

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

CHAPTER 2
OPERATOR INSTRUCTIONS

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OPERATOR INSTRUCTIONS

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

PREPARATION FOR MOVEMENT AND TRANSPORT

Prior to moving the office module either by forklift or within a container, all internal and external components must be properly secured. These tasks include, but are not limited to, the following:

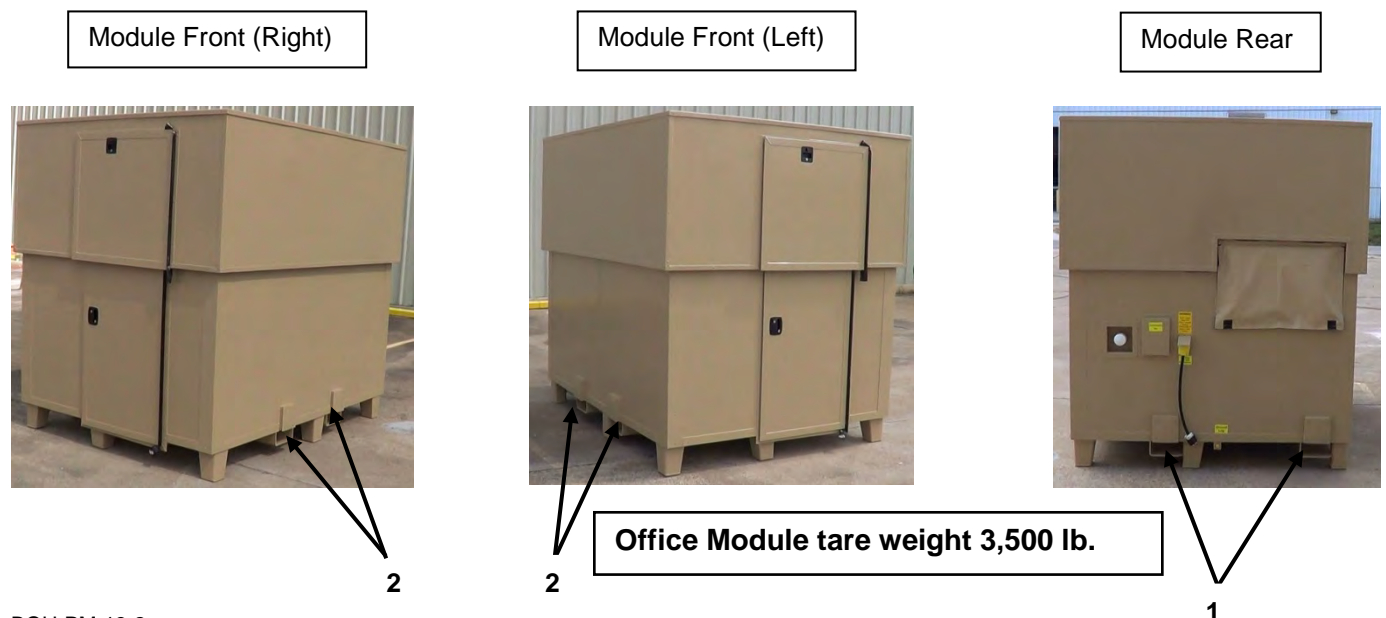
- Lowering the roof height as necessary to fit in transport vehicle
- Securing office equipment utilizing ratchet straps provided on upper shelf
- Securing jack assembly components
- Retracting HVAC unit
- Securing both desk chairs to desk utilizing restraint straps provided

Fork Pockets

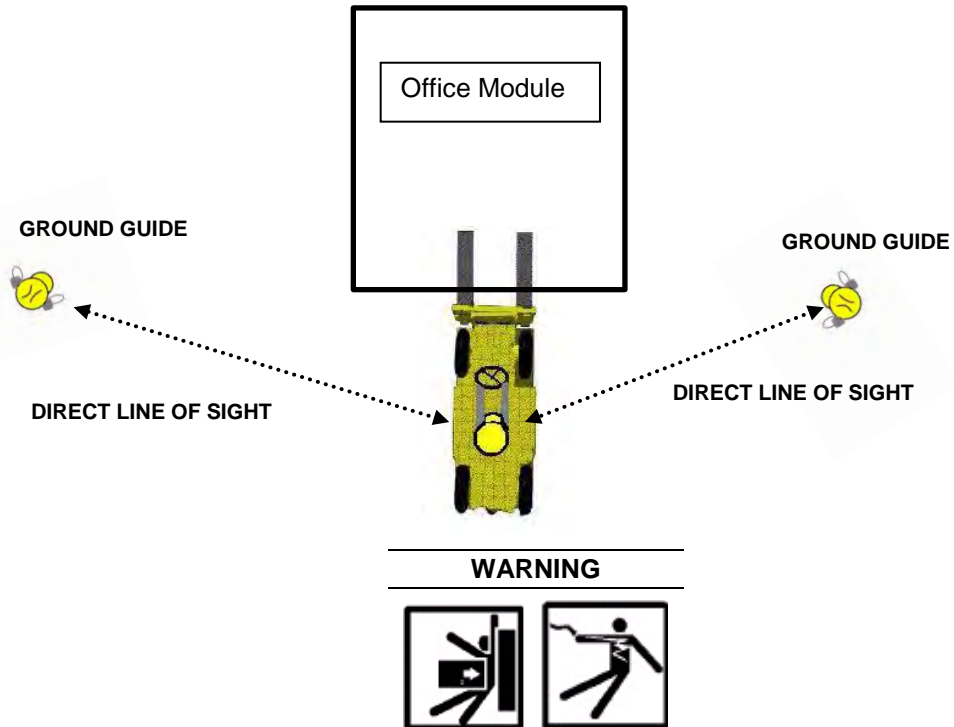
The Office Module is provided with fork pockets in the rear and both sides of the container to facilitate lifting, positioning and loading of the module on FPU containers, transport vehicles and site locations. The office module must be loaded into the FPU container using the rear fork pockets (1) with the door facing out the side of the container. The side fork pockets (2) are typically used for positioning of the office module once outside the container even though the rear fork pockets could be used for this purpose as well.

CAUTION

The office module must be loaded into the FPU-8 or 8-foot section of the FPU-20 container using the rear fork pockets which will orient the office module with the door facing out the side of the container. The office module feet are designed to fit in some, but not all, of the available foot pads set in the container floor cradle. Failure to load the office module in this orientation may result in damage to the container and/or office module. This configuration also allows access into the office module when loaded inside the container.



