swiid
REMSWIID™
Z-WAVE REMOTE CONTROL
Installation and User's Guide

I - FOREWORD

This Swiid® remote control - known as **RemSwiid™** - is a battery-operated **Z-Wave portable controller** which can control any on-off Z-Wave device, such adapter plugs, a switch inserts, sirens, etc. It is also suitable to control Z-Wave dimmer lighting devices and - with certain restrictions - blind and shutter inserts.

The RemSwiid™ is basically intended to control up to 8 sets of Z-Wave devices, "groupings" and/or "scenes". For the purpose of this manual, a "grouping" is where all the devices in the grouping are intended to do the same thing at the same time (e.g. turn on) and a "scene" is where the devices do different things in simultaneously or in a timed and/or conditional sequence. Your RemSwiid™ is capable of activating scenes, not of creating them. To create scenes, you need a more sophisticated primary controller.

The components of the RemSwiid™ have been manufactured under contract to our specifications and assembled, quality controlled and packaged by ourselves in France. In addition, RemSwiid™'s unique leather and wood finish turns a technical product into a decorative object which is readily coordinated with many home decoration styles

As remote control, capable of being hand-held, there are few physical installation guidelines for the RemSwiid™. This manual shall therefore focus primarily on how to set up and operate the RemSwiid™ in order to control Z-Wave devices, groupings and scenes.

II - SPECIFICATIONS

Device Type :	PORTABLE REMOTE CONTROLLER		
Power supply :	2x AA, 1.5V (LR06)	Transmission dist.:	Up to 30m indoors (depending on materials)
Size :	172 x 50 x 22 mm		
EU Norms :	EN 61058-1 & EN 55015	Working temp :	0 – 40°C
Radio protocol :	Z-Wave	LEDs :	12 = 1 green, 1 red, 1 blue and 9 amber
Radio frequency :	868,42 MHz (EU)		

Your RemSwiid™ has been certified by a specially approved certification firm and, as such, is fully interoperable with all the certified Z-Wave devices produced by other manufacturers using the same authorised radio frequency (EU in our case)

Changing the pictograms:

The RemSwiid™ has a pictogram associated with each of the 8 device keys other than the "All" key. The device has two (2) removable trays for four (4) vertically aligned pictograms are provided.

The RemSwiid™ is provided with a pre-cut folded accordion strip containing an additional total of 90 ready-to-use pictograms representing commonly controlled home automation devices. They are stored in a cavity next to the battery compartment and are for inclusion by you, so as to correspond to your personal configuration of the device keys.

To insert/change a pictogram :
1. Unsnap the bottom of the leather cover of the RemSwiid™ using a pointed object like a screwdriver
2. Remove the tray containing the pictogram you want to include/change
3. Insert/substitute the pictogram(s), reinsert the tray and snap the leather cover back on
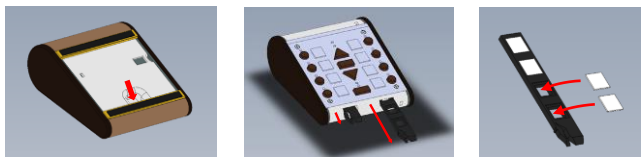
Should you want a specific pictogram which does not figure in the collection provided, do not hesitate to place a specific order via our website on www.swiid.com/products/rc-ct/●/

IV - PRIMARY OR SECONDARY Z-WAVE CONTROLLER?

As a certified Z-Wave Plus controller, your RemSwiid™ can be used either as primary or a secondary controller and it can be switched from one to the other.

As a primary controller, it will create its own network using its factory-set unique identification number (Home ID), which will be the attributed to all the devices (also additional controllers) which will be included into the Z-Wave network.

Because your RemSwiid™ is really intended to remain in one room and because of its limited interface, it is **generally used as a secondary controller** in a home with a large Z-Wave network.

