

# **BRINE MASTER 3000®**

## OWNER'S MANUAL




**Product Code:**  
BM3000

Version 1.8

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# **INTRODUCTION**

Congratulations! You now own a Camion™ Brine Master®. Durable design and construction assure you a lifetime of extreme performance.

Take a look through this owner's manual to learn how the pros use their Camion™ Brine Master®.



**Watch Instruction Videos:**

[www.youtube.com](http://www.youtube.com)

**Discover More Helpful Tips:**

[www.IceControlTraining.com](http://www.IceControlTraining.com)

# **WARNINGS**

1. To ensure your own safety and that of others, you must comply with all relevant environmental, work place health, safety legislation and codes of practice.
2. Select and wear appropriate Personal Protection Equipment in accordance with the label of the product you intend to use.
3. Always dispose of debris and out of spec brine, generated from the brining operation, in compliance with current environmental, work place health and safety regulations.
4. Improper or careless use of this Brine Master® can cause serious injury. Minors should never be allowed to use this Brine Master®. This Brine Master® should not be used when bystanders or animals are in the area. This Brine Master® should never be used while children are in the area.
5. Never leave the Brine Master® unattended without turning off the pump and relieving any line pressure.
6. You must be in good mental health to operate this Brine Master® and not be under the influence of alcohol or any drugs that could impair your vision, physical strength, dexterity, judgment, or other mental capacity.
7. No modifications and/or alterations may be made to this Brine Master®. Any such modifications not only void the warranty but can make the unit dangerous to anyone operating it.
8. Always inspect hoses and piping to avoid burst injuries.

**GETTING STARTED**

## Electrical Requirements

This Brine Master 3000® requires a 230 volt, 30 amp circuit to operate. This product comes pre-wired and has a plug for easy setup. Follow all local code requirements. Use a certified electrician to install power supply.

## Water Source

To achieve best cycle times and reduce waiting time, you need to have a good water source. Usually, a 1.5" or larger city water supply, or freshwater storage tanks with a minimum of 3000 gallons of fresh water is necessary to efficiently produce brine.

## Salt Source

For best results and hassle-free operation during your brine making process, it is highly recommended to use a salt source that is over 98% pure (often referred to as Solar Salt). Impure salt will repeatedly cause debris to restrict flow in the filter and will likely leave sediment build up in the Brine Master® batch tank, and your onsite brine storage tanks.



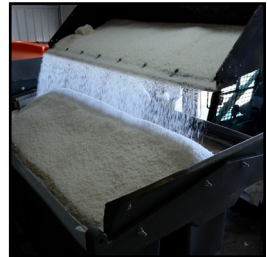
## **GETTING STARTED**

### **Positioning & Leveling**

It's important to make sure the Brine Master® is positioned to allow easy access to fresh water supply and storage tank hook ups at the control station and that it's level before use. If you are working with an uneven surface, place shimming material under each end and in the middle of the stainless-steel base frame on either side to level the machine.

### **Loading Equipment**

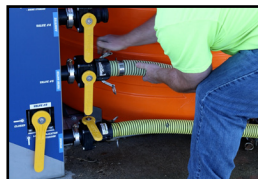
It is best if the bucket used for loading the Brine Master® salt hopper is no more than 72" wide. This will keep your workspace as clean as possible. Using a wider bucket will cause spillover while loading the salt.



## OPERATION

### Startup

1) Connect fresh water supply hose to the “Fresh Water” port valve (#4), and the brine to storage tank hose to the “Discharge” port (#5) and plug the power cord into the power source.



2) Place discharge valve (#1) to “Discharge to Brining Hopper” position and place the suction valve (#2) to “Suction from Fresh Water” position.



3) Without powering on the pump, gravity fill the Brine Master® hopper by opening the “Fresh Water” port valve (#4). Once the water is covering the jet nozzles inside the brining hopper, close the valve (#4) to stop the fresh water filling process. If the pump is powered on during this initial start-up filling process, the high-pressure jets will cause water splash/spray from the hopper.



4) Load hopper with the first batch of salt. Always load the salt slowly to avoid water splashing. Load towards the opposite end of the hopper overflow, so that the salt does not obstruct the overflow screen. For best results, make sure the salt is heaped above the water. Once you start the pump, the water flow will distribute the salt down and to the sides of the hopper.



## OPERATION

### Initial Filling

5) Open the “Fresh Water” port valve (#4) and power on the pump, to continue filling the system with fresh water until the orange brine batch tank is filled to the 600 gallon mark. Reference the site gauge tube. Do not fill past 600 gallons to prevent overflow in the gray brining hopper.



### Brining

6) Once the water reaches the 600 gallon marker on the brine batch tank, without stopping the pump, move the suction valve (#2) to “Suction from Brining Tank” position. The liquid is now recirculating from the brine batch tank through the salt in the hopper. Make sure your salinity reader is powered on. Monitor the % by weight value on the screen.



#### Important Tip:

Your first batch will always take the longest. Subsequent batches will take much less time to reach salinity.



## OPERATION

### Unloading

7) Once the salinity reader indicates the brine is at 23.0%, move the discharge valve (#1) to “Discharge to Storage” position. Make sure the valve to the left of the flow meter (#6) is in the down position.



#### Important Tip:

Perfect brine is 23.3%. As the brine is discharging, you will notice the % weight value on the screen rising. It's expected that the value could reach up to 24%. If you are consistently getting over 24% at the end of the unloading process, you will need to start the unload process earlier in the cycle. Ideally the salinity % should reach 23.6-23.8% at the end of an unloading process.

#### Important Tip:

The flow meter can be used to measure the gallons of brine unloaded from the machine. A batch total can be tracked along with a total of all batches. Refer to the manual for the Banjo flow meter for detailed operation instructions.

8) During the unload operation, reload the salt hopper as detailed in step 4. The unload operation takes about 5 mins. The process runs smoothest if you have a bucket full of salt ready to load immediately after the unload process is started.



## OPERATION

### Filling

9) Once the brine batch tank is empty, move the suction valve (#2) to “Suction from Fresh Water” position. Continue filling the system with fresh water until the orange brine batch tank is filled to the 600 gallon mark. Reference the site gauge tube. Do not fill past 600 gallons to prevent overflow in the gray brining hopper. Go back to step 6 and repeat the process.



#### Important Tip:

**END OF RUN PROCESS:** If you are getting close to the finish of your run, don't reload the hopper with salt. Simply repeat steps 9-6-7 until most of the salt in the hopper is dissolved.

During this “end of run” process, each batch will take longer to reach salinity because new salt is not being added.



# **MAINTAINING**

Always Clean unit with fresh water at the end of every season to clean out all brine left in brine maker to ensure proper operations for the following years. The unit requires proper care for longevity and proper operation. Follow all requirements for pump and motor by reviewing their manuals that are included.

DO NOT leave salt brine in your brine maker for extended periods of time when not in use. This can cause salt creep which can move into the motor and cause seizing issues and damage seals. The best practice is to clean the hopper after each use to prevent salt from hardening in the bottom of the unit. Run clean water through the brine maker and then drain the pump using the drain plug located at the bottom of the pump.

If you notice your flow rate has decreased to under 100 gpm on the flowmeter, this indicates that your filter is partially restricted by debris. SLOWLY crack open the shutoff valve to flush out debris buildup. To fully clean the filter, disassemble by shutting off unit and opening the drain valve on the bottom of the inline filter. Once the liquid has drained from the filter, unscrew housing, remove filter screen and clean it. Reassemble and continue use.

The salinity measuring instrument should be cleaned with fresh water at the beginning of each brining run.

Debris left in the hopper can be removed using the 3" cleanout valve/port at the bottom of the hopper. First, suck out the brine from your hopper and then remove debris using the cleanout valve.

