# FPU® SYSTEMS OPERATION MANUAL (INCLUDING REPAIR PARTS & SPECIAL TOOL LIST) Small Cabinet Module (SCM) BOH FPU Field Pack-up Units

# CHAPTER 2 OPERATOR INSTRUCTIONS

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# FPU® SYSTEMS OPERATION MANUAL (INCLUDING REPAIR PARTS & SPECIAL TOOL LIST) Small Cabinet Module (SCM) BOH FPU Field Pack-up Units

#### PREPARATION FOR MOVEMENT

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This work package provides step-by-step instructions for the download, set-up and moving of the Small Cabinet Module (SCM).



If a SCM Module is dropped during transit movement of any kind, drawer trays may be damaged; extreme care should be taken when opening the drawers to preclude material from falling on and injuring personnel. Ensure 3G bars are installed in their appropriate hasp slot positions (see page 0006 00-7) and all drawer and tray latches are engaged before any MHE or transport movement.

# Site Requirements



Outside the warehouse, modules must be operated on level ground. To maintain control, consider the ground surface conditions in an open environment for adequate traction, such as mud, snow, ice and sand. Review the weight tables pages WP 0005 00-2 to 00-3 prior to any movement for MHE and personnel requirements.

#### **CAUTION**

Flood plain conditions should be considered for SCM Modules. Although the drawers are weather resistant, they are not water tight, and the operation of the Modules would be impaired in a flooding condition. If in doubt, consult the operations supervisor or commander.



Overhead power lines and obstructions can cause serious injury, death or damage to property. Forklift operators, truck drivers and ground guides should always clear overhead when loading or unloading the SCM Module.

# **Preparing SCM Modules for Use**

Once downloaded from the truck, trailer or other transport vehicle, the SCM Module is ready for immediate use in most circumstances.

# **WARNING**



Never attempt to access the SCM Module or the drawers when the SCM Module is without a safe-footing established area. Always establish a safe footing operational site. Consider the weight of each SCM and their individual components.

# **CAUTION**

The stored material in any single drawer should not exceed 100 lbs.

# **MODULE WEIGHT TABLE**

SCM 55"MODULE Configuration #1 thru # 17	Part Number	Shipping Weight	Max Gross Weight	Net (Cargo) Weight	MHE Recommended	
SCM 55" Config. #1	18000001	543 lb.	943 lb.	400 lb.	3,000 lb. forklift	
SCM 55" Config. #2	18000002	540 lb.	940 lb.	400 lb.	3,000 lb. forklift	
SCM 55" Config. #3	18000003	537 lb.	937 lb.	400 lb.	3,000 lb. forklift	
SCM 55" Config. #4	18000004	542 lb.	942 lb.	400 lb.	3,000 lb. forklift	
SCM 55" Config. #5	18000005	491 lb.	791 lb.	300 lb.	3,000 lb. forklift	
SCM 55" Config. #6	18000006	597 lb.	1097 lb.	500 lb.	3,000 lb. forklift	
SCM 55" Config. #7	18000007	594 lb.	1094 lb.	500 lb.	3,000 lb. forklift	
SCM 55" Config. #8	18000008	591 lb.	1091 lb.	500 lb.	3,000 lb. forklift	
SCM 55" Config. #9	18000009	596 lb.	1096 lb.	500 lb.	3,000 lb. forklift	
SCM 55" Config. #10	18000010	545 lb.	945 lb.	400 lb.	3,000 lb. forklift	
SCM 55" Config. #11	18000011	597 lb.	1097 lb.	500 lb.	3,000 lb. forklift	
SCM 55" Config. #12	18000012	594 lb.	1094 lb.	500 lb.	3,000 lb. forklift	
SCM 55" Config. #13	18000013	591 lb.	1091 lb.	500 lb.	3,000 lb. forklift	
SCM 55" Config. #14	18000014	596 lb.	1096 lb.	500 lb.	3,000 lb. forklift	
SCM 55" Config. #15	18000015	545 lb.	945 lb.	400 lb.	3,000 lb. forklift	
SCM 55" Config. #16	18000016	689 lb.	1389 lb.	700 lb.	3,000 lb. forklift	
SCM 55" Config. #17	18000017	487 lb.	787 lb.	300 lb.	3,000 lb. forklift	
End of 55" Weight Table						

