

**create  
space**  
and never  
forget



**EXPANDABLE**  
movable spaces

User manual

**POD**

30ft

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# Preface

 This manual is intended for drivers and/or other users of the Expandable Pod and contains the necessary information about its use. This user manual must always be kept with the vehicle. For service technicians, a separate maintenance and repair manual is available via the website: [www.expandable-trailers.com/na](http://www.expandable-trailers.com/na).

## Proper use:

A Expandable Pod is designed for independent use. Modifications of any kind can affect the safety of the system. Warranty on products from Expandable LLC void if these products are modified. If the Expandable Pod is not used according to the instructions provided by Expandable LLC, all warranty claims against Expandable LLC or suppliers of the Expandable Pod will be declared invalid.

Before the system is put into operation, it must be established that the trailer complies with national road traffic legislation. The system may only be operated in accordance with the manuals of the tractor and the trailer.

The images in this manual are for example purposes only and are not intended for any other purpose. The shown images may differ slightly from the delivered system.

|                                                                                    |                                                                                    |                                                                                                                                                                                                 |
|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  |  | <b><i>All safety information is described in the relevant chapter (See "Safety &amp; Environment on page 43"). In the remaining chapters, safety risks are symbolized using pictograms.</i></b> |
|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

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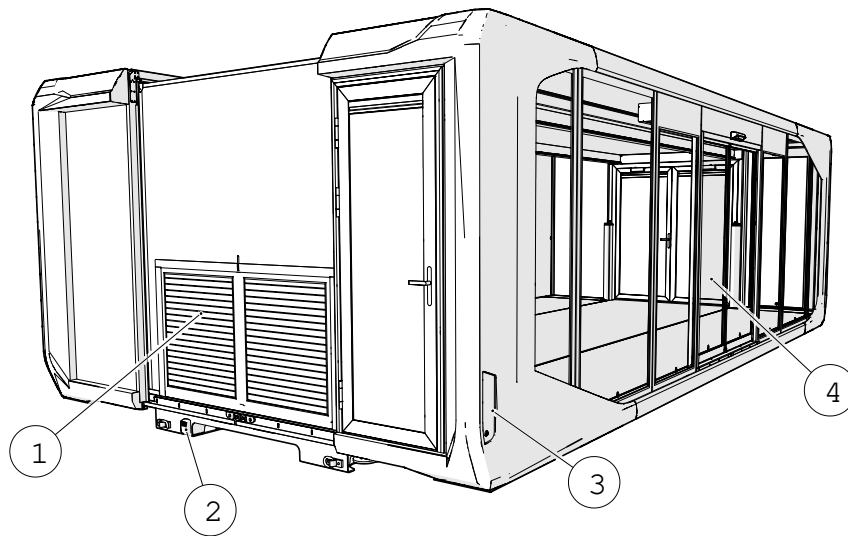
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Date of issue: 11/13/2024 Original version: 1.0

## 1. Description

*This chapter describes the Expandable Pod. Here you will find information about the naming of components and their functions.*

## 1.1 Pod

### Main Components



E9P\_45

Fig. 1-1

|            |                                          |
|------------|------------------------------------------|
| 1 Grille   | 3 Control unit                           |
| 2 Key safe | 4 Slide-out (extendable and retractable) |

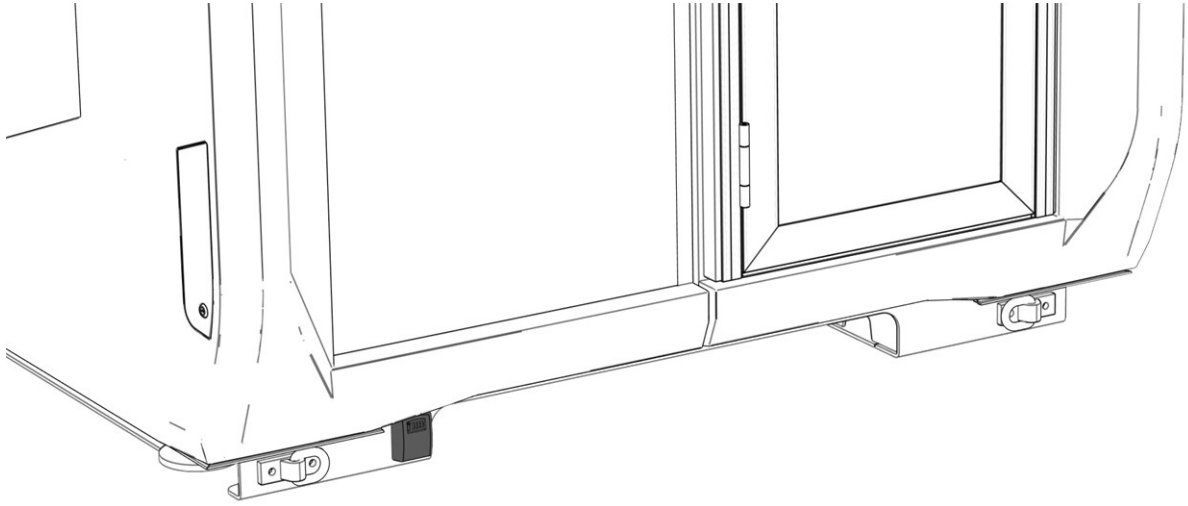
### Usage

During normal use of the Expandable Pod, power is supplied via a shore power connection. The available extension cable for this is located in the technical room (see "Fig. 1-3") and can be accessed from inside the Expandable Pod via a door. The extension cable can be routed through the floor section on the left rear side and then connected to shore power. The hydraulic system runs on its own 24 V battery system.

Depending on the chosen configuration, the Expandable Pod is equipped with lashing eyes to secure the cargo on board. The number of built-in wall sockets and floor sockets also depends on the chosen configuration. The optional RGB LED lighting can be set to the desired color display using a rotary knob.

## Key safe

The Expandable Pod is equipped with a key safe. The Expandable Pod is equipped with a key safe which is located on the chassis at the front of the Expandable Pod (see "Fig. 1-2"). The key safe is secured with an adjustable code. The key safe stores the keys to the access doors so that the keys can be kept near the trailer at all times.

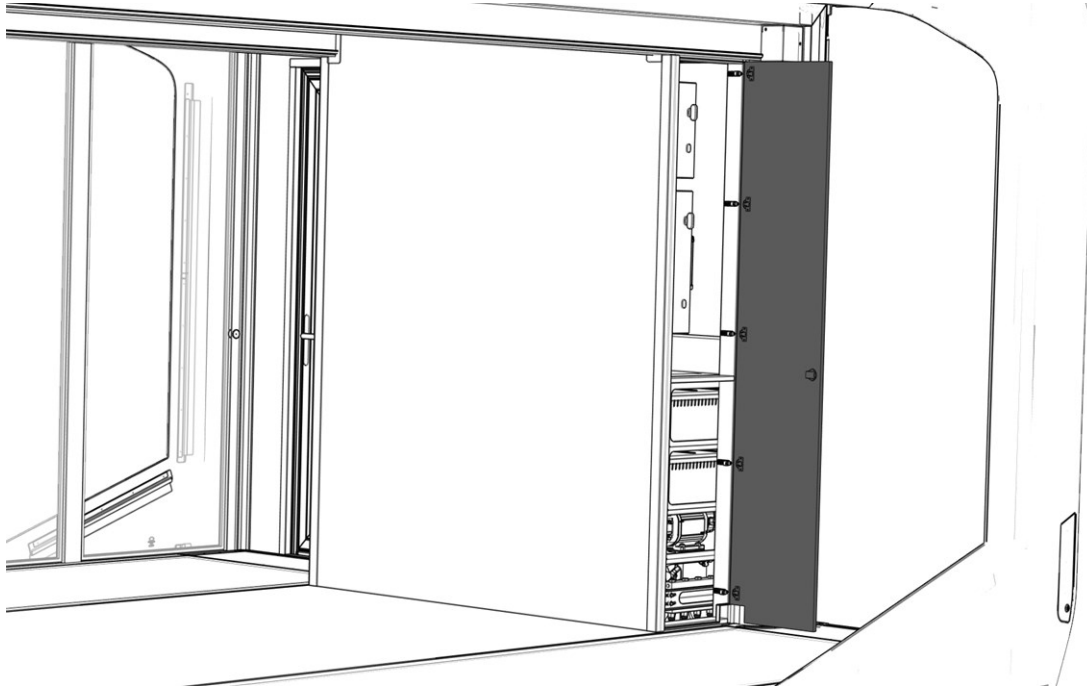


E9P\_46

*Fig. 1-2 Key safe*

## Technical Room

The technical room is located in the interior of the Expandable Pod and contains the control system for the hydraulics and the condenser of the air conditioning system. The technical room is accessed through a door on the inside of the Expandable Pod or by removing the grilles on the outside at the rear of the Expandable Pod (see "Fig. 1-3"). The key used to unlock the control panels can also be used to remove the grilles



E9P\_47

Fig. 1-3 Technical room

## Low Entry

After the Expandable Pod has been unloaded from the trailer, the Expandable Pod is lowered to the ground using 4 lift cylinders. The Expandable Pod can be automatically levelled. Even on sloping terrain, provided the requirements set by Expandable LLC regarding **site conditions** are met.

## Control panel

The Expandable Pod can be operated through two control panels (See "Control panel location and operation on page 8").



## Options and Accessibility

The Expandable Pod is available in multiple configurations regarding panel choice.

The side, front and rear walls can optionally be fitted with closed or glass panels equipped with electrically or manually operated sliding doors or single or double hinged doors. The doors can be locked with a key, electrically or using a combination lock.

Both the manually and electrically operated sliding doors can be mechanically locked for transport in the lower rail.

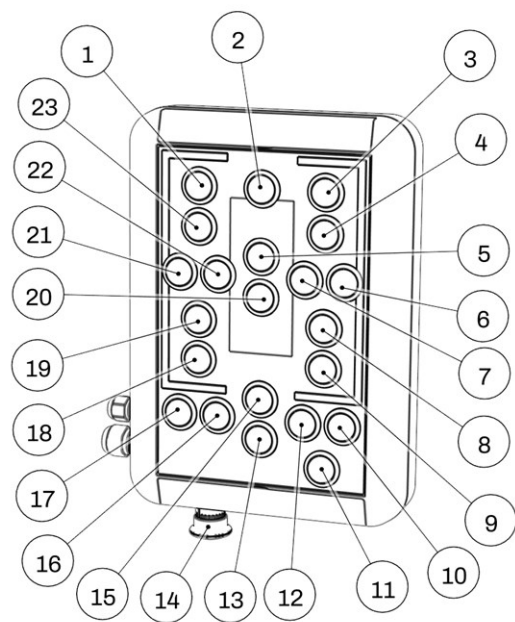
The Expandable Pod is always accessible in case of a hydraulic malfunction by moving the left slide out outwards using the hand pump (See "Accessibility Expandable Pod in Case of Malfunction on page 33") whose handle is stored on the chassis of the Expandable Pod.

## 2. Control panel

*This chapter describes the control panel and button functions.*

## 2.1 Control panel location and operation

The Expandable Pod is equipped with two control panels. These are located at the left and right rear. Once one of the control panels is operated, operation of the other panel is not possible. This prevents unwanted movements by two people operating both panels simultaneously. The control panels can be slid out from the left and right rear moldings after the cover flaps are unlocked with the key. Always first check that the emergency stops are pulled out before starting the panels.



PC-1768\_01

Fig. 2-1

| Button | piston rod movement            | Pod movement             |
|--------|--------------------------------|--------------------------|
| 1      | Front left piston rod In       | Front left Pod Down      |
| 2      | Automatic Levelling            |                          |
| 3      | Front right piston rod In      | Front right Pod Down     |
| 4      | Front right piston rod Out     | Front right Pod Up       |
| 5      | All pistons In                 | Pod Down                 |
| 6      | Right slide out piston rod out | Right slide out extends  |
| 7      | Right slide out piston rod In  | Right slide out retracts |
| 8      | Rear right piston rod In       | Rear right Pod down      |
| 9      | Rear right piston rod out      | Rear right Pod up        |
| 10     | No function                    |                          |
| 11     | On / Off                       |                          |
| 12     | No function                    |                          |
| 13     | No function                    |                          |

| Button | piston rod movement           | Pod movement            |
|--------|-------------------------------|-------------------------|
| 14     | Emergency stop                |                         |
| 15     | No function                   |                         |
| 16     | No function                   |                         |
| 17     | No function                   |                         |
| 18     | Rear left piston rod out      | Rear left Pod up        |
| 19     | Rear left piston rod In       | Rear left Pod down      |
| 20     | All pistons out               | Pod up                  |
| 21     | Left slide out piston rod out | Left slide out extrends |
| 22     | Left slide out piston rod in  | Left slide out retracts |
| 23     | Front left piston rod out     | Front left Pod up       |

Table 2-1 Control Panel Buttons

Once the Expandable Pod is in the operational position, both control panels must be slid in and the cover flaps must be locked.



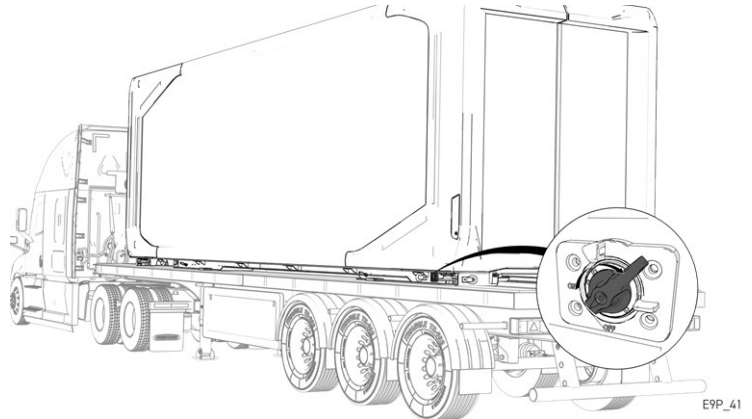
### 3. Preparation for Use

*In this chapter, you will find information about disconnecting and preparing the Expandable Pod for use.*

## 3.1 Preparation for Use

Follow the procedure below.

