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# USER MANUAL

**MODEL NUMBER:  
FI-BP-15N-BSLA  
FI-BP-15NK-BSLA  
FI-BP-15NV-BSLA  
AND RELATED UNITS**

**15 Gallon Battery-Powered Portable  
Foam Unit**

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**English (Original Instructions)**

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## READ ALL INSTRUCTIONS BEFORE OPERATING EQUIPMENT



# WARNING



**Read this manual completely and understand the machine before operating or servicing it.**

- Read all instructions before installing or operating unit.
- Always wear appropriate personal protective equipment (PPE) when operating or servicing unit.
- Always follow all chemical safety precautions and handling instructions provided by the chemical manufacturer and Safety Data Sheet (SDS).
- Never use unit if it is damaged or leaking.
- Always disconnect the battery before opening the unit back plate or servicing the unit.
- Do not use unit if the battery cover is not in place. Contact with chemicals can damage the battery.
- Avoid excessive use of discharge ball valve. Repetitive discharge in short bursts can cause overheating. Apply foam evenly without constant starting and stopping.
- Avoid foam or spray coming into contact with the unit. Contact with chemicals can damage the battery and other electrical components.
- Never point the discharge wand at yourself, another person, or any object you do not want covered in chemical.
- Always depressurize unit after use (as described in the After Use Instructions). Always store unit depressurized, with the discharge trigger gun or ball valve in the closed position.
- Do not exceed a fluid temperature of 100°F (37.8°C).
- Always flush the unit with fresh water thoroughly when switching from an alkaline to an acid or an acid to an alkaline.
- To prevent premature battery failure, do not store battery in a depleted state for long periods of time. Do not recharge battery until it has been used to power the unit for a minimum of 30 minutes of use.

### PROTECT THE ENVIRONMENT

Please dispose of packaging materials, old machine components, and hazardous fluids in an environmentally safe way according to local waste disposal regulations.



Always remember to recycle.

\*Specifications and parts are subject to change without notice.

## READ ALL INSTRUCTIONS BEFORE OPERATING EQUIPMENT

| OPTIONS  |                                |
|--|--------------------------------|
|  | <b>Pump Seal Material</b>      |
| FI-BP-15N-BSLA   | Santoprene ( <b>standard</b> ) |
|  | Viton ( <b>V</b> )             |
|  | Kalrez ( <b>K</b> )            |
| <p>Add bold option codes to item number as shown. For standard options, no option code is needed.</p> <p>Examples:</p> <ul style="list-style-type: none"> <li>FI-BP-15N-BSLA (standard unit with Santoprene pump seals)</li> <li>FI-BP-15NV-BSLA (unit with Viton pump seals)</li> </ul> |                                |

| REQUIREMENTS             |  |
|--------------------------|--|
| Liquid temperature range | 40-100°F (4.4-37.8°C)  |
| Electrical requirements  | 120 VAC at 60 Hz, 2 amps (GFCI protected outlet) for battery charger only  |
| Operating voltage        | 12 VDC   |
| Chemical compatibility   | Chemical products used with this equipment must be formulated for this type of application and compatible with unit materials and pump seals. For more information on chemical compatibility, consult the manufacturer or SDS for your product or contact our customer service department. |

| SPECIFICATIONS                            |   |
|---|---|
| Power type                                | SLA battery   |
| Battery charge time (from full depletion) | 7.5 hours   |
| Battery run time (from full charge)       | Up to 2 hours of non-continuous run time                    |
| Chemical pickup type                      | Draws from pre-mixed solution                               |
| Number of products unit can draw from     | One product   |
| Suction line diameter                     | 3/8 in. (9.5 mm) inside diameter                            |
| Capacity                                  | 15 gallons (56.8 liters)                                    |
| Discharge hose diameter/length            | 15 ft. (4.6 m) hose, with 1/2 in. (12.7 mm) inside diameter |
| Discharge wand/tip type                   | Stainless steel wand with 65° fan tip and ball valve        |
| Output distance                           | 5-6 ft. (1.5-1.8 m)   |
| Output volume                             | 4-5 gal/min (15.1-18.9 l/min) of foam                       |
| Flow rate*                                | 2 gal/min (7.6 l/min)                                       |
| Pump seals                                | Santoprene, Viton, or Kalrez                                |
| Wheel type                                | Two 10 inch non-marking wheels                              |

\*Dilution rates and flow rates given are based on chemical with viscosity of water and factory air pressure settings.