MAINTAINING

The information applies in normal operating conditions. The specific intervals must be shortened accordingly for longer daily working hours. If the machine is only used occasionally, the intervals can be extended accordingly.	As required		X	X							X	X
	If damaged											
	When no immediate scheduled use		X			X		X	X			
	At the end of work and/or daily				X		X					
	Before starting work		X									
	Instruction Ref.		14.1				14.2	14.3		14.4		
	Salinity Measuring Instrument	Disassemble and clean lens.										
	In-Line Filter	Clean										
		Drain										
	Hoses and Fittings	Rinse with clean water										
	Pump	Drain	14.2									
		Rinse with fresh water and remove drain plug to avoid salt creep.	14.3									
	Power	Disconnect										
	Salt Hopper	Drain and Clean	14.4									
	Vertical Brine Batch Tank	Clean out sediment and debris.										

# MAINTAINING

## Instruction References

14.1 - To clean your refractometer, turn the 5/16" valves to the off position. Then pull the pin on the front and twist the body of the refractometer counter clockwise to remove it. Clean the lens and the inside body removing any debris and flush with fresh water. To reinstall, pull the pin and turn the body clockwise. Make certain the O-ring is seated correctly when reassembling. Lastly reopen your 5/16" valves.



14.2 - Turn valves to positions in the following image to drain the hoses and fittings.



14.3 - Remove drain plug from bottom of pump to allow liquid to drain.



14.4 - To drain the salt hopper, connect your suction hose onto the additive port and insert the suction end (with a foot strainer attached) into the salt hopper. Your discharge hose needs to be connected to an appropriate holding vessel that will contain the out of spec brine from the salt hopper. Once the hopper is mostly drained, the 3" discharge valve can be opened and remaining debris can be drained into a skid steer bucket.



# **TROUBLESHOOTING**

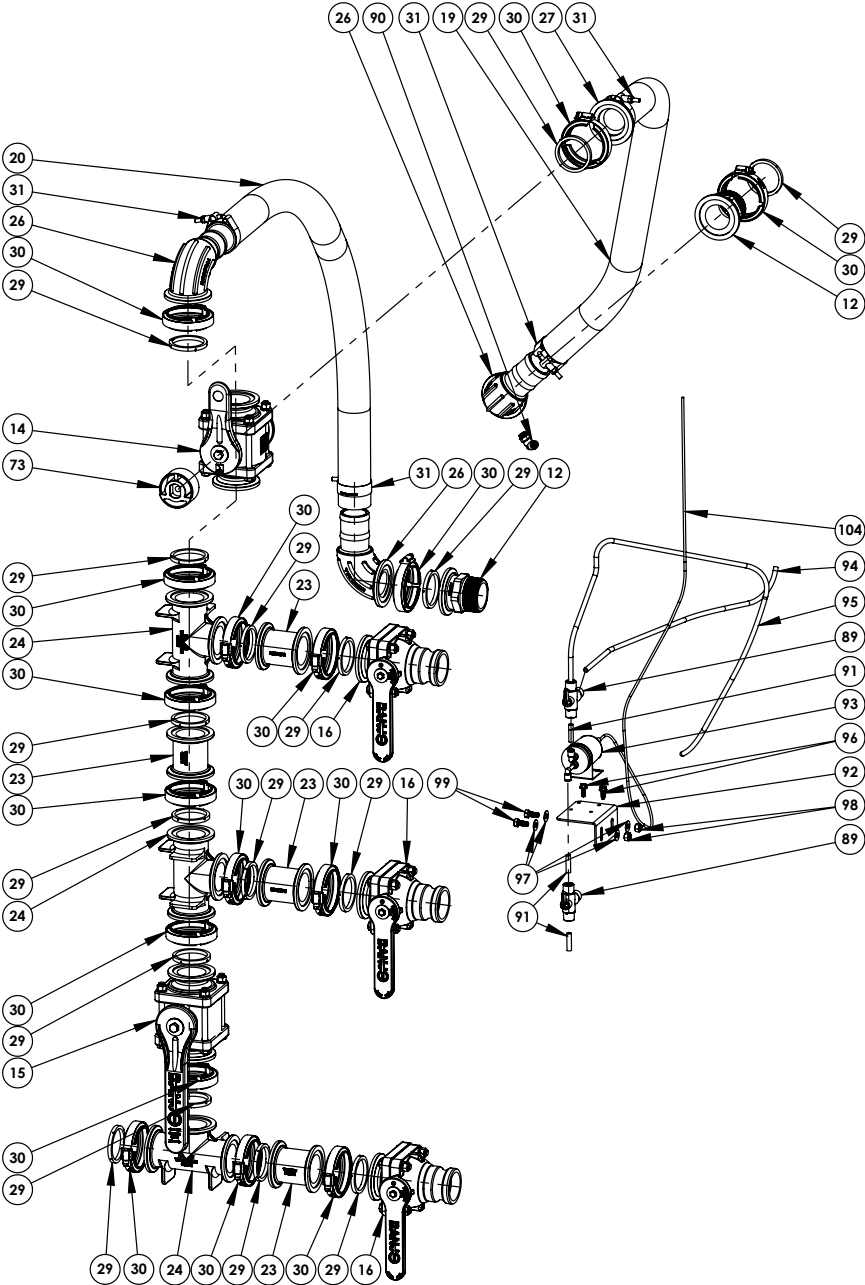
<b>CONDITION</b>	<b>REMEDY</b>
Reduced flow rate	1) Check for a blockage in the filter screen.
Hopper is backing up or overflowing	1) Ensure there is no blockage on internal hopper screen. 2) Clean debris or salt away from the screen. 3) Make sure you are not filling your orange brining tank over 600 gallons.
Pump will not turn on	1) Check breakers and relays. Reset if needed. 2) Check adequate power supply. 3) Verify wiring is in good condition.
Bottom clean out on hopper drain will not flow	1) Place a large cleanout vessel (ie: skidsteer bucket) underneath the 3" clean out valve and remove compacted salt or debris by inserting a garden hose up into hopper cleanout valve.
Salinity measuring instrument is not reading or reading inaccurately	1) Ensure that the push to connect valves are in the open position to allow flow. 2) Check that the salinity measuring instrument is cleaned 3) Refer to salinity measuring instrument manual for further troubleshooting.