1. Turn the main switch to the "ON" position.

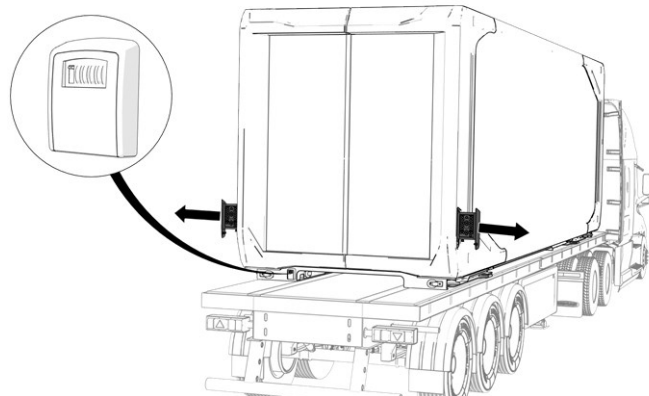


2. Remove the straps or chains used to secure the pod to the trailer.

3. Unlock the slide with the control panel on both sides using the key and pull it outwards.



*The key is in the safe.*



4. Press the on/off switch to start the control panel.



*The control panels do not turn on at the same time, you must turn each one on separately.*

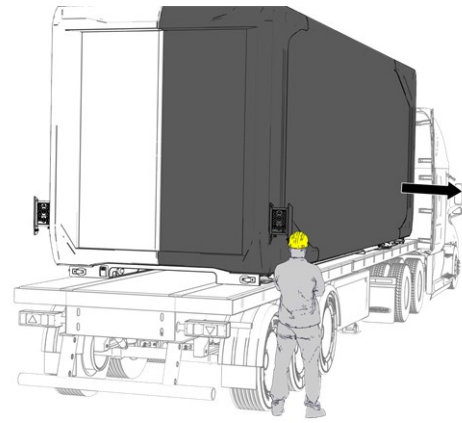


*Make sure that the emergency stop at the bottom of each control panel is pulled out.*



5. Press the indicated button and slide the right slide out halfway.

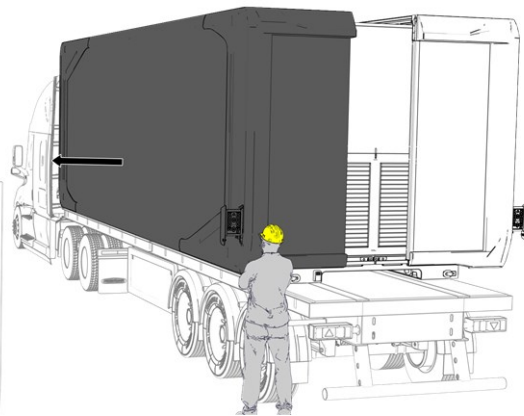
|                                                                                   |                                                                                   |                                                                                                                                                                                                                                                                            |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  |  | <p><i>While the right slide out is moving pay close attention to the sound and movement. If the slide out is moving unevenly, or there are any deformations in the slide out, or the hydraulic pump is binding, stop immediately and fix the cause of the problem.</i></p> |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|



E9P\_22

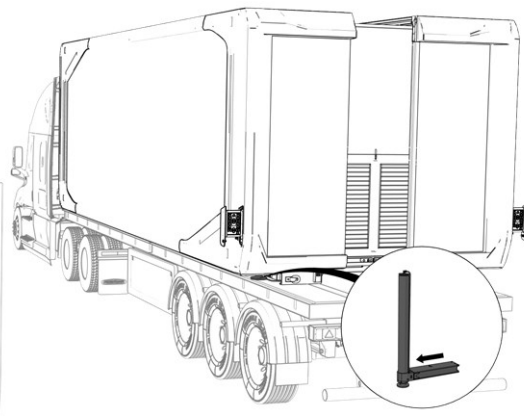
6. Press the indicated button and slide the left slide out halfway.

|                                                                                   |                                                                                   |                                                                                                                                                                                                                                                                           |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  |  | <p><i>While the left slide out is moving pay close attention to the sound and movement. If the slide out is moving unevenly, or there are any deformations in the slide out, or the hydraulic pump is binding, stop immediately and fix the cause of the problem.</i></p> |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|



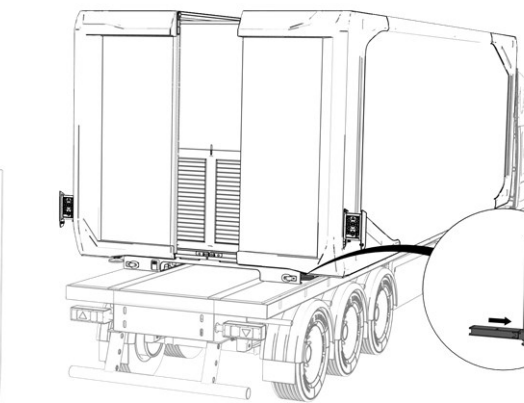
E9P\_23

7. Press the indicated button and push out both left lift cylinders completely.



E9P\_24

8. Press the indicated button and push out both right lift cylinders completely.

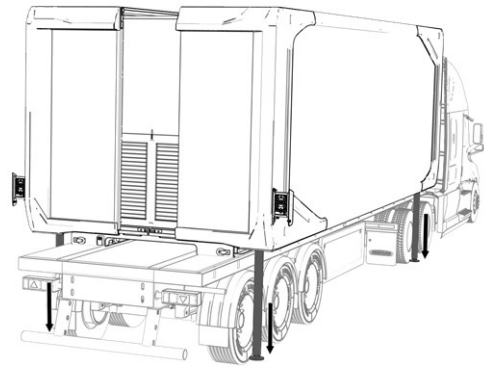


E9P\_25

9. Press the indicated button to push out the lift cylinder's piston rods until all 4 of them touch the ground.

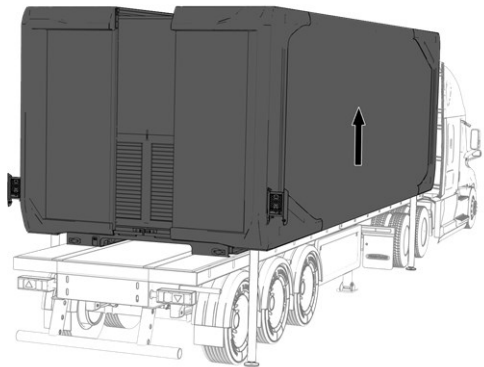


*Visually check that all piston rod's feet touch the ground.*



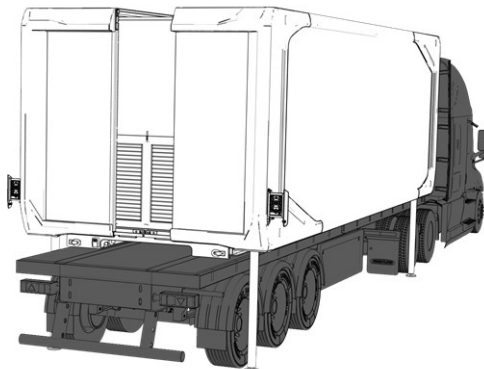
E9P\_26

10. Press the indicated buttons to raise the pod as high as possible.



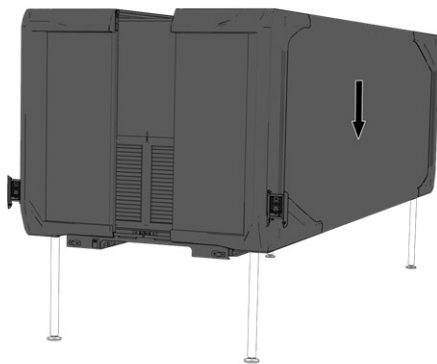
E9P\_27

11. Drive the truck combination out from under the pod.



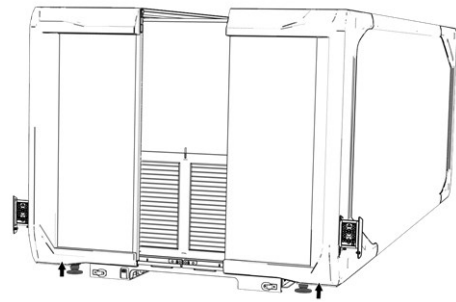
E9P\_10

12. Press the indicated button and lower the pod to the ground.



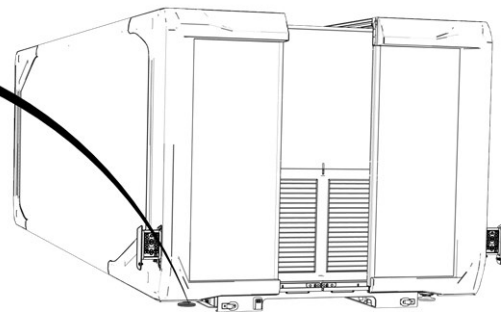
E9P\_28

13. Press the indicated button and fully retract the lift cylinder's piston rods.



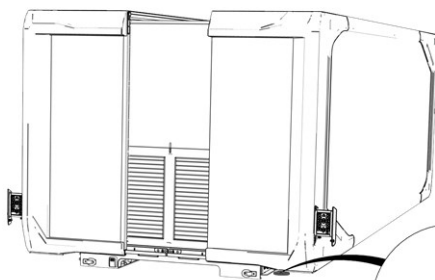
E9P\_29

14. Press the indicated button and fully retract the left side lift cylinders.



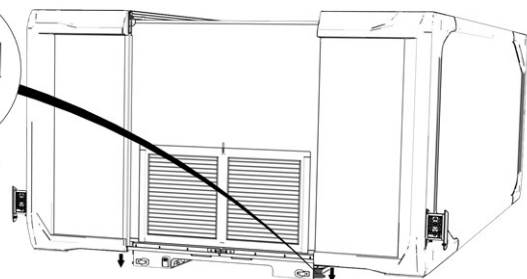
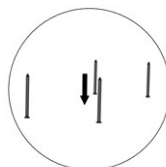
E9P\_30

15. Press the indicated button and fully retract the right side lift cylinders.



E9P\_31

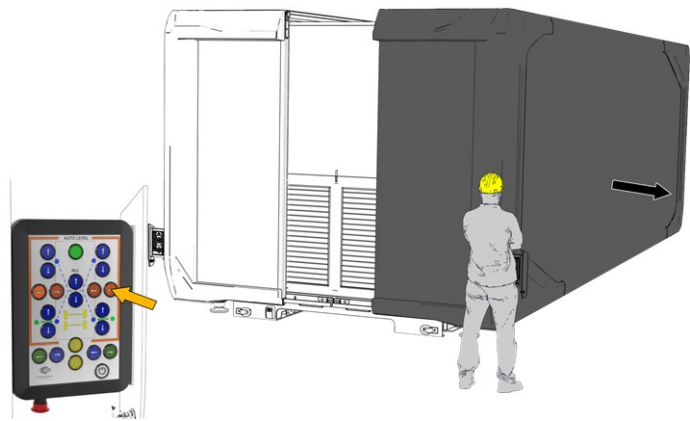
16. Press the indicated button and extend the lift cylinder's piston rods to the point where they touch the ground.



E9P\_32

17. Press the indicated button to extend the right slide out.

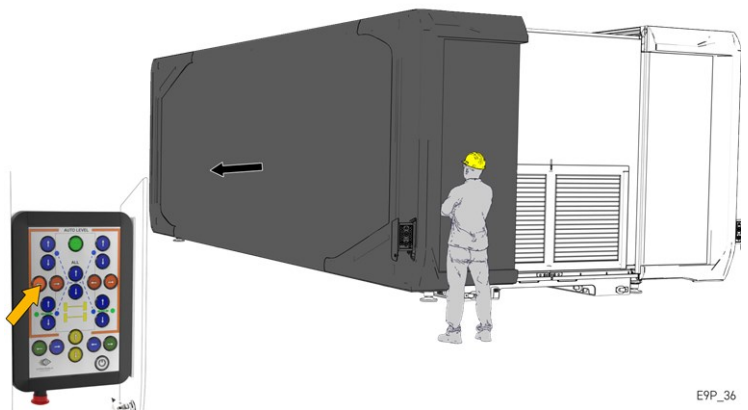
|                                                                                   |                                                                                                                                                                                                                                                                                                                                                       |
|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  |  <p>While the right slide out is moving pay close attention to the sound and movement. If the slide out is moving unevenly, or there are any deformations in the slide out, or the hydraulic pump is binding, stop immediately and fix the cause of the problem.</p> |
|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|



E9P\_35

18. Press the indicated button to extend the left slide out.

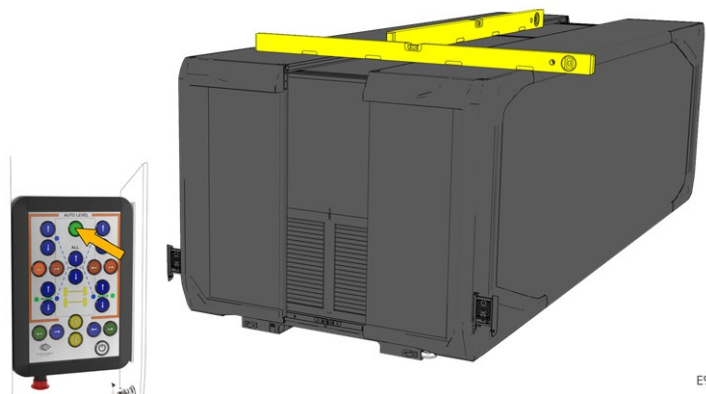
|                                                                                   |                                                                                                                                                                                                                                                                                                                                                      |
|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  |  <p>While the left slide out is moving pay close attention to the sound and movement. If the slide out is moving unevenly, or there are any deformations in the slide out, or the hydraulic pump is binding, stop immediately and fix the cause of the problem.</p> |
|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|



E9P\_36

19. Press the indicated button ("AUTO LEVEL") so that the "Touchdown" levels itself in two directions.

|                                                                                     |                                                                                                                                 |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
|  | <p>The 8 buttons for operating each piston rod of the lift cylinders lights up for a few seconds when leveling is complete.</p> |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|

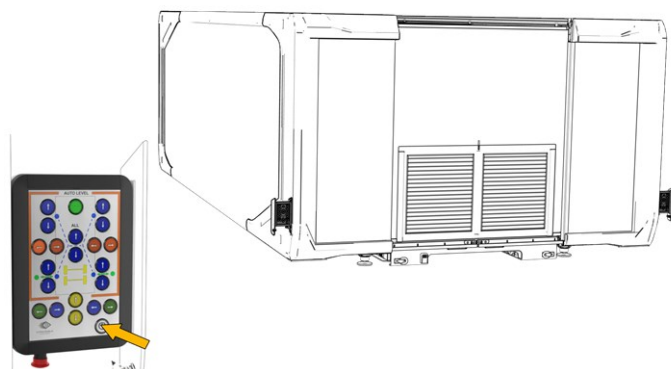


E9P\_33

20. Press the on/off switch to turn off the control panel.

|                                                                                     |                                                                                                   |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
|  | <p>The control panels do not turn on at the same time, you must turn each one off separately.</p> |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|

|                                                                                     |                                                                                             |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
|  | <p>Make sure that the emergency stop at the bottom of each control panel is pulled out.</p> |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|

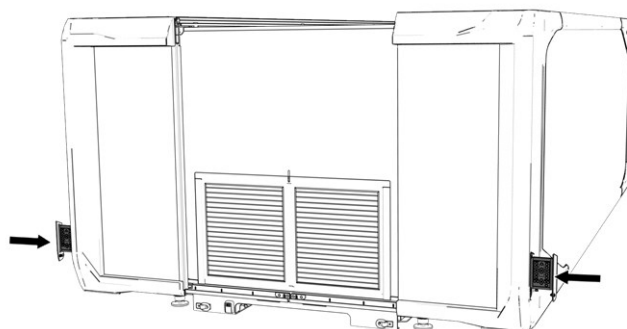


E9P\_37

21. Slide the control panels in on both sides and then lock the flaps with the key.

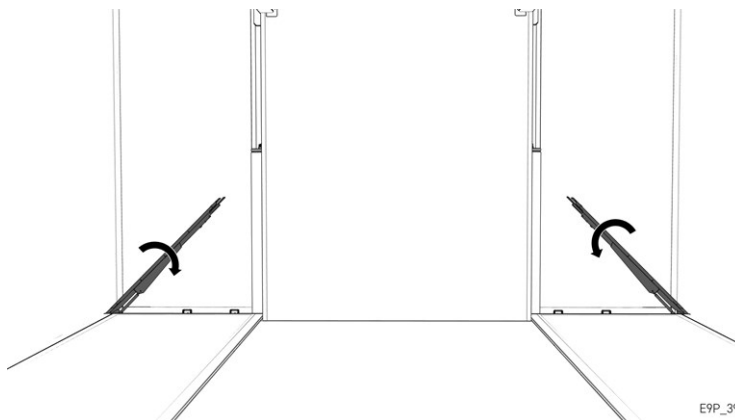


*Store the key in the designated location.*



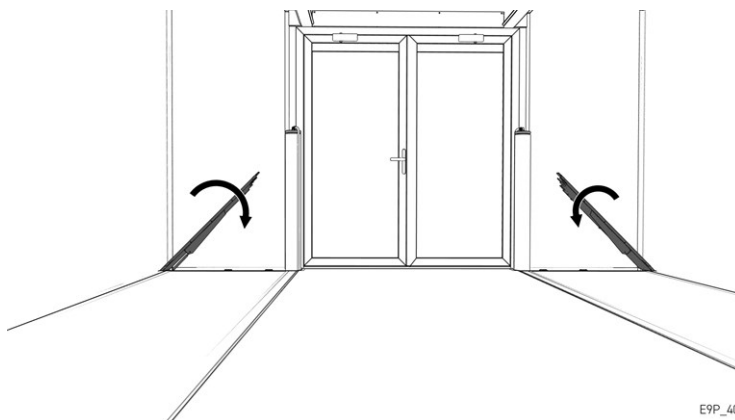
E9P\_38

22. Tilt the two floor sections at the rear downwards.



E9P\_39

23. Tilt the two floor sections at the front downwards.



E9P\_40

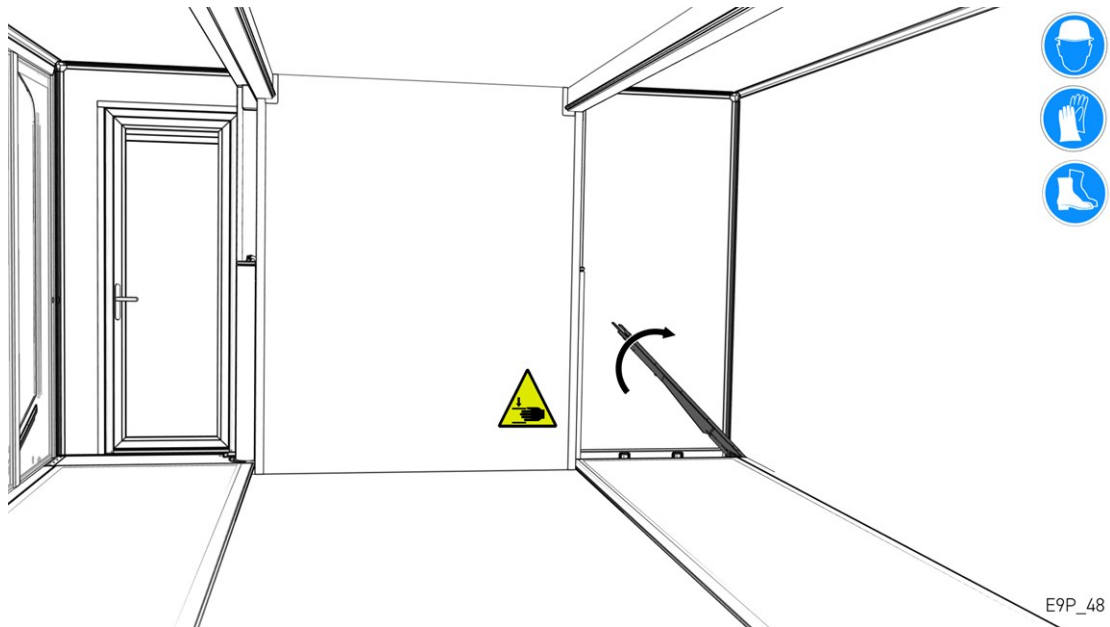
## 4. Commissioning

The following paragraphs contain information about the commissioning of the Expandable Pod.

