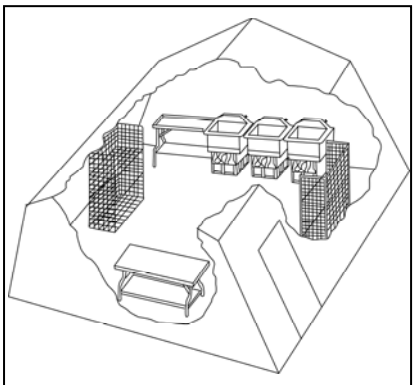
TM 10-7360-211-13&P

TECHNICAL MANUAL

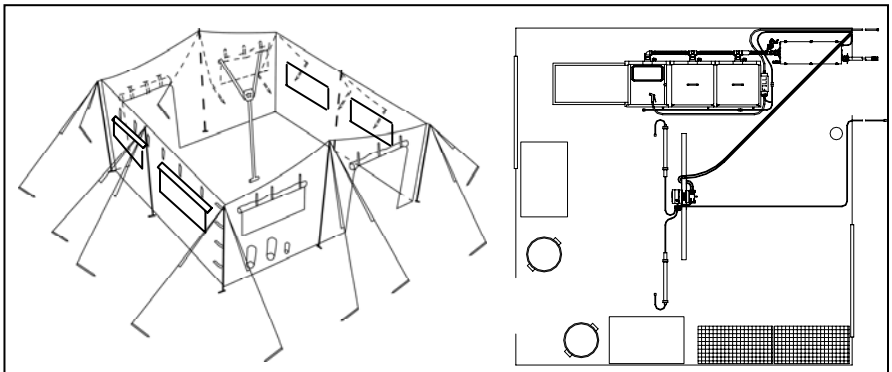
OPERATOR'S, UNIT, AND DIRECT SUPPORT MAINTENANCE MANUAL INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST

FOR

FOOD SANITATION CENTER (FSC) MODEL FSC-90 NSN 7360-01-277-2558 MODEL FSC-2 NSN 7360-01-496-2112



FSC-90



FSC-2

This manual supersedes TM 10-7360-211-13&P dated 30 May 1991 and all changes.

DISTRIBUTION STATEMENT A - Approved for public release; distribution is unlimited.

HEADQUARTERS, DEPARTMENT OF THE ARMY
3 AUGUST 2006

WARNING SUMMARY

This warning summary contains general safety warnings and hazardous materials warnings that must be understood and applied during operation and maintenance of this equipment. Failure to observe these warnings could result in serious injury or death to personnel. Refer to FM 4-25.11 for all First Aid concerns.

WARNING

A single 5-pound dry chemical (Type A, B, C) fire extinguisher is supplied with the FSC. Ensure the fire extinguisher is located in the tent just inside the door and is visible and readily accessible in case of a fire. Do not allow the fire extinguisher to be obstructed by utensils, racks, or other operating equipment. If fire occurs, send for help immediately, shut down power to the FSC, and if possible try to fight the fire from outside the tent. Failure to observe safety precautions may result in serious injury or death to personnel.

WARNING

Electrical high voltage and current cannot be seen, but in contact with energized equipment can kill you, render you unconscious, or severely burn you. Electricity is unlike most other dangerous things you can come in contact with because it gives no warning. To ensure your safety and that of other maintenance personnel, always observe the following precautions:

Electrical power must be disconnected before any electrical system work is performed to prevent electrical shock injury or death (electrocution). Only trained and qualified personnel (MOS 51R, 52C, 52D, or 52G) may perform maintenance or attempt to correct electrical discrepancies on the electrical system.

The FSC power source must be electrically grounded. Failure to establish electrical ground may result in equipment damage, serious injury or death from electrical malfunction.

Do not stand in water while handling live power cords or electrical shock may result.

Position all power cables so that they are out of the way during operation and are not lying in water. Prior to installation, assure power cables outer jackets are not cut or damaged and there are no exposed wires.

Do not perform any maintenance on electrical equipment unless all power is removed. Be certain that there is someone assisting you who can remove power immediately.

Always place power off warning tags on circuit breakers or power supply switches so that no one will apply power while you are performing maintenance.

WARNING

Fuels are toxic and flammable. Do not refuel near open flame or other ignition sources. Only refuel in a well-ventilated area. Wear protective goggles, avoiding contact with skin and clothes, and don't breathe vapors. If contact with eyes or skin is made, immediately flush with clean water and get medical aid for eyes. If contact with clothing is made, immediately remove contaminated clothing and clean skin with mild soap or cleanser and flush with clean water.

Always store fuel can in well-ventilated area as far away from open flames and other potential ignition sources as possible. Leaking or spilled fuels will create a fire danger-injuries/death and environmental damage. Fuel spills must be cleaned up in accordance with local requirements.

Failure to observe fuel requirements could cause damage to the heater assembly, fire danger-potential explosion, and injury or death to personnel within or around the FSC.

WARNING

Excessive weight hazard. The sink assembly weighs approximately 60 lb (27.28 kg) without accessories. Handlers should be trained on proper lifting techniques. Suitable material handling equipment or two persons must use handle (or designated hand grasp points) to lift or carry the unit, lifting with their legs not their back, to prevent injury. Failure to do so may result in serious back or other muscular skeletal injuries.

WARNING

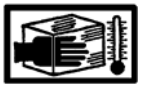
Improper sink assembly. The sink assembly must be positioned on the burner rack so that the rack does not block the sink flue. Improper placement of the sink will block the flue and cause the heat guard and sink assembly to become extremely hot. Keep body parts away from hot surfaces. Contact with bare skin will cause severe burn injuries.

WARNING

Improper placement of sink assemblies. Make sure you leave approximately 2 feet between the tent wall and the sink assemblies. Frequently check for heating of the tent wall while the burner units are in use. Move the sink assemblies with the burner units further away from the tent wall if necessary to prevent possible ignition of the tent. Failure to observe this warning may result in fire.

WARNING

Burn hazard and equipment damage. Do not start an MBU unit under a sink that is not filled with water. Failure to observe this warning may cause the sink assembly to become extremely hot. Inadvertent body contact with bare skin will cause severe burn injuries. Overheating the sink may also result in damage to the sink assembly.



WARNING

Very Cold Metal Parts. Do not touch extremely cold metal parts with bare or wet hands. Wear gloves. Flesh may adhere to extremely cold metal parts or frostbite can cause permanent injury to personnel.

WARNING

Carbon Monoxide Gas. Carbon monoxide (CO) is a gas without color, smell, or taste that can kill you. Breathing carbon monoxide gas produces symptoms such as headache, dizziness, loss of muscular control, a sleepy feeling, unconsciousness, or can induce a coma. Brain damage or death can result from exposure. Dangerous levels of carbon monoxide will occur from operating the MBUs in an enclosed FSC tent. Operators must be aware of and observe for symptoms of carbon monoxide poisoning such as headache, distress, dizziness, nausea and weakness. If artificial respiration is necessary, refer to FM 4-25.11.

- Maintain open roof vents, windows, and doors in the tent to provide cross ventilation and prevent the accumulation of carbon monoxide gas. Provide fresh air intake for the soldiers and the burners by ensuring that all doors, windows, and screened roof openings are kept fully open. Keep all openings and roof vents free of blockage.
- Do not use the FSC-2 system in a tent (or alternate enclosure) that does not meet the MGPTS cross ventilation design capabilities.
- Be alert at all times during FSC operation for symptoms of exposure to CO. If any personnel show symptoms, immediately remove them from the FSC and obtain immediate medical attention and treatment.

Failure to observe this warning may result in brain damage or death.

WARNING

Heat Induced Illnesses. Operators must be made aware of signs of heat induced illnesses such as heat stress or stroke. Symptoms of heat induced illnesses range from headache, nausea, dizziness, loss of muscular control, a sleepy feeling, and unconsciousness. Operators must observe for these symptoms. If artificial respiration is necessary, refer to FM 4-25.11.

- Maintain open vents, windows, and doors in the tent to provide ventilation and prevent the accumulation of heat.
- Be alert at all times during FSC operation for symptoms of heat-induced illnesses. If any personnel show symptoms, remove them from the FSC and obtain immediate medical attention and treatment.
- Failure to observe this warning may result in severe illness or death.

WARNING

Bacterial hazard. Food waste stored in the trash cans can harbor bacteria. Dispose of wiping rags and scouring pads after cleaning the trash cans. Do not reuse the rags and pads on other items such as tables and storage racks. Failure to observe this warning may result in contamination of the other items, such as tables and storage racks, and any pots, pans, utensils, and other food handling items placed on the tables and racks. This, in turn, can cause illness in anyone eating food prepared with the contaminated items.

WARNING

Personnel injury/cuts. Work gloves and face/eye protection must be worn when performing equipment maintenance. The use of work gloves with gripping pads when moving equipment will significantly reduce the risk of injury. Failure to do so could result in serious injury to eyes or hands.

WARNING

Trip Hazard. The 50-ft water supply hose and the 15-ft sink fill hose can present a trip hazard. Do not place hose coils in traffic areas. Ensure that the water supply hose is laid out between the grease separator and the tent wall. Keep the sink fill hose coils between the sink fill pump and the grease separator. Failure to observe this warning may result in injury from tripping.

WARNING

Skin damage hazard. Rubber gloves, face/eye protection, and dust mask should be worn when handling chemicals such as detergents or cleaning compounds. Failure to wear proper protective clothing and equipment may result in skin irritation and/or serious eye injury. If contact with eyes or skin is made, flush with clean water and seek immediate medical first aid for eyes. Rinse and dry hands immediately after exposure. Failure to observe this warning may result in drying and damage to the skin.

WARNING

Fall hazard. When using the step ladder, do not climb all the way to the top. The ladder will not remain stable if personnel stand higher than the second step from the top or above. Failure to comply may result in injury to personnel.

WARNING

Burn Hazard. When wearing the rubber gloves do not submerge the open end of the glove into the hot water. The gloves will fill with hot water. Failure to observe this warning may result in severe burn injuries to personnel.

CHANGE NO. 1

HEADQUARTERS, DEPARTMENT OF THE ARMY
WASHINGTON, DC, 15 FEBRUARY 2008

TECHNICAL MANUAL

OPERATOR'S, UNIT, AND DIRECT SUPPORT MAINTENANCE MANUAL INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST

FOR

FOOD SANITATION CENTER (FSC)
MODEL FSC-90 NSN 7360-01-277-2558
MODEL FSC-2 NSN 7360-01-496-2112

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

1. TM 10-7360-211-13&P, 3 August 2006, is updated as follows:

2. File this sheet in front of the manual for reference.

3. This change is a result of changes to the Grease Separator and hose assembly for the FSC-2 to include changes to parts information and illustrations.

4. New or updated text/illustration is indicated by a vertical bar in the outer margin of the page.

5. Remove old pages and insert new pages as indicated below:

Remove Pages	Insert Pages
a-d	a-d
A/(B Blank)	A/(B Blank)
i-vi	i-vi
DA 2028 Instructions	DA 2028 Instructions
DA 2028 Sample	DA 2028 Sample
DA 2028	DA 2028
DA 2028	DA 2028
DA 2028	DA 2028

6. Replace the following work packages with their revised version:

Work Package Number	Work Package Number	Work Package Number
WP 0005 00	WP 0038 00	WP 0066 00
WP 0006 00	WP 0053 00	WP 0067 00
WP 0007 00	WP 0057 00	WP 0068 00
WP 0012 01	WP 0061 00	
WP 0020 00	WP 0062 00	
WP 0025 00	WP 0063 00	

C-1

By Order of the Secretary of the Army:

GEORGE W. CASEY, JR.
General, United States Army
Chief of Staff

Official:

JOYCE E. MORROW
Administrative Assistant to the
Secretary of the Army
0803103

DISTRIBUTION: To be distributed in accordance with initial distribution number (IDN) 252938 requirements for TM 10-7360-211-13&P.

LIST OF EFFECTIVE PAGES/WORK PACKAGES

NOTE: The portion of text affected by the change sis indicated by a vertical bar in the outer margins of the page. Changes to illustrations are indicated by a vertical bar adjacent to the title. Zero in the "Change No." column indicates and original page or work package.

Date of issue for the original manual is:

Original 3 AUGUST 2006
Change 1 15 FEBRUARY 2008

TOTAL NUMBER OF PAGES FOR FRONT AND REAR MATTER IS 40 AND TOTAL NUMBER OF WORK PACKAGES IS 71, CONSISTING OF THE FOLLOWING:

Page/WP No.	Change No.	Page/WP No.	Change No.	Page/WP No.	Change No.
Title	**0**	WP 0026 00 (6 pgs)	**0**	WP 0058 00 (4 pgs)	**0**
a-d	**1**	WP 0027 00 (6 pgs)	**0**	WP 0059 00 (4 pgs)	**0**
i-vi	**1**	WP 0028 00 (6 pgs)	**0**	WP 0060 00 (4 pgs)	**0**
Chapter 1	**0**	WP 0029 00 (6 pgs)	**0**	WP 0061 00 (4 pgs)	**1**
WP 0001 00 (6 pgs)	**0**	WP 0030 00 (6 pgs)	**0**	WP 0062 00 (6 pgs)	**1**
WP 0002 00 (8 pgs)	**0**	WP 0031 00 (4 pgs)	**0**	WP 0063 00 (2 pgs)	**1**
WP 0003 00 (4 pgs)	**0**	WP 0032 00 (6 pgs)	**0**	WP 0064 00 (4 pgs)	**0**
Chapter 2	**0**	WP 0033 00 (4 pgs)	**0**	WP 0065 00 (2 pgs)	**0**
WP 0004 00 (2 pgs)	**0**	WP 0034 00 (8 pgs)	**0**	WP 0066 00 (4 pgs)	**1**
WP 0005 00 (24 pgs)	**1**	WP 0035 00 (4 pgs)	**0**	WP 0067 00 (4 pgs)	**1**
WP 0006 00 (54 pgs)	**1**	WP 0036 00 (4 pgs)	**0**	WP 0068 00 (10 pgs)	**1**
WP 0007 00 (8 pgs)	**1**	WP 0037 00 (4 pgs)	**0**	WP 0069 00 (2 pgs)	**0**
Chapter 3)	**0**	WP 0038 00 (2 pgs)	**1**	WP 0070 00 (2 pgs)	**0**
WP 0008 00 (10 pgs)	**0**	WP 0039 00 (2 pgs)	**0**	WP 0071 00 (2 pgs)	**0**
WP 0009 00 (10 pgs)	**0**	WP 0040 00 (2 pgs)	**0**	INDEX-1-INDEX-4	**0**
Chapter 4	**0**	WP 0041 00 (2 pgs)	**0**	FP-1/(2 Blank)	**0**
WP 0010 00 (2 pgs)	**0**	WP 0042 00 (2 pgs)	**0**	FP-3/(4 Blank)	**0**
WP 0011 00 (6 pgs)	**0**	WP 0043 00 (2 pgs)	**0**	FP-5/(6 Blank)	**0**
WP 0012 00 (10 pgs)	**0**	WP 0044 00 (4 pgs)	**0**	Back Cover	**0**
WP 0012 01 (2 pgs)	**1**	WP 0045 00 (8 pgs)	**0**		
Chapter 5	**0**	WP 0046 00 (4 pgs)	**0**		
WP 0013 00 (2 pgs)	**0**	WP 0047 00 (2 pgs)	**0**		
WP 0014 00 (2 pgs)	**0**	Chapter 6	**0**		
WP 0015 00 (2 pgs)	**0**	WP 0048 00 (2 pgs)	**0**		
WP 0016 00 (4 pgs)	**0**	Chapter 7	**0**		
WP 0017 00 (2 pgs)	**0**	WP 0049 00 (2 pgs)	**0**		
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WP 0019 00 (2 pgs)	**0**	WP 0051 00 (4 pgs)	**0**		
WP 0020 00 (4 pgs)	**1**	WP 0052 00 (6 pgs)	**0**		
WP 0021 00 (2 pgs)	**0**	WP 0053 00 (4 pgs)	**1**		
WP 0022 00 (2 pgs)	**0**	WP 0054 00 (4 pgs)	**0**		
WP 0023 00 (4 pgs)	**0**	WP 0055 00 (2 pgs)	**0**		
WP 0024 00 (6 pgs)	**0**	WP 0056 00 (4 pgs)	**0**		
WP 0025 00 (6 pgs)	**1**	WP 0057 00 (6 pgs)	**1**		

HEADQUARTERS,
DEPARTMENT OF THE ARMY
WASHINGTON, D.C., 3 AUGUST 2006

TECHNICAL MANUAL

OPERATOR'S, UNIT, AND DIRECT SUPPORT MAINTENANCE MANUAL INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST FOR FOOD SANITATION CENTER (FSC) MODEL FSC-90 NSN 7360-01-277-2558 MODEL FSC-2 NSN 7360-01-496-2112

REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this manual. If you find any mistakes or if you know of a way to improve the procedures, please let us know. Mail your letter, DA Form 2028 (Recommended Changes to Publications and Blank Forms), located in the back of this manual direct to: Commander, US Army Life Cycle Management Command, ATTN: AMSTA-LC-SECT, Kansas St., Natick, MA 01760. You may also submit your recommended changes via electronic mail or by fax. Our fax number is DSN 256-5205 or commercial 508-233-5205. Our e-mail address is soldier.pubs@us.army.mil. A reply will be furnished directly to you.

TABLE OF CONTENTS

TABLE OF CONTENTS - CONTINUED

WP Sequence No.

TABLE OF CONTENTS - CONTINUED

WP Sequence No.

TABLE OF CONTENTS - CONTINUED

WP Sequence No.

HOW TO USE THIS MANUAL

HOW TO OBTAIN TECHNICAL MANUALS

When a new system is introduced to the Army inventory, it is the responsibility of the receiving units to notify and inform the Unit Publications Clerk that a Technical Manual is available for the new system. Throughout the life cycle of the new system, the Distribution Center DOL-W will also provide updates and changes to the Technical Manual.

To receive new Technical Manuals or change packages to existing Technical Manuals (TM) for fielded equipment, provide the Unit Publications Clerk the full Technical Manual number, title, date of publication, and number of copies required. The Unit Publications Clerk will justify the request through the Unit Publications Officer. When the request is approved, the Unit Publications Clerk will use DA Form 12-R to order the series of Technical Manuals from the Army Publishing Directorate (APD).

Instructions for Unit Publications Clerk

Obtain DA Form 12-R and request a publications account from the APD Web site at http://www.apd.army.mil. Once on the Website, click on the "Orders/Subscriptions/Reports" tab. From the dropdown menu, select "Establish an Account," then select "Tutorial" and follow the instructions in the tutorial presentation.

Complete information for obtaining Army publications can be found in DA PAM 25-33.

ORGANIZATION OF THIS MANUAL

This manual contains general information, operating instructions, troubleshooting procedures, maintenance instructions, and supporting information including a Repair Parts and Special Tools List (RPSTL) for the Food Sanitation Center (FSC).

Front matter consists of a warning summary, table of contents, and instructions on how to use this manual. Chapter 1 contains general information on the FSC equipment including maintenance forms, records, and reports; instructions for recommending equipment improvements; corrosion prevention and control; ozone depleting substances and procedures for material destruction to prevent enemy use. Chapter 1 also provides a FSC equipment description and theory of operation. Chapter 2 describes and explains the use of operator controls and indicators and instructions for operating the FSC equipment under usual and unusual conditions. Chapter 3 contains troubleshooting procedures. Chapter 4 contains Preventive Maintenenance Checks and Services (PMCS) and Operator Maintenance procedures. Chapter 5 contains Unit Maintenance instructions, including Preventive Maintenance Checks and Services (PMCS) and lubrication instructions. Chapter 6 contains Direct Support Maintenance procedures. Chapter 7 contains the Maintenance Allocation Chart (MAC), the Repair Parts and Special Tools List (RPSTL), Components of End Item (COEI) and Basic Issue Items (BII), lists of Expendable and Durable Items, tools and other supporting information. Instructions on how to use the RPSTL in conjunction with this manual can be found in WP 0052 00, Introduction to Repair Parts and Special Tools List (RPSTL). Rear matter consists of the alphabetical index, DA Form 2028 and authentication page, and back cover.

Manual Organization and Page Numbering

This manual is divided into seven major chapters that detail the topics mentioned above. Within each chapter are work packages covering a range of topics. Each work package is numbered sequentially starting at page 1, and has its own page numbering scheme that is independent of the page numbering used by other work packages. Each page of a work package has a page number of the form "XXXX YY-ZZ", where "XXXX YY" is the work package number (e.g. 0010 00 is work package 10) and "ZZ" represents the number of the page within that work package. A page number such as "0010 00-1/2 Blank" means that page 1 of that work package contains information but page 2 has been intentionally left blank.

HOW TO USE THIS MANUAL-CONTINUED

Finding Information

The Table of Contents permits the reader to quickly find information in the manual. The reader should start here first when looking for a specific topic. The Table of Contents lists the topics contained within each chapter and the work package sequence number where it can be found. The index, located at the back of the manual, lists topics in alphabetical order and identifies the work packages where the information is located

CHAPTER 1

GENERAL INFORMATION, EQUIPMENT DESCRIPTION AND THEORY OF OPERATION

FOR

FOOD SANITATION CENTER

OPERATOR'S, UNIT, AND DIRECT SUPPORT MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-90, NSN 7360-01-277-2558
MODEL FSC-2, NSN 7360-01-496-2112
GENERAL INFORMATION

SCOPE

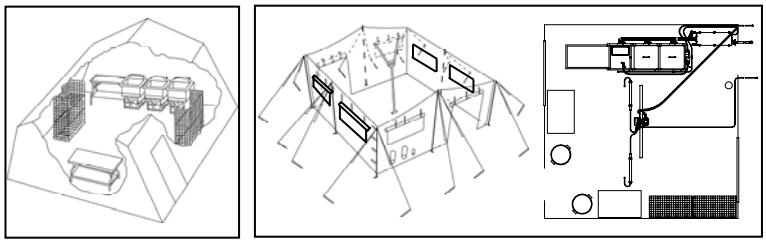
Equipment Covered

This technical manual contains instructions for the operation, preventive maintenance, and Operator, Unit, and Direct Support corrective maintenance for the Food Sanitation Center (FSC) (Figure 1). This manual includes the Repair Parts and Special Tools List (RPSTL).

NOTE

Older models of the Food Sanitation Center used M2 Burner Units as the heat source to heat water in the sink assemblies. If your FSC still has M2 Burner Units, trade the M2 Burner Units in for Modern Burner Units (MBUs).

FSC-90



FSC-2

Figure 1. Food Sanitation Center (FSC).

Type of Manual

Operator's, Unit, and Direct Support Maintenance Manual Including Repair Parts and Special Tools List (RPSTL) for Food Sanitation Center FSC-90 NSN 7360-01-277-2558 and FSC-2 NSN 7360-01-496-2112. This manual supersedes TM 10-7360-211-13&P dated 30 May 1991, including all changes.

Equipment Name and Model Number

Food Sanitation Center. This manual covers the following models:

- Model FSC-90 NSN 7360-01-277-2558
- Model FSC-2 NSN 7360-01-496-2112.

The information in this manual applies to both models. As such, the common reference used in this manual for the Food Sanitation Center is FSC. When information applies to only one model, a statement similar to "FSC-90 ONLY" or "FSC-2 ONLY" is placed with the applicable information.

Purpose of Equipment

For sanitizing utensils and equipment used with the Modular Field Kitchen (MFK), which is covered in TM 10-7360-208-13&P. It is also used with the Trailer Mounted Field Kitchen, which is covered in TM 10-7360-206-13 and with the Containerized Kitchen (CK), which is covered in TM 10-7360-226-13&P. The FSC includes the equipment required by Military Occupational Specialty (MOS) 92G and 91M personnel for sanitizing pots, pans, and utensils used to feed troops in the field. The FSC requires water and JP-8 (MBUs) to operate. To support the sanitizing requirements of the Modular Field Kitchen, the tools and ancillary items supplied with the MFK will be used jointly to service and support the FSC and MFK. To support the sanitizing requirements of the Trailer Mounted Field Kitchen the tools and ancillary items authorized to the Kitchen will be used jointly to service and support the FSC and MFK.

MAINTENANCE FORMS, RECORDS, AND REPORTS

Department of the Army forms and procedures used for equipment maintenance will be those prescribed by (as applicable) DA PAM 750-8, The Army Maintenance Management Systems (TAMMS), Users Manual; DA PAM 738-751, Functional Users Manual for the Army Maintenance Management Systems – Aviation (TAMMS-A); or AR 700-138, Army Logistics Readiness and Sustainability.

REPORTING EQUIPMENT IMPROVEMENT RECOMMENDATIONS (EIR)

If your Food Sanitation Center needs improvement, let us know. Send us an EIR. You, the user, are the only one who can tell us what you don't like about your equipment. Let us know why you don't like the design or performance. Put it on an SF 368 (Product Quality Deficiency Report). Mail it to the address specified in DA PAM 750-8, The Army Maintenance Management Systems (TAMMS), Users Manual, or as specified by the acquiring activity. We will send you a reply.

CORROSION PREVENTION AND CONTROL (CPC)

Corrosion Prevention and Control (CPC) of Army material is a continuing concern. It is important that any corrosion problems with this item be reported so that the problem can be corrected and improvements can be made to prevent the problem in future items.

Corrosion specifically occurs with metals. It is an electrochemical process that causes the degradation of metals. It is commonly caused by exposure to moisture, acids, bases, or salts. An example is the rusting of iron. Corrosion damage in metals can be seen, depending on the metal, as tarnishing, pitting, fogging, surface residue, and/or cracking.

Plastics, composites, and rubber can also degrade. Degradation is caused by thermal (heat), oxidation (oxygen), solvation (solvents), or photolytic (light, typically UV) processes. The most common exposures are excessive heat or light. Damage from these processes will appear as cracking, softening, swelling, and/or breaking.

The form should be submitted to the address specified in DA PAM 750-8, The Army Maintenance Management Systems (TAMMS), Users Manual.

OZONE DEPLETING SUBSTANCES (ODS)

The continued use of ODS has been prohibited by Executive Order 12856 of 3 August 1993. The use of ODS in Army IETMs (Interactive Electronic Technical Manual) is prohibited. There are no ODS substances being used for the FSC-2.

DESTRUCTION OF ARMY MATERIAL TO PREVENT ENEMY USE

Refer to TM 750-244-13 for procedures covering the destruction of Army material to prevent enemy use.

PREPARATION FOR STORAGE OR SHIPMENT

Refer to WP 0047 00 for procedures used to prepare the FSC for storage or shipment.

Administrative Storage
Placement of equipment in administrative storage should be for short periods of time when a shortage of maintenance efforts exists. Items should be in mission readiness within 24 hours or within the time factors as determined by the directing authority. During the storage period appropriate maintenance records will be kept. Before placing equipment in administrative storage, current Preventive Maintenance Checks and Services (PMCS) should be completed, shortcomings and deficiencies should be corrected, and all Modification Work Orders (MWOs) should be applied.

Storage Site Selection
Inside storage is preferred for items selected for administrative storage. If inside storage is not available, trucks, vans, CONEX containers and other containers may be used.

WARRANTY INFORMATION

The FSC-2 is warranted for one (1) year. The warranty starts on the date found in block 23 of DD Form 1348, Issue Release/Receipt Document. Report all defects to your supervisor, who will take the appropriate action.

The procedures for reporting warranty claims are found in DA PAM 750-8, The Army Maintenance Management System (TAMMS) Users Manual. For warranty issues for the FSC-2, use SF-368, Product Quality Deficiency Report. Submit the SF-368 to:

US Army Soldier System Center
ATTN: SFAE-CSS-FP-F
Kansas Street
Natick, MA 01760-5057

NOMENCLATURE CROSS-REFERENCE LIST

A cross-reference list of the common names used throughout this manual to the official nomenclature is provided below:

COMMON NAME	OFFICIAL NOMENCLATURE
Cable Assembly	Cable, Assembly, Power, Electrical
CO Monitor	Carbon Monoxide Monitor
Drain Table	Table Assembly, Sink Drain
Electric Light	Light, Extension
Extension Cord	Extension Cord, Short 25-Foot
Immersion Rack	Rack, Sink, Immersion
Lid air flap	Flap, Air
MBU	Modern Burner Unit
Modular Field Kitchen	Kitchen, Field, Modular
Outlet Adapter	Coupling Half, Quick Disconnect
Power Switch	Toggle, Switch
Shelf	Drain Table Shelf Weldment or Shelf, Table
Single Sink Drain Hose	Drain Hose Assembly, Single Sink
Sink Fill Pump	Fill Pump Assembly (FSC-2 Model only)
Tent	Tent, Extendable, Modular (16' x 20' Utility) or Modular General Purpose Tent System (MGPTS) Type I, Small
Three Sink Drain Hose	Drain Hose Assembly, Three Sink
Weatherproof Box Basket	Gasket, Single Gang
Work Table	Table Assembly, Folding Legs

LIST OF ABBREVIATIONS/ACRONYMS

The following abbreviations/acronyms are used in this manual:

TERM	DEFINITION
AAL	Additional Authorization List
AC	Alternating Current
Amps	Amperes
AR	Army regulation
BII	Basic Issue Item
CAGEC	Commercial and Government Entity Code
CBRN	Chemical, Biological, Radiological, Nuclear
CK	Containerized Kitchen
cm	Centimeter
CNBR	Chemical, Nuclear, Biological, and Radiological
CO	Carbon Monoxide
COEI	Components of End Item
CONEX	Container Express
CPC	Corrosion Prevention and Control
CTA	Common Table of Allowances
DA	Department of the Army
DA PAM	Department of the Army Pamphlet
DC	Direct Current
DEPMEDS	Deployable Medical Systems
DS	Direct Support
DSM	Direct Support Maintenance
EIC	End Item Code
EIR	Equipment Improvement Recommendation
ESC	Equipment Serviceability Criteria
FC	Field Circular
FM	Field Manual
FSC	Food Sanitation Center
ft	Foot
GFCI	Ground Fault Circuit Interrupter
IAW	In accordance with
IETM	Interactive Electronic Technical Manual
in.	inch
JP	Jet Propulsion
JTA	Joint Table of Allowances
kg	Kilogram
km	Kilometer
kW	Kilowatt
lb	Pound
MAC	Maintenance Allocation Chart
MBU	Modern Burner Unit
MED	Medical
MFK	Modular Field Kitchen
MGPTS	Modular General Purpose Tent System
MKT	Mobile Kitchen Trailer
mm	millimeter
MOS	Military Occupational Specialty
MTOE	Modified Table of Organization and Equipment
MWO	Modification Work Order
NBC	Nuclear, Biological, Chemical
NHA	Next Higher Assembly
NIIN	National Item Identification Number
NSN	National Stock Number
ODS	Ozone Depleting Substances
OM	Operator Maintenance
PMCS	Preventive Maintenance Checks and Services
ppm	Parts per million
P/N	Part Number
PSI	Pounds Per Square Inch
Qty	Quantity
RPSTL	Repair Parts and Special Tools List
Rqr	Required
SF	Standard Form
SMR	Source, Maintenance and Recoverability
SRA	Specialized Repair Activity
TAMMS	The Army Maintenance Management System
TB	Technical Bulletin
TC	Training Circular
TDA	Table of Distribution & Allowances
TEMPER	Tent, Extendable, Modular, Personnel
TM	Technical Manual
TMDE	Test Measurement and Diagnostic Equipment
UM	Unit Maintenance
U/M	Unit of Measure
UOC	Usable On Code
VAC	Volts Alternating Current
VDC	Volts Direct Current
WP	Work Package

QUALITY OF MATERIAL

Material used for replacement, repair, or modification must meet the requirements of this Food Sanitation Center technical manual. If quality of material requirements is not stated in this TM, the material must meet the requirements of the drawings, standards, specifications, or approved engineering change proposals applicable to the subject equipment.

SAFETY, CARE, AND HANDLING

Always observe Warnings, Cautions, and Notes in the manual. They appear before appropriate procedures. Be sure you read and understand each of the Warnings, Cautions, and Notes. Failure to observe them may cause injury or death to yourself or others, or damage to equipment.

OPERATOR'S, UNIT, AND DIRECT SUPPORT MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-90, NSN 7360-01-277-2558
MODEL FSC-2, NSN 7360-01-496-2112
EQUIPMENT DESCRIPTION AND DATA

EQUIPMENT CHARACTERISTICS, CAPABILITIES, AND FEATURES

Characteristics, capabilities, and features of the Food Sanitation Center Include:

1. Used with the Modular Field Kitchen.
2. Used with the Trailer Mounted Field Kitchen.
3. Used with Containerized Kitchen (CK).
4. Used to sanitize pots, pans and utensils that feed troop units in the field.
5. Protects personnel performing sanitizing activities from weather.
6. Major components are portable by two soldiers.
7. Sets up on-site within 1 hour by four soldiers and prepares for movement within 30-minutes.
8. Provides sanitizing services for kitchens serving up to 400 troops on a sustaining basis.
9. Day and night operation.
10. Transported on 5-ton tactical cargo vehicle or 2-1/2 ton tactical cargo vehicle.

LOCATION AND DESCRIPTION OF MAJOR COMPONENTS

FSC-90 Only

- Tent **(Figure 1, Item 1)**. Old style Extendable Modular, 16 x 20. Contains all food sanitation equipment and protects personnel from weather.
- Storage Rack Assembly **(Figure 1, Item 2)**. Two storage rack assembly sets (each set formed by stacking three rack assemblies).
- Electric Light **(Figure 1, Item 3)**. Two fluorescent electric light assemblies with support straps used for night operations.
- Drain Table **(Figure 1, Item 4)**. One drain table hooked to end of sink assembly: inclined for draining water.
- Base Rack **(Figure 1, Item 5)**. Three base racks, one to support each of the three burner racks and sinks.
- Burner Rack **(Figure 1, Item 6)**. Three burner racks, one to hold each of the three modern burner units (MBUs).
- Sink Assembly **(Figure 1, Item 7)**. Three sink assemblies, one each to wash, rinse, and sterilize pots, pans, and utensils.
- Sink Cover **(Figure 1, Item 8)**. Three covers, one for each sink.
- Adapter **(Figure 1, Item 9)**. Two adapters to link the three sinks together.
- Thermometer **(Figure 1, Item 10)** and thermometer bracket **(Figure 1, Item 11)**. Three, one for each sink to measure water temperature.
- Sink immersion rack **(Figure 1, Item 12)**. Two immersion racks for immersing small, loose items in the water-filled sinks.
- Modern Burner Unit (MBU) **(Figure 1, Item 13)**. Three JP-8 fuel-fired burner units used to heat water in sink assemblies.
- Single sink drain hose assembly **(Figure 1, Item 14)**. Used when a single sink is deployed.
- Three sink drain hose assembly **(Figure 1, Item 15)**. Used when all three sinks are deployed.
- Fire extinguisher **(Figure 1, Item 16)**. One placed just inside open door.
- Waste receptacles **(Figure 1, Item 17)**. Two, with lids, for holding food waste.
- Work Table **(Figure 1, Item 18)**. One used as work area.
- Shelf **(Figure 1, Item 19)**. One for use with either the work table or the drain table.

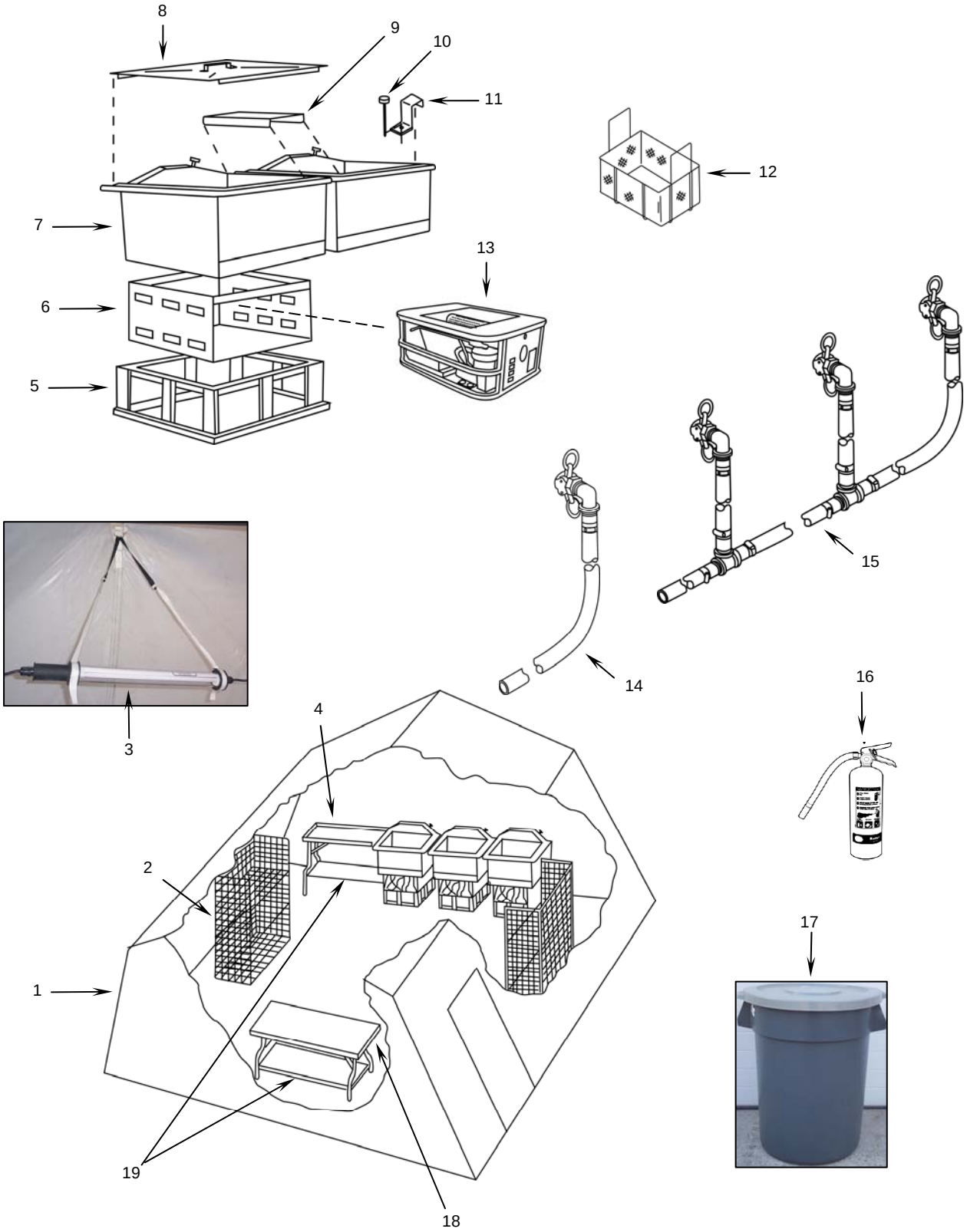


Figure 1. Major Components of Food Sanitation Center FSC-90.

FSC-2 Only

- Tent **(Figure 2, Item 1)**. Modular General Purpose Tent System (MGPTS). Contains all food sanitation equipment and protects personnel from weather.
- Base Rack **(Figure 2, Item 2)**. Three, one to support each of the three burner racks and sinks.
- Burner Rack **(Figure 2, Item 3)**. Three, one to hold each of the three modern burner units (MBUs).
- Sink Assembly **(Figure 2, Item 4)**. Three, one each to wash, rinse, and sterilize pots, pans, and utensils.
- Sink Cover **(Figure 2, Item 5)**. Three, one for each sink to hold in heat.
- Sink coupler heat shield **(Figure 2, Item 6)**. Two, to link the three sinks together and designed to shield worker from hot metal.
- Thermometer **(Figure 2, Item 7)** and Bracket **(Figure 2, Item 8)**. Three, one for each sink to measure water temperature.
- Sink Edge Heat Shield **(Figure 2, Item 9)**. One, over the right edge of the right sink to shield worker from hot metal.
- Sink Front Heat Shield **(Figure 2, Item 10)**. Three, one over the front edge of each sink to shield workers from hot metal.
- Modern Burner Unit (MBU) **(Figure 2, Item 11)**. Three JP-8 fuel-fired burner units used to heat water in sinks.
- Y-adapter **(Figure 2, Item 12)**. Used to connect 50-ft fresh water hose to source if another hose, such as for the containerized kitchen (CK), is already connected to the source.
- Fuel can adapter **(Figure 2, Item 13)**. Part of MBU Kit for fueling the MBUs.
- 20 ft fuel line **(Figure 2, Item 14)**. Part of MBU Kit for fueling MBUs.
- 2-branch cables **(Figure 2, Item 15)**. Two cables. Part of MBU Kit for providing 24 VDC to MBUs and sink fill pump assembly.
- 25 ft, 24 VDC cable **(Figure 2, Item 16)**. Part of MBU Kit for providing 24 VDC to 2-branch cables.
- 100 ft, 110 volt, 4-outlet extension cord **(Figure 2, Item 17)**. For providing AC power to FSC-2.
- GFCI (ground fault circuit interrupter) **(Figure 2, Item 18)**. Plugged into AC power source if source is not already protected by a ground fault circuit interrupter.
- Three-Sink Drain Hose Assembly **(Figure 2, Item 19)**. Drains waste water from the sinks to a grease separator. Contains a tee for connecting the waste hose from other source such as the CK.
- Grease Separator **(Figure 2, Item 20)**. Separates grease and solids from water drained from sinks.
- Grease Separator Power Cable **(Figure 2, Item 21)**. Provides 24 VDC to grease separator.
- 50-ft Drain Hose **(Figure 2, Item 22)**. Drains gray water from grease separator to gray water reception facility (not part of FSC-2).
- 50-Foot Fresh Water Hose **(Figure 2, Item 23)**. Delivers fresh water to the sink fill pump assembly.
- Sink Fill Pump Assembly **(Figure 2, Item 24)**. Pumps fresh water through 15-foot sink fill hose on demand when the water nozzle is operated. Fresh water used to fill the sinks and for other general use.
- Fire Extinguisher **(Figure 2, Item 25)**.
- Power Converter **(Figure 2, Item 26)** and Hanger **(Figure 2, Item 27)**. Power converter converts 120 VAC to 24 VDC to power MBUs, sink fill pump, and grease separator.
- Storage Rack Assembly **(Figure 2, Item 28)**. Six, stacked in two groups of three racks. Each storage rack has a detachable grid that can be used as a rack front or a rack shelf.
- Electric Light **(Figure 2, Item 29)**. Two fluorescent light assemblies with straps for night operation.
- Waste Receptacles **(Figure 2, Item 30)**. Two, with lids, for holding food waste.
- Work Table **(Figure 2, Item 31)**. Two, used as work area.
- CO Monitor **(Figure 2, Item 32)**. Monitors carbon monoxide (CO) levels inside the tent. Provides visible and audible alarm if CO exceeds acceptable level.
- 15-Foot Sink Fill Hose **(Figure 2, Item 33)** and Water Nozzle **(Figure 2, Item 34)**. Delivers water from sink fill pump when nozzle is operated.
- Drain Table **(Figure 2, Item 35)**. Hooked to end of left sink; inclined slightly to drain into sink.
- Sink Immersion Rack **(Figure 2, Item 36)**. One, for immersing small, loose items in water-filled sinks.
- Step Ladder **(Figure 2, Item 37)**. One 6-ft step ladder used when hanging power cords.

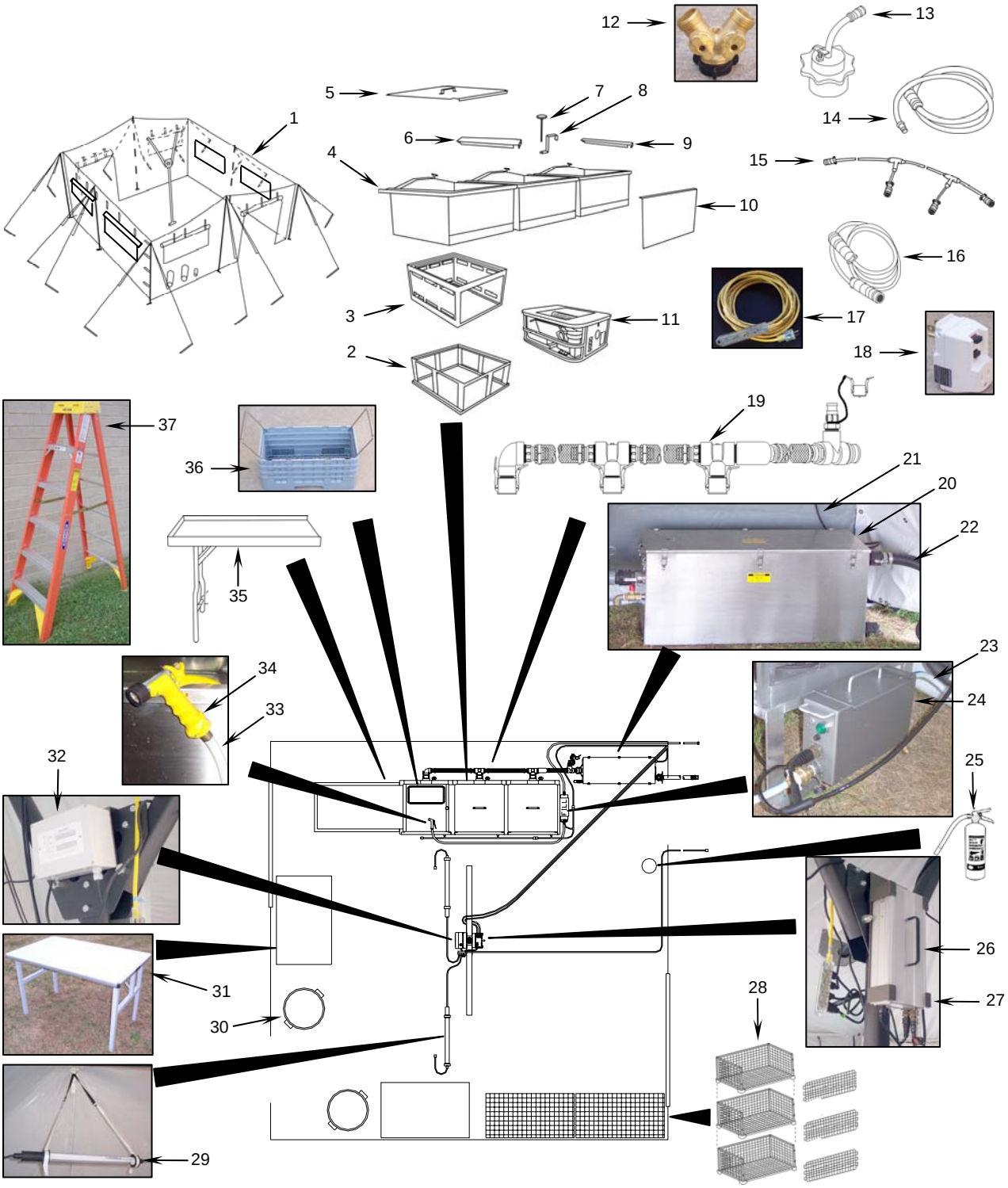


Figure 2. Major Components of Food Sanitation Center FSC-2.

DIFFERENCES BETWEEN MODELS

The FSC is fielded in two models: the original model, FSC-90 and the newer model, FSC-2. The major component differences between the two models are identified in Table 1.

Table 1. Major Differences between FSC-90 and FSC-2.

Feature	FSC-90	FSC-2
Burners	Three JP-8 fuel-fired MBU burner units and one MBU Kit	Three JP-8 fuel-fired MBU burner units and one MBU Kit
Tent	16 x 20 TEMPER or MGPTS	MGPTS, small with internal Y-pole
CO monitor	N/A	CO monitor
Grease separator	N/A	Grease separator with 50-ft drain hose
Sink fill pump assembly	N/A	Sink fill pump assembly
Sinks and sink drain hoses	Different models from FSC-2 (see WP 0056 00, Repair Parts and Special Tools List – Group 04 Sink Assembly); sink painted green	Different models from FSC-90 (see WP 0056 00, Repair Parts and Special Tools List – Group 04 Sink Assembly)
Step ladder	N/A	One 6-ft step ladder
Water supply hoses and nozzle	N/A	One 50-ft fresh water supply hose, one 15 ft fresh water supply hose, and one hose nozzle used with sink fill pump assembly
Work tables	Stainless steel with replaceable folding legs	Aluminum with permanently affixed folding legs

EQUIPMENT DATA

FSC-90 Only

Performance:

Tent:
- Frame supported, 16 feet x 20 feet.
- Provided with doorways on each side.
- Screened roof vents with flaps.
- Windows on each side.
- Equipped with cotton liner for cold weather operations.
- Provided with tent fly to minimize the solar load in hot environments and to permit the roof vents to be opened in bad weather.
- Can be expanded in 8-foot sections to form a shelter of any length.
- Refer to TM 10-8340-224-13 for additional tent data.

Sink Assemblies:
- Heats water to boiling point (212°F / 100°C).
- Fills with up to 20-gallons (75.7 liters) of water.

Modern Burner Unit (MBU):
- Burns fuel at rate of 0.5 gallons (1.9 liters) per hour.
- Refer to TM 10-7310-281-13&P for additional MBU burner unit data.

Dimensions and Weights

Dimensions and weights for heavy and bulky FSC-90 components are listed in Table 2. Smaller and light-weight items are not included in this table.

Table 2. FSC-90 Components Dimensions and Weights.

Component	Height		Width		Depth		Weight	
	in.	mm	in.	mm	in.	mm	lb	kg
Storage Rack Assembly	26.00	660.0	48.00	1219.0	24.00	610.0	43.90	19.95
Sink Assembly	18.91	480.0	28.29	718.0	29.31	744.0	60.15	27.28
Burner Rack	14.97	380.0	20.68	525.0	23.92	607.0	16.43	7.45
Base Rack	11.23	285.0	23.84	605.0	25.02	635.0	9.31	4.22
Sink Immersion Rack	8.00	203.0	15.00	381.0	10.00	254.0	7.00	3.20
Modern Burner Unit	9.75	248.0	23.00	584.0	19.00	483.0	41.50	19.00
Drain Table	38.00	965.0	48.25	1255.0	27.00	685.0	41.12	18.65
Work Table	38.00	965.0	56.00	1422.0	26.00	660.0	57.44	26.05

FSC-2 Only

Performance:

Tent :
- Frame supported, internal Y pole.
- Provided with doorways on each side.
- Roof vents.
- Windows on each side.
- Refer to TM 10-8340-240-12&P for additional tent data.

Sink Assemblies :
- Heats water for washing (110-120°F), for rinsing (120-140°F), and sterilizing (171°F or higher).
- Fills with up to 20-gallons (75.7 liters) of water.

Modern Burner Unit (MBU):
- Modern Burner Unit burns fuel at rate of 0.5 gallons (1.9 liters) per hour.
- Refer to TM 10-7310-281-13&P for additional MBU burner unit data.

Carbon Monoxide (CO) Monitor:
- Indicates CO of 70 ppm or more with repeating alarm cycle of flashing red light and 4 audible beeps.
- Indicates CO above 100 ppm with repeating alarm cycle of steady red light and 4 audible beeps.

Dimensions and Weights

Dimensions and weights for heavy and bulky FSC-90 components are listed in Table 3. Smaller and light-weight items are not included in this table.

Table 3. FSC-2 Components Dimensions and Weights.

Component	Height		Width		Depth		Weight	
	in.	mm	in.	mm	in.	mm	lb	kg
Storage Rack Assembly	26.00	660.0	48.00	1219.0	24.00	610.0	43.90	19.95
Sink Assembly	17.50	444.5	29.00	736.6	31.00	787.4	60.15	27.28
Burner Rack	14.97	380.0	20.68	525.0	23.92	607.0	16.43	7.45
Base Rack	11.23	285.0	23.84	605.0	25.02	635.0	9.32	4.22
Sink Immersion Rack	9.00	228.6	19.50	495.3	9.50	241.3	7.00	3.20
Modern Burner Unit	9.75	248.0	23.00	584.0	19.00	483.0	41.50	19.00
Drain Table	39.62	1006.3	47.36	1202.9	26.00	660.4	30.00	13.64
Work Table	29.00	736.6	48.00	1219.2	30.00	762.0	30.00	13.64
Fill Pump Assembly	9.50	241.3	5.18	131.6	17.60	447.0	10.00	4.55
Grease Separator	16.50	419.1	9.00	990.6	4.0	355.6	80.00	36.40
Drain Hose, 2” x 50’							30.00	13.64

EQUIPMENT CONFIGURATION

The arrangement, or setup, of components for Food Sanitation Center models FSC-90 and FSC-2 is similar with the exception of the following differences:

- FSC-90 can be set up for single-sink or three-sink operation, while FSC-2 is designed solely for three-sink operation.
- FSC-2 has several components that are not present in FSC-90 that are added to the basic configuration used for FSC-90, including the Sink Fill Pump Assembly, hoses and nozzle, the MBU Kit, the Grease Separator and associated hoses, and the CO Monitor.
- The work tables and storage rack assemblies placement can be varied if desired.

OPERATOR'S, UNIT AND DIRECT SUPPORT MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-90, NSN 7360-01-277-2558
MODEL FSC-2, NSN 7360-01-496-2112
THEORY OF OPERATION

MBU (Figure 1, Item 1). The MBU (Modern Burner Unit) mixes JP-8 fuel (or alternate approved Diesel Fuel, Arctic, DF-A) with pressurized air and delivers the mixture through a fuel nozzle into the burner. The fuel/air mixture is burned to produce heat under the sink assemblies. The MBU can be refueled either manually or by the built-in powered fueling function. For a more detailed description of the operation of the MBU, refer to TM 10-7310-281-13&P.

SINK ASSEMBLIES (Figure 1, Item 2). The three sink assemblies are filled with up to 20 gallons (75.7 liters) of water each. The water is heated by the burner units to appropriate temperatures for washing, sanitizing, and rinsing of pots, pans, and other kitchen utensils.

SINK FILL PUMP ASSEMBLY (FSC-2 ONLY) (Figure 1, Item 3). The sink fill pump assembly contains an on-demand water pump that is connected to a fresh water supply at its inlet and a water nozzle and hose assembly at its discharge. With the sink fill pump assembly switched on, the nozzle is operated, the sink fill pump assembly delivers fresh water through the nozzle to fill the sinks or to meet other fresh water demands. A vacuum breaker at the discharge of the sink fill pump assembly prevents contaminated sink water from siphoning from the sinks back to the fresh water supply. The vacuum breaker releases a small amount of water to the ground when the nozzle is released to relieve water pressure.

WATER NOZZLE AND HOSES (FSC-2 ONLY) (Figure 1, Item 4). One end of a 50 ft fresh water hose is connected to the inlet of the sink fill pump assembly. A 15-ft fresh water hose is connected to the discharge of the sink fill pump assembly. The nozzle is connected to the other end of the 15 ft hose.

DRAIN HOSE ASSEMBLIES (SINGLE OR THREE SINK) (Figure 1, Item 5), **(Figure 1, Item 6)**, and **(Figure 1, Item 7)**. The drain hose assemblies drain water out of the sinks and away from the tent area. The single drain hose assembly (FSC-90 only) is used for an optional single sink assembly usage. In the FSC-2 model, a tee at the end of the drain hose assembly allows for connecting the waste hose from the CK sinks.

GREASE SEPARATOR (FSC-2 ONLY) (Figure 1, Item 8) and Figure 2.
In the FSC-2 model, the three-sink drain hose assembly is connected to the inlet of a grease separator. The grease separator is a single unit with three compartments: the solids collection compartment **(Figure 2, Item 1)**, the grease collection compartment **(Figure 2, Item 2)**, and the pump compartment **(Figure 2, Item 3)**. A 50-ft drain hose **(Figure 2, Item 12)** is connected to the outlet of the grease separator. The other end of the 50-ft drain hose is connected to a graywater reception facility.

When wastewater is drained from the sinks, it flows into the top of a strainer basket **(Figure 2, Item 4)** in the solids collection compartment. The water flows through the strainer basket, through a slot **(Figure 2, Item 5)** at the bottom of the solids collection compartment, and into the bottom of the grease collection compartment. Any solids in the wastewater are collected in the strainer.

Grease in the wastewater floats to the surface in the grease collection compartment. A drain tube **(Figure 2, Item 6)** at the surface level of the grease collection compartment is connected with a grease removal valve **(Figure 2, Item 7)** at the wastewater inlet end of the grease separator. The grease can be removed from the grease collection compartment as needed by opening the grease removal valve and draining the surface grease into a #10 can.

Wastewater that is free of solids and relatively free of grease flows from the grease collection compartment and into the bottom of a side channel **(Figure 2, Item 8)**. The wastewater then flows through a hole **(Figure 2, Item 9)** near the top of the side channel and into the pump compartment **(Figure 2, Item 3)**. As water fills the pump compartment, a float **(Figure 2, Item 10)** rises with the water level until a tilt switch inside the float activates the pump **(Figure 2, Item 11)**.

GREASE SEPARATOR (FSC-2 ONLY) – Continued. The pump pumps wastewater out of the pump compartment and through the 50-ft drain hose **(Figure 2, Item 12)** to a graywater reception facility. Two drain petcocks **(Figure 2, Item 13)** are provided at the bottom of the pump compartment to allow water to flow directly from the grease collection compartment to the pump compartment so that it can be quickly pumped out when cleaning and emptying the grease separator. An additional hose adapter **(Figure 2, Item 14)** on the outside of the grease separator near the bottom allows for thorough draining of the grease separator in the event of pump failure and in preparation for movement.

DRAIN TABLE. A drain table **(Figure 1, Item 9)** is connected to one of the outer sink assemblies. The drain table is used either to hold the accumulated items that need washing and sanitizing or to partially air-dry the washed items. The drain table provided with the FSC-90 comes with a removable lower shelf **(Figure 1, Item 10)**.

WORK TABLES. The work tables **(Figure 1, Item 11)** are used for stacking pots and pre-cleaning pots, pans, and utensils. Work tables provided with the FSC-90 come with a removable lower shelf **(Figure 1, Item 12)**.

STORAGE RACK ASSEMBLY. The storage racks **(Figure 1, Item 13)** are used to complete the air-drying process of sanitized items and as storage until further use.

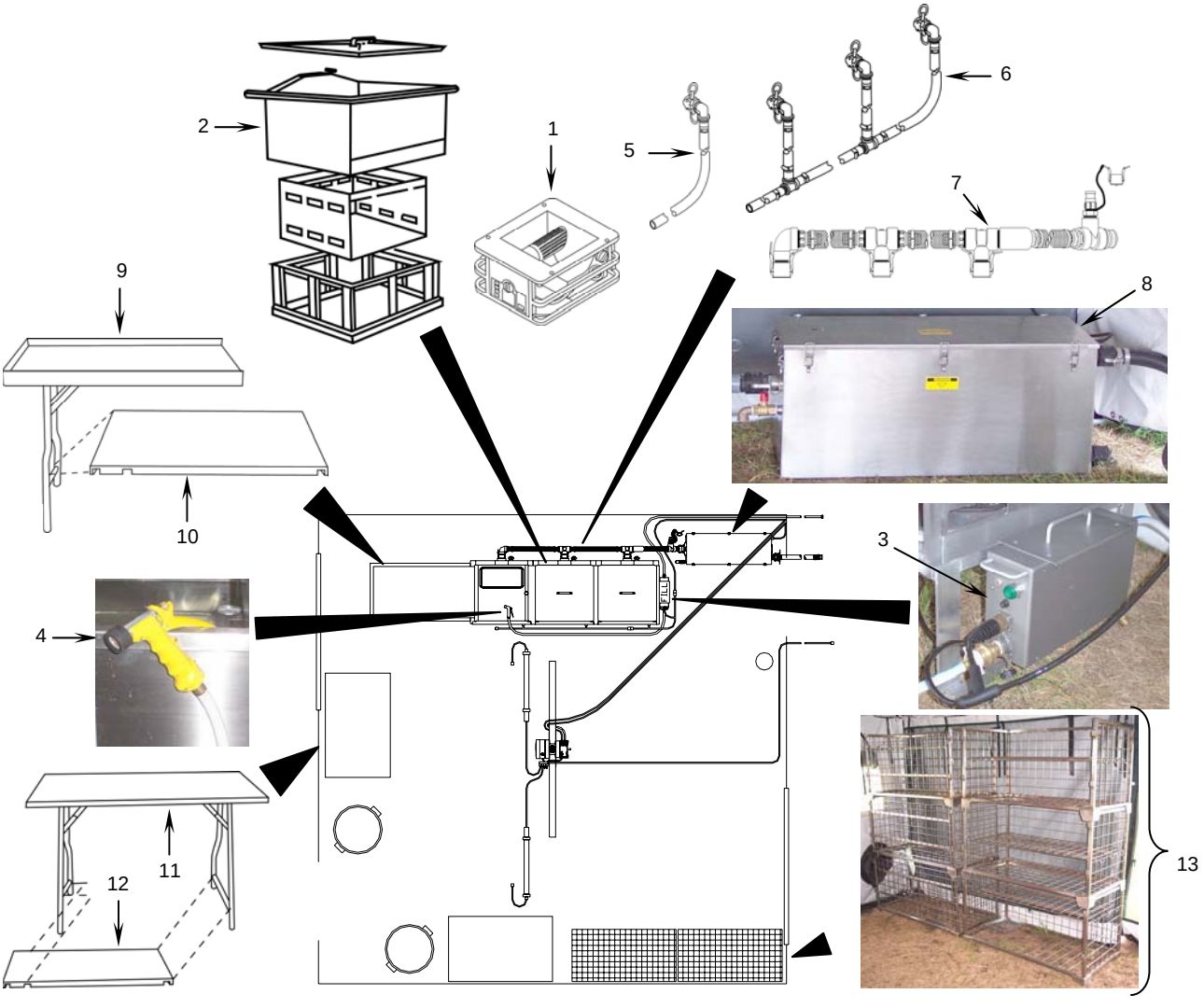


Figure 1. Top View and Component close ups of Food Sanitation Center.

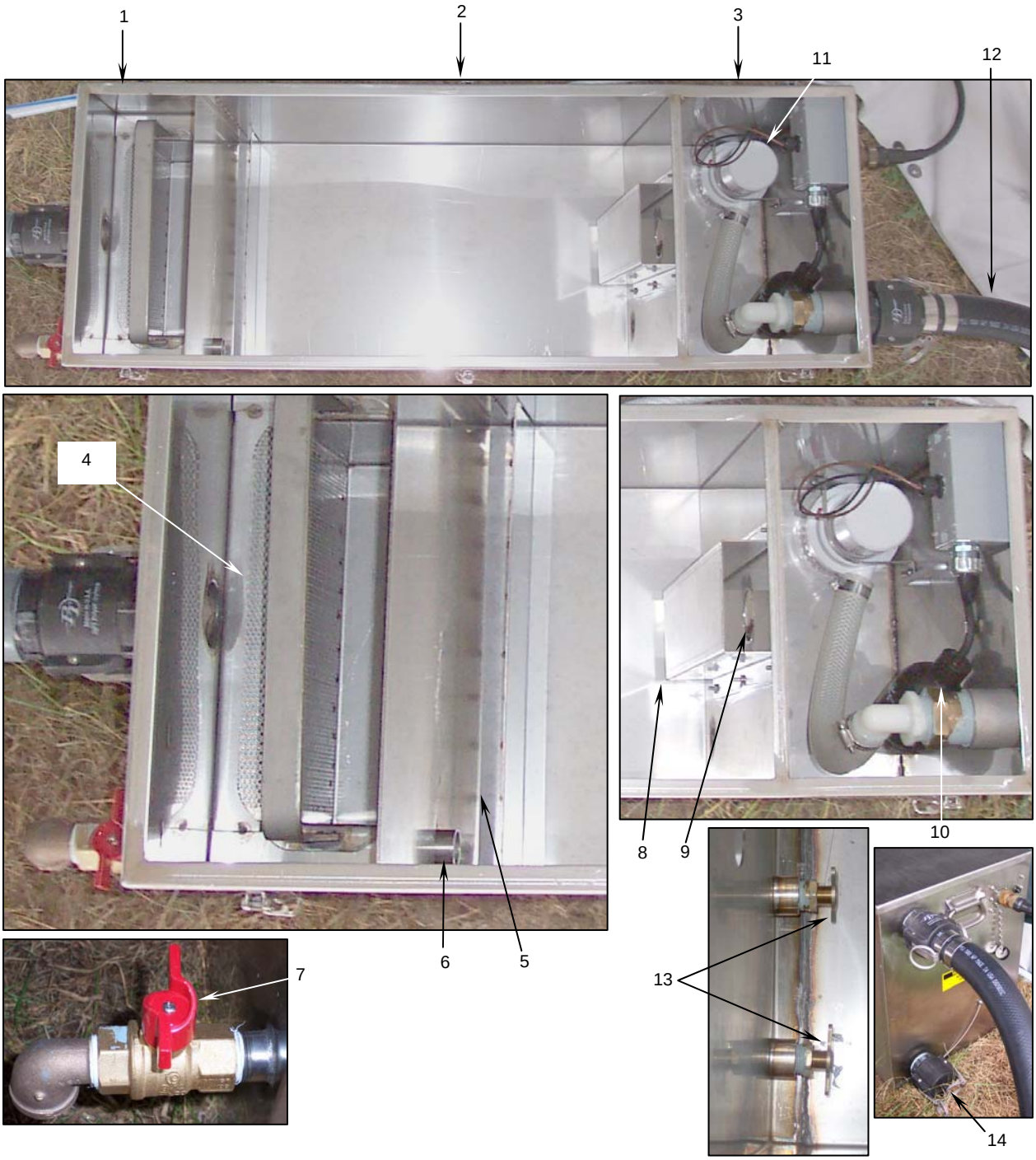


Figure 2. Grease Separator Operational Components.

CO MONITOR (FSC-2 ONLY)

The CO monitor in Figure 3 is hung from the “Y” pole of the tent and is plugged into one of the four outlets on the 100-ft extension cord. An internal power supply converts the 120 VAC source power to 12 VDC. When the CO monitor power cord is plugged into an energized power source, the indicator light **(Figure 3, Item 1)** flashes green on and off during a 10-minute warm-up period while the CO sensor element **(Figure 3, Item 1)** self-cleans. After the warm-up period, the green power ON light glows continuously.

The electronic sensor in the CO monitor is very sensitive to CO (carbon monoxide) gas and provides the following indicator light and matching sound alarms:

Low CO Alarm: Indicates the presence of 70 ppm or more of CO
- Indicator light Flashes red **(Figure 3, Item 1)** and four audible beeps from the alarm **(Figure 3, Item 3)**
- Off for 5 seconds
- Cycle continues until TEST/RESET button **(Figure 3, Item 4)** is pressed
- Pressing TEST/RESET button temporarily silences audible alarm; red light continues to flash until CO has cleared, or the alarm will reactivate in about 6 minutes if CO is still present
- If level of CO continues to rise above 100 ppm, the flashing red light will change to steady red

High CO Alarm: Indicates that the CO level is above 100 ppm
- Steady red light and four audible beeps
- Off for 5 seconds
- Cycle continues until TEST/RESET button is pressed
- Pressing TEST/RESET button temporarily silences audible alarm; red light stays on until CO has cleared, or the alarm will reactivate in about 6 minutes if CO is still present

Malfunction Signal: Indicates that the CO monitor is not functioning properly
- Alternating flashing green and red lights and one audible beep every 30 seconds
- Pressing TEST/RESET button may clear the signals; if it doesn't, troubleshoot or replace monitor

Memory Feature:
The CO Monitor has a peak level memory feature that remembers the approximate amount of CO that activated the alarm. Pressing the TEST/RESET button for less than one second activates the alarm level memory and one of the following alarms:
- One beep and one green flash indicate the memory is clear
- Two beeps and two red flashes indicate less than 100 ppm
- Three beeps and three red flashes indicate less than 200 ppm
- Four beeps and four red flashes indicate over 200 ppm

The memory feature is reactivated by pressing the TEST/REST button for less than one second. The memory is erased by disconnecting the power for 15 seconds.

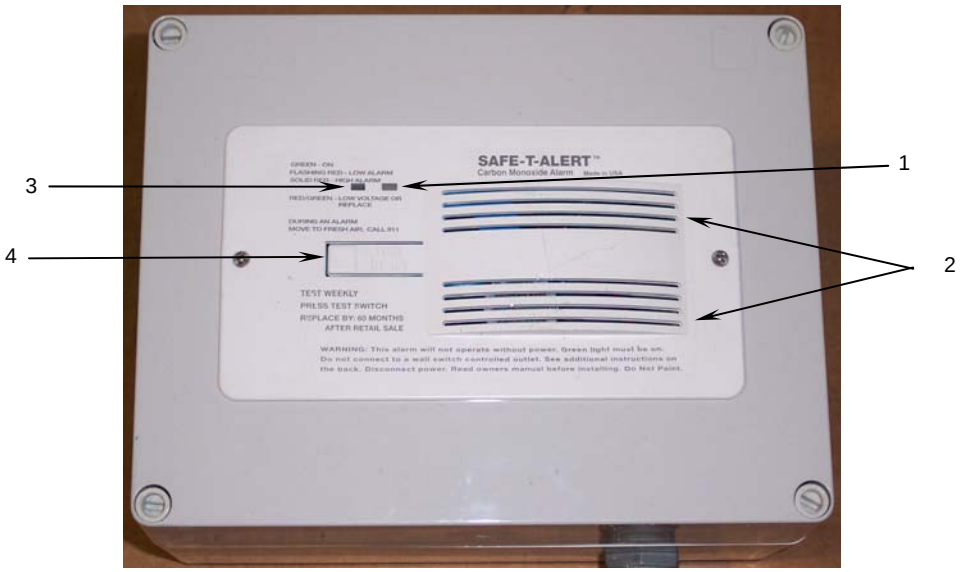


Figure 3. CO Monitor.

CHAPTER 2

OPERATOR INSTRUCTIONS

FOR

FOOD SANITATION CENTER

OPERATOR'S, UNIT, AND DIRECT SUPPORT MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-90, NSN 7360-01-277-2558
MODEL FSC-2, NSN 7360-01-496-2112
DESCRIPTION AND USE OF OPERATOR CONTROLS AND INDICATORS

INTRODUCTION

The FSC has been designed for use in forward combat areas and has few moving parts, with the exception of the MBU burner unit, the sink fill pump assembly (FSC-2 only), and the grease separator (FSC-2 only). The sinks are equipped with drain knobs and thermometers.

CONTROLS AND INDICATORS

Figure 1. Operator Controls and Indicators.

Table 1. Operator Controls and Indicators.

ITEM	CONTROL	FUNCTION
1	Sink Drain Valve Handle	Closes/opens sink drain valves.
2	Thermometer	Reads temperature from 0° to 220°F.
3	Modern Burner Unit	Refer to TM 10-7310-281-13&P for MBU controls and indicators.
4	Power Converter On/Off Switch (FSC-2 Only)	Energizes/de-energizes power converter.
5	Sink Fill Pump Assembly On/Off Switch (FSC-2 Only)	Energizes the sink fill pump assembly for on-demand pumping/delivery of fresh water or de-energizes the assembly.
6	Sink Fill Pump Assembly Power Indicator Light (FSC-2 Only)	Green light is on when the power switch is on.
7	Sink Fill Pump Assembly Breaker Reset Button (FSC-2 Only)	Push in to reset the 5 amp, over-current protective breaker.
8	Grease Separator Breaker Reset Button (FSC-2 Only)	Push in to reset the 5 amp, over-current protective breaker.
9	Grease Separator Grease Removal Valve (FSC-2 Only)	Open to drain surface grease from the grease collection compartment into a #10 can. Closed during normal operation.
10	Co Monitor Alarm Test/Reset Button (FSC-2 Only)	Press in to test the red indicator light and audible alarm or reset alarm.
11	Co Monitor Indicator Light (FSC-2 Only)	Light flashes green during 10-minute warm-up period then stays on to indicate power is on. Light flashes red when CO level of 70 – 100 ppm is detected. Light stays on solid red when CO level over 100 ppm is detected. Alternating flashing green and red to indicate CO Monitor malfunction.
12	Co Monitor Audible Alarm (FSC-2 Only)	Four beeps very 5 seconds when a CO level above 70 ppm is detected. One beep every 30 seconds to indicate CO Detector malfunction.
13	Ground Fault Circuit Interrupter (GFCI) Reset button (FSC-2 Only)	Reset button pops out when excess current is present, such as for a ground fault. Push in to reset the GFCI.
14	Ground Fault Circuit Interrupter (GFCI) Test button (FSC-2Only)	Push in to test the operation of the GFCI. The reset button should pop out when the test button is pushed in.

OPERATOR'S, UNIT AND DIRECT SUPPORT MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-90, NSN 7360-01-227-2558
OPERATION UNDER USUAL CONDITIONS

INITIAL SETUP:

Material/Parts
Barrier Material (WP 0070 00, Item 1)
Detergent, General Purpose (WP 0070 00, Item 4)
Gloves, Chemical Resistant (rubber) (WP 0068 00, Table 2, Item 3)
Tape, cloth, Metal Seam Sealing (WP 0070 00, Item 13)

Personnel Required
Food Service Operator 92G10 (4)

References
FM 10-23
FM 10-52

References - Continued
FM 4-25.11
TB Med 530
TC 8-13
TM 10-7310-281-13&P
TM 10-8340-224-13
TM 10-8340-240-12&P
WP 0012 00
WP 0068 00

Equipment Condition
The FSC-90 equipment is packed and loaded on a transport vehicle.

GENERAL

The instructions in this section are for personnel who operate the FSC-90. Refer to TM 10-8340-224-13 or TM 10-8340-240-12&P for tent instructions. Refer to TM 10-7310-281-13&P for MBU instructions.

The basic operational configuration for the FSC-90 is shown in Figure 1. All equipment required for this configuration arrives in one truck packed as specified in FM 10-23. Tent **(Figure 1, Item 1)**, Electric Light **(Figure 1, Item 2)**, Storage Rack Assembly **(Figure 1, Item 3)**, Drain Table **(Figure 1, Item 4)**, Sink Assembly **(Figure 1, Item 5)**, Work Table **(Figure 1, Item 6)**, Burner Units **(Figure 1, Item 7)**.

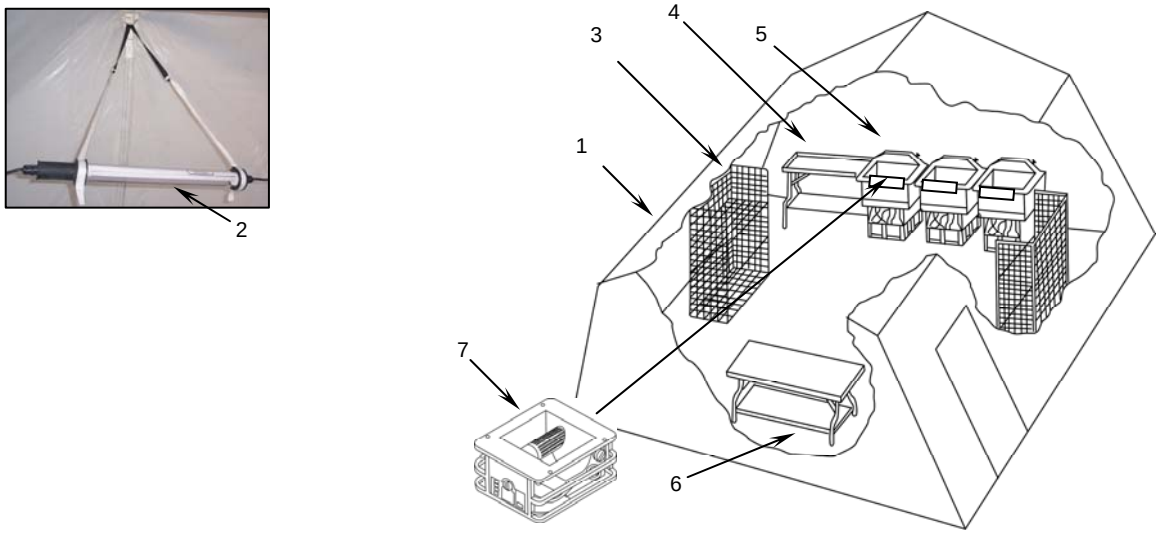


Figure 1. Food Sanitation Center – Basic Operational Configuration.

SECURITY MEASURES FOR ELECTRONIC DATA

There is no electronic data associated with the FSC-90.

SITING REQUIREMENTS

- Choose a site clear of large rocks and trees with firm ground and good water drainage.
- If possible avoid dusty or sandy conditions.
- Use gravel or the other suitable material for base where ground is wet.
- Ensure that there is room to position the food sanitation center within 50 feet from the kitchen.

SHELTER REQUIREMENTS

WARNING

To prevent fires do not use flammable material as a base for the FSC. Failure to comply may cause injury to personnel or damage the equipment.

- Approximately 600 square feet (56 square meters) is needed to set-up the TEMPER tent.
- An additional 600 square feet (56 square meters) is needed for the MFK if used with the FSC.
- An additional 900 square feet (83 square meters) is needed for the trailer mounted field kitchen if used with the FSC.

ASSEMBLY AND PREPARATION FOR USE

1. Remove all items that were packaged with the FSC and place them in a convenient location.
2. Refer to TM 10-8340-224-13 or TM 10-8340-240-12&P for set-up of tent.

WARNING

A single 5-pound dry chemical (Type A, B, C) fire extinguisher is supplied with the FSC. Do not allow the fire extinguisher to be obstructed by utensils, racks, or other operating equipment. If fire occurs, send for help immediately, shut down power to the FSC, and if possible try to fight the fire from outside the tent. Failure to observe safety precautions may result in serious injury or death to personnel.

3. Place the fire extinguisher inside the tent, just inside the door where it is visible and readily accessible in case of a fire.

WARNING

Electrical high voltage and current cannot be seen, but in contact with energized equipment can kill you, render you unconscious, or severely burn you. Electricity is unlike most other dangerous things you can come in contact with because it gives no warning. To ensure your safety and that of other maintenance personnel, always observe the following precautions:

The FSC power source must be electrically grounded. Failure to establish electrical ground may result in equipment damage, serious injury or death from electrical malfunction.

Do not stand in water while handling live power cords or electrical shock may result.

Position all power cables so that they are out of the way during operation and are not lying in water.

Prior to installation, assure power cables outer jackets are not cut or damaged and there are no exposed wires.

4. Set up the electric lights for night operation as follows:

   a. Insert one light-hanging strap **(Figure 2, Item 1)** through the loop in the tent light hanger **(Figure 2, Item 2)**.

   b. Insert one end of that light-hanging strap **(Figure 2, Item 1)** through the loop in the other end of the same light-hanging strap **(Figure 2, Item 1)**.

   c. Pull the light-hanging strap tightly through until it knots at the loop **(Figure 2, Item 3)** of the tent light hanger. Repeat this procedure for the second strap.

NOTE

Ensure the bulb is facing the ground and the reflector is on top.

   d. Loop the light-hanging straps around the lip at both ends of the light **(Figure 2, Item 4)**.

   e. Insert the loose end of both straps through its D-ring **(Figure 2, Item 5)** and secure with its hook and loop fasteners **(Figure 2, Item 6)**.

   f. Repeat procedure for the other light.

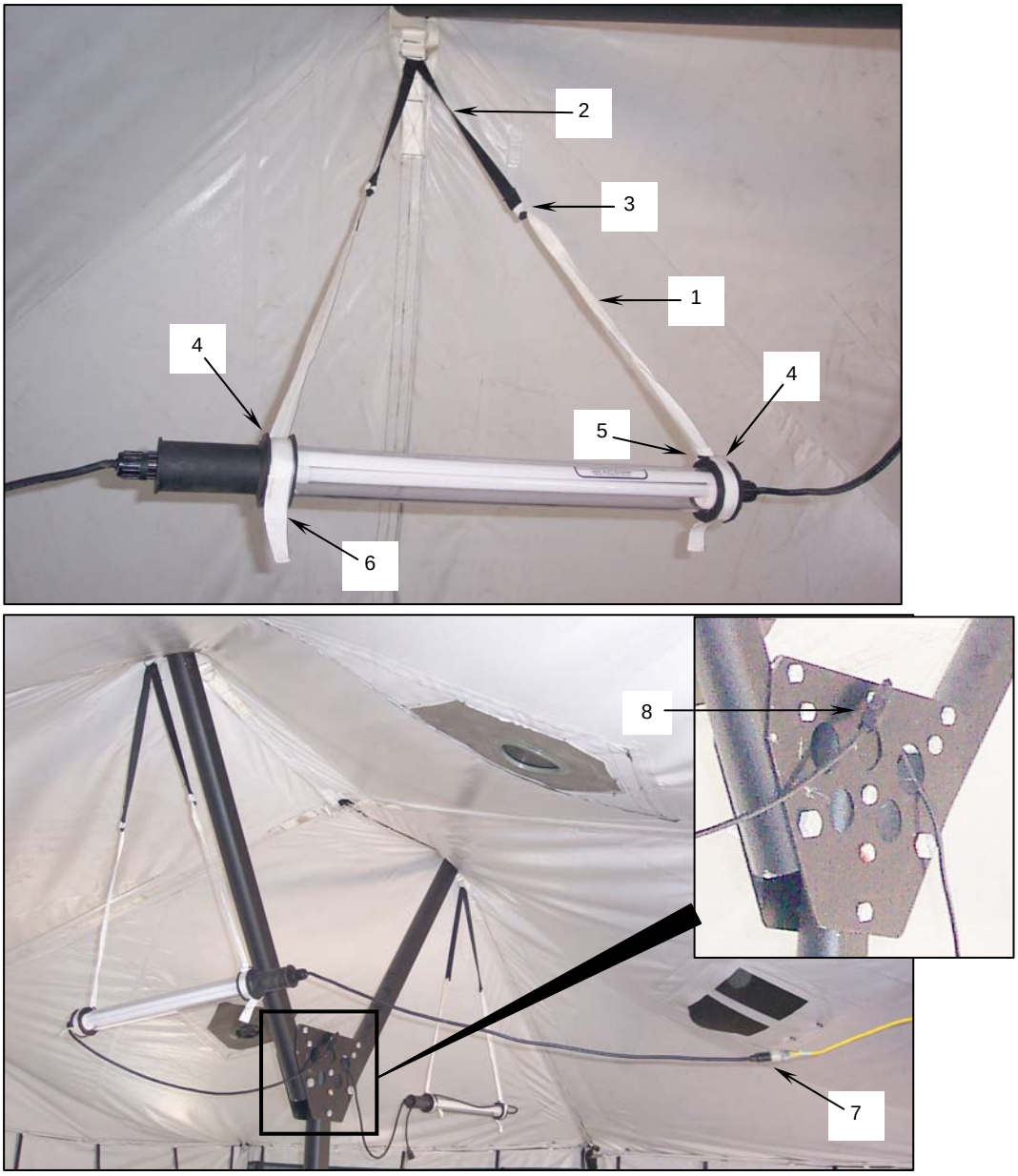


Figure 2. Installing the Electric Lights.

WARNING

Use only a GFCI outlet as the power source. The power source for the FSC-90 is typically the GFCI receptacle on the 2 KW generator or the GFCI receptacle in the generator room of the Containerized Kitchen (CK). Failure to observe this warning may result in serious injuring or death from electrical malfunction.

5. Connect the electric lights to the power source as follows:

   a. Connect the MBU kit cable assembly **(Figure 3, Item 1)** to the 50-ft extension cord **(Figure 3, Item 2)**.

   b. Connect the MBU power converter **(Figure 3, Item 3)** and the 25-ft extension cord **(Figure 3, Item 4)** to the cable assembly **(Figure 3, Item 1)**.

   c. Plug the 25-ft. extension cord into one of the electric lights **(Figure 2, Item 7)**.

   d. Connect the power plug from the second light into the outlet socket of the first light **(Figure 2, Item 8)**.

   e. Connect the 50-ft extension cord **(Figure 3, Item 2)** into the GFCI protected power source **(Figure 3, Item 5)**.

WARNING

Electric shock. The power converter and all electrical connections must be kept off the ground and away from water, especially the water in the sinks, but also water that can accumulate on the ground. Power cords should be positioned so that they have a drip loop. This means that the connections are positioned higher than part of the cord so that if water happens to spill over the cord it will run down the cord, away from the connection. Failure to observe this warning may result in severe electrical burns or death from electrocution.

   f. Place the power converter up off the ground away from water, such as on a storage rack assembly.

   g. Position the power cords to create a drip loop.

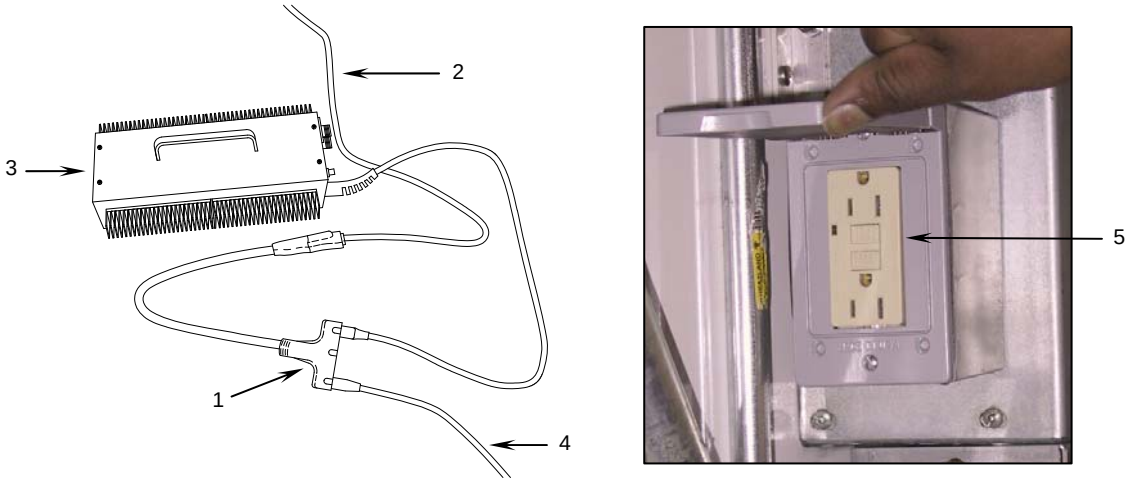


Figure 3. Connecting Electric Lights to Power Source.

WARNING

Each storage rack assembly weighs approximately 44 lb (20 kg) without accessories. Two persons must lift or carry each sink body assembly, lifting with their legs not their back, to prevent injury. The use of work gloves with gripping pads when moving equipment will significantly reduce the risk of injuries/cuts. Failure to observe this warning may result in serious back or other muscular skeletal injuries.

NOTE

The storage rack assembly **(Figure 4, Item 1)** may be used as a single rack unit with a front cover **(Figure 4, Item 2)** or as a set **(Figure 4, Item 3)** stacked in two or three units with the front cover **(Figure 4, Item 2)** used as a shelf piece.

6. Set the storage rack assemblies in place.

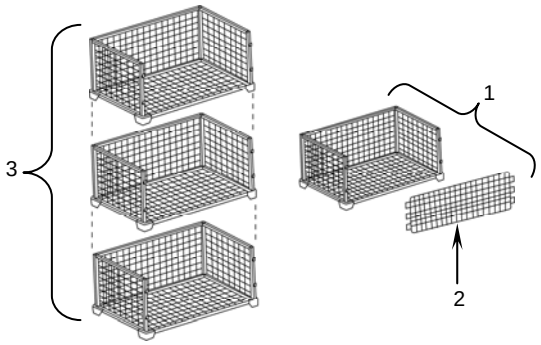


Figure 4. Setting Up the Storage Rack Assemblies.

7. Assemble the sinks as follows:

   a. If necessary, clean the sinks with fresh water and soap before assembling. Refer to WP 0012 00.

WARNING

Each sink body assembly weighs approximately 60 lb (27.28 kg) without accessories. Each burner unit weighs approximately 42 lb (19 kg) without accessories. Two persons must lift or carry each sink body assembly and each burner unit, lifting with their legs not their back, to prevent injury. The use of work gloves with gripping pads when moving equipment will significantly reduce the risk of injuries/cuts. Failure to observe this warning may result in serious back or other muscular skeletal injuries.

   b. Move three sink body assemblies **(Figure 5, Item 1)**, sink adapters **(Figure 5, Item 2)**, burner racks **(Figure 5, Item 3)** with MBUs in place **(Figure 5, Item 4)**, and base racks **(Figure 5, Item 5)** to the sink locations.

WARNING

Improper placement of sink assemblies. Make sure you leave approximately 2-ft between the tent wall and the sink assemblies. Frequently check for heating of the tent wall while the burner units are in use. Move the burner units further away from the tent wall if necessary to prevent possible ignition of the tent. Failure to observe this warning may result in a fire.

c. Place the base rack **(Figure 5, Item 5)** about 5 inches apart from each other and 2-ft from the tent wall.

d. Place the burner rack **(Figure 5, Item 3)** on top of base rack **(Figure 5, Item 5)**.

WARNING

Improper sink assembly. The sink assembly must be positioned on the burner rack so that the rack does not block the sink flue. Improper placement of the sink will block the flue and cause the heat guard and sink assembly to become extremely hot. Keep body parts away from hot surfaces. Contact with bare skin will cause severe burn injuries.

e. Place the sink body assembly **(Figure 5, Item 1)** on top of burner rack **(Figure 5, Item 3)**. Ensure the tabs on the back of the burner rack **(Figure 5, Item 6)** are inserted in the flue of the sink body assembly **(Figure 5, Item 7)**.

f. Connect sinks with adapters **(Figure 5, Item 2)**.

g. Place burners **(Figure 5, Item 4)** in burner racks **(Figure 5, Item 3)**. Ensure burners are pushed all the way into racks.

h. Attach thermometer bracket **(Figure 5, Item 8)** to front or side; install thermometer **(Figure 5, Item 9)** in sink assemblies to be used.

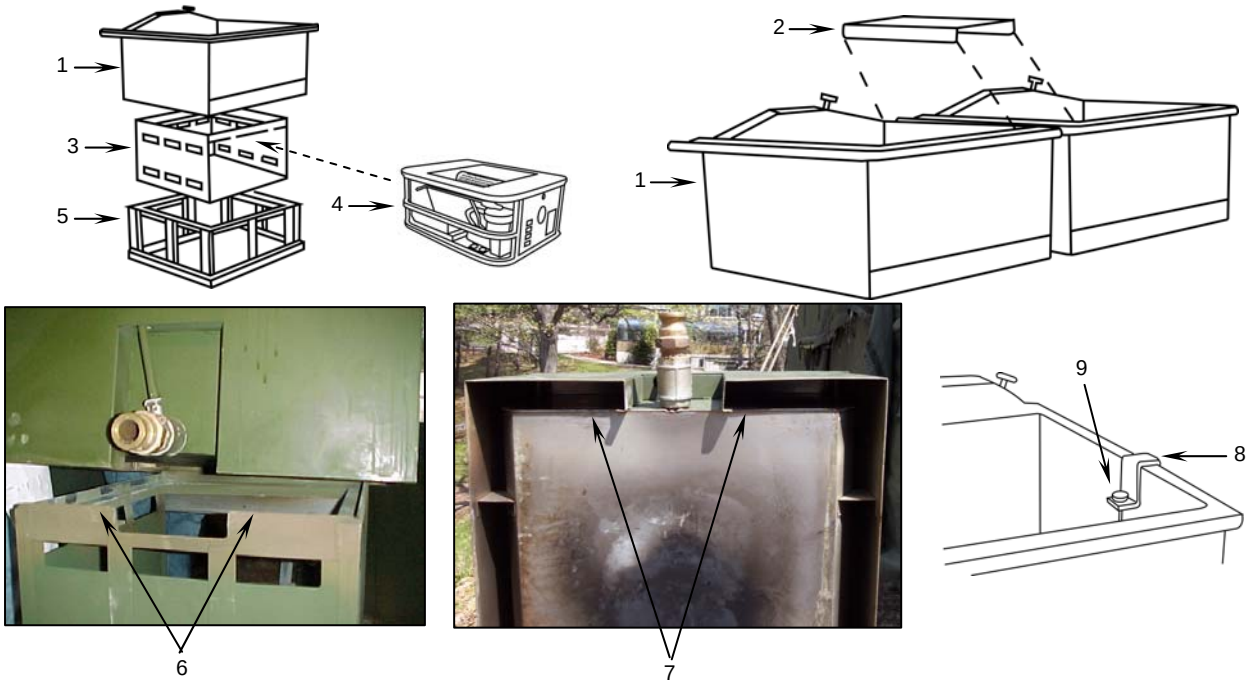


Figure 5. Assembling the Sinks.

8. Install the sink drain hose assembly to discharge to the right of the sinks as follows:

   a. Open each of the clamp(s) (**Figure 6, Item 1)** on one of the two sink drain hose assemblies illustrated in Figure 6 as required for the deployment.

   b. Insert the drain hose assembly coupling(s) **(Figure 6, Item 1)** over the sink drain coupling(s) **(Figure 6, Item 2)**.

   c. Close each clamp **(Figure 6, Item 1)**.

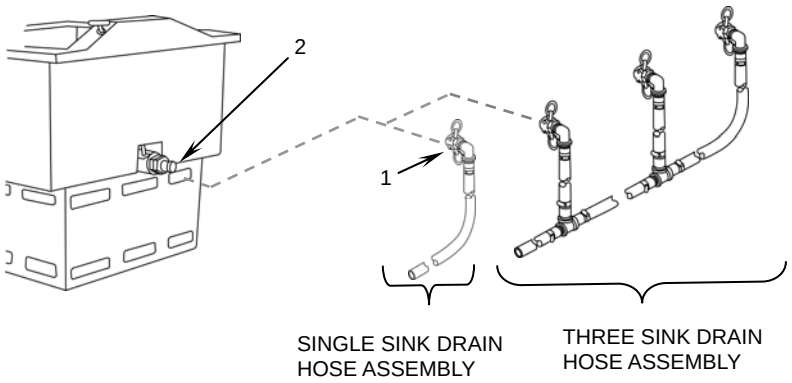


Figure 6. Installing the Sink Drain Hose Assembly.

WARNING

Each work table assembly weighs approximately 57.5 lb (26.05 kg) without accessories. The drain table weighs approximately 41 lb (18.65 kg) without accessories. Two persons must lift or carry each work table assembly and the drain table, lifting with their legs not their back, to prevent injury. The use of work gloves with gripping pads when moving equipment will significantly reduce the risk of injuries/cuts. Failure to observe these warnings may result in serious back or other muscular skeletal injuries.

NOTE

The drain hose output end should be in a position where minimum mud will form. If excess mud forms during use, relocate the drain hose output end. If required, use single sink drain hose assembly for a single sink installation.

9. Set up the work table and the drain table as follows:

   a. Pull out the leg assemblies **(Figure 7, Item 1)** until the linkage **(Figure 7, Item 2)** snaps into place in the fully extended position.

   b. Place the work table shelf **(Figure 7, Item 3)** so that the end lips **(Figure 7, Item 4)** rest on the leg crossbars **(Figure 7, Item 5)**.

   c. Move the assembled work table to its operating location **(Figure 1, Item 6)**.

d. Attach the lip of the drain table **(Figure 7, Item 7)** to the end of sink body assembly **(Figure 7, Item 6)**.

e. If used with the drain table, position the shelf inner cutout **(Figure 7, Item 8)** across the leg crossbar **(Figure 7, Item 5)** and place the opposite lip **(Figure 7, Item 9)** of the shelf on the left sink base rack **(Figure 7, Item 10)**.

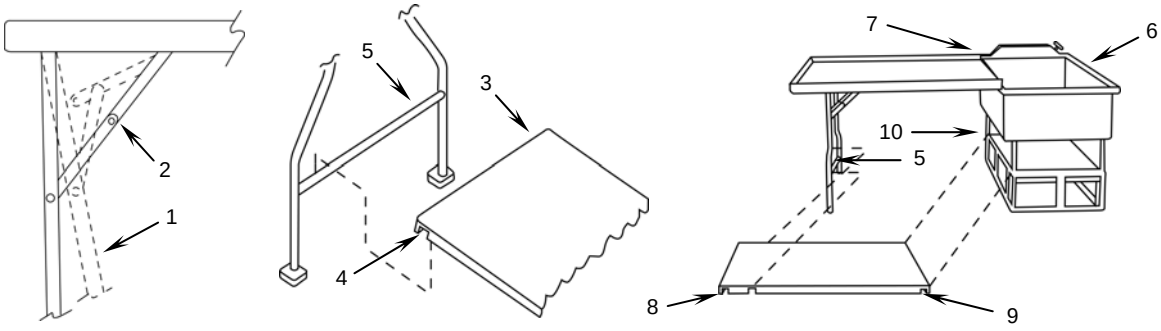


Figure 7. Installing the Work Table and Drain Table.

10. Prepare the MBU burner units in accordance with TM 10-7310-281-13&P.

OPTIONAL CONFIGURATIONS

Two FSC-90 Configuration

To sanitize the pots, pans, and utensils used with two or three consolidated MFKs, two FSCs can be consolidated. To operate in the consolidated configurations, the site must be large enough to accommodate the combined feeding area for the MFKs as well as the 32 x 20 foot (9.8 x 6.1 meters) sanitation area.

When two FSCs are consolidated and used with two MFKs, the equipment is packed, transported, and unloaded from four standard 2-1/2 ton or 5-ton tactical vehicles, or two vehicles with 1-1/2 ton cargo trailers as described in FM 10-23. To operate in this consolidated configuration, the following FSC major components are required:

- One tent, expandable modular (four 8-foot sections).
- Additional tents, if available, can be used for food storage.
- Four storage rack sets (12 storage rack assemblies).
- Six sink assemblies.
- Six burner units.
- Two drain tables.
- Two work tables.

1. Set up a two FSC configuration as follows:

   a. Upon arrival at the selected site, set up the tent(s) as directed in TM 10-8340-224-13.

   b. Assemble and set up remaining equipment in accordance with the Assembly and Preparation For Use procedures in this work package and as shown in Figure 8.

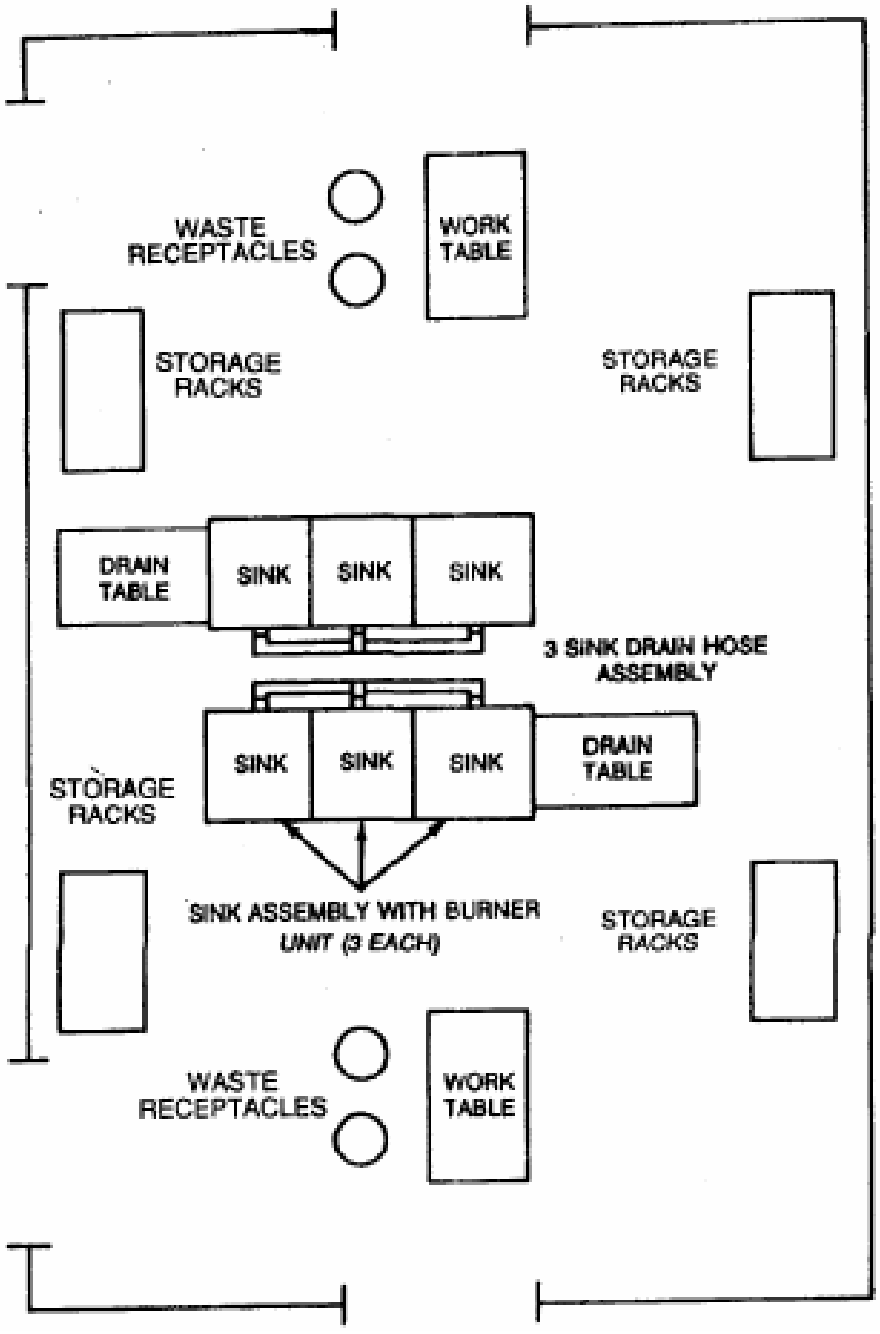


Figure 8. Optional Two FSC Configuration.

FSC-90 Configuration for a Combat Support Hospital (DEPMED)

An optional configuration, 32 x 20 foot (9.8 x 6.1 meters), used by Deployable Medical Systems (DEPMED) personnel in a combat support hospital is shown in Figure 9. Refer to Deployable Medical Systems Tactics, Techniques and Procedures TC 8-13 for instructions.

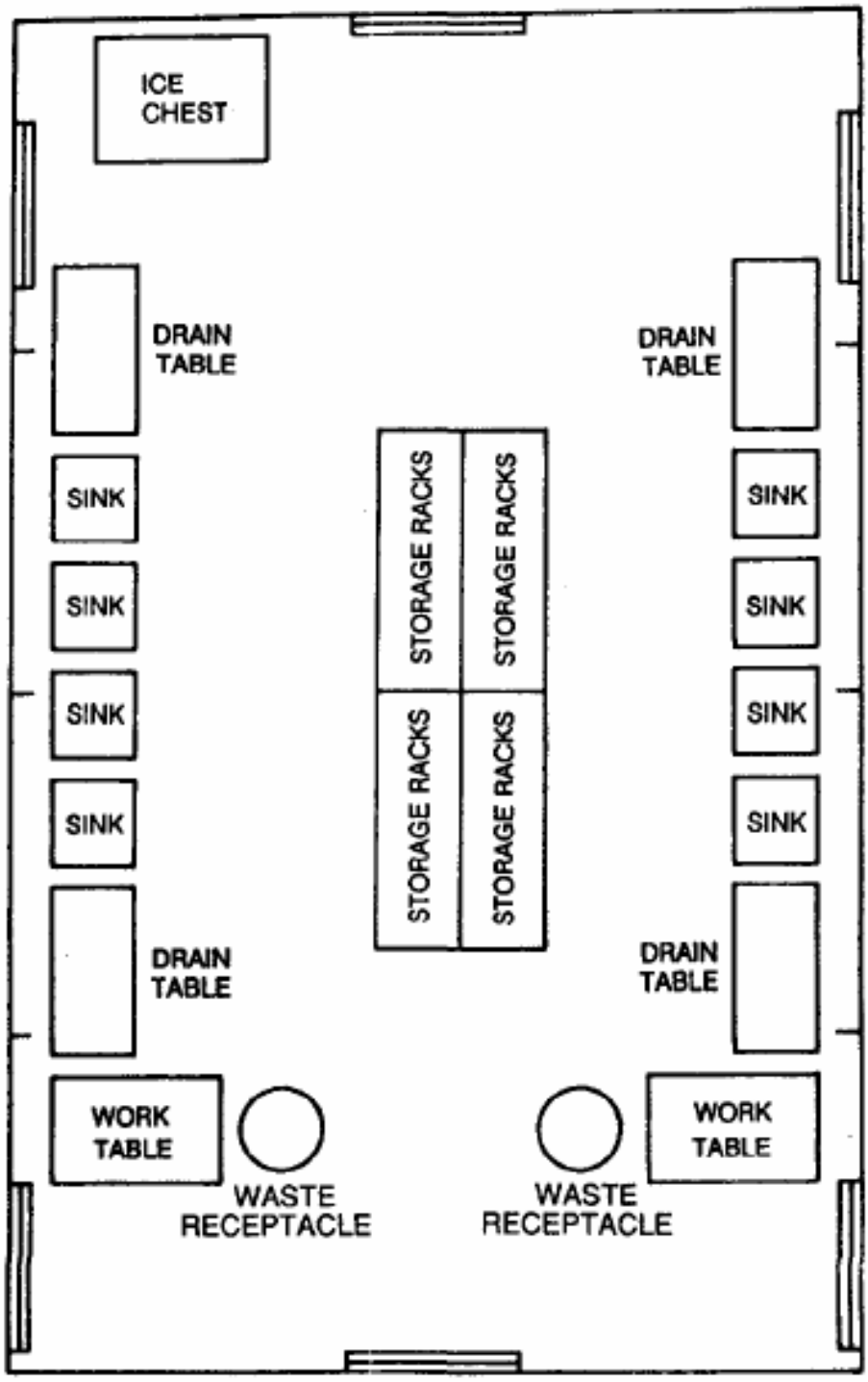


Figure 9. Optional FSC Configuration for a Combat Support Hospital, DEPMED.

OPERATING PROCEDURES

1. Prepare water to operate the FSC as follows:

   a. Treat water in accordance with TB Med 530.

NOTE

Additional guidance for chlorine treatment may be found in FM 10-23 and FM 10-52.

   b. Ensure water has a residual chlorine content of five parts per million (ppm).

2. Prepare the sinks for operation as follows:

   a. Remove the covers **(Figure 10, Item 1)** from the sink assemblies **(Figure 10, Item 2)** to be used.

   b. Ensure the thermometer brackets **(Figure 10, Item 3)** and thermometers **(Figure 10, Item 4)** are attached to the sink assemblies **(Figure 10, Item 2)**.

CAUTION

Do not over-tighten the drain knobs when rotating clockwise to close the drains. Very little pressure is required to close the drain. Over-tightening can damage the drain valves.

   c. Tighten the drain knobs **(Figure 10, Item 5)**.

   d. Close the drains on the sink assemblies **(Figure 10, Item 2)** by rotating the drain knobs **(Figure 10, Item 5)** ¼ turn clockwise.

   e. Clean the sinks before use IAW WP 0012 00.

   f. Fill the sinks **(Figure 10, Item 2)** with 20 gallons (75.7 liters) of water, approximately 8 inches (203 mm) deep.

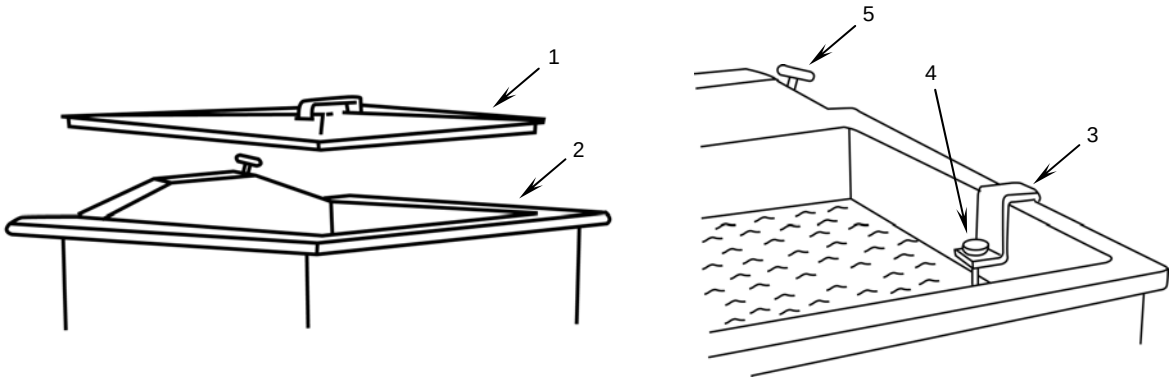


Figure 10. Preparing the Sinks for Operation.

