GENERAL PROCEDURES FOR UNIT

!WARNING!
W9. Fueling
Be careful when fueling. Clean up any spilled fuel IMMEDIATELY. Spilled fuel creates a hazardous fire condition which can result in SEVERE PERSONAL INJURY OR DEATH!

!WARNING!
W14. Starting Aids
DO NOT use ether as a cold weather starting aid. The heat from the glow plugs may cause a sudden ignition of the ether vapor. This may result in PERSONAL INJURY or DAMAGE to the generator engine.

!WARNING!
W15. Engine Exhaust (Carbon Monoxide is Deadly!)
Carbon monoxide is an odorless, colorless gas, formed by incomplete combustion of hydrocarbon fuels. Carbon monoxide is a dangerous gas that can cause unconsciousness and is potentially lethal. Some of the symptoms or signs of carbon monoxide are:

DIZZINESS
INTENSE HEADACHE
WEAKNESS & SLEEPINESS
VOMITING
MUSCULAR TWITCHING
THROBBING IN TEMPLES

CAUTION!
C1. Procedures Used During Transport:
Prior to moving the unit, perform the pre-transport checks and a thorough walk around inspection of the Mobile Surgery Unit™. Refer to Section 3 Pages 38 and 39.

CAUTION!
C6. Parking the Unit
The unit should not be parked over underground utility lines OR parked beneath utility lines.

CAUTION!
C7. Surface Weight Capacity
Be cognizant of the load-bearing capacity of the parking surface with regard to underground parking, buildings or other sub-structures.

During transport of the unit be especially aware of all conditions or hazards that might affect the MSU. It is critical that the any overhead obstructions provide clearance such as low bridges, tree branches, electrical wires, building overhang, and any other hazard or obstruction. At all times be aware of the dimensions of the unit in all directions including the underside clearance. Always project the path of the unit to include the turning radius restrictions. It is recommended that an unfamiliar route (especially in a confined area) should be pre-run with a smaller vehicle to survey any restrictions, hazards or obstructions. When transporting the unit during heavy traffic it is helpful to use an escort vehicle to block traffic during turns and tight maneuvers. The doors should be locked at all times using the locking plate on each door.
SET-UP PROCEDURE - EXTERIOR

1. Open the 12-volt compartment door located at the rear wall outside the unit (need a key to access). Turn the hydraulic red rotary switch to the “ON” position. Unlock the belly box door by depressing the top “Unlock” of the belly box door switch.

   NOTE: To avoid burning out the door lock actuators, the switch should return to center after operation. Do not hold the switch in the “unlock” position for more than a couple of seconds.

   CAUTION!
   C16. Leveling the Unit

   Prior to deploying expandable walls, it is very critical that you verify by checking the levels on the unit that the trailer body is in a level position from side to side and front to back.

   CAUTION!
   C.21 Hydraulic Pumps

   Hydraulic pumps run constantly when lever is activated to raise or lower landing and leveling gear and stabilizer jacks. Prolonged running of pumps can deplete 12-volt battery power which will cause you to not be able to raise or lower unit. Turn off when not moving the leveling, landing gears or stabilizer jacks.

2. Belly boxes are opened by folding out the “T” handle located on the bottom of the door and rotating counterclockwise ½ turn. Open all belly boxes in preparation of removal of all equipment and tools to set-up the unit.

3. Retrieve the four (4) wooden support pads from #3 curbside belly box and place one beneath each of the four (4) landing and leveling gears. Remove the two aluminum stands from the #6 roadside belly box and place one below each stabilizer jack located just in front of the rear bumper of the unit. Lower the jacks as required onto the center of the stands. These jacks are designed to provide support and must be placed in position before leveling the unit. DO NOT PROCEED UNTIL YOU HAVE READ INSTRUCTIONS #3, 4, 5, 6 AND 7.

4. The landing gear control box is located on the curbside of the unit at the front corner (need key to access panel). There are two rocker switches in the box. The right switch controls the roadside landing gear. Push “up” to raise the unit and press “down” to lower the unit. The left switch controls the curbside landing gear. Push “up” to raise the unit; press “down” to lower the unit. NOTE: The hydraulic pump runs “on demand” and may take a couple of seconds to build pressure when the switches are activated.

5. The leveling gear control box is located on the curbside of the unit at the rear corner (need key to access panel). There are two rocker switches in the box. The right rocker switch controls the roadside leveling gear and stabilizer jack. The left rocker switch controls the curbside leveling gear and stabilizer jack. By pushing up on this rocker switch the unit is raised; by pushing down on this rocker switch the unit will be lowered. Both the roadside and curbside leveling gears can be activated.
simultaneously to raise and lower the unit or each rocker switch can be activated individually to level the unit.

6. Raise the unit using the landing gear first and disengaging the tractor from the unit. Move the tractor forward approximately four (4) feet in front of the unit to allow access to the equipment on the front wall. Using both the landing and leveling gears level the unit as indicated in steps 4 and 5.

**CAUTION!**

C12. **Belly Box Lights or Emergency Light Packs**

DO NOT leave belly box lights on for extended periods of time. Ensure all emergency light battery packs are off or disconnected when unit is not connected to a power source. When left on they could cause the batteries to run down or fail.

7. Located on the unit are levels for leveling the unit with the landing and leveling gears. There is one level located on the front exterior wall, one at the rear exterior wall, one inside the #6 curbside belly box, and one located in the #4 roadside belly box. Use these levels to level the unit prior to opening the expandables. Ensure that the unit is leveled both from front to rear and from side to side utilizing the levels provided as described above. When the unit is level, ensure that the rotary switch in the 12-volt compartment is turned to the “off” position and that both hydraulic access doors, front and rear, are closed and locked.

8. Install the four safety pins into the landing and leveling gear before proceeding.

9. If conditions require, turn the DC Panel Switch, located in the #4 roadside belly box compartment, to the “on” position. This will allow use of the lights located on the ceiling of each belly box. Each light is equipped with an “off” switch to turn it off. Conserve 12-volt power by turning off lights when not needed.

10. Remove the four (4) white support posts located in the #4 roadside belly box, along with the toolbox. One (1) bolt and nut, two (2) plates and one (1) post will be placed at the corner of each expandable wall approximately seven (7) feet from the side of the unit to be used later in this procedure. Two (2) posts will be placed on the roadside and two (2) posts will be placed on the curbside of the unit.

11. Remove the yellow control module from the #1 roadside belly box to be used to hydraulically expand the walls of the unit into operable mode.

**CAUTION!**

C15. **Landing**

Use two people to position the landing to avoid losing control of the landing.
CAUTION!

C20. Stairs
Use two people to lift and position stairs for both use and transport in order to avoid injury upon lifting or losing control. The stairs are unwieldy, but are not heavy. Take caution when stepping onto platform of the tractor as not to lose your balance. Area may be slick in cold climates. Always use handles to assist in mounting or exiting the rear of the tractor.

12. Remove the two (2) sets of steps and landings from the back of the tractor and place each labeled set approximately ten (10) feet away from the unit in line with the two (2) doors on the unit. The roadside door with the handicapped lift is the main door and the curbside door is the emergency exit door. Remove the handrails, support legs, and bridge from the #6 curbside belly box and place them next to the steps and landings. Each set is also labeled to indicate the appropriate door for correct placement.

CAUTION!

C12. Belly Box Lights or Emergency Light Packs
DO NOT leave belly box lights on for extended periods of time. Ensure all emergency light battery packs are off or disconnected when unit is not connected to a power source.
When left on they could cause the batteries to run down or fail.

13. Each of the three (3) exterior doors is secured by a transport lock located at the bottom corner opposite the door hinges. Loosen the set bolts with a wrench, slide the plate from in front of the door then re-tighten set bolts. Unlock the Emergency Exit and exterior Soiled Utility Room transport locks at this time; the main exterior door transport lock will be unlatched at a later time. Open the Emergency Exit door on the curbside (key required for access) and latch it open by inserting the pin into the holder on the exterior wall. Retrieve the ladder and take it to the Soiled Utility Room exterior door on the roadside. Unlock (key required for access) and open the door and latch it open by inserting the pin into the holder on the exterior wall.

14. Remove the 75’ cable from the #3 curbside belly box if you will be connecting the unit to shore power. Remove ground rods from the #1 curbside belly box. Retrieve the sledge hammer from the tool area in the belly box. Remove the 25’ generator cable, the ground rod cable, and, if the generator will be used, remove the remote generator cable as well from the front compartments located under the HVAC. You need a key to access these compartments. A certified electrician must perform power configuration tasks.

WARNING!

W3. Shorelines
W3. Shorelines and Generator Lines
Shorelines and generator lines are heavy! Use proper lifting techniques to avoid injury.
!WARNING!
W6. Power Sources
Use care when working around any power sources. Ensure lock outs are in place before proceeding.
Failure to use caution may result in DEATH, SHOCK, FIRE, OR EQUIPMENT FAILURE AND/OR DAMAGE.

!WARNING!
W7. Electric-Shock Hazard
This unit is supplied with high electric voltage and current. This voltage and current could cause serious injury or DEATH! Always use care when working around the electrical system. Turn the POWER OFF AND LOCK OUT prior to performing any maintenance on the electrical equipment.

It is recommended that all initial electrical connections to the outside power source be done by a competent licensed electrician. BEFORE turning on any breakers or electrical equipment inside the unit, personnel MUST check the phase sequence meter located in the main power panel for proper hook-up.

When checking the circuit breakers, refer to the electrical system section of this manual. Circuit breakers are either automatic or manual re-set type. If circuit breakers continue to trip, have the electrical system serviced.

All circuits are tested and inspected in accordance with Underwriter's Laboratory and the National Electrical Code - National Fire Protection Association (N.F.P.A. # 70). No attempt should be made to alter the wiring system.

