



# AdvantEDGE™

## Owner's Manual

REV: 2024.6.14

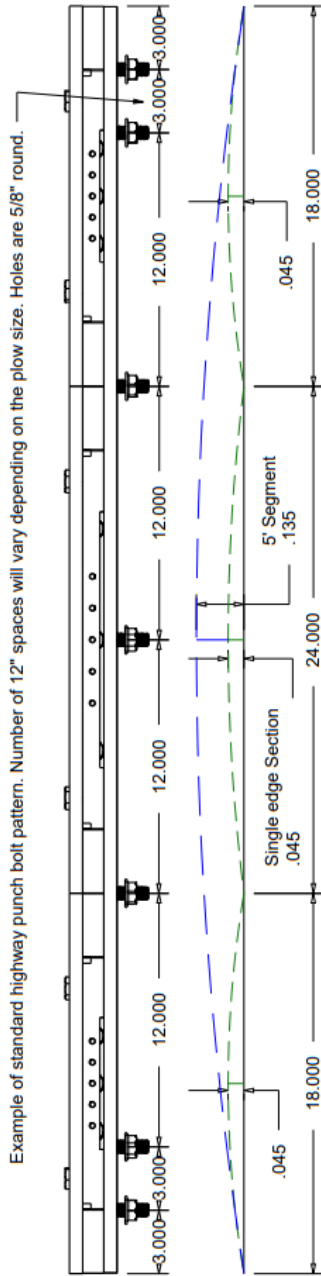


## Kage AdvantEdge Installation

### Acceptable Warpage

Maximum acceptable warpage on product attachment point is .045" (3/64") arc radius using a straight edge as the chord per cutting edge section.

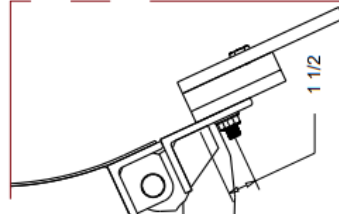
Installing the KAGE AdvantEdge on products warped beyond this point will cause cutting edges to bind, restricting vertical motion.



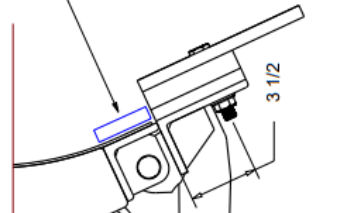
Chord representation not shown to scale.

### Installation height

SS Mounting Option



SF Mounting Option



AdvantEdge comes assembled and bolts directly to virtually any standard highway punch plow or pusher. (See above)

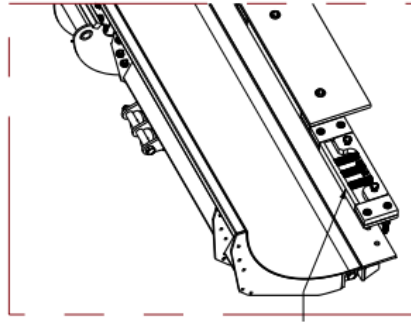
Do not bolt over moldboard (blue dashes).  
Two mounting heights are available.


To calculate the total number of springs, divide the weight of your plow by 128.7. Then divide that number by the number of cutting edges. Numbers that do not divide by the number of cutting edges may be rounded up or down depending on your requirements.

Example: 14' Kage plow without box

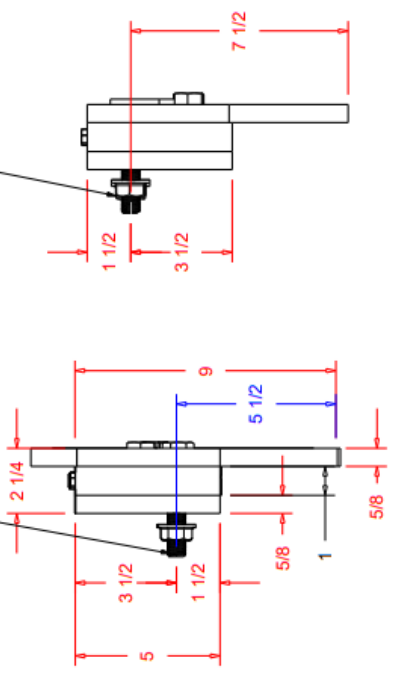
14' Plow weight 3089 lbs / 128.7 = 24 Springs  
24 total springs / 8 cutting edges = 3 springs per cutting edge

