STARSHINE LIGHTS PRODUCT MANUAL

A11 WIFI BATTERY LASER LIGHT

PRODUCT MANUAL

Portable RGB Laser Projector with LaserOS Control



Thank you for choosing a Starshinelights product. This manual explains the safe setup, charging, network connection, LaserOS operation, and basic maintenance of the A11 WiFi Battery Laser Light. Read the full manual before installation or operation and keep it for future reference.

The A11 is designed for creative laser projection, graphics, animations, beam effects, playlists, and interactive LaserOS applications. Always operate the laser responsibly and comply with local laser safety rules.

> Attention!
> Professional laser display equipment may cause serious eye injury, skin injury, fire hazards, or property damage if used incorrectly. Avoid direct or scattered laser radiation from eyes or skin. Use appropriate protective eyewear when required.

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1. Must Read Before Use

Laserdevices contain sensitive optoelectronic components and must be handled carefully. Before unpacking or touching the unit, discharge static electricity and inspect the packaging.

1. Touch a metal door handle, metal table leg, or grounded water pipe for at least 3 seconds to release body static electricity.

2. Use an anti-static wristband or work on an anti-static mat when possible.

3. Handle the product by the outer housing or designated mounting points. Do not touch the laser aperture, scanner window, connectors, or internal components.

4. If the packaging is damaged, do not power on the unit. Take photos and contact customer service.

Warm Tips

• Avoid unboxing in very dry environments without anti-static protection.

• Wipe your hands with a slightly damp cloth during dry seasons before handling packaging materials. • Keep all accessories, safety keys, interlock plugs, power adapters, and cables in a safe place.

Basic Safety Rules

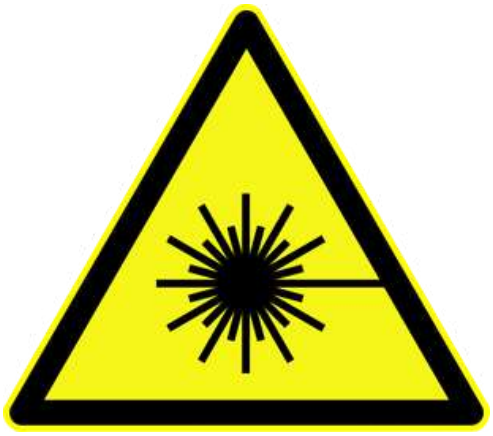
• Never aim the laser at people, animals, vehicles, aircraft, roads, railways, or public traffic areas.

• For show viewing, keep the audience outside the direct beam area. Where people may be present, mount the laser output at least 3 meters above floor level.

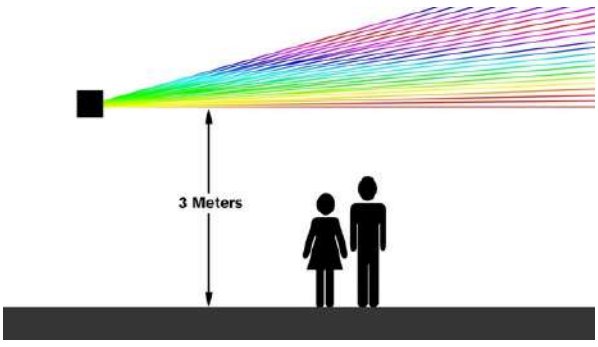
• Use the beam blocker and LaserOS safety zones to prevent beams from reaching unwanted areas.

• Do not operate near flammable materials. Keep a suitable fire extinguisher nearby for professional show use.

• When the A11 is not in use, turn off power, remove the safety key, disconnect the power adapter, and close the beam blocker.



Laser warning symbol



Keep direct beams above the audience zone

2. Laser Safety

The A11 isa professional laser display product. It should be used only by trained adults who understand laser display safety and local regulations. Improper operation can cause retinal injury, skin burns, fire hazards, and damage to cameras, projectors, and other optical equipment.

Laser Safety Notice
Avoid direct exposure to the laser aperture and reflected beams. Mirrors, glass, polished metal, and glossy surfaces can redirect beams into unsafe areas.

IEC Laser Product Classes

Class 1	No danger under normal use conditions because the laser output is extremely low or fully enclosed.
Class 2	Low risk visible laser. Avoid staring directly into the beam for long periods.
Class 3R / 3B	Moderate risk. Eye and skin hazards may exist. Protective measures are required.
Class 4	High risk. Can cause serious eye injury, skin injury, fire hazards, and damage to surrounding materials. Strict safety controls are required.

Protective Measures

• Wear laser safety goggles with suitable optical density when alignment, close-range testing, engraving, burning, or balloon-popping functions are used.

• Never leave the laser system unattended while it is powered on.

• Use emergency stop or power-off immediately if the output may create risk to people, animals, vehicles, aircraft, cameras, or nearby objects.

• Always follow the laser safety rules of the country or region where the A11 is used.



Wear suitable eye protection when required



Keep away from flammable materials

3. Operating Precautions

The A11 is a precision laser projector with sensitive optical, scanning, wireless, and battery components. Handle, install, and store it with care.

• Do not drop, shake, strike, or apply strong physical impact to the unit.

• Do not place the unit in overheated areas, such as inside a vehicle under direct sunlight.

• Do not expose the unit to rain, snow, dust, or moisture unless a suitable protective housing is used and the configuration is specified for that environment.

