

- Thank you for purchasing Koshin Electric Drum Pump. This product is used for the transfer of kerosene or diesel from drum.
- This operation manual is designed to caution you for the safe usage and operation of this product. Please read all contents carefully before use and understand how to operate. Wrong usage may cause accident or injury.
- Please keep this manual for future reference.
- In case of inspection for repair, please contact your local distributor or dealer. Please do not try to repair pump yourself.

KOSHIN

Raku Auto

**Electric Drum Pump
Model : FP-2512
OPERATION MANUAL**

**For
Kerosene and Diesel
Application Only**

DC-12V

CONTENTS

SAFETY CAUTION.....	1
THE NAME OF PARTS AND SPECIFICATIONS.....	4
HOW TO USE.....	5
CAUTION AFTER USE.....	5
MAINTENANCE • CHECK.....	6
PARTS LIST.....	7
TROUBLE SHOOTING AND MAINTENANCE.....	9


KOSHIN


SAFETY CAUTION


Read this "SAFETY CAUTION" carefully before use.


Following cautions are for correct usage of product and prevent you or others from injury or harm.


Each article contains important contents. Following are the articles:

 **DANGER** may cause death or serious injury.

 **WARNING** may cause death or serious injury.

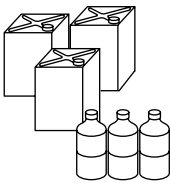
 **CAUTION** may cause death or serious injury.

 This mark means "**PROHIBITION**"

 This mark means "**EXECUTION**"

It is necessary to follow the article.

DANGER



This product is for kerosene or diesel application only.

This product cannot be used for petroleum grade liquid, such as gasoline, A-crude, solvents, Chemicals, water. (DANGER - may cause explosion, fire, or damage)



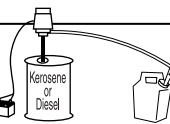
This product does not use flame-proof motor.



Do not use this product near inflammable objects such as petrol.


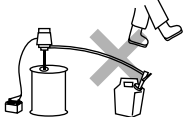



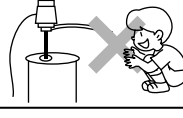

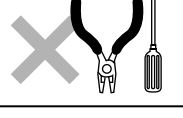

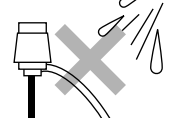






Do not use fire when you operate this product. It may cause fire.


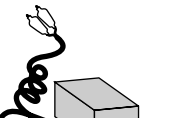

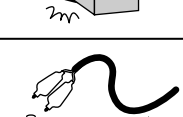

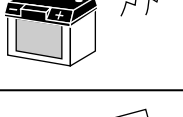




This product is exclusively designed for transfer of kerosene or diesel only. Do not use for other applications.

! WARNING


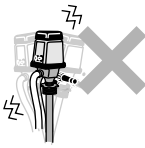



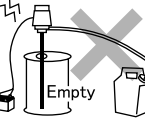

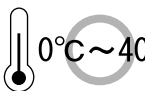

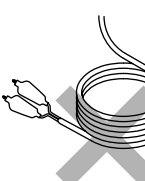


 EXECUTION		<p>Do not leave the pump unattended during operation.</p>
 EXECUTION		<p>Do not operate this product without reading the operation manual.</p>
 EXECUTION		<p>Operate this product in a safe place away from children.</p>
 PROHIBITION		<p>Besides trained technician of repair, do not dismantle, repair, rebuild. It may cause damage.</p>
 EXECUTION		<p>Do not wet the product with water or oil. It may cause serious accident, injury, or, damage by the product due by electric shock, short-circuit, or electric leakage.</p>
 EXECUTION		<p>Please do not use outdoor. This product may be damaged if wet by rain or water.</p>
 EXECUTION		<p>When you put the clip with power source (battery) avoid short-circuit, by touching ⊕ and ⊖. It may cause fire or accident.</p>

