

Description

The EL Series O30050 is the ideal oil transfer & metering kit for dispensing oil with a maximum viscosity of SAE130.

Representing excellent value for money, the Alemlube EL Series O30050 gives you the opportunity to upgrade from standard hand operated oil drum pumps to a pneumatic solution.

Delivering up to 10L/min with a 3:1 ratio pump, the O30050 is suitable for use with 205L oil drums to perform intermittent or seasonal work. The oil meter features a 5 digit liquid crystal display, a low battery indicator as well as Reset and Move buttons.

Smart design with fewer working parts effectively facilitates a lower cost of ownership.

The meter is powered by one easily and quickly replaceable 3V CR2 battery. Manufactured with efficiency and reliability in mind, the O30050 oil transfer kit is well designed, affordable and is supported by readily available spare parts.

Technical Details

Item No.	O30030 Oil Pump
Ratio	3:1
Air Inlet Pressure	30-150psi (2-10bar)
Max Fluid Pressure	450psi (30bar)
Air Consumption	3.6cfm @ 150psi
Kit Max Free Flow Rate	10L/min
Tube Diameter	42mm
Suction Tube Length	940mm
Air Inlet Connection	1/4" quick plug
Oil Delivery Connection	Male 1/2"
Maximum Viscosity Oil Delivered	SAE 130
Temperature Oil Delivered	-10~50°C
Noise Level	82 dB



Safety Warning and Precautions

WARNING: The warnings, cautions, and instructions discussed in this instruction manual cannot cover all possible conditions or situations that could occur. It must be understood by the operator that common sense and caution are factors that cannot be built into this product, but must be supplied by the operator.

1. Keep the work area clean and dry. Damp or wet work areas can result in injury.
2. Keep children away from work area. Do not allow children to handle this product.
3. Use the right tool for the job. Do not attempt to force small equipment to do the work of larger industrial equipment. There are certain applications for which this equipment was designed. It will do the job better and more safely at the capacity for which it was intended. Do not modify this equipment, and do not use this equipment for a purpose for which it was not intended.
4. Check for damaged parts. Before using this product, carefully check that it will operate properly and perform its intended function. Check for damaged parts and any other conditions that may affect the operation of this product. Replace damaged or worn parts immediately.
5. Do not overreach. Keep proper footing and balance at all times to prevent tripping, falling, back injury, etc.
6. DO NOT use the equipment when tired or under the influence of drugs, alcohol, or medication. A moment of inattention while operating this equipment may result in serious personal injury.

Product Specific Safety Precautions

When the pump is connected to the compressed air supply:

1. The compressed air must be filtered to avoid dust and moisture into pump.
2. The maximum compressed air pressure must not exceed 1.0Mpa/150psi.
3. To deliver oil, squeeze the lever on the control valve; delivery stops when the lever is released but the whole system remains under pressure.
4. Position the control valve so that the circuit can't open accidentally. Otherwise oil could leak onto the ground.
5. Never point the pistol at people or object.
6. Always cut off the air supply after use so that oil can't leak out in case one of the pump's components should break.
7. Use only original spare parts in case the pump has to be repaired or its components have to be replaced.
8. Empty all the oil from the pump in case it has to be disposed of.
9. When not in use, turn off compressed air to stop the pump.
10. Do not use the pump near open flames. Do not smoke during this operation.
11. Wear oil-proof gloves.
12. Do not throw the oil away. Used oil has to be disposed of according to national environmental regulations.
13. The pump can be used only to deliver lubricants, used oil or antifreeze liquids. Do not use the pump for any other substance.

Read the following precautions and instructions before you begin assembly or using.

Failure to comply with these instructions could result in personal injury or property damage.

Keep these instructions in a convenient location for future reference.

Important Note

The guarantee will be void if the pump has been altered in any way.

Trouble Shooting

Problem	Possible Causes	Solutions
The pump doesn't work	1. Insufficient air 2. Air obstruction	1. Increase air pressure 2. Clear air passage 3. Change voltage
	1. The intake valve is closed 2. The intake valve is blocked	1. Open the intake valve 2. Clean the intake valve
	A blockage in a hose, valve, or other device	Release pressure & clean
	Damage to Screw (5) or plate (8)	Assess damage, repair or replace Screw (5) or plate (8)
	Insufficient oil supply	Replace oil drums to ensure adequate oil supply
Leak of pneumatic device	Damage to Piston (7) or gasket (9) or spring (10)	Assess damage, repair or replace Piston (7) or gasket (9) or spring (10)
The pump is unstable	Insufficient oil supply	Replace oil drums to ensure adequate oil supply
	O-ring (3) Seal (16) (26) (28) (34) damage	Change Corresponding O-ring or seal
	Tube (36) damage	Change tube (36)
The pump can work, but the output flow is low	Piston (7) wear	Change piston (7)
	O-ring (3) Seal (16) (26) (28) (34) damage	O-ring (3) Seal(16) (26) (28) (34) damage
	A blockage in a hose, valve	Release pressure & clean components
Oil leaks through the air exhaust	Silencer dirty or damage	Substitute damaged elements

**If the pump has anything wrong, please contact Alemlube.
We do not recommend that the customer repairs the pump themselves.**

Storage & Maintenance

Pumps are delivered in appropriate carton boxes. Packaging material should be properly disposed.

