

ROPES COURSE

Owner/Operator Manual

ROPES COURSE MANUAL

<u>TABLE OF CONTENTS.</u>

- 3 Overview
- 3 Structure & Use
- 4 Capacity & Limitations
- 5 Course Operators
- 9 Key Terminology
- Preparing for the Ropes Course
- 14 Personal Protective Equipment
- 16 Staffing & Management
- 17 Signage & Patron Education
- 19-27 Rescues
- 28 Inspection & Maintenance
- 31-35 Visual Aid
- 36 Cleaning
- 38 Conclusion
- 38-41 Appendix A Daily Inspection Chart
- 42 Appendix B Weekly Inspection Sheet

Overview

This manual contains proper operational procedures which ensure the safest and most enjoyable experience for customers and employees. The following information is for the purpose and intent to provide owners and operators operational procedures and with maintenance recommendations that will facilitate top performance of the equipment, as well as longevity of the product. This manual covers the Fun Spot® manufactured truss structures and features, with notes from the third-party manufacturers of the PPE and harnesses, including the cable and trolley systems. It is recommended that all owners and operators also refer to third-party manufacturer manuals and documents that will be provided with this manual.

Safety is always a major concern at Fun Spot®, so please do not hesitate to note important questions along the way. For answers to any questions that are not found in this manual, you can contact Fun Spot® directly at +1 (706) 376 8989.

A Fun Spot® professional installer will manage installation and test the Ropes Course attraction(s). Your personnel should receive maintenance and inspection training during your Fun Spot® provided installation time as well as a separate operational training period of at least three days per group of twelve operators.

MANUFACTURER'S NOTE: All owners/operators must notify the manufacturer of all major incidents that occur at this attraction within seven (7) days (According to ASTM F2959 Section 5.10.3). Any patterns of repeated major incidents should also be reported.

⇒ Structure & Use

Fun Spot® Ropes Courses combine various balance and strength elements from an elevated truss structure. A cable and trolley system is attached to the truss structure, which serves as the belay safety system. On a Fun Spot® Ropes Course, participants can attempt to navigate a variety of unique challenges from a heightened position. This requires all active guests to:

- ☐ Fill out a waiver (or have a parent or legal guardian fill one out)
- Wear proper attire

- ☐ Receive a briefing from a Ropes Course Operator on appropriate usage of the equipment
- Be properly fitted in a full-body harness and adjustable lanyard with trolley
- ☐ Read all safety signage and agree to the terms of use before attempting the Ropes Course

Each park is responsible for providing and scheduling well-trained staff to operate the Course and the equipment, as well as posting all safety signage and informational video(s) in clear visibility of guests before they begin exploring the Course.

It is also important to note: Annual inspections by ACCT/ASTM accredited organizations are recommended (and may be required in certain states) to ensure the highest standard in safety and operations. The initial training and inspections will be provided by an entity recommended by Fun Spot.

Fun Spot® installers are trained to follow instructions to specific details in the installation process, so maintaining the use of this attraction with its designed purpose is crucial for structural integrity and longevity. Misuse of the Course's features could compromise safety; therefore, managerial training during the installation is critical (see Inspection & Maintenance section on page 28).

⊗ Capacity & Limitations

The capacity of a Ropes Course is determined by the number of obstacles/features* and platforms. Simply add the number of obstacle rows with half of the amount of platforms to determine the total capacity. This total amount is the max capacity of active guests allowed in the RC area, but does not include those being harnessed or unharnessed. In facilities that feature attractions other than a Ropes Course, the RC max capacity should be added as a part of the active guest total max capacity.

Capacity Example: A park contains a Ropes Course featuring seven obstacle rows with six platforms. Half of six is three, plus seven is ten. Ten people may participate in this Ropes Course at one time, and ten would

also be included in the park's total active guest capacity.

The harnessing and briefing area (and unharnessing area) should never become overcrowded so that guests are hindered in entering or exiting the Course. That area's capacity will vary by size, and should be determined by the owner/operator before opening to the public.

The minimum height to enter the Ropes Course is 48" and the maximum weight limit is 250 lbs. These metrics need to be verified by a scale and measuring tape. Active guests outside of these limits could compromise their safety and the integrity of the equipment. These restrictions should always be communicated to guests before their transaction is complete.

*MANUFACTURER'S NOTE: The Ropes Course is intended to be a permanent structure. Assembly and dismantling of this attraction should be done by a professional Fun Spot installer only.

Course Operators

Each Ropes Course requires properly trained staff to manage and oversee the Course during all hours of operations. Instead of being stationed off to the side, observing and engaging only when someone breaks a rule or requires assistance, they are part of the park's high-energy atmosphere. This role is exciting, fun, and rewarding! Course Operators keep the Ropes Course safe and actively contribute to the fast-paced experience.

Course Operators must be physically fit and able to handle emergency rescues, so certain requirements must be met for each staff member. These requirements include (but are not limited to):

- **Physical endurance** / Able to handle multiple excursions of the Course throughout the business day/shift
- *Physical strength* / Able to handle lowering a guest during an emergency rescue
- No fear of heights
- Mental fortitude / Able to handle intense situations during busy times within the park/facility
- Clear communication with adults and children
- Equipment proficiency

- Maturity / Must be 18 years of age or older

Since each Course Operator is a point-person for the facility, they need to always be in uniform and **easy to recognize** by any customer. The park's shirt is required for each shift, as well as proper legwear and shoes according to the dress code laid out by the managers. Course Operators cannot wear excessive jewelry, hats, large earrings/bracelets/ necklaces, or studded belts in case they must enter the Course to help someone.

It is highly recommended that Owners and Course Managers also make a reasonable effort to screen potential Operators for clear and effective communication skills and an ability to work efficiently in stressful situations. In addition to meeting minimum first aid requirements, some Owners/Managers elect to include First Aid and CPR credentials as a requirement for all Lead Operators.

OPERATOR ROLE / RESPONSIBILITIES

Operators must master a complex body of knowledge consisting of both "hard" technical skills and "soft" facilitation skills. The Operators' role is both to provide safety instruction and supervision, as well as to assist groups and individuals in achieving physical, educational, and developmental objectives.

The effectiveness of a program is dependent upon an understanding and mastery of both the soft and hard skills associated with facilitation. Additional information on facilitation standards and strategies can be found in the current editions of the ACCT Standards for Challenge Courses & Canopy / Zip Line Tours.

All Operators must also assume the following responsibilities:

- Read and understand this manual in its entirety prior to operating the course
- Successfully complete all required training prior to operating the course
- Clearly and honestly communicate risks to Patrons
- Continually assess risk and actively work to mitigate risks during the operation of the course
- Comply with this technical manual in the use of the course

Additional information on current industry standards for operational and training requirements can be found in the The Association for Challenge Course Technology's (ACCT) Challenge Course and Canopy/Zip Line Tour Standards and ASTM F2959 and related practices. It is the responsibility of all course owners, managers, and Operators to read and become familiar

with, and remain up-to-date with all training materials, best practices, and industry standards.

INITIAL TRAINING

Fun Spot requires that all Operators receive initial and on-going training. This Training must be provided by a qualified organization (per Fun Spot's recommendation) as defined in the *ACCT Qualified Course Professional Guidelines*. The trainer(s) should also be "up to date" with applicable ASTM standards.

