Z-Wave Security Keypad 700 User Guide
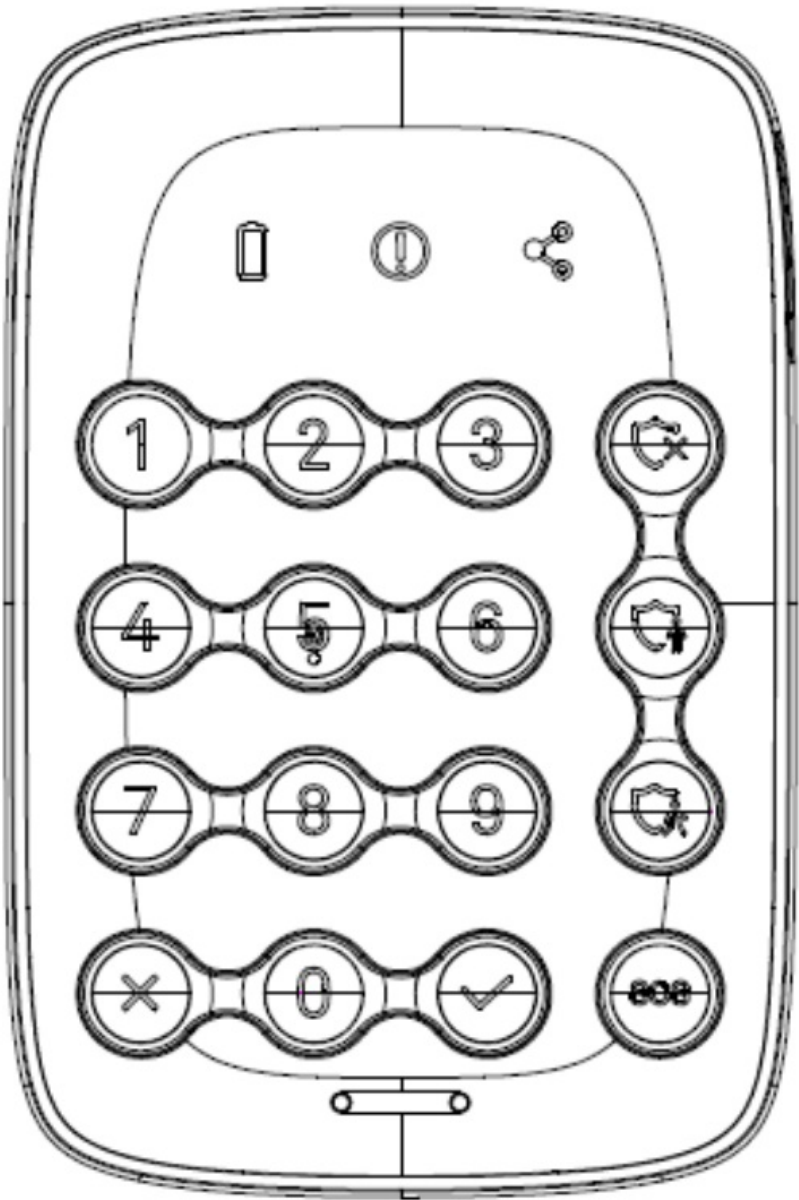
Contents

Safety Information

⚠️ **WARNING:** Any battery may leak harmful chemicals which may damage skin, clothing or the inside of the device.

TO AVOID THE RISK OF INJURY, DO NOT LET ANY MATERIAL LEAKED FROM A BATTERY COME IN CONTACT WITH EYES OR SKIN. Any battery may rupture or explode if put in a fire or otherwise exposed to excessive heat.
TO AVOID THE RISK OF INJURY, DO NOT EXPOSE BATTERIES TO EXCESSIVE HEAT.
To reduce the risk of personal injury or harm to your device, take the following precautions:

- Do not use different brands of batteries in the same device
- When replacing batteries always replace the whole set
- Do not use rechargeable or reusable batteries
- Do not allow children to install batteries unsupervised
- Follow battery manufacturer's instructions as to proper handling, storage, and disposal of batteries.

**CAUTION**: Risk of fire or explosion if the battery is replaced by an incorrect type

ⓘ **IMPORTANT:** Do not expose yourself to rain. This product contains small parts and is not suitable for children. Periodically check the condition of the batteries.

⚠️ **CAUTION:** Correct Disposal of this product. This marking indicates that this product should not be disposed of with other household wastes. To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material resources. To return your used device, please use the return and collection systems or contact the retailer where the product was purchased. They can take this product for environmentally safe recycling.

