



Liquid Rage™

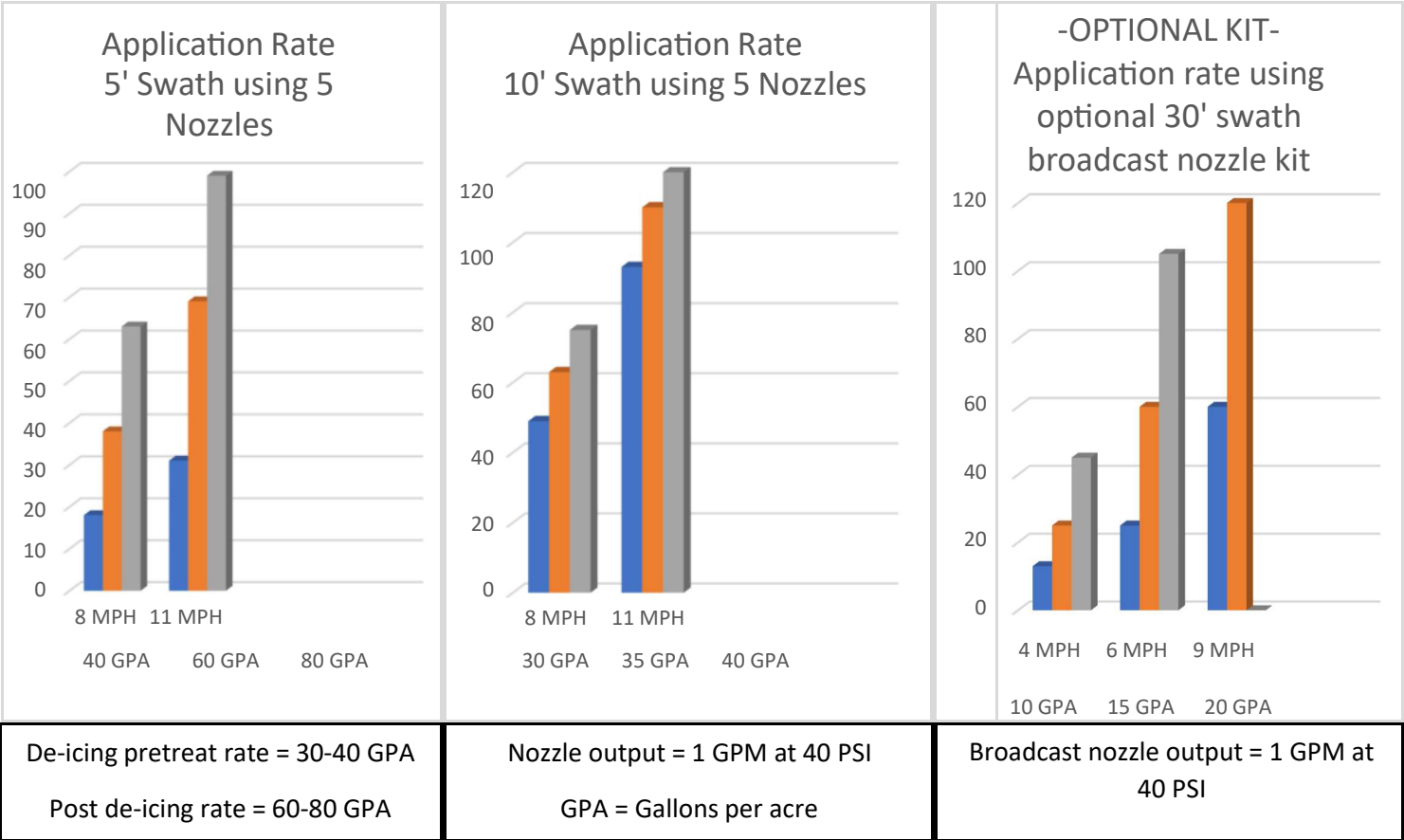
Owners Manual

REV: 2023.10.31



Liquid Rage Owners Manual

Rate Chart



Broadleaf Spraying
Instructions



Nozzle Change
Instructions



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Attaching, adjusting and setting pressure

Attach to your Liquid Rage with either a skidsteer universal attachment, or a category II three point tractor hitch.



