

# ALLFETT®

CENTRAL LUBRICATION SYSTEMS & EQUIPMENT



**LUBMATIC Mini DC Timer  
ELECTRICAL OIL AND  
LIQUID GREASE PUMP**

## **INTRODUCTION AND USER MANUAL**

VERSION 4.00 - 10.2018

## INTRODUCTION

All industrial machinery, equipments and vehicles are working under abrasive operating conditions. The wear between frictional parts become the most highest level at these conditions. Machinery expose bad weather, dust, dirt, rain, snow and heavy weight in most cases. Consequently unwanted breakdowns occur and by that way productivity loss is inevitable.

Using automatic lubrication system only increase your profitability. ALLFETT completely take over the work load spend on lubrication with a system which is bringing together a pump, control unit, distributors, tubes and couplings. Lubrication work is done by ALLFETT centralized lubrication systems in efficient time of machinery or vehicle which is while operating.

Lubrication is important for all frictional parts but using correct lubrication system and method only protect parts from wearing for a long time. Feeding lubrication points with correct dosage of lubricant at certain intervals while machinery is operating, provides lubricant film in place longer between parts. By ALLFETT lubrication systems life time of parts on your machinery and vehicles will be increased.

## ABOUT MANUFACTURER

With over 25 years experience of manufacturing Centralized Lubrication Systems ALLFETT is able to provide a wide professional approach to select the correct Centralized Lubrication System for industry and heavy machinery.

A highly accurate manufacturing process is involved in producing Centralized Lubrication Systems in order that systems meet the very tight quality procedures and state of the art processes are employed. ALLFETT is among the few companies whose products meet the exact technical and quality standards for a correct central lubrication. We present our high quality and advanced product design concept to our worldwide costumers through our strong brand.

ALLFETT creates new opportunities and innovative solutions. As a result of the satisfaction of our customers with our good quality lubrication systems we are continuing in growing in the local and international market and became one of the successful companies in the field.

## WARNINGS

Symbols and words shown below are meant to warn a particular risk to persons, material assets, or the environment. Please carefully read this manual before installing. Failure to follow the instructions and safety precautions in this manual could result in serious injury or property damage.

**Caution****Notice****Electricity****Prohibition**

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## PRODUCT DESCRIPTION

LUBMATIC mini series are oil and liquid grease pumps designed to use with single line lubrication systems. Single line lubrication system delivers lubricant in small amounts at regular intervals while equipment is operating, and provides lubricant film in protection.

LUBMATIC mini DC pump series driven by 24 V DC electrical motor. 3 liters reservoir is made of polycarbonate to lubricant inside can easily be seen. Pump system includes security relief valve and by-pass system. Gear pump design allows the oil and liquid grease can be used in system.

Timer series LUBMATIC pumps has advanced electronic control unit integrated with motor cover. Waiting and working time period programming and also system monitoring can be done by integrated control unit.

