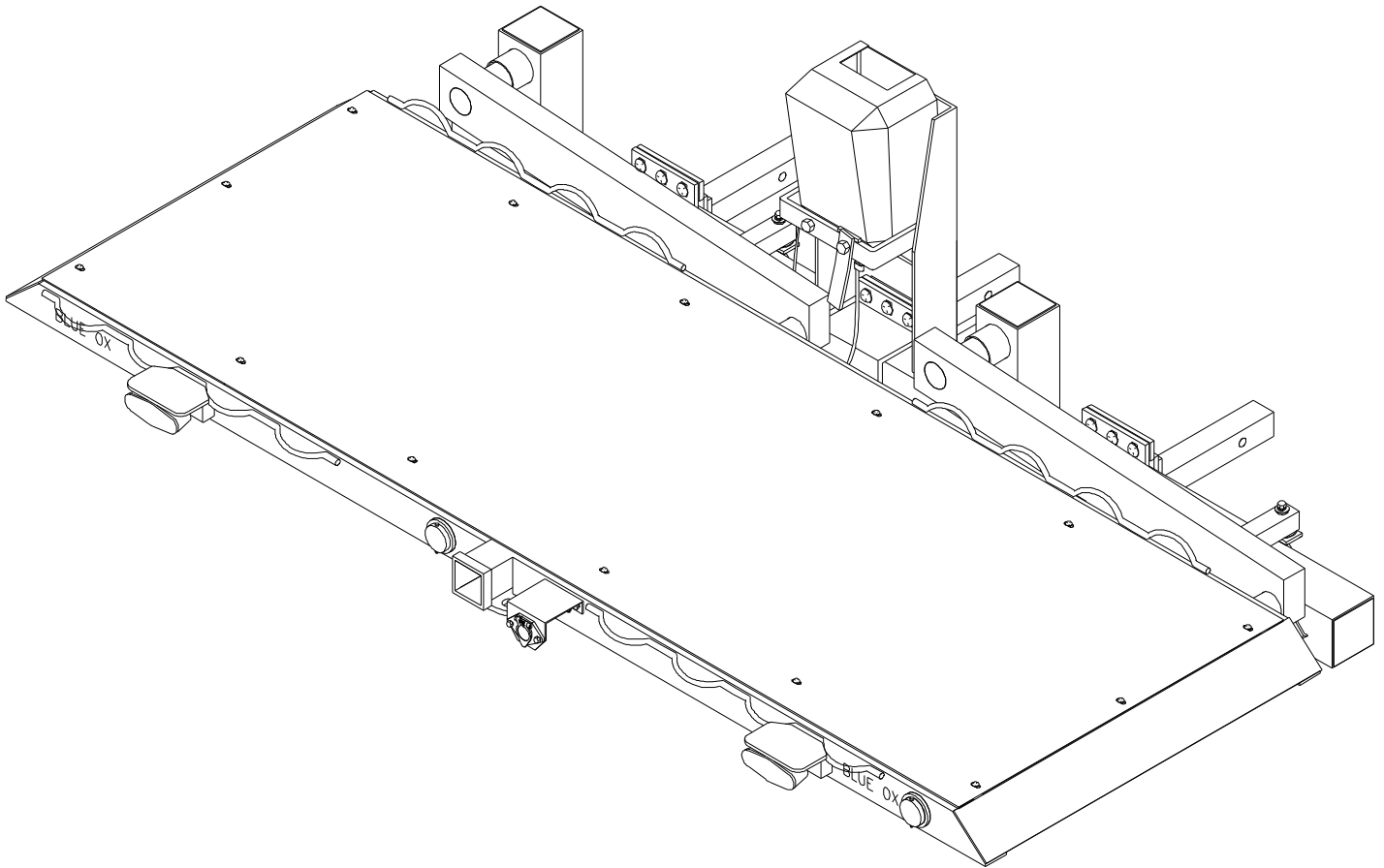




Serial No.

# SportLift II™



## OPERATOR, PARTS AND INSTALLATION MANUAL

### SC4100 SportLift II™

(Patent No. - 6,884,018)



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**DO NOT INSTALL OR USE THIS EQUIPMENT UNTIL THE FOLLOWING OPERATING AND INSTALLATION INSTRUCTIONS HAVE BEEN READ AND UNDERSTOOD.**

Congratulations in buying the SportLift II from Blue Ox! The SportLift II is the best lift out on the market today. SportLift II has many features and conveniences. The SportLift II has a whopping 1000lbs. of carrying capacity, and can flat-tow up to 5000 lbs. The SportLift II is safe, durable, and easy to use, that will give you many years of service.

