

**FPU® SYSTEMS OPERATION MANUAL
(INCLUDING REPAIR PARTS & SPECIAL TOOL LIST)
Light Expeditionary Module (LEM)
BOH FPU Field Pack-up Units**

**CHAPTER 4
OPERATOR MAINTENANCE INSTRUCTIONS**

This page was intentionally left blank

OPERATOR MAINTENANCE INSTRUCTIONS

FPU® SYSTEMS OPERATION MANUAL (INCLUDING REPAIR PARTS & SPECIAL TOOL LIST) LIGHT EXPEDITIONARY MODULE (LEM) BOH FPU Field Pack-up Units

INTRODUCTION TO PREVENTATIVE MAINTENANCE CHECKS & SERVICES (PMCS)

INITIAL SETUP:

Materiel/Parts

None

Personnel Required

One

References

None

Equipment Condition

BOH LEM MODULE Set-up

INTRODUCTION TO PREVENTATIVE MAINTENANCE CHECKS & SERVICES (PMCS)

Preventative Maintenance Checks and Services (PMCS) are performed to keep the FPU System containers 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 BOH LEM MODULE is in operation, using the PMCS table in WP 0014 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 BOH LEM MODULE , do **Before Operation PMCS**
- While the BOH LEM MODULE is in use, do **During Operation PMCS**
- After using the BOH LEM MODULE , do **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 injured or killed. A **CAUTION** means equipment could be damaged.

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

END OF WORK PACKAGE

This page was intentionally left blank

OPERATOR MAINTENANCE INSTRUCTIONS
**FPU® SYSTEMS OPERATION MANUAL
 (INCLUDING REPAIR PARTS & SPECIAL TOOL LIST)
 LIGHT EXPEDITIONARY MODULE (LEM)
 BOH FPU Field Pack-up Units**
PMCS TABLE

INITIAL SETUP:
Materiel/Parts

Rags, Water

Personnel Required

One to four

References

None

Equipment Condition

BOH LEM MODULE Set-up

**Table 1 Preventative Maintenance Checks and Services for the BOH LEM MODULE
 PMCS B (Before), D (During), A (After), W (Weekly), M (Monthly)**

	B	D	A	W	M	Inspection Item and Procedure	Equipment Not Ready/Available If
1	*		*			Hulls Check all hulls for cracks, dents, holes, or loose/missing hardware. Check slam latches for freedom of operation. Check bezels for dents or distortion. Check for accumulations of dirt and debris. Clean as required. Replace missing or damaged hardware.	Loose or missing hardware will limit the ability to secure cabinets, drawers and security bar. Dirt or debris will inhibit the operation of the LEM
2					*	Lubricate drawer slides, slam latches, detents and release levers with Molykote lubricant as required.	Slam latches or drawer slides will not latch properly or operate smoothly.
3	*		*	*		Drawer Exterior Check all exterior cabinet surfaces for cracks, dents that effect the operation of the module system. Check drawer lids for cracks or distortion. Check drawer latches and tray slide detent for proper operation. Check for loose rivets. Check for accumulations of dirt, debris. Clean as required.	Damage to the cabinet, drawer lids, tray slide detents, may cause injury to personnel. Damage, dirt or debris may cause malfunction inhibiting loading material and of operating the module system.

**Table 1 Preventative Maintenance Checks and Services for the BOH LEM MODULE (Continued)
PMCS B (Before), D (During), A (After), W (Weekly), M (Monthly)**

	B	D	A	W	M	Inspection Item and Procedure	Equipment Not Ready/Available If
4	*	*	*	*		DRAWER Interior Check drawer for dirt and debris. Clean with a brush or rags as required. Check all drawer dividers for dents, bends or distortion. Check for missing, bent or distorted center dividers. Replace dividers if needed.	Drawer dividers with dents, bends or distortion inhibit the arrangement of material.
5	*		*	*	*	Drawer Lid Seal Check drawer lid seals for cuts, cracks, distortion, proper alignment and attachment. Reattach with proper glue or replace if necessary. Check for moisture on or in material.	Failure of the seal will allow moisture to enter the drawer and may damage the stored material in the drawer.
6	*		*	*	*	Attachment Rivets Check for missing or loose attachment rivets on drawer handles, drawer latches, pads. Schedule maintenance replacement as needed.	Loose or missing rivets will impede the safe operation and may cause injury or damage.
7	*					Cabinet Base Check for weld cracks, bends, dents or frame distortion. Replace or schedule weld shop repair immediately.	Failure to repair welds may cause damage to equipment or injury.
8	*					Cabinet Base Twist Lock Check twist lock threads for lubrication. Lubricate threads with Molykote lubricant as required.	Failure to lubricate will cause difficulty in installation or removal of the cabinet base from the mounting plate.
9	*		*		*	Data Labels Check plates for legibility, damage and/or missing. Clean with water and rag. Replace immediately.	The unit cannot be identified with missing or illegible data labels. Illegible weight labels may cause injury to personnel.
End of PMCS Table							

