
USER MANUAL

**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:

Hose	12 feet reinforced hose, 3/8 inch I.D. (3.66 meters reinforced hose, 3/8 inch I.D.)
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.

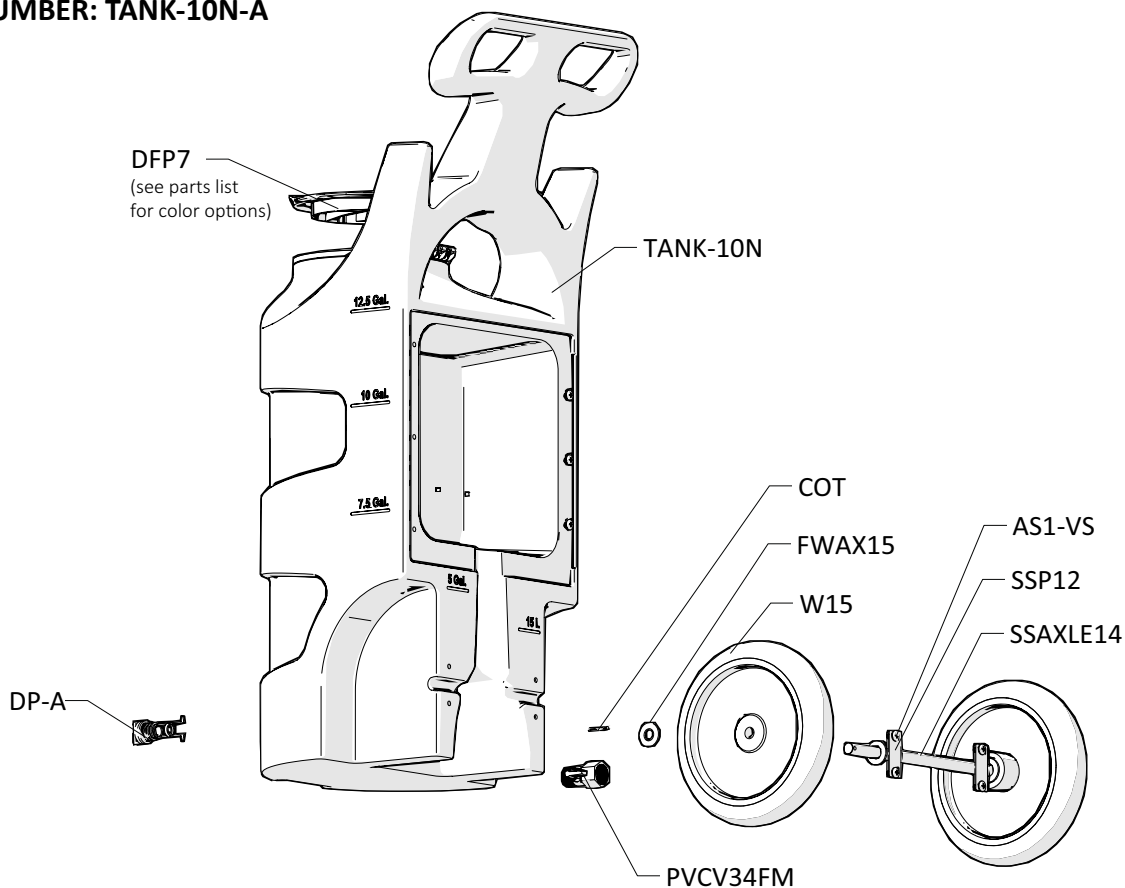
- Inspect the air pump (P56/P56K/P56V) for wear and leaks.
- Inspect all hoses for leaks or excessive wear. Make sure all hose clamps are in good condition and properly secured.
- Check the suction line and screen (STR34) for debris or blockages, and clean as needed.