## GENERAL SPECIFICATIONS

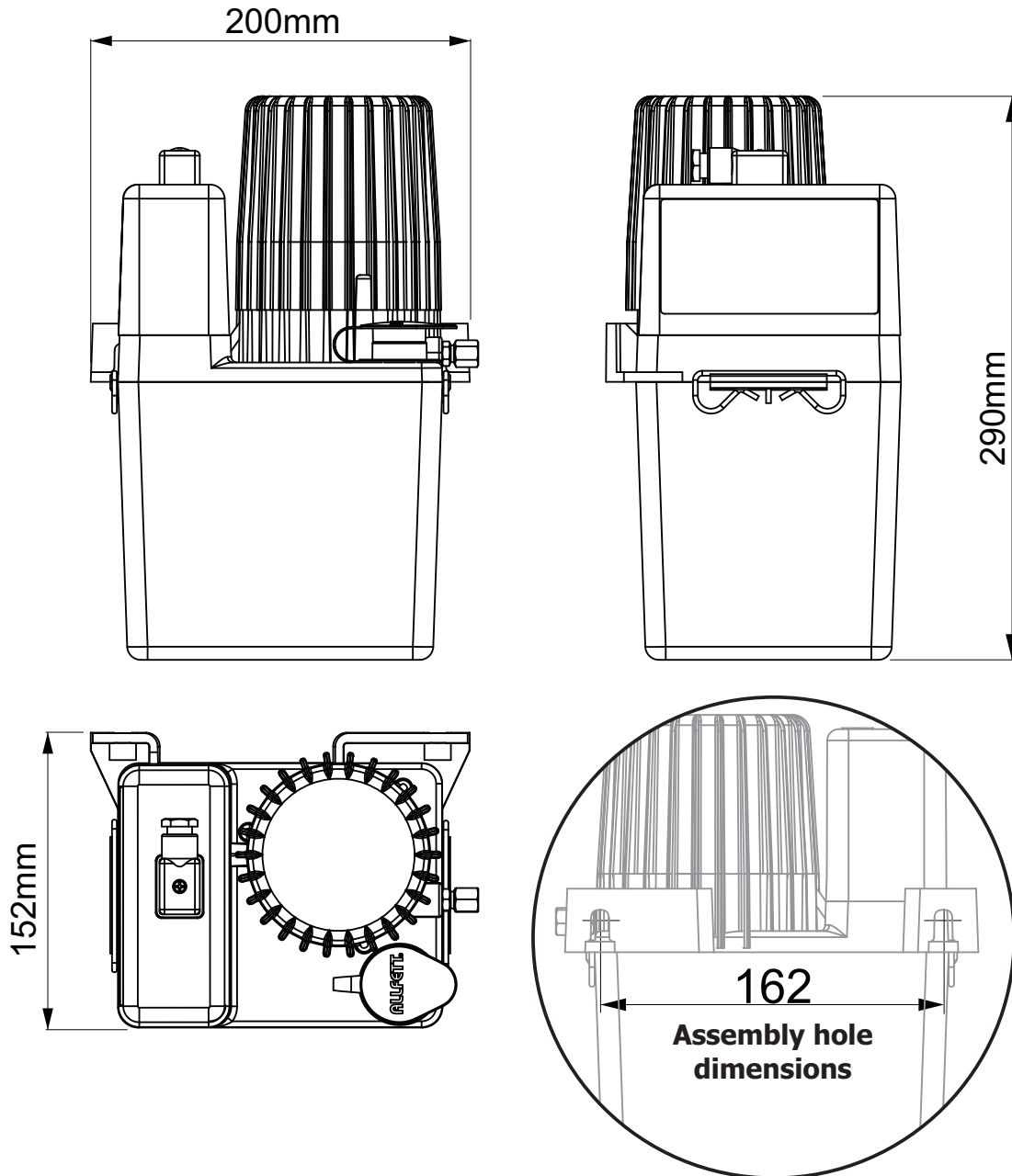
<b>Motor type</b>	: 24 V DC
<b>Working pressure</b>	: 40 bar. / 580 psi
<b>Max. pressure</b>	: 70 bar. / 1015 psi
<b>Motor protection class</b>	: IP 54
<b>Liquid grease class</b>	: NLGI 0000 NLGI 000
<b>Oil class</b>	: 40 ISO GRADE 220 ISO GRADE
<b>Working temperature</b>	: -25°C +80°C
<b>Reservoir capacity</b>	: 3 Liters
<b>Displacement</b>	: 250 cm <sup>3</sup> / minute
<b>Control card voltage</b>	: 10 - 30 V DC
<b>Working time period</b>	: Adjustable between 1 second to 99 minutes
<b>Waiting time period</b>	: Adjustable between 1 second to 99 hours
<b>Warnings</b>	: Fuse broken, Fault, Alarm
<b>Distributor types</b>	: Single line - fixed dose oil Single line - dose adjustable oil Single line - dose adjustable liquid grease ⚠ Progressive system distributors



**Pumps are produced to be used in centralized lubrication systems only with time intervals. It is not convenient to operate pumps more than 2 hours continuously. Damages occur from this reason DISQUALIFIES THE WARRANTY.**