## V - THE REMOTE CONTROL AS A PRIMARY Z-WAVE CONTROLLER

This is the default configuration of your RemSwiid™. There is therefore no specific set up necessary for it to act as a primary controller. However, configuration steps are necessary to associate your RemSwiid™ with each of the Z-Wave devices which you want it to operate and for any additional device you want to include in the same Z-Wave network as your RemSwiid™.

A- DIRECT INCLUSION AND CONTROL OF A Z-WAVE DEVICE

1. **Press three times** (3x) on the **Device** key (other than the "All" key) to which you want to allocate your external Z-Wave device. The **amber** LED above the device key will **blink** and the **blue** Z-Wave LED in the centre of the remote **will light up and stay lit** indicating you are in the setup mode.

KEY FEATURES
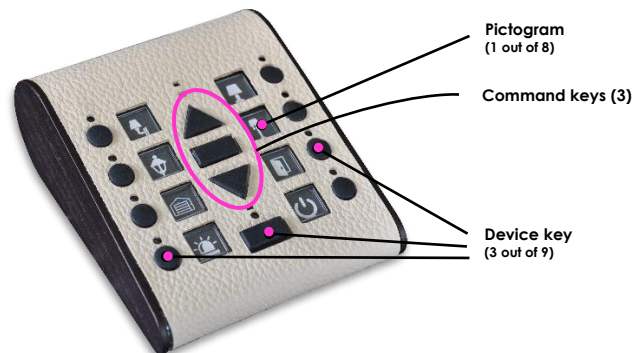
The interface panel of the RemSwiid™ includes keys (buttons), pictograms and LEDs, namely :
- Eight (8) individual "Device" keys each for one device/group/scene, each key with its own associated pictogram and **amber** LED activity indicator
- One (1) "**All**" key also with its own **amber** LED activity indicator, but no pictogram.
- One (1) " **Up** " (or "On") command key and the associated **green** LED indicator
- One (1) " **Down** " (or "Off ") **command** key with the associated **red** LED indicator
- One (1) "**Stop**" **command** key with **NO** associated LED indicator
- One (1) **blue** LED to indicate when remote is in Z-Wave **Setup Mode**

The eight (8) individual device keys will be referred to generically as **device keys**, and so shall the "All" key depending on the context. The other 3 keys located centrally are the **command keys**.

III - INSTALLATION OF THE REMOTE

Insertion of the batteries:

Press the battery door release button on the back of the RemSwiid™ and remove its left side panel. Insert the two batteries (2x AA 1.5V) into the lodging making sure that they are inserted **in the correct (+)/(-) direction**. Place the side panel back into position **making sure it clicks** back on and the **blue** LED will blink three (3) times.
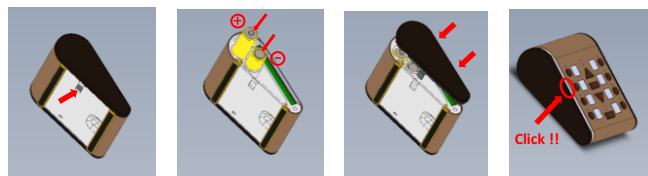
2. Put the Z-Wave device you want to include and control in **inclusion mode** (generally done by pressing once or several times on an inclusion/exclusion button on the device - see device's manual) and the **green** LED on the remote will **blink** ⬆.
3. The inclusion process will start automatically : the **amber** LED above the device key will first **turn off**, then the **green** and **blue** Z-Wave LEDs will **also turn off** after 1-2 seconds to indicate success.

   In order to create **groupings**, simply add new devices to the same device key following the steps described above. Each grouping may include up to **eight (8) devices**.

B- INCLUDING A Z-WAVE DEVICE WITHOUT CONTROLLING IT

There are cases where you might want to include Z-Wave devices which you cannot - or do not want to - control into the network of your RemSwiid™. A typical example would be the inclusion a Z-Wave motion sensor (say to associate it with the Z-Wave adapter plug of lamp).