!WARNING!
W8. Ground Rods Installation
This unit is supplied with high electric voltage and current. This voltage and current COULD CAUSE serious injury or DEATH! Always use care when working around the electrical system. To insure the provision of an adequate ground at all times the grounding rods MUST be installed before the generator is started or the shore-power is connected.

It is recommended that the safety ground is connected to approved metal rods driven into the earth at the designated width apart and to the designated depth as required by local code. As an alternate ground connection, an existing approved grounding location can be used if it meets the local code requirements. The safety ground MUST be maintained until the unit is shut down for movement to a new location. The last connection that should be removed is the safety ground.

CAUTION!
C10. Electrical connections to outside power sources
ALL initial electrical connections to outside power sources and any electrical system service should be completed by a competent licensed electrician.
15. All power sources must be locked out before proceeding with electrical installation. Using the sledge hammer, drive the ground rods into the ground at the appropriate location next to the unit keeping in mind the length of the ground rod cable. Drive the ground rods into the ground so that there is just enough of the rod exposed above the ground to connect the ground rod connector and cable to the ground rod. Plug the ground rod cable into the unit at the front roadside under the electrical connection box. The cable is plugged into the green female connector hanging down.

16. If the generator is being utilized, remove the safety cap from the receptacle labeled “Emergency” located on the right side of the front wall, plug the 25’ generator cable into the receptacle and tighten the locking ring. Plug the other end of the 25’ generator cable into generator. If the generator is being utilized, plug the remote generator cable, if applicable, into the receptacle located just to the left of the generator power cable receptacle and plug the other end into the generator.

**CAUTION!**

C11. **Phase Agreement Check**
Failure to perform a phase agreement check each time the unit is connected to a new source may result in equipment damage.

17. If shore power is being utilized, remove the safety cap from the receptacle labeled “Normal” located on the right side of the front wall. Plug the 75’ shore power cable into the receptacle and tighten the locking ring. If shore power is being utilized, working as a team, the electrician will turn the power source on as another person is located inside the Soiled Utility Room door in front of the automatic transfer switch. The person observing the automatic transfer switch will locate the phase meter indicated with a green and a red light located in the upper right corner of the Automatic Transfer Switch. The person will observe the phase meter lights ensuring that the green light confirming that the correct phase has been achieved is illuminated. If correct phase is NOT achieved, the red light will be illuminated. If this occurs, quickly turn the power off and rephrase repeating the steps above until correct phase is achieved and confirmed by the illumination of the green light.

**WARNING!**

W1. **Hydraulic System**
The hydraulic system can cause extreme injury and even **DEATH** if anyone is TRAPPED BETWEEN MOVING PARTS. Only trained and authorized personnel should operate the hydraulic system. It is very important that the person operating the control module is in constant communication with all other set-up staff personnel and that a system of commands be used. Examples of commands used include “Wall coming out”, and “Wall coming in”, the response to these commands should be “Clear” or “Stop.” Upon calling for a “Stop” the controller should respond with “All Stop” and should remove his hand from the control buttons. Prior to opening or closing any hydraulic system, visually inspect the area for any obstruction or unsafe condition and at all times control the access of people in the area. A detailed safety and obstruction inspection should be performed on the inside of the unit to ensure that nothing will be crushed.
CAUTION!

C21. Hydraulic Pumps
Hydraulic pumps run consistently when any pump (power) switch is activated. Prolonged running of pumps can deplete 12 volt battery power which will cause you to not be able to raise or lower the unit. Turn off every pump (power) switch and the hydraulic red rotary switch when not moving the leveling, landing gears or stabilizer jacks.

18. Close all belly box doors. Prior to expanding the large roadside and curbside expandable walls, remove the seven (7) aluminum shims from the toolbox and place them on the ground at each side of the unit. These shims will be placed under each expandable arm tube support on both the roadside and the curbside in preparation for the next step. They are to be pre-positioned on the ground at each location they will be used. The “U” shaped shim is placed on the rear roadside arm tube when the wall is expanded.

19. Proceed to the door on the curbside of the unit, physically get up onto the floor of the unit and observe to see if anything is out of place and may interfere with expansion of the unit walls. Ensure that all belly box doors are closed and that anyone located in the vicinity of the unit is made aware that the unit walls will be expanding. Ensure that the area around the unit is completely clear of anyone or anything that may be in the way as the unit walls expand to avoid injuries or damage to the unit or personnel. Connect the handheld yellow control module, located in the #1 roadside belly box, into the lower receptacle located on the exterior of the unit between the curbside large expandable and the curbside small expandable. There are two receptacles; one on top of the other. The lower receptacle is for the large rear expandable; the upper receptacle is for the small front expandable, both on the curbside. The receptacles are labeled “rear expandable” and “front expandable.” Activate the on/off switch to the “on” position and turn and hold the lower black extend/retract switch to “extend” allowing the wall to begin expanding. Just before the unit floor drops into place, stop the expansion process and place the aluminum shims (pre-placed on the ground at the location of each expandable arm tube support location) on top of each black arm tube support just under the middle hinge. When the shims have been appropriately placed, resume your position at the yellow control module and complete the expansion process. As the unit is almost completely expanded, the floor will drop into position; you will hear the floor drop into position as the wall completes its outward movement. At the time the floor drops into position, stop expanding the unit.

CAUTION!

C23. Expansion of Rear Expandable
Release the expansion control switch as soon as the sound of the floor dropping is heard to avoid damage to expandable and walls.

20. Disconnect the yellow control module from the lower receptacle. Reconnect it to the top module in order to expand the front curbside expandable. Through the open front
door on the roadside, enter the unit, physically inspect through the pass-through window area into the clean room to determine that nothing is disturbed that may interfere with expansion of the small curbside expandable. Once it has been determined that the expansion process may safely begin, turn the yellow module on and engage the controller to expand the wall until the wall stops expanding.

21. Disconnect the yellow control module, proceed to the roadside of the unit. Physically get up onto the floor of the unit and observe to see if anything is out of place and may interfere with expansion of the unit walls. Ensure that all belly box doors are closed and that anyone located in the vicinity of the unit is made aware that the unit walls will be expanding. Ensure that the area around the unit is completely clear of anyone or anything that may be in the way as the unit walls expand to avoid injuries or damage to the unit or personnel. Connect the handheld yellow control module into the lower receptacle located on the exterior of the unit between the roadside large expandable and the roadside small expandable. There are two receptacles; one on top of the other. The lower receptacle is for the large rear expandable; the upper receptacle is for the small front expandable, both on the roadside. The receptacles are labeled "rear expandable" and "front expandable." Activate the on/off switch to the "on" position and turn and hold the lower black extend/retract switch to "extend" allowing the wall to begin expanding. Just before the unit floor drops into place, stop the expansion process and place the aluminum shims (pre-placed on the ground at the location of each expandable arm tube support location) on top of each black arm tube support just under the middle hinge. When the shims have been appropriately placed, resume your position at the yellow control module and complete the expansion process. As the unit is almost completely expanded, the floor will drop into position; you will hear the floor drop into position as the wall completes its outward movement.

CAUTION!
C23. Expansion of Rear Expandable
Release the expansion control switch as soon as the sound of the floor dropping is heard to avoid damage to expandable and walls.

22. Unplug yellow module, insert it into the top plug receptacle, repeat the instructions to expand that wall. The small door will be opened on this expandable to inspect visually to determine that nothing is in the way as the wall expands. Expand the wall until it stops. Remove the yellow control module from the receptacle and stow it in the #1 roadside belly box.

*If your unit is equipped with a patient lift, the following section applies.*

!WARNING!
W11. Patient Lift Use
Before operating the lift, personnel MUST HAVE READ AND BE FAMILIAR WITH the operating instructions.
!WARNING!

W12. Patient Lift Operation

Use care when operating the lift! Ensure that no one is in or can come into the area where the lift will be operated!

CAUTION!

C.14 Patient Lift Switch

Do NOT keep the switch pushed after the lift stops moving. Holding the switch could DAMAGE the hydraulic system!

23. Ensure the DC switch (located in #4 roadside belly box) is in the “on” position. Proceed inside the unit to the main door or the door with the handicapped lift. Located to the left of the door is the yellow controller for the lift. This is a hydraulic lift powered by the 12 volt system on the unit. The disconnect for the 12 volt equipment is in the #4 roadside belly box on a grey NEMA box labeled DC panel. To operate the lift using the lift control module, depress the “arrow up” button. The lift will only raise 4 to 6 inches in an upward direction. It will then stop. You must then exit through the same door and proceed around to the lift on the exterior of the unit and manually drop the lift to the horizontal position. Once this has been accomplished, you may unlatch the transport lock located on the lower right corner of the door. Open the door on the roadside of the unit, latch it open and enter the unit. Once inside the lift may be operated hydraulically from inside the unit utilizing the module located on the wall.

CAUTION!

C12. Belly Box Lights or Emergency Light Packs

DO NOT leave belly box lights on for extended periods of time. Ensure all emergency light battery packs are off or disconnected when unit is not connected to a power source. When left on they could cause the batteries to run down or fail.

24. White support posts can now be positioned at the end of the support arms on the expandables out toward the outside of the expandables to help support the movement of the expandables. There is one located in each corner of the large expandables. There are no support posts for the small expandables. The posts that are installed on the four corners will then be adjusted in connection with the seals around the inside walls of the expandable that connects to the wall of the trailer. As you raise and lower the posts, the expandable wall will move inside. Position the posts so that the seal running up the wall and along the header of the expandable is tight and sealed against the exterior of the trailer on all four corners of the expandables, both roadside and curbside.

CAUTION!

C15. Landings

Use two people to position the landings and steps to avoid losing control of the landing.
CAUTION!

