



LIGHTING SCIENCE

Genesis DynaSpectrum™

Owner's Manual



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1. Genesis Lamp with DynaSpectrum Overview



Lighting Science presents the Genesis lamp with DynaSpectrum™ technology. Genesis is the first all-in-one, HealthE™ lighting solution in the world. DynaSpectrum™ allows Genesis to deliver a biologically-optimized spectrum of light for every time of the day – on demand or automatically. Lighting Science’s spectral algorithms enable the creation of these biologically-optimized spectrums to improve productivity, health, and wellness.

Designed utilizing the most advanced technology, this lamp features DynaSpectrum technology that combines two of Lighting Science’s proprietary, biological LED spectrums:

Awake & Alert™ - to enhance your natural alertness, energy and focus

GoodNight™ - to promote a healthy and restful sleep

These specific spectrums utilize the natural power of light to assist in regulating your body’s natural circadian rhythm to achieve these results - no artificial medications required! Additionally, on-board sensors monitor local air quality to assist in improved breathing, allergy-relief, mood and sleep. Feel better, be healthier and maintain awareness of the air around you - all with the power of light.

- Sleek, minimalist design fits in well into most decors and environments
- Onboard sensors to monitor local air quality
- Easy, app-based color/spectrum setting
- Auto-mode available to sync Awake & Alert™ and GoodNight™ spectrums to your local time

2. Initial Setup

1. Remove Genesis lamp, USB cable and power supply from the box (*figure 1*).
2. Connect the USB cable to the USB Power Input on the Genesis lamp and the power supply.
3. Connect the power supply to outlet; turn Genesis lamp ON by placing fingertip over the ON/OFF Sensor.
4. Download and install the Lighting Science Group Genesis app from your device's app store.



Figure 1 – Genesis Lamp, USB Cable and Power Supply

3. Configure the Genesis App on iOS

1. Open the Genesis app and follow the instructions to pair the Genesis lamp with the mobile device (figure 2).

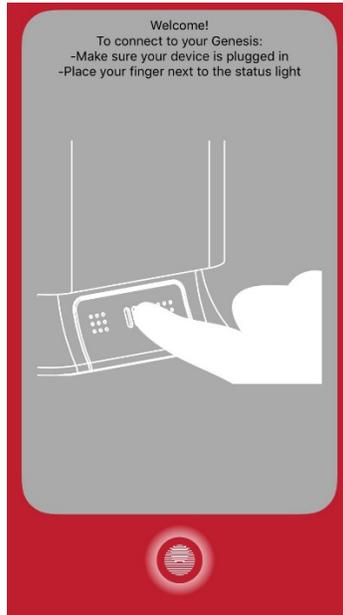


Figure 2 – Genesis Pairing

2. Name your Genesis lamp and enter sleep/wake times for Circadian support (figure 3).

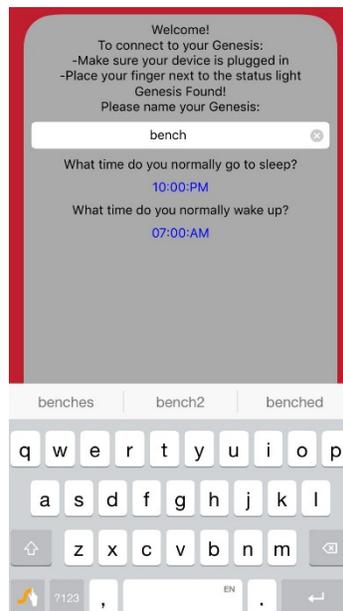
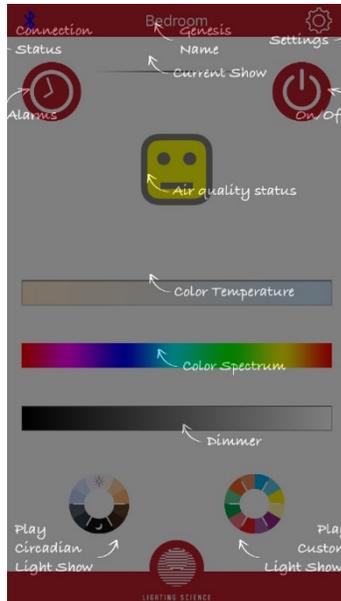


Figure 3 – Naming and Circadian schedule



- Review the main app screen overlay identifying the features of the Genesis app (figure 4). All device functions are controlled from this screen.