## 4.1 Operation of Electrically Operated Sliding Doors

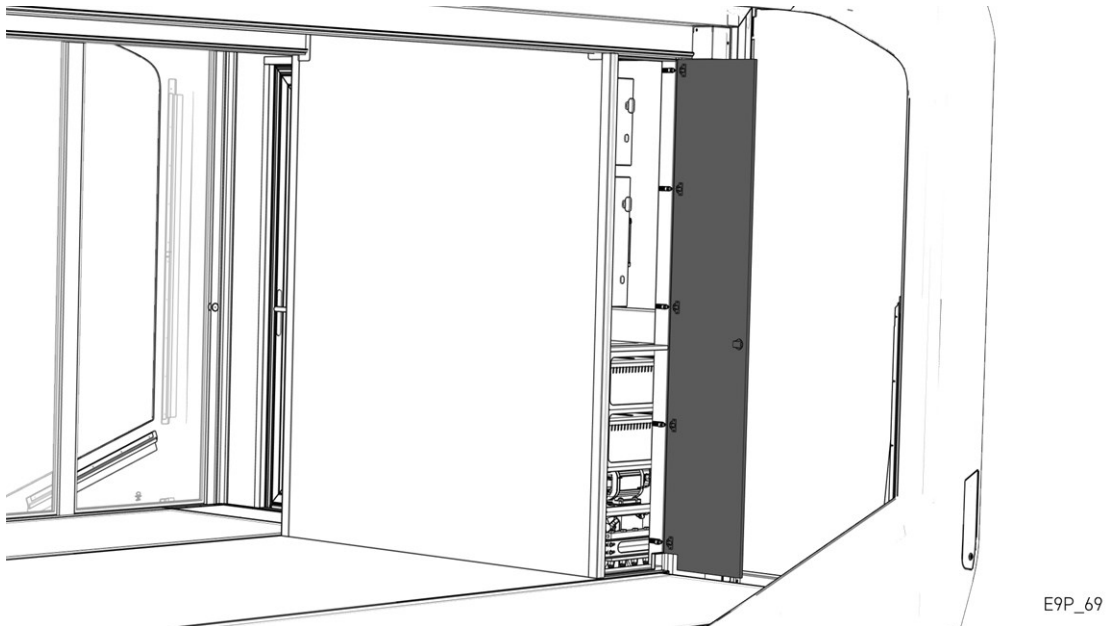
Follow the procedure below to open the sliding doors.

1. Open one of the doors at the rear or front.
2. ↓ Tilt the left rear floor section up.

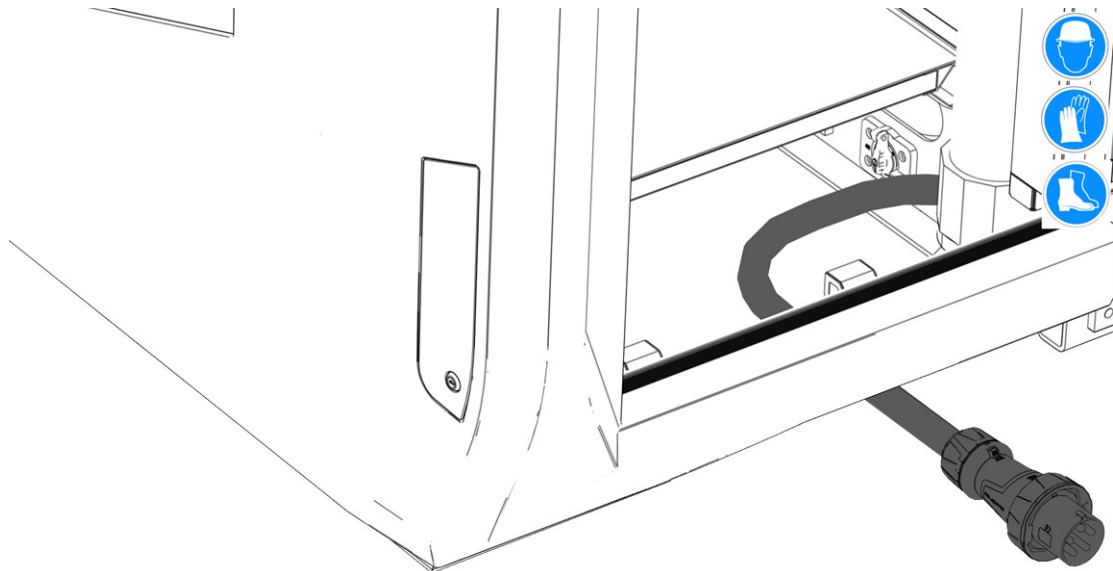


*The following steps are only necessary if the power was turned off.*

3. ↓ Open the door of the technical room on the inside of the Expandable Pod.



4. ↓ Lay the cable for shore power outside and connect it and close the door.



E9P\_49

5. Tilt the left rear floor section down.



*Ensure that the floor sections are always tilted down during use to prevent accidents.*

## 4.1.1 Button Functions for Sliding Doors with "Assa Abloy" Control.



Fig. 4-1

| Button Functions "Assa Abloy" |                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-------------------------------|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                               | OPEN                   | The door is permanently open. The door can be manually moved for example, to clean the windows. All impulse generators except the emergency button (if installed) are disabled.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                               | AUTO PARTIAL           | Two-way traffic, AUTO PARTIAL possible. The door can be partially opened with the internal and external activation units and with a key switch (if installed). An emergency button (if installed) can fully open the door.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|                               | AUTO                   | Two-way traffic, normal operation of the door. The door can be fully opened with the internal and external activation units and with a key switch or emergency button (if installed).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|                               | EXIT (ONE-WAY TRAFFIC) | One-way traffic from inside. The door is normally locked if an electromechanical lock is installed. The door can only be opened with the internal impulse generator or with a key switch or emergency button (if installed).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|                               | OFF/CLOSED             | <p>The door is closed and locked (if an electromechanical lock is installed). In an escape route, the OFF mode can only be set if it is certain that everyone has left the building. The door cannot be opened with the internal and external activation units. The door can be partially opened with a key switch (if installed). An emergency button (if installed) can fully open the door. If the program switch is in the OFF position, you can use the OFF button to give a key impulse to partially open the door. Depending on the configuration, the OFF button works in 3 ways.</p> <ol style="list-style-type: none"> <li>1. No key impulse can be given.</li> <li>2. A key impulse can always be given by holding down the OFF button for 2 seconds.</li> <li>3. A key impulse can be given by first unlocking the program switch</li> </ol> |

| Button Functions "Assa Abloy"                                                     |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----------------------------------------------------------------------------------|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                   |       | and then holding down the OFF button for 2 seconds.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|  | RESET | If you press the button in the opening at the bottom of the unit with a thin object, the door opener will reset and a system test will be performed. The door returns to the closed position (unless it is in the OPEN operating mode or if an error has occurred) and is now ready for normal operation. If the door opener is equipped with an escape route system, it will perform a test on the system after slowly closing the doors by opening the door on battery power (if the program switch is not in the OPEN or OFF position). |

Table 4-1 Button Functions Assa Abloy



*Any information in the "Assa Abloy" user manual supersedes anything related in this manual.*

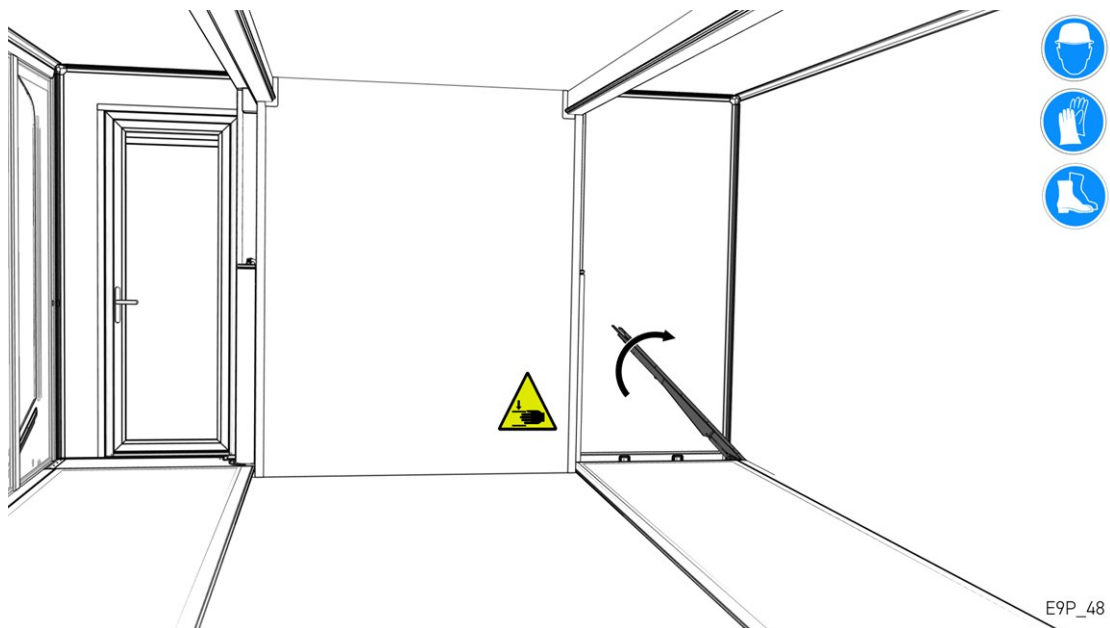
## 4.2 Power Disconnect

Expandable LLC recommends that users of the Expandable Pod temporarily disconnect the power if it is left on site for an extended period. This applies exclusively to the Expandable Pod. All hydraulic equipment can be turned off with the main switch. All other equipment is connected to shore power. If there are external devices connected to the Expandable Pod, such as refrigerators or electronic equipment, it is up to the user to determine whether the power to these devices can be turned off.

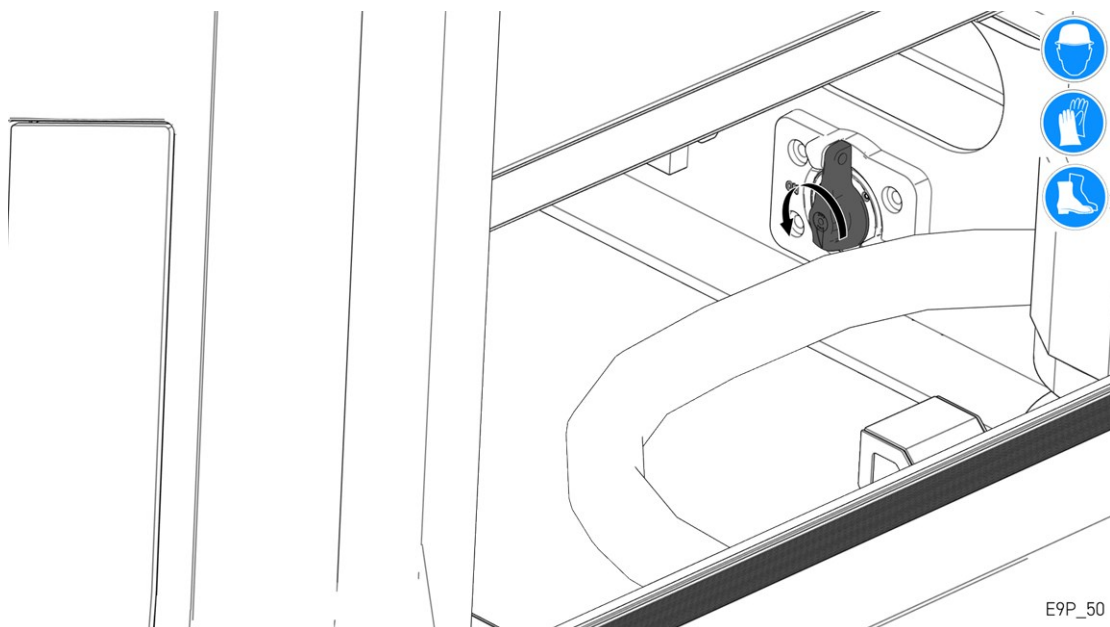
### Procedure

Follow the procedure given below.

1. ↓ Tilt the floor section at the left rear upwards.



2. ↓ Turn the main switch to the "OFF" position to disconnect the power.



*Optionally, lock the main switch with a padlock.*

- 
- 
3. Tilt the floor section at the left rear downwards.



## 5. Preparation for Transport

*In this chapter, you will find information on making the Expandable Pod ready for transport and coupling it.*

## 5.1 Preparing for Transport



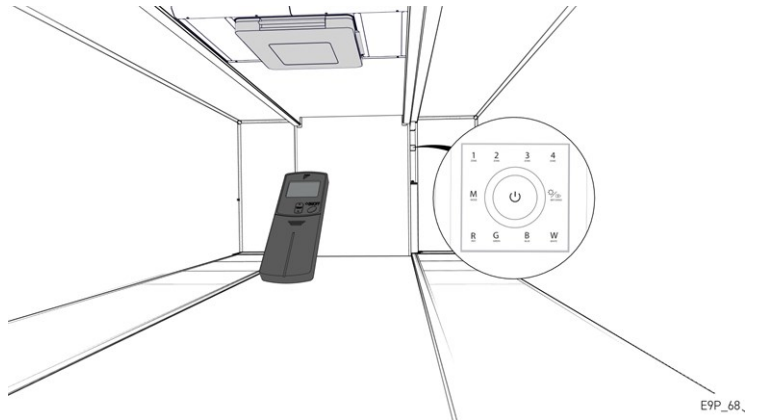
*Move the load that remains in the Expandable Pod to the centre floor. No load should be placed on the tilting floors.*

Follow the procedure below.