Positioning Office Module from the transport to the site



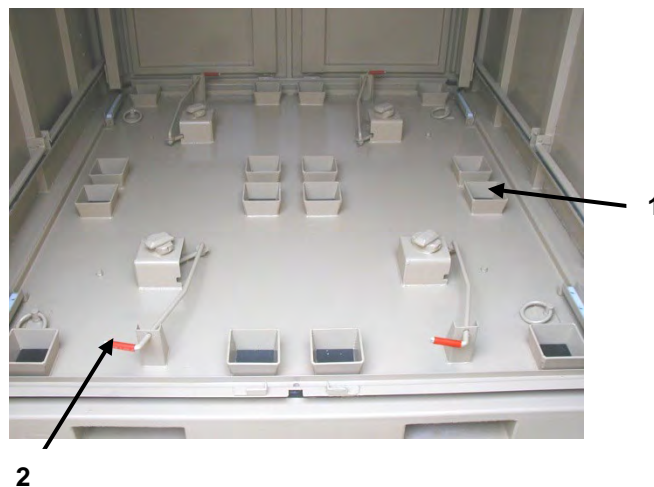
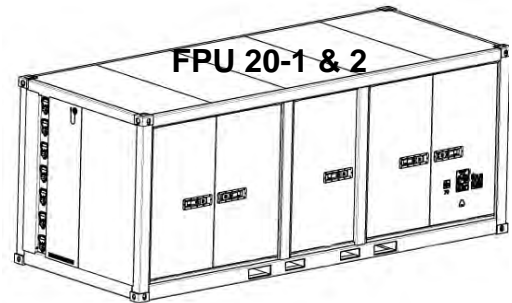
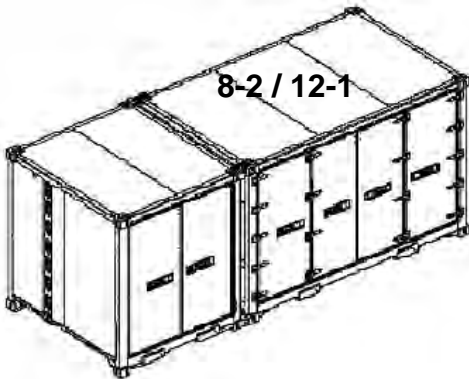
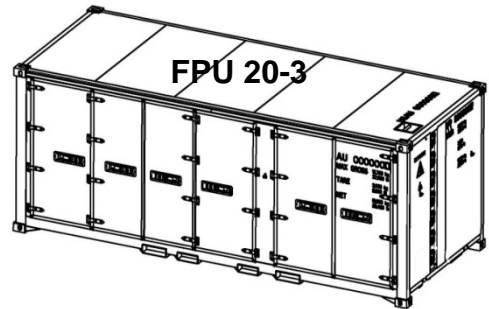
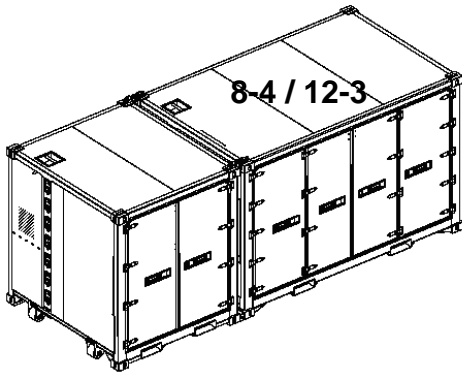
Ground guides and the HME operators must maintain direct line of sight and insure that personnel are clear of the office module during this operation. Overhead power lines and obstructions can cause serious injury or damage to property. Forklift operators, truck drivers and ground guides should always clear overhead when loading, unloading the BOH Office Module.



CAUTION

The Office Module should only be lifted by the fork pockets provided on the left side, right side or rear, never from the front.

Office modules may be secured within the FPU-8-2 and FPU-20-1 and 20-2 by means of the fixed floor cradles and module locking arms (2). They may also be secured within the FPU-8-4 and FPU-20-3 by first inserting removable cradles to the floor of the containers in order to provide the foot pads (1) and locking arms (2).



CAUTION

Verify that the office module is properly seated and the red handle on the module-locking arm (2) is pushed completely to its closed and locked position.

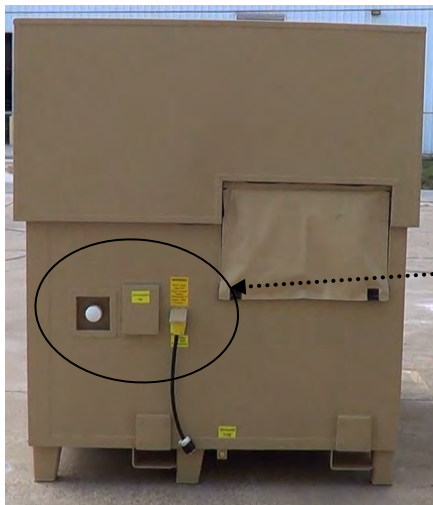
Setup and Preparation

When used outside an FPU container, the Office Module must be placed on a level site to stabilize the module and permit a level working environment.

1. Inspect the site and remove rocks roots and debris that would prevent the module from being placed on a firm level site.



2. Locate the Office Module within proximity of electrical and communications service connections at the rear of the container.



END OF WORK PACKAGE

OPERATOR INSTRUCTIONS

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

OPERATION OF OFFICE MODULE

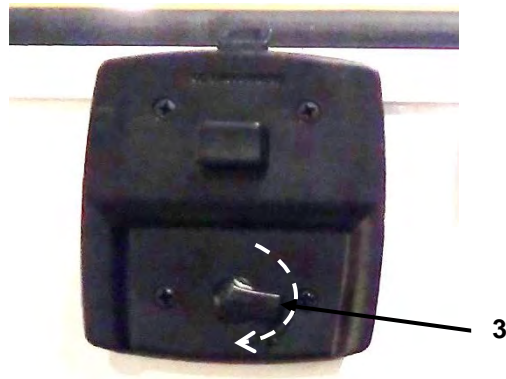
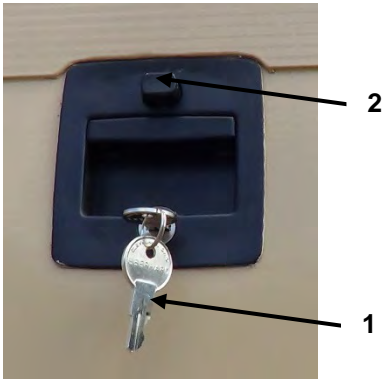
ENTRANCE DOOR OPERATION

The office module entrance door consists of an upper and lower door section which swing and lock independent of each other to allow for the raising and lowering of the roof section.

Upper Door

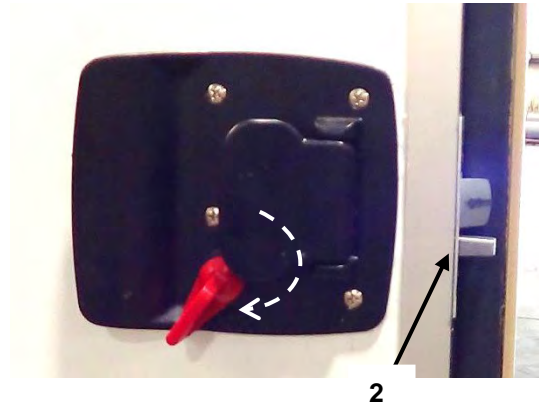
The upper door is hinged to the roof section and overlaps the front of the lower door, which is hinged to the lower main body of the office module. The upper door is lockable with a separate set of keys (1) as the lower door section. The upper door handle is oriented horizontally along the top of the door with a release button catch (2) located on both sides of the door. The door locks from the inside by twisting a thumb lever (3) clockwise.

A spring-loaded chain assembly (4) prevents the upper door from swinging freely open. Since the upper door overlaps the lower door, the upper door then prevents the lower door from also swinging freely open.



Lower Door

The lower door is the larger door of the two and includes a two-point lock system and separate set of keys (1). The top lock can be unlocked from the inside simply by pulling the handle. The bottom lock acts as a deadbolt lock (2) and can be locked from the inside by twisting the red thumb lever clockwise.



