

# 2N LiftGate User Manual



## Content:

- 1. Product Description
  - 1.1 Product Description
  - 1.2 Components and Associated Products
  - 1.3 Terms and Symbols Used
- 2. Device Installation
  - 2.1 Before You Start
  - 2.2 Mechanical Installation
  - 2.3 Electric Installation
  - 2.4 Overview of Connectors
  - 2.5 Overview of LED Indicators
  - 2.6 RESET Button Function
  - 2.7 Retrieval of 2N® LiftGate in Network by 2N® Network Scanner
- 3. Device Configuration
  - 3.1 Status / Basic Information
    - 3.1.1 Cellular
    - 3.1.2 Networking
    - 3.1.3 Power and Battery
      - 3.1.3.1 External Battery Connection
    - 3.1.4 Input and Output Pins
    - 3.1.5 My2N
  - 3.2 Configuration / Cellular
    - 3.2.1 Routing
    - 3.2.2 Mobile Data
    - 3.2.3 WAN
    - 3.2.4 LAN
    - 3.2.5 VPN
    - 3.2.6 Firewall
    - 3.2.7 Port Forwarding
    - 3.2.8 Events
    - 3.2.9 Commands
    - 3.2.10 Power and Battery
    - 3.2.11 Input and Output Pins
    - 3.2.12 Access
    - 3.2.13 Time
    - 3.2.14 Log
  - 3.3 Maintenance / Configuration
    - 3.3.1 Restart
    - 3.3.2 Firmware
    - 3.3.3 Battery Installation
    - 3.3.4 Log
- 4. Function and Use
  - 4.1 Cabin Switch Connection

- 4.2 Supported Devices
- 4.3 Maintenance
- 5. Technical Parameters
- 6. Supplementary Information
  - 6.1 Troubleshooting
  - 6.2 Directives, Laws and Regulations
  - 6.3 General Instructions and Cautions

## 1. Product Description

In this section, we introduce the **2N<sup>®</sup> LiftGate** product, outline its application options and highlight the advantages following from its use. The section also includes safety precautions.

Here is what you can find in this section:

- [1.1 Product Description](#)
- [1.2 Components and Associated Products](#)
- [1.3 Terms and Symbols Used](#)

### 1.1 Product Description



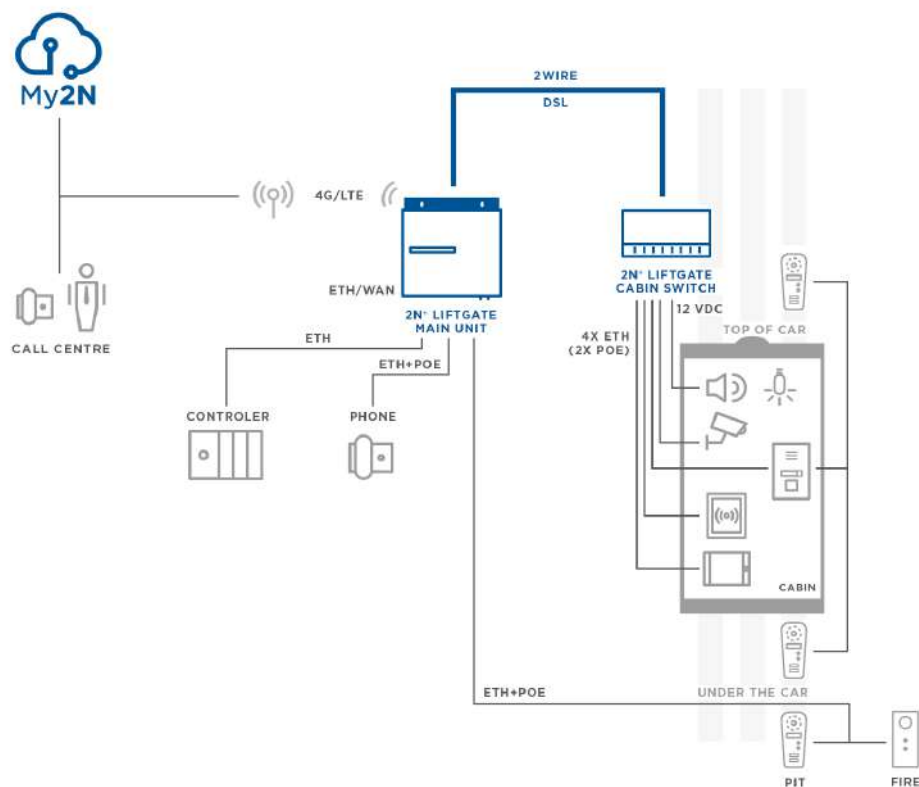
**2N<sup>®</sup> LiftGate** is an IoT gateway providing multimedia emergency communication for lifts. Use 2 wires in a traveling cable to get IP connectivity from the machine room to the lift cabin including the backed-up power supply. This LTE router communicates with the outer world via an LTE or WAN port.

#### Basic Features:

- 2-wire data transmission
- Web interface based configuration
- Multimedia communication
- Remote management via 2N<sup>®</sup> Elevator Center

- automatic configuration
- bulk update
- remote access
- real-time monitoring
- Internal backup battery pack
- Compliance with latest standards

## System Schema






Example of **2N<sup>®</sup> LiftGate**, Cabin Switch and Third Party Equipment Wiring Diagram

## 1.2 Components and Associated Products

### Main Unit




<p><b>Part No. 5024101E</b></p>		<ul style="list-style-type: none"> <li>• <b>2N<sup>®</sup> LiftGate Main Unit, supports 2 CS, Accu+, EU plug</b></li> <li>• main unit</li> <li>• support for 2 Cabin switch units</li> </ul>
<p><b>Part No. 5024101US</b></p>		<ul style="list-style-type: none"> <li>• <b>2N<sup>®</sup> LiftGate Main Unit, supports 2 CS, Accu+, US plug</b></li> <li>• main unit</li> <li>• support for 2 Cabin switch units</li> </ul>
<p><b>Part No. 5024101AU</b></p>		<ul style="list-style-type: none"> <li>• <b>2N<sup>®</sup> LiftGate Main Unit, supports 2 CS, Accu+, AU plug</b></li> <li>• main unit</li> <li>• support for 2 Cabin switch units</li> </ul>

Accessories	
<p><b>Part No. 502460E</b></p> 	<ul style="list-style-type: none"><li>• <b>2N<sup>®</sup> LiftGate Cabin Switch, 4x ETH, 12 V DC</b></li><li>• cabin unit for connection of up to 4 devices in the lift cabin</li></ul>
<p><b>Part No. 22041572</b></p> 	<ul style="list-style-type: none"><li>• <b>GSM/UMTS/LTE 2N Antenna</b></li><li>• SMA connector, 3m cable</li><li>• for signal quality improvement</li></ul>
<p><b>Part No. 22041579</b></p> 	<ul style="list-style-type: none"><li>• <b>GSM/UMTS/LTE Antenna</b></li><li>• SMA connector, 10m cable</li><li>• 9 dB, for higher signal quality</li></ul>

Management Services	
<b>Part No. 9137991</b>	<ul style="list-style-type: none"><li>• <b>2N<sup>®</sup> Elevator Center device fee</b></li><li>• Cloud service license for lift bulk management</li></ul>



Associated Devices		
Part No. 920640		<ul style="list-style-type: none"> <li>• <b>2N® LiftIP</b> – cabin audio unit</li> <li>• Basic model EN</li> <li>• provides automatic dialing of up to six numbers</li> </ul>
Part No. 920640X		<ul style="list-style-type: none"> <li>• <b>2N® LiftIP</b> – cabin audio unit, cable version</li> <li>• like 920640 + contains LED, microphone and speaker connected via cables</li> </ul>

### 1.3 Terms and Symbols Used

The following symbols and pictograms are used in the manual:

 **Safety**

- **Always abide** by this information to prevent persons from injury.

 **Warning**

- **Always abide** by this information to prevent damage to the device.

 **Caution**

- **Important information** for system functionality.

 **Tip**

- **Useful information** for quick and efficient functionality.

 **Note**

- Routines or advice for efficient use of the device.

The following symbols are used on the main unit:



**Electrical accident  
hazard**

- This warning relates to the main unit high-voltage AC input.



**Disconnect all power  
supplies**

- The main unit contains several connectors, all of which must be disconnected before servicing.

## 2. Device Installation

This section describes the **2N<sup>®</sup> LiftGate** product and its installation. Here is what you can find in this section:

- [2.1 Before You Start](#)
- [2.2 Mechanical Installation](#)
- [2.3 Electric Installation](#)
- [2.4 Overview of Connectors](#)
- [2.5 Overview of LED Indicators](#)
- [2.6 RESET Button Function](#)
- [2.7 Retrieval of 2N<sup>®</sup> LiftGate in Network by 2N<sup>®</sup> Network Scanner](#)

### 2.1 Before You Start

#### Product Completeness Check

Check before installation whether the package of the **2N<sup>®</sup> LiftGate Main Unit** includes the following:

1x	<b>2N<sup>®</sup> LiftGate Main Unit</b>
2 pcs + 2 pcs	Dowel (8 x 40 mm) with screws (4.5 x 50 mm)
1 pc	Antenna
1 pc	Battery pack
1 pc	Brief Manual

#### Installation Conditions

- **2N<sup>®</sup> LiftGate** should be installed in a lockable room so that the potential risk of unauthorized access and misuse by unauthorized persons can be minimized.
- **2N<sup>®</sup> LiftGate** is designed for vertical mounting.
- Install **2N<sup>®</sup> LiftGate** with respect to the signal strength – check the LED indicator status or display the information via the device web interface.
- For the allowed range of operating temperatures refer to [Section 5. Technical Parameters](#).
- **2N<sup>®</sup> LiftGate** may not be operated on sites exposed to direct solar radiation or near heat sources.
- **2N<sup>®</sup> LiftGate** is designed for indoor applications. It may not be exposed to rain, flowing water, condensing moisture, fog, etc.
- **2N<sup>®</sup> LiftGate** may not be exposed to aggressive gas, acid vapors, solvents, etc.

- Make sure there is enough free space above and under **2N<sup>®</sup> LiftGate** for cabling and flowing air to conduct heat away.
- An improper placing of **2N<sup>®</sup> LiftGate** or the antenna near television, broadcasting or other high-frequency sensitive devices may have an adverse affect on their functionalities.

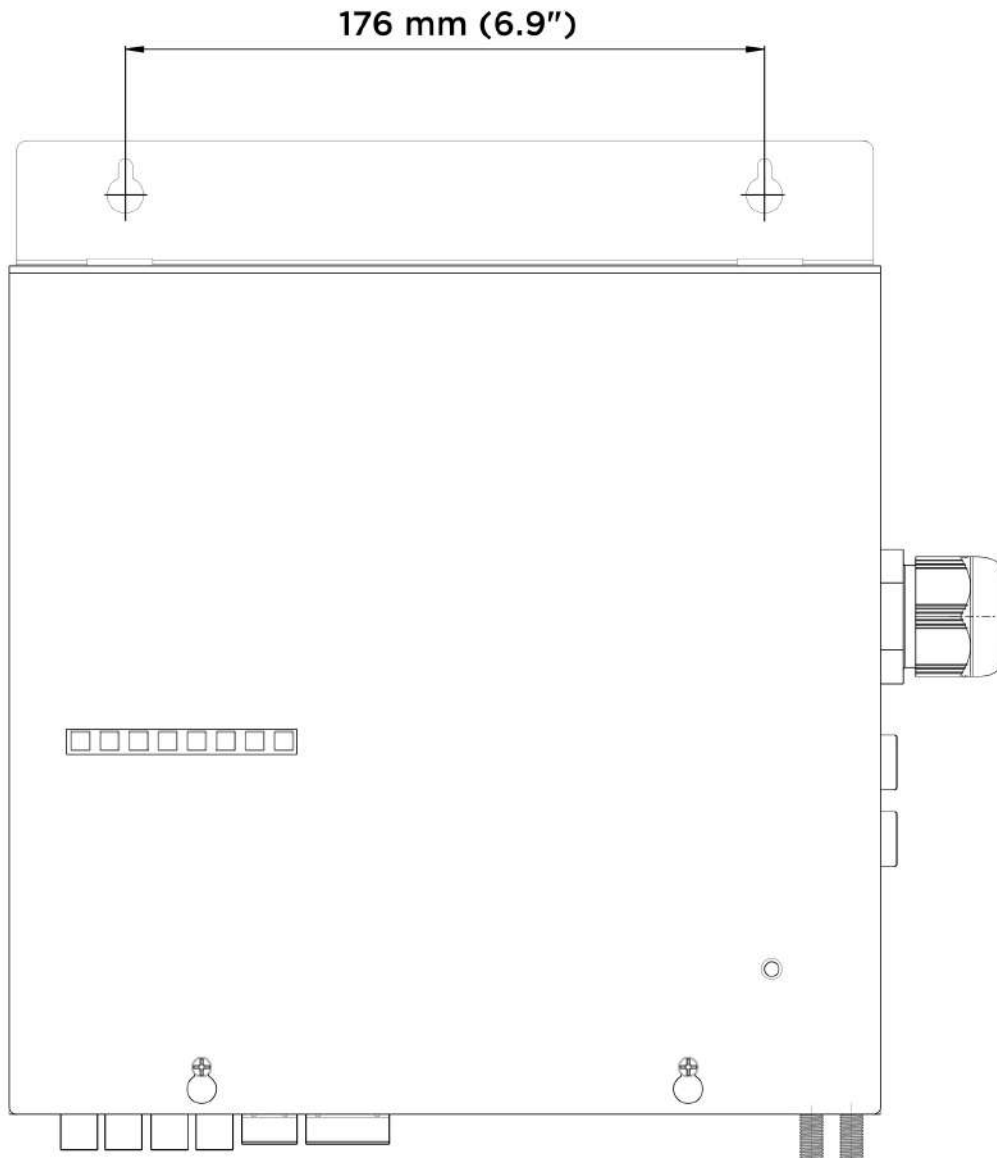
### **Caution**

- Make sure that you have all requisites for putting **2N<sup>®</sup> LiftGate** in operation (SIM card, LAN-PC interconnecting cable).

