

ZIPLINE FUN



FROM THE LEADER IN EXTREME FUN!

ZL90 - 90'

INCLUDES ALL PARTS & HARDWARE FOR EASY ASSEMBLY

ziplinefun.com

Ages **8+** weighing up to **250lbs**
Made in the **USA** for over **35** years.



The **Only** Residential Zipline to meet **ASTM** Home Playground Equipment Safety Standards.

Installation Instructions



Model: ZL90

ZL90 Zip Line INSTALLATION, OPERATING AND MAINTENANCE INSTRUCTIONS

Thank you for purchasing our exciting new ZL90 Zip Line. The warnings and instructions that follow are important to the enjoyment and safe play of all users. Please review these with them and save for future reference.

WARNING

All of the following precautions should be exercised by adults and included in the ON SITE supervision of children using the ZL90

LIABILITY RELEASE

ROCK CLIMBING, ROPES COURSE, ZIP LINES ARE DANGEROUS

Allowing your children, friends, or anyone else's children to ride on a zip that has not been installed properly, maintained as instructed and inspected for safety is tantamount to endangerment and negligence. Please use common sense and remember that you are responsible for your decisions as well as the outcome. Zip Line Fun and its associates are not responsible for anything that may go wrong with your zip line installation, trees, gear, trolleys, or related components. We are not responsible for any injuries or deaths that occur during the construction or operation of your zip line or any other products. No warranty related to zip lines is expressed or implied by installation tips, construction guides, or by any representative of Zip Line Fun, including warranties of merchantability or fitness. Ensure you educate yourself on the proper installation, maintenance and use of everything related to your zip line or other products. Seek competent local assistance if you are unsure how to work with trees, cable installation or maintenance. All information related to zip lines received from any representative or printed material distributed by Zip Line Fun is only an opinion and shall not be interpreted as expert or professional advice. The customer accepts full responsibility for any and all incidents, accidents, injuries, deaths, and property damage that may occur during the building and operating of your zip line or other products. Serious injury and death may occur as a result of improper use of this equipment. DO NOT attempt to use this equipment without proper training! Inspect all equipment before each use and destroy any gear that is damaged, worn, or does not pass inspection. Any person using these products is responsible for the proper care and maintenance of these products. **WHEN IN DOUBT, REPLACE IT!** Any person using these products in any manner assumes all risk and responsibility for any damage or injury, including death, dismemberment or worse. Any litigation involving these products will be defended and challenged according to the above release of liability.

ZL90 Zip Line has been designed for fun. It has been thoroughly tested to insure its safety and where applicable conforms to ASTM F1148 Standard Consumer Safety Performance Specification for Home Playground Equipment, and European Toy Safety Standard EN-71. However, as with all playground equipment and accessories, all users of ZL90 will need proper instruction and supervision. ZL90 is intended to be used as a cable ride between two points.

Please Note: Observing the following statements and warnings reduces the likelihood of serious or fatal injury.

ALL USERS SHOULD BE INSTRUCTED:

1. TO use ZL90 ONLY after it is properly installed by an adult.
2. TO get off ZL90 ONLY after it has completely stopped and to drop gently to the ground.
3. THAT ZL90 is designed to be used by one rider at a time, ages 8 years old to adult, weighing up to 250 pounds. (Although the equipment has been designed and tested to support up to 250 pounds, the user should be able to support his or her own body weight).
4. TO use ZL90 ONLY as it is intended.
5. NOT TO walk close to, in front of, behind, or between a moving ZL90 or any other moving object.
6. NOT TO use ZL90 without adult supervision.
7. TO always begin the ride from a stable platform.
8. TO grip the handles firmly with both hands directly overhead before beginning the ride.
9. NOT TO attach items to the equipment that are not specifically designed for use with the equipment, such as, but not limited to, jump ropes, clothesline, pet leashes, cables, chain and rope as they may cause a strangulation hazard.
10. TO dress appropriately with well fitting shoes and no ponchos, scarves or other loose fitting clothing which is potentially hazardous.
11. NOT TO use ZL90 when the equipment is wet.
12. To remove their bike or other sports helmet before playing on the ZL90.
13. To verify that the cable is secure at both ends.



Zip Line Fun
520 Salem Ave.
Holly Springs, MS 38635
800.848.8688

TOOLS REQUIRED

1. Ladder
2. Pliers or Vise-Grips
3. Socket Wrench (5/16 or 8mm)
4. Adjustable Wrenches x2 (optional)
5. Hammer
6. Wire Cutter
7. Electrical Tape
8. A Friend

Parents Please Note: Observing the following statements and warnings reduces the likelihood of serious or fatal injury.

1. **DO NOT** allow the use of ZL90 by children without adult supervision.
2. **DO NOT** attach ZL90 to a tree or other upright without first determining if the tree or other upright, at the point of attachment, will support at least 1250 pounds.
3. **ALWAYS** check the support structure, attachments, trolley, cable clamps, turnbuckle and cable for integrity before allowing the use of ZL90.
4. **DO NOT** attach ZL90 closer than 6 feet to any other playground equipment.
5. **ALWAYS** use a stable platform to stand on before beginning the ride.

OPERATING INSTRUCTIONS

Please Note: Observing the following statements and warnings reduces the likelihood of serious or fatal injury.