**IMPORTANT NOTES BEFORE INSTALLATION:**

- Be sure to read the "Lift & Carrier Initial Information Sheets" to figure out if the SportLift II is applicable onto the motorhome chassis and to figure out how much weight will be added to the rear axle of the motorhome.

- Never exceed the weight rating of the rear axle or tire load ratings of the RV. Doing so will cause dangerous driving conditions, and possible damage to the RV!

- Installation of receiver requires fabrication of mount plates (3/8" to 1/2" thick depending on application) and welding the mount plates to the 3 receiver hitch. Call Blue Ox customer service for more information.

- Installers beware of the rear exhaust of the RV when designing the mount plates.

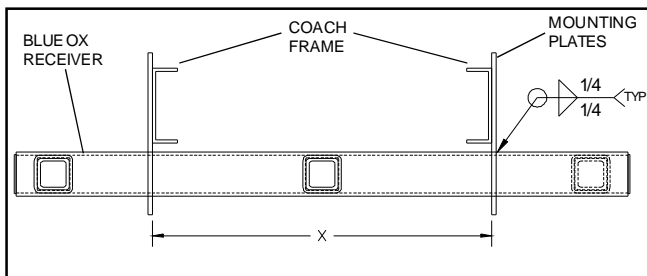
- The mount plates should be mounted directly to the main C-channels of the RV chassis for the most support.

- The hitch receiver needs to be welded by a certified welder.

**SportLift II Capacities**

**LIFTING CAPACITY - ..... 1000 LBS.**

**FLAT-TOWING CAPACITY - ..... 5000 LBS.**

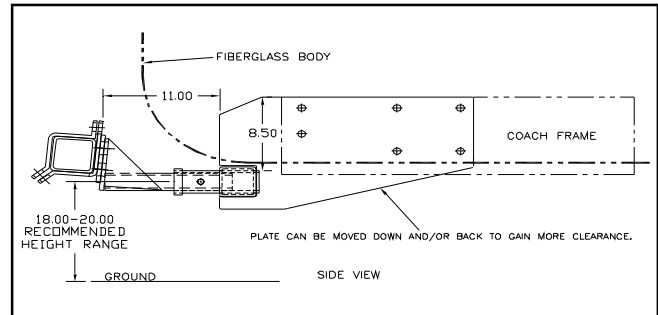


**Fig. A**

**CARGO HAULING LENGTH-.. 102 INCHES OR LESS**

**INSTALLING HITCH RECEIVER**

1.



**Fig. B**

1. NOTE 1: If original hitch has motor mounts incorporated into it, don't touch original hitch, the mount plates will have to go around.

NOTE 2: The original hitch of the coach will need to be replaced with the sc9000 hitch receiver and mount plates. Once the original hitch is removed, measure between the two c-channels of the frame of the coach. What ever this measurement is, is what the distance between the mounting plates need to be as shown in Fig. A. \*\*The mounting plates need to be welded by a certified welder. The hitch receiver needs to be positioned so the stinger brackets will not hit the coach bumper or fiberglass body (Fig. B). The recommended height of the Blue Ox receivers is 18-20 inches from the ground to the center of the receivers. The stinger brackets can be pinned into the hitch receiver to give a better idea where the mounting plates need to be located. **Note: Make sure the Blue Ox hitch receiver is level before marking the holes on the C-channels of the coach.** If all 6 holes on the plate are not hitting the flat part of the c-channel, more 25/32" holes will need to be drilled. There should be at least 6 holes in each plate. Once all holes are drilled, bolt the hitch receiver assembly to the c-channels of the coach with 3/4-10 x 1 3/4 hex bolts, lockwashers, and hex nuts. The stinger brackets (Item 11) can now be pinned into the three receiver hitch. The bolt on weldments (Item 6) can be bolted onto the stingers with 1/2-13 x 1 1/2 carriage bolts and whiz nuts as shown on page 5.

**INSTALLING THE LIFT ASSEMBLY**

2. The lift assembly can now be set on the stingers support brackets as shown in Fig. C. The bolt on caps (Item 7) can now be bolted onto the stingers with 1/2-13 x 1 1/2 carriage bolts and whiz nuts (Figure D).



