



MOBILE UNITS

GENERAL INFORMATION



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Thank you very much for adding the FireVent Mobile Training Prop to your training program. This binder contains some basic information for the safe operation of the FireVent unit along with some technical information. Please read and become familiar with the content, especially the caution and safety guidelines. In the very front of the information binder you will find the MSO (Manufacture's Statement of Origin). The MSO will act as the temporary title to take to the DMV to register the trailer.

Please feel free to contact us with any questions or concerns you may have as you use and become familiar the equipment. We would really like to hear any comments that you may have. We would also like to receive any pictures that you would like to email to us using the unit. Any pictures that you are able to email to us could be used in the future for marketing purposes.


Thank you,
Rod Temple
(775)230-9953
rod@FireVent.us


WARNING

Do Not
Exceed Live
Load Limit of
2000 lbs.
on Elevated
Platform.


WARNING

Safety bars
must be
pinned in
place prior
to personnel
accessing
elevated
platform.


WARNING






**FALLING
DEBRIS**

Do not walk
under
elevated
platform
during
use.


WARNING

FALL HAZARD

Fall from elevated platform could
result in serious injury or death

<p>▲WARNING</p> <p>Uncoupling will cause trailer to come loose from tow vehicle. You must:</p> <ol style="list-style-type: none"> 1. CHECK that ball LOAD RATING is same as or greater than coupler LOAD RATING. 2. CHECK that ball SIZE is same as coupler. 3. USE COUPLER CLAMP on ball. 4. LIFT coupler from ball to verify that it will not separate from ball. 5. LOCK coupler clamp with pin or padlock.  <p>Open clamp Pin or padlock in place Lift coupler to check 5000 LBS</p>	<p>▲WARNING</p> <p>ALWAYS use safety chains. Chains hold trailer if connection fails. You must:</p> <ol style="list-style-type: none"> 1. CROSS chains underneath coupler. 2. ALLOW slack for trailer to turn. 3. ATTACH chain hooks securely to tow vehicle frame.  <p>ATTACH HOOKS TO TOW VEHICLE FRAME CROSS CHAINS ENOUGH SLACK FOR TURNS</p>	<p>▲WARNING</p> <p>Trailer can roll if it comes loose. Electric safety brake applies when cable pulls pin out of switch box.</p> <ol style="list-style-type: none"> 1. PULL hard to get pin out of switch box. 2. CHECK brake by PULLING TRAILER with tow vehicle. 3. REPLACE pin in tow vehicle so pin will be available to tow vehicle so electric safety brake will be working. 4. Promptly REPLACE pin in switch box.  <p>PIN PULLED OUT ONLY TO TEST BRAKES SWITCH BOX PIN TOW VEHICLE REPLACE PIN FOR TOWING</p>	<p>▲WARNING</p> <p>Lights can prevent trailer from being hit by other vehicles. You must:</p> <ol style="list-style-type: none"> 1. CONNECT trailer and tow vehicle electrical connectors. 2. CHECK all lights: tail lights, turn signals and brake lights. 3. DO NOT TOW if lights are not working.  <p>DISCONNECTED CONNECTED</p>	<p>▲WARNING</p> <p>Tire, wheel or lugnut failure can cause loss of control. Before towing, you must CHECK:</p> <ol style="list-style-type: none"> 1. Tire pressure and tread. 2. Tires and wheels for damage. 3. Lug nuts for tightness. <p>For new and remounted wheels, re-tighten lug nuts at the first 10, 25 and 50 miles of driving.</p>  <p>Lug Nuts TIGHT? Tires and Wheels OK?</p>
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▲WARNING

Tire, wheel or lugnut failure can cause loss of control. Before towing, you must **CHECK**:

1. Tire pressure and tread.
2. Tires and wheels for damage.
3. Lug nuts for tightness.

For new and remounted wheels, re-tighten lug nuts at the first 10, 25 and 50 miles of driving.

© 2002 NATM



Lug Nuts TIGHT?
Tires and Wheels OK?

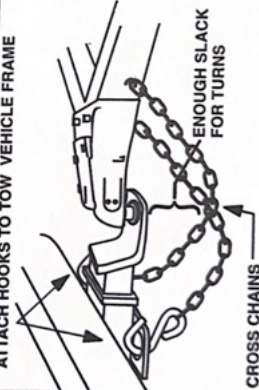
UT0019

▲WARNING

ALWAYS use safety chains. Chains hold trailer if connection fails. You must:

1. **CROSS** chains underneath coupler.
2. **ALLOW** slack for trailer to turn.
3. **ATTACH** chain hooks securely to tow vehicle frame.

© 2002 NATM



ATTACH HOOKS TO TOW VEHICLE FRAME
CROSS CHAINS
ENOUGH SLACK FOR TURNS

UT0020

▲WARNING

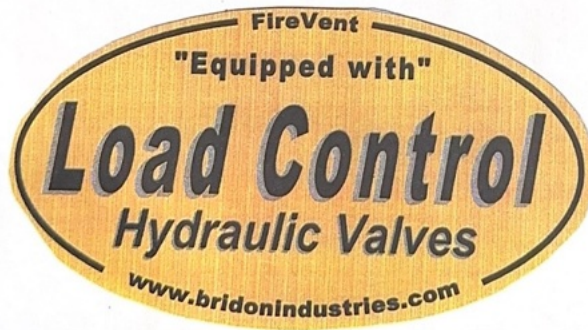
2 5/16" Ball

REQUIRED

TC9-003



**UNITED STATES
PATENT NO.
8,360,782
9,646,515
10,242,594
11,844,974**





SAFETY & CAUTION GUIDELINES:

1. Maximum live load on roofing platform is 2000lbs.
2. Do not set prop up in excessive wind conditions (rated for 60 mph winds).
3. Only set the prop up on firm packed, hard and level surfaces and in an area free of any overhead hazards i.e. electrical lines.
4. Stay clear of prop during opening, closing, raising and lowering of platform to avoid crush or pinch injury. Never walk or stand between the prop and the “swing arm “ portion of the prop as it is being raised or lowered.
5. Always use a safety officer during roof operations training.
6. Always use safety cones and barrier tape to mark the “no walking zone” under the prop during ventilation training.
7. Use extreme caution when walking around prop during use and do not walk under the prop during use.
8. Always wear appropriate safety gear when using the prop i.e. helmet, gloves, eye protection and turnout gear.
9. No personnel are to be on the prop while the prop is in motion, when adjusting the pitch.
10. No personnel are to be on the roofing platform unless the pitch / safety bars are pinned in place, except when the platform is in the flat position.
11. Follow all of your agencies safety and operational SOP’S when using prop.



12. When towing the trailer, the battery system must be connected in order for the “break-away” emergency brake system to function.
13. Tow vehicle must have at least a $\frac{3}{4}$ ton rating and have proper weight distribution hitch and anti-sway system attached for towing.



Using the Remote

The unit has a double acting hydraulic pump, which means that the pump should always be running when the up or down button is pushed. Hydraulic fluid is always moving in and out of the hydraulic reservoir at the same time. There have been instances when the unit can be lowered by gravity without the hydraulic pump running. It is important to completely depress the control buttons to avoid this circumstance. If this happens lift up on the button and depress again and be sure that your hear the pump running. If this happens and the platform is completely lowered, no damage will occur but it may cause the hydraulic reservoir to overflow.

When operating the remote control please be aware that “up” means that the rams are being extended and “down” means that the rams are being retracted. When raising and lowering the swing arm portion of the unit pay close attention to which button you are pushing on the remote. This is important because when opening and closing the unit, for set up and tear down, pushing the “down” button actually raises the swing arm portion of the unit and pushing the “up” button will lower the swing arm portion. When the roofing platform is open and pinned in place the “up” button will raise the roofing platform to the desired pitch and pushing the “down” button will lower the roofing platform.

Raise / Lower Swing Arm:

- Down button raises swing arm portion (opens)
- Up button lowers swing arm portion (closes)

Raise / lower platform (once pinned):

- Down button lowers platform.
- Up button raises platform.



FireVent set up instructions:

1. Park unit on level hard surface and place wheel chocks between both sets of tires.
2. Drop front tongue jack and disconnect unit from tow vehicle.
3. Level the unit from front to back with the tongue jack.
4. Place the chain railing posts into the appropriate post pockets (all posts are numbered and pockets are numbered). Place posts in pockets so that the numbers on the post face inward toward the platform. Connect the chain (post to post) on the passenger side of the unit, where you can easily reach and do not connect the chain from post to post on the drivers side of the unit. You will connect the chain on the drivers side once you are sheeting the platform where you can easily reach. If your unit has the lighting package, you may want to wait and place the corner posts on the drivers side after you sheet the roofing platform (posts with light heads are top heavy and can be hard to lift into place)
5. Connect the remote control to the unit and press the down button; this will retract the hydraulic cylinders causing the folded portion of the unit to rise. Continue to retract the hydraulic cylinders COMPLETELY until both cylinders bottom out (hydraulic pump will “squeal” against relief valve).
6. When hydraulic cylinders are fully retracted, insert the 2 large pins that lock the roofing platform into place. You will not be able to insert the pins once the platform is assembled.
7. Extend the outriggers that are on the passenger side of the unit to the fully extended position (outriggers on the driver’s side of unit do not extend). Lower the drop leg portion of each outrigger and pin them in place using the pin position that places the bottom of the out rigger closest to the ground. (Use outriggers pads)



8. Extend the outrigger jacks by turning the hand cranks until the bottom of the outrigger jacks contact the ground and begin to bare weight. Once all the outrigger jacks are down and begin to bare weight, you must operate and raise them in pairs so that you do not raise one corner of the unit more than the rest. Example: raise each outrigger on the passenger side 5 turns, at the same time, and then raise the outriggers equally on the drivers side in the same manner. By doing this you can get the unit fairly level from side to side
9. Level the unit from side to side by turning the outrigger handles to raise or lower one side or the other until the unit is level from side to side. ***Be sure all outrigger jacks remain firmly on the ground when leveling is completed.***
10. Place the 2 x 10 x 12 wood rafters in the joist hangers and ***screw each rafter end into each joist hanger with at least one screw.***
11. Sheet the roofing platform with ½ inch or 5/8 OSB using appropriate nailing pattern which is a minimum of 6d nails on 16 inch center.
12. With assistance, have the posts with the light heads lifted up into place and attach all the chain sections to the posts creating a complete safety barrier around the roofing platform.
13. Place large barrier cones with caution tape around the back of the unit, where the roofing platform overhangs the trailer body, to keep personnel from walking under the roofing platform during use.
14. Raise roofing platform to desired pitch and pin the pitch / safety bars in place.

