## CLUB**CANNON**°





# **MICRO JET MKII** User Manual

VERSION 1.0 AUG 2021

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## MICRO JET MKII INTRO

Congratulations on your purchase of the Micro Jet MKII. This manual will provide an overview of the Micro Jet MKII's functions, capabilities, and instructions for proper operation. If you have questions outside the scope of this manual, feel free to contact us directly.

### **OVERVIEW**

The Club Cannon Micro Jet MKII is a compact, power CO<sub>2</sub> jet that produces 20-30FT plumes of ice cold fog, using liquid CO2. It is great for DJ's, Touring acts, performers, nightclubs, DJ booths, sporting events, field entrances, theatre productions, weddings, special events and more.

The Micro Jet MKII now includes on board DMX control with RDM functionality, power trigger mode, and a purge lines feature.

The Micro Jet MKII requires a Siphon  $CO_2$  tank to operate properly. Due to the volume of  $CO_2$  expelled, the Micro Jet MKII is only meant to be used in well ventilated spaces or outdoors.

The Micro Jet MKII has the ability to be opperated in two separate mode.s DMX mode is recommended as the best solution for trigger this unit. Alternatively power mode can be used with the included power mode adapter.



#### SINGLE JET

25-30FT PLUME (DEPENDING ON HUMIDITY)

### FEATURES

- Up to 30' Output
- Truss Mountable
- DMX Controlled
- Ventilated Barrel
- Purge Lines Feature
- 1CH Operation
- Integrated Muffler
- LED Display
- Neutrik True1 Input
- Quick Connect Input
- Load Handle
- Power Only Mode



Necessary precautions should be taken when using FX products to ensure the safety of the operator, crew, and audience.

Do not operate this product, or any special effects product without proper knowledge and training. Never operate Special Effects Equipment under the influence of drugs or alcohol.

## **INCLUDED ITEMS**

The following items are included with the purchase of each Micro Jet MKII. If you need replacement items, contact Club Cannon, 888-804-8175 / info@clubcannon.com.





MICRO JET MKII Now with DMX Control

**TRUE1 CABLE** 6' Edison to True1 cord



**CO2 HOSE** CGA-320 x Quick Connect



5 - CO<sub>2</sub> WASHERS

Seals the connection between your  $CO_2$  hose and  $CO_2$  tank.



CO<sub>2</sub> ATTACHMENT TOOL

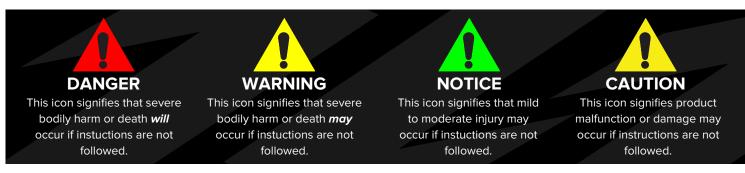
Used to tighten the CGA-320 fitting to your  $CO_2$  tank.



POWER MODE ADAPTER

Used to activate momentary power mode on jet.

# SAFETY GUIDE



To ensure safe operation, user must follow instructions closely. Necessary protocols should be followed when handling and operating Special Effects Equipment and their respective consumables.

- Never place objects of any kind inside barrels.
- Never aim or fire the products at any person or living thing.
- This product is meant to be used only in well-ventilated areas.

### When using the products, always follow the safety radius displayed in this manual.

Once the product is attached to the  $CO_2$  tanks and the tanks are turned on, the product, hoses and fittings will be under high pressure. Do not disconnect any fittings or hoses until the tank has been turned off, and the remaining gas has been cleared through the product, depleting all pressure in the system. If a leak is detected, cease use of the product immediately. Never stand directly over unit while under pressure. Jets should be mounted or fixed in a safe place. When using Jets above ground, always use a safety cable in the event the Product's mount or fixture should fail. You must supply the safety cable(s) to use with this product. If you are under 18, you should not be using this product.