Handling and storage of the new pump does not require any special procedures.

However after the pump has been used, empty the used oil in the suction tube into an appropriate container. This is done by overturning the pump.

The dust in compressed air can slow down and even block the motor cylinder.

The following steps may prevent this from happening:

1. Let in 50 gram of Vaseline oil or other lubricator from the air inlet hole weekly, operate the pump for several minutes after having been lubricated.
2. Turn on the pump for several minutes until moving parts are fully lubricated.
3. You may repeat the above operation if necessary.
4. The above steps should be carried out on a weekly basis.

For the pumps that are attached with compressed air treatment equipment, please empty the water retained in the reservoir of the filter-purger frequently.

For the pumps that are attached with a lubricator, please pay close attention to the lubricator's oil level and refill with SAE 20, SAE 30 or antifreeze oil for extreme conditions when necessary.

NOTE: The user should perform only routine maintenance operations (such as filters, silencers, cleaning...) with the pump in order not to damage it or compromise its safety. Contact Alemlube when the pump needs further maintenance.

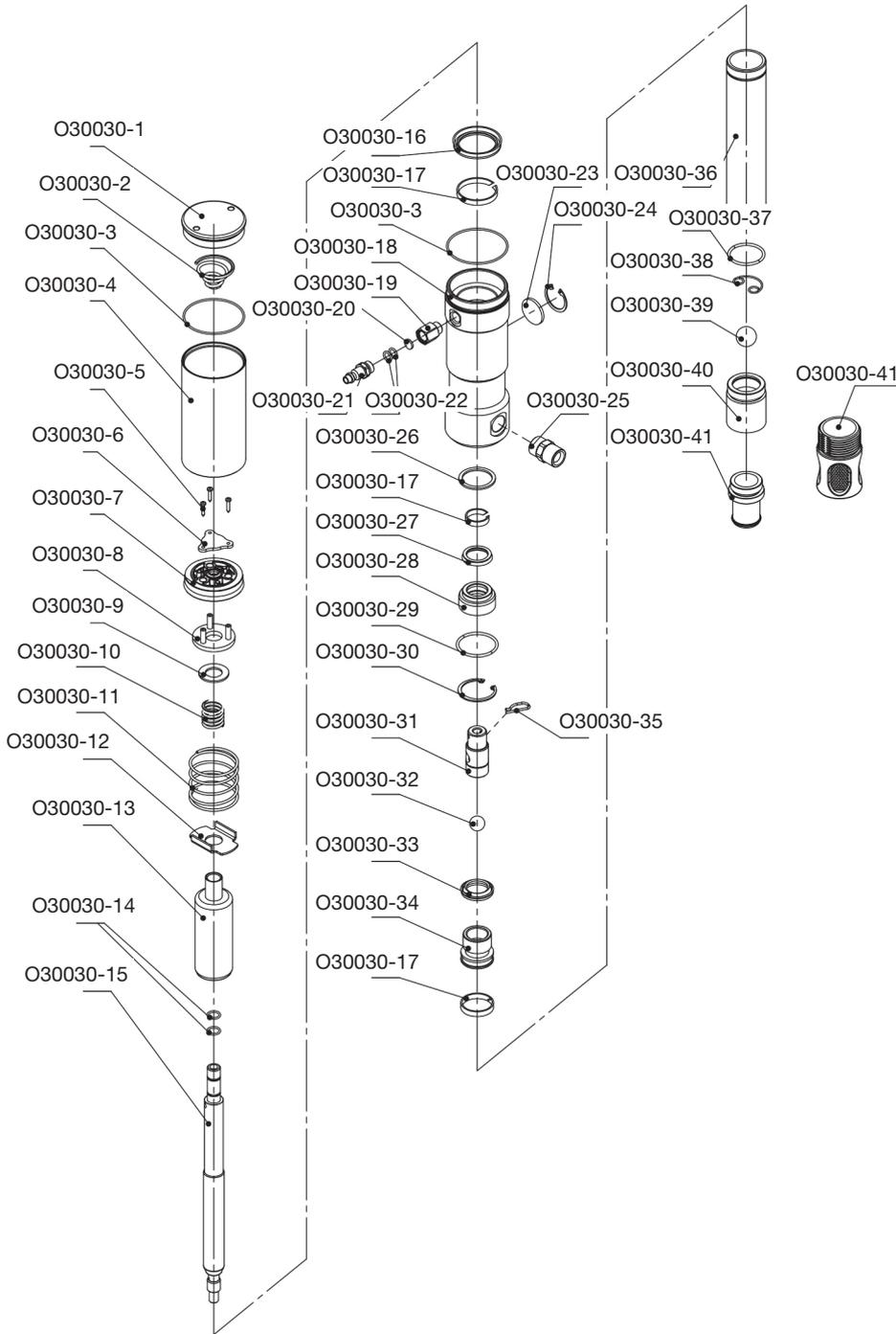
How to Use

Directly fit Pump into the Drum.