C20. Stairs

Use two people to lift and position stairs for both use and transport in order to avoid injury upon lifting or losing control. Take caution when stepping onto platform of the tractor as not to lose your balance. Area may be slick in cold climates. Always use handles to assist in mounting or exiting the rear of the tractor.

25. Proceed to the appropriate step assembly located at the Emergency Exit door and configure it for use. The landing is placed over the receivers located on the unit wall under the door. NOTE: The door has to be closed before proceeding. Retrieve the bolt and wrench from the toolbox and bolt the landing to the unit from the underside middle of the landing. Place the two support legs into the landing and level the landing so that the door opens and closes freely. Install the two handrails on the landing into the holes provided. Connect the steps to the receiver located on either the front or side of the landing. The steps can be configured in a facing forward position or at a right angle to the unit. Install both security pins and level the steps using the adjustable feet. Install the two handrails onto the steps using the receivers on each side and tighten them into place.

26. Proceed to the appropriate step assembly located at the Main Entry door and configure it for use. The landing is placed over the receivers on the unit wall behind the handicapped lift. Retrieve the bolt and wrench from the toolbox and bolt the landing to the unit from the curbside middle of the landing. Place the two support legs into the landing and level the landing. Install the three (3) handrails on the landing and handicapped lift and place the chains across the front of the lift from one railing to the other. Connect the steps to the receiver. Install both security pins and level the steps using the adjustable feet. Install the two handrails onto the steps using the receivers on each side and tighten them into place. Install the small rectangular diamond plate bridge with the four long receivers by sliding it into the landing on the handicapped lift side to create a bridge from the landing to the handicapped lift.

CAUTION!

C12. Belly Box Lights or Emergency Light Packs

DO NOT leave belly box lights on for extended periods of time. Ensure all emergency light battery packs are off or disconnected when unit is not connected to a power source. When left on they could cause the batteries to run down or fail.

27. Upon completion of opening the unit on the exterior, ensure that all equipment and tools used to open the unit have been stored in their appropriate location either in the belly boxes or in the compartments below the HVAC unit. Ensure that all lights are turned off and all belly boxes are closed. Double check that the hydraulic pumps are off and all switches are in the “off” position.

28. Proceed to the rear of the trailer, ensure that the red hydraulic switch is in the “off” position and lock the 12 volt compartment door on the hydraulic switch area after.
SET-UP PROCEDURE - INTERIOR

1. Ensure that your hands are clean for setting up the interior of the unit or that you have clean gloves on so that unit doesn’t become contaminated as you set up the interior.

2. The floor seals are located inside the unit in cloth bags. Floor seals must be installed in four locations inside the unit. This is done to cover the floor hinges and to make the floor level. The rubber seals are located in the unit (rolls of approximately 2” rubber seals). The floor seals are color coded to illustrate their location in the unit. The length of each seal also determine where it must be inserted. The seals will be inserted into the rails at four locations; one location is 18” in from the exterior wall of the large expandable, 2 locations are down the center of the unit where the hinges are located; and the last located 18” in from the small expandable wall. Using the palms of your hands and your feet, press the floor seals into the track firmly to achieve a tight and accurate seal. Please refer to the drawing on Page 13 for placement details.

3. If installing new floor seals for the first time, trimming of length may be required. Be sure to obtain appropriate instructions for trimming from Mobile Medical International Corporation.
3. Locate and retrieve the Set-up / Breakdown Supplies Container and place it on the floor for use in this procedure.

**WARNING!**

**W5. Lifting Hazard-Air Lock and Drop-in Floor Panels Install and Breakdown Procedure**
Use proper lifting techniques when lifting panels to avoid injury and to prevent the panels from falling out of your hands and doing damage.

4. Install all floor drop-in panels into position. There are five floor drop-in panels that need to be properly positioned.
   a. The two (2) large expandable side drop-in panels must be inserted; one at the front of the roadside expandable floor, the other at the rear of the roadside expandable floor.
   b. At the center rear of the trailer by the bathroom wall a drop-in panel is inserted into the center of the trailer between the expandable walls.
   c. The center front drop-in step panels are now inserted in the floor at the front between the expandable walls. These consist of two drop-in panels and steps for entering the utility area. The first is inserted on the curbside of the trailer and the second is inserted on the roadside. Ensure that they are properly sealed and supported.
   d. Enter the soiled utility room. There is a swing floor panel; unhook the panel from the wall strap; ensure that the way is clear for it to be lowered into place; you will then drop the panel into place, ensure it is sealed and secured. Unstrap the Soiled Utility Room door and stow all straps and tiedowns.
   e. Enter the clean utility room. Use caution when opening the door as damage may occur if the door is opened against the swing floor panel. There is a swing down floor panel; unhook the panel from the wall strap; ensure the way is clear for it to be lowered into place; you will then drop the panel into place, ensure it is sealed and secured and placed appropriately in the breakdown supplies container.

5. In the trailer there are three swing walls that are stowed parallel with the trailer; two coming off the nurses station going forward; one coming off the back of the nurses station going to the rear. All three swing walls need to be rotated ninety degrees (90°) into place so that they may be connected to the stub walls located on the exterior walls of the expandable. To accomplish this there are clamps on the stationery stub walls that will connect the swinging walls to the stub walls. There are connecting locations at the top and bottom of the wall to secure it into place. The locations of the three walls are as follow: the OR to Pre-op wall; the OR to Vestibule wall; Pre-op to Vestibule wall. The connection points for the walls are located inside the stub walls. There are stainless steel covers approximately 9” x 9” with thumbscrews allowing for removal of the covers to connect the swing walls to the stub walls for all three swing walls. Lock swing walls into position and check that doors open and close properly. There is a bolt located on top of the clamp located at the bottom of the OR to Pre-op
stub wall, behind the stainless steel cover, used to secure the swing wall into place. The bolt can be adjusted in or out to align the double swinging door in that wall. Move the bolt so that the gaps in the door are negligible and so that the door swings freely in both directions. Do not put undue pressure on this bolt and wall section. Replace stainless steel covers on all of the stub walls when complete.

**WARNING!**

W5. **Lifting Hazard-Air Lock and Drop-in Floor Panels Install and Breakdown Procedure**

Use proper lifting techniques when lifting panels to avoid injury and to prevent the panels from falling out of your hands and doing damage.

6. There are five airlock panels located in the ceiling of the unit. Two of the airlock panels are located above the OR to Vestibule swing wall and Pre-op to Vestibule swing wall that will need to be brought down into place. Turn the handles in the drop-down panels to release them from their stowed position, drop them 90° parallel with the walls and turn the handles into their pre-drilled slots to secure them to the swing walls. Also there are two small insert airlock panels that need to be inserted into the remaining holes between the OR to Vestibule and the Pre-op to Vestibule. They are located in the Set-up / Breakdown Supplies Container. They are approximately 8” x 8” in dimension and are manually installed into position. There are three airlock drop panels in the main high ceiling of the trailer. Those will be put into place as described above. There is one over the OR to the Pre-op area; one from the Pre-op area to the Vestibule (small one) and a large one that drops down from the Vestibule to the Pre-op area.

7. Next, swing the scrub sink 90° into operation position to reach the locks on the last large Vestibule to the Pre-op area airlock panel.

8. At the front of the nurses station is a double basin scrub sink that is on a hinge and casters. The cabinet will swing to 90° setting the back of the cabinet against the OR to Pre-op area wall; swing it into position; lock the sink casters, open the two cabinet doors beneath the sink and ensure that the connections are in place and have not loosened during transport and connect the drain on the scrub sink so it is configured for use.

9. Unstrap all equipment and cabinets and place the tiedowns and straps in the Set-up / Breakdown Supplies Container. Configure the equipment into operational position.

**WARNING!**

W6. **Power Sources**

Use care when working around any power sources. Failure to use caution may result in **DEATH, SHOCK, FIRE, OR EQUIPMENT FAILURE AND/OR DAMAGE.**

**WARNING!**

W7. **Electric-Shock Hazard**

This unit is supplied with high electric voltage and current. This voltage and current could cause serious injury or **DEATH!** Always use care when working around the electrical system. Turn the POWER OFF prior to performing any maintenance on the electrical equipment.
10. To install the OR light align holes on light neck and ceiling insert. Align black lines on light and insert to align pin hole. Insert pin to hold light assembly in place. Reconnect ceiling wires to assembly wires. Install ceiling panels around light neck (directions labeled on back). Remove screws from spring arm end. Install light heads to both arms, then remove pins. Install plastic cover over swing arm elbow and install all Phillips head screws. Slide rubber ring up light neck and tighten screws.

11. Move the privacy curtains in the Pre-op / Post-op areas from their stowed position on top of the C-Frame cabinetry to their operational position ensuring that all hooks are properly inserted on the wheel carriers on the ceiling track.

12. Turn the emergency lights and exit lights on by opening belly boxes #1 and #2 on the curbside of the unit. Located inside the belly boxes are three emergency light packs with switches to turn them on and off. Turn the switches to the “on” position.

**CAUTION!**

C13. **UPS Battery Pack**

The UPS battery pack is meant to supply short term back-up power to allow uninterrupted completion of work-in-progress in case of a power failure. Use of the UPS system for any purpose other than emergency power may result in damage to the UPS system. Refer to the UPS System Operator’s Manual. The UPS battery pack can pose an electric shock hazard if used improperly.

13. The UPS is located in the Soiled Utility Room above the countertop. It is a black box with the name “Tripp Lite” on it. The transformer is located in the Clean Utility Room inside the second cabinet door located below the sink. To start the unit begin at the UPS switch and then proceed to the transformer. Please use the following procedure:

**NOTE:** UPS batteries are located in the #5 roadside belly box. No maintenance is required on the batteries. If they are not holding load, they must be replaced.

