

# TM 5-4110-204-13

DEPARTMENT OF THE ARMY TECHNICAL MANUAL

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## OPERATOR'S, ORGANIZATIONAL AND DIRECT SUPPORT MAINTENANCE MANUAL (INCLUDING REPAIR PARTS LIST)

REFRIGERATOR PREFABRICATED; PANEL TYPE; W/O  
REFRIGERATING EQUIPMENT; MILITARY SPECIFICATIONS  
MIL-R-10932

### TYPE 1, CLASS I AND II

600 CU FT, FSN 4110-269-5096  
1200 CU FT, FSN 4110-926-4159  
1800J CU FT, FSN 4110-926-1937

600J CU FT, FSN 4110-926-9544  
1800 CU FT, FSN 4110-057-0321  
3000 CU FT, FSN 4110-264-6226  
4000 CU FT, FSN 4110-269-5071

### TYPE II, CLASS I AND II

400 CU FT, FSN 4110-618-8709  
800 CU FT, FSN 4110-618-8711  
1400 CU FT, FSN 4110-618-8713

600 CU FT, FSN 4110-618-8710  
1200 CU FT, FSN 4110-618-8712  
1600 CU FT, FSN 4110-618-8714

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This copy is a reprint which includes current  
pages from Changes I through 10.

HEADQUARTERS, DEPARTMENT OF THE ARMY

14 DECEMBER 1966



## **SAFETY PRECAUTIONS**

Keep hands free from the striker hatch plate and latch when going in or out of the refrigerator.

Disconnect the electrical power before making any repairs to the electrical components.

Be sure inside walk-in door latch is in proper operating condition to prevent personnel from becoming locked inside the refrigerator.



CHANGE  
NO. 11

HEADQUARTERS, DEPARTMENT OF THE ARMY  
WASHINGTON, DC, 31 JULY 2005

TECHNICAL MANUAL

OPERATOR'S, ORGANIZATIONAL AND DIRECT SUPPORT MAINTENANCE MANUAL (INCLUDING REPAIR PARTS LIST); REFRIGERATOR, PREFABRICATED; PANEL TYPE W/O REFRIGERATING EQUIPMENT; MILITARY SPECIFICATIONS MIL-R-10932; 600 CU FT (NSN 4110-00-269-5096), 1200 CU FT (4110-00-926-4159); 1800J CU FT (4110-00-168-1937); TK600J CU FT (4110-00-5027); TK 1200J CU FT (4110-00-574-5744); TK4000J CU FT (4110-00-574-5789); TKR4000A CU FT (4110-01-119-3962); 600J CU FT (4110-00-926-9544); 1800 CU FT (4110-00-057-0321); 3000 CU FT (4110-00-264-6226); 4000 CU FT (4110-00-269-5071); TKR600A CU FT (4110-01-119-3960); TKR1200A CU FT (4110-01-120-5735) AND TKR1800A CU FT (4110-01-119-3961) (REPRINTED W/ BASIC INCL C1-10)

(THIS ITEM IS INCLUDED ON EM 0174)

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TM 5-4110-204-13, 14 Dec 1966, is updated as follows:

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2. This change implements the Army Maintenance Transformation and changes the Maintenance Allocation Chart (MAC) to support Field and Sustainment Maintenance.
3. New or updated text is indicated by a vertical bar in the outer margin of the page.
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A/(B Blank) (before page i)

C-1 through C-8

Electronic 2028 Instructions (Before DA-2028s)

DA-2028 Sample (Front/Back)

DA-2028 Front/Back

DA-2028 Front/Back


ARMY TM 5-4110-204-13

Change 11

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Official:

  
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Change

No. 10

HEADQUARTERS  
DEPARTMENT OF THE ARMY  
WASHINGTON, D.C., 7 October 1983

Operator's, Organizational, and Direct Support  
Maintenance Manual  
(Including Repair Parts List)

REFRIGERATOR, PREFABRICATED; PANEL TYPE, W/O  
REFRIGERATING EQUIPMENT; MILITARY SPECIFICATIONS  
MIL-R-10932

600 cu ft NSN 4110-00-269-5096	600J cu ft NSN 4110-00-926-9544
1200 cu ft NSN 4110-926-4159	1800 cu ft NSN 4110-00-057-4321
1800J cu ft NSN 4110-00-168-1937	3000 cu ft NSN 4110-00-264-6226
TK600J cu ft NSN 4110-00-571-5027	4000 cu ft NSN 4110-00-269-5071
TK1200J cu ft NSN 411040-574-5744	TKR600A cu ft NSN 4110-01-119-3960
TK4000J cu ft NSN 411040-574-5789	TKR1200A cu ft NSN 4110-01-120-5735
TKR4000A cu ft NSN 4110-119-3962	TKR1800A cu ft NSN 4110-01-119-3961

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D-1 thru D-30	D-1 thru D-30

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Change }  
No. 9 }

HEADQUARTERS  
DEPARTMENT OF THE ARMY  
WASHINGTON, D.C. ,26 February 1982

Operator's, Organizational, and Direct Support  
Maintenance Manual  
(Including Repair Parts List)

REFRIGERATOR, PREFABRICATED; PANEL TYPE, W/O  
REFRIGERATING EQUIPMENT; MILITARY SPECIFICATIONS  
MIL-R-10932  
TYPE I, CLASS I and II

600 cu ft NSN 4110-00-269-5096	600J cu ft NSN 4110-00-926-9544
AA-1200 cu ft NSN 4110-01-113-6577	1800 cu ft NSN 4110-00-057-0321
1600J cu ft NSN 4110-00-166-1937	3000 cu ft NSN 4110-00-264-6226
TK600J cu ft NSN 4110-00-571-5027	4000 cu ft NSN 4110-00-269-5071
TK1200J cu ft NSN 4110-00-574-5744	
TK4000J cu ft NSN 4110-00-574-5789	

TYPE II, CLASS I AND II

400 cu ft NSN 4119-00-618-8709	600 cu ft NSN 4110-00-618-8710
800 cu ft NSN 4110-00-618-8711	1200 cu ft NSN 4110-00-618-8712
1400 cu ft NSN 4110-00-618-8713	1600 cu ft NSN 4110-00-618-8714

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**Operator's, Organizational, and Direct Support  
Maintenance Manual  
(Including Repair Parts List)**

**REFRIGERATOR, PREFABRICATED; PANEL TYPE, W/O  
REFRIGERATING EQUIPMENT; MILITARY SPECIFICATIONS  
M-R-10932  
TYPE 1, CLASS I AND II**

600 cu ft NSN 4110-00-269-5096	600J cu ft NSN 4110-00-926-9544
1200 cu ft NSN 4110-00-926-4159	1800 cu ft NSN 4110-00-057-0321
1800J cu ft NSN 4110-00-168-1937	3000 cu ft NSN 4110-00-264-6226
TK600J cu ft NSN 4110-00-571-5027	4000 cu ft NSN 4110-00-269-5071
TK1200J cu ft NSN 4110-00-574-5744	
TK4000J cu ft NSN 4110-00-574-5789	

**TYPE II, CLASS I AND II**

400 cu ft NSN 4110-00-618-8709	600 cu ft NSN 4110-00-618-8710
800 cu ft NSN 4110-00-618-8711	1200 cu ft NSN 4110-00-618-8712
1400 cu ft NSN 4110-00-618-8713	1600 cu ft NSN 4110-00-618-8714

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DEPARTMENT OF THE ARMY  
WASHINGTON, DC 14 July 1975

**Operator's, Organizational, and Direct Support  
Maintenance Manual  
(Including Repair Parts List)  
REFRIGERATOR, PREFABRICATED; PANEL TYPE, W/O  
REFRIGERATING EQUIPMENT; MILITARY SPECIFICATIONS  
MIL-R-10932**

**TYPE 1, CLASS 1 and 11**

<b>600 cu ft., NSN 4110-00-269-5096</b>	<b>600J cu ft, NSN 4110-00-926-9544</b>
<b>1200 cu ft, NSN 4110-00-926-4159</b>	<b>1800 cu ft, NSN 4110-00-057-0321</b>
<b>1800J cu ft., NSN 4110-00-168-1937</b>	<b>3000 cu ft, NSN 4110-00-264-6226</b>
	<b>4000 cu ft, NSN 4110-00-269-5071</b>

**TYPE 11, CLASS 1 AND 11**

<b>400 cu ft, NSN 4110-00-618-8709</b>	<b>600 cu ft, NSN 4110-00-618-8710</b>
<b>800 cu ft., NSN 4110-00-618-8711</b>	<b>1200 cu ft, NSN 4110-00-618-8712</b>
<b>1400 cu ft, NSN 4110-00-618-8713</b>	<b>1600 cu ft., NSN 4110-00-618-8714</b>

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TM 5-4110-204-13

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Changes in force: C 1, C 2, C 3, C 4, C 5 and C 6

TM 5-4110-204-13  
C 6

CHANGE }  
No. 6 }

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DEPARTMENT OF THE ARMY  
WASHINGTON, DC, 14 March 1975

**Operator's, Organizational, and Direct Support  
Maintenance Manual**

**REFRIGERATOR, PREFABRICATED, PANEL TYPE, W/O  
REFRIGERATING EQUIPMENT, MILITARY SPECIFICATIONS MIL-R-10932  
TYPE 1, CLASS I AND II**

**600 CU. FT. NSN 4110-00-269-5096, 1200 CU. FT. NSN 4110-00-926-4159  
1800J CU. FT. NSN 4110-00-168-1937, 600J CU. FT. NSN 4110-00-926-9544  
1800 CU. FT. NSN 4110-00-057-0321, 4000 CU. FT. NSN 4110-00-269-5071  
3000 CU. FT. NSN 4110-00-264-6226**

**TYPE 1, CLASS I AND II**

**400 CU. FT. NSN 4110-00-618-8709, 800 CU. FT. NSN 4110-00-618-8711  
1400 CU. FT. NSN 4110-00-618-8713, 600 CU. FT. NSN 4110-00-618-8710  
1200 CU. FT. NSN 4110-00-618-8712, 1600 CU. FT. NSN 4110-00-618-8714**

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Page 2 of cover. Add the following warning to the list of safety precautions.

**WARNING**

The burning of polyurethane foams is dangerous. Due to the chemical composition of a polyurethane foam, toxic fumes are released when it is burned or heated. If it is burned or heated indoors, such as during a welding operation in its proximity, precautions should be taken to adequately ventilate the area. An exhaust system equivalent to that of a paint spray booth should be used. Air supplied respirators, approved by the National Institute for Occupational Safety and Health or the US Bureau of Mines, should be used for all welding in confined spaces and when ventilation is inadequate. Individuals who have chronic or recurrent respiratory conditions, including allergies and asthma, should not be employed in this type of environment.

**By Order of the Secretary of the Army:**

FRED C. WEYAND  
General, *United States Army*  
*Chief of Staff*

**Official:**

VERNE L. BOWERS  
Major General, *United States Army*  
*The Adjutant General*

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**Operator's Organizational, and  
Direct Support Maintenance Manual  
(Including Repair Parts List)  
REFRIGERATOR PREFABRICATED; PANEL TYPE; W/O  
REFRIGERATING EQUIPMENT; MILITARY SPECIFICATION  
MIL-R-10932  
TYPE 1, CLASS 1 AND II**

600 CU FT, FSN 4110-00-260-096  
1200 CU FT, FSN 4110-926-4159  
1600J CU FT, FSN 4110-00-168-1937

600J CU FT, FSN 4110-926-9544  
1600 CU FT, FSN 4110-057-0321  
4000 CU FT, FSN 4110-269-5071  
3000 CU FT, FSN 4110-264-6226

**TYPE II, CLASS I and II**

400 CU FT, FSN 4110-616-6709  
600 CU FT, FSN 4110-616-6711  
1400 CU FT, FSN 4110416-6713

600 CU FT, FSN 4110-616-6710  
1200 CU FT, FSN 4110-618-6712  
1600 CU FT, FSN 4110416-6714

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Dates of issue for original and changed pages are:

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TECHNICAL MANUAL }  
 No. 5-4110-204-13 }

HEADQUARTERS  
 DEPARTMENT OF THE ARMY  
 WASHINGTON, D.C., 14 December 1966

**Operator's Organizational, and  
 Direct Support Maintenance Manual  
 (Including Repair Parts List)**

**REFRIGERATOR, PREFABRICATED; PANEL TYPE; W/O  
 REFRIGERATING EQUIPMENT; MILITARY SPECIFICATIONS  
 MIL-R-10932**

**TYPE 1, CLASS I AND II**

- |   |                                      |
|---|--------------------------------------|
| <b>600 CU FT, FSN 4110-269-5096</b>     | <b>600J CU FT, FSN 4110-926-9544</b> |
| <b>1200 CU FT, FSN 4110-926-4159</b>    | <b>1800 CU FT, FSN 4110-057-0321</b> |
| <b>I 1800J CU FT, FSN 4110-168-1937</b> | <b>3000 CU FT, FSN 4110-2644226</b>  |
|   | <b>4000 CU FT, FSN 4110-269-5071</b> |

**TYPE II, CLASS I AND II**

- |                                      |                                      |
|--------------------------------------|--------------------------------------|
| <b>400 CU FT, FSN 4110-618-8709</b>  | <b>600 CU FT, FSN 4110-618-8710</b>  |
| <b>800 CU FT, FSN 4110-618-8711</b>  | <b>1200 CU FT, FSN 4110-618-8712</b> |
| <b>1400 CU FT, FSN 4110-618-8713</b> | <b>1600 CU FT, FSN 4110-618-8714</b> |

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**This manual supersedes TM 5-4110-204-15, 9 June 1963 including all changes; TM 10-4110-203-25P, 8 March 1980; and TM 5-4110-204-25P July 1963 including all changes**



# CHAPTER 1 INTRODUCTION

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## Section I. GENERAL

### 1-1. Scope

a. These instructions are published for use by personnel to whom the panel type refrigerator is issued. They provide information on the operation and maintenance of the equipment. Also included are descriptions of main units and their function in relationship to other components.

b. Appendix A contains a list of publications applicable to this manual. Appendix B contains the list of Items Installed or Authorized for use with the equipment. Appendix C contains the maintenance allocation chart. The organizational maintenance repair parts and special tools are listed in appendix D.

c. Numbers in parentheses on illustrations indicate quantity. Numbers preceding nomenclature callouts on illustrations indicate the preferred maintenance sequence.

d. You can improve this manual by recommending improvements using DA Form 2028 (Recommended Changes to Publications and Blank Forms) or DA Form 2028-2 (Recommended Changes to Equipment Technical Manuals) located in the back of the manual and mail the form direct to Commander, US Army Troop Support Command, ATTN: AMSTS-MPP, 4300 Goodfellow Blvd., St. Louis, MO 63120. A reply will be furnished direct to you.

e. To enable timely and effective evaluation, it is important that complete and comprehensive data be submitted on DA Form 2028, including the reason for submission if that fact is not self-evident.

### 1-2. Record and Report Forms

For record and report forms applicable to operator, crew and organizational maintenance, refer to TM 38-750.

## Section II. DESCRIPTION AND DATA

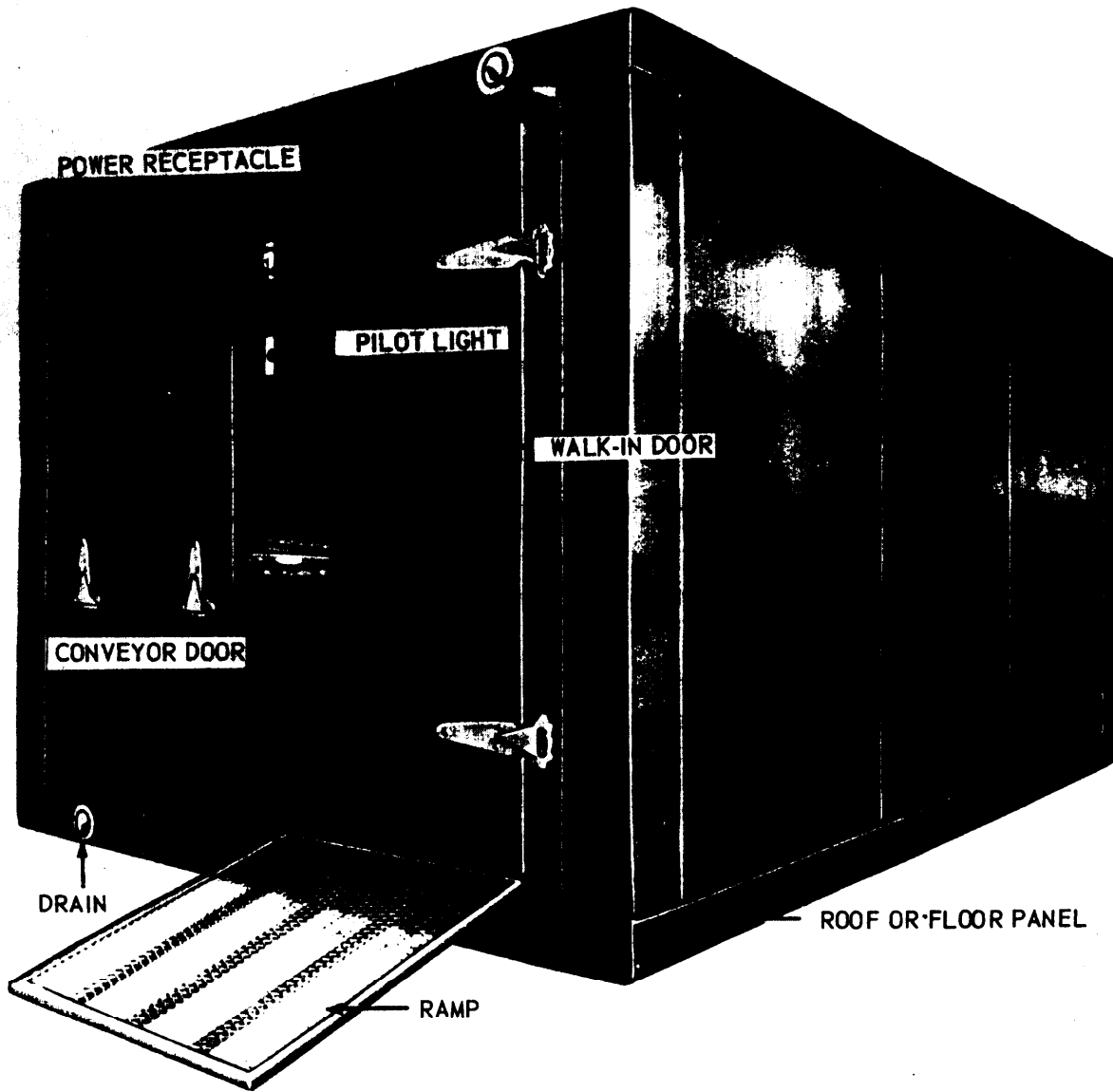
### 1-3. Description

a. *General.* The prefabricated walk-in refrigerators (fig. 1-1 through 1-4) are assembled from interchangeable panels. There are two types of units: these are Type I and Type II. The Type I refrigerators are 600, 1200, 1800, 3000 and 4000 cubic feet units, while the Type II refrigerators are 400, 600, 800, 1200, 1400, and 1600 cubic feet units. The Type I and Type II refrigerators are of the same construction and differ only in width. The Type I units are three panel or 12 ft. 95/8 in. wide, while the Type II units are two panel or 8ft.1123/32 in. wide. All panels with the exception of the roof and floor panels are interchangeable between the two type refrigerators. All prefabricated refrigerators are constructed in accordance with Military Specifica-

tion MIL-R-10932. The 600 cubic feet Type I unit and 400 and 600 cubic feet Type II units are single units while the units larger than 600 cubic feet are divided into compartments.

The Class 1 panels are constructed of a wooden frame with fiber glass insulation and are covered with sheet aluminum on both sides. The Class 2 panels are the same as Class 1 with exception that the exterior skin is steel and the interior skin is zinc coated, and not painted. The 1800J model refrigerators (Urethane) are constructed similar to the Type I Class 1 refrigerators with the addition of polyurethane foam in place of insulation.

b. *Type I, 600 Cubic Feet Unit.* The Type I, 600 cubic feet unit consists of one walk-in door panel with door, one conveyor panel with door,



NOTE: ROOF AND FLOOR PANELS ARE INTERCHANGEABLE

*Figure 1-1. Single compartment refrigerator, right-front, three quarter view, 600 cu. ft. capacity.*



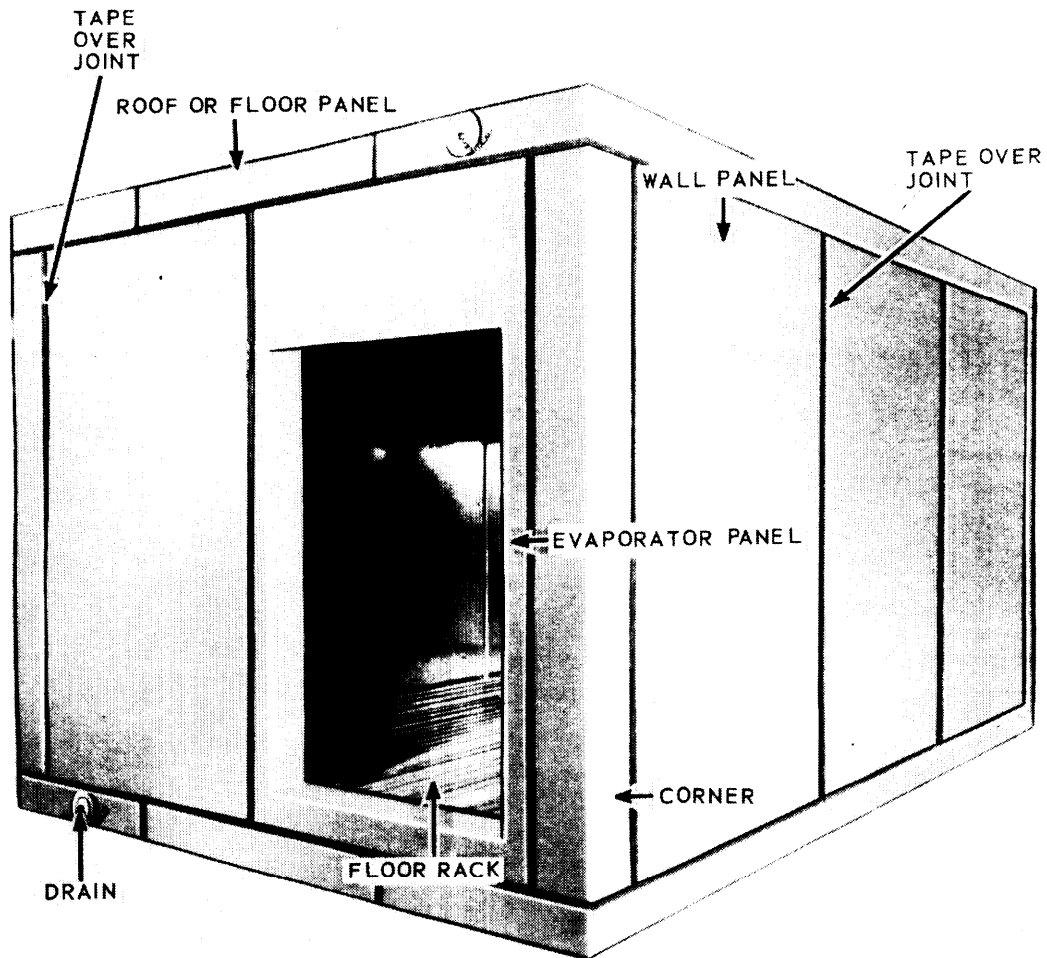
one evaporator panel, seven wall panels, four corner panels, three roof and three floor panels. The roof and floor panels are interchangeable throughout each type-size, and wall panels are interchangeable throughout all types and sizes. This refrigerator is equipped with three hardwood floor racks, four shelving units, a thermometer, outside power receptacle, inside light, an outside indicating light and two floor drains.

**NOTE**

The conveyor panel with door is optional equipment. When not required, this panel is replaced with an additional standard wall.

c. *Type I, 1200 Cubic Feet Unit.* The Type I, 1200 cubic feet unit is a single compartment refrigerator consisting of one walk-in door with ramp and canopy, one conveyor door, two evaporator panels, five roof panels, five floor panels and four corner panels. This unit is equipped with five hardwood floor racks, nine shelving units, a thermometer, outside power receptacle, inside light, outside indicating light and two floor drains.

d. *Type I, 1800 Cubic Feet Unit.* The Type I, 1800 cubic feet unit is a two compartment refrigerator consisting of two walk-in doors, with ramps, and canopies, two conveyor doors, two evaporator panels,



ME 4110-204-13/1-2/

Figure 1-2. Single compartment refrigerator, left-rear, three-quarter view, 600 cu. ft. capacity.

**TM 5-4110-204-13**

seven roof panels, seven floor panels, four corner panels, and three partition panels. The 1800 cubic foot refrigerator is equipped with six hardwood floor racks, nine shelving units, two thermometers, two

outside power receptacles, two inside lights, two outside indicating lights and four floor drains. The 1800J Model refrigerator (Urethane) is supplied with 14 hardwood floor racks and has no shelving units.

e. *Type I, 3000 Cubic Feet Unit.* The Type I, 3000 cubic feet unit is a three-compartment refrigerator consisting of three walk-in doors with ramps and canopies, three conveyor doors, three evaporator panels, eleven roof panels, eleven floor panels, four corner panels, and six partition panels. The 3000 cubic feet refrigerator contains eleven hardwood floor racks, twenty-one shelving units, three thermometers, three outside power receptacles, three inside lights and four floor drains

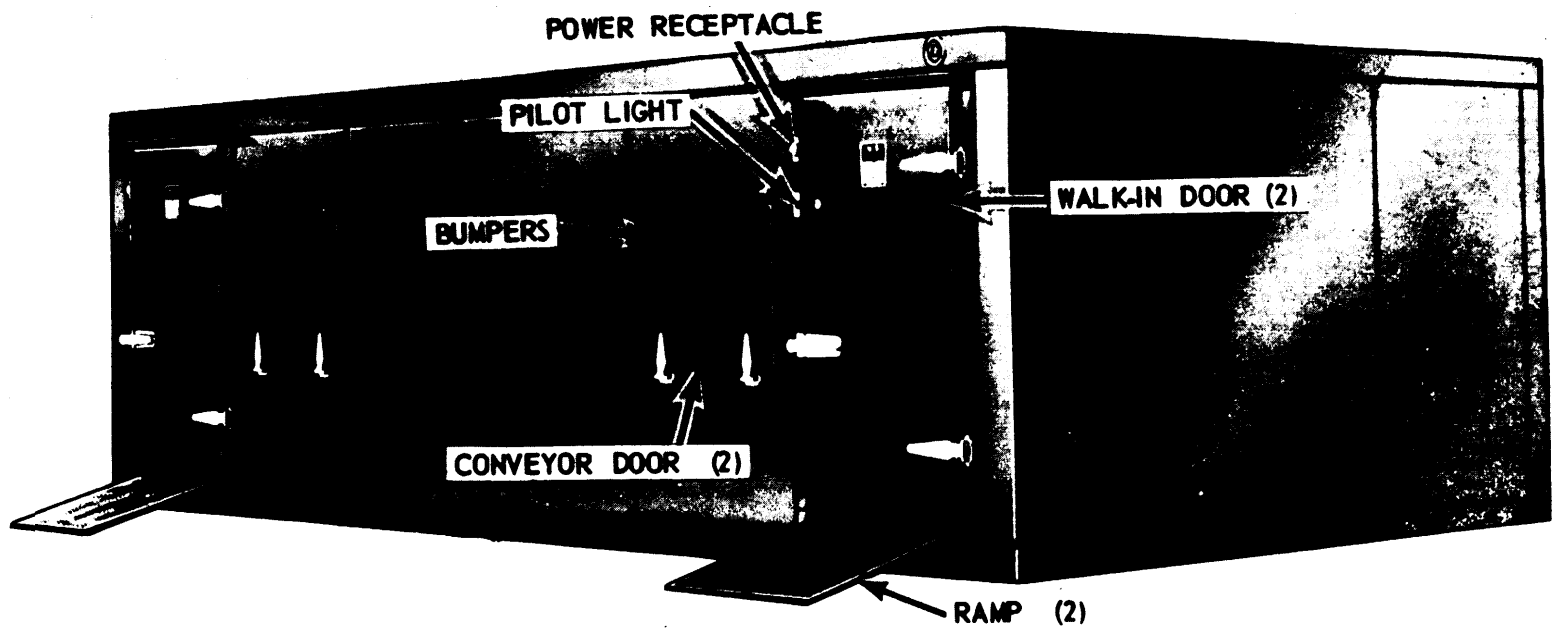
f. *Type I, 4000 Cubic Feet Unit.* The Type I, 4000 cubic feet unit is a four-compartment refrigerator consisting of four walk-in doors with ramps and canopies, four conveyor doors, four evaporator panels, fifteen roof panels, twenty-two wall panels and nine partition panels. The 4,000 cubic feet refrigerator is equipped with fifteen hardwood floor racks, thirty shelving units, four thermometers, four outside power receptacles, three inside lights and four floor drains.

g. *Type II, 400 Cubic Feet Unit.* The Type II, 400 cubic feet unit is a single-compartment refrigerator consisting of one walk-in door panel with door, one ramp and canopy, two evaporator panels, five standard wall panels, three floor panels, three ceiling

panels and four corner panels. The 400 cubic feet refrigerator is equipped with three hardwood floor racks, three shelving units, a thermometer, an outside power receptacle, an inside light, an indicating light, and a floor drain.

h. *Type II, 600 Cubic Feet Unit.* The Type II, 600 cubic feet unit is a single-compartment refrigerator consisting of one walk-in door panel with door, one ramp and canopy, two unit cooler panels, seven standard wall panels, four floor panels, four ceiling panels, and four corner panels. The 600 cubic feet refrigerator is equipped with four hardwood floor racks, four shelving units, a thermometer, outside power receptacle, inside light, an indicating light, and two floor drains.

