create
space
and never
forget

EXPANDABLE
movable spaces

User manual

POD

30ft

Table of contents

1. Description 2
1.1 Pod 3
1.1.1 Hydraulic Control 6
2. Remote control 8
2.1 Remote Control Expandable Pod 9
2.1.1 Pairing the remote control unit 12
3. Preparation for Use 15
3.1 Preparing for Use 16
4. Commissioning 21
4.1 Switching off the Power 22
5. Preparation for Transport 24
5.1 Preparing for Transport 25
6. Emergency Operation 30
6.1 Accessibility Expandable Pod in case of malfunction 31
7. Periodic Maintenance 32
7.1 Maintenance Schedule 33
7.1.1 Oil Level 35
7.1.1.1 Refilling Oil 37
8. Safety & Environment 38
8.1 Environment 39
8.2 Safety During Use 39
9. General Information 40
9.1 Cleaning 41
9.2 Vehicle registration and delivery 42
9.3 Terrain Conditions 43
9.4 Access to the Technical Area 44
9.5 Checking and Recharging Battery Voltage 46
9.6 Type Sticker 47
9.7 Pod Specifications 47
10.1 Oil Specifications 49
10.1.1 Oil Properties 49

10.2 Properties and Specifications of Lubricant 50
10.3 Specifications of Electrical Components 51
10.4 Pictograms 53

Foreword

This manual is intended for drivers and/or other users of the Expandable Pod and contains the necessary information for 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*.

Effective Use:

A Expandable Pod is designed for independent use. Modifications of any kind can affect the safety of the system. Both the warranty on products from Expandable b.v and the homologation will be void if these products are modified without written permission from Expandable B.V.. If the Expandable Pod is not used according to the instructions provided by Expandable B.V., all warranty claims against Expandable B.V. or suppliers of the Expandable Pod will be declared invalid.

Before the system is put into use, it must be established that the Expandable Pod complies with national road traffic legislation. The system may only be used in accordance with the manuals of the and the Expandable Pod.

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

All safety information is described in the relevant chapter (See "Safety & Environment on page 38"). In the remaining chapters, safety risks are symbolised using pictograms.

Contact information

Expandable B.V.
Meerheide 25
Eersel
The Netherlands
Phone: +31 (0)85 890 21 88
www.expandable-trailers.com
info@expandable.nl

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

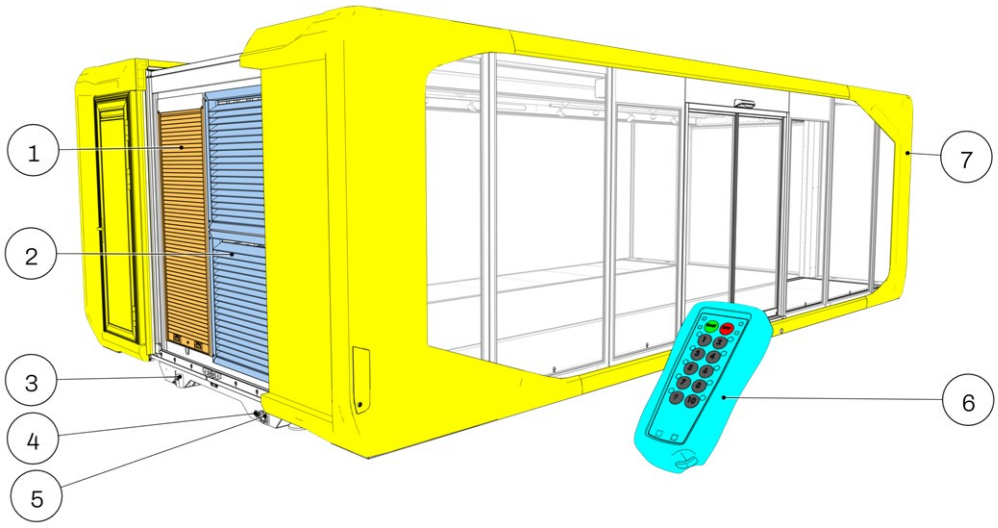


Fig. 1-1

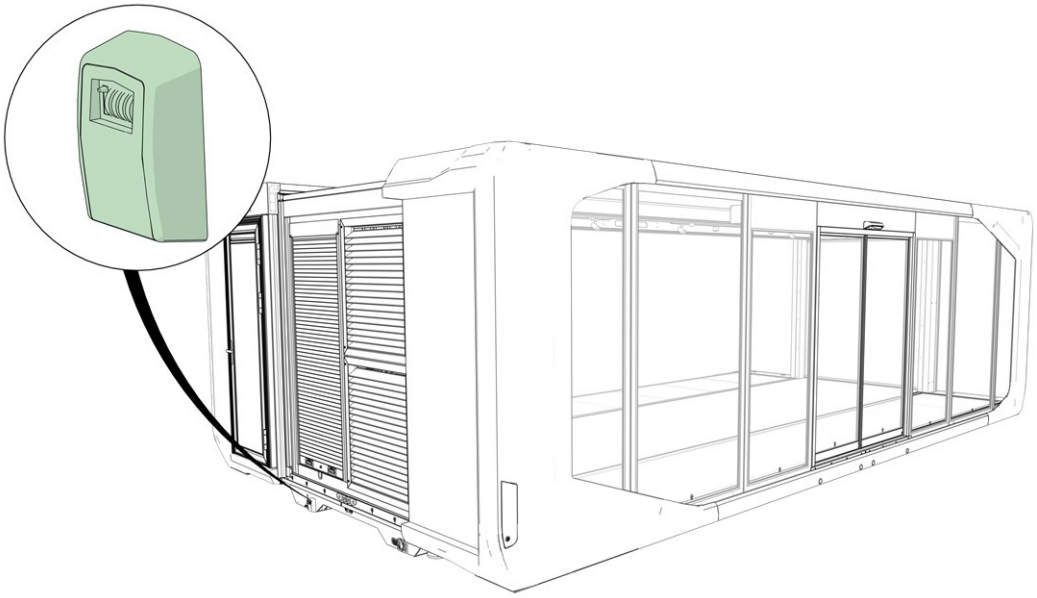
1 Roller Shutter Door - Technical Compartment	5 Main battery switch
2 Ventilation Grille	6 Remote control
3 Key safe	7 Slide outs
4 Type Y connector	

