Nice

SingleSwitch-Control

**Turning electrical devices
on or off remotely**

EN - Instructions and warnings for installation and use

Nice

1 WARNINGS AND GENERAL PRECAUTIONS

- ⚠ **CAUTION! – Any use other than that specified herein or in environmental conditions other than those stated in this manual is to be considered improper and is strictly forbidden!**

- ⚠ **CAUTION! – Important instructions: keep this manual in a safe place to enable future product maintenance and disposal procedures.**

- ⚠ **CAUTION! – Read this manual before attempting to install the device! Carefully read all parts of this manual. If in doubt, suspend installation immediately and contact the Nice Technical Assistance.**

- ⚠ **CAUTION! – All installation and connection operations need to be performed exclusively by suitably qualified and skilled personnel with the unit disconnected from the mains power supply**

- The product packaging materials must be disposed of in full compliance with local regulations.

- Never apply modifications to any part of the device. Operations other than those specified can cause malfunctions. The manufacturer declines all liability for damage caused by makeshift modifications to the product.

- Never place the device near the sources of heat or expose to naked flames. These actions can damage the product and cause malfuntions.

- This product isn't intended for use by people (including children) with reduced physical, sensory or mental capabilities or who lack experience and knowledge, unless they are supervised by a person responsible for their safety.

- The device is designed to operate in an electrical home installation. Faulty connection or use can result in a fire or electric shock.

- Even when the device is turned off, voltage can be present at its terminals. Any maintenance introducing changes to the configuration of connections or the load must be always performed with a disabled fuse.

- All works on the device can be performed only by a qualified and licensed electrician in complience with national regulations.

- Connecting the SingleSwitch-Control in a manner inconsistent with manual may cause risk to health, life or material damage.

2 PRODUCT DESCRIPTION

The NICE SingleSwitch-Control is designed for installation in a standard wall switch boxes or anywhere else where the control of electric devices is needed.

The NICE SingleSwitch-Control enables the control of connected devices either by the Z-Wave Plus® network or by a directly connected switch. The device has an active power and energy consumption metering functionality.

2.1 - Main features

• The device is compatibile with any Z-Wave® or Z-Wave Plus® controller.
• It supports protected mode (Z-Wave® network security mode) with AES-128 encryption.
• It supports advanced microprocessor control.
• It has an active power and energy metering functionality.
• It supports various types of switches, such as momentary, toggle and three-way.
• It needs to be installed in wall switch boxes of suitable dimensions, conforming to provisions of applicable regulations.
• SingleSwitch-Control is an extension unit.

2.2 - Z-Wave® comaptibility

The NICE SingleSwitch-Control is fully compatible with Z-Wave Plus®.

This device can be used with all Z-Wave Plus® certified devices and should be compatible with such devices produced by other manufacturers. All non-battery operated devices within the network act as repeaters to increase the network reliability.

The device is a Security Enabled Z-Wave Plus® product and to fully utilize it a Security Enabled Z-Wave® Controller is needed.

2.3 - Supported loads

⚠ **CAUTION! – Applied load and SingleSwitch-Control itself may be damaged if the applied load is inconsistent with the technical specifications!**

SingleSwitch-Control can operate under the following loads:
• Conventional incandescent light sources
• Halogen light sources
• Electrical appliances whith power consumption not exceeding the limit for a specified device

SingleSwitch-Control needs to be connected according to the following rules:
• Don't connect loads greater than recommended.
• Don't connect types of loads other than resistive and incandescent.

Table A1 - SingleSwitch Control - Supported load types (IEC standards)		
	Resistive load	**Tungsten load**
Per channel	6.5 A	6.5 A
Overall	10 A	10 A

Note

IEC certification applies in the EU countries and in most countries using 220-240 V~.