SCM 36"MODULE Configuration #1 thru # 7	Part Number	Shipping Weight	Max Gross Weight	Net (Cargo) Weight	MHE Recommended		
SCM 36" Config. #1	18100001	390 lb.	690 lb.	300 lb.	3,000 lb. forklift		
SCM 36" Config. #2	18100002	387 lb.	687 lb.	300 lb.	3,000 lb. forklift		
SCM 36" Config. #3	18100003	384 lb.	684 lb.	300 lb.	3,000 lb. forklift		
SCM 36" Config. #4	18100004	389 lb.	689 lb.	300 lb.	3,000 lb. forklift		
SCM 36" Config. #5	18100005	338 lb.	538 lb.	200 lb.	3,000 lb. forklift		
SCM 36" Config. #6	18100006	482 lb.	982 lb.	500 lb.	3,000 lb. forklift		
SCM 36" Config. #7	18100007	334 lb.	534 lb.	200 lb.	3,000 lb. forklift		
End of 36" Weight Table							

BOH SCM Module Component Weight Table						
BOH SCM Module Components	Shipping Weight	Part Number	Personnel Required to Lift			
SCM 18" Upper Hull With 1 Tray But Without Drawers	114 lb.	N/A	2			
SCM 18" Upper Hull With 2 Trays But Without Drawers	147 lb.	N/A	2			
SCM 30" Lower Hull with 2 Trays But Without Drawers	166 lb.	N/A	2			
SCM 30" Lower Hull with 3 Trays But Without Drawers	199 lb.	N/A	2			
SCM 30" Lower Hull with 5 Trays But Without Drawers	265 lb.	N/A	2			
4" Drawer Empty	25 lb.	17000654	2			
6" Drawer Empty	29 lb.	17000655	2			
8" Drawer Empty	33 lb.	17000656	2			
10" Drawer Empty	37 lb.	17000657	2			
12" Drawer Empty	40 lb.	17000658	2			
16" Drawer Empty	43 lb.	17000659	2			
18" 3G bar	2 lb.	17000170	1			
30" 3G bar	2 lb.	17000165	1			
Cabinet Base	90 lb.	18000100	2			
End of Component Weight Table						

# **WARNING**



Two personnel are required when lifting empty components. Always use the handles when lifting any SCM component. Always separate the drawers from the tray when assembling or disassembling the system. Two personnel are required when lifting full or empty drawers into and out of the trays. Avoid lifting with your back, bend your knees slightly and lift in tandem with a partner's assistance. Failure to follow proper lifting procedures may result in damage to the equipment and injury to personnel.

# WARNING





Always place each disassembled component out of the traffic area. Failure to follow may result in damage to the equipment and/or stored material and injury to personnel.

#### **NOTE**

The 4" drawer lids are designed specifically for the 4" drawer and are not applicable to other drawers.

# **END OF WORK PACKAGE**

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# FPU® SYSTEMS OPERATION MANUAL (INCLUDING REPAIR PARTS & SPECIAL TOOL LIST) Small Cabinet Module (SCM) BOH FPU Field Pack-up Units

