



KOSHIN

GARDEN SPRAYER

**ENGINE POWERED
SPRAYER**

KV-EX50TH85

OPERATION MANUAL



KV-EX50TH85

- Thank you for purchasing of KOSHIN GARDEN SPRAYER.
- This product is for spraying water or chemicals in the garden and agricultural areas.
- This operation manual is prepared for your safety when operating this sprayer. Please read the content carefully and comprehend fully before use. Wrong usage could cause injury.
- Please keep this operation manual handy for future reference.



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Specifications may be changed without notice due to improvement.

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CAUTION FOR SAFETY

*Read the "CAUTION AND SAFETY INSTRUCTION" carefully before use. The following cautions are shown for the proper use of this product to protect you and others from danger or harm.

■ The following contents explains the possible danger or damage which may occur through inappropriate use.
The marks "DANGER", "WARNING" and "CAUTION" are important.

Each article explains important contents. Make sure to follow the articles.

⚠ DANGER Indicates a imminent hazardous situation which, if not avoided, will result in death or serious injury.	⚠ WARNING Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.	⚠ CAUTION Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury, or damage to property.
⊘ Indicates "PROHIBITION"	! Indicates "EXECUTION"	

⚠ DANGER

- ⚠ Do not use fire while supplying or changing fuel. It will cause fire.
- ⊘ Do not run the machine in poorly ventilated place such as inside a building, green houses, etc. Engine exhaust includes poisonous gas.
- ⊘ Do not enter a hole while using this machine beside the hole. Engine exhaust entering into the hole will cause gas poisoning.
- ⊘ Do not use this machine on an incline. Fuel would spill from fuel tank cap and carburetor and this will cause a fire.
- ⊘ Do not put any objects near muffler part. It would cause fire.
- ⚠ Read carefully direction for each chemical and use them correctly.
- ⚠ Chemicals are hazardous. Keep chemicals away from children. Also, follow direction of chemicals about proper storage.
- ⚠ Check carefully the wind direction and surroundings to avoid spraying people, and domestic animals, or polluting river, pond, etc when using.
- ⚠ For your safety, wear protect mask, protect glasses, protect clothes, working cap, protect gloves, and working shoes while spraying.
- ⚠ Wash tools and clothing completely. Users should take a shower or wash hands, feet, face etc well with soap.
- ⚠ Incorrectly prepared chemicals could not only damage crops, but also harm human body. Read direction and caution for each chemical when prepare chemicals and understand all properly before use. It would cause product trouble.
- ⚠ Before changing chemicals, make sure to remove current chemical completely, then put in new chemical. It is dangerous to mix chemicals. It will cause chemical change.
- ⚠ If you accidentally drink or touch the chemical, follow directions on the chemical container and take appropriate action.
- ⚠ Nobody is allowed to operate this Sprayer except people who are healthy and not under influences.
- ⚠ Do not dump water from washing spray tools and container into river, sewage, etc. Dispose of the water in a safe way.

⚠ WARNING

- ⚠ Do not use this products if you do not understand the operation manual.
- ⊘ Work in a safe isolated area to prevent children from touching.
- ⊘ Do not water this product. It would cause trouble.
- ⚠ Do not overhaul, repair, or remodel which is not mention in the operation manual except by a technician. It may lead to abnormal movement and cause injury.
- ⊘ Do not cover the machine with anything and keep combustible items away from the machine during use. It may cause fire and trouble.
- ⊘ Do not use or leave any combustible substance such as gasoline, spray can, or any flammable materials during use. It may cause fire.
- ⊘ Do not point nozzle at people or animals. It may cause injury.