Usage

During normal use of the Expandable Pod, the power is supplied via a shore power connection. The extension cord available for this purpose is located in the technical area and is accessible through a roller shutter door. The extension cable can be routed outside through the opening beneath the roller shutter door and then connected to the shore power supply. The hydraulic system runs on its own 24 V battery system.
Depending on the chosen configuration, the Expandable Pod is equipped with optionally available lashing eyes to secure the load on board. The number of built-in wall sockets and floor sockets also depends on the chosen configuration.

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 a configurable code. The keys to the access doors are stored in the key safe, so the keys are always kept near the trailer.

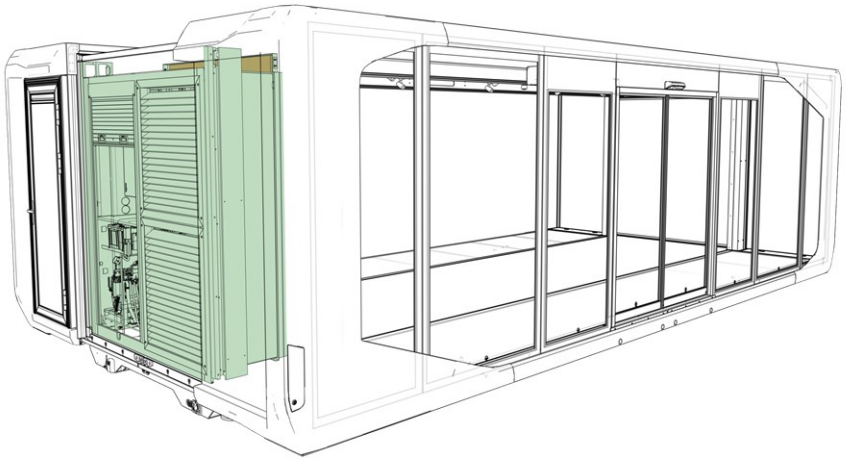


E9P Gen2_46

Fig. 1-2

Technical area

The technical area is located inside the Expandable Pod and contains the control system for the hydraulics, the air conditioning condenser and the electrical control system.



E9P Gen2_57

Fig. 1-3

The roller shutter is always accessible, via the hatch/door within the slide-out`. The roller shutter provides access to the technical compartment, f.e. in the event of an hydraulic malfunction.

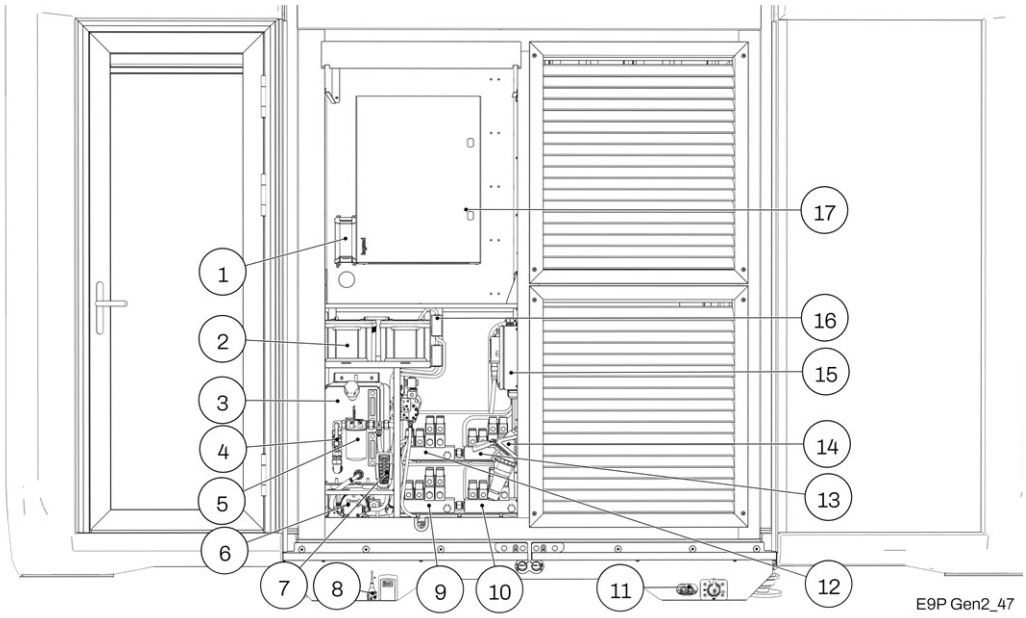
Remote control

The Expandable Pod can be operated through a remote control (See "Remote Control Expandable Pod on page 9").