## 2.2 Mechanical Installation

It is recommended that the **2N<sup>®</sup> LiftGate** main unit is installed in a room secured against unauthorized persons, such as the machine room, substation, etc. If the unit is installed on an easily accessible place, the Internet access or SIM cards can be misused.

Mount the **2N<sup>®</sup> LiftGate** main unit on a wall using the provided dowels and screws. Do not install the main unit higher than 2 m from the ground for safety reasons. Drill 2 holes spaced apart 176 mm (6.9") and insert the dowels. Put the screws through the device box metal profile holes and tighten them into the dowels in the wall.



**Warning**

- As power supplies warm up during operation, it is necessary to install the device in such a manner that air can flow from the fan to the ventilating holes on the other side of the device.

## 2.3 Electric Installation

Connect **2N<sup>®</sup> LiftGate** to a 100–240 V AC power supply to put it in operation. The power cord is also used as a disconnecting element with a socket within easy reach. Make sure that a skilled

and experienced person is responsible for the electric installation and that the protective wire is properly connected in the socket.

### **Battery pack installation**

Disconnect the **2N<sup>®</sup> LiftGate** main unit from the mains before installation. Loosen the two screws on the main unit upper cover. Slide the upper cover upwards for lift-up and removal from the holding profiles. Proceed with caution minding the grounding wire connecting the cover with the bottom part of the main unit. Do not disconnect the wire unless necessary! Insert the battery pack with the connectors directed upwards on the right-hand side. Interconnect the fitted battery pack with the motherboard using a Faston cable respecting the required polarity.

#### **Safety**

- Always use appropriate protective gloves while handling a battery pack. The purpose of the gloves is to protect against potential contact with electrolyte and minimize the the risk of burns.

#### **Caution**

- Maintain the battery pack polarity.
- In the case of the battery polarity reversal, **2N<sup>®</sup> LiftGate** is protected with a relay to be hazard-free.

Replace the upper cover to the main unit and tighten the fixing screws. Make sure that the grounding wire is connected with the cover while replacing the cover!

### **SIM card installation**

Insert the SIM card in any SIM slot on the right side of the device.

### **Antenna connection**

Screw the enclosed antenna into the SMA antenna connector. Tighten the antenna connector gently with your hand, never use a wrench.

### **Power supply connection**

Plug the power cable socket into the electric power source.

### ⚠ Safety

- **WARNING!** The live parts are freely accessible when the main unit cover has been removed!
- Be very careful and never touch the dangerous live parts!
- Never work with the main unit on and the protective cover removed unless you are a properly trained person with a higher qualification and educated according to Regulation 50/1978 Coll.
- Never install a damaged battery pack. Never insert a battery pack in the main unit if you suspect any electrical or mechanical damage.
- Never use **2N® LiftGate** without the protective cover to avoid electric shock hazard, wrong functionality due to misconnection and, last but not least, damage or destruction of the **2N® LiftGate** electronics as a result of an electric short-circuit or adverse environmental effects. Without the cover, **2N® LiftGate** is not protected against incidental touch and water.
- Always make sure before installation that the **2N® LiftGate** motherboard is not damaged!
- Do not connect devices other than the approved ones. Unapproved devices may cause electrical accident or device damage.

## 2.4 Overview of Connectors

### Main Unit Connector Layout and Meanings



#### CABIN SWITCH 1 & 2

Cabin switch connection.

<b>INPUT 1,2</b>	User configurable inputs.
<b>REL 1, 2</b>	Relay with NO/NC contacts.
<b>LAN 1-3</b>	LAN connector, 10/100/1000BaseT, RJ-45; Cat5 or higher (recommended), LAN1 provides PoE 802.3af Class 2 (6.45 W max).
<b>WAN</b>	WAN connector, 10/100/1000BaseT, RJ-45; Cat5 or higher (recommended).
<b>DIV</b>	Optional LTE antenna with an SMA connector for a better signal quality.
<b>MAIN</b>	Main LTE antenna with an SMA connector.
<b>SIM 1,2</b>	SIM card slots. The use of SIM 2 is optional. PIN-secured SIM cards can be inserted. Make sure that the PIN code is set in the configuration to put the device in operation.

## 2.5 Overview of LED Indicators

The **2N<sup>®</sup> LiftGate** status is signaled by LED indicators on the device front side. Refer to the table below for the statuses.

LED Indicators	
<b>DEVICE STATUS</b> Indicates the general system status.	<ul style="list-style-type: none"> <li>• Blue – device status OK, device operational</li> </ul>
	<ul style="list-style-type: none"> <li>• Blue, slow flashing – device error that does not affect the full functionality of the device</li> </ul>
	<ul style="list-style-type: none"> <li>• Red – temporary error (to be solved automatically, e.g. provider service failure)</li> </ul>
	<ul style="list-style-type: none"> <li>• Red, slow flashing – permanent error (admin intervention is required, e.g. via the device web interface)</li> </ul>
	<ul style="list-style-type: none"> <li>• Red, fast flashing – HW error, on-site service intervention is required (e.g. DSL short-circuit, battery error/defect)</li> </ul>



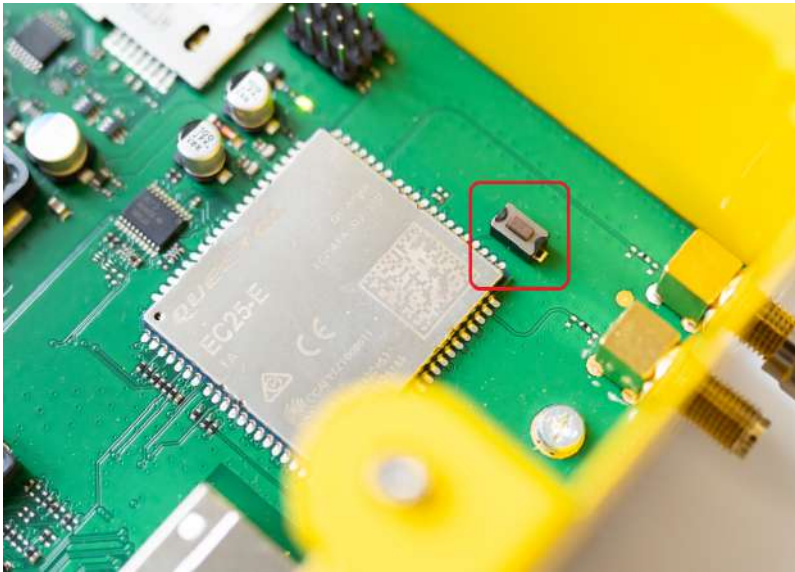
<b>LED Indicators</b>	
<p><b>POWER</b></p> <p>Indicates the general power supply status.</p>	<ul style="list-style-type: none"> <li>• Blue – external supply is progress, battery is kept charged</li> </ul>
	<ul style="list-style-type: none"> <li>• Blue, short flashing – external supply in progress, low battery life</li> </ul>
	<ul style="list-style-type: none"> <li>• Blue, slow flashing – external supply in progress, battery is being charged (90–100 %)</li> </ul>
	<ul style="list-style-type: none"> <li>• Blue, fast flashing – external supply in progress, battery is being charged (0–90 %)</li> </ul>
	<ul style="list-style-type: none"> <li>• Red – battery supply in progress, battery capacity over 50%</li> </ul>
	<ul style="list-style-type: none"> <li>• Red, slow flashing – battery supply in progress, battery capacity below 50%</li> </ul>
	<ul style="list-style-type: none"> <li>• Red, fast flashing – battery supply in progress, battery capacity critically low (less than 10 %)</li> </ul>
	<ul style="list-style-type: none"> <li>• No light indication – battery disconnected</li> </ul>
<p><b>CELLULAR NETWORK</b></p> <p>Indicates the mobile network connection status</p>	<ul style="list-style-type: none"> <li>• Permanently on – SIM OK, Internet connection available. The LED color signals the network technology used:               <ul style="list-style-type: none"> <li>• Yellow – 2G</li> <li>• Green – 3G</li> <li>• Blue – 4G</li> </ul> </li> </ul> <p>Slow network LED flashing indicates that the SIM card and registration are OK, but the Internet connection is unavailable.</p>
	<ul style="list-style-type: none"> <li>• Red, slow flashing – SIM OK, network search in progress</li> </ul>
	<ul style="list-style-type: none"> <li>• Red, fast flashing – SIM error (PIN unset or card rejected by network)</li> </ul>
	<ul style="list-style-type: none"> <li>• No light indication – SIM not inserted</li> </ul>

<b>LED Indicators</b>	
<b>SIGNAL STRENGTH</b> Indicates the signal strength.	<ul style="list-style-type: none"> <li>• Blue – strong signal (<math>\geq -80</math> dBm)</li> </ul>
	<ul style="list-style-type: none"> <li>• Green – medium signal (<math>\leq -80</math> dBm)</li> </ul>
	<ul style="list-style-type: none"> <li>• Red – weak signal (<math>&lt; -100</math> dBm)</li> </ul>
	<ul style="list-style-type: none"> <li>• No light indication – no signal (<math>&lt; -110</math> dBm)</li> </ul>
<b>MOBILE DATA</b> Indicates the Internet availability via a module.	<ul style="list-style-type: none"> <li>• Blue – connection is working</li> </ul>
	<ul style="list-style-type: none"> <li>• Red – connection is not working</li> </ul>
	<ul style="list-style-type: none"> <li>• No light indication – connection is disabled (in configuration)</li> </ul>
<b>WAN</b> Indicates the Internet availability via WAN.	<ul style="list-style-type: none"> <li>• Blue – connection is working</li> </ul>
	<ul style="list-style-type: none"> <li>• Red – connection is not working</li> </ul>
	<ul style="list-style-type: none"> <li>• No light indication – connection is disabled (in configuration)</li> </ul>
	<p><b>MOBILE DATA</b> and <b>WAN</b> LEDs combined indicate the general Internet status:</p> <ul style="list-style-type: none"> <li>• Permanently on – active primary connection</li> <li>• Slow flashing – active backup connection</li> <li>• Fast flashing – Internet connection unavailable</li> </ul>
<b>CABIN SWITCH 1 &amp; 2</b> Indicates the states of connected cabin switches 1, 2.	<ul style="list-style-type: none"> <li>• Blue – voltage OK, connected</li> </ul>
	<ul style="list-style-type: none"> <li>• Blue, slow flashing – disconnected (no consumption)</li> </ul>
	<ul style="list-style-type: none"> <li>• Red – voltage warning (overconsumption, current <math>&gt; 750</math> mA)</li> </ul>
	<ul style="list-style-type: none"> <li>• Red, fast flashing – voltage error (consumed current <math>&gt; 1050</math> mA, overload or short-circuit)</li> </ul>
	<ul style="list-style-type: none"> <li>• Blue – voltage OK, connected</li> </ul>

LED Indicators	
<b>CABIN SWITCH 3 &amp; 4</b> Indicates the states of connected cabin switches 3, 4.	<ul style="list-style-type: none"> <li>• Blue, slow flashing – voltage OK, disconnected (no consumption)</li> </ul>
	<ul style="list-style-type: none"> <li>• Red – source warning (overconsumption, current &gt; 750 mA)</li> </ul>
	<ul style="list-style-type: none"> <li>• Red, fast flashing – voltage error (consumed current &gt; 1050 mA, overload or short-circuit)</li> </ul>
	<ul style="list-style-type: none"> <li>• No light signaling – the cabin switch is unavailable, the device is supported by 2 cabin switches only</li> </ul> <p><b>NOTE:</b> device version with 2-cabin switch support (2xCS) on positions 1 and 2. The 4-cabin switch support device version (4xCS) supports all the 4 positions.</p>
Flashing Frequencies	
<b>Slow flashing</b>	Flashes 1:1, interval 1 s = 0.5 s light on (ON) + 0.5 s no light (OFF)
<b>Fast flashing</b>	Flashes 1:1, interval 0.2 s = 0.1 s light on (ON) + 0.1 s no light (OFF)
<b>Short flashing</b>	Interval 4 s = 0.2 s light on (ON) + 3.8 s no light (OFF)

## 2.6 RESET Button Function

The RESET button located on the **2N<sup>®</sup> Liftgate** motherboard is used for factory default reset or restart of the device. Remove the main unit upper cover to get access to the button. The button is to the right of the LTE module above the antenna connectors.



