MODEL NUMBER:
FI-10N-B
FI-10N-B-SSBV
AND RELATED UNITS

10 Gallon Battery-Powered Portable Foam Equipment

English (Original Instructions)
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 Material Safety Data Sheet (MSDS).
• Never use unit if it is damaged or leaking.
• If unit leaks from behind the back plate, turn the unit off and disconnect the battery immediately. Locate and repair the leak before reconnecting the battery.
• Always disconnect the battery before opening the unit back plate.
• Do not use unit if the battery box cover is not in place. Contact with chemicals can damage the battery.
• Avoid excessive use of discharge trigger or ball valve. Repetitive triggering 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°C).
• Always flush the unit with fresh water for 5 minutes 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.

Specifications:
Tank Capacity ........................................ 12.5 gallons (47.3 liters)
Foam Output ........................................ 4 to 5 gallons/minute (15 to 18.93 liters/minute)
Foaming Distance ............................. 5 to 6 feet (1.52 to 1.83 meters)
Liquid Temperature .......................... 40°F to 100°F (4.4˚C to 37˚C)
Operating Voltage .............................................. 12 VDC

A fully charged battery will power the unit for approximately 45 minutes of continuous use.
A fully discharged battery will take approximately 8 hours of charging to regain full charge.

Dimensions:
Length ........................................ 18 in (45 cm) approximately
Width ........................................ 14 in (36 cm) approximately
Height ........................................ 42 in (106 cm) approximately
Weight, including discharge hose and wand:
(Empty) ........................................ 65 lbs (29.4 kg) approximately

Requirements:
Chemical Requirements: Follow all instructions from chemical manufacturer and Material Safety Data Sheet (MSDS).

Air Operated Double Diaphragm Pump Models Offered:
P56: Polypropylene body with Santoprene diaphragm
P56V: Polypropylene body with Viton diaphragm
P56K: Polypropylene body with Kalrez diaphragm

Acceptable Products:
Alkaline cleaners, Caustic cleaners, Sanitizers, and Acids
* D-Limonene may only be used with Kalrez pump
* Chlorine may only be used with Viton or Kalrez pump

DO NOT USE: All hydrocarbons
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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 (PBS-12V) to turn the unit ON.
3. Point the discharge wand in a safe direction and squeeze the trigger gun (PSG12) or open the ball valve (HV60) to activate the unit.
4. Adjust the needle valve handle (NV1032HNDL) to regulate the wetness or dryness of the foam by following the steps below:
   a. Close needle valve (NV18) completely by turning handle (NV1032HNDL) in clockwise direction until it stops.
   b. Open needle valve (NV18) by turning handle (NV1032HNDL) in counter-clockwise direction 3 complete turns.
   c. Continue to open needle valve (NV18) by turning handle (NV1032HNDL) counter-clockwise in ¼ turn increments, allowing 30 seconds between adjustments, until desired consistency of foam is achieved.

After Use Instructions:

1. Flush the unit with fresh water for 5 minutes.
2. Press the power button (PBS-12V) to turn the unit OFF, and squeeze the discharge trigger gun (PSG12) or open the discharge ball valve (HV60) to relieve any pressure remaining in the system.
3. Release the discharge trigger gun (PSG12) or close the discharge ball valve (HV60) after all pressure has been relieved from the system. Store the unit with the discharge trigger gun or ball valve in the closed position.

Battery Instructions:

To monitor battery power level:
When the power button (PBS-12V) is in the ON position, the power button light will illuminate to indicate the battery power level:
- A continuous red light means that the battery has sufficient charge to power the unit.
- A blinking red light means that the battery is drained and must be recharged.

To charge battery:
1. Verify that the power button (PBS-12V) is in the OFF position.
2. Loosen battery box screws (BPS) and remove battery box cover (BBC-17).
3. Unplug battery lead from unit wiring and connect battery lead to Battery Tender charger.
4. After battery has been charged, disconnect battery lead from charger and reconnect to unit wiring.
5. Replace and secure battery box cover (BBC-17) and screws (BPS).