⚠ ⚠ **CAUTION! – Danger of electrocution!**

3.1 - SingleSwitch-Control connection rules

- Connect only as shown in Figure 1 below..
- SingleSwitch-Control should be installed in a wall switch box compliant with a relevant national safety standards. The box should be at least 60 mm deep.
- Electrical switches used in installation should be compliant with the relevant safety standards.
- The length of wires used to connect the control switch shouldn't exceed 10 m.

3.2 - SingleSwitch-Control installation

1. Switch off the mains voltage (disable the fuse).
2. Open the wall switch box.
3. Connect as shown in Figure 1 below.
4. After verifying the correctness of connection, switch on the mains voltage.
5. Add the device to the Z-Wave® network.
6. Turn off the mains voltage, then arrange the device and its antenna in a wall switch box.
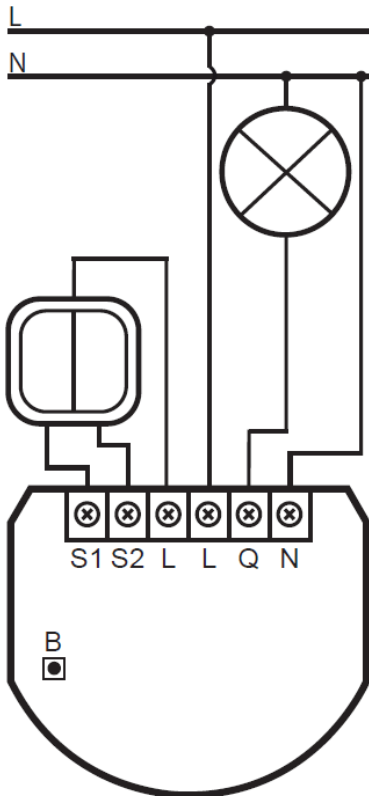7. Close the wall switch box and turn on the mains voltage.

Figure 1: Example connection of SingleSwitch-Control

- **S1** - 1st switch terminal (activates the learning mode)
- **S2** - 2nd switch terminal
- **L** - live lead terminal
- **Q1** - 1st channel output terminal
- **N** - neutral lead terminal
- **B** - service button (used to add/remove the device and navigate the menu)

3.3 - Tips for arranging the antenna

- Locate the antenna as far from metal elements as possible (such as connecting wires, bracket rings) to prevent interferences.
- Metal surfaces in the direct vicinity of the antenna (such as flush mounted metal boxes, metal door frames) can impair signal reception.
- Don't cut or shorten the antenna, its length is perfectly matched to the band in which the system operates.
- Make sure no part of the antenna sticks out of the wall switch box.

Notes

- In case of wall-mounting, don't place the device higher than 2 meters from the floor.
- Switch connected to the S1 terminal is a master switch. It activates the basic functionality of the device (turning the first load ON/OFF) and activates the learning mode (adding/removing).
- The switch connected to the S2 terminal turns the second load in the device ON/OFF.
- After switching on the mains voltage LED indicator signals Z-Wave® network inclusion state:
  - **Green** – device added
  - **Red** – device not added

4   ADDING TO AND REMOVING FROM Z-WAVE® NETWORK

- In case of problems with adding/removing the device using S1 switch, use B-button instead (located on the housing).
- While adding SingleSwitch-Control to the network with connected toggle switch, ensure that the switch contact is open (off). Otherwise it prevents adding/removing the device to/from the network.
- After pressing the switch 3 times the device tires to add itself to the network for 4 minutes.
- Adding the device in security mode needs to be performed up to 2 meters from the controller

4.1 - Adding device to Z-Wave® (Inclusion)

It's the Z-Wave® device learning mode. It enables adding the device to an existing Z-Wave® network.

To add the device to the Z-Wave® network:

1. Place the SingleSwitch-Control within the direct range of your Z-Wave® controller.
2. Identify the S1 switch.
3. Set the main controller in the add mode (Security/Non-Security). See the controller manual.
4. Press the S1 switch quickly, three times.
5. Wait for the adding process to end.
6. Adding is confirmed by the Z-Wave® controller message.