## **SCM COMPONENT DESCRIPTION**

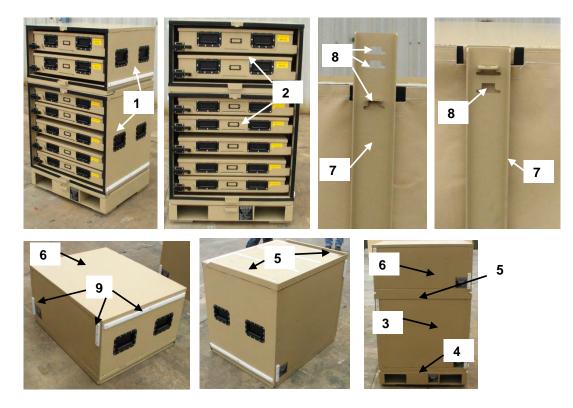
# **SCM Cabinet Description**

- The 18" and 30" SCM cabinets (1), which function as single units, house various prescribed size sliding drawers (2).
- The 30" SCM cabinet (3) and cabinet base (4) have a bezel (5) system to create a unitized set of cabinets (1).

## NOTE

The base bezel is welded to the base while the 30" bezel (5) is screwed into the cabinet and therefore removable.

- The 18" SCM cabinet (6) has a bottom track but no bezel (5) and is always the top cabinet of the SCM 55" unit.
- The SCM cabinets (1) are each secured with a 3G bar (7) that have additional hasp slots (8) for configuring with and without the other cabinet and base.
- The 3G bars (7) can be repositioned to allow each cabinet (1) to stand alone as a unit.
- Each SCM cabinet (1) has bumper strips (9) on sides and back to protect the unit.
- The SCM cabinet unit (1) has a cabinet base (4) that allows MHE movement in a warehouse environment.

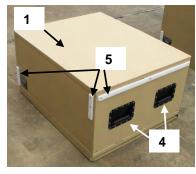


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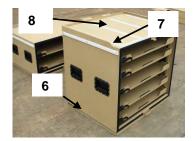
# **SCM Hull Description**

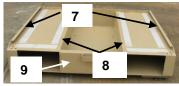
- The SCM 18" hull (1) and 30" hull (2) are held in place to the cabinet base by the lower 3G bar (3).
- The SCM hulls (1) and (2), have side handles (4) for stacking or separation of the hulls (1) and (2).
- The SCM hulls (1) and (2) have side and rear bumper strips (5).
- The track (6) and bezel (7) system interlock the hulls (1) and cabinet base (9).
- The SCM 18" hull (1) has a track (6), but no bezel (7) since it is always the top hull of the SCM 55" unit.
- The SCM hulls (1) and (2) house the trays (10) that slide out to accept the drawers.
- The top of the 30" hull (2) and cabinet base (9) have UHMW slide tape (8) on the top of each component that reduces friction and avoids metal to metal contact scratching the paint surfaces.

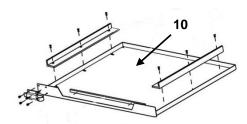










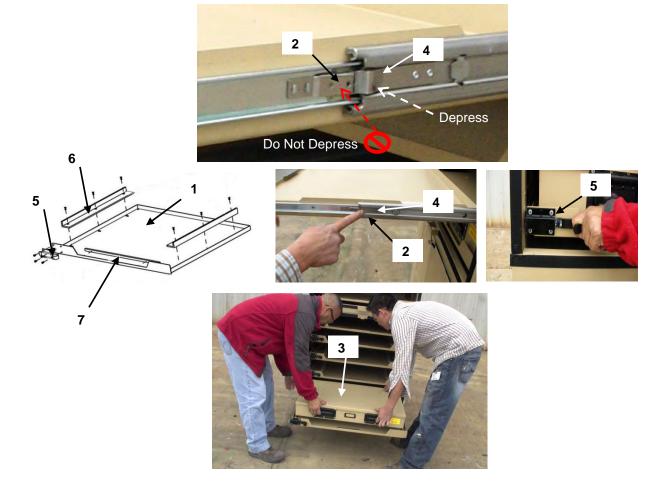


# **SCM Tray Description**

- The SCM tray (1) is designed to slide out until the detent (2) is engaged and prevents the tray (1) from rolling back when installing the drawer (3).
- The SCM tray detent (2) has a release lever (4) that must be depressed to release the detent (2) and return the tray (1) into the hull.
- The SCM tray (1) has a slam latch (5) mounted on the left side to secure it within the hull.
- The SCM tray (1) has two drawer spacer angles (6) to help center and retain the drawer from shifting in the tray, assist sliding the drawer into place and reduce metal to metal friction.
- The SCM tray (1) also has a strip (7) on the front to help center and retain the drawer (3) from shifting in the tray (1).