**BRINE MASTER®**



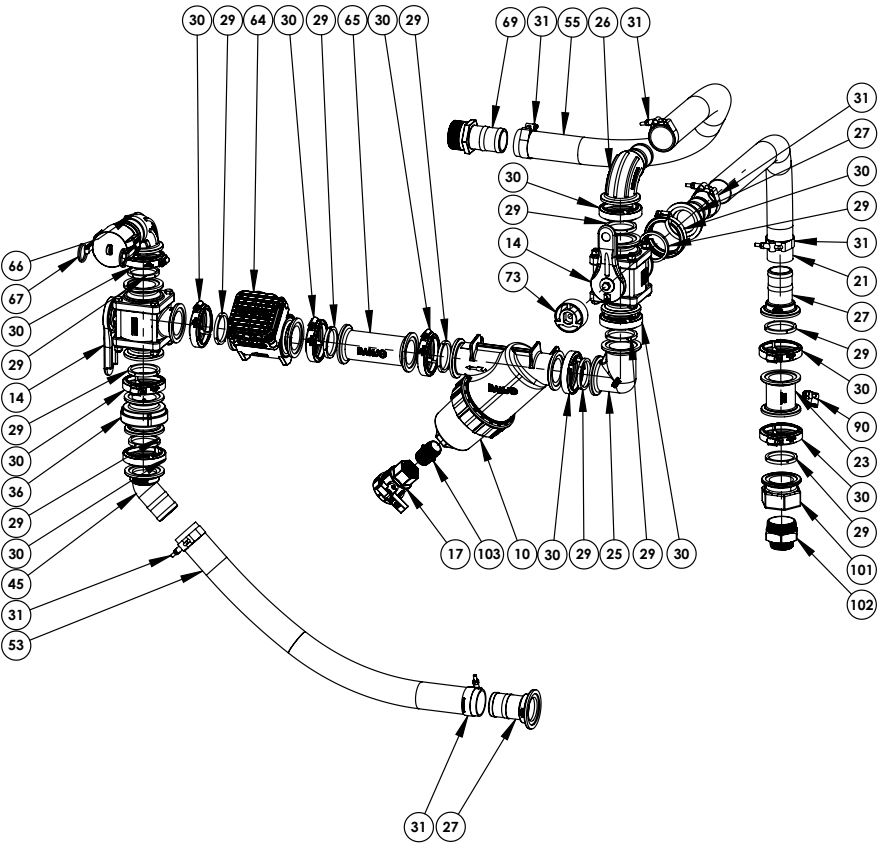
# **DETAIL VIEW A**

BRINE MASTER®



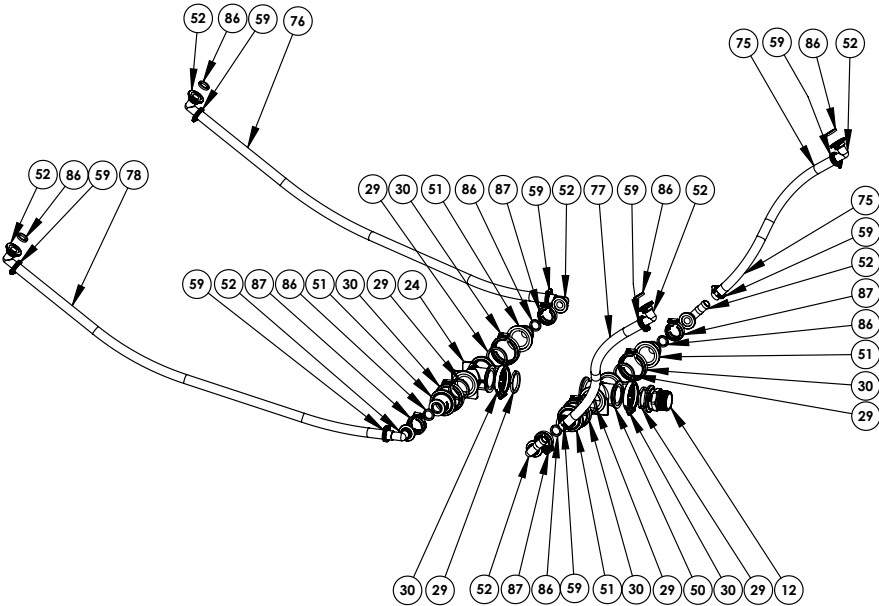


# **DETAIL VIEW B**

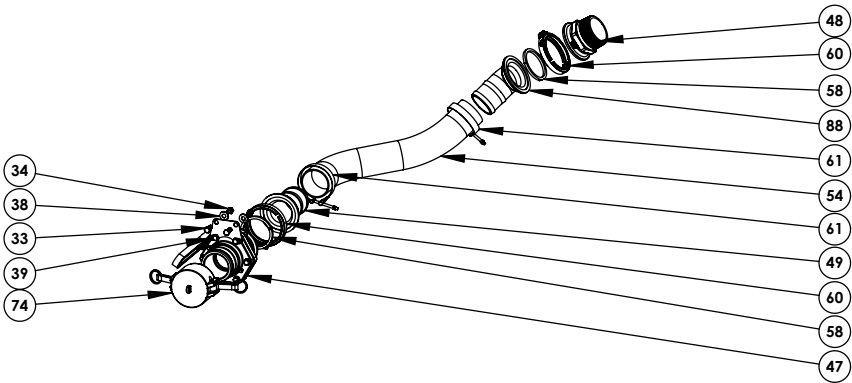


**BRINE MASTER®**

# **DETAIL VIEW C**



# **DETAIL VIEW D**



# PARTS LIST

ITEM NO.	PART #	Description	QTY.
1	AZKI015, CSLC661, CSLC662, CSLC663	Skid for 3000 Gal Brine Master	1
2	CSLC674	Control Panel for 3000 Gal Brine Master	1
3	CSLC675	Screen for 3000 Gal Brine Master	1
4	CSLC673	SS Stopper for 3000 Gal Brine Master	4
5	CSLC672	Bracket for 3000 Gal Brine Master	1
6	IMS00870OR-NF	870 Gal Flat Bottom Storage Tank	1
7	AMB3000	Brine Master 3000 Hopper	1
8	AMBM3000	Brine Master 3000 Hopper Spill Guard	2
9	APMPH150500SEC	Ace pump/Baldor motor EC	1
10	CBMLS22216	MLS222 Y-Strainer 16 Mesh	1
11	CPFTGE6	6 INCH MULTI-TITE GASKET	2
12	CBM220MPT	2-in FP Manifold x 2-in Male Thread	3
13	CBTF075	3/4-in Poly Tank Fitting	2
14	CBMV220BLSH	2-in FP Bottom Load Manifold Valve w/ SH Handle	3
15	CBMV220CF	2-in Full Port Manifold Flange Ball Valve	1
16	CBMVSF220FP	2 IN FP Manifold x Male Adaptor	3
17	CBSUV100FP	1 inch Union Valve	1
18	CFPS40PPVC6	6 IN PVC SCHED 40 Pipe 14 inches long	1
19	CLUEPEB10009	2-in Hose Control Valve to Pump Suction	1
20	CLUEPEB10009	2-in Hose (Tank to Control Valve)	1
21	CLUEPEB10009	2" Hose Pump Discharge to Control Valve	1
22	CLUVGC03504	.75-in Clear Vinyl Tubing	1
23	CBM220CPG	2 x 2 Full Port Flange	5
24	CBM220TEE	2 Manifold Tee - 220 Series	4
25	CBM220CPG90	2" FP x 2" FP Manifold Coupling 90°	1
26	CBM220BRBSWP90	2" Full Port Flange x Hose Shank Sweep	4
27	CBM220BRB	2 Full Port Flange x 2 Hose Barb	4
28	CFPE04M04B	3/4 MNPT x 3/4 Hose Barb 90	1
29	CBM221G	2" FP Manifold Gasket with Rib	34
30	CBFC220	2 SS Flange Worm Screw Clamp	34
31	CBTC231	2" T-Bolt Hose Clamp 2.31 MIN	10
32	CHBS041523	7/16-14 X 5 STAINLESS HEX HEAD BOLT 18-8	8
33	CHBS030523	3-8" x 1" SS Hex Bolt	48
34	CHNSN0323	3/8" SS Nylock Nut	40
35	CHNS0423	7/16 Nylock Nut	8
36	CBMCV220	2 inch Full Port Manifold Checkvalve Assembly	1
37	CHWZF045	7/16 flat washer	16
38	CHWSF033	3/8 SS Flat washer	88
39	CBV25270	Straight Mounting Bracket	1
40	CBBF235	2" Bolted Tank Flange	1
41	CBSL07590	3/4 Poly Street Elbow 90	1
42	CFPN04M04M	3/4 Short Nipple	1
43	CVPBV234	3/4 FPT Union Valve	1
44	CFPS04M04B	3/4 MNPT To 3/4 Hose Shank	1

