Plug-Control2

CE

Smart plug type E/F

WORKS WITH Yubii OS

EN - Instructions and warnings for installation and use

v1.2

Nice

Plug-Control2

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1 WARNINGS AND GENERAL PRECAUTIONS

- **CAUTION! – This manual contains important instructions and warnings for personal safety.** Carefully read all parts of this manual. If in doubt, stop installation immediately and contact Nice Technical Assistance.
- **CAUTION! – Important instructions: keep this manual for future maintenance and disposal.**
- **CAUTION! – All installation and connection operations must be performed exclusively by suitably qualified and skilled personnel with the unit disconnected from the mains power supply.**
- **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!**
- The product's 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 may only cause malfunctions. The manufacturer declines all liability for damage caused by makeshift modifications to the product.
- Never place the device near sources of heat and never expose to naked flames. These actions may damage the product and cause malfunctions.
- This product is not intended for use by people (including children) with reduced physical, sensory or mental capabilities or who lack experience and knowledge, unless they have been given supervision or instruction concerning the use of the product by a person responsible for their safety.
- Make sure that children do not play with the product.
- The device is designed to operate in electrical home installation. Faulty connection or use may result in fire or electric shock.
- Even when the device is turned off, voltage may be present at its terminals. Any maintenance introducing changes into the configuration of connections or the load must be always performed with disabled fuse.

2 PRODUCT DESCRIPTION

Plug-Control2 is a universal, Z-Wave Plus® compatible, remotely controlled outlet adapter. This device may be applied wherever you want to control electrical devices with up to 2750W load.

Plug-Control2 is equipped with a power and energy metering function. It uses a LED ring to visualize the current load with colour changing illumination and operating mode. One of its main advantages is the mode for measuring energy production (for microinverters).
Plug-Control2 may be operated using the B-button located on its casing or via any Z-Wave® compatible hub.

Main features of Plug-Control2:
- Compatible with any Z-Wave® or Z-Wave Plus® hub.
- Supporting the protected mode (Z-Wave® network security mode) with AES-128 encryption.
- Extremely easy installation - simply plug the device into the mains socket.
- Works as a Z-Wave signal repeater.
- Active power and energy consumption or production metering.
- Current value of the load and operating mode are indicated by the multi-colour LED ring.
- It is great for working with a microinverter.

Plug-Control2 is a fully compatible Z-Wave® device.
This device can be used with all devices accredited with the Z-Wave Plus® certificate and is compatible with such devices produced by other manufacturers. All non-battery operated devices within the network act as repeaters to increase reliability of the network. The device is a Security Enabled Z-Wave Plus® product and a Security Enabled Z-Wave® hub needs to be used to fully utilize the product.

3 TECHNICAL SPECIFICATIONS

The product Plug-Control2 is produced by Nice S.p.A. (TV).
Warnings:
- All technical specifications stated in this section refer to an ambient temperature of 20 °C (± 5 °C)
- Nice S.p.A. reserves the right to apply modifications to the product at any time when deemed necessary, while maintaining the same functionalities and intended use.

Plug-Control2	
Power supply	230 V AC, 50 Hz
Rated load current (for resistive load)	12 A for continuous load
Power consumption	up to 0.8 W
Standby power consumption	up to 0.3 W
Power output (for resistive load)	2.76 kW

Plug-Control2	
To be used with E or F type (Schuko) sockets	CEE 7/16 – max. 2.5 A CEE 7/17 – max. 12 A Dual type E/F
Active element	Micro-gap relay switch μ
Pollution degree	2 (home and office use, indoor only)
Operating temperature	0 - 40°C
Dimensions (Diameter x Height)	43 x 65 mm

Radio transceiver	
Radio protocol	Z-Wave (800 series chip)
Frequency band	868.4 or 869.8 MHz EU
Transceiver range	up to 100 m in open areas up to 30 m in buildings (depending on building materials)
Max. transmit power	EIRP up to -10 dBm

(*) 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.