WARNING

Fuels are toxic and flammable. MBU units are designed to be fueled in place. When fueling the MBU's, ensure that the area is well-ventilated and that there is no open flame or other ignition source in the vicinity. Wear protective goggles, avoiding contact with skin and clothes, and don't breathe vapors. If contact with eyes or skin is made, immediately flush with clean water, and obtain medical aid for eyes. If contact with clothing or skin is made, immediately remove contaminated clothing and clean skin with mild soap or cleanser and flush with clean water.

Do not operate the burner units if fuel or other flammable material is on or near the burner units. Do not start an MBU unit under a sink that is not filled with water. Failure to observe this warning may cause the sink assembly to become extremely hot. Inadvertent body contact with bare skin will cause severe burn injuries.

Always store fuel can in well-ventilated area as far away from open flames and other potential ignition sources as possible. Keep fuel tank and fuel container caps tight at all times. Leaking or spilled fuels will create a fire danger-injuries/death and environmental damage. Fuel spills must be cleaned up in accordance with local requirements. Failure to observe fuel requirements could cause damage to the heater assembly, fire, or death to personnel within or around the FSC.

WARNING

Carbon monoxide (CO) is a gas without color, smell, or taste that can kill you. Breathing carbon monoxide gas produces symptoms such as headache, dizziness, loss of muscular control, a sleepy feeling, unconsciousness, or can induce a coma. Brain damage or death can result from exposure. Dangerous levels of carbon monoxide will occur from operating the MBUs in an enclosed FSC tent. Operators observe for symptoms of carbon monoxide poisoning such as headache, distress, dizziness, nausea and weakness. If artificial respiration is necessary, refer to FM 4-25.11. Maintain open roof vents, windows, and doors in the tent to provide ventilation and prevent the accumulation of carbon monoxide gas. Provide fresh air intake for the soldiers and the burners by ensuring that all doors, windows, and screened roof openings are kept fully open. Keep all openings and roof vents free of blockage. Do not use the FSC-2 system in a tent (or alternate enclosure) that does not meet the MGPTS cross ventilation design capabilities.

Do not use the burners as personal heating sources during cold weather. Be alert at all times during FSC operation for symptoms of exposure to CO. If any personnel show symptoms, immediately remove them from the FSC and obtain immediate medical attention and treatment. Failure to observe this warning may result in brain damage or death.

3. Prepare the burner units for use as follows:

   a. Follow all precautions and instructions in TM 10-7310-281-13&P (MBU), fuel, and then start each burner unit.

   b. Monitor each burner unit for proper flame color.

WARNING

Burn hazard. Wear rubber gloves and apron when performing cleaning and sanitizing operations, when draining hot water from the sinks, or when performing any operation that may result in contact with hot equipment surfaces or hot water. Failure to observe this warning may result in severe burns.

When the water temperature is between110-190°F and you are performing cleaning and sanitizing operations, do not submerge the open end of the gloves into the hot water. The gloves will fill with hot water and burn the skin. Failure to observe this warning may result in severe burn injuries to personnel.

4. Manually clean and sanitize pots, pans, utensils and other food handling items as follows:

   a. Pre-scrape items to remove food.

   b. Wash each item in one sink with hot (110°F to 120°F, 49°C to 52°C) detergent solution. Scrub items until free of all food and dirt. Change water when too dirty.

   c. Rinse off detergents with hot (120°F to 140°F, 49°C to 60°C) clean water in second sink.

NOTE

Be sure all items are completely covered with clean, hot water.

   d. Load rinsed items in the sink immersion rack and lower the loaded sink immersion rack into clean hot water (171°F or above, 77°C minimum) in a third sink.

   e. Leave racks in water for at least 30 seconds.

   f. Remove the rack from the sink. Remove the sanitized items from the rack, air dry, and store.

5. Change water in the sinks as needed when too dirty as follows:

   a. Shut off the burner in accordance with TM 10-7310-281-13&P.

   b. Remove water from the sink by rotating the drain knob ¼ turn counterclockwise.

   c. Rinse and, if necessary, wash out the sink.

   d. Refill the sink.

   e. Restart the burner unit, following all precautions and instructions in TM 10-7310-281-13&P.

   f. Wait for the water to reach the required temperature.

   g. Resume cleaning and sanitizing food handling items.

6. Upon completion of washing and sanitizing operations, shut down the equipment as follows:

WARNING

Fire hazard. Allow burner units to cool before releasing air pressure from fuel tanks. Do not smoke and make sure there is no open flame in the vicinity. Fuel fumes are highly flammable. Failure to observe this warning may result in fire and injury or death.

NOTE

Dispose of gray water IAW with unit SOP.

a. Clean all FSC components as needed IAW Work Package 0012 00.

b. Shut off the MBU in accordance with TM 10-7310-281-13&P.

c. Remove water from the sinks by rotating the drain knob ¼ turn counterclockwise.

d. Clean and rinse sinks as needed.

e. Rotate drain knob clockwise to close.

f. Switch off the power converter power switch.

PREPARATION FOR MOVEMENT

Refer to TM 10-8340-224-13 or TM 10-8340-240-12&P for tent instructions.

Refer to TM 10-7310-281-13&P for MBU instructions.

Ensure that the FSC equipment is cleaned as described in WP 0012 00.

Ensure that the FSC equipment is shut down as described earlier in this work package.

Disassemble the Equipment

WARNING

Fire hazard. Allow burner units to cool before releasing air pressure from fuel tanks. Do not smoke and make sure there is no open flame in the vicinity. Fuel fumes are highly flammable. Bleed all burner units of air before storage. Drain all fuel from equipment into fuel can before movement or storage. Failure to observe this warning may result in fire and injury or death.

1. Ensure that all equipment is cool to the touch before disassembling.

2. Prepare the burner units as follows:

WARNING

Each burner unit weighs approximately 42 lb (19 kg) without accessories. Two persons must lift or carry each burner unit, lifting with their legs not their back, to prevent injury. The use of work gloves with gripping pads when moving equipment will significantly reduce the risk of injuries/cuts. Failure to observe this warning may result in serious back or other muscular skeletal injuries or hand cuts.

WARNING

Fuels are toxic and flammable. When draining fuel from the MBUs, ensure that the area is well-ventilated and that there is no open flame or other ignition source in the vicinity. Wear protective goggles, avoiding contact with skin and clothes, and don't breathe vapors. If contact with eyes or skin is made, immediately flush eyes or skin with clean water and get medical aid for eyes.

Always store fuel can in well-ventilated area as far away from open flames and other potential ignition sources as possible. Keep fuel tank and fuel container caps tight at all times. Leaking or spilled fuels will create fire danger-injuries or death and environmental damage. Fuel spills must be cleaned up in accordance with local requirements. Failure to observe fuel requirements could cause fire danger-potential, injuries or death to personnel within or around the FSC**.**

a. Remove the burner units from the sink assemblies.

b. Drain the MBU fuel tanks and prepare the MBUs for movement IAW TM 10-7310-281-13&P.

c. Return burner units to the sink assembly burner racks.

WARNING

The drain table weighs approximately 41 lb (18.65 kg) without accessories. Two persons must lift or carry the drain table, lifting with their legs not their back, to prevent injury. The use of work gloves with gripping pads when moving equipment will significantly reduce the risk of injuries/cuts. Failure to observe this warning may result in serious back or other muscular skeletal injuries or hand cuts.

3. Disassemble the drain table as follows:

a. Remove shelf **(Figure 11, Item 1)**.

b. Detach the drain table **(Figure 11, Item 2)** from the rim **(Figure 11, Item 3)** of the sink assembly **(Figure 11, Item 4)**.

c. Turn the drain table **(Figure 11, Item 2)** upside down and push the linkage **(Figure 11, Item 5)** in from its fully extended position. Fold the table legs **(Figure 11, Item 6)**.

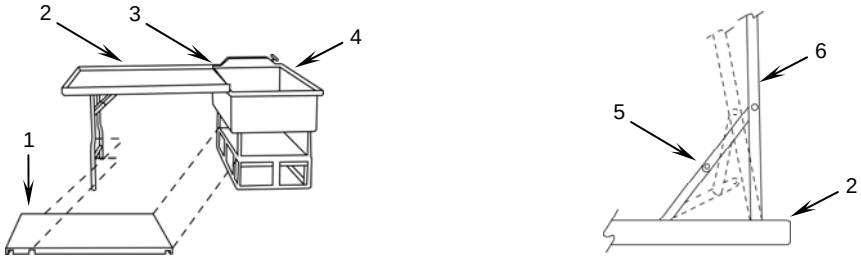


Figure 11. Disassembling the Drain Table.

WARNING

Burn hazard. Wear rubber gloves and apron when performing any operation which may result in contact with hot equipment surfaces or hot water. Failure to observe this warning may result in severe burns.

4. Disassemble the sink assemblies as follows:

a. Remove the thermometers **(Figure 12, Item 1)** and thermometer brackets **(Figure 12, Item 2)** from the sinks.

b. If there is a chance that the water in the hoses is hot, put on protective gloves before disconnecting and draining the hoses.

c. Open the couplings **(Figure 12, Item 3)** on the drain hose assemblies **(Figure 12, Item 4)** and disconnect the couplings from a single or three sink drains **(Figure 12, Item 5)**.

d. Drain all water from the hose.

e. Remove sink adapters **(Figure 12, Item 6)**.

WARNING

Each sink body assembly weighs approximately 60 lb (27.28 kg) without accessories. Each burner unit weighs approximately 42 lb (19 kg) without accessories. Two persons must lift or carry each sink body assembly and each burner unit, lifting with their legs not their back, to prevent injury. The use of work gloves with gripping pads when moving equipment will significantly reduce the risk of injuries/cuts. Failure to observe this warning may result in serious back or other muscular skeletal injuries or hand cuts.

f. Separate the sink body assemblies **(Figure 12, Item 7)**, burner rack **(Figure 12, Item 8)**, and base rack **(Figure 12, Item 9)**; leave the burner units **(Figure 12, Item 10)** in the burner racks **(Figure 12, Item 8)**.

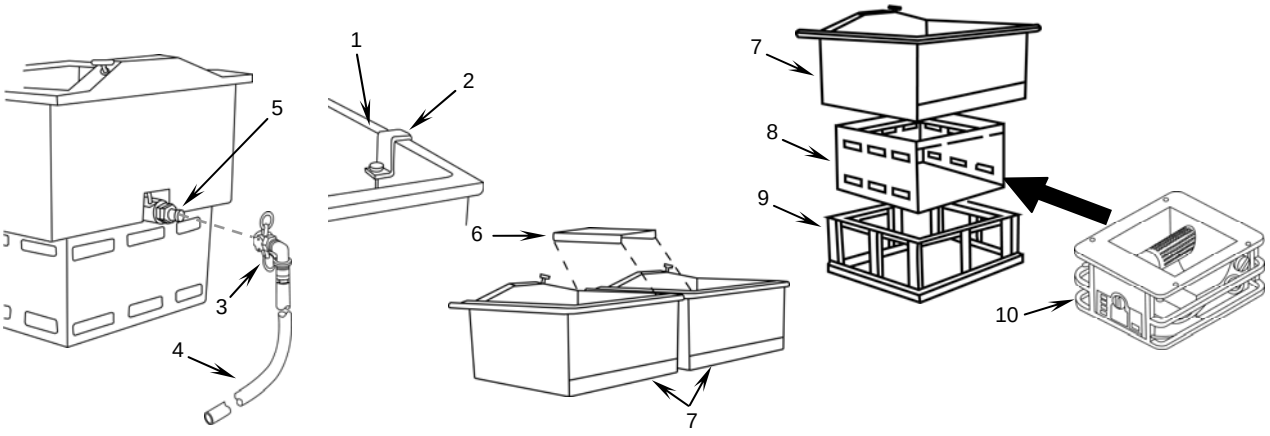


Figure 12. Disassembling the Sink Assemblies.

WARNING

Each work table assembly weighs approximately 42 lb (19.09 kg) without accessories. Two persons must lift or carry each work table assembly, lifting with their legs not their back, to prevent injury. The use of work gloves with gripping pads when moving equipment will significantly reduce the risk of injuries/cuts. Failure to observe this warning may result in serious back or other muscular skeletal injuries or hand cuts.

5. Disassemble the work table as follows:

   a. Remove the shelf **(Figure 13, Item 1)** from the work table crossbars **(Figure 13, Item 2)**.

   b. Turn the table **(Figure 13, Item 3)** upside down.

   c. Push-in the linkage **(Figure 13, Item 4)** of each table leg from its fully extended position, and fold the table legs **(Figure 13, Item 5)** to lie flat against the bottom of the table top.

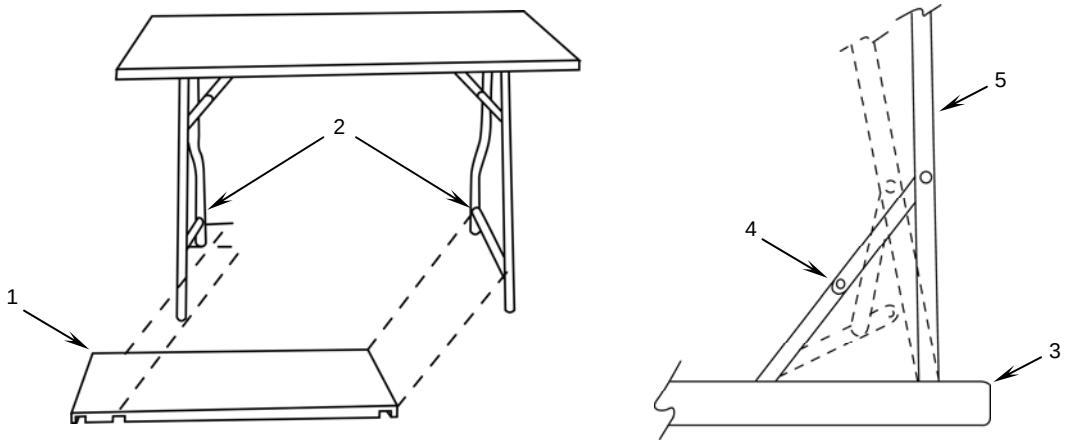


Figure 13. Disassembling the Work Table.

WARNING

Each storage rack assembly weighs approximately 44 lb (20 kg) without accessories. Two persons must lift or carry each rack assembly, lifting with their legs not their back, to prevent injury. The use of work gloves with gripping pads when moving equipment will significantly reduce the risk of injuries/cuts. Failure to observe this warning may result in serious back or other muscular skeletal injuries or hand cuts.

6. Disassemble the storage rack assemblies as follows:

   a. Remove the shelves (front cover) **(Figure 14, Item 1)** from the storage rack assembly **(Figure 14, Item 2)**.

   b. Disassemble the stacked rack units **(Figure 14, Item 3)** and place the front cover **(Figure 14, Item 1)** on each storage rack assembly **(Figure 14, Item 2)**.

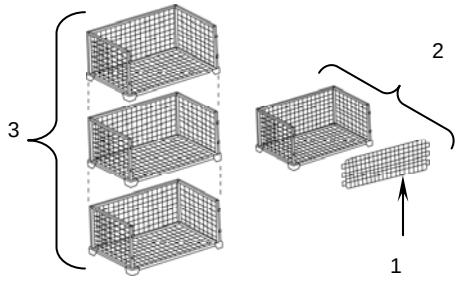


Figure 14. Disassembling the Storage Rack Assemblies.

WARNING

Electrical high voltage and current can't be seen, but in contact with energized equipment can kill you, render you unconscious, or severely burn you. Electricity is unlike most other dangerous things you can come in contact with because it gives no warning. For artificial respiration, refer to FM 4-25.11. To ensure your safety and that of others, always observe the following precautions:

- Do not stand in water while handling live power cords or electric shock may result.
- Prior to storing, assure power cable outer jackets are not cut or damaged and there are no exposed wires.

Failure to observe this warning may result in death on contact.

NOTE

The lights can be more easily removed after lowering the tent in accordance with TM 10-8340-224-13 or TM 10-8340-240-12&P. Ensure that one person secures the light while the second person disassembles it.

7. Remove the electric lights as follows:

   a. Disconnect the 50-ft extension cord from the power source.

   b. Disconnect the power plug of the second light from the outlet socket of the first light.

   c. Disconnect the hook and loop fasteners **(Figure 15, Item 1)** and pull the light-hanging straps **(Figure 15, Item 2)** out from their D-rings **(Figure 15, Item 3)**, releasing the light-hanging straps from the lip of the light **(Figure 15, Item 4)** at both ends.

   d. Release the knots **(Figure 15, Item 5)** that connect the light-hanging straps **(Figure 15, Item 2)** to the tent light hanger **(Figure 15, Item 6)** and disconnect the straps from the hanger.

   e. Repeat the last two steps for the other light.

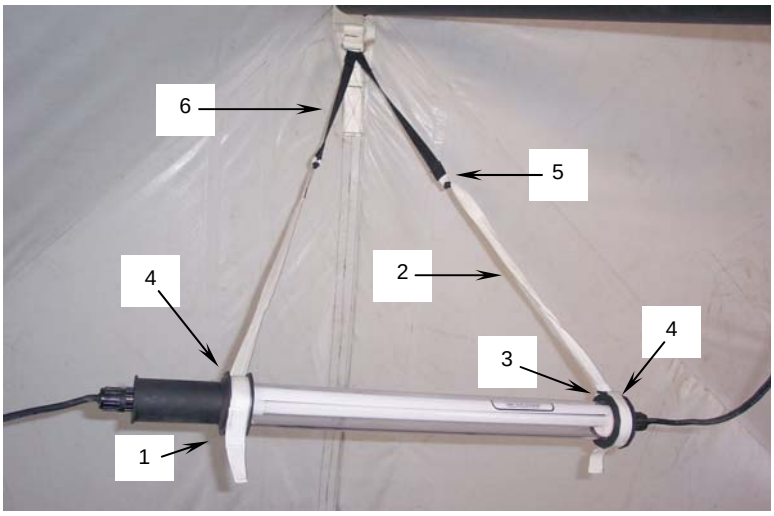


Figure 15. Removing the Electric Lights.

8. Prepare the tent for movement by striking it in accordance with TM 10-8340-224-13 or TM 10-8340-240-12&P.

Package the Equipment

NOTE

Equipment and items that require packaging prior to loading into the truck are listed in WP 0068 00, Components of End Item (COEI) and Basic Issue Items (BII). Smaller items are packed into the sinks and the storage rack assemblies prior to loading into the truck.

1. Pack the sink assemblies as follows:

WARNING

Each burner unit weighs approximately 42 lb (19 kg) without accessories. Two persons must lift or carry each burner unit, lifting with their legs not their back, to prevent injury. The use of work gloves with gripping pads when moving equipment will significantly reduce the risk of injuries/cuts. Failure to observe this warning may result in serious back or other muscular skeletal injuries or hand cuts.

   a. Place the burner unit of each sink assembly into the burner rack.

   b. Place the base rack, with the bottom facing down, over the burner rack.

   c. Place this assembly into the sink body assembly.

   d. Wrap the thermometer and its bracket in barrier material and place on top of the burner units.

   e. Place the sink cover on the sink body assembly.

2. Pack the first of three, two-piece storage rack assemblies as follows:

   a. Place the single sink drain hose assembly **(Figure 16, Item 1)** into one waste receptacle **(Figure 16, Item 2)** and cover with lid **(Figure 16, Item 3)**.

   b. Place the two electric lights, the light-hanging straps, and the 50-ft and 25-ft extension cords into one waste receptacle.

   c. Place the technical manual in its original bag and place into the same waste receptacle.

   d. Cover the waste receptacle with lid.

   e. Wrap the fire extinguisher **(Figure 16, Item 4)** in barrier material and place into an immersion rack **(Figure 16, Item 5)**.

   f. Place the packed waste receptacle and immersion rack into one storage rack assembly **(Figure 16, Item 6)**.

WARNING

Each storage rack assembly weighs approximately 44 lb (20 kg) without accessories. Two persons must lift or carry each rack assembly, lifting with their legs not their back, to prevent injury. The use of work gloves with gripping pads when moving equipment will significantly reduce the risk of injuries/cuts. Failure to observe this warning may result in serious back or other muscular skeletal injuries or hand cuts.

g. Position another empty storage rack assembly **(Figure 16, Item 7)** close to the packaged one.

h. Install two shelves **(Figure 16, Item 8)** as low as possible into the empty storage rack assembly **(Figure 16, Item 7)**.

i. Use two-man lift (one man on each end), carefully rotate the two-shelved storage rack **(Figure 16, Item 7)** and **(Figure 16, Item 8)**. The bottom is now top.

j. Position each of the storage rack assemblies so that each of its empty side faces each other.

k. Slide each storage rack assembly together to form a box.

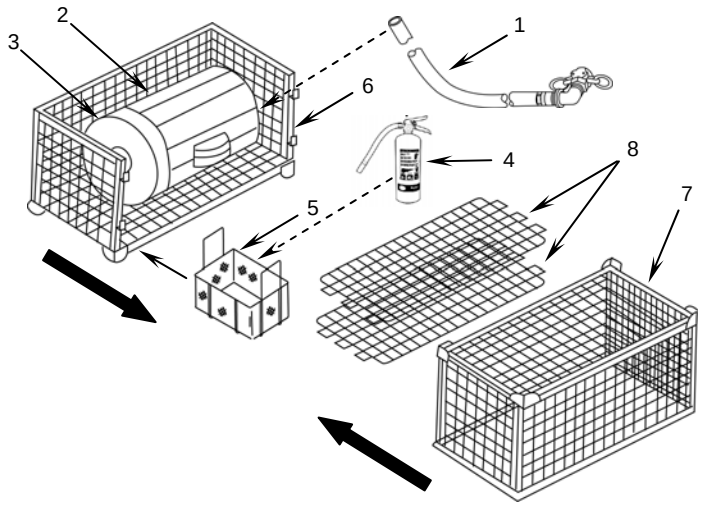


Figure 16. Packing a Storage Rack Assembly.

3. Pack the second of three, two-piece storage rack assemblies as follows:

   a. Pack the three-sink drain assembly into the second waste receptacle.

   b. Cover the waste receptacle with lid.

   c. Place the packed waste receptacle and packed immersion rack into a storage rack assembly.

WARNING

Each storage rack assembly weighs approximately 44 lb (20 kg) without accessories. Two persons must lift or carry each rack assembly, lifting with their legs not their back, to prevent injury. The use of work gloves with gripping pads when moving equipment will significantly reduce the risk of injuries/cuts. Failure to observe this warning may result in serious back or other muscular skeletal injuries or hand cuts.

d. Position another empty storage rack assembly close to the packaged one.

e. Install as low as possible, two shelves into the empty storage rack assembly.

f. Use two-man lift (one man on each end), carefully rotate the two-shelved storage rack.

g. Position each of the storage rack assemblies so that each of its empty side faces each other.

h. Slide each storage rack assembly together to form a box.

4. Pack the third of three, two-piece storage rack assemblies as follows:

a. Package the remaining miscellaneous equipment in the third immersion rack and the storage rack assembly.

b. Place the last immersion rack into the storage rack assembly.

WARNING

Each storage rack assembly weighs approximately 44 lb (20 kg) without accessories. Two persons must lift or carry each rack assembly, lifting with their legs not their back, to prevent injury. The use of work gloves with gripping pads when moving equipment will significantly reduce the risk of injuries/cuts. Failure to observe this warning may result in serious back or other muscular skeletal injuries or hand cuts.

c. Position another empty storage rack assembly close to the packed one.

d. Install as low as possible, two shelves into the empty storage rack assembly.

e. Use two-man lift (one man on each end), carefully rotate the two-shelved storage rack.

f. Position each of the storage rack assemblies so that each of its empty side faces each other.

g. Slide each storage rack assembly together to form a box.

WARNING

Excessive weight hazard. The tent fabric sections are heavy. Observe lifting requirements printed on the tent and pole bags. Always lift with your legs not your back. Failure to observe this warning may result in serious back or other muscular skeletal injuries.

The three packed sink assemblies each weigh about 130 lb (59.1 kg). The weight of each of the three packed storage rack assemblies ranges from about 130 lb (59.1 kg) to 185 lb (84.1 kg). Suitable material handling equipment or four persons must lift or carry each assembly, lifting with their legs not their back, to prevent injury. The use of work gloves with gripping pads when moving equipment will significantly reduce the risk of injuries/cuts. Failure to observe this warning may result in serious back or other muscular skeletal injuries or hand cuts.

Each work table assembly weighs approximately 42 lb (19.09 kg) without accessories. The drain table weighs approximately 41 lb (18.65 kg) without accessories. Two persons must lift or carry each work table assembly and the drain table, lifting with their legs not their back, to prevent injury. The use of work gloves with gripping pads when moving equipment will significantly reduce the risk of injuries/cuts. Failure to observe this warning may result in serious back or other muscular skeletal injuries or hand cuts.

5. Load the following equipment onto the truck as specified in FM 10-23:

- tent
- three packed sink assemblies
- three packed storage rack assemblies
- drain table and shelf
- two work tables and shelves

END OF WORK PACKAGE

OPERATOR'S, UNIT AND DIRECT SUPPORT MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-2, NSN 7360-01-496-2112
OPERATION UNDER USUAL CONDITIONS

INITIAL SETUP:

Material/Parts
Barrier Material (WP 0070 00, Item 1)
Detergent, General Purpose (WP 0070 00, Item 4)
Gloves, Chemical Resistant (rubber) (WP 0068 00, Item 3)
Tape, Cloth, Metal Seam Sealing (WP 0070 00, Item 13)

Personnel Required
Food Service Operator 92G10 (4)

References
FM 10-23
FM 10-52

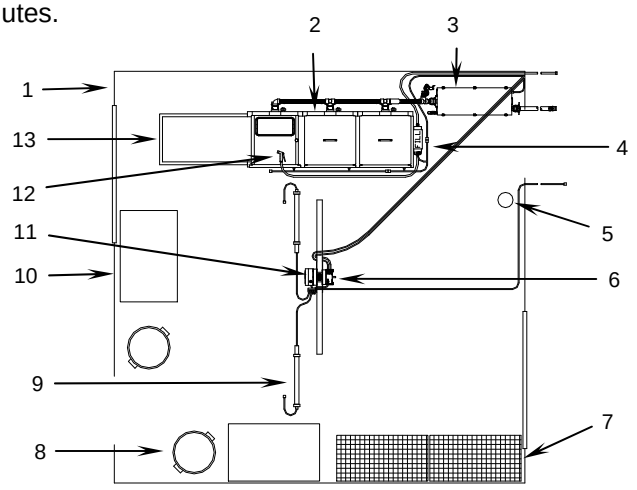
References - Continued
FM 4-25.11
FM 100-14
TB Med 530
TM 10-7310-281-13&P
TM 10-8340-240-12&P
WP 0007 00
WP 0012 00
WP 0068 00
WP 0069 00

Equipment Condition
The FSC-2 equipment is packed and loaded on a transport vehicle

GENERAL

The instructions in this section are for personnel who operate the FSC-2 model. Refer to TM 10-8340-240-12&P for tent instructions. It is recommended that the tent flooring be used with the tent (WP 0069 00). Refer to TM 10-7310-281-13&P for MBU instructions.

The basic operational configuration for the FSC-2 is shown in Figure 1. All equipment required for this configuration arrives in one truck, can be set up on-site within 1 hour by four soldiers, and prepares for movement within 30 minutes.



1. Modular General Purpose Tent System (MGPTS)
2. Sinks And Burners
3. Grease Separator
4. Fill Pump Assembly
5. Fire Extinguisher
6. Power Converter
7. Storage Rack Assemblies
8. Waste Receptacles
9. Electric Lights
10. Work Tables
11. Co Monitor
12. Water Nozzle And Hoses
13. Drain Table

Figure 1. Food Sanitation Center (FSC-2) – Basic Operational Configuration.

SECURITY MEASURES FOR ELECTRONIC DATA

There is no electronic data associated with the FSC-2.

SITING REQUIREMENTS

1. Choose a site clear of large rocks and trees with firm, level ground and good water drainage.
2. Avoid dusty or sandy conditions if possible.
3. Use gravel or the other suitable material for base where ground is wet.
4. If the FSC is used with the Containerized Kitchen (CK), orient the FSC and CK as follows:
   a. Locate the FSC close enough to the CK to minimize walking between the two units.
   b. Orient the FSC so that a tent door **(Figure 2, Item 1)** is located toward the CK it will support.

NOTE

The FSC-2 extension cord is 100-ft long. The FSC-2 must be positioned within 100 feet of the power source. The CK's drain hose is 50-ft long. In order to connect the CK drain hose to the pipe tee on the FSC grease separator, the FSC must be positioned within 50 feet of the CK. The FSC-2 water supply hose is 50-ft long, so the FSC must be positioned within 50 feet of the water supply. The FSC-2 gray water drain hose is 50-ft long, so the FSC-2 must be positioned within 50 feet of the wastewater reception facility.

   c. Position the FSC within 100 feet of the power source so that the FSC's 100 foot extension cord **(Figure 2, Item 2)** will reach from the center pole of the FSC tent to the power source.
   d. Position the FSC within 50 feet of the CK so that the CK's 50-ft drain hose can be connected from the CK drain **(Figure 2, Item 3)** to the pipe tee on the FSC drain hose **(Figure 2, Item 4)** on the grease separator **(Figure 2, Item 5)**.
   e. Ensure that the CK drain **(Figure 2, Item 3)** is at a higher elevation (minimum 1 foot higher) than the FSCs pipe tee **(Figure 2, Item 4)** to prevent FSC waste water from draining into the CK.
   f. Ensure that the fresh water inlet of the CK **(Figure 2, Item 6)** and the fresh water inlet at the sink fill assembly of the FSC **(Figure 2, Item 7)** are both within 50 feet of the fresh water source so that the FSCs 50-foot water supply hose will reach the water supply.
   g. Ensure that the grease separator outlet **(Figure 2, Item 8)** is within 50 feet of the wastewater reception facility so that the FSCs 50-foot gray water drain hose will reach the waster water reception facility.

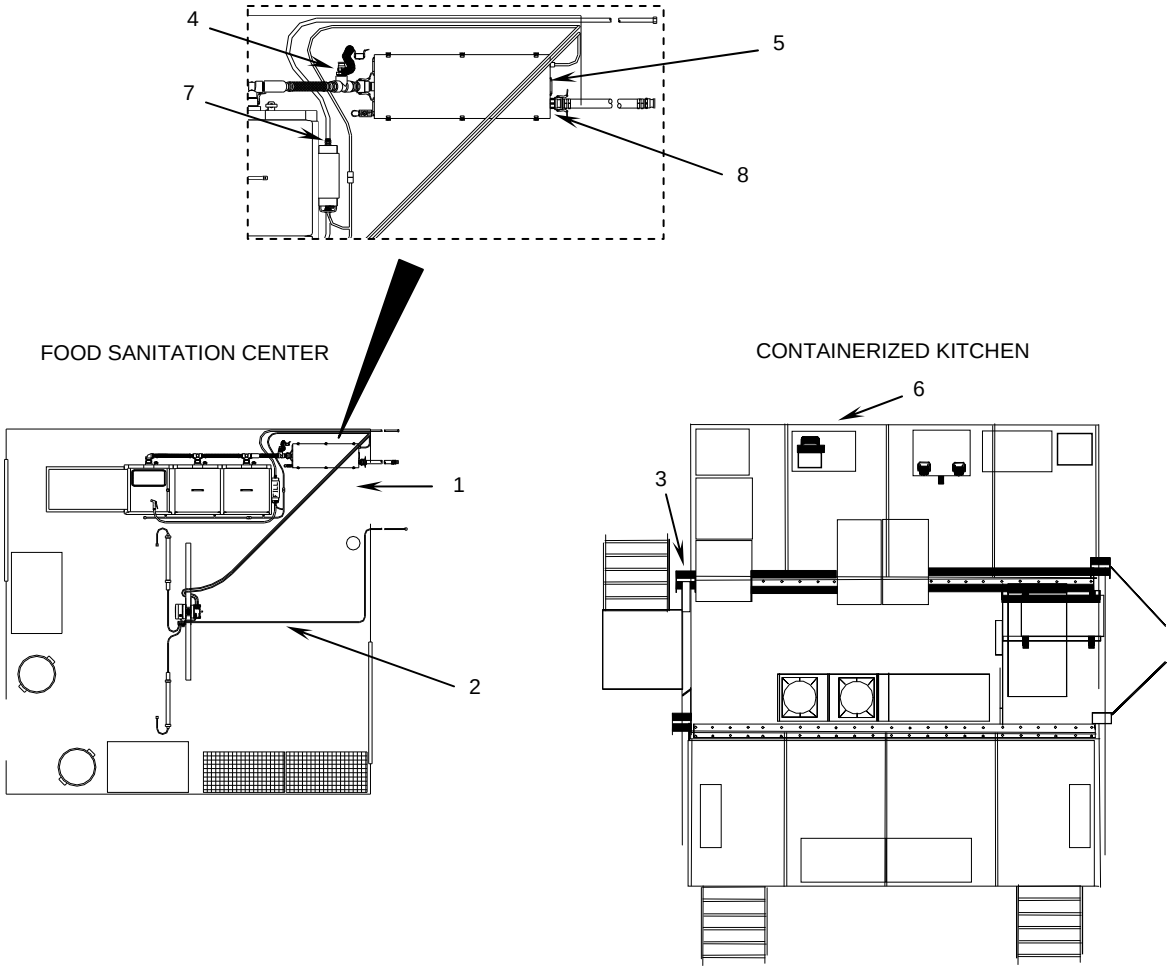


Figure 2. Food Sanitation Center orientation in relation to a Containerized Kitchen.

SHELTER REQUIREMENTS

WARNING

Do not use flammable material as a base for the FSC. Flammable materials may catch fire. Failure to comply may cause injury to personnel or damage the equipment.

- A flat, clear area of at least 18 ft by 18 ft is required for the MGPTS.
- An additional 600 square feet (56 square meters) is needed for the MFK if used with the FSC.
- An additional 900 square feet (83 square meters) is needed for the MKT if used with the FSC.
- An additional 1500 square feet (139 square meters) is needed for the CK if used with the FSC.

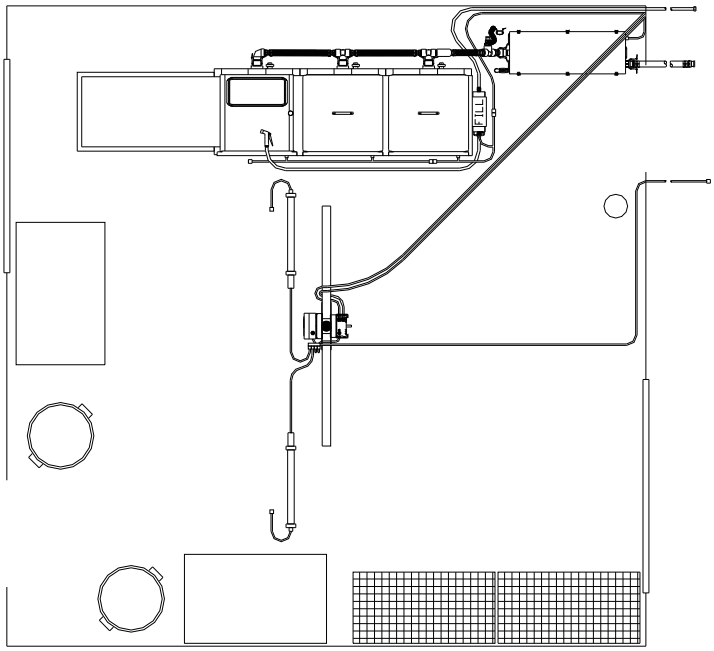


Figure 3. FSC-2 Layout.

ASSEMBLY AND PREPARATION FOR USE

WARNING

The 3 packed sink assemblies each weigh about 130 lb (59.1 kg). Suitable material handling equipment or four persons must lift or carry each assembly, lifting with legs not their back, to prevent injury. The 3 packed storage racks weigh from 130 lb (59.1 kg) to 185 lb (84.1 kg). Suitable material handling equipment or four persons must lift or carry each assembly, lifting with legs not their back, to prevent injury.

The tent fabric sections are heavy. Observe lift requirements on the tent bags.

The grease separator weighs about 80 lb. (36.4 kg). Three persons must lift or carry the grease separator, lifting with legs not their back, to prevent injury.

Each MBU weighs about 42 lb (19 kg). Two persons must lift or carry each MBU, lifting with legs not their back, to prevent injury.

Use of work gloves will reduce the risk of cuts. Failure to observe this warning may result in serious back or other muscular skeletal injuries or hand cuts.

CAUTION

Do not place sinks on ground without folding up the hinge flap. Refer to Figure 27, Item 1 for an illustration the hinge flap. Failure to comply may result in damage to the hinge flap.

1. Remove all items of the FSC from the transport vehicle and place them in a convenient location.

2. Set up the tent IAW TM 10-8340-240-12&P.

3. Before raising the tent center pole, hang the electric lights to the tent ceiling as follows:

   a. Insert one light-hanging strap **(Figure 4, Item 1)** through the loop in the tent light hanger **(Figure 4, Item 2)**.

   b. Insert one end of that light-hanging strap **(Figure 4, Item 1)** through the loop in the other end of the same light-hanging strap.

   c. Pull the light-hanging strap tightly through until it knots at the loop **(Figure 4, Item 3)** of the tent light hanger. Repeat this procedure for the second strap.

NOTE

Ensure the bulb is facing the ground and the reflector is on top.

   d. Orient the light so the power cord plug end is facing toward the tent center pole.

   e. Loop the light-hanging straps around the lip at both ends of the light **(Figure 4, Item 4)**.

   f. Insert the loose end of both straps through its D-ring **(Figure 4, Item 5)** and secure with its hook and loop fasteners **(Figure 4, Item 6)**.

   g. Repeat procedure for the other light.

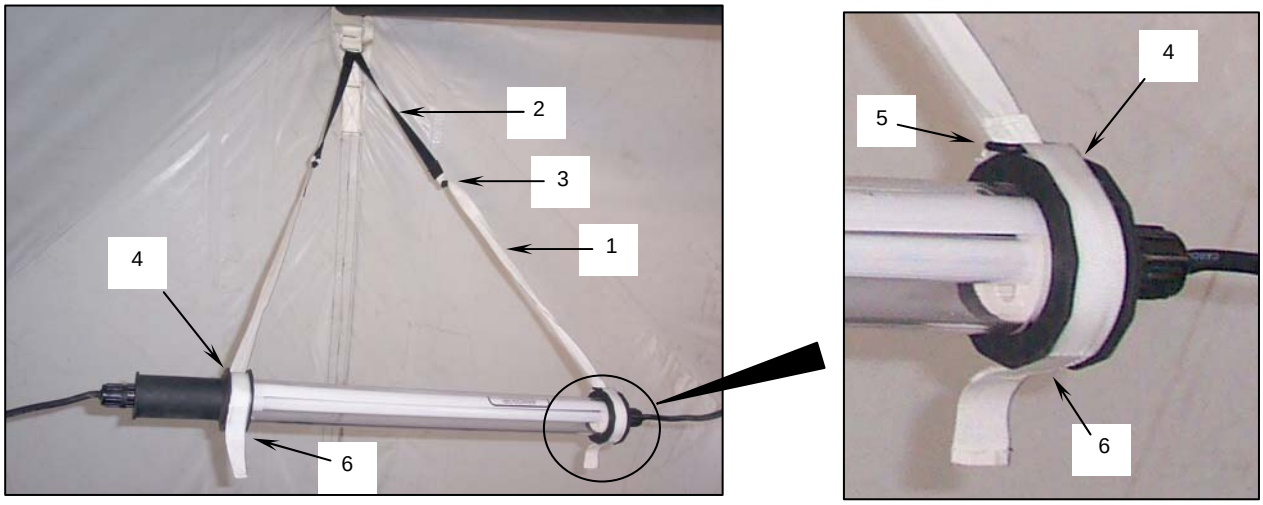


Figure 4. Installing the Electric Lights.

4. Raise the tent center pole and complete the tent setup in accordance with TM 10-8340-240-12&P.

WARNING

A single 5-pound dry chemical (Type A, B, C) fire extinguisher is supplied with the FSC. Do not allow the fire extinguisher to be obstructed by utensils, racks, or other operating equipment. If fire occurs, send for help immediately, shut down power to the FSC, and if possible try to fight the fire from outside the MGPTS. Failure to observe safety precautions may result in serious injury or death to personnel.

5. Place the fire extinguisher **(Figure 5, Item 1)** inside the MGPTS, just inside the door where it is visible and readily accessible in case of a fire.

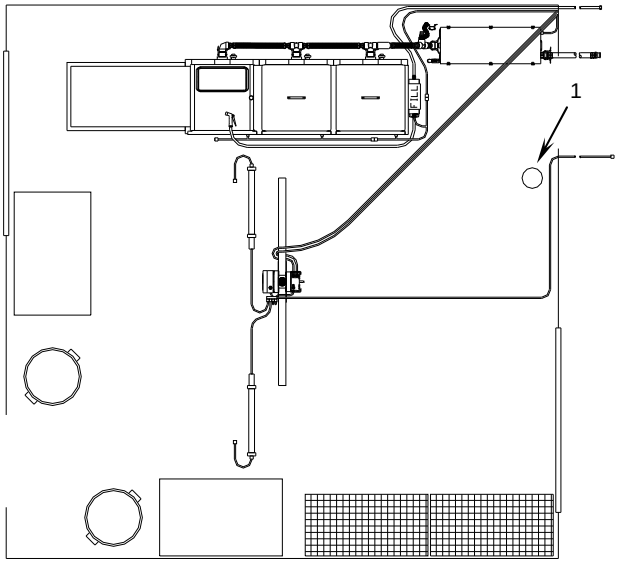


Figure 5. Fire Extinguisher Placement.

6. Connect the electric lights to the power source as follows:

WARNING

Electrical high voltage and current cannot be seen, but in contact with energized equipment can kill you, render you unconscious, or severely burn you. Electricity is unlike most other dangerous things you can come in contact with because it gives no warning. To ensure your safety and that of other maintenance personnel, always observe the following precautions:

The FSC power source must be electrically grounded. Failure to establish electrical ground may result in equipment damage, serious injury or death from electrical malfunction.

Do not stand in water while handling live power cords or electrical shock may result. Position all power cables so they are out of the way during operation and not lying in water. Prior to installation, assure power cables outer jackets are not cut or damaged and there are no exposed wires.

WARNING

Fall hazard. When using the step ladder, do not climb higher than the second step from the top. Have another person steady the ladder while you are on it. Failure to comply may result in injury to personnel.

a. Using the step ladder, run the outlet end of the 100-ft extension cord **(Figure 6, Item 1)** up the tent wall opposite the tent center pole and secure with a tent strap **(Figure 6, Item 2)**.

b. Run the outlet end of the 100-ft extension cord across the tent ceiling **(Figure 6, Item 3)** and through the strap buckles at the top of the tent **(Figure 6, Item 4)**.

c. Suspend the outlet end of the extension cord **(Figure 6, Item 5)** next to the "Y" of the tent center pole.

d. Plug the power cords for both lights **(Figure 6, Item 6)** and **(Figure 6, Item 7)** into the outlets **(Figure 6, Item 5)**.

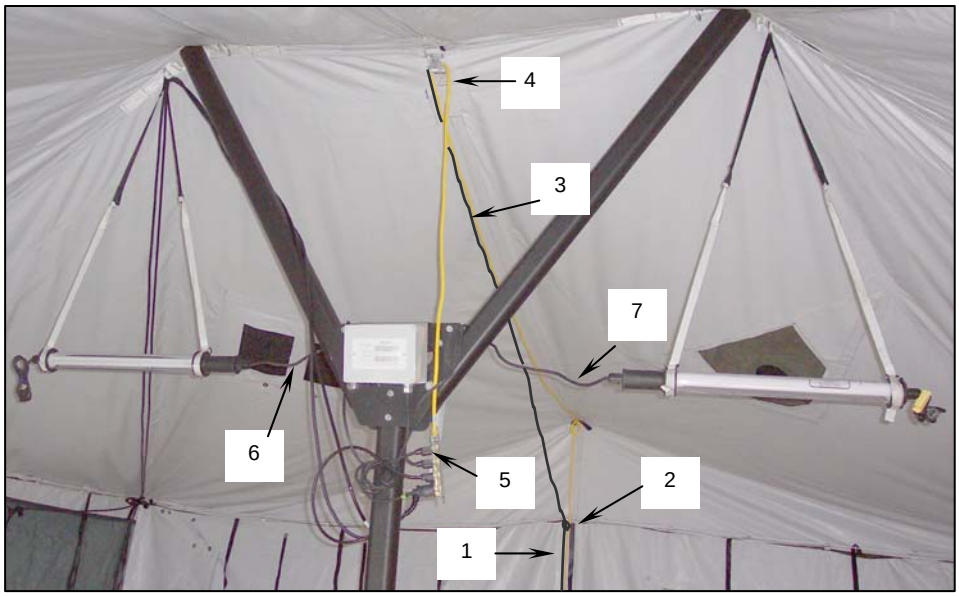


Figure 6. Connecting Electric Lights to Power Source.

WARNING

Use only a GFCI outlet as the power source. The power source for the FSC is typically the GFCI receptacle on the 2 kW generator or the GFCI receptacle **(Figure 7, Item 1)** in the generator room of the Containerized Kitchen (CK). If a GFCI outlet is not available, use the GFCI **(Figure 7, Item 2)** provided with the FSC. Failure to observe this warning may result in serious injuring or death from electrical malfunction.

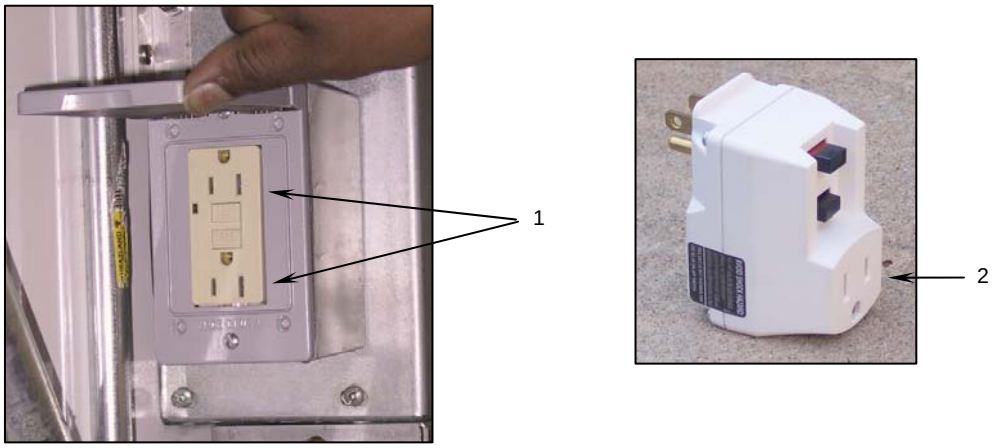


Figure 7. Ground Fault Circuit Interrupter (GFCI).

e. Plug the plug end of the 100-ft extension cord into a GFCI protected external 110-VAC power source of 10 amps or greater.

7. Install the carbon monoxide (CO) monitor as follows:

a. Hang the CO monitor **(Figure 8, Item 1)** from the center pole of the tent on the same side of the pole as where the drain table **(Figure 8, Item 2)** will be set up.

NOTE

When power is applied to the CO monitor, the indicator light flashes green on and off during a 10-minute warm-up period while the CO sensor self-cleans. After the warm-up period, the light glows continuously. The CO monitor may be tested at any time after power is applied to the CO monitor.

b. Plug the CO monitor power cord **(Figure 8, Item 3)** into an outlet on the end of the 100-ft extension cord **(Figure 8, Item 4)**.

c. Test the unit by pressing the TEST/RESET **(Figure 8, Item 5)** button. The indictor light **(Figure 8, Item 6)** should go off and the red light **(Figure 8, Item 7)** should change from green to red and the alarm horn **(Figure 8, Item 7)** should sound.

WARNING

Risk Management. If the CO monitor is not functioning properly, refer to WP 0007 00, Operation Under Unusual Conditions, for operation of the FSC-2 system when the CO monitor is not in operation. This is a command decision. Refer to FM 100-14, Risk Management, before operating the system.

d. If the test fails, notify unit maintenance.

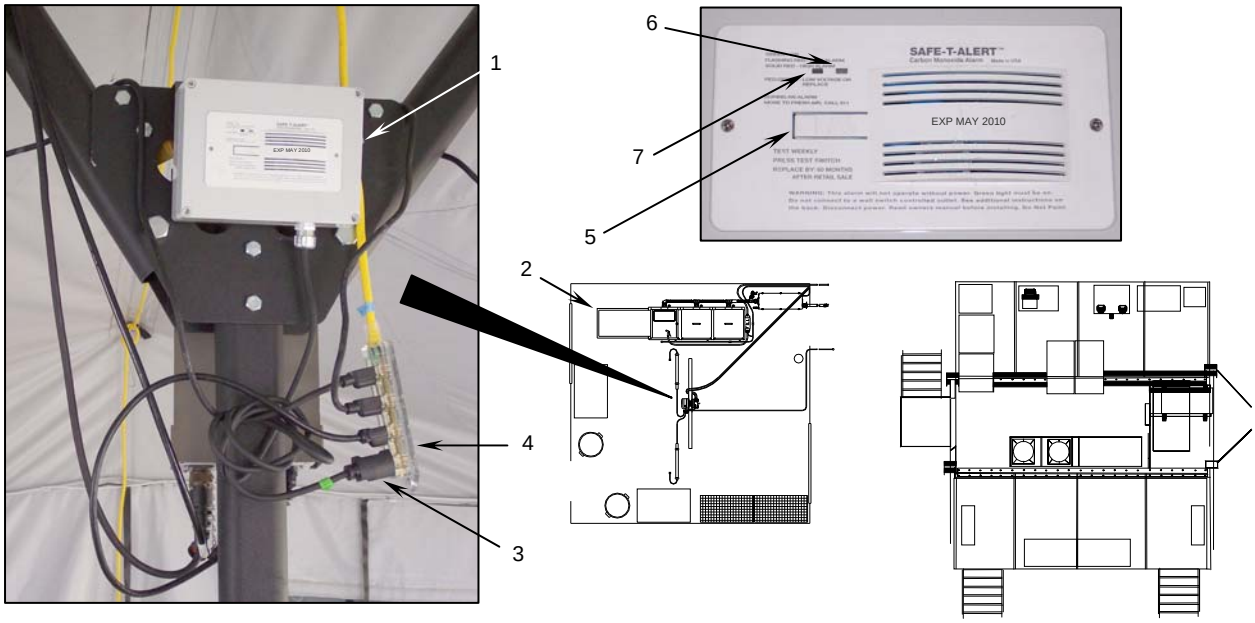


Figure 8. Carbon Monoxide Monitor Installation.

8. Set up and position the storage rack assemblies as follows:

WARNING

Each storage rack assembly weighs approximately 44 lb (20 kg) without accessories. Two persons must lift or carry each storage rack assembly, lifting with their legs not their back, to prevent injury. The use of work gloves with gripping pads when moving equipment will significantly reduce the risk of injury. Failure to observe this warning may result in serious back or other muscular skeletal injuries.

a. Remove the rack cover/shelf **(Figure 9, Item 1)** from the front of each rack if so installed.

b. Install the cover/shelf as a shelf **(Figure 9, Item 2)** in each rack. Install each shelf approximately half the height of the rack by tipping the shelf, hooking one end through the grating that makes up a side of the rack, and then lowering and hooking the other end through the opposite side grating.

c. Place the racks in the corner of the tent **(Figure 9, Item 3)** away from the doors and opposite where the sinks will be installed.

d. Place the bottom two racks far enough apart to allow easy installation of the middle and top racks.

e. Stack the racks in two sets, three-high. Slide the rack sets together, if possible, so that they are positioned side-by-side.

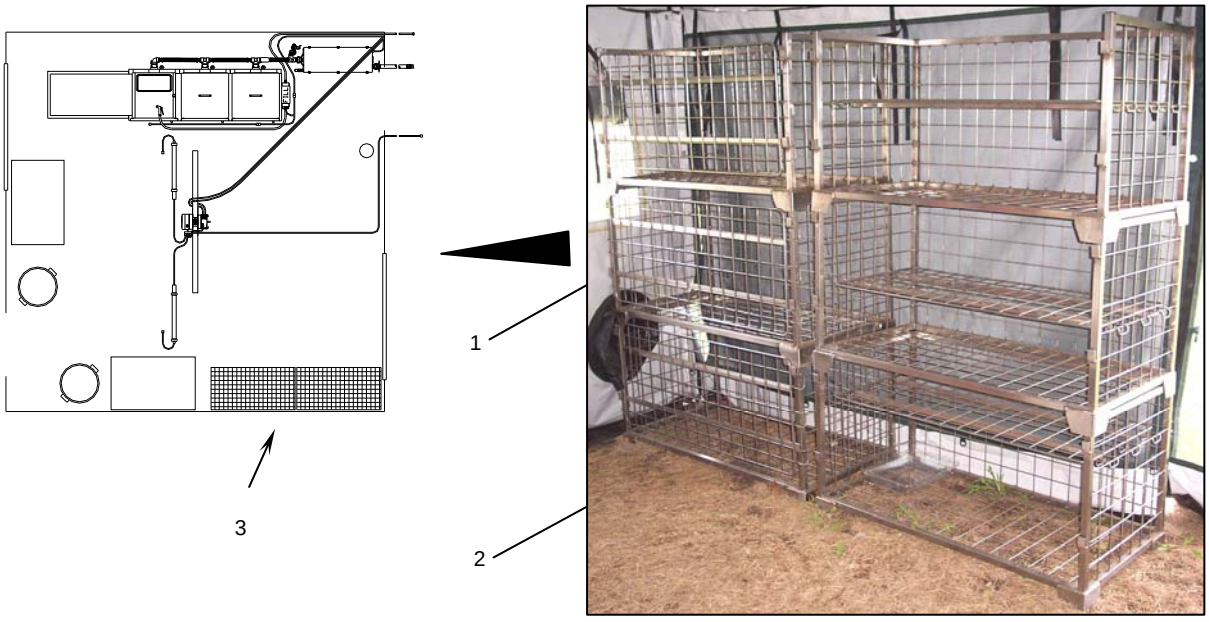


Figure 9. Setting up the Storage Rack Assemblies.

9. Assemble the sinks as follows:

WARNING

Ensure you leave at least 2 feet between the base racks and any tent wall. Frequently check for heating of the tent wall while the burner units are in use. Move sink assemblies further away from the tent wall if necessary to prevent possible ignition of the tent. Failure to observe this warning may result in fire.

a. Place the three base racks **(Figure 10, Item 1)** in the approximate final sink position. The left base rack should be about 5 feet from the side tent wall. All three base racks should be about 2 feet from the back tent wall and about 5 inches apart from each other.

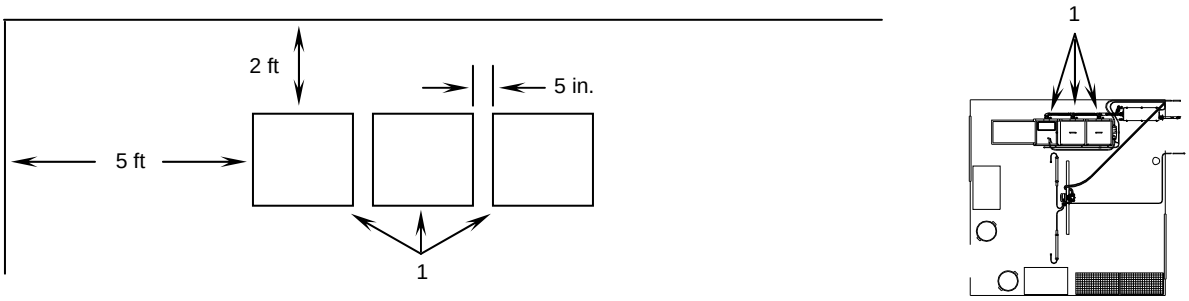


Figure 10. Base Rack Placement.

WARNING

Each burner unit weighs approximately 42 lb (19 kg) without accessories. Two persons must lift or carry each burner unit, lifting with their legs not their back, to prevent injury. The use of work gloves with gripping pads when moving equipment will significantly reduce the risk of injuries/cuts. Failure to observe this warning may result in serious back or other muscular skeletal injuries or hand cuts.

b. Lift each burner rack **(Figure 11, Item 1)** with its MBU **(Figure 11, Item 2)** out of the sinks.

c. Remove the packed thermometer assemblies **(Figure 11, Item 3)** from their storage location on top of the MBUs and set aside.

d. Remove the MBUs **(Figure 11, Item 2)** from the burner racks **(Figure 11, Item 1)**.

e. Place the one burner racks **(Figure 11, Item 1)** on top of each of the three base racks (**Figure 11, Item 4)**.

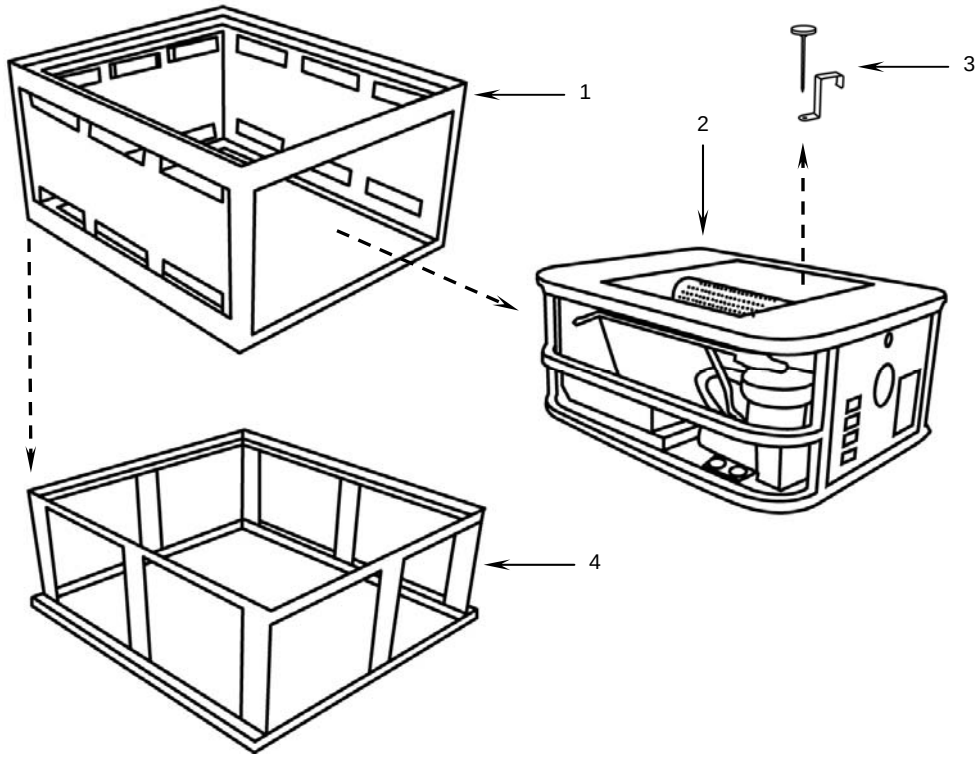


Figure 11. Burner Rack Installation.

WARNING

Each sink assembly weighs approximately 60 lb (27.28 kg) without accessories. Two persons must lift or carry each sink body assembly, lifting with their legs not their back, to prevent injury. The use of work gloves with gripping pads when moving equipment will significantly reduce the risk of injuries/cuts. Failure to observe these warnings may result in serious back or other muscular skeletal injuries or hand cuts.

Improper sink assembly. The sink assembly must be positioned on the burner rack so that the rack does not block the sink flue. Improper placement of the sink will block the flue and cause the heat guard and sink assembly to become extremely hot. Keep body parts away from hot surfaces. Contact with bare skin will cause severe burn injuries.

f. Place the one sink assembly **(Figure 12, Item 1)** on top of each burner rack (**Figure 12, Item 2)**. Ensure the top edge of the each burner rack **(Figure 12, Item 3)** fit inside the reinforcing guides **(Figure 12, Item 4)** on the bottom of the each sink assembly.

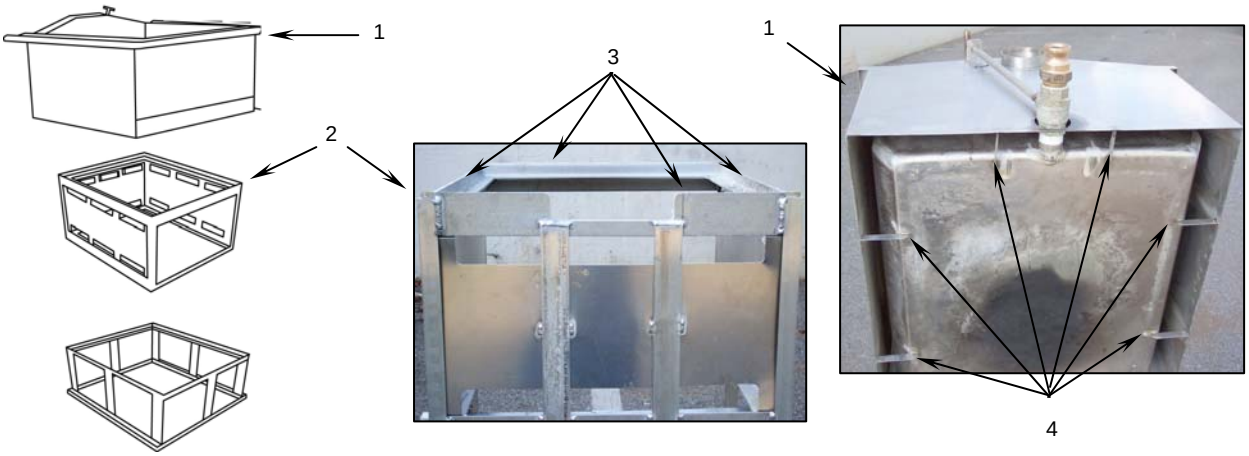


Figure 12. Sink Installation.

WARNING

Improper placement of sink assemblies. Make sure you leave at least 2 feet between the base racks and any tent wall. Frequently check for heating of the tent wall while the burner units are in use. Move sink assemblies further away from the tent wall if necessary to prevent possible ignition of the tent. Failure to observe this warning may result in fire.

g. Adjust the locations of the assembled base racks, burner racks, and sinks, if necessary, so that the fronts of the sinks are aligned, the sides of sinks touch, and the base racks are at least 2 feet from the back tent wall.

h. Attach thermometer bracket **(Figure 13, Item 1)** with thermometer **(Figure 13, Item 2)** to the right side of each sink.

i. Connect adjoining sinks with the two sink coupler heat shields **(Figure 13, Item 3)** by clipping the front of the couplers over the sink first and then the back of the couplers.

j. Install the sink edge heat shield **(Figure 13, Item 4)** on the right edge of the right sink by clipping the front of the sink edge heat shield over the sink first and then the back of the sink edge heat shield.

NOTE

Do not install the sink front heat shields **(Figure 13, Item 5)** at this time. They will be installed later after the MBUs are installed, fueled, and started.

k. Place the sink covers **(Figure 13, Item 6)** on the sinks.

l. Install the MBUs **(Figure 13, Item 7)** into the burner racks **(Figure 13, Item 8)** with the controls facing out. Make sure the MBUs are pushed all the way back in the burner racks.

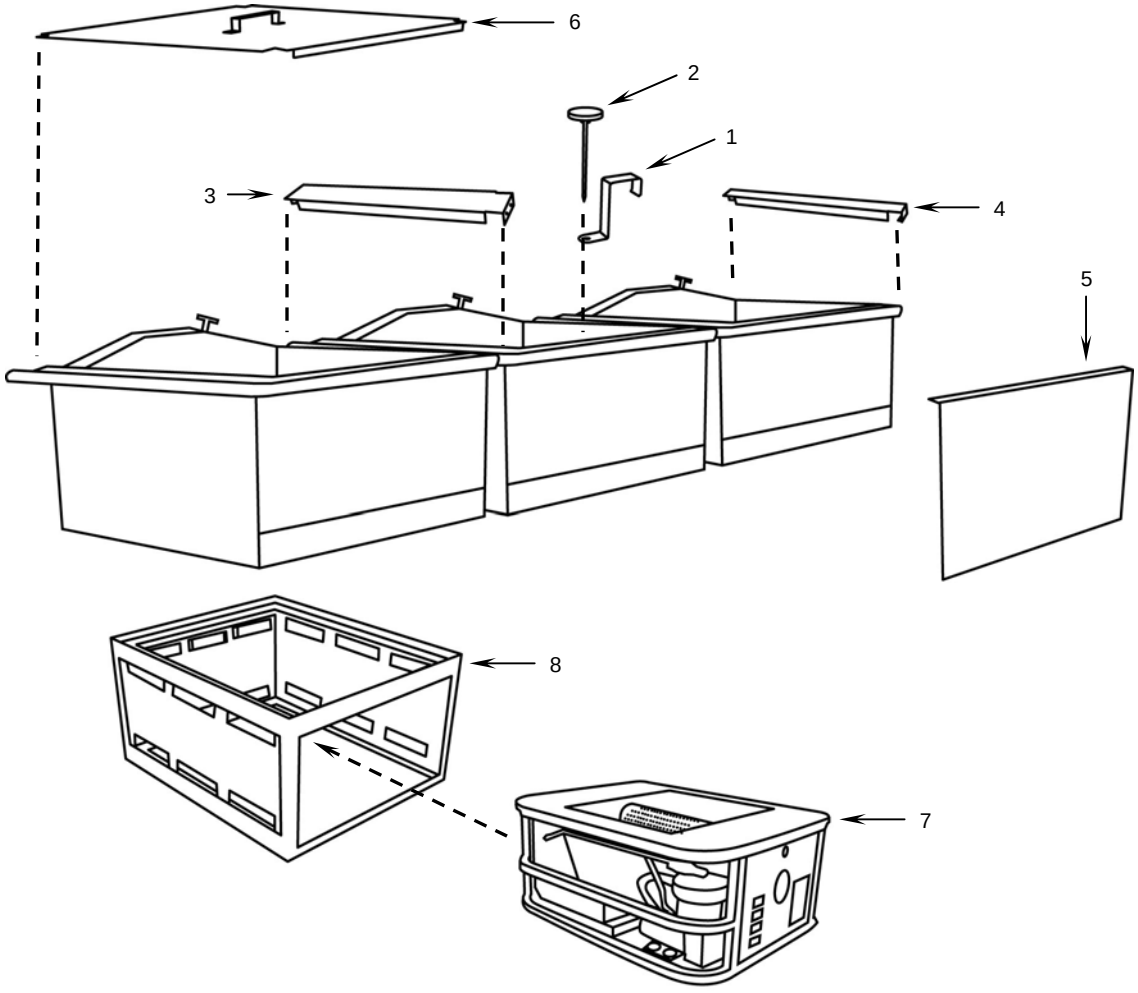


Figure 13. Sink Accessories Installation.

10. Install the sink drain hose assembly to discharge to the right of the sinks as follows:

    a. Open each of the drain hose assembly couplers **(Figure 14, Item 1)** on the drain hose assembly **(Figure 14, Item 2)**.

    b. Insert the drain hose assembly couplers **(Figure 14, Item 1)** over the sink drain adapters **(Figure 14, Item 3)**.

    c. Close each drain hose assembly coupler **(Figure 14, Item 1)**.

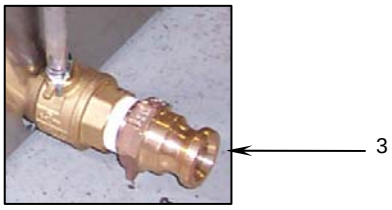


Figure 14. Sink Drain Hose Assembly Installation.

11. Install the grease separator assembly as follows:

WARNING

The grease separator weighs approximately 80 lb (36.4 kg) empty. Three persons must lift or carry the grease separator, lifting with their legs not their back, to prevent injury. The use of work gloves with gripping pads when moving equipment will significantly reduce the risk of injuries/cuts. Failure to observe this warning may result in serious back or other muscular skeletal injuries or hand cuts.

NOTE

If the ground is muddy, the grease separator can be placed on a wooden pallet.

a. Place the grease separator **(Figure 15, Item 1)** on the ground to the right of the sink assemblies. Align the grease separator parallel with the back of the tent. The grease separator inlet **(Figure 15, Item 2)** should face the sinks. The grease separator outlets **(Figure 15, Items 3)** and **(Figure 15, Item 4)** should be near the tent door.

b. Connect the sink drain hose assembly coupler **(Figure 15, Item 5)** to the grease separator inlet **(Figure 15, Item 2)** and close the coupler.

c. If using the FSC with a Containerized Kitchen (CK), remove the sink drain hose tee cap **(Figure 15, Item 6)**, connect the CK drain hose to the tee, and close the CK drain hose coupler.

d. Connect one end of the 50-ft grease separator discharge hose **(Figure 15, Item 7)** to the upper grease separator outlet **(Figure 15, Item 3)** and close the coupler. Connect the other end of the discharge hose to an authorized wastewater reception facility and close the coupler.

e. Make sure the outlet cap is secured to the lower grease separator outlet **(Figure 15, Item 4)**.

f. Make sure grease removal valve **(Figure 15, Item 8)** is closed (handle turned clockwise, perpendicular to valve).

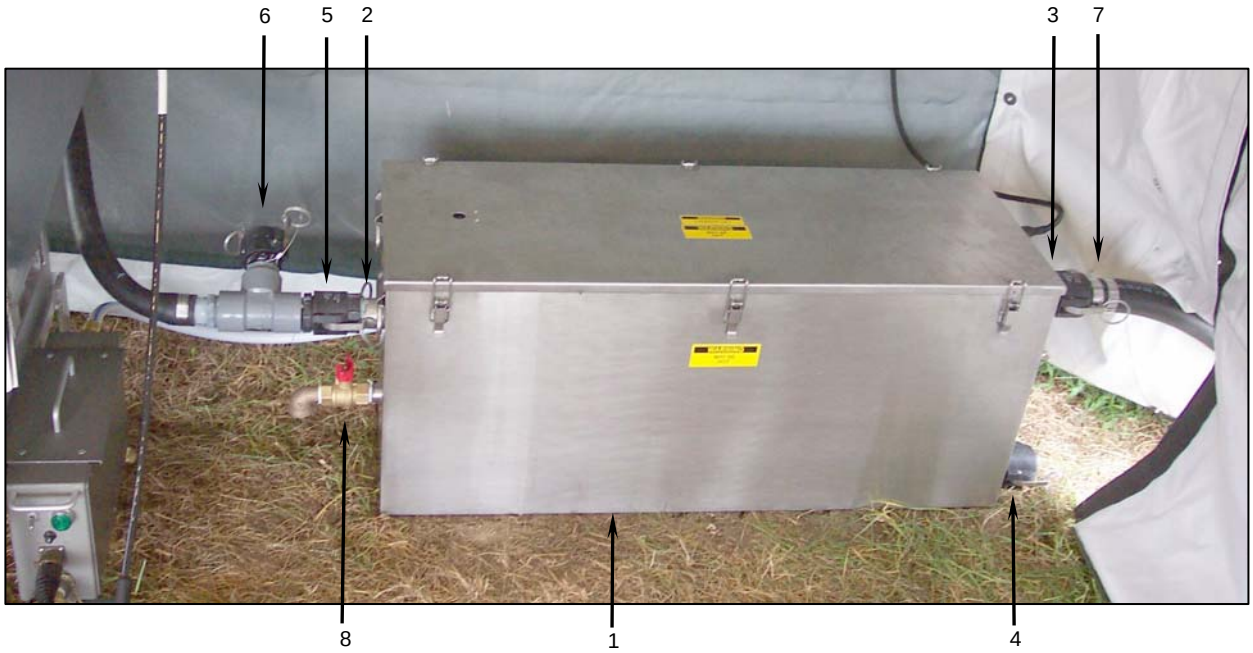


Figure 15. Grease Separator Installation.

g. Remove the grease separator lid **(Figure 16, Item 1)**.

CAUTION

Do not overtighten the drain petcocks. Failure to observe this caution may make it difficult to open the petcocks when needed.

h. Check that the two grease collection compartment drain petcocks **(Figure 16, Item 2)** are closed (turned clockwise all the way in).

i. Check that the float switch **(Figure 16, Item 3)** is not obstructed and is free to move up and down.

j. Check that the strainer basket **(Figure 16, Item 4)** is in place.

k. Reinstall and latch the grease separator lid.

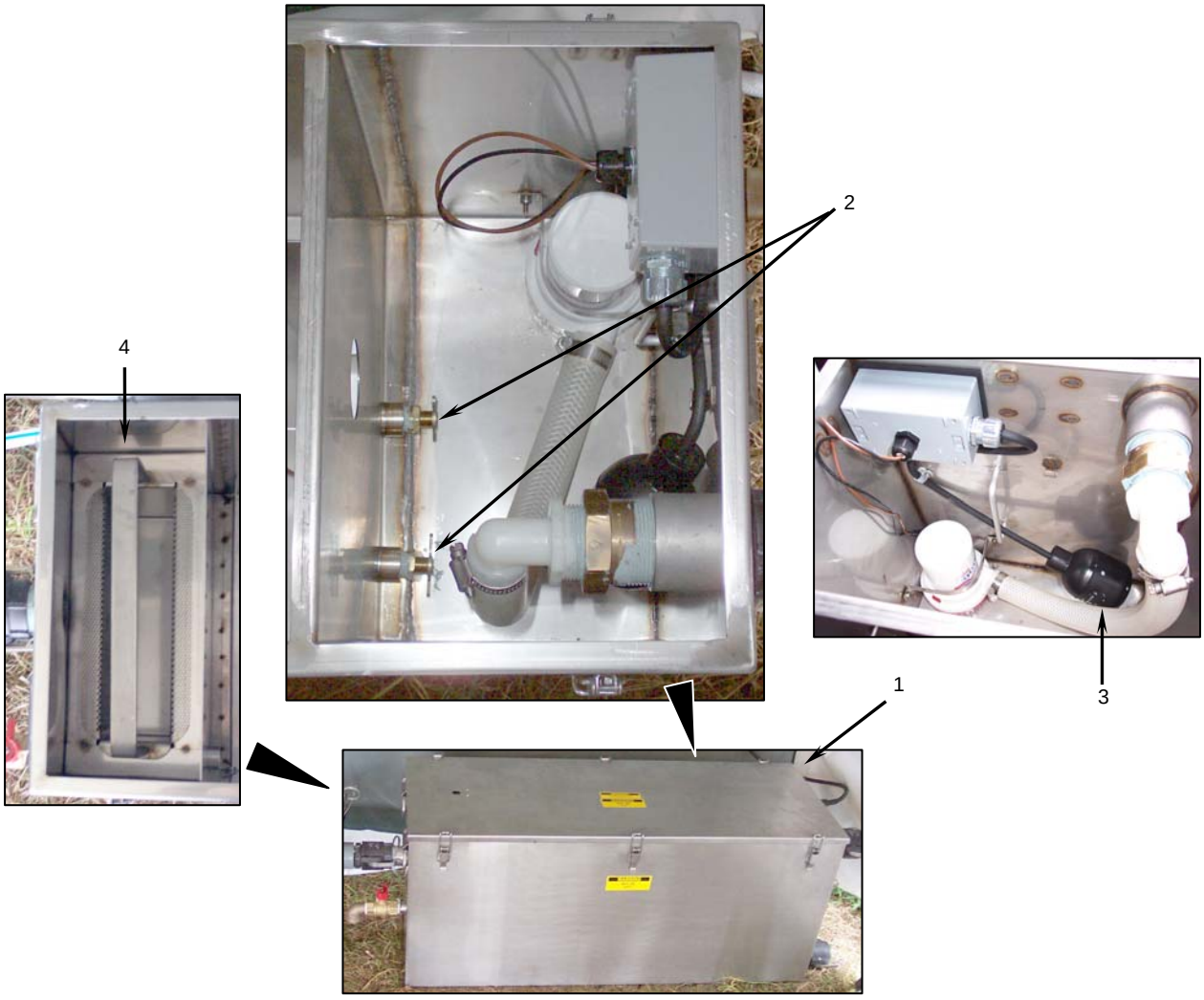


Figure 16. Grease Separator Component Checks.

12. Install the Sink Fill Pump Assembly as follows:

a. Hook the sink fill pump assembly **(Figure 17, Item 1)** onto the right sink assembly base rack **(Figure 17, Item 2)** so that the sink fill pump assembly controls **(Figure 17, Item 3)** face to the front of the sink assembly installation.

WARNING

Trip Hazard. The 50-ft water supply hose and the 15-ft sink fill hose can present a trip hazard. Do not place hose coils in traffic areas. Ensure that the water supply hose is laid out between the grease separator and the tent wall. Keep the sink fill hose coils between the sink fill pump and the grease separator. Failure to observe this warning may result in injury from tripping.

b. Connect one end of the 50-ft water supply hose **(Figure 17, Item 4)** to the water inlet at the back of the sink fill pump assembly.

CAUTION

Do not use a pressurize potable water source. Pressurized water sources may damage the internal pump components. Connect only to non-pressurized potable water sources such as a 400-gallon water trailer. Failure to observe this caution will result in damage to the sink fill pump assembly internal pump.

c. Connect the other end of the 50-ft water supply hose to a suitable, potable water source. If a single source is required to supply water to both the FSC and the kitchen, a Y-adapter **(Figure 17, Item 5)** is provided.

d. Attach the Y-adapter to the source, if needed, and then attach the FSC and kitchen water supply hoses to the adapter.

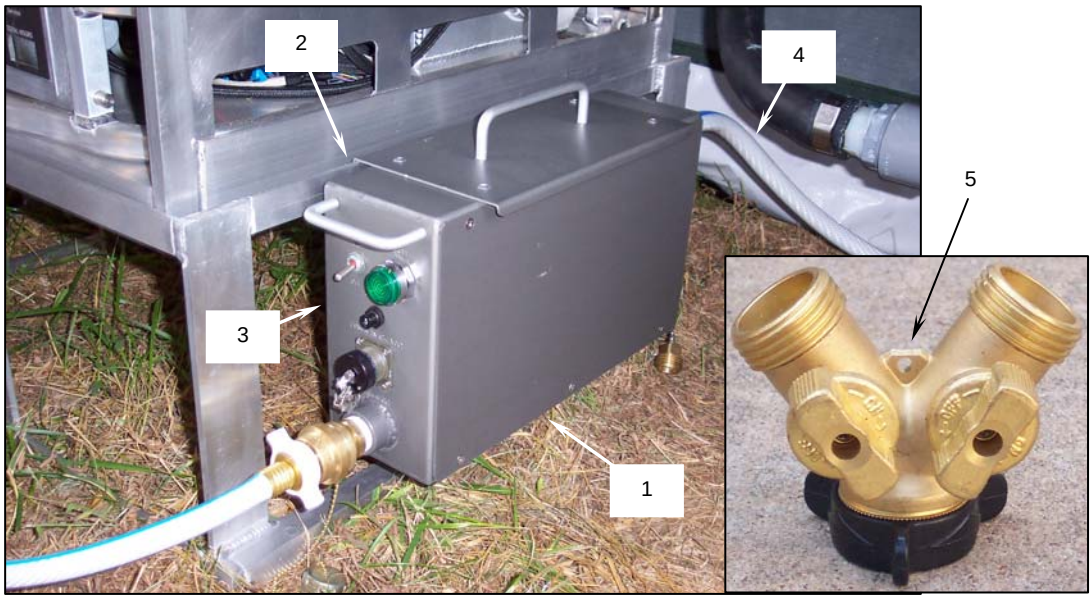


Figure 17. Sink Fill Pump Assembly and Supply Hose Installation.

WARNING

Bacterial Hazard. The potential exists for contaminated sink water to be siphoned back into the potable water supply through the sink fill pump. Do not leave the 15-ft sink fill hose submerged in sink water. Ensure that the vacuum breaker is affixed to the sink fill pump at all times and that the breaker functions properly.

NOTE

Make sure the female hose fittings include a washer (gasket) to prevent leakage.

e. Connect the 15-ft sink fill hose **(Figure 18, Item 1)** to the vacuum breaker **(Figure 18, Item 2)** at the water outlet at the front of the sink fill pump assembly.

f. Connect the water nozzle **(Figure 18, Item 3)** to the other end of the 15-ft sink fill hose. Ensure that the water nozzle is secured off the ground.

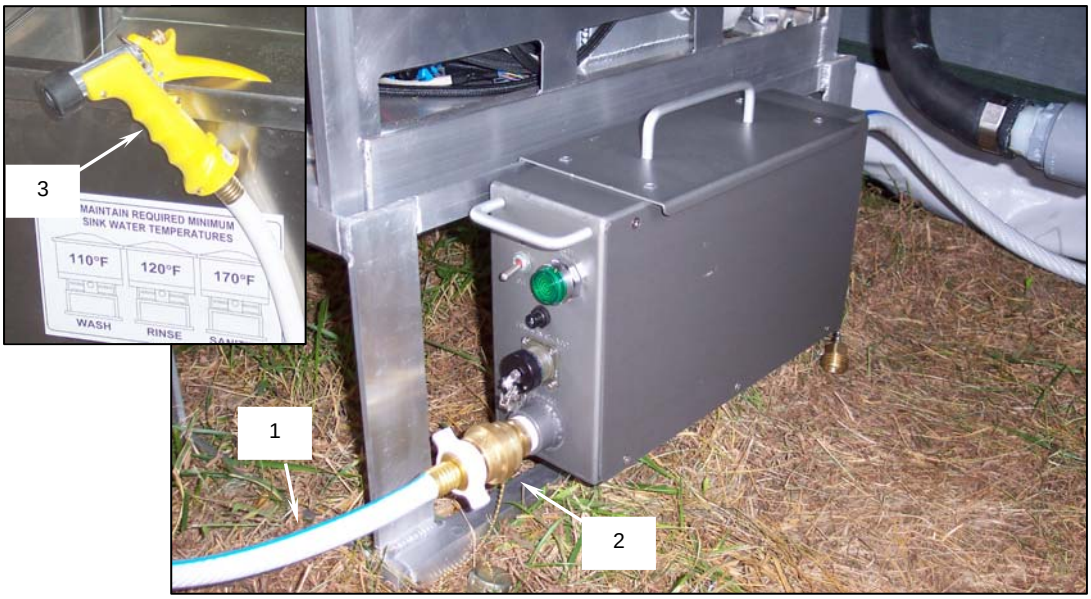


Figure 18. Sink Fill Hose Installation.

13. Install the power cables as follows:

WARNING

Electrical high voltage and current cannot be seen, but in contact with energized equipment can kill you, render you unconscious, or severely burn you. Electricity is unlike most other dangerous things you can come in contact with because it gives no warning. To ensure your safety and that of other maintenance personnel, always observe the following precautions:

The FSC power source must be electrically grounded. Failure to establish electrical ground may result in equipment damage, serious injury or death from electrical malfunction.

Do not stand in water while handling live power cords or electrical shock may result. Position all power cables so they are out of the way during operation and are not lying in water. Prior to installation, assure power cables outer jackets are not cut or damaged and there are no exposed wires.

a. Plug one 2-branch MBU power cable **(Figure 19, Item 1)** into the end of a second 2-branch MBU power cable **(Figure 19, Item 2)**.

b. Run the MBU power cable assembly **(Figure 19, Item 1)** and **(Figure 19, Item 2)**, with the female connector **(Figure 19, Item 3)** at the left end of the sinks and the male connector **(Figure 19, Item 4)** at the right end of the sinks, past the sink fill pump assembly **(Figure 19, Item 5)** and underneath the burner racks.

c. Following all precautions and instructions in TM 10-7310-281-13&P (MBU), connect the MBU power cable assembly **(Figure 19, Item 1)** and **(Figure 19, Item 2)** to the MBUs **(Figure 19, Item 6)** and the sink fill pump assembly power connector **(Figure 19, Item 7)**.

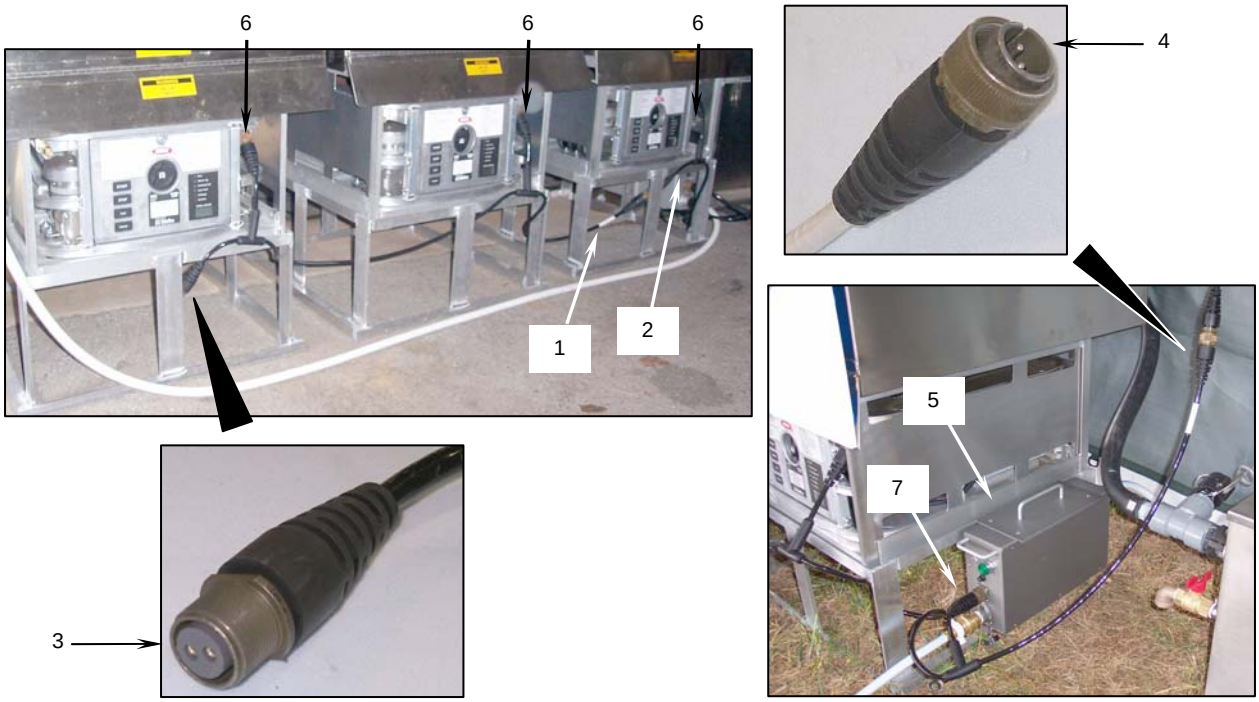


Figure 19. MBU Power Cable Assembly Installation.

d. Connect the male end of the 2-branch MBU power cable **(Figure 20, Item 1)** to the female end of the 25-ft DC cable **(Figure 20, Item 2)**. Make sure that the connected MBU power cable and 25-ft DC cable are run above the sink drain hose **(Figure 20, Item 3)**.

e. Run the 25-ft DC cable up the tent wall **(Figure 20, Item 4)** between the sink fill pump and the grease separator.

f. Secure the DC cable with third tent strap from the corner **(Figure 20, Item 5)**.

WARNING

When using the step ladder, do not climb higher than the second step from the top. Have another person steady the ladder while you are on it. Failure to observe this warning may result in injury.

g. Run the 25-ft DC cable across the tent ceiling **(Figure 20, Item 6)** and through the D-ring **(Figure 20, Item 7)** from which the closest light is hung.

NOTE

Remove all slack from the 25-ft DC cable between the tent strap and D-ring when wrapping the cable around the "Y" arm of the tent center pole.

h. Wrap 25-ft DC cable down around the closest "Y" arm of the tent center pole **(Figure 20, Item 8)**.

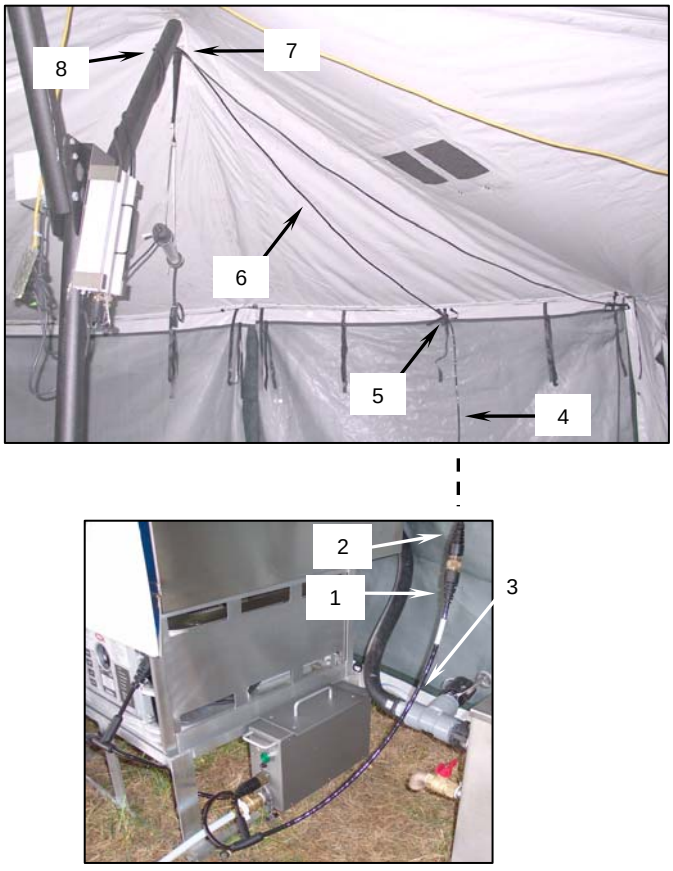


Figure 20. 25-ft DC Cable Installation.

i. Connect the grease separator power cable **(Figure 21, Item 1)** to the grease separator electrical connector **(Figure 21, Item 2)**.

j. Run the grease separator power cable up the corner of the tent **(Figure 21, Item 3)**.

k. Secure the grease separator power cable with the corner tent strap **(Figure 21, Item 4)**.

WARNING

When using the step ladder, do not climb higher than the second step from the top. Have another person steady the ladder while you are on it. Failure to observe this warning may result in injury.

l. Run the grease separator power cable across the tent ceiling **(Figure 21, Item 5)** and through the same D-ring **(Figure 21, Item 6)** through which the 25-ft DC cable is strung.

NOTE

Ensure that all slack is removed from the grease separator power cable between the tent strap and D-ring when wrapping the cable around the "Y" arm of the tent center pole.

m. Wrap the grease separator power cable around the "Y" arm of the tent center pole **(Figure 21, Item 7)**.

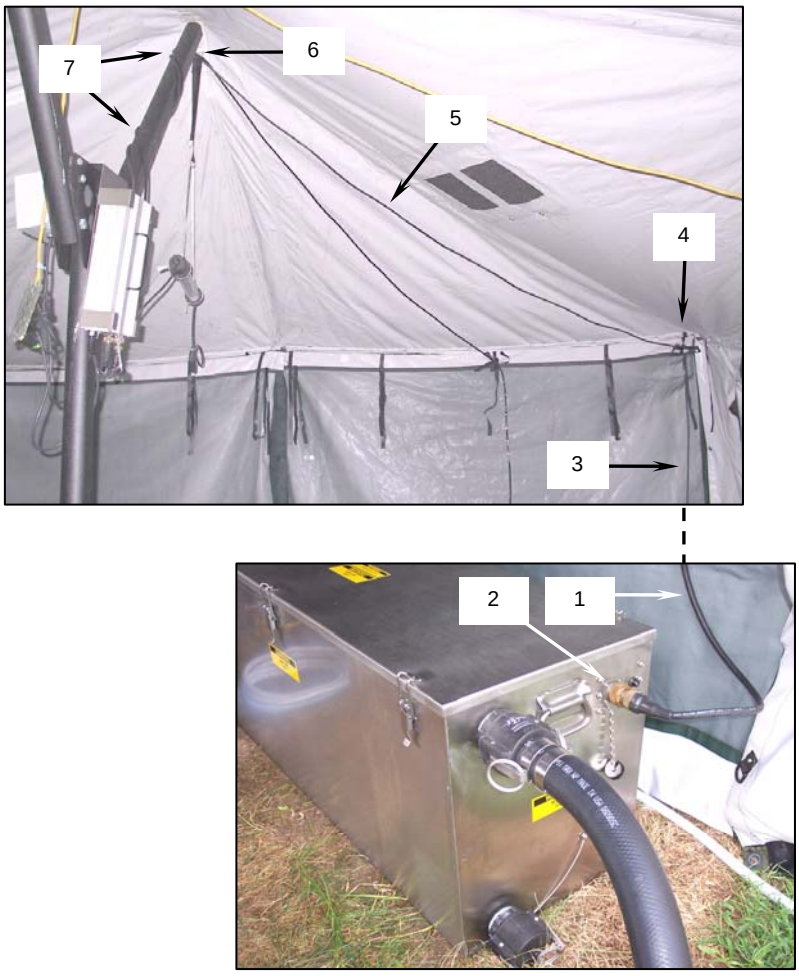


Figure 21. Grease Separator Power Cable Installation.

n. Insert the power converter **(Figure 22, Item 1)** in its hanging bracket **(Figure 22, Item 2)** with the converter controls facing down.

o. Hang the power converter and bracket assembly on the tent center pole opposite the CO monitor **(Figure 22, Item 3)**.

p. Ensure that the power converter power switch (Figure 22, Item 4) and the sink fill pump assembly power switch **(Figure 22, Item 5)** are both OFF.

q. Connect the 25-ft DC cable to either of the two receptacles on the power converter **(Figure 22, Item 6)**.

r. Connect the grease separator power cable to the other receptacle on the power converter **(Figure 22, Item 6)**.

s. Plug the power converter power cable into an outlet on the end of the 100-ft extension cord **(Figure 22, Item 7)**.

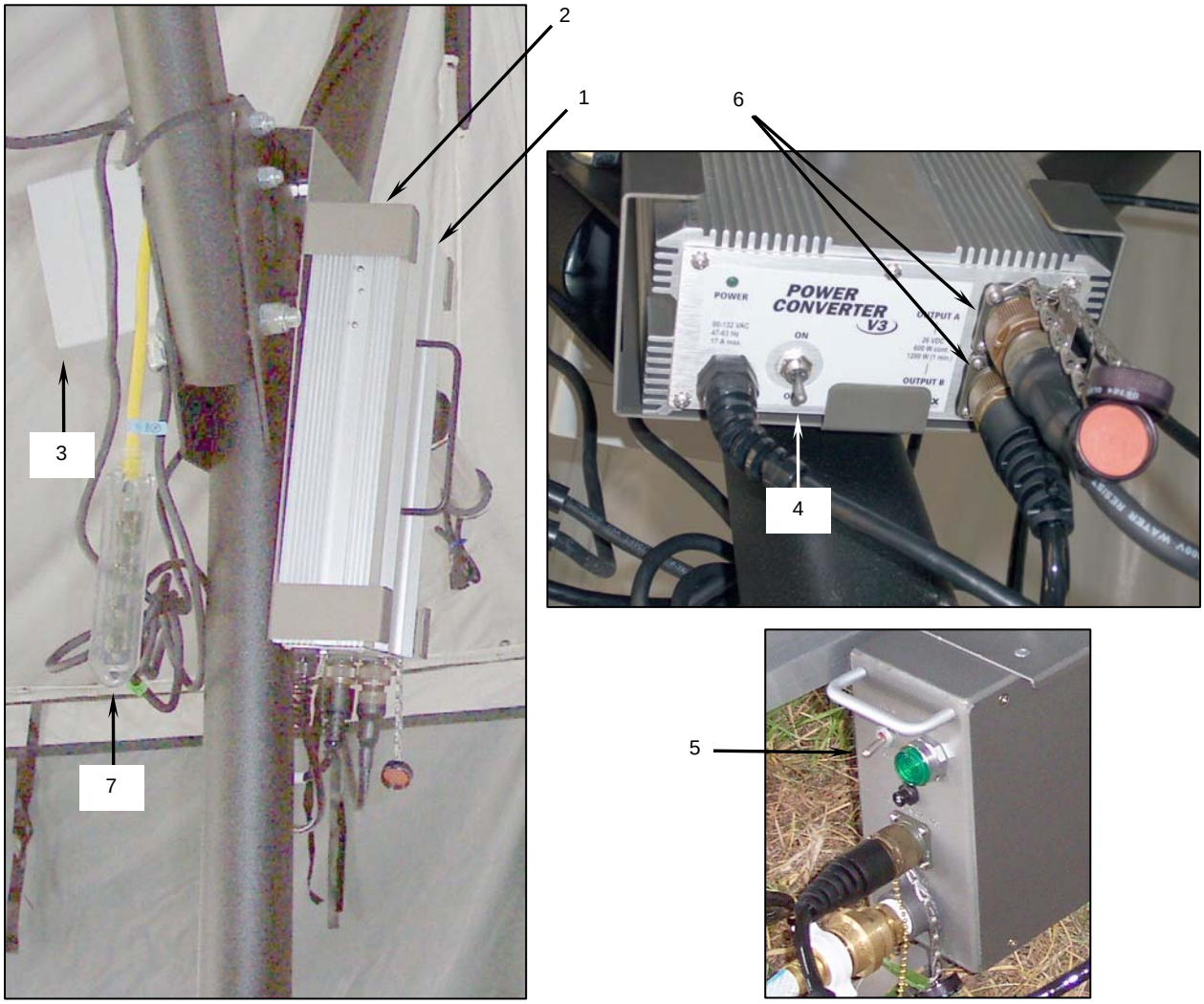


Figure 22. Power Converter Installation.

t. Dress up all the cables and make sure that the cables are out of the way and do not pose a trip hazard.

u. Make sure that the cable at each connection is lower than the connection **(Figure 23, Item 1)**, creating “drip loops”. Drip loops allow water that may fall on the cables or condensation that may form on the cables to run down the cables and away from the connections.

v. Make sure that there are no connections lying on the ground.

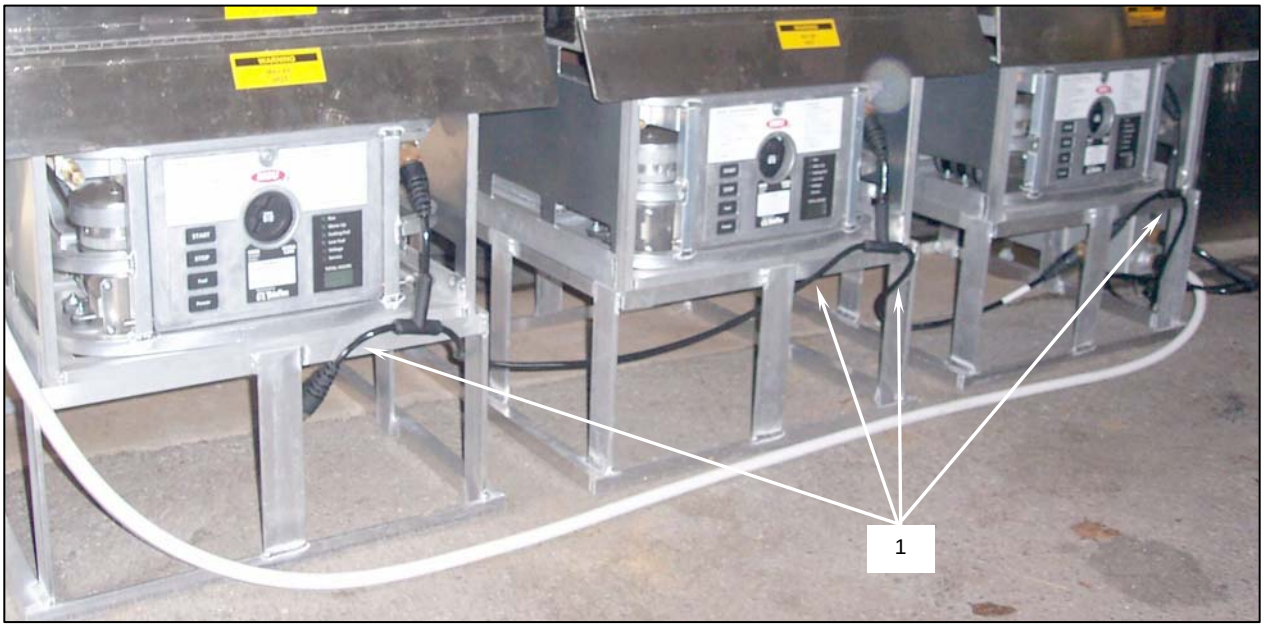


Figure 23. Cable Drip Loops.

WARNING

Each work table assembly and the drain table weighs approximately 30 lb (19.09 kg). Two persons must lift or carry each work table or drain table assembly, lifting with their legs not their back to prevent injury. The use of work gloves with gripping pads when moving equipment will significantly reduce the risk of injuries/cuts. Failure to observe this warning may result in serious back or other muscular skeletal injuries or hand cuts.

14. Set up the work tables and the drain table as follows:

a. Pull out the leg assemblies **(Figure 24, Item 1)** until the linkage **(Figure 24, Item 2)** snaps into place in the fully extended position.

b. Move the assembled work tables **(Figure 24, Item 3)** to their operating locations.

c. Attach the lip of the drain table **(Figure 24, Item 4)** to the end of left sink assembly **(Figure 24, Item 5)**.

15. Place the trash receptacles **(Figure 24, Item 6)** in their operating locations.

16. Place the sink immersion rack and all remaining items inside the tent on the storage racks.

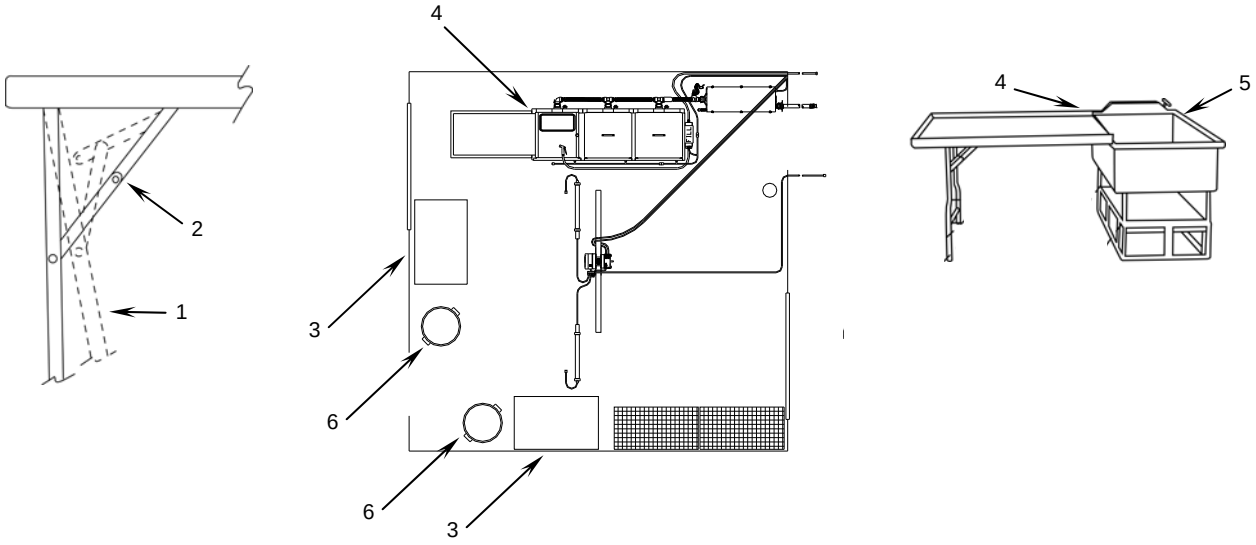


Figure 24. Installing the Work Table and Drain Table.

OPERATING PROCEDURES

NOTE

Additional guidance for water preparation may be found in FM 10-23 and FM 10-52.

1. Prepare water to operate the FSC as follows:

   a. Treat water in accordance with TB Med 530.

   b. Ensure water has a residual chlorine content of 5 ppm.

2. Prepare the sinks for operation as follows:

   a. Remove the covers **(Figure 25, Item 1)** from the sink assemblies **(Figure 25, Item 2)**.

   b. Ensure the thermometer brackets **(Figure 25, Item 3)** and thermometers **(Figure 25, Item 4)** are attached to the sink assemblies **(Figure 25, Item 2)**.

   c. Close the sink drains by rotating the drain knobs **(Figure 25, Item 5)** ¼ turn clockwise.

   d. If not already done, move the power converter power switch **(Figure 25, Item 6)** to ON.

   e. If not already done, move the sink fill pump assembly power switch **(Figure 25, Item 7)** to ON.

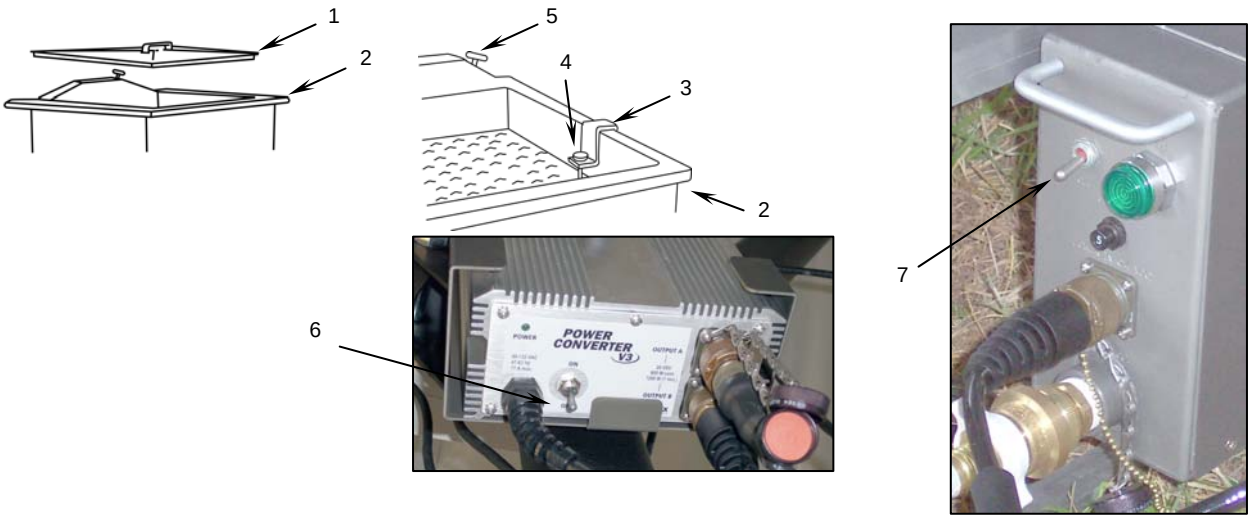


Figure 25. Preparing the Sinks for Operation.

CAUTION

If freezing weather is expected, it is important to keep residual water drained from the sink fill pump assembly and all hoses when not in use. Failure to comply may result in damage to the equipment.

f. If necessary, clean the sinks with fresh water and soap before use.

WARNING

Bacterial Hazard. The potential exists for contaminated sink water to be siphoned back into the potable water supply through the sink fill pump. Do not leave the 15-ft sink fill hose submerged in sink water. Ensure that the vacuum breaker is affixed to the sink fill pump at all times and that the breaker functions properly. Failure to comply may result in serious illness to personnel.

NOTE

It is normal for the sink fill pump vacuum breaker to weep water. The vacuum breaker is designed to release a small amount of water when the nozzle is released to relieve water pressure.

g. Fill the sinks with water to the “full” line, approximately 7½ inches deep using the sink fill hose and nozzle.

WARNING

A single 5-pound dry chemical (Type A, B, C) fire extinguisher is supplied with the FSC. Ensure the fire extinguisher is located in the tent just inside the door and is visible and readily accessible in case of a fire. Do not allow the fire extinguisher to be obstructed by utensils, racks, or other operating equipment. If fire occurs, send for help immediately, shut down power to the FSC, and if possible try to fight the fire from outside the tent. Failure to observe safety precautions may result in serious injury or death to personnel.

3. Prepare the burner units for use as indicated below.

WARNING

Carbon Monoxide Gas. Carbon monoxide (CO) is a gas without color, smell, or taste that can kill you. Breathing carbon monoxide gas produces symptoms such as headache, dizziness, loss of muscular control, a sleepy feeling, unconsciousness, or can induce a coma. Brain damage or death can result from exposure. Dangerous levels of carbon monoxide will occur from operating the MBUs in an enclosed FSC tent. Operators must be aware of and observe for symptoms of carbon monoxide poisoning such as headache, distress, dizziness, nausea and weakness. If artificial respiration is necessary, refer to FM 4-25.11.

- Maintain open roof vents, windows, and doors in the tent to provide cross ventilation and prevent the accumulation of carbon monoxide gas. Provide fresh air intake for the soldiers and the burners by ensuring that all doors, windows, and screened roof openings are kept fully open. Keep all openings and roof vents free of blockage.
- Do not use the FSC-2 system in a tent (or alternate enclosure) that does not meet the MGPTS cross ventilation design capabilities.
- Be alert at all times during FSC operation for symptoms of exposure to CO. If any personnel show symptoms, immediately remove them from the FSC and obtain immediate medical attention and treatment.

