**LP15-6 series****PRODUCT MANUAL**
SUPPORT CUSTOMIZATION

Thank you for choosing pump head supporting related products. Please read this manual carefully before installation and use. Please follow the warnings and precautions marked in the product manual.

V1.0

Important information

Please read this product instruction manual carefully before using the product!

The contents of this product instruction manual are for reference only.

Chuangrui Pump Industry reserves the right to change the product (design or specification) without prior notice.

Safety warning

- Before any cleaning or maintenance work, be sure to cut off the power supply.



- * This instruction manual is applicable to pump head supporting related products. All pump head supporting related products derived from this series can also be implemented with reference.

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Product description

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Product maintenance and after sales

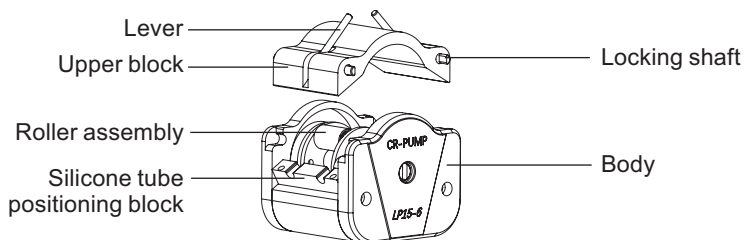
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Product description

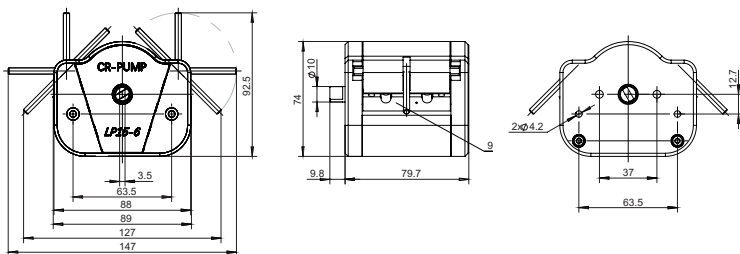
Product description

LP15-6 series provides large flow packaging. The shell is made of aluminum alloy, which is high in strength and corrosion-resistant. It adopts a multi-roller design and can be equipped with a "Y" type hose to effectively reduce pulsation, make the transmission more stable, and adapt to hoses of different wall thicknesses. It has a wide flow range and is more practical.

• LP15-6 Pump head structure

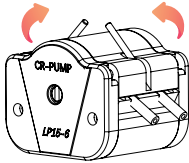


• LP15-6 Pump head size

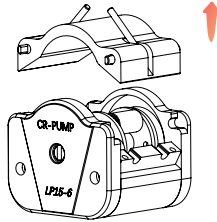


LP15-6 size:127x89.5x74 mm

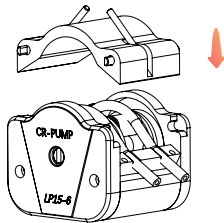
• LP15-6 Pump tube installation



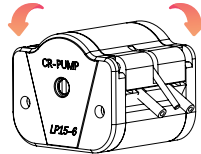
1. Lift the levers on both sides



2. Remove the upper clamp assembly

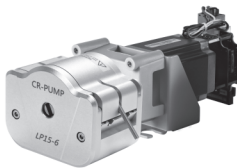


3. Secure the hose into the groove of the positioning block

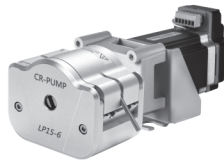


4. Install the upper pressure block assembly

UCP321 adapt stepper motor parameters



With driver



Without driver

• Product parameters

Pump head	LP15-6
Channels	2
Rollers	6
Applicable hose	13#、14#、19#、16#、25#、17#、18#
Max flow	4560mL/min
Max speed	600rpm
Matching motor	57 long stepper motor
Number of phases	2
Step angle(°)	1.8
Rated phase voltage (V)	1.62
Rated phase current(A)	3.0
Phase resistance (Ω)	0.54
Phase inductance(mH)	1.8
Holding torque (kg·cm)	15
Insulation level	B