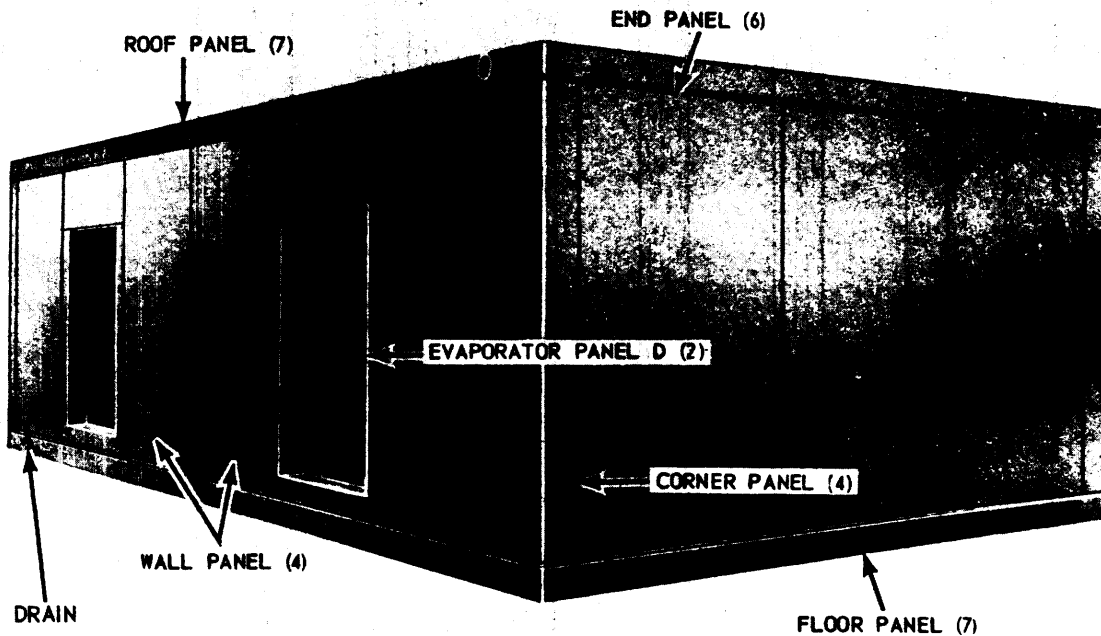
i. *Type II, 800 Cubic Feet Unit.* The Type II, 800 cubic feet unit is a two-compartment refrigerator consisting of two walk-in panels with doors, two ramps, two canopies, four unit cooler panels, six standard wall panels, five ceiling panels, five floor panels, four corner panels and two partition panels. This 800 cubic feet refrigerator is equipped with five hardwood floor racks, ten shelving units, two thermometers, two outside power recep-



NOTE: ROOF AND FLOOR PANELS ARE INTERCHANGEABLE.

ME 4110-204-13/1-3 C

Figure 1-3. Double compartment refrigerator, right front, three-quarter view.



NOTE: ROOF AND FLOOR PANELS ARE INTERCHANGEABLE.

MEC 4110-204-13/1-4

Figure 1-4. Double compartment refrigerator, left-rear, three-quarter view

tacles, two inside lights, two indicating lights and two floor drains.

*j. Type II, 1200 Cubic Feet Unit.* The Type II, 1200 cubic feet unit is a three compartment refrigerator consisting of three walk-in door panels with doors, three ramps, three canopies, six unit cooler panels, eight standard wall panels, seven ceiling panels, seven floor panels, four corner panels and six partition panels. This 1200 cubic feet refrigerator is equipped with seven hardwood floor racks, nine shelving units, three thermometers, three outside power receptacles, three inside lights, three indicating lights and two floor drains.

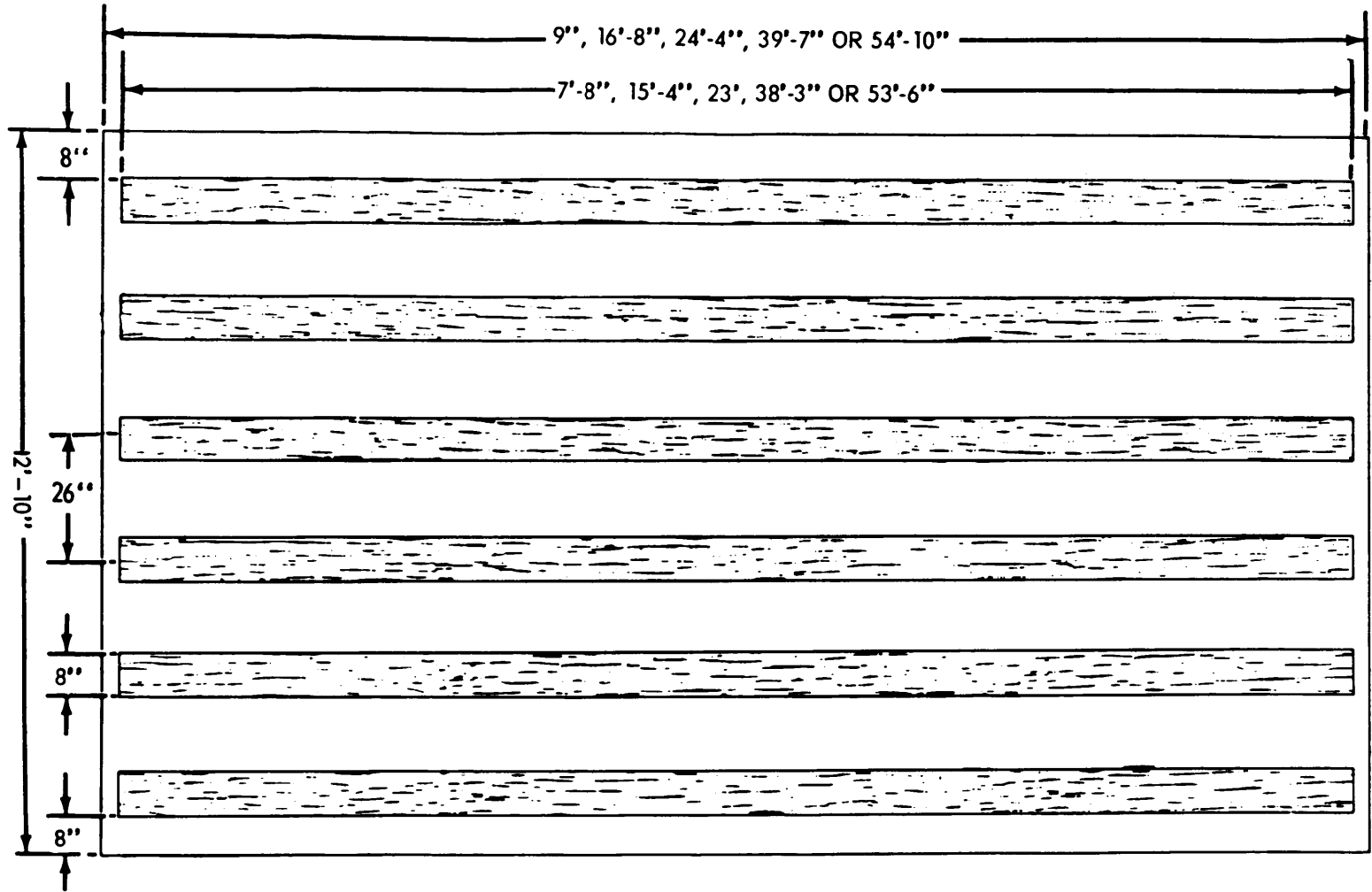
*k. Type II, 1400 Cubic Feet Unit.* The Type II, 1400 cubic feet unit is a three compartment refrigerator consisting of three walk-in door panels with doors, three ramps, three canopies, six unit cooler panels, ten standard wall panels, eight ceiling panels, eight floor panels, four corner panels and for partition panels. This 1400

cubic feet refrigerator is equipped with eight hardwood floor racks, ten shelving units, three thermometers, three outside power receptacles, three inside lights, three indicating lights and two floor drains.

*1. Type II, 1600 Cubic Feet Unit.* The Type II, 1600 cubic feet unit is a three compartment refrigerator consisting of three walk-in door panels with doors, three ramps, three canopies, six unit cooler panels, eleven standard wall panels, nine ceiling panels, nine floor panels, four corner panels and four partition panels. This 1600 cubic feet refrigerator is equipped with nine hardwood floor racks, 12 shelving units, three thermometers, three outside power receptacles, three inside lights, three indicating lights and two floor drains.

#### 1-4. Identification and Tabulated Data

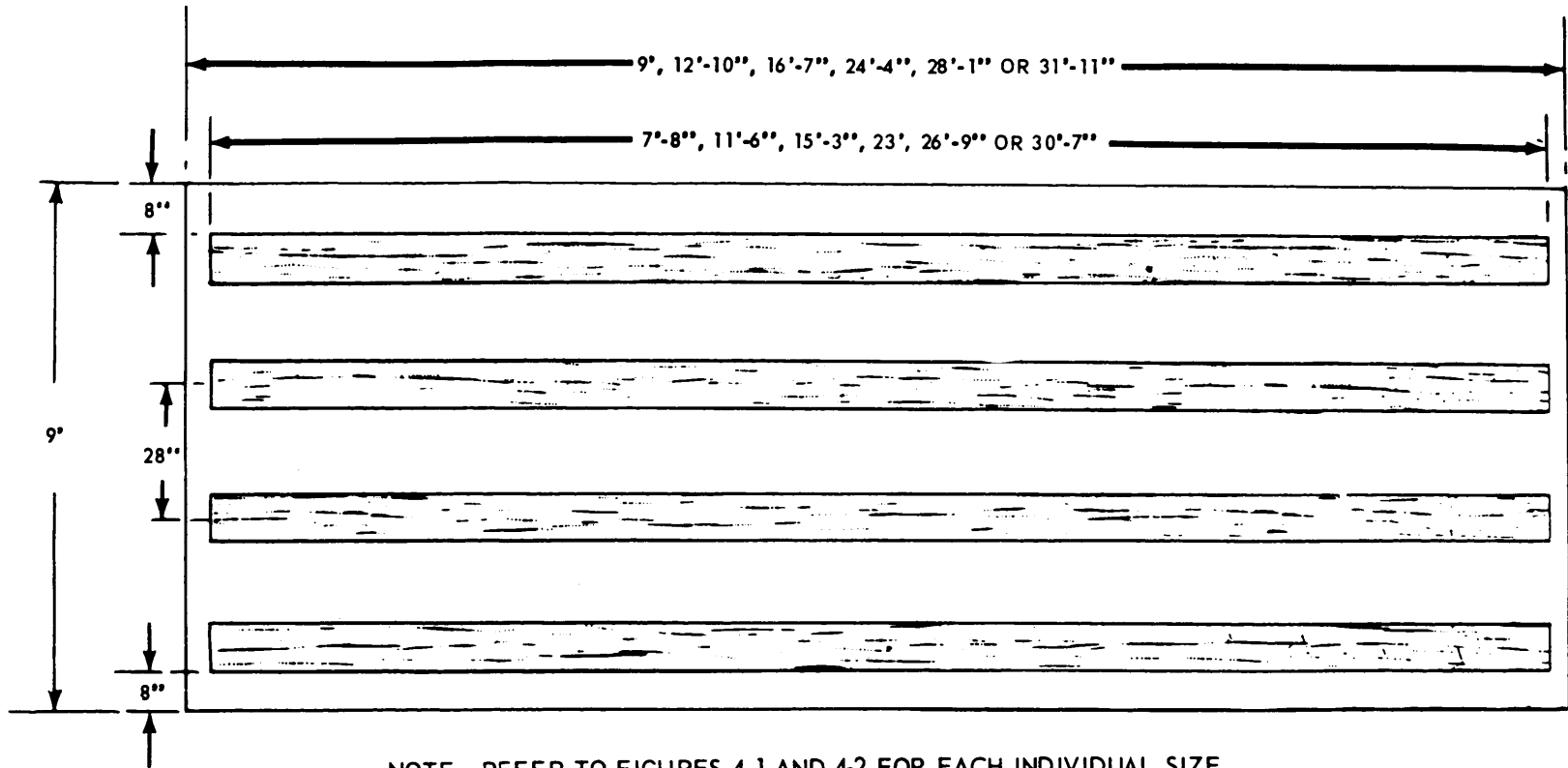
*a. Identification.* An identification plate is mounted on the door of each walk-in door panel. There are from one to four door panels



NOTE: REFER TO FIGURES 4-1 AND 4-2 FOR EACH INDIVIDUAL SIZE REFRIGERATOR TO BE ERECTED.

MFC 4110-204-13/1-5

Figure 1-5. Base Plan, Type I refrigerators



NOTE: REFER TO FIGURES 4-1 AND 4-2 FOR EACH INDIVIDUAL SIZE REFRIGERATOR TO BE ERECTED.

MEC 4110-204-13/14

Figure 1-6. Base plan, Type II refrigerators

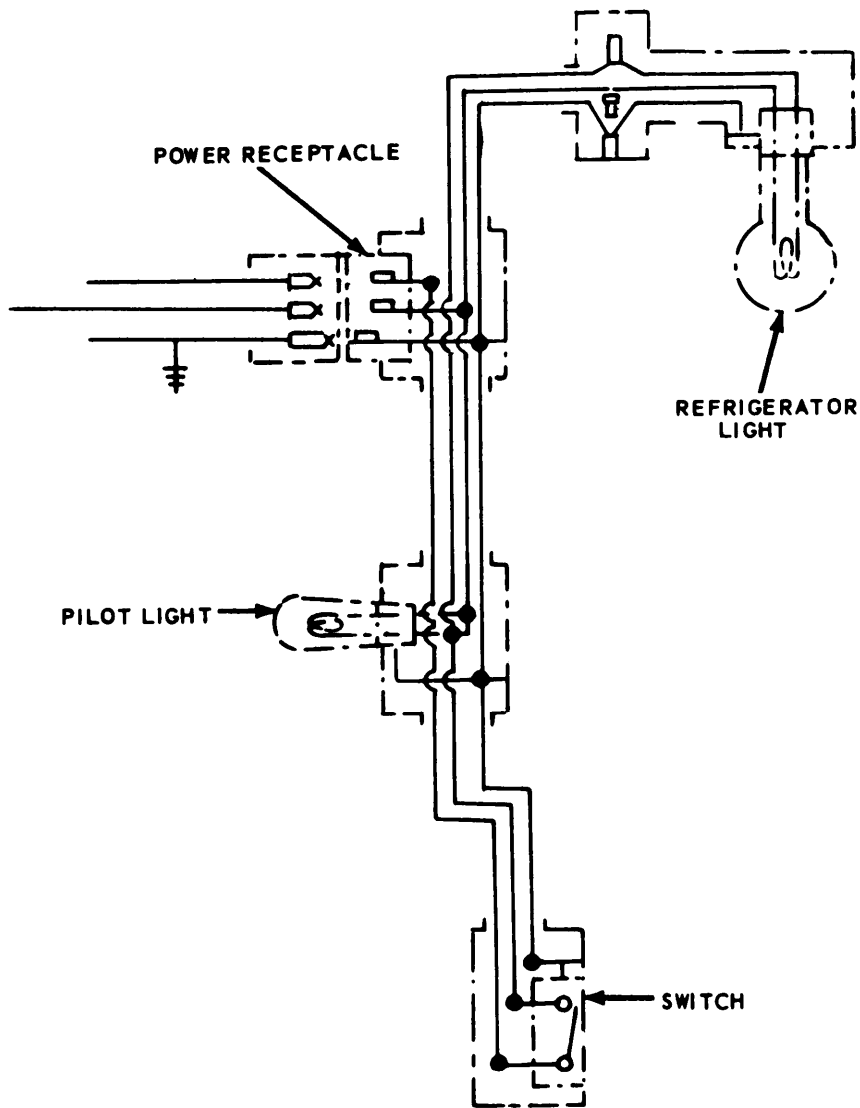
provided with refrigerators, depending on the size. Each identification plate specifies the nomenclature, manufacturer, class, model number and serial number.

*b. Tabulated Data.*

- (1) General, Due to the fact that this manual covers all sizes of the Type I and Type H refrigerators and that the prefabricated panels from which the units are assembled are manufactured

by numerous manufacturers, (all panels are interchangeable between various manufacturers since they are all made from the same government drawings), the operator, crew or organizational maintenance personnel will refer to the identification plate on the door of the unit for information desired.

- (2) *Base plan.* Refer to figure 1-5 for



MEC 4110-204-13/1-7

Figure 1-7. Practical wiring diagram



the base of the Type I refrigerator, and to figure 1-6 for the base plan for the Type II units.

#### NOTE

The cribbing used are 8 in. x 8 in. timbers for both the Type I and Type II refrigerators. The width of the base plans remain the same but the length will vary with refrigerator size as shown.

(3) Wiring *diagrams*. Refer to figure 1-7 for a practical wiring diagram.

#### 1-5. Differences in Models

This manual covers the 600-cubic foot, 1200-cu. ft., 1800-cu. ft., 3000-cu. ft., and 4000-cu. ft., Type I, Class I and II refrigerator and the 400-cu. ft., 600-cu. ft., 800-cu. ft., 1200-cu. ft., 1400-cu. ft., and 1600-cu. ft., Type II, Class I refrigerators. The only unit differences are the various sizes as stated above and the design modifications incorporated in the 600-cu. ft., Type I units (FSN 4110-269-5096). In this type unit and the 1800J model (FSN 4110-287-3161), all panel gaskets were attached to the panels with staples, thereby eliminating the gasket retainers and retainer screws used in all other models covered by this manual.



## CHAPTER 2 INSTALLATION AND OPERATING INSTRUCTIONS

---

### Section I. SERVICE UPON RECEIPT OF EQUIPMENT

#### 2-1. Unloading the Equipment

a. The crated panels and components of the prefabricated refrigerators may be shipped either by tractor-trailer or rail. The operator and organizational maintenance personnel will remove all tie-down cables, strapping, blocking, and the like, which secure the crated or skid-mounted components to the bed of the carrier. Refer to figure 2-1 and remove all tie-downs and blocking.

b. Use a suitable lifting device of sufficient capacity, and remove the crated or skid-mounted components from the bed of the carrier.

#### 2-2. Unpacking the Refrigerator

Remove banding, crating, and blocking, being extremely careful not to damage the panels. If skid mounted, cut the strapping and remove cushioning and spacers. Unpack separately packed components from the container. Remove tape from drains, switches, and power receptacles.

#### 2-3. Inspecting and Servicing Equipment

##### a. *Inspecting.*

(1) Make a complete visual inspection of all component parts of the prefabricated refrigerator for loss of parts or damage which may have occurred during shipment.

(2) Tighten all loose mounting hardware and replace damaged or missing parts. Inspect for a clogged drain strainer. Make certain all latches are in proper working condition.

(3) Before placing any panel in position, make certain all panel hooks rotate freely and are rotated fully counterclockwise. Remove all foreign material from panel fastener recesses and make sure hooks are not damaged or bent. Lubricate as necessary.

##### b. *Servicing.*

(1) Perform the quarterly preventive maintenance services (para 3-7).

(2) Lubricate all latches and hinges (para 3-4).

(3) Wipe all moisture from doors and door gaskets.

#### 2-4. Installation and Setting-Up Instructions

a. The refrigerator must be setup on a flat, level surface or platform capable of withstanding 250 pounds per square foot. It is desirable to pick a shaded area to increase the efficiency of the refrigerator.

b. The refrigerator maybe setup inside or outside a shed or building.

c. Set up the refrigerator in the numerical sequence as illustrated in figure 2-2 commencing with a corner panel A. Assembly may commence in both directions, ending with a corner panel A. It may be necessary to remove a corner panel to facilitate installation of the last wall panel B.

d. Fasten the refrigerator panels together as instructed in figure 2-3.

#### 2-5. Installation of Separately Packed Components

a. Install the ramp in its proper location shown in figure 2-2.

b. Install the floor racks in their proper position in the refrigerator.

c. Refer to figure 2-4 and install the light as instructed.

d. Refer to figure 2-4 and install the thermometer as instructed.

e. Install tape over panel joints in figure 1-2. Tape should be installed on roof joints first and then the wall and floor.

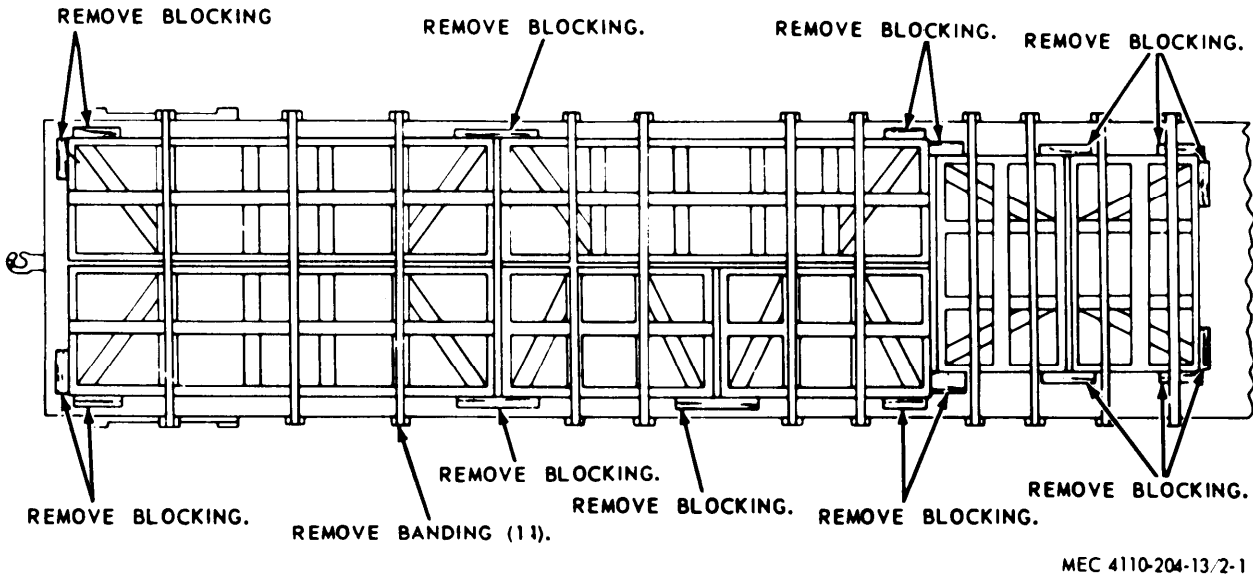


Figure 2-1. Blocking and tie-downs.

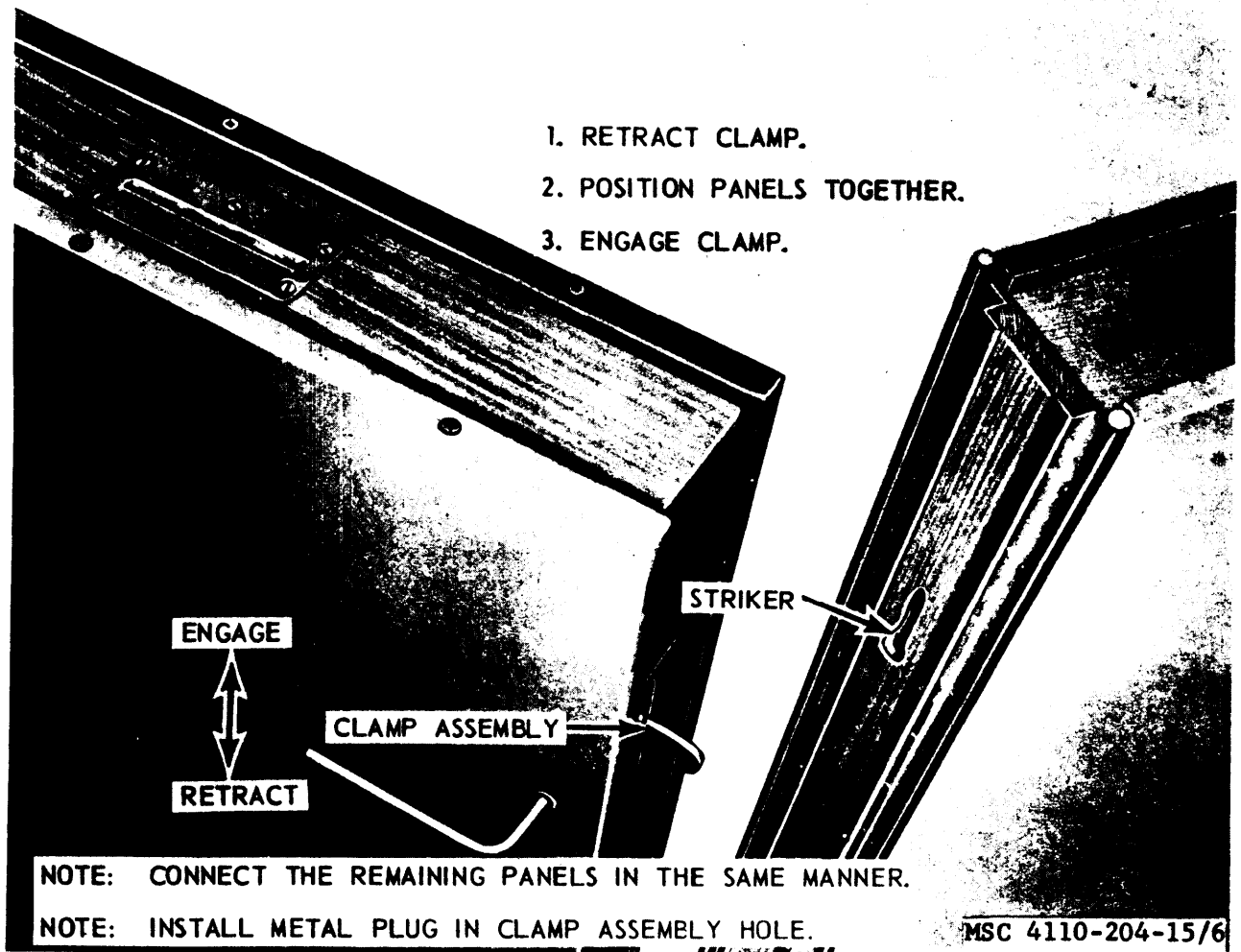
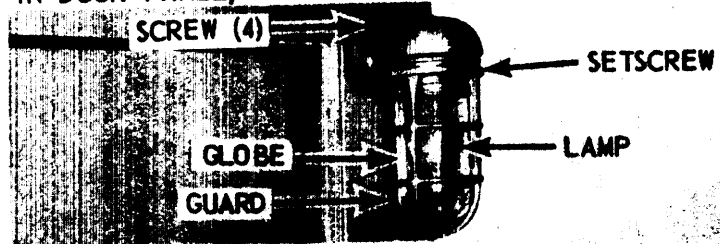
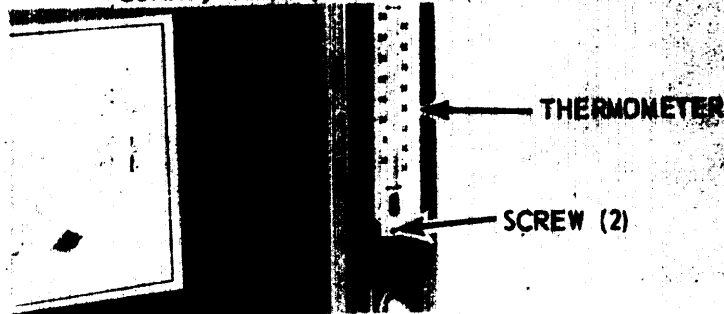


Figure 2-3. Refrigerator panels, installation

NOTE: STRAIGHTEN THE ELECTRICAL LEADS, POSITION THE WAREHOUSE LIGHT ASSEMBLY ON THE WALK IN DOOR PANEL, AND INSTALL THE SCREW (4).