! CAUTION

 PROHIBITION		<p>Do not harm, damage, twist or break electric cable. Do not put heavy objects on the cable. This may cause damage to the cable and may cause fire, electric shock.</p>
 PROHIBITION		<p>Do not use this product if electric cable or clip is damaged or inadequate connection with power supply. It may cause electric shock, short-circuit or fire.</p>
 PROHIBITION		<p>Besides rated voltage, do not use this product. It may cause fire, electric-shock.</p>
 PROHIBITION		<p>Do not dismantle the product. It may cause electric-shock or injury.</p>

SAFETY CAUTION

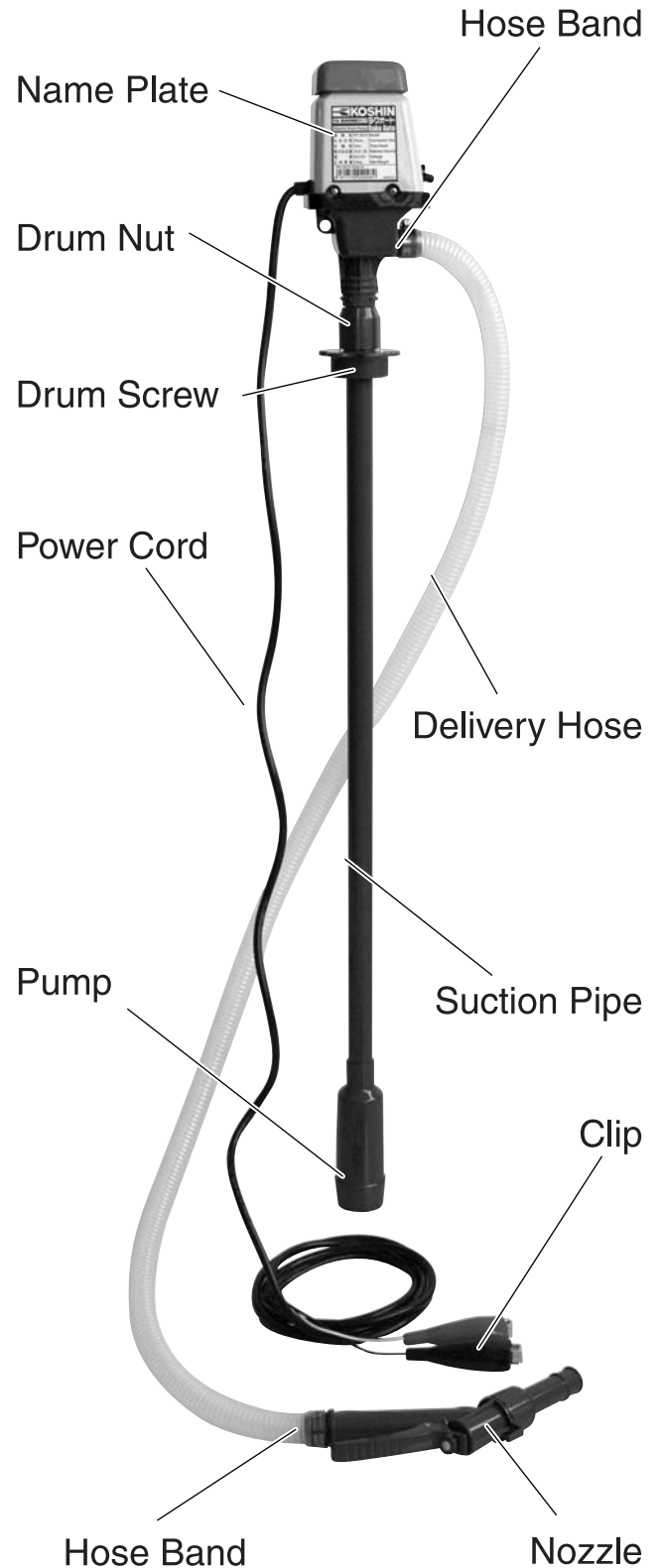
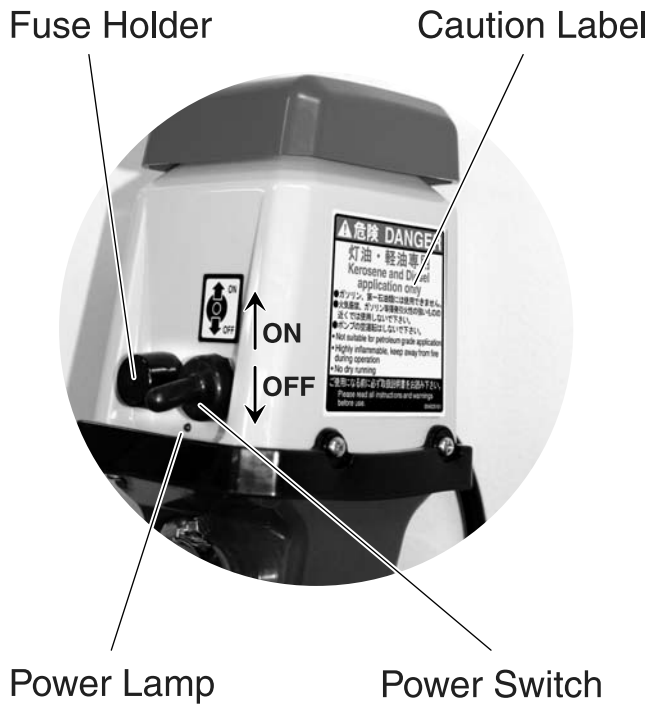
CAUTION