END OF WORK PACKAGE

OPERATOR MAINTENANCE INSTRUCTIONS

FPU[®] SYSTEMS OPERATION MANUAL (INCLUDING REPAIR PARTS & SPECIAL TOOL LIST) LIGHT EXPEDITIONARY MODULE (LEM) BOH FPU Field Pack-up Units

CLEANING AND LUBRICATING

INITIAL SETUP:
Materiel/Parts

Rags, Water, Detergent

Personnel Required

One

References

None

Equipment Condition

BOH LEM MODULE Set-up

CLEANING AND LUBRICATING

Cleaning and Lubricating of the BOH LEM MODULES is performed to keep the module and its associated equipment in good operating condition. The cleaning and lubrication of the module can be conducted along with the Preventative Maintenance Checks and Services (PMCS) procedures described in WP 0015 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 modules, and accessories performing as designed. Cleaning also assists in maintaining the condition of the materiel stored within the system. Any damage discovered when cleaning and/or lubricating that cannot be corrected using the troubleshooting procedures described in WP 0013 00 should be reported for corrective maintenance.

Table 1 Cleaning

SURFACE	OIL/GREASE	SALT/MUD/DIRT DEBRIS	RUST/CORROSION and LUBRICATION
Exterior and Interior Surfaces (All)	Detergent, Water, Rags	Soapy Water, Brush, Rags	Corrosion Removal Compound and Wire Brush, Dry Rag and Spot Paint
Drawer Seals	Damp and Dry Rags	Damp and Dry Rags	N/A
Module Cabinets, Drawer Trays, Drawer Handles and Slam Latches	Detergent, Water, Rags	Soapy Water, Brush, Rags	Corrosion Removal Compound and Wire Brush, Dry Rags, Spot Paint
Cabinet Base	Detergent, Water, Rags	Brush, Soapy Water, Brush, Rags	Corrosion Removal Compound and Wire Brush, Dry Rags, Spot Paint
Cabinet Guide Channels	Detergent, Water, Rags	Damp and Dry Rags	Corrosion Removal Compound and Wire Brush, Dry Rags, Spot Paint
Drawer Lid Latches	Damp and Dry Rags	Damp and Dry Rags	Molykote lubricant
Tray Slide Detents	Detergent, Water, Rags	Damp and Dry Rags	Molykote lubricant
Tray Slides	Detergent, Water, Rags	Damp and Dry Rags	Molykote lubricant

End of Cleaning Table 1

Table 2 Lubrication

USAGE	FLUID or LUBRICANT	CAPACITIES	EXPECTED TEMPERATURES	INTERVAL
Drawer tray Slide and Detent	Molykote Multipurpose Synthetic Grease P/N 26040124	As Required	All Temperatures	Monthly or as required if under adverse conditions
Drawer tray Slam Latches	Molykote Multipurpose Synthetic Grease P/N 26040124	As Required	All Temperatures	Monthly or as required if under adverse conditions
Cabinet Base Twist Lock	Molykote Multipurpose Synthetic Grease P/N 26040124	As Required	All Temperatures	During installation or removal of the cabinet base
End of Lubrication Table 2				

END OF WORK PACKAGE

OPERATOR MAINTENANCE INSTRUCTIONS

FPU® SYSTEMS OPERATION MANUAL (INCLUDING REPAIR PARTS & SPECIAL TOOL LIST) LIGHT EXPEDITIONARY MODULE (LEM) BOH FPU Field Pack-up Units

INSPECTION OF LATCHES and SLIDE DETENTS

INITIAL SETUP:

Materiel/Parts

None

Personnel Required

One

References

Chapter 2 WP 0008 00 & 0009 00

Equipment Condition

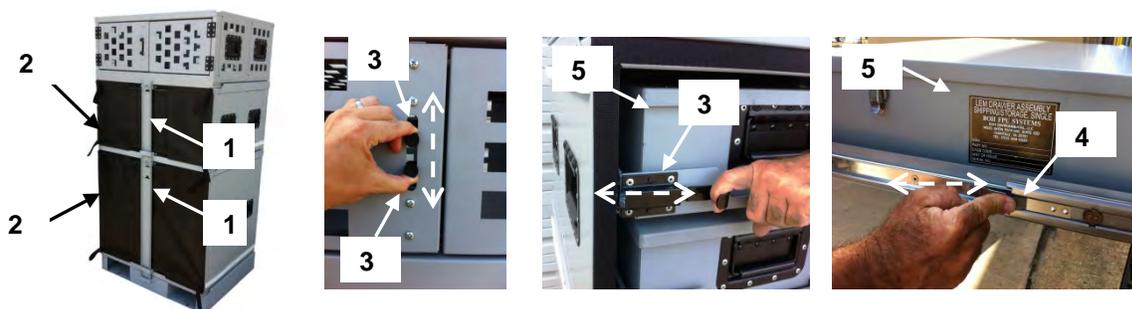
BOH LEM MODULES Set-up

INSPECT

WARNING



Slam latches and slide detents that do not operate properly, may not secure the drawers and must be replaced immediately. Failure to replace could cause damage to the equipment or injury to personnel.



1. Remove and inspect both 3G bars (1) for damage.
2. Remove and inspect both dust covers (2) for damage.
3. Actuate all the slam latches (3) and slide detent release levers (4); test the spring action to ensure they return and retain the drawers (5) or cage doors.
4. Lubricate slam latches (3) and detent release levers (4) as needed and have any slam latch (3) or tray slide (4) replaced that do not operate properly.
5. Report damaged Slam latches (3) or detent release levers (4) to maintenance for replacement.

WARNING



Do not depress the detent to release it; always use the release lever (4) to prevent a pinched finger.

END OF WORK PACKAGE

BOH-PM-12-4

Chapter 4 Rev. 0.02

This page was intentionally left blank

OPERATOR MAINTENANCE INSTRUCTIONS

FPU® SYSTEMS OPERATION MANUAL (INCLUDING REPAIR PARTS & SPECIAL TOOL LIST) LIGHT EXPEDITIONARY MODULE (LEM) BOH FPU Field Pack-up Units

INSPECTION OF THE LEM CAGE

INITIAL SETUP:

Material/Parts

Lubricant

Personnel Required

Two

Tools

Phillips Screwdriver #2 and rags

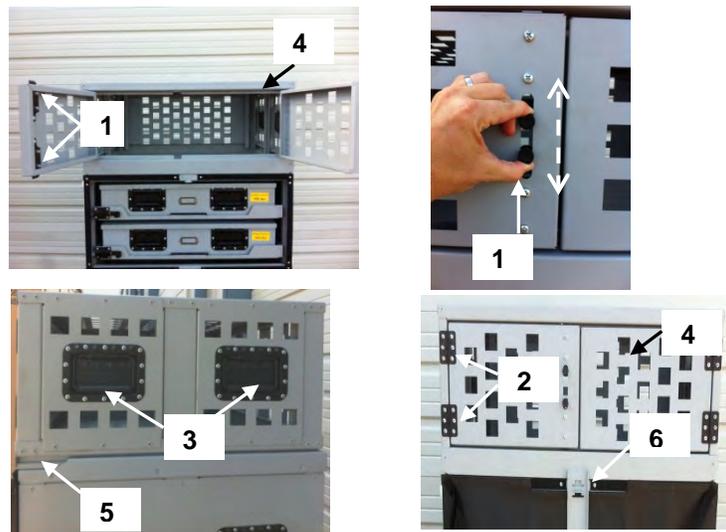
References

Chapter 2 WP 0008 00 & 0009 00

Equipment Condition

BOH LEM MODULES Set-up

INSPECT



1. Inspect the cage door latches (1) and hinges (2) for smooth action.
2. Check the side handles (3) for tight rivets and smooth handle operation, replace if damaged.
3. Inspect the cage (4) for damage or dents.
4. Check the track (5) on the bottom of the cage (3) for dirt debris, dents or distortion.
5. Remove the 18" 3G bar (6) to remove the cage (4).
6. With assistance, remove the cage (4).
7. Wipe the tracks (5) clean of dirt or debris with a damp rag if needed.

WARNING



Assistance is required when removing the LEM cage. Always follow DOD safe lifting procedures. Failure to comply will cause injury and damage to equipment.