END OF WORK PACKAGE

OPERATOR INSTRUCTIONS

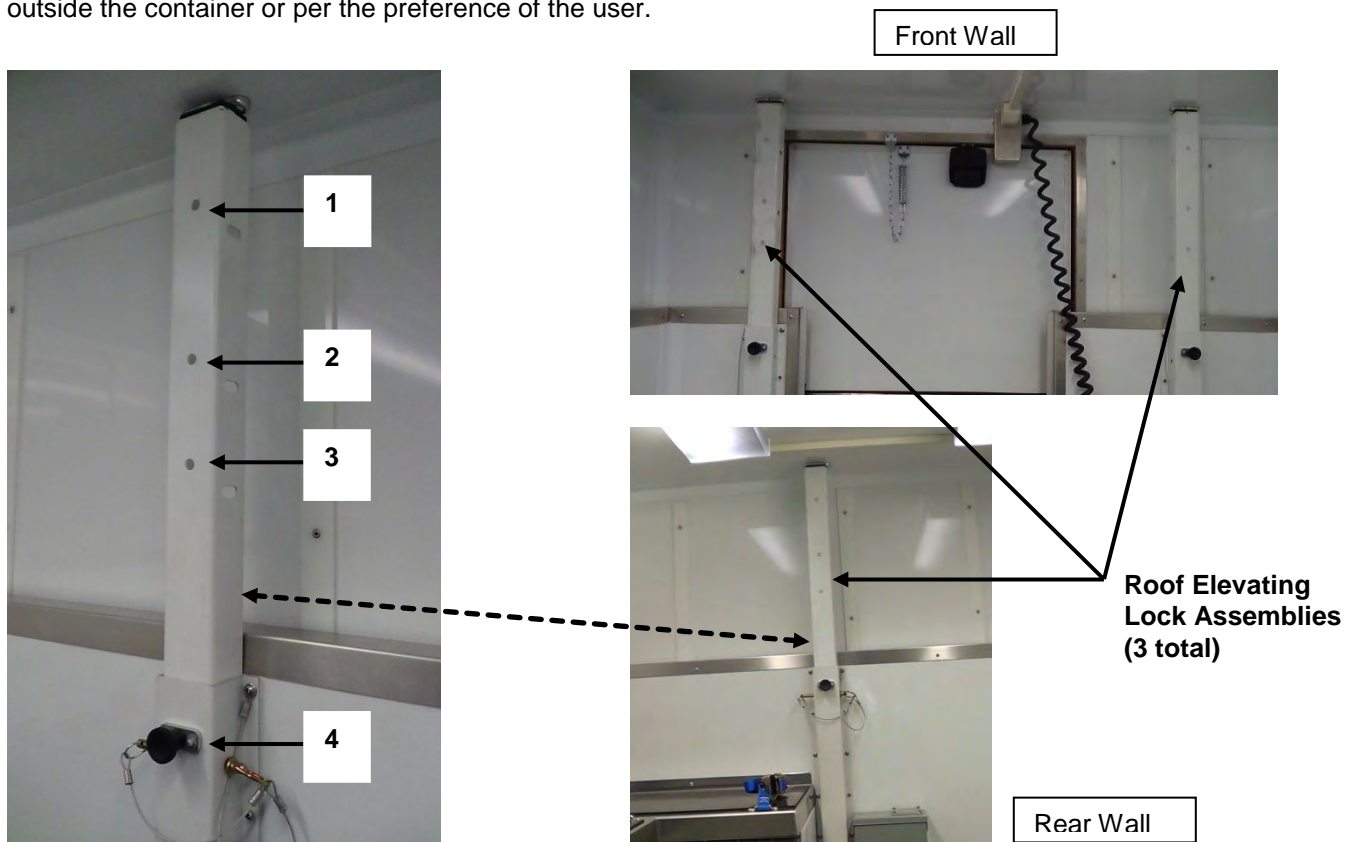
FPU® SYSTEMS OPERATION MANUAL BOH OFFICE MODULE (INCLUDING REPAIR PARTS & SPECIAL TOOL LIST)

BOH FPU Field Pack-up Units

OFFICE MODULE ROOF

HEIGHT CONFIGURATIONS

The BOH Office Module provides the unique capability of raising and lowering the roof of the module to various heights depending on whether the module is to be housed inside an FPU container, stand-alone outside the container or per the preference of the user.



There are 4 height positions available, as evidenced by the different hole adjustments available on the roof elevating lock assembly (5):

1. The 1st and shortest position (1) is the most compact option and requires the least amount of volume within a container. This position does not allow for the HVAC system to be extended into its usable position since the module roof overlaps the back of the HVAC unit. This position is not recommended for use as a full-time office facility and should only be used for transit purposes.
****Internal Ceiling Height = 64"***

CAUTION

The HVAC system shall not be operated in the retracted position as this will cause overheating and damage to the HVAC system.

2. The 2nd position (2) can be used within an FPU-8 or FPU-20 series container should the customer desire this height.
****Internal Ceiling Height = 70"***
3. The 3rd position (3) can be used within an FPU-20 series container should the customer desire this height.
****Internal Ceiling Height = 74"***

WARNING

Should the customer use the office module unit within an FPU container, both sides of the container shall remain open and free of obstructions at all times. Failure to do so will damage the HVAC equipment and may result in injury or death.

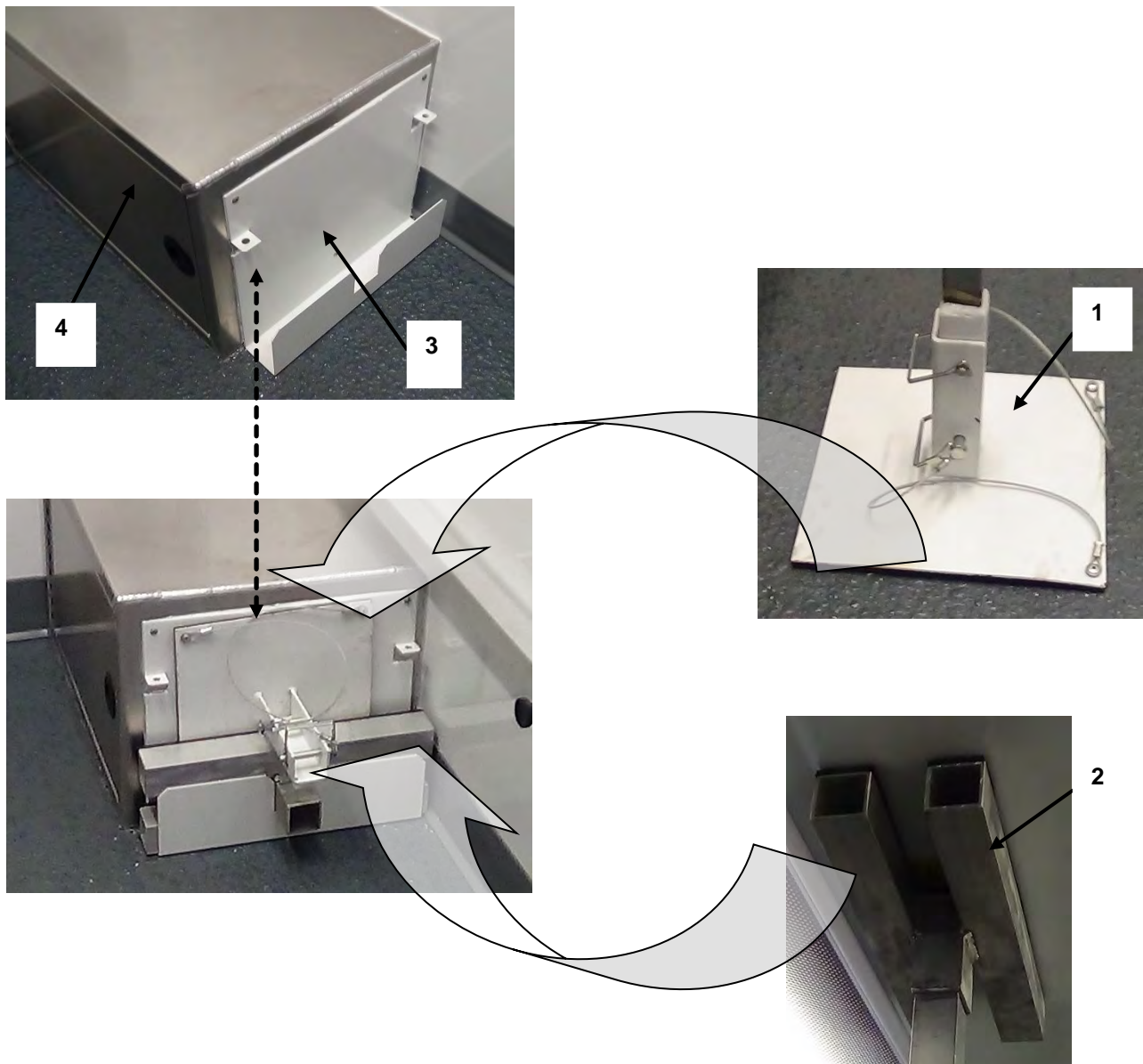
4. The top position (4) shown provides the tallest configuration but is only for use outside an FPU container.
****Internal Ceiling Height = 84"***