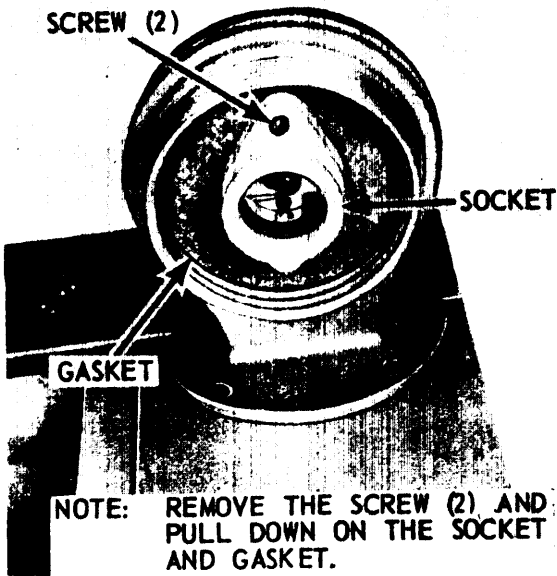


NOTE: LOOSEN SETSCREW AND UNSCREW THE GUARD, GLOBE, AND LAMP.



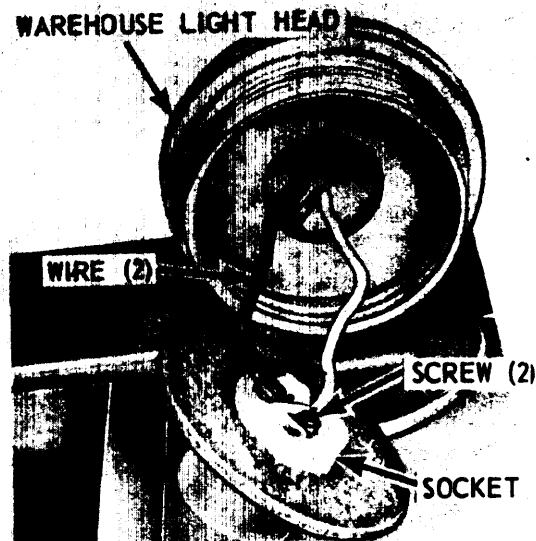
NOTE: POSITION THE THERMOMETER ON THE WALK-IN DOOR PANEL AND INSTALL THE SCREW (2).

A. LIGHT ASSEMBLY AND THERMOMETER



NOTE: REMOVE THE SCREW (2) AND PULL DOWN ON THE SOCKET AND GASKET.

B. LAMP SOCKET



NOTE: LOOSEN SCREW (2). ATTACH WIRE (2) AND TIGHTEN SCREWS. REPLACE THE SOCKET, LAMP, GLOBE AND GUARD.

C. LIGHT HEAD

MEC 4110-204-13/2-4

Figure 2-4. Light assembly and thermometer installation

## Section II. MOVEMENT TO A NEW WORKSITE

### 2-6. Dismantling for Movement

- a. Disconnect the external power supply cable.

#### NOTE

Remove tape from all joints before disassembly of panels.

- b. Refer to figure 2-4 and remove the light assembly in the reverse order of installation.
- c. Refer to figure 2-4 and remove the thermometer in the reverse order of installation.
- d. Refer to figure 2-3 and disconnect the refrigerator panels in the reverse order as shown.
- e. Refer to figure 2-2 and disassemble the refrigerator in the reverse order of assembly.
- f. Crate the components in the original shipping

crates, if available. For short distance, or if original shipping crates are not available, place the components in easily handled loads on skids. Place cushioning material and wooden spacers between surfaces that are easily damaged. Secure the skids with metal banding. Cushion the thermometers with cellulose wadding or other cushioning material. Pack the cushioned items with basic issue items in a suitable fiberboard container.

- g. Refer to paragraph 2-1 and load and secure the refrigerator crates to the bed of the carrier.

### 2-7. Reinstallation After Movement

Refer to paragraph 2-1 and reinstall the prefabricated refrigerator as instructed.

## Section III. CONTROLS AND INSTRUMENTS

### 2-8. General

This section describes, locates, illustrates, and furnishes the operator, crew, or organizational maintenance personnel sufficient information about the various controls and instruments for proper operation of the prefabricated refrigerator.

tion of the prefabricated refrigerator.

### 2-9. Controls and Instruments

The purpose of the controls and instruments and the normal and maximum reading of the instruments are illustrated in figure 2-5.

## Section IV. OPERATION OF EQUIPMENT

### 2-10. General

The instructions in this section are published for the information and guidance of the personnel responsible for the operation of the prefabricated refrigerator warehouse.

### 2-11. Operation Under Usual Conditions

- a. After the refrigerator is assembled and the refrigeration unit has been connected, the refrigerator is ready for operation. Refer to the appropriate technical manual covering the cooling unit used and operate the unit as instructed.

- b. Observe the thermometer regularly (fig. 2-5) to be sure the desired temperature is maintained.

#### NOTE

Be sure that the walk-in doors are closed securely when not in use to prevent heat

from entering the refrigerator.

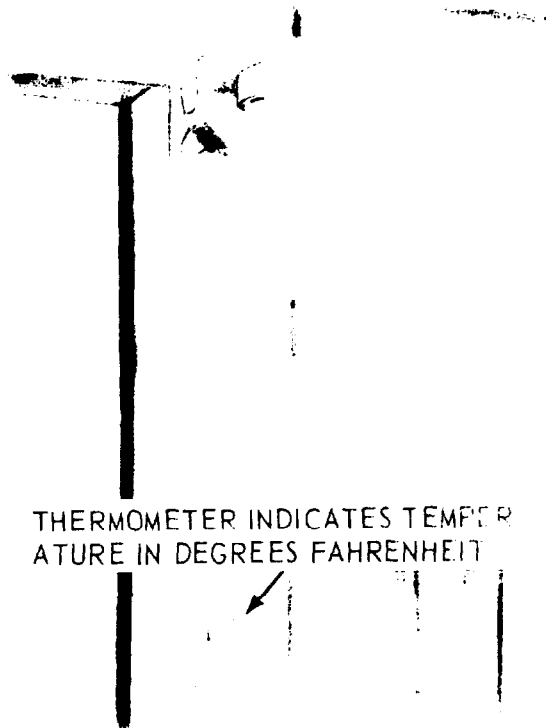
### 2-12. Operation Under Rainy or Humid Conditions

If the unit is installed outside, protect the hinges and latches by coating them with a waterproof substance, such as grease or heavy oil to prevent rust or corrosion. Use canvas or other water proof material to protect the unit as much as possible in order to reduce the rusting and corrosion action.

### 2-13. Operation in Salt-water Areas

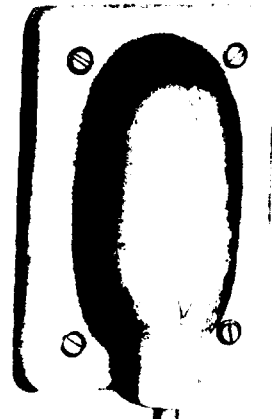
- a. Wash the unit frequently with clean, fresh water.

- b. Coat exposed metal surfaces with rust proofing material. Remove rust or corrosion immediately and apply paint and/or oil as applicable.



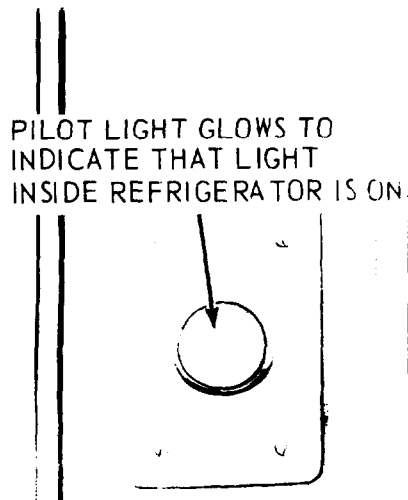
THERMOMETER INDICATES TEMPERATURE IN DEGREES FAHRENHEIT

A. THERMOMETER



PULLED TO TURN INSIDE LIGHT ON AND PUSHED TO TURN INSIDE LIGHT OFF

LIGHT SWITCH



PILOT LIGHT GLOWS TO INDICATE THAT LIGHT INSIDE REFRIGERATOR IS ON

C. PILOT LIGHT

MEC 4110-204-13 2-5

Figure 2-5. Controls and instruments.



## CHAPTER 3

### OPERATOR AND ORGANIZATIONAL MAINTENANCE INSTRUCTIONS

---

#### Section I. OPERATOR AND ORGANIZATIONAL MAINTENANCE TOOLS AND EQUIPMENT

##### 3-1. Special Tool and Equipment

No special tools or equipment are required by the operator or organizational maintenance personnel for the maintenance of the prefabricated refrigerator warehouse.

##### 3-2. Basic Issue Tools and Equipment

Tools and repair parts issued with or auth-

orized for the prefabricated refrigerator are listed in the basic issue items list, Appendix B of this manual.

##### 3-3. Organizational Maintenance Repair Parts

Organizational maintenance repair parts are listed and illustrated in Appendix D.

#### Section II. LUBRICATION AND PREVENTIVE MAINTENANCE SERVICES

##### 3-4. Lubrication

The prefabricated refrigerator requires lubrication of the door hinges and latch only. Clean the hinges and latch with an approved cleaning solvent and apply a lightweight oil sparingly as required.

##### 3-5. Preventive Maintenance Services, General

To insure that the prefabricated refrigerator is ready for operation at all times, it must be inspected systematically, so that defects may be discovered and corrected before they result in serious damage or failure. The necessary preventive maintenance services to be performed are listed consecutively and are described in paragraphs 3-6 and 3-7. The item numbers indicate the sequence of minimum inspection requirements. Defects discovered during operation of the unit shall be noted for future correction, to be made as soon as operation has ceased. Stop operation immediately if a deficiency is noted during operation which would damage the equipment if operation were continued. All deficiencies and shortcomings will be recorded together with the corrective action taken on DA Form 2404 (Equipment Inspection and Maintenance Worksheet) at the earliest possible opportunity.

##### 3-6. Daily Preventive Maintenance Services

This paragraph contains an illustrated tabulated listing of preventive maintenance services which must be performed by the operator or crew. The item numbers are listed consecutively and indicate the sequence of minimum requirements. Refer to figure 3-1 for the daily preventive maintenance services.

##### 3-7. Quarterly Preventive Maintenance Services

a. This paragraph contains an illustrated tabulated listing of preventive maintenance services which must be performed by organizational maintenance personnel at quarterly intervals. A quarterly interval is equal to 3 calendar months or 250 hours of operation, whichever occurs first.

b. The item numbers are listed consecutively and indicate the sequence of minimum requirements. Refer to figure 3-2 for the quarterly preventive maintenance services.

##### 3-8. General

The instructions in this section are published for the information and guidance of the operator to maintain the prefabricated refrigerator.

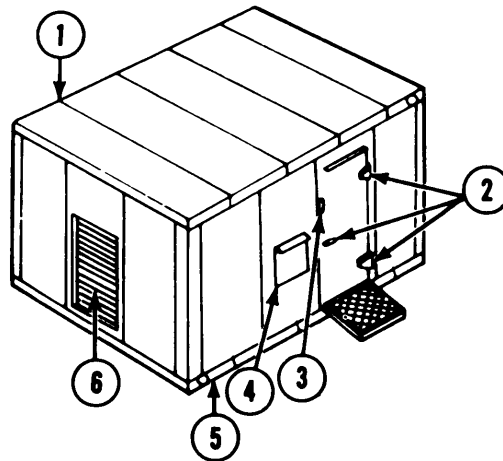
# PREVENTIVE MAINTENANCE SERVICES

## DAILY

TM 5-4110-204-13

PANEL TYPE

REFRIGERATOR,  
PREFABRICATED



ITEM

PAR REF

1	<u>REFRIGERATOR</u> . Inspect panels for serviceability and secure mounting.	
2	<u>DOOR HANDLES, LATCHES, AND HINGES</u> . Inspect for cracks, breaks, excessive wear, loose or missing hardware.	3-22
3	<u>PILOT LIGHT LAMP</u> . Check for proper operation and damage.	2-9
4	<u>CONVEYOR DOOR</u> . Inspect for cracks, breaks, deterioration of weather stripping and all other damage. Clean with an approved cleaning solvent and allow to dry thoroughly.	3-23
5	<u>FLOOR DRAIN</u> . Inspect for cracks, breaks, and damaged threads. Clean with an approved cleaning solvent.	3-32
6	<u>RACKS</u> . Inspect for visual signs of wear and damage. Clean with an approved cleaning solvent and dry thoroughly.	

MEC 4110-204-13/3-1

Figure 3-1. Daily preventive maintenance Services

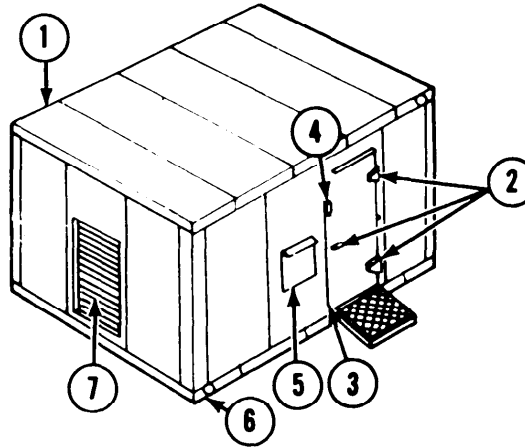
# PREVENTIVE MAINTENANCE SERVICES

## QUARTERLY

TM 5-4110-204-13

PANEL TYPE

REFRIGERATOR,  
PREFABRICATED



ITEM		PAR REF
1	<u>REFRIGERATOR.</u> Inspect panels for serviceable condition and replace if necessary.	
2	<u>DOOR HANDLES, LATCHES AND HINGES.</u> Inspect for cracks, breaks, excessive wear, loose or missing hardware. Replace as necessary. Polish door handle. Oil hinges with OE periodically.	3-22
3	<u>POWER RECEPTACLE.</u> Inspect receptacle and cover for cracks and breaks. Replace as necessary. Clean all parts with an approved solvent and dry thoroughly.	3-17
4	<u>PILOT LIGHT LAMP.</u> Inspect for proper operation and damage. Replace as necessary. Clean cover and lens with an approved solvent and dry thoroughly.	3-18
5	<u>CONVEYOR DOOR.</u> Inspect door for cracks, breaks, weather stripping and a defective seal. Replace as necessary.	3-23
6	<u>FLOOR DRAIN.</u> Inspect for serviceability, secure mounting, and leaks. Replace as necessary.	3-32

MEC 4110-204-13/3-2 ①

Figure 3-2①. Quarterly preventive maintenance services

ITEM		PAR REF
7	<u>RACKS.</u> Inspect visually for serviceability. Replace as necessary.	

MEC 4110-204-13/3-2 (2)

Figure 3-2 (2) Continued

### Section III. OPERATORS MAINTENANCE

#### 3-9. Refrigerator Light Lamp

a. *Removal.* Refer to figure 3-3 and remove the refrigerator light lamp.

b. *Installation.* Refer to figure 3-3 and install the refrigerator light lamp.

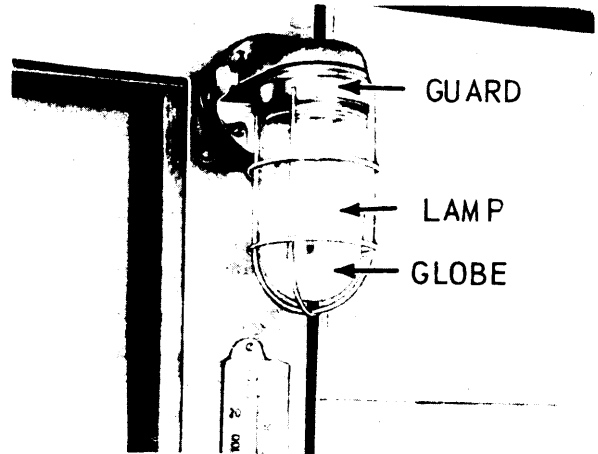
#### 3-10. Pilot Light Lamp

a. *Removal.* Refer to figure 3-4 and remove the pilot light lamp.

b. *Installation.* Refer to figure 3-4 and install the pilot light lamp.

#### 3-11. General

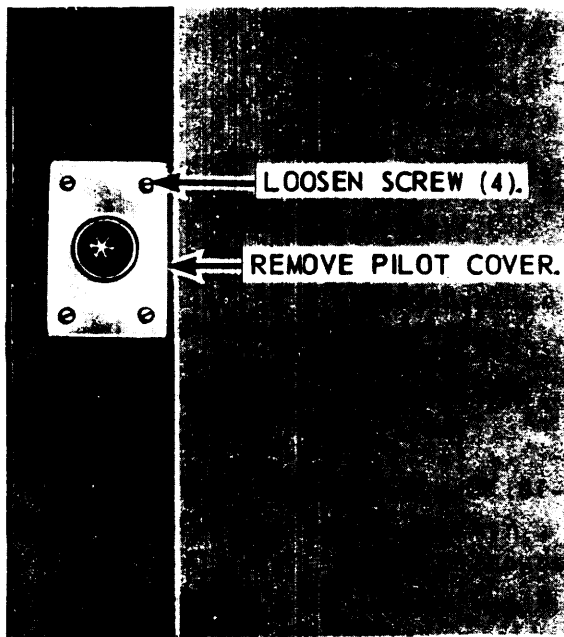
This section provides information useful in diagnosing and correcting unsatisfactory operation or failure of the refrigerator and its components. Each trouble symptom stated is followed by a list of probable causes of the trouble. The possible remedy recommended is described opposite the probable cause.



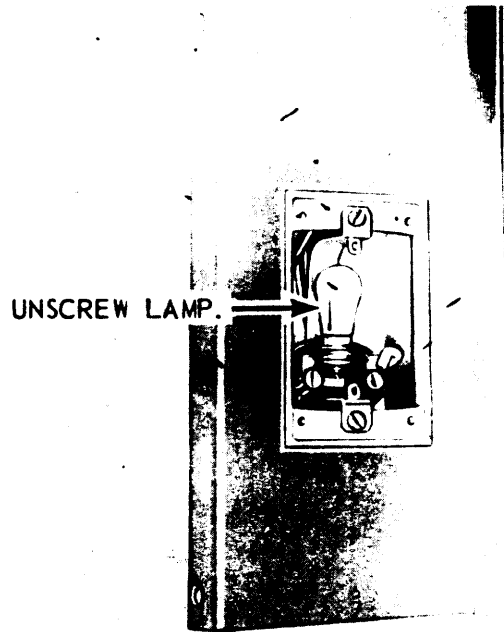
NOTE: REMOVE SETSCREW FROM GUARD AND REMOVE GUARD, GLOBE AND LAMP.

MEC 4110-204-13/3-3

Figure 3-3. Refrigerator light lamp, removal and installation



A. COVER



B. LAMP

MEC 4110-204-13/3-4

Figure 3-4. Pilot light lamp, removal and installation

## Section IV. TROUBLESHOOTING

### 3-12. Lights Inoperative

Probable cause	Possible remedy
Defective switch -----	Replace switch (para. 3-19).
Loose wiring connections	Tighten wiring connections and repair wiring.
Defective receptacle ___	Replace receptacle ( para., 3-18) .
External power supply _ _	Connect power supply.

### 3-13. Drains Inoperative

Probable cause	Possible remedy
Clogged drain -----	Clean drain strainer.
Cap on drain outlet ----	Remove cap from outlet.
Drain pipe clogged -----	Remove strainer and clean drain pipe (para. 3-32).

### 3-14. Refrigerator Does Not Retain Proper Cooling Temperature

Probable cause	Possible remedy
Door striker plate not properly adjusted	Adjust striker latch (para. 3-22) .
Door gasket worn or missing	Replace gasket ( para. 3-28) .
Door defective -----	Replace door ( para. 3-21 ) .
Outside or inside skin damaged	Repair or replace panel (para. 3-30).

## Section V. ELECTRICAL COMPONENTS

### 3-15. General

The electrical components of refrigerator are the inside light, pilot light, light switch, and plug receptacle with the necessary wiring to complete the circuit.

### 3-16. Refrigerator Light Assembly

*a. Removal.* Refer to figure 2-4 and remove the refrigerator light assembly.

*b. Installation.* Refer to figure 2-4 and install the refrigerator light assembly.

### 3-17. Pilot Light

*a. Removal.*

(1) Refer to paragraph 3-10 and remove the pilot light cover.

(2) Refer to figure 3-5 and remove the pilot light socket.

*b. Installation.*

(1) Refer to figure 3-5 and install the pilot light socket.

(2) Refer to paragraph 3-10 and install the pilot light cover.

### 3-18. Plug Receptacle

*a. Removal.* Refer to figure 3-6 and remove the plug receptacle.

*b. Installation.* Refer to figure 3-6 and install the plug receptacle.

### 3-19. Light Switch

*a. Removal.* Refer to figure 3-7 and remove the light switch.

*b. Installation.* Refer to figure 3-7 and install the light switch.

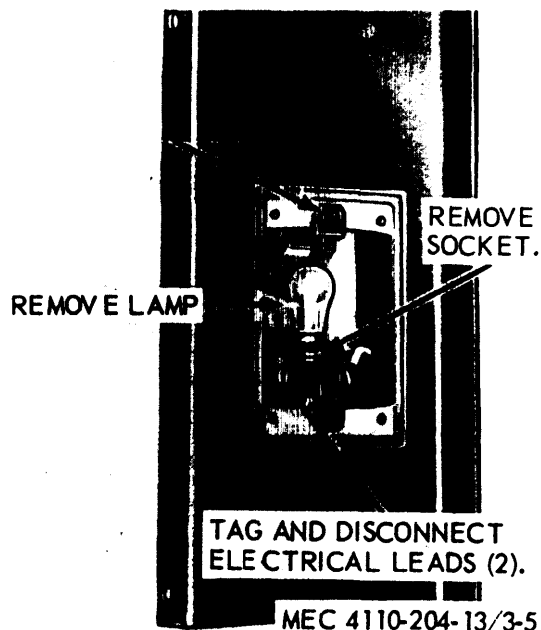


Figure 3-5. Pilot light, removal and installation

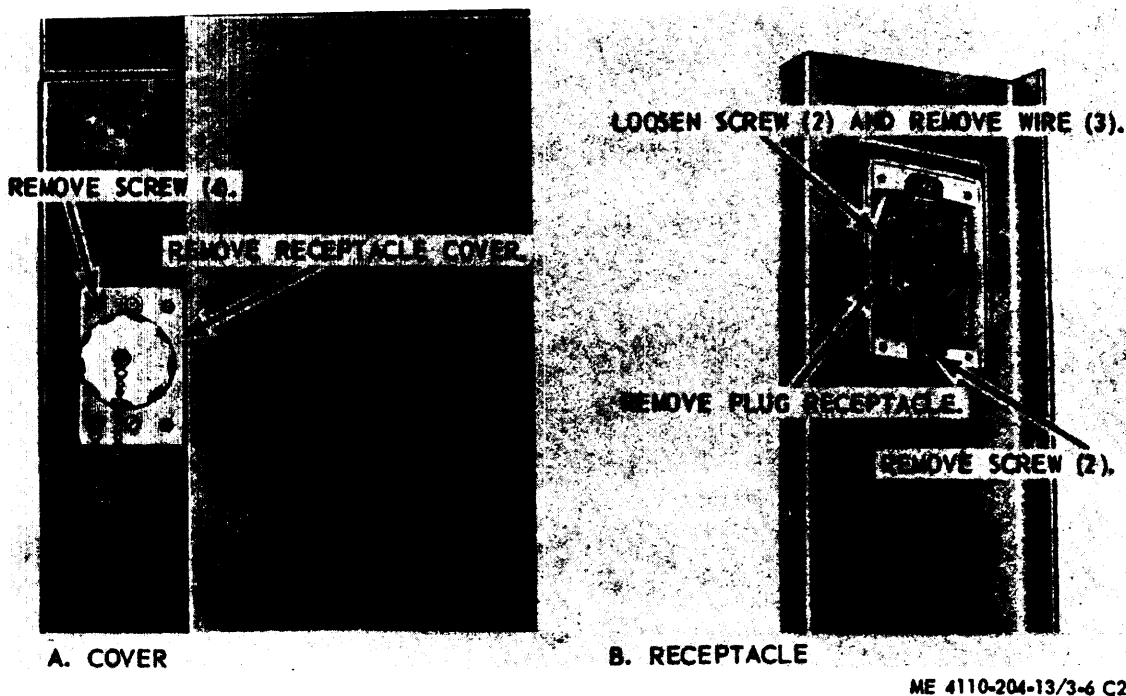


Figure 3-6. Plug receptacle, removal and installation.

**Section VI. REFRIGERATOR COMPONENTS**

**3-20. General**

This section provides organizational maintenance personnel with Instruction necessary for maintenance of the refrigerator components which consists of walk-in door panels, conveyor door panels, wall panels, corner panels, floor and roof panels, hardwood floor racks, and the necessary hardware to complete the refrigerator.

**3-21. Walk-In Door**

a. *Removal.* Refer to figure 3-18, and remove the walk-in door.

b. *Installation.* Refer to figure 3-8 and install the walk-in door.

**3-22. Walk-In Door Handles and Latch**

a. *Removal.* Refer to figure 3-9, and remove the walk-in door handles and latch.

b. *Installation.* Refer to figure 3-9, and install the walk-in door handles and latch.

c. *Adjustment.* Refer to figure 3-9, and adjust the stirker latch to provide an airtight fit when the door is closed.

**3-23. Conveyor Door**

a. *Removal.* Refer to figure 3-8, and remove the conveyor door.

b. *Installation.* Refer to figure 3-8, and install the conveyor door.

**3-24. Conveyor Door Latch and Handle.**

The 1800J model refrigerator conveyor door latch is identical to the walk-in door latch.

a. *Removal.*

(1) Refer to figure 3-10, and remove the convey door handle.

(2) Refer to figure 3-11, and remove the conveyor door latch.

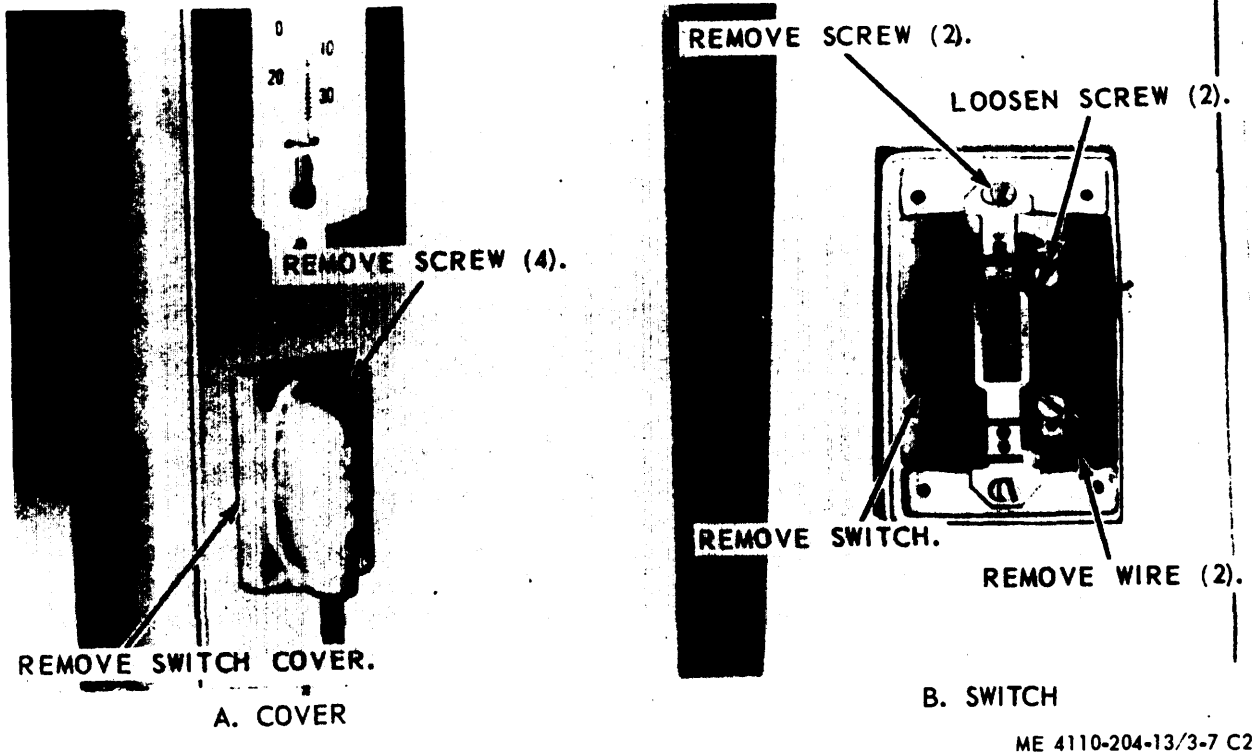


Figure 3-7. Light witch, removal and installation,

*b. Installation,*

- (1) Refer to figure 3-11, and install the conveyor door latdh.
- (2) Refer to figure 3-10, and install the conveyor door handle.

- a. Removal.* Refer to figure 3-12, and re-remove the conveyor door canopy.

- b. Installation.* Refer to figure 3-12, and install the conveyor door canopy.