• Hose selection and flow reference

Pump head	Tube	ID*wall thickness(mm)	Max flow(mL/min)	Max speed(rpm)
LP15-6	13#	0.8*1.6	84	600
	14#	1.6*1.6	324	600
	19#	2.4*1.6	612	600
	16#	3.1*1.6	984	600
	25#	4.8*1.6	2040	600
	17#	6.4*1.6	3480	600
	18#	7.9*1.6	4560	600

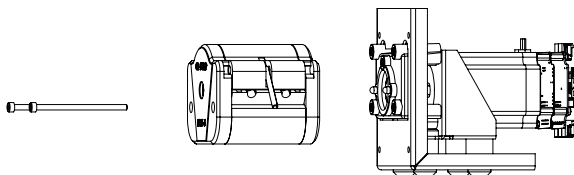
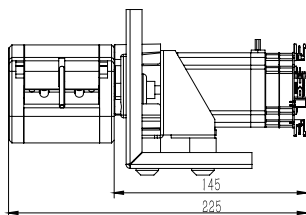
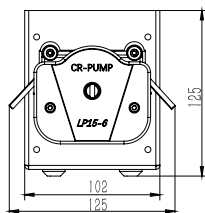
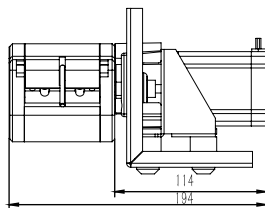
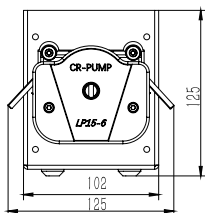
Test conditions:

1. Flow data testing environment for room temperature 20-25 °C, relative humidity is not greater than 80%, altitude is not greater than 1500 metres above sea level
2. The test is measured using a straight-through pipe with a suction range of 0.5 m, a head of no more than 0.5 m, and a total pipe length of no more than 1.5 m (inlet end + outlet end + test end)

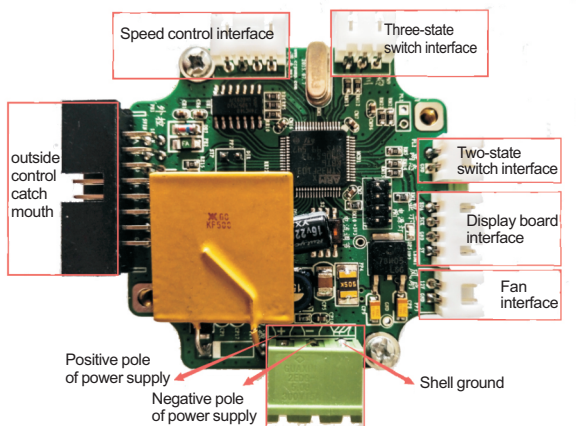
The above data is tested under normal temperature and pressure, the test hose is a silicone tube, and the test liquid is water. The data is for reference only, please refer to the actual situation.