### Spring count by plow weight

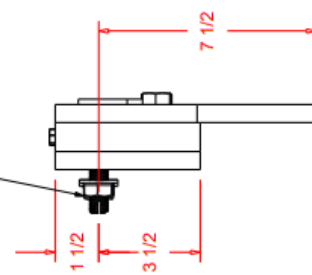




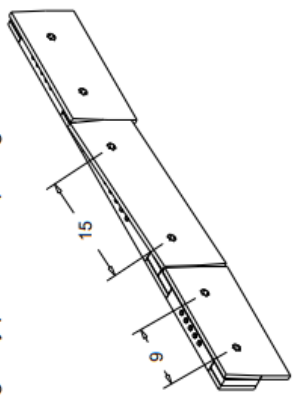
**SF** bolt placement

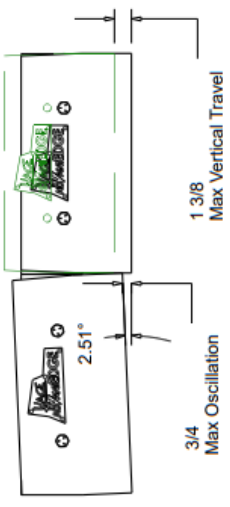


**SS** bolt placement



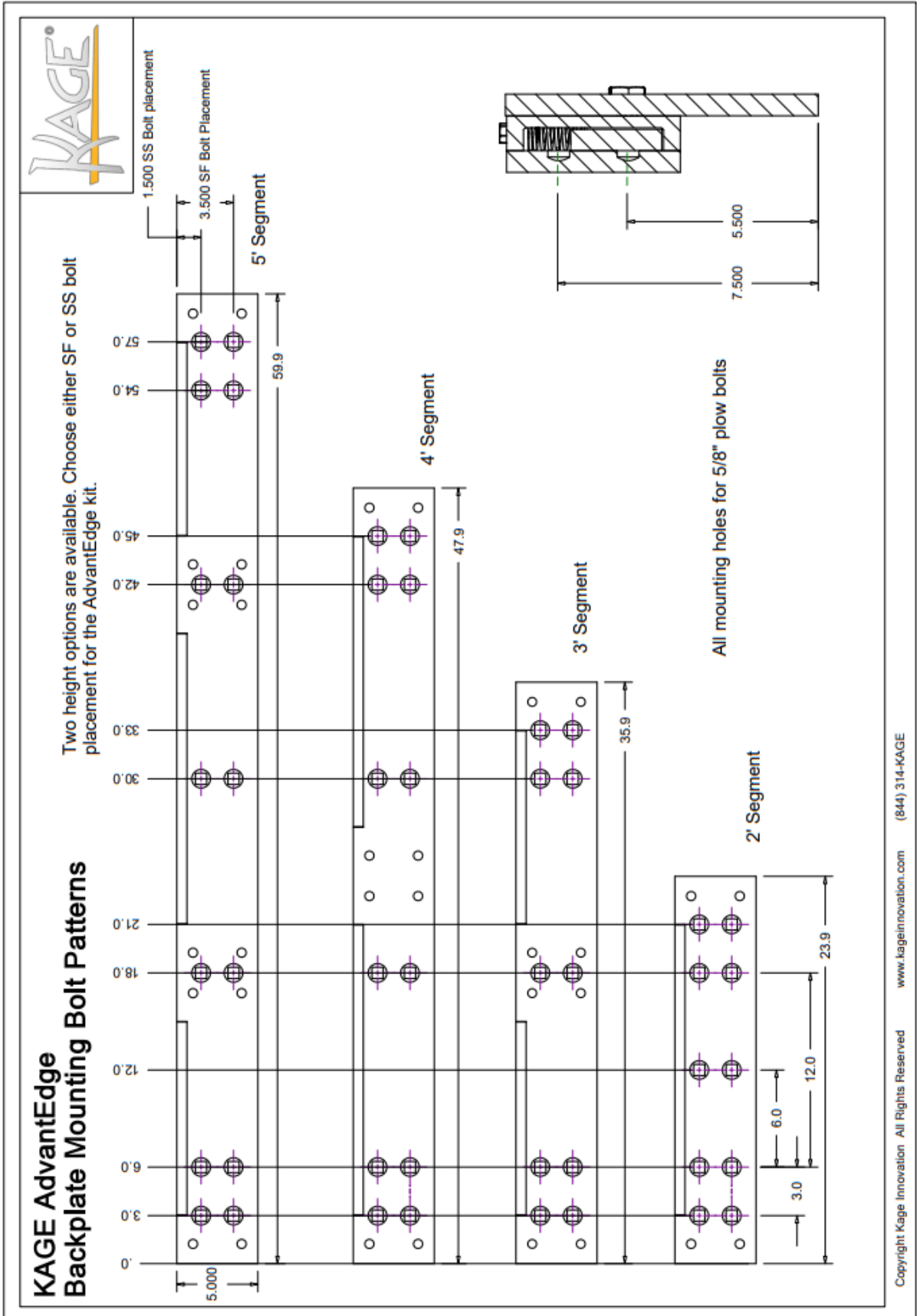
Cutting Edge bolt patterns are NOT standard highway punch bolt spacing