To tear down the prop after use, reverse the set up order and be sure that all of the nails are cleaned up off the ground to avoid tire damage.



Material Requirements

Standard Model (20ft x 12ft platform)

- Rafters 2"x10"x12' **11 pieces**
- Sheeting 4'x8'x1/2" OSB **7 1/2 pieces**

Expandable Attic System

- Ceiling Joists 2"x4"x10' **9 pieces**
- Sheeting OSB or Sheetrock **4 Pieces**

Academy Model (24ft x 12ft platform)

- Rafters 2"x10"x 12' **13 pieces**
- Sheeting 4'x8'x1/2" OSB **9 pieces**

Expandable Attic System

- Ceiling Joists 2"x4"x10' **11 pieces**
- Sheeting OSB or Sheetrock **5 Pieces**

Stationary Unit

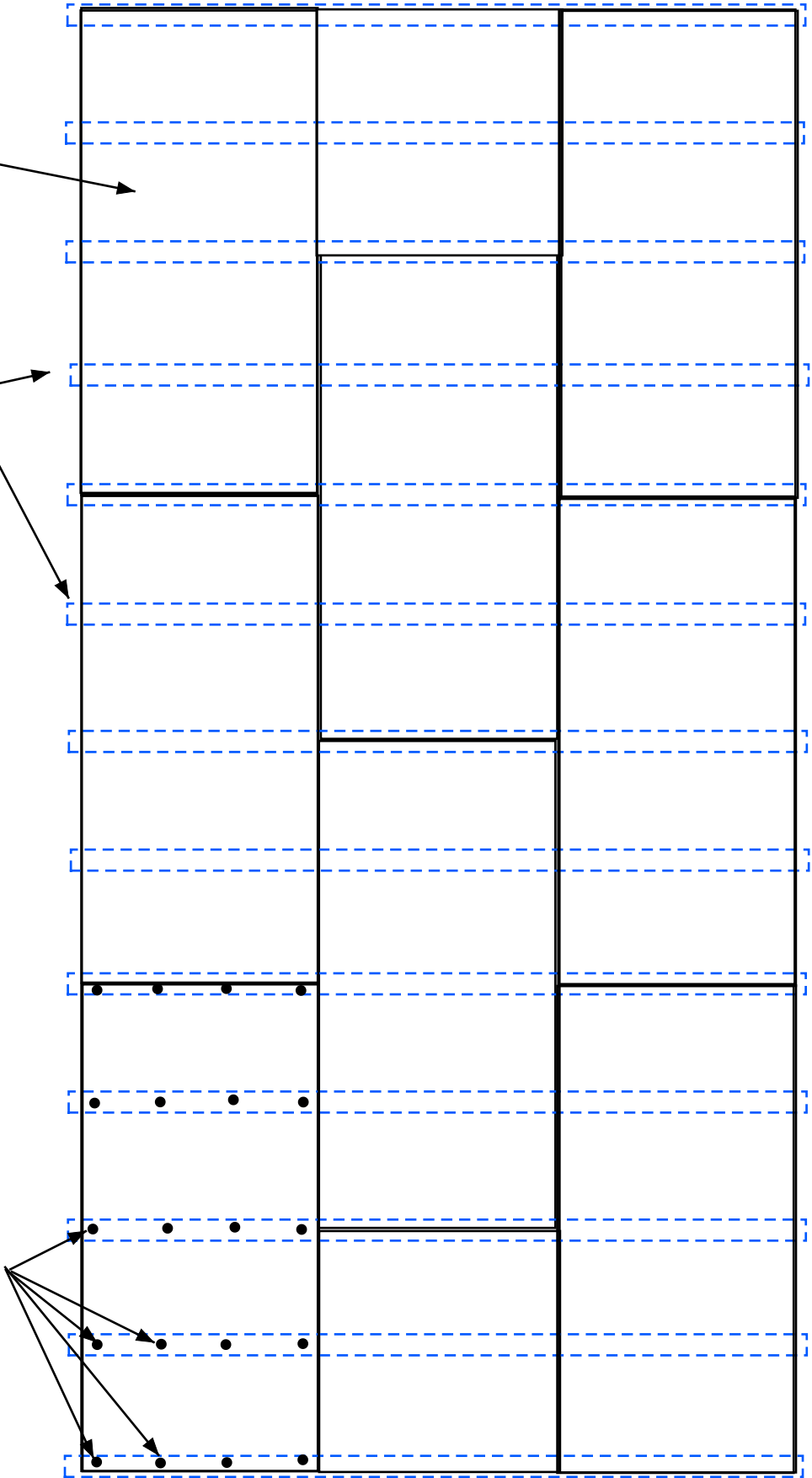
24ft x 12ft platform

16" on center nail off patten
recommended by engineer
6d or 8d nails, each sheet

Staggered joint
sheeting layout represented

2x10x12
Rafters

4x8x1/2" OSB
sheeting





SPECIFICATIONS, CONSTRUCTION & TRAINING APPLICATIONS

Specifications

- Roofing platform dimensions: (Compact) 16ft x 12ft, (Standard) 20ft x 12ft (Academy) 24ft x 12ft.
- Weight unladen (empty) approximately: (Compact) 7,500 lbs. (Standard) 8,500 lbs. (Academy) 9,800 lbs.
- Load capacity approximately: (Compact) 4,500 lbs. (Standard) 3,500 lbs. (Academy) 4,200 lbs.
- Gross weight capacity (Compact / Standard 12,000lbs.) (Academy 14,000)
- Tongue weight approximately: (Compact) 800lbs (Standard) 900 lbs. (Academy) 1000lbs
- Overall length: (Compact) 23ft (Standard) 27ft (Academy) 31ft
- Width on all models (closed transport position) 8ft.
- Height on all models (closed transport position) 9ft 6in.
- Roofing platform height 9ft (flat position)
- Rub rail and anchor tie off around perimeter of platform.
- Variable pitch, flat to 12/12 (hydraulically controlled)
- 12v hydraulic system, standard.
- Heavy-duty 3000 psi dual hydraulic cylinders.
- 3000 psi hydraulic hoses throughout.
- Aluminum diamond plate storage box for hydraulic pump.
- Safety post / chain system around perimeter of roofing platform.
- Engineered for live load of 2,000 lbs. (all models) on roofing platform at any pitch.
- Engineered for wind load of 60 mph at any pitch (all models)



Construction:

- Made in the USA.
- All steel of US origin.
- All tubular steel construction.
- Trailer custom made and integrated with prop.
- Aluminum diamond plate sides.
- Sprayed on heavy duty “Scorpion” bed liner.
- All LED warning and signal lighting.
- 6K or 7K tandem axles with electric brakes on each.
- Aluminum 8 lug wheels.
- Steel belted 14 ply tires.
- Bumper pull hitch with adjustable height, ball or pintle.
- BlueOx Swaypro hitch system
- 7 pin electrical connection to tow vehicle.
- 12K tongue jack with drop leg.
- 8K side jacks (outriggers) with drop legs.
- 110v shoreline built into the frame of trailer
- Standard paint color “cobalt red” (custom colors available)
- Bolted on parts are all powder coated.
- “Big Foot” outrigger pads with slide in storage trays.



Hydraulic System Information

The hydraulic system is comprised of a 12volt “power up and power down” hydraulic pump (pressure set at 2500psi) with corded remote control, 3/8 heavy duty 3000 psi hydraulic hose, two 3000 psi hydraulic cylinders, quality AW 32 hydraulic fluid and two deep cycle marine / RV batteries.

There is a needle valve or dial valve located on one of the hoses coming off the pump. This valve will control the speed of the fluid in the system thus controlling the rate at which the hydraulic rams extend and retract. This valve should be left completely open or turned all the way out for the maximum flow all the time. There may be times, however, when the roofing platform is being lowered, that it may begin to “chatter” or vibrate if this begins to happen the valve may be closed a little bit to slow down the descent of the platform which will stop the vibrating. If the valve is turned in it restricts the hydraulic flow and increases the work of the pump which can cause overheating, so once the platform is completely lowered, fully open the valve again. If the valve is completely closed it will stop the flow of hydraulic fluid and the rams will not move.

The hydraulic system should not be operated with batteries that are noticeably low on their charge. Operating the system with low output from the batteries can cause damage to the hydraulic pump.

If the need arises to add fluid to the hydraulic reservoir use caution not to over fill. The hydraulic fluid cycles through the reservoir and stays close to the same level, however the reservoir will be the fullest when the cylinders are retracted than when they are extended. Check fluid level when cylinders are retracted.



FLUID OVERFLOWING FROM RESERVOIR

Possible Reason:

When the battery is fully charged (with a power up/power down pump) the unit is pumping an average of 2 gallons per minute out. So, the reservoir is seeing approximately 2 gallons out and receiving approximately 2 gallons back from the hydraulic cylinder, at the same time. But when the battery is low the pump is pumping out less than 2 gallons but 2 gallons is still coming into the reservoir. When this happens, the reservoir can overflow and the filler/breather cap (which has a filter/felt) can get saturated (filled with hydraulic oil). Then the reservoir can no longer breathe and becomes a pressure vessel. Then problems can occur like the reservoir o-ring pushing out the side causing a leak point or the reservoir will crack, also causing a leak point. If you have a reservoir overflow once you can temporarily remove the filler/breather cap felt so the reservoir can continue to breathe. This may help prevent the reservoir from becoming a pressure vessel. But once the battery is fully charged or replaced the felt or filler breather cap needs to be replaced. This helps keep airborne contamination from getting into the reservoir and into the hydraulic fluid.