**NOTE**

On the 600-cu. ft., Type I units (FSN 4110-269-5096) and the 1800J unit (FSN 4110-287-3161 ), all panel gaskets are attached with staples in place of retainers and retainer screws. To remove gaskets, pry out staples with a common screwdriver. Attach new gaskets with staples (0.63 x 1/2 x 5/8 in. ) spaced 2 1/2 inches apart.

**3-25. Conveyor Door Roller**

The 1800J model refrigerator does not have a conveyor door roller.

- a. Removal.* Refer to figure 3-10, and remove the conveyor door roller.
- b. Installation.* Refer to figure 3-10, and install the conveyor door rollers.

**3-26. Conveyor Door Curtain**

- a. Removal.* Refer to figure 3-10, and remove the conveyor door curtain,
- b. Installation.* Refer to figure 3-10, and install the conveyor door curtain.

**3-27. Conveyor Door Canopy**

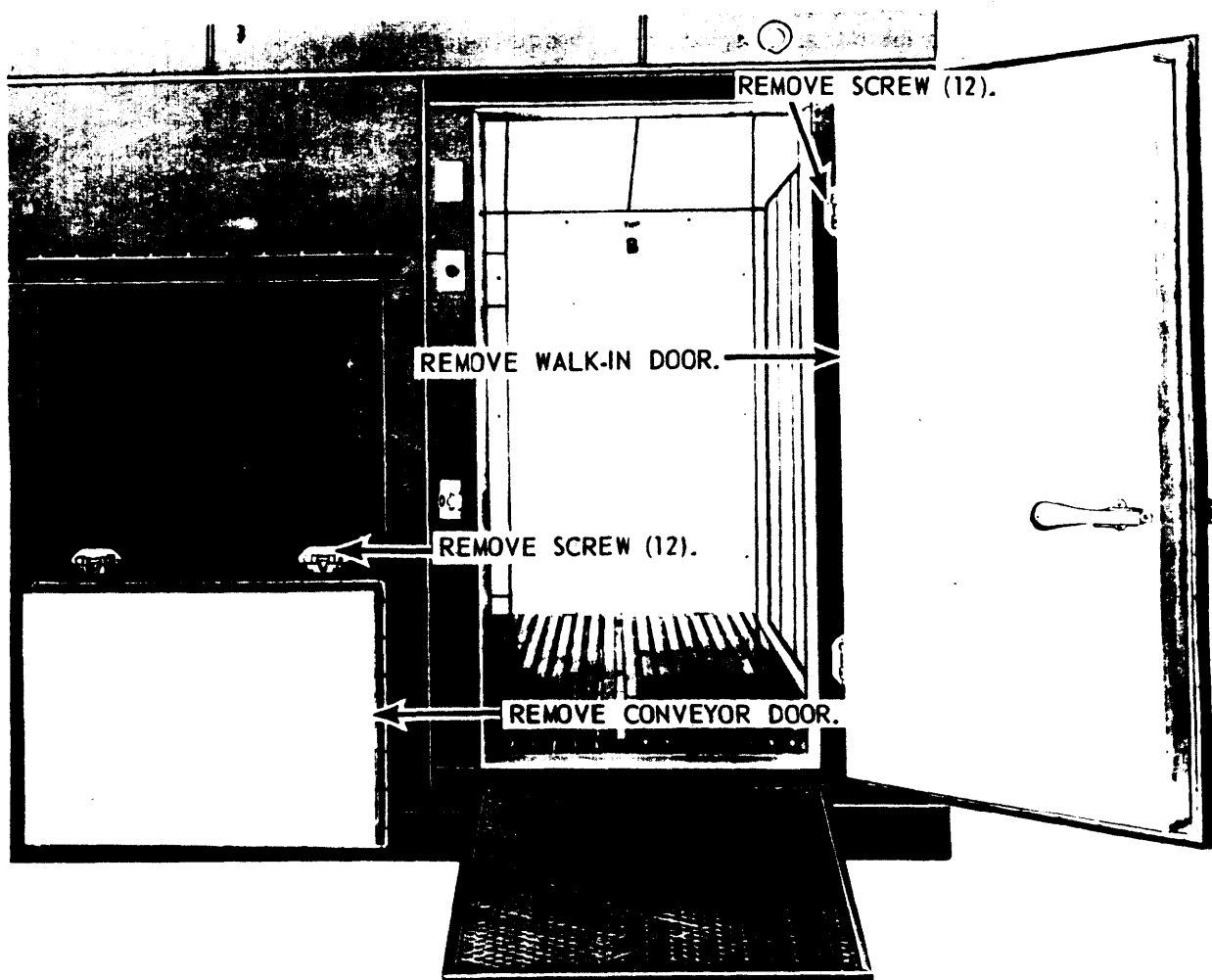
The 1800J model refrigerator does not have a door canopy.

**3-28. Refrigerator Panel and Door Gaskets**

- a. Removal.* Refer to figure 3-13, and remove the panel and door gaskets.
- b. Installation.* Refer to figure 3-13, and install the panel or door gaskets.



NOTE: OPEN THE DOOR AND USE SUITABLE BLOCKING BEFORE REMOVING DOORS.



NOTE: REMOVE ALL REMAINING WALK-IN DOORS OR CONVEYOR DOORS IN THE SAME MANNER.

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Figure 3-8. Walk-in and conveyor doors, removal and installation.

### 3-29. Panel Clamp Assemblies

a. *Removal.* Refer to figure 3-13, and remove the panel clamp assemblies.

b. *Installation.* Refer to figure 3-13, and install the panel clamp assemblies.

### 3-30. Refrigerator Panels

a. *Removal.* Refer to paragraph 2-6, and remove the refrigerator panels.

**NOTE**

It is only necessary to remove panels next to the one being replaced. The roof panels may be removed starting at either end. Wall disassembly may start at any corner.

b. *Repair.* When the skin of the panels is cracked, torn, or punctured, thereby exposing the insulation, the refrigerator will not cool properly and must be repaired. Repair the panels as instructed below.

(1) *Minor repairs.*

(a) Seal minor holes and punctures with sealing compound conforming to specification TT-S-230, Gum Grade, (8030-965-2397)

(b) Minor rips or tears will be repaired by use of repair kit MIL-2-58047(CE) or MIL-R-19907C (2090-372-6064) as follows:

(c) Roughen metal area around damaged area in order to remove paint and improve adherence properties of patching material on panel.

(d) Apply epoxy mixture and patch material from repair kit as specified.

(e) Apply tape over the entire patch area and the panel is ready for use.

(f) For damaged areas up to 144 sq. in., follow above steps for use of repair kit, but apply epoxy to cloth, nylon, or like type material which has been cut to 2 to 3 inches greater in each direction of the hole to be covered.

(g) Affix the patch over the damaged area

(h) Tape the patch in vertical and horizontal directions so that the patch will not move while curing. It will take approximately 2 hours for the patch to adhere properly.

(2) Major Repairs.

(a) Obtain a metal plate large enough to cover the damaged area.

(b) Apply a watertight sealer between the metal plate and the surface of the panel to be repaired.

(c) Press plate tightly against the panel, and secure it with sheet metal screws.

**NOTE**

If the fiberglass insulation should become saturated with moisture due to leakage of the panel, the panel should be removed and the moisture baked out of it. If the

panel is too saturated to dry out, the insulation must be replaced in the panel. The 1800J model refrigerator has polyurethane insulation.

c. *Installation* Refer to paragraph 2-4, and install the refrigerator panels.

**3-31. Thermometer**

a. *Removal.* Refer to paragraph 2-5, and remove the thermometer from the door panel.

b. *Installation* Refer to paragraph 2-5 and install the thermometer on the door panel.

**3-32. Drain Strainer**

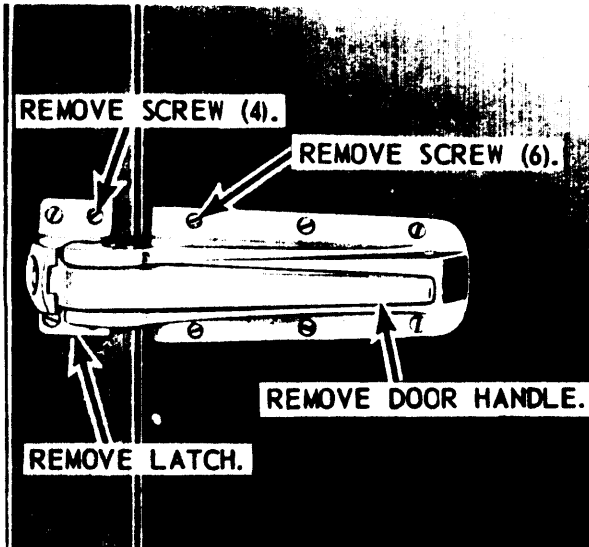
a. *Removal.* Refer to figure 3-14, and remove the drain strainer.

b. *Installation.* Refer to figure 3-14, and install the drain strainer.

**3-33. Slide Bolts**

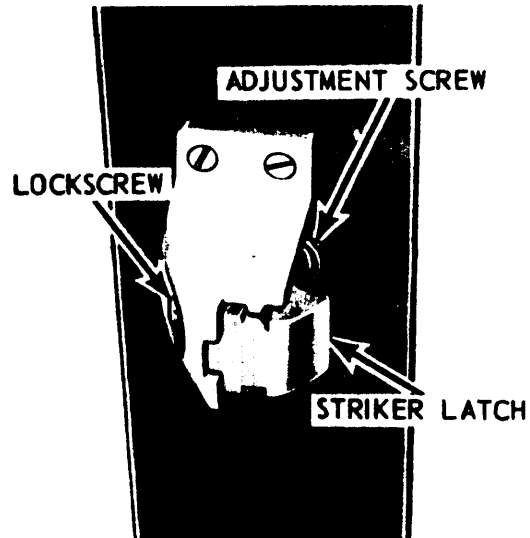
a. *Removal.* Remove the four screws that secure the slide bolts to the partition panels, and remove the slide bolts.

b. *Installation* Position the slide bolts on the partition panels, and secure them with four mounting screws.



NOTE: REMOVE SCREW (2) AND INSIDE HANDLE IN THE SAME MANNER.

A. HANDLES AND STRIKER LATCH



NOTE: LOOSEN THE LOCKSCREW AND TURN ADJUSTMENT SCREW TO ADJUST THE STRIKER LATCH. AFTER ADJUSTMENT, TIGHTEN THE LOCKSCREW.

B. ADJUSTMENT

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Figure 3-9. Walk-in door handles and striker latch removal, installation and adjustment.

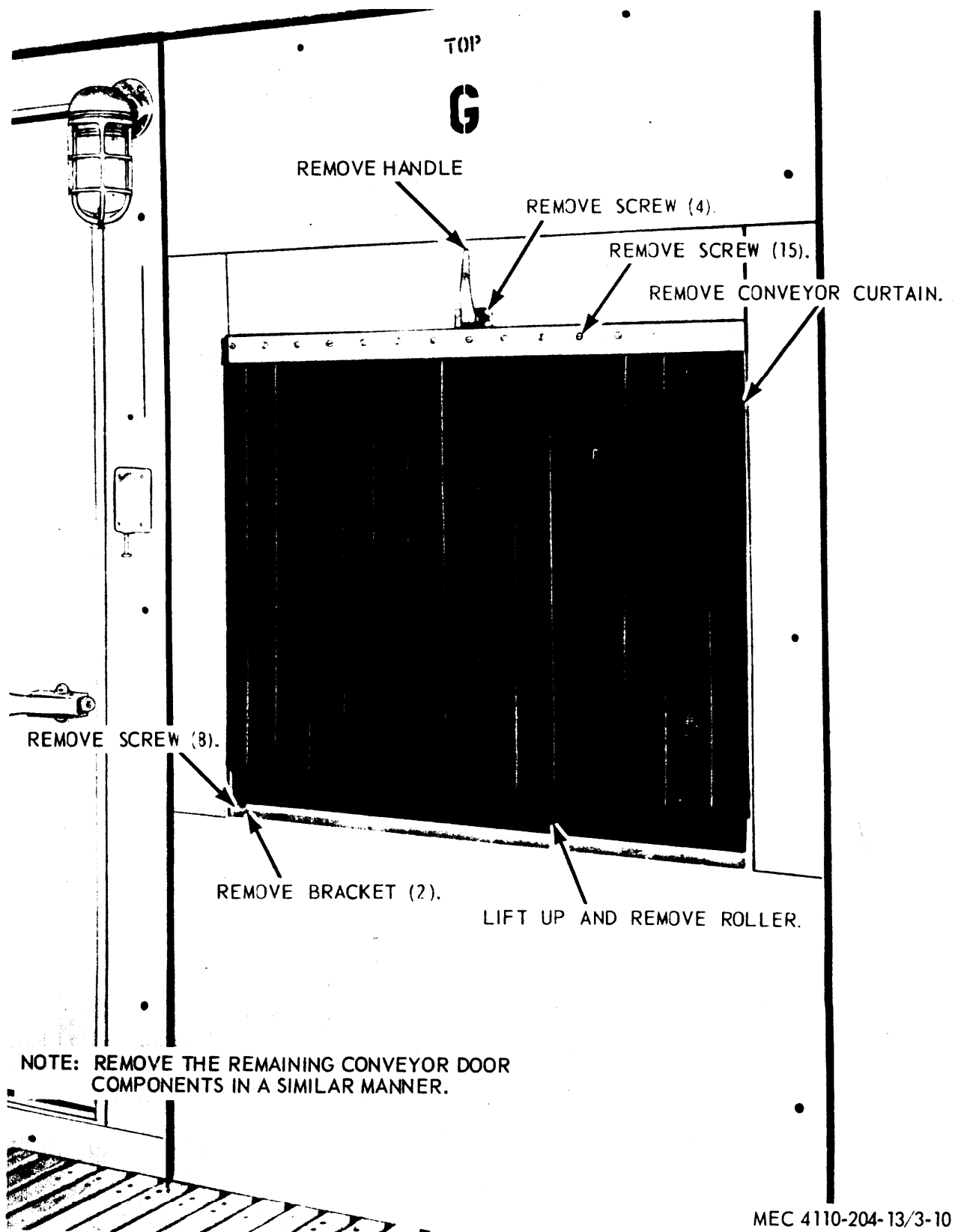


Figure 3-10. Conveyor door handle, roller and curtain, removal and installation

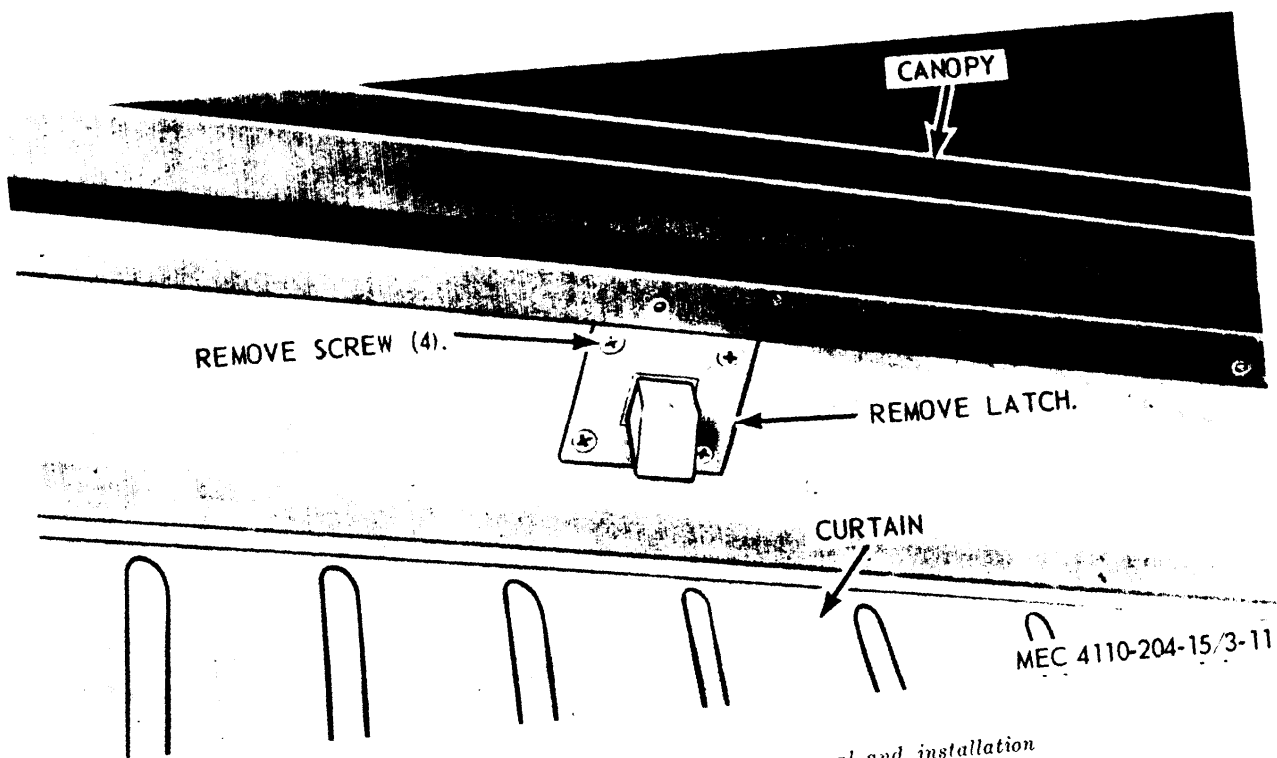


Figure 3-11. Conveyor door latch, removal and installation

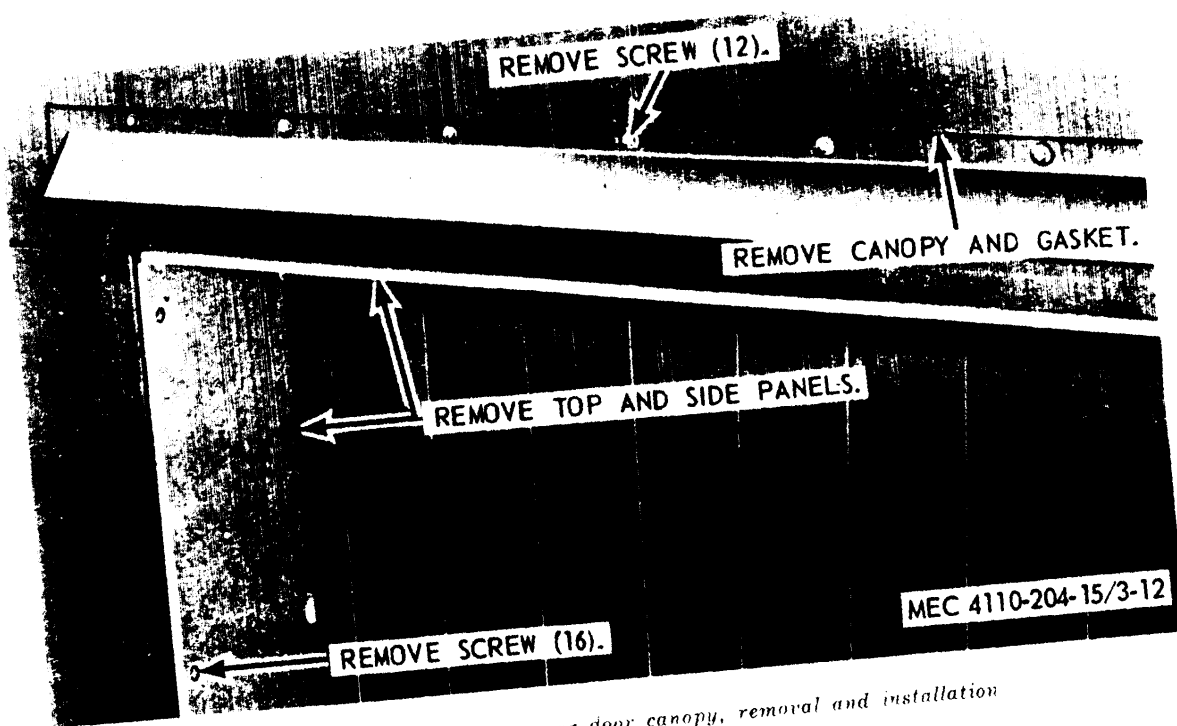


Figure 3-12. Conveyor door canopy, removal and installation

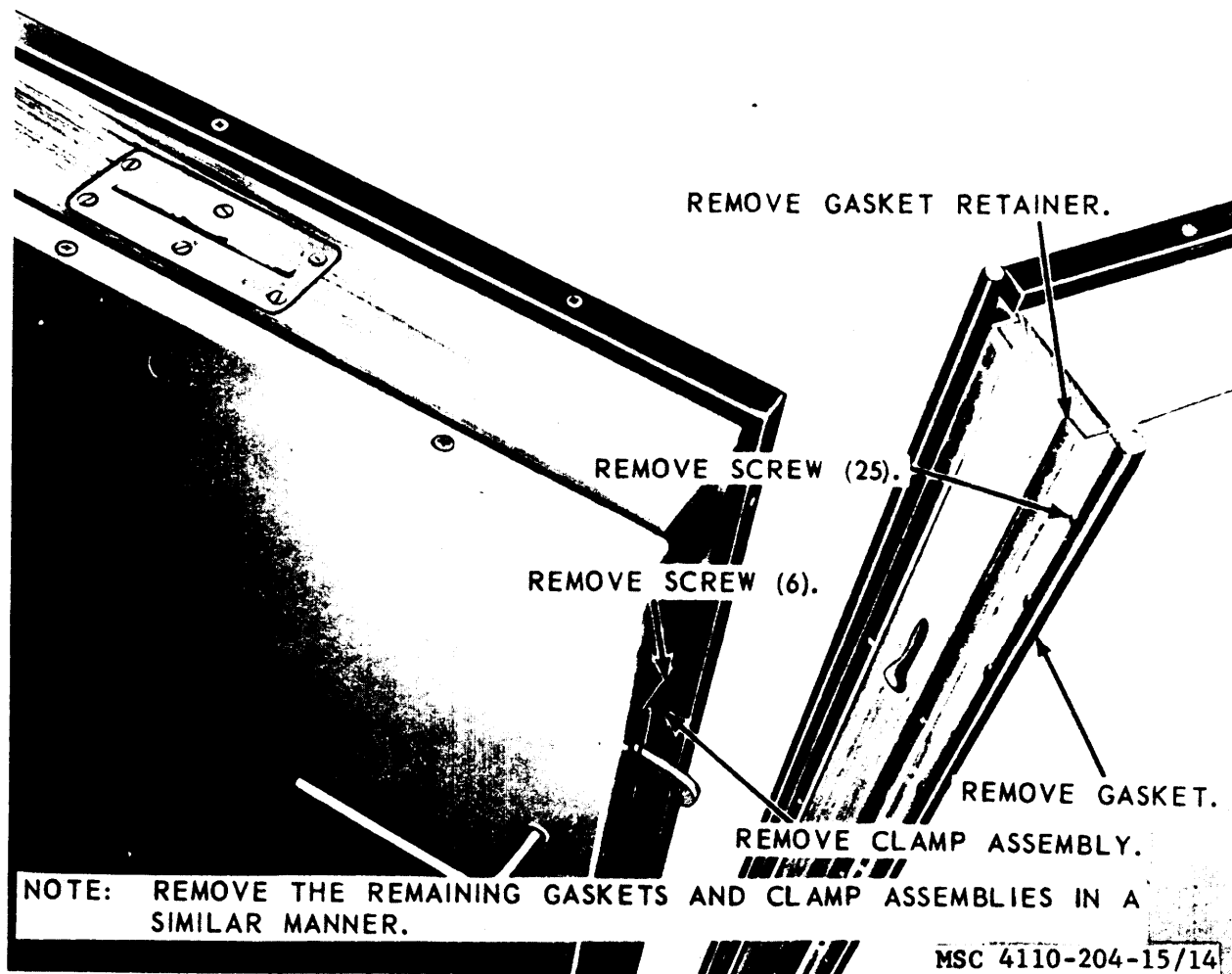


Figure 3-13, Refrigerator panel and door seals, and clamp assemblies, removal and installation

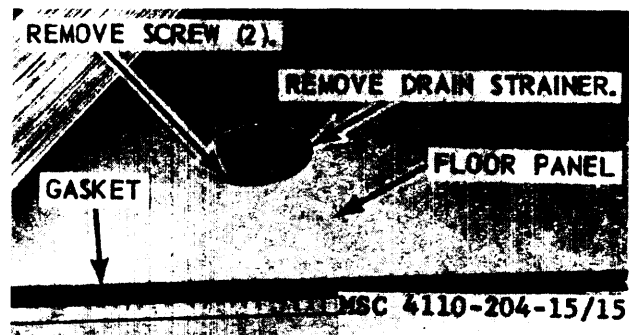


Figure 3-14, Drain strainer, removal and installation



## CHAPTER 4 DIRECT SUPPORT MAINTENANCE INSTRUCTIONS

### Section I. GENERAL

#### 4-1. Scope

a. These instructions are published for the use of direct support maintenance personnel maintaining the panel type prefabricated refrigerator. They provide information on the maintenance of the equipment, which is beyond the scope of the tools, equipment, personnel, or supplies normally available to using organizations.

b. Report all equipment improvements recommendations as prescribed by TM 38-750.

#### 4-2. Record and Report Forms

For record and report forms applicable to direct support maintenance, refer to TM 38-750.

Note. Applicable forms, excluding Standard Form 46 which is carried by the operator, shall be kept in a canvas bag mounted on the equipment.

### Section II. DESCRIPTION AND TABULATED DATA

#### 4-3. Description

For a complete description of the prefabricated refrigerator see paragraph 1-3.

#### 4-4. Tabulated Data

a. General. This paragraph contains the time standards and list of components necessary for construction of the various size refrigerators. Refer to paragraph 1-4 for general tabulated data.

b. *The Standards.* Table 4-1 lists the number of man-hours required under normal conditions for various operations in the maintenance and repair of the prefabricated refrigerators. The man-hours listed are not intended to be rigid standards. Under adverse conditions, the operation will take considerable longer; but under ideal conditions with highly skilled mechanics, most of the operations can be accomplished in considerably less time.