Then attach your hydraulic lines.

2

First fill the tank through the top by removing the large black cap and filling.

Next adjust the angle of the four outer nozzles to your preferred spray width.

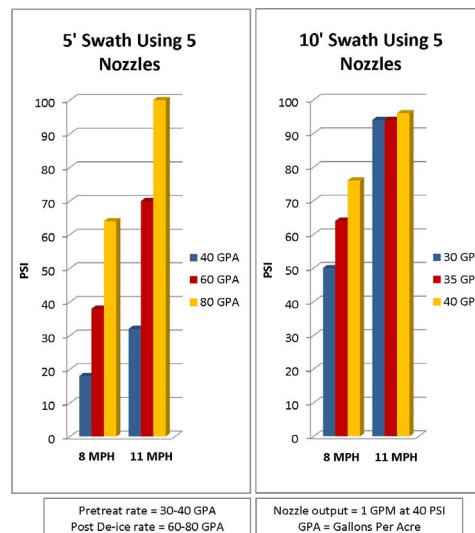
Shown here are positions for 5' and 10' sprayswathes respectively.



3

Adjust the pressure gauge depending on your swath width and intended travel speed.

Use graph on tank to determine PSI, then adjust by turning gray knob on gauge.



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Draining tank, and cleaning filter

IMPORTANT: Rinse periodically when using bring to avoid buildup. Storing brine for long periods of time may cause plugged nozzles.

1

To drain tank, first remove protective Upper Frame plate.



2

Next, rotate the valve handle 180 degrees clockwise. This will allow the tank to drain.



The filter should be cleaned when any noticeable pressure drop is observed.

To clean filter, first remove from housing.



Clean any debris from filter and housing. Then reinstall.



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Mixing Brine

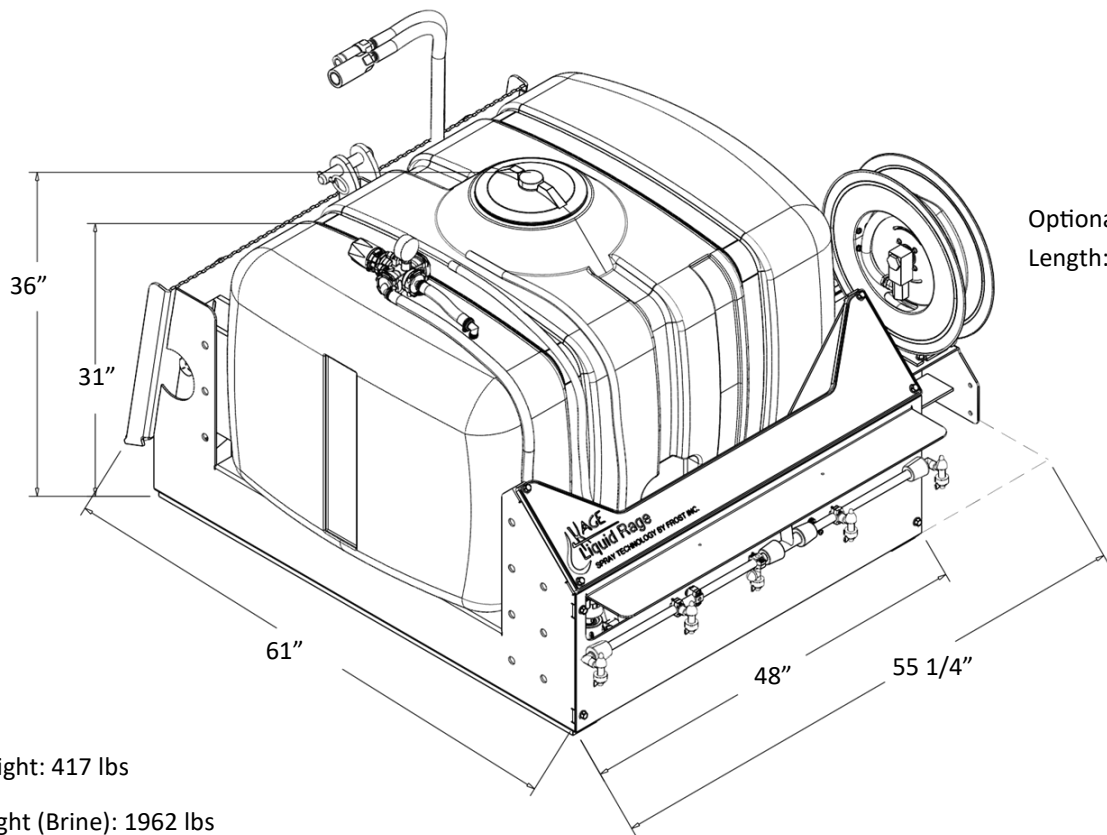
IMPORTANT: The ideal solution is 23.3% salt. Use the chart below to calculate the ratio of water to dowflake for to get this proper solution.

