

USER'S LOGISTICS SUPPORT SUMMARY
Individual Water Purifier System

NSN: 4610-01-513-8498



MARINE CORPS SYSTEMS COMMAND
QUANTICO, VA 22134-5010

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May 2004
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**UNITED STATES MARINE CORPS
Marine Corps Systems Command
2200 Lester Street
Quantico, VA 22134-5010**

ULSS 000008-15
May 2004

1. This User's Logistics Support Summary (ULSS) is authenticated for Marine Corps use and effective upon receipt. It advises the Operating Forces and selected commands of the plan to field and logistically support the Individual Water Purifier (IWP) System.

2. Submit notice of discrepancies or suggested changes to this ULSS to:

Commanding General,
MARCORSYSCOM,
Attn: CESS, PM-ICE,
2200 Lester Street,
Quantico, VA 22134-5010

3. This ULSS is applicable to the Marine Corps Reserve.

BY DIRECTION OF THE COMMANDER, MARINE CORPS SYSTEMS COMMAND

OFFICIAL:

G.R. PATRICIO
LtCol. USMC
Program Manager/Infantry Combat Equipment (ICE)
Marine Corps Systems Command

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**USER'S LOGISTICS SUPPORT SUMMARY (ULSS)
FOR THE INDIVIDUAL WATER PURIFIER (IWP) SYSTEM**

1. Introduction

a. Introduction. The Individual Water Purifier (IWP) System Block I modular, which is upgradeable, man-packable system capable of removing and/or destroying contaminants and addresses the capability for individual Marines to produce potable water from potentially harmful water sources in a tactical environment, thus enhancing survivability and effectiveness in combat. The objective of the IWP is to provide a modular, man-packable system that is capable of disinfecting all microbes, filtering turbidity, and making brackish and salt water potable in a Nuclear, Biological and Chemical (NBC) environment, which will be ultimately capable of treating water from any available source of unknown quality, during combat and peacetime operations. This will allow for an immediate source of potable water while eliminating the risk of disease and exposure to contaminants.

b. Background

- 1) Lack of potable water in tactical situations may require Marines to drink from whatever sources are available, risking disease and exposure to harmful pollutants. A portable water purifier system would allow individual Marines to produce potable water from any available water source wherever it is found, thus, remaining hydrated. The Marine Corps currently employs iodine tablets and a portable filtration system to purify water at the individual and small unit/team level when potable water cannot be supplied. There are health and safety issues associated with these methods, as they will not filter out and/or destroy certain bacteria, viruses, or protozoan cysts. The current system does not meet the requirements set forth in the Statement of Need (SON).
- 2) The IWP program will meet the needs of the SON through a three-block development approach. The three-block development approach will ultimately deliver a system that meets all of the requirements established in the SON. Defense Advanced Research Projects Agency (DARPA) currently sponsors a progressive program of advanced man-packable water purification and technology transfer initiatives. The DARPA initiative, through extensive research and development, has matured the individual water purification technology for the Block I solution. To that end, a collaborative effort between DARPA, the United States Marine Corps (USMC) will facilitate the transition of technology and ensure a viable solution for water purification for the individual Marine. Further, the DARPA initiative will continue to mature research and development opportunities for Block II and Block III.

c. Source of Requirement. The IWPS is fielded to satisfy:

- 1) Marine Enhancement Program (MEP) Document 42.29 dated 22 Oct 1993.
- 2) Statement of Need (SON) dated 10 May 2001.

d. Points of Contact: The Program Manager, Infantry Combat Equipment (PM-ICE), Marine Corps Systems Command (MARCORSYSCOM), will serve as the focal point for all Marine Corps logistics

assistance during program activity and assist in the resolution of problems which are neither addressed in the ULSS nor solvable through the efforts of normal logistical channels. Listed below in Table 1-1 are the key personnel for IWPS:

TABLE 1-1 IWPS POINTS OF CONTACT (POC)

TITLE	COMMAND ADDRESS	TELEPHONE
<u>Director</u>	MARCORSYSCOM Combat Equipment and Support Systems (CESS) PGD-16 QUANTICO, VA 22134	(703) 432-3283 (DSN) 378-3283
<u>Program Manager (PM)</u>	Commander, MARCORSYSCOM Attn: PM-ICE 2200 Lester Street Quantico, VA 22134-6050	DSN 378-3334 (703) 432-3334 FAX (703) 432-3322
<u>Project Officer (PO)</u>	Commander, MARCORSYSCOM Attn: PM-ICE 2200 Lester Street Quantico, VA 22134-6050	DSN 378-3318 (703) 432-3318 FAX (703) 432-3322
<u>Integrated Logistics Support Officer (ILSO)</u>	Commander, MARCORSYSCOM Attn: PM-ICE 2200 Lester Street Quantico, VA 22134-6050	DSN 378-3304 (703) 432-3304 FAX (703) 432-3322
<u>Material Manger</u>	Commander, MARCORLOGCOM Attn: Code 584-2 814 Radford Blvd. Albany, GA 31704-0344	DSN 567-7896 (229) 639-7896

e. System Description: The MIOX MSR Disinfection Pen will provide protection against viral and bacterial waterborne diseases and protozoan cysts through the use of an electrolytic cell and a brine generation chamber. The MIOX MSR Disinfection Pen is capable of treating up to one (1) gallon of water in ten (10) minutes. It is compliant technology with USEPA Standards and Protocol for Microbiological Purifiers. The MIOX MSR Disinfection Pen protects from the following pollutants: *E Coli*, *Giardia*, cryptosporidiosis, hepatitis as well as less common protozoan and helminthes parasites.

f. Operational Characteristics: The Individual Water Purifier System will be worn/used by individual Marines as environment conditions dictate.

g. Associated Items of Equipment: N/A.

h. Replaced Weapon Systems and Equipment: The IWPS does not replace any fielded system or equipment.