This Training shall include as a minimum: standard operating procedures, safety policies and briefings, rescue and evacuation procedures, identification and use of critical course components, course and equipment inspection/care, and limitations of use and design. Attendance alone does not constitute successful completion of training. Each Operator must also be able to successfully demonstrate each skill or area of knowledge prior to operating the course.

PRACTICAL EXPERIENCE

Training shall include and/or be followed by an opportunity to practice skills and respond to scenarios. In addition, it is highly recommended that new Operators are given an opportunity to apprentice or "shadow" programs with experienced Operators prior to working independently. The amount of time spent as an apprentice to experience Operators will vary depending on individual needs and performance.

CONTINUING EDUCATION

Operators must participate in annual review training and critical skills assessment to comply with current ACCT standards. This is particularly important for Operators that do not work year-round and therefore have significant "down-time" during which skills have not been used or assessed. Review sessions should be documented, and records maintained at the main office. At a minimum, this annual review/assessment time should include:

- Review and hands-on practice of standard course operation procedures
- Review and hands-on practice of emergency and rescue procedures
- Review of the most current edition of manuals and local operating procedures
- Review of updated information on industry standards and practices

In addition to complying with annual training and assessment requirements, it is highly recommended that all Operators participate in on-going review of operational and emergency response procedures, particularly after a significant break from operating the course. Rescue skills may be used infrequently but Operators must be prepared to respond efficiently in the event of an emergency. Organizations should consider implementing both formal and informal skills reviews and opportunities for supervised practice at regular intervals throughout the year. Review sessions should be documented, and records maintained at the main office.

Each Operator and Course Manager is responsible for staying up-to-date regarding changes in industry standards and practice. Regularly checking in with ACCT and/or a Professional Vendor Member can assist with staying current in this fast-changing industry. It is highly recommended that each Operator maintains a personal portfolio documenting training and experience.

CERTIFICATION

Some programs may choose to pursue certification to ACCT standards for some or all Operators. Certification is separate from training or traditional skills assessment. Applicants for certification must meet minimum qualifications for the appropriate certification level and track and must successfully complete both practical and written testing. See current ACCT Standards for details on the certification process and specific practitioner eligibility criteria.

TRANSFERABILITY & LIMITATIONS

Unless otherwise specified, training and/or certification provided by Fun Spot's recommended training entity is site-specific and is not considered transferable to other challenge courses. In such cases where transfer to comparable courses is approved, Operators must also undergo site-specific training and orientation, including familiarization with Local Operating Procedures (LOPs) and Emergency Action Plans.

Training participation, assessments, and/or certification testing does not serve as a prediction or guarantee of future performance as an effective Course Operator. Course Owners and Managers also have an on-going obligation to actively monitor all Operators and respond as needed in the event an Operator is unable to fulfil his/her responsibilities or where there is concern for safety.

Successful completion of Training and/or Certification does NOT serve as qualification to provide initial training to other Operators. Multigenerational training is not recommended. However, on-going review and continuing education under the supervision of a senior Operator is a helpful means of maintaining and improving upon skills.

All Course Operators must be trained according to industry standards and practices prior to being scheduled for their initial shift.

Key Terminology

Since employees will be monitoring the equipment as well as the active guests and spectators, all employees should become familiar with the terminology of the equipment as well as the proper usage for each part. The following key terms will be used throughout the remainder of this manual.



HARNESS (Full-Body)

- Required PPE for active guests as well as operators
- Active guest and operator harnesses may vary, depending on industry availability and RC components
- Must be inspected every day
- Follow manufacturer's instructions for cleaning harnesses as needed.
 Never use chemicals or detergents.
- Harnessing training and reading through the OEM manual is required for every staff member before their first shift
- Must be approved by Fun Spot for use with the Ropes Course. (Edelrid Radialis Comp II is pictured)



LANYARD (*Hirope is pictured*)

- Must be adjusted to each guest's height
- Requires every staff member to read through the OEM manual before adjusting a guest's lanyard
- Must be sanitized and inspected every day
- Follow manufacturer's instructions for cleaning harnesses as needed. Never use chemicals or detergents.
- Lanyard brand and style may vary depending on Course requirements and industry availability
- Also referred to as a "tether"

	Connects the harness to the trolley				
Saferoller Controller	 TROLLEY (Saferoller is pictured) Every guest must receive trolley use training to mitigate device damage All staff must become familiar with the OEM manual with its recommendations and warnings Must be inspected every day. Daily inspections may also involve logging serial numbers of each trolley Additional weekly and monthly inspection tasks may be required for warranties and prolonging the device's longevity 				
	 LOCKING CARABINER Features a press-and-twist locking mechanism for additional safety Carabiner keys must be always readily available for operators Must be sanitized and inspected every day before use Carabiner styles and brand may vary depending on industry availability and standards 				
	 DECK/PLATFORM Positioned at vertical trusses for easier transitions between obstacle rows and features Should not have more than two (2) people on it at the same time May serve as a waiting station for active guests who have a slower patron ahead of them Consists of a plywood mount on top of a steel plate 				
ADDITIONAL TERMS:	Active guest/Patron: Any guest that is harnessed or attempting the Ropes Course. Belay: Components of the support system to protect the guest from falling, including the cable line, associated PPE, and mounting plates.				

For additional information about PPE, refer to the **Personal Protective Equipment** section later in this manual.

Preparing for the Ropes Course

Two factors can make a major difference in the quality of the Ropes Course experience: Sequence/Timing and the Ropes Course Briefing.

Sequence & Timing >>>>>>>>

Preparing guests for a Ropes Course is broken down into three steps:

- **1. TIMING:** Guests should arrive 30 minutes before their scheduled Ropes Course purchased time. This allows plenty of time for the check-in process and to receive a proper briefing before the climb begins. The Briefing should begin no later than 15 minutes prior to the start of their scheduled time.
- **2. THE BRIEFING:** During the Briefing, climbers will be instructed on safety guidelines and how to safely use the equipment. Guests will also be fitted with harnesses during this time. For more information on the Ropes Course Briefing, please refer to the following section.
- **3. PREPARATION PHASE:** Following the briefing, harnessed guests will enter the starting area to connect their trolley to the cable to begin their session. Staff will always assist with the trolleys connection and disconnection from the cable.

The Ropes Course Briefing: <<<<<

The Briefing is a crucial orientation for the guests about to attempt the Ropes Course. The briefing consists of:

- An explanation of the Ropes Course area and layout
- How to communicate with staff when in need of assistance
- Additional time reviewing the rules and guidelines of the Course
- Reminding guests to use the restroom and empty pockets before getting harnessed
- A demonstration of how to safely use the equipment (RC components & PPE)

Every Briefing, regardless of session size, should be conducted in a way to ensure clear communication (i.e. microphone, megaphone, etc. for larger groups in louder areas), with consistent engagement and an interactive series of demonstrations. An engaging briefing ensures clear delivery of instructions and the full attention of the guests. It is important to note that the parents of younger guests should always be briefed as well to ensure that their children fully understand the rules and guidelines.

The Ropes Course Briefing consists of the following:

1. INTRODUCTION While guests arrive for the briefing, the staff member verifies the height and weight limits, purchased times, and the suitability of the customers' shoes and attire.

Parents should be encouraged to join the group before starting the briefing, especially for young kids who may have trouble getting into their harnesses without help.