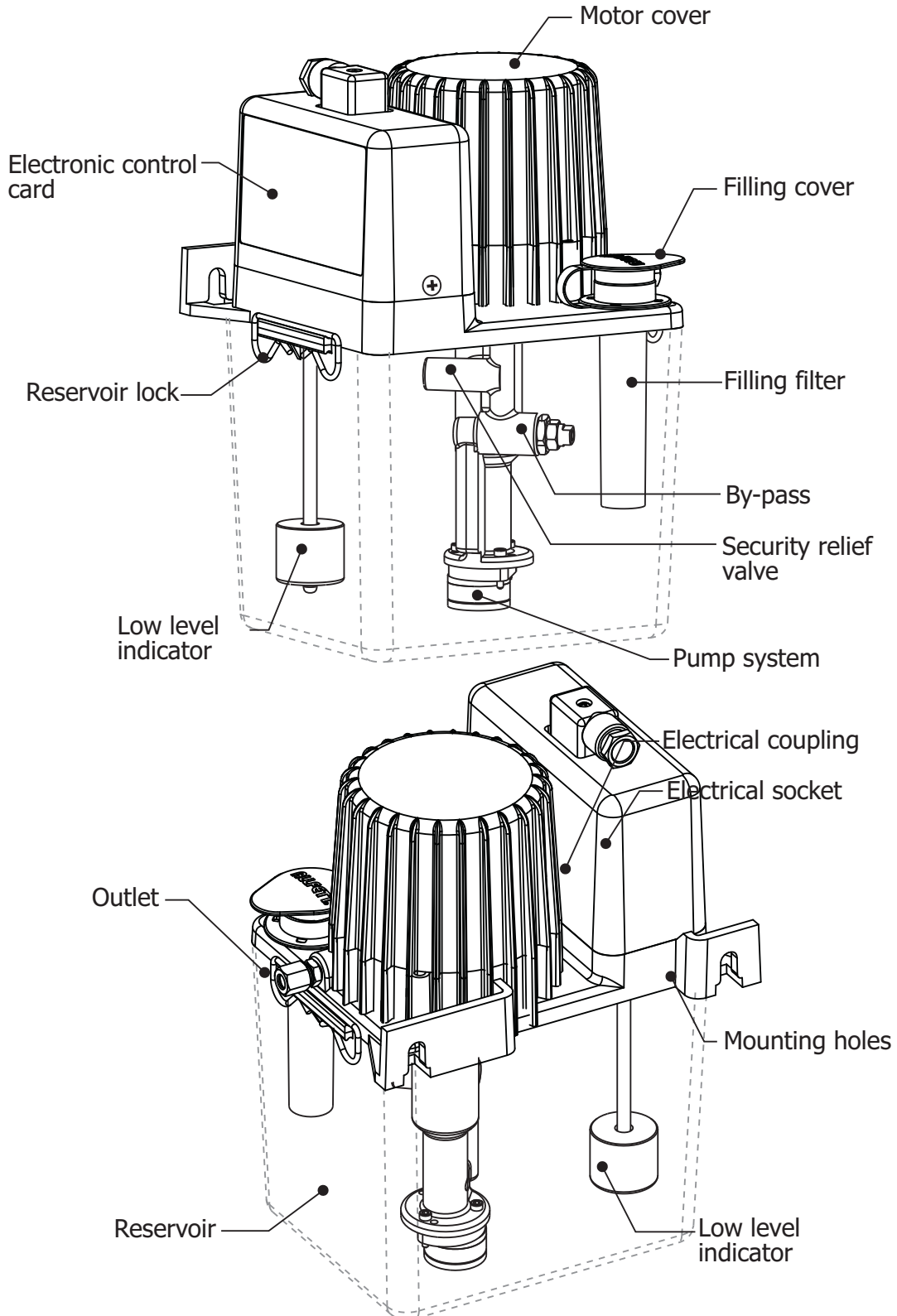
## PRODUCT DIMENSIONS

Technical drawings below represents the LUBMATIC pump models which has 3 liters reservoir capacities. Dimension unit is millimeter.



## PRODUCT COMPONENTS

Technical drawings below represents the LUBMATIC pump's standard model without integrated control unit. Optional specifications described seperately.



## FUNCTIONAL DESCRIPTION

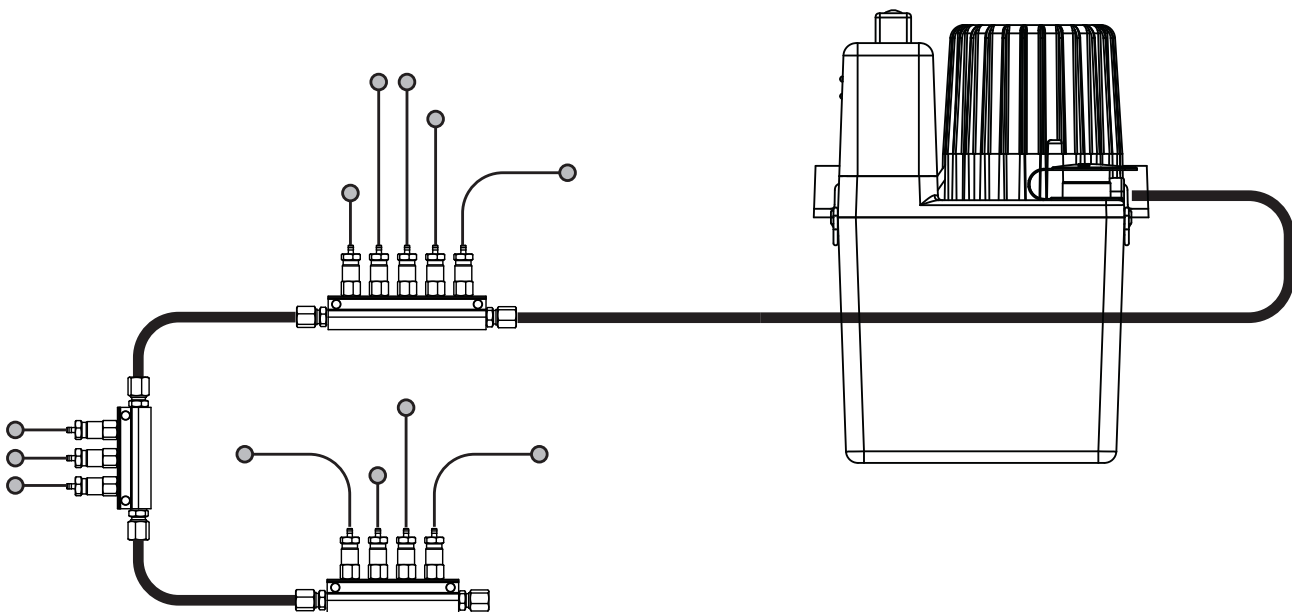
Along with the 24 V DC electrical energy connected to pump;

Electronic control card starts operate motor by programmed working time period. Lubricant inside reservoir is sended to pump outlet with pressure by gear pump unit. Pump working pressure is set to 30 bars. by security relief valve. Working pressure can be set up to 100 bars.

