MEDO LA BLOWER

INSTRUCTION MANUAL

INSTALLATION & MAINTENANCE



LA-28B / LA-45C



LA-60B (E) / LA-80B (E)



LA-100A / LA-120A

This instruction manual should be read and understood thoroughly before any installation and maintenance work is executed.

After reading this instruction manual, please keep it handy for reference.

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The symbol of the crossed-out dustbin indicates that this electrical or electronic equipment must not be disposed of with household waste at the end of its service life, but must be taken for separate collection by the end user.

Free collection points for old electrical equipment are available in your area for the return of the equipment, as well as other acceptance points for the reuse of the equipment, if applicable.

You can obtain the addresses from your city or local government.

Distributors with a sales area for electrical and electronic equipment of at least 400 square meters and distributors of foodstuffs with a total sales area of at least 800 square meters who offer electrical and electronic equipment several times a calendar year or on a permanent basis and make it available on the market are also obliged to take back old electrical and electronic equipment free of charge. When supplying a new electrical or electronic appliance to an end user, they must take back free of charge an old appliance of the end user of the same type that fulfils essentially the same functions as the new appliance, at the place of supply or in the immediate vicinity thereof, and, without purchasing an electrical or electronic appliance, take back free of charge at the end user's request up to three old appliances of each type that do not exceed 25 centimetres in any external dimension, in the retail store or in the immediate vicinity thereof. In the case of distribution using means of distance communication, all storage and shipping areas shall be considered as sales areas of the distributor.

If the old electrical or electronic equipment contains personal data, you are responsible for deleting this data yourself before returning it. If this is possible without destroying the old electrical or electronic equipment, please remove old batteries or rechargeable batteries as well as old lamps from it before returning it for disposal and take them to a separate collection.

Further information on the Electrical and Electronic Equipment Act can also be found on the Internet.

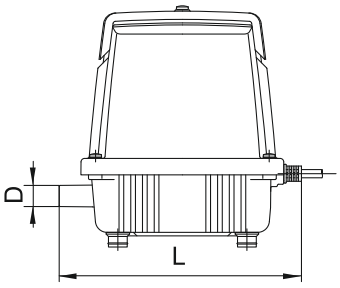
1. Model and Specifications

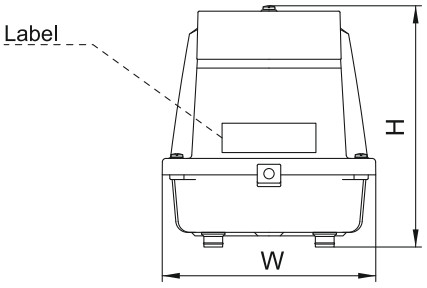
Model	LA-28B	LA-45C	LA-60B (E)	LA-80B (E)	LA-100A	LA-120A
Standard Voltage *	230V AC					
Rated Frequency	50Hz					
Rated Pressure	110mbar		150mbar		180mbar	
Operating Pressure	50 - 180mbar 0,05 - 0,18bar		50 - 200mbar 0,05 - 0,2bar		50 - 300mbar 0,05 - 0,3bar	
Rated Airflow	28l/min.	45l/min.	60l/min.	80l/min.	100l/min.	120l/min.
Power Consumption	29 W	47 W	64 W (48 W)	86 W (72 W)	100 W	130 W
Weight	2.9kg	3.0kg	5.0kg	5.3kg	9.4kg	9.4kg
IP Class	55	55	54	54	55	55

* The unit must only be operated at the voltage as indicated on the outer casing of the blower.

2. Dimensions

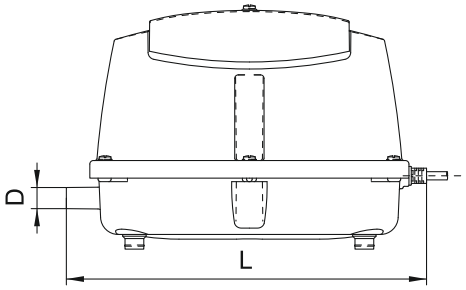
LA-28B / LA-45C

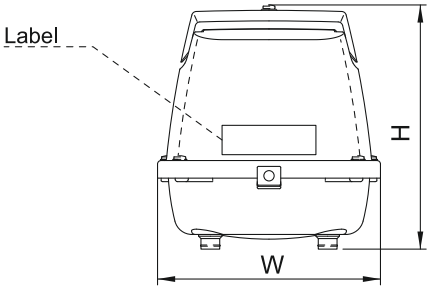




L=207mm
W=182mm
H=205mm
D=18mmOD

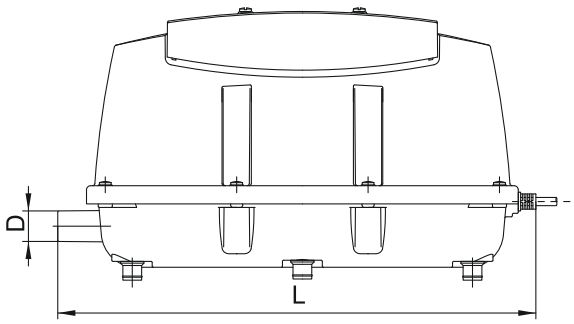
LA-60B (E) / LA-80B (E)

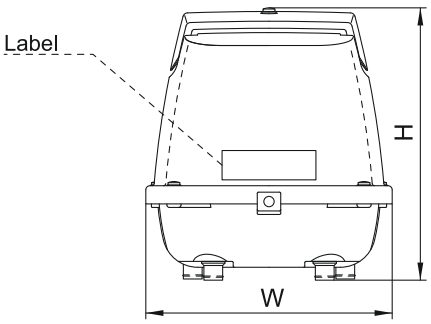




L=305mm
W=214mm
H=188mm
D=18mmAD

LA-100A / LA-120A





L=408mm
W=210mm
H=232mm
D=26mmAD

3. Safety Instruction

Explanation of Diagrammatic Expressions

The term “Attention” used in this manual is to alert you to dangers such as the following;

Term	Degree of Danger Indicated by The Term
⚠ ATTENTION	This term indicates the possibility that continuing to work while ignoring this “Attention”, or working incorrectly without full understanding, may cause personal injury or physical damage.