- 2. RULES & REMINDERS Staff members giving a briefing should be thorough in patron education and ensure that all guests understand the expectations of the park and staff to safely use the equipment:
 - a. All guests must be wearing closed-toed shoes. Open-toed, steel-toed, or shoes with heels are not permitted.
 - b. Guests must remove any scarves, necklaces, large/dangling earrings, hand jewelry, and other loose clothing or jewelry to prevent interference with the harness or belay systems, or get caught on the holds (with the exception of wedding rings, although any guests wearing wedding rings should still be informed of the risk to their person and property if they choose to wear it while on the Ropes Course).
 - c. Guests should remove items from their pockets (including cell phones, loose change, etc.) before being harnessed.
 - d. All participants and guests must never run in the briefing or harnessing areas.
 - e. When harnessed guests are near the entrance or exit, they must stand outside of cable connecting/disconnecting areas.
 - f. Active guests should be aware of others including to the side,

- above, and beneath.
- g. Active guests must not sit/hang in their harnesses for extended periods of time.
- h. No swinging whenever hanging on the cable line.
- 3. PROVIDE AND DEMONSTRATE THE HARNESSES Every harness must be inspected and fitted by a staff member before a guest attempts the Ropes Course. Remember these techniques for the right fit:
 - A. Tighten the waist belt above the hip bones, ensuring the carabiner loop is at belly-button height. Only one finger should fit between the waist belt and body. If more fingers fit, the waist belt should be tightened. On harnesses with dual waist buckles, adjust these equally to keep the connections on the harness centered on the body.
 - B. Tighten leg loops so that they are snug against the body/extremities but still loose enough to allow movement.
 - C. Tighten the shoulder straps last, again so they are snug but allow for movement. Ensure the dorsal (rear) webbing brace is positioned between the guests shoulder blades.
- 4. EXPLAIN THE PPE & TROLLEYS Explain the use of the lanyard, and adjust its length to accommodate the height of the guest and limit the fall potential to less than 2-feet. Demonstrate the trolleys and their proper use on the cable system. Guests should also be instructed on how to get assistance by a staff member when they are out on the Course. Guests should be informed on proper distancing between other guests throughout the Ropes Course.

Finally, ask the guests to verify they understand the PPE and how to safely traverse the Course - and allow time for questions!

Personal Protective Equipment (PPE)

It is recommended for all owners and operators to carefully read the user's and maintenance manuals for the trolleys, lanyards, harnesses, and helmets that will be used in the park. Owners and operators must understand proper use of the PPE. The equipment brand and styles may vary depending on industry-standard recommendations and availability. Personal protective equipment will be provided by Fun Spot, per industry-standard recommendations. In most cases, warranties are dependent on upholding manufacturer recommendations, therefore the manuals for third-party products such as harnesses, trolleys, and lanyards should be understood by owners and operators before any park opening. Equipment inspection is required prior to use each day, and must be further inspected and replaced as necessary in compliance with OEM requirements. The installation period is a perfect time to understand how to replace components or any features that might need servicing. Safety practices and manufacturer recommendations for the appropriate use of equipment and the continuous belay trolley system should also be reviewed and fully understood by all owners and operating staff.

MANUFACTURER'S NOTE: All life safety equipment must be compatible with ANSI/ACCT 03-2019 for the application of use. (ASTM F2959-19, 11.6.3.10)

TIPS FOR CHECKING & ADJUSTING HARNESSES Each harness and tether must be checked and adjusted to the appropriate fit/length by a trained staff member prior to every entrance into the Course. In the event a participant removes a harness to leave the briefing area, it must be checked again before the guest may resume Ropes Course participation. Remember these practical points for a safe and appropriate checking/adjusting of harnesses:

- Ask the guest to step into the harness and pull it to waist level prior to making adjustments.
- Ask if you may adjust a guest's harness before touching the climber or attempting an adjustment.
- ☐ While making an adjustment or checking a harness, explain the steps during the process.

- ☐ Keep the focus on the equipment by squatting down so that the part of the harness that needs to be adjusted is at eye level.
- Do not ever reach across the guest's body to make an adjustment move to the side of the body where the harness needs to be adjusted.

FULL-BODY HARNESSES Full-body harnesses are required, and can be safely fitted following these steps (also pictured below)):

- Lay the harness on the ground with the label facing up.
- 2. Ask the guest to place their feet into the leg loops.
- 3. Help them pull up the harness (like pulling up a pair of jeans) and put the shoulder straps on, like a backpack.
- Ensure there are no twists in the leg loops or arm loops.
- 5. Tighten the waist first, then the leg loops. The leg loops should be secure but not restricting any movement.
- 6. Make certain the leg loops are at a 45-degree (45°) angle coming up from the inner thighs toward the hips and not tightened straight across the thighs.
- 7. Adjust the shoulder straps to a tight fit without too much compression on the shoulders or chest.
- 8. (Not pictured) Connect the adjusted lanyard.



Helmets must be available for use by guests if requested and may be

required for certain guests with special needs, so consistently maintain an inventory of both adult and child helmet sizes. Your PPE can be provided by Fun Spot or purchased through a reputable equipment vendor. Any PPE orders from other vendors should be first approved by Fun Spot to verify the pieces are compatible and meet ACCT standards and requirements of the Course.

Staffing & Management

Throughout the hours of operation, the staff member providing the briefing will also handle harnessing and connecting the active guests to the cable system.

Before any new guests enter a harnessing and briefing area, staff members should also be positioned and ready to assist guests when beginning or exiting the Course. The Course should not be open until a staff member is stationed at the exit to assist guests leaving the Course.

Depending on Course size, an additional staff member may need to be available to fulfill a rescue at any given point on the Course. It is also extremely important that any staff members positioned to assist active guests on the Course are able to reach any guests quickly.

Staff members will engage with the guest *during the entire experience*. It is important for staff to **build rapport** with each wave of new guests. While friendly interchange is encouraged, staff members should also never push a guest to go beyond their abilities or become a distraction.

While no guest should be pressured or rushed, staff members should always engage with the active guests to ensure the "flow of traffic" is consistently moving throughout the Course. The linear, forward movement of the Course layout should be monitored and managed at all times during hours of operation. Operators should be familiar with all tough spots on the Course so they can provide helpful instructions to keep a continually safe and consistent flow of guests.

Signage & Patron Education

Safety signs should always be an educational tool for the customers. Safety signs should always be clearly displayed at eye level, and in a contrasting appearance so they stand out. Rules signage should be placed near the entrance to Fun Spot® climbing attractions. The following rules should be made clear, accessible, and legible:

ALWAYS:

- Ask Staff Members for help on the Ropes Course.
 Use the devices as instructed in safety signs and verbal directions from Employees.
 Keep around 10 ft. (3m) distance from other guests (one participant per obstacle and up two people per platform at a time).
 Be aware and respectful of others on the Course around you..
 Keep the trolley and its sling/lanyard line in front of you, between
- your shoulders.

 Stand outside of entry/exit points on platforms when you are
- □ Stand outside of entry/exit points on platforms when you are waiting for your turn.

DO NOT: .

- □ Attempt the Ropes Course if you are pregnant, recovering from a recent surgery, or if you have stitches, back/neck problems, heart problems, or have a history of panic or anxiety attacks.
- □ Do not enter the Course unless an Attendant has verified the fit and connection of your harness, tether, and trolley.
- ☐ Tamper with the carabiners, trolley, lanyard, or harness.
- lacksquare Use rough force with the trolley or lanyard.
- ☐ Hang in your harness for more than 30 seconds.
- Hang upside down.
- □ NO RUNNING, JUMPING OR ROUGH PLAY. Operators reserve the right to remove participants who do not correctly use the equipment.

