

**HAND RECEIPT  
COVERING CONTENTS OF COMPONENTS OF END ITEM (COEI),  
BASIC ISSUE ITEMS (BII), AND ADDITIONAL  
AUTHORIZATION LIST (AAL)  
FOR**

**RECHARGING UNIT, CARBON DIOXIDE  
RECIPROCATING PUMP  
ELECTRIC MOTOR DRIVEN, AC. 115 VOLT  
SINGLE PHASE, 60 HZ, 1 HP  
CRYO-CHEM INC.  
MODEL 12681 (NSN 3655-00-229-5246)  
MODEL 12681-2 (NSN 3655-00-617-7565)  
MODEL 12681-7 (NSN 3655-01-004-9873)**

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**HEADQUARTERS, DEPARTMENT OF THE ARMY**

**13 JUNE 1986**

TECHNICAL MANUAL

No. 5-3655-214-13&P-HR

HEADQUARTERS  
DEPARTMENT OF THE ARMY  
WASHINGTON, D.C. 13 June 1986

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**REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS**

You can help improve this manual. If you find any mistake or if you know of a way to improve the procedures, please let us know. Mail your letter, DA Form 2028 (Recommended Changes to Publications and Blank Forms), to: Commander, U. S. Army Troop Support Command, ATTN: AMSTR-MCTS, 4300 Goodfellow Boulevard, St. Louis, MO 63120-1798. A reply will be furnished directly to you.

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TABLE OF CONTENTS

SECTION I	INTRODUCTION.....	Page 1
SECTION II.	HAND RECEIPT.....	3

**SECTION I.  
INTRODUCTION**

**1. Scope.**

This publication provides an overprinted DA Form 2062 (Hand Receipt) which lists the contents of Components of End Item (COEI), Basic Issue Items (BII), and Additional Authorization List (AAL) items related to the carbon dioxide recharging unit.

b. The overprinted DA Form 2062 will eliminate manual preparation of the form and will assist organizations in inventorying and accounting for property as required by AR 710-2.

**2. General.**

a. Section II is the overprinted DA Form 2062 which lists the contents of COEI, BII, and AAL extracted from TM 5-3655-214-13&P. The listings consist of exactly the same items and are in the same sequence as those listings in TM 5-3655-214- 13&P.

c. Local reproduction of the overprinted DA Form 2062 is authorized. However, organizations shall comply with local policies in the reproduction of DA Form 2062 by office copying equipment, field printing plant or duplicating plant facilities.

d. Additional copies of this publication may be requisitioned from the Commander, US Army Adjutant General Publications Center, ATTN: AGDL-OD, 2800 Eastern Blvd., Baltimore, MD 21220.

3. Explanation of Blocks and Columns (DA Form 2062). Refer to DA Pam 710-2-1, Chapter 6. Additional information required to complete DA Form 2062 is listed below:

a. Hand receipts shall identify the accounting requirement status of all line item entries via Column C. One of the following Accounting Requirement Codes (ARC) will apply:

(N) for Non-expendable      Items not consumed in use, retaining their identity during use, and requiring that accountability be maintained throughout the life of the item.

(D) for Durable:      Non-consumable components of sets, kits, out-fits, and assemblages; all tools in FSCs 5110, 5120, 5130, 5133, 5136, 5140, 5180, 5210, 5220 and 5280; and any other non-consumable with a price in excess of \$50.00 not already "N".

(X) for Expendable:

Items regardless of type classification or price and which are consumed in use. Includes all class 9 repair parts. Items not consumed in use which cost \$50.00 or less and not already "N" or "D".

b. Authorization documents are as follows:

(1) Components for End Item (COEI) are authorized by the applicable Repair Parts and Special Tools List (RPSTL).

(2) Basic Issue Items (BII) are authorized by the applicable operator's manual.

(3) Additional Authorization List (AAL) items are authorized by the appropriate MTOE, TDA, CTA, or JTA authorization documents.

(4) Special information. (Not applicable.)

<b>HAND RECEIPT/</b> For use of this form, see DA PAM 710-2-1. The proponent agency is ODCSLOG		<b>FROM</b>		<b>TO</b>		<b>HAND RECEIPT NUMBER</b>							
<b>FOR ANNEX/ CR ONLY</b>	<b>END ITEM STOCK NUMBER</b>	<b>END ITEM DESCRIPTION</b> RECHARGING UNIT, CARBON DIOXIDE	<b>PUBLICATION NUMBER</b> TM5-3655-214-13&P		<b>PUBLICATION DATE</b> 18 April 1986		<b>QUANTITY</b> 1						
<b>STOCK NUMBER</b> a.		<b>ITEM DESCRIPTION</b> b.	<b>Used On Code</b>	<b>* c.</b>	<b>SEC d.</b>	<b>UI e.</b>	<b>QTY AUTH f.</b>	<b>g. QUANTITY</b>					
								<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>
		COMPONENTS OF END ITEMS (COEI)											
		NUT, SWIVEL, 968-4 (06023)		X		EA	2						
4730-00-411-8123		NIPPLE, INLET, 311P (06023)		X		EA	1						
4730-00-223-9255		ADAPTER, AN910-2 (88044)		X		EA	2						
		HOSE, 4WMBB4MB72 (06023)		X		EA	1						
		NIPPLE, OUTLET, 3311A (06023)		X		EA	1						
		CRADLE, BOTTLE, 12681-105 (13627)		N		EA	1						
		SUPPORT, CRADLE, 12681-112 (13627)		N		EA	1						
		SUPPORT, CENTER, 12681-109 (13627)		N		EA	1						
		SUPPORT, RH, 12681-110 (13627)		N		EA	1						
		SUPPORT, LH, 12681-111 (13627)		N		EA	1						
		BASIC ISSUE ITEMS (BII) NOT APPLICABLE											
		ADDITONAL AUTHORIZATION LIST (AAL)											
7520-00-559-9618		COTTON-DUCT CASE		X		EA	1						
* WHEN USED AS A HAND RECEIPT, enter Hand Receipt Annex Number HAND RECEIPT FOR QUARTERS FURNITURE, enter Condition Codes HAND RECEIPT ANNEX/COMPONENTS RECEIPT, enter Accounting Requirements Code (ARC)													

