This manual contains important warnings and information. READ AND KEEP FOR REFERENCE.

LIQUIDYNAMICS
115 VAC and 230 VAC
SUBMERSED IMPELLER PUMP/MOTOR ASSEMBLIES

Instruction & Parts Manual

This manual covers the following pump/motors

P/N 195102-40
Drum Length Pump 40", 115 VAC

P/N 195105-40
Drum Length Pump 40", 230 VAC

P/N 195102-48
IBC Tote Length Pump 48", 115 VAC

P/N 195105-48
IBC Tote Length Pump 48", 230 VAC

LIQUIDYNAMICS™
VALUE WORLDWIDE

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Introduction

This manual pertains to P/N 195102 and P/N 195105 series pump/motors. Lyuidynamics, Inc. thanks you for choosing our products. We believe that the use of our products will be fully satisfactory. When properly installed and operated, your Liquidynamics, Inc. motor and pump will provide long, trouble-free service; therefore, please read this manual carefully before carrying out any operations on the pump/motor unit. Any use other than that described herein is considered incorrect; consequently, Liquidynamics, Inc. shall not be held responsible for any damages to people or things. In case of doubt or enquiries, please apply to our Technical Service department directly at the following address:

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Safety

1. Introduction

This manual contains all the information needed for the correct installation, use and maintenance of your new Liquidynamics Pump Assembly. It should be read and understood by all the personnel involved in installation, operating and servicing of the pump before it is started.

2. Operator Qualification and Training

The personnel in charge of the installation, operation and maintenance of the pump/motor must be qualified and able to perform the operations described in this manual. Liquidynamics, Inc. shall not be held responsible for the training level of personnel and for the fact that they are not fully aware of the contents of this manual.

3. Safety Instructions

⚠ CAUTION

FOR YOUR OWN SAFETY

BEFORE using or servicing your pump, please make sure to wear the proper clothing, eye protection and follow standard safety procedures when handling corrosive or personally harmful materials.

⚠ WARNING

GENERAL DANGER

NEVER use a plastic pump or an open, splash-proof, TEFC or non-ATEX motor when pumping or mixing flammable or combustible material.

ALWAYS use and store the pump and motor in an upright position.

⚠ WARNING

DANGER: POWER SUPPLY

NEVER perform any maintenance operation on the motor while it is running or before it has been disconnected from the power supply. Avoid any possible hazard that might be caused by electric power.

ALWAYS check the electrical specifications on the motor data plate and make sure they correspond to the power supply to which it will be connected.

ALWAYS place motor in the OFF position prior to connecting the power source.

NEVER immerse the motor in liquid.

4. Noise Level

P/N 195102 and P/N 195105 series pump/motors in normal operating conditions produce a sound level equal to or less than 74 dBA at a distance of three feet (~ one meter).

5. Modifications and Spare Parts

It is recommended to use only genuine Liquidynamics, Inc. spare parts and approved accessories. The use of non-original spare parts or non-approved accessories will void warranty and remove any responsibility on the manufacturer's behalf for any damage caused to people or things.

INSTALLATION

1. Unpack motor and pump tube from carton. Check for shipping damage. If damage is detected, save the packaging and notify the carrier immediately.


Fig. 1

2. Motor and pump tube are boxed separately, the motor will need to be fastened to the pump tube. See figure 1.

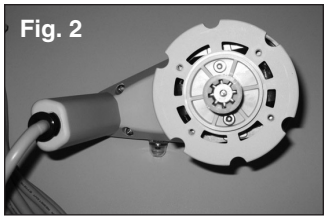


Fig. 2

3. Place the motor upside down on a tabletop surface with the coupling facing upwards and place the yellow coupling insert (item 1 from the pump exploded view figure) onto the motor's coupling. See figures 2.

4. Position the pump tube upside down onto the motor. Align the discharge spout of the pump facing away from the handle of the motor. See figure 3.