### **Preventing Serious Injury or Death**

CO<sub>2</sub> Special Effects are to only to be used in well ventilated areas. Failure to do so may result in oxygen displacement.

Maintain a safe distance between Special Effects Products and audience, crew & event staff. Refer to the safety radius outlined in this manual.

Never aim Special Effects Products directly at any person or living thing.

Always fasten tanks to avoid tipping, rocking, or being tampered with. When feasible, keep tanks out of direct sunlight.

Check with officials in local jurisdiction for any permit requirements before operating Special Effects.



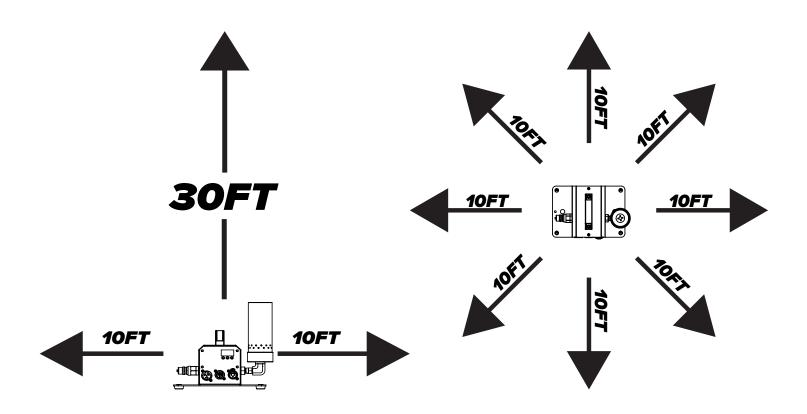
Carbon dioxide is known as an asphyxiant gas. Carbon dioxide poisoning has been linked to various health issues, including central nervous system damage, permanent deterioration of respiratory functions, suffocation or even death. If you have any health concerns that may be related to the Product's use of carbon dioxide, consult your doctor before using any of the Products.

- CO<sub>2</sub> Levels can be measured using a CO<sub>2</sub> Monitor.
- 5,000 PPM is the workplace exposure limit in most jurisdictions. Check with your local agency to verify any need for permits in your area.

## **SAFETY GUIDE**

### SAFETY RADIUS

The Micro Jet MKII can produce a plume of fog upwards of 30FT/9M. Images below outline the necessary safety radius, which must be observed at all times.



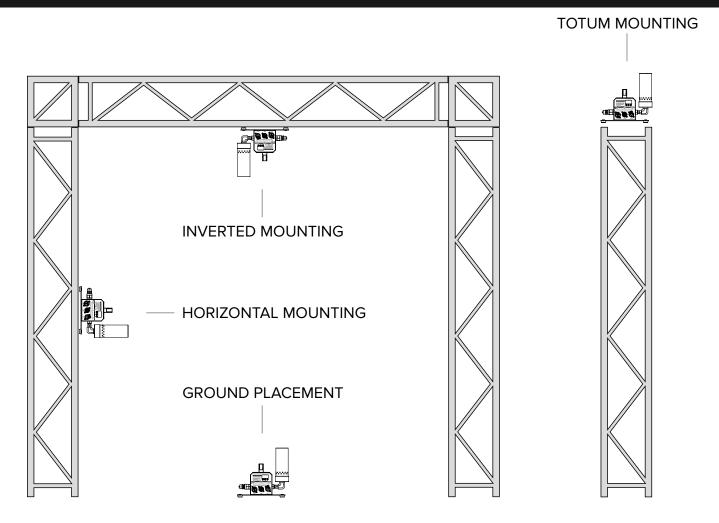


Under no circumstance should any person or object be placed inside the displayed safety radius while system in under pressure.

Direct line of sight is required at all times while operating this product. Special care must be taken when preformers are near units. Always inform performers, staff and event personel that may inadvertantly enter the safety radius of this product.

