MINI ENERGY DIMMER

QUICK INSTALLATION GUIDE
v1.0

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→ ELECTROMAGNETIC COMPATIBILITY
When operated according to manufacturer instructions, the product complies with all applicable CE harmonised standards from EMC Directive 2004/108/EC and Part 15 of the FCC Rules. The connections conducting HF signals must not be damaged or altered in any way by the user.

→ TAKE CARE OF YOUR SAFETY
Display extreme caution when using ladders or steps, please follow manufacturer's instructions. Be careful when using hand and power tools and follow the manufacturer's guidelines when using them. Take care that the correct tools are used. Wear goggles or protective clothing where required.

⚡ DANGER
RISK OF ELECTROCUTION
All work on the device should only be carried out by trained and skilled electricians. Observe the country-specific regulations.

⚡ DANGER
RISK OF FATAL INJURY FROM ELECTRIC CURRENT.
The device has no basic insulation and must therefore be installed in a way that protects against accidental contact.

⚡ DANGER
RISK OF FATAL INJURY FROM ELECTRIC CURRENT.
When installing a wall plate, the distance between the cover's fixing brackets or screws and the connections of the flush-mounted MicroModule Switch Double must be at least 4 mm once installed. If the distance is less than 4 mm, a deeper installation box must be used. The fixing brackets or screws of the cover must not press against the housing. Only insulated tools may be used for operation on the device, e.g. an insulated phase tester.

⊕ CAUTION
The connected devices and the flush-mounted receiver can become damaged if devices are operated that do not correspond to the technical specifications (see technical data).

INTRODUCTION

Zipato Mini Energy Dimmer provides variable indoor lightning, creating pleasant ambience in your home while helping you reduce overall energy consumption. This Z-Wave enabled module can be set in most existing in-wall switches where it can be used to control connected appliances, with Zipato home automation controllers, Z-Wave remotes or module's built-in push button. It supports basic command class, which can report immediate voltage, current, watt, and energy consumption. It also can act as a repeater in the Z-Wave network. This product can be included and operated in any Z-Wave network with other Z-Wave certified devices from any other manufacturers.

OVERVIEW

→ PACKAGE CONTENT

1PC	Mini Energy Dimmer	1PC	Quick Installation Guide

FEATURES

- Slim, compact Z-Wave incandescent dimmer provides variable indoor lightning, switches your lightning equipment and reports their energy consumption.
- Designed to dim most fluorescent, tungsten, halogen, sodium and leading edge lights
- Fits into most existing in-wall switches
- Resistive load 1x500W @ 220VAC, 1x300W at 120VAC
- Zero-crossing switch
- Reports immediate voltage, current and energy consumption
- Can act as a repeater in any Z-Wave network
- Very low power consumption
- Easy installation

SPECIFICATION

→ TECHNICAL SPECIFICATION

PROTOCOL	Z-Wave 400
LOAD TYPE	Incandescent
POWER SUPPLY (EU, AU, IN, RU)	85V - 260VAC, 50Hz
POWER SUPPLY (US)	85 - 260VAC, 60Hz
MAX OUTPUT	2A
OPERATION TEMPERATURE	0°C ~ 60°C
RANGE	Minimum 30m indoor / 70m outdoor
WEIGHT	54g
DIMENSIONS	50mm x 50mm x 20mm
PACKAGE WEIGHT	81g
PACKAGE DIMENSIONS	90mm x 80mm x 35mm

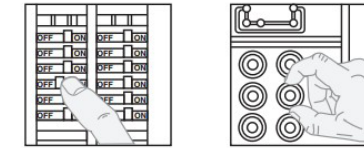|	
REGULATIONS	EMC 2004/108/EC, R&TTE 1995/5/EC, LVD 2006/95/EC, FCC PART 15
WARRANTY	1 year

→ MODELS AND FREQUENCIES

AUSTRALIA - AU version	mh-p210.au / 921.42 MHz
EUROPE - EU version	mh-p210.eu / 868.42 MHz
INDIA - IN version	mh-p210.in / 865.20 MHz
RUSSIA - RU version	mh-p210.ru / 869.02 MHz
UNITED STATES - US version	mh-p210.us / 908.42MHz

