



MEDO LA BLOWER

INSTRUCTION MANUAL

INSTALLATION & MAINTENANCE



LA-28B/LA-45B



LA-60A/LA-80A



LA-100/LA-120



LA-60B/LA-80B



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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1. Model Specifications

Model	LA-28B	LA-45B	LA-60A LA-60B	LA-80A LA-80B	LA-100	LA-120
Standard Voltage *	120V AC OR 230V AC					
Rated Frequency	50Hz/60Hz					
Rated Pressure	0.011MPa(0.11kgf/cm ²) 0.11bar		0.015MPa(0.15kgf/cm ²) 0.15bar		0.018MPa(0.18kgf/cm ²) 0.18bar	
Operating Pressure	0.005 ~ 0.015MPa (0.05 ~ 0.15kgf/cm ²) 0.05 ~ 0.15bar		0.01 ~ 0.02MPa (0.1 ~ 0.2kgf/cm ²) 0.1 ~ 0.2bar		0.013 ~ 0.023MPa (0.13 ~ 0.23kgf/cm ²) 0.13 ~ 0.23bar	
Rated Airflow	28ℓ/min.	45ℓ/min.	60ℓ/min.	80ℓ/min.	100ℓ/min.	120ℓ/min.
Power Consumption	29/25.5W	47/45W	64/60W	86/80W	100/95W	130/118W
Weight	2.8kg	3.0kg	5.0kg	5.3kg	9.4kg	9.4kg

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

2. Dimensions

LA-28B/LA-45B



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

LA-60A/LA-80A



L=307mm
W=190mm
H=208mm
D=18mmOD

LA-60B/LA-80B



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

LA-100/LA-120



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

3. Safety Instructions

Explanation of Diagrammatic Expressions

The term "Attention" as used in this manual is to alert you to dangers such as the following:

Clause



ATTENTION

The degree of Danger Indicated by 'Attention' clauses

Such clauses indicate the possibility that continuing to work while ignoring the "Attention" clause, or working with negligence, may cause personal injury or physical damage.

The Meanings of the Symbols

Symbols



This symbol advises you of an item which should **BE NOTED** (including a Danger or Warning). Accompanying notes may include a picture or explanatory text inside the triangle or next to 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 next to the symbol mark.



This symbol advises you of an action which **must BE TAKEN (IS MANDATORY)** in order to avoid danger. The action which must be taken will be shown by a picture or explanatory text inside the circle or next to the symbol mark.

Safety and Operating Instructions

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



ATTENTION . . . To Prevent Electric Shock And Fire

- 1 Don't install the blower where it may 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 earth leakage and over current breakers.
- 4 The power outlet used should be waterproof and include an earth connected to the 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 replace the Upper Case after maintenance.
- 9 Don't touch the metal part of the blower until it has cooled down as the blower runs very hot.

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

4. Installation (Septic Tank Application)

1. Installation site selection

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

2. Method of Installation

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

3. Start operation

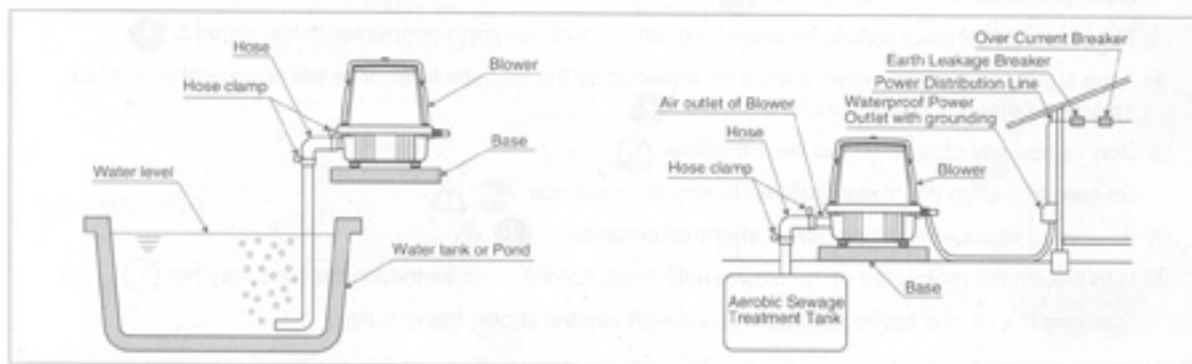
Insert the power plug all the way into the power outlet so that the plug itself does not wobble. Incomplete connection may cause an electric shock or fire.

