

**MICRO
PURGE**[®]
Basics
▼QED

MODEL **MP15**
CONTROL & POWER PACK
PATENT PENDING

Instruction Manual

P/N 95178 1-22-21



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Safety Warnings

CAUTION: Use caution when working with compressed air or gases. Compressed air or gases can discharge violently and be propelled by this discharge if not properly restrained. Compressed gas cylinders are under extreme pressure and can discharge violently and be propelled by this discharge if not properly restrained. Compressed gas cylinders are under extreme pressure and can discharge violently and be propelled by this discharge if not properly restrained. Compressed gas cylinders are under extreme pressure and can discharge violently and be propelled by this discharge if not properly restrained. Compressed gas cylinders are under extreme pressure and can discharge violently and be propelled by this discharge if not properly restrained.

Do not overpressurize your controller. Failure to operate the controller within the pressure limits could result in damage. Read all operating instructions before operating the controller.

Warning. Do not disassemble the pneumatic pump while it is connected to a compressed gas source. Dangerous pressures could cause injury.

CO2 Cylinder Safety and Handling

The microforge Basics Control power pack includes an onboard power source. CO2 carbon dioxide cylinder to operate ladder-type sampling pumps. The 100 lb capacity cylinder poses the very serious and portable. O.S. CO2 GAS CYLINDER, IT MUST BE TREATED WITH CARE TO AVOID INJURY OR DEATH.

The CO2 carbon dioxide cylinder is highly pressurized and damage to the outlet could result in sudden discharge of the highly pressurized contents, potentially propelling the cylinder with sufficient force to cause injury or damage.

Carbon dioxide gas can cause drowsiness or asphyxiation in high concentrations and confined spaces.

Sudden discharge of large amounts of carbon dioxide can create extremely low temperatures on any surfaces it is discharged onto. Carbon dioxide gas cylinders should always be used in an upright position so that gaseous CO2 exits from the top of the cylinder for use in the liquid CO2 present in the bottom of the cylinder. Discharge of liquid CO2 from a non-thermic cylinder will cause excess usage of CO2 and may cause malfunction of the controller.

Be sure the CO2 cylinder is always handled with care, protected from impact during transport and handling, and has the valve closed until it is properly connected to the controller and in use. Keep the cylinder valve closed until other instructions are given. Be sure that the cylinder is never operated in a confined space such as the passenger compartment of a vehicle, building, or pipework in which the heavier than air carbon dioxide can collect under some conditions of usage. Condensation or frost may develop on the exterior of the cylinder due to the cooling effect of gas expansion. The cylinder should always be used in an upright position so that gaseous CO2 exits from the top of the cylinder for use in the liquid CO2 present in the bottom of the cylinder. Discharge of liquid CO2 from a non-thermic cylinder will cause excess usage of CO2 and may cause malfunction of the controller.



Shipping of CO2 Cylinders

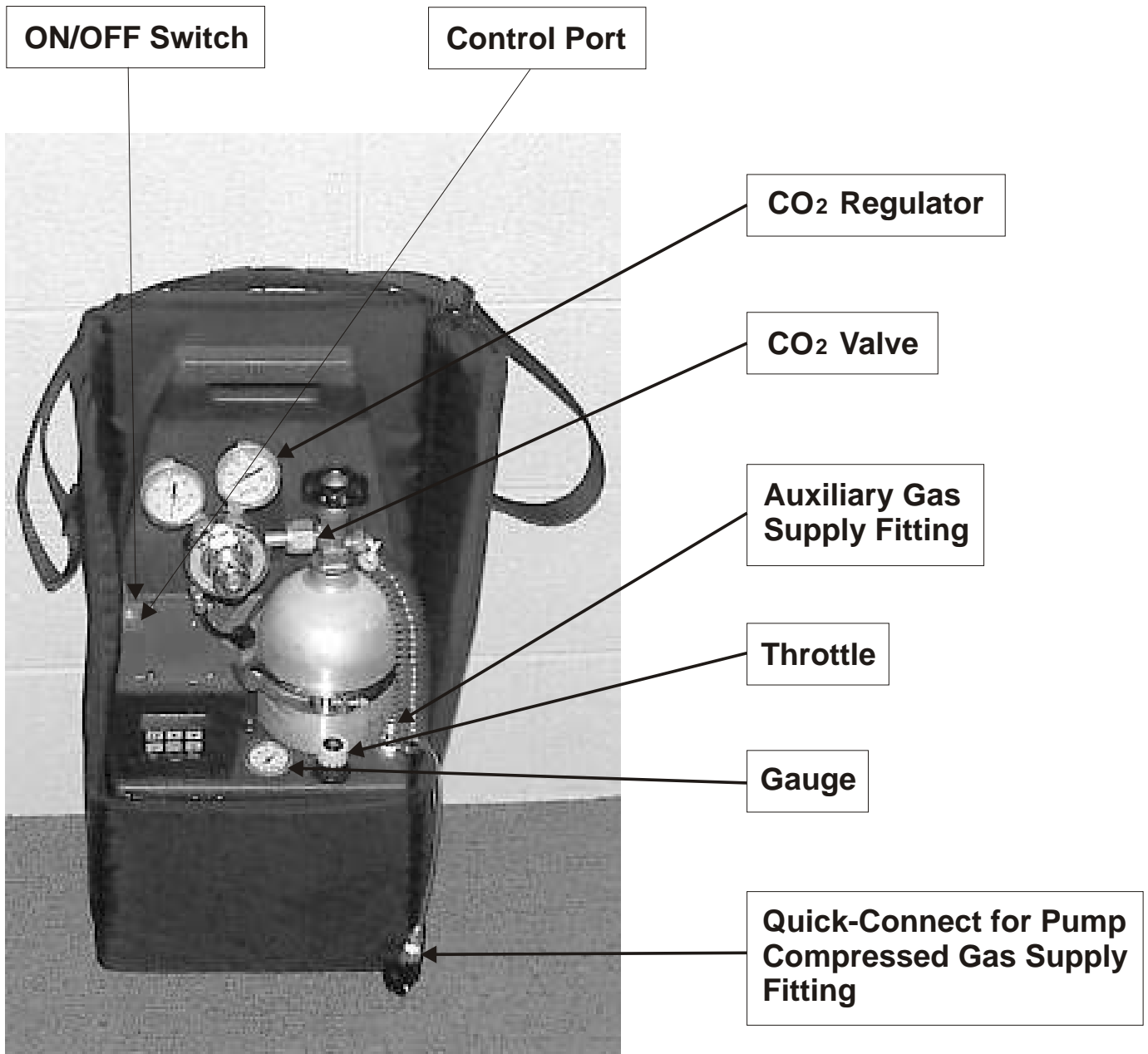
WARNING: ONCE CO2 CYLINDERS HAVE BEEN FILLED WITH CO2, THEY ARE CONSIDERED HAZARDOUS MATERIALS WHEN OFFERED UP FOR TRANSPORTATION ON ANY MOTOR CARRIER SUCH AS UPS, FEDEX, ETC. EVEN IF THE CYLINDER IS COMPLETELY EMPTY AND VOID OF ALL CO2, THE DOT STILL CONSIDERS THEM TO BE HAZARDOUS BECAUSE OF THE RESIDUAL AMOUNTS OF GASES LEFT. EVEN EMPTY CO2 CYLINDERS MUST BE SHIPPED AS HAZARDOUS MATERIAL.