The Meaning of the Symbols

Symbols

⚠ This symbol advises you of an item which should BE NOTED (including Danger and Warning) and the general notes will be shown by a picture, word or explanatory text inside or along the symbol mark.

⃠ This symbol advises you of an action which must NOT BE TAKEN (IS PROHIBITED) in order to avoid danger. The general actions which must not be taken will be shown by a picture or explanatory text inside or along the symbol mark.

❗ This symbol advises you of an action which must BE TAKEN (IS MANDATORY) in order to avoid danger and the general emphasis of the action which must be taken will be shown by a picture or explanatory text inside or along the symbol mark.

Safety and Operating Instructions

The following safety precautions should always be followed to reduce the risk of breakdown and/or accident.

⚠ ATTENTION ●●● To Prevent Electric Shock And Fire

① Don’t install the blower where it will be flooded with water. ⃠

② Electrical work must be done by a qualified electrician. ❗

③ The power supply should be the rated voltage shown on the label on the blower and be fitted with an earth leakage breaker and over current breaker. ❗

④ The power outlet used should be waterproof and include an earth connected to ground. ❗

⑤ If the supply cord is damaged, it must be replaced by the manufacturer or its service agent or similarly qualified person in order to avoid a hazard. ❗

⑥ Don’t place any objects on the electric cable. ⃠

⑦ Be sure to unplug the blower before starting maintenance. ⚠

⑧ Be sure to put the Upper Case back after maintenance. ❗⚠

⑨ Don’t touch the metal part of the blower until it is cooled down as the blower runs very hot. ⃠

Ignoring any of the above may cause an electric shock, a fire or a burn.

4. Installation (Septic Tank Application)

1. Installation site selection

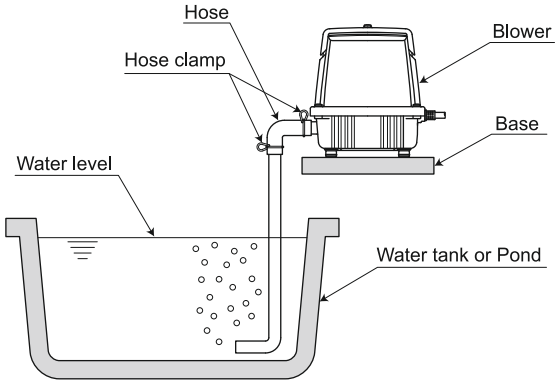
①Install our blower near the septic tank.
If the pipeline is long, the sewage treatment may not perform well due to an insufficient airflow. ⚠
②Install in a place which is convenient for maintenance. ⚠
③Don't install over a manhole or on soft ground. ⃠
④Avoid areas where wind-blown leaves and dust gathers. ⚠
⑤Install in a well ventilated place. ⚠
⑥Install at least 30cm away from the wall of a house. ⚠
⑦Installation in the shade is recommended to suppress heat generation of the blower. ⚠
⑧Don't install the blower where it will be flooded with water. Make sure that the blower is installed over the water level ot the sewage tank/aquarium to avoid any backflow of the water. If the blower is installed under the water level a backflow valve must be used. ⃠
⑨Don't install where there is excess moisture or humidity. ⃠

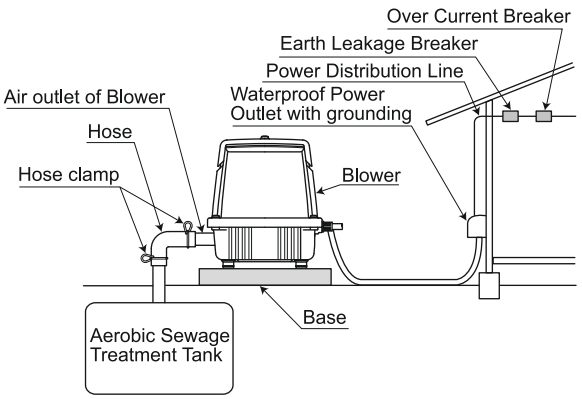
2. Method of Installation

①The base should be made of concrete strong enough to bear the weight and block vibration from the blower. ⚠
②The base should be at least 10cm above the ground level and 5cm larger than the external dimensions of the blower. ⚠
③Provide a separate power outlet to be only used for the blower. ❗
④Electrical work must be done by a qualified electrician. ❗
⑤The power supply should be the rated voltage shown on the label on the blower and be fitted with an earth leakage breaker and over-current breaker. ❗
⑥The power outlet used should be waterproof and include an earth connected to ground. ❗
⑦Place the blower horizontally on the base. ⚠
⑧A soft rubber hose must be used for connection between the air outlet of the blower and the pipe. ❗
⑨The rubber hose must be fastened with hose clamps. ❗
⑩When making the connection, level the air outlet and the pipe to ensure the hose is not kinked or blocked. ❗
⑪Before starting the operation of the blower, ensure that the water level in the septic tank is appropriate and the valves on the pipeline are properly opened. ⚠

3. Start operation

Insert the power plug into the power outlet with full contact so that the plug itself does not wobble. Incomplete connection may cause an electric shock or a fire.
After starting operation ensure that there is;
No air leakage from the hose and the pipe connection.
No abnormal noise from the blower.
No vibration transmitted to the ground due to strained piping.





