

PULSARLUBE M

USER MANUAL



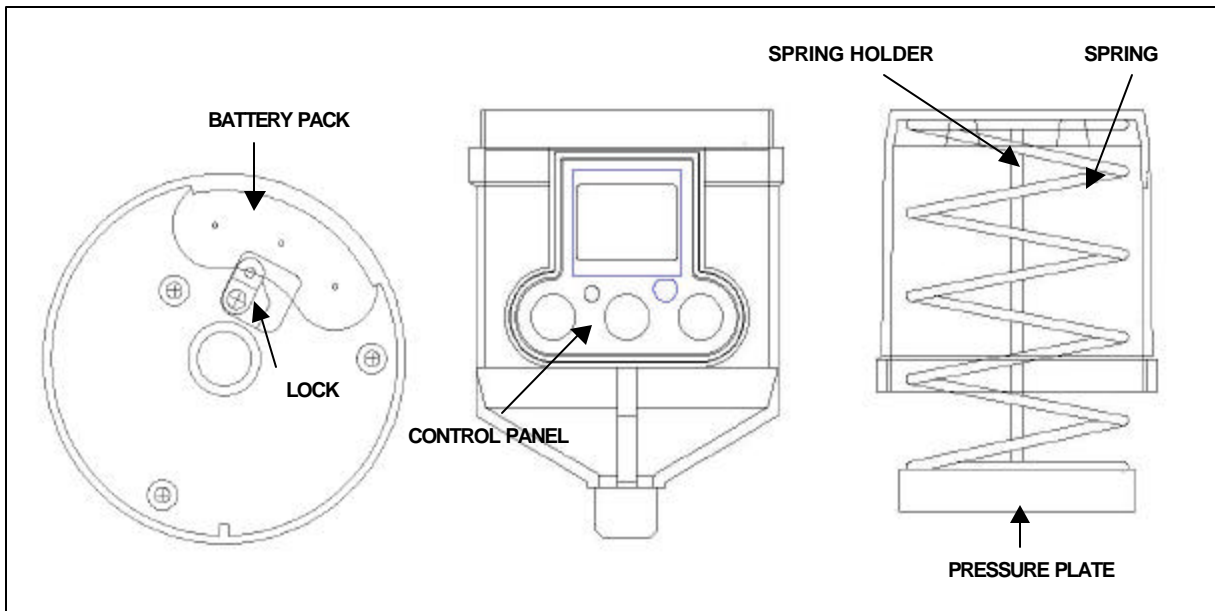
PULSARLUBE USA, Inc.

PULSARLUBE M

Thank you for your purchasing **PULSARLUBE M**, the new and unique electro-mechanical single-point automatic grease dispenser from **Pulsarlube USA, Inc.** To ensure the safe operation and proper installation of the **PULSARLUBE M** unit, we strongly recommend that you read the following information carefully before use. If you require further information, please contact your local supplier.

COMPONENTS

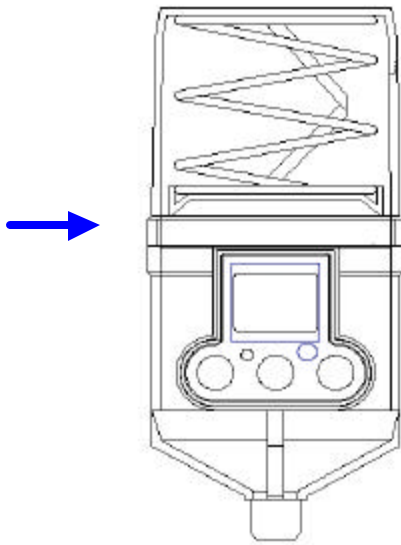
A PULSARLUBE M package contains:



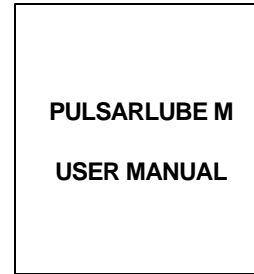
Main Unit
(Top view)

Main Unit
(Front view)