## Factory Default Reset

Press the RESET button 5 times to reset the factory defaults; the device will be restarted after the factory reset.

## Restart

Press and hold the RESET button for approx. 4 s (until all the LEDs go off and the left LED starts shining blue). The main unit system will be restarted if powered from the mains or turned off if a battery supply is used.

### **Note**

- The beginning of the factory default reset / restart is signaled by all the LEDs going off and gradually by each LED going on and off separately from left to right. After the row is completed, the left LED goes on and off again.

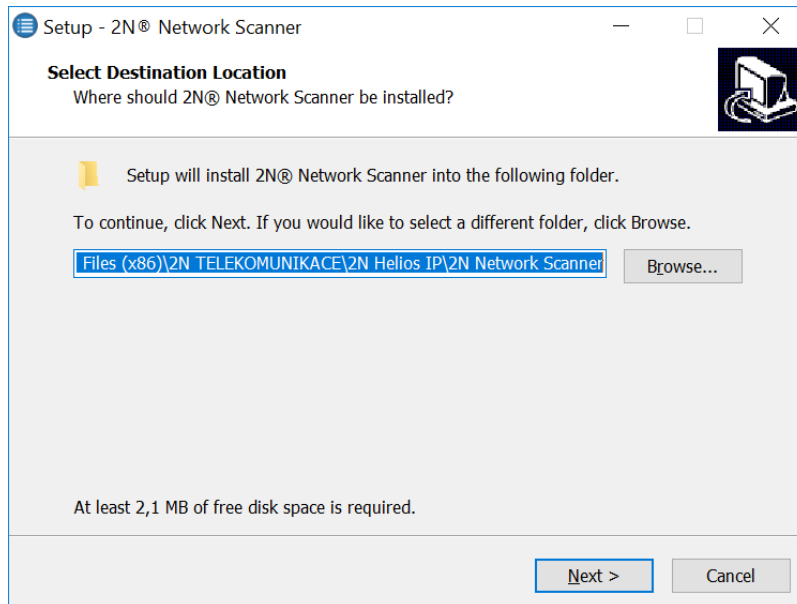
## 2.7 Retrieval of 2N<sup>®</sup> LiftGate in Network by 2N<sup>®</sup> Network Scanner

Use the administration web server to configure **2N<sup>®</sup> LiftGate**. Connect **2N<sup>®</sup> LiftGate** to a PC using a LAN cable making sure that the device is being powered.

## 2N<sup>®</sup> Network Scanner Description

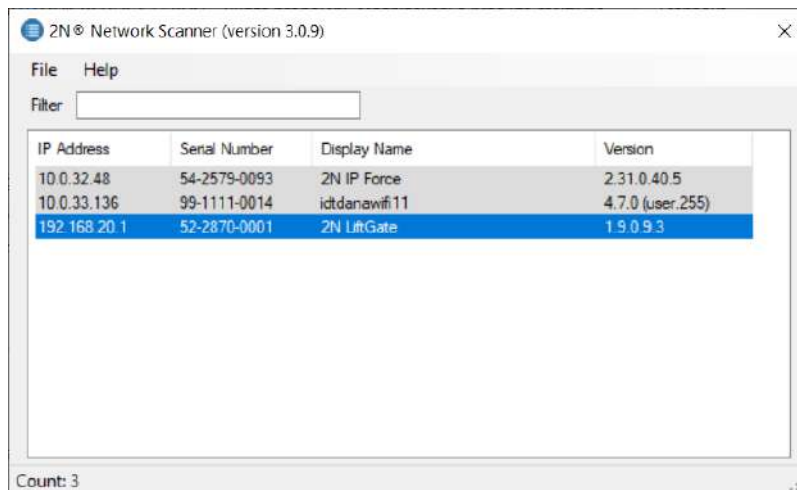
The application helps find the IP addresses of all **2N<sup>®</sup> LiftGate** devices in the LAN. Download the application from the 2N web sites ([www.2n.com](http://www.2n.com)). Make sure that Microsoft .NET Framework 2.0 has been installed before installation.

1. Run the **2N<sup>®</sup> Network Scanner** installer.
2. Use the Setup Wizard for successful installation.



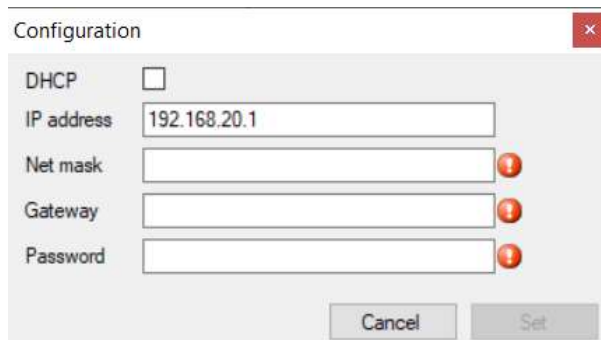
### Setup Wizard of 2N<sup>®</sup> Network Scanner

3. Having installed **2N<sup>®</sup> Network Scanner**, start the application using the Microsoft Windows Start menu.
4. Once started, the application begins to automatically search for all the 2N devices in the LAN including their smart extensions which are DHCP/statically assigned IP addresses. All the devices are then displayed in a table.



### Window of 2N<sup>®</sup> Network Scanner

5. Select the **2N<sup>®</sup> LiftGate** device to be configured from the list and right-click it. Select *Browse...* to open the **2N<sup>®</sup> LiftGate** administration web interface login window for configuration. To change the device IP address, select *Config* and enter the required static IP address or activate DHCP. Remember to confirm the setting change with a password. If the default password has been changed (upon web interface login), use the current password; otherwise the default password is **2n**. If the found device is grey highlighted, its IP address cannot be configured using this application. In that case, click Refresh to find the device again and check whether multicast is enabled in your network.



### Change of Device IP Address in 2N<sup>®</sup> Network Scanner

### 3. Device Configuration

Connect the device to your PC via a LAN cable to configure the main unit. DHCP is enabled by default. Enter IP address 192.168.1.1 into your web browser (Edge, Firefox, Chrome) to get access to the web interface of the device. Enter **admin** as the username and **2n** as the password for the first login. You will be prompted to change the default password upon the web interface login.

#### ⚠ Caution

- It is recommended that the latest FW version is always kept for device security and proper access management.
- The new password should contain 8 characters at least including 1 capital letter, 1 small letter and 1 digit.
- A password change will be requested upon the main unit factory default reset.

A new password will be requested for the next login.



There are 3 tabs on the left side of the home page upper bar. The State tab shows basic information on the main unit (device ID, time data). Configuration helps set the main unit according to the user requirements. Maintenance is used for configuration and firmware maintenance, helps back up and refresh all settings, upgrade firmware and/or reset all parameters.

Switch the language versions of the main unit web interface on the right side of the home page upper bar. 7 languages are available (EN, CZ, DE, FR, ES, IT and RU). The item to the very right shows the logged-in user status (Admin, Guest).

A 10-minute idle timeout is followed by an automatic logout from the main unit web interface.

#### ⚠ Caution

- Press Ctrl + F5 to refresh the page if the web is displayed poorly in the Edge or Chrome browser.

#### ✔ Tip

- Use **2N® Elevator Center**, a licensed cloud service, for the main unit remote management. Contact your distributor for the service access data. Refer to [www.2n.com](http://www.2n.com) for more details on **2N® Elevator Center**.

- [3.1 Status / Basic Information](#)
- [3.2 Configuration / Cellular](#)

- [3.3 Maintenance / Configuration](#)

## 3.1 Status / Basic Information



The Status / Basic Information tab displays the main unit ID and time and is also used as a home page for **2N® LiftGate** web interface login.

Basic info	
Firmware version	1.9.0.9.3
Hardware version	LGAM-2520V4 EC25E/S2/P120
Ordering number	LGAM22
Serial number	52-2870-0001
Local time	Fri Jun 18 09:07:10 2021
UTC	Fri Jun 18 09:07:10 2021
Uptime	0 days 00:07:22

- [3.1.1 Cellular](#)
- [3.1.2 Networking](#)
- [3.1.3 Power and Battery](#)
- [3.1.4 Input and Output Pins](#)
- [3.1.5 My2N](#)



### 3.1.1 Cellular

The Cellular tab displays information on the mobile network.

Cellular	
Active SIM slot	1
IMEI	866758043725189
Network status	Registered home
Network name	T-Mobile CZ
Network technology	E-UTRAN (4G)
Network data	
MCC MNC	230 01
Network signal	-61 dBm
BTS group (LAC)	0x434E
BTS cell ID	0x18B830C

- **Active SIM slot** – active SIM slot with the currently used SIM card.
- **IMEI** – LTE module serial number.
- **Network status** – provider network connection status.
- **Network name** – network (provider's) name.
- **Network technology** – network technology used.
- **Network data** – network data status.
- **MCC MNC** – country and network codes.
- **Network signal** – current signal strength.
- **BTS (LAC) group** – BTS cell group number in the network.
- **BTS cell ID** – unique cell ID.

<b>SIM 1</b>	
SIM status	No PIN
PIN attempt count	3
IMSI	230015015017186369
ICCID	8942001500318627497
<b>SIM 2</b>	
SIM status	Empty
PIN attempt count	0
IMSI	
ICCID	

SIM 1 and SIM 2 provide information on the SIM cards inserted.

- **SIM status** – SIM card status.
- **PIN attempt count** – count of the remaining PIN code attempts.
- **IMSI** – unique international SIM card code.
- **ICCID** – SIM card production number.

#### **Caution**

The 3G mobile network will be switched off gradually.

### 3.1.2 Networking

The Networking tab shows the status of data routing to the Internet.

## Routing

Active routing	Mobile network
Primary route	Mobile network [Ping Error]
Secondary route	
Restart after connection lost	Disabled

- **Active routing** – the currently used routing to the Internet.
- **Primary direction** – preferred direction to the Internet (Mobile network / WAN, as configured).
- **Secondary direction** – backup direction to the Internet (Mobile network / WAN, as configured).
- **Restart after connection loss** – function setting status.

## Mobile network

IP	100.97.106.47
Mask	255.255.255.224
IPv4 Gateway	100.97.106.48
IPv4 DNS 1	8.8.8.8
IPv4 DNS 2	
IPv6	
IPv6 link-local	
IPv6 Gateway	
IPv6 DNS 1	
IPv6 DNS 2	
464XLAT	off

Mobile network shows the mobile network routing parameters.

- **IP** – IPv4 address assigned from the mobile network.
- **Mask** – IP address mask assigned from the mobile network.
- **IPv4 Gateway** – default gateway assigned from the mobile network.
- **IPv4 DNS 1** – primary DNS server address (assigned or as configured).
- **IPv4 DNS 2** – backup DNS server address (assigned or as configured).
- **IPv6** – IPv6 address assigned from the mobile network.
- **IPv6 link-local** – IPv6 address used locally
- **IPv6 Gateway** – default gateway assigned from the mobile network.
- **IPv6 DNS 1** – primary DNS server address (assigned or as configured).
- **IPv6 DNS 2** – backup DNS server address (assigned or as configured).
- **4G4XLAT** – switch-on status.

WAN	
MAC	7C:1E:B3:05:BF:33
IP	10.0.22.68
Mask	255.255.255.0
IPv4 Gateway	10.0.22.1
IPv4 DNS 1	10.0.100.101
IPv4 DNS 2	10.0.100.102
DUID	00:03:00:01:7C:1E:B3:05:BF:33
IPv6	
IPv6 dhcp	
IPv6 link-local	fe80::7e1e:b3ff:fe05:bf33/64
IPv6 Gateway	
IPv6 DNS 1	
IPv6 DNS 2	

WAN shows the WAN routing parameters.

- **MAC** – WAN port HW address (factory setting).
- **IP** – current IPv4 address (assigned or as configured).
- **Mask** – current IPv4 address mask (assigned or as configured).