5. Maintenance (Refer the sketches on the next page)

1. Cautions

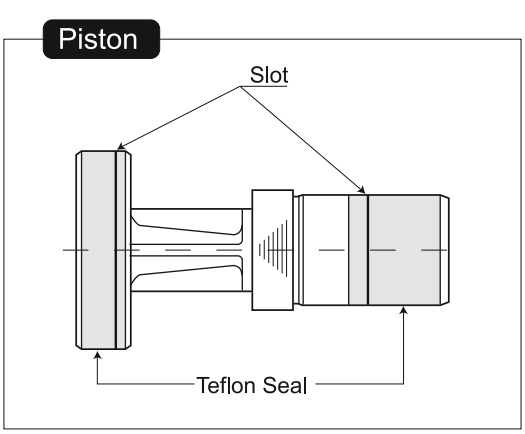
① MEDO blowers are OILLESS. Never lubricate them.
② All blowers have already been precisely adjusted. Never disassemble them.
(Do not try to loosen the Hex. bolts on the Endcap)

2. Replacement of Filter Element

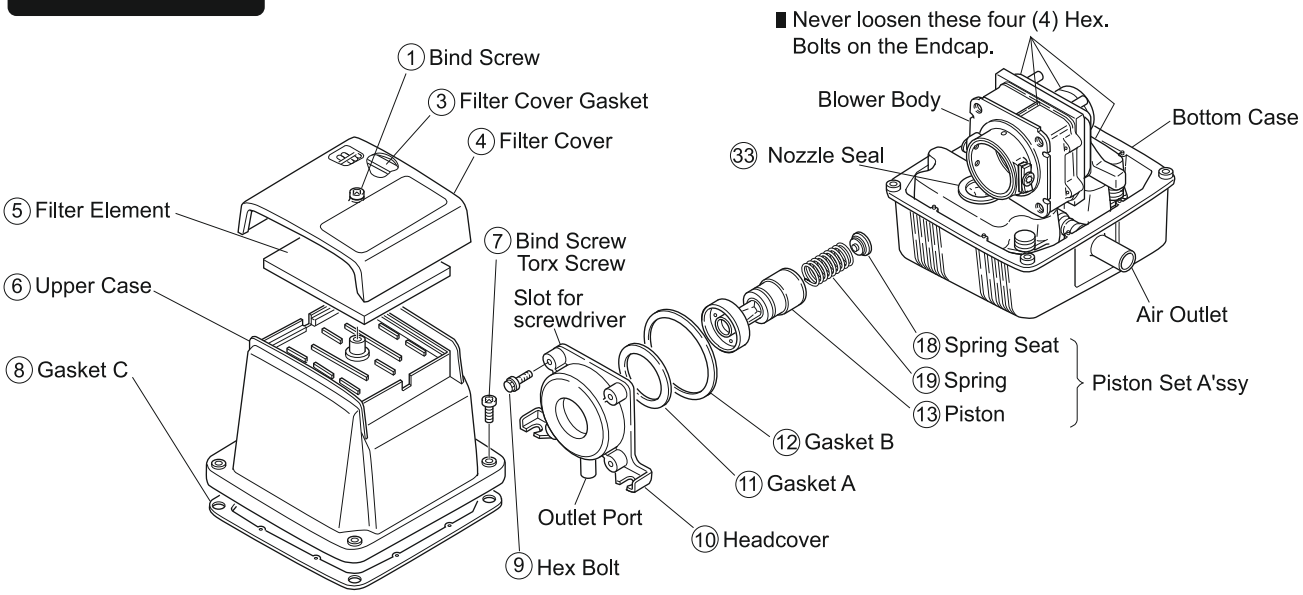
① Be sure to unplug the blower before starting the replacement work.
② Loosen the Bind Screw①and remove the Filter Cover④.
③ Remove the Filter Element(s)⑤from the Upper Case⑥and replace with new One(s). At the same time, clean the air inlet of the Filter Cover④and the Upper Case⑥.
④ Assemble the Filter Cover④with the Filter Cover Gasket③securely positioned.
⑤ Mount the Filter Cover④to the Upper Case⑥, then tighten with the Bind Screw(s)①.
⑥ Time to replace the Filter Element
It is recommended that the Filter Element(s) is cleaned or replaced with new one(s) depending on the extent of its deterioration as determined by the atomospheric conditions around the application. **The filter element(s) should be checked every three months and should be replaced yearly.**