READ ALL INSTRUCTIONS BEFORE OPERATING EQUIPMENT

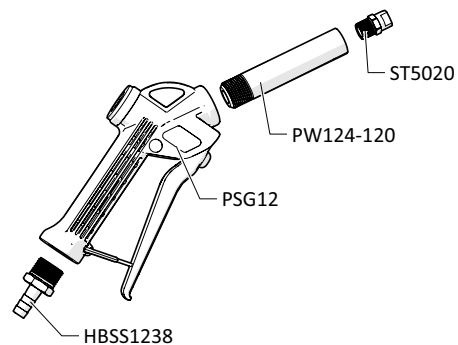
TROUBLESHOOTING GUIDE		
PROBLEM	CAUSE	SOLUTION
Foam too wet or too dry	Adjust the needle valve handle (NV1032HNDL) to regulate the wetness or dryness of the foam by following the steps below: a. Close needle valve (NV18) completely by turning handle (NV1032HNDL) in clockwise direction until it stops. 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.	
Sporadic wet foam	• Improper mixture of cleaning solution	• Make sure the chemical is a foaming chemical • Make sure the chemical solution is mixed at an appropriate concentration to produce foam
	• 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 chemical attack	• 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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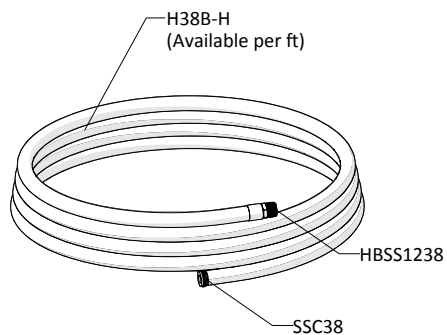
TANK ASSEMBLY ITEM NUMBER: TANK-10N-A



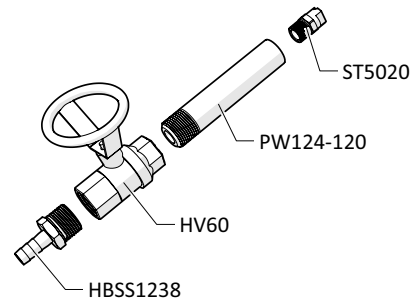
DISCHARGE TRIGGER GUN ASSEMBLY



DISCHARGE HOSE ASSEMBLY ITEM NUMBER: H38-12



DISCHARGE WAND AND BALL VALVE ASSEMBLY





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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
AS1-VS	1/4-20 X 1/2 PHIL TRUSS MACH SCREW 19-8 W/516 ORANGE VIBRASEAL PATCH
B10321	10-32 X 1 PHIL TRUSS MACH SCR 18-8
B103234	10-32 X 3/4 PHIL TRUSS MACH SCR 18-8
B8X58	8-15 X 5/8 inch PHIL FLAT TY-A 316 S.S.
BB-17	STAINLESS STEEL BATTERY BOX for BSLA12V-17
BBC-17	STAINLESS STEEL COVER FOR BATTERY BOX for BSLA12V-17
BC12V-BT	12 VOLT BATTERY TENDER
BCVR1	10-32 X 1/2 PHIL PAN HEAD SS
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-SSR	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	FKM SQUARE CUT DRAIN PLUG GASKET
DP-INSERT	304 STAINLESS DRAIN PLUG INSERT
EC14-2	OETIKER CLAMP 13.8
EC18	OETIKER CLAMP - 11.3
F38SS	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 1.5 OD X 0.05 THK SSFW
H38B-H	3/8 inch BLUE HOSE - GOODYEAR HORIZON
H38CP	3/8IN OD POLYETHYLENE TUBING - NATURAL
HBB103217	10-32 B4 HOSE BARB

HBB1414	BRASS 1/4 X 1/4 HOSE BARB
HBBEL1414	1/4 MPT X 1/4 HOSE BARB BRASS 90 DEG
HBBEL1417	1/4in L BARBED FITTING - NICKEL PLATED
HBBT14	1/4 INCH BARB TEE BRASS
HBSS1238	STAINLESS HOSE BARB 1/2mpt X 3/8 barb Tariff 8479.90.9496
HBSSSEL1814	304 STAINLESS ELBOW 1/8 INCH NPT X 1/4 INCH HOSE BARB
HBBB1418	HEX HEAD BRASS BUSHING 1/4in X 1/8in
HHSB1214	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 #5890640 HANDLE
NV18	NV2SV-B, 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
PS14QF-55	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
PVCV34FM	PVC VALVE 3/4in FPT X 3/4in MPT
PW124-120	1/2in BLACK POLY PRO X 4in - SCH.120 - 1/2in MPTOE & 1/4in FPTOE
S142058-VS	1/4-20 X 5/8 PHIL TRUSS MACHINE SCREW 18-8 W/#516 VIBRASEAL ORANGE PATCH
SSA12	STAINLESS MALE/FEMALE S.S. ADAPTOR 1/2in X 1/2in
SSAXLE14	14 1/2" long with the 5/8" diameter bar & 2 through holes with countersinks beveled ends
SSC38	WORM GEAR CLAMP, S/S (.25-.63)
SSP12	STAINLESS STEEL AXLE PLATE - 2.5 inch X 1 inch - 2 HOLE
SST12	1/2in FPT 304 S.S. TEE
ST5020	VEEJET 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

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