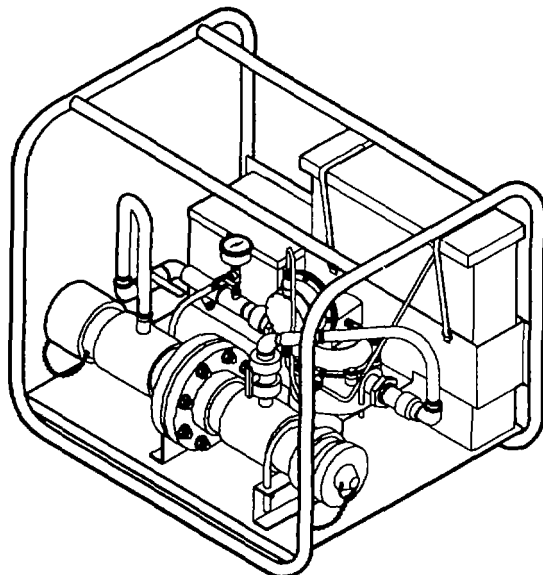


TECHNICAL MANUAL

**OPERATOR'S UNIT AND DIRECT
SUPPORT MAINTENANCE
MANUAL**



**HYPOCHLORINATION UNIT,
350 GPM
(NSN 4610-01-410-7179)
MODEL NO. WAL001HYPO
(EIC:ZJ2)**

**OPERATING
INSTRUCTIONS**

PAGE 2-1

**OPERATOR
TROUBLESHOOTING**

PAGE 3-1

**UNIT
MAINTENANCE
INSTRUCTIONS**

PAGE 4-1

**UNIT
TROUBLESHOOTING**

PAGE 4-6

**DIRECT SUPPORT
MAINTENANCE
INSTRUCTIONS**

PAGE 5-1

**DIRECT SUPPORT
TROUBLESHOOTING**

PAGE 5-1

DISTRIBUTION STATEMENT A: Approved for public release; distribution is unlimited

**HEADQUARTERS, DEPARTMENT OF THE ARMY
15 DECEMBER 1995**

TECHNICAL MANUAL

NO. 10-4610-246-13

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, D.C., 15 December 1995

Operator's, Unit and Direct Support
Maintenance Manual

**HYPOCHLORINATION UNIT, 350 GPM
(4610-01-410-7179)
MODEL NO. WAL001 HYPO
(EIC:ZJ2)**

REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this manual. If you find any mistakes, or if you know of a way to improve these procedures, please let us know. Mail your letter or DA Form 2028 (Recommended Changes to Publications and Blank Forms), or DA Form 2028-2 located in the back of this manual directly to: Commander, US Army Aviation and Troop Command, ATTN: AMSAT-I-MP, 4300 Goodfellow Blvd., St. Louis, MO 63120-1798. You may also submit your recommended changes by E-mail directly to <mpmt/oavma28@st-louis-emh7.army.mil>. A reply will be furnished directly to you. Instructions for sending an electronic 2028 may be found at the back of this manual immediately preceding the hard copy 2028.

DISTRIBUTION STATEMENT A: Approved for public release; distribution is unlimited

TABLE OF CONTENTS

		PAGE
	HOW TO USE THIS MANUAL	iii
CHAPTER 1	INTRODUCTION	1-1
Section I.	General Information	1-2
Section II.	Equipment Description	1-4
Section III.	Technical Principles of Operation	1-6
CHAPTER 2	OPERATING INSTRUCTIONS	2-1
Section I.	Description and Use of Operator's Controls and Indicators	2-2
Section II.	Operator Preventive Maintenance Checks and Services (PMCS)	2-2
Section III.	Operation Under Usual Conditions	2-9
Section IV.	Operation Under Unusual Conditions	2-20
CHAPTER 3	OPERATOR MAINTENANCE INSTRUCTIONS	3-1
Section I.	Lubrication Instructions	3-1