By Order of the Secretary of the Army:

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***Brigadier General, United States Army***  
***The Adjutant General***

**JOHN A. WICKHAM, JR.**  
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DISTRIBUTION:

To be distributed in accordance with DA Form 12-25A, Operator's Maintenance Requirements for Recharging, Unit, Carbon Dioxide, 1 HP, 115V, 60HZ, 1PH, Models 12681, 12681-2.

**\*U.S. GOVERNMENT PRINTING OFFICE: 1986 652-126/20167**

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P.S.—IF YOUR OUTFIT WANTS TO KNOW ABOUT YOUR  
RECOMMENDATION MAKE A CARBON COPY OF THIS  
AND GIVE IT TO YOUR HEADQUARTERS.

## The Metric System and Equivalents

### Linear Measure

1 centimeter = 10 millimeters = .39 inch  
1 decimeter = 10 centimeters = 3.94 inches  
1 meter = 10 decimeters = 39.37 inches  
1 dekameter = 10 meters = 32.8 feet  
1 hectometer = 10 dekameters = 328.08 feet  
1 kilometer = 10 hectometers = 3,280.8 feet

### Weights

1 centigram = 10 milligrams = .15 grain  
1 decigram = 10 centigrams = 1.54 grains  
1 gram = 10 decigrams = .035 ounce  
1 dekagram = 10 grams = .35 ounce  
1 hectogram = 10 dekagrams = 3.52 ounces  
1 kilogram = 10 hectograms = 2.2 pounds  
1 quintal = 100 kilograms = 220.46 pounds  
1 metric ton = 10 quintals = 1.1 short tons

### Liquid Measure

1 centiliter = 10 milliliters = .34 fl. ounce  
1 deciliter = 10 centiliters = 3.38 fl. ounces  
1 liter = 10 deciliters = 33.81 fl. ounces  
1 dekaliter = 10 liters = 2.64 gallons  
1 hectoliter = 10 dekaliters = 26.42 gallons  
1 kiloliter = 10 hectoliters = 264.18 gallons

### Square Measure

1 sq. centimeter = 100 sq. millimeters = .155 sq. inch  
1 sq. decimeter = 100 sq. centimeters = 15.5 sq. inches  
1 sq. meter (centare) = 100 sq. decimeters = 10.76 sq. feet  
1 sq. dekameter (are) = 100 sq. meters = 1,076.4 sq. feet  
1 sq. hectometer (hectare) = 100 sq. dekameters = 2.47 acres  
1 sq. kilometer = 100 sq. hectometers = .386 sq. mile

### Cubic Measure

1 cu. centimeter = 1000 cu. millimeters = .06 cu. inch  
1 cu. decimeter = 1000 cu. centimeters = 61.02 cu. inches  
1 cu. meter = 1000 cu. decimeters = 35.31 cu. feet

## Approximate Conversion Factors

To change	To	Multiply by	To change	To	Multiply by
inches	centimeters	2.540	ounce-inches	newton-meters	.007062
feet	meters	.305	centimeters	inches	.394
yards	meters	.914	meters	feet	3.280
miles	kilometers	1.609	meters	yards	1.094
square inches	square centimeters	6.451	kilometers	miles	.621
square feet	square meters	.093	square centimeters	square inches	.155
square yards	square meters	.836	square meters	square feet	10.764
square miles	square kilometers	2.590	square meters	square yards	1.196
acres	square hectometers	.405	square kilometers	square miles	.386
cubic feet	cubic meters	.028	square hectometers	acres	2.471
cubic yards	cubic meters	.765	cubic meters	cubic feet	35.315
fluid ounces	milliliters	29.573	cubic meters	cubic yards	1.308
pints	liters	.473	milliliters	fluid ounces	.034
quarts	liters	.946	liters	pints	2.113
gallons	liters	3.785	liters	quarts	1.057
ounces	grams	28.349	liters	gallons	.264
pounds	kilograms	.454	grams	ounces	.035
short tons	metric tons	.907	kilograms	pounds	2.205
pound-feet	newton-meters	1.356	metric tons	short tons	1.102
pound-inches	newton-meters	.11296			

## Temperature (Exact)

°F	Fahrenheit temperature	5/9 (after subtracting 32)	Celsius temperature	°C
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