

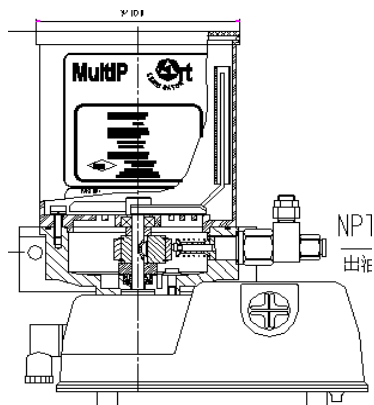
OPERATOR MANUAL

CSK Motor-driven grease pump

MODEL: CSK

CODE: S50007E

VERSION: 3



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Bijur Delimon International reserves the right to update and improve the technical specifications for this product without prior notice.

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## Precautions & Symbols

**The safety warnings contained in these operating instructions which are specially marked with general danger symbols as shown below have to be observed and followed strictly.**



Prior to start up, we recommend to read the manual carefully as improper operation may result in personal injuries and damage to the product.



**Warning about dangerous electric voltage. It's obligatory to make sure power supply is shut down before inspecting or maintaining work, as such work is only to be carried out during shut-down.**



**Make sure housing or shell of the product is adequately and securely grounded when wiring, otherwise, it may cause serious damage to the product.**



**Safety sign for grounding.**

## Manufacturer's Statement

All parts are manufactured according to existing national regulations on labor safety and accident preventive. Danger may take place during operation, which may result in injuries to the operator or a third party person, or property loss. Therefore, operation of this product must be performed according to the instructions in the operation manual.

+ Exemption of responsibilities

Nanjing Bijur shall not be responsible for any damage resulting from following reasons.

- Short of lubricant
- Use of solid lubricant or not suited lubricant
- Any use beyond the applications described in the manual
- Installation or connection mistake
- Incorrect operation for troubleshooting
- + Authorized technicians for installation

The erecting, operating, maintaining, inspecting and repairing personnel must have the appropriate qualification for such work. Authorized and qualified technicians refer to those, who have acquired necessary knowledge and technique by adequate training and thoroughly studying the operating instructions, Designated or appointed personnel by the user. Furthermore, they should be familiar with related norms, regulations, accident preventive, troubleshooting and working status of the product.

+ Transit

No limitation for road, air and sea transit.

+Environmental protection

Lubricants are hazardous substances to the soil and water source. Therefore, storage, handling and transit of them are subject to special requirements set by environmental legislation.

## General

CSK is designed for grease lubrication and driven by DC motor, it is ideal for single line system. There is a built-in controller which monitor the pump to deliver rated amount of lubricant to lubrication point in right time. Each pump outlet has an over pressure protection valve and each outlet can support a lubrication system independently.

