

Electric Cleaner for Industrial Application

Operation Manual

■ EVC-550



※ Pail can is not included, and sold separately.

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1. Safety Instruction

Operation Manual covers important information for safe and correct operation of our product, and we do advise all the customers to read carefully and understand correctly, before the product is operated. All the instructions and warnings are described, so that the product is used properly as requested to avoid/prevent any possible risks and damages in advance to the customers and others.

Warning items are classified into three categories as 「Danger」, 「Warning」 and 「Caution」, depending on the possible seriousness and/or imminence, in case the product is improperly or mistakenly used. Even in case of the contents with 「Caution」 mark, depending on the situation, be noted that it may cause serious incidents. All the information contained herewith are quite important for the safety, and therefore, we strongly advise the customers to read this Manual very carefully, before the operation. Also, be sure that this Manual is properly kept, and ready to be read at any time whenever necessary.

Example for each sign mark:

Each sign mark has below meaning “to pay very careful attention for any risk possibilities.” According to each sign mark, all the users have the obligation strictly to follow the below instructions.

Each mark has below meaning:



Danger

Misuse may result in death or serious injuries.



Warning

Misuse may possibly result in death or serious injuries.



Caution

Misuse may result in human injuries and/or material damage.

Samples and the meanings:



This mark shows "The actions are strictly forbidden."



This mark shows "The actions are forced or instructed to follow." In the mark, instructions contents are concretely described

Caution Items on the products



Caution Mark



Do not use the product out of the conditions specified.
* Otherwise, this may cause electricity leakage, electric shock, fire and/or water leakage.

.....
This product is for industrial application, and therefore, do not use for home application.
.....

Caution Items, when moved



Caution Mark



.....
In case the product is lifted by human being, it should be done not only by bending the waist, but also bending the arms.
Otherwise, the waist may be hurt.

.....
In case supervisor is changed, be sure to attach this Manual with the product, or hand this Manual to new supervisor.
.....

In case this Manual is lost or damaged, immediately contact AQUASYSTEM CO., LTD. (Japan) or sales agents.
.....

Caution items, when transferred



Danger Mark



.....
In case the liquid is mistakenly drunk, or it touches the skin, urgently take care, according to the liquid's manual, or receive an advice from a doctor.
.....



Equip with an earth device, and apply leakage breaker (to be purchased separately).

*In case any trouble, electric leakage, or static electricity happens, it may cause electric shock.
.....



The flammable liquids such as kerosene, gasoline, solvent and medicines, and/or the explosive should not be sucked, and/or used nearby them.

* These may cause explosion or fire etc.
.....

The explosive materials such as aluminum, magnesia, titan, zinc, chemicals, gas and steam should not be sucked, and/or used nearby them.

* These may cause explosion or fire etc.
.....



Do not use nearby the fire.

* These may deform the product, or cause fire, due to short-circuit.
.....



Warning Mark



During the operation, if the worker/staff feel uncomfortable, immediately contact a doctor.



Individually apply the plug socket with higher rate than 15A.

- * In case some plug sockets are used together, or electric circuit does not meet acceptable capacity, the separation portions may abnormally get heating, which may result in fire.



Do not touch plug socket, switch or wires etc. with wet hands.

- * These may cause electric shock and/or injury.



Do not water or oil the product.

- * These may cause short-circuit, electric shock and/or fire.



Do not suck harmful materials such as dioxins and asbestos etc., which may be harmful to the human beings.

- * These may cause environmental problem and/or health problem.

Do not use the product under the temp. condition with higher than 60°C.

- * The mis-use may cause the fire. The acceptable temp. condition for the operation is between 0°C~60°C.



Do not use under high humidity condition.

- * The mis-use may cause electricity shock, fire and/or troubles. Be sure to use with the humidity condition under 80%.

Do not suck chlorine cutting oil.

- * This may crack plastic products due to chemical reaction, and the cracked parts may cause injury, or unexpected accidents.

Do not shield the outlet, motor cooling pipe and the inlet with the wastes and towel etc.

*This may increase the temperature, which results in accident or trouble etc.

 **Caution**



If the product accidentally stops its operation, or anything abnormal is found, immediately pull the plug out, and contact service shops for the inspection or repairing.

* This may cause electricity shock, electricity leakage or short-circuit.



Equip the earth device with earth clip located at the head of electricity code. In particular, be sure to equip it at the wet floor.

*This may cause the problem of electricity shock, unless the earth device is equipped.



Be sure to apply 200V~240V AC.

*This may cause fire, due to electricity shock or short-circuit.



In case the pipe or hose is clogged by anything, the product may stop sucking, when the float goes up. In such a case, immediately, shut the switch off.

*This may cause some trouble, due to the increase of motor temperature.



Do not operate the product at the place where the chlorine cutting oil is misted or smoked.

*This may crack plastic product due to chemical reaction, and the cracked parts may cause injury, or unexpected accidents.