ROOF HEIGHT ADJUSTMENT

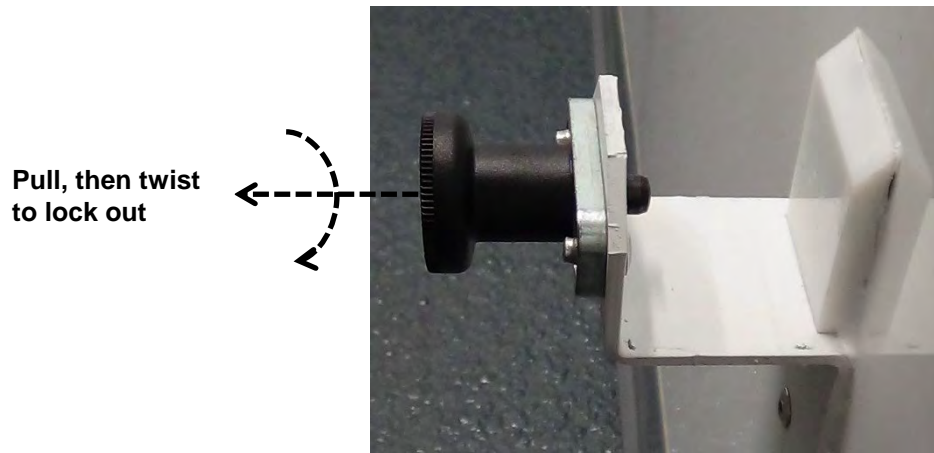
The BOH Office Module provides a jack assembly and roof elevating lock assemblies to safely and properly lift the module roof to the desired height once the module has been transported to its deployed location.

Jack Assembly Storage

The office module provides designated storage locations for the jack assembly within the module. The jack base assembly (1) is stored along with the hat (top) assembly (2) in the metal sleeve (3) adjoining the storage cabinet (4). The hat assembly center post rests within the notch cut out in the sleeve. The base assembly then rests directly behind and on top of the hat assembly as shown below.



The jack device and main subassembly (1) is secured within the office module against the wall opposite the desk by two wall brackets (2). These brackets include a spring-loaded knob (3) that secure to the main subassembly by locking into two designated holes (4) in the side of the subassembly. The subassembly can be removed from these brackets by a simple pull and twist of the knobs until they lock in the out position (5).



Once the main jack subassembly, base assembly and hat assembly have been removed from their storage locations, the complete jack assembly can be connected.

Procedure for Raising the Roof

WARNING

The Pop-up roof component of the office module is held in place and positioned by the 3 roof elevating lock assemblies found inside the container. While it is possible for the roof to be separated from the main bottom component of the office module, it is not recommended this be performed by anyone other than the manufacturer.

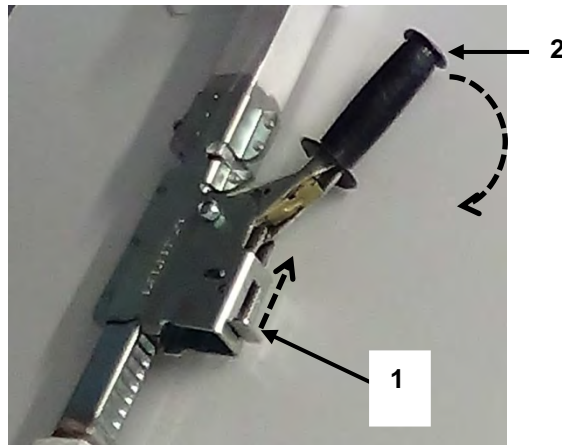
1. First, remove the chairs from the office module and any other equipment which may interfere with the jack operation.
2. Position the jack base on the floor directly beneath the yellow and black sticker on the ceiling which reads "PLACE JACK HERE."



3. Insert the hat assembly on the end of the main subassembly opposite the white end. For proper orientation, position the hat assembly on the subassembly so the two horizontal posts on the hat assembly are perpendicular to the direction of the jack crank handle.
4. With the base assembly pins removed, insert the main subassembly on the jack base. For proper orientation of the completed assembly, position the main subassembly in the base where the jack crank handle is pointing toward the wall opposite the desk.



5. Insert the base assembly pins and lock.
6. Once all jack assembly components are secured, begin operation of the jack. To properly operate the jack, first move the bottom lever (1) to the up position. Then begin cranking the jack handle (2) in a downward motion. This will enable the jack carriage to climb up the toothed jack bar thus extending the height of the jack assembly.
7. Once the jack assembly hat reaches near the ceiling and prior to making contact, ensure the hat assembly is centered on the ceiling sticker with the two hat posts oriented perpendicular to the black stripe on the sticker and parallel to the adjacent light fixture.



8. Continue jacking until solid contact is made between the hat assembly and the ceiling.

WARNING

Ensure the completed jack assembly is centered on the sticker and is in a straight vertical position. Failure to comply could result in damage to equipment, injury or death.

9. Pull the lanyard pins from the side of the roof elevating lock assemblies.
10. Pull and twist the spring-loaded knobs from the front of the roof elevating lock assemblies until the knobs are locked in the out position. The internal post and external casing of the lock assemblies should each have holes in alignment.

WARNING

Ensure the pins have been removed and knob is disengaged and locked in the out position before jacking. Failure to comply may cause the roof connecting bracket and lock assembly post to separate, which may cause damage to equipment and make the roof unstable.

11. Continue jacking until the internal post of the lock assemblies have moved up and the hole is no longer visible.
12. Twist the knobs on the lock assemblies to unlock which will allow the knob to press against the internal post and act as a failsafe.
13. Proceed with jacking until the knobs engage the next hole position.
14. Repeat steps 10 through 13 until the desired roof height is reached. Then continue to step 15.

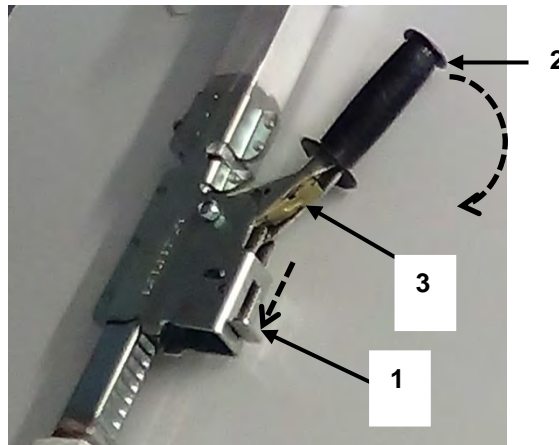
CAUTION

Under no circumstances shall the roof be extended past the 4th hole position. Failure to comply may cause damage to the roof elevating lock assembly and may make the roof and jack unstable. Any maintenance requiring the removal of the roof shall be coordinated directly with the manufacturer.

15. Lock the lanyard pins in the designated holes in the side of the lock assembly casing.
16. Once all 3 elevating lock assemblies have been secured at the desired height, the operation to lower the jack can commence. To properly retract the jack assembly, first move the bottom lever (1) to the down position. Then begin cranking the jack handle (2) until the hat assembly is no longer secured against the ceiling. The jack assembly can then be fully retracted by either cranking all the way down or by pulling the quick release lever (3) located just below the jack handle.

WARNING

Before pulling the quick release lever (3), always crank down the ceiling first to disengage the hat assembly from the ceiling and ensure the ceiling is secured by the elevating lock assemblies. Failure to comply could result in serious injury or even death.



