

# **OPERATOR, PARTS AND INSTALLATION MANUAL**

BX8870 KARGARD™

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# **INSTALLATION / STORAGE**

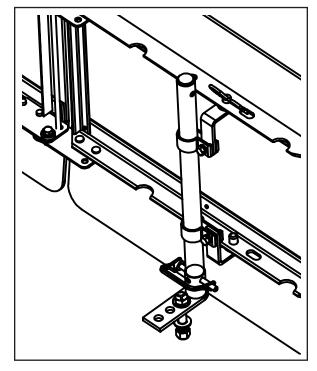
### DO NOT INSTALL, OR USE THIS EQUIPMENT UNTIL THE FOLLOWING OPERATING AND INSTALLATION INSTRUCTIONS HAVE BEEN READ AND UNDERSTOOD.

The installation and storage instructions below are designed for everyday use. If installing your KarGard<sup>™</sup> for the first time, refer to the detailed instructions for specific tow bars found on pages 3-5. Due to vast differences in towed vehicle front ends, these detailed instructions may have to be adjusted slightly or different mounting holes used than those referred to in the instructions and on the illustrations. If your tow bar is not specifically addressed, you should be able to adapt one of these sets of detailed instructions to aid in your particular installation.

# Note: Reference your vehicle owner's manual for manufacturer's towing specifications as some owner's manuals prohibit the use of vertical shields while towing.

#### INSTALLATION FOR TOWING

- 1. Hook up your tow bar for towing.
- 2. Remove the locking rod and unfold the KarGard. Remove the tower assemblies from their storage slots and install them into the tower bases. Pin them in place using the spring lock pins.
- 3. Insert the locking rod into the center hinges to keep the KarGard straight.
- 4. Set the KarGard onto the dowel pins (bottom first) then install the hair pins into the upper dowel pins to secure the KarGard in place.
- 5. The KarGard is installed and ready for towing.



#### **REMOVAL FOR STORAGE**

- Pull the hair pins from the dowel pins and remove the KarGard. Lay it flat on the grass to avoid scratching the surface. (aluminum angles up) Insert the hair pins into the dowel pin holes to prevent loss.
- 2. Remove the spring lock pins and towers from the tower bases. Insert the spring lock pins through the storage holes in the top of the tower assemblies. By using these holes, the tower assemblies will not slide out when stored inside the folded KarGard.
- 3. Lay the tower assemblies in the storage slots in the aluminum angles. Arrange them so you know which tower goes to which side to help avoid confusion when installing the KarGard next time.
- 4. Remove the locking rod, fold the KarGard then insert the locking rod to keep the KarGard folded.
- 5. Once folded, the locking rod or small aluminum angle at the hinged end can serve as a handle.

#### STORAGE

The edges of the KarGard may warp slightly during shipping or storage. When laid flat or installed on the towers, the KarGard should regain its original form. We recommend storing the KarGard folded, and laying flat. **NOTE:** The material used in the construction of the KarGard has a good memory of its original shape. However, if the KarGard is subjected to abnormal circumstances causing it to be bent sharply, it may not regain its original shape. The manufacturer accepts no responsibility for any damage caused to the KarGard or to the towed vehicle resulting from the misuse of this product.

## ! IMPORTANT !

Note that the plastic material extends 12" beyond the rigid aluminum framework. This allows flexibility if you should turn too sharp and the motorhomes' bumper or roof access ladder hits the KarGard.

A recessed receiver, a short tow bar, or both, will greatly reduce the turning radius, especially if you have a roof access ladder on your motorhome. Be aware of this and check it the first time you turn a corner.

## 1. Refer to page 4 while installing the

*KarGard.* Mount the tow bar to the towed vehicle's baseplate, as if to tow it. Support the coupler on blocks or a stand at approximately the same height as your hitch ball. (Avail, Ascent, and Alpha tow bars - same height as your hitch receiver)

**IMPORTANT:** DO NOT hook the tow bar to the towing vehicle. During installation, bolts will be removed and the hook up will make it difficult to remove bolts.

