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**INDICATION MODES**
- The indicator gives various statuses of the device as follows:
  1. Ready for learn mode: Indicator light blinks every second.
  2. Learn in progress (add): Indicator light blinks 2 times per second.
  3. Learn in progress (remove): Indicator light blinks 3 times per second.
  4. Learn mode successful: Indicator light is on for 1 second.
  5. Learn mode failed: Indicator light blinks 8 times fast.
  7. Mounting successful indicator light is on for 1 second.
  8. Busy sending an RF message: Indicator light is blinking each second, while most of the time on.

**TECHNICAL SPECS**
- NORMAL OPERATING VOLTAGE: 2x AAA 1,5V batteries
- FREQUENCY RANGE: 868.42 MHz
- RANGE: Up to 30m line of sight
- PROTOCOL SUPPORTED: ISO15493, ISO18000-3, Tag-IT™, RFID
- BUZZER-SOUND: Approx. 40dB at 10cm distance

**TECHNICAL DETAILS**
- NORMAL OPERATING VOLTAGE: 2x AAA 1,5V batteries
- FREQUENCY RANGE: 868.42 MHz
- RANGE: Up to 30m line of sight
- PROTOCOL SUPPORTED: ISO15493, ISO18000-3, Tag-IT™, RFID

**TECHNICAL MANUAL**
Because the RFID code is not readable on the Tags, the Mini Keypad RFID/Z-Wave will send an unsolicited USER_CODE_REPORT with UserID 0 and UserID Status 0. A controller will receive this report and can initiate a USER_CODE_SET command to associate the RFID Tag.

**NOT LISTENING ROUTING SLAVE**
This Z-Wave product will be used as route slave. Slave nodes are in a Z-Wave network that receive commands and perform actions based on the command received. This device will always be in slave mode because it works on batteries. In sleep mode the device is not active listening, the device will wake up according to the wake-up command class.

**INCLUDE INITIATOR**
The include initiator is used when Primary and Inclusion Controllers include nodes into the network. When both the include initiator have been activated simultaneously the new node will be included to the network (if the node was not included previously).

**EXCLUDE INITIATOR**
The exclude initiator is used by Primary and Inclusion Controllers to exclude nodes from the network. When the exclude initiator and the slave initiator are activated simultaneously, it will result in the slave being excluded from the network (and reset to Node ID 0). Even if the slave was not part of the network it will still be reset by this action.

**Z-WAVE COMPATIBILITY**
Because this is a Z-Wave device, it means it can co-operate with other Z-Wave devices of other manufacturers. It can co-exist in a Z-Wave network existing with product from other manufacturers.

**HOPS & RETRIES**
The Z-Wave range has a range of up to 30 meters in line of sight. This signal is transmitted on the radio frequency range due to the Z-Wave message to other nodes in the network. This way the range of the Z-Wave network can be expanded to 150 meters indoors (limit of 4 hops).

**CLASS: 0x63 COMMAND_CLASS_USER_CODE**
The purpose of the User Code Command Class is to configure the Mini Keypad RFID/Z-Wave to accept certain RFID Tags or codes. This is typically done by some kind of static controller or gateway (for instance the Wintop iGate). After sending a User Code Set, including a unique User Code, the slave will send a User Code Report with the User Code. The Mini Keypad RFID/Z-Wave will accept the code and notify any other device using the Association Command Class. This other device can be configured to accept the User Code using the Association Command Class and is typically the same controller or gateway. When a tag or code is not known to the Mini Keypad RFID/Z-Wave, it will send an unsolicited report to the device in its association group with the UID 0x86. The value in the message can be used to configure new tags.

**CLASS: 0x86 COMMAND_CLASS_VERSION**
This Command Class is used to obtain information about the Mini Keypad RFID/Z-Wave. The Z-Wave library type, the Z-Wave protocol version and the application version will be reported.

**CLASS: 0x72 COMMAND_CLASS_MANUFACTURER_SPECIFIC_V2**
This report information about the manufacturer. This product will contain the manufacturer ID of Wintop. Manufacturer ID of Wintop is 0x847. After this product is in use, this command class can also be used to request the serial number of the device.

**CLASS: 0x20 COMMAND_CLASS_BASIC**
The basic command class only has a supporting role and is mapped to the Switch Binary Command Class.

**CLASS: 0x25 COMMAND_CLASS_SWITCH_BINARY**
The Switch Binary Command Class is used to enable or disable the notification sound. This sound is typically used to notify a user when the alarm system is being activated. See also the ‘Sound Notification’ section.
**CLASS: 0x00 COMMAND_CLASS_BATTERY**
This class is used to request and report battery levels for a given device. When battery level is lower than 20% the Mini Keypad RFiD/Z-Wave will send a battery warning value 255 after every wake up notification. A battery get will report the actual value even if it below 20%.