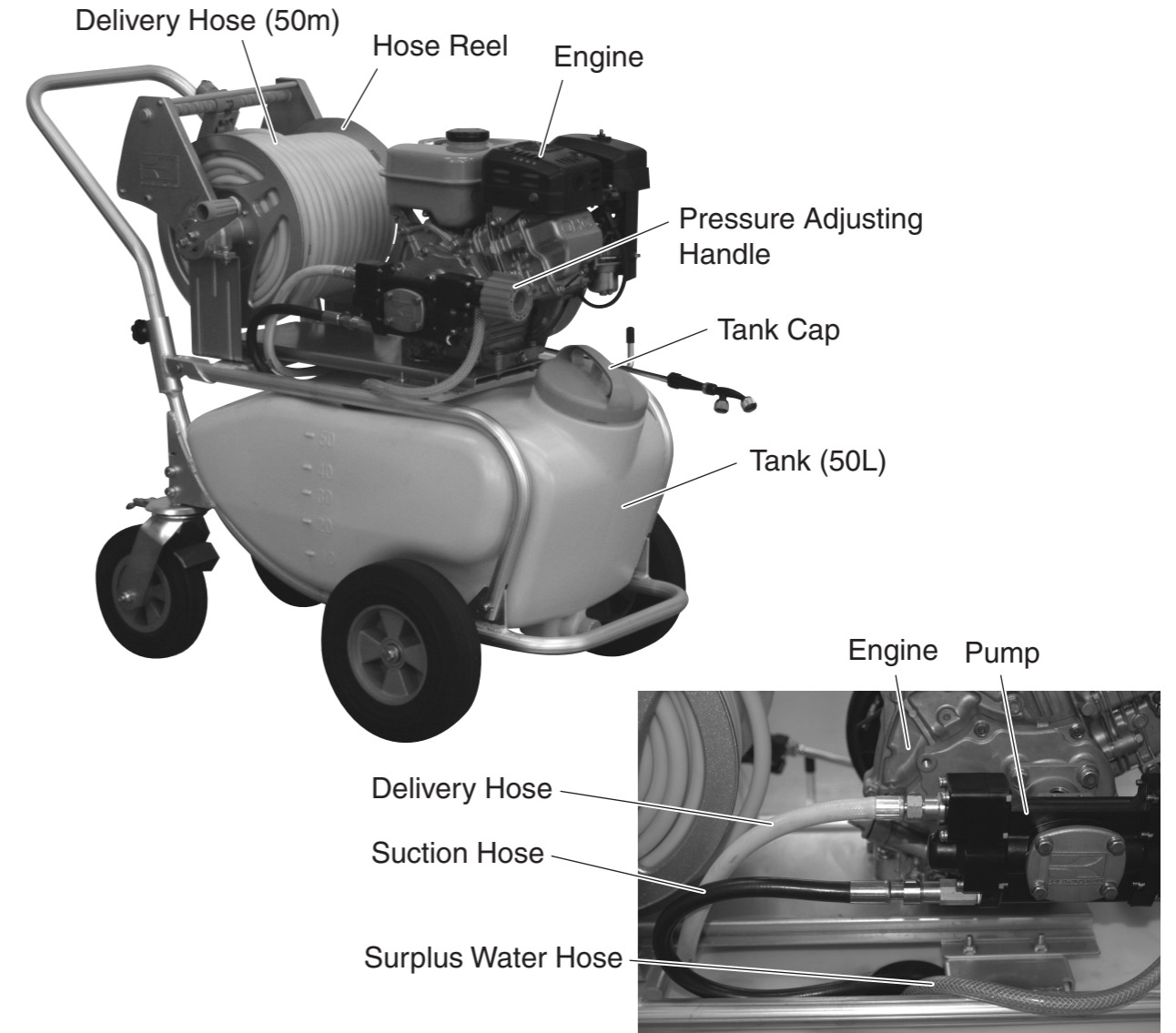
⚠ CAUTION

- ⊘ Do not touch muffler, engine or pump parts when hot. It may cause burn.
- ⊘ Make sure to check Recommend which is in the operation manual before using any chemical. Do not use combustible liquids, solvents, such as strong acidity and alkalinity, benzene, gasoline, etc. It may cause explosion.
- ⊘ Do not use insecticide and prevention of epidemic chemicals for insects, antiseptic for sewage, toilet, etc and chemicals for stockbreeding. It may cause trouble.
- ⊘ Do not run the machine without water more than 1 minute. It may break pump part.
- ⚠ If the machine stops running or you find any trouble, stop using the machine and ask for an inspection at a repair shop for your safety. It may cause injury if continue to use.
- ⚠ Do not use the machine except for spraying gardening and agricultural chemicals and normal spray use.
- ⚠ Store the machine in a place where children cannot get to it.
- ⚠ Hose should not touch muffler or engine exhaust. Heat may damage hose.
- ⚠ Make sure to stop the engine when putting chemicals into the tank. Otherwise, you may inhale the exhaust gas, which will cause gas poisoning.

According to the EN 55011 norms this is a CLASS A device and it may cause electromagnetic type diseases inside domestic environments.

NAME OF EACH PART AND SPECIFICATION

[NAME OF EACH PART]



Please check all parts are included.



NAME OF EACH PART AND SPECIFICATIONS

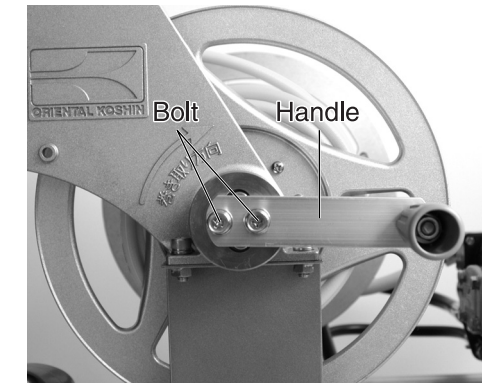
[SPECIFICATIONS]

Model Name		KV-EX50TH85 (φ 8.5 hose)	
Type		KV-EX50TH85-BAA	
PUMP	Type	Double Piston Pump	
	Max. Suction Volume	6.7 L/min	
	Delivery Volume	1.2 - 4.7 L/min	
	Max. Pressure	3.0 MPa (30 kgf/cm ²)	
	Nozzle	Universal 1-Head Spray Mouth / Vertical 2-Head Spray Mouth	
ENGINE	Delivery Hose	φ 8.5 × 50 M	
	Model	EX13DR	
	Type	Forced Air Cooling 4 Stroke Gasoline Engine	
	Exhaust Volume	126 cc	
	Max. Output	3.2 kW (4.3 PS) / 2,000 rpm	
	Fuel	Automotive Unleaded Gasoline	
	Fuel Tank Capacity	Approx. 2.7 L	
	Fuel Quantity	Approx. 0.6 L	
	Ignition System	Transistor magneto	
	Spark Plug	NGK : BR4HS	
	Starting Method	Recoil Starter	
	Continuous Operating Time	Approx. 3.5 h	
	Net Weight	55kg	
Standard Accessories	Universal 1-Head Spray Mouth	1pc	
	Vertical 2-Head Spray Mouth	1pc	
	2-Step Extensible Nozzle Pipe Assy	1pc	
	Handle Grip	1pc	
	Swivel	1pc	
	Reel Handle	1pc	
	Reel Handle Bolt	2pcs	

BEFORE USE

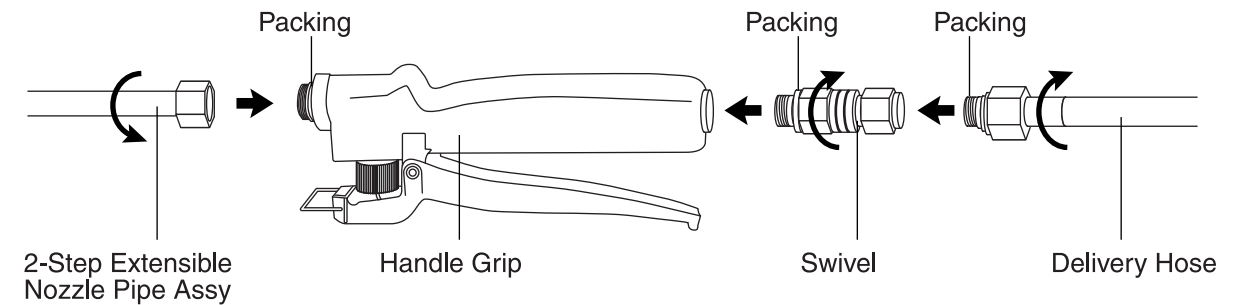
1 Assembly

- Attach the reel handle so the handle grip faces outward.
Then, tighten the bolt firmly.



Caution Make sure to tighten the bolt securely.

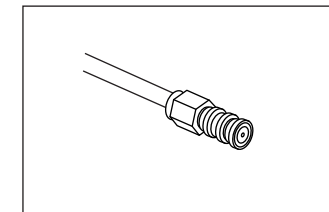
- Attach the 2-Step Extensible Nozzle Pipe Assy, Handle Grip, Swivel and Delivery Hose.



Caution Packings have been attached to each connection part.
Make sure to confirm the packings are attached.
Also, tighten securely so liquid leak will never occur.

- Attach either of the two spray heads as necessary to the tip of the 2-step extensible nozzle pipe.

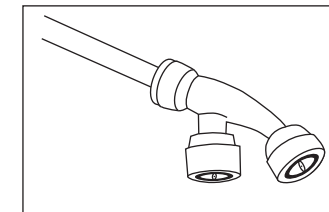
For disinfection



Universal 1-Head Spray Mouth

- Direct spraying, mist spraying
- Use this for spraying to trees or for normal mist spraying.

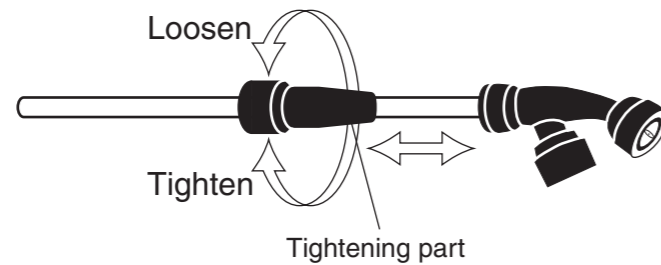
For disinfection



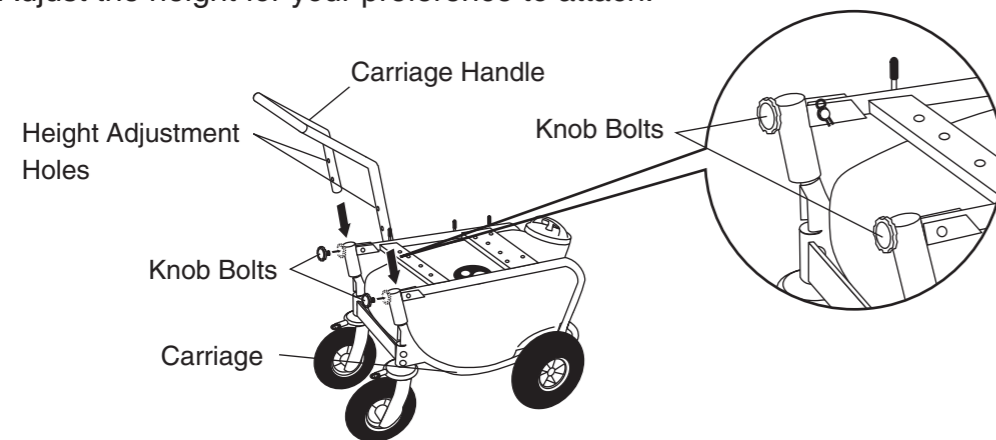
Vertical 2-Head Spray Mouth

- Mist spraying
- Use this for normal mist spraying.
- Chemicals can be evenly-sprayed with mist condition.