Brine Mixing Cheat Sheet		
Agitate for 8-11 minutes		
Gallons of Water	Lbs of DOWFLAKE™ Xtra	Resulting Gallons Of Brine Mix
31.87	100	36
63.73	200	72
100	314	113
120	378	136
127.47	400	144
132.78	417	150



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Specifications

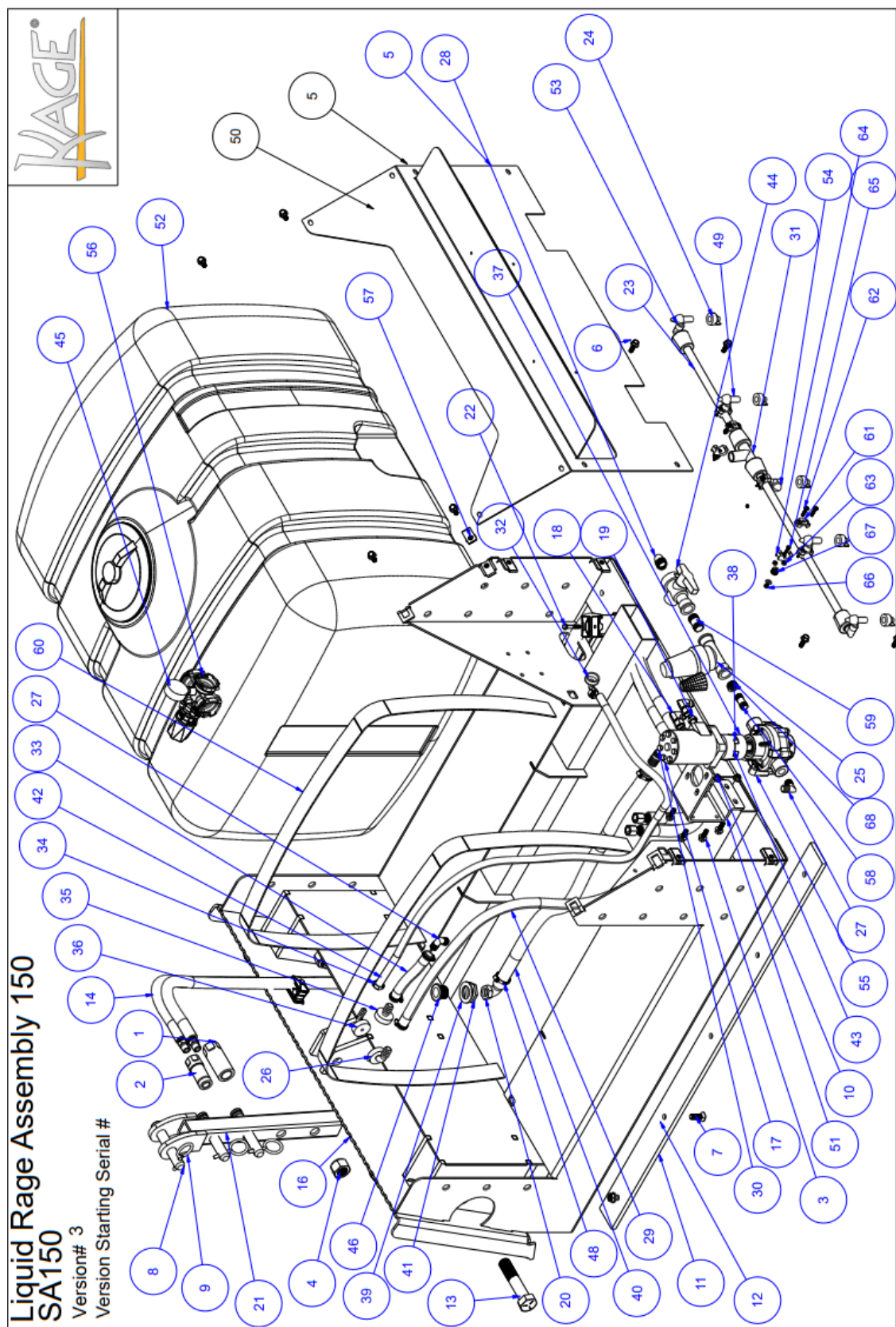


Optional Hose Reel
Length: 50' PVC Hose

Dry Weight: 417 lbs
Fill Weight (Brine): 1962 lbs

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Parts Breakdown—Main Assembly



Item	Part Name	Part Number	Quantity	Part Revision	Item	Part Name	Part Number	Quantity	Part Revision
1	Hydro Coupler, Female	FEM-501-8FP-NL	1	BLANK	37	Love Joy Coupling, L095, 1"	2739-1005	1	1
2	Hydro Coupler, Male	FEM-502-8FP	1	2	38	Love Joy Coupling, L095, urethane disc	2729-1005	1	1
3	Flange Hex Bolt 3/8 - 16 x 1	92979A344	6	BLANK	39	FLAT GASKET 33X45X3 EPDM	G40004	1	1
4	Hex Nylock Nut 1 1/8-7	95615A340	2	1	40	Hose 1 x 38	10031760	1	1
5	Front Frame	SA150-6	1	5	41	1-1/4 Nut	2052040	1	1
6	Flange SS Hex Bolt 3/8 - 16 x 1	97646A220	8	BLANK	42	Hose 1/2 x 60	10031630	1	1
7	Hex Drive Flat head Screw 1/2 - 13 x 1.5	91263A605	1	BLANK	43	Love Joy Coupling, L095, 15/ 16	2739-1004	1	1
8	Top Link Pin	21262	3	BLANK	44	3-WAY BALL VALVE 1"	45521114N	1	1
9	Lynch Pin 5/ 16	90170A226	3	BLANK	45	2-1/2 LF SS 1/4BM 160PSI	GG160	1	1
10	Flange Locknut, 3/8-16	93298A130	4	BLANK	46	Drain Fitting	220040	1	1
11	Skid Bar	SA150-16	2	1	47	Hose Clamp 11/ 16-1 1/2 1/2	H16SS	4	1
12	Flange Locknut 1/2 - 13	RF1213OFZ	1	BLANK	48	Hose Clamp 3/4-1 3/4 1/2	H12SS	2	1
13	Hex Bolt G5 1-1/8 - 7 x 5.5	91283A156	2	1	49	ADJ.UNI-JET D1/2 F10, inner swivels	4063845C	2	1