• If the unit is moved from a cold environment to a warm environment, allow it to reach room temperature before powering on to avoid condensation damage.

• Do not disassemble, repair, or modify the unit. Inspection and repair must be performed by qualified technicians.

• Do not operate the equipment if the housing, lens cover, connectors, safety key, interlock, or beam blocker is damaged.

• After use, turn off the unit and allow it to cool before handling, cleaning, packing, or servicing.

• Do not block cooling vents or fan openings. Keep sufficient airflow around the fixture.

Responsibility of the Owner and Operator

The owner and operator are responsible for safe installation, legal use, audience separation, output direction, beam termination, and compliance with local laser, electrical, and event safety rules. Starshinelights and its distributors are not responsible for damage, injury, or loss caused by improper installation, unauthorized modification, or misuse.

Recommended Operating Environment

Ambienttemperatur	Donot exceed45°Cduring operation unless a specific model label states otherwise.
e Ventilation	Keep ventilation openings clear and provide airflow around the housing.
Mounting area	Keep away from heat sources, curtains, paper, decorations, strong vibration, and unauthorized access.
Minimum projection distance	Keep sufficient distance from the laser output to the illuminated surface; for professional show use, follow local safety calculations and regulations.

4. Installation and Mounting

Install the A11 onastable tripod,truss, wallbracket,table, or other secure position. The laser output must not enter audience areas, camera positions, reflective surfaces, traffic areas, or aircraft paths.

Mounting Requirements

1. Do not connect the device to power during installation. Connect power only after installation is fully completed.

2. Use only strong, secure mounting points that can support the fixture and accessories.

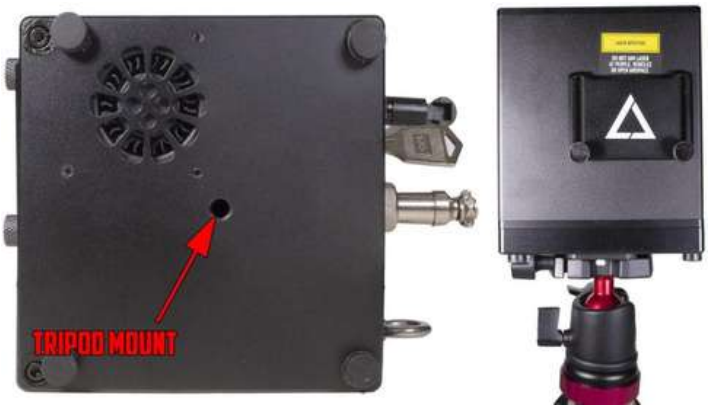
3. Tighten all screws, clamps, and brackets so the fixture cannot loosen due to vibration, cable tension, or movement.

4. For overhead installation, always use a safety cable attached to the designated safety point or eye bolt.

5. Make sure all cables are routed safely and do not create pulling force, trip hazards, or entanglement. 6. Keep the unit at least 20 cm away from walls, curtains, decorations, and other objects unless a specific installation design provides adequate ventilation.

7. Do not cover fan openings or ventilation outlets during operation.

8. Always confirm the projection area before enabling laser output.



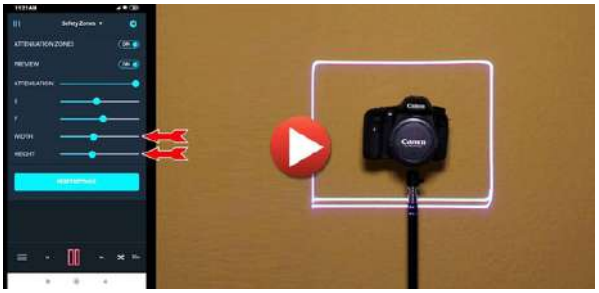
Tripodmountingpointand product support example

Beam Blocker and Safety Zones

The mechanical beam blocker can stop or limit part of the output. Raise and secure the blocker to prevent beams from entering lower or unsafe areas. In LaserOS, create safety zones to block projection over cameras, screens, audience areas, or sensitive equipment.



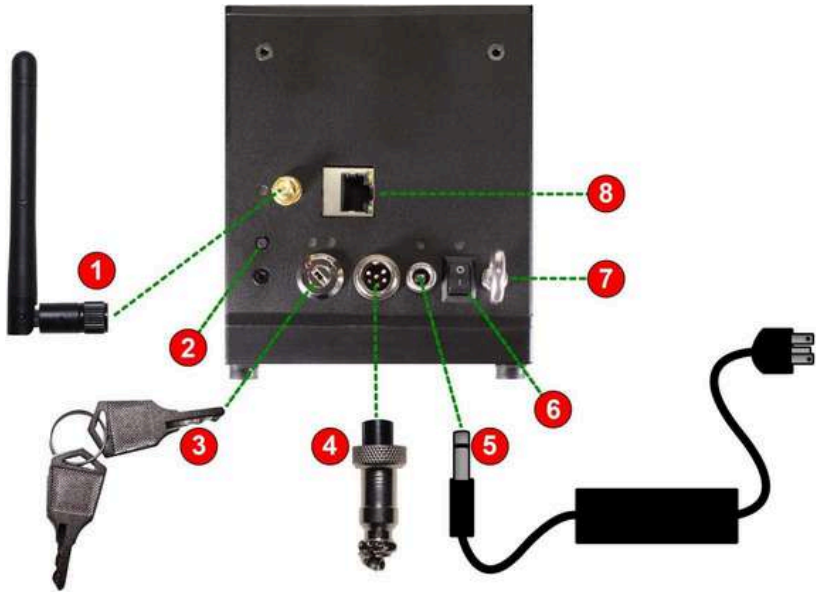
Mechanical beam blocker



LaserOS safety zone concept

5. A11 Hardware Overview

Theexact hardware layoutmay vary slightlybyproduction batch or configuration. The following descriptions explain the common A11 WiFi battery laser light layout and the functions of the main connectors and safety controls.