PACKAGE CONTENTS
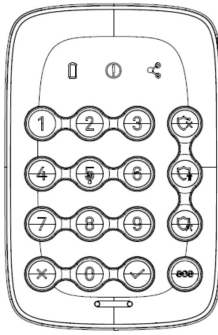
1. **Keypad*1**
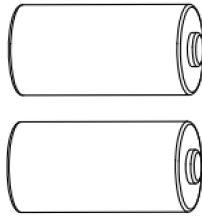
2. **CR123A batteries *2 (pre-installed)**
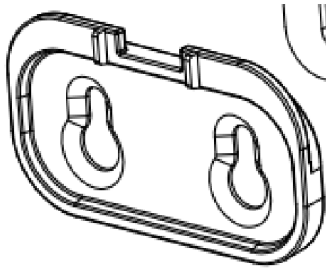
3. **Bracket *1**

4. **Installation kit**

   (a) **screw*2, wall anchor*2**
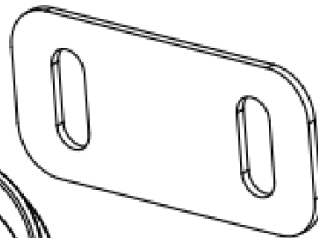
   (b) **double-sided adhesive tape*1**

   (c) reset pin *1

5. **Quick start guide*1**

Product Description

The keypad provides a convenient user interface to arm or disarm the system with a PIN code.

Components

Faulted sensors indicator
(bypass)

Battery
indicator

Network indicator

Speaker

Disarm

Arm stay

Number pad

Arm away

Emergency

Approaching

Sensor

Cancel   Confirm

Anti-tamper button

Reset button

Battery compartment cover
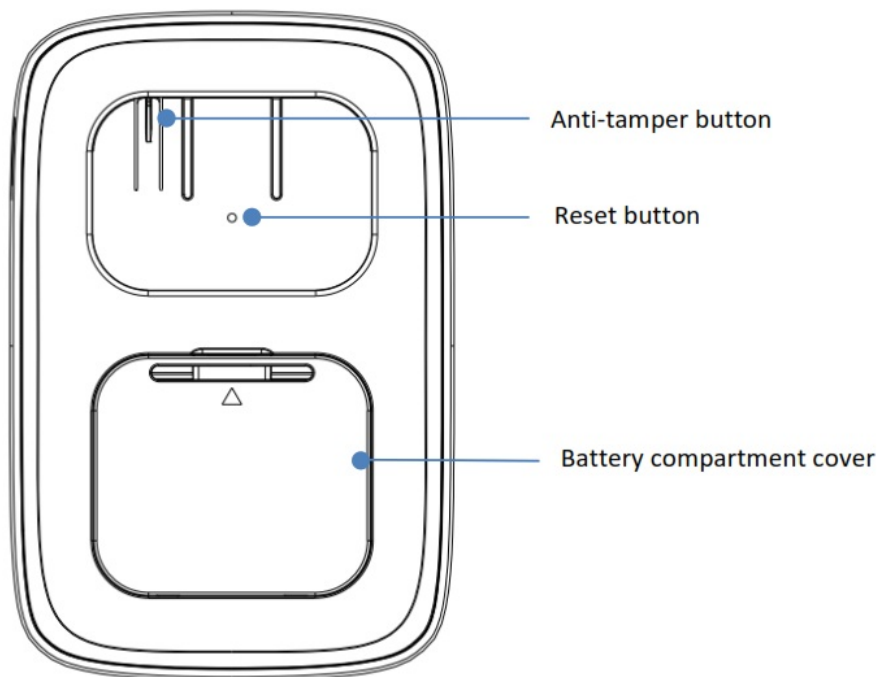
Indicator symbol	Status Description
	Battery capacity: - Green for more than 30% - Yellow more than 11~30% - Read below 11%.
	There are one or more faulted sensors when arming the system.
	Network connection: - Pairing or sending data: flashing green - No or bad signal of the hub: solid red\ - Paired to the hub and good signal: solid green