Gear pump unit is send 250 cm<sup>3</sup>/minute amont of lubricant to pump outlet. Outlet volume of the pump is connected to single line oil or liquid grease distributors. In operating period of pump, gear pump is feed main line and distributors. After main line is pressurized, distributors feed lubrication points with only single dosage.

After completing lubrication cycle, electronic control unit stops pump and goes to waiting period. Waiting time period can be programmed to electronic control card memory. Stopping electrical motor of the pump cause by-pass line to be open. Lubricant inside main line is sended back to pump reservoir by by-pass system. Single line system distributors are now redy to operate for another lubrication cycle.

If necessary, progressive distributors can be used with LUBMATIC pumps. Detailed information about using progressive distributors with LUBMATIC pumps, please call ALLFETT Technical service.



**Lubmatic series pump system is designed to work with single line system distributors. In special occasion, progressive system distributors can be used with LUBMATIC pumps. In order to use progressive system distributors with LUBMATIC pumps, some modification on pump system should be made. For more information please contact with ALLFETT technical service.**



**Unauthorized modifications to the units and the use of unauthorzied spare parts and aids prohobited also disqualify the warranty.**

## LUBRICANT INFORMATION

Lubricant specifications can be used with LUBMATIC pumps are described below. Before filling reservoir please read carefully these informations.



**Lubricant will be used in the system must certainly be clean and any foreign materials must not enter while filling.**



**Filling filter must be checked after each filling. Cleaning filter is important at regular time intervals.**



**LUBMATIC pumps are designed to use with in centralized lubrication systems only. It is not suitable to use LUBMATIC pump for lubricant tranfering or circulation purpose.**

### Lubricant type - Oil

ISO viscosity 40 to 220 grade oils can be used with LUBMATIC pumps.

It is recomended that the oil will be used in the system should be resistant to higher temperatures, and maintain the viscosity characteristics. Additionally oil should provide lubricant film stability, water resistance and corrosion protection abilities.

### Lubricant type - Liquid grease

NLGI 000 and NLGI 0000 class liquid grease can be used with LUBMATIC pumps.

Because of the flow characteristics of liquid grease the NLGI class range should be changed at different weather conditions and also temperature differencies.



**Liquid grease must maintain fluidity condition at any temperature while using. Liquid grease must not be used if gets harder and loose fluidity at cold temperatures.**



**Only LITHIUM based and EP additive liquid grease must be used with in system.**



**Rubber based lubricant types must not be used in the system.**



**Keep in mind that the substances of any lubricant are harmful to environment. Their transport and storage require that special safety measures be taken.**



## ELECTRICAL CONNECTION

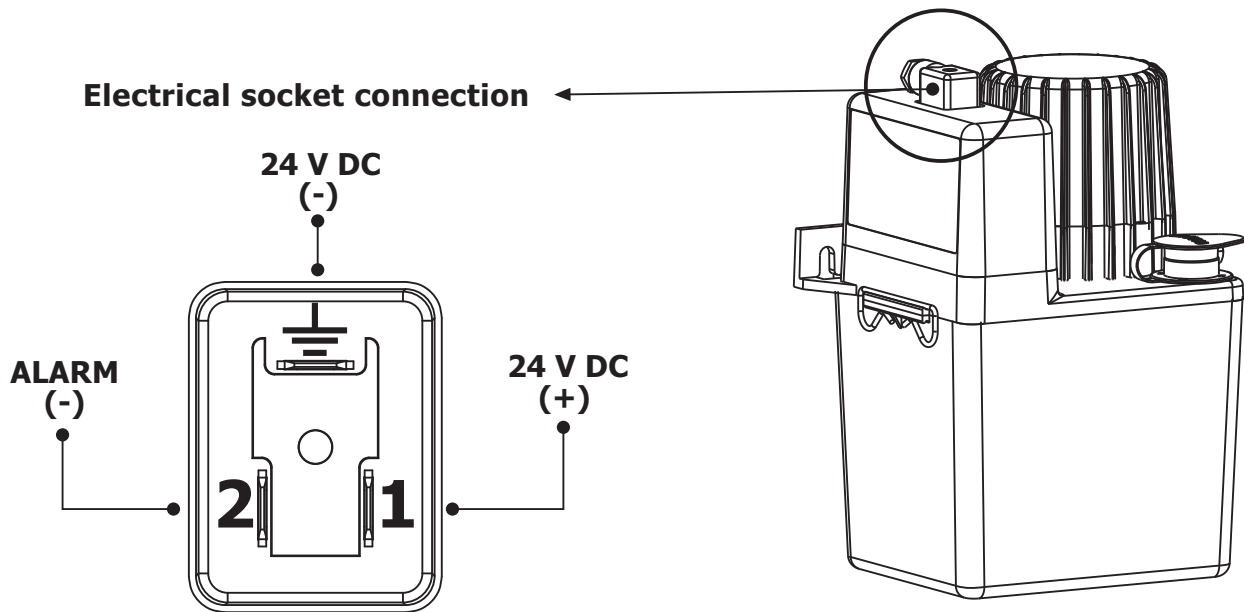
Pumps have an electric driven motor. Electrical lines must be connected properly as described in schema below. Electrical connection socket is placed near motor box.



