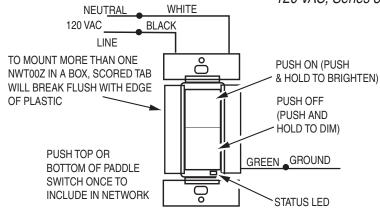
NuTone



NWT00Z

Z-Wave Radio Frequency (RF) Controlled Wall Mounted Transmitter 120 VAC, Series 300







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NOTE: This module must be "included in the Network" **only where it will be permanently installed.** The proper operation of this node in the <u>mesh network</u> is dependent on it knowing its location with respect to other nodes. You cannot "test bench" configure this module.

NWT00Z WALL MOUNTED TRANSMITTER

NuTone's family of Z-Wave[®] certified wireless lighting controls (switches, dimmers, outlets and plug-in modules) brings a new level of intelligent wireless capability to commercial and residential environments.

The Z-Wave wireless protocol is an international wireless standard for remote home automation, security and other applications. Embedded in each device, the Z-Wave smart chip enables two-way RF communication among hundreds of Z-Wave enabled devices, allowing products and services from multiple manufacturers to work seamlessly.

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

INSTALLATION

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. Retain instructions for future use.

Wiring

With power off, wire this NWT00Z according to the diagram shown above. If more than one NWT00Z is to be installed in a wall box, scored tabs on the side can be broken off by bending back and forth with pliers, to accommodate proper fit. Apply power when completed.

INCLUDING NWT00Z TO THE NETWORK

- Prepare the Controller to include a unit to the network by adding it to a group (method of adding a node to the network). Refer to controller instructions.
- The NWT00Z must be in its permanently installed location. Tap either the top or bottom of the NWT00Z once.
- 3. You should see an indication on your Controller that the "device was included" in the network.
- ✓ NOTE: If you have trouble adding the NWT00Z 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" with your controller 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.

Before you can control Z-Wave devices you must associate the devices you want to control from the NWT00Z.

Associating Z-Wave devices to control from the NWT00Z

Refer to your controllers instructions to find out how to associate Z-Wave devices. You can associate another Z-Wave device to the NWT00Z.

Group 1 Support

Nodes in this group are turned ON by tapping the top of the paddle or OFF by tapping the bottom of the paddle. Nodes associated into this group are dimmed by pressing and holding the bottom of the paddle until the desired dim level is reached or brightened by pressing and holding the top of the paddle until the desired level is reached.

INTEROPERABILITY WITH Z-WAVE DEVICES

A Z-Wave network can integrate devices of various classes of products, and these devices can be made by different manufacturers. The NWT00Z has Z-Wave certification which guarantees interoperability.

CONFIGURATION

The NWT00Z supports the Configuration command. The NWT00Z simulates the operation of a dimmer. Using configuration commands you can adjust the dimming parameters as though it were a dimmer. The NWT00Z can be configured to operate slightly differently than how it works when you first install it.

Using the configuration command you can change the following:

Set Ignore Start Level Bit When Transmitting Dim Commands

The NWT00Z can send Dim commands to Z-Wave enabled dimmers. The Dim command has a start level embedded in it. A dimmer receiving this command will start dimming from that start level if this bit is set to 0. If the bit is set to 1, the dimmer will ignore the start level and instead start dimming from its current level. To change this option, set this parameter.

- Parameter No: 1 Length: 1 Byte Valid Values = 0 or 1 (default 1)
- ✓ NOTE: Many Z-Wave enabled dimmers have the configuration option to ignore the start level no matter how you configure the NWT00Z

Night Ligh:

The LED on the NWT00Z will by default, turn ON when the status of the devices in Group 1 is ON. To make the LED turn ON when the status of Group 1 is OFF set this parameter to a value of 1.

• Parameter No: 3

• Length: 1 Byte

• Valid Values = 0 or 1 (default 0)

Invert Switch

To change the top of the transmitter to OFF and the bottom of the transmitter to ON, set this parameter to 1.

Parameter No: 4

Length: 1 Byte

Valid Values = 0 or 1 (default 0)

Ignore Start Level When Receiving Dim Commands

The NWT00Z can send Dim commands to Z-Wave enabled dimmers. The Dim command has a start level embedded in it. A dimmer receiving this command will start dimming from that start level. However, the command can be sent so that the dimmer ignores the start level and instead start dimming from its current level. By default, the NWT00Z sends the command so that the dimmer will start dimming from its current dim level rather then the start level embedded in the command. To change this option, set this parameter to 0.

• Parameter No: 5 • Length: 1 Byte • Valid Values = 0 or 1 (default 1)

✓ NOTE: This only affects a level that is reported or possibly sent by the NWT00Z since the NWT00Z does not control a load.

Resetting to Defaults

Each Configuration Parameter can be set 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 NWT00Z is excluded from the Z-Wave network by using the controller to reset the node.