## DECK ANGLE ADJUSTMENT

- If the deck is tipped up too much, this can be adjusted by putting spacers (Item 18) in between the stinger (Item 11) and bolt on weldment (Item 6). There are nine spacers supplied with the lift, three per stinger. Simply

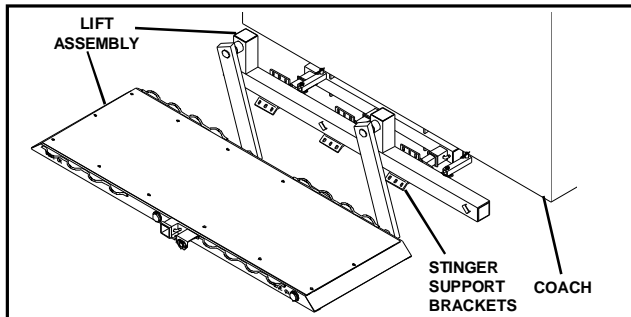


Fig. C

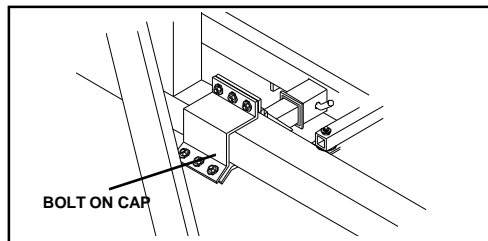


Fig. D

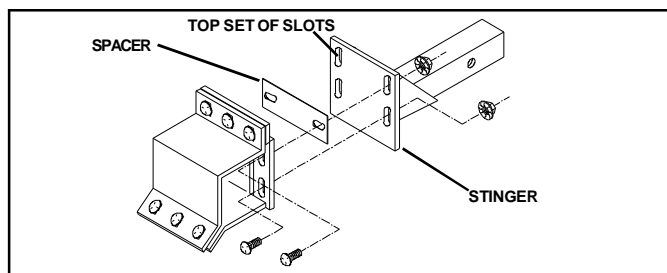


Fig. E

loosen the four carriage bolts on each stinger and place one spacer on the top set of holes on each stinger as shown below (Figure E). Add more spacers if needed. Be sure all bolts are tight. NOTE: Be sure deck is perfectly level after installation.

## WINCH INSTALLATION

- Pin the winch and bracket assembly onto the main tube assembly by using the supplied pins (Item 64) (Figure F). Be sure to use the hair pin clips when pinning the winch mount. The 5/16" cable can now be routed down through the roller and the cable anchor bolt around the 2" pulley on the deck and back up to the 5/8-11 x 5 hex bolt for anchoring (Figure G & page 6).

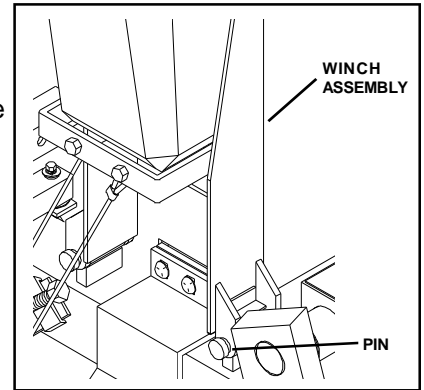


Fig. F

## WIRING

- Plug the positive and negative wiring socket into the winch. Route the two wires towards the back of the coach using the supplied nylon wire ties. Connect the - or ground wire to a good solid ground, preferably using an existing bolt under the coach. Connect the + or positive wire to a 12 volt battery source on the coach. Go directly to the battery for the positive wire. Note: When routing the positive and negative wires to the underside of the coach, keep in mind the exhaust pipes and any other hot surfaces that may cause the winch to electrically malfunction.

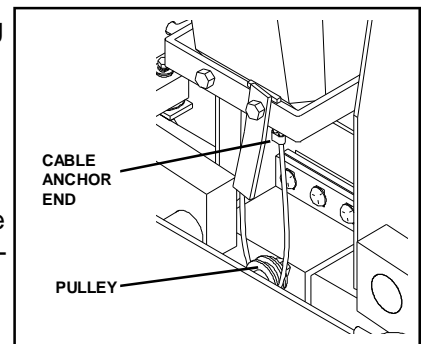


Fig. G

## OPERATING THE SPORTLIFT II

**SAFETY NOTE:** Make sure that hands and feet are away from all moving parts when operating SportLift.

**NOTE:** All SportLifts are pre-tested and set at the factory.

- Make sure the swing arms are out of the way of the deck going up or down. The hand held remote can now be plugged into the connector on the winch. Once plugged in, the up and down button on the remote should now activate the deck both up and down.



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**NOTE:** There is a stopper (Item 56) on the front of the winch bracket, this stopper should hit the spacer in back of the 2" pulley when the deck is to its top position. Once the stopper hits the spacer, let go of the hand held remote switch. **NOT** letting go of this switch could cause damage to SportLift II and will void the warranty!