Do not use the product at the place where the dusts are floating.

*The dusts may get into the inside of motor through the cooling gate, resulting in the fire due to the burning loss of motor.



Do not use at outside where the rain falls.

*The product may cause electricity shock, electricity leak, fire or trouble etc., due to insulation deterioration.



Do not suck sea-water, corrosive liquid or powder.

*The product may cause burning loss or damage of motor, or trouble.

Do not suck solvents such as thinner, volatile and explosive gas, high temperature powder, lighted cigarette, and heated cut powders (immediately after produced).

*The product may cause explosion, fire and the burning loss of filter.

Do not suck cement powder, plastic powder (which are to be solidified), conductive fine dusts and medicines, metal powder, carbon powder.

*The product may cause fire, due to electricity shock or short-circuit.

Do not use the bubbled liquid.

* Due to the bubble, the float may not always work properly. In case liquid is overflowed, the bubble from the outlet may cause electricity shock, short-circuit, or soil clothes. Also, this may trouble motor.

Do not shock the product

*This may cause the trouble.

Do not absolutely use the product horizontally.

*The liquid may flow out, resulting in electricity shock.

Before/after the liquid is sucked, do not lay the product down.

*This may cause the burning losses of motor, trouble or accident.



Do not put the hands or fingers into the inlet.

*This may cause injury.



In case the electric wire or plug is damaged, or the plug can not be fixed firmly, do not use.

*This may cause fire, due to electric shock or short-circuit.



Choose a proper extension wire.

*In case the capacity of extension wire is not much enough, this may cause fire, as it is heated.



Electric wire should not be damaged, re-produced, intentionally bended, pulled, twisted or bound.

*This may ruin electric wire, resulting in fire or electric shock.

Electric wire or extension wire should not be used under the rolled or wrapped condition.

*The wire may be heated, resulting in fire.

Be sure that the wire is properly stretched, before used.



The dirt on electric wire should be periodically wiped off by dry towel.

*In case the dirt on wire remains, the insulation failure due to moisture may cause fire.



The dust or pin should not be adhered to the plug.

*This may cause fire, due to electric shock or short-circuit.

Do not leave heavy goods on the wire, or inserted.

*Electric wire may be damaged, resulting fire or electric shock.



Electric plug should be always pulled out, when not used.

*This may cause electric shock, leakage and fire, due to insulation Failure.



When the plug is taken out, do not pull electric wire.

Always take the plug head out.

*This may cause fire, due to electric shock or short-circuit.



Do not keep no-load operation
*This may trouble the product.

Caution Items, when inspected, or maintenance work is carried on.



Warning



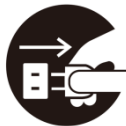
When maintenance work is carried on, always use protective gloves.
*Otherwise, the dust may hurt the hands.



Only specialist can disassemble, repair or remodel.
*Otherwise, the product may cause fire, or work abnormally.



Caution



Always pull the plug out for cleaning
*Otherwise, the product may cause electric leakage or injury.



The cleaning thinner can be used only at total fire ban area only.
*Otherwise, this may cause fire or accident.



Always keep proper ventilating, when the thinner is used for filter cleaning.
*Otherwise, this may cause toxic sickness, due to thinner.