**NOTE:** Please refer to the OEM manual in the Appendix section of this manual, Book 1 of 3; Section 5.

(Please refer to the illustration on the next page)

14. In order to accomplish start-up, please follow the instructions as stated in #2 of the following illustration.
1. Configure your UPS's input and output: Put your UPS power module into setup mode by holding down both of its scroll buttons (A) and (B) at once. Scroll through the setup options (using (A) or (B)) and select the appropriate setting for each of the following options using the "SET" (C) button (D):
   - Input & Output Voltage: Select 208, 240, or 200 VAC.
   - Output Frequency: Your UPS will autoselect 50 or 60 Hz to match the input.
   - Economy Mode: Your UPS can provide on-line operation with zero transfer time. It can also operate in a more energy-efficient line-interactive mode. Select Economy On to put the UPS in line-interactive mode. Select Economy Off to put the UPS in on-line mode.
   - After you have set these options, "exit" the setup mode with the scroll button (A) then exit bypass mode by holding the ON button (E) down until you hear a beep.

2. Turn input to the UPS ON: If the UPS power module is connected to a transformer module, turn the transformer module's AC-to-UPS and Output Circuit Breaker (F) on, and then press the UPS power module's ON button (G) until you hear a beep to begin inverter operation. If your AC input is not providing power normally, you may "cold start" your UPS from battery. (Your battery must be at least partially charged for this operation to succeed.) Press and hold the "ON" (G) button until you hear a beep to start your UPS in ON BATTERY mode. Note: some electronic equipment may show more startup times during startup when starting from battery, consider avoiding the initial load on the UPS. Your UPS will perform a brief self-test and show the results on the LCD Display (H). See “Startup Self-Test” in the “Operation” section for the display sequence.

3. Turn UPS output ON: Turn the UPS power module's Output Circuit Breaker (F) ON. If the UPS is connected to a transformer module, turn the transformer module's Manual Bypass Switch (I) from BYPASS to NORMAL and its Output Circuit Breaker ON. Your UPS will now provide power to connected equipment.

4. To turn the UPS power module and transformer module OFF: Press the UPS power module's OFF button (I) until you hear a beep. Your load will still be energized. The inverter is now off but your UPS is not fully deactivated. The LCD Display (J) will show BYPASS MODE. If the UPS power module's Input and Output Circuit Breakers (F) and (G) are OFF, and the UPS is connected to a transformer module, turn the transformer module's power AC-to-UPS and Output Circuit Breaker (I) OFF. Your load will no longer be energized, and the LCD Display (J) will be dark.

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General Procedures for Unit
15. When using the Medical Gas System, the oxygen, nitrogen, and medical air cylinders need to be configured in the 5th belly box on the curbside of the unit. Regulators are secured to the walls of the unit and need to be removed for use on the cylinders. Nitrous Oxide cylinders need to be configured in the Pre-/Post-Operative Area inside the unit in a cabinet located on the left side of the bathroom doors behind the long stainless steel door. There are regulators secured to the side wall of the cabinet and need to be removed for use on the cylinders. When the cylinders are activated, the system is operational. There are alarm panels located at the nurses station for monitoring the medical gas system.

16. A key board containing all the keys for the unit is located in the Nitrous Closet. Ensure that all keys are stored on the provided key board when they are not in use.

17. Potable and Waste Water Dump Valves. The dump valves for the fresh or potable water tank are located in the 2nd belly box on the roadside. The dump valve for the grey water tank is located in the 4th belly box on the roadside. The dump valve for the black water tank is located in the 6th belly box on the roadside. The dump valves are manually opened and closed by a gate that is pulled open or pushed closed. Located on the floor of the #2, #4 and #6 belly boxes are small trap doors that are designed to be unlatched and removed from inside the belly box to allow hoses to be moved to the exterior of these boxes so that the belly box doors can be closed and secured while the hoses are in use. The connections are 3” connections. Place the 3” flex hose to dump tanks or connect with rigid pipe into the sewer system or you may have the tanks pumped utilizing a commercial pump truck. Ensure that all parts are put away and that the belly box lights are out and the belly box doors are closed.

18. All electrical connections must be made by a Certified Electrician. For electrical configuration of the unit, review Section 3 pages 4, 5 and 6 paragraphs 13 to 15 for the correct procedures in performing tasks.

19. The Main Breaker Box is located in the Soiled Utility Room. Turn on breakers 1, 3, 5, 7, 9, 13, 15, 17, 19, 29, 6, 8, 12, 14, 16 and 40. **Do not activate the water heaters until they have been connected and filled with water.**

20. To connect communications to the unit, proceed to the rear of the unit and located inside the 12-Volt Communication Compartment is a punch block to two 25 pin cords that go to the loft. There is another punch block to the wiring and all communication stations located in the loft. The communication system can be configured to meet your needs.

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**General Procedures for Unit**
CAUTION!

C12. **Belly Box Lights or Emergency Light Packs**

DO NOT leave belly box lights on for extended periods of time. Ensure all emergency light battery packs are off or disconnected when unit is not connected to a power source. When left on they could cause the batteries to run down or fail.

21. Upon completion of interior set-up stow all tools in their stored location(s). Ensure that all belly box lights are turned off. Close all belly box doors and ensure that all compartments around the unit are closed and locked.
BREAKDOWN PROCEDURE - INTERIOR

(BEFORE TRANSPORT, WHEN THERE MAY BE A CHANCE OF COLD WEATHER, DRAIN ALL TANKS, FILTER HOUSINGS, DRAINS, TRAPS AND WATER LINES COMPLETELY TO PREVENT FREEZING DURING COLD WEATHER TRANSPORT.) REFER TO COLD WEATHER INSTRUCTIONS ON SECTION 7, PAGE 8.

WARNING!
W5. Lifting Hazard-Air Lock and Drop-in Floor Panels Install and Breakdown Procedure
Use proper lifting techniques when lifting panels to avoid injury and to prevent the panels from falling out of your hands and doing damage.

1. Airlock panels above the swinging walls and the nurses station walls, a total of five airlock panels, must be secured up into their pans in the ceiling. There are lock handles on the airlock panels that are turned to unlocked them from the walls, put the panels into the pans and turn the handle to lock it back to secure it in the pan for transport. There are also two small panels above the pre-op to vestibule and vestibule to OR that will have to be removed and stored in the Set-up / Breakdown Supplies Container stored in the belly box. Retrieve container and bring it inside the unit.

WARNING!
W6. Power Sources
Use care when working around any power sources. Ensure lock outs are in place before proceeding. Failure to use caution may result in DEATH, SHOCK, FIRE, OR EQUIPMENT FAILURE AND/OR DAMAGE.

WARNING!
W7. Electric-Shock Hazard
This unit is supplied with high electric voltage and current. This voltage and current could cause serious injury or DEATH! Always use care when working around the electrical system. Turn the POWER OFF AND LOCK OUT prior to performing any maintenance on the electrical equipment.

2. Removal of the OR Light – Slide the rubber ring down the spring arm and remove the plastic cover over the elbow of the spring arm. Unscrew the (2) Phillips head screws located at the light base arm. Place pin into hinge elbow to secure movement. Remove light head. Repeat the first three steps on the second light head. Replace Phillips head screws on end of spring arms for stowing. Remove ceiling panel around light neck (directions labeled on back). Align the two (2) black lines on light neck to align pin hole. Disconnect both light wires. Remove pin from light neck to remove assembly. Stow lighthouse and associated hardware in appropriate storage containers.

3. Ensure that the curtains are stowed up against the expandable outside walls using the 90° turn on the track as tightly as possible and placed over the top of the “C” frames or patient care stations to keep them clean and secure for transport.

4. Dispose of any residual water that may be in the trap in the drain of the scrub sink in an appropriate manner. Disassemble the drain under the scrub sink and store it inside

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General Procedures for Unit
the sink cabinet and close the two cabinet doors. Turn the cabinet 90° to the axis of the trailer in the stowage configuration for transport.

**CAUTION!**

C8. **Equipment Securing**

All equipment inside the unit **MUST BE SECURED** to prevent movement during transportation. Movement may damage equipment.

5. The Set-up / Breakdown Supplies Container is where the tiedowns and straps are stored. Secure all roll-around and movable equipment. Stow and/or secure it with tiedowns and straps or in drawers or boxes for transport.

6. There are three swing walls that must be unhooked from the stub walls. Ensure that the doors in those walls are in the closed position. They are: the OR to Nurses’ Station; Small, and the Vestibule to Nurses’ Station. There are stainless steel covers, two on each wall, with thumbscrews. Unscrew the thumbscrews, remove the covers, flip the handles and disengage the locking mechanisms from the swing door. There are six locations for disconnecting the swing walls; two on each of the swing walls. Once the walls have been disconnected from the stub wall, swing them 90° so that they run on the axis of the trailer into the center portion of the trailer. These three walls must be secured with straps or ropes for transport to prevent damage during transport. Ensure the locking mechanisms are inside the stub walls, then, reinstall the covers on the stub walls.

7. Strap all swing walls into position and ensure that they are secure to prevent rubbing or damage during transport. Close and latch the bathroom door securely.

8. Proceed to the Nitrous Closet located to the left of the Bathroom door behind the long stainless steel door. Remove the regulators from the cylinders and fasten and tighten them onto the pins located on the side wall for transport. Screw the safety caps on each gas cylinder and remove the nitrous cylinders from the unit. Check to ensure that all keys are accounted for on the keyboard located inside the Nitrous Closet. Close the two locks on the Nitrous Closet door ensuring that the door is securely latched.

**WARNING!**

W5. **Lifting Hazard-Air Lock and Drop-in Floor Panels Install and Breakdown Procedure**

Use proper lifting techniques when lifting panels to avoid injury and to prevent the panels from falling out of your hands and doing damage.