P-10107_01

1.1.1 Hydraulic Control

The hydraulic system of the Expandable Pod is controlled by means of the components listed below.



1 Tickle Loader	10 Hydraulic valves
2 Batteries	11 REMA battery connector
3 Hydraulic fluid tank	12 Hydraulic valves
4 Hydraulic Filter	13 Hydraulic valves
5 Valve	14 Shore power connector
6 Hydraulic pump	15 Sistematica control box
7 Remote control	16 Charging fuses
8 Antenna	17 Control cabinet
9 Hydraulic valves	

1. **Trickle Charger**
   The trickle charger maintains the charge of both 12 V batteries when the MCP Trailer is connected to shore power and has been disconnected from the tractor unit.
2. **Batteries**
   The hydraulic system operates on 24V. For this purpose, two 12V batteries are connected in series.
3. **Hydraulic fluid tank**
   This tank contains the hydraulic fluid required to extend and retract the cylinder rods.
4. **Hydraulic Filter**
   The hydraulic filter removes contaminants from the hydraulic fluid and must be replaced periodically (See "Maintenance Schedule on page 33").
5. **Valve Manifolds**
   These valve manifolds control the inward and outward movement of the slide-outs once one of the corresponding buttons on the remote control have been pressed.
6. **Hydraulic pump**
   PumpThe hydraulic pump converts mechanical energy into hydraulic power. By pressurising and directing hydraulic oil through an energised valve within a closed system, the piston rod will begin to move.
7. **Remote control**
   The hydraulic system can be operated remotely by means of the remote control unit.
8. **Antenna**
   The antenna is responsible for transmitting signals to and from the remote control unit.

9. **Hydraulic valves**
   These valve manifolds control the inward and outward movement of the slide-outs once one of the corresponding buttons on the remote control have been pressed.
10. **Hydraulic valves**
11. **REMA battery connector**
    The REMA connector is a high-quality electrical connector designed for the safe and reliable transfer of high electrical currents, primarily used for battery charging applications.
12. **Hydraulic valves**
13. **Hydraulic valves**
14. **Shore power connector**
    The shore power connection is used to safely connect the Expandable Pod to the local mains electricity supply.
15. **Sistematica control box**
16. **Charging fuses**
    These fuses protect the charging system, the hydraulic pump, and the control cabinet against electrical overload.
17. **Control cabinet**
    Connection box for the control of the hydraulic system.

2. Remote control

This chapter describes the remote control and the functions of the buttons.

2.1 Remote Control Expandable Pod

P-10107_01

The remote control is located in the storage box behind the crash protection on the right-hand rear side underneath the Expandable Pod.

The Expandable Pod can be prepared for use and for transport by means of the remote control. The remote control has two function ranges. The first function range becomes available after the START + 1 buttons are pressed simultaneously for a short period of time. In this first function range, the 1 to 10 buttons can be used.

The second function range becomes available after the START + 2 buttons are pressed simultaneously for a short period of time. In this second function range, the 11 to 20 buttons can be used.

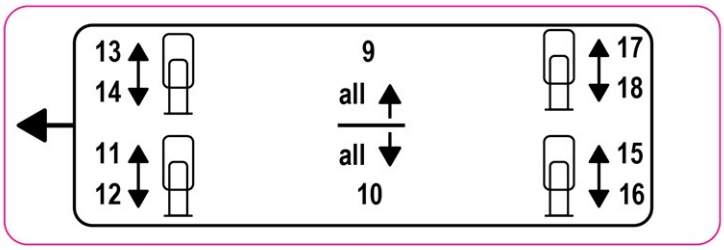
The buttons 11 to 20 are visualised by the small indicators above the buttons 1 to 10.

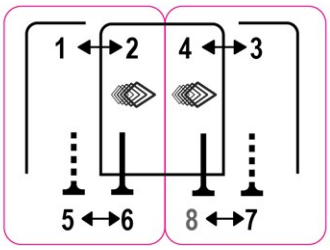
The remote control buttons activate a linked movement for as long as they are pressed. As soon as a button is released, the linked movement stops. The "STOP" button can also be used to terminate running processes; however, this is not relevant for the user, as no background processes are active.

*The stop button is **NOT** an emergency stop.*

Note;

Stickers have been placed on the Expandable Pod. These are shown in the table below. The numbers on these stickers correspond to the button on the remote control and indicate the direction of movement of the piston rod.