2. Administrative Information:

a. Nomenclature: Individual Water Purifier (IWP) System.

b. Table of Authorized Materiel Control Number (TAMCN). C3061 IIBP

c. Stores Account Code (SAC): 1

d. National Stock Number (NSN): The following NSNs represent the entire package:

<u>DESCRIPTION</u>	<u>NSN</u>	<u>Estimate Cost</u>
(1) Individual Water Purifier System	4610-01-513-8498	\$80.00
(2) Purifier Pen	4460-01-518-5095	\$72.50
(3) Carrying Case	4460-01-518-5099	\$ 8.50
(4) MIOX Purifier Indicator Strips	6550-01-516-4933	\$ 6.50
(5) MIOX Purifier Rock Salt	6810-01-513-8737	\$ 2.00
(6) AA Batteries	6135-01-308-5688	\$ 2.88

e. Item Identification (ID): 11025A

f. Unit of Issue (UI): Each (EA)

g. Support Costs: The support cost for the IWPS has not been completely defined.

h. Physical Characteristics:

1) Pack Dimensions. The Operational and shipping dimensions of the IWPS is listed in Table 2-1.

TABLE 2-1 IWPS DIMENSIONS

<u>MEASUREMENT</u>	<u>OPERATIONAL DIMENSIONS</u>	<u>SHIPPING DIMENSIONS</u> <u>36 Pens per box</u>
<u>LENGTH (cm)</u>	18	22
<u>WIDTH (cm)</u>	5.5	15
<u>HEIGHT (cm)</u>	.5	.5
<u>SQUARE (feet)</u>	N/A	2.29
<u>CUBE</u>	N/A	2.37

MEASUREMENT	OPERATIONAL DIMENSIONS	SHIPPING DIMENSIONS 36 Pens per box
WEIGHT (lbs)	.33	20

- i. Petroleum, Oil and Lubricants (POL): N/A
 - j. Equipment Density: Normal
 - k. Resource Reporting: This is not Marine Corps Ground Equipment Resource Reporting (MCGERR) reportable as identified in Marine Corps Bulletin (MCBUL) 3000.
 - l. Power Requirements: N/A
 - m. Associated Weapon Systems and Equipment: None
3. **Fielding Methodology**:
- a. General Fielding Plan: As the date of this ULSS publication, the IWPS will be force-fed horizontally over a one-year period to all the units listed in appendices “A”.
 - b. Fielding Responsibilities. N/A
4. **Logistics Support**:
- a. Maintenance Support:
 - 1) Maintenance Concept. Maintenance for the IWPS consists of limited user and first echelon maintenance. User maintenance will consist of normal care and cleaning as outlined in the Use and Care manual.
 - 2) Designated Support Depots. N/A
 - 3) Calibration Requirements. N/A
 - b. Contractor Support Requirements. N/A
 - 1) Interim Contractor Support (ICS). There is no ICS planned.
 - 2) Contractor Logistics Support (CLS). There is no CLS planned.
 - c. Manpower, Personnel, and Training.

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- 1) Personnel Requirements. Fielding of the IWP will not result in additional manpower requirements. No new Military Occupational Specialty (MOS) will be required as a result of the IWP fielding.
 - 2) Training Requirements. No special training is required.
 - 3) Training Support Items. N/A
- d. Supply Support. An initial issue of Individual Water Purifier (IWP) System will be fielded to each Recon Company and Force Recon organizations in order to alleviate long lead times when ordering this item. Sustainment has transitioned to the Defense Logistics Agency (DLA) as described above.
- e. Support Equipment: N/A
- f. Technical Publications.
- 1) A small pocket size commercial product "MIOX Purifier Instruction" and a "MIOX Purifier Quick Start" instructional manual will be fielded with each IWP.
 - 2) An updated "MIOX Purifier Instruction" and a "MIOX Purifier Quick Start", addressing the use/operational, and maintenance requirements, included with every IWP and will be available on the Albany's website <http://pubs.ala.usmc.mil/front.htm> under Publication Control Number (PCN) 50011025000 and 50011025100.
 - 3) Ensure your unit publications clerk includes the IWPS publication on their publications list (PL) for automatic distribution of future technical manual changes or revisions.
 - 4) Requests for additional copies of either manual can be made through the Marine Corps Publication Distribution System (MCPDS). The following Technical Manual listed is required to support IWPS.

Technical Manual Number	Publication Control Number (PCN)	Title
TM 11025A-12/1	50011025000	Individual Water Purifier System Instruction Manual http://pubs.ala.usmc.mil/pubs/50011025000.pdf
TM 11025A-12/2	50011025100	Individual Water Purifier System Quick Start Guide http://pubs.ala.usmc.mil/pubs/50011025100.pdf

Address questions on distribution or requisitioning of IWPS technical manuals to

Commanding General,

MARCORSYSCOM,
CESS, PM-ICE,
2200 Lester Street,
Quantico, VA 22134-6050.

- g. Computer Resources Support. N/A
- h. Facilities. No change or impact on facility requirements.
- i. Packaging, Handling, Storage and Transportation.
 - 1) Packaging.
 - a. From the Manufacturer:
 - i. The SAPI scheduled for shipment to using units for immediate use shall be preserved and package in accordance with best commercial practices of ASTM D 3951-98.
 - ii. Items scheduled for shipment to overseas destinations or long-term storage shall be in accordance with MIL-STD-2073-1D, Method 10.
 - iii. Marking for shipment shall be in accordance with MIL-STD-129, DOD Standard Practice for Military Marking.
 - b. From the Gaining Commands:
 - i. In the event of a required return to stock for condition code “A”, “B”, or “C”, the gaining using unit shall be responsible for the preservation and packaging of the SAPI in accordance with current policy and procedures, i.e., MIL-STD-2073-1D, DOD Standard Practice for Military Packaging and MCO 4030.36, Marine Corps Packing Manual.
 - ii. Marking for shipment shall be in accordance with MIL-STD-129, DOD Standard Practice for Military Marking.
 - 2) Handling.
 - a. When packaged in large palletized lots, the IWP shall be capable of being lifted and handled by standard Marine Corps handling equipment.
 - b. Four-way entry pallets should be used. Each prepared load shall be bonded with primary and secondary straps.
 - c. Handling shall be in accordance with the requirements of MCO 4450.14, Joint Service Manual for Storage and Materials Handling.
 - 3) Storage.
 - a. The SAPI properly preserved and packaged requires no special storage.