Other bolt patterns may be available, call Kage for assistance

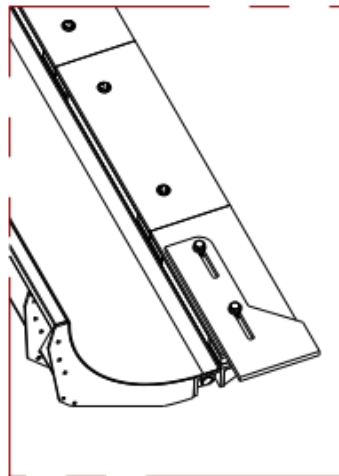
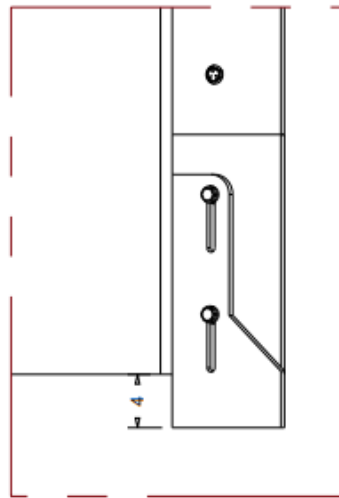
Part Name	Part Number	Segment Qty	Cutting Edge Steel	Usable Cutting Edge	Vertical Travel	Max Peaking Angle of Sections	Weight in lbs	Attachment Bolt Pattern
SF AdvantEdge 8'	SFAE8	2 x 4'	Hardox® 500	3"	1.375"	2°	311	Highway Punch
SF AdvantEdge 9'	SFAE9	3 x 3'	Hardox® 500	3"	1.375"	2°	363	Highway Punch
SF AdvantEdge 10'	SFAE10	2 x 5'	Hardox® 500	3"	1.375"	2°	397	Highway Punch
SF AdvantEdge 12'	SFAE12	4 x 3'	Hardox® 500	3"	1.375"	2°	484	Highway Punch
SF AdvantEdge 14'	SFAE14	2 x 3' + 2 x 4'	Hardox® 500	3"	1.375"	2°	554	Highway Punch



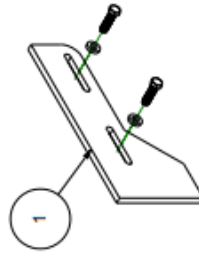


## Kage AdvantEdge Edge Extensions

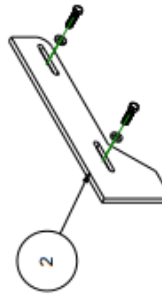
Snow pushers equipped with the Kage AdvantEdge that require additional cutting edge length may be fitted with an extension kit. The kits attach over either an 18" or 24" cutting edge. They can extend the edge length from 0 to 4" closing any gaps between the edge and the pushers sides. Typically this is only required by pushers sized in foot and a half widths.



**18 Edge Extension Kit  
# 18EEKIT**



**24 Edge Extension Kit  
# 24EEKIT**



Item Number	Part Name	Part Number	Revision	Quantity
1	Edge Extension 18	SBOEE18	1	2
2	Edge Extension 24	SBOEE24	1	2
3	Flat Washer 5/8 x 1.25 x .25 Thick	91201A035		4
4	Hex Bolt GR8 5/8-11 x 2.25	91257A803		4

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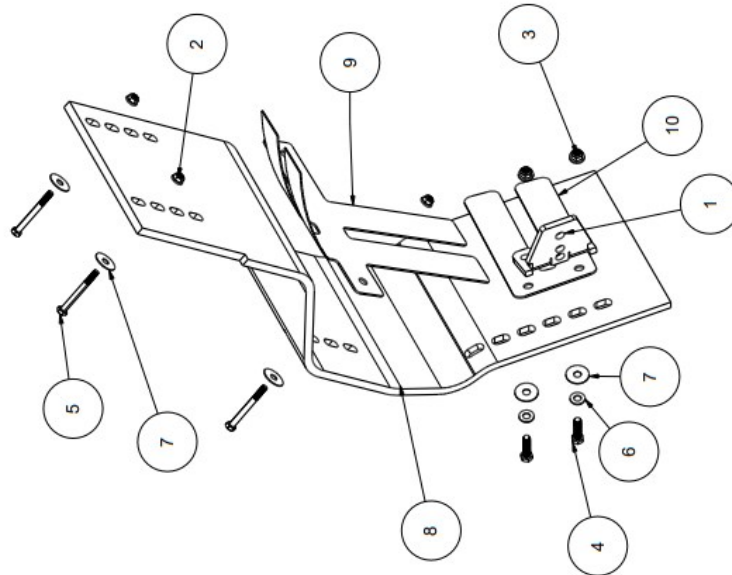
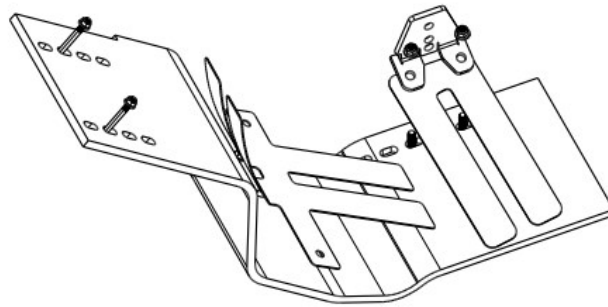
### AdvantEdge Snow Catch Kit SCAE-K