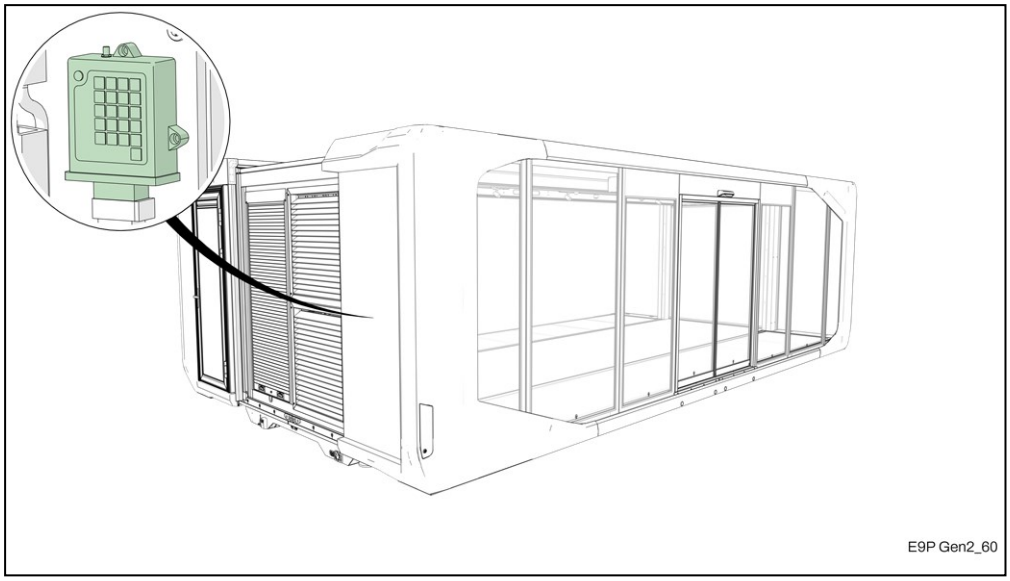
Button	Function	Description	Sticker
1	Extend Left slide-out	Extend Piston Rod	1 ↔ 2
2	Retract left slide-out	Retract Piston Rod	
3	Extend right slide-out	Extendt Piston Rod	4 ↔ 3
4	Retract right slide-out	Retract Piston Rod	
5	Extend left lift cylinder	Extend Piston Rod	6 ↔ 5
6	Retract left lift cylinder	Retract Piston Rod	
7	Extend right lift cylinder	Extend Piston Rod	7 ↔ 8
8	Retract right lift cylinder	Retract Piston Rod	
9	Pod down	Retract all Piston Rods	9 all / all 10
10	Pod up	Extend all Piston Rods	
11	Pod front left down	Retract Piston Rod	11 9 / 12 10
12	Pod front left up	Extend Piston Rod	
13	Pod front right down	Retract Piston Rod	13 9 / 14 10
14	Pod front right up	Extend Piston Rod	
15	Pod rear left down	Retract Piston Rod	15 9 / 16 10
16	Pod rear left up	Extend Piston Rod	
17	Pod rear right down	Retract Piston Rod	17 9 / 18 10
18	Pod rear right	Extend Piston Rod	

Button	Function	Description	Sticker
	up		
	Level Pod		

Table 2-1 Button functions

2.1.1 Pairing the remote control unit

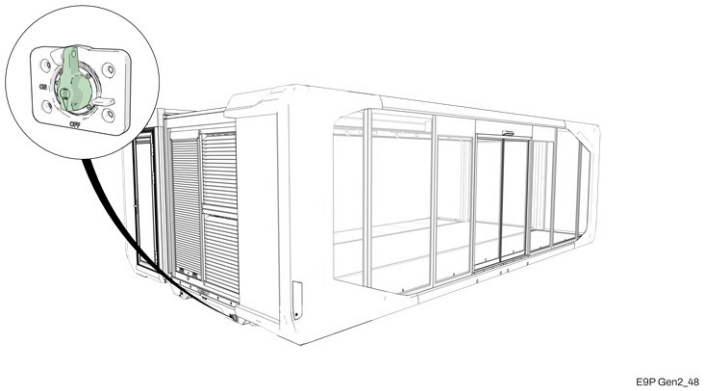
The remote control unit must be paired with the system receiver if it loses connection for any reason or if the remote control unit is replaced.



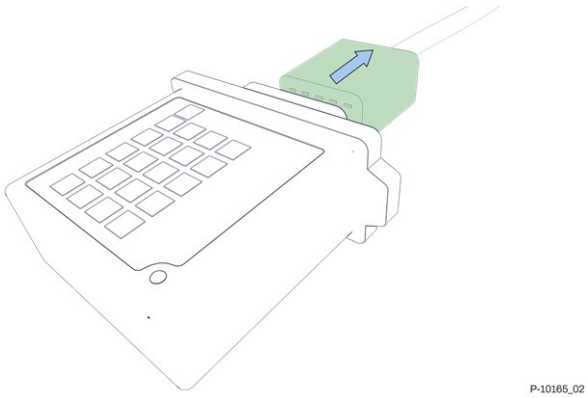
The location of the remote control system receiver is shown above.

Procedure

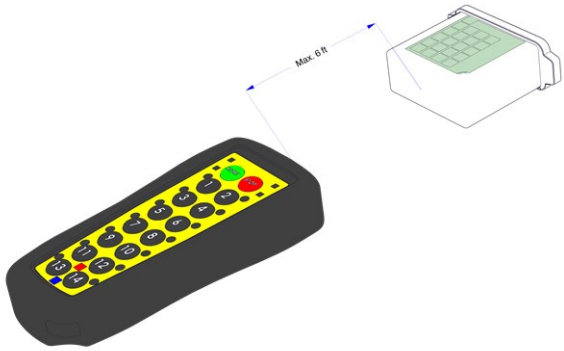
1. Turn the battery master switch to the “ON” position.



2. Disconnect the plug at the receiver.



3. Stand within a 2-metre radius of the receiver with the remote control unit.



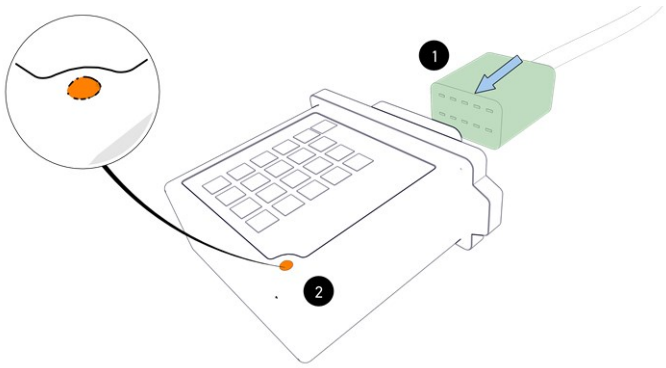
P-10165_01

4. Press the button START on the remote control.

> ⚠ *Press and hold START.*

P-10165_03

5. Connect the plug to the receiver while holding down the START button. The LED on the remote control will start flashing orange.