Rear panel and connection points

1. WiFi Antenna	Wireless connection antenna for WiFi Server or WiFi Client mode.
2. WiFi / Mode Button	Short press displays current mode and status. Long press opens or confirms network mode selection.
3. Key Switch	Safety key control. The laser cannot be enabled unless the key is inserted and switched on.
4. Safety Interlock	Remote interlock or bypass plug. The laser output is disabled if the interlock circuit is open.
5. Power Input	DC power input for charging or operation with the supplied power adapter.
6. Power Switch	Turns the A11 power on or off.
7. Safety Eye Bolt	Attachment point for a safety cable during mounting.
8. RJ45 Ethernet Port	Network connection for LAN Client or LAN Server mode when using Ethernet.

6. Aperture, Indicators, and Safety Controls



A11 front and beam blocker side



A11 rear side with antenna

Laser Aperture	The laser beam is emitted from this opening. Never look into the aperture while the device is powered on.
Beam Blocker	Blocks or limits laser projection and helps prevent scanning into audience or restricted areas.
Key Control LED	Shows locked/unlocked status and indicates whether laser emission is enabled.
Charging LED	Shows charging status. Red generally indicates charging; green generally indicates fully charged.
Power LED	Indicates whether the A11 is powered on.
Micro USB / USB Port	Used by supported configurations for direct control from a PC, Mac, or Android device. When USB communication is disconnected, the laser output should stop.
Remote Interlock	Provides a safety shutdown path. The supplied bypass plug must be installed when no external emergency stop is used.
DC Power Input	Used to charge the battery and power the unit from the supplied adapter.
Power Switch	Switches the device on or off.

Safety Key and Interlock

Fornormaloperation, theinterlock plug must be inserted and the safety key must be turned to the ON position. After a power interruption or interlock event, reset the key switch before re-enabling output.



Safety key, power input, LEDs, and power switch example

7. Battery Charging and First Startup

Battery Charging

1. Beforefirst use,charge the A11 fully with the supplied power adapter.

2. Connect the adapter to the DC power input on the A11, then plug the adapter into a suitable wall outlet.

3. During charging, the charging indicator is generally red.

4. When the battery is fully charged, the indicator generally turns green. Disconnect the adapter after charging is complete.

First Startup

1. Install the interlock plug or connect the approved remote interlock/E-stop device.

2. Insert the safety key and turn it to the ON position.

3. Stand behind the laser and adjust the beam blocker to a safe position before output is enabled. 4.

Turn on the power switch.

5. Open LaserOS on your Windows, Mac, or Android device. If the software does not detect the laser automatically, start the connection manually.

USB Mode, Where Supported

Some configurations support direct USB control. Install LaserOS first, then connect the correct data cable: USB to Micro USB for most Windows or Mac computers, and USB-C to Micro USB for many Android devices. Use a data cable, not a charging-only cable.

Before Enabling Output
Confirm that the projection area is safe, the beam is terminated correctly, the beam blocker is set, and no person, animal, reflective object, or optical device is in the direct beam path.

8. WiFi Server Quick Start

On first power-up, theA11 normally starts inWiFi Server mode. In this mode, the A11 creates its own 2.4 GHz wireless network and waits for a control device to connect.

Connect to the A11 WiFi Network

1. Turn on the A11 and make sure the interlock plug and key switch are enabled.
2. Short press the mode button. The unit should project the firmware version, then “WIFI SERVER”, then the gateway IP address “GWIP: 192.168.1.1”.
3. On your computer or Android device, select the WiFi network named “LaserCube” or the configured A11 SSID.
4. Enter the default password: “Laser2020”. The password is case-sensitive.
5. Your operating system may warn that this network has no internet. Choose the option to stay connected.
6. When connected successfully, the status LED should change from flashing cyan to steady cyan.

Default SSID	LaserCube or the configured A11 network name
Default WiFi Password	Laser2020
Default Web Address	192.168.1.1
Web Username	LaserCubeUser
Web Password	Laser2020

Firmware Update

If the firmware version does not appear before the “WIFI SERVER” message, update the firmware through the web management interface. Connect in WiFi Server mode, open 192.168.1.1, log in, go to the Update tab, select the update binary file, upload it, and wait for the A11 to restart. Do not power off during the update.



Web management home screen example

9. Network Connection Modes

Thenetwork versionsupportsfourconnectionmodes.Selectthe mode using the mode button or the General tab of the web management interface.

WiFi Server	The A11 creates its own WiFi network. Status LED: cyan. Flashing means no client connected; steady means connected.
LAN Client	The A11 connects by Ethernet to a router, hub, or switch that provides DHCP. Status LED: green.
WiFi Client	The A11 connects to an existing WiFi router, usually through WPS or configured SSID/password. Status LED: blue.
LAN Server	The A11 acts as an Ethernet DHCP server. Status LED: yellow. Ethernet cable required.

