
**FPU® SYSTEMS OPERATION MANUAL
FOR
STANDARD AND SPECIALIZED FPU MODULES
BOH FPU Field Pack-up Units
(INCLUDING REPAIR PARTS & ACCESSORIES)**

STANDARD MODULES



FLAMABLE
CORROSIVE
MODULE



HELO MODULE



WEAPONS MODULE



FPU BULK MODULE



BOH MODULE ADAPTER
(TRICON I/II)



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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 precautions could result in serious injury or death to persons using equipment.



WARNING

Forklift operator should always use module forklift pockets when moving FPU modules to prevent tipping. Ground guides must insure no personnel go underneath modules during movement operations. Failure to comply could cause injury or damage to the equipment.



WARNING

Use extreme caution when loading or unloading FPU modules from and into FPU containers. Forklift operator should maintain visual contact with ground guides at all times. Ground guides should never come between the module and container during loading process. If visual contact with ground guide is lost, immediately suspend all operations, turn off forklift and set emergency brake. Failure to comply could cause serious injury. Failure to comply could cause injury or damage to the equipment.



WARNING

Always follow standard forklift procedures. A tilt hazard exists when forklift operators try to lift an FPU module without inserting forklift tines into module forklift pockets. Operators should always keep loads low and close to the forklift carriage. Operators should never travel when the load is in the fork's extended position. Ensure hands, feet and limbs are clear of the container and components during any forklift or lifting operation. Failure to comply could cause injury or damage to the equipment.



WARNING

Ensure hands, feet and limbs are clear of the container and components during any forklift or lifting operation. Failure to comply could cause injury or damage to the equipment.



The FPU accessories can be heavy and awkward to handle by a single person. This is especially true of the larger components.

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 precautions could result in serious injury or death to persons using equipment.

WARNING



The modules, containers and their contents are heavy and could cause injury if they fall onto or strike personnel. A tilt hazard exists when the model is either outside of the FPU CARGO container or inside the FPU CARGO container, but not locked down. As a rule, always work on one pallet or drawer at a time. Never have more than one drawer extended in the full open position at a time, especially if loaded. Personnel should never stand on a drawer or pallet.

WARNING



Fall hazards exist when climbing onto or working on the top of the FPU container. Always maintain three points of contact to the ladder and container when climbing onto the container. Never move, step, or walk backwards when working on top of the system. All movement should be in the forward direction. A fall can occur if personnel lose concentration and step backwards off of the edge. Stand erect only if necessary and only away from the edge. Working from a kneeling position helps reduce the threat of a fall.

WARNING



The FPU accessories can be heavy and awkward to handle by a single person. This is especially true of the larger components.

WARNING



The Flame Locker module is designed to store and transport flammable materials. DOD 60055.9-STD Chapter 7 Grounding Procedures should be consulted prior to storage or transportation of said materials. Never store incompatible hazardous materials in the same flammable/corrosive module. Failure to comply could cause injury or damage to the equipment.



The Flame Locker Module and other modules may contain batteries and other gas emitting materials that require venting or special precautions. Consult DOD 60055.9-STD Chapter 7 Grounding Procedures and DOD 4145.19-R-1 Storage and Handling Material Hazardous Commodities, prior to storage or transportation of materials.



The Flame/Corrosive Module is designed to store and transport flammable and corrosive materials. Consult DOD 60055.9-STD Chapter 7 Grounding Procedures and DOD 4145.19-R-1 Storage and Handling Material Hazardous Commodities, prior to storage or transportation of materials.

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 precautions could result in serious injury or death to persons using equipment.

Container Overhead Power Line Warning



WARNING

Overhead power lines and obstructions can cause serious injury or damage to property. Forklift operators, truck drivers, and ground guides should always clear overhead when loading, unloading, moving the FPU modules or when accessing FPU container roof.



WARNING

Protective gloves should be worn when handling metal parts in below freezing temperatures. Failure to wear gloves may result in skin freezing to the metal upon contact and cause tearing of the flesh when attempting to pull away from the metal.

WARNING



The FPU is NOT designed to be operated in contaminated NBC Environments.

The FPU is designed to operate outside an established NBC safety perimeter.

Do not operate the FPU in contaminated NBC environments. If possible cease operation of the FPU prior to an NBC event and do the following:

1. Close and secure all doors. External surfaces of the FPU and CARGO Containers are CARC painted and can be decontaminated; however, whenever possible avoid contamination of the internal areas of the FPU Cargo Container System.
2. Decontaminate the exterior surfaces of the FPU in accordance with FM 3-5. Only Qualified NBC NCO's should check for residual contamination before opening the container.
3. Remain in MOPP 4 posture when opening the doors and have the NBC NCO check for contamination on interior surfaces.
4. If thorough decontamination is required refer to NBC NCO and FM 3-5 for procedures.

GENERAL WARNINGS



HEAVY PARTS - heavy object on human figure shows that heavy parts present a danger to life or limb.