- **IPv4 Gateway** – current default gateway (assigned or as configured).
- **IPv4 DNS 1** – primary DNS server address (assigned or as configured).
- **IPv4 DNS 2** – backup DNS server address (assigned or as configured).
- **DUID** – WAN port HW address.
- **IPv6** – current global IPv6 address.
- **IPv6 dhcp** – auto-configuration.
- **IPv6 link-local** – current IPv6 address used locally
- **IPv6 Brána** – primary DNS server address (assigned or as configured).
- **IPv6 DNS 1** – adresa primárního DNS serveru (přidělená nebo podle konfigurace)
- **IPv6 DNS 2** – backup DNS server address (assigned or as configured).
- **464XLAT** – switch-on status.

LAN	
MAC	7C:1E:B3:04:E4:28
IP	192.168.1.1
Mask	255.255.255.0
IPv6	
IPv6 link-local	fe80::7e1e:b3ff:fe04:e428/64

LAN shows the LAN parameters.

- **MAC** – LAN port HW address (factory setting).
- **IP** – LAN IP address (as configured).
- **Mask** – LAN mask (as configured).
- **IPv6** – current global IPv6 address (as configured).
- **IPv6 link-local** – current IPv6 address used locally (as configured).

## DHCPv4 clients

IP	MAC	Expires
192.168.1.214	7c:1e:b3:06:1e:a1	Mon Mar 18 14:12:47 CET 2024
192.168.1.217	7c:1e:b3:04:e6:57	Mon Mar 18 14:13:09 CET 2024
192.168.1.201	7c:1e:b3:04:e6:30	Mon Mar 18 14:13:06 CET 2024
192.168.1.202	7c:1e:b3:04:e5:eb	Mon Mar 18 14:13:05 CET 2024

DHCP clients shows the LAN devices that requested IP addresses from the DHCP server.

- **IP** – IP address assigned (from the range configured).
- **MAC** – device HW address.
- **Validity end** – remaining validity of the IP address assigned.

## VPN

IP

IPv6

VPN shows the private network parameters.

- **IP** – IPv4 address assigned from the private network.
- **IPv6** – IPv6 address assigned from the private network.

Ethernet ports			
Port	Link	Speed	Mode
LAN1	Up	1000 Mb/s	Full-duplex
LAN2	Down		
LAN3	Down		
WAN	Down		

Ethernet ports shows the states of LAN 1, 2, 3 and WAN ports.

- **Link** – Up (connected) or Down (disconnected).
- **Rate** – data rate (10/100/1000 Mbps).
- **Mode** – port mode.

Transferred data		
Interface	Rx bytes	Tx bytes
<b>Mobile network</b>		
WAN	47 622 042	7 190 497
VPN		

The Transferred data shows the data received and sent via a mobile network, WAN port or VPN.

- **Rx bytes** – incoming data
- **Tx bytes** – outgoing data

### 3.1.3 Power and Battery

The Power and Battery tab provides information on the general power supply state.



## Power

Active power source	<b>External</b>	
External voltage / current	<b>24.19 V</b>	<b>0.24 A</b>
Board temperature	<b>37.8 °C</b>	
Module temperature	<b>36.2 °C</b>	
Fan status	<b>on</b>	

- **Active power source** – currently used power supply.
  - **External** – power supply from a built-in network power source (100–240 V AC / 24 V DC).
  - **Battery** – 12 V battery supply.
- **External voltage / current** – voltage / current from a built-in network power source.
- **Board temperature** – board temperature at the 48 V source site.
- **Module temperature** – LTE module temperature on the opposite board side.
- **Fan status** – fan state (ON/OFF).

## Battery

Battery status	<b>Floating</b>	
Battery voltage / current	<b>13.22 V</b>	<b>0.03 A</b>
Battery capacity / Expiration after	<b>9.0 Ah</b>	<b>n/a</b>
Usable capacity / Charge level	<b>9.0 Ah</b>	<b>100 %</b>
Charger temperature	<b>38.8 °C</b>	
Battery temperature	<b>45.6 °C</b>	<b>over upper limit</b>

Battery provides current information on the battery.

- **Battery status** – battery detection and charging statuses.
- **Battery voltage / current** – battery voltage (typical battery voltage value at charging is 14.6 V, maintenance voltage is 13.6 V) / battery current (+ for charging, – for discharging).

- **Battery capacity / life-time** – battery nominal capacity (9 or 18 Ah) / number of days after battery installation.
- **Usable capacity / Charge level** – usable battery capacity / battery charging level in %.
- **Charger temperature** – charging chip temperature (up to 120 °C).
- **Battery temperature** – battery temperature / below lower /over upper limit.

Measurement		
Module voltages	3.81 V	1.80 V
System voltage	3.27 V	
DSL voltage	10.60 V	
Line 1 voltage / current	48.2 V	0.00 A
Line 2 voltage / current	48.4 V	0.00 A

Measurement shows the voltage and current values measured.

- **Module voltages** – LTE module voltage (3.8 V and 1.8 V).
- **System voltage** – operating board voltage (3.3 V).
- **DSL voltage** – DSL module supply voltage (10.5 V).
- **Line 1 voltage / current** – line 1 voltage and current (48 V, 1 A max, recommended: up to 0.7 A).
- **Line 2 voltage / current** – line 2 voltage and current (48 V, 1 A max, recommended: up to 0.7 A).

### 3.1.3.1 External Battery Connection

Use a 1.5 mm<sup>2</sup> wire of the maximum length of 1 m for external battery connection. Thread the cable through the mains cable bushing using the larger hole. Maintain polarity while connecting the battery.

#### Caution

- Make an incision in the silicone bushing as indicated to insert a cable.
- If the external battery is not connected, use a plastic blind to close the mains cable threading hole.

### 3.1.4 Input and Output Pins

The Input / Output Pins tab shows the states of the device logic inputs and outputs.

Input pins	
Input 1	0
Input 2	0

- **Input 1** – 0 means that the input is deactivated (voltage below 2 V), 1 means that the IN1 input is activated (voltage above 4 V).
- **Input 2** – 0 means that the input is deactivated (voltage below 2 V), 1 means that the IN2 input is activated (voltage above 4 V).

Output pins	
Output 1	0
Output 2	0

- **Output 1** – 0 means that the relay is open (connected pins 1 and 2), 1 means that REL1 is closed (connected pins 2 and 3).
- **Output 2** – 0 means that the relay is open (connected pins 4 and 5), 1 means that REL2 is closed (connected pins 5 and 6).

### 3.1.5 My2N

The **My2N** / Basic Settings tab provides information on the connection of **2N® LiftGate** with the **2N® My2N** cloud service by means of the **2N® Elevator Center** bulk administrator.

My2N	
Connection status	Ready
Registration status	OK
Security code	TJJT-M5AT-LUYZ-VGEE

- **Connection status** – shows whether or not the device is connected with **2N® My2N**.
- **Registration status** – shows the current registration status. If OK is displayed, the device is connected with **2N® Elevator Center**.
- **Security code** – shows the **2N® My2N** device adding code.

## 3.2 Configuration / Cellular

The Configuration / Cellular tab helps you set the used SIM card parameters.

It holds true for all the configuration sections that clicking SAVE CHANGES saves all the settings into the device permanent memory and all the changes are applied immediately.

Cellular	
Mode	Always use SIM 1

- **Mode** – select the active priority SIM card or an unprioritized SIM card.

### ⚠ Caution

- In the case of a signal / data connection loss of the active SIM card, the backup SIM card is switched on in the last 3 possible modes.
- In the case of a signal / data connection loss and switch-over from the priority SIM to the backup SIM card in the priority modes, an attempt is made every hour to return to the priority SIM card. The return is successful when the signal / data connection is recovered.

### SIM 1

---

PIN

---

Roaming

---

Lock network

---

Network technology 4G, 3G, 2G ▼

---

### SIM 2

---

PIN

---

Roaming

---

Lock network

---

Network technology 4G, 3G, 2G ▼

The table shows the SIM 1 and SIM 2 parameters.

- **PIN** – enter the PIN code for SIM card unlocking. Used if the PIN is requested.
- **Roaming** – enable data roaming.

**⚠ Caution**

- Having enabled data roaming, restart **2N<sup>®</sup> LiftGate**.

- **Lock network** – enter the network number for the main unit to log in; if you leave it empty, a network will be selected automatically.
- **Network technology** – select the network technology (technologies) to you can log in.

**ℹ Note**

- If a combination of network technologies is selected, the fastest available network is always chosen.
  - LTE (4G) network of 4th generation
  - UMTS (3G) network of 3rd generation
  - GSM (2G) network of 2nd generation

- [3.2.1 Routing](#)
- [3.2.2 Mobile Data](#)
- [3.2.3 WAN](#)
- [3.2.4 LAN](#)
- [3.2.5 VPN](#)
- [3.2.6 Firewall](#)
- [3.2.7 Port Forwarding](#)
- [3.2.8 Events](#)
- [3.2.9 Commands](#)
- [3.2.10 Power and Battery](#)
- [3.2.11 Input and Output Pins](#)
- [3.2.12 Access](#)
- [3.2.13 Time](#)
- [3.2.14 Log](#)

### 3.2.1 Routing

The Routing tab shows the parameters of data routing to the Internet.

## Routing

Mode	Always route to mobile network (MN) ▼
Send ping to	Ping server 1 & 2 ▼
Ping server 1	1.1.1.1
Ping server 2	8.8.8.8
Ping delay	5 seconds 1 - 3600
Ping tries	3 1 - 60
Restart after connection lost	<input type="checkbox"/>
Restart delay	60 minutes 1 - 1440

- **Mode** – select the Internet data routing mode. You can choose one direction or both directions specifying the priority.
- **Send ping to** – select the server to which the PING requests are to be sent.
- **Ping server 1** – enter the IP address of the server to which the PING requests are to be sent periodically for availability check and response tests.
- **Ping server 2** – enter the IP address of the server to which the PING requests are to be sent periodically for availability check and response tests.
- **Ping delay** – set the delay interval in seconds for PING sending.
- **Ping tries** – set the count of PING queries after which the given Internet direction will be marked as functional / non-functional.
- **Restart after connection loss** – allow for a preventive system restart if the functional Internet connection has been lost.
- **Restart delay** – set the Internet connection loss time in minutes after which the system is restarted if allowed so.

**⚠ Caution**

- If both directions, i.e. both primary and backup, are set in the routing mode, the PING queries are sent to both of them, which checks their states constantly.
- When the primary direction ceases to work (after a pre-defined count of unsuccessful PING queries) and the backup direction is functional, data routing is switched to the backup direction.
- When the primary direction starts working again (after a pre-defined count of successful PING queries), data routing is switched back to the primary direction.
- If the connection is not recovered after the device restart following a connection loss, no more restarts will be performed.



### 3.2.2 Mobile Data

464The Mobile Data tab for SIM 1 and SIM 2 shows the Internet connection parameters for the given SIM card.

#### Mobile data, SIM 1

---

Access point (APN)

---

Protocol

---

Username

---

Password

---

IPv4 DNS from mobile network

---

IPv4 DNS 1

---

IPv4 DNS 2

---

IPv6 DNS from mobile network

---

IPv6 DNS 1

---

IPv6 DNS 2

- **Access Point (APN)** – APN as defined by the network provider for Internet connection (not requested in some networks).
- **Protocol** – Internet protocol (IP) review responsible for data transmission. The default setting is the parallel use of the IPv4/IPv6 protocols. To achieve a proper functionality, the user has to be equipped with a SIM card and a mobile provider that supports the selected protocol. Otherwise, redundant errors messages are written into the log (this, for example, can happen when IPv4/IPv6 is set but the mobile provider does not support this technology). 464XLAT is a transitional technology in the context of migration of networks from IPv4 to IPv6 and may not be supported by the mobile provider.
- **Username** – user name as defined by the provider for Internet login (not requested in some networks).

- **Password** – password as defined by the provider for Internet login (not requested in some networks).
- **DNS from mobile network** – allowed use of the DNS IP address obtained from the network.
- **DNS 1** – primary DNS server IP address (assigned if DNS is not allowed from the mobile network).
- **DNS 2** – backup DNS server IP address (assigned if DNS is not allowed from the mobile network).

### **Caution**

We recommend that you change the PIN code on a regular basis to protect your data and use the SIM card safely.

### 3.2.3 WAN

The WAN tab shows the Internet connection parameters via an Ethernet port.



**WAN - IPv4**

DHCP

IP

Mask

Gateway

DNS from DHCP

DNS 1

DNS 2



**WAN - IPv6**

Auto-configuration

IP

Prefix length   
0 - 128

Gateway

DNS from auto-configuration

DNS 1

DNS 2

- **DHCP / Auto-Configuration** – enable the assignment of basic network parameters by the DHCP server (IP address, mask, gateway).
- **IP** – main unit IP address (if not allowed by DHCP).
- **Mask (IPv4 only)** – network IP mask (if not allowed by DHCP).
- **Prefix Length (IPv6 only)** – set the length of the prefix that is common for the network devices (if not allowed by DHCP).
- **Gateway** – gateway IP address (if not allowed by DHCP).
- **DNS from DHCP** – enable the use of the DNS IP address obtained from the DHCP server.
- **DNS 1** – primary DNS server IP address (assigned if DNS is not allowed from HDHCP).
- **DNS 2** – backup DNS server IP address (assigned if DNS is not allowed from DHCP).

