

RAKU-AUTO

Electric Drum Pump Model FP-25

OPERATION MANUAL

For Kerosene and Diesel
application only

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- 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 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.

For reasons of improvement, specifications are subject to change without notice.



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SAFETY CAUTION


Read this "SAFETY CAUTION" carefully before use.
These 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 serious injury or major damage.

 This mark means "**PROHIBITION**"

 This mark means "**EXECUTION**"



It is necessary to follow the article.


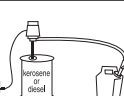
DANGER

  **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.**

SAFETY CAUTION



WARNING

  **Do not leave the pump unattended during operation.**

  **Do not operate this product without understanding the operation manual.**



  **Operate this product in a safe place away from children.**



  **Besides trained technician of repair, do not dismantle, repair, rebuild. It may cause damage.**



  **Do not wet the product with water or oil. It may cause serious accident, injury, or, damage to the product due to electric shock, short-circuit, or electric leakage.**


  **Please do not use outdoor.**
This product may be damaged if wet by rain or water.

CAUTION

  **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.**

  **Do not use this product if electric cable or electric plug is damaged or inadequate connection with power supply. It may cause electric shock, short-circuit or fire.**

  **Besides rated voltage, do not use this product. It may cause fire, electric-shock.**
Please do not allow too many wiring from one socket. It may cause overheat or cause voltage power to be reduced.

  **Do not dismantle the product. It may cause electric-shock or injury.**

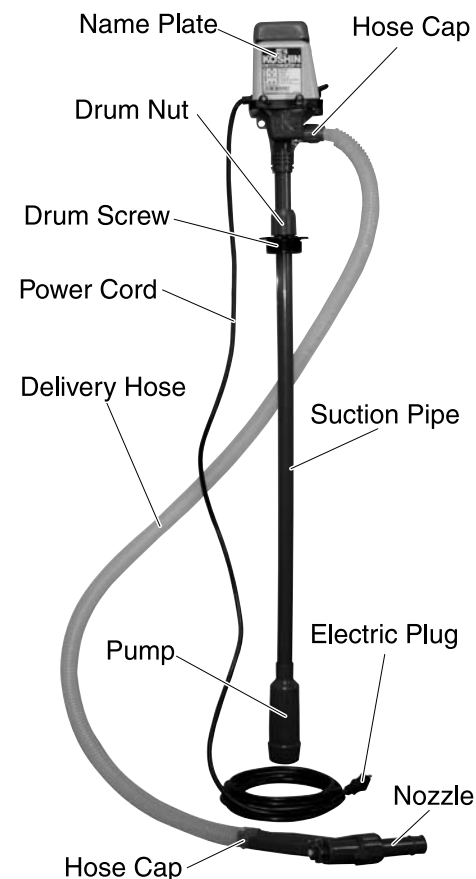
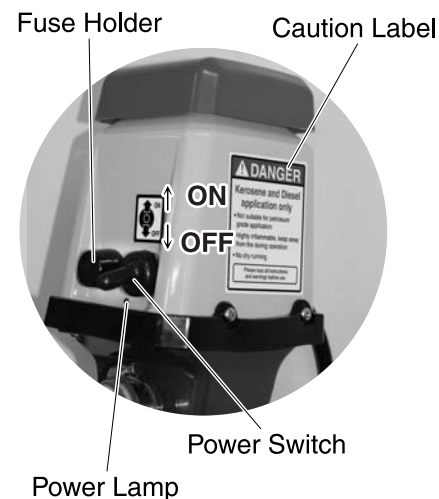
SAFETY CAUTION

! 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 off electric cable immediately from socket, and ask for checking or repair with your local distributor/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		In case of extension power cord, please use cable with more than 1.25mm ² (for 15A) and use only necessary length. If thin or long power cord is used, it may lead to inferior performance or even damage 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-25