### LOADING THE SPORTLIFT

**IMPORTANT NOTE:** Cargo CANNOT be anymore then 1000 lbs or 102 inches long.

**NOTE:** If loading a motorcycle, install the supplied wheel chock to either end of the deck with 3 - 5/16-18 x 1 carriage bolts, flat washers, lock washers, and hex nuts as shown in the parts break down. Put the motorcycle on the deck before drilling any holes into the steel frame to get a better idea where chock should be located.

1. With the swing arm tubes out of the way, lower the deck to the ground and load the cargo onto the deck of SportLift II. Once the cargo is positioned correctly on the deck, use ratchet tie-downs to fasten the cargo securely. There are 4 tie-down bars on SportLift, 2 on the back, and 2 on the front. Use as many ratchet tie-downs as it takes to securely fasten the cargo down to the deck. **Blue Ox is not responsible for any cargo that is fastened down to SportLift II.**
8. Once the cargo is tied down, raise the deck with the hand held switch all the way up until the deck is above the swing arm support tubes.
9. Move the swing arm support tubes out so the pegs on the swing arms are beneath the angles with holes that are welded to the front of the arm weldments. Lower the deck so that the pegs on the swing arms go through the angles. If the holes do not line up, the swing arm brackets can be adjusted slightly from side to side, then retightened. Once the deck is completely down on the swing arm tubes, secure with #9 hair pin clips.
10. Unplug the hand held switch from the winch, and store it in a safe dry place.
11. With cargo loaded and strapped down and the deck pinned, SportLift II is now ready for transporting.

### FLAT-TOWING WITH THE SPORTLIFT II

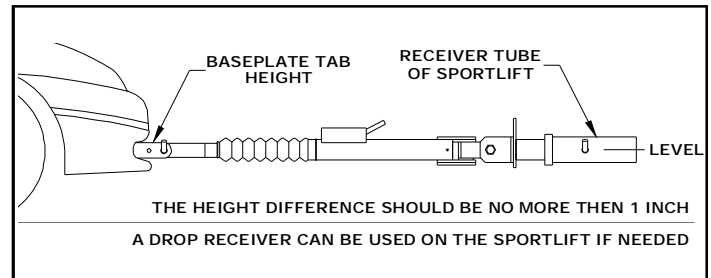


Fig. H

**WARNING!!** - SportLift II is designed to **FLAT-TOW** vehicles. Towing trailers will increase the down force thus exceeding the weight carrying capacity of SportLift II. Exceeding the capacity **WILL** lead to damage and possible product failure.

#### **IMPORTANT NOTES:**

-BEFORE A VEHICLE CAN BE FLAT-TOWED, THE DECK **MUST** BE PINNED TO THE SWING ARM SUPPORT TUBES AS DISCUSSED IN STEP 9.

-MAKE SURE THE DECK OF THE SPORTLIFT IS PERFECTLY LEVEL ONCE INSTALLED, IF NOT, READJUST WITH SUPPLIED SHIMS.

-SPORTLIFT II CAN FLAT-TOW A VEHICLE BEHIND IT THAT WEIGHS NO MORE THEN 5000 LBS.

**-WHEN FLAT-TOWING, IT IS STRONGLY RECOMMENDED THAT A BRAKE SYSTEM BE INSTALLED ON THE TOWED VEHICLE.**

12. Once the cargo is loaded onto SportLift II, strapped down securely, and pinned into place, the towed vehicle is now ready to be hooked up to the back of SportLift II.
13. Slide and pin the tow bar into the receiver of SportLift II. Hook up the towed vehicle to the tow bar, making sure the legs are locked into place.
14. Hook up the safety cables from the towed vehicle to the convenience links on the back of SportLift II.
15. SportLift II has a 6-wire adapter on the back of it to accommodate the towed vehicles wiring. The other wire of the 6-wire coiled electrical cable will need to be plugged into the coaches 6-wire socket before towing.
16. SportLift is now ready for towing.