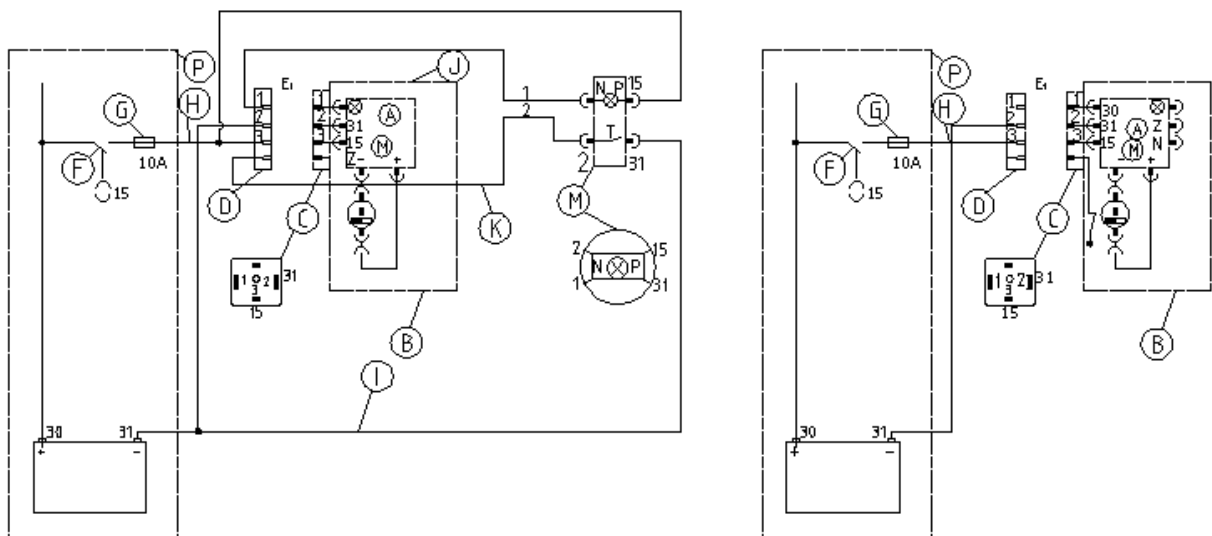
## Specifications

Outlet Flow/Per Element	5.5ml/min
MAX. Pressure	25MPa
Grease	NLGI000-2
Outlet thread Spec.	NPT1/4 M12X1.5\1/4NPTF and Rp1/4 are also availave
Motor Power	50W
Voltager	24/12VDC
Capacity	2Lite(Plastic)
Protection Class	Ip65
Interval	4Min-15H
Running Timel	8S-37.5Min
Protection Corrent	3A

## Principle

### 1. Principle of pum

CSK grease pump is driven by a DC motor, it drives a worm and worm wheel then rotation is transferred to a eccentric wheel which drives the piston to move back and forth, the lubricant is sucked into the pump body and then discharge at the outlet.

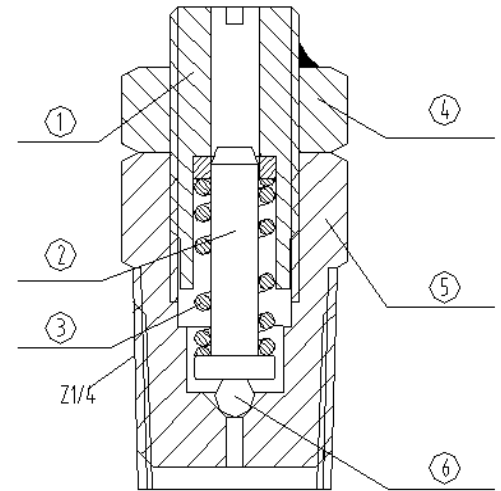


- A\_ Controller
- B\_ Pump Housing
- C\_ DIN Connector

- D\_ DIN Connector
- E1\_ Pump without illuminated push button
- F\_ Driving switch
- G\_ Fuse (10A)
- H\_ Cable
- I\_ Cable (Option)
- J\_ Cable (Option)
- K\_ Cable (Option)
- L\_ Illuminated push button (Option)
- P\_ User