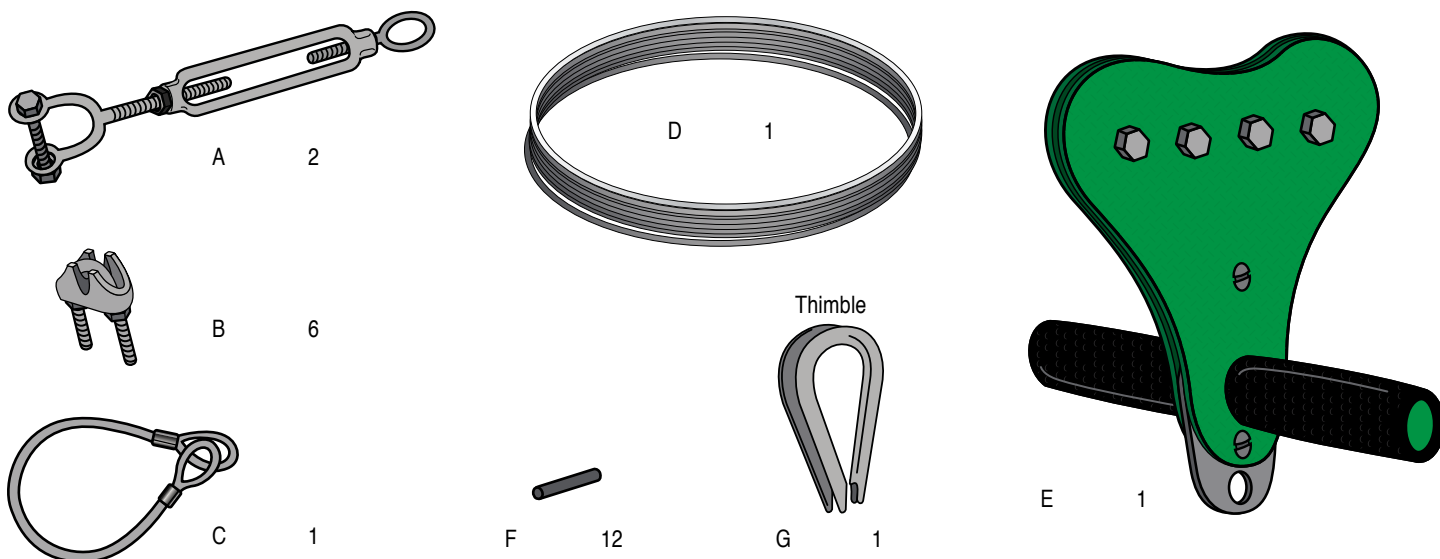
ZL90 Zip Line has been designed to provide children and adults with all of the enjoyment and traditional fun of a smooth, safe and exhilarating ride through the air from one point to another.

1. Follow the installation instructions carefully.
2. Follow the rules of safe use..
3. Stand on a stable platform and grip the handles of the trolley directly overhead with both hands.
4. Lift your feet off the platform and ZL90 will do the rest.
5. ZL90 will slow and stop before reaching the other end of the ride. Drop gently to the ground onto both feet.

PARTS LIST

- | | |
|--|-------------------------------------|
| A. Turnbuckle | 2 |
| B. Cable clamps with lockwashers, nuts and thread caps | 6 sets |
| C. Galvanized aircraft cable sling | 1 sling with loop at each end |
| D. Galvanized aircraft cable | 1 coil (approximately 94 feet long) |
| E. Trolley | 1 |
| F. Thread Caps | 12 |
| G. Thimble | 1 |

Please check all parts against this list immediately. In case of discrepancy, call 800-849-8688.



INSTALLATION and ASSEMBLY SAFETY INSTRUCTIONS

Please Note: Observing the following statements and warnings reduces the likelihood of serious or fatal injury.

Do not substitute parts! The parts provided have been safety tested to exceed the maximum stresses expected to be encountered when using this product. If a part becomes damaged in any way call 800-848-8688 for replacement information.

1. **Be sure** that the supporting trees or uprights are secure and will support at least 1250 pounds. **If you are using uprights other than trees or are considering installation on other than level ground please call 800-848-8688 for important safety information.**
2. **Be sure** that the area between the trees or uprights is level and at a distance of not less than 6 feet from any structure or obstruction such as a fence, garage, house, tree trunk, interfering branches, laundry line or electrical wire.
3. **The maximum fall height** for this product is determined by measuring from the handles to the ground at the highest point of attachment to the tree or upright. This will vary depending upon the height of the user and the distance between the trees or uprights (see assembly instructions).
4. **Do not** install ZL90 Zip Line over concrete, asphalt packed earth or any other hard surface. A fall onto a hard surface can result in a serious injury to the equipment user. **(See enclosed CONSUMER INFORMATION SHEET FOR PLAYGROUND SURFACING MATERIALS).**
5. **Cable height:** For ZL90 Zip Line to operate properly and safely it is necessary to follow the mounting instructions carefully and observe the height recommendations. One end of the cable must be mounted at a lower level than the other end and depending upon the height of the user and the distance between the trees or uprights, these levels can be easily determined as follows:
 - 5a. Measure the height of the user. If there is more than one user, and less than 6 inches in difference between their heights, then for this purpose use the height of the tallest user. If heights of the users differ by more than 6 inches, it is recommended that the height of the cable be adjusted to accommodate a user whose height is outside the range and that user not be permitted to ride until adjustment is made. Add 2 1/2 feet to the height of the user determined and mark this point on the upright intended to be the end point of the ride (i.e., if the user is 5' 2" tall or 62 inches, then 62 plus 2 1/2 feet or 30 inches equals 92 inches or 7' 8"). **SEE TABLE.**
 - 5b. Measure the distance between the uprights. For the full 90 feet add 4 feet (48") to the height of the mark made on the end point upright and mark this point on the upright intended to be the starting point of the ride (i.e., 92" + 48" = 140" or 11' 8"). For each 10 feet less distance between uprights reduce the add-on to the starting point by 6 inches (i.e. 70' distance equals 3' or 36" of add on at starting point. **SEE TABLE.**

USER HEIGHT	LOW END CABLE HEIGHT	HIGH END CABLE HEIGHT AT DISTANCE BETWEEN UPRIGHTS			
		90 FEET	80 FEET	70 FEET	60 FEET
48 Inches	78 Inches	126 Inches	120 Inches	114 Inches	108 Inches
54 Inches	84 Inches	132 Inches	126 Inches	120 Inches	114 Inches
60 Inches	90 Inches	138 Inches	132 Inches	126 Inches	120 Inches
66 Inches	96 Inches	144 Inches	138 Inches	132 Inches	126 Inches
72 Inches	102 Inches	150 Inches	144 Inches	138 Inches	132 Inches