- Adjust the length of the 2-step extensible nozzle pipe. (Max. 109 cm, Min. 62 cm)
Rotate the tightening part to loosen the pipe. Adjust the length and rotate again to fix the pipe.



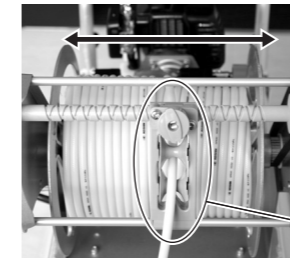
- Attach the handle.
Loosen the knob bolts on the carriage and insert the handle.
The heights of the carriage handle can be adjusted with 2 holes.
Adjust the height for your preference to attach.



2 How to Use the Hose Reel

This product employs the traverse mechanism for the hose reel so the hose can easily be reeled.

Traverse mechanism



When you rotate the handle, the traverse axis rotates in conjunction with the belt. The hose is reeled with the hose guide moving to right and left.

Hose Guide

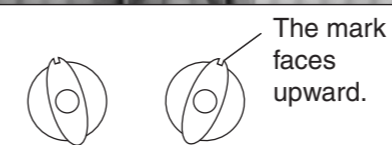
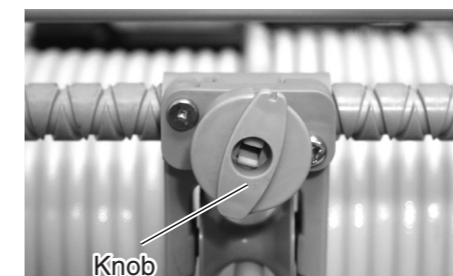
- How to use the hose guide

Caution Place the product on a flat location for use.

The hose guide will be in "Fixed state" or "Free state".
Switch the state according to the application.

Fixed state

(The knob faces lengthways as  or )

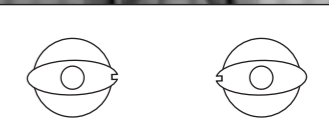
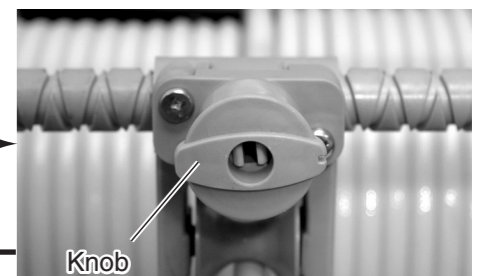


Rotate the knob sideways while pulling it to front.

Rotate the knob lengthways

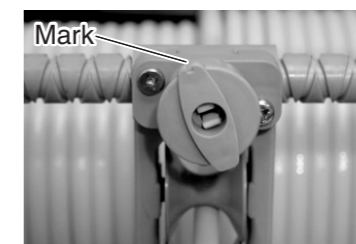
Free state

(The knob faces sideways as  or )

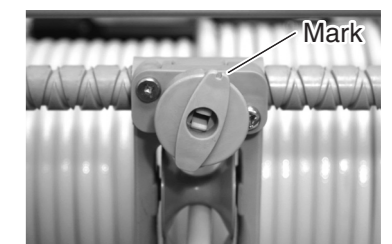


The mark can face either side.

The moving direction of the knob differs depending on the location of the mark.



When pulling out: moves to the left
When reeling: moves to the right

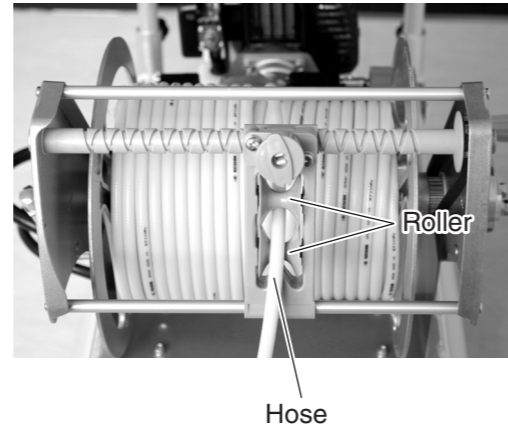


When pulling out: moves to the right
When reeling: moves to the left

2. How to pull out the hose

There are 2 methods for pulling out the hose.

- Set the hose guide to the free state to pull out.
- Set the hose guide to the fixed state to pull out.



Caution When pulling out the hose for the first time after purchase, set it to the free state.

Caution Pull out the hose as straight as possible. (Permissible range of angle is 60 degrees both to the right and left. Pulling out the hose forcibly to the side may result in the damage of the hose and the hose guide.)

Straight
Hose
120°

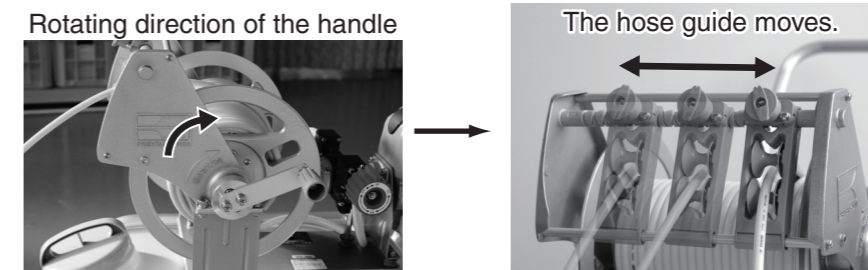
Caution Pull out the hose slowly **as the same speed as possible**. Pulling out with force or stop suddenly may cause the hose to sag inside the reel and pulling may be impossible.

Caution When pulling out the hose guide in the fixed state, adjust the position of the hose guide so the hose on the hose reel side can be inserted straight against the hose guide. The hose guide can be moved in the free state. Set it to the fixed state after adjustment. (See "How to use the hose guide" (page 6).)

Hose Guide

3. How to reel the hose

Rotate the handle clockwise when seeing the handle in front. Then, reel the hose.



Time for reeling the hose: approx. 1.5 min.

Caution Make sure the knob is in the fixed state when reeling the hose.