- b. Storage shall be in accordance with the requirements of MCO 4450.14, Joint Service Manual for Storage and Materials Handling.
 - c. The SAPI plates shall be stored within a dry enclosed storage facility.
 - d. Stack plates with the concave side down, with no more than 10 units stacked in a pile. This number may decrease depending on the location and how easily the stack would be knocked over.
 - e. No additional storage facilities requirements are necessary.
 - f. Shelf life is unlimited.
- 4) Transportation. The IWP properly preserved and packaged is capable of being transported by all means available to the Marine Corps (i.e. Ground (Truck), Air, Rail and Ocean) exercising all security policy and procedures under DoD 4500.9R, Defense Transportation Regulation.
- j. Transportability and Naval Integration. The IWPS is considered individual equipment and will not impact deployability requirements.
 - k. Disposal. There are no known items within the IWPS plates that would cause any type of difficulties disposing within the local Defense Reutilization & Marketing Office (DRMO).
 - l. Warranties. Below are a few references to obtain assistance.
 - 1) Type of Warranty. The SAPI is warranted by the manufacturer to conform to design and manufacturing requirements, to remain free from defects in material and workmanship, and to conform to performance specifications from the acceptance date as well as continuous use in all types of typical U.S. Marine Corps infantry field use if not impacted by ballistic projectiles, and one year including intermittent storage periods ranging from one month to five years maximum duration.
 - 2) Warranty Administrator. MARCORLOGCOM is designated as the Marine Corps Warranty Administrator at DSN 567-7896 or Commercial (229) 639-7896.

Commander,
MARCORLOGCOM
Attn: Code 584-2
814 Radford Blvd.
Albany, GA 31704-0344

- 3) Warranty Responsibilities.

- a. The Warranty Administrator will maintain data on all warranty transactions based on input from the designated local Warranty Administrators.
 - b. All warranty issues and transactions will be reported to MARCORLOGCOM (Code 576-1) using a Product Quality Deficiency Report (PQDR), SF-368, in accordance with MCO 4855.10.
 - c. Reference is MCO 4105.2_ - Marine Corps Warranty Program
 - d. NOTE: Under normal conditions - any physical damage or evidence of tampering will void the equipment warranty.
1. Environmental, Safety, and Health (ESH). The systems safety and health hazards have been eliminated or reduced to a low risk level and there is no significant impact on the environment.

5. **Actions Required to Place Equipment in Service:**

a. Gaining Commands.

- 1) Conduct serviceability inspections of each IWP component when received to ensure there are no defects in quality or workmanship. Discrepancies noted will be reported to the IWP Logistics Officer or Project Officer for resolution.
- 2) Submit post-fielding evaluation reports (Appendix B) to COMMARCORSYSCOM and Marine Corps Logistics Command (LOGCOM) six months after completion of fielding of the IWP.
- 3) Material Defects Reporting.
 - a. Submit all fit, form, or function deficiencies in accordance with standard Product Quality Deficiency Reporting (PQDR) procedures contained in TM 4700-15/1_ and MCO 4855.10_ to Operations and Business Center, ATTN: PQDR Section (L150), 814 Radford Blvd., STE 20330, Albany, GA 31704-0330.
 - b. Disposition for the failed item will be furnished to the user based on the PQDR. PQDR's may be submitted via the Product Data Reporting and Evaluation Program (PDREP) at <http://www.nslcptsmh.navsea.navy.mil/pdrep/pdrep.htm>.
 - c. The PQDR form is also available at website: <http://www.ala.usmc.mil/pqdr/default.asp> and may be forwarded to the PQDR Screening Point via e-mail attachment to mbmatcompqdrs@matcom.usmc.mil.
 - d. Submit Supply Discrepancy Reports, SF 364, per UM-4400-124 and SECNAVINST 4355.18 (reporting of Item and Packaging Discrepancies) on shortages, overages and packaging and preservation discrepancies.

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- e. Any damage due to improper packaging will be submitted via SDR procedures. Damage due to shipping discrepancies will be submitted as a Transportation Discrepancy Report, SF361.
- f. Damage caused by other than shipping and packaging will be reported on PQDR.
- g. Log on to <http://www.ala.usmc.mil/pqdr> for additional PQDR information.

- 4) Retrograde of Existing Equipment: N/A
- 5) Obtaining Supporting Consumables. N/A
- 6) Security Requirements. N/A
- 7) Controlled Item Reporting. N/A
- 8) Marine Corps Ground Equipment Resource Reporting (MCGERR). This is not MCGERR reportable as identified in Marine Corps Bulletin (MCBul) 3000.

b. COMMARCORLOGBASE, ALBANY.

- 1) Act as warranty administrator to resolve warranty issues unresolved by the user community, track PQDR's for trend analysis, and report results to the IWPS Program Manager (PM), MARCORSYSCOM.
- 2) Implement administrative control mechanisms for supply support of IWPS during its' lifecycle.
- 3) Assign an Equipment Specialist to assist and support in the cataloguing and assignment of National Stock Numbers (NSN).
- 4) Assist in the life cycle support aspect of the program.
- 5) Develop and implement disposition instructions for all systems and equipment replaced as a result of the product fielding (i.e., a Phase-out Plan) as directed by the PM.
- 6) Post published User's Logistics Support Summary (ULSS) on document repository on website <http://pubs.ala.usmc.mil/front.htm>.

c. MARCORSYSCOM.

- 1) Program funds and budgets for the initial fielding of the product.
- 2) Assign IWPS to Combat Equipment and Support Systems (CESS) Program Manager (PM) for Infantry Combat Equipment (ICE) and his/her designated Project Officer (PO).
- 3) Ensure action is initiated to reflect allowance data in the Equipment Allowance File (EAF) coinciding with the project in-service date.

