

## Micfil Automatic Lubricator



### Over View



This electromechanical automatic grease lubricator is primarily designed to compensate the performance of conventional gas type automatic grease lubricator. It also offers superior advantages in cost competitiveness and user friendliness. The Lubricator consists of a vertical self-priming pump, microprocessor control system, and large LCD display. This product is ideal for applications where: considerable back pressure in lube line exists, a precise lubricator is required, or a disposable gas type lubricator is not economical.

### Operating Principles

This unit contains a vertical feed pump, motor/gear set and microprocessor control system, allowing high operating pressure. Six dispensing rates are available : 1,2,3, 6 & 12 months & half month. An easy to read LCD screen provides all the necessary information for set up and status.

Both the grease pouch and battery pack are replaceable with a selection of special purpose greases available upon request.

### Grease Selection

Type available :

- Multipurpose
- Heavy Duty
- High Speed
- Food Grade
- High Temperature
- Cold Temperature
- Special Grease-by request

## Benefits



Cross Section

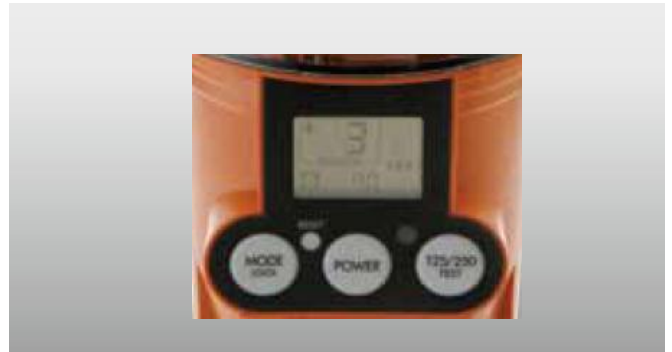
LCD

Multi-Point

- Cost effective by use of replaceable grease pouch and battery pack (Service pack)
- High output pressure (30 - 60kg/cm<sup>2</sup> (425 - 850 psi))
- Remote and multi-point installation up to 8 points, max 6 meters (20 ft) per point
- Selectable grease pouch: 60, 125 and 250cc
- Durable and reliable engineering
- Simple, user friendly programming
- Easy-to-read user friendly LCD screen
- Available dispensing periods: 1, 2, 3, 6, 12 and Half (H) months

## LCD Screen Displays

- Dispensing period set
- Days remain until cycle completion
- Days since cycle completion(expiry)
- Dispensing test mode
- Low battery power
- Excess backpressure
- Low grease level
- Grease volume selection



## Application

Automatic grease dispenser, battery operated, advanced electronic control mechanism providing reliable cost effective lubrication for any component requiring regular lubrication.e.g..slides, bearing, and seals.

Typically for motors, pumps, conveyors, agitators etc. 125 cc and 250 cc unit size is available.

## Available Mounting Options

### Single Point Lubrication



### Multi Point Lubrication Using Progressive Divider Block



Direct Straight/Angle Mount (without extension tube) is always preferable. However, for applications not allowing any direct mounts or extension mounts, remotely mount the unit using a 6mm O.D. (1/4") pre-filled lube line.

Remote multi point lubrication is available with the micfil automatic lubricator using a divider block. It is recommended to test the back pressure of the bearing, lube lines, and divider block after assembly using a grease gun connected to a pressure gauge. Ensure the break-off pressure is below the average operating pressure of 30kg/cm<sup>2</sup> (425psi).

**WARNING** Keep the maximum distance per lube point at 6m (20ft) or less.

### Installation parts for Multi Point Lubrication



## Shelf Life and Product Warranty

The shelf life of each micfil automatic lubricator is limited to original defects in material and workmanship and will not cover inappropriate use of this product. Warranty period is 1 year from the date of purchase.



# Micfil Automatic Lubricator

## High Performance Automatic Grease Lubricator

### Specifications

Specifications	Description
Grease Pouch	125 / 250cc (replaceable)
Operating Pressure	30~60kgf/cm <sup>2</sup> (425~850psi)
Operating Temperature	-15°C ~ 60°C (5°F ~ 140°F) -40°C ~ 60°C (-40°F ~ 140°F) * * with optional Lithium Battery Pack
Product Size	125cc: Ø91mm (3.6") × 183mm (7.2") 250cc: Ø91mm (3.6") × 210mm (8.2")
Weight	125cc: 860g (1.89 lb) 250cc: 1,050g (2.31 lb)
Available Dispensing Periods	Half (H), 1, 2, 3, 6 & 12 months
Installation Thread Size	3/8" Male BSPT
Multi Point	Up to 8 points
Remote Installation	Up to 6m (20ft) using a 6mm (1/4") O.D. pre-filled lube line

### Before Use

Thank you for purchasing the micfil automatic lubricator, the electromechanical automatic grease lubricator from Micfil. To ensure the safe operation and proper installation of the automatic lubricator, we strongly recommended that you read the following information carefully before use. For more information, please contact us.