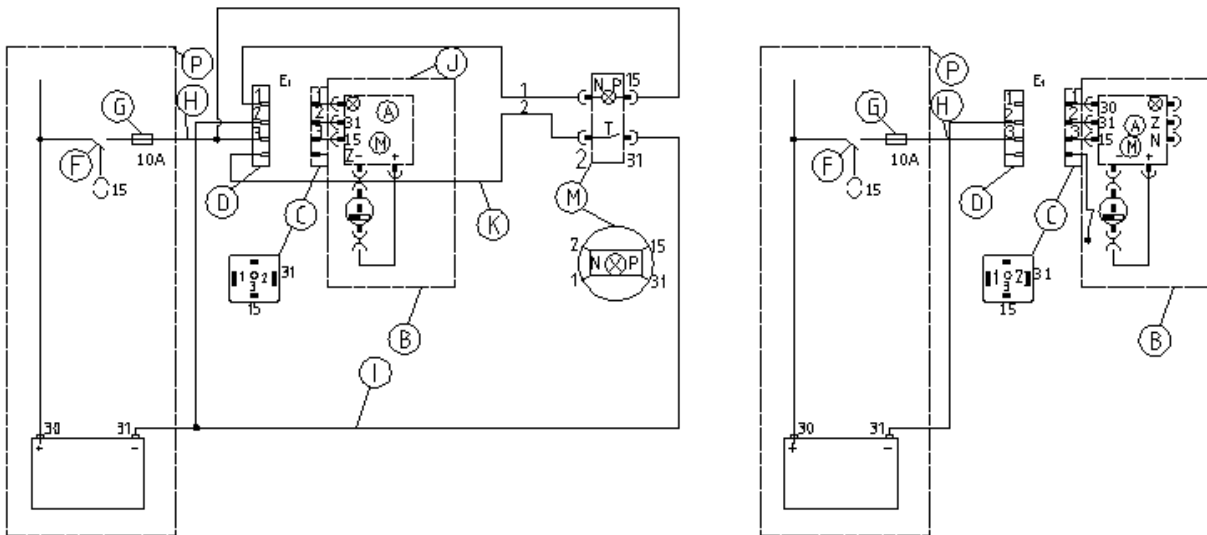
## 2. Principle of protection valve

Protection valve will open when the system pressure is over 25Mpa (set when assembled). Adjusting screw 1 drives the spring 3 to press steel ball 6 through pole 2. When the system pressure go up to 26Mpa, pressurized lubricant will push steel ball 6 from the bottom of valve body 5, then the lubricant dump at the hole of adjusting screw. This can protect the pump from broken.




## 3. Description of electrics

(1) wiring diagram



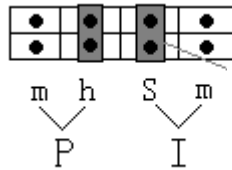
(2) connection

A. Power input is as per voltage printed on the label which is affixed on the reservoir such as 4/12VDC. there is one point needed to notice that N0. 3 terminal of the DIN connector is for anode, No. 2 terminal is for cathode.

- B. No. 1 terminal of the DIN connector is used for cathode of external signal light. The anode of signal light is for the anode of the power supplier.
- C.  terminal is used for one end of external reset button; another end of the button is used for the cathode of the power supplier

(3) Operation: (Close the power in advance!)

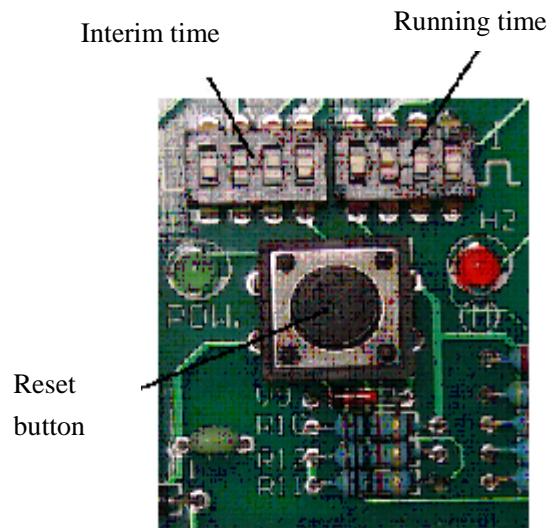
This controller can set running time and idle time by a inner switch. There are two units(m or s) for the running time definded by the position of the junmper.the idle time also can be definded M or H by the jumper.for example:if the jumper is set as shown, the switch 1 of the idle time, that switch from 2 to 4 is off , that mean the idle time is 1 hour.



