FPU® SYSTEMS OPERATION MANUAL (INCLUDING REPAIR PARTS & SPECIAL TOOL LIST) BOH Modular Workshop Container (MWC) BOH FPU Field Pack-up Units

CHAPTER 4

OPERATOR MAINTENANCE INSTRUCTIONS

FPU® SYSTEMS OPERATION MANUAL (INCLUDING REPAIR PARTS & SPECIAL TOOL LIST) BOH Modular Workshop Container (MWC) BOH FPU Field Pack-up Units

INTRODUCTION TO PREVENTATIVE MAINTENANCE CHECKS & SERVICES (PMCS)

INITIAL SETUP:

Material/Parts

None

Personnel Required

One

References

None

Equipment Condition

MWC Set-up

Introduction

Preventative Maintenance Checks and Services (PMCS) are performed to keep the MWC in good operating condition. These checks aid in finding, correcting, or reporting problems. Operator personnel are to perform the PMCS tasks as shown in the PMCS table.

Perform PMCS procedures each day the MWC is in operation, using the PMCS table in WP 0012 00. There are different intervals to perform PMCS procedures: before, during and after using the equipment, as well as weekly and monthly. Look at the table carefully to identify the required PMCS interval.

Perform all checks and services keeping in mind the following guidelines:

- Before you begin using the MWC, perform **Before Operation PMCS**.
- While the MWC is in use, perform **During Operation PMCS**.
- After using the MWC, perform After Operation PMCS.

If you find something wrong when performing PMCS, fix it using troubleshooting and/or maintenance procedures. Pay attention to WARNING and CAUTION statements. A **WARNING** means someone could be hurt or killed. A **CAUTION** means equipment could be damaged.

The far right-hand column of the PMCS table lists conditions that make the MWC not fully mission capable. Write down the problem that cannot be repaired at your level on DA Form 2404 and forward for unit maintenance. For further information on how to use this form, see DA PAM 738-750.

If tools that are required to perform PMCS are not listed in the procedures, notify your supervisor.

Inspection

Look for signs of trouble. Use your senses to feel, smell, hear, or see problems that may exist. Inspect to see if items are in good condition. Are components correctly installed and secured? Is any damage to the frame or components visible? Correct any faults or notify Unit Maintenance.

Service

Proper service of the MWC and components is an integral part of maintenance. Regular cleaning prevents possible problems in the future, so make it a habit to clean the MWC and components whenever necessary.

END OF WORK PACKAGE

BOH-PM-08-4 Chapter 4 Rev. 1.00

FPU® SYSTEMS OPERATION MANUAL (INCLUDING REPAIR PARTS & SPECIAL TOOL LIST) **BOH Modular Workshop Container (MWC) BOH FPU Field Pack-up Units**

PMCS TABLE

INITIAL SETUP:

Material/Parts Rags, Water, Broom

Personnel Required One

References

Chapter 2 WP 0005 00 **Equipment Condition** FPU SYSTEMS Set-up

Table 1 Preventative Maintenance Checks and Services for the FPU SYSTEMS PMCS B (Before), D (During), A (After), W (Weekly), M (Monthly)

	В	D	Α	w	М	Inspection Item and Procedure	Equipment Not Ready/Available If	
1	*	*	*			MWC Maintenance Workshop Container Check all doors and walls for cracks, dents, holes, or loose/missing hardware.	Missing door hardware, punctures, damage that would cause hazard, injury or damage to personnel.	
					*	Lubricate hinges, locks and latches as required.	Hinged items should move freely	
						Exterior Check all exterior surfaces for cracks, dents that effect the operation of the MWC. Check for accumulations of dirt, debris, ice, snow, or salt. Clean as required.	Damage or malfunction that would cause the MWC from operating properly such as corner eye assemblies , ladder and stairway, handrail, exterior electrical power cables, HVAC	
2			*	*		Check 8 corner Eye assemblies for proper function, damage and debris. Clean as required and replace if not functioning properly. Check HVAC for missing cover, bent or broken support brackets. Check damaged or missing external electrical connection cables	cover and brackets.	
						Check for missing or damaged ladder, stairway and handrail.		
3			*	*		Interior Check interior for dirt and debris. Sweep clean and wipe-down workbenches with rags as required. Check workbench drawer latches for missing or loose hardware. Replace or tighten as necessary. Check circuit panel for damaged breakers. Test vent fan and lighting system	Damage or malfunction that would cause the MWC from operating properly such as, inoperative circuit breakers, lighting system, vent fan	
					*	Lubricate drawer and shelf slides as required.	bearing items should move freely	
4			*		*	Data Plates Check data plates for legibility, damage and/or missing. Clean with water and rag. Replace as needed.	MWC ID plates and weight limit on MWC must be clear of paint, dirt and must be legible.	

