



Instruction Manual

WCM-D

Rako Wired Switch Interface



2026

Version 2.2.4



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1 What is the WCM-D?

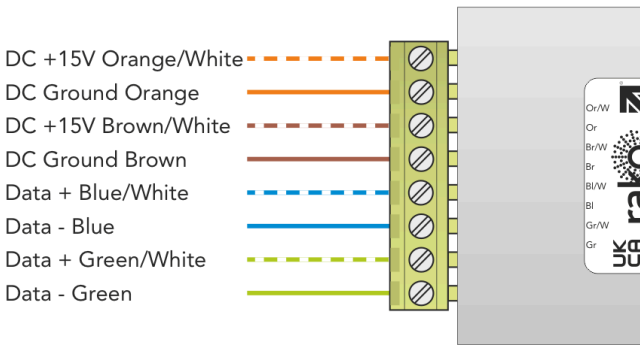
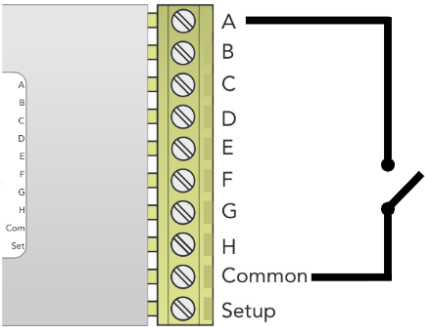
The WCM-D allows custom and third-party switch plates to be used in place of a Rako wired keypad (WCM/WK-EOS/WK-MOD, etc).

The WCM-D is designed to fit in a single-gang UK back box. Up to eight switch inputs can be taken per WCM-D. The switch inputs may be momentary or latching.

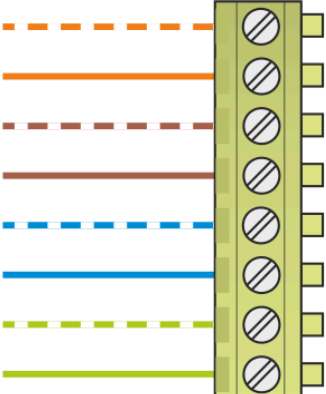
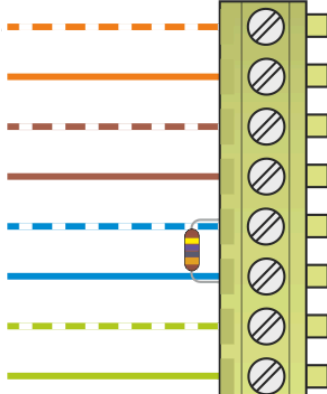



Excessive cable lengths can pick up noise, which can cause intermittent operation or spurious triggering. The recommended maximum cable length is 300mm.

2 Installation

1		<p>Connect the Rako Wired Network to the WCM-D following the colour code on the label.</p> <p>Refer to Terminating the WCM-D for terminating the device on the Rako Wired Network.</p>
2		<p>Connect the switch between Common and one of the eight inputs.</p> <p>See Appendix 2 - Switching wiring examples for more examples.</p>

3 Terminating the WCM-D

No Term (Unterminated)	End of line termination	Star termination
		
<p>Used when the WCM-D is not at the end of the line (with or without a RAK-STAR).</p> <p>This is usually identifiable by two cables being connected to the WCM-D.</p>	<p>When the WCM-D is in the end-of-line position and not connected to a RAK-STAR, a 120Ω resistor termination is required.</p> <p>This is provided with the WCM-D. The resistor is placed between the Blue and the Blue/White inputs.</p>	<p>When used in conjunction with a RAK-STAR, a STAR termination is required at the end of each leg.</p> <p>It should be wired as shown (the green pair is connected to the blue terminals together with the blue pair).</p>

4 Adding the WCM-D as a Device

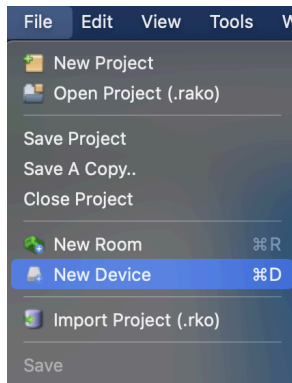
For setup instructions for units shipped before 2022, see [Appendix 1](#).