9. There are two drop-in step panels in the center front section of the OR that have steps on them for entering the utility rooms. The left panel is to be removed first by using the handles on the side of the steps which allow you to grasp the drop-in step panels for removal. The second panel removed is on the left side using the same procedure. The third drop-in panel is located in the large expandable front corner and is approximately 7’ x 10’ in dimension. Lift the panels out and store them appropriately. There is a drop-in panel located in the rear of the trailer between the expandable walls that must be removed and stored and a second drop-in panel is
located in the large expandable rear corner and is approximately 7’ x 10” in dimension that must be removed and stored appropriately.

10. Enter the soiled utility room and lift the swing floor up 90° perpendicular to the floor and secure it with the tiedown and the strap in the expandable. Strap and secure the two (2) Soiled Utility Room doors in an open configuration for transport. Swing header of second door by removing stainless steel cover, unscrewing bolt and swing to rest on top of open door.

11. Enter the clean room and lift the swing floor up 90° perpendicular to the floor and secure it with the tiedown and the strap in the expandable. Tiedown and secure the sterilizer. Ensure that the door is closed when you leave the room.

12. Always ensure that the rollers and the Delrin strip on the floor are clean of debris, sand or anything else that may compromise the operation of the unit. Rollers and Delrin strips are located at the front of the unit below the drop-in step panels that were removed and at the back of the unit under the set-in floor panel that you removed in front of the Bathroom door.

**CAUTION!**

C9. Wall Slide Tubes and Tracks
The maintenance of these areas in accordance with procedures in Section 3 Page 22 Paragraph 12 is very important to ensure problem-free operation. Ensure that the wall slide tubes and tracks are clear of debris and that the rollers are operating properly.

13. Remove the floor seals; one is located 18” from the outside wall of the large expandable (it covers the hinge). Remove this seal, roll it up and store it appropriately. There are two rubber seals in the center of the unit that run from front to back. Remove these two seals, roll them up and store them appropriately. There is another seal 18” from the outside wall located on the outside wall of the curbside expandable that must be removed, rolled up and appropriately stored.

**CAUTION!**

C8. Equipment Securing
All equipment inside the unit MUST BE SECURED to prevent movement during transportation. Movement may damage equipment.

14. The main electrical panel (breaker box) is located on the front wall of the unit in the Soiled Utility Room. Turn off the breaker to the HVAC and all pumps and motors; this includes the following breakers: 1, 3, 5, 7, 9, 13, 15, 17, 19, 29, 6, 8, 12, 14, 16 and 40. Ensure that the breaker box door is closed.

**C13. UPS Battery Pack**
The UPS battery pack is meant to supply short term back-up power to allow uninterrupted completion of work-in-progress in case of a power failure. Use of the UPS system for any purpose other than emergency power may result in damage to the UPS system. Refer to the UPS System Operator’s Manual. The UPS battery pack can pose an electric shock hazard if used improperly.

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General Procedures for Unit
15. The UPS is located in the Soiled Utility Room above the countertop. It is a black box with the name “Tripp Lite” on it. Please use the following procedure:

**NOTE:** UPS batteries are located in the #5 roadside belly box. No maintenance is required on the batteries. If they are not holding load, they must be replaced.

**NOTE:** Please refer to the OEM manual in the Appendix Section of this manual, Book 1 of 3; Section 5.

(Please refer to the illustration on the next page)

16. In order to accomplish shutdown, please follow the instructions as stated in #4 of the below illustration.
Power ON/OFF

1. Configure your UPS input and output: Push your UPS power module into standby mode by holding down both of its scroll buttons A and D at once. Scroll through the setup options using A or D and select the appropriate setting for both of the following options using the "SELECT" button E:

   - Input & Output Voltage: Select 200, 280 or 340 VAC
   - Output Frequency: Your UPS will automatically select 50 or 60 Hz to match the input.
   - Economy Mode: Your UPS can provide constant operation with zero transfer time. It can also operate in a more energy-efficient interactive mode. Select Economy Mode for the UPS in interactive mode. Select Economy Off to put the UPS in on-line mode.

2. Turn input to the UPS ON: If the UPS power module is connected to a transformer module, turn the transformer module's AC to UPS and Output Circuit Breakers F on. Turn the UPS power module's Input Circuit Breaker G on. Press the UPS power module's ON button G until you hear a beep to begin inverter operation. If your AC input is not providing power normally, you may "cold" start your UPS from battery. Your battery must be at least partially charged for this operation to succeed. Press and hold the "ON" button until you hear a beep to start your UPS in ON BATTERY mode. Note that some electronic equipment may not draw more amps during startup; when starting from battery, consider reducing the initial load on the UPS. UPS will perform a brief self-test and show the results on the LCD Display H. See "Startup Self-Test" in the "Operation" section for the display sequence.

3. Turn UPS output ON: Turn the UPS power module's Output Circuit Breaker I on. If the UPS is connected to a transformer module, turn the transformer module's Manual Bypass Switch J from BYPASS to NORMAL and its Output Circuit Breaker K on. Your UPS will now provide power to connected equipment.

4. To turn the UPS power mode and transformer module OFF: Press the UPS power module's OFF button K until you hear a beep. Your load will be energized. The inverter is now off, but your UPS is not fully deactivated. The LCD Display H will show BYPASS MODE. Turn off the UPS power module's OFF button K. If the UPS is connected to a transformer module, turn the transformer module's power AC to UPS and Output Circuit Breaker K OFF. Your load will no longer be energized, and the LCD Display H will be dark.

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General Procedures for Unit
17. Store and secure the Set-up / Breakdown Supplies Container for transport. Perform a thorough visual inspection of the unit ensuring that everything is appropriately tied down and secured in its transport position. Check floors, walls, ceilings, equipment doors, and ensure countertops are clear. Check the Bathroom, Soiled Utility Room and Clean Utility Room. Ensure that there is nothing located on the moveable portion of the floors on the large expandables and that the path is clear to retract the walls into transport position.

*If your unit is equipped with a patient lift, the following section applies.*

**WARNING!**

W11. **Patient Lift Use**

Before operating the lift, personnel MUST HAVE READ AND BE FAMILIAR WITH the operating instructions.

**WARNING!**

W12. **Patient Lift Operation**

Use care when operating the lift! Ensure that no one is in or can come into the area where the lift will be operated!

**CAUTION!**

C14. **Lift Switch**

Do NOT keep the switch pushed after the lift stops moving. Holding the switch could DAMAGE the hydraulic system!

18. Exit the unit and move to the Main Entry door. Lock the door and secure the transport plate at the bottom right corner of the door for transport. To do this, loosen the two bolts, slide plate in front of the door, then tighten the bolts. Remove the bridge from the main door landing by pulling it toward you as you stand on the handicapped lift platform. Remove the bridge from the landing. Lay the bridge on the landing; it will be stowed later in the procedure. You may now place the lift in its transport position by manually lifting it into its vehicle transport position standing perpendicular to the Main Entry door. Position one person on the exterior and one person at the inside door of the unit. Ensure that no one is in contact with the lift prior to it being lowered into its final transport position from the inside. Using the handicapped lift control module located on the inside of the unit to the left of the Main Entry door, lower the lift while listening as the tone of the motor changes indicating that the lift platform has dropped into its final transport position and has been locked into place preventing if from being able to be pulled back down into its usable position.

19. If the medical gas system has been used, proceed to the #5 curbside belly box and remove all regulators from the medical gas cylinders stored there and stow the regulators on the storage pins located on the walls of the belly box. Screw the safety
caps back on the gas cylinders and remove the medical gas cylinders from the belly box. Ensure that the belly box lights are turned off and the belly box doors are closed.

20. If unit is connected to the water source, disconnect the potable water from the connection in the #2 roadside belly box. If there is fresh water in the potable water tank, proceed to the #2 roadside belly box and ensure that the water connections to the potable water tank are disconnected then operate the gate valve to empty the tank prior to transport. If the unit is connected to the sewer system, empty both grey and black water tanks by opening the gate valves, then disconnect both systems making sure that the gate valves are closed completely. The black water gate valve is located in the #6 roadside belly box and the grey water gate valve is located in the #4 roadside belly box. When finished close all three gate valves and stow hoses in the appropriate locations or remove plumbing drains from the unit if they are connected to outside drainage. Close and lock the small trap door on the floor of roadside belly boxes #2, 4 and 6 then turn off all belly box lights and close all belly box doors.

21. Open #2 curbside belly box to disable emergency light packs. In front of you are three (3) emergency light packs; turn the two (2) switches to the “off” position to disable the emergency lights inside the unit. Ensure that the belly box light is off and that the door is closed before leaving.

CAUTION!

C12. Belly Box Lights or Emergency Light Packs

DO NOT leave belly box lights on for extended periods of time. Ensure all emergency light battery packs are off or disconnected when unit is not connected to a power source. When left on they could cause the batteries to run down or fail.

22. Before leaving the unit, ensure that all set-up tools are put away in appropriate locations, that the Set-up / Breakdown Container is put away, all belly box and/or compartment lights are turned off, all belly box doors are closed and that the unit is secured and ready for use.
BREAKDOWN PROCEDURE – EXTERIOR

!WARNING!

W1. **Hydraulic System**

The hydraulic system can cause extreme injury and even **DEATH** if anyone is **TRAPPED**

**BETWEEN MOVING PARTS.** Only trained and authorized personnel should operate the hydraulic system. It is very important that the person operating the control module is in constant communication with all other set-up staff personnel and that a system of commands be used. Examples of commands used include “Wall coming out”, and “Wall coming in”, the response to these commands should be “Clear” or “Stop.” Upon calling for a “Stop” the controller should respond with “All Stop” and should remove his hand from the control buttons. Prior to opening or closing any hydraulic system, visually inspect the area for any obstruction or unsafe condition and at all times control the access of people in the area. A detailed safety and obstruction inspection should be performed on the inside of the unit to ensure that nothing will be crushed.