**Note**

In the case of forwarding to a https supporting device, enter (<https://x.x.x.x:port>) into URL.

### 3.2.4 LAN

The LAN tab shows the LAN parameters for LAN1, LAN2 and LAN3 ports. **2N® LiftGate** provides (RFC4191, type 24) information on the current LAN prefix on the WAN port so that the routers and other devices in the WAN can address the devices connected to the LAN properly.

#### LAN - IPv4

---

IP

---

Mask

---

DHCP server

---

IP lease time  minutes  
1 - 86400

---

First DHCP IP

---

Last DHCP IP

---

DNS masquerade

---

DNS 1

---

DNS 2

#### LAN – IPv4

- **IP** – system IP address used as the router (gateway) address for the LAN (devices connected to the LAN ports or DSL lines).
- **Mask** – LAN IP mask on LAN ports or DSL lines.
- **DHCP Server** – allow the DHCP server to assign basic network parameters (IP address, IP mask, gateway and DNS servers) to the devices connected to LAN ports or DSL lines.

- **IP Lease Time** – time (in minutes) of assignment of network parameters to devices.
- **First DHCP IP** – IP address defining the area of addresses assigned to devices.
- **Last DHCP IP** – IP address of the end of the area (from / to interval).
- **DNS Masquerade** – allow the devices to be assigned the system IP address (“IP” parameter) as the DNS server address; the DNS queries will automatically be resent from the device to the Internet.
- **DNS 1** – primary DNS server IP address (assigned if DNS masquerade is not allowed).
- **DNS 2** – backup DNS server IP address (assigned if DNS masquerade is not allowed).

### LAN - IPv6

---

Bridge mode for mobile network

---

Advertised Prefix for mobile network

---

Bridge mode for WAN

---

Advertised prefix for WAN

---

DNS masquerade

---

DNS 1

---

DNS 2

## LAN – IPv6

- **Bridge Mode for Mobile Network** – activate to make **2N LiftGate** serve as a bridge.
- **Advertised Prefix for Mobile Network** – set the prefix of the IPv6 address assigned by the device.
- **Bridge Mode for WAN** – activate to make **2N LiftGate** serve as a bridge.
- **Advertised Prefix for WAN** – set the prefix of the IPv6 address assigned by the device.
- **DNS Masquerade** – allow the devices to be assigned the system IP address as the DNS server address; the DNS queries will automatically be resent from the device to the Internet.
- **DNS 1** – primary DNS server IP address (assigned if DNS masquerade is not allowed).
- **DNS 2** – backup DNS server IP address (assigned if DNS masquerade is not allowed).

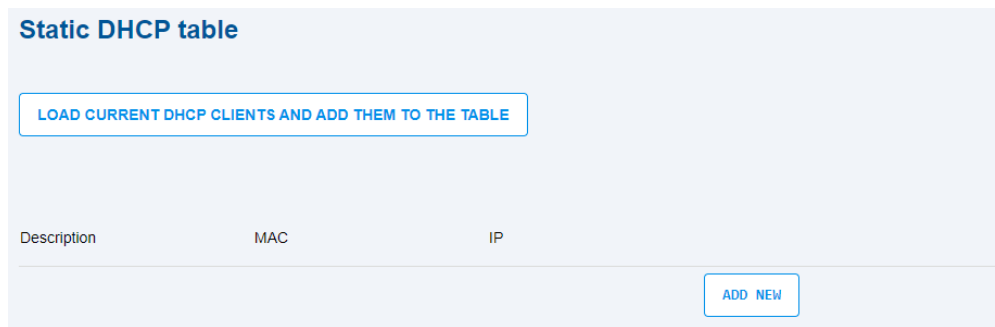


Table of static DHCP for fixed IP address allocation to the devices on LAN ports or DSL lines, with the device being identified by its MAC address.

- **LOAD CURRENT DHCP CLIENTS AND ADD THEM TO TABLE** – used for DHCP table update. All the currently connected devices that have been assigned addresses by the DHCP server will be uploaded.
- **MAC** – device HW address defined by the manufacturer.
- **IP** – IP address to be assigned to a device by the DHCP server.

### 3.2.5 VPN

The VPN tab provides parameters for the creation of a selected VPN (Virtual Private Network) connection.



## VPN

Enable OpenVPN



Server IP

10.0.26.200

Server port

1194

0 - 65535

Protocol

TCP

Device

TUN

Cipher

AES-256-CBC

Compression

None

Authentication

Login + Certificate

Username

liftgate151

Password

••••••••



Algorithm

SHA1

Certificate password

••••••••



Enter routes manually



IPv4 route address 1

IPv4 route mask 1

IPv4 route address 2

IPv4 route mask 2

- **Enable OpenVPN** – allow this function to create a third direction into the Internet (via OpenVPN) for data routing (with the IP address from the VPN range).
- **Server IP** – IP address for VPN connection.
- **Server port** – port number for VPN connection.
- **Protocol** – select UDP or TCP (depending on the VPN server setting).
- **Device** – select TUN or TAP (depending on the VPN server setting).
- **Cipher** – select the type of data encoding (depending on the VPN server setting).
- **Compression** – set LZ0 or LZ4.
- **Authentication** – select authentication based on:
  1. login
  2. certificate
  3. login and certificate
  4. certificate and TLS
  5. login, certificate and TLS
- **Username** – user name for authentication.
- **Password** – access password for authentication.
- **Algorithm** – select an algorithm.
- **Certificate password** – access password for certificate-based authentication.
- **Enter routes manually** – select manual route selection.
- **IPv4 route address 1** – enter the route 1 IP address.
- **IPv4 route mask 1** – enter the route 2 mask.
- **IPv4 route address 2** – enter the route 2 IP address.
- **IPv4 route mask 2** – enter the route 2 mask.
- **IPv6 route address 1** – enter the route 1 IPv6 address.
- **IPv6 route prefix length 1** – set the prefix length of IPv6 device routes.
- **IPv6 route address 2** – enter the route 2 IPv6 address.
- **IPv6 route prefix length 2** – set the prefix length of IPv6 device routes.
- **Log level** – select the log level between 1 – 4.



### Certificate and key files upload

ca.crt	<input type="button" value="Browse..."/> No file selected.
client.crt	<input type="button" value="Browse..."/> No file selected.
client.key	<input type="button" value="Browse..."/> No file selected.
ta.key	<input type="button" value="Browse..."/> No file selected.

The sets of certificates and keys are the required files for VPN connection.

- **ca.crt** – server certificate (obtained from the VPN server administrator).
- **client.crt** – device certificate (generated for each **2N® LiftGate** device).
- **client.key** – private device key (generated for each **2N® LiftGate** device).
- **ta.key** – tls-authority key (obtained from the VPN server administrator).
- **SELECT FILE** – for permanent storing of certificates in the device memory.
- **UPLOAD** – upload selected files, certificates and keys to the device.

### 3.2.6 Firewall

The Firewall tab is used for setting access to **2N® LiftGate** from a selected network. If the firewall is inactive, there are no restrictions for the given network; if it is active, only the accesses defined in the table below are allowed.

### Firewall

Enable for mobile network	<input type="checkbox"/>
Enable for WAN	<input type="checkbox"/>
Enable for LAN	<input type="checkbox"/>
Enable for VPN	<input type="checkbox"/>

- **Enable for mobile network (MN)** – allow access of firewall from a mobile network.
- **Enable for WAN** – allow access of firewall from a WAN port.
- **Enable for LAN** – allow access of firewall from a LAN port.
- **Enable for VPN** – allow access of firewall from a VPN.

#### **Caution**

- Receiving incoming ICMP and ICMPv6 packets is not restricted by enabling the firewall.

Accept connections - IPv4					
Protocol	Port	Interface	Source IP	Description	
TCP	80	VPN	192.168.18.250	PC VPN	<a href="#">EDIT</a> <a href="#">REMOVE</a>
TCP	80	LAN	192.168.1.240	PC LAN	<a href="#">EDIT</a> <a href="#">REMOVE</a>
TCP	80	MN	90.182.112.139	PC MN	<a href="#">EDIT</a> <a href="#">REMOVE</a>
					<a href="#">ADD NEW</a>
Accept connections - IPv6					
Protocol	Port	Interface	Source IP	Description	
					<a href="#">ADD NEW</a>

The Accept connection table includes the allowed accesses from the Internet.

- **Protocol** – TCP or UDP.
- **Port** – port number (0 to 65535).
- **Interface** – for selected connection (MN, WAN, LAN, VPN) or any.
- **Source IP** – for a remote device with this address, or with any address if the parameter is empty.
- **Description** – user definable field for a connection.
- **ADD NEW** – add a new connection.

#### **Caution**

- If the firewall is active and access should be allowed to the device web interface from the selected network, the TCP and port 80 (HTTP) or 443 (HTTPS) should be enabled.
- Enabling the LAN firewall will limit the proper functioning of DNS and DHCP servers. To maintain their correct function, it is necessary to enable their connection.

Port	Service	Protocol	Interface
53	DNS server	UDP	LAN
67	DHCP server	UDP	LAN, VPN
68	DHCP klient	UDP	MN, VPN, WAN,
80	HTTP server	TCP	LAN, MN, VPN, WAN
443	HTTPS server	TCP	LAN, VPN, MN, WAN
546	DHCPv6 klient	UDP	VPN, WAN
547	DHCPv6 server	UDP	LAN

### 3.2.7 Port Forwarding

The table on the Port forwarding tab includes the allowed accesses from the Internet to the devices connected on LAN ports and DSL lines.

Typically, an external user is allowed to be connected via WAN/MN to the port on the IP address in the LAN using a router.

*Examples of use:*

- routing of port 443 for HTTPS access inside the private LAN from WAN/MN,
- routing of port 554 for RTSP access inside the private LAN from WAN/MN,
- routing of port 7007 for LiftIP Service tool access inside the private LAN from WAN/MN,
- routing of port 5060 for SIP call into the internal private LAN from WAN/MN (default SIP port is 5060 – programmable on the device).

Port forwarding						
Protocol	Port	Target IP	Target port	Interface	Source IP	Description
UDP	5060	192.168.1.242	5060	any		LiftIP2.0 SIP <a href="#">EDIT</a> <a href="#">REMOVE</a>
TCP	444	192.168.1.242	443	any		LiftIP2.0 <a href="#">EDIT</a> <a href="#">REMOVE</a>
TCP	7007	192.168.1.239	7007	any		LiftIP 5T <a href="#">EDIT</a> <a href="#">REMOVE</a>
TCP	5061	192.168.1.239	5060	any		LiftIP SIP <a href="#">EDIT</a> <a href="#">REMOVE</a>
TCP	554	192.168.1.203	554	any		AXIS M3065-V <a href="#">EDIT</a> <a href="#">REMOVE</a>

This table contains unsaved changes, please use SAVE CHANGES button at the end of the page.

[ADD NEW](#)

[SAVE CHANGES](#)

- **Protocol** – TCP or UDP.
- **Port** – port number (0 to 65535).
- **Target IP** – internal IP address of a device on a LAN port or DSL line.
- **Target port** – required port of a device on a LAN port or DSL line.
- **Interface** – for selected connection (MN, WAN, LAN, VPN) or any.
- **Source IP** – for a remote device with this IP address, or with any address if the parameter is empty.
- **Description** – user definable field for a port forwarding description.

### 3.2.8 Events

The Events tab helps you set sending of information SMS or HTTP commands for events that occurred.

**2N<sup>®</sup> LiftGate** allows you to send messages on events occurred on a device either via SMS by completing the phone number to which the information is to be sent or using HTTP commands by completing the HTTP URL address.

In case no event parameters have been selected, no SMS or HTTP commands will be generated. Select the SMS / HTTP command delay parameter first to set a value.

The device sends the SMS and HTTP commands to all the numbers completed at the URL address in the SMS and HTTP destination table. Complete the SMS text to be sent in the above mentioned SMS table too.

#### Events

---

Identification

- **Identification** – string to be added to the text for all events.

#### SMS destinations

Wildcards for 'SMS text':  
 %i = identification, %s = serial number, %p = SMS parameter of event,  
 %t = date and time, %m = internal message, %% = % character

Description	Phone number	SMS text

The SMS destination table is used as a list of phone numbers to which SMS on occurred events will be sent.

- **Description** – user definable field for a phone number description.
- **Phone number** – destination number for SMS sending (local or international with “+” at the beginning).
- **SMS text** – SMS text definition. Can include Unicode characters and inserted parameters (% character and a letter).