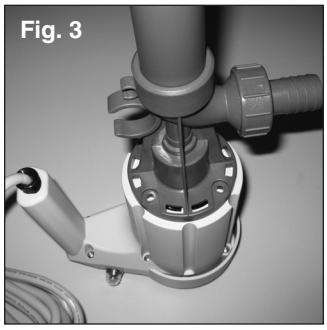


Fig. 3

5. Firmly press the pump tube onto the motor until it is fully seated. A slight twist may be necessary for the coupling splines to line up properly.

6. Align the 4 bolt holes in the pump to the 4 holes in the motor, and fasten with 4 flat washers (item 7) and 4 screws (item 8). Tighten using a # 2 Phillips head screwdriver. See figure 4. [Hand-tighten, being careful not to over-torque and strip the plastic.]

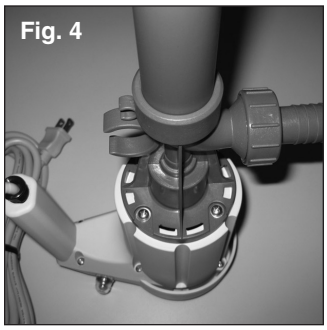


Fig. 4

7. Using a SS hose clamp, secure a ¾" ID chemically compatible reinforced hose to the discharge spout of the pump.

OPERATION

Electric motor – Check that the motor switch is in the center "O" OFF position, and then plug the power cord into an outlet. Insert the pump tube into the fluid to be dispensed and the discharge hose into the container to be filled. While holding the motor handle and hose, switch the motor to the "I" low speed. The fluid will begin to pump. If more flow is desired, switch the motor to the "II" high speed setting. See figure 5. If the motor stops working and the reset button has popped out, press the switch to the off position "O". Review your application to make sure it is within the capabilities of the pump (reset button pops typically due to an overloading situation). Allow the motor to cool down for at least 30 minutes and then press in the reset button located on the side of the motor handle. See figure 5.

Fig. 5

Pump – The P/N 195102 and P/N 195105 series model pumps have a built in hose & cord clip. You can use these clips to store your hose and keep the plug off the floor free of damage & corrosion. When selecting a discharge hose you should use a ¾" ID reinforced chemically compatible hose secured with a SS hose clamp. See figures 6 and 7 below.


Fig. 6

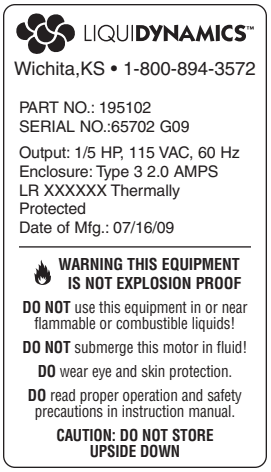

Fig. 7

Motor Specifications – Electric Motors (2 speed)

	P/N 195102	P/N 195105
Nominal Voltage	115 Volts	230 Volts
Hertz	60	50/60
Rated Amps	2.0 Amps	1.1 Amps
Input Power	1/3 HP (230 Watts)	250 Watts
Duty Cycle	Continuous	Continuous
RPM (low / high speed)	8,000 / 14,000	8,000 / 14,000
Max Flow	17.0 GPM (64 l/m)	17.0 GPM (64 l/m)
Max Head	20 ft. (6M)	20 ft. (6M)
Enclosure	Double Insulated, ENC 3 Splash-Proof	Double Insulated, IP24 Splash-Proof
Certificates or Approvals		