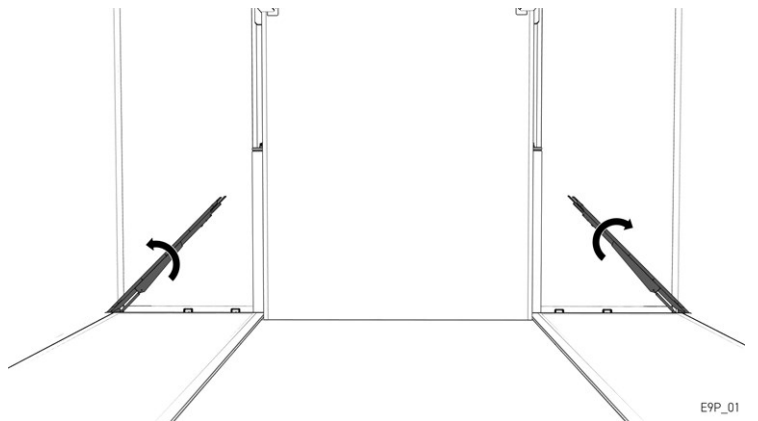
1. Switch off all electrical equipment such as air conditioning, lighting and RGB lighting.



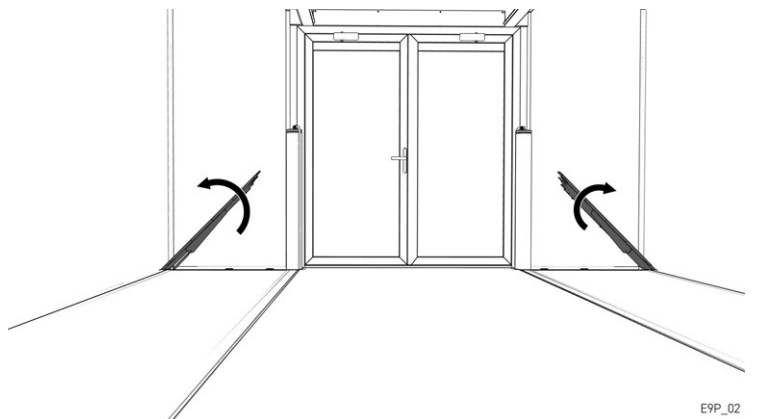
*It takes about 5 minutes to empty the air conditioner's water tank.*



2. Fold the front floor panels upwards.



3. Fold the rear floor panels upwards.



4. Disconnect the shore power and store the cable in the technical room through the door on the inside. The main switch should remain "ON".



*Close the door of the technical area*



*Close all entry doors and store the keys in the key safe (See "Key safe on page 4")*

5. Unlock the sled with the control panel on both sides with the key and pull them out.

6. Press the on/off switch to start the control panel.



*The control panels do not turn on at the same time, you must turn each one on separately.*

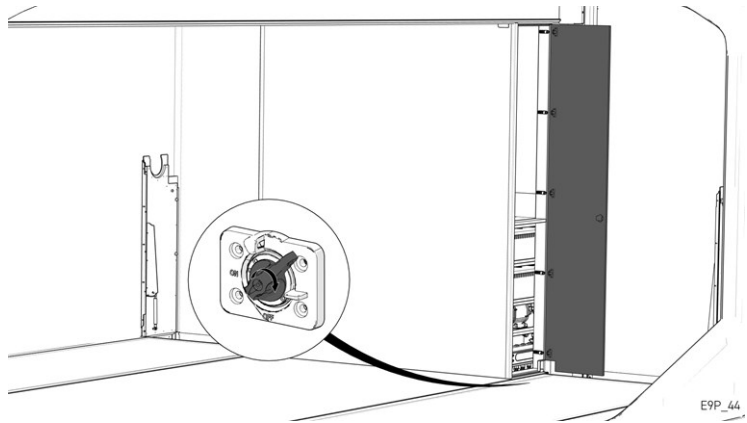


*Check on both sides that the emergency stop is pulled out.*

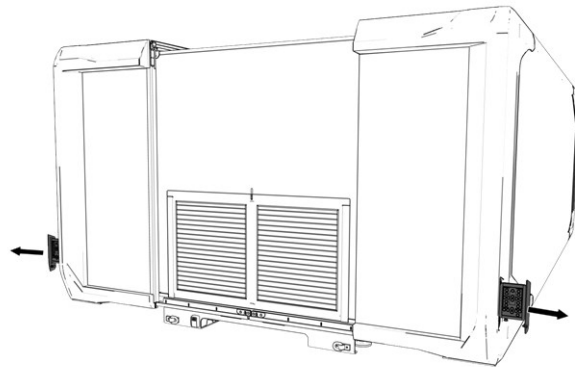


*The emergency stop is NOT an on/off switch.*

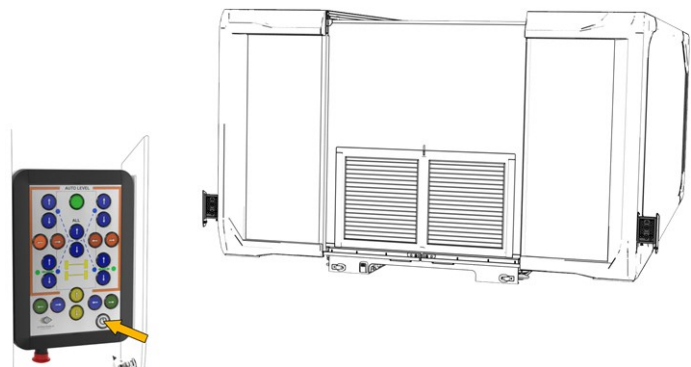
7. Press the indicated button to retract the piston rods of the lift cylinders.



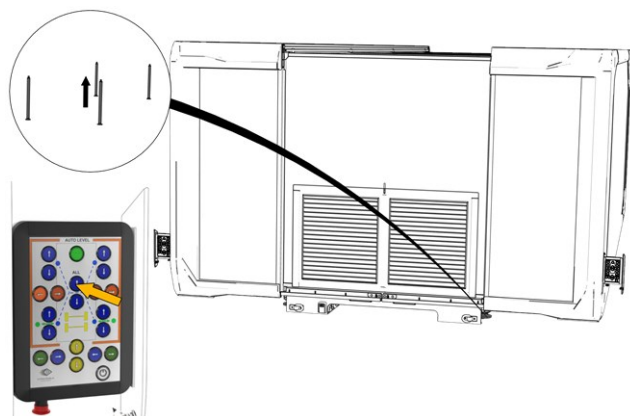
E9P\_44



E9P\_03

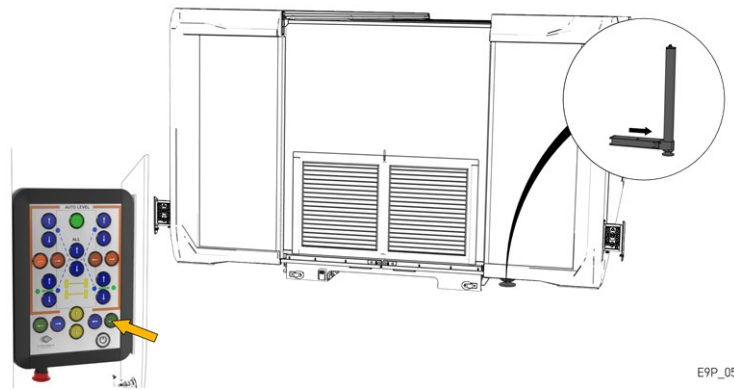


E9P\_04



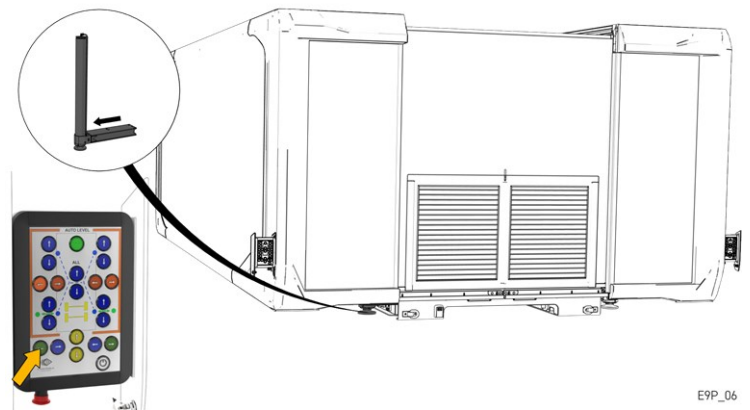
E9P\_42

8. Press the indicated button to extend the right lift cylinders.



E9P\_05

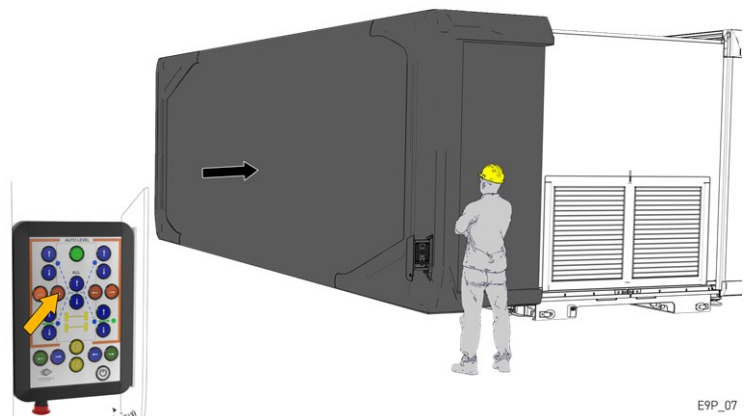
9. Press the indicated button to extend the left lift cylinders.



E9P\_06

10. Press the indicated button and retract the left slide out halfway.

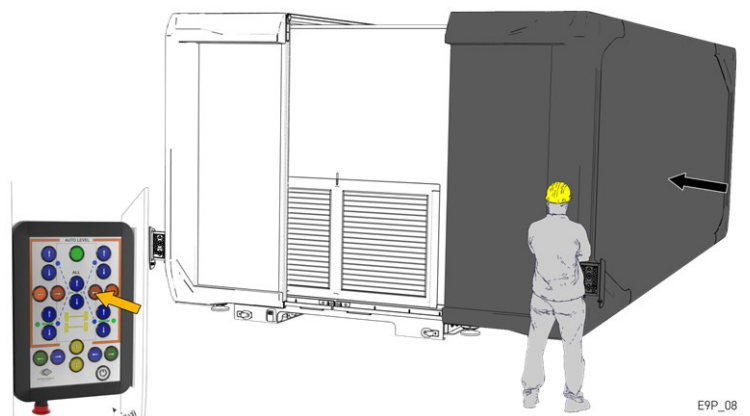
|  |  |                                                                                                                                                                                                                                                                           |
|--|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  |  | <p><i>While the left slide out is moving pay close attention to the sound and movement. If the slide out is moving unevenly, or there are any deformations in the slide out, or the hydraulic pump is binding, stop immediately and fix the cause of the problem.</i></p> |
|--|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|



E9P\_07

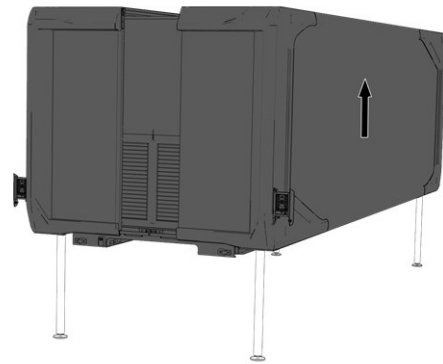
11. Press the indicated button and retract the right slide out halfway.

|  |  |                                                                                                                                                                                                                                                                            |
|--|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  |  | <p><i>While the right slide out is moving pay close attention to the sound and movement. If the slide out is moving unevenly, or there are any deformations in the slide out, or the hydraulic pump is binding, stop immediately and fix the cause of the problem.</i></p> |
|--|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|



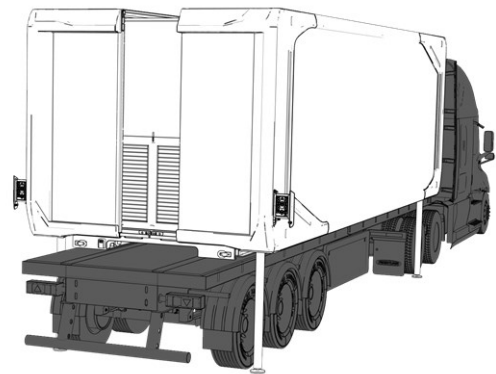
E9P\_08

12. Press the indicated button to lift the container to it's maximum height.



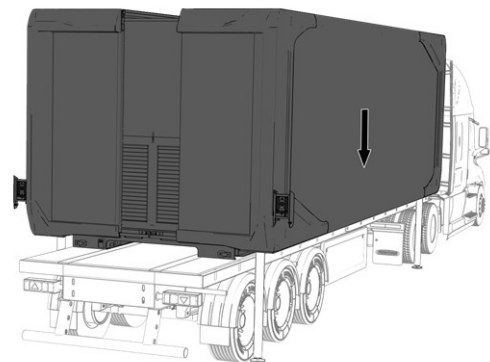
E9P\_09

13. Drive the truck combination under the Pod.



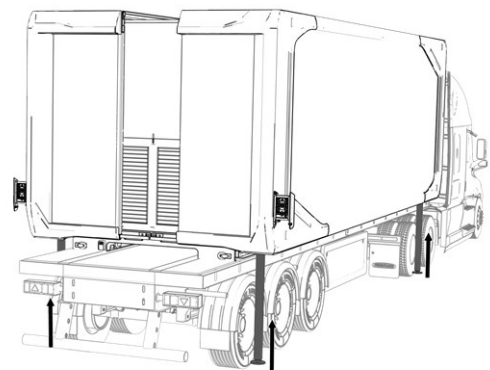
E9P\_10

14. Press the indicated button to lower the Pod onto the trailer.



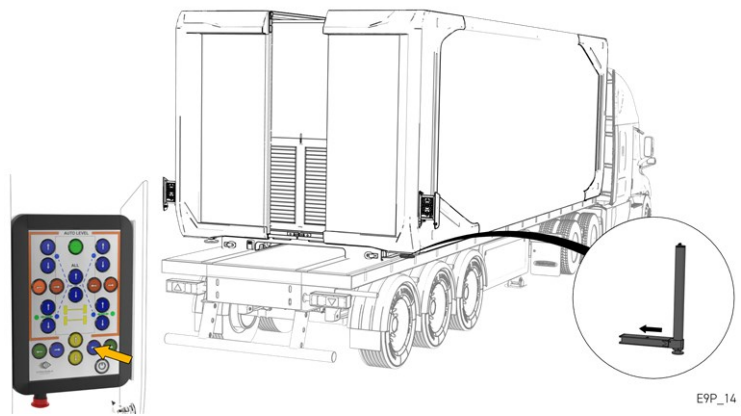
E9P\_11

15. Press the indicated button to fully retract the piston rods of the lift cylinders.



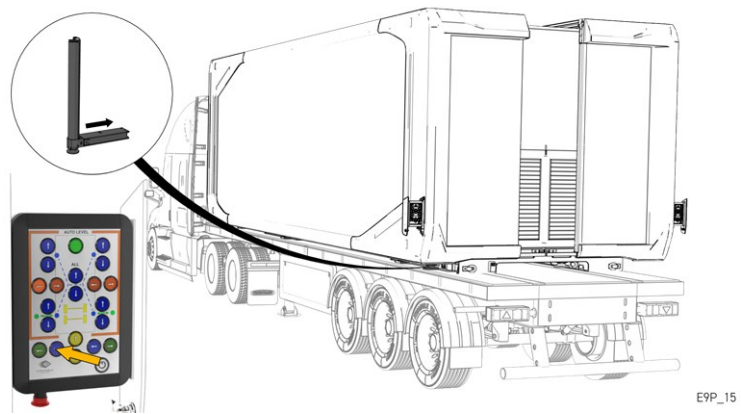
E9P\_12

16. Press the indicated button to fully retract the right lift cylinders.



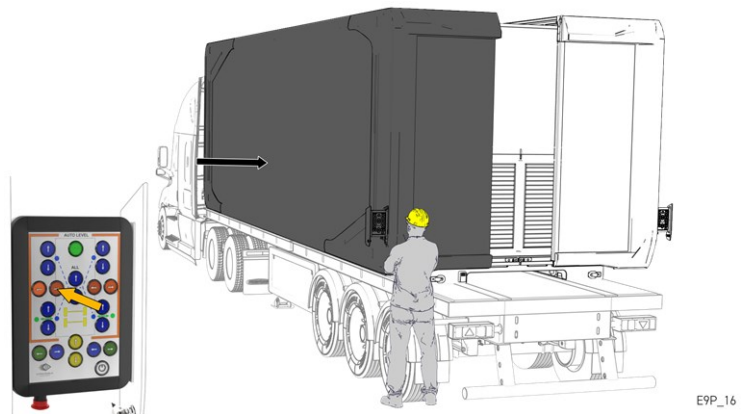
E9P\_14

17. Press the indicated button to fully retract the left lifting cylinders.



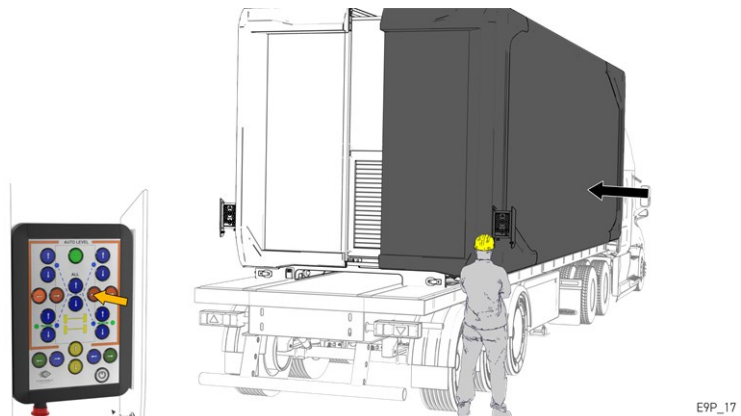
E9P\_15

19. Press the indicated button to fully retract the left slide out



E9P\_16

20. Press the indicated button to fully retract the right lifting cylinder.



E9P\_17

21. Press the on/off switch to start the control panel.



*The control panels do not turn off at the same time, you must turn each one off separately.*



