





### (1) Oomi by Fantem LED Bulb.

Make any light a smart light.

LED Bulb brings the connected light bulb to Z-Wave. Offering the perfect shades of cool and warm light, along with 16 million shades of other coloured light, LED Bulb is the modern light bulb as it should be: connected, controllable and perfectly considered

### Familiarise yourself with your LED Bulb.

Your LED Bulb contains all its technology within its silver and white exterior. It has no external buttons.





EMERGENCY EXITS OR NOT FOR EMERGENCY

it into a lamp holder and adding it to your existing Z-Wave

INSTABILITY OF A FREE-STANDING PORTABLE THIS DEVICE IS NOT INTENDED FOR USE WITH

SUITABLE FOR USE IN ENCLOSED LUMINAIRES.

Quick start. Getting your LED Bulb up and running is as simple as inserting network. You'll need to set your Z-Wave hub to accept new products; to do this, please refer to its user manual.



- Toggle off the wall switch into the OFF position.
- 2. Remove any existing light bulb and replace it with LED Bulb.
- Set your Z-Wave gateway to accept new products.
- 4. With LED Bulb in its fitting, wait 2 seconds. Now toggle your wall switch ON, LED Bulb's green LED will blink to indicate that it is looking for a Z-Wave network to connect to.
- 5. After successfully connecting to your network, LED Bulb will illuminate. If a network connection has failed, it will remain

# without light.

Using LED Bulb. With your LED Bulb now a part of your smart home, you'll be able to schedule, configure and control it your Z-Wave gateway.

Please refer to the relevant pages of your gateway's user manual for instructions on configuring LED Bulb to your needs.

Please note that the wall switch controlling LED Bulb needs to be left in the on position in order for LED Bulb to function within vour Z-Wave network. In the off position, LED Bulb will not be able to draw power and will not be remotely controllable nor be able to serve as a Z-Wave repeater.

# Advanced functions.

# Manually changing LED Bulb's colour.

LED Bulb can fill your room with multiple shades of white and an additional 16 million different colours. It's possible to manually select some of these without the use of your Z-Wave gateway.

- 1. Keep the wall switch in the "ON" state and then toggle LED Bulb off, on, off, on in quick succession via its wall switch. LED Bulb has now entered colour cycle mode and will cycle through the following colours: warm white, cold white, red, orange, vellow, green, cvan, blue and violet,
- 2. When the colour cycle arrives at the colour you'd like to select, toggle off LED Bulb via the wall switch. The visible

colour will be set as your bulb's default.

### Removing LED Bulb from a Z-Wave network.

Your LED Bulb can be removed from your Z-Wave network at any time using your Z-Wave gateway. To set your gateway into removal mode,

- Set your Z-Wave gateway into device removal mode.
- please refer to the respective section of its user manual. 2. Keep the wall switch in the "ON" state.
- 3. Toggle LED Bulb's wall switch off, on, off, on, off, on in fast
- 4. LED Bulb should now be removed from your Z-Wave network. To confirm successful removal its colour will change t orange for 2 seconds before changing to white. If removal was unsuccessful, LED Bulb will blink orange for 3 seconds before changing to red for 2 seconds.

Removing LED Bulb from your Z-Wave network will reset LED Bulb to default factory settings. Use this procedure only in the event that the network primary controller is missing or otherwise inoperable.

# Security inclusion.

- 1. Keep the wall switch in the "ON" state.
- Set your Z-Wave gateway into pairing mode.

3. Toggle the wall switch off, on, off, on, off, on, The blue LED will blink to indicate the Bulb is entering into secure pairing

- 4. If LED Bulb has been successfully added to your Z-Wave network, its RGB LFD will be solid when you turn LFD Bulb
- Manual configuration.