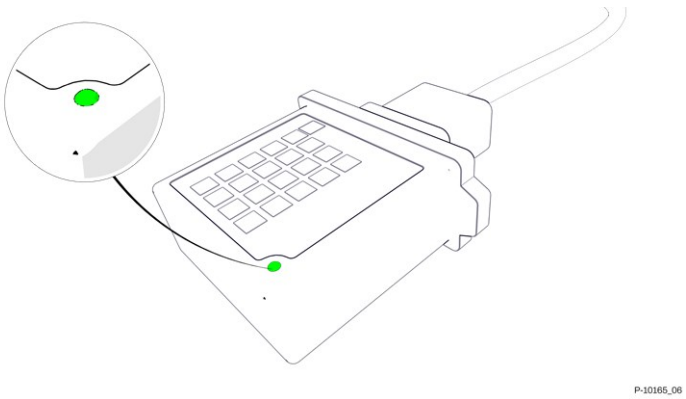
P-10165_04

6. Release the button START.
7. Within 15 seconds, press three numeric buttons simultaneously. Choose the numbers from 1 to 14.

> ☞ *In this example, numbers 6, 7, and 8 are pressed simultaneously.*

P-10165_05

8. Release the three numeric buttons as soon as the LED on the receiver starts flashing green. The remote control is now paired with the receiver.



Part Number	Description
P-10107	Sistematica Expandable Pod. Remote control 10 buttons 18 functions.
P-10164	Sistematica Set Expandable Pod Remote control 10 buttons 18 functions.
P-10167	Sistematica Receiver CNTR20

Table 2-2 Genuine parts

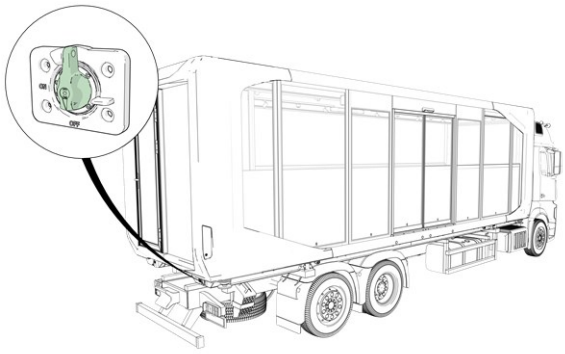
3. Preparation for Use

In this chapter, you will find information on disconnecting and making the Expandable Pod ready for use.

3.1 Preparing for Use

Follow the procedure below.

1. Turn the battery master switch to the "ON" position.



E9P Gen2_04

2. Unlock all twist locks.

E9P Gen2_05

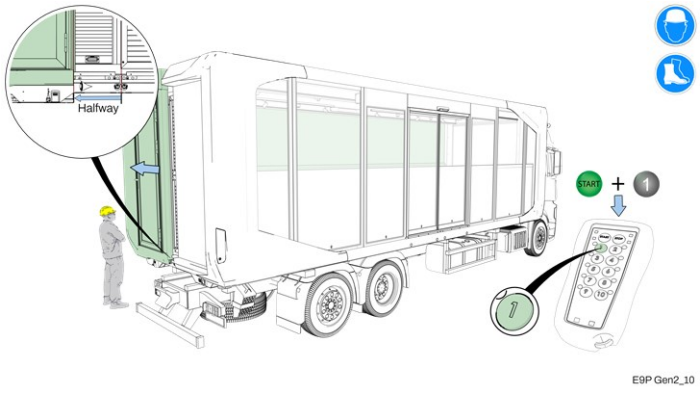
3. Press the indicated button to extend the right hand slide out halfway.

⚠	📖	*Stop as soon as deformations occur during the sliding out. Fix the cause of the deformations before extending the slide out further.*

E9P Gen2_09

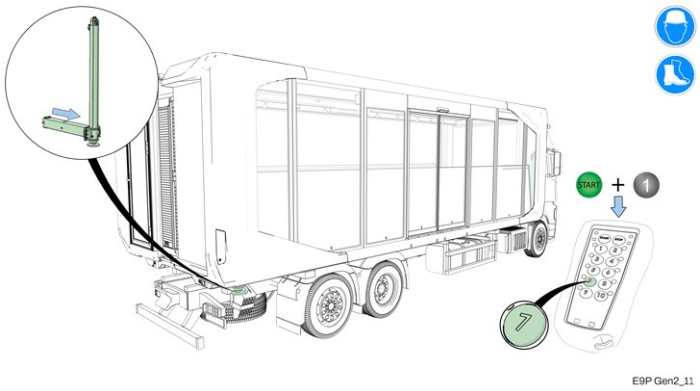
4. Press the indicated button to extend the left hand slide out halfway.