*Table 4-1. Time Standards*

Removal and Replacement ITEMS	Hours		
22 BODY CHASSIS OR HULL, AND ACCESSORY		600 cu ft Unit	8.0
ITEMS		1200 cu ft Unit	16.0
2210 Data Plates		1800 cu ft Unit	24.0
Plates, data	0.2	3000 cu ft Unit	40.0
Plates, instruction	0.2	4000 cu ft Unit	51.4
80 STORAGE EQUIPMENT		Type II, Class 1:	
8000 Refrigerator warehouse		400 cu ft Unit	5.3
Warehouse assembly		600 cu ft Unit	8.0
Type I, Class I;		800 cu ft Unit	10.6
		1200 cu ft Unit	16.0
		1400 cu ft Unit	18.6
		1600 cu ft Unit	21.2
		Floor rack assembly (each)	0.7
		Panel assembly (each)	2.1
		Roller	0.2
		Gasket	1.5
		(Includes removal and installation of strip)	
		Curtain, conveyor door	0.6
		(Includes removal and installation of strips)	
		Partition assembly	2.5
		Clamp and striker assembly	3.4
		Barrel bolt assemblies	0.8
		Door panels	3.2
		Door latch and hinge assemblies	1.1
		Lock, door latch	0.1
		Light assembly, pilot	0.9
		Lamp	0.2
		(Includes removal and installation of cover)	
		Switch assembly	0.3
		Receptacle	0.4
		Light assembly, refrigerator	0.6

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Lamp (Includes removal and installation of guard and cover).	0.9	Canopy (Includes removal and installation of panels).	2.9
Cover (Includes removal and installation of guard).	0.02	Ramp	0.06
Gasket (Includes removal and installation of guard, cover and fittings).	0.4	<i>c. Refrigerator Component Data.</i> Tables 4-2 and 4-3 list the type and number of panels and other components necessary for construction of all sizes of the Type I and Type II, Class I refrigerators. Refer to figures 4-1 and 4-2 for nomenclature identifier callouts listed in the tables.	
Power receptacle assembly (Includes removal and installation of guard, cover gasket and wiring).	0.4	<b>NOTE</b>	
Cover and gasket (Includes removal and installation of guard).	0.2	The ramp and conveyor panel with door are optional. When not required, the conveyor panel with door is replaced by a standard wall panel. The 1800J Model Refrigerator is similar to the Type I, Class I refrigerator. For the 1800J unit, the ramp, conveyor panel, and J Panel are optional; and when the conveyor panel is required, it replaces other standard wall panels.	
Guard, power receptacle (Includes removal and installation of chain).	0.2		
Thermometer	0.2		
Strainer assembly (Includes removal and installation of plug).	1.8		



Table 4-2. Refrigerator Component Data - Type I, Class I

Panel or component nomenclature		Quantity Needed			
		600-cu ft.	1200-cu ft.	1800-cu ft.	4000-cu ft.
Corner panel	(A)	4	4	4	4
Standard wall panel	(B)	8	11	14	26
Walk-in door panel w/door	(C)	1	1	2	4
Evaporator panel	(D)	1	2	2	4
Floor or ceiling panel, end, left	(EL)	2	2	2	2
Floor or ceiling panel, end, right	(ER)	2	2	2	2
Floor or ceiling panel, center	(F)	2	6	10	26
Conveyor door panel w/door	(G)	1	1	2	4
Partition panel	(H1) (H2) (H3)			1 each	3 each
Canopy		1	1	2	4
Ramp		1	1	2	4
Light globe		1	1	2	4
Thermometer		1	1	2	4
Shelving unit		4	9	12	30
Floor rack, 24 1/4 in. wide		4	4	4	4
Floor rack, 41 3/4 in. wide		2	6	10	26

Table 4-2.1. Refrigerator Component Data

Panel or component nomenclature		Number of panels and components used type I, class I refrigerators				
		600 cu. ft.	1200 cu. ft.	1800 cu. ft.	3000 cu. ft.	4000 cu. ft.
Corner panel	(A)	4	4	4	4	4
Standard wall panel	(B)	7	10	12	17	22
Walk-in door panel w/door	(C)	1	1	2	3	4
Evaporator panel	(D)	1	1	2	3	4
Floor or ceiling panel, end, left	(EL)	2	2	2	2	2
Floor or ceiling panel, end, right	(ER)	2	2	2	2	2
Floor or ceiling panel, center	(F)	2	6	10	18	28
Conveyor door panel w/door	(G)	1	1	2	3	4
Partition panel	(H1) (H2) (H3)			1 each	2 each	3 each
Canopy		1	1	2	3	4
Ramp		1	1	2	3	4
Light globe		1	1	2	3	4
Thermometer		1	1	2	3	4
Shelving unit		4	9	12	21	30
Floor rack, 24 1/4 in. wide		2	2	2	2	2
Floor rack, 41-3/4 in. wide		1	3	5	9	13
Tape 4"-OD B/PPP-T-60		1 roll	1 roll	2 rolls	3 rolls	4 rolls

Table 4-2.1 Refrigerator Component Data – Continued

Panel or component nomenclature		Number of panels or components used for type II, class I units					
		400 cu. ft.	600 cu. ft.	800 cu. ft.	1200 cu. ft.	1400 cu. ft.	1600 cu. ft.
Corner panel	(A)	4	4	4	4	4	4
Standard wall panel	(B)	5	7	7	8	10	11
Walk-in door panel with door	(C)	1	1	1	3	3	3
Evaporator panel	(D)	2	2	4	5	5	6
Floor or ceiling panel, end, left	(KL)	2	2	2	2	2	2
Floor or ceiling panel, end, right	(KR)	2	2	2	2	2	2
Floor or ceiling panel center	(M)	2	4	6	10	12	14
Partition panel	(H1) (H3)			1 each	2 each	2 each	2 each
Canopy		1	1	1	3	3	3
Ramp		1	1	1	3	3	3
Light globe		1	1	2	3	3	3
Thermometer		1	1	2	3	3	3
Shelving unit		3	4	6	9	10	12
Floor rack 24-1/4 in wide		2	2	2	2	2	2
Floor rack 41-3/4 in. wide		1	2	3	5	6	7
Tape 4" -OD B/PPP-T-60		1 roll	1 roll	1 roll	1 roll	2 rolls	2 rolls

Table 4-3. Refrigerator Component Data Type II, Class I

Panel or component nomenclature		Quantity Needed					
		400-cu. ft.	600-cu. ft.	800-cu. ft.	1200-cu. ft.	1400-cu. ft.	1600-cu. ft.
Corner panel	(A)	4	4	4	4	4	4
Standard wall panel	(B)	5	7	7	8	10	11
Walk-in door panel with door	(C)	1	1	1	3	3	3
Evaporator panel	(D)	2	2	4	5	5	6
Floor or ceiling panel, end, left	(KL)	2	2	2	2	2	2
Floor or ceiling panel, end, right	(KR)	2	2	2	2	2	2
Floor or ceiling panel, center	(M)	2	4	6	10	12	14
Partition panel	(H1) (H3)			1 each	2 each	2 each	2 each
Canopy		1	1	1	3	3	3
Ramp		1	1	1	3	3	3
Light Globe		1	1	2	3	3	3
Thermometer		1	1	2	3	3	3
Shelving unit		3	4	6	9	10	12
Floor rack 24 1/4 in. wide		2	2	2	2	2	2
Floor rack 41 3/4 in. wide		1	2	3	5	6	7

## CHAPTER 5

### GENERAL MAINTENANCE INSTRUCTIONS

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#### Section I. SPECIAL TOOLS AND EQUIPMENT

##### 5-1. Special Tools and Equipment

There are no special tools or equipment necessary to perform direct support maintenance on the panel type prefabricated refrigerators.

##### 5-2. Direct Support Maintenance Repair Parts

Direct support maintenance repair parts are

listed and illustrated in Appendix D of this manual.

##### 5-3. Specially Designed Tools and Equipment

There are no specially designed tools or equipment necessary to perform direct support maintenance on the panel type prefabricated refrigerator.

#### Section II. DIRECT SUPPORT MAINTENANCE INSTRUCTIONS

##### 5-4. General

Direct support maintenance personnel are responsible for replacement of the prefabricated refrigerators when it becomes necessary that the entire units be replaced. Replacement of the data plates which are located on the walk-in doors is also a responsibility of direct support maintenance.

##### 5-5. Prefabricated Refrigerator

*a. Removal.* Refer to paragraphs 3-30 and 2-6 and remove all ceiling panels, walk-in door panels, conveyor door panels, evaporator panels, corner panels and floor panels.

*b. Installation.* Refer to paragraphs 3-30 and 2-4 and install all floor panels, corner panels, evaporator panels, conveyor door panels, walk-in door panels and ceiling panels.



## APPENDIX A REFERENCES

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### A-1. Fire Protection

TB 5-4200-20010

Hand Portable Fire Extinguishers Approved for Army Users

### A-2. Operating Instructions

TM 5-4110-203-15

Refrigeration Unit, Panel Type, 9,000 BTU

TM 5-4110-209-15

Refrigeration Unit, Panel Type, 5,000 BTU

TM 5-4110-210-14

Refrigeration Unit, Panel Type, 5,000 BTU

TM 5-4110-212-15

Refrigeration Unit, Panel Type, 10,000 BTU

TM 5-4110-218-15

Refrigeration Unit, Panel Type, 10,000 BTU

TM 5-4110-221-14

Refrigeration Unit, Panel Type, 5,000 BTU

TM 5-4110-226-14

Refrigeration Unit, Panel Type, 10,000 BTU

TM 5-4110-227-14

Refrigeration Unit, Panel Type, 10,000 BTU

TM 5-4110-228-14

Refrigeration Unit, Panel Type, 10,000 BTU



## APPENDIX B BASIC ISSUE ITEMS LIST AND ITEMS TROOP INSTALLED OR AUTHORIZED

### Section I. INTRODUCTION

#### B-1. Scope

This appendix lists items required by the operator for operation of the refrigerator.

#### B-2. General

This list is divided into the following sections

*a. Basic Issue Items List-Section II.* Not applicable.

*b. Items Troop Installed or Authorized List-Section III.* A list of items in alphabetical sequence, which at the discretion of the unit commander may accompany the refrigerator. These items are NOT SUBJECT TO TURN-IN with the refrigerator when evacuated.

#### B-3. Explanation of Columns

The following provides an explanation of columns in the tabular list of Basic Issue Items List, Sec-

tion II, and Items Troop Installed or Authorized, Section III.

*a. Source, Maintenance and Recoverability Code (SMR).* Not applicable.

*b. Federal Stock Number.* This column indicates the Federal stock number assigned to the item and will be used for requisitioning purposes.

*c. Description.* This column indicates the Federal item name and any additional description of the item required.

*d. Unit of Measure (WM).* A two character alphabetic abbreviation indicating the amount or quantity of the item upon which the allowances are based, e.g., ft, ea, pr, etc.

*e. Quantify Furnished with Equipment (BILL).* Not applicable.

*f. Quantify Authorized (Items Troop Installed or Authorized).* This column indicates the quantity of the Item authorized to be used with the equipment.

### Section III. ITEMS TROOP INSTALLED OR AUTHORIZED LIST

(1) SMR code	(2) Federal stock number	(3) Description  Ref. No. & Mfr code	(4) Unit of meas	(5) Qty auth	
PO	7520-559-9618	CASE, Maintenance and	Operation Manuals	EA	1
PO	5120-223-7396	PLIERS, Slip joint 6"		EA	1
PO	5120-517-8099	SCREWDRIVER, Flat		EA	1
PO	5120-234-8913	SCREWDRIVER, Cross		EA	1
PO	5120-198-5409	WRENCH, Socket-head (15436) H16		EA	1





## APPENDIX C

### Section I. INTRODUCTION

#### The Army Maintenance System MAC

This introduction provides a general explanation of all maintenance and repair functions authorized at the two maintenance levels under the Two-Level Maintenance System concept.

The MAC (immediately following the introduction) designates overall authority and responsibility for the performance of maintenance functions on the identified end item or component. The application of the maintenance functions to the end item or component shall be consistent with the capacities and capabilities of the designated maintenance levels, which are shown on the MAC in column (4) as:

Field - includes two columns, Unit maintenance and Direct Support maintenance. The Unit maintenance column is divided again into two more subcolumns, C for Operator or Crew and O for Unit maintenance.

Sustainment – includes two subcolumns, General Support (H) and Depot (D)

The tools and test equipment requirements (immediately following the MAC) list the tools and test equipment (both special tools and common tool sets) required for each maintenance function as referenced from the MAC. The remarks (immediately following the tools and test equipment requirements) contain supplemental instructions and explanatory notes for a particular maintenance function.

#### Maintenance Functions

Maintenance functions are limited to and defined as follows:

1. Inspect. To determine the serviceability of an item by comparing its physical, mechanical, and/or electrical characteristics with established standards through examination (e.g., by sight, sound, or feel.) This includes scheduled inspection and gagings and evaluation of cannon tubes.
2. Test. To verify serviceability by measuring the mechanical, pneumatic, hydraulic, or electrical characteristics of an item and comparing those characteristics with prescribed standards on a scheduled basis, i.e., load testing of lift devices and hydrostatic testing of pressure hoses.
3. Service. Operations required periodically to keep an item in proper operating condition, e.g. to clean (includes decontaminate, when required), to preserve, to drain, to paint, or to replenish fuel, lubricants, chemical fluids, or gases. This includes scheduled exercising and purging of recoil mechanisms. The following are examples of service functions:
  - a. Unpack. To remove from packing box for service or when required for the performance of maintenance operations.
  - b. Repack. To return item to packing box after service and other maintenance operations.
  - c. Clean. To rid the item of contamination.

- d. Touch up. To spot paint scratched or blistered surfaces.
  - e. Mark. To restore obliterated identification.
4. Adjust. To maintain or regulate, within prescribed limits, by bringing into proper or position, or by setting the operating characteristics to specified parameters.
  5. Align. To adjust specified variable elements of an item to bring about optimum or desired performance
  6. Calibrate. To determine and cause corrections to be made or to be adjusted on instruments of test, measuring, and diagnostic equipment used in precision measurement. Consists of comparisons of two instruments, one of which is a certified standard of known accuracy, to detect and adjust any discrepancy in the accuracy of the instrument being compared.
  7. Remove/install. To remove and install the same item when required to perform service or other maintenance functions. Install may be the act of emplacing, seating, or fixing into position a spare, repair part, or module (component or assembly) in a manner to allow the proper functioning of an equipment or system.
  8. Paint. To prepare and spray color coats of paint so that the ammunition can be identified and protected. The color indicating primary use is applied, preferably, to the entire exterior surface as the background color of the item. Other markings are to be repainted as original so as to retain proper ammunition identification.
  9. Replace. To remove an unserviceable item and install a serviceable counterpart in its place. "Replace" is authorized by the MAC and assigned maintenance level is shown as the third position code of the Source, Maintenance and Recoverability (SMR) code.
  10. Repair. The application of maintenance services, including fault location/troubleshooting, removal/installation, disassembly/assembly procedures and maintenance actions to identify troubles and restore serviceability to an item by correcting specific damage, fault, malfunction, or failure in a part, subassembly, module (component or assembly), end item, or system.

#### NOTE

The following definitions are applicable to the "repair" maintenance function:

Services. Inspect, test, service, adjust, align, calibrate, and/or replace.

Fault location/troubleshooting. The process of investigating and detecting the cause of equipment malfunctioning; the act of isolating a fault within a system or Unit Under Test (UUT).

Disassembly/assembly. The step by step breakdown (taking apart) of a spare/functional group coded item to the level of its least component, that is assigned an SMR code for the level of maintenance under consideration (i.e. identified as maintenance significant).

Actions. Welding, grinding, riveting, straightening, facing, machining, and/or resurfacing.

11. Overhaul. That maintenance effort (service/action) prescribed to restore an item to a completely serviceable/operational condition as required by maintenance standards in appropriate technical publications. Overhaul is normally the highest degree of maintenance performed by the Army. Overhaul does not normally return an item to like new condition.
12. Rebuild. Consists of those services/actions necessary for the restoration of unserviceable equipment to a like new condition in accordance with original manufacturing standards. Rebuild is the highest degree of material maintenance applied to Army equipment. The rebuild operation includes the act of returning to zero those age measurements (e.g., hours/miles) considered in classifying Army equipment/components.

### Explanation of Columns in the MAC

Column (1) Group Number. Column (1) lists Functional Group Code (FGC) numbers, the purpose of which is to identify maintenance significant components, assemblies, subassemblies, and modules with the Next Higher Assembly (NHA).

Column (2) Component/Assembly. Column (2) contains the item names of components, assemblies, subassemblies, and modules for which maintenance is authorized.

Column (3) Maintenance Function. Column (3) lists the functions to be performed on the item listed in column (2). (For a detailed explanation of these functions refer to "Maintenance Functions" outlined above).

Column (4) Maintenance Level. Column (4) specifies each level of maintenance authorized to perform each function listed in column (3), by indicating work time required (expressed as manhours in whole hours or decimals) in the appropriate subcolumn. This work time figure represents the active time required to perform that maintenance function at the indicated level of maintenance. If the number or complexity of the tasks within the listed maintenance function varies at different maintenance levels, appropriate work time figures are to be shown for each level. The work time figure represents the average time required to restore an item (assembly, subassembly, component, module, end item, or system) to a serviceable condition under typical field operating conditions. This time includes preparation time (including any necessary disassembly/assembly time), troubleshooting/fault location time, and quality assurance time in addition to the time required to perform the specific tasks identified for the maintenance functions authorized in the MAC. The symbol designations for the various maintenance levels are as follows:

#### Field:

- C Operator or Crew maintenance
- O Unit maintenance
- F Direct Support maintenance

#### Sustainment:

- L Specialized Repair Activity
- H General Support maintenance
- D Depot maintenance

**NOTE**

The "L" maintenance level is not included in column (4) of the MAC. Functions to this level of maintenance are identified by work time figure in the "H" column of column (4), and an associated reference code is used in the REMARKS column (6). This code is keyed to the remarks and the SRA complete repair application is explained there.

Column (5) Tools and Equipment Reference Code. Column (5) specifies, by code, those common tool sets (not individual tools), common Test, Measurement and Diagnostic Equipment (TMDE), and special tools, special TMDE, and support special equipment required to perform the designated function. Codes are keyed to the entries in the tools and test equipment table.

Column (6) Remarks Code. When applicable, this column contains a letter code, in alphabetic order, which is keyed to the remarks table entries.

**Explanation of Columns in the Tools and Test Equipment Requirements**

Column (1) – Tool or Test Equipment Reference Code. The tool or test equipment reference code correlates with a code used in column (5) of the MAC.

Column (2) – Maintenance Level. The lowest level of maintenance authorized to use the tool or test equipment.

Column (3) – Nomenclature. Name or identification of the tool or test equipment.

Column (4) – National Stock Number (NSN). The NSN of the tool or test equipment.

Column (5) – Tool Number. The manufacturer's part number.

**Explanation of Columns in Remarks**

Column (1) – Remarks Code. The code recorded in column (6) of the MAC.

Column (2) – Remarks. This column lists information pertinent to the maintenance function being performed as indicated in the MAC."

**Section II.**  
**MAINTENANCE ALLOCATION CHART FOR REFRIGERATOR,**  
**PREFABRICATED PANEL TYPE W/O REFRIGERATING EQUIPMENT**

(1) GROUP NUMBER	(2) COMPONENT/ ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL					(5) TOOLS AND EQUIPMENT REFERENCE CODE	(6) REMARKS CODE	
			FIELD		SUSTAINMENT					
			UNIT		DIRECT SUPPORT	GENERAL SUPPORT	DEPOT			
			C	O	F	H	D			
22	BODY CHASSIS OR HULL, AND ACCESSORY ITEMS									
2210	PLATES, DATA	Replace			0.5					
80	STORAGE EQUIPMENT COMPONENTS									
8000	REFRIGERATOR REFRIGERATOR	Inspect	*1							
		Service	*1							
		Replace			4.0					
		Repair		*1						
	RACK ASSEMBLY, FLOOR	Replace		*1				A		
	PANEL ASSEMBLIES, PRE- FABRICATED	Replace		*1						
		Repair		*1						
	ROLLER; GASKET; CONVEYOR DOOR	Replace		*1						
	PARTITION ASSEMBLY	Replace		*1						
		Repair		*1						
	CLAMP AND STRIKE ASSEMBLIES; BARREL BOLT	Replace		*1						
	DOOR PANELS; DOOR LATCH AND HINGE ASSEMBLIES	Service	*1					B		
		Replace		*1						
	LOCK, DOOR LATCH	Replace		*1						
	LIGHT ASSEMBLIES	Replace		*1						
	BULB (LAMP)	Replace	*1							
	SWITCH ASSEMBLY, LIGHT	Replace		*1						

MAINTENANCE ALLOCATION CHART, CONT.

(1) GROUP NUMBER	(2) COMPONENT/ ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL					(5) TOOLS AND EQUIPMENT REFERENCE CODE	(6) REMARKS CODE	
			FIELD		SUSTAINMENT					
			UNIT		DIRECT SUPPORT	GENERAL SUPPORT	DEPOT			
			C	O	F	H	D			
	COVER; GASKET; GUARD; LIGHT	Replace		*1						
	RECEPTACLES, POWER	Replace		*1						
	COVER; GASKET; GUARD; POWER RECEPTACLE	Replace		*1						
	THERMOMETER	Replace	*1							
	STRAINER ASSEMBLY, DRAIN	Service Replace	*1	*1						
	Canopy: ramp	Replace		*1						

NOTE

Original MAC did not show times, only level of authorized repair. \*1 indicates level of repair only, not the time to repair. Existing times for data plate and refrigerator replace functions were determined by equipment specialist.

Section III.  
TOOLS AND TEST EQUIPMENT

(1) Tool or Test Equipment Reference Code	(2) Maintenance Level	(3) Nomenclature	(4) National Stock Number	(5) Tool Number

No special tools or test equipment required

**Section IV.  
REMARKS**

(1) REMARKS CODE	(2) REMARKS
A	Service of floor rack assembly. Includes removing, scrubbing with a soap and water solution, rinse and replace
B	Service of door latch and hinge assemblies includes lubricating, polishing with suitable metal cleaner





## APPENDIX D

### REPAIR PARTS LIST

#### Section I. INTRODUCTION

##### D-1. Scope.

This index contains a list of repair parts and equipment required for the performance of organizational and direct support maintenance of the prefabricated refrigerator.

##### D-2. General.

This repair parts and special tools list is divided into three principal sections and a National stock number index.

a. *Section II: Prescribed Load Allowance List (PLA).* A consolidated listing of repair parts quantitatively allocated for initial stockage at the organizational level. This is a mandatory minimum stockage allowance.

b. *Section III: Repair Parts List.* A list of repair parts authorized for the performance of maintenance at organizational level.

c. *Section IV: Repair Parts List.* A list of repair parts authorized for the performance of maintenance at the direct support level.

d. Allowances are based on 5,000 hours operation per year.

e. Part I applies to all models. Part II applies to type I models only. Part III applies to type H models only.

##### D-3. Explanation of Columns.

The following provides an explanation of columns in the tabular lists.

a. Source, Maintenance, and Recoverability Codes.

- (1) Source code indicates the selection status and source for the listed item. Source Codes used are:

<i>Code</i>	<i>Explanation</i>
P	Applied to repair parts which are stocked in or supplied from DSA/GSA or Army supply system, and authorized for use at indicated maintenance categories.

M Applied to repair parts which are not procured or stocked but are to be manufactured at indicated maintenance categories.

X2 Applied to repair parts which are not stocked. The indicated maintenance category requiring such repair parts will attempt to obtain them through cannibalization; if not obtainable through cannibalization, such repair parts will be requisitioned with supporting justification through normal supply channels.

c Applied to repair parts authorized for local procurement. If not obtainable from local procurement, such repair parts will be requisitioned through normal supply channels with a supporting statement of nonavailability from local procurement.

- (2) Maintenance code indicates the lowest category of maintenance authorized to maintain the listed item. The maintenance level codes are:

<i>Code</i>	<i>Explanation</i>
o	Organizational Maintenance
F	Direct Support Maintenance

- (3) Recoverability code indicates whether unserviceable items should be returned for recovery or salvage. Items not coded are expendable.

b. National stock number indicates the National stock number for the item.

c. Description indicates the Federal item name and a brief description of the item. A five-digit manufacturer's or other service code, and part number is included in parentheses for reference. Repair parts quantities included in the kits, sets, and assemblies are shown in front of the repair part name.

d. Unit of issue indicates the unit used as a basis of issue, e.g., ea, pr, ft, yd, etc.

e. Quantity incorporated in unit pack indicates the actual quantity contained in the unit pack.

f. Quantity incorporated in unit indicates the quantity of repair parts in an assembly. Where an asterisk appears, refer to Table 4—2 and figures 4—1 and 4—2 for quantities applicable to a particular model.

g. Fifteen-Day organizational maintenance allowance.

- (1) The allowance columns are divided into four subcolumns. Indicated in each subcolumn is the quantity of items authorized for the number of equipments supported. Items authorized for use as required but not for initial stockage are identified with an asterisk in the allowance column.
- (2) The quantitative allowances for organizational level of maintenance represents one initial prescribed load for a 15-day period, for the number of equipments supported. Units and organizations authorized additional prescribed loads will multiply the number of prescribed loads authorized by the quantity of repair parts reflected in the appropriate density column to obtain the total quantity of repair parts authorized.
- (3) Subsequent changes to allowances will be limited as follows: No change in the range of items is authorized. If additional items are considered necessary, recommendation should be forwarded to US Army Troop Support and Aviation Materiel Readiness Command for exception or revision to the allowance list. The range of items authorized will be made by this Command based upon engineering experience, demand data, or TAERS information.

h. *Thirty-Day DS Maintenance Allowance.*

- (1) The allowance columns are divided into three subcolumns. Indicated in each subcolumn is the total quantity of items authorized for the number of equipments supported. Items authorized for use as required but not for initial stockage are

identified with an asterisk in the allowance column.

- (2) The quantitative allowances for DS level of maintenance will represent initial stockage for a 30-day period for the number of equipments supported.

i. *Illustration.*

- (1) Figure number indicates the figure number of the illustration by which the item is shown.
- (2) Item or symbol number indicates the callout number used to reference the item in the illustration.

#### **D-4. Special Information.**

Quantity shown in quantity incorporated in unit reflects total for all units. Refer to figures 4—1 and 4—2 for quantity of specific unit.

#### **D-5. How to Locate Repair Parts.**

a. *When National stock number is unknown.*

- (1) *First.* Using the index of contents, determine the functional group or subgroup, i.e., engine, engine assembly, transmission, transmission assembly, within which the repair part belongs. This is necessary because separate illustrations are prepared for functional groups or subgroups, and listings are divided into functional groups.
- (2) *Second.* Find the repair part illustration in the back of the publication covering the functional group or subgroup to which the repair part belongs.
- (3) *Third.* Identify the repair part on the illustration figure and item number of the repair part.
- (4) *Fourth.* Using the repair parts listing, find the functional group or subgroup of the repair part and the illustration figure and item number as noted on the illustration.

b. *When National stock number or manufacturer's part number is known.*

- (1) *First.* Use the index to locate the National stock number or manufactur-

er's part number. This index is arranged in alphanumeric sequence cross-referenced to page number and manufacturer's code.

(2) Second. Refer to the appropriate page in the parts listing. Locate the functional group or subgroup of the repair part and the illustration figure and item number as indicated in the last two columns of the parts listing.

**D-6. Abbreviations**

dia . . . . .	diameter
ea . . . . .	each
ft . . . . .	foot (feet)
id. . . . .	inside diameter
in . . . . .	inch(es)
lg. . . . .	long (length)
No . . . . .	number(s)

net . . . . .	National Pipe Thread
the . . . . .	thickness)
v . . . . .	volt(s)
w . . . . .	watt(s)
w . . . . .	wide (width)

**D-7. Federal Supply Codes**

53853	Mid-South Industries, Inc.
87308	Capital Bolt & Screw
16245	Senco
32761	Kason
74545	Hubbel
72764	Southern Electric
87518	Standard Keil
64467	Wexler
75915	Southern Radio Supply
74951	Jarrow

**Section II. PRESCRIBED LOAD ALLOWANCE**

(1) Federal stock number	(2) Description	(2) 15-Day Org. Maint. Allowance			
		(a) 1-5	(b) 6-20	(c) 21-50	(d) 51-100
	LIGHT, PILOT (53853) 447-6063-001-534-MDSI	22	55	110	231
	SWITCH (74545) 1251	2	3	7	14
	GASKET: vertical (53853) 5804	4	6	12	26
	GASKET: vertical (53853) 5805	8	20	40	84
	GASKET: bottom (53853) 5806	8	20	40	84
	GASKET: top (53853) 5803	8	20	40	84

(1) SMR code	(2) Federal/National stock number	(3) Description  Ref number & mfr code	(4) Usable- on code	(5) Unit of meas	(6) Qty inc in unit	(6) 15-Day Organizational Maintenance alw				(7) Illus- tration	
						(a) 1-5	(b) 6-20	(c) 21-50	(d) 51-100	(a) Fig. No.	(b) Item No.
		Section 3 – Repair Parts List for Organizational Level Part I Group 80 – Storage Equipment Components 8000 – Refrigerator Warehouse									
X20		Door, Walk-in 53853 90105		ea.	*	*	*	*	*	D3	1
MO		Gasket, Door, Fab From		ft.						D3	4
MO		Rubber Sponge 74951 PHD-502N-1 (18'4" required for each gasket)				SEE GRP	9501				
PO		Hinge, Door 32761 1245		ea.	*	*	*	*	*	D3	7
PO		Latch Assembly 32761 K-56		ea.	*	*	*	*	*	D3	2
PO		Screw, Hinge, Mtg. 87308 C004		ea.	*	*	*	*	*	D3	8
PO		Screw, Latch, Mtg. 87308 C004		ea.	*	*	*	*	*	D3	3
X20		Panel A, Corner 53853 90113		ea.	*	*	*	*	*	D1	9
PO		Camlock 53853 90021		ea.	*	SEE GRP	9501			D4	12
MO		Gasket, Panel Fab From		ft.							
MO		Rubber Sponge 74951 NX502B-1 (13' required for each gasket)				SEE GRP	9501				
PO		Screw, Camlock Mtg 87308 C003		ea.	*	*	*	*	*	D4	13
X20		Panel B, Wall 53853 90114		ea.	*	*	*	*	*	D1	10
PO		Camlock 53853 90021		ea.	*	SEE GRP	9501			D4	12
MO		Gasket Panel Fab From		ft.	*					D4	6
MO		Rubber Sponge 74951 NX502B-1 (13'2" required for each gasket)				SEE GRP	9501				
PO		Screw, Camlock Mtg 87308 C003		ea.	*	*	*	*	*	D4	13
X20		Panel C, Door 53853 90106		ea.	*	*	*	*	*	D1	8
X20		Canopy, Door 53853 90024		ea.	*	*	*	*	*	D1	6
PO		Camlock 53853 90021		ea.	*	*	*	*	*	D4	12