4.2 - Removing device from Z-Wave® (Exclusion)

It's the Z-Wave® device learning mode. It enables removing the device from an existing Z-Wave® network.

To remove the device from the Z-Wave® network:

1. Place the SingleSwitch-Control within the direct range of your Z-Wave® controller.
2. Identify the S1 switch.
3. Set the main controller in the remove mode. See the controller manual.
4. Press the S1 switch quickly, three times.
5. Wait for the removing process to end.
6. Removing is confirmed by the Z-Wave® controller message.

Note

Removing SingleSwitch-Control from the Z-Wave® network restores all the default settings of the device but doesn't reset the power metering data.

5   DEVICE CONFIGURATION AND OPERATION

5.1 - Controlling device with momentary switch and parameter 20 set to 0

- **1 x click**:
  - Change the state of the connected load to the opposite (S1 switches the 1st channel, S2 switches the 2nd channel).
  - Change the state of the 2nd, 3rd (S1 switch), 4th and 5th (S2 switch) association group to the opposite one.
- **2 x click**:
  - Set the maximum level of devices associated in the 2nd, 3rd (S1 switch), 4th and 5th (S2 switch) group.
- **Hold**:
  - Start the smooth control of devices associated in the 3rd (S1 switch) and 5th (S2 switch) group.
- **Release**:
  - Stop smooth – change the channel state to the opposite one.

5.2 - Controlling device with toggle switch and parameter 20 set to 1

- **Close switch contact:**
  - Turn ON the connected load (S1 switches the 1st channel, S2 switches the 2nd channel),
  - Turn ON the devices associated in the 2nd, 3rd (S1 switch), 4th and 5th (S2 switch) group.
- **Open switch contact:**
  - Turn OFF the connected load (S1 switches the 1st channel, S2 switches the 2nd channel).
  - Turn OFF the devices associated in the 2nd, 3rd (S1 switch), 4th and 5th (S2 switch) group.

5.3 - Controlling device with toggle switch and parameter 20 set to 2

- **Change the switch position once:**
  - Change the state of the connected load to the opposite one (S1 switches the 1st channel, S2 switches the 2nd channel),
  - Change the state of the 2nd, 3rd (S1 switch), 4th and 5th (S2 switch) association group to the opposite one.
- **Change the switch position twice:**
  - Set the maximum level of devices associated in the 2nd, 3rd (S1 switch), 4th and 5th (S2 switch) group.

5.4 - Controlling device with B-button

- **1 x click**:
  - Cancel alarm mode (flashing alarm).
  - Select the desired menu position (if menu is active).
  - Exit the range test.
  - Turn the 1st channel ON/OFF.
- **3 x click**:
  - Send the Node Info Z-Wave® command frame (adding/removing).
- **Hold**:
  - Enter the menu (confirmed by the LED indicator).

5.4.1 - Using menu to perform Z-Wave® netowrk actions

1. Switch off the mains voltage (disable the fuse).
2. Remove the SingleSwitch-Control from the wall switch box.
3. Switch on the mains voltage.
4. Press and hold the B-button to enter the menu.
5. Wait for the LED to indicate the desired menu position with colour:
   - **Green** – reset energy consumption memory
   - **Violet** – start range test
   - **Yellow** – reset the device
6. Quickly release and click the B-button again.

5.5 - Controlling device with NICE controller

After adding the SingleSwitch-Control to the network, it is represented in the interface by two similar icons, one for each channel. The icon for the second channel is hidden for SingleSwitch-Control. For turning the device ON/OFF the ON and OFF icons are used for operating the load.

5.6 - Resetting SingleSwitch-Control

Use this procedure only when the network primary controller is missing or otherwise inoperable.