## You may wish to manually configure LED Bulb via Z-Wave command classes through your gateway. What follows is a list

## of the associated information.

Colour Display Cycle Configuration. Parameter 37 [4 byte] will cycle the colour displayed by LED Bully into different modes:

	Duib ii ito dilion	GITT ITTOC	100.						
		7	6	5	4	3	2	1	0
)	Value 1 (MSB)	Colour Transition Style		Colour Change Speed Option		Colour Display Cycle			
	Value 2	Brightness							
	Value 3	Cycle Count							
	Value 4 (LSB)		ase of Conge Spe	Colour Change Speed Level					

# Colour Display Cycle (4 bits)

The Colour Display Cycle field can have the following values corresponding to 4 different modes:

Colour Display		Description	before stop
	Cycle	Description	Cycle Cour
	0	Inactive (keep the current configuration values).	0
	1	Rainbow Mode(red, orange, yellow, green, cyan, blue, violet).	1 to 254
	2	Multi Colour Mode(colours cycle between selected colours).	255 Brightness
	3	Random Mode.	Brightness L
	4	Single Colour Mode.	1 to 99

### 5 to 15 Reserved.

Colour Transition Style (2 bits) The following values correspond to 2 different transition styles

io ioliovvii ig	values correspond to 2 dilicion transition styles
etween colou	irs:
Colour ansition Style	Description
0	Smooth Colour Transition.
1	Fade Out Fade In Transition.

# Cycle Count (8 bits)

The Cycle Count is used to define the number of repetitions cycles displayed by your LED Bulb in Colour Display Cycle

le Count	Description
0	Unlimited.
to 254	Total number of repetitions/cycles before stopping.
	Inactive (keep the current configuration values)Inactive (keep the current configuration values).

### cc (Q hitc)

ess (6 Dits)					
s Level	Description				
99	1 = Min level. 99 = Max level.				
	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1				

## 0 or 255 Inactive (keep the current configuration values).

Time Base of Colour Change Speed (3 bits) This function would be used when the Colour Transition Style is

ade Ou	ut/In.
Base	Description
	Time base is 1s.
	Time base is 10ms.
	Time hase is 100ms

### This function would be used when the Colour Transition Style is

Colour Change Speed Level (5 bits)

set to Fade Out/In.

Level	Description
	Constant speed.
30	Accelerate/decelerate speed from the level 1 to 30.
	Inactive (keep the current configuration values).

The table above shows a decimal representation of the settings that can be set on parameter 37.

Parameter 39 [4 byte] can be used to set up to 8 colours to cycle between when LED Bulb is in Multi Colour Mode. Colours transition from Colour Index 1-8.

	7	6	5	4	3	2	1	0			
Value 1 (MSB)		Index 1					Index 2				
Value 2		Index 3					Index 4				
Value 3		Index 5				Index 6					
Value 4 (LSB)		Index 7				Index 8					

Colour Component Id:

ID	1	2	3	4	5	6	7	
Colour	Red	Orange	Yellow	Green	Cyan	Blue	Violet	Pin

If you set the parameter 39 to 305135616 (0x12300000 in hexadecimal), the colour will be changed from Red to Orange and then Orange to Yellow circularly(Red-Orange-Yellow).

When your Bulb is in Single Colour Mode and the Fade Out Fade In transition style, the parameter 39 would be used to set the RGB value.

	7	6	5	4	3	2	1	0
Value 1 (MSB)	Red valu	Je St						
Value 2	Green v	alue						
Value 3 Blue value								
Value 4 (LSB)	Reserve	d						

When your Bulb is in Random Mode, the parameter 39 would be used to set the random seed, then your bulb will automatically generate random colours to be displayed according to the random seed you set.

	7	6	5	4	3	2	1	Г
Value 1 (MSB)	Random	n seed va	lue					
Value 2								
Value 3								
Value 4 (LSB)	1							

# Technical specifications.

Model number: 7W098.

Bulb holder type: E26 for USA version, E27/B22 for EU/AU

Max operating power: 9W. Max brightness: 750 lumens. Rated colour temperature: 5000K.

Useful life: 25000 to 30000 hours.

Operating temperature: 0°C to 40°C/32°F to 104°F.

Relative humidity: 8% to 80%.