1. Insert the suction tube of pump into the drum and secure with bung adaptor, suitable for commercial drums with 57 diameter hole and threading 2" BSP.
2. Using suitable pipe fittings connect the oil control valve to the oil delivery hose.
3. Air inlet connection is 1/4" quick plug.
4. A pressure regulator to keep the pump's working pressure at the best possible level (maximum 5-10 bar) between the pump and the compressed air line can be installed.
5. A cut-off switch can enable the operator to stop the pump at any given moment by cutting the air supply off between the pump and the compressed air line.

Ordering Spare Parts

Parts List – Part No. O30030



Note: The Part Numbers with “*” are included in repair kit O30030-RK

Part Number	Description	Qty
O30030-1	Air Motor Cover	1
O30030-2	Spring	1
O30030-3*	O-Ring	2
O30030-4	Air Motor Shell	1
O30030-5	Screw	3
O30030-6	Plate	1
O30030-7*	Piston	1
O30030-8	Plate	1
O30030-9	Gasket	1
O30030-10	Spring	1
O30030-11	Spring	1
O30030-12	Back Plate	1
O30030-13	Barrel	1
O30030-14*	O-Ring	2
O30030-15	Pole	1
O30030-16*	Seal	1
O30030-17	Guiding	1
O30030-18	Air Control Center	1
O30030-19	Joint	1
O30030-20*	Silencer	1
O30030-21	Joint	1
O30030-22*	O-Ring	2
O30030-23	Silencer	1
O30030-24	Spring Circlip	1
O30030-25	Joint	1
O30030-26	Washer	1
O30030-27*	O-Ring	2
O30030-28	Seal	1
O30030-29	O-Ring	1
O30030-30	Spring Circlip	1
O30030-31	Screw	1
O30030-32	Washer	1
O30030-33*	Piston	1
O30030-34	Seal	1
O30030-35	Nut	1
O30030-36	Tube	1
O30030-37	O-Ring	1
O30030-38	Spring Circlip	1
O30030-39	Ball	1
O30030-40	Valve Seat	1
O30030-41	Filter or Connector	1

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FAX: (09) 447 1008

Technical Details

Item No.	030080 Oil Meter
Inlet connection	1/2" BSP
Fluid Range	1-35L/min
Pressure Range	70-725psi (5-50Bar)
Temperature	Min. -10°C Max. 60°C
Precision	--
Viscosity	8-5000mps
Power source	--
Rigid tube	-
Flexible hose	•
Manual tip	-
Automatic tip	•
Digital meter	-

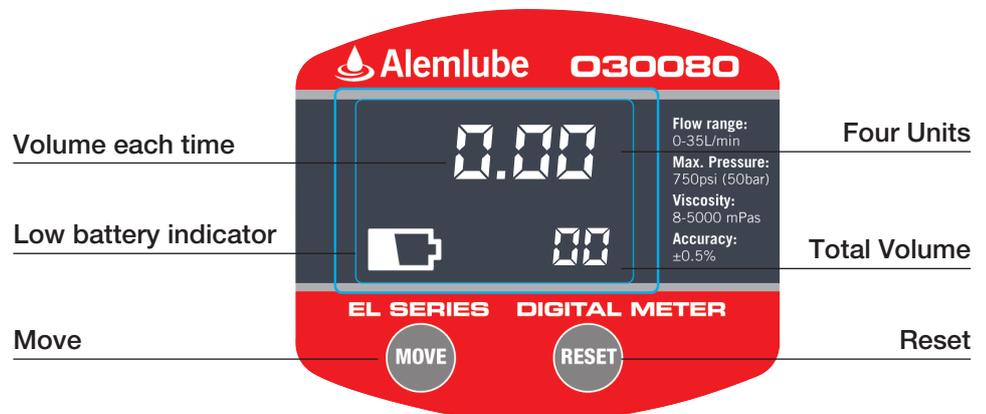


Installation

1. Control valve is 1/2" oil inlet, when connecting with hose fitting, please remember to apply the Teflon for better seal