Housing Top
Assembly

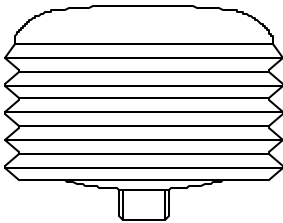


Unit Assembled



? SERVICE PACK

- 125cc



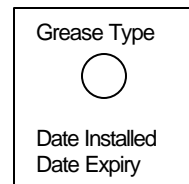
GREASE POUCH



BATTERY PACK

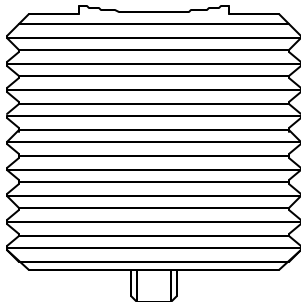


EXTERNAL DUST COVER

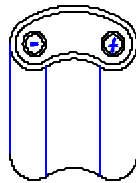


STICKER

- 250cc



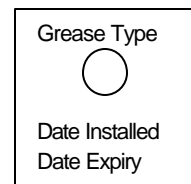
GREASE POUCH



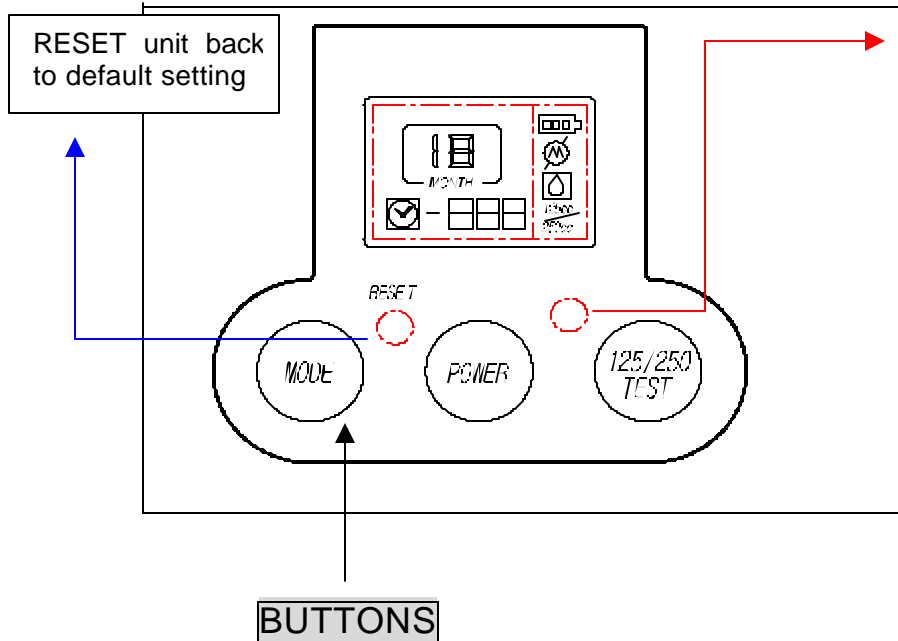
BATTERY PACK

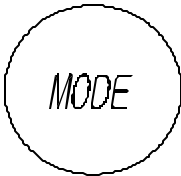
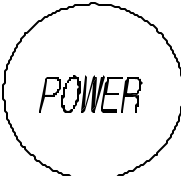



EXTERNAL DUST COVER









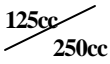


STICKER







	<p>SELECT DISPENSING PERIOD</p> <ul style="list-style-type: none"> - Six different dispensing rates are available (1M, 2M, 3M, 6M, 12M and Half Month). 1M means that the contents of the pouch will empty over a period of 1 month (approx. 4.2cc/day for a 125cc pouch and 8.3cc/day for a 250cc pouch). 2M means the grease pouch will empty over a period of 2 months (approx. 2.1cc/day for a 125cc pouch and 4.2cc/day for a 250cc pouch) etc... ? See "Dispensing Recommendation" in page 9. - The dispensing rate can also be changed during operation.
	<p>Depress the button for 2 seconds to turn unit on and off. The default dispensing period setting is 1 month @ 125cc.</p>
	<p>SELECT GREASE VOLUME (125cc or 250cc)</p> <ul style="list-style-type: none"> - Select the volume of Grease pouch to be used. - This button is also used for the TEST MODE.