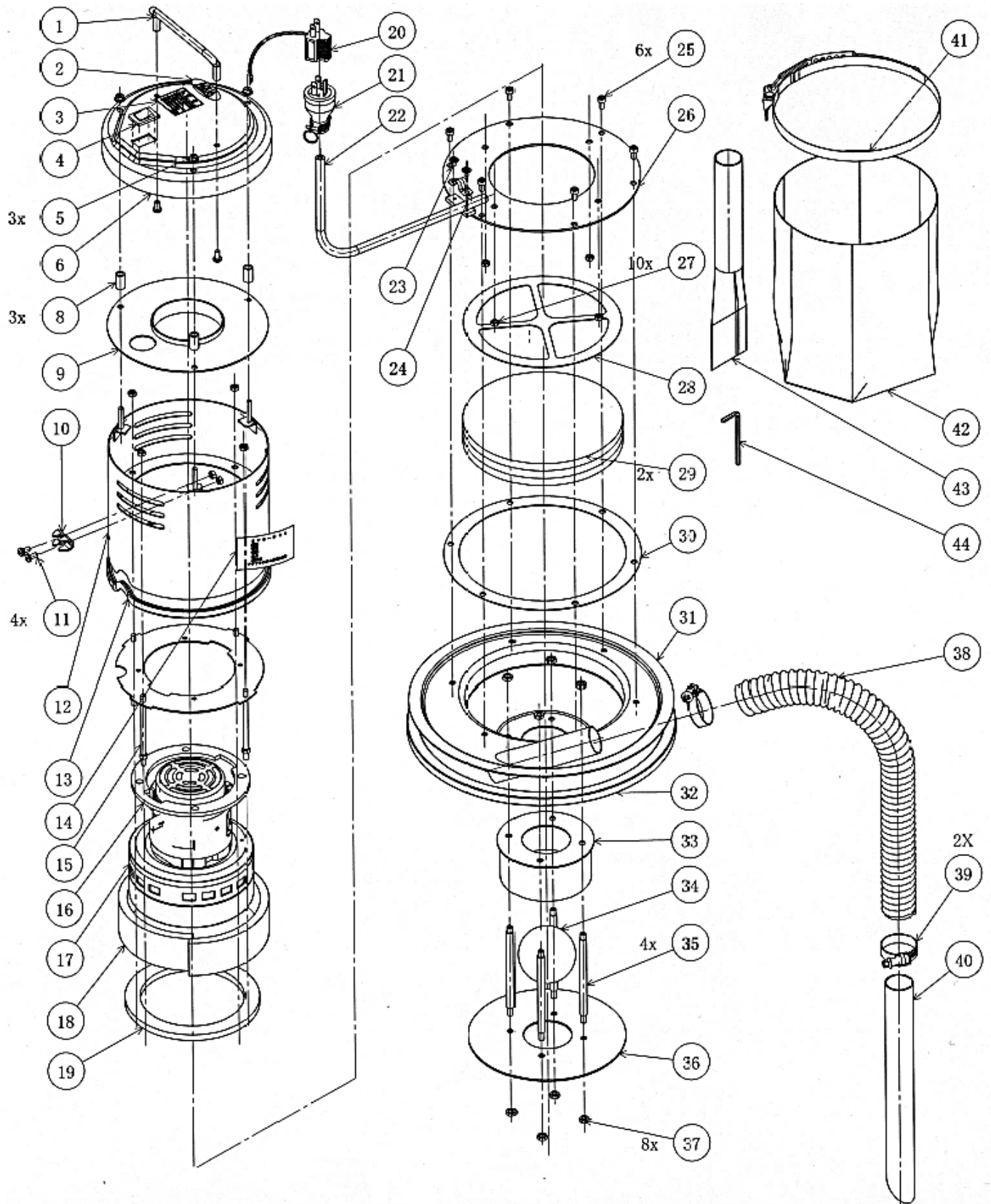
※The above in this Operation Manual does not cover all possible items for the cases of “Danger”, “Warning” and/or “Caution”
Though our product is produced, according to our severe safety standards and our very careful inspection procedures, we strongly advise the products operators/users to operate the products with very careful attention and very precise caution.

2. Specifications

Model	EVC-550
Power Source	230 V
Electric Consumption	1.05 kW
Current	4.6 A
Max. Blowing volume	3.3 m³/min
Max. Vacuum Pressure	20.5 KPa
Hose	Inner Dia.φ32 × Length 2 m
Electric Wire	Length 5 m(with earth grip)
Size of the Product	External Dia.φ320 × Height 400 mm
Weight	8.2 kg

- ※ To make sure that electric circuit to meet higher than 15A should be prepared.
- ※ Fuse(15A) is installed in electric circuit of the product.
In case fuse(15A) is not sufficient enough, contact our service shop or distributor.

