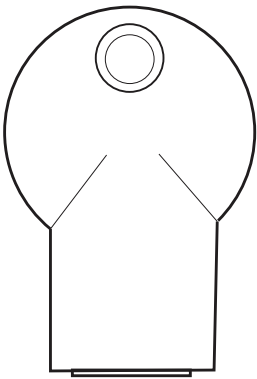


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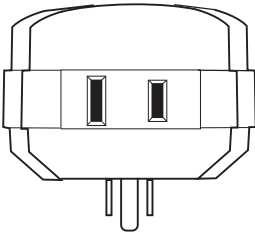


GoControl™



PD300EMZ5-1

Z-Wave Radio Frequency (RF) Controlled, 120 VAC 300 Watt, Plug-In Dimmer Series 500



Bottom of Appliance Module
showing 2 prong plug-in

NOTE: This unit must be added to the Network only where it will be permanently installed. The proper operation of this node in the mesh network is dependent on it knowing its location with respect to other nodes. You cannot “test bench” configure this unit, then install.

PD300EMZ5-1 PLUG-IN MODULE

The GoControl™ family of Z-Wave® certified wireless lighting products (smart LED fixtures, bulbs, switches, dimmers, outlets, plug-in modules) Control Products (thermostats, irrigation controller and garage door controller)and Sensors (flood, leak, alert sounder, motion sensor and door/window sensor) bring a new level of intelligent wireless Home Automation capability to commercial and residential environments.

The Z-Wave wireless protocol is an international wireless standard for remote home automation, security and other applications. This product can be included and operated in any Z-Wave network with other Z-Wave certified devices from other manufacturers and/or other applications. All non-battery operated nodes within the network will act as repeaters regardless of vendor to increase reliability of the network.

GoControl Z-Wave products are easy to install, are Z-Wave certified, and allow dealers to create an integrated wireless network with nearly limitless expansion and interoperability with security, energy management, home entertainment, appliances, and more.

Z-WAVE PLUS FEATURES

The PD300EMZ5-1 contains a Z-Wave 500 Series Module that supports Z-Wave Plus® features. A Z-Wave certified portable or stationary Controller can communicate with the Z-Wave 500 Series Module.

Depending on the capability of the Controller or gateway software, the following operations can be performed with the PD300EMZ5-1. Refer to the Controller or gateway manual for details.

- Turn the load ON and OFF.
- Add or Remove the PD300EMZ5-1.
- Assign the PD300EMZ5-1 to a specific Group/Scene and/or to include the load as part of ALL ON or ALL OFF system commands.
- Over-the-air firmware update by the gateway or static Controller.
- Lifeline function which automatically notifies the associated modules and the network that a manually reset device is no longer in the network, thus, the corresponding association becomes invalid.
- Monitors the amount of energy being used and reports the current usage to the Z-Wave controller

INSTALLATION

Adding to a network:

Refer to your Controller operating instructions to add this switch under the command of the Wireless Controller.

1. With your Controller in Discovery or Add Mode, tap the button on the face of the outlet. The LED will blink slowly when in ADD Mode.
2. You should see an indication on your Controller that the “device was added” to the network and the LED will stop blinking.
3. The device will appear in the list of Switches. It should display as a switch.

If the Controller/Gateway shows the addition failed, repeat Steps 1-3.

✓ **NOTE:** If you have trouble adding the PD300EMZ5-1 to a group it may be that the Home ID and Node ID were not cleared from it after testing. You must first “RESET UNIT” to remove it from the network. Although adding it to a group includes it in the network, removing it from a group does not remove it from the network. If removed from a group, it functions as a repeater (only). “RESET UNIT” removes it completely from the network.

To Reset Unit (If Required):

In the event that your primary Controller is lost or otherwise inoperable, to reset the PD300EMZ5-1 and clear all network information, follow these steps:

1. Tap the button on the face of the outlet five (5) times.
2. Press and hold the button for 15 seconds. The LED will increasingly blink faster to indicate that a Reset is taking place.
3. LED will turn off when reset is complete.