The unit has a double acting hydraulic pump, which means that the pump should always be running when the up or down button is pushed. Hydraulic fluid is always moving in and out of the hydraulic reservoir at the same time. There have been instances when the unit can be lowered by gravity, without the hydraulic pump running. It is important to completely depress the control buttons to avoid this circumstance. If this happens, lift up on the button and depress again and be sure that you hear the pump running. If this happens, and the platform is completely lowered, no damage will occur but it may cause the hydraulic reservoir to overflow.

Installation: 12 vdc, Double Acting (Power UP / Power DOWN) Unit

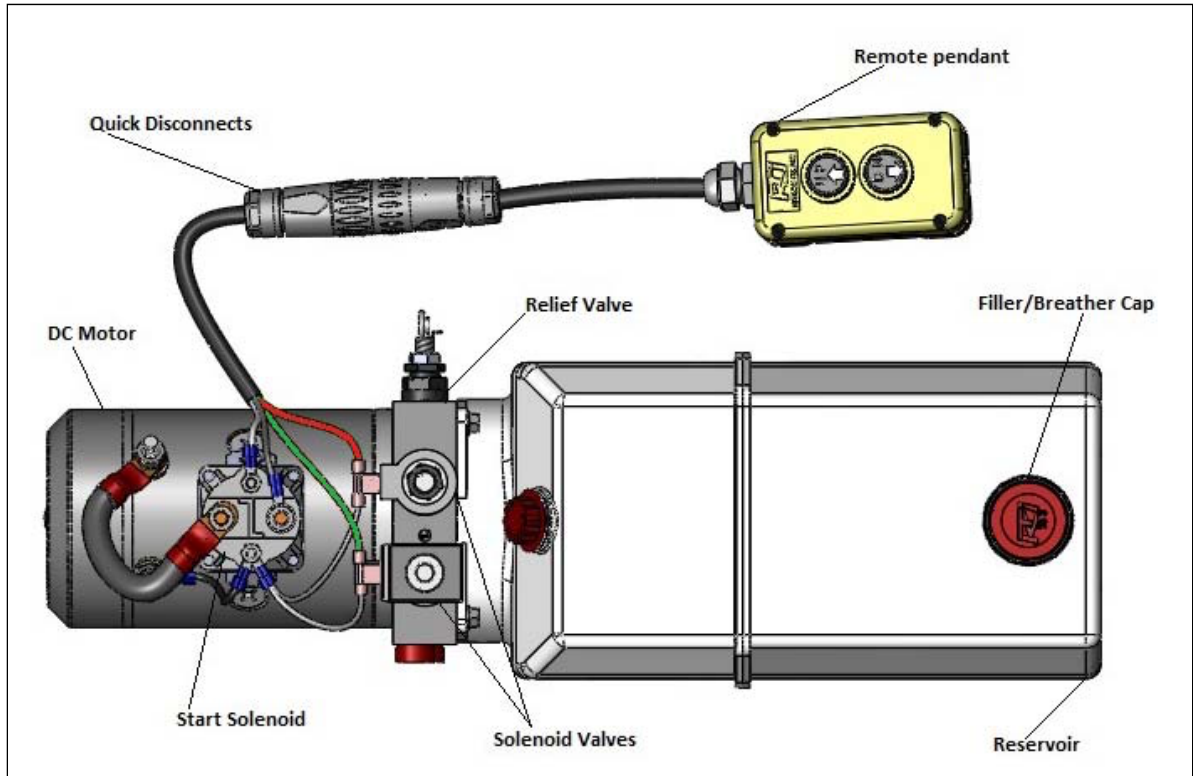


Diagram A-1

1. Install 9/16-18 SAE ORB, SAE #6, hydraulic fittings into ports "A" and "B". Torque fittings to 18 lb-ft.
2. Remove the two-button pendant from the power unit at the quick disconnect.
3. Mount the Power Unit using two, 3/8-16 UNC mounting bolts (*diagram A-3*)
4. Remove the Filler/Breather Cap and fill the reservoir with hydraulic oil (*see fluid recommendations*). Replace the filler/breather cap.
5. Connect Hydraulic Lines to ports "A" (TOP) & "B" (BOTTOM).
 - a. Check the torque specifications for the hose fittings.
 - b. Connect the Base of the Cylinder to the port "A" (TOP).
 - c. Connect the Rod End of the Cylinder to port "B" (BOTTOM).
6. Connect the battery **Ground** cable to the **Ground** terminal of the DC Motor (*diagram A-3*)
7. Connect the **Positive** cable from the battery to the start solenoid (*diagram A-4*).
(See Battery Cable Gauge table for proper gauge for your length of cables.)
8. Holding the bottom nut with a wrench, torque the battery connections to 3 lb-ft.
9. Reconnect the two-button remote pendant at the quick disconnect.
10. Operate the power unit while also keeping an eye on the fluid level in the reservoir.
 - a. Insure that the fluid level doesn't go lower than ½ full during the initial start up.
 - b. When the cylinder is fully extended, the reservoir should be about ½ full.
(The Reason for Not Filling the Reservoir all the way is that during retraction of the cylinder the Butt End of the Cylinder Will Displace Fluid, Causing the Reservoir to Overflow)
11. Run the cylinder Up and Down until all the air is removed from the hydraulic oil.
12. Fill the reservoir to the Full line on Reservoir Label. [Approx. one (1) inch from the top].

Form SVC006 June 2012

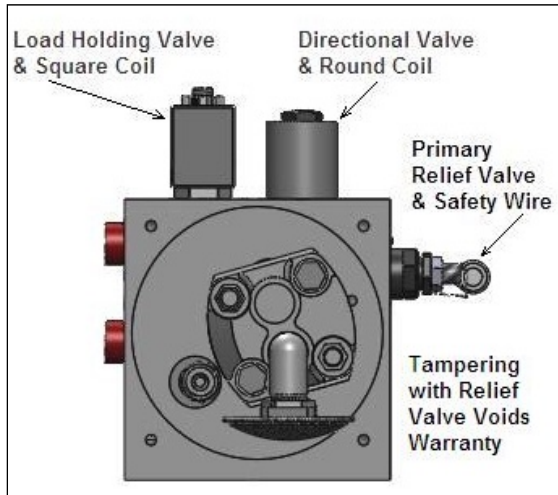


Diagram A-2

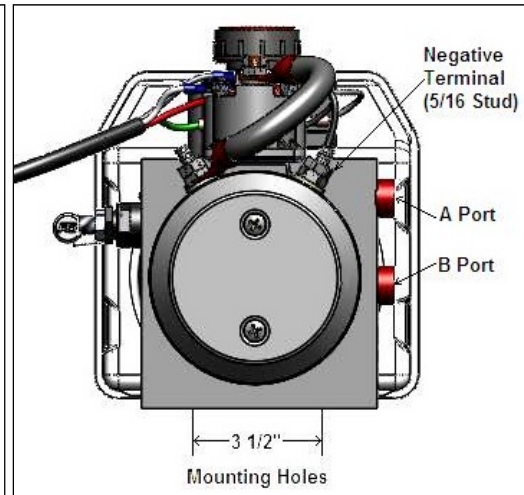


Diagram A-3

Fluid Recommendations

KTI recommends using a premium hydraulic oil to ensure optimum performance and system life. Select oil that has anti-wear properties, rust and oxidation inhibitors, foam inhibitors and good stability. Examples of premium grade hydraulic oils: Chevron Rando HDZ, Mobil DTE 10, DTE 20 series, AMSOIL, and Shell Tellus.

Automotive Transmission Oils are acceptable under normal conditions.

Aviation Oils such as Valvoline ROYCO series or Mobil Aero HF or HFA may be used in **prolonged, extreme cold** environments.

Do Not Use Biodegradable Hydraulic Fluid. Do Not Mix Oils.

Ambient Temperature Range

ISO Viscosity Grade

- 20°F to + 32°F
 (- 29°C to + 0°C)

15

+ 14°F to + 120°F
 (- 10°C to + 49°C)

22, 32, ATF

Battery Cables

To minimize voltage drop, increase the gauge size of the battery cables as the length of the positive and ground cables increase. Low voltage will cause the motor to run at higher amps and may cause damage to other electrical components.