(1) SMR code	(2) Federal/National stock number	(3) Description Ref number & mfr code	(4) Usable- on code	(5) Unit of mea	Qty inc in unit	(6) Day Organizational Initi - cc.				(7) Ilus- tration	
						(a) 1-5	(b) 6-20	(c) 21-50	(d) 51-100	(a) Fig. No.	(b) Item No.
MO		Gasket, Panel Fab From		ft.							
MO		Rubber Sponge 32761 NX502B-1 (13" required for each gasket)				SE	GF	95			
PO	935-01-438-9943	Cap, Receptacle 74545 4884		ea.	•	•	•	*	*	D4	22
PO	935-00-222-0072	Boot, Receptacle 74545 7440		ea.	2					D4	21
PO		Receptacle, Female 74545 7484 Plug		ea.	*	*	•	•	*	D4	21
PO		Receptacle, Male 74545 7486		ea.	2					D4	18
PO		Pilot Light 53853 477-6063- Assembly MDSI		ea.	•	*	*	•	*	D4	27
PO		Cover, Pilot Light 53853 25-1-SGS- MDSI		ea.	•	•	•	*	•	D4	27
PO		Vapor Proof Light 87518 VBB100PC Assembly		ea.	*	*	•	•	•	D4	4
PO		Screw Camlock Mtg. 87308 COO3		ea.	•	•	•	•	*	D4	13
PO		Screw, Cover Mtg. 87308 COO6		ea.	*	•	•	*	*	D4	20
PO		Screw, Light Mtg. 87308 COO5		ea.	•	•	*	•	•	D4	5
PO		Screw, Pilot Light 87308 COO6		ea.	*	•	•	•	•	D4	23
PO		Screw, Receptacle 87308 COO7		ea.	•	•	*	*	*	D4	19
PO		Screw, Strike Mtg. 87308 COO4		ea.	•	*	•	•	•	D4	25
PO		Switch 74545 1251		ea.	•	2	3	7	14	I34	16
PO		Switch Cover 74545 1750		ea.	1	•	*	•	•	D4	16
PO		Screw, Switch Mtg. 87308 COO6		ea.	*	•	•	•	•	D4	17
PO		Thermometer 64467 7269		ea.	*	*	*	•	*	D4	14
PO		Screw, Thermom- 87308 COO5 eter Mtg.		ea.	*	•	•	•	*	D4	15
x20		Panel D, Evaporator 53853 90115		ea.	•	*	*	•	*	D1	1
PO		Hex Wrench 37761 1145		ea.	*	*	*	•	•	D1	19
PO		Camlock 53853 90021		ea.	*	SEI	3R			D4	12

(1) SMR code	(2) Federal/National stock number	(3) Description  Usable- on code	(4) Unit of meas	(5) Qty inc in unit	(6) 15-Day Organizational Maintenance alw				(7) Illus- tration	
					(a) 1-5	(b) 6-20	(c) 21-50	(d) 51-100	(a) Fig. No.	(b) Item No.
PO		Clip, Panel Wrench 75915 105002	ea.	*	*	*	*	*	D1	18
MO		Gasket, Panel Fab From							D4	6
MO		Rubber Sponge 74951 NX502B-1 (13' required for each gasket)	ft.		SEE GRP 9501					
PO		Screw, Camlock Mtg. 87308 C003	ea.	*	*	*	*	*	D4	13
PO		Screw, Clip Mtg. 87308 C005	ea.	*	*	*	*	*	D1	17
X20		Thermal Strip: Horizontal, Masonite, Fab From 53853 90110	ea.	*						
CO		Building Board, Hard Pressed, Vegetable Fiber (5½" x 38 9/16" required for each Thermal Strip)								
X20		Thermal Strip: 53853 90111 Vertical, Masonite Fab From	ea.	*						
CO		Building Board, Hard Pressed, Vegetable Fiber (5½" x 55½" required for each Thermal Strip)								
X20		Panel H-1: 53853 90133 Partition	ea.	*	*	*	*	*	D1	12
PO		Bolt, Barrel 53853 4842	ea.	*	*	*	*	*	D1	15
PO		Gasket, Bottom 53853 5806	ft.	*	SEE GRP 9901				D1	11
MO		Gasket, Top 53853 5803	ft.	*	SEE GRP 9901				D1	4
MO		Gasket, Vertical 53853 5805	ft.	*	SEE GRP 9901				D1	5
PO		Screw, Barrel Bolt Mtg. 87308 C001	ea.	*	*	*	*	*	D1	16
X20		Panel H-2: 53853 90134 Partition	ea.	*	*	*	*	*	D1	14
PO		Bolt, Barrel 53853 4842	ea.	*	*	*	*	*	D1	15
PO		Gasket, Bottom 53853 5806	ft.	*	SEE GRP 9901				D1	11

(1) SMR code	(2) Federal/National stock number	(3) Description  Usable- on code		(4) Unit of meas	(5) Qty inc in unit	(6) 15-Day Organizational Maintenance alw				(7) Illus- tration	
						(a) 1-5	(b) 6-20	(c) 21-50	(d) 51-100	(a) Fig. No.	(b) Item No.
MO		Gasket, Top	53853 5803	ft.	*	SEE GRP	9901			D1	4
MO		Gasket, Vertical	53853 5804	ft.	*	SEE GRP	9001			D1	13
PO		Screw, Barrel Bolt Mtg.	87308 C001	ea.	*	*	*	*	*	D1	16
X20		Panel H-3: Partition	53853 90135	ea.	*	*	*	*	*	D1	12
PO		Bolt, Barrel	53853 4842	ea.	*	*	*	*	*	D1	15
PO		Gasket, Bottom	53853 5806	ft.	*	SEE GRP	9901			D1	11
MO		Gasket, Top	53853 5803	ft.	*	SEE GRP	9901			D1	4
MO		Gasket, Vertical	53853 5805	ft.	*	SEE GRP	9901			D1	5
PO		Screw, Barrel Bolt Mtg.	87308 C001	ea.	*	*	*	*	*	D1	16
MO		Gasket, Vertical	53853 5804	ft.	*	SEE GRP	9901			D1	13
Group 95 – General Use Standardized Parts 9501 BULK MATERIAL											
PO		Rubber Sponge	74951 NX502B-1	ft.		*	*	*	*		
PO		Tape, P.S.	53853 6818	rl.	4						
Group 99 – Parts Peculiar 9901 – Parts Peculiar with more than one application											
MO		Gasket, Vertical	53853 5805	ft.		8	20	40	84		
PO		Gasket, Bottom	53853 5806	ft.		8	20	40	84		
MO		Gasket, Top	53853 5803	ft.		8	20	40	84		
PO		Camlock	53853 90021	ea.		*	*	*	*		

(1) SMR code	(2) Federal/National stock number	(3) Description  Usable- on code		(4) Unit of meas	(5) Qty inc in unit	(6) 15-Day Organizational Maintenance alw				(7) Illus- tration	
						(a) 1-5	(b) 6-20	(c) 21-50	(d) 51-100	(a) Fig. No.	(b) Item No.
		Section 3 – Repair Parts List for Organizational Level		ea.							
		Part II									
		Type I Assemblies		ea.							
		Group 80 – Storage Equipment Components		ea.							
		8000 – Refrigerator Warehouse									
X20		Floor Racks, Large	53853 90023	ea.	*	*	*	*	*	D7	2
X20		Floor, Racks, Small	53853 90022	ea.	*	*	*	*	*	D7	1
X20		Panel, CL, Left Ceiling	53853 90118	ea.	*	*	*	*	*	D1	2
X20		Panel FL, Left Floor	53853 90117	ea.	*	*	*	*	*	D1	2
PO		Camlock	53853 90021	ea.	*	*	*	*	*	D4	12
PO		Drain, Inside	53853 90131	ea.	*	*	*	*	*	D2	5
PO		Drain, Outside	53853 90130	ea.	*	*	*	*	*	D2	10
MO		Gasket, Panel, Fab From			*					D4	6
MO		Rubber, Sponge 50'8" required for each gasket	74951 NX502B-1	ft.	SEE GRP 9501						
PO		Screw, Camlock Mtg.	87308 C003	ea.	*	*	*	*	*	D4	13
PO		Screw, Drain Mtg.	87308 C005	ea.	*	*	*	*	*	D2	9
PO		Screw, Strainer Mtg.	87308 C005	ea.	*	*	*	*	*	D2	4
PO		Strainer, Inside	53853 90132	ea.	*	*	*	*	*	D2	3
X20		Panel, CR, Right Ceiling	53853 90120	ea.	*	*	*	*	*	D1	2
X20		Panel, FR, Right	53853 90119	ea.	*	*	*	*	*	D1	2



(1) SMR code	(2) Federal/National stock number	(3) Description  Usable- on code		(4) Unit of meas	(5) Qty inc in unit	(6) 15-Day Organizational Maintenance alw				(7) Illus- tration	
						(a) 1-5	(b) 6-20	(c) 21-50	(d) 51-100	(a) Fig. No.	(b) Item No.
X20		Panel, FC Center Floor	53853 90122	ea.	*	*	*	*	*	D1	3
X20		Panel, CC Center Ceiling	53853 90121	ea.	*	*	*	*	*	D1	3
PO		Camlock	53853 90021	ea.	*	SEE GRP 9901				D4	12
MO		Gasket, Panel Fab From								D4	6
MO		Rubber, Sponge 50'8" required for each gasket	74951 NX502B-1	ft.		SEE GRP 9501					
PO		Screw, Camlock Mtg.	87308 C003	ea.	*	*	*	*	*	D4	13
X20		Panel A, Corner	53853 90113	ea.						D1	9
MO		Gasket, Panel, Fab From								D4	6
MO		Rubber, Sponge 13' required for each gasket	74951 NX502B-1	ea.		SEE GRP 9501					
PO		Camlock	53853 90021	ea.	*					D4	12
X20		Panel B, Wall	53853 90114	ea.	*					D1	10
MO		Gasket, Panel Fab From			Ref					D4	6
MO		Rubber Sponge 13'2" required for each gasket	74951 NX502B-1	ft.		SEE GRP 9501					
PO		Camlock	53853 90021	ea.		SEE GRP 9901				D4	12
X20		Panel C, Door	53853 90106	ea.	*					D1	8
MO		Gasket, Panel Fab From			Ref					D4	6
MO		Rubber Sponge 13' required for each gasket	74951 NX502B-1	ft.		SEE GRP 9501					
PO		Camlock	53853 90021	ea.	*					D4	12
PO		Cover, Pilot Light	53853 25-1-SGS- MDSI	ea.						D4	24
PO		Pilot Light	53853 477-6063- MDSI	ea.						D4	27

(1) SMR code	(2) Federal/National stock number	(3) Description  Ref number & mfr code		(4) Unit of meas	(5) Qty inc in unit	(6) 15-Day Organizational Maintenance alw				(7) Illus- tration	
						(a)	(b)	(c)	(d)	(a)	(b)
						1-5	6-20	21-50	51-100	Fig. No.	Item No.
PO		Receptacle, Power	74545 7486	ea.						D4	
PO		Plug, Power	74545 7484	ea.						D4	27
PO		Boot, Receptacle	74545 7440	ea.						D4	
PO		Switch	74545 1251	ea.						D4	16
PO		Light, Vapor Proof	87518 VBB100PC	ea.						D4	4
X20		Door, Walk-in	53853 90105	ea.						D3	1
MO		Gasket, Door Fab From	74951 PHD502N-1	ft.						D3	4
MO		Rubber Sponge 18'4" required for each gasket				SEE GRP	9501				
PO		Latch Assembly	32761 K-56	ea.						D3	2
PO		Hinge: RH	32761 1245	ea.						D3	7
X20		Canopy	53853 90024	ea.						D6	6
X20		Panel D, Evaporator	53853 90115	ea.						D1	1
MO		Gasket, Panel Fab From								D4	6
MO		Rubber Sponge 13" required for each gasket	74951 NX502B-1	ft.		SEE GRP	9501				
PO		Camlock	53853 90021	ea.		SEE GRP	9901			D4	12
PO		Clip, Wrench	75915 105002	ea.						D1	18
PO		Wrench, Hexagon	32761 1145	ea.						D1	19
X20		Panel, FL, Left Floor	53853 90117	ea.						D1	2
X20		Panel, FR, Right Floor	53853 90119	ea.						D1	2
X20		Panel, FC, Center Floor	53853 90122	ea.						D1	3
MO		Gasket, Panel								D4	6
MO		Rubber Sponge 50'8" required for each gasket	74951 NX502B-1	ft.		SEE GRP	9501				

(1) SMR code	(2) Federal National stock number	(3) Description  Usable- on code		(4) Unit of meas	(5) Qty inc in unit	(6) 15-Day Organizational Maintenance alw				(7) Illus- tration	
						(a) 1-5	(b) 6-20	(c) 21-50	(d) 51-100	(a) Fig. No.	(b) Item No.
PO		Camlock	53853 90021	ea.		SEE	GRP	9901		D4	12
PO		Drain, Inside	53853 90131	ea.						D2	5
PO		Drain, Outside	53853 90130	ea.						D2	10
PO		Strainer, Drain	53853 90132	ea.						D2	3
X20		Panel, CL, Left Ceiling	53853 90118	ea.						D1	2
X20		Panel, CR, Right Ceiling	53853 90120	ea.						D1	2
X20		Panel, CC, Center Ceiling	53853 90121	ea.						D1	3
MO		Gasket, Panel Fab From								D4	6
MO		Sponge Rubber 74951 NX502B-1 50'8" required for each gasket		ft.		SEE	GRP	9501			
PO		Camlock	53853 90021	ea.		SEE	GRP	9901		D4	12
X20		Floor Rack, Large	53853 90023	ea.						D7	1
X20		Floor Rack, Small	53853 90022	ea.						D7	2
		Group 95 -- General Use Standardized Parts		ea.							
		9501 -- Bulk Material		ea.							
PO		Rubber, Sponge 74951 NX502B-1		ft.		*	*	*	*		
		Group 99 -- Parts Peculiar									
		9901 -- Parts Peculiar with more than one application		ea.							
PO		Camlock	53853 90021	ea.							

(1) SMR code	(2) Federal/National stock number	(3) Description  Usable- on code	(4) Unit of meas	(5) Qty inc in unit	(6) 15-Day Organizational Maintenance alw				(7) Illus- tration	
					(a) 1-5	(b) 6-20	(c) 21-50	(d) 51-100	(a) Fig. No.	(b) Item No.
		Section 3 – Repair Parts List for Organizational Level  Part III  TYPE II – ASSEMBLIES  Group 80 – Storage Equipment Components  8000 – Refrigerator Warehouse	ea.							
X20		Floor Rack, 53853 90023 Large	ea.		*	*	*	*	D7	2
X20		Floor Rack, 53853 90022 Small	ea.		*	*	*	*	D7	1
X20		Floor Panel, FL 53853 90117	ea.		*	*	*	*	D1	2
MO		Gasket, Fab From								
MO		Rubber Sponge 74951 NX502B-1 50'8" required for each gasket	ft.		SEE GRP	9501				
PO		Camlock 53853 90021	ea.		SEE GRP	9901				
PO		Drain, Inside 53853 90131	ea.		*	*	*	*		
PO		Drain, Outside 53853 90130	ea.		*	*	*	*		
PO		Drain, Strainer 53853 90132	ea.		*	*	*	*		
X20		Floor Panel, FR 53853 90119	ea.		*	*	*	*	D1	2
X20		Floor Panel, FC 53853 90112	ea.		*	*	*	*	D1	3
MO		Gasket, Fab From								
MO		Rubber Sponge 74951 NX502B-1 50'8" required for each gasket	ft.		SEE GRP	9501				
PO		Camlock 53853 90021	ea.		SEE GRP	9901				
		Group 95 – General Use Standardized Parts  9501 – Bulk Material	ea.							
PO		Rubber Sponge 74951 NX502B-1	ft.		*	*	*	*		

(1) SMR code	(2) Federal/National stock number	(3) Description  Usable- on code		(4) Unit of meas	(5) Qty inc in unit	(6) 15-Day Organizational Maintenance alw				(7) Illus- tration	
						(a)	(b)	(c)	(d)	(a)	(b)
						1-5	6-20	21-50	51-100	Fig. No.	Item No.
PO		Group 99 – Parts Peculiar									
		9901 – Parts Peculiar with more than one application		ea.							
		Camlock	53853 90021	ea.		*	*	*	*		

(1) SMR code	(2) Federal/National stock number	(3) Description  Usable- on code	(4) Unit of meas	(5) Qty inc in unit	(6) 15-Day Organizational Maintenance alw				(7) Illus- tration	
					(a) 1-5	(b) 6-20	(c) 21-50	(d) 51-100	(a) Fig. No.	(b) Item No.
		Section 4 – Repair Parts List for Direct Support Level  Part I	ea.							
		Group 11 – Body Chassis or Hull, and Accessory Items	ea.							
X20		Door, Walk-in 53853 90105	ea.		*	*	*	*	D3	1
MO		Gasket, Door Fab From							D3	4
MO		Rubber Sponge 74951 PHD502N-1 18'4" required for each gasket	ft.		SEE GRP	9501				
X20		Hinge, Door 32761 1245	ea.		*	*	*	*	D3	7
PO		Latch Assembly 32761 K-56	ea.		*	*	*	*	D3	2
PO		Screw, Hinge Mtg. 87308 C004	ea.		*	*	*	*	D3	8
PO		Screw, Latch Mtg. 87308 C004	ea.		*	*	*	*	D3	3
X20		Panel A, Corner 53853 90113	ea.		*	*	*	*	D1	9
PO		Camlock 53853 90021	ea.		SEE GRP	9901			D4	12
MO		Gasket, Panel Fab From							D4	6
MO		Rubber Sponge 74951 NX502B-1 13' required for each gasket	ft.		SEE GRP	9501				
PO		Screw, Camlock Mtg. 87308 C003			*	*	*	*	D4	13
X20		Panel B, Wall 53853 90114	ea.		*	*	*	*	D1	10
PO		Camlock 53853 90021	ea.		SEE GRP	9901			D4	12
MO		Gasket Panel, Fab From							D4	6
MO		Rubber Sponge 74951 NX502B-1 13'2" required for each gasket	ft.		SEE GRP	9501				
PO		Screw, Camlock Mtg. 87308 C003	ea.		*	*	*	*	D4	13
X20		Panel C, Door 53853 90106	ea.		*	*	*	*	D1	8

(1) SMR code	(2) Federal/National stock number	(3) Description  Usable- on code		(4) Unit of meas	(5) Qty inc in unit	(6) 15-Day Organizational Maintenance alw				(7) Illus- tration	
						(a) 1-5	(b) 6-20	(c) 21-50	(d) 51-100	(a) Fig. No.	(b) Item No.
X20		Canopy Door	53853 90024	ea.	*	*	*	*	*	D1	6
PO		Cap, Receptacle	74545 4884	ea.	*	*	*	*	*	D4	22
PO		Boot, Receptacle	74545 7440	ea.	*	*	*	*	*	D4	21
PO		Receptacle	74545 7484	ea.	*	*	*	*	*	D4	18
PO		Camlock	53853 90021	ea.		SEE GRP 9901				D4	12
PO		Pilot Light Assembly	53853 477-6063- MDSI	ea.	*	*	*	*	*	D4	24
PO		Cover, Pilot Light	53853 25-1-SGS- MDSI	ea.	*	*	*	*	*	D4	24
PO		Light Assembly	87518 VBB100PC	ea.	*	*	*	*	*	D4	4
PO		Switch	74545 1251	ea.	*	*	*	*	*	D4	16
PO		Switch, Cover	74545 1750	ea.	*	*	*	*	*	D4	26
PO		Thermometer	64467 7269	ea.	*	*	*	*	*	D4	14
PO		Screw, Light Mtg.	87308 C005	ea.	*	*	*	*	*	D4	5
PO		Screw,Camlock Mtg.	87308 C003	ea.	*	*	*	*	*	D4	13
PO		Screw, Pilot Light	87308 C006	ea.	*	*	*	*	*	D4	23
PO		Screw, Receptacle	87308 C007	ea.	*	*	*	*	*	D4	19
PO		Screw, Switch Mtg.	87308 C006	ea.	*	*	*	*	*	D4	23
PO		Screw, Thermom- eter Mtg.	87308 C005	ea.	*	*	*	*	*	D4	5
X20		Panel D, Evaporator	53853 90115	ea.	*	*	*	*	*	D1	1
PO		Wrench, Hexagon	32761 1145	ea.	*	*	*	*	*	D1	19
PO		Camlock	53853 90021	ea.	*	*	*	*	*	D4	12
PO		Clip, Panel Wrench	75915 105002	ea.	*	*	*	*	*	D1	18
MO		Gasket, Panel Fab From								D4	6
MO		Rubber Sponge 13' required for each gasket	74951 NX502B-1	ft.		SEE GRP 9901					
PO		Screw, Camlock	87308 C003	ea.						D4	13

(1) SMR code	(2) Federal/National stock number	(3) Description  Usable- on code		(4) Unit of meas	(5) Qty inc in unit	(6) 15-Day Organizational Maintenance alw				(7) Illus- tration	
						(a) 1-5	(b) 6-20	(c) 21-50	(d) 51-100	(a) Fig. No.	(b) Item No.
PO		Screw, Clip Mtg.	87308 C005	ea.						D4	5
X20		Thermal Strip Horizontal Masonite, Fab From	53853 90110	ea.							
CO		Building Board, Hard Pressed, Vegetable Fiber 5" x 38" required for each Thermal Strip		ea.							
X20		Thermal Strip, Vertical Masonite Fab From	53853 90111	ea.							
CO		Building Board Hard Pressed, Vegetable Fiber 5½" x 55½" required for each Thermal Strip		ea.							
X20		Panel H-1 Partition	53853 90133	ea.	*	*	*	*	*	D1	12
PO		Bolt, Barrel	53853 4842	ea.	*	*	*	*	*	D1	15
PO		Gasket, Bottom	53853 5806	ft.		SEE GRP 9901				D1	11
MO		Gasket, Top	53853 5803	ft.	*	*	*	*	*	D1	4
MO		Gasket, Vertical	53853 5805	ft.	*	*	*	*	*	D1	5
PO		Screw, Barrel Bolt Mtg.	87308 C001	ea.	*	*	*	*	*	D1	16
X20		Panel H-2 Partition	53853 90134	ea.	*	*	*	*	*	D1	14
PO		Bolt, Barrel	53853 4842	ea.	*	*	*	*	*	D1	15
PO		Gasket, Bottom	53853 5806	ft.		SEE GRP 9901				D1	11
MO		Gasket, Top	53853 5803	ft.	*	*	*	*	*	D1	4
MO		Gasket, Vertical	53853 5804	ft.	*	*	*	*	*	D1	13
PO		Screw, Barrel Bolt Mtg.	87308 C001	ea.	*	*	*	*	*	D1	16



(1) SMR code	(2) Federal National stock number	(3) Description  Ref number & mfr code		(4) Usable- on code  Unit of meas	(5) Qty inc in unit	(6) 15-Day Organizational Maintenance alw				(7) Illus- tration	
						(a) 1-5	(b) 6-20	(c) 21-50	(d) 51-100	(a) Fig. No.	(b) Item No.
						X20		Panel H-3 Partition	53853 90135	ea.	*
PO		Bolt, Barrel	53853 4842	ea.	*	*	*	*	*	D1	15
PO		Gasket, Bottom	53853 5806	ft.		SEE GRP 9901				D1	11
MO		Gasket, Top	53853 5803	ft.	*	*	*	*	*	D1	4
MO		Gasket, Vertical	53853 5805	ft.	*	*	*	*	*	D1	5
PO		Screw, Barrel Bolt Mtg.	87308 C001	ea.	*	*	*	*	*	D1	16
MO		Gasket, Vertical	53853 5804	ft.		SEE GRP 9901				D1	13
		Group 95 – General Use Standardized Parts		ea.							
		9501 – Bulk Material		ea.							
PO		Rubber Sponge	74951 NX502B-1	ft.							
PO		Tape, PS	53853 6818	ea.							
		Group 99 – Parts Peculiar									
		9901 – Part Peculiar with more than one application		ea.							
MO		Gasket, Vertical	53853 5805	ft.		40	40	84	168		
PO		Gasket, Bottom	53853 5806	ft.		40	40	84	168		
MO		Gasket, Top	53853 5803	ft.		40	40	84	168		
PO		Camlock	53853 90021	ea.		*	*	*	*		

(1) SMR code	(2) Federal/National stock number	(3) Description  Ref number & mfr code	(4) Unit of meas	(5) Qty inc in unit	(6) 15-Day Organizational Maintenance alw				(7) Illus- tration	
					(a) 1-5	(b) 6-20	(c) 21-50	(d) 51-100	(a) Fig. No.	(b) Item No.
		Section 4 – Repair Parts List for Direct Support Level  Part II  TYPE I – ASSEMBLIES  Group 80 – Storage Equipment Components  8000 – Refrigerator Warehouse	ea.							
X20		Floor, Racks, Large 53853 90023	ea.	*	*	*	*	*	D7	2
X20		Floor, Racks, Small 53853 90022	ea.	*	*	*	*	*	D7	1
X20		Panel, CL, Left 53853 90118 Ceiling	ea.	*	*	*	*	*	D1	2
X20		Panel, FL, Left 53853 90117 Floor	ea.	*	*	*	*	*	D1	2
PO		Camlock 53853 90021	ea.		SEE GRP 9901				D4	12
PO		Drain, Inside 53853 90131	ea.	*	*	*	*	*	D2	5
PO		Drain, Outside 53853 90130	ea.	*	*	*	*	*	D2	10
PO		Strainer, Inside Drain 53853 90132	ea.	*	*	*	*	*	D2	3
MO		Gasket, Panel Fab From							D4	6
MO		Rubber Sponge 74951 NX502B-1 50'8" required for each gasket	ft.		SEE GRP 9501					
PO		Screw, Camlock 87308 C003 Mtg.	ea.	*	*	*	*	*	D4	13
PO		Screw, Drain Mtg. 87308 C005 Mtg.	ea.	*	*	*	*	*	D2	9
PO		Screw, Strainer Mtg. 87308 C005	ea.	*	*	*	*	*	D2	4
X20		Panel, CR, 53853 90120 Right Ceiling	ea.	*	*	*	*	*	D1	
X20		Panel, FR, Right 53853 90119 Floor	ea.	*	*	*	*	*	D1	

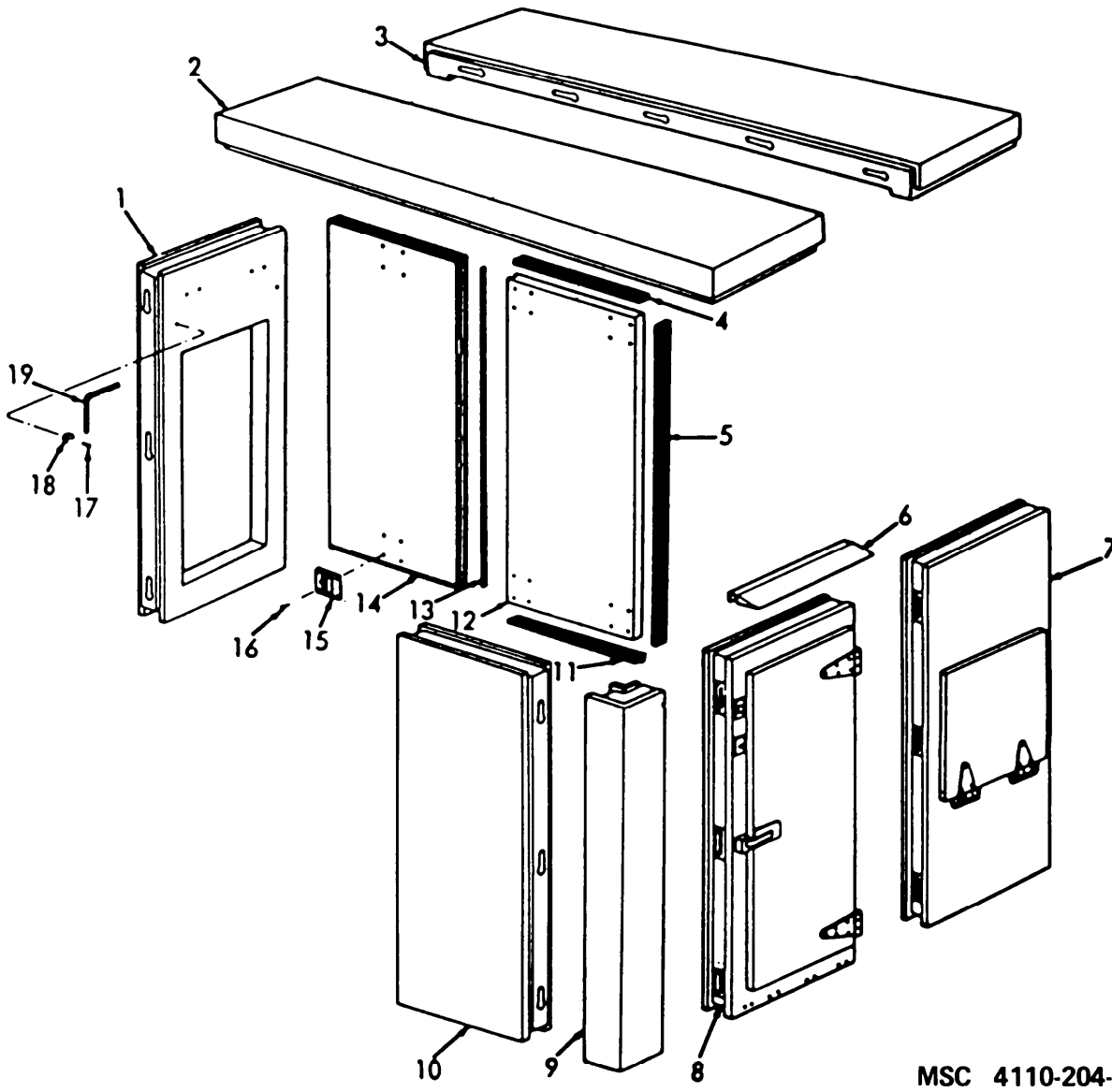
(1) SMR code	(2) Federal/National stock number	(3) Description  Usable- on code		(4) Unit of meas	(5) Qty inc in unit	(6) 15-Day Organizational Maintenance alw				(7) Illus- tration	
						(a) 1-5	(b) 6-20	(c) 21-50	(d) 51-100	(a) Fig. No.	(b) Item No.
X20		Panel, FC, Center Floor	53853 90122	ea.	*	*	*	*	*	D1	3
X20		Panel, CC, Center Ceiling	53853 90121	ea.	*	*	*	*	*	D1	3
PO		Camlock	53853 90021	ea.		SEE GRP 9901				D4	12
MO		Gasket, Panel Fab From									
MO		Rubber Sponge 40'8" required for each gasket	74951 NX502B-1	ft.		SEE GRP 9501					
PO		Screw, Camlock Mtg.	87308 C003	ea.	*	*	*	*	*	D4	13
X20		Panel H-1 Partition	53853 90133	ea.	*	*	*	*	*	D1	12
X20		Panel H-2 Partition	53853 90134	ea.	*	*	*	*	*	D1	14
PO		Bolt, Barrel	53853 4842	ea.	*	*	*	*	*	D1	15
PO		Gasket, Bottom	53853 5806	ft.	*	*	*	*	*	D1	11
MO		Gasket, Top	53853 5803	ft.	*	*	*	*	*	D1	4
MO		Gasket, Vertical	53853 5805	ft.	*	*	*	*	*	D1	5
PO		Screw, Barrel Bolt Mtg.	87308 C001	ea.	*	*	*	*	*	D1	16
X20		Panel H-3 Partition	53853 90135	ea.	*	*	*	*	*	D1	12
PO		Bolt, Barrel	53853 4842	ea.	*	*	*	*	*	D1	15
PO		Gasket, Bottom	53853 5806	ft.	*	*	*	*	*	D1	11
MO		Gasket, Top	53853 5803	ft.	*	*	*	*	*	D1	4
MO		Gasket, Vertical	53853 5805	ft.	*	*	*	*	*	D1	5
PO		Screw, Barrel Bolt Mtg.	87308 C001	ea.	*	*	*	*	*	D1	16
MO		Gasket, Vertical	53853 5804	ft.	*	*	*	*	*	D1	13
X20		Panel A, Corner	53853 90113	ea.						D1	9
MO		Gasket, Panel Fab From								D4	6