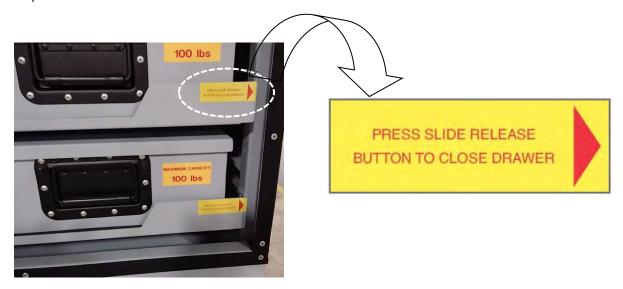


Do not depress the detent (2) to release it; always use the release lever (4) to prevent a pinched finger. Avoid lifting with your back, bend your knees slightly and lift in tandem with a partner's assistance.



# **CAUTION**

Always press the detent release lever (right side) (1) to release and close the drawer tray when in the fully extended, locked-out position (2). Shoving against this drawer tray without first pressing this release lever could result in damage to the drawer slides causing the drawer tray to become inoperable.

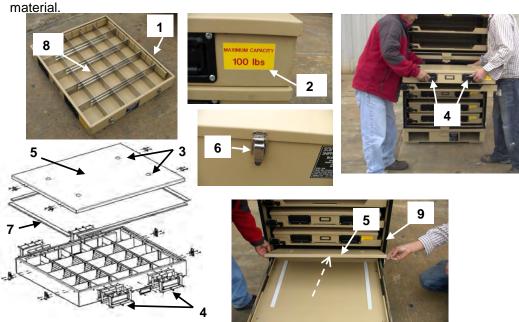




# **SCM Drawer Description**

- The SCM drawers (1) come in various prescribed sizes that fit the cabinets (9).
- Each SCM drawer (1) has a 100 lb. limit label (2) on the front of each drawer (1).
- The SCM drawer lids (5) have four dimples (3) on the top and mating dimples on the bottom that prevent them from slipping when stacked.
- The SCM drawers (1) have handles (4) on the front and rear for control when lifting and maneuvering.
- The SCM drawers (1) have removable lids (5) with lid latches (6) and a seal (7) to inhibit moisture and dust entering the drawer (1).

The drawers (1) have dividers (8) that can be easily positioned to accept various sized



#### NOTE

When it is preferred to operate the drawers (1) without lids (5) and prevent misplacement of lids (5), they can be stored in the bottom of each hull assembly (9). This space allows for the storage of up to 3 lids and 3G bar. To access the bottom storage space, lock out the bottom tray and remove the drawer. For ease of lid removal, insert and stack the lids with the tops facing down. Consider the environment that may affect the stored material such as rain, humidity, dust and sand when operating without lids.

# **CAUTION**

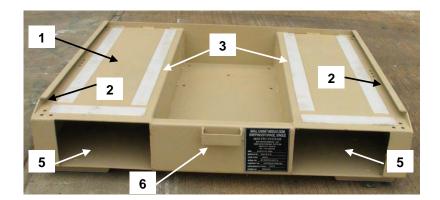
When stacking the lids in the bottom of the hull assembly, ensure they do not interfere with the tray operation or cause damage to the lids or drawer.

