NORTEK
SECURITY & CONTROL

GoControl™

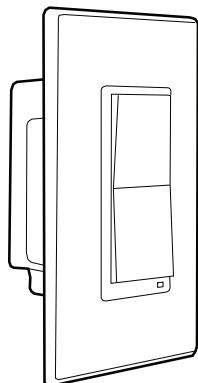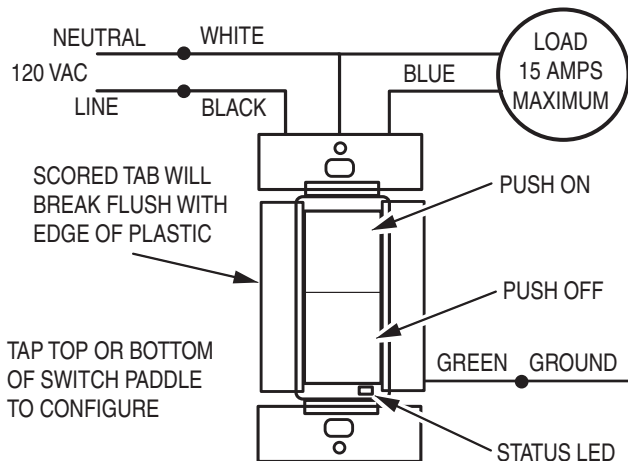# WS15Z5-1

Z-Wave Radio Frequency (RF) Controlled, 120 VAC
Scene and NWI Capable, Wall Mount Switch, Series 500

Z WAVE PLUS

C **UL** US
LISTED

Shown with supplied decorative trim plate

NEUTRAL   WHITE
120 VAC
LINE   BLACK

BLUE

LOAD
15 AMPS
MAXIMUM

WS15Z5-1 AND THE LOAD
MUST SHARE THE SAME
PROPRIETARY NEUTRAL

SCORED TAB WILL
BREAK FLUSH WITH
EDGE OF PLASTIC

PUSH ON

PUSH OFF

TAP TOP OR BOTTOM
OF SWITCH PADDLE
TO CONFIGURE

GREEN   GROUND

STATUS LED

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.

WS15Z5-1 WALL MOUNT SWITCH

The GoControl™ family of Z-Wave® certified wireless Lighting Products (smart LED fixtures, bulbs, switches, dimmers, outlets and 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.

The WS15Z5-1 Wall Mount Switch allows remote ON/OFF control of loads connected to the switch, and is easily wired in place of a standard wall switch.

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.

DANGER! SHOCK HAZARD. Read and understand these instructions before installing. This device is intended for installation in accordance with the National Electric code and local regulations in the United States, or the Canadian Electrical Code and local regulations in Canada. It is recommended that a qualified electrician perform this installation. Make sure the load controlled by the switch does not exceed 1800 watts. For indoor use only. Retain instructions for future use.

Z-WAVE PLUS FEATURES

The WS15Z5-1 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 WS15Z5-1. Refer to the Controller or gateway manual for details.

* Turn the load ON and OFF.
* Add or Remove the WS15Z5-1.
* Assign the WS15Z5-1 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.

INSTALLATION

Wire this switch in place of a current wall switch according to the diagram above. When used, WS15Z5-1's are required to be **wired to the same line (or neutral)** which is also wired to the load being controlled, and not wired to any other neutral. If multiple neutrals are tied together in one box, separate the neutrals to preserve the integrity of the WS15Z5-1 circuit.

✓ *CAUTION! Do not wire unit "live" (with power on the circuit).*

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 switch. 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 WS15Z5-1 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 WS15Z5-1 and clear all network information, follow these steps:

1. Tap the top of the switch five (5) times.
2. Press and hold the bottom of the switch for 15 seconds. The LED will increasingly blink faster to indicate that a Reset is taking place.

Removing from a network:

The WS15Z5-1 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 WS15Z5-1 from the Controller.
2. Remove the switch by tapping the paddle 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 switch paddle on the WS15Z5-1 allows the user to:

- Turn the attached load on or off.
- Tapping top of switch turns the load attached ON.
- Tapping bottom of switch turns the load attached OFF.

LED Indication

To act as a night light, the LED on the WS15Z5-1 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.

Remote Control

The WS15Z5-1 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.

Associations

The GoControl WS15Z5-1 supports three (3) Association Groups. Group 1 is the "Lifeline" group and must be assigned the Node ID of the Z-Wave

Controller to which unsolicited notifications from the WT00Z5-1 will be sent.

Group 1 supports a single Node ID. The Z-Wave Controller should set the Lifeline Association automatically after inclusion. For instructions on how to set Associations, please refer to your Z-Wave Controller instructions. Group 2 nodes will be sent BASIC On/Off commands and is intended to control switches like the GoControl WS15Z5. Group 3 nodes will be sent Multilevel Switch commands and is intended to control dimmers like the GoControl WD500Z5. Groups 2 and 3 support up to five (5) Node IDs.