**Transformer is necessary if there is no " 24 V DC " electrical source. Use minimum 5A current transformer.**



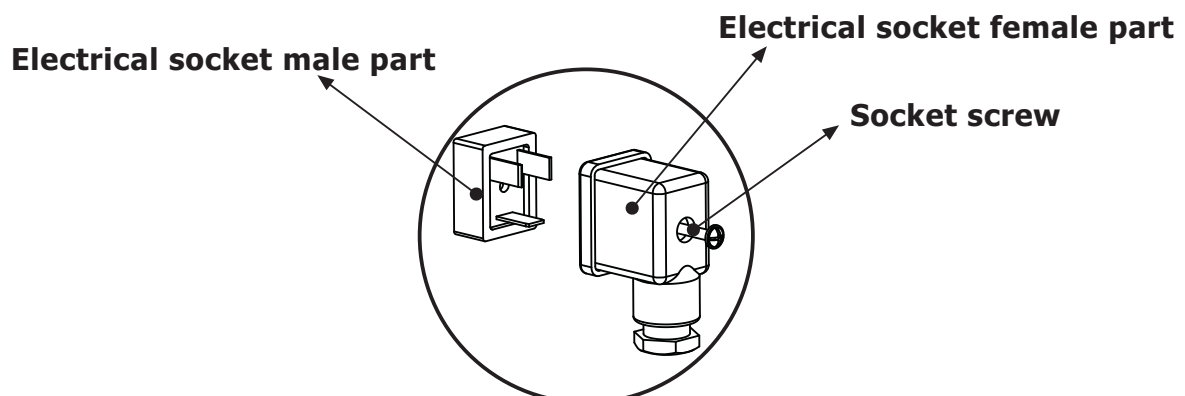
**All electrical connections and lines must be checked regularly for damage and to ensure that they are firmly in place.**



**External alarm (-) signal is placed to connect in number 2. If its needed to connect an external warning device, (+) signal must be connected to device externally.**



**After electrical connections are completed, female part of the socket must be tightened by screw to male part. Use a thin screwdriver to tighten socket screw.**

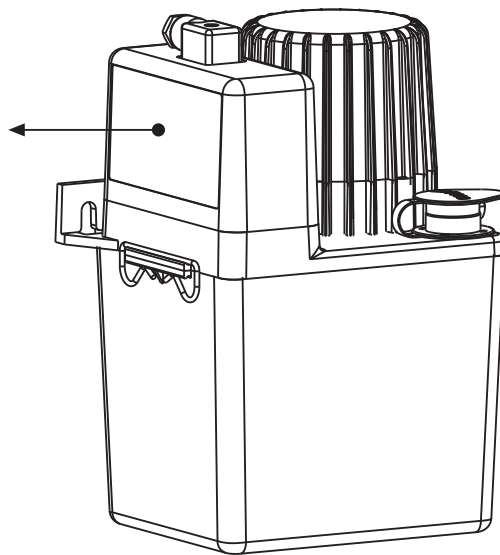
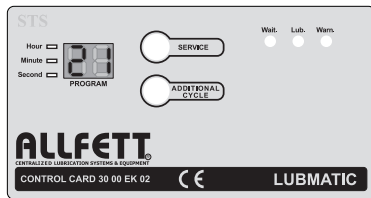


## ELECTRONIC CONTROL CARD DESCRIPTION

LUBMATIC DC timer type pumps has internal electronic control card to adjust waiting and working time periods. LDC display and LED indicators shows necessary information of programming control card and also warnings.

Electronic control card only works between 10 - 30 V DC electrical voltage. It is important taht the electrical connections must be done properly.