FEATURES – LCD DISPLAY

	<p>DISPENSING PERIOD SET XX –01, 02, 03, 06, 12 or H month set α “H” denotes “Half”</p>
	<p>DAYS TILL REPLACEMENT Indicates the remaining days till replacement (days to expiry)</p>
	<p>DAYS AFTER BACKPRESSURE SENSING E-XX indicates the number of days since the unit stopped. (All functions stopped except TEST MODE)</p>
	<p>DAYS AFTER DISPENSING COMPLETION (EXPIRY) S-XX indicates the number of days since the lube cycle has been completed or the grease pouch has become empty. α “S” denotes “Stop”</p>
	<p>DISPENSING TEST MODE Indicates test mode is activated. α “tst” denotes “Test”</p>
	<p>LOW BATTERY POWER Indicates low battery power</p>
	<p>BACKPRESSURE SENSING CAPABILITY Check bearing and grease feed line To clear this signal, just press “Test” Button for 2 second.</p>
	<p>LOW GREASE LEVEL Indicates that the lube cycle has been completed or that the grease pouch is empty</p>
	<p>GREASE VOLUME SELECTION</p>

FEATURES – FUNCTION

FUNCTION	BUTTON	DESCRIPTION
SET DISPENSING PERIOD		<ul style="list-style-type: none"> Select one of the six different dispensing rates (1M, 2M, 3M, 6M, 12M and Half Month) The dispensing rate can be changed during operation
POWER ON/OFF		<ul style="list-style-type: none"> Depress the button for 2 seconds to turn unit on and off Default setting is 1 Month using the 125cc pouch
GREASE VOLUME SELECTION		<ul style="list-style-type: none"> Select the volume of grease pouch (125cc/250cc)
TEST MODE		<p>The test function is provided to confirm that the unit works prior to installation or after replacement of service pack.</p> <p>IMPORTANT : To activate TEST MODE, depress the button for 2 seconds. “ts” should start blinking and an audible gear mesh sound will confirm unit operation and a grease discharge should be observed. If the unit does not operate in Test Mode, it should be returned to your supplier. To deactivate TEST MODE, depress the TEST button again. The unit will then stop functioning in TEST MODE within 20 seconds. Otherwise, the unit will automatically stop TEST MODE after 2 minutes and be back to previous mode set.</p>
RESET ○	RESET ○	<ul style="list-style-type: none"> Use when service pack is replaced Use to reset unit back to its default setting following ; <ul style="list-style-type: none"> - Abnormal display on LCD screen - A unit malfunction or when the Power ON/OFF button is not available <p>CAUTION! Depressing RESET will <u>eliminate</u> all previous settings and records.</p>
WARNING LAMP	RED LED	For Low battery power, Backpressure Sensing, or Low grease level, the red LED will blink periodically.






NOTE: Whenever any function is selected, the red LED should blink once only.

FIRST INSTALLATION

1. Before installation of the **Pulsarlube M**, the lubrication point (bearing and passage) should be manually lubricated using a grease gun to ensure that the bearing has a clear passage. It is recommended that this procedure be conducted using either the same or a compatible lubricant with what is contained in the grease pouch of the **Pulsarlube M**.
2. If any doubts exist in regards to a clear lubrication flow, test the backpressure of the bearing with a grease gun connected to a pressure gauge. Ensure that the break – off pressure is below 500 psi (approx. 35 kg-f/cm². 34.5 bar). Note that it is always desirable to keep the constant delivery pressure as low as possible.
3. Remove the transparent top housing of the M unit by turning it counter clockwise. Insert the **Battery Pack** into the battery compartment of the main unit. (Make sure that the battery is locked in place after insertion by turning the metal clip on top). Take cap off of **Grease Pouch**.. Place the open end of the grease pouch over the outlet of the pump suction inlet on the M unit and screw the grease pouch in. (Note: Do not screw on too tightly.) Place the transparent top housing on the M unit and **turn clockwise until you hear the top housing make a “click”**.
4. Turn the **Pulsarlube M** unit **ON** by depressing the **Power** button for 2 seconds. Confirm that the LCD is turned on, by checking that the Red LED blinks once. As long as the LCD is displayed, the unit is working. To test that the unit is operational, simply follow the
5. **FUNCTION TEST MODE PROCEDURE:**
 - Depress **POWER** button first and then depress the 125/250cc TEST button for 2 seconds. The unit will start and begin discharging grease. The unit will operate continuously in Purge mode and go through an entire cycle (Approximately 2 min).
 - To deactivate the FUNCTION TEST MODE, press the TEST button again. The unit will stop testing within the next 20 seconds.
 - If the unit is malfunctioning or if you encounter any difficulty, please refer to the troubleshooting guide.
6. Depress **MODE** button to set dispensing rate. Each time the **MODE** button is depressed, the dispensing rate changes in ascending order i.e. 1? 2? 3? 6? 12? H.
**note (H = Half month.)*
7. Remove the grease nipple used for backpressure testing, and install an appropriate adaptor of 3/8” NPT or BSP and make sure that the unit is well tightened to it. The 3/8” brass thread of the unit is vibration proof. In other words it ensures that that fitting will not snap off at the nose even under severe vibration or shock load.
8. For installations that involve extreme vibration, excessive heat, or service location that is considered dangerous, use the remote mounting bracket (clamping device) and ¼” hose no longer than 10ft. that we have available.