Electric Motor Identification

P/N 195102 Sample Label

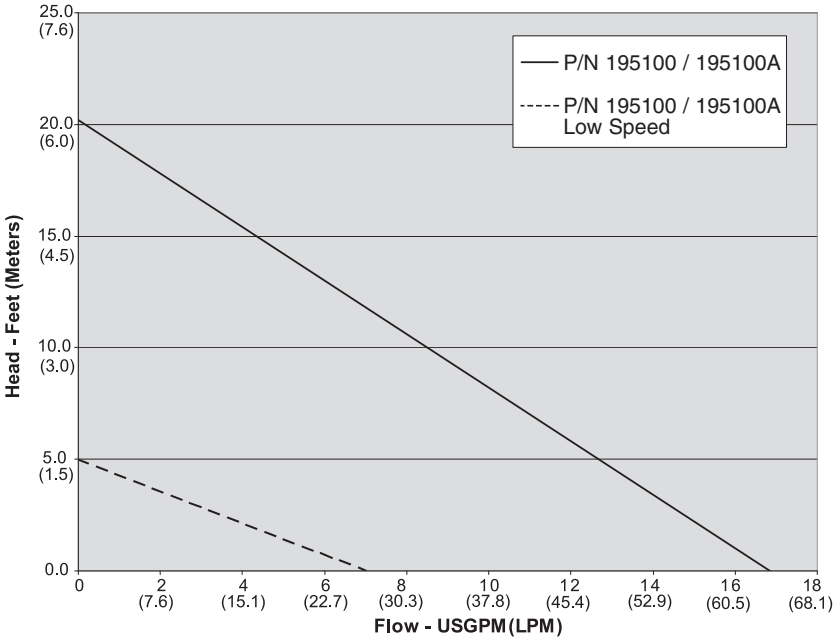


Pump Specifications

	P/N 195101
Outer Tube Diameter	1.27” (32 mm)
Discharge Spout	3/4” Barb
Discharge Thread	1” NPT
Max. Specific Gravity	1.2
Max. Viscosity	300 cP
Min. / Max. Fluid Temp	0°F Min. to 150°F Max. -18°C Min. to 66°C Max.
Wetted Materials	Polypropylene, FKM, PTFE, ETEF, 316 SS