# PARTS LIST

ITEM NO.	PART #	Description	QTY.
45	CBM220BRB45	2 Full Port x 45 HB	1
46	CBBF330	3"Bolted Tank Flange 3"Bolts	2
47	CBMVSF300	3 Stubby Valve QDC x Flange Long Handle	1
48	CBM300MPT	3 Manifold x 3 Male Thread	1
49	CBM300BRB	3 Flange x 3 Hose Barb	1
50	CBM220CR	2-in Full Port Flanged Cross	1
51	CBM220100CPG	2" Full Port Flange x 1" Reducer Flange	4
52	CBM100BRB90	1" Manifold x 90 Hose Barb	8
53	CLUPEB10009	2-in Hose (Discharge to Storage)	1
54	CLUPEB08513	3-in Hose ( Hopper Drain )	1
55	CLUPEB10009	2-in Hose (Control Valve to Poly Hopper)	1
56	CFCW001	Clamp For 3/4" Hose	2
57	CBMBF100	1" Bolted Fitting with 1" Manifold Flange	4
58	CBM301G	3" Manifold Gasket with Rib	2
59	CFCW003	Clamp For 1" Hose	8
60	CBFC300	3-in Worm Screw Clamp	2
61	CBTC343	3" T-Bolt Hose Clamp 3.43 MIN	2
62	CFPS40PPVC6	6 IN PVC SCHED 40 Pipe 10 inches long	1
63	CEC052	6IN Flexible Ferno coupler	1
64	CBMFM220	2-in Full port manifold flowmeter	1
65	CBM220CPG6	2 x 2 Full Port Flange x 6"	1
66	CBM220ASWP90	2-in Full port flange x Male adapter swept	1
67	CB200CAP	2-in Cap	1
68	CBTF200	2 Poly Tank Flange Assembly	1
69	CBHB200	2 Male Thread x 2 Hose Shank	1
70	CFSE05F05M	1-in MPT x 1-in FPT 304SS 90 Deg Elbow	4
71	CV3RB10034	Reducer Bushing 1" MPT X 3/4" FPT	4
72	CV3RB3414	3/4 x 1/4 Reducer Bushing	4
73	CBV25153138BL	Banjo Valve Handle Off Sets	2
74	CB300CAP	3-in Cap	1
75	CLUESB020005	1-in EPDM Hose (Discharge to Hopper)	1
76	CLUESB020005	1-in EPDM Hose (Discharge to Hopper)	1
77	CLUESB020005	1-in EPDM Hose (Discharge to Hopper)	1
78	CLUESB020005	1-in EPDM Hose (Discharge to Hopper)	1
79	CHWSF013	1/4" SS Flat Washer	12
80	CHAS010223	.25 x .75 SS HWH Slotted Screw	12
81	CPG003	1/4" Rubber Strip	1
82	CSLC700	Hopper Rubber Flap Retainer (Large)	2
83	CSLC701	Hopper Rubber Flap Retainer (Small)	4
84	CHBS012823	1.5in SS Hexagonal Head Screw	54
85	CHBS012723	1-in SS Hexagonal Head Screw	8
86	CBM100G	1" Manifold Gasket	8
87	CBFC100	1" Worm Screw Flange Clamp	4
88	CBM300BRB45	3 Flange x 3 Hose Barb x 45	1

# PARTS LIST

ITEM NO.	PART #	Description	QTY.
89	CVPBV516	5/16 inch Diverting Valve	2
90	CFBE00M0000M	1/4 NPT 5/16 Brass Push-to-Connect Male Elbow	2
91	CLUVGC04503	3/16ID, 5/16 OD Polyethylene Tubing-1	3
92	CSLC918	Refractometer Mounting bracket	1
93	CEC055	Salinity Measuring Instrument	1
94	CLUVGC04503	3/16ID, 5/16 OD Polyethylene Tubing-1	1
95	CLUVGC04503	3/16ID, 5/16 OD Polyethylene Tubing-2	1
96	CHSZ016365	1/4-20 inch x 5/8 inch HHTCS Type F Zinc Plated	2
97	CHWSF023	5/16" SS Flat Washer	4
98	CHNSN0223	5-16 SS Nyloc Nut	2
99	CHBS020323	5-16 x .75 SS Bolt	2
100	CBPLUG300	3 inch Poly Pipe Plug	1
101	CBM220FPT	2 IN FP Manifold x 2 IN Female Thread	1
102	CFSR09M07M304	2 x 1-1/2 NPT Male, 304 Stainless Steel Threaded Pipe Fitting	1
103	CFFPN05M05M	1 Short Poly Nipple	1
104	CEC055	Salinity Measuring Instrument	1

## REV2

- 1.Changed to single spill over pipe.
- 2.Increased screen size.
- 3.Added refractometer.

## REV3

- 1.Added 3in fitting in batch tank.
- 2.Redesigned screen.
- 3.Altered position of refractometer

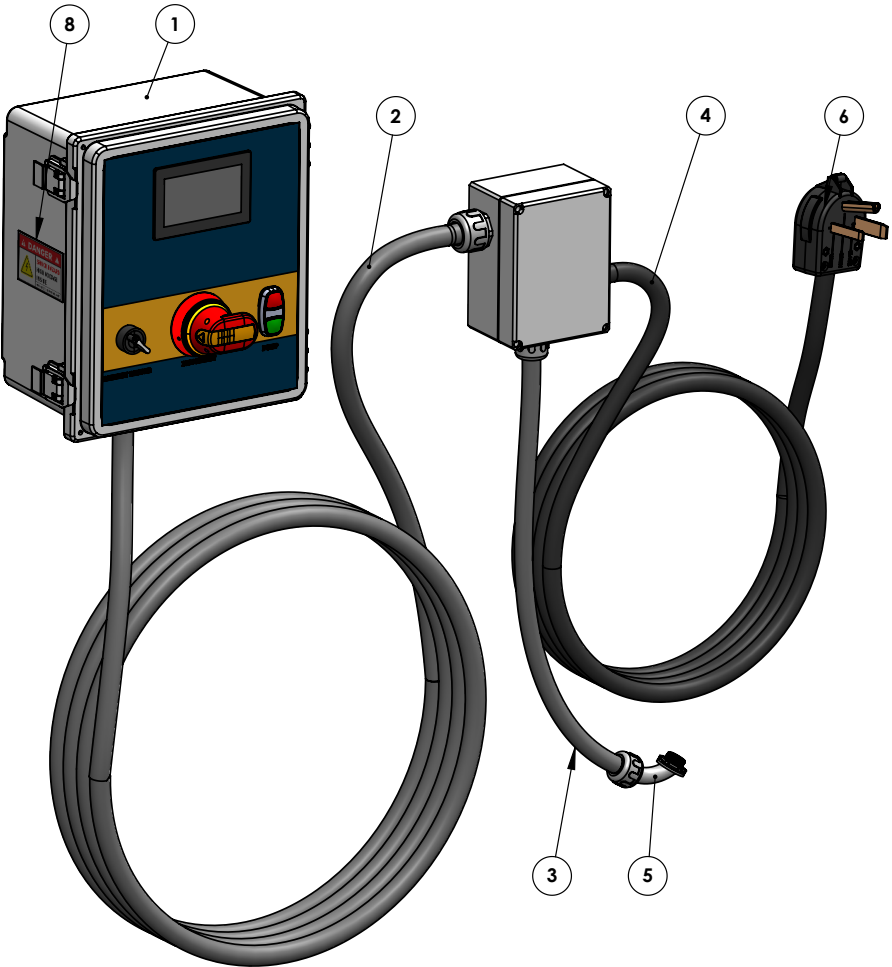
## REV4

- 1.Updated 2in fitting in batch tank.

## REV5 (May 29, 2024)

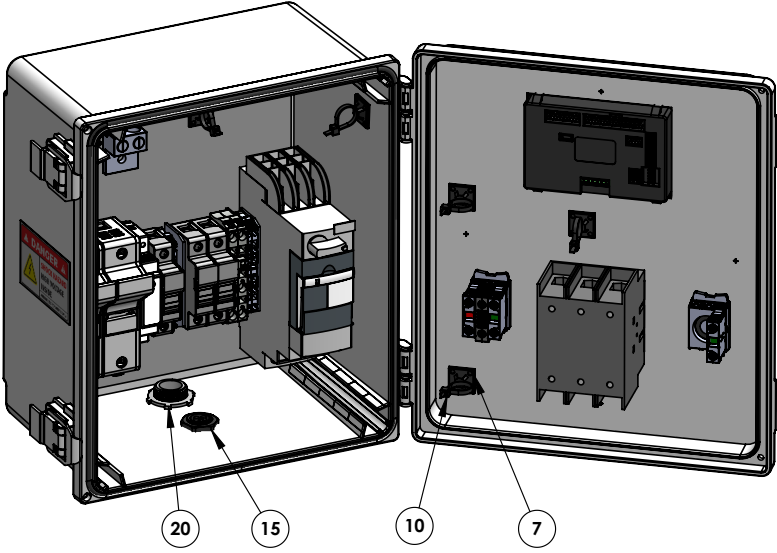
- 1.Changed the pump motor.
- 2.Updated the electrical control panel.
- 3.Changed the skid part numbers AZKI010, AZKI011, & CSLC661 to AZKI015.