Parameters for SMS and HTTP Destinations	
%i	• inserts the Identification parameter
%s	• inserts the <b>2N® LiftGate</b> serial number
%i	• inserts a text defined for each event type
%i	• inserts event date and time
%m	• inserts an internal message (for some events only)
!!!	• inserts the % character

**You do not have to separate multiple parameters with commas or spaces.**

**The valid formats are: %i%m%i (without spaces as separators), but also %i %m %i (with spaces as separators).**

### HTTP destinations

Wildcards for 'HTTP URL':

%i = identification, %s = serial number, %p = HTTP parameter of event,  
 %t = date and time, %m = internal message, %% = % character

Description	HTTP URL

ADD NEW

The HTTP destination table is used as a list of HTTP URL addresses to which HTTP commands on occurred events will be sent.

- **Description** – user definable field for an HTTP destination address description.
- **HTTP URL** – HTTP command definition. It has to start with a valid URL of the target server followed, optionally, by a text in combination with inserted parameters (% character and a letter, like in SMS) compiled as awaited by the server.

## Event types

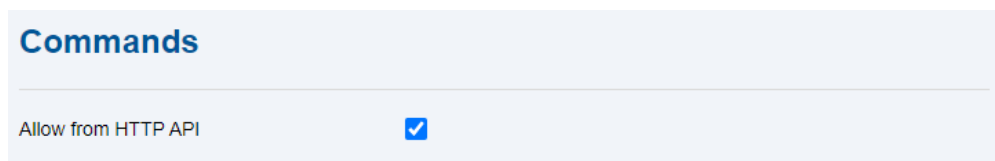
You can enable SMS / HTTP command sending for each type of event separately. You can set a text for each type of event to be inserted in the SMS or HTTP command. A delay (in seconds) can be set for some types of events defining the minimum event duration (input activation, e.g.) for the SMS / HTTP command to be sent.

Event Types	
<b>At power on</b>	<ul style="list-style-type: none"> <li>• <b>2N<sup>®</sup> LiftGate</b> power on (restart)</li> </ul>
<b>Switch to battery</b>	<ul style="list-style-type: none"> <li>• switch to battery supply (ext. power supply failure)</li> </ul>
<b>Switch to external source</b>	<ul style="list-style-type: none"> <li>• switch back to external supply</li> </ul>
<b>50 % battery left</b>	<ul style="list-style-type: none"> <li>• battery drop to 50 % (ext. supply failure)</li> </ul>
<b>10 % battery left</b>	<ul style="list-style-type: none"> <li>• battery drop to 10 % (ext. supply failure)</li> </ul>
<b>Flat battery (turn-off in 10 s)</b>	<ul style="list-style-type: none"> <li>• full battery depletion (<b>2N<sup>®</sup> LiftGate</b> turns off within 10 s)</li> </ul>
<b>Expired battery</b>	<ul style="list-style-type: none"> <li>• battery expiration notification (refer to Configuration / Power Supply and Battery for details)</li> </ul>
<b>Input 1 high</b>	<ul style="list-style-type: none"> <li>• after input 1 activation</li> </ul>
<b>Input 1 low</b>	<ul style="list-style-type: none"> <li>• after input 1 deactivation</li> </ul>
<b>Input 2 high</b>	<ul style="list-style-type: none"> <li>• after input 2 activation</li> </ul>

Event Types	
<b>Input 2 low</b>	<ul style="list-style-type: none"> <li>• after input 2 deactivation</li> </ul>
<b>Connection lost</b>	<ul style="list-style-type: none"> <li>• loss of the Internet connection (SMS is sent instantaneously, HTTP command will not be sent until the connection is recovered to inform the server of the connection loss time)</li> </ul>
<b>Switched to primary direction</b>	<ul style="list-style-type: none"> <li>• switch to the primary direction to the Internet (after primary connection recovery)</li> </ul>
<b>Switched to secondary direction</b>	<ul style="list-style-type: none"> <li>• switch to the backup direction to the Internet (after primary connection failure)</li> </ul>
<b>High temperature, low temperature</b>	<ul style="list-style-type: none"> <li>• exceeding of the internal temperature (%m inserts a text including the board / battery and charging chip temperatures)</li> </ul>
<b>48 V error</b>	<ul style="list-style-type: none"> <li>• 48 V DSL line error (%m inserts a text describing the error)</li> </ul>
<b>HW error</b>	<ul style="list-style-type: none"> <li>• other HW errors (%m inserts a text describing the error)</li> </ul>

### 3.2.9 Commands

In the Commands tab you can enable the reception of commands sent in SMS to **2N® LiftGate**.



- **Allow from HTTP API** – enable the reception of commands via HTTP API (no more restrictions).

### Allow from SMS

Wildcards for 'Phone number': \* = any string to end, ? = any character  
Leave 'Password at SMS beginning' empty if you do not want to use it

Description	Phone number	Password at SMS beginning		
SMS	+420325984698	kd56ur3c5t	<a href="#">EDIT</a>	<a href="#">REMOVE</a>
			<a href="#">ADD NEW</a>	

- **Description** – user definable field for a SMS command enable description
- **Phone number** – sender’s number (only international with “+” at the beginning).
- **Password at SMS beginning** – password to be located at the SMS beginning.



**⚠ Caution**

- If no password is completed, the SMS must contain the command text only.
- If a password is completed, the SMS must contain the password, space and command text.
- If the SMS enable table is not completed, the reception of SMS from any number is allowed.

**⚠ Caution**

- Wildcards for "Phone number": \* = any string to end, ? = any character.
- Leave "Password at SMS beginning" empty, if you do not want to use it.

**Command List**

<b>Command List</b>	
<b>sys reset</b>	<ul style="list-style-type: none"> <li>• restarts the system</li> </ul>
<b>sys getinfo</b>	<ul style="list-style-type: none"> <li>• sends back an SMS with identification data</li> </ul>
<b>cfg default</b>	<ul style="list-style-type: none"> <li>• resets configuration defaults</li> </ul>
<b>cfg apn1 &lt;apn&gt; &lt;name&gt;&lt;pass&gt;</b>	<ul style="list-style-type: none"> <li>• sets the APN parameters, user name and password in the Configuration / Mobile Data, SIM 1 section</li> <li>• &lt;apn&gt; is mandatory, &lt;name&gt; a &lt;pass&gt; may be empty. The command parameters can be separated with a space, comma or semicolon.</li> </ul>
<b>cfg apn2 &lt;apn&gt; &lt;name&gt; &lt;pass&gt;</b>	<ul style="list-style-type: none"> <li>• sets the APN parameters, user name and password in the Configuration / Mobile Data, SIM 2 section</li> <li>• &lt;apn&gt; is mandatory, &lt;name&gt; a &lt;pass&gt; may be empty. The command parameters can be separated with a space, comma or semicolon.</li> </ul>
<b>out &lt;idx&gt; &lt;sts&gt;</b>	<ul style="list-style-type: none"> <li>• sets the logic output (relay) to the required value (parameter &lt;idx&gt; is relay "1" or "2", &lt;sts&gt; is "0" or "1") <ul style="list-style-type: none"> <li>• 0 = open, 1 = closed</li> </ul> The command parameters can be separated with a space, comma or semicolon.</li> </ul>

**⚠ Caution**

- If CFG and APN are only completed, the user name and password fields remain empty.

**✔ Tip****Examples of Commands**

- Command format if a password is set for the phone number:
  - **kd56ur3c5t sys getinfo** for sending ID data or **kd56ur3c5t sys reset** for main unit restart.
  - **kd56ur3c5t cfg apn1 internet.t-mobile.cz,LiftGate** for APN1 setting.
- Command format if there is no password for the phone number:
  - **cfg default** resets the main unit configuration defaults
  - **apn2 cfg APN2 internet.t-mobile.cz LiftGate password1234** for APN2 setting.

### 3.2.10 Power and Battery

The Power and Battery tab helps you complete information on the **2N<sup>®</sup> LiftGate** battery pack state.

#### Power and battery

---

Battery life-time alert  days  
0 - 3600

---

Repeat life-time alert  days  
0 - 3600

---

Periodic restart  days  
0 - 3600

---

Restart time  hours  minutes  
0 - 23                      0 - 59

- **Battery life-time alert** – timeout (in days) following the battery pack installation after which the battery expiration warning (command) should be sent.
- **Repeat life-time alert** – number of days after which the battery expiration warning should be resent (0 means send just once).

- **Periodic restart** – number of days after which a preventive system restart should be made (0 disables this function).
- **Restart time** – time (hours and minutes) when the preventive restart should be performed.

### Temperature

---

Upper temperature limit  [°C]  
20 - 60

---

Lower temperature limit  [°C]  
-20 - 10

- **Upper temperature limit** - set a value at which the device may report overheating.
- **Lower temperature limit** - set a value at which the device may report undercooling.

**Note**

Enable the overheating / undercooling event in the Settings.

### 3.2.11 Input and Output Pins

The Input and Output Pins tab informs of the pin states and settings.

### Input pins

---

Input 1 delay  seconds/10  
0 - 36000

---

Input 2 delay  seconds/10  
0 - 36000

- **Input 1&2 delay** – protective period (in tenths of a second) during which the pin state change should last until the change is detected on the input pin.

**Note**

- The input activation generates an event: Input X high.
- The input deactivation generates an event: Input X low.

### Output pins

Output 1 start state	<input type="text" value="0 (OFF)"/>
Output 1 ON duration	<input type="text" value="0"/> seconds/10 0 - 36000
Output 1 OFF duration	<input type="text" value="0"/> seconds/10 0 - 36000
Output 1 ON event	<input type="text" value="None"/>
Output 1 OFF event	<input type="text" value="None"/>
Output 2 start state	<input type="text" value="0 (OFF)"/>
Output 2 ON duration	<input type="text" value="0"/> seconds/10 0 - 36000
Output 2 OFF duration	<input type="text" value="0"/> seconds/10 0 - 36000
Output 2 ON event	<input type="text" value="None"/>
Output 2 OFF event	<input type="text" value="None"/>

The input pin (IN1, IN2) and logic output (REL 1, REL 2) parameters are identical for both the outputs.

Upon the **2N<sup>®</sup> LiftGate** power up / restart, the states of the two outputs are OFF and switch to ON in a few seconds (after the system start up is completed) if configured so. If the Duration parameter is set to 0, the required ON / OFF state will be permanent, otherwise the required state holds as set in the Duration parameter and then switches back. In case the Event parameter is set to a valid value, the output closes / opens whenever the set event occurs.

The output states can also be controlled using SMS or HTTP commands.

- **Output 1, 2 start state** – initial output state at system power up.
- **Output 1,2 ON duration** – ON state duration (in tenths of a second).
- **Output 1,2 OFF duration** – OFF state duration (in tenths of a second).
- **Output 1,2 ON event** – event that initiates a state change to ON.
- **Output 1,2 OFF event** – event that initiates a state change to OFF.

### 3.2.12 Access

The Access tab helps you set access to the **2N® LiftGate** web interface.

#### Access

---

Auto logout time  minutes  
1 - 600

- **Auto logout time** – idle time (in minutes) after which the user is automatically logged out.

#### Admin password

---

Current password

---

New password   
At least 8 characters, 1 digit, 1 capital letter, 1 small letter

---

Confirm new password

- **Current password** – administrator (Admin) password with all rights.
- **New password** – new password.
- **Confirm new password** – new password confirmation.
- **CHANGE PASSWORD** – confirm and save the new password.

#### Guest password

---

New password   
At least 8 characters, 1 digit, 1 capital letter, 1 small letter

---

Confirm new password

Guest password with limited rights. The guest has only access to the State tab and no access to the Maintenance / Configuration tab.

- **New password** – new password.
- **Confirm new password** – new password confirmation.
- **CHANGE PASSWORD** – confirm and save the new password.

**HTTPS**

Certificate  No file selected.

HTTPS is used for uploading the certificate for encrypted access via HTTPS.

- **Certificate / Upload** – certificate file uploading button (if no file is uploaded, the automatically generated self-signed certificate is used).

### 3.2.13 Time

The Time tab helps you set the exact time to be used in **2N<sup>®</sup> LiftGate**.

Time and date are always set automatically from the mobile network a few seconds after the system startup (the time of the first system log records is thus 0:00 and the date is Jan 1). Only if no SIM card is inserted or no mobile network signal is available, the NTP server has to be used. If the first selected NTP server fails to respond, use the second and then the third one.

**Time**

Timezone

NTP enable

NTP server 1

NTP server 2

NTP server 3

- **Time zone** – select the time zone (shift with respect to UTC).
- **NTP enable** – enable time setting according to the NTP server.
- **NTP server 1** – NTP server 1 domain or IP address.
- **NTP server 2** – NTP server 2 domain or IP address.
- **NTP server 3** – NTP server 3 domain or IP address.

### 3.2.14 Log

The Log tab is used for logging various events or errors during operation of **2N® LiftGate**.



The screenshot shows a light blue header with the word "Log" in bold. Below the header, there is a label "Remote syslog server" followed by a rectangular text input field.

