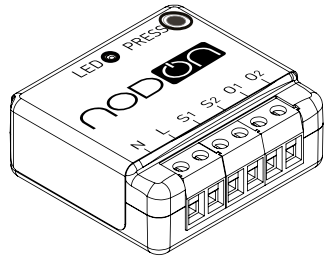# USER GUIDE

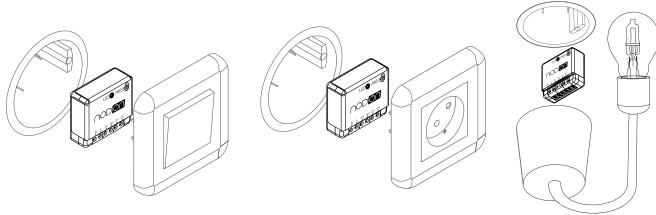**IN WALL MODULE - 2 CHANNELS**

In-Wall module by NodOn®

Reference: SIN-2-2-00
Power supply: 230V AC +/-10% - 50Hz
Self-consumption <1W
Max. power: - 2 x 1050W continuous (Resistive load)
- 2 x 1150W temporary (Resistive load)
Radio frequency: 868MHz
Range: Up to 40 meters
Operational temperature: 0°C / 40°C
Memory capacity: 24 emitters
EEP (Profil EnOcean®): D2-01-12
Dimensions: 40 mm (l) x 44 mm (L) x 16.9 mm (h)
Weight: 34 g
Warranty: 2 years

The NodOn® in wall module allows to connect any wired electrical circuit (such as a wall switch + lamp(s) or power outlet) into an EnOcean® Smart Home network. Once mounted, the NodOn® in wall module will allow you to control your electrical installations or appliances through wireless and battery-less EnOcean® controllers or sensors.

Indeed, the NodOn® in wall module can be controlled by different EnOcean® compliant emitters (Wall switch, remote controller, sensor, window handle, card switch or a home automation gateway).

INSTALLATION

Thanks to its small size, the in wall module can be installed everywhere in your wall or ceiling (behind an existing wired wall switch, behind a power outlet, in the suspended ceiling, etc...).

DANGER OF ELECTROCUTION

During the installation of the product, the supply voltage MUST BE DISCONNECTED. Please directly disconnect it from the breaker box to avoid any risk of electrocution.

If you're not confident about electrical installation, please ask a professional.

The In-wall Module must be installed and connected following the diagram(s) presented in this user guide.

NodOn® will not be responsible for any loss or damage resulting from a none respect of the instructions of this user guide.
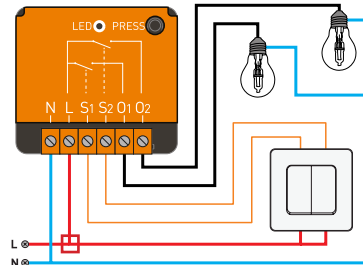
Please note that the LED will always be green as soon as the product is powered ON. Take care to turn OFF (Green LED OFF) the supply voltage before doing any modification on the circuit.

IN-WALL MODULE TERMINALS EXPLANATION

N - Terminal for the Neutral
L - Terminal for the Line
S1 - Input terminal for the wired Switch 1
S2 - Input terminal for the wired Switch 2
O1 - Output terminal 1 controlled by S1
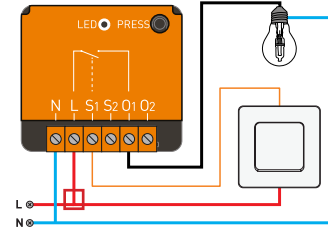O2 - Output terminal 2 controlled by S2

INSTALLATION DIAGRAM WITH 2 SWITCHES AND 2 LAMPS

☐ Quick connection included ▬▬ 1mm² Cable Included

INSTALLATION DIAGRAM FOR 1 SWITCH AND 1 LAMP

By default, any wired switch connected to the In-wall Module works as a « toggle switch » (« 2 ways switch ») with the EnOcean® emitter(s) paired with the module.

Note: A « 2-States » mode can be set by a configuration parameter (Check your home automation gateway interface or the EEP for more details).
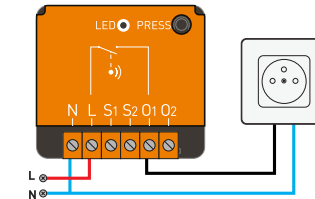
AUTO-DETECTION OF SWITCH CONFIGURATION

When you turn ON the supply voltage after set up the In-wall Module, please do a simple action on the wired wall switch. An auto-detection will be made to know whether you're using mono-stable or bi-stable wall switch.

Note: The same configuration is applied for both Switch 1 and Switch 2. It is not possible to have 2 different types of wall switch wired to a single in-wall module.

