#### ZAP1



# Z-WAVE® ADAPTER PLUG Installation and User's Guide

# FOREWORD

The SwiidPlug<sup>m</sup> is designed to switch on and off remotely appliances (mainly lights) which are plugged into its female socket, The SwiidPlug<sup>m</sup> is suitable for the wireless switching of incandescent light bulbs as well as halogen and LED lights (all transformer types).

The SwiidPlug<sup>m</sup> can be operated manually by pressing on its FUNCTION button which then acts as an on/off toggle switch and can be operated remotely and wirelessly by Z -Wave<sup>®</sup>.

The SwiidPlug<sup>™</sup> can also handle associations with other devices, both ways to and from it. Thus, your SwiidPlug<sup>™</sup> can respond directly to a signal from another Z-Wave<sup>®</sup> device in your network, such as the triggering of a presence detector.

As soon as it has been plugged into a mains socket, the SwiidPlug<sup>m</sup> can be included into a Z-Wave<sup>®</sup> network so as to interoperate with controllers and other Z-Wave<sup>®</sup> devices.

#### WARNING



Insert SwiidPlug<sup>™</sup> only in sockets equipped with a ground wire

RISK OF ELECTROCUTION : Do not attempt to clean when plugged in

## SPECIFICATIONS

Device Type :	BINARY POWER SWITCH
Power input :	230V ± 10% - 50Hz
Max. power :	3600W
EU Norms :	EN300220, EN301489-1/-3 & EN60669-1 + EN60669-2-1
Protection index :	IP20
Size :	60.0 x 49.0 x 60.5 mm
Radio protocol :	Z-Wave <sup>®</sup> (SDK 4.55)
Radio frequency :	868,42 MHz (EU)
Transmission dist.:	Up to 30m indoors (varies with building materials)
Working temp :	0 – 40°C
On/Off and not included signals:	Blue/yellow LED on FUNCTION button
Power consumption :	< 1.5W

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

Installing the SwiidPlug<sup>™</sup> consists of plugging it into a grounded wall socket and plugging into it the on/off electrical device you want to control.

In order to configure the SwiidPlug<sup>™</sup> so that it can be controlled wirelessly by a Z-Wave<sup>®</sup> controller, please follow instructions provided in the next chapters of this manual.

#### **KEY FEATURES**

Translucent FUNCTION button, which also acts as a manual on/off toggle switch.

LED lights up **blue** when "ON" and **yellow** when "OFF" and blinks alternatively **blue** and **yellow** when not included in a Z-Waye® network



# INCLUSION OF A SWIIDPLUG<sup>™</sup> INTO A Z-WAVE<sup>®</sup> NETWORK

In order to control your SwiidPlug<sup>™</sup> remotely, it needs to be recognized by a Z-Wave<sup>®</sup> network. Many people are put off by the very use of the word "network", but it may in fact designate a single remote control or wireless control switch coupled with a single adapter plug. The important thing to remember is that your SwiidPlug<sup>™</sup> needs to be recognized by any device by which you intend to control it (you can't call your dog, if you don't know its name). To do this, an **inclusion** operation needs to be performed: this is also often called an integration or a **pairing** operation.

When you first plug your SwiidPlug<sup>™</sup> into the active mains, the LED will blink alternatively **blue** and **yellow** to indicate that it has not yet been included into a Z-Wave<sup>®</sup> network. In case the LED lights up **solid blue** or **solid yellow**, this means your SwiidPlug<sup>™</sup> may have been included into another Z-Wave<sup>®</sup> network and you will need to run an exclusion process (see next Chapter) before including it into your own Z-Wave<sup>®</sup> network.