Cable Length	Wire Gauge	Nominal OD (in.)
1 to 2 feet	4 gauge	0.43
3 to 4 feet	2 gauge	0.49
5 to 7 feet	1 gauge	0.56
8 to 9 feet	1/0 gauge	0.61
10 to 12 feet	2/0 gauge	0.66
13 to 15 feet	3/0 gauge	0.72
16 to 19 feet	4/0 gauge	0.78

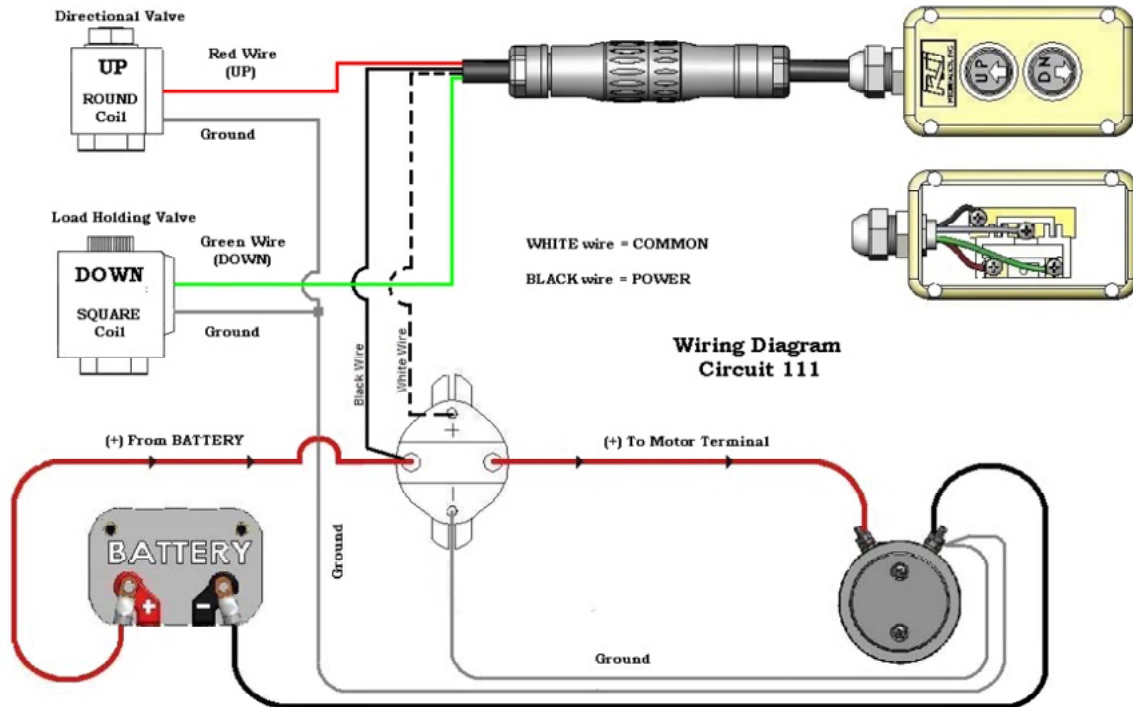
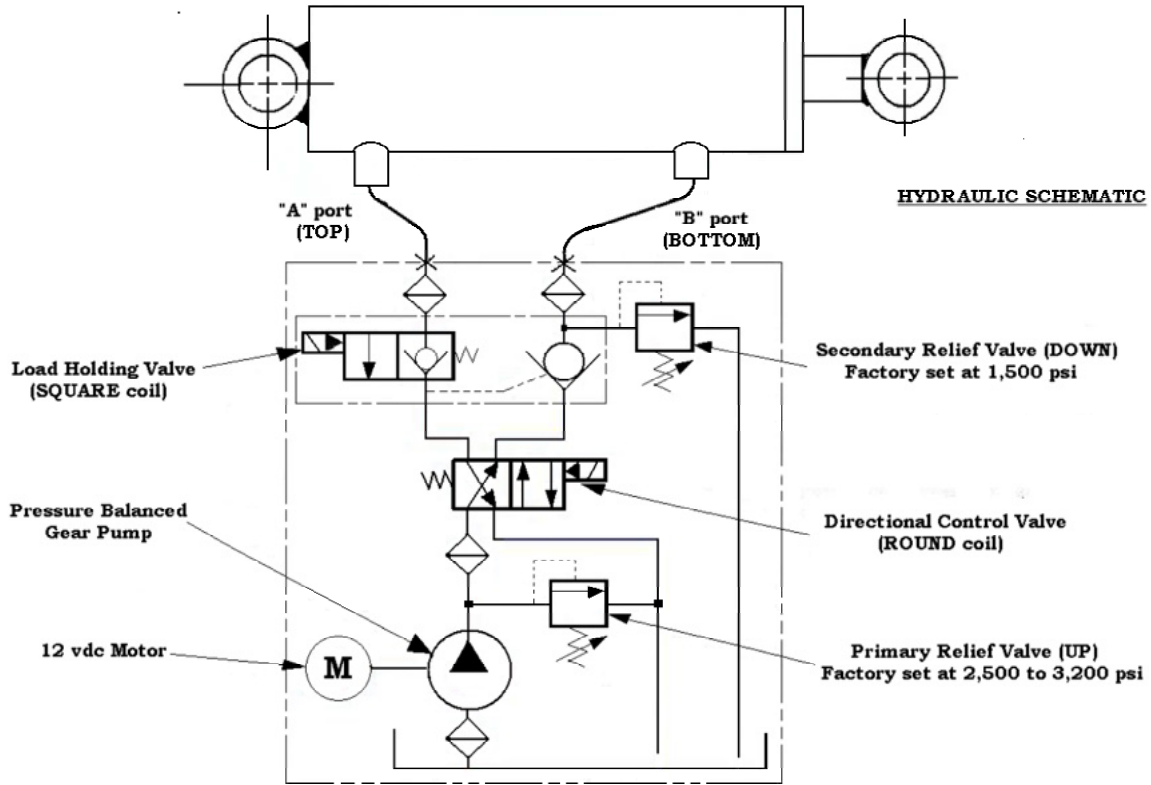
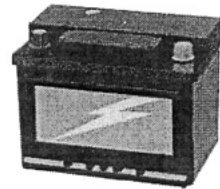


Diagram A-4

Form SVC006 June 2012

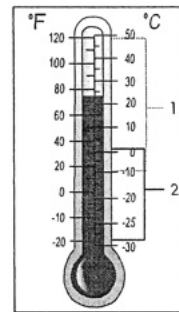
 **ATTENTION: BATTERY**

1. CHECK BATTERY VOLTAGE BEFORE USE
2. **UNIT PERFORMS BEST AT 10V DC OR ABOVE**



 **CAUTION: RECOMMENDED HYDRAULIC OILS**

1. +14°F to +120°F (-10°C TO +49°C) ISO 22, 32, ATF
2. -20°F to +32°F (-29°C TO +0°C) ISO 15
3. AVIATION OILS (MIL-H-5606 Type) MAY BE USED IN PROLONGED EXTREME COLD CLIMATES.



 **WARNING: MIXING HYDRAULIC OILS WILL VOID WARRANTY.**

Trouble Shooting Quick Reference Guide

Possible Cause	Not Building Pressure	Motor Not Running	Cylinder Won't Extend	Cylinder Won't Retract	Won't Hold Load	Excessive Heat From Unit	Aeration of Hydraulic Fluid	Reservoir Overflows	Cylinder Extends With Unit Not Operating	Struggles to Lift Load	Load Bounces When Cylinder Retracts	Start Solenoid Just Clicks-Motor Not Engaging	Won't Lift Load (DC Motor Under Load)	Won't Lift Load (DC Motor Not Under Load)	Won't Lower	Start Solenoid Stays On	Cylinder won't Retract Motor Under Load
Low Battery Voltage		o	o	o		o		o		o		o					
Poor Ground Condition		o	o	o		o		o		o		o					
Check Hand Control												o			o		o
Debris in Load Holding Valve					o												
Thermal Pressure Lock			o														o
Coil Not Energizing			o	o								o		o			o
Bad Seals in Cylinder	o										o						o
Loose Inlet			o			o	o				o						o
Packing on Cylinder Rod Worn Out			o	o					o		o				o		o
Hoses Connected Backwards											o						
Pump Not Priming	o		o														
Clogged Orifice				o											o		o
Rust In Motor		o															
Bad Diode				o													o
Check For Additional Valving On or Connected to Cylinder					o												
Directional Valve Not Shifting Properly			o	o						o					o		o
Bad Start Solenoid												o			o	o	
Dirty Contacts in Hand Control			o	o								o	o				

Quick Reference Guide covers the most common problems.
(if we have missed a step please let us know)



SWAYPRO™

Owner's Manual &
Installation Instructions

Serial Number



Standard Hitch Head w/ Clamp-On Rotating Latches

BXW0350

350 lbs. maximum tongue weight capacity

BXW0550

550 lbs. maximum tongue weight capacity

BXW0750

750 lbs. maximum tongue weight capacity

BXW1000

1000 lbs. maximum tongue weight capacity

BXW1500

1500 lbs. maximum tongue weight capacity

BXW2000

2000 lbs. maximum tongue weight capacity

NOTE: A minimum tongue weight of 200 lbs. is required

THANK YOU

for purchasing a SwayPro™ from Blue Ox®. Please read the manual to insure your installation is as simple and trouble-free as possible. Keep your sales receipt and the manual in a safe place for future reference.

SWAYPRO™ Owner's Manual & Installation Instructions

Welcome to the Blue Ox® Family

The SwayPro™ is a revolutionary hitch that not only handles weight distribution but sway prevention as well by using the combination of loaded spring bars, easy to use rotating latches and an integrated hitch head. As the trailer tries to sway it puts a heavier load on one side of the bars, as this happens the spring bars will pivot on the hitch head and balance each other preventing the trailer from swaying. The SwayPro™ will also conquer weight distribution at the same time, putting more weight on the towing vehicles front tires which increases steering control and braking giving you a safer and easier driving experience. Your SwayPro™ is backed by a limited lifetime limited warranty. **Any unauthorized modifications to your SwayPro™ may void the warranty.**

Please read all of the technical documents, warnings, tips, and notes in this manual before operating your SwayPro™ for the first time. Improper installation, use and/or maintenance may result in malfunction causing personal injury or property damage. Please fill out and return your warranty card. For future reference your serial number is located on the outside of the manual packaging and is also located on the top of the hitch head of your SwayPro™.

Features & Benefits

- **Open Head**
The open head design provides easy access for tightening the hitch ball.
- **Powder Coat Finish**
The powder coat finish provides a professional appearance, aids in rust prevention, and prolongs the life of the product.
- **Signature Series Rotating Latches**
Rotating latches clear obstacles that are mounted above the frame.
- **Greaseless Bars**
Grease is captured inside the bar pivots. No messy bars to deal with.

Frequently Asked Questions

What size ball shanks can be used?

Answer: The SwayPro™ accepts 1" or 1-1/4" ball shanks.

Does sway prevention require adjustment?

Answer: No, sway prevention is built into the SwayPro™ system and no adjustments are required.

What is gross trailer weight?

Answer: Weight of trailer (dry) + liquids (water, propane, sewage) + cargo. Measure gross trailer weight with a fully loaded trailer on a level surface, preferably on a public truck scale.