The steps for this inclusion are as follows :
1. **Press and hold** both the "**Up**" and "**Down**" command keys of your RemSwiid™ until the **blue** Z-Wave LED in the centre of the remote **lights up** (after 2-3 seconds) and **stays lit** indicating you are in the **Setup Mode**.
2. **Press again once (1x)** but only the "**Up**" command key and the **green** LED in the centre of your RemSwiid™ will **blink** to indicate that it is now in the **Inclusion Mode**.
3. Put the Z-Wave device you want to include in **inclusion mode** (generally done by pressing once or several times on an **inclusion/exclusion button** - see manual of the device) and the inclusion process will start automatically whereby the **green** LED will then **tremble and blink again for 1-2 seconds** to indicate success and the **blue** Z-Wave LED will **also turn off**.

C- EXCLUDING A Z-WAVE DEVICE ALTOGETHER

1. **Press and hold** both the "**Up**" and "**Down**" command keys until the **blue** Z-Wave LED in the centre of the remote **lights up** (after 2-3 seconds) and **stays lit** indicating you are in the **Setup Mode**.
2. **Press again once (1x)** but only the "**Down**" command key and the **red** LED in the centre of the remote will **blink** to indicate that it is now in the **Inclusion Mode**.
3. Put the Z-Wave device you want to exclude in **exclusion mode** (see manual of the device) and the exclusion process will start automatically whereby the **red** LED will **turn off** and the **green** LED will **blink** for 1-2 seconds to indicate success and the **blue** Z-Wave LED will **also turn off**.

   Once the device has been successfully excluded, its Node ID and the Home ID of the remote controller will have been erased from the device.

D- REMOVING A DEVICE FROM A GROUPING

1. **Press and hold** both the "**Up**" and "**Down**" command keys until the **blue** Z-Wave LED in the centre of the remote **lights up** (after 2-3 seconds) and **stays lit** indicating you are in the **Setup Mode**.
2. **Press once** on the **Device** key of the grouping from which you want to remove the device. The **amber** LED above the Device key and the **red** LED in the centre will **both turn on**.
3. Put the Z-Wave device you want to exclude in **exclusion mode** (see manual of the device) : the **red** and **amber** LEDs will **turn off** and the **green** LED will **blink** for 1-2 seconds to indicate success and the **blue** Z-Wave LED will **also turn off**.

   The device excluded from the grouping will retain both its Node ID and the Home ID of your RemSwiid™ and the other existing associations of the device (including control by other controllers) will remain undisturbed.

The device excluded from the grouping will retain both its Node ID and the Home ID of your RemSwiid™ and the other existing associations of the device (including control by other controllers) will remain undisturbed.

E- DELETING A COMPLETE GROUPING

1. **Press and hold** both the "**Up**" and "**Down**" command keys until the **blue** Z-Wave LED in the centre of the remote **lights up** (after 2-3 seconds) and **stays lit** indicating you are in the **Setup Mode**. Release the "**Up**" and "**Down**" command keys.
2. **Press once** on the device key of the grouping which you want to delete. The **amber** LED above the device key and the **red** LED in the centre will **both turn on**.
3. **Press once** on the "**Stop**" command key. The **red** LED will switch to **blinking** and then the **green** LED will also **light up** to indicate success and after 1-2 seconds all the LEDs will **turn off**.

As with the previous removal of a single device from a grouping, all the devices of the deleted grouping will retain their Node ID and the Home ID of your RemSwiid™.

VI - THE REMOTE CONTROL AS A SECONDARY Z-WAVE CONTROLLER

The first task is to get your RemSwiid™ included into the network of your primary Z-Wave controller (i.e. substituting the Home ID of the primary controller for the remote's own factory-set Home ID).

The factory-set Home ID of your RemSwiid™ will not be lost and can be reinstated at any time by running Z-Wave "Reset" procedure (see dedicated Chapter) : your remote control of course then be excluded from the primary controller's network.