• Dimensions/structure diagram

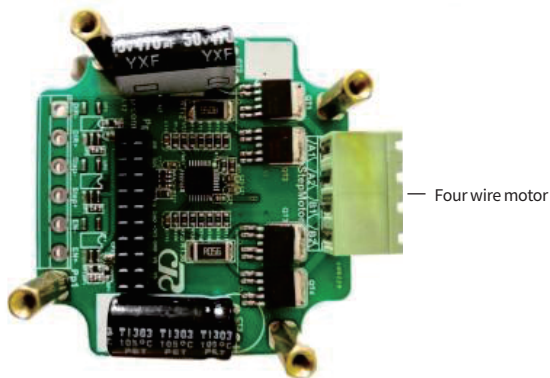
57 long stepper motor



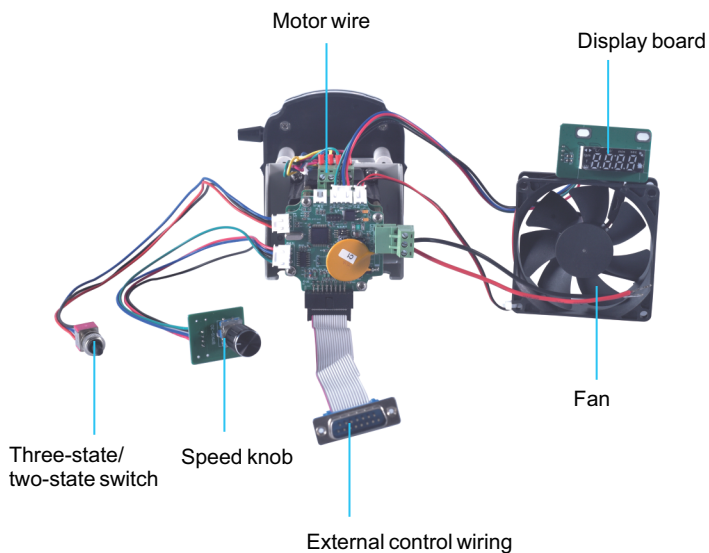
Driver interface description (1)



Control panel (Figure 1)



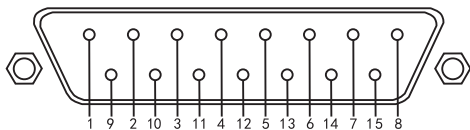
Driver board (Figure 2)



Wiring diagram

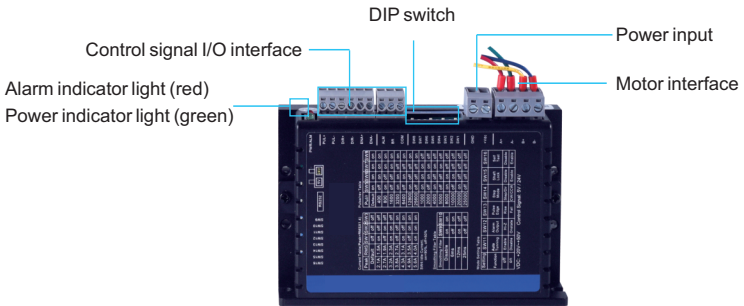
As the picture shows:

Insert the display board, two-state switch, three-state switch, speed control knob, motor cable, power cable, fan, and external control cable into the corresponding interface of the motherboard in sequence. Pay attention to the wiring sequence.

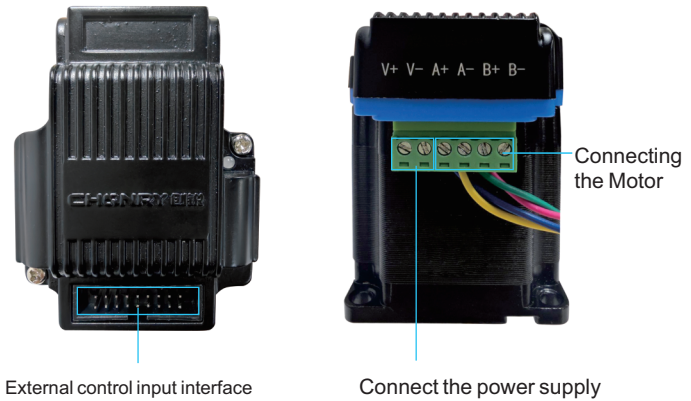

Schematic diagram of external control port
External control port pin parameter table

PIN	External control input interface definition	Enter leader color	External control output interface definition	Output lead color
1	E-c Ground	Black	E-C output enable output A	Yellow
2	485 interface A	Brown	E-C output enable output B	Yellow
3	E-c Ground	Black	Start/stop output B	Red
4	Start/stop 2	Grey	Direction output B	Green
5	Direction	Green	E-c Ground	Black
6	E-c Ground	Black	4-20mA Output negative pole	White
7	0-10kHz input	Blue	E-c Ground	Black
8	0-5V input	Blue	E-c Ground	Black
9	485 interface B	White	Start-stop output A	Red
10	E-c Ground	Black	Direction output A	Green
11	Start/stop 1	Red	12V Voltage output	Brown
12	E-c Enable	Yellow	0-10kHz output	Blue
13	E-c Ground	Black	4-20mA Output positive	Blue
14	4-20mA input	Blue	0-10V Output	Blue
15	0-10V input	Blue	0-5V Output	Blue

