Danalock Product manual

The danalock is a secure electronic door lock that supports the Z-Wave Plus standard which is compatible with earlier versions of Z-Wave. The danalock is battery supplied and therefore it is a FLIRS Frequently Listening Routing Slave. The danalock uses the Secure Command Class to secure the communication and therefore requires a controller which support Secure Command Class.

Z-Wave interoperability

The danalock 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.

Z-Wave add/inclusion and remove/exclusion

To add or include the danalock into a Z-Wave network

1. Set the controller in inclusion mode
2. Touch the User Button until you hear two beeps.

To remove or exclude the danalock into a Z-Wave network

1. Set the controller in exclusion mode
2. Touch the User Button until you hear two beeps.

Factory Reset

The danalock can be set to factory settings by holding the User Button for ten beeps. Please use this procedure only when the primary controller is missing or otherwise inoperable

Battery

Model	Battery type	Number of batteries	Normal voltage
Circle	CR123	4	3V
Square	ER34615M	1	3.6V
Keypad	CR2450	2	3V

Command classes

Association CC V2 (secure)

The danalock supports:

- 1 Grouping identifier
- 1 Device in each grouping

Group one is Lifeline. All unsolicited reports are sent to the node in Lifeline. The danalock can send the following commands through Lifeline:

- Battery alarm
- Device Reset Locally report
- Notification report, Door lock operation report or no response to a door operation.

Notification report, Door lock operation report or no response to a door operation is determined by configuration byte number 12.

Association Group Information CC V1 (secure)

Configuration byte #12	Group#	Profiles 2 bytes	Command Class & Command (list) N bytes	Group Name(UTF-8)
0	1	General:Lifeline	Association Group Command List Report, Battery report, Device Reset Locally notification, Door lock operation report	Lifeline
1	1	General:Lifeline	Association Group Command List Report, Battery report, Device Reset Locally notification, Notification report	Lifeline
2	1	General:Lifeline	Association Group Command List Report, Battery report, Device Reset Locally notification	Lifeline

Configuration byte #12 is default 0.

Configuration CC V1 (secure)

Z-Wave parameter no.	Parameter Name	Parameter Size	Default value	Values	Description
1	Direction	1 Byte	0	0-1	0 = The motor goes clockwise when latched 1 = The motor goes counterclockwise when latched
2	Speed (Torque)	1 Byte	3	1-5	1 = Slowest 2 = Slow 3 = Normal 4 = Fast 5 = Fastest
3	Mode	1 Byte	1	0-2	0 = Stepper motor mode wave drive(power saving) 1 = Stepper motor mode full drive(Normal) 2 = Relay mode
4	Turn degrees	1 Byte	9	1-100	Factor 10 turn degrees (1 = 10 degrees, 9 = 90 degrees etc.)
5	Auto Latch time	1 Byte	0	0-60	How many seconds from the lock has been unlatched to it automatically should close again. If 0 then it is disabled.
6	Sound	1 Byte	1	0-1	Disable or enable the beep sound from latch or unlatch operations(0 = Disable, 1 = Enable.)
7	Battery Type	1 Byte	0=3.6V, 1=3V, 2=Bat	0-1	Set the type of battery that powers the device. This affects the returned battery state. 0 = 3,6 Volt battery, 1 = 3.0 Volt battery. 2 = Mains power, changing from and to mains power requires the Danalock to be excluded and included.
8	Battery alarm value	1 Byte	0	0-100	When the battery level is under this value, the device will notify user with a beep sound after latch or unlatch.
9	Turn&Go	1 Byte	0	0-1	0 = Turn&Go off, 1 = Turn&Go on. Used if the lock is using a optional rotation sensor. Latch&Go on will turn automatically when manual turn is detected.
10	Brake&GoBack	1 Byte	0	0-15	0 = Disabled. 1-15 Seconds to brake. When used the lock will brake for x amount of seconds and then turn 75 degrees back. Made for special doors without door lever.(Only when unlatching).
11	Async	1 Byte	0	0-1	0 = Async off, 1 = Async on. Used if the lock is using an optional rotation sensor. When async is enabled the lock will auto calibrate if already unlatched and asked to Unlatch again (used for special door locks where the key turn is asynced from the inside nob.)
12	Door lock operation report type	1 Byte	0	0-2	0 = Simple supported by all controllers that support door locks. 1 = Advanced, more specific reports through notification Command Class. 2 = No Door lock operation reports are sent unsolicited.

Device Reset Locally CC V1 (unsecure)

When the Z-wave module is reset it sends a report to tell the controller it has been reset. The lock is reset by holding the user button for 10 beeps. Please use this procedure only when the primary controller is missing or otherwise inoperable

Door Lock CC V2 (secure)

Door Lock Operation is used to lock and unlock the danalock.

Firmware Update Meta Data CC V2 (secure)

The danalock supports firmware update of the Z-Wave module over the air.

Manufacture Specific CC V2 (secure & unsecure)

Manufacturer ID = 270 (Poly-control)

Product Type ID = 8

Product ID =1 Square

Product ID =2 Circle

Notification CC V3 (secure)

The lock only sends unsolicited reports from the danalock to the controller.

Schedule CC V1 (secure)

The danalock supports 20 schedules.

Schedule Entry Lock CC V1 (secure)

This command class is deprecated by Sigma and is only available as legacy support of older controller which does not support the newer recommended Schedule CC which is the successor for the Schedule Entry Lock CC.

The danalock supports 20 User PINs with:

- One weekday slot
- One year day slot

Time parameters and Time CC V1 (secure)

The Time Parameters CC is used to set the time in MCU

User Code CC V1 (secure)

The danalock supports 20 usercode with 4-10 digits.