END OF WORK PACKAGE

BOH-PM-08-4 Chapter 4 Rev. 1.00

FPU® SYSTEMS OPERATION MANUAL (INCLUDING REPAIR PARTS & SPECIAL TOOL LIST) BOH Modular Workshop Container (MWC) BOH FPU Field Pack-up Units

CLEANING AND LUBRICATING TABLES

INITIAL SETUP: Material/Parts Rags, Water, Detergent Personnel Required One

References
Chapter 2 WP 0005 00
Equipment Condition
MWC SYSTEMS Set-up

Cleaning And Lubricating

Cleaning and Lubricating of the MWC is performed to keep the MWC and its associated equipment in good operating condition. The cleaning and lubrication of the MWC can be conducted along with the Preventative Maintenance Checks and Services (PMCS) procedures described in (WP 0012 00). Specific areas described below need to be cleaned after an operational event or periodically if stored/staged outside of a fixed facility to keep the container, modules, and accessories performing as designed. Cleaning also assists in maintaining the condition of the material stored within the system. Any damage discovered when cleaning and/or lubricating that cannot be corrected using the troubleshooting procedures described in (WP 0010 00) should be reported for corrective maintenance.

Table 1 Cleaning

SURFACE	OIL/GREASE	SALT/MUD/DIRT DEBRIS	RUST/CORROSION			
Exterior and Interior Walls (All)	Detergent, Water, Rags	Soapy Water, Brush, Rags	Corrosion Removal Compound and Wire Brush, Dry Rag, Coat with Lube Oil or Spot Paint			
Door Hinge Cover and Seals	Damp and Dry Rags	Damp and Dry Rags	N/A			
MWC Ladder and Stairway	Detergent, Water, Rags	Soapy Water, Brush, Rags	Corrosion Removal Compound and Wire Brush, Dry Rags, Coat with Lube Oil or Spot Paint			
MWC Handrail	Molykote Multipurpose Synthetic Grease P/N 26040124	Brush, Rag and lubricate as needed to ensure hinges travel freely	Corrosion Removal Compound and Wire Brush, Dry Rags and Lubricate as needed			
Power Cables	Detergent, Water, Rags	Soapy Water, Brush, Rags	Do Not Paint			
HVAC Weather Cover	Detergent, Water, Rags	Soapy Water, Brush, Rags	Do Not Paint			
Non-Metallic Straps and Nets	Detergent, Water, Rags	Soapy Water, Brush, Rags	Do Not Paint			
END OF CLEANING TABLE 1						

Table 2 Lubrication

USAGE	FLUID or LUBRICANT	CAPACITIES	EXPECTED TEMPERATURES	INTERVAL
Door Hinges	General Purpose Lubricating Oil 10W	As Required	All Temperatures	Monthly or as required if under adverse conditions
Door Locks	Molykote Multipurpose Synthetic Grease P/N 26040124	As Required	All Temperatures	Monthly or as required if under adverse conditions
Door Hinge Cover and Seals	Molykote Multipurpose Synthetic Grease P/N 26040124	As Required	All Temperatures	Monthly or as required if under adverse conditions
MWC Exterior Door Locking Mechanism	General Purpose Lubricating Oil 10W	As Required	All Temperatures	Monthly or as Required if under Adverse Conditions
MWC Power Cable Door Slam Locks And Hinges	Molykote Multipurpose Synthetic Grease P/N 26040124	As Required	All Temperatures	Monthly or as Required if under Adverse Conditions
Non-Metallic Straps and Nets	No oil grease or Lubricants	As Required	All Temperatures	Monthly or as required if under adverse conditions
MWC SYSTEM Drawer Slides	Molykote Multipurpose Synthetic Grease P/N 26040124	As Required	All Temperatures	Bi-annually or as required if under adverse conditions