CO2 Cylinder Filling

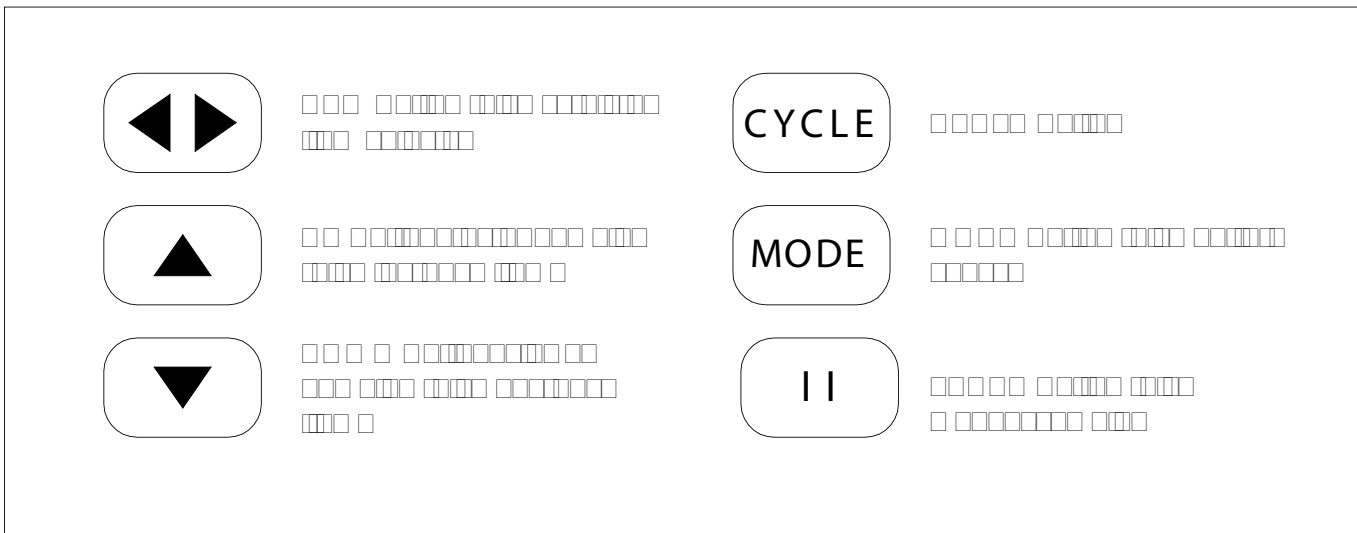
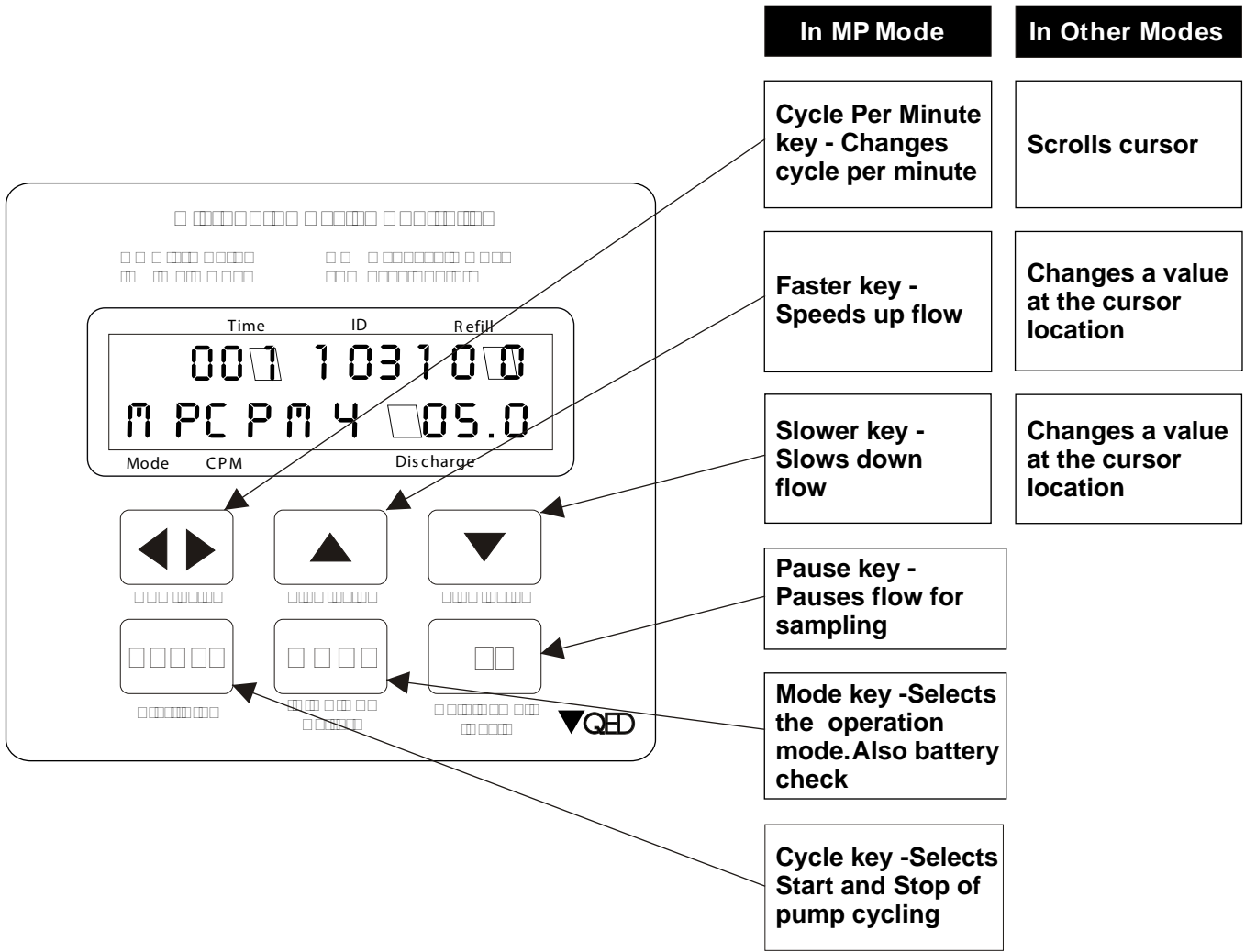
Use care during transport of all cylinders to avoid damage to the valve or fittings
Follow all safety instructions noted on the cylinder

Diagrams And Conventions Used In The Text

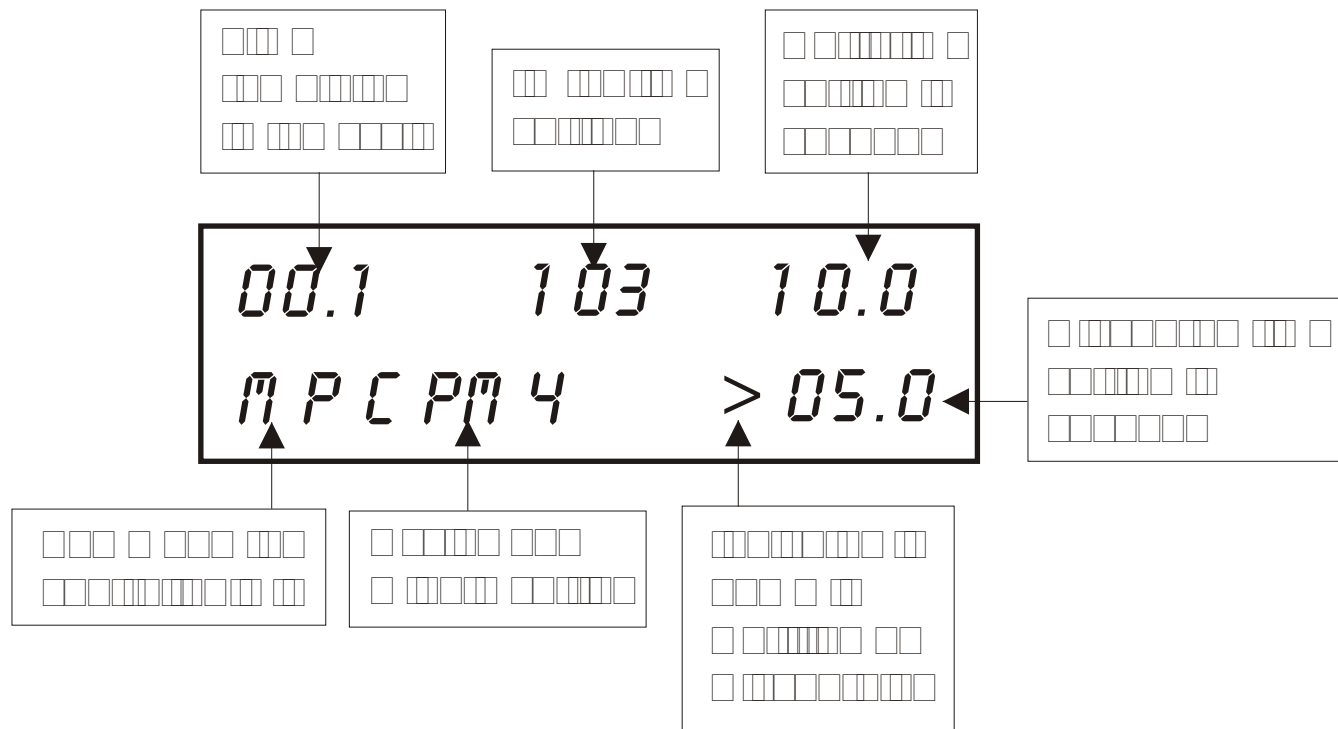
MP15 Over view Diagram



MP15 Control Keys:



MP15 Display:



Abbreviations:

CPM	
MP	
ID	
HELD	
MN	
BAT	
LVL	
>	

Introduction / Quick Start

Introduction: This section provides a quick start guide for the device. It covers the basic operation and setup procedures. The device is designed to be easy to use and provides a range of features to meet your needs. For more information, please refer to the user manual.