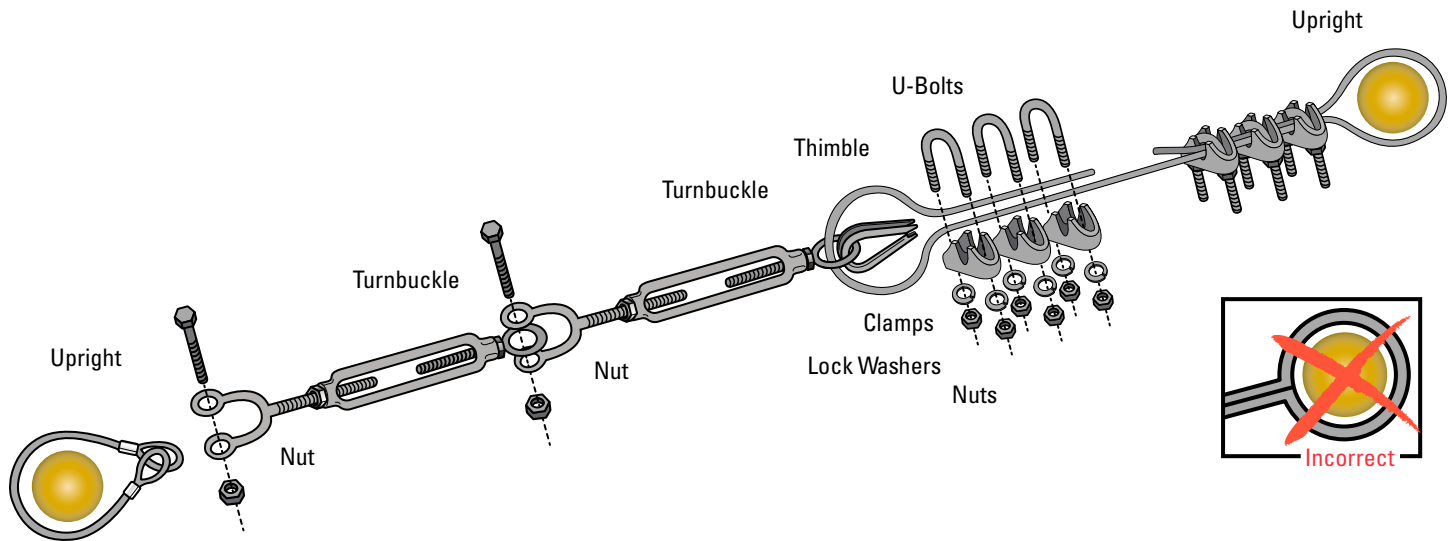
Please Note: Observing the following statements and warnings reduces the likelihood of serious or fatal injury.

WARNING! Do not add additional slope to the cable. This will not improve the ride and may create a danger to the user!

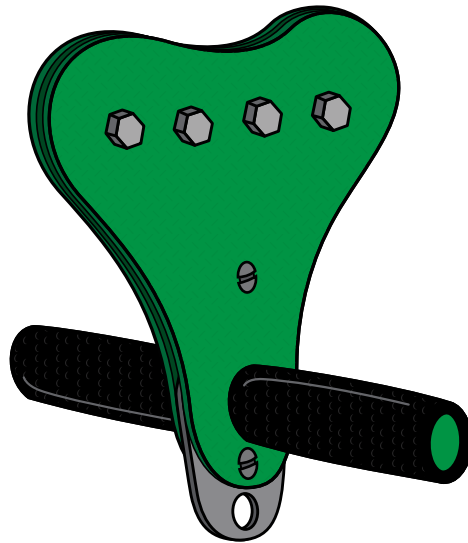
Assembly Instructions

NEVER USE EYEBOLTS OR SIMILAR HARDWARE IN CONNECTION WITH THIS PRODUCT!

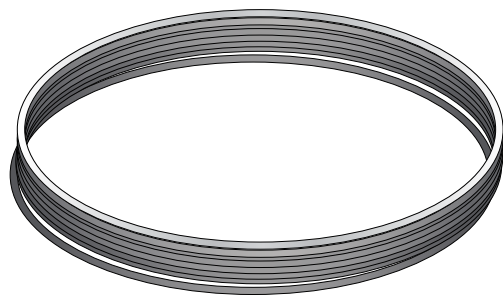
Illustration 1:



1. Set aside Assembled Trolley (E).



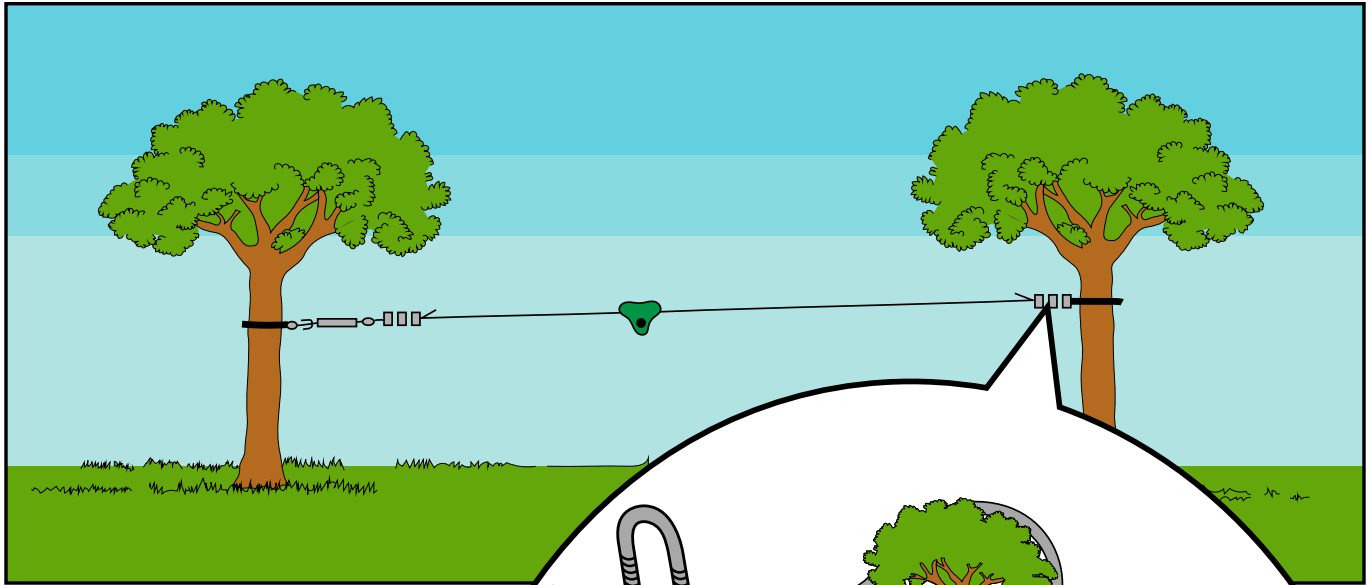
2. Carefully uncoil the galvanized aircraft cable (D). Wrap one end around the starting point (high end) upright at the height marked in Safety Instructions step 5b.



