SPIDER MOUNTAIN STATIC VERSION

With Inflatable Spiral slide

Static Models: SP16-8, SP18-8, SP19-8

Maintenance and Operation manual

For Static Spider Mountain System and Accessories
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It is with great pleasure to congratulate you on your purchase and welcome you to Vertical Reality. We are excited about our products and feel confident that through proper planning, placement and hard work, the system will be a rewarding and profitable purchase. Our philosophy is centered on a commitment to excellence in meeting the needs of our customers, providing a quality product that is safe, exciting and profitable. We encourage you, to likewise develop a standard of quality and service that makes you the leader in supplying systems for the amusement, entertainment and special attractions market.

Our goal is to establish a relationship with your company. One that will promote Vertical Reality and your company, as successful partners, as well as providing a superior product for those who are looking for an amusement attraction.

*Our part in making our team successful is:*

- Commitment to a proper, effective, safe and profitable design.
- Seven days a week customer service support
- Manufacturing to "ASTM F-1159-97a" & *[ASTM International F-24 committee standards as presented in Volume 15.07, ADIPS, TUV, CE](https://astm.org)*
- Vincotte safety standards for the worldwide amusement industry
- Cycle time that generates high profits

*Your part in building a successful business using Vertical Reality products is:*

- Commitment to safe operation and following the guidelines to the letter.
- Consistent inspection for proper maintenance.
- Effective & active marketing and promotion of the activity.

We are looking forward to a long and prosperous relationship. Should you have any comments or questions, please do not hesitate in calling.

Sincerely,

KEN SHARKEY Director
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Vertical Reality may make periodic additions, deletions and modifications to this manual. These updates will, in the judgment of Vertical Reality, add to the quality of services offered. This manual must be kept up to date, and should reflect all updates currently in use and therefore it is your responsibility to note the date of modification.
Receipt and Acknowledgment

This Training/Operations Manual is an important document intended to help you become acquainted with the Spider Climb system, Vertical Reality and guidelines as to safe and recommended operation.

Please read the following statement and sign below to indicate your receipt and acknowledgment of the system/Vertical Reality’s Training Manual.

I have received and read my copy of the system/Vertical Reality’s training manual. I understand that the information outlined in this manual are subject to change at the sole discretion of Vertical Reality at any time. It is further understood that the owner of the system has the responsibility to ensure the correct and latest version of the manual is being used.

As an owner of the system or authorized representative, it is my responsibility to keep this manual up-to-date with any changes that are made by Vertical Reality.

I understand that my signature below indicates that I have received Vertical Reality’s training Manual and that I have read it.

Authorized Representative Date

_________________________________ - __________________________

The signed original copy of this agreement will be held in the Corporate Office in Miami, FL.
Training Overview

This training course is an introduction to the system and its operation. The purpose of this manual is to provide a compilation of information that will assist you in proper and safe operation. This manual is designed to aid in training you and your associates. The sections within this manual are prerequisite to each other. In other words, the information in section one pertains to the information in section two etc. The philosophy of Vertical Reality is centered on a commitment to excellence in meeting the needs of its customers and associates by providing them with the enclosed information. The manual is designed to provide the owner with the information, tips, and techniques that will help the employees and owner operate the system as effectively and safely as possible. It is no way a total representation of all facts. Safe operation of this unit is the sole responsibility of the owner/operator. Good and reasonable judgment must be used when traveling, promoting and/or operating the wall.

Training Objectives

Upon reviewing this training, you will be able to complete the following:

- Explain specific information regarding the background and history of Vertical Reality.
- Understand the process for proper set-up of the systems
- Identify and understand the inspection points for day-to-day maintenance.
- Define and understand the safe operation of the systems
- Identify and explain the rules for safe usage of the systems

Company Overview

Vertical Reality, located in Miami, FL., is a manufacturer/distributor of commercial interactive sports and fitness-fun equipment used in the amusement and recreational fitness markets. Designed for fun, VR is a premier provider of commercial action based products to be used in the amusement, fitness and recreation industry. Safely engineered VR products provide maximum revenue while providing thousands of hours of safe and exciting entertainment for your customers.

Mission Statement
To be the premier provider of revenue-generating interactive sports products used in the amusement, fitness, promotional markets.

Corporate Values

Our philosophy is centered on a commitment to excellence in meeting the needs of our customers, providing a quality product that is safe, exciting and profitable.

Product Overview & Description

Welcome to the Spider Mountain system, Vertical Reality's latest in revenue generating interactive sports products designed for the amusement, entertainment, and fitness industries. The system maximizes profit and safety. The system is designed to meet ASTM F-1159-97a & ASTM F 24 standards for the Amusement Industry. This means that the is designed, manufactured, tested, and supported by comprehensive quality assurance and quality control measures to ensure product reliability and safety. The enclosed information is an outline as to the procedures for safe operation and set-up of the product. The purchase of our products must include proper training and safety practices. The purchasers and users of our products are completely liable for and accept full responsibility for any and all damage or injury, which may result from the use and/or misuse of any products.

The “Spider Mountain” is a unique new climbing attraction for all ages that develops psycho-motor skills
and gives a complete new experience each time it is attempted. The ride has an opening at the bottom level which serves as both an entrance and exit and an inflatable slide at the top which serves as an exit only. The entrance has a circular trampoline to ensure a safe as well as a stable starting and ending point and an opening in the netting to allow for entry and exit. The participants climb upwards or down through a series of levels of interlaced flexible webbing which they can move and pull to climb to next level, until reaching the top level where they can descend via the inflatable slide or climb back down to the original starting point and exit.

During operation a vertical fall is prevented by the interlaced webbing at each level, ensuring a soft landing over a maximum fall distance of approximately 27.5 inches. By having the webbing in individual strands along with keeping the minimum participant height to 42 inches, the fall height to 27.5 inches it ensures that there is no possibility of a child hanging themselves or stepping on another participant below. The participants are prevented from escaping sideways through the spaces between the main support rings by flexible mesh netting, which is securely connected to the main structural ring components. Additionally, to prevent any injury to the participants resulting from a trip or fall, the main structural steel components are fully protected by soft padding, should a participant inadvertently fall against these. In other words all contacts between the participants and the device are „soft”, which ensures that the possibilities of any injuries are minimized. The ride is also supervised at all times, to ensure that over-boisterous behavior is restricted.

Ref: Spider Mountain device Code Compliance

ASTM F747-06: Definition of Terms
ASTM F770-06A : Operation Procedures
ASTM F893-05A : Inspection
ASTM F2291 : Design and Manufacture
ASTM F1 193-06: Quality Assurance
ASTM F2374-07:A Inflatable Amusement Devices

I. Equipment & Material List

A. Introduction to the “SPIDER” and Model Description

- **SP16-8**: 8ft diameter rings: 16 ft tall by 8ft 8” wide structure, with an approximate total weight of 1200 lbs.
- **SP18-8**: 8ft diameter rings: 18 ft tall by 8ft 8” wide structure, with an approximate total weight of 1400 lbs.
- **SP19-8**: 8ft diameter rings: 19 ft tall by 8ft 8” wide structure, with an approximate total weight of 1600 lbs.

B. Equipment List and Materials Used For all Models.

- **Steel Rings and Vertical posts** will always consist of material which will be of an equivalent or greater grade than S235 structural steel.
- **Mesh side netting and top netting** will always consist of a netting meeting or
Exceeding the netting specifications for M-1250 HTPP In-cord netting.