*Check on both sides that the emergency stop is pulled out.*



*The emergency stop is NOT an on/off switch.*

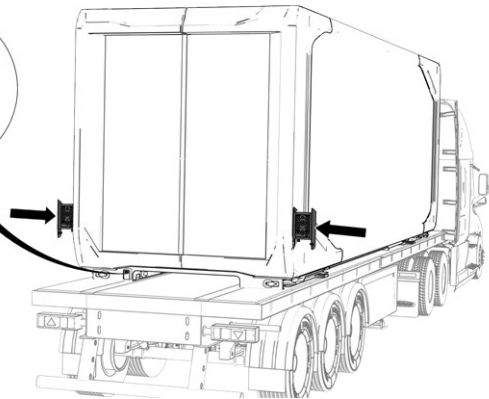
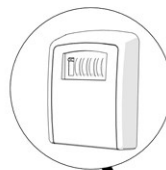


E9P\_18

22. Push the control panels both left and right inward and lock the locks with the key.



*Store the key in the key safe.*

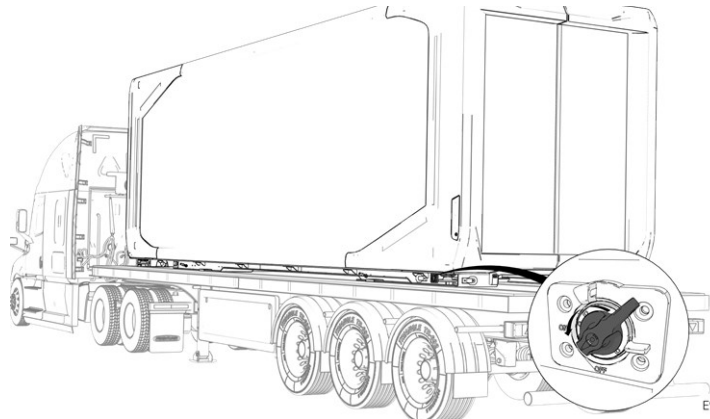


E9P\_19

23. Turn the main switch to "OFF".



*It is important to turn the main power off to the unit. Failing to do so will allow the unit to be operated while on the trailer. This can cause dangerous situations!!!*

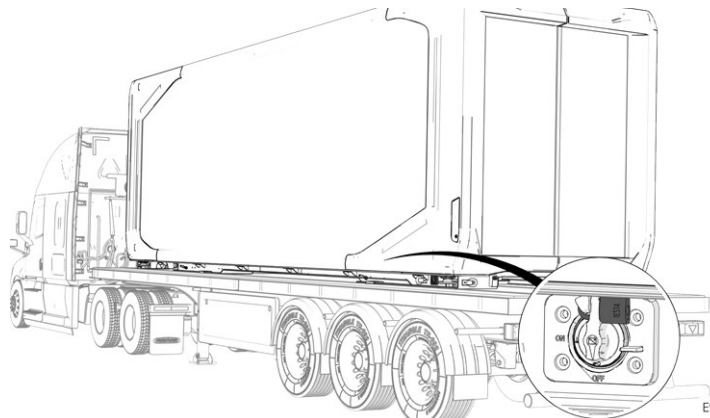


E9P\_43

23. Lock the main switch with a pad lock.



*Prevent the Expandable Pod from being operated unintentionally!!!*

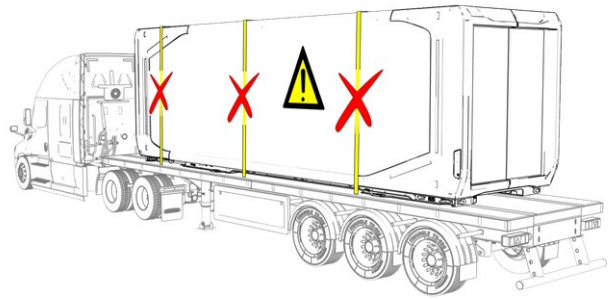


E9P\_71

## 24. Attach the pod to the trailer.



*Make use of the lashing eyelets on the chassis of the pod. Never use straps that run over the pod. The slide outs are made of polyester. These cannot withstand the pressure when the straps are tightened.*



E9P\_72

## 6. Emergency Operation

This chapter provides information on how to access the Expandable Pod in case of a technical malfunction.

## 6.1 Accessibility Expandable Pod in Case of Malfunction

The Expandable Pod is accessible in most cases even in the event of a technical malfunction. To make this possible, the Expandable Pod is equipped with a hydraulic hand pump. The hand pump is located at the rear right under the chassis floor (see "Fig. 6-1").

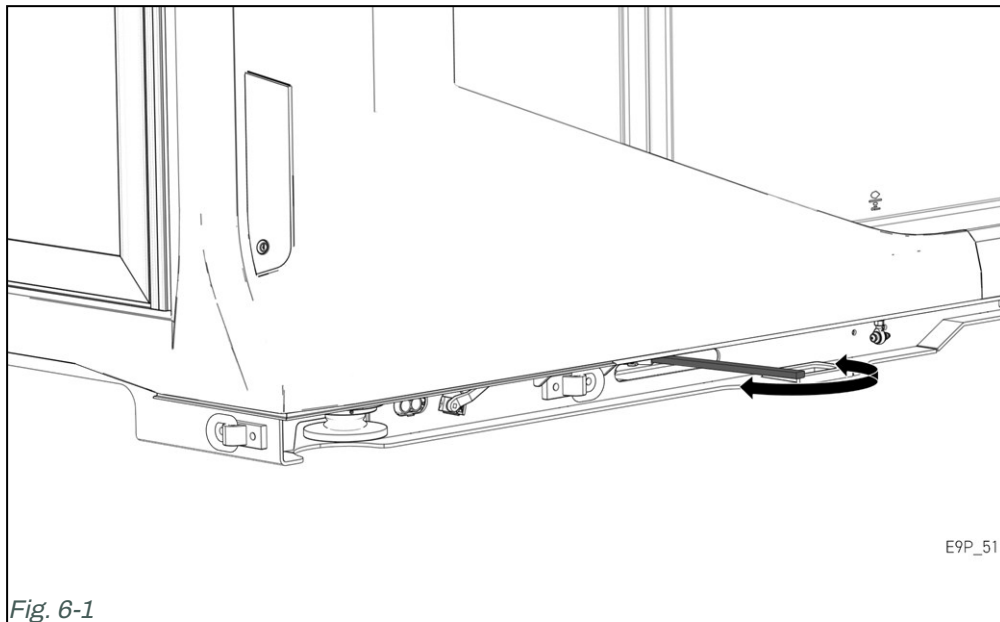


Fig. 6-1

Using this hand pump, the left side slide out of the Expandable Pod can be moved outward, freeing one or more access doors (if present) and the grille.

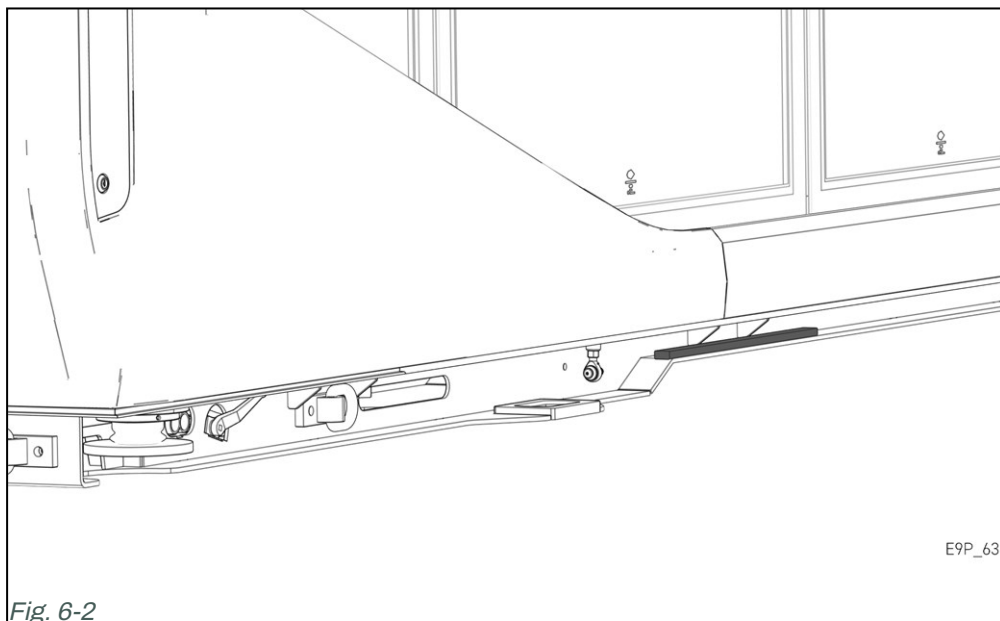


Fig. 6-2

The handle is located as shown atop the chassis beam at the right side of the Expandable Pod. (see "Fig. 6-2").

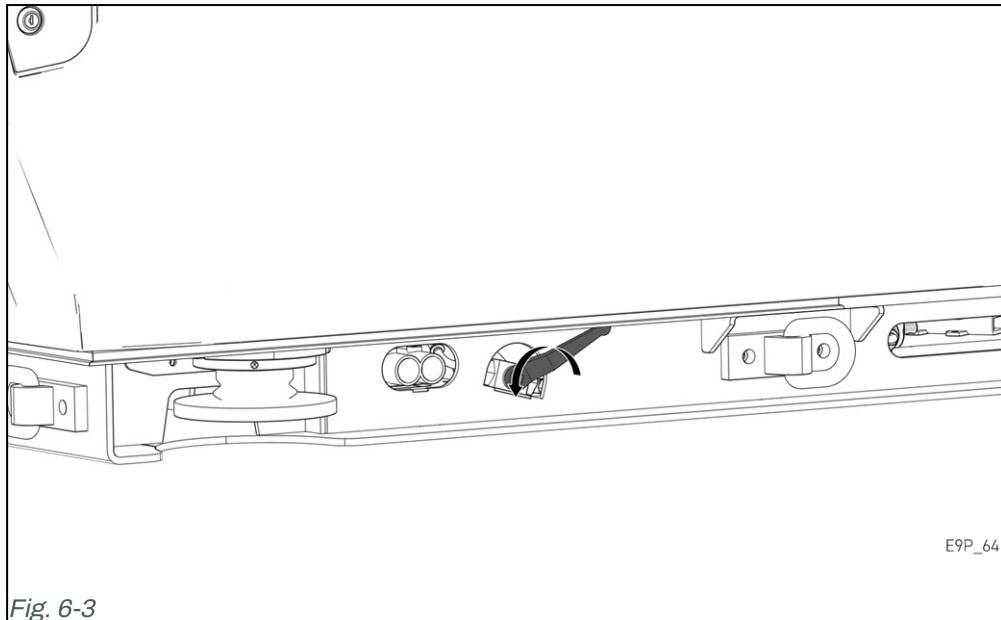
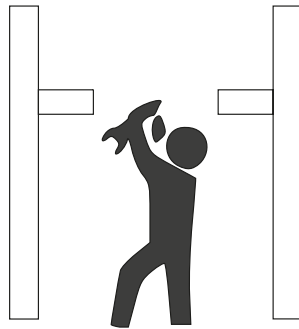


Fig. 6-3

The ball valve must be turned against the hand of the clock before operating the hand pump.



## 7. Periodic Maintenance

*In this chapter, you will find information about the maintenance that you must perform on your Expandable Pod. You will also find information about ordering parts.*

## 7.1 Maintenance Schedule

The table shown below lists the components that require periodic maintenance.




*Expandable LLC advises to respect the maintenance intervals indicated in the table and to use only products with the specified specifications. Order your required products in time from Expandable LLC (864)-400-5095*

| Component               | Interval       | Product                     | Specifications                                                         | Performing party                                                             |
|-------------------------|----------------|-----------------------------|------------------------------------------------------------------------|------------------------------------------------------------------------------|
| Sliding beams slide out | Every 6 months | White Lith-ium Grease Spray | (See "Lubricant Properties and Specifications on page 59")             | Service workshop                                                             |
| Hydraulic filter        | Every 2 years  | Donaldson P171602           |                                                                        | Service workshop                                                             |
| Oil level               | Weekly         | AW-32 Hydraulic Fluid       |                                                                        | Driver/operator<br>(See "Oil Level on the next page")                        |
| Oil                     | Ever 2 years*  | AW-32 Hydraulic Fluid       | (See "Oil Specifications on page 58")                                  | Service workshop                                                             |
| Tire pressure           | Daily          |                             | 827 KPA (120 PSI)                                                      | Driver/operator                                                              |
| Battery voltage         | Weekly         |                             | 24 V (total)<br>(See "Electrical Component Specifications on page 60") | Driver/operator                                                              |
| Exterior lighting       | Daily          |                             |                                                                        | Driver/operator                                                              |
| Emergency ball valve    | Monthly        |                             |                                                                        | Driver/operator<br>(See "Control ball valve emergency operation on page 42") |

Table 7-1 Maintenance

\* 1 year after first date of use.