 PROHIBITION		Do not give any shock to the product during operation. It might cause fire by electric-shock, short-circuit or electric leakage.
 EXECUTION		If the product does not operate or looks like an abnormal run, take of the clip from power source immediately, and ask for checking or rapair with your local distributors/dealers.
 PROHIBITION		Please do not run dry. (Operation without liquid in drum) It may cause damage to the product.
 EXECUTION		Use this product with liquid temperature between 0 – 40 degrees centigrade.
 EXECUTION		If you use extension cable, please use the length as minimum. Use cable with isolation treated to avoid short-circuit. Thin or long cable may lead to inferior performance or even damage of the product.
 PROHIBITION		When lifting the product, please do not pull power cord or hose. It may damage the power cord or hose.

* All these important safety instructions described by this operation manual may not cover all the conditions and cases of usage. We pay careful attention about safety of the product. Please pay careful attention by user, operator, technician for maintenance as well.

THE NAME OF PARTS AND SPECIFICATIONS

FP-2512

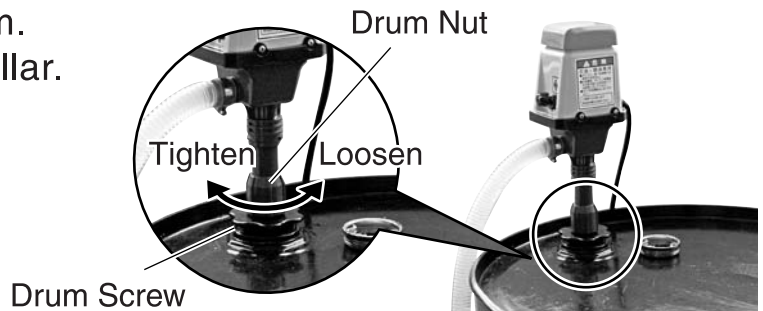


Model	Raku Auto FP-2512
Type	FP-2512-AAA
Connection Dia	25 mm
Total Head	2.8 m
Delivery Volume	18 L/min
Voltage	DC-12 V
Rating	4 m
Power Cord	30 min
Fuse	4 A
Delivery Hose	1.5 m
Nozzle	Gun Type
Net Weight	2.0 kg

- *1. For extension delivery hose, please use oil-proof hose (inner dia of 25 mm) and hose length should not exceed 5 m. Total head will be max. 2.8 m.

HOW TO USE

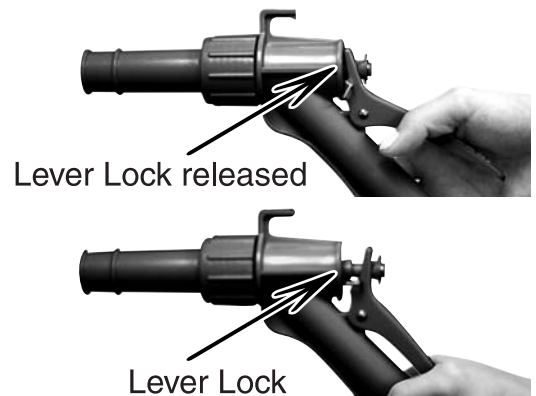
1. Insert suction pipe into drum.
Fix drum screw on to the collar.
Turn drum nut to fix.



