Leedarson LED Bulb DIM

Quick User Guide

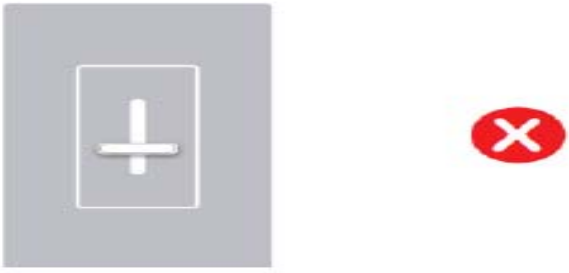
1 Product Introduction

1.1 Basic Information

CONTROL YOUR LIGHTS FROM ANYWHERE in the world from the palm of your hand. The DIM Retrofit produces beautiful high quality light that you can tune, dim, and control from your smartphone or tablet. Easy to setup, bulbs fit into your standard household sockets - no need for installation by an electrician. A wireless network is required to operate bulbs.
SET LIGHT SCENES: Create rich indirect light scenes in your home by dim the light. Schedule to turn on the lights so you don't come home to a dark house. Set automated timers, or program the bulb to gradually increase brightness in the the morning like the sunrise for a more pleasant, natural alarm.
SAVE ENERGY: Lightify bulbs use up to 84% less energy than traditional incandescent bulbs and last up to 20,000 hours making them a smart choice for energy conscious homes.
SECURITY: The security layer provides confidentiality, authentication and replay attack robustness through AES-128.
SECURITY: As a Security Enabled Z-Wave Plus Product. The bulb provided confidentiality, authentication and replay attack robustness through AES-128.A Security Enabled Z-Wave controller can used in order to fully utilize the product..

1.2 Special notes for Connected Bulbs

Line Voltage Dimmer
LEEDARSON does not recommended the use of a line voltage dimmer with connected bulbs.The reason is that each connected bulb contains a radio and by reducing,or removing,power through a line voltage dimmer may cause the connected bulb to not function properly.



For dimming, LEEDARSON recommends using a compatible App (i.e., LEEDARSON'S LDS App)or a compatible wireless switch that uses the same wireless protocol as the bulb.

1.3 Devices Inclusion and Exclusion

If your switch or fixture is OFF, or is turned OFF, then control and communication from the App, or wireless switch, to the LED Bulb is lost.

Inclusion Procedure

The following are the general procedures for the Z-Wave bulb to be "included/excluded " into the network:

1. Screw the DIM bulb into a standard E26 socket.
2. Turn on the bulb with your wall switch to apply power to the bulb.

a) If you're not using a wall switch, then use your alternate method to apply power to the bulb.

3. Activate the"included/excluded " mode on your Z-Wave controller or gateway.

a) This may also be done through your associated app,if your ecosystem has that capability.

4. Toggle the wall-switch, from OFF, then to ON.

a) Or use your alternate method to toggle power from OFF, then to ON.

5. The LED bulb will flash once if it has been successfully "included/excluded "into your Z-Wave network.

Note: If you are using 3rdpartyZ-Wave Controller or Gateway, please refer to 3rdParty's instruction on how to add a new devices to your network.

Note 2: If the bulb will not join the network after repeated attempts, please use the Factory Reset procedures to clear the bulb's settings.

1.4 Factory Reset Procedure

Physically switch the bulb on and off six (6) times for intervals of 0.5-2seconds. After the 6thtime, the bulb will flash twice indicating that it's successfully reset. Please use this procedure only when the network primary controller is missing or otherwise inoperable.

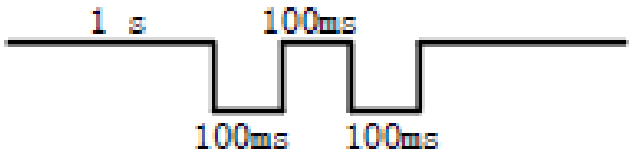
When the bulb flashes twice this indicates that it's been successfully reset.

1.5 Behaviors of the bulb

This bulb has some behaviors to indicate users the status of the bulb.