#### **MAINTENANCE**

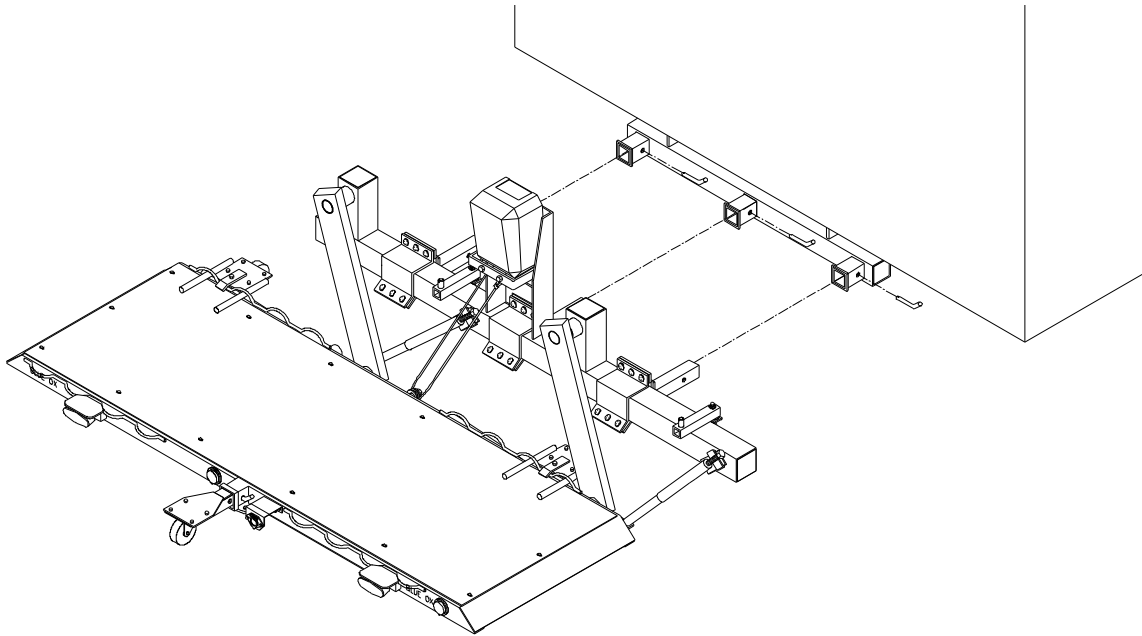
Blue Ox uses maintenance free oilite bushings that replace grease zerks. The deck is made out of rust free aluminum. Wiping SportLift II down periodically will help keep dust and dirt from building up.



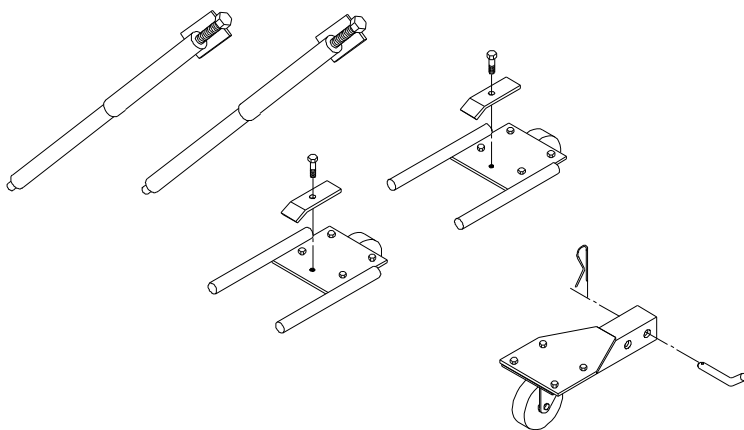
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**ALSO AVAILABLE - OPTIONAL - BX88186 - REMOVABLE SPORTLIFT II KIT**