Version# 1

Version Starting Serial #

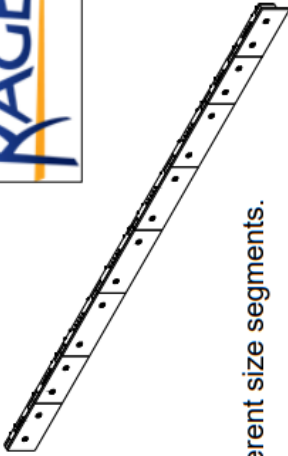
Kage Snowfire plow systems being fitted with an AdvantEdge are recommended to be upgraded to the Snow Catch Kit show below. This kit prevents snow from leaking around the AdvantEdge.

Kage pusher boxes with serial numbers lower than 124-14730 will need a new Side Panel Driver (363-2-D) and a new Side Panel Passenger (363-2-P) in addition to this kit.



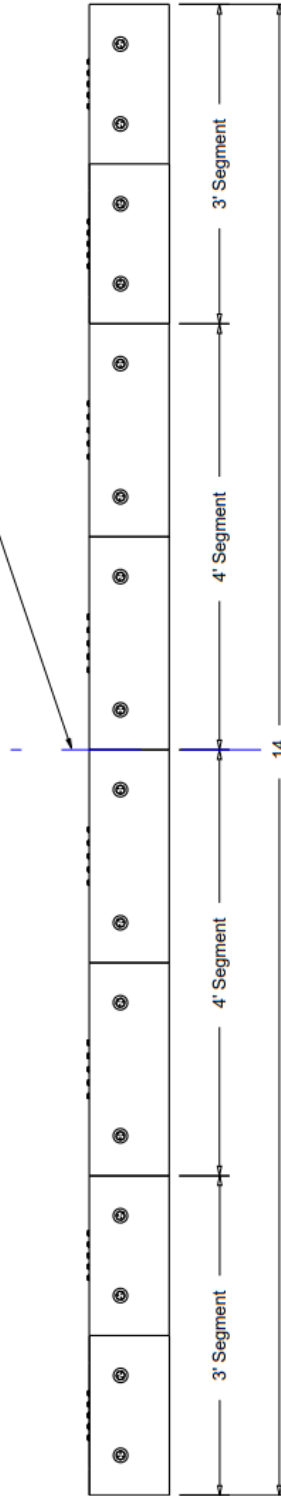
Item Number	Part Name	Part Number	Quantity
1	Snow Catch Angle AdvantEdge	223-2RAE	2
2	Flange Locknut 5/16-18	92018A320	6
3	Flange Locknut, 3/8 -16	93298A130	4
4	Hex Bolt GR5 3/8-16 x 1.5	92865A628	4
5	Hex Bolt, 5/16 - 18 x 3	91247A595	6
6	Flat Washer 3/8	ROC-8071-031	4
7	Fender Washer, 3/8	91090A121	10
8	Snow Catch AdvantEdge	N42-2AE	2
9	Snow Catch Spring SF	SCS125	2
10	Snow Catch Angle Spring SF	SCAS125	2

AdvantEdge SS Kit 14  
SSAE14  
Version# 1  
Version Starting Serial #



Nearly any size plow or pusher can be accommodated by selecting different size segments. Segments come in 2, 3, 4, and 5 foot lengths. Note if your attachment point is split in the center.

Below is an example of a 14' plow.