Notes:

- In case of loads other than resistive please observe cosφ and, if necessary, use load lower than rated. It is recommended not to exceed 3A for 250 V AC, cosφ=0.4.
- Radio frequency of individual device must be the same as your Z-Wave hub. Check information on the box or consult your dealer if you are not sure.

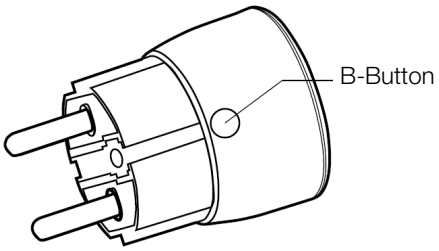
4 ADDING THE DEVICE

Adding (Inclusion) - The Z-Wave device learning mode enables adding the device to the existing Z-Wave network.

⚠ **Do not put one Plug-Control2 into another.**

4.1 - Adding the device to the Z-Wave network manually

1. Plug the device into a socket nearby the main Z-Wave hub.
2. Set the main hub to add mode (secure or non-secure). For more information, see the hub manual.
3. Quickly press the B-button three times.



4. If you're adding the device in the Security S2 Authenticated mode, input the PIN Code labelled on the device. The PIN Code is also an underlined part of the device specific key (DSK) labelled at the bottom of the box.
5. Wait for the adding process to finish.
6. Successful adding is confirmed by the Z-Wave hub message and the device LED indicator:
   - » **Green** - successful (non-secure, S0, S2 non-authenticated mode).
   - » **Magenta** - successful (Security S2 Authenticated mode).
   - » **Red** - not successful.

Note: Plug a device you want to control into Plug-Control2. Test the device by turning it on and off using the B-Button. The socket used for Plug-Control2 should be easily accessible.

4.2 - Adding using SmartStart

SmartStart solution enables products to be added into the Z-Wave network by scanning the Z-Wave QR Code present on the product with a hub providing SmartStart inclusion. A SmartStart product is added automatically within 10 minutes of being switched on in the network range.

Note: To use the SmartStart solution, your hub needs to support Security S2 mode. For more information, see the hub manual.

To add the device to the Z-Wave network using SmartStart:
1. Enter the full DSK string into your hub. If your hub supports QR scanning, scan the QR code on the label.
2. Power the device by switching on the mains voltage.
3. The LED indicator starts blinking yellow – wait for the adding process to finish.
4. Successful adding is confirmed by the Z-Wave hub message and the device LED indicator:
   - » **Green** - successful (non-secure, S0, S2 non-authenticated mode).
   - » **Magenta** - successful (Security S2 Authenticated mode).
   - » **Red** - not successful.

Note: In case of problems with adding the device, reset the device and repeat the adding procedure.

5 REMOVING THE DEVICE

Removing (Exclusion) - Z-Wave device learning mode, allowing to remove the device from existing Z-Wave network.

To remove the device from the Z-Wave network:
1. Place Plug-Control2 within the direct range of your Z-Wave hub.
2. Identify the B-button switch.
3. Set the main hub in remove mode (see the hub's manual).
4. Quickly, three times press the B-button switch.
5. Wait for the removing process to end.
6. Successful removing will be confirmed by the Z-Wave hub's message.

Note: Removing the device from the Z-Wave network doesn't restore parameters to default values.

6 OPERATING THE DEVICE

⚠ To avoid the risk of electrical shock, do not operate the device with wet or moist hands.

6.1 - Controlling Plug-Control2 using the B-button

Plug-Control2 is equipped with a B-button, which allows to use the menu and additionally perform the following actions:
- **1x click:** turn controlled device ON/OFF, confirm selected menu option (if menu is active)
- **3x click:** add/remove the device to/from a Z-Wave network
- **Holding:** enter/navigate through menu

6.2 - Visual indications

Plug-Control2 is equipped with a LED ring, signalling sensor's operating modes and current active power consumption or production. In addition the visual indicator may inform of the Z-Wave network range.