Meter

1. 5-digit liquid crystal display for both volume each time and total
2. 4 units: L, GAL, PT and QT
3. Accurate to the second decimal place
4. Low battery indicator
5. 2 buttons: "Move", "Reset"



Attention: Do not apply the meter as a measuring tool for commercial trading

Details of Operation

1. Before putting into operation

- Check the technical data of the installation match with those of the lube meter. For example connections, pressure, flow range and medium. Use the formula: Proper correction factor = (actual value / displayed value) x current correction factor to decide the right connection factor, then set the proper correction factor (refer to 3. Button usage part)
- Once the meter has been installed, please make sure that no air pressure shocks or particles can damage the meter
- Please check all connections to avoid leakage

2. Change the battery

- Battery type: Lithium CR2, 3V/1400mAh
- Last for 8 years of operation, corresponds to approximately. 500,000 litres
- Change the battery like below when the battery signal is flashing on the display
- Remove the protector cover, unscrewing the screw
- Change the battery and screw the lid on again

3. User buttons

- The turbine digital meter features two buttons (MOVE and RESET) which individually perform two main functions and together, other secondary functions

The main functions performed are:

- For the reset key, resetting the partial Register and reset table total (reset total)
- For the move key, entering instrument calibration mode
- Used together, the two keys permit entering configuration mode

4. Battery replacement

When replacing the battery, please open the cover, remove the plug and replace the battery.

LCD Display

KEY

① Partial register (5 figures with moving comma from 0.1 to 99999)
Indicating the volume dispensed since the reset button was last pressed.

② Indication of battery charge

③ Indication of calibration mode

④ Indication of resetting present total to Zero

⑤ Total register

⑥ Indication of flow rate mode

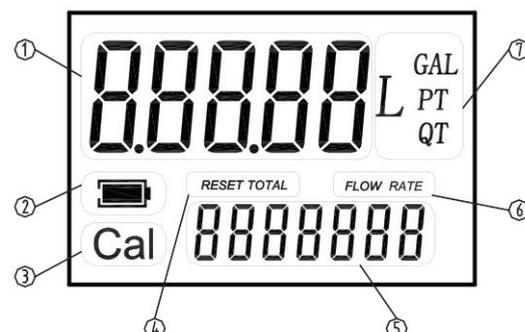
⑦ Indication of unit of measurement of partial:

L = Litres

GAL = Gallons

PT = Pints

QT = Quarts



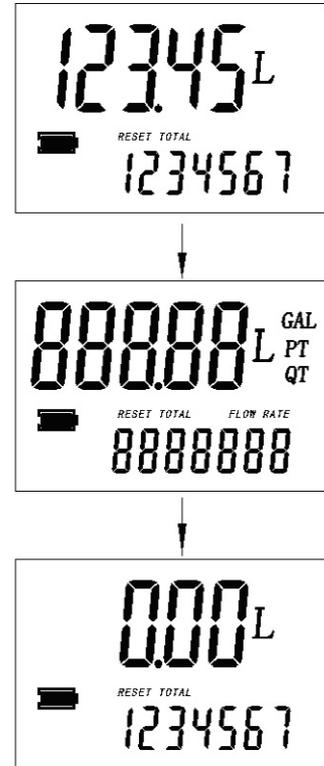
Daily Use

Button usage, calibration & measurement unit change

Reset the present total (See Fig. 1)

- 1) When the meter is on standby, press the RESET key.
- 2) The display shows all the segments.
- 3) The meter resets the present total already.

FIG. 1



Show current correction factor and general total (See Fig. 2)

Press MOVE and RESET together and hold for less than 3 seconds. Value "1.4000" is the correction factor which can be reset; "1234567" is the general total which cannot be reset.

FIG. 2

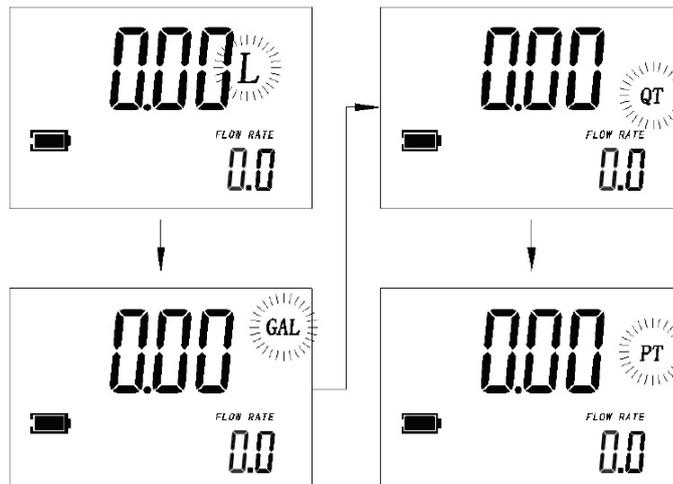


Measurement unit change (See Fig. 3)

Press MOVE and RESET together and hold for more than 3 seconds.