1. Open the 12-volt compartment door located at the rear wall outside the unit (need a key to access). Turn the 12-volt system switch to the “on” position. Turn the hydraulic red rotary switch to the “ON” position. Unlock the belly box door by depressing the top “Unlock” of the belly box door switch.

**CAUTION!**

C15. **Landing**

Use two people to position the landing to avoid losing control of the landing.

**CAUTION!**

C. 20 **Stairs**

Use two people to lift and position stairs for both use and transport in order to avoid injury upon lifting or losing control. The stairs are unwieldy, but are not heavy. Take caution when stepping onto platform of the tractor as not to lose your balance. Area may be slick in cold climates. Always use handles to assist in mounting or exiting the rear of the tractor.

2. Disassemble the stairs, handrails, and support legs on both ramp stair assemblies and take the handrails, bridge and support legs to the #6 curbside rear belly box compartment for storage later in the procedure. The stairs and landing are to be placed next to the tractor and will be stored on top of the tractor later in the procedure. Ensure that all of the pins and thumbscrews and any other moving parts have been tightened to prevent them from being vibrated out during transport. Retrieve the toolbox from the #4 curbside belly box in which to store the hardware from the landings and from which to get the wrench.

*If your unit is equipped with a patient lift, the following section applies.*
!WARNING!
W11. Patient Lift Use
Before operating the lift, personnel MUST HAVE READ AND BE FAMILIAR WITH the operating instructions.

!WARNING!
W12. Patient Lift Operation
Use care when operating the lift! Ensure that no one is in or can come into the area where the lift will be operated!

CAUTION!
C14. Patient Lift Switch
Do NOT keep the switch pushed after the lift stops moving. Holding the switch could DAMAGE the hydraulic system!

3. Remove the four support jacks from beneath the corners of the large roadside and curbside expandables. The jacks will be stored later in the procedure. Bolts, nuts and plates are stored in the tool box for set-up equipment. As the wall retracts and the floor elevates, remove the support shims on top of the expandable tubes under the expandables. There is one support on each hydraulic expansion tube. Place in toolbox for stowing.

4. Ensure that all the belly box doors are in the closed position before moving the expandable walls.

5. Conduct a unit-wide inspection of both the interior and exterior of the unit to ensure that there are no obstructions and that all personnel are informed that the expandable walls are going to be moved.

!WARNING!
W1. Hydraulic System
The hydraulic system can cause extreme injury and even DEATH! if anyone is TRAPPED BETWEEN MOVING PARTS. Only trained and authorized personnel should operate the hydraulic system. It is very important that the person operating the control module is in constant communication with all other set-up staff personnel and that a system of commands be used. Examples of commands used include “Wall coming out”, and “Wall coming in”, the response to these commands should be “Clear” or “Stop.” Upon calling for a “Stop” the controller should respond with “All Stop” and should remove his hand from the control buttons. Prior to opening or closing any hydraulic system, visually inspect the area for any obstruction or unsafe condition and at all times control the access of people in the area. A detailed safety and obstruction inspection should be performed on the inside of the unit to ensure that nothing will be crushed.

6. Retrieve the yellow module from the roadside belly box compartment #1. The yellow module will be placed into the top receptacle labeled “front expandable” which moves the small expandable on the front roadside of the unit. Before moving the wall, please check again to ensure that there are no obstructions to moving the wall. Turn the switch to the “on” position; the other switch should be turned to “retract.”
Listen carefully for any signs of obstruction or undue stress. Ensure that the expandable closes completely so that the seal is tight for transport. Remove the module from the top receptacle and place it into the bottom receptacle labeled “rear expandable” which will retract the large roadside expandable. Before retracting the expandable, ensure that all belly box doors are closed and that everyone in the vicinity is aware of the activity and proceed to the inside and perform a final inspection to ensure that all internal items are secure and that nothing is in the way that will be damaged or will damage the retracting section. If you have adequate personnel, it is a good idea to have someone inside the unit to observe as the expandable is retracting. Another person should be located under the floor to observe and support the Igus chain to prevent it from binding and remove the floor supports on top of each tube arm as it retracts into the floor as the expandable retracts. When all personnel are in position and final inspections have determined that all is clear, activate the module to retract the wall. Listen carefully as the wall retracts – stop retraction immediately if you hear anything that may indicate something is being damaged as the wall retracts. When the walls are retracted about 6-12", remove shims located on top of the black tubes then continue retracting. Ensure that the expandable wall is completely closed at both the front and rear by conducting a visual inspection.

7. Remove the module from the receptacle and proceed to the curbside of the unit. Place the module in the top receptacle labeled “front expandable” located on the curbside between the expandables.

8. The yellow module will be in the “on” position and the bottom switch will be set to “retract.” This action will activate the retraction of the small expandable on the front curbside. As the wall retracts be aware of all that is happening taking special care to listen for anything that may be in the way that may be damaged or may cause damage to the retracting wall. Ensure that the wall is closed completely by visually inspecting the seals.

9. Remove the module from the top receptacle and place it into the bottom receptacle labeled “rear expandable.” Before retracting the expandable, ensure that all belly boxes are closed and that everyone in the vicinity is aware of the activity and proceed to the inside and perform a final inspection to ensure that all internal items are secure and that nothing is in the way that will be damaged or will damage the retracting section. At this point all persons must be out of the unit. In order to see what is happening inside the unit, the door should be open and someone should be standing at the door to watch and listen as the wall is retracted. You may also stand on the non-movable portion of the floor just inside the door to provide better access to activity in the unit during the retraction process. One person will be prepared to activate the module, support the electrical Igus chain as it retracts into the floor and remove the floor supports on top of each support tube arm as the wall retracts. The other person will watch and listen for concerns that may occur on the unit interior during the retraction process. Ensure that everyone and everything has been cleared from the area before retracting the wall. Always check twice. When all personnel are in position and final inspections have determined that all is clear, activate the module to
retract the wall. Listen carefully as the wall retracts – stop retraction immediately if you hear anything that may indicate something is being damaged as the wall retracts. When the walls are retracted about 6”-12”, remove shims located on top of the black tubes then continue retracting. When the retraction process is complete, ensure that the expandable wall is completely sealed at both the front and rear by conducting a visual inspection.

10. Store the yellow module and cord in the roadside belly box compartment #1.

**CAUTION!**

**C21. Hydraulic Pumps**

Hydraulic pumps run consistently when any pump (power) switch is activated. Prolonged running of pumps can deplete 12 volt battery power which will cause you to not be able to raise or lower the unit. Turn off every pump (power) switch and the hydraulic red rotary switch when not moving the leveling, landing gears or stabilizer jacks.

11. Close all doors on the unit and secure the transport locks into position by loosening the two bolts, sliding plate in front of the door, and tightening the two bolts.

12. Proceed to the rear curbside of the unit (key required for access) to access the rocker switches for the leveling gear and the stabilizer jacks. There are six rocker switches in the box. The bottom three rocker switches control the stabilizer jacks; the top three rocker switches control the leveling gear. The right lower rocker switch turns the hydraulic pump on or off. The middle lower rocker switch controls the roadside stabilizer jack. The left lower rocker switch controls the curbside stabilizer jack. By pushing up on this rocker switch the unit is raised; by pushing down on this rocker switch the unit will be lowered. Raise the leveling gear by activating the top three rocker switch. The right upper rocker switch turns the hydraulic pump on or off; the middle upper rocker switch controls the curbside leveling gear between the wheels. Push “up” to raise the unit; press “down” to lower it. The left upper switch in the box controls the roadside leveling gear located between the wheels. Push “up” to raise the unit. Always ensure that the right switches are in the “off” position when not in use. First raise the stabilizer jacks by activating the lower three rocker switches and raise both jacks into the highest position. Stow the jacks stands in the #6 roadside belly box. The next step is using the upper rocker switches, lower the unit and raise the leveling gear to its highest position. Retrieve the wooden support pads and stow them securely in the #3 curbside belly box. Ensure that both the top and bottom pump switches are turned off and close and lock the door.

**WARNING:** All electrical work must be performed by a licensed electrician. Disconnect electrical lines before tractor is set in place.

13. Before disconnecting the power supply cable, ensure that all power sources are locked out to ensure safety of all personnel. Disconnect and stow all power cords, the annunciator cord and the ground rod cord in their proper storage locations. Ensure
that all communications lines are disconnected from the unit at the 12 volt communications compartment location.
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<th>ROADSIDE</th>
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<td>HVAC STORAGE COMPARTMENT</td>
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<td>1</td>
<td>REMOTE MODULE FOR EXPANDABLE WALLS, BELLY BOX BASE BOARD HEATER</td>
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<td>10’ WHITE WATER DRAIN HOSE, WATER SYSTEM</td>
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| 12 VOLT / COMMUNICATIONS COMPARTMENT | 12 VOLT ON/OFF SWITCH / HYDRAULIC ON/OFF SWITCH / EMERGENCY ENTRANCE TOOL TO BELLY BOXES |

14. If shore power is connected to the unit, ensure that all power sources are off and locked out. Disconnect cable from source power then from the unit on the front wall beneath the HVAC. Roll up the 75’ shorepower cable and place it in the #3 curbside belly box.
15. If generator power is connected to the unit, ensure that the generator is turned off. Disconnect the cable from the generator set first, then from the unit on the front wall beneath the HVAC. Roll up the 25’ generator cable and place it in the storage compartment beneath the HVAC on the curbside of the unit.

16. Disconnect the annunciator cable from the generator set then disconnect it from the unit on the front wall beneath the HVAC on the roadside of the unit and place it in the storage compartment beneath the HVAC on the curbside of the unit.

17. Disconnect the ground cable from the unit beneath the HVAC and disconnect the other end from the ground rod(s). Place the cable and connectors in the storage compartment beneath the HVAC on the curbside of the unit.