Adjusting the Dim Rate

For example: There are three sets of parameters that can adjust the dimming rate of the NWT00Z.

- One set to control how fast the dim rate is when the dimmer receives a Z-Wave command excluding ALL ON or ALL OFF command.
- 2. One set to control how fast the dim rate is when the dimmer is locally controlled.
- One set to control how fast the dim rate is when the dimmer receives an ALL ON or ALL OFF command.

These values can be changed instantly to allow various scenes and effects. The first of these parameters is the "dim step" (dim rate) parameter. It can be set to a value of 1 to 99. This value indicates how many levels the dimmer will change when the timer (discussed below) expires.

The second parameter is the timing (how fast the dim rate) parameter. 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. For example, if you set this parameter to 1, then every 10mS the dim level will change. If you set it to 255, then every 2.55 seconds the dim level will change.

With the combination of the two parameters that can 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 Nos: 7-12 Length: 1 Byte Valid Values: (See next)
- ✓ NOTE: that this only affects a level that is reported or possibly sent by the NWT00Z since the NWT00Z does not control a load.

On/Off Command dim rate (excluding ALL ON/ALL OFF commands)

- Parameter No: 7
 Dim step Parameter (default = 3)
 Valid Values: 1-99
- Parameter No: 8 Dim timer Parameter (default =10) Valid Values: 1-255

Local Control Dim Rate

- Parameter No: 9
 Dim step Parameter (default = 3)
 Valid Values: 1-99
- Parameter No: 10 Dim timer Parameter (default = 10) Valid Values: 1-255

All On / All Off Dim Rate

- Parameter No: 11 Dim step Parameter (default = 3)
 Valid Values: 1-99
- Parameter 12 Dim timer Parameter (default = 10) Valid Values: 1-255

Enable Shade Control Group 1

The NWT00Z can control shade control devices via its Group 1 if this configuration parameter is set to 1.

Parameter No: 16
 Length: 1 Byte
 Valid Values = 0 or 1 (default 0)

LED Transmission Indication

The NWT00Z will flicker its LED when it is transmitting. This flickering can be set to not flicker at all (set to 0), to flicker the entire time it is transmitting (set to 1), or to flicker for only 1 second when it begins transmitting (set to 2). By default, the NWT00Z is set to flicker for only 1 second.

Parameter No: 19
 Length: 1 Byte
 Valid Values = 0 , 1, 2 (default 2)

Poll: Minutes

The NWT00Z will poll the first node in Group 1 in order to keep itself synchronized with the group if this configuration parameter is set to 1. How often it will poll is configured using this parameter.

Parameter No: 20
 Length: 1 Byte
 Valid Values = 1-255 (default: 2)

Poll First Node in Group 1

The NWT00Z will poll the first node in Group 1 in order to keep itself synchronized with the group if this configuration parameter is set to 1.

• Parameter No: 21 • Length: 1 Byte • Valid Values = 0, 1 (default 0)

OPERATION

Turning Z-Wave devices On or Off

- 1. Tap the top of the paddle to turn On Z-Wave devices.
- 2. Tap the bottom of the paddle to turn Off Z-Wave devices.

The LED on the NWT00Z will indicate the status of the devices you are controlling. The LED on the NWT00Z will flicker when it is transmitting commands to any of the four groups. This can be changed. See "LED Transmission Indication".

Dimming and Brightening

- 1. Press and hold the top of the paddle to brighten Z-Wave enabled dimmers.
- 2. Press and hold the bottom of the paddle to dim Z-Wave enabled dimmers.

SPECIFICATIONS

Power: 120 VAC, 60 Hz

Signal: (Frequency) 908.42 MHz

Range: Up to 100 feet line of sight between the Controller

and / or the closest Z-Wave repeater

REGULATORY INFORMATION

The NWO15Z is certified to comply with applicable FCC and IC rules and regulations governing RF and EMI emissions.

FCC NOTICE

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.

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

Note: 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 for help.

IC NOTICE

This Class B digital apparatus complies with Canadian ICES-003. 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.

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.

Les changements ou modifications non approuvés expressément par la partie responsable de la conformité pourrait annuler l'autorité de l'utilisateur à faire fonctionner l'équipement.

LIMITED WARRANTY

WARRANTY PERIOD AND EXCLUSIONS: Broan-NuTone LLC (the "Company") warrants to the original consumer purchaser of its product (the "Product") that the product will be free from material defects in the Product or its workmanship for a period of one (1) year from the date of original purchase. The warranty on the light bulbs provided with the product is one (1) year and does not cover lamp/bulb breakage. This warranty does not cover accessories or parts that may be purchased separately and installed with the Product.

The limited warranty period for replacement parts, and for Products repaired or replaced under this limited warranty, shall continue for the remainder of the original warranty period.