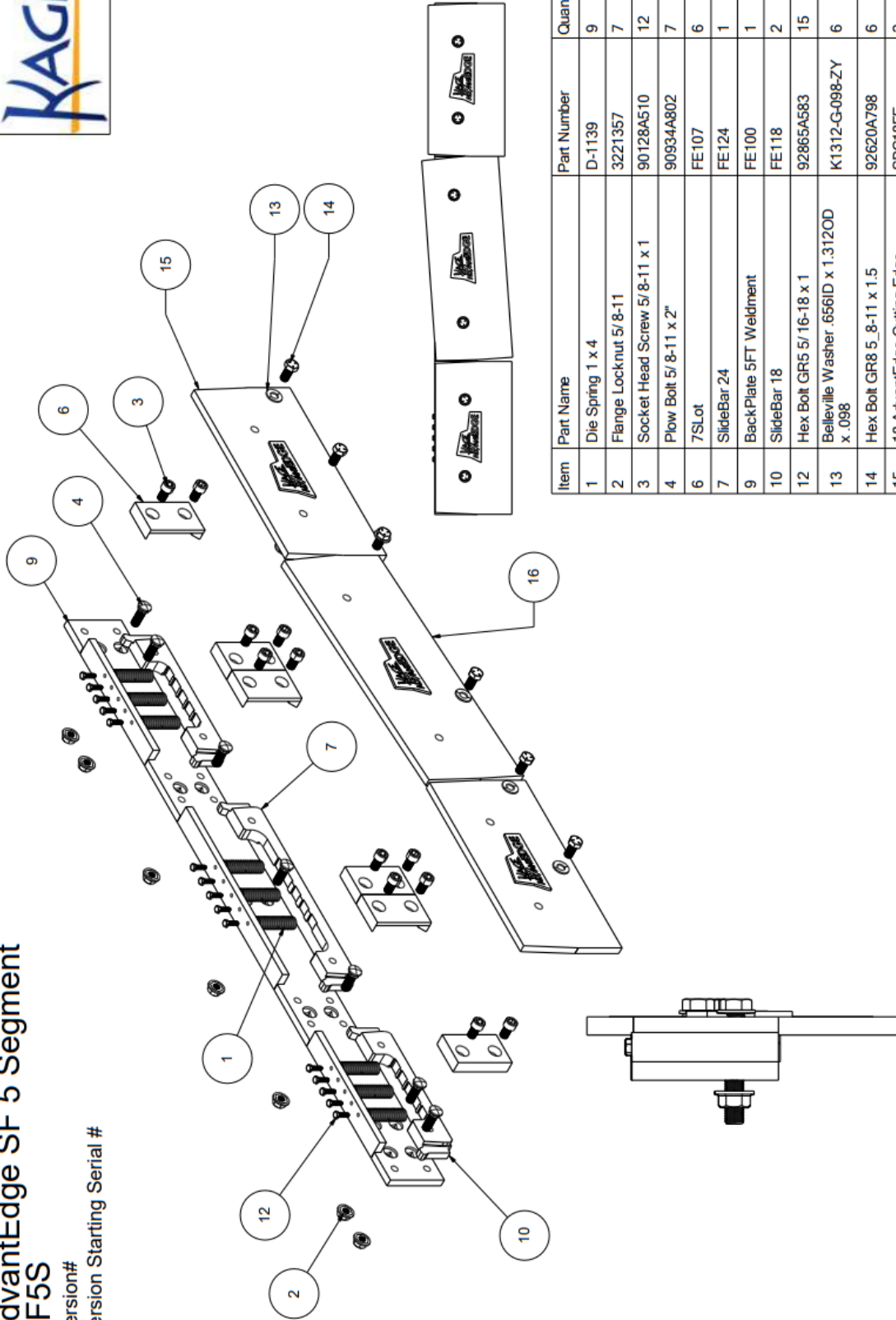




### AdvantEdge SF 5 Segment

SF5S


Version#  
Version Starting Serial #



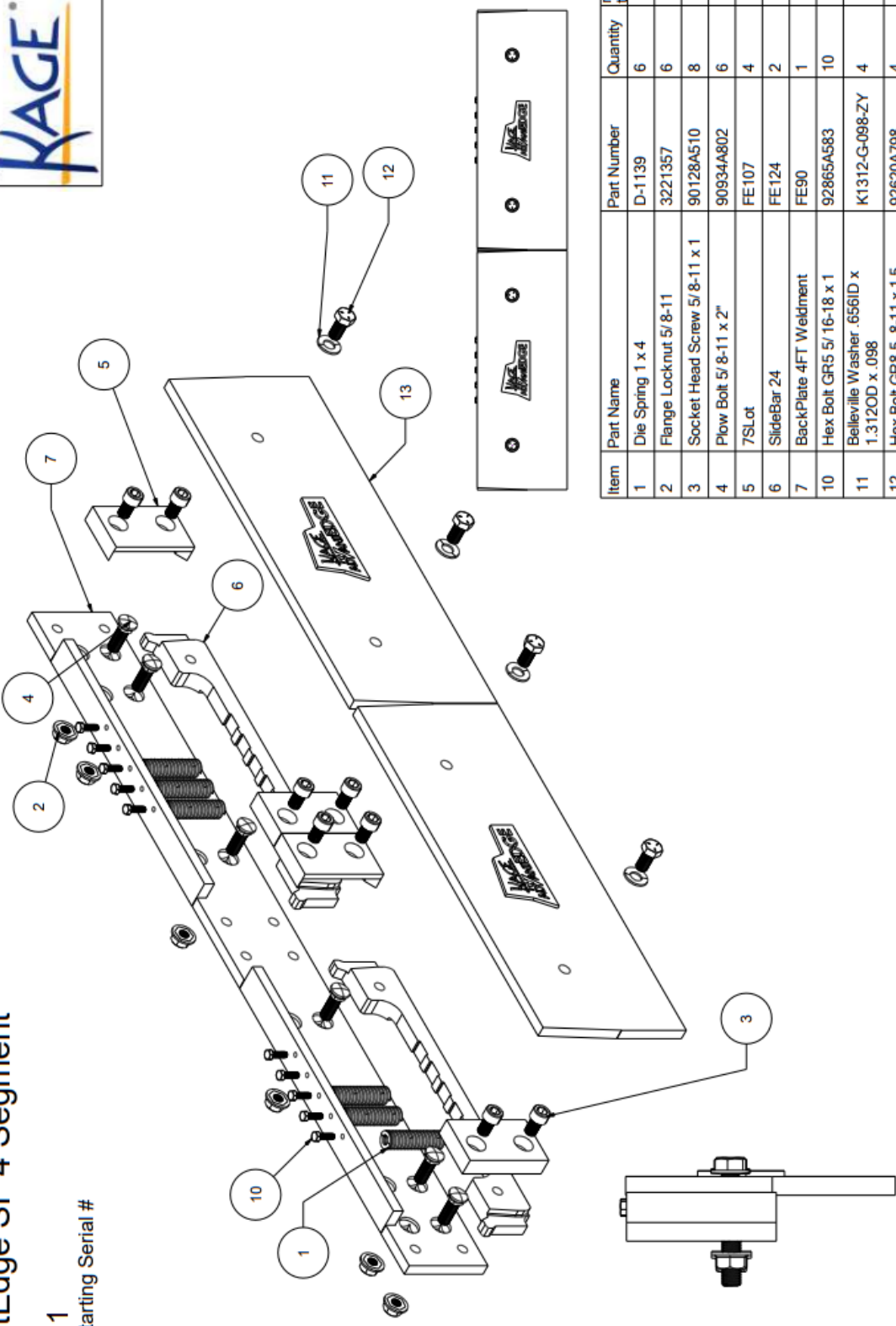
Item	Part Name	Part Number	Quantity
1	Die Spring 1 x 4	D-1139	9
2	Flange Locknut 5/8-11	3221357	7
3	Socket Head Screw 5/8-11 x 1	90128A510	12
4	Plow Bolt 5/8-11 x 2"	90934A802	7
6	7Slot	FE107	6
7	SlideBar 24	FE124	1