14	Hydro Line Rear-Front	HY-800	2	BLANK	50	LiquidRage Decal	LRD-1	1	BLANK
15	Upper Frame	SA150-1	1	5	51	Motor and Pump Bracket	MPBA1	1	4
16	Sprayer/Weldment	SA150-40	1	2	52	Tank 150 Gallon	SP0150-RT	1	1
17	Hydraulic Motor	PMM-4B-100	1	1	53	BOOMLESS NOZZLE HOLDER 1/2', outer ends	4065845C	2	1
18	JIC 90 Elbow 08 x 08	6500-08-08	2	BLANK	54	NOZZLE BODY-SINGLE ASSY 1/2' Pipe, center	4221N-B122	1	1
19	JIC x Pipe Adapter 08x08	2404-08-08	2	BLANK	55	Hydro 8-Roller pump, Silver cast, 3/4" FNPT ports	7560XL	1	1
20	Elbow 1 x 1-1/4	FNAE-100100	1	1	56	Pressure Valve	475551	1	1
21	Sprayer Hitch Weldment	SA150-30	1	1	57	Body Clip 3/8-16	94850A179	6	BLANK
22	Beta Clamp	T3014T	2	BLANK	58	3/4 X 3/4 Stainless Steel Threaded Nipple	M34SS	1	1
23	Boom Pipe, Stainless Steel	SNC150	1	1	59	1" X 1" THREADED NIPPLE Stainless Steel	4830K221	1	1
24	FASTCAP 6 JET TIP-LTBLUE	FC-ESI-11010	5	1	60	Black Ratchet Strap 1.5 x 7	1428-K7-1	2	1
25	STRAINER PP 1FNPT 50M	3350-0151N	1	1	61	Bracket Top	BRK-0006	2	1
26	ELBOW T5M D.20	1191520	1	1	62	Pan Phillips Screw 6 - 1.0 x 25mm Stainless	92005A430	4	1
27	3/4 MNPT X 3/4 HB Poly Elbow	3EL34	2	1	63	Hex Nut 6mm - 1.0 Stainless	91828A251	4	1
28	Elbow MNPT x HB 1", poly	3EL100	1	1	64	Bracket Bottom	BRK-0005	2	1
29	Hose 3/4 x 45	10031750	1	1	65	Pan Head Screw 10-24 x 1.25 Stainless	91772A249	2	1
30	1" MNPT x 1" HB Poly	3A100	1	1	66	Hex Locknut 10-24 Stainless	91831A011	2	1
31	Tee 1/2	193213	1	1	67	Flat Washer 1/4 Stainless	90107A029	20	1
32	HOSETAIL T3F D.13	1090313	1	1	68	Fitting, reducer bushing 1" to 3/4"	3RB10034	1	1
33	Hose 1 x 7-1/2	10031760	1	1					
34	Crimp Hose clamp 1-2"	5435K17	2	1					
35	Hosetail T5M 3/4"	1091520	1	1					
36	Fitting T5 M, 1/2" HB, 90	1191513	1	1					