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- 4) Ensure Item Data File (IDF) information is updated in the Logistics Management Information System (LMIS) prior to fielding, per MCO 4400.192_, and that this information is kept current.
- 5) Ensure that the Commanding General, Marine Corps Combat Development Command (MCCDC) (Attn: TFS) is provided with the fielding plan and allowances designated by the approved acquisition decision documentation in order to update the TFS database.
- 6) Maintain life cycle management of the system per MCO 4105.4 and TM 4420-15/1 as required.
- 7) Publish a fielding message.
- 8) Conduct a safety assessment and publish a safety message.
- 9) Provide MARCORLOGBASES, Albany the digital signed User's Logistics Support Summary (ULSS) for posting on the document repository on website <http://pubs.ala.usmc.mil/front.htm>.
- 10) Collect data and provide analysis from the Fielding Evaluation Reports submitted by the fielding units in order to improve upon fielding requirements.

Designated SW Support Activity. N/A

APPENDIX A
List of Allowances

T/E #	DODAAC	Organization	Qty	Ship to Address
N1411	MMC246	H&S COMPANY, 1ST RECON BATTALION, 1ST MARDIV	104	TMO MF MMC246 IIP Special Projects, SMU Bldg 2262, Camp Pendleton, CA 92055-5001
N1412	MMC246	RECON COMPANY, 1ST RECON BATTALION, 1ST MARINE DIVISON	213	TMO MF MMC246 IIP Special Projects, SMU Bldg 2262, Camp Pendleton, CA 92055-5001
N4618	MMC246	1ST FORCE RECON COMPANY, I MHG	231	TMO MF MMC246 IIP Special Projects, SMU Bldg 2262, Camp Pendleton, CA 92055-5001
N4665	MMC246	SOUTHERN COMMAND	86	TMO MF MMC246 IIP Special Projects, SMU Bldg 2262, Camp Pendleton, CA 92055-5001
N1421	MML500	H&SCO, RECON BATTALION, 2D MARINE DIVISON	108	TMO MF MML500 Initial Issue Provisioning Acct, ISSA, MCB Camp Lejeune, NC 28542-5000
N1422	MML500	RECONCO, RECON BATTALION, 2D MARINE DIVISON	213	TMO MF MML500 Initial Issue Provisioning Acct, ISSA, MCB Camp Lejeune, NC 28542-5000
N4718	MML500	FORCE RECON COMPANY, II MHG	231	TMO MF MML500 Initial Issue Provisioning Acct, ISSA, MCB Camp Lejeune, NC 28542-5000
N1431	MMRFFA	H&S COMPANY, 3D RECON BATTALION, 3D MARINE DIVISON	109	TMO MF L00773 Consol Issue Facility, Bldg 500, Bay 3, Camp Kinser 789-5458, JA 901-2100, Okinawa JAPAN
N1432	MMRFFA	DISTANT RECON COMPANY, 3D RECOBN, 3D MARINE DIVISON	94	TMO MF L00773 Consol Issue Facility, Bldg 500, Bay 3, Camp Kinser 789-5458, JA 901-2100, Okinawa JAPAN
N1433	MMRFFA	DEEP RECON COMPANY, 3D RECOBN, 3D MARINE DIVISON	94	TMO MF L00773 Consol Issue Facility, Bldg 500, Bay 3, Camp Kinser 789-5458, JA 901-2100, Okinawa JAPAN
M4623	M73010	HQ, 3 RD FORCE RECON COMPANY	184	SUPO M/F M73010 TEL (251) 344-6206, 3RD FORCE RECON CO USMC, 4851 MUSEUM DR, MOBILE AL 36608-2510
N1441	M14701	H&S COMPANY, RECON BATTALION, 4TH MARINE DIVISION	105	SUPO M/F M14701 TEL (210) 223-1551, HS CO 4TH RECON BN MARFORRES, 3837 BINZ ENGLEMANN RD, SAN ANTONIO TX 78219-2235
N1442	M14702	RECON COMPANY, RECON BATTALION, 4TH MARINE DIVISION	80	SUPO M/F M14702 TEL (210) 223-1551, A CO 4TH RECON BN MARFORRES, 3837 BINZ ENGLEMANN RD, SAN ANTONIO TX 78219-2235
N1442	M14703	RECON COMPANY, RECON BATTALION, 4TH MARINE DIVISION	80	SUPO M/F M14703 TEL (406) 655-6252, B CO 4TH RECON BN MARFORRES, 2120 8th Ave North, BILLING MT 59101-0398
N1442	M14705	RECON COMPANY, RECON BATTALION, 4TH MARINE DIVISION	80	SUPO M/F M14705 TEL (505) 298-5508, D CO 4TH RECON BN MARFORRES, 400 WYOMING BLVD NE BOX L, ALBUQUERQUE NM 87123-1034
N1442	M14706	RECON COMPANY, RECON BATTALION, 4TH MARINE DIVISION	80	SUPO M/F M14706 TEL (210) 223-1551, C CO 4TH RECON BN MARFORRES, 3837 BINZ ENGLEMANN RD, SAN ANTONIO TX 78219-2235
N1442	M14707	RECON COMPANY, RECON BATTALION, 4TH MARINE DIVISION	80	SUPO M/F M14707 TEL (907) 298-5508, E CO 4TH RECON BN MARFORRES, 5893 WILKINS AVE, ANCHORAGE AK 99506-3610
M4624	M28353	4TH FORCE RECON COMPANY	132	SUPO M/F M28353 TEL (808) 257-2531 / 2420, 4TH FORCE RECON CO (-) 4TH MARINE DIVISON, BOX 62040, BLDG 1101 MARINE

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				MARDIV, BOX 63040 BLDG 1181 MARINE CORPS, KANEOHE BAY HI 96863-3040
M4624	M14704	Detachment, 4TH FORCE RECON	69	SUPO M/F M14704 TEL (775) 972-4998 / 4999 / 5000, DET 4TH FORCE RECON CO MARFORRES, 4601 COCOA AVE, RENO NV 89506-1211
		Total Procurement:	2,373	