## **SAFETY GUIDE**

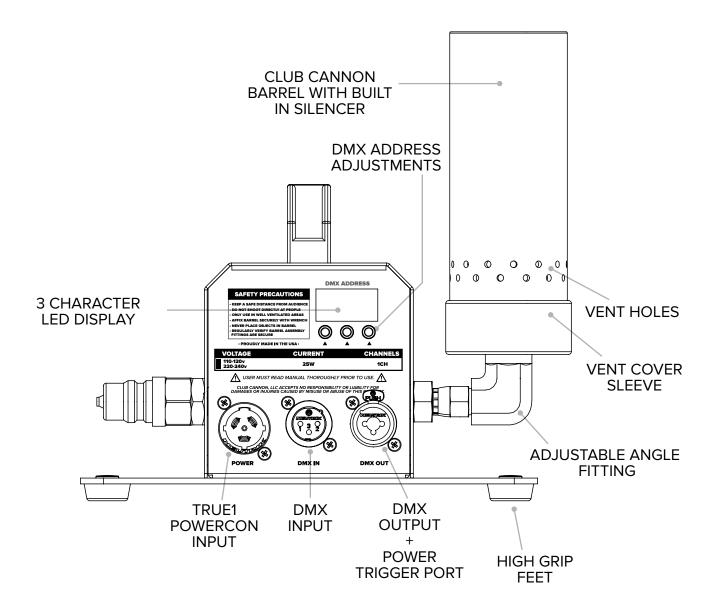
## SAFE MOUNTING



| GROUND PLACEMENT    | <ul> <li>Recommended use. Utilize the holes on the base plate to<br/>fasten to a solid surface when necessary.</li> </ul>  |
|---------------------|--|
| HORIZONTAL MOUNTING | <ul> <li>Horizontal mounting requires a solid mounting surface.</li> <li>If using truss, the structure <b>MUST</b> have adequate ballast to support the weight &amp; recoil force of product.</li> <li>NEVER mount to flown/hung truss.</li> </ul> |
|                     | <ul> <li>Due to the output from this unit, the minimum safety radius must be followed. Unless this is possible to acheive, inverted mounting <b>MUST</b> be avoided.</li> <li>NEVER mount to flown/hung truss.</li> </ul>                          |
| TOTUM MOUNTING      | • Totum mounting can be utilized, provided the user has a secure fastening method of product to totum structure.   |

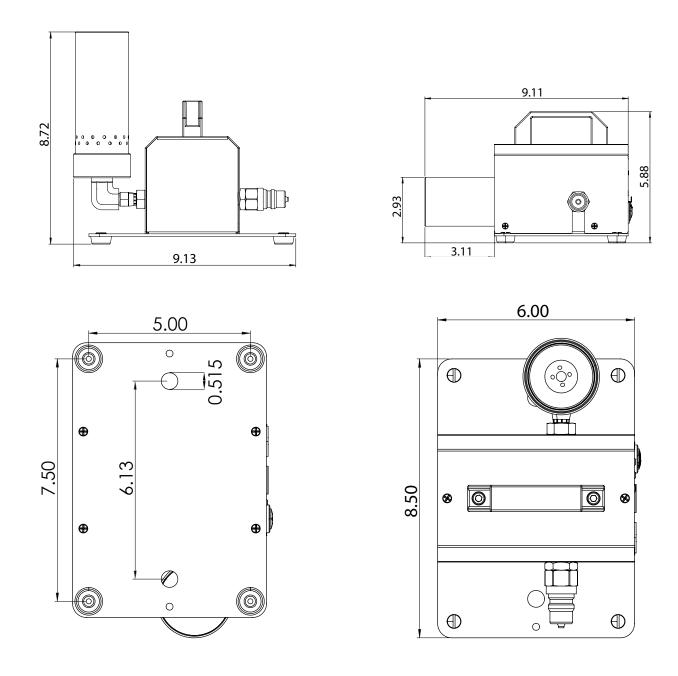
## HARDWARE OVERVIEW

### UNIT REAR



| POWER | <ul> <li>This product is available in 2 voltages, marked on unit accordingly.</li> <li>North America - 110-120v AC with included TRUE1 PowerCon cable.</li> <li>Worldwide - 220-240v AC with included TRUE1 PowerCon cable.</li> </ul> |
|-------|--|
| DMX   | NEUTRIK 3 Pin XLR Connectors.<br>• 1 Channel - Activates output (255 value required for operation).  |