INSTALLATION AND OPERATION
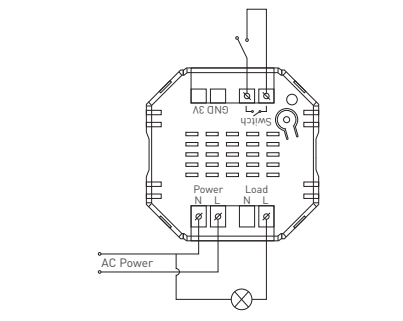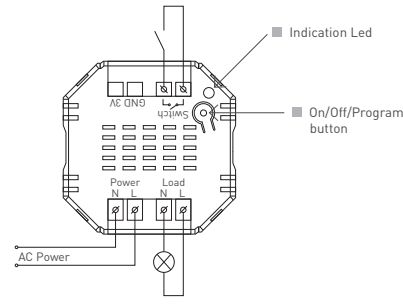
→ PREPARING
Caution:
Cut off power supply at circuit breaker or fuse before installation to avoid fire, shock or death!

- Remove the wall switch cover plate.
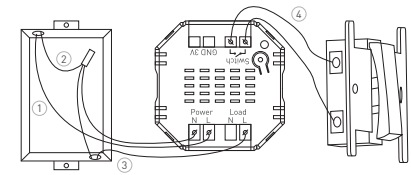- Disconnect both wires from the wall switch.

→ WIRING
- (standard strip length: 6-7mm)

- Indication Led
- On/Off/Program button

AC Power

AC Power

- Connect Hot Line to "Power L".

- Connect Neutral Line to "Power N".
- Connect Load wire to "Load L".
- External switch connection: Connect both wires with two terminals of "Switch".

Note:"3V"and"GND"will only be used with MCOHome touch panel. And the terminals are not isolated from main power (L, N), DO NOT touch them with bare hands.

① Line (Hot)
② Neutral
③ Load

→ MOUNTING IN-WALL BOX
Mount wall switch and cover plate back to the in-wall box.

→ RESTORING POWER
Restore power at circuit breaker or fuse.
Installation is complete.

OPERATION

→ INCLUDING THE MINI ENERGY DIMMER INTO YOUR NETWORK
1 Set the controller into INCLUSION mode. Follow the instructions provided by the controller manufacturer.
2 Press the ON/OFF/PROGRAM button on the Mini Energy Dimmer, or toggle/press the external switch/button 6 times in quick succession (within approx 2sec).
Note: If the inclusion is successful, the Mini Energy Dimmer INDICATION LED will be solid on or off depending on switch's state. If not, INDICATION LED will blink slowly.

→ EXCLUDING THE MINI ENERGY DIMMER INTO YOUR NETWORK
1 Set the controller into EXCLUSION mode. Follow the instructions provided by the controller manufacturer.
2 Press the ON/OFF/PROGRAM button on the Mini Energy Dimmer, or toggle/press the external switch/button 6 times in quick succession (within approx 2sec).
Note: If the exclusion is successful, the Mini Energy Dimmer INDICATION LED will blink slowly. If not, INDICATION LED will be solid on or off depending on switch's state.

→ TURNING ON/OFF/DIMMING THE MINI ENERGY DIMMER
The Mini Energy Dimmer can be controlled by:
- Toggling external switch/Button.
- Pressing the ON/OFF/PROGRAM button on the Mini Energy Dimmer. To press the button will toggle the power flow.
- Sending commands through controller or gateway. the command classes which support this function are Basic Command Class, Multilevel Switch Command Class, and Scene Activation Command Class.

→ CHANGING EXTERNAL CONTROL MODE
The external control mode can be configured by: (the default control mode of this module is external switch).
- Sending commands through controller or gateway (the command class which supports this function is Configuration Command Class)

PARAMETER NUMBER	0x01
SIZE	1 byte
DEFAULT VALUE	0x00
CONFIGURATION VALUE	0x00: Switch(2 state switch mode 0x01: Button(Momentary button mode)

■ Pressing the ON/OFF/PROGRAM button 6 times in quick succession (within approx 2sec).

→ SETTING ASSOCIATION GROUP
The module supports 2 association groups. The 1st group can support 5 association nodes. When set unsolicited report, the 1st group will send data to its associated devices initiatively. See details in "Monitoring Energy Consumption".
The 2nd group is used for reporting devices' state to the controller if any changes happen. This group supports one node, which defaults to controller node.
The "ASSOCIATION_SET" in "COMMAND_CLASS_ASSOCIATION" command class is used to set Grouping identifier and Node ID of association devices. Using "ASSOCIATION_GET" to get the association device's Node ID, and "ASSOCIATION_REMOVE" to remove the association device's Node ID.