3. Replacement of Piston Set Assy

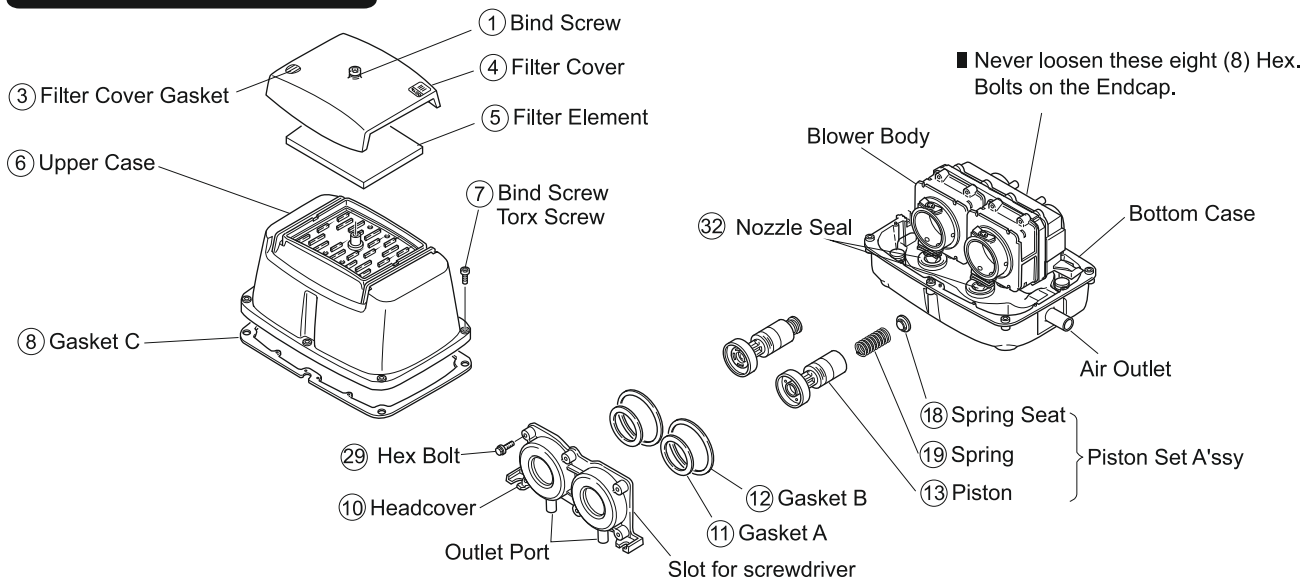
① Be sure to unplug the blower before starting the maintenance work.
② Remove the Upper Case⑥, loosen all the Hex. Bolts⑨ on the Headcover ⑩ and remove it. In case it is hard to remove the Headcover ⑩ insert a flat head screwdriver to the slot(s) on the edge of the Headcover ⑩ and twist the screwdriver gently to open.
③ Take out the Piston Set Assy(s).
④ Replace all Piston Set Assys, Gasket A ⑪ and Gasket B ⑫ with new ones.
Be sure to keep the Teflon Seal of the Piston ⑬ away from any dust, swarf, water, oil or grease. Try not to touch the Teflon Seal of the Piston ⑬ with your fingers.
⑤ Insert the Piston Set Assy(s) into the Pump Body. Install Gasket A ⑪ on the Headcover ⑩ and Gasket B ⑫ on the Pump Body, then fasten the Headcover ⑩ with the Hex. Bolts⑨.Tighten the Hex. Bolts⑨ evenly and alternately then gradually fully tighten.
⑥ Before putting the Upper Case⑥ back, start the blower and check if there is any air leakage along the Headcover ⑩ or the Nozzle Seal(s)㉝ by briefly blocking the air outlet. In case there is an air leakage along the Headcover ⑩ , re-position Gasket A ⑪ and Gasket B ⑫ then re-fasten the Hex Bolts⑨. In case there is an air leakage along the Nozzle Seal(s) ㉝ chec k if the nozzle seal is installed on the airtank properly and press the pump body down to allow the outlet port of the Headcover to catch the Nozzle Seal(s) correctly.
⑦ Put the Upper Case⑥back after installing GasketC⑧on the Bottom Case properly. Fasten the Bind Screws/Torx Screws⑦ evenly and alternately.
⑧ Piston Set Assembly replacement period
It is suggested that the Piston Set Assembly is replaced every 24 months resp. after 20.000 h depending on the extent of the blower´s pressure and airflow deterioration. There is a groove on each Teflon Seal of the Piston indicating the degree of wear. If one or both grooves are worn away, replacement of the Piston Set Assembly is recommended.