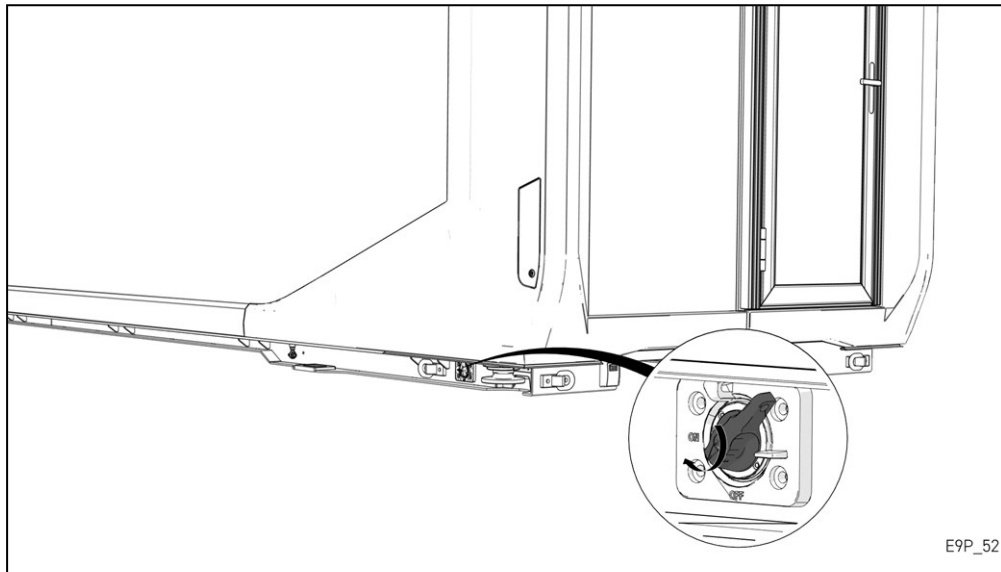
## 7.1.1 Oil Level

For proper functioning of the hydraulic system, it is essential that the oil is always at the correct level. To properly check the oil level, the following conditions must be met;

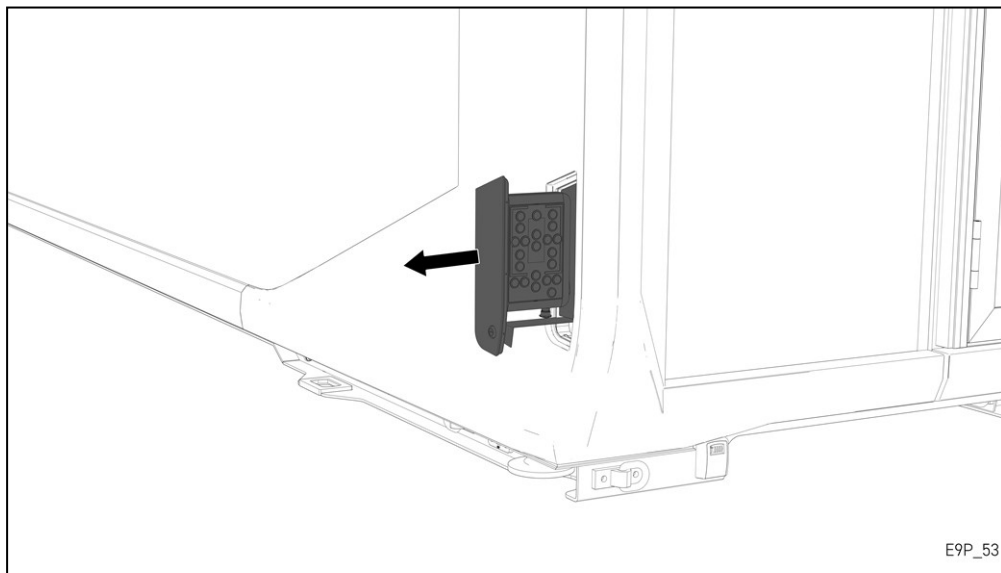
- *Make sure the container is level.*
- *Ensure that the right slide out is fully retracted.*
- *The ball valve must be rotated against the hand of the clock (see "6.1").*

### Procedure

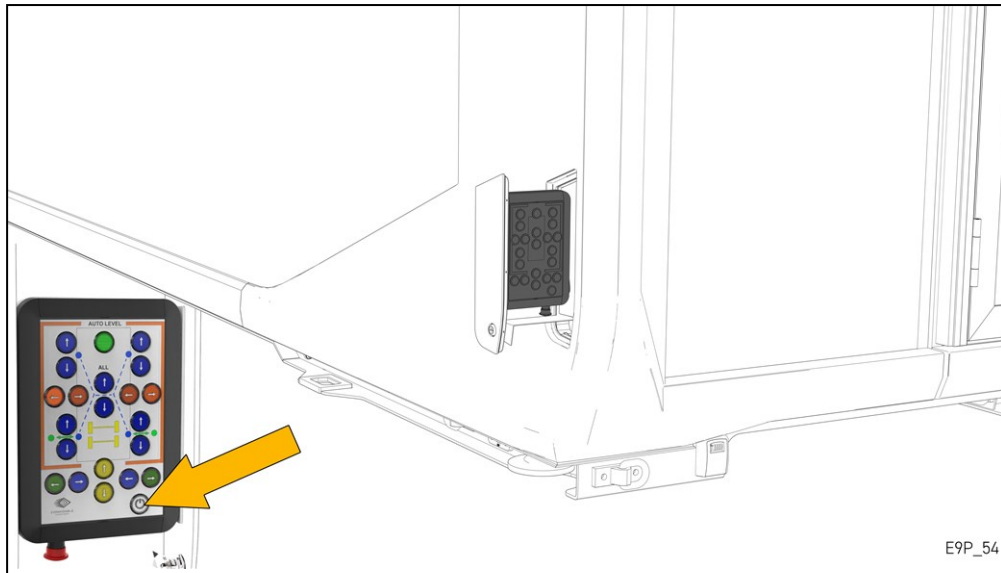
Follow the procedure given below.



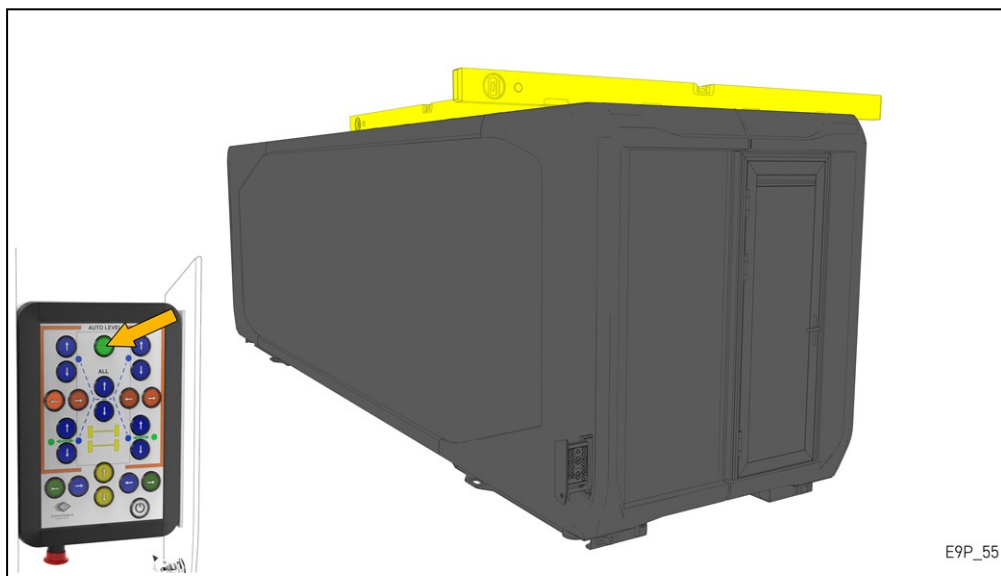
1. ⬆ Turn the main switch to the "ON" position.



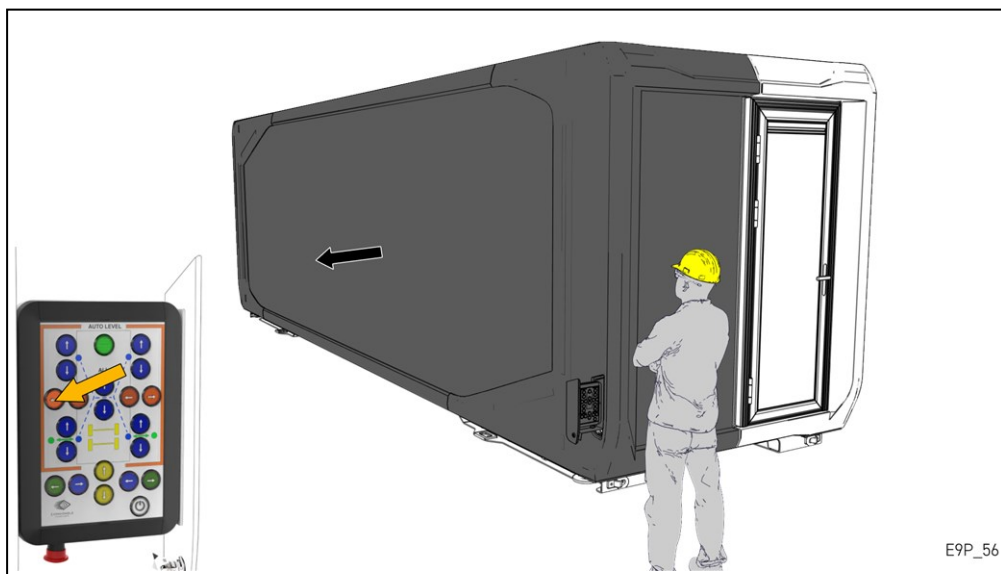
2. ⬆ Unlock the left control panel and pull it out.



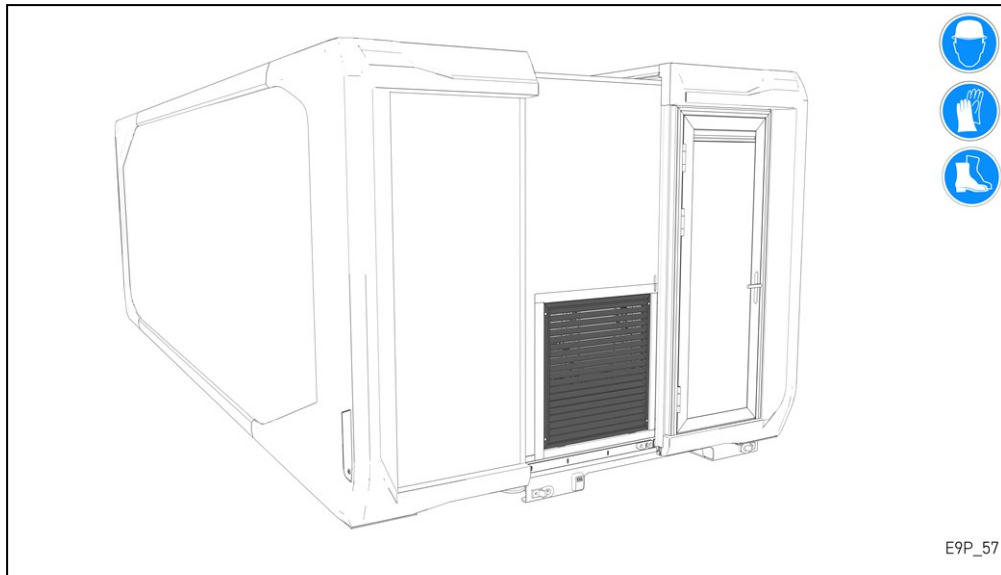
3. ⬆ Switch on the control panel.



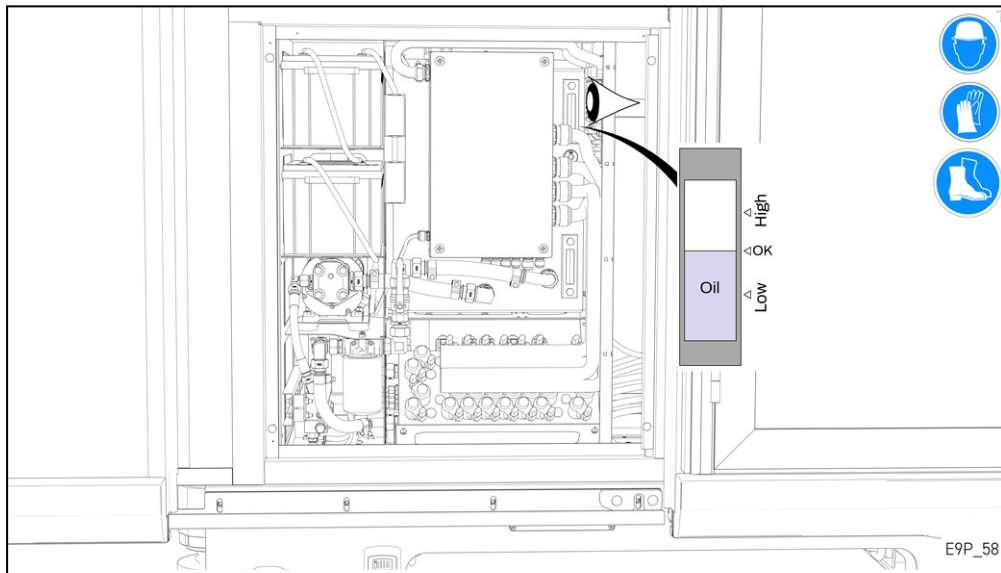
4. ⬆ Press the indicated button to level Expandable Pod.



5. ⬆ Move the left slide out all the way out.



6. ⬆ Remove the rear grille.



7. ⬆ Check that the oil level in the sight glass is halfway down. Otherwise, top up hydraulic oil (See "Oil refill on the next page").
8. Fit the grill.
9. Slide the left slide out all the way in.
10. Turn the control panel off.
11. Slide the control panel into the segment and lock the cover.
12. Turn the main switch to "OFF" and lock the main switch with a padlock.

### 7.1.1.1 Oil refill

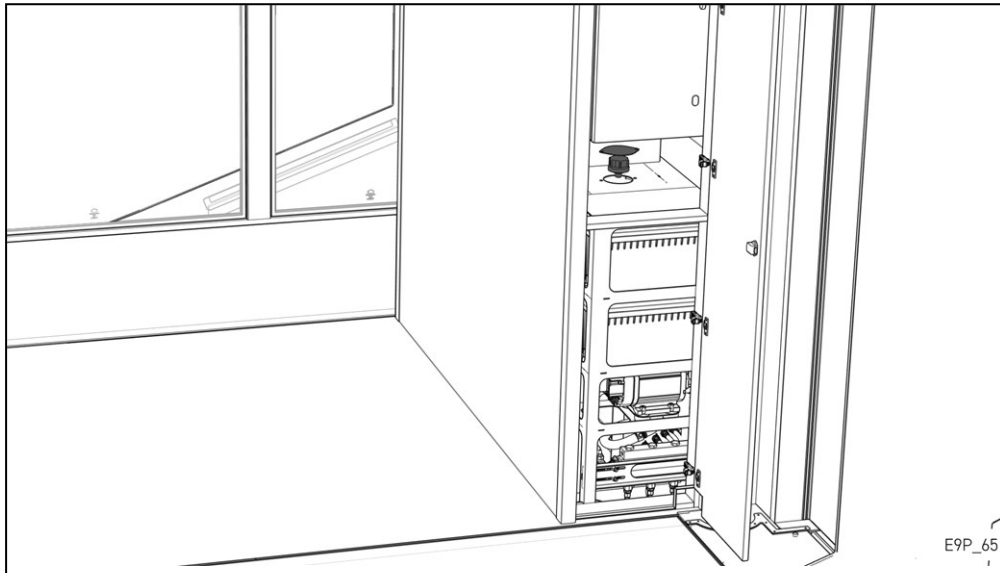
As soon as the hydraulic oil level is too low, it must be topped up.



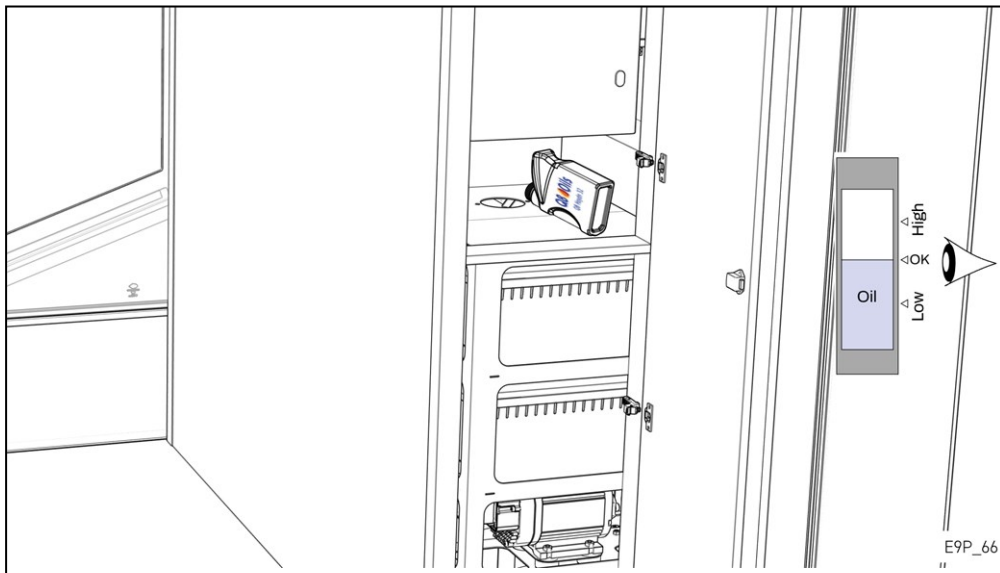
*Hydraulic oil can only be refilled through the access door of the technical room on the inside of the Expandable Pod.*

#### Procedure

Follow the procedure given below.