Battery Tender Charging Status Indicator Lights:
- Amber Light Flashing: Connected to AC power but not battery.
- Amber Light Steady: Connected to AC power and charging the battery.
- Green Light Flashing: Battery is more than 80% charged.
- Green Light Steady: Battery is completely charged.

Note: For more information on charging the battery, see Battery Tender instructions. 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.

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 air pump (P56/P56K/P56V) 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 screen (STR34) for debris or blockages, and clean as needed.
## Troubleshooting Guide

<table>
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<tr>
<th>Problem</th>
<th>Cause</th>
<th>Solution</th>
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<tbody>
<tr>
<td>Foam too wet or too dry</td>
<td>Adjust the needle valve handle (NV1032HNDL) to regulate the wetness or dryness of the foam by following the steps below:</td>
<td>**</td>
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</tbody>
</table>
|  | a. Close needle valve (NV18) completely by turning handle (NV1032HNDL) in clockwise direction until it stops. | • Make sure the chemical is a foaming chemical  
|  | b. Open needle valve (NV18) by turning handle (NV1032HNDL) in counter-clockwise direction 3 complete turns. | • Make sure the chemical solution is mixed at an appropriate concentration to produce foam  
|  | c. Continue to open needle valve (NV18) by turning handle (NV1032HNDL) counter-clockwise in ¼ turn increments, allowing 30 seconds between adjustments, until desired consistency of foam is achieved. |  
| Sporadic wet foam | • Improper mixture of cleaning solution | • Improper mixture of cleaning solution  
|  | • Discharge hose kinked | • Straighten, repair or replace hose (H38B-H)  
|  | • Wadding clogged | • Replace wadding (WAAD-.75)  
|  | • Wadding next to spray tip | • Replace tubing (H38CP) between tip and trigger  
| Constant wet foam | • Wadding clogged | • Repair or replace wadding (WAAD-75)  
|  | • Air check valve may be plugged or backwards | • Replace or reverse check valve (CV18-K)  
|  | • Air compressor not cycling | • Replace air compressor (AC12V-14HP)  
| Sporadic dry foam | • The strainer may be plugged | • Clean the strainer (STR34)  
|  | • Pump may be cycling improperly | • Replace the pump (P56/P56K/P56V)  
| Only air discharges from foam wand | • Pump not cycling | • Replace pump (P56/P56K/P56V)  
|  | • Problem with intake hose | • Check intake hose and strainer and repair as needed  
| Unit leaks from behind the plate | • Fittings, clamps, or tubing not secured properly | • Find leak and replace or repair parts as necessary  
|  | • Pump leaks from spray tip | • Replace pump (P56/P56K/P56V)  
| Power light will not turn on | • Blown fuse | • Replace fuse (FU25-TD)  
|  | • Battery leads are backwards | • Connect leads to correct terminals  
| Power switch light will not stop blinking | • Depleted battery | • Completely recharge battery  
|  | • Bad battery | • Replace battery (BSLA-12V17)  
|  | • Bad control relay | • Replace control relay (LVRC-12V)  
| Battery will not completely charge | • Bad battery | • Replace battery (BSLA-12V17)  
|  | • Bad charger | • Replace charger (BC12V-BT)  
| Battery discharges too quickly | • Battery was stored in depleted state for long periods of time | • Replace battery (BSLA-12V17)  
|  | • Battery has reached life expectancy | • Replace battery (BSLA-12V17)  
|  | • Battery was charged and run for short periods of time (not allowed to fully charge or discharge) | • Replace battery (BSLA-12V17)  