INSTALLATION and ASSEMBLY SAFETY INSTRUCTIONS (continued)

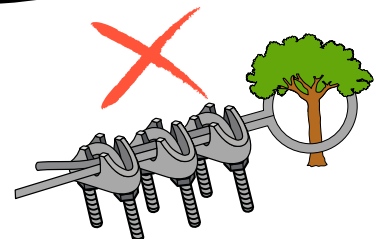
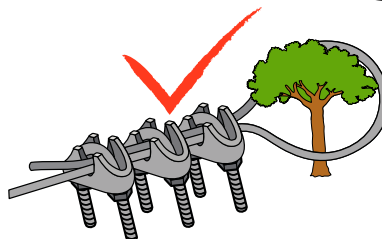
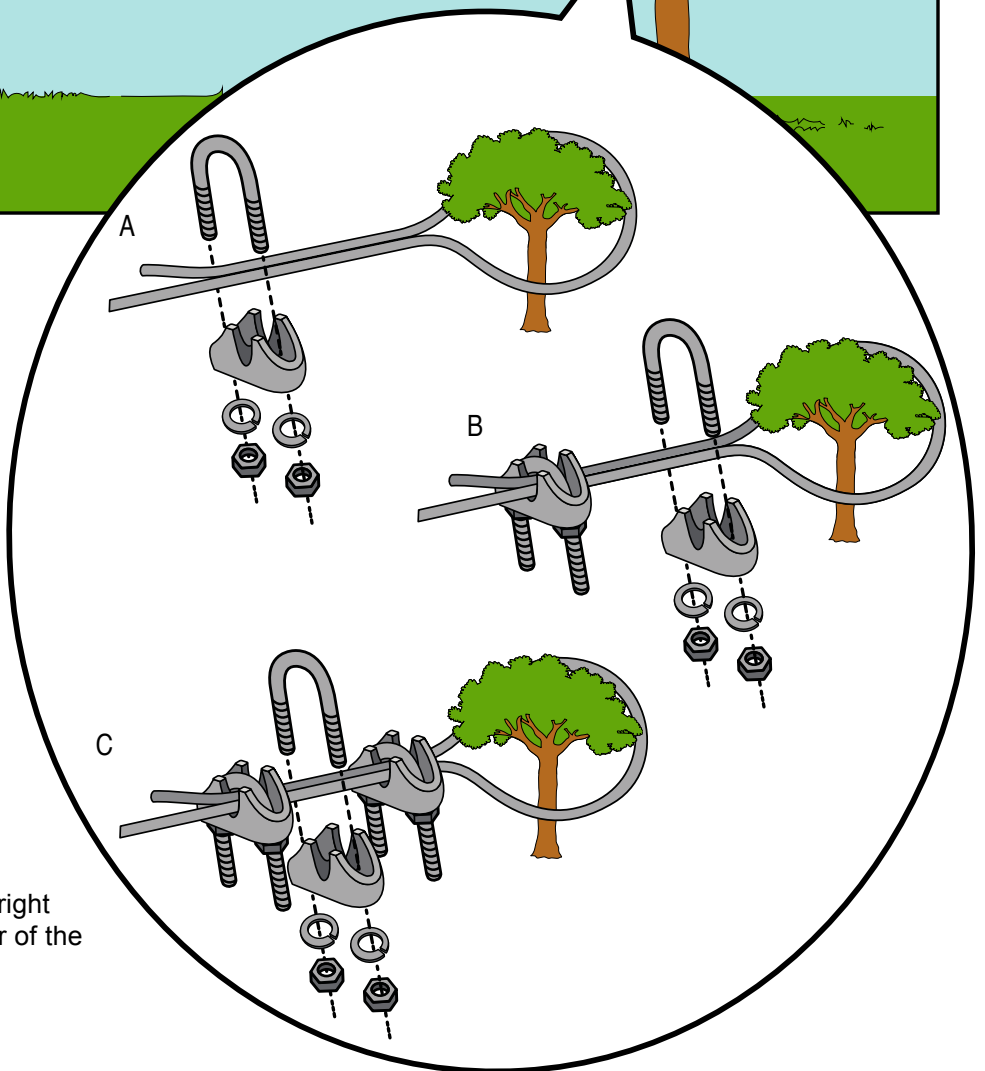
Please Note: Observing the following statements and warnings reduces the likelihood of serious or fatal injury.

- Using three (3) of the cable clamps (B) provided with lockwashers and nuts, secure the cable at the starting point (high end) as illustrated below. Tighten the nuts carefully with a socket wrench (5/16 or 8mm) and push the tread caps (F) over the exposed threads.



- Attach the first clamp (at the high end) so the U-bolt is one clamp base width from the dead end of the wire rope.
- Tighten U-bolt nuts evenly on first clamp. Attach second clamp no closer to the tree/upright than $1\frac{1}{2}$ times the diameter of the tree/upright.
- Attach the third clamp evenly between the first two clamps. Now tighten all nuts evenly.
Re-tighten all nuts after the first ride.

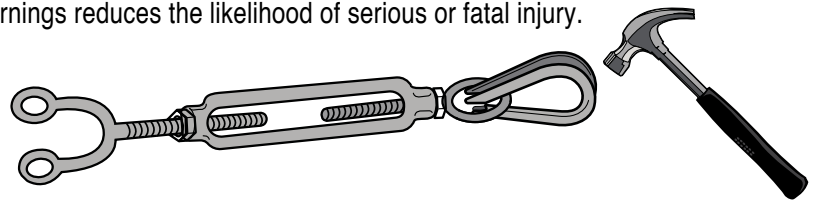
DISTANCE NOTE: Do not place the first cable clamp closest to the tree/upright any nearer than $1\frac{1}{2}$ times the diameter of the tree/upright.