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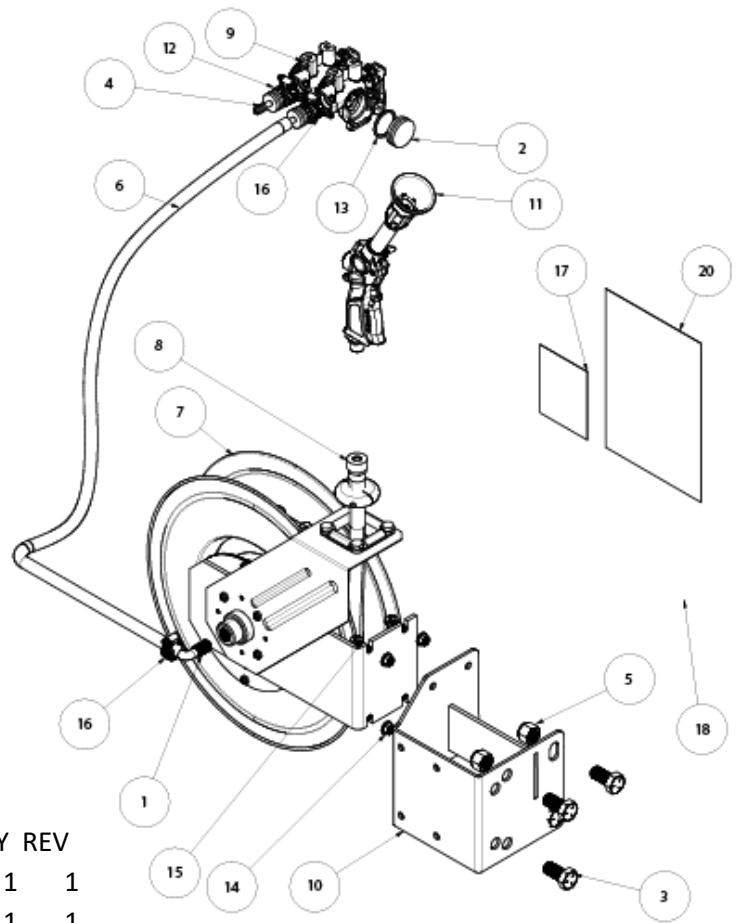
Parts Breakdown—Optional Hose Reel Kit