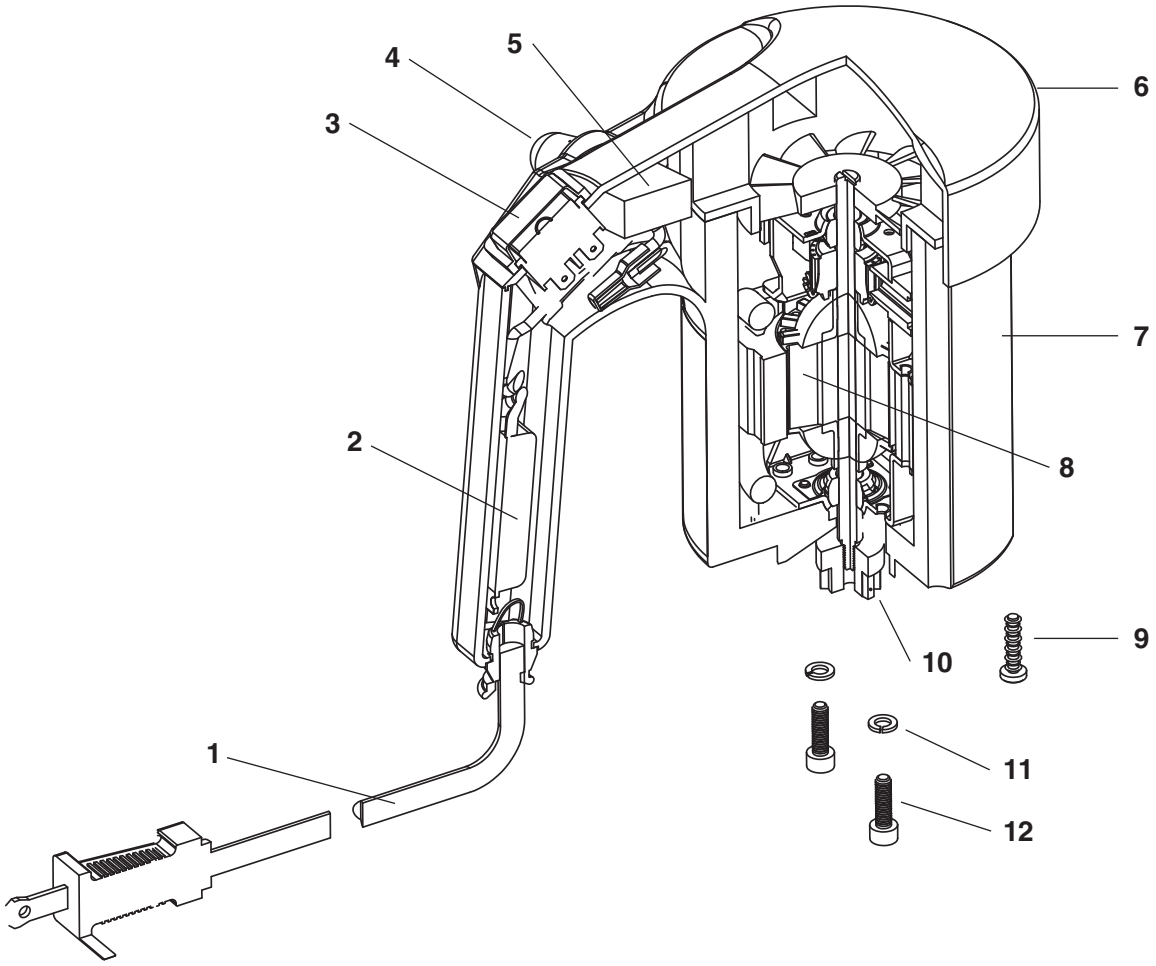
P/N 195102/195105 Performance

Note: All testing was performed with water at 68°F. Actual performance can vary by +/- 10%. Actual performance will decrease with increased fluid viscosity and specific gravity. Viscosity and performance are based on electric motor at high speed.



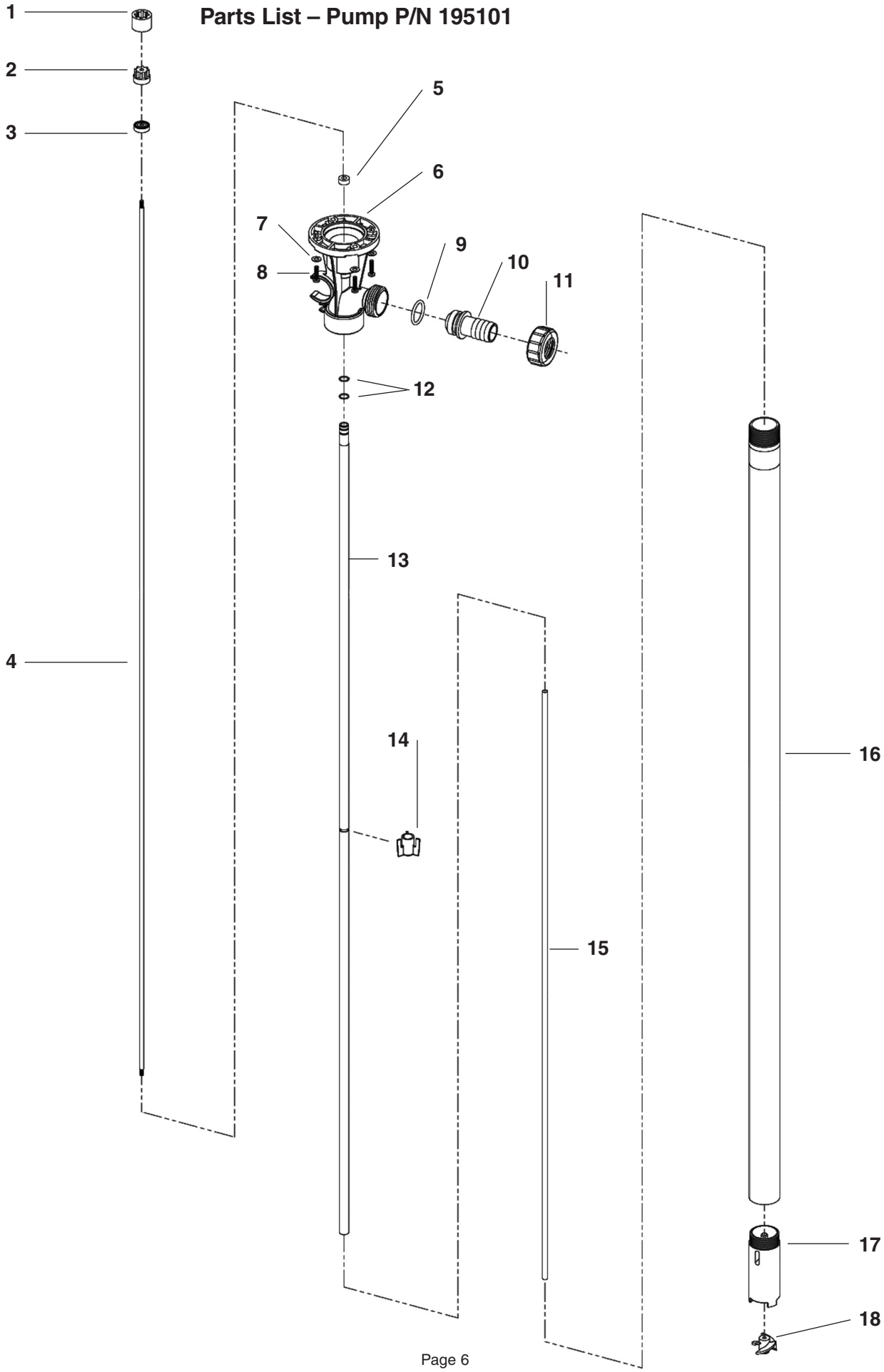
Viscosity	100 cP		200 cP		300 cP	
Max. Flow	7 gpm	27 lpm	5 gpm	19 lpm	3.7 gpm	14 lpm
Max. Head	16 feet (4.9m)					