9	BackPlate 5FT Weldment	FE100	1
10	SlideBar 18	FE118	2
12	Hex Bolt GR5 5/16-18 x 1	92865A583	15
13	Belleville Washer .656ID x 1.312OD x .098	K1312-G-098-ZY	6
14	Hex Bolt GR8 5/8-11 x 1.5	92620A798	6
15	18 AdvantEdge Cutting Edge	SBC18FE	2
16	24 AdvantEdge Cutting Edge	SBC24FE	1

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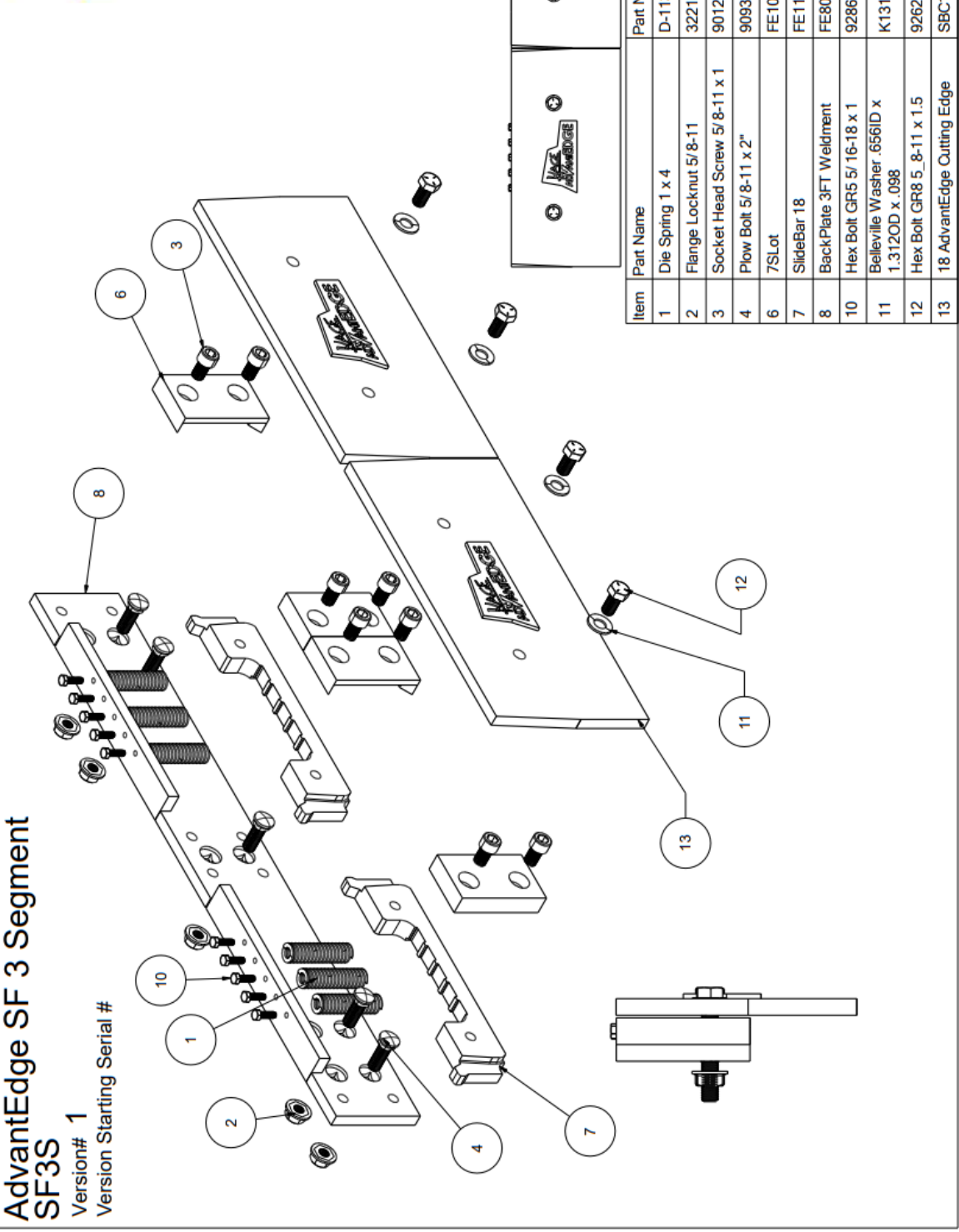