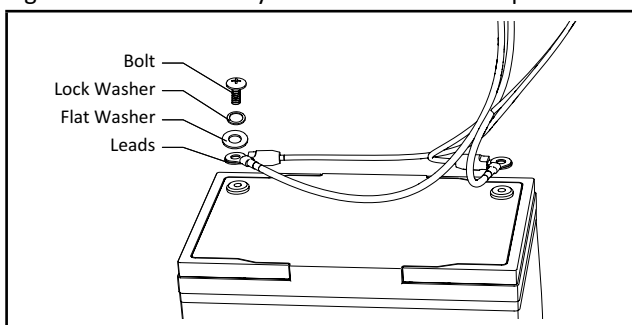
## READ ALL INSTRUCTIONS BEFORE OPERATING EQUIPMENT

# WARNING

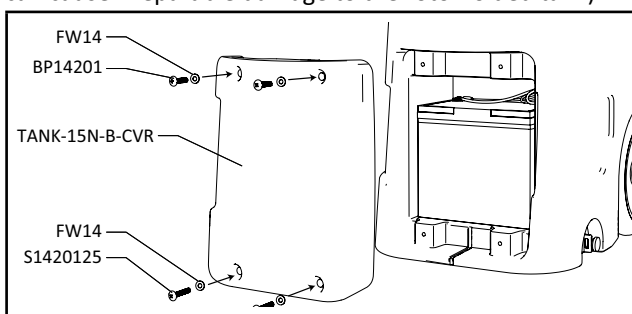
### Battery Instructions

#### To Install battery:

1. Remove packaging from around battery.
2. Verify power button is in the OFF (extended) position.
3. Verify the battery charger is not connected to charge port and not plugged into a power outlet.
4. Connect red leads to the red terminal and the black leads to the black terminal. (**Warning:** It is important to connect the leads to the correct terminal. Connecting battery incorrectly may cause irreparable damage to the battery.)
5. Put lock washer onto bolt first, follow by flat washer. Tighten bolt into battery to secure the leads in place.



6. Place cover onto the unit. Secure cover by using shorter screws into the top inserts, and longer screws in to the bottom inserts. (**Warning:** Inserting the incorrect screw can cause irreparable damage to the rotomolded tank).



#### To charge battery:

1. Verify that the power button is in the OFF position.
2. Plug charger into a GFCI protected 110 VAC power outlet.
3. Plug the charger into the charging port. **NOTE:** The charger will begin in standby mode, indicated by an orange LED. In standby mode, the charger is not providing any power.
4. Press MODE button on charger until correct mode is selected. Blue LED under 12V Cold is the correct mode.
5. Do not remove charger until green light appears under 100% on the battery charger.

6. After battery has been charged, disconnect charger from charging port by removing plug from charger port. Do not unplug by pulling wire.
7. Replace the protective cap on the charging port.

**Note:** To prevent premature battery failure, do not store battery in a depleted state for long periods of time.

### Operation Instructions:

1. Follow all instructions from the chemical manufacturer. Fill the tank with water and the advised percentage of chemical concentrate.
2. Press the power button to turn the unit ON.
3. Point the discharge wand in a safe direction and slowly open the discharge ball valve to activate the unit.
4. While the unit is running and discharging product, adjust the needle valve, located inside the control box, to regulate the wetness or dryness of the foam:
  - a. Close needle valve completely in clockwise direction.
  - b. Open needle valve in counter-clockwise direction 2 complete turns.
  - c. Continue to open valve in ¼ turn increments allowing 30 seconds between adjustments until proper consistency of foam is achieved.

### After Use Instructions:

1. Thoroughly flush the unit with fresh water.
2. Press the power button to turn the unit OFF, and open the discharge ball valve to relieve any pressure remaining in the system.
3. Close the discharge ball valve after all pressure has been relieved from the system. Store the unit with the ball valve in the closed position.

### Maintenance Instructions:

To keep your foam unit operating properly, periodically perform the following maintenance procedures:

**Note:** Before performing any maintenance, ensure that the unit has been turned OFF and depressurized according to the "After Use Instructions" above. Always disconnect the battery before opening the unit back plate.

- Inspect the pump for wear and leaks.
- Inspect all hoses for leaks or excessive wear. Make sure all hose clamps are in good condition and properly secured.
- Check the suction line and strainer for debris or blockages, and clean as needed.

## READ ALL INSTRUCTIONS BEFORE OPERATING EQUIPMENT



# WARNING

### Best Charging Practices:

- Make sure you are using a charger that provides the proper voltage for your battery.
- Do not speed up charging time or increase voltage for a fast charge. This will result in overcharging the battery. Batteries that are overcharged will over heat. Excessive heat can destroy a battery in as little as a few hours. Overcharging kills batteries.
- Do not use a lower charging voltage than required for your battery. By doing so, the battery will never be fully charged. Undercharging leads to reduced capacity creating a battery that needs to work harder than fully charged batteries. Undercharging and overworking leads to shortened battery life.