Remove the 1/2" grade 5 bolts attaching the chrome tow bar legs to the tabs. Set the tower bases on top of the tabs and fasten using the 1/2 x 3 grade 5 bolts and nylon insert lock nuts provided. Install them with the cups close to the front of the towed vehicle, and the same distance from the towed vehicle.

**NOTE:** How the tower bases are oriented will depend on what type of tow bar you have. **Avail, Ascent & Alpha** tow bars are shown on page 5. **NOTE:** 2 - 1/2" washers may have to be used on each side as shown on page 4 & 5 so the tower base clears the rubber boot.

Snug the bolts, but do not tighten at this time. There should be two or more threads showing through the lock nut when snug. If this is not the case, obtain a longer bolt from a hardware store, but be certain it is Grade 5.

- 3. Fold your tow bar to the stored position to be certain that the tower bases will not interfere, adjust accordingly. The tower bases will work in a wide variety of locations.
- 4. Set the towers into the tower bases (plastic plugs up) and install the spring lock pins.
- 5. Lift the front of the tow bar up until the towers almost touch the front of your towed vehicle. This shows you how much of a dip or rise you can go through before contact occurs. This is a judgment that only you can determine. You may need to adjust the tower bases forward slightly if clearances appear too close.
- Assemble the tower clamps to the upper and lower "L" brackets so you have four bracket assemblies, an upper and lower right and an

upper and lower left. Be sure to orient the clamps and "L" brackets as shown on page 4. Slide a rubber washer over each of the four dowel pins on the "L" brackets.

7. Slide the four bracket assemblies onto the towers. Snug to keep in place but do not tighten at this time.

**NOTE:** "L" brackets with short pins with a hole through them are upper brackets.

8. Remove the locking rod and unfold the KarGard. Install the locking rod to keep the KarGard straight. Set the KarGard upright on the tow bar legs. Slide the upper brackets up until the dowel pins fit through a hole in the upper aluminum angle of the KarGard, and install the two hair pins.

# **IMPORTANT:** Use any holes, but be sure to keep the KarGard centered in front of the towed vehicle.

Snug the upper brackets, but do not tighten at this time. Slide the lower brackets up until the dowel pins fit through the same holes in the lower aluminum angles as used in the upper angles. Snug the lower brackets, but do not tighten at this time.

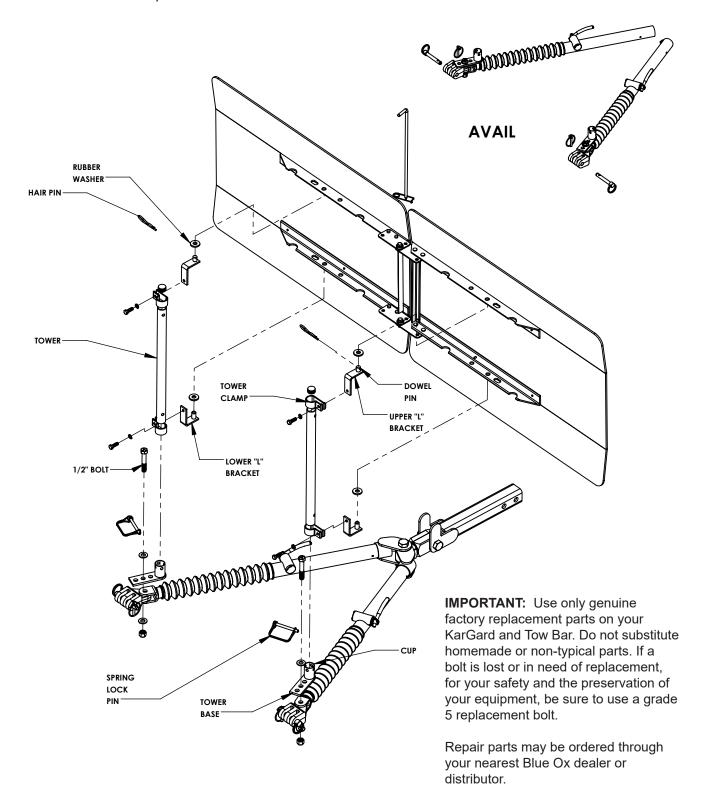
- Determine if you need to lower the KarGard to provide maximum protection of your towed vehicle lower valence. If you need to lower it, follow the instructions printed on the template supplied with the KarGard.
- 10. Once openings are cut, (optional) reinstall the KarGard onto the dowel pins (bottom first) and install the hair pins. Slide all mounting brackets and the KarGard down and tighten the mounting brackets completely.

