OWNERS MANUAL

FireFly FF-101/FF-201
Lightning years ahead of the competition.

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PLEASE READ BEFORE CONNECTING FIREFLY!

Congratulations on your purchase of FireFly, the world's most sophisticated lightning simulator. For safe operation of your equipment, please pay careful attention to the following caution statements.

• Do not operate or store in wet locations. Operation in wet locations is hazardous and water damage is not covered by your warranty.

• Use only with properly grounded 15 or 20 amp, 120 volt outlets. Never use a ground adapter to avoid grounding this unit. As with most electronic devices, if using outdoors, a GFCI (ground fault circuit interrupter) outlet or breaker must be used for your safety.

• FireFly is equipped with an extra long power cord for your convenience. Avoid using an extension cord if possible. If you must use an extension cord, it should be a heavy-duty appliance type cord.

• Always use an adequate size grounded cord for connecting your lights sources. If in doubt about the appropriate size, contact a licensed electrician.

• While connecting FireFly's power cord to a surge suppressor can protect your investment from damage due to transient spikes or actual lightning damage, you must NEVER connect surge protectors to FireFly's outlets as serious damage to the unit could occur.

• Replace fuse only with the type and size specified in the manual or on the pack panel of device. Oversized fuses may damage unit and/or create a fire hazard.

• Do not block air vents on the side (FF-501) or rear (FF-201/101) of FireFly.

• Use only with approved light sources. Never exceed the maximum rating per channel or the total rating of the system. Compact fluorescent lamps are approved only for use on the dimmer channel. Using strobes other than those recommended and sold by Lights Alive is at your own risk. Lights Alive will assume no liability for damage caused by the use of unapproved strobes.

• FireFly is designed to be connected to line-level or earphone audio jacks. Do not connect directly to speaker terminals without the use of an approved attenuating adapter, available from Lights Alive.

CONNECTING AND OPERATING FIREFLY FF-101 AND FF-201

Before using your FireFly lightning simulator, you should test the system by inserting the power cord in a properly grounded outlet and connecting your light fixture(s) to FireFly's outlet(s). A green indicator should light in the handle of the power switch when in the ON position. If not, check your outlet.

Now press the TEST button on the front panel. The blue ACTIVITY light(s) should light, as should your connected light fixtures. If the blueACTIVITY indicators are on, your system is working properly. If your lights fixtures don't light when the TEST button is pressed, you have faulty bulbs or light fixtures. If the blue ACTIVITY indicator(s) do not light, replace FireFly's FUSE.

LIGHTNING SIMULATION

1. Start with the LEVEL control(s) in the center (12 o'clock) position and the THRESHOLD control fully counter-clockwise.

2. Connect your stereo sound source (CD player, MP3 player, laptop computer, etc) to the AUDIO IN 3.5mm (1/8") jack on the back panel. Any line level or headphone jack source will supply the appropriate levels needed. DO NOT connect FireFly directly to speaker terminal without an approved attenuating adapter. Serious damage WILL occur.

3. Connect amplified speakers or a separate amplifier and speakers to the AUDIO OUT jack on the back panel of FireFly.

4. With the POWER switch in the ON (up) position and lights connected, slowly rotate the THRESHOLD control until the light(s) start to glow, then turn the control back slightly until the light just goes out.

5. Start playing your included Thunder CD through your audio equipment. If using an earphone output jack on your audio equipment, set the volume at about ½ to ¾ of the full level.

6. Now, adjust the LEVEL control on FireFly for the desired effect. Avoid turning the LEVEL control too high as the lights will simply stay on during intense "lightning" as opposed to properly flashing, amplitude of the thunder.

7. The FILTER switch will normally be in the "out" or LOW position for lightning simulation. This assures that the advanced filters screen all but the frequencies typically associated with thunder. If you are using a thunder-only CD, you could experiment with putting the FILTER switch in the "high" position. FireFly will now respond to all audible sounds.

DIMMING OR LIGHTNING WITH DIMMING

1. Follow all above instructions.

2. Press the MODE button to activate the DIMMING feature. With FF-101, you have only one channel and you must decide between LIGHTNING or DIMMING. With FF-201, the left channel is always LIGHTNING, but the right channel can be switched between LIGHTNING and DIMMING by pressing the MODE button.

3) The dimming channel appears more normal with incandescent or halogen bulbs. You can connect lamps in front of windows, wire your porch light to FireFly or connect any light visible to the outside to this channel. In the DIMMING mode, those lights will be at full brightness, but during hard "lightning strikes", lights on the DIMMING channel will flicker and/or dim to simulate a potential power outage.

ALL SOUND TO LIGHT

With the filter in the high (in) position, FireFly will react to all sounds. This creates a unique and entertaining experience when FireFly "hears" music rather than thunder. It is especially effective with Rock or Country music. This is a great party effect. Don't forget, this sound to light effect is stereo, so make sure you have lights connected to both outlets if you are using a FF-201.

