



Stationary Extreme Air Jumper Owner's Manual

- EJ-SEA-MM1-01 - Stationary Extreme Air 1-Way
- EJ-SEA-004-01 - Stationary Extreme In-Line 4-Way

Extreme Engineering
9198-B Ridge Road
Newcastle, CA 95658

Voice: 916-663-1560
Fax: 916-663-9249
e-mail: info@extremeengineering.com
Website: www.extremeengineering.com

© 2009 – 1011 Extreme Engineering®
All Rights Reserved

This manual is the property of Extreme Engineering. Any duplication without Extreme Engineering written consent is illegal. If you have any questions about the manual, please contact Extreme Engineering.

Extreme Engineering® is a US registered trademark of Extreme Engineering®.

US PAT# 6,083,142, 6,390,952 and patents pending

US Patents and Patents Pending. Extreme Auto-belay™, Belay in the Box™, PowerBelay™, Space Saver™, C.A.T.T.™, Monkey Motion™, Angel Auto-belay™, Speed Harness™, Quad Pod™ and Extreme Air™ are trademarks of Extreme Engineering®.

Congratulations!

Congratulations on your purchase of an Extreme Engineering Stationary Extreme Air Jumper. Your Extreme Air Jumper has been designed and engineered by the company who invented and innovated numerous recreational equipment products including: mobile and stationary climbing walls, the Extreme Auto-belay™ safety climbing system, the PowerBelay™ safety rappelling system and Jumper systems.

Your Extreme Air Jumper is the best in the industry!

Extreme Engineering® Jumper products are designed with safety, ease of operation and durability built in. It will provide you with years of service.

Your Extreme Air Jumper is easy to set up, operate and take down. If you follow these instructions carefully and completely, you'll be assured of safe and reliable operation.

Be sure to read and follow all safety instructions found in this manual.

Table of Contents

To go to a particular section click on the section title.

1. <u>Safety first! Read Before Proceeding</u>	7
1.1. Safety Rules.....	7
2. <u>Installation</u>	9
2.1. New Concrete Slab/Flooring.....	9
2.2. Mounting the Jumper Frame to the Floor.....	9
2.3. Anchor Bolt Installation Steps.....	10
2.4. Pump Housing Installation.....	11
2.5. Power Hookup.....	11
2.6. Reverse The Pump Reservoir Caps.....	11
2.7. Hydraulic Hose Hookup.....	12
3. <u>Periodic Maintenance</u>	13
4. <u>Prepare For Operating The Jumper</u>	14
4.1. Jumper Station Lift Controller.....	15
4.2. Jumper Poles.....	15
4.3. Jumper Pole Spreader Bar.....	16
4.4. Jumper Pole Slings.....	16
4.5. Inflatable Jump Pad.....	17
4.6. Turn On Hydraulic Pump.....	18
4.7. How To Put On Jump Harnesses.....	18
5. <u>Operating The Jumper</u>	20
5.1. Preparing The Jumping Participant.....	20
5.2. Raising The Jumping Participant.....	20
5.3. Lowering The Jump Participant.....	21
6. <u>Operating Techniques</u>	21
7. <u>Safety Rules For The Operators</u>	22
8. <u>Safety Rules For Your Jumping Participants</u>	22
9. <u>Special Jumping Participant Situations</u>	24
9.1. Participant Becomes Frozen During Jumping Session.....	24
9.2. Participant Reports Discomfort With Harness.....	24
9.3. Participant Is Intentionally Reckless.....	24
9.4. Participant Is Too Light To Achieve Jumping Motion.....	24

Table of Contents (cont.)

To go to a particular section click on the section title.

10. <u>Additional Jumper Situations</u>	25
10.1. Forgot To Attach Jump Slings To Jump Poles.....	25
10.2. Hydraulic Lift Stops Operating With Participant Suspended In Air.....	25
11. <u>End Of Event Takedown</u>	26
12. <u>Troubleshooting</u>	27
13. <u>Maintenance</u>	28
14. <u>Cleaning And Other Special Care</u>	29
14.1. Protection From The Elements.....	29
15. <u>Quick Checklists And Log</u>	30
15.1. Per-Use Maintenance Checklist.....	30
15.2. Periodic Maintenance Checklist.....	30
15.3. Maintenance Log.....	35
16. <u>Specifications</u>	33
17. <u>Wiring Diagrams</u>	33
18. <u>Limited Warranty</u>	34
18.1. Warranty Claim.....	35
19. <u>Replacement Parts</u>	36
20. <u>Technical Support</u>	36
<u>Warranty Claim Form</u>	37

Version Update Information

- 2.0 06/30/2011
Added Extreme In-Line 4-Way
- 1.0 12/04/2009
Original

1. Safety first! Read Before Proceeding



WARNING: This is a safety alert symbol. It is used to alert you of potential personal safety hazards. Please read all safety messages that follow this symbol to avoid injury or death.

Always make safety your number one priority when setting up, operating, and taking down your Jumper.

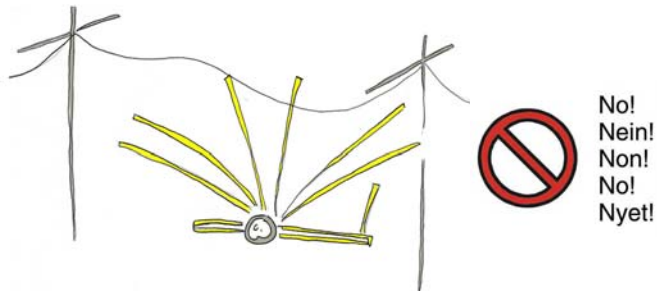
1.1. Safety Rules



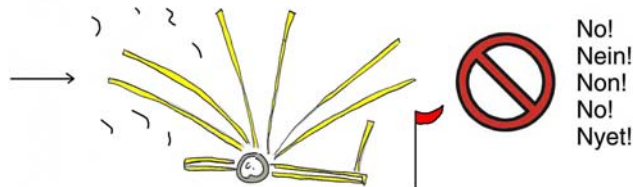
WARNING: For your safety, read and follow all safety rules and safety instructions in this Owner's Manual before operating your Jumper.



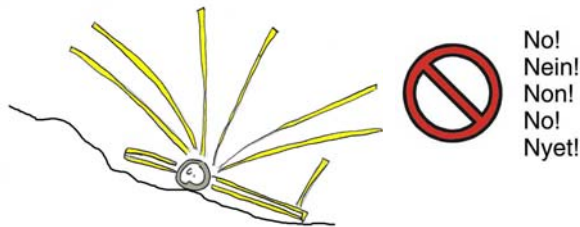
WARNING: Do Not set up or operate the Jumper near overhead electrical lines, roof eaves, trees, or other overhead obstructions or hazards. Allow a minimum of 24 feet for clearance.



WARNING: Do Not set up or operate the Jumper in windy conditions (winds with gusts of 30 mph or more).



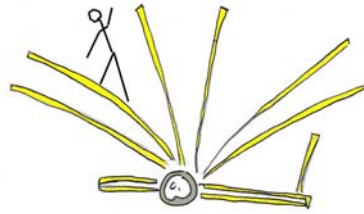
WARNING: Set Up and operate the Jumper only on a level surface.