Mode Button Operation

• Short press: displays the current mode and connection status using laser projection.

• Long press for more than 2 seconds: opens the mode menu. The current mode is marked with an asterisk.

• Short press in the menu: cycles through available modes.

• Long press for more than 2 seconds in the menu: confirms the selected mode. If the mode changes, the A11 restarts briefly.

Connection Performance Notes

• Outdoor open-space WiFi performance is usually strong when the control device is nearby and interference is low.

• Indoor WiFi can stutter if the network is busy or if many nearby networks occupy the same channels.
• For multi-device shows or interference-heavy venues, use wired Ethernet whenever possible.

• Android versions below Android 10 may have poor UDP performance over WiFi and should be avoided for demanding network control.

10. WiFi Client, LAN Server, and Test Mode

WiFi Client Mode

1. Select WiFi Clientmode.The A11 restarts and the status LED turns off during connection preparation.
2. Short press the mode button to confirm WiFi Client mode. It may display “IP: Not Connected”.
3. Press and hold the mode button for about 5 seconds. After approximately 2 seconds the LED flashes blue; continue holding until the LED turns white.
4. Press the WPS button on your router.
5. If connection succeeds, the status LED becomes steady blue.
6. Short press the mode button to project the assigned IP address and the connected SSID. Use that IP address toaccess theweb management page.

LAN Server Mode

LAN Servermoderequires an Ethernet cable. If the LED flashes yellow, no LAN client is connected. When a client connects, the LED becomes steady yellow. The A11 can act as a DHCP server for a small show network.

Test Mode

Some firmware versions include Test Mode. Select Test Mode from the mode menu and long press the mode button for about 2 seconds to project a test pattern. Short press cycles through patterns. To exit Test Mode,turn theA11 offand then on again.

When to Use Each Mode

Fastsolo setup	Use WiFi Server mode.
Existing venue network	Use WiFi Client or LAN Client mode.
Multi-laser show	Use LAN Client mode through a router or switch.
No DHCP router available	Use one A11 as LAN Server and the other devices as LAN Clients.

11. Web Management Interface

TheA11 provides a browser-basedmanagementinterfaceforconfiguration. Short press the mode button to display the current IP address, then open that address in a web browser.

Default address in WiFi Server mode	192.168.1.1
Username	LaserCubeUser
Password	Laser2020

Main Menu

The Home page displays basic information such as model name, interlock type, firmware version, active firmware partition, battery status, mode, and temperature. Dual firmware partitions help the system recover if an update fails or is interrupted.

Configuration Menu

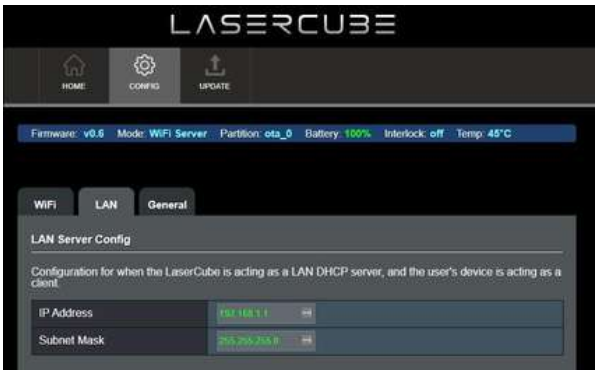
• WiFi tab: wireless channel, WiFi Server IP/subnet, default SSID/password, and WiFi Client SSID/password settings.

• LAN tab: LAN Server IP address and subnet settings.

• General tab: network operating mode selection. Changing the mode may restart the A11.



Home / basic information



WiFi configuration tab



General tab network mode selection

12. Multi-A11 Network Setup

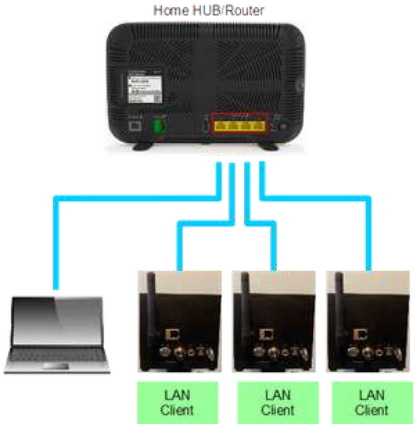
Multiple A11 unitscan be connectedtogether through ahub, router, or network switch so LaserOS can project through several devices at the same time. For stable performance and bandwidth, wired Ethernet is recommended for multi-unit configurations.

Recommended Method

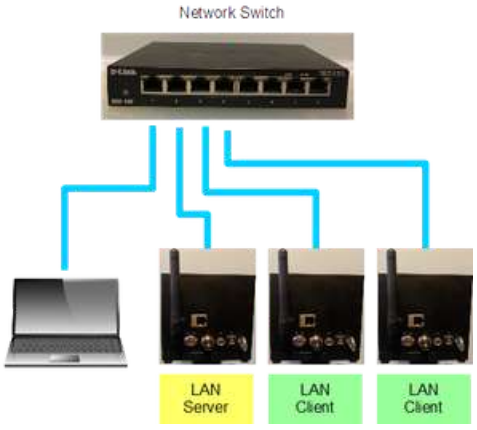
- Set all A11 units as LAN Clients and connect them to a router or hub that provides DHCP.
- If the router has too few Ethernet ports, add a network switch.
- Connect the computer or Android device running LaserOS to the same network.
- For larger or more demanding shows, test all devices before the event and label each unit and cable.