APPENDIX B

GAINING UNIT FIELDING EVALUATION REPORT				
SYSTEM NAME	SYSTEM MODEL NO.	TAMCN	NSN	FIELDING DATE
GAINING UNIT T/E AND UIC (Typed name of Commander)		SIGNATURE	EVALUATION	
MAILING ADDRESS			DSN NUMBER	
<p>PREPARATION INSTRUCTIONS</p> <p>1. Complete within 30 days of fielding/handoff date.</p> <p>2. Check the appropriate box Yes, No, and N/A. Include short narrative below or no separate sheet for each no answer.</p> <p>Provide copies to:</p> <p>a. COMMARCORSYSCOM, 2033 BARNETT AVE., SUITE 315, QUANTICO VA22134-5010 COMMARCORLOGBASES, 814 Radford Blvd., ALBANY GA 31704-1128 DC/S I&L, 3033 Wilson Blvd., ARLINGTON VA 22201</p> <p>b. Your chain of command when required.</p>				

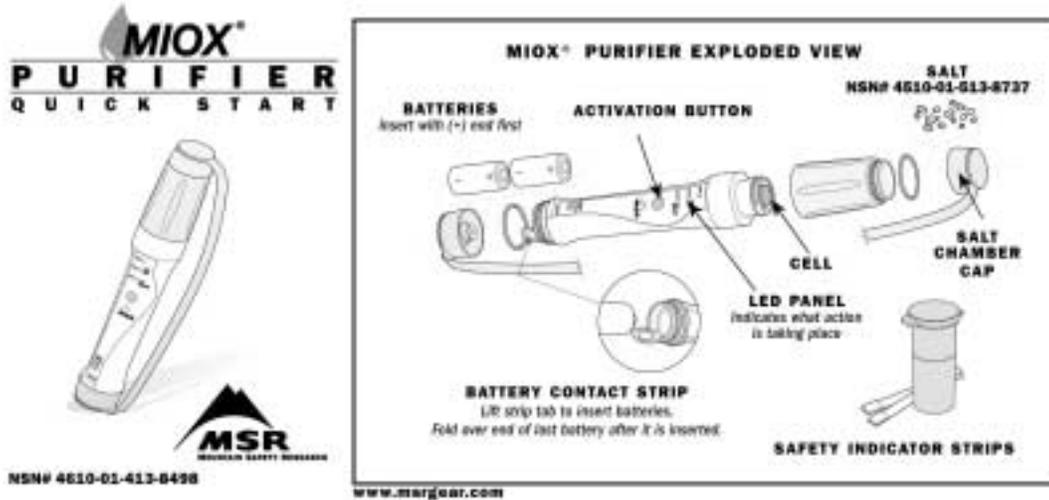
PART I – PRE-FIELDING COORDINATION			
ITEM	YES	NO	N/A
1. Was the ULSS provided 3 months prior to the pre-fielding conference?			
2. Was your organization involved in the material release review?			
3. Was a pre-fielding conference conducted? If yes, when?			
4. Was a fielding conference conducted? If yes, when?			
5. Was the fielding delayed for any reason? If yes, explain.			
COMMENTS FOR CLARIFICATION AND "NO" ANSWERS			

PART II – FIELDING OPERATIONS AND LOGISTICS SUPPORT			
ITEM	YES	NO	N/A
6. Was an inventory and handoff accomplished? When?			
7. Supply Support. Were the following items provided as agreed on?			
a. All WS/E?			
b. All components?			
c. All spare/repair parts (including supply system responsibility and collateral materiel)			
d. All tool, test equipment, and general support equipment?			
8. Transportation and Handling.			
a. Did the WS/E arrive in acceptable condition?			
b. Was the WS/E deprocessed, accounted for and secured properly?			
c. Were needed materiel handling resources and facilities available for receipt, deprocessing, and hand-off?			
9. Technical Data.			
a. Were prescribed training instruction and manuals available prior to or concurrent with fielding?			
b. Were TMs, supply bulletins, instructions, and warranty information available for each echelon of support?			
10. Facilities.			
a. Were adequate facilities available for receipt, inventory, operation and hand-off of all material?			
b. Were facilities adequate in terms of size, type, security, access, and quality?			
11. Training and Training Devices and Materials.			
a. Was adequate training provided prior to fielding?			
b. Was training conducted as stated in the ULSS?			
c. Were training aids for sustainment training available prior to or concurrent with fielding?			
12. Computer Resources and Support.			
a. Was software provided to support the hand-off and fielding?			
b. Was the computer interface with the fielding operation adequate?			
COMMENTS FOR CLARIFICATION AND "NO" ANSWERS			

PART III - FIELDING OPERATIONS AND LOGISTIC SUPPORT			
ITEM	YES	NO	N/A
13. Other Logistic Support			
a. Was needed engineering/technical data and expertise available to support the fielding?			
b. Was any other logistic support needed for the fielding, which was not planned for and provided?			
c. Was any expected logistic support provided which improved the fielding process? If so, please describe.			
COMMENTS FOR CLARIFICATION, "NO" ANSWERS AND #13c			

APPENDIX C

- 1) Below diagram is the MIOX Purifier Quick Start guide, which is included with every package of the Individual Water Purifier (IWP) System.



TROUBLESHOOTING			
LED Activity	Meaning	Possible Cause	Remedy
SALT steady red (Low Salt)	No Blinks solution	Not enough water in the cell area before capping and shaking	Fill the cell area in the bin with water, close the cap, and shake as per instructions in steps 1 & 2.
	Blink solution is too weak.	Salt is dry and needs to be re-wetted. Not enough salt in the salt chamber. Some of the instruction steps were missed.	Fill salt chamber with water, replace the cap or cover with your thumb and shake 10 times to wet tablet. Empty water and reuse one. Fill the salt chamber with salt and replace the cap. Read instructions to make sure you followed all steps.
SALT blinking (High Salt)	Blink solution is too salty	Not enough water in the cell area prior to shaking	Fill the cell area in the bin with water, close the cap, and shake 3 times.
BATT steady red	Battery is dead.		Replace Battery or try smaller doses (e.g. 2 x 2L vs. 1 x 4L).
BATT blinking red & RUN steady green	Battery charge is running low.		Replace Battery as soon as possible.

COPYWRITE RELEASE: The USMC has the right to modify or reproduce the instructional materials for this product as needed.