**NOTE:** Allow approximately 1/2" clearance between the bottom of the KarGard and the top of the tow bar legs. Distances may vary due to tow bar configurations. Keep KarGard parallel with the tow bar cross bar. Tighten the 1/2" bolts that hold the tower bases firmly.

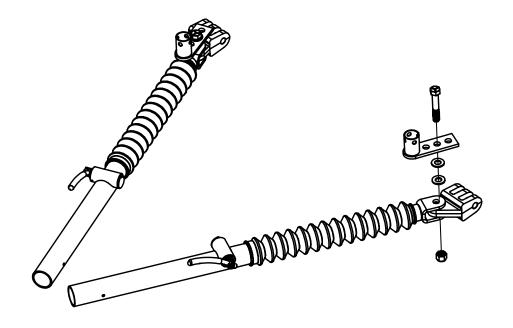
**IMPORTANT:** Over tightening causes difficulty in folding the tow bar, and under tighten-ing causes looseness in the legs and tower

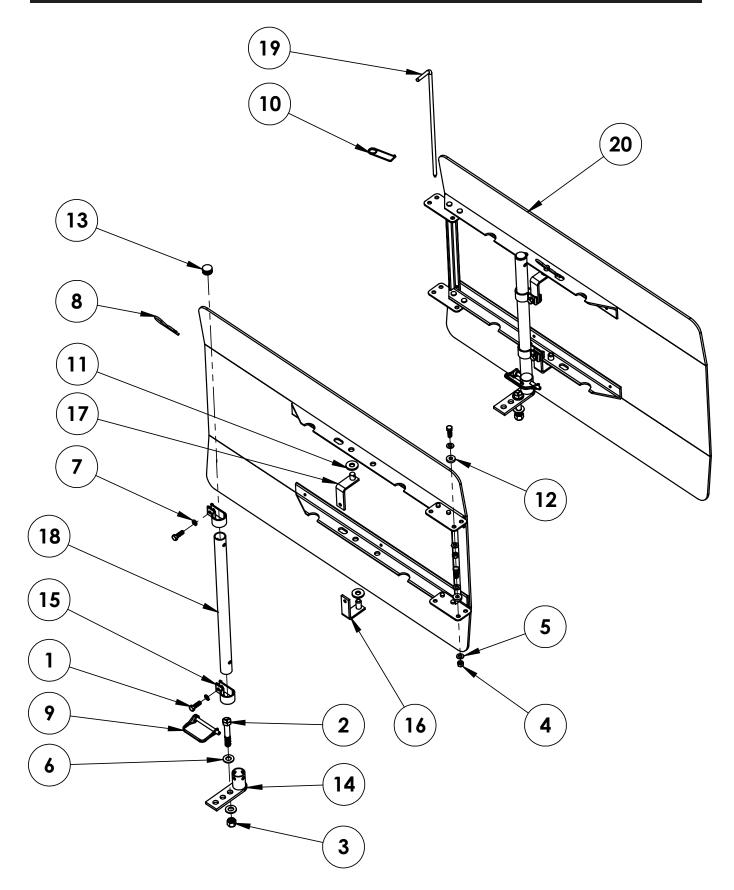
bases. Make it a habit to check all fasteners occasionally for tightness.