After starting operation ensure that there is:

No air leakage from the hose and the pipe connection.

No abnormal noise from the blower.

No vibrations being transmitted through to the ground as a result of the piping being strained.



5. Maintenance (Refer to 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

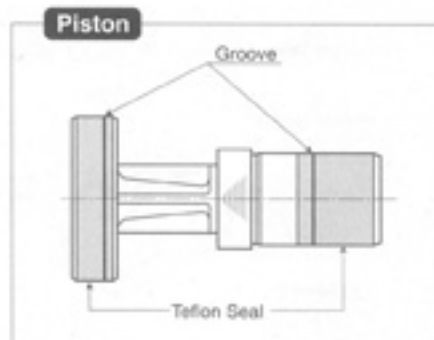
- 1 Be sure to unplug the blower before starting the replacement work. ⚠
- 2 Loosen the Bind Screw ① and remove the Filter Cover ④.
- 3 Remove the Filter Element(s) ⑤ from the Upper Case ⑥ and replace it with new One(s). At the same time, clean the air inlet of the Filter Cover ④ and the Upper Case ⑥.
- 4 Assemble the Filter Cover ④ with the Filter Cover Gasket ③ securely positioned.
- 5 Mount the Filter Cover ④ on to the Upper Case ⑥, then tighten with the Bind Screw(s) ①.
- 6 **Filter Element replacement Period**

It is recommended that the Filter Element(s) is cleaned or replaced with a new one(s) depending on the extent of its deterioration as determined by the atmospheric conditions around the application. The filter element(s) should be checked every three months.

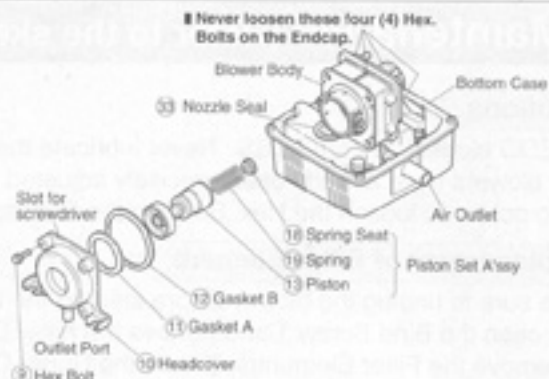
3. Replacement of Piston Set Assembly

- 1 Be sure to unplug the blower before starting the maintenance work. ⚠
- 2 Remove the Upper Case ⑥, loosen all the Hex. Bolts ⑨ on the Headcover ⑩ and remove it. In case it is hard to remove the Headcover ⑩ insert a flat head screwdriver into the slot(s) at the edge of the Headcover ⑩ and twist the screwdriver gently to open.
- 3 Take out the Piston Set Assembly(s).
- 4 Replace all Piston Set Assemblies, 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 Assembly(s) into the Pump Body. Position Gasket A ⑪ on the Headcover ⑩ and Gasket B ⑫ on the Pump Body, then fasten the Headcover ⑩ with the Hex. Bolts ⑨. Tighten the Hex. Bolts ⑨ evenly and alternately then gradually tighten them fully.
- 6 Before putting the Upper Case ⑥ back, start the blower and check if there is any air leakage around the Headcover ⑩ or the Nozzle Seal(s) ⑳ by briefly blocking the air outlet. If there is an air leakage around the Headcover ⑩, re-position Gasket A ⑪ and Gasket B ⑫ then re-fasten the Hex Bolts ⑨. If there is an air leakage around the Nozzle Seal(s) ⑳ check if the nozzle seal is properly positioned on the airtank 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 Case ⑥ back after installing Gasket C ⑧ on the Bottom Case properly. Fasten the Bind Screws/Torx Screws ⑦ evenly and alternately.
- 8 **Piston Set Assembly replacement period**