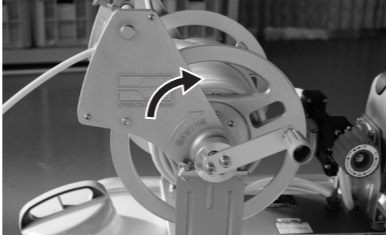
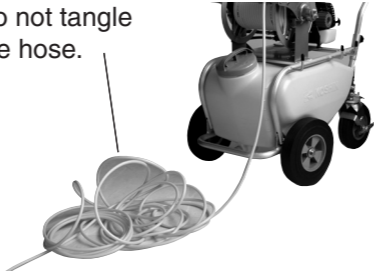
Knob

Caution Move the hose guide to the handle side when starting to reel the hose. The hose guide moves in the free state. (See "How to use the hose guide" (page 6).)

Hose Guide

Caution Check the traveling direction of the knob matches the reeling direction of the hose before starting to reel the hose. (If the traveling direction of the hose is opposite) Pull the knob to the front and reversely rotate it. Then the traveling direction of the hose will change.

Traveling direction of the hose
Reeling direction of the hose
Hose Guide

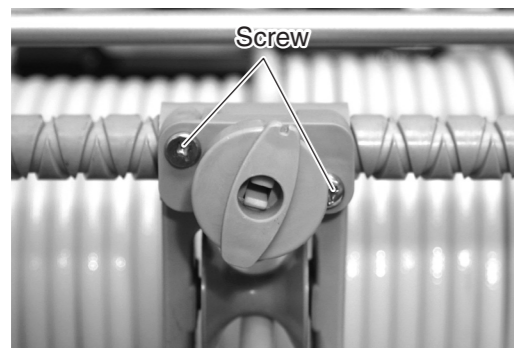
<p>Caution</p>	<p>The hose is reeled clockwise when the handle is seen from front. Do not rotate counterclockwise. Doing so will cause the hose to sag inside the reel and not to move.</p> <p>Rotating direction of the handle</p> 
<p>Caution</p>	<p>Guide the hose to the hose guide so the hose does not become tangled while reeling.</p> <p>Do not tangle the hose.</p> 
<p>Caution</p>	<p>If the hose guide and hose become misaligned while reeling, Set the hose guide to the free state and align the position. (See "How to use the hose guide" (page 6).)</p>
<p>Caution</p>	<p>When the hose-reeling comes close to an end, reel it slowly. (Reeling fast may cause the wire at the hose end to spring and result in injury.)</p>

You can set the hose guide to the free state when wishing to reel the hose without using the traverse mechanism.

4. How to clean the hose guide

When the hose guide does not operate smoothly due to dust or mud, remove the guide and clean with water.

(1) Removing 2 screws at the hose guide can disengage the hose guide.



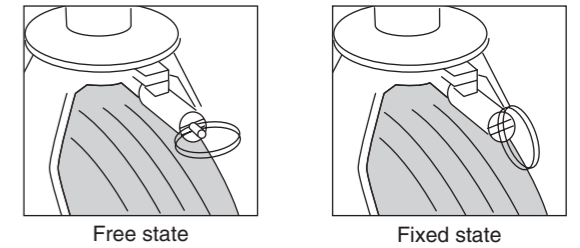
(2) Remove the dust, wash with water and reassemble to the original condition.



3 How to Use the Tire Stopper and Brake

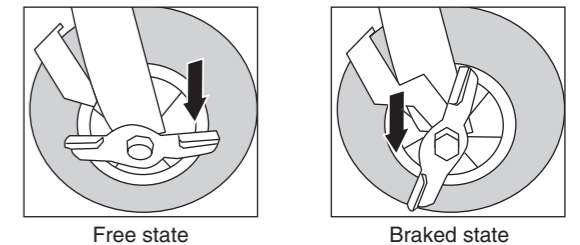
Tire Stopper

The tire direction can be fixed when the tire stopper pin is pulled as shown below. This will be safe when moving this product on a light truck on a bridge or moving straight on a ridge.



Brake

Press the brake with your foot and put on the brake as shown below. To cancel, reversely press the brake.



Caution Press the brake firmly. Otherwise malfunction may occur.

4 About chemicals

Caution Make sure to read carefully operation manual for each chemical and follow direction when thin down the chemical.

1. Follow exactly the direction for dilution from chemical manufacturer when use each chemical.
2. Wash hands immediately after use. (Do not keep chemical in tank) Put enough clear water into tank to clean inside of tank and also spray to clean hose and pump. Make sure to clean all completely. Repeat this step 2-3 times.

Caution Improper use may cause damage to hose and parts. Make sure to use properly.

Main Recommend Chemical List

<p>Emulsion [Use before thinning down chemical with water]</p>	<p>Hydration [Use before dissolving chemical in power with water]</p>
<p>■ Insecticide ■ Disinfectant ■ Weed-killer</p>	<p>■ Insecticide ■ Disinfectant ■ Weed-killer</p>

Caution Chemicals are poisonous. Make sure to follow instruction from each chemical manufacturer and pay attention when using.

Caution Hydration and Lime sulfur might make life-time of this machine shorter. Dissolve them completely in container such as bucket, before use. Also, stir the chemical in powder completely to avoid preeipitation.

BEFORE USE

5 Fuel / Engine oil

4 stroke engines need both fuel and engine oil.

- No fuel and engine oil inside of engine tank. Make sure to put engine oil in before use. Engine without oil will burn and it will be difficult to repair. (A burned engine is out of guarantee.)

Warning Store fuel properly. Keep this machine away from Fuel supply tank more than 3m when start engine.

Caution Check if engine has engine oil or has appropriate amount of engine oil before starting. Engine without engine oil or engine with either more or less appropriate amount of engine oil may cause trouble.

Caution Read carefully the engine operation manual before putting in engine oil.

Caution Mistreatment may cause fire.

Caution Clean up fuel/ engine oil completely if it spilled.

Caution Inspect engine oil before use this machine. Also change engine oil regularly. Read engine operation manual for details.

Caution Make sure to stop engine before lubricating, adding, or exchanging engine oil. Be careful of high temperature of engine oil just after stopping.

Make sure to use

Automotive Unleaded Gasoline.

(Do not use mixed gas and oil)

HOW TO USE

1 Starting Engine

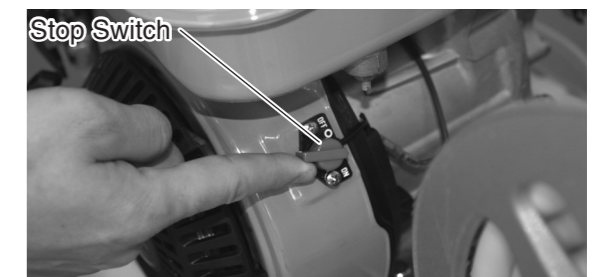
Caution Make sure to put water or chemical in tank before starting engine. Check working condition of this machine with clear water before using chemical when starting this machine for the first time.

Caution Turn volume adjusting handle to left all the way to make straight spray. If don not make spray condition, air will not go out from hose and water does not come up.

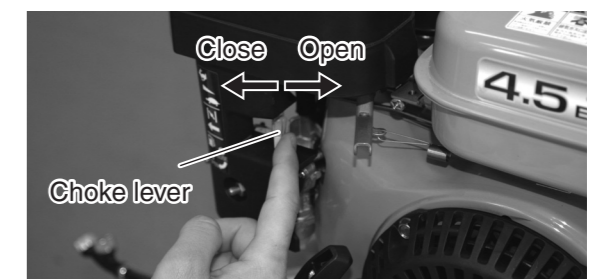
Caution When suction start, chemical is sprayed from spray head. Be care not to spray people, objects, etc.