PN# 150441-1

WARNING

No matter where you are in the world, the water you drink can make you sick. Use good judgment and be cautious. Read and understand your MSR MIOX Purifier instructions; knowing how to effectively use this product will increase your chances of creating clean drinking water. Understand the limitations of this product.

- This product makes an oxidant that is an eye and skin irritant. Know how to use it properly.
- Do not ingest unfiltered oxidant.
- Do not mix the oxidant with acids or other chemicals.

BE RESPONSIBLE. Read your instructions carefully before use. Failure to follow these warnings and instructions may result in serious illness.

CAUTION: The MIOX Purifier creates a chemical oxidant that can irritate your eyes and stain clothing. Do not touch your eyes while using the purifier. Keep at least one foot away from your face and clothing during use. Wear the MIOX® Purifier and your hands after every use. Also, see First Aid.

CAUTION: Do not add more water to the container after the treatment process. Adding water after this step increases the risk of contamination.

CAUTION: To prevent drinking any contaminated water, the threads on your container and the cap must be treated the same as the water in your container (see Step 6).

FIRST AID: If oxidant gets in eyes, remove contact lenses and rinse with plenty of water for 15 minutes. If unfiltered oxidant is swallowed, drink large amounts of clean water. **DO NOT** induce vomiting. Call a physician or medic immediately. If oxidant comes in contact with skin, immediately remove contaminated clothing and wash skin thoroughly with water.

PLEASE READ ALL WARNINGS ON BACK BEFORE PROCEEDING.

STEP 1
Remove Salt Chamber and fill Cell with water (approx. 1/4 tsp.) by pouring or dipping.

STEP 2
Screw down Salt Chamber securely. Gently shake Purifier 10 times. Avoid over-shaking.

STEP 3
Hold Purifier upright. Unscrew Salt Chamber. Hold away from face. Click Purifier Activation Button appropriate number of times for amount of water to be treated.

STEP 4
Observe the LED Panel. Green LED RUN Light will be on while solution in coil bubbles. When Green LED RUN Light turns off, solution is ready to use.

STEP 5
Carefully pour treatment solution into container of water to be treated. Tap sharply on rim to empty coil.

STEP 6
Shake or stir to thoroughly mix solution and water.

STEP 7
Check water by dipping the pad end of test strip, immersing for 1 second.

STEP 8
Observe pad on end. If after 15 seconds pad does not turn purple to 'OK' level, repeat steps 1-7. If 'OK', set aside and check again in 10 minutes with another test strip.

STEP 9
Open container cap and splash a small amount of treated water onto the threads. Close cap and twist back and forth 3 times to treat container threads.

STEP 10
Wait 20 minutes. The water in your container is now ready to drink.

1 click = .5 L
2 click = 1L
3 click = 2L
4 click = 4L

12" minimum
30.8 cm

10X

3X

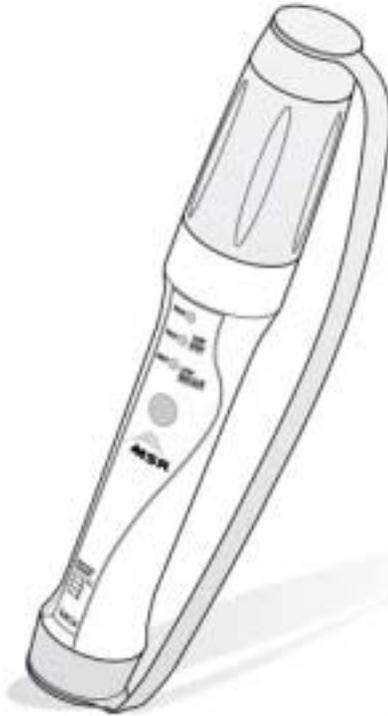
OK+
OK
TOO LOW

10
20

Note: water contaminated with cryptosporidium requires a 4 hour wait time.