Alternative Method Without a DHCP Router

- Set the first A11 as LAN Server.
- Connect the first A11 and the other A11 units to an Ethernet switch.
- Set all remaining A11 units as LAN Clients.
- The LAN Server unit assigns IP addresses to the other A11 units and to the control computer or phone.



Example: all devices through router / hub



Example: one A11 acting as LAN Server

Tested reference setups can support several network laser units through an Ethernet switch. Actual performance depends on the control device, Ethernet hardware, cable quality, show content, and network traffic.

13. Installing LaserOS

LaserOSis thecontrol softwareusedtocreate,preview, and project laser content with the A11. Install the correct version for your control device before connecting.

Android	Download from Google Play where available. Enable automatic app updates to stay current.
Windows	Download the Windows installer, run the .exe file, and allow “Run Anyway” if Windows SmartScreen blocks a trusted installer.
Mac	Download the Mac package, open the .pkg file, and complete installation.
iPhone / iOS	LaserOS support may not be available for iPhone depending on software version.
Software Updates	Windows and Mac versions usually check for updates on startup. Keep LaserOS up to date for new features and fixes.



LaserOS download example



Windows security prompt example

Enabling Network Laser Support

1. Open LaserOS and go to Settings > General.
2. Choose Debug if the network feature is hidden.
3. Enter “testwifi” in the text field and confirm.
4. A new Network button appears at the top of the Settings > General page.
5. When Network is off, LaserOS uses USB mode. When Network is on, LaserOS uses network laser mode.

14. Using LaserOS

After theA11 is setupand connected through WiFi or LAN, the gray “No Laser” status should change to “Laser Off”. Click “Laser Off” to enable output. It will change to “Laser On”. Enable output only after confirming the projection area is safe.



LaserOS Windows / Mac interface example

Main Interface Panels

Control Panel	Showslaser status, preview, sliders, switches, buttons, laser power, brightness, effects, intensity, audio level, hue, zoom, and rotation.
Application Panel	Lists the LaserOS apps such as Abstracts, Animations, Beam Show, Images, Text, Playlists, Drawing, and more.
Selection Panel	Shows options, groups, individual items, hotkeys, playlist adding, select/deselect controls, and effect visibility.
Effects Panel	Lets you disable effects, choose random effects, choose color effects, or select saved effects.



Control panel example



Autoplay control buttons

15. Autoplay, BPM, Hotkeys, and Effects

Autoplay

Autoplayhelps you create a quick laser show by randomizing or looping selected applications, content, and effects. Add apps, selections, and effects to the autoplay pool, then use the control panel buttons for previous, next, shuffle, repeat, and item duration.

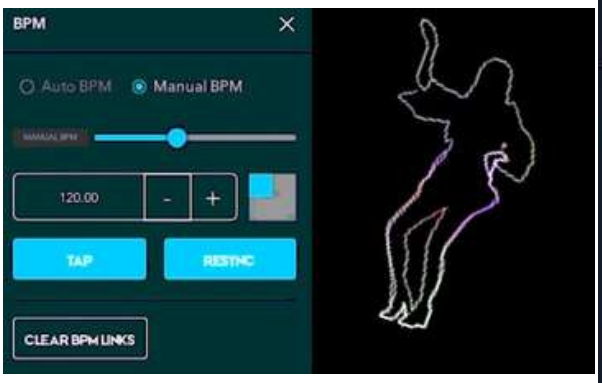
• In the Application Panel, the small blue arrow next to an app shows whether the app is included in autoplay.

• In the Selection Panel, double-click an item to include or exclude it from autoplay.

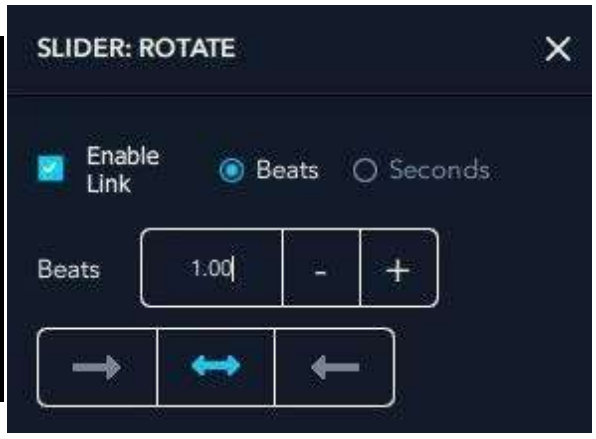
• In the Effects Panel, choose no effect, random effect, color effect, or saved effect. Double-click effects
to enableordisablethem.

BPM Synchronization

The BPM feature synchronizes laser motion and animation with music. Enter a BPM value manually or tap the beat until the desired tempo is reached. BPM can be linked to controls such as rotation, direction, and animation response.



BPM window example



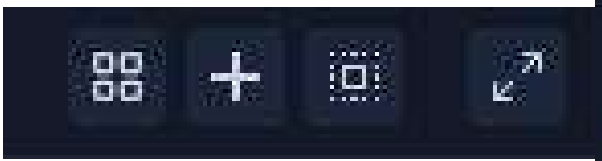
Rotation BPM assignment example

Hotkeys and MIDI

• UsetheAssign Hotkeybutton to assign keyboard keys to selection-panel items.