Operating distance: Up to 492 feet/150 meters outdoors. AC Input:

(7) Warranty.

this product from has also guaranteed to assist you with any of your support needs, and you can also contact them for

916.02MHz

865.20MHz

This guarantee made by the company who you purchased the

If you are in need of any technical support during or subsequent

to your products' warranty, please get in touch with our support

team via http://aeotec.com/support. The Company you bought

Version Input (Standby Power) Working band

230V 50Hz, Max; 0,7W

220V 60Hz, Max; 0.7W

220V 50Hz, Max: 0.7W

230V 50Hz, Max; 0.7W

230V 50Hz, Max: 0.7W

230V 50Hz, Max: 0.7W

230V 50Hz, Max; 0.7W

US 120V 60Hz, Max: 0.5W

product from includes the transfer of Aeon Labs' full warranty to that Company. They've guaranteed that they'll be able to assist you, the Customer, with all technical support and repair needs on our behalf. Aeon Labs warrants to the original purchaser of Products that for the Warranty Period (as defined below), the Products will be

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The "Warranty Period" begins on the date the Products is

delivered and continues for 3 years. Any repairs under this warranty must be conducted by an authorized Aeon Labs service representative and under Aeon

Labs' RMA policy. Any repairs conducted by unauthorized persons shall void this warranty.

Excluded from the warranty are problems due to accidents, acts of God, civil or military authority, civil disturbance, war, strikes, fires, other catastrophes, misuse, misapplication, storage damage, negligence, electrical power problems, or modification to the Products or its components.

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create for it any other obligation or liability in connection with the Products except as set forth herein. Aeon I abs will pass on to Customer all manufacturers' Material warranties to the extent that they are transferable, but will not independently warrant any Material.

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settlements, judgments, fines, penalties, interest, costs and expenses (including fees and disbursements of counsel) of every kind (i) based upon personal injury or death or injury to property to the extent any of the foregoing is proximately caused either by a defective product (including strict liability in tort) or by the negligent or willful acts or omissions of Customer or its officers, employees, subcontractors or agents, and/or (ii) arising from or relating to any actual or alleged infringement or misappropriation of any patent, trademark, mask work, copyright, trade secret or any actual or alleged violation of any other intellectual property rights arising from or in connection with the products, except to the extent that such infringement exists as a result of Aeon

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FCC NOTICE (for USA) THE MANUFACTURER IS NOT RESPONSIBLE FOR ANY BADIO OR TV INTERFERENCE CALISED BY LINALITHORIZED MODIFICATIONS TO THIS EQUIPMENT. SUCH MODIFICATIONS COULD VOID THE USER'S

AUTHORITY TO OPERATE THE EQUIPMENT. STORE INDOORS WHEN NOT IN USE. SUITABLE FOR DRY LOCATIONS. DO NOT IMMERSE IN WATER. NOT FOR USE WHERE DIRECTLY

This device complies with Part 15 of the ECC Rules Operation

is subject to the following two conditions:

This device may not cause harmful interference, and

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

Connect the equipment into an outlet on a circuit different

This device must accept any interference received, including

interference that may cause undesired operation. 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

from that to which the receiver is connected.

 Consult the dealer or an experienced radio/TV technician for help.

Do not dispose of electrical appliances as unsorted municipal

waste, use separate collection facilities. Contact your local government for information regarding the collection systems available.

## Certifications (regional):



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

FCC ID: XBAFT098













CONFORMS TO UL STD,1993

CERTIFIED TO CSA STD.C22.2 NO.1993-0

Version:501009800004-AB

www.aeotec.com

## Configuration parameter information

Parameter Nu	mber Definitions (8 bit):		
Parameter	Description	Default Value	Size
Number			
Hex /			
Decimal			
0x14 (20)	The Bulb's state after re-power on it.	1	1
	0 = The last state before re-power on.		
	1 = Always On.		
	2 = Always Off.		
0x20 (32)	Enable/disable to send out a report when the color is	0	1
	changed.		
	0 = Disable.		
	1 = Hail CC.		
	Others = Ignore.		
0x21 (33)	Get the Bulb's color value.	-	4
	Value 1 = Reserved.		
	Value 2 = Red color value.		
	Value 3 = Green color value.		
	Value 4 = Blue color value.		
0x22 (34)	Enable/disable the function of using External Switch to	0	1
	turn on/off the bulb.		
	0 = Disable.		
	1 = Enable.		
	Others = Ignore.		
0x23 (35)	Enable/disable the function of using External Switch to	1	1
	changes the bulb's color.		
	0 = Disable.		
	1 = Enable.		
	Others Issues	I	