1. Switch off the mains voltage (disable the fuse).
2. Remove the SingleSwitch-Control from the wall switch box.
3. Switch on the mains voltage.
4. Press and hold the B-button to enter the menu.
5. Wait for the visual LED indicator to glow **yellow**.
6. Quickly release and click the B-button again.
7. After a few seconds the device is restarted, which is signalled with the **red** LED indicator light.

Notes

- **Momentary switch –** after releasing the switch, a spring automatically pushes it back and disconnects it.
- **Toggle switch –** it operates as a two-position switch, it has no spring to set the position.
- **Toggle switch and parameter 20 set to 1 –** the state of the device is synchronized with the state of the external toggle switches.
- **Toggle switch and parameter 20 set to 2 –** the state of the device is reversed with every change in the state of the external toggle switch.
- Resetting the device isn't the recommended way of removing the device from the Z-Wave® network. Use the reset procedure only if the primary controller is missing or inoperable. Certain device removal can be achieved by the procedure of removing described in section 4.2 - Removing device from Z-Wave® (Exclusion).

5.7 - Additional functionality

5.7.1 - Overheat and overcurrent protection

After detecting overheat or overcurrent the device:

- Switches off its relay/relays.
- Sends the information about switching off the relay/relays to the controller.
- Sends the Notification Report to the controller (Heat Alarm for overheat, Power Management for overcurrent).

5.7.2 - Activating scenes

SingleSwitch-Control can activate scenes in the Z-Wave® controller by sending a scene ID and attribute of a specific action using Central Scene Command Class.

By default the scenes aren't activated, set parameters 28 and 29 to enable scene activation for selected actions.

Table A2 - SingleSwitch-Control - Activating scenes			
Switch	**Action**	**Scene ID**	**Attribute**
Switch connected to S1 terminal	Switch clicked once	1	Button pressed 1 time
	Switch clicked twice	1	Button pressed 2 times
	Switch clicked thrice	1	Button pressed 3 times
	Switch held	1	Button held down
	Switch released	1	Button released
Switch connected to S2 terminal	Switch clicked once	2	Button pressed 1 time
	Switch clicked twice	2	Button pressed 2 times
	Switch clicked thrice	2	Button pressed 3 times
	Switch held	2	Button held down
	Switch released	2	Button released

6.1 - Power and energy consumption measuring

- SingleSwitch-Control requires the power consumption of connected load equal to 5 W or greater to correctly measure the power and energy.
- Power measurement can contain mains voltage fluctuations within +/- 10%.
- SingleSwitch-Control stores periodically (every hour) the consumption data in the device memory. Disconnecting the module from the power supply doesn't erase stored energy consumption data.

SingleSwitch-Control allows for the active power and energy consumption monitoring. Data is sent to the main Z-Wave® controller, for example, Yubii Home.

Measuring is carried out by the most advanced micro-controller technology, ensuring the maximum accuracy and precision (+/- 1% for loads greater than 5 W).

- **Electric active power** – power that energy receiver is changing into work or heat. The unit of active power is Watt [W].
- **Electric energy** – energy consumed by a device through a time period. Consumers of electricity in households are billed by suppliers on the basis of active power used in a given unit of time. The most common unit is kilowatt-hour [kWh]. One kilowatt-hour is equal to one kilowatt of power consumed over the period of one hour, 1 kWh = 1000 Wh.

6.2 - Resetting consumption memory

SingleSwitch-Control enables erasing stored consumption data in three ways:

A. Using functionality of a Z-Wave® controller (see the controller manual).

B. By resetting the device.

C. Manually, clearing the data using the following procedure:

1. Switch off the mains voltage (disable the fuse).
2. Remove the device from the wall switch box.
3. Switch on the mains voltage.
4. Press and hold the B-button to enter the menu.
5. Wait for the visual LED indicator to glow **green**.
6. Quickly release and click the B-button again.
7. Energy consumption memory is erased.