Visual indicator ring signalling modes:
1. By default, when the device is turned ON, the colour will vary depending on the current active power consumption.
2. When the device is operating with a microinverter, it indicates energy production by flashing an LED color corresponding to the active power, similar to when energy is being consumed.
3. Once inserted to mains socket the device signals Z-Wave network inclusion status with blink (green - added (non-secure, S0, S2 non-authenticated mode), magenta-added (S2 authenticated mode), red - not added).
4. Menu position is signalled with assigned illumination colour.
5. Ongoing software update is signalled with cyan blinking.
6. Range of the Z-Wave network with colour depending on type of communication or the lack of it (only in range tester mode).

6.3 - Menu

Menu allows to perform Z-Wave network actions. In order to use the menu:
1. Press and hold the B-button.
2. Wait for the device to indicate desired position with a colour
   - WHITE - disabling visual indicator for status signalling (turned ON/OFF, power consumption and production)
   - GREEN - reset the energy consumption and production data memory
   - VIOLET - initiate the Z-Wave network range test
   - YELLOW - reset the device to factory defaults
3. Release the B-button.
4. Click the B-button to confirm selection.

6.4 - Disabling visual indicator

Visual indication ring may be turned off for status signalling (turned ON/OFF, power consumption and production). That means each status change will be signalled by a short white blink of the ring. Disabling it will not change operation of the device. To disable the LED ring:
1. Insert Plug-Control2 in a socket
2. Press and hold the B-button.
3. Wait for the LED ring to glow white (1st menu position).
4. Release the B-button.
5. Click the B-button once to confirm selection.

6.5 - Resetting the device to factory defaults

Reset procedure allows to restore the device back to its factory settings, which means all information about the Z-Wave hub and user configuration will be deleted.
1. Make sure the device is powered.
2. Press and hold the B-button.
3. Wait for the LED ring to glow yellow (4th menu position).
4. Release the B-button.
5. Click the B-button once to confirm selection.
6. After few seconds the device will restart with factory settings, which is signalled with the red ring colour.

Note. Resetting the device is not the recommended way of removing the device from the Z-Wave network. Use reset procedure only if the primary hub is missing or inoperable. Certain device removal can be achieved by the procedure of removing described in chapter "5. Removing the device".

7 POWER AND ENERGY CONSUMPTION AND PRODUCTION

Plug-Control2 allows to monitor the active power and energy consumption and production. Data is sent to the main Z-Wave hub, e.g. Yubii Home. Measuring is carried out by the most advanced micro-hub technology, assuring maximum accuracy and precision.

Electric active power - power that energy receiver is changing into a work or a 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 given unit of time. Most commonly measured in kilowatt-hour [kWh]. One kilowatt-hour is equal to one kilowatt of power consumed over period of one hour, 1kWh = 1000Wh.

Mains voltage - the device enables real-time monitoring of the mains supply status. The value is given in volts (V). Voltage measurement is controlled by Parameter Voltage measurement (Parameter 200) which is disabled by default. When enabled, the device sends a report after a voltage change equal to the configured threshold (3-10 V). Parameter Overvoltage notification (Parameter 201) defines the threshold for overvoltage notification reports.

To display the voltage on the Yubii Home hub:
1. Open Settings -> Devices and select your Plug-Control2
2. On the Main tab, locate the Family section and select Voltage Meter.
3. Open the Advanced tab and uncheck the Hidden device checkbox.
4. Click Save to apply the changes.

Note: Voltage measurement can reflect mains voltage fluctuations within +/- 10%.

Working with a microinverter
The Plug-Control2 can be installed between the microinverter output and the home's power outlet. This allows for seamless monitoring of energy production details and real-time power generation from the PV panels. The display of production by Yubii is hidden by default.

To display the energy production on the Yubii Home hub:
1. Open Settings -> Devices and select your Plug-Control2
2. On the Main tab, locate the Family section and select Energy Meter.
3. Open the Advanced tab and uncheck the Hidden device checkbox.
4. Click Save to apply the changes.

To display the active power production on the Yubii Home hub:
1. Open Settings -> Devices and select your Plug-Control2
2. On the Main tab, locate the Family section and select Power Meter.
3. Open the Advanced tab and uncheck the Hidden device checkbox.
4. Click Save to apply the changes.