WARNING! Impact, flipping, climbing, and other activities can result in serious or fatal head injury, paralysis, fracture, and serious injury. Be

responsible and participate at your own risk. Non-compliance may result in the loss of your paid activity ticket.

- Do not attempt any skill or activity outside your own limitations, abilities, or skill level. Use involves inherent risk. Participate with extreme caution at your own risk.
- Do not participate if you have any health limitations, had recent surgeries, are under the influence of drugs or alcohol, or if you are pregnant.
- Failure to follow the rules and guidelines may result in serious injury or death.

GUEST RESPONSIBILITY Everyone that enters a court or activity zone must have completed a valid liability waiver. Those under the age of 18 must have the form completed and signed by a parent, legal guardian, or someone with legal power of attorney. Prior to participation, all guests and accompanying adults assume full responsibility to ensure that:

	All waivers are properly executed.							
	Everyone has reviewed the rules and viewed the safety video (if							
	applicable).							
	Everyone must have a valid jump/activity ticket before entering any							
	activity zone.							
	Guests and accompanying adults must completely understand and							
	agree to follow all rules and staff member instructions.							
	Everyone is in good health without any restrictions.							
	Every guest and participant must be aware of those around them.							
_	Activities may involve individuals of different sizes, ages, and abilities;							
	guest participation is at their own risk.							
_								
-	Guests and accompanying adults assume full responsibility for their							
	actions and conduct.							
	Guests and accompanying adults should also assume full							
	responsibility of their own personal property, including, but not							
	limited to, cameras, cell phones, shoes, handbags/purses, etc.							
	Staff members reserve the right to relocate guests and							
	accompanying adults to a different area at any time.							

RESCUES!

Rescue training by an ACCT accredited organization must be completed before a staff member is scheduled as a Course Operator. At least one manager, lead, or staff member trained in rescue techniques should be present, harnessed, and directly available to engage in any Ropes Course features should an emergency occur, or a rescue is required. Please remember:

- Stay calm and smiling. They will need you to be confident and kind while they are feeling afraid.
- Because of how fear can affect the processes of the mind, it is important to speak to any panicked guests with only simple phrases and directions.
- Give simple cues to follow, with one step at a time.

NOTE: Rescue EAPs (Emergency Action Plans) should be generated by owners and operators. The EAPs should include designated roles, responsibilities, codes and terminology. The EAPs should be practiced at least twice a year (every other quarter). Keep clear training and practice records for all staff. Also, the main way to avoid a rescue procedure would be for owners and operators to comply with the weekly (PPE) and daily (all components) checks in place and report any damage or concerns immediately.

Course Managers and Operators must adhere to the following rescue and emergency policies that are recommended by Fun Spot's preferred accredited training organizations:

- Operators must be capable of accessing and evacuating each Patron in a timely manner, regardless of the Patron's location on the course and level of consciousness.
 - o **NOTE:** Minimum Supervision Requirements require rescue-capable Operators; however additional staff may be on site to assist with directing Patrons during evacuations and/or to manage spectators.
- The appropriate rescue equipment must be quickly accessible and ready to use whenever the course is in operation.

- o Before operating the course each day, inspect and verify the rescue equipment is in good condition and the bag is packed and ready for use. Flake the rope into the bag, load the I'D, connect the JAG, and prepare the Patron connection in the configuration used during a rescue. Ensure each bag also includes a rope ladder, shears, keys, and all connection hardware required for a rescue.
- Operators must regularly practice applicable rescue procedures in a controlled setting so that they are properly prepared to act swiftly and efficiently in the event of a true emergency.
- At a minimum, Local Operating Procedures must include clear descriptions of:
 - o Location(s) of rescue-capable Operators; and
 - o Location of rescue equipment; and
 - o Site-specific recommendations for access and egress; and
 - o When and how to contact emergency services; and
 - o Incident and near-miss reporting procedures.

Applicable rescue procedures and techniques for this course include but are not limited to:

- Self-Rescue
- Assisted Rescue
- Mid-Line Lift & Lower
- Platform Lowers / Group Evacuation
- Other rescues as determined by a qualified course professional and required based on site specific conditions (must be included in Local Operating Procedures / Emergency Action Plan)

Alternative rescue equipment and procedures may be used in lieu of standard issue; however all equipment and procedures must be compatible with the installed belay system(s) & comply with applicable standards and manufacturer requirements. Any substitutions or changes to equipment, operation, or rescue procedures must be approved in writing by Fun Spot in advance.

Always consult a qualified person for assistance when implementing new or alternative rescue equipment and in developing any alternate rescue procedures. Any alternative procedures must be included in the Local Operating Procedures and Emergency Action Plan for the course and Operators must receive the appropriate training in their implementation.

When a rescue is underway, the operation of the rest of the course must cease and Patrons must be instructed to stay where they are and/or proceed to the nearest course deck and wait for further instruction; *unless*:

- There is enough rescue equipment to respond to an additional emergency; and
- There are enough Operators not actively engaged in the rescue to meet minimum supervision ratios; and
- The location of the emergency is such that continued operations do not interfere with the rescue in progress (ex. affected route, element, feature may be isolated and closed); and
- The emergency is clearly not a result of a structural or equipment failure; and
- The scale, nature, and severity of the emergency is minor and does not immediately require emergency support services.

The following rescue procedures are described in the order in which they are typically performed; however, in the event of a medical or other time-sensitive emergency it is crucial that the rescue Operators uses his/her training, experience, and judgment to proceed to the most efficient and secure means of rescuing the Patron.

SELF-RESCUE

In the event a Patron falls while traversing an element, instruct the Patron to place feet directly beneath him/her on the foot cable/element. Grasp the tether or hand lines and pull up to standing position. Because the trolley has integrated pulley wheels, Patrons may also pull themselves across the element to the closest platform if they are unable to stand back up on the element.

ASSISTED RESCUE

If the Patron is unable to advance to the nearest platform under their own capacity, the rescue Operator may traverse out to the Patron to assist them. The nature of the Assisted Rescue will depend on the type of element, condition and ability of the Patron, and the ability level of the rescue Operator.

If the Patron is not in distress and is still responsive it may not be necessary to announce the rescue. Contact Ground Support if assistance is required. Stop all movement on the course as conditions require. If any Patrons are remaining on an elevated deck, they need to be instructed to remain where they are, wait for an Operator to return, and not to tamper with the life safety equipment. Close and secure all gates prior to leaving an entrance or exit unattended.

The following are examples of some, though not all, of the ways in which an Assisted Rescue may be performed:

• Partner-Assist: Physically capable and willing Patrons may reach out and provide assistance to a nearby Patron while standing on the

course deck. In addition, Adult Patrons may *temporarily* step onto the active obstacle to assist a Youth Patron. Operators must monitor these partner-assists to prevent overload of the cable system or avoid escalation. Provide instruction and support, or stop the partner-assist and ask the assistant to return to the platform if it is ineffective.