Functions of actions

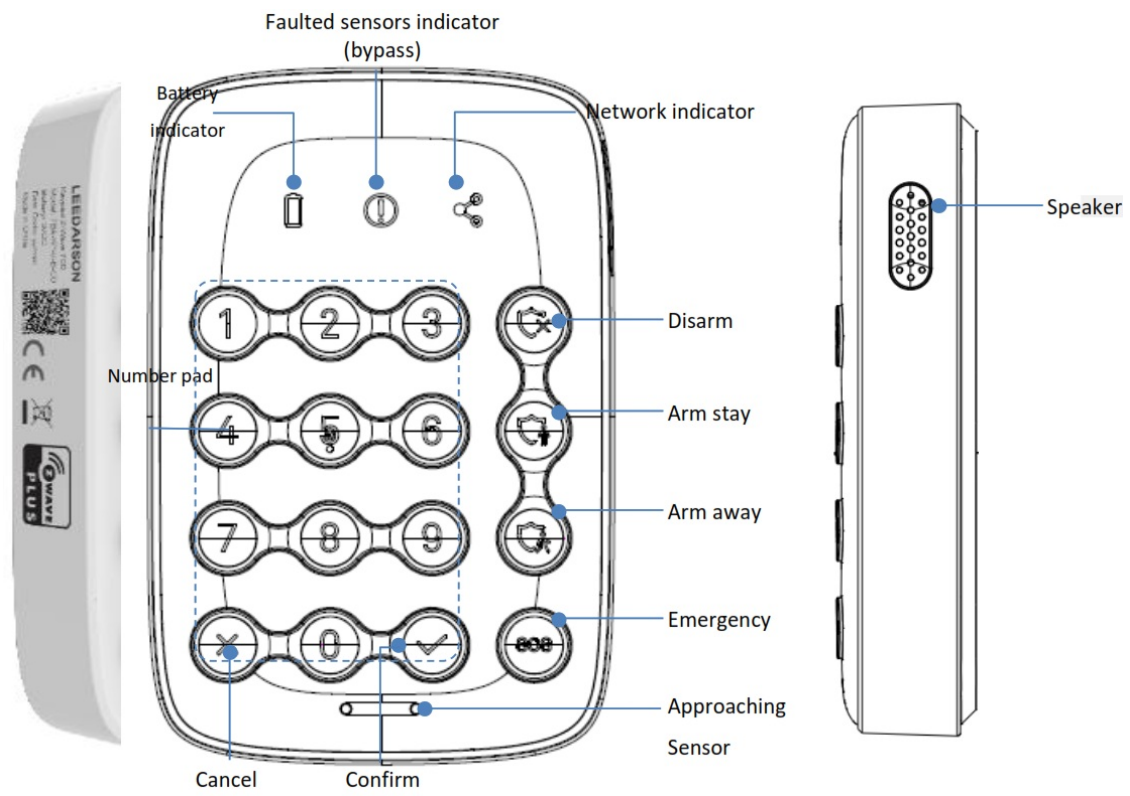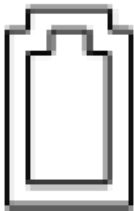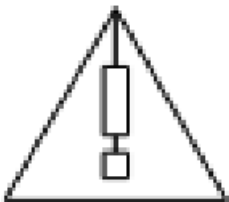| Trigger	Description
Power on	In the network: Indicator LED and backlight will ON for 2 seconds after device power on. Buzzer beeps 1 time. (LED light on sequence: First network/battery/ faulted sensor Indicator LED light on red and turn to green, then disarm(green)/arm stay(blue)/arm away(blue) /SOS (red) LED on, finally 0~9+confirm/delete white backlight on, totally it takes about 2 seconds after device power on. The buzzer long beeps 1 time.) **Not in the network:** Indicator LED and backlight will ON for 2 seconds after device power on. Buzzer beeps 1 time. (LED light on sequence: First network/battery/ faulted sensor Indicator LED light on red and turn to green, then disarm(green)/arm stay(blue)/arm away(blue) /SOS (red) LED on, finally 0~9+confirm/delete white backlight on,totally it takes about 2 seconds after device power on. The buzzer long beeps 1 time.)
SmartStart Inclusion	**Add the Keypad into the Z-Wave network via SmartStart:** 1. Add Keypad DSK into the primary controller SmartStart Provisioning List (If you don't know how to do this, refer to its manual). 2. Power on the Keypad again. 3. The Keypad will send the "Z-Wave protocol Command Class" frame to start SmartStart Inclusion. 4. Network green LED will flash at every 1 second to indicate that the inclusion is working, and solid green LED 3 seconds for indicating the inclusion is successful, otherwise, the LED will be solid yellow in which you need to repeat the process from step 2 **Note:** Keypad will reset itself to factory default by sending "Device Reset Locally CC" when it is included in a non-security Z- Wave network. DSK QR code is on the left side of the product with laser printing. Users should follow the procedure in the section below if the controller does not support SmartStart inclusion.