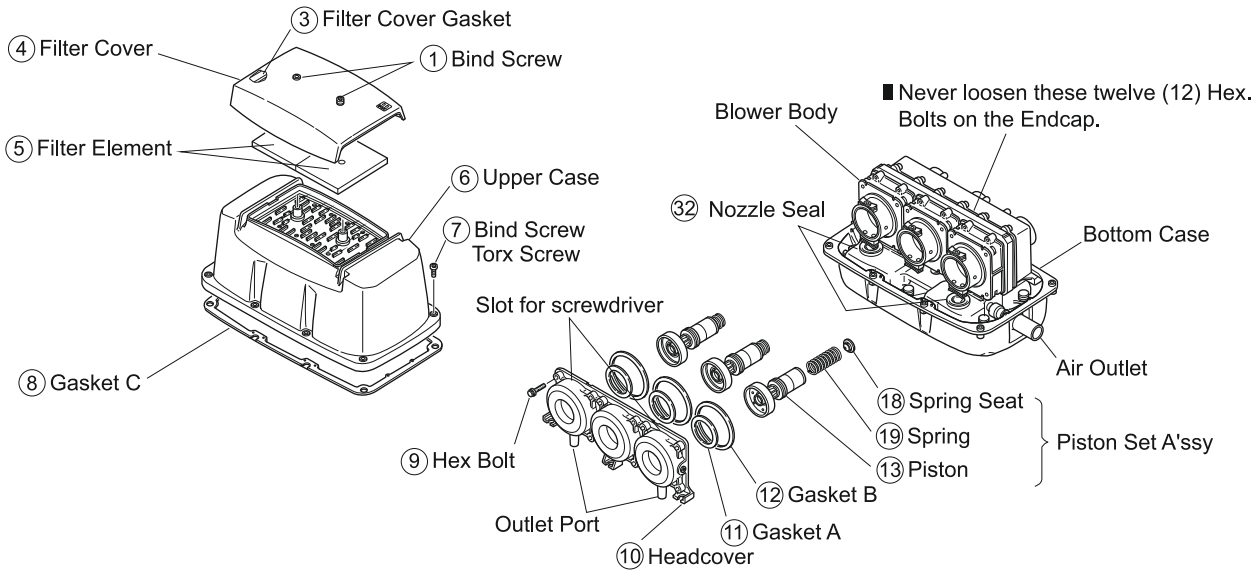
LA-28B / LA-45C



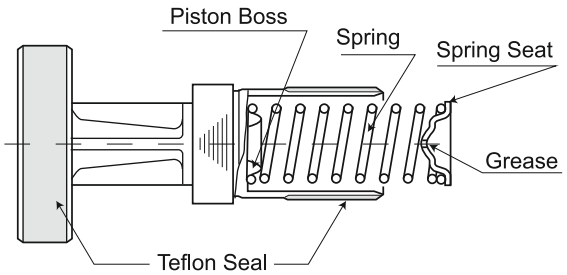
LA-60B (E) / LA-80B (E)



LA-100A / LA-120A



Piston sectional view



Cautions

- ●Locat the spring into the piston by rotating it clockwise.
- ●Check that grease is present on the convex face of the spring seat.
- ●(If no grease is present, please contact your supplier)
- ●Never use standard grease as it may cause a malfunction.
- ●Keep the Teflon Seal away from any dust, swarf, water, oil or grease.

4. Purchasing suggestion for the maintenance parts

① Filter Element

Model	Part No.	Quantity
LA-28B / LA-45C / LA-100A / LA-120A	LB02369	10 pcs.set
LA-60B (E) / LA-80B (E)	LB03937	10 pcs.set

② Repair Parts Kit

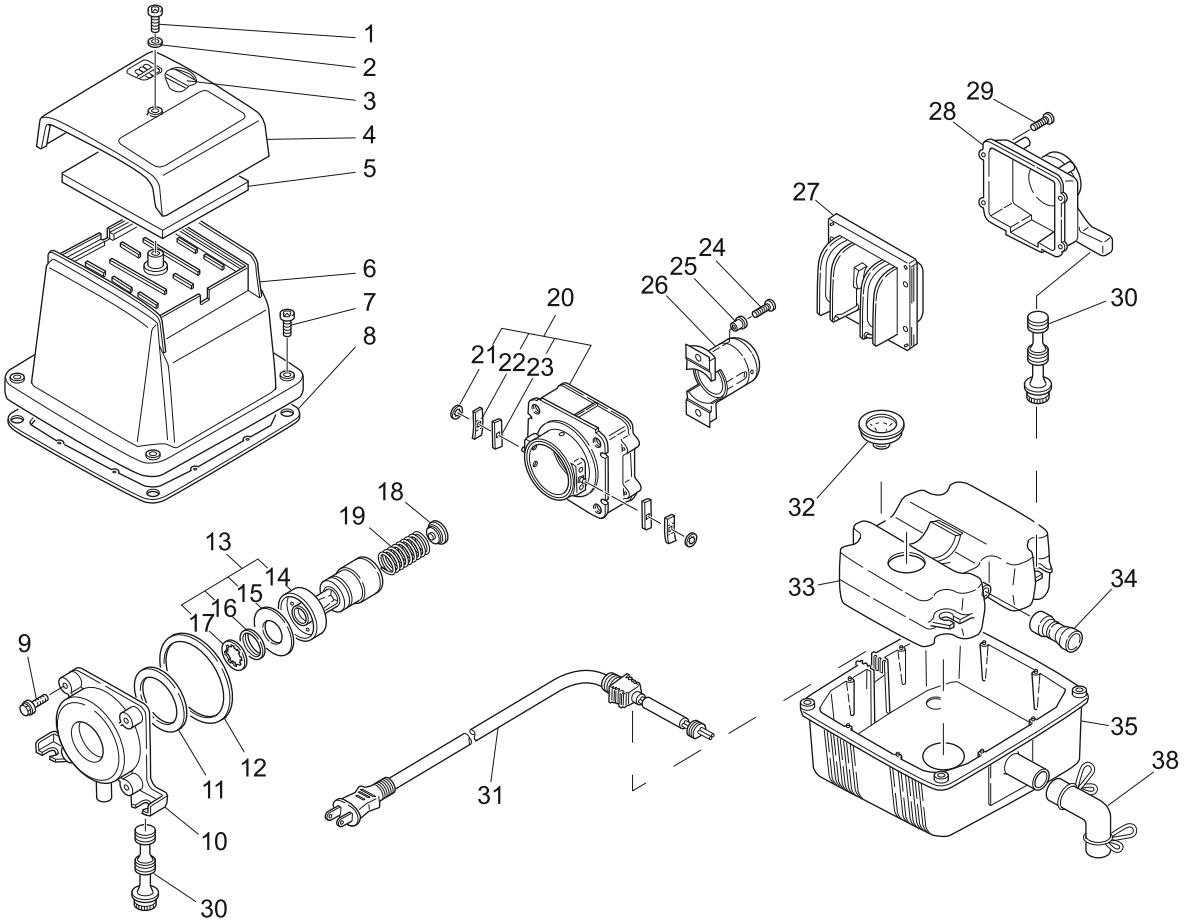
Model	Part No.	Quantity
LA-28B	LB01288	1 set
LA-45C	LB03514	1 set
LA-60B / LA-80E	LB03519	1 set
LA-60E	LB07816	1 set
LA-80B	LB03517	1 set
LA-100A/LA-120A	LB04151	1 set