Failure to observe this warning may result in brain damage or death.

Do not use the burners as personal heating sources during cold weather. Personnel would be exposed to fuel emissions and possible burns. Failure to observe this warning may result in serious injury or death.

a. Test the unit by pressing the TEST/RESET button **(Figure 26, Item 1)**. The indicator light **(Figure, Item 2)** should change from green to red **(Figure 26, Item 3)** and the alarm horn **(Figure, Item 3)** should sound.

WARNING

Risk Management. If the CO monitor is not functioning properly, refer to WP 0007 00, Operation Under Unusual Conditions, for operation of the FSC-2 system without the CO monitor. This is a command decision. Refer to FM 100-14, Risk Management, before operating the system.

b. If the test fails, notify unit maintenance.

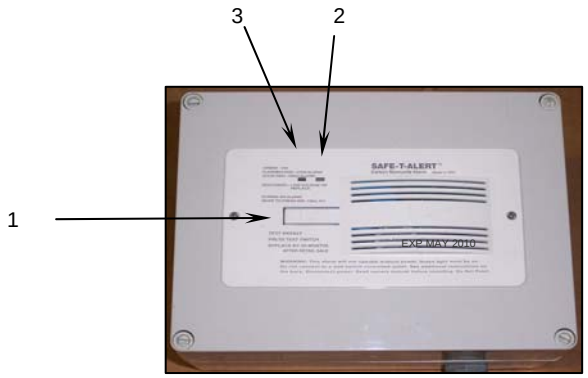


Figure 26. CO Monitor Test.

WARNING

Fuels are toxic and flammable. MBU units are designed to be fueled in place. When fueling the MBUs, ensure that the area is well-ventilated and that there is no open flame or other ignition source in the vicinity. Wear protective goggles, avoiding contact with skin and clothes, and don't breathe vapors. When fueling, always provide metal-to-metal contact between the container and the fuel tank. Remove spilled fuel immediately. If contact with eyes is made, immediately flush with clean water and get medical aid. If contact with clothing or skin is made, immediately remove contaminated clothing and clean skin with mild soap or cleaner and flush with clean water. Do not operate the burner units if fuel or other flammable material is on or near the burner units.

Frequently check for heating of the tent or shelter wall while burner units are in use. Move the burner units and sink assemblies if necessary to prevent possible ignition of the tent.

Always store fuel can in well-ventilated area as far away from open flames and other potential ignition sources as possible. Keep fuel tank and fuel container caps tight at all times. Leaking or spilled fuels will create a fire danger-injuries/death and environmental damage. Fuel spills must be cleaned up in accordance with local requirements.
Failure to observe fuel requirements could cause damage to the heater assembly, fire, injury or death to personnel within or around the FSC.

WARNING

Burn hazard and equipment damage. Do not start an MBU unit under a sink that is not filled with water. Failure to observe this caution may result in overheating the sink so that it is hot enough to cause burns if touched.

CAUTION

Do not overheat the sink. Failure to comply can result in damage to the sink.

CAUTION

Ensure the hinge flap **(Figure 27, Item 1)** on the sink is completely down so it will not touch the back of the sink front heat shield or the shield. Failure to comply can result in damage to the heat shield.

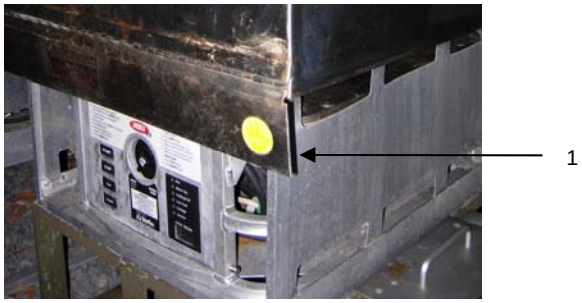


Figure 27. Sink Hinge Flap.

NOTE

Water in sinks will heat to desired temperature more quickly with the sink covers on.

c. Fuel and start the burner units after the sinks are filled with water. Follow all precautions and instructions in TM 10-7310-281-13&P (MBU).

d. Monitor each burner unit for proper burner operation.

e. Set the burner under the “Wash” sink to maintain water temperature at about 110-120°F.

f. Set the burner under the “Rinse” sink to maintain water temperature at least 120-140°F.

g. Set the burner under the “Sanitize” sink to maintain water temperature at least 171°F or higher.

h. Hang the sink front heat shields over the front of the sinks **(Figure 28, Item 1)**.

Figure 28. Sink Heat Shield Installation.

During operation, while the MBU's are on, be alert for any of the following CO monitor alarms:

Low CO Alarm: Indicates the presence of 70 ppm or more of CO
- Flashing red light **(Figure 29, Item 1)** and four audible beeps
- Off for 5 seconds
- Cycle continues until TEST/RESET button **(Figure 29, Item 2)** is pressed
- Pressing TEST/RESET button temporarily silences audible alarm; red light continues to flash until CO has cleared, or the alarm will reactivate in about 6 minutes if CO is still present
- If level of CO continues to rise above 100 ppm, the flashing red light will change to steady red

High CO Alarm: Indicates that the CO level is above 100 ppm
- Steady red light and four audible beeps
- Off for 5 seconds
- Cycle continues until TEST/RESET button is pressed
- Pressing TEST/RESET button temporarily silences audible alarm; red light stays on until CO has cleared, or the alarm will reactivate in about 6 minutes if CO is still present

Malfunction Signal: Indicates that the CO monitor is not functioning properly
- Indicator light alternates flashing green and red lights **(Figure 29, Item 3)** and one audible beep every 30 seconds
- Pressing TEST/RESET button may clear the signals; if it doesn't, troubleshoot or replace monitor

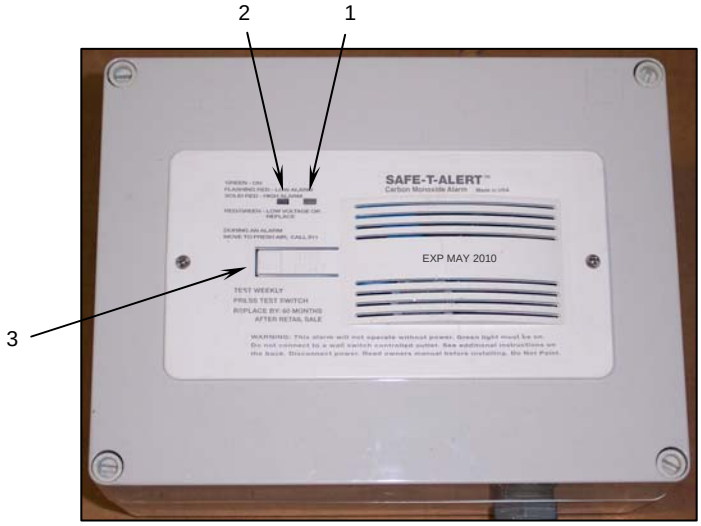


Figure 29. CO Monitor Alarms.

WARNING

Carbon Monoxide Gas. Carbon monoxide (CO) is a gas without color, smell, or taste that can kill you. Breathing carbon monoxide gas produces symptoms such as headache, dizziness, loss of muscular control, a sleepy feeling, unconsciousness, or can induce a coma. Brain damage or death can result from exposure. Dangerous levels of carbon monoxide will occur from operating the MBUs in an enclosed FSC tent. Operators must be aware of and observe for symptoms of carbon monoxide poisoning such as headache, distress, dizziness, nausea and weakness. If artificial respiration is necessary, refer to FM 4-25.11.

- Maintain open roof vents, windows, and doors in the tent to provide ventilation and prevent the accumulation of carbon monoxide gas. Provide fresh air intake for the soldiers and the burners by ensuring that all doors, windows, and screened roof openings are kept fully open. Keep all openings and roof vents free of blockage.
- Do not use the FSC-2 system in a tent (or alternate enclosure) that does not meet the MGPTS cross ventilation design capabilities.
- Do not use the burners as personal heating sources during cold weather.
- Be alert at all times during FSC operation for symptoms of exposure to CO. If any personnel show symptoms, immediately remove them from the FSC and obtain immediate medical attention and treatment.

Failure to observe this warning may result in brain damage or death.

WARNING

Risk Management. If the CO monitor is not functioning properly, refer to WP 0007 00, Operation Under Unusual Conditions, for operation of the FSC-2 system without the CO monitor. This is a command decision. Refer to FM 100-14, Risk Management, before operating the system.

4. If the CO monitor alarm signals (four audible beeps and a flashing or solid red light), respond to the alarm by quickly performing the following steps:

   a. Turn off the MBUs.

   b. Press the CO monitor RESET button to silence the audible alarm.

NOTE

After the RESET button is pressed to silence the audible alarm, the red light will continue to flash or remain on until the carbon monoxide has cleared. If the carbon monoxide does not clear within six minutes, the audible alarm will reactivate.

   c. Leave the tent.

   d. Open all window and door flaps accessible from the outside to increase ventilation in the tent.

   e. Do not enter the tent until the red light goes off.

WARNING

Burn hazard. Wear rubber gloves and apron when performing cleaning and sanitizing operations, when draining hot water from the sinks, or when performing any operation that may result in contact with hot equipment surfaces or hot water. Failure to observe this warning may result in severe burns.

When the water temperature is between110-190°F and you are performing cleaning and sanitizing operations, do not submerge the open end of the gloves into the hot water. The gloves will fill with hot water and burn the skin. Failure to observe this warning may result in severe burn injuries to personnel.

5. Manually clean, rinse, and sanitize pots, pans, utensils and other food handling items as follows:

   a. Pre-scrape items into waste containers to remove as much food as possible.

   b. Wash each item in the “Wash” sink with detergent (water temperature 110-120°F). Scrub items until free of all food and dirt.

   c. Rinse detergents off washed items in the “Rinse” sink (water temperature 120-140°F) making sure items are thoroughly rinsed.

   d. To rinse small items, load them into the immersion rack and lower the loaded basket into the rinse water.

NOTE

Be sure all items are completely covered with water.

   e. Sanitize rinsed items in the “Sanitize” sink (water temperature 171°F or higher) making sure all parts of a item are completely submersed for at least 30 seconds.

   f. To rinse small items, load them into the immersion rack and lower the loaded basket into the sanitizing water for at least 30 seconds.

   g. Remove the items or immersion rack from the sink. Remove the sanitized items from the basket if necessary.

   h. Air dry and store on the storage racks.

6. Change water in the sinks as needed when too dirty as follows:

   a. Shut off the burner in accordance with TM 10-7310-281-13&P.

   b. Remove water from the sink by rotating the drain handle ¼ turn counterclockwise.

   c. Rinse and, if necessary, wash out the sink using the sink fill hose and nozzle.

   d. Remove the sink coupler heat shield and sink front heat shield.

WARNING

Each sink assembly weighs approximately 60 lb (27.28 kg) without accessories. Two persons must work together to tilt the sink, one in front to lift the front of the sink and one in back to stabilize the sink assembly. Wear rubber gloves and aprons to prevent burns that could result from contact with hot equipment surfaces or hot water. Ensure that the base rack, burner rack, and MBU are secure and do not move or lift up when lifting the front of the sink. Failure to observe this warning may result in serious injuries, or burns.

e. Tilt the sink slightly to completely drain the water out of the sink, then return the sink to its original position.

f. Reinstall the sink front heat shield and sink coupler heat shield.

g. Close the sink drain by turning the drain handle ¼ turn clockwise.

h. Refill the sink with water to the “full” line, approximately 7½ inches deep.

i. Check the fuel level before restarting the burner.

CAUTION

Ensure the hinge flap on the sink is completely down to prevent the flap from touching the back of the sink front heat shield. Failure to comply may result in damage to the heat shield. Refer to Figure 27 in this WP for a detailed picture of the hinge flap.

j. Restart the burner unit following all precautions and instructions in TM 10-7310-281-13&P (MBU).

k. Set the burner to achieve and maintain the required water temperature (Wash water 110-120°F, Rinse water 120-140°F, Sanitize water 171°F or higher).

l. Wait for the water to reach the required temperature.

m. Resume cleaning and sanitizing food handling items.

WARNING

Discharging grease to a field soakage pit could prevent gray water from percolating. Discharging grease through plumbing into holding tanks or a treatment facility could clog pipes an cause gray water overflows. Both situations could create gray water pools that generate odors, attract insects or rodents (mosquitoes, filth flies, and rats), and support the growth of pathogens. Gray water puddles would also create a potential human contact hazard. Failure to collect and dispose of grease IAW TM and unit SOP may cause the grease and oil to overflow or pass through into the gray water and interfere with its ultimate disposal.

WARNING

Accumulated grease and greasy rags are flammable. To prevent fires do not store accumulated grease or greasy rags near MBUs or other sources of flame. Failure to observe this warning may result in serious injury to personnel.

WARNING

Burn hazard. Wear rubber gloves and apron when performing cleaning and sanitizing operations, when draining hot water from the sinks, or when performing any operation that may result in contact with hot equipment surfaces or hot water. Failure to observe this warning may result in severe burns.

When wearing the rubber gloves do not submerge the open end of the glove into the hot water. The gloves will fill with hot water. Failure to observe this warning may result in severe burn injuries to personnel.

7. Remove solids from the grease separator after every meal and remove grease daily as follows:

   a. Remove the cover from the grease separator.

   b. Remove the strainer basket **(Figure 30, Item 1)** from the grease separator and empty the collected solids into a trash receptacle.

   c. Set the strainer back into the grease separator.

   d. Place a #10 can **(Figure 30, Item 2)** under the grease removal valve spout.

NOTE

Draining grease from the grease separator is more easily accomplished after the sinks have been drained and the grease is warm. It may be necessary to fill and empty the #10 can several times in order to remove all the grease from the grease separator.

   e. Open the grease removal valve **(Figure 30, Item 3)** and drain the surface grease from the grease separator into the can, then close the valve. Repeat as many times as necessary until all the grease is removed.

f. Dispose of the collected grease in accordance with your unit's standard operating procedures.

g. Place the cover back on the grease separator.

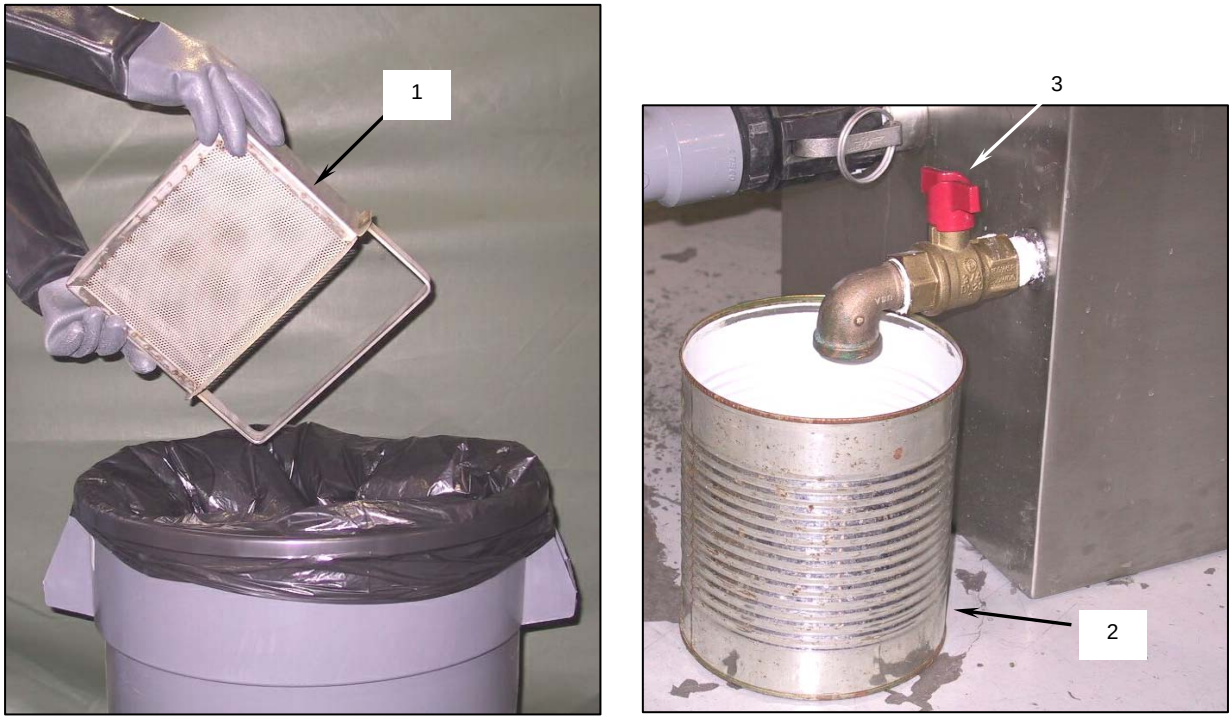


Figure 30. Removing Solids and Grease from the Grease Separator.

8. Upon completion of washing and sanitizing operations, shut down the equipment as follows:

WARNING

Fire hazard. Allow burner units to cool to the touch (about 15 to 30 minutes) before releasing air pressure from fuel tanks. Do not smoke and make sure there is no open flame in the vicinity. Fuel fumes are explosive and highly flammable. Failure to observe this warning may result in fire and injury or death.

WARNING

Burn hazard. Wear rubber gloves and apron when performing cleaning and sanitizing operations, when draining hot water from the sinks, or when performing any operation that may result in contact with hot equipment surfaces or hot water. Failure to observe this warning may result in severe burns.

When wearing the rubber gloves do not submerge the open end of the glove into the hot water. The gloves will fill with hot water. Failure to observe this warning may result in severe burn injuries to personnel.

CAUTION

If freezing weather is expected, it is important to keep residual water drained from the sink fill pump assembly and all hoses when not in use. Failure to comply may result in damage to the equipment.

a. Remove solids and grease from the grease separator as described in step # 7 above.

b. Clean all FSC components as needed IAW WP 0012 00.

NOTE

If freezing weather conditions are expected, clean the grease separator IAW WP 0012 00.

c. Clean the grease separator daily IAW WP 0012 00.

d. Shut off the MBUs in accordance with TM 10-7310-281-13&P.

e. Remove water from the sinks by rotating the drain knob ¼ turn counter-clockwise.

f. Remove the sink coupler heat shield and tilt the sink slightly to drain the water out of the sink completely, and then return the sink to its original position.

g. Clean, rinse, drain, and dry sinks as needed.

h. Switch off the sink fill pump assembly power switch **(Figure 31, Item 1)**.

i. Switch off the power converter power switch **(Figure 31, Item 2)**.

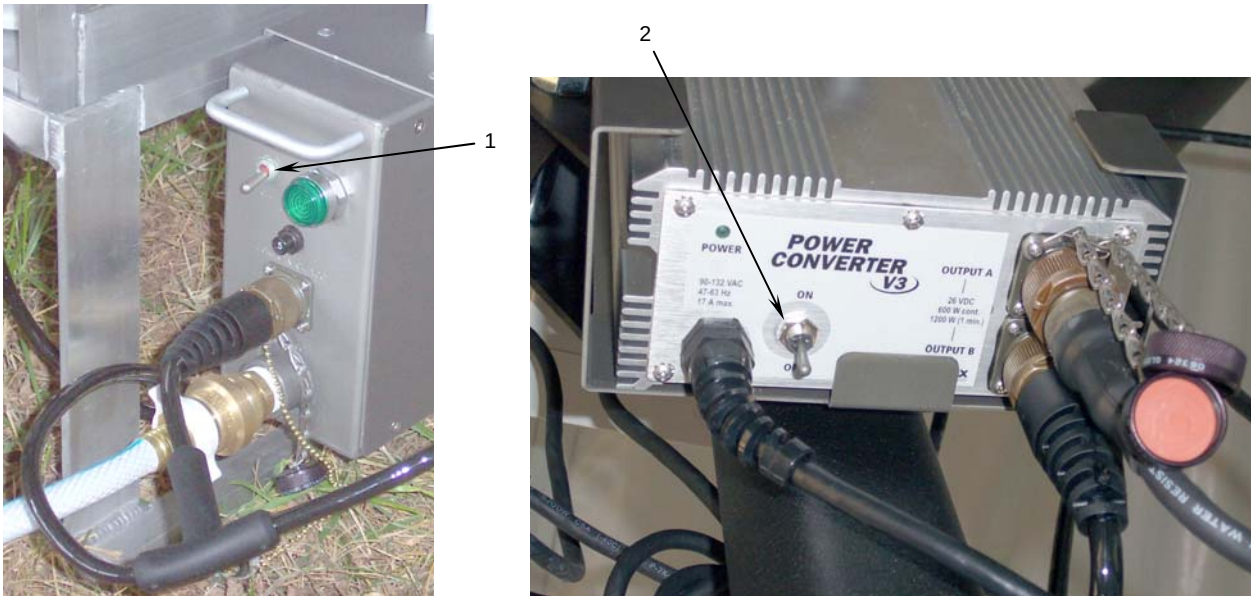


Figure 31. Shutting Down the FSC Equipment.

PREPARATION FOR MOVEMENT

Ensure that the FSC equipment is cleaned as described in WP 0012 00.

Ensure that the MBUs, the sink fill pump assembly, and the power converter are turned off as described earlier in this work package.

Disassemble the Equipment

WARNING

Burn and Fire hazard. Allow burners and sinks to cool before disassembling equipment. Do not smoke and make sure there is no open flame in the vicinity. Fuel fumes are explosive and highly flammable. Drain all fuel from equipment into fuel can before movement or storage. Failure to observe this warning may result in fire, injury or death.

The drain table weighs approximately 30 lb (13.64 kg). Two persons must lift or carry the drain table assembly, lifting with their legs not their back to prevent injury. The use of work gloves with gripping pads when moving equipment will significantly reduce the risk of injuries/cuts. Failure to observe this warning may result in serious back or other muscular skeletal injuries or hand cuts.

1. Disassemble the drain table as follows:

   a. Detach the drain table **(Figure 32, Item 1)** from the rim **(Figure 32, Item 2)** of the sink assembly.

   b. Turn the drain table upside down and push-in the linkage **(Figure 32, Item 3)** from its fully extended position. Fold the table legs **(Figure 32, Item 4)**.

c. Remove the sink front heat shields **(Figure 32, Item 5)** from the front of the sinks.

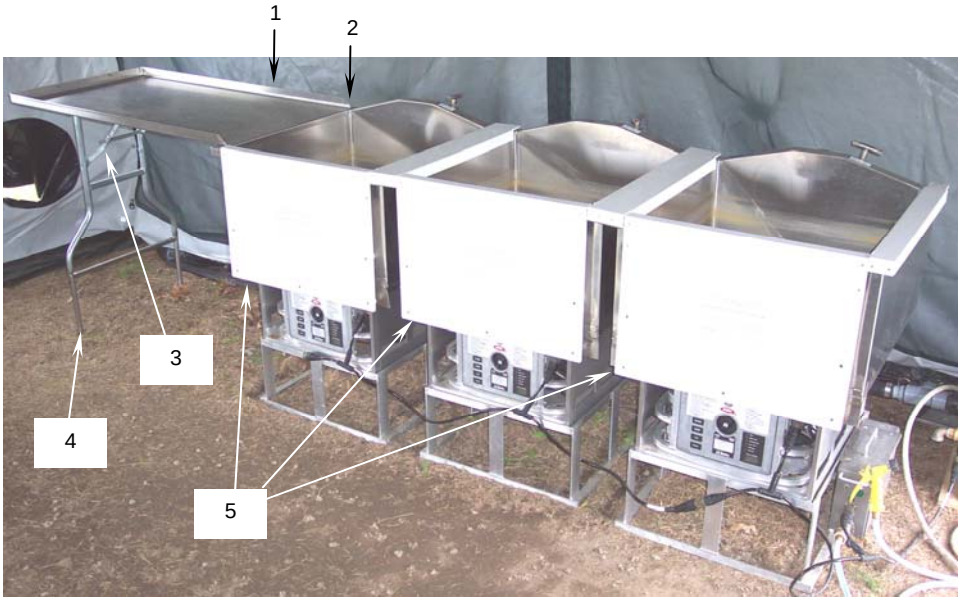


Figure 32. Disassembling the Drain Table.

WARNING

Electrical high voltage and current cannot be seen, but in contact with energized equipment can kill you, render you unconscious, or severely burn you. Electricity is unlike most other dangerous things you can come in contact with because it gives no warning. If electrical shock occurs and artificial respiration is necessary, refer to FM 4-25.11. To ensure your safety and that of other personnel, always observe the following precautions:

Do not stand in water while handling live power cords or electrical shock may result.

Prior to storing, assure power cables outer jackets are not cut or damaged and there are no exposed wires.

Failure to observe this warning may result in death on contact.

2. Disconnect the power cables as follows:

   a. Unplug the 100-ft extension cord **(Figure 33, Item 1)** from the outlet at the AC power source.

   b. Unplug the GFCI **(Figure 33, Item 2)** if used.

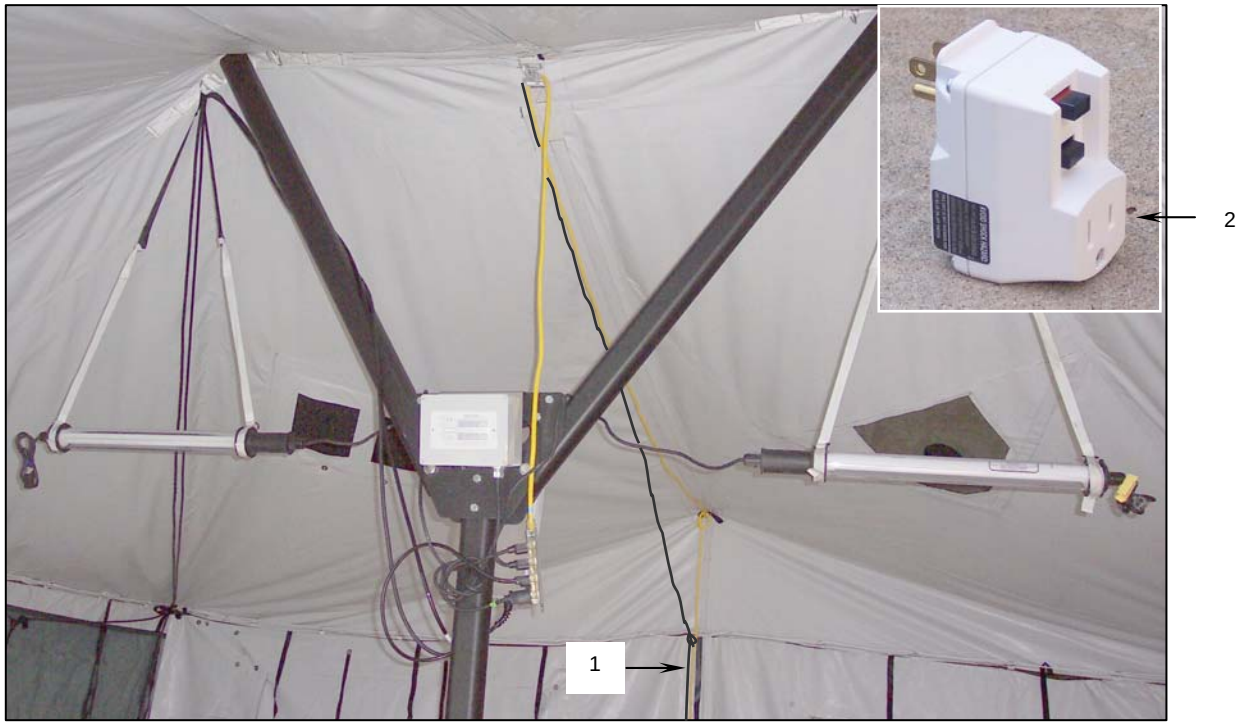


Figure 33. Unplug 100-ft Extension Cord and GFCI.

c. If not already done, disconnect the grease separator power cord **(Figure 34, Item 1)** and the 25-ft DC power cable **(Figure 34, Item 1)** from the power converter and cap the power converter connectors.

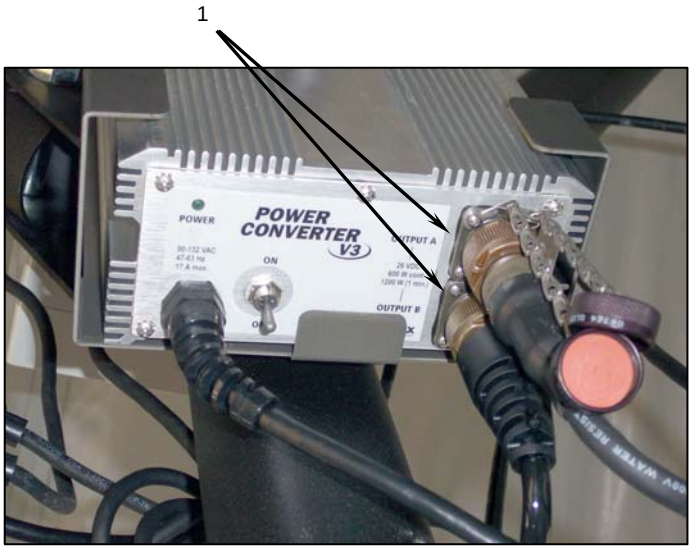


Figure 34. Disconnect Power Cables from Power Converter.

d. Disconnect the 25-ft DC power cable **(Figure 35, Item 1)** from the end of the MBU power cable **(Figure 35, Item 2)**.

e. Remove the 25-ft DC power cable from the tent by untying the cable from the tent strap **(Figure 35, Item 3)**, unwrapping the cable from the "Y" arm of the tent center pole **(Figure 35, Item 4)**, and sliding the cable out of the D-ring **(**Error! Reference source not found.**5, Item 5)** at the top of the tent.

f. If not already done, disconnect the grease separator power cable **(Figure 35, Item 6)** from the grease separator electrical connector **(Figure 35, Item 7)**. Cap the grease separator connector.

g. Remove the grease separator power cable from the tent by untying the cable from the tent strap **(Figure 35, Item 8)**, unwrapping the cable from the "Y" arm of the tent center pole **(Figure 35, Item 4)**, and sliding the cable out of the D-ring **(Figure 35, Item 5)** at the top of the tent.

h. Coil the grease separator power cable and place it inside the cleaned grease separator, and secure the cover on the grease separator.

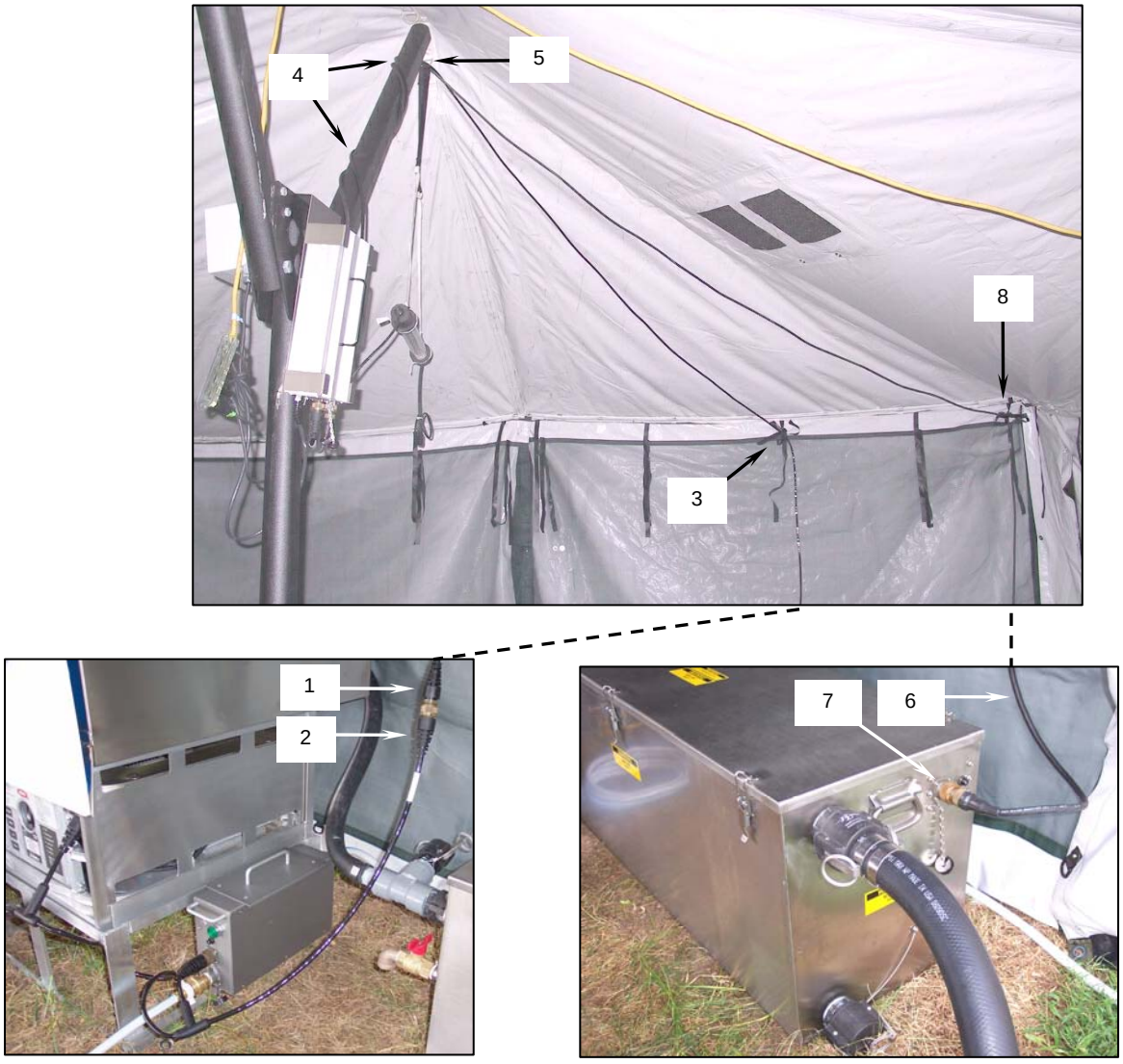


Figure 35. DC Power Cable Removal.

i. Disconnect the two 2-branch MBU power cables **(Figure 36, Item 1)** and **(Figure 36, Item 3)** and **(Figure 36, Item 3)** from the burner units and from the sink fill pump assembly **(Figure 36, Item 4)**.

j. Remove the MBU power cables from under the burner units and set aside for pack out.

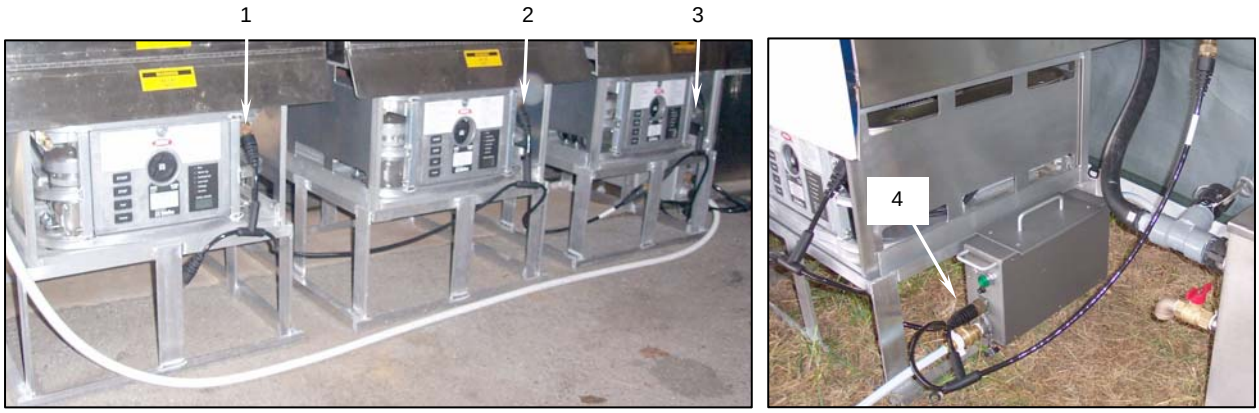


Figure 36. MBU 2-Branch Power Cable Removal.

k. Unplug the power converter cable, the two electric light cords, and the carbon monoxide (CO) monitor power cord from outlet end of the 100-ft extension cord **(Figure 37, Item 1)**.

l. Untie the 100-ft extension cord from the tent strap **(Figure 37, Item 2)** and slide the cord out of the strap buckles **(Figure 37, Item 3)** at the top of the tent.

m. Coil the 100-ft extension cord and set aside for pack out.

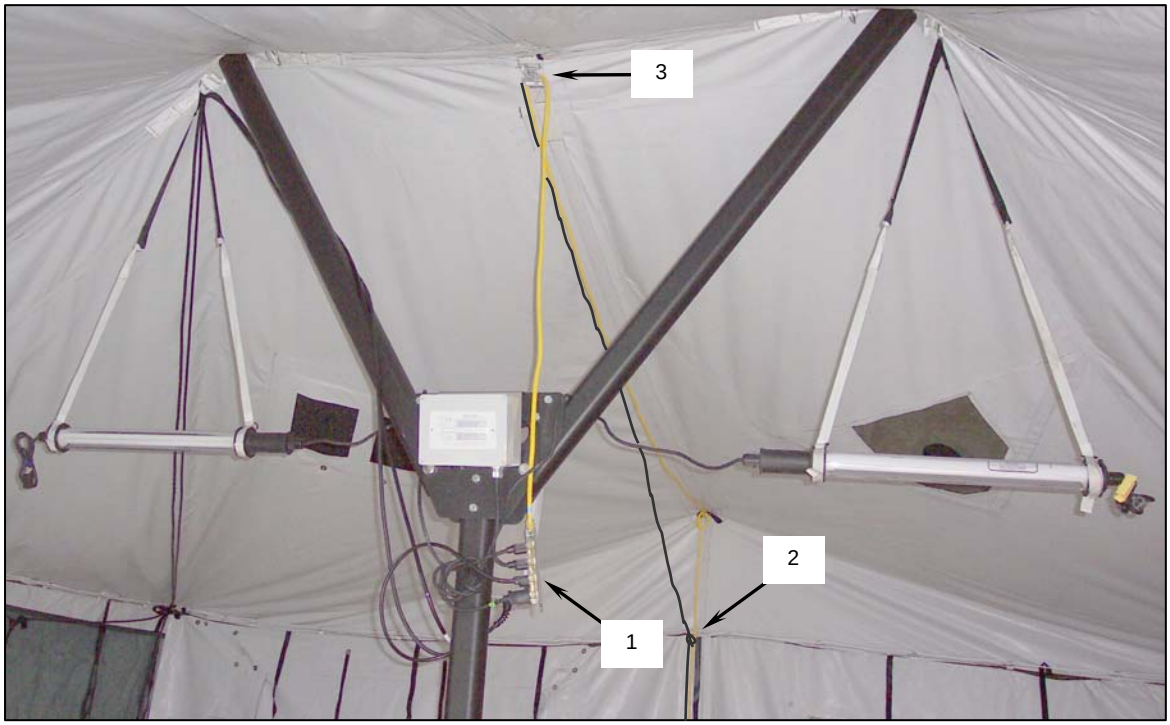


Figure 37. Extension Cord Removal.

3. Remove the sink fill pump assembly as follows:

   a. Ensure that the water supply is shut off at the potable water source.

   b. Disconnect the 50-ft water supply hose **(Figure 38, Item 1)** from the potable water source.

   c. Disconnect the Y-adapter **(Figure 38, Item 2)** if used and secure for pack out.

   d. Disconnect the 50-ft water supply hose **(Figure 38, Item 1)** from the water inlet **(Figure 38, Item 3)** at the back of the sink fill pump assembly. Drain and roll the hose. Connect the ends of the hose together.

   e. Disconnect the water nozzle **(Figure 38, Item 4)** from the 15-ft sink fill hose **(Figure 38, Item 5)**.

   f. Disconnect the 15-ft sink fill hose **(Figure 38, Item 5)** from the vacuum breaker **(Figure 38, Item 6)** at the front of the sink fill pump assembly. Drain and roll the hose. Connect the ends of the hose together.

   g. Lift the sink fill pump assembly **(Figure 38, Item 7)** off the sink assembly base rack **(Figure 38, Item 8)**.

   h. Tilt the sink fill pump assembly to empty residual water out of the sink fill pump assembly inlet **(Figure 38, Item 3)**.

   i. Tilt the sink fill pump assembly and lightly pull stem **(Figure 38, Item 9)** from inside the vacuum breaker to empty residual water out of the sink fill pump assembly outlet.

   j. Install sink fill pump assembly inlet and outlet caps.

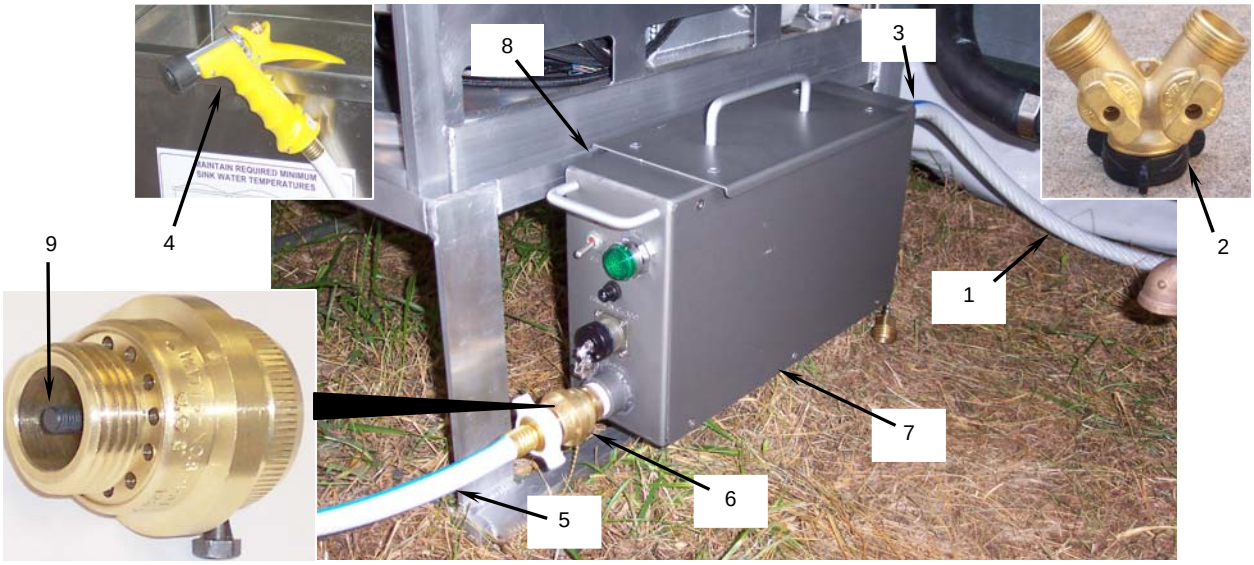


Figure 38. Sink Fill Pump Assembly Removal.

4. Prepare the burner units as follows:

WARNING

Each burner unit weighs approximately 42 lb (19 kg) without accessories. Two persons must lift or carry each burner unit, lifting with legs, not their back, to prevent injury. The use of work gloves with gripping pads when moving equipment will significantly reduce the risk of injuries/cuts. Failure to observe this warning may result in serious back or other muscular skeletal injuries or hand cuts.

WARNING

Fuels are toxic and flammable. When draining fuel from the MBUs, ensure that the area is well-ventilated and that there is no open flame or other ignition source in the vicinity. Wear protective goggles, avoiding contact with skin and clothes, and don't breathe vapors. If contact with eyes or skin is made, immediately flush eyes or skin with clean water and get medical aid for eyes.

Always store fuel can in well-ventilated area as far away from open flames and other potential ignition sources as possible. Keep fuel tank and fuel container caps tight at all times. Leaking or spilled fuels will create a fire danger-injuries/death and environmental damage. Fuel spills must be cleaned up in accordance with local requirements.

Failure to observe fuel requirements could result in fire and injury or death to personnel.

a. Remove the burner units from the sink assemblies.

b. Drain the MBU fuel tanks and prepare the MBUs for movement IAW TM 10-7310-281-13&P.

c. Return burner units to the sink assembly burner racks.

5. Disassemble the sink assemblies as follows:

a. Remove sink coupler heat shields **(Figure 39, Item 1)** and the sink edge heat shield **(Figure 39, Item 2)**.

b. Remove the thermometers **(Figure 39, Item 3)** and thermometer brackets **(Figure 39, Item 4)** from the sinks.

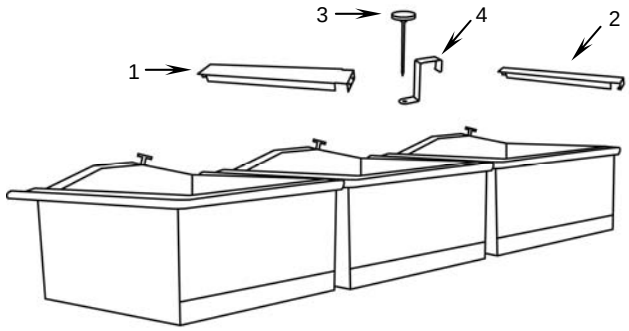


Figure 39. Heat Shield and Thermometer Assembly Removal.

WARNING

Burn hazard. Wear rubber gloves and apron when performing any operation which may result in contact with hot equipment surfaces or hot water. Failure to observe this warning may result in severe burns.

c. If there is a chance that the water in the hoses is hot, put on protective gloves before disconnecting and draining the hoses.

d. Open the drain hose couplings **(Figure 40, Item 1)** on the drain hose assembly **(Figure 40, Item 2)** and disconnect the hose couplings from the sink drain couplings **(Figure 40, Item 3)**.

e. Drain all water from the hose.

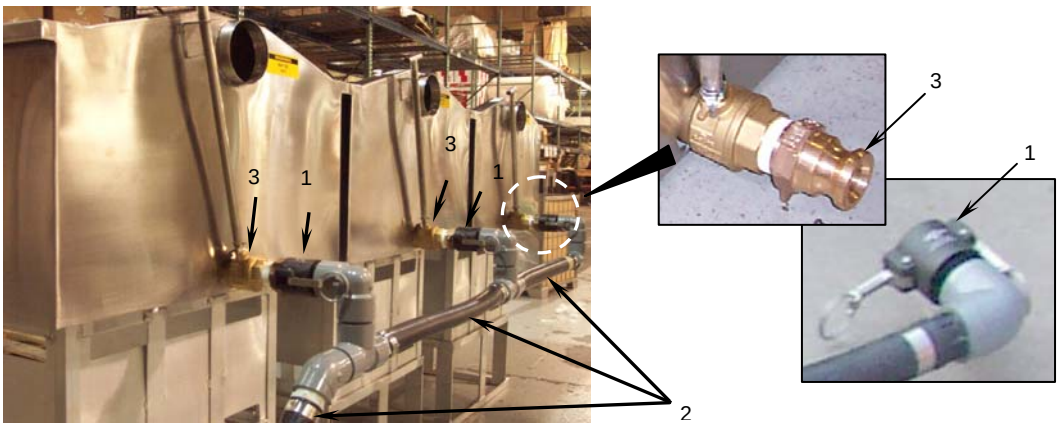


Figure 40. Sink Drain Hose Assembly Removal.

WARNING

Each sink body assembly weighs approximately 60 lb (27.28 kg) without accessories. Each burner unit weighs approximately 42 lb (19 kg) without accessories. Two persons must lift or carry each sink body assembly and burner unit lifting with their legs, not their back, to prevent injury. The use of work gloves with gripping pads when moving equipment will significantly reduce the risk of injuries/cuts. Failure to observe this warning may result in serious back or other muscular skeletal injuries or hand cuts.

CAUTION

Do not place sinks on ground without folding up the hinge flap. Refer to Figure 27, Item 1 for an illustration the hinge flap. Failure to comply may result in damage to the hinge flap.

f. Separate the sink assemblies **(Figure 41, Item 1)**, burner racks **(Figure 41, Item 2)**, and base racks **(Figure 41, Item 3)**; leave the burner units **(Figure 41, Item 4)** in the burner racks **(Figure 41, Item 2)**.

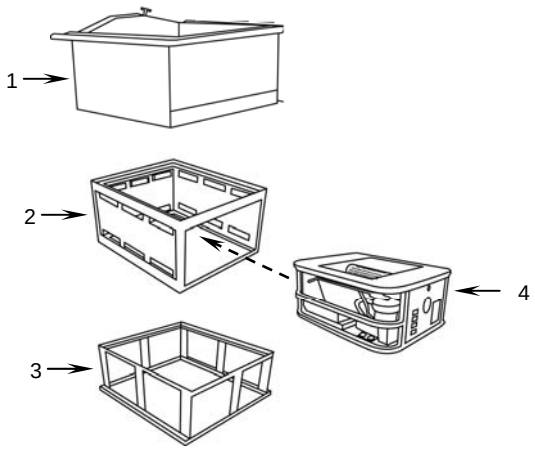


Figure 41. Disassembling the Sink Assemblies.

WARNING

Each work table weighs approximately 30 lb (13.64 kg). Two persons must lift or carry each work table, lifting with their legs not their back to prevent injury. The use of work gloves with gripping pads when moving equipment will significantly reduce the risk of injuries/cuts. Failure to observe this warning may result in serious back or other muscular skeletal injuries or hand cuts.

6. Disassemble the work table as follows:

   a. Turn the table **(Figure 42, Item 1)** upside down.

   b. Push-in the linkage **(Figure 42, Item 2)** of each table leg from its fully extended position, and fold the table legs **(Figure 42, Item 3)** to lie flat against the bottom of the table top.

   c. Set the tables aside for pack out.

Figure 42. Disassembling the Work Table.

WARNING

Each storage rack assembly weighs approximately 44 lb (20 kg) without accessories. Two persons must lift or carry each sink body assembly, lifting with legs, not their back, to prevent injury. The use of protective gloves with gripping pads when moving equipment will significantly reduce the risk of injuries/cuts. Failure to observe this warning may result in serious back or other muscular skeletal injuries or hand cuts.

7. Disassemble the storage rack assemblies as follows:

   a. Remove the shelves (front cover) **(Figure 43, Item 1)** from the storage rack assemblies.

   b. Disassemble the stacked rack units **(Figure 43, Item 2)**.

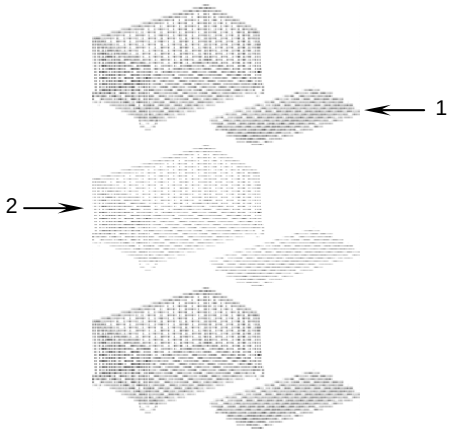


Figure 43. Disassembling the Storage Rack Assemblies.

8. Remove carbon monoxide (CO) monitor, the power converter, and the electric lights as follows:

NOTE

As necessary, the ladder may be used to remove the carbon monoxide monitor, the power converter, and the electric lights.

   a. Remove the carbon monoxide monitor **(Figure 44, Item 1)** from the tent pole.

   b. Remove the power converter **(Figure 44, Item 2)** and power converter bracket **(Figure 44, Item 3)** from the tent pole.

   c. Disconnect the light-hanging strap hook and loop fasteners **(Figure 44, Item 4)** and pull the straps **(Figure 44, Item 5)** out from their D-rings **(Figure 44, Item 6)**, releasing the straps from the lip **(Figure 44, Item 7)** at both ends of the light assembly **(Figure 44, Item 8)**.

   d. Release the knots **(Figure 44, Item 9)** that connect the light-hanging straps (**Figure 44, Item 5)** to the tent light hanger **(Figure 44, Item 10)** and disconnect the straps from the hanger.

   e. Repeat this procedure for the other light.

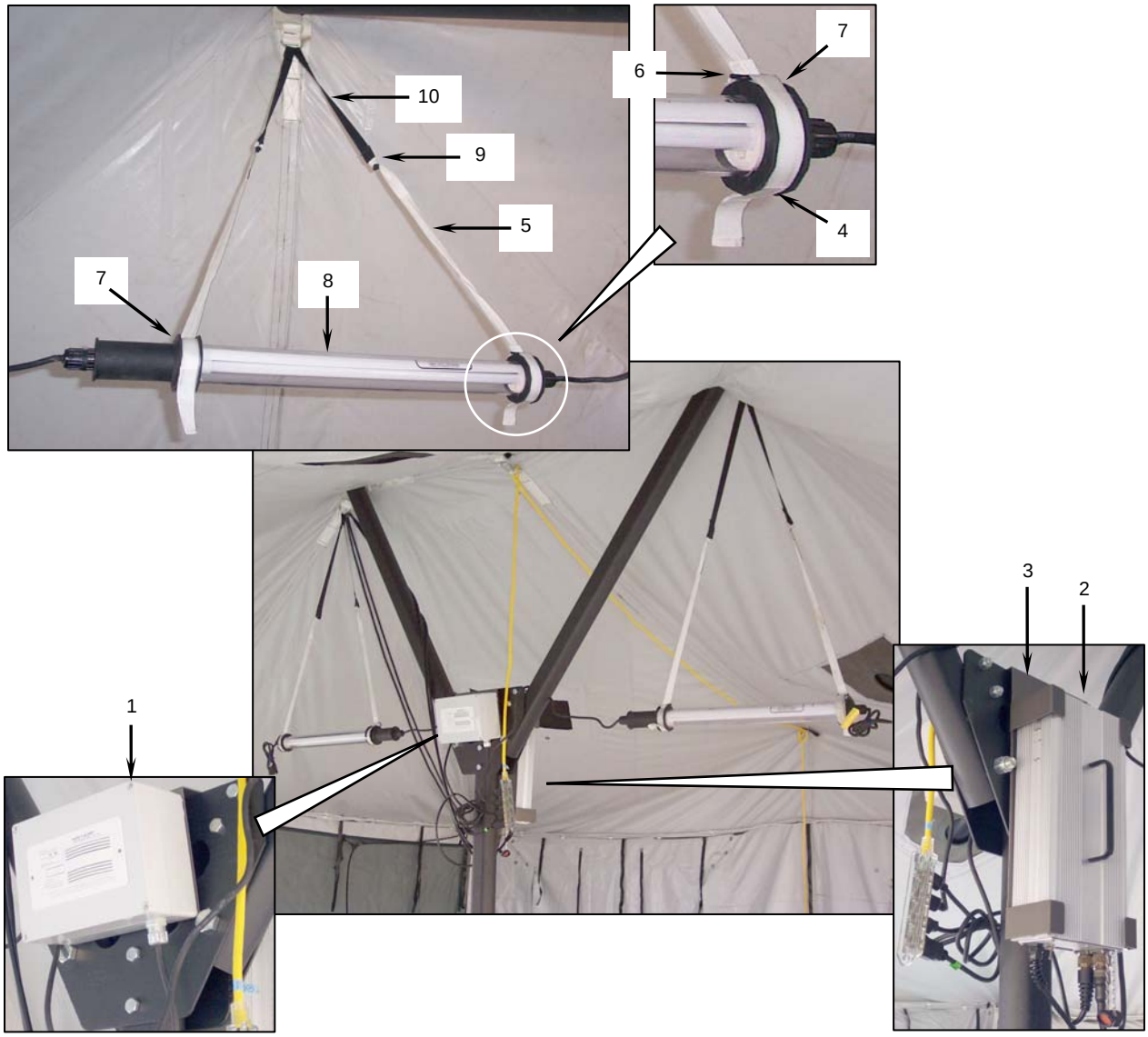


Figure 44. Removing the CO Monitor, Power Converter, and Electric Lights.

9. Remove the fire extinguisher and waste receptacles from the tent.

10. Prepare the tent for movement by striking it in accordance with TM 10-8340-240-12&P.

Pack the Equipment

CAUTION

Do not place sinks on ground or in a vehicle without folding up the hinge flap. Refer to Figure 27, Item 1 for an illustration the hinge flap. Failure to comply may result in damage to the hinge flap.

NOTE

Equipment and items that require packing prior to loading into the truck are listed in WP 0068 00, Components of End Item (COEI) and Basic Issue Items (BII).

1. Pack the sink assemblies as follows:

   a. Lay some barrier material in the bottom of each sink.

WARNING

Each burner unit weighs approximately 42 lb (19 kg) without accessories. Two persons must lift or carry each burner unit lifting with their legs, not their back, to prevent injury. The use of work gloves with gripping pads when moving equipment will significantly reduce the risk of injuries/cuts. Failure to observe this warning may result in serious back or other muscular skeletal injuries or hand cuts.

   b. Place the burner unit **(Figure 45, Item 1)** of each sink assembly into the burner rack **(Figure 45, Item 2)**.

   c. Slide the base racks **(Figure 45, Item 3)** down over the burner racks **(Figure 45, Item 2)**.

   d. Place each of these assemblies into a sink assembly **(Figure 45, Item 4)**.

   e. Wrap each thermometer and its bracket **(Figure 45, Item 5)** in barrier material and place one wrapped thermometer assembly on top of each burner unit.

   f. Place the sink covers **(Figure 45, Item 6)** on the sink assemblies.

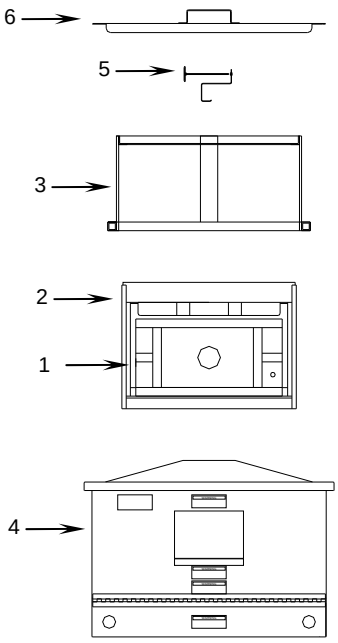


Figure 45. Packing Sink Assembly.

2. Pack the first of three, two-piece storage rack assemblies as follows:

   a. Place the two electric lights **(Figure 46, Item 1)** and their light-hanging straps **(Figure 46, Item 2)** into one waste receptacle **(Figure 46, Item 3)**.

   b. Wrap the two sink coupler heat shields **(Figure 46, Item 4)** and the sink edge heat shield **(Figure 46, Item 5)** in barrier material and place in the waste receptacle.

   c. Place the 100-ft extension cord **(Figure 46, Item 6)**, and the 25-ft DC cable **(Figure 46, Item 7)** into the waste receptacle.

   d. Place the two 2-branch cables **(Figure 46, Item 8)** and burner manuals **(Figure 46, Item 9)** in the waste receptacle.

   e. Place the lid **(Figure 46, Item 10)** on the waste receptacle and seal with duct tape.

   f. Wrap the fire extinguisher **(Figure 46, Item 11)** in barrier material and place into the immersion rack **(Figure 46, Item 12)**.

   g. Place the GFCI **(Figure 46, Item 13)**, hose nozzle **(Figure 46, Item 14)**, and Y-adapter **(Figure 46, Item 15)** in the immersion rack.

   h. Place the coiled 20-ft fuel line **(Figure 46, Item 16)** on top of the fire extinguisher in the immersion rack.

i. Place two shelves **(Figure 46, Item 17)** into the bottom of an empty storage rack assembly **(Figure 46, Item 18)**.

j. Nest the three sink front heat shields **(Figure 46, Item 19)** together, wrap in barrier material, and stand up inside and against the back of the storage rack assembly.

k. Place packed waste receptacle **(Figure 46, Item 3)** and packed immersion rack **(Figure 46, Item 12)** into the storage rack assembly **(Figure 46, Item 18)**.

WARNING

Each storage rack assembly weighs approximately 44 lb (20 kg) without accessories. Two persons must lift or carry each sink body assembly, lifting with legs, not their back, to prevent injury. The use of work gloves with gripping pads when moving equipment will significantly reduce the risk of injuries/cuts. Failure to observe this warning may result in serious back or other muscular skeletal injuries or hand cuts.

l. Using a two-person lift (one person on each end), turn a second storage rack **(Figure 46, Item 20)** upside down and position it so that its empty side faces the empty side of the first storage rack **(Figure 46, Item 18)**.

m. Nest the second storage rack **(Figure 46, Item 20)** over the first storage rack **(Figure 46, Item 18)** to form a box.

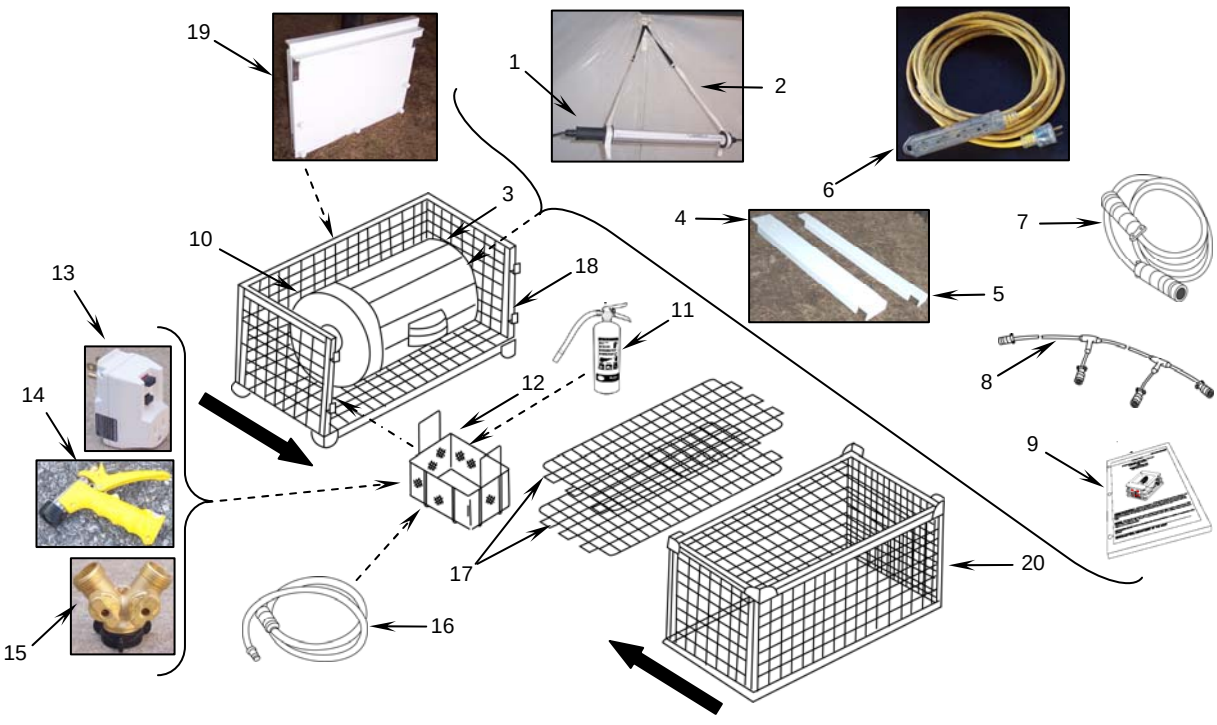


Figure 46. Packing First Storage Rack Assembly.

3. Pack the second of three, two-piece storage rack assemblies as follows:

   a. Pack the 50-ft water supply hose **(Figure 47, Item 1)** and the 15-ft sink fill hose **(Figure 47, Item 2)** into the second waste receptacle **(Figure 47, Item 3)**.

   b. Wrap the sink fill pump assembly **(Figure 47, Item 4)** in barrier material and pack into the second waste receptacle.

   c. Place the power converter **(Figure 47, Item 5)** in its hanging bracket **(Figure 47, Item 6)**. Wrap in barrier material and place into the second waste receptacle).

   d. Wrap the CO monitor **(Figure 47, Item 7)** in barrier material and pack into the second waste receptacle.

   e. Place the fuel can adapter **(Figure 47, Item 8)** in the fuel can adapter bag and place in the waste receptacle.

   f. Place the lid **(Figure 47, Item 9)** on the waste receptacle and seal with duct tape.

   g. Place two shelves **(Figure 47, Item 10)** into the bottom of an empty storage rack assembly **(Figure 47, Item 11)**.

   h. Place the packed waste receptacle **(Figure 47, Item 3)** into the storage rack assembly **(Figure 47, Item 11)**.

WARNING

Each storage rack assembly weighs approximately 44 lb (20 kg) without accessories. Two persons must lift or carry each sink body assembly lifting with their legs, not their back, to prevent injury. The use of work gloves with gripping pads when moving equipment will significantly reduce the risk of injuries/cuts. Failure to observe this warning may result in serious back or other muscular skeletal injuries or hand cuts.

i. Use two-person lift (one person on each end), carefully turn an empty storage rack **(Figure 47, Item 12)** upside down and position it so that its empty side faces the empty side of the just-packed storage rack.

j. Nest the second storage rack over the first storage rack to form a box.

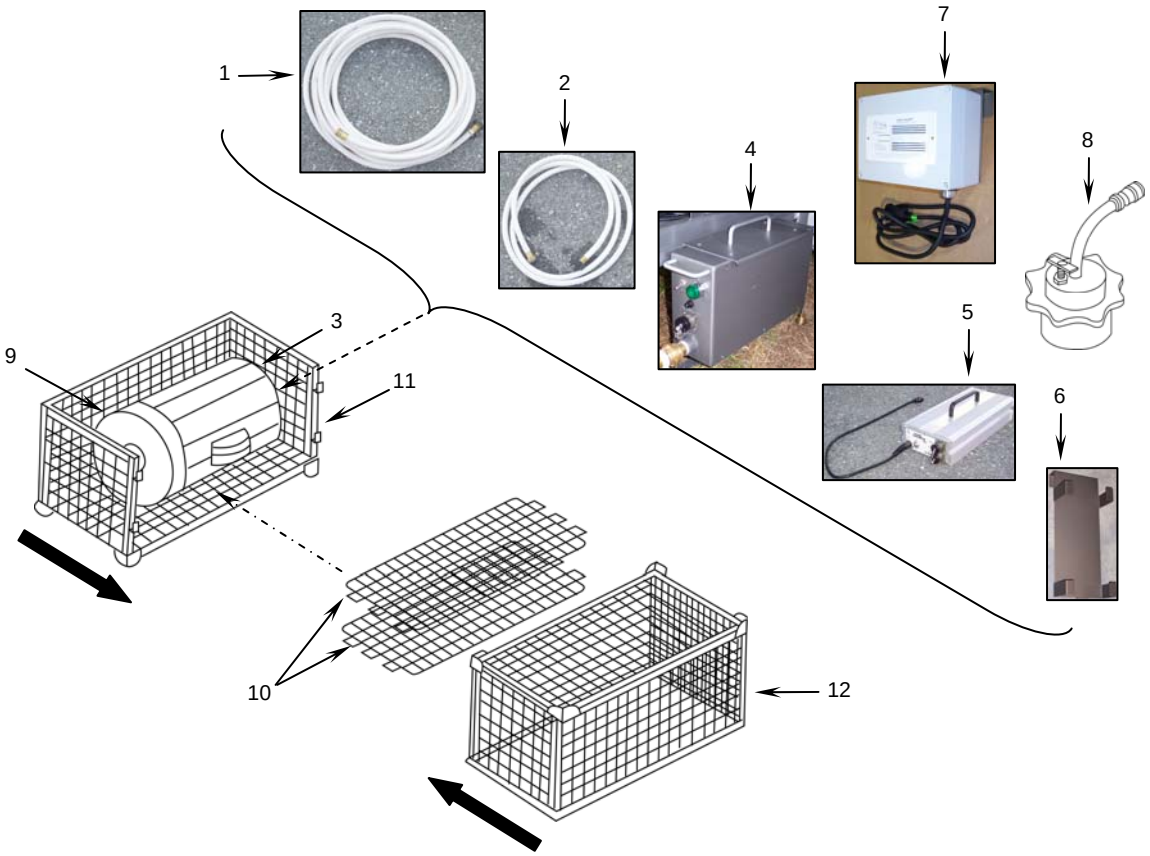


Figure 47. Packing Second Storage Rack Assembly.

4. Pack the third of three, two-piece storage rack assemblies as follows:

   a. Place two shelves **(Figure 48, Item 1)** into the bottom of an empty storage rack assembly **(Figure 48, Item 2)**.

   b. Coil and place the 50-ft drain hose **(Figure 48, Item 3)** into the storage rack assembly.

   c. Coil and place the sink drain hose assembly **(Figure 48, Item 4)** into the storage rack assembly.

   d. Place the FSC technical manual **(Figure 48, Item 5)** in a plastic bag and place in storage rack with hoses.

WARNING

Each storage rack assembly weighs approximately 44 lb (20 kg) without accessories. Two persons must lift or carry each sink body assembly lifting with their legs, not their back, to prevent injury. The use of work gloves with gripping pads when moving equipment will significantly reduce the risk of injuries/cuts. Failure to observe this warning may result in serious back or other muscular skeletal injuries or hand cuts.

   e. Using a two-person lift (one person on each end), carefully turn an empty storage rack **(Figure 48, Item 6)** upside down and position it so that its empty side faces the empty side of the just-packed storage rack.

   f. Nest the second storage rack over the first storage rack to form a box.

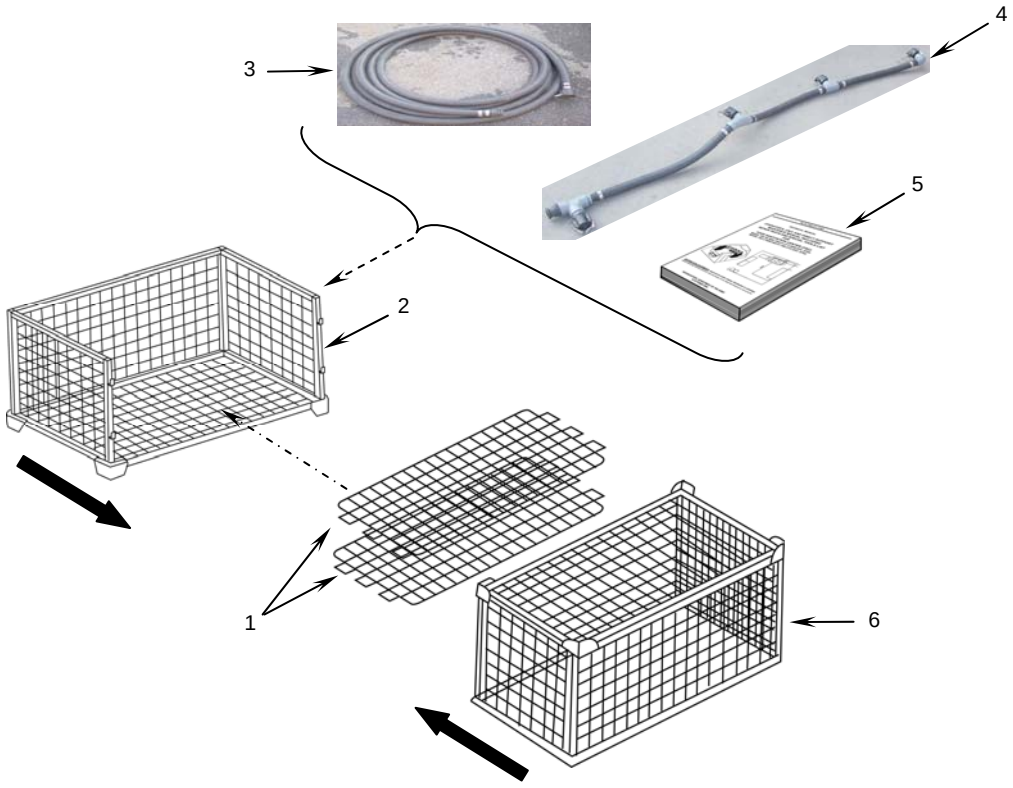


Figure 48. Packing Third Storage Rack Assembly.

5. Load the equipment onto the transport vehicle as follows:

WARNING

Excessive weight hazard. The weight of each of the three packed storage rack assemblies ranges from about 130 lb (59.1 kg) to 185 lb (84.1 kg). Suitable material handling equipment or four persons must lift or carry each assembly lifting with their legs, not their back, to prevent injury. The use of work gloves with gripping pads when moving equipment will significantly reduce the risk of injuries/cuts. Failure to observe this warning may result in serious back or other muscular skeletal injuries or hand cuts.

a. Load the three packed storage rack assemblies **(Figure 49, Item 1)** side-by-side in the forward most point of the vehicle bed and as far over to the driver's side of the bed as possible.

WARNING

Excessive weight hazard. The tent poles are heavy. Observe lifting requirements printed on the pole bag. Always lift with your legs not your back. The use of work gloves with gripping pads when moving equipment will significantly reduce the risk of injuries/cuts. Failure to observe this warning may result in serious back or other muscular skeletal injuries or hand cuts.

b. Load the tent poles inside their storage bag **(Figure 49, Item 2)** next to the storage rack assembly at the passenger side of the vehicle bed.

c. Secure the storage rack assemblies and the tent poles in their storage bag with a strap **(Figure 49, Item 3)** from one side of the vehicle to the other.

WARNING

Each work table weighs approximately 30 lb (13.64 kg). Two persons must lift or carry each work table, lifting with their legs, not their back, to prevent injury. The use of work gloves with gripping pads when moving equipment will significantly reduce the risk of injuries/cuts. Failure to observe this warning may result in serious back or other muscular skeletal injuries or hand cuts.

d. Load the 2 work tables **(Figure 49, Item 4)** on edge, with the table tops facing each other, in front of the storage rack assemblies and as far over to the driver's side of the bed as possible.

WARNING

The packed sink assemblies each weigh about 130 lb (59.1 kg). Suitable material handling equipment or four persons must lift or carry each assembly lifting with their legs, not their back, to prevent injury. The use of work gloves with gripping pads when moving equipment will significantly reduce the risk of injuries/cuts. Failure to observe this warning may result in serious back or other muscular skeletal injuries or hand cuts.

e. Load the three packed sink assemblies **(Figure 49, Item 5)** side-by-side along the driver's side of the vehicle bed with the drain valves **(Figure 49, Item 6)** facing the side of the vehicle and the sink cover handles **(Figure 49, Item 7)** oriented parallel to the side of the vehicle.

WARNING

The grease separator weighs approximately 80 lb (36.4 kg) empty. Three persons must lift or carry the grease separator lifting with their legs, not their back, to prevent injury. The use of work gloves with gripping pads when moving equipment will significantly reduce the risk of injuries/cuts. Failure to observe this warning may result in serious back or other muscular skeletal injuries or hand cuts.

The tent fabric sections are heavy. Observe lifting requirements printed on the tent bag. Always lift with your legs not your back. The use of work gloves with gripping pads when moving equipment will significantly reduce the risk of injuries/cuts. Failure to observe this warning may result in serious back or other muscular skeletal injuries or hand cuts.

The drain table weighs approximately 30 lb (13.64 kg). Two persons must lift or carry the drain table assembly, lifting with their legs not their back to prevent injury. The use of work gloves with gripping pads when moving equipment will significantly reduce the risk of injuries/cuts. Failure to observe this warning may result in serious back or other muscular skeletal injuries or hand cuts.

The tent fabric sections are heavy. Observe lifting requirements printed on the tent bag. Always lift with your legs not your back. The use of work gloves with gripping pads when moving equipment will significantly reduce the risk of injuries/cuts. Failure to observe this warning may result in serious back or other muscular skeletal injuries or hand cuts.

f. Load the grease separator **(Figure 49, Item 8)** next to the first two packed sink assemblies with the grease separator outlet/drain fittings pointing toward the work tables and the inlet fitting and grease drain valve pointing toward the rear of the vehicle.

g. Load one of the tent fabric sections in its storage bag **(Figure 49, Item 9)** parallel to the grease separator, between the grease separator and the tent poles in the tent pole bag.

h. Load the drain table **(Figure 49, Item 10)** flat on the bed of the vehicle, with its folded legs down, in front of the grease separator, the tent fabric bag, and the tent pole bag.

i. Load the second tent fabric section in its storage bag **(Figure 49, Item 11)** on top of the drain table.

j. Load the step ladder **(Figure 49, Item 12)** on top of the two tent fabric bags with the bottom of the ladder against the end of the right storage rack assembly.

k. Secure the loaded equipment from one side of the vehicle to the other with three straps (**Figure 49, Item 13)** and (**Figure 49, Item 14)** and **(Figure 49, Item 15)** so that one strap is threaded through the handle on each of the three sink covers.

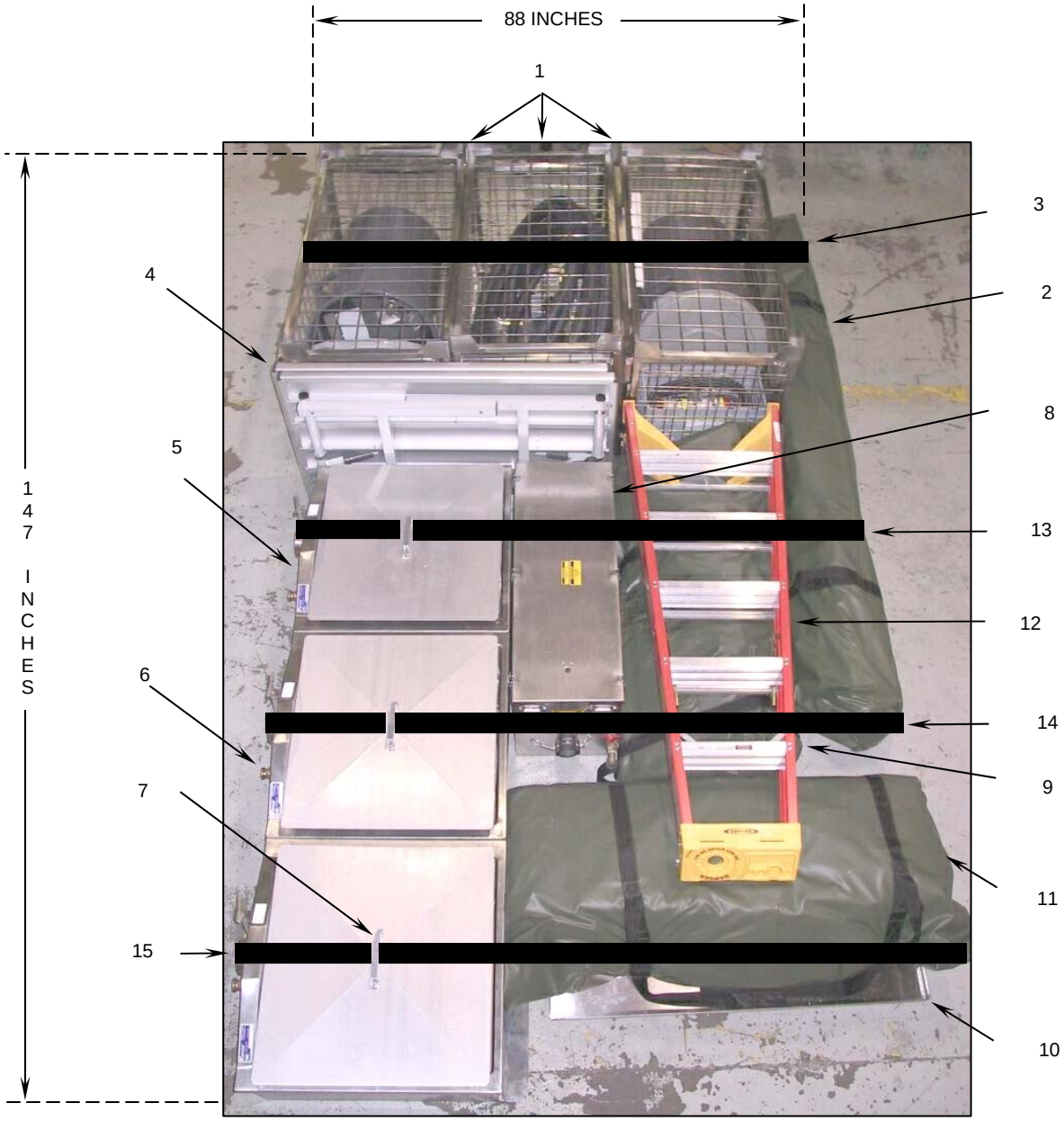


Figure 49. FSC-2 Transport Vehicle Loading Layout.

END OF WORK PACKAGE

OPERATOR'S, UNIT AND DIRECT SUPPORT MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-90, NSN 7360-01-277-2558
MODEL FSC-2, NSN 7360-01-496-2112
OPERATION UNDER UNUSUAL CONDITIONS

INITIAL SETUP:

Material/Parts
Floor, Tent (MGPTS) (WP 0069 00)
Floor, Tent (TEMPER) (WP 0069 00)
Gloves, Chemical Resistant
(WP 0068 00, Table 2, Item 3)
Heater, Space, Radiant, Large (WP 0069 00)
Tent Liner (MGPTS) (WP 0069 00)
Tent Liner (TEMPER) (WP 0069 00)

Personnel Required
Food Service Operator 92G10 (2)

References
FM 100-14

References - Continued
FM 21-10
FM 4-25.11
FM 3-5
TB MED 507
TM 10-7310-281-13&P
WP 0012 00
WP 0069 00

Equipment Condition
The FSC equipment is packed and loaded on a transport vehicle.
Also during operation of FSC equipment.

GENERAL

This work package contains instructions for operation of the FSC in unusual environmental conditions. Refer to TM 10-7310-281-13&P for MBU operation under unusual conditions.

SECURITY MEASURES FOR ELECTRONIC DATA

There is no electronic data associated with the FSC.

UNUSUAL ENVIRONMENT/WEATHER

CO Monitor Not Working Under Normal Conditions

WARNING

Risk Management. If the CO monitor is not functioning properly or if it is to be removed for repair, continued operation of the FSC system without the CO monitor is a command decision. Refer to FM 100-14, Risk Management, before operating the system.

WARNING

Carbon Monoxide Gas. Carbon monoxide (CO) is a gas without color, smell, or taste that can kill you. Breathing carbon monoxide gas produces symptoms such as headache, dizziness, loss of muscular control, a sleepy feeling, unconsciousness, or can induce a coma. Brain damage or death can result from exposure. Dangerous levels of carbon monoxide will occur from operating the MBUs in an enclosed FSC tent. Operators must be aware of and observe for symptoms of carbon monoxide poisoning such as headache, distress, dizziness, nausea and weakness. If artificial respiration is necessary, refer to FM 4-25.11.

- Maintain open roof vents, windows, and doors in the tent to provide cross ventilation and prevent the accumulation of carbon monoxide gas. Provide fresh air intake for the soldiers and the burners by ensuring that all doors, windows, and screened roof openings are kept fully open. Keep all openings and roof vents free of blockage.
- Do not use the FSC-2 system in a tent (or alternate enclosure) that does not meet the TEMPER or MGPTS cross ventilation design capabilities.
- Be alert at all times during FSC operation for symptoms of exposure to CO. If any personnel show symptoms, immediately remove them from the FSC and obtain immediate medical attention and treatment. Failure to observe this warning may result in brain damage or death.

Do not use the burners as personal heating sources during cold weather. Personnel would be exposed to fuel emissions and possible burns. Failure to observe this warning may result in serious injury or death.

Maintain adequate ventilation at all times as follows:

1. Keep tent and roof vents clear of snow, ice, or debris.

2. Open doors, windows, roof flaps, and hook and loop fastener wall closures as needed to introduce sufficient fresh air to replace oxygen consumed by burners. Never operate the FSC with all doors and windows closed.

Operation in Extreme Cold (Below 0°F/-18°C)

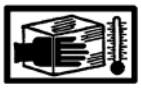
WARNING

Carbon Monoxide Gas. Carbon monoxide (CO) is a gas without color, smell, or taste that can kill you. Breathing carbon monoxide gas produces symptoms such as headache, dizziness, loss of muscular control, a sleepy feeling, unconsciousness, or can induce a coma. Brain damage or death can result from exposure. Dangerous levels of carbon monoxide will occur from operating the MBUs in an enclosed FSC tent. Operators must be aware of and observe for symptoms of carbon monoxide poisoning such as headache, distress, dizziness, nausea and weakness. If artificial respiration is necessary, refer to FM 4-25.11.

- Maintain open roof vents clear of snow, ice, or debris, open windows, and doors in the tent to provide cross ventilation and prevent the accumulation of carbon monoxide gas. Provide fresh air intake for the soldiers and the burners by ensuring that all doors, windows, and screened roof openings are kept fully open. Keep all openings and roof vents free of blockage.
- Do not use the FSC-2 system in a tent (or alternate enclosure) that does not meet the TEMPER or MGPTS cross ventilation design capabilities.
- Be alert at all times during FSC operation for symptoms of exposure to CO. If any personnel show symptoms, immediately remove them from the FSC and obtain immediate medical attention and treatment.

Failure to observe this warning may result in brain damage or death.

Do not use the burners as personal heating sources during cold weather. Personnel would be exposed to fuel emissions and possible burns. Failure to observe this warning may result in serious injury or death.



WARNING

Very Cold Metal Parts. Wear gloves. Do not touch extremely cold metal parts with bare or wet hands. Flesh may adhere to extremely cold metal parts or frostbite may occur. Failure to comply can cause permanent injury to personnel.

CAUTION

Care must be taken to remove residual water from the drain hoses, the sink fill pump (FSC-2 only), and the grease separator (FSC-2 only) to prevent freezing. Failure to comply may result in damage to the sink fill pump assembly and the grease separator.

NOTE

In extreme cold allow a longer period of time than normal to heat water to the desired temperature.

1. Operate the MBU burner units in extreme cold conditions IAW TM 10-7310-281-13&P.

NOTE

Adequate ventilation must be maintained at all times. Keep tent and roof vents clear of snow, ice, or debris. Open doors, windows, roof flaps, and hook and loop fastener wall closures as needed to introduce sufficient fresh air to replace oxygen consumed by burners. Never operate the FSC with all doors and windows closed. In the TEMPER, as a minimum, fully open screened roof openings, two tent windows and partially open two doors on opposite walls of the tent for cross-ventilation to provide fresh air intake for the soldiers and the burners. In the MGPTS, as a minimum, ensure that the roof openings are always open and filled with blackout filters, and fully open two tent doors and fully open one window to provide adequate fresh air for the soldiers and the burners. MGPTS roof vents alone do not provide adequate ventilation for safe operation of the FSC.

2. Vent tent as much as possible.

3. If any eye, nose, or throat irritation is noted, vent the tent and adjust burners IAW TM 10-7310-281-13&P to obtain a clean flame.

4. To reduce the environmental effects of extreme cold, use of the cold weather components identified in WP 0069 00, Additional Authorization List (AAL), is recommended.

NOTE

In extremely cold weather, it may be necessary to warm up the drain hoses in order to unfold them. In addition, the drain hose coupling gaskets may be stiff making it difficult to lock the couplings. In this case, lock the couplings as much as possible without damaging the couplings, then, after the couplings have had time to warm up, and before draining water through the hoses, recheck and tighten the couplings.

In extremely cold weather, the check valve in the grease separator (FSC-2 only) may stick if residual moisture in the valve freezes. Pouring hot water over the check valve will typically correct this problem.

5. Prior to operation, remove the grease separator drain hose and look into the upper drain outlet into the check valve and check for ice or obstructions. Clear ice as described in the note above. Clear any obstructions.

6. After use, drain the sinks. Close the drain valves after the sinks are empty.

7. After use, clean and drain the grease separator (FSC-2 only) IAW the procedures in WP 0012 00.

8. Make sure the drain hoses are emptied of any residual water.

9. After use, drain the sink fill pump (FSC-2 only), the 50-ft water supply hose (FSC-2 only), the 15-ft sink fill hose (FSC-2 only), and the water nozzle (FSC-2 only).

Operation under Rainy or Humid Conditions

1. When not in the tent, burner units must be covered with canvas or other waterproof material.

2. Remove the cover during dry periods, expose to open air, and allow units to dry.

WARNING

Heat Induced Illnesses. Operators must be alert for signs of heat-induced illnesses - heat stress and stroke. Symptoms of heat induced illnesses range from headache, nausea, dizziness, loss of muscular control, a sleepy feeling, and unconsciousness. Request Wet Bulb Globe Temperature readings from field preventive medicine or field sanitation team assets during hot dry and hot humid conditions and institute heat stress preventive measures IAW FM 21-10 and TB MED 507. If artificial respiration is necessary, refer to FM 4-25.11.

Maintain open roof vents, windows, and doors in the tent to provide cross-ventilation and prevent the accumulation of heat.

Be alert at all times during FSC operation for symptoms of heat-induced illnesses. If any personnel show symptoms, remove them from the FSC and obtain immediate medical attention and treatment. If necessary, give artificial respiration. Failure to observe this warning may result in severe illness or death.

3. Operate the MBU burner units under rainy or humid conditions IAW TM 10-7310-281-13&P.

Operation in Salt Water Areas

1. Keep equipment free from contact with salt water whenever possible.
2. If equipment comes in contact with salt water or if equipment is exposed to salt spray, wash equipment frequently with clean fresh water.
3. Operate the MBU burner units IAW TM 10-7310-281-13&P.

Operation at High Altitudes

Operate the MBU burner units at high altitudes IAW TM 10-7310-281-13&P

Operation in Windy Conditions

WARNING

Carbon Monoxide Gas. Carbon monoxide (CO) is a gas without color, smell, or taste that can kill you. Breathing carbon monoxide gas produces symptoms such as headache, dizziness, loss of muscular control, a sleepy feeling, unconsciousness, or can induce a coma. Brain damage or death can result from exposure. Dangerous levels of carbon monoxide will occur from operating the MBUs in an enclosed FSC tent. Operators must be aware of and observe for symptoms of carbon monoxide poisoning such as headache, distress, dizziness, nausea and weakness. If artificial respiration is necessary, refer to FM 4-25.11.

- Maintain open roof vents clear of snow, ice, or debris, open windows, and doors in the tent to provide cross ventilation and prevent the accumulation of carbon monoxide gas. Provide fresh air intake for the soldiers and the burners by ensuring that all doors, windows, and screened roof openings are kept fully open. Keep all openings and roof vents free of blockage.
- Do not use the FSC-2 system in a tent (or alternate enclosure) that does not meet the TEMPER or MGPTS cross ventilation design capabilities.
- Be alert at all times during FSC operation for symptoms of exposure to CO. If any personnel show symptoms, immediately remove them from the FSC and obtain immediate medical attention and treatment.

Failure to observe this warning may result in brain damage or death.

Do not use the burners as personal heating sources during cold weather. Personnel would be exposed to fuel emissions and possible burns. Failure to observe this warning may result in serious injury or death.

NOTE

Adequate ventilation must be maintained at all times. Keep tent and roof vents clear of snow, ice, or debris. Open doors, windows, roof flaps, and hook and loop fastener wall closures as needed to introduce sufficient fresh air to replace oxygen consumed by burners. Never operate the FSC with all doors and windows closed. In the TEMPER, as a minimum, fully open screened roof openings, two tent windows and partially open two doors on opposite walls of the tent for cross-ventilation to provide fresh air intake for the soldiers and the burners. In the MGPTS, as a minimum, ensure that the roof openings are always open and filled with blackout filters, and fully open two tent doors and fully open one window to provide adequate fresh air for the soldiers and the burners. MGPTS roof vents alone do not provide adequate ventilation for safe operation of the FSC.

NOTE

If you are using the MGPTS in conjunction with the FSC-90 or FSC-2, you may need to use the MGPTS sidewall screens for ventilation in windy conditions. If the MGPTS door and window need to be closed on the windward side, then roll-up the MGPTS sidewall fabric on both sides of the tent to maintain cross ventilation.

1. Close the openings of the tent on the windward side and open the tent on the leeward (downwind) side.

2. Operate the MBU burner units in windy conditions IAW TM 10-7310-281-13&P.

INTERIM NUCLEAR, BIOLOGICAL, CHEMICAL, (NBC) DECONTAMINATION PROCEDURES

If a Chemical, Biological, Radiological, Nuclear (CBRN) attack occurs, the system must be decontaminated IAW FM 3-5.

Operation in Extreme Heat

WARNING

Heat Induced Illnesses. Operators must be alert for signs of heat-induced illnesses - heat stress and stroke. Symptoms of heat induced illnesses range from headache, nausea, dizziness, loss of muscular control, a sleepy feeling, and unconsciousness. Request Wet Bulb Globe Temperature readings from field preventive medicine or field sanitation team assets during hot dry and hot humid conditions and institute heat stress preventive measures IAW FM 21-10 and TB MED 507. If artificial respiration is necessary, refer to FM 4-25.11. Maintain open roof vents, windows, and doors in the tent to provide cross-ventilation and prevent the accumulation of heat.

Be alert at all times during FSC operation for symptoms of heat-induced illnesses. If any personnel show symptoms, remove them from the FSC and obtain immediate medical attention and treatment. If necessary, give artificial respiration. Failure to observe this warning may result in severe illness or death.

NOTE

Maximum ventilation must be maintained at all times. Keep tent and roof vents clear of debris. Open all doors, windows, roof flaps, and hook and loop fastener wall closures.

Operate the MBU burner units in extreme heat IAW TM 10-7310-281-13&P.

Operation in Dusty or Sandy Areas

WARNING

Carbon monoxide (CO) is a gas without color, smell, or taste that can kill you. Breathing carbon monoxide gas produces symptoms such as headache, dizziness, loss of muscular control, a sleepy feeling, unconsciousness, or can induce a coma. Brain damage or death can result from exposure. Dangerous levels of carbon monoxide will occur from operating the MBUs in an enclosed FSC tent. Operators observe for symptoms of carbon monoxide poisoning such as headache, distress, dizziness, nausea and weakness. If artificial respiration is necessary, refer to FM 4-25.11. Maintain open roof vents, windows, and doors in the tent to provide ventilation and prevent the accumulation of carbon monoxide gas. Provide fresh air intake for the soldiers and the burners by ensuring that all doors, windows, and screened roof openings are kept fully open. Keep all openings and roof vents free of blockage. Do not use the FSC-2 system in a tent (or alternate enclosure) that does not meet the MGPTS cross ventilation design capabilities.

Do not use the burners as personal heating sources during cold weather. Be alert at all times during FSC operation for symptoms of exposure to CO. If any personnel show symptoms, immediately remove them from the FSC and obtain immediate medical attention and treatment. Failure to observe this warning may result in brain damage or death.

NOTE

Adequate ventilation must be maintained at all times. Keep tent and roof vents clear of debris. Open doors, windows, roof flaps, and hook and loop fastener wall closures as needed to introduce sufficient fresh air to replace oxygen consumed by burners. Never operate the FSC with all doors and windows closed. In the TEMPER, as a minimum, fully open screened roof openings, two tent windows and partially open two doors on opposite walls of the tent for cross-ventilation to provide fresh air intake for the soldiers and the burners. In the MGPTS, as a minimum, ensure that the roof openings are always open and filled with blackout filters, and fully open two tent doors and fully open one window to provide adequate fresh air for the soldiers and the burners. MGPTS roof vents alone do not provide adequate ventilation for safe operation of the FSC.

1. Keep the immediate area wetted down if water is available.
2. Keep all equipment as clean as possible.
3. Keep dirt and grit out of the burner unit fuel system and reserve fuel supply.
4. Operate the MBU burner in dusty or sandy areas IAW TM 10-7310-281-13&P.
5. Keep dirt out of the grease separator.

END OF WORK PACKAGE

CHAPTER 3

TROUBLESHOOTING PROCEDURES

FOR

FOOD SANITATION CENTER

OPERATOR MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-90, NSN 7360-01-277-2558
MODEL FSC-2, NSN 7360-01-496-2112
TROUBLESHOOTING INDEX

INITIAL SETUP:

Personnel Required
Food Service Operator 92G10 (2)

References
FM 100-14
TM 10-7310-281-13&P
WP 0005 00

References - Continued
WP 0006 00
WP 0007 00
WP 0012 00

Equipment Condition
During operation of FSC equipment

GENERAL

The following table lists common malfunctions that the operator may find during the operation or maintenance of the FSC or its components. The operator should perform the tests and inspections and corrective actions in the order listed.

WARNING

Burn hazard. Wear rubber gloves and apron when performing maintenance that may result in contact with hot equipment surfaces or hot water or graywater. Failure to observe this warning may result in severe burns or illness.

Electric shock hazard. Disconnect cords and cables from the power source before inspecting or performing maintenance on cable assemblies, power extension cables, or electrical connections. Failure to observe this warning may result in electrical shock or death.

NOTE

This manual cannot list all malfunctions that may occur nor all tests, inspections, or corrective actions. If a malfunction is either not listed or is not corrected by listed corrective actions, notify unit maintenance.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
1. No Power to FSC	1. Check the ground fault circuit interrupter (GFCI).	1. If tripped, reset. 2. If it trips again after resetting, check all power cords and connections for shorts, moisture or damage. Replace as needed. 3. If no problems found and GFCI still trips after resetting, notify unit maintenance. 4. If GFCI is working properly, continue troubleshooting.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
2. No Power to MBUs, Grease Separator (FSC-2 only), or Fill Pump Assembly (FSC-2 only)	1. Check that the circuit breaker for 2 kW generator or for CK receptacle is turned on.	1. Reset circuit breaker.
	2. Check that power converter power switch is on.	1. Switch converter power switch on. 2. If problem remains contact unit maintenance.
3. Burner Unit not Working Properly	1. Troubleshoot no power to FSC per malfunction 1 of this work package.	
	2. Check that the circuit breaker for 2 kW generator or for CK receptacle is turned on.	
	3. Troubleshoot the power converter per step 2 in malfunction 2 of this work package.	
	4. Perform operator's troubleshooting on the MBU burner units IAW TM 10-7310-281-13&P.	
4. Drain Hose Assembly Leaks	**WARNING** Burn hazard. Wear rubber gloves and apron when performing maintenance that may result in contact with hot equipment surfaces or hot water or graywater. Failure to observe may result in severe burns or illness.	
	1. Check for missing gasket.	1. Notify unit maintenance to replace missing gasket or damaged parts.
	2. Check for damaged gasket, hose, coupling, street elbow, nipple, or tee.	1. If parts are damaged notify unit maintenance.
5. Drain Table is Unsteady	1. Check for proper locking of legs.	1. Lock legs properly (see WP 0005 00 or 0006 00).
	2. Check for bent or broken parts.	1. Notify unit maintenance if bent or broken.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
6. Electric Light not Functioning	1. Troubleshoot no power to FSC per malfunction 1 of this work package.	
	2. Check that the circuit breaker for 2 kW generator or for CK receptacle is on.	
	3. Check the operation of the light.	1. Connect the light to the power source.
	 **WARNING**	2. If the bulb is not functioning, contact unit maintenance.
	Electric shock hazard. Disconnect cords and cables from the power source before inspecting or performing maintenance on cable assemblies, power extension cables, or electrical connections. Failure to observe this warning may result in electrical shock or death.	3. If the electric light assembly is not working, replace the assembly.
	4. Check for cuts or tears in the cable assembly and extension cords.	1. Replace electric light assembly or extension cord.
7. Sink Assembly does not Drain	 **WARNING**	
	Burn hazard. Wear rubber gloves and apron when performing maintenance that may result in contact with hot equipment surfaces or hot water or graywater. Failure to observe may result in severe burns or illness.	
	1. Observe water drainage and check for clogged drain.	1. Remove obstruction from sink drain or drain hose.
		2. Thaw drain or drain hose if frozen.
	2. Check for excessive mud at drain hose output.	1. Clear drain hose.
		2. Relocate drain hose output end.
	3. Troubleshoot the grease separator per malfunction 16 of this work package (FSC-2 only).	

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
8. Sink Assembly does not Heat Water Properly	1. Perform operator's troubleshooting on the MBU burner units IAW TM 10-7310-281-13&P.	
9. Sink Assembly is not Stable	1. Check burner rack and base rack for stability.	1. If not stable, move equipment to level ground. 2. If not stable, ensure the tabs on the burner rack are inserted in the flue of the sink for the FSC-90 or ensure the burner rack is set between the reinforcing guides on the sink bottom for the FSC-2.
10. Work Table is Unsteady	1. Check for proper locking of legs.	1. Lock legs properly. Refer to WP 0005 00 or 0006 00.
	2. Check for bent or broken parts.	1. If bent or broken, notify unit maintenance.
11. Sink Fill Pump Assembly not Functioning (FSC-2 Only)	1. Ensure that the power switch is ON. Check that the circuit breaker reset button is pushed in.	1. Turn power switch on. Push in reset button. 2. If still not working, notify unit maintenance.
	2. Check that the fill pump assembly indicator light is working.	1. If the light is on, notify unit maintenance. 2. If the light is off, continue with step 3.
	 **WARNING** Electric shock hazard. Disconnect cords and cables from the power source before inspecting or performing maintenance on cable assemblies, power extension cables, or electrical connections. Failure to observe this warning may result in electrical shock or death.	
	3. Check that the power cords are connected.	1. If not, turn off power and connect power cords.
	4. Inspect the power cords for damage.	1. Turn off power source. If damaged, replace power cord.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
11. Sink Fill Pump Assembly not Functioning (FSC-2 Only) - Continued	5. Troubleshoot the power converter per malfunction 2, step 2 of this work package.	1. If damaged, notify unit maintenance.
	6. Troubleshoot no power to FSC per malfunctions 1 and 2 of this work package.	
	7. Check that the circuit breaker on 2kw generator or CK receptacle is turned on.	1. If breaker is not turned on, turn on breaker. If the sink fill pump assembly still does not work, notify unit maintenance.
12. Sink Fill Pump Functioning, but Indicator Light Off (FSC-2 Only)	1. Inspect the indicator light for damage.	1. If light damaged or broken, notify unit maintenance.
13. Sink Fill Pump does not Cycle Off or Short Cycles (FSC-2 Only)	1. Check that supply and discharge hoses are not loose.	1. Tighten hose connections. 2. If the problem continues, notify unit maintenance.
14. Sink Fill Pump Runs but does not Pump (FSC-2 Only)	1. Check supply and discharge hoses for blockage.	1. Locate/remove blockage.
	2. Check that supply and discharge hoses are not loose.	1. Tighten hose connections. 2. If problem continues, notify unit maintenance.
15. Sink Fill Pump Assembly Leaking (FSC-2 Only)	1. Check that the supply and discharge hose couplings are tight.	1. Tighten couplings.
	2. Check for damaged or missing hose gaskets.	1. Replace gasket. 2. If the sink fill pump continues to leak, notify unit maintenance.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
16. Grease Separator Assembly Leaking	 **WARNING** Burn hazard. Wear rubber gloves when performing maintenance that may result in contact with hot equipment surfaces or hot water or graywater. Failure to observe this warning may result in severe burns or illness.	
	1. Check the supply and discharge hoses for missing or damaged gasket.	1. Replace gasket.
17. Grease Separator Pump not Working (FSC-2 Only)		1. Close sink drains to stop flow to grease separator.
	 **WARNING** Burn hazard. Wear rubber gloves and apron when performing maintenance that may result in contact with hot equipment surfaces or hot water. Failure to observe this warning may result in severe burns.	
	 **WARNING** Electric shock hazard. Disconnect the grease separator from the power source before performing maintenance on the grease separator. Failure to observe this warning may result in electrical shock or death.	
	1. Make sure that the float switch is not obstructed.	1. Clear any obstructions.
	2. Check that the circuit breaker reset button is pushed in.	1. If tripped, reset.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
17. Grease Separator Pump not Working (FSC-2 Only) - Continued	3. Ensure that the power cord and extension cords are connected.	1. If not, turn off power and connect power cords.
	4. Inspect the grease separator power cord and extension cords for damage.	1. If damaged, notify unit maintenance.
	5. Troubleshoot the power converter per malfunction 2, step 2 in this work package.	
	6. Troubleshoot GFCI per malfunctions 1 and 2 of this work package.	1. If the grease separator pump sill does not work, clean the grease separator IAW WP0012 00, bypass the pump, and notify unit maintenance.
18. Grease Separator does not Cycle Off or Short Cycles (FSC-2 Only)	1. Check that the pump discharge hose is not loose.  **WARNING** Burn hazard. Wear rubber gloves when performing maintenance that may result in contact with hot equipment surfaces or hot water or graywater. Failure to observe this warning may result in severe burns or illness.	1. Tighten hose connections.
	2. Check that the float switch is not obstructed.	1. Clear any obstruction. 2. If problem continues, clean grease separator IAW WP 0012 00, bypass the pump and notify unit maintenance.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
19. Grease Separator Pump is on but does not Pump (FSC-2 Only)	1. Check external drain hose and check valve for ice or blockage.  **WARNING** Burn hazard. Wear rubber gloves when performing maintenance that may result in contact with hot equipment surfaces or hot water or graywater. Failure to observe this warning may result in severe burns or illness.	1. Locate/remove blockage.
	2. Check that external drain hose output has not been placed more than five feet above the grease separator pump.	1. Lower elevation of drain hose output.
	3. Check pump intake for blockage.	1. Locate and remove blockage. 2. If problem continues, clean grease separator IAW WP 0012 00, bypass the pump and notify unit maintenance.
20. No Power to CO Monitor (FSC-2 Only)	**WARNING** Risk Management. If the CO monitor is to be removed for testing or repair, refer to WP 0007 00, Operation Under Unusual Conditions, for operation of the FSC-2 system without the CO monitor. This is a command decision. Refer to FM 100-14, Risk Management, before continuing with operation.	
	1. Troubleshoot no power to FSC per malfunctions 1 and 2 of this work package.	1. Notify unit maintenance.
21. CO Monitor Red Light does not come On When Tested but Alarm does sound during Test (FSC-2 Only)		1. Notify unit maintenance.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
22. CO Monitor Alarm and Red and Green Lights Come On and will not Reset (FSC-2 Only)		1. Notify unit maintenance.
23. CO Monitor EMITS Malfunction Signal – Alternating Red and Green Lights and One Audible Beep Every 30 Seconds (FSC-2 Only)		1. Press TEST/RESET button. 2. If TEST/RESET button does not clear signals, notify unit maintenance.
24. Carbon monoxide monitor alarm sounds and red light is flashing or on indicating carbon monoxide build-up in tent		1. Shutt off the MBUs. 2. Press the CO Monitor RESET button to silence the alarm. 3. Evacuate the tent. 4. Ventilate tent by opening all tent windows and door flaps from outside the tent. 5. Do not enter the tent until the red light on the red alarm light is off. 6. With tent ventilated with open doors and windows, restart MBUs and resume operation. 7. If Carbon monoxide alarm sounds again and red light is on or flashing, follow steps 1 through 5 above. 8. Cease operations and troubleshoot each burner unit IAW TM 10-7310-281-13&P. If condition persists, notify unit maintenance.
25. Fire Extinguisher in not Fully Charged.	1. Check gauge on fire extinguisher for status of charge.	9. Notify unit maintenance.

END OF WORK PACKAGE

UNIT MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-90, NSN 7360-01-277-2558
MODEL FSC-2, NSN 7360-01-496-2112
TROUBLESHOOTING INDEX

INITIAL SETUP:

Personnel Required
Quartermaster and Chemical Equipment Repairer 63J10 (1)
Food Service Operator 92G10 (1)

References
FM 100-14
TM 10-7310-281-13&P
WP 0005 00
WP 0006 00
WP 0007 00
WP 0012 00
WP 0016 00
WP 0018 00
WP 0020 00
WP 0021 00
WP 0022 00

References - Continued
WP 0023 00
WP 0024 00
WP 0025 00
WP 0026 00
WP 0027 00
WP 0028 00
WP 0029 00
WP 0032 00
WP 0033 00
WP 0034 00
WP 0035 00
WP 0040 00
WP 0044 00
WP 0045 00

Equipment Condition
During operation of FSC equipment

GENERAL

The following table lists common malfunctions of the equipment and contains instructions for unit personnel diagnosing and correcting each malfunction. Perform the indicated steps in the order listed.

WARNING

Burn hazard. Wear rubber gloves and apron when performing maintenance that may result in contact with hot equipment surfaces or hot water or graywater. Failure to observe may result in severe burns or illness.

Electric shock hazard. Disconnect cords and cables from the power source before inspecting or performing maintenance on cable assemblies, power extension cables, or electrical connections. Failure to observe this warning may result in electrical shock or death.

