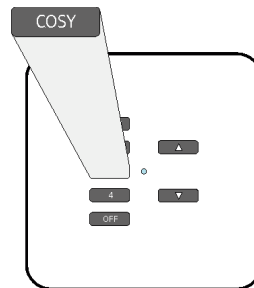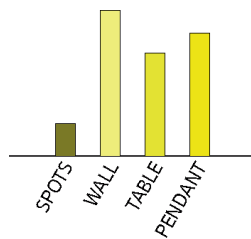
SCENE-SETTING - WHAT IS IT?

Rako lighting systems allow any number of circuits to be controlled from a single button. The core principle by which this is achieved is by "scene" or "mood" setting.

Scene lighting has long been used in the commercial world for restaurants, conference facilities etc. Gaining its name from the theatre where complex lighting changes are needed for each Scene, it allows users to recall a lighting mood by pressing one button rather than adjusting many rotary knob type dimmers.

Button 2 selects this setting - 'Entertain'

Press button 3 and all lights cross-fade to this setting - 'Cosy'
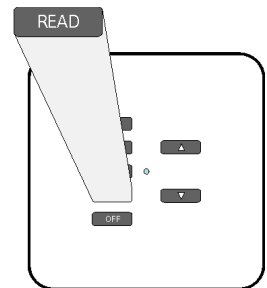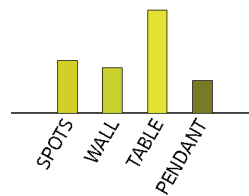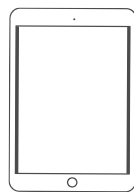
Button 4 gives this setting - 'Read'

Unlike simpler controls, digital scene-setting or mood systems offer 2-way control, handhelds, App and voice control and can also link easily with curtain and blind control.
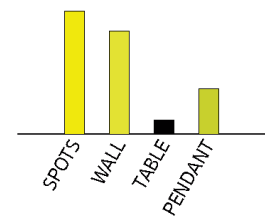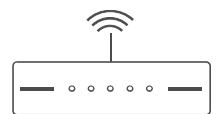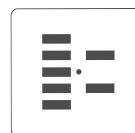

App control

Curtain & Blind Control
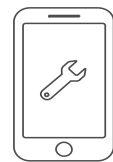
Voice Control

IFTTT

Timed events

Multi way

Security

WIRELESS OR WIRED

Rako systems can be broadly divided into two types: "Wireless" and "Wired"

Wireless systems make the installation of a lighting control system possible in projects where the option of dedicated cabling is not feasible. Rako's Wireless system is designed so that the dimmer modules can be fitted into a standard domestic wiring scenario.

Wireless control is equally viable in new installations where it offers a more cost effective and simple installation than the Wired system.
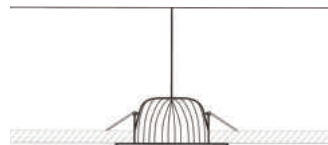
Rako uses 433MHZ radio communication giving much better transmission distances than higher frequency signalling such as WiFi.

Wired systems use dedicated data cabling to connect the system elements with centralised RAKs in one or more locations.
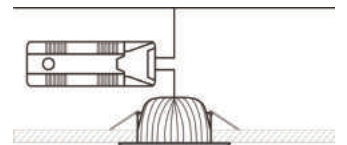
The Wired system also offers additional features including: backlit LED keypads, active feedback and unlimited system range.

The basics of wireless communication

One way RF communication allows for long range, reliable transmission from keypads (or other devices) to dimmers.

Simple retrofit of a downlight circuit - Rako dimmer fits in existing wiring.
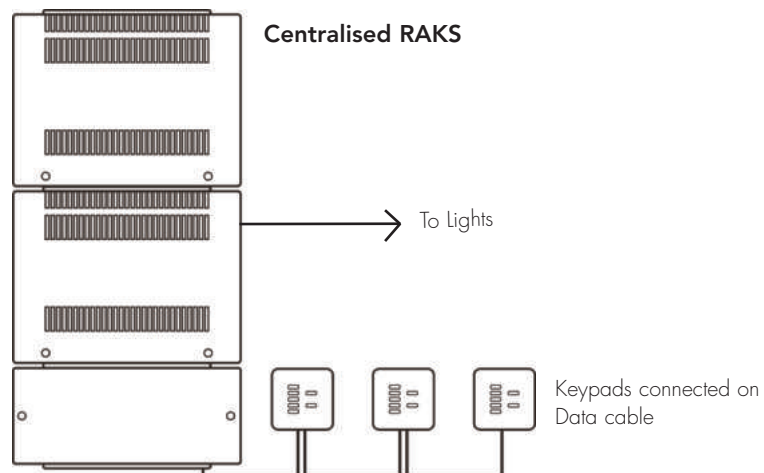
Incorporate a free standing lamp by wiring a Rako dimmer into a flex.