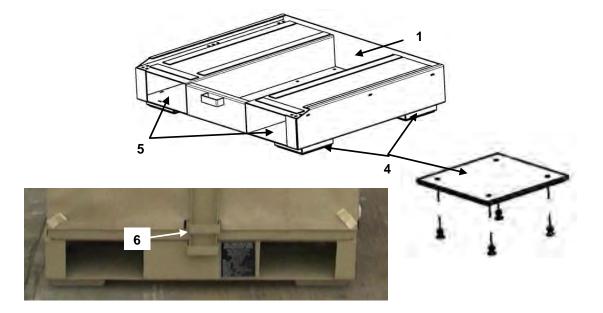
#### CAUTION

The 4" drawer lids (5) are designed specifically for the 4" drawers and are not applicable to other drawers. Prior to movement of the 55" module, ensure these lids are reattached to the drawers.

# **SCM Cabinet Base Description**

- The SCM cabinet base (1) is designed to support and interlock the cabinets and provide a means to transport the unit with forklift in a warehouse environment.
- The SCM cabinet base (1) bezel (2) interlocks the 30" hull.
- The SCM cabinet base has UHMW slide tape (3) to reduce friction and prevent metal to metal contact and scratching the painted surfaces.
- The SCM cabinet base (1) has four bottom foot pads (4), to prevent damage to the bottom of the cabinet base.
- The SCM cabinet base (1) has fork pockets (5) to permit MHE movement of the SCM.
- The SCM base has a slot (6) for the insertion of the 30" 3G bar to prevent the 30" cabinet from sliding off the base.





# **3G Bar Description**

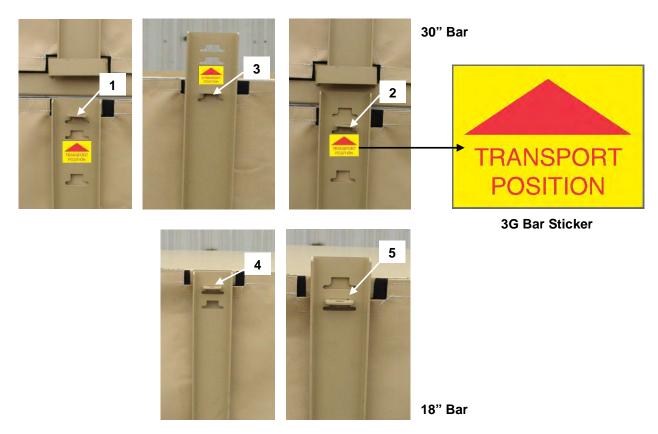
- 30" Bar
  - o top slot (1): For removal of 18" hull from the top of the 30" hull
  - center slot (2): To inhibit lateral movement of the 18" cabinet over the 30" cabinet and the 30" cabinet over the cabinet base (Position required for fully assembled and secured 55" SCM configuration)
  - o <u>bottom slot (3)</u>: To allow for the cabinet to be placed directly on the floor, secured and padlocked.

# • 18" Bar

- o top slot (4): Allows for the cabinet to be placed directly on the floor, secured and padlocked.
- bottom slot (5): While this slot position allows the cabinet to be placed directly on the floor, secured and padlocked just like the top slot, this position does not serve any other purpose for this particular product.



The 30" center slot position is required to properly secure the fully assembled 55" SCM configuration for transport. Failure to comply may result in damage to the equipment and/or stored material and injury to personnel.



# **END OF WORK PACKAGE**

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# FPU® SYSTEMS OPERATION MANUAL (INCLUDING REPAIR PARTS & SPECIAL TOOL LIST) Small Cabinet Module (SCM) BOH FPU Field Pack-up Units

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# **DISASSEMBLY PROCEDURE**

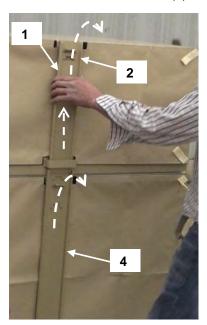
# **Disassembling the SCM Module**

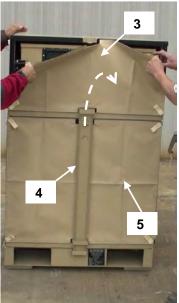
**WARNING** 

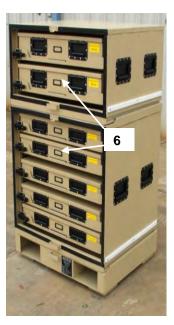


The SCM components are heavy, especially loaded drawers and empty hulls. Before attempting to lift any component, consult the component weight table pages WP 0005 00-3. When in doubt, consult a supervisor and a doctor to ensure that it is safe for the operator and assistant to perform heavy lifting. Always follow DOD safe lifting procedures. Failure to follow proper lifting procedures may cause damage to the equipment and injury to personnel.