***This kit makes removing the SportLift II much easier, contact your nearest Blue Ox dealer for more information.***

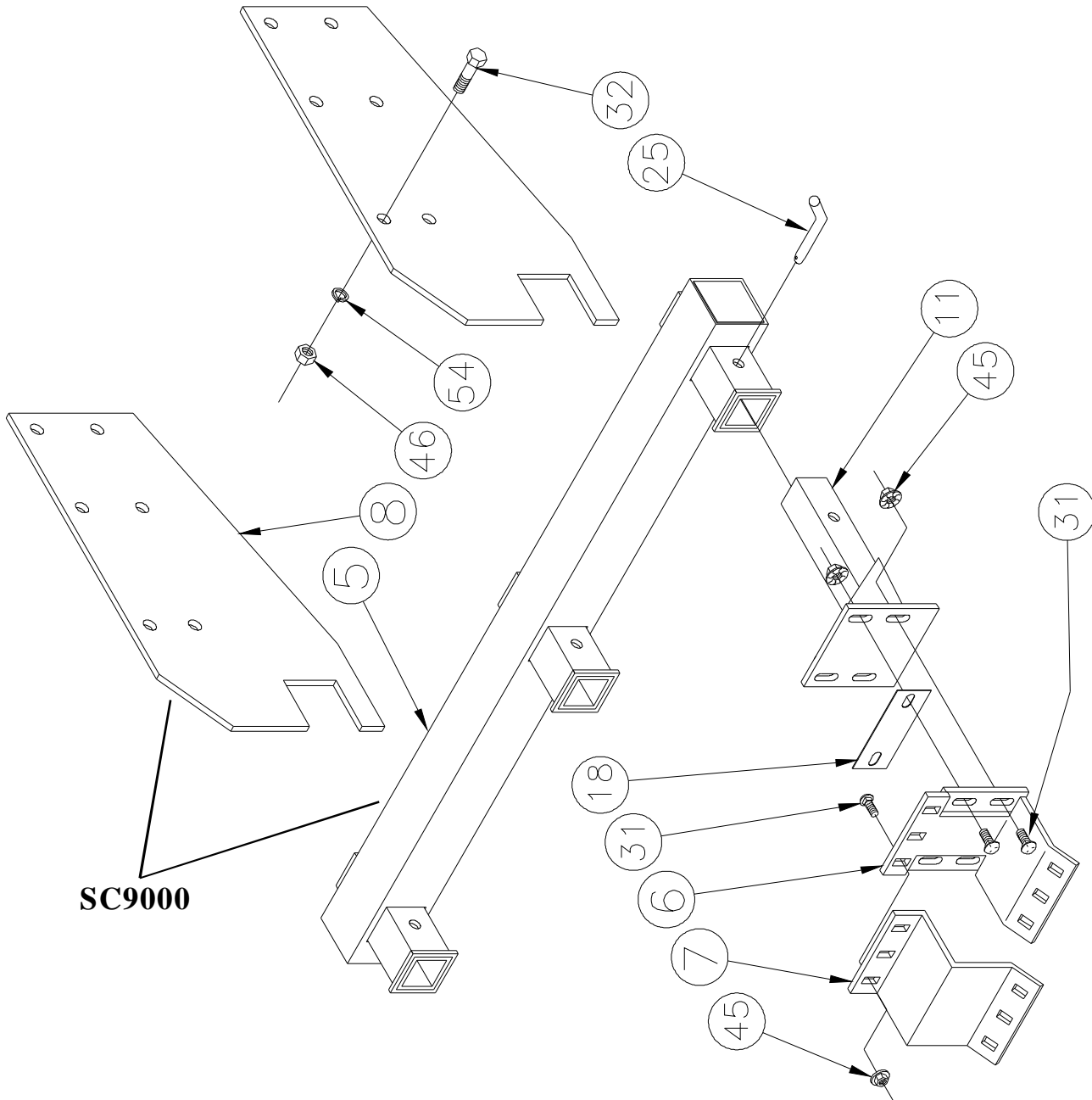


**REMOVABLE SPORTLIFT KIT SHOWN ASSEMBLED ON SPORTLIFT II**



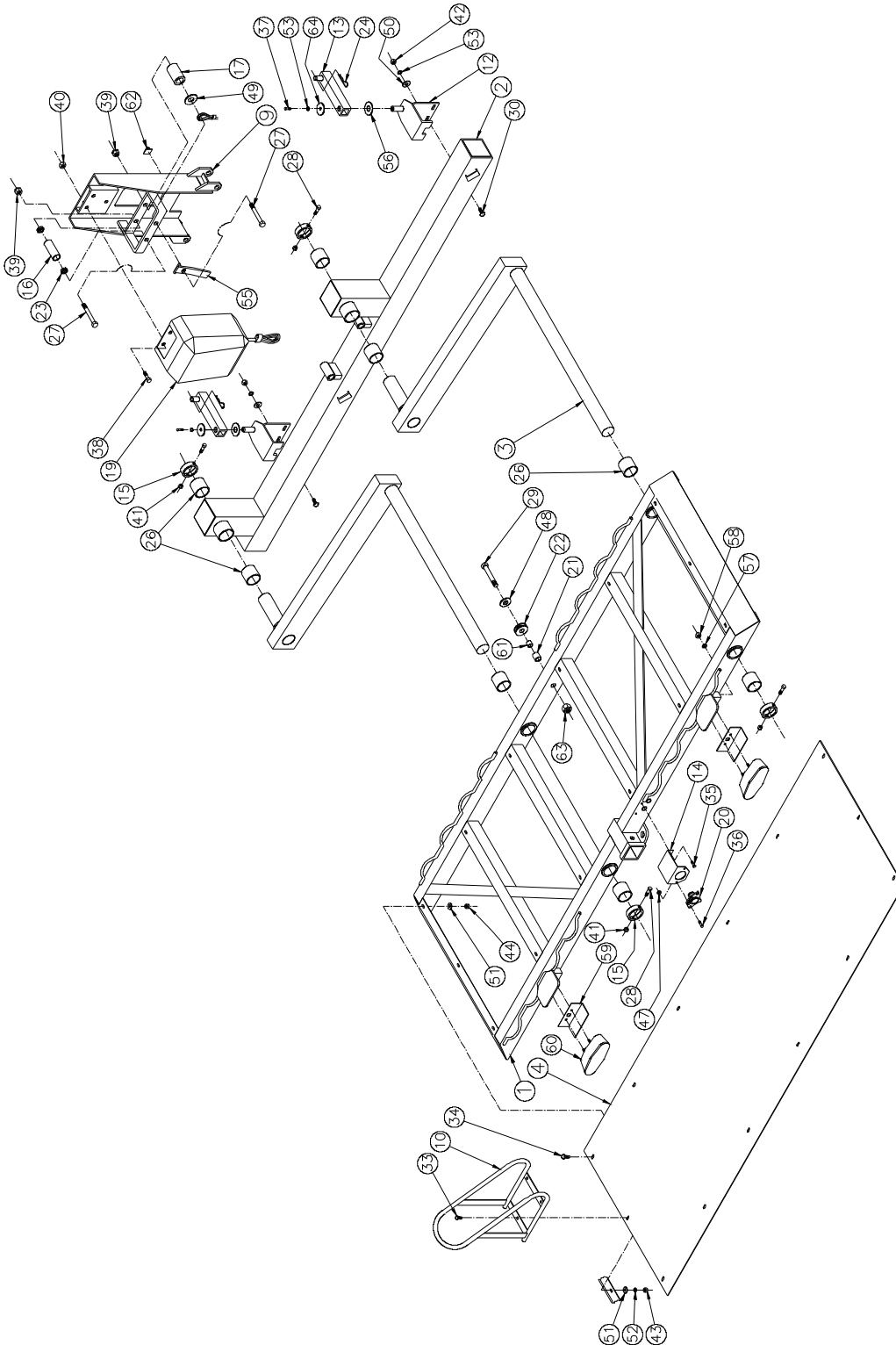


**ALSO AVAILABLE - OPTIONAL - SC9000 RECEIVER/MOUNT PLATE KIT  
(HIGHLY RECOMMENDED)**





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**IMPORTANT:** Use only genuine factory replacement parts on your SportLift. Do not substitute homemade or nontypical parts. If parts are lost or in need of replacement, for your safety and the preservation of your SportLift. Order replacement parts through your nearest **Blue Ox** dealer or distributor.

## Parts List

Ref. No.	Qty.	Part No.	Description
1	1	61-5825	Wldm't, Frame
2	1	61-5935	Wldm't, Main Tube, WS
3	2	61-5835	Wldm't, Arm
4	1	101-6401	Deck
5	-		(Comes with SC9000) Wldm't, Hitch
6	3	61-5946	Wldm't, Bolt On, Stinger, WS
7	3	102-6459	Flat, Cap, Bolt On, Stinger
8	-		(Comes with SC9000) Mounting Plate, Hitch
9	1	61-5929	Wldm't, Mount, Winch
10	1	229-0640	Tire Support, 5 1/2 Inch
11	3	61-5945	Wldm't, Stinger, WS