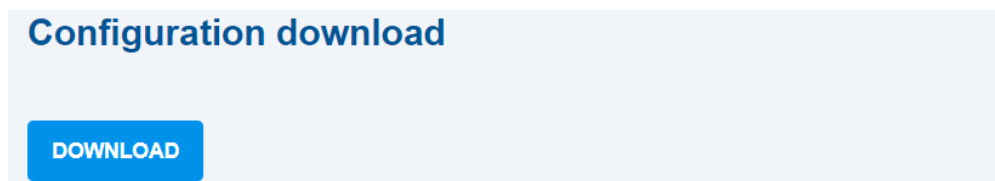
- **Remote syslog server** – used for completing the IP address of the server to which SYSLOG records are to be sent.

#### **Caution**

We strongly recommend that the device logs be checked on a periodic basis so that the maximum data and device security level can be maintained. Logs are an important error identification and troubleshooting tool.

## 3.3 Maintenance / Configuration

The Maintenance / Configuration tab is used for the **2N® LiftGate** configuration and firmware maintenance. It helps back up and reset all the parameters, upgrade firmware and/or reset all the device parameters to their default values.



The screenshot shows a light blue header with the text "Configuration download" in bold. Below the header, there is a blue button with the word "DOWNLOAD" in white capital letters.

- **Download configuration** – download the device configuration in the JSON format and save it to a file.

#### **Caution**

To minimize the risk of data loss in case of unexpected events, we recommend backing up the configuration regularly.



## Configuration upload

Browse... No file selected.

UPLOAD

- **Upload configuration** – upload configuration in the JSON format from a selected system to the device. Force the device restart to apply the uploaded configuration.

### ⚠ Caution

- The configuration file does not include the Configuration / Access login date.

## Factory reset

Default configuration will be set and device will be restarted. It can take several minutes.

CONFIRM FACTORY RESET

- **Factory reset** – reset the configuration default values. By confirming the factory default reset the device restart will be forced automatically.
- [3.3.1 Restart](#)
- [3.3.2 Firmware](#)
- [3.3.3 Battery Installation](#)
- [3.3.4 Log](#)

### 3.3.1 Restart

The Restart tab is used for forcing the **2N<sup>®</sup> LiftGate** restart.

## Restart

Device will be restarted. It can take several minutes.

CONFIRM RESTART

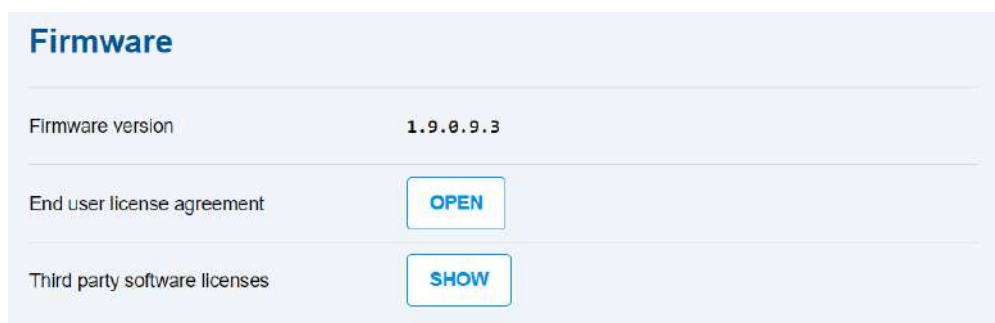
- **CONFIRM RESTART** – an immediate system restart is performed.

#### **Caution**

- Should the main unit system be turned off (or restarted) unintentionally, including simultaneous disconnection of external and battery supplies, e.g., the system log will not be saved properly and this may result in a file damage or loss.

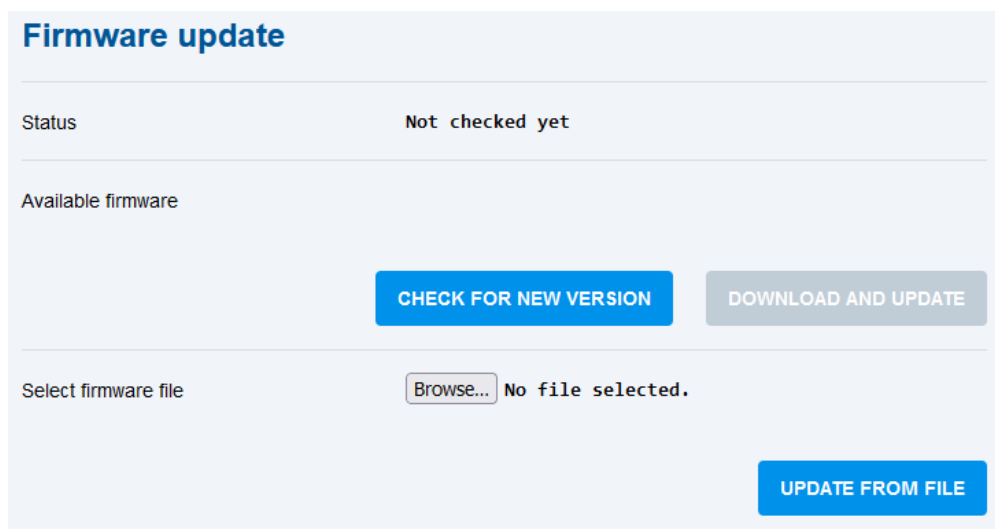
### 3.3.2 Firmware

The Firmware tab is used for the **2N LiftGate** firmware administration.



The screenshot shows the 'Firmware' tab interface. It features a title 'Firmware' at the top left. Below it, there are three rows of information: 'Firmware version' with the value '1.9.0.9.3', 'End user license agreement' with an 'OPEN' button, and 'Third party software licenses' with a 'SHOW' button.

- **Firmware version** – current firmware version.
- **End user license agreement** – license agreement – EULA.
- **Third party library licenses** – display the list of third party opensource libraries used in **2N LiftGate**.



The screenshot shows the 'Firmware update' tab interface. It features a title 'Firmware update' at the top left. Below it, there are three sections: 'Status' with the value 'Not checked yet', 'Available firmware' with two buttons 'CHECK FOR NEW VERSION' and 'DOWNLOAD AND UPDATE', and 'Select firmware file' with a 'Browse...' button and the text 'No file selected.' Below this is an 'UPDATE FROM FILE' button.

- **Status** – update server connection status.
- **Available firmware** – display the latest FW version available on the update server.
- **CHECK NEW VERSION** – check the availability of the latest FW version on the update server.
- **DOWNLOAD AND UPDATE** – download and update the latest available FW version to the device.
- **Select firmware file** – download and update FW from a local file.
- **UPDATE FROM FILE** – send the local file with the new FW to the device and update.

**⚠ Caution**

- Make sure that a battery pack charged to 90 % at least is connected to **2N LiftGate** to download and update the new FW version successfully. The correct battery pack state for upgrade is indicated by a slow blue flashing of the POWER LED on the device.
- It is recommended that hard reset of the Internet browser window is made using Ctrl+F5 upon login to the device web interface after upgrade. Thus, all the previously made changes will be completely uploaded.
- It is recommended that the latest FW version is always kept for device security and proper access management.

**ℹ Note**

**2N LiftGate** is equipped with the Secure Boot function in firmware version 1.12.0.0.4 and later. This protection guarantees that the firmware supplied by the manufacturer can only be uploaded, thus eliminating the risk of the use of unauthorized software. This provides the maximum security and harmless operation of the device.

### 3.3.3 Battery Installation

The Battery Installation tab shows information on the battery pack used.

Installed battery	
Capacity	9000 mAh
Installation date	2021/5/24

- **Capacity** – battery pack nominal capacity (mAh).
- **Installation date** – battery pack installation date (year / month / day).

### Install new battery

---

New battery installed

---

Capacity  mAh  
0 - 100000

---

Installation date  /  /   
Year Month Day

**CONFIRM NEW BATTERY INSTALLATION**

- **New battery installed** – allow installation of a new battery pack.
- **Capacity** – nominal capacity value (mAh).
- **Installation date** – installation date used for the battery expiration warning.
- **CONFIRM NEW BATTERY INSTALLATION** – save the new battery parameters into the system.

**Note**

- The installed battery parameters are not part of the system configuration and thus are not changed during the factory default reset.

### 3.3.4 Log

The Log tab shows records on the system start and all important events or errors, helps detect operational problems and provides firmware troubleshooting support to the service department.



- **DOWNLOAD** – download the log content to a file.
- **REFRESH** – refresh the log displayed.
- **Filter** – display only the log rows that contain the selected string.
- **SET** – display the log to be filtered.
- **CLEAR** – delete the set filter and show the complete log content.

## 4. Function and Use

**2N® LiftGate** is an IoT communication system comprised of a main unit and 1 to 4 Cabin switch units. The system ensures communication between a lift cabin and the lift administrator's surveillance center, especially in emergency situations due to a power supply failure.

The main unit is an LTE router, which enables LAN connection to the Internet either via a mobile provider LTE network or a WAN interface. You can configure both the connection types as primary / backup as necessary.

The LAN is composed of 3 RJ45 LAN ports (one with PoE) located on the main unit and up to 4 cabin units (Cabin switch) connected to the main unit via a 2-wire cable. The cabling also provides cabin units and connected device with power supply and data. The cabin units transfer data from the 2-wire to 4 RJ45 LAN ports (2 with Poe supply). **2N® LiftGate** differs from common routers by its ability to operate from a backup battery during power outages.

The Ethernet ports on the main unit support the rate of 10 / 100 / 1000 Mbps and are marked as LAN1, LAN2 and LAN3. 48 V (PoE) supply is available on port LAN1 for feeding a connected device (IP intercom or IP camera, e.g.).

The DSL line is a two-wire interface for Cabin switch connection.

It combines 48 V supply and communication rate of up to 100 Mbps depending on the cables used and the distance between the cabin and main units.

As a battery supply backup for the main unit and connected cabin units during power outages, a gel-lead-acid accumulator (internal or external) is used. It ensures continuous operation during power outages for a period of time that corresponds to the count of devices connected to the main unit and the aggregate load, see the table below. When the battery gets completely discharged, the system shuts down correctly. A proper battery charging is controlled by a specialized circuit, which provides quick charging after power recovery and subsequent full charging level.

<b>2N® LiftGate operation time with different battery loads</b>		
<b>2N® LiftGate</b> 5024101xx	<ul style="list-style-type: none"> <li>• 9 Ah battery pack</li> <li>• support for 2 Cabin switch units</li> </ul>	<ul style="list-style-type: none"> <li>• The aggregate working load that meets the condition of 60/15 minutes of operation/ call is 48 W.</li> </ul>
		<ul style="list-style-type: none"> <li>• The aggregate working load that meets the condition of 4 hours of operation is 15 W.</li> </ul>

<b>2N<sup>®</sup> LiftGate operation time with different battery loads</b>		
<b>2N<sup>®</sup> LiftGate</b> 5024201xx	<ul style="list-style-type: none"> <li>• 9 Ah battery pack</li> <li>• support for 4 Cabin switch units</li> </ul>	<ul style="list-style-type: none"> <li>• The aggregate working load that meets the condition of 60/15 minutes of operation/ call is 55 W.</li> </ul>
		<ul style="list-style-type: none"> <li>• The aggregate working load that meets the condition of 4 hours of operation is 15 W.</li> </ul>
<b>2N<sup>®</sup> LiftGate</b> 5024201xx	<ul style="list-style-type: none"> <li>• 18 Ah battery pack</li> <li>• support for 4 Cabin switch units</li> </ul>	<ul style="list-style-type: none"> <li>• The aggregate working load that meets the condition of 60/15 minutes of operation/ call is 110 W.</li> </ul>
		<ul style="list-style-type: none"> <li>• The aggregate working load that meets the condition of 4 hours of operation is 30 W.</li> </ul>
<b>The data applies to a new battery pack and temperature of 25 °C.</b>		

- [4.1 Cabin Switch Connection](#)
- [4.2 Supported Devices](#)
- [4.3 Maintenance](#)

## 4.1 Cabin Switch Connection

The Cabin switch helps you connect up to 4 IP devices located in the lift cabin. It transfers data from the DSL line to 4 Ethernet ports, which support the rate of 10 or 100 Mbps. Two ports provide PoE 802.3af Class 2 (6.49 max) and allow up to 2 devices without power supply to be connected. Typically, they include an emergency communicator, an IP camera and an access system reader.

It is interconnected with the **2N<sup>®</sup> LiftGate** main unit and communicates with it using a 2-wire cable carried in a traveling cable from the lift cabin to the machine room.

The Cabin switch unit is intended for lift cabin installation and suspended using screws or mounted on a DIN rail. There is a DIN rail mounting profile with a lock on the cabin unit back side. Put the upper profile side on the DIN rail and push the cabin unit bottom to fit and lock the cabin unit to the DIN rail. To release the cabin unit from the DIN rail, pull the DIN rail lock a little, using a screwdriver, for example. Now remove the cabin unit from the DIN rail.