- 1. Remove the top 3G bar (1); lift up the 18" bar to clear the hasp (2).
- 2. Remove the 18" dust cover (3) utilizing the pull tabs at each corner of the dust cover (3).





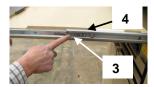


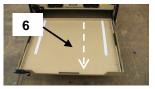
3. Remove the 30" 3G bar (4) and 30" dust cover (5) to gain full access to the SCM drawers (6).

#### **Remove the Drawers**

4. Release the slam latch (1) on the left, and pull the drawer (2) out until the detent (3) on the right side tray slide (4) is engaged.





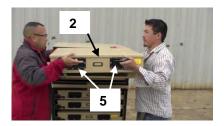


5. With the assistance of one other person, use the handles (5) on the front and back to remove the top drawer (2); review the component weight table page WP 0005 00-3.

#### WARNING



Always separate the drawers (2) from the trays (6) when assembling or disassembling the SCM. Two personnel are required when lifting full or empty drawers (2) into and out of the trays (6). Always follow DOD safe lifting procedures. Avoid lifting with your back, bend your knees slightly and lift in tandem with a partner's assistance. Always use the front and rear handles (5) to control the drawer (2). Failure to follow proper lifting procedures may result in damage to the equipment and injury to personnel.





#### WARNING



To access the rear drawer handles, lift and pull the front drawer handles slightly forward over the edge of the tray. Extreme caution must be taken when performing this process to ensure that the drawer does not fall out of the tray and damage the drawer, its contents or injure personnel.

6. Release the detent with the detent release lever (3) and push in the tray (6) until the slam latch (1) is engaged.

# **CAUTION**

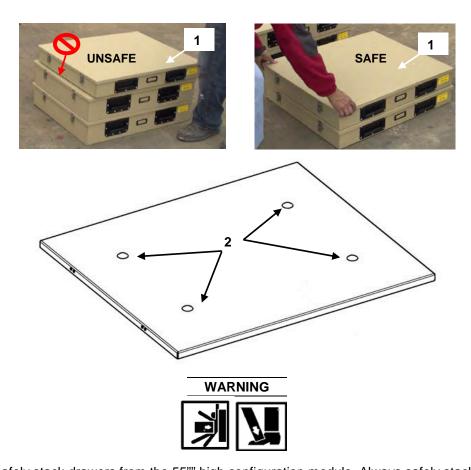
Always press the detent release lever (right side) (3) to release and close the drawer tray when in the fully extended, locked-out position. Shoving against this drawer tray (6) without first pressing this release lever could result in damage to the drawer slides causing the drawer tray to become inoperable.

# **Stacking the Drawers**

1. Remove the remaining drawers (1) and stack the drawers (1) away from the traffic area; align the drawers (1) so the drawer dimples (2) mate.



Always stack the drawers away from the traffic area. Align the drawers (1) in a stack so the dimples (2) (top and bottom) mate to prevent the drawers (1) from sliding off the stack. Failure to follow the procedure may cause injury to personnel or damage to the equipment.



Always safely stack drawers from the 55"" high configuration module. Always safely stack drawers from the 36"" high configuration module. Do not mix or add drawers from other 55" or 36" configuration modules to the stack. Failure to follow procedure may cause damage to the drawers or injury to personnel.