### Best Maintenance Practice:

- For maximum battery life and performance, batteries should be recharged as soon as possible after each use. Batteries should be stored in a fully charged state. Storing in a discharged state will kill the battery.
- Disconnect the charger after the battery has been fully charged. Continuous over charging or under charging is the worst thing for a SLA battery.
- Check the battery terminals for corrosion and/or battery deformation. A deformed battery or corrosion on the terminals is subject to failure.

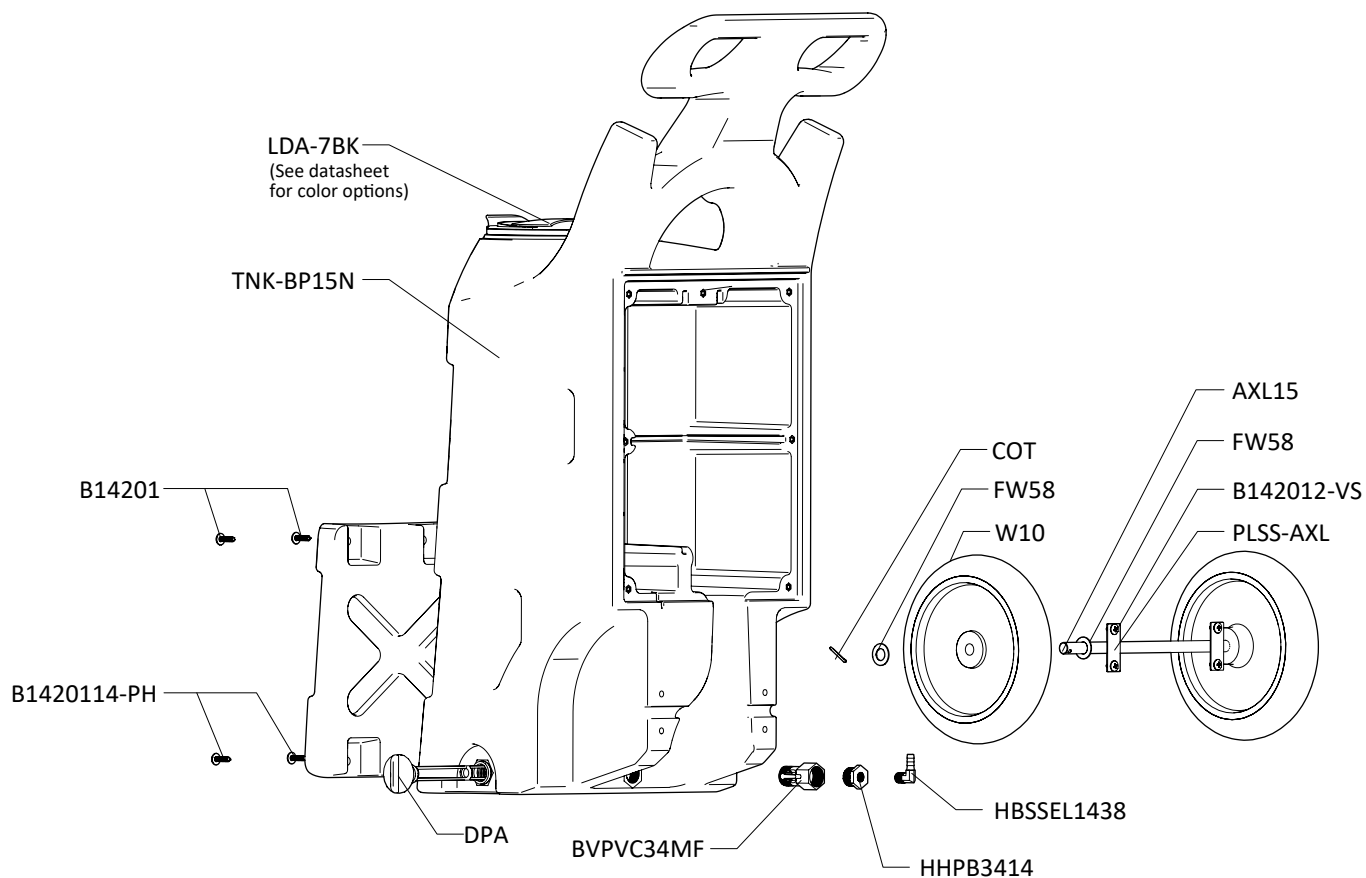
### Troubleshooting Instructions:

- Check to ensure the discharge hose is uncoiled properly, and that there are no kinks that could obstruct fluid flow.
- If needle valve valve is open too far, the pump will cycle improperly due to lack of air pressure. If this occurs, reset needle valve as described in Operation Instruction #4.
- Make sure proper foaming chemical and concentration is being used.
- If air passes through the pump without cycling, the pump needs to be replaced.
- If foam comes out wet, no matter where the needle valve is positioned, the check valve may need to be replaced.
- Check for plugged strainer. Replace strainer if necessary. Strainer must be used.
- Check the mixing material by removing the SMQC-FT to access the mixing material. If the mixing material has a lot of foreign particles in it, make sure the strainer is still in place. Clean and replace mixing material.