Before the WCM-D can be configured, it needs to be added as a Device in Rasoft Pro.

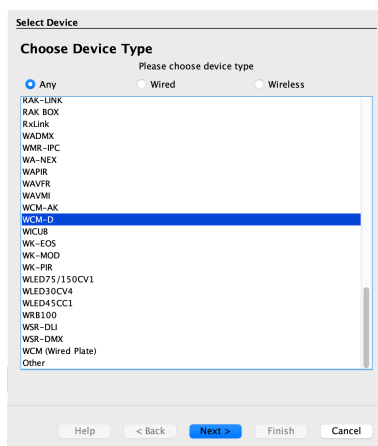
The following steps assume:

- A Project File has been created.
- Rooms have been created.
- The HUB has been configured.
- The Channels in the Rooms have been labelled.

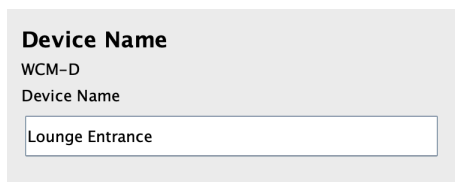
→ In Rasoft Pro, go to File > New Device



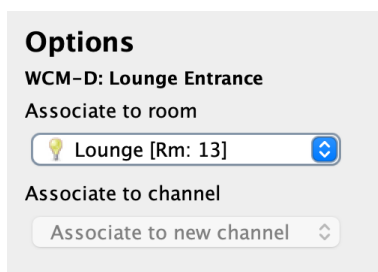
→ Select "WCM-D" and "Next"



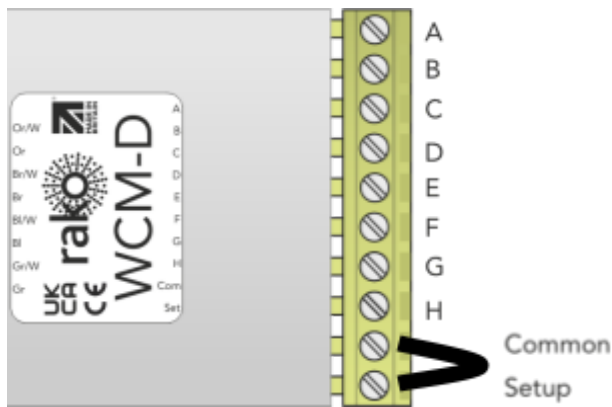
→ Give the WCM-D a name and select "Next"



→ Associate the WCM-D with a Room and select "Next"

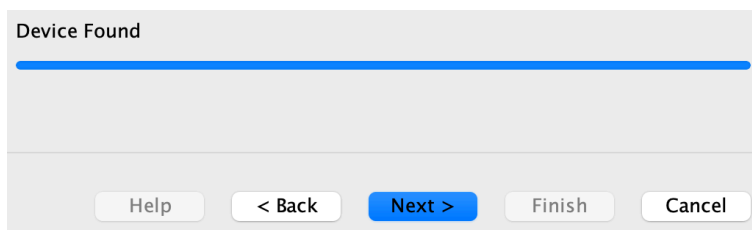


→ Connect the Common and Setup terminals together until the LED on the WCM-D flashes, then remove the link.



i Older models of the WCM-D have a different method of setup, see the WCM-D Instruction Manual for more information