**CLASS: 0x05 COMMAND_CLASS_ASSOCIATION**
The Association Command Class is used to associate the Mini Keypad RFiD/Z-Wave to other devices. When a tag or code is read, the Mini Keypad RFiD/Z-Wave will send a notification to the Z-Wave devices in its association group. It will also report the state of the tamper alarm to the devices in this association group.

- Number of groupings: 1
- Maximum supported nodes per group: 5

**CLASS: 0x06 COMMAND_CLASS_WAKE_UP**
The Wake Up Command Class is used at battery-operated devices. This class allows the Mini Keypad RFiD/Z-Wave to wake up occasionally to notify others devices, that the Mini Keypad RFiD/Z-Wave is ready to receive commands. After receiving the commands the Mini Keypad RFiD/Z-Wave will again, the wake up interval can be set using the WAKE_UP_INTERVAL_SET command.

- The default value is 0x1C0 = 7200 sec = 2 hour
- The device node is 0xFF = 255 (broadcast)

It is possible to send a wake up notification on user interaction. Besides sending a Wake Up Notification automatically every 2 hours (or any other time that is configured using the Wake Up Interval Set command), the Mini Keypad RFiD/Z-Wave also sends a Wake Up Notification when:

- The tamper alarm state changes (Mini Keypad RFiD/Z-Wave is mounted or removed from the wall)
- A Tag read
- A Code is entered using the keypad

When the wake up time is set to 0 a wake up notification is never send periodically, only on user interaction.

**CLASS: 0x07 COMMAND_CLASS_CONFIGURATION_V1**

**CONFIGURE PARAMETERS:**

1. **Set to default**
2. **Description:** Set all configuration values to default values (factory settings).
   Read more in chapter Configuration Reset.
3. **Parameter:**
   - **Size:** 1 byte
   - **Default:** 0x00
   - **PARAM1:** 0x00 means disabled, 0xFF is endless.
   - **PARAM2,3,4:** not used

**ALWAYS A WAKE MODE**

The always awake mode is used to request different values from the device e.g. version and manufacturer specific.

- **NOTE:** in always awake mode the batteries will be drain very fast, we do not recommend to use this mode for a longer period.
- **Always awake mode should only be used in order to configure the device.**

**TYPICAL OPERATION DIAGRAMS**

The following diagrams show the user action that is required and the messages which are being sent from/to the Mini Keypad RFiD/Z-Wave for several basic operations, including optional functionality as the sound notification and UID acknowledgement.

**CONFIGURE A NEW TAG**

Using a new, or a new UID, you can skip the WAKE_UP_NOTIFICATION. Please see the next step for this mode.

**SOUND NOTIFICATION**

The Mini Keypad RFiD/Z-Wave is capable of playing a notification sound. This feature is typically used to notify a user that an alarm system is armed. Since the Mini Keypad RFiD/Z-Wave is a non-listening device, the feature can not be controlled at all times. It requires the Mini Keypad RFiD/Z-Wave to wake up and send a Wake Up Notification. After sending a notification that a tag/code is read (either an unknown or already configured code), the Mini Keypad RFiD/Z-Wave will send a Wake Up Notification. The notification sound can be turned on/off upon receiving any Wake Up Notification. See the section about the Wake Up Command Class for information on when a Wake Up Notification is send.

**NOTIFICATION SOUND AND ACKNOWLEDGEMENT**

The Mini Keypad RFiD/Z-Wave supports 3 types of notification sound configurations:

1. Notification sound disabled (configuration parameter 2 set to zero)
2. Notification sound enabled (default, configuration parameter 2 set to auto-stop timer)
3. Notification sound and acknowledgement enabled (configuration parameter 3 set to acknowledgement timeout). In the first mode, any Basic or Switch Binary commands that are received are ignored. The second mode, the default, can be used to inform a user that the alarm system is armed or disarmed. To use this, you can send a Basic or Switch Binary command on (0xFF) after receiving an Alarm Report and the Wake Up Notification following it. The last mode can be used in situations where, for example, users can only disarm the alarm system at certain times. In this case, the user can be notified whether or not its code or tag is accepted. By configuring configuration parameter 3, 3 can set an acknowledge timeout. Whenever a Lock/Unlock Alarm Report containing an UID is sent by the Mini Keypad RFiD/Z-Wave, the acknowledgement timeout timer is started.