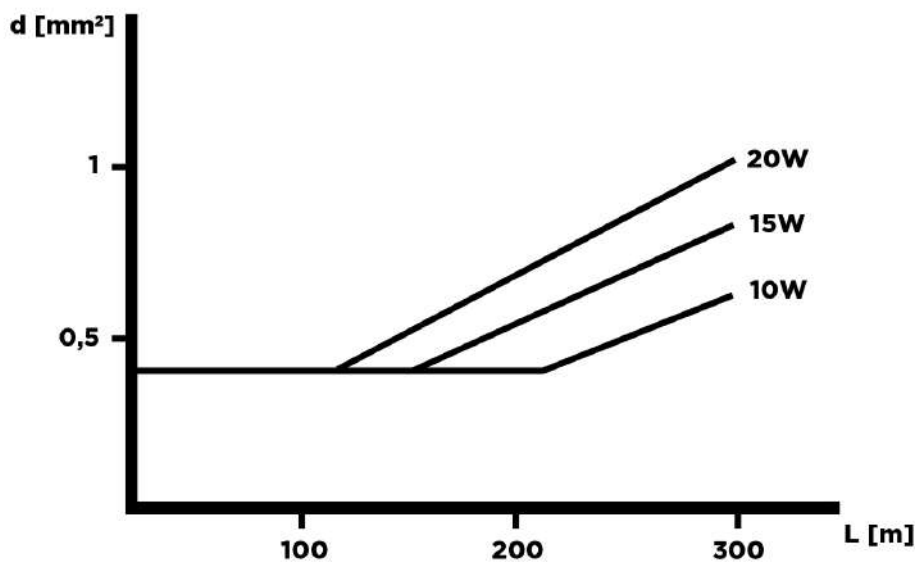
1 or 2 48 V power supplies (marked as 1xPS or 2xPS) are available on the main unit for feeding the cabin unit, depending on the device version. Each power supply is able to feed 1 or 2 cabin units, i.e. the total of up to 4 units in the two-supply version. Each cabin unit can be installed in a



different lift cabin. The power supply is short circuit resistant and has a resettable electronic fuse.

The table and nomogram below include the cabling conditions between the main unit and Cabin switch.

Length [m]	Minimum cross-section at maximum load [mm <sup>2</sup> ]	Minimum cross-section at just one 2N <sup>®</sup> LiftGate load [mm <sup>2</sup> ]
0–50	0.3	0.3
50–100	0.5	0.3
100–200	0.75	0.3
200–300	1	0.3



**⚠ Caution**

- The values provided in the table above define under what conditions the main unit is capable of ensuring the operation of the Cabin switch and device connected to it.
- The cabling length and cross-section do not affect the signal strength, the signal depends on the shaft interference.

## 4.2 Supported Devices

To ensure emergency communication in the lift, we recommend that **2N® LiftGate** should be interconnected with the **2N® LiftIP** communicator. To ensure the lift cabin video surveillance, we recommend that the **M3065-V** or **P9106-E** IP cameras supplied by Axis should be used.

## 4.3 Maintenance

The battery pack state is absolutely essential for the operation of the main unit and connected cabin units.

### Operation Interruption and Battery Replacement

A new 9Ah or 18Ah lead-acid AGM battery can only be used for replacement.

Battery disconnection and replacement:

1. Disconnect the main unit from the mains supply. Remove the upper cover (refer to [2.3 Electric Installation](#)).
2. Disconnect the FASTON cable terminals connecting the battery with the motherboard.
3. Slide the old battery out and replace it with a new one.
4. Interconnect the battery with the motherboard using the FASTON cable and reconnect the mains supply.
5. Replace the upper cover and tighten the cover fitting screws. Make sure that the grounding wire is connected with the cover while replacing the cover!
6. Confirm the new battery installation and complete the installation date in the Maintenance / Battery Installation tab on the web interface.

#### **Caution**

- Never keep the battery pack discharged too long.
- When completely depleted, the battery should be recharged as soon as possible.
- It is necessary to replace the battery pack with a new one every 2 years to ensure power failure backup.

**⚠ Warning**

- Remember to disconnect the mains supply before installing, maintaining or checking the main unit.
- Use only the battery packs supplied or approved by the manufacturer for replacement! If a wrong type is used, the battery pack can start burning or explode or the central unit electronics can get damaged.
- Expired battery packs contain hazardous chemical substances and have to be disposed of in accordance with the applicable environmental regulations!

**⚠ Accident hazard**

- **WARNING!** The live parts are freely accessible when the main unit cover has been removed!
- Be very careful and never touch the dangerous live parts!
- Never work with the main unit on and the protective cover removed unless you are a properly trained person with a higher qualification and educated according to Regulation 50/1978 Coll.
- Always use appropriate protective gloves while handling a battery pack. The purpose of the gloves is to protect against potential contact with electrolyte and minimize the the risk of burns.
- Never install a damaged battery pack. Never insert a battery pack in the main unit if you suspect any electrical or mechanical damage.
- Never use **2N<sup>®</sup> LiftGate** without the protective cover to avoid electric shock hazard, wrong functionality due to misconnection and, last but not least, damage or destruction of the **2N<sup>®</sup> LiftGate** electronics as a result of an electric short-circuit or adverse environmental effects. Without the cover, **2N<sup>®</sup> LiftGate** is not protected against incidental touch and water.
- Always make sure before installation that the **2N<sup>®</sup> LiftGate** motherboard is not damaged!
- Do not connect devices other than the approved ones. Unapproved devices may cause electrical accident or device damage.

## Disposal of Device

If you need to dispose of the device, follow the appropriate safety and environmental protection requirements. Make sure that the disposal complies with the applicable waste management laws and standards in order to protect the environment and minimize potential risks and hazards associated with disposal of electronic equipment.

 **Warning**

Make sure before disposal that all of your sensitive data have been removed by factory default resetting to avoid unauthorized access to information.

## 5. Technical Parameters

### Power supply

- **Voltage:** 100–240 V AC
- **Frequency:** 50/60 Hz
- **Supply output:**
  - 65 W version with support for 2 Cabin switches (2x CS)
  - 120 W version with support for 4 Cabin switches (4x CS)

### Power supply backup

- 12 V / 9 Ah internal gel-lead-acid accumulator
- optional connection of an external higher-capacity gel-lead-acid accumulator

### User interface

- **Control:** web interface
- **Default ID/Password:** admin/2n
- **Device State Indicator:** refer to [2.5 Overview of LED Indicators](#)

### Internet Protocol

- IPv4
- IPv6
- 464XLAT support

### Antenna

- **Impedance:** 50  $\Omega$
- 2x SMA connector (for main / optional antenna)

### DSL (Cabin switch line):

- 48 V / 1 A version with support for 2 Cabin switches (Cabin switch 1&2)
- 48 V / 1 A version with support for 4 Cabin switches (Cabin switch 3&4)

### I/O

- **INP:**
  - pin1: 10.5 V 5 mA
  - pin2: input 1 – 47 kOhm serial resistor, < 2 V = LOW, > 4 V = HIGH, 30 V DC max
  - pin3: input 2 – 47 kOhm serial resistor, < 2 V = LOW, > 4 V = HIGH, 30 V DC max
  - pin4: GND
- **REL:**
  - **Contact resistance:** 75 mOhm 1 A, 6 V DC
  - **Operational contact parameters:** 30 V / 1 A DC
  - **Max allowed contact current:** 2 A
  - **Pin 1–2 (4–5):** closed at relax (NC)
  - **Pin 2–3 (5–6):** open at relax (NC)

### Frequency bands

- **EU version:**
  - LTE FDD: B1/B3/B5/B7/B8/B20
  - LTE TDD: B38/B40/B41
  - WCDMA: B1/B5/B8
  - GSM: B3/B
- **AU version:**
  - LTE FDD: B1/B2/B3/B4/B5/B7/B8/B28
  - LTE TDD: B40
  - WCDMA: B1/B2/B5/B8
  - GSM: B2/B3/B5/B8
- **US version:**
  - LTE FDD: B2/B4/B12
  - WCDMA: B2/B4/B5

### Interface

- **PoE:** 48 V / 6.5 W max, Class2
- refer to [2.4 Overview of Connectors](#)

### Weight

- 2.2 kg without battery pack
- 4.7 kg with battery pack

### Dimensions

- 270 x 240 x80 mm

### IP cover

- **IP30**

**Operating temperature:** -20 °C to +50 °C

**Storing temperature:** -15 °C to +40 °C

**Maximum altitude:** 2 000 m above sea level

### Cabin switch

- **Power source:** 48 V / 19 W max via DSL line
- **Interface:**
  - **OUT:** output for output peripheral connection (12 V DC / 100 mA / 1.2 W)
  - **DSL:** for connection with the main unit
    - 19 W max consumption (own consumption + OUT port = 4W, 15 W max from PoE LAN 1+2)
  - **4x LAN:**
    - for connection of 4 IP devices of any type, first 2 positions provide PoE (48 V / 7.5 W / port, 15 W aggregate)
    - 10/100BaseT, LAN1/2 PoE, RJ-45; Ca5e or higher (recommended)
- **Operating temperature:** -20 °C to +50 °C

- **IP cover**
  - IP30
- **Maximum altitude:** 2 000 m above sea level
- **Dimensions:** 145 x 95 x 33 mm

## 6. Supplementary Information

This section describes supplementary information on the product.

Here is what you can find in this section:

- [6.1 Troubleshooting](#)
- [6.2 Directives, Laws and Regulations](#)
- [6.3 General Instructions and Cautions](#)

### 6.1 Troubleshooting

Problem	Solution
No LED is on on <b>2N® LiftGate</b>	<ul style="list-style-type: none"> <li>• Check the power supply and battery status.</li> </ul>
Guest user name access is unavailable	<ul style="list-style-type: none"> <li>• Set the access first on the Configuration / Access tab.</li> </ul>
Local time and UTC in the device configuration shows 1.2. 1980	<ul style="list-style-type: none"> <li>• Enable NTP on the Configuration / Time tab.</li> <li>• Check the Internet access.</li> </ul>



For the most frequently asked questions refer to [faq.2n.cz](http://faq.2n.cz).

### 6.2 Directives, Laws and Regulations

**2N® LiftGate** conforms to the following directives and regulations:

- 2014/35/EU for electrical equipment designed for use within certain voltage limits
- 2014/30/EU for electromagnetic compatibility
- 2014/33/EU for lifts and safety components for lifts
- 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment
- 2012/19/EU on waste electrical and electronic equipment

### 6.3 General Instructions and Cautions

Please read this User Manual carefully before using the product. Follow all instructions and recommendations included herein.

Any use of the product that is in contradiction with the instructions provided herein may result in malfunction, damage or destruction of the product.



The manufacturer shall not be liable and responsible for any damage incurred as a result of a use of the product other than that included herein, namely undue application and disobedience of the recommendations and warnings in contradiction herewith.

Any use or connection of the product other than those included herein shall be considered undue and the manufacturer shall not be liable for any consequences arisen as a result of such misconduct.

Moreover, the manufacturer shall not be liable for any damage or destruction of the product incurred as a result of misplacement, incompetent installation and/or undue operation and use of the product in contradiction herewith.

The manufacturer assumes no responsibility for any malfunction, damage or destruction of the product caused by incompetent replacement of parts or due to the use of reproduction parts or components.

The manufacturer shall not be liable and responsible for any loss or damage incurred as a result of a natural disaster or any other unfavourable natural condition.

The manufacturer shall not be held liable for any damage of the product arising during the shipping thereof.

The manufacturer shall not make any warrant with regard to data loss or damage.

The manufacturer shall not be liable and responsible for any direct or indirect damage incurred as a result of a use of the product in contradiction herewith or a failure of the product due to a use in contradiction herewith.

All applicable legal regulations concerning the product installation and use as well as provisions of technical standards on electric installations have to be obeyed. The manufacturer shall not be liable and responsible for damage or destruction of the product or damage incurred by the consumer in case the product is used and handled contrary to the said regulations and provisions.

The consumer shall, at its own expense, obtain software protection of the product. The manufacturer shall not be held liable and responsible for any damage incurred as a result of the use of deficient or substandard security software.

The consumer shall, without delay, change the access password for the product after installation. The manufacturer shall not be held liable or responsible for any damage incurred by the consumer in connection with the use of the original password.

The manufacturer also assumes no responsibility for additional costs incurred by the consumer as a result of making calls using a line with an increased tariff.

## Electric Waste and Used Battery Pack Handling



Do not place used electric devices and battery packs into municipal waste containers. An undue disposal thereof might impair the environment!

Deliver your expired electric appliances and battery packs removed from them to dedicated dumpsites or containers or give them back to the dealer or manufacturer for environmental-friendly disposal. The dealer or manufacturer shall take the product back free of charge and without requiring another purchase. Make sure that the devices to be disposed of are complete.

Do not throw battery packs into fire. Battery packs may not be taken into parts or short-circuited either.