# BRINE MAKER ELECTRICAL ASSEMBLY



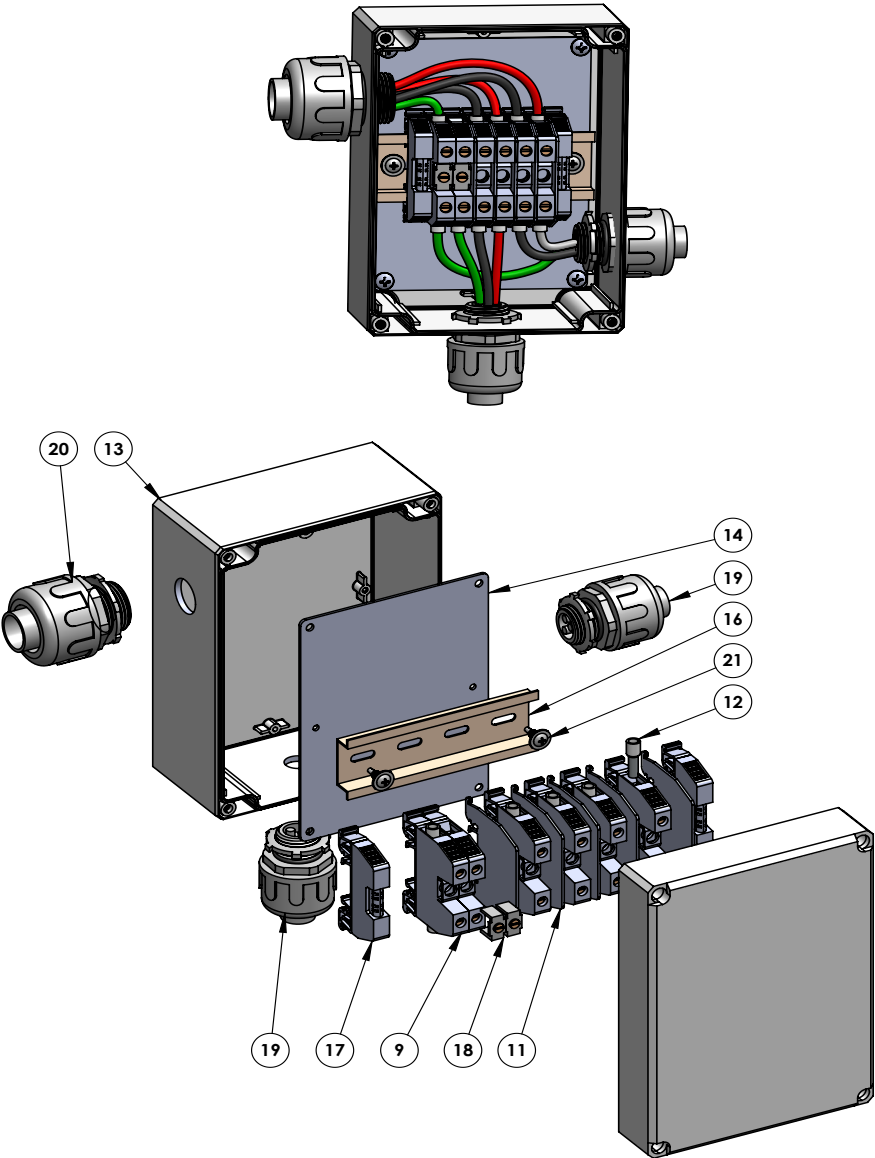
BRINE MASTER®

# MAIN PANEL BOX ASSEMBLY



# JUNCTION BOX ASSEMBLY

BRINE MASTER®





# PARTS LIST

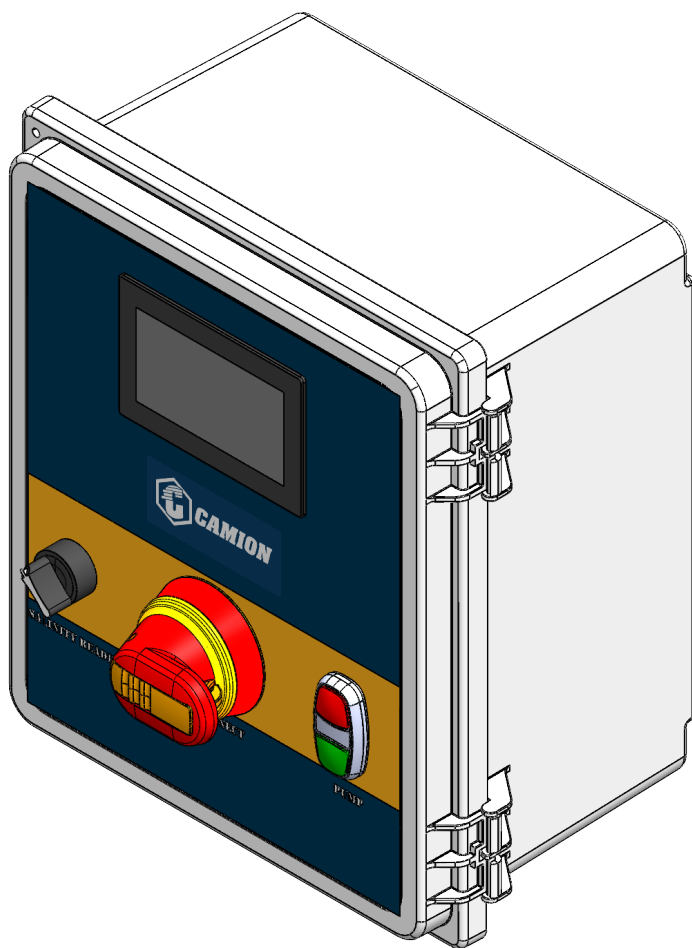
ITEM NO.	PART #	DESCRIPTION	QTY.
1	CEC080	Brine Maker 3000 UL Electrical Control Panel	1
2	CEC042	3/4" Liquid Tight Non Metallic Conduit	1
3	CEC041	1/2" Liquid Tight Non Metallic Conduit	1
4	CEC048	10/3 SOOW Bulk Wire Cord, 3-Wire, 30A, 600V, Black	1
5	CEC039	1/2" 90 Deg Non Metallic Liquid Tight Fitting	1
6	CEC049	AIDA NEMA 6-30P & 6-50P, 30 & 50 Amp, 250 Volt, 3-Prong Grou	1
7	CXT0003	Sticky back Zip tie Mounts	6
8	CXLT0043	Sticker - IMSBM3000 Warning High Voltage	1
9	CEC019	Phoenix Contact 6mm Terminal Block, Screw Down	6
10	CXT0002	Zip ties	6
11	CEC036	Phoenix Contact Terminal Block Divider	5
12	CEC058	AWG 10 Ferrule Crimper Plier Insulated Crimp Pin	11
13	AVTC04	HOFFMAN Q16129ABD Junction Box Type 4X / Screw Cover 160x120	1
14	AVTC05	HOFFMAN Steel Inner Panel, 130x100mm, fits Q16129ABD 160x120	1
15	CEC050	3/4" IP68 Strain Relief Nylon Cord Grip Waterproof NPT Cable	1
16	CEC037	Phoenix DIN RAIL 35X7.5MM SLOTTED 29.7"	1
17	CEC035	Phoenix Contact Locking End Cap	2
18	CEC033	Phoenix Contact 2-Pole Contact Block Bridge	1
19	CEC038	1/2" Straight Non Metallic Liquid Tight Fitting	2
20	CEC040	3/4" Straight Non Metallic Liquid Tight Fitting	2
21	ASBPDIN	Din Rail Screws	2