COMMAND CLASSES	COMMAND_CLASS_ ASSOCIATION_V1
COMMAND NAME	ASSOCIATION_SET
GROUPING IDENTIFIER	0x01 / 0x02
NODE ID	Node ID that need to be included

→ MONITORING ENERGY CONSUMPTION
When requested by controller or gateway, the Mini Energy Dimmer will report immediate voltage, current, power, and energy consumption (the command classes which support this function is Meter Command Class). When set unsolicited report, the module will send data to association group 1 at regular time.

PARAMETER NUMBER	0x02
SIZE	1 byte
DEFAULT VALUE	0x00
CONFIGURATION VALUE	Bit 0: KWH Report Bit 1: Voltage Report Bit 2: Current Report Bit 3: Watt Report (Bit Set to 1: enable 0:disable)

The interval time can be set as follows:

PARAMETER NUMBER	0x03
SIZE	2 byte
DEFAULT VALUE	0x0258 (10 minute)
CONFIGURATION VALUE	0~65535 sec

→ SETTING & ACTIVATING SCENE
The module can set and activate 255 scene IDs by using gateway and scene controller. The "SCENE_ACTUATOR_CONF_SET" in "COMMAND_CALSS_SCENE_ACTUATOR_CONF" is used to set scene, and "SCENE_ACTIVATION_SET" in "COMMAND_CLASS_SENE_ACTIVATION" is used to activate scene. Please refer to instructions provided by controller manufacturer for details.

→ RESTORING FACTORY SETTINGS
The default configuration can be restored by:
■ Sending commands through controller or gateway (the command classes which support this function is Configuration Command Class). The parameter are as follows:

PARAMETER NUMBER	0xFF
SIZE	1 byte
DEFAULT VALUE	N/A
CONFIGURATION VALUE	0x55

Set 0xFF as 0x55 will restore Factory Settings.
■ Pressing and Holding the ON/OFF/PROGRAM button for 15s.
Note: If the Factory Settings is restored successfully, INDICATION LED will blink quickly and then become slower.

TROUBLESHOOTING

Having trouble installing your new product?
Zipato's website contains the latest user documentation and software updates for Zipato products and services:
www.zipato.com

You can also find answers in the Zipato Community at:
community.zipato.com

Zipato Support: **support@zipato.com**

LIMITED PRODUCT WARRANTY

→ GENERAL TERMS
Nothing in this Limited Product Warranty affects your statutory rights as a consumer.

The Limited Product Warranty set forth below is given by Tri plus grupa d.o.o. (Europe) (herein referred to as "ZIPATO"). This Limited Product Warranty is only effective upon presentation of the proof of purchase. Upon further request by ZIPATO, this warranty card has to be presented, too.

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This Limited Product Warranty applies to ZIPATO branded hardware products (collectively referred to as "ZIPATO Hardware Products") sold by ZIPATO (Europe), its European subsidiaries, affiliates, authorized resellers, or country distributors (collectively referred to as "ZIPATO Resellers") with this Limited Product Warranty.

The term "ZIPATO Hardware Product" is limited to the hardware components and all its internal components including firmware. The term "ZIPATO Hardware Product" DOES NOT include any software applications or programs.

→ GEOGRAPHICAL SCOPE OF THE LIMITED PRODUCT WARRANTY
This Limited Product Warranty is applicable to Hardware Products sold by Zipato Resellers in all countries listed at the beginning of this document under the heading "Countries in which this ZIPATO Limited Product Warranty applies". The Limited Product Warranty will be honored in any country where ZIPATO or its authorized service providers offer warranty service subject to the terms and conditions set forth in this Limited Product Warranty. However, warranty service availability and response times may vary from country to country and may also be subject to registration requirements.

→ LIMITATION OF PRODUCT WARRANTY
ZIPATO warrants that the products described below under normal use are free from material defects in materials and workmanship during the Limited Product Warranty Period set forth below ("Limited Product Warranty Period"), if the product is used and serviced in accordance with the user manual and other documentation provided to the purchaser at the time of purchase (or as amended from time to time).