Table 2 Lubrication (cont'd)

USAGE	FLUID or LUBRICANT	CAPACITIES	EXPECTED TEMPERATURES	INTERVAL		
MWC interior Door Locking Mechanism	General Purpose Lubricating Oil 10W	As Required	All Temperatures	Monthly or as Required if under Adverse Conditions		
MWC SYSTEM Drawer Slam Locks	Molykote Multipurpose Synthetic Grease P/N 26040124	As Required	All Temperatures	Monthly or as Required if under Adverse Conditions		
Circuit Panel and Cabinet Doors	Damp and Dry Rags	As Required	All Temperatures	Monthly or as Required if under Adverse Conditions		
END OF LUBRICATION TABLE 2						

END OF WORK PACKAGE

FPU® SYSTEMS OPERATION MANUAL (INCLUDING REPAIR PARTS & SPECIAL TOOL LIST) BOH Modular Workshop Container (MWC) BOH FPU Field Pack-up Units

EXTERIOR INSPECTION

INITIAL SETUP:

Material/Parts

Lubricant (review Table 1 & 2 Lubrication in WP 0013 00)

Personnel Required

One

Tools

None

References

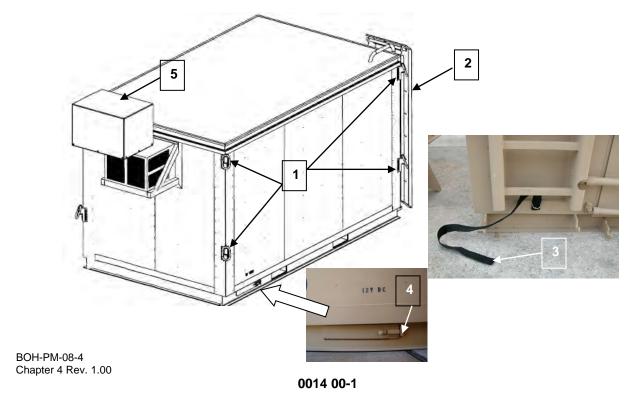
Chapter 2 WP 0005 00

Equipment Condition

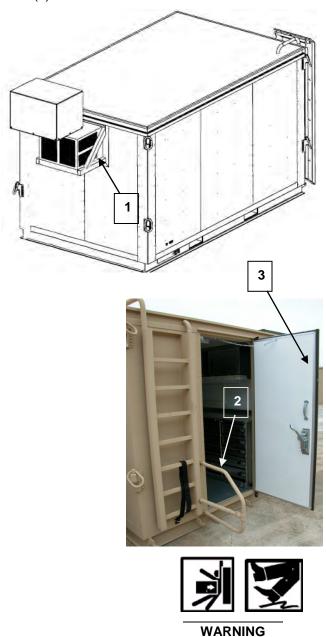
MWC Set-up

Exterior Inspection

- Visually inspect the container exterior for damage to the eight corner eye assemblies (1), and top corner edges of the roof. Notify unit maintenance if there is roof damage or missing rings. See page 0005 00-2
- 2. Inspect for missing or damaged stairway (2) and retaining strap (3). Notify unit maintenance of any missing or damaged stairway and missing retaining strap (3). See chapter page 2 0005 00-5
- 3. Inspect the two power cable door slam latches and two hinges (4) for smooth movement, spring tension and retention of the door in the fully closed position. Notify unit maintenance of any missing or damaged slam latches. See chapter page 2 0006 00-1
- 4. Lubricate joints and hinges as needed. Review Table 1 & 2 Lubrication in WP 0013 00.
- 5. Check for damaged or missing HVAC vinyl cover (5).