• Right-click an effect and choose Assign Hotkey to toggle effects by keyboard or MIDI controller.

• On Windows or Mac, hold Shift and drag compatible sliders or controls into the Control Panel to customize your workspace.



Selection panel tools



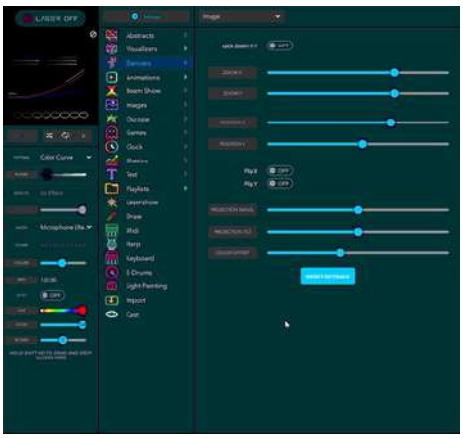
Hotkey assignment example

16. Setup Mode

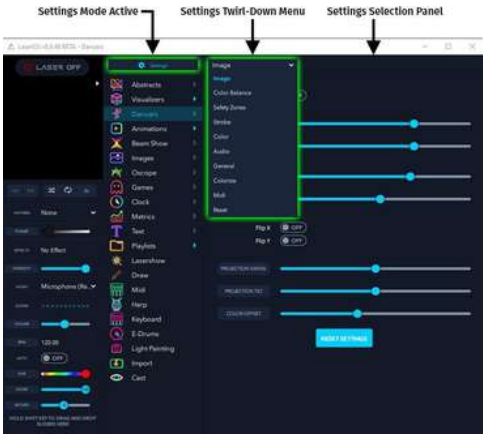
Clickthe Settingsbutton above the Application Panel to enter Setup Mode. Setup Mode adds pattern generators and calibration tools for size, position, color, scan range, safety zones, audio response, and general preferences. Click the Settings button again to exit.

Setup Menus

Image	Controls projection size, position, horizontal/vertical flip, rotation, skew, and color offset. Use Reset Settings to restore original values.
Color Balance	Adjusts RGB maximum/minimum range, gamma, and TTL color range where applicable.
Safety Zones	Creates blocked or attenuated areas inside the projection field to protect people, cameras, or sensitive equipment.
Strobe	Controls laser on/off timing for strobe effects.
Color	Controls hue, saturation, RGB gradient effects, and bright single-color modes where available.
Audio	Sets sound gate and audio detection threshold for audio-reactive effects and BPM functions.
General	Controls startup animation, update checks, tutorials, network mode, safety video links, and error reporting.
MIDI	Selects MIDI input source, channel, and optional live MIDI signal feedback.
Reset	Restores LaserOS settings to default values.



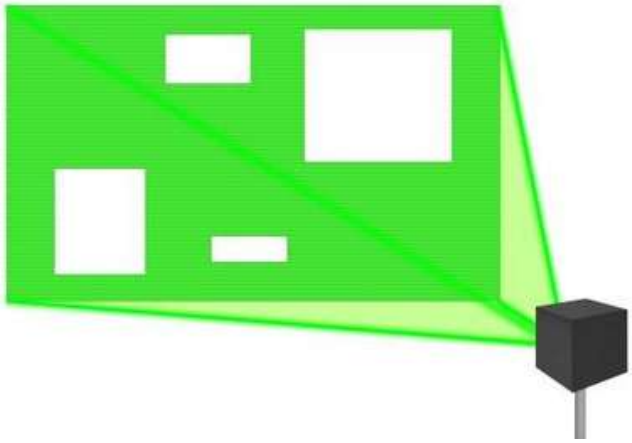
Setup mode example



Settings drop-down menu

17. Setting Safety Zones in LaserOS

SafetyZones are blank or attenuated areasinsidethe projection fieldwherethe laser will not scan at full output. This function helps protect cameras, lenses, screens, audience areas, or any sensitive equipment in the projected image.

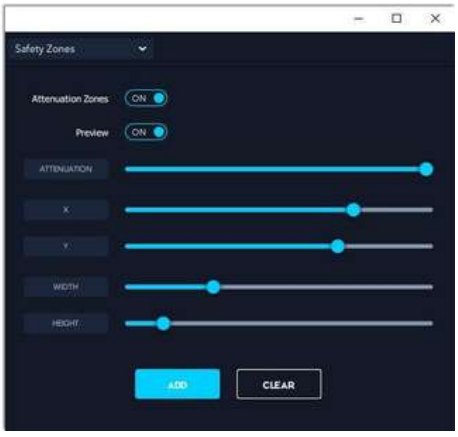


Safety zone shown as blank areas inside the projection field

Create a Safety Zone

1. Enter Setup Mode and open the Safety Zones menu.
2. Switch Attenuation Zones to ON.
3. Switch Preview to ON so you can see the protected area in the laser output and in the preview panel.
4. Use Attenuation to control how much laser output is reduced inside the zone. 0 means full output; 100 means the zone is fully blocked.
5. Use X and Y sliders to position the zone.
6. Use Width and Height sliders to set the zone size and shape.
7. Click Add to create another zone. Adjust the new zone so it does not overlap unintentionally.
8. Click Clear to delete custom zones and return to the default zone.
9. When finished, switch Preview OFF. The protected area will remain blocked during projection.