- **MicroPurge Mode Operation** This mode is used to purify the sample and is activated by pressing the MicroPurge button. The device will automatically purge the sample and return it to the initial state.
- **IDTime Set Mode Operation** This mode is used to set the IDTime parameter. It is activated by pressing the IDTime Set button. The device will display the current IDTime value and allow you to adjust it.
- **Level Delay Interface** This interface is used to set the level delay parameter. It is activated by pressing the Level Delay button. The device will display the current level delay value and allow you to adjust it.

The device is designed to be easy to use and provides a range of features to meet your needs. For more information, please refer to the user manual. The device is designed to be easy to use and provides a range of features to meet your needs. For more information, please refer to the user manual.

Insert Batteries: To insert batteries, open the battery compartment cover. Insert the batteries with the correct polarity. Close the cover and the device will be powered on. For more information, please refer to the user manual.

Quick Start:

1. Turn the CO₂ tank valve on. Turn the CO₂ regulator knob clockwise to increase pressure. Turn the CO₂ regulator knob counter-clockwise to decrease pressure. Turn the CO₂ regulator knob clockwise until the pressure is set to 12 PSI. Turn the CO₂ regulator knob counter-clockwise until the pressure is set to 12 PSI.

2. Turn the CO₂ tank valve on. Turn the CO₂ regulator knob clockwise to increase pressure. Turn the CO₂ regulator knob counter-clockwise to decrease pressure. Turn the CO₂ regulator knob clockwise until the pressure is set to 12 PSI. Turn the CO₂ regulator knob counter-clockwise until the pressure is set to 12 PSI.

3. Turn the CO₂ tank valve on. Turn the CO₂ regulator knob clockwise to increase pressure. Turn the CO₂ regulator knob counter-clockwise to decrease pressure. Turn the CO₂ regulator knob clockwise until the pressure is set to 12 PSI. Turn the CO₂ regulator knob counter-clockwise until the pressure is set to 12 PSI.

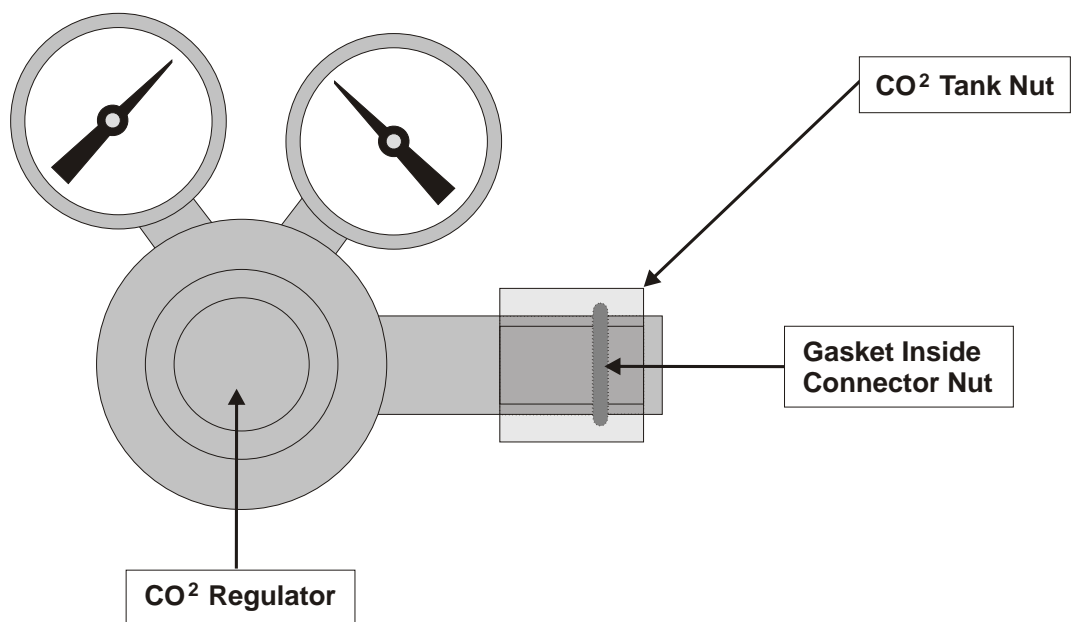
4. Turn the CO₂ tank valve on. Turn the CO₂ regulator knob clockwise to increase pressure. Turn the CO₂ regulator knob counter-clockwise to decrease pressure. Turn the CO₂ regulator knob clockwise until the pressure is set to 12 PSI. Turn the CO₂ regulator knob counter-clockwise until the pressure is set to 12 PSI.

5. Turn the CO₂ tank valve on. Turn the CO₂ regulator knob clockwise to increase pressure. Turn the CO₂ regulator knob counter-clockwise to decrease pressure. Turn the CO₂ regulator knob clockwise until the pressure is set to 12 PSI. Turn the CO₂ regulator knob counter-clockwise until the pressure is set to 12 PSI.

6. Turn the CO₂ tank valve on. Turn the CO₂ regulator knob clockwise to increase pressure. Turn the CO₂ regulator knob counter-clockwise to decrease pressure. Turn the CO₂ regulator knob clockwise until the pressure is set to 12 PSI. Turn the CO₂ regulator knob counter-clockwise until the pressure is set to 12 PSI.

7. Turn the CO₂ tank valve on. Turn the CO₂ regulator knob clockwise to increase pressure. Turn the CO₂ regulator knob counter-clockwise to decrease pressure. Turn the CO₂ regulator knob clockwise until the pressure is set to 12 PSI. Turn the CO₂ regulator knob counter-clockwise until the pressure is set to 12 PSI.

8. Turn the CO₂ tank valve on. Turn the CO₂ regulator knob clockwise to increase pressure. Turn the CO₂ regulator knob counter-clockwise to decrease pressure. Turn the CO₂ regulator knob clockwise until the pressure is set to 12 PSI. Turn the CO₂ regulator knob counter-clockwise until the pressure is set to 12 PSI.



Bladder Pump Operation In Low-Submergence Applications

Bladder pumps are used in low-submergence applications where the pump is not fully submerged. The pump is designed to operate in a dry or partially submerged environment. The pump is used to move fluid from a source to a destination. The pump is used in a variety of applications, including medical, industrial, and agricultural. The pump is used to move fluid from a source to a destination. The pump is used in a variety of applications, including medical, industrial, and agricultural.