- Trampoline mat will always meet or exceed the specification of Tencate Nicolon 24109/24119 Trampoline Fabric.

- Elastic Webbing will always meet or exceed the requirements of FAR 25.853 Strength Data for Interlaced Webbing: The webbing consists 444 ENDS, 2/150 textured polyester in the warp. There are 35 ENDS in a binder and 2/150 textured polyester in the binder. 36 ENDS of 22 gauge latex rubber in the warp and 64 picks per inch of 2/150 textured polyester in the filling.
- Rope specification: Polyester ¼ inch diameter Min strength of 1900 lbs.
- Padding Specification: Foam tube with a nominal outside dimension of 3.4 inch and nominal wall thickness of .75 inch with a min pre-heat release rate of 28 kW.
- Cable ties specifications: Ultraviolet (UV) Resistant Nylon 6.6, Wide tie body .350" (8.9mm) for improved aesthetics, 124 lb. (550N) minimum loop tensile strength, No protruding head to cause injury since head is inverted.
- Air Blower: 115 v with a 2 HP motor and a max static air pressure of 9.0 inches and a rated max cfm of 1430.

**Model SP19-8, SP18-8 & Model SP16-8 Packing List**

- QTY of 3: 4X3 Vertical Uprights 19 ft tall (Model SP19-8)
- QTY of 3: 4X3 Vertical Uprights 18 ft tall (Model SP18-8)
- QTY of 3: 4X3 Vertical Uprights 16 ft tall (Model SP16-8)
- QTY of 6: 8 foot Diameter rings with webbing (Model SP19-8)
- QTY of 5: 8 foot diameter rings with webbing (Model SP18-8)
- QTY of 4: 8 foot Diameter rings with webbing (Model SP16-8)
- QTY of 1: 8 foot diameter top ring with round net (All Models)
- QTY of 1: 8 foot diameter bottom ring with no webbing or netting. (All Models)
- QTY of 1: 8 foot diameter ring with trampoline bed – Second ring from the bottom. (All Models)
- QTY of 54: 6 per ring: -1/2 inch diameter by 5.5 inch long U bolts (Model SP19-8)
- QTY of 48: 6 per ring: -1/2 inch diameter by 5.5 inch long U bolts (Model SP18-8)
- QTY of 42: 6 per ring: -1/2 inch diameter by 5.5 inch long U bolts (Model SP16-8)
- QTY of 108: ½ inch Nylon Nuts and washers (Model SP19-8)
- QTY of 96: ½ inch Nylon Nuts and washers (Model SP18-8)
- QTY of 84: ½ inch Nylon Nuts and washers (Model SP16-8)
- QTY of 5: Netting for side. (Model SP19-8)
- QTY of 4: Netting for side. (Model SP18-8)
- QTY of 3: Netting for side. (Model SP16-8)
- QTY of 1: Netting for side on last level. (All Models)
- QTY of 1: Netting for opening with a 36 inch gap. (All Models)
- QTY of 1: Circular Net for top ring- Comes installed on top ring. (All Models)
- QTY of 1: Inflatable slide ground tarp (All Models)
- QTY of 1: Inflatable slide blower. (All Models: 115 Volt, 2 HP motor)  
  (With a max capacity of 1430 cfm and a max static air pressure of 9.0 inches)

- QTY of 1: Inflatable slide
- (Sit down height of spiral inflatable will be 5ft less than total height)
  1. Inf16: 16 ft tall slide for SP8-16 models- 200lbs. (Comes with 6 pre installed straps for anchor to structure & 8 anchor locations for sandbags)
  2. Inf18: 18 ft tall slide for SP8-18 models- 300lbs (Comes with 6 pre installed straps for anchor to structure & 8 anchor locations for sand bags)
  3. Inf19: 19 ft tall slide for SP8-19 models- 400lbs (Comes with 8 pre installed straps for anchor to structure & 8 anchor locations for sand bags)
  4. QTY of 8: 180lbs sand bags for all inflatable models for anchors.

- QTY of 40: Pads for Spider Mountain. (Model SP19-8 & SP18-8)
- QTY of 30: Pads for Spider Mountain. (Model SP16-8)
- QTY of 120: High Strength Zip ties. (Model SP19-8 & SP18-8)
- QTY of 90: High Strength Zip ties. (Model SP16-8)
- QTY of 180 ft: High Strength lashing for net. (Model SP19-8)
- QTY of 150 ft: High Strength lashing for net. (Model SP18-8 & SP16-8)

**Site Selection**

- Total operational foot print required for 8ft diameter model with inflatable slide and a height from 16ft to 19ft is (25 ft by 48 ft). Fencing or blocking of the area is not required due to the fact there are only two accessible exits and one accessible entry way for the patrons.
- Outdoor and Indoor locations should have a slope of 5 degrees or less.
- Outdoor locations should be clear of any overhead obstructions, i.e. trees or power lines by a
minimum of 15 ft. Unit must be at least 5ft away from any obstacles located 360 degrees around the unit. Outdoor locations must have adequate concrete pad to support the spider mountain and required anchors. The concrete used for the pad must be at least 3000 PSI concrete. All concrete work must be performed by a licensed qualified professional in your state. Please refer to annex B for all requirements of pad.

- Indoor locations must have at least 12 inches of clearance from ceiling per our recommendation.
- Make sure that there is electrical power; and that there is a way to get the inflatable to the site.
- Use of a protective tarp is recommended if unit is going outdoors.
- Cover all sharp edges and objects that could damage your inflatable during inflation or deflation.
- Place your ground cover sheet over the site where you want the Inflatable to stand if outdoors.
- Keep the front of the Inflatable clear and accessible at all times.

**Checklist of Required Tools, items and Personnel for Erection**

- Required personnel for installation is 4 for the unit and inflatable slide.

  - Qty 4: ¾ inch sockets, ½ inch drive ratchets
  - Qty 4: ¾ inch wrench
  - Qty 4: Pry bars
  - Qty 4: Hammers
  - Qty 1: Torque wrench
  - Qty 1: Electric drill with ½ inch drill bit for drilling steel.
  - Qty 1: Scissor lift
  - QTY 1: Optional: Concrete drill with 3/4 bit by 5 and 5/8 by 5 bit for anchor install.
  - QTY 2: 180 lbs sand bags for ballast of slide exit.

**ASSEMBLY of Static Model: SP19-8, SP18-8 & SP16-8**

- Installers must follow all OSHA regulations pertaining to the assembly of structures 6 ft or taller. Vertical Reality recommends the use of a lift; ladders are not acceptable for install.
- Weather considerations for set-up: Do not set up in rain, snow, sleet, hail or if wind is expected to reach 30 mph.
- Locate the first ring; this ring does not have any bands or netting.
- Set up the 3 base posts- Base post should be set up approximately 120 degrees away from each other. Base post must be held in place until the first two rings are installed.
- Begin with the bottom ring which is the only ring without any netting or
elastics.

- Place this ring with the chain facing up. Secure the ring to the bases with supplied u-bolts. The posts are pre-drilled to accept supplied u-bolts. (see below)

![Image of ring with chain facing up]

- Install flat washer, spring washer and nut on both u-bolts. At this point in time we will hand tighten only. Repeat procedure for all support legs. For a total of 6 u-bolts per ring.

