Aeon Labs Key Fob Gen5

(Z-Wave Aeon Labs Key Fob)

Change history

Revision	Date	Change Description
1	05/14/2013	Initial draft.
2	08/11/2014	Update Z-Wave module to 500 series

Aeon Labs Key Fob is a fully functional Z-Wave remote control capable of adding, removing and controlling other Z-Wave devices. It can also become a secondary or inclusion controller to a SIS gateway in the Z-Wave network. Form-factor, industrial design and robust functionality are the major foci.

The Key Fob can be included and operated in any Z-wave network with other Z-wave certified devices from other manufacturers and/or other applications. All non-battery operated nodes within the network will act as repeaters regardless of vendor to increase reliability of the network.

1. Library and Command Classes
1.1 SDK: 6.51.00
1.2 Library
- Role Type: Portable Controller(PC)
- Generic Device class: GENERIC_TYPE_ GENERIC _CONTROLLER
- Specific Device Class: SPECIFIC_TYPE_PORTABLE_REMOTE_ CONTROLER

1.3 Commands Class
- COMMAND_CLASS_ZWAVEPLUS_INFO
- COMMAND_CLASS_VERSION
- COMMAND_CLASS_MANUFACTURER_SPECIFIC
- COMMAND_CLASS_CONFIGURATION
- COMMAND_CLASS_BATTERY
- COMMAND_CLASS_ASSOCIATION
- COMMAND_CLASS_ASSOCIATION_GRP_INFO
- COMMAND_CLASS_POWERLEVEL
- COMMAND_CLASS_DEVICE_RESET_LOCALLY
- COMMAND_CLASS_WAKE_UP
- COMMAND_CLASS_MARK
- COMMAND_CLASS_SCENE_ACTIVATION
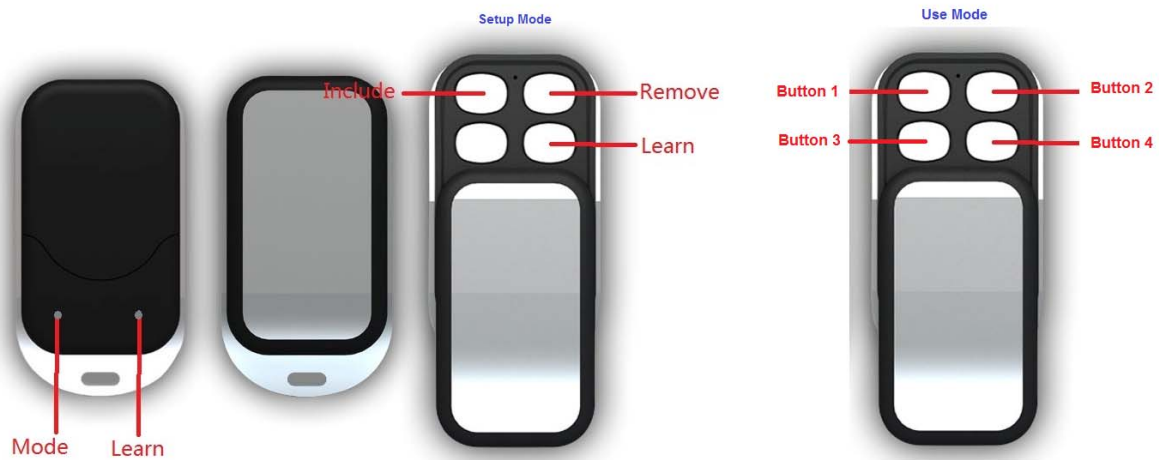- COMMAND_CLASS_SWITCH_MULTILEVEL

2. Technical Specifications
Operating Distance: Up to 300 feet (100 meters) outdoors.
Operating Temperature: -10℃ to 60℃.
Relative Humidity: 8% to 80%