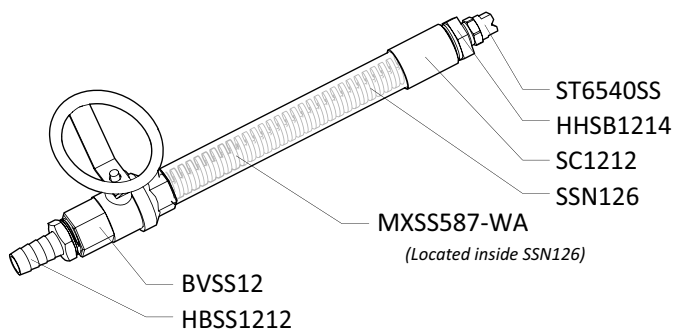
| BATTERY TROUBLESHOOTING GUIDE  |  |  |
|--|--|--|
| PROBLEM  | CAUSE  | SOLUTION                                     |
| Power light will not turn on   | • Blown fuse   | • Replace fuse                               |
|  | • Battery leads are backwards or disconnected  | • Connect leads to correct terminals         |
| Power switch light will not stop blinking  | • Depleted battery   | • Completely recharge battery                |
|  | • Bad battery  | • Replace battery                            |
|  | • Bad control relay  | • Replace control relay                      |
| Power switch light is on but unit is not running (when it has previously been operating) | • Unit overheating from extended use   | • Turn unit off and let cool at least 1 hour |
| Battery will not completely charge   | • Bad battery  | • Replace battery                            |
|  | • Bad charger  | • Replace charger or charging port           |
| Battery discharges too quickly   | • Battery was stored in depleted state for long periods of time                                    | • Replace battery                            |
|  | • Battery has reached life expectancy  | • Replace battery                            |
|  | • Battery was charged and run for short periods of time (not allowed to fully charge or discharge) | • Replace battery                            |