Note: In default settings when the device detects energy production, the LED ring flashes in a color corresponding to the power rating on the device label.
Turning off the microinverter remotely using the Plug-Control2 or via a button may cause the residual current device (RCD) to be triggered.In such cases, use RCDs specifically designed for this purpose.
When operating with a microinverter, it is recommended to enable Always-on mode (Parameter 155). This protects the device from accidental shutdown (whether remotely or via a button). It is also recommended to increase the reporting threshold for instantaneous power (Parameter 61) to above 50% or to disable reporting due to significant fluctuations in power generation from the PV panels.

Resetting consumption and production memory
Plug-Control2 allows to erase stored consumption and production data (turning it off/on or removing it from the socket will not erase consumption or production):
1. Make sure the device is powered.
2. Press and hold the B-button.
3. Release the B-button when the LED ring glows green (2nd menu position).
4. Press the B-button briefly.

8 ASSOCIATIONS

Association (linking devices) - The association enables Plug-Control2 to control directly a device included in Z-Wave network e.g. Dimmer, Relay Switch, Roller Shutter or scene (may be controlled only through a Z-Wave hub).

- Association ensures direct transfer of control commands between devices, is performed without participation of the main hub and requires associated device to be in the direct range.
- 2nd association group commands are sent automatically, depending on parameters 45, 46, 47 and 48

Plug-Control2 provides the association of two groups:
1st Association Group – "Lifeline" reports the device status and allows for assigning single device only (main hub by default).
2nd Association Group – "On/Off (Power)" devices in this group will be switched on or off depending on the current load (uses Basic command class).

Plug-Control2 in 2nd group allows to control up to 5 regular or multichannel devices per an association group. "Lifeline" group is reserved solely for the hub and hence only 1 node can be assigned.

9 Z-WAVE RANGE TEST

⚠ The device has a built in Z-Wave network main hub's **range tester**.

- To make Z-Wave range test possible, the device must be added to the Z-Wave hub. Testing may stress the network, so it is recommended to perform the test only in special cases.
- Communication mode of Plug-Control2 may switch between direct and one using routing, especially if the device is on the limit of the direct range.

Follow the below instructions to test the main hub's range:

1. Press and hold the B-button.
2. Wait for the LED ring to glow violet (3rd menu position).
3. Release the B-button.
4. Click the B-button once to confirm selection.
5. Visual indicator will indicate the Z-Wave network's range (range signalling modes described below).
6. To exit Z-Wave range test, press the B-button briefly.

Z-Wave range tester signalling modes:

Visual indicator pulsing green - Plug-Control2 attempts to establish a direct communication with the main hub. If a direct communication attempt fails, the device will try to establish a routed communication, through other modules, which will be signalled by visual indicator pulsing yellow.

Visual indicator glowing green - Plug-Control2 communicates with the main hub directly.

Visual indicator pulsing yellow - Plug-Control2 tries to establish a routed communication with the main hub through other modules (repeaters).

Visual indicator glowing yellow - Plug-Control2 communicates with the main hub through the other modules. After 2 seconds the device will retry to establish a direct communication with the main hub, which will be signalled with visual indicator pulsing green.

Visual indicator pulsing violet - Plug-Control2 does communicate at the maximum distance of the Z-Wave network. If connection proves successful it will be confirmed with a yellow glow. It's not recommended to use the device at the range limit.

Visual indicator glowing red - Plug-Control2 is not able to connect to the main hub directly or through another Z-Wave network device (repeater).

10 ADVANCED PARAMETERS

Plug-Control2 allows to customize its operation to user's needs. The settings are available in the interface of the Z-Wave hub.