Short press pair button three-time	**Add the Keypad into the Z-Wave network:** 1. Set the Z-Wave network main controller into learning mode (see Z-Wave network controller operating manual). 2. Trigger this action. 3. Network green LED will flash at every 1 second to indicate that the inclusion is working, and solid green LED 3 seconds for indicating the inclusion is successful, otherwise, the LED will be solid yellow in which you need to repeat the process from step 2. **Remove the Keypad from a Z-Wave network:** 1. Set the Z-Wave network main controller into removing mode (see Z-Wave controller operating manual). 2. Trigger this button action. the Network LED will flash at every 1 second.3. If the removal is successful, the LED will solid green for 3 seconds. If the removing is failed then the LED displays yellow for 3 seconds, otherwise, you need to repeat the process from step 2. Note: Keypad will start SmartStart Inclusion when it is removed from a ZWave network.
Press the pair button and hold more than 5 seconds	Network Indicator green LED will fast blinking and backlight will ON for 2 seconds. Buzzer beeps 1 time after resetting successfully. **Reset the Keypad to factory default.** 1. Device will reset itself to factory default by sending a "Device Reset Locally Notification" to the gateway. 2. If triggered the factory reset, the network connection led will solid green while the factory reset is completed. **Note:** Please use this procedure only when the network primary controller is missing or otherwise inoperable.
Disarm	**Solid green:** Press correct pin code then press disarm button, disarm mode successfully, Buzzer will short beep 2 times in 1 second.(Beep/beep) If disarm fails, e.g. incorrect PIN code. Disarm button LED will no reaction and buzzer will have multiple beeps: long beep one time, short beep twice in 1.5 seconds. (Beep~/Beep beep
Arm Away	**Blinking blue:** Press correct pin code then press arm away button, exit delay ongoing, buzzer beeps 10 seconds Count down default is 10 seconds, user can set count down timing by APP. Meanwhile, the gateway could also have beeps 10 seconds. But to save keypad power, if the user set count time is 30 seconds, the keypad will max beep 10 seconds and the gateway will beep 30 seconds. Solid blue: Arm away successful, Internet indicator is ON after summit arm away The buzzer will long beep 1 time in 1 second. (Beep-) If arm away fails, e.g. incorrect PIN code. Arm away LED button will OFF and the buzzer will have multiple beeps: long beep one time, short beep twice in 1.5 seconds. (Beep~/Beep beep

Arm Stay	**Blinking blue:** Press correct pin code then press arm stay button, exit delay ongoing Count down default is 10 seconds, user can set count down timing by APP. Meanwhile, the gateway could also have beeps for 10 seconds. Arm Stay But to save keypad power if the user set count time is 30 seconds, the keypad will max beep 10 seconds, and gateway will beep 30 seconds. **Solid blue:** Arm stay successful, Internet indicator is ON after summit arm stays. The buzzer will long beep 1 time in 1 second.(Beep~) If the arm stays fails, e.g. incorrect PIN code. Arm Stay LED button will OFF and the buzzer will have multiple beeps: long beep one time, short beep twice in 1.5 seconds. (Beep~/Beep beep
SOS	**Blinking red:** Press SOS button for 3 seconds, SOS button blinking in red. Solid red: SOS successfully sent, SOS button will solid in red. The buzzer long beeps 1 time. **If fail with communication,** SOS button will OFF and buzzer will have multiple SOS beeps: long beep one time, short beep twice in 1.5 seconds. (Beep~/Beep beep) **SOS is not a mode key but a behavior key and SOS disarm will be done by Gateway.**
Entry Delay	Entry delay is activated, buzzer will beep 10 seconds Count down default is 10 seconds, user can set count down timing by APP. Meanwhile gateway could also have beeps 10 seconds. Entry Delay But to save keypad power, if the user set count time is 30 seconds, the keypad will max beep 10 seconds, and gateway will beep 30 seconds.
Exit Delay	Exit delay is activated, buzzer will beep 10 seconds Count down default is 10 seconds, user can set count down timing by APP. Meanwhile gateway could also have beeps 10 seconds. Exit Delay But to save keypad power, if the user set count time is 30 seconds, the keypad will max beep 10 seconds, and gateway will beep 30 seconds.
Network Indicator	Network indicator: **Slow flashing green:** Pairing or sending data **Fast flashing green:** About to reset **No or bad signal of the hub:** Solid Yellow. **Paired to the hub and good signal:** Solid green
Battery Indicator	Battery capacity: When the approaching sensor is activated, the battery icon shows Green indicates the battery capacity is more than 10%, When the approaching sensor is activated, the battery icon shows solid yellow indicate the battery capacity is around 10%~15%. When the approaching sensor is activated, the battery icon shows blinking yellow indicate the battery capacity is below 10%. 10% means user could use keypad about one week
Faulted Sensor Indicator	Solid yellow: There are one or more faulted sensors when arming the system, meaning some door or window is not closed properly. Buzzer will have multiple beeps: long beep one time, short beep twice in 1.5 seconds. (Beep~/Beep beep User can press the password + √ to bypass the faulted sensor indicator.
approachin g sensor is triggered	**In the network:** If trigger the approaching sensor, the battery/network indicator LED on, Only the present mode backlight will on 5 seconds(for example, if the present mode is disarmed mode, the disarm green backlight will solid for 5 seconds, others no LED behavior), 0~9/check/select keys no behavior. Buzzer beeps one time. **Fail to connect to the network: NOP**