7 ASSOCIATIONS

7.1 - Association (linking devices)

Assocations enable:

- Direct control of other devices within the Z-Wave® system network using the wall switch connected to SingleSwitch-Control.
- Direct control of a device included in the Z-Wave® network, such as other Dimmer, Relay Switch, Roller Shutter or scene (may be controlled only through a Z-Wave® controller).
- Direct transfer of control commands between devices is performed without participation of the main controller and requires the associated device to be in the direct range.

SingleSwitch-Control supports the operation of multichannel devices. Multichannel devices are devices that include two or more circuits inside one physical unit.

7.2 - Association groups

The SingleSwitch-Control provides the association of five groups:

- **1st association group – Lifeline** reports the device status and allows for assigning single device only (main controller by default).
- **2nd association group – On/Off (S1)** is assigned to the switch connected to the S1 terminal (uses Basic command class).
- **3rd association group – Dimmer (S1)** is assigned to the switch connected to the S1 terminal (uses Switch Multilevel command class).
- **4th association group – On/Off (S2)** is assigned to the switch connected to the S2 terminal (uses Basic command class).
- **5th association group – Dimmer (S2)** is assigned to the switch connected to the S2 terminal (uses Switch Multilevel command class).

SingleSwitch-Control in the 2nd to 5th group allows to control 5 regular or multichannel devices per one association group, with the exception of **Lifeline** that is reserved for the controller and only 1 node can be assigned.

It's not recommended to associate more than 10 devices in general, as the response time to control commands depends on the number of associated devices. In extreme cases the system response can be delayed.

7.3 - Adding association using NICE controller

1. Go to **Settings > Devices.**
2. Select the appropriate device from the list.
3. Select the **Associations** tab.
4. Specify to which group and what devices are to be associated.
5. Save the changes.
6. Wait for the configuration process to end.

7.4 - Association groups mapping

Table A3 - SingleSwitch-Control - Association groups mapping		
Root	**Endpoint**	**Association group in endpoint**
Association Group 2 (On/Off (S1))	Endpoint 1	Association Group 2
Association Group 3 (Dimmer (S1))	Endpoint 1	Association Group 3
Association Group 4 (On/Off (S2))	Endpoint 1	Association Group 4
Association Group 5 (Dimmer (S2))	Endpoint 1	Association Group 5

8   Z-WAVE® RANGE TESTING

8.1 - Z-Wave® range test

The device has a built in Z-Wave® network main controller range tester.

- To perform a Z-Wave® range test, the device needs to be added to the Z-Wave® controller. Testing is recommended only in special cases, as it can stress the network.
- Communication mode of SingleSwitch-Control can switch between direct and the one using routing, especially if the device is on the limit of the direct range.

8.2 - Main controller range test

1. Switch off the mains voltage (disable the fuse).
2. Remove the SingleSwitch-Control from the wall switch box.
3. Switch on the mains voltage.
4. Press and hold the B-button to enter the menu.
5. Wait for the LED indicator to glow **violet**.
6. Quickly release and press the B-button again.
7. Visual indicator indicates the Z-Wave® network range (range signaling modes are described in section 8.3 below).
8. To exit the Z-Wave® range test, press the B-button.

8.3 - Z-Wave® range tester signaling modes

Table A4 - SingleSwitch-Control - Z-Wave® range tester signaling modes		
Color	**Status**	**Description**
Green	**Pulsing**	The device attempts to establish a direct communication with the main controller. If such attempt fails, the device tries to establish a routed communication through other modules, which is signaled by the LED indicator light pulsing **yellow**.
	Glowing	The device communicates with the main controller directly.
Yellow	**Pulsing**	The device tries to establish a routed communication with the main controller through other modules (repeaters).
	Glowing	The device communicates with the main controller through other modules. After 2 seconds the device retries to establish a direct communication with the main controller, which is signaled by the LED indicator light pulsing **green**.
Violet	**Pulsing**	The device communicates at the maximum distance of the Z-Wave® network. If connection proves successful it's confirmed with the LED indicator light glowing **yellow**. It's not recommended to use the device at the range limit.
Red	**Glowing**	The device isn't able to connect to the main controller directly or through another Z-Wave® nework device (repeater).