### Product Details



#### Buttons




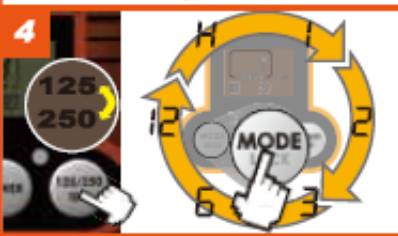

<b>MODE LOCK</b>	Select the dispensing rate in ascending order: 1 ▶ 2 ▶ 3 ▶ 6 ▶ 12 ▶ Half (H) Deactivate "Automatic Lock Out" by pressing the MODE/LOCK button until the lock icon (🔒) disappears
<b>POWER</b>	Press the POWER button for 2 seconds to turn unit on or off
<b>125/250 TEST</b>	Select the volume of grease pouch Run a test cycle by pressing the TEST button for two seconds
<b>RESET</b>	Reset the unit when the unit malfunctions and/or after changing the service pack

#### LCD Display - Function

6 MONTH	The dispensing period setting
- 180	The # of days remaining until the end of lube cycle
	The unit is in "Automatic Lock Out" mode
125 / 250	Selected grease pouch capacity
TEST	The test mode is activated
503	The # of days after dispensing has completed
CH03	The # of days on stand-by mode due to excessive backpressure
	Low battery power
	Excessive backpressure exists
	Empty grease level
	Signal lamp blinks periodically when battery power is low, excessive backpressure exists, or if grease level is empty

## Installation Instructions

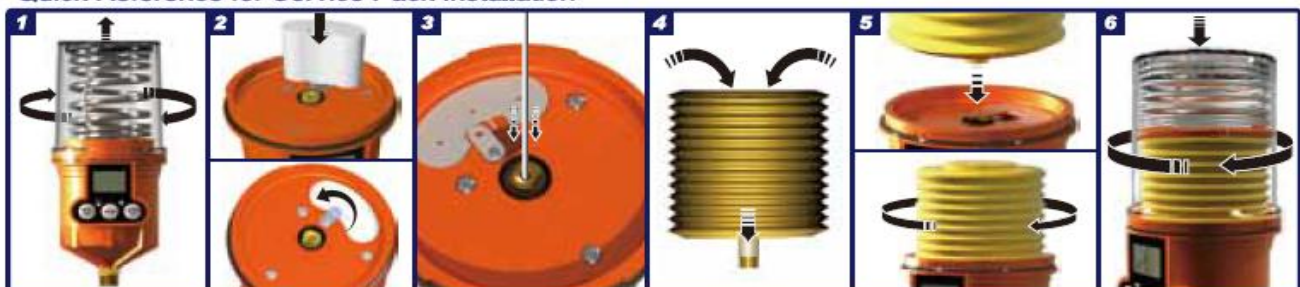
For completely Assembled micfil automatic lubricator unit – Initial Installation

<b>1</b> 	<p>Before installation of the micfil automatic lubricator unit, remove contaminants around the lube point and ensure a clear passage by purging the lube point with a manual grease gun.</p>
<b>2</b> 	<p>Turn the micfil automatic lubricator unit ON by pressing the POWER button for 2 seconds. To confirm that the LCD is turned on, make sure that the red LED blinks once as soon as the POWER button is depressed.</p>
<b>3</b> 	<p>Press the TEST button 2 seconds to run a test cycle. The unit will start to dispense grease and operate continuously in purple/test mode. This process will last approximately 2 minutes to ensure every of lubricator works properly.</p>
<b>4</b> 	<p>Select the appropriate grease pouch volume by pressing the 125/250/TEST button. Press the MODE button to program the dispensing period. Each time the MODE button is pressed, the dispensing period changes in ascending order: 1 → 2 → 3 → 6 → 12 → H (H=Half month)</p>
<b>5</b> 	<p>Install the micfil automatic lubricator unit on the lube point using appropriate adapters and accessories as needed. Make sure that adapters and accessories are firmly tightened.</p> <p>The installation date and the scheduled date of lube cycle completion should be logged for maintenance purposes.</p>






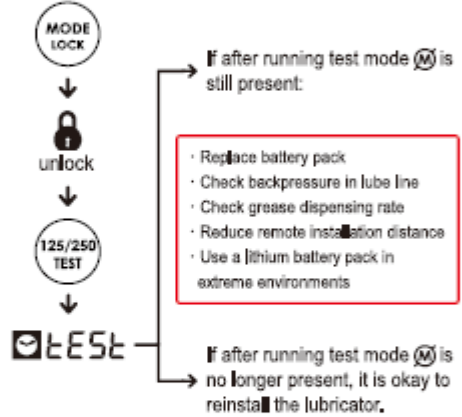



## Service Pack Installation

If the micfil automatic lubricator unit is provided with a replaceable service pack, the following procedure is required before step #2 of above. For complete service pack installation instruction, please refer to the Service Pack user manual, #3-7 in the section of “How to Replace a Service Pack”.