Creating Associations

1. Learn all devices into the Z-Wave Hub.
2. Tap the paddle of the WS15Z5-1 four times quickly to enter Association mode. The LED will begin to blink quickly (twice per second).
3. Follow the instructions for inclusion or exclusion of the device to be associated. For GoControl devices, tap the button one or two times.
4. Repeat Step #2 and #3 for up to 5 total dimmers and / or switches within 60 seconds of entering Association mode.
5. Association mode will turn off after 60 seconds or when a node has been associated.

Although the Associations are now functional, it is recommended that you refer to your Hubs instructions to "Heal" the Z-Wave network to recognize the new Associations. Dimmers are automatically assigned to group 3 and other devices are assigned to group 2.

Removing Associations

To remove the Associations, if the Hub has recognized the Associations, refer to the Z-Wave Hub's instructions on how to remove Associations. If the Hub has not recognized the Associations, removing the WS15Z5-1 from the Z-Wave network will eliminate the Associations.

ADVANCED OPERATION

All On/All Off

The WS15Z5-1 supports the ALL ON / ALL OFF commands. The WS15Z5-1 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 WS15Z5-1 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 WS15Z5-1 can be setup to respond to ALL ON and ALL OFF commands are:

1. Responds to ALL ON or the ALL OFF command.
2. Responds to ALL OFF command but will not respond to ALL ON command.
3. Responds to ALL ON command but will not respond to ALL OFF command.
4. Responds to ALL ON and the ALL OFF command.

New Central Scene Command Class Support

The GoControl Dimmer Switch supports the new Central Scene Command Class. This allows the Switch to execute up to 10 independent events that are triggered by Key Attributes related to (2) two Scene Numbers.

By tapping or holding down the top or bottom of the Switch paddle a specific Scene Number Key Attribute is transmitted as shown below in addition to the standard operation of the switch as described above in Basic Operations Load Control section.

Paddle Presses	Scene Number	Key Attribute
Press & Hold Top	1	2
Release Top	1	1
Single Tap Top	1	0
Double Tap Top	1	3
Triple Tap Top	1	4
Press & Hold Bottom	2	2
Release Bottom	2	1
Single Tap Bottom	2	0
Double Tap Bottom	2	3
Triple Tap Bottom	2	4

When the paddle is tapped or pressed, the dimmer sends the Scene Number and Key Attribute to the Z-Wave Hub via Association Group 1. The hub can then control any Z-Wave devices supported by the Hub. Refer to your Z-Wave Hub instructions for details on how to control other devices using the Central Scene feature.

✓ NOTE: The Z-Wave Hub has to support the Central Scene Command Class in order to take advantage of this feature.

✓ NOTE: The Scene Number is not the same as standard Z-Wave Scenes IDs. The Scene Number is simply the top (1) or bottom (2) of the paddle and is not a "Scene" in the classic Z-Wave sense. The Key Attribute tells the Hub how the paddle was pressed as described in the table above.

CONFIGURATION

The WS15Z5-1 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 WS15Z5-1 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 - night lite 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

Invert Switch

To change the top of the switch to OFF and the bottom of the switch ON, set Parameter 4 to a value of 1.

Parameter	Length	Valid Values	Configuration Option
4	1 Byte	0	Top of switch is ON, bottom of switch is OFF **(default)**
		1	Bottom of switch is ON, top of switch is OFF

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 WS15Z5-1 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:	Resistive: 15 amps (1800 watts) maximum, 120 VAC
	Motor: 1/2 H.P. maximum, 120 VAC
	Incandescent: 600W maximum, 120 VAC
Range:	Up to 130 feet line of sight

REGULATORY INFORMATION

The WS15Z5-1 is certified to comply with applicable FCC and IC rules and regulations governing RF and EMI emissions.

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.

NOTICES

Z-Wave® and Z-Wave Plus® are registered trademarks of Sigma Designs and its subsidiaries in the United States and other countries.

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.

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 of limitation 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.

IMPORTANT !!!

- Radio controls provide a reliable communications link and fill an important need in portable wireless signaling. However, there are some limitations which must be observed.
- For U.S. installations only: The radios are required to comply with FCC Rules and Regulations as Part 15 devices. As such, they have limited transmitter power and therefore limited range.
- A receiver cannot respond to more than one transmitted signal at a time and may be blocked by radio signals that occur on or near their operating frequencies, regardless of code settings.
- Changes or modifications to the device may void FCC compliance.
- Infrequently used radio links should be tested regularly to protect against undetected interference or fault.
- A general knowledge of radio and its vagaries should be gained prior to acting as a wholesale distributor or dealer, and these facts should be communicated to the ultimate users.

GoControl™