⚠	📖	*Stop as soon as deformations occur during the sliding out. Fix the cause of the deformations before extending the slide out further.*

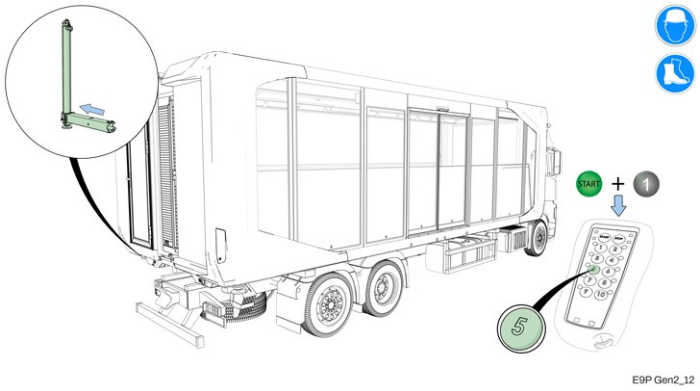


E9P Gen2_10

5. Press the indicated button to fully extend both the right side lifting cylinders.

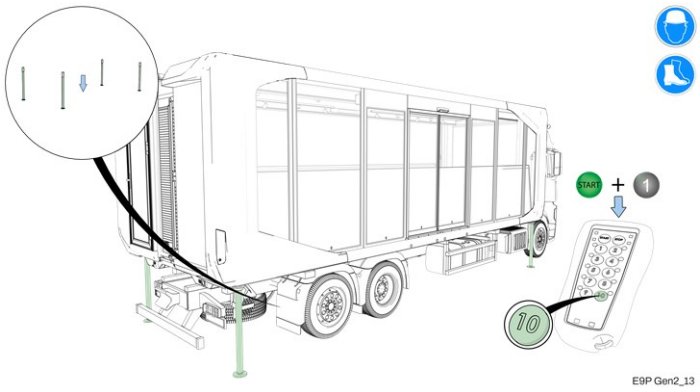


6. Press the indicated button to fully extend both the left side lifting cylinders.

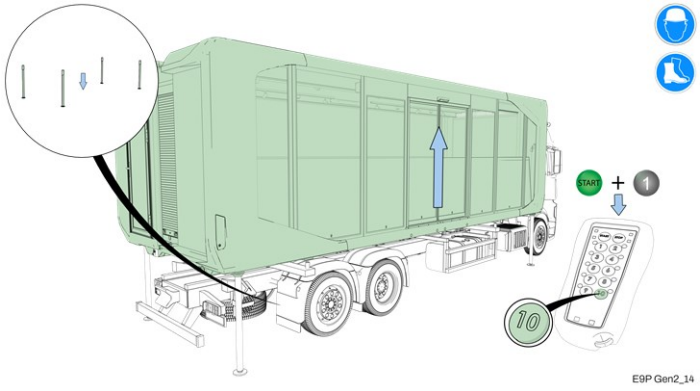


7. Press the indicated button to fully extend both the left side lifting cylinders.

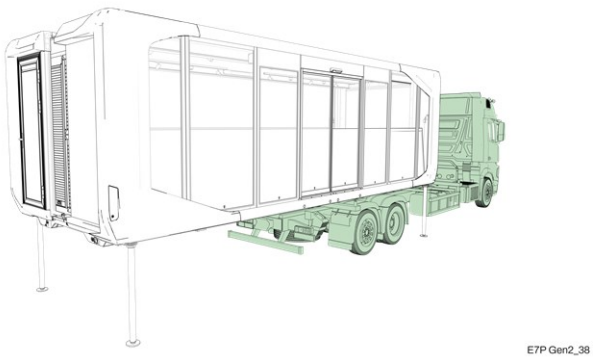
Visually check that all feet of piston rods touch the ground



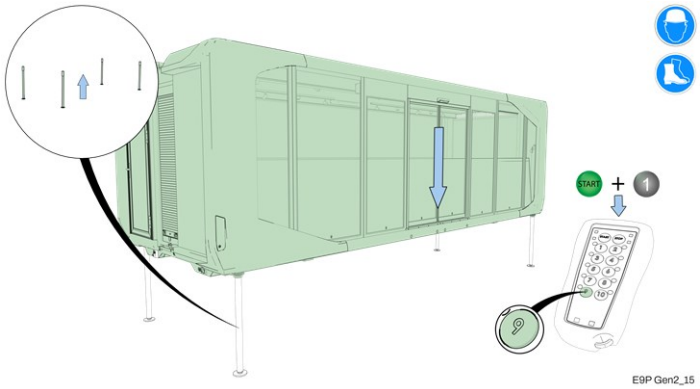
8. Press the indicated button to raise the pod as high as possible.



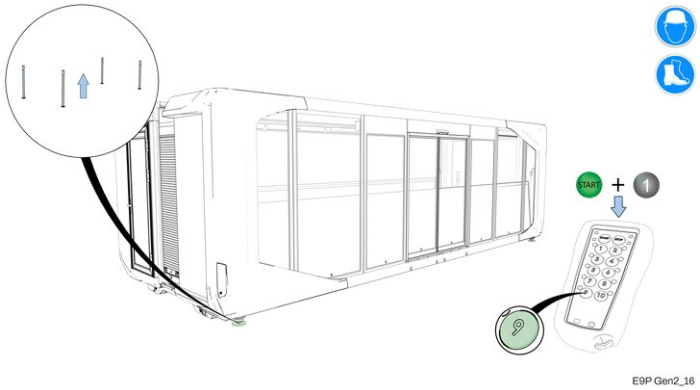
9. Drive the bucket truck out from under the pod.