- <u>Climb-Assist</u>: The Operator may climb out to the Patron and provide hands-on assistance to regain balance and traverse to the nearest deck.
- Trolley-Assist: The Operator may use the detachable trolley and tether to climb or zip out to the Patron in a slow and controlled manner. Clip one of the Operator TSB Lanyard to either: (A) the Belay Cable on the far side of the Patron's Koala Pulley, (B) the Patron's SafeRoller tether, or (C) the primary connection on the Patron's harness. Once connected, tow the Patron back to the deck by climbing or lay back in the Operator harness hand-over-hand pulling.
- <u>Lift-Assist</u>: If the Patron is tangled or hanging too far below the element to regain balance or be towed in to the nearest deck, either:
 - o use a mechanical advantage lift-kit to raise the Patron above any obstructions and tow him/her to the nearest deck, or
 - o proceed to the Mid-Line Lift and Lower rescue to evacuate the Patron from the course.

Once on the deck, if the Patron is unwilling or unable to continue, a Platform Lower or comparable evacuation technique may be required.

MID-LINE LIFT & LOWER

If other methods are not successful in advancing a fallen Patron to the nearest platform, or in the event of a time-sensitive medical emergency, it may be necessary to perform a Mid-Line Lift & Lower.

To perform a Mid-Line Lower, each element must have an accessible and clear landing area and equipment must be specifically designed for a use in that location (ex. rope length is more than adequate to effectively reach the ground). In some situations, Ground Support may assist a Patron's descent to reach a specific landing area nearby. If site restrictions or equipment do not permit safe access to the ground, additional site-specific rescue procedures may be required.

In the Mid-Line Lift & Lower, a mechanical advantage system is used to lift the Patron to free his/her tether for removal, and then an approved belay device is used to lower the Patron to the ground. Consult the manufacturer and/or a qualified person for additional instruction on the use of specific manufactured devices and systems prior to implementing

them in any rescue plan. It is important to also review the accompanying images on the final pages in this section. General guidelines to perform a Mid-Line Lift & Lower using this method include the following procedures:

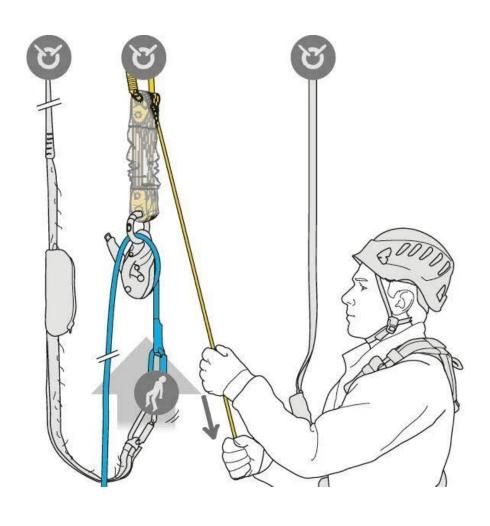
- 1. Let Patrons and other Operators know that a Rescue is about to occur. Contact Ground Support with pertinent emergency response information (location, nature of emergency, if emergency services are required, and other assistance as required).
- 2. Stop all movement on the course as conditions require. If any Patrons are remaining on an elevated deck, they need to be instructed to remain where they are, wait for an Operator to return, and not to tamper with the life safety equipment. Close and secure all gates prior to leaving an entrance or exit unattended.
- 3. Navigate to the course deck adjacent to the Patron. If the Patron is responsive, coach him/her/them through self rescue procedures while setting up rescue equipment on the deck. Speak calmly and reassure the Patron as you work.
- 4. Connect, lock, and squeeze check the rope ladder to the active belay cable. Ask the Patron to look away and throw the ladder out to them. The Patron may use the ladder to regain footing, but it is primarily intended for the Operator use during the rescue.
- 5. Connect the Petzl JAG to the active belay cable in the 4-1 orientation, ensure it is fully extended, and engage the capture clete. Squeeze check the carabiner to verify it is locked.
- 6. Ensure the Petzl I'D is secured and locked to JAG with the brake rope redirected through the carabiner/hook. Visually check the live end of the rope to ensure the knot or sewn eye is correct and in satisfactory condition, then pull down on the live rope to verify I'D has been loaded correctly and the device locks as intended.
- 7. Secure the rescue shears, keys, and any remaining hardware to the Operator harness and either clear and drop the rope bag to the ground or place the bag on back.
- 8. Connect the Operators detachable trolley to the active belay cable (behind / deck-side of rescue JAG). Remove all slack from Grillon / trolley lanyard, then transfer Operator TSB lanyards one at a time onto the active belay cable.
- 9. Climb or slowly zip out to the Patron. Use caution when weighting the element or belay cable and traverse carefully to protect the Patron from impact with swinging obstacles.
- 10. Secure the rescue belay rope to an approved connection point on the Patron's harness with a locking carabiner with the gate facing down and away from the Patron's body. Squeeze the gate to verify it has locked. If required to reach a clear landing area, communicate with Ground Support personnel or slide Patron along the belay cable if needed.

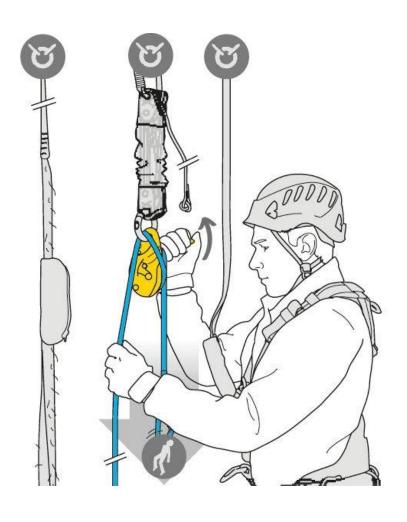
- 11. Remove slack from the belay system and engage the lift system to un-weight the Patron's primary tether.
- 12. Once the Patron's trolley/tether is sufficiently un-weighted, verify the rescue belay system is locked and secure, then using commands if required, disconnect the Patron's trolley from the belay cable.
 - a. When performing a lower with the Operator TSB system, connect the lanyards to the rescue belay rope one at a time to disconnect them from the course belay.
 - b. When performing a lower from the continuous belay system,
 - i. Disconnect the Patron from the trolley tether using the by releasing the pin-lock carabiner connected to the harness; *OR*
 - ii. Disconnect the Saferoller trolley from the belay cable using the manufacturer-provided key. Ensure the trolley and lanyard are secured to the patron to prevent entanglement during the lower.
 - Pin-lock Key or SafeRoller keys are available/functioning, or if the lowering process is otherwise impeded by tangled or trapped equipment, it may be necessary to proceed with a cut-away Pick-off Rescue. Cut-away rescues require that there is a component in the original belay system or entangled component that is capable of being severed. Do not cut the Patron harness or rescue system. Communicating clearly with the Ground Operator, the Rescue Operator verifies the rescue system connection to Patron. Verbally and visually identify the problematic rope, lanyard, or obstacle to be cut to the Ground Operator. Obtain permission to cut from Ground Operator and only then cut non-critical component(s). Use extreme caution when cutting near life safety equipment!
- 13. Inform the Patron that they are being lowered and ask him/her to assist with navigating around obstacles below them if they are alert and able to do so.
- 14. Follow belay device manufacturer instructions for lowering the Patron to the ground in a controlled manner. Adjust descent speed as needed to help the Patron navigate obstacles and provide for a gentle landing. Always maintain a hand on the brake rope during an active lower.
- **15.** Have Patron or Ground Support disconnect from the rescue system and direct Patron to assistance as appropriate.
- **16.** Remove rope and rescue kit and retrieve any equipment left behind during emergencies when conditions are safe to do so.