Important
Software safety zones are an additional protection feature. They do not replace safe installation height, beam termination, audience separation, trained operation, and compliance with local laser safety rules.



Safety zone control sliders



Audio and setup controls example

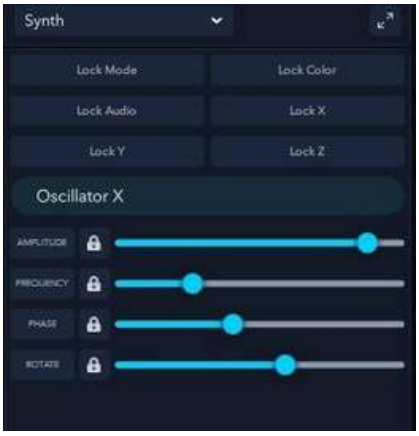
18. LaserOS Applications - Abstracts and Visual Content

LaserOS includesmultipleapplications forcreating laser shows,graphics,motion,text,interactive content, and audio-responsive effects. Options may vary by software version.

Abstracts	Includes groups such as Shapes, Spheres, Synth, Tunnels, and Surfaces. Abstracts are especially effective with audio response.
Shapes	Generates geometric abstract patterns and can be randomized or saved into playlists. Uses
Spheres	multiple slider groups for light variation and X/Y/Z rotation.
Synth	Uses oscillators with amplitude, frequency, phase, and rotation controls. Audio can drive one or more oscillators.
Tunnels	Creates a 3D tunnel effect with speed, geometry, scale, rotation, color, and audio-reactive options.
Surfaces	Creates curved abstract projections with thread, shape, and rotation settings.
Visualizers	Provides many preset animations that can be played directly or selected for shuffle/autoplay.
Dancers	Includes animated dancers, BMX riders, surfers, skateboarders, and similar characters.



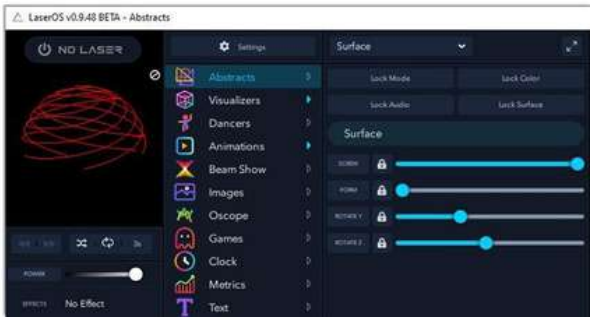
Shapes / abstract settings



Synth oscillator controls



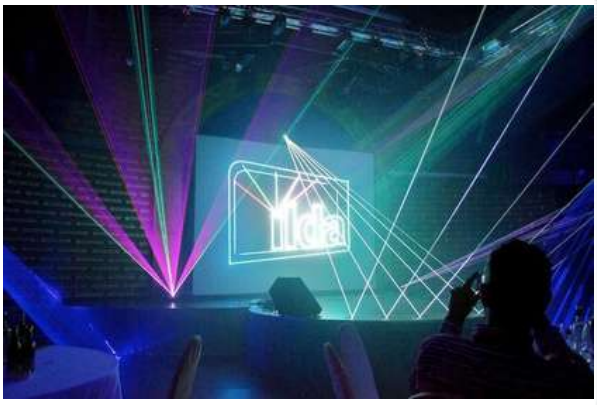
Tunnel settings



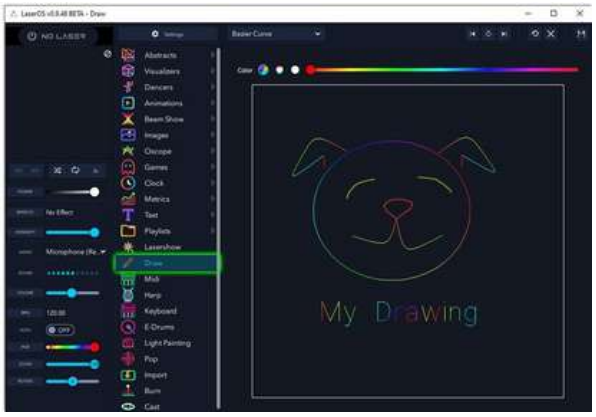
Surface settings

19. LaserOS Applications - Shows, Images, and Interaction

Animations	Animation folders groupedbythemessuchasValentine'sDay,birthdays,Christmas, New Year, EDM, Diwali, and more.
Beam Show	Creates laser beam effects that look best with haze or smoke in concerts, clubs, dance halls, and small events.
Images	Contains categorized images such as movies, vector art, logos, flags, and other graphic elements.
Oscope	Includes complete laser shows with music and audio-responsive animation content.
Games	Lets users play LaserOS games using keyboard controls or an optional game controller.
Clock	Projects time as a laser clock on a wall or other suitable surface.
Data Metrics	Displays information such as stocks, social media metrics, crypto values, or other online data when internet access is available.
Text	Displays news, RSS feeds, Reddit content, or custom text.
Playlists	Stores custom playlists created across multiple apps and content groups.
Laser Shows	Includes complete laser shows with music and audio-responsive animations.
Drawing	Lets you create laser drawings using pencil, line, Bezier curve, rectangle, ellipse, and text tools.
MIDI	Combines music and laser graphics using QWERTY keyboard or MIDI control.
Keyboard	Projects illuminated piano or keyboard keys; position the A11 and follow the on-screen setup prompts.