NOTE

This manual cannot list all malfunctions that may occur nor all tests, inspections, or corrective actions. If a malfunction is either not listed or is not corrected by listed corrective actions, notify your supervisor.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
1. No Power to FSC	1. Check the ground fault circuit interrupter (GFCI).	1. If tripped, reset. 2. If it trips again after resetting, check all power cords and connections for shorts or damage; check all circuit breakers. Correct as required.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
1. No Power to FSC – Continued		3. If no problems found and GFCI still trips after resetting, replace GFCI. 4. If GFCI is working properly, continue troubleshooting.
2. No Power to MBUs, Grease Separator (FSC-2 Only), or Fill Pump Assembly (FSC-2 Only).	1. Troubleshoot no power to FSC per malfunction 1 in this work package. 2. Check that the circuit breaker for 2 kW generator or for CK receptacle is turned on. 3. Check that power converter is turned on.	1. Reset circuit breaker. 1. Turn power converter on. 2. Troubleshoot MBU IAW TM 10-7310-281-13&P.
3. Burner Unit not working Properly	1. Troubleshoot no power to FSC per malfunction 1 in this work package. 2. Check that the circuit breaker for 2 kW generator or for CK receptacle is turned on. 3. Troubleshoot the power converter (FSC-2 only) per malfunction 2 of this work package. 4. Perform operator's troubleshooting on the MBU burner units IAW TM 10-7310-281-13&P.	1. If no problems found, continue troubleshooting. 1. Reset circuit breaker. 1. If no problems found, continue troubleshooting.
4. Electric Light not Functioning	1. Troubleshoot no power to FSC per malfunctions 1 and 2 of this work package. 2. Check that the circuit breaker for 2 kW generator or for CK receptacle is turned on. 3. Check the operation of the light.	1. Connect the light to the power source.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
4. Electric Light not Functioning – Continued	 **WARNING** Electric shock hazard. Disconnect cords and cables from the power source before inspecting or performing maintenance on cable assemblies, power extension cables, or electrical connections. Failure to observe this warning may result in electrical shock or death.	2. If the bulb is not functioning, replace the bulb IAW WP 0016 00. 3. If the electric light assembly is not working, replace the assembly IAW WP 0016 00.
	5. Check for cuts or tears in the cable assembly and extension cords.	1. Replace electric light assembly or extension cords if necessary.
5. Storage Rack is not Sturdy or Sides do not Fit	1. Check for bent or loose wire mesh or bent brackets.	1. If bent, straighten bent mesh or brackets with hand tools. 2. If welding is required, notify direct support maintenance.
6. Sink Assembly does not Drain	 **WARNING** Burn hazard. Wear rubber gloves and apron when performing maintenance that may result in contact with hot equipment surfaces or hot water or graywater. Failure to observe may result in severe burns or illness.	
	1. Check drain valve operation.	1. Replace drain valve IAW WP 0018 00.
	2. Troubleshoot the grease separator (FSC-2 only).	

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
7. Sink Assembly Drain Leaks	 **WARNING** Burn hazard. Wear rubber gloves and apron when performing maintenance that may result in contact with hot equipment surfaces or hot water or graywater. Failure to observe may result in severe burns or illness.	
	1. Check for proper drain hose connection.	1. Connect drain hose properly and tighten connections (see WP 0005 00 or 0006 00).
	2. Check for split seams, holes, or cracks in drain hose or sink.	1. Repair or replace drain hose IAW WP 0020 00. 2. Repair or replace sink assembly IAW WP 0018 00.
8. Sink Assembly is not Stable	1. Check for bends or breaks.	1. If bent, repair using hand tools. 2. If major straightening of metal or welding is required, refer to direct support maintenance.
9. Drain Hose Assembly Leaks	1. Check for missing or damaged gasket.	1. Replace gasket IAW WP 0020 00.
10. Drain Table Is Unsteady	1. Check table legs for bends, breaks, or missing hardware.	1. If bent, repair using hand tools. 2. Replace missing hardware IAW WP 0021 00. 3. If broken, replace table leg IAW WP 0021 00.
11. Work Table Is Unsteady	1. Check table legs for bends, breaks, or missing hardware.	1. If bent, repair using hand tools. 2. Replace missing hardware IAW WP 0022 00. 3. If broken, replace table leg IAW 0021 00.
12. Sink Fill Pump Assembly not Working (FSC-2 Only)	1. Ensure that the power switch is ON. Check that the circuit breaker reset button is pushed in.	1. Turn power switch on. Push in reset button.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
12. Sink Fill Pump Assembly not Working (FSC-2 Only) – Continued	2. Check that the fill pump assembly indicator light is working.	1. If the light is on, replace the pump IAW WP 0023 00. 2. If the light is off, continue troubleshooting.
	3. Troubleshoot no power to FSC per malfunction 1 and 2 of this work package.	
	 **WARNING** Electric shock hazard. Disconnect cords and cables from the power source before inspecting or performing maintenance on cable assemblies, power extension cables, or electrical connections. Failure to observe this warning may result in electrical shock or death.	
	4. Ensure that the power cord and extension cords are connected.	1. If not connected, turn off power and connect power cords.
	5. Inspect the sink fill pump power cord and extension cords for damage.	1. Turn off power source. Replace power cord if necessary. If damaged, replace extension cord.
	6. Test the power switch (see WP 0028 00) and the circuit breaker (see WP 0027 00).	1. Replace power switch IAW WP 0028 00 and/or circuit breaker IAW WP 0027 00 if necessary.
13. Sink Fill Pump Functioning, but Indicator Light Off (FSC-2 Only)	1. Inspect the indicator light for damage.	1. Replace the light or light assembly as required IAW WP 0029 00.
14. Sink Fill Pump does not Cycle Off or Short Cycles (FSC-2 Only)	1. Check supply and discharge hoses and nozzle for leaks caused by loose connections, damaged or missing gaskets, or damaged hoses.	1. Tighten hose connections, replace gaskets, or replace hose or nozzle.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
14. Sink Fill Pump does not Cycle Off or Short Cycles (FSC-2 Only) - Continued	2. Check the water tubing inside the pump assembly for loose clamps or tubing damage.	1. Tighten hose clamps or replace tubing as required IAW WP 0025 00.
	3. Internal pump pressure switch failed.	1. Replace pump IAW WP 0023 00.
15. Sink Fill Pump Runs But Does not Pump (FSC-2 Only)	1. Check supply and discharge hoses for blockage.	1. Locate/remove blockage.
	2. Check supply and discharge hoses for leaks caused by loose connections, missing gaskets, or damaged hoses.	1. Tighten hose connections, replace gaskets or replace hoses as required.
	3. Inspect the pump for blockage.	1. Remove the pump and inspect intake for blockage. Clear blockage if found. If problem persist, replace pump IAW WP 0023 00.
16. Sink Fill Pump Assembly Leaking (FSC-2 Only)	1. Check the water tubing inside the fill pump assembly for loose clamps or tubing damage.	1. Connect tubing or replace tubing IAW WP 0025 00.
	2. Check that internal elbow adapters or straight adapters are not loose or cracked or damaged.	1. Tighten or replace elbow adapters IAW WP 0024 00 or straight adapters IAW WP 0026 00 as required.
	3. Check 50-ft fresh water supply and 15-ft sink fill hoses for loose connections, missing gaskets, or damaged hoses.	1. Tighten hose connections, replace gaskets, or replace hoses as required.
	4. Check the pump housing for cracks or leaks.	1. Replace pump IAW WP 0023 00.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
17. Grease Separator Pump Not Working (FSC-2 only)		1. Close sink drains to stop flow to grease separator.
	 **WARNING** Burn hazard. Wear rubber gloves and apron when performing maintenance that may result in contact with hot equipment surfaces or hot water or graywater. Failure to observe this warning may result in severe burns or illness.	
	1. Make sure that the float switch is not obstructed.	1. Clear any obstructions.
	2. Check that the circuit breaker reset button is pushed in.	1. If tripped, reset.
	 **WARNING** Electric shock hazard. Disconnect the grease separator from the power source before performing maintenance on the grease separator. Failure to observe this warning may result in electrical shock or death.	
	3. Ensure that the power cord and extension cords are connected.	1. If not connected, turn off power and connect power cords.
	4. Inspect the grease separator power cord and extension cords for damage.	1. Turn off power source. Replace power cord if necessary. If damaged, replace extension cord.
	5. Troubleshoot the power converter per malfunction 2, step 2 in this work package.	
	6. Troubleshoot GFCI per malfunctions 1 and 2 of this work package.	

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
17. Grease Separator Pump not Working (FSC-2 Only) - Continued	7. Test the circuit breaker IAW WP 0035 00.	1. Replace the circuit breaker if necessary IAW WP 0035 00.
	8. Test the float switch IAW WP 0034 00).	1. Replace the float switch if necessary IAW WP 0034 00.
	9. Inspect the pump for blockage or damage IAW WP 0032 00.	1. Remove the pump and inspect the intake for blockage. Clear blockage if found. Replace pump if necessary IAW WP 0032 00.
18. Grease Separator does not Cycle Off or Short Cycles (FSC-2 Only)		1. Ensure sink drains are closed to stop flow to the grease separator.
	 **WARNING** Burn hazard. Wear rubber gloves and apron when performing maintenance that may result in contact with hot equipment surfaces or hot water or graywater. Failure to observe this warning may result in severe burns or illness.	
	1. Check that pump discharge tubing is not disconnected or split open.	1. Connect tubing or replace tubing IAW WP 0033 00.
	2. Check that the float switch is not obstructed.	1. Clear the obstruction.
	3. Test the float switch (see WP 0034 00).	1. Replace the float switch if necessary IAW WP 0034 00.
	4. Ensure that the check valve is not stuck in open position.	1. Remove and inspect the check valve. Replace if necessary IAW WP 0040 00.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
19. Grease Separator Pump is on but does not Pump (FSC-2 Only)	 **WARNING** Burn hazard. Wear work gloves and apron when performing maintenance that may result in contact with hot equipment surfaces or hot water or graywater. Failure to observe this warning may result in severe burns or illness.	
	1. Check external drain hose and check valve for ice and blockage.	1. Locate/remove blockage.
	2. Check that external drain hose output has not been placed more than five feet above the grease separator pump.	1. Lower elevation of drain hose output.
	3. Inspect the pump for blockage.	1. Remove the pump and inspect pump intake for blockage. Clear blockage if found IAW WP 0032 00.
	4. Check that the check valve is not blocked or has failed.	1. Remove and inspect the check valve. Replace if necessary IAW WP 0040 00.
20. Grease Separator Assembly Leaking (FSC-2 Only)	 **WARNING** Burn hazard. Wear rubber gloves and apron when performing maintenance that may result in contact with hot equipment surfaces or hot water or graywater. Failure to observe this warning may result in severe burns or illness.	
	1. Check the supply and discharge hoses for missing or damaged gasket.	1. Replace gasket.

MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION
21. No Power to CO Monitor (FSC-2 Only)	**WARNING** Risk Management. If the CO monitor is to be removed for testing or repair, refer to WP 0007 00, Operation Under Unusual Conditions, for operation of the FSC-2 system without the CO monitor. This is a command decision. Refer to FM 100-14, Risk Management, before continuing with operation. 1. Troubleshoot no power to FSC per malfunctions 1 and 2 of this work package. 2. Test the CO monitor internal power supply (see WP 0045 00).	1. Replace CO monitor internal power supply if it fails testing IAW WP 0045 00.
22. CO Monitor Alarm Does Not Sound When Tested, but Red Light does Come on during Test (FSC-2 Only)		1. Replace CO detector component of CO monitor IAW WP 0044 00.
23. CO Monitor Red Light does not Come on When Tested but Alarm does Sound during Test (FSC-2 Only)		1. Replace CO detector component of CO monitor IAW WP 0044 00.
24. CO Monitor Alarm And Red and Green Lights Come on and will not Reset (FSC-2 Only)		1. Replace CO detector component of CO monitor IAW WP 0044 00.
25. CO Monitor EMITS Malfunction Signal – Alternating Red and Green Lights and one Audible Beep Every 30 Seconds (FSC-2 Only)		1. Press TEST/RESET button. 2. If TEST/RESET button does not clear signals, replace CO detector component of CO monitor IAW WP 0044 00.
26. Fire Extinguisher is not Fully Charged	1. Check gauge on fire extinguisher for status of charge.	1. Replace fire extinguisher.

END OF WORK PACKAGE

CHAPTER 4

OPERATOR MAINTENANCE INSTRUCTIONS

FOR

FOOD SANITATION CENTER

OPERATOR MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-90, NSN 7360-01-277-2558
MODEL FSC-2, NSN 7360-01-496-2112
PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS) INTRODUCTION

INTRODUCTION

Operator preventive maintenance checks and services are to be done to be sure the equipment is ready to use at all times. PMCS helps you find and fix defects before the equipment is damaged or fails.

GENERAL

1. Before you operate, always keep in mind the WARNINGS and CAUTIONS. Perform your before (B) PMCS prior to the equipment performing its intended mission.

2. While you operate always keep in mind the CAUTIONS and WARNINGS. Perform your during (D) PMCS when the equipment is being used in its intended mission.

3. After you operate, be sure to perform your after (A) PMCS after the equipment has been taken out of its mission mode.

4. If your equipment fails to operate, troubleshoot with proper equipment. Report any deficiencies using DA Form 2404, Equipment Inspection and Maintenance Worksheet. See DA PAM 750-8.

5. Correct deficiencies in accordance with the "Procedure" column in WP 0011 00, Preventive Maintenance Checks and Services and troubleshooting procedures contained in WP 0008 00, Operator Troubleshooting.

6. Perform PMCS for the tent in accordance with TM 10-8340-224-13 or TM 10-8340-240-12&P.

7. Perform PMCS on the MBU in accordance with TM 10-7310-281-13&P.

PMCS TABLE FORMAT

The purpose of the PMCS table is to indicate the order in which checks are to be done, as well as to indicate when they are to be done. The following describes the purpose of each column in the PMCS table.

1. Item No.: Each maintenance check is identified by a separate item number. The item column will be used as a source of item numbers for the "TM Number" on DA Form 2404, Equipment Inspection and Maintenance Worksheet, in recording results of PMCS.

2. Interval: This column indicates when to perform the service check or maintenance.

   (B) Before use
   (D) During use
   (A) After use

3. Item to be Checked or Serviced: This column identifies the component, assembly, or system to be checked or serviced.

4. Man-Hour: Identifies man-hours required to complete all prescribed lubrication services to the nearest 10^{th} of an hour.

5. Procedure: This column identifies what check or inspection task to perform and what action to take if corrections need to be made. Other Technical Manuals are also referenced here where appropriate.

6. Equipment not ready/available if: This column indicates equipment conditions that make the equipment not capable of performing its assigned mission.

LUBRICATION

The FSC equipment has only a limited number of moving parts that require lubrication. These are the leg linkage and brace joints of the drain and work tables (Figure 1). These points are lubricated using general purpose oil whenever equipment is being prepared for storage or the indicated parts are not moving freely.

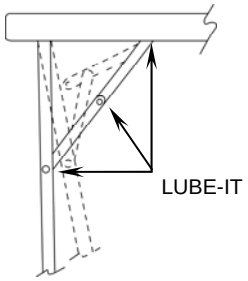


Figure 1. Drain and Work Table Lubrication Points.

RUST AND CORROSION

Check the all FSC metal parts for rust and corrosion. If any corrosion exists, clean and apply a thin coat of oil, report to supervisor, or prepare an SF 368, Products Quality Deficiency Report. Using key words such as “corrosion”, “rust”, “deterioration”, or “cracking” will ensure that the information is identified as a Corrosion Prevention and Control (CPC) problem.

END OF WORK PACKAGE

OPERATOR MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-90, NSN 7360-01-277-2558
MODEL FSC-2, NSN 7360-01-496-2112
PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS), INCLUDING LUBRICATION INSTRUCTIONS

INITIAL SETUP:

Personnel Required
Food Service Operator 92G10 (2)

References
FM 100-14
TM 10-7310-281-13&P
TM 10-8340-224-13
TM 10-8340-240-12&P
WP 0006 00

References - Continued
WP 0012 00
WP 0012 01
WP 0019 00
WP 0029 00
WP 0031 00

Equipment Condition
Before, During, and After operation of FSC equipment

GENERAL
There are no replacement parts required for these PMCS procedures.

Table 1. Operator's Preventive Maintenance Checks and Services (PMCS).

ITEM NO.	INTERVAL			MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
	B	D	A				
1	□		□		Tent	IAW TM 10-8340-224-13 or TM 10-8340-240-12&P  **WARNING** Electric shock hazard. Disconnect cords and cables from the power source before inspecting or performing maintenance on cable assemblies, power extension cables, or electrical connections. Failure to observe this warning may result in electrical shock or death.	
2	□				Electric Light	Ensure the electric light tube is not cracked or broken. Ensure the cable ties on the light are secure. Check condition of electrical cords.	If both lights are broken and the FSC is operating after dark. Electrical cords damaged or frayed on both lights.
	□					Visually ensure the light bulb is not cracked or broken. Notify unit maintenance to replace cracked or broken bulbs.	

Table 1. Operator's Preventive Maintenance Checks and Services (PMCS) - Continued.

ITEM NO.	INTERVAL			MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
	B	D	A				
	□				Electric Light - Continued	Inspect the light-hanging strap for tears or fraying. Ensure cable assembly is not torn or cut. Ensure the extension cord is not torn or cut.	Light-hanging straps are torn or frayed. Extension cord is torn or cut.
		□				Ensure that the light is working.	
						 **WARNING** Electric shock hazard. Disconnect cords and cables from the power source before inspecting or performing maintenance on cable assemblies, power extension cables, or electrical connections. Failure to observe this warning may result in electrical shock or death.	
3	□		□		All Power Cords	Inspect cords and connectors for damage or frayed or exposed wires.	Extension cord not usable for lights at night.
4	□				Storage Rack Assembly	Inspect for damaged frame or front cover. Check that rack units stack properly. Check wire mesh for bends, breaks, or broken welds at the tabs. Check that front cover/shelf is not warped.	
5	□	□			Sink Assembly	Check assembly for leaks or clogged drains. Check for damage or deformation that would prevent installation, assembly, or operation of components.	Sinks leak or do not drain. Components will not fit together or are damaged.
6	□	□	□		Sink Drain Hose Assembly	Check for damaged or missing hose gaskets. Check assemblies for leaks or clogged hoses. Ensure that each hose end is securely attached with a hose clamp. Ensure that hose clamp is tight.	Hose clamps not working properly. Hose assembly leaks.
7	□				Sink Immersion Rack	Check for corrosion, bent or broken mesh. Check for loose or broken handles.	
8	□				Thermometer	Check thermometer for damage. Ensure the stem is not bent and the dial is legible. Inspect the glass for breaks.	All 3 thermometers are broken or give erroneous readings.

Table 1. Operator's Preventive Maintenance Checks and Services (PMCS) - Continued.

ITEM NO.	INTERVAL			MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
	B	D	A				
		□			Thermometer - Continued	Observe thermometer temperature indication during heat-up and during normal operation for any indication that the thermometer may be giving erroneous readings. Calibrate the thermometer if you suspect the thermometer is giving erroneous readings. Refer to WP 0012 01 for calibration procedure.	
9	□				MBU	Perform PMCS IAW TM 10-7310-281-13&P.	
10	□				Drain Table	Ensure drain table is secure and drains toward sink. Check for bent or damaged parts.	
11	□				Work Table	Check to ensure tables are level and secure. Check for broken welds, loose or missing rivets, clamps and brackets.	
12	□		□		Fill Pump Assembly	Check for damage, especially for broken indicator light lens. Remove sink fill pump from service and notify unit maintenance (WP 0029 00).	
13	□		□		Fill Pump Assembly Vacuum Breaker	With the 15-foot sink fill hose disconnected from the sink fill pump vacuum breaker, lightly pull the vacuum breaker stem out and then release. Remove sink fill pump from service and notify unit maintenance to replace the vacuum breaker (WP 0031 00) if the stem does not return to its original position when released.	
14	□		□		Fill Pump Assembly Fresh Water Inlet Filter Screen	Check the filter screen in the fresh water inlet of the sink fill pump assembly for debris. Remove screen and rinse off debris if needed, then reinstall screen.	
15	□		□		50-ft Fresh Water Supply Hose and 15-ft Sink Fill Hose and Nozzle	Inspect hoses for damaged or missing gaskets, hose damage, or fitting damage. Check water nozzle for damage.	

Table 1. Operator's Preventive Maintenance Checks and Services (PMCS) - Continued.

ITEM NO.	INTERVAL B	INTERVAL D	INTERVAL A	MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
						 **WARNING** Burn hazard. Wear rubber gloves and apron when performing maintenance that may result in contact with hot equipment surfaces or hot water or graywater. Failure to observe may result in severe burns or illness.	
16	□				Grease Separator	Check for damage. In cold weather, disconnect the 50-ft drain hose from the grease separator discharge fitting and remove any ice buildup. Reconnect 50-ft drain hose to fitting.	
		□				Check for leaks. Empty solids collected in the strainer basket and drain grease from the grease separator after every meal IAW WP 0006 00.	
			□			Clean grease separator daily IAW WP 0012 00.	
17	□		□		Grease Separator 50-ft Drain Hose	Inspect hose for damaged or missing gasket, hose damage, or fitting damage.	
18	□				Fire Extinguisher	Check to ensure charge reading is in the green and that the seal is not broken.	Fire extinguisher or seal is missing or broke, or charge is reading in the red.
19	□				CO Monitor	Check expiration date on front of CO Monitor. Check for damage, especially for damaged or frayed power cord.	Tent not properly ventilated. Risk management concern for commander.

Table 1. Operator's Preventive Maintenance Checks and Services (PMCS) - Continued.

ITEM NO.	INTERVAL			MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
	B	D	A				
	□				CO Monitor - Continued	**WARNING** Risk Management. If the CO monitor is not functioning properly or if it is to be removed for repair, continued operation of the FSC system without the CO monitor is a command decision. Refer to FM 100-14, Risk Management, before operating the system. Notify unit maintenance to replace damaged power cord or other components as needed.	
	□		□		CO Monitor	Check the alarm cover for dust and dirt. Vacuum off dust. Wash the cover as needed using a damp cloth. Dry with a soft, dry cloth. Do not spray cleaning agents or waxes directly onto the monitor.	
	□				CO Monitor	Test the alarm when it is installed at setup, each time before starting up the MBUs, and after an electrical storm as follows: After the CO monitor is plugged in and power is applied to the monitor, allow a 10-minute warm-up period to allow the monitor to self-clean the sensor element and stabilize. During warm-up the GREEN indicator light will flash on and off. The CO monitor is ready to test when the GREEN light stops flashing and stays on. Test the CO monitor by pressing the TEST/RESET button and holding it in for a few seconds. The alarm is working properly if the GREEN indicator light changes to RED and the horn sounds.	Tent not properly ventilated.

Table 1. Operator's Preventive Maintenance Checks and Services (PMCS) - Continued.

ITEM NO.	INTERVAL			MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
	B	D	A				
		□			CO Monitor	Check the alarm indicator light frequently for alarm signals (every ½ hour to an hour) while the MBUs are operating (see WP 0006 00 for alarms and how to respond to alarms).  **WARNING** Electric shock hazard. Disconnect cords and cables from the power source before inspecting or performing maintenance on cable assemblies, power extension cables, or electrical connections. Failure to observe this warning may result in electrical shock or	Tent not properly ventilated.
20	□				Ground Fault Circuit Interrupter (GFCI) (on existing power source)	Press the "Reset" button in. Then press the GFCI "Test" button. The "Reset" button should pop out. If it does not, notify unit maintenance. If the "Reset" button pops out when the "Test" button is pressed, push the "Reset" button back in. If the "Reset" button does not stay in, notify unit maintenance.	GFCI fails to work properly.
			□			Inspect for proper operation after an electrical storm.	
21	□				GFCI (portable)	If using portable GFCI, plug the GFCI into an energized circuit. Press the "Reset" button in. Then press the GFCI "Test" button. The "Reset" button should pop out. If it does not, replace the GFCI. If the "Reset" button pops out when the "Test" button is pressed, push the "Reset" button back in. If the "Reset" button does not stay in, replace the GFCI.	GFCI fails to work properly.
			□			Inspect for proper operation after an electrical storm.	

END OF WORK PACKAGE

OPERATOR MAINTENANCE
FOOD SANITATION CNETER (FSC)
MODEL FSC-90, NSN 7360-01-277-2558
MODEL FSC-2, NSN 7360-01-496-2112
STORAGE RACK ASSEMBLY, SINK DRAIN TABLE ASSEMBLY, TABLE ASSEMBLY FOLDING LEGS, THERMOMETER ASSEMBLY, SINK ASSEMBLY, GREASE SEPARATOR
SERVICE

INITIAL SETUP:

Material/Parts
- #10 Can (or other empty food can from kitchen)
- Apron, Utility (WP 0068 00, Table 2, Item 1)
- Cleaning Compound, Solvent Detergent (grease cutter) (WP 0070 00, Item 2)
- Cloth, Drop, Absorbent (WP 0070 00, Item 3)
- Detergent, General Purpose (WP 0070 00, Item 4)
- Gloves, Chemical Resistant (rubber) (WP 0068 00, Table 2, Item 3)
- Pads, Scouring (WP 0070 00, Item 6)
- Rags, Wiping (WP 0070 00, Item 7)

Personnel Required
- Food Service Operator 92G10 (2)

References
- TM 10-7310-281-13&P
- WP 0006 00

Equipment Condition
- The FSC-2 equipment is energized and operating

GENERAL

This work package contains operator's cleaning and sanitizing procedures for the FSC equipment.

CAUTION

Do not use abrasive cleaners or wire brushes on components or accessories. Damage to the finish on equipment can occur when using abrasive cleaners. Failure to observe this caution may result in damage to the finish on the equipment.

CAUTION

Do not hose down or pressure wash electrical components. Failure to observe this caution may cause damage equipment.

SERVICE

Clean Storage Rack Assemblies, Drain Table, Work Tables, and Accessories

Clean storage rack assemblies, drain table, work tables, and accessories such as thermometer assembly, sink immersion rack, and waste receptacles as indicated on the next page.

WARNING

Burn hazard. Wear rubber gloves and apron when cleaning and sanitizing FSC components, when draining hot water from the sinks, or when performing any operation that may result in contact with hot equipment surfaces or hot water. Failure to observe this warning may result in severe burns.

Eye Injury / Skin Damage Hazard. Rubber gloves, apron, and eye protection should be worn when handling chemicals such as detergents or cleaning compounds. Failure to wear proper protective clothing and equipment may result in skin irritation and/or serious eye injury. If contact with eyes or skin is made, flush with clean water and seek immediate medical first aid for eyes. Rinse and dry hands immediately after exposure. Failure to observe this warning may result in serious eye injuries or drying and damage to the skin.

1. Using wiping rags and fresh, hot, soapy water from the wash sink, wash storage rack assemblies, drain table, work tables, and accessories such as the thermometer assemblies and sink immersion rack until the items are clean.

2. Check each cleaned item for signs of corrosion and peeling. The coating over the metal may show spots.

   a. Remove spots with soap and hot water or solvent detergent cleaning compound (grease cutter) using a nonabrasive scouring pad.

   b. Use a nonabrasive scouring pad for removing corrosion.

3. Using clean wiping rags and fresh, hot rinse water from the rinse sink, wipe off any soapy residue remaining on the cleaned items. Repeat as necessary until all soap residue is removed.

4. Dry the cleaned items using clean wiping rags, or allow to air dry.

NOTE

If any corrosion remains, report to supervisor, or prepare an SF 368, Products Quality Deficiency Report. Using key words such as “corrosion”, “rust”, “deterioration”, or “cracking” will ensure that the information is identified as a Corrosion Prevention and Control (CPC) problem.

5. Empty the trash cans into an approved waste reception facility.

WARNING

Bacterial hazard. Food waste stored in the trash cans can harbor bacteria. Dispose of wiping rags and scouring pads after using to clean the trash cans. Do not reuse the rags and pads on other items such as tables and storage racks. Failure to observe this warning may result in contamination of the other items, such as tables and storage racks, and any pots, pans, utensils, and other food handling items placed on the tables and racks. This, in turn, can cause illness in anyone eating food prepared with the contaminated items.

6. Using clean wiping rags (and non abrasive scouring pads if necessary) and fresh, hot, soapy water from the wash sink, wash the trash cans until they are clean. Dispose of rags and pads after use.

7. Using fresh water, rinse the soapy residue off the trash cans.

8. Dry the trash cans using clean wiping rags, or allow to air dry. Dispose of rags after use.

9. After cleaning, check all cleaned items to ensure that all parts are secure.

Clean Sink Covers and Sink Body Assemblies

WARNING

Burn hazard. Wear rubber gloves and apron when cleaning and sanitizing FSC components, when draining hot water from the sinks, or when performing any operation that may result in contact with hot equipment surfaces or hot water. Failure to observe this warning may result in severe burns.

Eye Injury / Skin Damage Hazard. Rubber gloves, apron, and eye protection should be worn when handling chemicals such as detergents or cleaning compounds. Failure to wear proper protective clothing and equipment may result in skin irritation and/or serious eye injury. If contact with eyes or skin is made, flush with clean water and seek immediate medical first aid for eyes. Rinse and dry hands immediately after exposure. Failure to observe this warning may result in serious eye injuries or drying and damage to the skin.

1. Shut off the burner in accordance with TM 10-7310-281-13&P.

2. Remove water from the sink by rotating the drain knob ¼ turn counterclockwise.

3. If necessary, wash out the sink using clean wiping rags and non-abrasive scouring pads if necessary, soap, and fresh water.

4. Rinse the sink with fresh water.

5. Remove the sink coupler heat shield and the sink front heat shield.

WARNING

Each sink assembly weighs approximately 60 lb (27.28 kg) without accessories. Two persons must work together to tilt the sink, one in front to lift the front of the sink and one in back to stabilize the sink assembly. Wear rubber gloves and aprons to prevent burns that could result from contact with hot equipment surfaces or hot water. Ensure that the base rack, burner rack, and MBU are secure and do not move or lift up when lifting the front of the sink. Failure to observe this warning may result in serious injuries, or burns.

6. Tilt the sink slightly to completely drain the water out of the sink, then return the sink to its original position.

7. Reinstall the sink front heat shield and sink coupler heat shield.

8. Dry the sink using clean wiping rags, or allow to air dry.

9. Check the sink for signs of corrosion and peeling. The coating over the metal may show spots.

    a. Remove spots with soap and hot water or solvent detergent cleaning compound (grease cutter) using a nonabrasive scouring pad.

    b. Use a nonabrasive scouring pad for removing corrosion.

10. Using fresh water, wipe off any soapy residue remaining on the cleaned items. Repeat as necessary until all soap residue is removed.

11. Dry the sink assembly using clean wiping rags, or allow to air dry.

NOTE

If any corrosion remains, report to supervisor, or prepare an SF 368, Products Quality Deficiency Report.

12. If returning the sink to operation, prepare the sink for operation as follows:

    a. Close the sink drain by turning the drain knob ¼ turn clockwise.

    b. Refill the sink with water to the “full” line, approximately 7½ inches deep.

    c. Following all precautions and instructions in TM 10-7310-281-13&P (MBU), check the burner fuel level, then restart the burner unit.

    d. Set the burner to achieve and maintain the required water temperature (Wash water 110-120°F, Rinse water 120-140°F, Sanitize water 171°F or above).

    e. Wait for the water to reach the required temperature.

    f. Resume cleaning and sanitizing food handling items.

Clean Grease Separator (FSC-2 only)

WARNING

Burn hazard. Wear rubber gloves and apron when cleaning and sanitizing FSC components, when draining hot water from the grease separator, or when performing any operation that may result in contact with hot equipment surfaces or hot water. Failure to observe this warning may result in severe burns.

Eye Injury / Skin Damage Hazard. Rubber gloves, apron, and eye protection should be worn when handling chemicals such as detergents or cleaning compounds. Failure to wear proper protective clothing and equipment may result in skin irritation and/or serious eye injury. If contact with eyes or skin is made, flush with clean water and seek immediate medical first aid for eyes. Rinse and dry hands immediately after exposure. Failure to observe this warning may result in serious eye injuries or drying and damage to the skin.

Fire Hazard. Accumulated grease and greasy rags are flammable. To prevent fires do not store accumulated grease or greasy rags near MBUs or other sources of flame. Failure to observe this warning may result in serious injury to personnel.

NOTE

Dispose of graywater IAW unit SOP.

Clean the grease separator assembly as follows:

1. Shut off MBUs in accordance with TM 10-7310-281-13&P.

2. Remove the cover from the grease separator. Scrape any residue off the inside of the cover and deposit it into a #10 can. Clean the cover using wiping rags and solvent-detergent cleaning compound.

3. Remove the strainer basket **(Figure 1, Item 1)** from the grease separator and empty the collected solids into a trash receptacle. Clean the strainer basket using wiping rags and solvent-detergent cleaning compound.

4. Place a #10 can under the grease removal valve spout (**Figure 1, Item 2)**.

NOTE

Draining grease from the grease separator is more easily accomplished after the sinks have been drained and the grease is warm. It may be necessary to fill and empty the #10 can several times in order to remove all the grease from the grease separator.

5. Open the grease removal valve **(Figure 1, Item 3)** and drain the surface grease from the grease separator into the can, then close the valve. Repeat as many times as necessary until all the grease is removed.

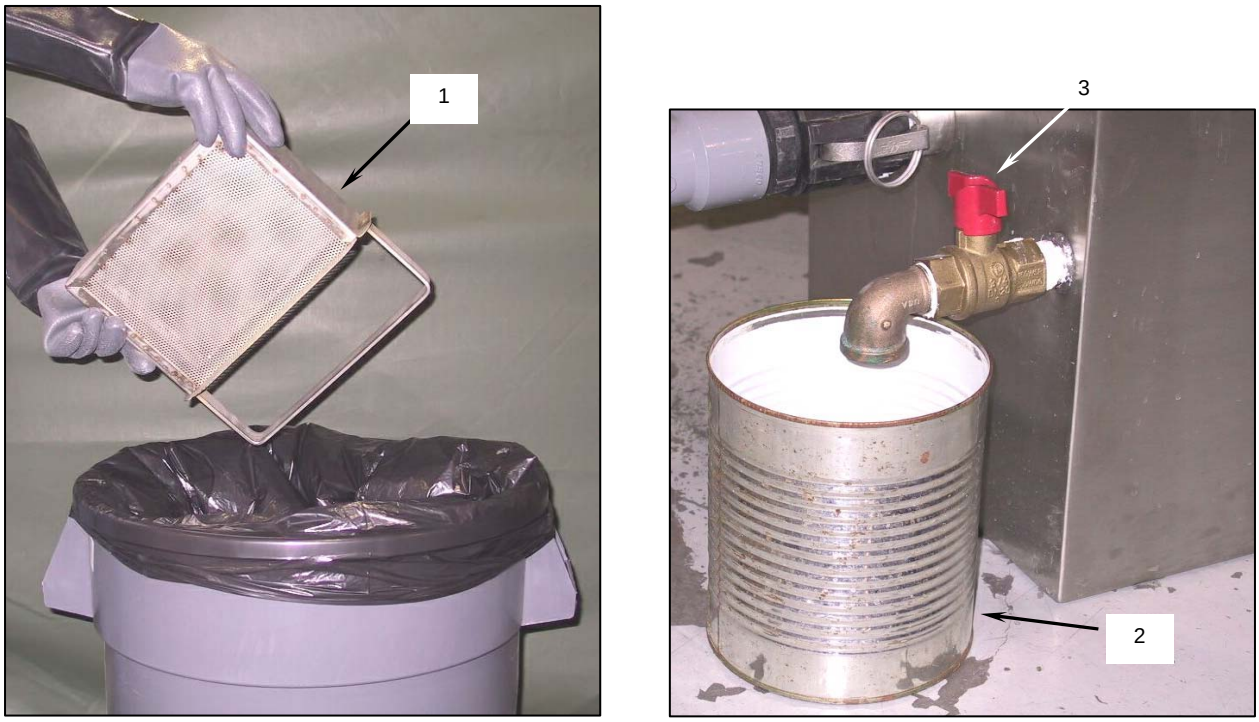


Figure 1. Removing Solids and Grease from the Grease Separator.

6. Empty the water from the grease separator by opening the drain petcocks **(Figure 2, Item 1)** located in the pump section. Get as much water out of the grease separator as possible by lifting the pump float switch **(Figure 2, Item 2)** and setting the float cable in the holding hook **(Figure 2, Item 3)**.

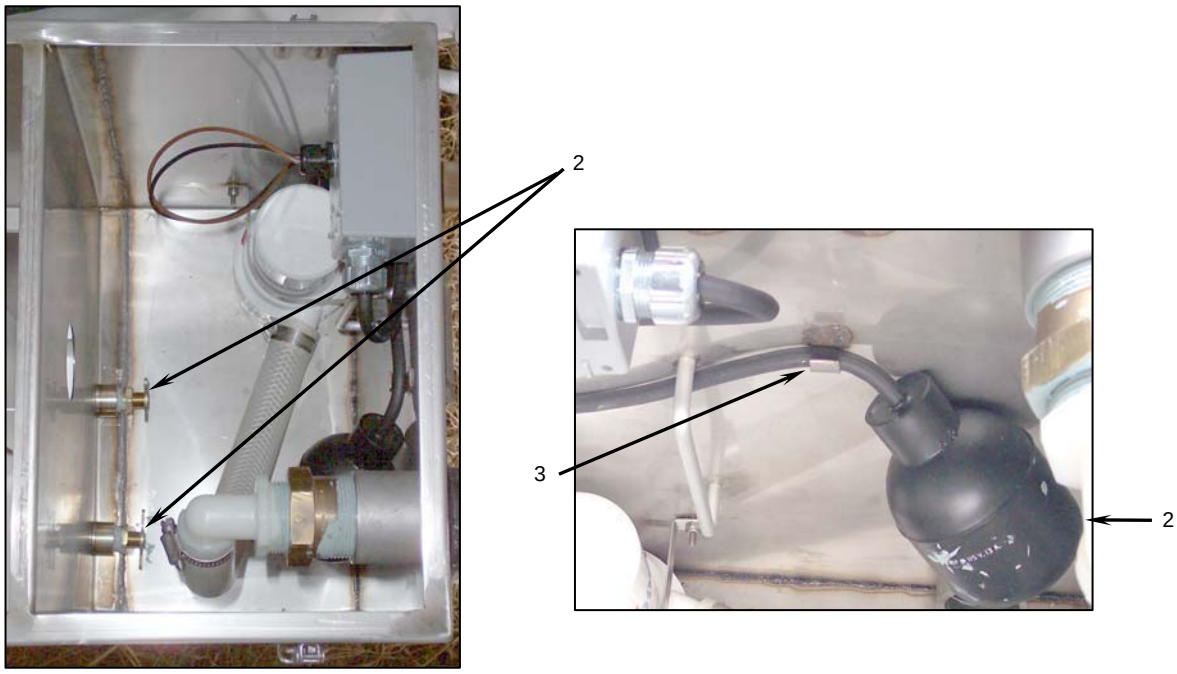


Figure 2. Emptying Water from the Grease Separator.

NOTE

If the grease separator is being emptied and cleaned for maintenance because the pump has failed to operate, it will be necessary to empty the grease separator without the use of the pump. While the pump is out of service, it may be temporarily bypassed.

7. If the pump is not working, empty the water from the grease separator without the use of the pump and bypass pump as follows:

   a. Place an absorbent pad under the lower grease separator outlet adapter **(Figure 3, Item 1)**.

WARNING

The grease separator weighs approximately 80 lb (36.4 kg) empty, more when it is full of water. Three persons are required to elevate one end of the grease separator when it is filled with water, lifting with their legs not their back, to prevent injury. The use of work gloves with gripping pads when lifting the grease separator will significantly reduce the risk of injuries/cuts. Failure to observe this warning may result in serious back or other muscular skeletal injuries or hand cuts.

   b. Two persons elevate the outlet end of the grease separator a few inches while a third person slides a couple boards or other suitable props under the end of the grease separator to keep it elevated. Lower the grease separator onto the boards.

   c. Disconnect the 50-ft drain hose **(Figure 3, Item 2)** from the upper grease separator outlet adapter **(Figure 3, Item 3)**.

   d. One person removes the cap from the lower grease separator outlet adapter **(Figure 3, Item 1)** while a second person quickly connects the drain hose to the lower adapter.

   e. Two persons elevate the outlet end of the grease separator while a third person removes the boards or other suitable props from under the end of the grease separator. Lower the grease separator to the ground.

   f. After the grease separator is completely drained, disconnect the sink drain hose assembly **(Figure 3, Item 4)** from the grease separator inlet **(Figure 3, Item 5)**, disconnect the 50-ft grease separator drain hose (**Figure 3, Item 2)** from the lower outlet adapter **(Figure 3, Item 1)**, and connect the grease separator drain hose directly to the sink drain hose.

   g. Reinstall the cap on the lower grease separator adapter **(Figure 3, Item 1)**.

Figure 3. Emptying Water from Grease Separator without the Pump and Bypassing the Pump.

8. Turn the power converter power switch off **(Figure 4, Item 1)**.

9. Trace the grease separator power cord **(Figure 4, Item 2)** from the grease separator to the power converter and disconnect the cord from the power converter **(Figure 4, Item 3)** or **(Figure 4, Item 4)**.

10. Disconnect the grease separator power cord from the grease separator **(Figure 4, Item 5)**.

11. Disconnect the 50-ft grease separator discharge hose **(Figure 4, Item 6)** from the wastewater reception facility.

12. Place an absorbent drop cloth under the grease separator outlet **(Figure 4, Item 7)**. Then disconnect the 50-ft grease separator discharge hose **(Figure 4, Item 6)** from the grease separator outlet.

13. Drain the hose toward the discharge point of the hose.

14. Place an absorbent drop cloth under the grease separator inlet **(Figure 4, Item 8)**. Then disconnect the sink drain hose assembly **(Figure 4, Item 9)** from the grease separator inlet.

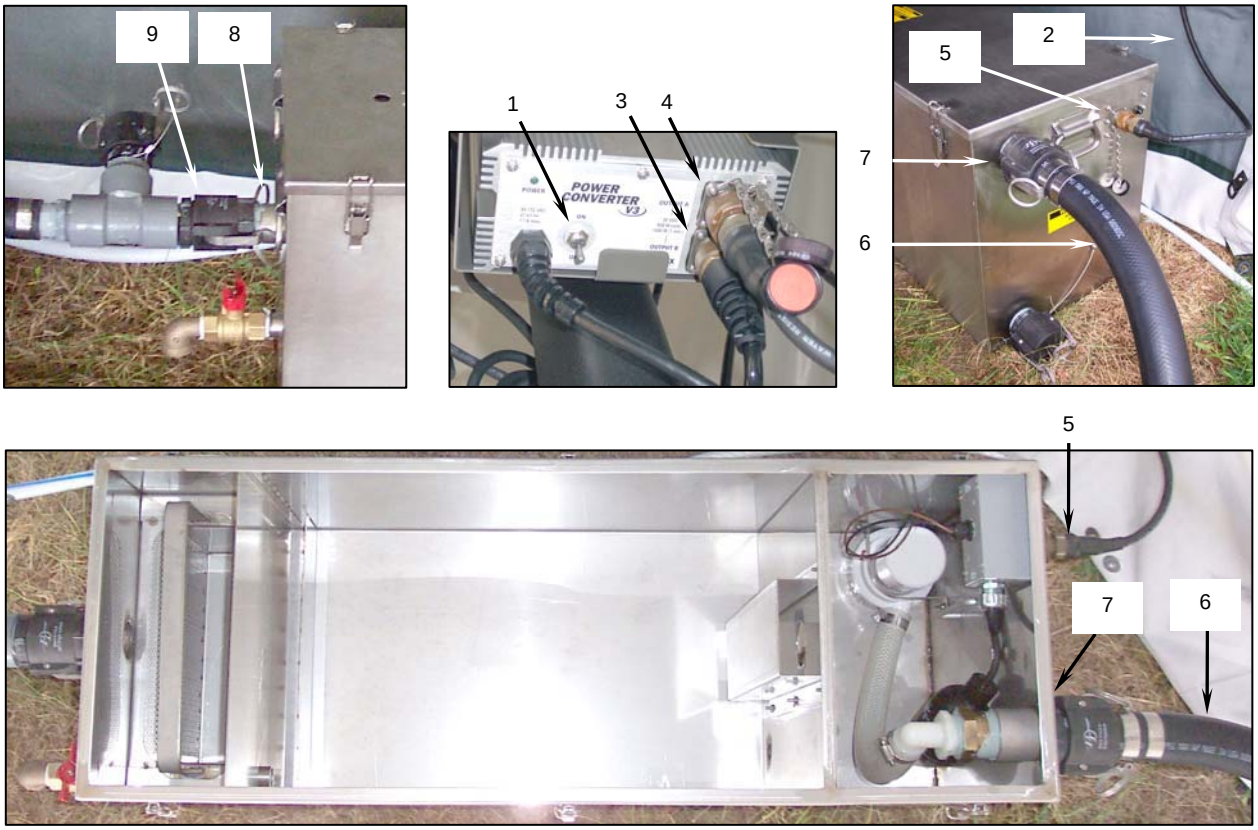


Figure 4. Removing Grease Separator Power Cable and Hose Connections.

15. Scrape off any residue from the inside of the grease separator and deposit it into the #10 can.

16. Dispose of the #10 can in accordance with standard operating procedures.

WARNING

Bacterial hazard. Dispose of wiping rags and scouring pads after using to clean the grease separator. Do not reuse the rags and pads on other items such as tables and storage racks. Failure to observe this warning may result in contamination of the other items, such as tables and storage racks, and any pots, pans, utensils, and other food handling items placed on the tables and racks. This, in turn, can cause illness in anyone eating food prepared with the contaminated items.

17. Put a small amount of water and solvent-detergent cleaning compound into the grease separator.

18. Scrub the inside surfaces of the grease separator as thoroughly as possible using clean wiping rags and the water/detergent.

19. Dispose of the rags IAW unit SOP.

WARNING

The grease separator weighs approximately 80 lb (36.4 kg) empty, more with water inside it. Three persons must use handles (or designated hand grasp points) to lift or carry the grease separator, lifting with legs, not their back, to prevent injury. The use of protective gloves with gripping pads when moving equipment will significantly reduce the risk of injuries/cuts. Failure to observe this warning may result in serious back or other muscular skeletal injuries or hand cuts.

NOTE

The grease separator can be more thoroughly emptied as needed by removing the cap from the hose adaptor at the pump end near the bottom of the grease separator.

20. Empty water/detergent from the grease separator assembly into an approved wastewater reception facility.

21. Clean the inside of the grease separator with water and solvent-detergent cleaning compound as many additional times as needed until the grease separator is clean.

22. Rinse the grease separator with fresh water and empty the water into an approved wastewater reception facility.

23. Dry the grease separator using clean wiping rags, or allow to air dry.

24. Check the grease separator, its cover, and the strainer basket for signs of corrosion and peeling. The coating over the metal may show spots.

    a. Remove spots with soap and hot water or solvent detergent cleaning compound (grease cutter) using a nonabrasive scouring pad.

    b. Use a nonabrasive scouring pad for removing corrosion.

25. Using fresh water, wipe off any soapy residue remaining on the cleaned items. Repeat as necessary until all soap residue is removed.

26. Dry the grease separator, cover, and strainer basket using clean wiping rags, or allow to air dry.

NOTE

If any corrosion remains, report to supervisor, or prepare an SF 368, Products Quality Deficiency Report. Using key words such as “corrosion”, “rust”, “deterioration”, or “cracking” will ensure that the information is identified as a Corrosion Prevention and Control (CPC) problem.

27. Set the strainer basket back into the grease separator.

28. If cleaning the grease separator in preparation for movement, coil the grease separator power cable and place inside the grease separator.

29. Install and secure the cover.

30. If cleaning the grease separator in preparation for movement, coil the 50-ft discharge hose and connect the ends of the hose together.

31. If returning the grease separator to operation, prepare the grease separator for operation as follows:

    a. Install the grease separator IAW WP 0006 00, Assembly and Preparation for Use procedures.

    b. Observing the Electrical Shock Warning, connect the grease separator to its power IAW WP 0006 00, Assembly and Preparation for Use procedures.

    c. Operate the grease separator IAW WP 0006 00, Operating Procedures.

    d. Observe the grease separator for proper operation.

END OF WORK PACKAGE

OPERATOR MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-90, NSN 7360-01-277-2558
MODEL FSC-2, NSN 7360-01-496-2112
THERMOMETER ASSEMBLY
CALIBRATE

INITIAL SETUP:

Tools and Special Tools
Wrench, Open End Box (WP 0051 00, Table 2, Item 3)

Material/Parts
Apron, Utility (WP 0068 00, Table 2, Item 1)
Cup of ice water
Gloves, Chemical Resistant (rubber) (WP 0068 00, Table 2, Item 3)

Personnel
Food Service Operator 92G10 (2**)**

Equipment Condition
The FSC is energized and operating.

GENERAL

This work package contains procedures for calibrating the thermometer assembly.

CALIBRATE

WARNING

Burn hazard. Wear rubber gloves when performing any operation that may result in contact with hot equipment surfaces or hot water. Failure to observe this warning may result in severe burns.

1. Wearing the rubber gloves, remove the appropriate sink coupler or sink edge heat shield.
2. Remove thermometer assembly **(Figure 1, Item 1)** from sink and allow the assembly to cool to ambient temperature.
3. Remove rubber gloves.
4. Fill a cup with ice.
5. Insert the thermometer stem **(Figure 1, Item 4)** at least 2 inches into the ice and wait for the temperature reading on the thermometer to stabilize.
6. If the thermometer does not read 32°F, secure the hex nut **(Figure 1, Item 2)** under the thermometer head with a wrench and rotate the head **(Figure 1, Item 3)** so that the thermometer reads 32°F.
7. Put rubber gloves back on.
8. Put thermometer assembly back on sink.
9. Reinstall sink coupler or sink edge heat shield.

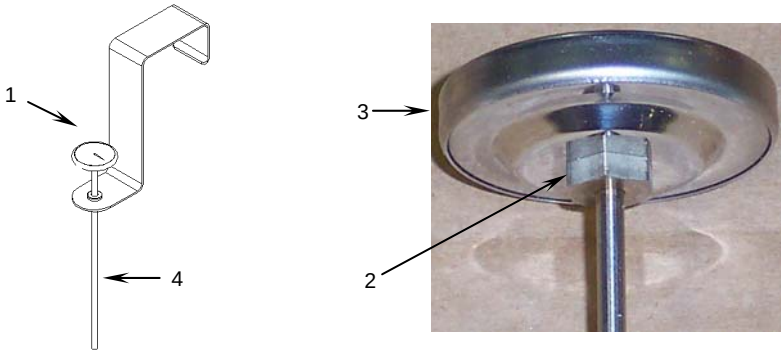


Figure 1. Thermometer Assembly.

END OF WORK PACKAGE

CHAPTER 5

UNIT MAINTENANCE INSTRUCTIONS

FOR

FOOD SANITATION CENTER

UNIT MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-90, NSN 7360-01-277-2558
MODEL FSC-2, NSN 7360-01-496-2112
SERVICE UPON RECEIPT

INITIAL SETUP:

Personnel
Quartermaster and Chemical Equipment Repairer 63J10 (1)
Food Service Operator 92G10 (3)

Equipment Condition
The FSC-2 equipment is packed in wooden crates and strapped to wooden pallets.

References
DA PAM 25-30
DA PAM 750-8
DA Form 24040
SF 361

UNPACKING

The FSC, with components, will be packaged in wooden crates strapped to wooden pallets. Check crates for indication of damage. Report any damage to your supervisor.

WARNING

Excessive weight hazard. The 3 packed sink assemblies each weigh about 130 lb (59.1 kg). The 3 packed storage racks each weigh between 130 lb (59.1 kg) and 185 lb (84.1 kg). Suitable material handling equipment or four persons must lift or carry each sink and storage rack assembly, lifting with your legs not your back, to prevent injury.

The tent bags are heavy. Observe the lift requirements on the tent bags.

The grease separator weights about 80 lb (36.4 kg). Three persons must lift or carry the grease separator, lifting with your legs not your back, to prevent injury.

Each MBU weights about 42 lb (19.1 kg). Two persons must lift or carry each MBU, lifting with your legs not your back, to prevent injury.

Use of work gloves will reduce the risk of cuts. Failure to observe this warning may result in serious back or other muscular skeletal injuries or hand cuts.

CAUTION

Unpack components carefully. Improper or hasty handling may result in damage to the FSC components and accessories.

1. Unpack the equipment in the following sequence:

   a. Position crate or carton to be unpacked with the top facing up.

   b. Cut and remove retaining straps. Do not cut, rip, or otherwise damage packing material.

   c. Open the carton, remove the corrugated padding material, and set it aside.

d. Lift the equipment from the carton.

2. Save the shipping carton and padding material so it can be used again.

CHECKING UNPACKED EQUIPMENT

1. Inspect the equipment for damage incurred during shipment.

   a. Report any damage on SF Form 361, Transportation Discrepancy Report.

   b. Also note damage on DA Form 2404, Equipment Inspection and Maintenance Worksheet and initiate corrective maintenance procedures.

2. Check equipment against the packing slip to see if the shipment is complete.

   a. Report all discrepancies in accordance with applicable service instructions (e.g. for Army instructions, see DA PAM 750-8). Check to see whether the equipment has been modified.

   b. The equipment can be placed in service even though a minor assembly or part, which does not affect proper functioning, is missing.

3. Check DA PAM 25-30 to see if there is any Modification Work Order (MWO) applicable to the FSC components you are unpacking.

   a. If an MWO is listed, check to see if it has been applied to the equipment.

   b. The MWO number will be shown on the case near the equipment nomenclature.

   c. If a current MWO is listed in DA PAM 25-30 but there is no evidence that it has been applied to the equipment you are unpacking, note discrepancy on DA Form 2404, Equipment Inspection and Maintenance Worksheet.

END OF WORK PACKAGE

UNIT MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-90, NSN 7360-01-277-2558
MODEL FSC-2, NSN 7360-01-496-2112
PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS) INTRODUCTION

INTRODUCTION

PMCS is performed upon receipt and quarterly thereafter. Record all defects found during the performance of PMCS and, if applicable, the steps taken to correct them, on DA Form 2404, Equipment Inspection and Maintenance Worksheet. Instructions for reporting/correcting noted deficiencies are contained in DA PAM 750-8.

GENERAL

1. Before you operate, always keep in mind the WARNINGS and CAUTIONS. Perform your before (B) PMCS prior to the equipment performing its intended mission.

2. While you operate always keep in mind the CAUTIONS and WARNINGS. Perform your during (D) PMCS when the equipment is being used in its intended mission.

3. After you operate, be sure to perform your after (A) PMCS after the equipment has been taken out of its mission mode.

4. If your equipment fails to operate, troubleshoot with proper equipment. Report any deficiencies using DA Form 2404, Equipment Inspection and Maintenance Worksheet. See DA PAM 750-8.

5. Correct deficiencies in accordance with the "Procedure" column in WP 0011 00, Preventive Maintenance Checks and Services and troubleshooting procedures contained in WP 0008 00, Operator Troubleshooting.

6. Perform PMCS for the tent in accordance with TM 10-8340-224-13 or TM 10-8340-240-12&P.

7. Perform PMCS on the MBU in accordance with TM 10-7310-281-13&P.

PMCS TABLE FORMAT

The purpose of the PMCS table is to indicate the order in which checks are to be done, as well as to indicate when they are to be done. The following describes the purpose of each column in the PMCS table.

1. ITEM NO.: Each maintenance check is identified by a separate item number. The item column will be used as a source of item numbers for the “TM Number” on DA Form 2404, Equipment Inspection and Maintenance Worksheet, in recording results of PMCS.

2. INTERVAL: This column indicates when to perform the service check or maintenance.

   (Q) quarterly

3. ITEM TO BE CHECKED OR SERVICED: This column identifies the component, assembly, or system to be checked or serviced.

4. MAN-HOUR: Identifies man-hours required to complete all prescribed lubrication services to the nearest 10^{th} of an hour.

5. PROCEDURE: This column identifies what check or inspection task to perform and what action to take if corrections need to be made. Other Technical Manuals are also referenced here where appropriate.

6. EQUIPMENT NOT READY/AVAILABLE IF: This column indicates equipment conditions that make the equipment not capable of performing its assigned mission.

LUBRICATION

The FSC equipment has only a limited number of moving parts that require lubrication. These are the leg linkage and brace joints of the drain and work tables (Figure 1). These points are lubricated using general purpose oil whenever equipment is being prepared for storage or the indicated parts are not moving freely.

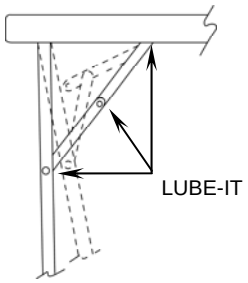


Figure 1. Drain and Work Table Lubrication Points.

RUST AND CORROSION

Check the all FSC metal parts for rust and corrosion. If any corrosion exists, clean and apply a thin coat of oil, report to supervisor, or prepare an SF 368, Products Quality Deficiency Report. Using key words such as “corrosion”, “rust”, “deterioration”, or “cracking” will ensure that the information is identified as a Corrosion Prevention and Control (CPC) problem.

END OF WORK PACKAGE

UNIT MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-90, NSN 7360-01-277-2558
MODEL FSC-2, NSN 7360-01-496-2112
PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS)

INITIAL SETUP:

Personnel Required
Quartermaster and Chemical Equipment Repairer 63J10 (1)
Food Service Operator 92G10 (1)

Equipment Condition
MBU is off, cool, disconnected from its power source, and removed from the burner rack

References
TM 10-7310-281-13&P

Table 1. Unit Preventive Maintenance Checks and Services (PMCS) Quarterly Schedule.

ITEM NO.	INTERVAL			MAN-HOUR	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/ AVAILABLE IF:
	Q						
1	□				Modern Burner Unit (MBU)	Refer to TM 10-7310-281-13&P	

UNIT MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-90, NSN 7360-01-277-2558
MODEL FSC-2, NSN 7360-01-496-2112
LIGHT, EXTENSION
REPAIR

INITIAL SETUP:

Tools and Special Tools
Tool Kit, General Mechanic's: Automotive (WP 0051 00, Table 2, Item 2)

Material/Parts
Kit, Relamping (WP 0054 00, Item 2)
Strap, Tie Down, Electrical (WP 0054 00, Item 3)

Personnel Required
Quartermaster and Chemical Equipment Repairer 63J10 (1)
Food Service Operator 92G10 (1)

Equipment Condition
The light is unplugged from its power source and removed from its hanging straps.

GENERAL

This work package contains procedures for repairing the electric light by replacing the bulb.

REPAIR

WARNING

Personnel injury/cuts. Work gloves and face/eye protection must be worn when performing equipment maintenance. Failure to do so could result in serious injury to eyes or hands.

WARNING

Electrical high voltage and current cannot be seen, but in contact with energized equipment can kill you, render you unconscious, or severely burn you. Electricity is unlike most other dangerous things you can come in contact with because it gives no warning. To ensure your safety and that of other maintenance personnel, always observe the following precautions:

- The FSC power source) must be electrically grounded. Failure to establish electrical ground may result in equipment damage, serious injury or death from electrical malfunction.
- Do not stand in water while handling live power cords or electrical shock may result.
- Position all power cables so that they are out of the way during operation and are not lying in water.
- Prior to installation, assure power cables outer jackets are not cut or damaged and there are no exposed wires.

1. Remove the bulb as follows:

   a. Remove the cable tie (Figure 1, Item 1) from the smaller end cap (Figure 1, Item 2) located on the end of the electric light assembly opposite from the handle (Figure 1, Item 3). Do not remove the cable tie at the handle.

   b. Remove the strain relief nut (Figure 1, Item 4) and sleeve (Figure 1, Item 5) from the strain relief (Figure 1, Item 6).

c. Remove end cap (Figure 1, Item 7) by gently prying the cap off the clear outer tube (Figure 1, Item 8) with a screwdriver or similar tool.

d. Carefully remove shock (Figure 1, Item 9), using care not to pull on the power cord (Figure 1, Item 10).

e. Grasp the tab end of the bulb puller (Figure 1, Item 11) and gently, but firmly, pull the bulb out of the tube.

f. Remove bulb puller (Figure 1, Item 12) from old bulb (Figure 1, Item 13) and dispose of bulb properly. If old bulb is not broken, there is a vacuum inside and breaking the bulb can be dangerous.

g. Clean inside of the clear outer tube (Figure 1, Item 14) if necessary.

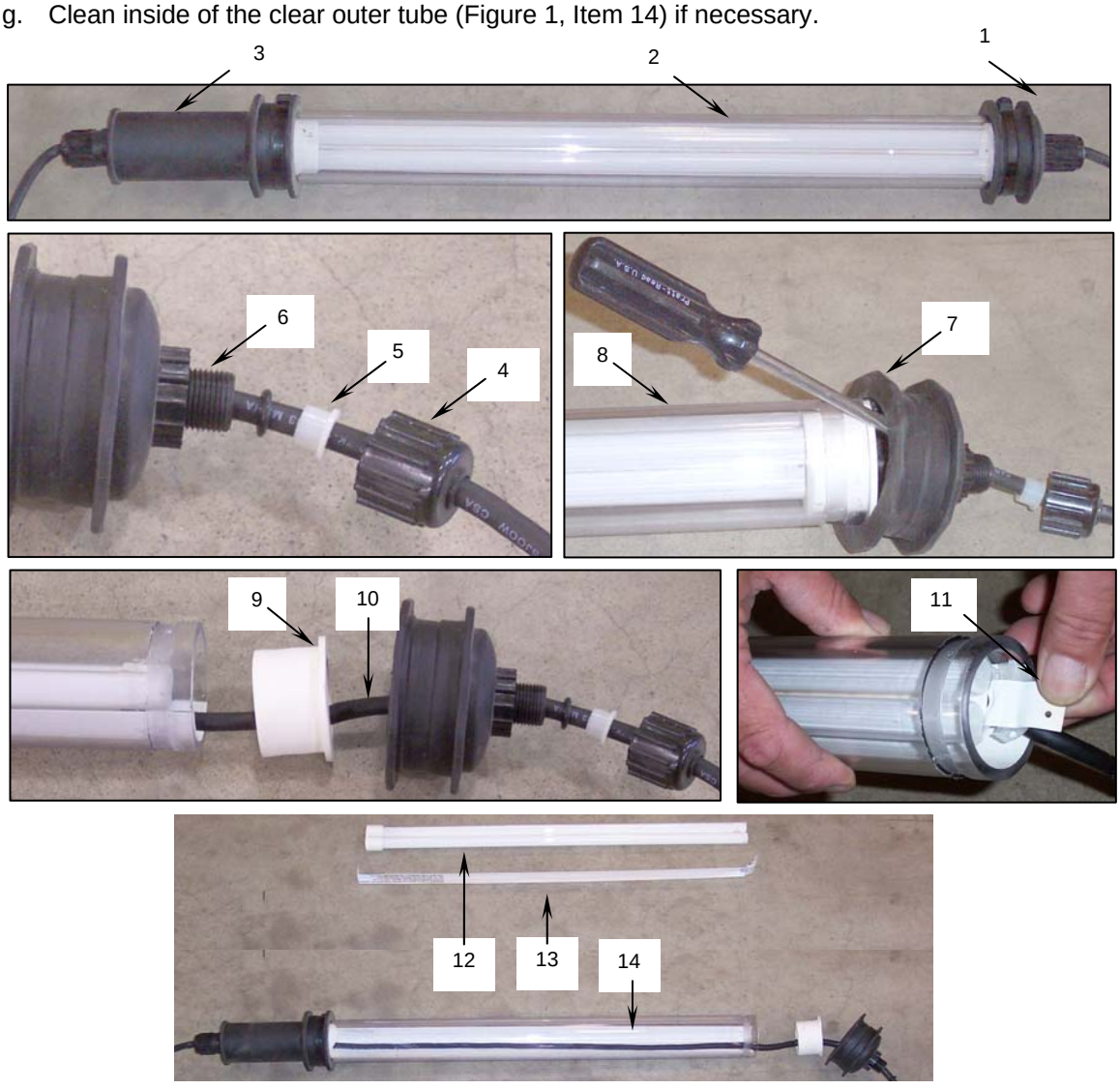


Figure 1. Replacing the Bulb in the Electric Light.

2. Install the new bulb as follows:

   a. Install the end of the bulb puller with two holes in it **(Figure 2, Item 1)** over the two middle pins at the pin end of the new bulb **(Figure 2, Item 2)**.

   b. Lay the bulb puller along the length of the bulb so that the tab end of the puller **(Figure 2, Item 3)** fits around the opposite end of the bulb **(Figure 2, Item 4)**. This will assist in removing the bulb the next time.

   c. Slide the new bulb **(Figure 2, Item 5)** and bulb puller **(Figure 2, Item 6)** into the tube **(Figure 2, Item 7)** so the pins **(Figure 2, Item 2)** plug into the socket inside the tube at the handle end of the light assembly **(Figure 2, Item 8)**.

   d. Reinstall the shock **(Figure 2, Item 9)**.

   e. Reinstall the end cap **(Figure 2, Item 10)**. Ensure the cap is completely seated in the groove of the tube.

   f. Reinstall the strain relief sleeve **(Figure 2, Item 11)** and nut **(Figure 2, Item 12)** onto the strain relief **(Figure 2, Item 13)**.

   g. Secure the end cap to the tube with a new cable tie **(Figure 2, Item 14)**.

   h. Plug light into an AC power source and ensure that it illuminates.

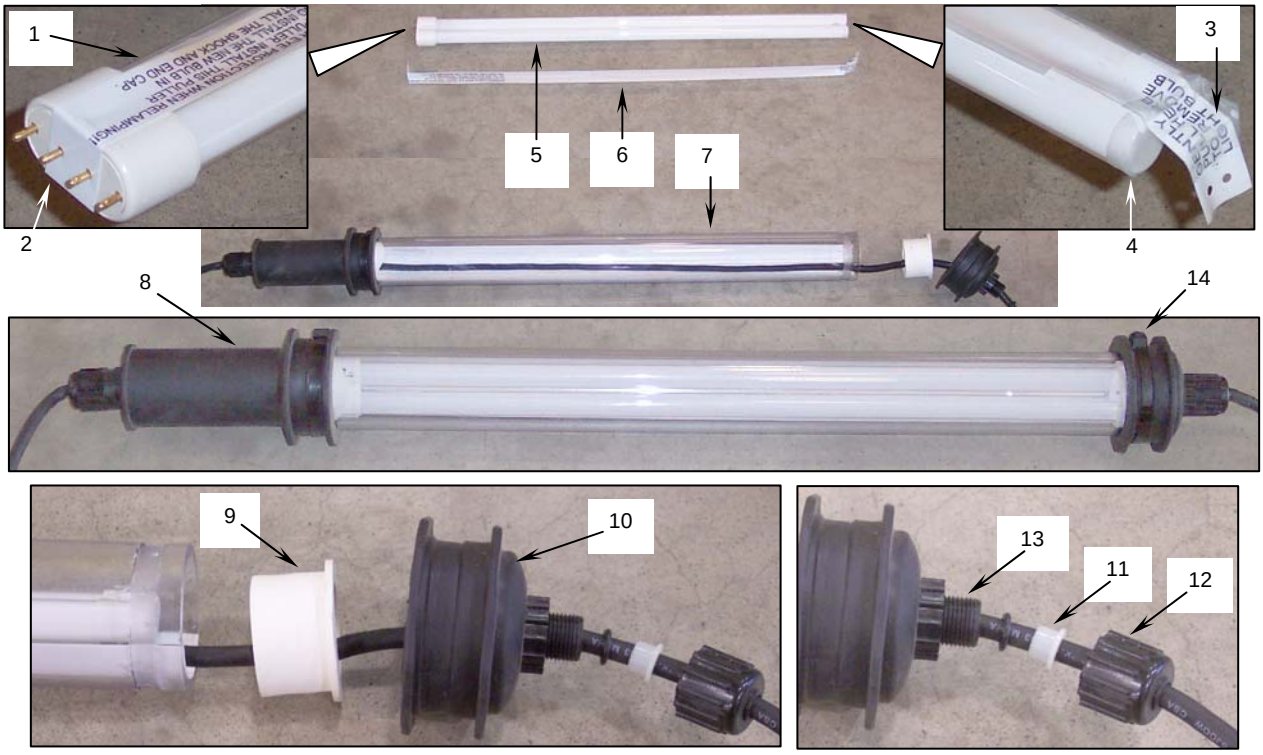


Figure 2. Installing the Bulb in the Electric Light.

END OF WORK PACKAGE

UNIT MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-90, NSN 7360-01-277-2558
MODEL FSC-2, NSN 7360-01-496-2112
STORAGE RACK ASSEMBLY
REPAIR

INITIAL SETUP:

Tools and Special Tools
Tool Kit, General Mechanic's: Automotive (WP 0051 00, Table 2, Item 2)

Material/Parts
Plug, Protective, Dust (WP 0055 00, Item 2)
Rack, Storage Kitchen Utensils (WP 0055 00, Item 3)
Shelf, Storage and Display (WP 0055 00, Item 4)

Personnel Required
Quartermaster and Chemical Equipment Repairer 63J10 (1)
Food Service Operator 92G10 (1)

Equipment Condition
Storage rack separated from other storage racks

GENERAL

This work package contains procedures for repairing the storage racks by replacing damaged or missing storage rack components.

REPAIR

Remove and replace defective or missing storage rack components as required:

1. Remove and replace defective or missing shelf/cover **(Figure 1, Item 1)**.

2. Remove and replace defective or missing tube plug **(Figure 1, Item 2)**.

WARNING

Each storage rack assembly weighs approximately 44 lb (20 kg) without accessories. Two persons must lift or carry each rack assembly, lifting with their legs not their back, to prevent injury. The use of work gloves with gripping pads when moving equipment will significantly reduce the risk of injuries/cuts. Failure to observe this warning may result in serious back or other muscular skeletal injuries or hand cuts.

3. Replace defective storage rack **(Figure 1, Item 3)**.

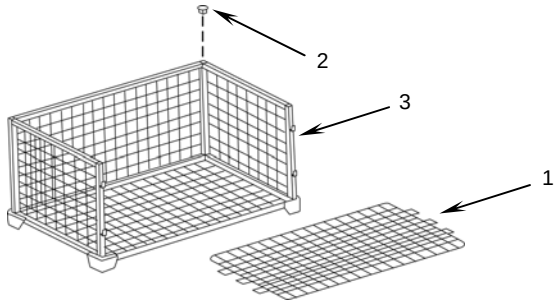


Figure 1. Replacing Storage Rack Components.

END OF WORK PACKAGE

UNIT MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-90, NSN 7360-01-277-2558
MODEL FSC-2, NSN 7360-01-496-2112
SINK ASSEMBLY
REPAIR

INITIAL SETUP:

Tools and Special Tools
Tool Kit, General Mechanic's: Automotive (WP 0051 00, Table 2, Item 2)

Material/Parts
Adapter (WP 0056 00, Item 22)
Coupling (WP 0056 00, Item 8)
Handle, Valve (WP 0056 00 Item 5)
Handle, Valve (WP 0056 00 Item 19)
Pin, Cotter (WP 0056 00, Item 6)
Pin, Cotter (WP 0056 00, Item 20)

Material/Parts – Continued
Sealing Compound (WP 0070 00, Item 10)
Valve, Drain (WP 0056 00, Item 7)
Valve, Drain (WP 0056 00, Item 21)

Personnel Required
Quartermaster and Chemical Equipment Repairer 63J10 (1)
Food Service Operator 92G10 (1)

Equipment Condition
Sink empty with cover and drain hoses removed from sink

GENERAL

This work package contains procedures for replacing the defective or missing sink components.

REPAIR

Remove and replace defective or missing sink components as required:

WARNING

Each sink assembly weighs approximately 60 lb (27.28 kg) without accessories. Two persons must lift or carry each sink body assembly, lifting with their legs not their back, to prevent injury. The use of work gloves with gripping pads when moving equipment will significantly reduce the risk of injuries/cuts. Failure to observe this warning may result in serious back or other muscular skeletal injuries or hand cuts.

1. Remove the following parts as required:

   a. Remove cotter pin **(Figure 1, Item 1)** (FSC-90) or the straight pin **(Figure 1, Item 1)** (FSC-2) from bottom of valve handle **(Figure 1, Item 2)**.

   b. Remove valve handle **(Figure 1, Item 2)**.

   c. Unscrew the adapter **(Figure 1, Item 3)** from drain valve **(Figure 1, Item 4)** at rear of sink body (Figure 1, Item 5).

   d. Unscrew the drain valve **(Figure 1, Item 4)** from sink body **(Figure 1, Item 5)**.

2. Replace defective parts.

3. Reinstall the removed/replaced parts as required:

   a. Apply sealing compound to all threads to ensure a leak proof seal.

   b. Thread adapter (**Figure 1, Item 3)** into drain valve **(Figure 1, Item 4)** and tighten.

   c. Thread drain valve **(Figure 1, Item 4)** onto sink body **(Figure 1, Item 5)**.

   d. Align drain valve **(Figure 1, Item 4)** with valve handle **(Figure 1, Item 2)** stem and slide into place.

   e. Install cotter pin **(Figure 1, Item1)** (FSC-90) or straight pin **(Figure 1, Item1)** (FSC-2) through valve handle **(Figure 1, Item 2)** and drain valve **(Figure 1, Item 4)**.

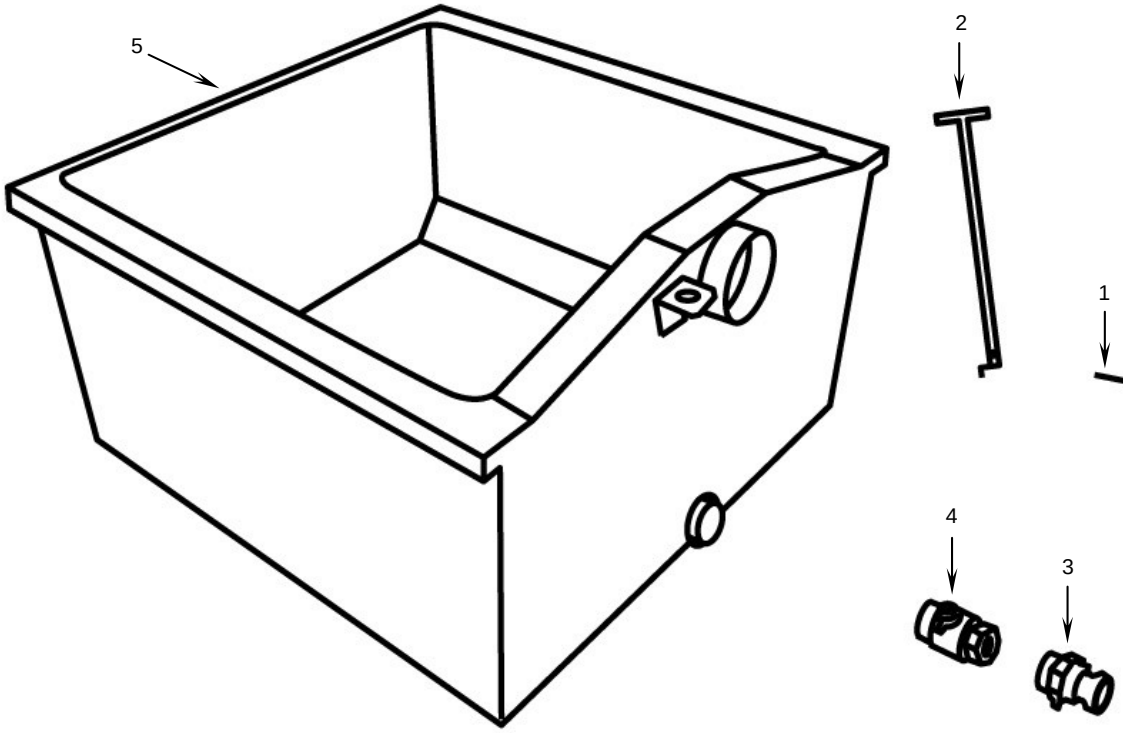


Figure 1. Replacing Sink Components.

END OF WORK PACKAGE

UNIT MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-90, NSN 7360-01-277-2558
MODEL FSC-2, NSN 7360-01-496-2112
THERMOMETER ASSEMBLY
REPAIR

INITIAL SETUP:

Tools and Special Tools
General Mechanic's Tool Kit
(WP 0051 00, Table 2, Item 2)

Material/Parts
Apron, Utility (WP 0068 00, Table 2, Item 1)
Bracket, Thermometer (WP 0056 00, Item 14)
Bracket, Thermometer (WP 0056 00, Item 29)
Cup of ice water
Gloves, Chemical Resistant (rubber)
(WP 0068 00, Table 2, Item 3)

Material/Parts - Continued
Grommet, Rubber (WP 0056 00, Item 28)
Thermometer (WP 0056 00, Item 13)
Thermometer Self-Indicating (WP 0056 00, Item 27)

Personnel
Quartermaster and Chemical Equipment Repairer 63J10 (1)

Equipment Condition
The FSC is energized and operating.

GENERAL

This work package contains procedures for repairing a thermometer assembly by replacing the component parts of the assembly.

REPAIR

WARNING

Burn hazard. Wear rubber gloves when performing any operation that may result in contact with hot equipment surfaces or hot water. Failure to observe this warning may result in severe burns.

1. Wearing rubber gloves, remove the appropriate sink coupler or sink edge heat shield.
2. Remove the thermometer assembly from the sink and allow it to cool to an ambient temperature.
3. Remove the rubber gloves and inspect the thermometer **(Figure 1, Item 1)**, bracket **(Figure 1, Item 2)**, and rubber grommet **(Figure 1, Item 3)** for damage.
4. Replace the thermometer, bracket, or rubber grommet as needed.
5. Put the rubber gloves back on and install thermometer assembly back on the sink.
6. Reinstall the sink coupler or sink edge heat shield.

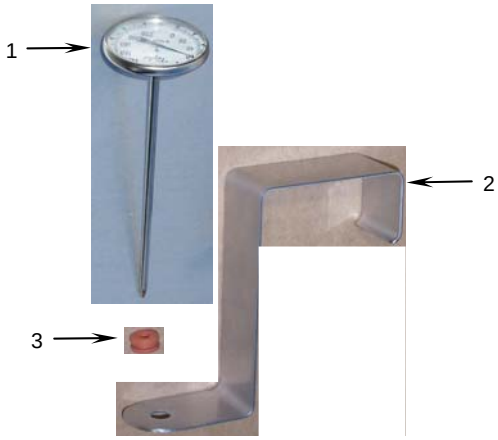


Figure 1. Thermometer Repair.

END OF WORK PACKAGE

UNIT MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-90, NSN 7360-01-277-2558
MODEL FSC-2, NSN 7360-01-496-2112
HOSE ASSEMBLIES
REPAIR

INITIAL SETUP:

Tools and Special Tools
Tool Kit, General Mechanic's: Automotive (WP 0051 00, Table 2, Item 2)

Material/Parts
Adapter (WP 0057 00, Item 29)
Adapter (WP 0057 00, Item 38)
Adapter, Hose (WP 0057 00, Item 23)
Adapter, Straight, Pipe (WP 0057 00, Item 5)
Clamp, Hose (WP 0057 00, Item 6)
Clamp, Hose (WP 0057 00, Item 25)
Clamp, Hose (WP 0057 00, Item 39)
Coupler (WP 0057 00, Item 20)
Coupler (WP 0057 00, Item 41)
Coupling, Pipe (WP0057, Item 16)
Coupling, Half Quick (WP 0057 00, Item 3)
Elbow, Pipe (WP 0057 00, Item 4)
Elbow, Pipe (WP 0057 00, Item 22)
Elbow, Pipe (WP 0057 00, Item 28)

Material/Parts - Continued
Gasket (WP 0057 00, Item 2)
Gasket (WP 0057 00, Item 42)
Hose (WP 0057 00, Item 7)
Hose (WP 0057 00, Item 14)
Hose (WP 0057 00, Item 15)
Hose (WP 0057 00, Item 17)
Hose (WP 0057 00, Item 18)
Hose (WP 0057 00, Item 24)
Hose (WP 0057 00, Item 40)
Sealing Compound (WP 0070 00, Item 10)
Tee, Pipe (WP 0057 00, Item 26)
Tee, Pipe (WP 0057 00, Item 36)

Personnel Required
Quartermaster and Chemical Equipment Repairer 63J10 (1)

Equipment Condition
Drain hoses removed from sink or grease separator

GENERAL

This work package contains procedures for repairing the sink drain hoses by replacing damaged gaskets, hoses, hose couplings, elbows, adapters, and tees. Procedures are also included for repairing the grease separator drain hose by replacing damaged gaskets, hoses, adapters, and couplers.

NOTE

If the FSC-2 three sink drain hose has only one 90-degree elbow, your drain hose is obsolete. You will need to order a new sink drain hose assembly for your FSC-2. Order your new hose by requesting item 19 in WP 0057 00.

REPAIR

Sink Drain Hose Gasket

1. Remove existing gasket **(Figure 1, Item 1)** using a needle-nose pliers.

2. Insert a replacement gasket.

Sink Drain Hose

1. (FSC-90 only) Loosen worm-gear hose clamps **(Figure 1, Item 2)**.

WARNING

Personnel injury/cuts. Work gloves and face/eye protection must be worn when performing equipment maintenance. Failure to do so could result in serious injury to eyes or hands.

NOTE

Initial issue hose clamps may take up to 30 minutes to remove. After replacement warm-gear hose clamps have been installed, the task may only take 10 minutes.

2. (FSC-2 only) Remove and discard the crimped-on hose clamps **(Figure 1, Item 3)**.
3. Slide the defective hoses **(Figure 1, Item 4)** off adapters **(Figure 1, Item 5)**.
4. Measure and cut bulk hose to length.
5. Slide retained worm-gear hose clamps (FSC-90) or new worm-gear hose clamps (FSC-2) over the new hose.
6. Slide hose end **(Figure 1, Item 4)** over adapters **(Figure 1, Item 5)**.
7. Position hose clamps; tighten.

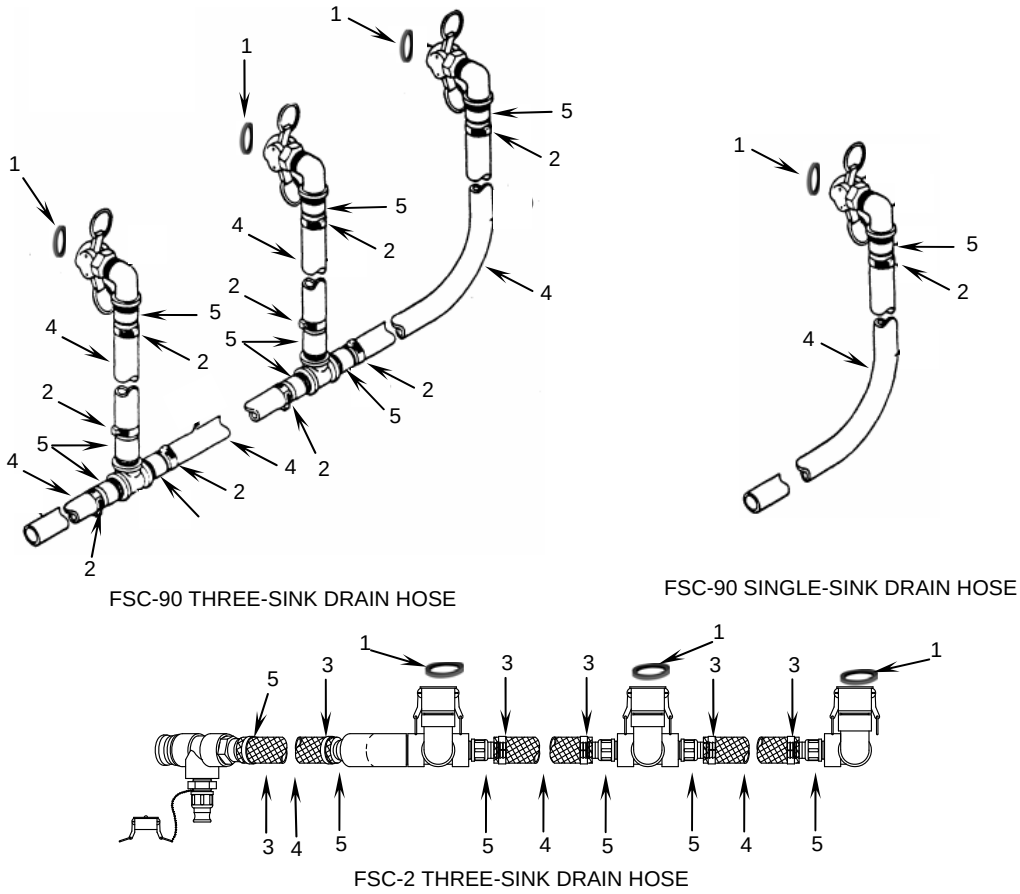
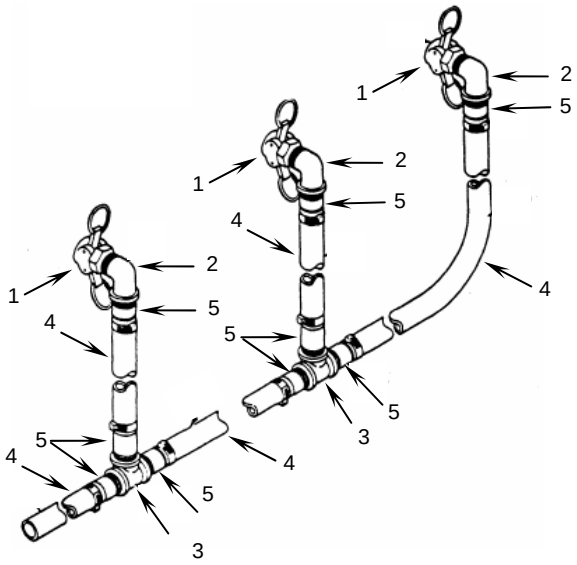


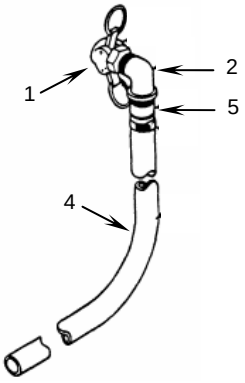
Figure 1. Replacing Sink Drain Hose Gaskets and Hoses.

Sink Drain Hose Coupling, Elbow, Adapter, Tee, or Pipe Nipple

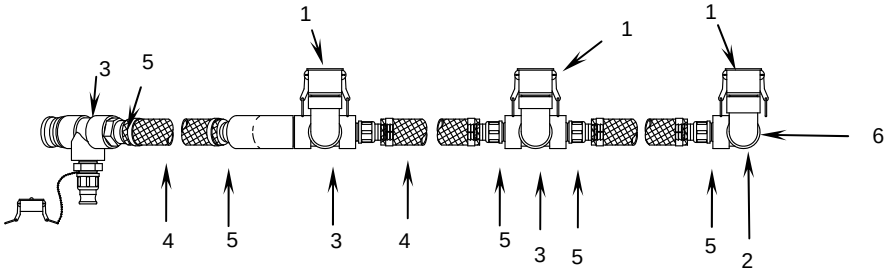
1. Unscrew coupling **(Figure 2, Item 1)** from elbow **(Figure 2, Item 2)** or tee **(Figure 2, Item 3)**.
2. Remove hoses **(Figure 2, Item 4)** per steps 1, 2, and 3 in the previous procedure, Remove and replace sink drain hoses.
3. Unscrew adapter **(Figure 2, Item 5)** or pipe nipple **(Figure 2, Item 6)** from elbow **(Figure 2, Item 2)** or tee **(Figure 2, Item 3)**.
4. Inspect for defective threads. Replace defective parts.
5. Apply sealing compound to threads to ensure leak-proof seal.
6. Thread adapters **(Figure 2, Item 5)** or pipe nipple **(Figure 2, Item 6)** into tee **(Figure 2, Item 3)** and elbow **(Figure 2, Item 2)**.
7. Thread coupling **(Figure 2, Item 1)** onto elbow **(Figure 2, Item 2)**.
8. Install hoses and clamps per steps 5, 6, and 7 in the previous procedure, Remove and replace sink drain hoses.



FSC-90 THREE-SINK DRAIN HOSE



FSC-90 SINGLE-SINK DRAIN HOSE



FSC-2 THREE-SINK DRAIN HOSE

Figure 2. Replacing Sink Drain Hose Couplings, Elbows, Adapters or Tees.

Grease Separator Drain Hose Gasket (FSC-2 Only)

1. Remove existing gasket **(Figure 3, Item 1)** using a needle-nose pliers.
2. Insert a replacement gasket.
3. Connect the drain hose to grease separator.

Grease Separator Drain Hose, Adapter or Coupler (FSC-2 Only)

WARNING

Personnel injury/cuts. Work gloves and face/eye protection must be worn when performing equipment maintenance. Failure to do so could result in serious injury to eyes or hands.

1. Remove and discard the crimped-on hose clamps **(Figure 3, Item 2)** and **(Figure 3, Item 3)**. Replace with new worm-gear hose clamps.
2. Slide the hose **(Figure 3, Item 4)** off the adapter **(Figure 3, Item 5)** and the coupler **(Figure 3, Item 6)**.
3. Replace hose **(Figure 3, Item 4)**, adapter **(Figure 3, Item 5)**, or coupler **(Figure 3, Item 6)** as required.
4. Slide the new worm-gear hose clamps over the hose.
5. Slide one hose end over the adapter **(Figure 3, Item 5)**, position the hose clamp **(Figure 3, Item 2)** and tighten.
6. Slide one hose end over the coupler **(Figure 3, Item 6)**, position the hose clamp **(Figure 1, Item 3)** and tighten.

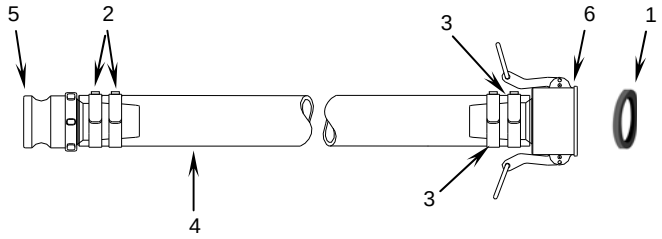


Figure 3. Repairing Grease Separator Drain Hose.

END OF WORK PACKAGE

UNIT MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-90, NSN 7360-01-277-2558
MODEL FSC-2, NSN 7360-01-496-2112
TABLE ASSEMBLY, SINK DRAIN
REPAIR

INITIAL SETUP:

Tools and Special Tools
Tool Kit, General Mechanic's: Automotive (WP 0051 00, Table 2, Item 2)

Material/Parts
Cloth, Drop, Absorbent (WP 0070 00, Item 3)
Leg Adapter (WP 0059 00, Item 5) FSC-90 or (WP 0059 00, Item 10) FSC-2
Washer, Lock (WP 0059 00, Item 3) FSC-90 or (WP 0059 00, Item 8) FSC-2
Lubricating Oil, General Purpose (WP 0070 00, Item 5)

Material/Parts - Continued
Table Top, Drain (WP 0059 00, Item 2) FSC-90 or (WP 0059 00, Item 7) FSC-2

Personnel Required
Quartermaster and Chemical Equipment Repairer 63J10 (1)
Food Service Operator 92G10 (1)

Equipment Condition
Drain hoses removed from sink or grease separator

GENERAL

This work package contains procedures for repairing the sink drain table by repairing bent hinge links or by replacing the drain table legs or table top.

REPAIR

Hinge Links

1. Straighten bent hinge links with hand tools.

2. Lubricate function areas.

Table Legs or Table Top

WARNING

The drain table weighs approximately 41 lb (18.65 kg) without accessories. Two persons must lift or carry the drain table, lifting with their legs not their back, to prevent injury. The use of work gloves with gripping pads when moving equipment will significantly reduce the risk of injuries/cuts. Failure to observe this warning may result in serious back or other muscular skeletal injuries or hand cuts.

1. Remove the table legs as follows:

   a. Remove eight nuts **(Figure 1, Item 1)** and lock washers **(Figure 1, Item 2)**.

   b. Remove table legs **(Figure 1, Item 3)** off table **(Figure 1, Item 4)**.

2. Replace the table legs or the table top as required.

3. Install the table legs on the table top as follows:

   a. Position table legs **(Figure 1, Item 3)** over the studs on the underside of the table top **(Figure 1, Item 4)**.

   b. Secure the legs to the table top using the eight lock washers **(Figure 1, Item 2)** and nuts **(Figure 1, Item 1)** and tighten.

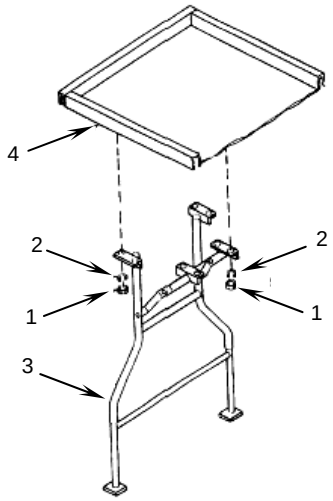


Figure 1. Repairing Drain Table.

END OF WORK PACKAGE

UNIT MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-90, NSN 7360-01-277-2558
TABLE ASSEMBLY, FOLDING LEGS
REPAIR

INITIAL SETUP:

Tools and Special Tools
Tool Kit, General Mechanic's: Automotive (WP 0051 00, Table 2, Item 2)

Material/Parts
Leg, Adapter (WP 0060 00, Item 4)
Washer, Lock (WP 0060 00, Item 3)
Lubricating Oil, General Purpose (WP 0070 00, Item 5)

Material/Parts - Continued
Table Top, Drain (WP 0060 00, Item 5)

Personnel Required
Quartermaster and Chemical Equipment Repairer 63J10 (1)
Food Service Operator 92G10 (1)

Equipment Condition
Work table not in use

GENERAL

This work package contains procedures for repairing FSC-90 model folding legs (work) table assemblies by repairing bent hinges or by replacing the table legs or table top. There are no repairable / replaceable parts on the FSC-2 model work tables.

REPAIR

Hinge Links

1. Straighten hinge links with hand tools.
2. Lubricate function areas.

Table Legs or Table Top

WARNING

Each work table assembly weighs approximately 42 lb (19.09 kg) without accessories. Two persons must lift or carry each work table assembly, lifting with their legs not their back, to prevent injury. The use of work gloves with gripping pads when moving equipment will significantly reduce the risk of injuries/cuts. Failure to observe this warning may result in serious back or other muscular skeletal injuries or hand cuts.

1. Remove the table shelf **(Figure 1, Item 1)**.
2. Remove the table leg **(Figure 1, Item 2)** from the table top **(Figure 1, Item 3)** as follows:
   a. Remove eight nuts **(Figure 1, Item 4)** and lock washers **(Figure 1, Item 5)**.
   b. Remove table leg **(Figure 1, Item 2)** off table top **(Figure 1, Item 3)**.

3. Replace the table legs or table top as required.

4. Install the table leg **(Figure 1, Item 2)** as follows:

   a. Position the table leg **(Figure 1, Item 2)** over the studs on the underside of the table top **(Figure 1, Item 3)**.

   b. Secure the legs to the table top using the eight lock washers **(Figure 1, Item 5)** and nuts **(Figure 1, Item 4)** and tighten.

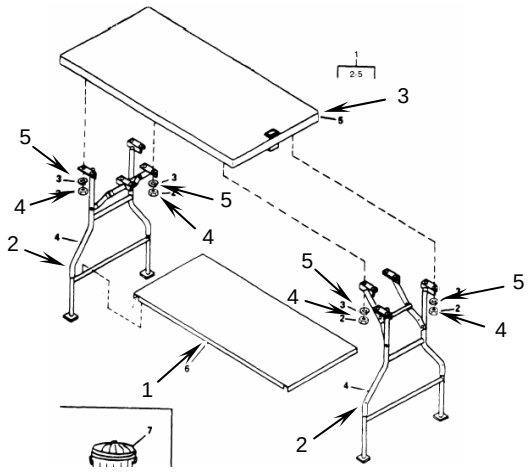


Figure 1. Repairing FSC-90 Work Table.

END OF WORK PACKAGE

UNIT MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-2, NSN 7360-01-496-2112
SINK FILL PUMP ASSEMBLY: WATER PUMP
REPAIR

INITIAL SETUP:

Tools and Special Tools
Tool Kit, General Mechanic's: Automotive (WP 0051 00, Table 2, Item 2)

Material/Parts
Pump, Unit, Rotary (WP 0061 00, Item 21)
Sealant, Corrosion Preventive (WP 0070 00, Item 8)
Sealing Compound (WP 0070 00, Item 10)
Tag, Marker (WP 0070 00, Item 11)
Wirenut, Watertight (WP 0061 00, Item 8)

Personnel Required
Quartermaster and Chemical Equipment Repairer 63J10 (1)

References
TM 10-7310-281-13&P
WP 0006 00
WP 0024 00

Drawings Required
Sink Fill Pump Assembly Wiring Diagram

Equipment Condition
The FSC is energized and operating.

GENERAL

This work package contains the procedures for repairing the sink fill pump assembly by replacing the water pump.

REPAIR

WARNING

Electrical high voltage and current cannot be seen, but in contact with energized equipment can kill you, render you unconscious, or severely burn you. Electricity is unlike most other dangerous things you can come in contact with because it gives no warning. To ensure your safety and that of other maintenance personnel, do not perform any maintenance on electrical equipment unless all power is removed. Failure to observe this warning may result in electrical shock injury or death (electrocution).

1. Remove power from the sink fill pump assembly as follows:

   a. Shut off the MBUs IAW TM 10-7310-281-13&P.

   b. Switch off the sink fill pump assembly power switch **(Figure 1, Item 1)**.

   c. Switch off the power converter power switch **(Figure 1, Item 2)**.

   d. Disconnect both DC cables **(Figure 1, Item 3)** and **(Figure 1, Item 4)** from the power converter and cap the connectors.

   e. Disconnect the two-branch power cable **(Figure 1, Item 5)** from the sink fill pump assembly and cap the connector.

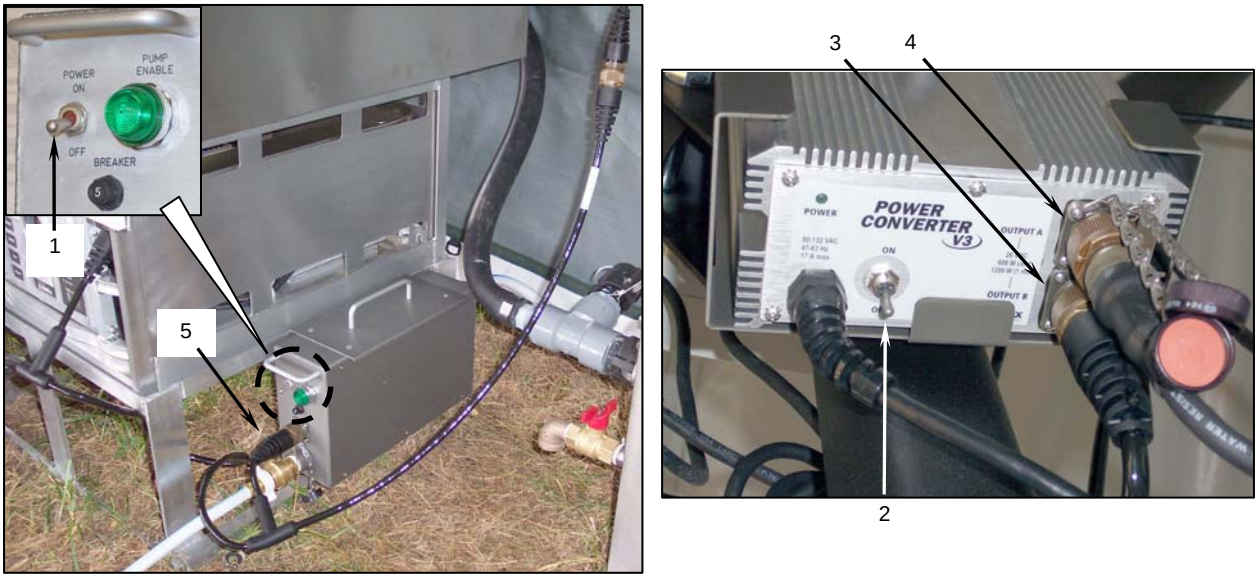


Figure 1. Removing Power from the Sink Fill Pump Assembly.

2. Remove the sink fill pump assembly as follows:

   a. Shut off the potable water supply to the sink fill pump assembly at its source.

   b. Disconnect the 50-ft water supply hose **(Figure 2, Item 1)** from the potable water supply.

   c. Disconnect the 50-ft water supply hose **(Figure 2, Item 1)** from the back of the sink fill pump assembly **(Figure 2, Item 2)** and drain the hose toward the source end.

   d. Disconnect the 15-ft sink fill hose **(Figure 2, Item 3)** from the vacuum breaker **(Figure 2, Item 4)** at the front of the fill pump assembly and secure the cap to the vacuum breaker.

   e. Lift the sink fill pump assembly **(Figure 2, Item 2)** off the sink assembly base rack **(Figure 2, Item 5)**.

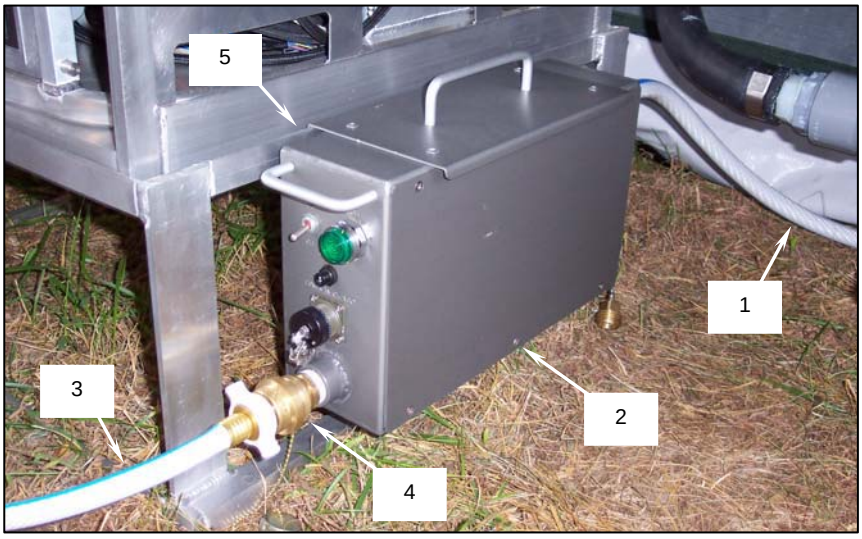


Figure 2. Removing the Sink Fill Pump Assembly.

3. Access the sink fill pump internal components as follows:

   a. Remove the six flat head machine screws **(Figure 3, Item 1)** from the fill pump cover **(Figure 3, Item 2)**.

   b. Remove the cover **(Figure 3, Item 2)**.

4. Remove the water pump from the sink fill pump assembly enclosure as follows:

   a. Remove the wire nut **(Figure 3, Item 3)** from the black wires. Discard the wire nut.

   b. Separate the black pump wire from the other two black wires. Tag the two wires as wire nut connections.

   c. Tag and disconnect the red pump wire **(Figure 3, Item 4)** from the POWER ON/OFF switch.

   d. Remove the four self-locking nuts **(Figure 3, Item 5)**, four flat washers **(Figure 3, Item 6)**, and four flat head machine screws **(Figure 3, Item 7)** that secure the pump **(Figure 3, Item 8)** to the sink fill pump assembly enclosure **(Figure 3, Item 9)**.

5. Disconnect the pump elbow adapters from the pump as follows:

   a. Slide out the pump suction elbow retaining tab **(Figure 3, Item 10)** and pull the suction elbow **(Figure 3, Item 11)** out of the pump.

   b. Remove the pump discharge elbow **(Figure 3, Item 12)** the same way.

   c. Inspect the O-ring **(Figure 3, Item 13)** on both elbows.

   d. Replace the elbow and O-ring if either is damaged or deteriorated (see WP 0024 00).

6. Discard the water pump.

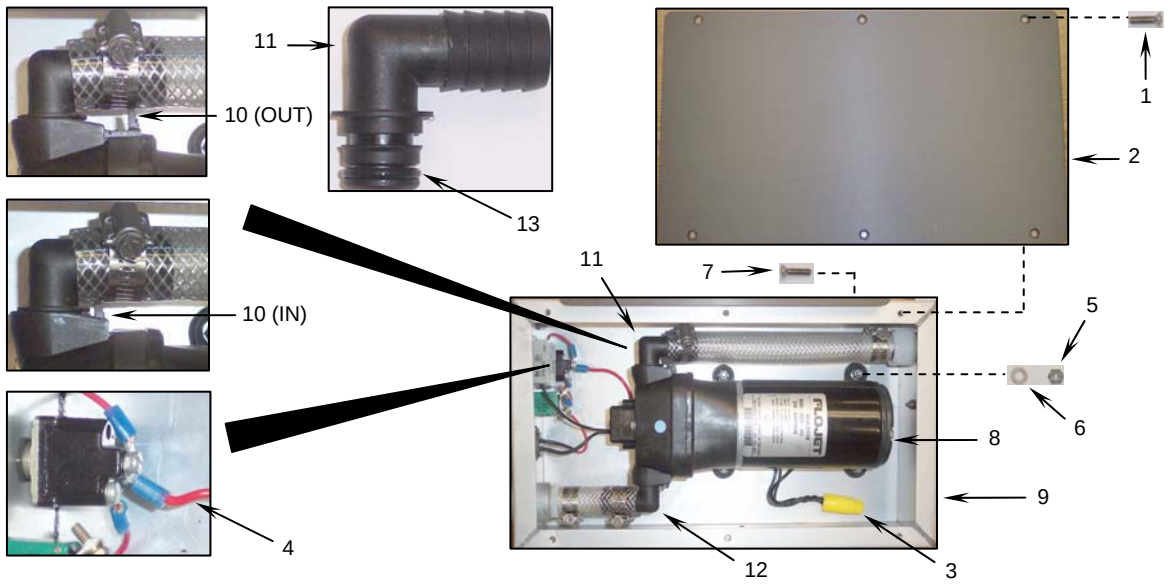


Figure 3. Removing the Sink Fill Pump Assembly Water Pump.

7. Install the new water pump as follows:

NOTE

The pump suction and discharge elbows are exactly the same and are interchangeable.

a. Ensure that the pump suction elbow O-ring **(Figure 4, Item 1)** is in place on the elbow **(Figure 4, Item 2)**, then slide out the pump suction elbow retaining tab **(Figure 4, Item 3)** and insert the pump suction elbow. Push the retaining tab all the way in.

b. Install the pump discharge elbow **(Figure 4, Item 4)** the same way.

c. Position the pump **(Figure 4, Item 5)** in the enclosure **(Figure 4, Item 6)** and secure with the four flat head machine screws **(Figure 4, Item 7)**, four flat washers **(Figure 4, Item 8)**, and four self-locking nuts **(Figure 4, Item 9)**.

d. Twist the black pump wire together with the other two black wires and secure using a new watertight wirenut (**Figure 4, Item 10)** and the Sink Fill Pump Assembly Wiring Diagram.

e. Connect the red pump wire **(Figure 4, Item 11)** on the wiring diagram to the POWER ON/OFF switch and coat the connection with corrosion preventative sealant.

f. Apply sealing compound to the six machine screws **(Figure 4, Item 12)** and secure the cover **(Figure 4, Item 13)** to the fill pump assembly enclosure **(Figure 4, Item 6)** using the six screws.

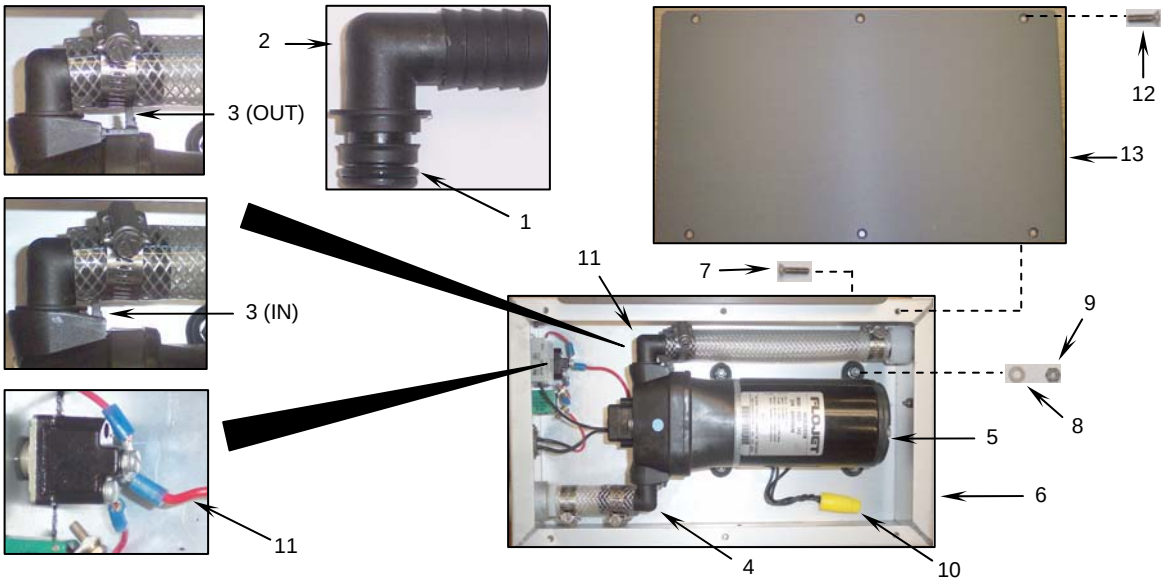


Figure 4. Installing the Sink Fill Pump Assembly Water Pump.