9 ADVANCED PARAMETERS

The device operation can be customized according to the user needs. The settings are available in the NICE interface. They are simple options that can be chosen by selecting the appropriate box.

To configure the SingleSwitch-Control:

1. Go to **Settings > Devices**.
2. Select the appropriate device from the list.
3. Select the **Parameters** tab.
4. Change the values of selected parameters.
5. Save your changes.

Table A5 - SingleSwitch-Control - Advanced parameters				
Parameter	**Description**	**Available setting**	**Default setting**	**Parameter size**
9. Restore state after power failure	This parameter determines whether the device returns to a state prior to the power failure after the power is restored.	**0** – the device doesn't save the state prior to the power failure and returns to the OFF position **1** – the device restores its state prior to the power failure	**1**	**1** [byte]
10. First channel - operating mode	This parameter allows to choose the operating mode for the 1st channel controlled by the S1 switch.	**0** – standard operation **1** – delay ON **2** – delay OFF **3** – auto ON **4** – auto OFF **5** – flashing mode	**0**	**1** [byte]
11. First channel - reaction to switch for delay/auto ON/OFF modes	This parameter determines how the device reacts to pushing the switch connected to the S1 terminal in timed mode.	**0** – cancel mode and set target state **1** – no reaction to switch, mode runs until it ends **2** – reset timer, start counting from the beginning	**0**	**1** [byte]
12. First channel - time parameter for delay/auto ON/OFF modes	This parameter allows to set the time parameter used in timed modes.	time parameter **0** – (0.1 s) **1-32000** (**0.1-3200.0** seconds, in 1 s steps)	**50 (50 s)**	**2** [bytes]
13. First channel - pulse time for flashing mode	This parameter allows to set the time of switching to the opposite state in flashing mode.	time parameter **0 – (0.1 s)** **1-32000** (**0.1-3200.0** seconds, in 1 s steps)	**5 (0.5 s)**	**2** [bytes]
15. Second channel - operating mode	This parameter allows to choose the operating mode for the 1st channel controlled by the S2 switch.	**0** – standard operation **1** – delay ON **2** – delay OFF **3** – auto ON **4** – auto OFF **5** – flashing mode	**0**	**1** [byte]
16. Second channel - reaction to switch for delay/auto ON/OFF modes	This parameter determines how the device reacts to pushing the switch connected to the S2 terminal in timed mode.	**0** – cancel mode and set target state **1** – no reaction to switch, mode runs until it ends **2** – reset timer, start counting from the beginning	**0**	**1** [byte]
17. Second channel - time parameter for delay/auto ON/OFF modes	This parameter allows to set time parameter used in timed modes.	time parameter **0 – (0.1 s)** **1-32000** (**0.1-3200.0** seconds, in 1 s steps)	**50 (50 s)**	**2** [bytes]
18. Second channel - pulse time for flashing mode	This parameter allows to set time of switching to the opposite state in flashing mode.	time parameter **0 – (0.1 s)** **1-32000** (**0.1-3200.0** seconds, in 1 s steps)	**5 (0.5 s)**	**2** [bytes]
20. Switch type	This parameter defines the type as which the device should treat the switch connected to the S1 and S2 terminals.	**0** – momentary switch **1** – toggle switch synchronized (contact closed - ON, contact opened - OFF) **2** – toggle switch with memory (device changes status when switch changes status)	**2**	**1** [byte]
21. Flashing mode - reports	This parameter enables defining whether the device sends reports during the flashing mode.	**0** – the device doesn't send reports **1** – the device sends reports	**0**	**1** [byte]