Battery powered keypads send wireless message to dimmers

The basics of wired communication

Centralised RAKS

To Lights

Keypads connected on Data cable

MODULES OR RAKS

When referring to a Rako "dimmer" this will refer to either "Wireless Modules" or "RAKs".

Wireless Modules are typically used when the lighting circuits have not been run back to a single point.

Wireless modules are individual controllers which can be mounted remotely.

Available to suit all loads, modules offer the simplest instal but still with the full feature set of Rak systems.

Wireless Module application sheet

RAKs offer a neater instal if lighting circuits are wired to a central point. They require a receiving device to enable communication (Rx-Link - wireless / RAK-Link - wired).
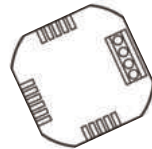
Wireless RAKs with a Rx-Link are arranged into blocks of up to16 lighting circuits and communicate exclusively with wireless devices.
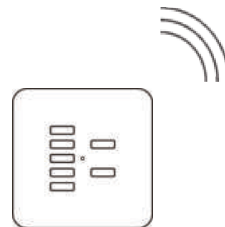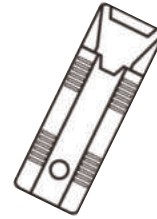
Wireless RAK application sheet

Wired RAKs with a RAK-Link are arranged into blocks of up to 32 lighting circuits and communicate exclusively with wired devices.
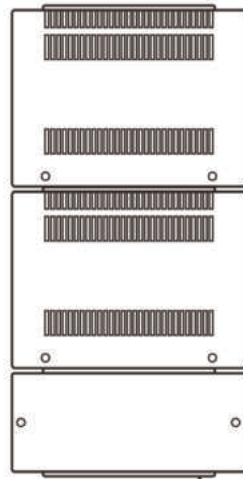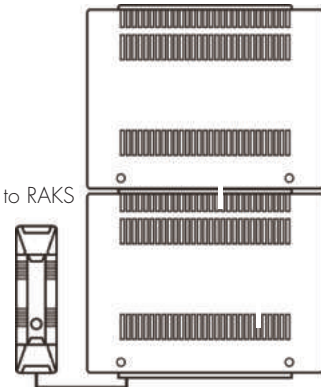
Wired application sheet

Dimmers for all loads including RGB LED tape

Backbox dimmer
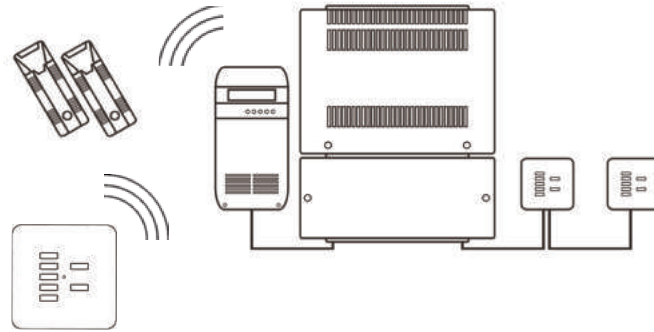
Rx-Link
Wireless link to RAKS

RAK-Link
Wired link to RAKS

LINKING WIRELESS AND WIRED

While usually systems will either be Wireless or Wired it is simple to transmit wired messages wirelessly and vice versa.

This is usually done via the "Bridge" which is connected to the wired network but also transmits and receives wireless communication.

As a result of this it is also possible to make systems with wired keypads but wireless modules.

Bridge also provides direct or WiFi link to system for programming, interfacing and system linking.

A combined system might be used in the following scenarios;

- When certain areas require an element of retrofit.

- Damaged cable or an afterthought leave no option.

A combined system gives the perfect 'Get out of jail' soluton.

Combined application sheet

Combined

Bridge acts as link between wired and wireless creating a seamless combined system.

CONTROL FROM EXTERNAL DEVICES

In a smarter world integration is key and Rako offers interfaces for all eventualities.

Control from the Rako App and third party control systems is performed through the Bridge.

This same device also gives timing functionality and many other features as required.

Bridge application sheet