Tamper switch is triggered	**In the network:** Send Notification report, and Buzzer beeps 1 times. Not in the network: A notification report will be sent after the next network access.

This product can be operated in any Z-Wave network with other Z-Wave certified devices from other manufacturers. All mains operated nodes within the network will act as repeaters regardless of vendor to increase the reliability of the network.

Functions

After the installation, you can easily control the system using the keypad.

● Arm stay/Arm away/Disarm the system by press the mode button followed by your PIN-code and press the confirm

✓ button. The PIN code is consisted of 6 digits and can be modified in the App.

Disarm
No sensors are monitored.

Arm away
All sensors are monitored.

Arm stay
Some sensors are monitored.
Freedom and security, mixed.

● Press the Emergency button and hold for 3 seconds and release to send a panic signal.

Emergency
The hub will send a signal immediately, ignoring the current mode

Deactivate an emergency event by pressing the disarm button followed by your PIN code.

● Faulted sensor:
If there is a faulted sensor when arming the system, you will need to press the confirm (√) button again to "force arm" the system.

● Firmware upgrade:

When there is a new version of firmware for the device available, you will get a notification in the App. Then you can decide whether to upgrade.

● Anti-tamper alarm:

After the keypad is paired to a hub and installed on a bracket, the anti-tamper button will be pressed down. Once it is taken off the bracket the anti-tamper alarm will be triggered after the countdown. Perform the disarm action to stop the countdown.

● Reset or manual pairing:

If you need to manually pair the keypad with the hub, or reset the keypad, just press the reset button on the back with the reset pin(comes in the package), hold for 3 seconds, and release. The keypad will clear all the network information and reboot, and all the LED will be on for a moment with 2 beeps. Then the reset is done. After reset, it will start to search and join the hub again.

Mount the keypad on the wall

Prior to installing on the wall, please perform an arming and disarming operation at the location where you decide to mount the keypad, to make sure the wireless signal is good. The mounting location should be somewhat near the door you usually use to enter or exit the home.

Do not install the Keypad:

1. outside the premises (outdoors).
2. near the metal objects and mirrors that cause radio signal attenuation or shading it.
3. near the powerful main wiring.

Installation:

Step 1: Fix the bracket to the wall either by

A. Screws

B. Double-sided adhesive tape for different surfaces.

A

B
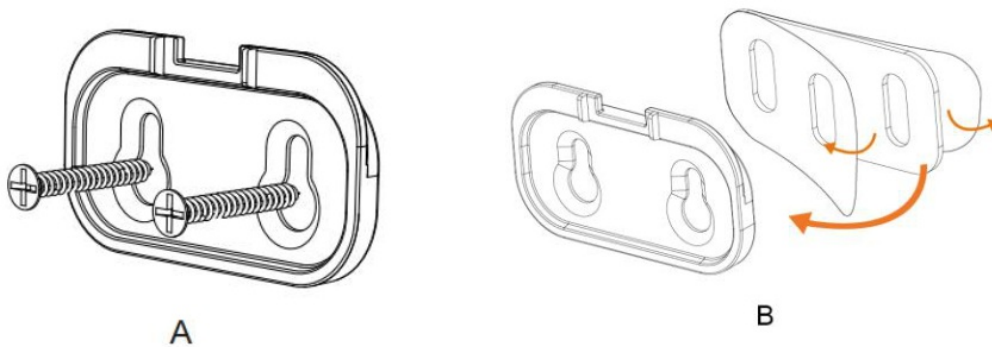
If you use adhesive tape, please clean the mounting surface with a suitable degreaser agent. Please note that some surfaces may be unsuitable for mounting using adhesive tape.