ZIPATO does not warrant that the products will operate uninterrupted or error-free or that all deficiencies, errors, defects or non-conformities will be corrected.
This warranty shall not apply to problems resulting from: (a) unauthorized alterations or attachments; (b) negligence, abuse or misuse, including failure to operate the product in accordance with specifications or interface requirements; (c) improper handling; (d) failure of goods or services not obtained from ZIPATO or not subject to a then-effective ZIPATO warranty or maintenance agreement; (e) improper use or storage; or (f) fire, water, acts of God or other catastrophic events. This warranty shall also not apply to any particular product if any ZIPATO serial number has been removed or defaced in any way.
ZIPATO IS NOT RESPONSIBLE FOR DAMAGE THAT OCCURS AS A RESULT OF YOUR FAILURE TO FOLLOW THE INSTRUCTIONS FOR THE ZIPATO HARDWARE PRODUCT.

→ LIMITED PRODUCT WARRANTY PERIOD
The Limited Product Warranty Period starts on the date of purchase from ZIPATO. Your dated sales or delivery receipt, showing the date of purchase of the product, is your proof of the purchase date. You may be required to provide proof of purchase as a condition of receiving warranty service. You are entitled to warranty service according to the terms and conditions of this document if a repair to your ZIPATO branded hardware is required within the Limited Product Warranty Period.

(Other than in respect of products for domestic use (in particular those listed in the first and last boxes in the table below), this Limited Product Warranty extends only to the original end user purchaser of this ZIPATO Hardware Product and is not transferable to anyone who obtains ownership of the ZIPATO Hardware Product from the original end-user purchaser.

→ PRODUCT WARRANTY PERIOD TABLE

PRODUCT TYPE	Mini Energy Dimmer
PRODUCT WARRANTY PERIOD	One (1) year

IMPORTANT
The content of "Product Type" listed above is subject to change; please refer to the **www.zipato.com** for latest update.

→ PERFORMANCE OF THE LIMITED PRODUCT WARRANTY
If a product defect occurs, ZIPATO's sole obligation shall be to repair or replace any defective Zipato Hardware Product free of charge provided it is returned to an Authorized ZIPATO Service Centre during the Limited Warranty Period. Such repair or replacement will be rendered by ZIPATO at an Authorized ZIPATO Service Centre. All component parts or hardware products that are replaced under this Limited Product Warranty become the property of ZIPATO. The replacement part or product takes on the remaining Limited Warranty Period of the replaced part or product. The replacement product need not be new or of an identical make, model or part; ZIPATO may in its discretion replace the defective product (or any part thereof) with any reconditioned equivalent (or superior) product in all material respects to the defective product.

WARRANTOR
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CROATIA

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DECLARATION OF CONFORMITY

CE

The manufacturer Tri plus grupa d.o.o declares under our sole responsibility that the product:

Marketing model: Mini Energy Dimmer
Regulatory model: mh-p210
Trade/Brand name: Zipato

is in conformity with the Low Voltage Directive 2006/95/EC, EMC Directive 2004/108/ECand R&TTE Directive 1995/5/EC and carries the CE marking accordingly.
The following harmonized standards were applied:

R&TTE (1995/5/EC)
EN 300 220-1: V2.4.1
EN 300 220-2: V2.4.1

EMC (2004/108/EC)
EN 301 489-1: V1.9.2
EN 301 489-3: V1.6.1

LVD (2006/95/EC)
EN 60669-2-1:2004 + A1:2009 + A12:2010 used in conjunction with EN 60669-1:1999 + A1:2002 + A2:2008

Changes or modifications not expressly approved by Tri plus grupa d.o.o. for compliance could void the user's authority to operate the equipment.

FC

THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES.
Operation is subject to the following two conditions:
1 | this device may not cause harmful interference, and
2 | this device must accept any interference received, including interference that may cause undesired operation.

NOTE: Changes or modifications not expressly approved by Zipato for compliance could void the user's authority to operate the equipment. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC

Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

■ Reorient or relocate the receiving antenna.
■ Increase the separation between the equipment and receiver.
■ Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
■ Consult the dealer or an experienced radio/TV technician for help.

⊙ DISPOSING AND RECYCLING YOUR PRODUCT

When it reaches end of life, dispose of the product according to your local enviromental laws, guidelines and regulations.

This symbol on the product or packaging means that according to local laws and regulations needs to be disposed of separately from household waste. Once this product has reached the end of its life, please take it to a collection point (recycle facilites) designated by your local authorities, some will accept your product for free or simply drop it off at your Zipato re-seller store. By recycling the product and its packaging in this manner you help to conserve the environment and protect human health. At Zipato, we understand and are committed to reducing any impact our operations and products may have on the environment. To minimize this impact Zipato designs and builds its products to be as environmentally friendly as possible, by using recyclable, low toxic materials in both products and packaging.

⊙ COPYRIGHT