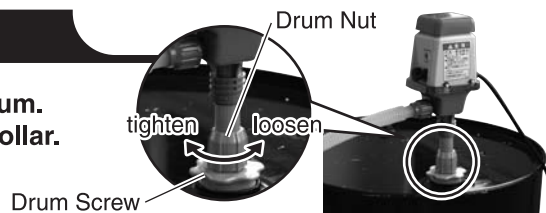


Model	FP-25	
Type	FP-25-BAA	FP-25-BAC
Connection Dia	25 mm (1")	
Total Head	3.5 m	
Delivery Volume	20 L/min	
Voltage	AC 220 V 50/60Hz	
Continuous Operating Time	30 min	
Power Cord	4 m	
Fuse	4 A	
Delivery Hose	1.5 m	
Nozzle	Gun type	
Net Weight	2.7 kg	2.6 kg

※ For FP-25 users, we offer 3M delivery hose as option item. 3M delivery hose is replacement type.

HOW TO USE

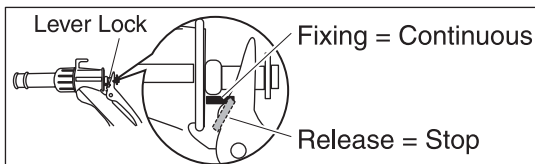
- 1 Insert suction pipe into Drum.
Fix Drum screw onto the collar.
Turn Drum Nut to fix.



⚠ Caution After fixing the pump to the drum, please do not operate pump or drum at oblique condition.

⚠ Caution When you loosen "Drum Nut", hold the pump body by another hand. Otherwise, pump body may drop suddenly and cause injury or damage.

- 2 Make sure Power Switch is "OFF" and Lever Lock of Nozzle is released, then, connect power plug.



- 3 Put Power Switch "ON" and grip the Lever of Nozzle.

- 4 If you use Lever Lock, pump will transfer oil continuously.
Release lever lock when stop continuous operation.

⚠ Danger If do not release the lever lock, the outflow of oil does not stop. To avoid a oil overflow, please operate carefully

⚠ Danger Do Not be near fire during operation

⊘ 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.)

CAUTION AFTER USE

1. After using pump, switch power to "OFF". Release Lever Lock of Nozzle, then, remove electric plug from socket.

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 use, do not put pump on the ground directly. If dust gather at the strainer, it may cause future inferior suction or damage.

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

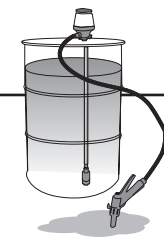
⚠ Caution Please lay down the pump during storage to avoid inversion.

CAUTION AFTER USE

4. Clean Strainer if you do not use this pump for long time.
(Refer Maintenance, Check)

⚠ Caution

If position of nozzle is lower than liquid level in the drum, liquid may leak from nozzle due to Siphon phenomenon. Put out this pump from drum before storage.



MAINTENANCE · CHECK

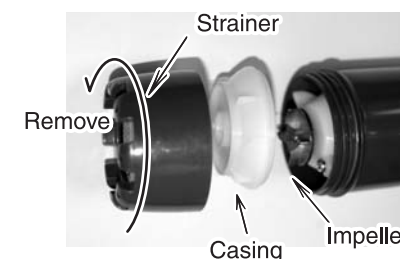
⚠ Caution

During maintenance and check, always turn switch to "OFF" and remove electric plug from socket. Otherwise may cause accident or injury.

【Cleaning of Strainer · Impeller】

If dust obstruct Strainer or Impeller, it may cause inferior suction, inferior flow, shorten pump's life and damage of motor. Make sure electric plug is removed from socket 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.

