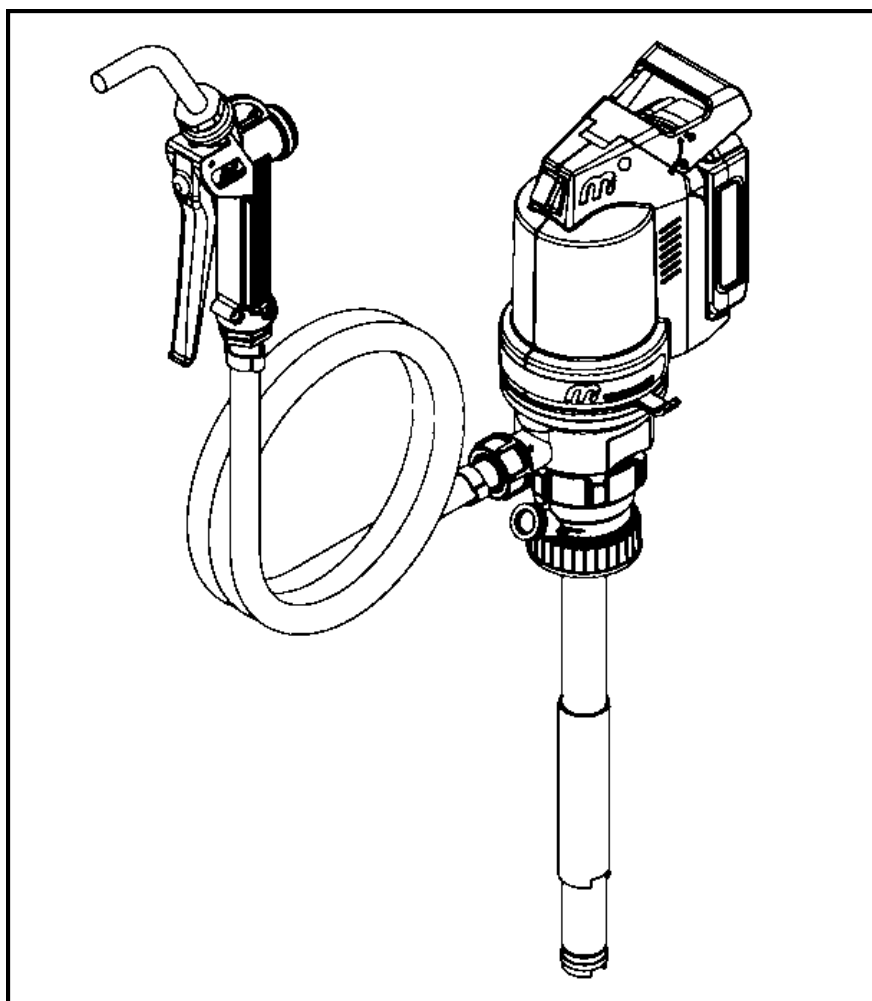


BOP BATTERY OPERATED PUMPS

(20L / 60L /205L model pumps)

Instruction Manual



BP-inst-issue21

John M. Ellsworth Co., Inc.

P.O. Box 240072
8700 West Bradley Road
Milwaukee, WI 53224

800-333-3331 **PHONE**
info@jmesales.com **E-MAIL**
www.JMEsales.com **WEB**

INTRODUCTION

Thank you for purchasing the Macnaught BOP battery operated pump.

Macnaught has designed and manufactured this pump to the highest quality standards using premium quality materials and workmanship.

PLEASE READ THIS SAFETY INFORMATION CAREFULLY BEFORE USE.

Read and retain this instruction manual to assist you in the operation of your new product.



WARNING

Please read this important information carefully before use.

This product should only be used with automotive oils/fluids* and lubricants.

- Visually inspect pump, charger and battery prior to use for any signs of damage, loose or missing parts. If equipment is worn or damaged, remove it from service (Replace if required).
- The BOP Battery operated pump must be used strictly in accordance with Macnaught's terms and conditions.
- 'WARNING' listed throughout this manual to advise of actions which may cause damage to your equipment.

Failure to follow all instructions listed below may result in electric shock, fire, serious injury and/or damage to the power tool. The term "power tool" in all of the warnings listed refers to your battery operated (cordless) power tool.

- Make sure all operators have adequate access to the following instructions.



GENERAL SAFETY

DO NOT operate power tools in explosive areas, e.g; close to flammable liquids, gases or dust.



ELECTRICAL SAFETY

- Never modify electrical connections.
- **DO NOT** expose power tool to rain or wet conditions.
- **DO NOT** use product if the product is damaged or the switch does not turn the pump on.
- **Only use "ORIGINAL" Macnaught replacement parts, battery or charger.**



BATTERY and CHARGER SAFETY

Please follow instructions from battery and charger owners manual

- If "battery-pack" case is damaged, **DO NOT** use - Danger of electric shock or electrocution.
- Battery charger **MUST ONLY** be used for charging the rechargeable batteries supplied with the BOP.
- **DO NOT** operate charger if charger, power cord or plug is damaged - replace immediately.
- **DO NOT** disassemble charger or battery.
- **DO NOT** store battery pack in locations where the temperature may reach or exceed 40°C/104°F.
- **DO NOT** use charger on any other voltage than designated on the charger.

* Please refer to the pump specification table for fluid compatibility with the selected model.

DISCLAIMER

Your product is designed to use with non-flammable automotive oil/lubricants and automotive fluids* only, with viscosity grades from 0W-40 to SAE85W-140. Usage with different fluids may cause performance degradation and render the warranty void. Improper use of liquid may lead to machine failure and malfunction.

Use of any flammable fluids can cause sparks to explode and create a fire hazard. Macnaught assumes no liability for any consequences resulting from the misuse of fluids by customers.



WARNING

- Always place gun on hanger when pump is not in use, as oil/fluids* spillage can cause a slipping hazard.
- Keep plastic bag away from babies and children.
- Do not lift the power head with locking lever. Handle power head with care. DO NOT DROP.
- Make sure the power head is securely connected/attached to the stem.
- Do not leave the power head sitting on top of the stem unlocked.
- Stop operating the battery oil pump if any leakings at the joints are noticed.
- Do not modify the pump in any way.
- Only use a genuine Macnaught dispensing gun. Hand tighten the hose till its firm and check for any signs of leakage before use.
- Do not use flammable fluid in this product. Only use fluid specified in this instruction manual.
- Wear appropriate PPE for protection.
- Do not use the product in potentially explosive atmosphere.
- Do not expose the product to fire and source of heat.
- Users should refer to MSDS of the fluid from supplier being used.
- Use product in well ventilated area.
- Never leave your dispensing gun unattended in open position. Do not attempt to use any means to lock the lever. Always ensure the switch is in off position after dispensing the oil.
- Use pump in adequate lighting condition for safe operation. Do not use the product under poor illumination.
- Avoid spillage of oil/fluids near water source as it may be harmful to the environment.
- When moving drum, check area for spillage and clean up any liquid on floor as this will cause a slippery hazard
- Only use genuine Macnaught battery and chargers with this product.
- Battery pack, charger and power head should be protected from water.