Plug-Control2 - Advanced parameters			
Parameter:	1. Device status before the power failure		
Description:	This parameter determines how the Plug-Control2 will react in the event of power supply failure (e.g. power outage or taking out from the electrical outlet). After the power supply is back on, the device can be restored to previous state or remain switched off. This parameter is ignored in „Always On" mode – the device automatically turns ON after plugging it into the socket.		
Available settings:	0 - the device remains switched off 1 - the device restores the state before the power failure		
Default setting:	1	Parameter size:	1 [byte]
Parameter:	2. Overload safety switch		
Description:	This function allows you to turn off a controlled device when a defined power threshold is exceeded. The controlled device will be turned off even if the „Always On" function is enabled. Controlled device can be turned back on via B-button or sending a control command. By default, this feature is disabled.		
Available settings:	0 - function inactive 1 - 3100 (1-3100W, step 1W) – power threshold		
Default setting:	0	Parameter size:	2 [bytes]
Parameter:	11. LED ring when the output is enabled		
Description:	When set to 8, the LED ring color will change depending on the current power reading. Otherwise, the colors are constant and independent of power consumption or production.		
Available settings:	0 – illumination turned off completely 1 – white 2 – red 3 – green 4 – blue 5 – yellow 6 – cyan 7 – magenta 8 – color changes continuously depending on instantaneous power		

Default setting:	8	Parameter size:	1 [byte]
Parameter:	12. LED ring when the output is disabled		
Description:	This parameter defines the illumination color after turning off the output.		
Available settings:	0 – illumination turned off completely 1 – white 2 – red 3 – green 4 – blue 5 – yellow 6 – cyan 7 – magenta 8 – color corresponding to the last known instantaneous power reading before turning off the output.		
Default setting:	0	Parameter size:	1 [byte]
Parameter:	36. Notification alarm types		
Description:	Select the types of Z-Wave notifications to which the Plug-Control2 will react.		
Available settings:	Available settings: (bitmask) 1 – Smoke alarm (Notification type: 0x01) 2 – CO alarm (Notification type: 0x02) 4 – CO2 alarm (Notification type: 0x03) 8 – High temperature alarm (Notification type: 0x04) 16 – Flood alarm (Notification type: 0x05) 32 – Home Security (Notification type: 0x07) 64 – Siren (Notification type: 0x0E) 128 – Gas alarm (Notification type: 0x12)		
Default setting:	255 (all)	Parameter size:	2 [bytes]
Parameter:	37. Reaction to the notification alarm commands		
Description:	This parameter defines how the Plug-Control2 will react after receiving the alarm command. In case of value 0 the Plug-Control2 is operating normally and LED ring signals an alarm through time defined in parameter 38 or until the alarm is cancelled.		
Available settings:	0 – no reaction 1 – turn the output on 2 – turn the output off		
Default setting:	0	Parameter size:	1 [byte]
Parameter:	38. Duration for LED signalization to alarm		
Description:	This parameter determines the duration of the alarm status indication via the LED ring.		
Available settings:	0 – no alarm status on the LED ring 1-32400 (in seconds)		
Default setting:	600 (10min)	Parameter size:	2 [bytes]
Parameter:	45. Settings of the 2nd association group		
Description:	This parameter defines how devices added to 2nd association group are controlled. Operation depends on the instantaneous power thresholds set in parameters 46 and 48.		
Available settings:	1 – send the command to the associated devices according to parameter 47 when the instantaneous power drops below the DOWN threshold 2 – turn OFF the associated devices when the instantaneous power drops below the DOWN threshold 3 – send the command to the associated devices according to parameter 47 when instantaneous power increases above the UP threshold 4 – turn OFF the associated devices when the instantaneous power increases above the UP threshold 5 – combination of 1 and 4. Send the command to the associated devices according to parameter 47 when the instantaneous power drops below the DOWN threshold and turn OFF the associated devices when the instantaneous power increases above the UP threshold 6 – combination of 2 and 3. Turn OFF the associated devices when the instantaneous power drops below the DOWN threshold and send the command to the associated devices according to parameter 47 when the instantaneous power increases above the UP threshold		
Default setting:	6	Parameter size:	1 [byte]