**AdvantEdge SF 4 Segment**  
**SF4S**  
 Version# 1  
 Version Starting Serial #



Item	Part Name	Part Number	Quantity
1	Die Spring 1 x 4	D-1139	6
2	Flange Locknut 5/8-11	3221357	6
3	Socket Head Screw 5/8-11 x 1	90128A510	8
4	Plow Bolt 5/8-11 x 2"	90934A802	6
5	7Slot	FE107	4
6	SlideBar 24	FE124	2
7	BackPlate 4FT Weldment	FE90	1
10	Hex Bolt GR5 5/16-18 x 1	92865A583	10
11	Belleville Washer .656ID x 1.312OD x .098	K1312-G-098-ZY	4
12	Hex Bolt GR8 5/8-11 x 1.5	92620A798	4
13	24 AdvantEdge Cutting Edge	SBC24FE	2





Item	Part Name	Part Number	Quantity
1	Die Spring 1 x 4	D-1139	6
2	Flange Locknut 5/8-11	3221357	5
3	Socket Head Screw 5/8-11 x 1	90128A510	8
4	Plow Bolt 5/8-11 x 2"	90934A802	5
6	7Slot	FE107	4
7	SlideBar 18	FE118	2
8	BackPlate 3FT Weldment	FE80	1
10	Hex Bolt GR5 5/16-18 x 1	92865A583	10
11	Belleville Washer .656ID x 1.312OD x .098	K1312-G-098-ZY	4
12	Hex Bolt GR8 5/8-11 x 1.5	92620A798	4
13	18 AdvantEdge Cutting Edge	SBC18FE	2