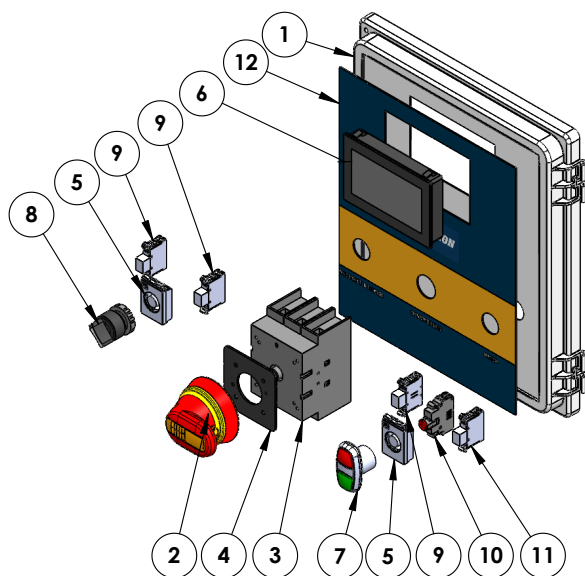
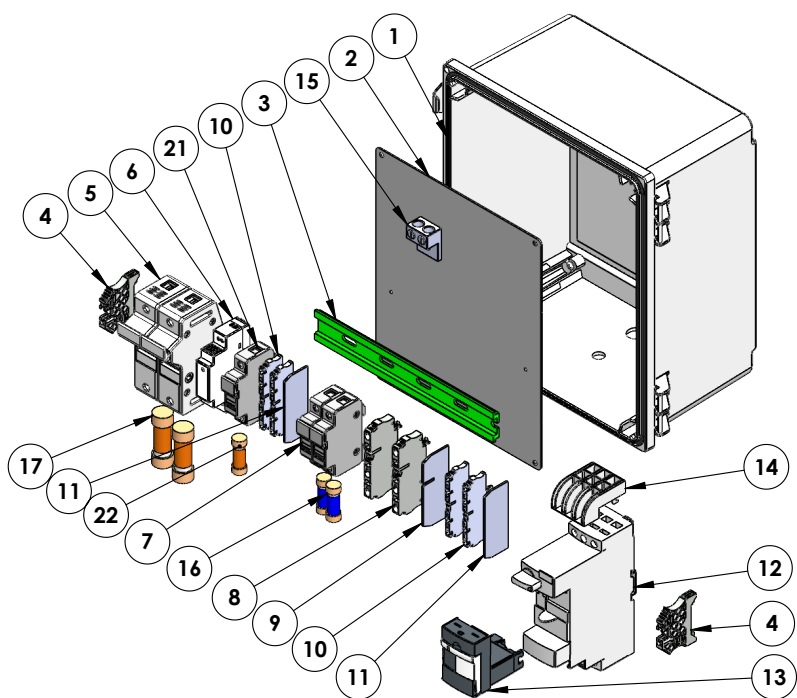
REV2 (June 18, 2024)

1.Changed control panel no. to CEC080.

# **BRINE MAKER 3000 UL ELECTRICAL CONTROL PANEL**

BRINE MASTER®



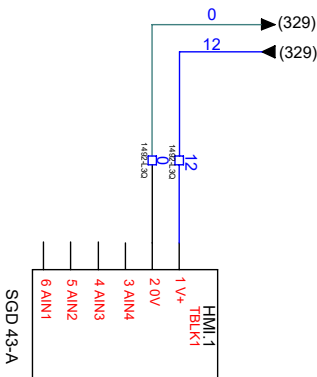
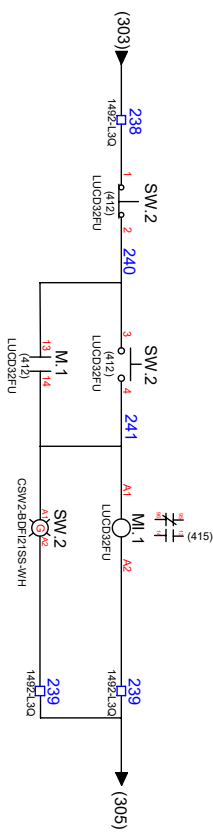


ITEM NO.	PART #	DESCRIPTION	QTY.
1	AVTC02	HOFFMAN PolyPro Industrial Enclosure, Type 4X, 12.08x10.09x6	1
2	AVTC03	HOFFMAN Q16129ABD Junction Box Type 4X / Screw Cover 160x120	1
3	BNDN1000	DIN Rail; Aluminum; Gray; Height 10.49 mm; Width 35 mm; Length 1 m; Snap Mount	1
4	1492-EAJ35	End Anchor	2
5	US6J2I	Fuse Holder, 2 Pole, Class J, DIN Rail Mount	1
6	ABLM1A12010	Regulated Power Supply, 100 to 240V AC, 12V, 1A, single phase, Modular	1
7	USCC21	Fuse Holder, 2 Pole, CC, DIN Rail Mount	1
8	1492-L6T	Spring Clamp Terminal Block, One-Circuit Feed-Through Block, 6mm (# 22 AWG - # 8 AWG), 2 Connection points on one side, one in the other side, Gray (Standard)	2
9	1492-EBL6T	End Barrier; 1492-L6T, 1492-LG6T, Gray	1
10	1492-L3Q	Terminal Block, One-Circuit Feed-Through, 5mm, 2 Connection points per side, Gray	3
11	1492-EBL3Q	End Barrier for 1492-L3Q, Gray	2
12	LUB32	Module; Motor Starter Power Base; For Single/3-Phase Motor; Sup-V 120-600AC; 2-25HP	1
13	LUCD32FU	UNIT 8-32A 110-240V	1
14	LU9SP0	Module; Motor Starter; For LUB Power Base; TeSys Series; 45mmWx169mmHx135mmD	1
15	K2A25U	TWO: 14 STR-1/0 STR DUAL, Aluminum Universal Terminal, 2 Conductor, 1 Hole, 14-1/0 AWG (Str), 1/4" Stud, 2 Screws, Al/Cu Rated, Tin Plated	1
16	ATDR1-2	Fuse, Class CC, Slow Blow, 0.5A, Current Limiting	2
17	AJT40	Fuse, Class J, Slow Blow, 40A, Current Limiting	2
18	OHY45J6	Pistol Handle, Red/Ylw, Accepts a 6mm Square Shaft	1
19	OT60FT3	(ABB OT60FT3 Non-Fused Disconnect switch 60A 3 Poles 600VAC, Door Mount, UL98)	1
20	OHZX6	ABB OHZX6 Mounting Plate, Pstl Hdl Adptr For Ot100 Door	1
21	AF3F	Pushbutton Contact Flange, 3-Position	2
22	CEC054	Lascar Electronics 4.3" capacitive touch display	1
23	CSW2-BDFI21SS-WH	Push Button, Illuminated Double, Flush, IP66, Green/Red, Start/Stop, No Engraving	1
24	CSW-CK2F45-WH	Knob, Fixed, 45°, 2-Position, Standard Front, 22mm, IP66, Black	1
25	BC10F-CSW	Pushbutton and pilot light CSW, 1 NO	2
26	CSW-BIDLF-2D66	Pushbuttons & amp; pilot lights CSW, Direct w/integrated LED-CSW B, 220-240V50/60Hz, Green	1
27	BC01F-CSW	Pushbutton and pilot light CSW, 1 NC	1
28	USCC1I	Fuse Holder, 1 Pole, Class CC, DIN Rail Mount	1
29	ATDR1	Fuse, Class CC, Time Delay, 1A	1
30	CXLT0042	Sticker - IMSBM3000 Electrical Panel	1