WARNING: Set Up and operate the Jumper only on solid surfaces.



WARNING: **Do Not** climb on the poles or pole supports. **Do Not** stand on top of the poles or supports.



WARNING: Although it is possible to set up the Jumper by a single operator, Extreme Engineering highly recommends a second operator to help with setup. This second operator can look for and warn of potential issues or hazards that may not be seen by one operator. As well, the jump poles are long and heavy. Two persons can insert them and remove them from the lift tubes far easier and safer than one person.



WARNING: Keep the area clear of people, cars, etc. during setup, operation and takedown. **Do Not** walk under or allow anyone to walk under the jump poles while they are in use, being raised or lowered.



WARNING: **Do Not** allow anyone to climb anywhere on the Jumper or jumper poles. All jumping participants must be harnessed and the harness attached to the pole slings with the carabiners at all times during their jump time.



WARNING: Inspect the Jumper before each day's use.

The Maintenance Section of this User's Guide includes comprehensive details for making a complete inspection. Read that section carefully.

If you find any problems during the inspection which you cannot resolve, **Do Not** operate the Jumper until the problem is corrected.

Visit Extreme Engineering's technical support web site at www.extremeengineering.com or contact Extreme Engineering's Technical Support at 916-663-1560 for help in correcting any problems.

2. Installation

NOTE: Always check local building codes and requirements governing flooring that will support the Stationary Jumper at the location it will be installed. Extreme Engineering recommends contracting with a local building/construction engineering company to ensure the flooring meets local building codes and inspection requirements. The customer is responsible for all local code compliance. Permits may be required and is the customer's responsibility.



WARNING: **Never** place the Jumper in an area to be operated in close proximity to overhead obstacles, such as trees or building roof and eaves, building ceilings and ceiling attachments (e.g. sprinklers, lighting, ducting pipes), that may interfere with operation of the Jumper. **Never** place the Jumper in close proximity of overhead electrical power lines, of any type, at any time.

2.1. New Concrete Slab/Flooring

NOTE: This is only a recommended starting point. Refer to your local building codes for requirements greater than this general recommendation.

Extreme Engineering recommends the following generic concrete slab/floor requirements as a starting point for setting up the location which the Stationary Jumper will be installed.

The concrete mix should be a minimum of a five (5) sack mixture or of the proper structural mix that complies with local codes. The cement slab dimension requirement for the jumper is a minimum of 12 feet by 12 feet. The slab needs to be a minimum of 8 inches thick. Extreme Engineering recommends this size be the minimum area to reference for new concrete pours for the jumper installation.

New concrete pours must have a minimum cure time of 30 days prior to installation of the jumper.

2.2. Mounting the Jumper Frame to the Floor



WARNING: Always wear safety glasses and other necessary protective devices or apparel when installing or working with anchors.



WARNING: Anchor bolts are not recommended for use in lightweight masonry such as block or brick. Use of Core Drills is not recommended to drill holes for use with the anchor bolts. Anchor bolts are not recommended for use in new concrete which has not had sufficient time to cure.

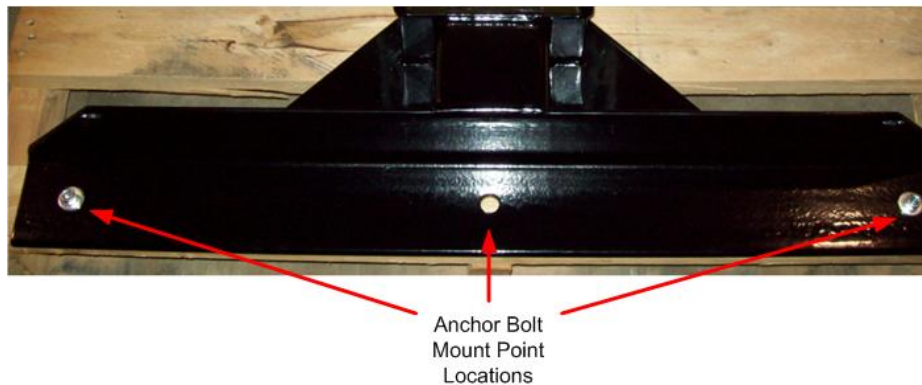
The Jumper frame is bolted to the floor using Extreme Engineering supplied anchor bolts. Mounting brackets engineered to withstand the loading and forces of the Jumper are welded onto the base frame.

If the concrete is a new pour, an equivalent mounting point bolt system that meets the anchor bolt specifications can be imbedded into the concrete flooring during the pour. If

holes will be drilled and the anchor bolts are used for mounting the jumper to the new pour, there must be sufficient time (a minimum of 30 days) for the concrete to cure prior to drilling and setting the anchor bolts.

NOTE: Local Building Code requirements will determine which method can be used.

If the jumper is being installed on an existing concrete floor, holes must be drilled into the floor to accommodate jumper frame mount points. A total of six anchor bolts are required for each jumper base, three for the front and three for the rear floor brackets. Use the floor brackets as the template for drilling the mounting holes in the concrete floor. Extreme Engineering provides anchor bolts of the proper load and forces rating to bolt the jumper frame to the floor. The anchor bolts are Red Head brand Trubolt Carbon Steel Wedge which are 5/8" x 4-1/4" in size, carbon steel catalog number WS-5842.



To install the anchor bolts, drill a hole using a 5/8" diameter bit made for drilling concrete. A hammer drill can be used to make the drilling easier. The use of carbide drill bits manufactured within ANSI B94, 12-77 drill bit diameter requirements is recommended for installation of the anchor bolts. Anchor spacing and edge distance requirements (anchor installation locations) are the responsibility of the install site local engineer of record using local building codes and regulations.

2.3. Anchor Bolt Installation Steps

Note: Read the above **WARNING** and **CAUTIONS** before proceeding.

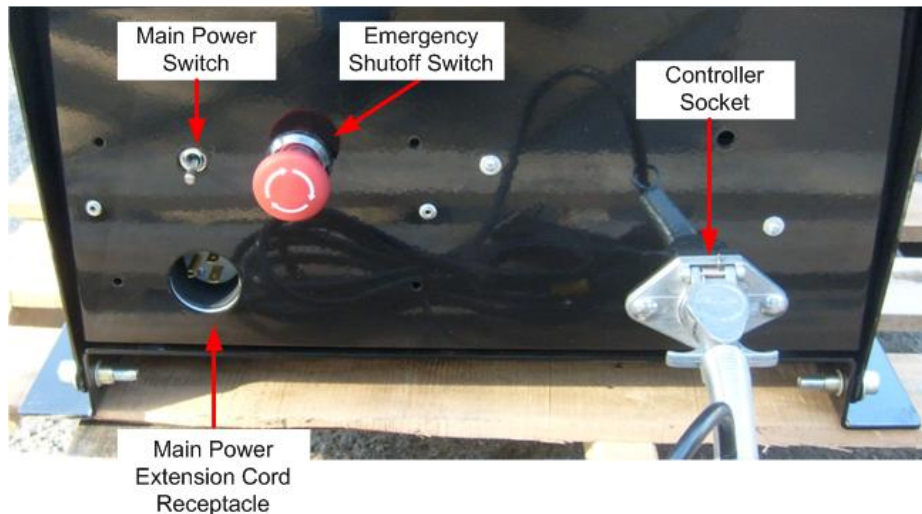
- Select a carbide drill bit with a diameter of 5/8", the same diameter as the anchor bolts.
- Drill the hole to any depth exceeding the minimum embedment of 2-3/4" Clean out the hole or continue drilling additional depth to accommodate drill fines (the debris created as a result of drilling the hole).
- Assemble washer and nut, leaving nut flush with the end of the anchor bolt to protect the threads.
- Drive the anchor through the mounting brackets on the base of the Jumper base frame until the washer is flush on the surface of the frame.
- Expand the anchor bolt by tightening the nut 3 to 5 turns past the hand tight position or to the specified torque requirements of 90 foot pounds.

