

# Protocol P100 - How does the P100 protocol works for 2N Lift products?



## Info

This FAQ describes P100 protocol which is implemented in 2N® Lift1 and 2N® Lift8. Below you can find how the signalisation works and description of the alarms.

## Packet structure

Below you can find table which explains how the packet of P100 protocol looks like and what can be the values for each part of the packet.

Alarm type	Data length	Data	Checksum
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Alarm type:

1 character, Indicates the type of alarm:

1 = Alarm with voice communication

2 = Operational failure

3 = Self test alarm

Data length: 1 character, Indicates the length of the data field.

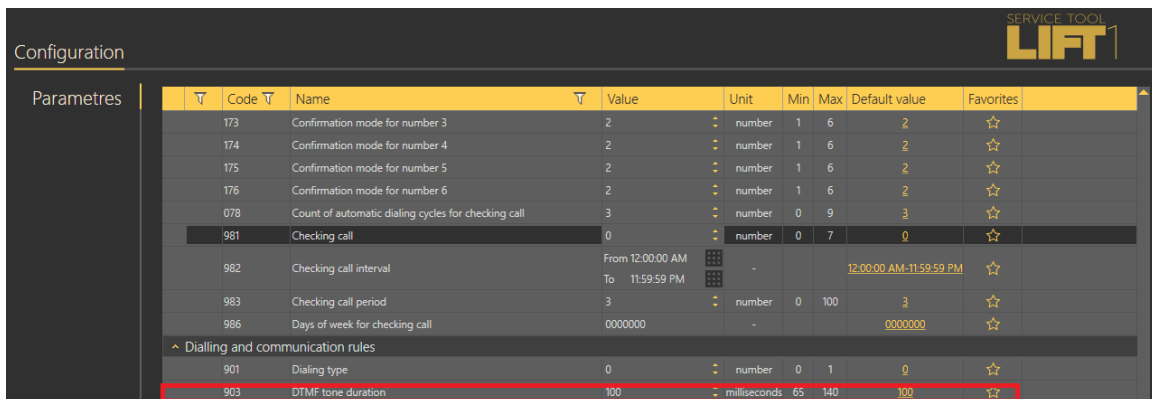
Data: 0 - 15 characters.

Checksum: 2 characters.

The checksum is calculated by summing the alarm type, the data length and all the characters in the data field. The resulting sum is converted to hexadecimal format and inserted as a 2 character checksum (00h - FFh).

## Signalling

Signalling is done via DTMF. Standard tone length 100 ms +/- 5 ms, pause 100 ms +/- 5 ms. For the 2N® Lift1 this can be adjusted in a range of 60 - 140 ms. The parameter for the adjustment is displayed on the screen below.



Code	Name	Value	Unit	Min	Max	Default value	Favorites
173	Confirmation mode for number 3	2	number	1	6	2	☆
174	Confirmation mode for number 4	2	number	1	6	2	☆
175	Confirmation mode for number 5	2	number	1	6	2	☆
176	Confirmation mode for number 6	2	number	1	6	2	☆
078	Count of automatic dialing cycles for checking call	3	number	0	9	3	☆
981	Checking call	0	number	0	7	0	☆
982	Checking call interval	From 12:00:00 AM To 11:59:59 PM	-	-	-	12:00:00 AM-11:59:59 PM	☆
983	Checking call period	3	number	0	100	3	☆
986	Days of week for checking call	0000000	-	-	-	0000000	☆
^ Dialling and communication rules							
901	Dialling type	0	number	0	1	0	☆
903	DTMF tone duration	100	milliseconds	65	140	100	☆

## Tones used in the data packet

These are values which can be in the data packet.

0 - 9 = DTMF 0 - 9

10 - 13 = DTMF A - D

14 = DTMF \*

15 = DTMF #

## Control tones at P100 signalling

Below you can find which tone signalize which status.

Start = DTMF D

Acknowledge = DTMF A

Retransmit = DTMF C

## Type of alarms

Alarm with a voice communication

Alarm type used for sending emergency alarms with following voice communication - operator is aware that alarm is of this type and alarm call will be initiated. Also ID of the lift is sent.

Alarm Type: 1

Data Length: 8 characters

Data 1 - 8: P100 ID Code, 8 digits

Operational failure

Alarm type used for sending operational failure alarms and status information messages.

Alarm Type: 2

Data Length: 11 characters

Data 1 - 8: P100 ID Code, 8 digits

Data 9-11: Type of operational failure

100 - Battery failure start (2N® Lift1 with 2NEasyGatePRO only)\*

101 - Battery failure end (2N® Lift1 with 2NEasyGatePRO only)\*

200 - Mic/Speaker failure start\*\*

201 - Mic/Speaker failure end\*\*

500 - End of alarm info

800 - Stuck emergency button start

801 - Stuck emergency button end

\* represents the status - battery out of order, missing battery, or battery cannot power the device for 1h long call

\*\* applicable only for 2N®Lift8

Checking call

Alarm type used for sending automated test alarms to check whether the device is operational or not at a repetitive interval.

Alarm Type: 3

Data Length: 8 characters

Data 1 - 8: P100 ID Code, 8 digits