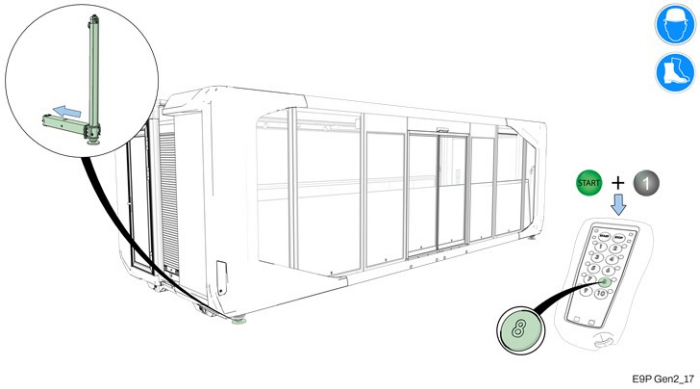
10. Press the indicated button to lower the pod to the ground.



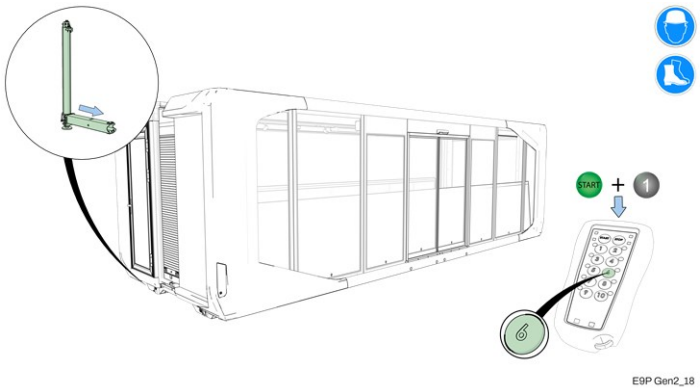
11. Press the indicated button to fully retract the piston rods of the lifting cylinders.



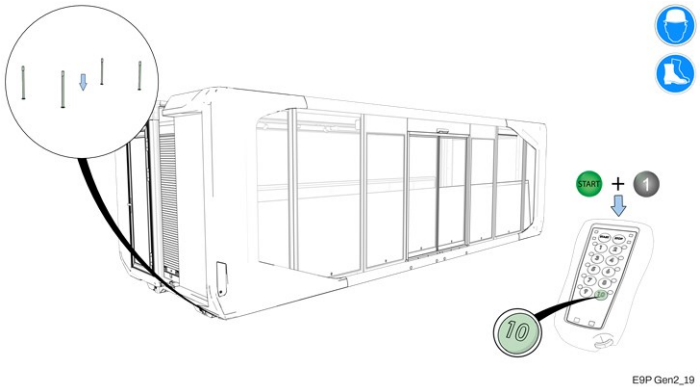
12. Press the indicated button to fully retract the right lifting cylinders.



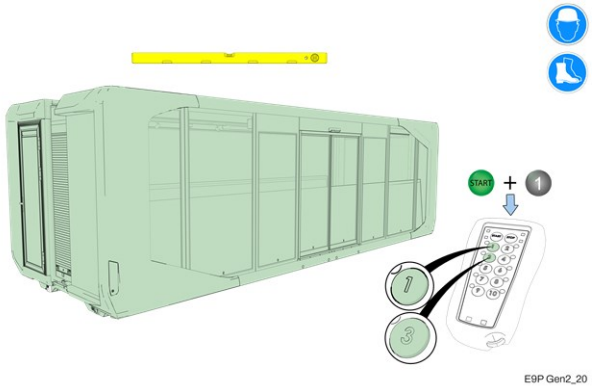
13. Press the indicated button to fully retract the left lifting cylinders.



14. Press the indicated button to extend the piston rods of the lifting cylinders to the point where they touch the ground.



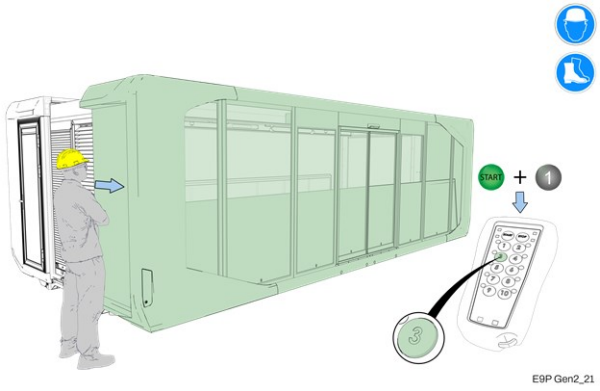
15. Press the indicated buttons ("AUTO LEVEL") simultaneously so that the pod levels itself in two directions.



16. Press the indicated button to fully extend the right slide out.

Stop as soon as deformations occur during the sliding out. Fix the cause of the deformations before extending the slide out further.