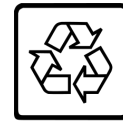
CAUTION

- * Do not expose the power head to a nearby magnet as its performance will be adversely affected.
- The battery operated pump should always be used in a vertical position.
- The dispensing gun should always be facing up when dispensing fluid.
- If the noise level changes check the hose to see if there is air present, if air is present stop the pump immediately as this indicates the drum is empty. Switch over to a new drum.

* Please refer to the pump specification table for fluid compatibility with the selected model.

BATTERY DISPOSAL

NOTE: Dispose of old batteries properly. The battery contains rechargeable Lithium-ion and must be recycled or disposed of properly. Please refer to the local authorities for the correct method of battery disposal.



Li-ion

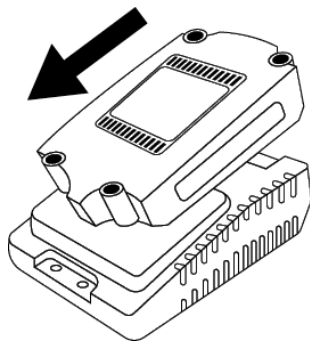


DO NOT incinerate the battery pack. The battery can explode in a fire

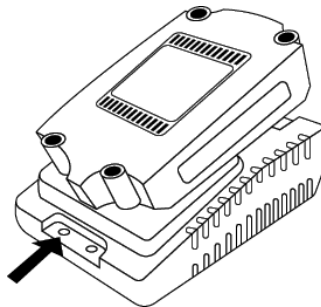
DO NOT attempt to disassemble any battery.

CHARGE BATTERY

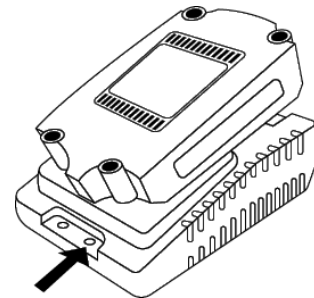
1) Insert battery



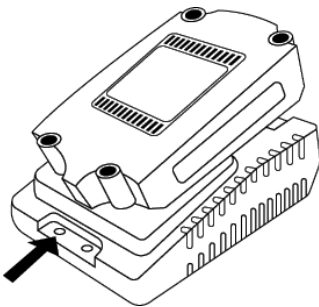
2) Power on
(green light only)



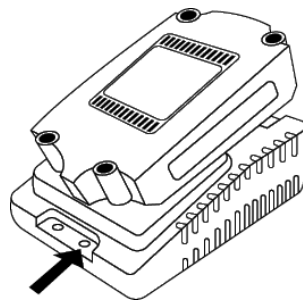
3) Battery charging
(red light only)



4) Battery charged
(green light only)

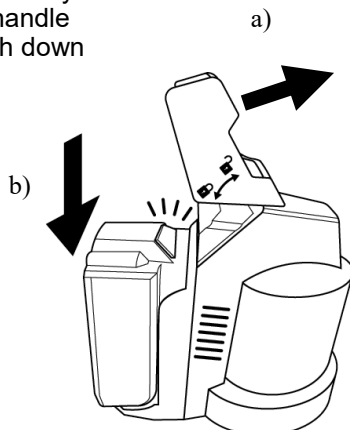


Note: Red light flashes when battery voltage is low
(trickle charging to prevent battery damage)

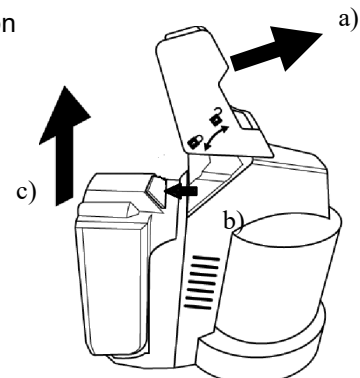


INSERT / REMOVE BATTERY

1) Insert battery
a) lift handle
b) push down



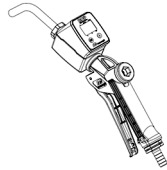
2) Remove battery
a) lift handle
b) press button
c) pull up



ASSEMBLY

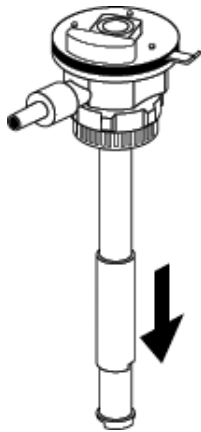


Note: For models supplied with a flow meter, refer to meter assembly instructions on page 13

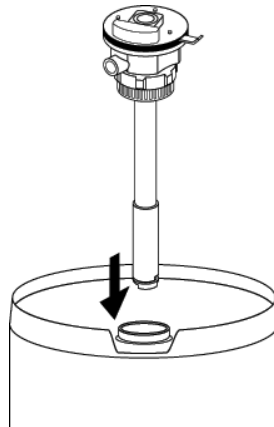


1) Remove both the inlet and outlet plugs from the pump stem before use.

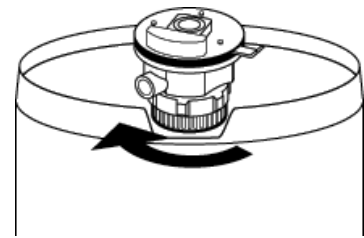
2) Pull down extender tube



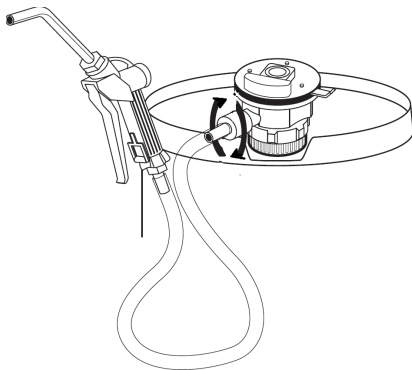
3) Push the pump stem into container



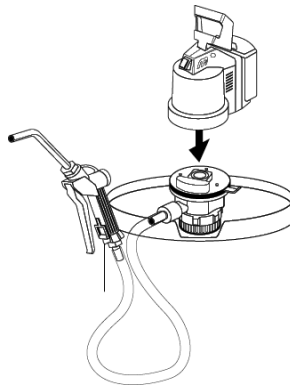
4) Tighten bung adapter to secure pump stem



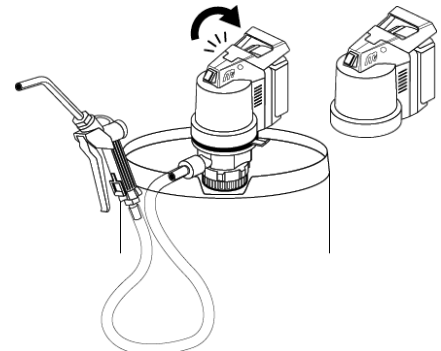
5) Attach hose and gun (ensure end gasket is in place)



6) Ensure switch is off, then place power head onto pump stem

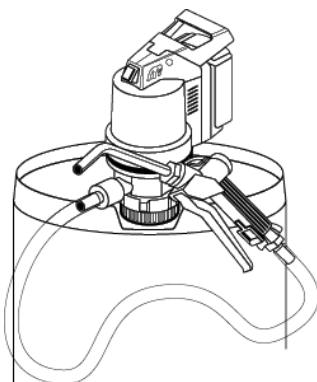


Note: Power head will not operate unless locked correctly into position.