- 6. Check for damaged or missing HVAC support frame (1).
- 7. Check for damage to the handrail (2) and for missing pins. See chapter 2 page 0005 00-5 to 00-7
- 8. Open the door (3) and check interior for loose material and debris.



The MWC, operated on level ground and after transport, should be periodically checked for shifting material inside the container. To maintain control, consider the surrounding area and interior surface conditions for adequate traction, such as mud, snow, ice and sand.

END OF WORK PACKAGE

BOH-PM-08-4 Chapter 4 Rev. 1.00

FPU® SYSTEMS OPERATION MANUAL (INCLUDING REPAIR PARTS & SPECIAL TOOL LIST) BOH Modular Workshop Container (MWC) BOH FPU Field Pack-up Units

INTERIOR INSPECTION

INITIAL SETUP:

Material/Parts

Lubricant (review Table 1 & 2 Lubrication in WP 0013 00)

Personnel Required

One

References

Chapter 2 WP 0005 00 **Equipment Condition**









NOTE

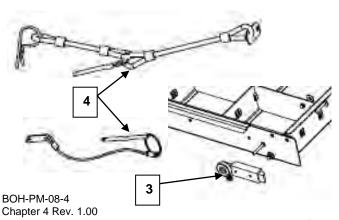
The new handle version (5) no-longer has a key lock device (1).

The new deadbolt replaces the handle key lock device (1).

See chapter 2 pages 0005 00-9 to 00-10 to be applied to Serial # AC15002028-04207 and beyond.

Door and Drawers

- 1. Inspect door lock set (1) for smooth operation. Notify unit maintenance of missing, cracked, broken or poorly operating lock set. See page 0005 00-9 and 10.
- 2. Inspect door seals (2) for cut, cracked or missing seals. Replace as needed.
- 3. Inspect slam latches (3) and pin latches (4) for smooth movement, spring tension and retention of the drawer in the fully closed position. Notify unit maintenance of any missing or damaged drawer latches. See page 0006 00-10.
- 4. Open and close drawer to ensure proper operation and alignment. Lubricate, repair or replace as needed.
- 5. Inspect for missing or damaged drawer retaining hardware. Replace as needed.

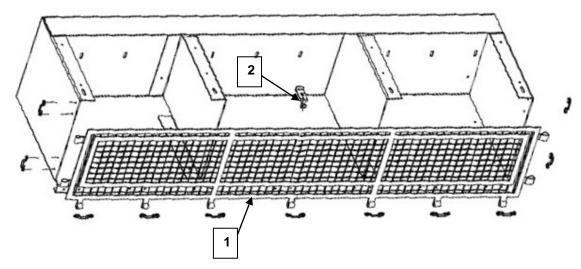






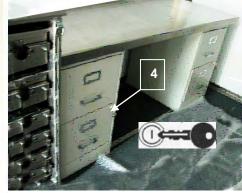
0015 00-1

Overhead Shelves



6. Inspect shelf net (1) for tears and missing attachment straps and center net hook (2), repair or replace net as needed.





- 7. Inspect overhead door latches (3), lubrication is not required.
- 8. Inspect desk drawers for keys and drawer locksets (4), Replace if needed.

NOTEThe new desk file drawers (5) have no locksets.



END OF WORK PACKAGE

FPU® SYSTEMS OPERATION MANUAL (INCLUDING REPAIR PARTS & SPECIAL TOOL LIST) BOH Modular Workshop Container (MWC) BOH FPU Field Pack-up Units

ELECTRICAL SYSTEM INSPECTION

INITIAL SETUP:
Material/Parts
Power Source Connecters
Personnel Required
Two Operator / Electrician

References Chapter 2 WP 0006 00 Equipment Condition MWC SYSTEMS Set-up

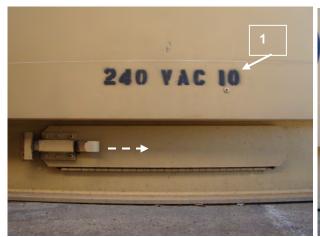
External Electrical Connection

1. Ensure the external electrical 240 VAC (1) and 12 VDC (2) connections have been made by a certified electrician and properly connected to the power sources.