### Quick Reference for Service Pack Installation



## Troubleshooting Guideline

Symptom	LCD Display	Possible Cause of Trouble	Troubleshooting Steps
Unit Won't operate	Normal	<ul style="list-style-type: none"> <li>Electrical malfunction of CPU or circuitry</li> <li>Contact problem (open circuit) at buttons in control panel</li> </ul>	Contact your local supplier or manufacturer for either repair or replacement
	Blank Screen	<ul style="list-style-type: none"> <li>Electrical malfunction of CPU or circuitry</li> <li>Battery pack installed incorrectly</li> <li>Faulty or damaged battery pack</li> <li>Cold battery pack was not replaced</li> </ul>	<ol style="list-style-type: none"> <li>Make sure the battery pack is installed correctly</li> <li>Replace battery pack</li> <li>Contact your local supplier or manufacturer for either repair or replacement</li> </ol>
Low Battery Indication		<ul style="list-style-type: none"> <li>Expired battery pack</li> <li>Extreme storage conditions (temperature or humidity)</li> <li>Faulty or damaged battery pack</li> <li>Extreme operating conditions</li> </ul>	<ol style="list-style-type: none"> <li>Ensure operating environment meets requirements</li> <li>Replace battery pack</li> </ol> <p><b>WARNING</b></p> <ul style="list-style-type: none"> <li>The battery pack <b>must be replaced together</b> with each grease pouch replacement</li> <li>Keep battery pack stored in a cool, dry place to prevent damage</li> </ul>
Unit Won't Dispense Grease	   	<p>Excessive backpressure exists due to:</p> <ul style="list-style-type: none"> <li>Over lubrication</li> <li>High backpressure in lube line due to hardened grease, ruptured lube line, long distance remote installation, etc.</li> <li>Low battery power due to extreme operating conditions</li> </ul>	
	Normal	<ul style="list-style-type: none"> <li>Grease pouch incorrectly fitted</li> <li>Grease pouch empty</li> <li>Grease hardens due to cold temperature or high oil separation</li> </ul>	<ul style="list-style-type: none"> <li>Install and secure grease pouch correctly</li> <li>Replace grease pouch and battery pack</li> <li>Use appropriate quality grease for operating environment</li> </ul>
		<ul style="list-style-type: none"> <li>Pump priming issue due to inadvertently entrapped air pockets</li> </ul>	   <ol style="list-style-type: none"> <li>Deactivate Auto Lock</li> <li>Run test mode</li> <li>Check if grease is dispensing</li> </ol> <p>If the issue is not solved, refer to the steps below,</p> <ol style="list-style-type: none"> <li>Gently depress the check valve a few times with a thin Allen wrench, screwdriver, or similar tool</li> <li>Run test mode and check that grease is dispensing</li> </ol>



## Mode Settings Guidelines

Ball & Roller Bearing					
Shaft Diameter		125cc	Dispense (cc / day)	250cc	Dispense (cc / day)
166~229mm	-	N / A	-	Half months	16.6
102~165mm	4"~ 6 1/2"	Half months	8.3	1month	8.3
90~101mm	3 1/2"~ 4"	1month	4.2	2months	4.2
77~89mm	3"~ 3 1/2"	2months	2.1	3months	2.8
65~76mm	2 1/2"~ 3"	3months	1.4	6months	1.4
51~64mm	2"~ 2 1/2"	6months	0.7	12months	0.7
25~50mm	1"~ 2"	12months	0.3	N / A	-

## Replaceable Service Pack

The micfil automatic lubricator is designed to last through many years of use. Over the years this can add up to substantial savings over the cost of manual lubrication and disposable one time use lubricators (mostly traditional gas charged products), while providing assurance of the highest quality of lubrication achievable. Micfil Lubricator Service pack consist of grease pouch (125cc or 250cc), a battery pack (4.5V Alkaline), and disposable dust cover.

Note: The Lubricator grease pouch and battery pack must always be changed at the same time. It is mandatory to ensure the reliable operation of unit.



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## Operation

1. Depress the POWER button for 2 seconds to turn the unit on.
2. Confirm that the LCD is turned on and that the red LED flashes.
3. Test unit operation by test mode :  
Depress the TEST button for 2 seconds the "Tst" icon should start flashing and an audible gear mesh sound will confirm proper operation of the unit. Grease discharge should be observed during test mode. To deactivate TEST MODE , press the TEST button. The unit will stop functioning in test mode within 20 seconds. Otherwise, the unit will automatically stop test mode after 2 minutes and return to previous mode set.
4. Press MODE button to set dispensing period.
5. Scroll through the available dispensing rate settings. Eg. 1,2,3,6,12, or H (Half a month)

## Application In Field



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