⚠ CAUTION	After fixing the pump to the drum, please do not operate pump or drum at oblique condition.
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⚠ CAUTION	When you loosen drum nut, hold the pump body by another hand. Otherwise, pump body may drop suddenly and cause injury or damage.
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2. Make sure power switch is "OFF" and lever lock of nozzle is released, then, connect clip.
3. Put power switch "ON" and grip the lever of nozzle.
4. If you use lever lock, pump will transfer oil continuously. (see right picture)



⚠ DANGER	Do not close fire during operation.
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⊘ PROHIBITED	When power switch is "ON" and motor is running, please do not leave pump with lever lock for more than 3 minutes. (It might cause damage or accident.)
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⚠ CAUTION	Connection of clip has ⊕ and ⊖. Connect red clip to ⊕, connect black clip to ⊖. Wrong connection may not operate the product, or may cause trouble.
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CAUTION AFTER USE

1. After using pump, switch power to "OFF".
Release lever lock of nozzle, then, remove clip from power source.
2. Remove pump from the drum. Remove oil in the suction pipe, hose, and nozzle. Wipe off excess oil on the surface of the pump with a duster.

⚠ CAUTION	After fixing the pump to the drum, please do not operate pump or drum at oblique condition.
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3. "STORAGE"

Please keep pump clean, in low humidity, well-ventilated, indoor, away from sunlight.

 CAUTION	Please lay down the pump during storage to avoid inversion.
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4. Clean Strainer if you do not use this pump for long time.
(Refer Maintenance, Check)

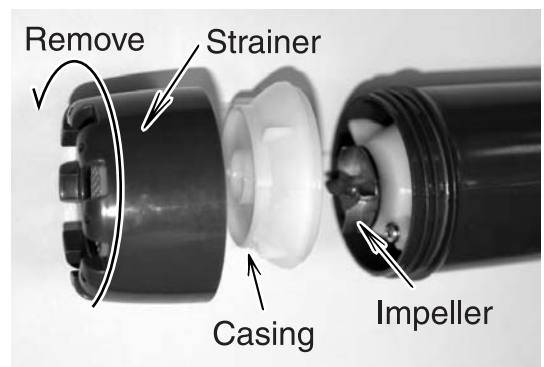
MAINTENANCE • CHECK

 CAUTION	During maintenance and check, always turn switch to "OFF" and remove clip from power source. Otherwise may cause accident or injury.
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"CLEANING OF STRAINER AND IMPELLER"

If dust obstruct Strainer or Impeller, it may cause inferior suction, inferior flow, shorten pump's life and damage of motor. Make sure clip is removed from power source and check following points regularly.

1. Remove strainer by turning towards indicated direction, remove all dirt and dust.
2. Remove casing and clean up dust inside the Impeller.
3. After cleaning, re-assemble by reverse course.




"REPLACEMENT OF FUSE"