3. Name of each part and accessory

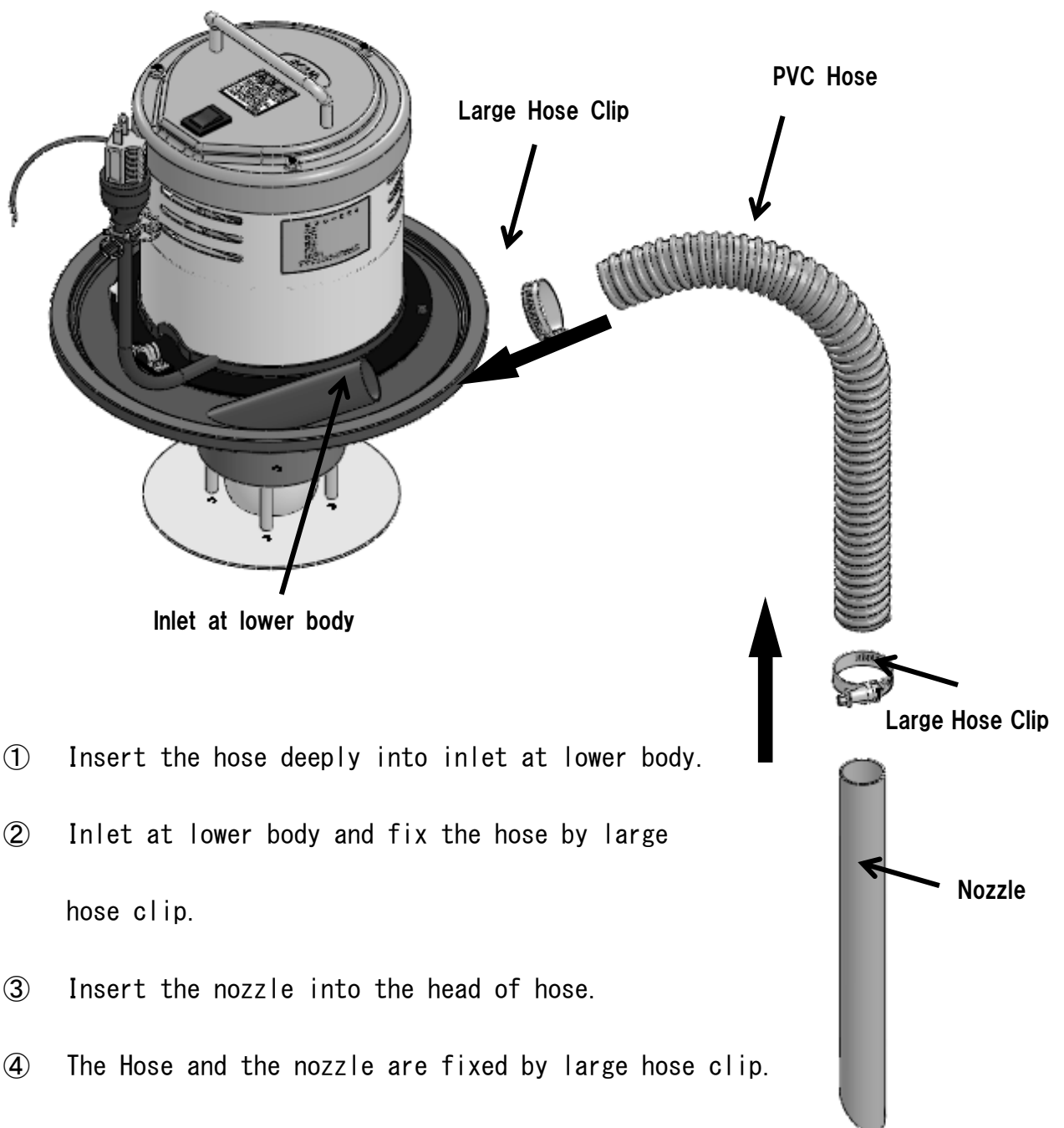


NO.	Part Name	Can we supply the part individually?	Material	Q'ty	Others
1	Handle	×	SUS304	1	A-1075-4
2	Seal AQUA(Small)	×	To be purchased	1	
3	Name Plate	×	To be purchased	1	
4	Switch	×	To be purchased	1	
5	Flange Nut	×	SUS304	3	M5 (without serrate)
6	Cover (Upper)	×	PC/ABS	1	
8	Pipe	×	SGP	3	φ 10, 5 × 2
9	Upper Cover	×	SPHC	1	
10	Plated Wire Clip	○	Iron	1	6mm
11	Round Head Screw with cross hole	○	SUS	4	M5 × 10
12	Cover	×	SPHC,	1	
13	Trim	×	TPE,	1	62-16-B-5T-15
14	Plate cover	×	To be purchased	1	
15	Motor Stay (Sustainer)	×	SPHC	1	
16	Seal A	×	CR Rubber	1	t=5
17	Blower Motor	×	To be purchased	1	
18	Sound Absorber	×	Urethane	1	10 × 45 × 450
19	Seal B	×	CR Rubber	1	t=4
20	Adaptor Plug 100V	○	To be purchased	1	
21	Rubber Plug	×	To be purchased	1	
22	Cable with rubber cap	×	To be purchased	1	5m
23	Round Head Screw with cross hole	○	SUS304	2	M4 × 8 P1
24	Saddle	○	FC	1	
25	Bolt with hexagon hole	○	SUS304	6	M5 × 10
26	Plate	×	SPHC etc.	1	
27	Hexagon Nut	×	SUS	10	M5
28	Filter Pressure	○	SUS304	1	
29	Filter (Motor)	○ (2pcs/set)	Polyester, Acryl	2	
30	Rubber Packing	○	CR Rubber	1	
31	Lower body	×	SPHC etc.	1	
32	V Packing	○	NBR	1	
33	Water-Proof Cover	○	SPHC	1	
34	Float Ball	○	PVC	1	Sφ 65,80g
35	Sustainer for stopper	○	SUS304	4	L=105
36	Plate for stopper	○	SUS304	1	φ 180,t=2
37	Hexagon Nut	○	SUS	8	M6
38	Hose 32A	○	PVC	1	Inner Dia. φ 32 L=2000mm
39	Hose Clip (Large)	○	SUS304	2	SGT W2/12 25-40
40	Round Type Nozzle	○	A6063	1	Ext. Diaφ 32, Thickness1.5,L=300mm
41	S Type Spring Band	○	SUS	1	Width: 13mm,φ 185.5
42	Filter (Motor)	○	PP(White)	2	
43	Square Type Nozzle	○	A6063	1	Ext. φ 32, Thickness 1.5,L=305mm
44	Hexagon Wrench (AW4)	○	To be purchased	1	