END OF WORK PACKAGE

This page was intentionally left blank

OPERATOR MAINTENANCE INSTRUCTIONS

FPU® SYSTEMS OPERATION MANUAL (INCLUDING REPAIR PARTS & SPECIAL TOOL LIST) LIGHT EXPEDITIONARY MODULE (LEM) BOH FPU Field Pack-up Units

INSPECTION OF LEM 18" and 30" CABINETS

INITIAL SETUP:

Materiel/Parts

Bezel Replacement Kit and Bearing Strips

Personnel Required

Two

Tools

Phillips Screwdriver #2 and rags and Lubricant

References

Chapter 2 WP 0008 00 & 0009 00

Equipment Condition

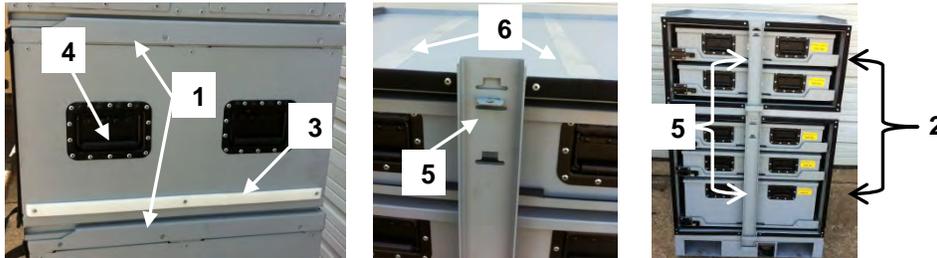
BOH LEM MODULES Set-up

INSPECT

Exterior

NOTE

When the LEM is installed on the mounting plate, it is not necessary to remove the cage, cabinets or hulls during inspection unless there is an issue for repair of the cabinet base, hull, or trays.

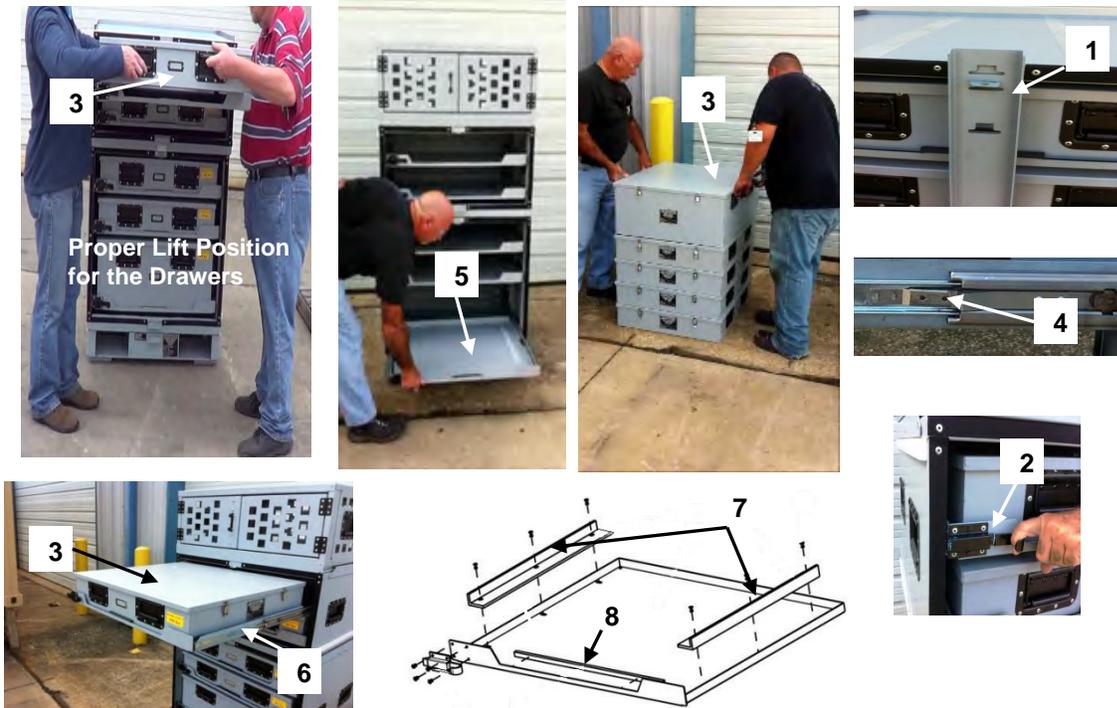


1. Inspect all the bezels (1) on each side of the cabinets (2) for damage.
2. Replace the damaged bezels (1) with the #2 Philips screw driver, if required.
3. Inspect the bumper strips (3) on the sides and rear of the cabinet (2) for damage.
4. Report any damaged bumper strips (3) to maintenance.
5. Inspect all handles (4) for smooth operation and damage, lubricate if needed.
6. Report any damage to maintenance.
7. Inspect 18" and 30" 3G bars (5) for damage.
8. Report damage to maintenance, replace if needed.
9. Inspect for missing or damaged bearing strips (6) on the top of the cabinet (2), replace if needed.