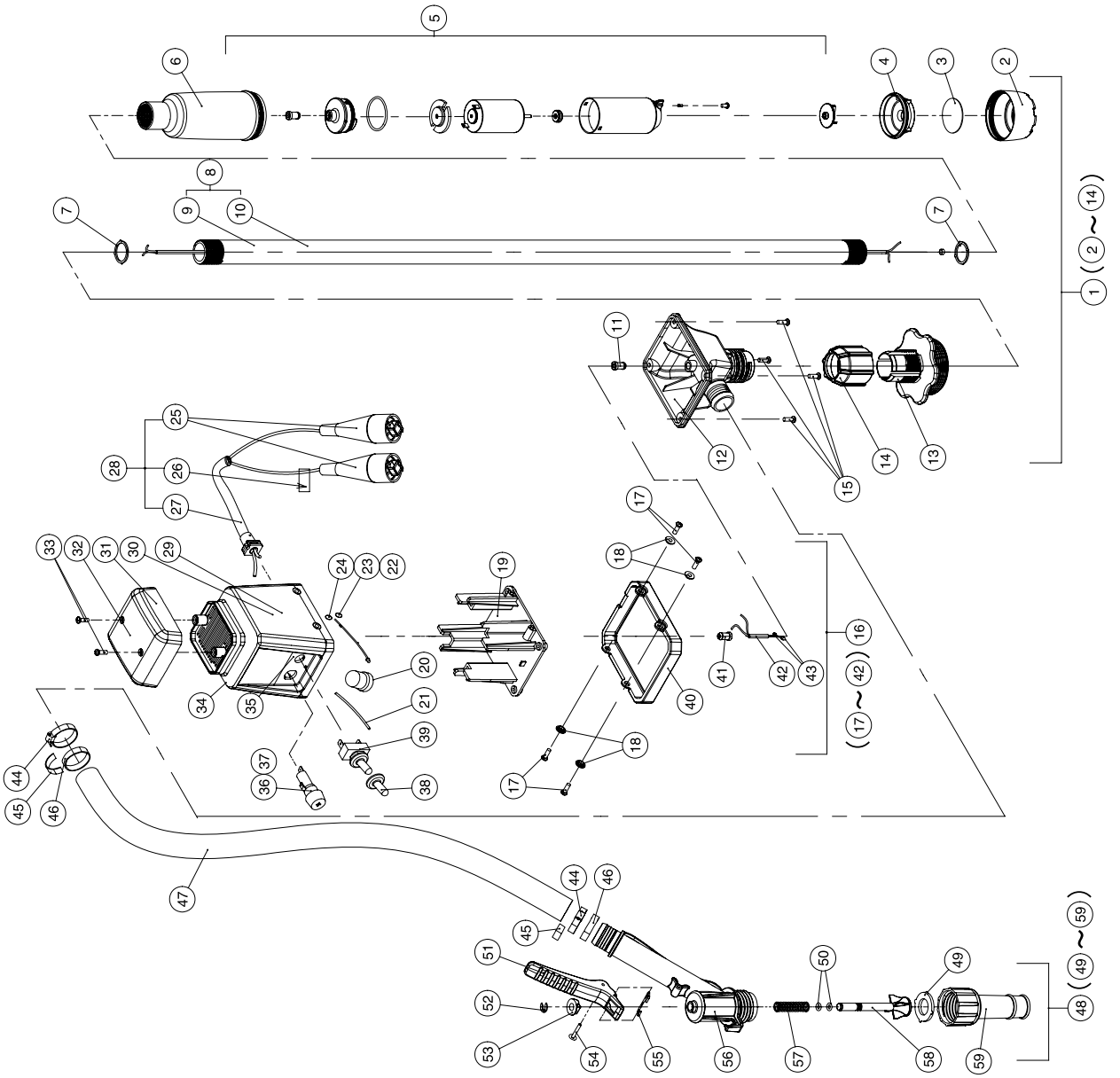
A fuse may burn out to protect motor damage if surplus current enters the motor. It is necessary to replace a fuse in this case.

1. Remove fuse cover by +screw driver, turn anti-clockwise rotation.
2. Remove fuse, check if it is "burn out" then, replace with new 4A fuse.
3. Please re-assemble by reverse course.



 CAUTION	In case of frequent fuse burn out, it may be other causes. Please refer P.9 for "TROUBLE SHOOTING AND MAINTENANCE".
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PARTS LIST