17. Disassemble the jack assembly components and reposition them back in their designated storage locations.

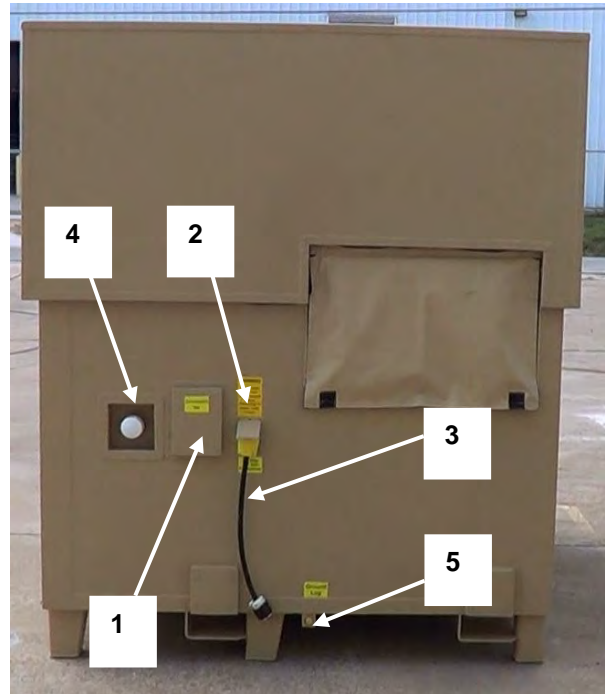
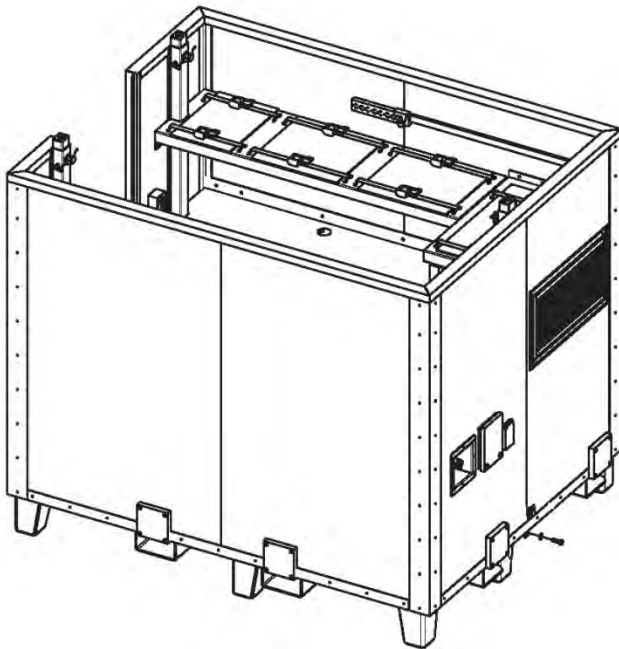
Procedure for Lowering the Roof

1. Repeat steps 1 through 8 from the Raising procedure to secure the completed jack assembly against the office module ceiling.
2. Pull and twist the spring-loaded knobs from the front of the roof elevating lock assemblies until the knobs are locked in the out position. The internal post and external casing of the lock assemblies should each have holes in alignment.
3. Begin cranking the jack down until the internal post of the lock assemblies have moved down and the hole is no longer visible. See Raising procedure for crank operation.
4. Twist the knobs on the lock assemblies to unlock which will allow the knob to press against the internal post and act as a failsafe.
5. Proceed cranking the jack down until the knobs engage the next hole position.
6. Repeat steps 2 through 5 from this section until the desired roof height is reached. Then continue to step 7.
7. Lock the lanyard pins in the designated holes in the side of the lock assembly casing.
8. Once all 3 elevating lock assemblies have been secured at the desired height, the jack assembly can be fully retracted. See Raising procedure for crank operation.
9. Disassemble the jack assembly components and reposition back in their designated storage locations.

END OF WORK PACKAGE

OPERATOR INSTRUCTIONS**FPU[®] SYSTEMS OPERATION MANUAL
BOH OFFICE MODULE
(INCLUDING REPAIR PARTS & SPECIAL TOOL LIST)
BOH FPU Field Pack-up Units****ELECTRICAL SYSTEM****Electrical and Communications Connections**

The Office Module is provided with a communication connection box (1), a 120V outlet (2) with protective weather cover and connection cable (3), cable pass-through (4) and external ground lug (5).



Establishing Power Supply

The Office Module supplies an electric adapter cord and 30A 120V outlet to connect to electrical supply source.

1. Before any electrical connections are made, enter the Office Module and ensure the main circuit breaker and all the circuit breakers are turned off. Also ensure the main power source has been turned off.
2. Establish a grounded connection at the electrical supply source.
3. Insert angle plug cord (yellow end) into office module.
4. Connect the white end of the cord to the power source (extension cord likely required).
5. Turn on the main power source. Then turn on all office module circuit breakers.

WARNING

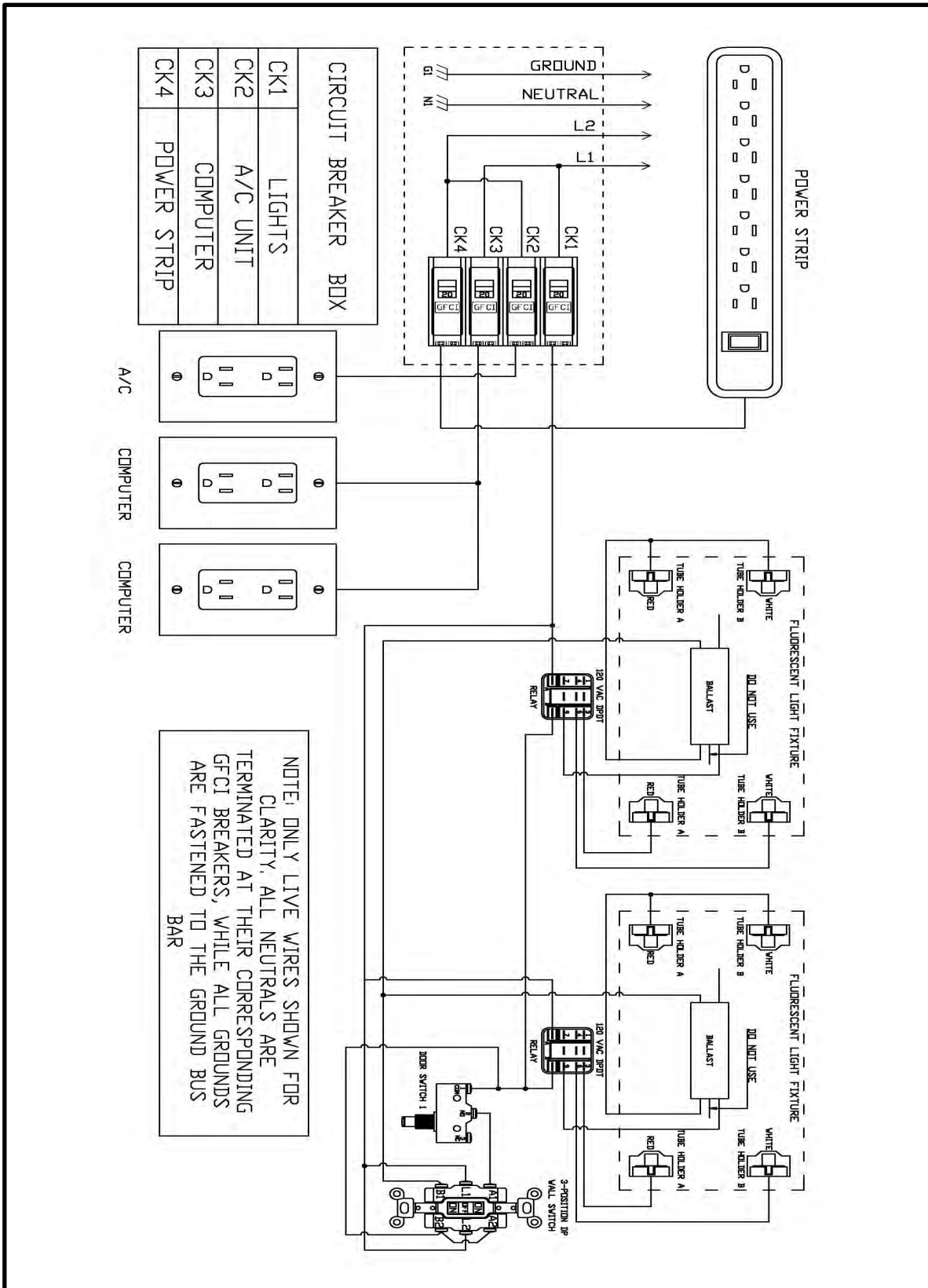


Ensure all circuit breakers and the main power source is switched off before making electrical connections. Ensure the proper cable connectors are installed by a certified electrician Army MOS 21R and match the power source. An electrical ground must be established first to prevent electrical shock to personnel. Consult ARMY TM 5-811-3 Chapter 2 and MIL-HDBK-633A.



