

Natron MCP-PR Natron MCP-PB

Wireless addressable fire
alarm manual
call point



DoP No: 220

EN 54-11:2001/A1:2005

EN 54-25:2008

Type B

TELETEK

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**ATTENTION: Read carefully this installation Instructions before installing the device!
This manual is subject to change without notice!**

1. General Description and Working Principle

Natron MCP-PR/PB is a wireless addressable manual call point designed for operation with Natron series wireless expander modules*.

* Refer to the installation manuals of Natron WE-C, Natron WE-A and Natron WE-A/C wireless expander modules for detailed information about the programming menus and other details.

To alert for fire alarm situation or start evacuation on the site, the user has to break the glass and to press the button - the status LED on the front panel starts blinking fast. To reset the call point back in stand-by mode you have to use the special key to open the front cover. Replace the broken glass with new one - see item 3 - Maintenance. The call point is resetting automatically with closing the front cover back in place - a click is heard. Then reset the fire alarm control panel.

Attention. In case of fire alarm event and no connection between the device and the expander module are applied the following working algorithms for conservation of the call point power battery:

- **The connection between the device and the expander module is lost and after that the call point is activated.** In this case the status LED flashes 3 times and stops.

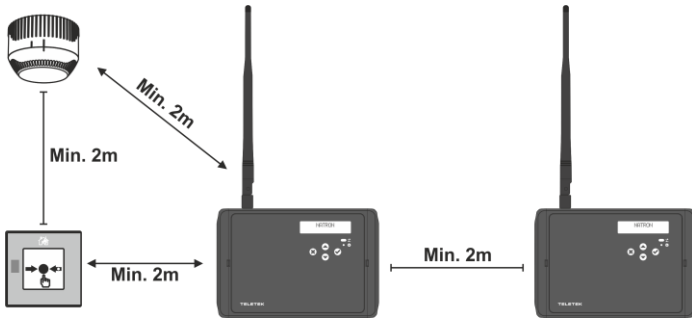
- **The call point is activated, the status LED is blinking fast and after that the connection between the device and the expander module is lost.** In this case the status LED will proceed blinking fast for 5 minutes and after that will stop if the connection with the expander module is not restored during that period.

When the connection between the expander module and the device is restored and the call point is still activated, the status LED will proceed blinking fast until resetting the call point.

2. Technical Specifications

Communication range with expander module	1500m
Battery power supply	1 x CR123A 3V
Battery life	~ 10 years
Radio frequency.....	868MHz
Communication type	Bidirectional
Communication protocol	NATRON TTE
Radio signal modulation type	GFSK
Number of frequency channels.....	6 pair channels
Radiated power.....	≤ 20 mW
Receiver category (EN300-220-1).....	1.5
Trace attenuation.....	≥ -90dBm (during the installation)
Test transmission message period.....	300s
Type	B
Working element (2 parts):	
- Frangible element (a break glass).....	Non-resettable
- Operating element.....	Resettable
Operation temperature.....	-10°C to +55°C
Related humidity resistance	(93±3)% @ 40°C (no condensation)
Enclosure box type	ABS
Dimensions.....	125x125x36mm
Protection	IP42
Weight (with battery)	~200g
Mounting.....	Wall, Indoor use
Standards	EN 54-11; EN 54-25

3. Installation Place and Mounting

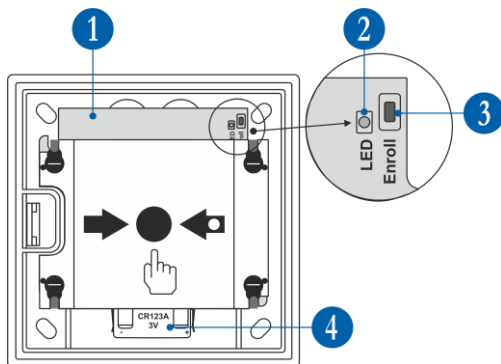


Attention:
For optimum operation, plan to ensure at least 2m distance between two Natron expander modules and the same minimal distance between each device and the expander module.

<p>Dimensions</p> <p>125mm 92mm 36mm</p>	<p>Front panel elements</p> <ol style="list-style-type: none"> 1 – Cover protecting the key-lock 2 – Breakable glass 3 – Status LED (red): <ul style="list-style-type: none"> - Light off – Stand-by mode - Fast blinking – Fire Alarm event or Test - Slow blinking – Selected device from panel/module 4 – Push button for fire alarm
<p>Mounting holes</p> <p>92mm 92mm</p>	<p>Structure - Disassembling</p> <ol style="list-style-type: none"> 1 – Rotate the cover to access the key-lock 2 – Use the key to open 3 – Use a small flat screwdriver to unlock the plastic fixtures from the supporters. 4 – Remove the operating element and the PCB together.
	<p>Maintenance – Changing a broken glass and Reset</p> <p>Note: The presented view is showing the back side of the front cover. The call point is resetting automatically with closing the front cover back in place - a click is heard. The label "Out of commission" can be used until the glass is replaced and the call point is put back into normal operation.</p>

4. PCB Elements

The operating element is factory mounted to the control PCB. Attention: Do not dismount the two parts from each other.