## HARDWARE SPECIFICATIONS



| WEIGHT:        | 6.85 LBs                      | VOLTAGE:        | US - 110-220v AC 50-60hz |
|----------------|-------------------------------|-----------------|--------------------------|
|                | 3.11 KGs                      |                 | EU - 220-240v AC 50-60hz |
| DIMENSIONS:    | 8.5" x 5.88" x 6"             | CONSUMPTION:    | 25W MAX                  |
| WITHOUT BARREL | 215.9 mm x 149.35mm x 152.4mm |                 |                          |
|                |                               | CO <sub>2</sub> | ~ 0.83LB / Sec           |
|                |                               | CONSUMPTION:    | ~ 0.36KG / Sec           |

# **CO<sub>2</sub> REQUIREMENTS**

### SIPHON CO<sub>2</sub> TANK REQUIRED.

Liquid  $CO_2$  is the key to creating large plumes of fog. Gaseous  $CO_2$ , which comes from a non-siphon  $CO_2$  tank, will **not** create the desired fog effect.

The siphon tube feeds the Club Cannon product liquid from the bottom of the tank, while a standard  $CO_2$  tank draws gas from the top of the tank (see illustration).

If your tank is full, but not producing fog, you most likely have the wrong type of tank. Ask your gas supplier to exchange it for a siphon model. **Once the fog starts to appear thin, your tank is depleted of liquid. It is now time to get a refill.** 

### HUMIDITY

The effect works best in humid environments. Anytime humidity levels are 25% or below, the fog will appear noticeably thinner. Use the weather app on your phone to check your local humidity level.

#### TEMPERATURE

To ensure reliable operation of your product, keep tanks out of direct sunlight. Maximum tank temperature is 80 degrees F. When the tank temperature is above 80F, the pressure increases and can affect operation.

#### Where can I buy CO<sub>2</sub>?

 $\ensuremath{\text{CO}_2}$  can be purchased from any local gas or welding supplier.

<u>Click here to find the nearest MATHESON location.</u> <u>Click here to find the nearest PRAXAIR location.</u> <u>Click here to find the nearest AIRGAS location.</u>





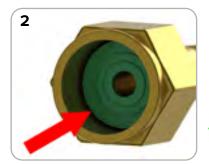
Failure to use a siphon tank will prevent the product from producing the desired effect. If the product is firing clear gas and not fog, this is likely the cause.

# CO<sub>2</sub> SETUP



**1.** Attach the female quick connect fitting on the hose, to the male quick connect fitting on the product. Pull back the sleeve and apply slight force to mate the connectors.

THIS STEP MUST OCCUR BEFORE PRESSURIZING SYSTEM



**2.** Place the plastic washer inside the fitting that connects to the tank, then attach the fitting. Tighten with the supplied tool, or any adjustable wrench (1 1/8").

FAILURE TO INSTALL WASHER WILL RESULT IN A LEAK



**3.** Position your  $CO_2$  tank in a nearby location. Make sure the tank is stable, and won't tip over. Tanks should be secured with ratcheting straps or chain to ensure they are secure.

UNSTABLE TANKS CAN BE EXTREMELY DANGEROUS



**4.** After attaching and tightening all fittings, turn on your  $CO_2$  tank and check for any leaks. If a leak is present, cease use immediately and contact Club Cannon. Trigger the unit each time you want to release CO<sub>2</sub>.