2.4. Pump Housing Installation

Extreme Engineering recommends the pump housing be permanently mounted to the flooring it is to reside on. There are 3/8" diameter holes on the flange of the pump base plate which can be used to attach the pump base plate to the flooring.

2.5. Power Hookup

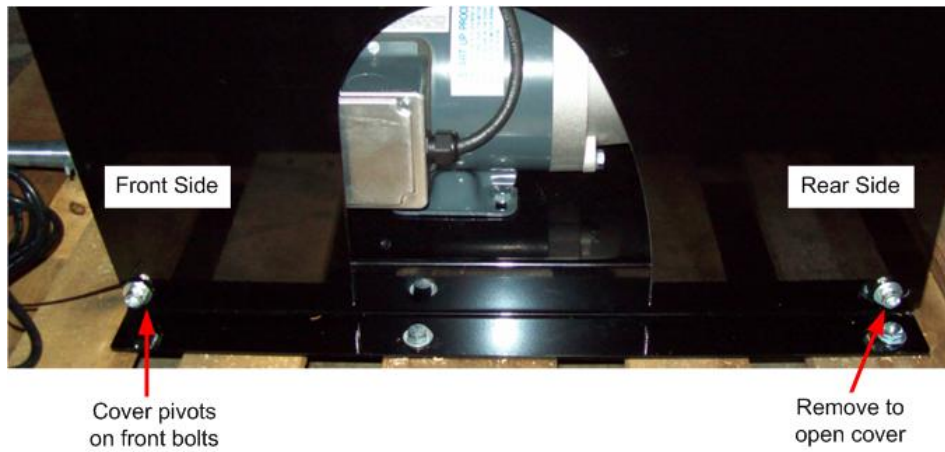
Note: Power supply for the pump motor and inflatable blower must be a dedicated 20 amp circuit not shared with any other electrical devices. Low power conditions can potentially cause electrical components to burn out. For the pump motor, extension cords (not provided) up to 50 feet in length must be a 12 gauge 3 wire type. Longer than 50 feet extension cord runs must be a 10 gauge 3 wire type.



2.6. Reverse The Pump Reservoir Caps

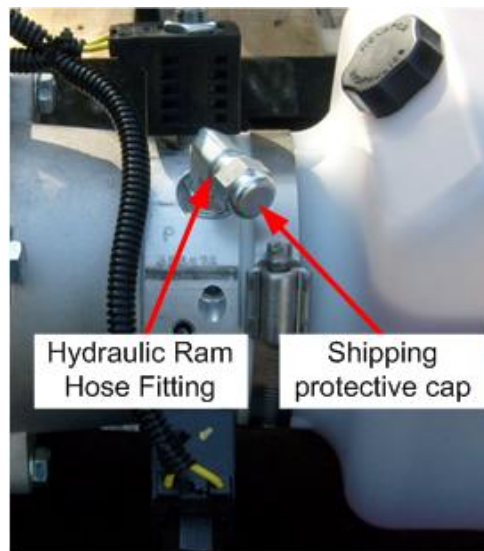
The pump reservoir caps have been reversed for shipment to prevent any oil spillage. Prior to using the pump for the first time, these caps on the reservoir tank need to be reversed.

Open the pump cover by removing the two side bolts at the rear of the pump cover. The front side is where the electrical components are. The rear side is where the pump oil reservoir resides. The bolts on the front side of the cover serve as hinges. These do not need to be removed to gain access to the pump. Raise and swing the pump cover out of the way.



2.7. Hydraulic Hose Hookup

Connect the hydraulic hose attached to the bottom of the hydraulic lift cylinder to the hose fitting on the pump. Remove the protective cap from the 90 degree elbow fitting on the pump and discard. Install the hose onto the 90 degree fitting. This connection is a compression fitting. Therefore, do not use any Teflon tape or thread lock on this fitting. Tighten the connection sufficiently to prevent oil leakage. Do not over-tighten the connection.



The pump cover may now be closed by swinging it back over the pump and attach the cover with the two bolts removed previously.

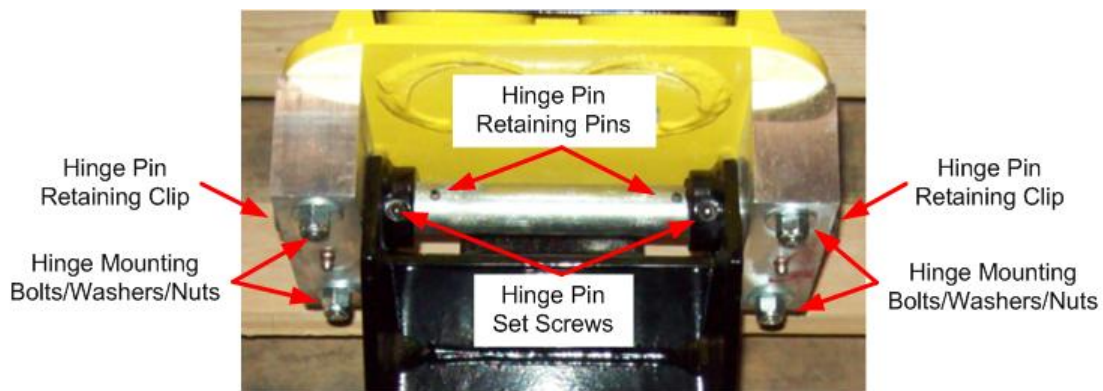
3. Periodic Maintenance

- **Insure the Hydraulic Lift Pump has sufficient oil.** The oil level is typically half way on the oil reservoir. Never let the oil drop below the 1/4 level on the tank when with all hydraulic rams fully extended. When adding oil, use Dexron III Automatic Transmission Fluid.



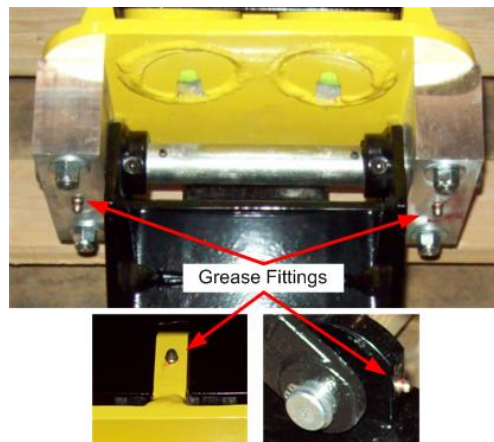
WARNING: Do Not operate the Jumper with an insufficient oil level in the reservoir tank.