The manufacturer accepts no responsibility for any damage caused to the KarGard or to the towed or towing vehicle from improper installation of this product. Be sure to read page 2 where you will find important information about your KarGard, as well as installation and storage instructions for everyday use.



(AVAIL, ASCENT, ALPHA SELF-ALIGNING TOW ARMS)





Item No.	Part No.	Description	Qty.
1	201-0469(2 preinstalled).	5/16"-18 x 1" Hex Head Bolt, Grade 5, ZP	6
2	201-0490	1/2"-13 x 3" Hex Head Bolt, Grade 5, ZP	2
3	202-0094	1/2"-13 Hex Nylon Insert Lock Nut, ZP	2
4	202-0097(preinstalled)	5/16"-18 Hex Nylon Insert Lock Nut, ZP	2
5	203-0002(preinstalled)	5/16" Flat Washer, ZP	4
6	203-0005	1/2" Flat Washer	4
7	203-0009	5/16" Lock Washer	4
8	229-0088	NO. 9 Hairpin Clip	2
9	229-0440	5/16" x 2-1/2" Eff. Spring Lick Pin	2
10	229-0760	091 x 1.6875 HD Safety Pin	1
11	250-0168	1/2" x 1-3/16" Rubber Washer	4
12	290-0357(preinstalled)	5/16" x 7/8" Nylatron Washer	2
13	290-0358(preinstalled)	Tower Plastic Cap Plug	2
14	293-1182	Tower Base Assembly	2
15	293-1183	Tower Clamp	4
16	293-1184	Lower L Bracket Assembly	2
17	293-1185	Upper L Bracket Assembly	2
18	293-1186	Upright Tower	2
19	293-1187	Locking Rod	1
		Shield Assembly	

**IMPORTANT:** Use only genuine factory replacement parts on your KarGard and Tow Bar. 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 equipment, be sure to use a grade 5 replacement bolt.

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



# BX8870 KARGARD™

# QUICK REFERENCE GUIDE

#### INSTALLATION FOR TOWING

- 1. Remove locking rod, unfold the KarGard and lock it straight with the locking rod.
- 2. Install the towers into the tower bases. Pin them in place with the spring lock pins.
- 3. Set the KarGard on the dowel pins (bottom first) then install the hair pins to secure the KarGard in place.
- 4. The KarGard is installed and ready for towing.

## **REMOVAL FOR STORAGE**

- 1. Remove the hair pins and lay the KarGard flat. (angles up) Replace hair pins to prevent loss.
- 2. Remove the towers from the tower bases. Place the spring lock pins in the storage holes to prevent loss.
- 3. Store tower assemblies in slots in KarGard. Fold the KarGard and insert the locking rod.
- 4. The locking rod at the hinged end serves as a handle.

## TO BE VALID, THE WARRANTY CARD MUST BE COMPLETED IN ITS ENTIRETY BY THE ORIGINAL PURCHASER AND SUBMITTED TO AUTOMATIC EQUIPMENT MFG. CO., PENDER, NEBRASKA WITHIN 30 DAYS. FAILURE TO DO SO WILL VOID THE WARRANTY.

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

# **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.

# **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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# Adjusting the KarGard<sup>™</sup> for Maximum Protection

#### STEP #1

Determine how far below the tow bar legs the KarGard Needs to extend in order to protect the entire front end of the towed vehicle. Maximum adjustment is 5-1/2" down.

#### STEP #2

Cut out the U-shaped area of the template following the dotted line. Choose which dotted line based on the width of the tow bar leg (or bracketing).

#### STEP #4

Carefully press the template against the KarGard and mark the KarGard around the cut out area using a marker, chalk, grease pencil, etc. **NOTE:** You may need to lift up this side (or remove the KarGard) if the tow bar leg interferes with pressing the template flat against the KarGard.