**AFTER THIS THERE ARE TWO POSSIBILITIES:**

1. The Mini Keypad RFiD/Z-Wave does not receive any thing or receives a Wake Up No More Information upon its Wake Up Notification). It starts the error sound to notify the user of the unaccepted code.
2. The Mini Keypad RFiD/Z-Wave receives either a Basic (or Switch Binary) on (to start the normal notification sound) or off (to silently acknowledge the code). The acknowledgement timer is stopped. Note that it actually possible to disable notification sound, but enable acknowledgement. In this case a silent acknowledgement can be both a Basic/Switch Binary on (0xFF) or off (0x00).

**OPTIONAL: START NOTIFICATION**

- **SWITCH_BINARY_SET (value off)**
- **WAKE_UP_NO_MORE_NOTIFICATION**
- **WAKE_UP_NOTIFICATION**
- **ALARM_REPORT (UID 0x05, User ID)"

Controller searches for empty UID
Controller

**MINI KEYPAD RFiD/Z-WAVE**

**QUICK INSTALLATION GUIDE**

**v1.2**

**RFID**

Press HOME button

Hold tag in front of the RFID or enter user code and press ENTER

**ALARM REPORT v2**

[IZV Alarm Event 00x]

Controller processes information and disables the alarm system

**WAKE_UP NOTIFICATION**

**OPTIONAL ACKNOWLEDGE**

**SWITCH-BINARY_SET**

[ Felixa 00x]

**WAKE_UP NO_MORE INFORMATION**

**FREQUENTLY ASKED QUESTIONS**

**Q** 1. Is the controller ready to include any device into the Z-Wave network, what am I doing wrong?

**A** It is mandatory that the correct size is used while configure a parameter; go to the documentation about the configuration command class to check if the right size is used during configuration. If the wrong size is used the frame is ignored totally.

**Q** 1. I have configured a new value and when I request it, it is not changed?

**A** Some configuration parameters have limits of what they can do, go to the documentation about configuration to check if the value of the configured parameter is out of limit.

**Q** 1. When I mount the Mini Keypad RFiD/Z-Wave it performs its standard mounting routine but after 8 seconds the indicator light doesn’t go on for 1 second but blinks 6 times.

**A** Blinks 6 times can mean:

1. Mini Keypad RFiD/Z-Wave is not included
2. Mini Keypad RFiD/Z-Wave is not associated
3. Mini Keypad RFiD/Z-Wave can’t reach its destination

If all these options are corrected, the Mini Keypad RFiD/Z-Wave is well operated correctly and can be mounted again.

**TECHNICAL SUPPORT**

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

**CALL SUPPORT**

+385 1 4004 404

(Mon-Fri) 9:00am-06.00

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**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**

<table>
<thead>
<tr>
<th>Product Type</th>
<th>Warranty Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mini Keypad RFiD/Z-Wave</td>
<td>One (1) year</td>
</tr>
</tbody>
</table>

**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 of or an identical make, model or part. ZIPATO may in its discretion replace the defective product with (or for any reconditioned equivalent or superior) product in all material respects to the defective product.

**WARRANTOR**

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DECLARATION OF CONFORMITY

The Manufacturer Tri plus grupa d.o.o. hereby declares that the product:

Zipabox Smart home controller 1

In accordance with the following Directive(s): 2006/95/EC The Low Voltage Directive, 89/336/EEC The Electromagnetic Compatibility Directive and 1999/5/EC R&TT EC Directive is in conformity with the applicable requirements of the following documents:

EN 61326 EN 61000-3-3 EN 61000-4-4 EN 61000-4-11
IEC/EN 55011 EN 61000-6-2 EN 61000-6-5 EN 301 489-1-3
EN 300 220-2 EN 61000-4-2 EN 61000-4-6 AS/NZS/IEC 60335-2-97
EN 61000-3-2 EN 61000-4-3 EN 61000-4-8 EN 60335-1

I hereby declare that the equipment named above has been designed to comply with the relevant sections of the above referenced specifications. The unit complies with all applicable Essential Requirements of the Directives.

Person responsible for this declaration:
Dean Janacek, Certification Manager
01.09.2012

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

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: 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.

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This symbol on the product or packaging means that according to local laws and regulations this product should not be disposed of in the household waste but sent for recycling. Please take it to a collection point designated by your local authorities once it has reached the end of its life, some will accept products for free. By recycling the product and its packaging in this manner you help to conserve the environment and protect human health.

ZIPATO AND THE ENVIRONMENT

At Zipato, we understand and are committed to reducing any impact our operations and products may have on the environment.

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