What is tongue weight?

Answer: Downward force exerted on the hitch ball by the trailer ball coupler. Measure tongue weight with a fully loaded trailer on a level surface with trailer ball coupler at tow height.

Why do the bars bend? Will they stay bent?

Answer: The spring bars are designed to deflect 2"-3" on a properly set system. This creates the necessary load on the spring bars to achieve an enjoyable ride. No, the spring bars will always return back to straight.

What size bars do I have?

Answer: The bars are marked with a dot system on the shank end to identify the weight rating.

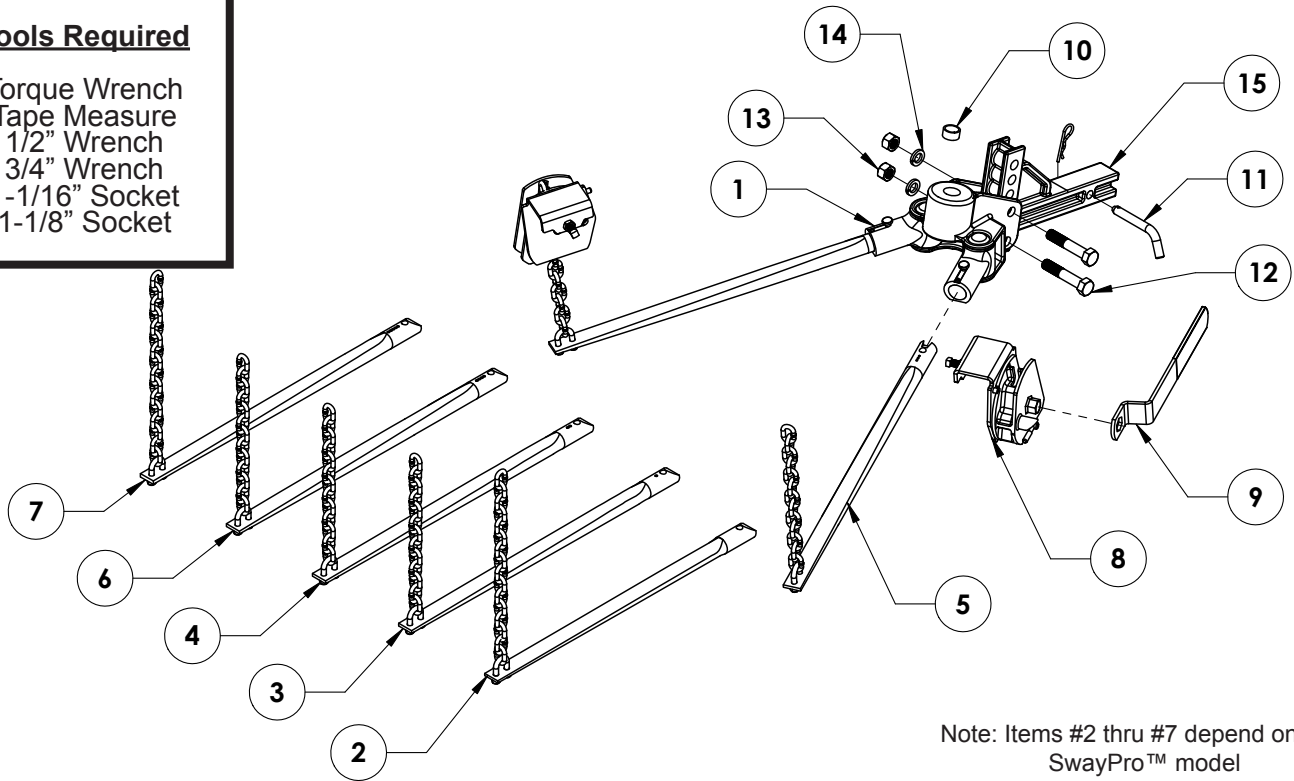


- 350lb Bar = No Dots
- 550lb Bar = (1) Dot
- 750lb Bar = (2) Dots
- 1000lb Bar = (3) Dots
- 1500lb Bar = (4) Dots (shown)
- 2000lb Bar = (5) Dots

SWAYPRO™ Owner's Manual & Installation Instructions

Tools Required

Torque Wrench
Tape Measure
1/2" Wrench
3/4" Wrench
1-1/16" Socket
1-1/8" Socket



Note: Items #2 thru #7 depend on your SwayPro™ model

Item No.	Part No.	Description	Qty.
1.....	61-6980	Hitch Head Assembly.....	1
2.....	62-3935	350 Lb. Spring Bar.....	2
3.....	62-3538	550 Lb. Spring Bar.....	2
4.....	62-3537	750 Lb. Spring Bar.....	2
5.....	62-3536	1,000 Lb. Spring Bar.....	2
6.....	62-3558	1,500 Lb. Spring Bar.....	2
7.....	62-3932	2,000 Lb. Spring Bar.....	2
8.....	62-3774	Clamp-On Rotating Latch	2
9.....	62-3868	Rotating Latch Wrench	1
10.....	107-3042	1-1/4" OD x 1-1/32" ID x 5/8" Spacer Tube.....	1
11.....	200-1483	5/8" OD x 3" Effective Pin with Clip.....	1
	200-1701	5/8" OD x 4" Effective Pin with Clip (BXW2000 only)	1
12.....	201-0914	3/4"-10 x 4" Hex Head Bolt, Grade 5, ZP.....	2
13.....	202-0007	3/4"-10 Hex Nut, ZP.....	2
14.....	203-0014	3/4" Lock Washer, ZP	2
15.....	299-0619	Standard 2" Receiver Hitch Mount.....	1
	61-7222	2-1/2" Receiver Hitch Mount (BXW2000 only).....	1
16.....	201-0054(not shown)...	1/2"-13 x 2" Square Head Set Screw.....	2
17.....	229-0512(not shown)...	1/2" Quicklink, ZP	2

Note: The 2- quick links included are for receiver hitches that the safety chains will not reach. Install quick links on safety chain loops mounted to receiver hitch and tighten.

Note: If the trailer structure interferes with the rotating latches pre-installed set screws, replace them with the shorter 1/2"-13 x 2" set screws provided.

Important:

Use only genuine factory replacement parts on your SwayPro™. Do **NOT** substitute homemade or non-typical parts. If a bolt is lost or in need of replacement, for your safety and the preservation of your SwayPro™, be sure to use a replacement bolt of the same grade (In most cases it will be Grade 5, please reference the parts list above). Replacement parts may be ordered through your nearest Blue Ox® Dealer or Distributor. Failing to follow and/or altering these installation instructions in either installation or required equipment will void the manufacturer's warranty.

Installation

1. Park the towing vehicle and trailer in a straight line on firm, level ground. Air-ride shock absorbers, air springs, or automatic leveling systems on towing vehicle should be disabled or deflated to the manufacturer's minimum recommended pressure prior to SwayPro™ installation. Unhook the trailer from the towed vehicle and level. Remove the existing receiver hitch.
2. Insert the hitch mount receiver shank into the towing vehicle receiver and secure with the 5/8" x 3" pin and clip.
3. Install the appropriate ball (not provided) to match the coupler onto the hitch head per ball manufacturer's instructions. Use the 1.031 ID spacer tube for 1" ball shank. **The hitch ball capacity must meet or exceed the gross trailer weight rating.**
4. Level the trailer and then measure the coupler height. Install the hitch head onto the receiver shank, using the 3/4"-10 bolts, 3/4" lock washers and 3/4"-10 hex nuts. Measure the hitch head ball height. The ball height needs to be the same or 1" higher than the trailer coupler height, adjust as necessary. Torque the 3/4"-10 bolts to 257 ft/lbs.

Note: Ram Truck owners please reference the Trailer Towing section of your vehicle owner's manual for proper hitch set-up instructions. Also, it is recommended for optimal towing performance to set the ball height 2" higher than the top the trailer coupler.

5. Couple the trailer to the hitch head by placing the trailer coupler onto the hitch ball per the manufacturer's instructions.
6. Measure 29" back from the center of the ball coupler and mark this point on the trailer tongue frame work on both sides. Center and mount the rotating latches to the trailer frame over the marked areas. Remove or relocate any obstructions on the trailer tongue framework if necessary. Finger tighten the bolts on the rotating latch at this time.
7. Insert the spring bars into the bar pivots until the manual release pins snap closed and locks the bars in place.
8. After verifying that the rotating latches are in the proper position, torque the 1/2"-13 square head set screws against the trailer tongue framework to 40 ft. lbs and tighten the jam nut. **(Do NOT use Loctite® Red on set screw.)**

IMPORTANT: The spring bar chain must be straight up and down in the center of the rotating latch when the towing vehicle and trailer are aligned. Reposition the rotating latch along the trailer frame if necessary.

9. Release the rotating latch by rotating or pulling out on the lock pin handle. Rotate the bracket using the wrench that was provided and turn clockwise until the chain slot is on the bottom. Insert the 9th chain link from the top (opposite the u-bolt) into the slot of the latch. Using the wrench, rotate the latch counterclockwise until the lock pin engages in the lock pin hole.

Note: Adjustments to the number of links used may be necessary due to certain driving conditions and/or changes to the trailer after initial setup. Advancement to the 10th or 11th link from the top is recommended to compensate for these changes.



⚠ Caution must be used when unlatching due to the potential of injury if the tension of the spring bar is suddenly released the wrench will rotate quickly. Hold the wrench firmly as the rotating latch bracket will rotate downward causing a quick jerk on the wrench. Rotate slowly and firmly.

Installation (Cont'd)

10. Determine if the towing vehicle is level. If necessary, adjust the chains links.
 - A. Support the weight of the trailer tongue with the trailer jack
 - B. Unlock the rotating latch bracket and release the spring bar tension on the chains
 - C. Adjust chain to tighten or loosen one (1) link at a time
 - D. Reapply the spring bar tension on the chains by using the wrench to rotate the rotating latches in a clockwise direction until the lock pin engages in the lock pin hole
 - E. Lower the front of the trailer allowing the tongue weight of the trailer to be supported by the towing vehicle

Repeat the above steps until the towing vehicle is level.