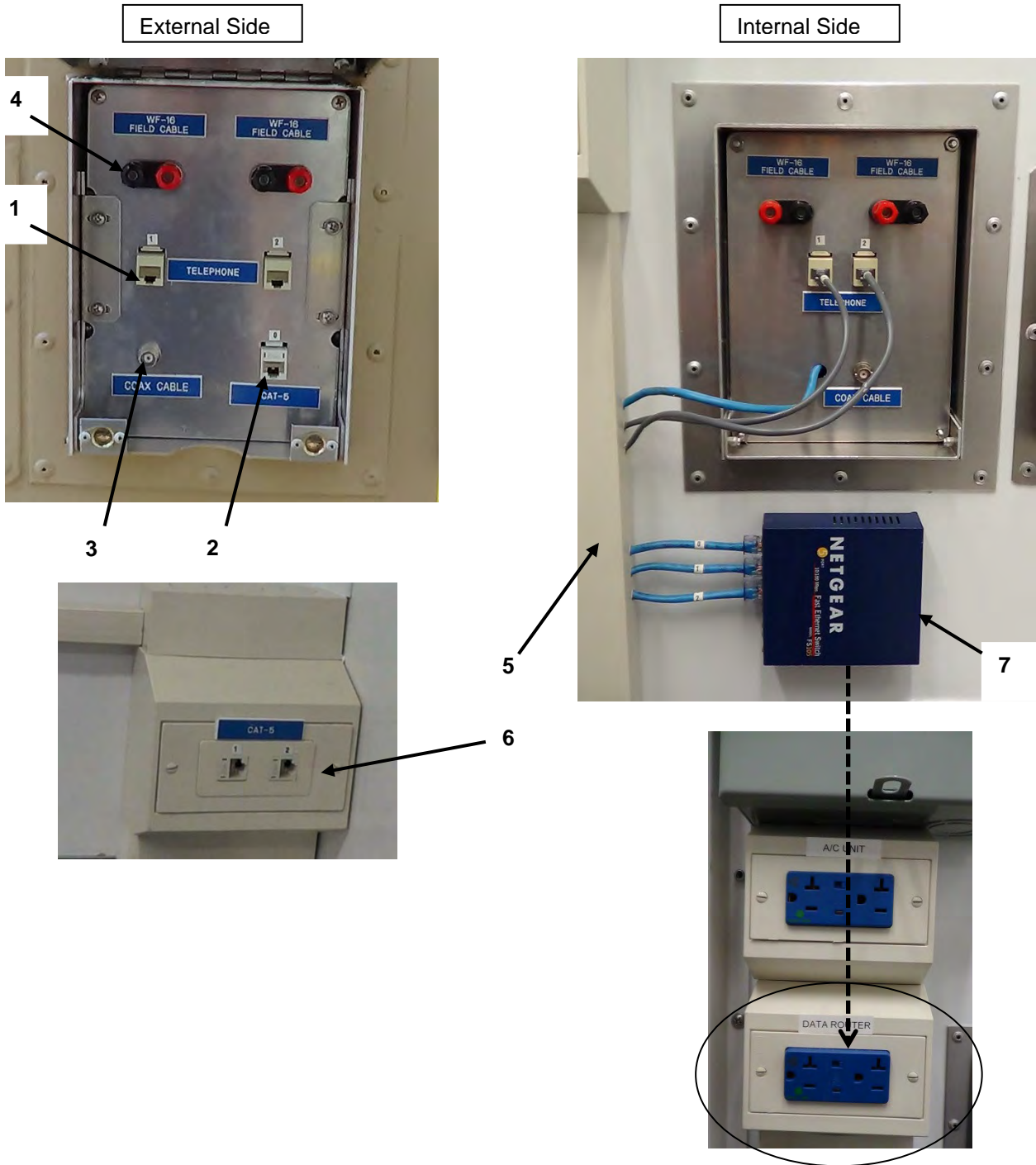
**Turn off all breakers
before connecting
power source**

Electrical Wiring Diagram



Establishing Communication Lines

The Office Module supplies 4 sources of communication lines: dual Cat-3 (telephone) (1), Cat-5 (internet) (2), coaxial cable (3) and dual WF-16 field cable (4). The internal connection side of the communication box is pre-run for Cat-3 and Cat-5 through raceways (5) to designated user connection plugs. Dual Cat-5 plugs (6) are located above the upper shelf, and dual Cat-3 plugs are located below the desk adjacent to a dual electric outlet. A Netgear Ethernet switch (7) is provided to supply the dual Cat-5 connection. The Ethernet switch has a designated electrical outlet (labeled) below the breaker box.

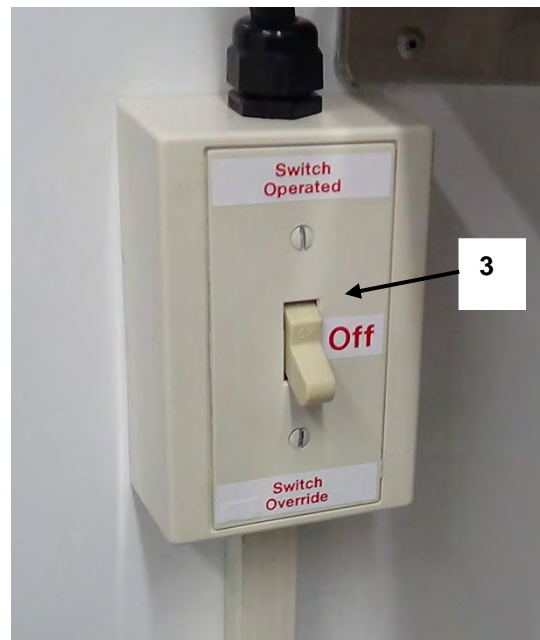
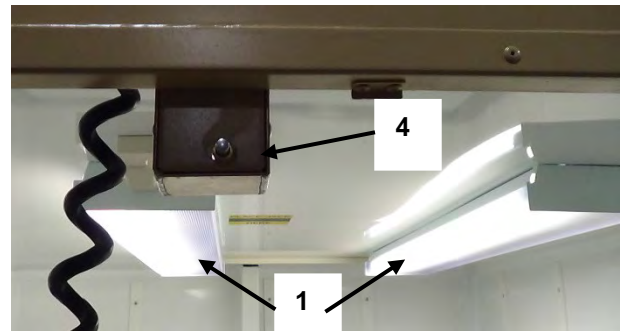
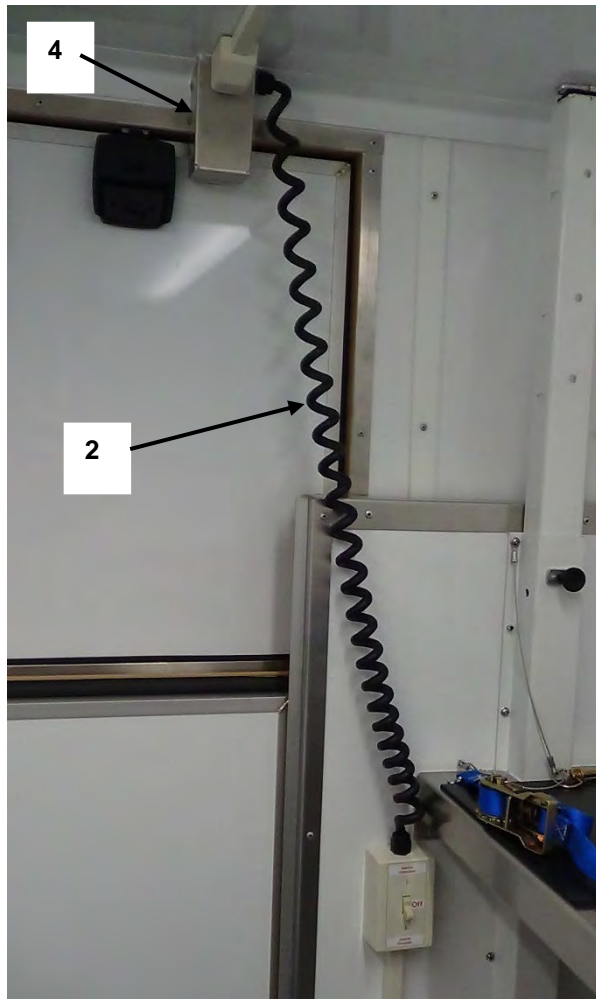