Hose Reel Kit HRK50

Version#

Version Starting Serial #

Optional kit, not included in SA150



Item	Part Name	Part Number	QTY	REV
1	Male NPT Elbow 1/2 x 90	3EI12	1	1
2	T5F cap	219150	1	1
3	Hex Bolt 3/4-10 x 1.5	92865A839	4	
4	Fitting HB T3, 1/2	1091313	2	1
5	Hex Nylock Nut GR 5 3/4-10	95615A270	4	
6	Hose 1/2 x 84	10031630-84	1	1
7	Hose Reel Stainless	5132K31	1	1
8	Hose 50ft	H550N	1	1
9	Manual Valve T5	463T051	2	1
10	Hose Reel Bracket Weldment	HRB10W	1	1
11	Spray Gun Hydra plus nozzle	5062410F	1	1
12	Gasket 36.1 x 3.5	G11063V	2	1
13	O Ring 463 Valve Outlet	G10058V	1	1
14	Flange Locknut SS 3/8 -16	94238A103	4	
15	Flange SS Hex Bolt 3/8 - 16 x 1	97646A220	4	
16	Hose Gear Clamp 1/2-1 1/4	CC16-10	3	1
17	LiquidRage Decal Graph	LRD-G	1	2
19	Hose Stop .75 ID	5585K23	1	1
20	Hose Reel Installation Kit	HROM	1	1

Hose Reel Installation



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Parts Breakdown—Optional Broadcast Nozzle Kit

