

**All of the information in this document is important so please read the entire document to ensure you have a complete understanding of all requirements.**

Thank you for your recent purchase of your i2k products! This Service Bulletin is designed and meant for you and your team members and/or maintenance department to take note and perform ongoing maintenance that is **required** of your i2k products with Zero Shock technology.

In an ongoing effort to maximize the life and safety of your inflatable attraction and its' patrons, we may send out periodic bulletins that pertain to your inflatable attraction(s). The products described in this bulletin are listed below:

- Air Bags/AirPads (any size)*
- Battle Zone*
- Big Baller*
- Cliff Jump*
- Cliff Jump Jr.*
- Daredevil Island*
- Deluxe Module Combo*
- FreeFall Double Jump w/Air Bag*
- The Jump Off*
- Jungle Gym*
- Jungle Swingz*
- Jump & Slide*
- Krazy Ladder*
- Leap of Courage*
- Leaps & Bounds*
- Quad Klimb*
- Rugged Warrior Challenge (Leap of Courage)*
- Shockwave*
- Shockwave Jr.*
- SkySlide*
- Stunt Jump*
- Trapeze*
- WireFlyer*
- Zipline*

It is imperative that all patrons' young and old DO NOT dive or land on their head or neck. Serious injury, paralysis, and/or death may occur if instructions are not followed. It is also imperative that patrons' DO NOT jump feet first onto your inflatable attraction for risk of leg and/or ankle injuries.



## Ankle Injuries: Causes and Treatments

<http://www.webmd.com/fitness-exercise/ankle-injuries-causes-and-treatments>

*Ankle injuries are often thought of as sports injuries. But you don't have to be an athlete or even a "weekend warrior" to turn your ankle and hurt it. Something as simple as walking on an uneven surface can cause a painful, debilitating sprain.*

*Ankle injuries can happen to anyone at any age. However, men between 15 and 24 years old have higher rates of ankle sprain, compared to women older than age 30 who have higher rates than men. Half of all ankle sprains occur during an athletic activity.*

*Every day in the U.S., 25,000 people sprain their ankle. And more than 1 million people visit emergency rooms each year because of ankle injuries. The most common ankle injuries are sprains and fractures, which involve ligaments and bones in the ankle. But you can also tear or strain a tendon.*

## **ONGOING/PERIODIC MAINTENANCE REQUIRED ON ALL GAMES WITH ZERO SHOCK® TECHNOLOGY**

i2k holds the exclusive rights to sell and manufacture inflatable games and rides using the exclusive patented *Zero Shock®* technology.

For the first time ever, inflatable interactive games have transformed from a basic bounce house or slide to an interactive game with "moving parts" that require special attention. Much like the shock absorbers in your car, the patented *Zero Shock* air bag system that is integrated into your inflatable game has similar shocks or tubes that offer a "*crumple*" effect which absorbs the energy and impact in a similar fashion. These "*crumple tubes*" must be examined and inspected daily, periodically and often. The way the *Zero Shock* system work effectively is by all of the crumple tubes working together in unison by being attached/secured to the top sheet of the air bag portion of the landing mattress on your inflatable game. If even one (1) crumple tube is disconnected from the top sheet, the system can/will be unsafe and/or ineffective.

### INSPECTION PROCEDURE

- Lift up the top sheet by first untying the ropes or clips that connect the top sheet to the floor or base of your inflatable mattress/base.

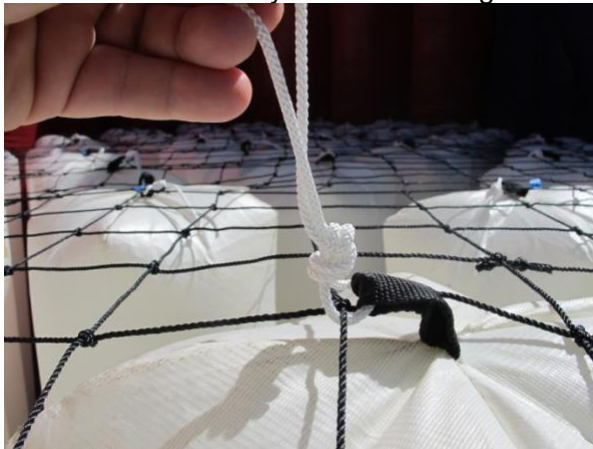


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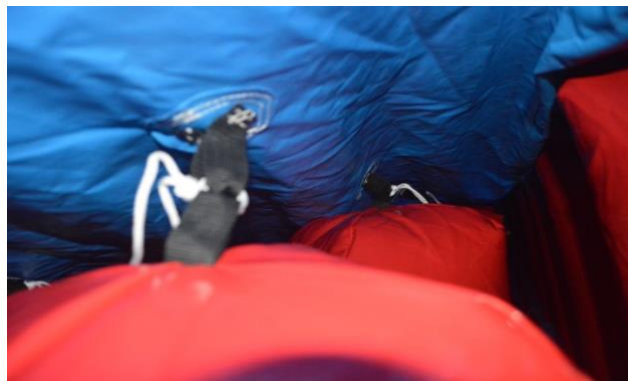
- Some i2k models are designed whereas the 'crumple tubes' are connected/attached to the vinyl top sheet like shown below