Parts List – Electric Motors P/N 195100 and P/N 195100A



ITEM	DESCRIPTION	QTY.	PART NUMBER	
			P/N 195100	P/N 195100A
1	115V US CORD	1	107215	N/A
1	230V EU CORD	1	N/A	107216
2	TRIAC ASSEMBLY - 115V	1	107265-1	N/A
2	TRIAC ASSEMBLY - 230V	1	N/A	107265-2
3	ON/OFF SWITCH	1	107304	107304
4	CIRCUIT BREAKER COVER	1	J100789	J100789
5	CIRCUIT BREAKER - 115v	1	107326	N/A
5	CIRCUIT BREAKER - 230v	1	N/A	107327
6	MOTOR COVER	1	107065	107065
7	MOTOR CANISTER	1	107066	107066
8	MOTOR - 115V	1	107301	N/A
8	MOTOR - 230V	1	N/A	107302
9	HI-LOW SCREW - SS	6	J101020	J101020
10	COUPLING HALF	1	107300	107300
11	LOCK WASHER - SS	2	106322	106322
12	SOCKET HEAD CAP SCREW - SS	2	107303	107303

Parts List – Pump P/N 195101



ITEM	DESCRIPTION	QTY.	PART NO.
*1	COUPLING INSERT	1	J103422
2	COUPLING HALF	1	107300
*3	BEARING	1	107298
4	SHAFT - 316 SS - 40”	1	107296-5
4	SHAFT - 316 SS - 48”	1	107296-7
*5	SEAL - VITON®	1	107297
6	HEAD - PP	1	107071-1
7	FLAT WASHER - SS	4	J103601
8	HI-LOW SCREW - SS	4	J101020
*9	SPOUT O-RING - VITON®	1	106155
10	SPOUT - PP	1	107072-1
10	SPOUT - PVDF	1	N/A
11	NUT - PP	1	107069-1
11	NUT - PVDF	1	N/A
*12	O-RING - VITON®	2	107299
13	INNER TUBE - PURE PP or 316SS - 40”	1	107294-3
13	INNER TUBE - PURE PP or 316SS - 48”	1	107294-4
*14	CENTER SUPPORT - Tefzel® (ETFE) - 40” & 48” LENGTHS ONLY	1	107068
*15	SHAFT SLEEVE - PTFE - 40”	1	107293-3
*15	SHAFT SLEEVE - PTFE - 48”	1	107293-4
16	OUTER TUBE - EFP - 40”	1	107295-5
16	OUTER TUBE w / HEAD - EPS - 40”	1	N/A
16	OUTER TUBE - EFP - 48”	1	107295-7
16	OUTER TUBE w / HEAD - EPS - 48”	1	N/A
*17	DIFFUSER - PP	1	107070-1
*18	IMPELLER - PP	1	107067-1

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