18. Remove ground rods or drive ground rods below surface and stow sledge hammer and rods in the #1 curbside belly box.

19. Remove the four safety pins from the landing and leveling gear before proceeding.

20. The tractor will need to be in place under the unit to complete this step. The landing gear control box is located on the curbside of the unit at the front corner (need key to access panel). There are two rocker switches in the box. The right switch controls the curbside landing gear. Push “up” to raise the unit and press “down” to lower the unit. The left rocker switch controls the roadside landing gear. Push “up” to raise the unit; press “down” to lower the unit. The landing gear will be used to achieve the correct unit height allowing the tractor to be backed into its transport position. Turn the pump to the “on” position, raise or lower to the correct height, then position the tractor appropriately. When the tractor is secured, raise the landing gear to the highest position. Close and lock the door. Retrieve the wooden support pads and secure them in the #6 curbside belly box.

21. The leveling gear control box is located on the curbside of the unit at the rear corner (need key to access panel). There are two rocker switches in the box. The right rocker switch controls the roadside leveling gear and stabilizer jack. The left rocker switch controls the curbside leveling gear and stabilizer jack. By pushing up on this rocker switch the unit is raised; by pushing down on this rocker switch the unit will be lowered. Both the roadside and curbside leveling gears can be activated simultaneously to raise and lower the unit or each rocker switch can be activated individually to level the unit. Raise the leveling gear to full up transport position. Retrieve the wooden support pads and stabilizer support stands and stow in the #6 curbside belly box.

CAUTION!

C12. **Belly Box Lights or Emergency Light Packs**

**DO NOT** leave belly box lights on for extended periods of time. Ensure all emergency light battery packs are off or disconnected when unit is not connected to a power source.

When left **on** they could cause the batteries to run down or fail.

22. Place all equipment and tools in appropriate box (refer to Unit Compartment Contents, Section 3, Page 31 for proper storage location of all items.)

23. Ensure that all belly box lights have been turned off.
24. Turn the DC Panel switch located in the #4 roadside belly box to the “off” position, ensuring that all belly box lights have been turned out. Position and close the belly box doors.

25. Ensure that all belly box compartment main doors and compartments under the ECU are securely closed and locked.

26. Access the 12-volt compartment door located at the rear wall outside the unit (need a key to access). Turn the rear 12-volt system switch to the “off” position. Turn the hydraulic red switch to the “off” position. Close and lock the compartment.

27. Check the area around the unit to ensure that all items have been picked up and that the 12 volt and hydraulic switches have been turned to the “off” position at the rear of the unit. Close and lock the door.

**CAUTION!**

C1. **Procedures Used During Transport:**

Prior to moving the unit, perform the pre-transport checks and a thorough walk around inspection of the Mobile Surgery Unit. Refer to Section 3, Pages 38 and 39.
COUPLING AND UNCOUPLING THE UNIT

To Uncouple
1. The unit must be uncoupled on a surface that will support its weight.

CAUTION!
C.8 Surface Weight Capacity
Be cognizant of the load-bearing capacity of the parking surface with regard to underground parking, buildings or other sub-structures.

2. Make sure the tractor's brake is on.
3. Unlock the fifth wheel.
4. On the front curbside wall of the unit (need key to access) is the control for the landing gear. The two rocker switches control the lowering and raising of the landing gear. Lower landing gear until sufficient weight of the unit is on the jacks. Do not raise unit off fifth wheel as you could damage the fifth wheel pin or plate.
5. Disconnect all air and electrical lines from the unit.
6. Slowly drive tractor out.

To Couple
1. Pre-coupling tractor checks:
   Make sure the fifth wheel is lubricated with multi-grade grease, the locks are OPEN, and the fifth wheel ramps are DOWN in the proper position. If using a slider fifth wheel, make sure it is locked in place so that it cannot slide forward. Also make sure the fifth wheel is located far enough forward so that ramps are supported on the bottom plate.

!WARNING!
W2. Tractor / Coupling
NEVER permit anyone to stand behind the tractor or unit when coupling!
Back tractor toward unit so that the kingpin is centered as closely as possible to the throat of the fifth wheel.

If the unit is not at correct height, raise or lower using the “landing gear.” The unit MUST be picked up by the fifth wheel ramps.

2. Slowly back the tractor under the unit until the unit is partially picked up. THEN STOP!
Stopping prevents jarring the kingpin. Continue to back up until the tractor's fifth wheel locks firmly to the kingpin.
CAUTION!

C3. Fifth Wheel

ALWAYS make sure the unit is picked up by the fifth wheel plate! A unit kingpin that is too high enters the fifth wheel incorrectly. Damage to the kingpin, cargo, or fifth wheel can occur by running a kingpin up the fifth wheel plate.

3. Raise landing gear off the ground a few inches. This is done as a safety precaution to prevent damage to the landing and leveling gear and also to provide a safety support in the event that the unit should become uncoupled from the fifth wheel.

CAUTION!

C4. Varying Conditions

Varying conditions such as lubrication, temperature, ice, snow, and mud could all affect a secure couple! A visual check must always be made to ensure that the coupling is secure!

CAUTION!

C5. Judgment of Coupling

NEVER judge a coupling by sound alone!

4. Carefully pull forward to verify that coupling is secure.
5. Connect the brake line glad-hands. (Blue to Blue and Red to Red), and connect the electrical power connector into its socket on the unit.
6. Raise the leveling gear to its fully UP position.
7. Ensure the unit rises to the transport position with the air ride system.
UNIT SET-UP

1. Park and level the unit in accordance with the preceding set-up procedure.
2. Establish electrical ground, connect shoreline, connect generator, and perform the phase agreement check.

**WARNING!**

**W3. Shorelines and Generator Lines**

Shorelines and generator lines are heavy! Use proper lifting techniques to avoid injury.

3. Set up the stair landing, steps and railings in accordance with their set-up instructions (refer to the appropriate sections in the manual).
4. Connect the water supply and drains if available. (Refer to the appropriate sections in the manual.)
5. Connect telephone service if the site is equipped. (Refer to the appropriate sections in the manual.)
MSU SITE CLEARANCES

The normal “Minimum Pad Dimensions” for placement of the unit and good circulation around the unit is forty (40) feet wide and eighty (80) feet long. If necessary, the unit can be deployed on a thirty-five (35) foot wide by seventy five (75) foot long pad with the stairs deployed in parallel with the long axis of the MSU. The overhead clearance for access is a minimum of thirteen feet six inches (13’6”), but should be higher to allow for movement or changes in grade over the length of the unit. The width clearance should be at least nine (9) feet but at a minimum it must clear the unit’s width of eight feet six inches (8’6”). The access to the site should include provisions for turning radius, gate angles, and changes in grade to clear the belly of the unit. The grade of the site should be as level as possible, but is not to exceed 6 inches maximum side to side and 12 inches maximum front to back.

CAUTION!

C6. Parking the Unit

The unit should not be parked over underground utility lines OR parked beneath utility lines.

CAUTION!

C7. Surface Weight Capacity

Be cognizant of the load-bearing capacity of the parking surface with regard to underground parking, buildings or other sub-structures.
PRE-TRANSPORT CHECKS

Axle Oil Level
Check the oil level in each axle hub. Ensure that the oil is up to the FULL level. If necessary, remove plug and fill.

Air Ride
Make sure all air springs are inflated, and that there are no leaks. Check and adjust the air ride height as needed. The air ride height must not exceed 13’ 6”.

Tires
Check the condition of the tires: air pressure, tread wear, and visible damage such as cuts.

Unit
Visually inspect unit for any damage.

Unit lighting
Verify that all exterior unit lighting is working, including turn signals and brake lights.

Wheels
Verify that all lug nuts are tight and check the wheels for any visible damage such as cracks.

Tractor lights
Verify that all exterior lights are working.

Fifth wheel
1. Ensure that the fifth wheel is properly lubricated, that the locks are open, and that the ramps are tilted down in the proper position.
2. Ensure that the mounting of the fifth wheel to the tractor frame is in good condition and is tight.
3. Ensure that the air slide release is in the locked (engaged) position.
PREPARING THE UNIT FOR TRANSIT

CAUTION!

C8. Equipment Securing
All equipment inside the unit MUST BE SECURED to prevent movement during transportation. Movement may damage equipment.

1. Fasten all latches, doors, drawers, and straps.
2. Disconnect the supply and drain hose.
3. Disconnect the waste water drain lines and cap.
4. Disconnect the telephone lines.
5. Disconnect the shorelines and return them to their compartment.
6. Disconnect the grounding cable from the grounding rod or lug and store it.
7. Return the landing, steps, and railings to their stored positions. (Refer to Section 18, Entrance Stairs, of this manual for instructions).
8. Close and lock all exterior doors with transport locks.
MAINTENANCE

Paint
The exterior of the unit is painted with a high quality white automotive fleet polyurethane paint. The exterior should be washed with water ONLY until the paint has had time to cure. This should take 2 to 3 months. After the paint has cured, the finish may be enhanced and preserved by an occasional waxing with a quality commercial car wax.

Door Frames
Do not direct high pressure hoses around the door frames. Excessive pressure may cause leaks.

Walls
The walls are lined with washable vinyl coated panels. The walls may be spot cleaned. Prior to spot cleaning, test a small, inconspicuous area to ensure that cleaning will not result in permanent discoloration.

All walls can be cleaned with a liquid cleaner such as Formula 409™ or Fantastic™. Stainless can be cleaned with stainless cleaning products.

Flooring
The floors are covered with Armstrong™ linoleum. The linoleum may be cleaned with any heavy-duty cleanser such as Spic 'N Span™.