12	2	61-5943	Deck Support, WS
13	2	61-5944	Wldm't, Swing Arm, Deck Support
14	1	101-6453	Bracket, Holder, 6-Wire
15	4	107-2542	Collar
16	1	107-2600	Tube, Roller, Winch
17	1	107-2612	Spacer, Thimble Anchor
18	9	101-6564	Spacer, Tilt, WS
19	1	294-0845	Winch, 12v, 1500lbs
20	1	BX8862	6 Wire Coiled Cable Ext.
21	1	107-2608	Spacer, Pulley, Deck
22	1	213-0004	Pulley, 2 Inch
23	2	209-0138	Bearing, 5/8
24	2	229-0088	#9 Hair Pin Clip
25	4	200-1483	Pin, 5/8 eff. w/clip
26	8	100-1168	Sleeve, Oilite, Mach.
27	2	201-0075	5/8-11 x 5 Hex Bolt, Grd.5, ZP
28	4	201-0188	3/8-16 x 3 1/4 Hex Bolt, Grd.5, ZP
29	1	201-0400	3/4-10 x 5 1/2 Hex Bolt, Grd.5, ZP
30	4	201-0008	3/8-16 x 1 1/4 Carriage Bolt, Grd.5, ZP
31	30	201-0012	1/2-13 x 1 1/2 Carriage Bolt, Grd.5, ZP
32	12	201-0514	3/4-10 x 1 3/4 Hex Bolt, Grd.5, ZP
33	3	201-0121	5/16-18 x 1 Carriage Bolt, Grd.5, ZP
34	14	201-0119	5/16-18 x 3/4 Carriage Bolt, Grd.5, ZP
35	2	201-0553	1/4-20 x 1/2 Hex Washer Hd. Screw
36	2	201-0071	1/4-20 x 1 Hex Bolt, Grd.5, ZP
37	2	201-0443	3/8-16 x 1 Hex Bolt, Grd.5, ZP
38	3	201-0011	1/2-13 x 1 1/4 Hex Bolt, Grd.5, ZP
39	1	202-0163	5/8-11 Hex Jam Nut, w/Nylon Insert, Grd.5, ZP