1. Remove the sealing cover and cap from the tank.



2. Refill oil and check the level through the top sight glass.



*To prevent damage to the hydraulic system and possible leaks, Expandable LLC recommends making an appointment with the service workshop as soon as the hydraulic oil level is high.*

3. Reinstall the cap and the sealing cover and remove any spilled hydraulic oil.



*CLOSE the door of the technical room to prevent damage while sliding in the left slide out!!!*

## 7.1.2 Control ball valve emergency operation

To ensure that emergency operation is always available, the ball valve must always be operable. Therefore, it is important to check this valve periodically (See "Maintenance Schedule on page 36") to check for prevalence.

### Procedure

Follow the procedure given below.

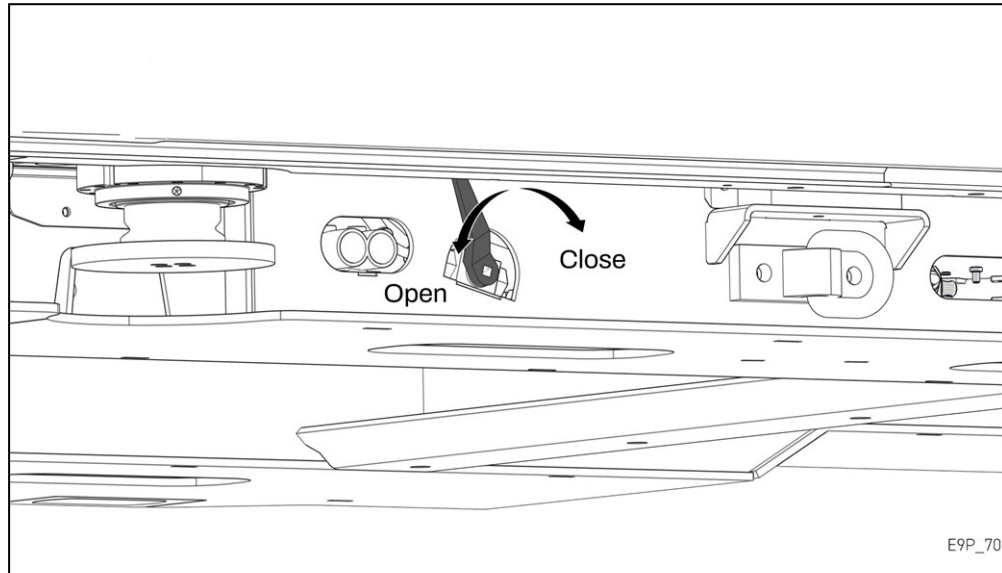


Fig. 7-1

1. Open and close the ball valve to check that it is ganging. Have the ball valve replaced if necessary.
2. Check for any leaks and replace the ball valve if necessary.

|                                                                                     |                                                                                     |                                                                                                                                             |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
|  |  | <p><i>Make sure the ball valve is always closed, otherwise it will not be possible to retract the slide out using the control panel</i></p> |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|

## 8. Safety & Environment

The following paragraphs contain information on the safe use of the Expandable Pod. It also describes how to act when the Expandable Pod has reached the end of its lifespan.

## 8.1 Environment



When the Expandable Pod reaches the end of its life for any reason, it must be dismantled and disposed of according to local and/or national regulations.

Contact the local or national government service, the waste service, or the supplier where you purchased the product for more information regarding the locations where the materials are collected for recycling.

## 8.2 Safety During Use



The use of a Expandable Pod can potentially bring risks.

Always consult the relevant regulations (for example: road traffic law, company procedures, safety and health regulations) that apply to the country where the Expandable Pod is used.

### General instructions for the use of a Expandable Pod:

- *Never set up the Expandable Pod on terrain where the slope exceeds the permitted values.*
- *Never use or place a Expandable Pod **NEVER** on public roads unless it has been established that the complete trailer complies with national road traffic legislation.*
- *Read the user manual **BEFORE** coupling and/or using a Expandable Pod.*
- *Perform the daily inspection **BEFORE** coupling and/or using a Expandable Pod.*
- *The truck driver is **ALWAYS** responsible for the use of a Expandable Pod.*
- *Only maneuver with the Expandable Pod if there are **NO** people or animals in the immediate vicinity of moving parts of the trailer.*

The nature of potential hazards and limitations during use are symbolized by the pictograms below.



## 9. General Information

The following paragraphs provide general information regarding this User manual and the product manufactured by Expandable LLC.

## 9.1 Cleaning

Use a mild detergent and remove the detergent with water from the hose at low pressure. Expandable LLC recommends NOT cleaning the Expandable Pod with aggressive or etching detergents. Using a pressure washer or cleaning in a car wash is strongly discouraged. This is to prevent loosening of the film from wrapped parts of the Expandable Pod.

## 9.2 Vehicle Registration and Delivery

 When a Expandable Pod is handed over to the customer, all associated documentation regarding the Expandable Pod must be provided to the customer.



*The vehicle may not be used until it is established that the trailer on which the Expandable Pod is mounted complies with the national road traffic laws.*



*The national road traffic laws are specific to each country. Contact the national inspection authority in the respective country for the required information.*

| Subject         | Action                                                                                                                                                                     |
|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Warning sticker | Check that the warning stickers are placed in such a way that they are clearly visible to the users.                                                                       |
| User manual     | The user manual for the Expandable Pod is handed over to the customer upon delivery. Indicate to the customer that the user manual should be kept with the Expandable Pod. |
| Warranty        | Warranty on products from Expandable LLC can be found in the delivery terms.                                                                                               |

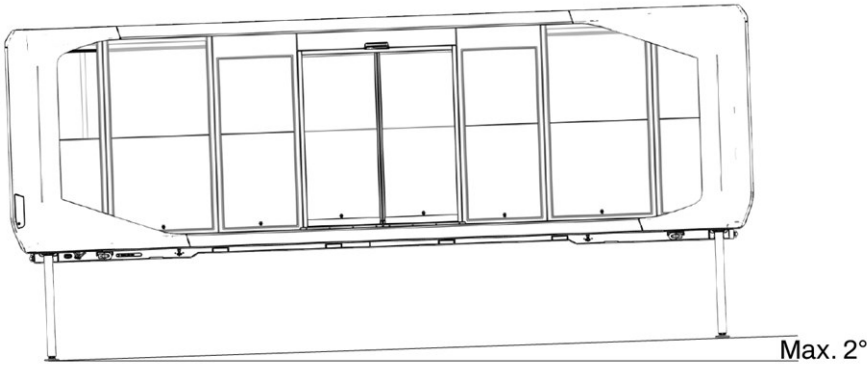
Table 9-1 Delivery Documents

9.3 Site Conditions

Your Expandable Pod should preferably be made ready for use and transport on a site that is level both longitudinally and laterally. However, some slope of the site is allowed as long as the slope angles do not exceed the maximum permissible values shown in the table (see "Table 9-2"). The maximum allowable slope angles in both the longitudinal and lateral directions are shown below:

|                        | Slope Angle |
|------------------------|-------------|
| Longitudinal direction | 2°          |
| Lateral direction      | 3°          |

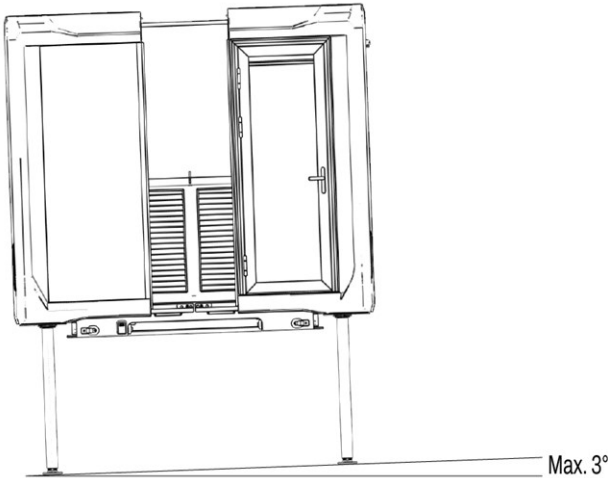
Table 9-2 Slope Angles



E9P\_59

Maximum slope angle longitudinal direction

Fig. 9-1



E9P\_60

Maximum slope angle lateral direction

*Fig. 9-2*

Always determine whether the site is sufficiently load-bearing to support the weight of the Expandable Pod plus the interior before making it ready for use, and use the supplied base plates under the lift cylinders.

## 9.4 Access to the Technical Room

The technical room is located at the rear of the Expandable Pod and is normally accessible in both the transport and operational positions for small repairs or diagnostics. In that case, the grilles at the rear can be removed after being unlocked with an allen wrench.

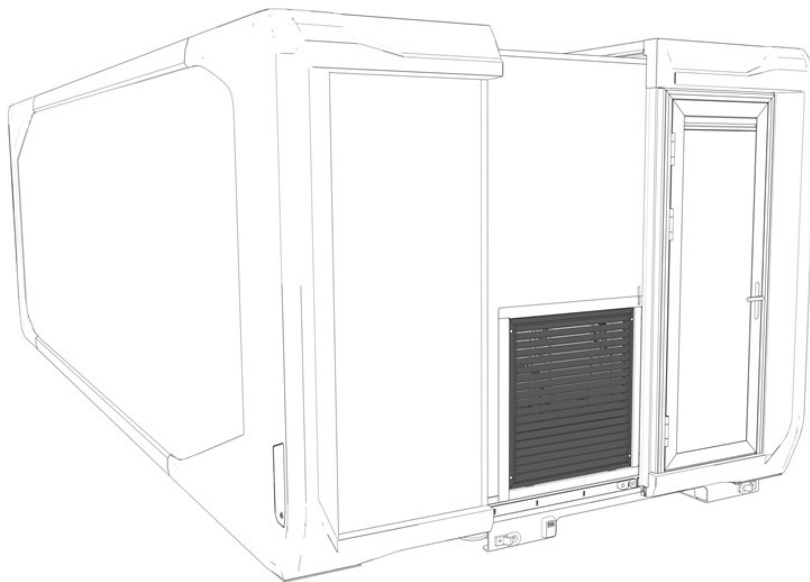
For major repairs, a panel inside the Expandable Pod must be removed.

In the technical room, you will find:

- the air conditioning installation
- the electrical installation with the batteries
- the hydraulic control system with the pumps, tank, and filter




*Repairs and/or diagnostics may only be performed by qualified technicians or, if performing simple tasks, under the guidance of Expandable LLC service staff.*



E9P\_57

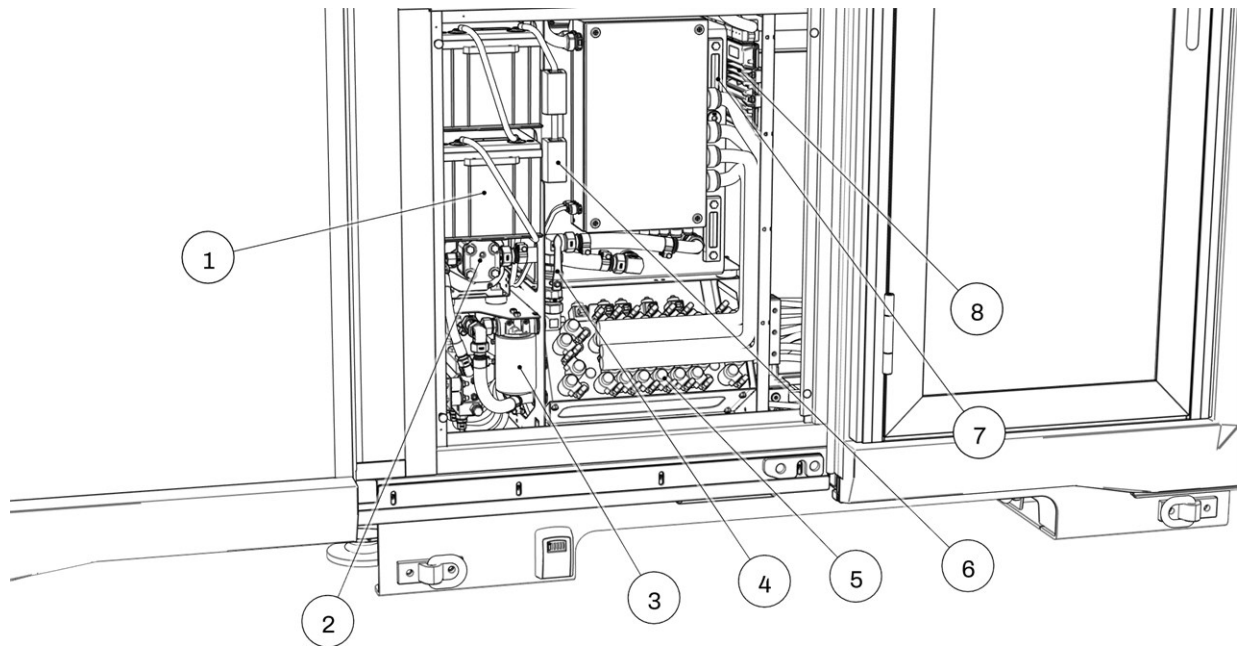
*Access to the technical room in operational position*

*Fig. 9-3*

The positions of some of the main components in the technical room are shown in the image below.



*The hydraulic filter must be replaced periodically (See "Periodic Maintenance on page 35").*



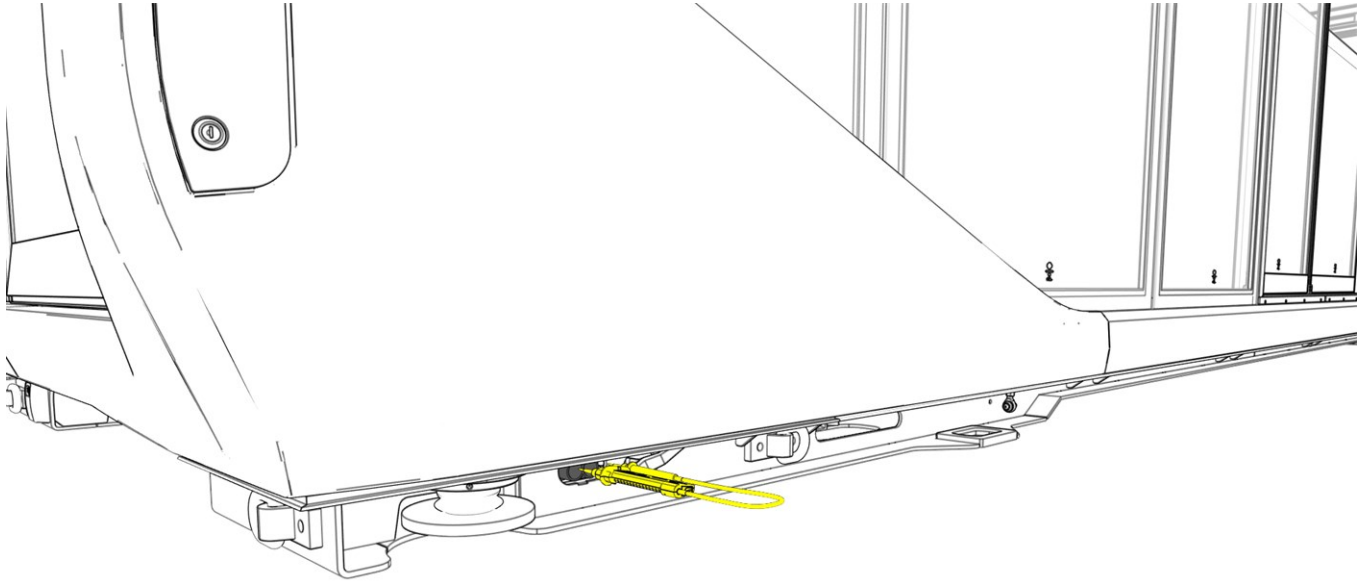
E9P\_61

*Fig. 9-4*

|    |                             |    |                       |
|----|-----------------------------|----|-----------------------|
| 1. | Control unit.               | 5. | Hydraulic pump        |
| 2. | Batteries                   | 6. | Hydraulic filter      |
| 3. | Main valve hydraulic system | 7. | Sight glass oil level |
| 4. | Valve block                 | 8. | Control unit          |

## 9.5 Checking battery voltage and recharging

The batteries are normally recharged via the built-in trickle charger once the wall current is connected. The battery voltage can be checked via the REMA plug located on the right rear side of the chassis. Should the battery voltage be too low for any reason, the batteries can be recharged via the REMA plug.