0x24(36)	Reboot/save/exit Colorful mode.	-	1
	0 = Un-reboot Colorful mode.		
	1 = Reboot Colorful mode.		
	2 = Exit Colorful mode.		
	3 = Save the current Colorful mode value and then to		
	be exited.		
0x25(37)	Colorful mode configuration.	0x09630000	4
	(See the below table)		
0x26 (38)	Change speed:	0x03000300	4
	Value 1: the speed from OFF to ON.		
	Value 2: the speed from ON to OFF.		
	Value 3: pause time of ON.		
	Value 4: pause time of OFF.		
0x27 (39)	Color index configuration when the bulb is in Multi	0x87654321	4
	color mode.		
	(See the below table)		
0x50 (80)	Enable to send notifications to associated devices	1 (US version)	1
	(Group 1) when the state of LED Bulb is changed.	2(other version)	
	0 = Nothing.		
	1 = Hail CC.		
	2 = Basic CC report.		
0x70 (112)	Dimmer mode:	0	1
	0 = Parabolic curve.		
	1 = Index curve.		
	2 = (Parabolic + Index)/2.		
	3 = Linear.		

FC (252)	Enable/disable Lock Configuration (0 =disable, 1 =	0	1
	enable).		
	Value = 0, the setting of configuration parameters is		
	allowed.		
	Value = 1, all configuration parameters cannot be set		
	(Locked).		
FF (255)	1, Value = 0x55555555 Default = 1 Size = 4.	N/A	4
	Reset to factory default settings and removed from the		
	z-wave network		
	2, Value = 0 Default = 1 Size = 1.	N/A	1
	Reset all configuration parameters to factory default		
	settings		

### Parameter 37 [4 byte] will set the Bulb into different modes:

Herel 21	[4 byte] will set the build into different modes.							
	7	6	5	4	3	2	1	0
ue 1	Color Transition		Color Change Speed		Color Display Cycle			
SB)	Style			Option				
ue 2				Bright	iness			
ue 3				Cycle	Count			
ue 4	Time Base of Color				Color Ch	ange Spe	ed Level	
B)	Change Speed							

### Color Display Cycle (4 bits)

Colour Description     Display Cycle     Inactive (keep the current configuration values)     Rambow Mode(red, crange, yellow, green, cyan, blue, violet, pinkish)     Rambow Multi Color Mode(colors cycle between selected colors)     Random Mode     Single Color Mode	nodes:	
Inactive (keep the current configuration values)     Rainbow Mode(red, orange, yellow, green, cyan, blue, violet, pinkish)     Multi Color Mode(colors cycle between selected colors)     Random Mode	Colour	Description
1 Rainbow Mode(red, orange, yellow, green, cyan, blue, violet, pinkish) 2 Multi Color Mode(colors cycle between selected colors) 3 Random Mode	Display Cycle	
Multi Color Mode(colors cycle between selected colors)     Random Mode	0	Inactive (keep the current configuration values)
3 Random Mode	1	Rainbow Mode(red, orange, yellow, green, cyan, blue, violet, pinkish)
	2	Multi Color Mode(colors cycle between selected colors)
4 Single Color Mode	3	Random Mode
	4	Single Color Mode
5 to 15 Reserved	5 to 15	Reserved

Single Color Mode: The Bulb will be solid/ blinking with one color in this mode.

Rainbow Mode: The Bulb has 8 colors to display and will change through a range of colors
(Red→Orange→Yellow→Green→Cyan→Blue→Violet→pinkish).
Multi Color Mode: The Bulb can change between multiple colors according to the color index
which is configurable through configuration parameter 39, see the configuration table of

parameter 39 below.

Random Mode: The Bulb's color will be displayed randomly.

Fade Out Fade In Transition.

Color Transition Style (2 bits)

The following	values correspond to 3 different transition styles between colors:
Dim Style	Description
0	Smooth Color Transition.

### Brightness (8 bits)

The Color Display Cycle field can have the following values corresponding to 4 different

an have the following values corresponding to 4 different	Level	Description
	1 to 99	1 = Min level. 99 = Max level.
	0 or 255	Inactive (keep the current configuration values)
the current configuration values)		NI II N

### Cycle Count (8 bits)

Bulb in Color Display Cycle before stopping.