Beam show effect example



Drawing tool example



Laser keyboard app example



Physical keyboard projection example

20. A11 Quick Reference Specifications

TheA11 maybe supplied indifferent output and accessory configurations.Confirm the exact power, scanner speed, battery capacity, connector layout, and compliance documentation with Starshinelights before production, public show use, or import into regulated markets.

Model	A11
Product Type	Portable WiFi battery laser light / LaserOS laser projector
Control Software	LaserOS for supported Windows, Mac, and Android devices
Connection Modes	WiFi Server, WiFi Client, LAN Client, LAN Server; USB support depends on configuration
Default WiFi	SSID: LaserCube or configured A11 SSID; Password: Laser2020
Default Web Login	Address: 192.168.1.1; Username: LaserCubeUser; Password: Laser2020
Safety Controls	Key switch, remote interlock / bypass plug, beam blocker, software safety zones
Mounting	Tripod / bracket / truss mounting with safety cable for overhead installation
Recommended Use	Laser graphics, animations, beam shows, playlists, audio-reactive effects, small events, creative installations, and demonstrations
Professional Safety	Audience scanning, outdoor use, public shows, and high-power effects require trained operation and local regulatory compliance

Package Checklist

- A11 laser projector
- Power adapter / charging adapter
- WiFi antenna where supplied separately
- Safety key
- Remote interlock bypass plug or approved E-stop accessory
- Suitable data/network cable where included
- Mounting accessories according to the order configuration
- Product manual and customer service contact information

21. Maintenance

Regularinspection and proper storage help maintain stable output, safe operation, and long service life.

• Disconnect power and switch off the A11 before cleaning, moving, servicing, packing, or inspection.

• Allow the housing to cool before handling after operation.

• Check the power cable, adapter, connectors, interlock plug, key switch, beam blocker, and mounting points regularly.

• Do not use the unit if the cable, plug, housing, lens cover, fan opening, safety controls, or mounting parts are damaged.

• Clean the exterior with a dry, soft cloth. Do not use corrosive solvents, water spray, or abrasive materials.

• Keep dust away from the laser aperture and ventilation openings. Lens cleaning should be performed only with appropriate optical cleaning materials by qualified personnel.

• Do not connect the device to a dimmer pack or dimmer-controlled power source.

• Do not switch the unit on and off repeatedly within a short period, as this may shorten the service life of the electronics and laser source.

• During first startup, a slight smell can occur with new equipment. If abnormal smoke, burning smell, overheating, or malfunction continues, turn off the unit immediately and contact qualified service personnel.

Storage

• Store in a clean, dry, ventilated environment away from heat, moisture, dust, and strong magnetic or electrical interference.

• Remove the safety key and keep it separately from the unit when not in use.

• Charge and store the battery according to general lithium battery safety practices and do not leave the unit in extreme heat.

22. Basic Troubleshooting

No laser output	Confirmpowerswitch, battery charge, key switch, interlock plug, LaserOS connection, “Laser On” status, and beam blocker position.
Cannot find WiFi network	Check that the A11 is in WiFi Server mode, the antenna is installed, and the control device supports 2.4 GHz WiFi.
Connected but output stutters	Move closer to the A11, reduce WiFi interference, change WiFi channel, close heavy network traffic, or use wired Ethernet.
Cannot open web page	Short press the mode button to confirm the current IP address. In WiFi Client mode, use the router-assigned IP address instead of 192.168.1.1.
Forgot WiFi settings	Use the web interface or reset workflow according to service guidance. Contact Starshinelights if access cannot be restored.
LaserOS shows No Laser	Check USB/network mode in LaserOS, confirm the A11 and control device are on the same network, restart LaserOS, and verify firewall permissions.
Firmware update failed	Do not repeatedly power-cycle the unit. If the device does not recover, contact customer service with the firmware version and symptoms.
Overheating or abnormal smell	Turn off immediately, disconnect power, allow cooling, and contact qualified service personnel.

Before Contacting Support

• Prepare your order number, modelname, firmware version, LaserOS version, control device type, and photos/videos of the issue.

• Describe which connection mode was used and whether the status LED was flashing or steady.

• Do not open the housing or modify wiring while troubleshooting.

23. Compliance, Import, and Support Notes

Laserlaws andimportrequirements vary bycountry orregion.The operator and ownermust confirm the correct classification, documentation, installation plan, control measures, and operating permissions before public display or import.

United States / CDRH-FDA Notice

For U.S. public laser show use, product reports, accession numbers, variances, show reports, operator requirements, and other documentation may apply depending on the product configuration and intended use. Starshinelights may provide or assist with documentation for selected configurations. Confirm documentation status with customer service before purchase, import, or public show use.

Final Safety Checklist

- Projection area checked and beam path terminated safely.
- Audience area separated from direct laser output.
- A11 mounted securely with safety cable where required.
- Interlock / E-stop / key switch tested before show operation.
- Safety zones configured where cameras, screens, people, or sensitive equipment are present.
- Operator understands LaserOS controls and emergency shutdown procedure.
- Local laser safety, electrical, rigging, and venue rules confirmed.

Support

Website: www.starshinelights.com
For service or documentation questions, contact your Starshinelights sales representative or customer service team with your model name, order number, and configuration details.