③ Contents of Repair Parts Kit

Parts Included	LA-28B / LA-45C	LA-60B (E) / LA-80B (E)	LA-100A / LA-120A
⑤ Filter Element	1	1	2
⑪ Gasket A	1	2	3
⑫ Gasket B	1	2	3
⑬ Piston	1	2	3
⑱ Spring Seat	1	2	3
⑲ Spring	1	2	3

Exploded View

LA-28B/ LA-45C

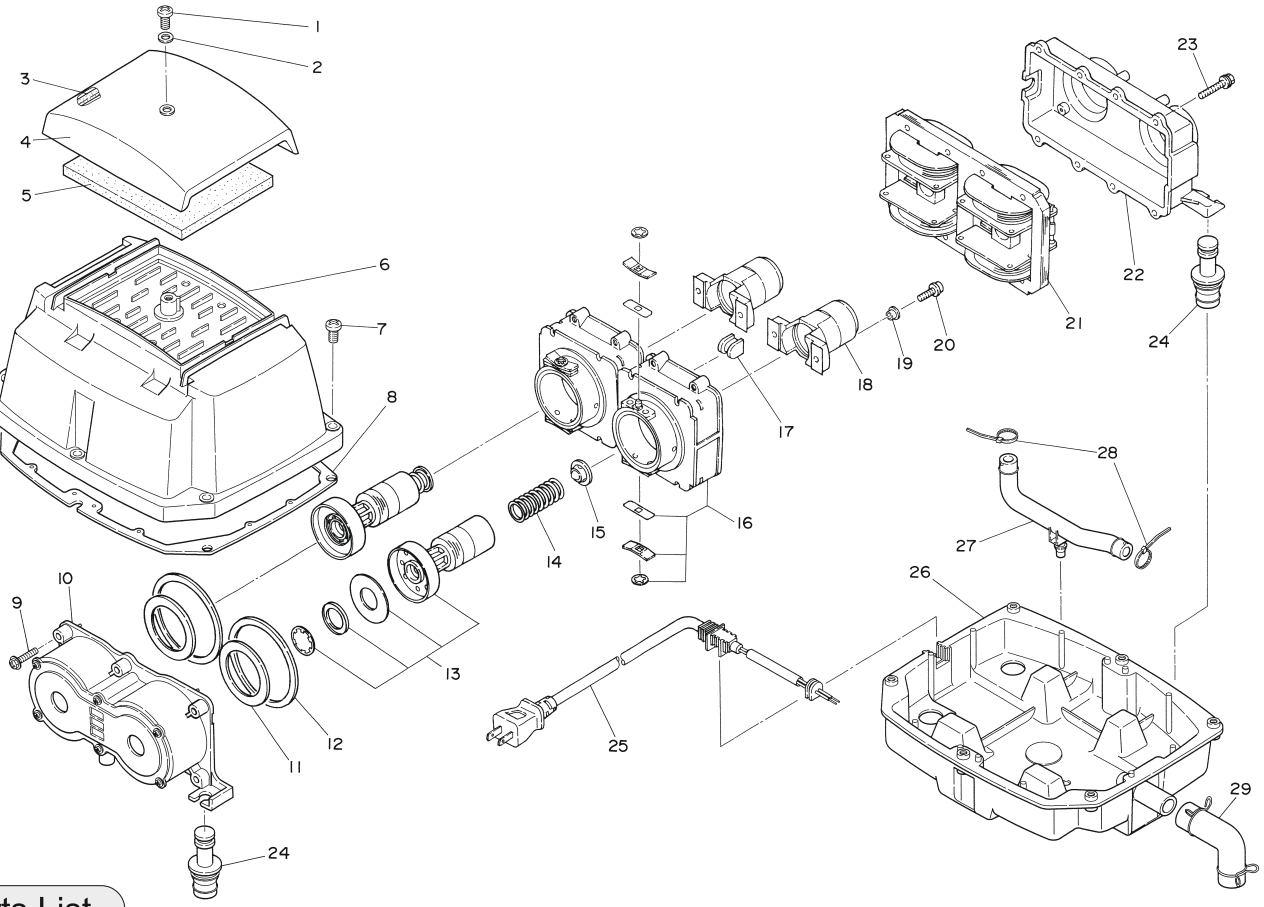


Parts List

No.	Part Name	LA28B	Q'ty	LA45C	Q'ty	No.	Part Name	LA28B	Q'ty	LA45C	Q'ty
1	Bind Screw	LP30581	1	LP30581	1	27	Field Core Assy P	LB01536	1	LB03466	1
2	Seal Washer	LP30635	2	LP30635	2		Field Core Assy Q				
3	Filter Cover Gasket	LQ02607	2	LQ02607	2		Field Core Assy E	LB04038	1	LB04028	1
4	Filter Cover	LQ02575	1	LQ02575	1	28	Endcap	LQ01052	1	LQ02892	1
5	Filter Element	LQ02605	1	LQ02605	1	29	Hex Bolt	LP31316	4	LP31316	4
6	Upper Case	LB02937	1	LB02937	1	30	Rubber Feet	LQ04256	4	LQ04256	4
7	Bind Screw UL	LP30581	4	LP30581	4	31	Cable Assy UK	LB05341	1	LB05341	1
	Torx Screw CE	LQ03082	4	LQ03082	4		Cable Assy D	LB05307	1	LB05307	1
8	Gasket C	LQ02601	1	LQ02601	1		Cable Assy A				
9	Hex Bolt	LP31316	4	LP31316	4		Cable Assy J	LQ01037	1	LQ01037	1
10	Headcover	LQ02567	1	LQ02063	1		Cable Assy UL	LB04770	1	LB04770	1
11	Gasket A	LQ01043	1	LQ01043	1	32	Nozzle Seal	LQ02598	1	LQ02598	1
12	Gasket B	LQ01042	1	LQ01042	1	33	Air Tank Assy	LB02987	1	LB02987	1
13	Piston	LA70625	1	LB03132	1	34	Joint Hose	LQ02602	1	LQ02602	1
⑭	Piston Sub Assy	LA70626	1	LB03133	1	35	Bottom Case	LB02938	1	LB02938	1
⑮	Inlet Valve	LP30916	1	LP30916	1	36	Cushion				
