

IF YOU HAVE ANY QUESTIONS OR CONCERNS, OR ARE MISSING PARTS
DO NOT RETURN SPRAYER TO THE STORE!

PLEASE CALL OUR CONSUMER HOTLINE AT 1-800-9-SPRAYER

Visit us on the Internet: www.hdHUDSON.com (1-800-977-7293)
e-mail: ladybug@hdHUDSON.com

Instruction 871-786 Model 13854

LIMITED WARRANTY

H. D. Hudson Manufacturing Company warrants to the original purchaser only that this product will continue to function as intended if used in accordance with operating instructions (under **NORMAL CONSUMER USE**) for one year . If the product fails to function as intended—**DO NOT RETURN IT TO THE STORE**—call our **CONSUMER SERVICE HOTLINE AT 1-800-9-SPRAYER** (toll free) for fast service. We will, at our option, repair or replace any non-functioning parts without charge (shipping and handling charges will apply) H. D. Hudson Manufacturing Company shall have the option of requiring the return of the non-functioning product to the address listed below together with the proof of purchase to establish a claim under this warranty. This warranty does not apply to damage resulting from accident, misuse, neglect, alterations, operation not in accordance with instructions, commercial use, or normal wear.

ANY IMPLIED WARRANTIES, INCLUDING THE IMPLIED WARRANTY OF MERCHANTABILITY AND FITNESS FOR CONSUMER USE, ARE LIMITED TO THE DURATION SPECIFIED ABOVE. H. D. HUDSON MANUFACTURING COMPANY'S LIABILITY IS LIMITED SOLELY TO THE REPAIR OR REPLACEMENT OF THE NON-FUNCTIONING PRODUCT OR PART. H. D. HUDSON MANUFACTURING COMPANY EXCLUDES LIABILITY UNDER THIS WARRANTY FOR ANY AND ALL INCIDENTAL AND CONSEQUENTIAL LOSS OR DAMAGE.

Some states do not allow limitations on how long an implied warranty lasts, or the exclusion or limitation of incidental or consequential damages, so these limitations or exclusions may not apply to you. This warranty gives you specific legal rights and you may have other rights which vary from state to state.

IF YOU HAVE QUESTIONS OR CONCERNS: PLEASE CALL OUR CONSUMER HOTLINE AT 1-800-9-SPRAYER.
(1-800-977-7293)

WARNING!

WARNING!!! THIS PRODUCT IS DESIGNED TO APPLY CHEMICALS THAT MAY BE HARMFUL AND COULD CAUSE SERIOUS PERSONAL INJURY IF INHALED OR BROUGHT INTO CONTACT WITH THE USER. FAILURE TO READ AND FOLLOW OWNER'S MANUAL INSTRUCTIONS BEFORE USE AND/OR MISUSE OF THIS PRODUCT COULD RESULT IN EXPLOSIVE FAILURE WITH MAJOR INJURIES.

MAIN FUNCTION

This Neverpump™ Bak-Pak® sprayer is a highly-efficient sprayer, suitable for controlling pests in crops, flowers and gardens, epidemic controlling of livestock and poultry houses, and sanitation of public places. Powered by a 12V/10Ah battery, this sprayer saves labor time and attains 3 to 4 times more efficiency than a manual sprayer. This sprayer can be operated continuously for up to 10 hours and spray 110 gallons of liquid after one full charging-which consumes only 0.3 kwh of electricity.

STRUCTURE OF SPRAYER

Structure: This sprayer consists of a sprayer, base, battery, mini-pump, charger, spraying system, rubber tubes, switch, spraying rod, nozzle and strap.

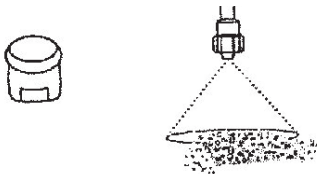
FEATURES

1. Smooth and streamline appearance. The sprayer is ergonomically designed to conform to the human back, making it easy to carry.
2. The sprayer comes with a mini-diaphragm pump which is compact in size, light-weight, creates high pressure and has an extended service life. It features a pressure protection switch to prevent over-pressurization.
3. Triple screens prevent foreign matter or particles from clogging the nozzle. The screen is uniquely designed to allow easy dismantling and cleaning.
4. This sprayer has an under-voltage alert circuit. An alarm will sound when the voltage of the battery decreases to 10.5 Volts. This will protect the battery. The supplied charging socket can be used as a 12 Volt power supply in addition to a charging unit.
5. Special charger features intelligent three section charging (constant current/constant voltage/maintenance) and short-circuit/over current/inverse-connection protection. The indicator lamps of charger: RED-charging; GREEN-charged/stand-by.