## READ ALL INSTRUCTIONS BEFORE OPERATING EQUIPMENT

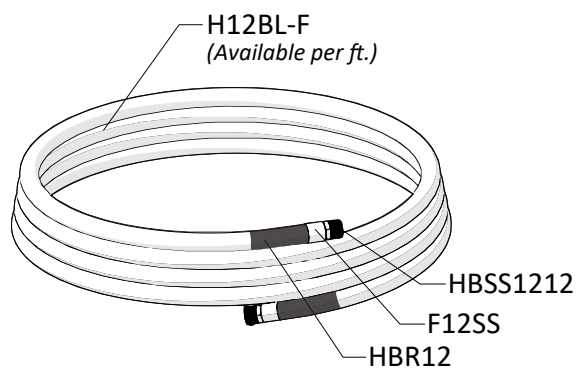
### TANK ASSEMBLY



### WAND ASSEMBLY ITEM NUMBER: SSWA126-ST-MX



### DISCHARGE HOSE ITEM NUMBER: HA12BL-15-2F-HBR



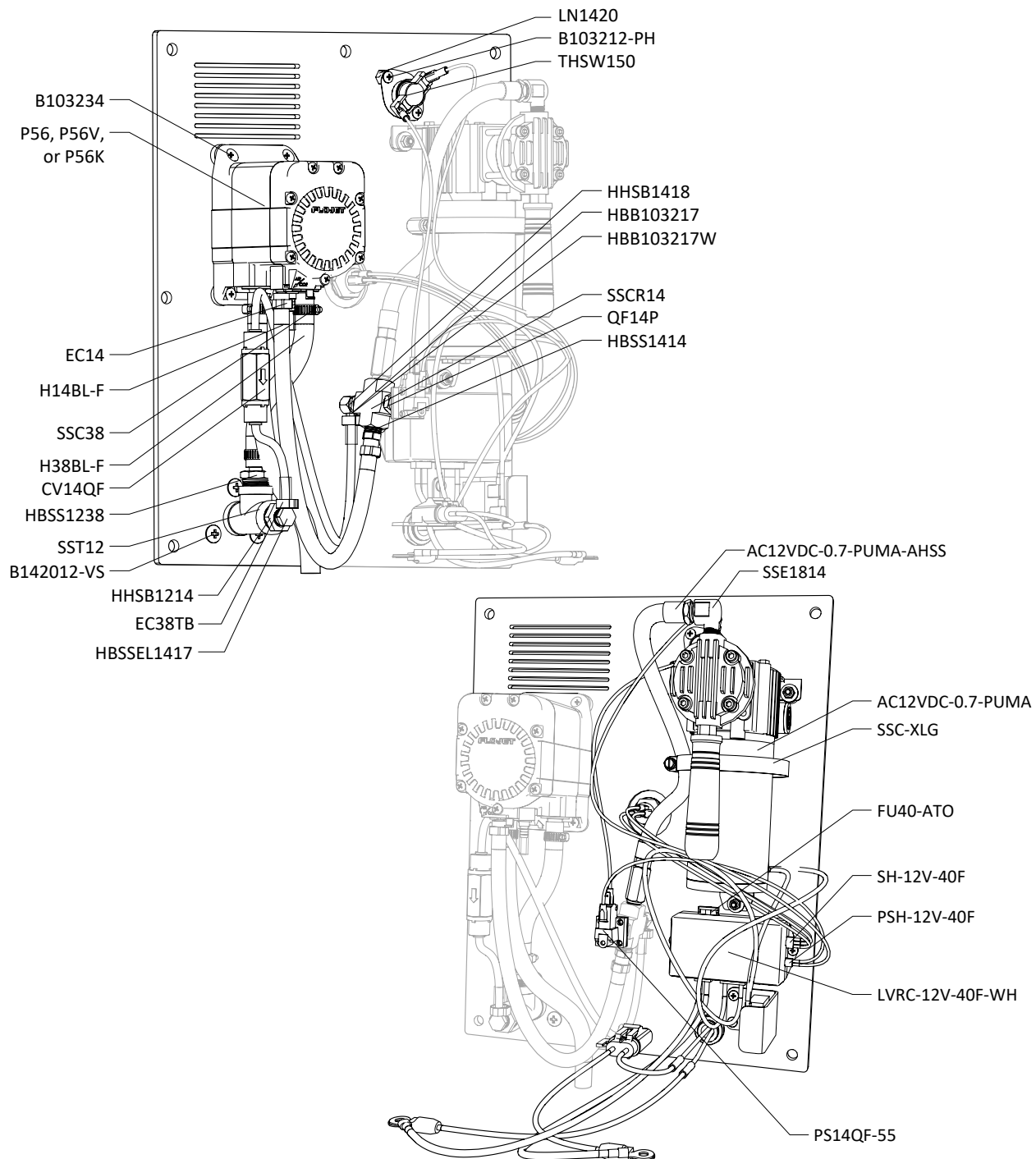
## READ ALL INSTRUCTIONS BEFORE OPERATING EQUIPMENT

### PLATE ASSEMBLY - Inside View

ITEM NUMBER (Santoprene pump): PA-BP-15N-BSLA

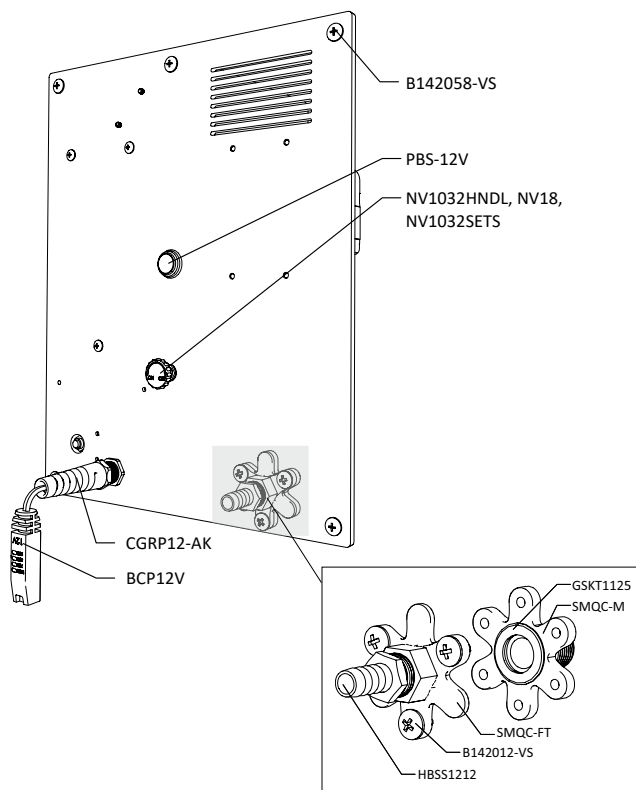
ITEM NUMBER (Kalrez pump): PA-BP-15NK-BSLA