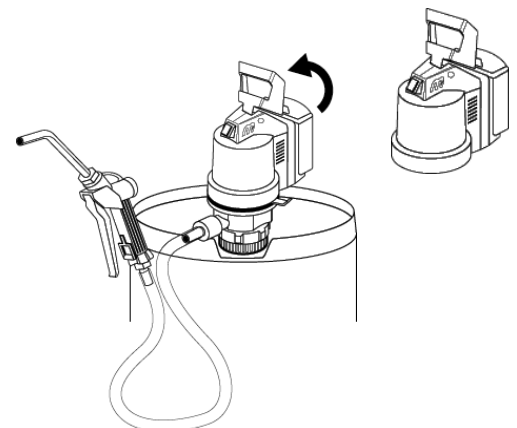
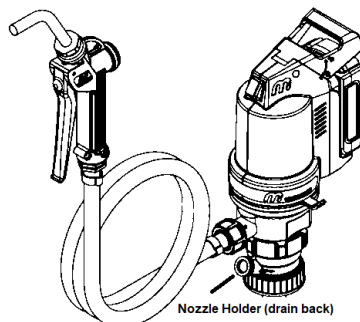


8) Place gun onto hanger when finished

Note: If nozzle holder is fitted, place nozzle into holder when finished.



9) To remove power head, lift handle.



OPERATING INSTRUCTIONS

OPERATION



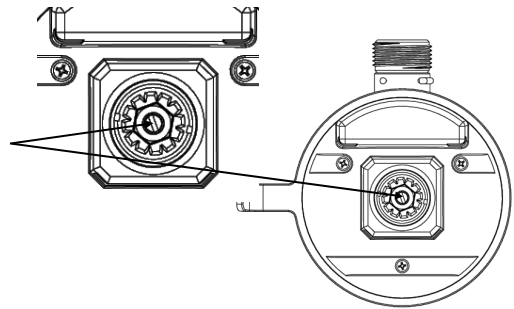
WARNING

- Do not allow the pump to run dry or pump damage can occur.
- Flush with water after using Urea/DEF to prevent crystallization.

IMPORTANT:

For initial operation

- 1) Turn slot in shaft clockwise one complete turn with a flat head screwdriver.
- 2) First press the trigger on gun and then turn on the pump to prime.
- 4) Power head can be moved from pump assembly to pump assembly.
- 5) Long storage periods :
 - a) Turn slot shaft 2 full turns counter clockwise using a flat head screwdriver.
 - b) When starting pump after a long storage period, turn slot shaft clockwise with a flat head screwdriver.



Note:

Pump will not run when power head is not attached to pump stem correctly.

Pressure sensor will turn motor off when trigger is released and stall pressure is reached.

For low viscosity oils you may need to manually prime the system before use

Note: There may be a delay in the pump turning off when the trigger on the gun is released, this is normal as the pump is priming to stall pressure.

GENERAL OPERATION

- 1) Attach power head to stem

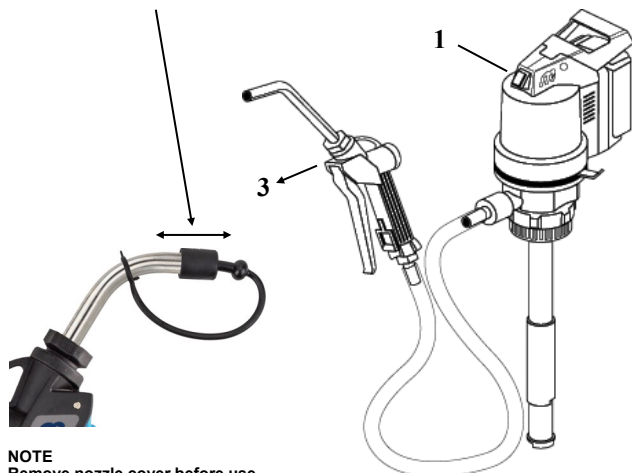
- 3) Press or Release trigger to adjust flow



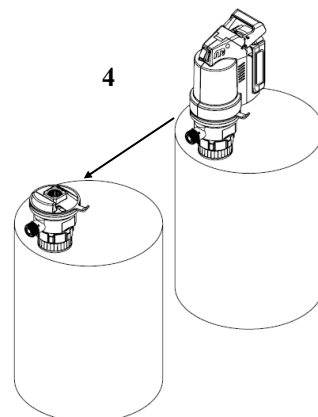
CAUTION

- 2) Remove nozzle cover before use

- 4) Lift handle to transfer power head from stem to stem

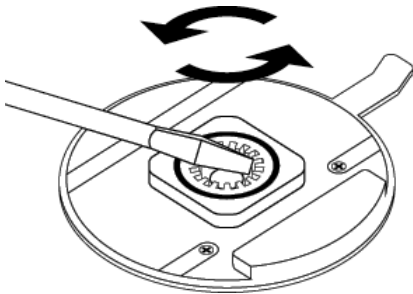


NOTE
Remove nozzle cover before use
Replace nozzle cover after use

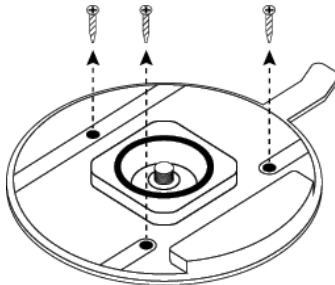


DIAPHRAGM AND SPRING REPLACEMENT

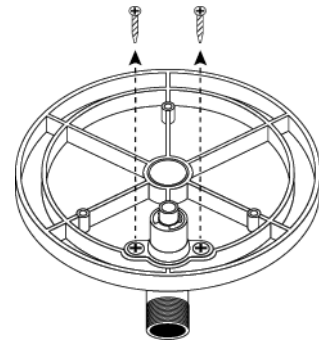
1) Turn anti-clockwise, remove drive gear



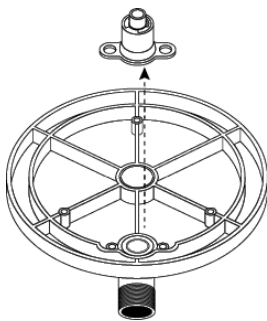
2) Remove 3 screws, pump cover and dispensing gun hanger



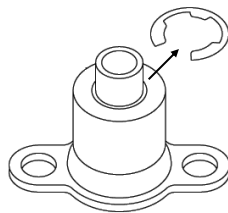
3) Remove 2 screws.



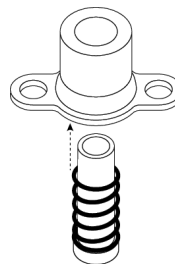
4) Remove assembly.



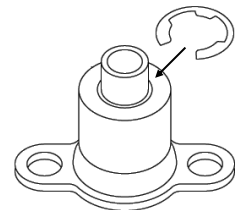
5) Remove circlip.



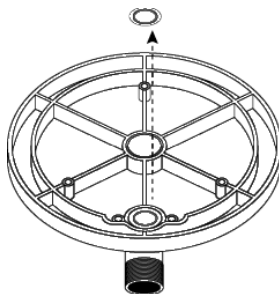
6) Replace spring.