WARNING



Cabinet bezels (1) and 3G bars (5) that do not operate properly may not secure and retain the cabinets (2), and must be replaced immediately. Always follow DOD safe lifting procedures. Failure to replace could cause damage to the equipment or injury to personnel.

INSPECT**18" and 30" Hull Assemblies**

1. Remove the 3G bars (1).
2. Release the slam latch (2) and pull out the drawer (3) until the detent (4) is engaged.
3. With assistance, remove each drawer (3) and stack the drawers (3) out of the traffic area.
4. Inspect each drawer tray (5) for dirt or damage.
5. Check the tray slides (6) for smooth movement, lubricate as needed.
6. Inspect the drawer spacer angles (7) for dirt or damage; wipe clean with a damp rag, replace if damaged.
7. Inspect the tray front edge protector (8), replace if missing or damaged. Apply adhesive Turbo Fuse series 130PR and reattach.
8. Inspect the slide detents (4); test the spring action to ensure they retain the drawers.
9. Report damaged slide detents to maintenance.
10. With assistance, install and close each drawer (3); ensure each slam latch (2) engages.

WARNING

Assistance is required when lifting any LEM component. Always follow DOD safe lifting procedures. Failure to comply will cause injury and damage to equipment. Slam latches, slide detents and 3G bars that do not operate properly may not secure the drawers and must be replaced immediately. Failure of these items could cause damage to the equipment or injury to personnel.

END OF WORK PACKAGE

OPERATOR MAINTENANCE INSTRUCTIONS

FPU® SYSTEMS OPERATION MANUAL (INCLUDING REPAIR PARTS & SPECIAL TOOL LIST) LIGHT EXPEDITIONARY MODULE (LEM) BOH FPU Field Pack-up Units

INSPECTION OF THE LEM DRAWER ASSEMBLIES

INITIAL SETUP:

Materiel/Parts

Seal Replacement Kit

Personnel Required

Two

Tools

Putty Knife

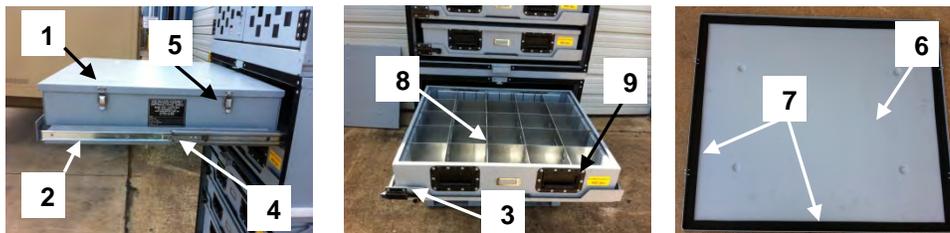
References

Chapter 2 WP 0008 00 & 0009 00

Equipment Condition

BOH LEM MODULES Set-up

INSPECT



11. Release the slam latch (3) and pull out the drawer (1) until the detent (4) is engaged.
12. Release the lid latches (5) on each side and remove the lid (6).
13. Inspect the lid (6) for damage or distortion, replace as needed.
14. Inspect the lid seal (7) for damage or distortion.
15. Remove the seal (7) with the putty knife and replace the seal (7) if damaged; use Turbo Fuse series 130PR adhesive.
16. Inspect the drawer dividers (8) for damage, replace as needed.
17. Inspect the front and rear handles (9) for smooth movement, lubricate as needed.
18. Check the handles (9) for damage or loose rivets, report damage to maintenance.
19. Return and latch the lid (6), ensure stored material does not interfere with the lid (6).
20. Release the detent (4) on the tray and push the drawer in until the slam latch (3) is engaged.
21. Inspect each drawer (1) in the same manner, follow steps 1 through 10.

WARNING



Assistance is required when lifting any LEM drawers (1). Always follow DOD safe lifting procedures. Failure to comply will cause injury and damage to equipment.