- Genesis Name:** name provided at device setup
- Connection Status:** Bluetooth LE connection
- Settings:** user information; Enable/ disable app features
- Current Show:** name of current enabled show
- On/Off:** turn Genesis lamp on or off
- Alarms:** schedule lights to turn on or off
- Air Quality Status:** indicates presence of volatile organic compounds
- Color Temperature:** slider adjustment of CCT from 2200K to 7000K
- Color Spectrum:** slider adjustment of colored light
- Dimmer:** slider adjustment of light intensity
- Play Circadian Light Show:** Circadian output based on schedule
- Play Custom Light Shows:** Preset light show playback

Figure 4 – Control interface locations

- Touch the screen to remove the overlay and start using Genesis DynaSpectrum.

4. Settings

Access the Settings interface by pressing the “gear” icon on the top right of the main screen. The menu contains three sections: Preferences, Lights and About.

4.1 Preferences

- Status Light Off: This function allows the user to turn off the status indicator LED located in the base of the Genesis lamp (see figure 1).
- Suppress Warning Light: This function disables the red light flash emitted by the Genesis lamp when poor local air quality is sensed.

4.2 Lights

- Setup Genesis Lights: This allows the user to setup multiple Genesis lights as described in the section above (Genesis App for iOS).
- Check for Update: This checks the firmware status of the Genesis lamp and will update to the newest revision if necessary (figure 6).



Figure 6 – Firmware update screen

4.3 About

- Version: Provides the app version, build number, Genesis hardware and firmware versions.
- Show Hints: Re-displays the control screen overlay (figure 4)
- Circadian Show: Provides a description of the Circadian show function.



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- Alarms: Provides a description of the alarm function.
- Air Quality: Provides a description of the air quality indicator on the main screen.
- Why Can't I Dim: Provides an explanation of dimming limitations due to Circadian spectrum support.
- Privacy Policy: Provides the privacy policy for the Genesis app (see "Additional Information").
- End User License Agreement: Provides the EULA for the Genesis app (see "Additional Information").

4. Alarm Setup

Alarms can be set to turn the Genesis lamp on or off at specific times of day, to align with your established Circadian show. To set an alarm:

1. Enter the alarm editor by pressing on the alarm icon on the top left of the main interface (see figure 4).
2. Press the “+” sign on the upper right of the alarm screen to enter a new alarm.

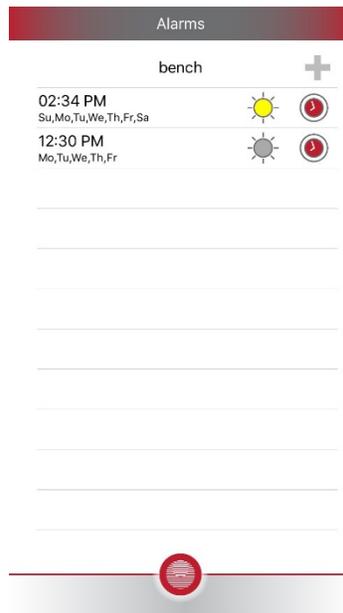


Figure 5 – Alarm Screen

3. Enter the day, time and recurrence rate (daily, weekdays or weekends only) desired.
4. Press the round Lighting Science logo to exit to the alarm screen.
5. The alarm entered is now displayed with a yellow “sun” icon, and a red “clock” icon. This indicates that the alarm is set to turn the lights on at the desired time. To have the alarm turn the lights off, press the yellow “sun” icon so it is grayed out. To turn the alarm off, press the red “clock” icon until it is grayed out.
6. To delete an alarm, swipe left on the alarm and press the “Delete” button.
7. Press the Lighting Science logo icon at the bottom of the screen to return to the main screen.

A maximum of 10 alarms can be set within the Genesis app.