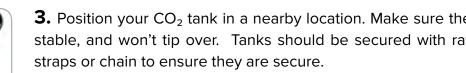
**Note:** After use, close the valve on the  $CO_2$  tank. Clear the remaining gas through the product, depleting all pressure in the system. Once the product is de-pressurized, you can safely detach the hose from the tank and product.



DANGER

Club Cannon products (the "Product") are meant to be used to create special effects. Any use of these Products shall be in accordance with the Terms and Conditions presented at the time of sale, and as they appear in this manual. Any misuse or abuse of this Product can be extremely dangerous.

Club Cannon, LLC accepts no responsibility or liability for damages or injuries caused by misuse or abuse of the Product.



## QUICK START DMX GUIDE



## **1. ATTACH BARREL**

Screw fitting of barrel to  $CO_2$  outlet. Set desired angle of jet, hand tightening to temporarly hold in place. Use either a 11/16(17mm) wrench or adjustible wrench to fully tighten fitting securely.



DMX ADDRESS

### 2. BOOT MICRO JET MKII

The Micro Jet MKII accepts AC power through the TRUE1 connector on the rear of the product. Verify correct supply voltage prior to use. Incorrect voltage may cause damage to unit. Rated voltage is marked above the power inlet.

### 3. SET ADDRESSES

To expedite setup time, we have implimented single digit addressing. Each set of arrows independently controls the above digit. While receiving DMX hold button to unlock first. Note: Only 1 channel triggering is available on this unit.

DMX ADDRESS

### 4. CONNECT DMX

The last step is to attach a DMX controller like "The Button" or "ShoMaster" to control the Micro Jet MKII.



### 5. ATTACH HOSE

Follow the steps outlined on  $CO_2$  SETUP GUIDE for proper  $CO_2$  setup.

Read through the entire manual for more in-depth information, including safety procedures and best practices.

# **QUICK START POWER GUIDE**



## 1. ATTACH BARREL

Screw fitting of barrel to CO<sub>2</sub> outlet. Set desired angle of jet, hand tightening to temporarly hold in place. Use either a 11/16(17mm) wrench or adjustible wrench to fully tighten fitting securely.



### 2. INSERT POWER MODE ADAPTER

The Micro Jet MKII includes a 1/4" TS mono plug that can be inserted into the 3 pin XLR port output. When inserted, jet will act as a power controlled jet when powered on until removed.

### **3. CONNECT RELAY PACK**

Using our Power Pack, DMX relay pack, or simply any controllable power source

DMX ADDRESS

### 4. CONNECT DMX

The last step is to attach a DMX controller like "The Button" or "ShoMaster" to control the relay pack.



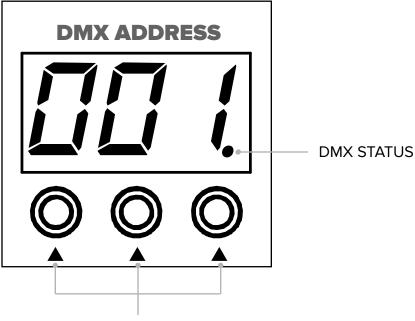
### 5. ATTACH HOSE

Follow the steps outlined on CO2 SETUP GUIDE for proper CO<sub>2</sub> setup.

Read through the entire manual for more in-depth information, including safety procedures and best practices.

## **HOME SCREEN**

This unit features quick access to setting the DMX address. This is the default screen that is shown when the Micro Jet MKII is first powered on.



INCREASE DIGIT

### DMX ADDRESSING



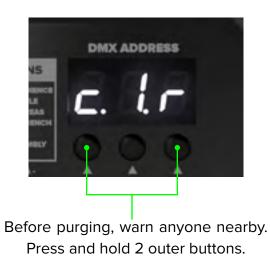
When the Micro Jet MKII is receiveing DMX the unit will enter a lockout state. Either removing DMX or holding down a button for 5 seconds will allow readdressing.