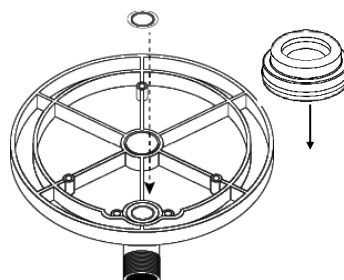
7) Re-fit circlip.



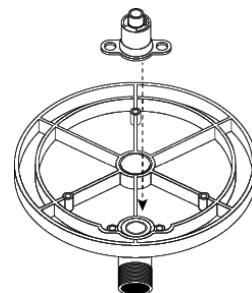
8) Remove old diaphragm.



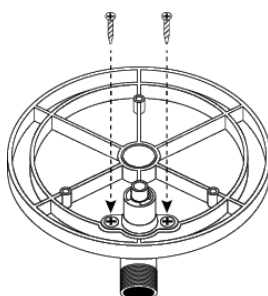
9) Fit new diaphragm. (ensure correct orientation)



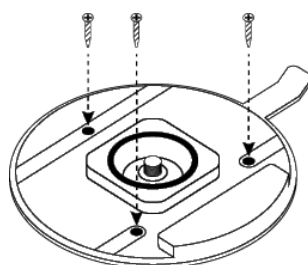
10) Fit valve switch assembly.



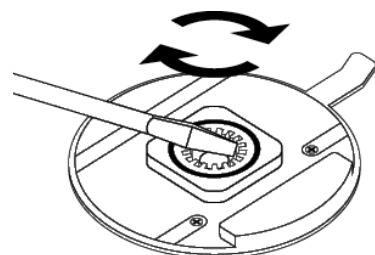
11) Fit 2 screws.



12) Fit pump cover and dispensing gun hanger, using 3 screws.

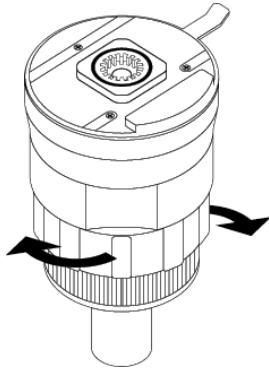


13) Fit drive gear, turn clockwise to secure.

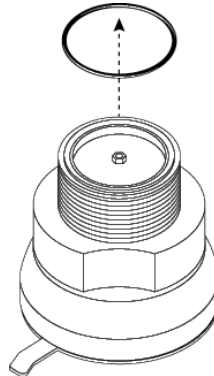


IMPELLER AND O'RING REPLACEMENT

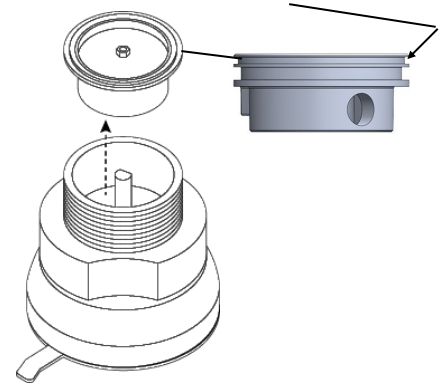
1) Unscrew adapter



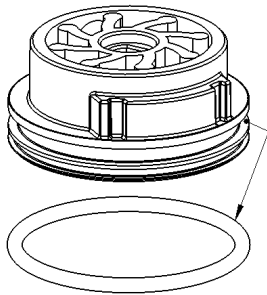
2) Remove o'ring.



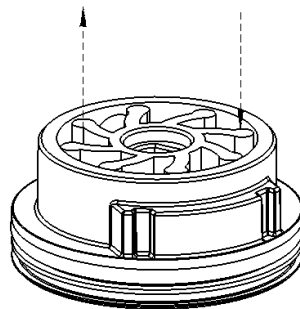
3) To assist in the removal of the impeller carefully use a small flat edged screwdriver in the small groove



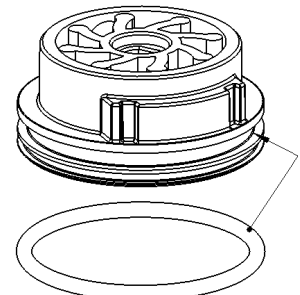
4) Remove o'ring.



5) Carefully remove and replace impeller.

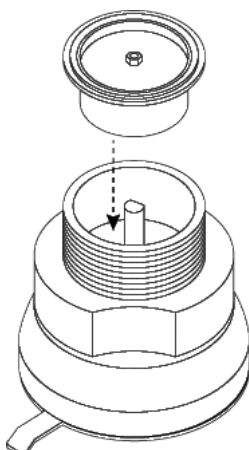


6) Replace o'ring.

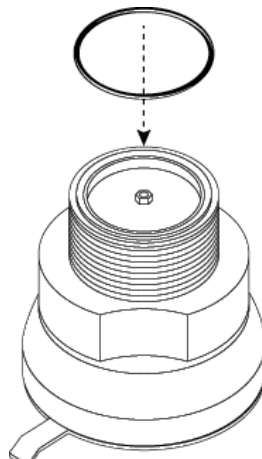


Note:
Impellers must be lubricated with oil or grease during assembly.

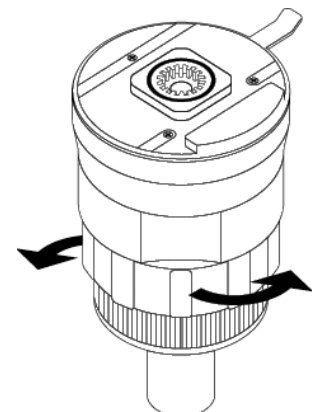
7) Carefully insert impeller housing.
(Note correct orientation of grooves)



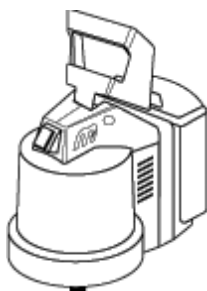
8) Replace o'ring.



9) Firmly hand tighten pump tube.



BOP 20L Stem kit exploded view



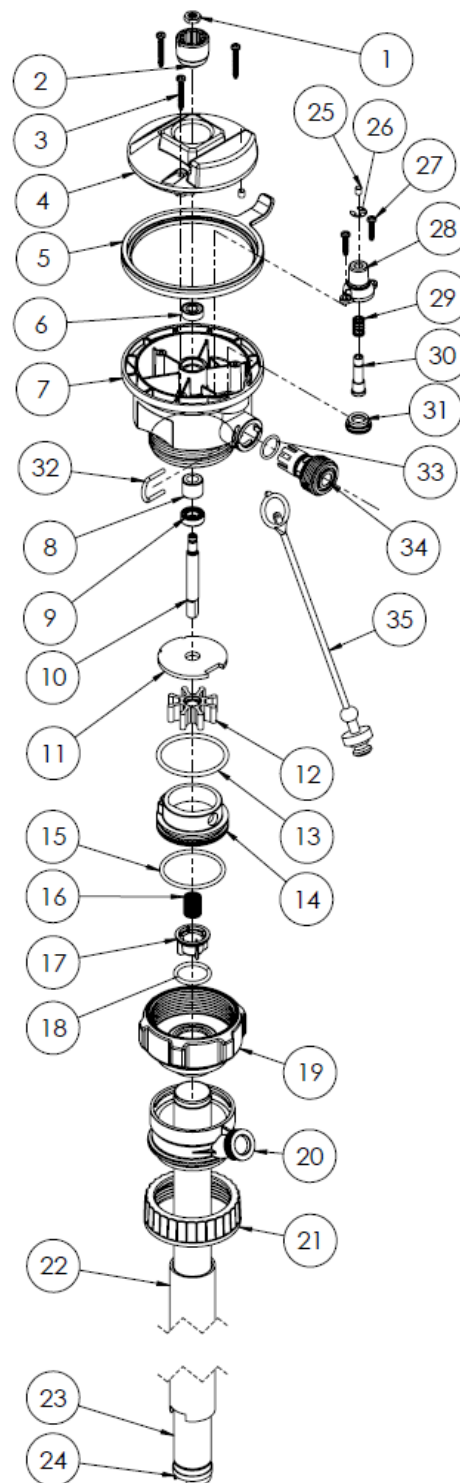
Note: Power head is factory sealed and would need to be replaced if found to be damaged internally or externally.