WARNING



Ensure all circuit breakers and the power source is switched off before making electrical connections. Ensure the proper electrical 240 VAC (1) and 12 VDC (2) cable connectors are installed by a certified electrician Army MOS 21R.







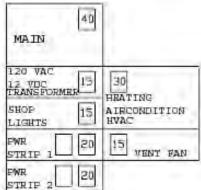


BOH-PM-08-4 Chapter 4 Rev. 1.00

Internal Electrical System

- 1. When the power sources are connected, enter the container.
- 2. Switch on all circuit breakers at the back wall below the HVAC unit. See Chapter 5 Page 0019 00-3





3. Actuate and test the 12 VDC red and white lighting system switches at the door. Ensure the door interrupter switch operates properly. See Chapter 2 Page 0006 00-4 and 0006 00-5



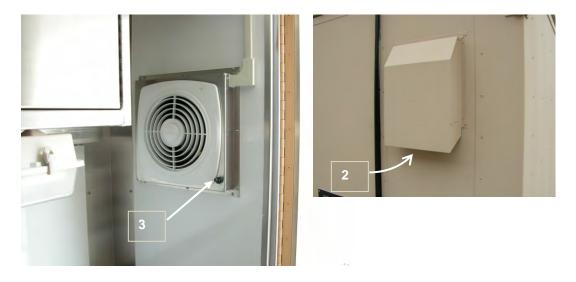




4. Actuate the 120 VAC lighting switch and test the left and right workbench lights (1). See chapter 2 Page 0006 00-4 and 0006 00-5



- 5. Test the 120 VAC electrical power strip # 1 and #2 with a circuit tester or an appliance, such as, drill, fan or light. If the appliance fails, reactivate the circuit breaker #1 or #2. See chapter 2 page 0006 00-2
- 6. Inspect the external exhaust hood (2) for debris, test the exhaust fan (3) at the door. If it fails, reactivate the circuit breaker and retest the fan.



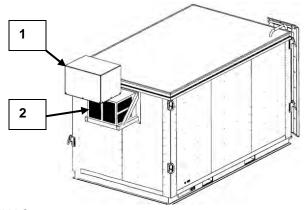
NOTE

Damage to the external exhaust hood should be reported to unit maintenance for repair.

7. Remove the external vinyl weather cover from the HVAC. See chapter 2 page 0005 00-8.

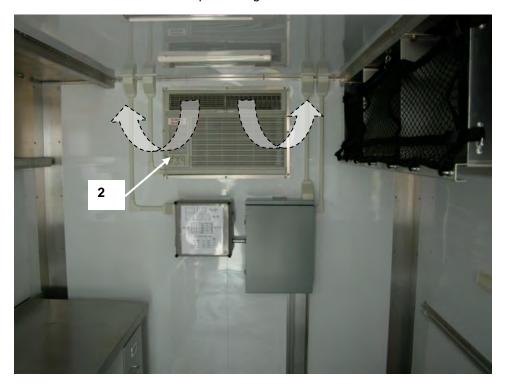
CAUTION

Ensure that the exterior HVAC vinyl cover (1) has been removed and stored prior to operating the HVAC (2). Failure to do so will cause overheating damage to the unit.



Older 18000 BTU HVAC

8. Test the HVAC at the rear wall of the container. If the HVAC fails to operate, reactivate the circuit breaker and retest. See Chapter 2 Page 0006 00-6 and 0006 00-7.



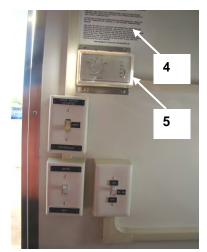
New 20000 BTU HVAC

The 20000 BTU HVAC Thermostat is located just inside the door on the left.

- 1. Ensure the HVAC (1) is plugged into the outlet (2).
- 2. Activate the 30 amp circuit breaker in the circuit breaker panel (3).
- 3. Follow the HVAC instructions (4) above the Thermostat (5).







New Front Wall Arrangement

END OF WORK PACKAGE