While addressing the Micro Jet MKII, there is a 3 second window before the address is store. If the unit is receiving DMX it will re-enter its lockout state.

## PURGE LINES

Line purging can be used as a convenience feature at the end of a show. To use this feature, DMX must be disconnected from the Micro Jet MKII.





There will be a 5 second delay after activating the purge lines feature. This allows the user sufficient time to step away from the unit.



Valve will be opened for 10 seconds. User can disable purge at any time by pressing any button.



Ensure no persons or living thing are inside the safety radius when using the Purge Lines feature. DMX must be disconnected for the Purge Lines feature to be available for use.

Never handle the product by the barrel, as it will become extremely cold after use. Frostbite can occur if handled improperly. Utilize the load handles for transporting / moving unit.

# **DEVICE TROUBLESHOOTING**

| ISSUE                           | SOLUTION  |  |  |
|---------------------------------|---|--|--|
| Display blank or odd charaters  | <ul> <li>Reboot via power cycle.</li> <li>If issue persists, contact Club Cannon directly.</li> </ul>   |  |  |
| Unit resetting while triggering | <ul><li>Make sure power supply is properly grounded.</li><li>If no earth ground is present, cease use immediately.</li></ul>  |  |  |
| Valves not opening reliably     | <ul> <li>Ensure sufficient voltage &amp; amperage is supplied to unit.</li> <li>Ensure tanks are not in direct sunlight, causing increased pressure. Tanks should not exceed 80 degrees F to ensure reliable operation.</li> </ul>          |  |  |
| Leak from barrel                | <ul> <li>Cease use immediately if any leaks are present.</li> <li>Contact Club Cannon directly for repair instructions.</li> </ul>  |  |  |
| Leak from quick connect         | <ul> <li>Cease use immediately if any leaks are present.</li> <li>Ensure no particles or contaminates are present inside the female quick connector. Check for any damage to black O-ring.</li> </ul>                                       |  |  |
| Leak from tank connection       | • Ensure a CO2 washer has been inserted into the brass CGA-<br>320 fitting prior to connecting to tank. Use included attachment<br>tool to securely fasten connection.  |  |  |
| Fog appears thin                | <ul> <li>Ensure CO2 tanks have necessary siphon tube installed.</li> <li>Standard CO2 tanks do not produce the desired effect.</li> <li>Check relative humidity. Low humidity will have a negative affect on the fog appearance.</li> </ul> |  |  |
| Unit does not power on          | <ul> <li>Ensure correct voltage is being supplied to product.</li> <li>Supplying incorrect voltage will cause permanent damage.</li> <li>If issue persists, contact Club Cannon directly.</li> </ul>  |  |  |

### No user serviceable parts inside.

If your issue is not listed, or the suggested solution did not solve the issue, contact Club Cannon.

# INCLUDED WARRANTY

The Micro Jet MKII includes a 1 year parts & labor warranty against manufacturer defects. Warranty does not cover damage caused by accident, misuse, abuse, alteration, or unauthorized repair. To make a warranty claim, contact Club Cannon directly.



The Micro Jet MKII is an electronic device, sensitive to moisture. To avoid risk of electronic shock, malfunction, or voided warranty, only use in dry environments. Do not operate in harsh weather conditions. Do not block or insert anything into the jet's barrels.

This product should only be used by trained and qualified persons.

Club Cannon, LLC accepts no liability or responsibility for misuse or abuse of this product, nor any liability or responsibility of the products being used with the ShoMaster.