5. Lightshow Editor

Preset lightshows and the show editor can be accessed by pressing the “color wheel” icon on the lower right of the main screen. Six (6) preset shows are available in the app:

- GoodNight: 2200K white light
- Awake and Alert: 7000K white light
- Candle: 1500K white light with programmed intensity changes
- Fire: 1500K white light
- Rainbow: Red to green to blue, with a 5 second fade between each color
- Demo: GoodNight to Awake & Alert, with a 5 second fade

5.1 Custom Show Creation

To create a new show:

1. Press the “+” icon on the edit screen to enter the show editor (figure 7).

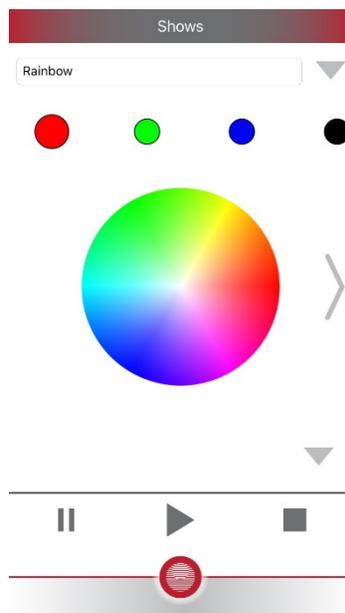


Figure 7 – Show Editor

2. Enter the show name at the top of the screen
3. Pick the first color in the show via the color wheel, or press the arrow to the right of the color wheel to use the CCT sliders, or the individual red, green, blue and white sliders.



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4. The chosen color is now displayed in the small circle underneath the show name.
5. Continue to choose colors or color temperatures as desired. To delete a color, simply hold a finger on the round color icon until the delete option is displayed.
6. Press the down arrow on the lower right side of the screen to adjust the duration, fade time and intensity of the color to be displayed.
7. To playback the show, use the play/pause/stop buttons at the bottom of the interface.
8. To save the show, make sure the show has an identifiable name and exit the editor screen.
8. To delete a show, simply hold a finger on the show icon until the delete option is displayed.
9. Press the Lighting Science logo icon at the bottom of the screen to return to the main screen.



6. Air Quality Monitoring

The Genesis lamp includes an air quality monitoring capability designed to alert you if poor air quality is detected. An embedded sensor monitors the amount of carbon dioxide (CO₂) in the air and correlates that measurement to the presence of volatile organic compounds (VOCs) in the immediate environment. Genesis monitors indoor VOCs as they can have profound effects on human health, including impact on sleep quality and overall health.

There are estimated to be 5,000 to 10,000 different VOCs, which are two to five times more likely to be found indoors than outdoors. Indoor VOCs are hydrocarbons that originate from two primary sources: bio-effluents, that include odors from human respiration, transpiration and metabolism; and vapors generated from building materials and furnishings (figure 8). VOCs cause eye irritations, headache, drowsiness or dizziness, and contribute to a condition known as “sick building syndrome” or SBS, whereby adequate ventilation must be provided. Aside from industrial conditions and comfort aspects such as temperature control, VOCs are the most critical reason to ventilate.

Indoor Air		Typical Substances		Cure
Contamination Source	Emission Source	VOCs	Others	
• Human Being	• Breath	Acetone, Ethanol, Isoprene		demand controlled ventilation
		CO ₂		
		Humidity		
	• Skin Respiration & Transpiration	Nonanal, Decanal, α-Pinene		
		Humidity		
	• Flatus	Methane, Hydrogen		
	• Cosmetics	Limonene, Eucalyptol		
• Building Material • Furniture • Office Equipment • Consumer Products	• Household Supplies	Alcohols, Esters, Limonene		permanent 5-10% ventilation
		Unburnt Hydrocarbons		
	• Combustion (Engines, Appliances, Tobacco Smoke)	CO		
		CO ₂		
		Humidity		
	• Paints, Adhesives, Solvents, Carpets	Formaldehyde, Alkanes, Alcohols, Aldehydes, Ketones, Siloxanes		
	• PVC	Toluene, Xylene, Decane		
	• Printers, Copiers, Computers	Benzene, Styrene, Phenole		

The “smiley face” icon on the app is your local air quality reading:

- A green face means the air quality is good
- A yellow face means the air quality is ok, but trending upward
- A red face means the air quality is poor and ventilation of the area is recommended.

Genesis will blink twice at the top of every minute when the measured air quality is poor. This visual alert is enabled when the app is installed. It can be turned off from the setting screen of the app if desired (see section 4.1 Preferences).

Air quality information is sent from the light to the app using a notification service at an interval of 3 seconds. If air quality is very poor, the Genesis light will flash twice at the top of every minute the condition persists. This is a setting that can be turned off from the setting screen of the app if you desire.

WARNING: The Genesis lamp is not intended for use as a safety device. The air quality measurement provided is for informational use only. It is not a replacement for any type of safety device, such as smoke alarms or carbon monoxide (CO) detectors, and should never be used in place of these products.