ITEM NUMBER (Viton pump): PA-BP-15NV-BSLA

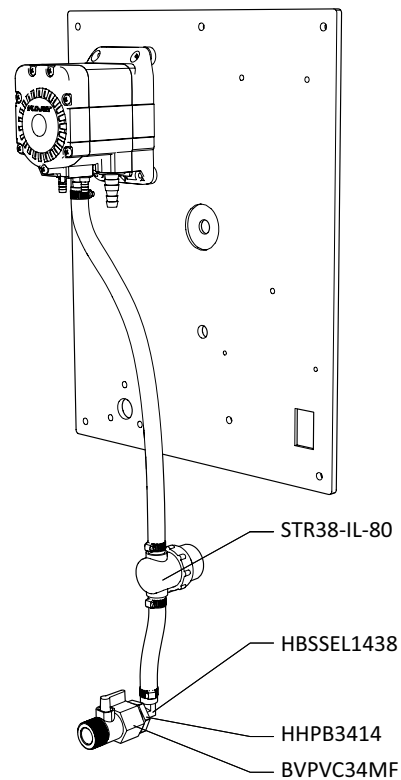


## READ ALL INSTRUCTIONS BEFORE OPERATING EQUIPMENT

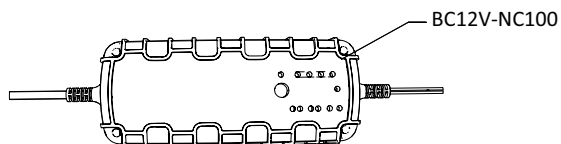
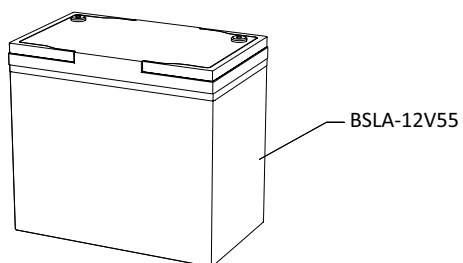
### BACK PLATE - Outside View



### SUCTION LINE



### BATTERY COMPONENTS





## READ ALL INSTRUCTIONS BEFORE OPERATING EQUIPMENT

| ITEM NUMBER           | DESCRIPTION  |
|-----------------------|--|
| AC12VDC-0.7-PUMA      | AIR COMPRESSOR - 12VDC - 0.7 CFM AT 40 PSI - 1/4HP - PUMA  |
| AC12VDC-0.7-PUMA-AHSS | STAINLESS HOSE - FOR AC12VDC-0.7-PUMA  |
| ADHFM12X316           | FOAM STRIP WITH ADHESIVE BACK - EPDM - BLACK - 1/2IN WIDE X 3/16IN THICK - 50FT LONG   |
| AXL15                 | AXLE-STAINLESS-0.625 DIA X 15.45 IN  |
| B10321                | BOLT - 10-32 X 1IN - STAINLESS STEEL - TRUSS HEAD PHILLIPS   |
| B103234               | BOLT - 10-32 X 3/4IN - STAINLESS STEEL - TRUSS HEAD PHILLIPS   |
| B14201                | BOLT - 1/4-20 X 1IN - STAINLESS STEEL - TRUSS HEAD PHILLIPS  |
| B103238-PH            | BOLT - 10-32 X 3/8IN - STAINLESS STEEL - PAN HEAD PHILLIPS   |
| B142012-VS            | BOLT - 1/4-20 X 1/2IN - STAINLESS STEEL - TRUSS HEAD PHILLIPS - VIBRASEAL  |
| B142058-VS            | BOLT - 1/4-20 X 5/8IN - STAINLESS STEEL - TRUSS HEAD PHILLIPS - VIBRASEAL  |
| B1420114-PH           | BOLT - 1/4-20 X 1 1/4IN - STAINLESS STEEL - PAN HEAD PHILLIPS  |
| BC12V-NC100           | 10.0 AMP 12V BATTERY CHARGER   |
| BCP12V                | BATTERY CHARGING PORT FOR BC12V-NC72 & RELATED CHARGERS  |
| B103212-PH            | BOLT - 10-32 X 1/2IN - STAINLESS STEEL - PAN HEAD PHILLIPS   |
| BH-12V-40F            | BATTERY HARNESS FOR LVRC-12V-40F-BLACK AND RED WIRES   |
| BH-CP-10F             | BATTERY HARNESS TO CHARGING PORT CONNECTOR - 15 AMP FUSE   |
| BSLA-12V55            | 55 AMP HOUR SEALED LEAD ACID BATTERY   |
| BVPVC34MF             | BALL VALVE - PVC - 3/4 NPT TO 3/4 FNPT - EPDM SEAL   |
| BVSS12                | STAINLESS BALL VALVE-1/2IN NPT   |
| CGRP12-AK             | CORD GRIP WITH INTEGRATED ANTI-KINK STRAIN RELIEF - 1/2IN MPT - BLACK NYLON - CORD RANGE 0.20IN TO 0.35IN - WATER RESISTANT - FOR 7/8IN HOLE - INCLUDES NUT AND O-RING |
| CH-12V-40F            | COMPRESSOR HARNESS FOR LVRC-12V-40F-BROWN AND YELLOW WIRES   |
| COT                   | COTTER PIN-STAINLESS-1/8IN X 1IN   |
| CV14QF                | PVC QUICK CONNECT CHECK VALVE 1 LB-HASTELLOY SPRING-EP SEALS   |
| DPA                   | DRAIN PLUG ASSEMBLY - INCLUDES GASKET  |
| EC14                  | EAR CLAMP - OETIKER - STAINLESS STEEL - FOR 1/4IN HOSE   |
| EC38TB                | EAR CLAMP - OETIKER - STAINLESS STEEL - FOR 3/8IN OD TUBE  |
| F12SS                 | FERRULE FOR 1/2IN HOSE - STAINLESS STEEL   |
| FU40-ATO              | 40 AMP FUSE-ATO  |
| FW1420                | FLAT WASHER FOR 1/4-20 BOLT - STAINLESS - 0.28IN ID X 0.63IN OD X 0.05IN THK   |
| FW58                  | FLAT WASHER FOR 5/8IN OD PIPE OR AXLE - STAINLESS - 0.64IN ID X 1.2IN OD X 0.05IN THK  |
| FW12NPT               | FLAT WASHER FOR 1/2IN NPT - STAINLESS - 0.88IN ID X 1.5IN OD X 0.05IN THK  |
| GSKT1125              | VITON 1/16 IN THICK-.75 IN ID-1.125 IN OD  |
| H12BL-F               | 1/2IN ID BLUE HOSE-HYBRID TPE-AVAILABLE PER FT   |
| H14BL-F               | 1/4IN ID BLUE HOSE-HYBRID TPE-AVAILABLE PER FT   |