Zone 7 on the display is the current unit. Press RESET to chose a different measurement unit and then press MOVE and hold for more than 3 seconds to confirm.

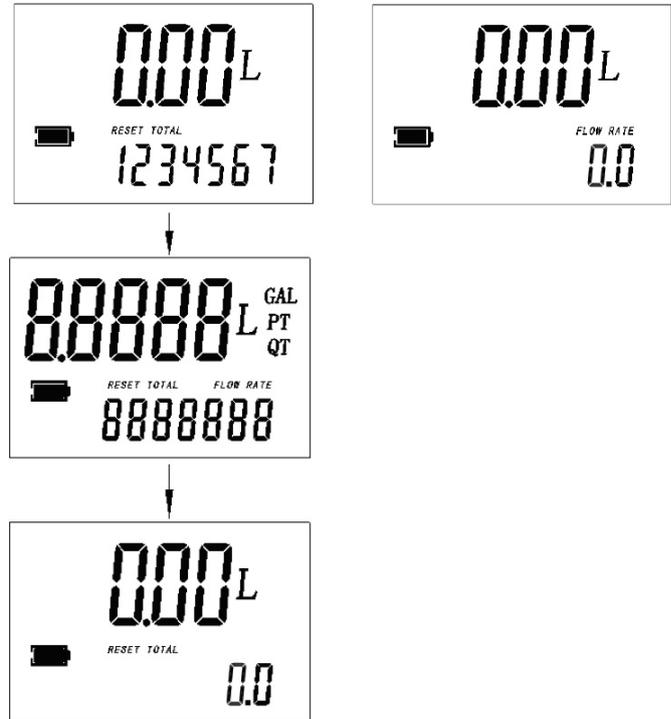
FIG. 3



Reset the resettable total (See Fig. 4)

When the meter is on standby, press the RESET key for more than 3 seconds to reset the present total first.

FIG. 4

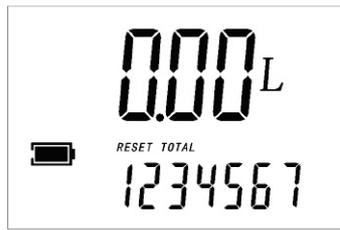
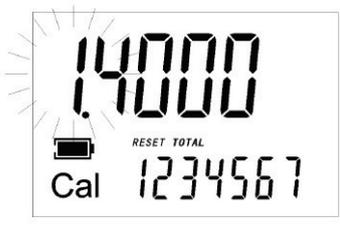


Procedure for entering the correction factor directly

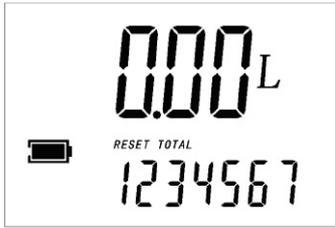
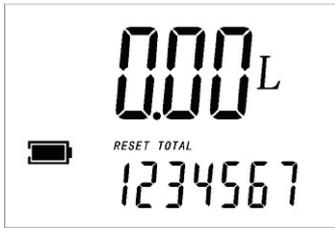
Carefully follow the procedure indicated below.

Formula: Proper correction factor = current correction factor × (actual value / display value)

Example: Actual value **20.75**
 Display value **18.96**
 Current correction factor **1.000**
 Proper correction factor **1.000 × (20.75 / 18.96) = 1.000 × 1.094 = 1.094**

1	Wait for the meter to go standby.	
2	Reset the resettable total.	
3	Press the MOVE key. Keep it pressed until it shows similar to the right image (the digit flash in ① zone), which means the meter is under the calibration mode.	
4	Press the RESET key to choose the right digit from 0 to 9. Press the MOVE key to start the next digit. So the digit of correction factor can be changed one by one.	
5	Make sure the correction factor is right, press the MOVE key. Keep it pressed until the indication of calibration mode quits and the factor is saved.	

To modify the correction factor in field follow this procedure

1	Wait for the meter to go standby.	
2	Reset the resettable total.	
3	<p>Start dispensing into a measuring glass. Stop dispensing when over 5 Litres of volume is reached, read out the actual value. The volume that is displayed on the LCD is the Display Value, not the Actual Value which may be slightly higher. For example, in the figure on the right, the Display Value is 18.96 while the Actual Value is 20.75.</p>	
4	<p>Press the MOVE key. Keep it pressed until it shows as the right fig., with the digit flashing in ① zone. Press the MOVE key to go the next digit so that the Actual Value can be input.</p>	 
5	<p>Make sure the correction factor is right and then press the MOVE key. Keep it pressed until calibration is finished and the factor is save. The meter will then return to be on standby.</p>	

Usage Instruction

1. Start:

Turn on the trigger to make the oil transmission.