••••• 'Too Low' - Repeat steps 1-7 •••••

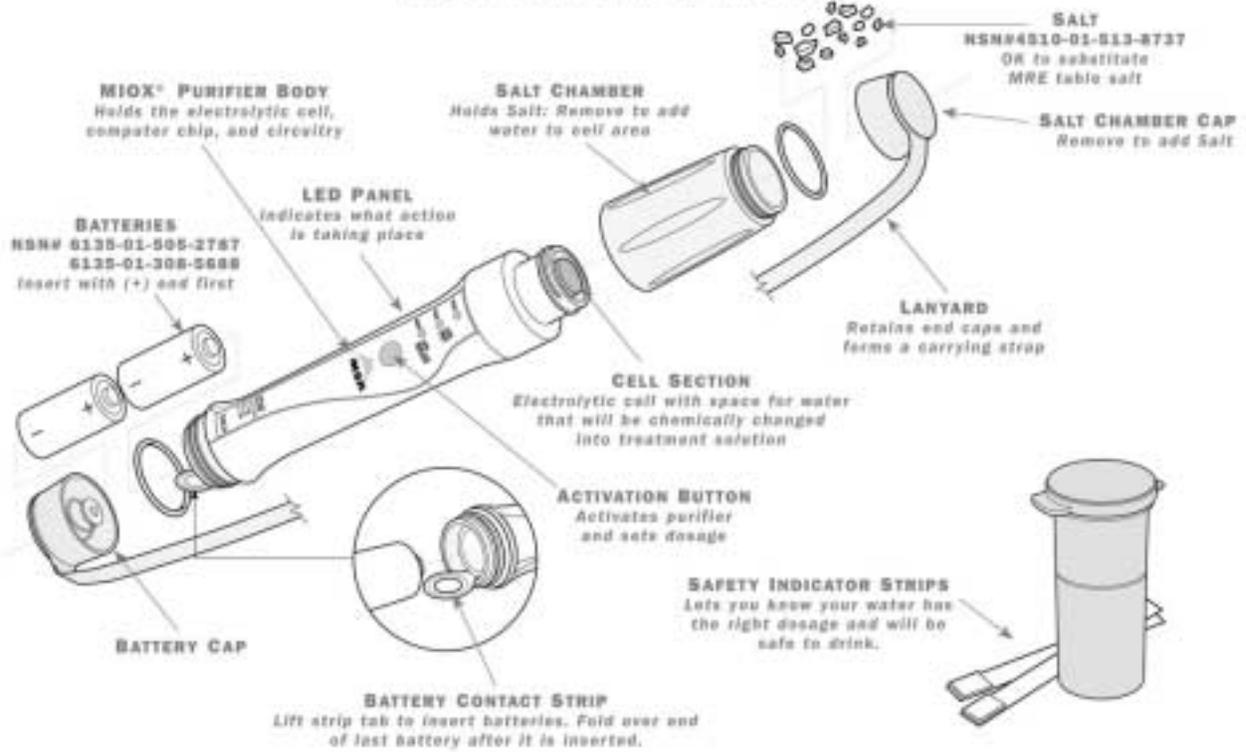

PURIFIER
INSTRUCTIONS



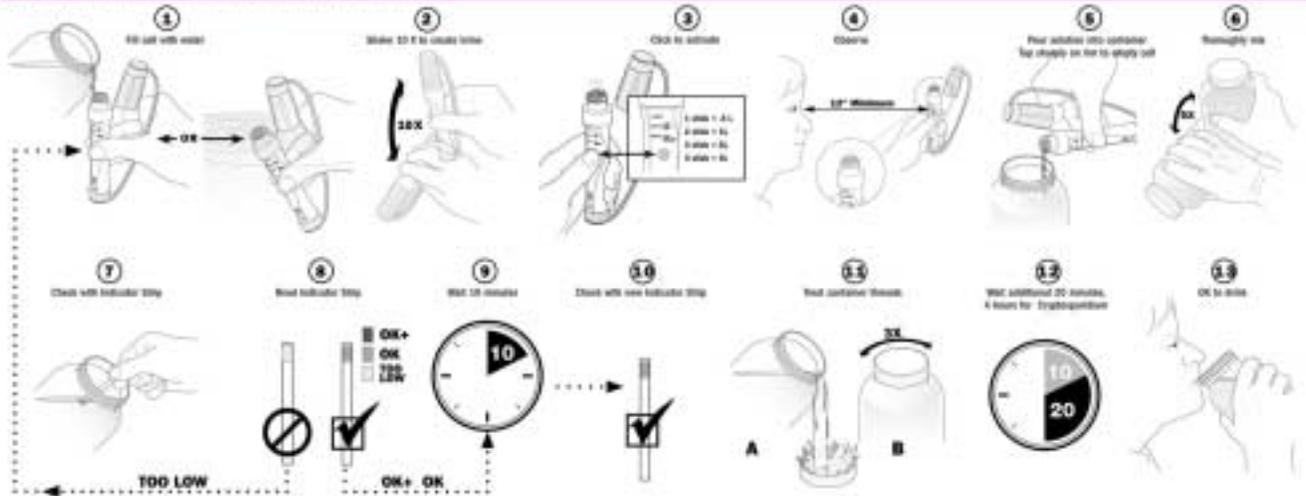
NSN# 4610-01-413-8498



MIOX® PURIFIER EXPLODED VIEW



NOTE: Read detailed explanations of each step in instructions.



TECHNICAL SPECS

Weight: Purifier – 3.5 oz.
Complete Kit – 8 oz.

Size: Purifier – 7.1" x 1"
Complete Kit – 7" x 4" x 1.5"

Operating Temperature Range: 20 to 130 F.

Storage Temperature Range: -20 to 160 F.

Water resistant to 60 feet

Maximum Altitude: 60,000 feet

Batteries: 2 x CR-123A Lithium camera batteries (6v total).

Battery Life: 200+ Liters (depends on dosages).

Required treatment time:

Viruses: 15 minutes

Bacteria: 15 minutes

Protozoa: Giardia: 30 minutes

Cryptosporidium: 4 hours

COPYWRITE RELEASE

The USMC has the right to modify or reproduce the instructional materials for this product as needed.

MIOX® PURIFIER DESCRIPTION



MIOX® Purifier makes water from unreliable sources microbiologically safe for drinking and storing.* Using ordinary salt, fresh water, and an electrical current, its proprietary patented technology creates a small batch of an oxidant solution which is then poured into your water to destroy microorganisms more effectively than chlorine or iodine. This compact, rugged, simple-to-use tool is shockproof, submersible, and features a safety indicator so you can be sure your treated water is safe to drink – wherever you are.

*It does not create drinking water out of seawater.

WARNING

No matter where you are in the world, the water you drink can make you sick. Read and understand your MIOX® Purifier instructions; knowing how to effectively use this product will increase your chances of creating clean drinking water. Understand the limitations of this product.

- This product makes an oxidant that is an eye and skin irritant. Know how to use it properly.
- Do not ingest undiluted oxidant.
- Do not mix the oxidant with acids or other chemicals.

BE RESPONSIBLE. Read your instructions carefully before use. Failure to follow these warnings and instructions may result in serious illness.

This product contains batteries

- Batteries may explode or leak if disassembled, short-circuited, re-charged or disposed of in fire.
- Wipe battery terminals clean with dry cloth before use.
- Do not store batteries in direct sunlight, high temperature or high humidity.

FIRST AID: If oxidant gets in eyes, remove contact lenses and rinse with plenty of water for 15 minutes. If undiluted oxidant is swallowed, drink large amounts of clean water. **DO NOT** induce vomiting. Call a physician or medic immediately. If oxidant comes in contact with skin, immediately remove contaminated clothing, wash skin thoroughly with water and rinse oxidant from clothing.

PREPARING THE MIOX® PURIFIER FOR USE
See Exploded View Illustration

- 1.** Remove the Battery Cap. Mooving the Battery Flex Strip up and out of the way insert the two lithium batteries, positive (+) end first. Allow the Battery Flex Strip to cover the outside end of the last battery and replace the Battery Cap. Screw it down snug to engage the O-ring seal. New batteries can be a bit "hot" charge-wise. Running a four-liter dose initially will break them in and yield a more consistent dose-to-dose output.
 - 2.** Remove the Salt Chamber Cap and fill the Salt Chamber 2/3 full with rock salt. Replace the Salt Chamber Cap and screw it down snug to the seal. Upon first use, or after re-filling with salt, you may need to fill the Cell Section with water, replace the cap, and shake several times to **wet the salt** in the Salt Chamber (see #1 in the Instruction Booklet or Q.S. Guide). Otherwise, the salt can make the water from the Electrolytic Cell "disappear" during brine creation.
- NOTE:** It is OK to substitute MRE table salt.