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READ ALL INSTRUCTIONS BEFORE OPERATING EQUIPMENT

TANK ASSEMBLY
ITEM NUMBER: TANK-10N-A

DISCHARGE TRIGGER GUN ASSEMBLY
ITEM NUMBER: ST5020, PW124-120, PSG12, HBSS1238

DISCHARGE HOSE ASSEMBLY
ITEM NUMBER: H38-12

DISCHARGE WAND AND BALL VALVE ASSEMBLY

HBSS1238

HV60

ST5020

PW124-120

HBSS1238

SSC38

HBSS1238

H388-H (Available per ft)
READ ALL INSTRUCTIONS BEFORE OPERATING EQUIPMENT

BACK PLATE
Inside View

BACK PLATE
Outside View

BATTERY ASSEMBLY
ITEM NUMBER: BSLA12V-17-A

BATTERY CHARGER
### ITEM NUMBER | DESCRIPTION
--- | ---
2WBL-12V | 2 WIRE 14 GAUGE RED/BLACK 6 inch - BATTERY LEAD - 12VDC
2WPL | 2 WIRE 14 GAUGE RED/BLACK 18 inch
A34M34G | 3/4 GHT X 3/4 MPT ADAPTOR
AC12V-14HP | BARE COMPRESSOR DC 12V 1/4HP
A51-V5 | 1/4-20 X 1/2 PHIL TRUSS MACH SCREW 19-8 W/S16 ORANGE VIBRASEAL PATCH
B10321 | 10-32 X 1 PHIL TRUSS MACH SCR 12-20 S/S
B103234 | 10-32 X 3/4 PHIL TRUSS MACH SCR 18-8
8BX58 | 8-15 X 5/8 inch PHIL FLAT TY-A 316 S.S.
BB-17 | STAINLESS STEEL BATTERY BOX for BSLA-12V-17
BBC-17 | STAINLESS STEEL COVER FOR BATTERY BOX for BLSA-12V-17
BC12V-8T | 12 VOLT BATTERY TENDER
BCVR1 | 10-32 X 1 1/2 PHIL PAN HEAD S/S
BHLVRC-12V | SWITCH AND COMPRESSOR HARNESS FOR LVRC-12V - INCLUDES FU25-TD FUSE
FU25-TD | 25 AMP FUSE WITH TIME DELAY
BPS | PANEL BLACK SCREW
BPS-58SO | Back Panel Screw - 5/8 inch with Stand Off
BPS-58R | 1/4 INCH PUSHNUT BOLT RETAINER STAINLESS STEEL
BSLA-12V17 | 12 VOLT 20 AH SEALED LEAD ACID BATTERY
CC3224 | LTC BLACK 1/2 NPT
CC8463 | 1/2in NPT BLACK LOCKNUT
COT | 1/8 X 1 COTTER PIN 18-8 S/S
CV14-P | CHECK VALVE - 1/4 inch BARBS - 695 SERIES POLYPROPYLENE - 1LB SPRING BUNA SEALS
CV18-K | CHECK VALVE - 1/8in BARBS - KYNAR BODY - S.S. BALL AND SPRING
DFP7 | 7 Inch Hinged Cap Assembly - Includes Black Cap, Lid, Flange and Hinge Pin
DFP7-C | 7 Inch Fill Cap Polypro Black
DFP7-F | 7 Inch Tank Lid Flange Polypro
DFP7-PIN | Hinge Pin for DFP7-C & DFP7-C
DFP7-C-BL | 7 Inch Fill Cap Polypro Blue Pantone
DFP7-C-GN | 7 Inch Fill Cap Polypro Green Pantone
DFP7-C-RD | 7 Inch Fill Cap Polypro Red Pantone
DFP7-C-YL | 7 Inch Fill Cap Polypro Yellow Pantone
DHB38 | 3/4 FLAT SEAT 3/8 HOSE BARB
DP-A | DRAIN PLUG ASSEMBLY FOR TANK-10N TANK-20N
DP | FRONT DRAIN PLUG FOR PORTABLE UNIT POLYPRO
DP-G | FM SQUARE CUT DRAIN PLUG GASKET
DP-INSERT | 304 STAINLESS DRAIN PLUG INSERT
EC14-2 | OETIKER CLAMP 13.8
EC18 | OETIKER CLAMP - 11.3
F38S5 | STAINLESS 3/8 INCH FERRULE
FW14 | 1/4 X 5/8 OD FLAT WASHER 18-8 PLN