IMPORTANT : Be sure to pre-fill the ¼” hose, **prior** to installation. Remote installation of over 10ft will reduce the ability of the unit to dispense against elevated backpressure.

CHANGE OF SERVICE PACK

When the dispensing period has expired, the red LED will start to blink and the LCD screen will display Low Grease Level (), Low Battery signal (), and Days after expiry (  ). When this occurs, change the PULSARLUBE M SERVICE PACK, which consists of one each of the following: A GREASE POUCH (125cc or 250cc), a BATTERY PACK (DC 4.5V), and a disposable Dust Cover.

NOTE: The PULSARLUBE M GREASE POUCH and BATTERY PACK MUST ALWAYS be changed at the same time to ensure the reliable operation of the unit. The SERVICE PACK is supplied as one kit and comes in boxes of 20 (for both 125 and 250cc).

PROCEDURE

1. Remove external dust cover.
2. Remove top housing (Caution: Cover is spring loaded)
3. Remove and Dispose the used grease pouch, Battery pack, and external dust cover in accordance with local regulations.
4. Insert a new battery pack as per the first installation procedures.
5. Fit a new grease pouch as per the first installation procedures.
Lightly squeeze the grease pouch such that the grease fills the threaded section of the pouch. This will guard against introducing air to the pumping mechanism of the main unit.
6. Refit the top housing (turn clockwise until you hear the top housing make a “click”).
7. Run **TEST MODE** to confirm unit operation.
8. Depress the MODE button to set a required dispensing rate.
9. Select 125cc or 250cc capacity
10. Refit the new external dust cover.

TROUBLESHOOTING GUIDELINE

TROUBLE	CAUSE	REMEDY
<p><u>LCD SCREEN DISPLAYS FAULT OR RED LIGHT BLINKING OR BLANK SCREEN</u></p>	<p>Possible electrical malfunction of CPU or circuit</p>	<ul style="list-style-type: none"> • Depress RESET button to Test Unit • Replace unit as necessary
<p><u>UNIT WON' T OPERATE</u></p>	<ul style="list-style-type: none"> • BATTERYPACK missing, faulty or incorrectly installed • Old BATTERY PACK not replaced During changeover 	<ul style="list-style-type: none"> • The BATTERY PACK must be replaced with each changeover • Ensure BATTERY PACK is correctly installed
<p><u>LOW BATTERY INDICATION</u></p>	<ul style="list-style-type: none"> • BATTERYPACK expired (Low Battery) • An unusual storage condition may be encountered (Temperature or Humidity) • Damaged BATTERY PACK • Extreme environment (e.g. exceeds -15°C - +60°C : 5 - 140°F) 	<ul style="list-style-type: none"> • Replace BATTERY PACK • Store BATTERY PACK in a cool and dry place • Prevent Impact damage • Ensure operating environment meets requirements
<p><u>BACKPRESSURE SENSING CAPABILITY</u></p>	<ul style="list-style-type: none"> • Over lubrication occurring • Grease blockage • Excessive back pressure • Extreme operating temperature (e.g. exceeds- 15°C - +60°C : 5 - 140°F) 	<ul style="list-style-type: none"> • Confirm correct dispensing rate • Check lube line and bearing history • Determine cause and rectify <p>IMPORTANT: To clear I-con for the Backpressure sensing capability, press TEST button for 2 second. If not clear I-con, then please contact local suppliers.</p>
<p><u>UNIT WONT DISPENSE GREASE</u></p>	<ul style="list-style-type: none"> • GREASE POUCH incorrectly fitted • GREASE POUCH empty • Loose spring or pressure plate • Grease hardening due to cold temperature or high oil bleeding 	<ul style="list-style-type: none"> • Fit GREASE POUCH correctly • Replace GREASE POUCH and BATTERY PACK • Refit spring or pressure plate use appropriate quality greas e for operating environment