4. How to Use

1. How to assemble hose and nozzle.

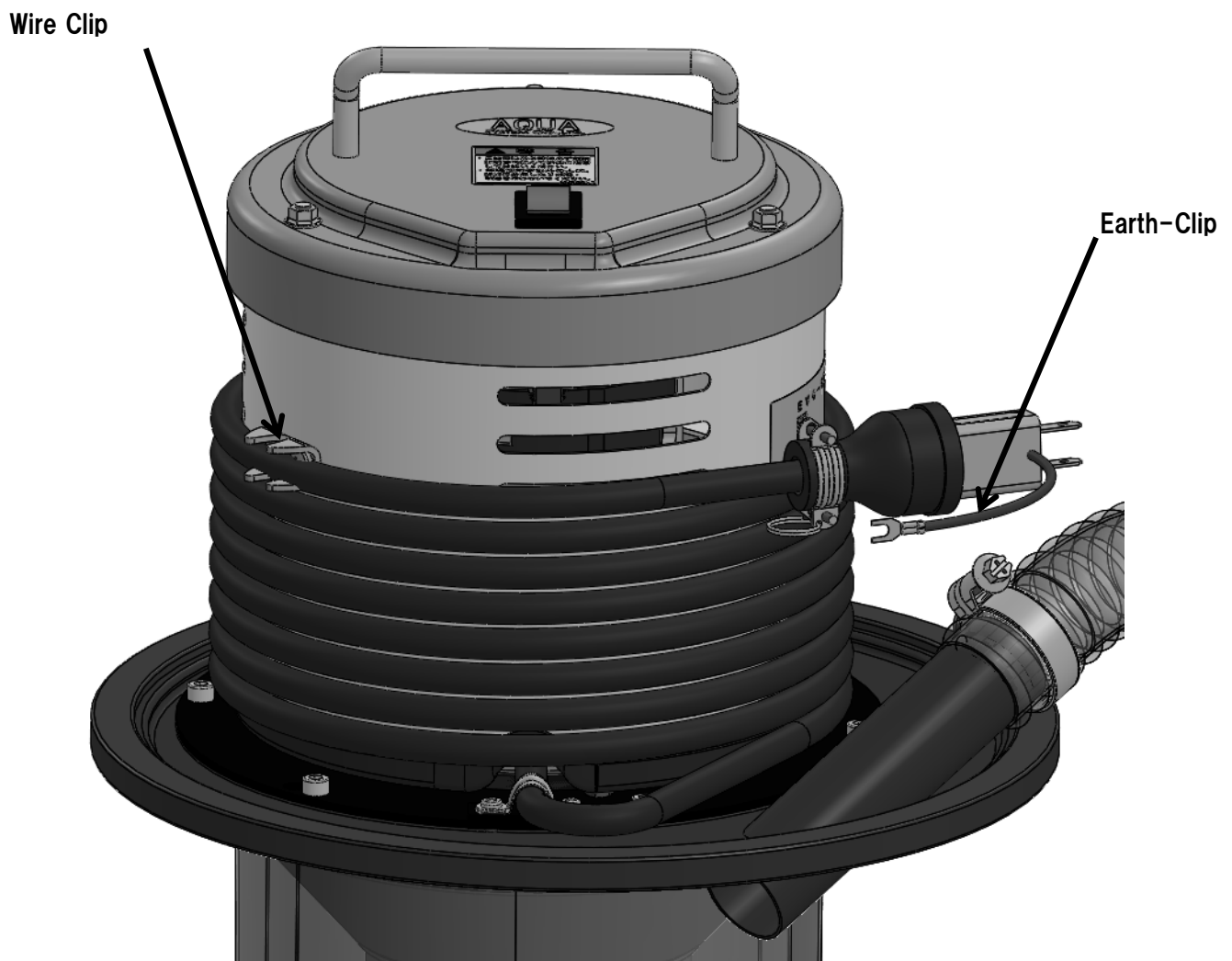
Assemble, according to the below instruction.



- ① Insert the hose deeply into inlet at lower body.
- ② Inlet at lower body and fix the hose by large hose clip.
- ③ Insert the nozzle into the head of hose.
- ④ The Hose and the nozzle are fixed by large hose clip.