Parameter:	46. UP threshold for 2nd association group		
Description:	The upper threshold of instantaneous power, used in correlation with the parameter 45. The UP value cannot be lower than the value specified in parameter 48.		
Available settings:	10-2750 (10-2750W, step 1W)		
Default setting:	50 (50W)	Parameter size:	2 [bytes]
Parameter:	47. Control value for 2nd association group		
Description:	The value of the BASIC SET command frame sent to the devices associated in „On/Off (Power)" association group (2). „On/Off (Power)" association group settings – in accordance with parameter 45.		
Available settings:	0 – turning off associated devices 1-99 – forcing the level of associated devices or turning them on 255 – restoring last known state or turning on associated devices.		
Default setting:	255	Parameter size:	1 [byte]
Parameter:	48. DOWN threshold for 2nd association group		
Description:	The lower threshold of instantaneous power, used in correlation with the parameter 45. The DOWN value cannot be higher than the value specified in parameter 46.		
Available settings:	0-2740 (0-2740W, step 1W)		
Default setting:	30 (30W)	Parameter size:	2 [bytes]
Parameter:	61. Percentage threshold for power reports		
Description:	This parameter determines the minimum percentage change in instantaneous power reading that will trigger a report to the main controller, only for values above 5W. Below the 5W reports are sent with a 1W threshold.		
Available settings:	1-99 – instantaneous power change in percentage 0– reports disabled		
Default setting:	15 (15%)	Parameter size:	1 [byte]
Parameter:	154. Auto-off		
Description:	This parameter allows to set the auto off time. When the value is set to „0" the functionality is disabled.		
Available settings:	0 – Auto off disabled 1 – 43200s (1 s – 43200s step 1s) – auto off time		
Default setting:	0 (0s)	Parameter size:	2 [bytes]
Parameter:	155. Always-On mode		
Description:	In this mode Plug-Control2 will turn on connected device permanently and will stop reacting to attempts of turning it off (through Z-Wave network or pushing the B-button). "Always On" function turns the Plug-Control2 into a power and energy meter. Connected device will not be turned off upon receiving an alarm frame from another Z-Wave device (parameter 37 will be ignored). In "Always on" mode, connected device may be turned off after exceeding the power defined in parameter 2 or in case of detecting current greater than 115% of rated current. In such cases, connected device can be turned on again by pushing the B-button or sending a control frame. By default, overload protection is inactive.		
Available settings:	0 – function inactive 1 – function active		
Default setting:	0	Parameter size:	1 [byte]
Parameter:	156. Turning off based on power threshold		
Description:	This parameter specifies the value of instantaneous power threshold that keeps the output active. Power reading must be below set value for time set in parameter 157 to disable the output.		
Available settings:	0 – function inactive 1-3100 (1-3100W, step 1W) – power threshold		
Default setting:	0	Parameter size:	2 [bytes]
Parameter:	157. TurnOff delay related to power threshold		
Description:	This parameter specifies the duration that the instantaneous power reading must remain continuously below the threshold defined in parameter 156 before the output is disabled.		
Available settings:	0 – instant 1 – 43200s (1 s – 43200s step 1s)		
Default setting:	0	Parameter size:	2 [bytes]

Parameter:	158. Overload LED ring indication		
Description:	This parameter defines the maximum instantaneous power reading, which, if exceeded, causes the LED ring to flash purple. This function is only active when parameter 11 is set to 8.		
Available settings:	100-3100 (100-3100W, step 1W)		
Default setting:	2750 (2750W)	Parameter size:	2 [byte]
Parameter:	200. Voltage measurement		
Description:	This parameter specifies the minimum change in the mains voltage reading that will trigger a report to the main controller. When the value is set to „0" the functionality is disabled.		
Available settings:	3-10 (3-10V, step 1V) 0 - functionality disabled		
Default setting:	0	Parameter size:	1 [byte]
Parameter:	201. Overvoltage notification		
Description:	This parameter determines the threshold for the mains voltage, which will trigger the overvoltage alarm report to the main controller. When the value is set to „0" the functionality is disabled.		
Available settings:	100-260 (100V-260 step 1V) value for voltage notification 0 - function disabled		
Default setting:	0	Parameter size:	2 [bytes]

Notes:
- Overload safety switch functionality is not an overload safety protection nor a short circuit protection. Circuit needs additional short circuit and overload protection!
- Setting parameter 47 to appropriate value will result in:
  - » 0 - turning off associated devices,
  - » 1-99 - forcing level of associated devices,
  - » 255 - setting associated devices to the last remembered state or turning them on.
- If "Always On" function is active (parameter 155), settings of parameter 1, 37, 154, 156 are ignored.
- The alarm may be cancelled by pressing the B-button.