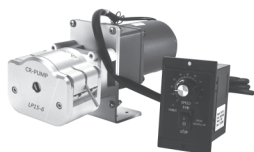
Driver interface description (2)



Driver interface description (3)



ACM121 adapt AC motor parameters



With potentiometer



Without potentiometer

• Product parameters

Pump head	LP15-6
Channels	2
Rollers	6
Tube	13#、14#、19#、16#、25#、17#、18#
Max flow	3420mL/min
Max speed	450rpm
Matching motor	60AC motor
Motor Power	15W
Motor voltage	AC220V
Motor current	0.18A

• Hose selection and flow reference

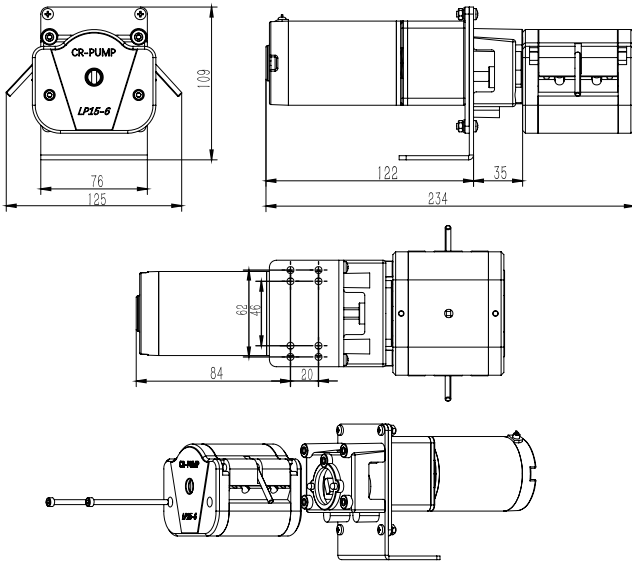
Pump head	Tube	ID*wall thickness(mm)	Max flow(mL/min)	Max speed(rpm)
LP15-6	13#	0.8*1.6	63	450
	14#	1.6*1.6	243	450
	19#	2.4*1.6	459	450
	16#	3.1*1.6	738	450
	25#	4.8*1.6	1530	450
	17#	6.4*1.6	2610	450
	18#	7.9*1.6	3420	450

Test conditions:

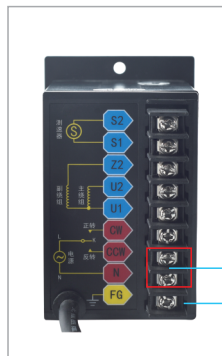
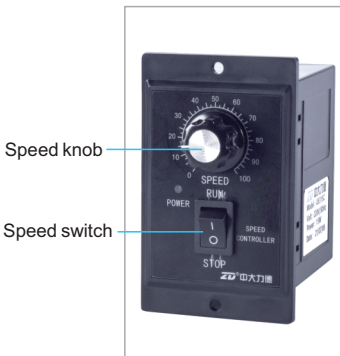
1. Flow data testing environment for room temperature 20-25 °C, relative humidity is not greater than 80%, altitude is not greater than 1500 metres above sea level
2. The test is measured using a straight-through pipe with a suction range of 0.5 m, a head of no more than 0.5 m, and a total pipe length of no more than 1.5 m (inlet end + outlet end + test end)

The above data is tested under normal temperature and pressure, the test hose is a silicone tube, and the test liquid is water. The data is for reference only, please refer to the actual situation.