**Idle time seeting [ P ]**

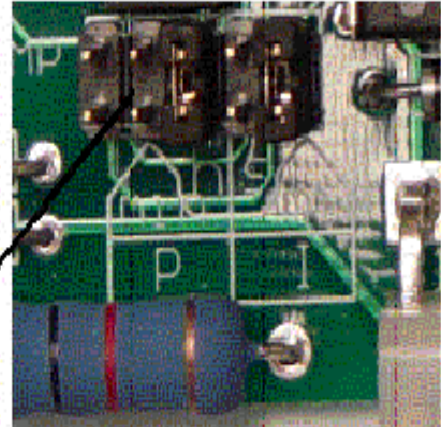
Jumper M / H	Switch position			
	1	2	3	4
4 / 1	●	○	○	○
8 / 2	○	●	○	○
12 / 3	●	●	○	○
16 / 4	○	○	●	○
20 / 5	●	○	●	○
24 / 6	○	●	●	○
30 / 7	●	●	●	○
34 / 8	○	○	○	●
38 / 9	●	○	○	●
42 / 10	○	●	○	●
46 / 11	●	●	○	●
50 / 12	○	○	●	●
54 / 13	●	○	●	●
58 / 14	○	●	●	●
62 / 15	●	●	●	●

“●”: ON ; “○ ”: OFF

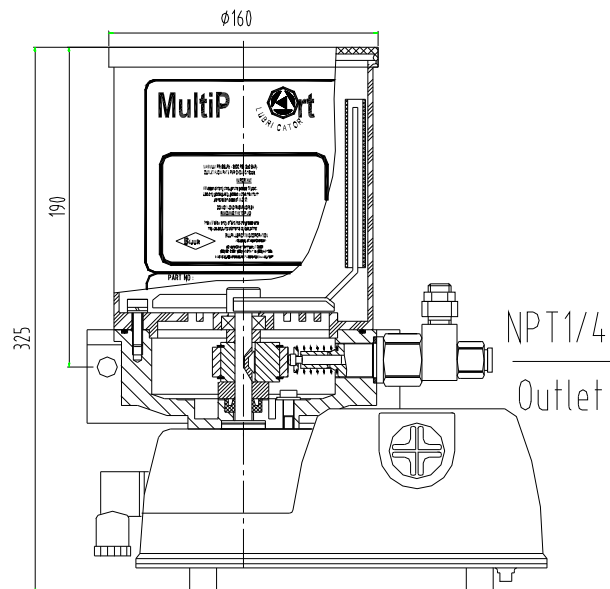


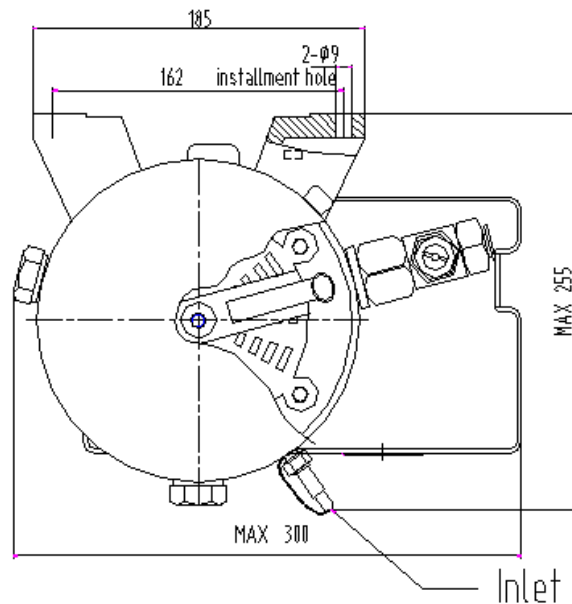
RUN TIME SETTING [ I ]				
jumper seconds/minutes	switch position			
	1	2	3	4
8 / 2.5	●	○	○	○
16 / 5	○	●	○	○
24 / 7.5	●	●	○	○
32 / 10	○	○	●	○
40 / 12.5	●	○	●	○
48 / 15	○	●	●	○
56 / 17.5	●	●	●	○
64 / 20	○	○	○	●
72 / 22.5	●	○	○	●
81 / 25	○	●	○	●
89 / 27.5	●	●	○	●
97 / 30	○	○	●	●
105 / 32.5	●	○	●	●
113 / 35	○	●	●	●
121 / 37.5	●	●	●	●
“●”: ON ; “○”: OFF				