Section II.	Operator Troubleshooting Procedures.....	3-1
Section III.	Operator Maintenance Procedures.....	3-5
CHAPTER 4	UNIT MAINTENANCE INSTRUCTIONS	4-1
Section I.	Lubrication Instructions	4-2
Section II.	Repair Parts, Special Tools, TMDE and Support Equipment.....	4-2
Section III.	Service Upon Receipt.....	4-2
Section IV.	Preparation for Storage and Shipment.....	4-3
Section V.	Unit Preventive Maintenance Checks and Services (PMCS).....	4-4
Section VI.	Unit Troubleshooting Procedures.....	4-6
Section VII.	Unit Maintenance Procedures.....	4-7
CHAPTER 5	DIRECT SUPPORT MAINTENANCE INSTRUCTIONS.....	5-1
Section I.	Repair Parts, Special Tools, TMDE and Support Equipment.....	5-1
Section II.	Direct Support Troubleshooting Procedures.....	5-1
Section III.	Direct Support Maintenance Procedures.....	5-3
APPENDIX A	REFERENCES.....	A-1
APPENDIX B	MAINTENANCE ALLOCATION CHART.....	B-1
APPENDIX C	COMPONENTS OF END ITEM AND BASIC ISSUE ITEMS LISTS	C-1
APPENDIX D	ADDITIONAL AUTHORIZATION LIST.....	D-1
APPENDIX E	EXPENDABLE AND DURABLE SUPPLIES AND MATERIALS LIST.....	E-1
APPENDIX F	ILLUSTRATED UST OF MANUFACTURED ITEMS	F-1
APPENDIX G	TORQUE LIMITS	G-1
APPENDIX H	MANDATORY REPLACEMENT PARTS	H-1
GLOSSARY	Glossary-1	
INDEX.....	Index-1	

HOW TO USE THIS MANUAL

GENERAL. This technical manual provides you with the information needed to operate and maintain the hypochlorination unit. By properly using this manual, you will be able to identify any problem you may have in operating the hypochlorination unit and then locate the procedure needed to correct the problem.

MANUAL ORGANIZATION. This manual has been organized in a manner that groups together information that an operator or a maintenance technician will need to perform the required duties. The following list indicates how this information has been organized.

- | | |
|-----------|--|
| Chapter 1 | This chapter contains a complete description of the hypochlorination unit and includes such information as general equipment data, location/descriptions of major hypochlorination unit components, and general theory of operations of the hypochlorination unit. |
| Chapter 2 | Information needed to set up and operate the hypochlorination unit is included in this chapter. It includes assembly information, operator PMCS, and special instructions for unusual or emergency conditions. |
| Chapter 3 | All operator maintenance procedures are in this chapter. |
| Chapter 4 | If unit level maintenance is needed for the hypochlorination unit, required maintenance instructions can be found in this chapter. |
| Chapter 5 | This chapter contains maintenance instructions for direct support activities. |

AIDS TO FINDING INFORMATION. The following aids have been placed in this technical manual to help you quickly locate the information you may need.

Front Cover Index - To provide you with a quick reference to the most used portions of this technical manual, an index of these areas has been placed on the front cover of this manual.

Bleeder Edges on Pages - On the right edge of the front cover index of this manual you will see a black box area that goes to the edge of the front cover page. If you hold this manual with your left hand and bend back the outer right edges of the pages with your right hand, you will find that there are pages inside the manual that also have black boxes on the right edges, and that these boxes line up with the boxes on the front cover index. By turning to the page in the manual that lines up with the box on the front cover, you will be able to quickly turn to the topic shown in the front cover index.

Table of Contents and Boxed Titles - In the event that the front cover has been removed from this manual, the items that appear in the front cover index have also been typed in bold text where they appear in the Table of Contents of this manual.

Alphabetical Index - To assist you in locating any other information not found in the front cover index or the Table of Contents, an alphabetical index has been placed in the back of this manual.

GENERAL MAINTENANCE METHOD. Although your local standard operating and maintenance procedure may vary, a simple method of using this technical manual to operate and maintain the hypochlorination unit is shown in the following steps.

WARNINGS AND CAUTIONS

Always read, Understand, and Perform ALL WARNINGS and CAUTIONS Found in This Technical Manual BEFORE Performing the Step Immediately Following the WARNING or CAUTION.

Throughout this technical manual are certain procedures and operations that are hazardous to you or the hypochlorination unit. If you see a WARNING, pay special attention to the information stated in it, because all

WARNINGS provide you with data that will prevent serious Injury or death to you or others around you. When you see a CAUTION read it carefully because information given in it will keep you from damaging the hypochlorination unit and making it unable to fulfill its mission.

Equipment Set-Up and Operation. Unpack and set up the hypochlorination unit in accordance with procedures shown in Chapters 2 and 4.

Troubleshooting. If the hypochlorination unit does not operate properly, refer to the operating troubleshooting procedures in Chapter 3, the unit troubleshooting procedures in Chapter 4, or the direct support troubleshooting procedures in Chapter 5. The most likely hypochlorination unit malfunctions have been placed in these troubleshooting procedures and a test and/or repair procedure paragraph has been indicated to correct the malfunction found. If a repair is required, refer to maintenance shown in the troubleshooting procedure.