Table A5 - SingleSwitch-Control - Advanced parameters				
Parameter	**Description**	**Available setting**	**Default setting**	**Parameter size**
27. Associations in Z-Wave® network security mode	This parameter defines the way of sending commands in specified association groups: secure or non-secure. Parameter is active only in the Z-Wave® network security mode. This parameter doesn't apply to the 1st **Lifeline** group. Parameter 27 values may be combined, for example: 1+2=3 means that the 2nd and 3rd groups are sent as secure.	**0** – none of the groups are sent as secure **1** – the 2nd group sent as secure **2** – the 3rd group sent as secure **4** – the 4th group sent as secure **8** – the 5th group sent as secure	**15** (all)	**1** [byte]
28. S1 switch - scenes sent	This parameter determines which actions result in sending scene IDs assigned to them. Parameter 28 values may be combined, for example: 1+2=3 means that scenes for single and double click are sent.	**1** – button pressed 1 time **2** – button pressed 2 times **4** – button pressed 3 times **8** – button held down released	**0**	**1** [byte]
29. S2 switch - scenes sent	This parameter determines which actions result in sending scene IDs assigned to them. Parameter 29 values may be combined, for example: 1+2=3 means that scenes for single and double click are sent.	**1** – button pressed 1 time **2** – button pressed 2 times **4** – button pressed 3 times **8** – button held down released	**0**	**1** [byte]
30. S1 switch - associations sent to 2nd and 3rd association groups	This parameter determines which actions are ignored when sending commands to devices associated in the 2nd and 3rd association group. All actions are active by default. Parameter 30 values may be combined, for example: 1+2=3 means that associations for turning ON and OFF aren't sent.	**1** – ignore turning ON with 1 click of the switch **2** – ignore turning OFF with 1 click of the switch **4** – ignore holding and releasing the switch* **8** – ignore double click of the switch**	**0**	**1** [byte]
31. S1 switch - Switch ON value sent to 2nd and 3rd association groups	This parameter defines the value sent with Switch ON command to devices associated in 2nd and 3rd association group	**0-255** – sent value	**255**	**2** [bytes]
32. S1 switch - Switch OFF value sent to 2nd and 3rd association groups	This parameter defines value sent with Switch OFF command to devices associated in 2nd and 3rd association group.	**0-255** – sent value	**0**	**2** [bytes]
33. S1 switch - Double Click value sent to 2nd and 3rd association groups	This parameter defines value sent with Double Click command to devices associated in 2nd and 3rd association group.	**0-255** – sent value	**99**	**2** [bytes]
40. Reaction to General Alarm	This parameter determines how the device reacts to the General Alarm frame.	**0** – ignore the alarm frame **1** – turn ON after receiving the alarm frame **2** – turn OFF after receiving the alarm frame **3** – flash after receiving the alarm frame	**3**	**1** [byte]
41. Reaction to Flood Alarm	This parameter determines how the device reacts to the Flood Alarm frame.	**0** – ignore the alarm frame **1** – turn ON after receiving the alarm frame **2** – turn OFF after receiving the alarm frame **3** – flash after receiving the alarm frame	**2**	**1** [byte]
42. Reaction to CO/ CO2/Smoke Alarm	This parameter determines how the device reacts to the CO, CO_2 or Smoke frame.	**0** – ignore the alarm frame **1** – turn ON after receiving the alarm frame **2** – turn OFF after receiving the alarm frame **3** – flash after receiving the alarm frame	**3**	**1** [byte]
43. Reaction to Heat Alarm	This parameter determines how the device reacts to the Heat Alarm frame.	**0** – ignore the alarm frame **1** – turn ON after receiving the alarm frame **2** – turn OFF after receiving the alarm frame **3** – flash after receiving the alarm frame	**1**	**1** [byte]
44. Flashing alarm duration	This parameter allows to set duration of flashing alarm mode.	duration **1-32000** (**1-3200.0** seconds, in 1 s steps)	**600** (10min)	**2** [bytes]
50. First channel - power reports	This parameter determines the minimum change in consumed power that results in sending new power report to the main controller.	**0** – reports are disabled **1-100 (1-100%)** – change in power	**20** (20%)	**1** [byte]