- Proceed to the next ring and bolt it to the post following the same procedure as above. This ring must be the ring that has the trampoline mat installed as this ring is the entrance and will have the appropriate net attached. The opening net has an opening of 36 inches in width. (see Pictures on next page)

![Image of trampoline mat]

- You are now ready to install the remainder of the rings. From the third ring to the top ring the ring must be positioned with the chain facing down. The number of rings will depend on the model you purchased.

- The next to last ring will have the widest net along with the slide exit joint. The slide exit joint must face in a direction that is clear of obstacles for the slide. (see pictures below)
- The last and final ring will have a round net installed but no elastic bands. (see picture below)

- Once all the rings are installed, we must torque all u-bolts to 50 ft-lbs. There are 6 U-bolts per ring, requiring 12 flat washers, 12 spring washers and 12 nuts. Starting at the bottom of structure and ending at the top.
- We can now begin securing the nets to the levels above and below it, using the supplied lashings.
- Lashings are installed by snaking the lashing through the chain and net and securing every via knot every 4 to 5 ft. (see picture on next page)

- Repeat the procedure above for the entire unit from bottom to top.
• The next step is to secure pads to all rings and uprights if not installed already. Pads have a slit on one side and are secured via supplied special zip ties. (see pictures below)

![Image of inflatable slide]

• We can now begin with the installation of the inflatable slide. Open and Lay down ground tarp next to the spider mountain if outdoor location.

• Place the base of the inflatable on the center of the ground tarp if outdoors and face the inflatable entrance facing the spider mountain. The entrance is the highest part of the slide.

• The front is normally opposite the blower vent on Inflatable’s. So the blower vents must be next to the spider mountain structure.

• Unroll and position the Inflatable on the ground liner with the inflation tube located next to the spider mountain. Note: If rolled up properly, the rear of the Inflatable is the end where you start unrolling.

• Inflatable’s weigh in excess of 200 lbs. Use caution when lifting and moving to prevent injuries. (see Pictures on next page)

![Image of inflatable slide]

• Place the fold of the rolled slide at the base of the Spider Mountain.
• Find the D Rings sewn on each side of the slide at the bottom of the back end.
- Please make sure all vent holes are properly closed. (see picture below)

- Attach (with provided straps) the D ring to the bottom and second ring of the Spider Mountain. (See pictures below)

- Locate a GFCI power source with a load rating of at least 15 amps. (see Appendix A for more information).
- Use 3 prong extension cords that are UL and CE approved and not less than 14 gauge. (Indoor only)
- Do not use extension cords for outside use.
- Do not use if cord shows any kind of wear or damage.

- Mark the circuit breaker so it will not be turned off accidentally.

- Make sure any electrical connection points are above water level to prevent shorting out the electrical system in case of heavy rain.

- Make a direct pathway from the power source to the inflatable Blower if possible.
- Be sure the Blower Fan is on a flat and dry surface. Further info on Blower is
listed in appendix A.

- Connect the Blower Fan cone to the Inflation Tube. Most Inflatable’s have two Inflation Tubes. Use the one that is most convenient, or will cause the least amount of obstruction. (see picture below)

- Locate the inflation fan (Blower) in an area that is not in the way.

- Each blower should have its own breaker and/or power source as a safety backup.

- Locate the on/off switch on the Blower Fan and turn it on.

- Inflate the slide, allowing it to rise up to the desired position against the Spider Mountain.

- Watch out for any overhead obstacles that were not seen before.

- Once inflated, check the inflatable for any rips, tears, holes, or damaged seams.

- When properly inflated, all areas of the inflatable will become pressurized and firm.

- Connect all D rings on slide to Spider Mountain structure.
- Total number of D rings will depend on total height of unit (see picture below)

- Climb to the top deck of the Spider Mountain (with all installation items - zip ties, and lashing).

- Unwind the section of netting that is in front of the slide entry. (See Pictures below)

- The Spider Mountain uprights will be used for slide attachment.

- Connect the (3) straps sewn to slide sidewall to each steel side support. (see Picture below)
- Secure the vinyl wrap (Velcro) cover around the three support straps on each side (see picture above)

- Install (if not installed) the vinyl “tunnel” to the slide with provided Velcro. (see picture below)

- Position the bottom flap of the tunnel on the metal SM ring and connect with Zip Ties through grommets. Zip Ties go through 2 grommets and around SM ring (Note: only every other grommet requires a Zip Tie fastener- see pictures below)

- Secure top flap of tunnel to the upper metal SM ring with provided zip ties. (see pictures on next page)
To align side flaps, connect each corner of the top, left and right side flaps to the netting with small size Zip Ties. (to avoid sharp edges, do not cut end of Zip Ties) (see pictures above and below)

Using the small zip ties, connect the top and side flaps to the netting by running the zip ties through the grommets and netting.

Make sure that when complete, there is no opening larger than 4” where the vinyl tunnel connects to the netting. (See pictures below)

Indoor locations do not require any sand bags at inflatable anchor locations.
- For Outdoor locations secure slide with a minimum of 6 - 180 lbs of sand bags at each floor anchor point, for a total of 1080 lbs of total ballast. (Please see engineering drawing below)
- Indoor locations will require installing four Hilti red ½ by 3 inch long wedge anchors per leg of steel structure in required 4.5 inch min slab. Please see pictures below for installation instructions.

- Outdoor locations will require installing four Hilti red ¾ diameter by 4 and 3/4 inch long wedge anchors per leg in required 6.5 inch min thick slab for 120 mph wind zone. Install 4 Hilti Kwik Bolt anchors 5/8 diameter by 5 inch long in a 6.5 inch min thick slab for 90 mph wind zone. Please see pictures below for installation. (please see appendix B for more information)

APPLICATION & INSTALLATION

Using a diameter which equals the anchor diameter, drill hole to min. embedment

Clean hole & insert anchor. Drive the stem till washer is flush with material to be fastened.

Expand anchor by tightening nut or head to proper Torque

- Repeat procedure above four times per leg, for a total of 12 anchors for all models.
• Torque all anchor nuts:
  1. 5/8 diameter anchors require 85 ft-lbs
  2. ¾ diameter anchors require 150 ft-lbs
  3. ½ diameter anchors require 70 ft-lbs

**Completion of Erection Check list and Pre-operation check list.**

• Check all fasteners for proper torque.
  U-bolts torque to 50 ft-lbs
• Check that all net lashings have been installed and are secure.
• Check that all elastic bands are all installed and secure.
• Check that trampoline mat is installed and secured.
• Check that the inflatable is properly attached and inflated.
• Check that inflatable is properly anchored.
• Check that all pads are secured with zip ties.
• Weather conditions are safe for the operation of the inflatable.
• The inflatable vinyl surface is clean and free of damage or tears.
• The seams and mesh are free of damage or tears.
• The anchoring points attached to the inflatable are in good condition.
• The entry/exits are clear of obstructions.
• The warning signs are visible.
• The inflatable passageways are clear and unobstructed.
• The internal air pressure is sufficient to give firm footing.
• There is no debris or sharp objects in or around the inflatable.
• The tethers points and tethers are intact and securely connected. (see picture on page 18)
• The inflatable is clear of any overhead obstructions.
• The blower is clean without damage or bare wires.
• No unusual sounds are coming from the blower.

**Disassembly of unit**

• Remove lashing and zip ties for inflatable entrance at the top of unit. Be sure there is a quality broom or air blower available to sweep the Inflatable surface free of any debris. Check to make sure that no sharp objects have fallen into the seams of the Inflatable, i.e. pens, pencils, etc. Items such as these can cause damage to the Inflatable during the rolling up process.
• Inspect for any damage and repair as necessary.
• Do not allow any persons near the rear of the Inflatable or near the electric Blower Fan at any time.