11. If the trailer is not level, determine how much and in which direction. Each hole raises or lowers the front of the trailer 1-1/2". Level the trailer by:
 - A. Support the weight of the trailer tongue with the trailer jack
 - B. Unlock the rotating latch bracket and release the spring bar tension on the chains
 - C. Uncouple the trailer.
 - D. Remove the 3/4" fasteners from the hitch head
 - E. Move the hitch head on the receiver hitch mount either up to raise the front of the trailer or down to lower the trailer
 - F. Replace the 3/4" fasteners in the appropriate holes and torque to 257 ft/lbs
 - G. Couple the trailer to the hitch
 - H. Support the weight of the trailer tongue with the trailer jack
 - I. Reapply the spring bar tension on the chains by using the wrench to rotate the rotating latches in a clockwise direction until the lock pin engages in the lock pin hole
 - J. Lower the front of the trailer allowing the tongue weight of the trailer to be supported by the towing vehicle

Repeat the above steps until the trailer is level.

12. Verify that the trailer and the towing vehicle are level. If not, see the Troubleshooting section.



Operation


Hooking Up

1. Install the hitch head/receiver mount assembly into the towing vehicle receiver tube and secure with the 5/8" x 3" pin and clip.
2. Couple the trailer to the hitch head.
3. Install both spring bars into the bar pivot tubes.
4. Confirm that both of the rotating latches are tight on the tongue.
5. Support the trailer tongue weight with the trailer jack to ease the tension on the spring bar chains and allow for easier latching. Attach the spring bar chains to the rotating latches with the appropriate chain link. Apply tension to the spring bar by using the wrench to rotate the latch counter-clockwise until the locking pin on the latch engages. Do this on both sides of the trailer.

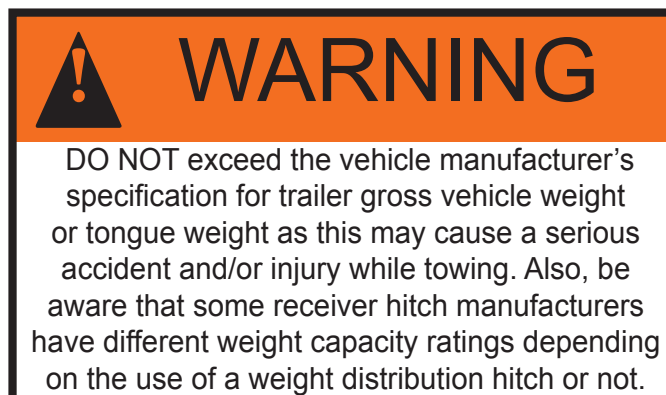
NOTE: If your trailer and/or axle weight has changed since your last trip, adjustments to the spring bar chains may be necessary.

Unhooking

1. Support the trailer tongue weight with the trailer jack to ease the tension on the spring bar chains and allow for easier unlatching. While holding the wrench firmly, release the locking pin handle on the latch by rotating or pulling out on it. Rotate the latch clockwise until the chain is released from the latch. Do this on both sides of the trailer.

 The latch will rotate quickly when the locking pin is released. Ensure you have control of the wrench when releasing.

2. Disconnect the spring bars by pulling outward on the bars then slightly pulling up on the locking pins to release the bars from the bar pivot tubes.
3. Unhook the trailer coupler from the hitch head.
4. Remove the hitch pin and clip from the hitch receiver.
5. Remove the hitch head/receiver mount assembly from the receiver tube.



Troubleshooting

Issue: After coupling the trailer to the hitch head, the tow vehicle squats and the front of the trailer dips.

Resolution: If necessary, raise the chains of the spring bars up by one link.

Issue: After coupling the trailer to the hitch head, the tow vehicle is level but the front of the trailer dips.

Resolution: Adjust the hitch mount receiver higher. Each adjustment up or down equals 1-1/2".

Issue: There is excessive sway.

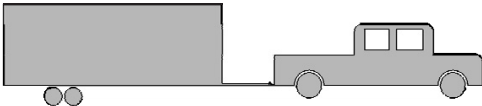
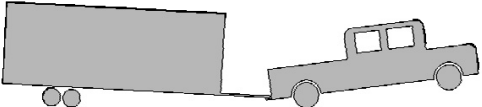

Resolution: Excessive sway may indicate that the trailer is improperly loaded. As a guideline, the tongue weight should be 10-15 percent of gross trailer weight. If it is not, redistribute the weight accordingly. If you encounter continuous sway or swaying that does not dissipate quickly, adjust the load.

Issue: The ride is excessively rough.

Resolution: Spring bar chains are too tight or the spring bars are too stiff for your tongue weight. Be sure the spring bar chains are set properly. Verify that the spring bars are properly rated for your tongue weight.

Resolution: If you are a Ford or Chevy owner you may need to turn off the factory sway control system while using the Blue Ox® SwayPro™.

SUPPORT THE TRAILER SAFELY WHILE MAKING ANY ADJUSTMENT

Fig. #1	 <p>CORRECT & IDEAL</p>
Fig. #2	<p><u>IF YOU HAVE THIS SITUATION:</u> TIGHTEN CHAINS UNTIL THE TOWING VEHICLE IS LEVEL</p>  <p>NOT CORRECT - HEAVY ON THE REAR AND LIGHT ON THE FRONT</p>
Fig. #3	<p><u>IF YOU HAVE THIS SITUATION:</u> LOOSEN CHAINS, ONE LINK AT A TIME, UNTIL THE TOWING VEHICLE IS LEVEL</p>  <p>NOT CORRECT - LIGHT ON THE REAR AND HEAVY ON THE FRONT</p>

Optional & Replacement Kits

Replacement Kits

BXW4010	Kit, Rotating Latch, Clamp
BXW4011	Kit, Hitch Head
BXW4012	Kit, Hitch Head, Underslung
BXW4013	Kit, Rotating Latch, Wrench
BXW4021	Kit, Rotating Latch, Bolt-Around
84-0176	Kit, Locking Pin, New Style
84-0177	Kit, Locking Pin, Underslung/Old Style

Spring Bar Kits

BXW4005	Kit, 550 lb Spring Bars
BXW4006	Kit, 750 lb Spring Bars
BXW4007	Kit, 1,000 lb Spring Bars
BXW4008	Kit, 1,500 lb Spring Bars
BXW4014	Kit, 2,000 lb Spring Bars
BXW4015	Kit, 350 lb Spring Bars

Receivers

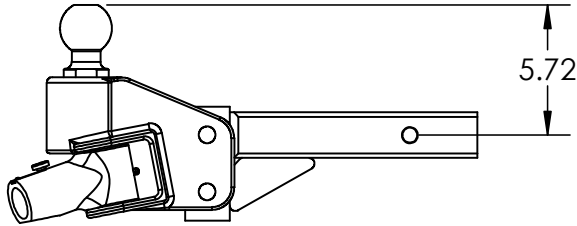
BXW4000	7 Hole - 9" Receiver Mount, 2" Shank
BXW4001	7 Hole - 12" Receiver Mount, 2" Shank
BXW4002	9 Hole - 9" Receiver Mount, 2" Shank
BXW4003	9 Hole - 12" Receiver Mount, 2" Shank
BXW4004	11 Hole - 9" Receiver Mount, 2" Shank
BXW4016	2 Hole - 9" Receiver Mount, 2" Shank
BXW4017	2 Hole - 12" Receiver Mount, 2" Shank
BXW4018	7 Hole - 9" Receiver Mount, 2-1/2" Shank