2. Keep the status:

Push the lock ahead, then the transmission can be kept when the trigger is released.

3. Finish:

- a. If the lock is not used, release your hand, the trigger will turn off and finish the transmission.
- b. If the lock is used, please turn on the trigger once again, the lock will stop working.
Then turn off the trigger, release your hand, the transmission will be finished.

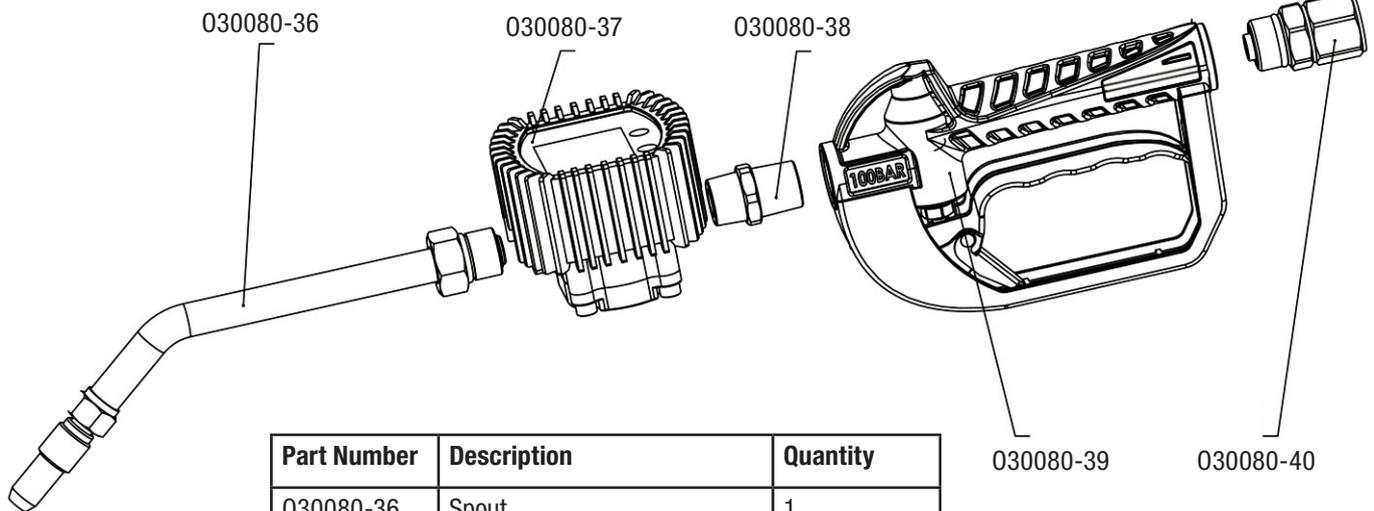


Notes when using:

Cautions:

1. For working condition, please refer to the specification parameter list. Temperature: -10°C~60°C.
2. Medium: Lubricant Oil.

Oil control valve exploded drawing



Part Number	Description	Quantity
030080-36	Spout	1
030080-37	Meter	1
030080-38	Adapter	1
030080-39	Handle Body	1
030080-40	Swivel Fitting	1

Maintenance

If any problem, please contact your local Alemlube Service Centre.

Trouble Shooting Guide

Relieve the pressure before you check or repair the dispensing valve. Be sure all other valves and controls and the pump are operating properly.