• Remove all straps connecting the slide to the spider mountain.

• Unplug the electric Blower Fan at the power source.

• Loosen inflation tube strap and remove the tube from the Blower Fan cone. Make sure the tube is pulled away from the fan and straightened, so it can be used allowing air to escape during deflation.

• Open and secure any deflation flaps on the Inflatable. Allow the Inflatable to drop in a natural state. An Inflatable will take between 5 to 15 minutes to completely deflate.

• Walls may have a tendency to fall outward. These will need to be repositioned back towards the middle of the Inflatable before folding.

• Fold the Inflatable into thirds, one side at a time. Walk down each side and straighten out the fold where necessary. Once you make the folds you will notice that there is air still inside the Inflatable. Start at the front and walk in stocking feet towards the rear of the Inflatable to push out and remove any remaining air.

• When completed, the inflatable should be approximately 3-4 feet (depending on inflatable type) in width x the length of the Inflatable.

• Inflatable Roll - Before rolling, make sure at least one of the Inflation Tubes is extended from the Inflatable to allow any remaining air to escape. Air will be forced out as the Inflatable is rolled. Remember that inflation/deflation tubes will eventually need to be tucked inward. Flatten end tightly and roll the Inflatable as you would a sleeping bag, keeping outside edges even. Roll the Inflatable all the way and cover any metal rings, buckles and snaps to prevent abrasion to the play area and surface of the Inflatable.

• The finished roll will be very heavy and an inflatable strap should be used to secure the roll once complete. Place strap ends between the metal buckles and the inflatable surface to reduce abrasions to the Inflatable while in transport and storage.

• Stand Inflatable up on its end, placing storage bag over it and cover. Work
Inflatable Bag down to bottom, then stand it on the opposite end and close the bag.

- Larger Units will use an Inflatable Wrap that the Inflatable can be easily rolled onto. Inflatable Wrap panels are then pulled over the Inflatable and secured with ties.

- The Inflatable is now ready for proper storage and you are ready to begin with the removal of the rings on the spider mountain structure.

- Starting at the top most ring, remove the side netting.

- Remove the U-bolt nuts and begin to slide out the U-bolts.

- Once the ring is unbolted from structure it should be removed and placed away from the structure.

- Repeat the same procedure for remaining rings, except for the first two rings from the bottom.

- Removal of the lowest two rings will require that all 3 posts be secured to avoid any accidental movement.

- The final step is removal of the vertical posts, which should be lowered one at a time.

**Weather and Environment Considerations:**

**Wind**

- **DO NOT** operate or allow any participants in the Spider Mountain if wind speeds Reach or exceed 30 mph. *At 30 mph and above inflatable slide must be removed.*

- Static Spider can sustain wind speeds up to 120 mph by being anchored to concrete. This will require four Hilti kwik bolt anchors per leg, 3/4 inch diameter by 4 3/4 inch carbon steel anchors adequate in 3000 psi concrete. Slab needs to be 6.5 inches thick in areas of anchors. Please refer to annex B for more info.

- Static Spider can sustain wind speeds of 90 mph if anchored by 4 Hilti red 5/8 diameter by 5 inch concrete anchors on each leg. Min concrete pad thickness will be 6.5 inches in region of anchors. Please refer to annex B for
further info.

- **Do not set up or operate in climate weather.**

- **Do not set up or operate in severe weather.**

  - Do not set up or operate in extreme high temperatures.
  - For set ups other than grass or carpet, make sure the set up area is level and swept clean and free of all debris and use a protective ground tarp for the inflatable.

  - Set up the ride a safe distance away from obstructions that could damage or interfere with the safe operation of the inflatable. Set up inflatable a minimum of 5 ft away from obstructions such as, but not limited to: water, trees and shrubs, buildings, walls, and other structures.

  - Do not set up the inflatable within 15 ft of overhead utility wires.

  - Ensure there are no underground irrigation pipes or other utilities that the property owner has installed in the area of the stakes for the securing of the inflatable.

  - Keep the front of the spider mountain and inflatable exit accessible at all times.

*Lightning*

- **DO NOT** operate if thunder is heard less than 10 seconds after seeing lightning.
Inspections and Preventive Maintenance & Wear Limits Checklist.

**Daily Inspections**

- Check and replace elastic bands if needed (see Picture)
- Elastic wear limits: Replace when broken
- To replace elastic first remove broken strand and take note of its original orientation. We then measure the distance the elastic was installed and cut approximately 70 percent of the distance for the new elastic. Secure the elastic on one end via knot and stretch to original location to tie the opposite end.

![Image of netting and lashing](image.png)

- Check netting, lashing and zip ties (see Picture below)

- Netting Wear limits: Two or more broken strands will require net replacement.
- To replace net remove old lashing by cutting it from chain and remove damaged level.

- To re-install level, place the net in position and hold in place with 6 to 8 zip ties around the top of the net.
- Begin installing lashing through the top of the net & chain like a snake and secure via knot every 4 to 5 ft. Lashing should pull the net very close to the chain. Repeat procedure for bottom of net. Remove initial zip ties and inspect. There should be little to no gap between the net and chain.
• Check padding and replace or repair if needed.
• Padding Wear Limits: Replace when broken or ripped.

• Check trampoline pad and lashing, replace or repair if needed (see Pictures below)
• Lashing is installed in a zigzag manner through the pad and chain and secured via knot to the chain every 3 to 4 ft.
• Trampoline wear limits: Replace if any one hole is larger than an inch in diameter.
• Trampoline lashing limit: Replace any broken lashing. Lashing is installed by running the lashing through the mat ends and chains see picture below.
• Check Padding on entire unit, replace if torn. (To replace padding, begin by removing old padding by cutting old zip-ties. Padding has a slit down one side to fit over the rings or uprights. Secure new padding with zip ties every 24 to 32 inches.

• Clean and dry the inflatable unit after each use.
• Make sure the interior is clean and free of debris
• Check that vinyl panels are clean and free of holes and stains.
• Internal air pressure is sufficient to give firm footing.
• Inspect anchoring and tether points to ensure they are functioning and free of damage.
• Check that sand bags are secured to anchor points and are not leaking any sand. Replace if sand bag is leaking.
Monthly Inspections

- Inspect welds on frame and chain. (see Picture below)

- Check all fasteners on ride and re-torque. Ubolts and Grade 8 Bolts.
- Ubolts Qty 6 per ring, total Depends on model ride height. (Torque to 50 ft-lbs)
- Check that vinyl panels are clean and free of holes and stains.
- Inspect seams for holes, tears or broken threads.
- Check that mesh window panels are intact and free of holes or damage.
- Inspect anchoring and tether points are functioning and free of damage.
- Ropes and footholds are securely attached.
- Warning signs are clear and visible.
- Entrance and exits are secure and free from damage
- Accessories and covers are intact and free of damage

Mechanical Inspection:

The safety check needs to be performed and we recommend a daily safety check sheet be filled out as mentioned above before every day of operation. These sheets then need to be kept on file on site for random audits by park officials, state inspectors or Vertical Reality representatives at all times.
<table>
<thead>
<tr>
<th>SPIDER MOUNTAIN DAILY CHECK LIST</th>
</tr>
</thead>
<tbody>
<tr>
<td>DATE</td>
</tr>
<tr>
<td>SERIAL #</td>
</tr>
<tr>
<td>OWNER</td>
</tr>
<tr>
<td>Check and replace elastic bands if needed</td>
</tr>
<tr>
<td>Check netting, lashing and zip ties</td>
</tr>
<tr>
<td>Check padding and replace or repair if needed</td>
</tr>
<tr>
<td>Check trampoline pad and lashing, replace or repair if needed</td>
</tr>
<tr>
<td>Clean and dry the inflatable unit after each use</td>
</tr>
<tr>
<td>Make sure the inside of inflatable is clean and free of debris</td>
</tr>
<tr>
<td>Check that vinyl panels are clean and free of holes and stains</td>
</tr>
<tr>
<td>Inspect anchoring and tether points to ensure they are functioning and free of damage</td>
</tr>
<tr>
<td>Check that the blower is supplying enough internal pressure to provide firm footing and proper inflation</td>
</tr>
<tr>
<td>Inspect inflatable, blower look for any damage or any strange noises while operating</td>
</tr>
<tr>
<td>Inspect anchoring and tether points</td>
</tr>
<tr>
<td>Check that sand bags are properly attached</td>
</tr>
<tr>
<td>Check sand bags for leaks</td>
</tr>
</tbody>
</table>

NOTES:

Inspectors Name
Phone number
Signature
<table>
<thead>
<tr>
<th>SPIDER MOUNTAIN MONTHLY CHECK LIST</th>
</tr>
</thead>
<tbody>
<tr>
<td>DATE</td>
</tr>
<tr>
<td>VIN NO</td>
</tr>
<tr>
<td>OWNER</td>
</tr>
<tr>
<td>Inspect welds on frame and chain</td>
</tr>
<tr>
<td>Check all fasteners on ride and re-torque</td>
</tr>
<tr>
<td>Inspect seams for holes, tears or broken threads</td>
</tr>
<tr>
<td>Check that mesh window panels are intact and free of holes or damage</td>
</tr>
<tr>
<td>Inspect anchoring and tether points are functioning and free of damage</td>
</tr>
<tr>
<td>Ropes and footholds are securely attached</td>
</tr>
<tr>
<td>Warning signs are clear and visible</td>
</tr>
<tr>
<td>Entrance and exits are secure and free of damage</td>
</tr>
<tr>
<td>Accessories and covers are intact and free of damage</td>
</tr>
</tbody>
</table>

Notes:

<table>
<thead>
<tr>
<th>Inspectors Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phone number</td>
</tr>
<tr>
<td>Signature</td>
</tr>
</tbody>
</table>
Cleaning Of Ride

- Do not use chlorine based cleanser or bleach to clean any part of the ride as this may damage the threaded seams, trampoline mat, netting and fire resistance of the items mentioned.
- Use water and/or an approved cleanser sparingly by “sponging” it onto the Inflatable surface. Excessive water may penetrate the seams and collect inside the Inflatable causing mildew and unwanted odors to occur.
- Blowing air through the ride will help dry the interior. Baking soda will help remove mildew and odors.
- Never roll up or pack the inflatable while damp, unless you plan to dry it that same day before storage.

Repair of Inflatable slide

- Holes and tears up to 12 inches can be repaired with patch material and vinyl glue provided with the inflatable.
- Cut a patch that is 3 inched larger, on all sides than the cut or tear. Cut the patch material in a round or oval shape.
- Clean the area around the hole or tear and let dry.
- Apply a liberal amount of glue to both the patch material and the tear area.
- Let the glue stand for three minutes.
- Place the patch over the damaged area and press firmly make sure that the all of the patch material is in contact with the vinyl around the damaged area.
- Applying weight to the patch will enhance the integrity of the repair and allowing the glue to cure for several hours is best.

NDT Requirements

Rides will require a 100% visual inspection at three years of age by a certified welder. Particular attention to all the structural welds and metal condition. Rides will require a 100% visual and 30% magnetic particle test at five years of age by a certified testing company.

All operators must have read and understand the instructions in this manual and receive training by their supervisors prior to the operation of the inflatable.

- Do not allow riders without the proper supervision present.
- **One operator required at all times.** The operator is to stand in between the entrance of the spider and the exit of the slide. The duty of the operator is to ensure that all rules and guidelines mentioned are followed.
- **For models with slides exceeding 15 feet in height an additional operator is required at the entrance to the slide, therefore these models will require two operators at all times.**
- **Operator must be 18 years or older and physically able to climb up the structure if required.**
- **Operator must be able to give verbal commands and instructions to patrons at all times.**
- Maximum amount off participants allowed inside the ride at any given time is 14.
- Maximum weight allowed inside the unit is 2380 lbs.
- Participants should remove their shoes and all jewelry.
- Ensure loose clothing is secured and participants must empty pockets of loose objects e.g. coins, mobile phones etc.
- Anyone with long hair must tie their hair into a pony tail.
- No horseplay or fighting allowed. Operator should first instruct patrons to stop with a warning. If warning is not followed, operator must ask patron to exit the ride.
- Try to limit groups of the same size kids at a time.
- Only allow three patrons in at a time until the first level is clear for the next three until max occupancy is achieved.
- The weight range for the mobile Spider Mountain is 30-250lbs & with a Minimum Height of 42”. No age limits.
- **Operator must not allow any gum chewing inside the Ride.**
- Confirm the number of attendants required for the ride.
- Make all riders aware of safety rules.
- Operator should make sure that no one enters the Inflatable with shoes on, eyeglasses, or sharp objects in their hair, clothing or on their person.
- No Flips, somersaults, diving, rough play, or running.
- Do not allow food or drinks into the ride
- Do not allow animals into the ride
- Operator should point out and make participants aware of the posted warning and safety rules.
- Operator should observe persons at all times while they are on an inflatable.
- **Operator should be close enough to be able to warn against improper behavior**
- **Operator should ask anyone doing these things, after being warned once, to exit the Inflatable.**
- Operator should watch for signs of deflation such as sagging, excessive wrinkling, or
distortion. If these are observed, they should ask participants to exit the Inflatable safely and remain calm, as there is no danger.

- Operator should keep all spectators outside the Inflatable and maintain at least a 5-foot perimeter away from it.
- Operator must be familiar with all State and Local guidelines pertaining to the use and operation of Inflatable’s in their area.
- Cease operation in winds in excess of 30 m.p.h.
- Cease operation in stormy or severe weather.
- Do not operate inflatable in total darkness.
- Check the Blower Fan/Inflation tube regularly to ensure there isn’t any air leakage around fan cone.
- Enforce the maximum occupancy rule for the Inflatable which is two participants at a time.
- **IMPORTANT:** If power should go off during the time that participants are on the inflatable, Attendant should direct the evacuation of all inflatable Participants from the slide. The attendant at the slide entrance, top of spider, has to secure the entry to the slide and instruct all patrons to climb down the spider mountain. The attendant at the slide exit should make sure no one is left on the slide and help the patrons out of the ride via the entry/exit level.

**Owners Responsibility**

**Employee Documentation:**

Documentation of employee training and status as well as a list of each employee home address and phone number. A training manual is to be on site at all times; Copies of this documentation are also to be handed out to Park’s Games Department Management, to the Site Manager.