Warning Exhaust is poisonous to human body. Do not run this machine in a place with poor ventilation.

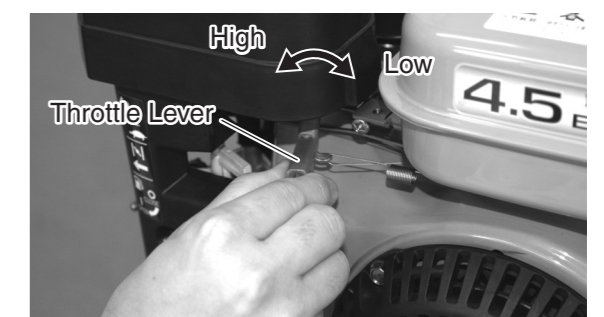
1. Make stop-switch "ON".



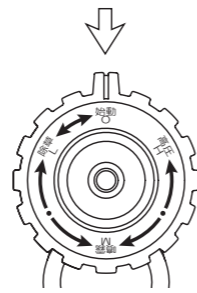
2. Adjusting choke
 - Move choke lever to "Close" when it is cold weather or engine gets cold.
 - Need no adjusting when engine is warm.



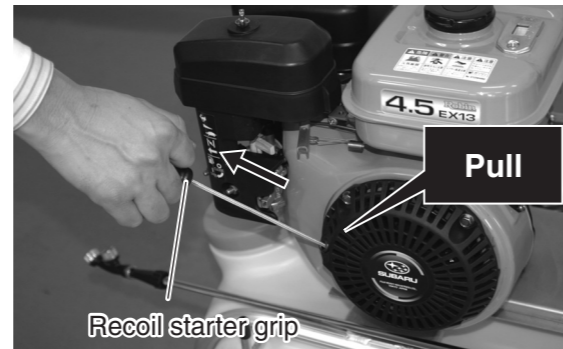
3. Set throttle lever at middle-low.



4. Set pressure adjusting handle at Start "O".



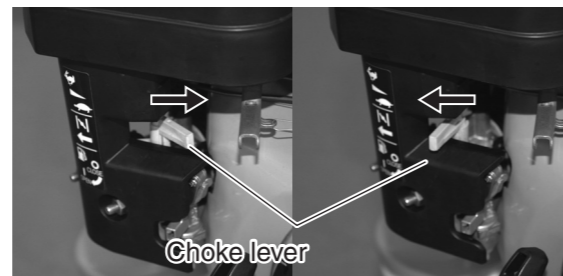
5. Start engine
Hold this machine and pull recoil starter grip to start.



Caution If engine does not start after pulling recoil starter several times, move choke to "OPEN" then pull it again.

*If engine still does not start, see P.20 "Trouble and Maintenance".

6. Move choke back to "Open" side little by little.
• When choke is at "CLOSE", move choke down gradually while checking engine rotation is stable.

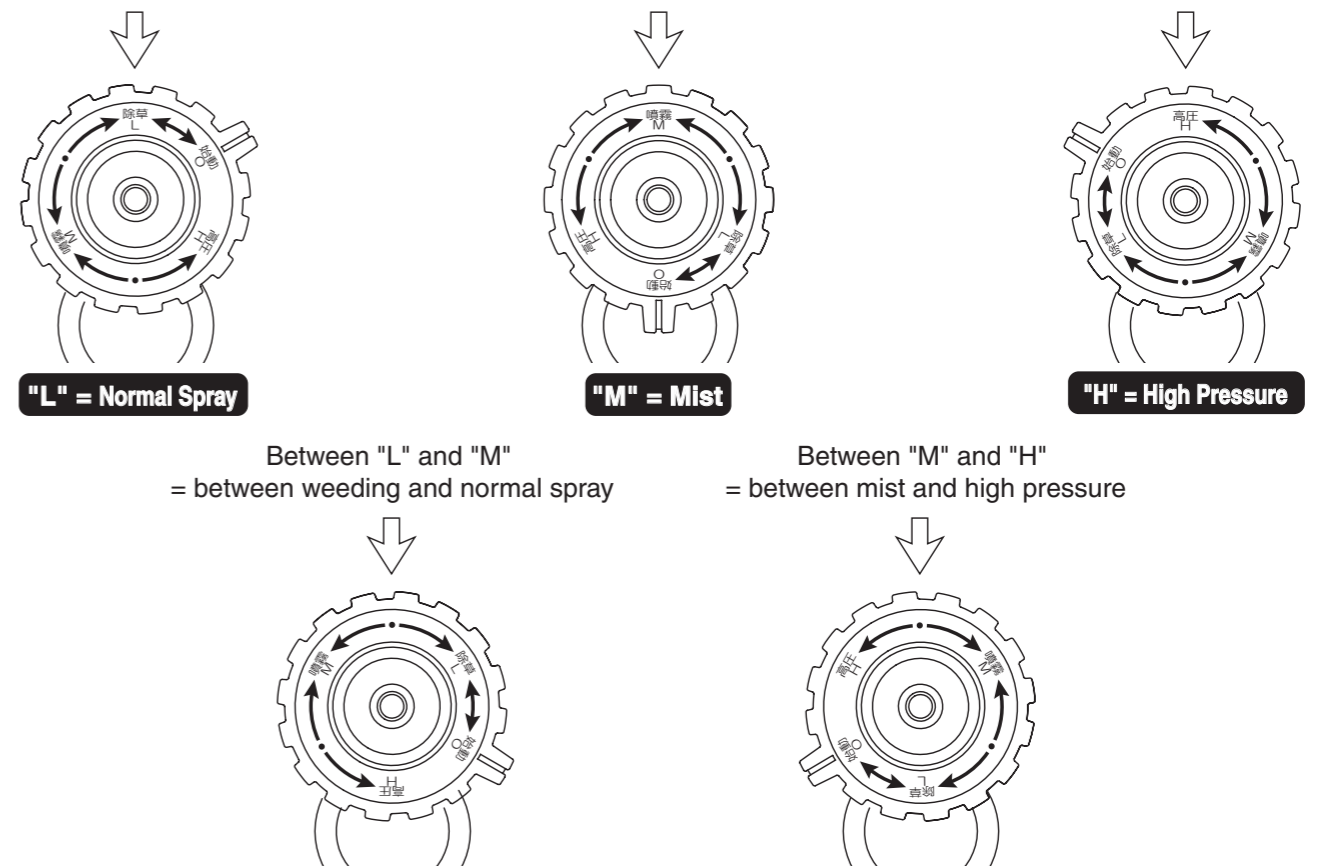


Caution Make sure to remove fuel after use, especially when not using the engine for more than 30days. Change in quality of fuel may cause trouble when start or while running.

2 Run

1. Start engine and adjust throttle lever to accelerate revolution until high speed.
2. Check if liquid is spraying from spray head.
3. After checking the machines condition, turn pressure adjusting handle and set "L", "M", or "H" depending on working condition.

Position of pressure adjusting handle



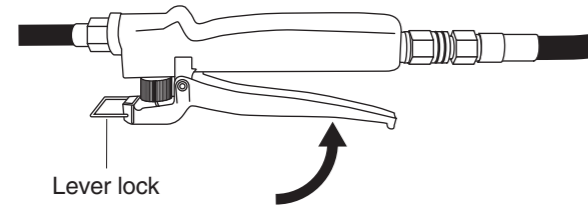
Caution Do not run without water except when removing water. Running without water more than 1 minute may cause trouble.