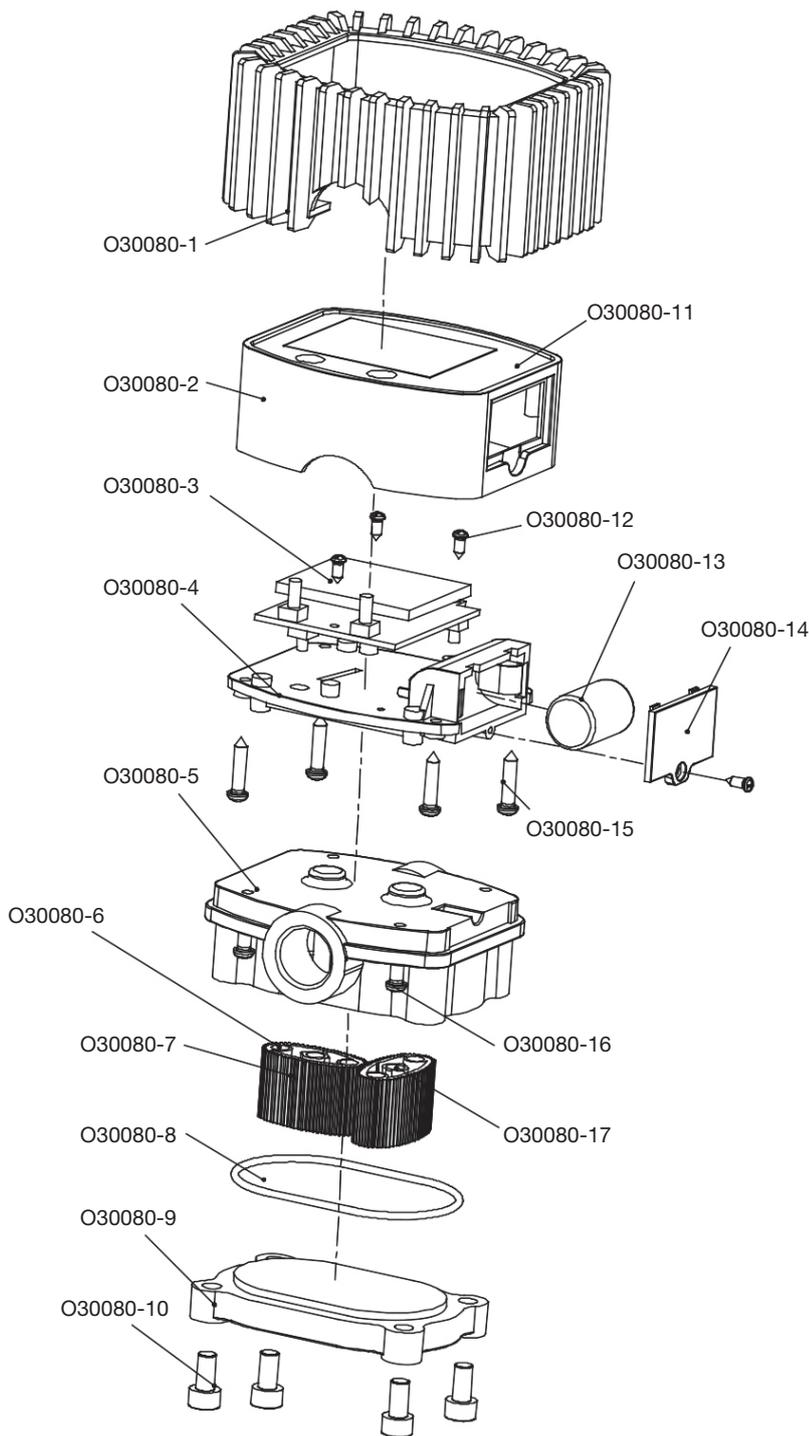
To reduce the risk of serious injury whenever you are instructed to relieve pressure, always follow the pressure relief procedure on page 3.

Problem	Problem	Solution
Slow or no fluid flow	Filter is clogged, or pump pressure is low, or shut-off valve is not fully open, or foreign materials jammed in the metering element	<ol style="list-style-type: none"> 1. Relieve the pressure 2. Loose swivel fitting, clean or replace the filter 3. If the problem remains, contact your distributor for repair or replacement
Oil leaks from swivel	Swivel is loose	Torque the swivel. If the problem remains, contact your distributor for repair or replacement
	O-ring is worn or damaged	Replace the o-ring. If the problem remains, contact your distributor for repair or replacement
Oil drips from nozzle	Nozzle is damaged or obstructed	Inspect the nozzle for damage or obstructions, and replace if damaged. If the problem remains, contact your distributor for repair or replacement
Valve leaks	O-rings or valve seat are worn or damaged	Replace the o-rings and/or the valve seat. If the problem remains, contact your distributor for repair or replacement
Leakage from meter	O-ring damaged	<ol style="list-style-type: none"> 1. Get the meter off from the dispense system 2. Take off the protector 3. Loosing four the socket head cap screws on the cover of the meter 4. Loosing eight the hex bolts on the bottom of the meter 5. Take off the seat 6. Check the o-ring, replacing the o-ring if it is damaged 7. After replacing the o-ring, assemble the meter and fix it back to the dispense system
No display	Loosing battery	<ol style="list-style-type: none"> 1. Get the meter off from the dispense system 2. Take off the protector 3. Take off the labels sticks on the bottom of the meter 4. Loosing the five socket head cap screws on the bottom of the meter 5. Take off the seat 6. Check the battery, replacing the battery if it is out of power 7. After replacing the battery, assemble the meter and fix it back to the dispense system
	Battery out of power	
Wrong reading	Correction coefficient error	Reset the correction factor

WARNING: Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

Ordering Spare Parts

Parts List – Part No. O30080



Part Number	Description	Qty
O30080-1	Rubber Protector	1
O30080-2	Meter Cover	1
O30080-3	Main Circuit Board	1
O30080-4	Fix Board	1
O30080-5	Seat	1
O30080-6	Magnetic Rod	2
O30080-7	Oval Gear	2
O30080-8	O-ring	1
O30080-9	Meter Holder	1
O30080-10	Screw	4
O30080-11	Label	1
O30080-12	Screw	4
O30080-13	Battery	1
O30080-14	Battery Cover	1
O30080-15	Screw	4
O30080-16	Screw	4
O30080-17	Shaft	2