### Control card panel



## CONTROL CARD SPECIFICATIONS

<b>Control card voltage</b>	: 10 - 30 V DC
<b>Working time period</b>	: Adjustable between 1 second to 99 minutes
<b>Waiting time period</b>	: Adjustable between 1 second to 99 hours
<b>Warnings</b>	: Fuse broken, Fault, Alarm



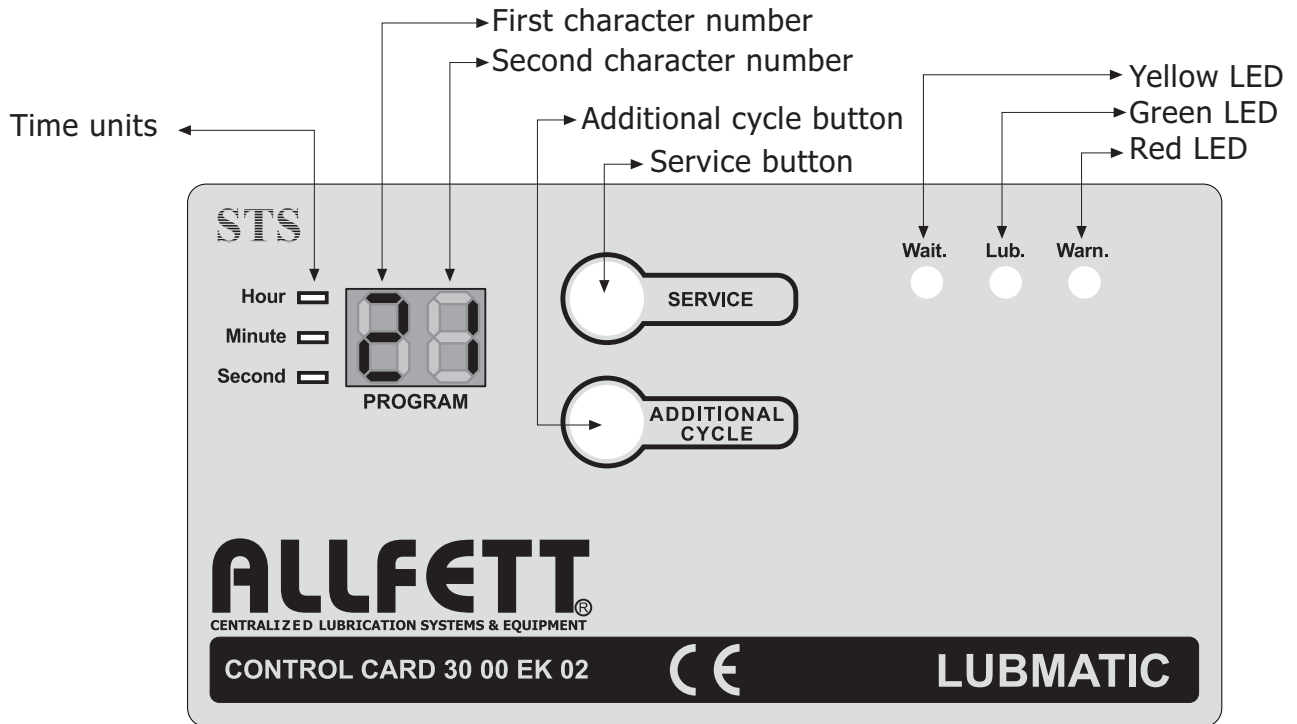
**LUBMATIC pumps designed to work indoor applications. Pump must not be exposed to external factors such as rain, dust and dirt.**



**Transformer is necessary if there is no " 24 V DC " electrical source. Use minimum 5A current transformer.**

## ELECTRONIC CONTROL PANEL DESCRIPTION

Control panel details of electronic control card are described below. Before programming the control card please read details below carefully.



**WAIT :** Yellow LED (Indicates waiting period is on)

**LUB. :** Green LED (Indicates working period is on)

**WARN. :** Red LED (Indicates alarm mode is on)

**PROGRAM :** This screen shows all necessary information about programming.

**SERVICE :** This button is used to start programming and applying changes.

**ADDITIONAL CYCLE :** This button operates an additional lubrication cycle any time its pressed.

## CONTROL CARD PROGRAMMING



SERVICE and ADDITIONAL CYCLE buttons, when placed onto control card panel, are used for programming control card.

1. Press **SERVICE** Button twice to enter program mode. After entering program mode first digit on program display and green led start to flash. Working time period will be set first.
2. **ADDITIONAL CYCLE** button changes the numbers shown in flashing digit. Press Additional cycle button until desired number shown in flashing digit. Press **SERVICE** button to save digit.
3. After first digit saved, second digit starts to flash. **ADDITIONAL CYCLE** button changes the numbers shown in flashing digit. Press Additional cycle button until desired number shown in flashing digit. Press **SERVICE** button to save digit.
4. After second digit saved, time unit leds start to flash. **ADDITIONAL CYCLE** button changes the time units. Press Additional cycle button until desired time unit is flashing. Press **SERVICE** button to save time unit.

Working time period is saved and setted. After this section waiting time period will be set.

5. After seting working time unit, first digit on program display and yellow led start to flash. Waiting time period will be set.
6. **ADDITIONAL CYCLE** button changes the numbers shown in flashing digit. Press Additional cycle button until desired number shown in flashing digit. Press **SERVICE** button to save digit.
7. After first digit saved, second digit starts to flash. **ADDITIONAL CYCLE** button changes the numbers shown in flashing digit. Press Additional cycle button until desired number shown in flashing digit. Press **SERVICE** button to save digit.
8. After second digit saved, time unit leds start to flash. **ADDITIONAL CYCLE** button changes the time units. Press Additional cycle button until desired time unit is flashing. Press **SERVICE** button to save time unit.