A- INCLUDING THE REMOTE INTO ANOTHER Z-WAVE NETWORK (LEARN MODE)

Proceed as follows:

1. Put the primary Z-Wave controller in the **inclusion** mode (see user's manual of the controller)
2. **Press and hold** both the "**Up**" and "**Down**" command keys of the remote until the **blue** Z-Wave LED **lights up** (after 2-3 seconds) and **stays lit** indicating the remote is in the **Setup Mode**.
3. **Press once** on the "**All**" key and the both the **green** and **red** LEDs will **also light up** to indicate that the inclusion process can begin. The 3 LEDs will then **blink rapidly** and turn off to indicate that the process has completed successfully. If not successful, the LEDs will **remain lit** solid until they time out after 30 seconds.

B- EXCLUDING THE REMOTE FROM A Z-WAVE NETWORK

Exactly the same as for direct inclusion described in Section A above, except that in Step 1 the primary Z-Wave controller must be put into the **exclusion** mode.

C- PUTTING THE REMOTE IN LISTENING MODE

If you want to send instructions from your primary controller to your RemSwiid™, it will either have to wait until the next programmed wake-up to receive the instructions or you can put it into Listening Mode by **pressing twice (2x) on the "All" key, at which time** the **blue** Z-Wave LED in the centre of the remote will **light up** (timeout : 30 seconds)

D- CONTROLLING A Z-WAVE DEVICE THROUGH THE REMOTE

Although your RemSwiid™ is programmed to act as an Inclusion Controller in certain instances, it is recommended any Z-Wave device you want to control **be included into the network via its primary controller** (see user's manual of the primary controller).

Once included in the Z-Wave network, attribute each of the devices which you want to control to one or more of the RemSwiid™ 's Device keys. Proceed exactly as you would to control a

device if your RemSwiid™ were a primary controller, namely : **pressing three times (3x)** on the appropriate device key (other than the "**All**" key) and putting the device to be controlled into the **inclusion mode**. Please see steps 1 to 3 under Section A of the preceding Chapter for details.

E- CONTROLLING A Z-WAVE SCENE THROUGH THE REMOTE

If you want to **control a scene** which has been created and stored on the primary controller, you will need to attribute that scene to one of the device keys of your RemSwiid™. In order to do this, you will first need to set the functionality of the device key from "Control Associations Groups" (default setting) to "Control Central Scene" or to "Control Scene Activation" and then allocate the scene to this device key using the configuration options (parameter settings) of your RemSwiid™ via your primary controller's user interface : see manual of your primary controller and advanced setup and configuration options of your RemSwiid™ at http://www.swiid.com/en/ZRC1-AS.pdf

VII - OPERATING THE REMOTE CONTROL

The basic operating principle of the RemSwiid™ is a two-step command/control process :

1. **Select** which **device/group/scene** you want to control by pressing on appropriate device key and the **amber** LED above the device key will **turn on for up to 3 seconds**, and
2. **Select command** you to apply to the selected device/group/scene by pressing on the appropriate command key and the associated LED (**green**/**red**/*none*) will **flash twice** for success.

If the command is either **not AT ALL successful or** only **PARTLY successful**, the **blue** LED will start to **blink** and then **all 4 central LEDs** will **blink together** three times (3x) before turning off.

Shortcut : If you want to execute the same command for **more than one** device/grouping (but not all), press in succession on the device key of each of the chosen devices/groups/scenes, the **amber** LED above each pressed device key will light up in turn and stay lit, then press the command key you wish and the associated LED (**green**/**red**/*none*) will **flash twice** to indicate success.

If you press the wrong device key, you must either wait for the **amber** LED of that device to **turn off** or force it to turn off prematurely by pressing the "**All**" device key.

It is possible to **dim up or down** controlled devices by a **long press** on the "**Up**" or "**Down**" command key of your RemSwiid™ and the device will continue dimming up and down until the "Stop" Command key is pressed. It is also possible to set up the dimming in such a way that is stops as soon as the Up or down Command key is released : configuration options of your RemSwiid™ at http://www.swiid.com/en/ZRC1-AS.pdf.