Maintenance Procedures. Complete repair procedures needed to correct a problem found with the hypochlorination unit have been included in Chapters 3, 4, and 5. Each maintenance chapter references the Repair Parts and Special Tools List (RPSTL), TM 10-4610-246-23P. The RPSTL lists authorized spares and repair parts.

CHAPTER 1 INTRODUCTION

	PAGE
Section I. General Information.....	1-2
1.1 Scope	1-2
1.2 Maintenance Forms, Records, and Reports	1-2
1.3 Corrosion Prevention and Control (CPC).....	1-3
1.4 Destruction of Army Materiel to Prevent Enemy Use	1-3
1.5 Reporting Equipment Improvement Recommendations (EIRs)	1-3
1.6 Warranty Information.....	1-3
1.7 Reference Information.....	1-3
1.8 Preparation for Storage or Shipment	1-4
1.9 Quality Assurance/Quality Control (QA/QC)	1-4
1.10 Safety, Care, and Handling	1-4
Section II. Equipment Description	1-4
1.11 Equipment Characteristics, Capabilities, and Features	1-4
1.12 Location and Description of Major Components	1-5
1.13 Equipment Data.....	1-5
Section III. Principles of Operation	1-6
1.14 Functional Description.....	1-6

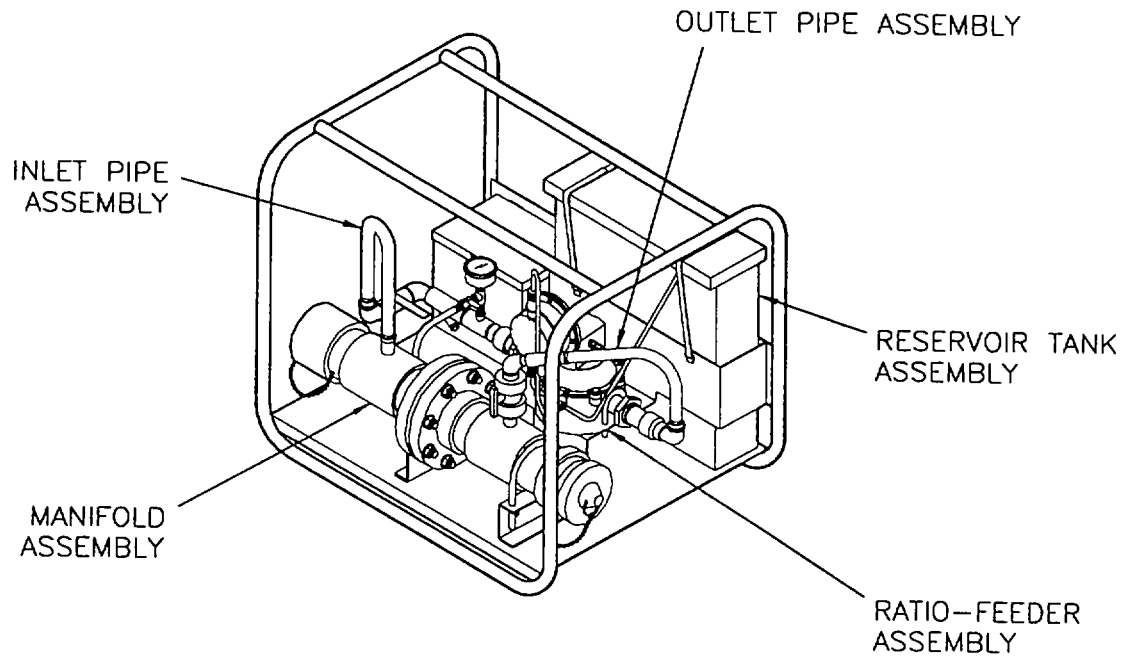
Section I. GENERAL INFORMATION

Figure 1-1.

1.1 SCOPE.

- a. Type of Manual. Operator's, Unit and Direct Support Maintenance manual.
- b. Equipment Name and Model Number. Hypochlorination Unit, 350 GPM Model WAL001HYPO.
- c. Purpose of Equipment. Used in water storage and distribution systems to chlorinate water.

1.2 MAINTENANCE FORMS, RECORDS, AND REPORTS.

Department of the Army forms and procedures used for equipment maintenance will be those prescribed by DA Pam 738-750 as contained in the Maintenance Management Update.