If an EMERGENCY EVACUATION (inclement weather, active shooter, etc.) of the entire Course is required, a mid-way point should be distinguished so

that Course Operators can direct those in the first half of the Course to return to the entrance, and those in the second half of the Course should complete the Course as safely and quickly as possible.







Inspection & Maintenance

All operators should refer to the Fun Spot® Inspection Sheets, training material, and Maintenance Manual/Visual Aide for additional inspection and maintenance tips and manufacturer recommendations. Because Ropes Courses are all unique in shape, size, and design, inspection and maintenance training during the installation period is extremely important for all Owners and Operators. Though some maintenance and inspection requirements will vary between Courses, there are some universal daily and weekly inspection requirements that can be completed by a trained staff member. All inspections should begin from the ground to verify there are no hazards, followed by a visual and tactile inspection while harnessed and traversing the Course. These inspection points will require staff to get harnessed and explore/examine the entire Course on the cable line.

- 1. Base & Anchor (Vertical) Trusses Carefully examine the areas that anchor the climbing structure and ensure they are secure, no loose bolts, or missing hardware. All trusses should be unblemished and secured, and connection points should be fixed in place.
- 2. Structural Frame (including Horizontal Trusses) Examine the frame of the truss structure for missing hardware or blemishes that could compromise the integrity of the structure (particularly gashes deeper than ½ cm. and/or longer than 2 cm). Inspect junctions of trusses and corners for missing/loose hardware and proper connection points. Also inspect for:
 - a. Structural integrity issues (no "swaying" or instability)
 - b. Mounting Plates properly secured to trusses (see pg. 32 visual)
 - c. Defilement or blemished/compromised areas
- 3. All PPE Verify that all harnesses, carabiners, lanyards, helmets, emergency extraction kits, trolleys and all other PPE devices meet the OEM recommendations. All failed PPE devices must be retired, their serial number noted, and replaced. Harnessing/PPE areas should be clean and clear of obstructions and/or tripping hazards.
- 4. Belay System Inspect the entire wire rope / belay cable for signs of damage including but not limited to broken wires, compromised

areas, defilement, or changes in height/tension. Assess all cable support brackets and anchor plates for signs of cracks or damage and verify that all bolts and connections are secure. Function test system and ensure trolley transitions are smooth. Termination points should end within a gated and grounded area, with no exposed sharp edges. Gated areas should be clean and clear of obstructions or tripping hazards with secured railing/fencing. Refer to OEM instructions for additional information on inspection of the SafeRoller system.

- 5. Obstacles and Features Inspect all hanging obstacles and the associated Feature Pipes, clamps, and hardware for loose or unstable connections, damaged components, or defilement. Examine all lower obstacles for the same, as well as their attachment points to either the truss structure or coated cable line. Verify there are no missing components or hardware, and no defiled or compromised attachments and features of the devices.
- 6. Decks/Platforms Inspect for chipping of plywood, exposed sharp edges, defilement and missing hardware. Decks/platforms should be immovable from center to edge, around any trusses.
- 7. Lighting, Electrical & More Examine all electrical components for proper connection and clean and unblemished wires/cables. Ensure all lighting components are secured and out of reach from patrons. All warning, safety and rules signage should be clearly posted for all active guests and unblemished. All communication devices should be fully charged, properly functioning, and in their designated locations, according to the EAPs.

MANUFACTURER'S NOTE: Our assistance app, SUMBA, is recommended for all inspections. If SUMBA is not used, Operators and Management/Supervisors should also review the Daily and Weekly Inspection Sheets, the Maintenance Visual Aide and the Maintenance Manual for additional information about timing, processes, and visual cues for servicing certain parts.

For maintenance-related questions, contact maintenance@funspot.com.

The intervals of maintenance for your park should be adjusted based on its use. The previously listed inspections and maintenance efforts are minimum recommendations.

WEEKLY INSPECTIONS

Fun Spot Weekly Inspections are best fulfilled as "tickets" in the SUMBA app, however a paper version can be utilized with Appendix B in this manual. Fun Spot Weekly Inspection sheets should only be utilized by those not using the SUMBA app - in conjunction with Daily Inspection sheets to distinguish specific locations of devices or components that are WATCH or FAIL items (see inspection notes on pg. 41). Circle those locations and make appropriate notes including name of the device, serial number (if applicable), WATCH or FAIL status, and a summary of the issue. As components and features are serviced or retired, make those additional notes on the Weekly Inspection sheet (Appendix B) as well.

If SUMBA is being used for inspections, a paper version of Appendix B is not required.

Other Weekly Inspections may pertain to the PPE components and their OEM's recommendations. This requires all operators to refer to the manuals for all PPE (trolley, tether, harness, helmet, etc.) and their OEM's weekly inspection protocols and methods.

For Weekly Inspections that contain a **WATCH** or **FAIL** item that is submitted as a ticket in the SUMBA app:

- Start a new ticket in SUMBA
- 2) Fill out all necessary fields of information
- 3) Include a picture of the location of the device that is WATCH or FAIL
- 4) Under the Notes section, state "WEEKLY INSPECTION" and include the dates of that calendar week (i.e. "WEEKLY INSPECTION, week of May 10-16")
- 5) Submit the ticket to required recipients, adding Fun Spot as a recipient for any FAIL items

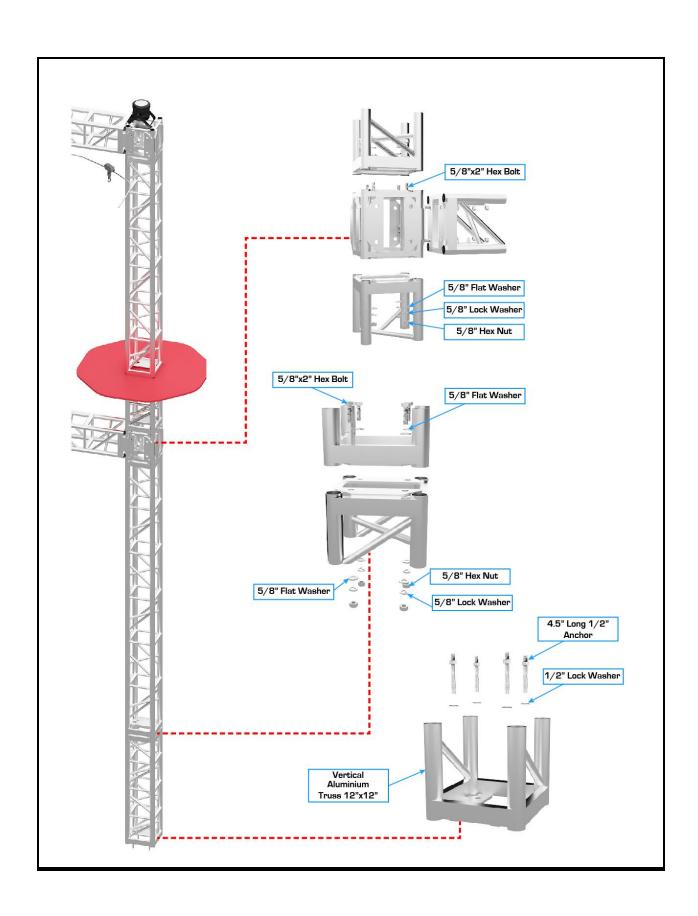
ANNUAL INSPECTIONS An annual inspection of the Course is also necessary for continued safe operations. This inspection should be completed by the same company who fulfilled the initial Acceptance Inspection, or any accredited organization approved by Fun Spot.

