




# OPERATOR'S MANUAL


## ECHO

### SUPER JET TYPE 1

Thank you for your purchase of this product.

This operator's manual contains major issues for safe operation which you are requested to read carefully before use without fail. After reading it, keep it in an easily accessible place. In case this manual gets besmirched or lost, please ask your dealer for replacement and keep the new one carefully.

Caution marked with  in this manual or one attached to the product is an important safety issue that could cause an injury etc. . Please carefully read and follow the instructions.

In case caution label with  mark gets besmirched or separated, get a new one from your dealer and attach it to the stipulated position.

#### PLEASE FOLLOW INSTRUCTION FOR SAFETY WITHOUT FAIL

##### BEFORE OPERATION

- Any individual who falls within any of the categories below should not use this product:
  - one who is under influence of alcohol,
  - one who is incapable of doing normal spraying operation due to fatigue from overwork, illness, influence of drug or chemical (including pesticide) or some other reasons,
  - one who is pregnant,
  - one who is less than 15 years old,
  - one who is injured,
  - one who is vulnerable to influence of pesticide like a woman in menstrual period.
- Make sure before operation that connected portions do not lack packing and every screw is tightly fastened and there is no crack, wear or breakage on hose and there is no anomaly anywhere.
- When this product is lent out or transferred to someone else, be sure to attach the operator's manual along with instruction to read it carefully before use.
- Do not modify since the safety can be sacrificed.

##### HANDLING OF PESTICIDE/LIQUID CHEMICAL

- Liquid chemical that is prepared inappropriately can not only damage crop but be harmful to human body. Before preparing liquid chemical, read instruction on pesticide application carefully to gain correct understanding.
- Keep pesticide in a locked case for it only and never keep it together with food or tableware.
- Since there is a danger of misuse or erroneous drinking, never fill it into another container.
- Wash an empty pesticide container sufficiently at time of preparation following instructions of pesticide manufacturer. Dispose of the water used for washing the empty container in a harmless way.

##### DURING OPERATION

- To avoid accident caused by ingestion or adherence wear cap, eye protection and respiratory organ protection, rubber gloves, long-sleeved suit and long pants and long boots that skin is not exposed to secure safety,
- Not to pollute running water, pond or marsh and to keep human body or something other than spray target from being sprinkled pay enough attention to circumstantial conditions such as wind direction.
- If during or after operation dizziness, headache or bad feeling is felt, see promptly a doctor.
- When cleaning or replacing components of nozzle head, to avoid the risk of the operator getting liquid chemical sprinkled onto his face, shut off after turning the set pressure of pressure regulation valve of power sprayer to zero and close discharge cock of power sprayer so that no liquid chemical gushes out and carefully remove components of nozzle head.

##### AFTER-OPERATION AND STORAGE

- When removing components of nozzle head and if there is pressure left in the discharge hose, liquid chemical gushes out. Direct nozzle head downward and turn cock and grip to spray positions to take out pressure left in the discharge hose before removing them.
- Keep the remaining liquid chemical and water used for unit cleaning from polluting river, waterhead, pond, marsh and sewer by disposing of them in a harmless way.
- After use clean this unit sufficiently and store in an airy place free from the direct sun and out of the reach of child's hands. After work wash not only hands and legs but whole body and wash eyes with water and rinse mouth. As long as spraying continues over a certain period daily change clothes.

## USAGE

- Fruit trees, vegetables, flowers and garden trees

## FEATURES

- This product is easy to operate due to its lightweight design.
- Turning grip located close to hand enables to adjust spray angle from stop to wide-angle spray to direct spray resulting in effortless control of spray distance.

## SPECIFICATIONS

Pressure (MPa)		Discharge (L/min)			Discharge angle (deg) (2.0 MPa)	Reachable distance (m) (Direct 2.0 MPa)
		1.5 (15kgf/cm <sup>2</sup> )	2.0 (20kgf/cm <sup>2</sup> )	2.5 (25kgf/cm <sup>2</sup> )		
Nozzle plate φ2.0	wide open	6.0	6.8	7.3	0 - 65	9
	direct open	7.5	8.8	9.7		
Nozzle plate φ1.5	wide open	3.0	3.5	3.9	0 - 60	8.5
	direct open	4.4	5.1	5.6		
Nozzle plate φ1.0	wide open	1.7	2.0	2.2	0 - 45	6.5
	direct open	2.2	2.5	2.8		
Whole length (cm)		88		70	50	
Mass (g)		550		490	420	
Permissible pressure (MPa)		4.9 (50kgf/cm <sup>2</sup> )				
Connection screw		SW13.8 (For G1/4 carton is marked with G1/4.)				

\* The specifications may change without prior notice for improvement.

## APPLICATION METHOD

### 1. Installation

- Connect securely the discharge hose of power sprayer with this product. Please use a ball cock (sold separately) for urgent stop etc. for safe application and a twist corrector (sold separately) for adjusting twist of hose and prevention of loosening of connected portions.

### 2. Operation

- ▲ Make sure before operation that connected portions do not lack any packing and screws are not loose and there is no crack, wear or breakage on hose and no anomaly anywhere.
- ▲ It is dangerous to feed liquid chemical with nozzle head in spraying state because the liquid gushes out. Close ball cock (sold separately) at the end of discharge hose and turn grip fully to the right to close before feeding the liquid.
- Open ball cock at the end of discharge hose (sold separately) and turn the grip to the left. The mist comes out with the nozzle plate in wide open state and turning further to the left makes the angle narrow for direct spray. Choose state of the mist as preferred.
- ▲ When spraying pay enough attention to the conditions of the surroundings. During operation keep ball cock (sold separately) and grip, in closed state.
- ▲ To avoid accident caused by ingestion or adherence of pesticide wear cap, eye protection and respiratory organ protection, rubber gloves, long-sleeved suit and long pants and long boots that skin is not exposed to secure safety.
- ▲ If during or after operation dizziness, headache or even benign bad feeling is felt, see promptly doctor.
- ▲ When cleaning or replacing components of nozzle head, to avoid the risk of the operator getting liquid chemical sprinkled onto his face, shut off after turning the set pressure of pressure regulation valve of power sprayer into zero and close discharge cock of power sprayer so that no liquid chemical gushed out and carefully remove components of nozzle head.

## CARE AFTER USE

### 1. Removing nozzle head

⚠ If there is some pressure left in the discharge hose, liquid chemical gushes out. Direct nozzle head downward and turn grip to spray position to take out remaining pressure out of discharge hose before removing the head.

### 2. Rinsing individual parts

• Feed fresh water into nozzle head and drain the water after rinsing.

⚠ Keep the remaining liquid chemical and water used for unit cleaning from polluting river, waterhead, pond, marsh and sewer by disposing of them in a harmless way.

### 3. Storage

⚠ After use clean this unit sufficiently and store it in an airy place free from the direct sun and out of the reach of child's hands.

## TROUBLE SHOOTING

Phenomenon	Cause	Treatment
Mist uneven	Clogging by dirt	Rinse nozzle plate
	Worn nozzle plate	Replace nozzle plate
Coarse mist	Insufficient discharge of power sprayer	Raise pressure of power sprayer
	Worn nozzle plate	Replace nozzle plate
Water leakage through tightened portion of packing	Insufficiently tightened packing nut	Tighten packing nut
	Worn yarn	Replace yarn

⚠ There is a danger of liquid chemical gushing out, hence when washing nozzle plate etc. take out remaining pressure from nozzle head and discharge hose and remove them from operator's face beforehand.