Step 2: Hang the keypad on the bracket.
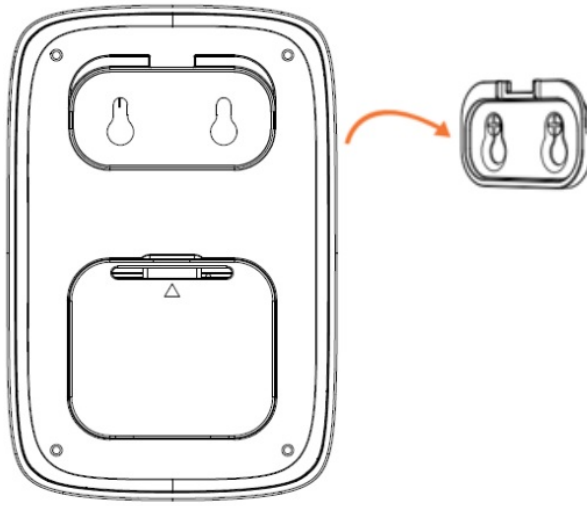
Changing the Batteries

When the battery is low the battery LED will be red and you will receive a notification in your App to remind you the battery change. Please do as follows:

Step 1: Disarm the system, and remove the keypad from the bracket.

Step 2: Because the tamper switch is triggered, you will need to disarm the system to stop the countdown.

Step 3: Open the battery compartment cover and remove the old batteries and replace with new CR123A batteries.
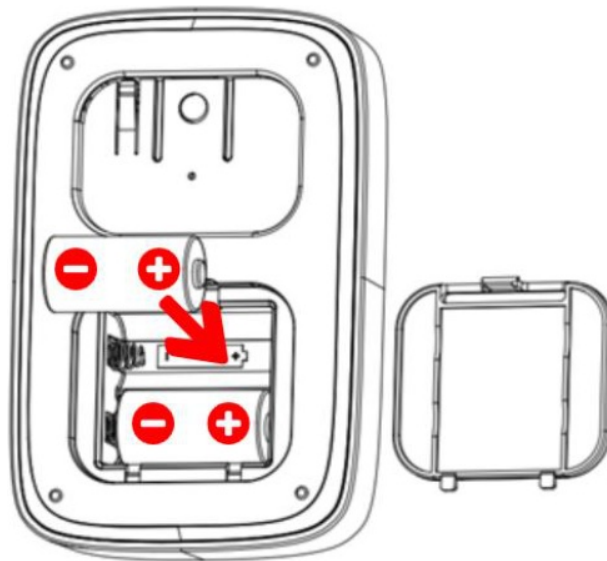
Step 4: Hang the keypad back on the bracket.

Troubleshooting

The keypad is not working and the indicator is not lit

Make sure the batteries are installed correctly and full of power.

If you have done the previous checking and it is still not responding please change a new pair of batteries or try to reset the keypad.

Caution:

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. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Hereby, Corporation declares that this device is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU

Special Rule Of Each Command Class
Z-Wave Plus™ Info Report Command Class

Parameter	Value
Z-Wave Plus Version	0×02
Role Type	0×07 (ZWAVEPLUS_INFO_REPORT_ROLE_TYPE_SLAVE_SLEEPING_LISTENING)
Node Type	0×00 (ZWAVEPLUS_INFO_REPORT_NODE_TYPE_ZWAVEPLUS_NODE)
Installer Icon Type	0×2001 (ICON_TYPE_SPECIFIC_ENTRY_CONTROL_KEYPAD_0_9)
User Icon Type	0×2001 (ICON_TYPE_SPECIFIC_ENTRY_CONTROL_KEYPAD_0_9)

Association Command Class
Motion Sensor supports 1 association group and max 5 nodes for each group.

Association Group Info Command Class

Association Group Info

Grouping identifier	Group Name	Profile MS	Profile LS
1	Lifeline	0×00	0×01

Association Group Command-List

Group 1	Command-List Support
Command Class	COMMAND_CLASS_NOTIFICATION_V4(0x71)
Command	NOTIFICATION_REPORT_V4(0x05)
Command Class	COMMAND_CLASS_ENTRY_CONTROL(0x6F)
Command	ENTRY_CONTROL_NOTIFICATION(0x01)
Command Class	COMMAND_CLASS_BATTERY(0x80)
Command	BATTERY_REPORT(0x03)
Command Class	COMMAND_CLASS_DEVICE_RESET_LOCALLY(0x5A)
Command	DEVICE_RESET_LOCALLY_NOTIFICATION(0x01)

Notification Commands

Notification Type	Notification Event
HOME_SECURITY (0×07)	(0×00) NO_EVENT
	(0×03) TAMPERING_COVERING_REMOVED
	(0×08) MOTION_DETECTION_UNKNOWN_LOCATION

Manufacturer Specific Report

Parameter	Value
Manufacturer ID 1	0x04
Manufacturer ID 2	0x03
Product Type ID 1	0x00
Product Type ID 2	0x04
Product ID 1	0x00
Product ID 2	0x01