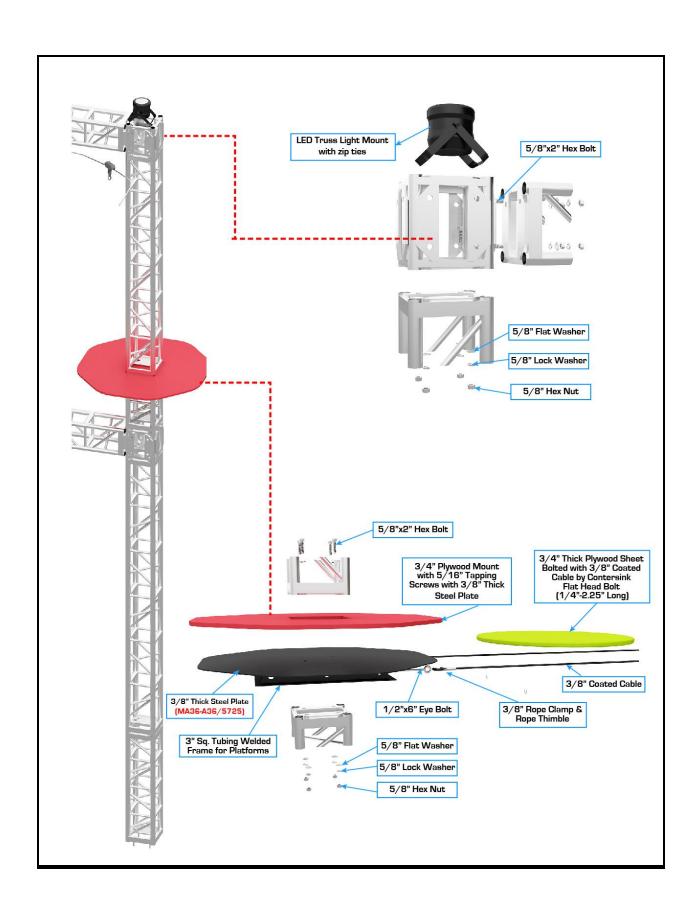
Course Visual Aid - Terminology & Pictures

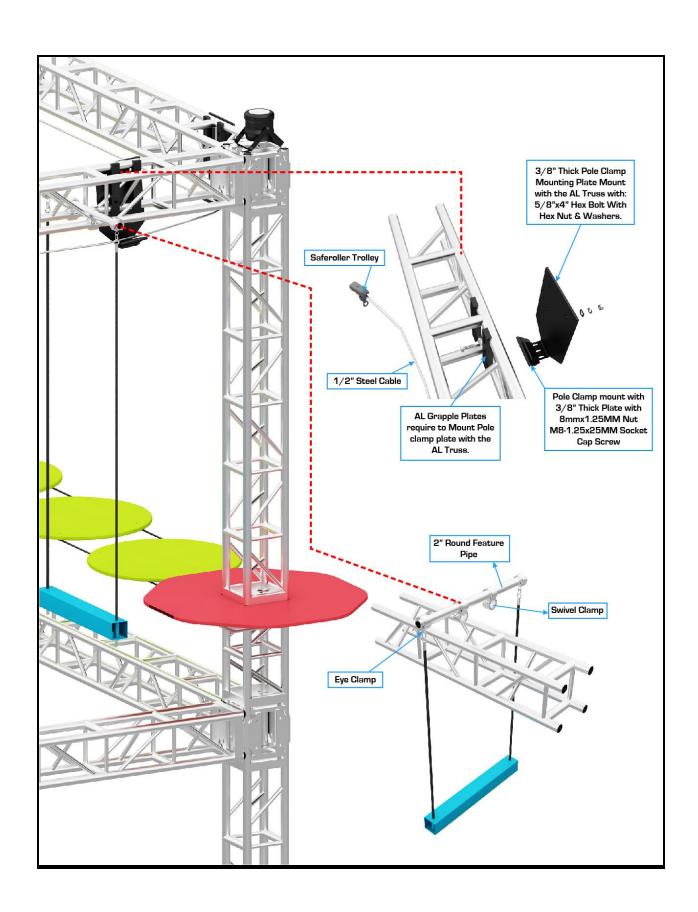
ATTENTION OWNERS/OPERATORS:

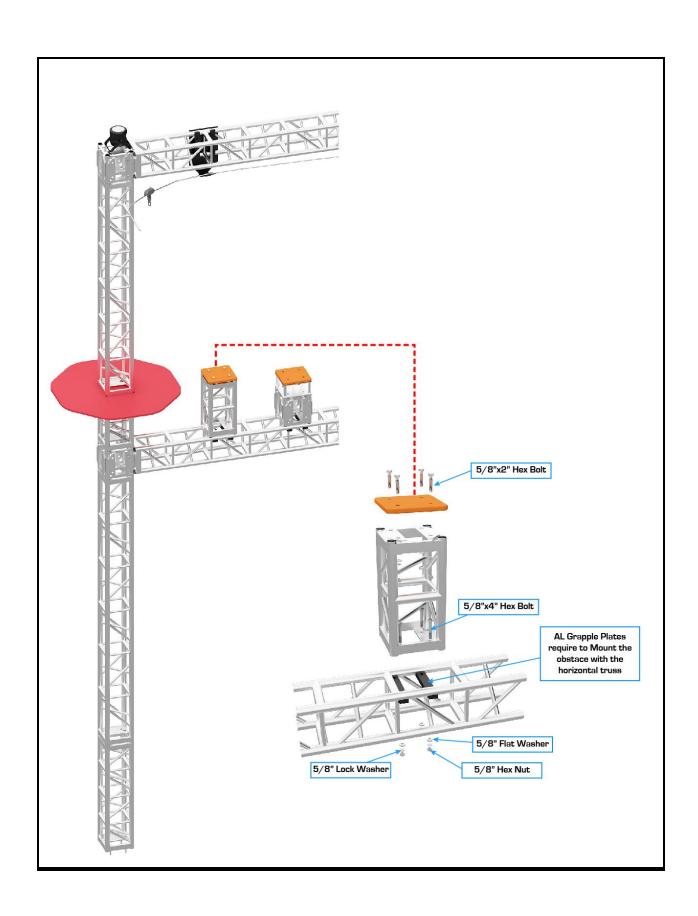
Management, Operators, and Court Attendant employees should familiarize themselves with the following terminology and standards. The following renders are conceptual designs. The final product may vary in size, shape, color, entry/exit points, and operational design. For additional information on any equipment and maintaining proper function, please refer to the Fun Spot Maintenance Visual Aide and SUMBA video resource library.











Cleaning

Cleanliness is a large part of safety, and this requires Course Operators to clean cables, trolleys, features, obstacles, carabiners, structural elements, harnesses, and any surfaces that are touched during a business day. It is best to utilize a small amount of non-caustic cleaner* that disinfects and sanitizes with a non-abrasive cloth. At the end of every work-day, Course Operators should work together to make sure every part of the Ropes Course is sanitized and disinfected. Railing and gates should be cleaned and harnesses should be organized. Flooring in the briefing and harnessing area should be vacuumed and kept clear of trash.

