

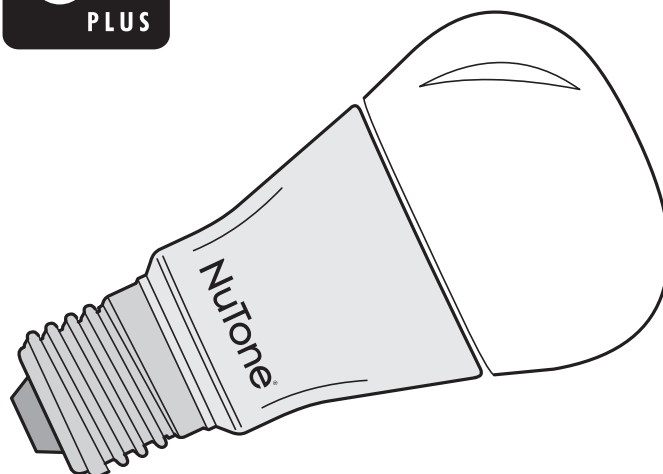
NuTone®



NLB60Z

Radio Frequency Controlled
Smart LED Light Bulb
120 VAC, Series 500

750 Lumens
Equivalent
to a 60 Watt
incandescent
light bulb



NOTE: This unit must be "included in 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 bulb, then install.

NLB60Z SMART LED LIGHT BULB

NuTone's family of Z-Wave® certified wireless lighting products (smart LED bulbs, switches, dimmers, outlets, and plug-in modules) and security devices (alert sounder, passive infrared sensor and door/window transmitter) bring 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.

The NLB60Z Smart LED Light Bulb is simple to set up and provides longer life and more energy efficiency than incandescent or florescent light bulbs. The bulb is instant on, without the warm-up delay common in CFL bulbs.

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, energy management, home entertainment, appliances, and more.

As part of a Z-Wave network, the NLB60Z will also act as a wireless repeater to insure that commands intended for another device in the network are received. This is useful when the device would otherwise be out of the radio range of the wireless controller.

For indoor use only. Retain instructions for future use.

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 NLB60Z has Z-Wave certification which guarantees interoperability.

INSTALLATION

1. At the selected location, turn the power to the light bulb socket **OFF**.
2. Screw the Smart LED Light Bulb into the lamp socket.

For "Inclusion" to (adding to) a network:

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

1. With your controller in Inclusion Mode, turn the power to the light bulb socket **ON**.
2. You should see an indication on your Controller that the "device was included" in the network. The Smart LED Light Bulb will flash twice.
3. The device will appear in the list of Switches. It should display multi-level switch.

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

✓ **NOTE:** If you have trouble adding the NLB60Z 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)

To reset the bulb and clear all network information, follow these steps:

1. Use the wall switch to turn the power to the bulb **ON** then **OFF** four times within four seconds.
2. The Smart LED Light Bulb will flash twice when the reset occurs.

Before repeating the steps above, try moving the Smart LED Light Bulb to a socket in the same room as the Controller/Gateway in case the preferred socket is out of range initially.

Repeat Steps 1-3 above until the Smart LED Light Bulb is added to the network. Once the bulb has been successfully added to the network, move it to the preferred location.

For "Exclusion" from (removing from) a network:

The Smart LED Light Bulb can be excluded from the network by the Controller/Gateway. Refer to the Controller operating instructions for details.

1. Set the Controller into "exclusion" mode, and following its instruction to delete the NLB60Z from the Controller.
2. Reset the bulb by using the wall switch to turn the power to the bulb **ON**. The Smart LED Light Bulb will flash twice to confirm the exclusion.

BASIC OPERATION

Remote Control Operation

The Smart LED Light Bulb can be controlled ON / OFF/ BRIGHT / DIM through wireless signals from the Z-Wave remote controller or through a gateway via an application on a smart phone, tablet, or PC.

Once the Smart LED Light Bulb has been added to the network, depending on the functions supported by your controller, it can be assigned to a Group or Scene and operate when the ALL ON or ALL OFF command is received from the Controller. It can also be set in Association with another Z-Wave device to perform a specific duty.

Manual Operation

The Smart LED Light Bulb can be manually operated using the wall switch while keeping it on-line with the Z-Wave network.

To manually turn the Smart LED Light Bulb ON:

Flip the wall switch **OFF** then **ON**. Be sure the switch is **ON** when finished.

To manually turn the Smart LED Light Bulb OFF:

Flip the wall switch **OFF** then **ON** twice within two seconds. Be sure the switch is **ON** when finished.

CONFIGURATION

The NLB60Z supports the Configuration command. The NLB60Z 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:

Parameter 1: Dim Level Memory

By default, the NLB60Z bulb will go to full brightness when turned on. To have the bulb turn on to the last dim level setting, set parameter 1 to 1.

- **Parameter No: 1**
- **Length: 1 Byte**
- **Valid Values = 0 (default) or 1.**
- When the value = 0, the bulb will be full brightness when turned on.
- When the value = 1, the bulb will turn on to the last dim level setting.

Z-Wave Plus Features

The NLB60Z 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 Smart LED Light Bulb. Refer to the controller or gateway manual for details.

- Turn the bulb ON and OFF.
- Dim the bulb.
- Add (Include) or Delete (Exclude) the Smart LED Light Bulb.
- Assign the Smart LED Light Bulb to a specific Group/Scene and/or to include the bulb 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.

ASSOCIATION

The NLB60Z 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 NLB60Z 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. Lifeline association only supports the "manual reset" event.

For instructions on how to "set lifeline association" please refer to your wireless controller instructions.

SPECIFICATIONS

Power Supply:	120 VAC, 60 Hz
Brightness:	750 lumens (Equivalent to 60 Watt incandescent light bulb)
Power Consumption:	9 Watts
Color Temperature:	2700K
Bulb Lifetime:	25,000 hour (equivalent 22.8 years based on 3 hours/day)
Radio Frequency:	908.4 MHz / 916 MHz
Wireless Range:	Up to 130 feet line of sight between the Z-Wave Controller and/or the closest Z-Wave Repeater
Normal Operating Temp:	77°F (25°C)
Repeater:	Yes

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REGULATORY INFORMATION

The NLB60Z is certified to comply with applicable FCC and IC rules and regulations governing RF and EMI emissions.

FCC ID: EF400126 IC #: 1078A-00126

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 subject to misuse, abuse, abnormal usage, negligence, accident, improper or insufficient maintenance, storage or repair (other than repair by 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 (j) damage caused by fire, flood or other act of God. This warranty covers only Products sold to original consumers in the United States 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, AT THE COMPANY'S OPTION, SHALL BE YOUR SOLE AND EXCLUSIVE REMEDY UNDER THIS LIMITED WARRANTY AND THE COMPANY'S 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 as loss 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 TORT 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.