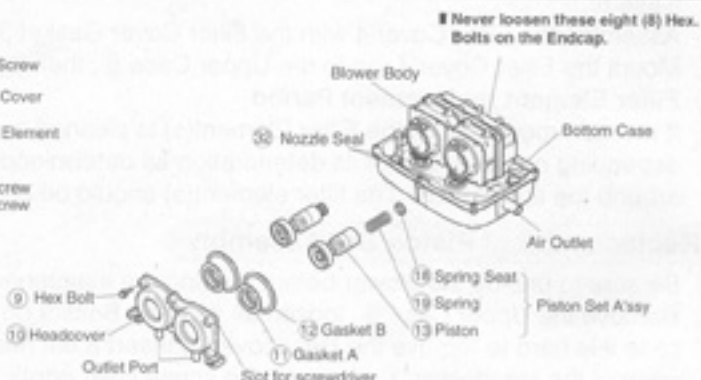
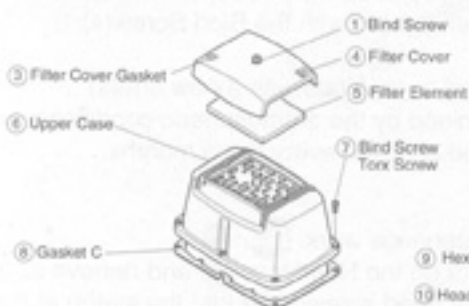
It is suggested that the Piston Set Assembly is replaced every 12 to 24 months depending on the extent of the blower's pressure and airflow deterioration. There is a groove on each Teflon Seal of the Piston indicating the degree of wear. If one or both grooves are worn away, replacement of the Piston Set Assembly is recommended.



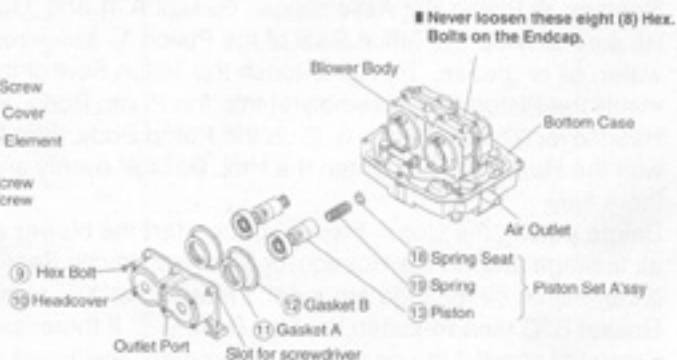
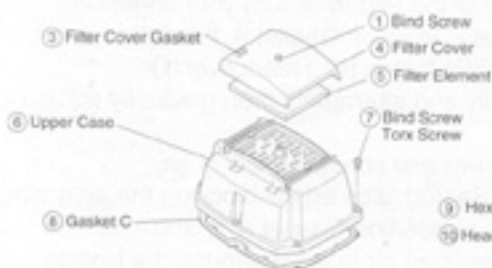
LA-28B/LA-45B



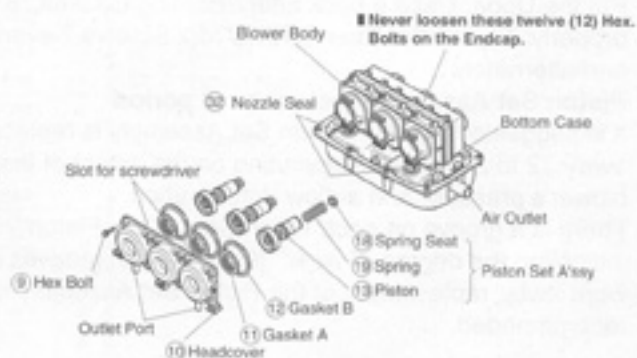
LA-60A/LA-80A



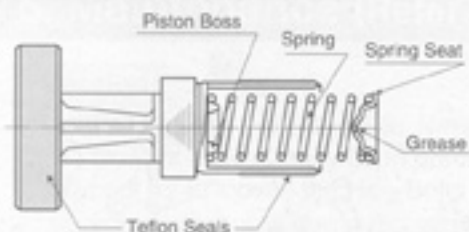
LA-60B/LA-80B



LA-100/LA-120



Piston cross-sectional view



Cautions

- Fix 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. Recommended maintenance parts

① Filter Element

Model	Part No.	Quantity	Part No.	Quantity
LA-28B/LA-45B/LA-100/LA-120	LB02369	10pcs.set	LQ02605	1 pc.
LA-60A/LA-80A/LA-60B/LA-80B	LB03937	10pcs.set	LQ02730	1 pc.