VIII - ASSOCIATIONS

Your can be used to set up "associations" in the Z-Wave network in which it operates. In Z-Wave speak, an "**association** " means that one node (i.e. device) is programmed to control directly another node whenever the status of the status of the first node changes (by being triggered or operated), all without needing to pass through the Z-Wave controller.

An example would be an association between a Z-Wave door sensor (Association Source Node) with a Z-Wave light switch (Association Destination Node), so that when the door sensor is triggered the light switch is automatically turned on, even if no Z-Wave controller is active at the time.

Associations are obviously only possible between devices which are part of the same Z-Wave network. Associations are unidirectional (one-way) from a first node ("Association **Source** Node") which issues a message to the second node ("Association **Destination** Node") which receives the message and executes a corresponding pre-agreed action. It is possible to have bi-directional (reciprocal) associations, but in order to achieve this, it is necessary to create two separate associations : one from A to B and a second one from B to A.

A Source Node can be associated with more than one Destination Nodes, the maximum number depends on the characteristics of the source node device. This a called herein a "association grouping" (**not to be confused** with "Association Group" which always carries a number). Your RemSwiid™ - whether as a primary or secondary controller – can create or delete associations from any number of Source Nodes, as well as remove a device from a grouping.

To create, modify or delete a **Group 1** (or Group 2 depending on the configuration setting) association or to remove a device therefrom proceed as follows :

A- CREATING AN ASSOCIATION

1. **Press and hold** both the "**Up**" and "**Down**" command keys of the remote until the **blue** Z-Wave LED in the centre of the remote **lights up** (after 2-3 seconds) and **stays lit** indicating the remote is in the **Setup Mode**.
2. **Press once and release** the "**Stop**" key, the **amber** LED above the "All" key will **turn on**
3. **Press once and release** the "**Up**" key, the **green** LED will **turn on** as well
4. Put the Z-Wave device of the **Destination Node** you want to associate in the inclusion/exclusion mode (generally done by pressing once or several times on an **inclusion/exclusion button** on the device – see manual of the device), the **green** LED on your RemSwiid™ **will start** blinking.
5. Put the Z-Wave device of the **Source Node** you want to associate in the inclusion/exclusion mode (again, see manual of the device), and the three central LEDs which were lit (**blue**/**green**/**amber**) will **blink rapidly** before turning off indicating that the association has been set up successfully.

To create an **association grouping** simply repeat the process for each additional **Destination Node**.

B- DELETING A WHOLE ASSOCIATION GROUPING (REMOVING A SOURCE NODE)

1. **Press and hold** both the "**Up**" and "**Down**" command keys of the remote until the **blue** Z-Wave LED in the centre of the remote **lights up** (after 2-3 seconds) and **stays lit** indicating the remote is in the **Setup Mode**.
2. **Press once and release** the "**Stop**" key, the **amber** LED above the "All" key will **turn on**
3. **Press once and release** the "**All**" command key and both the **green** and **red** LEDs will **turn on** as well.
4. Put the Z-Wave device of the **Source Node** of the association you want to delete in the inclusion mode (see manual of the device). All four central LEDs (**blue**/**green**/**red**/ **amber**) will **blink 3 times rapidly** before turning off indicating that the association has been successfully deleted.

C- REMOVING A DESTINATION NODE FROM AN ASSOCIATION GROUPING

1. **Press and hold** both the "**Up**" and "**Down**" command keys of the remote until the **blue** Z-Wave LED in the centre of the remote **lights up** (after 2-3 seconds) and **stays lit** indicating the remote is in the **Setup Mode**.
2. **Press once and release** the "**Stop**" key, the **amber** LED above the "All" key will **also turn on**
3. **Press once and release** the "**Down**" key, the **red** LED will **turn on** as well
4. Put the Z-Wave device of the **Destination Node** of the association you want to delete in the inclusion mode (see manual of the device), the **red** will start **blinking**.
5. Put the Z-Wave device of the **Source Node** of the association you want to delete in the inclusion mode (see manual of the device) and the three central LEDs which were lit (**blue**/**red**/**amber**) will **blink 3 times rapidly** before turning off indicating that the device has been successfully removed from the association.