- **Inspect Lift Tube to Jumper Base Mounting Bolts.** Ensure the four sets of bolts, washers and nylock nuts which hold the hinge blocks to the lift tube assemblies are not missing and are properly tightened. Check for retaining clips on the outside of the main hinge pin (one at each end), set screws and spring pins which hold the main hinge pin in place.



WARNING: Do Not tow or operate the Jumper with loose or missing lift tube hinge block mounting hardware, spring pins, set screws or retaining clips.

- **Periodic greasing of Lift Tube Hinge Blocks zerk fittings.** Using a grease gun, pump grease into each zerk fitting on each aluminum hinge block. There are two hinge blocks per lift tube assembly. There is a grease fitting at each end of the lift rams. The fittings should be greased on a monthly basis. Apply grease until you can see new grease extruding around the hinge pins.



- **Jump poles.** Check for splintering, chipping and/or fractures.

ALWAYS REPLACE YOUR JUMPER POLES EVERY 12 MONTHS.

REPLACE JUMPER POLES WHEN DAMAGE (SPLINTERING, CHIPPING, FRACTURING) IS FOUND. YOU, YOUR STAFF, AND YOUR CUSTOMERS DEPEND ON IT.



WARNING: Always replace any suspect jump pole.. This is absolutely critical for safe operation. If you suspect a pole is damaged and are not sure, call Extreme Engineering Customer Service for assistance before operating the Jumper.

Only order new Extreme Engineering manufactured jump poles. We use the highest grade materials available.

4. Prepare For Operating The Jumper

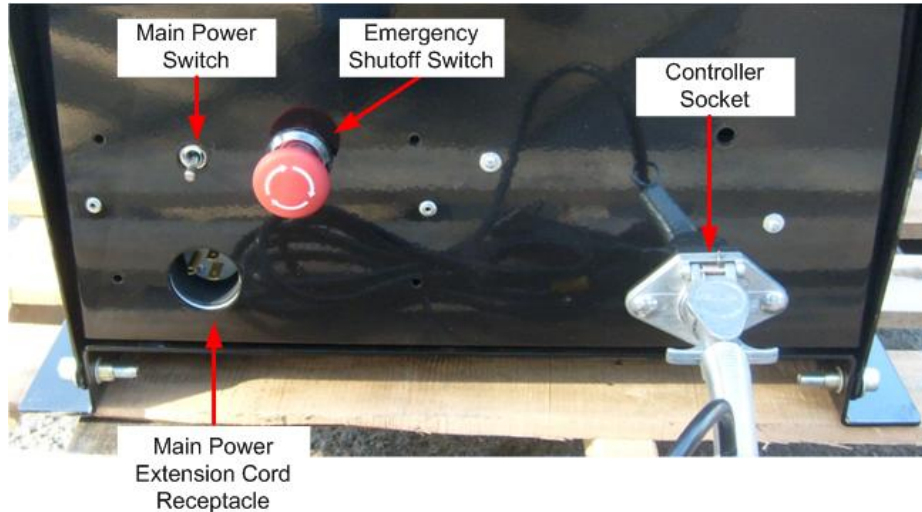


WARNING: For your safety, read all instructions before setting up the Jumper for operation.

- It's a good idea to have a crowd control barrier around the Jumper. You might use stanchions to keep waiting participants out of the jumping area and to provide a place for them to line up while waiting.
- If you are operating under a pay per use scenario, set up a cashbox and table near the crowd control area at one side of the Jumper.
- The cashbox and table should be adjacent to the "harness area" so one operator can both collect money and harness the participants. If you use tokens or tickets, the operator will collect these. (See the Operating Techniques section below.)
- Establish your method of entrance control. This includes how tickets are used, supervising the entrance point to the line, etc.
- Make sure your operators are clear on your procedures.
- Make sure you are in compliance with any local site rules and regulations.
- You should have a plan established for handling contingencies like medical or other emergencies, even though these are unlikely to occur. Make sure every member of your crew knows this information.

4.1. Jumper Station Lift Controller

Raise and hold the lift controller socket cover open and insert the lift controller plug into the lift controller socket. The controller plug will only insert in one direction. Align the raised alignment edge on the controller plug with the recessed alignment groove on the controller socket.



4.2. Jumper Poles

As the poles weigh 75 pounds each, Extreme Engineering recommends using two persons to place the poles into and to remove the poles from the lift tubes. Place the end of the pole without the eye bolt into a lift tube. Repeat this operation for all jump poles.

Rotate the jump poles until the eyebolt is perpendicular to the ground.



4.3. Jumper Pole Spreader Bar

Place the spreader bar 12' from the end of the jumper pole. New poles have a black line around the pole at the attachment place on the pole. If your jumper poles do not have a black line, you may add one yourself with an indelible marker pen. Clamp the spreader bar down onto the jump pole by tightening the thumbscrew. Tighten both sides of the spreader bar.



4.4. Jumper Pole Slings

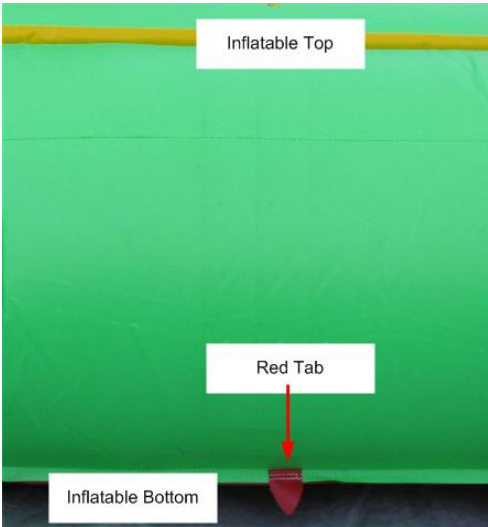
The carabiner with the blue and red swivel attached at one end of each jump sling is attached to the eye bolts located at the ends of the jump poles. The swivels are not to be attached at the jump harness. Make sure the carabiners are securely locked through the eyebolts and swivels.



4.5. Inflatable Jump Pad

Extreme engineering recommends placing a protective tarp under the inflatable pad to protect the pad from damage as a result of possible sharp objects that may exist on the surface where the pad will be used. The protective tarp is not provided by Extreme Engineering.

Unpack the inflatable pad and place the under the ends of the jump poles where the jumper pole slings hang down from the jumper poles. The positioning of the pad is relative to the red tab sewn onto the side of the pad. The red tab is located 4.5' from one end, 9.5' from the opposite end. The orientation of the pad is to place the 4.5' end of the pad forward of the pole ends, the 9.5' side is on the back side of the poles ends. The red tab is also sewn onto the bottom side of the inflatable. Setup will have the side with the red tab on the ground.



Attach the blower to the jump pad sleeve, sliding the sleeve over the blower air outlet. The sleeve is held in place onto the inflator using a strap and buckle sewn onto the sleeve. The inflator must be turned on at all times while operating the jump station. If the inflator is turned off, the pad will deflate.