Configuration Set Command Class
Command Format

Name	Descriptions	Parameter Number	Default Value	Max Value	Min Value	Size	Read-only	Format	Altering capabilities
EMryExit D	The delay	1	10	30	0	1	NOT	UNSIGNED_I	Will NOT
EMryExit Delay [Unused]	Times(unit: seconds) after r eceive Entry or	(0×01)	(0×0A)	(0×1E)	(0×00)		Read-only	STEGER	alters capabilities
	Exit Delay								
	Indicator command.								
	Eg:								
	0 -> No delay.								
	10 -> will delay								
	10 seconds after receive command.								
LowEtatter	Low battery	2	10	50	5	1	NOT	UNSIGNED_I	Will alters
percent	the power level of alarm threshold values	(0x02)	(0x0A)	(0x32)	(0x05)		Read-only	STEGER	capabilities
	Eg:								
	10 -> Will send battery low-level warning report if current battery power is lower than 10% of full battery power.								
PS Switch	Turn on/off	3	1	1	0	1	NOT	UNSIGNED_I	Will alters
	Proximity Sensor.	(0x03)	(0x01)	(0x01)	(0x00)		Read-only	NTEGER	capabilities
	Eg:								

	1 -> Will detect approach motion. 0 -> Do not detect approach motion.								
PS	The wait time of	4	5	30	2	1	NOT	UNSIGNED_I	Will alters
Timeout	Proximity Sensor for clear the motion(unit:	(0x04)	(0x05)	(0x1E)	(0x02)		Read-only	NTEGER	capabilities
	seconds).								
	Eg:								
	5 -> Will send no motion notification after 5 seconds no Proximity								
	Sensor trigger .								
PS	The sensitivity	5	9	31	**4**	1	NOT	UNSIGNED_I	Will alters
sensitivity	of Proximity Sensor.The larger value the harder to trigger.	(0×05)	(0×09)	(0×1F)	(0×04)		Read-only	NTEGER	capabilities
	Eg:								
	4 -> The most easily to trigger								
	Proximity								
	Sensor.								

	31 -> The mo st hard to trigger								
	Proximity								
	Sensor.								
L-Sensor	Turn on/off	6	1	1	0	1	NOT	UNSIGNE D_I	Will alters
Switch	Light Sensor Eg:	(0×06)	(0×01)	(0×01)	(0×00)		Read - only	NTEGER	capabilities
	1 -> Will detec t current illuminance.								

	0 -> Do not detect current illuminance.								
Day/Night	The illuminance	7	50	255	0	1	NOT	UNSIGNED_I	Will alters
threshold	the threshold to distinguish day and night unit:	(0×07)	(0×32)	(O×FF)	(0x00)		Read-only	STEGER	capabilities
	lumen)								
	Eg:								
	50 -> Will turn-key backlight if current illuminance is less than 50 lux. or close the key backlight.								
KeyBeep	Turn on/off key	8	1	1	0	1	NOT	UNSIGNED_I	Will alters
Switch	tone Eg:	(0×08)	(0×01)	(0×01)	(0×00)		Read-only	NTEGER	capabilities
	1 -> Has beep tone after press anly key.								
	0 -> No beep tone after press anly key.								
ArmStatus	Tum on/off arm	9	1	1	0	1	NOT	UNSIGNED_I	Will alters
IndicateSwitch	status indicate after wake up	(0×09)	(0×01)	(0×01)	(MOO)		Read-only	NTEGER	capabilities
	Eg:								
	1 -> Will light current arm status LED after wake up.								
	0 -> Do not light current arm status LED after wake up.								

Basic Command Class

Basic CC is not supported.

Association Command

Keypad supports only one association g oup and Max S nodes.

Grouping Ide ntifier	Max Nodes	Description
Group 1	0×05	1. Notification Report. The keypad will send Notification Report to the associated nodes when Tamper/PS is triggered. 2. Entry Control Notification. The keypad will send Entry Control Notification to the associated nodes when the mode button is triggered. 3. Battery Report. The keypad will send Battery Report when the battery level is low and the battery report's value is 0xFF. 4. Device Reset Locally Notification.

Firmware Update Meta Data

Firmware Update Meta Data

Target	Description
0	ZGM130S

Action	System Response
Keypad receives update	Network LED – Blink, Green
Keypad processing update	Network LED – Blink, Green
Update complete	Network LED – Solid Green for 3s

Entry Control Command Class
A) Entry Control Key Supported Report Command

Key	Description
0	Keypad Number 0
1	Keypad Number 1
2	Keypad Number 2
3	Keypad Number 3
4	Keypad Number 4
5	Keypad Number 5
6	Keypad Number 6
7	Keypad Number 7
8	Keypad Number 8
9	Keypad Number 9

B) Entry Control Event Supported Report Command
Data Type:

Data Type	Description
0x02	1 to 32 ASCII encoded characters. ASCII codes MUST be in the value range 0x00-0xF7. The string MUST be padded with the value 0xFF to fit 16 byte blocks when sent in a notification.