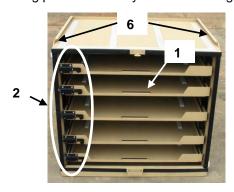
# Remove the Hulls







Always separate the drawers from the trays (1) during assembling or disassembling of the SCM. Ensure all slam latches (2) are engaged. Two personnel are required when lifting full or empty 18" (3) and 30" hulls (4). Avoid lifting with your back, bend your knees slightly; slide and lift in tandem with a partner's assistance. Always use the side handles (5) to control the hull. Always place the hulls out of the traffic area. Failure to follow proper lifting procedures may result in damage to the equipment and injury to personnel.

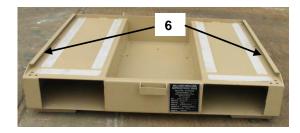


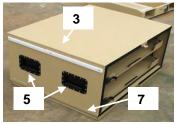


# **NOTE**

The 30" hull (4) and cabinet base have a bezel (6) and track (7) that mate to interlock the stacked components. The 18" hull (3) does not have a bezel (6) on its top and is always the top unit in the stacked 55" configuration.

- 1. With assistance, slide the 18" hull (3) forward until it is clear of the left and right 30" bezels (6); review the component weight table page WP 0005 00-3.
- 2. Place 18" hull (3) assembly out of the traffic area.
- 3. With assistance, slide the 30" hull (4) forward until it is clear of the left and right cabinet base bezels (7).
- 4. Place the 30" hull (4) assembly out of the traffic area.





## **END OF WORK PACKAGE**

# FPU® SYSTEMS OPERATION MANUAL (INCLUDING REPAIR PARTS & SPECIAL TOOL LIST)

Small Cabinet Module (SCM)
BOH FPU Field Pack-up Units

## **ASSEMBLY PROCEDURE**

# Assembling the SCM Module



Do not attempt to deviate from the prescribed SCM module configurations of the 55" high SCM with 30", 18" and cabinet base, or the 36" High with a 30" cabinet and cabinet base. Stacking or mixing additional cabinets will cause damage to the equipment and may cause injury or death to personnel.

#### WARNING



The SCM components are heavy, especially loaded drawers and hulls. Before attempting to lift any component; consult the component weight table pages WP 0005 00-3. When in doubt consult a supervisor and a doctor to ensure that it is safe for the operator and assistant to perform heavy lifting. Failure to follow proper lifting procedures may damage to the equipment and injury to personnel. Always use the handles (1) when lifting any SCM component. Two personnel are required when lifting 18" (2) or 30" (3) empty hulls. Always follow DOD safety procedures. Avoid lifting with your back, bend your knees slightly and lift in tandem with a partner's assistance. Failure to follow proper lifting procedures may result in damage to the equipment and injury to personnel.

#### Install the Hulls

1. With assistance, utilize the side handles (1), lift and maneuver the 30" hull (3) until it is engaged with the right and left bezels of the cabinet base (4); review the component weight table page WP 0005 00-3.



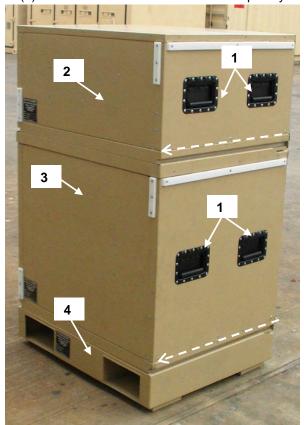


2. Slide the 30" hull (3) and ensure the hull is inserted completely into the cabinet base (4) bezels.





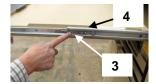
- 3. With assistance, utilize the side handles, lift and maneuver the 18" hull (2) until it is engaged with the right and left bezels of the 30" hull (3); review the component weight table page WP 0005 00-3.
- 4. Slide the 18" hull (2) and ensure the hull is inserted completely into the 30" hull (3) bezels.



## Install the Drawers

1. Release the slam latch (1) on the left and pull the tray (2) out until the detent (3) on the right side tray slide (4) is engaged.