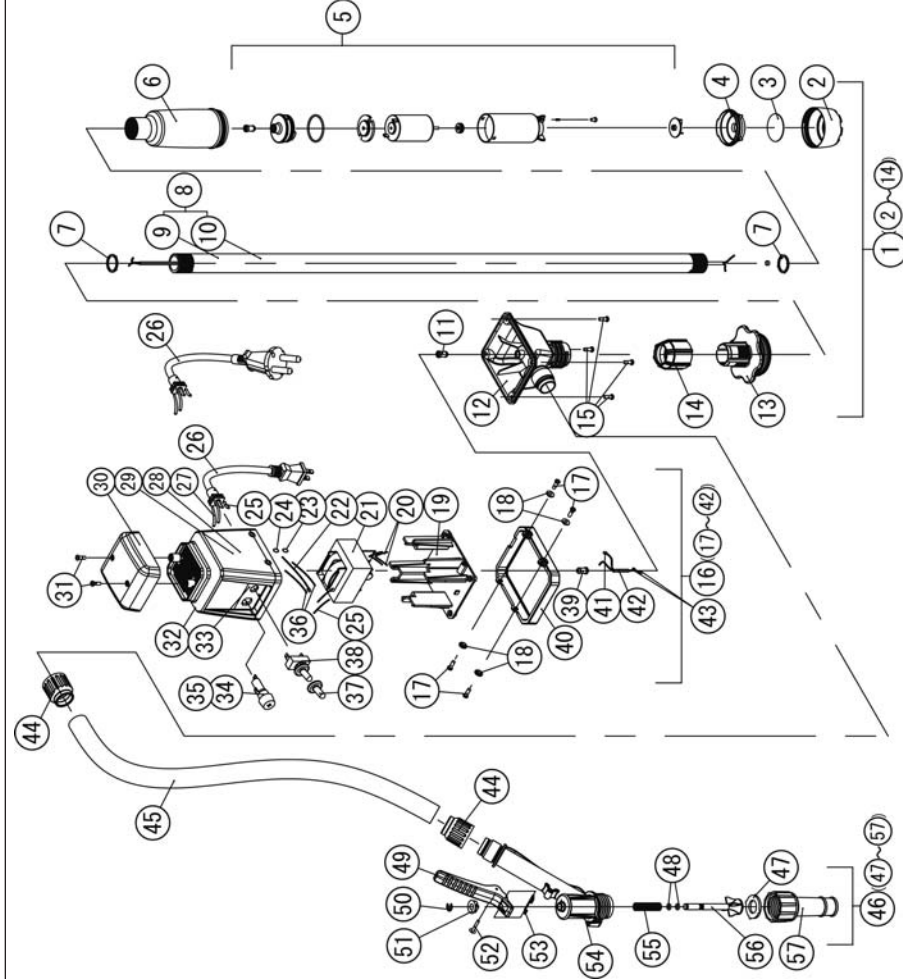


⚠ Caution

In case of frequent fuse burn out, it may be other causes. Please refer "TROUBLE SHOOTING AND MAINTENANCE".