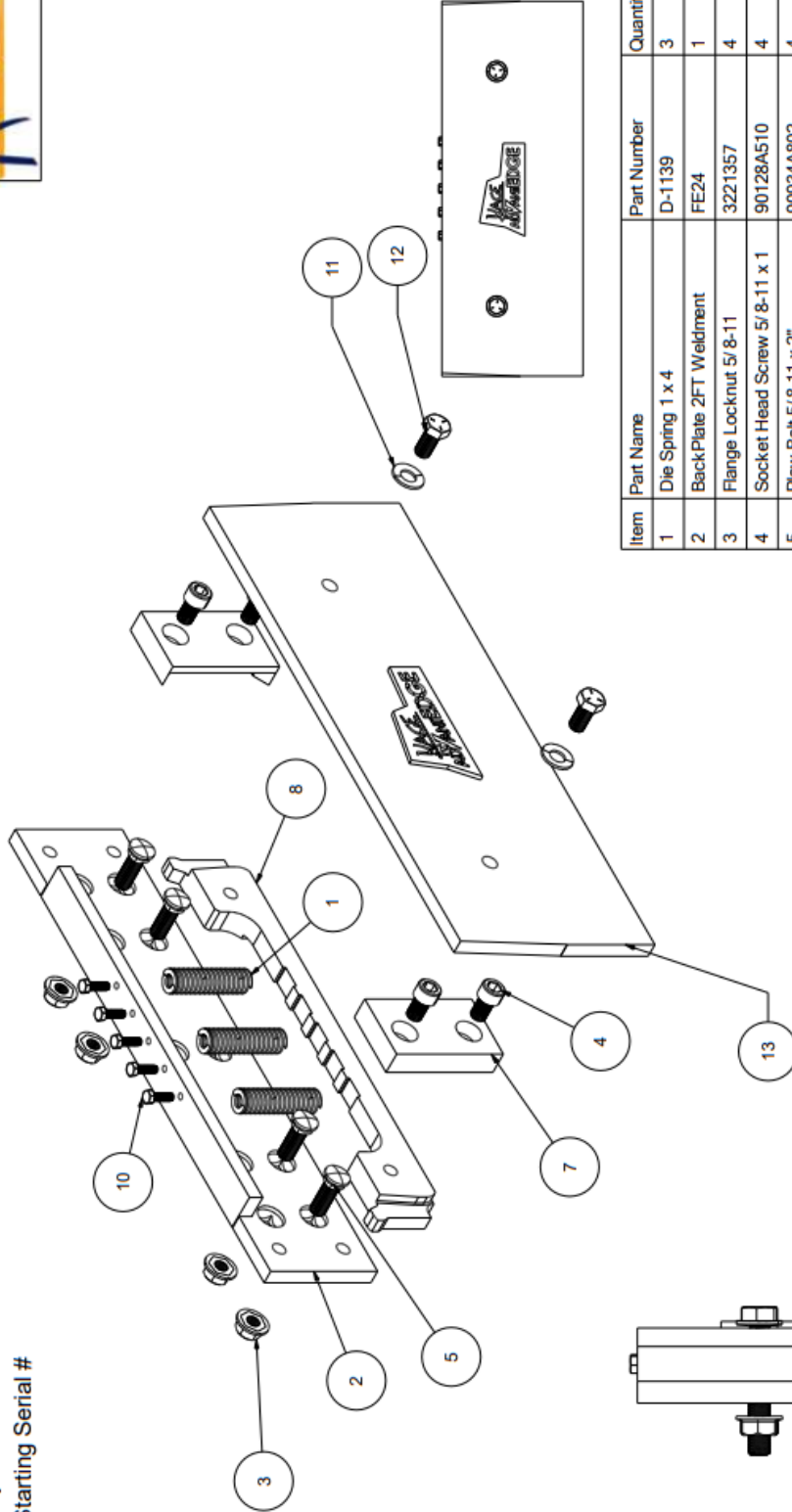


## AdvantEdge SF 2 Segment

SF2S

Version# 1

Version Starting Serial #



Item	Part Name	Part Number	Quantity
1	Die Spring 1 x 4	D-1139	3
2	BackPlate 2FT Weldment	FE24	1
3	Flange Locknut 5/8-11	3221357	4
4	Socket Head Screw 5/8-11 x 1	90128A510	4
5	Plow Bolt 5/8-11 x 2"	90934A802	4
7	7Slot	FE107	2
8	SlideBar 24	FE124	1
10	Hex Bolt GR5 5/16-18 x 1	92865A563	5
11	Belleville Washer .656ID x 1.312OD x .098	K1312-G-098-ZY	2
12	Hex Bolt GR8 5/8-11 x 1.5	92620A798	2
13	24 AdvantEdge Cutting Edge	SBC24FE	1

## Kage Limited Warranty

Kage Innovation will repair or, at the option of Kage Innovation, replace those parts which prove defective due to material or workmanship under normal use for a period of two (2) years from the date of retail sale or date of invoice from Kage Innovation, whichever is later. Expendable items, such as rubber, or polyurethane are excluded from this warranty.

Kage Innovation warrants that the products manufactured by us to be in accordance with our published specifications or those specifications agreed to by us in writing at the time of sale. The obligation of Kage Innovation is expressly limited to repairing or replacing, at its option, any product not meeting such specifications within the warranty period.

### LIMITATIONS OF WARRANTY AND DAMAGES

KAGE INNOVATION MAKES NO OTHER WARRANTY, EXPRESSED OR IMPLIED, AND MAKES NO WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR ANY PARTICULAR PURPOSE. THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE FACE HEREOF.

IN NO EVENT SHALL KAGE INNOVATION, BE HELD LIABLE FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES OR FOR DAMAGES RESULTING FROM MISAPPLICATION, ABUSE, MISUSE, ACTS OF GOD, UNAUTHORIZED ALTERATION OF THE KAGE INNOVATION PRODUCT, OR SUBSTITUTION OF PARTS NOT AUTHORIZED IN WRITING BY KAGE INNOVATION.

To obtain service under this warranty the consumer must return the defective Kage Innovation product to Kage Innovation directly, the dealer from which the product was purchased or to any authorized Kage Innovation dealer, transportation and freight charges prepaid. Only Kage Innovation dealers are authorized to perform the obligations under this warranty with pre-authorization from Kage Innovation.

No person is authorized to alter or amend this warranty or to create any warranty other than that set forth herein without the expressed written consent of Kage Innovation.

Kage Innovation reserves the right to make improvement changes on any of our products without prior notice.

## Revision Comments

<b>Date</b>	<b>Name</b>	<b>Description</b>
6/14/2024	Josh	Brought into new format
8/2/2024	Mike	Added oscillation spec to spec sheet.
8/28/2024	Josh	Added belleville washers and longer bolts to breakdowns