The Cycle Count is used to define the number of repetitions/cycles displayed by your LED

Cycle Count	Description
0	Unlimited
1 to 254	Total number of repetitions/cycles before stopping.

255 Inactive (keep the current configuration values).

### Note: The process of the first color change to the last color is regarded as a cycle.

For example:

When the Bulb is in Rainbow mode, the color change from red to pink (Red→Orange→Yellow→Green→Cyan→Blue→Purple→Pink), going through the colors is regarded as 1 cycle.

Time Base of Colour Change Speed (3 bits)

Time base is 100ms.

This function	would be	used when	the Color	Transition Style is set to Fade out/in.	

Time Base	Description
0	Time base is 1s.
1	Time base is 10ms.
1	Time base is 10ms.

# Colour Change Speed Level (5 bits)

This function w	ould be used when the Color Transition Style is set to Fade out/in.
Level	Description
0	Constant speed
1 to 30	Accelerate/decelerate speed from the level 1 to 30.
	Level 0

	7	6	5	4	3	2	1	(
Value1		Ind	ex 1			Ind	ex 2	
(MSB)								
Value2		Ind	ex 3			Ind	ex 4	
Value3		Ind	ex 5			Ind	ex 6	
Value4		Ind	ex 7			Ind	ex 8	

n wc	uid be used when the Color Transition Style is set to Fade out/in.
se	Description

el	Description
	Constant speed
30	Accelerate/decelerate speed from the level 1 to 30.
	Inactive (keep the current configuration values)

Parameter 39 [4 byte] can be used to set the 8 colour index when the Bulb is in Multi color

				Value4 (LSB)	Value4 (LSB)
3	2	1	0	When your Bulb is in Random Mode	When your Bulb
	Ind	ex 2		then your bulb will automatically ge	1
	Ind	lex 4		random seed you set.	random seed you
	Ind	ev 6		7 6	

2	3	4	5	6	7	8
Orange	Yellow	Green	Cyan	Blue	Violet	Pinkish

The color will be changed form index 1 to index 8 circularly when your bulb is in Multi color

### For example:

If you set the parameter 39 to 305135616 (0x12300000 in hexadecimal, which means the Index 1=1(Red), the Index 2=2(Orange) and the Index 3=3(Yellow)), the color will be changed from

Blue to Violet and then Violet to Pinkish (Red → Orange → Yellow). When your Bulb is in Single Colour Mode and the Fade Out Fade In transition style, the

arameter 39 wo	uld be us	sed to set	the RGB v	alue.				
	7	6	5	4	3	2	1	0
/alue1 (MSB)	Red value							
/alue2	Green value							
/alue3 Blue value								

e, the parameter 39 would be used to set the random seed. generate random colours to be displayed according to the

seed you set.								
	7	6	5	4	3	2	1	0
(MSB)	Random seed value							
,								

## Association information

The LED Bulb supports 2 association groups and can add max 5 nodes for each group. Association Nodes Send Send commands

р	110000	Mode	ourid deliminated
01	0	N/A	N/A
	1	Single	When the state of LED Bulb (turn on/off the bulb) is changed:
	[2,5]	Cast	Set Configuration parameter 80 to 0: Reserved (Default).
			2, Set Configuration parameter 80 to 1: Send Hail CC.
			3. Set Configuration parameter 80 to 2: Send the Basic Report.
2	0	N/A	N/A
	[1,5]	Single	Forward the Basic Set, Switch Binary Set, Switch Multilevel
		Cast	Start Level Change, Switch Multilevel Stop Level Change,
			Switch Multilevel Set, Scene Activation Set to associated
			nodes in Group 2 when the LED Bulb receives the Basic Set,
			Switch Binary Set, Switch Multilevel Start Level Change,
			Switch Multilevel Stop Level Change, Switch Multilevel Set,

# Scene Activation Set commands from the main controller.

5.5 Association Group Info Command Class 5.5.1 Association Group Info Report Command Class

Group 1: Lifeline Group 2: Retransmit

5.5.2 Association Group Name Report Command Class

Profile: General: NA (Profile MSB=0, Profile LSB=0)