

# Rako RDL1200 Dimmer Modules – Installation, Programming and Operating Instructions.

## General

The Rako RDL1200 dimmer modules are digital, hard-fired, leading edge dimmer modules suitable for use with mains voltage tungsten lighting, low voltage tungsten with appropriate transformers and cold cathode lamps.

Rako RD dimmer modules are designed to be installed in a lighting circuit and are controlled from Rako scene-sender panels transmitting Rakom encoded radio signals.



**Fig 1.**  
**Front View of Components**

## Installation

**Before commencing installation of a Rako dimmer module first read this instruction manual carefully. Rako Controls Ltd accepts no responsibility for any damage or injury caused by incorrect installation of a Rako product.**

**Installation should only be carried out by a competent electrician.**

**Never attempt to connect a Rako dimmer or remove the terminal covers without first isolating the circuit at the fuse/MCB board.**

**The circuit supplying a Rako dimmer should always be protected by either a 5A fuse or 6A MCB. Under no circumstances should any protection devices with higher ratings be used.**

**Always mount the unit vertically and ensure that the ventilation slots in the top and bottom end plate are not covered.**

Whilst the Rako dimmer modules are designed to be completely maintenance free the units should be mounted in a position where access can be gained should there be a fault or re-addressing of the unit be necessary (see 'Set-up and Addressing').

### Permissible loadings.

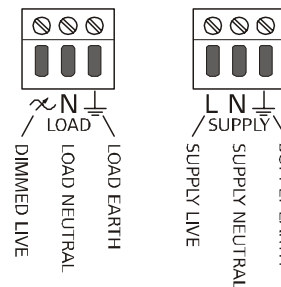
Mains voltage tungsten – full rating i.e. 1200w.  
Transformer fed loads, allow 10% de-rating, i.e. 1080w of nominal lamp load.

### Note:

In the case of transformer fed loads only transformers suitable for use with leading edge dimmers should be used. If in doubt contact the Rako customer help-line on 0870 043 3905.

### Connection

To install a Rako dimmer module isolate the supply then remove the lid, giving access to the supply/load terminals. The necessary connections are indicated on the main circuit board. The notation is as follows:



**Fig 2.**  
**Connection Detail**

To assist with installation the end-plate (see Fig 1) can be removed and allowed to slide down the cables. Once the cables have been terminated the end-plate can be re-fitted and the cable clamps tightened.

### Note:

To ensure that the cable clamping operates satisfactorily the cabling both supplying the dimmer and to the load should be a minimum of 1.0mm<sup>2</sup> with double safety insulation and the wires should be stripped to ensure that the cable bar within the terminal cover clamps firmly on both sets of insulation.

Once the supply and load cables are connected replace the lid securely before restoring power to the unit.

Rako dimmer modules are not designed for loop in/loop out connections. Should it be necessary to loop the supply on to further fittings then a junction box should be connected in circuit to facilitate this.

When power is connected the Rako unit will fade to a full-on setting. In this way it is possible to leave a conventional lighting switch in circuit to simply fade between full-on and off settings without the use of a Rako control panel. Such a lighting switch can also be used as an override in the event that the batteries in a Rako control panel are not replaced when the low-battery warning signals indicate that this should be done.

## Set-up and Addressing

Setting an address is the way in which interference between other Rako systems, either with other rooms within your house or neighbouring houses is avoided. It should be remembered that with a booster unit a Rako transmitter may have a range of over 100m.

A Rako dimmer module comes from the factory set with a default address of House 1, Room 4, Channel 1 and as such will work with Rako control panels still with the default address. It is however, strongly recommended to change the House and Room addresses. Additionally to gain the true benefit of a Rako system each dimmer in any one room should be given one of the 15 possible channel addresses.

To set the address of a dimmer module see 'Initial Addressing of a Rako Receiver Module'.

To set the address switches on a transmitter, see that transmitter's instruction manual.

### Notes on addressing.

A dimmer will not receive an address of House 0 (All switches set to off)

A dimmer will respond to, but not receive an address of Room 0 (All switches set to off)

A dimmer cannot be set to channel 0.

To program a lighting scene see 'Programming a Lighting Scene'

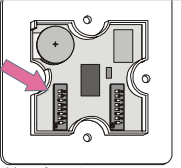
## Care and maintenance

A Rako dimmer module contains no user serviceable parts.

Rako thanks you for having purchased a Rako product and hopes that you are pleased with your system. Should for any reason you need to contact us please contact us via our website [www.rakocontrols.com](http://www.rakocontrols.com) or by phoning our customer help line on 0870-043-3905.