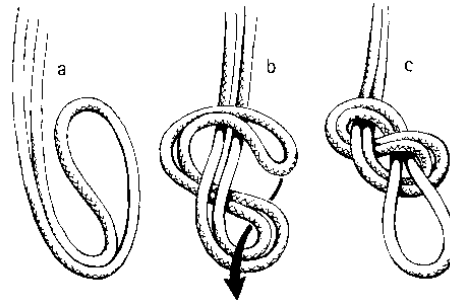
- Other i2k models are designed whereas the 'crumple tubes' are connected/attached to the secondary restraint netting like shown below.



- Inspect all of the ropes or bungees (*shock cord*) that connect the *crumple tubes* to the top sheet or netting. Daily and/or periodic inspections should involve crawling under top sheet to observe and if necessary, to retie any ropes or bungee cords that may have come untied or broken immediately so that your inflatable is safe to use. Use flashlight if necessary to look down the mattress bed to look for ropes that have become untied and or broken. This should be inspected from the right and left of the game as well as nearest and farthest wall to ensure the entire game has been thoroughly inspected.



- It is also extremely important that the ropes or bungee cords are tied with a “figure 8” knot. This is the best knot to ensure the crumple tubes do not come united. If you do not use a figure 8 knot, you risk the ropes or bungees coming united, thus making the game unsafe. Braided nylon rope is the best rope. If you need more for replacement or backup, you can order from i2k.



CRUMPLE TUBE INSPECTION PROCEDURE (See link for video instruction below)

<https://www.youtube.com/watch?v=G7gl3VjFPF8>



### APRON/SKIRTS INSPECTION PROCEDURE

Daily inspections are required on all Apron/Skirts around the landing air bag on various i2k products such as, but not limited to: Cliff Jump, Cliff Jump Jr, Daredevil Island, The Jump Off, Jump & Slide, Shockwave, SkySlide etc. It is very important to inspect, maintain and ensure that there are NO GAPS where patrons can fall behind or fall through. The aprons are attached to the sidewalls with bungee cord or rope. These cords/ropes must be inspected daily to ensure that they are tight and secure to the rear wall and sidewalls. If they are loose, it is very important to pull all slack from the line to ensure apron has no gaps and then to tie them with a secure knot or Figure 8 knot. If your bungee cords or rope are frayed or worn out, please order a new set from the i2k offices at 626-969-7780.



Top view looking down at the air bag below from the platform of the Daredevil Island.  
**Be sure to inspect daily the aprons/skirting around both sides, rear and corners of the air bag to ensure bungee cords or rope are tight and have no gaps.**



### **TOP SHEET INSPECTION PROCEDURE**

During your daily walk-through inspection, should you observe excessive wear or signs of rips, tears or breaches in your top sheet. The Top Sheet of your air bag or landing mattress is the layer/membrane that is the first layer of defense in your i2k unit with Zero Shock technology. Since this area takes the most wear and tear/abuse, it is imperative that this area be inspected not only daily basis, but periodically thought the event or day to ensure that patrons are safe and do not breach through this surface area. Top sheets may need to be repaired or replaced based on how often the unit is being used or the throughput. (Note: Indoor/outdoor FECs or trampoline parks receive thousands of visitors a day, month or year, so special attention needs to be taken if you are using your unit in an indoor application such as this). Top sheets can be ordered by calling i2k to replace your existing top sheet that may be worn out or need to be replaced. This is a standard replaceable panel that needs replacing, similar to slide sheets, climb sheets, cover sheets etc. Top Sheets may need to be replaced annually or sooner depending on how many jumps/throughput your particular unit experiences throughout the year. (Below is an example of a Top Sheet less than a year old that needs to be replaced due to excessive use/wear & tear in an indoor FEC). **Top Sheets are not under warranty and will need to be repaired or replaced at owner's expense.**



The next step is to check the air pressure of your airbag/game with the Magnehelic provided. This is performed by inserting the opaque plastic tube that is connected to the top left port of your Magnehelic into one of the zipper openings of your airbag or game. After you insert the tube approx. 15" into the zipper opening, you will close the zipper to make a tight fit and nearly no air to escape. The Magnehelic should read between 3-4 PSIG. If it measures below 2.5 PSIG, it is deemed too soft and unsafe to jump into. If it measure over 4PSIG, it is deemed too firm/stiff. If either of these high or low measurements are indicated, you must not use the airbag or game and consult with i2k immediately to find a solution to the problem. It may be a quick fix/oversight or may need to be returned back to the factory for complete inspection and/or repair. (NOTE: Not every unit that has Zero Shock technology will have a magnehelic included with purchase. If you are in need of one, you can call our office to order one at 626-969-7780)