- The owner must insure that proper training and safety practices are being followed at all times. The purchasers/owners must ensure that the operator understands and follows all procedures in the manual.
- A certificate of training must be filled out and completed to ensure compliance. Owner should make sure all weekly, monthly and yearly maintenance is performed and that a service sheet be completed and filed for future reference.
POSTED RULES AND SAFETY SIGN FOR PARTICIPANTS

- Participants must remove their shoes and all jewelry.
- Please read all safety rules.
- Ensure loose clothing is secured and empty pockets of loose objects e.g. coins, mobile phones etc.
- Participants with long hair must tie their hair into a pony tail.
- No horseplay or fighting allowed. Failure to comply will be cause for removal from attraction.
- No flips, somersaults, diving, rough play, or running
- You must weigh between 30 - 250lbs & have a minimum height of 42". There are no age limits.
- Only similar age groups should play together. Do not mix age groups. Riders should all be of compatible age and size.

Do not Participate If You
- Have had back, neck or heart problems.
- Have broken bones, are pregnant.
- Have physical or medical problems.
- Have limb problems.
- Are under the influence of drugs or alcohol.
- Unsure of your general health.
- No gum chewing allowed inside or around attraction.

Spider Mountain Emergency Evacuation Procedures

In the event of an unforeseen accident inside the unit or a sudden change in weather. Operator should instruct all occupants below the accident level to calmly exit the Spider Mountain and all occupants above to evacuate through the inflatable slide. If someone requires assistance, the operator must climb inside of the unit, this will allow the quickest response time to an injured patron. It is the operator’s responsibility to assess the injury of the patron in the extremely unlikely event of an accident and determine whether to wait for professional help i.e. 911(paramedics) or assist the patron down by staying as close to the edge as possible. In the event of a child becoming frightened or panicking (NOT AN INJURY) the operator should climb to the child and help him or her exit the ride via the entrance or the inflatable slide. In the event of a power failure, the operators are to instruct everyone to calmly exit the slide via the bottom level. Operator at slide entrance must remain there until all participants have exited the ride.
<table>
<thead>
<tr>
<th>Event</th>
<th>Participant</th>
<th>Participant</th>
<th>Participant</th>
</tr>
</thead>
<tbody>
<tr>
<td>More bodily injury to other climbers</td>
<td>Consider safe zone in ascent / descent from other climbers. Good observation by climbers at all times.</td>
<td>Participate in rock climbing and climbing and descender service.</td>
<td>Participate in rock climbing and climbing and descender service.</td>
</tr>
<tr>
<td>Attempted rock climbing on site / non-rock climbing</td>
<td>Regular inspection of climbing and descender service</td>
<td>Ensure safety of climbing and descender service prior to climbing</td>
<td>Ensure safety of climbing and descender service prior to climbing</td>
</tr>
<tr>
<td>Descending with other climbers</td>
<td>Good supervision by climbers</td>
<td>Monitor provided to break a fall and prevent marron on lowering.</td>
<td>Monitor provided to break a fall and prevent marron on lowering.</td>
</tr>
<tr>
<td>Full body height through webbing rags</td>
<td>Descend one at a time. Use manual</td>
<td>Exact method on lowering.</td>
<td>Exact method on lowering.</td>
</tr>
</tbody>
</table>

**WHAT ARE THE HAZARDS WHICH MAY CAUSE MAJOR HARM TO OTHER CLIMBERS?**

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Cause</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sudden movement of climbing equipment</td>
<td>Sudden movement of climbing equipment</td>
</tr>
</tbody>
</table>

**How should the risk be reduced?**

- Ensure regular inspection of climbing and descender service.
- Ensure safety of climbing and descender service prior to climbing.
- Monitor provided to break a fall and prevent marron on lowering.

**What needs to be done?**

- Participate in rock climbing and climbing and descender service.
- Participate in rock climbing and climbing and descender service.
- Participate in rock climbing and climbing and descender service.

**What sort of training is required?**

- Climbing and descender service training.
<table>
<thead>
<tr>
<th>Character</th>
<th>Description</th>
<th>LOW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Character</td>
<td>Problem: bisher, es war null, heute, es ist nicht ausgeführt.</td>
<td></td>
</tr>
<tr>
<td>Character</td>
<td>Problem: bisher, es war null, heute, es ist nicht ausgeführt.</td>
<td></td>
</tr>
<tr>
<td>Character</td>
<td>Problem: bisher, es war null, heute, es ist nicht ausgeführt.</td>
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<td></td>
</tr>
<tr>
<td>Character</td>
<td>Problem: bisher, es war null, heute, es ist nicht ausgeführt.</td>
<td></td>
</tr>
</tbody>
</table>
Conclusion

This guideline has been written to assist in proper installation and operation of the Spider Mountain. Vertical Reality has tried in its best effort to address relative issues; however, there will be additional information learned or situations that occur that we are unaware of at this time. Please, do not hesitate to call seven days a week with any technical question. Remember, there may be questions, issues and/or concerns that may arise through the use of this product that are not listed or addressed in this manual, please keep us informed. It is the responsibility of the owner and/or operator of this product to contact Vertical Reality. As with any amusement device, physical harm can occur and operators and participants must realize that this product is a physical activity and that proper care should be taken to ensure safety. Please exercise common sense and good judgment while operating Spider Mountain.

WARRANTIES. Seller warrants that all Goods shall be free of defects in material and workmanship SPIDER MOUNTAIN products have a limited one-year warranty on the Spider Mountain systems including the frame. Warranty does not include consumables i.e. elastic webbing, trampoline, netting and lashing. These are covered by the individual respective manufacturer's warrantees, which is a 90-day warranty, 30 days on labor, 90-day on parts. This warranty does not apply towards normal wear and tear on products nor does it apply towards misuse on products. The Seller makes no warranties, expressed or implied, except as specifically stated above. SUCH WARRANTIES ARE IN LIEU OF ALL OTHER WARRANTIES, WRITTEN OR ORAL, STATUTORY, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. SELLER SHALL IN NO EVENT BE LIABLE FOR ANY INCIDENTAL, SPECIAL, OR CONSEQUENTIAL DAMAGES OF ANY NATURE, EVEN IF SELLER HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

The Seller shall only be obligated to repair a defective item. If the item(s) cannot be repaired, the Seller shall only be obligated to pay damages up to an amount equal to the sale price of the item(s).
Location:

Inspection Date:

Detail of work completed:

Problems if any:

Items replaced:

Inspected by:

Signature:
Accident Report Form

• Date of accident :

• Place of accident :

• Time of accident :

• Name of injured person :

• Address & phone # of injured person :

• Was 911 called and please attach a copy of the report ?

• Extent and nature of injury :

• What caused the accident :

• Was the person intoxicated or under the influence of alcohol or drugs ?

• Were Vertical Reality’s safety rules posted ?

• Was your staff properly trained in the operation of the Spider Mountain ?

• Was the mobile Spider Mountain shut down for inspection after the accident occurred ?

• Name of person signing the report & Signature :
Certificate of Training

RE: SPIDER MOUNTAIN

TYPE CERT: Full operation and Retraining

Customer:

Manufacturer: Vertical Reality

Location:

Ref: SPIDER MOUNTAIN

I, KEN SHARKEY, hereby certify as follows:

That the following persons have been trained in the proper assembly, operation and maintenance of the above-mentioned rides by a certified installer and Trainer of Vertical reality and are now fully familiar with the operational manual and correct operating and setup procedures. This also authorizes the following individuals to train their own personnel to operate the SPIDER MOUNTAIN WITH INFLATABLE SLIDE.