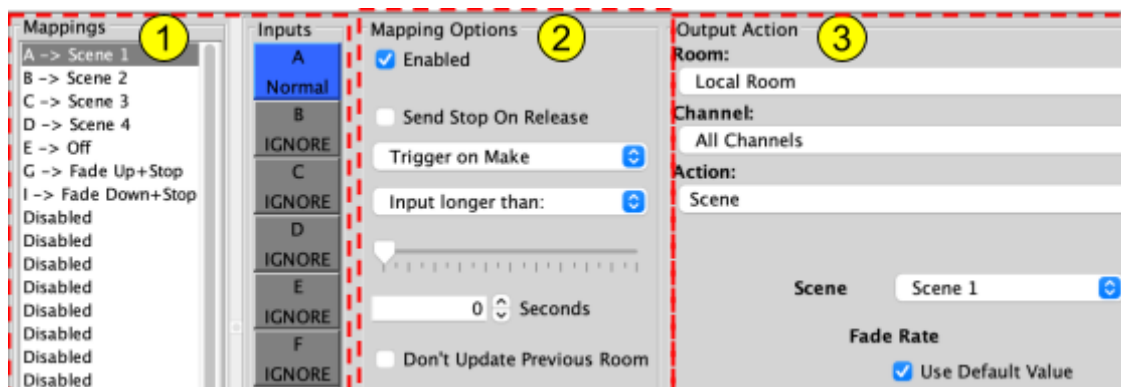
→ The blue status bar should reach 100% and "Device found" will show in the setup, select "Next"



5 Configuring the WCM-D

Once the WCM-D has been added as a Device, it needs to be configured according to the 3rd party switch inputs.

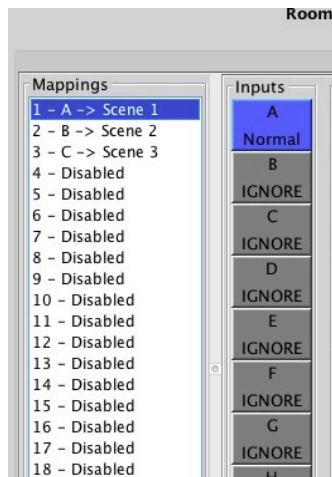
→ Select the WCM-D in the Device Editor



5.1 Mappings

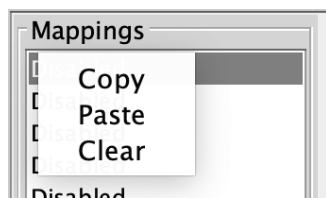
The WCM-D has 8 inputs labelled A through H.

Each button can have up to three mappings, allowing a single press to transmit multiple commands. For more than three mappings per button, use WK-HUB macros instead.



New mappings can be created by selecting a "Disabled" field and selecting the corresponding input letter in the next column:

Active mappings can be copied or pasted into disabled mappings; this is typically used when reusing similar functions of an existing mapping to save time, such as a toggle function.



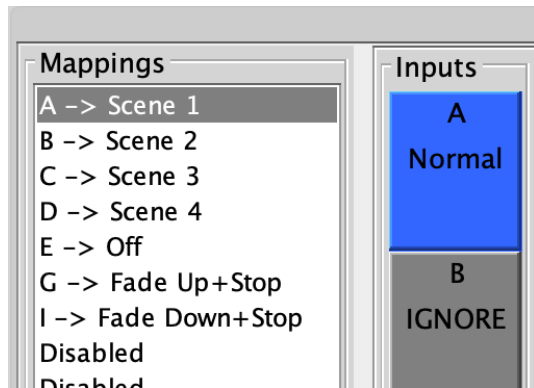
Mapping right-click options



Ensure only a single letter is used for each mapping, otherwise, the mapping will not function unless all inputs are pressed at the same time.

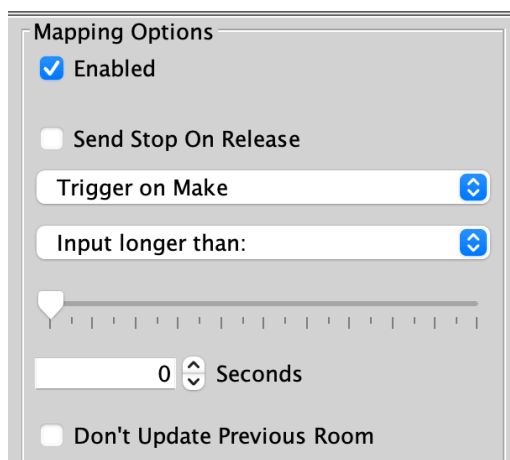
5.2 Inputs

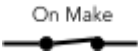
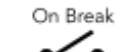
When an input is highlighted blue, it will set the corresponding input letter active in the mapping. Selecting the input multiple times will cycle through the input options which are "Normal", "Ignore" and "Invert", an example can be seen below:



"A - Normal" creates a mapping for input A, ensuring that only one input is highlighted blue for each mapping.