DISPENSING RECOMMENDATIONS

In the chart below are some guidelines for bearing lubrication requirements. Requirements may vary with individual bearing types or operating conditions.

Ball & Roller Bearings				
Bearing Shaft Diameter	125cc	Dispensing Equivalents	250cc	Dispensing Equivalents
121-305mm(4-3/4" ~ 12")	-	-	Half month	16.6cc/day
105-120mm(4-1/8" ~ 4-3/4")	Half month	8.3cc/day	1 month	8.3cc/day
88-104mm(3-1/2" ~ 4-1/8")	1 month	4.2cc/day	2 month	4.2cc/day
79-87mm(3-1/8"~3-1/2")	2 month	2.1cc/day	3 month	2.8cc/day
63-78mm(2-1/2"~3")	3 month	1.4cc/day	6 month	1.4cc/day
49-62mm(2"~2-1/2")	6 month	0.7cc/day	12 month	0.7cc/day
25-48mm(1"~2")	12 month	0.3cc/day	-	-

PRECAUTIONS

- ◆ **DO NOT TAMPER** with the **PULSARLUBE M** or **BATTERY PACK**.
- ◆ **AVOID** excessive shock loads.
- ◆ **AVOID** excessive vibration (Suggest remote mounting if necessary)
- ◆ **AVOID** temperatures outside of the recommended range
(e.g. exceeds -15°C +60°C 5 ~ 140°F)
- ◆ **DO NOT** immerse or submerge **PULSARLUBE M**.
- ◆ **DO NOT PLACE** or **INSTALL PULSARLUBE M** close to direct heat source
- ◆ **NEVER** use an **UNAUTHORIZED BATTERY PACK**.
- ◆ **HAVE** to remove air pocket in the grease whenever you fill grease to empty pouch
- ◆ **AVOID** corrosive or extreme environments such as strong acids, alkalis, gases etc.

SPECIFICATION

- ◆ Grease pouch : 125 or 250cc (replaceable)
- ◆ Power supply : DC 4.5 V (replaceable)
- ◆ Operating Pressure : upto 20kg-f(280 psi)
- ◆ Operating Temperature : -15 °C~ +60 °C 5 ~ 140 °F
- ◆ *Suggest the use of appropriate quality grease for application where a constant cold temperature exists.*
- ◆ Dispensing Rate : 1,2,3,6, 12 and Half month
- ◆ Lube cycle : approx. 20 seconds/stroke
- ◆ Dispensing volume : 0.33±0.01 gram/stroke @ 20 °C
(equivalent to 0.350cc/stroke for a grease of specific gravity 0.90)
- ◆ Dispensing Accuracy : ± 3% @ 20 °C
- ◆ Output thread : 3/8"(NPT or BSP)

NOTE: Technical information is subject to change without notice.

WARRANTY:

Pulsarlube USA, Inc. guarantees the product to be free of defects in material and workmanship for a period of 12 months from date of delivery. **Warranty** is limited to replacement of the product. There is no consequential loss covered by the **Warranty**. The **Warranty** will be void if the unit is mistreated, tampered with, used in a hostile chemical environment, used under water, maliciously damaged, used outside the specified ambient operating temperature range of -15 °C ~ +60 °C: 5 ~ 140 °F)

used with other than from a service pack. Please contact your local supplier or the manufacturer for the validity of the **Warranty**.



PULSARLUBE USA, Inc.

<http://www.pulsarlubeusa.com>