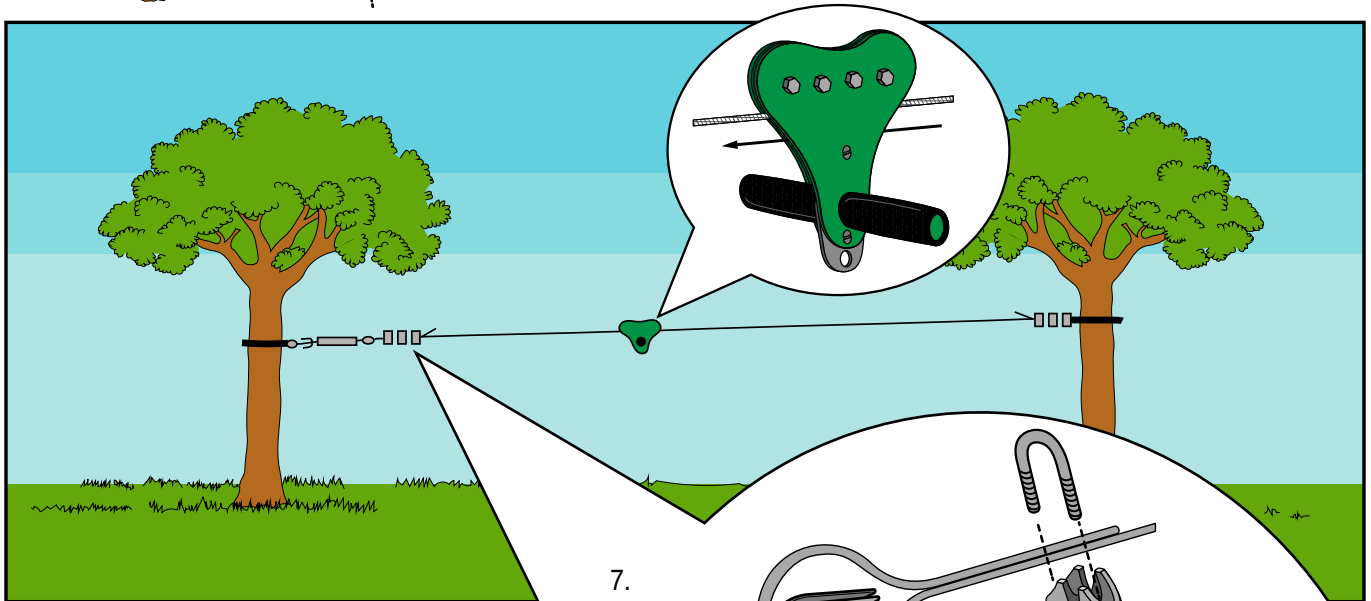
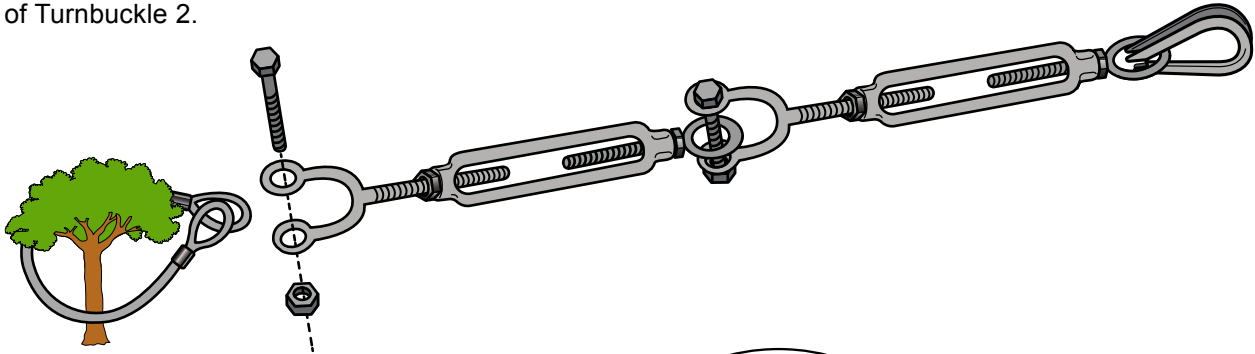
INSTALLATION and ASSEMBLY SAFETY INSTRUCTIONS (continued)

Please Note: Observing the following statements and warnings reduces the likelihood of serious or fatal injury.

- Using a hammer, fit the thimble (G) to eyed end of Turnbuckle 1 (A) as illustrated.

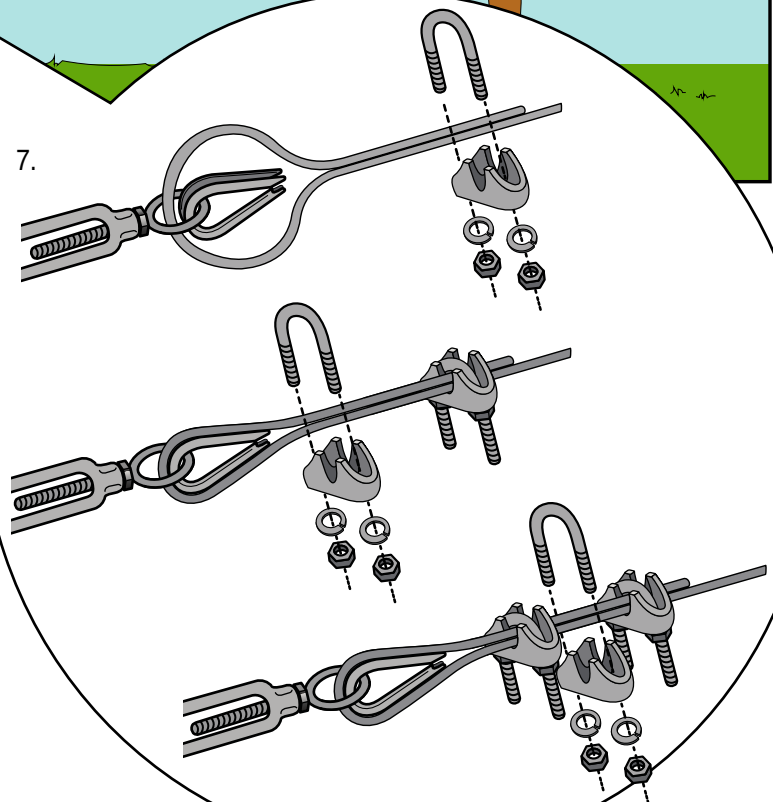


- Wrap the cable sling (C) provided around the other upright at the terminating point or low end at the height determined in Safety Instructions step 5b. and place the loops at the end of the sling over the bolt inside the jaw end of Turnbuckle 2 (A) as illustrated and carefully re-tighten the bolt. Attach the jaw end of Turnbuckle 1 to the eye of Turnbuckle 2.



- Stretch out the cable and thread the loose end through the trolley just below the wheels and then through the eye end of Turnbuckle (1). Make sure that both turnbuckles are in the fully opened position with the threads of each end only slightly visible on the inside of the frame.
- Place one of the remaining cable clamps (B) on the cable as if to secure this end (as illustrated), and hand tighten nuts. Using pliers or vice grips, grip the free end of the cable and pull as tight as possible. Slide the cable clamp towards the turnbuckle to secure and pull as tight as possible again. Repeat the process until you feel that you have pulled the cable as tight as possible. Tighten the nuts on the cable carefully with a socket wrench and fully secure the cable with the other two cable clamps.