3 Spraying

- By operating the handle grip, you can select either the consecutive spraying or the intermittent spraying.

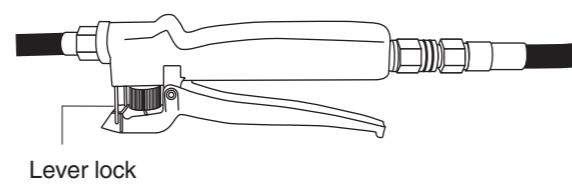
Intermittent spraying

With the lever lock canceled, use only when spraying.



Consecutive spraying

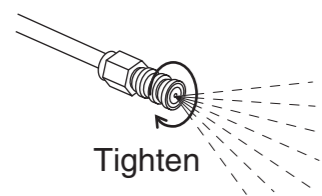
The consecutive spraying is possible using the lever lock.



Caution If you do not hold the handle grip, the air may not come out easily at first and water suction may not work smoothly.

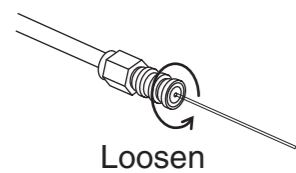
- Adjustment for spray head

Universal 1-head spray mouth ... Rotating the spray head can adjust the spraying condition.



[When spraying a wide area]

- Tighten the spray head to the right to switch from direct spraying to mist spraying.

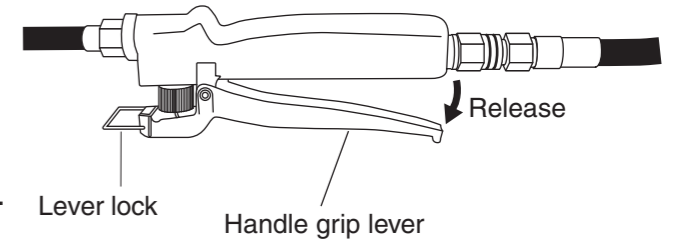


[When spraying in the distance]

- Loosen the spray head to the left to switch from mist spraying to direct spraying.
- Do not overloosen the head since it may come off.

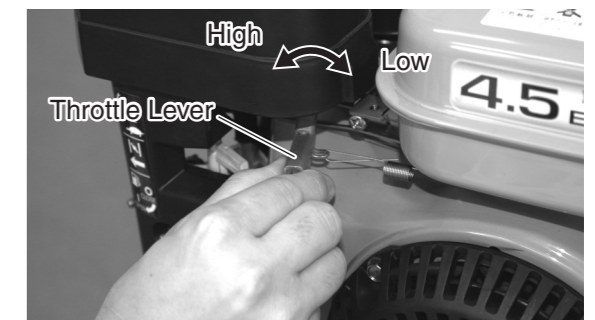
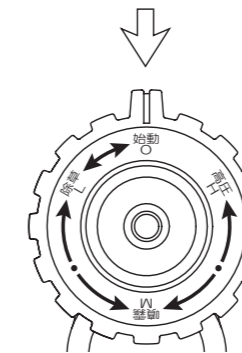
4 How to Stop

- Disengage the handle grip lever to stop spraying.

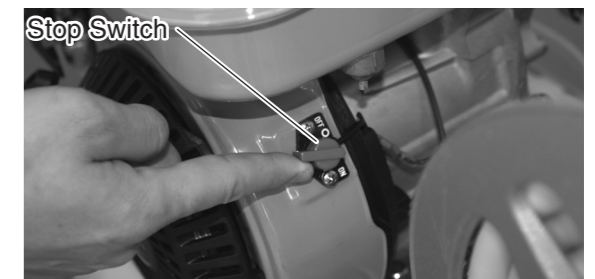


*When using the lever lock, cancel the lock.

- Set the pressure adjusting handle to the "0" position and restore the throttle lever to the low speed.



- Set the stop switch to "OFF" to stop the engine.



- Hold the handle grip and confirm the pressure in the hose is released.

Caution To prevent burn, do not touch the high-temperature part of the engine during operation and immediately after stopped.

CAUTION AFTER USE

1. Spray clean water for 2-3 minutes to wash out chemicals from inside of pump, hose and nozzle after use.

⚠ Caution	Remaining chemical inside of pump or nozzle will harden or cause deterioration to packing and damage pump.
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2. After you finish washing, make sure tank is empty and move pressure adjusting handle back to "O" position before switching "OFF".

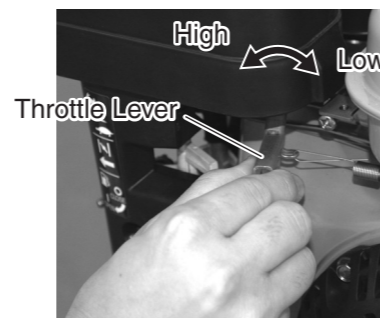
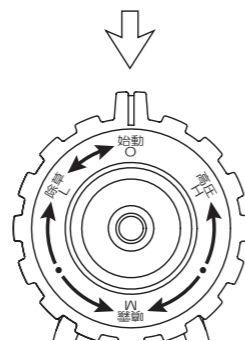
⚠ Caution	In case of possibility of freezing, use antifreeze and run through pump, hose and nozzle after wash with water. Do not leave antifreeze liquid inside of pump and nozzle. (Read carefully antifreeze operation manual before use)
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⚠ Caution	Make sure the stop-switch is "OFF" immediately when liquid is gone and no more spray from nozzle. Running without liquid may damage pump.
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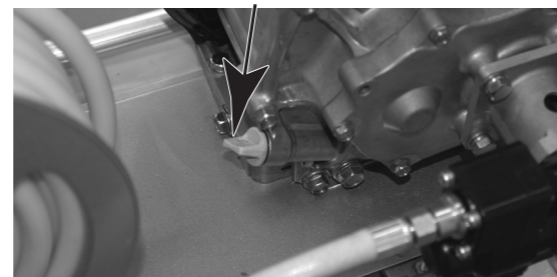
3. Remove fuel (gasoline) inside of tank and run engine until engine stops automatically at idling.

[How to use up fuel]

1. Adjust pressure adjusting handle to "O" position and start engine.
2. Move throttle to "LOW".
3. Run until engine stops automatically.
4. (For long storage)
Remove engine oil completely



Oil Drain Plug



CAUTION AFTER USE

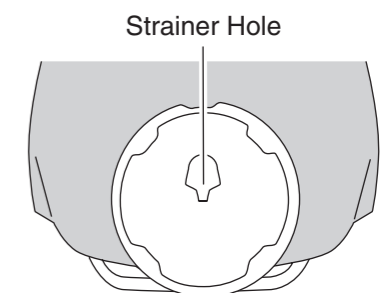
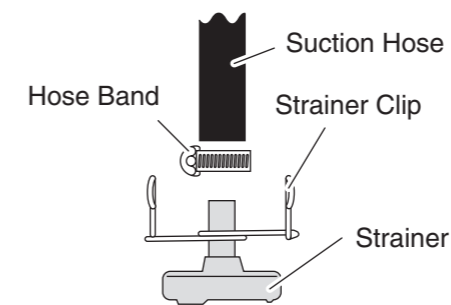
4. Remove dirt from engine, pump, nozzle, etc. If moisture is left, engine gets rusty and it may cause trouble. Keep this machine in a place out of direct sunlight after drying pump and nozzle.