Ceilings
The ceilings are RFP Kermalite product. Suspended from a support frame mounted to the roof some or all of the ceiling panels may be removed to allow service access to items located above the ceiling. The panels must be removed and handled with care to prevent damage.

Landing and Leveling Gears and Stabilizer Jacks
These hydraulic legs are manufactured by Milwaukee Power Gear. They have internal check valves to prevent collapsing due to pressure loss. The operation of these legs is described in Section 6, Hydraulic System, of this manual. Each leg has a grease fitting located on it and should be greased quarterly using a standard wheel bearing grease and applied using a hand grease gun. (Please refer to the OEM manual for maintenance instructions.)

Entrance and Compartment Door Locks
Lubricate locks using Lock-eze™, silicon or penetrating oil. This should be done often since road dirt, rain, and salt spray will cause locks to stick or corrode prematurely. This is more evident in the lower locks, close to the road. Doors should always be locked using transport locks during transport to ensure the doors will not pop open due to the normal twisting and flexing of the unit as a direct result of road conditions.
START-UP PROCEDURE WHEN GENERATOR IS THE PRIMARY POWER SOURCE

1. Insure the Tractor has sufficient fuel for the Generator’s use.
2. Proceed to the generator control panel and press the yellow AUTO button which is between the Green ‘START’ and the Red ‘STOP’ buttons. The generator should then start. After the generator has been operating for about one minute, turn the generator’s main power breaker ‘ON’.

![Control Panel Image]

Please refer to the OEM manual provided for specific instructions on this system.

3. Proceed to the main door and unlock it. If the security system is on, proceed to the security system and disarm it, then proceed to the main breaker box and turn the HVAC breakers (Breakers 1, 3, & 5) to the “on” position.
4. Proceed to the 12-volt communication door access panel located at the rear of the unit (need key for door) and unlock compartment door locks by pressing the top “Unlock” on the door lock switch.
5. Unlock the emergency exit door and all other doors that may be locked.
6. Proceed to the curbside #1 compartment and switch all emergency light battery packs to the “on” position.

CAUTION!

C13. UPS Battery Pack

The UPS battery pack is meant to supply short term back-up power to allow uninterrupted completion of work-in-progress in case of a power failure. Use of the UPS system for any purpose other than emergency power may result in damage to the UPS system. Refer to the UPS System Operator’s Manual. The UPS battery pack can pose an electric shock hazard if used improperly.
7. The UPS is located in the Soiled Utility Room above the countertop. It is a black box with the name “Tripp Lite” on it. The transformer is located in the Clean Utility Room inside the first cabinet door located below the sink. To start the unit begin at the UPS switch and then proceed to the transformer. Please use the following procedure:

**NOTE:** UPS batteries are located in the #5 roadside belly box. No maintenance is required on the batteries. If they are not holding load, they must be replaced.

**NOTE:** Please refer to the OEM manual in the Appendix Section of this manual, Book 1 of 3; Section 5.

(Please refer to the illustration on the next page)

8. In order to accomplish start-up, please follow the instructions as stated in #2 of the following illustration.
1. **Configure your UPS's input and output:** Put your UPS power module into setup mode by holding down both of its scroll buttons 6 and 7 at once. Scroll through the setup options with 6 or 7 and select the appropriate settings for each of the following options using the "SETUP" button 8.
   - **Input & Output Voltage:** Select 200, 208 or 230 VAC.
   - **Output Frequency:** Your UPS will auto-tune 50 or 60 Hz to match the input.
   - **Economy Mode:** Your UPS can operate in a more energy-efficient mode. Select Economy On for the UPS in-line interactive mode. Select Economy Off to put the UPS in on-line mode.
   - **After you have set these options, "exit" the setup mode with the scroll button 6, then exit bypass mode by holding the ON button 6 down until you hear a beep.

2. **Turn input to the UPS ON:** If the UPS power module is connected to a transformer module, turn the transformer module's AC to UPS and Output Circuit Breaker 9 on. Press the UPS power module's ON button 6 until you hear a beep to begin inverter operation. If your AC input is not providing power normally, you may "cold start" your UPS from battery. Your battery may be at least partially charged for this operation to succeed. Press and hold the "ON" 6 button until you hear a beep to start your UPS in ON BATTERY mode. Note that some electronic equipment may draw more amps during startup, until starting from battery, consider reducing the initial load on the UPS. Your UPS will perform a brief self-test and show the results on the LCD Display 10. See "Startup Self-Test" in the "Operation" section for the display sequence.

3. **Turn UPS output ON:** Turn the UPS power module's Output Circuit Breaker 11 on. If the UPS is connected to a transformer module, turn the transformer module's Manual Bypass Switch 12 from BYPASS to NORM, and its Output Circuit Breaker ON. Your UPS will now provide power to connected equipment.

4. **To turn the UPS power module and transformer module OFF:** Press the UPS power module's OFF button 13 until you hear a beep. Your load will now be re-energized. The inverter is now off, but your UPS is not fully deactivated. The LCD Display 10 will show BYPASS MODE. Turn the UPS power module's Input and Output Circuit Breakers 9 and 6 OFF. If the UPS is connected to a transformer module, turn the transformer module's power AC to UPS and Output Circuit Breaker OFF. Your load will no longer be energized, and the LCD Display 10 will be dark.
9. Then proceed to the roadside #4 compartment and turn the main 12-volt switch to the “on” position.

10. Visually check for any inconsistencies in and around the unit.

11. Ensure that all outside compartment doors are closed.

12. Remember to turn the 12-volt switch to the “off” position when the start-up procedure has been completed. The switch is located in the rear wall 12-volt box.
SHUT-DOWN PROCEDURE WHEN GENERATOR IS THE PRIMARY POWER SOURCE

CAUTION!

C13. UPS Battery Pack

The UPS battery pack is meant to supply short term back-up power to allow uninterrupted completion of work-in-progress in case of a power failure. Use of the UPS system for any purpose other than emergency power may result in damage to the UPS system. Refer to the UPS System Operator’s Manual. The UPS battery pack can pose an electric shock hazard if used improperly.

1. The UPS is located in the Soiled Utility Room above the countertop. It is a black box with the name “Tripp Lite” on it. Please use the following procedure:

NOTE: UPS batteries are located in the #5 roadside belly box. No maintenance is required on the batteries. If they are not holding load, they must be replaced.

NOTE: Please refer to the OEM manual in the Appendix Section of this manual, Book 1 of 3; Section 5.

(Please refer to the illustration on the next page)

2. In order to accomplish start-up, please follow the instructions as stated in #4 of the above illustration.
Power ON/OFF

1. **Configure your UPS’s input and output:** Put your UPS power module into setup mode by holding down both of its scroll buttons A and B at once. Scroll through the setup options using A or B, and select the appropriate setting for each of the following options using the “SELECT” button D.

   - **Input & Output Voltage:** Select 208, 208, or 240 VAC.
   - **Output Frequency:** Your UPS will autoselect 50 or 60 Hz to match the input.
   - **Economy Mode:** Your UPS can provide on-line operation with zero transfer time. It can also operate in a more energy-efficient line-interactive mode. Select Economy On to put the UPS in line-interactive mode, Select Economy Off to put the UPS in on-line mode.
   - **After you have set these options, “exit” the setup mode with the scroll button A, then exit bypass mode by holding the ON button E down until you hear a beep.

2. **Turn input to the UPS ON:** If the UPS power module is connected to a transformer module, turn the transformer module’s AC-to-UPS and Output Circuit Breaker on. Turn the UPS power module’s Input Circuit Breaker on. Press the UPS power module’s ON button E until you hear a beep to begin inverter operation. If your AC input is not providing power normally, you may “cold-start” your UPS from battery. (Your battery must be at least partially charged for this operation to succeed.) Press and hold the “ON” E button until you hear a beep to start your UPS in ON BATTERY mode. Note that some electronic equipment may draw more amps during startup; when starting from battery, consider reducing the initial load on the UPS. Your UPS will perform a brief self-test and show the results on the LCD Display F. See “Startup Self-Test” in the “Operation” section for the display sequence.

3. **Turn UPS output ON:** Turn the UPS power module’s Output Circuit Breaker on. If the UPS is connected to a transformer module, turn the transformer module’s Manual Bypass Switch from BYPASS to NORMAL and its Output Circuit Breaker ON. Your UPS will now provide power to connected equipment.

4. **To turn the UPS power module and transformer module OFF:** Press the UPS power module’s OFF button E until you hear a beep. Your load will still be energized. The inverter is now off, but your UPS is not fully deactivated. The LCD Display F will show BYPASS MODE. Turn the UPS power module’s Input and Output Circuit Breakers E and OFF. If the UPS is connected to a transformer module, turn the transformer module’s power AC-to-UPS and Output Circuit Breakers OFF. Your load will no longer be energized, and the LCD Display F will be dark.

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General Procedures for Unit
3. Proceed to the 12-volt access panel (located at rear of unit – key is required for door). Turn the 12-volt switch to the “unlock” position to activate the compartment door locks.

4. In curbside #1, turn off the three emergency light packs. Turn off the light and close the door. Then proceed to the roadside #4 compartment and turn the main 12-volt switch to the “off” position.

5. Ensure that all outside compartment doors are closed and rear 12-volt / communications access dial is turned to the “off” position, lock belly box doors by pressing down to the “locked” position and lock the 12-volt access door.

6. Proceed to the main breaker box and switch the HVAC breakers (breaker numbers 1, 3 & 5) to the “off” position. If security system is used, proceed to the security system panel and re-arm the system. Lock all doors as you exit the unit.

7. Proceed to the generator and turn the main disconnect breaker ‘OFF’. On the control panel press the red STOP key. The Generator should then power down.

8. Ensure that all keyed locks on the unit are closed and locked.

9. Ensure that the tractor doors are secured and locked.

10. Ensure that the generator doors are secured and locked.