To perform a new auto-detection, the product must be manually reset.

INSTALLATION DIAGRAM WITH A POWER OUTLET

More diagrams available on the « Support » page of www.nodon.fr

IN-WALL MODULE MODES

LOCAL CONTROL

The In-wall Module can be switched ON or OFF locally, through a short press on the local button. This action will toggle both output at the same time.

PAIRING MODE

Several solutions are available to enter in pairing mode:
• Triple Press on the in-wall module local button.

The LED becomes red

Which means that Channel #1 is in « Pairing mode ». Push once again on the button, then the Channel #2 is in « Pairing mode ». If you press again the local button, you will exit « Pairing Mode ».
OR
• (If wired wall switch(es) are mounted on S1 and/or S2)
Make a « triple action » on the wall switch's rocker related to the channel you want to put in « Pairing mode ». Please note S1 controls Channel 1 and S2 controls Channel 2.
OR
• The NodOn® in-wall module supports the EnOcean® Remote Commissioning features. It can be put wirelessly into « Pairing mode » through a compatible home automation gateway.

Once the In-wall Module is in « Paring Mode », it will toggle ON/OFF (each second) the related outputs.

Output1 will toggle when Channel #1 is in « paring mode »
Output2 will toggle when Channel #2 is in « paring mode »

To pair an emitter, follow the « Pairing procedure as receiver » below.

The LED will blink green to validate the pairing procedure.

If the LED blinks orange during « Pairing mode », it means that the memory of the In-wall Module is full, or that no emitter has been paired during the process. In case of full memory, please unpair an emitter before being able to pair a new one.

LED BEHAVIOUR DURING THE "LEARNING MODE":

« Learning Mode » status	LED Behaviour
Enter into « Learning Mode »	LED Blink Green 1 time + Glow Red
Change Channel 1 to Channel 2	Blink twice in GREEN and glow in RED
Device taught-in	Blink twice in GREEN
Device taught-out	Blink twice in RED
Stop « Learning Mode »	Blink twice in RED
Error during « Learning Mode »	Blink twice in RED
Memory is full (24 devices learnt)	Blink twice in ORANGE
« Learning Mode » timeout	Blink twice in ORANGE

FACTORY RESET

Press on the button for more than 5 seconds until the LED turn orange.
Once the button is released, the LED starts glowing Orange. The product is entered into « Reset Mode ».
In this mode, the product is waiting for an user validation, during 30 seconds. If you do a single press, reset is validated.
The operation is acknowledged by a LED blinking red and green alternatively.
If timeout occurs, LED stops glowing and no reset is performed.

PAIRING PROCEDURE AS RECEIVER

Wall Switch, Remote Controller, etc.
EnOcean® Type "Rocker Switch" (EEP: F6-02-01)

To pair this type of emitter to the In-wall Module:
❶ Put the In-wall Module in « Pairing mode ». Select the channel you want to pair.
❷ Press any button of the emitter. The button pressed during the pairing process is the button which will switch ON the selected channel. The opposite button will switch OFF the Iselected channel. The other buttons of the emitter could be pair with the other channel of the In-wall Module.

Pairing Mode		Usage
Button paired during "Pairing mode"	Button pressed on the emitter	In-wall Module state
●	●	ON
●	○	OFF
○	●	ON
○	●	OFF
+	+	ON
+	−	OFF
−	−	ON
−	+	OFF

To unpair this emitter:
❶ Put the In-wall Module in « Pairing mode ». Select the channel you want to unpair.
❷ Press any button of the emitter.
The emitter can't control the selected channel of the In-wall Module anymore.

Key Card Activated Switch
EnOcean® Type "Key Card Activated Switch" (EEP: F6-04-01)

To pair this type of emitter to the In-wall Module:
❶ Put the In-wall Module in « Pairing mode ». Select the channel you want to pair.
❷ Insert or remove the card from the reader. The movement of the card done during the pairing process is the movement which will switch ON the selected channel. The opposite movement will switch OFF the selected channel.
❸ To initialize the In-wall Module, insert and remove (or remove and insert) the card.

Pairing Mode		Usage
Movement done during « Pairing mode »	Card position	In-wall Module state
INSERT	INSERTED	ON
	REMOVED	OFF
REMOVE	REMOVED	ON
	INSERTED	OFF

To unpair this emitter:
❶ Put the In-wall Module in « Pairing mode ». Select the channel you want to unpair.
❷ Insert or remove the card.
The emitter can't control the selected channel of the In-wall Module anymore.

Window Handle
EnOcean® Type "Window Handle" (EEP : F6-10-00)

To pair this type of emitter to the In-wall Module:
❶ Put the In-wall Module in « Pairing mode ». Select the channel you want to pair.
❷ Make the relevant movement with the handle according to your need. Check below table.