NAME: KEN SHARKEY

KEN SHARKEY - CEO
Confirmation of Shipping list and Certification of Fabrication

Inspections were performed by a Vertical Reality supervisor at a level of frequency sufficient enough to ensure compliance; as a result the ride as fabricated, is in compliance with the applicable drawings, specifications and shop drawings;

That the fabrication of the ride including the material and the connections was accomplished in accordance with the design drawings and specifications; validated shop drawings and fabricators manufacture Quality Assurance Program;

That the fabrication of the ride was done in accordance with the applicable provisions of the current AWS Code; AISC Code & Specifications and other appropriate Codes and or standards;

That the welding of the ride was performed by certified welders (duly certified per AWS Code provisions);

That the inspection of the welding was performed by certified weld inspectors (certified in accordance with AWS Code)

That the ride as fabricated meets or exceeds the design criteria

That all the parts and hardware have been checked and are included in the shipment unless noted otherwise.

Signature of Supervisor:

Date:
OWNERS'S MANUAL

B-AIR BLOWER

BEAR POWER

MODEL # BP-2

INTRODUCTION
• OPERATION
• SAFETY
• SERVICE
• WARRANTY
• CONTACT
• SPECIFICATIONS
• TROUBLESHOOTING

PLEASE READ AND SAVE THESE INSTRUCTIONS
INTRODUCTION TO B-AIR BP-2

YOUR NEW B-AIR BP-2 BLOWER HAS A POWERFUL 2 HP MOTOR, WHICH HAS STATE OF THE ART CONSTRUCTION AND SCREENS ON OPEN VENTS FOR SAFETY AND LONG LIFE. THE HANDLES ARE DESIGNED FOR EASY CARRYING AND THE UNITS ARE ALSO STACKABLE FOR SPACE EFFICIENCY.

OPERATION/USE

THIS BEAR POWER BLOWER IS DESIGNED TO INFLATE LARGE INFLATABLE PLAY STRUCTURES, AND IS ALSO SUITABLE FOR A VARIETY OF OTHER APPLICATIONS THAT REQUIRE HIGHER STATIC PRESSURE.

A) CAREFULLY PLACE THE B-AIR UNIT ON STABLE FLAT DRY SURFACE- KEEPING CHILDREN AWAY.
B) ATTACH AN INFLATABLE TUBE AROUND THE EXHAUST OPENING USING STRAPS OR ANY OTHER FORM OF TIGHTENER.
C) PLUG CORD INTO A GROUNDED GFCI OUTLET ONLY.
D) TURN ON SWITCH AND MAKE SURE IT IS OPERATING CORRECTLY.
E) ALL BLOWERS IN OPERATION MUST BE SUPERVISED AT ALL TIMES.

STORAGE

STORE UNIT INDOORS IN A CLEAN DRY ENVIRONMENT TO ENSURE LONG LIFE

WARNING

ALL BLOWERS IN OPERATION MUST BE SUPERVISED AND ATTENDED AT ALL TIMES.
THE USE OF A 3-PRONG TO 2-PRONG ADAPTER IS PROHIBITED.
ONLY USE A 2-PRONG TO 2-PRONG ADAPTER.

IF THE POWER SUPPLY CORD IS DAMAGED, IT MUST BE REPLACED BY THE MANUFACTURER, ITS SERVICE AGENT OR SIMILARLY QUALIFIED PERSONS IN ORDER TO AVOID A HAZARD.
SAFETY

1) BLOWER MUST HAVE BACK PRESSURE, MEANING IT MUST BE ATTACHED TO AN INFLATABLE OR DUCT TO AVOID ANY DAMAGE TO MOTOR.

2) KEEP CHILDREN AWAY FROM UNIT AT ALL TIMES WHILE IN OPERATION AND/OR PLUGGED IN.

3) DO NOT PUT FINGERS OR OTHER OBJECTS IN UNIT WHILE IN OPERATION AND/OR PLUGGED IN.

4) DO NOT OPERATE IN POOLED WATER TO AVOID ELECTRIC SHOCK.

5) MOTOR MUST BE KEPT DRY AT ALL TIMES. IF UNIT BECOMES WET, THOROUGHLY DRY BEFORE NEXT OPERATION.

6) INDOOR USE: USE ONLY WITH A GROUNDED PLUG AND/OR EXTENSION CORD TO AVOID RISK OF ELECTRICAL SHOCK OR FIRE. REMEMBER NEVER TO USE A CORD WITH ANY KIND OF DAMAGE OR WEAR.

7) MAKE SURE THE POWER SOURCE IS SUFFICIENT TO MEET THE REQUIREMENTS OF THE BLOWER.

8) KEEP AIR INTAKES CLEAR AT ALL TIMES TO AVOID CLOGGING OR BLOCKING IN ORDER TO PREVENT OVERHEATING THE UNIT. BLOCKING THE AIR INTAKES COULD RESULT IN A FIRE OR ELECTRICAL HAZARDS.

9) DO NOT REMOVE ANY SCREENS OR SAFETY GUARDS FROM THIS UNIT TO PREVENT INJURY TO PERSONS, AND TO AVOID OBJECTS FROM COMING IN CONTACT WITH THE BLOWER WHEEL. UNIT DAMAGE IN THIS MANNER WILL VOID YOUR WARRANTY.

10) DO NOT OPERATE UNIT CLOSE TO ANY DANGEROUS AREAS, SUCH AS EXPLOSIVE GASES, FLAMMABLES, HEATERS AND VENTILATED ENVIRONMENTS, WHICH MAY RESULT IN EXPLOSIONS OR ELECTRICAL HAZARDS.

11) DO NOT USE ANY FORM OF SPEED CONTROL DEVICE AS DOING SO MAY RISK INJURY OR FIRE.

12) ALWAYS PLACE BLOWER ON A SMOOTH AND LEVELED SURFACE FOR SAFE OPERATION.

13) DO NOT OPERATE IN STACKED POSITION.

14) DO NOT USE UNIT IF DAMAGED.

15) BEFORE CLEANING OR SERVICING UNPLUG UNIT.

16) ALL BLOWERS IN OPERATION MUST BE SUPERVISED AT ALL TIMES.
WARRANTY

1 YEAR:
B-AIR WILL COVER ALL PARTS (EXCEPT POWER CORD). WITHIN ONE YEAR OF PURCHASE B-AIR WILL PAY REPAIR COSTS AND ONE WAY UPS GROUND SERVICE SHIPPING TO YOUR LOCATION WITHIN THE 48 CONTIGUOUS STATES. PROOF OF PURCHASE IS REQUIRED.
CUSTOMER IS RESPONSIBLE FOR SHIPMENT OF DAMAGED UNIT TO B-AIR WAREHOUSE FOR REPAIR.
CANADA AND NON-CONTIGUOUS STATES MUST PAY FREIGHT BOTH WAYS.

5-YEAR:
B-AIR WILL COVER HOUSING FROM DATE OF ORIGINAL PURCHASE.
PROOF OF PURCHASE IS REQUIRED.

SERVICE

IN ORDER TO RECEIVE SERVICE OR REPLACEMENT PARTS UNDER WARRANTY, YOU MUST:

A) CALL FOR A RMA# (Return Merchandise Authorization Number)
B) HAVE PROOF OF PURCHASE
C) SHIP TO B-AIR BLOWER
   • IF IMMEDIATE SERVICE IS REQUIRED, B-AIR WILL SHIP A REFURBISHED BLOWER IMMEDIATELY TO REPLACE THE ONE REQUIRING SERVICE PROVIDED A VALID CREDIT CARD IS PROVIDED AND CHARGED, ONCE WE RECEIVE YOUR BLOWER, WE WILL CREDIT YOUR CREDIT CARD ACCOUNT.
   • WE WILL GLADLY REPAIR YOUR BLOWER AND SHIP WITHIN 24 HOURS.