Spare parts list

Item no	Pump Kit Ref (A)	No off	Description
	BP-1K		Pump Seal Kit
1		1	Nut (M6)
2		1	Connector
3		3	Screws (3.5 x 25)
4		1	Pump Stem Top Cover
5		1	Hook - Dispensing Gun
6		1	Ball Bearing
7		1	Housing - Pump Stem
8		1	Roller Bearing
9		1	Oil Seal
10		1	Drive Shaft
11	A	1	Cover Impeller Chamber
12	A	1	8-Blade Flexible Impeller
13	A	1	O'Ring
14	A	1	Housing - Impeller Chamber
15	A	1	O'Ring
16		1	Spring
17		1	Check Valve
18	A	1	O.Ring
19		1	Nut - Pump Stem
20		1	Drain Back Adaptor
21		1	Bung adapter (type C)
22		1	Tube Cover
23		1	Outer Tube
24		1	Base
25	A	2	Magnet
26	A	1	Circlip E-Clip
27		2	Screw - 3.5x16
28		1	Housing - Pressure Switch
29	A	1	Spring
30	A	1	Plunger
31	A	1	Diaphragm
32		1	U-Clip
33	A	1	O.Ring
34		1	Connector
35		1	Dust Cover



EXPLODED DIAGRAM



BP-HG - Gun and hose kit with 1.5m length
 BP-HK - Hose kit with 1.5m length
 BP-HG2 - Gun and hose kit with 2m length
 BP-HK2 - Hose kit with 2m length

Bung Adapter Set 20ltr - order BP20-AK
 60ltr - order BP60-AK

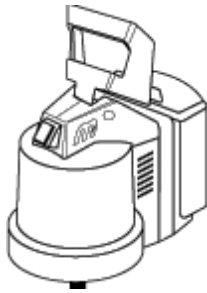
NOTE: When fitting the BP-1K pump seal kit you must replace the impeller (12) and the spring (16) with the new ones supplied in the kit

Bung Adapter for 20ltr drum with pull out spout - order BP037s

BOP 60/205L Stem kit exploded view



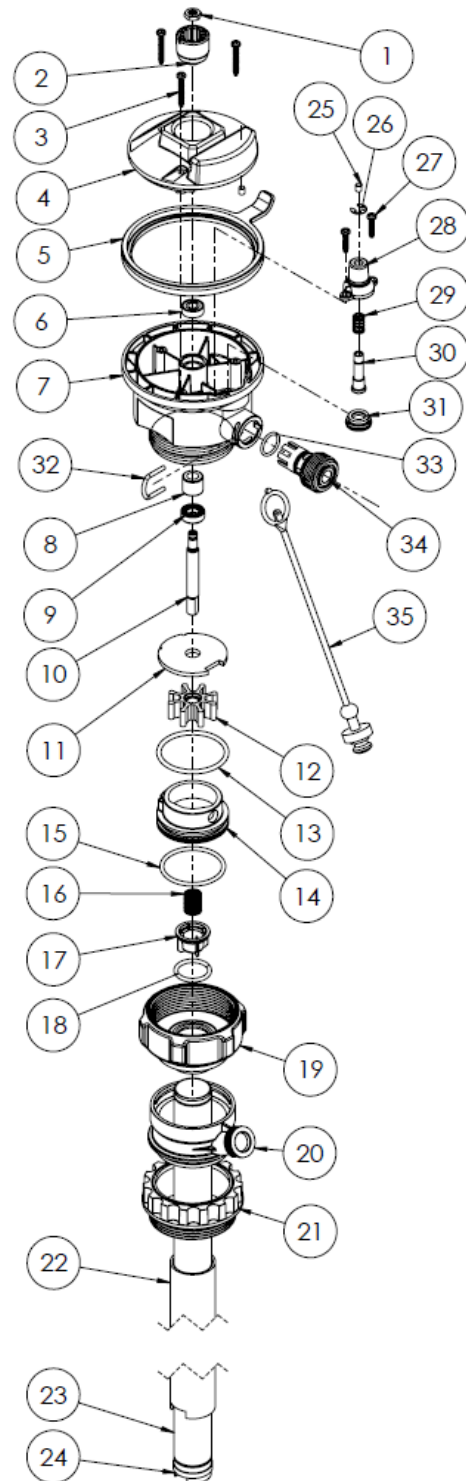
EXPLODED DIAGRAM



Note: Power head is factory sealed and would need to be replaced if found to be damaged internally or externally.

Spare parts list

Item no	Pump Kit Ref (A)	No off	Description
	BP-1K		Pump Seal Kit
1		1	Nut (M6)
2		1	Connector
3		3	Screws (3.5 x 25)
4		1	Pump Stem Top Cover
5		1	Hook - Dispensing Gun
6		1	Ball Bearing
7		1	Housing - Pump Stem
8		1	Roller Bearing
9		1	Oil Seal
10		1	Drive Shaft
11	A	1	Cover Impeller Chamber
12	A	1	8-Blade Flexible Impeller
13	A	1	O'Ring
14	A	1	Housing - Impeller Chamber
15	A	1	O'Ring
16		1	Spring
17		1	Check Valve
18	A	1	O.Ring
19		1	Nut - Pump Stem
20		1	Drain Back Adaptor
21		1	Bung adapter for metal drum
22		1	Tube Cover
23		1	Outer Tube
24		1	Base
25	A	2	Magnet
26	A	1	Circlip E-Clip
27		2	Screw - 3.5x16
28		1	Housing - Pressure Switch
29	A	1	Spring
30	A	1	Plunger
31	A	1	Diaphragm
32		1	U-Clip
33	A	1	O.Ring
34		1	Connector
35		1	Dust Cover

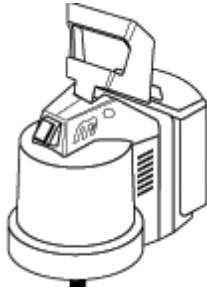


BP-HG2- Gun and hose kit with 2m length
 BP-HK2- Hose kit with 2m length
 BP-HG3 - Gun and hose kit with 3m length
 BP-HK3 - Hose kit with 3m length

NOTE: When fitting the BP-1K pump seal kit you must replace the impeller (12) and the spring (16) with the new ones supplied in the kit

Bung Adapter Set 20ltr - order BP20-AK
 60ltr - order BP60-AK

BOP 60/205L DEF/Urea Stem kit exploded view



Note: Power head is factory sealed and would need to be replaced if found to be damaged internally or externally.