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Operation

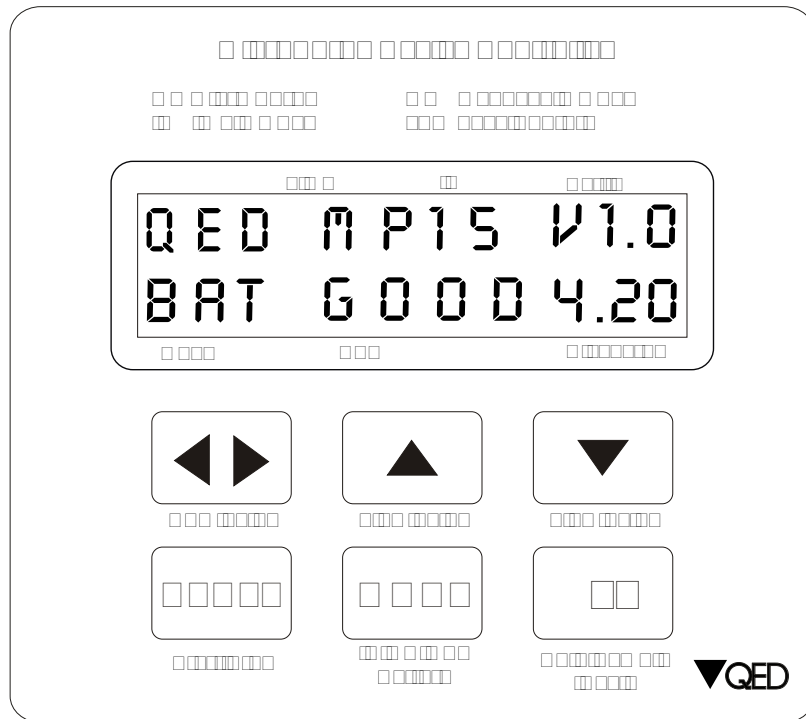
Turning the MP15 Display On

When the MP15 is powered on, the display will show the QED MP15 V1.0 logo and the battery status. The battery status is shown as BAT GOOD 4.20. The display will also show the current time and date. The display will also show the current temperature and humidity. The display will also show the current power consumption and the current power output. The display will also show the current power factor and the current power quality. The display will also show the current power usage and the current power cost. The display will also show the current power usage and the current power cost. **Note: All user-entered time settings are lost when the MP15 is turned off. Also, the MP15 does not automatically power down so make sure the Red power toggle is turned Off (down position) during storage.**

Opening Display

The display is opened by pressing the power button. The display will show the QED MP15 V1.0 logo and the battery status. The battery status is shown as BAT GOOD 4.20. The display will also show the current time and date. The display will also show the current temperature and humidity. The display will also show the current power consumption and the current power output. The display will also show the current power factor and the current power quality. The display will also show the current power usage and the current power cost. The display will also show the current power usage and the current power cost.

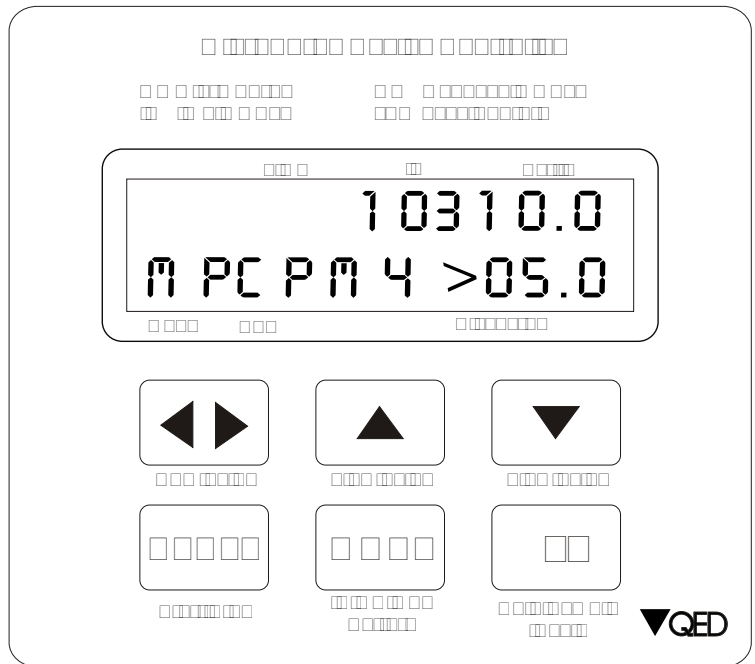
Figure 1 Opening Screen



MicroPurge Mode

[Placeholder text for MicroPurge Mode description]

Figure 2 MP15 MicroPurge Mode



Using CPM

[Placeholder text for Using CPM description]

[Placeholder text for Using CPM description]

Operation

The controller will cycle through the following sequence of operations when the system is powered on. The controller will first check for a valid ID and then will check for a valid key press. The controller will then check for a valid discharge time and finally will check for a valid refill time. The controller will then cycle through the following sequence of operations when the system is powered on.

The controller will first check for a valid ID and then will check for a valid key press. The controller will then check for a valid discharge time and finally will check for a valid refill time. The controller will then cycle through the following sequence of operations when the system is powered on. The controller will first check for a valid ID and then will check for a valid key press. The controller will then check for a valid discharge time and finally will check for a valid refill time. The controller will then cycle through the following sequence of operations when the system is powered on.

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Note: *changes in settings that are entered while the controller is cycling are reflected on the next cycle change (so a long refill time of 15 seconds will time out before a new refill time becomes valid).*

The controller will first check for a valid ID and then will check for a valid key press. The controller will then check for a valid discharge time and finally will check for a valid refill time. The controller will then cycle through the following sequence of operations when the system is powered on.

Key Press	Refill (sec)	Discharge (sec)	ID
---	10.0	5.0	103
1	9.5	5.5	104
2	9.0	6.0	105
3	8.5	6.5	106

Placeholder text for the first paragraph.

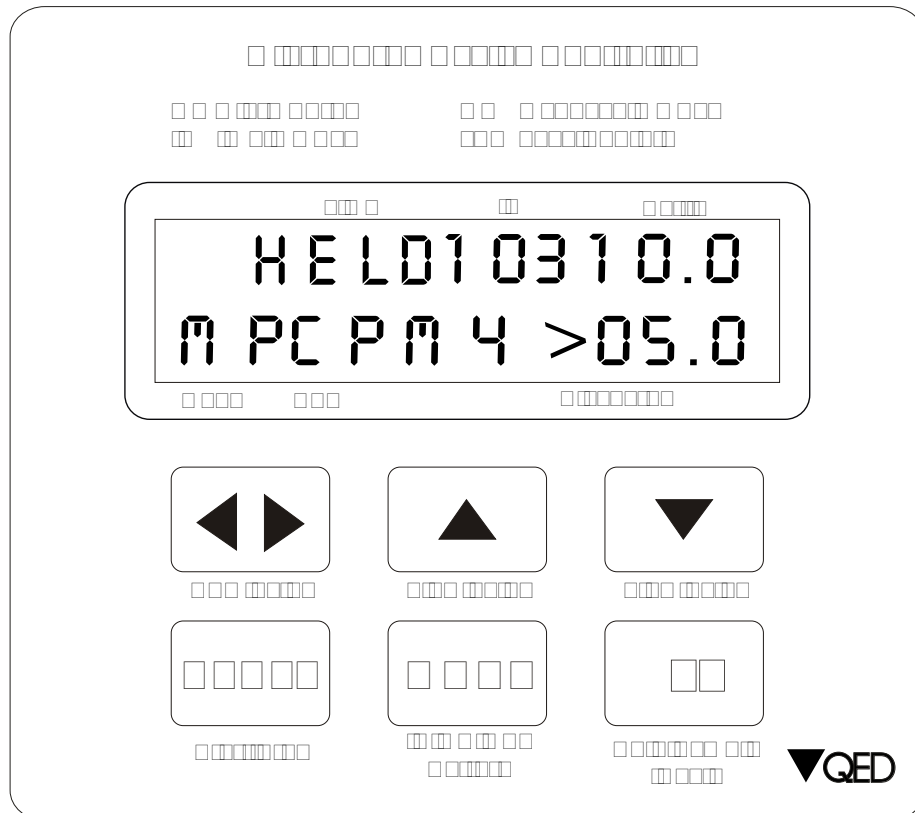
Sample Collection



Placeholder text for the Sample Collection section.

Note: Pressing the Cycle key also freezes controller cycling. However, using the Cycle key rather than the Pause key causes the startup screen to be displayed upon restart. Use of the Pause key is recommended for typical operation.

Figure 3 MP15 Held State (MP mode)



Warning: in the HELD SAMPLE state the pump, tubing and hoses are all under pressure. **DO NOT** attempt to disconnect or disassemble any part of the system when it is under pressure. The system is under pressure if the pressure gauge shows a value greater than 0 and the RED Discharge Cycle Indicator is showing.

Flow Throttle Use The flow throttle is used to control the flow rate of the sample through the system. It is located on the front panel of the instrument. The flow rate is controlled by the position of the throttle valve. The flow rate is highest when the valve is fully open and lowest when the valve is fully closed. The flow rate is intermediate when the valve is partially open. The flow rate is zero when the valve is fully closed. The flow rate is also zero when the pump is stopped. The flow rate is also zero when the system is under pressure and the flow throttle is closed.