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## **TERMS & CONDITIONS**

#### Use of the Club Cannon<sup>®</sup> products is subject to the following Terms and Conditions:

Club Cannon<sup>®</sup> products (collectively, the "Product" or "Products") are not toys. Any misuse of the Products could be extremely dangerous. Club Cannon<sup>®</sup> Products use carbon dioxide under high pressure to create special effects similar to a fog machine. They are not air cannons and should not be used to shoot projectiles in any fashion. Never place objects of any kind inside the barrel. Never aim or fire the Products at any person or living thing. Never hit any person or object with any of the Products. The Products are meant to be used only in well-ventilated areas. When using the Products, make sure you are in an open field or a well-ventilated area and are at least fifteen (15) feet away from people or other living things. Never hold a Club Cannon<sup>®</sup> Product by the barrel, especially after it has been used as it becomes extremely cold. Once the Product is attached to the  $CO_2$  tank and the tank is turned on, the gas passing through the Product, depleting any pressure. Do not disconnect the fitting connecting the hose to the Product until the tank has been turned off and the remaining gas has been cleared through the ground, always use a safety cable in the event the Product's mount or fixture should fail for any reason. You must supply the safety cable(s) to use with the Jets. If you are under 18, you should not be using the Products.

Carbon dioxide is known as an asphyxiant gas. Carbon dioxide poisoning has been linked to various health issues, including central nervous system damage, permanent deterioration of respiratory functions, suffocation or even death. If you have any health concerns that may be related to the Product's use of carbon dioxide, consult your doctor before using any of the Products. To the extent you may have problems with your back, consult your doctor before using any of the Products in a portable fashion (such as, for illustration purposes only, using the Club Cannon<sup>®</sup> CO<sub>2</sub> Tank Backpack).

You must supply the carbon dioxide tank to use with the Products. Club Cannon, LLC, a California limited liability company (the "Company"), accepts no responsibility for claims, damages, losses or injuries arising from the tank or any malfunction thereof.

Acknowledging the foregoing, you voluntarily assume all risks associated with the use of the Products with the full knowledge and appreciation of the risks involved.

The Company disclaims any liability for product defect claims that are due to misuse, improper product selection and/or misapplication of the Products. The Company offers a limited one year, (365) day warranty for each of the Products. If, during the ninety (365) day warranty period (the "Warranty Period"), which shall commence on the original purchase date, a specific component of the Product fails, the Company will repair or replace it at no cost to you. Notwithstanding the foregoing, the purchaser is responsible for all shipping charges associated with sending the Product to the Company for repair and for its return to the purchaser. If, however, any component of the Product fails after the expiration of the Warranty Period, the warranty coverage does not extend to those components or to any damage they may cause. After the expiration of the Warranty Period, the Company shall not be responsible for the performance of the Products, including any component(s) that were repaired or replaced. This limited warranty shall not apply to failure caused by accident, alterations, misuse or abuse of the Products. This warranty is not transferrable. At all times, the purchase price of the Product shall be nonrefundable. Notwithstanding the foregoing, the Company may, in its discretion, accept the return of a new, unused Product in re-saleable condition subject to a twenty-five percent (25%) restocking fee and payment by the purchaser of all shipping charges associated with the return of the Product to the Company. If the Company determines, in its reasonable discretion, that the returned Product to the Product to the purchaser.

The Products are provided on an "as is" with all faults basis and with no warranty except the express warranty set forth above. To the maximum extent permissible by law, the Company disclaims all other warranties, including, but not limited to, the implied warranty of merchantability and the implied warranty of fitness for a particular purpose. The use of the Products is at the sole risk of the user. Under no circumstances shall the Company, its members, managers, officers, agents, employees, successors or assigns be liable for any injuries or damages whatsoever to any person or property arising from the use of the Products, which shall include, but not be limited to, consequential, incidental, special, exemplary or punitive damages. To the maximum extent permissible by law, the Company's liability in all events is limited to, and shall not exceed, the purchase price paid for any Product that gives rise to any liability.

Excluding any services provided to you by the Company under a separate written agreement, these Terms and Conditions constitute the entire agreement between you and the Company regarding the use of the Products and supersede any and all previous and contemporaneous oral and written agreements between you and the Company regarding your use of the Products.