MODE

Out position is the normal "lightning" position. The in (dimming) position allows all lights connected to the FF-101 or the right channel of the FF-201 to dim house lights, lamps, porch lights or other connected lights during a powerful "lightning strike" as if the building is about to lose power.

FILTER

The out (Low) position activates a 2-stage filter system designed to pevent FireFly from reacting to sounds other than thunder. Use this position when using sound tracks with other sound effects in addition to thunder. The in (High) position changes the filtration so that FireFly will react to all audible sounds. This position is appropriate when using a thunder only sound track or when wanting FireFly to flash lights to music.

TEST BUTTON

Press and hold this button to test the entire system, including your connected lights. Both activity lights should glow, as should the connected lights.

LEVEL

The level control(s) adjust FireFly's sensitivity to the connected sound source. Start with these controls in the center position, then adjust as necessary for the effect you desire. The FF-101 has one Level control. The FF-201 (pictured) has two, a left and a right.

POWER SWITCH

Flip switch up to the on position to power the system. A green light on the switch indicates the system is receiving power.

AIR VENTS

ACTIVITY INDICATOR

POWER OUTLET(S)

Connect approved light sources to the power outlet(s). Be sure not to exceed the recommended ratings (see instructions or specifications). NEVER connect anything with a surge suppressor to this outlet as serious damage WILL occur.

AUDIO IN and OUT

Connect your favorite sound source such as a CD player or portable MP3 player to the AUDIO IN jack. This may be line level sources or it could be from an earphone output. DO NOT connect speaker terminals to this jack without the use of a proper attenuator or serious damage WILL occur. The audio out jack is for connecting your amplified speakers or other output system.

BACK VIEW
(FF-201 Shown)

THRESHOLD

This control sets a minimum amount of voltage to be present at the outlets at all times. Generally speaking, start with the control in the fully counterclockwise position, then rotate it until your connected light just starts to glow, then turn it back just enough that the lights cease to glow. A separate threshold control is provided for both channels on the FF-201 to allow the use of different types of lights on each channel.

FUSE

Always replace the fuse with the exact type specified in the instructions and/ or on the specification sheet. NEVER bypass the fuse by any means.

SPECIFICATIONS

CHANNELS
FF-101 has a single channel that can be used for lightning or dimming. FF-201 offers two channels, one of which can be either lightning or dimming

MAXIMUM RATING
FF-101 handles 1500 watts per channel for lightning or 750 watts for dimming. FF-201 supports up to 3000 watts (1500 watts per channel) for lightning or 1500 watts of lightning plus 750 watts dimming.

MODES
Lightning mode synchronizes light with thunder. Dimming mode causes connected lights to dim during the closest and strongest "lightning strikes", thus simulating power about to fail.

FILTER
Low filter causes FireFly to ignore all but the frequencies associated with thunder. In the high position, all audible sounds cause lights to respond. This creates a unique and highly entertaining effect with music.

ELECTRICAL ISOLATION
Audio transformer(s) plus solid-state optoisolator.

INTERNAL TEST
Test button checks most internal components as well as connected lights.

LIGHTS SUPPORTED
Optimized for compatible LED bulbs and fixtures (recommended) Supports incandescent and Halogen (recommended for dimmer channel). Compact fluorescent (CFL) supported for dimmer channel. Supports many common strobes.

PRE-WARM
Supplies adjustable amount of voltage to outlets via the threshold control

NOISE SUPPRESSION
Passive LC Network

CONTROL METHOD
Pulse-width phase cutting

UPGRADE PATH
Check with Lights Alive for current details. There will always be an upgrade path.

AUDIO CONNECTION
3.5mm (1/8") Stereo audio jacks. Internal switching provided. Audio is passed through to your amplifier or amplified speakers. Connect to line-level or earphone source only. DO NOT connect directly to speaker terminals without approved attenuator as serious damage WILL occur.

OVERLOAD PROTECTION
12-Amp fast acting fuse (10-amp optional) for FF-101, 25-amp fast acting fuse (20-amp optional) for FF-201.

FIREFLY LIMITED FIVE (5) YEAR WARRANTY

FireFly lightning simulators are conditionally warranted to the original purchaser against defective materials and/or workmanship for a period of five (5) years from the date of purchase. Lights-Alive will provide free telephone and/or email technical support for the life of the product.

Lights Alive, at it's sole option, will repair or replace, without charge, any FireFly product found to contain defective materials and/or workmanship within the five-year warranty period. The product must be returned, prepaid, to Lights Alive for service.

This warranty does not apply to normal wear and tear or physical damage caused by unreasonable use by the consumer. Consult your manual and/or the Lights Alive website for details on the proper usage and care of FireFly.

FireFly contains no user serviceable parts or adjustments. Opening the case will expose the user to dangerous and potentially lethal voltages. Opening the case will immediately void your warranty.

Great care is taken in the design and construction of FireFly and related components. However, by using this equipment, you understand and agree that you are doing so at your own risk. Lights Alive will not be liable for any personal injury, property damage or consequential damages of any kind due to the use, misuse, abuse or failure of the product, even if due to our negligence. No other warranty is expressed or implied. Revised 7/24/08