| ITEM NUMBER        | DESCRIPTION   |
|--------------------|---|
| H14CL-PV           | 1/4IN ID 3/8IN OD CLEAR HOSE - PVC - AVAILABLE PER FT   |
| H38BL-F            | 3/8IN ID BLUE HOSE-HYBRID TPE-AVAILABLE PER FT  |
| HBB103217          | HOSE BARB 10-32 MPT X B4 FITTING  |
| HBB103217W         | FIBER WASHER FOR HBB103217 - W/ BARB  |
| HBR12              | HOSE BEND RESTRICTOR - 1/2 INCH HOSE  |
| HBSS1212           | HOSE BARB - STAINLESS STEEL - 1/2IN MPT X 1/2IN BARB  |
| HBSS1238           | HOSE BARB - STAINLESS STEEL - 1/2IN MPT X 3/8IN BARB  |
| HBSS1414           | HOSE BARB - STAINLESS STEEL - 1/4IN MPT X 1/4IN BARB  |
| HBSSSEL1417        | HOSE BARB - STAINLESS STEEL - ELBOW - 1/4IN MPT X .17IN BARB  |
| HBSSSEL1438        | HOSE BARB - STAINLESS STEEL - ELBOW - 1/4IN MPT X 3/8IN BARB  |
| HHPB3414           | HEX HEAD POLY BUSHING - 3/4IN MPT X 1/4IN FPT   |
| HHSB1214           | HEX HEAD STAINLESS BUSHING 1/2 MPT X 1/4 FPT  |
| HHSB1418           | HEX HEAD STAINLESS BUSHING 1/4 MPT X 1/8 FPT  |
| LDA-7BK            | LID ASSEMBLY - 7IN POLYPROPYLENE LID WITH FLANGE - BLACK - INCLUDES SS HINGE PIN AND MOUNTING SCREWS  |
| <i>LD-7BK-LID</i>  | LID - 7IN - POLYPROPYLENE - BLACK   |
| <i>LD-7BK-FLNG</i> | LID FLANGE - 7IN - POLYPROPYLENE - BLACK  |
| <i>LD-PIN</i>      | HINGE PIN FOR 7IN LID AND FLANGE  |
| LN1032             | LOCKNUT - 10-32 - STAINLESS - NYLON INSERT  |
| LN1420             | LOCKNUT - 1/4-20 - STAINLESS - NYLON INSERT   |
| LVRC-12V-40F-WH    | LOW VOLTAGE RELAY CONTROLLER-12V-40 AMP FUSE-WITH HARNESSSES  |
| MXSS582            | MIXING MEDIA - STAINLESS - WIRE BRUSH - 5/8IN DIAMETER X 2IN TALL - 2 1/2IN OVERALL LENGTH WITH STEM  |
| MXSS587            | MIXING MEDIA - STAINLESS - WIRE BRUSH - 5/8IN DIAMETER X 7IN TALL - 13 1/2IN OVERALL LENGTH WITH STEM |
| NVA-NV18           | NEEDLE VALVE ASSEMBLY - 1/8IN FITTING - INCLUDES VALVE, HANDLE, SET SCREW                             |
| <i>NV1032HNDL</i>  | BLACK HANDLE FOR NEEDLE VALVE   |
| <i>NV1032SETS</i>  | SET SCREW FOR HANDLE  |
| <i>NV18</i>        | NEEDLE VALVE-1/8 IN MPT-10-32F-VALVE ONLY-NO SETS-NO HANDLE   |
| P56                | PUMP WITH SANTOPRENE SEALS - INCLUDES HOSE BARBS, AIR FITTING, AND EXHAUST BARB                       |
| P56K               | PUMP WITH KALREZ SEALS - INCLUDES HOSE BARBS, AIR FITTING, AND EXHAUST BARB                           |
| P56V               | PUMP WITH VITON SEALS - INCLUDES HOSE BARBS, AIR FITTING, AND EXHAUST BARB                            |
| PBS-12V            | Push button switch with 12 volt led light   |
| PL15NB             | PLATE FOR TANK-15N-B (WITH COMPONENT MOUNTING HOLES) - PL-4X8   |
| PL15NB-IN          | PLATE FOR TANK-15N-B (INTERNAL DIVIDER) - PL-4X8  |
| PLSS-AXL           | AXLE PLATE-STAINLESS-2.5 IN X 1 IN-2 HOLES  |
| PS14QF-55          | PRESSURE SWITCH - 1/4 QUICK FIT - POLYURETHANE DIAPHRAGM - 55 PSI                                     |
| PSH-12V-40F        | QUICK FIT - 1/4IN MPT X 1/4IN OD TUBE - POLYPROPYLENE BODY - EPDM O-RING                              |