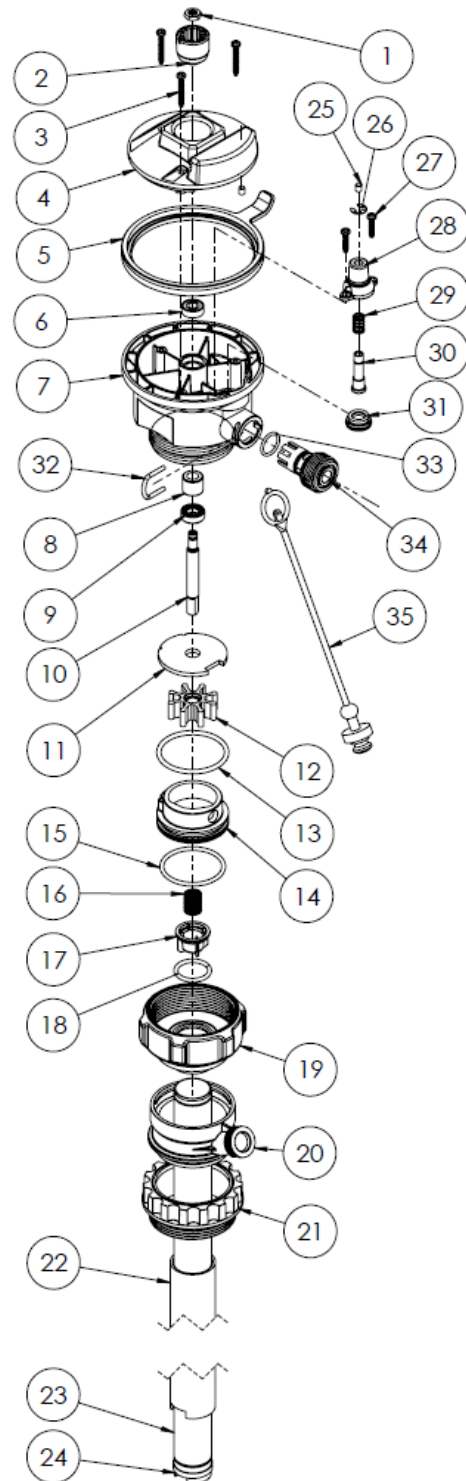
Spare parts list

Item no	Pump Kit Ref (A)	No off	Description
	BP-4K		Pump Seal Kit
1		1	Nut (M6)
2		1	Connector
3		3	Screws (3.5 x 25)
4		1	Pump Stem Top Cover
5		1	Hook - Dispensing Gun
6		1	Ball Bearing
7		1	Housing - Pump Stem
8		1	Roller Bearing
9		1	Oil Seal
10		1	SS Drive Shaft
11	A	1	Cover Impeller Chamber
12	A	1	8-Blade Flexible Impeller
13	A	1	O'Ring
14	A	1	Housing - Impeller Chamber
15	A	1	O'Ring
16		1	SS Spring
17		1	Check Valve
18	A	1	O.Ring
19		1	Nut - Pump Stem
20		1	Drain Back Adaptor
21		1	Bung adapter for metal drum
22		1	Tube Cover
23		1	SS Outer Tube
24		1	Base
25	A	2	Magnet
26	A	1	Circlip E-Clip
27		2	Screw - 3.5x16
28		1	Housing - Pressure Switch
29	A	1	Spring
30	A	1	Plunger
31	A	1	Diaphragm
32		1	U-Clip
33	A	1	O.Ring
34		1	Connector
35		1	Dust Cover

NOTE: When fitting the BP-4K pump seal kit you must replace the impeller (12) and the spring (16) with the new ones supplied in the kit



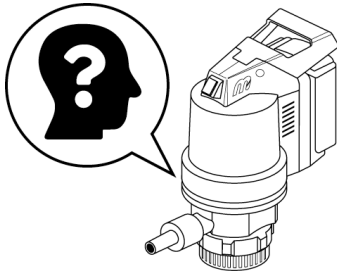
EXPLODED DIAGRAM

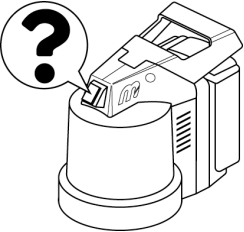
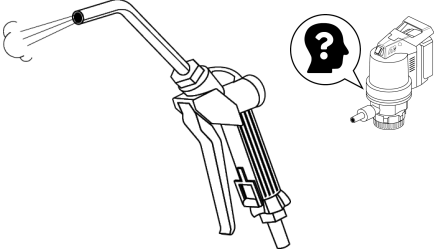
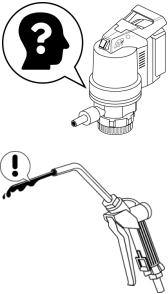


BP-HG2 - Gun and hose kit with 2m length
 BP-HK2 - Hose kit with 2m length
 BP-HG3 - Gun and hose kit with 3m length
 BP-HK3 - Hose kit with 3m length

Bung Adapter Set 20ltr - order BP20-AK
 60ltr - order BP60-AK

TROUBLESHOOTING GUIDE



TROUBLE	CAUSE	REMEDY
Pump does not turn on 	a) Flat battery b) Power head not attached correctly to pump c) Faulty switch d) Pump stem failure	a) Recharge battery b) Re-fit power head correctly c) Contact supplier d) Contact supplier
Pump will not prime 	a) Pump tube plug has not been removed before use. b) Damaged or worn impeller c) No oil in container d) Damaged gun or hose e) Damaged diaphragm	a) Remove tube plug b) Fit new impeller Note: Do not let the impeller run dry c) Check oil level in container d) Replace gun e) Replace diaphragm
Power head does not stop when gun trigger is released 	a) Damaged diaphragm or spring b) Damaged or worn impeller c) Gun leaking d) Damaged hose	a) Replace damaged diaphragm or spring b) Replace impeller c) Replace gun d) Replace hose

PUMP SPECIFICATIONS



	BOP20L	BOP 60L/205L	BOP 60L/205L DEF/Urea
Flowrate - Low to Medium Viscosity Oil	* 4.5 l/min (0W-40 @ 20 deg C)		
Flowrate - High Viscosity Oil	* 2.4 l/min (85W-140 @ 20 deg C)		
Flowrate - ATF	* 6 l/min (ATF @ 20 deg C		
Flowrate - Coolant	* 6.2 l/min @ 20 deg C		
Flowrate - DEF/Urea	* 7 l/min @ 20 deg C		
Operating Temperature	0°C - 40°C (32°F - 104°F)		
Container Size	Models available to suit 20ltr containers	Models available to suit 60ltr - 205ltr containers	
Fluid compatibility	Engine oil, gear oil, hydraulic oil (oils up to SAE140 viscosity), ATF and engine coolant		Engine oil, gear oil, hydraulic oil (oils up to SAE140 viscosity), ATF, engine coolant and DEF-Urea
Max Viscosity	From SAE 0W40 up to SAE 85W-140		
Self Priming	Yes		
Hose	20L - (19mm x 1.5m) 5ft wire reinforced PVC	60L/205L - (19mm x 2m) 6.5ft wire reinforced PVC	
Warranty - Pump and Power Head	2 Years		
Warranty - Battery	12 Months		
Wetted components	Nitrile rubber, Mild steel, Stainless steel, Aluminium, Nylon, Brass, Polypropylene, PPS, Zinc plated steel		Nitrile rubber, Stainless steel, Aluminium, Nylon, Polypropylene, PPS
Relative humidity	50% - 90%		
Hook Colour	Black		Grey