In order to include a SwiidPlug<sup>™</sup> into a Z-Wave<sup>®</sup> network, you do not need to use any tools. Simply bring your SwiidPlug<sup>™</sup> (always **plugged into the mains**) close to the Z-Wave<sup>®</sup> controller (or vice versa) and proceed as follows:

 First put your primary Z-Wave<sup>®</sup> controller in inclusion mode (generally done by pressing once or several times on an inclusion button on the controller : here an Aeotech Z-Stick2)



 With the LED flashing alternatively blue and yellow, press the FUNCTION button of your SwiidPlug<sup>™</sup> 3 times (3x) within 2 seconds



 The inclusion process should then start automatically and the LED on your SwiidPlug<sup>™</sup> will remain lit solid blue or solid yellow based on switch status. This indicates that the Z-Wave<sup>®</sup> inclusion process was successful.

Depending on the type of controller you are using, you may be immediately able to operate your SwiidPlug<sup>™</sup> via your Z-Wave<sup>®</sup> network. For some controllers, however, you need to perform an additional pairing step in order to assign your SwiidPlug<sup>™</sup> to a specific command button on the controller (e.g. on a multi-button remote control).

Once you are able to operate your SwiidPlug<sup>™</sup> remotely from your Z-Wave<sup>®</sup> network, you are able to check that the **blue** LED lights up to illuminate the FUNCTION button when it is turned "On" (yellow when "Off"). You can also check that your SwiidPlug<sup>™</sup> continues to respond to a manual press locally on the FUNCTION button.

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<u>WARNING</u>: As with any Z-Wave<sup>®</sup> "binary switch" device, the SwiidPlug<sup>™</sup> is not able - for patent reasons - to report back its status changes automatically to a Z -Wave<sup>®</sup> controller. The best way to monitor the change in status of your SwiidPlug<sup>™</sup> in real-time is to use the "association" procedure to associate it with your primary controller. This works both when the change in status of your SwiidPlug<sup>™</sup> is the result of a manual action and when it is linked to a command communicated through the Z-Wave<sup>®</sup> network. FOR CERTAIN Z-WAVE<sup>®</sup> CONTROLLERS, THIS ASSOCIATION IS PRE-PROGRAMED TO BE IMPLEMENTED ON ITS OWN WHEN YOUR SWIIDPLUG<sup>™</sup> IS FIRST INCLUDED INTO THE NETWORK.

## EXCLUSION OF A SWIIDPLUG™

To exclude your SwiidPlug<sup>™</sup> from a Z-Wave<sup>®</sup> network, proceed in the same way as for the inclusion process described in the previous Chapter, except that in Step 1, you must press the **exclusion button** on the Z-Wave<sup>®</sup> controller that you will have brought into the vicinity of your SwiidPlug<sup>™</sup> (or vice versa). The LED beneath the translucent FUNCTION button of your SwiidPlug<sup>™</sup> will **blink alternatively blue and yellow** to indicate that the exclusion process has been successfully completed.

# ASSOCIATIONS FOR A SWiiDPLUG™

In a Z-Wave<sup>®</sup> network, association procedures enable your SwiidPlug<sup>™</sup> to control directly other Z-Wave<sup>®</sup> devices (real or virtual) or vice versa to be controlled by other Z-Wave<sup>®</sup> devices <u>without</u> passing through a controller. A typical example would be the association of a SwiidPlug<sup>™</sup> with a Z-Wave<sup>®</sup> presence detector, so that your SwiidPlug<sup>™</sup> switches "On" when a presence is detected.

Associations are obviously only possible between devices which are part of the same Z-Wave<sup>®</sup> network, i.e. devices which have been included using - directly or indirectly - the same primary controller.

Associations are unidirectional (one-way) from a first node (the "primary" node") which issues a message to the second node (the "secondary" 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 primary node can be associated with more than one secondary nodes, the maximum number of which depends on the characteristics of the primary node device. This is known as a "group" association. Alternatively, a secondary node can receive and execute commands from any number of primary nodes with which it has been associated.