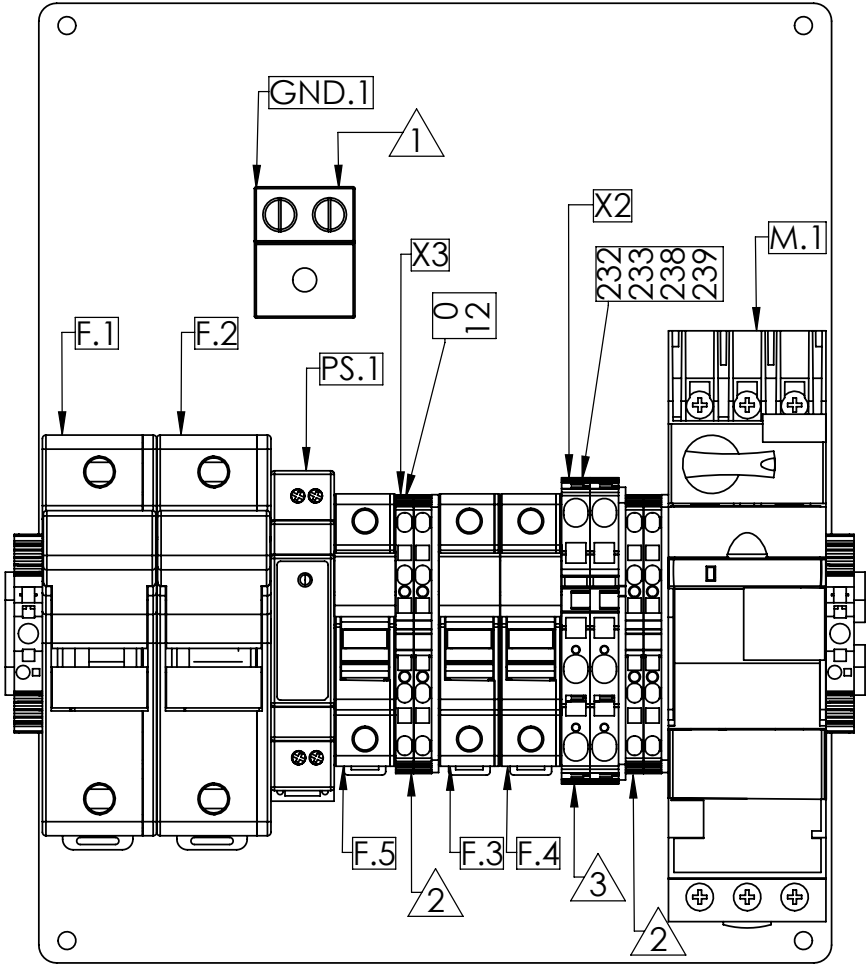
FUSE	RUNG	CLASS	OPENING RATE	RATING	VOLTAGE	Shunt	Lifetime	Bueman
F.1	(308)	J	Time-lag	40A	230 VAC	AJ140	JT0040 TXND	LP-140D
F.2	(310)	J	Time-lag	40A	230 VAC	AJ140	JT0040 TXND	LP-140D
F.3	(308)	CC	Time-lag	0.5A	230 VAC	ATDR1/2	CMAR 5007XP	LP-CC-1/2
F.4	(310)	CC	Time-lag	0.5A	230 VAC	ATDR1/2	CMAR 5007XP	LP-CC-1/2
F.5	(323)	CC	Time-lag	1A	12 VDC	ATDR	CCAR001 TXP	LP-CC-1

Version 1.8



## ELECTRICAL WIRING

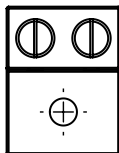
Wire #	Description	Voltage	Color Code	Style
0	RETURN, PS.1	0 VDC	WH	#18 WHT/BLU
11	POWER, PS.1 LOAD, CLASS 2, UNFUSED	12 VDC	BU	#14 BLU
12	POWER, PS.1 LOAD, CLASS 2, FUSED, TO TERMINAL POWER, PS.1 LOAD, CLASS 2, FUSED, FROM TERMINAL	12VDC	BU	#14 BLU #18 BLU
230	POWER, PS.1 LOAD, CLASS 2, FUSED, TO TERMINAL POWER, PS.1 LOAD, CLASS 2, FUSED, FROM TERMINAL	240 VAC	BK	#8 BLK PWR
231	POWER, MAIN, PROTECTED, PHASE B, UNFUSED	240 VAC	BK	#8 BLK PWR
232	POWER, MAIN, PHASE A, FUSED, TO TERMINAL POWER, MAIN, PHASE A, FUSED, TO STARTER POWER, MAIN, PHASE A, FUSED, TO F.3 LINE	240 VAC	BK	#8 BLK PWR #10 BLK PWR #14 BLK PWR
233	POWER, MAIN, PHASE B, FUSED, TO TERMINAL POWER, MAIN, PHASE B, FUSED, TO STARTER POWER, MAIN, PHASE B, FUSED, TO F.4 LINE	240 VAC	BK	#8 BLK PWR #10 BLK PWR #14 BLK PWR
234	CONTROL, PS.1 LINE, PHASE A	240 VAC	BK	#18 BLK CONTROL
235	CONTROL, PS.1 LINE, PHASE B	240 VAC	BK	#18 BLK CONTROL
236	POWER, M.1 LINE, PHASE A	240 VAC	BK	#10 BLK PWR
237	POWER, M.1 MAIN, PHASE B	240 VAC	BK	#10 BLK PWR
238	CONTROL, F.3 LOAD, PHASE A, FUSED, TO TERMINAL CONTROL, F.3 LOAD, PHASE A, FUSED, FROM TERMINAL	240 VAC	BK	#14 BLK CONTROL #18 BLK CONTROL
239	CONTROL, F.4 LOAD, PHASE B, FUSED, TO TERMINAL CONTROL, F.4 LOAD, PHASE B, FUSED, FROM TERMINAL	240 VAC	BK	#14 BLK CONTROL #18 BLK CONTROL
240	CONTROL, M.1 CIRCUIT	240 VAC	BK	#18 BLK CONTROL
241	CONTROL, M.1 CIRCUIT	240 VAC	BK	#18 BLK CONTROL



NOTE:  
DIN RAIL TOTAL WIDTH: 9.63", OVERLAPS EACH SIDE BY 0.375"



1



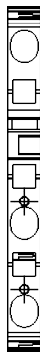
K2A25U	
VOLTAGE RATING	N/A
MAXIMUM CURRENT	N/A
WIRE RANGE	14AWG-1/0
STRIP LENGTH	0.8"
TIGHTENING TORQUE 14-10	50 lb-in
MIN WIRE TEMP RATING	60°C
USE COPPER CONDUCTORS ONLY	

2



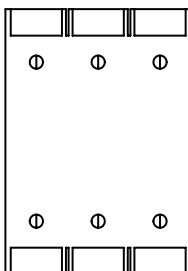
1492-L3Q	
VOLTAGE RATING	600V
MAXIMUM CURRENT	25A
WIRE RANGE	30-12AWG
STRIP LENGTH	0.39"
TIGHTENING TORQUE	N/A
MIN WIRE TEMP RATING	60°C
USE COPPER CONDUCTORS ONLY	