If you wish to create or delete an association using an Association Group of the chosen Source Node **other than Group 1** (or Group 2 depending on the configuration setting) or to remove a device

therefrom, the procedure involves one additional step between steps **2 and 3** (choice of association group via the Device keys). For further details, please refer to http://www.swiid.com/en/ZRC1-AS.pdf

When acting as a secondary controller, your RemSwiid™ remote control is required - like all Z-Wave Plus devices - to support as a Source Node associations on Group 1. Group 1 is called the Lifeline group because important "lifeline" notifications about your RemSwiid™ remote control are sent to that group's Destination nodes.

IX - OTHER SETUP AND CONFIGURATION OPTIONS

Your RemSwiid™ offers a number of other setup and advanced configuration options, including the capacity to act as an **Inclusion Controller** after having handed over its primary controller role to a Central Static Controller. For further details, please refer to http://www.swiid.com/en/ZRC1-AS.pdf

X - RESETTING THE REMOTE CONTROL

In order to reset your RemSwiid™ to its Z-Wave original factory status and for it to recover its factory-settings and a new Home ID, proceed as follows :

1. **Press and hold** both the "**Stop**" and "**All**" keys until the **red** and **green** LEDs both start **blinking at the same time** (after about 3 seconds)
2. **Press three times (3x)** on the "**Up**" key of your remote and the **blue** Z-Wave LED will **also light up**. After about 2-3 seconds, the **blue** and **red** LEDs will **turn off** and the **green** LED **will remain lit** for 1-2 seconds indicating that the reset has been completed.

Resetting the RemSwiid™ remote will result in its taking on a new randomly generated Home ID. Obviously, if the RemSwiid™ remote is the primary controller in the Z-Wave network, resetting it will result in the nodes in the network being orphaned and it will be necessary after the reset to exclude and re-include all the nodes in a network with a new Home ID. If the RemSwiid™ is being used as a secondary controller in the network, the reset procedure should only be used once it has been excluded from the network, except of course if such exclusion is not feasible (e.g. if the network's primary controller is missing or otherwise inoperable).

XI - WHAT IS Z-WAVE?

Z-Wave is a bidirectional radio communication protocol designed specifically for controlling, operating and monitoring home automation equipment : lighting, heating, security, etc.

The Z-Wave protocol utilizes an optimized technology for weak bandwidth radio communications (9-100 kbps) around the 900 MHz band (868.4 MHz in Europe) and does not interfere with wireless receivers operating in 2.4 or 5.0 GHz (WiFi, Bluetooth, ZigBee®).

The range of the Z-Wave signal is approximately 50m (higher outdoors and lower indoors). However, the Z-Wave technology automatically and dynamically creates a "**mesh network**" between the various Z-Wave® devices that compose it and each of these devices becomes itself a repeater. This enables connections between devices that are not within direct range of each other.

Each Z-Wave network has its own identifier (Home ID), which enables multiple Z-Wave networks in a single location to operate completely independently and without interfering with each other.

The main advantage of the Z-Wave radio protocols over mesh network competitors such as ZigBee® is the complete **interoperability** between the various Z-Wave devices from different manufacturers.

This interoperability is guaranteed by a "Zertification" process which is performed by companies approved by Sigma Designs, which itself is the creator and owner of the Z-Wave, and by the Z-Wave Alliance, which was created in 2005 to bring together all the stakeholders in the Z-Wave ecosystem.