Your SwiidPlug<sup>™</sup> is capable of handling <u>only one single association group</u> as a primary node which enables it to send commands to associated devices whenever it is switched from on to off or vice versa. Your SwiidPlug<sup>™</sup> can command up to 5 normal Z-Wave<sup>®</sup> associated devices.

The process for associating your SwiidPlug<sup>™</sup> as a primary node with other Z-Wave<sup>®</sup> devices can <u>ONLY</u> be made via a Z-Wave<sup>®</sup> controller: please revert to and follow the association instructions set out by the controller's manufacturer.

<u>WARNING</u>: Sending relevant association information between devices may take some time, in certain cases even a full minute.

# **RESETTING A SWIIDPLUG<sup>™</sup>**

To reset your SwiidPlug<sup>™</sup> to its factory settings (erasing the Home ID of the network's primary controller), , **unplug it** from the active mains, **press and hold** the FUNCTION button of your SwiidPlug<sup>™</sup> and then, while continuing to press the FUNCTION button, **plug it back** into the active mains. After about five (5) seconds, the LED will blink alternatively **blue** and **yellow** indicating that your Swiid<sup>®</sup> adapter plug has been fully reset.

## WHAT IS Z-WAVE®?

Z-Wave<sup>®</sup> is a bidirectional communication protocol designed specifically for controlling, operating, measuring and monitoring home automation equipment via radio frequency: lighting, heating/AC, security, home entertainment, etc.

The Z-Wave<sup>®</sup> protocol utilizes an optimized radio technology for narrow bandwidth radio communications (9-100 kbps). In Europe, Z-Wave<sup>®</sup> devices operate in the 868.4 MHz band, which ensures the absence of any interference with the WiFi connections or with other wireless receivers operating in 2.4 GHz such as Bluetooth or ZigBee<sup>®</sup>. **Please note**: For legal reasons, the Z-Wave<sup>®</sup> devices function in different frequencies - all below 1GHz - in other parts of the world, e.g. 909 MHz in the US. Therefore, the Z-Wave<sup>®</sup> devices from these other geographic zones can generally not be used in Europe.

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

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

The main advantage of the Z-Wave<sup>®</sup> radio protocols over mesh network competitors such as ZigBee<sup>®</sup> is the complete **interoperability** between the various Z-Wave<sup>®</sup> 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<sup>®</sup>, and by the Z-Wave Alliance, which was created in 2005 to bring together all the stakeholders in the Z-Wave<sup>®</sup> ecosystem.

The Z-Wave Alliance has to date (September 2014) more than 250 members and more 1200 products have been "Zertified". It is estimated that, as of end 2012, more than 12 million devices using the Z-Wave<sup>®</sup> technology had been sold worldwide.

Z-Wave<sup>®</sup> devices can be used either independently in a decentralized way (e.g. a wireless switch or associated with a single remote controlled plug) or in centralized manner using a central controller or integrated IP gateway. Integrated IP gateways allow access by/to your Z-Wave<sup>®</sup> network to/from the outside world: both the internet (and off course your smartphone via the internet...) and your local area network. The main integrated Z-Wave<sup>®</sup> IP gateways available in Europe today (July 2014) are : Vera's range of IP gateways : Vera2, Vera3 and Vera Lite ; HomeSeer's Hometroller Zee (with an Aeotech Z-Stick2) ; Connected Object's eedomus ; Fibaro's Home Center 2 and Home Center Lite ; Zipato's Zipabox ; ZODIANET's Zibase ; and Z- Wave>Me's Z-Box. Your SwidPlug<sup>™</sup> adapter plug has been successfully tested with each of these integrated IP gateways, as well as with most remote controls available in Europe.

## 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 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 warranty claims form provided on the Supplier's website (<u>www.swiid.com/en/contact.html</u>) 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!). Warranty claims made more than thirty (30) days after the occurrence of the event giving rise to the warranty 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.

#### Swiid<sup>®</sup> / CBCC DOMOTIQUE

Swiid<sup>®</sup> 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