Removing from a network:

The PD300EMZ5-1 can be removed from the network by the Controller/Gateway. Refer to the Controller operating instructions for details.

1. Set the Controller into Removal Mode and follow its instruction to delete the PD300EMZ5-1 from the Controller.
2. Remove the switch by tapping the button on the face of the outlet 2 times. The LED will begin blinking slowly for 10 seconds indicating that it has been removed.
3. You should see an indication on your Controller that the “device was removed” from the network.

BASIC OPERATION

Local Control

The button on the PD300EMZ5-1 allows the user to:

- Pressing and holding the button will dim or brighten the load attached.
- Turn the attached load on or off.
- Tapping the button on the face of the outlet turns the load attached ON to OFF.

Load Sense

Load Sense, when enabled, will turn the PD300EMZ5-1 on without having to use the Controller’s application or pressing the button. When the attached load is turned OFF then ON, the PD300EMZ5-1 will turn ON.

Parameter	Length	Valid Values	Configuration Option
29	1 Byte	0	Load Sense Disabled
		1	Load Sense Enabled (default)

Night Light

To act as a night light, the LED on the PD300EMZ5-1 will turn ON when the load attached is OFF. However, the LED can be user configured to turn ON, when the load attached is ON, if so desired. See “CONFIGURATION” section.

Energy Monitoring

PD300EMZ5-1eports the total accumulated Kilowatt Hours (kWh) and the instantaneous Watts being consumed by the load.

Parameter	Length	Valid Values	Configuration Option
13	1 Byte	0	Automatic reporting OFF
		1-255	Number of minutes between automatic reporting (Default = 6)

Configuration Parameter 13 configures the rate at which the energy readings are reported. If the maximum kWh value that can be reported is reached (21,474 kWh), then it will remain at the maximum level until reset to 0.

To reset, the total accumulated kWh used by the PD300EMZ5-1 the Z-Wave controller needs to send a reset command at the request of the user. It will also be reset if the PD300EMZ5-1 is excluded from the Z-Wave network using the Controller software.

The Watts reading provides the immediate reading of the power being consumed by the load. The Watts reading takes several seconds to settle so wait a few seconds before reading the energy value when the state of the switch (on / off) has changed.

Remote Control

The PD300EMZ5-1 will respond to BASIC and BINARY commands that are part of the Z-Wave system. Refer to your Controller’s instructions as to whether your Controller can transmit those commands.

Protection Mode

The PD300EMZ5-1 supports Protection Mode that is used to disable the button on the front of the device. This eliminates inadvertent activation of the switch. To enable Protection Mode, press the button on the PD300EMZ5-1 three times quickly. The LED will blink Purple twice showing that Protection Mode has been enabled. When Enabled the only way to turn ON or OFF the PD300EMZ5-1 is through the Z-Wave controller or Mobile app. If the button on the PD300EMZ5-1 is pressed, the LED will blink Purple twice and have no impact on the attached device. To exit Protection Mode, press the button three times.

Associations

The PD300EMZ5-1 supports one Group with five Nodes for lifeline communication. Group 1 must be assigned the Node ID of the Controller to which unsolicited notifications from the PD300EMZ5-1 will be sent. The Z-Wave Controller should set this Association automatically after inclusion. You can associate up to five Z-Wave devices to Group 1.

For instructions on how to “set Lifeline Association” please refer to your wireless Controller instructions.

Removing Associations

To remove the Associations, if the Controller has recognized the Associations, refer to the Z-Wave Controller’s instructions on how to remove Associations. If the Controller has not recognized the Associations, removing the PD300EMZ5-1 from the Z-Wave network will eliminate the Associations.

ADVANCED OPERATION

All On/All Off

The PD300EMZ5-1 supports the ALL ON / ALL OFF commands. The PD300EMZ5-1 can be set to respond to ALL ON and ALL OFF commands four different ways.

Refer to your Controller for information on how to set the PD300EMZ5-1 to operate in the manner you desire. Some Controllers may be only able to set certain settings of ALL ON/ALL OFF response.