PARTS LIST

FP-25-BAA-0 / FP-25-BAC-0



PARTS LIST

No.	Parts Code	Parts Name	Qty	Material	Size	Remarks
1	0048051	Pump Assy	1	NO.2~14		
2	0040283	Strainer	1	POM		
3	0040328	Filter	1	SUS304		
4	0040282	Casing	1	POM		
5	0048055	Motor Assy	1			
6	0040281	Pump Casing	1	POM		
7	0040316	Suction Pipe Packing	2	NBR		
8	0048054	Suction Pipe Assy	1	NO.9~10		
9	0040280	Suction Pipe A	1	PE		
10	0040279	Suction Pipe B	1	SUS304		
11	0220210	Cord Grommet	1	NBR		
12	0040291	SP Body	1	POM		
13	0040347	Drum Screw	1	POM		
14	0040348	Drum Nut	1	POM		
15	718605035	⊕ Tapping Screw M4x12L	4	SUS	M4x12	
16	0048080	Power Unit Assy	1	NO.17~42		FP-25-BAA
17	718605037	⊕ Tapping Screw M4x16L	4	SUS	M4x16	FP-25-BAC
18	0040321	Spacer	4	POM		
19	0040284	Power Source Base	1	PA6		
20	0040326	Tube 2x32	2			
21	0048059	Trans	1			
22	0520047	Led(Light Emitting Diode)	1			
23	941900080	Band 3x80	1		3x80	
24	0220907	Band 4x120	1		4x120	
25	0040325	Tube (For X) 3x60	2		φ 3x60	
26	0040289	Power Cord	1	VCT	1x2Cx4M	FP-25-BAA
27	0040324	Power Cord	1	VDE	4M	FP-25-BAC
28	0040351	Caution Label	1			
29	0040295	Cover For Power Source	1	PA6		
30	0040296	Top Cover	1	PP		
31	718605035	⊕ Tapping Screw M4x12L	2	SUS	M4x12	
32	0040344	Name Plate	1			FP-25-BAA
	0040405	Name Plate	1			FP-25-BAC
33	0040346	Switch Label	1			
34	0048050	Fuse Assy	1	4A		
35	0040329	4A Fuse	1			
36	0040327	Tube 2x50	2		φ 2x50	
37	0451420	Switch Rubber	1			
38	0451405	Toggle Switch	1			
39	0220210	Cord Grommet	1	NBR		
40	0040318	Cushion Rubber	1	NBR		
41	0220607	Insulated Terminal	1	EC-1-1		
42	0040323	Dc Cord For Power Source	1			
43	0220607	Insulated Terminal	2	EC-1-1		
44	0040373	Hose Cap	2	POM		
45	0040383	Delivery Hose(1.5M)	1	PE		
46	0048053	Nozzle Hose Assy	1	NO.47~NO.57		
47	0040302	Nozzle Packing	1	NBR		
48	888985505	O-Ring P5	2	NBR		
49	0040301	Nozzle Lever	1	POM		
50	888705005	E-Stop Ring	1	SUS		
51	0040306	Nozzle Weight	1	POM		
52	853228137	Rivet 3x22	1	ALUMINIUM		
53	0040307	Nozzle Hook	1	SUS		
54	0040384	Nozzle Main	1	POM		
55	0040304	Nozzle Spring	1	SUS304WPB		
56	0040303	Nozzle Valve	1	POM		
57	0040299	Nozzle End	1	POM		
58	0040342	Operation Manual	1			

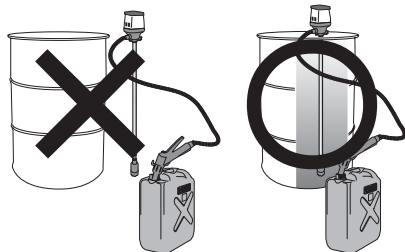
TROUBLE SHOOTING AND MAINTENANCE

Condition	Possible Cause	Measure
No discharge (No suction) Pump does not work	Dirt & 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
	Electric plug does not sit well Into the socket (Check power lamp is light "ON" or not.)	Check electric plug And socket.
	Disconnection of power cord (Check power lamp is light "ON" or not.)	Ask repair by local distributor / dealer
No delivery (No suction) or, small delivery volume - pump is working.	Air-Lock inside pump	Turn power switch to "Off" and re-start A
	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
	Bending hose	Straighten hose
Oil leakage	Loose screw Inferior seal packing	Tighten screw
Oil leakage from connection part of hose	Hose cap is not tightened enough	Tighten hose cap firmly
Oil leakage from nozzle	Leakage due to Siphon phenomenon	Remove liquid inside hose and keep position of hose higher than the pump before storage B

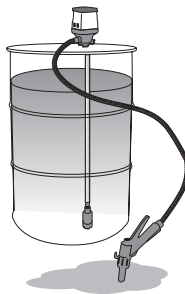


Caution Please do not dismantle or repair the pump by yourself.
Please ask for repair work from your local distributor /dealers.

A First, put the pump into drum and then, make the switch ON.



B If position of nozzle is lower than liquid level in the drum, liquid may leak from nozzle due to Siphon phenomenon. Put out this pump from drum before storage.



MEMO