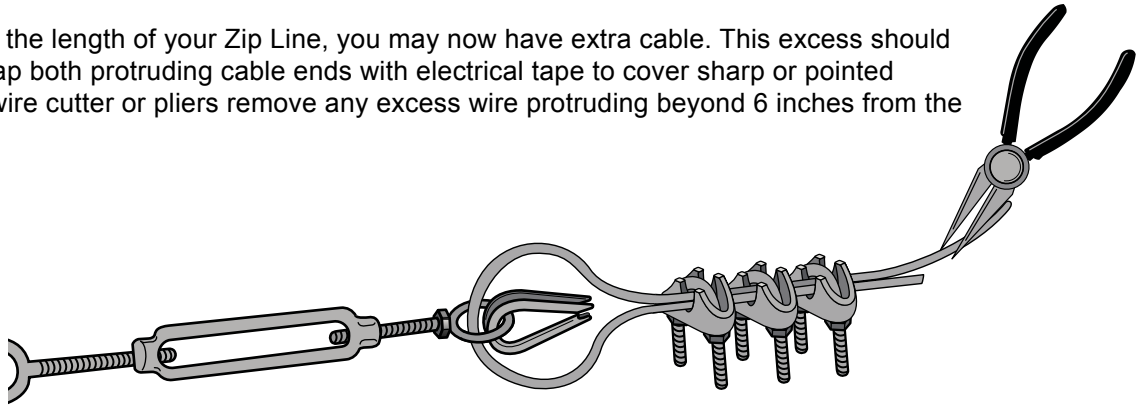
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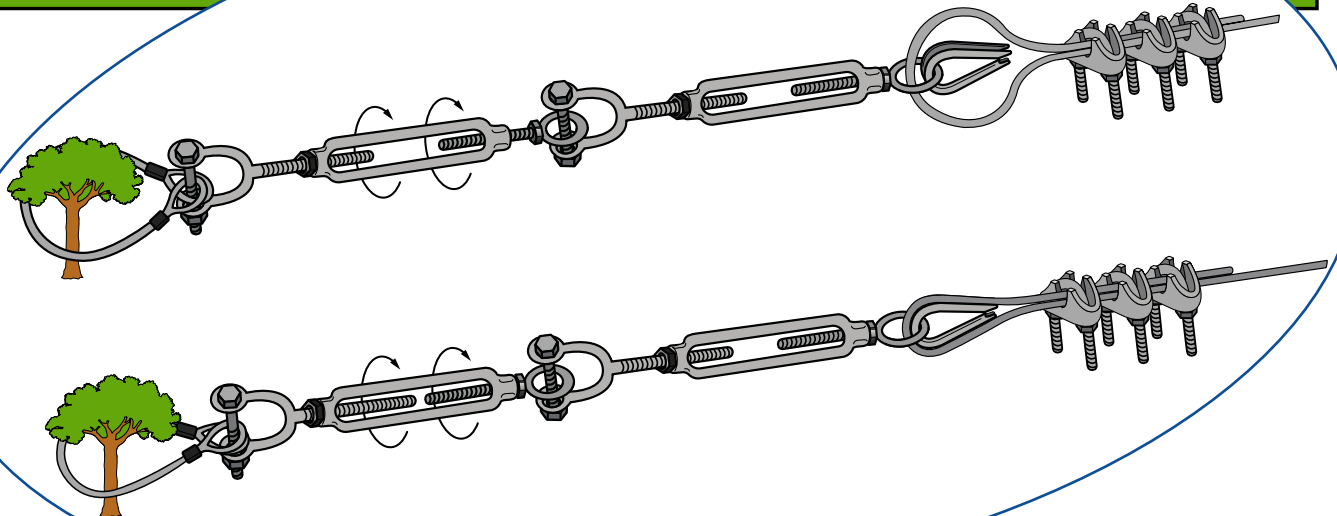
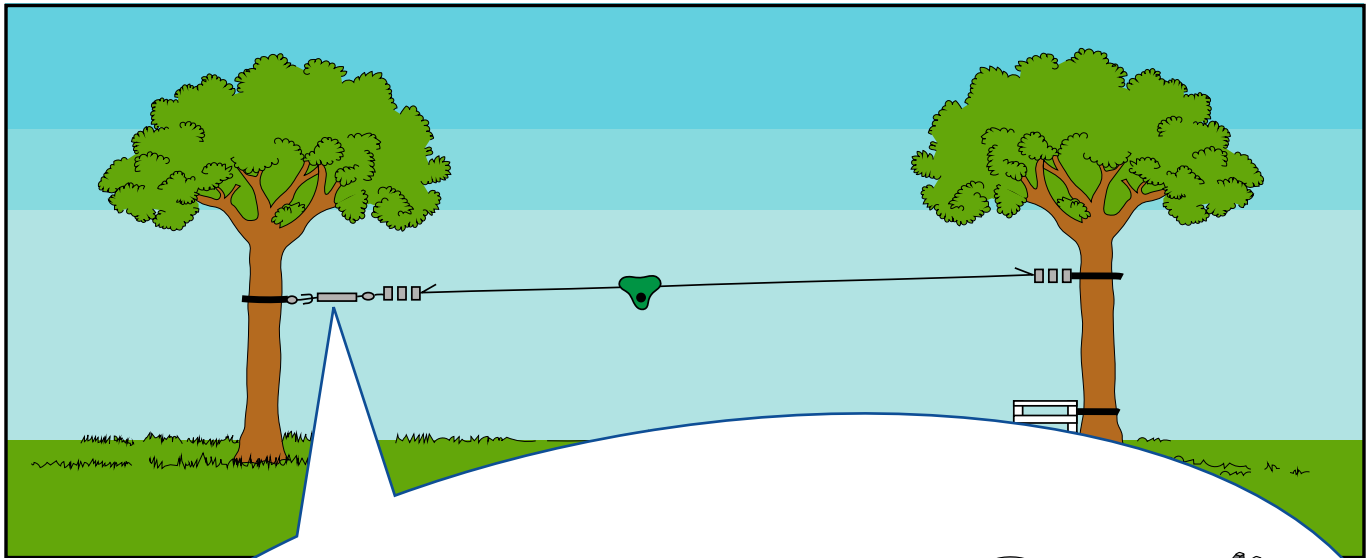
INSTALLATION and ASSEMBLY SAFETY INSTRUCTIONS (continued)

Please Note: Observing the following statements and warnings reduces the likelihood of serious or fatal injury.

8. Depending upon the length of your Zip Line, you may now have extra cable. This excess should be removed. Wrap both protruding cable ends with electrical tape to cover sharp or pointed edges. Using a wire cutter or pliers remove any excess wire protruding beyond 6 inches from the last cable clamp.