UPON INSPECTION, WE WILL ADVISE YOU OF THE REPAIRS NEEDED AND THE COST (IF APPLICABLE).
B-AIR WILL ISSUE REPAIR OR REPLACEMENT PARTS DEPENDING ON WARRANTY.
CORDS

1) DO NOT USE EXTENSION CORDS FOR OUTSIDE USE.
2) USE 3 PRONG ADAPTORS THAT ARE UL AND CE APPROVED AND NOT LESS THAN 14-3 WITH GROUND FAULT CIRCUIT INTERRUPTER (GFCI).
3) DO NOT USE CORDS THAT SHOW ANY KIND OR WEAR OR DAMAGE.
4) CORDS ARE NOT COVERED BY WARRANTY.

B-AIR BLOWERS LIMITED WARRANTY

COVERS

1) B-AIR BLOWERS ARE COVERED AGAINST DEFECTS IN MATERIAL AND CRAFTSMANSHIP USED UNDER NORMAL INTENDED USE TO ORIGINAL PURCHASER FOR A TERM OF (1) ONE-YEAR FROM THE ORIGINAL DATE OF PURCHASE.
2) B-AIR BLOWERS HOUSING IS COVERED FOR A TERM OF (5) FIVE FULL YEARS FROM THE DATE OF THE ORIGINAL PURCHASE.

DOES NOT COVER

1) ANY SIGNS OF MISUSE INCLUDING, BUT NOT LIMITED TO ROUGH HANDLING, ABUSE, TAMPERING, IMPROPER VOLTAGE USE, UNAUTHORIZED MAINTENANCE AND REPAIRS.

CONTACT

INTERTEX, INC. / B-AIR BLOWERS
1851 TYBURN STREET
GLENDALE, CA 91204
1-877-800-2247 (BAIR)
FAX: (818) 242-2430
EMAIL: info@b-air.com
WEB SITE: www.b-air.com
SPECIFICATIONS

MODEL: BP-2

<table>
<thead>
<tr>
<th>VOLTAGE</th>
<th>115 V</th>
<th>230 V</th>
</tr>
</thead>
<tbody>
<tr>
<td>CYCLE</td>
<td>60 Hz</td>
<td>50 Hz</td>
</tr>
<tr>
<td>MAX AIR VOLUME</td>
<td>1430 CFM</td>
<td>1360 CFM</td>
</tr>
<tr>
<td>AMPS</td>
<td>12 A</td>
<td>9.8 A</td>
</tr>
<tr>
<td>MAX STATIC PRESSURE</td>
<td>9.0 INCH</td>
<td>7.7 INCH</td>
</tr>
<tr>
<td>WEIGHT NET/ GR</td>
<td>43/47 LBS</td>
<td>43/47 LBS</td>
</tr>
<tr>
<td>UNIT SIZE (LxWxH)</td>
<td>20.5”x16”x18”</td>
<td>20.5”x16”x18”</td>
</tr>
<tr>
<td>WHEEL SPEED (RPM)</td>
<td>3400</td>
<td>2850</td>
</tr>
<tr>
<td>MOTOR</td>
<td>2 HP</td>
<td>2 HP</td>
</tr>
<tr>
<td>ATTACHED CORD (14G)</td>
<td>25 FT</td>
<td>25 FT</td>
</tr>
</tbody>
</table>

TROUBLESHOOTING

<table>
<thead>
<tr>
<th>PROBLEM</th>
<th>POSSIBLE CAUSE</th>
<th>SOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motor Not Running</td>
<td>a) Switch is OFF</td>
<td>a) Turn Switch ON</td>
</tr>
<tr>
<td></td>
<td>b) Bad Outlet</td>
<td>b) Check Outlet/Change to</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Another Outlet</td>
</tr>
<tr>
<td></td>
<td>c) Faulty Switch/Cord</td>
<td>c) Call Factory for new</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Switch/Replace Cord</td>
</tr>
<tr>
<td>Scraping Noise From Blower</td>
<td>a) Wheel Out Of Line</td>
<td>a) Call Factory for</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Replacement Advise</td>
</tr>
<tr>
<td>Weak Air Flow</td>
<td>a) Obstructed Vents/Inlets</td>
<td>a) Clean Out Vents/Inlets</td>
</tr>
</tbody>
</table>
1.0 DESIGN LOADS

The reactions from the finite element analysis for 120 mph wind are given below.

\[ D = -457 \text{ lbf} \]  
**Dead Load reaction**

\[ W_u := 1796 \text{ lbf} \cdot 1.1 = 1976 \text{ lbf} \]  
**Maximum wind uplift reaction with 10% added**

\[ W_v := 1520 \text{ lbf} \cdot 1.1 = 1672 \text{ lbf} \]  
**Maximum wind shear reaction**

\[ W_m := (6705 \text{ lbf} + 4909 \text{ lbf}) \cdot 5.5\text{-in} = 63877 \text{ lbf-in} \]  
**Moment on base plate**

1.1 Anchors for 120 mph Wind Zone

For LRFD design use Load Case 9-6 from ACI318-05

\[ U := 0.9 \cdot D + 1.6 \cdot W_u = 2750 \text{ lbf} \]  
**Design uplift on base plate**

\[ V := 1.6 \cdot W_v = 2675 \text{ lbf} \]  
**Design shear on base plate**

\[ M := 1.6 \cdot W_m = 102203 \text{ lbf-in} \]  
**Design moment on base plate**

Use Hilti Kwik Bolt Anchors. 1/2" carbon steel anchors adequate in 3000 psi concrete. Slab needs to be 6" thick in area of anchors. See Annex A for capacity calculations.

1.2 Anchors for 150 mph Wind Zone

\[ U := 0.9 \cdot D + 1.6 \left( \frac{150}{120} \right)^2 \cdot W_u = 4528 \text{ lbf} \]  
**Design uplift on base plate**

\[ V := 1.6 \left( \frac{150}{120} \right)^2 \cdot W_v = 4180 \text{ lbf} \]  
**Design shear on base plate**

\[ M := 1.6 \left( \frac{150}{120} \right)^2 \cdot W_m = 159693 \text{ lbf-in} \]  
**Design moment on base plate**

Use Hilti Kwik Bolt Anchors 3/4" diameter 5" embedment in 3000 psi concrete. Slab need to be 8" thick in region of anchors. See Annex A for capacity calculations.

1.3 Anchors for 90 mph Wind Zone

\[ U := 0.9 \cdot D + 1.6 \left( \frac{90}{120} \right)^2 \cdot W_u = 1367 \text{ lbf} \]  
**Design uplift on base plate**

\[ V := 1.6 \left( \frac{90}{120} \right)^2 \cdot W_v = 1505 \text{ lbf} \]  
**Design shear on base plate**

\[ M := 1.6 \left( \frac{90}{120} \right)^2 \cdot W_m = 57489 \text{ lbf-in} \]  
**Design moment on base plate**

Use Hilti Kwik Bolt Anchors 1/2" diameter 2" embedment in 3000 psi concrete. Slab need to be 4" thick in region of anchors. See Annex A for capacity calculations.