E9P\_62

Fig. 9-5

The battery voltage (24V) can be measured on the REMA plug. Should the voltage be too low for some reason, a charger can be connected to the REMA plug.

## 9.6 Stickers

Expandable LLC has placed stickers on your Expandable Pod at various locations. Never ignore these stickers. The stickers clarify the function of components or warn against improper use of the Expandable Pod.

Below is the meaning of the stickers.



*Fig. 9-6*

This sticker indicates that no people or animals are allowed inside the Expandable Pod during transport.



*Fig. 9-7*

This sticker is located on the step at the access door (if provided) and indicates that the step must be removed during road transport.

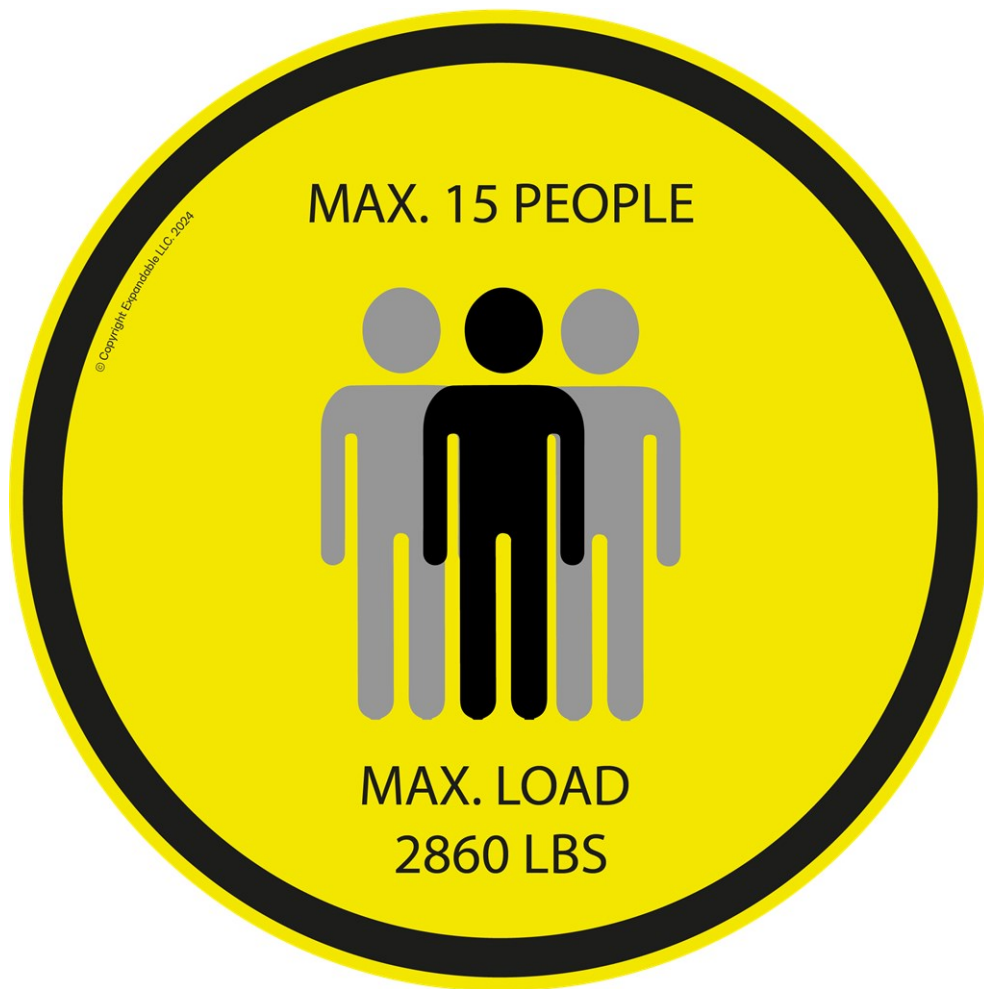


Fig. 9-8

If your Expandable Pod is equipped with an optionally available roof terrace, you will find the sticker shown above on the door to the roof terrace. This indicates that the maximum load of the roof terrace may be 2860 lbs. This corresponds to 15 people with an average weight of 185 lbs **without** any tables, chairs, and parasols, etc., that may be placed.

|  |  |                                                                                                                                                                                                                                                      |
|--|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  |  | <p><i>Stickers applied to the Expandable Pod by Expandable LLC may only be removed for replacement with new copies if they have become unreadable.<br/>Replace stickers before use if they are unreadable.<br/>Ordering: Dail (864)-400-5095</i></p> |
|--|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### 9.6.1 Type Sticker

The type sticker shown below is affixed to the chassis of the Expandable Pod. On this sticker, you will find information about:

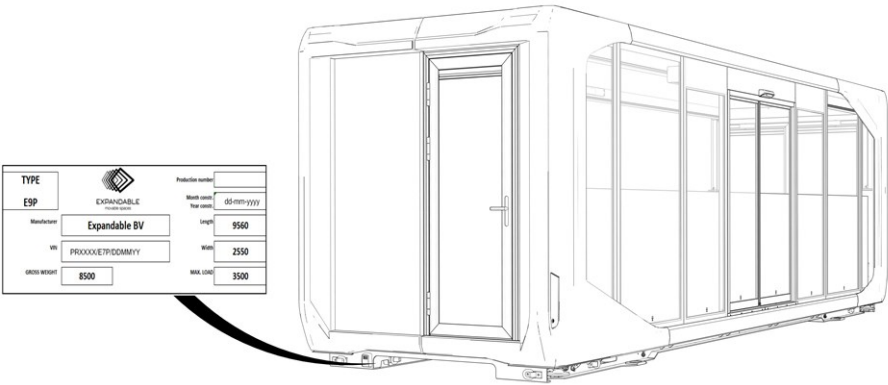
- *the maximum load per axle*
- *the total weight*
- *the VIN number*
- *the type of trailer.*
- *the production date*

|              |                              |                               |            |
|--------------|------------------------------|-------------------------------|------------|
| TYPE         | EXPANDABLE<br>movable spaces | Production number             |            |
|              |                              | Month constr.<br>Year constr. | dd-mm-yyyy |
| E9P          |                              | Length                        | 9560       |
| Manufacturer | Expandable BV                | Width                         | 2550       |
| VIN          | PRXXXX/E7P/DDMMYY            | MAX. LOAD                     | 3500       |
| GROSS WEIGHT | 8500                         |                               |            |

Fig. 9-9



The type sticker must always be clearly legible. Replace the sticker as soon as it becomes unreadable. In that case, contact Expandable LLC at (864)-400-5095 to order a new sticker. The sticker may not be replaced by a sticker made by third parties without written permission from Expandable LLC



E9P\_67

Fig. 9-10

The type sticker is affixed to the inside of the right chassis beam.



*No changes may be made to the type sticker. Contact Expandable LLC at (864)-400-5095 if the type sticker has become unreadable.*

## 9.7 Pod Specifications

In the table below, the specifications for the "Expandable Pod" type 30ft are listed.

|                                                                                    | 30ft                            |
|------------------------------------------------------------------------------------|---------------------------------|
| Maximum weight                                                                     | 59524 lbs                       |
| Load capacity*                                                                     | 26455 lbs                       |
| External length (Transport)                                                        | approx. 31ft 4"                 |
| External length (Deployed)                                                         | approx. 31ft 4"                 |
| External width (Transport)                                                         | approx. 8ft 4"                  |
| External width (Deployed)                                                          | approx. 15ft 8"                 |
| External height (Transport)                                                        | approx. 9ft 8"                  |
| External height (Deployed)                                                         | approx. 9ft 8"                  |
| Internal surface area in transport position                                        | approx. 182.98 sqft             |
| Internal surface area in usage position                                            | approx. 452.08 sqft             |
| Internal volume in transport position                                              | approx. 56 cu yd                |
| Internal volume in usage position                                                  | approx. 115 cu yd               |
| Maximum number of people on the roof when used as a roof terrace without equipment | 15 (average 185 lbs per person) |
| Maximum load on middle roof                                                        | 2860 lbs                        |
| Maximum weight per sqft when in transport position                                 | 11 lbs                          |
| Maximum weight per sqft when deployed                                              | 11 lbs                          |

Table 9-3 Trailer Specifications

\* According to a specific loading schedule

## 9.8 Oil Specifications

|               |                  |                   |                  |
|---------------|------------------|-------------------|------------------|
| Bosch Rexroth | RE 90220 notes   | Eaton Brochure    | 03-410-2010      |
| DIN           | 51517-2 CL       | ISO               | 11158 HM         |
| DIN           | 51524-2 HLP      | MAG IAS           | P-68, P-69, P-70 |
| Dension       | HF-0, HF-1, HF-2 | Swedisch Standard | SS 115434 AM     |

Table 9-4 Oil Specifications

### 9.8.1 Oil Properties

|                                    | Method    | Unit               | Features    |
|------------------------------------|-----------|--------------------|-------------|
| ISO viscosity class                |           |                    | 32          |
| Density, 15°C                      | D 4052    | g/ml               | 0,87        |
| Kinematic viscosity 40°C           | D 445     | mm <sup>2</sup> /s | 32.2        |
| Kinematic viscosity 100°C          | D445      | mm <sup>2</sup> /s | 5.6         |
| Viscosity Index                    | D 2270    |                    | 111         |
| Acid Number TAN                    | D 974     | mg KOH/g           | 0.3         |
| Solidification point               | D 97      | °C                 | -30         |
| flashpoint, COC                    | D 92      | °C                 | 208         |
| Emulsion, distilled water, 54.4°C  | D 1401    |                    | 40-40-0(10) |
| Foam, 5 min blowing, seq. 1/2/3    | D 892     | ml                 | 5/10/5      |
| c 1/2/3                            | D 892     | ml                 | 0/0/0       |
| Anti-rust test, proc. A and B, 24h | D 665     |                    | pass        |
| Copper strip, 3h, 100°C            | D 130     |                    | 1           |
| FZG Test, A/8.3/90                 | DIN 51354 | load stage         | 10          |

Table 9-5 The above figures are not a specification. They are typical figures obtained within production tolerances.

### 9.9 Lubricant Properties and Specifications

| Berulub Lubricant Properties                                                                                                                            |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| Suitable for low temperatures                                                                                                                           |
| Prevents stick-slip                                                                                                                                     |
| Extended relubrication intervals                                                                                                                        |
| Very good adhesion                                                                                                                                      |
| Non-dripping and non-melting                                                                                                                            |
| Resistant to hot and cold water, water vapors, lactic, formic, acetic or fruit acids as well as watery-alkline and acid disinfecting or cleaning agents |
| Contains PTFE                                                                                                                                           |

Table 9-6 Berulub Lubricant Properties

|                               | Characteristics                |
|-------------------------------|--------------------------------|
| Base oil                      | Ester                          |
| Thickener                     | Polytetrafluoroethylene (PTFE) |
| NLGI-grade                    | 3                              |
| Kinematic viscosity at 104 °F | 5000,0 mm²/s                   |
| Kinematic viscosity at 212 °F | 340,0 mm²/s                    |
| Working temperature range     | -4 °F up to 302 °F             |
| Color/Appearance              | White                          |
| Propellant                    | Dimethyl ether                 |

Table 9-7 Characteristics

## 9.10 Electrical Component Specifications

|                                  |                                      | <b>E9P</b>                                                                  |
|----------------------------------|--------------------------------------|-----------------------------------------------------------------------------|
| Battery                          | Type                                 | DC250-12 (12V250Ah)                                                         |
|                                  | Capacity                             | 250Ah@10hr-rate to 1.80V per cell @77 F                                     |
|                                  | Max. Discharge Current               | 2250A (5 sec)                                                               |
|                                  | Normal Operating Temperature         | 77° F ± 5° F                                                                |
|                                  | Recommended Maximum Charging Current | 67.5A                                                                       |
| Connection Voltage               |                                      | 24 V                                                                        |
| Roller Current Connection        |                                      | 240 V ( 50 A split face)                                                    |
| Voltage Sockets                  |                                      | 120 V                                                                       |
| Light Switches                   |                                      | 120 V                                                                       |
| Fuses per Group                  |                                      | 16 A                                                                        |
| Electrical Components Hydraulics |                                      | 24 V                                                                        |
| Main Switch                      | Maximum Operating Voltage            | 48V, 32V DC & 12V DC single cycle: 48V DC                                   |
|                                  | Max. Continuous Current              | 5A-600 A                                                                    |
|                                  | Inrush Current (2 sec)               | 3,500 A                                                                     |
|                                  | Terminal Bolt Size                   | 3/8"-16 (accepts M10 -connections)                                          |
|                                  | Moisture Ingress Protection          | IP67/IP69K                                                                  |
|                                  | Ignition Protection                  | ISO 8846 & SAE J1171                                                        |
| Water Level Sensor               | Moisture Ingress Protection          | IP67, IP69K (with IP69K counter connector)                                  |
|                                  | Relative Humidity                    | 0 - 95% (non-condensing, housing fully potted)                              |
|                                  | Power Supply Voltage                 | 10 - 32 V dc                                                                |
|                                  | Polarity Protection                  | Yes                                                                         |
|                                  | Power Consumption                    | 50mA For CFM models (CANbus in series): max. current internal T-joint: 2.5A |
|                                  | Operating Temperature                | -40 .. +176 °F                                                              |
| Inductive Sensor                 | Operating Voltage                    | 7....30V                                                                    |
|                                  | Output Type                          | NPN                                                                         |
|                                  | Output Polarity                      | DC                                                                          |
|                                  | Ambient Temperature                  | -40 .. +176 °F                                                              |
|                                  | Mass                                 | 45 g                                                                        |
|                                  | Protection                           | IP68 / IP69K                                                                |
| Hydraulic Pump                   | Operating Voltage                    | 16 - 32 V                                                                   |
|                                  | Overvoltage                          | 36 V (1 hour) / 48 V (5 min.)                                               |
|                                  | Reverse Operating Voltage            | -16 V (1 hour) / -32 V (10 hours)                                           |

Table 9-8 Specifications of Electrical Components



*The specifications mentioned in the table above are a selection from the full specifications of the manufacturer. Expandable LLC always advises consulting the supplied documentation of the manufacturer of the electrical components, which supersedes anything related in this manual.*

## 9.11 Pictograms

The following pictograms are used in this manual:

| Description                                                                         |                         | Description                                                                         |                                                                                     | Description                                                                           |                                  |
|-------------------------------------------------------------------------------------|-------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|----------------------------------|
|    | Important announcement! | Maximum number of people / maximum load                                             |  | Delivery information.                                                                 |                                  |
|    | Risk of entrapment!     |    | Read this information before you start!                                             |    | Parts information.               |
|    | Error                   |    | Risk of damage to the system!                                                       |    | Information regarding daily use! |
|    | Wear safety shoes       |    | Wear head protection                                                                |    | Conditions set by Expandable LLC |
|    | Wear work gloves        |    | Wear safety clothing                                                                |    | Surface treatment                |
|  | Wear hearing protection |  | Wear safety glasses                                                                 |  | Good                             |

Table 9-9 Pictograms

Notes

Notes

**any questions?**  
contact us

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