

TELETEK MCP Wireless Addressable Fire Alarm Manual Call Point User Manual

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TELETEK MCP Wireless Addressable Fire Alarm Manual Call Point

Natron MCP – Wireless Addressable Fire Alarm Manual Call Point

- Model Number: 23 2918
- DoP No: 217
- EN 54-11:2001/A1:2005 EN 54-25:2008 Type A
- Manufacturer: Teletek Electronics JSC
- Address: 2 Iliyansko Shose Str, 1220 Sofia, Bulgaria

General Description and Working Principle

The Natron MCP is a wireless addressable manual call point that is designed to work with Natron series wireless expander modules. In standby mode, the call point element is in a middle position and the status LED is off.

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

Technical Specifications Not provided in the text extract

Installation Place and Mounting

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

Dimensions

- Not provided in the text extract

Mounting holes and orientation of the box bottom

- Not provided in the text extract –

Front panel elements (included in the supplied kit)

- Not provided in the text extract

Note: After the final mounting of the box bottom and assembling back the call point components, the frangible element is in the activated position and the color strip is shown. To avoid false alarms during installation, it is recommended to disable the call point's operation after enrolling it in the expander module. Enable the device only after finishing mounting and resetting the frangible element to standby mode.

PCB Elements

The PCB of the manual call point is factory mounted at the back side of the carrier unit.

Enrolling in Expander Module

Not provided in the text extract

Testing the Call Point

Not provided in the text extract

Resetting the Call Point

Not provided in the text extract

Checking the Signal Quality (RSSI)

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

1. Enter the programming mode of the module.
2. Scroll to the menu DEVICE RSSI and press ENTER button.
3. A list of presently enrolled devices will be shown on the screen with an order number and type of the device.
4. Find the call point number in the list.
5. Press the ENTER button to read the signal quality on the screen.

Signal quality levels

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

1. You can exit the menu at any time by pressing the CANCEL button.

Finding the Call Point Installation Place

Not provided in the text extract

Replacing Batteries

It is recommended to change the battery after 10 years of operation regardless of its indicated discharge level. Always use only batteries approved by the manufacturer – Panasonic CR123A 3V or others with similar characteristics. After receiving a low battery indication from the panel/expander module, the user/installer must replace the discharged battery with a new one within one month. The remaining shelf time of the new battery must not be less than 8 years.

ATTENTION: Read carefully these installation Instructions before installing the device!

This manual is subject to change without notice!

General Description and Working Principle

Natron MCP is a wireless addressable manual call point designed for operation with Natron series wireless expander modules. In standby mode, the resettable (frangible) call point element is in a middle position and the status LED is off. 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 initiate a fire alarm or evacuation event, press on the resettable element – it moves down and a color strip is shown on its upper side. The call point is in “Fire alarm” condition and the status LED starts blinking fast. To reset the flexible element back in standby mode, use the special key tool included in the kit – fix the long side of the tool at the call point’s bottom side and push it up until the flexible element moves up in the middle position – a click is heard. Then reset the fire alarm control panel.

Attention

In case of a fire alarm event and no connection between the device and the expander module is applied the following working algorithms for the 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 color strip is visible), the status LED will proceed blinking fast until resetting the call point.

Technical Specifications

- Communication range with expander module.....1500m
- Battery power supply 1 x CR123A 3V
- Battery life~10 years
- Radiofrequency.....868MHz
- Communication type Bidirectional
- Communication ProtocolNATRON THE
- Radio signal modulation typeGFSK
- Number of frequency channels.....6 pair channels
- Radiated power..... $\leq 20 \text{ mW}$
- Receiver category (EN300-220-1)..... 1.5
- Trace attenuation..... $\geq -$
- 90dBm (during the installation)
- Test transmission message period 300s
- TypeA
- Type of the frangible elementResettable (flexible)
- Operation temperature..... -10°C to $+55^{\circ}\text{C}$
- Related humidity resistance $(93\pm3)\%$ @ 40°C (no condensation)
- Enclosure box typeABS
- Dimensions..... 90x57x90mm

- Color.....RAL 3020 (red)
- Protection IP40
- Weight (with battery)158g
- Mounting.....Wall, Indoor use
- StandardsEN 54-11; EN 54-25

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.