Jump  
sw



## Assembly



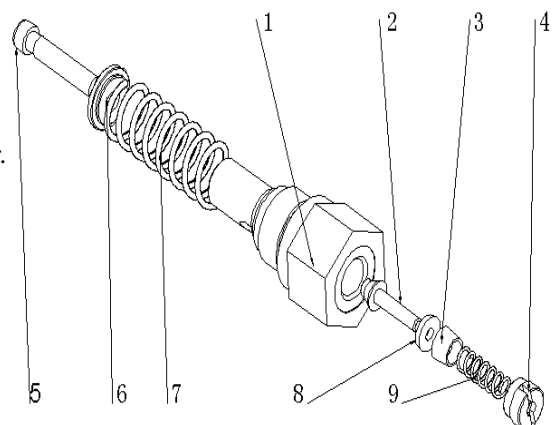


## Installation

1. Operation pressure of the pump is adjusted to 25Mpa in factory. Running time is 5 minutes and interval time is 6 hours, both can be adjust by operator.
2. Connect the cables of controller according to the wiring diagram, be sure the + pole and – pole are not reversed, it is correct if the green light shines and the pump runs. Otherwise the pump runs reversely and the light will not shine, cut off the power and correct the cables.
3. Clear and dry the pipeline then connect all pipes, be sure no leakage at all junctions.
4. Fill the reservoir with clear grease to the grease level.
5. Locate the pump and distributors where is easy to install and maintain.
6. Fill the pipeline with grease to exhaust air before the distributors are mounted, then run the pump

## Maintenance

1. Fill the reservoir slowly at appointed inlet with grease filter, Let the pump run without load until it discharge and then connect the pipe line.
2. Must use clean grease in the viscosity range.
3. Fill the reservoir slowly at appointed inlet with grease filler.
4. Do not disassembly the pump body if not necessary, this can avoid air getting into pump.
5. Do not fill grease over the liquid level line.
6. Do not incline the pump overly or make it reversal.
7. Check the protection valve termly.
8. How to clean the piston:



Disassemble the outlet assembly when the system pressure is 0Mpa, disassembly part4 with screw driver and take out part 9, 3, 8 and 2 with a nipper, then take out part 5, 6, 7. Wash part 2, 8, and 1 with coal oil then assemble orderly.

9. Require of refilling: don't refill from the cover.

The CSK is a product which is used for the industrial situation, the local condition is bad and dirty. Therefore, there is so many impurities in the grease and the grease barrel, if remove the cover and refill, the

impurities will be taken into the pump and reduce the life of the pump, so we recommend to refill from the filler, because there are a filter screen and check valve in the filler to keep grease clean and increase life of the pump.

## Troubleshooting

Symptom	Possible cause	Remedy
No discharge at outlet	Motor can't rotate	Check power and motor
	Motor rotate reversely	Connect the wires according to the wiring diagram
	Air at the bottom of reservoir	Exhaust air
Pressure can't build	Leakage at junctions	Check the pipeline
	Pump body broken	Contact Nanjing Bijur



## Product Quality Feedback Sheet

Customer					
Order No.					
Contact		Tel			
Address					
Part No.					
Model No.		Quantity			
Date Code		Installation date			
Satisfaction Level	1.Satisfied	2.Common	3.Dissatisfied		
Quality Problems					
Aspect Affected	1.Installation	2.Debugging	3.Precision	4.Performance	5.Use
	6.Reliability	7.Life	8.Maintenance	9.Environment	10.Others
Requirement	1.Fax	2.Repairing	3.Assistant to debug	4.Send to repair	
Suggestion or Other Requirements	5.Return to repair	6.Reject	7. Compensation	8.Others	

Signature \_\_\_\_\_

Date \_\_\_\_\_

Instruction (1) The sheet is written by customer as a basis to improve product quality or deal with a product quality problem.

(2) Please select from column of 'Aspect Affected' and 'Requirement'

(3) Please contact your nearest Bijur Delimon office via [www.bijurdelimon.com](http://www.bijurdelimon.com)