## Initial Addressing of a Rako Receiver Module

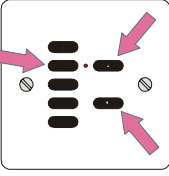
**Step 1**  
Set address switches on controller



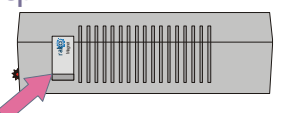
Pick House address from 1-255  
(Keep same address for all panels in house)  
Select Room addresses from 1-255 for each room (Room 0 is master house control)

**Step 2**  
TIP Press the scene button first

Put controller into programming mode by pressing and holding a scene button and both raise and lower buttons together



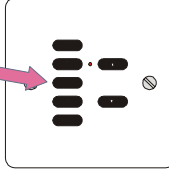
**Step 4**



When available channel is found, hold magnet against casing at point indicated on the label until LED illuminates. Hold until LED starts flashing and then remove magnet. Module is now in set-up mode.

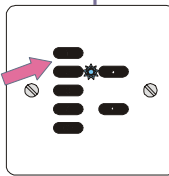
**Step 5**

Press button 3 to send the ident of the channel selected in step 3. Receiver automatically returns to normal mode



**Step 3**

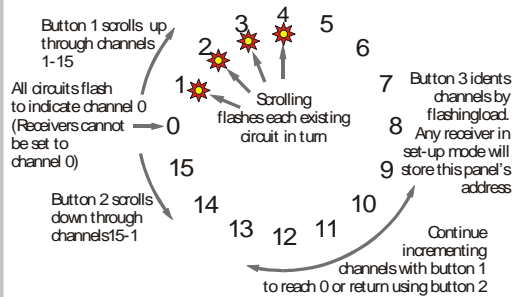
LED starts to flash after 5 seconds, panel is now in programming mode. Use buttons 1 & 2 to scroll to an available channel



When in programming mode buttons have the following functions for addressing

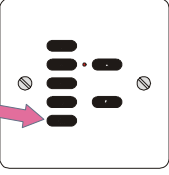
| Button | Action                |
|--------|-----------------------|
| 1      | Scroll up and ident   |
| 2      | Scroll down and ident |
| 3      | Ident                 |
| 4      | No action             |
| Off    | Exit programming      |

See details for scrolling



**Step 6**

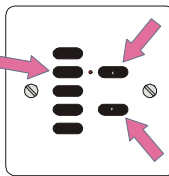
Press Off button to exit controller from programming mode



## Programming a Scene

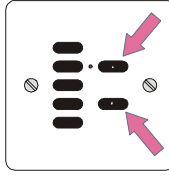
**Step 1**  
TIP Press the scene button first

Chose the scene to be re-programmed. Put controller into programming mode by pressing and holding the selected scene button and both raise and lower buttons together



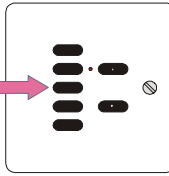
**Step 3**

As each circuit flashes in turn, use the raise and lower buttons to adjust lighting to the desired levels



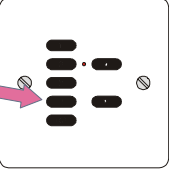
**Tip**

If at any point it is not clear which is the current circuit address button 3 will flash that circuit without scrolling on.



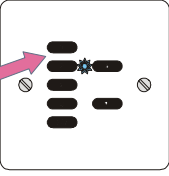
**Step 4**

Once levels are set correctly for the chosen scene. Save any changes by pressing button 4. Circuits will all flash to confirm.



**Step 2**

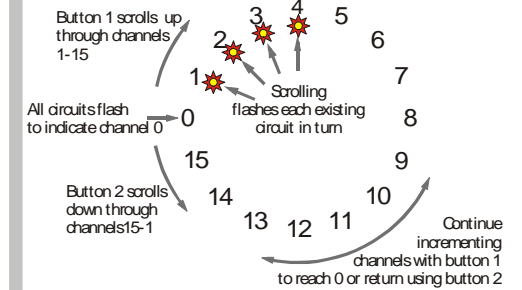
LED starts to flash after 5 seconds, panel is now in programming mode. Use buttons 1 & 2 to scroll through channels one at a time.



When in programming mode buttons have the following functions

| Button | Action                |
|--------|-----------------------|
| 1      | Scroll up and ident   |
| 2      | Scroll down and ident |
| 3      | Ident only            |
| 4      | Save changes          |
| Off    | Exit programming      |

See details for scrolling



**Step 5**

Press Off button to exit controller from programming mode. To re-program another scene repeat process from Step 1