Front panel elements

1. Status LED (red):
 - Light off – Stand-by mode
 - Fast blinking – Fire Alarm event or Test
 - Slow blinking – Selected device from the panel/module
2. Resettable frangible operation element.

Structure – Assembling and Disassembling

1. Special tool* to dismount the front cover from the carrier unit
2. Front cover
3. Frangible element
4. Carrier unit
5. Screws* for fixing the carrier unit to the bottom
6. PCB on the back side of the carrier unit
7. Box bottom

Included in the supplied kit

Note: After the final mounting of the box bottom and assembling back the call point components, the frangible element (position 3 above) is inactivated position and the color strip is shown.

Reset the frangible element

To avoid false alarms in the system during the installation, it is recommended to disable the call point's operation after enrolment to the expander module! Enable the device only after finishing mounting and the frangible element is reset to standby mode!

PCB Elements

The PCB of the manual call point is factory mounted at the back side of the carrier unit.

1. Enroll button. The button is used for the following actions:
 - Enrolling the device to the expander module.
 - Checking the signal strength.
 - Reset the device.
2. Bi-color operation LED (green/red). The LED is used for following the actions during enrollment, reset, and

checking the signal strength.

3. Tamper switch

4. Power Battery CR123 A 3V

Attention: Use only batteries of the same type!

5. Antenna

Attention: Do not touch or bend the antenna!

Enrolling in Expander Module

1. Remove the box bottom to access the PCB with the battery compartment. If the device is not new, perform the reset as described in item 7.
2. Enter in programming mode of the Natron expander module. Select ADD DEVICE menu and press ENTER button. A list of 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 in the call point. Every free address is labeled as EMPTY.
4. Press the ENTER button. Message SEARCHING >>> (arrows are blinking) appears on the screen showing that the module is scanning for signals from a wireless device in its covering range.

Note: If there is no signal from the device in a 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 flashing in red.
6. In case of successful enrolment, the operation LED flashes 3 times in green and the 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 and it is obligatory to change the place of installation. You can also check the signal quality for the device in the 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 false alarms during mounting.
10. Disassemble the call point and mount it to the installation place – see item 3.
11. Reset the frangible element to normal position in stand-by mode and enable the operation of the call point.

Testing the Call Point

Start testing procedure for the fire zone to which the call point is associated – follow the given instructions in the operation manual of the addressable/conventional fire alarm control panel. Press the frangible element of the call point to initiate a test fire alarm or evacuation event. The status LED starts blinking fast and the color strip of the frangible element is shown on at its upper side. After finishing the testing, reset the frangible element of the call point (see item 7) and then reset the fire alarm control panel.

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, 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 by 1 long flash in red and 1 long flash in green. Next pressing of ENROLL button will start the enrolment procedure to the expander module.

Checking the Signal Quality (RSSI)

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

1. Enter the programming mode of the module. Scroll to the menu DEVICE RSSI and press ENTER button. A list of presently 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 the ENTER button. Refer to the table below to read the signal quality on the screen: You can exit the menu at any time by pressing the CANCEL button.

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 the module.

1. Enter in the programming mode of the module. Scroll to the menu FIND DEVICE and press ENTER button. A list of presently 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 the 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 a 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 by pressing the CANCEL button.

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 others with similar characteristics.

Attention: After indication from the panel/expander module for a low battery of a device, the user/ installer must replace the discharged battery with a new one within one month. The remaining shelf time of the new battery must not be 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 one by observing the +/- polarity.
4. Assemble the call point elements back in place.
5. Reset the frangible element.
6. Enable the call point operation.
7. Check the signal quality in the 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 an explosion or the leakage of flammable liquid or gas.

DISPOSAL: Follow local regulations regarding the disposal of the batteries.

Documents / Resources



TELETEK MCP Wireless Addressable Fire Alarm Manual Call Point [pdf] User Manual
MCP Wireless Addressable Fire Alarm Manual Call Point, MCP, Wireless Addressable Fire Alarm Manual Call Point, Addressable Fire Alarm Manual Call Point, Fire Alarm Manual Call Point, Alarm Manual Call Point, Call Point, Point