END OF WORK PACKAGE

BOH-PM-12-4
Chapter 4 Rev. 0.02

This page was intentionally left blank

OPERATOR MAINTENANCE INSTRUCTIONS

FPU® SYSTEMS OPERATION MANUAL (INCLUDING REPAIR PARTS & SPECIAL TOOL LIST) LIGHT EXPEDITIONARY MODULE (LEM) BOH FPU Field Pack-up Units

INSPECTION OF THE LEM CABINET BASE AND TWIST LOCK

INITIAL SETUP:

Materiel/Parts

Lubrication, Slide Tape

Personnel Required

Two

Tools

Putty Knife

References

Chapter 2 WP 0008 00 & 0009 00

Equipment Condition

BOH LEM MODULES Set-up

INSPECT

NOTE

During installation or removal of the LEM cabinet base (1), ensure the twist lock threads (5) have lubrication applied.



1. Inspect the cabinet base (1) for dents, weld cracks or damage, report damage to maintenance.
2. Inspect the twist lock handle (2) for damage, report damage to maintenance.
3. Inspect the handle securing pin and lanyard (3), replace if missing or damaged.
4. With assistance, tip the cabinet base (1) on edge and inspect the foot pads (4), report damage to maintenance.
5. Ensure there is lubrication on the twist lock threads (5); review chapter 2, WP 0009 00-1 and 00-2.
6. Inspect the slide tape (6), wipe clean with a damp rag or remove the tape with a putty knife and replace if needed.

WARNING



Assistance is required when lifting the LEM cabinet base (1). Always follow DOD safe lifting procedures. Failure to comply will cause injury and damage to equipment.

END OF WORK PACKAGE

This page was intentionally left blank

OPERATOR MAINTENANCE INSTRUCTIONS

FPU® SYSTEMS OPERATION MANUAL (INCLUDING REPAIR PARTS & SPECIAL TOOL LIST) LIGHT EXPEDITIONARY MODULE (LEM) BOH FPU Field Pack-up Units

INSPECTION OF THE LEM MOUNTING PLATES

INITIAL SETUP:

Material/Parts

None

Personnel Required

Two or more

Tools

None

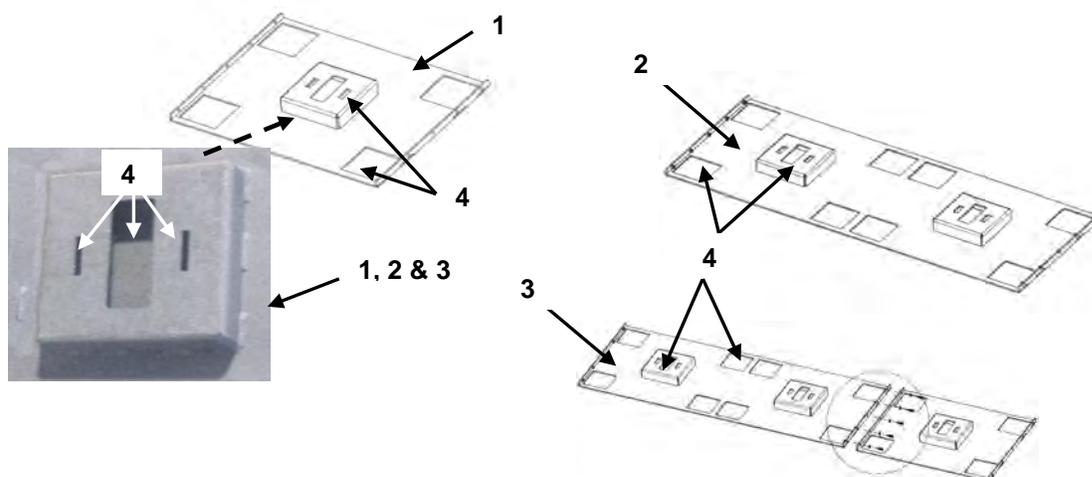
References

Chapter 2 WP 0007 00

Equipment Condition

BOH LEM MODULES Set-up

INSPECT



1. Inspect the receiver and flange welds for cracks on mounting plates (1, 2 & 3), report weld cracks to maintenance.
2. Inspect the cutout edges (4) for distortion, report any distortion to maintenance.
3. Ensure the mounting plate (1) is securely bolted or welded in position.

WARNING



Assistance is required when lifting any LEM mounting plates (1, 2 & 3). Always follow DOD safe lifting procedures. Failure to comply will cause injury and damage to equipment.

END OF WORK PACKAGE

BOH-PM-12-4
Chapter 4 Rev. 0.02

This page was intentionally left blank