(1) SMR code	(2) Federal/National stock number	(3) Description  Usable- on code		(4) Unit of meas	(5) Qty inc in unit	(6) 15-Day Organizational Maintenance alw				(7) Illus- tration	
						(a) 1-5	(b) 6-20	(c) 21-50	(d) 51-100	(a) Fig. No.	(b) Item No.
PO		Rubber Sponge	74951 NX502B-1	ft.		SEE GRP	9501				
		13' required for each gasket									
PO		Camlock	53853 90021	ea.						D4	12
X20		Panel B, Wall	53853 90114	ea.						D1	10
MO		Gasket, Panel Fab From								D4	6
MO		Rubber Sponge	74951 NX502B-1	ft.		SEE GRP	9501				
		13'2" required for each gasket									
PO		Camlock	53853 90021	ea.						D4	12
X20		Panel C, Door	53853 90106	ea.						D1	8
MO		Gasket, Panel Fab From								D4	6
MO		Rubber Sponge	74951 NX502B-1	ft.		SEE GRP	9501				
		13' required for each gasket									
PO		Camlock	53853 90021	ea.						D4	12
PO		Cover, Pilot Light	53853 25-1-SGS- MDSI	ea.						D4	24
PO		Receptacle, Power	74545 7486	ea.						D4	
PO		Plug, Power	74545 7484	ea.						D4	27
PO		Boot, Receptacle	74545 7440	ea.						D4	
PO		Switch	74545 1251	ea.						D4	16
PO		Vapor Proof Light	87518 VBB100PC	ea.						D4	4
X20		Door, Walk-in	53853 90105	ea.						D3	1
MO		Gasket, Door Fab From								D3	4
MO		Rubber Sponge	74951 PHD502N-1	ft.		SEE GRP	9501				
		18'4" required for each gasket									
PO		Latch Assembly	32761 K-56	ea.						D3	2
PO		Hinge	32761 1245	ea.						D3	7
X20		Canopy	53853 90024	ea.						D6	6

(1) SMR code	(2) Federal/National stock number	(3) Description  Usable- on code		(4) Unit of meas	(5) Qty inc in unit	(6) 15-Day Organizational Maintenance alw				(7) Illus- tration	
						(a)	(b)	(c)	(d)	(a)	(b)
						1-5	6-20	21-50	51-100	Fig. No.	Item No.
X20		Panel D, Evaporator	53853 90115	ea.						D1	1
MO		Gasket, Panel Fab From								D4	6
MO		Rubber Sponge	74951 NX502B-1	ft.		SEE	GRP	9501			
		13' required for each gasket									
PO		Camlock	53853 90021	ea.		SEE	GRP	9901		D4	12
PO		Clip, Wrench	75915 105002	ea.						D1	18
PO		Wrench, Hexagon	32761 1145	ea.						D1	19
		Group 95 – General Use Standardized Parts		ea.							
		9501 – Bulk Material		ea.							
PO		Rubber Sponge	74951 NX502B-1	ft.	*	*	*	*	*		
		Group 99 – Parts Peculiar		ea.							
		9901 – Parts Peculiar with more than one application		ea.							
PO		Camlock	53853 90021	ea.	*	*	*	*	*		

(1) SMR code	(2) Federal/National stock number	(3) Description  Usable- on code	(4) Unit of meas	(5) Qty inc in unit	(6) 15-Day Organizational Maintenance alw				(7) Illus- tration	
					(a) 1-5	(b) 6-20	(c) 21-50	(d) 51-100	(a) Fig. No.	(b) Item No.
		Section 4 – Repair Parts List for Direct Support Level  Part III  TYPE II – ASSEMBLIES  Group 80 – Storage Equipment	ea.							
		8000 – Refrigerator Warehouse	ea.							
X20		Floor Rack, Large 53853 90023	ea.	*	*	*	*	*	D7	2
X20		Floor Rack, Small 53853 90022	ea.	*	*	*	*	*	D7	1
X20		Floor Panel, FL 53853 90117	ea.	*	*	*	*	*	D1	2
MO		Gasket, Panel Fab From								
MO		Rubber Sponge 74951 NX502B-1 50'8" required for each gasket	ft.		SEE GRP	9501				
PO		Camlock 53853 90021	ea.		SEE GRP	9901				
PO		Drain, Inside 53853 90131	ea.	*	*	*	*	*		
PO		Drain, Outside 53853 90130	ea.	*	*	*	*	*		
PO		Drain, Strainer 53853 90132	ea.	*	*	*	*	*		
X20		Floor Panel, FR 53853 90119	ea.	*	*	*	*	*	D1	2
X20		Floor Panel, FC 53853 90122	ea.	*	*	*	*	*	D1	3
MO		Gasket, Panel Fab From								
MO		Rubber Sponge 74951 NX502B-1 50'8" required for each gasket	ft.		SEE GRP	9501				
PO		Camlock 53853 90021	ea.		SEE GRP	9901				
		Group 95 – General Use Standardized Parts	ea.							
		9501 – Bulk Material	ea.							

(1) SMR code	(2) Federal/National stock number	(3) Description  Ref number & mfr code		(4) Unit of meas	(5) Qty inc in unit	(6) 15-Day Organizational Maintenance alw				(7) Illus- tration	
						(a) 1-5	(b) 6-20	(c) 21-50	(d) 51-100	(a) Fig. No.	(b) Item No.
						PO		Rubber Sponge 74951 NX502B-1	ft.	*	*
		Group 99 – Parts Peculiar	ea.								
		9901 – Parts Peculiar with more than one application	ea.								
PO		Camlock 53853 90021	ea.	*	*	*	*	*			



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Figure 1. Compartment Panels

INDEX TO PARTS, FIGURE 1

REF NO.	FUNCT GROUP	ITEM NAME	REF NO.	FUNCT GROUP	ITEM NAME	REF NO.	FUNCT GROUP	ITEM NAME
1	8000	PANEL D	8	8000	PANEL C	14	8000	PANEL H-3
2	8000	PANEL FL, CL, FR, CR	9	8000	PANEL A	15	8000	BOLT
3	8000	PANEL FC, CC	10	8000	PANEL B	16	8000	SCREW
4	8000	GASKET	11	8000	GASKET	17	8000	SCREW
5	8000	GASKET	12	8000	PANEL H-1	18	8000	CLIP
6	8000	CANOPY	13	8000	GASKET	19	8000	ALLEN WRENCH
7	8000	PANELG						



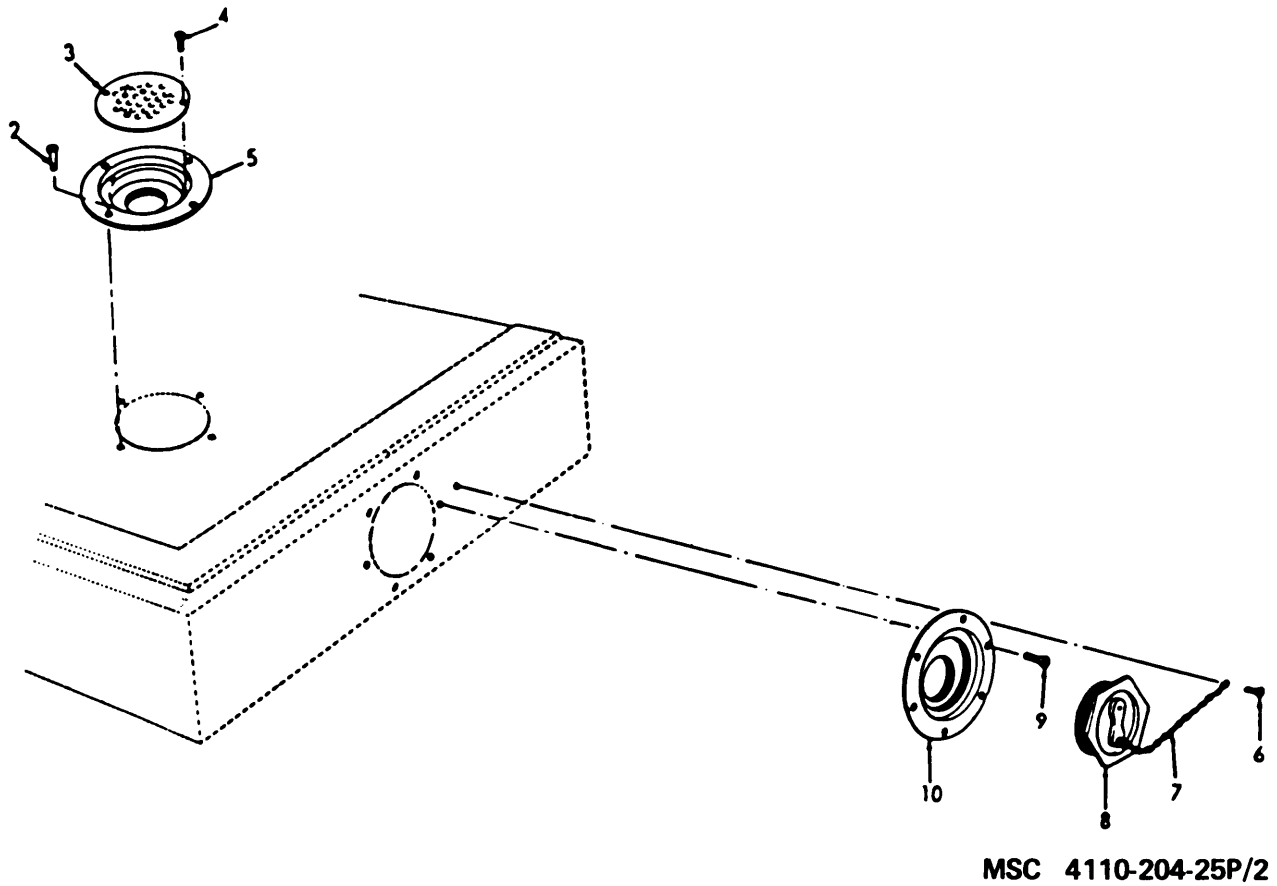
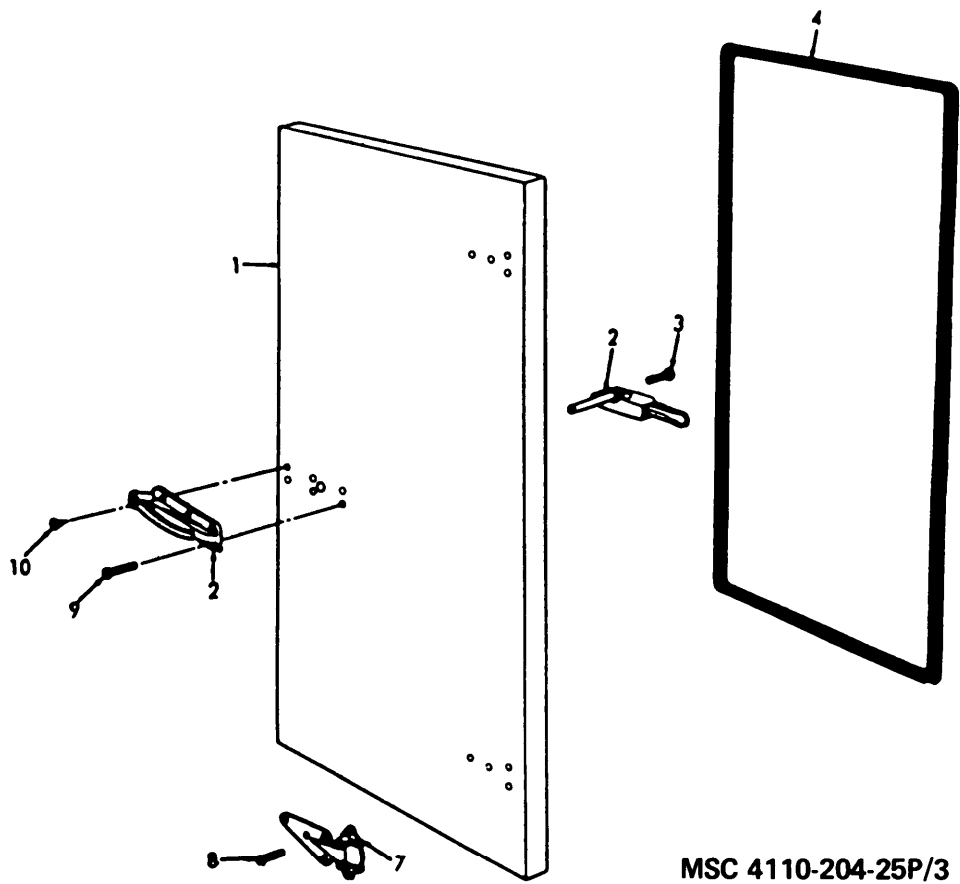


Figure 2. Floor Drain Components

INDEX TO PARTS, FIGURE 2

REF NO.	FUNCT GROUP	ITEM NAME	REF NO.	FUNCT GROUP	ITEM NAME
2	8000	SCREW	7	8000	CHAIN
3	8000	STRAINER	8	8000	PLUG
4	8000	SCREW	9	8000	SCREW
5	8000	DRAIN	10	9000	DRAIN
6	8000	SCREW	11	8000	GASKET

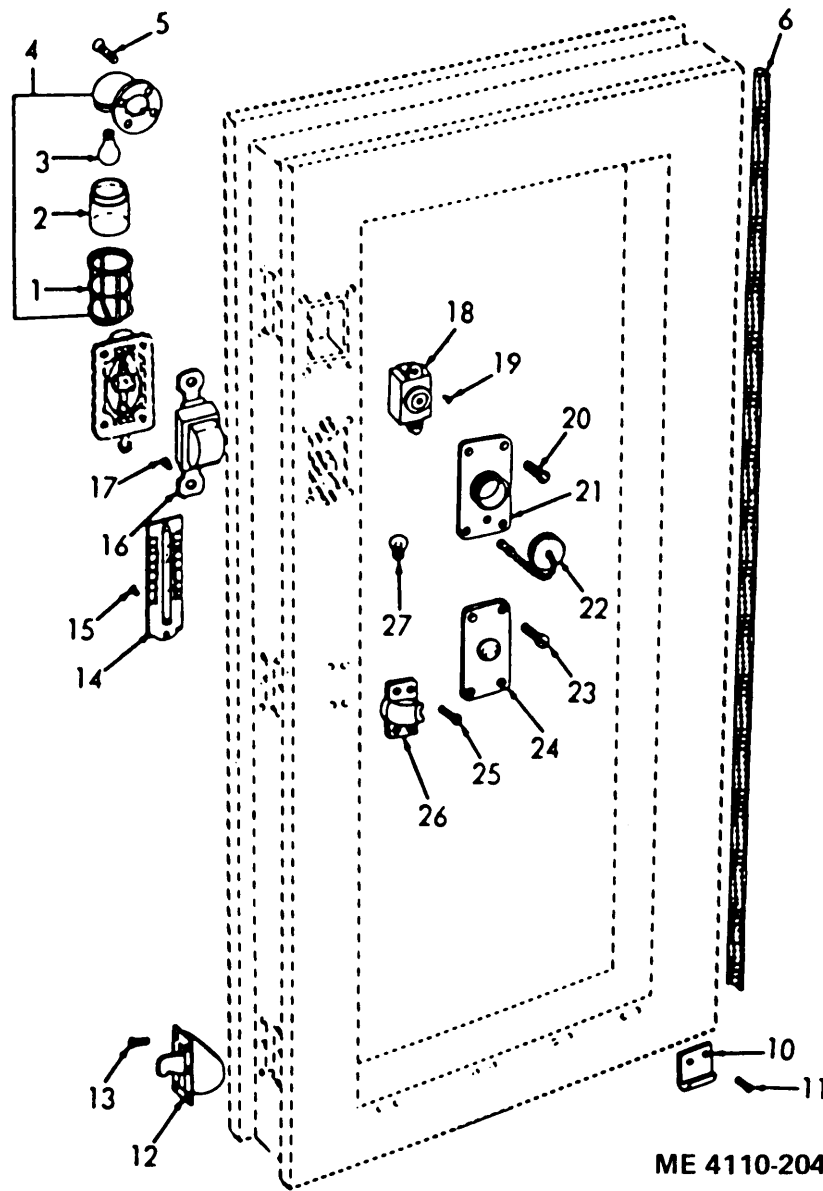


MSC 4110-204-25P/3

Figure 3. Walk-in Door, Latch, and Hinge

INDEX TO PARTS, FIGURE 3

REF NO.	FUNCT GROUP	ITEM NAME	REF NO.	FUNCT GROUP	ITEM NAME
1	8000	DOOR	7	8000	HINGE
2	8000	LATCH AY	8	8000	SCREW
3	8000	SCREW	9	8000	SCREW
4	8000	GASKET	10	8000	SCREW



ME 4110-204-13/4 C2

Figure 4. Panel C Components

INDEX TO PARTS, FIGURE 4

REF NO.	FUNCT GROUP	ITEM NAME	REF NO.	FUNCT GROUP	ITEM NAME	REF NO.	FUNCT GROUP	ITEM NAME
1	8000	G U A R D	10	8000	SUPPORT	19	8000	SCREW
2	8000	GLOBE	11	8000	SCREW	20	8000	SCREW
3	8000	LAMP	12	8000	CLAMP AY	21	8000	COVER
4	8000	LIGHT AY	13	8000	SCREW	22	8000	CAP
5	8000	SCREW	14	8000	THERMOMETER	23	8000	SCREW
6	8000	GASKET	15	8000	SCREW	24	8000	COVER
			16	8000	SWITCH	25	8000	SCREW
			17	8000	SCREW	26	8000	STRIKE
			18	8000	RECEPTACLE	27	8000	LIGHT

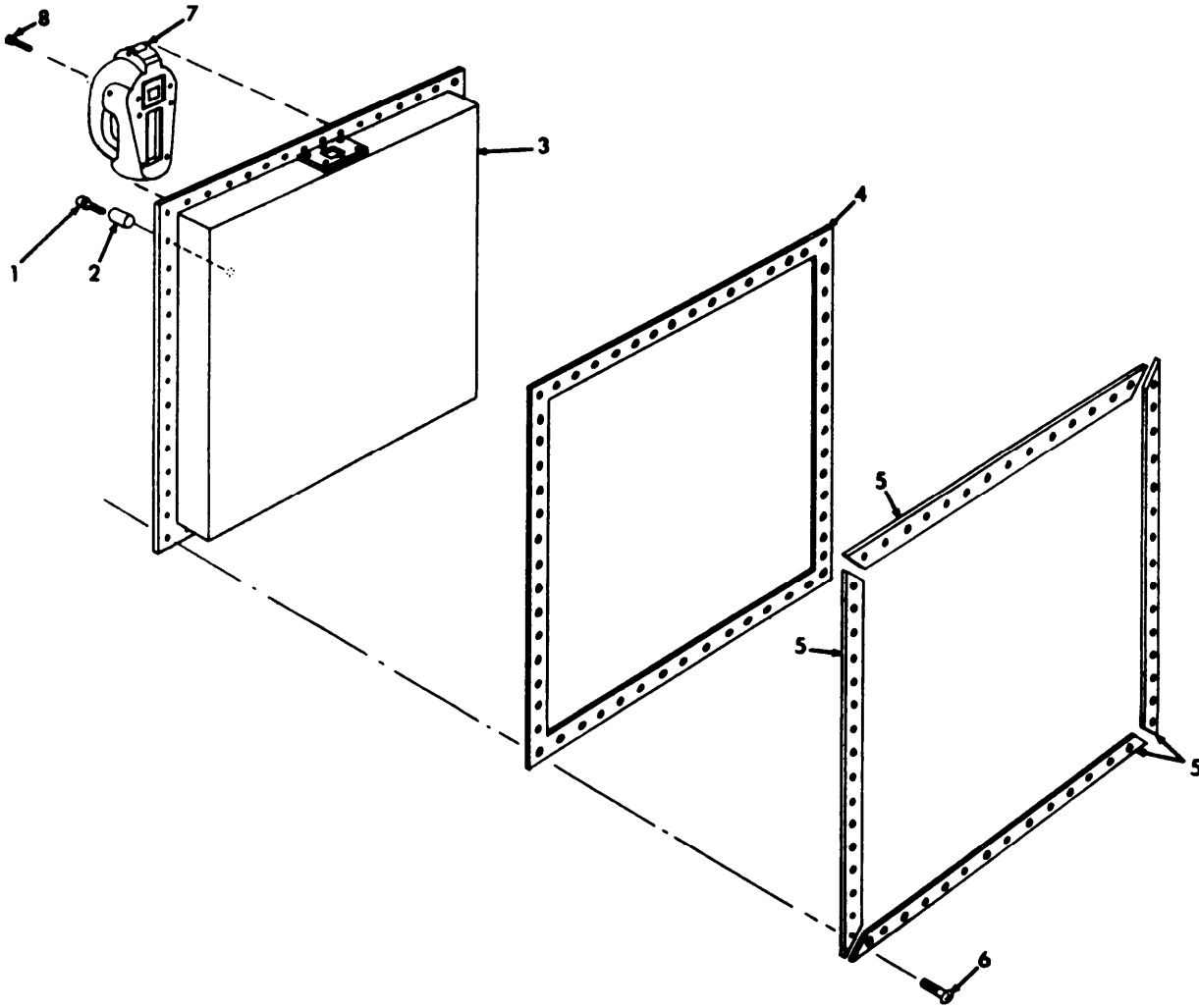
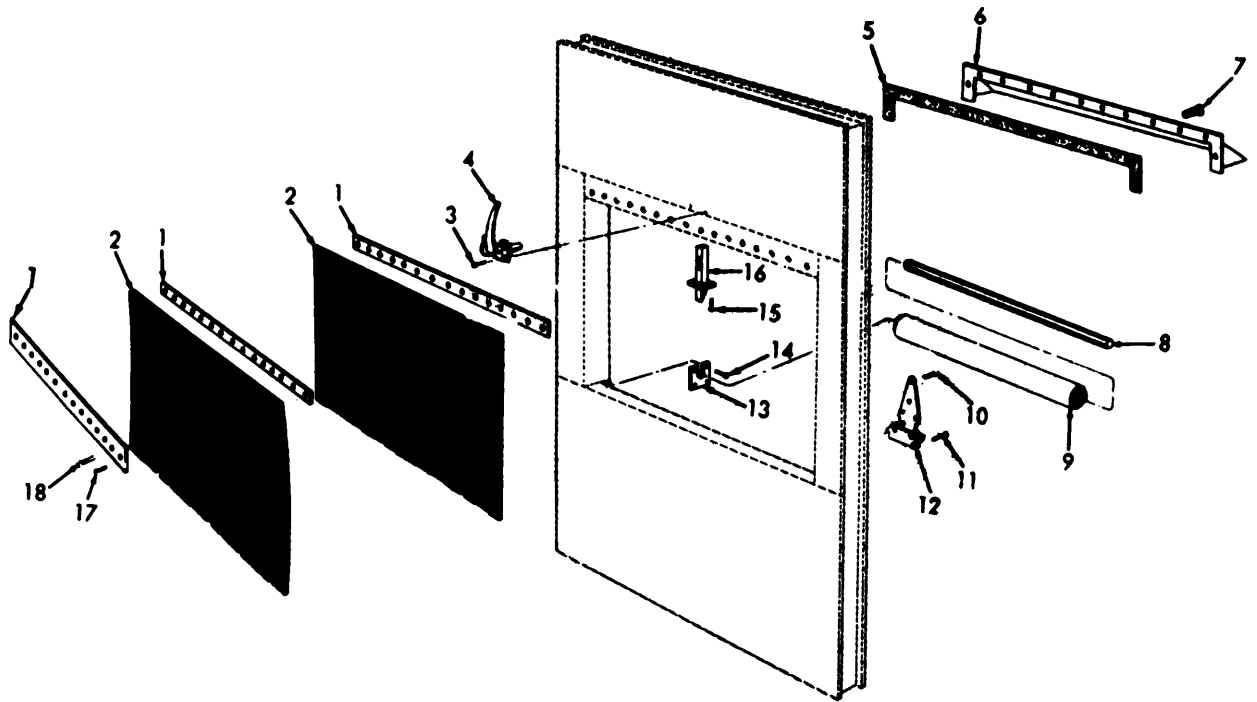


Figure 5. Conveyor Door.

INDEX TO PARTS FIGURE 5

REF NO.	ITEM NAME	
1	SCREW	
2	BUMPER	
3	DOOR	
4	GAS KET	
5	RETAINER	
6	SCREW	
7	LATCH	(1800J)
8	SCREW	(1800J)

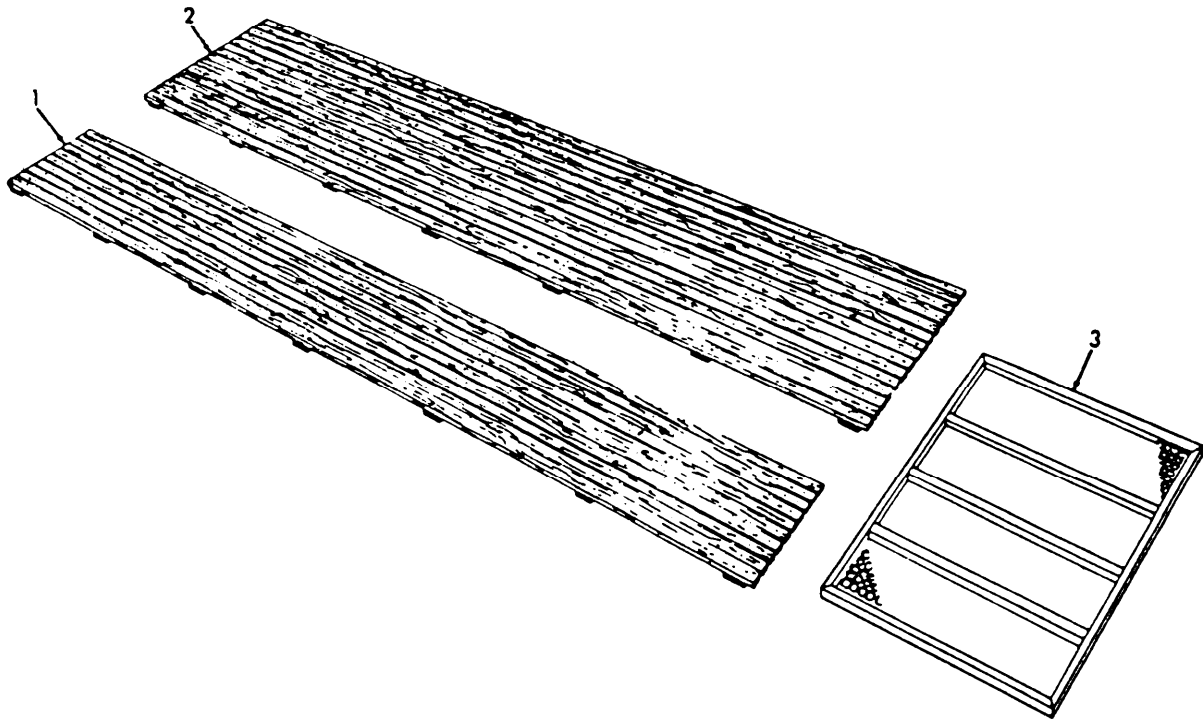
ME 4110-204-13/5 C2



MSC 4110-204-25P/6

Figure 6. Panel G.  
INDEX TO PARTS, FIGURE 6

REF. NO.	FUNCT. GROUP	ITEM NAME	REF. NO.	FUNCT. GROUP	ITEM NAME
1	8000	STRIP	10	8000	SCREW
2	8000	CURTAIN	11	8000	SCREW
3	8000	SCREW	12	8000	HINGE
4	8000	HANDLE	13	8000	BRACKET
5	8000	GASKET	14	8000	SCREW
6	8000	CANOPY	15	8000	SCREW
7	8000	SCREW	16	8000	LATCH
8	8000	BAR	17	8000	SCREW
9	8000	ROLLER AY	18	8000	SCREW



MSC 4110-204-25P/7

Figure 7. Floor Racks and Ramp.