The four different ways the PD300EMZ5-1 can be setup to respond to ALL ON and ALL OFF commands are:

- Responds to ALL ON or the ALL OFF command.
- Responds to ALL OFF command but will not respond to ALL ON command.
- Responds to ALL ON command but will not respond to ALL OFF command.
- Responds to ALL ON and the ALL OFF command.

CONFIGURATION

Adjusting Dim Rate

Dim Level

The brightness setting of the Dimmer is called the Dim Level. When the Dim Level is adjusted, the rate that Dim Level changes depends on the Dim Step (Parameter 7) and Dim Timer (Parameter 8) values. These values can be changed instantly to allow various scenes and effects. These values can also vary between local control, remote commands from the hub or associated device and ALL ON/OFF commands.

Dim Step (remote and local)

Dim Step can be set to a value of 1 to 99. This value indicates how many levels the dimmer will change each time the Dim Timer expires.

Dim Timer (remote and local)

The Dim Timer (how fast the dim steps happen). It can be set to a value of 1 to 255. This value indicates in 10 millisecond resolution, how often the dim level will change.

Examples:

- If the Dim Timer parameter value is set to 1, every 10mS the Dim Level will change by the Dim Step value.
- If the Dim Timer parameter value is set to 255, every 2.55 seconds the Dim Level will change by the Dim Step value.

With the combination of the two parameter values that control the dim rate, the dimmer can be adjusted to dim from maximum to minimum or minimum to maximum at various speeds between 10 millisecond and 252.45 seconds (over 4.25 minutes).

Parameter	Length	Valid Values	Configuration Option
7	1 byte	1 – 99	Dim Remote On/Off Step (default = 3, 3 steps)
8	1 byte	1 – 255	Dim Remote On/Off Timer (default = 10, 10 mS)
9	1 byte	1 – 255	Dim Local On/Off Step (default = 10, 10 steps)
10	1 byte	1 - 255	Dim Local On/Off Timer (default = 10, 10 mS)
11	1 byte	1 - 99	Dim ALL On/Off Step (default = 10, 10 steps)
12	1 byte	1 - 255	Dim ALL On/Off Timer (default = 3, 3 mS)

LED Intensity

You can set the intensity of the LED to fit the environment the PD300EMZ5-1 is being used in from off to full brightness. This is done by changing Parameter 2.

Parameter	Length	Valid Values	Configuration Option
2	1 byte	0 - 99	0 = OFF 1 = Very Dim 99 = Full Brightness (default)

Power Monitoring

The PD300EMZ5-1 provides a visual display of the amount of energy being consumed when the switch is turned on by illuminating the LEDs in one of 5 different colors.

Energy	
0 to 2 Watts	White
3 to 60 Watts	Green
60 to 100 Watts	Blue
101 to 200 Watts	Yellow
201 to 300 Watts	Red

The Power Monitoring can be turned off utilizing Parameter 11. When turned off, the PD300EMZ5-1 will no longer illuminate the LED to indicate any energy use and periodic reports to the hub on energy use will also be turned off.

Parameter	Length	Valid Values	Configuration Option
11	1 Byte	0	Power Monitoring OFF
		1	Power Monitoring ON (Default)

The duration the LED will change color to indicate the amount of energy being used can be set using Parameter 12. After displaying the “energy used” color, the LED wil revert to OFF or ON (white) as determined by configuration parameter #3.

Parameter	Length	Valid Values	Configuration Option
12	1 Byte	1 - 254	Number of seconds LED displays power level usage. Default = 60
		255	Power Level usage continuous ON

The PD300EMZ5-1 supports the Configuration command. Each unit can be configured to operate slightly differently than how it works when you first install it.

Using the Configuration command you can configure the following:

Night Light

By default, the LED on the PD300EMZ5-1 will turn OFF when the load attached is turned ON. To make the LED turn ON when the load attached is turned ON, set Parameter 3 to a value of 1.