Inflatable Blower
with Sleeve
Attached

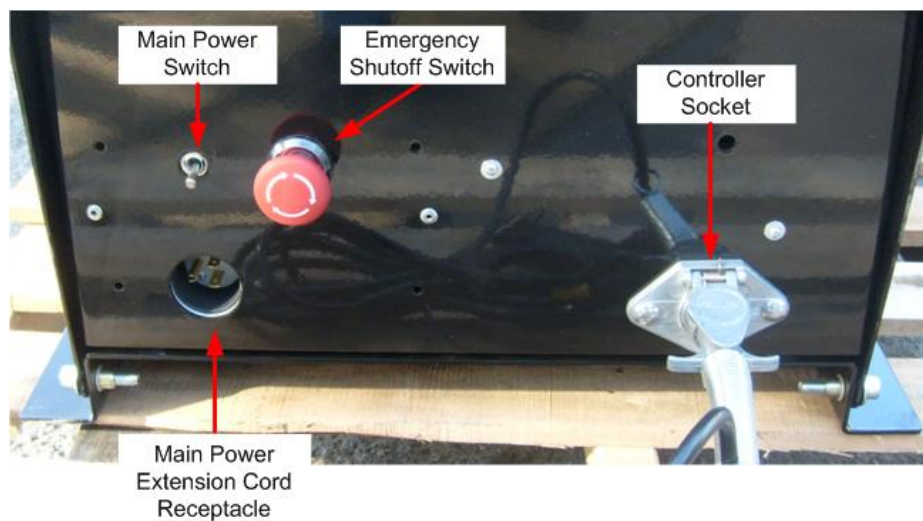


WARNING: Make sure there are no sharp objects on the surface where the jump pad is being placed. These objects can create holes in the jump pad causing them to deflate. Extreme Engineering is not responsible for holes or cuts in the pad due to improper preparation of the surface where the pad will be used.

DO NOT operate the Jumper without an inflated jump pad.

4.6. Turn on Hydraulic Pump

Turn on the main power by flipping the Main Power Switch up. Flipping the Main Power Switch down turns off power. An emergency switch is also located next to the Main Power Switch. For the unit to operate, the Emergency Switch must be pulled out and rotated slightly to hold it in the outward position. Should a situation arise where the unit must be powered down immediately, pressing the Emergency Shutoff Switch inward with the palm of your hand will cut power immediately to the pump.



4.7. How To Put On Jump Harnesses

Locate the waist belt buckle on the jump harness. Wrap the harness waist belt around the participant's waist and connect the buckle together. Ensure the belt buckle is fully engaged by pulling on the belt. The buckle should not separate if properly inserted. Pull on the waist belt webbing strap until the harness is snug around the waist of the participant. Make sure the harness is above the hipline of the participant to ensure proper fit.



Locate the leg straps of the harness. Wrap each leg strap round the participant's legs and connect the leg strap buckle together. Ensure the buckles are fully engaged by pulling on the straps. Pull on the leg straps adjustment end to tighten the leg straps. Leg straps should be snug around the leg.



Locate the jump sling loops attachments on sides of the harness. Attach one carabiner, at the end of the jump sling, to one side of the harness at the sling loop. Attach the other sling carabiner to the opposite side sling loop on the harness.



When the harness is properly placed on the participant, it should look as shown in the following picture.



5. Operating The Jumper



WARNING: Read all instructions before operating the Jumper.



WARNING: Jumping is a physical activity and all possible care should be taken to ensure the safety of the jump participants, spectators, and operators. Always operate the Jumper according to the procedures described here.

5.1. Preparing The Jumping Participant

- Make sure the participant removes their shoes before stepping onto the jump pad. Shoes can damage the jump pad.
- Double-check all harness straps to ensure they were put on correctly and tightened.
- Double-check all carabiner connections attached to the jump harness, jump slings and jump poles.

5.2. Raising The Jumping Participant

- Before raising the participant, have the participant stand directly under the ends of the jump poles where the slings hang down. The participant will be standing on the jump pad across from the red locating tab on the jump pad.
- Inform the participant to not perform any flip maneuvers until they are fully in the air up off of the jump pad.
- Use the lift controller to raise the participant into the air. Pushing the toggle switch upward with your thumb will raise the jump poles and the participant. Pulling down on the toggle switch with your thumb will lower the poles and the participant.



WARNING: Do not remove the inflatable pads when a jump station is in use.

5.3. Lowering The Jump Participant

- Stop any upward or downward motions via the lift controller prior to lowering the participant. Inform the participant that you will be lowering them to the ground and to stop any kind of extreme maneuvers such as flips.
- Press the down button on the lift controller to lower the participant down to the jump pad.
- Remove the carabiners that attach the jump slings to the jump harness at the harness loops. Ask the participant to step off the jump pad so you can finish removing the harness from the participant.
- Remove the harness from the participant by unclipping the leg and waist belt strap buckles.

6. Operating Techniques

Make sure to keep the jumping area clear of spectators

- Take money, tickets or tokens (if applicable) from the participant.
- Help the participant complete a release form (if applicable).
- Place the harness onto the participant.
- Attach the jump slings to the jump harness on the participant.
- Supervise and advise the participant during their jump session.
- Raise and lower the participant with the lift controller.
- Unhook the participant at the end of their jumping session by removing the carabiners from the jump harness loops.
- Remove the jump harness.



WARNING: When not in use, either remove the jump slings from the jump poles or raise the jump poles high enough to place the jump slings out of reach from anyone.

7. Safety rules for the Operators

- **Do Not** climb on the jump poles.
- **Do Not** stand on top of the jumper base or trailer.
- **Do Not** stand underneath a jumping participant while jumping is in progress.
- **Do Not** remove the inflatable pads or turn off the inflatable blower while jumping is in progress.
- **Do Not** leave the Jumper or jumping participants unattended while jumping is in progress.
- If you must leave the Jumper unattended when not in use, ensure the jump slings, the jump poles and the lift controllers are not accessible. The best solution is to keep one employee with the Jumper at all times.
- **Do Not** let a jump participant put on or take off the harness. An employee must be the only one who performs harness setup or removal on a jumping participant.
- **Do Not** place any part of your body near or at pinch point locations on the Jumper while during operation.



WARNING: **Do Not** wear loose clothing, such as scarves, neckties, baggy shirts, etc., while operating or inspecting the Jumper to prevent the possibility of becoming entangled in the Jumper's moving parts.

8. Safety Rules For Your Jumping Participants

It's a good idea to make participants aware of some simple rules. We suggest you reproduce these rules as a poster or handout for the participants and their parents or guardian to read. The following page can be copied for this purpose. Ready-made signs are also available from Extreme Engineering.

SAFETY RULES

Before You Start

- Always follow the instructions given by the operator.
- After you are placed into the harness, stay in the harnessing area.
- Wait until the operator tells you to proceed to the jumping area.
- **Do Not** step on the inflatable pad until informed to do so.

During Your Jump Session

- Stay above the inflatable pad when jumping. Always aim for the pad when descending downward toward the pad.
- **Do Not** grab and pull on the poles with your hands.
- Use only the jump straps to assist your jumping.
- **Do Not** jump without the jump slings attached to the jump harness.
- **Do Not** begin your jumping until you are raised up in the air.
- **Do Not** walk under jump poles.