9. Tighten the turnbuckles by turning the frame while holding the ends. This will increase the tension in the cable. Do not tighten all the way, but only until the cable appears to be a straight line. The ideal tension is approximately 200 lbs. You can test this as follows: Obtain a shopping bag with handles and place in it a 5 lb. weight such as a bag of sugar or flour. Move the trolley to the approximate center of the cable and measure the distance from the cable to the ground. Hang the bag from the handles of the trolley and re-measure the distance from the cable to the ground. At 200 lbs. tension the cable should be 4 inches closer to the ground. If this distance is **more** than 4 inches, then you must **tighten** the turnbuckle(s). If the distance is **less** than 4 inches, you must loosen the turnbuckle(s). After achieving the proper tension tighten the locknuts on each end of the turnbuckles tight to the frame of the turnbuckles.



INSTALLATION and ASSEMBLY SAFETY INSTRUCTIONS (continued)

Please Note: Observing the following statements and warnings reduces the likelihood of serious or fatal injury.

10. Now, while standing erect, test the connections by placing your full weight (as close to 250 lbs. as possible) on the trolley at approximately the center point of the ride. If you feel any slippage you must adjust the tension again and tighten the cable clamps further. Repeat this process until there is no slippage.
11. Obtain a secure platform to place at the starting point of the ride. Place it at the start of the ride and make sure that it cannot tip in any direction.
12. Now test the ride. You should stop a short distance before reaching the other end. If you stop considerably short, then you probably have too much tension in the cable and should loosen the turnbuckle slightly. If you come too close to the ground, then you may have too little tension and should tighten the turnbuckle slightly, or you should recheck your measurements.

Your ZL90 is now ready for use and enjoyment.

Maintenance

1. After the first use, you may expect a small amount of stretch in the cable due to its construction. This is normal and can be adjusted by following the installation instruction step 9.
2. Before each use, check the trolley, cable, cable sling, cable clamps and turnbuckle's for evidence of deterioration, excessive wear, fractures, breaks or sharp edges. Replace if necessary.
3. Check all bolt covering and sharp edges twice monthly during the usage season, replace if necessary and check again at the beginning of each new usage season.
4. Check all nuts and bolts twice monthly during the usage season for tightness and tighten as required. It is particularly important that this procedure be followed at the beginning of each usage season.
5. Take the ZL90 Zip Line trolley indoors when the temperature drops below freezing, 32 degrees Fahrenheit.
6. When done at prescribed intervals, these precautions will provide for long lasting and safe use of ZL90 Zip Line.
7. If you are installing ZL90 Zip Line in an area that experiences long periods of low humidity, water the trolley frequently during these periods and replace the trolley handles if the color begins to fade.
8. Rake and check the depth of loose fill protective surfacing materials to prevent compaction and to maintain appropriate depth. Replace as necessary. It is particularly important that this procedure be followed at the beginning and end of each usage season.
9. Owners shall be responsible for maintaining the legibility of the warning labels.

WARNING: Always check the cable before use following an electrical storm. Lightning can strike the cable and weaken it, which could result in a fall and injury!

WARNING: Failure to carry out these checks and inspections could result in a fall and injury!

DISASSEMBLY

1. Follow the steps backwards beginning with the release of tension at the turnbuckle.

DISPOSAL

1. Disassemble and dispose of all playground equipment in such a way that no unreasonable hazards will exist at the time it is discarded.

LIMITED WARRANTY

Zip Line Fun warrants to the first consumer purchaser, for a period of one (1) year from the date of purchase, that the Zip Line will be free from defective workmanship and materials, and agrees that it will, at its option, either repair the defect or replace the defective product or part thereof at no charge to the purchaser for parts or for labor.

This warranty does not apply to any product which has been damaged or defaced, which has been subject to misuse, abnormal service or handling, or which has been altered or modified in design, construction, assembly, installation or operation.

In order to enforce the rights under this limited warranty, the purchaser should return the warranty registration card enclosed in the product package and contact Zip Line Fun if a problem occurs. In the alternative, the purchaser should have available and submit a proof of purchase to Zip Line Fun.

This limited warranty described above is in addition to whatever implied warranties may be granted to purchasers by law.

The warranties described above shall be the sole and exclusive remedy available to the purchaser.

WARNING

WIRE ROPE/CABLE

Wire rope **WILL FAIL** if worn-out, overloaded, misused, damaged, improperly maintained or abused.

Wire rope failure may cause serious injury or death!

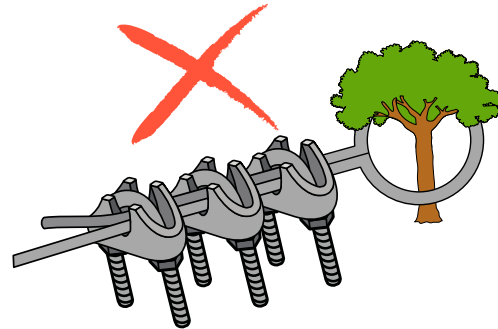
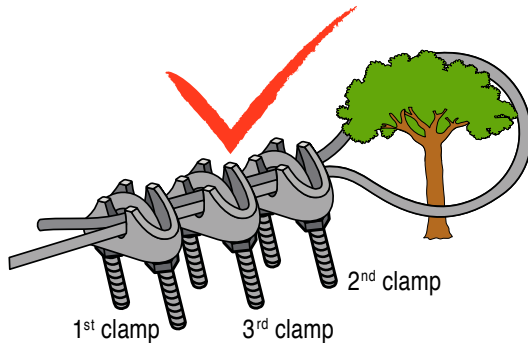
Protect yourself and others:

ALWAYS INSPECT wire rope for **WEAR, DAMAGE, or ABUSE BEFORE and DURING USE.**

NEVER USE wire rope that is **WORN-OUT, DAMAGED or ABUSED.**

Destroy and discard worn out or damaged wire rope in a fashion that does not permit use by someone that does not know the hazard.