Note: "Bottom hung" and "Open" position are identically considered

Pairing Mode	Usage	
Movement done during « Pairing mode »	Handle position	In-wall Module state
OPEN or BOTTOM HUNG	OPENED or BOTTOM HUNG	ON
	CLOSED	OFF
CLOSE	CLOSED	ON
	OPENED or BOTTOM HUNG	OFF

To unpair this emitter
❶ Put the In-wall Module in « Pairing mode ». Select the channel you want to unpair.
❷ Make any kind of movement with the handle.
The emitter can't control the selected channel of the In-wall Module anymore.

Opening sensor
EnOcean® Type "Magnetic Contact" (EEP : D5-00-01)

To pair this type of emitter to the In-wall Module:
❶ Put the In-wall Module in « Pairing mode ». Select the channel you want to pair.
❷ Press on the « learning » button of the opening sensor. The position (close or far) of the magnet from the sensor when the « learning » button is pressed is the position which will switch ON the selected channel. The opposite position will switch OFF the selected channel. Check the table below.

Pairing Mode	Usage	
Magnet position when the « Learning » button is pressed	Magnet position	In-wall Module state
CLOSE	CLOSE	ON
	FAR	OFF
FAR	FAR	ON
	CLOSE	OFF

To unpair this emitter.
❶ Put the In-wall Module in « Pairing mode ». Select the channel you want to unpair.
❷ Press on the « learning » button.
The emitter can't control the selected channel of the In-wall Module anymore.

Motion sensor
EnOcean® Type "PIR Sensor" (EEP: A5-07-01 / A5-07-02 / A5-07-03 / A5-08-01 / A5-08-02 / A5-08-03)

To pair this type of emitter to the In-wall Module:
❶ The status of the In-wall Module (ON or OFF) chose before put in « Pairing mode » will be associate to a presence detection.
❷ Put the In-wall Module in « Pairing mode ». Select the channel you want to pair.
❸ Press on the « learning » button of the opening sensor.

When a presence is detected, the selected channel will be in the state (ON or OFF) defined at step 1.
When no presence is detected, the selected channel will be in the opposite state. Check the table below.

Pairing Mode	Usage	
In-wall Module state before "pairing mode"	Sensor status	In-wall Module state
ON	PRESENCE	ON
	NO PRESENCE	OFF
OFF	NO PRESENCE	ON
	PRESENCE	OFF

To unpair this emitter.
❶ Put the In-wall Module in « Pairing mode ». Select the channel you want to unpair.
❷ Press on the « learning » button.
The emitter can't control the selected channel of the In-wall Module anymore.

Dry contact sensor
EnOcean® Type "Dry Contact" (EEP: A5-10-0A / A5-10-0B / A5-14-01 / A5-14-02 / A5-14-03 / A5-14-04)

To pair this type of emitter to the In-wall Module:
❶ The status of the In-wall Module (ON or OFF) chose before put in « Pairing mode » will be associate to a presence detection.
❷ Put the In-wall Module in « Pairing mode ». Select the channel you want to pair.
❸ Press on the « learning » button of the dry contact sensor.

When the contact is closed, the selected channel will be in the state (ON or OFF) defined at step 1.
When the contact is open, the selected channel will be in the opposite state. Check the table below.

Pairing Mode	Usage	
In-wall Module state before « Pairing mode »	Contact status	In-wall Module state
ON	CLOSE	ON
	OPEN	OFF
OFF	OPEN	ON
	CLOSE	OFF

To unpair this emitter.
❶ Put the In-wall Module in « Pairing mode ». Select the channel you want to unpair.
❷ Press on the « learning » button.
The emitter can't control the selected channel of the In-wall Module anymore.

PAIRING PROCEDURE AS EMITTER

When wired wall switch(es) are connected to S1 and/or S2 inputs, the wall switch(es) can then act as an EnOcean® emitter (sending RPS telegrams)
It means that once set-up, the wired wall switch(es) can controlled the in-wall module on which they are plugged and any other EnOcean® compatible receivers wirelessly, such as the NodOn® Smart Plug.

To pair the In-wall Module with another receiver:
❶ Put the receiver in « Pairing mode ».
❷ Do a simple action on the wired wall switch's rocker you want to pair with the receiver.
The status (ON or OFF) of the related output of the In-wall module (O1 or O2) at the end of the pairing process with define the « ON » state of the paired receiver.

Example

If you want your receiver to be synchronized with your In-wall Module, pair the rocker by switching ON the related output.
If you want your receiver to be desynchronized with your In-wall Module, pair the rocker by switching OFF the related output.
Details and video example on www.nodon.fr

To unpair the In-wall Module with another receiver:
❶ Put the receiver in « Pairing mode ».
❷ Do a simple action on the wired wall switch's rocker paired with the receiver.