RECEIVER HEIGHTS

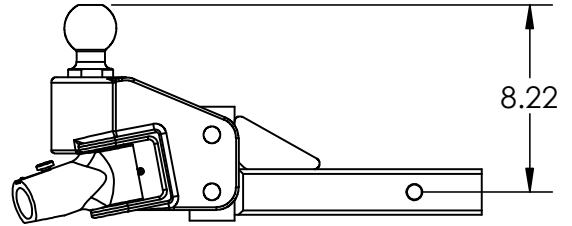
Drop Position

Rise Position

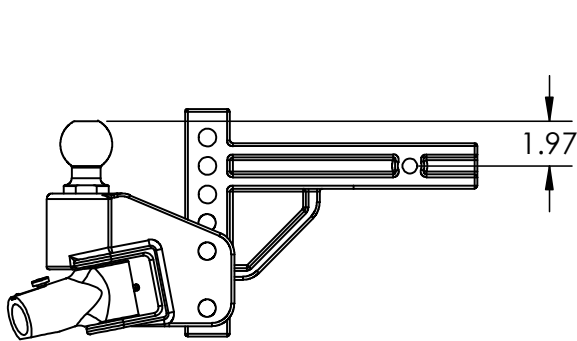
2 Hole Receiver



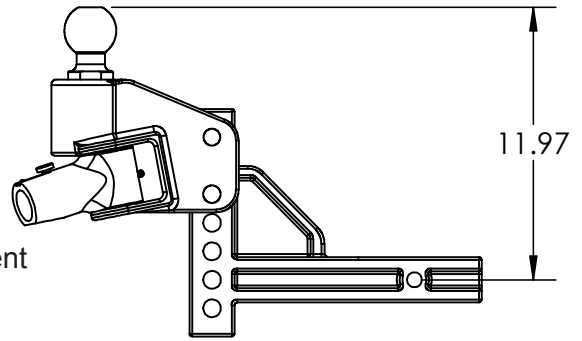
No Adjustment



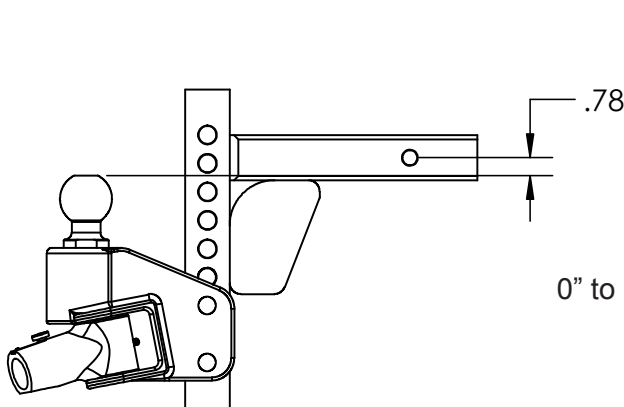
7 Hole Receiver



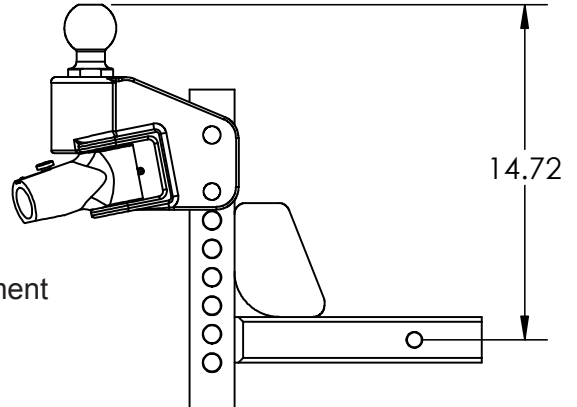
0" to 5" Adjustment



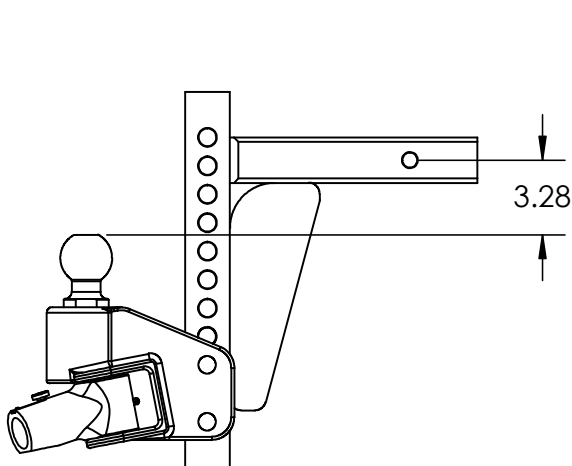
9 Hole Receiver



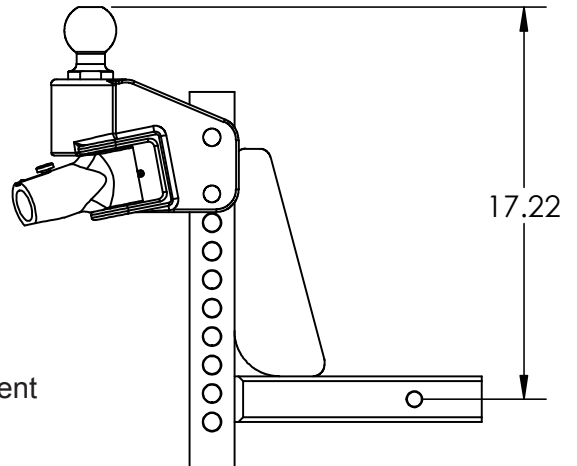
0" to 7-1/2" Adjustment



11 Hole Receiver



0" to 10" Adjustment



Maintenance of your SwayPro™

Maintenance

Grease **both** grease zerks on the fronts of the bar pivot before each use. We recommend molybdenum grease. Wipe away excess grease after application.

Periodically grease the hitch ball with molybdenum grease.

Things To Know

The towing vehicle's loaded ball height should never be greater than it's uncoupled height. Front wheel overload and loss of rear wheel traction can occur and can lead to unstable handling, reduced braking ability, and a tendency to jackknife when turning and braking at the same time.

DO NOT attempt to tow any type of trailer behind another trailer. Towing multiple trailers may cause severe instability, loss of control and/or structural failures.

Handling and control of your towing vehicle and trailer is greatly improved when the cargo is properly loaded and distributed. It is recommended to have a tongue weight of 10-15% of the gross trailer weight.

Check the tire pressure on both the towing vehicle and trailer. Make sure all tires are at the recommended pressures or under by no more than 10% of the maximum tire pressure.

CUSTOMER SERVICE COMMITMENT

Blue Ox® is committed to providing you with exceptional customer care throughout your lifetime with our products. Our team is here to assist you with any questions you may have regarding the performance of your product. Simply call (402) 385-3051 and you can speak with our technical service team.

Additionally, please visit our website to see which rallies our Destination America team will be attending. For a nominal fee, our service technician will service your towing system to ensure it's in proper working condition. Also, as a commitment to our customers, should you visit our factory, you can stay at our full service Blue Ox® campground at no charge along with enjoying a factory tour.

Again, thank you for being our customer and for the confidence you have shown in the performance of our products. It is because of customers like you we enjoy the success we have today.

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Pender, Nebraska 68047
Phone: (402) 385-3051
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www.blueox.com

BLUE OX ORIGINAL PURCHASERS LIMITED LIFETIME WARRANTY

Automatic Equipment Manufacturing Company (“Automatic”) warrants to the original (first) retail purchaser that this product, manufactured by Automatic, shall be free from defect in material and workmanship under normal use and service for as long as the original retail purchaser owns the product.

During said period, Automatic will repair or replace any parts that have been returned by the original purchaser, to the factory, transportation prepaid, and in Automatic’s sole and absolute opinion found to be defective.

Limitations on Warranty Coverage:

Coverage under this warranty will be valid only if the customer warranty card is returned by the original purchaser within 30 days of purchase.

Coverage under this warranty will be effective only when a copy of the original invoice, showing date and place of purchase, accompanies any claim for warranty. This warranty is NON TRANSFERABLE.

This limited warranty will not cover, in any way or form, any alleged damages caused by incorrect or improper installation, improper use, modification or neglect of product, failure to properly service and maintain, misuse, act of God, accident or failure of the user to follow guidelines contained in the instructional material provided by Automatic.

This warranty does not cover normal wear and tear, paint or rust.

Warrantor assumes no responsibility to the owner for loss of use of product, loss of time, inconvenience or any other damage consequential or otherwise. Including, but not limited to mileage, expense of transporting of product, return shipping expense, mechanics travel time, telephone, road service, towing, and rental during repairs, travel, lodging, loss or damage to personal property or loss of earnings.

REPAIR OR REPLACEMENT AS SET FORTH IN THIS LIMITED WARRANTY IS THE SOLE EXCLUSIVE REMEDY OF THE PURCHASER. AUTOMATIC SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR BREACH OF ANY EXPRESS OR IMPLIED WARRANTY ON THIS PRODUCT. EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ON THIS PRODUCT IS LIMITED IN LENGTH TO THE DURATION OF THIS WARRANTY.

Please visit <http://blueox.com/warranty/> to register your warranty





Prop Maintenance

All FireVent models are low maintenance equipment, however there are some items that should be checked periodically.

- Grease all grease fittings according to use.
- Check all wheel lug nuts each time prior to moving trailer and check for proper air pressure in tires.
- Check for proper function of all DOT lighting each time prior to moving trailer.
- Check for proper function of trailer brakes each time trailer is moved. Trailer brakes should be inspected for wear every six months.
- Inspect condition of safety chains each time trailer is connected to tow vehicle.
- Ensure that all warning stickers and labels are intact and readable. Contact FireVent, LLC if labels are damaged and replacements are needed.
- Periodically check to ensure that all quick links are tight and secure on the safety chains that surround the roofing platform.
- Periodically inspect all welds on the prop to ensure that there are no cracks that could compromise the structural integrity of the unit.
- Be sure the 12volt batteries are properly maintained and fully charged prior to use.
- If equipped, after repeated use of the forcible entry doors you will want to remove any sharp burs or edges on the door stop. These sharp edges and burs will occur during normal use. It is recommended that these burs and sharp edges be removed by lightly sanding them with a flap disc on an angle grinder. After the burs and sharp edges are removed the bare metal can be touched up with normal gloss black spray paint.

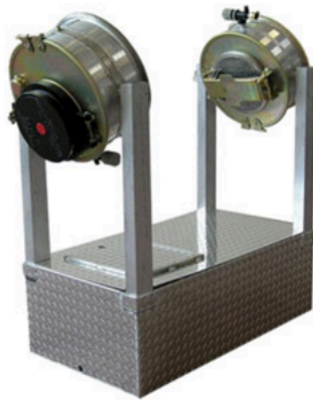


Limited Warranty

All FireVent, LLC products are warranted to be free from defects in materials and workmanship for a period of two years from the date of original purchase. Manufacturer agrees to repair or, at manufacturer's option, replace equipment supplied by manufacturer, which proves to be defective in materials or workmanship. This warranty is limited to defects arising under normal usage and does not cover malfunctions or failures resulting from the misuse, abuse, neglect, alteration, modification, or repairs by other than manufacturer's authorized service facility.

For warranty issues or concerns please contact FireVent, LLC:

info@FireVent.us P: 775-230-9953 F: 775-883-2387



MODELS & TRAINING PROPS > MC-306 & DOT-406 DOME LEAK SIMULATOR

This 4 station simulator was specifically designed by STTS to simulate leaking 306 or 406 dome lids found on gasoline cargo tanks. Once pressurize with water each vent will open and begin to leak. Hazmat Team members can then move in and practice the application of dome clamps to contain the leaks. The unit is also equipped with a 3"NPT clean-out collar & cap used for the practical application of an emergency unloading fixture. The base of the unit comes with a drilling pad that will allow responders to practice drilling on removable aluminum plates of equivalent thickness of a gasoline cargo tank. This unit may be used to satisfy training requirements cited by NFPA 472 (10-4.1.1) concerning leaking dome lids & relief devices. Once training is complete, simply disassemble the unit and store the contents in the base unit. This is the most utilitarian work station that you will ever find!