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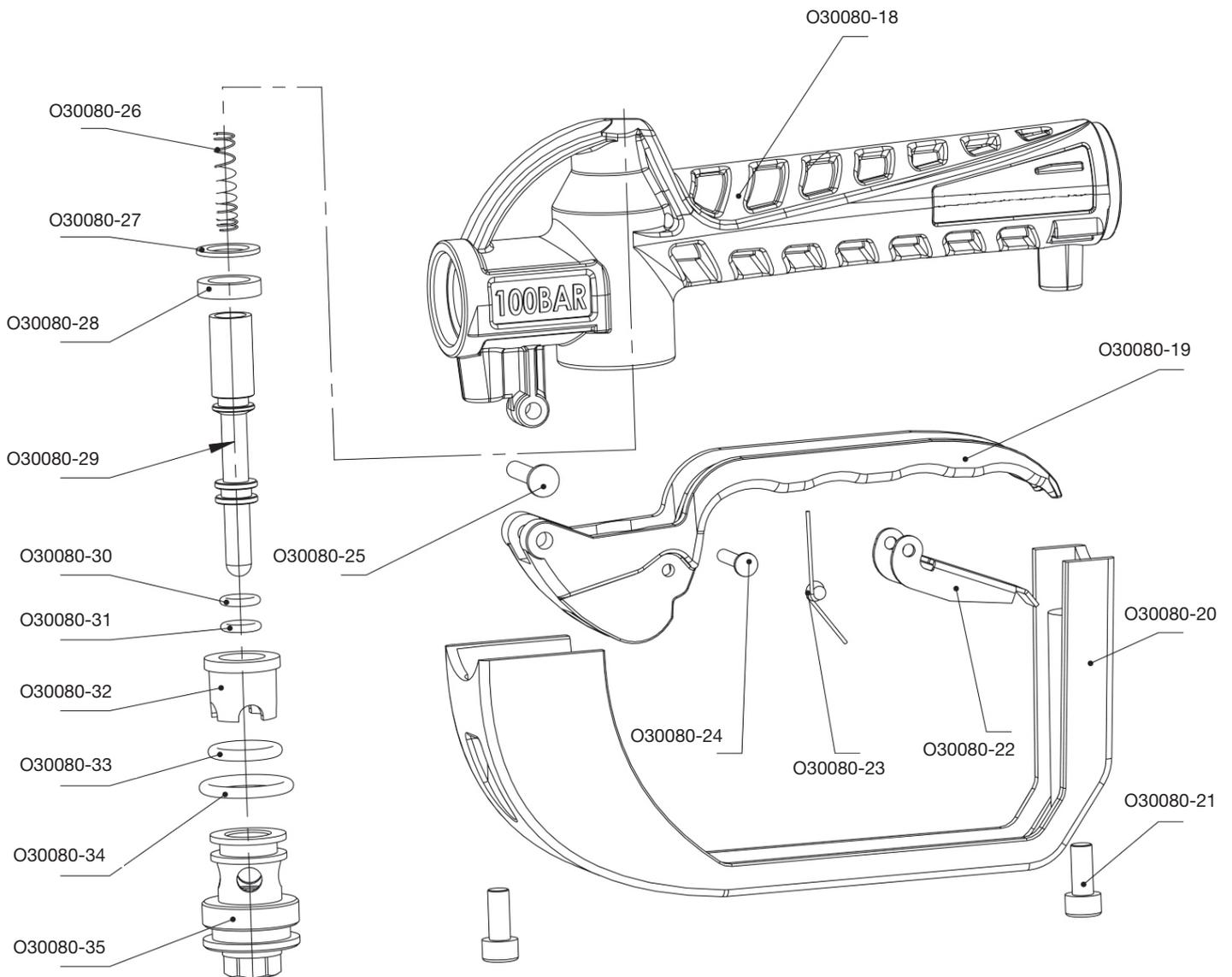
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Ordering Spare Parts

Parts List – Part No. O30080



Part Number	Description	Qty	Part Number	Description	Qty
O30080-18	Handle Body	1	O30080-27	Washer	1
O30080-19	Trigger	1	O30080-28	Seal	1
O30080-20	Grip	1	O30080-29	Slip Pole	1
O30080-21	Screw	2	O30080-30	O-Ring	1
O30080-22	Trigger Lock	1	O30080-31	O-Ring	1
O30080-23	Clip	1	O30080-32	Bushing	1
O30080-24	Pin	1	O30080-33	O-Ring	1
O30080-25	Pin	1	O30080-34	O-Ring	1
O30080-26	Spring	1	O30080-35	Piston Sleeve	1

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