8. Install the sink fill pump IAW WP 0006 00, Assembly and Preparation for Use procedures.

9. Observing the Electrical Shock Warning, connect the sink fill pump to its power source IAW WP 0006 00, Assembly and Preparation for Use procedures.

10. Operate the sink fill pump IAW WP 0006 00, Operating Procedures.

11. Observe the sink fill pump for leaks and proper operation.

END OF WORK PACKAGE

UNIT MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-2, NSN 7360-01-496-2112
FILL PUMP ASSEMBLY: ELBOW, QUICK DISCONECT
REPAIR

INITIAL SETUP:

Tools and Special Tools
Tool Kit, General Mechanic's: Automotive
(WP 0051 00, Table 2, Item 2)

Material/Parts
Elbow, Quick Disconnect (WP 0061 00, Item 20)
Sealing Compound (WP 0070 00, Item 10)

Personnel Required
Quartermaster and Chemical Equipment
Repairer 63J10 (1)

References
TM 10-7310-281-13&P
WP 0006 00
WP 0025 00

Equipment Condition
The FSC is energized and operating.

GENERAL

This work package contains the procedures for repairing the sink fill pump assembly by replacing the quick disconnect elbows.

REPAIR

WARNING

Electrical high voltage and current cannot be seen, but in contact with energized equipment can kill you, render you unconscious, or severely burn you. Electricity is unlike most other dangerous things you can come in contact with because it gives no warning. To ensure your safety and that of other maintenance personnel, do not perform any maintenance on electrical equipment unless all power is removed. Failure to observe this warning may result in electrical shock injury or death (electrocution).

1. Remove power from the sink fill pump assembly as follows:

   a. Shut off the MBUs IAW TM 10-7310-281-13&P.

   b. Switch off the sink fill pump assembly power switch **(Figure 1, Item 1)**.

   c. Switch off the power converter power switch **(Figure 1, Item 2)**.

   d. Disconnect both DC cables **(Figure 1, Item 3)** and **(Figure 1, Item 4)** from the power converter and cap the connectors.

   e. Disconnect the two-branch power cable **(Figure 1, Item 5)** from the sink fill pump assembly and cap the connector.

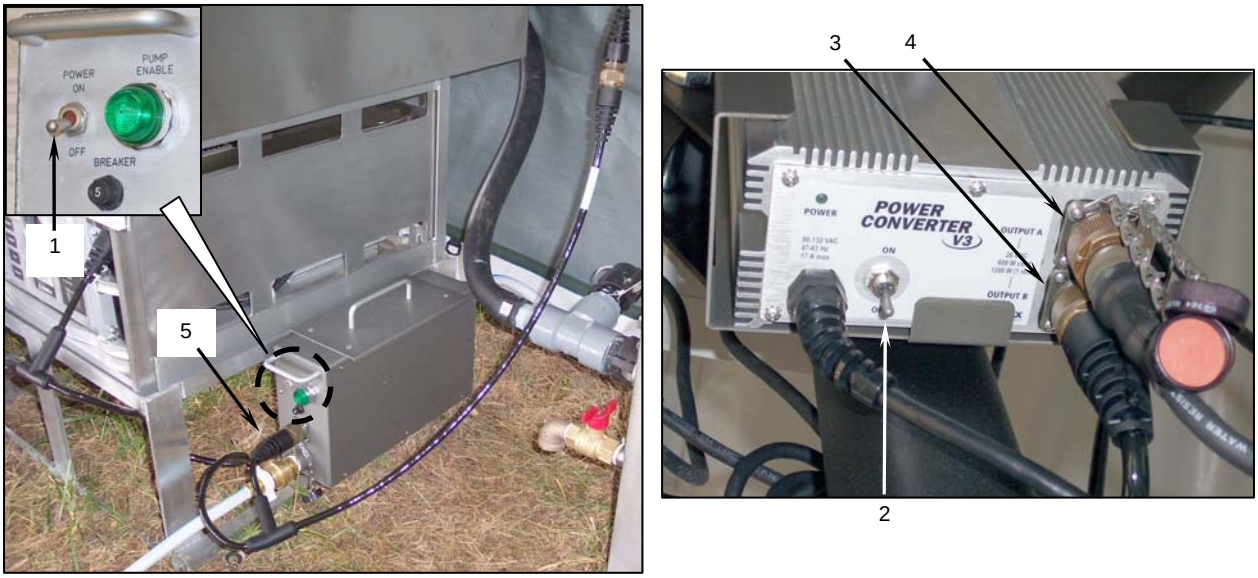


Figure 1. Removing Power from the Sink Fill Pump Assembly.

2. Remove the sink fill pump assembly as follows:

   a. Shut off the potable water supply to the sink fill pump assembly at its source.

   b. Disconnect the 50-ft water supply hose **(Figure 2, Item 1)** from the potable water supply.

   c. Disconnect the 50-ft water supply hose **(Figure 2, Item 1)** from the back of the sink fill pump assembly **(Figure 2, Item 2)** and drain the hose toward the source end.

   d. Disconnect the 15-ft sink fill hose **(Figure 2, Item 3)** from the vacuum breaker **(Figure 2, Item 4)** at the front of the fill pump assembly and secure the cap to the vacuum breaker.

   e. Lift the sink fill pump assembly **(Figure 2, Item 2)** off the sink assembly base rack **(Figure 2, Item 5)**.

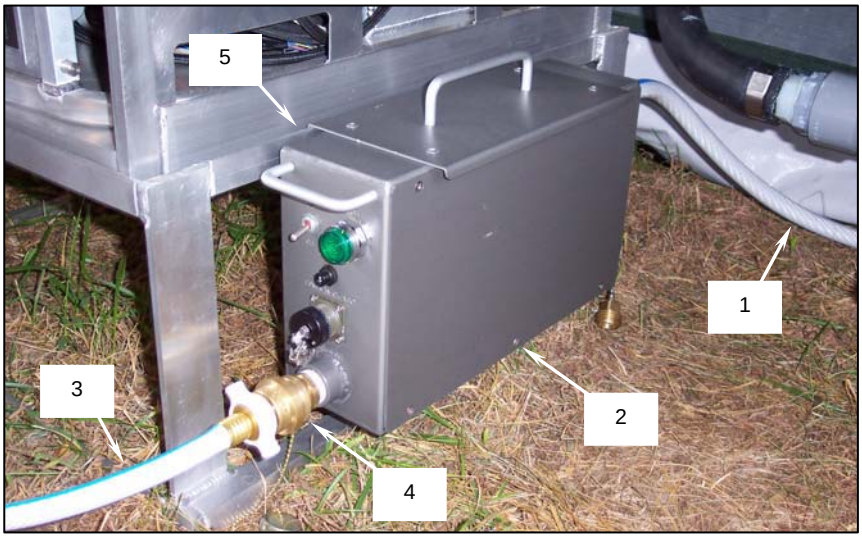


Figure 2. Removing the Sink Fill Pump Assembly.

3. Access the sink fill pump internal components as follows:

   a. Remove the six flat head machine screws (**Figure 3, Item 1)** from the fill pump cover **(Figure 3, Item 2)**.

   b. Remove the cover **(Figure 3, Item 2)**.

4. Remove the pump elbow adapters as follows:

   a. Remove the four self-locking **nuts (Figure 3, Item 3)**, four flat washers **(Figure 3, Item 4)**, and four flat head machine screws **(Figure 3, Item 5)** that secure the pump **(Figure 3, Item 6)** to the sink fill pump assembly enclosure **(Figure 3, Item 7)**.

   b. Slide out the pump suction elbow retaining tab **(Figure 3, Item 8)** and pull the suction elbow **(Figure 3, Item 9)** out of the pump. Remove the pump discharge elbow **(Figure 3, Item 10)** the same way.

   c. Loosen the hose clamp **(Figure 3, Item 11)** at the pump suction elbow **(Figure 3, Item 9)** and work the elbow off the suction tube **(Figure 3, Item 12)**.

   d. Loosen the hose clamp **(Figure 3, Item 13)** at the pump discharge elbow **(Figure 3, Item 10)** and work the elbow off the discharge tube **(Figure 3, Item 14)**.

5. Inspect the suction tube **(Figure 3, Item 12)** and discharge tube **(Figure 3, Item 14)** for damage or deterioration. Replace the suction and discharge tubing if they are damaged or deteriorated (see WP 0025 00).

6. Discard the old elbow adapters.

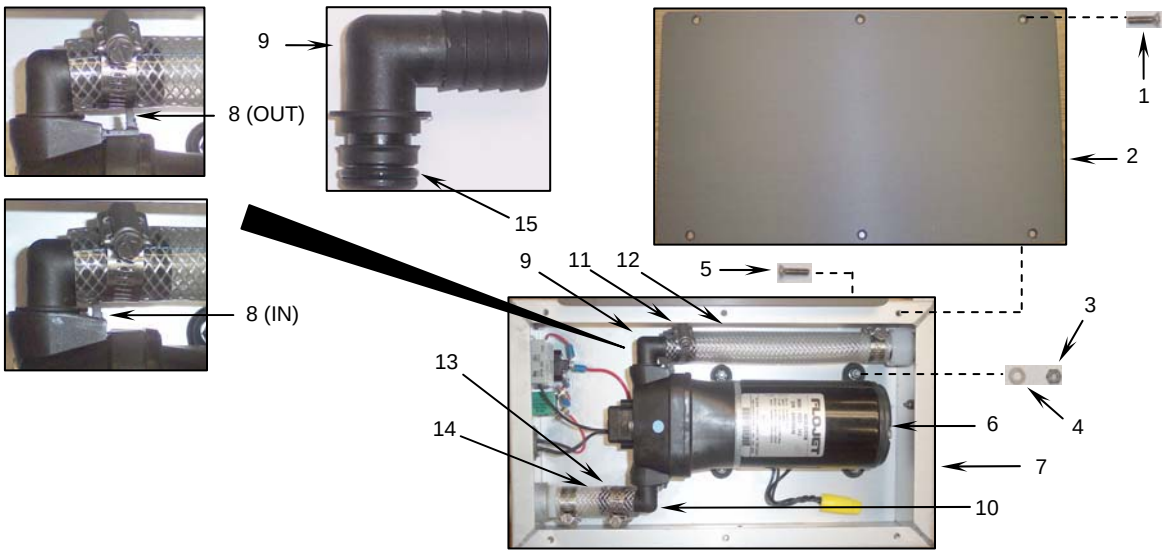


Figure 3. Removing the Sink Fill Pump Assembly Quick Disconnect Elbows.

7. Install the new elbow adapters as follows:

   a. Ensure that an O-ring **(Figure 4, Item 1)** is in place on both of the new elbow adapters.

   b. Ensure that the loosened hose clamp **(Figure 4, Item 2)** is on the suction tube **(Figure 4, Item 3)**.

c. Push the ribbed end of one of the elbow adapters into the suction tube **(Figure 4, Item 3)**.

d. Slide the hose clamp **(Figure 4, Item 2)** over the tube and adapter end and tighten.

e. Ensure that the loosened hose clamp **(Figure 4, Item 4)** is on the discharge tube **(Figure 4, Item 5)**.

f. Push the ribbed end of a second elbow adapter into the discharge tube **(Figure 4, Item 5)**.

g. Slide the hose clamp **(Figure 4, Item 4)** over the tube and adapter end and tighten.

h. Ensure that an O-ring **(Figure 4, Item 1)** is in place on the suction elbow **(Figure 4, Item 6)**, then slide out the pump suction elbow retaining tab **(Figure 4, Item 7)** and insert the pump suction elbow into the pump. Push the retaining tab all the way in.

i. Ensure that an O-ring **(Figure 4, Item 1)** is in place on the discharge elbow (**Figure 4, Item 8)**, then slide out the pump suction elbow retaining tab **(Figure 4, Item 7)** and insert the pump discharge elbow into the pump. Push the retaining tab all the way in.

j. Position the pump **(Figure 4, Item 9)** in the enclosure **(Figure 4, Item 10)** and secure with the four flat head machine screws **(Figure 4, Item 11)**, four flat washers **(Figure 4, Item 12)**, and four self-locking nuts **(Figure 4, Item 13)**.

k. Apply sealing compound to the six flat head machine screws **(Figure 4, Item 14)**. Secure the cover **(Figure 4, Item 15)** to the enclosure **(Figure 4, Item 10)** using the six screws.

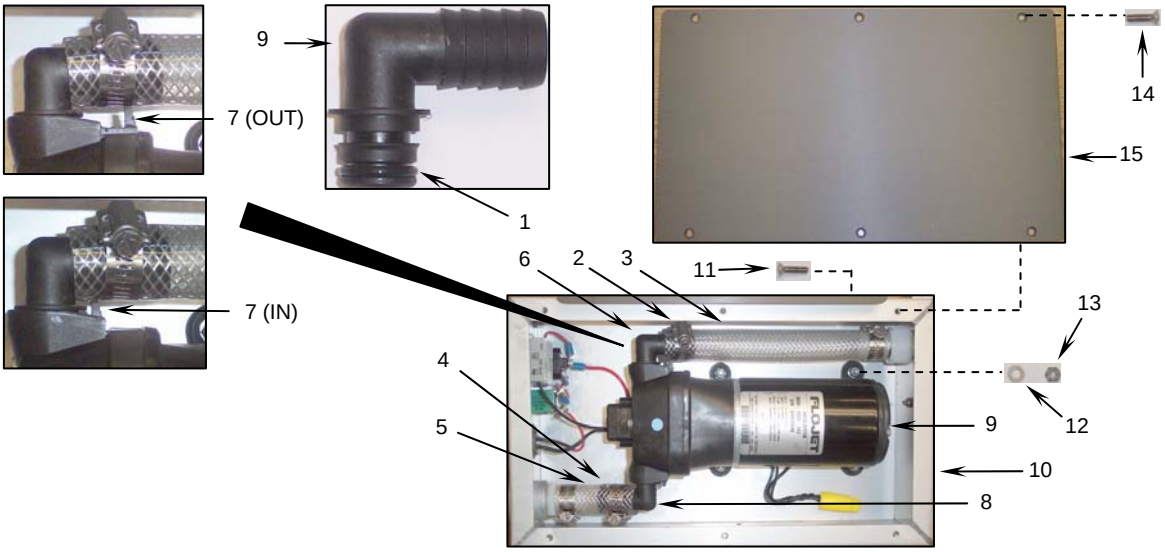


Figure 4. Installing the Sink Fill Pump Assembly Quick Disconnect Elbows.

8. Install the sink fill pump IAW WP 0006 00, Assembly and Preparation for Use procedures.

9. Observing the Electrical Shock Warning, connect the sink fill pump to its power source IAW WP 0006 00, Assembly and Preparation for Use procedures.

10. Operate the sink fill pump IAW WP 0006 00, Operating Procedures.
11. Observe the sink fill pump for leaks and proper operation.

END OF WORK PACKAGE

UNIT MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-2, NSN 7360-01-496-2112
FILL PUMP ASSEMBLY: TUBING, NONMETALLIC
REPAIR

INITIAL SETUP:

Tools and Special Tools
Tool Kit, General Mechanic's: Automotive (WP 0051 00, Table 2, Item 2)

Material/Parts
Clamp, Hose (WP 0061 00, Item 18)
Sealing Compound (WP 0070 00, Item 10)
Tubing, Nonmetallic (WP 0061 00, Item 19)
Tubing, Nonmetallic (WP 0061 00, Item 22)
Tubing, Nonmetallic (WP 0065 00, Item 5)

Personnel Required
Quartermaster and Chemical Equipment Repairer 63J10 (1)

References
TM 10-7310-281-13&P
WP 0006 00
WP 0024 00

Equipment Condition
The FSC is energized and operating.

GENERAL

This work package contains the procedures for repairing the sink fill pump assembly by replacing the internal tubing.

REPAIR

WARNING

Electrical high voltage and current cannot be seen, but in contact with energized equipment can kill you, render you unconscious, or severely burn you. Electricity is unlike most other dangerous things you can come in contact with because it gives no warning. To ensure your safety and that of other maintenance personnel, do not perform any maintenance on electrical equipment unless all power is removed. Failure to observe this warning may result in electrical shock injury or death (electrocution).

1. Remove power from the sink fill pump assembly as follows:

   a. Shut off the MBUs IAW TM 10-7310-281-13&P.

   b. Switch off the sink fill pump assembly power switch **(Figure 1, Item 1)**.

   c. Switch off the power converter power switch **(Figure 1, Item 2)**.

   d. Disconnect both DC cables **(Figure 1, Item 3)** and **(Figure 1, Item 4)** from the power converter and cap the connectors.

   e. Disconnect the two-branch power cable **(Figure 1, Item 5)** from the sink fill pump assembly and cap the connector.

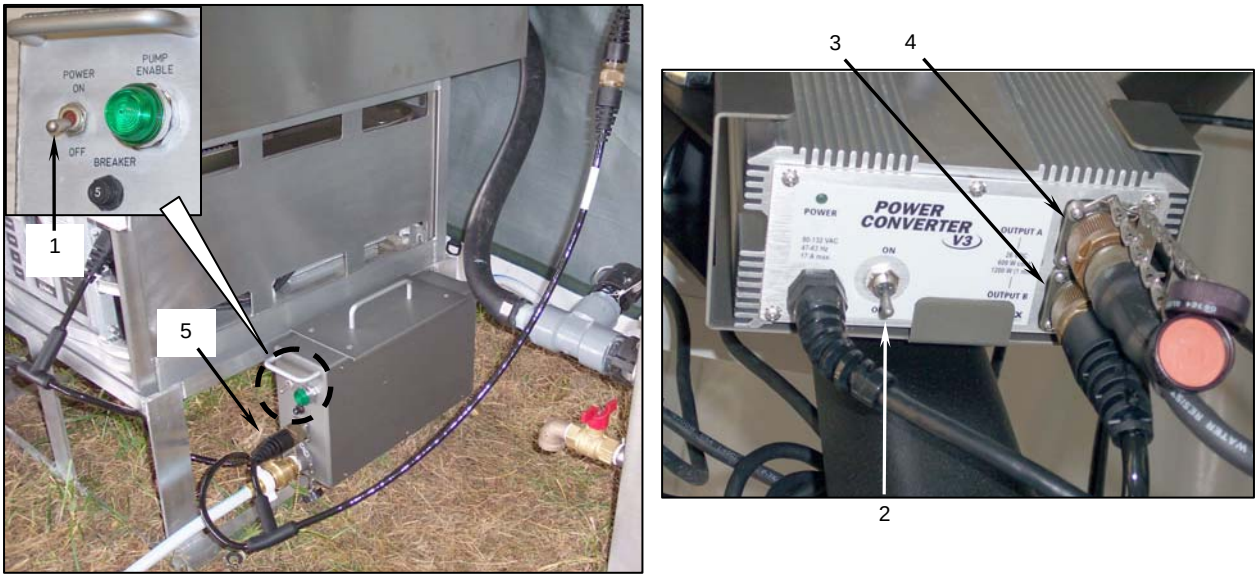


Figure 1. Removing Power from the Sink Fill Pump Assembly.

2. Remove the sink fill pump assembly as follows:

   a. Shut off the potable water supply to the sink fill pump assembly at its source.

   b. Disconnect the 50-ft water supply hose **(Figure 2, Item 1)** from the potable water supply.

   c. Disconnect the 50-ft water supply hose (**Figure 2, Item 1)** from the back of the sink fill pump assembly **(Figure 2, Item 2)** and drain the hose toward the source end.

   d. Disconnect the 15-ft sink fill hose **(Figure 2, Item 3)** from the vacuum breaker **(Figure 2, Item 4)** at the front of the fill pump assembly and secure the cap to the vacuum breaker.

   e. Lift the sink fill pump assembly **(Figure 2, Item 2)** off the sink assembly base rack **(Figure 2, Item 5)**.

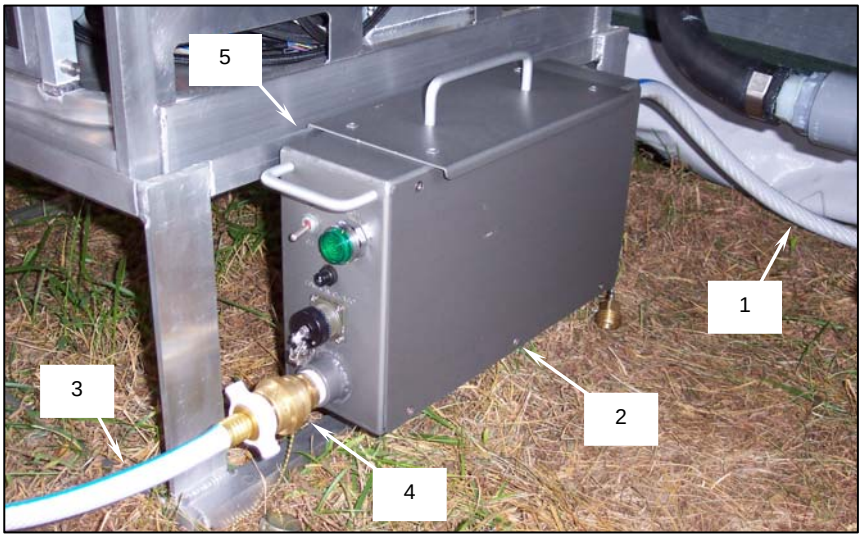


Figure 2. Removing the Sink Fill Pump Assembly.

3. Access the sink fill pump internal components as follows:

   a. Remove the six flat head machine screws **(Figure 3, Item 1)** from the fill pump cover **(Figure 3, Item 2)**.

   b. Remove the cover **(Figure 3, Item 2)**.

4. Remove the internal tubing as follows:

   a. Remove the four self-locking nuts **(Figure 3, Item 3)**, four flat washers **(Figure 3, Item 4)**, and four flat head machine screws **(Figure 3, Item 5)** that secure the pump **(Figure 3, Item 6)** to the sink fill pump assembly enclosure **(Figure 3, Item 7)**.

   b. Slide out the pump suction elbow retaining tab **(Figure 3, Item 8)** and pull the suction elbow **(Figure 3, Item 9)** out of the pump. Remove the pump discharge elbow **(Figure 3, Item 10)** the same way.

   c. Loosen the hose clamp **(Figure 3, Item 11)** at the pump suction elbow **(Figure 3, Item 9)** and work the elbow off the suction tubing **(Figure 3, Item 12)**.

   d. Loosen the hose clamp **(Figure 3, Item 13)** at the pump discharge elbow **(Figure 3, Item 10)** and work the elbow off the discharge tubing **(Figure 3, Item 14)**.

   e. Inspect the elbows **(Figure 3, Item 9)** and **(Figure 3, Item 10)** and the O-rings **(Figure 3, Item 15)** on both elbows for damage or deterioration. Replace the elbow and O-ring if either is damaged or deteriorated (see WP 0024 00).

   f. Loosen the hose clamp **(Figure 3, Item 16)** at the inlet of the suction tubing **(Figure 3, Item 12)**.

   g. Work the suction tubing **(Figure 3, Item 12)** off the inlet adapter **(Figure 3, Item 17)**.

   h. Loosen the hose clamp **(Figure 3, Item 18)** at the outlet of the discharge tubing **(Figure 3, Item 14)**.

   i. Work the discharge tubing **(Figure 3, Item 14)** off the outlet adapter **(Figure 3, Item 19)**.

   j. Inspect the hose clamps. Replace if needed.

   k. Discard the suction and discharge tubing.

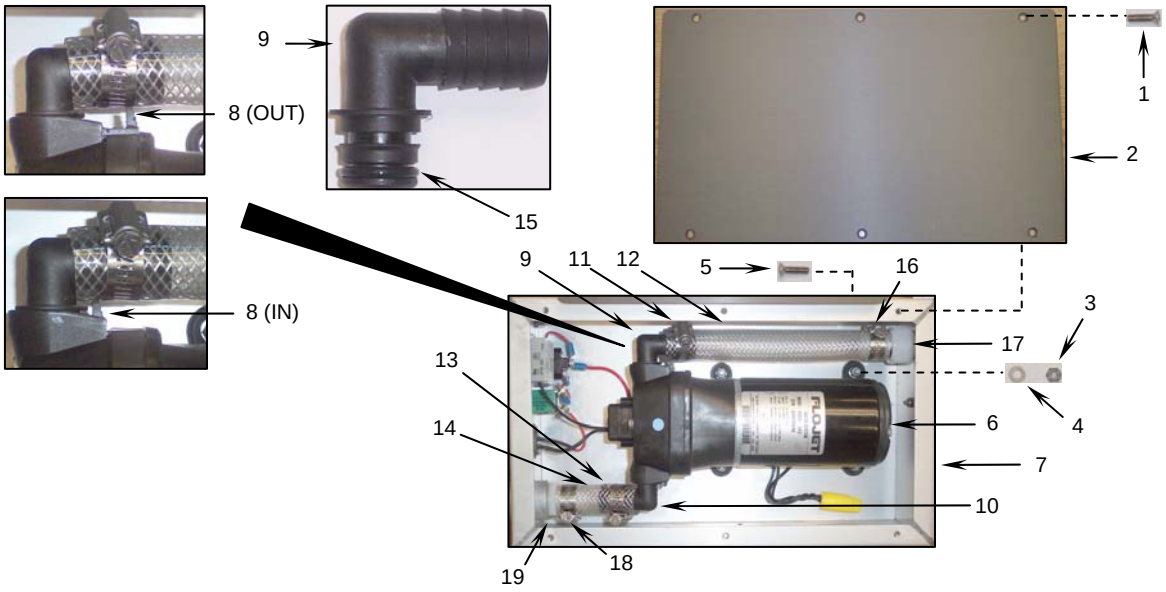


Figure 3. Removing the Sink Fill Pump Assembly Internal Tubing.

5. Install the new tubing as follows:

   a. Measure and cut one piece of long tubing **(Figure 4, Item 8)** to length as required from bulk.

   b. Measure and cut a second piece of shorter tubing **(Figure 4, Item 3)** to length as required from bulk.

   c. Slide two hose clamps **(Figure 4, Item 1)** and **(Figure 4, Item 2)** over the shorter tubing **(Figure 4, Item 3)**.

   d. Push one end of the shorter tubing **(Figure 4, Item 3)** onto the discharge elbow **(Figure 4, Item 4)** and the other end onto the outlet adapter **(Figure 4, Item 5)**.

   e. Slide two hose clamps **(Figure 4, Item 6)** and **(Figure 4, Item 7)** over the longer tubing **(Figure 4, Item 8)**.

   f. Push one end of the longer tubing **(Figure 4, Item 8)** onto the suction elbow **(Figure 4, Item 9)** and the other end onto the inlet adapter **(Figure 4, Item 10)**.

   g. Ensure that an O-ring **(Figure 4, Item 11)** is in place on the suction elbow **(Figure 4, Item 9)** and that the pump suction elbow retaining tab **(Figure 4, Item 12)** is pulled out, then insert the pump suction elbow into the pump **(Figure 4, Item 13)**. Push the retaining tab in all the way.

   h. Ensure that an O-ring **(Figure 4, Item 11)** is in place on the discharge elbow **(Figure 4, Item 4)** and that the pump discharge elbow retaining tab **(Figure 4, Item 12)** is pulled out, then insert the pump discharge elbow into the pump **(Figure 4, Item 13)**. Push the retaining tab all the way in.

   i. Position the pump **(Figure 4, Item 13)** in the enclosure **(Figure 4, Item 14)** and secure with the four flat head machine screws **(Figure 4, Item 15)**, four flat washers **(Figure 4, Item 16)**, and four self-locking nuts **(Figure 4, Item 17)**.

   j. Position and tighten all four hose clamps **(Figure 4, Item 1)**, **(Figure 4, Item 2)**, **(Figure 4, Item 6)**, and **(Figure 4, Item 7)**.

k. Apply sealing compound to the six flat head machine screws **(Figure 4, Item 18)**. Secure the fill pump cover **(Figure 4, Item 19)** to the sink fill pump assembly enclosure **(Figure 4, Item 14)** using the six screws.

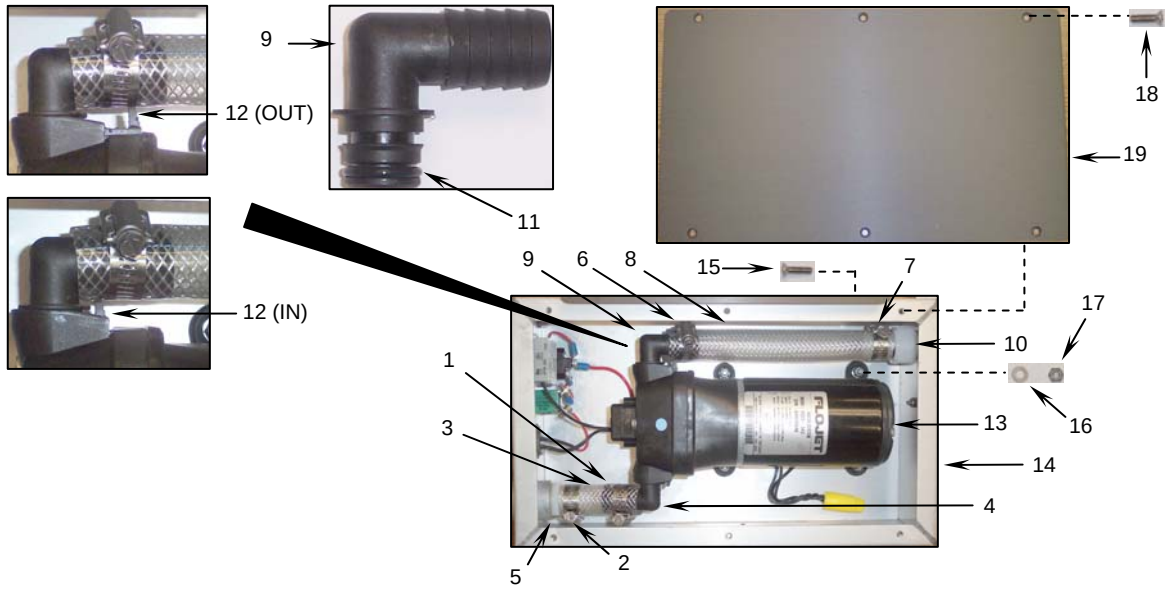


Figure 4. Installing the Sink Fill Pump Assembly Internal Tubing.

6. Install the sink fill pump IAW WP 0006 00, Assembly and Preparation for Use procedures.

7. Observing the Electrical Shock Warning, connect the sink fill pump to its power source IAW WP 0006 00, Assembly and Preparation for Use procedures.

8. Operate the sink fill pump IAW WP 0006 00, Operating Procedures.

9. Observe the sink fill pump for leaks and proper operation.

END OF WORK PACKAGE

UNIT MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-2, NSN 7360-01-496-2112
FILL PUMP ASSEMBLY: STRAIGHT ADAPTERS
REPAIR

INITIAL SETUP:

Tools and Special Tools
Tool Kit, General Mechanic's: Automotive (WP 0051 00, Table 2, Item 2)

Material/Parts
Adapter, Straight (WP 0061 00, Item 17)
Adapter, Straight, Pipe to Hose (WP 0061 00, Item 23)
Clamp, Hose (WP 0061 00, Item 18)
Sealing Compound (WP 0070 00, Item 10)

Personnel Required
Quartermaster and Chemical Equipment Repairer 63J10 (1)

References
TM 10-7310-281-13&P
WP 0006 00

Equipment Condition
The FSC is energized and operating.

GENERAL

This work package contains the procedures for repairing the sink fill pump assembly by replacing the internal straight adapters.

REPAIR

WARNING

Electrical high voltage and current cannot be seen, but in contact with energized equipment can kill you, render you unconscious, or severely burn you. Electricity is unlike most other dangerous things you can come in contact with because it gives no warning. To ensure your safety and that of other maintenance personnel, do not perform any maintenance on electrical equipment unless all power is removed. Failure to observe this warning may result in electrical shock injury or death (electrocution).

1. Remove power from the sink fill pump assembly as follows:

   a. Shut off the MBUs IAW TM 10-7310-281-13&P.

   b. Switch off the sink fill pump assembly power switch **(Figure 1, Item 1)**.

   c. Switch off the power converter power switch **(Figure 1, Item 2)**.

   d. Disconnect both DC cables **(Figure 1, Item 3)** and **(Figure 1, Item 4)** from the power converter and cap the connectors.

   e. Disconnect the two-branch power cable **(Figure 1, Item 5)** from the sink fill pump assembly and cap the connector.

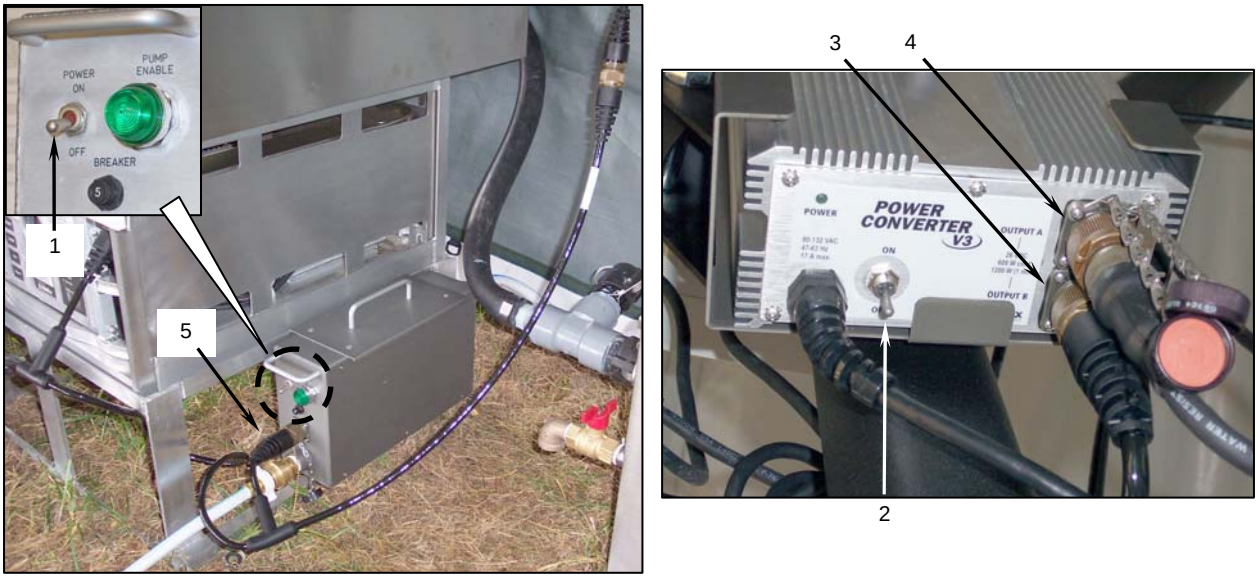


Figure 1. Removing Power from the Sink Fill Pump Assembly.

2. Remove the sink fill pump assembly as follows:

   a. Shut off the potable water supply to the sink fill pump assembly at its source.

   b. Disconnect the 50-ft water supply hose **(Figure 2, Item 1)** from the potable water supply.

   c. Disconnect the 50-ft water supply hose **(Figure 2, Item 1)** from the back of the sink fill pump assembly **(Figure 2, Item 2)** and drain the hose toward the source end.

   d. Disconnect the 15-ft sink fill hose **(Figure 2, Item 3)** from the vacuum breaker **(Figure 2, Item 4)** at the front of the fill pump assembly and secure the cap to the vacuum breaker.

   e. Lift the sink fill pump assembly **(Figure 2, Item 2)** off the sink assembly base rack **(Figure 2, Item 5)**.

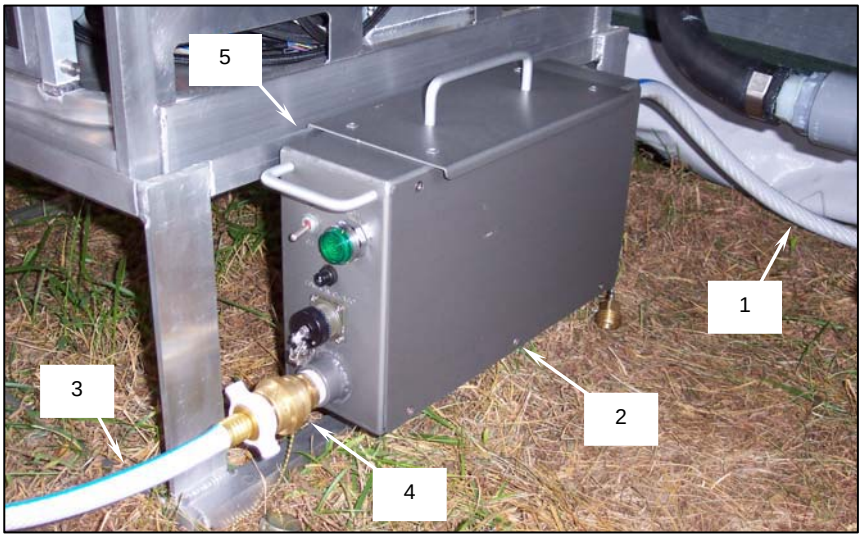


Figure 2. Removing the Sink Fill Pump Assembly.

3. Access the sink fill pump internal components as follows:

   a. Remove the six flat head machine screws **(Figure 3, Item 1)** from the fill pump cover **(Figure 3, Item 2)**.

   b. Remove the cover **(Figure 3, Item 2)**.

4. Remove the internal straight adapters as follows:

   a. Remove the four self-locking nuts **(Figure 3, Item 3)**, four flat washers **(Figure 3, Item 4)**, and four flat head machine screws **(Figure 3, Item 5)** that secure the pump **(Figure 3, Item 6)** to the sink fill pump assembly enclosure **(Figure 3, Item 7)**.

   b. Loosen the hose clamp **(Figure 3, Item 8)** or **(Figure 3, Item 9)** at the adapter **(Figure 3, Item 10)** or **(Figure 3, Item 11)** to be replaced.

   c. Work the tubing **(Figure 3, Item 12)** or **(Figure 3, Item 13)** off the adapter (**Figure 3, Item 10)** or **(Figure 3, Item 11)**.

   d. Inspect the hose clamp **(Figure 3, Item 8)** or **(Figure 3, Item 9)**. Replace if needed.

   e. Unscrew the adapter **(Figure 3, Item 10)** or **(Figure 3, Item 11)** from the enclosure.

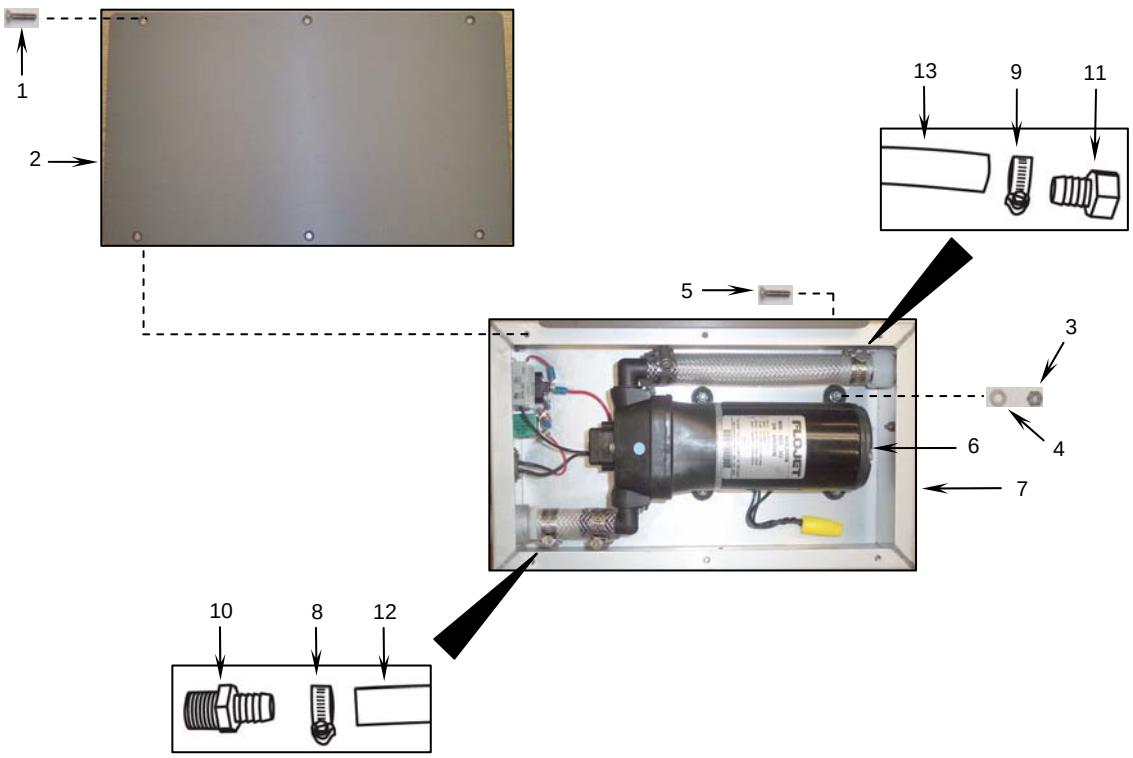


Figure 3. Removing the Sink Fill Pump Assembly Internal Straight Adapters.

5. Install the new straight adapters as follows:

   a. Apply sealing compound to the threads of the adapter **(Figure 4, Item 1)** or to the threads of the sink fill pump enclosure pipe nipple **(Figure 4, Item 2)**.

   b. Thread the new adapter **(Figure 4, Item 1)** or **(Figure 4, Item 3)** onto the enclosure.

   c. Slide the hose clamp **(Figure 4, Item 4)** or **(Figure 4, Item 5)** over the tubing (**Figure 4, Item 6)** or **(Figure 4, Item 7)**.

   d. Push the end of the tubing (**Figure 4, Item 6)** or **(Figure 4, Item 7)** onto the new adapter **(Figure 4, Item 1)** or **(Figure 4, Item 3)**.

   e. Slide the hose clamp **(Figure 4, Item 4)** or **(Figure 4, Item 5)** over the tubing end (**Figure 4, Item 6)** or **(Figure 4, Item 7)** and the adapter **(Figure 4, Item 1)** or **(Figure 4, Item 3)** and tighten.

   f. Position the pump **(Figure 4, Item 8)** in the enclosure **(Figure 4, Item 9)** and secure with the four flat head machine screws **(Figure 4, Item 10)**, four flat washers **(Figure 4, Item 11)**, and four self-locking nuts **(Figure 4, Item 12)**.

   g. Apply sealing compound to the six flat head machine screws **(Figure 4, Item 13)**. Secure the fill pump cover **(Figure 4, Item 14)** to the sink fill pump assembly enclosure **(Figure 4, Item 9)** using the six screws.

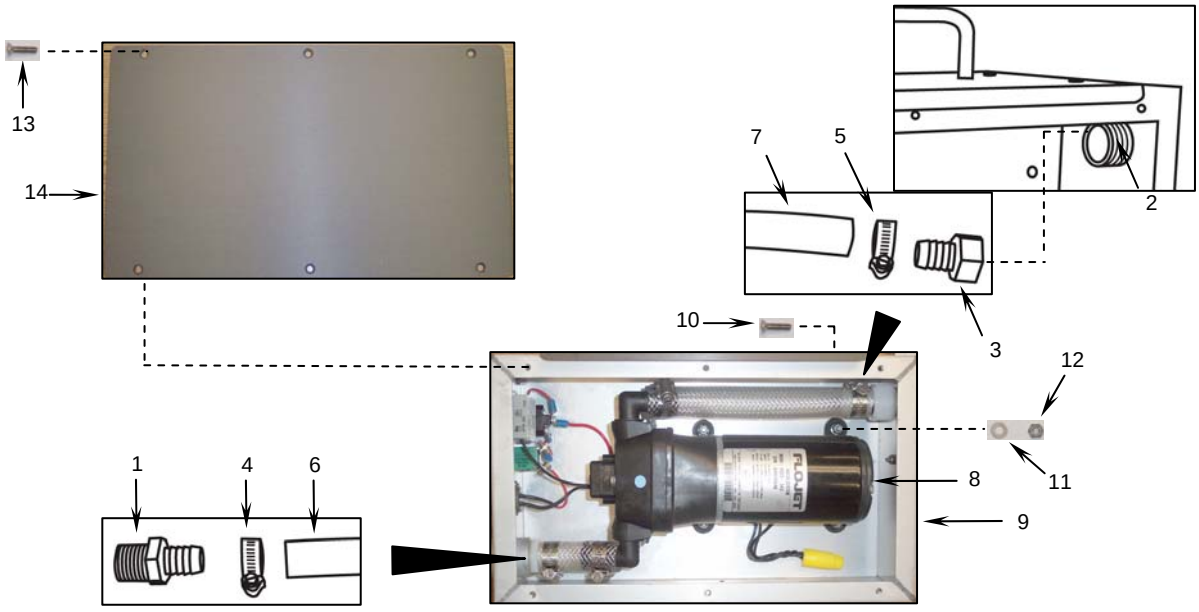


Figure 4. Installing the Sink Fill Pump Assembly Internal Straight Adapters.

6. Install the sink fill pump IAW WP 0006 00, Assembly and Preparation for Use procedures.

7. Observing the Electrical Shock Warning, connect the sink fill pump to its power source IAW WP 0006 00, Assembly and Preparation for Use procedures.

8. Operate the sink fill pump IAW WP 0006 00, Operating Procedures.

9. Observe the sink fill pump for leaks and proper operation.

END OF WORK PACKAGE

UNIT MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-2, NSN 7360-01-496-2112
FILL PUMP ASSEMBLY: CIRCUIT BREAKER
TEST, REPAIR

INITIAL SETUP:

Tools and Special Tools
Tool Kit, General Mechanic's: Automotive (WP 0051 00, Table 2, Item 2)

Material/Parts
Circuit Breaker (WP 0061 00, Item 6)
Sealant, Corrosion Preventative (WP 0070 00, Item 8)
Sealing Compound (WP 0070 00, Item 10)
Tag, Marker (WP 0070 00, Item 11)

Personnel Required
Quartermaster and Chemical Equipment Repairer 63J10 (1)

References
TM 10-7310-281-13&P
WP 0006 00

Drawings Required
Sink Fill Pump Assembly Wiring Diagram

Equipment Condition
The FSC is energized and operating.

GENERAL

This work package contains procedures for testing the circuit breaker in the sink fill pump assembly and for repairing the sink fill pump assembly by replacing the circuit breaker.

TEST

Perform an electrical continuity test on the circuit breaker as follows:

WARNING

Electrical high voltage and current cannot be seen, but in contact with energized equipment can kill you, render you unconscious, or severely burn you. Electricity is unlike most other dangerous things you can come in contact with because it gives no warning. To ensure your safety and that of other maintenance personnel, do not perform any maintenance on electrical equipment unless all power is removed. Failure to observe this warning may result in electrical shock injury or death (electrocution).

1. Remove power from the sink fill pump assembly as follows:
   a. Shut off the MBUs IAW TM 10-7310-281-13&P.
   b. Switch off the sink fill pump assembly power switch **(Figure 1, Item 1)**.
   c. Switch off the power converter power switch **(Figure 1, Item 2)**.
   d. Disconnect both DC cables **(Figure 1, Item 3)** and **(Figure 1, Item 4)** from the power converter and cap the connectors.
   e. Disconnect the two-branch power cable **(Figure 1, Item 5)** from the sink fill pump assembly and cap the connector.

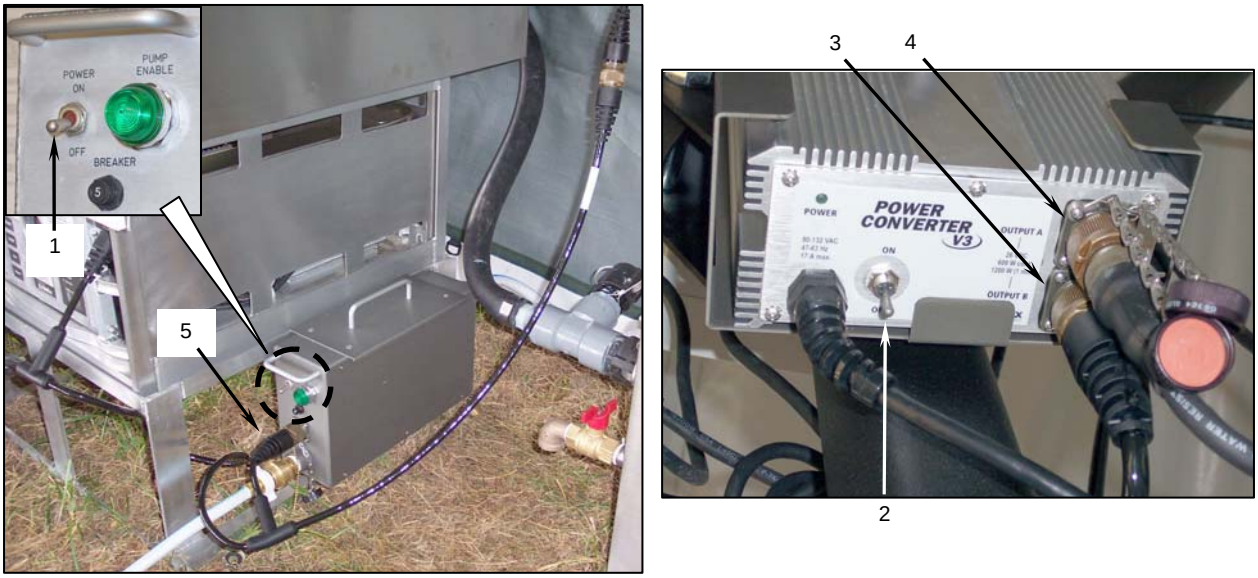


Figure 1. Removing Power from the Sink Fill Pump Assembly.

2. Remove the sink fill pump assembly as follows:

   a. Shut off the potable water supply to the sink fill pump assembly at its source.

   b. Disconnect the 50-ft water supply hose **(Figure 2, Item 1)** from the potable water supply.

   c. Disconnect the 50-ft water supply hose **(Figure 2, Item 1)** from the back of the sink fill pump assembly **(Figure 2, Item 2)** and drain the hose toward the source end.

   d. Disconnect the 15-ft sink fill hose **(Figure 2, Item 3)** from the vacuum breaker **(Figure 2, Item 4)** at the front of the fill pump assembly and secure the cap to the vacuum breaker.

   e. Lift the sink fill pump assembly **(Figure 2, Item 2)** off the sink assembly base rack (**Figure 2, Item 5)**.

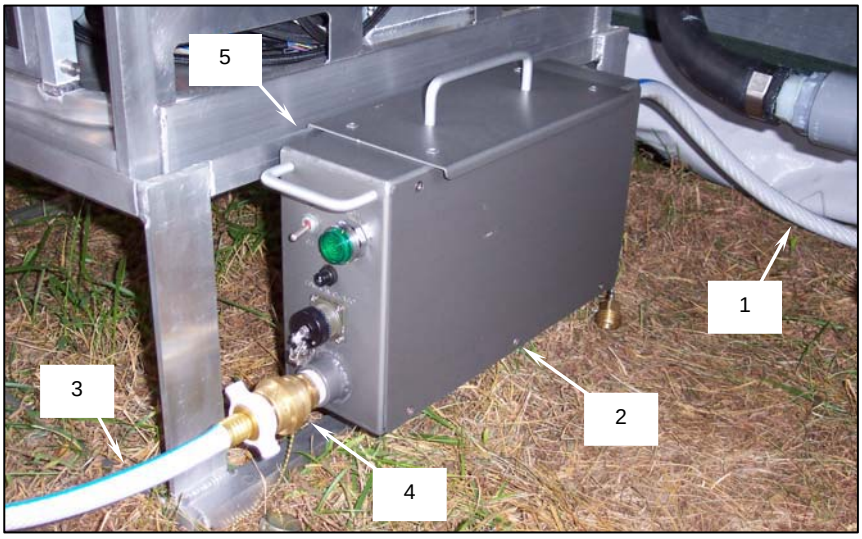


Figure 2. Removing the Sink Fill Pump Assembly.

3. Test the circuit breaker as follow:

   a. Remove the six flat head machine screws **(Figure 3, Item 1)** from the fill pump cover **(Figure 3, Item 2)**.

   b. Remove the cover **(Figure 3, Item 2)**.

   c. With the breaker reset button **(Figure 3, Item 3)** pushed in, place the multimeter test probes on the two terminals **(Figure 3, Item 4)** at the back of the breaker **(Figure 3, Item 5)**. The multimeter should read zero.

4. If the breaker passes the test, return the sink fill pump to operation as follows:

   a. Apply sealing compound to the six flat head machine screws **(Figure 3, Item 1)** and secure the fill pump cover **(Figure 3, Item 2)** to the sink fill pump assembly enclosure **(Figure 3, Item 6)** using the six screws.

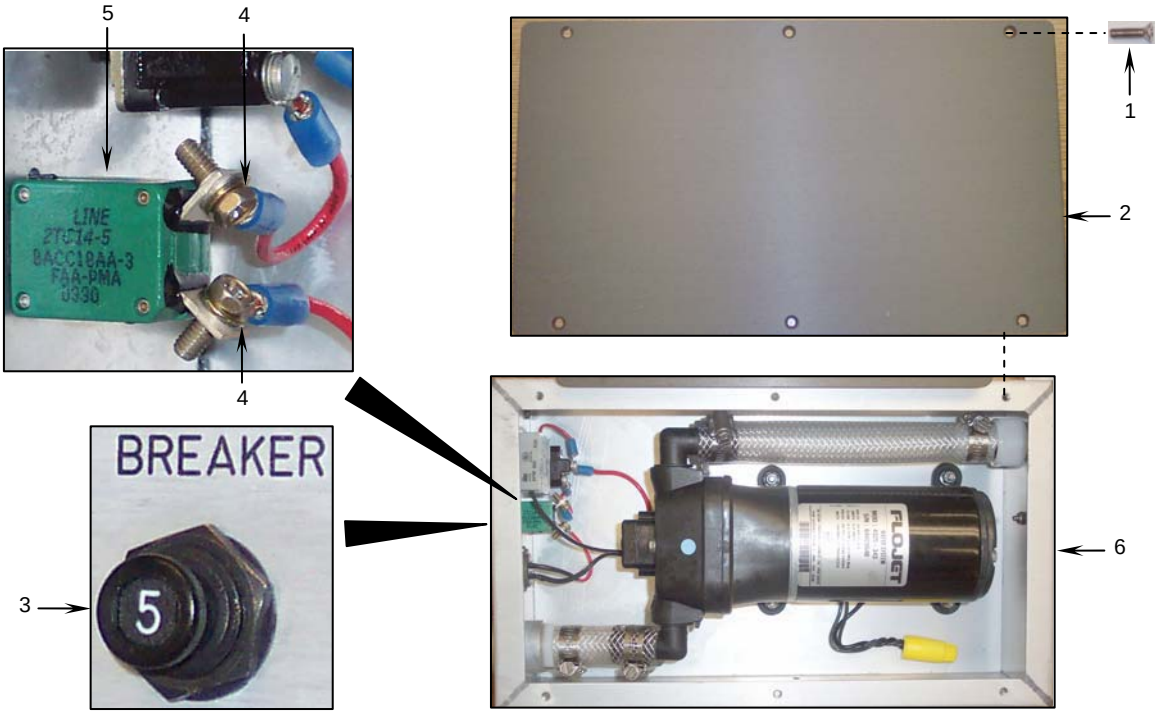


Figure 3. Testing the Fill Pump Assembly Circuit Breaker.

   b. Install the sink fill pump IAW WP 0006 00, Assembly and Preparation for Use procedures.

   c. Observing the Electrical Shock Warning, connect the sink fill pump to its power source IAW WP 0006 00, Assembly and Preparation for Use procedures.

   d. Operate the sink fill pump IAW WP 0006 00, Operating Procedures.

   e. Observe the sink fill pump for leaks and proper operation.

5. If the breaker fails the test, continue with the repair procedure in this work package.

REPAIR

1. Remove the circuit breaker as follows:

   a. Remove and discard the lock nut **(Figure 4, Item 1)** and the lock washer **(Figure 4, Item 2)** from the front of the circuit breaker **(Figure 4, Item 3)**.

   b. Pull the breaker **(Figure 4, Item 3)** out of the fill pump enclosure **(Figure 4, Item 4)**.

   c. Tag and disconnect the two wires **(Figure 4, Item 5)** from the terminals at the back of the circuit breaker **(Figure 4, Item 3)**.

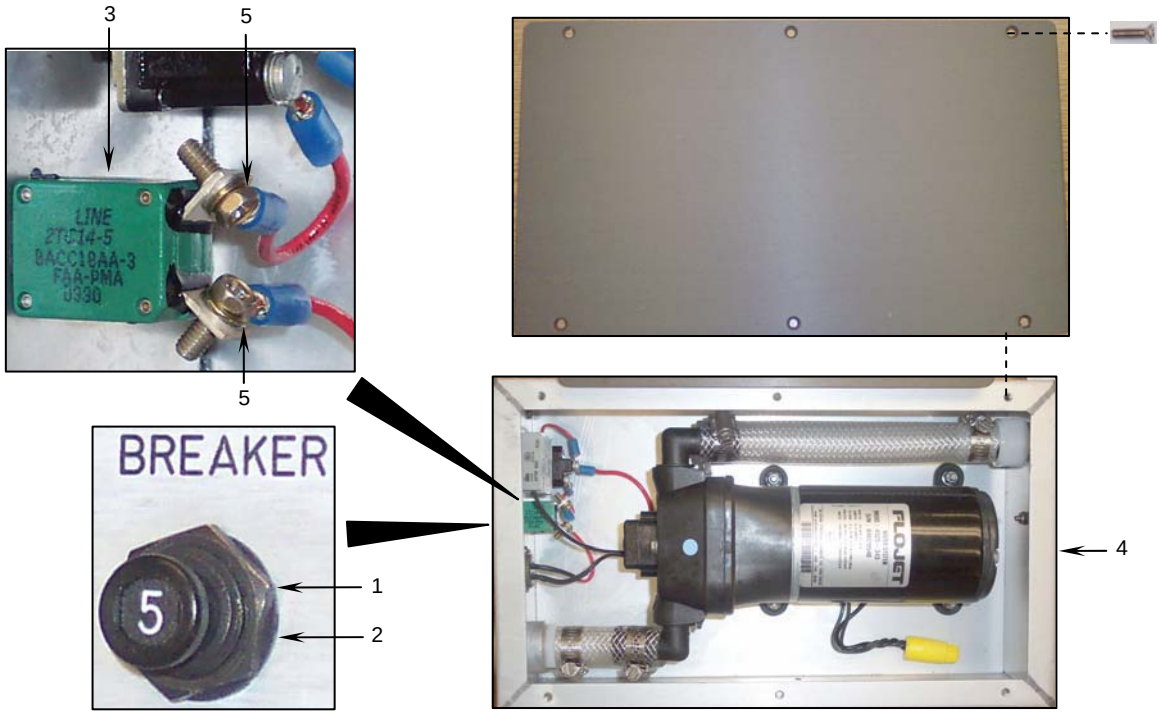


Figure 4. Removing the Sink Fill Pump Assembly Circuit Breaker.

2. Install the new circuit breaker as follows:

   a. Orient the new circuit breaker **(Figure 5, Item 1)** so that the orientation tab is at the top **(Figure 5, Item 2)**.

   b. Connect the two wires **(Figure 5, Item 3)** to the new circuit breaker as tagged.

   c. Insert the new breaker into the fill pump enclosure, ensuring that the orientation tab fits into the notch inside the enclosure above the opening.

   d. Secure the breaker to the enclosure using the lock washer **(Figure 5, Item 4)** and the lock nut **(Figure 5, Item 5)**.

   e. Coat the terminal connections **(Figure 5, Item 3)** at the back of the circuit breaker with corrosion preventative sealant.

f. Apply sealing compound to the six flat head machine screws **(Figure 5, Item 6)** and secure the fill pump cover **(Figure 5, Item 7)** to the sink fill pump assembly enclosure **(Figure 5, Item 8)** using the six screws.

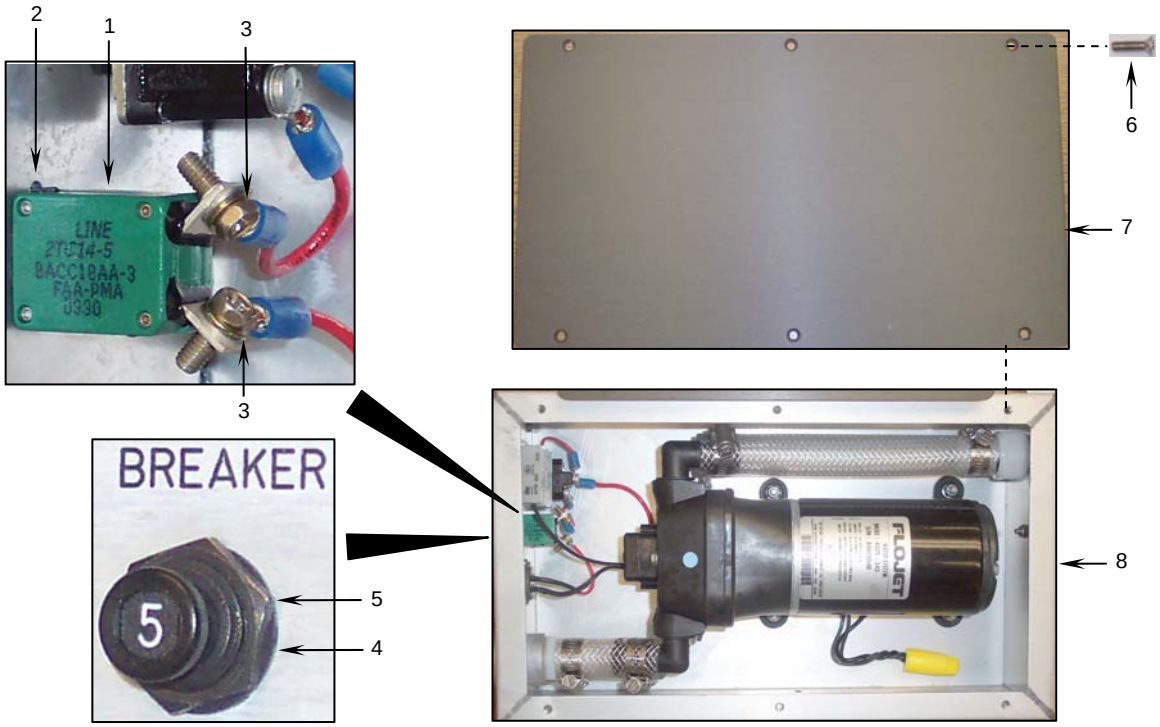


Figure 5. Installing the Sink Fill Pump Assembly Circuit Breaker.

3. Install the sink fill pump IAW WP 0006 00, Assembly and Preparation for Use procedures.

4. Observing the Electrical Shock Warning, connect the sink fill pump to its power source IAW WP 0006 00, Assembly and Preparation for Use procedures.

5. Operate the sink fill pump IAW WP 0006 00, Operating Procedures.

6. Observe the sink fill pump for proper operation.

END OF WORK PACKAGE

UNIT MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-2, NSN 7360-01-496-2112
FILL PUMP ASSEMBLY: SWITCH, TOGGLE
TEST, REPAIR

INITIAL SETUP:

Tools and Special Tools
Tool Kit, General Mechanic's: Automotive
(WP 0051 00, Table 2, Item 2)

Material/Parts
Sealant, Corrosion Preventative
(WP 0070 00, Item 8)
Sealing Compound (WP 0070 00, Item 10)
Switch, Toggle (WP 0061 00, Item 2)
Tag, Marker (WP 0070 00, Item 11)

Personnel Required
Quartermaster and Chemical Equipment
Repairer 63J10 (1)

References
TM 10-7310-281-13&P
WP 0006 00

Drawings Required
Sink Fill Pump Assembly Wiring Diagram

Equipment Condition
The FSC is energized and operating.

GENERAL

This work package contains procedures for testing the power switch in the sink fill pump assembly and for repairing the sink fill pump assembly by replacing the power switch.

TEST

Perform an electrical continuity test on the power switch as follows:

WARNING

Electrical high voltage and current cannot be seen, but in contact with energized equipment can kill you, render you unconscious, or severely burn you. Electricity is unlike most other dangerous things you can come in contact with because it gives no warning. To ensure your safety and that of other maintenance personnel, do not perform any maintenance on electrical equipment unless all power is removed. Failure to observe this warning may result in electrical shock injury or death (electrocution).

1. Remove power from the sink fill pump assembly as follows:

   a. Shut off the MBUs IAW TM 10-7310-281-13&P.

   b. Switch off the sink fill pump assembly power switch **(Figure 1, Item 1)**.

   c. Switch off the power converter power switch **(Figure 1, Item 2)**.

   d. Disconnect both DC cables **(Figure 1, Item 3)** and **(Figure 1, Item 4)** from the power converter and cap the connectors.

   e. Disconnect the two-branch power cable **(Figure 1, Item 5)** from the sink fill pump assembly and cap the connector.

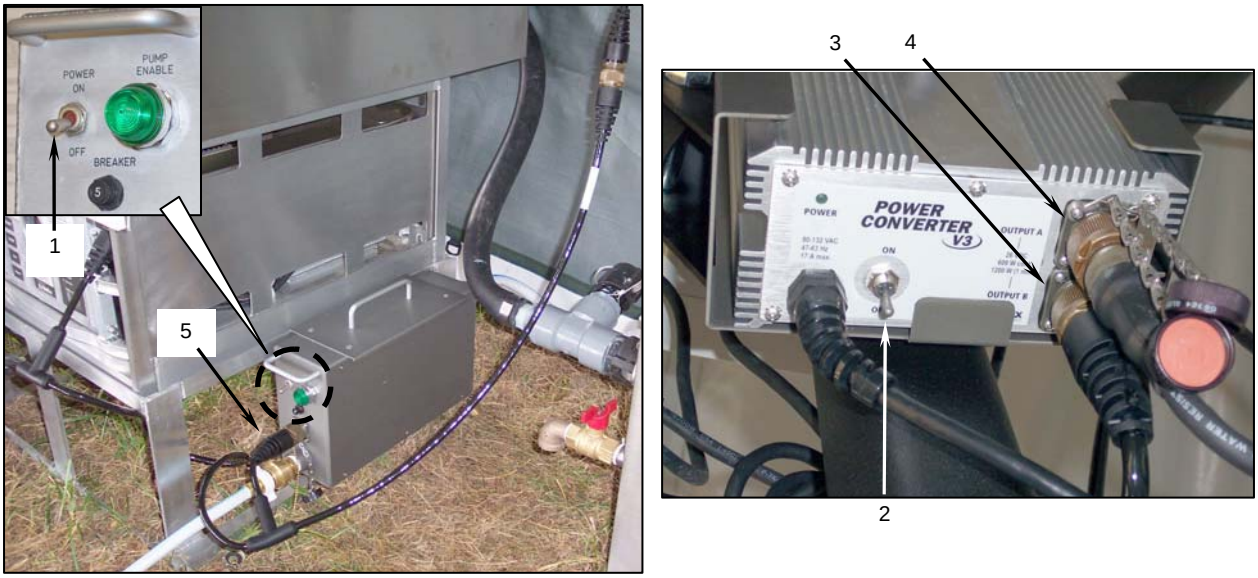


Figure 1. Removing Power from the Sink Fill Pump Assembly.

2. Remove the sink fill pump assembly as follows:

   a. Shut off the potable water supply to the sink fill pump assembly at its source.

   b. Disconnect the 50-ft water supply hose **(Figure 2, Item 1)** from the potable water supply.

   c. Disconnect the 50-ft water supply hose **(Figure 2, Item 1)** from the back of the sink fill pump assembly **(Figure 2, Item 2)** and drain the hose toward the source end.

   d. Disconnect the 15-ft sink fill hose **(Figure 2, Item 3)** from the vacuum breaker **(Figure 2, Item 4)** at the front of the fill pump assembly and secure the cap to the vacuum breaker.

   e. Lift the sink fill pump assembly **(Figure 2, Item 2)** off the sink assembly base rack **(Figure 2, Item 5)**.

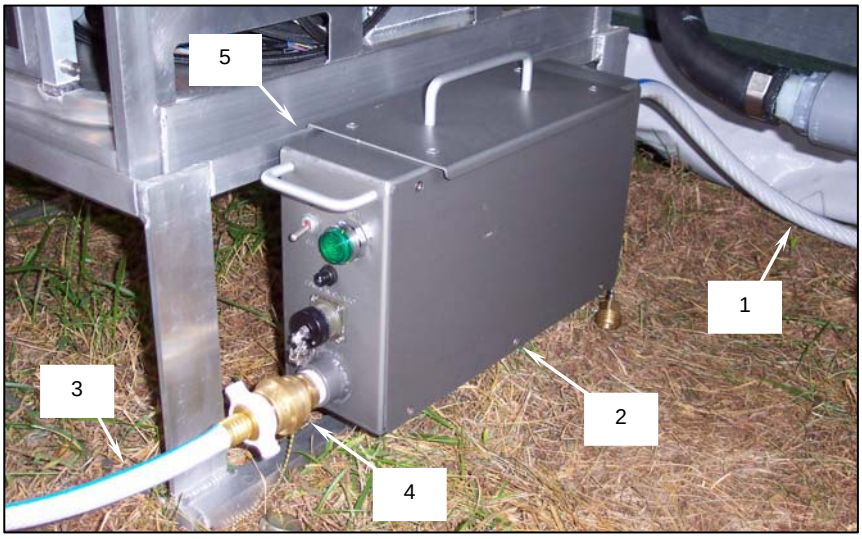


Figure 2. Removing the Sink Fill Pump Assembly.

3. Test the power switch as follows:

   a. Remove the six flat head machine screws **(Figure 3, Item 1)** from the fill pump cover **(Figure 3, Item 2)**.

   b. Remove the cover **(Figure 3, Item 2)**.

   c. With the power switch **(Figure 3, Item 3)** ON, place the multimeter test probes on the two terminals **(Figure 3, Item 4)** at the back of the power switch **(Figure 3, Item 5)**. The multimeter should read zero.

   d. With the power switch **(Figure 3, Item 3)** OFF, place the multimeter test probes on the two terminals **(Figure 3, Item 4)** at the back of the power switch **(Figure 3, Item 5)**. The multimeter should read infinite resistance.

4. If the power switch passes both tests, return the sink fill pump to operation as follows:

   a. Apply sealing compound to the six flat head machine screws **(Figure 3, Item 1)** and secure the fill pump cover **(Figure 3, Item 2)** to the sink fill pump assembly enclosure **(Figure 3, Item 6)** using the six screws **(Figure 3, Item 1)**.

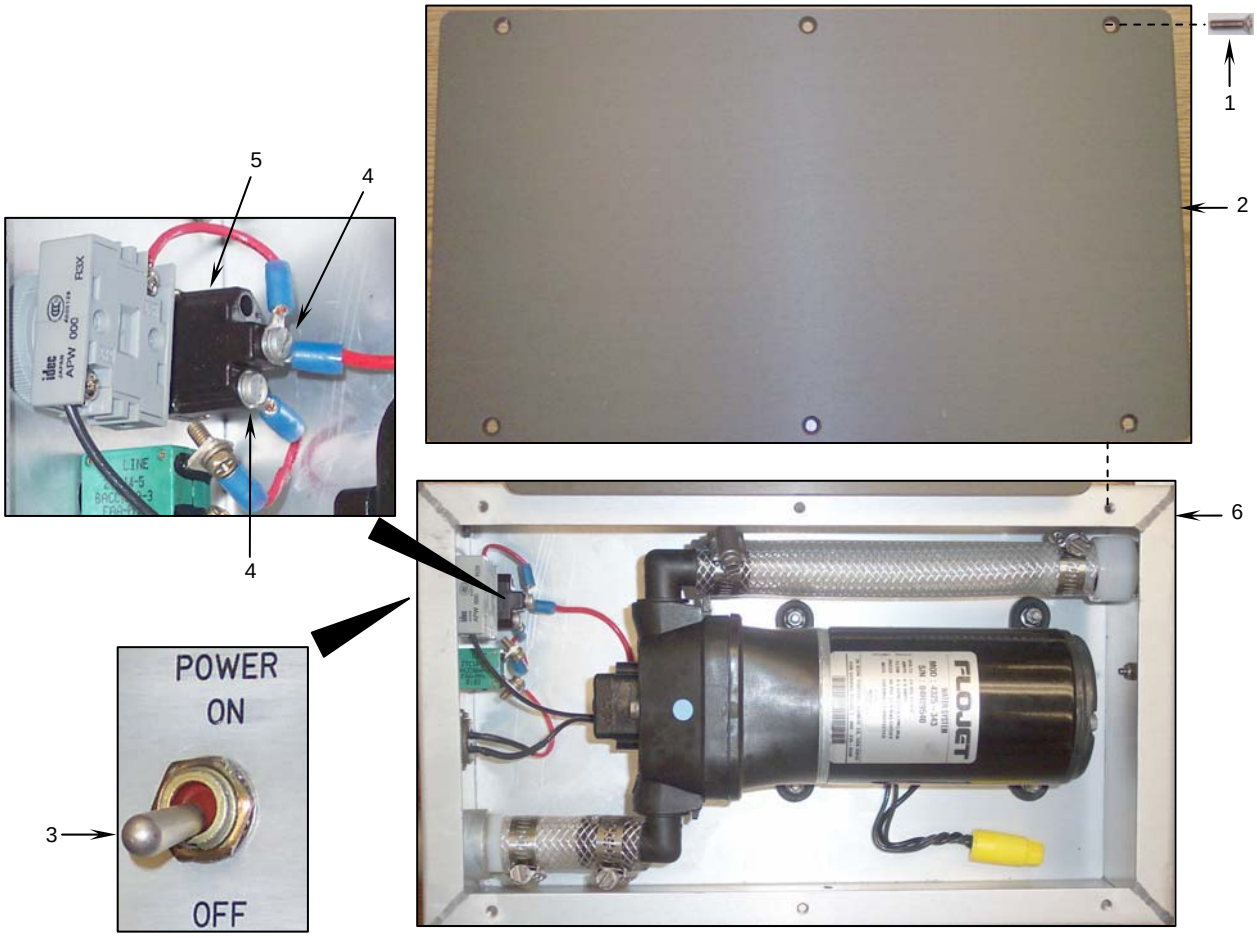


Figure 3. Testing the Sink Fill Pump Assembly Power Switch.

b. Install the sink fill pump IAW WP 0006 00, Assembly and Preparation for Use procedures.

c. Observing the Electrical Shock Warning, connect the sink fill pump to its power source IAW WP 0006 00, Assembly and Preparation for Use procedures.

d. Operate the sink fill pump IAW WP 0006 00, Operating Procedures.

e. Observe the sink fill pump for leaks and proper operation.

5. If the power switch fails either test, continue with the repair procedure in this work package.

REPAIR

1. Remove the power switch as follows:

a. Remove and discard the lock nut **(Figure 4, Item 1)** and lock washer **(Figure 4, Item 2)** from the front of the power switch **(Figure 4, Item 3)**.

b. Pull the power switch assembly **(Figure 4, Item 4)** out of the fill pump enclosure **(Figure 4, Item 5)**.

c. Tag and disconnect the three wires **(Figure 4, Item 6)** from the two terminals at the back of the power switch.

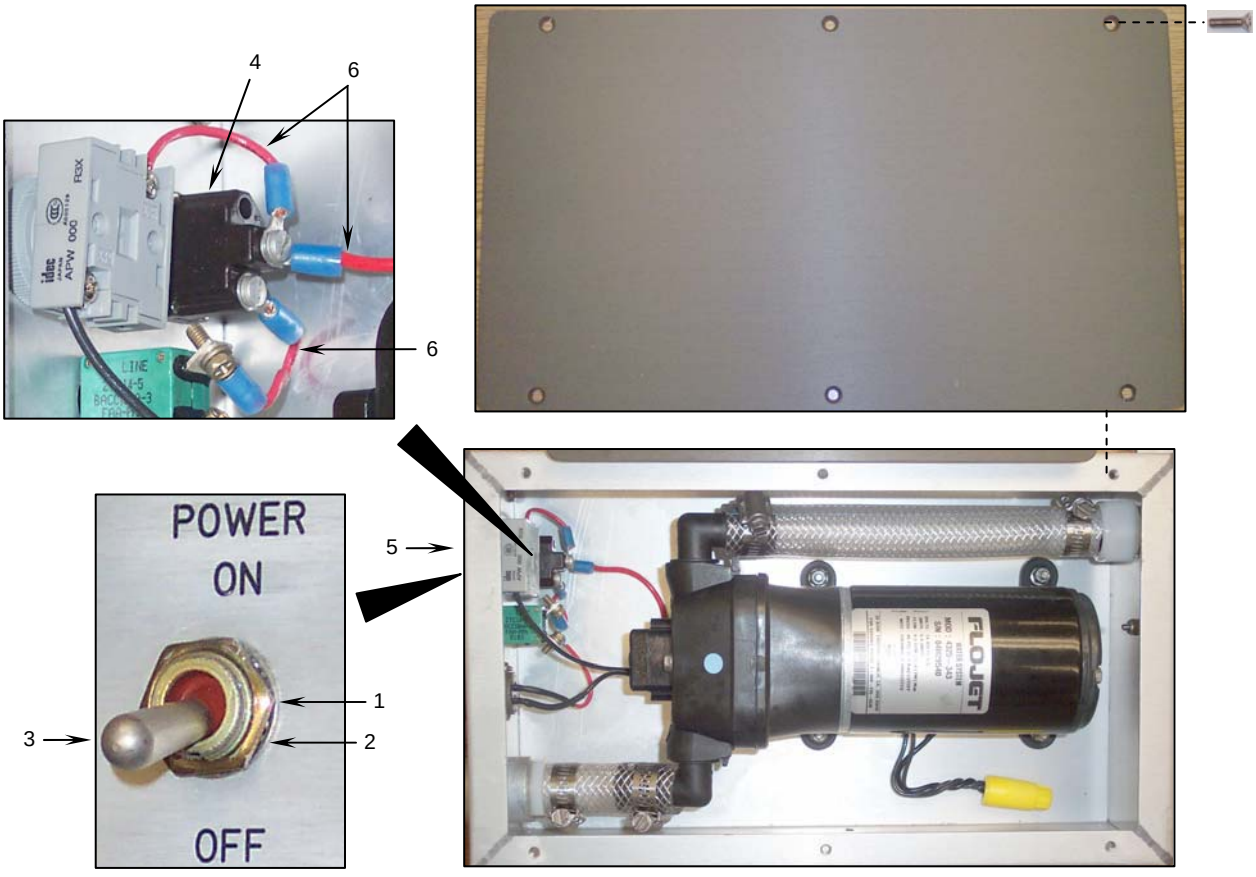


Figure 4. Removing the Sink Fill Pump Assembly Power Switch.

2. Install the new power switch as follows:

   a. Position the new power switch **(Figure 5, Item 1)** so that the slot **(Figure 5, Item 2)** in the threaded shaft is at the bottom.

   b. Connect the three wires **(Figure 5, Item 3)** to the new power switch as tagged.

   c. Insert the new power switch into the fill pump enclosure, ensuring that the slot is positioned at the bottom of the opening in the enclosure.

   d. Secure the power switch to the enclosure using the lock washer **(Figure 5, Item 4)** and the lock nut **(Figure 5, Item 5)**.

   e. Coat the terminal connections **(Figure 5, Item 6)** at the back of the power switch with corrosion preventative sealant.

   f. Apply sealing compound to the six flat head machine screws **(Figure 5, Item 7)** and secure the fill pump cover **(Figure 5, Item 8)** to the sink fill pump assembly enclosure **(Figure 5, Item 9)** using the six screws.

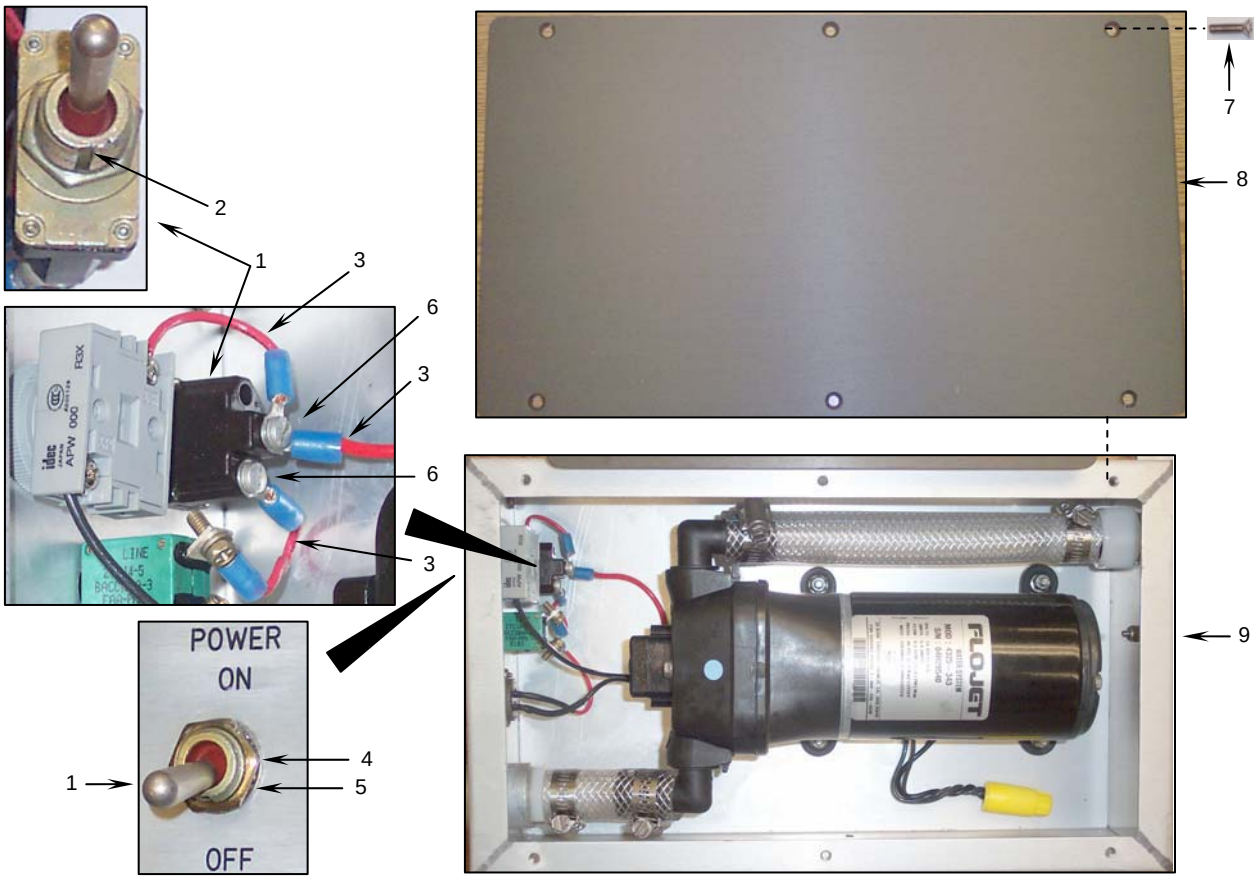


Figure 5. Installing the Sink Fill Pump Assembly Power Switch.

3. Install the sink fill pump IAW WP 0006 00, Assembly and Preparation for Use procedures.

4. Observing the Electrical Shock Warning, connect the sink fill pump to its power source IAW WP 0006 00, Assembly and Preparation for Use procedures.

5. Operate the sink fill pump IAW WP 0006 00, Operating Procedures.

6. Observe the sink fill pump for proper operation.

END OF WORK PACKAGE

UNIT MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-2, NSN 7360-01-496-2112
FILL PUMP ASSEMBLY: LIGHT, INDICATOR
REPAIR

INITIAL SETUP:

Tools and Special Tools
General Mechanic's Tool Kit
(WP 0051 00, Table 2, Item 2)

Material/Parts
Lamp, Incandescent (WP 0061 00, Item 4)
Light, Indicator (WP 0061 00, Item 3)
Sealant, Corrosion Preventative
(WP 0070 00, Item 8)
Sealing Compound (WP 0070 00, Item 10)
Tag, Marker (WP 0070 00, Item 11)

Personnel Required
Quartermaster and Chemical Equipment
Repairer 63J10 (1)

References
TM 10-7310-281-13&P
WP 0006 00

Drawings Required
Sink Fill Pump Assembly Wiring Diagram

Equipment Condition
The FSC is energized and operating.

GENERAL

This work package contains procedures for repairing the sink fill pump assembly by replacing the indicator light bulb and the indicator light assembly.

REPAIR

Indicator Light Bulb

Replace the indicator light bulb as follows:

1. Switch off the sink fill pump assembly power switch **(Figure 1, Item 1)**.
2. Using your fingers, unscrew and only remove the green lens **(Figure 1, Item 2)** from the front of the indicator light assembly.
3. Remove the bulb **(Figure 1, Item 3)** by pushing it in with the tip of your finger and rotating it counterclockwise.

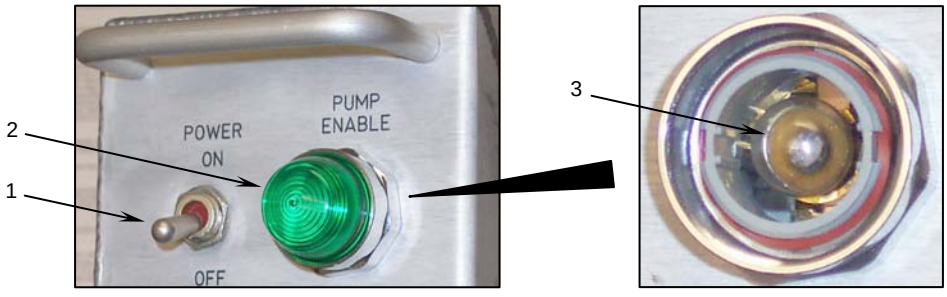


Figure 1. Replacing the Bulb in the Fill Pump Assembly Indicator Light Assembly.

4. Insert the replacement bulb and push it in and rotate it clockwise with the tip of your finger to engage the bulb in the socket.

5. Using your fingers, thread the green lens back onto the front of the indicator light assembly as tightly as possible.

Indicator Light Assembly

Replace the indicator light assembly as follows:

WARNING

Electrical high voltage and current cannot be seen, but in contact with energized equipment can kill you, render you unconscious, or severely burn you. Electricity is unlike most other dangerous things you can come in contact with because it gives no warning. To ensure your safety and that of other maintenance personnel, do not perform any maintenance on electrical equipment unless all power is removed. Failure to observe this warning may result in electrical shock injury or death (electrocution).

1. Remove power from the sink fill pump assembly as follows:

   a. Shut off the MBUs IAW TM 10-7310-281-13&P.

   b. Switch off the sink fill pump assembly power switch **(Figure 2, Item 1)**.

   c. Switch off the power converter power switch **(Figure 2, Item 2)**.

   d. Disconnect both DC cables **(Figure 2, Item 3)** and **(Figure 2, Item 4)** from the power converter and cap the connectors.

   e. Disconnect the two-branch power cable **(Figure 2, Item 5)** from the sink fill pump assembly and cap the connector.

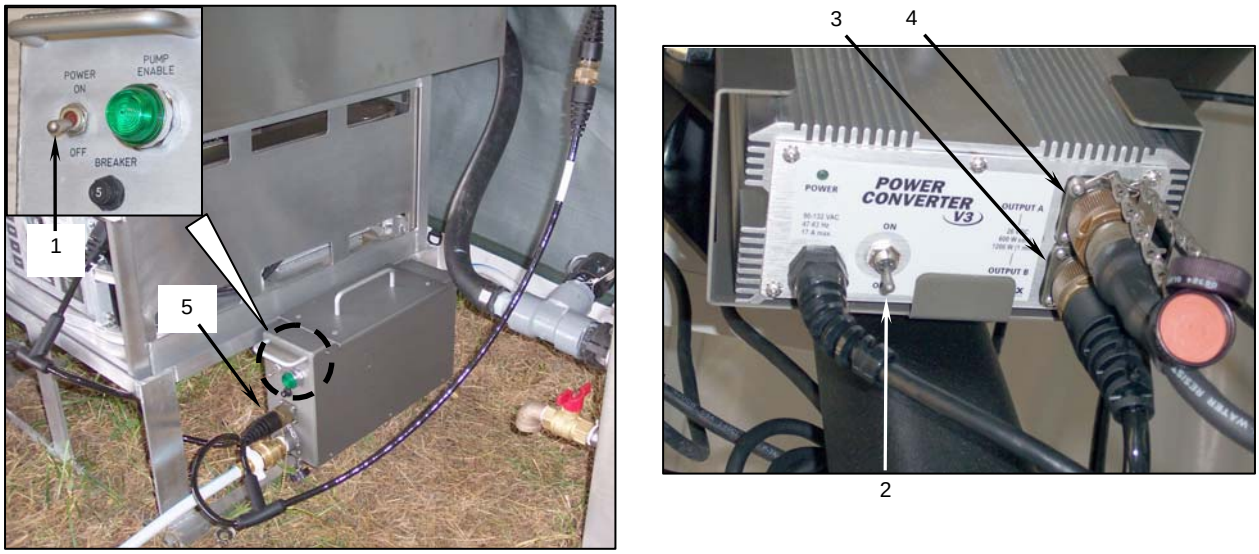


Figure 2. Removing Power from the Sink Fill Pump Assembly.

2. Remove the sink fill pump assembly as follows:

   a. Shut off the potable water supply to the sink fill pump assembly at its source.

   b. Disconnect the 50-ft water supply hose **(Figure 3, item 1)** from the potable water supply.

   c. Disconnect the 50-ft water supply hose **(Figure 3, Item 1)** from the back of the sink fill pump assembly **(Figure 3, Item 2)** and drain the hose toward the source end.

   d. Disconnect the 15-ft sink fill hose **(Figure 3, Item 3)** from the vacuum breaker **(Figure 3, Item 4)** at the front of the fill pump assembly and secure the cap to the vacuum breaker.

   e. Lift the sink fill pump assembly **(Figure 3, Item 2)** off the sink assembly base rack **(Figure 3, Item 5)**.

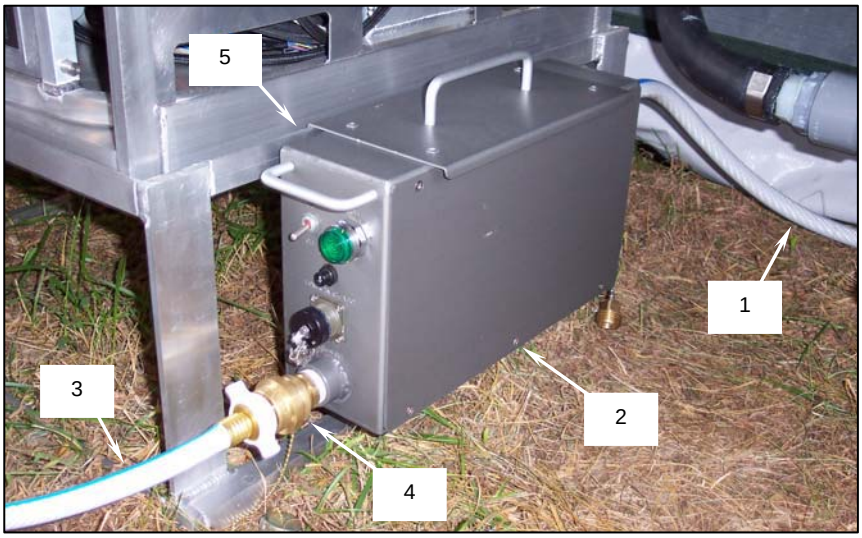


Figure 3. Removing the Sink Fill Pump Assembly.

3. Remove the indicator light assembly as follows:

   a. Remove the six flat head machine screws **(Figure 4, Item 1)** from the fill pump cover **(Figure 4, Item 2)**.

   b. Remove the cover **(Figure 4, Item 2)**.

   c. Using your fingers, unscrew and remove the green lens **(Figure 4, Item 3)** from the front of the indicator light assembly.

   d. Remove the ring nut **(Figure 4, Item 4)** from the front of the indicator light assembly.

   e. Pull the indicator light assembly **(Figure 4, Item 5)** out of the fill pump enclosure **(Figure 4, Item 6)**.

   f. Disconnect the two wires **(Figure 4, Item 7)** from the terminals at the back of the indicator light assembly.

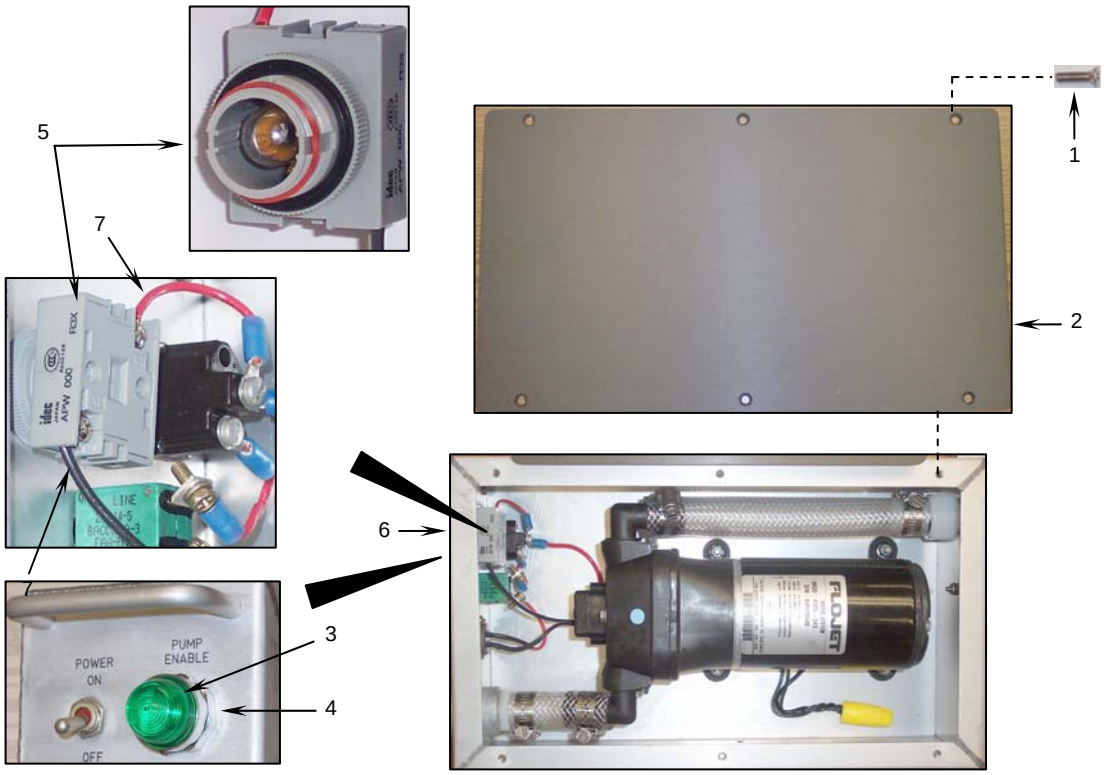


Figure 4. Removing the Sink Fill Pump Assembly Indicator Light Assembly.

4. Install the new indicator light assembly as follows:

   a. Connect the two wires **(Figure 5, Item 1)** to the terminals at the back of the indicator light assembly **(Figure 5, Item 2)**. It is not necessary to match a specific wire to a specific terminal.

   b. Ensure that the lens gasket **(Figure 5, Item 3)** and the light assembly gasket **(Figure 5, Item 4)** are both in place on the new indicator light assembly, then insert the new indicator light assembly **(Figure 5, Item 2)** into the fill pump enclosure (no specific orientation is required).

   c. Secure the indicator light assembly to the enclosure with the ring nut **(Figure 5, Item 5)**.

   d. Using your fingers, thread the green lens **(Figure 5, Item 6)** back onto the front of the indicator light assembly as tightly as possible.

   e. Coat the wire terminal connections **(Figure 5, Item 7)** at the back of the indicator light assembly with corrosion preventative sealant.

   f. Apply sealing compound to the six flat head machine screws **(Figure 5, Item 8)** and secure the fill pump cover **(Figure 5, Item 9)** to the sink fill pump assembly enclosure **(Figure 5, Item 10)** using the six screws.

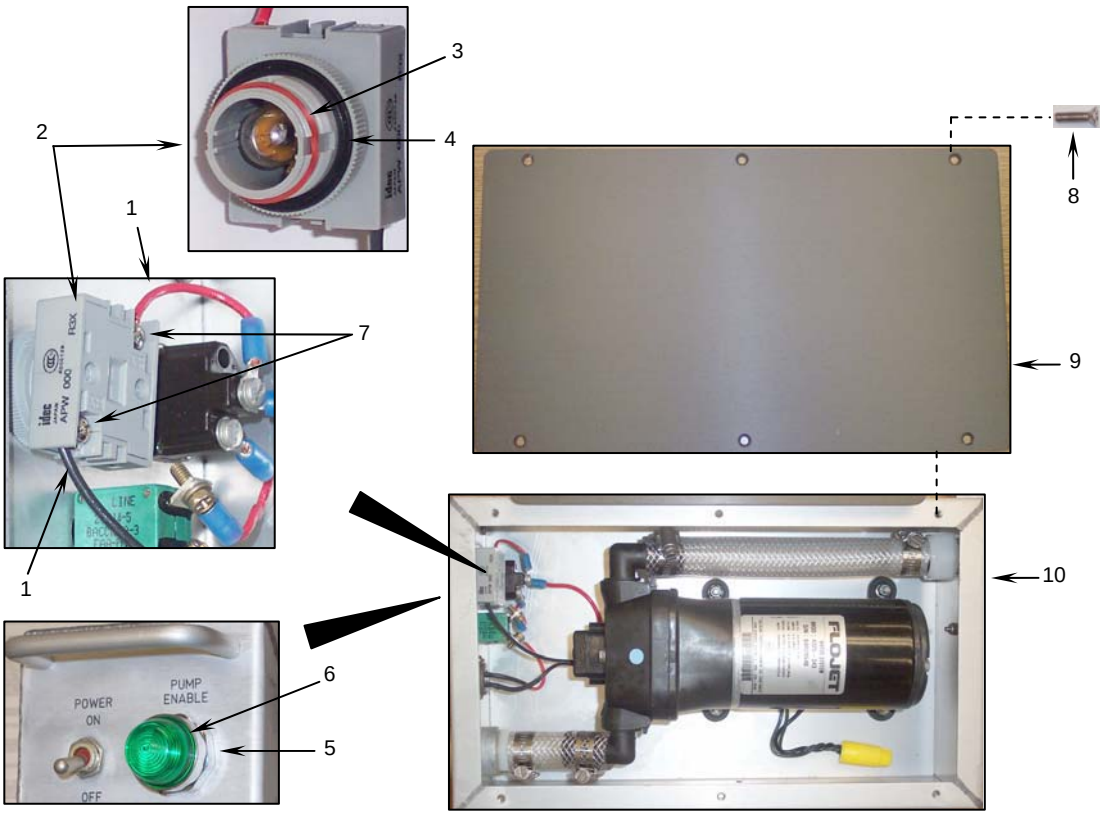


Figure 5. Installing the Sink Fill Pump Assembly Indicator Light Assembly.

5. Install the sink fill pump IAW WP 0006 00, Assembly and Preparation for Use procedures.

6. Observing the Electrical Shock Warning, connect the sink fill pump to its power source IAW WP 0006 00, Assembly and Preparation for Use procedures.

7. Operate the sink fill pump IAW WP 0006 00, Operating Procedures.

8. Observe the sink fill pump for proper operation.

END OF WORK PACKAGE

UNIT MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-2, NSN 7360-01-496-2112
FILL PUMP ASSEMBLY: CONNECTOR ASSY
REPAIR

INITIAL SETUP:

Tools and Special Tools
Tool Kit, General Mechanic's: Automotive (WP 0051 00, Table 2, Item 2)

Material/Parts
Connector Assy (WP 0061 00, Item 13)
Sealant, Corrosion Preventative (WP 0070 00, Item 8)
Sealing Compound (WP 0070 00, Item 10)
Tag, Marker (WP 0070 00, Item 11)
Wirenut, Watertight (WP 0061 00, Item 8)

Personnel Required
Quartermaster and Chemical Equipment Repairer 63J10 (1)

References
TM 10-7310-281-13&P
WP 0006 00

Drawings Required
Sink Fill Pump Assembly Wiring Diagram

Equipment Condition
The FSC is energized and operating.

GENERAL

This work package contains procedures for repairing the sink fill pump assembly by replacing the electrical connector.

REPAIR

WARNING

Electrical high voltage and current cannot be seen, but in contact with energized equipment can kill you, render you unconscious, or severely burn you. Electricity is unlike most other dangerous things you can come in contact with because it gives no warning. To ensure your safety and that of other maintenance personnel, do not perform any maintenance on electrical equipment unless all power is removed. Failure to observe this warning may result in electrical shock injury or death (electrocution).

1. Remove power from the sink fill pump assembly as follows:

   a. Shut off the MBUs IAW TM 10-7310-281-13&P.

   b. Switch off the sink fill pump assembly power switch **(Figure 1, Item 1)**.

   c. Switch off the power converter power switch **(Figure 1, Item 2)**.

   d. Disconnect both DC cables **(Figure 1, Item 3)** and **(Figure 1, Item 4)** from the power converter and cap the connectors.

   e. Disconnect the two-branch power cable **(Figure 1, Item 5)** from the sink fill pump assembly and cap the connector.

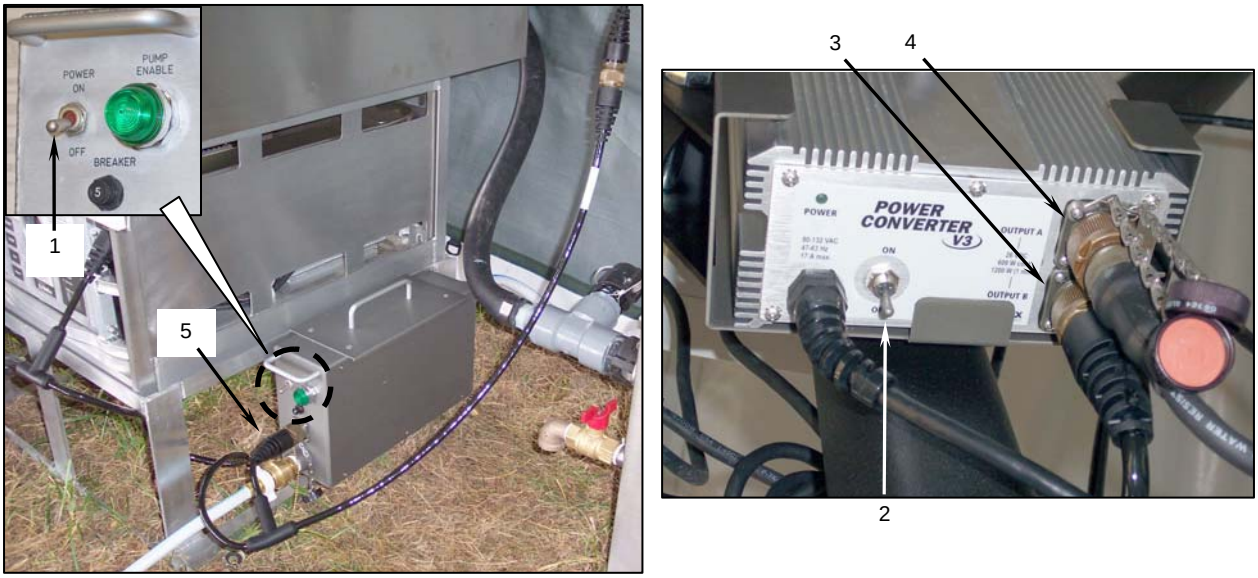


Figure 1. Removing Power from the Sink Fill Pump Assembly.

2. Remove the sink fill pump assembly as follows:

   a. Shut off the potable water supply to the sink fill pump assembly at its source.

   b. Disconnect the 50-ft water supply hose **(Figure 2, Item 1)** from the potable water supply.

   c. Disconnect the 50-ft water supply hose **(Figure 2, Item 1)** from the back of the sink fill pump assembly **(Figure 2, Item 2)** and drain the hose toward the source end.

   d. Disconnect the 15-ft sink fill hose **(Figure 2, Item 3)** from the vacuum breaker **(Figure 2, Item 4)** at the front of the fill pump assembly and secure the cap to the vacuum breaker.

   e. Lift the sink fill pump assembly **(Figure 2, Item 2)** off the sink assembly base rack **(Figure 2, Item 5)**.

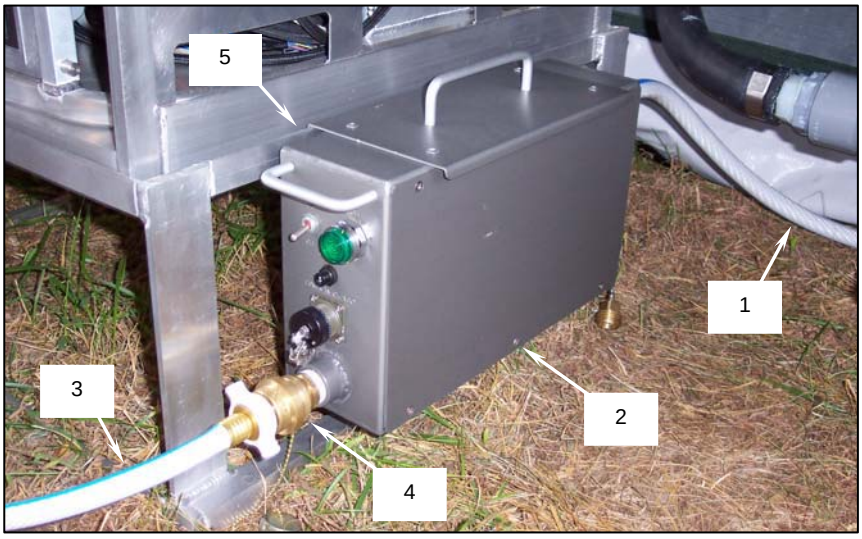


Figure 2. Removing the Sink Fill Pump Assembly.

3. Remove the electrical connector as follows:

   a. Remove the six flat head machine screws **(Figure 3, Item 1)** from the fill pump cover **(Figure 3, Item 2)**.

   b. Remove the cover **(Figure 3, Item 2)**.

   c. Remove the four screws **(Figure 3, Item 3)** and four self-locking nuts **(Figure 3, Item 4)** that secure the electrical connector **(Figure 3, Item 5)** to the fill pump enclosure.

   d. Remove and retain the connector cap **(Figure 3, Item 6)** and chain **(Figure 3, Item 7)** and the water out cap **(Figure 3, Item 8)** and chain **(Figure 3, Item 9)**.

   e. Pull the connector **(Figure 3, Item 5)** out of the fill pump enclosure.

   f. Disconnect the red connector wire **(Figure 3, Item 10)** from the circuit breaker terminal **(Figure 3, Item 11)**.

   g. Tag and separate the black wires that are connected with the wirenut **(Figure 3, Item 12)**. Discard the wirenut.

   h. Discard the electrical connector.