Club Cannon<sup>®</sup> and its associated logo are trademarks of the Company. You may not use any of the Company's trademarks or logos without the Company's prior written consent. Unless otherwise noted, all materials, including but not limited to the Company's Web site(s), all articles, text, graphics, logos, images, illustrations, designs, icons, photographs, video clips, audio clips, all menu pages, underlying HTML code, and software that is part of the Web site(s), are protected under copyright laws and are the trademarks, trade dress and/or other intellectual properties owned, controlled or licensed by the Company or are otherwise part of the public domain.

The Company's Web site(s) (excluding linked sites) is controlled by the Company from its office within the State of California, U.S.A. By accessing the Web site(s) and/or purchasing the Products, you and the Company agree that all matters relating to your access to, or use of, the Web site(s) and/or the Products shall be governed by the statutes and laws of the State of California, without regard to conflicts of laws principles. You and the Company also agree and hereby submit to the exclusive personal jurisdiction and venue of the Superior Court of San Luis Obispo County and the United States District Court for the Central District of California with respect to such matters. Those who choose to access the Web site(s) and/or purchase the Products from locations outside California shall be responsible for compliance with local laws, if and to the extent local laws are applicable. Notwithstanding the foregoing, you agree that the Company shall still be allowed to apply for injunctive relief (or an equivalent type of urgent legal relief) in any jurisdiction.

Except for any claim seeking the exercise of the injunctive or equitable powers of a court of competent jurisdiction, any action to enforce or interpret this Agreement, or to resolve disputes with respect to this Agreement, shall be settled by arbitration in accordance with California Code of Civil Procedure Sections 1280 through 1294.2 and any successor provisions thereto. The provisions of California Code of Civil Procedure Section 1283.05 regarding the right to take depositions and obtain discovery shall apply to the arbitration. Arbitration shall be the exclusive dispute resolution process. Any party may commence arbitration by sending a written demand for arbitration to the other parties. Such demand shall set forth the nature of the matter to be resolved by arbitration. The place of arbitration shall be in the County of San Luis Obispo, California. The substantive law of the State of California shall be applied by the arbitrator to the resolution of the dispute. The parties shall share equally all initial costs of arbitration. The prevailing party shall be entitled to reimbursement of attorneys' fees, costs, and expenses incurred in connection with the arbitration. All decisions of the arbitrator shall be final, binding, and conclusive on all parties. Judgment may be entered upon any such decision in accordance with applicable law in any court having jurisdiction thereof. The arbitrator (if permitted under applicable law) or such court may issue a writ of execution to enforce the arbitrator's decision.

If, for any reason, a court of competent jurisdiction finds any provision of these Terms and Conditions, or portion thereof, to be unenforceable, that provision shall be enforced to the maximum extent permissible so as to effect the intent of the Company as reflected by that provision, and the remainder of these Terms and Conditions shall continue in full force and effect. Any failure by the Company to enforce or exercise any provision of these Terms and Conditions or related rights shall not constitute a waiver of that right or provision.

If any legal proceeding, arbitration or other action is brought or threatened for the enforcement or interpretation of these Terms and Conditions, or because of an alleged dispute, breach, default or misrepresentation in connection with any of the provisions of these Terms and Conditions, and the prevailing party in any such action(s) should incur any legal fees, including, but not limited to, attorneys' fees, paralegal fees, expert witness fees and other similar costs, the successful or prevailing party or parties to any such dispute or action shall be entitled to recover their reasonable attorneys' fees and additional legal costs incurred, together with any other relief to which they may otherwise be entitled, as determined by an arbitrator, judge at trial, or upon appeal or petition.

The Company may make changes to these Terms and Conditions from time to time. When changes are made, the Company will post a new version of the Terms and Conditions on the Web site(s) and enclose a copy of the then-applicable Terms and Conditions in future purchases of the Products.

# CONTACT US



## CLUB**CANNON**®

874 Via Esteban STE B, San Luis Obispo, CA 93401 888-804-8175 info@clubcannon.com • www.clubcannon.com