FP-2512-AAA-0

FP-2512-AAA-0 Parts List

No.	PARTS CODE	PARTS NAME	QTY	DETAILS	No.	PARTS CODE	PARTS NAME	QTY	DETAILS
1	0048051	Pump Assy	1	No.2-14	31	0040296	Top Cover	1	PP
2	0040283	Strainer	1	POM	32	0040365	DC-12V Label	1	
3	0040328	Filter	1	SUS304	33	718505035	+ Tapping Screw M4x12L	2	SUS
4	0040282	Casing	1	POM	34	0040352	Name Plate	1	
5	0048055	Motor Assy	1		35	0040346	Switch Label	1	
6	0040281	Pump Casing	1	POM	36	0048050	Fuse Assy	1	4A
7	0040316	Suction Pipe Packing	2	NBR	37	0040329	4A Fuse	1	
8	0048054	Suction Pipe Assy	1		38	0451420	Switch Rubber	1	NBR
9	0040280	Suction Pipe A	1	PVC	39	0451405	Toggle Switch	1	
10	0040279	Suction Pipe B	1	SUS304	40	0040318	Cushion Rubber	1	NBR
11	0220210	Cord Grommet	1	NBR	41	0220210	Cord Grommet	1	NBR
12	0040291	Main Body	1	POM	42	0040323	DC Cord For Power Source	1	PE
13	0040347	Drum Screw	1	POM	43	0220607	Insulated Terminal	2	
14	0040348	Drum Nut	1	POM	44	0040284	Hose Band	2	SUS
15	718505035	+Tapping Screw M4x12L	4	SUS	45	0040332	Hose Band Reinforced Plate	2	
16	0048063	Power Source Unit Assy	1	No.17-42	46	0040337	Rubber Tube	2	
17	718505037	+ Tapping Screw M4x16L	4		47	0040297	Delivery Hose (1.5M)	1	PE
18	0040321	Spacer	4	POM	48	0048053	Nozzle Assy	1	
19	0040294	Power Source Base	1	PA6	49	0040302	Nozzle Packing	1	NBR
20	0040360	Insulated Terminal	1	Φ4	50	889855005	O-Ring P5	2	NBR
21	0040362	Switch Cord	1		51	0040301	Nozzle Lever	1	POM
22	0520648	LED (Light Emitting Diode)	1		52	888705005	E-Stop Ring	1	SUS
23	941900080	Band 3x80	1	3 x 80	53	0040306	Nozzle Weight	1	POM
24	0220907	Band 4x120	1	3 x 120	54	853228137	Rivet Φ3x22	1	ALUMINIUM
25	0048062	Crip Assy	1		55	0040307	Nozzle Hook	1	SUS
26	0040364	Cord Label	1		56	0040300	Nozzle Body	1	POM
27	0040359	Power Cord	1	VCT 1x2Cx4M	57	0040304	Nozzle Spring	1	SUS304WPB
28	0048064	Power Cord Assy	1		58	0040303	Nozzle Valve	1	POM
29	0040351	Caution Label	1		59	0040299	Nozzle End	1	POM
30	0040295	Cover For Power Source	1	PA6	60	0040350	Operation Manual	1	

TROUBLE SHOOTING AND MAINTENANCE

PROBLEM	POSSIBLE CAUSE	SOLUTION
No discharge (No suction) Pump does not work	Dirt and dust inside pump.	Open pump and clean.
	Burn out fuse. *In such case, power lamp is light "ON".	Replace fuse. * Check the cause of burn out of fuse and measure for it.
	Voltage drop when using extension cord.	Reduce extension cord length
	Motor does not run.	Ask repair by local distributor / dealer.
	Inferior connection between socket and power source. (Check power lamp is light "ON" or not.)	Check connection between socket and power source.
	Disconnection of power cord. (Check power lamp is light "ON" or not.)	Ask repair by local distributor / dealer.
No discharge (No suction) Pump is working	Air-Lock inside pump.	Turn power switch to "Off" and re-start.
	Hose is too long. (In case of extension)	Shorten the hose.
	No liquid, not enough flow In the drum.	Fill liquid into the drum.
	Strainer is clogged with dust.	Cleaning.
	Wrong connection or, reverse connection of ⊕ ⊖ clip to power source.	Connect ⊕ and ⊖ properly.
Little discharge	Strainer is clogged with dust.	Cleaning.
	Wrong connection or, reverse connection of ⊕ ⊖ clip to power source.	Connect ⊕ and ⊖ properly.
	Bending hose.	Straighten hose.
Liquid leaking	Loose screw Inferior seal packing.	Tighten screw.
Liquid leaking of delivery hose	Slack in the hose band.	Tighten hose band at connection part.



CAUTION

Please do not dismantle or repair the pump by yourself.
Please ask for repair work from your local distributor /dealers.

MEMO

A series of horizontal dashed lines for writing.



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