CLEANING INSTRUCTIONS FOR HARNESSES & SLINGS:

It is important to note that many cleaners and disinfectants are not suitable to be used with products like harnesses, belays, and slings. If a device needs more than a simple dusting, customers should use a damp cloth or sponge with warm water and a mild cleaning agent (such as a dish soap) to clean the device, carabiner, or webbing. Allow the unit to air dry after cleaning.

Certain disinfectants such as chlorine, bleach or Lysol will chemically attack materials like webbing and stitching and must not be used!

ALWAYS consult the OEM manual and technical notices prior to implementing any equipment cleaning procedure to avoid damage to equipment.

For excessively defiled PPE, a thorough cleaning protocol may include: *

- It is best to begin with the harness or sling on a flat surface, allowing a proper visible inspection.
- Using a moist sponge or cloth, first wipe down the harness to remove excess dirt and dust.
- Mix a cleaning solution using a mild antibacterial and/or dish soap with water. DO NOT use any cleaners that contain chlorine, bleach, or abrasives.
- Dip your sponge into the solution and thoroughly scrub each portion of the harness until a thick lather forms.
- Using a sponge dipped in CLEAR water, wipe down the harness to remove the suds and soap residue.

- Let the safety harness dry in room temperature air. DO NOT use a mechanical heat dryer or expose the harness to long periods of sun-drying.
- When cleaning multiple harnesses, store each in a separate, dry compartment. Hang them in such a way that they are not crushed, worn, or creased.
- Never use gasoline or other 'drying solvents' to clean harnesses.

Also PLEASE NOTE:

- Dampen but DO NOT SOAK the harness. The excessive expansion of the fibers by soaking (and the contraction by drying) can compromise the fabric's effectiveness and shorten the harness's life.
- **NEVER** put a harness in the dryer. Excessive heat and tumbling can (and will) damage the harness.

For sanitizing/disinfecting PPE:

A 70% Isopropyl Alcohol can be sprayed or wiped on PPE devices. Do not soak any webbing or textiles. Do not spray Alcohol near heat sources or open flames as alcohol is flammable. Allow the device to air dry after disinfecting. Use only Isopropyl Alcohol as other types of alcohol may damage materials like webbing."

*Remember: Please take the time to read through each PPE manufacturer's own guidelines before planning your cleaning protocol. For a current suggested list on other specific cleaning products recommended by the manufacturer, contact Fun Spot® directly.

Conclusion

Running a safe and fun Ropes Course activity area requires planning, training, and diligence. To maintain a high-standard of excellence in the amusement industry, it is incredibly important to make education, training, and informing guests a top priority at all times. Making rules and regulations clear and accessible for all guests, as well as properly training employees with guest relations, equipment matters, and operations will help create an incident-free workplace. For specific manufacturer recommendations with any cleaning, inspection, and maintenance, please contact Fun Spot headquarters (in Hartwell, GA) at the number provided below!

For more information about Fun Spot® and the safety and operations training program, contact Fun Spot® at:

+1 (706) 376 8989 and FUNSPOT.com.

For more maintenance-related questions, please refer to the Maintenance Manual and the Maintenance Visual Aide.

Additional questions may also be conveniently submitted to:

maintenance@funspot.com

Appendix A - Daily Inspection Charts







ATTRACTION COMPONENTS	PASS	WATCH	FAIL	NOTES/SERIAL NUMBERS
Are the cable terminations secured in the gated entry and exit area?				
Are all safety and warning sign s clearly displayed?				
Are all harnesses unblemished and in working order (according to the OEM recommendations)?				
Are all lanyards/tethers unblemished and in working order (according to the OEM recommendations)?				
Are all trolleys unblemished and in working order (according to the OEM recommendations)?				
Are all helmets unblemished and in working order (according to the OEM recommendations)?				
Are all carabiners unblemished and in working order (according to the OEM recommendations)?				
Is all operator equipment unblemished and in working order (according to OEM recommendations)?				
Are all base trusses secured to the ground with no missing or broken hardware?				
Are all horizontal trusses secured to the vertical trusses?				
Is the truss structure (vertical and horizontal) stable (no swaying) with no missing or broken hardware?				
Are all feature pipes (with eye clamps and swivel clamps) secured to the truss structure?				
Are all mounting plates unblemished and secured with no missing hardware?				
Is the entire cable line unblemished and secured to the truss structure?				
Are all decks/platforms secured and unblemished, with no missing hardware?				
Are all lower obstacles that are mounted on the truss secured, with no blemishes, defects, or defilement?				
Are all lower obstacles on a coated cable secured, with no blemishes, defects, or defilement?				
Are all obstacles hung from the feature pipes secured, with no blemishes, defects, or defilement?				
Is the lighting and electrical functioning properly, with no exposed electrical?				

Are all emergency kits properly inspected and packed with all items and set in their designated areas?						
Are all stabilizing cables (with associated turnbuckles) secured?						
Are all communication devices fully charged and in their designated locations?						
ADDITIONAL HARNESS NOTES:						
ADDITIONAL LANYARD NOTES:						
ADDITIONAL TROLLEY NOTES:						
ADDITIONAL HELMET NOTES:						
ADDITIONAL CARABINER NOTES:						
DATE & TIME // : (By signing, you verify you have completed the inspections acco	IN	SPECT(OR	ations and to th	e best of your	ability.)





For quality consistency, have each inspector complete a new sheet each day.

For features that may contain a more time-sensitive maintenance requirement, highlight the component line for the next weekly inspection and maintenance time.

When an inspection reveals a future service requirement that *is currently not urgent*, the WATCH column should be used. Any components that have a WATCH note attached, should be shown to all Course Attendants so that they can monitor the issue throughout their shifts. This should be repeated daily until the component receives a service that returns it to a PASS status. Any components that receive a FAIL note should be serviced immediately, and the attraction must remain closed until the component is fixed and returns to a PASS status. WATCH and FAIL items should have pictures attached to each daily inspection until it returns to PASS status.

Upon completion, combine with any correlating Weekly Inspection Sheet(s) and reconcile all services on a Monthly Maintenance Log. It is also recommended to include pictures of all replacements with any maintenance records. Each picture should be time-stamped and saved with a scan of each daily inspection it was in service.

When starting a new week, review the previous Weekly and Daily Inspection Logs to ensure the highlighted components lines were serviced.

Save all Inspection logs for your records, either digital or hardcopy, for at least 3 years or for the amount of time that your attorney/legal counsel advises.

For information regarding signs and timing of maintenance needs, review all of your individual attraction/feature manuals as well as the Maintenance Manual and the corresponding visual aids. Additional inspection and maintenance resources can be found on our operator's inspection and training app, SUMBA.

All inspections throughout the month should include: Obstructions, condition of impact attenuation materials and covers, placement and securement of impact attenuation materials, condition of truss structures and the entire belay system, suspension systems, condition of trusses and hardware, condition of barrier or containment netting and associated turnbuckles and cables, condition of communications devices, condition and placement of signage, condition of all PPE, condition of lighting and electrical, condition of obstacles and features with associated attachments, condition of platforms, condition of emergency response gear and first aid kits, condition of assembly area(s), and condition of adjacent platforms, entrances, exits, stairways, lifts, railings and ramps.

THANK YOU FOR BEING A VALUABLE FUN SPOT CUSTOMER!



THE ADVENTURE PARK INDUSTRY'S NEW BEST FRIEND.



WE BUILD SAFER PARKS. ASK US HOW!