7. Additional Information

7.1 Specifications

Light Output (Max)	450lm (40WE)
Output Spectrum	LSG Proprietary Awake & Alert. and
	Good Night. Spectrums plus
	User-defined color shades & hues
Air Quality Sensor	Total Volatile Organic Compounds (tVOC)
	Carbon Dioxide (CO2)
Control	Bluetooth Low Energy (BLE)
	Air quality visual indicator
	Local on/off touch sensor
	App on phone or tablet with iOS 8 or later
Power Supply	100-240VAC, 50/60Hz
	USB Type C wall charger (included)
Input Power	5VDC, 2.0A (via wall charger)
Power Consumption	10W
Weight	1 lb (0.45 kg)
Housing/Lens	Frosted Polycarbonate
Dimensions	3.5 x 3.5 x 7 in (89 x 89 x 178 mm)
Warranty	5 Year Limited
Location	Damp Indoor

7.2 Product Warranty

Product warranty information can be found here: <https://www.lsgc.com/pages/warranties>



7.3 Privacy Policy

We want you to be aware of what data Lighting Science Group Corporation (LSGC) may collect from you and how that information is used. Our Privacy Policy may change periodically, at which time the new policy will be posted with a new effective date. We encourage you to review our policy periodically to remain current on our policies.

Information we will collect from you

- when you register your Genesis hardware
- when you download and install Genesis Application software
- when you visit and interact with LSGC web sites, including www.lsgc.com
- when you request, purchase, or receive products or services from LSGC
- when you contact LSGC by phone or email

We may collect, but are not limited to collecting, the following:

- basic user information, including your name, email address, postal address, phone number, company name, company location.
- Genesis hardware information, including serial numbers; software information, including version.
- smart device information including smart device operating system, version, Genesis software version, and smart device hardware model and version.
- we may also collect information when you participate in promotions offered by LSGC or our partners, respond to our surveys, request warranty or repair service, or otherwise communicate with us.

How we use the information

We use information about you to continually improve our products and services, and to refine our products and services to your particular needs.

We may use information we collect to:

- send you news and information about our products and services
- to communicate with you about products, services, promotions, incentives, and rewards offered by us and select partners.

We may also use information provided by you to:

- track usage data and analyze usage trends in connection with our products and services
- to process and deliver contest and promotion entries and rewards
- to verify your identity
- to investigate and prevent fraud or other illegal activities,
- for any other purpose disclosed to you in connection with our products and services.

We may additionally use information provided by you to track and analyze trends in battery performance.

Sharing of Information

We may share personal information about you as follows:



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- With third parties to provide, maintain, and improve our products and services.
- With third parties that run advertising campaigns, contests, special offers, or other events or activities in connection with our products and services.
- We may also share aggregated, non-personally identifiable information with third parties.

Security

We take reasonable measures to protect personal information from loss, theft, misuse, and unauthorized access, disclosure, alteration, and destruction.

Contact

Please contact us with any questions or concerns regarding our policy at customersupport@lsgc.com.



7.4 End User License Agreement

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Confidentiality. At all times during the Term and thereafter, you shall keep confidential and not disclose, directly or indirectly, and shall not use for your benefit or any other individual or entity any Confidential Information of LSGC or any of its third-party data providers. "Confidential Information" means any trade secrets or confidential or proprietary information whether written, digital, oral, or other form which is unique, confidential, or proprietary to LSGC or its third-party data providers, including, but not limited to, the Product, and any other materials or information related to the business or activities of LSGC which are not generally known to others engaged in similar businesses or activities. You shall return to LSGC any of its Confidential Information upon request and/or upon termination of this Agreement.

Indemnity. You agree to indemnify, defend and hold LSGC and its licensors (including their respective licensors, suppliers, assignees, subsidiaries, affiliated companies, and the respective officers, directors, employees, shareholders, agents and representatives of each of them) free and harmless from and against any liability, loss, injury (including injuries resulting in death), demand, action, cost, expense, or claim of any kind or character, including but not limited to attorney's fees, arising out of or in connection with any use or possession by you of the Product (including third-party content data).

Entire Agreement. These terms and conditions constitute the entire agreement between LSGC (and its licensors, including their licensors and suppliers) and you pertaining to the subject matter hereof, and supersedes in their entirety any and all written or oral agreements previously existing between us with respect to such subject matter.

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