If A is set as "Invert", the "On Make" and "On Break" commands will reverse.



Option	Description
Trigger on Make 	When the selected input is shorted to common.
Trigger on Break 	When a switch breaks its contact with common.

Send Stop On Release	When the contact is released, a "Stop" command will be triggered
Trigger on Press	Trigger the output command when the momentary switching makes contact between its input and common.
Trigger on Release	Trigger the output command when the momentary switch breaks contact between its input and common
Don't update the previous Room	If this box is ticked, this map will not update the "last used" flag for both Room and Channel.

5.3 Output Action

Option	Description
Room	The Room number of the output command.
Channel	The Channel number of the output command can be All Channels or a single Channel.
Disable map	Disables the selected mapping.
Scene	If a Scene is being triggered, select a Scene between 1-16.
Fade-Up/Fade-Down	Commonly used to manually dim lighting up and down, as well as the Opening/Closing of Blinds. "Send Stop on Release" should also be checked when using this option.
Motor Stop	Used to stop 3rd party motors that are configured within the HUB.
Ident	Causes the target room/channel to flash momentarily and is mainly used for circuit identification during commissioning.
Toggle	The Toggle function will alternate between two commands. There are three variations of Toggle:

	<ul style="list-style-type: none"> • Level (1-100%/0%) • Scene (Scene X/ Off) • Fade (Fade Up/Fade Down)
Level	Sets the lighting Level to a percentage of brightness between 0-100%.

Thank you for choosing Rako Controls; we hope that you are pleased with your system. Should you require further assistance, please contact us via our website, www.rakocontrols.com, or by calling our customer support helpline on 01634 226666.



Appendix 1 - Hardware Changes

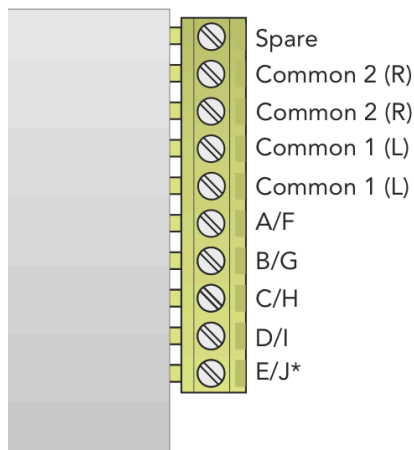
WCMs shipped before 2022 have a different wiring diagram, as shown below. This should also be identifiable from the label attached to the WCM-D itself.

Please ensure that the correct wiring configuration is used; incorrect connections on the wired network side of the WCM-D may cause the Rako wired network as a whole to become offline.

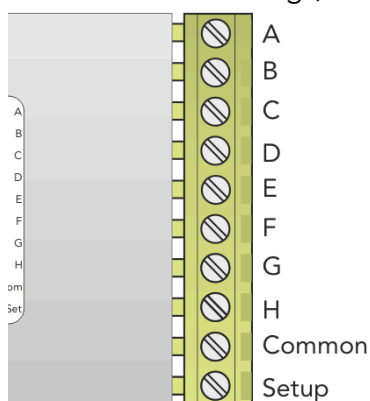


Legacy RTL1067 WCM-D switch inputs use J* and Common 2 to put the unit into setup mode.

Old WCM-D wiring (RTL1067):



Current WCM-D wiring (RTL1139):



Appendix 2 - Switch wiring examples

Retractive or latching switches can be used with the WCM-D. Centre retractive switches require two inputs.

Always refer to the manufacturer's instructions on the third-party switches.



Excessive cable lengths can pick up noise, which can cause intermittent operation or spurious triggering. The recommended maximum cable length is 300mm.