• Dimensions/structure diagram



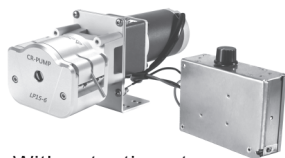
• Potentiometer description



By connecting different ports, Change the running direction of the motor:
 COM-CW——Motor forward rotation
 COM-CCW——Motor reverse rotation

Connect AC220V power supply
 Ground point

OEM221 adapt DC motor parameters



With potentiometer



Without potentiometer

• Product parameters

Pump head	LP15-6	
Channels	2	
Rollers	6	
Tube	13#、14#、19#、16#、25#、17#、18#	
Max flow	4560mL/min	
Max speed	600rpm	
Matching motor	60 DC motor	
Motor Power	15W	
Motor voltage	DC24V	DC12V
Motor current	0.625A	1.25A

• Hose selection and flow reference

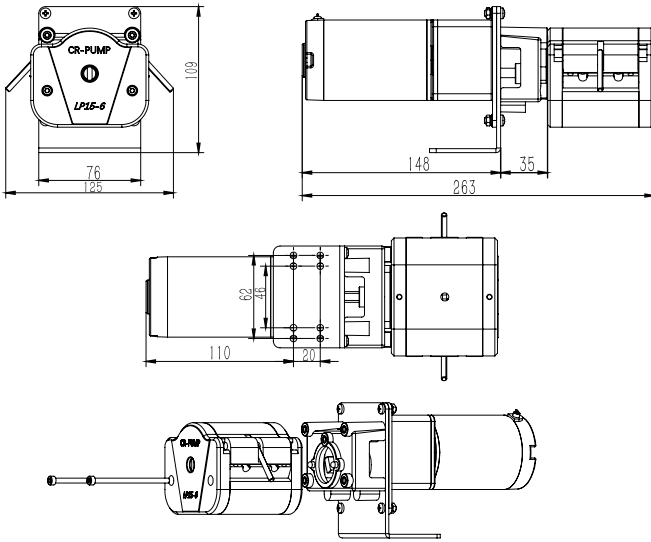
Pump head	Tube	ID*wall thickness(mm)	Max flow(mL/min)	Max speed(rpm)
LP15-6	13#	0.8*1.6	84	600
	14#	1.6*1.6	324	600
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	18#	7.9*1.6	4560	600

Test conditions:

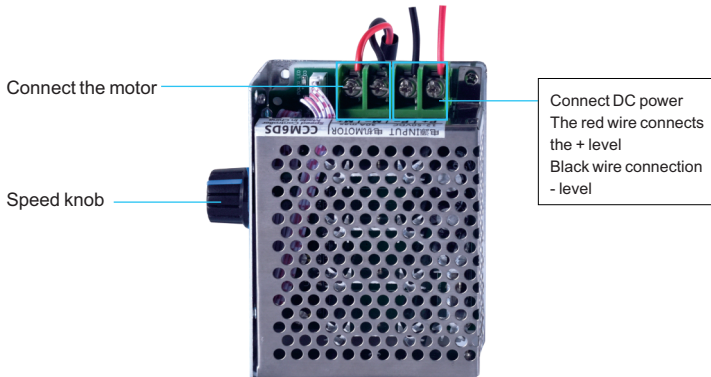
1. Flow data testing environment for room temperature 20-25 °C, relative humidity is not greater than 80%, altitude is not greater than 1500 metres above sea level
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The above data is tested under normal temperature and pressure, the test hose is a silicone tube, and the test liquid is water. The data is for reference only, please refer to the actual situation.

• Dimensions/structure diagram



• Potentiometer description



Product maintenance and after sales

Product maintenance and after sales

Warranty information

·Warranty commitment

- ① The product has a one-year warranty period. If there is a failure during the warranty period, you can enjoy free maintenance and replacement of parts; if it is damaged by humans, it will not be included in the warranty scope.
- ② If the warranty period is exceeded, only cost will be charged for repairs.