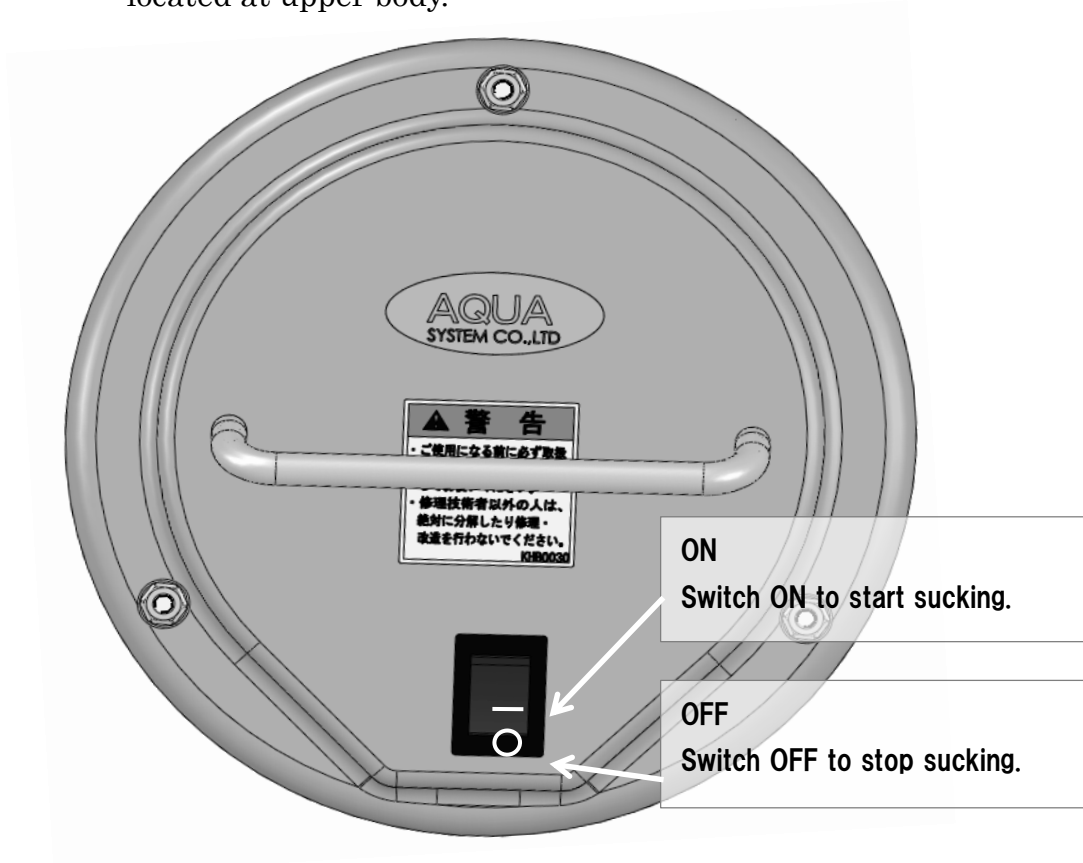
2. Connection of electric wire

- ① Insert the plug into outlet.
- ② Earth-clip is equipped at wire head.
Make sure the earth is grounded to avoid electric shock.
- ③ After used, be sure electric wire is pulled out from outlet to avoid the electric shock.
Electric wire should be fixed by wire-clip and firmly wounded, so that it will not be twisted



3. Switch

Sucking operation is started/stopper by the switch located at upper body.



4. Filter (Motor)

- ① In case the filter (motor) is wet, water (oil) drop may be produced. If such a case happens, take care as follows:

【For the case of water drop】

Without sucking anything, keep no-load operation for a few minutes to make the filter (motor) dry.