ENDING YOUR RIDE

- **Stop** performing extreme movements, such as flips, when notified by the operator to stop jumping.
- When you are lowered down onto the pad, remain relaxed and land with your feet first on the pad.
- **Do Not** attempt to remove the harness or jump straps. An operator will remove these from you at the appropriate time after your jumping session has ended.
- Once the jump slings are removed from the harness and you are informed by the operator it is OK, go to the harnessing area for removal of the harness.
- Allow the operator to remove the harness from you.

9. Special Jumping Participant Situations

The vast majority of jumping takes place without any difficulty or interruption but sometimes a problem can occur. Here's what to do:

9.1. Participant Becomes Frozen During Jumping Session

- Ask the participant to remain calm. Inform the participant that you are going to lower them slowly and safely back down to the inflatable pad.
- Once the participant is back on the inflatable pad, remove the jump straps from the jump harness and send the participant to the harnessing area for removal of the harness.

NOTE: Encouraging the participant to keep jumping typically does not solve a frozen jumper situation.

9.2. Participant Reports Discomfort With Harness

- Ask the participant to remain calm. Inform the participant that you are going to lower them slowly and safely back down to the inflatable pad.
- If the discomfort is caused by the harness, adjust the harness, and let the participant resume their jump session again.
- If the participant continues to report discomfort and is unable to resume for whatever reason, remove the jump straps from the jump harness and send the participant to the harnessing area for removal of the harness.

9.3. Participant Is Intentionally Reckless

Ask the participant to take it easy.

If the participant continues to be reckless:

- Inform the participant to calm down and lower them down to the pad.
- Unhook the participant's jump slings and remove the jump harness.
- Ask the participant to leave the area.

9.4. Participant Is Too Light To Achieve Jumping Motion

Ask the participant to stay calm and inform them you will be lowering them down to the pad. Lower the participant down to the pad. Remove the jump straps from the jump harness and remove the jump harness.

10. Additional Jumper Situations

10.1. Forgot To Attach Jumper Pole Slings to Jumper Poles

Ask the jump participant (if applicable) to stand next to the jump pad. Lower the poles as necessary. Attach the jumper pole slings to the jumper poles with the carabiner and swivel end of the sling.

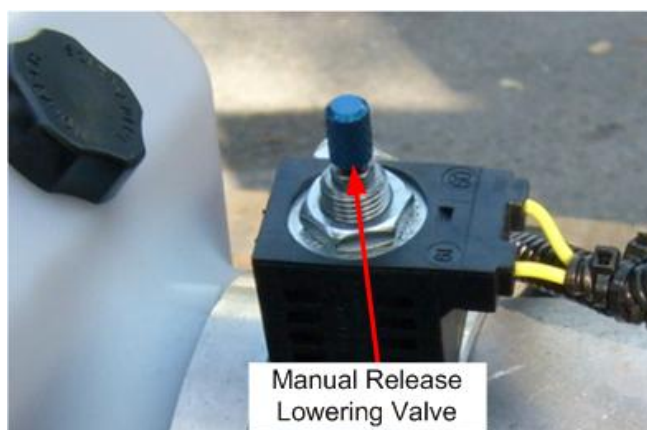
10.2. Hydraulic Lift Stops Operating With Participant Suspended In Air

The hydraulic valve can be manually released to lower the poles without using the controller and pump. To manually lower the poles without the controller, such as when a power outage has occurred, the valve must be manually released.



WARNING: The hydraulic valve may become hot during normal use. When manually releasing the valve, be careful not to touch anything but the blue knob on the valve. Touching other areas may result in burns.

To perform the manual release operation, remove the two bolts at the rear of the pump cover and rotate the cover up away from the pump. Locate the blue manual release knob on the top of the pump. Press down slightly on the blue knurled knob, turn slightly and then lift upward on the valve until it stops. Continue to turn the knob further until it stops turning. The valve will now be held in the up position. With the valve in this position, the poles will lower to the bottom and will remain at the bottom until the valve is released again.



To release the manual release valve, turn the blue knob the opposite direction until the valve drops down to the bottom position.

Note: If the manual release valve is in the up position, the pump will not raise the jumper poles. For the pump to raise the poles, the valve must be in the down position.



WARNING: Do Not operate a jump station that does not raise or lower with the lift controller. The issue must be corrected prior to using the jump station again. Typical reasons for the hydraulics to stop raising and/or lowering is wiring issues with the controller.

11. End Of Event Takedown



WARNING: For your safety, read all instructions before takedown of the Jumper.



WARNING: Keep the area clear of people, cars, etc., during all steps of the takedown.

- **Jump Harnesses.** Collect all jump harnesses from participants.
- **Lower poles.** Press the toggle switch down on the controllers to completely lower the poles.
- **Turn off lift pump.** Turn the pump electrical switch to the off position.
- **Remove lift controller.** Remove the lift controllers by holding the socket cover away from the controller plug and pull on the plug. **Do Not pull on the wiring** attached to the plug as this can cause the wires to become disconnected inside the controller plug. Store the lift controllers appropriately.
- **Turn off inflatable blower.** Turn off power switch on the blower. Unplug the blower from the extension cord. Stow the blower and extension cord as appropriate.
- **Remove blower.** Remove the blower from the primary pad by loosening the velcro on the sleeve and carefully pulling the sleeve off of the pump connection.
- **Clean any debris from the pad.** While folding or rolling up the inflatable pads, sweep away any dirt or debris that has become attached to the pads.
- **Clean the protective pad tarp (if used).** While folding or rolling up the protective tarps, sweep away any dirt or debris that has become attached to the tarps.
- **Stow away the blower, pads and tarps** as appropriate.
- **Remove Jump Straps.** Remove the jump straps from the jump poles by removing the carabiner that attaches them to the eye bolts on the jump pole ends.
- **Stow away the jump harnesses and straps.**
- **Remove the jump poles.** It is best to remove the poles from the lift tubes by two persons. It is very difficult to get the poles oriented properly to take the pressure off, remove the poles and prevent damage to the poles by a single person. To remove the poles, raise the end of the pole where the eye bolt is attached by hand until pressure between the pole and the lift tube is released enough that the pole slides out of the lift tube. Carry the pole around to the front of the Jumper and carefully slide the poles through the holes in the pole carriers until the eye bolt is in position that allows the pole lockdown pin to be easily inserted when all poles are loaded into the carriers. Repeat this operation for all poles. Once all poles are in the pole carriers, slide the travel pole lockdown pin through the holding bracket, through all eye bolts at the ends of the poles and through the opposite side holding bracket. Place the hitch pin through the hole at the end of the lockdown pin to prevent the lockdown pin from removal during transport.

- **Collect additional Items.** Collect all crowd control barriers and additional items used during the event and stow them appropriately.

12. Troubleshooting

If you have a problem with your Jumper, check the following table for solutions.

