



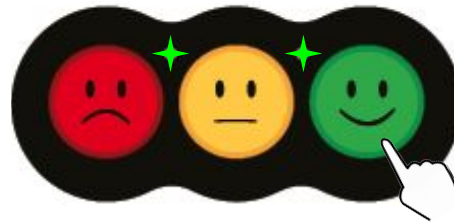
# Payload Information

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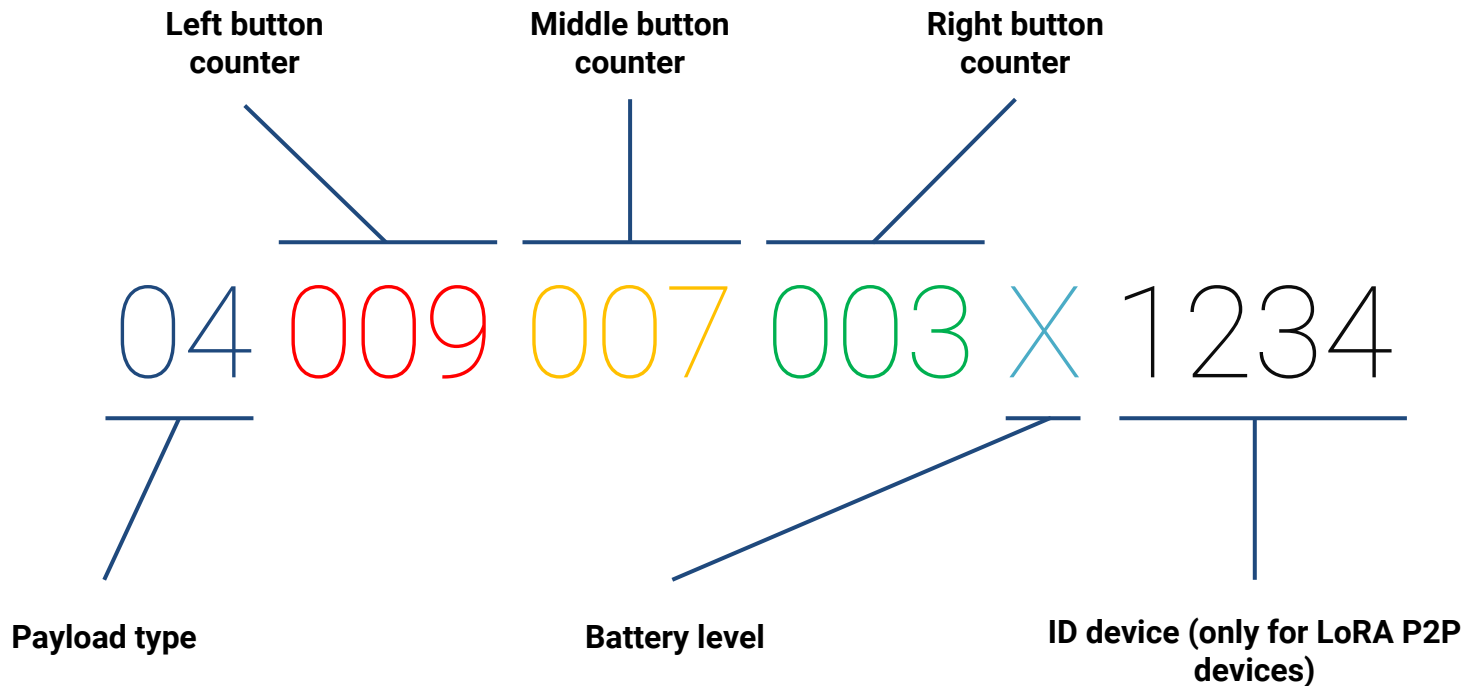


# Payload decoding of the voting firmware



# Payload format

(voting firmware)



Special case 2 buttons device : 04009007000X1234

→ right button counter is located straight after the left button counter

→ separator becomes 000

# Payload types

(voting firmware)

## Voting payload : 02

- A voting payload is sent when device is switched on, all counters are set to zero  
ex : 020000000000X1234
- When the buttons are pressed, the counters increment in hexadecimal from 000 to FFF (0 to 4095 in decimals)
- A frame is sent every 10 minutes, only if a vote has been made  
ex: 020000000000X1234
- Counters are reset to zero only when they reach the maximum or when the device is turned off (they do not reset to zero on each sending)

# Payload types

(voting firmware)

## Badging payload : 04

- A badging payload is sent instantaneously, whenever a magnet is passed close to the sensor located below the red button  
ex : 0400800301EX1234
- The counters are also uploaded in this payload, however, a voting frame will be sent within 10 minutes if a user voted before the badging
- There is no badging counter

# Payload types

(voting firmware)

## Alert payload : 08 ou 09

- The devices operates on alert levels :
  - 5 push in a row on the red button:  
ex : 0800800301EX1234
  - 10 push in a row on the red button  
ex : 0900800301EX1234
- The alert payload is sent immediately after the 5th or 10th push
- The counters are also uploaded in these frames, however, a voting frame will still be sent within 10 minutes

# Payload types

(voting firmware)

## Battery level decoding

- In each payload sent by the device, battery level is indicated by the  $X$  number  
ex : 0400800301EX1234
- To find out battery level in Volt, follow the equation below by replacing  $X$  by value of beginning frame :

$$\frac{3 * 1.224}{(X + 20)/21} = V$$

- We recommend to change batteries when level is below 2.8V ( $X \geq 8$ ).