- 1 – Control PCB, under the operating element
 - 2 – Bi-color operation LED (green/red). The LED is used for following the actions during enrollment, reset and checking the signal strength.
 - 3 – Enroll button. The button is used for the following actions:
 - Enrolling the device to the expander module.
 - Checking the signal strength.
 - Reset the device.
 - 4 – Power Battery
- Attention: Use only batteries from the same type!**

5. Enrolling to Expander Module

1. Open the front cover to access the PCB with the battery compartment - use the key from the supplied equipment. If the device is not new, perform reset as described in item 7.
2. Enter in programming mode of Natron module. Select ADD DEVICE menu and press ENTER button. A list with already enrolled devices is shown on the screen with an order number and type of the device.
3. Scroll down to find a free address to enroll the call point. Every free address is labeled as EMPTY.
4. Press ENTER button. Message SEARCHING >>> (arrows are blinking) appears on the screen showing that the module is scanning for signals from wireless device in its covering range.
Note: If there is no signal from the device in 2-minute period, the expander module will exit automatically the programming mode.
5. Power on the call point. If the device is new just remove the protective folio from the battery – the enrolling process starts automatically. If the device is powered and reset - single press the ENROLL button. The operation LED on the PCB starts blinking in red.
6. In case of successful enrolment, the operation LED flashes 3 times in green and message DONE appears for a while on the screen of the module. The call point is added to the list as MCP type.
7. Test the signal strength between the call point and the expander module. Single press the ENROLL button and wait for the LED indication:
 - 3 flashes in green – excellent signal strength;
 - 3 flashes in orange – good signal strength; but, if possible, change the place of installation;
 - 3 flashes in red – poor signal strength; it is obligatory to change the place of installation.You can also check the signal quality for the device in DEVICE RSSI menu of the module - item 8.

8. If the signal quality and strength are excellent or good, you can proceed with mounting.
9. Disable the operation of the call point from the module's menu DEVICE SETUP (expander module Natron WE-C to conventional fire alarm panel); or addressable panel's menus (expander module Natron WE-A to addressable fire alarm panel). Thus, you will avoid the false alarms during mounting.
10. Disassemble the call point and mount it to the installation place – see item 3.

6. Testing the Call Point

From the addressable/conventional panel menus start a zone test procedure for fire alarm. Open the front cover of the call point using the key. Press the button to initiate a fire alarm. The red LED starts blinking fast. Close the front door of the call point to reset it - a click is heard. Reset the fire panel to normal operation mode.

7. Reset the Call Point

If the call point is not new, you have to reset it before enrolment to the expander module. Check the battery condition. It is recommended to change it with a brand new.

To reset the Natron MCP-PR/PB, power it on with the battery and after that press and hold ENROLL button for 5-7 seconds. The reset is complete when the operation LED on the PCB of the call point flashes 3 times in green, followed from 1 long flash in red and 1 long flash in green. Next pressing of ENROLL button will start the enrolment procedure to expander module.

8. Checking the Signal Quality (RSSI)

The quality of the signal between the call point and the expander module is checked at DEVICE RSSI menu of the module. The signal quality is assessed in [dB].

1. Enter in programming mode of the module. Scroll to menu DEVICE RSSI and press ENTER button. A list with present enrolled devices is shown on the screen with an order number and type of the device.
2. Find in the list the call point number.
3. Press ENTER button. Refer to the table below to read the signal quality on the screen:

Signal quality	Level RSSI	Description
< -90 dB	Loss	Bad signal or no connection.
-90 ÷ -70 dB	Good	The signal is satisfactory but needs improvement. It is recommended to change the installation place of the device.
> -70 dB	Excellent	Excellent signal.

4. You can exit the menu at any time with pressing CANCEL button.

9. Finding the Call Point Installation Place

This is a procedure that helps the engineer to find the exact location of every wireless device in the fire installation and test the connection with module.

1. Enter in programming mode of the module. Scroll to menu FIND DEVICE and press ENTER button. A list with present enrolled devices is shown on the screen with an order number and type of the device.
2. Find in the list the call point number which you want to locate in the fire installation.
3. Press ENTER button. Message FINDING >>> (arrows are blinking) appears on the screen showing that the module is scanning for signals from the selected wireless device. The message will change for a while to FINDING DONE in case of success.
4. The call point will respond with blinking status red LED on the front panel.
5. The module will exit automatically the finding procedure after 70-80 seconds. You can also stop the procedure at any time with pressing CANCEL button.

10. Replacing Batteries

It is recommended to change the battery after 10 years of operation regardless of it indicated discharge level. Always use only batteries approved by the manufacturer - Panasonic CR123A 3V or other with similar characteristics.

Attention: After indication from the panel for low battery of a device, the user/ installer must replace the discharged battery with new one within one month. The remaining shelf time of the new battery must be not less than 8 years.

1. Disable the call point operation to avoid fault messages.
2. Disassemble the call point as described in item 3.
3. Remove the old battery and place the new as observe the +/- polarity.
4. Assemble the call point elements back in place.
5. Close the front door of the call point to reset it - a click is heard.
6. Enable the call point operation.
7. Check the signal quality in DEVICE RSSI menu of the expander module.
8. Test the call point operability.

CAUTION: Do not expose used batteries to fire, hot ovens, or mechanical crushing/cutting as this can result in an explosion. Exposing batteries to extremely high environmental temperatures or low air pressure can result in explosion or the leakage of flammable liquid or gas.

DISPOSAL: Follow local regulations regarding disposal of the batteries.