* Flowrates are a guide only and any variations can depend on temperature and fluid viscosity

Available Kits and Packs



BOP Universal Starter Kits:

Starter Kit	Australia & New Zealand	United Kingdom	Europe	Japan	United States
20L	BP20S-UNA	BP20S-UNB	BP20S-UNE	BP20S-UNJ	BP20S-UNU
60/205L	BP205S-UNA	BP205S-UNB	BP205S-UNE	BP205S-UNJ	BP205S-UNU
60/205L DEF/UREA	BP205S-DUNA	BP205S-DUNB	BP205S-DUNE	BP205S-DUNJ	BP205S-DUNU

BOP Universal Stem Kits:

Stem Kit	Australia & New Zealand	United Kingdom	Europe	Japan	United States
20L	BP20X-UNA	BP20X-UNE		BP20X-UNJ	BP20X-UNA
60/205L	BP205X-UNA				
60/205L DEF/UREA	BP205X-DUNA				

BOP Hose Kits:

20L		60L/205L & DEF	
BP-HG	Gun and hose kit with 1.5m length	BP-HG2	Gun and hose kit with 2m length
BP-HK	Hose kit with 1.5m length	BP-HK2	Hose kit with 2m length
BP-HG2	Gun and hose kit with 2m length	BP-HG3	Gun and hose kit with 3m length
BP-HK2	Hose kit with 2m length	BP-HK3	Hose kit with 3m length

	Australia	US	JAP	UK	EU
Battery Charger	BPC-A	BPC-U	BPC-U	BPC-B	BPC-E

Meter	IM012EB-01
Battery	BPB-20AH
Power Head	BP20-PH

BOP SEAL KIT 20L/60L/205L
BP-1K

BOP SEAL KIT 60L/205L DEF
BP-4K

BOP

BATTERY OPERATED PUMP

IM012EB-01 ELECTRONIC METER

INSTRUCTION MANUAL



This meter is designed specifically for the Macnaught BOP Battery Operated Pump Series

INTRODUCTION

PLEASE READ THIS INFORMATION CAREFULLY BEFORE USE.

Read and retain this instruction manual to assist you in the operation of this product.

If you have any problems with the meter, refer to the maintenance and trouble shooting sections of this manual.

If you need further assistance, please contact your local representative or distributor for advice.

This Flow Meter has incorporated the oval rotor principal into its design. This has proven to be a reliable and accurate method of measuring flow.

Exceptional repeatability is the feature of the oval rotor design.



CAUTION

- * **Macnaught recommends the use of PPE equipment such as safety glasses, protective gloves, safety shoes etc before handling or using this product.**
- * **Do not modify or alter this product any way**
- * **Ensure that any fluid spillage is cleaned up immediately to prevent slipping or injury.**
- * **Firmly tighten all connections and check for any sign of leakage before use.**

IMPORTANT INFORMATION



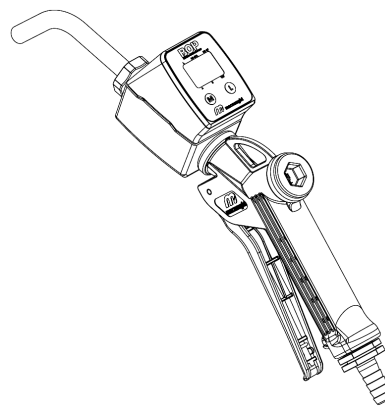
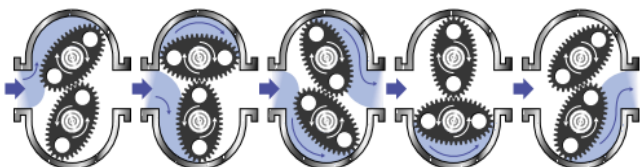
WARNING

This product should only be used with automotive oils and lubricants

OPERATING PRINCIPAL

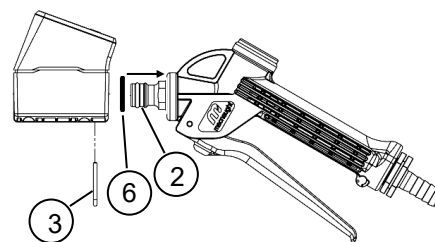
When fluid passes through the meter the rotors turn, as shown below. The magnets which are located in the rotors will pass across the PCB sensors.

A signal is generated which is then sent by the PCB to the LCD as a Pulse Output.

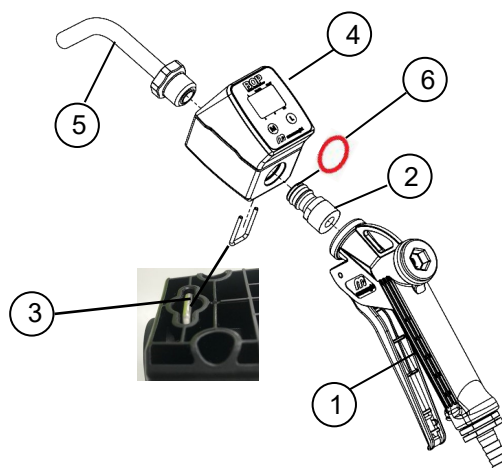


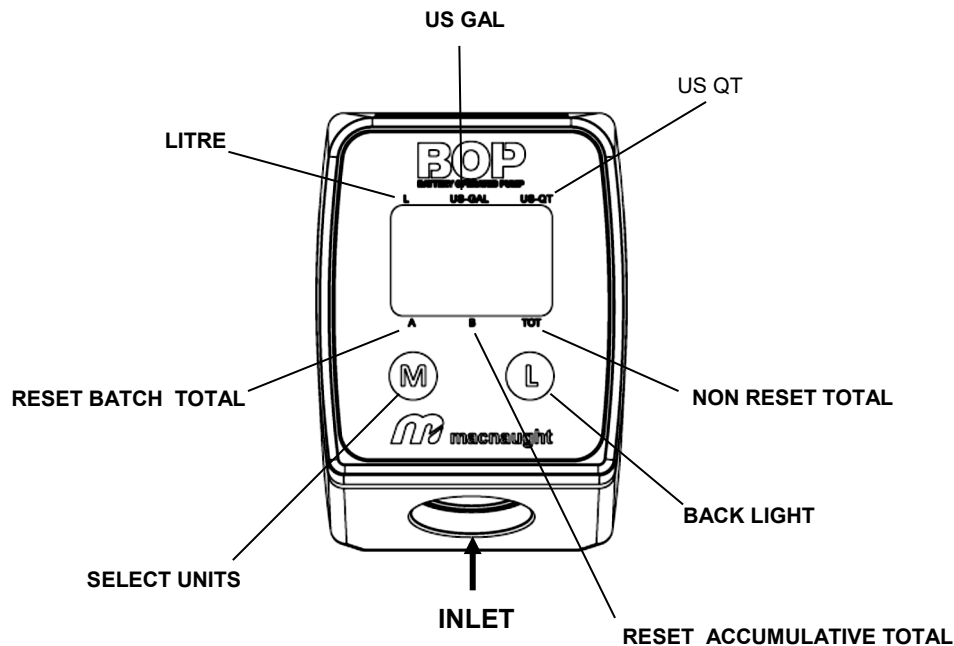
METER TO GUN ASSEMBLY

- 1) Prior to assembling connector (2) to the gun (1) remove item (5) from the gun (1).
- 2) Screw item (2) to the gun outlet (1) - Do not over tighten.
- 3) Slide O'ring (6) all the way onto screw (2)