⑯	Valve Retainer A	LP11548	1	LP11548	1	37	Rubber Plug				
⑰	CS Ring	LP12948	1	LP12948	1	OPTION					
18	Spring Seat	LP12155	1	LP12155	1	38	Hose Assy				
19	Spring	LP30620	1	LQ02743	1			LA97475		LB03185	
20	Housing	LB03184	1	LB03184	1						
㉑	SE Ring	LP12475	2	LP12475	2						
㉒	Valve Retainer B	LP13735	2	LP13735	2						
㉓	Outlet Valve	LP10359	2	LP10359	2						
24	Screw 5 x 20	LP12599	2	LP12599	2						
25	Insulation Bush	LP10355	2	LP10355	2						
26	Rear Cylinder	LA71843	1	LA71843	1						

Exploded View

LA-60B (E) / LA-80B (E)



Parts List

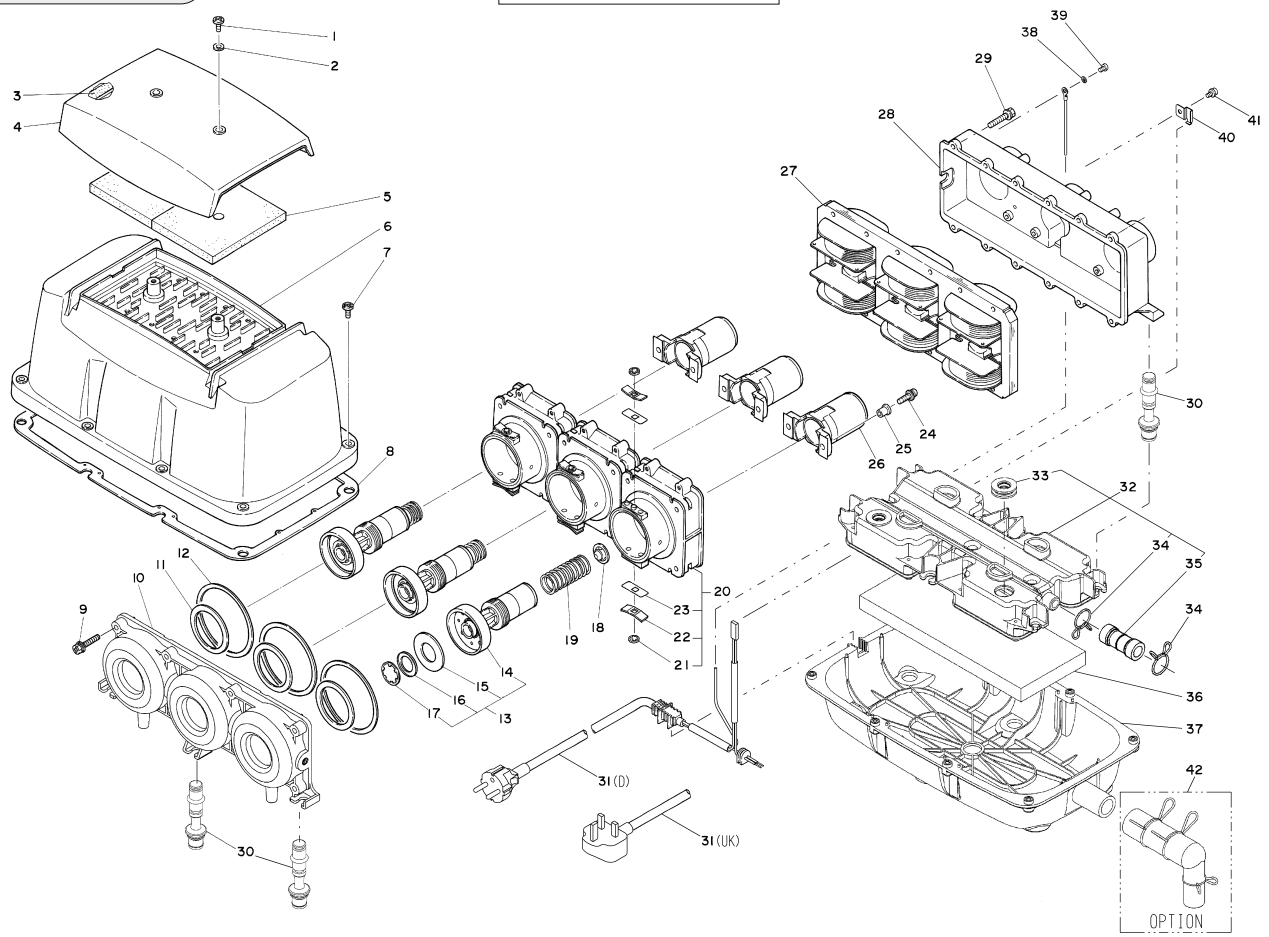
No.	Part Name	LA-60B (E)	Q'ty	LA-80B (E)	Q'ty
1	Bind Screw	LP30581	1	LP30581	1
2	Seal Washer	LP30635	2	LP30635	2
3	Filter Cover Gasket	LQ02607	2	LQ02607	2
4	Filter Cover	LB06202	1	LB06202	1
5	Filter Element	LQ02730	1	LQ02730	1
6	Upper Case	LB06203	1	LB06203	1
7	Bind Screw UL	LP30581	6	LP30581	6
	Torx Screw CE	LQ03082	6	LQ03082	6
8	Gasket C	LQ05144	1	LQ05144	1
9	Hex Bolt	LP31316	6	LP31316	6
10	Headcover Assy	LB06207	1	LB06207	1
11	Gasket A	LQ01043	2	LQ01043	2
12	Gasket B	LQ01042	2	LQ01042	2
13	Piston Assy	LB03132	2	LB03132	2
14	Spring	LP30585	2	LQ02743	2
15	Spring Seat	LP12155	2	LP12155	2
16	Housing Assy	LB03184	2	LB03184	2
17	Rubber Plug	LQ03775	1	LQ03775	1
18	Rear Cylinder	LB02443	2	LB02443	2
19	Insulation Bush	LP10355	4	LP10355	4
20	Screw 5 x 20	LP12599	4	LP12599	4
21	Field Core Assy P	LB04901	1	LB04905	1
	Field Core Assy Q	LB05126	1	LB05134	1
	Field Core Assy E	LB05099	1	LB05048	1