② Repair Parts Kit

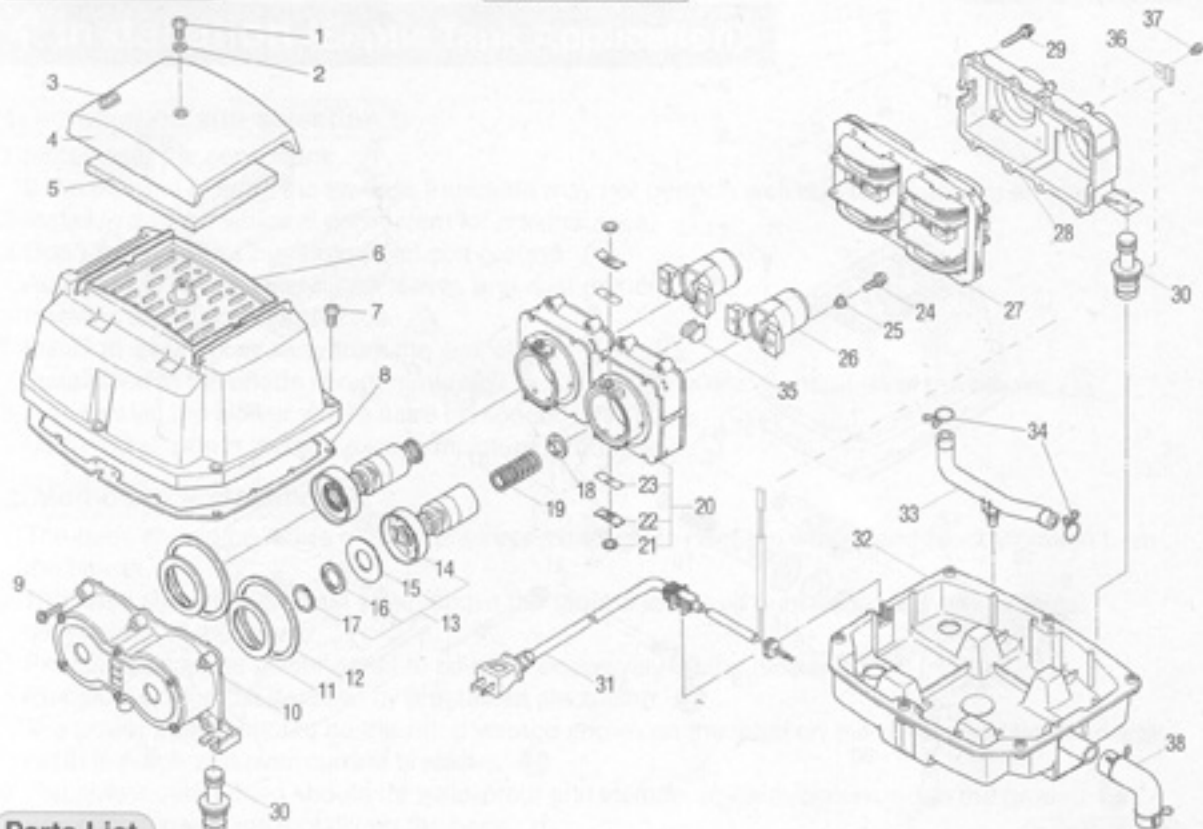
Model	Part No.	Quantity
LA-28B	LB01288	1 set
LA-45B	LB03514	1 set
LA-60A/LA-60B	LB03519	1 set
LA-80A/LA-80B	LB03517	1 set
LA-100/LA-120	LB04151	1 set

③ Contents of Repair Parts Kit

Parts Included	LA-28B/LA-45B	LA-60A/LA-80A/LA-60B/LA-80B	LA-100/LA-120
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-60B/LA-80B