STTS MODELS & TRAINING PROPS

- 🔧 MC-306 & DOT-406 Dome Leak Simulator
- 🔧 MC-306
- 🔧 DOT-406

THE MC-306 & DOT-406 DOME LEAK
SIMULATOR ARE PRODUCTS OF STTS – SAFE
TRANSPORTATION TRAINING SPECIALISTS.

FOR ADDITIONAL INFORMATION PLEASE GO
TO THE STTS WEBSITE AT
WWW.SAFETRANSPORTATION.COM

YOU FIND WILL DESCRIPTIONS AND
TRAINING VIDEOS. YOU MAY ALSO CONTACT
STTS THROUGH THE INFORMATION BELOW

TOLL FREE
1-877-330-STTS (7887)

Local: 317-819-0102

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Email: info@safetransportation.com

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Safe Transportation Training Specialists, LLC

160 West Carmel Drive, Suite 285

Carmel, Indiana 46032







FireVent

Paid for with donations from Wine Country To The Rescue for the Benefit of Northern Sonoma County Firefighters

FireVent























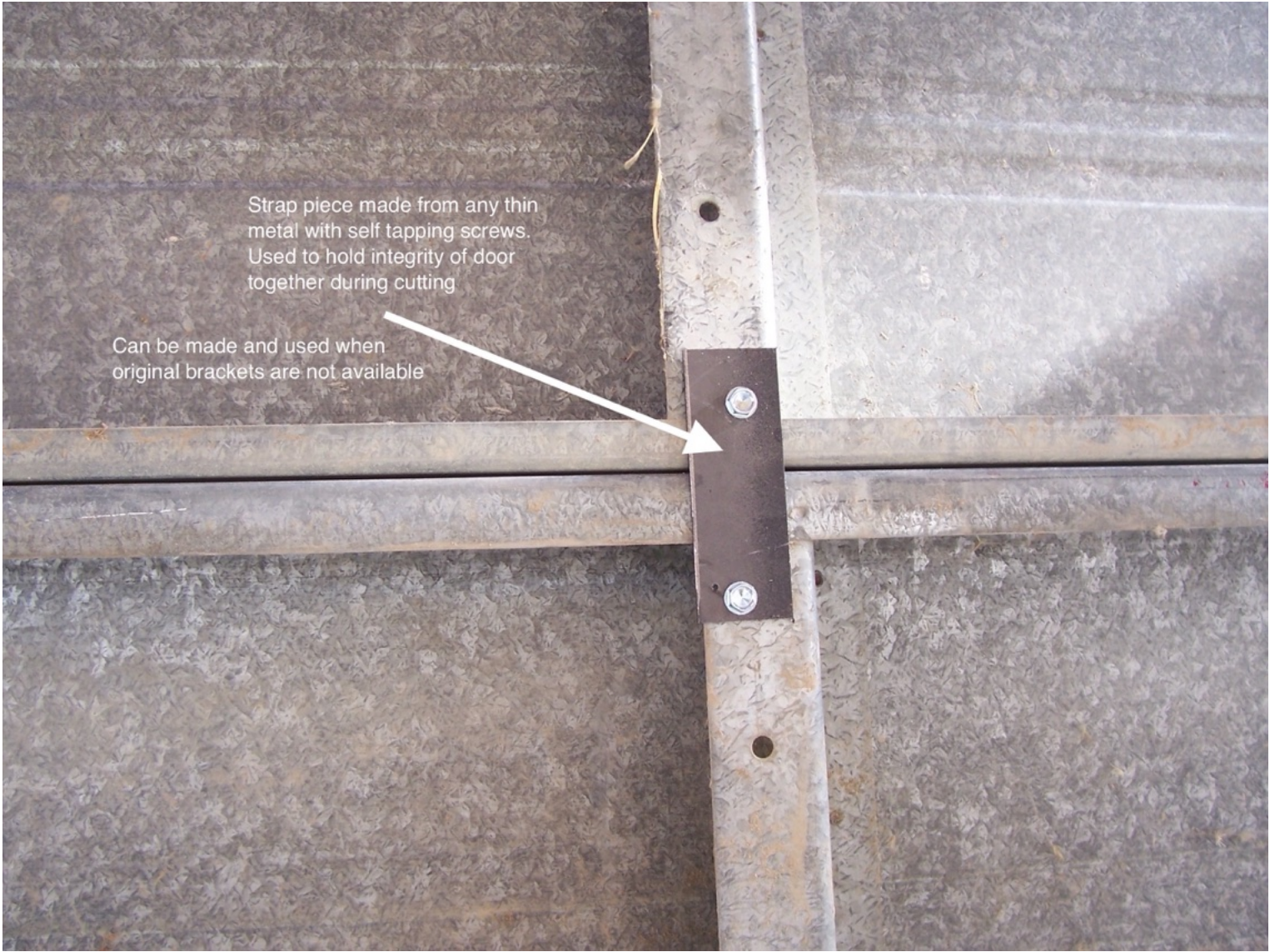












Strap piece made from any thin metal with self tapping screws. Used to hold integrity of door together during cutting

Can be made and used when original brackets are not available





Roll up door is layed out on the ground and cut to the vertical size, approx. eight feet.

You can use a concrete stake to puncture 2 holes to use in order to hang the roll up door on the spikes which are on the vertical overhead door tracks.







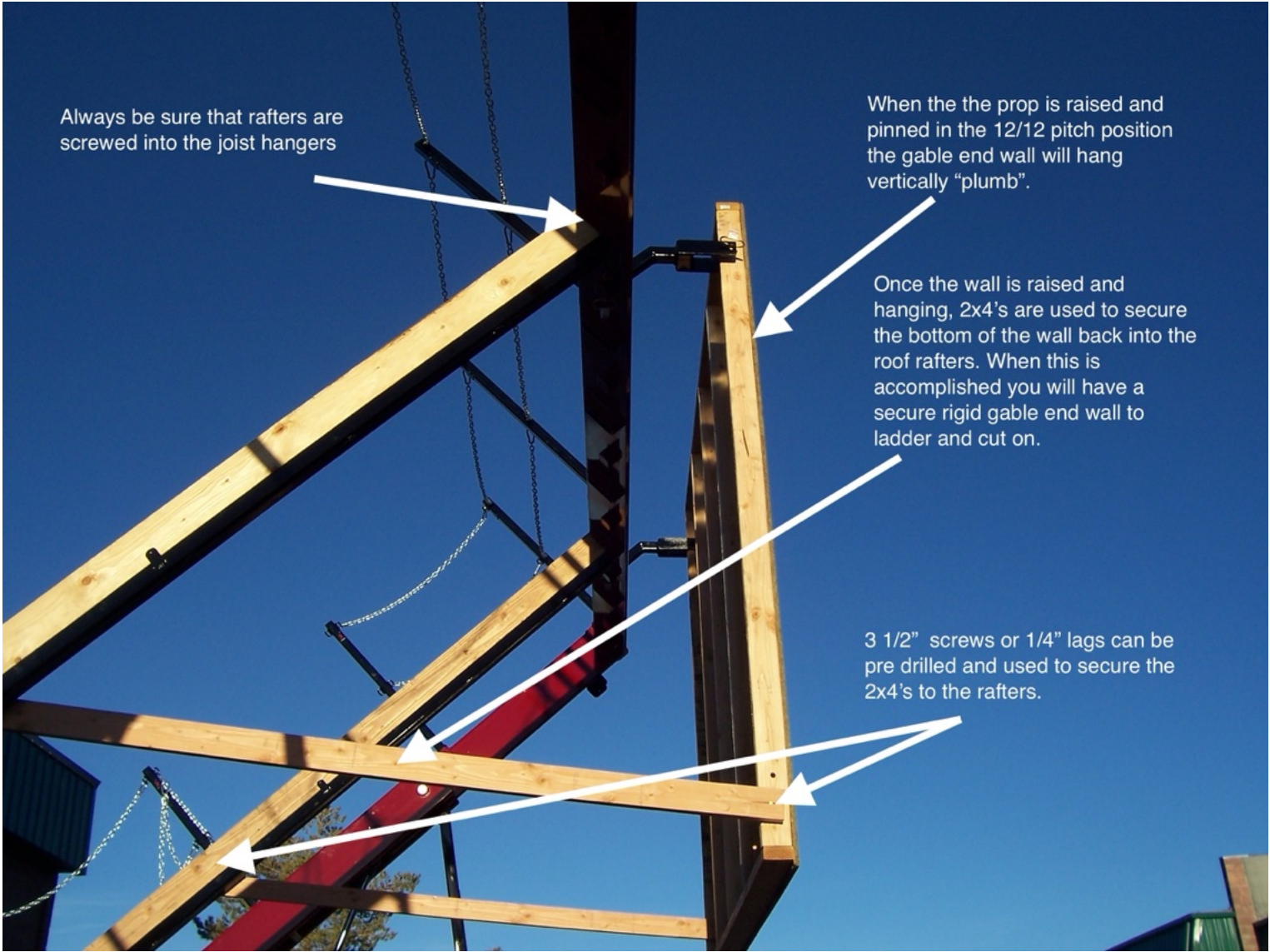






9/16" holes are drilled approx. 12 inches down from top of wall and are used to pin the wall into the brackets.

The wall in this picture is an 8ft x 8ft wall with studs on 2ft center. Wall is assembled on the ground and then pinned in place.



Always be sure that rafters are screwed into the joist hangers

When the the prop is raised and pinned in the 12/12 pitch position the gable end wall will hang vertically "plumb".

Once the wall is raised and hanging, 2x4's are used to secure the bottom of the wall back into the roof rafters. When this is accomplished you will have a secure rigid gable end wall to ladder and cut on.

3 1/2" screws or 1/4" lags can be pre drilled and used to secure the 2x4's to the rafters.











Chicago Ridge



Decal Placement Examples



Decal Placement Examples



Decal Placement Examples



Decal Placement Examples