FWAX15 | FLAT AXLE WASHER
FWP12 | 7/8 ID X 1 1/2 OD X 0.05 THK SSFW
H38B-H | 3/8 inch BLUE HOSE - GOODYEAR HORIZON
H38CP | 3/BIN OD POLYETHYLENE TUBING - NATURAL
HBB103217 | 10-32 84 HOSE BARB
HBBL1414 | BRASS 1/4 X 1/4 HOSE BARB
HBBL11414 | 1/4 MPT X 1/4 HOSE BARB BRASS 90 DEG
HBBL11417 | 1/4in L BARBED FITTING - NICKEL PLATED
HB1T14 | 1/4 INCH BARB TEE BRASS
HBSS1238 | STAINLESS HOSE BARB 1/2inx 3/8in Tariff 8479.90.9496
HBSSL1814 | 304 STAINLESS ELBOW 1/8 INCH NPT X 1/4 INCH HOSE BARB
HBB1418 | HEX HEAD BRASS BUSHING 1/4in X 1/8in
HH581214 | HEX HEAD S.S. REDUCER BUSH ING 1/2 X 1/4
HV60 | 1/2IN STAINLESS BALL VALVE - w/ WELDED NUT
LVRC-12V | Low Voltage Relay Controller 12 Volt Pickup@12v and dropout@11v
N34GH | 3/4 GARD HSE SWIVEL NUT
NV1032HNDL | BLACK HANDLE FOR #6737990 NEEDLE VAL
NV1032SETS | SET SCREW FOR #5890634 HANDLE
NV18 | NV25V-9, 6.5T, 1/8M, 10-32F, RB
P56 | 5700 PUMP WITH SANTOPRENE SEALS - INCLUDES HOSE BARBS, AIR FITTING, AND AIR PORT
P56K | 5700 PUMP WITH KALREZ SEALS - INCLUDES HOSE BARBS, AIR FITTING, AND AIR PORT
P56V | 5700 PUMP WITH VITON SEALS - INCLUDES HOSE BARBS, AIR FITTING, AND AIR PORT
20756103B | Polypro G57 Air Port x HB Straight, w/ Viton o-ring
HB14P | 1/4IN BRASS HB AIR FITTING /G57/P56
HB5638 | HOSE BARB FOR P56 PUMP
HB5638K | HOSE BARB FOR P56K PUMP
HB5638V | HOSE BARB FOR P56V PUMP
PBS-12V | Push button switch with 12 volt led light
PLPF-B | BLANK PORTABLE FOAMER PLATE WITH HINGE W/O HOLES
PLPF-PIN | 302 STAINLESS PORTABLE PLATE HINGE PIN
PS14OF-SS | PRESSURE SWITCH - 1/4 QUICK FIT - 55 PSI
PSG12 | Assembly with o-rings included/1/2in POLY SPRAY GUN W/ GRAY HNDL. & 316SS
PSGORV | PSG12 VITON O RING
PVCS34FM | PVC VALVE 3/4in FPT X 3/4in MPT
PW324-120 | 1/2in BLACK POLY PRO 4 X 12in SCH.40 - 1/2in MPDOE & 3/4in FTPOE
S1400VS-VS | 1/4-20 X 5/8 PHIL TRUSS MACH SCREW 18-8 W/S16 VIBRASEAL ORANGE PATCH
SSA12 | STAINLESS MALE/FEMALE S.S. ADAPTOR 1/2inx 1/2in
SSAXLE14 | 14 3/4 long with the 5/8" diameter bar & 2 through holes with countersinks beveled ends
SSC38 | WORM GEAR CLAMP, 5/8 (25-63)
SSP12 | STAINLESS STEEL AXLE PLATE - 2.5 inch X 1 inch - 2 HOLE
SS712 | 1/2in FPT 304 S.S. TEE
ST5020 | VEDET NOZZLE, BRASS 5020
STR34 | 1in SEAL/STRAINER FOR 3/4 GH FITTINGS
T14B | FEMALE BRASS TEE 1/4in
TANK-10N | 10 GALLON NATURAL TANK
W15 | NONMARKING WHEEL FOR PORTABLE UNITS
WAAD-75 | WADDING FOR PUMP-UP FOAMER - 3/4in DIA.
WAAD-1X3 | BROWN WADDING- 1" BY 3" DIE CUT
WCB18F | 22-18 AWG - 1/8 FEM INSULATED CONNECTOR