3. Familiarize Yourself with Your Key Fob Gen5
3.1 Interface

4. Key Fob Supported Mode functions

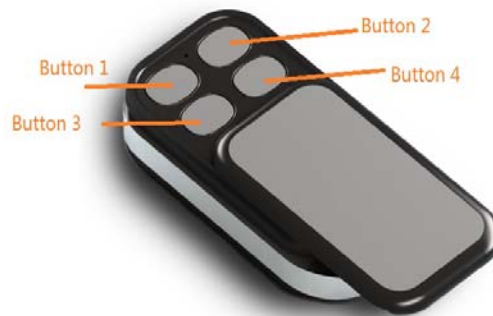### 4.1 Setup Mode Functions

Button	Description/Functions
Include	Short press the "Include" button, the Key Fob will go into inclusion state and its blue LED will blink slowly to wait including any other Z-wave device in its network.
Remove	Short press the "Remove" button, the Key Fob will go into exclusion state and its red LED will blink slowly to wait excluding any other Z-wave device from its network.
Learn	Short press the "Learn" button, the Key Fob's blue LED will blink slowly, which means the Key Fob is in Learn state that will learn/be added into the other primary controller.
	Press and hold the "Learn" button for 3 seconds, which will trigger to send a Wake Up Notification CC and Node info frame.
Learn +Mode	Press and hold the "Learn" and "Mode" button for 3 seconds, which will switch the Setup Mode to Use Mode or Use Mode to Setup Mode.
Mode	Press and hold the "Mode" button for 20 seconds, the Key Fob will be reset to factory default settings. **Note:** 1, This procedure should only be used when the primary controller is inoperable and the key fob as a secondary controller that has been added into the primary controller. 2, Reset Key Fob Gen5 to factory default settings, it will: a), let the Key Fob Gen5 to be excluded from the primary controller; b), reset the Association settings, c), restore the configuration settings to the default.

4.2 Group/Scene Mode Functions

The default mode of Key Fob is Setup Mode. You can press and hold the "Learn" and "Mode" button for 3 seconds to change its Setup Mode to Use Mode.

In Use Mode, it also contains 2 Modes that are Group Mode and Scene Mode. The default mode of Use Mode is Group Mode. You can change the Group Mode to Scene Mode via setting the configuration parameter 250 to 1.

Use Mode	Description
Group	If your Key Fob is in Group Mode, you can control 40 different Z-Wave devices with each of your remote's 4 buttons, If you don't know how to use it, please refer to the manual.
Scene	If you Key Fob is in Scene Mode, the 4 control buttons will be acted as 4 scene buttons and each of button can control 2 different scenes. Both of scenes can associate to maximum 5 Z-Wave devices. If you don't know how to use it, please refer to the manual.

In Scene Mode:

Button	Trigger	Scene ID
1	Click	1
	Press and hold 2 seconds	2
2	Click	3
	Press and hold 2 seconds	4
3	Click	5
	Press and hold 2 seconds	6
4	Click	7
	Press and hold 2 seconds	8

5. Special Rule of each Command

5.1 Association Command Class

The Key Fob supports only 1 association group and can add maximum 5 nodes into Association group 1. When the Key Fob is in Scene Mode, there are 8 Since IDs that encapsulated by Scene Activation Set CC can be sent to the associated nodes in group 1 via pressing the corresponding buttons.

5.2 Wake Up Command Class

After a successful "learn" process, the Key Fob is added into another primary controller and it will stay awake for 30 seconds that can receive any other commands from other nodes at this time.

Alternatively, press and hold the "Learn" button for 3 seconds, which will send a "Wake Up Notification CC and Node Info frame" with broadcast and stay awake for 8 seconds.

The minimum wake up interval time is 4 minutes, which means if the Wake Up Interval is set less than 240, the key fob will be waked up every 4 minutes. If the Wake Up Interval is set more than 240 but less than 480, the key fob will be waked up every 8 minutes.

5.3 Z-Wave Plus Info Report Command Class

Parameter	Value
Z-Wave Plus Version	1
Role Type	2 (ZWAVEPLUS_INFO_REPORT_ROLE_TYPE_CONTROLLER_PORTABLE)
Node Type	0 (ZWAVEPLUS_INFO_REPORT_NODE_TYPE_ZWAVEPLUS_NODE)
Installer Icon Type	0x0A00 (ICON_TYPE_GENERIC_REMOTE_CONTROL_MULTI_PURPOSE)
User Icon Type	0x0A00 (ICON_TYPE_GENERIC_REMOTE_CONTROL_MULTI_PURPOSE)

5.4 Association Group Info Command Class

5.4.1 Association Group Info Report Command Class
Profile: General: NA (Profile MSB=0, Profile LSB=0)

5.4.2 Association Group Name Report Command Class
Group 1: Lifeline

5.5 Manufacturer Specific Report

Parameter	Value
Manufacturer ID 1	0x00

Manufacturer ID 2	0x86
Product Type ID 1	EU=0x00, US=0x01, AU=0x02.
Product Type ID 2	0x02
Product ID 1	0x00
Product ID 2	0x59

5.6Configuration Set Command Class

7	6	5	4	3	2	1	0
Command Class = COMMAND_CLASS_CONFIGURATION							
Command = CONFIGURATION_SET							
Parameter Number							
Default	Reserved				Size		
Configuration Value 1(MSB)							
Configuration Value 2							
………							
Configuration Value n(LSB)							

Parameter Number Definitions (8 bit):

Parameter Number	Description	Default Value	Size
250	Enable selective Group Mode or Scene Mode when the Key Fob is in Use mode.(0==Group Mode,1==Scene Mode)	0	1
255	Reset configuration set up to default setting.	N/A	1

6. Reset Key Fob to Default Setting

If you want to reset your Key Fob, press and hold the Mode button 20 seconds. If successful, after 20 seconds, the green Led will illuminate for 2 seconds and then off. Otherwise, repeat the process again.