Problem and Solution
<p>Poles won't raise or lower</p> <ul style="list-style-type: none"> • Controller malfunction. Make sure controller cable is not damaged. Wires may have been pulled loose in either the controller plug or the controller socket. • Loose connector on hydraulic pump. Check and tighten connector. • On/Off switch could be in the off position. Flip the toggle switch to the On position. • Manual Release Valve in open position. Rotate blue knurled knob on release valve to lower into position for operating.
<p>Jumper seems unstable</p> <ul style="list-style-type: none"> • Check the tightness of the jumper base mounting anchor bolts. Ensure the bolts do not move within the cement flooring. • Spreader bars are not properly attached. Lower the poles and re-attach them in the proper location. • Jump slings are not properly attached. Lower the poles and inspect the slings. Make sure you are using the same length of slings on both poles at a jumping station.

13. Maintenance

Your Jumper will give you years of trouble-free service if you take care of it. For safety, trouble-free operations, and good appearance, follow the maintenance schedules provided here.

- **Log Book**
A maintenance log book is essential for tracking the use of your Jumper. If you record the usage date, number of daily cycles, and number of cumulative cycles, this record will allow you to anticipate when some maintenance. We have included a maintenance log sheet below that can be used to track your usage.
- **Maintenance procedures and inspection logs**
Read the inspection procedures on the following pages. Be sure to use copies of the inspection checklists provided in this manual to keep a record of your inspections.
- **Detailed description of inspection items**
Inspect the Jumper thoroughly before usage. Your customers' safety depends on it.
- **Hydraulic Hose**
Make sure the hoses are not leaking. If you find a leak, call Customer Service for assistance.

- **Pole lift system**
Raise and lower the jump poles. Make sure the poles lift smoothly and completely. If the poles don't raise or lower completely, or there are any hesitations in its motion, contact Customer Service. Check that all connectors on the hydraulic lift pump are properly tightened (power, and ground). Tighten if necessary.
- **Loose or broken parts**
Inspect the entire Jumper for loose or broken parts. Replace broken parts (call Extreme Engineering Customer Service to order) and tighten loose parts.
- **Loose or broken parts**
Inspect the entire Jumper for loose or broken parts. Replace broken parts (call Customer Service to order) and tighten loose parts.
- **Harnesses**
Protect your harnesses from constant direct sunlight, heat and nylon-damaging substances such as acids, alkalis, oxidizing agents, and bleach. Hand-wash a dirty harness in cool water with a mild soap. Allow it to dry in a shaded area.
- **Carabiners**
Make sure the carabiners lock properly. All surfaces of the carabineers should be free of cracks, sharp edges, corrosion, burrs, or excessive wear. Be sure the gate and any locking mechanism closes freely and completely. Gate opening and closing should be quick and easy. If washing and drying does not remedy a gummed-up carabiner, replace it. Replace carabiners if they are worn or damaged.



WARNING: If a carabiner does not pass inspection (even after cleaning), destroy and replace it with a new one. This is absolutely critical for safe operation. Always keep a spare carabiner on hand.

14. Cleaning And Other Special Care

- **Jumper**
Clean the Jumper with a solution of warm water and dish soap to remove dirt from the Jumper.
- **Carabiners**
Keep carabiners dry and clean. Protect them from corrosion. **Do Not** store them in very humid or salty air, with damp equipment or clothing, or near corrosive chemicals. **Do Not** file carabineers for any reason. If notches appear, replace the carabineer. If a carabiner gate sticks, wash it in warm soapy water, rinse thoroughly and lubricate with either dry graphite or Teflon lubricant around the hinge area, inside the spring hole and locking mechanism.
- **Harnesses**
Hand wash a dirty harness in cool water with a mild soap. Allow it to dry in a shaded area.

14.1. Protection From The Elements

- Storing the Jumper outdoors is no problem. However, you may want to place a tarp over it to preserve the finish from excessive exposure to the sun and weather elements. To prevent damage, the tarp needs to allow air circulation. Trapping moisture under a polypropylene tarp can lead to rust or corrosion damage of components.

Do Not store harnesses for extended periods in direct sunlight

15. Quick Checklists And Log

On the next pages you will find condensed maintenance checklists, plus a maintenance log sheet, which you can photocopy and use.

15.1. Per-Use Maintenance Checklist

- **Jump slings**
Check webbing for fraying or broken strands. Check for kinks, wear or damage to the webbing.
- **Jumper poles**
Check for cracks, splintering, chipping and/or fractures.
- **Hydraulic hoses**
Check for leaks at lift ram and pump connections and the hose.
- **Harnesses**
Must be in good condition, not worn. When dirty, hand wash in cool water, and dry in a shaded area (not in direct sunlight).
- **Carabiners**
Check for bent, loose, or missing rivets. The gate/lock must close freely. If gummed up, clean with soapy water and dry. Periodic lubricating with only a few drops of light oil or graphite powder at the hinge points will free sticky mechanisms. If the hinge points or movement points do not operate freely even after light lubrication, replace the carabiners.

15.2. Periodic Maintenance Checklist

Thoroughly inspect the Jumper after every one (preferred) or two weeks of operation.

- **Do the per-use maintenance checklist first.**
- **Loose or broken parts**
Replace broken parts. Tighten loose parts. Replace loose parts that cannot be tighten properly.
- **Clean the Jumper**
Wash with soap and water. Disable power at the main power supply breaker switch prior to washing.

➤ **Pole lift system**

Be sure the poles raise and lower smoothly. Grease the zerk fittings on the aluminum hinge blocks. Check that connectors on the hydraulic lift pump are tight (control cable, power, and ground). Tighten if needed.

➤ **Jump Slings**

Check webbing for fraying or broken strands. Check for kinks, wear or damage to the webbing. REPLACE IF ANY SIGNS OF WEAR.

➤ **Jump poles**

Check for splintering, chipping and/or fractures.



WARNING: ALWAYS REPLACE YOUR JUMPER POLES EVERY 12 MONTHS.

REPLACE JUMPER POLES WHEN DAMAGE (SPLINTERING, CHIPPING, FRACTURING) IS FOUND. YOU, YOUR STAFF, AND YOUR CUSTOMERS DEPEND ON IT.