NO OTHER WARRANTIES: THE FOREGOING WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED. THE COMPANY DISCLAIMS AND EXCLUDES ALL OTHER EXPRESS WARRANTIES, AND DISCLAIMS AND EXCLUDES ALL WARRANTIES IMPLIED BY LAW, INCLUDING WITHOUT LIMITATION THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. TO THE EXTENT THAT APPLICABLE LAW PROHIBITS THE EXCLUSION OF IMPLIED WARRANTIES, THE DURATION OF ANY APPLICABLE IMPLIED WARRANTY IS LIMITED TO THE PERIOD SPECIFIED FOR THE EXPRESS WARRANTY. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. Any oral or written description of the Product is for the sole purpose of identifying it and shall not be construed as an express warranty.

REMEDY: During the applicable limited warranty period, the Company will, at its option, provide replacement parts for, or repair or replace, without charge, any Product or part thereof, to the extent the Company finds it to be covered by and in breach of this limited warranty under normal use and service. The Company will ship the repaired or replaced Product or replacement parts to you at no charge. You are responsible for all costs for removal, reinstallation and shipping, insurance or other freight charges incurred in the shipment of the Product or part to the Company. The Company reserves the right to utilize reconditioned, refurbished, repaired or remanufactured Products or parts in the warranty repair or replacement process. Such Products and parts will be comparable in function and performance to an original Product or part and warranted for the remainder of the original warranty period. This warranty does not cover (a) normal maintenance and service including light bulbs, batteries or other accessories, (b) normal wear and tear, (c) any Products or parts which have been cisulected in the Company), (d) damage caused by faulty installation, or installation or use contrary to recommendations or instructions, (e) any Product that has been moved from its original point of installation, (f) damage caused by environmental or natural elements, (g) damage in transit, (h) natural wear of finish, (i) Products in commercial or nonresidential use, or (i) damage caused by the Company or U.S. distributors authorized by the Company.

EXCLUSION OF DAMAGES: THE COMPANY'S OBLIGATION TO PROVIDE REPLACEMENT PARTS, OR REPAIR OR REPLACE, ATTHE COMPANY'S OPTION, SHALL BEYOUR SOLE AND EXCLUSIVE REMEDY UNDER THIS LIMITED WARRANTY AND THE COMPANY SOLE AND EXCLUSIVE OBLIGATION. THE COMPANY SHALL NOT BE LIABLE FOR INCIDENTAL, INDIRECT, CONSEQUENTIAL OR SPECIAL DAMAGES ARISING OUT OF OR IN CONNECTION WITH THE PRODUCT, ITS USE OR PERFORMANCE. Incidental damages include but are not limited to such damages aloss of time and loss of use. Consequential damages include but are not limited to the cost of repairing or replacing other property which was damaged if the Product does not work properly.

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 rights, which vary from state to state.

This warranty supersedes all prior warranties and is not transferable from the original consumer purchaser

THE COMPANY SHALL NOT BE LIABLE TO YOU, OR TO ANYONE CLAIMING UNDER YOU, FOR ANY OTHER OBLIGATIONS OR LIABILITIES, INCLUDING, BUT NOT LIMITED TO, OBLIGATIONS OR LIABILITIES ARISING OUT OF BREACH OF CONTRACT OR WARRANTY, NEGLIGENCE OR OTHER TOTA OR ANY THEORY OF STRICT LIABILITY, WITH RESPECT TO THE PRODUCT OR THE COMPANY'S ACTS OR OMISSIONS OR OTHERWISE.

This warranty covers only replacement or repair of defective Products or parts thereof at the Company's main facility and does not include the cost of field service travel and living expenses.

GENERAL PROVISIONS: (1) Any assistance Company provides to or procures for consumer outside the terms, limitations or exclusions of this warranty will not constitute a waiver of such terms, limitations or exclusions, or extend or revive the warranty. (2) Any action by you for breach of this limited warranty must be commenced within one year after the breach occurs. (3) Whenever possible, each provision of this limited warranty shall be interpreted in such manner as to be effective and valid under applicable law, but if any portion is deemed invalid or unenforceable, the remaining portions shall still be enforceable. The Company will not reimburse you for any expenses incurred by you in repairing or replacing any defective Product, except for those incurred with the Company's prior written permission.

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HOW TO OBTAIN WARRANTY SERVICE: To qualify for warranty service, you must (a) notify the Company at the address or telephone number stated below within seven (7) days of discovering the covered defect, (b) give the model number and part identification and (c) describe the nature of any defect in the Product or part. At the time of requesting warranty service, you must present evidence of the original purchase date. If you cannot provide a copy of the original written limited warranty, then the terms of the Company's most current written limited warranty for your particular product will control. The most current limited written warranties for the Company's products can be found at www.NuTone.com.

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If you must send the Product or part to the Company, as instructed by the Company, you must properly pack the Product or part—the Company is not responsible for damage in transit.