3

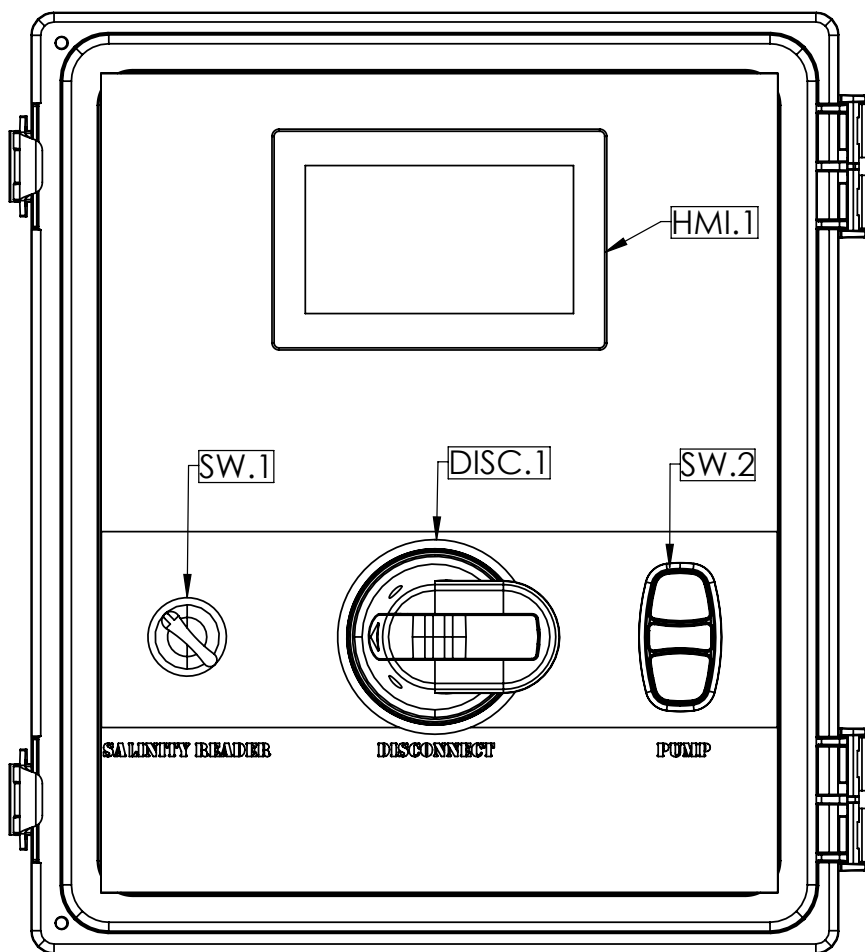


1492-L6T	
VOLTAGE RATING	600V
MAXIMUM CURRENT	50A
WIRE RANGE	22-8AWG
STRIP LENGTH	0.51"
TIGHTENING TORQUE	N/A
MIN WIRE TEMP RATING	60°C
USE COPPER CONDUCTORS ONLY	

4



OT60FT3	
VOLTAGE RATING	600V
MAXIMUM CURRENT	54A
WIRE RANGE	14-4AWG
TIGHTENING TORQUE	55 lb-in
MIN WIRE TEMP RATING	60°C
USE COPPER CONDUCTORS ONLY	



# WARRANTY

## **CAMION® LIMITED WARRANTY:**

Camion®, a division of Enduraplas, LLC ("Camion®") agrees to provide this non-transferable, non-assignable limited warranty ("Limited Warranty") to the original end-user purchaser ("Buyer") only of registered Camion® products ("Camion® Products") pursuant to the terms and conditions provided herein. By accepting delivery of Camion® Products the Buyer likewise agrees to the written terms and conditions of this Limited Warranty. This Limited Warranty give the Buyer specific legal rights and the Buyer may have other rights that vary from state to state.

## **A. LIMITED WARRANTY COVERAGE**

Camion® Products Complete Product Limited Warranty - Subject to the terms and conditions of this Limited Warranty, Camion® warrants to the Buyer of Camion® Products that it will be free from defects in workmanship for a period of one (1) Year after the date of the original purchase. At it's sole option, Camion® will repair or replace defective parts at no charge for parts and labor.

Camion® Products Proprietary Parts and Frames Limited Warranty - Notwithstanding the foregoing and subject to the terms and conditions of this Limited Warranty, Camion® warrants to the Buyer of Camion® Products that the parts and frames will be free from material defects in materials and workmanship for a period of one (1) Year after the date of original purchase. At its sole option, Camion® will repair or replace defective parts at no charge for parts, but labor shall be the responsibility of the Buyer.

Third Party Parts and Components - This Limited Warranty does not cover certain third party manufactured parts and components, as such parts and components are covered by separate limited warranties provided by such third party manufacturers. For information regarding said limited warranties, please see each individual third party limited warranty.

Camion® Products Polyethylene Tank Limited Warranty - This Limited Warranty does not cover Camion® Products Polyethylene Tanks(s), as such materials are covered by a separate limited warranty provided by Enduraplas®, LLC. For Information regarding said limited warranty, please see the Enduraplas® Limited Warranty.

## **B. WHAT THIS LIMITED WARRANTY DOES NOT COVER**

Camion® does not provide any warranty coverage, not have any liability or responsibility for any defects, costs, expenses, or damages relating to any of the following:

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- Water contamination.
- Any part or product installed, repaired, or altered by anyone other than a Camion® Products authorized dealer or any damage caused by such parts or products.
- Normal maintenance services.
- Incidental or consequential damages, including but not limited to inconvenience, transportation, person injury, loss of property or loss of revenue.
- Parts or products that have been subject to abuse, negligence, accident, theft, tampering, misuse, neglect, corrosion, mishandling, improper maintenance, lack of or improper maintenance, care or storage.

# WARRANTY

Installation of Camion® Products to a vehicle, including modification of Camion® Products or any such vehicle, is entirely at the Buyer's risk and expense, and compliance with motor vehicle regulations is the responsibility of the Buyer. Camion® is not responsible for any damage whatsoever to vehicles caused by installation or use of Camion® Products equipment.

Camion® Products are not intended for personal, family or household use and, as such, this Limited Warranty does not cover such use.

## C. OTHER WARRANTIES DISCLAIMED AND EXCLUDED

THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, WHICH EXTEND BEYOND THE LIMITED WARRANTY HEREIN STATED, AND EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW, CAMION® EXPRESSLY DISCLAIMS AND EXCLUDES ANY AND ALL OTHER WARRANTIES INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY, FITNESS FOR PARTICULAR PURPOSE, INFRINGEMENT, CUSTOM OR USAGE OF TRADE, AND COURSE OF DEALING. NO AGENT, EMPLOYEE OR REPRESENTATIVE OF CAMION HAS AUTHORITY TO BIND CAMION® TO ANY REPRESENTATION OR WARRANTY EXCEPT AS STATED IN THIS LIMITED WARRANTY.

## D. PROCEDURE FOR OBTAINING WARRANTY COVERAGE

To submit a Limited Warranty claim, the Buyer must notify Camion® of the claimed defect within ten (10) days that the defect becomes known, in writing, at: [cs@camionsystems.com](mailto:cs@camionsystems.com). The original invoice or other similar proof of purchase of the applicable product or part must be provided by the Buyer to Camion® when making a claim under this Limited Warranty. Warranty claims must be received in writing by Camion® within the Limited Warranty period. To obtain service pursuant to this Limited Warranty, the Buyer must return the defective product or part to any Camion® Products authorized dealer (preferably, the dealer from whom the product or part was purchased). The Buyer shall be responsible for all transportation expenses to and from said dealer and accepts all risk of any damage in transit. To locate the nearest Camion® Products authorized dealer, please see the dealer locator at [www.camionsystems.com](http://www.camionsystems.com).

The Limited Warranty is given solely to the Buyer and may not be transferred or assigned to any other person.

If you have questions about this Limited Warranty, contact Camion® at: [cs@camionsystems.com](mailto:cs@camionsystems.com).

## E. GOVERNING LAW

This Limited Warranty will be governed by the laws of the State of North Dakota, without giving effect to any choice of law rule that would cause the application of the laws to any other jurisdiction. Any disputes regarding matters relating to the Limited Warranty will be resolved exclusively in the State of North Dakota and all parties consent to such jurisdiction. RIGHTS TO A JURY TRIAL, CLASS ACTION AND CONSOLIDATED DISPUTE RESOLUTIONS PROCEEDINGS ARE HEREBY WAIVED TO THE FURTHEST EXTENT PERMITTED BY LAW.

## F. DISCLAIMER OF EXPENSES AND DAMAGES

The performance of necessary repairs and replacements, as determined by Camion® in its discretion, is the sole and exclusive remedy under this Limited Warranty or any implied warranty. Camion® does not authorize any person, including Camion® Products authorized dealers, to create for it any other obligation or liability in connection with Camion® Products. Except to the extent prohibited by applicable law, Camion® shall not be liable for personal injury, property damage, loss of liquid, loss of profit, incidental, consequential, contingent or special damages, or any other damages resulting from the use of, or inability to use, Camion® products whether based on breach of this written Limited Warranty or any implied, breach of contract, negligence or strict liability.

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[cs@camionsystems.com](mailto:cs@camionsystems.com)

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