Waiting time period is saved and setted. Programming of the Integrated control card is now completed. Integrated control card starts the pump with working time period.

While integrated control card is on, If ADDITIONAL CYCLE button pressed 2 seconds long remaining time period will be shown on program display.



**While programming, the time interval for pressing buttons must be in 20 seconds. If 20 seconds passes electronic control card exits from the program menu and operations done before is lost. In this case, card will start to operate with last succesfull programming values.**



**In case of power breakdown while pump runs at waiting or working time periods, control card will remain it's position before breakdown and resume after power comes. Power breakdown does not make any change on the structure of the previous program.**

## **RULES TO COMPLY WHILE USING AND WARRANTY CONDITIONS**

- 1.** If damages occur while additional transports after delivering the goods from ALLFETT to the customer **DISQUALIFIES THE WARRANTY.**
- 2.** Pumps are produced to be used in centralized lubrication systems only with time intervals. It is not convenient to operate pumps more than 2 hours continuously. Damages occur from this reason **DISQUALIFIES THE WARRANTY.**
- 3.** Washing of the pump with pressured water prohibited and causes damage. Any damage occur from this reason **DISQUALIFIES THE WARRANTY.**
- 4.** Pump reservoir is made of transparent plastic material to see lubricant level. Painting the pump is prohibited. Any painted parts **DISQUALIFY THE WARRANTY.**
- 5.** Pumps have an electric driven motor. Electrical lines must be connected properly as described in **ELECTRICAL CONNECTIONS** section of this manual and applied only by qualified and instructed personnel.
- 6.** All electrical connections and lines must be checked regularly for damage and to ensure that they are firmly in place.
- 7.** Damages coming from voltage fluctuation, wrong electricity installation, connecting wrong voltage to product **DISQUALIFIES THE WARRANTY.**
- 8.** Keeping an uncovered cable(s) during system assembly may cause fatal damages where high voltage is transformed to low voltage. Lines must be connected properly to prevent personal injury and damage to property.
- 9.** Transformer is necessary if there is no " 24 V DC " electrical source. Use minimum 5A current transformer.
- 10.** Only proper NLGI class liquid grease must be used with in system. NLGI class must be changed according to weather conditions. Use NLGI 0000 for cold weather, increase the NLGI class up to 00 towards hot weathers.
- 11.** Only LITHIUM based and EP additive liquid grease must be used with in system.
- 12.** Only proper ISO class oil must be used with in system.
- 13.** Rubber based lubricant types must not be used in the system. Damages or faults occur from this reason **DISQUALIFIES THE WARRANTY.**
- 14.** Lubricant will be used in the system must certainly be clean and any foreign materials must not enter while filling.
- 15.** Environment must be clean to avoid any foreign materials entering to reservoir while filling. Any foreign materials, dirt or small particules while filling lead to system units failing and possibly property damage. Damages or faults occur from this reason **DISQUALIFIES THE WARRANTY.**

## RULES TO COMPLY WHILE USING AND WARRANTY CONDITIONS

- 16.** Disassembling or loosing any part while pump working is prohibited. Any damage coming from this reason **DISQUALIFIES THE WARRANTY**. Also any personal injury occur from this reason ALLFETT does not accept responsibility.
- 17.** Another goal of Centralized Lubrication Systems is to protect environment. So it is adviced to fill grease to the systems by mobile or hand pumps.
- 18.** Unauthorized modifications to the units and the use of unauthorized spare parts and aids prohobited and **DISQUALIFIES THE WARRANTY**. Only maintenance may apply descibed in PAGE 14 - 15. ALLFETT Technical Service must be informed to any other possible troubles and necessary procedures must be performed.
- 19.** ALLFETT Mekanik ve Elektronik Sistemler SAN. TIC. LTD. STI and ALLFETT Pazarlama ve Dis Ticaret LTD. STI. does not accept responsibility for damages described in items above on equipments which ALLFETT systems are installed.

## QUALITY SYSTEM



This product is produced by **ALLFETT Mekanik ve Elektronik Sistemler San. Tic. Ltd. Sti.** company, which, is certificated by Bureau Veritas with certificate to compatible for ISO 9001:2008 standard and owner of the quality management system.

## PUMP MAINTENANCE

### 1. Pump is not working :

- a. Electrical connections of the pump may be loosen or broken. Check the electrical cables and connections of the system according to schemas on page 8.



**All electrical connections and lines must be checked regularly for damage and to ensure that they are firmly in place.**

- b. Connected electricity to pump may different then " DC " voltage. Connect the electricity 24 V DC which is marked on pump sticker.
- c. Connected electricity may be converted to "DC" voltage from "AC" voltage by a transformer.