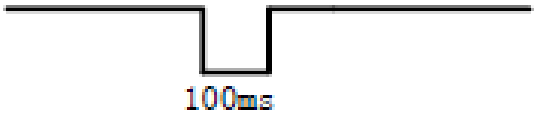
Factory Reset mode

The bulb will flash twice when it is powered on in reset mode or factory mode.



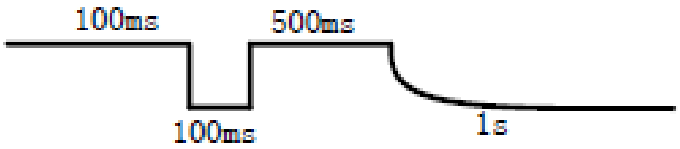
Add for inclusion

The A19 bulb will flash once when it has been included into the network.



Remove for exclusion

The A19 bulb will flash once and then dim to 5% when it has been excluded outside the network. If you want the bulb to be re-included, you need re-power the bulb, and then execute the inclusion process.



1.6 Technical Pa*rameter*

Protocol	Z-Wave
Frequency	908.42MHz
Communication Distance	40m(LOS)
Modulation Mode	FSK(BFSK/GFSK)
Power(W)	9
Voltage(V)	120
Dim Range	5-100%
CRI	80
Beam Angle	240
Dimensions(mm)	120*60/118*60

2 Z-Wave Specific

Add for inclusion, Remove for exclusion. This product can be included and operated in any Z-Wave network with other Z-Wave certified devices from other Manufactures 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.

2.1 Z-Wave Plus Device Type

Device Type	Role Type
Light Dimmer Switch	Always On Slave Role Type

2.2 Command list

Network Type	Node Info	
Non Security Network	COMMAND_CLASS_BASIC	V1
	COMMAND_CLASS_VERSION	V2
	COMMAND_CLASS_SWITCH_MULTILEVEL	V2
	COMMAND_CLASS_ASSOCIATION_GRP_INFO	V1
	COMMAND_CLASS_ASSOCIATION	V2
	COMMAND_CLASS_ZWAVEPLUS_INFO	V2

	COMMAND_CLASS_MANUFACTURER_SPECIFIC	V2
	COMMAND_CLASS_POWERLEVEL	V1
	COMMAND_CLASS_CONFIGURATION	V1
	COMMAND_CLASS_FIRMWARE_UPDATE_MD	V2
	COMMAND_CLASS_DEVICE_RESET_LOCALLY	V1
	COMMAND_CLASS_ALL_SWITCH	V1

2.3 Documentation For Association Command Class

This association group is only used for Z-Wave plus lifeline communications.

Number of Association Groups	Maximum Supported Nodes For Association Groups
1	1

2.4 Documentation For Configuration Command Class

Parameter	Number of Bytes	Default Value	Function Description
0xFF (This Parameter is not readable and it can only be used for the Configuration Set command.)	4	NA	Value=0x88888888, Default=1, Size=4 Reset to factory configuration and removed the Z-Wave network.
			Value=0x88000000, Default=1, Size=4 Reset Configuration parameter to default value.

2.5 Z-Wave Plus Info Command Report

Parameter	Value
Role Type	5(ZWAVEPLUS_INFO_REPORT_ROLE_TYPE_SLAVE_ALWAYS_ON)
Node Type	0 (ZWAVEPLUS_INFO_REPORT_NODE_TYPE_ZWAVEPLUS_NODE)
Installer Icon Type	0x0600(ICON_TYPE_GENERIC_LIGHT_DIMMER_SWITCH)
User Icon Type	0x0600(ICON_TYPE_GENERIC_LIGHT_DIMMER_SWITCH)

1.8.2 Manufacturer Specific Report Commands

Parameter	Value
Manufacturer ID 1	0x03
Manufacturer ID 2	0x00
Product Type ID 1	0x00
Product Type ID 2	0x03
Product ID 1	0x00
Product ID 2	0x05

1.8.5 Version Report Commands

Parameter	Value (HEX)
Z-Wave Protocol Library Type	0x03
Z-Wave Protocol Version	0x04
Z-Wave Protocol Sub Version	0x26
Firmware 0 Version	Firmware Version Upper 8 bits 0x01
Firmware 0 Sub Version	Firmware Version Lower 8 bits 0x03
Hardware Version	0xFF
Number of firmware targets	0x00