- 4) Remove the 'U'clip (3) from the meter (4)
- 5) Insert the meter inlet (4) onto the connector (2) apply light pressure to the meter, this will slightly compress the O'ring (6) then firmly press in the 'U' clip until flush with the body (3) as shown
- 6) Carefully screw the outlet tube (5) onto the meter outlet (4) - Do not over tighten





OPERATING INSTRUCTIONS

The display wakens when fluid passes through the meter or either the “M” or “L” button is pressed.

Note: The display will go to sleep after 3 seconds if no flow is detected

BACK LIGHT

To turn on the backlight press “L” button

Change Units Setting

- 1) Waken display by pressing either the ‘M’ or ‘L’ button
- 2) Press and hold down the “L” button until the arrow moves to the next unit setting
 - a) Press and hold down button to change from L to US-GAL
 - b) Press and hold down button to change from US-GAL to US-Qt
 - c) Press and hold down button to change from US-Qt to L

Change Batch and Total Setting

- 1) Waken display by pressing either the ‘M’ or ‘L’ button
- 2) Press and release “M” button to move arrow to desired batch or total setting
 - A = Resettable batch total
 - B = Resettable accumulative total
 - C = Non resettable accumulative total

Reset batch or accumulative totals to zero

- 1) Waken display by pressing either the ‘M’ or ‘L’ Button
- 2) Press and release “M” button to move arrow to desired batch (A) or total (B) setting
- 3) Simultaneously press and release the “M” and “L” buttons to reset the numbers to zero.

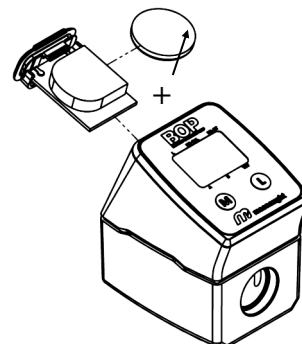
REPLACE BATTERY

- 1) Carefully pull open the battery drawer as shown
- 2) Carefully slide the old battery from the PCB
- 3) Carefully insert the new CR2450 Lithium Coin battery.

Note:

Ensure the battery is fitted with the + on the battery pointing up as shown below.

- 4) Slide the battery drawer shut firmly to ensure the O’ring seals the drawer opening correctly,



METER TROUBLE SHOOTING

TROUBLE	CAUSE	REMEDY
Meter not reading	a) Damaged or faulty PCB b) Damaged or jammed rotors	a) Replace meter b) Replace meter
No display	a) Flat battery b) Damaged or faulty PCB	a) Replace battery (Lithium CR2450) b) Replace meter
Meter not accurate	a) Air in the oil b) Leakage c) Flowrate too high	a) Ensure the system is fully primed and air free b) Check and ensure all connections are properly assembled and sealed, otherwise replace meter as required. c) See specification for maximum flowrate

METER SPECIFICATIONS

FLOW RATE	Up to 10LPM
OPERATING TEMPERATURE	-20 deg C to +70 deg C
OPERATING PRESSURE	20psi (Max 60psi)
ACCURACY	+/- 2% of reading
IP RATING	IP65
INLET CONNECTION	½" inlet connector supplied
OUTLET CONNECTION	1/2" BSPP (F)
POWER	1 x CR2450 - 3V Lithium Coin Battery

MBC-US – US Battery Charger

This battery charger has been tested & verified by ETL Intertek to meet OSHA required safety standard.



FCC:

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/ TV technician for help.

DECLARATION OF CONFORMITY

We: MACNAUGHT PTY LTD

Address 41-49 Henderson Street, Turrella NSW 2205, Australia.

Declare that: **Battery operated oil pump BP20S, BP60S AND BP205S**

which consist of the following assemblies/components:

Power Head BP20-PH
 Stem Assemblies & Hose Set BP20X, BP60X, BP205X
 Li-Ion Battery Charger MBC-US
 Li-Ion Battery MBP2000MAH, MBP3000MAH
 In-line Flow Meter IM012E-01B

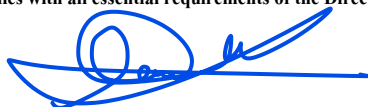
In accordance with:	EU Machinery Directive	2006/42/EC
	EU Low Voltage Directive	2014/35/EU
	EU Electromagnetic Compatibility Directive	2014/30/EU
	EU Restriction of Hazardous Substance Directive	2011/65/EU as amended by 2015/863/EU
	EU Waste Electrical and Electronic Equipment Directive	2012/19/EU
	EU Battery Directive	2006/66/EC as amended by 2013/56/EU
	US Code of Federal Regulations Title 47	CFR
	Canada Interference-Causing Equipment Standards	ICES

complies with the applicable standards listed below:

(BP20S, BP60S, BP205S) (BP20-PH) (BP20X, BP60X, BP205X)	EN ISO 12100: 2010 EN 809: 1999+A1: 2009/AC: 2010 EN55014-1: 2017 EN55014-2: 2015 EN60204-1: 2006+A1: 2009/AC: 2010
(MBC-US)	EN60335-1: 2012+A11: 2014 EN60335-2-29: 2004+A2: 2010 EN62233: 2008 EN55014-1: 2006+A1:2009+A2:2011 EN55014-2: 2015 EN61000-3-2: 2014 EN61000-3-3: 2013 FCC Part 15B Subpart B, Class B ICES-003, issue 6, Class B UL 1310 CSA C22.2 No 223 / ANSI C63.4: 2014 ETL listed 3102820
(MBP2000MAH, MBP3000MAH)	EN62133-2: 2017 EN55032: 2015 EN55035: 2017 FCC Part 15B Subpart B, Class B
IM012E-01B	EN ISO 12100: 2010 EN60204-1: 2018 EN61326-1:2013 EN61326-2-2:2013 FCC Part 15B Subpart B, Class B ICES-001 Issue 5: 2020

I hereby declare that the equipment named above has been designed to comply with the relevant sections of the above referenced specification. The product complies with all essential requirements of the Directives.

Signature



Name: Marco Uccellani

Position:

R&D Manager

Done at: 41-49 Henderson Street, Turrella NSW 2205, Australia.

Date: 08 August 2025