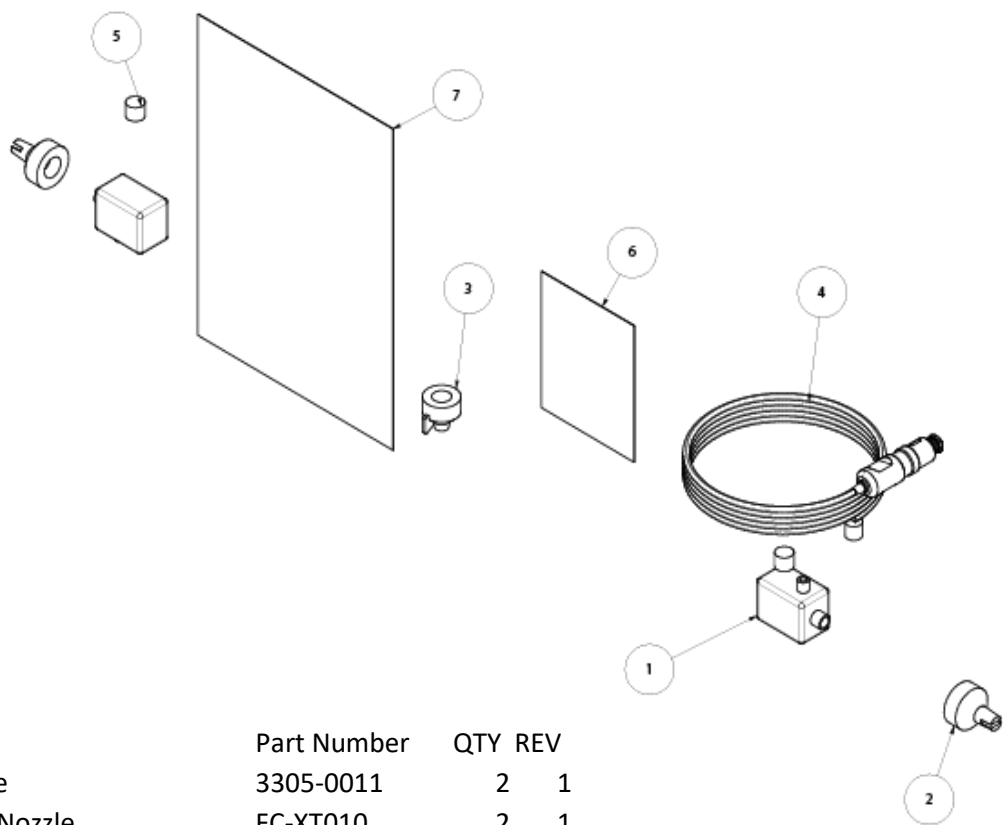
Broadcast Nozzle Kit

BNK10

Version#

Version Starting Serial #

Optional kit, not included in SA150



Item	Part Name	Part Number	QTY	REV
1	Pro Stop Valve	3305-0011	2	1
2	Broadcast XT Nozzle	FC-XT010	2	1
3	FASTCAP ULD 120 DEG LILAC	FC-ULD120-025	1	1
4	Spray Boom Wire Harness	WHSB10	1	1
5	Prostop Plug	2300-0067	2	1
6	LiquidRage Decal Graph	LRD-G	1	2
7	Broadcast Nozzle Kit Installation	BKOM	1	1

Broadcast Nozzle

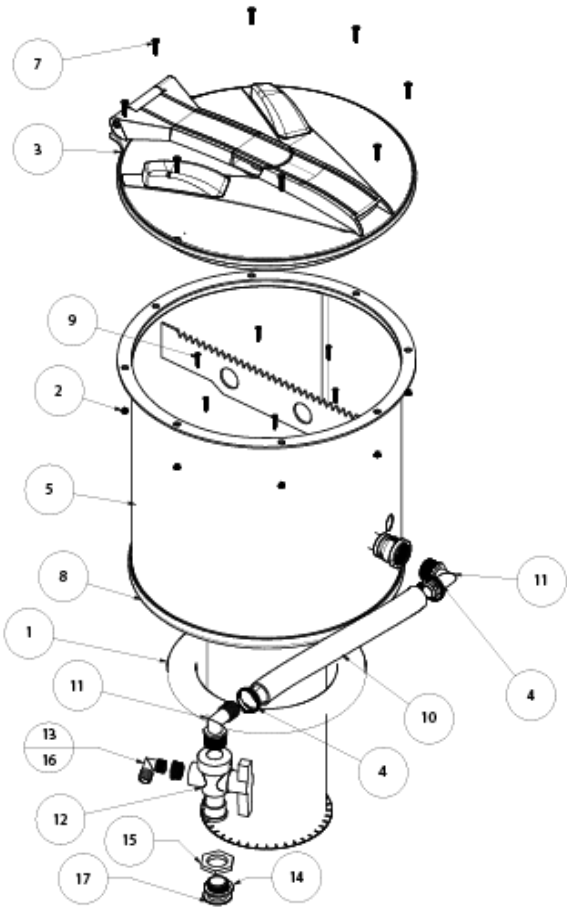
Installation



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Parts Breakdown—Optional Brine Mixer Kit

Brine Mixer Kit
SA150-B
Version#
Version Starting Serial #



Item	Part Name	Part Number	QTY	REV
1	EPDM Rubber Gasket	6032N41	1	1
2	Stainless Steel Nylon-Insert Locknut #10	91831A011	8	1
3	Brine Mixer Lid	356260	1	1
4	Hose Clamp 3/4-1 3/4 1/2	H12SS	2	1
5	Brine Mixer Weldment	SA150-B1	1	1
7	Stainless Steel Hex Drive Flat Head Screw #10 x 1	92210A247	8	1
8	Weather Seal	12335A27	1	1
9	Stainless Steel Phillips Flat Head Screws #8 x 1	90065A199	6	1
10	1x16 Rubber Hose	SA150-B10	1	1
11	1 Barbed x 1 MNPT 90 Elbow fitting	3EL100	2	1
12	3-WAY BALL VALVE 1"	45521114N	1	1
13	3/4 MNPT X 3/4 HB Poly Elbow	3EL34	1	1
14	G40004	G40004	1	
15	1-1/4 Nut	2052040	1	1
16	Fitting, reducer bushing 1" to 3/4"	3RB10034	1	1
17	Drain Fitting	220040	1	1

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.

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.

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

Date	Name	Description
10-31-2023	Mike	REV 3: Showing one piece front cover instead of two separate pieces
10-31-2023	Mike	Added parts breakdown for the Bine Mixer Kit
5-7-2024	Josh	Changed part 3A12 to 3E12 in the Hose Reel Kit BOM
5-20-2025	Josh	Fixed SA150 BOM, pages 7-8, added instructional QR codes, pages 2, 4-5, 9-10