Use with the MP30 Automatic Drawdown Control The MP30 Automatic Drawdown Control is used to control the drawdown rate of the sample. It is located on the front panel of the instrument. The drawdown rate is controlled by the position of the drawdown valve. The drawdown rate is highest when the valve is fully open and lowest when the valve is fully closed. The drawdown rate is intermediate when the valve is partially open. The drawdown rate is zero when the valve is fully closed. The drawdown rate is also zero when the pump is stopped. The drawdown rate is also zero when the system is under pressure and the drawdown valve is closed.

Figure 4 MP15 Level Paused State (MP mode)

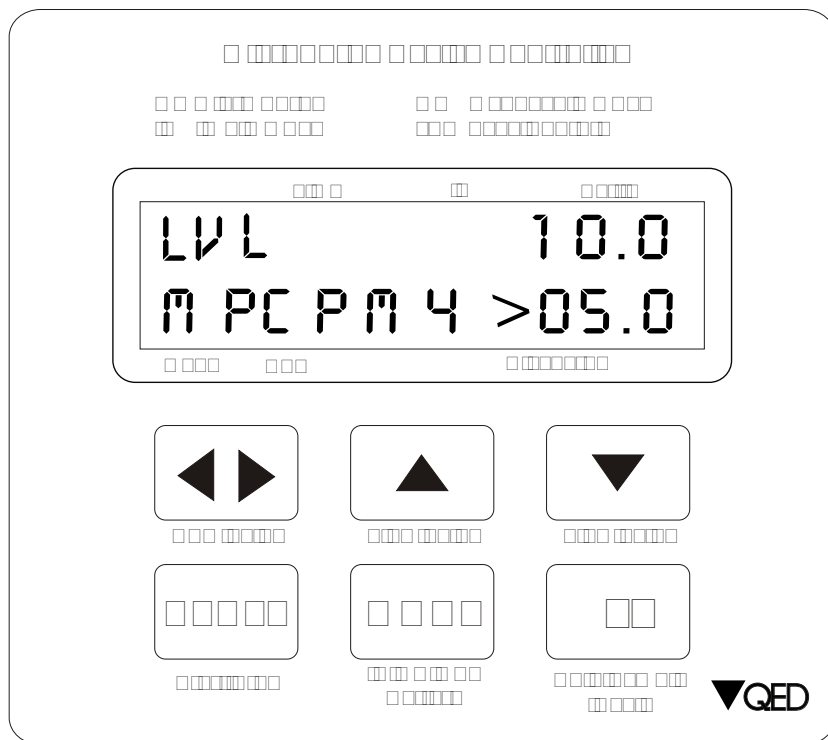


Figure 5 MP15 MP30 Use

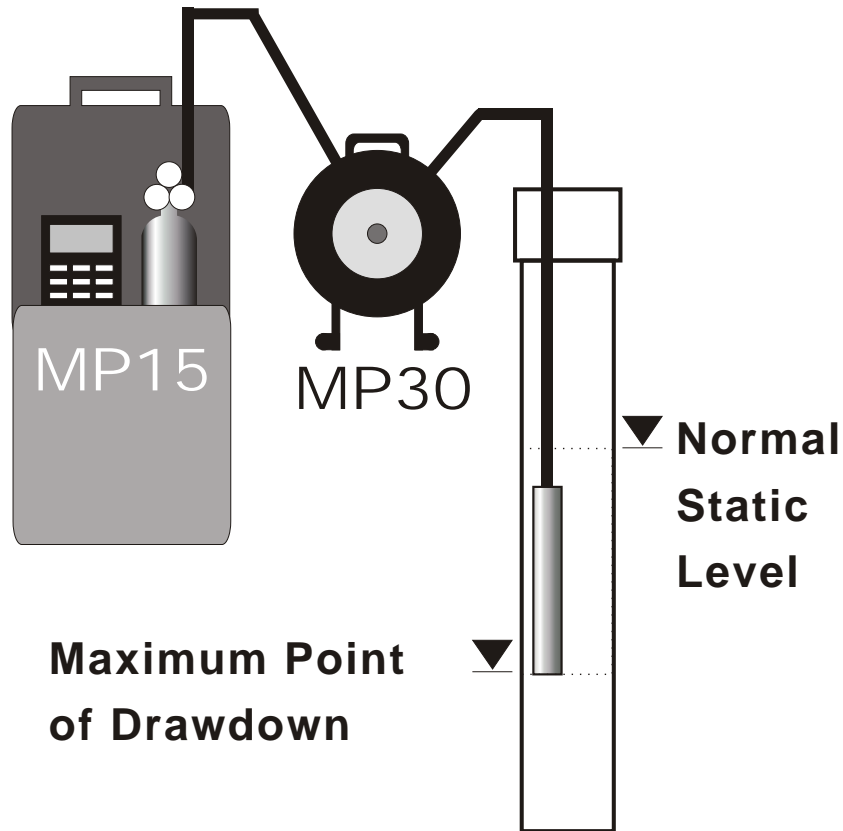
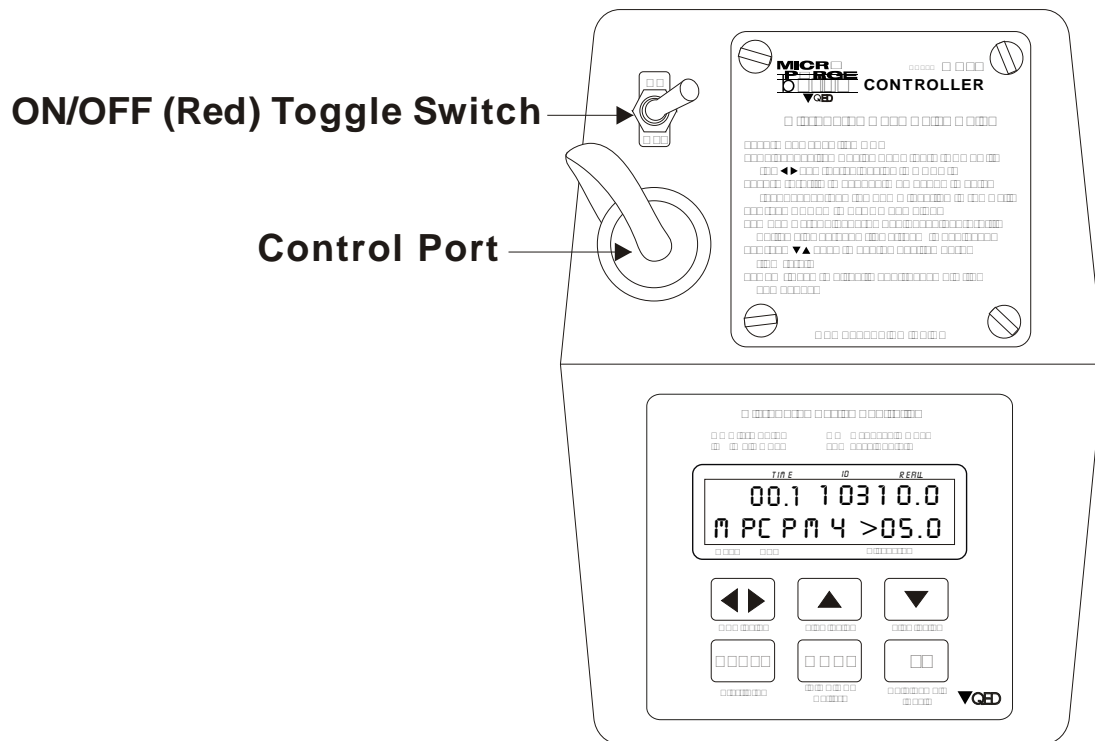


Figure 6 MP15 MP30 Use



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በቅድሚያ የሚሰጡት መረጃዎች ለሁሉም አገልግሎቶች ማስፈሰፍ ይገባል።

1. የሰነድ ስም ለሁሉም አገልግሎቶች ማስፈሰፍ ይገባል።
2. የሰነድ ቁጥር ለሁሉም አገልግሎቶች ማስፈሰፍ ይገባል።
3. የሰነድ ዓይነት ለሁሉም አገልግሎቶች ማስፈሰፍ ይገባል።
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5. የሰነድ ስም ለሁሉም አገልግሎቶች ማስፈሰፍ ይገባል።
6. የሰነድ ቁጥር ለሁሉም አገልግሎቶች ማስፈሰፍ ይገባል።