No.	Part Name	LA-60B (E)	Q'ty	LA-80B (E)	Q'ty
22	Endcap	LQ03767	1	LQ03767	1
	Endcap (Thermal)	LQ05321	1	LQ05321	1
23	Hex Bolt	LP31316	8	LP31316	8
24	Rubber Feet	LQ05143	4	LQ05143	4
25	Cable Assy UK	LB05341	1	LB05341	1
	Cable Assy D	LB05307	1	LB05307	1
	Cable Assy A	LB06463	1	LB06463	1
	Cable Assy J	LB00914	1	LB00914	1
	Cable Assy UL	LB04770	1	LB04770	1
26	Bottom Case	LB06205	1	LB06205	1
27	Joint Hose	LQ05142	1	LQ05142	1
28	Clamp	LP13171	2	LP13171	2
OPTION					
29	Hose Assy				

	LA97475	LB03185
	LA97475	LB03185
		

Exploded View

LA-100A/ LA-120A



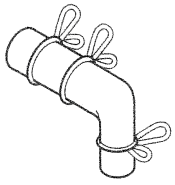
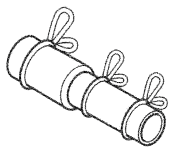
Parts List

No.	Part Name	LA100A	Q'TY	LA120A	Q'ty
1	Bind Screw	LP30581	1	LP30581	1
2	Seal Washer	LQ06102	4	LQ06102	4
3	Filter Cover Gasket	LQ03101	2	LQ03101	2
4	Filter Cover	LB03769	1	LB03769	1
5	Filter Element	LQ02605	2	LQ02605	2
6	Upper Case	LB03763	1	LB03763	1
7	Torx Screw	LQ03082	8	LQ03082	8
8	Gasket C	LQ03091	1	LQ03091	1
9	Hex Bolt	LP31316	8	LP31316	8
10	Headcover	LB03834	1	LB03834	1
11	Gasket A	LQ01399	3	LQ01399	3
12	Gasket B	LQ01400	3	LQ01400	3
13	Piston Assy	LB03779	3	LB03779	3
⑭	Piston Sub Assy	LB03780	3	LB03780	3
⑮	Inlet Valve	LQ03230	3	LQ03230	3
⑯	Valve Retainer A	LP11548	3	LP11548	3
⑰	CS Ring	LP12948	3	LP12948	3
18	Spring Seat	LP10357	3	LP10357	3
19	Spring	LQ03117	3	LQ03117	3
20	Housing	LB03778	3	LB03778	3
21	SE Ring	LP12475	6	LP12475	6
22	Valve Retainer B	LP13735	6	LP13735	6
23	Outlet Valve	LP10359	6	LP10359	6
24	Hex Bolt	LQ06011	6	LQ06011	6
25	Insulation Bush	LP10355	6	LP10355	6
26	Rear Cylinder	LB01415	3	LB01415	3

No.	Part Name	LA100A	Q'TY	LA120A	Q'ty
27	Field Core Assy	LB04909	1	LB04855	1
28	Endcap	LQ05390	1	LQ05390	1
29	Hex Bolt	LP31316	12	LP31316	12
30	Rubber Feet	LQ06227	6	LQ06227	6
31	Cable Assy D	LB07278	1	LB07278	1
	Cable Assy UK			LB07952	1
32	Air Tank Assy	LB07730	1	LB07730	1
33	Seal Rubber	LQ06226	2	LQ06226	2
34	Clamp	LP12678	2	LP12678	2
35	Joint Hose	LQ03096	1	LQ03096	1
36	Cushion	LQ03112	1	LQ03112	1
37	Bottom Case	LB03762	1	LB03762	1
38	Spring Washer	LB30144	1	LB30144	1
39	Grounding Screw	LQ01851	1	LQ01851	1
40	Thermal Bracket	LQ05320	1	LQ05320	1
41	Screw M4x8	LQ00190	1	LQ00190	1

OPTION

42 Hose Assy

LB03965	LB01070
	

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