Parameter	Length	Valid Values	Configuration Option
3	1 Byte	0	LED OFF when the load is on, and ON when the load is off (default mode)
		1	LED ON when the load is on, and OFF when the load is off
		2	LED is always on
		3	LED is always off
		4	LED blinks during RF transmissions from or to the device

Over-The-Air (OTA) Update

A Quadruple tap of the switch enables the firmware update mode. Firmware update mode must be entered before the system Controller sends the firmware update command to begin downloading new firmware. Firmware update mode is enabled for 60 seconds after the quadruple tap. If the Firmware update does not begin before the end of the 60 seconds then firmware update mode is exited returns to normal operation. The LED “winks” twice per second indicating it is in firmware update mode.

Resetting to Defaults

Each configuration Parameter can be set back to its default setting by setting the default bit in the Configuration Set command. See your Controller's instructions on how to do this (and if it supports it). All configuration commands will be reset to their default state when the PD300EMZ5-1 is excluded from the Z-Wave network by using the Controller to reset the node.

SPECIFICATIONS

Power:	120 VAC, 60 Hz
Signal (Frequency):	908.42 MHz / 916 MHz
Maximum Load:	300 W for lamps only 120 VAC Range: Up to 130 feet line of sight

NOTICES

Z-Wave® and Z-Wave Plus® are registered trademarks of Sigma Designs and its subsidiaries in the United States and other countries.
Covered by one or more claims of patents: <http://sipcollc.com/patent-list/> and <http://intusiq.com/patent-list/>
Terms and Conditions pertaining to the sale of this Nortek Security & Control wireless mesh network product are available at http://nortekcontrol.com/terms_conditions.php

REGULATORY INFORMATION

We, Nortek Security & Control, LLC, of 1950 Camino Vida Roble STE 150, Carlsbad, CA 92008, declare under our sole responsibility that the device PD300EMZ5-1 complies with Part 15 of the Fcc rules.
This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

FCC Notice

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.
This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/TV technician to help.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment

IC Notice

This Class B digital apparatus complies with Canadian ICES-003
Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada. Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.
This device complies with the Industry Canada license exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

WARRANTY

What is Covered?

Nortek Security & Control (“NS&C”) warrants to consumers who purchase this product for personal, family or household purposes new from NS&C directly or from an authorized NS&C dealer, that the product will be free from defects in materials and workmanship for a period of (1) year from the date of purchase. This warranty only applies if the product is installed at a residence in the 50 United States or District of Columbia, and only at the site of the original installation. It is not transferable. This warranty is not extended to resellers.

If a defect exists, NS&C will have you ship the defective part or product to us and we will, at our option, either repair or replace it. This warranty does **not** cover the cost of labor to remove a defective part or product or to reinstall any repaired or replacement part or product

This warranty does **not** cover defects or damages caused by improper handling, maintenance, storage, installation, removal or re-installation, misuse, non-factory authorized modification or alteration, use of incompatible accessories, electrical power problems or surges, impact by foreign objects, accident, fire, acts of God, normal wear and tear or shipping damage other than a shipment from NS&C. Note that all NS&C products are designed to be installed, removed and serviced by trained individuals or professionals.

Keep your original sales receipt as it will be required to obtain warranty service.

This warranty shall not be extended or restarted upon receipt of any repaired or replacement part or product under this warranty. No person is authorized to extend or otherwise modify this warranty.

How do I Obtain Warranty Service?

To obtain warranty service, email our Returns Department at returns@nortek.com. Include your name, address, telephone number, the model number of your product, a copy of your original sales receipt, and a description of the problem. Unless we need to discuss the situation further with you, you will be emailed a Return Authorization Number and shipping instructions. If we need to discuss the situation further with you, we will call or email you. NS&C may require troubleshooting on installed product before a Return Authorization Number is issued. Anything shipped to us without a Return Authorization Number will be automatically returned unopened. You are responsible for the charges for shipment to us, unless you are a California resident.

Limitations

THE DURATION OF ANY IMPLIED WARRANTY, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, SHALL NOT EXCEED THE WARRANTY PERIOD PROVIDED HEREIN.

Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

NS&C SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE BREACH OF ANY WRITTEN OR IMPLIED WARRANTY.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

This warranty gives you specific legal rights, and you may also have other legal rights which vary from State to State.