በቅድሚያ የሚሰጡት መረጃዎች ለሁሉም አገልግሎቶች ማስፈሰፍ ይገባል።

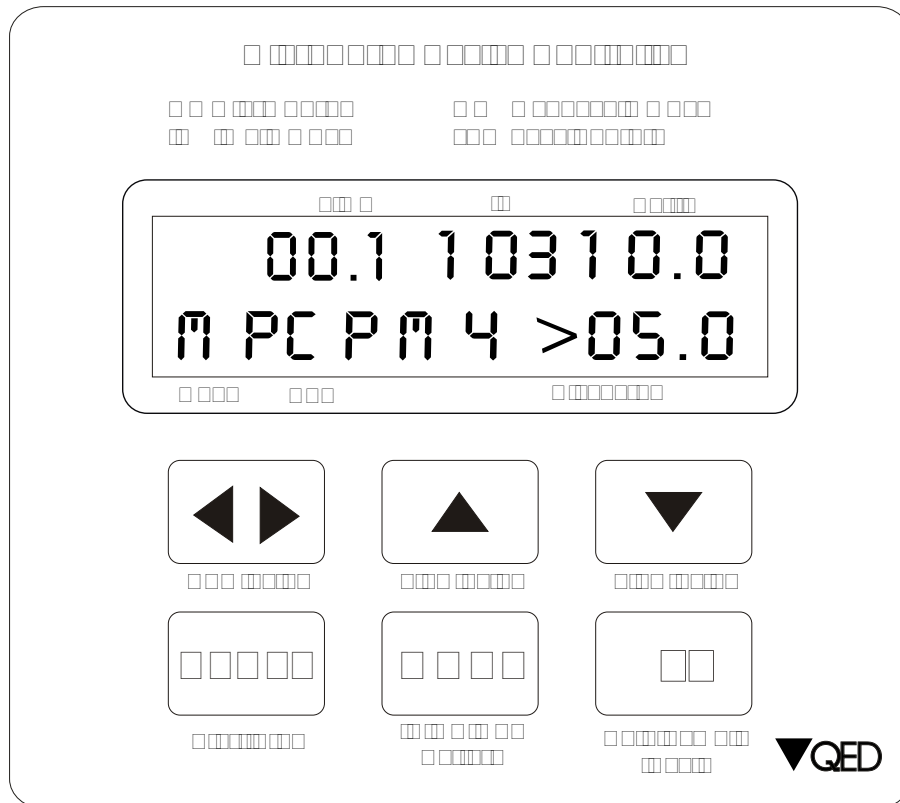
MP15 is a multi-parameter water quality analyzer. It can measure a wide range of parameters including pH, ORP, Conductivity, Temperature, and Dissolved Oxygen. The device is designed for use in a variety of applications, from environmental monitoring to industrial process control. The user interface is intuitive and easy to use, allowing for quick setup and data collection.

The MP15 features a large LCD display that shows real-time data for the selected parameter. The display is backlit and easy to read, even in low light conditions. The device also has a built-in printer that can print out data reports. The MP15 is a reliable and accurate instrument that is suitable for a wide range of applications.

The MP15 is a multi-parameter water quality analyzer. It can measure a wide range of parameters including pH, ORP, Conductivity, Temperature, and Dissolved Oxygen.

ID Mode is used to set the instrument ID. To enter ID mode, press the **MODE** key. The display will show the current ID and allow you to change it. The ID is used to identify the instrument in data reports. The ID can be up to 8 characters long and can include numbers and letters. To set the ID, use the **UP** and **DOWN** keys to scroll through the characters. Press the **ENTER** key to confirm the ID. The display will show the new ID and return to the main menu.

Figure 7 MP15 ID Set Mode



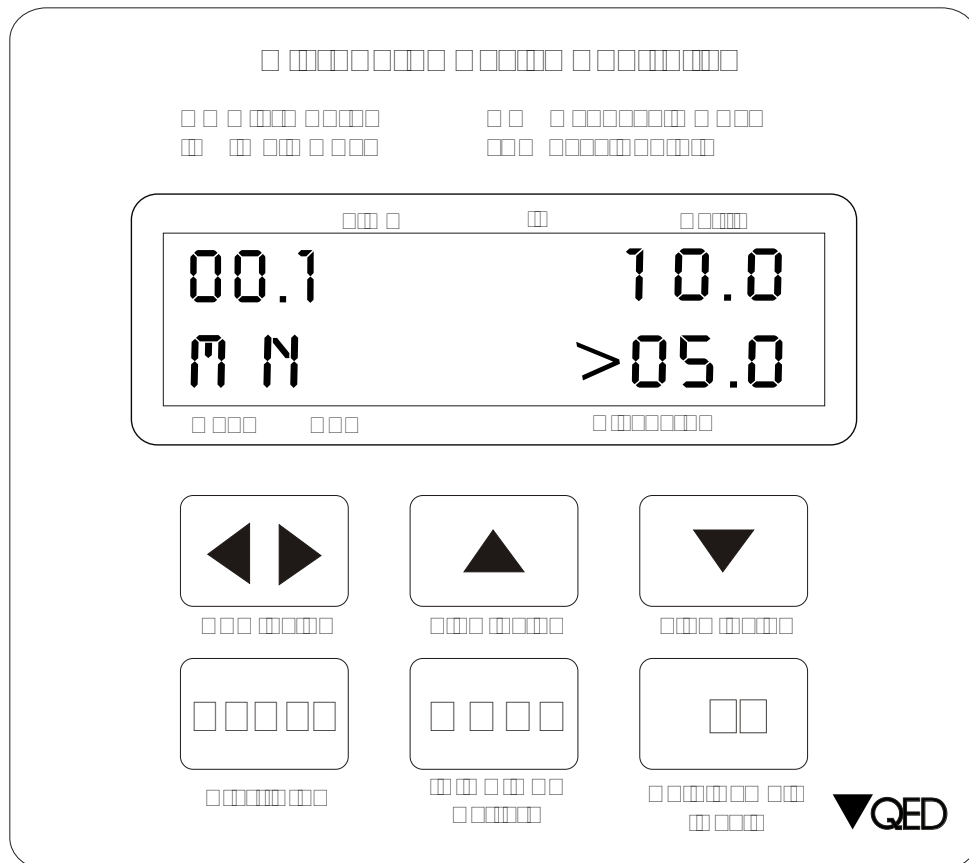
Operation

The controller will display the current time and the time remaining for the current cycle. The controller will also display the time remaining for the next cycle. The controller will also display the time remaining for the next cycle. The controller will also display the time remaining for the next cycle.

The controller will display the current time and the time remaining for the current cycle. The controller will also display the time remaining for the next cycle. The controller will also display the time remaining for the next cycle. The controller will also display the time remaining for the next cycle. **Note: Changes in time settings that are entered while the controller is cycling are reflected on the next cycle change (so a long refill time of 15 seconds will time out before a new refill time becomes valid).**

User Set Mode The controller will display the current time and the time remaining for the current cycle. The controller will also display the time remaining for the next cycle. The controller will also display the time remaining for the next cycle. The controller will also display the time remaining for the next cycle.

Figure 8 MP15 User Set Mode (MN mode)



Operation

The MP15 power supply is designed to operate in a wide range of environments. It is recommended that the power supply is used in a well-ventilated area. The power supply should be used in a temperature range of 0°C to 40°C (32°F to 104°F). The power supply should be used in a humidity range of 10% to 90% relative humidity. The power supply should be used in a clean, dry environment. The power supply should be used in a non-corrosive environment. The power supply should be used in a non-flammable environment. The power supply should be used in a non-explosive environment. The power supply should be used in a non-hazardous environment. The power supply should be used in a non-toxic environment. The power supply should be used in a non-radioactive environment. The power supply should be used in a non-ionizing environment. The power supply should be used in a non-magnetic environment. The power supply should be used in a non-conductive environment. The power supply should be used in a non-ferrous environment. The power supply should be used in a non-ferromagnetic environment. The power supply should be used in a non-ferrous environment. The power supply should be used in a non-ferromagnetic environment.

Changes in time settings that are entered while the controller is cycling are reflected on the next cycle change (so a long refill time of 15 seconds will time out before a new refill time becomes valid).