11 Z-WAVE SPECIFICATION

11.1 - NIF-COMMAND CLASS SUPPORT

NIF-COMMAND CLASS SUPPORT			
	Command Class	**Version**	**Security**
1.	COMMAND_CLASS_ZWAVEPLUS_INFO [0x5E]	V2	None
2.	COMMAND_CLASS_SWITCH_BINARY [0x25]	V2	Highest Available
3.	COMMAND_CLASS_ASSOCIATION [0x85]	V2	Highest Available
4.	COMMAND_CLASS_MULTI_CHANNEL_ASSOCIATION [0x8E]	V3	Highest Available
5.	COMMAND_CLASS_ASSOCIATION_GRP_INFO [0x59]	V3	Highest Available
6.	COMMAND_CLASS_MANUFACTURER_SPECIFIC [0x72]	V2	Highest Available
7.	COMMAND_CLASS_VERSION [0x86]	V3	Highest Available
8.	COMMAND_CLASS_TRANSPORT_SERVICE [0x55]	V2	None
9.	COMMAND_CLASS_SECURITY [0x98]	V1	None
10.	COMMAND_CLASS_SECURITY_2 [0x9F]	V1	None
11.	COMMAND_CLASS_DEVICE_RESET_LOCALLY [0x5A]	V1	Highest Available
12.	COMMAND_CLASS_APPLICATION_STATUS [0x22]	V1	None
13.	COMMAND_CLASS_SUPERVISION [0x6C]	V1	None
14.	COMMAND_CLASS_POWERLEVEL [0x73]	V1	Highest Available
15.	COMMAND_CLASS_INDICATOR [0x87]	V3	Highest Available
16.	COMMAND_CLASS_FIRMWARE_UPDATE_MD [0x7A]	V5	Highest Available
17.	COMMAND_CLASS_CONFIGURATION [0x70]	V4	Highest Available
18.	COMMAND_CLASS_NOTIFICATION [0x71]	V8	Highest Available
19.	COMMAND_CLASS_METER [0x32]	V5	Highest Available
20.	COMMAND_CLASS_PROTECTION [0x75]	V2	Highest Available
Command Class - not in NIF			
21.	COMMAND_CLASS_BASIC [0x20]	V2	Highest Available

11.2 - Plug Control2 - Z-WAVE Plus CC

Plug-Control2 - Z-WAVE Plus CC	
Root	
Role Type	(AOEN) ROLE_TYPE_END_NODE_ALWAYS_ON [0x05]
Node Type	NODE_TYPE_ZWAVEPLUS_NODE [0x00]
Installer Icon Type	ICON_TYPE_GENERIC_ON_OFF_POWER_SWITCH [0x0700]
User Icon Type	ICON_TYPE_GENERIC_ON_OFF_POWER_SWITCH [0x0700]

11.3 - Plug Control2 - Association group information CC

Plug-Control2 - Association group information CC			
Root			
Group	**Profile**	**Command Class & Command**	**Group Name**
1	General: Lifeline (0x00: 0x01)	COMMAND_CLASS_SWITCH_BINARY [0x25] SWITCH_BINARY_REPORT [0x03] COMMAND_CLASS_DEVICE_RESET_LOCALLY [0x5A] DEVICE_RESET_LOCALLY_NOTIFICATION [0x01] COMMAND_CLASS_INDICATOR [0x87] INDICATOR_REPORT [0x03] COMMAND_CLASS_CONFIGURATION [0x70] CONFIGURATION_REPORT [0x06] COMMAND_CLASS_NOTIFICATION [0x71] NOTIFICATION_REPORT [0x05] COMMAND_CLASS_METER [0x32] METER_REPORT [0x02] COMMAND_CLASS_PROTECTION [0x75] PROTECTION_REPORT [0x03]	Lifeline
2	Meter: Electric (0x32: 0x01)	COMMAND_CLASS_BASIC [0x20] BASIC_SET [0x01]	On/Off (Power)