HOME AUTOMATION GATEWAY

Pair the In-wall Module with a Home Automation gateway
The NodOn® In-wall Module can be controlled by an EnOcean® compliant Home Automation gateway.
For the pairing process of the In-wall Module with the gateway, please refer to the user guide of your Home Automation gateway.

Below, a standard learning process:
❶ Put your gateway in learning mode
❷ Put the In-wall Module in « Pairing mode ».
Note: No need to select channel the gateway will learn both channel during the same procedure.
❸ The interface of your gateway will confirm the success of the pairing process.
Note: To unpair the In-wall Module, the procedure is the same. Find the list of the supported Home Automation gateway on : www.nodon.fr – "Support" section.

PARAMETERS OF THE IN-WALL MODULE
The NodOn® In-wall Module is bi-directional and follows the D2-01-12 EnOcean® Equipment Profile (EEP):

PARAMETERS	D2-01-12
No. of output channels	2
Switching	X
Local Control	X
Local Control enable/disable	X
External Switch/Push Button Control	X
External Switch/Push Button Type	X
Auto OFF Timer	X
Delay Radio OFF Timer	X
Taught-in devices enable/disable	X
User interface day/night mode	X
Default state configurable	X

DEFAULT PARAMETERS

PARAMETERS	Default
Local Control enable/disable	Enable
Taught-in Devices enable/disable	Enable
User interface day/night mode	Day
Default state configurable	Previous State
External Switch/Push Button Type	Auto-detect
Auto OFF Timer	Timer disable
Repeater enable/disable	Disable
Repeater Level	OFF

PARAMETERS PRESENTATION

Switching:
This option is to switch ON or OFF the In-wall Module. If :
• Output value = (0x00) the In-wall Module is switched OFF
• Output value from (0x01) to (0x64), the In-wall Module is switched ON.
The In-wall Module doesn't have any dimming function.

Local control:
This option is to activate or deactivate the local control of the In-wall Module and on the wired switch connected.
In both case, we can always access to the « Pairing mode » and « Factory Reset ».

Taught-in devices:
If the parameter is activated, all the emitters paired to the In-wall Module can control it. If the parameter is deactivated, only the Home Automation gateway can control the In-wall Module.

User interface day/night mode:
If the parameter is set to "Day", the LED will be green when the In-wall Module is Power On. If the parameter is set to "Night", the LED will be OFF whatever the In-wall Module is powered or not. Except for "Learning Mode" and "Reset" glowing.

Default State:
This parameter allows defining the state of the In-wall Module after a power outage.

External Switch/Push Button Type
This option is to selected the type of the wired switch (Mono-stable or bi-stable). By default the In-wall Module is configured to detect this mode by itself.
Same option is applied for both wired switches.

Auto OFF Timer
When timer is activated with valid value (0.1 to 3600 sec), each time an output channel is set ON, it will be automatically set OFF when timer elapsed.

Delay Radio OFF Timer
When delay timer is activated with valid value (0.1 to 3600 sec), each time an output channel is set OFF by radio, it will be delay the action OFF of the time value choose.

Repeater enable/disable
When enable, the In-Wall Module can repeat a message not addressed to him, and increase range by creating network grid between all your EnOcean® devices.

Repeater Level
To activate this option please check on your gateway or contact NodOn for assistance.

SUPPORTED PROFILES (EEP)

F6-02-01	F6-04-01	F6-10-00
D5-00-01	A5-07-01	A5-07-02
A5-07-03	A5-08-01	A5-08-02
A5-08-03	A5-10-19	A5-10-18
A5-10-1A	A5-10-1B	A5-10-1C
A5-10-1D	A5-10-01	A5-10-05
A5-10-08	A5-10-0C	A5-10-10
A5-10-13	A5-10-16	A5-10-17
A5-10-0A	A5-10-0B	A5-14-01
A5-14-02	A5-14-03	A5-14-04

DECLARATION OF CONFORMITY

EN60669
EN301489-1
EN301489-3
2012/19/EC WEEE Directive
CE declaration: www.nodon.fr/support/NodOn_InWallModule_EnOcean_CE.pdf

PICTOGRAM

CE — This product is compliant with all relevant European standards.

When sorting your waste, please observe the disposal regulations in force. Please place your waste in the facilities provided for that purpose and with all due respect for the environment.

This product must be used indoor only.

enocean® — This product is compliant with EnOcean® radio protocol.

CONTACT

AFTER SALES

www.nodon.fr section "support"
contact@nodon.fr
For user guides in other languages, please visit
www.nodon.fr/notices