Office Module Lighting Systems

The Office Module is internally lit by two sets of light fixtures (1), each with a fluorescent white and red bulb.

NOTE

The curled electric cord (2) connected between the light switch (3) and lighting interrupter switch (4) mounted above the door powers the lights.



The lights are controlled by a 3-way light switch (3) located to the right of the door. The 3 settings on the switch include the lower "Switch Override" setting, "Off" setting, and upper "Switch Operated" setting.

- The "Switch Override" setting acts simply as a white light "on" option.
- The upper "Switch Operated" setting includes a red light feature which is activated when the door is opened. By opening the door, the lighting interrupter switch (5) mounted above the door is then triggered activating the red light feature.



Activated Red Lighting

OFFICE MODULE HVAC SYSTEM

The Office Module comes equipped with an 8,000 BTU HVAC unit located at the rear of the module above the desktop. Refer to Operating Instructions and General Specs found in the Appendix for product details.

HVAC Setup

1. Prior to pushing the HVAC into the extended position, first detach the vinyl cover (1) on the rear exterior of the office module.

CAUTION

The HVAC unit must be extended in the "out" position before operating.

2. Push the HVAC evenly from the bottom pan (2) until the unit is fully extended outside.

CAUTION

When pushing the HVAC unit into the extended "out" position, push from the bottom pan. Do not push directly against the HVAC plastic front as this may cause damage to the unit.

(Provided straps not shown)

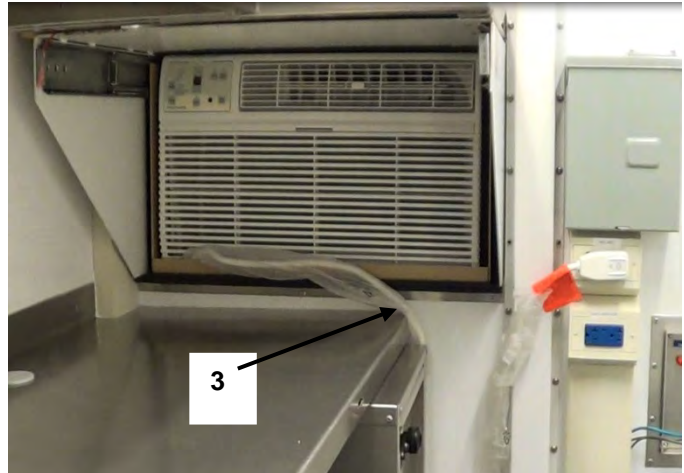
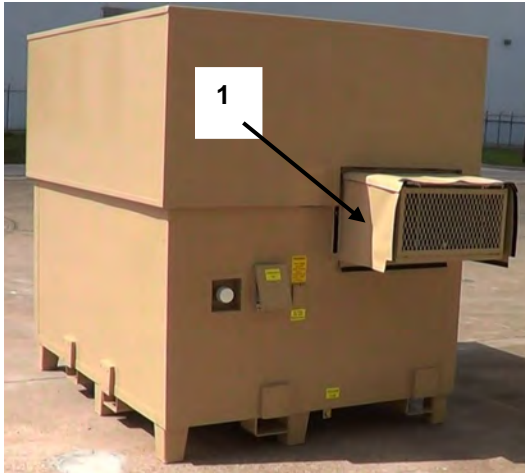


Retracted HVAC Position

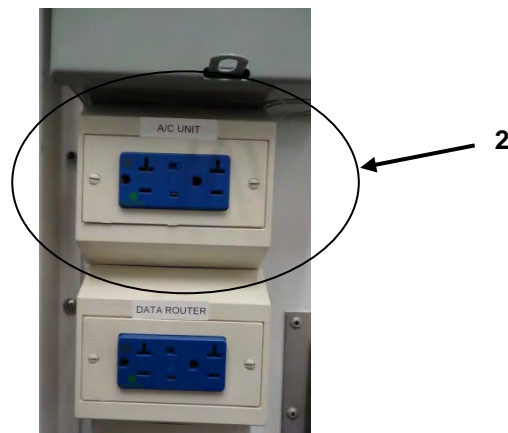
Should the unit be difficult to push into the extended position, it may be necessary to push the unit in evenly from the outside first. This will help better align the unit when attempting to push out.

3. Once the unit is fully extended, attach the velcro covers (1) together with the top cover overlapping the two side covers.
4. Plug the HVAC into the designated electrical outlet (2) located just below the breaker box. The cord can be tucked behind the side of the desk (2) so it does not conflict with the desktop work area and/or the file cabinet drawer.

(Provided straps not shown)



Extended HVAC Position



HVAC Preparation for Transport

1. First, remove all obstructions in front of the HVAC unit inside the office module and unplug the unit.
2. Detach the velcro covers outside the module to expose the HVAC left and right slides.
3. Depress the slide buttons on both slides simultaneously to begin pushing the HVAC unit into its retracted position.



4. Once the HVAC unit is fully retracted, lift up the top cover, overlap the two side covers, and velcro them together. Then lay the top cover over the side covers and velcro.