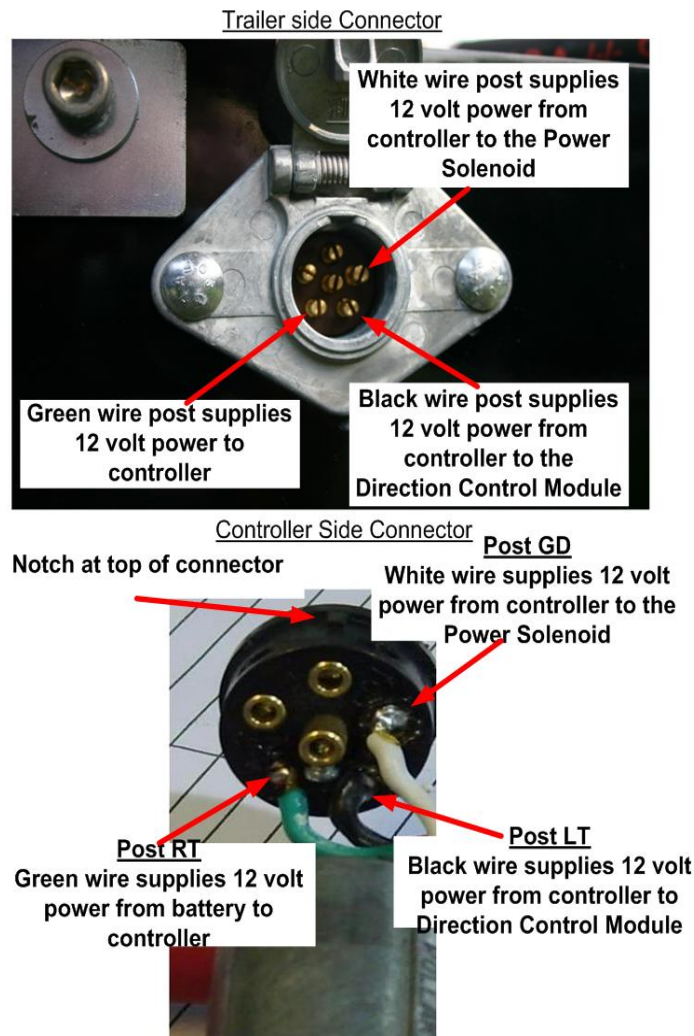
WARNING: Always replace any suspect jumper pole. This is absolutely critical for safe operation. If you suspect a pole is damaged and are not sure, call Extreme Engineering Customer Service for assistance before operating the Jumper.

Only order new Extreme Engineering manufactured jumper poles. We use the highest grade materials available.

16. Specifications

Jumper Pole Length	24' (7.32 M)
Steel Framing	Tubing is ASTM A500 Flat plate is ASTM A572
Welds	Welding is American Welding Society and A15C compliant.
Lift Pump	110 Volt Single Action Hydraulic (power up, gravity down) Dexron III / Mercon Automatic Transmission oil Oil Capacity – 5 Qts.

17. Wiring Diagrams



18. Limited Warranty

EXTREME ENGINEERING warrants to the first consumer purchaser that this product will be free from defective workmanship and materials. This warranty is nontransferable. Warranty is subject to the following conditions:

1. Extreme Engineering agrees that it will, at its option, either repair or replace a defective part or will, at its option, repair or replace the defective product, at no charge to the purchaser for labor for a period of ninety (90) days, at factory, from date of delivery, and at no charge to the purchaser for parts for a period of one (1) year from date of delivery (shipping and handling costs will apply). The consumer purchaser will have the following options when exchanging warranted parts: 1. The consumer purchaser will have to send the defective part or product back to Extreme Engineering's manufacturing plant. The defective part or product will be determined by Extreme Engineering if it is defective. Extreme Engineering will send a replacement part free of charge if the part or product is found defective. or 2. The consumer purchaser will initially be charged for the warranted part or product. Once Extreme Engineering receives the defective part or product the consumer purchaser will be credited back if the part or product is found to be defective. Consumables are covered for 30 days (harnesses, handholds, cables, pulleys, jump straps, vinyl straps, springs, etc.). You may contact Extreme Engineering for additional details on consumable items. We have a 90-day warranty on electronics, 30-days on labor, 90-day on parts. Auto-belay™ systems are warranted for the original purchaser(s) for one year (does not include Auto-belay™ cables or pulleys).
2. This limited warranty is valid only when the product is installed, operated and maintained in accordance with the Extreme Engineering Owner's Manual. Any deviation from these recommended procedures must be approved in writing by Extreme Engineering.
3. This limited warranty does not apply to any part which has been subjected to misuse, abnormal service or handling or which has been altered or modified in design or construction.
4. This limited warranty does not apply to changes in the exterior appearance of the Jumper. Custom painted products are not covered by Extreme Engineering's limited warranty.
5. Neither the sales personnel of the seller nor any other person is authorized to make any warranties other than those described herein or to extend the duration of any warranties beyond the time period described, on behalf of Extreme Engineering.
6. ANY IMPLIED WARRANTIES ARE LIMITED TO THE DURATION OF THIS LIMITED WARRANTY, AS STATED ABOVE. EXTREME ENGINEERING DOES NOT ASSUME RESPONSIBILITY FOR CONSEQUENTIAL DAMAGE OR LOSS, INCLUDING LOSS OF USE OF VEHICLE, LOSS OF TIME, INCONVENIENCE, EXPENSE FOR GASOLINE, TELEPHONE, TRAVEL, LODGING, LOSS OR DAMAGE TO PERSONAL PROPERTY OR LOSS OF REVENUES. Some states do not allow limitations on how

long an implied warranty lasts or limitations on consequential damages, so the above limitation may not apply to you.

7. THE WARRANTIES DESCRIBED HERE SHALL BE THE SOLE AND EXCLUSIVE WARRANTIES GRANTED BY EXTREME ENGINEERING AND SHALL BE THE SOLE AND EXCLUSIVE REMEDY AVAILABLE TO THE ORIGINAL PURCHASER. Correction of defects, in the manner and for the period of time described here, shall constitute complete fulfillment of all liabilities and responsibilities, whether based on contract, negligence, strict liability or otherwise. In no event shall Extreme Engineering be liable, or in any way responsible, for damages or defects in the product which were caused by repairs performed by anyone other than an authorized servicer.
8. Extreme Engineering shall not be liable, or in any way responsible, for incidental or consequential economic or property damage. Some states do not allow the exclusion of incidental or consequential damages, so the above exclusion may not apply to you.
9. Technical support is available to the original purchaser up to one year from the purchase date of an Extreme Engineering product. Technical support outside of the one year warranty period is available for a fee.

18.1. Warranty Claim

In the event of a warranty claim, please fill out the warranty claim page located on the last page of this manual. You may download a copy from Extreme Engineering's technical support page at www.extremeengineering.com. You may also call Extreme Engineering for a copy of the warranty claim form. The warranty claim form must be filled out and sent with the defective product. You may also fax a copy to Extreme Engineering's Customer Service Department at 916-663-9249. You may contact customer service at 916-663-1560.

Warranty claim service must be performed and approved by the Extreme Engineering Customer Service Department. Warranty replacement hardware systems and components or parts will be free of charge. Shipping and handling costs on defective items returned to Extreme Engineering are paid by the consumer purchaser. Labor cost to repair or replace will be limited to the amount of the original purchase price of the systems and components. The replaced warranty products or parts become the property of Extreme Engineering and must be returned to the Extreme Engineering Customer Service Department freight prepaid, unless prior arrangements have been made.

19. Replacement Parts

Purchase your replacement parts through our customer support center at:
(916) 663-1560

or visit our online store at:

www.extremeengineering.com

Always make sure that your extreme products are running at optimal performance.

20. Technical Support

If you require technical support and your product is still under warranty, contact customer service to schedule free technical support on your product. Technical support will respond within 24 hours once a claim is placed.

You may call customer service at:

916-663-1560

or request a phone call through our website at:

www.extremeengineering.com

under the technical support page.



Warranty Claim Form

Company Name:			Date:
Customer Name:			
Address:			
City:	State:	Zip:	Country:
Phone:		Fax:	
Email:			
Product Name (Part Number):		Purchase Date:	
Sales Order Number:			
Detailed Description of Current Issue(s):			