Event Type:

Event Typ	Button label	Description
0x00	Caching	CACHING KEYS is sent when the user has started entering credentials
0x01	Cached	CACHED_KEYS is sent when the cache size or the cache timeout is exceeded
0x02	ENTER	Keypad will sent entry control notification (event type=0x02)when the "√"button is pressed.
0x03	DISARM_ALL	Keypad will sent entry control notification (event type=0x03)when the Home Mode button is pressed.
0x05	ARM_AWAY	Keypad will sent entry control notification (event type=0x05)when the Away Mode button is pressed.
0x06	ARM_HOME	Keypad will sent entry control notification (event type=0x06)when the Stay Mode button is pressed.
0x12	ALERT_PANIC	Keypad will sent entry control notification (event type=0x12)when the "SOS" button is pressed.
0x19	CANCEL	Keypad will sent entry control notification (event type=0x19)when the "x"button is pressed.

Indicator Set Command
1. Set display status state to the Keypad, received from a Z-Wave gateway
2. Indicator has 1 byte payload that is defined for the keypad in the following manner

7	6	5	4	3	2	1	0
Status Modifier				Status States			

Status Modifier:

● Status Modifier for Entry Delay and Exit Delay is a time field that defines how long to run the state feedback, Defined Time Field Status
Modifier use:
0×0 = 0sec
0×1 = 10sec
0×2 = 20sec
0×3 = 30sec
…
0×E = 140sec
0×F = 180sec

● Status Modifier for Alarming is an alarm type identifier that enables the keypad to indicate which alarm event the system has detected, Defined Alarming Status Modifier:

Status Modifier	Description
0x00	Alarm Event – Default

● Status Modifier for Armed Stay, Armed Away, Disarmed, Bypass Challenge, and Input Reject is a field that defines if the keypad should play sound, and if the keypad should light up upon receiving status. The modifier is a bit encoded field with:
0x0 = Sound ON and Activate LEDs (Normal Operation) for status update
0x1 = Sound OFF and Activate LEDs for status update
0x2 = Sound ON and Do Not Activate LEDs for status update
0x3 = Sound OFF and Do Not Activate LEDs for status update
Status States :

Status	Description	System response
0x01	Disarmed	Disarm Mode LED Icon: solid GREEN Speaker: short beep twice in 1 seconds
0x02	Armed Away	Away Mode LED Icon: solid BLUSpeaker: long beep once
0x03	Armed Stay	Home Mode LED Icon: solid BLUE Speaker: long beep once.
0x04	Alarming	All Mode LED and SOS LED blink
0x05	Bypass	Bypass LED: solid yellow. Speaker: long beep one time, short beep twice
0x06	Entry Delay,	Speaker – beep 10 seconds.
0x07	uses Status	Speaker – beep 10 seconds.
0x08	Modifier field	Speaker: long beep one time, short beep twice
0x09 thru 0x0F	Rejected Input	

Indicator Get

Indicator Report	System Mode
0	NULL/Power On
3	Stay Mode
2	Away Mode
1	Disarm Mode

Notification Command Class
1. Notification Supported Report:
1. 1 Keypad supports Home Security (0×07) .
2. Event Supported Report:
1.1 Home Security (0x07): Motion detection (0x08), TAMPERING_COVERING_REMOVED (0x03), State idle (0x00)
3. How to trigger the different notifications:
1.1 Home Security(0x07):
Tampering Covering Removed(0x03): This notification Report will be sent when the tamper switch is released.
Motion detection (0x08): This notification Report will be sent when the approaching sensor is triggered.
State idle(0x00):This notification report will be sent when the tamper switch is pressed.
LEEDARSON LIGHTING CO., LTD.
Xingtai Industrial Zone, Economic Development Zone, Changtai County, Zhangzhou City, Fujian Province, P.R.China

Hereby, [LEEDARSON LIGHTING CO., LTD.] declares that the radio equipment type Keypad Z-Wave 700 is in compliance with Directive 2014/53/EU.

The full text of the EU declaration of conformity is available at the following internet address: ********

Documents / Resources

Z-Wave Security Keypad 700 [pdf] User Guide
Security Keypad 700, 7BA-KP-V-B-C0