Table A5 - SingleSwitch-Control - Advanced parameters				
Parameter	**Description**	**Available setting**	**Default setting**	**Parameter size**
51. First channel - minimal time between power reports	This parameter determines minimal time that has to pass before sending a new power report to the main controller.	**0** – reports are disabled **1-120 (1-120 s)** – report interval	**10** (10 s)	**1** [byte]
53. First channel - energy reports	This parameter determines the minimum change in consumed energy that results in sending new energy report to the main controller.	**0** – reports are disabled **1-32000** (**0.01-320** kWh) – change in energy	**100** (1 kWh)	**2** [bytes]
58. Periodic power reports	This parameter determines in what time interval the periodic power reports are sent to the main controller.	**0** – periodic reports are disabled **1-32000** (**1-32000** s) – report interval	**3600** (1 h)	**2** [bytes]
59. Periodic energy reports	This parameter determines in what time interval the periodic energy reports are sent to the main controller.	**0** – periodic reports are disabled **1-32000** (**1-32000** s) – report interval	**3600** (1 h)	**2** [bytes]
60. Measuring energy consumed by the device itself	This parameter determines whether energy metering should include the amount of energy consumed by the device itself. Results are being added to energy reports for the first endpoint.	**0** – function inactive **1** – function active	**0**	**1** [byte]

*Hold and release is inactive when parameter 20 is set to 1 or 2.

**Double click is inactive when parameter 20 is set to 1.

Notes

• Setting parameters 31-33 to appropriate value should result in:
  • **0** – turning OFF the associated devices.
  • **1-99** – forcing level of associated devices.
  • **255** – setting associated devices to the last remembered state or turning them ON.

10 RADIO TRANSCEIVER PARAMETERS

Table A6 - SingleSwitch-Control - Radio transceiver parameters	
Feature	**Description**
Radio protocol	Z-Wave® (500 series chip)
Radio signal power	up to 5 dBm
Frequency band	868.4 or 869.8 MHz EU 908.4, 908.42 or 916.0 MHz US 921.4 or 919.8 MHz ANZ 869.0 MHz RU 920.9, 921.7 or 923.1 MHz TW
Transceiver range	up to 50 m outdoors up to 40 m indoors (depending on the terrain and building structure)
Compliance with the EU directives	RoHS 2011/65/EU RED 2014/53/EU

(*) The transceiver range is strongly influenced by other devices operating at the same frequency with continuous transmission, such as alarms and radio headphones which interfere with the control unit transceiver.

11 PRODUCT DISPOSAL

This product is an integral part of the automation and therefore must be disposed together with the latter.

At the end of product lifetime, the disassembly and scrapping operations must be performed by qualified personnel. This product is made of various types of material, some of which can be recycled while others must be scrapped. Seek information on the recycling and disposal systems envisaged by the local regulations in your area for this product category.

⚠ **CAUTION! – Some parts of the product can contain pollutant or hazardous substances which, if disposed of into the environment, can cause serious damage to the environment or physical health.**

As indicated by the symbol alongside, disposal of this product in domestic waste is strictly prohibited. Separate the waste into categories for disposal, according to the methods envisaged by current legislation in your area, or return the product to the retailer when purchasing a new version.

⚠ **CAUTION! – Local legislation can envisage serious fines in the event of abusive disposal of this product.**

12 DECLARATION OF CONFORMITY

Hereby, NICE S.p.A., declares that the radio equipment SingleSwitch-Control is in compliance with Directive 2014/53/EU.

The full text of the EU declaration of conformity is available at the following internet address: https://www.niceforyou.com/en/professional-area/download?st=7&v=18 under the **download** section.