PACKAGE CONTENTS

- MIOX® Purifier
- 43 gm./1.5oz. salt, enough to treat 200+ liters or 53+ gallons of water
Salt NSN#: 4510-01-513-6137
- 50 Safety Indicator Strips in sealed container
- Instruction booklet
- Quick Reference card
- Storage sack
- 2 lithium CR123 batteries
Battery NSN#: 6135-01-505-2787
6135-01-308-5888

USING THE MIOX® PURIFIER

Fill a container with water to be treated. **IMPORTANT:** Choose the cleanest water available. Do not use seawater or brackish water. You can treat from 1/2 liter to 4 liters (16 oz. to 1 gal.) at a time. Purification results depend on matching the correct dosage to the volume of water, so it is VERY important to know how much your container holds.

MAKING THE TREATMENT SOLUTION

- A. Remove the entire Salt Chamber section leaving the Salt Chamber Cap closed.
- B. Fill the Cell area with water by dipping it or pouring water into it (Illustr. 1). The Cell area holds approximately 1 ml (1/4 tsp.) water.
- C. Hold the MIOX® Purifier upright and reattach the Salt Chamber, screwing it down securely.
- D. Gently shake the MIOX® Purifier 10 times [2].

WARNING

The MIOX® Purifier creates a chemical oxidant that can irritate your eyes. Do not touch your eyes while using the purifier. The same oxidant can also permanently stain clothing. Keep at least one face away from your face and clothing [4] during the following steps. Also, see "First Aid" Rinse Purifier and hands after use.

- E. Hold the MIOX® Purifier in an upright position to avoid spillage, and remove the entire Salt Chamber from the Body of the MIOX® Purifier before going on to the next step. Check to **make sure cell is at least 3/4 full** after shaking 10 times, before clicking Activation Button [2].

- I. Carefully pour the treatment solution into the container of water to be treated [5]. **Thumping out the Cell:** the Purifier creates a small volume of highly concentrated mixed oxidants, all of which must be added to the untreated water. Tap the purifier sharply on the container rim to ensure this occurs. Once the Cell area is empty, rinse the cell area and replace the Salt Chamber on the MIOX® Purifier.

- J. Shake or stir the water to thoroughly mix in the oxidant purifier solution [6].

NOTE: Safety Indicator Strips should be used to determine the correct dosage for each new water source and to re-check that dosage whenever weather occurs (rain, etc.) that may change the water source's composition.

- K. Check treated water by dipping the pad end of a safety indicator strip into the water for one second [7]. Observe pad on end. If after 15 seconds pad turns purple to 'OK' or 'OK+' level [8] (see color scale on bottle), set water aside for 10 minutes [9] and then re-check [step 1]. If pad does not turn purple to 'OK' or 'OK+' level, create another dose of oxidant [steps A-I], add to container, shake and test again. Repeat this dosing process, increasing oxidant level until pad turns purple to 'OK' or 'OK+' level.

- L. After 10 minutes [9], re-check water with another safety indicator strip [10], repeat dosing [steps A-I] until the safety indicator strip pad turns purple to 'OK' or 'OK+' level.

- M. Once the water has been properly dosed with Purifier solution, open your container and splash a small amount of dosed water onto the cap's threads. Close the cap, twist back and forth 3 times to treat container threads [11].

- N. The water in your container will be ready to drink after a final purification period of 20 minutes [12]. Once this period is over, your water may be consumed.

- F. Click the Purifier Activation Button [3] the number of times shown for the volume of water you want to treat. The chart below tells you how many times to click the Purifier Activation Button to create a solution of the correct strength to successfully treat your water. (The same chart is printed on your MIOX® Purifier.)

- 1 click = 1/2 quart/16 oz. or 1/2 liter
- 2 clicks = 1 quart/32 oz. or 1 liter
- 3 clicks = 2 quarts/64 oz. or 2 liters
- 4 clicks = 1 gallon/128 oz. or 4 liters

- G. LEDs will tell you what the MIOX® Purifier is doing after you have clicked the Activation Button.

- RUN Green LED on means the MIOX® Purifier is working. It blinks each time the Purifier Activation Button is clicked.

- SALT Solid red LED means there is not enough salt in the solution. See troubleshooting table.

- SALT Blinking red LED on means the solution is too salty. See troubleshooting table at back of instructions and QuickStart Guide.

- BATTERY Blinking red LED with green RUN LED on means the battery is running low on power. Replace as soon as possible.

- BATTERY Steady red LED on for 1 minute with green RUN LED off means the battery is dead and the oxidant was not successfully made. Replace batteries or try a smaller dose.



The green LED RUN light will be on while the solution in the cell area bubbles. During this phase, the small amount of salt water in the Cell receives an electrical charge that causes a chemical reaction called electrolysis. This process creates a powerful disinfectant that will destroy the biological contaminants in your untreated water [4].

- H. When the Green RUN LED turns off (and no red LED turns on), the solution is ready to use.

OVERKILL OPTION: If test strips are unavailable or the situation does not allow for the test procedure, you may overdose the water fill. Instead, to do so, use two 4 liter oxidant doses per 1 liter of water and wait 30 minutes, after which even the "worst case" water will be ready to drink.

NOTE: In all cases, using test strips or overkill, treating water contaminated with *cryptosporidium* requires a 4 hour total wait time.

WARNING

Do not add more water to the container after the treatment process. The water already in the container determined the treated strength of the treatment solution at the time of testing. Adding water after this step increases the risk of contamination.

Do not add drink mixes to treated water before wait time is complete. Doing so may result in the water being insufficiently treated.

To prevent drinking any contaminated water, the threads on your container and the cap must be treated the same as the water in your container.