MP15 Battery

The MP15 power supply is powered by two AA batteries. The batteries should be inserted into the battery compartment on the back of the power supply. The batteries should be inserted with the positive (+) terminal facing up and the negative (-) terminal facing down. The power supply will operate for up to 10 hours on a full charge. The power supply will automatically shut off when the batteries are low. The power supply will automatically shut off when the lid is closed. The power supply will automatically shut off when the power is turned off. The power supply will automatically shut off when the power is turned on. The power supply will automatically shut off when the power is turned off. The power supply will automatically shut off when the power is turned on.

If you are storing the MP15 for more than 3 months, remove the AA batteries to prevent leakage. The MP15 power supply is automatically shut off by closing the lid. Make sure the lid is closed during storage.

MP15 CO2 Cylinder Capacity

The MP15 power supply is powered by a CO2 cylinder. The cylinder should be inserted into the cylinder compartment on the back of the power supply. The cylinder should be inserted with the positive (+) terminal facing up and the negative (-) terminal facing down. The power supply will operate for up to 10 hours on a full charge. The power supply will automatically shut off when the cylinder is low. The power supply will automatically shut off when the lid is closed. The power supply will automatically shut off when the power is turned off. The power supply will automatically shut off when the power is turned on. The power supply will automatically shut off when the power is turned off. The power supply will automatically shut off when the power is turned on.

QED Monitoring System WARRANTY

QED ENVIRONMENTAL SYSTEMS, ("Q.E.D.") warrants to the original purchaser of its products that, subject to the limitations and conditions provided below, the products, materials and/or workmanship shall reasonably conform to descriptions of the products and shall be free of defects in materials and workmanship. Any failure of the products to conform to this warranty will be remedied by Q.E.D. in the manner provided herein.

This warranty shall be limited to the duration and the conditions set forth below. All warranty durations are calculated from the original date of purchase.

- 1. *Dedicated-Use Systems Products***- 10 year warranty on dedicated bladder pumps equipped with Q.E.D. inlet screens, and purge pumps used in periodic, non continuous groundwater sampling (up to 52 sampling events per year.)All other components, equipment and accessories are warranted for one year.
- 2. *Portable-Use Systems***- Sample Pro Pumps, Controllers and water level meters are warranted for one year. Hose Reels, Caps and non-Sample Pro pumps are warranted for ninety (90) days. Tubing and Purge Mizers are covered by a ninety (90) day material and workmanship warranty. There will be no warranty for application on tubing and Purge Mizers when used as part of a Portable System.
- 3. *Separately sold parts and Spare Parts Kits***- Separately sold parts and spare parts kits are warranted for ninety (90) days. Repairs performed by Q.E.D. are warranted for ninety (90) days from date of repair or for the full term of the original warranty, whichever is longer.

Buyers' exclusive remedy for breach of said warranty shall be as follows: if, and only if, Q.E.D. is notified in writing within applicable warranty period of the existence of any such defect in the said products, and Q.E.D. upon examination of any such defects, shall find the same to be within the term of and covered by the warranty running from Q.E.D. to Buyer, Q.E.D. will, at its option, as soon as reasonably possible, replace or repair any such product, without charge to Buyer. If Q.E.D. for any reason, cannot repair a product covered hereby within four (4) weeks after receipt of the original Purchaser's/Buyer's notification of a warranty claim, then Q.E.D.'s sole responsibility shall be, at its option, either to replace the defective product with a comparable new unit at no charge to the Buyer, or to refund the full purchase price. In no event shall such allegedly defective products be returned to Q.E.D. without its consent, and Q.E.D.'s obligations of repair, replacement or refund are conditioned upon the Buyer's return of the defective product to Q.E.D.

IN NO EVENT SHALL Q.E.D. ENVIRONMENTAL SYSTEMS, INC. BE LIABLE FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES FOR BREACH OF SAID WARRANTY

The foregoing warranty does not apply to major sub-assemblies and other equipment, accessories and parts manufactured by others, and such other parts, accessories, and equipment are subject only to the warranties, if any, supplied by the respective manufacturers. Q.E.D. makes no warranty concerning products or accessories not manufactured by Q.E.D. In the event of failure of any such product accessory Q.E.D. will give reasonable assistance to the Buyer in obtaining from the respective manufacturer whatever adjustment is reasonable in light of the manufacturer's own warranty.

Warranty

THE FOREGOING WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED, IMPLIED OR STATUTORY (INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE), WHICH OTHER WARRANTIES ARE EXPRESSLY EXCLUDED HEREBY, and of any other obligations or liabilities on the part of Q.E.D., neither assumes nor authorizes any person to assume for it any other obligation or liability in connection with said products, materials and/or workmanship.

It is understood and agreed that Q.E.D. shall in no event be liable for incidental or consequential damages resulting from its breach of any of the terms of this agreement, nor for special damages, nor for improper selection of any product described or referred to for a particular application.

This warranty will be void in the event of unauthorized disassembly of component assemblies. Defects in any equipment that result from abuse, operation in any manner outside the recommended procedures, use and applications other than for intended use, or exposure to chemical or physical environment beyond the designated limits of materials and construction will also void this warranty. Q.E.D. shall be released from all obligations under all warranties if any product covered hereby is repaired or modified by persons other than Q.E.D.'s service personnel unless such repair by others is made with the written consent of Q.E.D.

If any product covered hereby is actually defective within the terms of this warranty, Purchaser must contact Q.E.D. for determination of warranty coverage. If the return of a component is determined to be necessary, Q.E.D. will authorize the return of the component, at owner's expense. If the product proves not to be defective within the terms of this warranty, then all costs and expenses in connection with the processing of the Purchaser's claim and all costs for repair, parts and labor as authorized by owner hereunder shall be borne by the purchaser.

RESPONSIBILITY OF THE PURCHASER

The original Purchaser's sole responsibility in the instance of a warranty claim shall be to notify Q.E.D. of the defect, malfunction, or other manner in which the terms of this warranty are believed to be violated. You may secure performance of obligations hereunder by contacting the Customer Service Department of Q.E.D. and:

1. Identifying the product involved (by model or serial number or other sufficient description that will allow Q.E.D. to determine which product is defective).
2. Specifying where, when, and from whom the product was purchased.
3. Describing the nature of the defect or malfunction covered by this warranty.
4. Sending the malfunctioning component, after authorization by Q.E.D. to:

**QED Environmental Systems
2355 Bishop Circle West
Dexter, Michigan 48130**

Appendix 1 ID Data Table

NOTE: □□□□ □□□□□□ □□□□□□ □□□ □□□□□□□□□□□□□□□

CYCLES / min (CPM)																		
1 / min			2 / min			3 / min			4 / min			5 / min			6 / min			
ID	Disch (sec)	Refill (sec)	ID	Disch (sec)	Refill (sec)	ID	Disch (sec)	Refill (sec)	ID	Disch (sec)	Refill (sec)	ID	Disch (sec)	Refill (sec)	ID	Disch (sec)	Refill (sec)	
1	1	59	41	1	29	66	1	19	95	1	14	114	1	11	145	1	9	
2	2	58	42	2	28	67	1.5	18.5	96	1.5	13.5	115	1.2	10.8	146	1.2	8.8	
3	3	57	43	3	27	68	2	18	97	2	13	116	1.4	10.6	147	1.4	8.6	
4	4	56	44	4	26	69	2.5	17.5	98	2.5	12.5	117	1.6	10.4	148	1.6	8.4	
5	5	55	45	5	25	70	3	17	99	3	12	118	1.8	10.2	149	1.8	8.2	
6	6	54	46	6	24	71	3.5	16.5	100	3.5	11.5	119	2	10	150	2	8	
7	7	53	47	7	23	72	4	16	101	4	11	120	2.2	9.8	151	2.2	7.8	
8	8	52	48	8	22	73	4.5	15.5	102	4.5	10.5	121	2.4	9.6	152	2.4	7.6	
9	9	52	49	9	21	74	5	15	103	5	10	122	2.6	9.4	153	2.6	7.4	
10	10	50	50	10	20	75	5.5	14.5	104	5.5	9.5	123	2.8	9.2	154	2.8	7.2	
11	11	49	51	11	19	76	6	14	105	6	9	124	3	9	155	3	7	
12	12	48	52	12	18	77	6.5	13.5	106	6.5	8.5	125	3.2	8.8	156	3.2	6.8	
13	13	47	53	13	17	78	7	13	107	7	8	126	3.4	8.6	157	3.4	6.6	
14	14	46	54	14	16	79	7.5	12.5	108	7.5	7.5	127	3.6	8.4	158	3.6	6.4	
15	15	45	55	15	15	80	8	12	109	8	7	128	3.8	8.2	159	3.8	6.2	
16	16	44	56	16	14	81	8.5	11.5	110	8.5	6.5	129	4	8	160	4	6	
17	17	43	57	17	13	82	9	11	111	9	6	130	4.2	7.8	161	4.2	5.8	
18	18	42	58	18	12	83	9.5	10.5	112	9.5	5.5	131	4.4	7.6	162	4.4	5.6	
19	19	41	59	19	11	84	10	10	113	10	5	132	4.6	7.4	163	4.6	5.4	
20	20	40	60	20	10	85	10.5	9.5				133	4.8	7.2	164	4.8	5.2	
21	21	39	61	21	9	86	11	9					134	5	7	165	5	5
22	22	38	62	22	8	87	11.5	8.5					135	5.2	6.8			
23	23	37	63	23	7	88	12	8					136	5.4	6.6			
24	24	36	64	24	6	89	12.5	7.5					137	5.6	6.4			
25	25	35	65	25	5	90	13	7					138	5.8	6.2			
26	26	34				91	13.5	6.5					139	6	6			
27	27	33				92	14	6					140	6.2	5.8			
28	28	32				93	14.5	5.5					141	6.4	5.6			
29	29	31				94	15	5					142	6.6	5.4			
30	30	30											143	6.8	5.2			
31	31	29											144	7	5			
32	32	28																
33	33	27																
34	34	26																
35	35	25																
36	36	24																
37	37	23																
38	38	22																
39	39	21																
40	40	20																

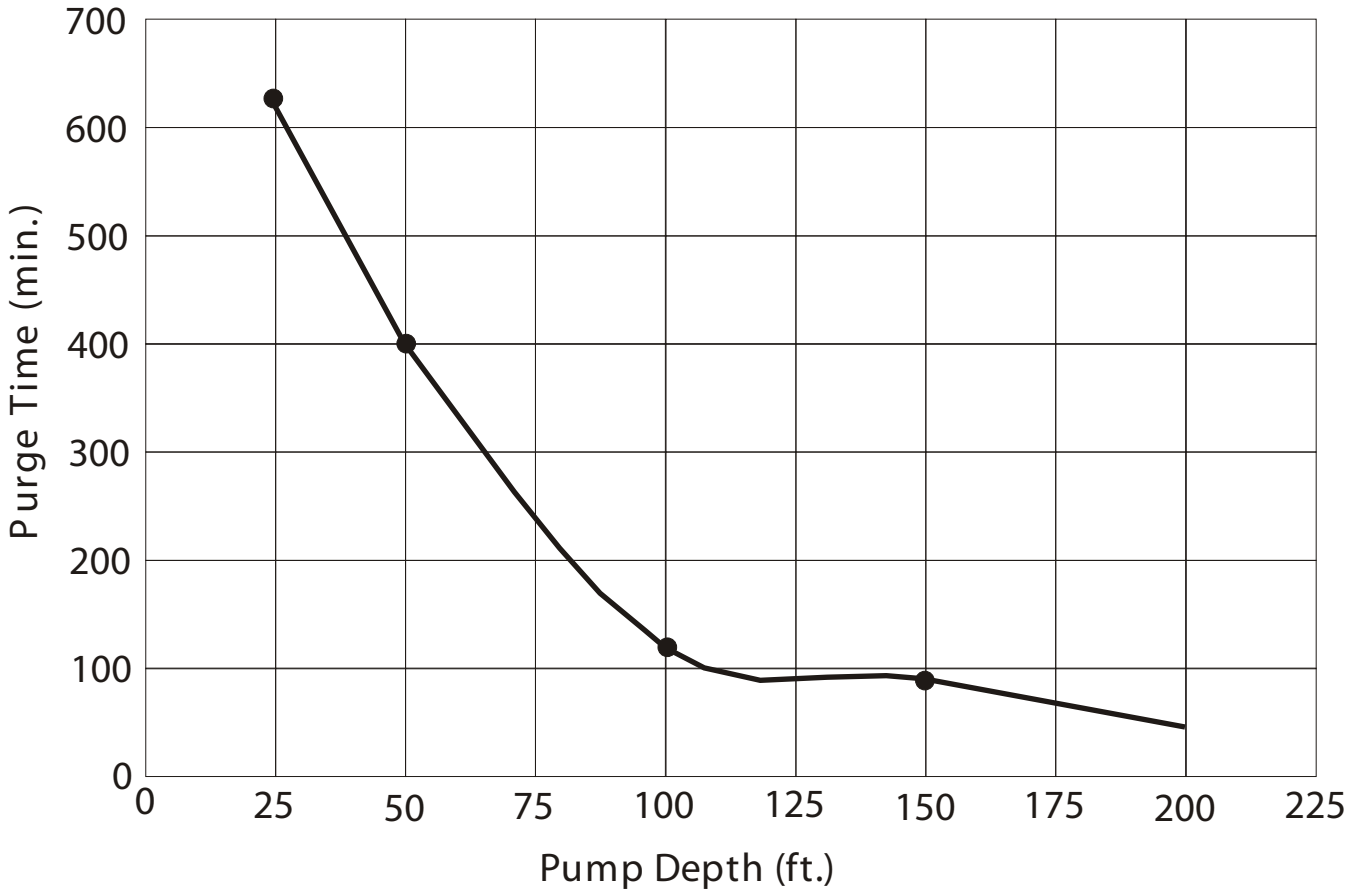
Appendix

Appendix 2

MP15 Purge Capacity*

<u>Pump Depth (ft.)</u>	<u>Purge Time (min.)</u>
50	400
100	120
150	90
200	50

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Appendix 3 Micropurge Pump Specifications

Model No.	Pump Materials	Length	O.D.	Fitting Materials	*Tubing Size	Volume	Max. Lift
T1100M	Teflon®	3.3' (1.0 m)	1.66" (4.2 cm)	Teflon®	1/4 & 3/8" (6 & 9 mm)	395 ml	250' (75m)
P1101M	PVC	3.4' (1.04 m)	1.66" (4.2 cm)	Polypropylene	1/4 & 3/8" (6 & 9 mm)	395 ml	300' (90m)
P1101HM	PVC	3.3' (1.0 m)	1.66" (4.2 cm)	Stainless Steel	1/4 & 3/8" (6 & 9 mm)	395 ml	600' (180m)
ST1101PM	316 Stainless Steel	3.4' (1.04 m)	1.66" (4.2 cm)	Stainless Steel	1/4 & 3/8" (6 & 9 mm)	395 ml	1,000' (305m)
T1200M	316 S.S. and Teflon®	3.4' (1.04 m)	1.50" (3.8 cm)	Stainless Steel	1/4 & 3/8" (6 & 9 mm)	495 ml	300' (90m)
T1250	316 Stainless Steel	1.25' (0.38 m)	1.50" (3.8 cm)	Stainless Steel	1/4 & 1/4" (6 & 6 mm)	100 ml	300' (90m)
P1150	PVC, Teflon®	1.63' (0.5 m)	1.66" (4.2 cm)	Polypropylene	1/4 & 1/4" (6 & 6 mm)	130 ml	300' (90m)
T1300	316 S.S. and Teflon®	3.8' (1.16 m)	1.00" (2.5 cm)	Stainless Steel	1/4 & 3/8" (6 & 9 mm)	220 ml	300' (90m)

*To choose 1/2" (13 mm) rather than 3/8" (9 mm) discharge tube option, delete suffix M from pump model number.



QED Environmental Systems is a leading provider of environmental testing and simulation solutions. Our advanced facilities and expertise ensure that your products are thoroughly tested under real-world conditions, helping you identify potential issues before they reach the market. We offer a wide range of services, including thermal testing, vibration testing, and humidity testing, all performed to the highest standards of quality and precision. Contact us today to learn more about our services and how we can help you improve your product's performance and reliability.