## READ ALL INSTRUCTIONS BEFORE OPERATING EQUIPMENT

| ITEM NUMBER | DESCRIPTION  |
|-------------|--|
| QF14P       | QUICK FIT - 1/4IN MPT X 1/4IN OD TUBE - POLYPROPYLENE BODY - EPDM O-RING |
| S812-FH     | SCREW - #8 X 1/2IN - STAINLESS STEEL - FLAT HEAD PHILLIPS                |
| SC1212      | S.S. COUPLER 1/2in BY 1/2in  |
| SH-12V-40F  | SWITCH HARNESS -ON/OFF- FOR LVRC-12V-40F-GRAY, ORANGE AND YELLOW WIRES   |
| SMQC-FT     | PLATE QUICK CONNECT FPT  |
| SMQC-M      | PLATE QUICK CONNECT MPT  |
| SSC-XLG     | SCREW BAND CLAMP - STAINLESS STEEL - FOR MULTIPLE HOSES                  |
| SSCR14      | STAINLESS STEEL CROSS - 304 - 1/4IN FPT                                  |
| SSC38       | SCREW BAND CLAMP - STAINLESS STEEL - FOR 3/8IN HOSE                      |
| SSE1814     | STAINLESS STREET ELBOW 1/8 IN MPT X 1/4 FPT                              |

| ITEM NUMBER   | DESCRIPTION   |
|---------------|---|
| SSN126        | 1/2IN NPT SCH40S PIPE NIPPLE - STAINLESS - 6IN LONG   |
| STRD1116      | STRAINER - STAINLESS DISC - 11/16IN DIAMETER - #10 MESH                                       |
| SST12         | STAINLESS TEE 1/2 FPT   |
| ST6540SS      | SPRAY TIP-65 DEGREE-4.0 GPM-STAINLESS-1/4 MPT   |
| STR38-IL-80   | IN LINE STRAINER - 2X 3/8 HOSE BARB - EPDM GSKT - #80 MESH STAINLESS STEEL SCREEN - GRAY BOWL |
| TB14BL-PU     | 1/4IN OD BLUE TUBE - POLYURETHANE - AVAILABLE PER FT  |
| TNK-BP15N     | 15 GALLON NATURAL BATTERY TANK  |
| TNK-BP15N-CVR | 15 GALLON NATURAL BATTERY TANK COVER  |
| THSW150       | THERMAL SWITCH 150 DEGREE   |
| W10           | WHEEL-NONMARKING-10IN   |