OPERATION

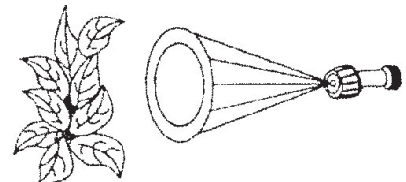
Be sure to charge the battery sufficiently prior to operation. Fill the sprayer with prepared liquid through the screen and close the sprayer cover. Turn on the power switch and grip the switch handle to start spraying. Either instant or continuous spraying is allowed.

Three kinds of nozzles are supplied for your spraying needs.



1. **Fixed Conical Pattern Nozzle:** This nozzle sprays uniform mist on target. Designed for spraying pesticides. Follow the wind and move in a parallel manner one side while spraying.

2. **Misting Cone Nozzle:** Best for controlling of pests. Follow the wind and move in a cross manner on one side while spraying.



3. **Four-hole adjustable nozzle:** Best for spraying of high plants and fruit trees. However, it may result in significant loss of pesticide, since it covers a wider area.

PARAMETERS AND SPRAY-HEAD FLOW RATE

1. Type: Neverpump® Bak-Pak® Sprayer

4. Size: 40 x190 x 555mm

2. Pump: mini-diaphragm

5. Capacity: 15 liters

3. Charger: Input AC100-240v
50/60hz, Output DC12v 2a

6. Net Weight: 7.4kg

7. Battery: 12v10ah (fully enclosed, maintenance free)
Max. Pressure: 0.4-0.45Mpa

POINTS FOR ATTENTION

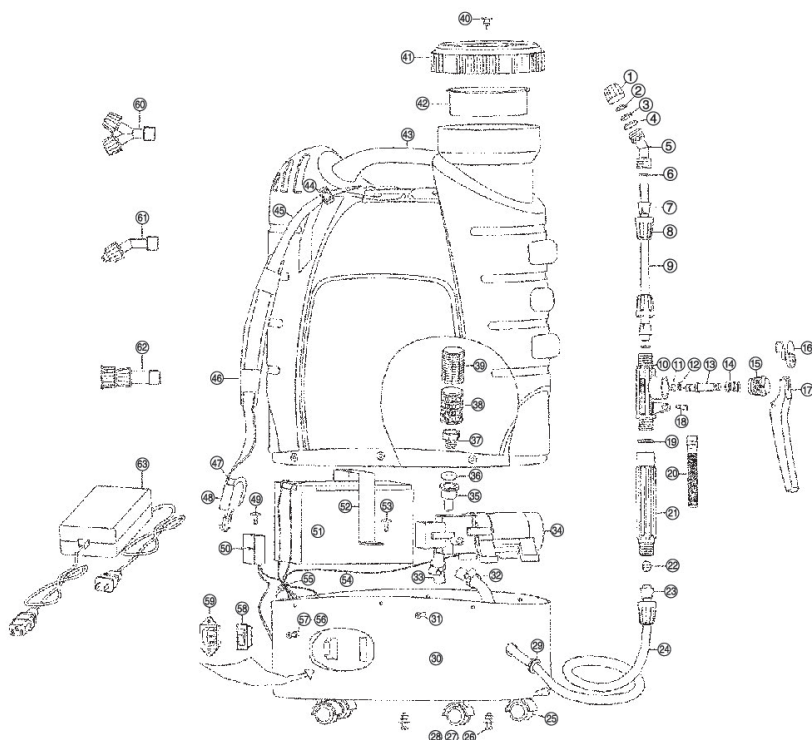
Spraying nozzle type	Pressure Mpa	Flowrate L/min	Spraying nozzle type	Pressure Mpa	Flowrate L/min
Adjustable Cone Nozzle	0.29-0.32	0.7-0.8	Double Conical mist nozzle	0.17-0.18	1.6-1.7
Fixed Conical Pattern Nozzle	0.16-0.17	1.2-1.3			
Four-hole adjustable nozzle	0.27-0.28	0.8-0.85			