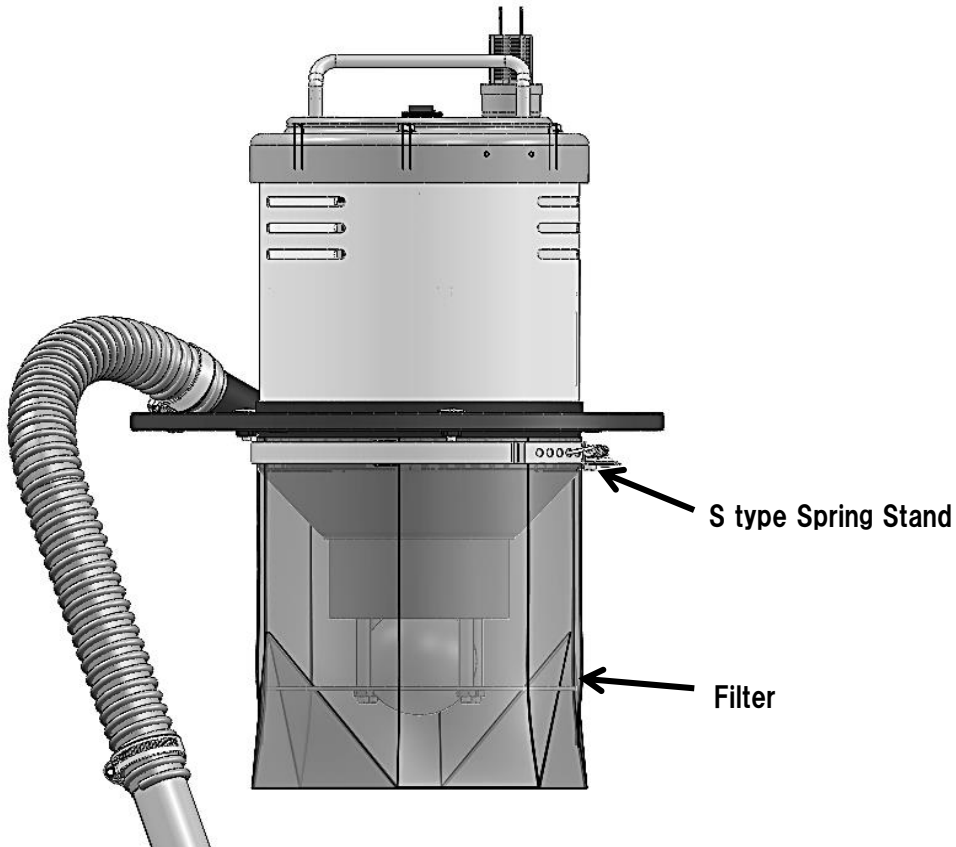
【For the case of oil drop】

Take the filter (motor) out, and make it clean with washing oil. After properly dried up, place the filter (motor) to the original position.

- ② Filter (motor) can be washed by water.
In case the filter (motor) is clogged, take the filter (motor) out for water washing.
After water washing, keep no-load operation for a few minutes to make it dry. Then, the filter (motor) can be used again.
※ No.5-1 (below) shows how to take out/install the filter.

《Caution》

In case the dusts are collected, be sure to apply our standard filter attached.
(When the liquid is collected, be sure to take the filter out first)



5. Float Ball (to prevent overflow)

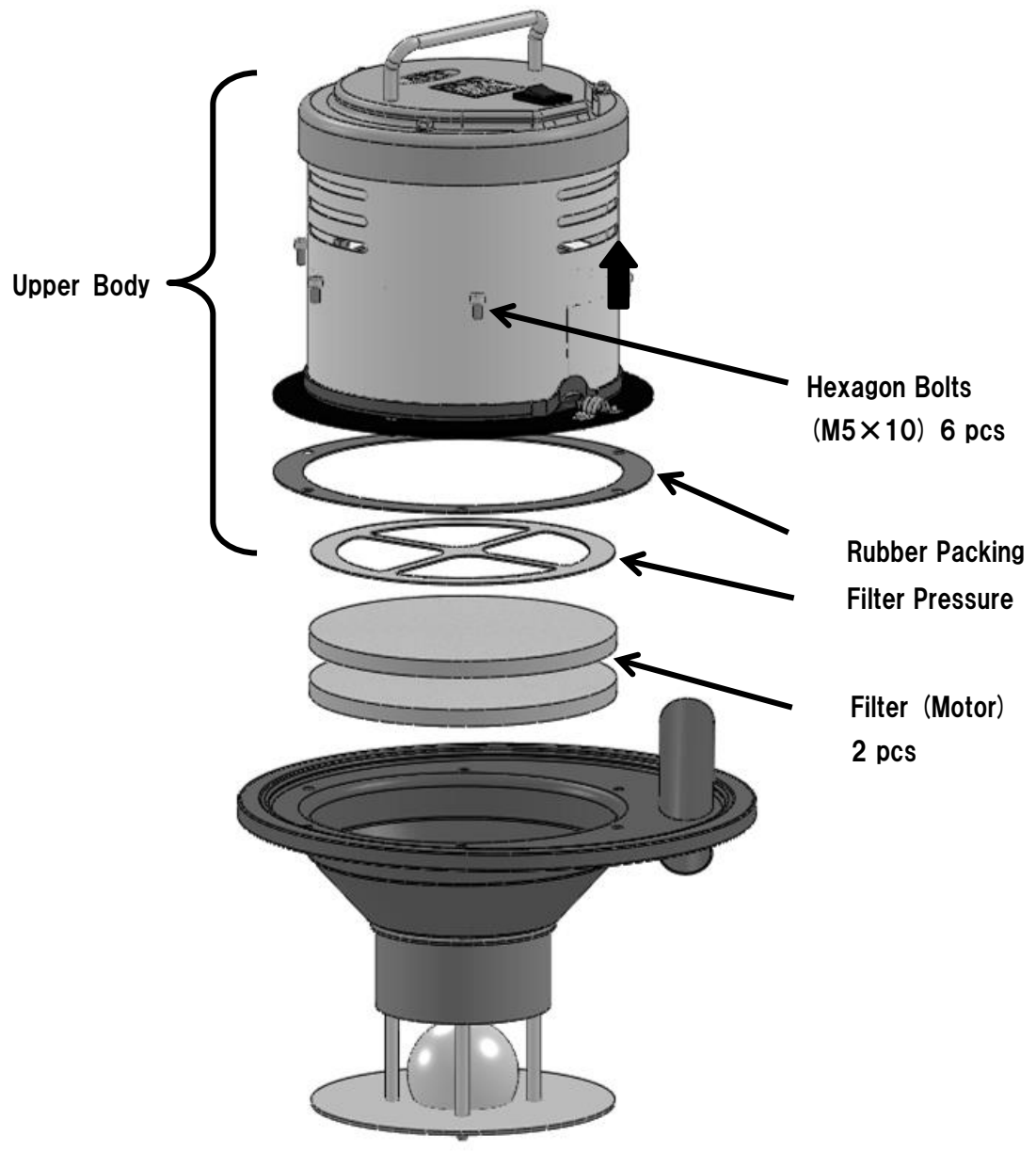
- ① In case water or mud etc. remains in the tank, the float ball will go up, stopping sucking operation.
② In case sucking operation is stopped, shut the switch off, and then, throw them out.