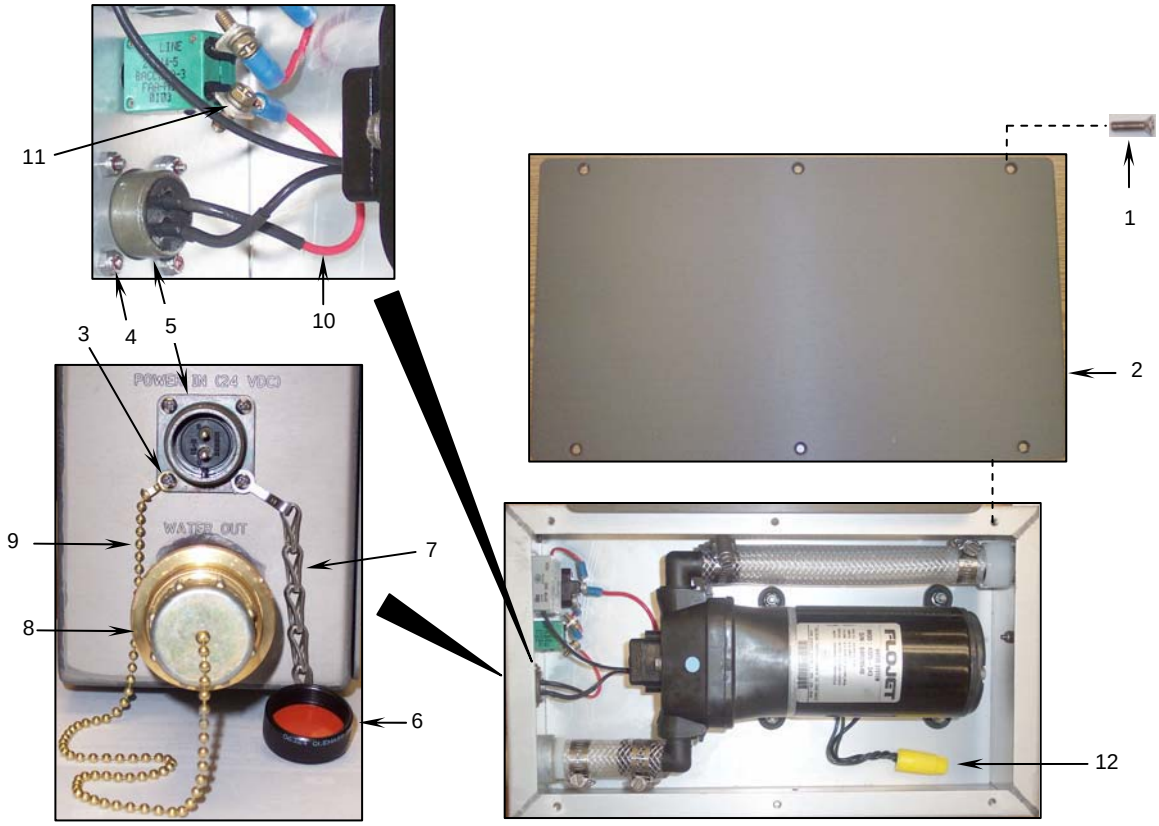


Figure 3. Removing the Sink Fill Pump Assembly Electrical Connector.

4. Install the new electrical connector as follows:

   a. Connect the red connector wire **(Figure 4, Item 1)** to the lower circuit breaker terminal **(Figure 4, Item 2)** and coat the connection with corrosion preventative sealant.

   b. Twist the black connector wire **(Figure 4, Item 3)** together with the other two black wires and secure using a new watertight wirenut **(Figure 4, Item 4)**.

   c. Insert the new connector **(Figure 4, Item 5)** into the fill pump enclosure.

   d. Secure the electrical connector to the enclosure. Ensure the end of the water out cap chain **(Figure 4, Item 6)** is fitted over the bottom left screw **(Figure 4, Item 7)** and that the end of the connector cap chain **(Figure 4, Item 8)** is fitted over the bottom right screw **(Figure 4, Item 9)**.

   e. Secure the new connector, the water out cap chain **(Figure 4, Item 6)**, and the connector cap chain **(Figure 4, Item 8)** to the enclosure using the four screws **(Figure 4, Item 7)** and four self-locking nuts **(Figure 4, Item 10)**.

   f. Apply sealing compound to the six flat head machine screws **(Figure 4, Item 11)** and secure the fill pump cover **(Figure 4, Item 12)** to the sink fill pump assembly enclosure using the six screws.

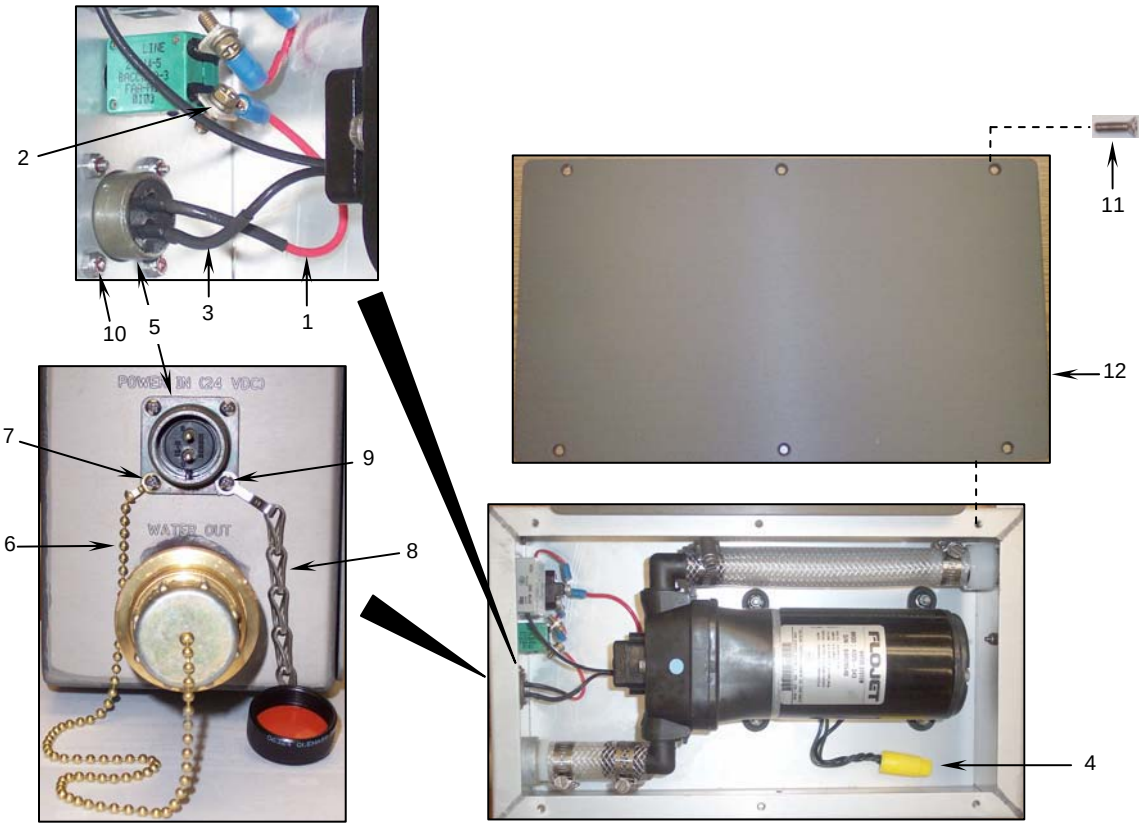


Figure 4. Installing the Sink Fill Pump Assembly Electrical Connector.

5. Install the sink fill pump IAW WP 0006 00, Assembly and Preparation for Use procedures.

6. Observing the Electrical Shock Warning, connect the sink fill pump to its power source IAW WP 0006 00, Assembly and Preparation for Use procedures.

7. Operate the sink fill pump IAW WP 0006 00, Operating Procedures.

8. Observe the sink fill pump for proper operation.

END OF WORK PACKAGE

UNIT MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-2, NSN 7360-01-496-2112
FILL PUMP ASSEMBLY: VACUUM BREAKER
REPAIR

INITIAL SETUP:

Tools and Special Tools
Tool Kit, General Mechanic's: Automotive
(WP 0051 00, Table 2, Item 2)

Material/Parts
Adapter, Straight, Pipe to Hose
(WP 0061 00, Item 9)
Sealing Compound (WP 0070 00, Item 10)
Vacuum Breaker (WP 0061 00, Item 10)

Personnel Required
Quartermaster and Chemical Equipment Repairer 63J10 (1)

References
TM 10-7310-281-13&P
WP 0006 00

Equipment Condition
The FSC is energized and operating.

GENERAL

This work package contains procedures for repairing the sink fill pump assembly by replacing the vacuum breaker.

REPAIR

WARNING

Electrical high voltage and current cannot be seen, but in contact with energized equipment can kill you, render you unconscious, or severely burn you. Electricity is unlike most other dangerous things you can come in contact with because it gives no warning. To ensure your safety and that of other maintenance personnel, do not perform any maintenance on electrical equipment unless all power is removed. Failure to observe this warning may result in electrical shock injury or death (electrocution).

1. Remove power from the sink fill pump assembly as follows:

   a. Shut off the MBUs IAW TM 10-7310-281-13&P.

   b. Switch off the sink fill pump assembly power switch **(Figure 1, Item 1)**.

   c. Switch off the power converter power switch **(Figure 1, Item 2)**.

   d. Disconnect both DC cables **(Figure 1, Item 3)** and **(Figure 1, Item 4)** from the power converter and cap the connectors.

   e. Disconnect the two-branch power cable **(Figure 1, Item 5)** from the sink fill pump assembly and cap the connector.

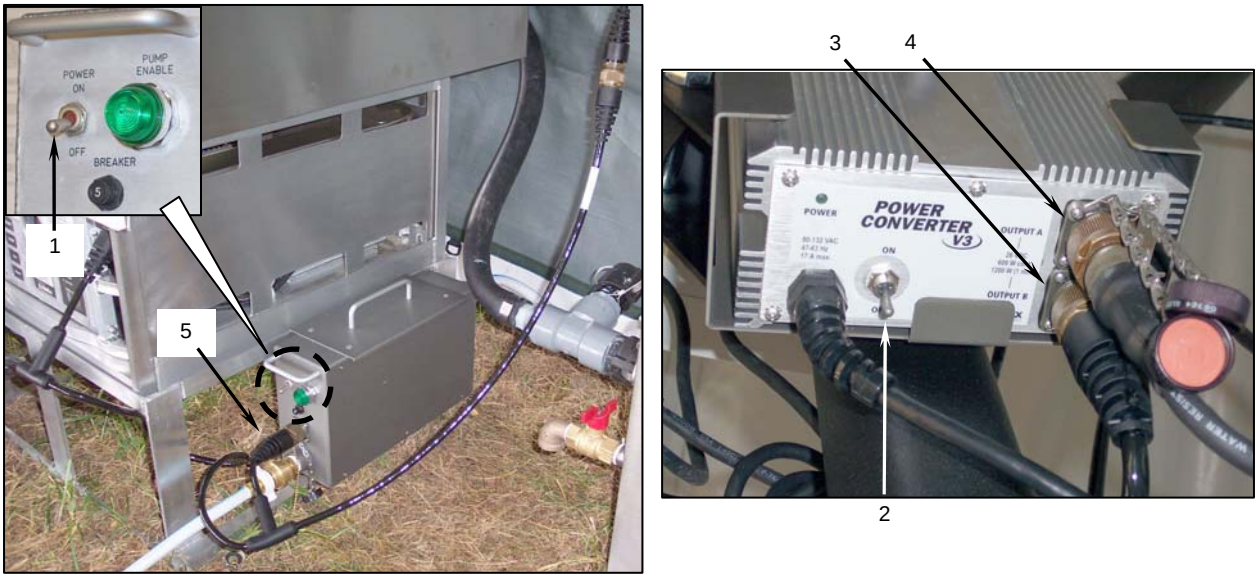


Figure 1. Removing Power from the Sink Fill Pump Assembly.

2. Remove the sink fill pump assembly as follows:

   a. Shut off the potable water supply to the sink fill pump assembly at its source.

   b. Disconnect the 50-ft water supply hose **(Figure 2, Item 1)** from the potable water supply.

   c. Disconnect the 50-ft water supply hose **(Figure 2, Item 1)** from the back of the sink fill pump assembly **(Figure 2, Item 2)** and drain the hose toward the source end.

   d. Disconnect the 15-ft sink fill hose **(Figure 2, Item 3)** from the vacuum breaker **(Figure 2, Item 4)** at the front of the fill pump assembly and secure the cap to the vacuum breaker.

   e. Lift the sink fill pump assembly **(Figure 2, Item 2)** off the sink assembly base rack **(Figure 2, Item 5)**.

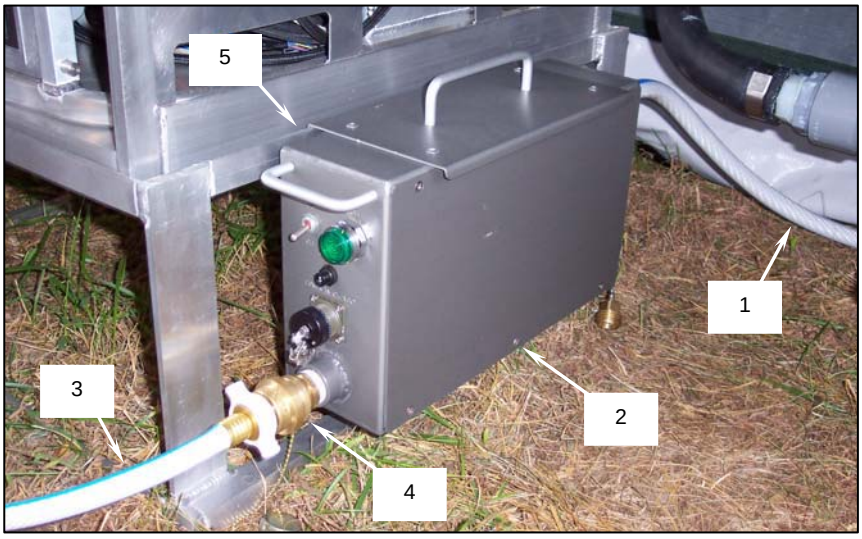


Figure 2. Removing the Sink Fill Pump Assembly.

3. Remove the vacuum breaker as follows:

   a. Unscrew the water outlet cap **(Figure 3, Item 1)** from the old vacuum breaker **(Figure 3, Item 2)**.

   b. Remove the set screw **(Figure 3, Item 3)** from the old vacuum breaker.

   c. Unscrew the old vacuum breaker **(Figure 3, Item 2)** from the straight adapter **(Figure 3, Item 4)**.

   d. Discard the old vacuum breaker and set screw.

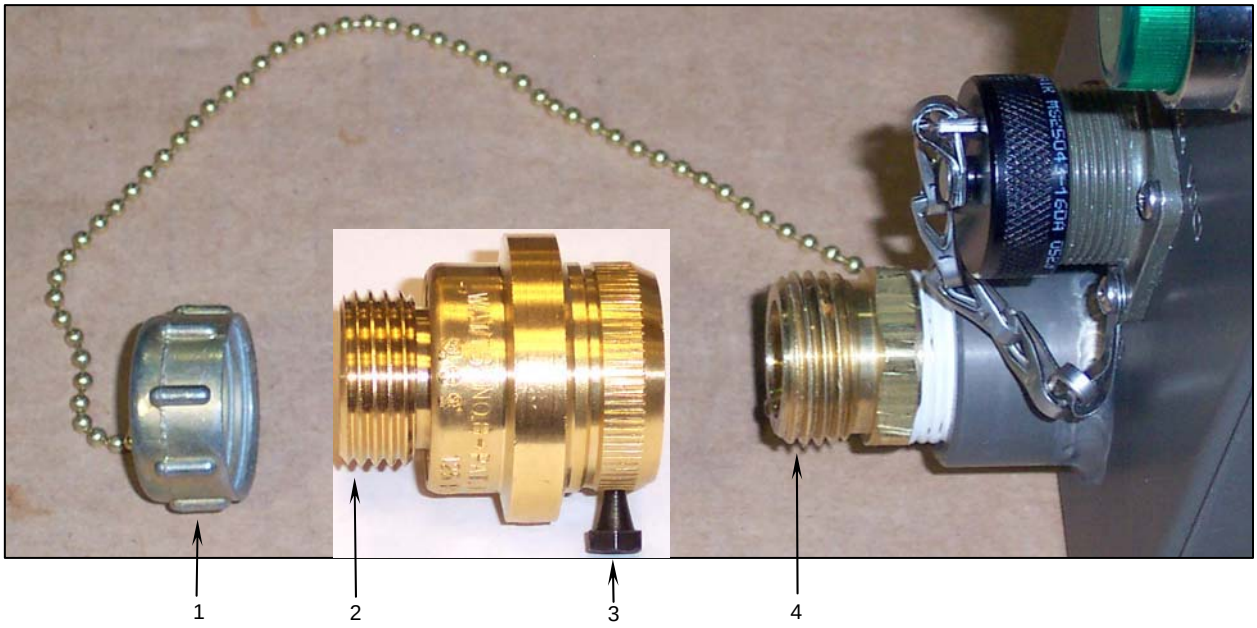


Figure 3. Removing the Sink Fill Pump Assembly Vacuum Breaker.

4. Install the new vacuum breaker as follows:

   a. Remove and retain the set screw **(Figure 4, Item 1)** from the new vacuum breaker **(Figure 4, Item 2)**.

   b. Apply sealing compound to the threads of the straight adapter **(Figure 4, Item 3)**.

   c. Thread the new vacuum breaker **(Figure 4, Item 2)** all the way onto the adapter **(Figure 4, Item 3)**.

NOTE

When reinstalling the set screw into the vacuum breaker, do not tighten it so much that it breaks off.

   d. Reinstall the set screw **(Figure 4, Item 1)** and tighten until it is snug.

   e. Screw the water outlet cap **(Figure 4, Item 4)** onto the new vacuum breaker.

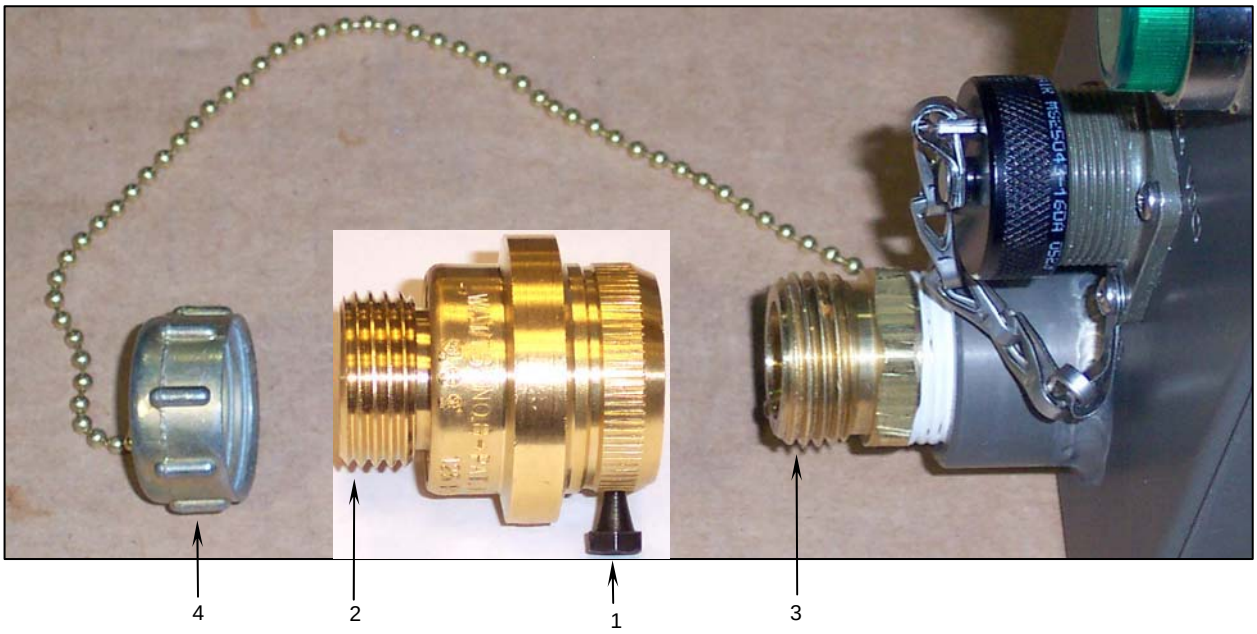


Figure 4. Installing the New Sink Fill Pump Assembly Vacuum Breaker.

5. Install the sink fill pump IAW WP 0006 00, Assembly and Preparation for Use procedures.

6. Observing the Electrical Shock Warning, connect the sink fill pump to its power source IAW WP 0006 00, Assembly and Preparation for Use procedures.

7. Operate the sink fill pump IAW WP 0006 00, Operating Procedures.

8. Observe the sink fill pump for leaks and proper operation.

END OF WORK PACKAGE

UNIT MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-2, NSN 7360-01-496-2112
GREASE SEPARATOR: PUMP UNIT, CENTRIFUGAL
REPAIR

INITIAL SETUP:

Tools and Special Tools
Tool Kit, General Mechanic's: Automotive (WP 0051 00, Table 2, Item 2)

Material/Parts
Pump Unit, Centrifugal (WP 0062 00, Item 29)
Rag, Wiping (WP 0070 00, Item 7)
Sealing Compound (WP 0070 00, Item 10)
Tag, Marker (WP 0070 00, Item 11)
Wirenut, Watertight (WP 0062 00, Item 17)

Personnel Required
Quartermaster and Chemical Equipment Repairer 63J10 (1)
Food Service Operator 92G10 (2)

References
WP 0006 00
WP 0012 00

Drawings Required
Grease Separator Wiring Diagram

Equipment Condition
The grease separator is unplugged from its power source, is disconnected from the sink drain hose assembly and the drain hose. Grease separator is empty and clean.

GENERAL

This work package contains procedures for repairing the grease separator by replacing the pump.

REPAIR

Pump

WARNING

Electrical high voltage and current cannot be seen, but in contact with energized equipment can kill you, render you unconscious, or severely burn you. Electricity is unlike most other dangerous things you can come in contact with because it gives no warning. To ensure your safety and that of other maintenance personnel, do not perform any maintenance on electrical equipment unless all power is removed. Failure to observe this warning may result in electrical shock injury or death (electrocution).

1. Ensure that the grease separator is unplugged from its power source, is disconnected from the sink drain hose assembly and the drain hose, and is empty and clean IAW WP 0012 00, Clean Grease Separator.

WARNING

The grease separator weighs approximately 80 lb (36.4 kg) empty. Three persons must use handles to lift or carry the grease separator lifting with their legs, not their back, to prevent injury. The grease separator must be empty when lifted. The use of work gloves with gripping pads when moving equipment will significantly reduce the risk of injuries/cuts. Failure to observe this warning may result in serious back or other muscular skeletal injuries or hand cuts.

2. Remove the pump from the grease separator as follows:

   a. Loosen the hose clamp **(Figure 1, Item 1)** at the pump discharge outlet and work the pump discharge tubing **(Figure 1, Item 2)** off the pump discharge outlet.

   b. Remove the two self-locking nuts **(Figure 1, Item 3)**, the pump mounting bracket **(Figure 1, Item 4)**, and gasket **(Figure 1, Item 5)**.

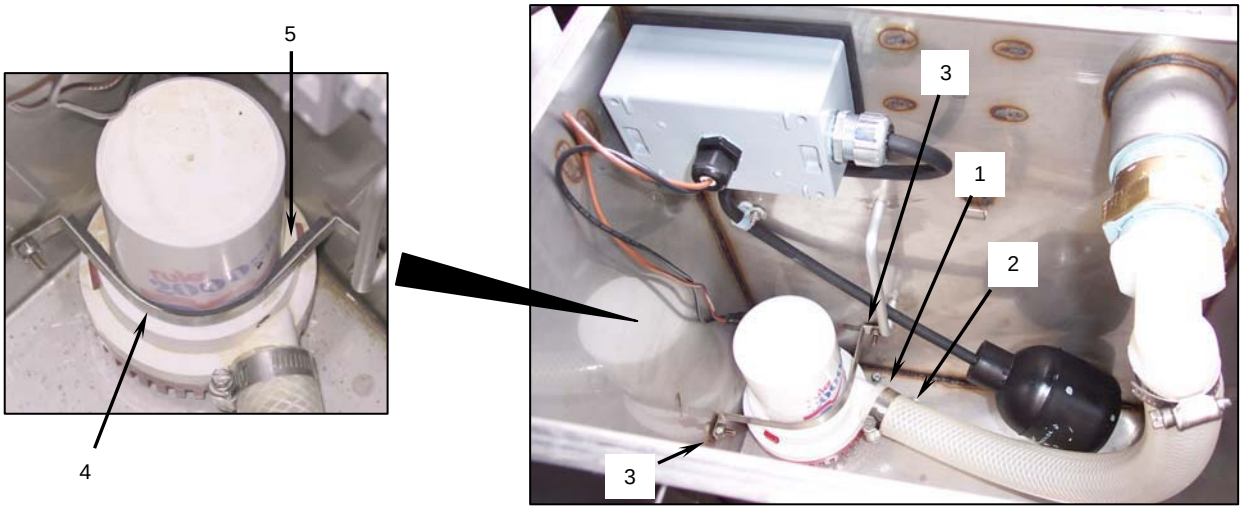


Figure 1. Removing the Grease Separator Pump Mounting Bracket.

   c. Remove the six machine screws **(Figure 2, Item 1)** and sealing washers **(Figure 2, Item 2)** that secure the weatherproof box **(Figure 2, Item 3)** to the wall of the grease separator.

   d. Carefully pull the box away from the wall, taking care not to damage the gasket **(Figure 2, Item 4)**.

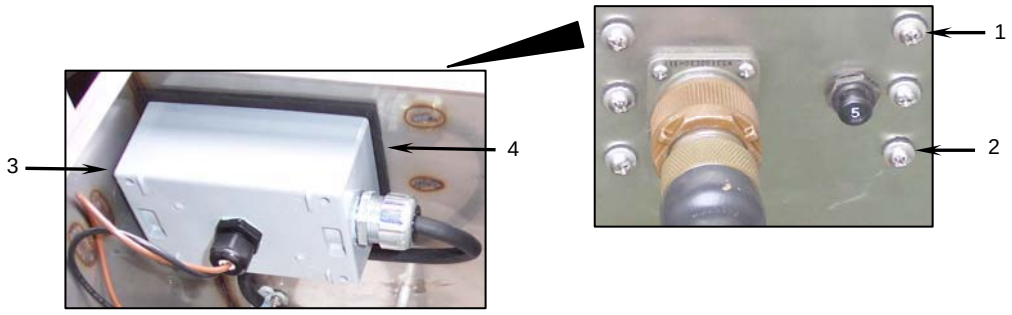


Figure 2. Removing the Grease Separator Weatherproof Box.

e. Tag the black electrical connector wire **(Figure 3, Item 1)** that is connected to the black pump wire **(Figure 3, Item 2)**. Remove and discard the wire nut **(Figure 3, Item 3)** and separate the wires.

f. Tag the black float switch wire **(Figure 3, Item 4)** that is connected to the brown pump wire **(Figure 3, Item 5)**. Remove and discard the wire nut **(Figure 3, Item 6)** and separate the wires.

g. Remove the pump cord connector nut **(Figure 3, Item 7)** with its sealing washer **(Figure 3, Item 8)** and pull the pump wires out.

h. Retain the pump cord connector nut and sealing washer.

i. Discard the pump **(Figure 3, Item 9)**.

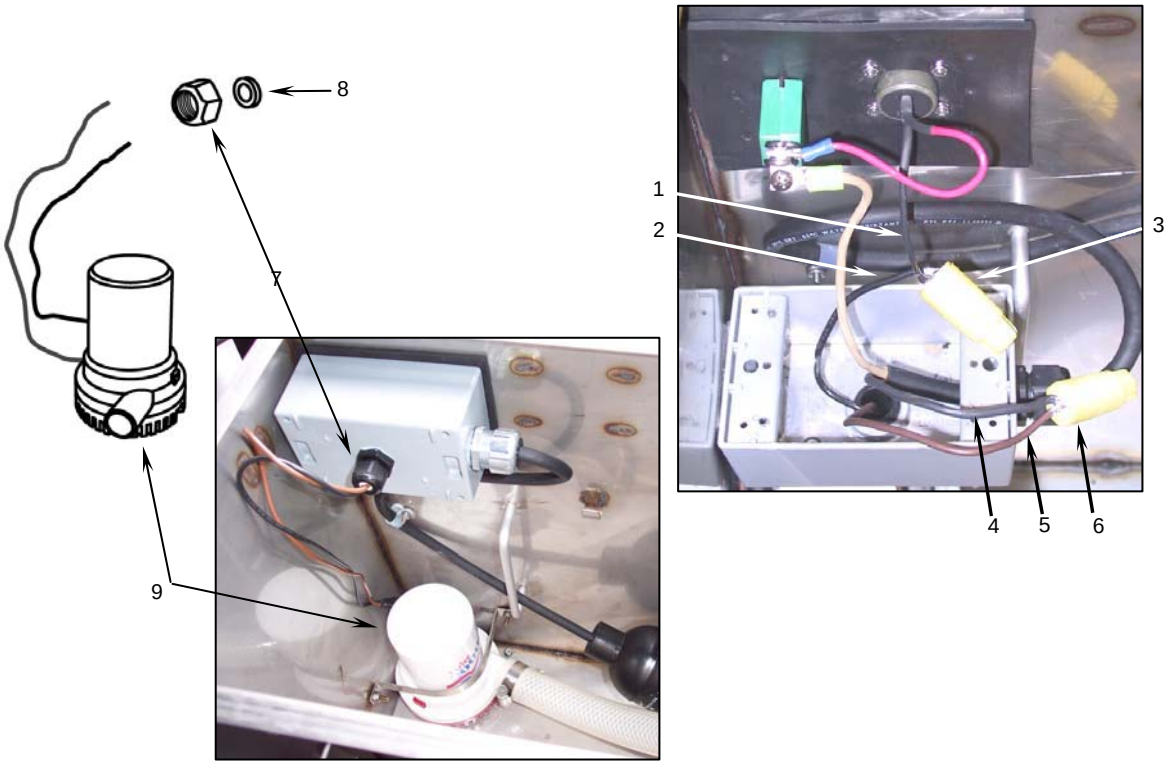


Figure 3. Disconnecting the Grease Separator Pump Wires.

3. Install the new pump as follows:

   a. Set the new pump **(Figure 4, Item 1)** at the bottom of the pump compartment. Do not install the pump mounting bracket yet.

   b. Slide the pump wires through the pump cord connector nut **(Figure 4, Item 2)**, the sealing washer **(Figure 4, Item 3)**, and the weatherproof box **(Figure 4, Item 4)**.

   c. Twist the black pump wire **(Figure 4, Item 5)** together with the black electrical connector wire **(Figure 4, Item 6)** as tagged and secure using a new watertight wirenut **(Figure 4, Item 7)**.

   d. Twist the brown pump wire **(Figure 4, Item 8)** together with the black float switch wire **(Figure 4, Item 9)** as tagged and secure using a new watertight wirenut **(Figure 4, Item 10)**.

   e. Position the sealing washer **(Figure 4, Item 3)** over the connector and tighten the pump cord connector nut **(Figure 4, Item 2)** onto the connector.

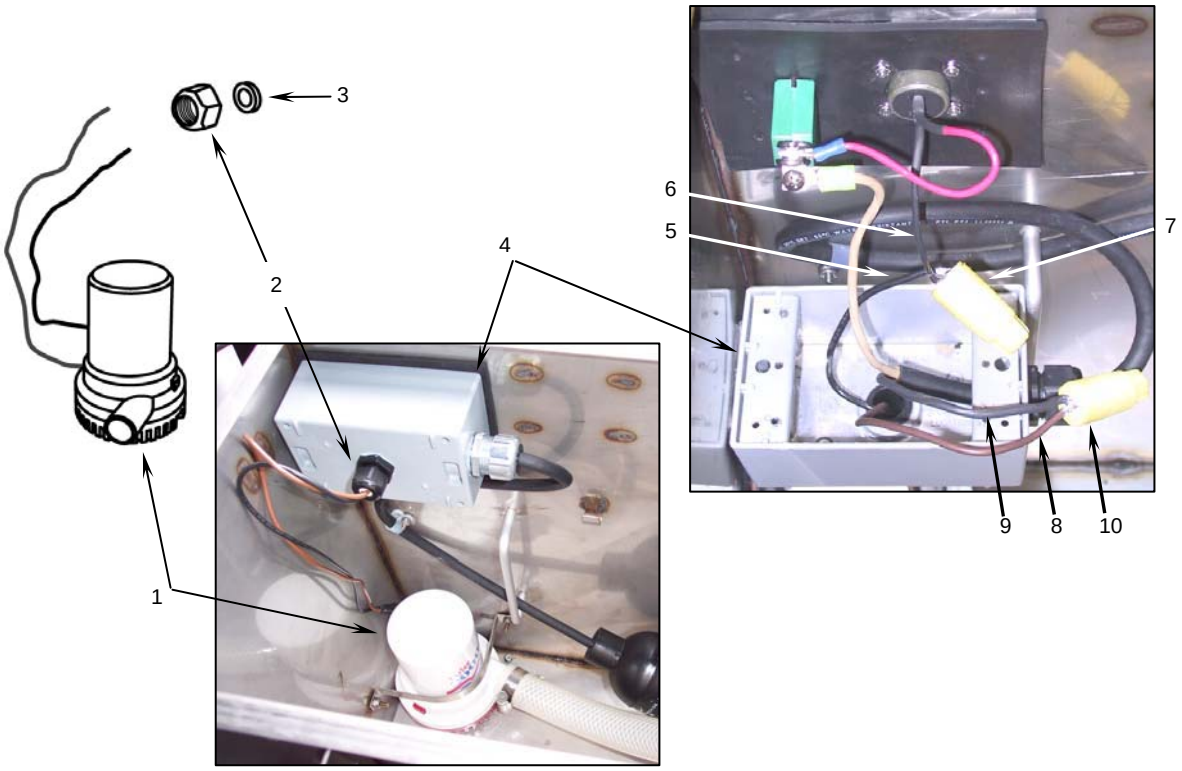


Figure 4. Connecting the New Grease Separator Pump Wiring.

f. Apply sealing compound to the threads of the six machine screws **(Figure 5, Item 1)**.

g. Position the weatherproof box **(Figure 5, Item 2)** on the gasket **(Figure 5, Item 3)** on the wall of the grease separator and secure with the six sealing washers **(Figure 5, Item 4)** and machine screws **(Figure 5, Item 1)**.

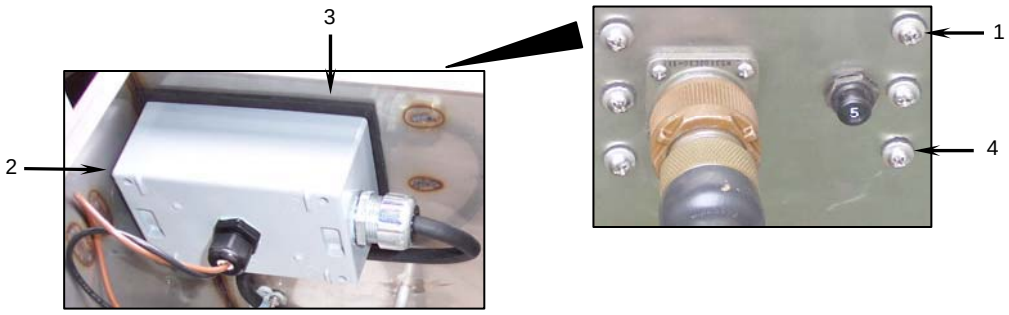


Figure 5. Installing the Grease Separator Weatherproof Box.

h. Make sure the hose clamp **(Figure 6, Item 1)** is over the pump discharge tubing **(Figure 6, Item 2)**, then slide the tubing over the new pump discharge outlet. Do not tighten the hose clamp yet.

i. Position the new pump **(Figure 6, Item 3)** in the bottom corner of the pump compartment and secure with the gasket **(Figure 6, Item 4)**, the pump mounting bracket **(Figure 6, Item 5)**, and the two self-locking nuts **(Figure 6, Item 6)**.

j. Slide the hose clamp **(Figure 6, Item 1)** over the tubing at the pump discharge outlet and tighten the clamp.

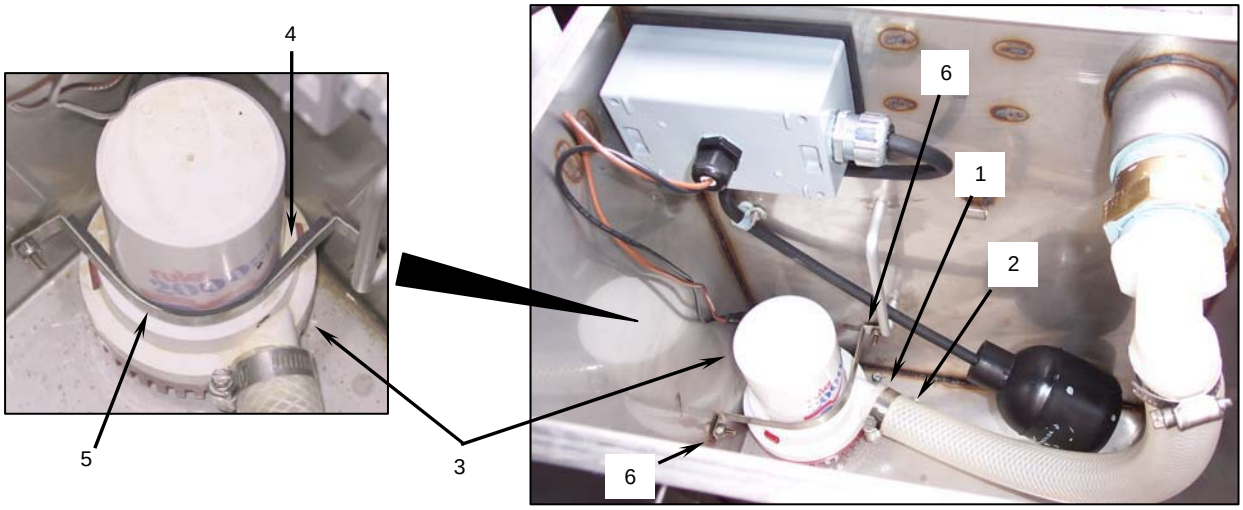


Figure 6. Installing the New Grease Separator Pump.

4. Install the grease separator IAW WP 0006 00, Assembly and Preparation for Use procedures.

5. Observing the Electrical Shock Warning, connect the grease separator to its power source IAW WP 0006 00, Assembly and Preparation for Use procedures.

6. Operate the grease separator IAW WP 0006 00, Operating Procedures.

7. Observe the grease separator for proper operation.

END OF WORK PACKAGE

UNIT MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-2, NSN 7360-01-496-2112
GREASE SEPARATOR: PUMP DISCHARGE TUBING
REPAIR

INITIAL SETUP:

Tools and Special Tools
Tool Kit, General Mechanic's: Automotive (WP 0051 00, Table 2, Item 2)

Material/Parts
Clamp, Hose (WP 0062 00, Item 26)
Rag, Wiping (WP 0070 00, Item 7)
Tubing, Nonmetallic (WP 0062 00, Item 25)
Tubing, Nonmetallic (WP 0065 00, Item 6)

Personnel Required
Quartermaster and Chemical Equipment Repairer 63J10 (1)
Food Service Operator 92G10 (2)

References
WP 0006 00
WP 0012 00

Equipment Condition
The grease separator is unplugged from its power source, is disconnected from the sink drain hose assembly and the drain hose. Grease separator is empty and clean.

GENERAL

This work package contains procedures for repairing the grease separator by replacing the grease separator pump discharge tubing.

REPAIR

Pump Discharge Tubing

WARNING

Electrical high voltage and current cannot be seen, but in contact with energized equipment can kill you, render you unconscious, or severely burn you. Electricity is unlike most other dangerous things you can come in contact with because it gives no warning. To ensure your safety and that of other maintenance personnel, do not perform any maintenance on electrical equipment unless all power is removed. Failure to observe this warning may result in electrical shock injury or death (electrocution).

1. Ensure that the grease separator is unplugged from its power source, disconnected from the sink drain hose assembly and the drain hose, and empty and clean IAW WP 0012 00, Clean Grease Separator.

WARNING

The grease separator weighs approximately 80 lb (36.4 kg) empty. Three persons must use handles to lift or carry the grease separator, lifting with their legs, not their back, to prevent injury. The grease separator must be empty when lifted. The use of work gloves with gripping pads when moving equipment will significantly reduce the risk of injuries/cuts. Failure to observe this warning may result in serious back or other muscular skeletal injuries or hand cuts.

2. Remove the pump discharge tubing as follows:

   a. Loosen the two hose clamps **(Figure 1, Item 1)**, one at both ends of the tubing **(Figure 1, Item 2)**.

   b. Loosen and remove the tubing from the pump discharge connection **(Figure 1, Item 3)** and from the hose adapter elbow **(Figure 1, Item 4)**.

3. Install the new tubing as follows:

   a. Slide two hose clamps **(Figure 1, Item 1)** onto the tubing **(Figure 1, Item 2)**.

   b. Push one end of the tubing onto the pump discharge connection **(Figure 1, Item 3)** and the other onto the hose adapter elbow **(Figure 1, Item 4)**.

   c. Tighten the hose clamps.

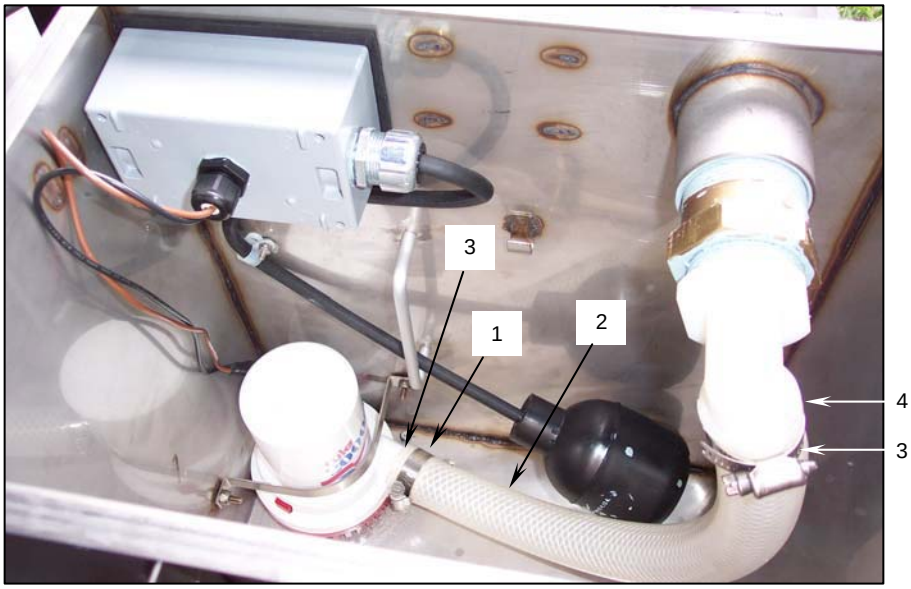


Figure 1. Replacing the Grease Separator Pump Discharge Tubing.

4. Install the grease separator IAW WP 0006 00, Assembly and Preparation for Use procedures.

5. Observing the Electrical Shock Warning, connect the grease separator to its power source IAW WP 0006 00, Assembly and Preparation for Use procedures.

6. Operate the grease separator IAW WP 0006 00, Operating Procedures.

7. Observe the grease separator for proper operation.

END OF WORK PACKAGE

UNIT MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-2, NSN 7360-01-496-2112
GREASE SEPARATOR: FLOAT SWITCH, TETHERED
TEST, REPAIR

INITIAL SETUP:

Tools and Special Tools
Tool Kit, General Mechanic's: Automotive (WP 0051 00, Table 2, Item 2)

Material/Parts
Float Switch, Tethered (WP 0062 00 Item 22)
Rag, Wiping (WP 0070 00, Item 7)
Sealant, Corrosion Preventative (WP 0070 00, Item 8)
Sealing Compound (WP 0070 00, Item 10)
Tag, Marker (WP 0070 00, Item 11)
Wirenut, Watertight (WP 0062 00, Item 17)

Personnel Required
Quartermaster and Chemical Equipment Repairer 63J10 (1)
Food Service Operator 92G10 (2)

References
WP 0006 00
WP 0012 00

Drawings Required
Grease Separator Wiring Diagram

Equipment Condition
The grease separator is unplugged from its power source, is disconnected from the sink drain hose assembly and the drain hose, and is empty and clean.

GENERAL

This work package contains procedures for testing the grease separator float switch and for repairing the grease separator by replacing the float switch.

TEST

Float Switch

WARNING

Electrical high voltage and current cannot be seen, but in contact with energized equipment can kill you, render you unconscious, or severely burn you. Electricity is unlike most other dangerous things you can come in contact with because it gives no warning. To ensure your safety and that of other maintenance personnel, do not perform any maintenance on electrical equipment unless all power is removed. Failure to observe this warning may result in electrical shock injury or death (electrocution).

1. Ensure that the grease separator is unplugged from its power source, is disconnected from the sink drain hose assembly and the drain hose, and is empty and clean IAW WP 0012 00, Clean Grease Separator.

WARNING

The grease separator weighs approximately 80 lb (36.4 kg) empty. Three persons must use handles to lift or carry the grease separator, lifting with their legs, not their back, to prevent injury. The grease separator must be empty when lifted. The use of work gloves with gripping pads when moving equipment will significantly reduce the risk of injuries/cuts. Failure to observe this warning may result in serious back or other muscular skeletal injuries or hand cuts.

2. Remove the six machine screws **(Figure 1, Item 1)** and sealing washers **(Figure 1, Item 2)** that secure the weatherproof box **(Figure 1, Item 3)** to the wall of the grease separator.

3. Carefully pull the box away from the wall, taking care not to damage the gasket **(Figure 1, Item 4)**.

4. Disconnect the white float switch wire **(Figure 1, Item 5)** from the circuit breaker terminal **(Figure 1, Item 6)**.

5. Tag the brown pump wire **(Figure 1, Item 7)** that is connected to the black float switch wire **(Figure 1, Item 8)**. Remove and discard the wire nut **(Figure 1, Item 9)** and separate the wires.

6. Wipe the residue off the wire ends with a clean rag.

7. Tilt the float switch **(Figure 1, Item 10)** up and place the multimeter test probes on the two float switch wires **(Figure 1, Item 5)** and **(Figure 1, Item 8)**. The multimeter should read zero.

8. If the switch fails the test, continue with the repair procedure in this work package.

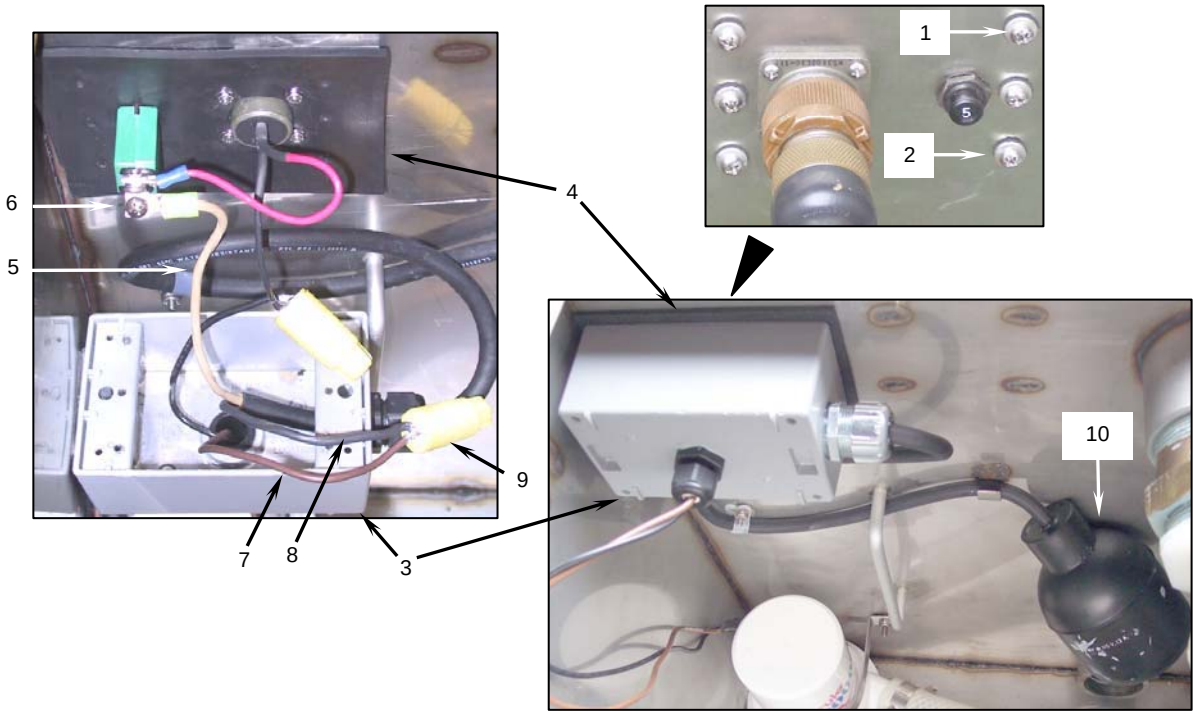


Figure 1. Testing the Grease Separator Float Switch.

9. If the switch passes the test, reassemble the grease separator and return it to operation as follows:

   a. Connect white float switch wire **(Figure 2, Item 1)** to the circuit breaker terminal **(Figure 2, Item 2)**. Coat the connection with corrosion preventative sealant.

   b. Twist the black float switch wire **(Figure 2, Item 3)** together with the brown pump wire **(Figure 2, Item 4)** and secure with a new watertight wire nut **(Figure 2, Item 5)**.

   c. Apply sealing compound to the threads of the six machine screws **(Figure 2, Item 6)**.

   d. Position the weatherproof box **(Figure 2, Item 7)** on the gasket **(Figure 2, Item 8)** and the wall of the grease separator and secure with the six sealing washers **(Figure 2, Item 9)** and machine screws **(Figure 2, Item 6)**.

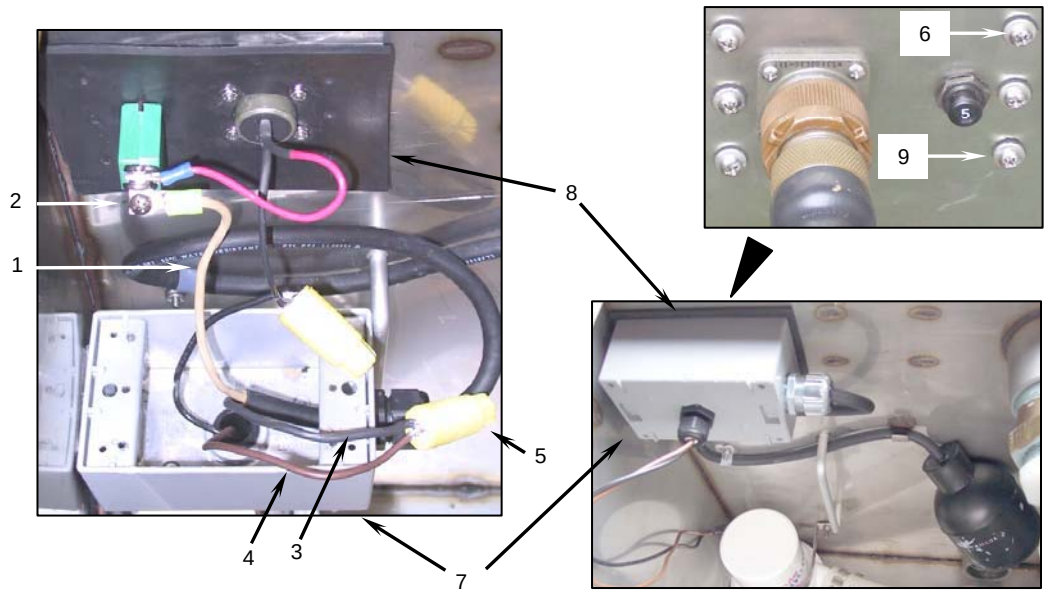


Figure 2. Reconnecting the Grease Separator Float Switch Wires.

   e. Install the grease separator IAW WP 0006 00, Assembly and Preparation for Use procedures.

   f. Observing the Electrical Shock Warning, connect the grease separator to its power source IAW WP 0006 00, Assembly and Preparation for Use procedures.

   g. Operate the grease separator IAW WP 0006 00, Operating Procedures.

   h. Observe the grease separator for proper operation.

REPAIR

Float Switch

WARNING

The grease separator weighs approximately 80 lb (36.4 kg) empty. Three persons must use handles to lift or carry the grease separator, lifting with their legs, not their back, to prevent injury. The grease separator must be empty when lifted. The use of work gloves with gripping pads when moving equipment will significantly reduce the risk of injuries/cuts. Failure to observe this warning may result in serious back or other muscular skeletal injuries or hand cuts.

1. Remove the six machine screws **(Figure 3, Item 1)** and sealing washers **(Figure 3, Item 2)** that secure the weatherproof box **(Figure 3, Item 3)** to the wall of the grease separator.

2. Carefully pull the box away from the wall, taking care not to damage the gasket **(Figure 3, Item 4)**.

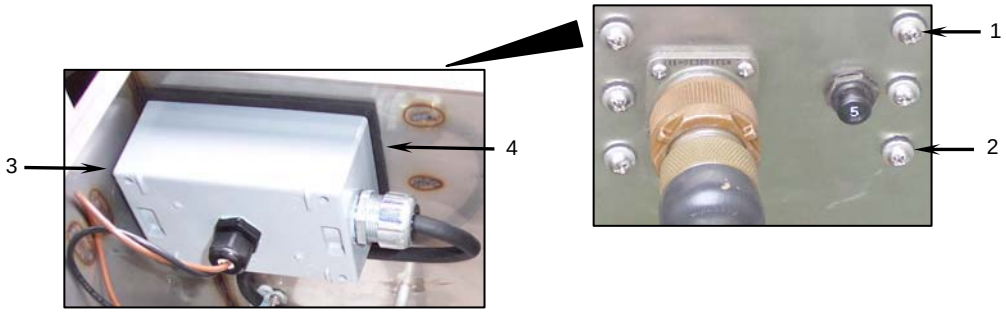


Figure 3. Removing the Grease Separator Weatherproof Box.

3. Disconnect the white float switch wire **(Figure 4, Item 1)** from the circuit breaker terminal **(Figure 4, Item 2)**.

4. Tag the brown pump wire **(Figure 4, Item 3)** that is connected to the black float switch wire **(Figure 4, Item 4)**. Remove and discard the wire nut **(Figure 4, Item 5)** and separate the wires.

5. Remove the float switch as follows:

   a. Remove the self-locking nut **(Figure 4, Item 6)** and the loop strap **(Figure 4, Item 7)** that secure the float switch cable to the wall of the grease separator.

   b. Loosen the float switch cord connector nut **(Figure 4, Item 8)** with its sealing washer **(Figure 4, Item 9)** and pull the float switch cable out.

   c. Retain the float switch cord connector nut and sealing washer.

   d. Lift the float switch **(Figure 4, Item 10)** out of the pump compartment and discard.

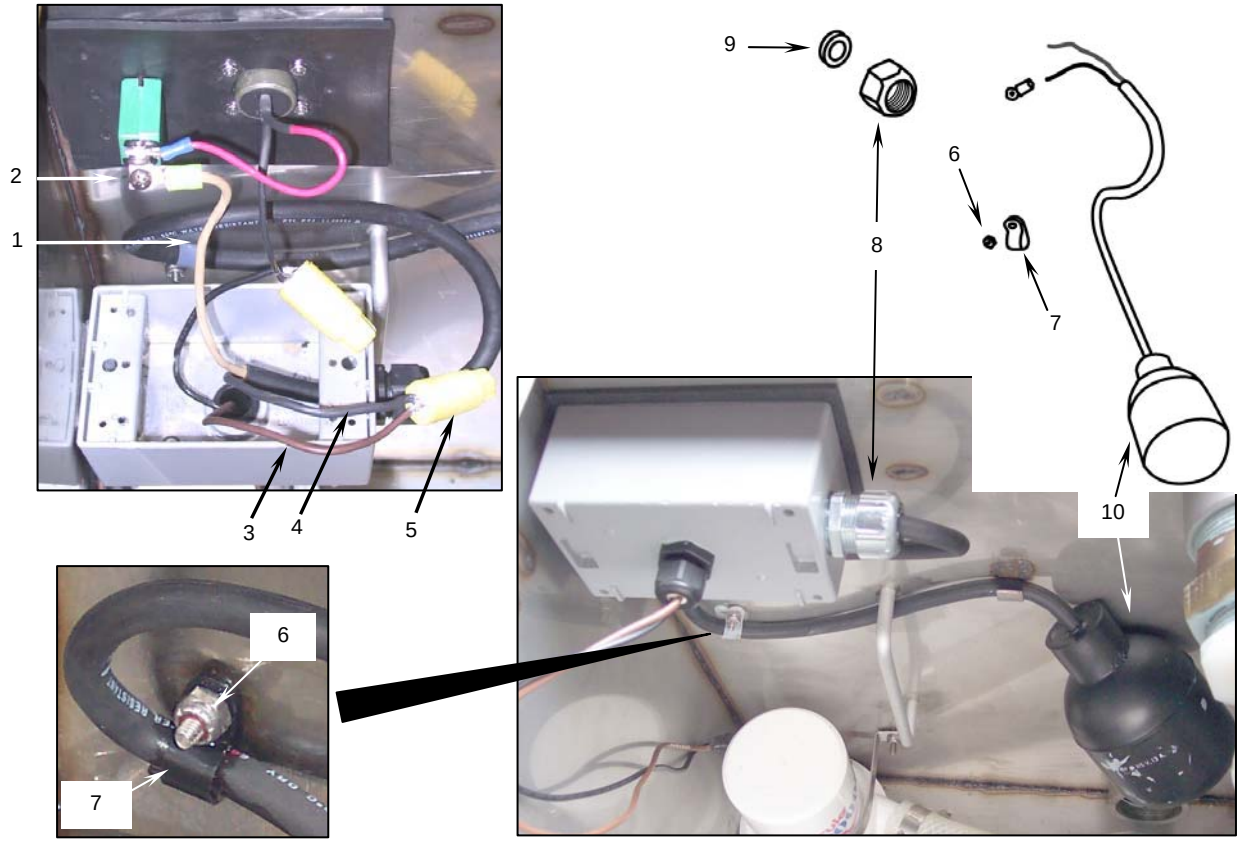


Figure 4. Removing the Grease Separator Float Switch.

6. Install the new float switch as follows:

   a. Cut the new float switch cable to 24-inches long.

   b. Feed the float switch cable through the float switch guide **(Figure 5, Item 1)**.

   c. Secure the cable 6 inches from the float to the wall of the grease separator using the loop strap **(Figure 5, Item 2)** and self-locking nut **(Figure 5, Item 3)**.

   d. Slide the new switch cable through the float switch cord connector nut **(Figure 5, Item 4)**, the sealing washer **(Figure 5, Item 5)**, and the weatherproof box **(Figure 5, Item 6)**.

   e. Strip the wire ends of the switch cable.

   f. Connect the white float switch wire **(Figure 5, Item 7)** to the circuit breaker terminal (**Figure 5, Item 8)**. Coat the connection with corrosion preventative sealant.

   g. Twist the black float switch wire **(Figure 5, Item 9)** together with the brown pump wire **(Figure 5, Item 10)** and secure with a new watertight wire nut **(Figure 5, Item 11)**.

   h. Position the sealing washer **(Figure 5, Item 5)** over the connector and tighten the float switch cord connector nut **(Figure 5, Item 4)** onto the connector.

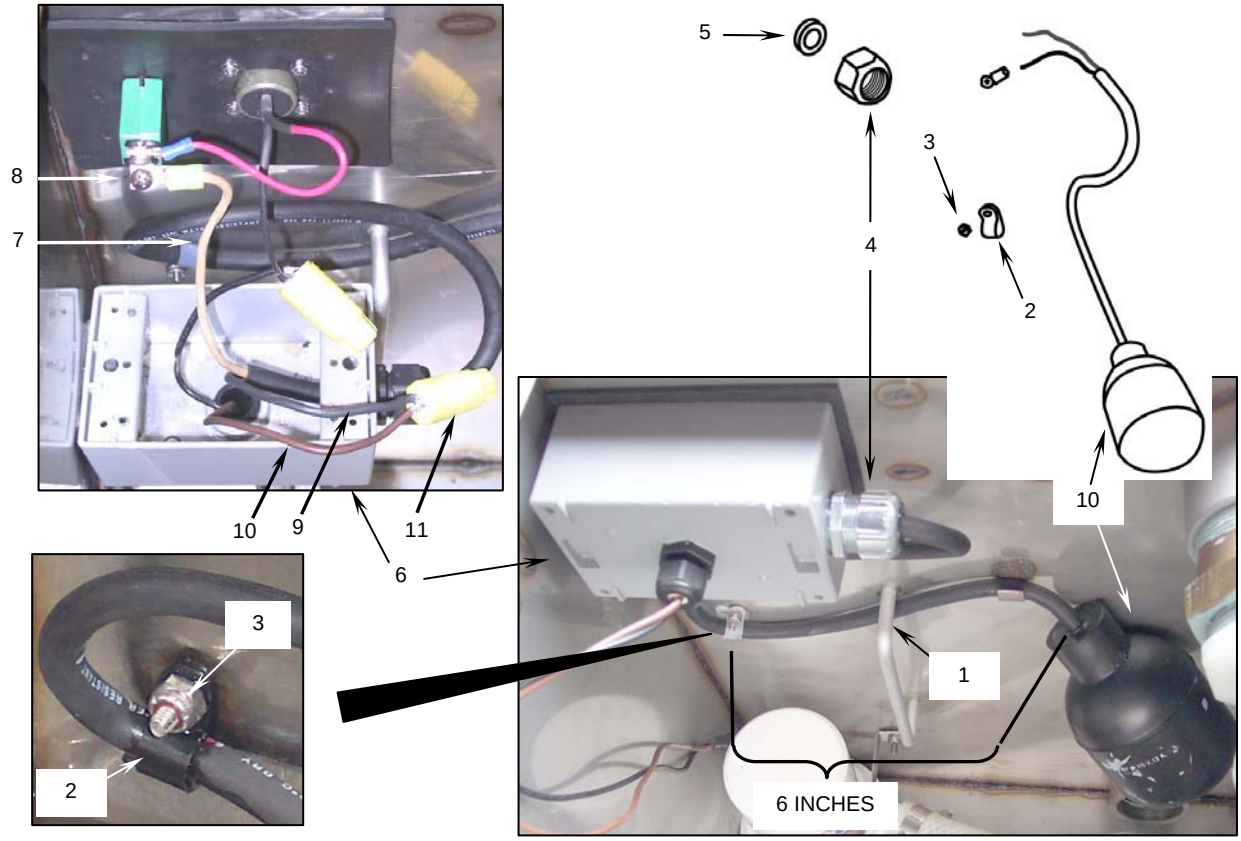


Figure 5. Installing the New Grease Separator Float Switch.

i. Apply sealing compound to the threads of the six machine screws **(Figure 6, Item 1)**.

j. Position the weatherproof box **(Figure 6, Item 2)** on the gasket **(Figure 6, Item 3)** and the wall of the grease separator and secure with the six sealing washers **(Figure 6, Item 4)** and machine screws **(Figure 6, Item 1)**.

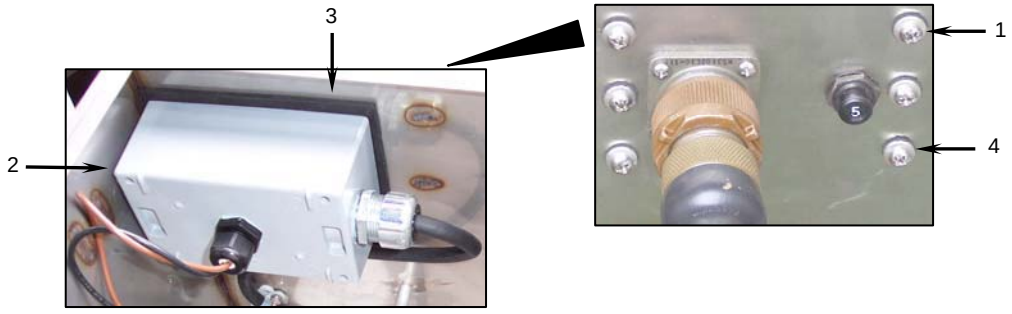


Figure 6. Installing the Grease Separator Weatherproof Box.

7. Install the grease separator IAW WP 0006 00, Assembly and Preparation for Use procedures.

8. Observing the Electrical Shock Warning, connect the grease separator to its power source IAW WP 0006 00, Assembly and Preparation for Use procedures.

9. Operate the grease separator IAW WP 0006 00, Operating Procedures.

10. Observe the grease separator for proper operation.

END OF WORK PACKAGE

UNIT MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-2, NSN 7360-01-496-2112
GREASE SEPARATOR: CIRCUIT BREAKER
TEST, REPAIR

INITIAL SETUP:

Tools and Special Tools
Tool Kit, General Mechanic's: Automotive (WP 0051 00, Table 2, Item 2)

Material/Parts
Circuit Breaker (WP 0062 00 Item 15)
Rag, Wiping (WP 0070 00, Item 7)
Sealant, Corrosion Preventive (WP 0070 00, Item 8)
Sealing Compound (WP 0070 00, Item 10)
Tag, Marker (WP 0070 00, Item 11)

Personnel Required
Quartermaster and Chemical Equipment Repairer 63J10 (1)
Food Service Operator 92G10 (2)

References
WP 0006 00
WP 0012 00

Drawings Required
Grease Separator Wiring Diagram

Equipment Condition
The grease separator is unplugged from its power source, is disconnected from the sink drain hose assembly and the drain hose. Grease separator is empty and clean.

GENERAL

This work package contains procedures for testing the grease separator circuit breaker and for repairing the grease separator by replacing the circuit breaker.

TEST

Circuit Breaker

WARNING

Electrical high voltage and current cannot be seen, but in contact with energized equipment can kill you, render you unconscious, or severely burn you. Electricity is unlike most other dangerous things you can come in contact with because it gives no warning. To ensure your safety and that of other maintenance personnel, do not perform any maintenance on electrical equipment unless all power is removed. Failure to observe this warning may result in electrical shock injury or death (electrocution).

Perform an electrical continuity test on the circuit breaker as follows:

1. Ensure that the grease separator is unplugged from its power source, is disconnected from the sink drain hose assembly and the drain hose, and is empty and clean IAW WP 0012 00, Clean Grease Separator.

WARNING

The grease separator weighs approximately 80 lb (36.4 kg) empty. Three persons must use handles to lift or carry the grease separator, lifting with their legs, not their back, to prevent injury. The grease separator must be empty when lifted. The use of work gloves with gripping pads when moving equipment will significantly reduce the risk of injuries/cuts. Failure to observe this warning may result in serious back or other muscular skeletal injuries or hand cuts.

2. Remove the six machine screws **(Figure 1, item 1)** and sealing washers **(Figure 1, item 2)** that secure the weatherproof box **(Figure 1, item 3)** to the wall of the grease separator.

3. Carefully pull the box away from the wall, taking care not to damage the gasket **(Figure 1, item 4)**.

4. With the breaker reset button pushed in, place the multimeter test probes on the two terminals at the back of the breaker **(Figure 1, item 5)**. The multimeter should read zero.

5. If the breaker fails the test, continue with the repair procedure in this work package.

6. If the breaker passes the test, reassemble the grease separator and return it to operation as follows:

   a. Apply sealing compound to the threads of the six machine screws **(Figure 1, item 1)**.

   b. Position the weatherproof box **(Figure 1, item 3)** on the gasket **(Figure 1, item 4)** and the wall of the grease separator and secure with the six sealing washers **(Figure 1, item 2)** and machine screws **(Figure 1, item 1)**.

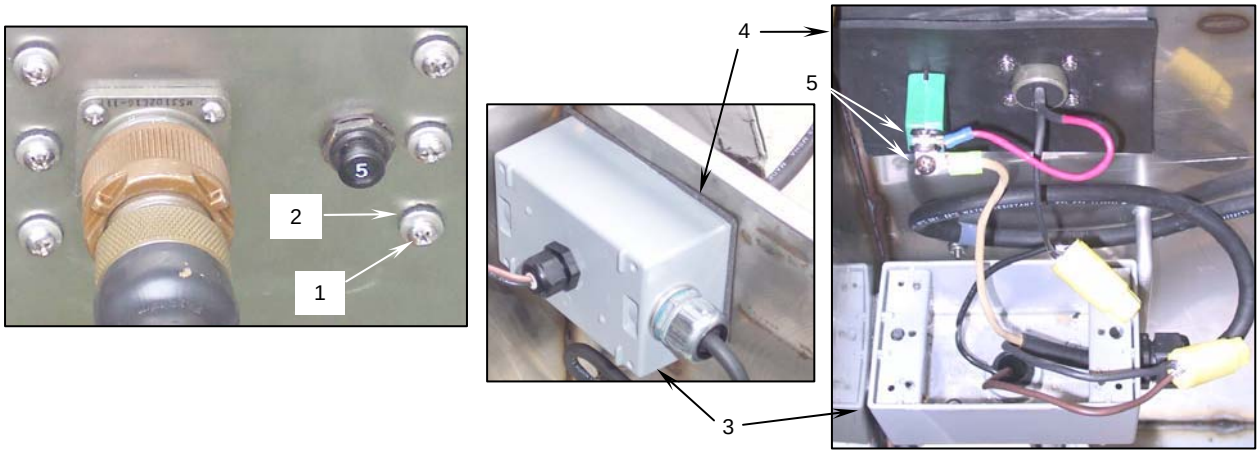


Figure 1. Testing the Grease Separator Circuit Breaker.

   c. Install the grease separator IAW the assembly and preparation for use procedures in WP 0006 00.

   d. Observing the Electrical Shock Warning, connect the grease separator to its power source IAW the assembly and preparation for use procedures in WP 0006 00.

   e. Operate the grease separator IAW the operating procedures in WP 0006 00.

   f. Observe the grease separator for proper operation.

REPAIR

Circuit Breaker

WARNING

The grease separator weighs approximately 80 lb (36.4 kg) empty. Three persons must use handles to lift or carry the grease separator, lifting with their legs, not their back, to prevent injury. The grease separator must be empty when lifted. The use of work gloves with gripping pads when moving equipment will significantly reduce the risk of injuries/cuts. Failure to observe this warning may result in serious back or other muscular skeletal injuries or hand cuts.

1. Remove the six machine screws **(Figure 2, item 1)** and sealing washers **(Figure 2, item 2)** that secure the weatherproof box **(Figure 2, item 3)** to the wall of the grease separator.
2. Carefully pull the box away from the wall, taking care not to damage the gasket **(Figure 2, item 4)**.
3. Remove the circuit breaker as follows:
   a. Remove and discard the lock nut **(Figure 2, item 5)** and lock washer **(Figure 2, item 6)** from the front of the circuit breaker.
   b. Pull the breaker **(Figure 2, item 7)** out of the grease separator enclosure.
   c. Tag and disconnect the two wires **(Figure 2, item 8)** from the terminals at the back of the circuit breaker.

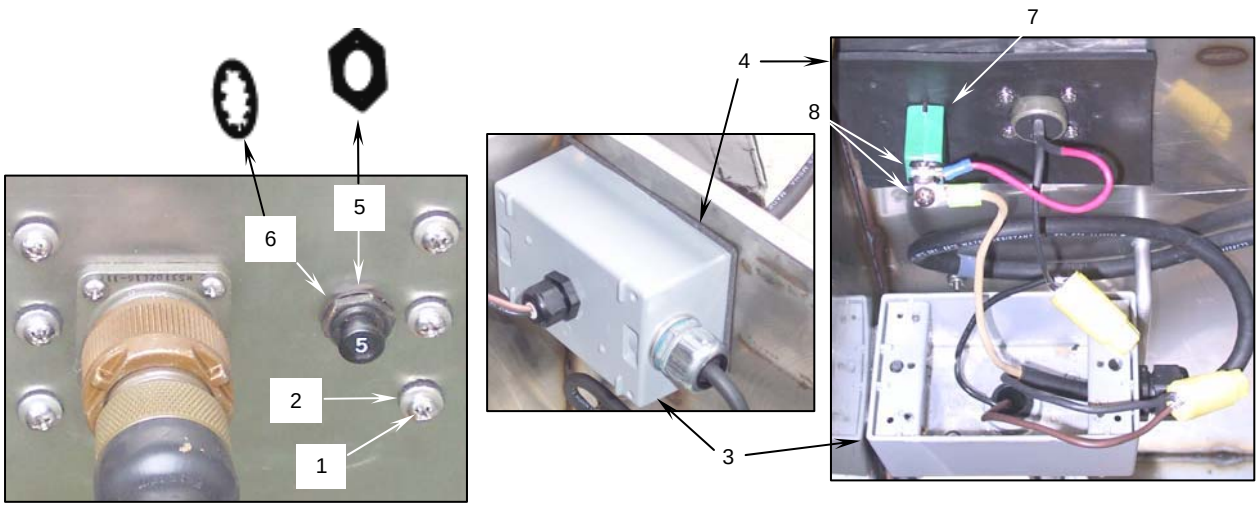


Figure 2. Removing the Grease Separator Circuit Breaker.

4. Install the new circuit breaker as follows:

   a. Orient the new circuit breaker **(Figure 3, item 1)** so that the orientation tab **(Figure 3, item 2)** is at the top.

   b. Connect the two wires **(Figure 3, item 3)** to the new circuit breaker terminals as tagged.

   c. Insert the new breaker into the grease separator enclosure, ensuring that the orientation tab **(Figure 3, item 2)** fits into the notch inside the enclosure above the opening.

   d. Secure the breaker to the enclosure using the lock washer **(Figure 3, item 4)** and the lock nut **(Figure 3, item 5)**.

   e. Coat the terminal connections **(Figure 3, item 3)** at the back of the circuit breaker with corrosion preventative sealant.

   f. Apply sealing compound to the threads of the six machine screws **(Figure 3, item 6)**.

   g. Position the weatherproof box **(Figure 3, item 7)** on the gasket **(Figure 3, item 4)** and the wall of the grease separator and secure with the six sealing washers **(Figure 3, item 2)** and machine screws **(Figure 3, item 6)**.

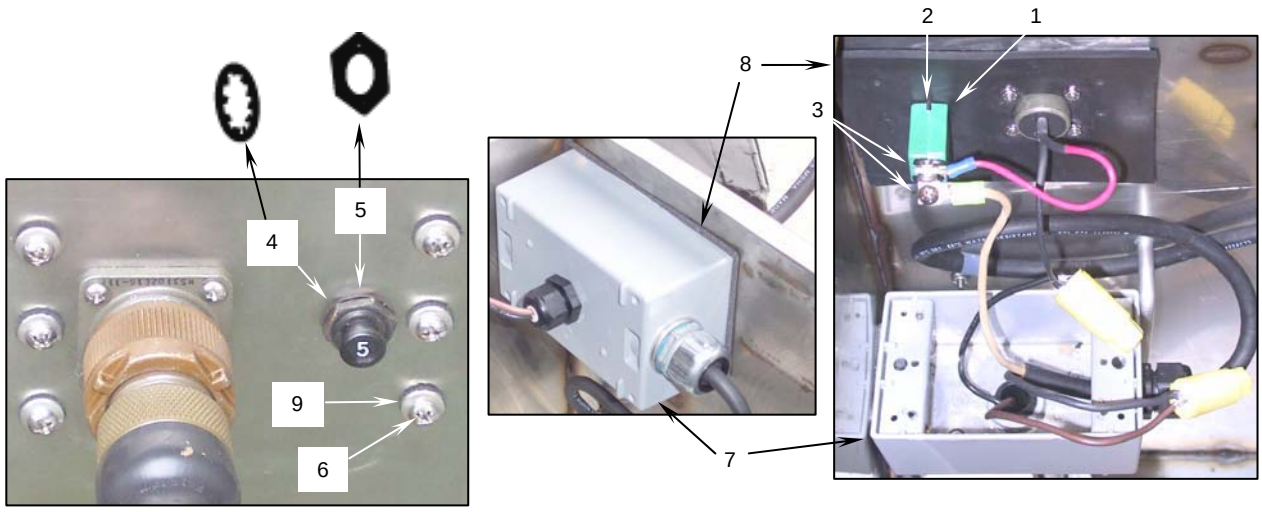


Figure 3. Installing the Grease Separator Circuit Breaker.

5. Install the grease separator IAW WP 0006 00, Assembly and Preparation for Use procedures.

6. Observing the Electrical Shock Warning, connect the grease separator to its power source IAW WP 0006 00, Assembly and Preparation for Use procedures.

7. Operate the grease separator IAW WP 0006 00, Operating Procedures.

8. Observe the grease separator for proper operation.

END OF WORK PACKAGE

UNIT MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-2, NSN 7360-01-496-2112
GREASE SEPARATOR: ELECTRICAL CONNECTOR REPAIR

INITIAL SETUP:

Tools and Special Tools
Tool Kit, General Mechanic's: Automotive (WP 0051 00, Table 2, Item 2)

Material/Parts
Connector Assembly (WP 0062 00, Item 19)
Rag, Wiping (WP 0070 00, Item 7)
Sealant, Corrosion Preventive (WP 0070 00, Item 8)
Sealing Compound (WP 0070 00, Item 10)
Tag, Marker (WP 0070 00, Item 11)
Wirenut, Watertight, (WP 0062 00, Item 17)

Personnel Required
Quartermaster and Chemical Equipment Repairer 63J10 (1)
Food Service Operator 92G10 (2)

References
WP 0006 00
WP 0012 00

Drawings Required
Grease Separator Wiring Diagram

Equipment Condition
The grease separator is unplugged from its power source, is disconnected from the sink drain hose assembly and the drain hose. Grease separator is empty and clean.

GENERAL

This work package contains procedures for repairing the grease separator by replacing the electrical connector.

REPAIR

Electrical Connector

WARNING

Electrical high voltage and current cannot be seen, but in contact with energized equipment can kill you, render you unconscious, or severely burn you. Electricity is unlike most other dangerous things you can come in contact with because it gives no warning. To ensure your safety and that of other maintenance personnel, do not perform any maintenance on electrical equipment unless all power is removed. Failure to observe this warning may result in electrical shock injury or death (electrocution).

1. Ensure that the grease separator is unplugged from its power source, is disconnected from the sink drain hose assembly and the drain hose, and is empty and clean IAW WP 0012 00, Clean Grease Separator.

WARNING

The grease separator weighs approximately 80 lb (36.4 kg) empty. Three persons must use handles to lift or carry the grease separator, lifting with their legs, not their back, to prevent injury. The grease separator must be empty when lifted. The use of work gloves with gripping pads when moving equipment will significantly reduce the risk of injuries/cuts. Failure to observe this warning may result in serious back or other muscular skeletal injuries or hand cuts.

2. Remove the electrical connector as follows:

   a. Remove the six machine screws **(Figure 1, Item 1)** and sealing washers **(Figure 1, Item 2)** that secure the weatherproof box **(Figure 1, Item 3)** to the wall of the grease separator.

   b. Carefully pull the box away from the wall, taking care not to damage the gasket **(Figure 1, Item 4)**.

   c. Disconnect the red power connector wire **(Figure 1, Item 5)** from the circuit breaker terminal **(Figure 1, Item 6)**.

   d. Tag the black pump wire **(Figure 1, Item 7)** that is connected to the black power connector wire **(Figure 1, Item 8)**. Remove and discard the wire nut **(Figure 1, Item 9)** and separate the wires.

   e. Remove the four screws **(Figure 1, Item 10)**, one flat washer **(Figure 1, Item 11)**, and four self-locking nuts **(Figure 1, Item 12)** that secure the electrical connector **(Figure 1, Item 13)** to the grease separator enclosure.

   f. Remove and retain the connector cap **(Figure 1, Item 14)** and chain **(Figure 1, Item 15)**.

   g. Pull the connector **(Figure 1, Item 13)** out of the grease separator enclosure.

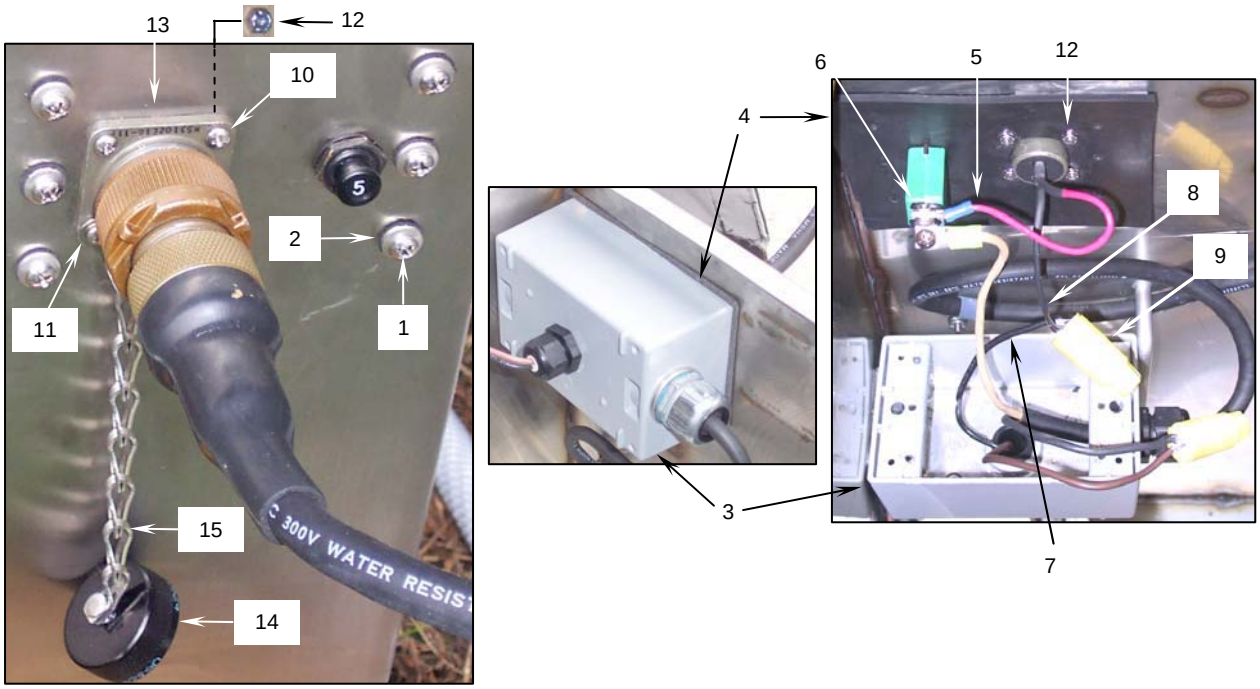


Figure 1. Removing the Grease Separator Electrical Connector.

3. Install the new electrical connector as follows:

   a. Insert the new connector **(Figure 2, Item 1)** into the grease separator enclosure, ensuring that the red connector wire **(Figure 2, Item 2)** is positioned at the top.

NOTE

When securing the electrical connector to the enclosure, make sure that the end of the chain **(Figure 2, Item 3)** for the connector cap is fitted over the bottom left screw.

   b. Secure the new connector **(Figure 2, Item 1)** and the connector cap chain **(Figure 2, Item 3)** to the enclosure using the four screws **(Figure 2, Item 4)**, one flat washer **(Figure 2, Item 5)**, and four self-locking nuts **(Figure 2, Item 6)**.

   c. Strip the wire ends of the new connector.

   d. Connect the red connector wire **(Figure 2, Item 2)** to the circuit breaker terminal **(Figure 2, Item 7)**. Coat the connection with corrosion preventative sealant.

   e. Twist the black connector wire **(Figure 2, Item 8)** together with the black pump wire **(Figure 2, Item 9)** and secure with a new watertight wire nut **(Figure 2, Item 10)**.

   f. Apply sealing compound to the threads of the six machine screws **(Figure 2, Item 11)**.

   g. Position the weatherproof box **(Figure 2, Item 12)** on the gasket **(Figure 2, Item 13)** and the wall of the grease separator and secure with the six sealing washers **(Figure 2, Item 14)** and machine screws **(Figure 2, Item 11)**.

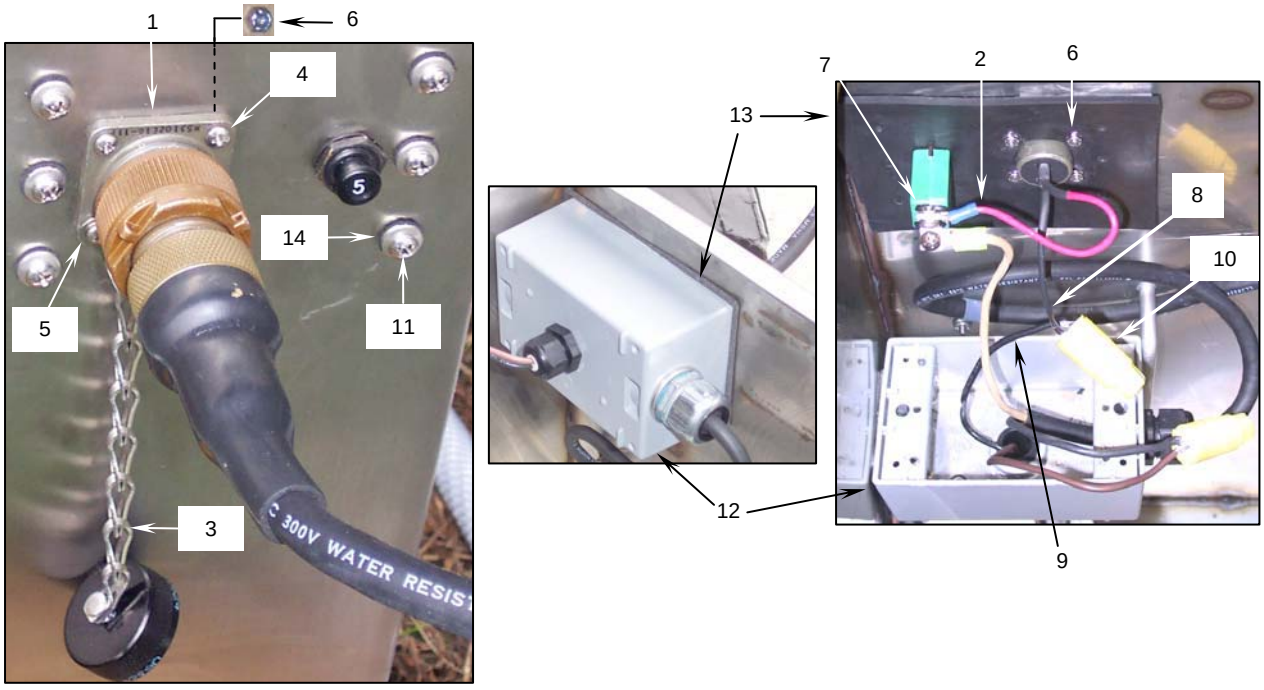


Figure 2. Installing the New Grease Separator Electrical Connector.

4. Install the grease separator IAW WP 0006 00, Assembly and Preparation for Use procedures.

5. Observing the Electrical Shock Warning, connect the grease separator to its power source IAW WP 0006 00, Assembly and Preparation for Use procedures.

6. Operate the grease separator IAW WP 0006 00, Operating Procedures.

7. Observe the grease separator for proper operation.

END OF WORK PACKAGE

UNIT MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-2, NSN 7360-01-496-2112
GREASE SEPARATOR: GASKET, SINGLE GANG
REPAIR

INITIAL SETUP:

Tools and Special Tools
Tool Kit, General Mechanic's: Automotive (WP 0051 00, Table 2, Item 2)

Material/Parts
Gasket (WP 0062 00, Item 16)
Rag, Wiping (WP 0070 00, Item 7)
Sealant, Corrosion Preventive (WP 0070 00, Item 8)
Sealing Compound (WP 0070 00, Item 10)
Tag, Marker (WP 0070 00, Item 11)
Wirenut, Watertight, (WP 0062 00, Item 17)

Personnel
Quartermaster and Chemical Equipment Repairer 63J10 (1)
Food Service Operator 92G10 (2)

References
WP 0006 00
WP 0012 00

Drawings Required
Grease Separator Wiring Diagram

Equipment Condition
The grease separator is unplugged from its power source, is disconnected from the sink drain hose assembly and the drain hose. Grease separator is empty and clean.

GENERAL

This work package contains procedures for repairing the grease separator by replacing the gasket, single gang or weatherproof box gasket on the grease separator.

REPAIR

Gasket

WARNING

Electrical high voltage and current cannot be seen, but in contact with energized equipment can kill you, render you unconscious, or severely burn you. Electricity is unlike most other dangerous things you can come in contact with because it gives no warning. To ensure your safety and that of other maintenance personnel, do not perform any maintenance on electrical equipment unless all power is removed. Failure to observe this warning may result in electrical shock injury or death (electrocution).

1. Ensure that the grease separator has been disconnected from its power source and its hoses and that it has been cleaned IAW WP 0012 00, Clean Grease Separator.

WARNING

The grease separator weighs approximately 80 lb (36.4 kg) empty. Three persons must use handles to lift or carry the grease separator, lifting with their legs, not their back, to prevent injury. The grease separator must be empty when lifted. The use of work gloves with gripping pads when moving equipment will significantly reduce the risk of injuries/cuts. Failure to observe this warning may result in serious back or other muscular skeletal injuries or hand cuts.

2. Remove the old gasket as follows:

   a. Remove the six machine screws **(Figure 1, Item 1)** and sealing washers **(Figure 1, Item 2)** that secure the weatherproof box **(Figure 1, Item 3)** to the wall of the grease separator.

   b. Pull the box away from the gasket **(Figure 1, Item 4)** and the wall.

   c. Remove the lock nut **(Figure 1, Item 5)** and lock washer **(Figure 1, Item 6)** from the front of the circuit breaker **(Figure 1, Item 7)**.

   d. Pull the breaker **(Figure 1, Item 7)** out of the grease separator enclosure.

   e. Tag and disconnect the red power connector wire **(Figure 1, Item 8)** from the circuit breaker terminal **(Figure 1, Item 9)**.

   f. Tag the black connector wire **(Figure 1, Item 10)** and the black pump wire **(Figure 1, Item 11)**. Remove and discard the wire nut **(Figure 1, Item 12)** and separate the wires.

   g. Remove the four screws **(Figure 1, Item 13)**, one flat washer **(Figure 1, Item 14)**, and four self-locking nuts **(Figure 1, Item 15)** that secure the electrical connector **(Figure 1, Item 16)** to the grease separator enclosure.

   h. Remove and retain the connector cap **(Figure 1, Item 17)** and chain **(Figure 1, Item 18)**.

   i. Pull the connector **(Figure 1, Item 16)** out of the grease separator enclosure.

   j. Remove and discard the old gasket **(Figure 1, Item 4)**.

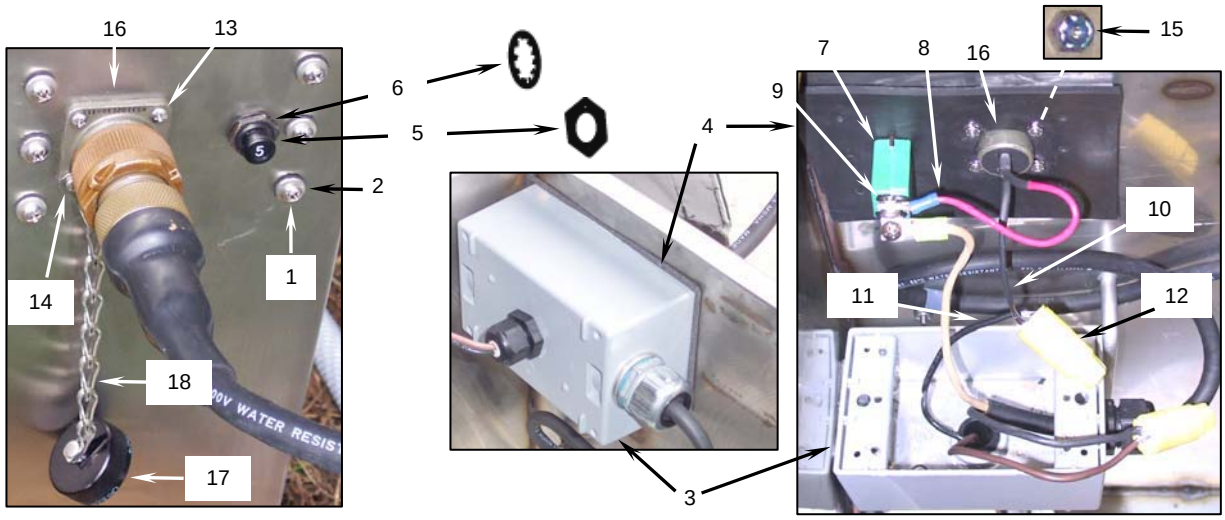


Figure 1. Removing the Grease Separator Weatherproof Box Gasket.

3. Install the new gasket as follows:

   a. Position the new gasket **(Figure 2, Item 1)** on the grease separator enclosure, making sure all the holes line up properly.

   b. Insert the power connector **(Figure 2, Item 2)** through the hole from the outside of the grease separator enclosure.

   c. To secure the electrical connector to the enclosure, ensure that the end of the connector cap chain **(Figure 2, Item 3)** is fitted over the bottom left screw.

   d. Secure the connector **(Figure 2, Item 2)** and the connector cap chain **(Figure 2, Item 3)** to the enclosure using the four screws **(Figure 2, Item 4)**, one flat washer **(Figure 2, Item 5)**, and four self-locking nuts **(Figure 2, Item 6)**.

   e. Insert the circuit breaker through the grease separator enclosure from the inside. Ensure that the orientation tab **(Figure 2, Item 7)** fits into the notch inside the enclosure above the opening.

   f. Secure the breaker to the enclosure using the lock washer **(Figure 2, Item 8)** and the lock nut **(Figure 2, Item 9)**.

   g. Connect the red connector wire **(Figure 2, Item 10)** to the circuit breaker terminal **(Figure 2, Item 11)**. Coat the connection with corrosion preventative sealant.

   h. Twist the black connector wire **(Figure 2, Item 12)** together with the black pump wire **(Figure 2, Item 13)** and secure with a new watertight wire nut **(Figure 2, Item 14)**.

   i. Apply sealing compound to the threads of the six machine screws **(Figure 2, Item 15)**.

   j. Position the weatherproof box **(Figure 2, Item 16)** on the gasket **(Figure 2, Item 1)** and the wall of the grease separator and secure with the six sealing washers **(Figure 2, Item 17)** and machine screws **(Figure 2, Item 15)**.

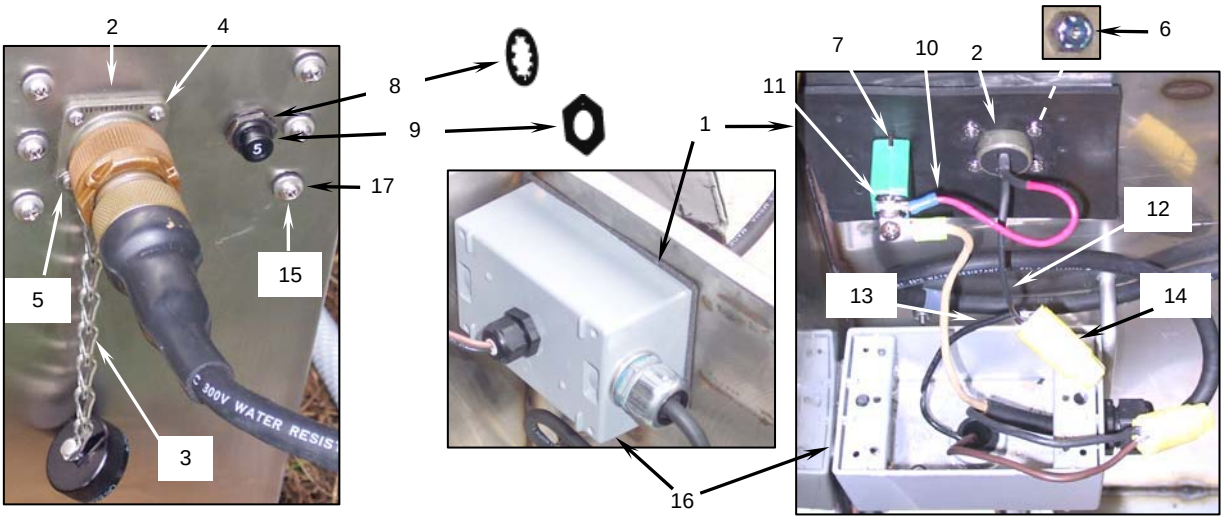


Figure 2. Installing the Grease Separator Weatherproof Box Gasket.

4. Install the grease separator IAW WP 0006 00, Assembly and Preparation for Use procedures.

5. Observing the Electrical Shock Warning, connect the grease separator to its power source IAW WP 0006 00, Assembly and Preparation for Use procedures.

6. Operate the grease separator IAW WP 0006 00, Operating Procedures.

7. Observe the grease separator for proper operation.

END OF WORK PACKAGE

UNIT MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-2, NSN 7360-01-496-2112
GREASE SEPARATOR: VALVE, BALL
REPAIR

INITIAL SETUP:

Tools and Special Tools
Tool Kit, General Mechanic's: Automotive (WP 0051 00, Table 2, Item 2)

Material/Parts
Valve, Ball (Grease Removal Valve) (WP 0062 00, Item 7)
Sealing Compound (WP 0070 00, Item 10)

Personnel Required
Quartermaster and Chemical Equipment Repairer 63J10 (1)
Food Service Operator 92G10 (2)

References
WP 0006 00
WP 0012 00

Equipment Condition
The grease separator is unplugged from its power source, disconnected from the sink drain hose assembly and the drain hose. Grease separator is empty and clean.

GENERAL

This work package contains procedures for repairing the grease separator by replacing the grease removal valve.

REPAIR

Grease Removal Valve

1. Ensure that the grease separator is unplugged from its power source, disconnected from the sink drain hose assembly and the drain hose, and is empty and clean IAW WP 0012 00, Clean Grease Separator.

WARNING

The grease separator weighs approximately 80 lb (36.4 kg) empty. Three persons must use handles to lift or carry the grease separator, lifting with their legs not their back, to prevent injury. The grease separator must be empty when lifted. The use of work gloves with gripping pads when moving equipment will significantly reduce the risk of injuries/cuts. Failure to observe this warning may result in serious back or other muscular skeletal injuries or hand cuts.

2. Remove the grease removal valve as follows:

   a. Unscrew the pipe elbow **(Figure 1, Item 1)** from the valve **(Figure 1, Item 2)**.

   b. Unscrew the valve **(Figure 1, Item 2)** from the grease separator drain outlet **(Figure 1, Item 3)**.

3. Install the new grease removal valve as follows:

   a. Clean the threads on the pipe elbow **(Figure 1, Item 1)** and the grease separator drain outlet **(Figure 1, Item 3)**.

   b. Apply sealing compound to the threads of the pipe elbow **(Figure 1, Item 1)** and the grease separator drain outlet **(Figure 1, Item 3)**.

   c. Screw the valve **(Figure 1, Item 2)** onto the grease separator drain outlet **(Figure 1, Item 3)** and tighten so that the valve handle is up and the pipe elbow points down.

   d. Screw the pipe elbow **(Figure 1, Item 1)** onto the valve **(Figure 1, Item 2)** and tighten so that the elbow points down in the opposite direction from the valve handle.

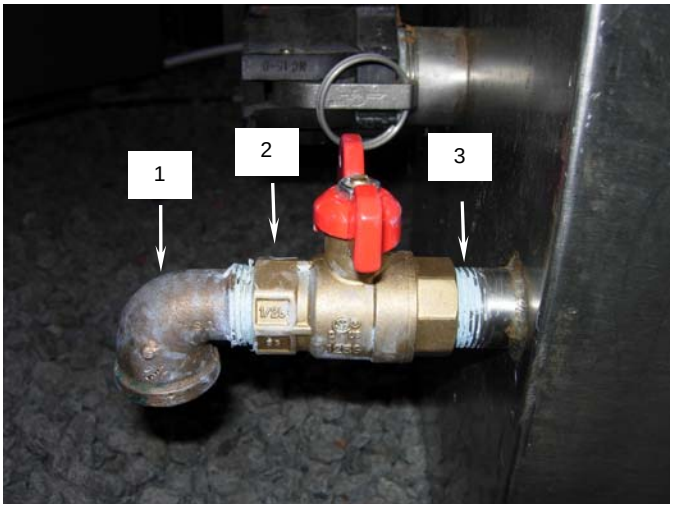


Figure 1. Removing the Grease Removal Valve from the Grease Separator.

4. Install the grease separator IAW WP 0006 00, Assembly and Preparation for Use procedures.

5. Observing the Electrical Shock Warning, connect the grease separator to its power source IAW WP 0006 00, Assembly and Preparation for Use procedures.

6. Operate the grease separator IAW WP 0006 00, Operating Procedures.

7. Observe the grease separator for proper operation.

END OF WORK PACKAGE

UNIT MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-2, NSN 7360-01-496-2112
GREASE SEPARATOR: ADAPTER, HOSE 90-DEG ELBOW
REPAIR

INITIAL SETUP:

Tools and Special Tools
Tool Kit, General Mechanic's: Automotive (WP 0051 00, Table 2, Item 2)
Common No. 1 Automotive Maintenance and Repair Shop Equipment (WP 0051 00, Table 2, Item 1)

Material/Parts
Adapter, Hose, 90-Deg Elbow (WP 0062 00, Item 30)
Sealing Compound (WP 0070 00, Item 10)

Personnel Required
Quartermaster and Chemical Equipment Repairer 63J10 (1)
Food Service Operator 92G10 (2)

References
WP 0006 00
WP 0012 00

Equipment Condition
The grease separator is unplugged from its power source, disconnected from the sink drain hose assembly and the drain hose. Grease separator is empty and clean.

GENERAL

This work package contains procedures for repairing the grease separator by replacing the hose adapter elbow.

REPAIR

Hose Adapter Elbow

1. Ensure that the grease separator is unplugged from its power source, disconnected from the sink drain hose assembly and the drain hose, and is empty and clean IAW WP 0012 00, Clean Grease Separator.

WARNING

The grease separator weighs approximately 80 lb (36.4 kg) empty. Three persons must use handles to lift or carry the grease separator, lifting with their legs not their back, to prevent injury. The grease separator must be empty when lifted. The use of work gloves with gripping pads when moving equipment will significantly reduce the risk of injuries/cuts. Failure to observe this warning may result in serious back or other muscular skeletal injuries or hand cuts.

2. Remove the hose adapter elbow **(Figure 1, Item 1)** as follows:

   a. Loosen the hose clamp **(Figure 1, Item 2)** that secures the pump discharge tubing (**Figure 1, Item 3)** to the hose adapter elbow **(Figure 1, Item 1)**. Pull the tubing off the elbow.

   b. Unthread the hose adapter elbow **(Figure 1, Item 1)** from the check valve **(Figure 1, Item 4)**.

3. Install the new hose adapter elbow as follows:

   a. Apply sealing compound to the external threads of the new hose adapter elbow **(Figure 1, Item 1)** and thread the elbow into the check valve **(Figure 1, Item 4)**.

   b. Make sure the hose clamp **(Figure 1, Item 2)** is over the pump discharge tubing **(Figure 1, Item 3)**, then secure the tubing **(Figure 1, Item 3)** to the hose adapter elbow **(Figure 1, Item 1)** using the hose clamp **(Figure 1, Item 2)**.

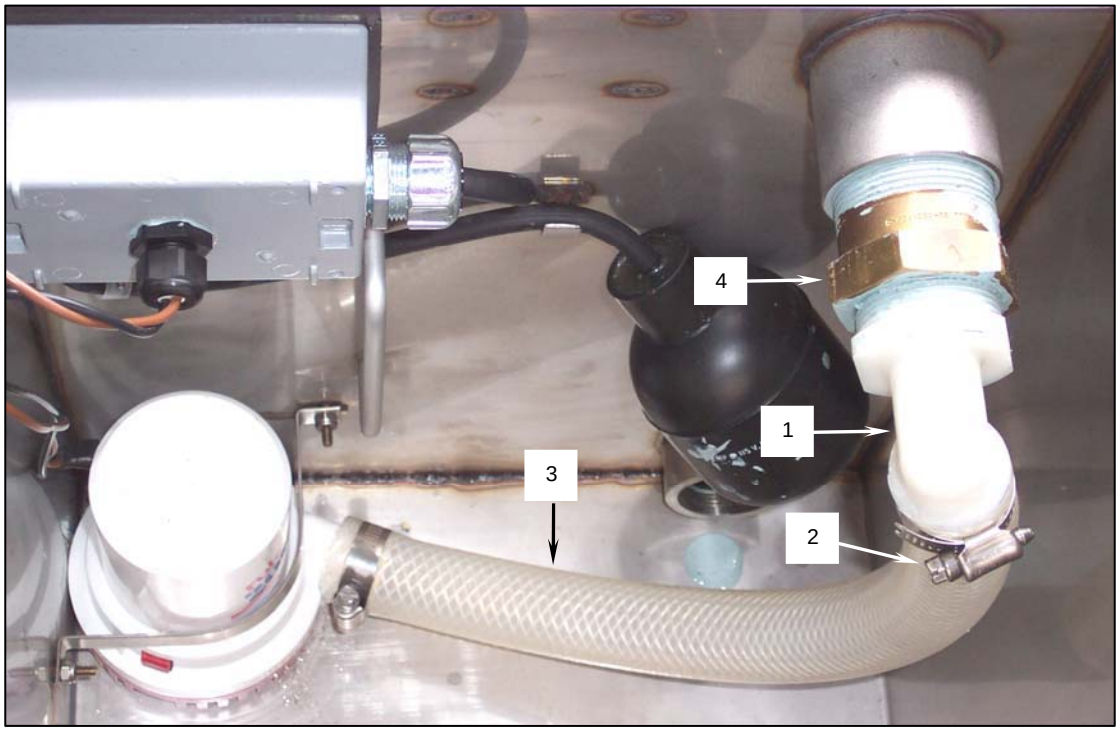


Figure 1. Replacing the Grease Separator Hose Adapter Elbow.

4. Install the grease separator IAW WP 0006 00, Assembly and Preparation for Use procedures.

5. Observing the Electrical Shock Warning, connect the grease separator to its power source IAW WP 0006 00, Assembly and Preparation for Use procedures.

6. Operate the grease separator IAW WP 0006 00, Operating Procedures.

7. Observe the grease separator for proper operation.

END OF WORK PACKAGE

UNIT MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-2, NSN 7360-01-496-2112
GREASE SEPARATOR: VALVE, CHECK
REPAIR

INITIAL SETUP:

Tools and Special Tools
Tool Kit, General Mechanic's: Automotive (WP 0051 00, Table 2, Item 2)
Common No. 1 Automotive Maintenance and Repair Shop Equipment (WP 0051 00, Table 2, Item 1)

Material/Parts
Valve, Check (WP 0062 00, Item 31)
Sealing Compound (WP 0070 00, Item 10)

Personnel Required
Quartermaster and Chemical Equipment Repairer 63J10 (1)
Food Service Operator 92G10 (2)

References
WP 0006 00
WP 0012 00

Equipment Condition
The grease separator is unplugged from its power source, disconnected from the sink drain hose assembly and the drain hose. Grease separator is empty and clean.

GENERAL

This work package contains procedures for repairing the grease separator by replacing the check valve.

REPAIR

Check Valve

1. Ensure that the grease separator is unplugged from its power source, disconnected from the sink drain hose assembly and the drain hose, and is empty and clean IAW WP 0012 00, Clean Grease Separator.

WARNING

The grease separator weighs approximately 80 lb (36.4 kg) empty. Three persons must use handles to lift or carry the grease separator, lifting with their legs not their back, to prevent injury. The grease separator must be empty when lifted. The use of work gloves with gripping pads when moving equipment will significantly reduce the risk of injuries/cuts. Failure to observe this warning may result in serious back or other muscular skeletal injuries or hand cuts.

2. Remove the check valve **(Figure 1, Item 1)** as follows:

   a. Loosen the hose clamp **(Figure 1, Item 2)** that secures the pump discharge tubing **(Figure 1, Item 3)** to the hose adapter elbow **(Figure 1, Item 4)**. Pull the tubing off the elbow.

   b. Unthread the hose adapter elbow **(Figure 1, Item 4)** from the check valve **(Figure 1, Item 1)**.

   c. Unthread the check valve **(Figure 1, Item 1)** from the pipe nipple **(Figure 1, Item 5)**.

3. Install the new check valve as follows:

   a. Apply sealing compound to the external threads of the hose adapter elbow **(Figure 1, Item 4)** and thread the elbow into the new check valve **(Figure 1, Item 1)**.

   b. Apply sealing compound to the external threads of the check valve **(Figure 1, Item 1)** and thread the check valve into the pipe nipple **(Figure 1, Item 5)**. Make sure the hose adapter elbow **(Figure 1, Item 4)** is pointing down.

   c. Make sure the hose clamp **(Figure 1, Item 2)** is over the pump discharge tubing **(Figure 1, Item 3)**, then secure the tubing **(Figure 1, Item 3)** to the hose adapter elbow **(Figure 1, Item 4)** using the hose clamp **(Figure 1, Item 2)**.