1. The battery has been charged before being delivered. However, it will self-discharge in the course of transportation and storage. Additional charging before initial use is required.
2. Try your best to avoid operating the sprayer without water in it. This may damage the diaphragm. Never place the sprayer upside down. Otherwise, the battery may be damaged.
3. In case a noise is heard from inside the sprayer, or poor atomization occurs after long periods of use, the sprayer may have a low battery voltage and requires charging. Connect the plug to an electrical outlet without removing the battery from the sprayer. A charging time of at least 8 hours is required. The charger should be placed in a dry, well-ventilated safe place.
4. Trial spraying with clean water is necessary for initial use-to make sure neither leakage or poor atomization occurs.
5. There are a few points the user should remember while spraying. Wear a mask and gloves to protect skin and to avoid direct contact with pesticides or harmful liquids. Never spray pesticides against the wind or spray towards humans, animals or food. Never operate for extended periods of time under high temperatures. Strict compliance with safety instructions of pesticides is required. Never operate with strong acids, strong bases or flammable liquids. Never use high-resistant and very toxic pesticides for pest controlling purposes on vegetables, fruit trees, and plants.
6. For short-term use, charging is not usually required. For long-term storage, regular full discharging and recharging are required, with an interval of 2 weeks, a month, or two months, to ensure the service life of the battery.
7. Don't operate sprayer in temperatures exceeding 100 degrees or lower than 35 degrees.
8. After use for half a year, you should dismantle the base and check whether the screws are loose. If they are loose, please tighten them. Also, be sure to switch off power before storage.
9. It is strictly prohibited to keep this sprayer near fire or expose base to water or immerse the sprayer in the water to clean or to fill it with water. Unauthorized removal of the charger's housing is prohibited.

TROUBLESHOOTING

PROBLEM	CAUSE	SOLUTION
The motor fails to start after being powered on.	<ul style="list-style-type: none"> • The power cable has come off • The battery needs recharging • The power switch has been damaged 	<ul style="list-style-type: none"> • Dismantle the base to connect the cables soundly. • Charging • Replace the switch
Abnormal sound heard in the motor.	<ul style="list-style-type: none"> • The fastening screws for the pump are loose 	Tighten the screws.
Leakage occurs to the bottom of the base.	<ul style="list-style-type: none"> • The inlet and outlet tubes of pump break or are loose at the connection 	<ul style="list-style-type: none"> • Dismantle the base and tighten the tube clamps.
Poor atomization.	<ul style="list-style-type: none"> • The spraying hole was clogged • Spraying hole and o-ring worn • Seal is upside down • Filter screen was clogged • Leakage occurred to tubes at joints • Battery short of power • Air remained in the pump 	<ul style="list-style-type: none"> • Remove foreign matter • Replace o-rings • Correct by reversing • Clean with clear water • Tighten screws • Alarm maybe out of order, replace it, charge. • Remove the nozzle or extension rod to discharge the air

STRUCTURE SKETCH



PARTS LIST

S/N	Description	Qty.	S/N	Description	Qty.
1	Nut for nozzle	1	33	Inlet tube	1
2	Conical mist o-ring	1	34	Mini-pump	1
3	Splitting sheet	1	35	Tube couplings	1
4	Gasket ring for nozzle	1	36	O-ring	1
5	Elbow	1	37	Inlet coupling	1
6	O ring for spray rod	2	38	Screen frame	1
7	Cover for opening	2	39	Screen cover	1
8	Nut for spray rod	3	40	Vent-valve	1
9	Spray rod	1	41	Barrel cover	1
10	Main unit of switch	1	42	Large screen	1
11	Gasket of switch	1	43	Barrel	1
12	O ring for valve cartridge	1	44	Strip clamp	2
13	Valve cartridge	1	45	Back strip	2
14	Spring	1	46	Shoulder cushion	2
15	Nut for switch	1	47	Strip button	2
16	Limit cap	1	48	Strip hook	2
17	Hold-down plate	1	49	Self-tapping screws 3.7X10	1
18	Pin of switch	1	50	Alarm	1
19	Gasket ring for handle	1	51	Battery	1
20	Switch filter screen	1	52	anchor ear	1
21	Handle	1	53	Self-tapping screws 3.7X18	2
22	Cover of opening	1	54	Power cables	7
23	Sleeve of tube	1	55	Nylon tier	3
24	Rubber tube	1	56	Countersink screw M ₃ X10	2
25	Castor	4	57	Nut M ₃	2
26	Screw M5×20	4	58	Power switch	1
27	Flat washer φ5	4	59	Socket	1
28	Nut M 5	4	60	Dual-nozzle	1
29	Protection cover	1	61	Sectorial mist nozzle	1
30	Base	1	62	Four-hole adjustable nozzle	1
31	Countersink screw M5 X15	1	63	Charger	1
32	Tube clamp	1	64		