5. Maintenance

In case the sucking does not properly work, or the motor causes some noise, immediately check the filter and replace it, if necessary.
(In case hexagon bolt is changed, be sure to use the wrench for hexagon bolt application.)

1. How to take the filter (motor) out

Take six bolts out, as shown below, and then the upper body can be removed, so that to check if the dusts unreasonably remain, or the filter (motor) should be washed.



2. How to install filter (Motor)

Fix with six bolts and rubber packing into six holes located at lower body.

3. Maintenance

In case hose or outside of cleaner becomes dirty, wipe them with towels, or the waste clothes, after a neutral detergent liquid is soaked and firmly twisted.

※ For maintenance, be sure always to wear protective gloves.

6. Inspection

To use the product safely, be sure to check the below items, before the operation. And, in case anything improper is found, immediately take care/fix it immediately, before the operation.

Inspection Items	What to do
If the electric wire is damaged or deformed?	Replace the electric wire, and contact service shop for the replacement.
If the plugs is deformed or not loosened?	Replace the electric wire, and contact service shop for the replacement.
If the earth grip is not loosened, or working normally?	Replace the electric wire, and contact service shop for the replacement.
If the switch protective rubber is not torn ?	Replace the switch, and contact service shop.
If the hose is deformed or not torn?	Replace the hose.
If the hose is not clogged with anything?	Remove the rubbish immediately.
If the filter is properly placed?	Place at proper position.
If the filter (motor) is not torn?	Replace the filter (motor)
If the filter (motor) is not clogged?	Clean the filter (motor) properly.
If the pail can is not deformed?	Replace the pail can immediately.
If the rubbish or liquid in the pail can remains?	Remove the rubbish or liquid out.
If the upper body is properly installed?	Install the upper body properly.
If each bolt or nut is properly fixed?	Fasten each part tightly.
If motor does not cause any abnormal noise?	Contact service shop.

If any abnormal noise or smell is notice?	Contact service shop
If the switch (on/off) can be changed?	Fuse may be torn off. Contact service shop.

※In case the product has to be disassembled, inspected, or the part change is necessary, always contact our service shop.
Only the authorized engineers is allowed for disassembling, inspection and/or parts change.

7. Assurance and After-Service

Thank you for choosing our products, and we are pleased to inform the coverage of our assurance as follows:

1. The repair

In case the repairing part is required, contact our service shop, with the information of product model, manufacturing No., and the receipt.

2. In the below case happens within 365 days from the purchased date, free replacement or free repair is applied.

*Even though the inspection and/or maintenance is regularly and properly implemented at the customers, the mechanical problem or the damage happens, due to our improper designing or inferior assembly/manufacture in our factories, within the above period. (However, our assurance does not cover any expenses or any loss related with the mechanical problem or damage.)

***In case of free replacement and/or after-service, if the parts change is necessary (not directly related with the above free replacement and/or after service), such parts expenses shall be at customer's account.**

3. After the above assurance period, or the case in the below 7-5, the paid service is applied. Also, in case our authorized part is not used for repairing or part replacement, we can not accept any claim and/or repair, but also can not apply our assurance.

Also, this repair/assurance is not applied for the case that our part is applied for the product by other companies.

4. In any case any expense to transportation charge to service shop, or the transportation charge to return to the customer shall be paid by the customers.

5. Our assurance can not be applied for the below case, even it happens within assurance period (365 days after the purchased date).
 - 1.Any problem which happens, due to wrongful handling (different use instructed in the Manual).
 - 2.Any problem which is due to the repair, disassembly or remodel carried out not by our service shop.
 - 3.Any problem due to improper maintenance or poor maintenance, while stored.
 - 4.No purchase evidence such as invoice, receipt etc. is presented.
 - 5.Parts consumption, which have been too heavily used

For any repair and/or after service during assurance period, please contact our service shop or the below.

<p>AQUASYSTEM Co., Ltd. 【Customer Service Dept.】 Tel: (81)-749-23-9139</p>
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