2. Begin inserting the drawers (5) from the bottom first; to maintain balance and avoid tipping the SCM module.







Always load the SCM from the bottom up to maintain balance and avoid tipping the SCM. Always use the handles (6) to maintain control of the drawer (5). Failure to follow procedure may result in damage to the equipment and/or stored material and injury to personnel.



### NOTE

Drawers must always be installed with the 100 lb. label (7) facing the front.

- 3. Insert the back end of the drawer (5) first to align it within the tray (2), then slide it back until the drawer is fully positioned within the tray.
- 4. Release the detent with the detent release lever (3) on the right side slide and push in the drawer until the slam latch (1) is engaged within the hull.

# **CAUTION**

Always press the detent release lever (right side) (3) to release and close the drawer tray when in the fully extended, locked-out position. Shoving against this drawer tray without first pressing this release lever could result in damage to the drawer slides causing the drawer tray to become inoperable.

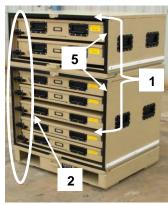
5. Install each drawer in the 30" and 18" hulls (1); ensure all slam latches (2) are engaged.



Always fully close each tray (2) or drawer assembly (5) until the slam latch (1) is engaged within the hull. Failure to follow securing procedures may result in damage to the equipment and/or stored material and injury to personnel.

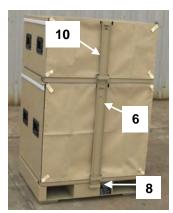


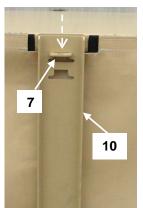


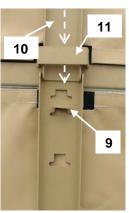


6. Attach the 18" (3) and 30" (4) dust covers on the perimeter Velcro (5).









7. Install the 30" 3G bar (6) first passing the bar through both retaining slots (8) at the bottom of the 30" cabinet and cabinet base and inserting the hasp in the center 30" bar slot (9). Then install the 18" 3G bar (10) by extending the bar through the retaining slot (11) and inserting the hasp in the top 18" bar slot (7). The 18" bar should overlap the 30" bar.

# WARNING





Always ensure the 3G bars (6 and 10) are installed correctly to properly secure the cabinets (1) and prevent any movement. Failure to follow procedure may result in damage to the equipment and/or stored material and injury to personnel.

# **END OF WORK PACKAGE**

# FPU® SYSTEMS OPERATION MANUAL (INCLUDING REPAIR PARTS & SPECIAL TOOL LIST) Small Cabinet Module (SCM) BOH FPU Field Pack-up Units

#### SCM OPERATION UNDER UNUSUAL CONDITIONS

## **OPERATION UNDER UNUSUAL CONDITIONS**

This work package provides instructions for the operation of the SCM modules under unusual conditions. These include adverse weather, nuclear, biological and chemical attack.

# Operation in Rain and/or Mud

- 1. Provide an adequate drainage ditch to prevent standing water around the SCM modules.
- 2. Secure all accessories and containers during extremely harsh rain.

## Operation in Hot Weather

# WARNING



Protective gloves should be worn when handling metal parts in high temperatures. Failure to wear gloves may result in burning or blistering of the skin upon contact.

# Operation in Snow, Ice, or Extreme Cold

# WARNING



In extreme cold, do not touch metal parts with bare hands. Severe skin damage may result.

# **Fording**

Although the drawers are weather resistant, they are not water tight. They should never be submerged in any depth of water or material damage may result. When mounted on a trailer or truck, hard-bottom water crossings should be no deeper than two feet. When in doubt, refer to Unit Standard Operating Procedures.

Interim Nuclear, Biological, and Chemical (NBC) Decontamination Procedures

WARNING







The FPU modules are NOT designed to be operated in contaminated NBC environments. Do not operate the FPU in contaminated NBC environments. If possible, cease operation of the FPU modules prior to an NBC event and close all doors.

**END OF WORK PACKAGE**