⚠ Caution	Long exposure to direct sunlight may make hose deteriorate and it may cause burst when spraying.
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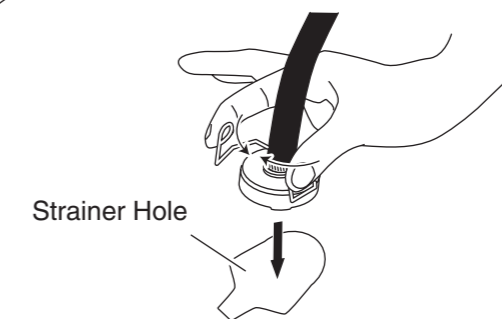
⚠ Caution	Always keep inside of tank and strainer clean and make sure to use attached strainer whenever using the machine. If sand and dust get into pump, it will affect performance, for example delivery volume and pressure decline.
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[How to attach / remove strainer]

[How to attach]



View of inside of tank from chemical supply hole



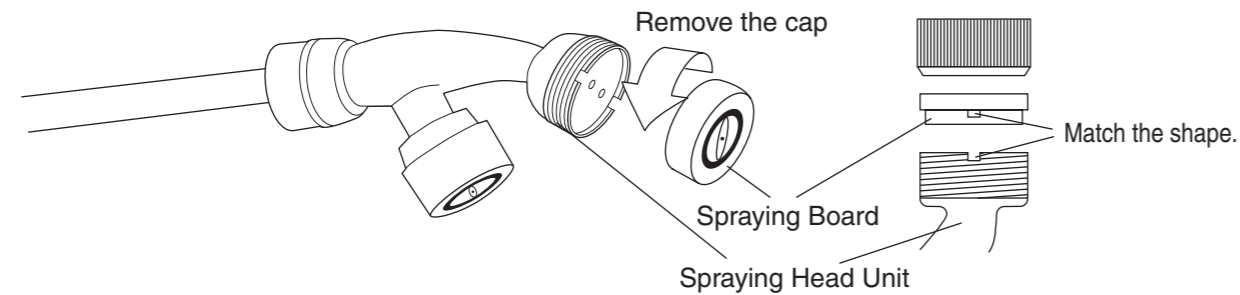
Push strainer clip inward and attach / remove strainer.

⚠ Caution	Improper strainer attachment causes poor suction.
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CAUTION AFTER USE

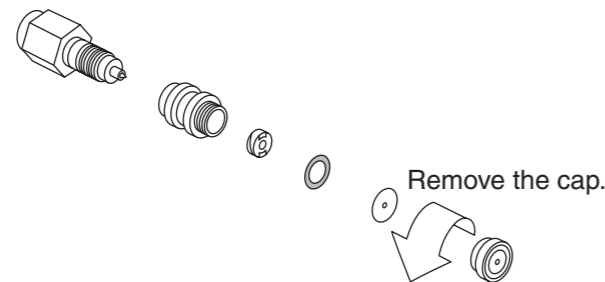
〈Washing Spray Head〉

- Vertical 2-head spray mouth



Caution Match the concavo-convex shape of the spraying board and spraying head unit.

- Universal 1-head spray mouth



Caution Be careful not to lose each component.

TROUBLE AND MAINTENANCE

Check before ask service station.

Symptom	Possible Cause	Maintenance
Cannot pull recoil starter or recoil is hard to pull	Engine trouble due to use of oil fuel	Change fuel. If it is still in bad condition, ask service station.
	Rust inside of engine	Ask service station
	Burned engine	Ask service station
Engine does not start	Clogged carburetor	Ask service station
	Plug is wet	Check or exchange plug * See maintenance 3
	Dirty air cleaner	Wash air cleaner (* See engine operation manual)
	Too much engine oil	Adjust amount of engine oil
No water suction	Clogged delivery hose	Remove dust from delivery hose
	Remaining pressure inside of delivery hose	Loose volume adjusting handle and remove pressure.
	Clogged strainer	Remove dust
	Clogged hole of spray head	Wash spray head with water * See "Caution after use" P.17
	Loss of packing from suction hose connection	If packing is lost or broken, change to new packing. * See "Maintenance 2"
	Loose screw of suction hose connection.	Tighten connection screw
	Clogged delivery valve and suction valve. Wear or breakage of consumption parts. (cylinder pipe, Piston rod, packing, pressure adjusting spring, etc)	Ask service station
	Air is coming into suction side.	Check suction pipe * See "Maintenance 2"
	Bad engine revolution	See engine operation manual
	Running engine at low speed	Shift to high speed
	Air is coming into delivery hose	Take off reel connection hose and start * See "Maintenance 1"
	Position of pressure adjusting handle is not "O" when start	Set pressure adjusting handle at "O" position before start * See "How to Use" P.13
	Handle grip is not "spray" condition	Make handle grip spray condition * See "How to Use" P.15
	Just after start engine	Run engine for 1 to 1 and half min
Suction is OK but cannot spray Liquid comes out from surplus water hose	Clogged hole of spray head	Wash spray head with water * See "Caution after Use" P.19
	Clogged delivery hose	Remove dust from delivery hose

Symptom	Possible Cause	Maintenance
Low spray volume Bad condition of spray Cannot increase pressure	Air is coming into suction side	Check suction pipe * See "Maintenance 2"
	Decline of engine output	Check and repair
	Water leak from hose and connection	Stop water leak
	Clogged hole of spray head	Wash spray head with water * See "Caution after Use" P.19
	Wear of spray head hole	Exchange spray head
	Pressure adjusting handle is set at "O"	Adjust pressure adjusting handle to "L", "M" or "H"
Oil leakage from muffler or air cleaner	Wear of consumption parts	Ask service station.
	Oil leakage due to engine fall	Ask service station.
	Burned engine	Ask service station.
	Too much engine oil	Adjust to proper engine oil amount

Piston seal, Oil seal, Packings, O-rings, Piston, Piston rod, Springs and Delivery hose are consumption parts. Repair for those parts are out of guarantee even within guarantee period. Recommend to exchange those parts every 100 hours; however lifetime of those parts may become shorter depending on chemicals.

Caution Do not do overhaul and repair by yourself except those which are mentioned in the operation manuals. Ask service station.

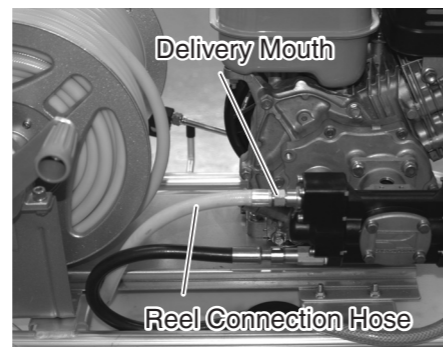
MAINTENANCE 1

Take off reel hose and run the machine.

If spray does not start, the major possible cause is that air is coming into delivery hose.

In this case, follow these steps to check.

1. Take off reel connection hose with spanner etc.
2. Start engine
3. Make sure to check liquid is coming from delivery mouth.



Caution Be careful with chemicals coming from delivery mouth.