Note: Any employee or distributor has no right to change or violate the above warranty terms. Chuangrui is only responsible for repairing, replacing or refunding the product in accordance with the actual use of the product and the reasonable compliance requirements of the customer.

·Relevant details

- ① Chuangrui will not be responsible for any direct or indirect losses caused by external reasons such as operating errors or human negligence that are not the product's own quality problems.
- ② Chuangrui will not be responsible for the transportation damage caused by the returned products and accessories during the return journey.
- ③ In any case, the compensation cost received by the customer shall not exceed the actual payment price.

·Non-warranty scope

The following conditions are not included in the free maintenance of the warranty:

- ① The product has exceeded the warranty period.
- ② Product failure caused by abuse, misuse or accidental damage by Chuangrui's judgment.
- ③ Product problems caused by ultraviolet rays or direct light.
- ④ It is not the damage caused by after-sales personnel in the repair or disassembly process.
- ⑤ Damage caused by chemical erosion or long-term improper maintenance.
- ⑥ Product failure caused by force majeure factors such as natural disasters.
- ⑦ The operator fails to follow the corresponding operation suggestions and requirements, improper loading and unloading, improper maintenance, and improper operation.
- ⑧ Failures or damages that are not caused by the quality of the product itself.

Note: Chuang Rui reserves the right to modify the above terms at any time.

Repair information

- ① If there is a product that needs to be returned/repared, please contact the sales, distributor or Chuangrui official according to the delivery related process to quickly solve the after-sales problems such as return, replacement, and repair;
- ② If there is no special agreement or written instructions, please return and exchange the goods within the specified time;
- ③ When applying for after-sales service, please provide a clear reason for the return, specific information about the contacted substances, and responsible for the cleaning of the product (especially products that have been exposed to toxic chemical substances or harmful substances to the human body)
- ④ When returning the product to the factory, please pay attention to the packaging specifications to prevent damage to the pump during transportation; Chuang Rui will not be responsible for product damage caused by improper packaging and will not be included in the warranty.

Technical support & After-sales

For official technical support and after-sales questions, please consult:

Address: NO.369 of HuiYang Street , Baoding 071000 , Hebei , China

Telephone: +86 15633705132

Website : www.crpump.com

*Disclaimer

- The content of this operation manual is for reference only.
- Chuang Rui reserves the right to change the product (Design or specification) without prior notice.
 - We formulate the information in this document from a correct perspective, but Chuangrui will not be responsible for any errors.
 - If you need the latest version of the operation manual, please contact Chuang Rui official.
 - Chuangrui will not be responsible for any loss caused by non-product quality problems or human errors.

Warning:







This product is not suitable for equipment with its own problems.

Do not place this product in hazardous work areas, flammable and explosive environments.








Appendix 1:1 comparison table of tube size





1:1 comparison table of tube size

Micro flow tube

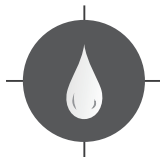
Tube		0.5x0.8	1x1	2x1	3x1	2.4x0.8	3.2x0.8
Tube section (1:1)							
Wall thickness (mm)		0.8	1	1	1	0.8	0.8
Inside diameter (mm)		0.5	1	2	3	2.4	3.2
Pressure (Mpa)	Continuous	0.1					
	Interval	0.1					

Basic flow tube

Tube		13#	14#	19#	16#	25#	17#	18#
Tube section (1:1)								
Wall thickness (mm)		1.6						
Inside diameter (mm)		0.8	1.6	2.4	3.1	4.8	6.4	7.9
Pressure (Mpa)	Continuous	0.17			0.14		0.07	
	Interval	0.27			0.24		0.1	

Tube		15#	24#	35#	36#
Tube section (1:1)					
Wall thickness (mm)		2.4			
Inside diameter (mm)		4.8	6.4	7.9	9.6
Pressure (Mpa)	Continuous	0.17		0.14	
	Interval	0.27		0.24	

BAODING CHUANG RUI PRECISION PUMP CO. , LTD.



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