11.4 - Plug-Control2 - Association CC/Multichannel association CC

Plug-Control2 - Association CC/Multichannel association CC		
Root Device		
Group	**Max Node Supported**	**Comment**
1	1	Lifeline
2	5	On/Off (Power)

11.5 - Plug-Control2 - SWITCH BINARY CC

SWITCH BINARY CC			
Root			
Command	**Value**	**State/Level**	**Description**
SET/REPORT	0 (0x00)	Off/0%	Output
SET/REPORT	1-99 (0x01-0x63)	On/100%	Output
SET	0x64 .. 0xFE	Reserved	Output
SET	255 (0xFF)	On/100%	Output

11.6 - Plug-Control2 - Basic CC

Plug-Control2 - Basic CC		
Command	**Root Map EP**	**Mapping (Endpoints)** Root
Basic Set	-	SWITCH_BINARY_SET [0x01]
Basic Get	-	SWITCH_BINARY_GET [0x02]
Basic Report	-	SWITCH_BINARY_REPORT [0x03]

11.7 - Plug-Control2 - Indicator CC

Plug-Control2 - Indicator CC				
Root				
Indicator ID Node Identify [0x50]				
Property ID On/Off Period [0x03] On/Off Cycles [0x04] One time On/Off period [0x05]				
Command	**Indicator ID**	**Property ID**	**Value**	**Other**
SET	All	On/Off Period [0x03]	0x00-0xFF	
SET	All	On/Off Cycles [0x04]	0x00-0xFF	
SET	All	One time On/Off period [0x05]	0x00-0xFF	
GET	All	-	-	

11.8 - Plug-Control2 - Meter CC

Plug-Control2 - Meter CC				
Root				
Meter Type	**Scale**	**Rate Type**	**Precision**	**Size**
Electric [0x01]	Electric_V [0x04]	Import [0x01]	0	4
Electric [0x01]	Electric_W [0x02]	Import [0x01]	1	4
Electric [0x01]	Electric_kWh [0x00]	Import [0x01]	2	4
Electric [0x01]	Electric_kWh [0x00]	Export [0x02]	2	4
Electric [0x01]	Electric_W [0x02]	Export [0x02]	1	4

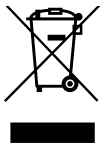
11.9 - Plug-Control2 - Protection CC

Plug-Control2 - Protection CC		
Root		
Type	**State**	**Description**
Local	Unprotected [0x00]	The device is not protected, and may be operated normally via the user interface (button).
Local	No operation [0x02]	Button cannot change state, any other functionality is available (e.g. menu).
RF	Unprotected [0x00]	The device accept and respond to all RF Commands.
RF	no RF control [0x01]	Command Class Basic and actuator command class are rejected, every other command class will be handled.

11.10 - Plug-Control2-Notification CC

Plug-Control2 - Notification CC			
Root			
Notification Type	**Event / State**	**Event /State Parameter**	**Status (default)**
Power Management [0x08]	Over-current detected [0x06]	Over-current status	0xFF- enabled (not changeable)
Power Management [0x08]	Over-voltage detected [0x07]	Over-voltage status	0xFF- enabled (not changeable)
Power Management [0x08]	Over-load detected [0x08]	Over-load status	0xFF- enabled (not changeable)
System [0x09]	System hardware failure (manufacturer proprietary failure code provided) [0x03]	MP code: 0x01 [device overheat]	0xFF- enabled (not changeable)

12 PRODUCT DISPOSAL



This product is an integral part of the automation and therefore must be disposed together with the latter.
As in installation, also 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 may contain pollutant or hazardous substances which, if disposed of into the environment, may 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 may envisage serious fines in the event of abusive disposal of this product.

13 DECLARATION OF CONFORMITY

Hereby, Nice S.p.A., declares that the radio equipment type Plug-Control2 is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: http://www.niceforyou.com/en/support

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