4. Attach reel connection hose.

Caution Remove water (liquid) from inside of delivery hose as much as possible. If water (liquid) is left inside of delivery hose, it would be difficult to let air out.

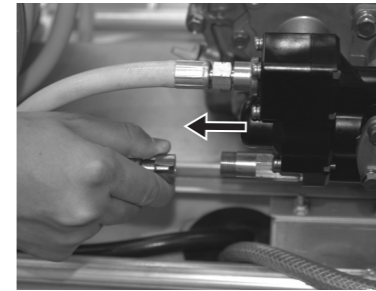
MAINTENANCE 2

Check suction side pipe

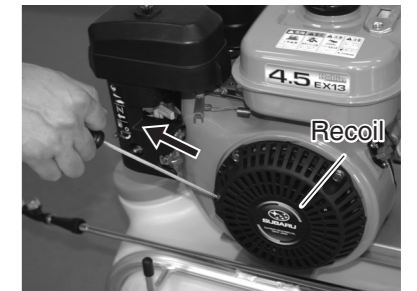
If suction does not start or spray volume is less, the major possible cause is that air is coming into suction hose.

If this is the case, follow these steps to check.

1. Take off suction hose

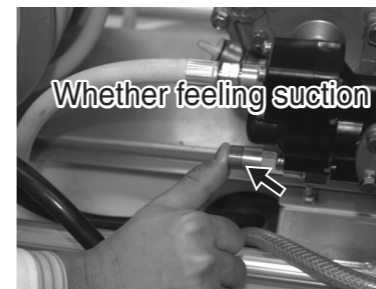


2. Start engine

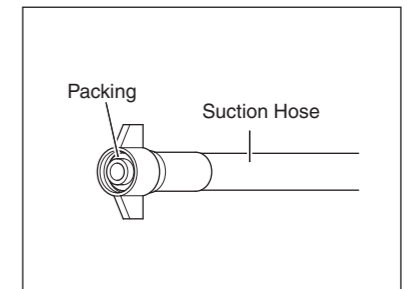


3. Touch suction mouth with your hand while running engine.

If you feel that your hand is sticking to suction mouth, pump has not problem and the main cause is that air is coming into suction hose.



4. Check again that the connection has packing and suction hose does not have a hole.



MAINTENANCE 3

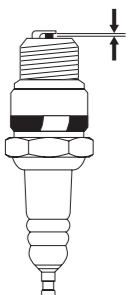
Check if plug is wet or dirty.

If plug is wet or dirty, clean it with cloth.



Check if gap of spark plug is proper.

Proper gap is 0.6 - 0.7 mm. If not, adjust the gap.



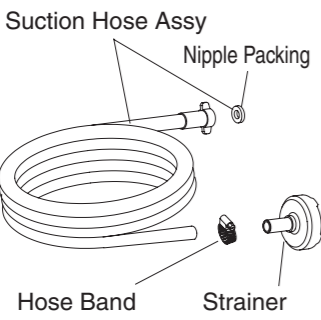
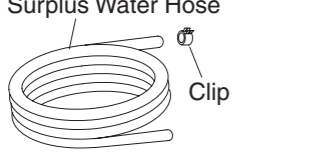
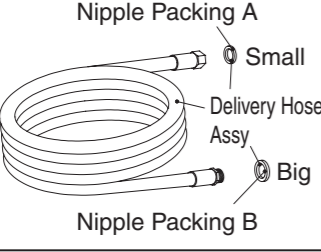
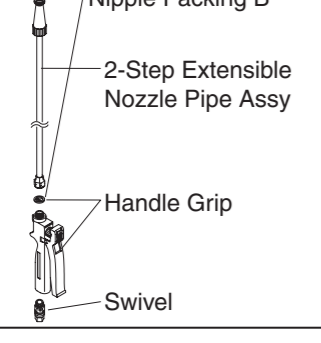
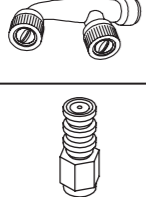
- Exchange to new plug if engine does not start after cleaning plug or adjusting the gap.

Caution Each engine has different plug. Read engine operation manual.

MAIN AFTER PARTS

Order parts from the shop where you bought the machine. Check parts code and parts name before ordering.

For other parts, go to KOSHIN website to see full parts list.


	Parts	Parts Code	Parts Name
Suction Hose		0 4 5 8 3 3 1	Suction Hose Assy (φ10 × 0.9 M)(with Nipple packing C)
		0 4 5 1 4 4 8	Nipple Packing C
		0 4 5 1 4 5 0	Strainer
		0 4 5 1 5 9 8	Hose Band
Surplus Water Hose		0 4 5 2 5 3 6	Surplus Water Hose (φ9 × 0.8 M)
		0 4 5 1 5 0 8	Clip
Delivery Hose		0 4 5 1 8 3 7	Delivery Hose Assy (φ8.5 × 50 M)(with Nipple Packing A & B)
		0 4 5 0 9 4 9	Nipple Packing A (small)
		0 4 5 0 9 5 0	Nipple Packing B (big)
Nozzle Pipe		0 4 5 8 0 7 5	2-Step Extensible Nozzle Pipe Assy
		0 4 5 1 1 6 8	Handle Grip (with Nipple Packing B)
		0 4 5 0 9 5 0	Nipple Packing B
		0 4 5 1 2 1 3	Swivel
Nozzle		0 4 5 8 2 0 2	Vertical 2-Head Spray Mouth Assy
		0 4 5 1 8 3 9	Universal 1-Head Spray Mouth (φ1.5)

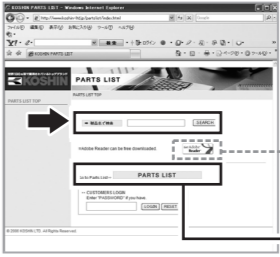
HOW TO CHECK PARTS LIST

Check parts list for Koshin products from Koshin website.


<http://www.koshin-ltd.jp/english/>


- Click banner "Parts List" on top page.

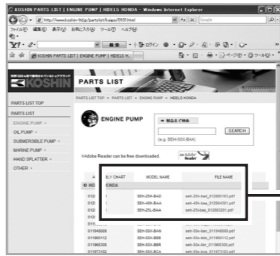

- Type model name and click "SEARCH" or click banner "PARTS LIST".



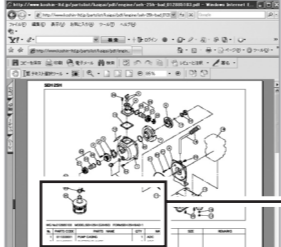
Adobe Reader software is required to see parts list. If your PC does not have it, please download it.


- Click your products.


 - ENGINE PUMP HIDELS HONDA
 - ENGINE PUMP HIDELS MITSUBISI
 - ENGINE PUMP HIDELS ROBIN
 - ENGINE PUMP SEMI TRASH HON
- Find your model and click file name



MODEL NAME	FILE NAME
SEH-25H-BAD	seh-25h-bad_012885103.pdf
SEH-40H-BAA	seh-40h-baa_012904301.pdf
SEH-25L-BAA	seh-25l-baa_012883201.pdf
SEH-25L-BAD	seh-25l-bad_012883201.pdf
- Check parts code and parts name.



No.	PARTS CODE	PARTS NAME	QTY
1	01333001	PUMP CASING	1

When order parts.

Please check carefully correct parts code and parts name.