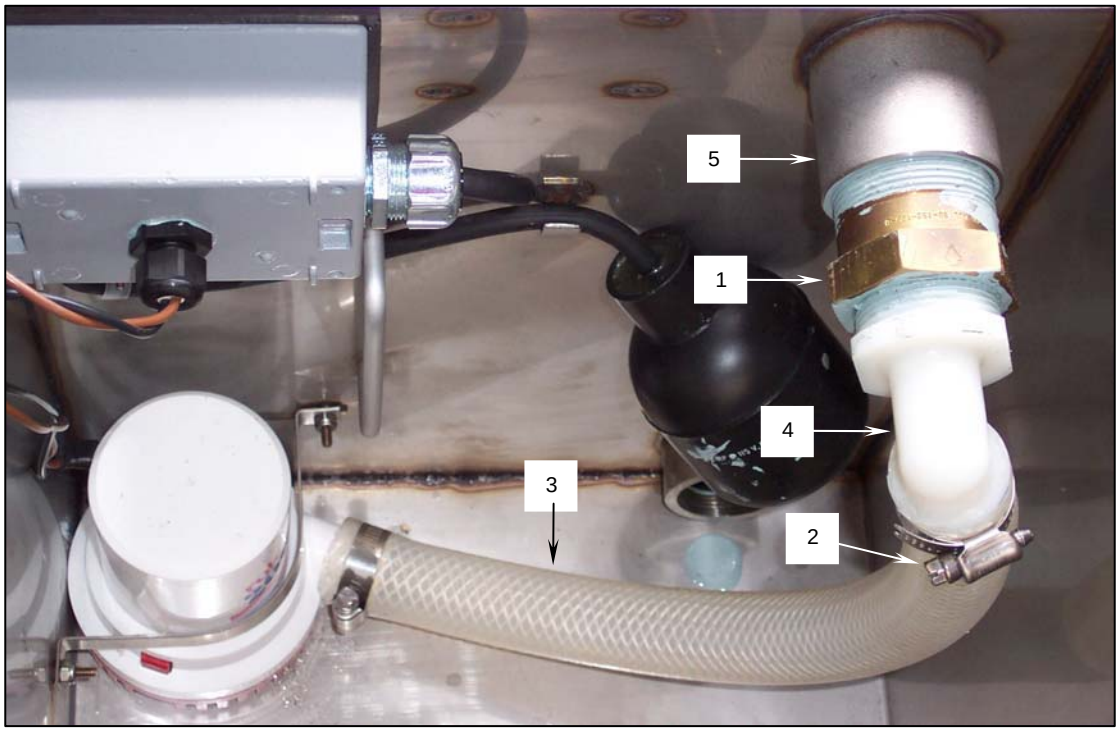


Figure 1. Replacing the Grease Separator Check Valve.

4. Install the grease separator IAW WP 0006 00, Assembly and Preparation for Use procedures.

5. Observing the Electrical Shock Warning, connect the grease separator to its power source IAW WP 0006 00, Assembly and Preparation for Use procedures.

6. Operate the grease separator IAW WP 0006 00, Operating Procedures.

7. Observe the grease separator for proper operation.

END OF WORK PACKAGE

UNIT MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-2, NSN 7360-01-496-2112
GREASE SEPARATOR: INLET COUPLER
REPAIR

INITIAL SETUP:

Tools and Special Tools
Tool Kit, General Mechanic's: Automotive (WP 0051 00, Table 2, Item 2)
Common No. 1 Automotive Maintenance and Repair Shop Equipment (WP 0051 00, Table 2, Item 1)

Material/Parts
Coupling Half, Quick Disconnect (WP 0062 00, Item 10)
Sealing Compound (WP 0070 00, Item 10)

Personnel Required
Quartermaster and Chemical Equipment Repairer 63J10 (1)
Food Service Operator 92G10 (2)

References
WP 0006 00
WP 0012 00

Equipment Condition
The grease separator is unplugged from its power source, disconnected from the sink drain hose assembly and the drain hose. Grease separator is empty and clean.

GENERAL

This work package contains procedures for repairing the grease separator by replacing the inlet coupler.

REPAIR

Inlet Coupler

1. Ensure that the grease separator has been disconnected from its power source and its hoses and that it has been cleaned IAW WP 0012 00, Clean Grease Separator.

WARNING

The grease separator weighs approximately 80 lb (36.4 kg) empty. Three persons must use handles to lift or carry the grease separator, lifting with their legs not their back, to prevent injury. The grease separator must be empty when lifted. The use of work gloves with gripping pads when moving equipment will significantly reduce the risk of injuries/cuts. Failure to observe this warning may result in serious back or other muscular skeletal injuries or hand cuts.

2. Unthread the inlet coupler **(Figure 1, Item 1)** from the grease separator inlet pipe **(Figure 1, Item 2)**.
3. Clean the threads on the grease separator inlet pipe **(Figure 1, Item 2)**.
4. Apply sealing compound to the threads of the grease separator inlet pipe **(Figure 1, Item 2)**.
5. Thread the new inlet coupler **(Figure 1, Item 1)** onto the inlet pipe **(Figure 1, Item 2)**.

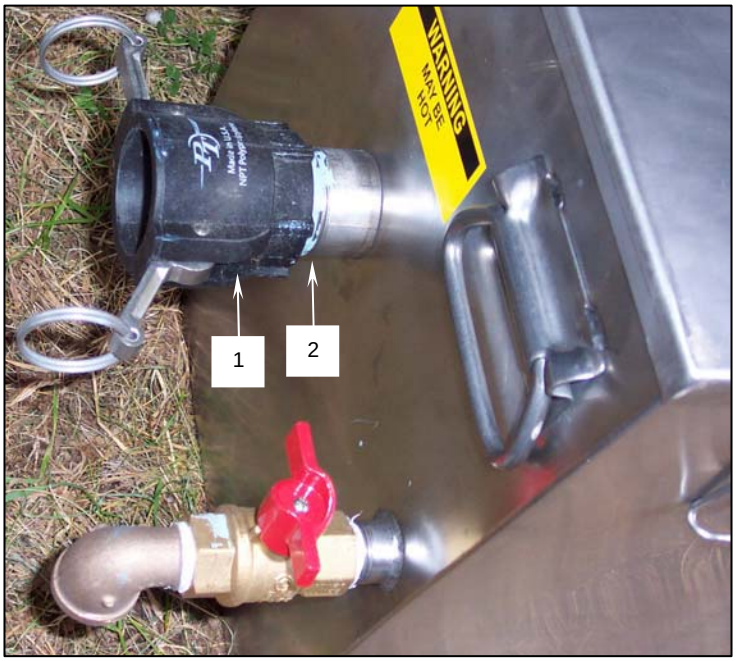


Figure 1. Replacing the Grease Separator Inlet Coupler.

6. Install the grease separator IAW WP 0006 00, Assembly and Preparation for Use procedures.
7. Observing the Electrical Shock Warning, connect the grease separator to its power source IAW WP 0006 00, Assembly and Preparation for Use procedures.
8. Operate the grease separator IAW WP 0006 00, Operating Procedures.
9. Observe the grease separator for leaks and proper operation.

END OF WORK PACKAGE

UNIT MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-2, NSN 7360-01-496-2112
GREASE SEPARATOR: COUPLING HALF, QUICK DISCONNECT
REPAIR

INITIAL SETUP:

Tools and Special Tools
Tool Kit, General Mechanic's: Automotive (WP 0051 00, Table 2, Item 2)
Common No. 1 Automotive Maintenance and Repair Shop Equipment (WP 0051 00, Table 2, Item 1)

Material/Parts
Coupling Half, Quick Disconnect (WP 0062 00, Item 32)
Sealing Compound (WP 0070 00, Item 10)

Personnel Required
Quartermaster and Chemical Equipment Repairer 63J10 (1)
Food Service Operator 92G10 (2)

References
WP 0006 00
WP 0012 00

Equipment Condition
The grease separator is unplugged from its power source, disconnected from the sink drain hose assembly and the drain hose. Grease separator is empty and clean.

GENERAL

This work package contains procedures for repairing the grease separator by replacing either outlet adapter.

REPAIR

Outlet Adapter

1. Ensure that the grease separator is unplugged from its power source, disconnected from the sink drain hose assembly and the drain hose, and is empty and clean IAW WP 0012 00, Clean Grease Separator.

WARNING

The grease separator weighs approximately 80 lb (36.4 kg) empty. Three persons must use handles to lift or carry the grease separator, lifting with their legs not their back, to prevent injury. The grease separator must be empty when lifted. The use of work gloves with gripping pads when moving equipment will significantly reduce the risk of injuries/cuts. Failure to observe this warning may result in serious back or other muscular skeletal injuries or hand cuts.

2. Unthread the outlet adapter **(Figure 1, Item 1)** from the grease separator outlet **(Figure 1, Item 2)**.
3. Apply sealing compound to the threads of the new outlet adapter **(Figure 1, Item 1)**.
4. Thread the new outlet adapter **(Figure 1, Item 1)** onto the grease separator outlet **(Figure 1, Item 2)**.

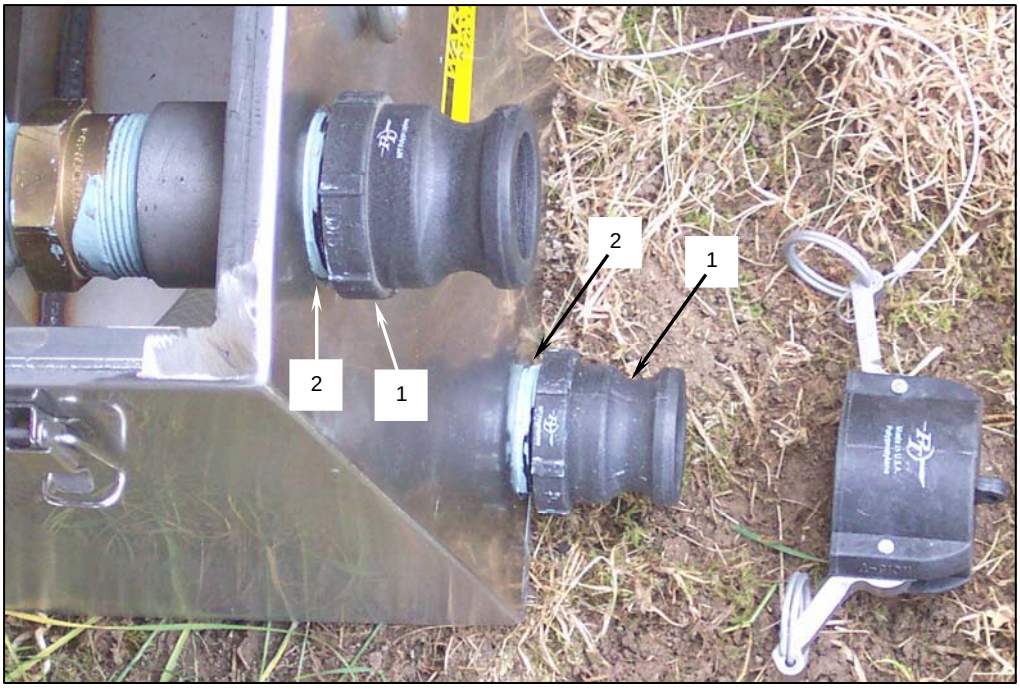


Figure 1. Replacing the Grease Separator Outlet Adapter.

5. Install the grease separator IAW WP 0006 00, Assembly and Preparation for Use procedures.
6. Observing the Electrical Shock Warning, connect the grease separator to its power source IAW WP 0006 00, Assembly and Preparation for Use procedures.
7. Operate the grease separator IAW WP 0006 00, Operating Procedures.
8. Observe the grease separator for leaks and proper operation.

END OF WORK PACKAGE

UNIT MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-2, NSN 7360-01-496-2112
GREASE SEPARATOR: FLAP, AIR
REPAIR

INITIAL SETUP:

Tools and Special Tools
Tool Kit, General Mechanic's: Automotive (WP 0051 00, Table 2, Item 2)
Shop Equipment, Automotive Vehicle (WP 0051 00, Table 2, Item 1)

Material/Parts
Flap, Air (WP 0062 00, Item 4)
Rivet, Blind (WP 0062 00, Item 3)
Washer, Flat (WP 0062 00, Item 5)

Personnel Required
Quartermaster and Chemical Equipment Repairer 63J10 (1)
Food Service Operator 92G10 (1)

References
WP 0006 00

Equipment Condition
The grease separator is unplugged from its power source, disconnected from the sink drain hose assembly and the drain hose. Grease separator is empty and clean.

GENERAL

This work package contains procedures for repairing the grease separator by replacing the lid air flap.

REPAIR

Lid Air Flap

WARNING

Personnel injury/ cuts. Work gloves and face/eye protection must be worn when performing equipment maintenance. The use of work gloves with gripping pads when moving equipment will significantly reduce the risk of injury. Failure to do so could result in serious injury to eyes or hands.

1. Drill the two existing rivets **(Figure 1, Item 1)** out of the grease separator lid **(Figure 1, Item 2)**.
2. Remove and discard the existing washers **(Figure 1, Item 3)** and the lid air flap **(Figure 1, Item 4)**.
3. Position the new lid air flap **(Figure 1, Item 4)** and washers **(Figure 1, Item 3)** on the underside of the lid **(Figure 1, Item 2)**.
4. Insert the two new rivets **(Figure 1, Item 1)** through the top of the lid **(Figure 1, Item 2)**, the new lid air flap **(Figure 1, Item 4)**, and the two new washers **(Figure 1, Item 3)**.
5. Crimp the rivets in place using a rivet installer tool.

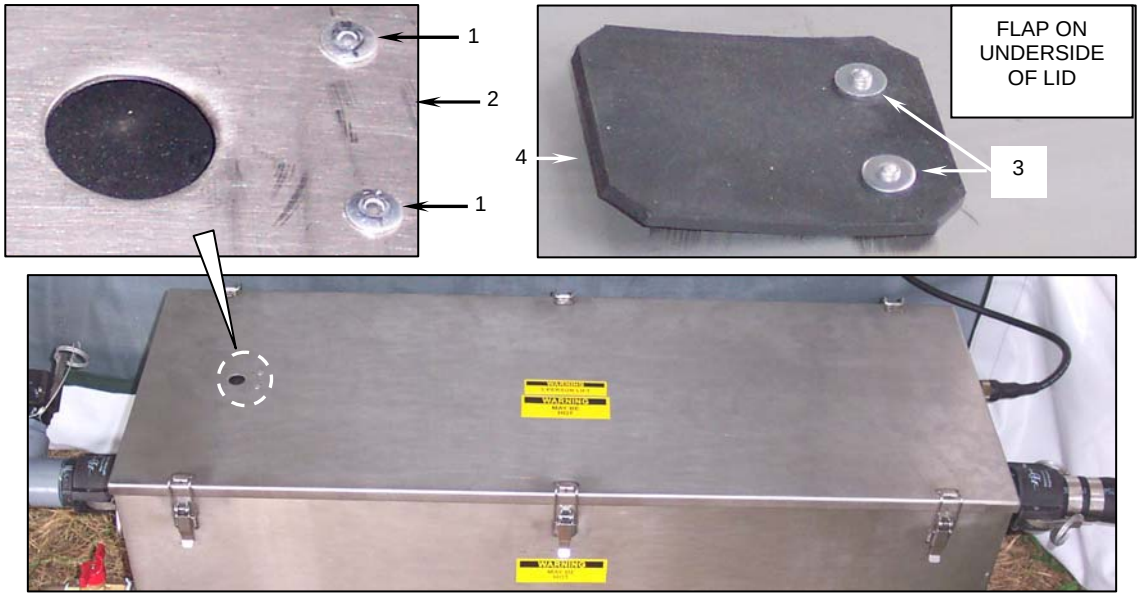


Figure 1. Replacing the Grease Separator Lid Air Flap.

6. Install the grease separator IAW WP 0006 00, Assembly and Preparation for Use procedures.
7. Observing the Electrical Shock Warning, connect the grease separator to its power source IAW WP 0006 00, Assembly and Preparation for Use procedures.
8. Operate the grease separator IAW WP 0006 00, Operating Procedures.
9. Observe the grease separator for leaks and proper operation.

END OF WORK PACKAGE

UNIT MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-2, NSN 7360-01-496-2112
CO MONITOR: DETECTOR, CO
REPAIR

INITIAL SETUP:

Tools and Special Tools
Tool Kit, General Mechanic's: Automotive (WP 0051 00, Table 2, Item 2)

Material/Parts
Detector, CO (WP 0064 00, Item 2)
Tag, Marker (WP 0070 00, Item 11)
Wirenut, Watertight, (WP 0064 00, Item 4)

Personnel Required
Quartermaster and Chemical Equipment Repairer 63J10 (1)

References
FM 100-14
WP 0007 00

Drawings Required
CO Monitor Wiring Diagram

Equipment Condition
The FSC is energized and operating with proper ventilation.

GENERAL

This work package contains procedures for repairing the CO Monitor by replacing the CO detector.

REPAIR

WARNING

Risk Management. If the CO monitor is to be removed for repair, refer to WP 0007 00, Operation Under Unusual Conditions, for operation of the FSC-2 system without the CO monitor. This is a command decision. Refer to FM 100-14, Risk Management, before continuing with operation.

Electrical high voltage and current cannot be seen, but in contact with energized equipment can kill you, render you unconscious, or severely burn you. Electricity is unlike most other dangerous things you can come in contact with because it gives no warning. To ensure your safety and that of other maintenance personnel, do not perform any maintenance on electrical equipment unless all power is removed. Failure to observe this warning may result in electrical shock injury or death (electrocution).

Carbon Monoxide Gas. Carbon monoxide (CO) is a gas without color, smell, or taste that can kill you. Breathing carbon monoxide gas produces symptoms such as headache, dizziness, loss of muscular control, a sleepy feeling, unconsciousness, or can induce a coma. Brain damage or death can result from exposure. Dangerous levels of carbon monoxide will occur from operating the MBUs in an enclosed FSC tent. Operators must be aware of and observe for symptoms of carbon monoxide poisoning such as headache, distress, dizziness, nausea and weakness. If artificial respiration is necessary, refer to FM 4-25.11. Maintain open roof vents, windows, and doors in the tent to provide ventilation and prevent the accumulation of carbon monoxide gas. Failure to observe this warning may result in brain damage or death.

1. Unplug the CO monitor from the end of the 100-ft extension cord.
2. Remove the CO monitor from the center pole of the tent.
3. Remove the CO detector from the CO monitor as follows:
   a. Loosen the four captive screws (**Figure 1, Item 1)** at the front corners of the CO monitor enclosure **(Figure 1, Item 2)** and separate the front cover **(Figure 1, Item 3)** from the enclosure.
   b. Tag the two power supply DC wires **(Figure 1, Item 4)** as positive and negative.
   c. Remove and discard the two wire nuts **(Figure 1, Item 5)** and separate the wires.
   d. Remove the two machine screws **(Figure 1, Item 6)** and two self-locking hex nuts **(Figure 1, Item 7)** that secure the CO detector **(Figure 1, Item 8)** to the front cover **(Figure 1, Item 3)** of the enclosure.
   e. Remove and discard the CO detector.

4. Install the new CO detector as follows:

NOTE

The CO detector has a service life of 5 years. Before installing a new detector, mark an expiration date (EXP month and year) on the front of the detector that is 5 years from the date of installation. The CO detector must be replaced before the expiration date.

a. Mark the expiration date **(Figure 1, Item 9)** on the new CO detector prior to installation.

b. Insert the new CO detector **(Figure 1, Item 8)** into the front cover **(Figure 1, Item 3)** and secure using the two machine screws **(Figure 1, Item 6)** and two self-locking hex nuts **(Figure 1, Item 7)**.

c. Twist the positive and negative wires of the new CO detector to the tagged power supply DC wires **(Figure 1, Item 4)** and secure using two new watertight wire nuts **(Figure 1, Item 5)**.

d. Place the enclosure cover **(Figure 1, Item 3)** with the new CO detector **(Figure 1, Item 8)** onto the enclosure **(Figure 1, Item 2)** and secure with the four captive screws **(Figure 1, Item 1)**.

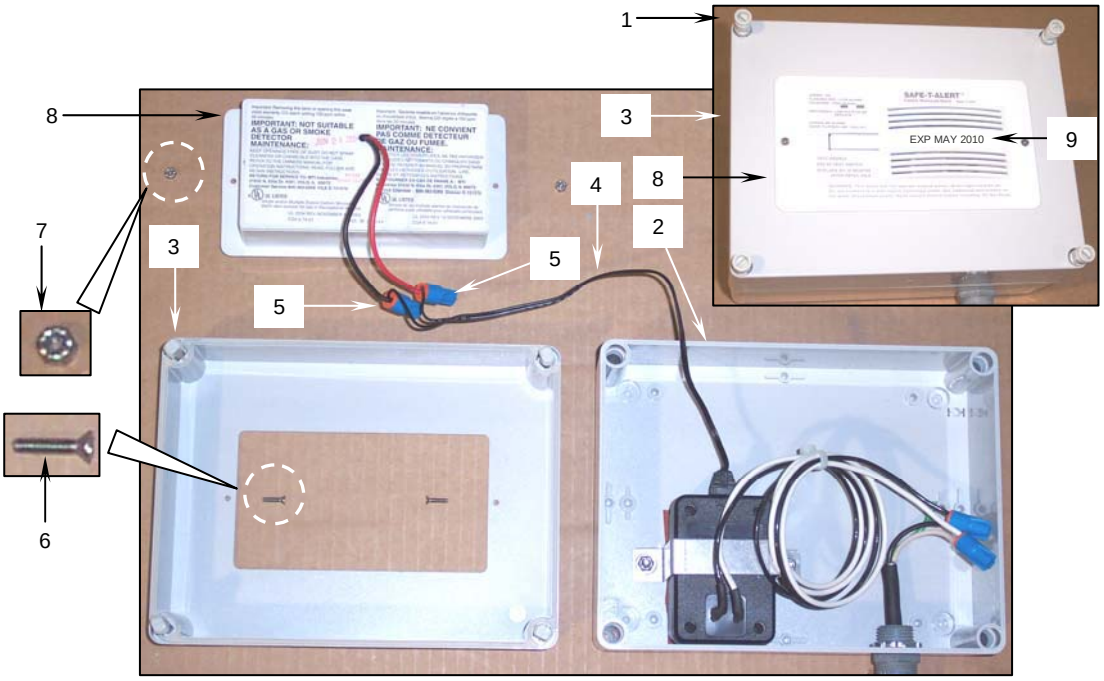


Figure 1. Replacing the CO Monitor CO Detector.

5. Install the carbon monoxide (CO) monitor as follows:

   a. Hang the CO monitor **(Figure 2, Item 1)** from the center pole of the tent opposite the power converter **(Figure 2, Item 2)**.

NOTE

When power is applied to the CO monitor, the green power ON light flashes on and off during a 10-minute warm-up period while the CO sensor self-cleans. After the warm-up period, the green power ON light glows continuously. The CO monitor may be tested at any time after power is applied to the CO monitor.

   b. Plug the CO monitor power cord **(Figure 2, Item 3)** into an outlet on the end of the 100-ft extension cord **(Figure 2, Item 4)**.

   c. Test the CO monitor by pressing the TEST/RESET **(Figure 2, Item 5)** button. The indicator light **(Figure 2, Item 6)** should change from green to red **(Figure 2, Item 7)** and the alarm horn **(Figure 2, Item 7)** should sound. If the test fails, troubleshoot or replace the alarm.

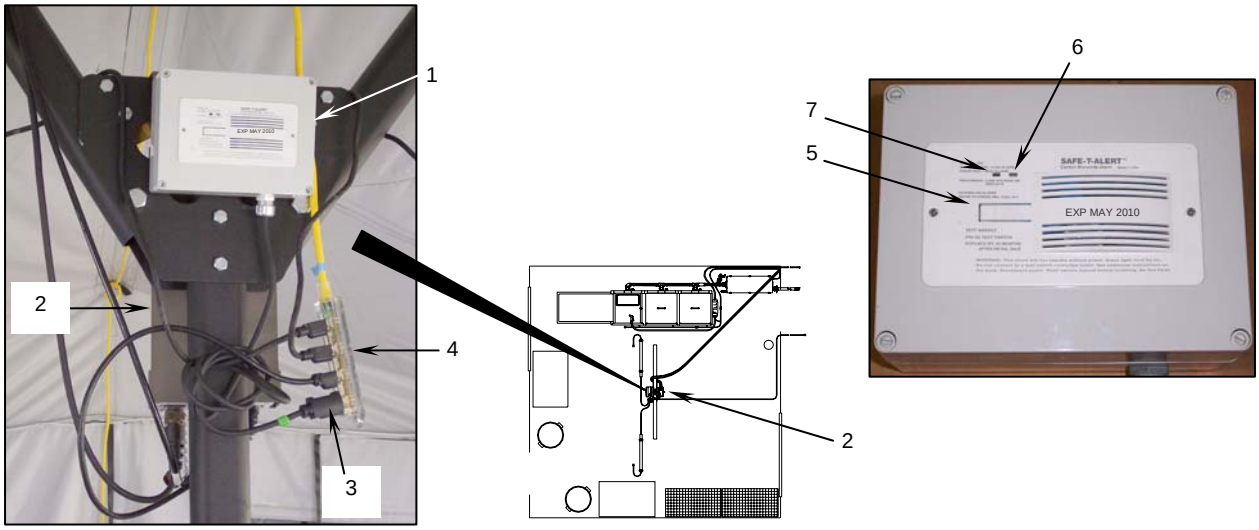


Figure 2. Installing and Testing the CO Monitor.

END OF WORK PACKAGE

UNIT MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-2, NSN 7360-01-496-2112
CO MONITOR: POWER SUPPLY ASSEMBLY
TEST, REPAIR

INITIAL SETUP:

Tools and Special Tools
Tool Kit, General Mechanic's: Automotive
(WP 0051 00, Table 2, Item 2)

Material/Parts
Power Supply Assembly (WP 0064 00, Item 3)
Tag, Marker (WP 0070 00, Item 11)
Wirenut, Watertight, (WP 0064, Item 4)

Personnel Required
Quartermaster and Chemical Equipment
Repairer 63J10 (1)

References
FM 100-14
WP 0007 00

Drawings Required
CO Monitor Wiring Diagram

Equipment Condition
The FSC is energized and operating with proper ventilation.

GENERAL

This work package contains procedures for testing the power supply assembly in the CO Monitor assembly and for repairing the CO Monitor by replacing the power supply assembly.

TEST

WARNING

Risk Management. If the CO monitor is to be removed for repair, refer to WP 0007 00, Operation Under Unusual Conditions, for operation of the FSC-2 system without the CO monitor. This is a command decision. Refer to FM 100-14, Risk Management, before continuing with operation.

Electrical high voltage and current cannot be seen, but in contact with energized equipment can kill you, render you unconscious, or severely burn you. Electricity is unlike most other dangerous things you can come in contact with because it gives no warning. To ensure your safety and that of other maintenance personnel, do not perform any maintenance on electrical equipment unless all power is removed. Failure to observe this warning may result in electrical shock injury or death (electrocution).

Carbon Monoxide Gas. Carbon monoxide (CO) is a gas without color, smell, or taste that can kill you. Breathing carbon monoxide gas produces symptoms such as headache, dizziness, loss of muscular control, a sleepy feeling, unconsciousness, or can induce a coma. Brain damage or death can result from exposure. Dangerous levels of carbon monoxide will occur from operating the MBUs in an enclosed FSC tent. Operators must be aware of and observe for symptoms of carbon monoxide poisoning such as headache, distress, dizziness, nausea and weakness. If artificial respiration is necessary, refer to FM 21-11. Maintain open roof vents, windows, and doors in the tent to provide ventilation and prevent the accumulation of carbon monoxide gas. Failure to observe this warning may result in brain damage or death.

1. Unplug the CO monitor from the end of the 100-ft extension cord.
2. Remove the CO monitor from the center pole of the tent.
3. Access the CO monitor power supply as follows:
   a. Loosen the four captive screws **(Figure 1, Item 1)** at the front corners of the CO monitor and separate the front cover **(Figure 1, Item 2)** from the enclosure.
   b. Tag the two power supply DC wires **(Figure 1, Item 3)** as positive and negative.
   c. Remove and discard the two wire nuts **(Figure 1, Item 4)** and separate the wires.

4. Test the power supply as follows:

   a. Plug the CO monitor power cord into a 120 VAC power source.

   b. Set the multimeter for measuring 12 VDC.

   c. Place the multimeter test probes on the two power supply DC wires **(Figure 1, Item 3)**. The multimeter should read 12 VDC.

5. If the power supply does not provide 12 VDC output, continue with the repair procedure in this work package.

6. If the power supply passes the test and does not need to be replaced, reassemble the CO monitor as follows:

   a. Unplug the CO monitor from the 120 VAC power source.

   b. Twist the CO detector positive (red) and negative (black) wires **(Figure 1, Item 5)** of the to the tagged power supply DC wires **(Figure 1, Item 3)** and secure using two new watertight wire nuts **(Figure 1, Item 4)**.

   c. Place the cover **(Figure 1, Item 2)** onto the enclosure and secure with the four captive screws **(Figure 1, Item 1)**.

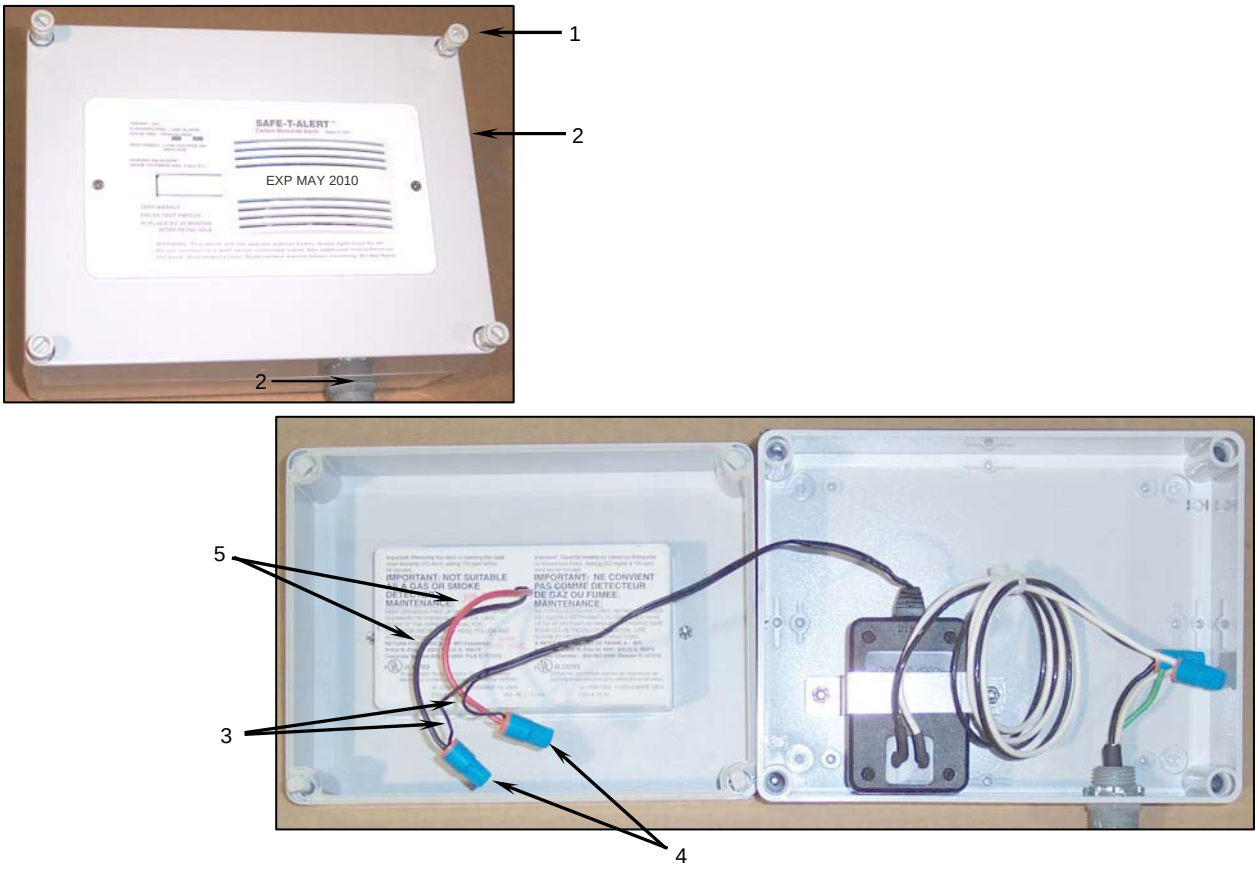


Figure 1. Testing the CO Monitor Power Supply.

7. Test the carbon monoxide (CO) monitor as follows:

   a. Hang the CO monitor **(Figure 2, Item 1)** from the center pole of the tent opposite the power converter **(Figure 2, Item 2)**.

NOTE

When power is applied to the CO monitor, the green power ON light flashes on and off during a 10-minute warm-up period while the CO sensor self-cleans. After the warm-up period, the green power ON light glows continuously. The CO monitor may be tested at any time after power is applied to the CO monitor.

   b. Plug the CO monitor power cord **(Figure 2, Item 3)** into an outlet on the end of the 100-ft extension cord **(Figure 2, Item 4)**.

   c. Test the CO monitor by pressing the TEST/RESET **(Figure 2, Item 5)** button. The indicator light **(Figure 2, Item 6)** should change from green to red **(Figure 2, Item 7)** and the alarm horn **(Figure 2, Item 7)** should sound. If the test fails, troubleshoot or replace the alarm.

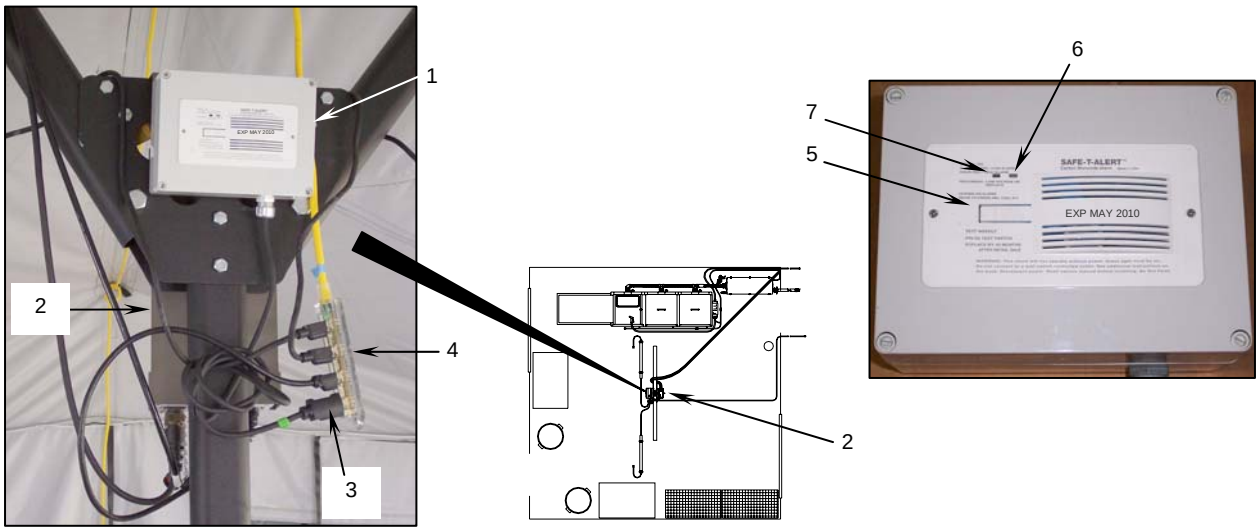


Figure 2. Installing the CO Monitor.

REPAIR

WARNING

Risk Management. If the CO monitor is to be removed for repair, refer to WP 0007 00, Operation Under Unusual Conditions, for operation of the FSC-2 system without the CO monitor. This is a command decision. Refer to FM 100-14, Risk Management, before continuing with operation.

Electrical high voltage and current cannot be seen, but in contact with energized equipment can kill you, render you unconscious, or severely burn you. Electricity is unlike most other dangerous things you can come in contact with because it gives no warning. To ensure your safety and that of other maintenance personnel, do not perform any maintenance on electrical equipment unless all power is removed. Failure to observe this warning may result in electrical shock injury or death (electrocution).

Carbon Monoxide Gas. Carbon monoxide (CO) is a gas without color, smell, or taste that can kill you. Breathing carbon monoxide gas produces symptoms such as headache, dizziness, loss of muscular control, a sleepy feeling, unconsciousness, or can induce a coma. Brain damage or death can result from exposure. Dangerous levels of carbon monoxide will occur from operating the MBUs in an enclosed FSC tent. Operators must be aware of and observe for symptoms of carbon monoxide poisoning such as headache, distress, dizziness, nausea and weakness. If artificial respiration is necessary, refer to FM 4-25.11. Maintain open roof vents, windows, and doors in the tent to provide ventilation and prevent the accumulation of carbon monoxide gas. Failure to observe this warning may result in brain damage or death.

1. Unplug the CO monitor from the end of the 100 ft extension cord.
2. Remove the CO monitor from the center pole of the tent.
3. Remove the CO monitor power supply as follows:
   a. Remove 4 screws **(Figure 3, Item 1)** holding hanging bracket **(Figure 3, Item 2)** to back of CO monitor **(Figure 3, Item 3)** and remove bracket.
   b. Loosen the four captive screws **(Figure 3, Item 4)** at the front corners of the CO monitor and separate the front cover **(Figure 1, Item 5)** from the enclosure.
   c. Tag the two CO detector wires **(Figure 3, Item 6)** as positive (red wire) and negative (black wire).
   d. Tag the two power cable wires **(Figure 3, Item 7)**.
   e. Remove and discard the four wire nuts **(Figure 3, Item 8)** and **(Figure 3, Item 9)** and separate the wires.

f. Remove the two machine screws **(Figure 3, Item 10)**, the two self-locking hex nuts **(Figure 3, Item 11)**, and the power supply bracket **(Figure 3, Item 12)** that secure the CO power supply **(Figure 3, Item 13)** to the enclosure **(Figure 3, Item 3)**.

g. Remove and discard the power supply.

4. Install the new power supply as follows:

a. Secure the new power supply **(Figure 3, Item 13)** inside the enclosure **(Figure 3, Item 3)** using the power supply bracket **(Figure 3, Item 12)**, the two machine screws **(Figure 3, Item 10)**, and the two self-locking hex nuts **(Figure 3, Item 11)**.

b. Twist the red CO detector wire **(Figure 3, Item 6)** and the black/gray wire **(Figure 3, Item 14)** of the new power supply together. Twist the black CO detector wire **(Figure 3, Item 6)** and the black wire **(Figure 3, Item 14)** of the new power supply together. Secure the two pair of wires using two new, watertight wire nuts **(Figure 3, Item 8)**.

c. Twist the two power cable wires **(Figure 3, Item 7)** and the two power supply wires **(Figure 3, Item 15)** together, white to white and black to black. Secure using two new, watertight wire nuts **(Figure 3, Item 9)**.

d. Place the enclosure cover **(Figure 3, Item 5)** onto the enclosure and secure with the four captive screws **(Figure 3, Item 4)**.

e. Secure the hanging bracket **(Figure 3, Item 2)** to the back of the enclosure using the four screws **(Figure 3, Item 1)**.

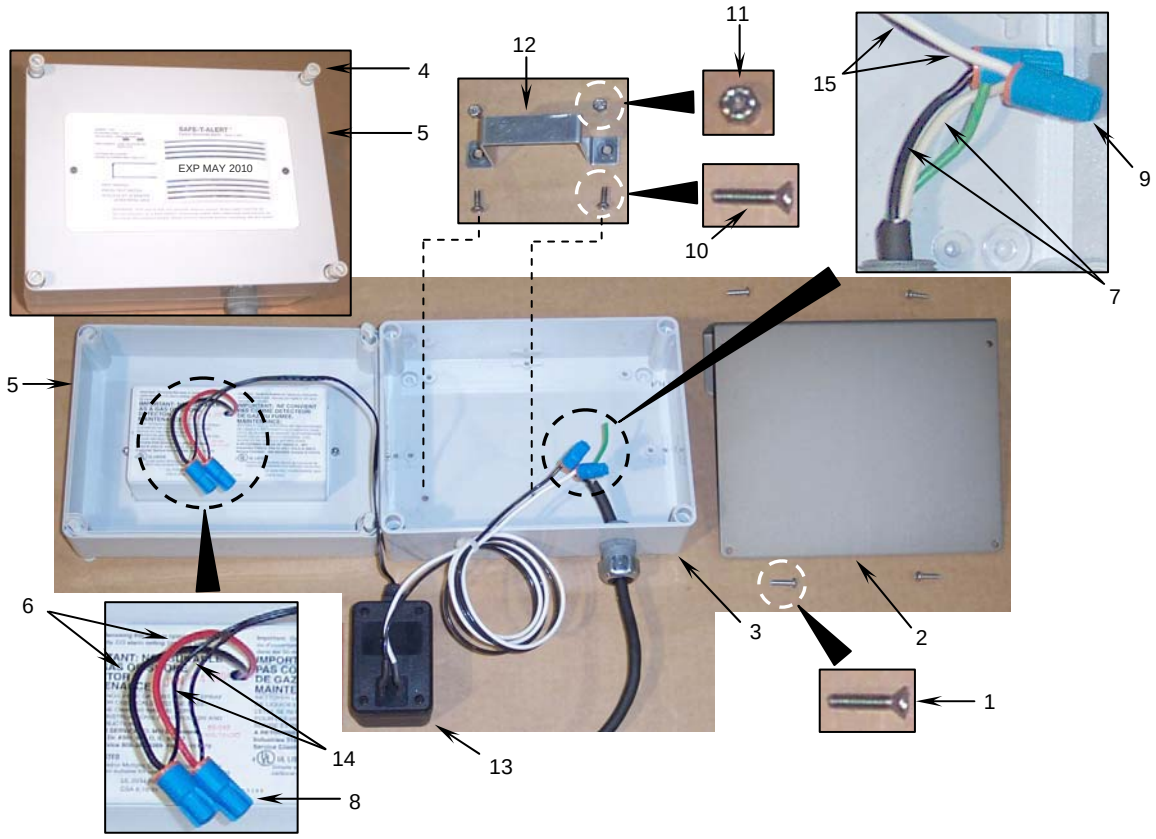


Figure 3. Replacing the CO Monitor Power Supply.

5. Install the carbon monoxide (CO) monitor as follows:

   a. Hang the CO monitor **(Figure 4, Item 1)** from the center pole of the tent opposite the power converter **(Figure 4, Item 2)**.

NOTE

When power is applied to the CO monitor, the green power ON light flashes on and off during a 10-minute warm-up period while the CO sensor self-cleans. After the warm-up period, the green power ON light glows continuously. The CO monitor may be tested at any time after power is applied to the CO monitor.

   b. Plug the CO monitor power cord **(Figure 4, Item 3)** into an outlet on the end of the 100-ft extension cord **(Figure 4, Item 4)**.

   c. Test the CO monitor by pressing the TEST/RESET **(Figure 4, Item 5)** button. The indicator light **(Figure 4, Item 6)** should change from green to red **(Figure 4, Item 7)** and the alarm horn **(Figure 4, Item 7)** should sound. If the test fails, troubleshoot or replace the alarm.

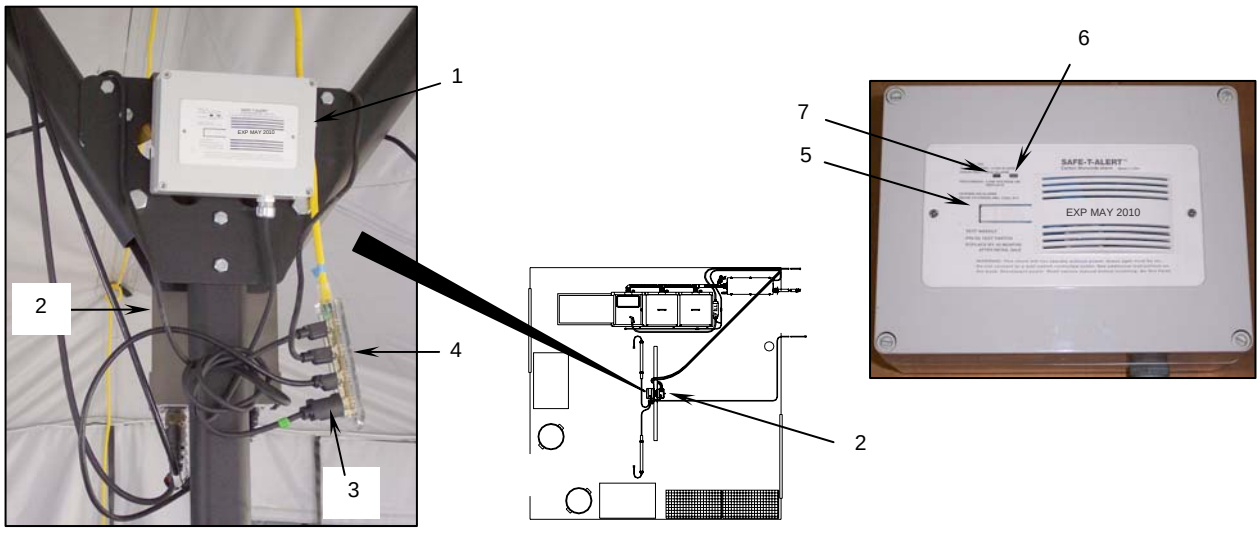


Figure 4. Installing the CO Monitor.

END OF WORK PACKAGE

UNIT MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-2, NSN 7360-01-496-2112
CO MONITOR: CABLE ASSEMBLY, POWER
REPAIR

INITIAL SETUP:

Tools and Special Tools
Tool Kit, General Mechanic's: Automotive (WP 0051 00, Table 2, Item 2)

Material/Parts
Cable Assembly, Power (WP 0064 00, Item 8)
Tag, Marker (WP 0070 00, Item 11)
Wirenut, Watertight, (WP 0064 00, Item 4)

Personnel Required
Quartermaster and Chemical Equipment Repairer 63J10 (1)

References
FM 100-14
WP 0007 00

Drawings Required
CO Monitor Wiring Diagram

Equipment Condition
The FSC is energized and operating with proper ventilation.

GENERAL

This work package contains procedures for repairing the CO Monitor by replacing the power cable assembly.

REPAIR

WARNING

Risk Management. If the CO monitor is to be removed for repair, refer to WP 0007 00, Operation Under Unusual Conditions, for operation of the FSC-2 system without the CO monitor. This is a command decision. Refer to FM 100-14, Risk Management, before continuing with operation.

Electrical high voltage and current cannot be seen, but in contact with energized equipment can kill you, render you unconscious, or severely burn you. Electricity is unlike most other dangerous things you can come in contact with because it gives no warning. To ensure your safety and that of other maintenance personnel, do not perform any maintenance on electrical equipment unless all power is removed. Failure to observe this warning may result in electrical shock injury or death (electrocution).

Carbon Monoxide Gas. Carbon monoxide (CO) is a gas without color, smell, or taste that can kill you. Breathing carbon monoxide gas produces symptoms such as headache, dizziness, loss of muscular control, a sleepy feeling, unconsciousness, or can induce a coma. Brain damage or death can result from exposure. Dangerous levels of carbon monoxide will occur from operating the MBUs in an enclosed FSC tent. Operators must be aware of and observe for symptoms of carbon monoxide poisoning such as headache, distress, dizziness, nausea and weakness. If artificial respiration is necessary, refer to FM 4-25.11. Maintain open roof vents, windows, and doors in the tent to provide ventilation and prevent the accumulation of carbon monoxide gas. Failure to observe this warning may result in brain damage or death.

1. Unplug the CO monitor from the end of the 100-ft extension cord.
2. Remove the CO monitor from the center pole of the tent.
3. Remove the CO monitor power cable as follows:
   a. Loosen the four captive screws **(Figure 1, Item 1)** at the front corners of the CO monitor and separate the front cover **(Figure 1, Item 2)** from the enclosure.
   b. Tag the black and white power supply wires **(Figure 1, Item 3)** that are connected to the black and white power cable wires **(Figure 1, Item 4)** with two wire nuts **(Figure 1, Item 5)**.
   c. Remove and discard the two wire nuts and separate the wires.
   d. Loosen the cable ring nut **(Figure 1, Item 6)** from the power cable straight connector **(Figure 1, Item 7)**.
   e. Pull the power cable **(Figure 1, Item 8)** out through the straight connector and sealing washers **(Figure 1, Item 7)** and the ring nut. Retain the ring nut and sealing washers.
   f. Discard the power cable.

4. Install the new power cable as follows:

   a. Insert the end of the new power cable **(Figure 1, Item 8)** through the cable ring nut **(Figure 1, Item 6)** and straight connector sealing washers and connector **(Figure 1, Item 7)** into the enclosure.

   b. Twist the two power cable wires **(Figure 1, Item 4)** and the two power supply wires **(Figure 1, Item 3)** together, white to white and black to black. Secure using two new, watertight wire nuts **(Figure 1, Item 5)**.

   c. Tighten the cable ring nut **(Figure 1, Item 6)** onto the straight connector **(Figure 1, Item 7)**.

   d. Place the enclosure cover **(Figure 1, Item 2)** onto the enclosure and secure with the four captive screws **(Figure 1, Item 1)**.

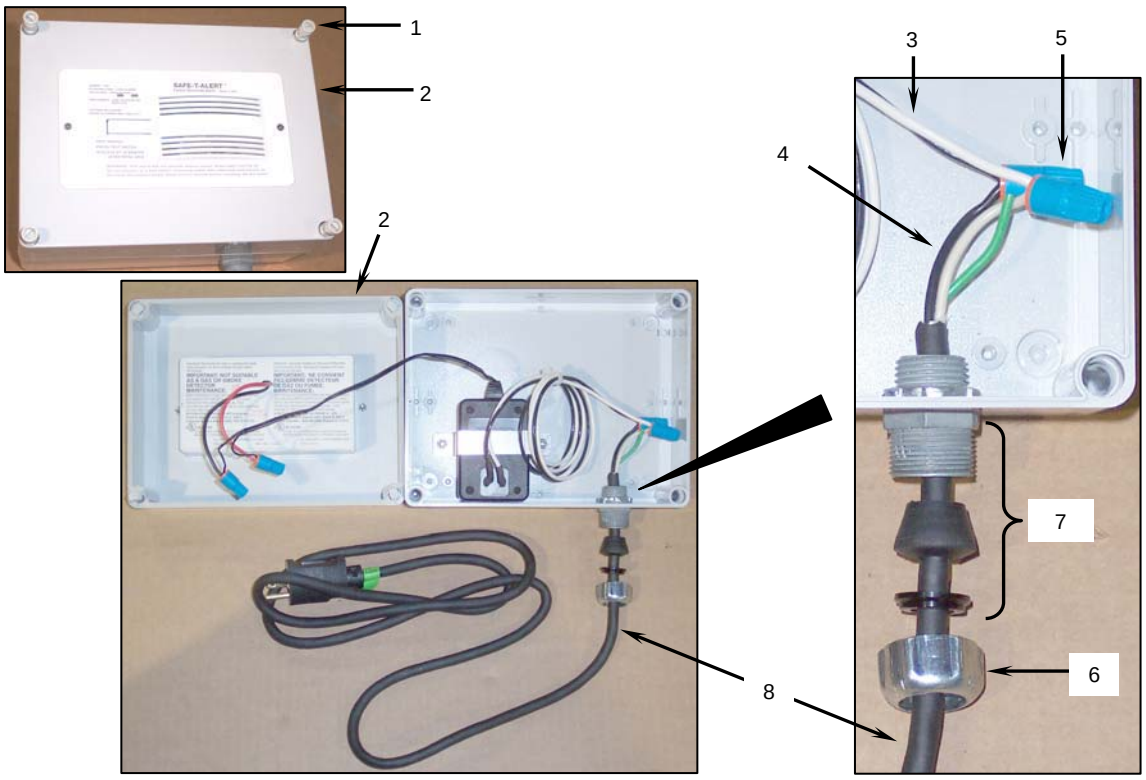


Figure 1. Replacing the CO Monitor Power Cable.

5. Install the carbon monoxide (CO) monitor as follows:

   a. Hang the CO monitor **(Figure 2, Item 1)** from the center pole of the tent opposite the power converter **(Figure 2, Item 2)**.

NOTE

When power is applied to the CO monitor, the green power ON light flashes on and off during a 10-minute warm-up period while the CO sensor self-cleans. After the warm-up period, the green power ON light glows continuously. The CO monitor may be tested at any time after power is applied to the CO monitor.

   b. Plug the CO monitor power cord **(Figure 2, Item 3)** into an outlet on the end of the 100-ft extension cord **(Figure 2, Item 4)**.

   c. Test the CO monitor by pressing the TEST/RESET **(Figure 2, Item 5)** button. The indicator light **(Figure 2, Item 6)** should change from green to red **(Figure 2, Item 7)** and the alarm horn **(Figure 2, Item 7)** should sound. If the test fails, troubleshoot or replace the alarm.

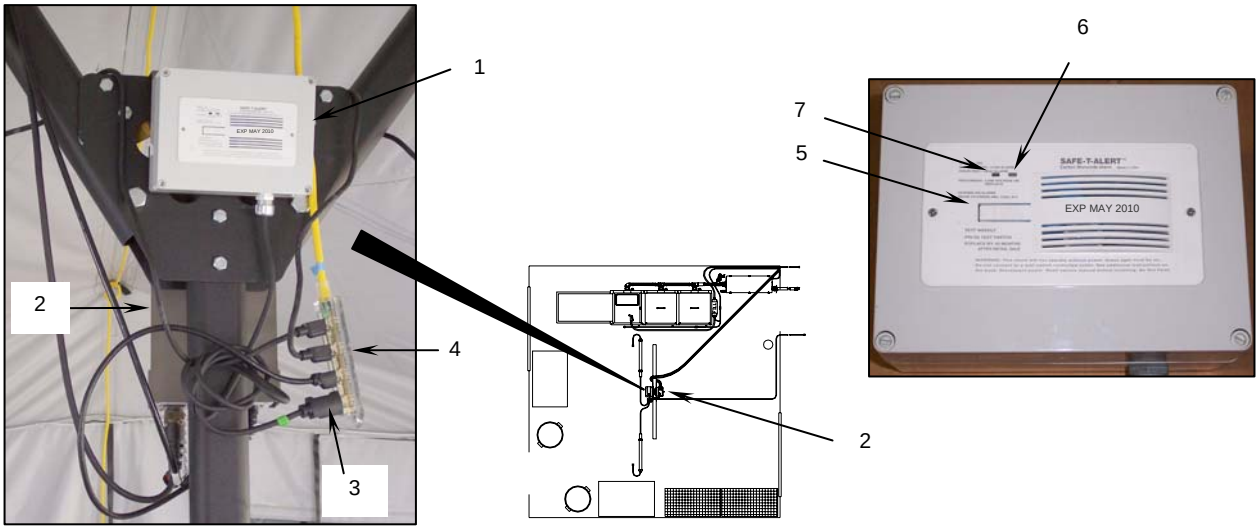


Figure 2. Installing the CO Monitor.

END OF WORK PACKAGE

UNIT MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-90, NSN 7360-01-277-2558
MODEL FSC-2, NSN 7360-01-496-2112
PREPARATION FOR STORAGE OR SHIPMENT

INITIAL SETUP:

Personnel Required
Quartermaster and Chemical Equipment Repairer 63J10 (1)
Food Service Operator 92G10 (3)

Equipment Condition
Equipment prepared for movement.

References
TM 38-230-2

ADMINISTRATIVE STORAGE

Placement of equipment in administrative storage should be for short periods of time when a shortage of maintenance effort exists. Items should be in mission readiness within 24 hours or within the time factors as determined by the directing authority. During the storage period appropriate maintenance records will be kept.

Before placing equipment in administrative storage, current maintenance services and equipment serviceable criteria (ESC) evaluations should be completed, shortcomings and deficiencies should be corrected, and all modification work orders (MWOs) should be applied.

Storage site selection. Inside storage is preferred for items selected for administrative storage. If inside storage is not available, trucks, vans, CONEX containers and other containers may be used.

PREPARATION FOR STORAGE OR SHIPMENT

Preservation, packaging, and packing of military supplies and equipment are described in TM 38-230-2.

STORAGE

NOTE
Be sure the storage location is on firm, level ground and at a well-drained site.

Store the equipment in a building, shed, or under cover. If the equipment is to be stored outside, place on a pallet or planking; place a canvas tarp or waterproof cover over it.

PACKING FOR SHIPMENT

If available, use packing materials and shipping cartons in which the equipment was received, or similar material, to pack equipment for shipment.

CHAPTER 6

DIRECT SUPPORT MAINTENANCE INSTRUCTIONS

FOR

FOOD SANITATION CENTER

DIRECT SUPPORT MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-90, NSN 7360-01-277-2558
MODEL FSC-2, NSN 7360-01-496-2112
TENT, STORAGE RACK ASSEMBLY, SINK COVER, SINK BODY ASSEMBLY, BURNER RACK, BASE RACK, TABLE ASSEMBLY, SINK DRAIN TABLE ASSEMBLY, FOLDING LEGS, GREASE SEPARATOR REPAIR

INITIAL SETUP:

Material/Parts
Shop Equipment, Automotive Vehicle (WP 0051 00, Table 2, Item 1)

Personnel Required
Quartermaster and Chemical Equipment Repairer 63J10 (1)
Food Service Operator 92G10 (2)

References
TM 10-8340-224-13
TM 10-8340-240-12&P
TM 9-237
TM 9-510

Equipment Condition
Components to be repaired removed from service.

TENT

Direct support maintenance of the Tent, Extended Modular is covered in TM 10-8340-224-13.
Direct support maintenance of the Modular General Purpose Tent System (MGPTS) small is covered in TM 10-8340-240-12&P.

WELDED PARTS

FSC components, such as the Storage Rack Assembly, Shelf/Cover, Sink Assembly, Sink Cover, Sink Body Assembly, Burner Rack, Base Rack, Drain Table Assembly, Folding Legs Table Assembly, and Grease Separator may require repair by welding.

Refer to TM 9-237 for information on welding theory and application.

Refer to TC 9-510 for information on metal body repairs.

END OF WORK PACKAGE

CHAPTER 7

SUPPORTING INFORMATION

FOR

FOOD SANITATION CENTER

OPERATOR'S, UNIT, AND DIRECT SUPPORT MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-90, NSN 7360-01-277-2558
MODEL FSC-2, NSN 7360-01-496-2112
REFERENCES

SCOPE

This appendix lists all forms, pamphlets, field manuals, technical manuals, Army Regulations, military specifications, and military standards referenced in this manual or otherwise applicable to the operation and maintenance of the FSC.

FORMS

DA Form 2028-2	Recommended Changes to Equipment Technical Publications
DA Form 2404	Equipment Inspection and Maintenance Worksheet
SF Form 361	Transportation Discrepancy Report
SF Form 364	Report of Discrepancy
SF Form 368	Product Quality Deficiency Report

FIELD MANUALS

FM 3-5	NBC Decontamination
FM 4-25.11	First Aid
FM 10-16	General Fabric Repair
FM 10-23	Basic Doctrine For Army Field Feeding and Class I Operations Management
FM 10-52	Water Supply in Theaters of Operations
FM 21-150	Combat Field Feeding System Operations

TECHNICAL MANUALS

TM 5-640	Ranges, Bake Ovens and Burners for Mess Equipment; Repairs and Utilities
TM 5-641	Inspections and Preventive Maintenance Services: Ranges, Bake Ovens and Burners for Other Mess Equipment
TM 9-237	Operator's Manual for Welding Theory and Application
TM 9-4520-257-12&P	Operator's and Unit Maintenance Manual (Including Repair Parts and Special Tools List) for Heater, Space, Radiant, Large (H-45) (Type I, Solid Fuel) NSN 4520-01-354-1191(Type II, Liquid Fuel) NSN 4520-01-329-3451
TM 10-7310-281-13&P	Operator's Unit and Direct Support Maintenance Manual Including Repair Parts and Special Tools List for Modern Burner Unit
TM 10-7360-206-13	Operator's, Unit and Direct Support Maintenance Manual for Kitchen, Field, Trailer Mounted
TM 10-7360-208-13&P	Operator, Organizational and Direct Support Maintenance Manual Including Repair Parts and Special Tools List for Kitchen, Field, Modular
TM 10-7360-211-13&P	Operator's, Unit, and Direct Support Maintenance Manual, Including Repair Parts and Special Tools List for Food Sanitation Center (FSC) Model FSC-90 and FSC-2
TM 10-7360-226-13&P	Operator's, Unit, and Direct Support Maintenance Manual (Including Repair Parts and Special Tools List) for Containerized Kitchen (With Trailer)
TM 10-8340-224-13	Operator, Unit and Direct Support Maintenance Manual for Tent, Extendable, Modular, Personnel (TEMPER)
TM 10-8340-240-12&P	Operators and Unit Maintenance Manual, Including Repair Parts and Special Tools List for Modular General Purpose Tent System (MGPTS)
TM 38-230-2	Packaging of Materiel: Packing (Vol II)
TM 750-244-13	Procedures for Destruction of Army Equipment to Prevent Enemy Use

ARMY REGULATIONS

AR 700-138	Army Logistics Readiness and Sustainability
AR 750-1	Army Material Maintenance Policy
AR 735-11-2	Reporting of Supply Discrepancies
DOD 4500.9-R	Defense Transportation Regulation, Pt II, Cargo Movement

PAMPHLETS

DA PAM 25-30	Consolidated Index of Army Publications and Blank Forms
DA PAM 738-751	Functional Users Manual for the Army Maintenance Management Systems – Aviation (TAMMS-A)
DA PAM 750-8	The Army Maintenance Management System (TAMMS) User's Manual

MISCELLANEOUS

CTA 50-970	Expendable/Durable Items (Except Medical, Class V Repair Parts, and Heraldic Items)
CTA 8-100	Army Medical Department Expendable/Durable Items
C9100-1L	Identification List for Fuels, Lubricants, Oils and Waxes
TB Med 507	Prevention, Treatment and Control of Heat Injury
TB Med 530	Food Service Sanitation
TB 5-4200-200-10	Hand Portable Fire Extinguishers Approved for Army Users
TC 8-13	Deployable Medical Systems Tactics, Techniques and Procedures
TC 9-237	Operator's Circular, Welding Theory and Application
TC 9-510	Metal Body Repairs and Related Operations

OPERATOR'S, UNIT AND DIRECT SUPPORT MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-90, NSN 7360-01-277-2558
MODEL FSC-2, NSN 7360-01-496-2112
MAINTENANCE ALLOCATION CHART (MAC) INTRODUCTION

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 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 (SRA)
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 a 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 special support 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 alphabetical 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 the 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.

OPERATOR'S, UNIT, AND DIRECT SUPPORT MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-90, NSN 7360-01-277-2558
MODEL FSC-2, NSN 7360-01-496-2112
MAINTENANCE ALLOCATION CHART (MAC)

Table 1. Maintenance Allocation Chart for Food Sanitation Center.

(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 SUPPPORT	GENERAL SUPPORT	DEPOT		
			C	O	F	H	D		
00	Food Sanitation Center								
01	Tent, Extendable, Modular, Personnel or Modular General Purpose Tent System								A
02	Light, Extension	Inspect	0.1						
		Repair	0.5	0.5				2	
03	Storage Rack Assembly	Inspect	0.1						
		Service	0.2						B
		Repair		0.5	1.0			2	C
04	Sink Assembly								
0401	Cover, Sink	Inspect	0.1						
		Service	0.2						B
		Repair			1.0			2	C
0402	Body Assembly, Sink	Inspect	0.1						
		Service	0.2						B
		Repair		0.5	1.0			1,2	C
0403	Rack, Burner	Inspect	0.1						
		Service	0.2						B
		Repair			1.0				C
0404	Rack, Base	Inspect	0.1						
		Service	0.2						B
		Repair			1.0				C
0405	Thermometer Assembly	Inspect	0.1						
		Service	0.1						B
		Calibrate	0.1					3	
		Repair		0.2					

Table 1. Maintenance Allocation Chart for Food Sanitation Center - Continued.

(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 SUPPPORT	GENERAL SUPPORT	DEPOT		
			C	O	F	H	D		
05	Hose Assemblies								
0501	Hose, Drain, Single								
	Sink	Inspect	0.1						D
		Service	0.2						B
		Repair		0.8				1,2	
0502	Hose, Drain, Three								
	Sink	Inspect	0.1						D
		Service	0.2						B
		Repair		1.0				1,2	
0503	Hose, Drain, Grease								
	Separator	Inspect	0.1						D
		Service	0.2						B
		Repair		0.8				1.2	
0504	Supply Hoses and								
	Nozzle,	Inspect	0.1						
	Water	Service	0.2						B
		Repair		0.2				2	E
06	Modern Burner Unit (MBU)								F
07	Table Assembly,								
	Sink Drain	Inspect	0.1						
		Service	0.2						B
		Repair		0.5		1.0		2	C
08	Table Assembly,								
	Folding Legs	Inspect	0.1						
		Service	0.2						B
		Repair		0.5		1.0		2	
09	Fill Pump Assembly	Inspect	0.1						
		Repair		0.8				2	
10	Grease Separator	Inspect	0.1						
		Test		0.2					
		Service	0.5						B
		Repair		0.8		1.0		1,2	C
11	Electrical								
1101	Extension Cord	Inspect	0.1						
1102	GFCI	Inspect	0.1						
		Test	0.1						
12	CO Monitor	Inspect	0.1						
		Test	0.1	0.3				2	
		Repair		0.5				2	

Table 2. Tools and Test Equipment for Food Sanitation Center.

(1) TOOL OR TEST EQUIPMENT REFERENCE CODE	(2) MAINTENANCE LEVEL	(3) NOMENCLATURE	(4) NATIONAL STOCK NUMBER	(5) TOOL NUMBER
1	O	SHOP EQUIPMENT, AUTOMOTIVE VEHICLE	4910-00-754-0654	SC4910-95CLA74
2	O	TOOL KIT, GENERAL MECHANIC'S: AUTOMOTIVE	5180-01-483-0249	12B470000-1
3	C	WRENCH, OPEN END BOX	5120-00-224-3156	0672

Table 3. Remarks for Food Sanitation Center.

(1) REMARKS CODE	(2) REMARKS
A	Refer to TM 10-8340-224-13 or TM 10-8340-240-12&P for tent maintenance instructions
B	Service includes cleaning
C	Weld at Direct Support level
D	Inspect includes ensuring drain hoses are not clogged
E	Gasket replacement at O level
F	Refer to TM 10-7310-281-13&P for Modern Burner Unit (MBU) maintenance instructions

UNIT AND DIRECT SUPPORT MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-90, NSN 7360-01-277-2558
MODEL FSC-2, NSN 7360-01-496-2112
INTRODUCTION TO REPAIR PARTS AND SPECIAL TOOLS LIST (RPSTL)

SCOPE

This RPSTL lists and authorizes spares and repair parts; special tools; special test, measurement, and diagnostic equipment (TMDE); and other special support equipment required for performance of Operator/Crew, Unit, and Direct Support maintenance of the Food Sanitation Center. It authorizes the requisitioning, issue, and disposition of spares, repair parts and special tools as indicated by the source, maintenance, and recoverability (SMR) codes.

GENERAL

In addition to the Introduction work package, this RPSTL is divided into the following work packages.

1. Repair Parts List Work Packages. Work packages containing lists of spares and repair parts authorized by this RPSTL for use in the performance of maintenance. These work packages also include parts which must be removed for replacement of the authorized parts. Parts lists are composed of functional groups in ascending alphanumeric sequence, with the parts in each group listed in ascending figure and item number sequence. Sending units, brackets, filters, and bolts are listed with the component they mount on. Bulk materials are listed by item name in FIG. BULK at the end of the work packages. Repair parts kits are listed separately in their own functional group and work package. Repair parts for reparable special tools are also listed in a separate work package. Items listed are shown on the associated illustrations.

2. Special Tools List Work Packages. Work packages containing lists of special tools, special TMDE, and special support equipment authorized by this RPSTL (as indicated by Basis of Issue (BOI) information in the DESCRIPTION AND USABLE ON CODE (UOC) column). Tools that are components of common tool sets and/or Class VII are not listed.

3. Cross-Reference Indexes Work Packages. There are two cross-reference indexes work packages in this RPSTL: the National Stock Number (NSN) Index work package and the Part Number (P/N) Index work package. The National Stock Number Index work package refers you to the figure and item number. The Part Number Index work package refers you to the figure and item number.

EXPLANATION OF COLUMNS IN THE REPAIR PARTS LIST AND SPECIAL TOOLS LIST WORK PACKAGES

ITEM NO. (Column (1)). Indicates the number used to identify items called out in the illustration.

SMR CODE (Column (2)). The SMR code containing supply/requisitioning information, maintenance level authorization criteria, and disposition instruction, as shown in the following breakout:

Source Code	**Maintenance Code**		**Recoverability Code**
XX	XX		X
1st two positions: How to get an item.	3rd position: Who can install, replace, or use the item.	4th position: Who can do complete repair* on the item.	5th position: Who determines disposition action on unserviceable items.

*Complete Repair: Maintenance capacity, capability, and authority to perform all corrective maintenance tasks of the "Repair" function in a use/user environment in order to restore serviceability to a failed item.

Source Code. The source code tells you how you get an item needed for maintenance, repair, or overhaul of an end item/equipment. Explanations of source codes follow:

Source Code	Application/Explanation
PA PB PC PD PE PF PG	Stock items; use the applicable NSN to requisition/request items with these source codes. They are authorized to the level indicated by the code entered in the third position of the SMR code. **NOTE** Items coded PC are subject to deterioration.
KD KF KB	Items with these codes are not to be requested/requisitioned individually. They are part of a kit which is authorized to the maintenance level indicated in the third position of the SMR code. The complete kit must be requisitioned and applied.
MO-Made at unit/AVUM level MF-Made at DS/AVIM level MH-Made at GS level ML-Made at SRA MD-Made at depot	Items with these codes are not to be requisitioned/requested individually. They must be made from bulk material which is identified by the P/N in the DESCRIPTION AND USABLE ON CODE (UOC) column and listed in the bulk material group work package of the RPSTL. If the item is authorized to you by the 3rd position code of the SMR code, but the source code indicates it is made at higher level, order the item from the higher level of maintenance.
AO-Assembled by unit/AVUM level AF-Assembled by DS/AVIM level AH-Assembled by GS level AL-Assembled by SRA AD-Assembled by depot	Items with these codes are not to be requested/requisitioned individually. The parts that make up the assembled item must be requisitioned or fabricated and assembled at the level of maintenance indicated by the source code. If the 3rd position of the SMR code authorizes you to replace the item, but the source code indicates the item is assembled at a higher level, order the item from the higher level of maintenance.
XA	Do not requisition an "XA" coded item. Order the next higher assembly. (Refer to NOTE below.)
XB	If an item is not available from salvage, order it using the CAGEC and P/N.
XC	Installation drawings, diagrams, instruction sheets, field service drawings; identified by manufacturer's P/N.
XD	Item is not stocked. Order an XD-coded item through local purchase or normal supply channels using the CAGEC and P/N given, if no NSN is available.

NOTE

Cannibalization or controlled exchange, when authorized, may be used as a source of supply for items with the above source codes except for those items source coded "XA" or those aircraft support items restricted by requirements of AR 750-1.

Maintenance Code. Maintenance codes tell you the level(s) of maintenance authorized to use and repair support items. The maintenance codes are entered in the third and fourth positions of the SMR code as follows:

Third Position. The maintenance code entered in the third position tells you the lowest maintenance level authorized to remove, replace, and use an item. The maintenance code entered in the third position will indicate authorization to the following levels of maintenance:

Maintenance Code	Application/Explanation
C -	Crew or operator maintenance done within unit/AVUM maintenance.
O -	Unit level/AVUM maintenance can remove, replace, and use the item.
F -	Direct support/AVIM maintenance can remove, replace, and use the item.
H -	General support maintenance can remove, replace, and use the item.
L -	Specialized repair activity can remove, replace, and use the item.
D -	Depot can remove, replace, and use the item.

Fourth Position. The maintenance code entered in the fourth position tells you whether or not the item is to be repaired and identifies the lowest maintenance level with the capability to do complete repair (perform all authorized repair functions).

NOTE

Some limited repair may be done on the item at a lower level of maintenance, if authorized by the Maintenance Allocation Chart (MAC) and SMR codes.

Maintenance Code	Application/Explanation
O -	Unit/AVUM is the lowest level that can do complete repair of the item.
F -	Direct support/AVIM is the lowest level that can do complete repair of the item.
H -	General support is the lowest level that can do complete repair of the item.
L -	Specialized repair activity (SRA) is the lowest level that can do complete repair of the item.
D -	Depot is the lowest level that can do complete repair of the item.
Z -	Nonreparable. No repair is authorized.
B -	No repair is authorized. No parts or special tools are authorized for maintenance of "B" coded item. However, the item may be reconditioned by adjusting, lubricating, etc., at the user level.

Recoverability Code. Recoverability codes are assigned to items to indicate the disposition action on unserviceable items. The recoverability code is shown in the fifth position of the SMR code as follows:

Recoverability Code	Application/Explanation
Z -	Nonreparable item. When unserviceable, condemn and dispose of the item at the level of maintenance shown in the third position of the SMR code.
O -	Reparable item. When uneconomically reparable, condemn and dispose of the item at the unit level.
F -	Reparable item. When uneconomically reparable, condemn and dispose of the item at the direct support level.
H -	Reparable item. When uneconomically reparable, condemn and dispose of the item at the general support level.
D -	Reparable item. When beyond lower level repair capability, return to depot. Condemnation and disposal of item are not authorized below depot level.
L -	Reparable item. Condemnation and disposal not authorized below Specialized Repair Activity (SRA).
A -	Item requires special handling or condemnation procedures because of specific reasons (such as precious metal content, high dollar value, critical material, or hazardous material). Refer to appropriate manuals/directives for specific instructions.

NSN (Column (3)). The NSN for the item is listed in this column.

CAGEC (Column (4)). The Commercial and Government Entity Code (CAGEC) is a five-digit code which is used to identify the manufacturer, distributor, or Government agency/activity that supplies the item.

PART NUMBER (Column (5)). Indicates the primary number used by the manufacturer (individual, company, firm, corporation, or Government activity), which controls the design and characteristics of the item by means of its engineering drawings, specifications, standards, and inspection requirements to identify an item or range of items.

NOTE

When you use an NSN to requisition an item, the item you receive may have a different P/N from the number listed.

DESCRIPTION AND USABLE ON CODE (UOC) (Column (6)). This column includes the following information:

1. The federal item name, and when required, a minimum description to identify the item.

2. P/Ns of bulk materials are referenced in this column in the line entry to be manufactured or fabricated.

3. Hardness Critical Item (HCI). A support item that provides the equipment with special protection from electromagnetic pulse (EMP) damage during a nuclear attack.

4. The statement END OF FIGURE appears just below the last item description in column (6) for a given figure in both the repair parts list and special tools list work packages.

QTY (Column (7)). The QTY (quantity per figure) column indicates the quantity of the item used in the breakout shown on the illustration/figure, which is prepared for a functional group, subfunctional group, or an assembly. A "V" appearing in this column instead of a quantity indicates that the quantity is variable and quantity may change from application to application.

EXPLANATION OF CROSS-REFERENCE INDEXES WORK PACKAGES FORMAT AND COLUMNS

1. National Stock Number (NSN) Index Work Package.

STOCK NUMBER Column. This column lists the NSN in National item identification number (NIIN) sequence. The NIIN consists of the last nine digits of the NSN.

NSN (e.g., 5385-01-574-1476) NIIN	When using this column to locate an item, ignore the first four digits of the NSN. However, the complete NSN should be used when ordering items by stock number.

FIG. Column. This column lists the number of the figure where the item is identified/located. The figures are in numerical order in the repair parts list and special tools list work packages.

ITEM Column. The item number identifies the item associated with the figure listed in the adjacent FIG. column. This item is also identified by the NSN listed on the same line.

2. Part Number (P/N) Index Work Package. P/Ns in this index are listed in ascending alphanumeric sequence (vertical arrangement of letter and number combinations which places the first letter or digit of each group in order A through Z, followed by the numbers 0 through 9 and each following letter or digit in like order).

PART NUMBER Column. Indicates the P/N assigned to the item.

FIG. Column. This column lists the number of the figure where the item is identified/located in the repair parts list and special tools list work packages.

ITEM Column. The item number is the number assigned to the item as it appears in the figure referenced in the adjacent figure number column.

SPECIAL INFORMATION

UOC. The UOC appears in the lower left corner of the Description Column heading. Usable on codes are shown as "UOC: ..." in the Description Column (justified left) on the first line under the applicable item/nomenclature. Uncoded items are applicable to all models. Identification of the UOCs used in the RPSTL are:

Code	Used On
EPD	Model FSC-90
FSL	Model FSC-2

Fabrication Instructions. Bulk materials required to manufacture items are listed in the bulk material functional group of this RPSTL. Part numbers for bulk material are also referenced in the Description Column of the line item entry for the item to be manufactured/fabricated. Detailed fabrication instructions for items source coded to be manufactured or fabricated are found in: Not Applicable.

Index Numbers. Items which have the word BULK in the figure column will have an index number shown in the item number column. This index number is a cross-reference between the NSN / P/N index work packages and the bulk material list in the repair parts list work package.

HOW TO LOCATE REPAIR PARTS

1. When NSNs or P/Ns Are Not Known.

First. Using the table of contents, determine the assembly group to which the item belongs. This is necessary since figures are prepared for assembly groups and subassembly groups, and lists are divided into the same groups.

Second. Find the figure covering the functional group or the subfunctional group to which the item belongs.

Third. Identify the item on the figure and note the number(s).

Fourth. Look in the repair parts list work packages for the figure and item numbers. The NSNs and part numbers are on the same line as the associated item numbers.

2. When NSN Is Known.

First. If you have the NSN, look in the STOCK NUMBER column of the NSN index work package. The NSN is arranged in NIIN sequence. Note the figure and item number next to the NSN.

Second. Turn to the figure and locate the item number. Verify that the item is the one you are looking for.

3. When P/N Is Known.

First. If you have the P/N and not the NSN, look in the PART NUMBER column of the P/N index work package. Identify the figure and item number.

Second. Look up the item on the figure in the applicable repair parts list work package.

UNIT AND DIRECT SUPPORT MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-90, NSN 7360-01-277-2558
MODEL FSC-2, NSN 7360-01-496-2112
TENT, EXTENDABLE, MODULAR, PERSONNEL (TEMPER)
MODULAR GENERAL PURPOSE TENT SYSTEM (MGPTS)
REPAIR PARTS LIST

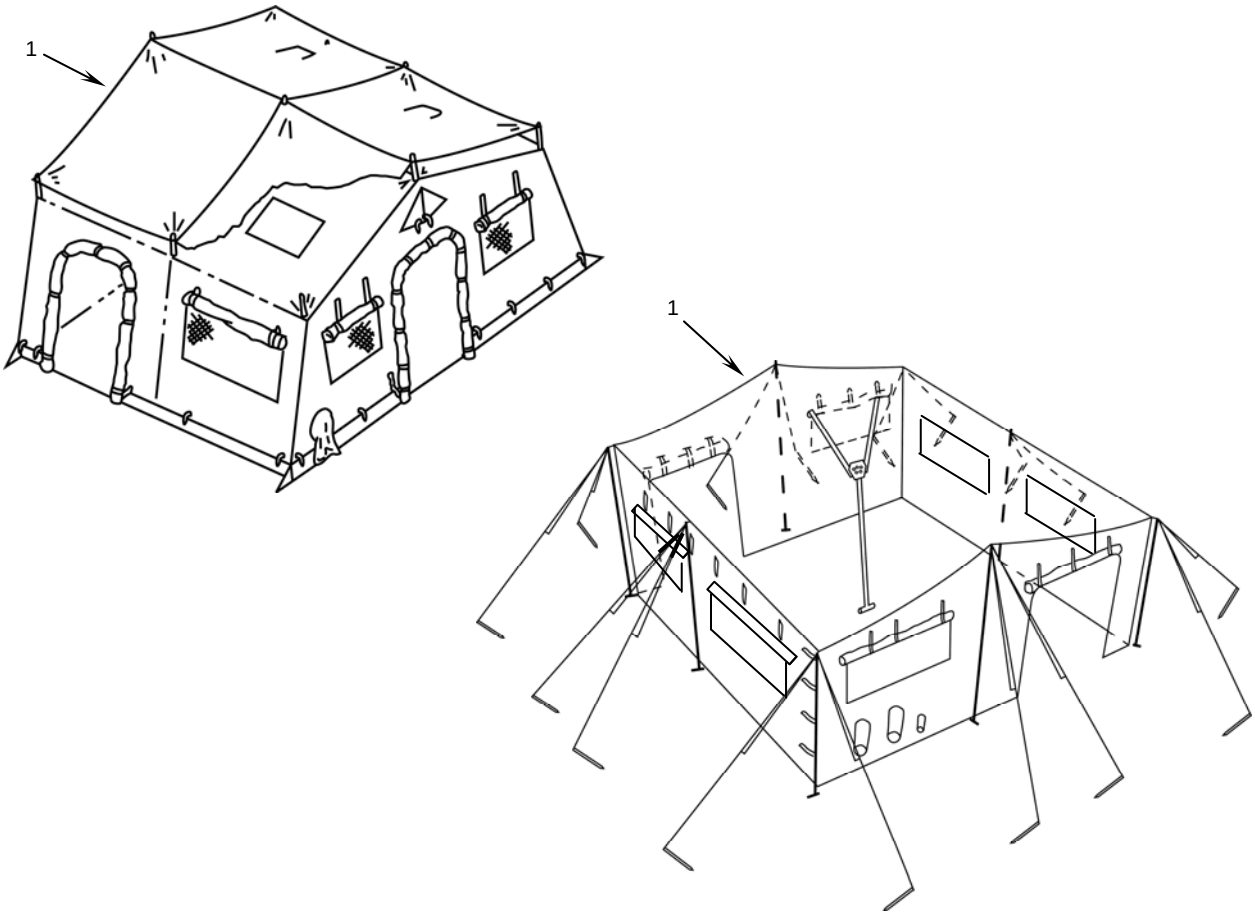


Figure 1. Extendable Modular Personnel Tent or Modular General Purpose Tent System.

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 01 TENT, EXTENDABLE, MODULAR, PERSONNEL (TEMPER) or MODULAR GENERAL PURPOSE TENT SYSTEM (MGPTS) FIG. 1 EXTENDABLE MODULAR PERSONNEL TENT OR MODULAR GENERAL PURPOSE TENT SYSTEM	
1	PAOFF	8340-01-185-2613	81349	MIL-T-44271	TENT, EXTENDABLE, MODULAR, PERSONNEL UOC: EPD	1
					or	
2	PDOOO	8340-01-456-3633	73005	2480107	TENT, MGPTS, SMALL, GREEN UOC: FSL, EPD	1
					END OF FIGURE	

UNIT MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-90, NSN 7360-01-277-2558
MODEL FSC-2, NSN 7360-01-496-2112
LIGHT, EXTENSION, PN 31-5004M-IP
REPAIR PARTS LIST

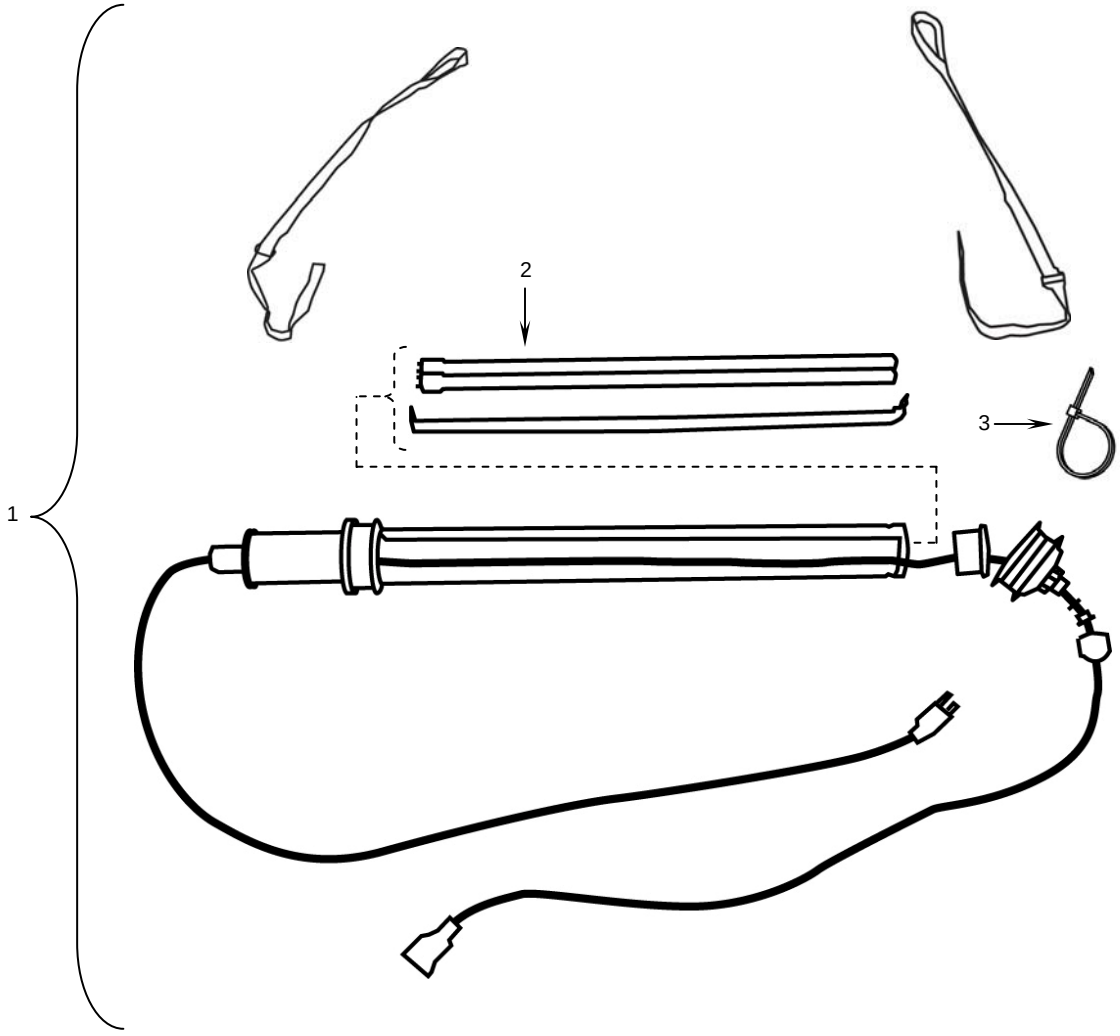


Figure 2. Extension Light.

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 02 LIGHT, EXTENSION FIG. 2 EXTENSION LIGHT	
1	PAOZZ	6230-01-485-6376	06967	31-5004M-IP	LIGHT, EXTENSION	1
2	PAOZZ	6230-01-506-9387	06967	31-1-50	. KIT, RELAMPING.....	1
3	PAOZZ	5975-01-481-4977	39428	7130K56	. STRAP, TIE DOWN, ELECTRICAL	2
					END OF FIGURE	

UNIT AND DIRECT SUPPORT MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-90, NSN 7360-01-277-2558
MODEL FSC-2, NSN 7360-01-496-2112
STORAGE RACK ASSEMBLY, PN 5-13-4050
REPAIR PARTS LIST

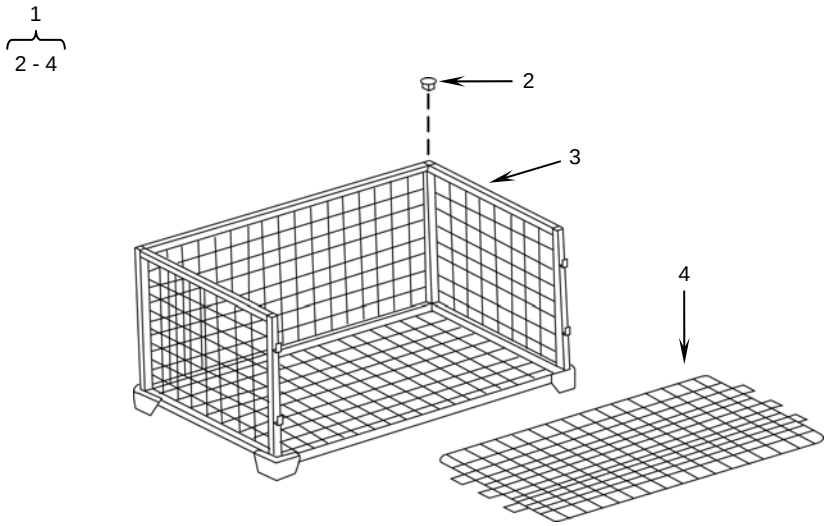


Figure 3. Storage Rack Assembly.

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 03 STORAGE RACK ASSEMBLY FIG. 3 STORAGE RACK ASSEMBLY	
1	PBOFF	7125-01-334-3159	81337	5-13-4050	STORAGE RACK ASSEMBLY	6
2	PAOZZ	5340-01-334-5088	81337	5-13-4052	. PLUG, PROTECTIVE, DUST	8
3	PBOFF	7125-01-333-8494	81337	5-13-4051	. RACK, STORAGE, KITCHEN UTENSILS	1
4	PBOFF	7105-01-333-8495	81337	5-13-4053	. SHELF, STORAGE AND DISPLAY.....	1
					END OF FIGURE	

UNIT AND DIRECT SUPPORT MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-90, NSN 7360-01-277-2558
MODEL FSC-2, NSN 7360-01-496-2112
SINK ASSEMBLY, PN 5-13-4120
OR SINK ASSEMBLY, PN 48041001
REPAIR PARTS LIST

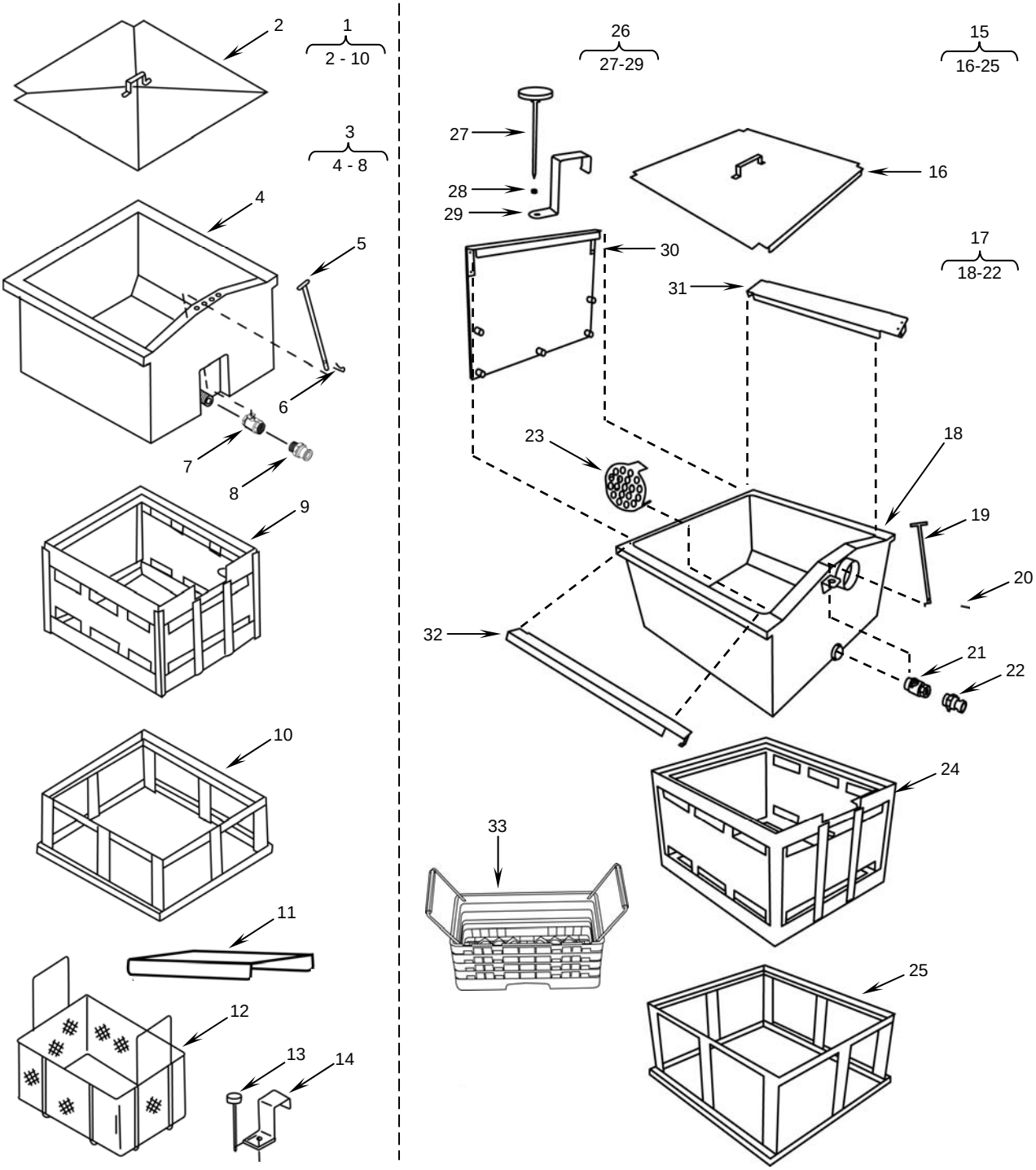


Figure 4. Sink Assembly.

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 04 SINK ASSEMBLY FIG. 4 SINK ASSEMBLY	
1	PBOFF	7320-01-333-9186	81337	5-13-4120	SINK ASSEMBLY UOC: EPD	3
2	PBOFF	5340-01-333-8485	81337	5-13-4206	. COVER, SINK UOC: EPD	1
3	PBOFF	4510-01-333-9187	81337	5-13-4121	. BODY ASSEMBLY, SINK UOC: EPD	1
4	XAOZZ		81337	5-13-4122	. . BODY, SINK UOC: EPD	1
5	XDOZZ		81337	5-13-4123	. . HANDLE, VALVE UOC: EPD	1
6	PAOZZ	5315-00-234-1863	80205	MS24665-300	. . PIN, COTTER UOC: EPD	1
7	PBOZZ	4820-01-333-8484	81337	5-13-4124	. . VALVE, DRAIN UOC: EPD	1
8	XDOZZ	4730-00-491-0030	96906	MS27022-8	. . COUPLING UOC: EPD	1
9	PBOFF	7360-01-250-3649	81337	5-13-3875	. RACK, BURNER UOC: EPD	1
10	PBOFF	7360-01-250-3652	81337	5-13-3868	. RACK, BASE UOC: EPD	1
11	PBOZZ	7320-01-333-9188	81337	5-13-4256	ADAPTER, SINK UOC: EPD	2
12	PBOZZ	7320-01-333-3160	32682	5-13-4255	RACK, SINK, IMMERSION UOC: EPD	2
13	PAOZZ	6685-00-444-6500	1DWR0	D4013-A	THERMOMETER, SELF-IN UOC: EPD	3
14	PAOZZ	5340-01-333-8483	81337	5-13-4261	BRACKET, THERMOMETER UOC: EPD	3
15	PBOFF	4510-01-541-2191	0U5N7	48041035	SINK ASSEMBLY UOC: FSL	3
16	PBOFF	5340-01-541-0691	0U5N7	48041003	. COVER, SINK UOC: FSL	1
17	PBOFF	4510-01-541-4791	0U5N7	48041001	. BODY ASSEMBLY, SINK UOC: FSL	1
18	PBOZZ	4510-01-541-4800	0U5N7	48045002	. . BODY, SINK UOC: FSL	1
19	PAOZZ	5340-01-541-2413	0U5N7	48041002	. . HANDLE, VALVE UOC: FSL	1
20	PAOZZ	5315-00-234-1863	80205	MS24665-300	. . PIN, COTTER UOC: FSL	1
21	PBOZZ	4820-01-541-0361	0U5N7	48042009	. . VALVE, DRAIN UOC: FSL	1
22	PAOZZ	4730-01-541-0396	33813	12F-BRASS	. . ADAPTER UOC: FSL	1
23	PBOZZ	4510-01-541-0667	0U5N7	48042008	. STRAINER UOC: FSL	1

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 04 SINK ASSEMBLY FIG. 4 SINK ASSEMBLY	
24	PBOFF	7360-01-541-2909	0U5N7	48041008	. RACK, BURNER ..... UOC: FSL	3
25	PBOFF	7360-01-541-3334	0U5N7	48041009	. RACK, BASE..... UOC: FSL	3
26	PAOOO	6685-01-541-1798	0U5N7	48041015	THERMOMETER ASSEMBLY ..... UOC: FSL	3
27	PAOZZ	6685-00-444-6500	1DWR0	D4013-A	. THERMOMETER, SELF-INDICATING ..... UOC: FSL	1
28	PAOZZ	5325-01-541-0791	39428	1061T11	. GROMMET, RUBBER ..... UOC: FSL	1
29	PAOZZ	5340-01-541-4093	0U5N7	48042030	. BRACKET, THERMOMETER..... UOC: FSL	1
30	PAOZZ	5340-01-541-4996	0U5N7	48041036	HEAT SHIELD ASSEMBLY, SINK FRONT ..... UOC: FSL	3
31	PAOZZ	5340-01-541-4998	0U5N7	48041038	HEAT SHIELD ASSEMBLY, SINK COUPLER ..... UOC: FSL	2
32	PAOZZ	5341-01-541-1917	0U5N7	48041039	HEAT SHIELD ASSEMBLY, SINK EDGE ..... UOC: FSL	1
33	PBOZZ	7320-01-541-3326	0U5N7	48041023	RACK, SINK, IMMERSION..... UOC: FSL	1
					END OF FIGURE	

UNIT AND DIRECT SUPPORT MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-90, NSN 7360-01-277-2558
MODEL FSC-2, NSN 7360-01-496-2112
HOSE ASSEMBLIES
REPAIR PARTS LIST

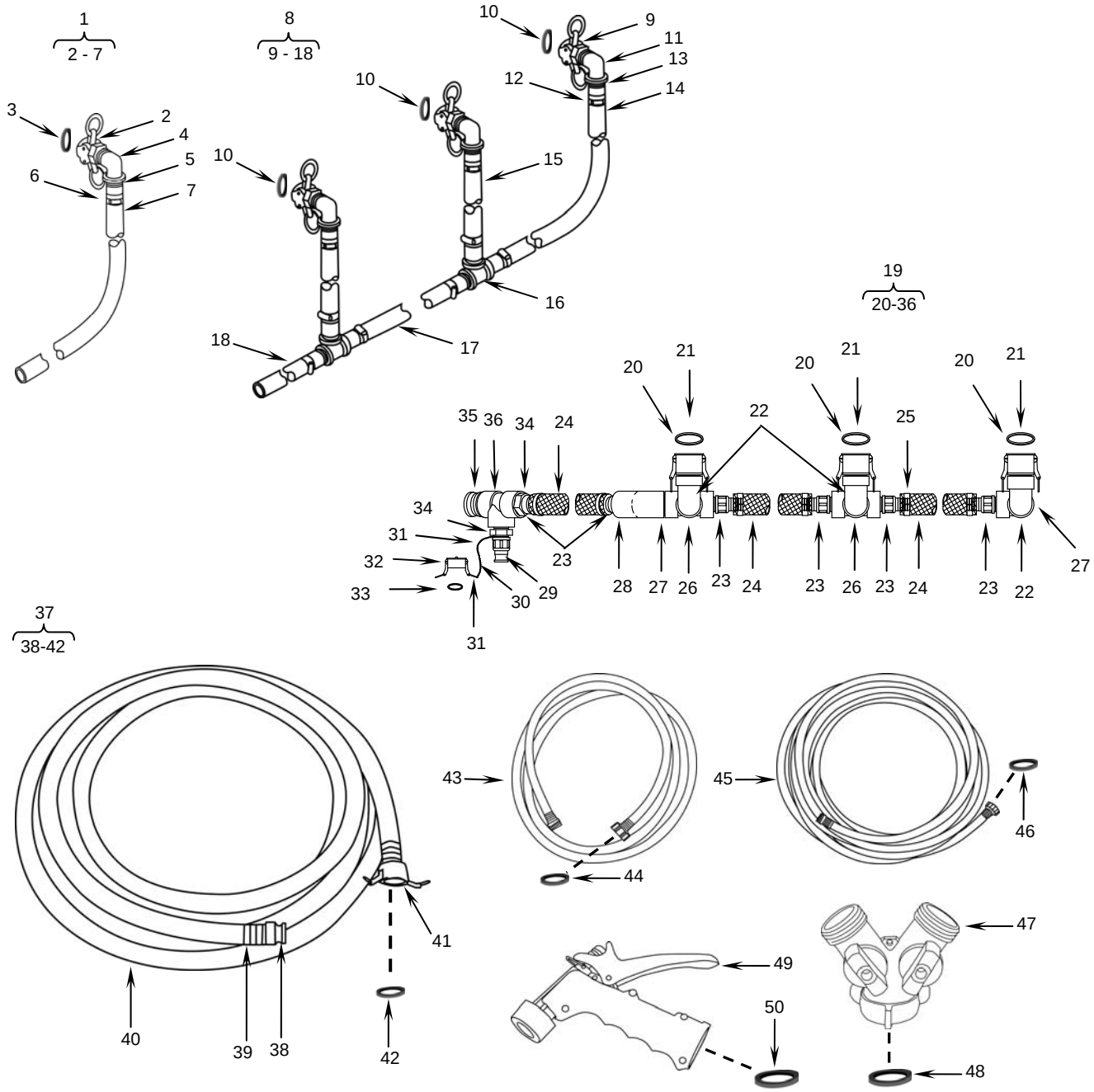


Figure 5. Hose Assemblies.

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 05 HOSE ASSEMBLIES FIG. 5 HOSE ASSEMBLIES	
1	PBOOO	4720-01-333-8488	81337	5-13-4061	DRAIN HOSE, SINGLE..... UOC: EPD	1
2	PBOZZ	4730-01-023-2659	96906	MS27024-8	. COUPLING HALF, QUICK..... UOC: EPD	1
3	PAOZZ	5330-01-486-2809	33813	B03	. . GASKET..... UOC: EPD	1
4	PBOZZ	4730-01-124-3709	96906	MS51952-7	. ELBOW, PIPE ..... UOC: EPD	1
5	PBOZZ	4730-01-363-4262	72661	BST15	. ADAPTER, STRAIGHT, PIPE.. UOC: EPD	1
6	PBOZZ	4730-00-908-3193	83299	0612596-00	. CLAMP, HOSE..... UOC: EPD	1
7	MOOZZ	4720-01-371-1336	81377	5-13-4061-5	. HOSE, NONMETALLIC, MAKE FROM P/N 631, CAGEC 73801, 15 FT REQ ..... UOC: EPD	1
8	PBOOO	4720-01-333-8489	81337	5-13-3749	DRAIN HOSE, THREE SINK ..... UOC: EPD	1
9	PBOZZ	4730-01-023-2659	96906	MS27024-8	. COUPLING HALF, QUICK..... UOC: EPD	3
10	PAOZZ	5330-01-486-2809	33813	B03	. . GASKET..... UOC: EPD	1
11	PBOZZ	4730-01-124-3709	96906	MS51952-7	. ELBOW, PIPE ..... UOC: EPD	3
12	PBOZZ	4730-00-908-3193	96906	MS35842-12	. CLAMP, HOSE..... UOC: EPD	9
13	PBOZZ	4730-01-363-4262	72661	BST15	. ADAPTER, STRAIGHT, PIPE.. UOC: EPD	7
14	MOOZZ	4720-01-371-1336	81337	5-13-3749-4	. HOSE NONMETALLIC, MAKE FROM P/N 631, CAGEC 73801, 5 FT REQ ..... UOC: EPD	1
15	MOOZZ	4720-01-371-1336	81337	5-13-3749-5	. HOSE NONMETALLIC, MAKE FROM P/N 631, CAGEC 73801, 3 FT REQ ..... UOC: EPD	2

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 05 HOSE ASSEMBLIES FIG. 5 HOSE ASSEMBLIES	
16	PBOZZ	4730-00-187-7652	96906	MS14305-7YA	. COUPLING, PIPE ..... UOC: EPD	2
17	MOOZZ	4720-01-371-1336	81337	5-13-3749-6	. HOSE NONMETALLIC, MAKE FROM P/N 631, CAGEC 73801, 2 FT REQ ..... UOC: EPD	1
18	MOOZZ	4720-01-371-1336	81337	5-13-3749-9	. HOSE NONMETALLIC, MAKE FROM P/N 631, CAGEC 73801, 15 FT REQ ..... UOC: EPD	1
19	PBOOO	4720-01-541-0740	0U5N7	48041007	HOSE ASSEMBLY, DRAIN ..... UOC: FSL	1
20	PBOOO	4730-01-541-1126	33813	12B-POLY	. COUPLER..... UOC: FSL	3
21	PAOZZ	5330-01-486-2809	33813	B03	. . GASKET..... UOC: FSL	1
22	PBOZZ	4730-01-541-0374	75185	9808-012	. ELBOW, PIPE, 90-DEG..... UOC: FSL	4
23	PBOZZ	4730-01-541-5004	39428	43535K74	. ADAPTER, HOSE, STRAIGHT, MALE ..... UOC: FSL	6
24	MOOZZ		87373	7093-125204	. HOSE, NONMETALLIC MAKE FROM BULK,	
	OR				29 INCHES..... UOC: FSL	3
	MOOZZ		7S077	5690093180 0200	. HOSE, NONMETALLIC MAKE FROM BULK,	
					29 INCHES..... UOC: FSL	3
25	PAOZZ	4730-00-908-3193	81646	6212	. CLAMP, HOSE..... UOC: FSL	6
26	PBOZZ	4730-01-541-0643	75185	9805-012	. TEE, PIPE ..... UOC: FSL	2
27	PBOZZ	4730-01-358-4180	39428	6810K15	. NIPPLE, PIPE ..... UOC: FSL	4
28	XBOZZ	4730-01-357-1275	39428	4589K35	. ELBOW, PIPE, 45-DEG..... UOC: FSL	1
29	PBOZZ	4730-01-541-0312	33813	12F-POLY	. ADAPTER ..... UOC: FSL	1

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 05 HOSE ASSEMBLIES FIG. 5 HOSE ASSEMBLIES	
30	PAOZZ	4010-01-536-3418	39428	8923T314	. WIRE ROPE, NYLON COATED, 12 INCHES ..... UOC: FSL	1
31	PAOZZ	4030-01-285-5556	39428	3896T1	. SWAGING SLEEVE..... UOC: FSL	2
32	PBOOO	5340-01-541-0689	33813	12V-POLY	. DUST CAP ..... UOC: FSL	1
33	PBOZZ	5330-01-541-0325	33813	B03	. . GASKET..... UOC: FSL	1
34	PBOZZ	4730-01-541-0746	75185	9839-212	. BUSHING, HEX, PIPE ..... UOC: FSL	2
35	PBOZZ	4730-01-541-0321	33813	15F-POLY	. ADAPTER ..... UOC: FSL	1
36	PBOZZ	4730-01-541-0641	75185	9805-015	. TEE, PIPE ..... UOC: FSL	1
37	PBOOO	4720-01-541-0370	0U5N7	48041006	HOSE, GREASE SEPARATOR DRAIN (50 FT) ..... UOC: FSL	1
38	PBOZZ	4730-01-541-0605	33813	15E-POLY	. ADAPTER ..... UOC: FSL	1
39	PBOZZ	4730-00-909-8627	19207	5293413	. CLAMP, HOSE..... UOC: FSL	4
40	MOOZZ		87373	7093-150204	. HOSE NONMETALLIC, MADE FROM BULK, 50 FEET ..... UOC: FSL	1
41	PBOOO	4730-01-541-5003	33813	15C-POLY	. COUPLER..... UOC: FSL	1
42	PAOZZ	5330-01-541-4808	33813	B04	. . GASKET..... UOC: FSL	1
43	PBOOO	4720-01-541-0750	60327	7503-15	HOSE, FRESH WATER (15 FT)..... UOC: FSL	1
44	PAOZZ	5310-01-483-6326	39428	62215T78	. WASHER, HOSE ..... UOC: FSL	1
45	PBOOO	4720-01-541-0644	60327	8602-50	HOSE, FRESH WATER (50 FT)..... UOC: FSL	1

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 05 HOSE ASSEMBLIES FIG. 5 HOSE ASSEMBLIES	
46	PAOZZ	5310-01-483-6326	39428	62215T78	. WASHER, HOSE UOC: FSL	1
47	PAOOO	4510-01-541-0653	39428	7459T11	Y-ADAPTER UOC: FSL	1
48	PAOZZ	5310-01-483-6326	39428	62215T78	. WASHER, HOSE UOC: FSL	1
49	PAOOO	4730-01-466-9556	04WZ5	403605	NOZZLE, WATER UOC: FSL	1
50	PAOZZ	5310-01-483-6326	39428	62215T78	. WASHER, HOSE UOC: FSL	1
					END OF FIGURE	

UNIT AND DIRECT SUPPORT MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-2, NSN 7360-01-496-2112
MODERN BURNER UNIT (MBU)
REPAIR PARTS LIST

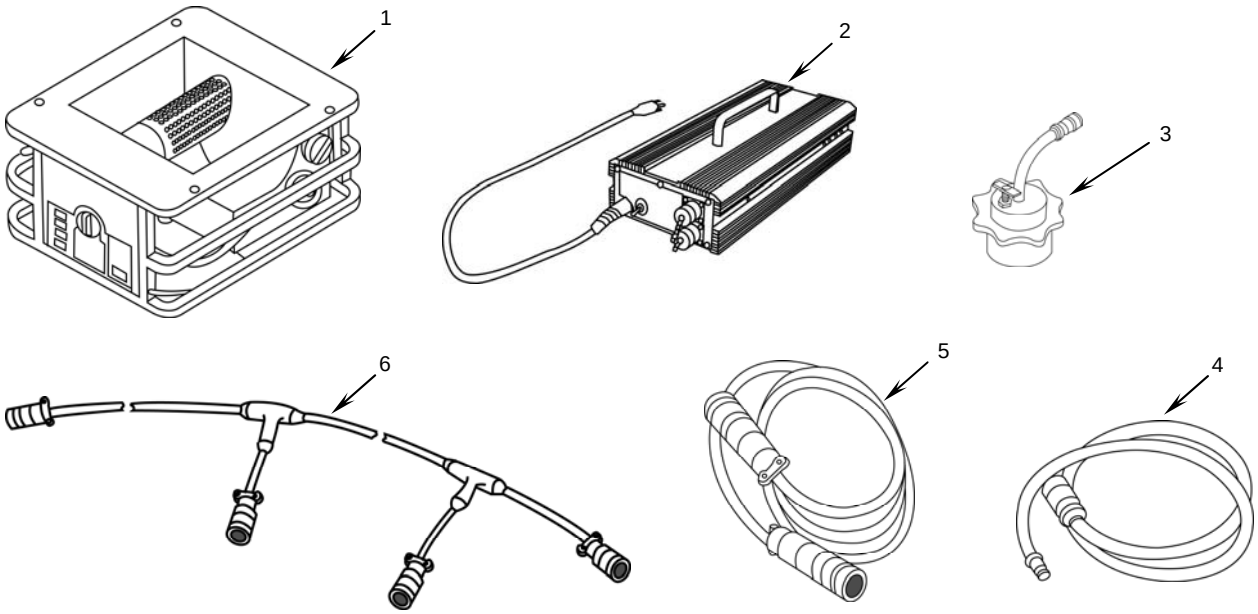


Figure 6. Modern Burner Unit (MBU).