**Trouble-shooting: If Air Bag/AirPad is not getting enough air pressure and/or the air bag feels to soft in your inflatable game and/or airbag.**

1. Check to make sure inflation blower(s) are plugged in and switch is in the 'on' position
2. Be sure your outlet is producing the proper amperage (20 amps per outlet) in order to run the inflation blower(s) at their full capacity. A drop in amperage can cause the blower(s) to run at slower speeds, thus causing a drop in air pressure in your inflatable game and/or airbag.
3. Be sure all blower tubes are free from obstruction and not kinked at all. If a blower tube is kinked, it can cut off the air pressure to your inflatable game and/or airbag.
4. Be sure blower intake vent is free from debris. If the blower intake vent is obstructed by a plastic bag or too close to a wall or other obstruction, it can cause the blower(s) to run at slower speeds, thus causing a drop in air pressure in your inflatable game and/or airbag.
5. If you are using blower(s) in an indoors facility, it is especially important to check the intake of the blowers frequent and often. The blowers can suck up carpet fibers and/or other particles that will cut the circulation off to the blower(s) causing a drop in air pressure in your inflatable game and/or airbag.



**Preventative Maintenance / Glue Patching Procedure**

During your daily walk-through inspection, should you observe excessive wear or signs of stress on any corner seams or holes in your inflatable attraction. If you find areas that need attention or a repair that can be addressed with a glue patch, you can use the vinyl repair kit that was included with your i2k unit.

- Clean the area around the corner, tear or hole where you will be installing the patch.



- Cut your patch in a circle large enough so that you have 1 1/2"-2" around the perimeter of the hole (if using a square patch, round off corners with scissors so that corners do not lift). Center the reinforcement patch over the hole. If reinforcing a corner, you may cut a slit in the patch to the center radius and place patch so that the slit/cut is in the seam at 12 o'clock where the two yellow panels meet together (example below).



- Next, take a pencil and outline the reinforcement patch so that it is centered on the four seams with the slit nearest 12 o'clock.



- Use PVC cement provided and brush the cement onto the inflatable inside the white line that you penciled.





- Next, brush the cement onto the backside of the reinforcement patch evenly making sure to get all of the edges.



- Let sit for approx 3-5 minutes until it gets tacky.
- Apply pressure evenly around the reinforcement patch for approx 10 minutes to ensure it bonds well and doesn't lift from any of the corners of the vinyl reinforcement circle.



- If reinforcing a corner, you may use a second patch of the first one that you applied. Take the second reinforcement patch and turn it 90° and perform the same steps as the first reinforcement circle. This will form a very good and strong bond.



- Apply pressure to both reinforcement circles and let sit approx 12 hours until completely dry.

If there are any signs of wear and tear on your inflatable attraction such as seam wear, seam splitting, pop-up or “crumple tube” wear, Top Sheet rips, tears or breaches, zipper damage, slide and/or cover sheet damage, please send your unit in for immediate repair (shipping back to our factory and back is always at the owner’s expense).

Your inflatable is made of a PVC coated vinyl, is lead-free, phthalates free, flame resistant and meets or exceeds National Fire Protection Association (NFPA) test method 1 and test method 2. The Flame Resistant material used will not be removed by washing.

Your inflatable can be washed (while inflated) with water and a mild cleaner/ degreaser. Allow unit to dry completely before packing up so mildew / mold doesn’t occur. Harsh cleaners or bleach should not be used. Never allow patrons on inflatable before it is 100% completely dry.

If you have any questions or further assistance, you may call i2k at 1-626-969-7780. For emergencies or after hours help needed, please call (626) 926-5127. i2k 748 N. Mckeever Ave, Azusa, CA 91702 USA.

## DAILY PRE-OPERATION INSPECTION

Location: \_\_\_\_\_

Date: \_\_\_\_\_

Team Leader: \_\_\_\_\_

NA – Not applicable

OK – Satisfactory

US – Unsatisfactory

Top sheet intact and free of rips or tears		
Bungee or rope ties all intact that connect <i>crumple tubes</i> to top sheet		
Any rips, tears or holes in <i>crumple tubes</i> ?		
All <i>crumple tubes</i> attached to underside of top sheet and/or netting		
<i>Crumple tubes</i> free of rips or tears at the base where attached to the inflatable base/floor?		
Skirts/aprons all intact with no rips or tears and tight against the back/side/pit walls?		
Bungee cords and/or ropes around skirts tight (no gaps)?		
Bungee cords and/or ropes torn or frayed?		
Carabiners, D-rings anchor points sound?		
Walls & floor sound – firm, not too soft?		
Proper inflation of ride/Proper Pressure Reading (PSIG) on Magnehelic?		
Headgear sound (if applicable)?		
Rope torn or frayed?		
Blower tubes and zippers?		
Watch Dog Siren operating properly?		
GFCI?		

Comments:

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List all rides on site with names of all staff:

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Disclaimer: This checklist is intended as a suggested guideline for inspecting. It is recommended that inspections include, but are not limited to, the items listed on this form.