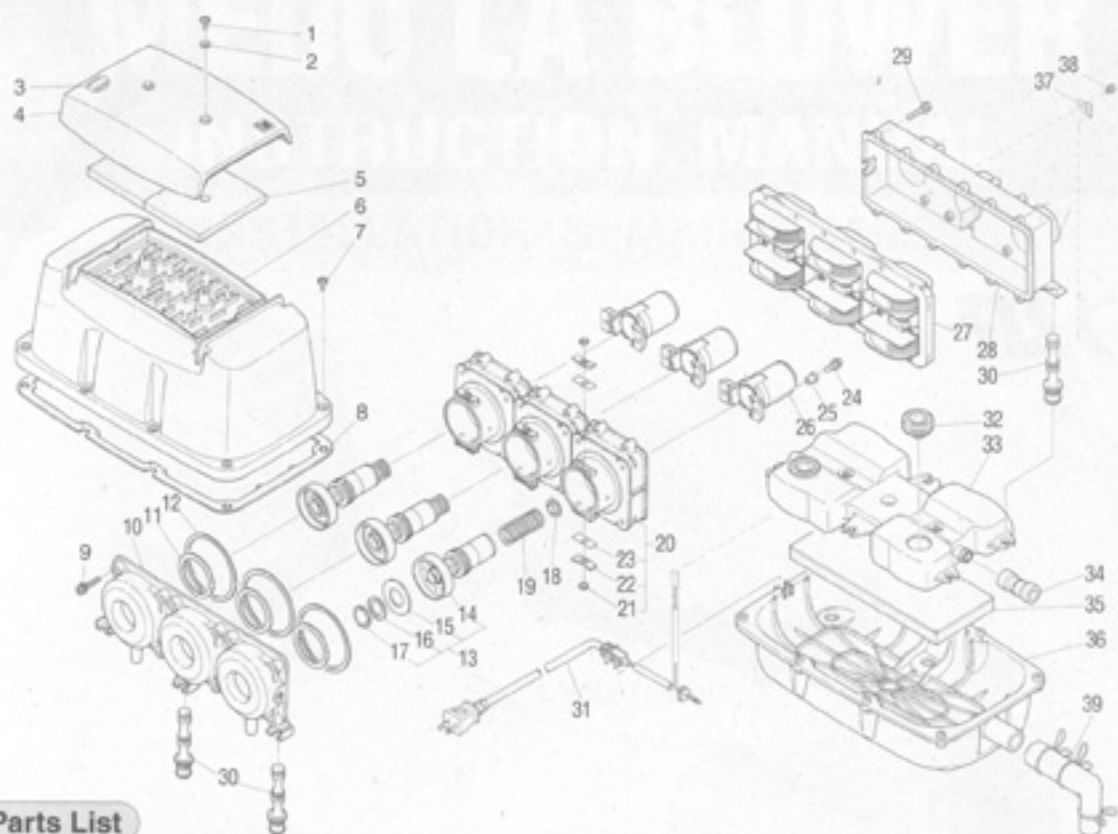


Parts List

No.	Part Name	LA-60B	Q'ty	LA-80B	Q'ty	No.	Part Name	LA-60B	Q'ty	LA-80B	Q'ty
1	Bind Screw	LP30581	1	LP30581	1	27	Field Core Assy P	LB04901	1	LB04905	1
2	Seal Washer	LP30635	2	LP30635	2		Field Core Assy Q	LB05126	1	LB05134	1
3	Filter Cover Gasket	LQ02607	2	LQ02607	2		Field Core Assy E	LB05099	1	LB05048	1
4	Filter Cover	LB06202	1	LB06202	1	28	Endcap	LQ03767	1	LQ03767	1
5	Filter Element	LQ02730	1	LQ02730	1		Endcap (Thermal)	LQ05321	1	LQ05321	1
6	Upper Case	LB06203	1	LB06203	1	29	Hex Bolt	LP31316	8	LP31316	8
7	Bind Screw UL	LP30581	6	LP30581	6	30	Rubber Feet	LQ05143	4	LQ05143	4
	Torx Screw CE	LQ03082	6	LQ03082	6	31	Cable Assy UK	LB06592	1	LB06592	1
8	Gasket C	LQ05144	1	LQ05144	1		Cable Assy D	LB06597	1	LB06597	1
9	Hex Bolt	LP31316	6	LP31316	6		Cable Assy A	LB06463	1	LB06463	1
10	Headcover Assy	LB06207	1	LB06207	1		Cable Assy J	LB06640	1	LB06640	1
11	Gasket A	LQ01043	2	LQ01043	2		Cable Assy UL	LB06691	1	LB06691	1
12	Gasket B	LQ01042	2	LQ01042	2	32	Bottom Case	LB06205	1	LB06205	1
13	Piston Assy	LB03132	2	LB03132	2	33	Joint Hose	LQ05142	1	LQ05142	1
14	Piston Sub Assy	LB03133	2	LB03133	2	34	Clamp	LQ05398	2	LQ05398	2
15	Inlet Valve	LP30916	2	LP30916	2	35	Rubber Plug	LQ03775	1	LQ03775	1
16	Valve Retainer A	LP11548	2	LP11548	2	36	Thermal Bracket	LQ05320	1	LQ05320	1
17	CS Ring	LP12948	2	LP12948	2	37	Screw 4 x 8	LQ00190	1	LQ00190	1
18	Spring Seat	LP12155	2	LP12155	2	OPTION					
19	Spring	LP30585	2	LQ02743	2	38	Hose Assy				
20	Housing	LB03184	2	LB03184	2		LA97475			LB03185	
21	SE Ring	LP12475	4	LP12475	4						
22	Valve Retainer B	LP13735	4	LP13735	4						
23	Outlet Valve	LP10359	4	LP10359	4						
24	Screw 5 x 20	LP12599	4	LP12599	4						
25	Insulation Bush	LP10355	4	LP10355	4						
26	Rear Cylinder	LB02443	2	LB02443	2						