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 06 MODERN BURNER UNIT (MBU) FIG. 6 MODERN BURNER UNIT (MBU)	
1	PAOFF	7310-01-462-4943	3AD06	880110K	MODERN BURNER UNIT (MBU) ..... FOR REPAIR PARTS REFER TO TM 10-7310-281-13&P	3
2	PAOZZ	7310-01-453-6513	3AD06	MS0150	CONVERTER, POWER ..... UOC: FSL	1
3	PAOZZ	7310-01-455-3736	3AD06	MS0300	FUEL CAN ADAPTER..... UOC: FSL	1
4	PAOZZ	7310-01-455-3735	3AD06	MS0350	FUEL LINE (20 FT) ..... UOC: FSL	1
5	PAOZZ	7310-01-455-0665	3AD06	MS0101	CABLE A, 24 VOLT DC LONG (25 FT) ..... UOC: FSL	1
6	PAOZZ	7310-01-455-1017	3AD06	MS0104	CABLE D, 2 BRANCH..... UOC: FSL	2
					END OF FIGURE	

UNIT AND DIRECT SUPPORT MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-90, NSN 7360-01-277-2558
MODEL FSC-2, NSN 7360-01-496-2112
TABLE ASSEMBLY, SINK DRAIN PN 5-13-4240
TABLE ASSEMBLY, SINK DRAIN PN 48041010
REPAIR PARTS LIST

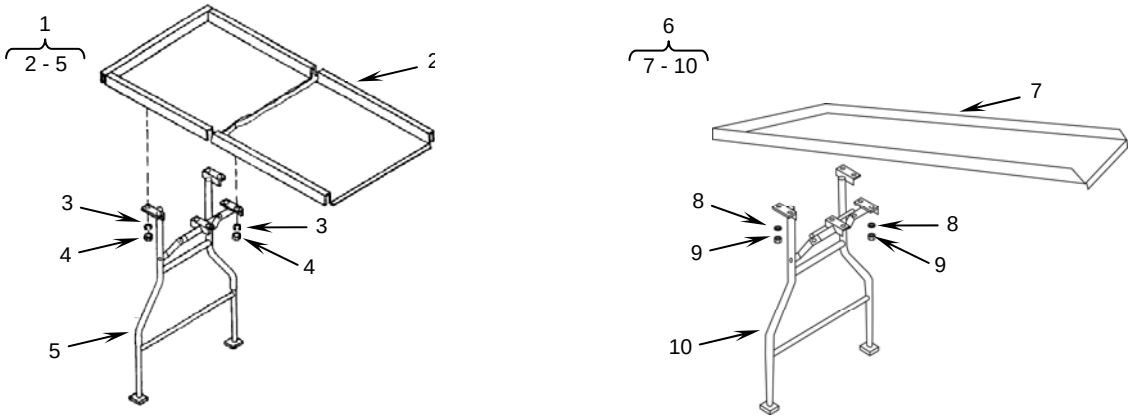


Figure 7. Drain Table Assembly.

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 07 TABLE ASSEMBLY, SINK DRAIN FIG. 7 DRAIN TABLE ASSEMBLY	
1	PBOFF	7105-01-333-8492	81337	5-13-4240	TABLE ASSEMBLY, SINK DRAIN ..... UOC: EPD	1
2	XAOZZ		81337	5-13-4241	. TABLE TOP, DRAIN ..... UOC: EPD	1
3	PAOZZ	5310-00-527-3634	96906	MS35335-61	. WASHER, LOCK ..... UOC: EPD	8
4	PAOZZ	5310-00-903-5966	96906	MS51971-1	. NUT, PLAIN, HEXAGON..... UOC: EPD	8
5	PBOFF	7105-01-333-9189	81337	5-13-4245-2	. LEG ADAPTER ..... UOC: EPD	1
6	PBOFF	4510-01-541-0753	0U5N7	48041010	TABLE ASSEMBLY, SINK DRAIN ..... UOC: FSL	1
7	XAOZZ		0U5N7	48041011	. TABLE TOP, DRAIN ..... UOC: FSL	1
8	PAOZZ	5310-00-527-3634	96906	MS35335-61	. WASHER, LOCK ..... UOC: FSL	8
9	PAOZZ	5310-00-903-5966	21877	147238-1	. NUT, PLAIN, HEXAGON..... UOC: FSL	8
10	PBOFF	7195-01-541-5342	0U5N7	48041012	. LEG ADAPTER ASSEMBLY .... UOC: FSL	1
					END OF FIGURE	

UNIT AND DIRECT SUPPORT MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-90, NSN 7360-01-277-2558
MODEL FSC-2, NSN 7360-01-496-2112
TABLE ASSEMBLY, FOLDING LEGS PN 5-13-4242
TABLE, FOLDING LEGS PN 48045015
REPAIR PARTS LIST

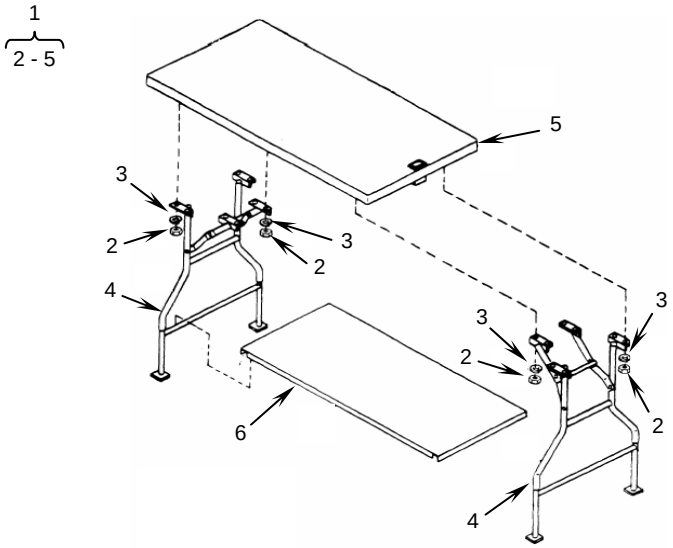


Figure 8. Folding Legs Table Assembly.

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 08 TABLE ASSEMBLY, FOLDING LEGS FIG. 8 FOLDING LEGS TABLE ASSEMBLY	
1	PBOFF	7105-01-333-8493	81337	5-13-4242	TABLE ASSEMBLY, FOLDING LEGS ..... 1 UOC: EPD	
	PAOZZ	7195-01-541-5343	0U5N7	48045015	TABLE, FOLDING LEGS ..... 1 UOC: FSL	
2	PAOZZ	5310-00-903-5966	96906	MS51971-1	. NUT, PLAIN, HEXAGON..... 16 UOC: EPD	
3	PAOZZ	5310-00-527-3634	96906	MS35335-61	. WASHER, LOCK ..... 16 UOC: EPD	
4	PBOFF	7105-01-361-8564	61337	5-13-4245-I	. LEG ADAPTER ..... 2 UOC: EPD	
5	XAOZZ		81337	5-13-4243	. TABLE TOP, DRAIN ..... 1 UOC: EPD	
6	PBOZZ	7125-01-333-8486	81337	5-13-4257	SHELF, TABLE ..... 1 UOC: EPD	
					END OF FIGURE	

UNIT AND DIRECT SUPPORT MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-2, NSN 7360-01-496-2112
FILL PUMP ASSEMBLY, PN 48041004
REPAIR PARTS LIST

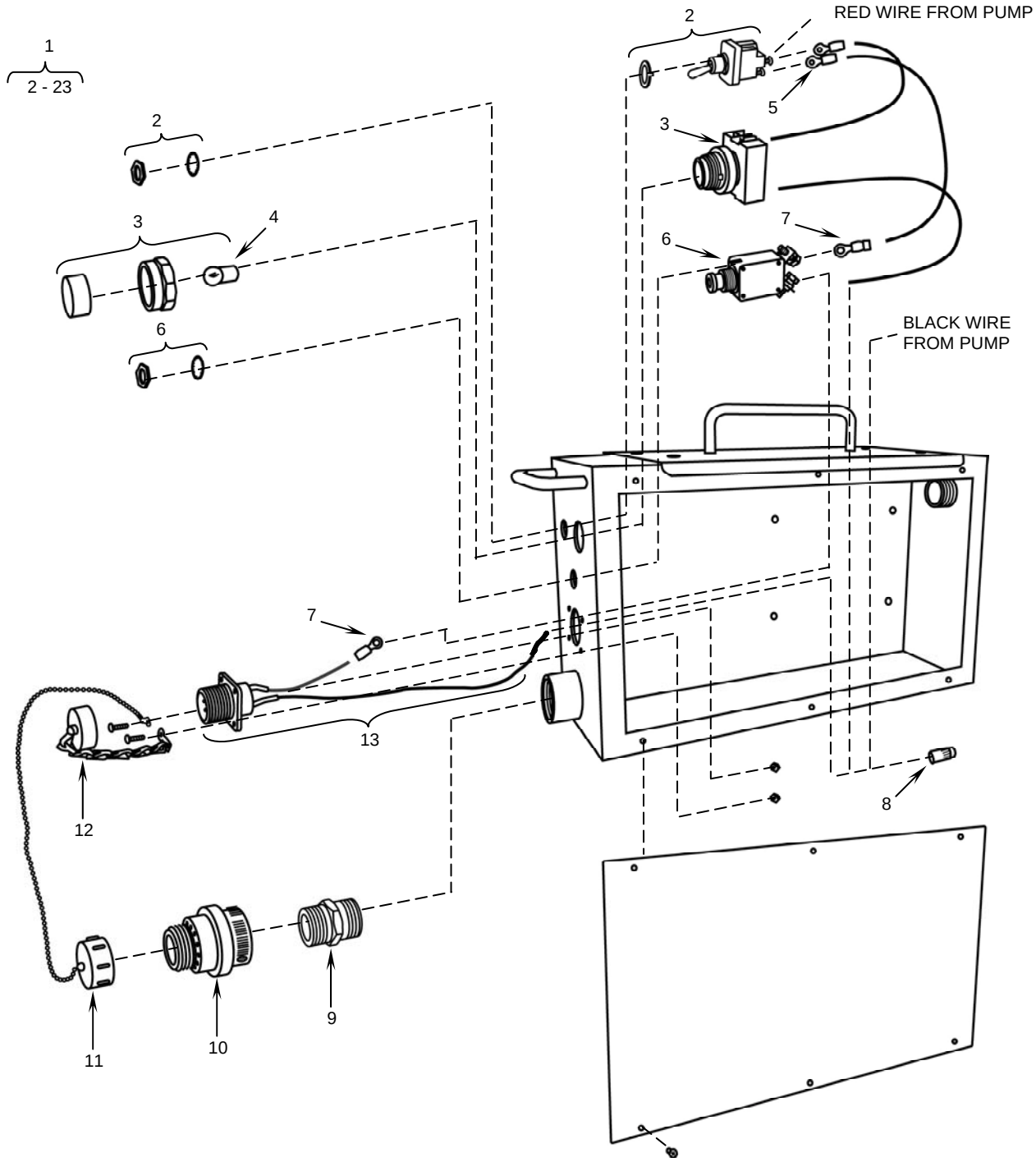


Figure 9. Fill Pump Assembly.
(Sheet 1 of 2)

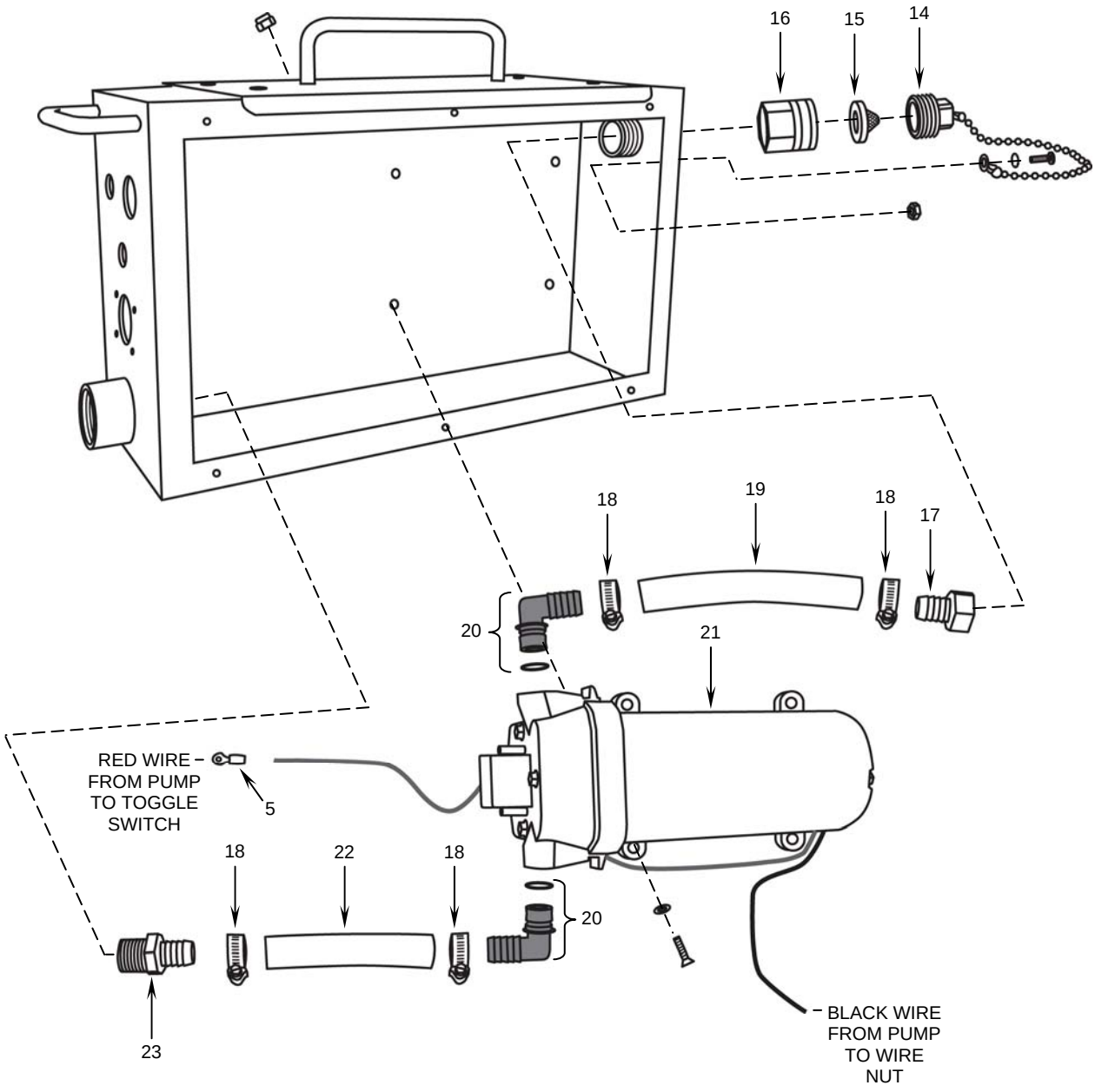


Figure 9. Fill Pump Assembly.
(Sheet 2 of 2)

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 9 FILL PUMP ASSEMBLY FIG. 9 FILL PUMP ASSEMBLY	
1	PAOOO	4320-01-541-0669	0U5N7	48041004	FILL PUMP ASSEMBLY ..... UOC: FSL	1
2	PAOZZ	5930-01-520-8650	39428	8002K71	. SWITCH, TOGGLE ..... UOC: FSL	1
3	PAOOO	6210-01-393-3248	60866	APW199-G-24V	. LIGHT, INDICATOR ..... UOC: FSL	1
4	PAOZZ	6240-01-450-2511	60866	IS-24	. . LAMP, INCANDESCENT ..... UOC: FSL	1
5	PAOZZ	5940-00-464-0117	00779	36152	. TERMINAL, LUG ..... UOC: FSL	3
6	PAOZZ	5925-01-093-8477	82647	2TC14-5	. CIRCUIT BREAKER ..... UOC: FSL	1
7	PAOZZ	5940-00-557-1629	1W654	A-521-08	. TERMINAL, LUG ..... UOC: FSL	2
8	PAOZZ	5940-01-541-4174	39428	70615K64	. WIRENUT, WATERTIGHT ..... UOC: FSL	1
9	PAOZZ	4730-01-233-8396	39428	73605T92	. ADAPTER, STRAIGHT, PIPE TO HOSE ..... UOC: FSL	1
10	PAOZZ	4820-01-539-5336	79227	8FR	. VACUUM BREAKER ..... UOC: FSL	1
11	PAOZZ	4730-01-541-3204	24994	30-142	. CAP, GARDEN HOSE WITH CHAIN ..... UOC: FSL	1
12	PAOZZ	5935-01-184-7188	96906	MS25043-16DA	. COVER, ELECTRICAL CONNECTOR ..... UOC: FSL	1
13	PAOZZ	6150-01-541-5310	0U5N7	48043002	. CONNECTOR ASSY ..... UOC: FSL	1
14	PAOZZ	5340-01-541-0686	0U5N7	48041032	. PLUG, PROTECTIVE ..... UOC: FSL	1
15	PAOZZ	5310-01-466-6305	39428	62215T88	. WASHER WITH FILTER ..... UOC: FSL	1
16	PAOZZ	4730-01-541-0674	24994	30-006	. ADAPTER, STRAIGHT, PIPE TO HOSE ..... UOC: FSL	1
17	PAOZZ	4730-01-541-5001	39428	5372K219	. ADAPTER, STRAIGHT ..... UOC: FSL	1
18	PAOZZ	4730-01-479-1934	7Z588	64010	. CLAMP, HOSE ..... UOC: FSL	4

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 9 FILL PUMP ASSEMBLY FIG. 9 FILL PUMP ASSEMBLY	
19	MOOZZ	4720-01-022-8241	06034	1020117	. TUBING, NONMETALLIC ..... UOC: FSL MAKE FROM BULK. CUT TO LENGTH AS REQUIRED	1
20	PAOZZ	4730-01-522-7335	0DHM8	20381-010	. ELBOW, QUICK DISCONNECT ..... UOC: FSL	2
21	PAOZZ	4320-01-541-0369	0L724	4325-343A	. PUMP, UNIT, ROTARY ..... UOC: FSL	1
22	MOOZZ	4720-01-022-8241	06034	1020117	. TUBING, NONMETALLIC ..... UOC: FSL MAKE FROM BULK. CUT TO LENGTH AS REQUIRED	1
23	PAOZZ	4730-01-541-0645	39428	5372K133	. ADAPTER, STRAIGHT, PIPE TO HOSE ..... UOC: FSL	1
					END OF FIGURE	

UNIT AND DIRECT SUPPORT MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-2, NSN 7360-01-496-2112
GREASE SEPARATOR, PN 48041024
REPAIR PARTS LIST

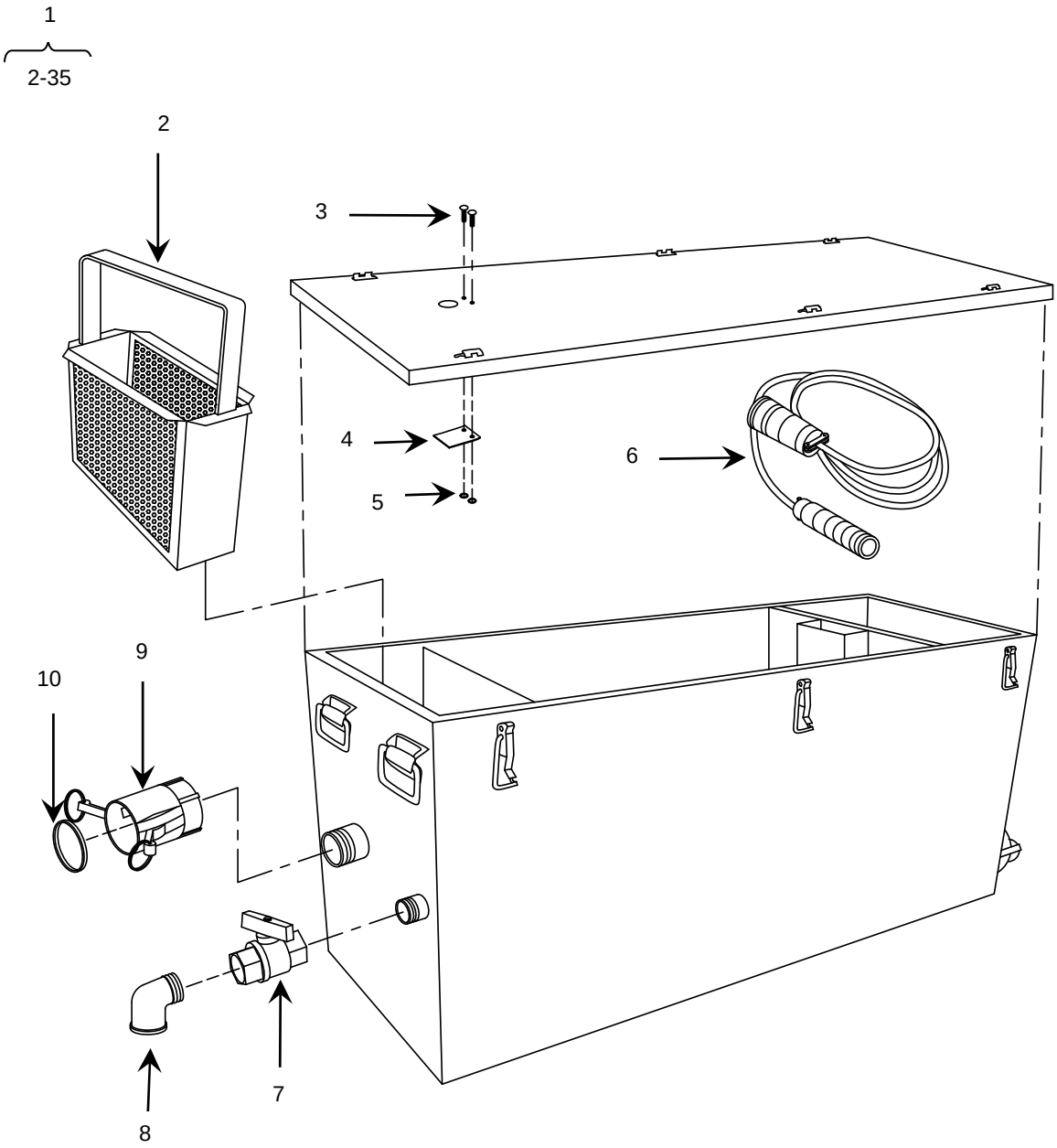


Figure 10. Grease Separator.
(Sheet 1 of 3)

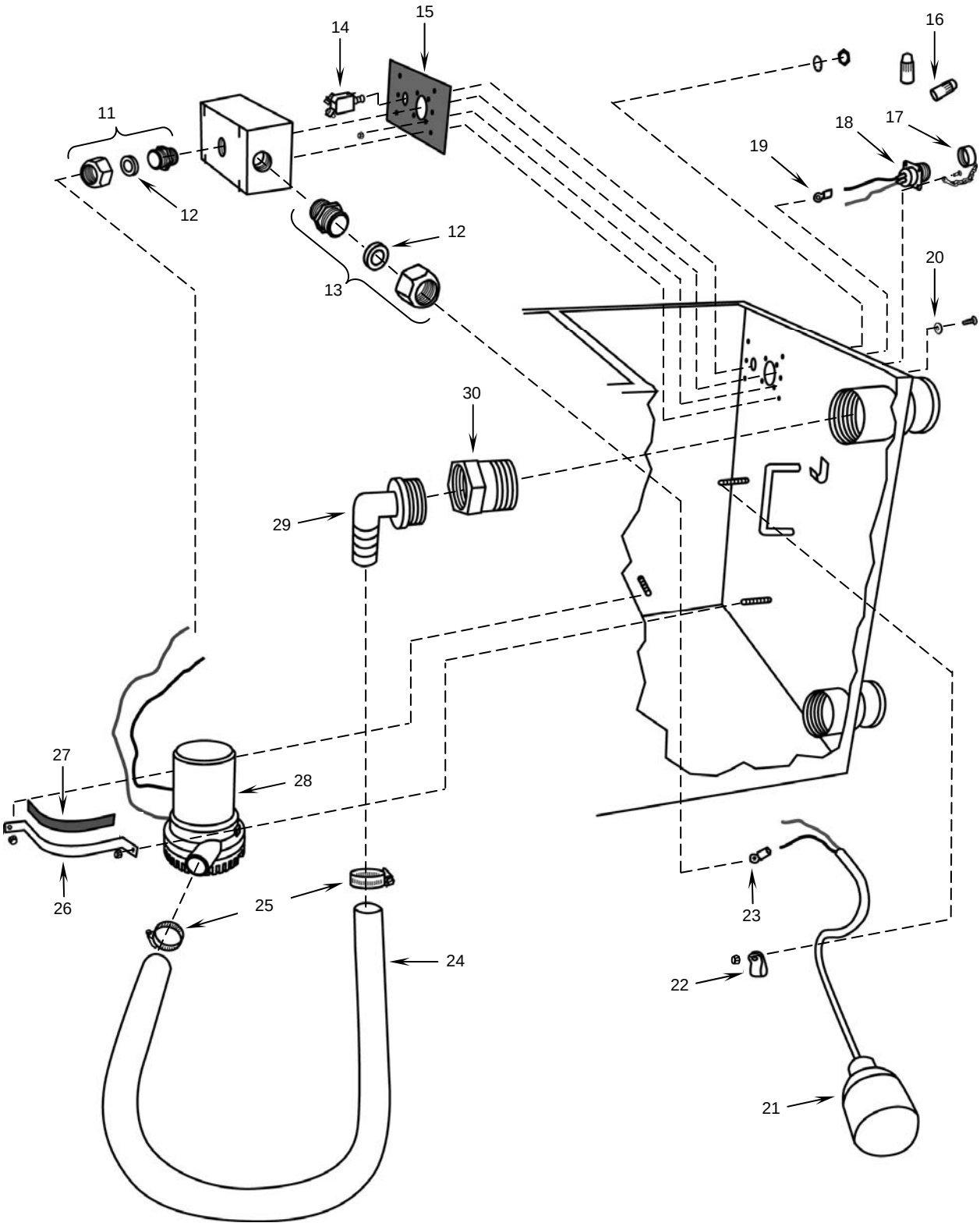


Figure 10. Grease Separator.
(Sheet 2 of 3)

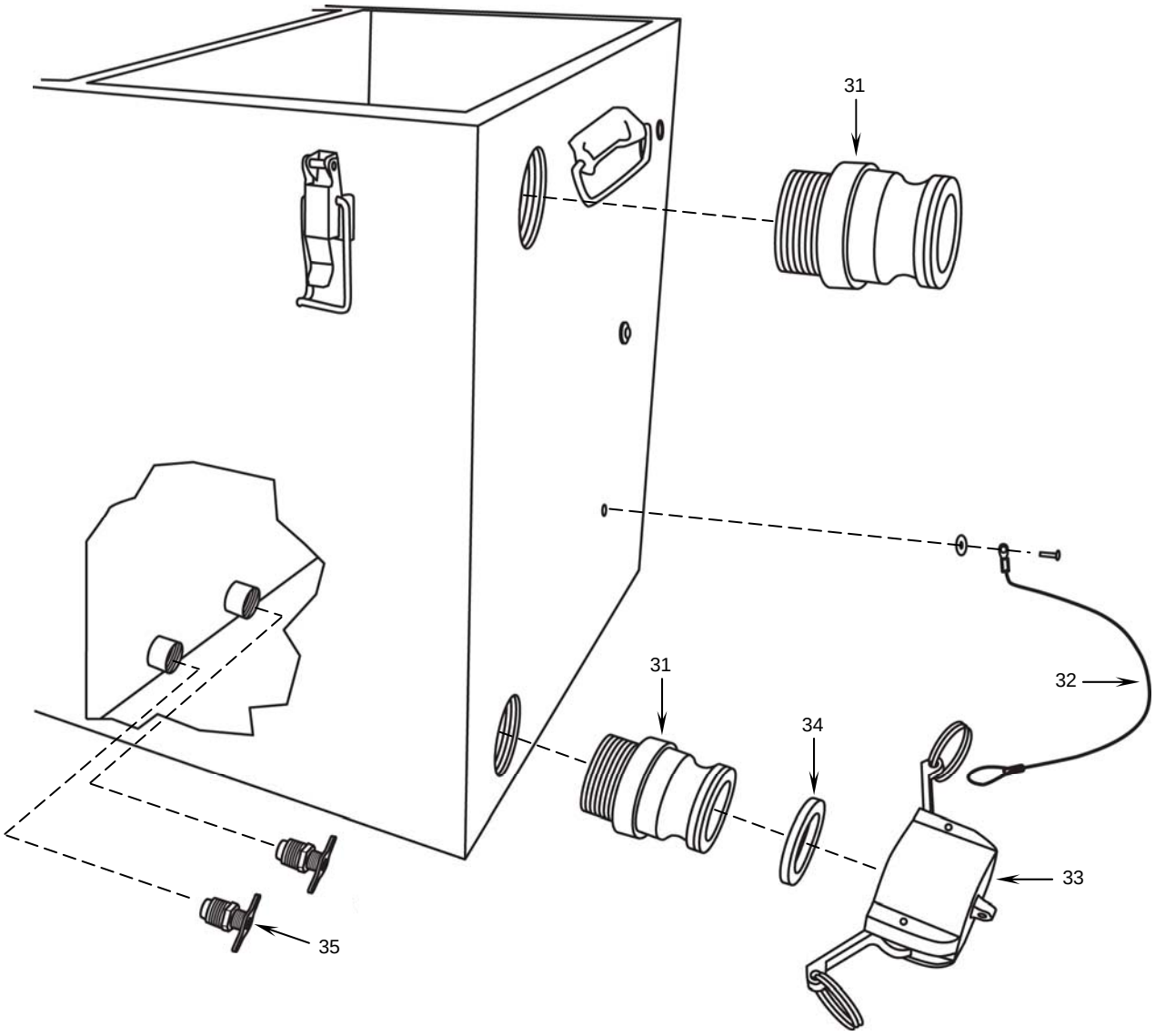


Figure 10. Grease Separator.
(Sheet 3 of 3)

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 10 GREASE SEPARATOR FIG. 10 GREASE SEPARATOR	
1	PAOFF	4510-01-541-2489	0U5N7	48041024	GREASE SEPARATOR ASSEMBLY UOC: FSL	1
2	PAOZZ	4730-01-541-0426	0U5N7	48045020	. BASKET, STRAINER UOC: FSL	1
3	PAOZZ	5320-01-541-2571	0CLN7	AD44AH	. RIVET, BLIND UOC: FSL	2
4	PAOZZ	4820-01-541-0665	0U5N7	48042054	. FLAP, AIR UOC: FSL	1
5	PAOZZ	5310-01-470-2369	39428	90183A213	. WASHER, FLAT UOC: FSL	2
6	PAOZZ	6150-01-541-3307	0U5N7	48043001	. CABLE ASSEMBLY, POWER UOC: FSL	1
7	XDOZZ		0U5N7	VJI-100104RTH	. VALVE, BALL UOC: FSL	1
8	PAOZZ	4730-01-506-4407	39428	4429K154	. ELBOW, PIPE UOC: FSL	1
9	PAOOO	4730-01-541-0663	33813	15D-POLY	. COUPLING HALF, QUICK DISCONNECT UOC: FSL	1
10	PAOZZ	5330-01-541-4808	33813	B04	. . GASKET UOC: FSL	1
11	PAOZZ	5975-00-296-1669	15235	CGB193	. BOX CONNECTOR, ELECTRICAL UOC: FSL	1
12	PAOZZ	5330-01-516-8814	0UE11	SR-13-NY	. PACKING, PREFORMED UOC: FSL	2
13	PAOZZ	5975-00-296-1669	15235	CGB193	. BOX CONNECTOR, ELECTRICAL UOC: FSL	1
14	PAOZZ	5925-01-093-8477	82647	2TC14-5	. CIRCUIT BREAKER UOC: FSL	1
15	PAOZZ	5330-01-541-0326	0U5N7	48042053	. GASKET, SINGLE GANG UOC: FSL	1
16	PAOZZ	5940-01-541-4174	39428	70615K64	. WIRENUT, WATERTIGHT UOC: FSL	2
17	PAOZZ	5935-01-184-7188	96906	MS25043-16DA	. COVER, ELECTRICAL CONNECTOR UOC: FSL	1
18	PAOZZ	6150-01-541-5310	0U5N7	48043002	. CONNECTOR ASSEMBLY UOC: FSL	1

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
19	PAOZZ	5940-00-143-4775	81343	MS25036-156	. TERMINAL, LUG UOC: FSL	1
20	PAOZZ	5310-01-476-7233	39428	94709A111	. WASHER, SEAL UOC: FSL	6
21	PAOZZ	6680-01-541-0430	0Z3R2	PW217-25	. FLOAT SWITCH, TETHERED UOC: FSL	1
22	PAOZZ	5340-01-541-0773	33813	8876T2	. STRAP, NYLON LOOP UOC: FSL	1
23	PAOZZ	5940-00-557-1629	1W654	A-521-08	. TERMINAL, LUG UOC: FSL	1
24	MOOZZ		06034	2900765	. TUBING, NONMETALLIC (CUT FROM BULK, 16 IN) UOC: FSL	1
25	PAOZZ	4730-00-278-2523	19207	11608950-6	. CLAMP, HOSE UOC: FSL	2
26	PAOZZ	5340-01-541-3226	0U5N7	48042047	. BRACKET, PUMP MOUNTING UOC: FSL	1
27	MOOZZ	9320-01-541-2994	39428	93725K54	. RUBBER STRIP (CUT FROM BULK, 6 IN) UOC: FSL	1
28	PAOZZ	4320-01-286-1990	50068	12B	. PUMP UNIT, CENTRIFUGAL UOC: FSL	1
29	PAOZZ	4730-01-541-2415	7S077	33-460W	. ADAPTER, HOSE, 90-DEG ELBOW UOC: FSL	1
30	PAOZZ	4820-01-541-3725	28396	BU-150x125-B-M-1/8	. VALVE, CHECK UOC: FSL	1
31	PAOZZ	4730-01-541-0321	33813	15F-POLY	. COUPLING HALF, QUICK DISCONNECT UOC: FSL	2
32	PAOZZ	4010-01-509-3979	2V507	30345T11	. WIRE ROPE ASSEMBLY UOC: FSL	1
33	PAOOO	4730-01-541-0605	33813	15V-POLY	. CAP, PROTECTIVE UOC: FSL	1
34	PAOZZ	5330-01-541-4808	33813	B04	. . GASKET UOC: FSL	1
35	PAOZZ	4820-01-541-2415	7S077	46-083	. COCK, DRAIN UOC: FSL	2
					END OF FIGURE	

UNIT AND DIRECT SUPPORT MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-2, NSN 7360-01-496-2112
ELECTRICAL
REPAIR PARTS LIST

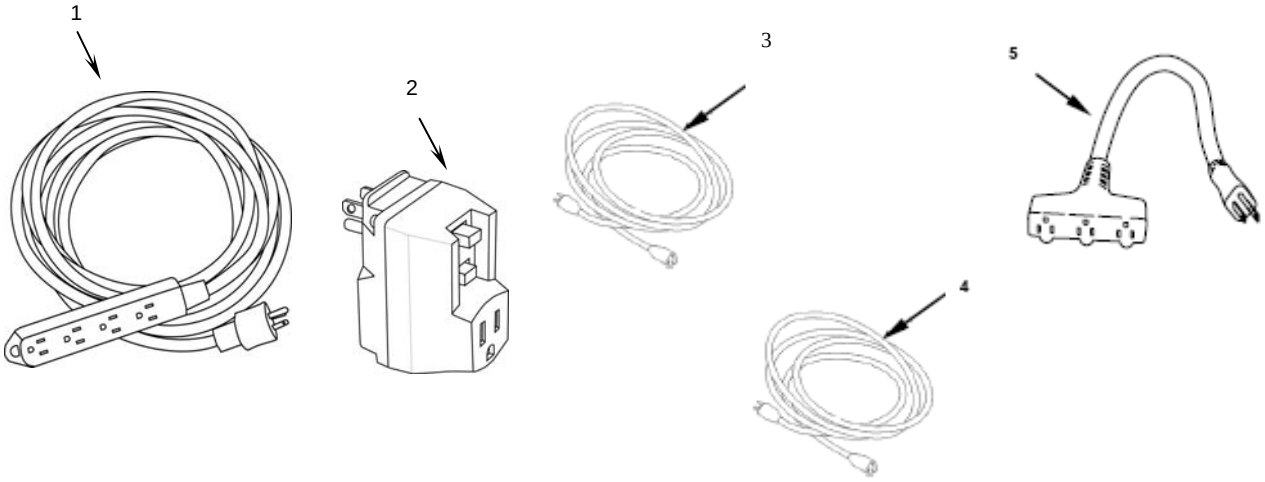


Figure 11. Electrical.

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 11 ELECTRICAL FIG. 11 ELECTRICAL	
1	PAOZZ	6150-01-541-4236	25795	3UY81	EXTENSION CORD, FOUR OUTLET, 15A/125V (100 FT) ..... UOC: FSL	1
2	PAOZZ	5935-01-541-1208	39428	6975K63	GROUND FAULT CIRCUIT INTERRUPTER ..... UOC: FSL	1
3	PAOZZ	7310-01-454-1281	3AD06	MS0400	EXTENSION CORD, MBU, (50 FT) ..... UOC: EPD	1
4	PAOZZ	7310-01-458-5060	3AD06	MS0425	EXTENSION CORD, SHORT ..... UOC: EPD	1
5	PAOZZ	6250-01-507-8466	7X667	00594.63.04	CABLE ASSEMBLY, POWER ..... UOC: EPD	1
					END OF FIGURE	

UNIT AND DIRECT SUPPORT MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-2, NSN 7360-01-496-2112
CO MONITOR, PN 48041033
REPAIR PARTS LIST

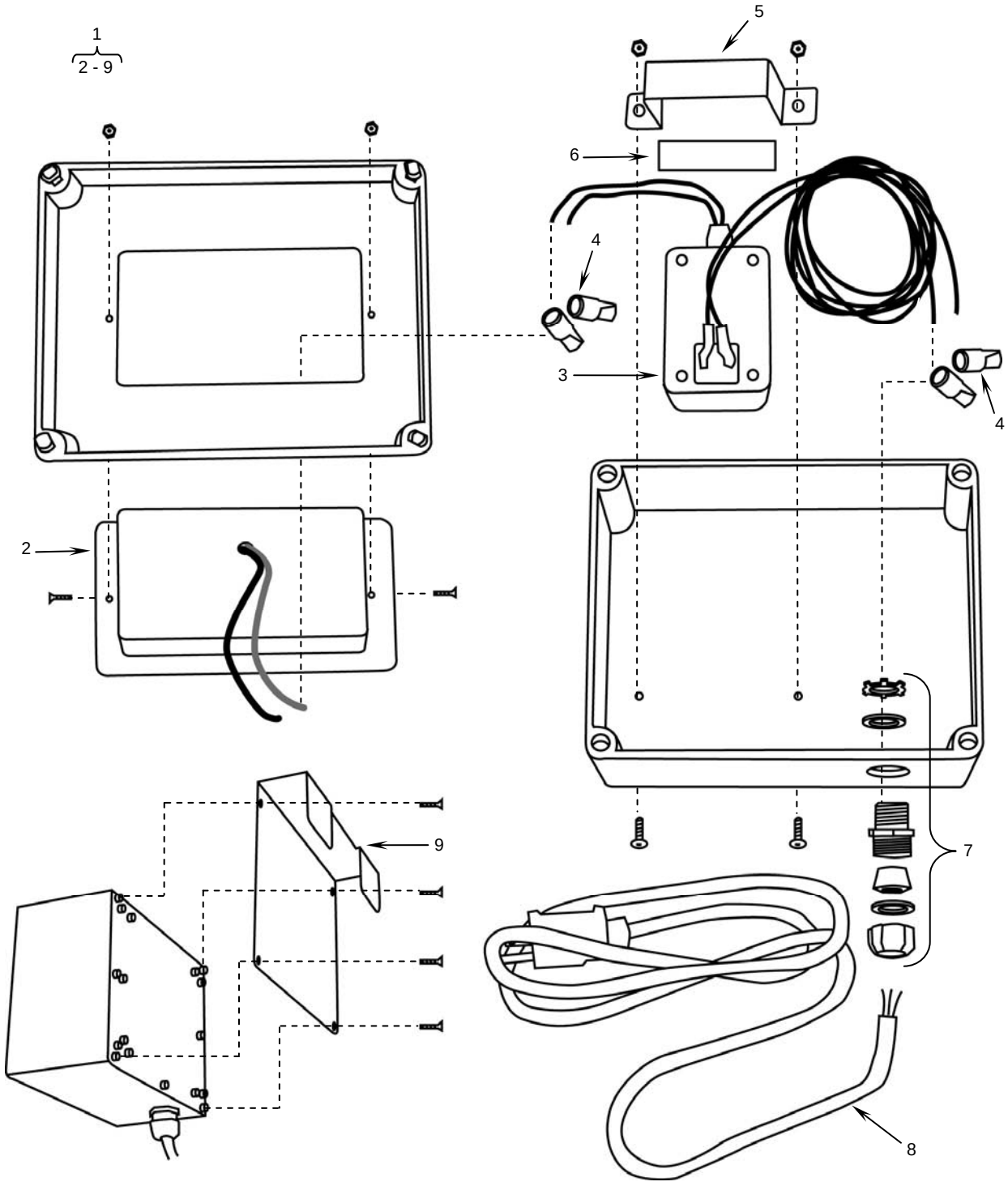


Figure 12. CO Monitor.

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 12 CO MONITOR FIG. 12 CO MONITOR	
1	PAOOO	6665-01-541-2811	0U5N7	48041033	CO MONITOR ..... UOC: FSL	1
2	PAOZZ	6665-01-541-4495	1NT57	60-542	. DETECTOR, CO ..... UOC: FSL	1
3	PAOZZ	6130-01-541-1865	0U5N7	48041037	. POWER SUPPLY ASSEMBLY .. UOC: FSL	1
4	PAOZZ	5940-01-541-3276	39428	70615K71	. WIRE NUT, WATERTIGHT ..... UOC: FSL	4
5	XDOZZ		0U5N7	48042075	. BRACKET..... UOC: FSL	1
6	MOOZZ		39428	93725K54	. RUBBER STRIP, CUT FROM BULK 2-1/4 IN ..... UOC: FSL	1
7	PAOZZ	5975-00-296-1669	56501	2521	. BOX CONNECTOR, ELECTRICAL ..... UOC: FSL	1
8	PAOZZ	6150-01-541-2535	39428	70355K33	. CABLE ASSEMBLY, POWER.... UOC: FSL	1
9	PAOZZ	5340-01-541-2418	0U5N7	48042076	. BRACKET..... UOC: FSL	1
					END OF FIGURE	

UNIT AND DIRECT SUPPORT MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-90, NSN 7360-01-277-2558
MODEL FSC-2, NSN 7360-01-496-2112
BULK MATERIAL
REPAIR PARTS LIST

(1) ITEM NO.	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
					GROUP 13 BULK MATERIAL FIG. BULK	
1	PAOZZ	4720-01-371-1336	73801	631	HOSE, NONMETALLIC ..... UOC: EPD	V
2	PAOZZ	4720-01-541-0660	87373	7093-125204	HOSE, NONMETALLIC ..... UOC: FSL	V
3	PAOZZ	4720-01-541-0656	87373	7093-150204	HOSE, NONMETALLIC ..... UOC: FSL	V
4	PAOZZ	9320-01-541-2994	39428	93725K54	RUBBER STRIP..... UOC: FSL	V
5	MOOZZ	4720-01-022-8241	06034	1020117	TUBING, NONMETALLIC ..... UOC: FSL	V
6	MOOZZ	4720-01-541-2415	06034	2900765	TUBING, NONMETALLIC ..... UOC: FSL	V
					END OF FIGURE	

UNIT AND DIRECT SUPPORT MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-90, NSN 7360-01-277-2558
MODEL FSC-2, NSN 7360-01-496-2112
NATIONAL STOCK NUMBER (NSN) INDEX

STOCK NUMBER	FIG.	ITEM
5315-00-234-1863	4	6
	4	20
4730-00-187-7652	5	16
5315-00-234-1863	4	20
4730-00-278-2523	10	25
5975-00-296-1669	10	11
	10	13
	12	7
6685-00-444-6500	4	13
	4	27
5940-00-464-0117	9	5
4730-00-491-0030	4	8
5310-00-527-3634	7	3
	7	8
	8	3
5940-00-557-1629	9	7
	10	23
5310-00-903-5966	7	4
	7	9
	8	2
4730-00-908-3193	5	6
	5	12
	5	25
4730-00-909-8627	5	39
4720-01-022-8241	9	19
	9	22
	BULK	5
4730-01-023-2659	5	2
	5	9
5925-01-093-8477	9	6
	10	14
4730-01-124-3709	5	4
	5	11
5935-01-184-7188	9	12
	10	17
8340-01-185-2613	1	1
4730-01-233-8396	9	9
7360-01-250-3649	4	9
7360-01-250-3652	4	10
4030-01-285-5556	5	31
4320-01-286-1990	10	29
7320-01-333-3160	4	12
5340-01-333-8483	4	14
4820-01-333-8484	4	7
5340-01-333-8485	4	2
7125-01-333-8486	8	6
4720-01-333-8488	5	1
4720-01-333-8489	5	8
7105-01-333-8492	7	1
7125-01-333-8493	8	1
7125-01-333-8494	3	3
7125-01-333-8495	3	4
7320-01-333-9186	4	1
4510-01-333-9187	4	3
7320-01-333-9188	4	11
7320-01-333-9189	7	5
7125-01-334-3159	3	1
5340-01-334-5088	3	2
4730-01-357-1275	5	28
4730-01-358-4180	5	27
7105-01-361-8564	8	4
4730-01-363-4262	5	5
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4720-01-371-1336	5	7
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	5	15
	5	17
	5	18
	BULK	1
6210-01-393-3248	9	3
6240-01-450-2511	9	4
7310-01-453-6513	6	2
7310-01-454-1281	11	3
7310-01-455-0665	6	5
7310-01-455-1017	6	6
7310-01-455-3735	6	4
8340-01-456-3633	1	2

STOCK NUMBER	FIG.	ITEM
7310-01-458-5060	11	4
7310-01-462-4943	6	1
5310-01-466-6305	9	15
4730-01-466-9556	5	49
5310-01-470-2369	10	5
5310-01-476-7233	10	20
4730-01-479-1934	9	18
5975-01-481-4977	2	3
5310-01-483-6326	5	44
	5	46
	5	48
	5	50
6230-01-485-6376	2	1
5330-01-486-2809	5	3
	5	10
	5	21
4730-01-506-4407	10	8
6230-01-506-9387	2	2
6250-01-507-8466	11	5
4010-01-509-3979	10	32
5330-01-516-8814	10	12
5930-01-520-8650	9	2
4730-01-522-7335	9	20
4010-01-536-3418	5	30
4820-01-539-5336	9	10
4730-01-541-0312	5	29
4730-01-541-0321	5	35
	10	31
5330-01-541-0325	5	33
5330-01-541-0326	10	16
4820-01-541-0361	4	21
4320-01-541-0369	9	21
5340-01-541-0371	10	9
4730-01-541-0374	5	22
4730-01-541-0396	4	22
4730-01-541-0426	10	2
7310-01-455-3736	6	3
6680-01-541-0430	10	21
4730-01-541-0605	5	38
	10	33
4730-01-541-0641	5	36
4730-01-541-0643	5	26

STOCK NUMBER	FIG.	ITEM
4720-01-541-0644	5	45
4730-01-541-0645	9	23
4510-01-541-0653	5	47
4720-01-541-0656	BULK	3
4720-01-541-0660	BULK	2
4730-01-541-0663	10	9
4820-01-541-0665	10	4
4510-01-541-0667	4	23
4320-01-541-0669	9	1
4730-01-541-0674	9	16
5340-01-541-0686	9	14
5340-01-541-0689	5	32
5340-01-541-0691	4	16
4720-01-541-0740	5	19
4730-01-541-0746	5	34
4720-01-541-0750	5	43
4510-01-541-0753	7	6
5340-01-541-0773	10	22
5325-01-541-0791	4	28
4730-01-541-1126	5	20
5935-01-541-1208	11	2
6685-01-541-1798	4	26
6130-01-541-1865	12	3
5340-01-541-1917	4	32
4510-01-541-2191	4	15
5340-01-541-2413	4	19
4730-01-541-2415	10	29
4820-01-541-2415	10	35
4720-01-541-2415	BULK	6
5340-01-541-2418	12	9
4510-01-541-2489	10	1
6150-01-541-2535	12	8
5320-01-541-2571	10	3
6665-01-541-2811	12	1
7360-01-541-2909	4	24
9320-01-541-2994	10	27
9320-01-541-2994	BULK	4
4730-01-541-3204	9	11
5340-01-541-3226	10	26
5940-01-541-3276	12	4
6150-01-541-3307	10	6
7320-01-541-3326	4	33

STOCK NUMBER	FIG.	ITEM
7360-01-541-3334	4	35
4820-01-541-3725	10	30
5340-01-541-4093	4	29
5940-01-541-4174	9	8
	10	16
6150-01-541-4236	11	1
6665-01-541-4495	12	2
4510-01-541-4791	4	17
4510-01-541-4800	4	18
5330-01-541-4808	5	42
	10	10
	10	34
5340-01-541-4996	4	30
5340-01-541-4998	4	31
4730-01-541-5001	9	17
4730-01-541-5003	5	41
4730-01-541-5004	5	23
6150-01-541-5310	9	13
	10	18
7195-01-541-5342	7	10

END OF WORK PACKAGE

UNIT AND DIRECT SUPPORT MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-90, NSN 7360-01-277-2558
MODEL FSC-2, NSN 7360-01-496-2112
PART NUMBER (P/N) INDEX

PART NUMBER	FIG.	ITEM
00594.63.07	10	6
00594.63.04	11	5
0612596-00	5	6
1020117	9	19
	9	22
	BULK	5
1061T11	4	28
11608950-6	10	25
12B	10	28
12B-POLY	5	20
12F-BRASS	4	22
12F-POLY	5	29
12V-POLY	5	32
147238-1	7	9
15C-POLY	5	41
15D-POLY	10	9
15E-POLY	5	38
15F-POLY	5	35
	10	31
15V-POLY	10	33
20381-010	9	20
2480107	1	2
2521	12	7
2900765	10	24
	BULK	6
2TC14-5	9	6
	10	14
30-006	9	16
30-142	9	11
30345T11	10	32
31-1-50	2	2
31-5004M-IP	2	1
33-460W	10	29
36152	9	5
3896T1	5	31
3UY81	11	1
403605	5	49
4325-343A	9	21
43535K74	5	23

PART NUMBER	FIG.	ITEM
4429K154	10	8
4589K35	5	28
46-083	10	35
48041001	4	17
48041002	4	19
48041003	4	16
48041004	9	1
48041006	5	37
48041007	5	19
48041008	4	24
48041009	4	25
48041010	7	6
48041011	7	7
48041012	7	10
48041015	4	26
48041023	4	33
48041024	10	1
48041032	9	14
48041033	12	1
48041035	4	15
48041036	4	30
48041037	12	3
48041038	4	31
48041039	4	32
48042008	4	23
48042009	4	21
48042030	4	29
48042047	10	26
48042053	10	15
48042054	10	4
48042075	12	5
48042076	12	9
48043002	9	13
	10	18
48045002	4	18
48045020	10	2
5-13-3749	5	8
5-13-3749-4	5	14
5-13-3749-6	5	17

PART NUMBER	FIG.	ITEM
5-13-3749-9	5	18
5-13-3868	4	10
70615K64	9	8
	10	16
5-13-3875	4	9
5-13-4050	3	1
5-13-4051	3	3
5-13-4052	3	2
5-13-4053	3	4
5-13-4061	5	1
5-13-4061-5	5	7
5-13-4120	4	1
5-13-4121	4	3
5-13-4122	4	4
5-13-4123	4	5
5-13-4124	4	7
5-13-4206	4	2
5-13-4240	7	1
5-13-4241	7	2
5-13-4242	8	1
5-13-4243	8	5
5-13-4245-I	8	4
5-13-4245-2	7	5
5-13-4255	4	12
5-13-4256	4	11
5-13-4257	8	6
5-13-4261	4	14
5293413	5	39
5372K133	9	23
5372K219	9	17
60-542	12	2
6212	5	25
62215T78	5	44
	5	46
	5	48
	5	50
62215T88	9	15
631	BULK	1
64010	9	18
6810K15	5	27
6975K63	11	2
70355K33	12	8

PART NUMBER	FIG.	ITEM
70615K71	12	4
7093-125204	5	24
	BULK	2
7093-150204	5	40
	BULK	3
7130K56	2	3
73605T92	9	9
7459T11	5	47
7503-15	5	43
8002K71	9	2
8602-50	5	45
880110K	6	1
8876T2	10	22
8923T314	5	30
8FR	9	10
90183A213	10	5
93725K54	10	27
93725K54	12	6
93725k54	BULK	4
94709A111	10	20
9805-012	5	26
9805-015	5	36
9808-012	5	22
9839-212	5	34
AD44AH	10	3
APW199-G-24V	9	3
A-521-08	9	7
	10	23
B03	5	3
	5	10
	5	21
	5	33
B04	5	42
	10	10
	10	34
BST15	5	5
	5	13
BU-150X125-B-M-1/8	10	30
CGB193	10	11
CGB193	10	13
D4013-A	4	13

PART NUMBER	FIG.	ITEM
	4	27
IS-24	9	4
MS0101	6	5
MS0150	6	2
MS0300	6	3
MS0104	6	6
MS0350	6	4
MS0400	11	3
MS0425	11	4
MS14303-7YA	5	16
MS24665-300	4	6
	4	20
MS25036-156	10	19
MS25043-16DA	9	12
	10	17
MS27022-8	4	8
MS27024-8	5	2
	5	9
MS35335-61	7	3
	7	8
	8	3
	5	12
MS51952-7	5	4
	5	11
MS51971-1	7	4
MS51971-1	8	2
PW217-25	10	21
SR-13-NY	10	12
VJI-100104RTH	10	7

END OF WORK PACKAGE

OPERATOR'S, UNIT AND DIRECT SUPPORT MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-90, NSN 7360-01-277-2558
MODEL FSC-2, NSN 7360-01-496-2112
COMPONENTS OF END ITEM (COEI) AND BASIC ISSUE ITEMS (BII) LISTS

SCOPE

This work package lists COEI and BII for the Food Sanitation Center (FSC) to help you inventory items for safe and efficient operation of the equipment.

GENERAL

The COEI and BII information is divided into the following lists:

Components of End Item (COEI). This list is for information purposes only and is not authority to requisition replacements. These items are part of the Food Sanitation Center (FSC). As part of the end item, these items must be with the end item whenever it is issued or transferred between property accounts. Items of COEI are removed and separately packaged for transportation or shipment only when necessary. Illustrations are furnished to help you find and identify the items.

Basic Issue Items (BII). These essential items are required to place the Food Sanitation Center (FSC) in operation, operate it, and to do emergency repairs. Although shipped separately packaged, BII must be with the Food Sanitation Center (FSC) during operation and when it is transferred between property accounts. Listing these items is your authority to request/requisition them for replacement based on authorization of the end item by the TOE/MTOE. Illustrations are furnished to help you find and identify the items.

EXPLANATION OF COLUMNS IN THE COEI AND BII LIST

Column (1) - Illus Number. Gives the number of the item illustrated.

Column (2) - National Stock Number (NSN). Identifies the stock number of the item to be used for requisitioning purposes.

Column (3) - Description, CAGEC and Part Number. Identifies the Federal item name (in all capital letters) followed by a minimum description when needed. The stowage location of COEI and BII is also included in this column. The last line below the description is the CAGEC (commercial and Government entity code) (in parentheses) and the part number.

Column (4) – Usable On Code. When applicable, gives you a code if the item you need is not the same for different models of equipment. These codes are identified below:

Code	Used On
EPD	Model FSC-90
FSL	Model FSC-2

Column (5) - Unit of Issue (U/I). Indicates the physical measurement or count of the item as issued per the National Stock Number shown in column (2).

Column (6) - Qty Rqr. Indicates the quantity required.

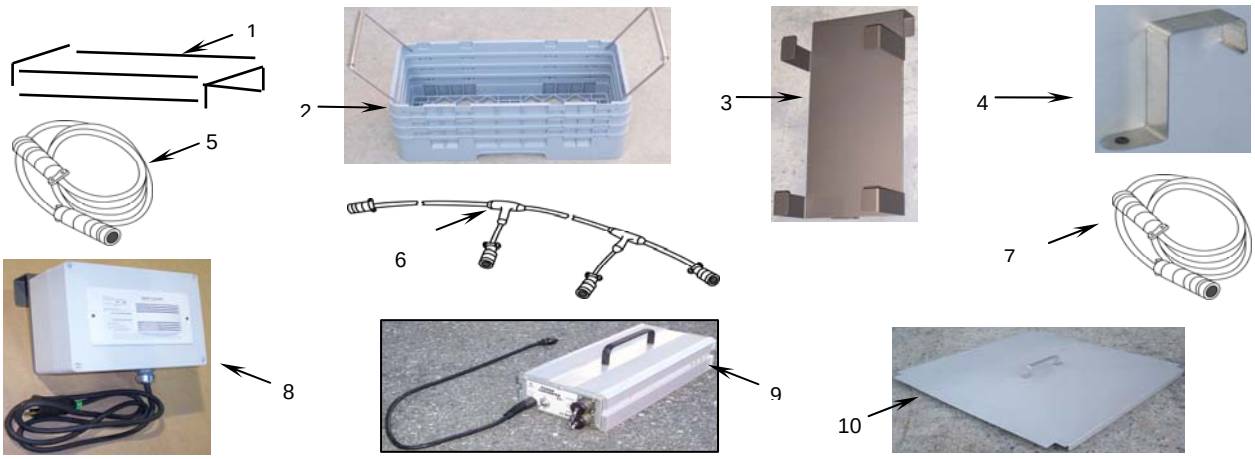


Table 1. Components of End Item List.

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER (NSN)	(3) DESCRIPTION, CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) UNIT OF ISSUE (U/I)	(6) QTY RQR
1	7320-01-333-9188	ADAPTER, SINK (81337) 5-13-4256	EPD	EA	2
2	7320-01-541-3326	BASKET, IMMERSION (0U5N7) 48041023	FSL	EA	1
3	5340-01-541-0337	BRACKET, CONVERTER, POWER (0U5N7) 48042073	FSL	EA	1
4	5340-01-333-8483	BRACKET, THERMOMETER (81337) 5-13-4261 or	EPD	EA	3
	5340-01-541-4093	BRACKET, THERMOMETER (0U5N7) 48042030	FSL	EA	3
5	7310-01-455-0665	CABLE A, 24 VOLT DC LONG (25 FT) (3AD06) MS0101		EA	1
6	7310-01-455-1017	CABLE D, 2 BRANCH (3AD06) MS0104		EA	2
7	6150-01-541-3307	CABLE, POWER, GREASE SEPARATOR, 24 VOLT DC (25 FT) (0U5N7) 48043001	FSL	EA	1
8	6665-01-541-2811	CO MONITOR ASSEMBLY (0U5N7) 48041033	FSL	EA	1
9	7310-01-502-9455	CONVERTER, POWER (81349) MIL-PRF-44485		EA	1
10	5340-01-541-0691	COVER, SINK (0U5N7) 48041003	FSL	EA	3

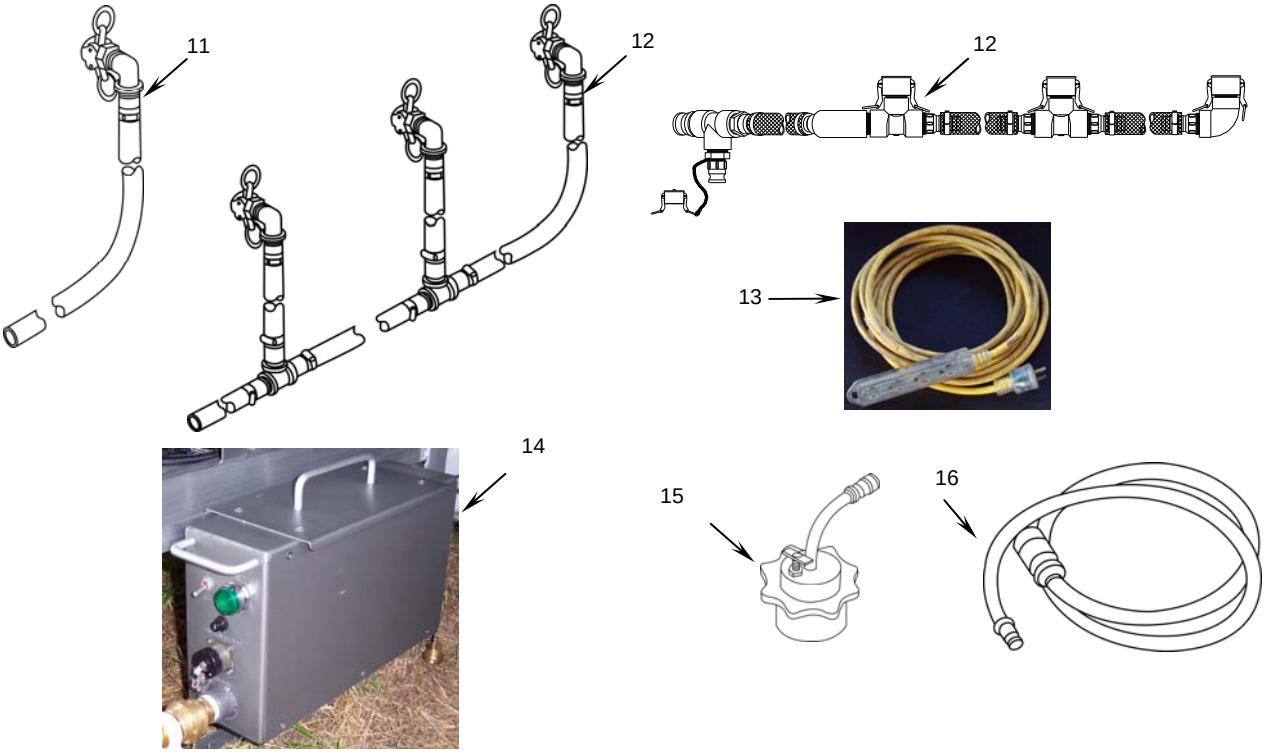


Table 1. Components of End Item List – Continued.

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER (NSN)	(3) DESCRIPTION, CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) UNIT OF ISSUE (U/I)	(6) QTY RQR
11	4720-01-333-8488	DRAIN HOSE ASSEMBLY, SINGLE SINK (81337) 5-13-4061	EPD	EA	1
12	4720-01-333-8489	DRAIN HOSE ASSEMBLY, THREE SINK (81337) 5-12-3749 or	EPD	EA	1
	4720-01-541-0740	DRAIN HOSE ASSEMBLY, THREE SINK (0U5N7) 48041007	FSL	EA	1
13	9320-01-541-2954	EXTENSION CORD, FOUR OUTLET, 15A/125V (100 FT) (1LPH0) 3UY81	FSL	EA	1
14	4320-01-541-0669	FILL PUMP ASSEMBLY (0U5N7) 48041004	FSL	EA	1
15	7310-01-455-3736	FUEL CAN ADAPTER (3AD06) MS0300	FSL	EA	1
16	7310-01-455-3735	FUEL LINE (20 FT) (3AD06) MS0350		EA	1

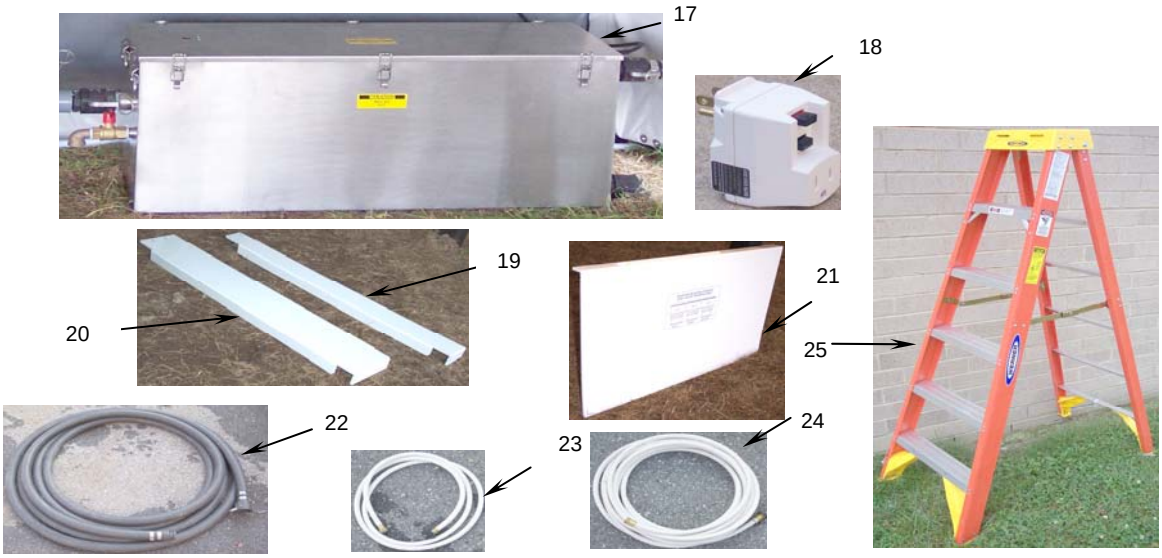


Table 1. Components of End Item List – Continued.

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER (NSN)	(3) DESCRIPTION, CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) UNIT OF ISSUE (U/I)	(6) QTY RQR
17	4510-01-541-2489	GREASE SEPARATOR (0U5N7) 48041024	FSL	EA	1
18	5935-01-541-1208	GROUND FAULT CIRCUIT INTERRUPTER (GFCI) (3A045) 6975K63	FSL	EA	1
19	5340-01-541-4998	HEAT SHIELD, SINK COUPLER (0U5N7) 48041038	FSL	EA	2
20	5340-01-541-1917	HEAT SHIELD, SINK EDGE (0U5N7) 48041039	FSL	EA	1
21	5340-01-541-4996	HEAT SHIELD, SINK FRONT (0U5N7) 48041036	FSL	EA	3
22	4720-01-541-0370	HOSE, GREASE SEPARATOR DRAIN (50 FT) (0U5N7) 48041006	FSL	EA	1
23	4720-01-541-0750	HOSE, FRESH WATER (15 FT) (60327) 7503-15	FSL	EA	1
24	4720-01-541-0644	HOSE, FRESH WATER (50 FT) (60327) 8602-50	FSL	EA	1
25	5440-00-061-8900	LADDER, STEP (6 FT) (39428) 8136T33	FSL	EA	1

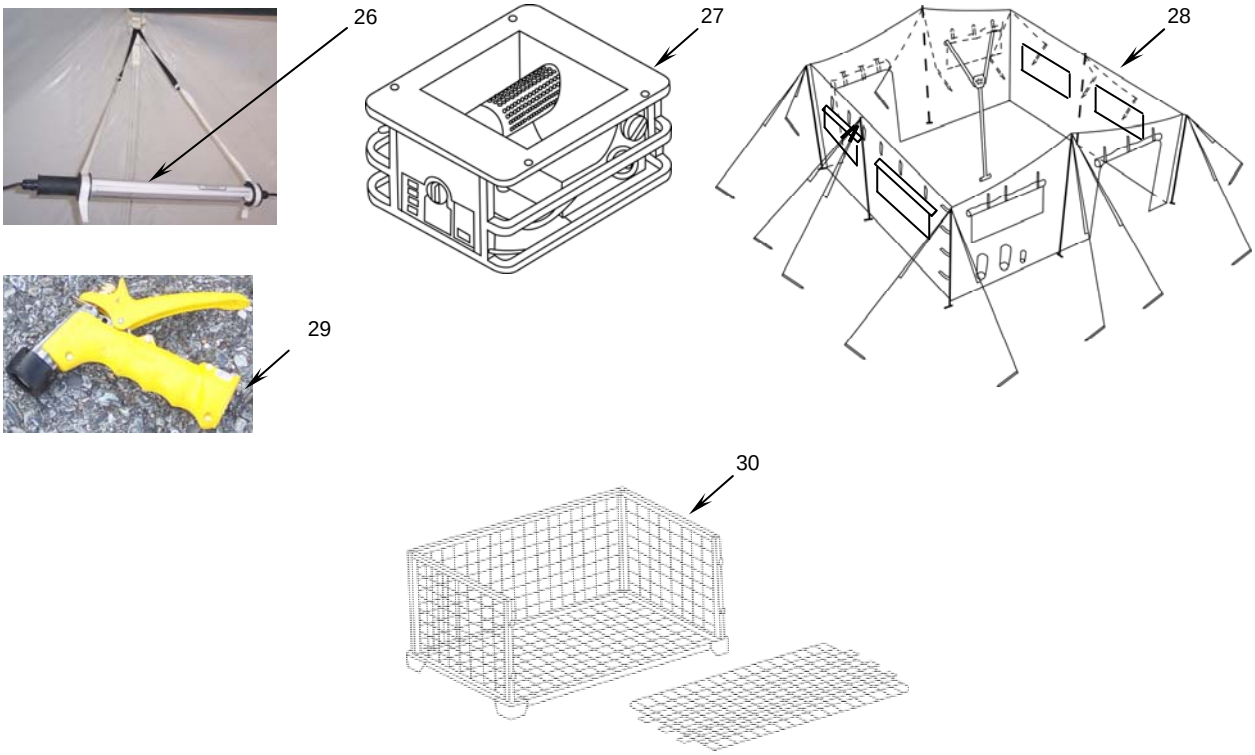


Table 1. Components of End Item List – Continued.

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER (NSN)	(3) DESCRIPTION, CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) UNIT OF ISSUE (U/I)	(6) QTY RQR
26	6230-01-485-6376	LIGHT, EXTENSION (06967) 31-5004M-IP		EA	2
27	7310-01-452-8137	MODERN BURNER UNIT (3AD06) 880110K		EA	3
28	8340-01-456-3633	MODULAR GENERAL PURPOSE TENT SYSTEM (TYPE 1 SMALL, GREEN) (73005) 2480107	FSL	EA	1
29	4730-01-466-9556	NOZZLE, WATER (04WZ5) 403605	FSL	EA	1
30	7125-01-334-3159	RACK ASSEMBLY, STORAGE/DRYING (81337) 5-13-4050		EA	6

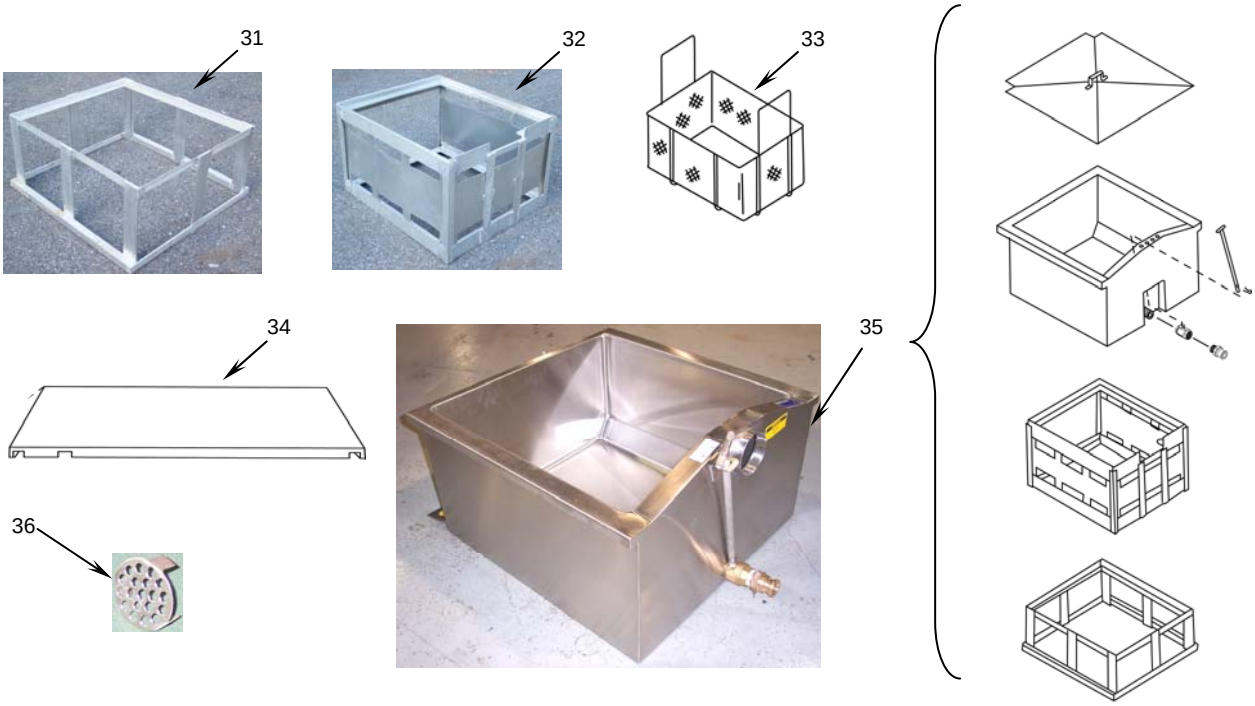
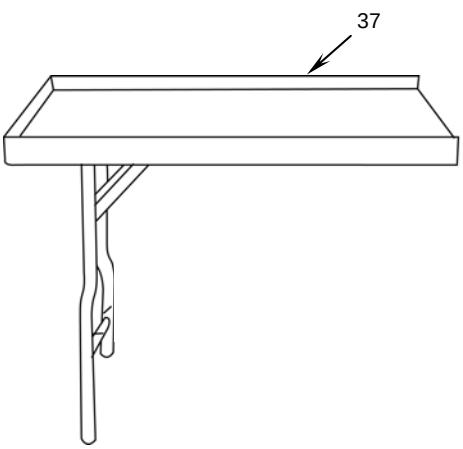


Table 1. Components of End Item List – Continued.

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER (NSN)	(3) DESCRIPTION, CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) UNIT OF ISSUE (U/I)	(6) QTY RQR
31	7360-01-541-3334	RACK, BASE (0U5N7) 48041009	FSL	EA	3
32	7360-01-541-2909	RACK, BURNER (0U5N7) 48041008	FSL	EA	3
33	7320-01-334-3160	RACK, SINK, IMMERSION (81337) 5-13-4255	EPD	EA	2
34	5340-01-333-8486	SHELF, TABLE, FOLDING LEG (81337) 5-13-4257	EPD	EA	1
35	4510-01-541-4791	SINK ASSEMBLY (0U5N7) 48041001	FSL	EA	3
		or			
	4510-01-333-9186	SINK ASSEMBLY (81337) 5-13-4120	EPD	EA	3
36	4510-01-541-0667	STRAINER (0U5N7) 48042008	FSL	EA	3



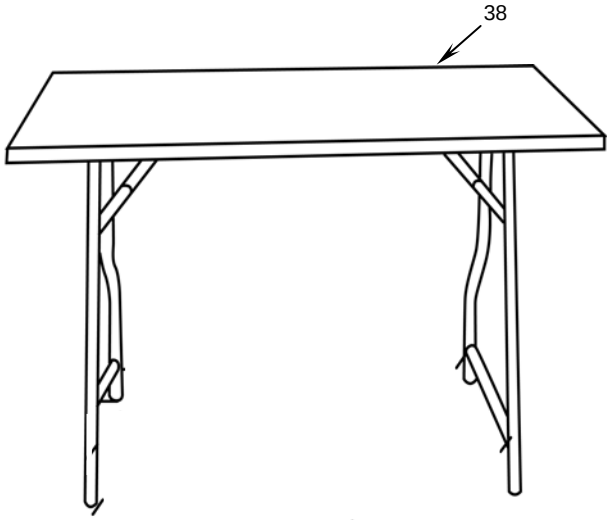


Table 1. Components of End Item List – Continued.

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER (NSN)	(3) DESCRIPTION, CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) UNIT OF ISSUE (U/I)	(6) QTY RQR
37	7305-01-333-8492	TABLE ASSEMBLY, DRAIN (81337) 5-13-4240 or	EPD	EA	1
	4510-01-541-0753	TABLE ASSEMBLY, DRAIN (0U5N7) 48041010	FSL	EA	1
38	7105-01-333-8493	TABLE ASSEMBLY, FOLDING LEGS (81337) 5-13-4212 or	EPD	EA	1
	7195-01-541-5343	TABLE, FOLDING LEGS (0U5N7) 48045015	FSL	EA	2

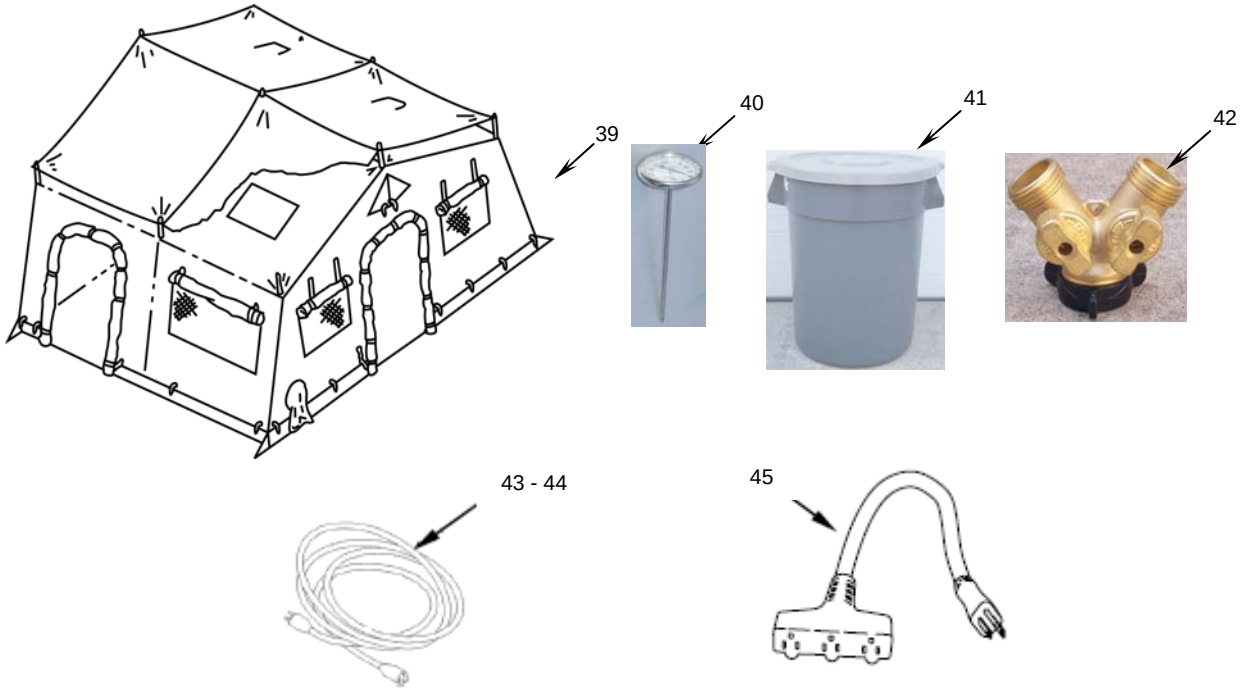


Table 1. Components of End Item List – Continued.

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER (NSN)	(3) DESCRIPTION, CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) UNIT OF ISSUE (U/I)	(6) QTY RQR
39	8340-01-185-2613	TENT, EXTENDABLE MODULAR (16 X 20 UTILITY) (81377) MIL-T-44271	EPD	EA	1
40	6685-00-444-6500	THERMOMETER (18509) D4013-A		EA	3
41	7240-00-151-6629	WASTE RECEPTACLE (32 GALLON, WITH LID) (58536) A-A-295		EA	2
42	4510-01-541-0653	Y-ADAPTER (3A054) 7459T11	FSL	EA	1
43	7310-1-454-1281	EXTENSION CORD, MBU (50 FT) (3AD06) MS0400	EPD	EA	1
44	7310-1-458-5060	EXTENSION CORD, SHORT (3AD06) MS0425	EPD	EA	1
45	6250-01-507-8446	CABLE ASSEMBLY, POWER (7X667) 00594.63.04	EPD	EA	1

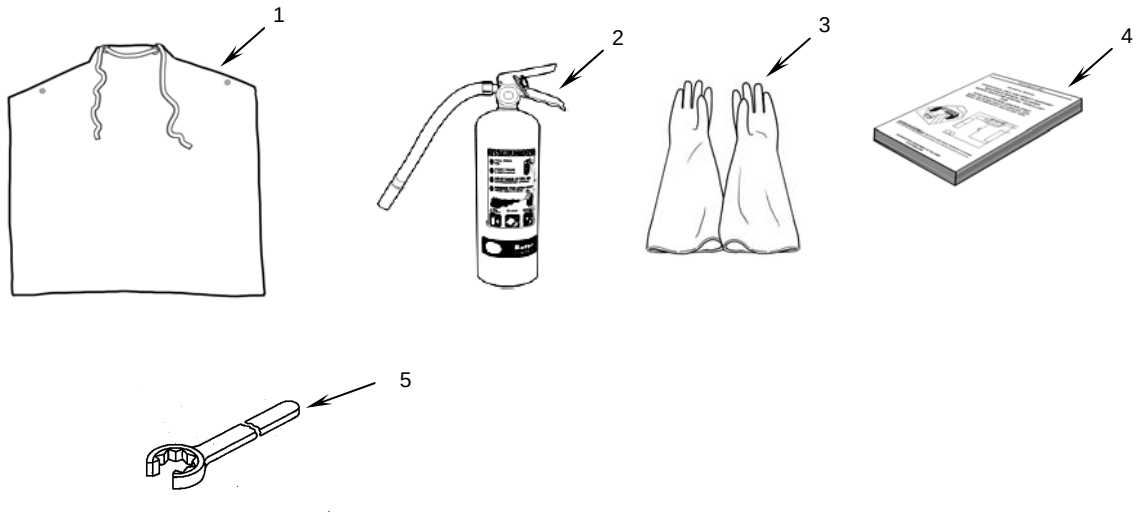


Table 2. Basic Issue Items List.

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER (NSN)	(3) DESCRIPTION, CAGEC, AND PART NUMBER	(4) USABLE ON CODE	(5) UNIT OF ISSUE (U/I)	(6) QTY RQR
1	8415-00-634-5023	APRON, UTILITY (15481) 021-758		EA	4
2	4210-01-149-1356	EXTINGUISHER, FIRE (19207) 12255633-1		EA	1
3	8415-01-511-4637	GLOVES, CHEMICAL AND OIL PROTECTION (6M644) 17091		PR	4
4		TECHNICAL MANUAL TM 10-7310-281-13&P		EA	1
		TECHNICAL MANUAL TM 10-7360-211-13&P		EA	1
		TECHNICAL MANUAL 10-8340-224-13&P		EA	1
		or			
		TECHNICAL MANUAL TM 10-8340-240-12&P		EA	1
5	5120-00-224-3156	WRENCH, OPEN END BOX (05506) 0672		EA	1

OPERATOR'S, UNIT, AND DIRECT SUPPORT MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-90, NSN 7360-01-277-2558
MODEL FSC-2, NSN 7360-01-496-2112
ADDITIONAL AUTHORIZATION LIST (AAL)

ADDITIONAL AUTHORIZATION LIST (AAL) INTRODUCTION

Scope

This work package lists additional items authorized for the support of the FSC.

General

This list identifies items that do not have to accompany the FSC and that do not have to be turned in with it. These items are all authorized to you by CTA, MTOE, TDA, or JTA.

Explanation of Columns in the Expendable/Durable Items List

Column (1) National Stock Number (NSN). Identifies the stock number of the item to be used for requisitioning purposes.

Column (2) Description, Commercial and Government Entity Code (CAGEC), and Part Number (P/N). Identifies the Federal item name (in all capital letters) followed by a minimum description when needed. The last line below the description is the CAGEC (in parentheses) and the part number.

Column (3) Usable On Code. When applicable, gives you a code if the item you need is not the same for different models of equipment. These codes are identified below:

Code	Used On
EPD	Model FSC-90
FSL	Model FSC-2

Column (4) Unit of Issue (U/I). Indicates the physical measurement or count of the item as issued per the National Stock number shown in column (1).

Column (5) Qty Recm. Indicates the quantity recommended.

Table 1. Additional Authorization List.

(1) NATIONAL STOCK NUMBER (NSN)	(2) DESCRIPTION, COMMERICAL AND GOVERNMENT ENTITY CODE (CAGEC), AND PART NUMBER (P/N)	(3) USABLE ON CODE	(4) UNIT OF ISSUE (U/I)	(5) QTY RECM
4210-01-149-1356	EXTINGUISHER, FIRE (19207) 12255633-1		EA	1
8340-01-186-3025	FLOOR, TENT (TEMPER) (81349) MIL-T-44243 or	EPD	EA	2
8340-01-477-1397	FLOOR, TENT (MGPTS) (81349) CN PD 01-03	FSL	EA	2
4520-01-329-3451	HEATER, SPACE, RADIANT, LARGE (H-45) (92878) 45000		EA	1
5110-01-430-1716	KNIFE, POCKET (1DJ82) PKW3001 or		EA	1
5120-00-935-7310	WRENCH SET, COMBINATION BOX		EA	1

OPERATOR'S, UNIT, AND DIRECT SUPPORT MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-90, NSN 7360-01-277-2558
MODEL FSC-2, NSN 7360-01-496-2112
EXPENDABLE AND DURABLE ITEMS LIST

EXPENDABLE AND DURABLE ITEMS LIST INTRODUCTION

Scope

This work package lists expendable and durable items you will need to operate and maintain the Food Sanitation Center (FSC). This list is for information only and is not authority to requisition the listed items. These items are authorized to you by CTA 50-970, Expendable/Durable Items (Except Medical, Class V Repair Parts, and Heraldic Items), or CTA 8-100, Army Medical Department Expendable/Durable Items.

Refer to TM 10-7310-281-13&P for expendable and durable items for the Modern Burner Unit (MBU).

Refer to TM 10-8340-224-13 or TM 10-8340-240-12&P for expendable and durable items for the tent.

Explanation of Columns in the Expendable/Durable Items List

Column (1) – Item Number. This number is assigned to the entry in the list and is referenced in the narrative instructions to identify the item (e.g., Use brake fluid (item 5, WP 0098 00).).

Column (2) – Level. This column identifies the lowest level of maintenance that requires the listed item (C=Operator/Crew, O=Unit/AVUM, F=Direct Support/AVIM).

Column (3) – National Stock Number (NSN). This is the NSN assigned to the item which you can use to requisition it.

Column (4) – Item Name, Description, Commercial and Government Entity Code (CAGEC), and Part Number (P/N). This column provides the other information you need to identify the item.

Column (5) – Unit of Issue (U/I). This code shows the physical measurement or count of an item as issued per the National Stock number shown in column (3).

EXPENDABLE AND DURABLE ITEMS LIST

Table 1. Expendable and Durable Items List for Food Sanitation Center.

(1) ITEM NUMBER	(2) LEVEL	(3) NATIONAL STOCK NUMBER (NSN)	(4) ITEM NAME, DESCRIPTION, COMMERCIAL AND GOVERNMENT ENTITY CODE (CAGEC) AND PART NUMBER (P/N)	(5) UNIT OF ISSUE (U/I)
1	C	8135-00-226-3124	BARRIER MATERIAL, 3-FT X 600-FT ROLL (81349) MIL-B-121	RO
2	C	7930-01-342-5315	CLEANING COMPOUND, SOLVENT-DETERGENT, 24-OZ BOTTLE, BOX OF 12 (1Z575) 13012	BX
3	C	8305-01-526-9825	CLOTH, DROP, ABSORBENT (39428) 7516T48	EA
4	C	7930-01-469-1796	DETERGENT, GENERAL PURPOSE, 1.5-GAL BOTTLE, BOX OF 2 (59923) COMMAND CENTER 27, BROADSIDE	BX
5	C	9150-00-273-2389	LUBRICATING OIL, GENERAL PURPOSE, 4-OZ CAN (81348) V V-L-800	CN
6	C	7920-00-659-9175	PADS, SCOURING, PACKAGE OF 6 (80244) L-P-0050 TY15Z1	PG
7	C	7920-00-205-1711	RAG, WIPING, 50-LB BUNDLE (80244) 7920-00-205-1711	BE
8	O	6640-01-208-2410	SEALANT, CORROSION PREVENTIVE, 16-OZ SPRAY CAN (023V4) 03082	CN
9	O	8030-01-025-1692	SEALING COMPOUND, 250–CC BOTTLE (F6033) 242-41	BT
10	O	8030-00-201-0996	SEALING COMPOUND, 1-PT CAN (81348) TT-S-1732	PT
11	O	9905-00-537-8957	TAG, MARKER, BUNDLE OF 50 (64067) 9905-00-537-8957	BD
12	O	8030-00-889-3534	TAPE, ANTISEIZING, 1/4-IN X 260-IN ROLL (58536) AA58092-2-1	RO
13	C	5330-01-242-6187	TAPE, CLOTH, METAL SEAM SEALING, 3-IN X 96-IN ROLL (67377) SG930	EA
14	O	8315-01-423-6231	TAPE, TENT REPAIR, 3-IN X 50-FT ROLL (81349) MIL-C-44103	RO

UNIT AND DIRECT SUPPORT MAINTENANCE
FOOD SANITATION CENTER (FSC)
MODEL FSC-90, NSN 7360-01-277-2558
MODEL FSC-2, NSN 7360-01-496-2112
TOOL IDENTIFICATION LIST

TOOL IDENTIFICATION LIST

INTRODUCTION

Scope

This section lists all common tools and supplements and special tools/fixtures needed to maintain the Food Sanitation Center (FSC).

Explanation of Columns in the Tool Identification List

Column (1) – Item Number. This number is assigned to the entry in the list and is referenced in the initial setup to identify the item (e.g., Tool Kit, General Mechanic's: Automotive (item 2, WP 0051 00).).

Column (2) – Item Name. This column lists the item by noun nomenclature and other descriptive features (e.g., Gage, belt tension).

Column (3) – National Stock Number (NSN). This is the National Stock Number (NSN) assigned to the item; use it to requisition the item.

Column (4) – Part Number/CAGEC. Indicates the primary number used by the manufacturer (individual, company, firm, corporation, or Government activity) which controls the design and characteristics of the item by means of its engineering drawings, specifications, standards, and inspection requirements to identify an item or range of items. The manufacturer's Commercial and Government Entity Code (CAGEC) is also included.

Column (5) – Reference. This column identifies the authorizing supply catalog or RPSTL for items listed in this work package.

Table 1. Tool Identification List.

(1) ITEM NUMBER	(2) ITEM NAME	(3) NATIONAL STOCK NUMBER (NSN)	(4) PART NUMBER/CAGEC	(5) REFERENCE
1	SHOP EQUIPMENT, AUTOMOTIVE VEHICLE	4910-00-754-0654	SC 4910-95CLA74 (19204)	SC 4910-95-CLA74
2	TOOL KIT, GENERAL MECHANIC'S: AUTOMOTIVE	5180-01-483-0249	12B470000-1 (59678)	SC 5180-95-B47
3	WRENCH, OPEN END BOX	5120-00-224-3156		

FOOD SANITATION CENTER (FSC)
MODEL FSC-90, NSN 7360-01-277-2558
MODEL FSC-2, NSN 7360-01-496-2112
ALPHABETICAL INDEX

Subject **WP Sequence No.**

N

O

P

R

Subject **WP Sequence No.**

S

T

U

Subject **WP Sequence No.**

W

END OF WORK PACKAGE

By Order of the Secretary of the Army:

PETER J. SCHOOMAKER
General, United States Army
Chief of Staff

Official:

JOYCE E. MORROW
Administrative Assistant to the
Secretary of the Army
0620802

DISTRIBUTION: To be distributed in accordance with initial distribution number (IDN) 252938 requirements for TM 10-7360-211-13&P.

These are the instructions for sending an electronic 2028

The following format must be used if submitting an electronic 2028. The subject line must be exactly the same and all fields must be included; however only the following fields are mandatory: 1, 3, 4, 5, 6, 7, 8, 9, 10, 13, 15, 16, 17, and 27.

From: "Whomever" <whomever@avma27.army.mil>
To: soldier.pubs@us.army.mil

Subject: DA Form 2028

1. From: Joe Smith
2. Unit: home
3. Address: 4300 Park
4. City: Hometown
5. St: MO
6. Zip: 77777
7. Date Sent: 19-OCT-93
8. Pub no: 55-2840-229-23
9. Pub Title: TM
10. Publication Date: 04-JUL-85
11. Change Number: 7
12. Submitter Rank: MSG
13. Submitter FName: Joe
14. Submitter MName: T
15. Submitter LName: Smith
16. Submitter Phone: 123-123-1234
17. Problem: 1
18. Page: 2
19. Paragraph: 3
20. Line: 4
21. NSN: 5
22. Reference: 6
23. Figure: 7
24. Table: 8
25. Item: 9
26. Total: 123
27. Text:

This is the text for the problem below line 27.

RECOMMENDED CHANGES TO PUBLICATIONS AND BLANK FORMS 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).	DATE 21 October 2003

TO: *(Forward to proponent of publication or form) (Include ZIP Code)* US Army Life Cycle Management Command ATTN: AMSTA-LC-SECT 15 KANSAS ST NATICK, MA 01760-5052	FROM: *(Activity and location) (Include ZIP Code)* *PFC JANE DOE* *Co A 3RD Engineer Br.* *Ft Leonard Wood, MO 63108*

PART I – ALL PUBLICATIONS (EXCEPT RPSTL AND SC/SM) AND BLANK FORMS

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

ITEM NO.	PAGE NO.	PARA-GRAPH	LINE NO. *	FIGURE NO.	TABLE NO.	RECOMMENDED CHANGES AND REASON *(Provide exact wording of recommended changes, if possible).*
	0036 00-2				1	*In Table 1, Sewing Machine Code Symbols, the second sewing machine code symbol should be MDZZ not MD22* *Change the manual to show Sewing Machine, Industrial: Zig-Zag; 308 stitch; medium-duty; NSN 3530-01-181-1421 as a MDZZ code symbol.*

**Reference to line numbers within the paragraph or subparagraph.*

TYPED NAME, GRADE OR TITLE	TELEPHONE EXCHANGE/AUTOVON, PLUS EXTENSION	SIGNATURE
Jane Doe, PFC	(508) 233-4141 DSN 256-4141	Jane Doe *Jane Doe*

DA FORM 2028, FEB 74 REPLACES DA FORM 2028, 1 DEC 68, WHICH WILL BE USED. USAPPC V3.00

TO: (*Forward direct to addressee listed in publication)*	FROM: (*Activity and location) (Include ZIP Code)*	DATE
US Army Life Cycle Management Command ATTN: AMSTA-LC-SECT 15 KANSAS ST NATICK, MA 01760-5052	*PFC JANE DOE* *Co A 3RD Engineer Br.* *Ft Leonard Wood, MO 63108*	21 October 2003

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

PUBLICATION NUMBER	DATE	TITLE
TM 10-1670-296-23&P	30 October 2002	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			*Callout 16 in figure 4 is pointed to a <u>D-Ring</u>.In the Repair Part List key for Figure 4, item 16 is called a <u>Snap Hook</u>. Please correct one or the other.*

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

RECOMMENDED CHANGES TO PUBLICATIONS AND BLANK FORMS 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).	DATE
TO: *(Forward to proponent of publication or form) (Include ZIP Code)* Commander US Army Life Cycle Management Command ATTN: AMSTA-LC-SECT Kansas Street, Natick, MA 01760-5052.	FROM: *(Activity and location) (Include ZIP Code)*	

PART I – ALL PUBLICATIONS (EXCEPT RPSTL AND SC/SM) AND BLANK FORMS

PUBLICATION/FORM NUMBER TM 10-7360-211-13&P	DATE 3 August 2006	TITLE Operator's, Unit, and Direct Support Maintenance Manual Including Repair Parts and Special Tools List for Food Sanitation Center (FSC)

ITEM NO.	PAGE NO.	PARA-GRAPH	LINE NO. *	FIGURE NO.	TABLE NO.	RECOMMENDED CHANGES AND REASON *(Provide exact wording of recommended changes, if possible).*

**Reference to line numbers within the paragraph or subparagraph.*

TYPED NAME, GRADE OR TITLE	TELEPHONE EXCHANGE/AUTOVON, PLUS EXTENSION	SIGNATURE

DA FORM 2028, FEB 74 REPLACES DA FORM 2028, 1 DEC 68, WHICH WILL BE USED. USAPPC V3.00

TO: (*Forward direct to addressee listed in publication)*	FROM: (*Activity and location) (Include ZIP Code)*	DATE
Commander US Army Life Cycle Management Command ATTN: AMSTA-LC-SECT Kansas Street, Natick, MA 01760-5052.		

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

PUBLICATION NUMBER	DATE	TITLE
TM 10-7360-211-13&P	3 August 2006	Operator's, Unit, and Direct Support Maintenance Manual Including Repair Parts and Special Tools List for Food Sanitation Center (FSC)

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

RECOMMENDED CHANGES TO PUBLICATIONS AND BLANK FORMS 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).	DATE
TO: *(Forward to proponent of publication or form) (Include ZIP Code)* Commander US Army Life Cycle Management Command ATTN: AMSTA-LC-SECT Kansas Street, Natick, MA 01760-5052.	FROM: *(Activity and location) (Include ZIP Code)*	

PART I – ALL PUBLICATIONS (EXCEPT RPSTL AND SC/SM) AND BLANK FORMS

PUBLICATION/FORM NUMBER TM 10-7360-211-13&P	DATE 3 August 2006	TITLE Operator's, Unit, and Direct Support Maintenance Manual Including Repair Parts and Special Tools List for Food Sanitation Center (FSC)

ITEM NO.	PAGE NO.	PARA-GRAPH	LINE NO. *	FIGURE NO.	TABLE NO.	RECOMMENDED CHANGES AND REASON *(Provide exact wording of recommended changes, if possible).*

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DA FORM 2028, FEB 74 REPLACES DA FORM 2028, 1 DEC 68, WHICH WILL BE USED. USAPPC V3.00

TO: (*Forward direct to addressee listed in publication)*	FROM: (*Activity and location) (Include ZIP Code)*	DATE
Commander US Army Life Cycle Management Command ATTN: AMSTA-LC-SECT Kansas Street, Natick, MA 01760-5052.		

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

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RECOMMENDED CHANGES TO PUBLICATIONS AND BLANK FORMS 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).	DATE
TO: *(Forward to proponent of publication or form) (Include ZIP Code)* Commander US Army Life Cycle Management Command ATTN: AMSTA-LC-SECT Kansas Street, Natick, MA 01760-5052.	FROM: *(Activity and location) (Include ZIP Code)*	

PART I – ALL PUBLICATIONS (EXCEPT RPSTL AND SC/SM) AND BLANK FORMS

PUBLICATION/FORM NUMBER TM 10-7360-211-13&P	DATE 3 August 2006	TITLE Operator's, Unit, and Direct Support Maintenance Manual Including Repair Parts and Special Tools List for Food Sanitation Center (FSC)

ITEM NO.	PAGE NO.	PARA-GRAPH	LINE NO. *	FIGURE NO.	TABLE NO.	RECOMMENDED CHANGES AND REASON *(Provide exact wording of recommended changes, if possible).*

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DA FORM 2028, FEB 74 REPLACES DA FORM 2028, 1 DEC 68, WHICH WILL BE USED. USAPPC V3.00

TO: (*Forward direct to addressee listed in publication)*	FROM: (*Activity and location) (Include ZIP Code)*	DATE
Commander US Army Life Cycle Management Command ATTN: AMSTA-LC-SECT Kansas Street, Natick, MA 01760-5052.		

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

PUBLICATION NUMBER	DATE	TITLE
TM 10-7360-211-13&P	3 August 2006	Operator's, Unit, and Direct Support Maintenance Manual Including Repair Parts and Special Tools List for Food Sanitation Center (FSC)

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

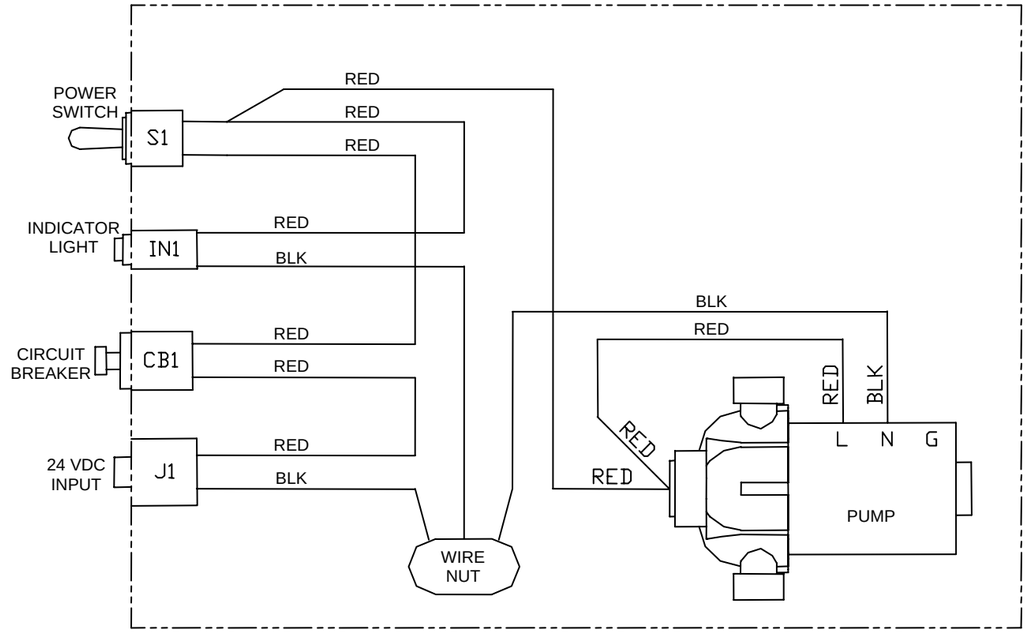

Figure 1. Sink Fill Pump Assembly Wiring Diagram.

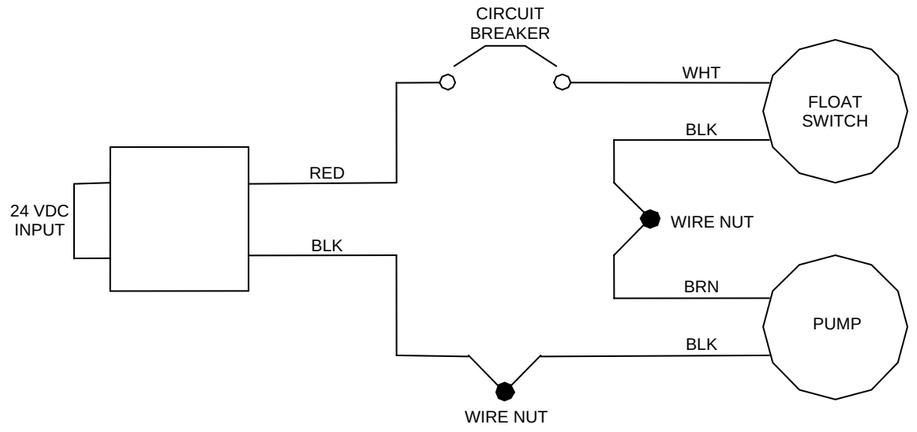

Figure 2. Grease Separator Wiring Diagram.

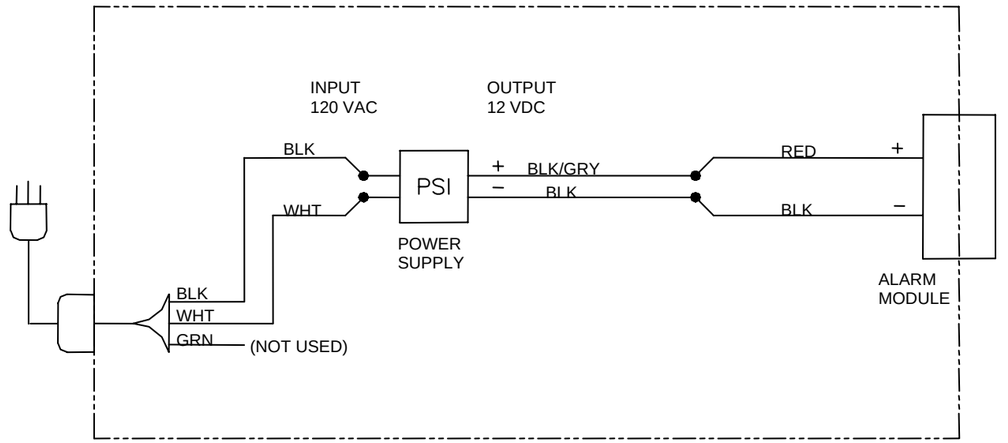

Figure 3. CO Monitor Wiring Diagram.

The Metric System and Equivalents

Linear Measure

1 centimeter = 10 millimeters = .39 inch
1 decimeter = 10 centimeters = 3.94 inches
1 meter = 10 decimeters = 39.37 inches
1 dekameter = 10 meters = 3 2.8 feet
1 hectometer = 10 dekameters = 328.08 feet
1 kilometer = 10 hectometers = 3,280.8 feet

Liquid Measure

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

Weights

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

Square Measure

1 sq. centimeter = 100 sq. millimeters = .15 5 sq. inch
1 sq. decimeter =100 sq. centimeters = 15.5 sq. inches
1 sq. meter (centare) = 100 sq. decimeters = 10.76 sq. feet
1 sq. dekameter (are) = 100 sq. meters = 1,076.4 sq. feet
1 sq. hectometer (hectare) = 100 sq. dekameters = 2.47 acres
1 sq. kilometer = 100 sq. hectometers = .386 sq. mile

Cubic Measure

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

Approximate Conversion Factors

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

Temperature (Exact)

_F	Fahrenheit temperature	5/9 (after subtracting 32)	Celsius temperature	_C

PIN: 068741-000