HEAVY PARTS - heavy object pinning human figure against wall shows that heavy, moving parts present a danger to life or limb.



HEAVY PARTS - hand with heavy object on top shows that heavy parts can crush and harm.



HEAVY PARTS - foot with heavy object on top shows that heavy parts can crush and harm.



SLICK FLOOR - wavy line on floor with legs prone shows that slick floor presents a danger for slipping or falling.



HEAVY OBJECT - human figure stooping over heavy object shows physical injury potential from improper lifting technique.



ELECTRICAL - electrical wire to arm with electricity symbol running through human body shows that shock hazard is present.

GENERAL WARNINGS



ELECTRICAL - electrical wire to hand with electricity symbol running through hand shows that shock hazard is present.



CRYOGENIC - hand in block of ice shows that the material is extremely cold and can injure human skin or tissue.



FIRE - flame shows that a material may ignite and cause burns.



VAPOR - human figure in a cloud shows that material vapors present a danger to life or health.



CHEMICAL - drops of liquid on hand shows that the material will cause burns or irritation to human skin or tissue.



EYE PROTECTION - person with goggles shows that the material will injure the eyes.



EXPLOSIVE GASSES PRECAUTIONS- Gasses from batteries and other material may be stored in the containers or modules. Special precautions should be taken.

INSERT LATEST CHANGED PAGES / WORK PACKAGES. DESTROY SUPERSEDED DATA.

LIST OF EFFECTIVE PAGES / WORK PACKAGES

NOTE

The portion of text affected by the changes is indicated by a vertical line in the outer margins of the page. Changes to illustrations are indicated by miniature pointing hands. Changes to wiring diagrams are indicated by shaded areas.

Dates of issue for original and changed pages / work packages are:

Initial Manual	Date Mar 17, 2010
Revision 1	Date Nov 17, 2010
Revision 2	Date Dec 21, 2010
Revision 3	Date Feb 9, 2011
Revision 4	Date Mar 7, 2011

TOTAL NUMBER OF PAGES FOR FRONT AND REAR MATTER IS 241 AND TOTAL NUMBER OF WORK PACKAGES IS 42 CONSISTING OF THE FOLLOWING:

Page / WP * No.	Revisions No. 4	Page / WP No.	Page / WP No.	Page / WP No. All	*Change No. 1
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d-f	0				
A	0				
i-iii	0				
WP 0001 00 - 0042 00	2	Rev 1 added WP 0010, 27,28,29,30 and 39	Rev 2 added WP 0011,23,31 and 40		
Appendix					
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Pagination	1				Rev 3 Complete Repagination

*Zero in this column indicates an original page or work package.

- Revision 1 Added (PBM) Bulk Module
- Revision 2 Added TRICON Adapter
- Revision 3 Repagination Chapters 1 through 6
- Revision 4 Added New Cover and each Module Data Tags Locations

**FPU SYSTEMS OPERATION MANUAL
(INCLUDING REPAIR PARTS & ACCESSORIES)
FOR
STANDARD AND SPECIALIZED FPU MODULES
BOH FPU Field Pack-up Units
REPORTING ERRORS & IMPROVEMENTS**

REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this manual. Please let us know if you find any mistakes or if you know of a way to improve the procedures. You may send in your recommended changes by E-mail directly to: jstokes@bohenvironmental.com. A reply will be furnished directly to you.

Approved for public release; distribution is unlimited.

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0104	CLASS 4 Cabinets
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- BOH product Warranty
- Metric Conversion Chart

HOW TO USE THIS MANUAL

This manual contains general information, operating instructions, Preventive Maintenance Checks and Services (PMCS), and maintenance/repair instructions for the FPU Standard and Specialized Modules available for the BOH Container system.

Front matter consists of front cover, warning summary, title block, table of contents, "how to use this manual" pages, and provides information on the FPU and its associated equipment. Chapter 1 provides equipment description and data as well as the theory of operation for both Container and Modules. Chapter 2 provides instructions for operating under usual and unusual conditions. Chapter 3 contains troubleshooting procedures authorized at the Operator and Unit level. Chapter 4 contains Preventive Maintenance Checks and Services (PMCS) and Operator Maintenance Instructions. Chapter 5 contains Unit Maintenance Instructions. Chapter 6 contains the Maintenance Allocation Chart (MAC); it also includes the Repair Parts & Special Tools List (RPSTL) that identifies parts or tools unique to the operation and maintenance of the Modules

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 wide range of topics. Each work package is numbered sequentially 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 "XXX 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 "Blank" means that the page has been intentionally left blank.

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.

Types of notations

Warnings - Warnings are posted immediately prior to text covering any area that would present a situation that may result in injury or death. Compliance is mandatory.

Cautions - Cautions will be found on the same page and preceding the text covering any area that would present a situation that may result in damage to equipment.

Notes - Notes will precede text covering an area with the intent to alter normal procedures for unique situations or equipment, or point out areas of special concern.

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