The Z-Wave Alliance has more than 450+ members (as of February 2017) and more 1700 products have been "Zertified". It is estimated that, as of end 2016, more than 70 million devices using the Z-Wave technology had been sold worldwide.

Your RemSwiid™ has been successfully tested with most of the integrated Z-Wave IP gateways available in Europe today (June 2017).

XII - Swiid® / CBCC DOMOTIQUE

Swiid® is a registered trademark of **CBCC Domotique SAS**, a French limited liability company, incorporated in Paris under the Commerce Registry number 791 884 125 and having its registered address at 27 avenue de l'Opéra, 75001 Paris, France

WARRANTY

CBCC Domotique SAS (as defined in the next section and hereinafter referred to as the "Supplier") warrants to the original purchaser for a period of twelve (12) months from the date of purchase or delivery (whichever is later) that the present device is free from material defects in materials and workmanship and undertakes, subject to continuing availability of the device, to supply at its cost a new device to replace any malfunctioning or otherwise defective device. In no event, shall the Supplier refund any monies paid for the device.

Warranty claims must be filed by using the form provided on the Supplier's website (www.swiid.com/en/contact.html) and completing it in full and sending us (against refund) the defective device and a copy of the proof of purchase (with the date of purchase or delivery date!). Warranty claims made more than thirty (30) days after the occurrence of the event giving rise to the warranty claim and claims made without following the procedure set out above shall not be admissible.

The present warranty shall **NOT** cover, whether for damages to the device itself and for consequential damages, faults not resulting from a material or manufacturing defect on the device, including but not limited to:

- Accidents, actions of civil or military authority, civil disturbances, war, strikes, fires, floods or other catastrophic events ;
- Installation or operation of the device other than in conformity with the present Installation and User's Guide ;
- Devices which have been repaired or modified by any person not duly authorised to do so by the Supplier ;
- Damages caused by (i) software utilized directly or indirectly by the device's owner or user, (ii) computer viruses or other malware attacks or (iii) failure to implement any firmware updates supplied without charge by the Supplier ; and
- Damages caused by power surges, by improper connection to the power grid or by using unauthorised accessories

The present warranty shall be governed by the laws of France.

SUMMARY - Keystrokes and LED Combinations

Keystrokes	Device selected	SUCCESS	FAILURE	Listen mode	(Include) and control
	Dev.	Dev. → ▲or▼	Dev. → ▲or▼	All → All	3x Dev.
● (blue)			Blink 3x	On	On
● (green)		On 2-3s	Blink 3x		
● (red)			Blink 3x		
● (yellow)			Blink 3x		
● D	D-On	D-On 2-3s			D-Blink

Keystrokes	Setup mode	Include	Exclude	Remove device from grouping	Delete grouping
	▲▼	▲▼ → ▲	▲▼ → ▼	▲▼ → Dev.	▲▼ → Dev. → STOP
● (blue)	On	On	On	On	On
● (green)		Blink			Blink
● (red)			Blink	On	
● (yellow)					
● D				D-On	D-On

Keystrokes	Association mode	Create association	Creation success	Remove dest. node	Removal success
	▲▼ → STOP	▲▼ → STOP → ▲		▲▼ → STOP → ▼	
● (blue)	On	On	Blink 3x	On	Blink 3x
● (green)		On -> Blink	Blink 3x		
● (red)				On -> Blink	Blink 3x
● (yellow)	On	On	Blink 3x	On	Blink 3x
● D					

Keystrokes	Delete Association	Ass. deletion success	In-/Exclude as secondary	Reset (step 1)	Reset (step 2)
	▲▼ → STOP → ALL		▲▼ → ALL	STOP+ALL (3s)	STOP+ALL → 3x ▲
● (blue)	On	Blink 3x	On -> Blink		Blink
● (green)	On	Blink 3x	On -> Blink	Blink	Blink
● (red)	On	Blink 3x	On -> Blink	Blink	Blink
● (yellow)	On	Blink 3x			
● D					

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