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## Parts List

Ref. No.	Qty.	Part No.	Description
40	3	202-0072	1/2-13 Hex Whiz Nut, Grd.5, ZP
41	4	202-0090	3/8-16 Hex Nylock Nut, Grd.5, ZP
42	4	202-0003	3/8-16 Hex Nut, Grd.5, ZP
43	1	202-0002	5/16-18 Hex Nut, Grd.5, ZP
44	14	202-0097	5/16-18 Hex Nylock Nut, Grd.5, ZP
45	30	202-0072	1/2-13 Whiz Nut, Grd.5, ZP
46	12	202-0007	3/4-10 Hex Nut, Grd.5, ZP
47	2	202-0069	1/4-20 Whiz Nut, Grd.5, ZP
48	1	203-0007	3/4 Flat washer, ZP
49	1	203-0006	5/8 Flat washer, ZP
50	4	203-0003	3/8 Flat washer, ZP
51	16	203-0002	5/16 Flat washer, ZP
52	7	203-0009	5/16 Lock washer, ZP
53	6	203-0010	3/8 Lock washer, ZP
54	12	203-0014	3/4 Lockwasher, ZP
55	1	61-5952	Wldm't, Stopper, Deck
56	2	290-0347	Spacer, Plastic, 1/16 X 13/16ID X 2
57	4	203-0008	1/4 Lock washer, ZP
58	4	202-0001	1/4 Hexnut, Grd.5, ZP
59	2	101-6606	Protector, Bottom, Light
60	2	294-0856	Light, Stop-Turn-Tail, 2 Wire, 12V
61	1	205-0325	Bushing, 3/4 ID x 7/8 OD x 21/32 W
62	2	290-0435	Clip, Adhesive Back, 1/2"
63	1	202-0162	3/4-10 Nylock Hexnut, Grd.5, ZP
64	2	101-5147	Plate Washer, 1/2 hole, ZP



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## **SPORTLIFT II ONE YEAR WARRANTY**

Automatic Equipment Manufacturing Co. ("Automatic") warrants to the first retail purchaser that each item of equipment manufactured by Automatic shall be free from defect in material and workmanship under normal use and service for one year.

Automatic will repair or replace any parts which (a) shall be returned to an authorized dealer, distributor, or the factory, with transportation charges prepaid, and (b) after examination by Automatic, are found to be defective. This warranty will not cover, in any way, any alleged damages caused by incorrect or improper installation, improper use, modification or neglect of product, or failure of the user to follow the guidelines contained in the instructional material provided by Automatic.

REPAIR OR REPLACEMENT AS SET FORTH IN THIS 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 DURATION TO THE DURATION OF THIS WARRANTY.

Some states do not allow the exclusion or limitation of incidental or consequential damages, or allow limitations on how long an implied warranty lasts, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

Automatic reserves the right to make changes or add improvements to its products at any time without incurring any obligation to make such changes to previously manufactured equipment.

No liability is assumed for bodily injury that may be inflicted on the operator, spectator or general public who might be in the general area while this equipment is in use.

**IMPORTANT:** Coverage and performance under the foregoing warranty is conditioned upon the first retail purchaser completing and returning the customer registration card to Automatic within ten days of delivery date and upon the original serial number being visible on the product and unaltered. Automatic will not honor any warranty claims unless the warranty registration card is on file at Automatic's factory in Pender, Nebraska.

Automatic Equipment Manufacturing Co.  
P.O. Box P, Pender, NE 68047  
9/04



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**TO BE VALID, THE WARRANTY CARD MUST BE COMPLETED IN ITS ENTIRETY BY AN AUTHORIZED DISTRIBUTOR OR DEALER AND SENT TO AUTOMATIC EQUIPMENT MFG. CO., PENDER, NEBRASKA. FAILURE TO DO SO WILL VOID THE WARRANTY.**

Repair parts may be ordered through your nearest Automatic dealer or distributor.

SERIAL NUMBER -

### **Product Safety Policy Statement**

It is, and shall continue to be, a primary objective of Automatic Equipment Manufacturing Company to provide customers with safe and reliable products. Automatic will, and has, established safety procedures in product design, manufacture, promotion and sales; and will coordinate efforts to promote customer safety to the greatest extent possible. Each department has primary responsibility for the promotion of safety under the guidelines of the Product Safety Committee.

# **SC4100 SPORTLIFT II**