INDEX TO PARTS, FIGURE 7

REF NO.	FUNCT GROUP	ITEM NAME
1	8000	FLOOR RACK
2	8000	FLOOR RACK
3	8000	RAMP

## INDEX

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Controls and instruments _____	2-9	2-6
General _____	2-8	2-6
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Conveyor door curtain _____	3-26	3-8
Conveyor door canopy _____	3-27	3-8
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Conveyor door roller _____	3-25	3-8
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Description and data:		
Description _____	1-3, 4-3	1-1, 4-1
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Identification and tabulated data _____	1-4	1-5
Differences in models _____	1-6	1-9
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Drain strainer _____	3-32	3-10
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Pilot light _____	3-17	3-6
Plug receptacle _____	3-18	3-6
Refrigerator light assembly _____	3-16	3-6
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Controls and instruments _____	2-8	2-6
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Operators maintenance _____	3-8	3-1
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Installation of separately packed components _____	2-5	2-1
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operation under usual conditions -----	2-11	2-6
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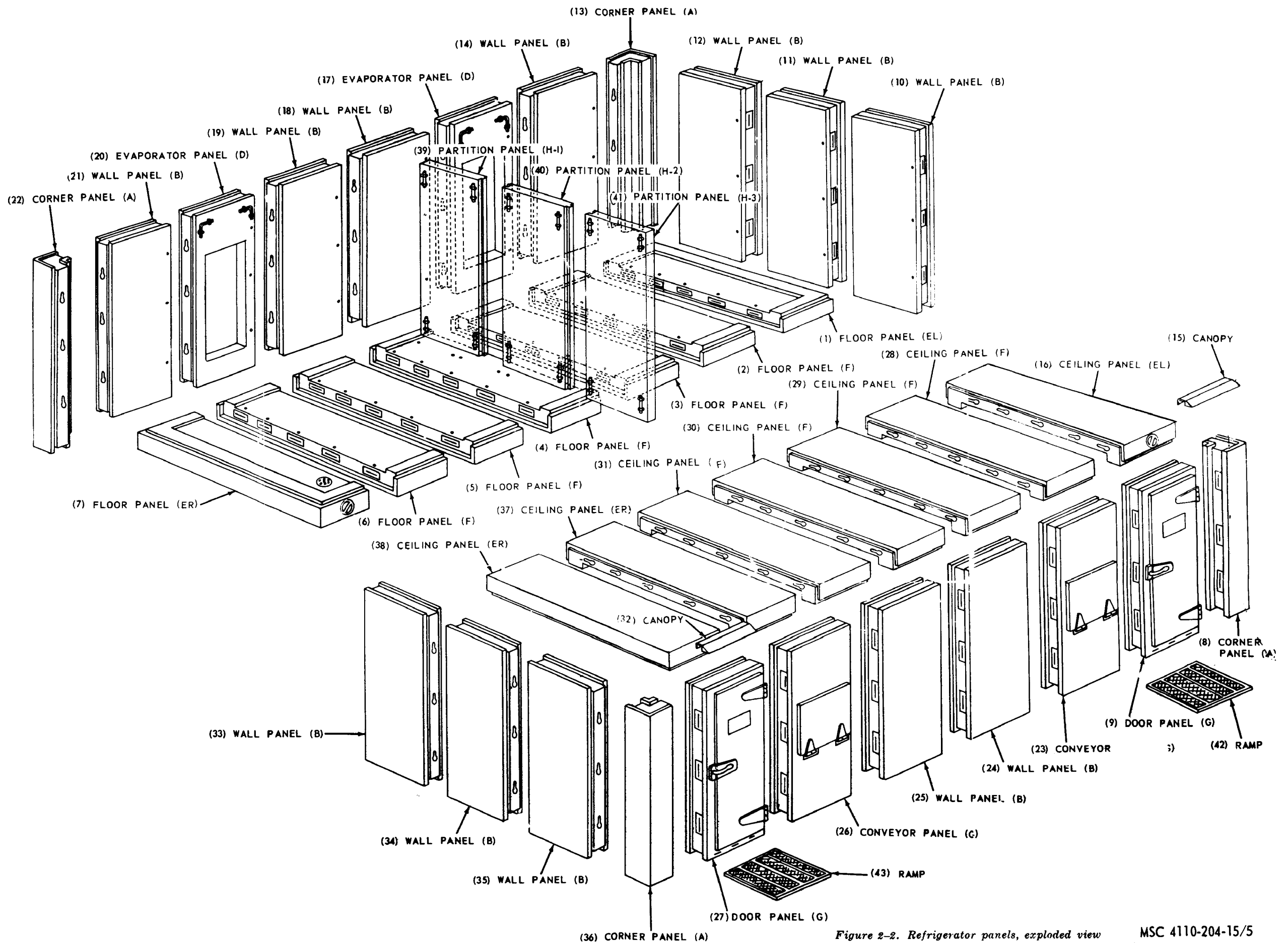
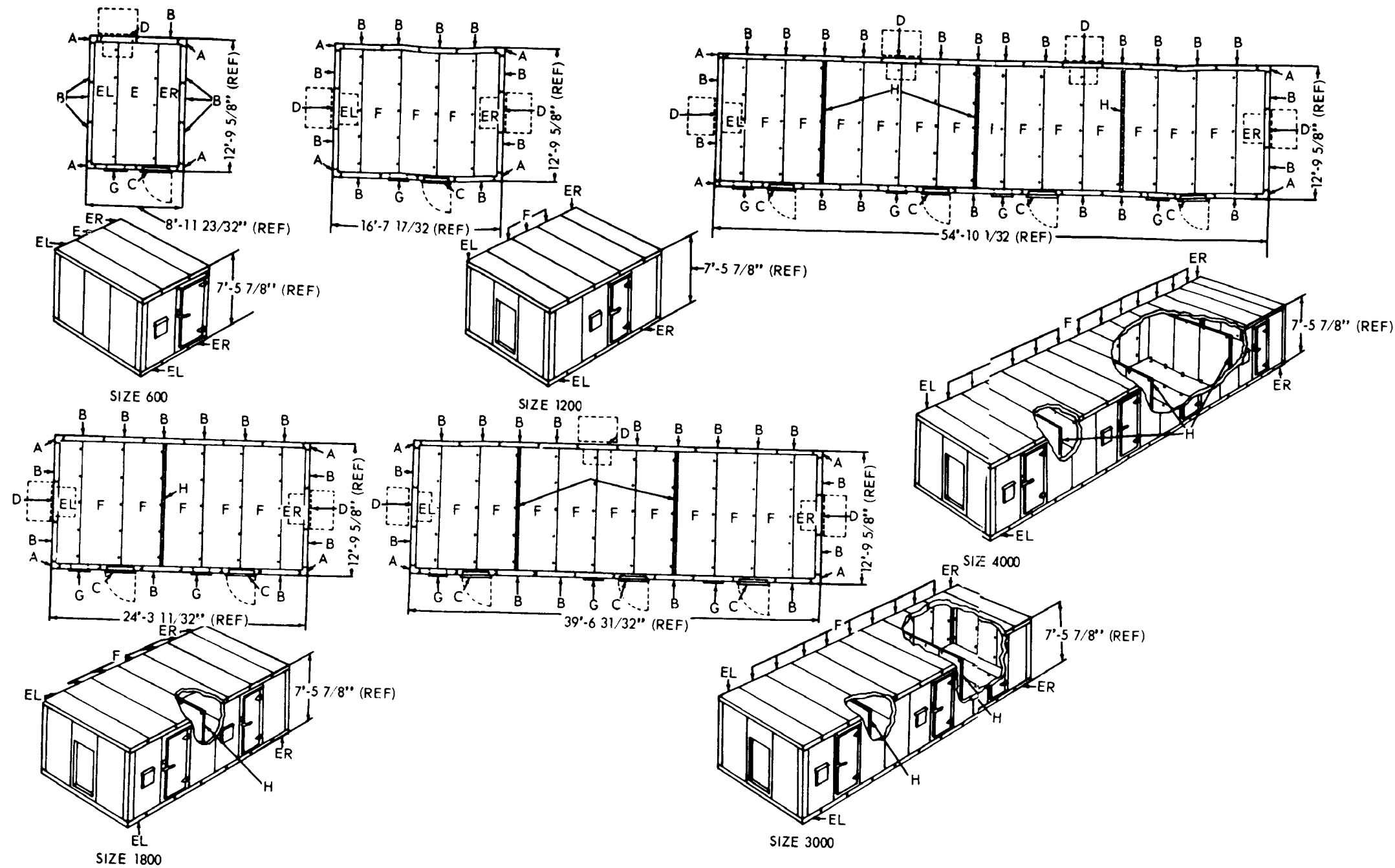


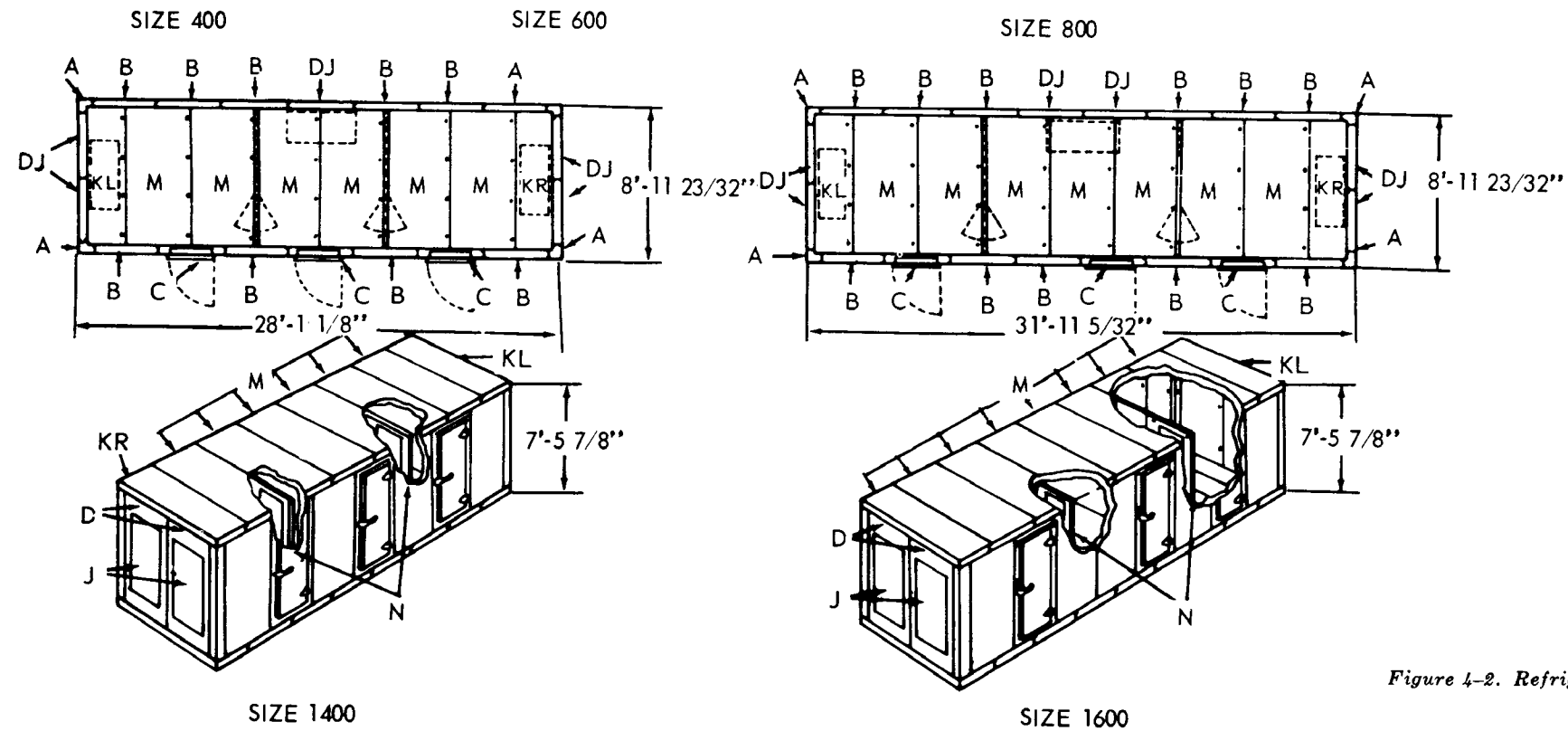
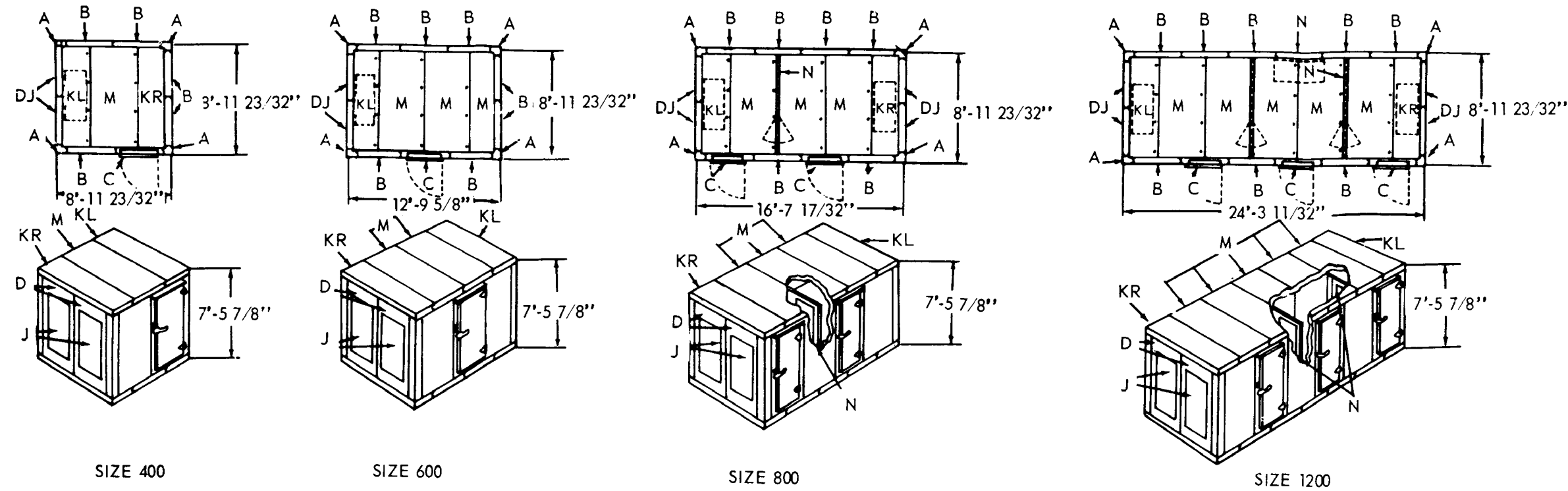
Figure 2-2. Refrigerator panels, exploded view



PANEL SCHEDULE, TYPE I																	
IDENTIFYING SIZE	ACTUAL CU. FT.	PANEL FASTENERS NO. REQ'D	PANEL DESIGNATION AND NO. REQUIRED											FLOOR RACK			
			A	B	C	D	EL	ER	F	G*	H-1	H-2	H-3	J	TOTAL	LG	SM
600	625	102	4	8	1	1	2	2	2	1	0	0	0	1	20	2	4
1200	1220	150	4	11	1	1	2	2	6	1	0	0	0	2	28	6	4
1800	1815	195	4	14	2	2	2	2	10	2	1	1	1	2	39	10	4
4000	4194	390	4	22	4	4	2	2	26	4	3	3	3	4	77	26	4

PANEL DESIG.	NOMENCLATURE	DRG. NO.
A	CORNER PANEL	5-13-2653
B	STD. WALL PANEL	5-13-2654
C	WALK-IN DOOR PANEL	5-13-2655
	WALK-IN DOOR	5-13-2656
D	EVAPORATOR PANEL	5-13-2658
J	EVAPORATOR PANEL PLUG	5-13-1144
EL	FLOOR OR CEILING PANEL	5-13-2658
ER	FLOOR OR CEILING PANEL	5-13-2659
F	FLOOR OR CEILING PANEL, CENTER	5-13-2660
G	CONVEYOR DOOR PANEL	5-13-2670
H	PARTITION PANEL	5-13-2661

Figure 4-1. Refrigerator, panel type, prefabricated, Type I, Class I, assemblies



PANEL SCHEDULE, TYPE II														
IDENTIFYING SIZE	ACTUAL CU. FT.	PANEL FASTENERS NO. REQ'D	PANEL DESIGNATION AND NO. REQUIRED											
			J	A	B	C*	D	KL	KR	M	G*	TOTAL	H-1	H-3
400	405	84	2	4	5	1	2	2	2	2	1	21	0	0
600	605	106	2	4	7	1	2	2	2	4	1	25	0	0
800	795	128	4	4	7	1	4	2	2	6	1	31	1	1
1200	1175	172	5	4	8	3	5	2	2	10	2	41	2	2
1400	1375	194	5	4	10	3	5	2	2	12	3	47	2	2
1600	1565	216*	6	4	11	3	6	2	2	14	3	51	2	2

\* WHEN DESIRED "G" OR "C" PANELS MAY BE OMITTED WITH "B" PANELS SUBSTITUTED

PANEL DESIG.	NOMENCLATURE	DRG. NO.
A	CORNER PANEL	5-13-1139
B	STD. WALL PANEL	5-13-1140
C	WALK-IN DOOR PANEL	5-13-1141
	WALK-IN DOOR	5-13-1142
'D' W/ 'J'	UNIT COOLER PANEL	5-13-1877
KL	FLOOR OR CEILING PANEL	5-13-1333
KR	FLOOR OR CEILING PANEL	5-13-1394
M	FLOOR OR CEILING PANEL, CENTER	5-13-1335
N	PARTITION	5-13-1149

MEC 4110-204-13/4-2

Figure 4-2. Refrigerator, panel type, prefabricated, Type II, Class I, assemblies



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8. Pub no: 55-2840-229-23
9. Pub Title: TM
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14. Submitter MName: T
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18. Page: 2
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This is the text for the problem below line 27.



<b>RECOMMENDED CHANGES TO PUBLICATIONS AND BLANK FORMS</b> For use of this form, see AR 25-30; the proponent agency is ODISC4.						Use Part II (reverse) for Repair Parts and Special Tool Lists (RPSTL) and Supply Catalogs/Supply Manuals (SC/SM).	<b>DATE</b> 21 October 2003
<b>TO:</b> (Forward to proponent of publication or form) (Include ZIP Code) COMMANDER U.S. ARMY TANK-AUTOMOTIVE AND ARMAMENT COMMAND ATTN: AMSTA-LC-CECT 15 KANSAS STREET NATICK, MA 01760-5052						<b>FROM:</b> (Activity and location) (Include ZIP Code)  <i>PFC Jane Doe</i> <i>CO A 3<sup>rd</sup> Engineer BR</i> <i>Ft. Leonardwood, MO 63108</i>	
<b>PART I – ALL PUBLICATIONS (EXCEPT RPSTL AND SC/SM) AND BLANK FORMS</b>							
<b>PUBLICATION/FORM NUMBER</b> TM 10-1670-296-23&P				<b>DATE</b> 30 October 2002	<b>TITLE</b> Unit Manual for Ancillary Equipment for Low Velocity Air Drop Systems		
<b>ITEM NO.</b>	<b>PAGE NO.</b>	<b>PARA-GRAPH</b>	<b>LINE NO. *</b>	<b>FIGURE NO.</b>	<b>TABLE NO.</b>	<b>RECOMMENDED CHANGES AND REASON</b> (Provide exact wording of recommended changes, if possible).	
	0036 00-2				1	<p><i>In table 1, Sewing Machine Code Symbols, the second sewing machine code symbol should be MD ZZ not MD 22.</i></p> <p><i>Change the manual to show Sewing Machine, Industrial: Zig-Zag; 308 stitch; medium-duty; NSN 3530-01-181-1421 as a MD ZZ code symbol.</i></p>	
<small>*Reference to line numbers within the paragraph or subparagraph.</small>							
<b>TYPED NAME, GRADE OR TITLE</b>  Jane Doe, PFC				<b>TELEPHONE EXCHANGE/AUTOVON, PLUS EXTENSION</b>  508-233-4141		<b>SIGNATURE</b>  Jane Doe <i>Jane Doe</i>	

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**PART II – REPAIR PARTS AND SPECIAL TOOL LISTS AND SUPPLY CATALOGS/SUPPLY MANUALS**

<b>PUBLICATION NUMBER</b> TM 10-1670-296-23&P	<b>DATE</b> 30 October 2002	<b>TITLE</b> Unit Manual for Ancillary Equipment for Low Velocity Air Drop Systems
--	--------------------------------	---

PAGE NO.	COLM NO.	LINE NO.	NATIONAL STOCK NUMBER	REFERENCE NO.	FIGURE NO.	ITEM NO.	TOTAL NO. OF MAJOR ITEMS SUPPORTED	RECOMMENDED ACTION
0066 00-1					4			<i>Callout 16 in figure 4 is pointed to a <u>D-Ring</u>. In the Repair Parts List key for figure 4, item 16 is called a <u>Snap Hook</u>. Please correct one or the other.</i>

**PART III – REMARKS**

*(Any general remarks or recommendations, or suggestions for improvement of publications and blank forms. Additional blank sheets may be used if more space is needed.)*

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<b>PART I – ALL PUBLICATIONS (EXCEPT RPSTL AND SC/SM) AND BLANK FORMS</b>							
PUBLICATION/FORM NUMBER TM 5-4110-204-13				DATE 14 Dec 1966		TITLE Operator's, Organizational, and Direct Support Maintenance Manual (including Repair Parts and Special Tools List) for Refrigerator, Prefabricated; Panel Type w/o Refrigerating Equipment	
ITEM NO.	PAGE NO.	PARA-GRAPH	LINE NO. *	FIGURE NO.	TABLE NO.	<b>RECOMMENDED CHANGES AND REASON</b> <i>(Provide exact wording of recommended changes, if possible).</i>	
<i>*Reference to line numbers within the paragraph or subparagraph.</i>							
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**PART II – REPAIR PARTS AND SPECIAL TOOL LISTS AND SUPPLY CATALOGS/SUPPLY MANUALS**

PUBLICATION NUMBER TM 5-4110-204-13	DATE 14 Dec 1966	TITLE Operator's, Organizational, and Direct Support Maintenance Manual (including Repair Parts and Special Tools List) for Refrigerator, Prefabricated; Panel Type w/o Refrigerating Equipment
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PAGE NO.	COLM NO.	LINE NO.	NATIONAL STOCK NUMBER	REFERENCE NO.	FIGURE NO.	ITEM NO.	TOTAL NO. OF MAJOR ITEMS SUPPORTED	RECOMMENDED ACTION

**PART III – REMARKS** *(Any general remarks or recommendations, or suggestions for improvement of publications and blank forms. Additional blank sheets may be used if more space is needed.)*

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ITEM NO.	PAGE NO.	PARA-GRAPH	LINE NO. *	FIGURE NO.	TABLE NO.	RECOMMENDED CHANGES AND REASON <i>(Provide exact wording of recommended changes, if possible).</i>	
<i>*Reference to line numbers within the paragraph or subparagraph.</i>							
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**PART II - REPAIR PARTS AND SPECIAL TOOL LISTS AND SUPPLY CATALOGS/SUPPLY MANUALS**

PUBLICATION NUMBER TM 5-4110-204-13	DATE 14 Dec 1966	TITLE Operator's, Organizational, and Direct Support Maintenance Manual (including Repair Parts and Special Tools List) for Refrigerator, Prefabricated; Panel Type w/o Refrigerating Equipment
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PAGE NO.	COLM NO.	LINE NO.	NATIONAL STOCK NUMBER	REFERENCE NO.	FIGURE NO.	ITEM NO.	TOTAL NO. OF MAJOR ITEMS SUPPORTED	RECOMMENDED ACTION

**PART III - REMARKS** *(Any general remarks or recommendations, or suggestions for improvement of publications and blank forms. Additional blank sheets may be used if more space is needed.)*

TYPED NAME, GRADE OR TITLE	TELEPHONE EXCHANGE/AUTOVON, PLUS EXTENSION	SIGNATURE
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# THE METRIC SYSTEM AND EQUIVALENTS

## WEIGHT MEASURE

1 Centimeter = 10 Millimeters = 0.01 Meters = 0.3937 Inches  
 1 Meter = 100 Centimeters = 1000 Millimeters = 39.37 Inches  
 1 Kilometer = 1000 Meters = 0.621 Miles

## WEIGHTS

1 Gram = 0.001 Kilograms = 1000 Milligrams = 0.035 Ounces  
 1 Kilogram = 1000 Grams = 2.2 lb.  
 1 Metric Ton = 1000 Kilograms = 1 Megagram = 1.1 Short Tons

## LIQUID MEASURE

1 Milliliter = 0.001 Liters = 0.0338 Fluid Ounces  
 1 Liter = 1000 Milliliters = 33.82 Fluid Ounces

## SQUARE MEASURE

1 Sq. Centimeter = 100 Sq. Millimeters = 0.155 Sq. Inches  
 1 Sq. Meter = 10,000 Sq. Centimeters = 10.76 Sq. Feet  
 1 Sq. Kilometer = 1,000,000 Sq. Meters = 0.386 Sq. Miles

## CUBIC MEASURE

1 Cu. Centimeter = 1000 Cu. Millimeters = 0.06 Cu. Inches  
 1 Cu. Meter = 1,000,000 Cu. Centimeters = 35.31 Cu. Feet

## TEMPERATURE

$5/9(^{\circ}\text{F} - 32) = ^{\circ}\text{C}$   
 212° Fahrenheit is equivalent to 100° Celsius  
 90° Fahrenheit is equivalent to 32.2° Celsius  
 32° Fahrenheit is equivalent to 0° Celsius  
 $9/5^{\circ}\text{C} + 32 = ^{\circ}\text{F}$

## APPROXIMATE CONVERSION FACTORS

TO CHANGE	TO	MULTIPLY BY
Inches	Centimeters	2.540
Feet	Meters	0.305
Yards	Meters	0.914
Miles	Kilometers	1.609
Square Inches	Square Centimeters	6.451
Square Feet	Square Meters	0.093
Square Yards	Square Meters	0.836
Square Miles	Square Kilometers	2.590
Acres	Square Hectometers	0.405
Cubic Feet	Cubic Meters	0.028
Cubic Yards	Cubic Meters	0.765
Fluid Ounces	Milliliters	29.573
its	Liters	0.473
arts	Liters	0.946
allons	Liters	3.785
Ounces	Grams	28.349
Pounds	Kilograms	0.454
Short Tons	Metric Tons	0.907
Pound-Feet	Newton-Meters	1.356
Pounds per Square Inch	Kilopascals	6.895
Miles per Gallon	Kilometers per Liter	0.425
Miles per Hour	Kilometers per Hour	1.609

TO CHANGE	TO	MULTIPLY BY
Centimeters	Inches	0.394
Meters	Feet	3.280
Meters	Yards	1.094
Kilometers	Miles	0.621
Square Centimeters	Square Inches	0.155
Square Meters	Square Feet	10.764
Square Meters	Square Yards	1.196
Square Kilometers	Square Miles	0.386
Square Hectometers	Acres	2.471
Cubic Meters	Cubic Feet	35.315
Cubic Meters	Cubic Yards	1.308
Milliliters	Fluid Ounces	0.034
Liters	Pints	2.113
Liters	Quarts	1.057
ers	Gallons	0.264
ms	Ounces	0.035
ograms	Pounds	2.205
Metric Tons	Short Tons	1.102
Newton-Meters	Pounds-Feet	0.738
Kilopascals	Pounds per Square Inch	0.145
ometers per Liter	Miles per Gallon	2.354
ometers per Hour	Miles per Hour	0.621



**PIN: 025378 – 0000**