PROPER CLAMPING AND ATTACHEMENT INSTRUCTIONS



1. ATTACH THE FIRST CLAMP SO THE U-BOLT IS ONE CLAMP BASE WIDTH FROM THE DEAD END OF THE WIRE ROPE. THE LIVE END OF THE ROPE SEATS IN THE SADDLE (CLAMP BASE). REMEMBER LIVE END SADDLE, DEAD END U-BOLT.
2. TIGHTEN U-BOLT NUTS EVENLY ON 1ST CLAMP TO 3 FOOT POUNDS OF TORQUE. ATTACHE SECOND CLAMP NO CLOSER TO THE TREE/UPRIGHT THAN 1+1/2 TIMES THE DIAMETER OF THE TREE/UPRIGHT. TURN NUTS ON THIS CLAMP FIRMLY BUT DO NOT TORQUE YET.
3. ATTACH THIRD CLAMP EVENLY BETWEEN THE FIRST TWO CLAMPS.
4. NOW TIGHTEN ALL NUTS EVENLY TO 3 FOOT POUNDS OF TORQUE.
5. INSPECT TO BE SURE THAT THE WIRE ROPE HAS NOT BEEN DAMAGED..
6. RE-TORQUE ALL NUTS AFTER APPLYING THE FIRST LOAD TO THE ZL90. WIRE ROPE CLAMPS SHOULD BE INSPECTED AND RETORQUED PERIODICALLY.

DO NOT PLACE THE WIRE ROPE CLAMP CLOSEST TO THE TREE/UPRIGHT ANY NEARER THAN **1+1/2 TIMES** THE DIAMETER OF THE TREE/UPRIGHT. ATTACHING CLAMPS NEARER TO THE TREE OR UPRIGHT MAY CRIMP AND DAMAGE THE CABLE AT ITS ENTRY TO THE CLAMP WHEN TIGHTENED AND SERIOUSLY WEAKEN THE CABLE. DO NOT OVERTIGHTEN THE NUTS ON THE CLAMPS AS THIS MAY DAMAGE THE CABLE AND SERIOUSLY WEAKEN IT.

WARNING-OVERTIGHTENING THE NUTS ON THE CLAMPS MAY DAMAGE THE WIRE ROPE AND CREATE A SERIOUS HAZARD.

X3. SECTION 4 OF THE CONSUMER PRODUCT SAFETY COMMISSION'S OUTDOOR HOME PLAYGROUND SAFETY HANDBOOK⁹

X3.1 Select Protective Surfacing—One of the most important things you can do to reduce the likelihood of serious head injuries is to install shock-absorbing protective surfacing under and around your play equipment. The protective surfacing should be applied to a depth that is suitable for the equipment height in accordance with ASTM Specification **F1292**. There are different types of surfacing to choose from; whichever product you select, follow these guidelines:

X3.1.1 *Loose-Fill Materials:*

X3.1.1.1 Maintain a minimum depth of 9 inches of loose-fill materials such as wood mulch/chips, engineered wood fiber (EWF), or shredded/recycled rubber mulch for equipment up to 8 feet high; and 9 inches of sand or pea gravel for equipment up to 5 feet high. **NOTE:** An initial fill level of 12 inches will compress to about a 9-inch depth of surfacing over time. The surfacing will also compact, displace, and settle, and should be periodically refilled to maintain at least a 9-inch depth.

X3.1.2 Use a minimum of 6 inches of protective surfacing for play equipment less than 4 feet in height. If maintained properly, this should be adequate. (At depths less than 6 inches, the protective material is too easily displaced or compacted.)

NOTE: Do not install home playground equipment over concrete, asphalt, or any other hard surface. A fall onto a hard surface can result in serious injury to the equipment user. Grass and dirt are not considered protective surfacing because wear and environmental factors can reduce their shock absorbing effectiveness. Carpeting and thin mats are generally not adequate protective surfacing. Ground level equipment – such as a sandbox, activity wall, playhouse or other equipment that has no elevated play surface – does not need any protective surfacing.

X3.1.3 Use containment, such as digging out around the perimeter and/or lining the perimeter with landscape edging. Don't forget to account for water drainage.

X3.1.3.1 Check and maintain the depth of the loose-fill surfacing material. To maintain the right amount of loose-fill materials, mark the correct level on play equipment support posts. That way you can easily see when to replenish and/or redistribute the surfacing.

X3.1.3.2 **Do not** install loose fill surfacing over hard surfaces such as concrete or asphalt.

X3.1.4 Poured-In-Place Surfaces or Pre-Manufactured Rubber Tiles—You may be interested in using surfacing other than loose-fill materials – like rubber tiles or poured-in-place surfaces.

X3.1.4.1 Installations of these surfaces generally require a professional and are not “do-it-yourself” projects.

X3.1.4.2 Review surface specifications before purchasing this type of surfacing. Ask the installer/manufacture for a report showing that the product has been tested to the following safety standard: ASTM **F1292** Standard Specification for Impact Attenuation of Surfacing Materials within the Use Zone of Playground Equipment. This report should show the specific height for which the surface is intended to protect against serious head injury. This height should be equal to or greater than the fall height – vertical distance between a designated play surface (elevated surface for standing, sitting, or climbing) and the protective surfacing below – of your play equipment.

X3.1.4.3 Check the protective surfacing frequently for wear.

X3.1.5 Placement—Proper placement and maintenance of protective surfacing is essential. Be sure to:

X3.1.5.1 Extend surfacing at least 6 feet from the equipment in all directions.

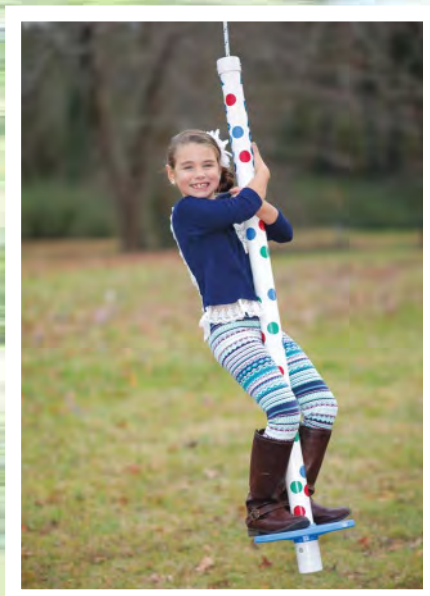
X3.1.5.2 For to-fro swings, extend protective surfacing in front of and behind the swing to a distance equal to twice the height of the top bar from which the swing is suspended.

X3.1.5.3 For tire swings, extend surfacing in a circle whose radius is equal to the height of the suspending chain or rope, plus 6 feet in all directions.

⁹ This information has been extracted from the CPSC publications “Playground Surfacing—Technical Information Guide” and “Handbook for Public Playground Safety.” Copies of these reports can be obtained by sending a postcard to the: Office of Public Affairs, U.S. Consumer Product Safety Commission, Washington, D.C., 20207 or call the toll-free hotline: 1-800-638-2772.

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AIR SURFER FUN



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