Exploded View

LA-100/LA-120



Parts List

No.	Part Name	LA-100	Qty	LA-120	Qty	No.	Part Name	LA-100	Qty	LA-120	Qty
1	Bind Screw	LP30581	2	LP30581	2	27	Field Core Assy P	LB04855	1	LB04909	1
2	Seal Washer	LP30635	4	LP30635	4		Field Core Assy Q			LB04280	1
3	Filter Cover Gasket	LQ03101	2	LQ03101	2		Field Core Assy E	LB04180	1	LB04171	1
4	Filter Cover	LB03769	1	LB03769	1	28	Endcap	LQ03108	1	LQ03108	1
5	Filter Element	LQ02605	2	LQ02605	2		Endcap (Thermal)	LQ05390	1	LQ05390	1
6	Upper Case	LB03763	1	LB03763	1	29	Hex Bolt	LP31316	12	LP31316	12
7	Bind Screw UL	LP30581	8	LP30581	8	30	Rubber Feet	LQ03089	6	LQ03089	6
	Torx Screw CE	LQ03082	8	LQ03082	8	31	Cable Assy UK	LB06592	1	LB06592	1
8	Gasket C	LQ03091	1	LQ03091	1		Cable Assy D	LB06597	1	LB06597	1
9	Hex Bolt	LP31316	12	LP31316	12		Cable Assy A	LB06463	1	LB06463	1
10	Headcover	LB03834	1	LB03834	1		Cable Assy J	LB06640	1	LB06640	1
11	Gasket A	LQ01399	3	LQ01399	3		Cable Assy UL	LB06691	1	LB06691	1
12	Gasket B	LQ01400	3	LQ01400	3	32	Nozzle Seal	LQ02598	2	LQ02598	2
13	Piston Assy	LB03779	3	LB03779	3	33	Air Tank Assy	LB03771	1	LB03771	1
14	Piston Sub Assy	LB03780	3	LB03780	3	34	Joint Hose	LQ03096	1	LQ03096	1
15	Inlet Valve	LQ03230	3	LQ03230	3	35	Cushion	LQ03112	1	LQ03112	1
16	Valve Retainer A	LP11548	3	LP11548	3	36	Bottom Case	LB03762	1	LB03762	1
17	CS Ring	LP12948	3	LP12948	3	37	Thermal Bracket	LQ05320	1	LQ05320	1
18	Spring Seat	LP10357	3	LP10357	3	38	Screw 4 x 8	LQ00190	1	LQ00190	1
19	Spring	LQ03117	3	LQ03117	3	OPTION					
20	Housing	LB03778	3	LB03778	3	39	Hose Assy				
21	SE Ring	LP12475	6	LP12475	6		LB04119	LB03965	LB01070		
22	Valve Retainer B	LP13735	6	LP13735	6						
23	Outlet Valve	LP10359	6	LP10359	6						
24	Screw 5 x 20	LP12599	6	LP12599	6						
25	Insulation Bush	LP10355	6	LP10355	6						
26	Rear Cylinder	LB01415	3	LB01415	3						