# Payload types

(voting firmware)

## Life-cycle payload : 05

- Once a day, whether there have been votes or not, the device emits a life-cycle payload  
ex : 0500800301EX1234
- This allows you to know battery life and the index of voting counters even when the device has not been used

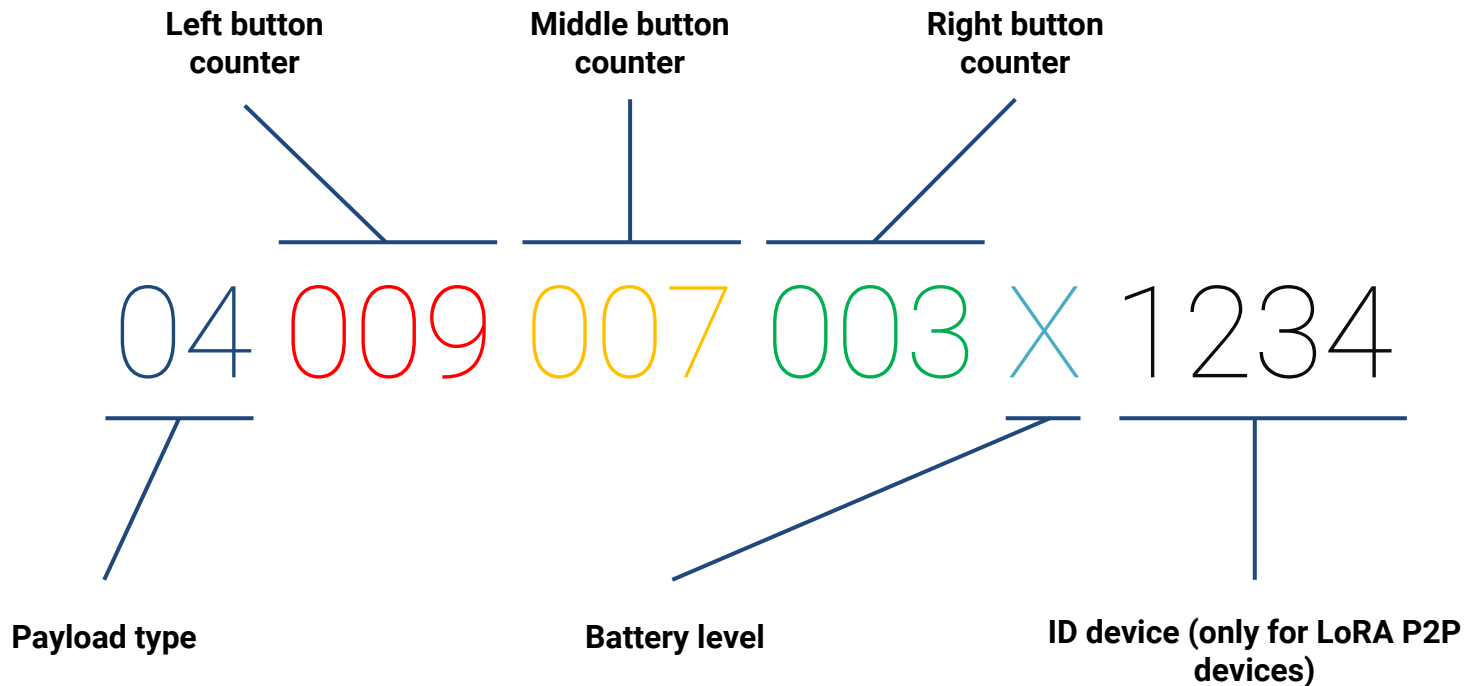


# Payload decoding of the alerting firmware



# Payload format

(alerting firmware)



**Special case 2 buttons device :** 04009007000X1234

→ right button counter is located straight after the left button counter

→ separator becomes 000

# Payload types

(alerting firmware)

## Voting payload : 02

- A voting payload is sent when device is switched on, all counters are set to 0  
ex : 020000000000X1234
- When the buttons are pressed, the counters increment in hexadecimal from 000 to FFF (0 to 4095 in decimals)
- After this first push, a timer starts for 15 seconds
  - During this delay :  
A user can press any buttons to alert about another alert category. If the user presses the same button several times, the counter is incremented by the same number of presses.
  - After this delay :  
The device sends the payload. Buttons are disabled during sending

# Payload types

(alerting firmware)

## Badging payload : 04

- A badging payload is sent instantaneously, whenever a magnet is passed close to the sensor located below the red button  
ex : 0400800301EX1234
- The counters are also uploaded in this payload, however.
- There is no badging counter

# Payload types

(alerting firmware)

## Battery level decoding

- In each payload sent by the device, battery level is indicated by the X number  
ex : 0400800301EX1234
- X ranges from 0 to 9(0 à 100%)
- We recommend to change batteries when level is below 30% ( $X \leq 3$ ).

# Payload types

(alerting firmware)

## Life-cycle payload : 05

- Once a day, whether there have been votes or not, the device emits a life-cycle payload  
ex : 0500800301EX1234
- This allows you to know battery life and the index of voting counters even when the device has not been used

# TECHNICAL CONTACT



If you have any questions,  
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