Transformer must be minimum 5A current.

- d. External control unit (PLC etc...) may be in alarm mode due to low level signal from pump.

Lubricant inside reservoir may under low level line on sticker. Fill reservoir with appropriate lubricant described in PAGE 7 in this manual.

- e. External control unit may in waiting period ;

Wait until programmed waiting period or operate a manual lubrication cycle.

### 2. Pump is working but not sending lubricant :

- a. (+) and (-) Pole connections of electrical cables may connected reverse.

Check the electrical cables and connections of the system according to schemas on page 8.

- b. Lubricant filled inside reservoir may not suitable for pump. Lubricant may very thick or very thin.

Check the lubricant descriptions on PAGE 7 on tis manual to properties are suitable.

## TECHNICAL SERVICE

**ALLFETT MEKANİK VE ELEKTRONİK SİSTEMLER SAN. VE TİC. LTD. ŞTİ.**  
Yeni Eyüp Bulvarı, Topçular Caddesi, Set Üstü, No:1 Demirkapı-Rami / İstanbul  
Telefon: 0 212 501 32 01 (PBX) www.allfett.net  
Fax : 0 212 501 33 37 info@allfett.net

## ORDER INFORMATION



**Product name**

LUBMATIC Mini Timer 24 V DC - 1,5 Liters

**Ordering number**

**10 24 TM 03**

## SALES

**ALLFETT PAZARLAMA VE DIŐ TİCARET LTD. ŐTİ.**

Yeni Eyüp Bulvarı, Topçular Caddesi, Set Üstü, No:1 Demirkapı-Rami / İstanbul

Telefon : 0 212 501 32 01 (PBX)

www.allfett.net

Fax : 0 212 501 33 37

info@allfett.net



## WARRANTY

Utilisation of this warranty certificate has been permitted by The Republic of Turkey, The Ministry of Industrial and Commerce, The general Administration of Protection of Consumer Right and Competition, in accordance with the law numbered 4077 .

### PRODUCER COMPANY

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NAME : ALLFETT Mekanik ve Elektronik Sistemler  
San. ve Tic. Ltd. Şti.

CENTRAL ADDRESS : Yeni Eyup Bulvari, Topcular Cad. Set Ustu, No:1 Demirkapı-  
Rami / İstanbul

TELEPHONE : 0212 501 32 01 (PBX)

FAX : 0212 501 33 37

### AUTHORISED PERSON

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SIGNATURE - STAMP : :

### PRODUCT

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TYPE : Electrical oil and liquid grease pump

BRAND : ALLFETT

MODEL : LUBMATIC DC standard

SERIAL NUMBER : .....

DELIVERY DATE / PLACE : .....

WARRANTY : 2 years

REPAIR TIME : .....

### SALER COMPANY

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NAME : .....

CENTRAL ADDRESS : .....

TELEPHONE : .....

FAX : .....

BILL DATE / NUMBER : .....

## WARRANTY CONDITIONS

1. The warranty period is two years from the date of delivery.
2. The product including all its components is under the warranty of our company.
3. In case of defects within the warranty period the period spent in repairing is added to the warranty period. The repairing period is maximum 30 days. This period starts from the date of delivery of the product to the services centers or to the seller, the agency the representative, the importer or the manufacturer of the product respectively, in case there are service centers.
4. In case the product has material, workmanship or manufacturing defects, the product will be repaired free of charge and expenses of any sort including labor, the value of the parts replaced or any our charges.
5. The product will be replaced free of charge;
  - If the product permanently disfunctions due to repeating the same defect more than four times within the warranty period
  - If the maximum period for repairing is exceeded.
  - If it is determined that the defect cannot be repaired by report written by the service, or in the absence of service centers, by the seller, agency, representative, importer or manufacturer of the product respectively.
6. The present warranty does not cover damages resulting from importer handling by deviating from the instructions in the manual.
7. General administration of protection of consumer rights and competition in the ministry of industry and commerce may be applied for problems concerning the warranty certificate.

## **DANGEROUS OR HARMFUL CONDITIONS TO ENVIRONMENTAL AND HUMAN HEALTH DURING USE**

All ALLFETT systems are producing according to relevant provisions of security regulations. There is no risk for environmental and human health during use.

## **TRANSPORT AND STORAGE**

There are no restrictions on transportation by land, air and sea. In general, products should be stored in a dry and dust-free environment. The storage temperatures are between -10°C and +40°C.

All products are packed with paper based support material to reduce damage. Upon receiving the package please check the items for possible damage.



**ALLFETT MEKANİK VE ELEKTRONİK SİSTEMLER SAN. VE TİC. LTD. ŞTİ.**

Topçular Mahallesi, Topçular Caddesi No:1/1 - Eyüp / İstanbul

Telefon : 0 212 501 32 01 (PBX)

[www.allfett.net](http://www.allfett.net)

Fax : 0 212 501 33 37

[info@allfett.net](mailto:info@allfett.net)