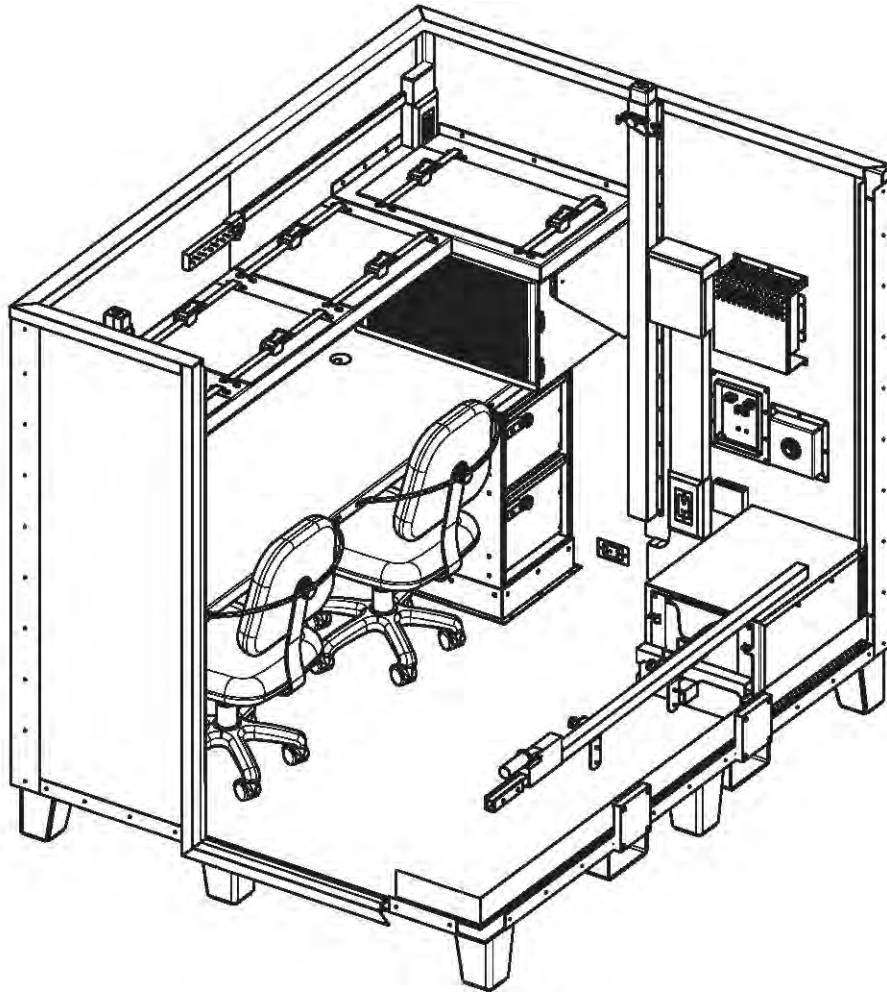
CAUTION

Before retracting the 8000 BTU HVAC Unit into the Office Module, ensure there is no standing water in the catch pan. Ensure the HVAC is properly serviced before the Office Module is deployed in extreme heat or cold conditions.

END OF WORK PACKAGE

OPERATOR INSTRUCTIONS**FPU® SYSTEMS OPERATION MANUAL
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(INCLUDING REPAIR PARTS & SPECIAL TOOL LIST)
BOH FPU Field Pack-up Units****OPERATION OF INTERNAL COMPONENTS**

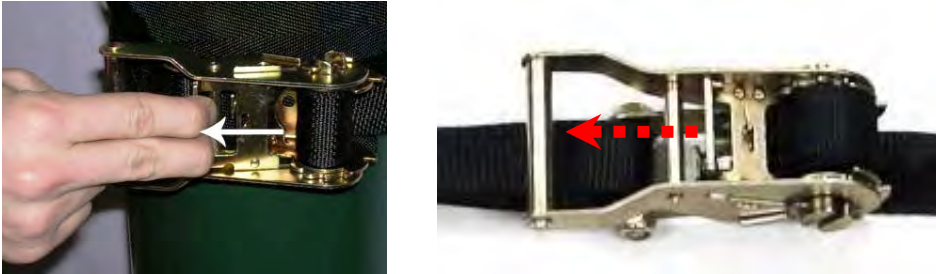
The internal components provided within the office module are designed for 2-person office use. These components include a general storage cabinet, 2-drawer file cabinet, desktop, 2 chairs, upper shelf with ratchet straps, HVAC system, jack assembly and electrical and communication hookups.

**NOTE**

Roof and walls removed for clarity

Upper Shelf Ratchet Strap Operation

To release the ratchet straps, pull the release bar as shown.



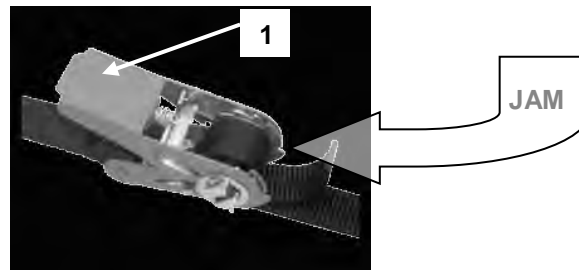
WARNING



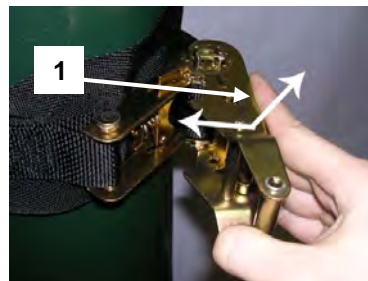
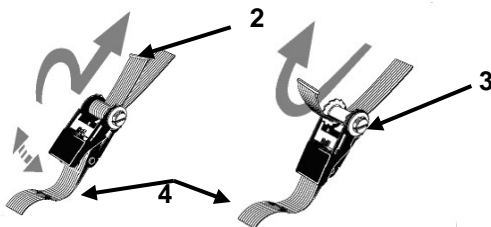
You must check all straps for proper threading and tension. Refer to these following instructions for each strap. Failure to do so may cause equipment damage or injury.

CAUTION

Do not operate the ratchet handle (1) until all the slack is taken up by hand or the strap will ball up and jam against the release lever. Do not over tighten the straps; this will cause damage to the straps, hooks or equipment.



1. Ensure the strap hooks are properly set.
2. Feed the blank end (2) of the strap through the slotted barrel (3).
3. Take up the excess strap slack (4) by hand until the strap is snug.
4. Tighten the strap with the ratchet handle (1) until the strap is firm and tight.



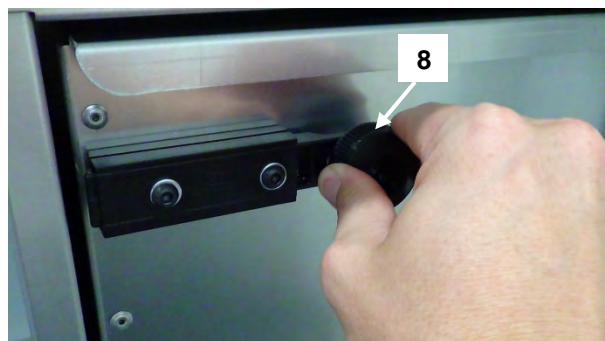
Storage Cabinet

The storage cabinet (5) is a general storage space located across from the file cabinet in the rear right corner of the office module. The cabinet door is opened by pulling the ring latch (6) on the front of the door. The ring latch will click back into place once the door is securely closed. The jack assembly storage sleeve (7) is riveted to the side of the cabinet.



File Cabinet

The file cabinet (7) is a 2-drawer system located below the desk and HVAC against the rear wall of the office module. The drawers include internal guides to hang file folders. Each cabinet drawer is opened by pushing the knob latch (8) to the right until the catch has been fully retracted and the drawer can open freely.



END OF WORK PACKAGE

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OPERATOR INSTRUCTIONS

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

OPERATION UNDER UNUSUAL CONDITIONS

INITIAL SETUP:

Office Module Downloaded, Storage and Setup

Maintenance Level

Operator/Crew

Personnel Required

Two (plus one supervisor)

OPERATION UNDER UNUSUAL CONDITIONS

This work package provides instructions for the operation of the Office Module under unusual conditions. These include adverse weather, nuclear, biological and chemical attack, and emergency blackout conditions.

Operation in Rain and/or Mud

1. Provide an adequate drainage ditch to prevent standing water around the Office Module.
2. Secure the office module during extremely harsh rain.

Operation in Extreme Hot or Cold Weather

1. Ensure the HVAC is properly serviced before deployment to extreme heat and cold conditions.

WARNING



In extreme heat or cold, do not touch metal parts with bare hands; wear appropriate gloves. Failure to comply may result in severe skin damage.

Fording

The Office Module is not watertight. It 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 no deeper than approximately two feet can be forded. When in doubt, refer to Unit Standard Operating Procedures.

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

The Office Module is NOT designed to be operated in contaminated NBC Environments. Do not operate the module in contaminated NBC environments. If possible, cease operation of the Office Module prior to an NBC event and close all doors.

END OF WORK PACKAGE