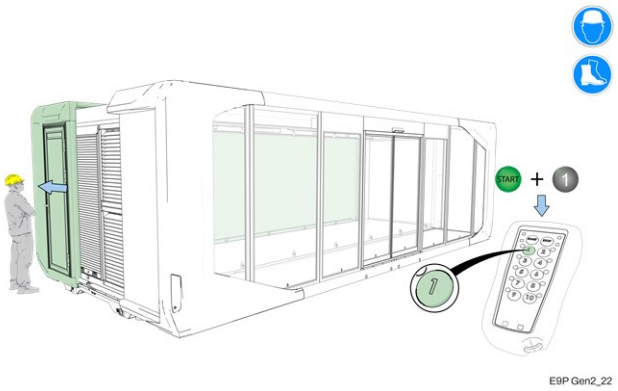
Please refer to the important note below.*



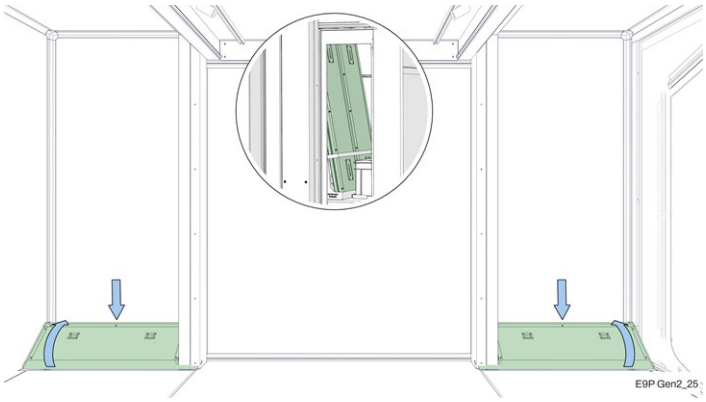
17. Press the indicated button to fully extend the left slide out.

Stop as soon as deformations occur during the sliding out. Fix the cause of the deformations before extending the slide out further.

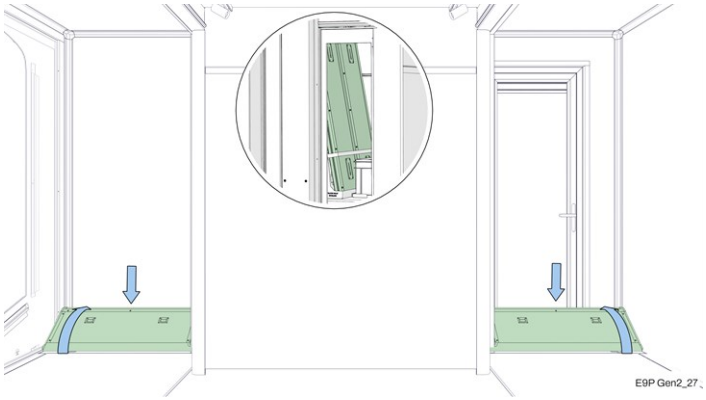
Please refer to the important note below.*



18. Tilt both front floor panels downwards.



19. Tilt both rear floor panels downwards.



*__Step 16 and 17__:

*If the front and rear of the Expandable Pod are twisted by more than X degrees relative to one another, the slide-outs must **NOT** be extended any further. The automatic levelling system must first be activated. This is to prevent damage to the slide-outs caused by excessive torsional stress during operation. Continue the procedure from Step 18 onwards.*

4. Commissioning

This chapter describes the operation of electrically operated accessories such as air conditioners, electrically operated access doors, access to a roof terrace, etc.

4.1 Switching off the Power

Expandable B.V. recommends that users of the Expandable Pod switch off the power temporarily if it is left on site for an extended period (procedure below). This applies solely to the Expandable Pod. All hydraulic equipment can be switched off with the battery master switch. All

other equipment is connected to the shore power. If external devices are 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 switched off.

Follow the procedure below.

1. ⇩Turn the battery master switch to the "OFF" position to switch off the power.

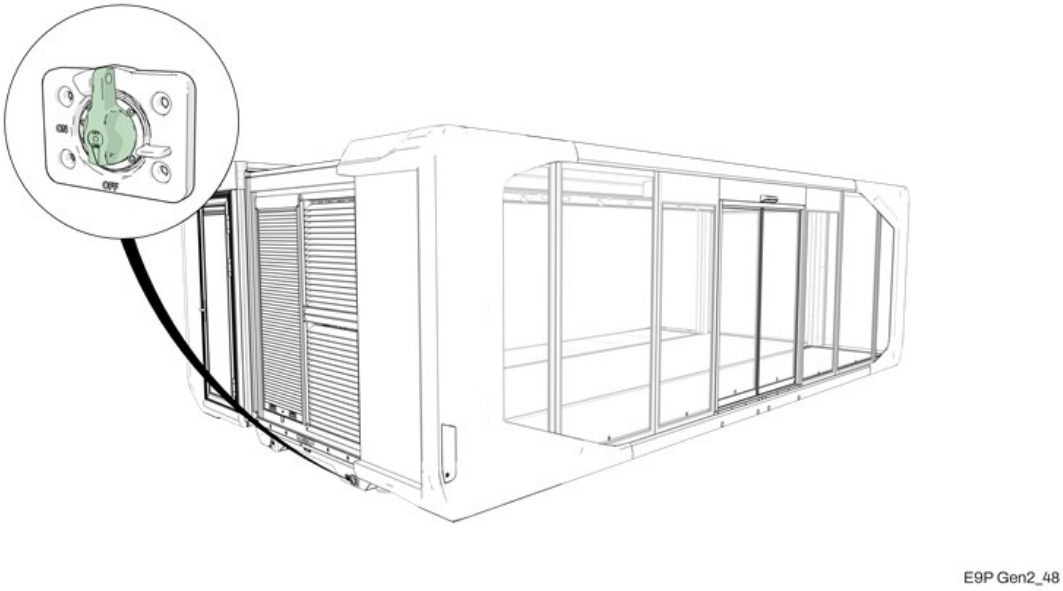


Fig. 4-1

☞	*If necessary, lock the main switch with a padlock to prevent unauthorised use.*

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

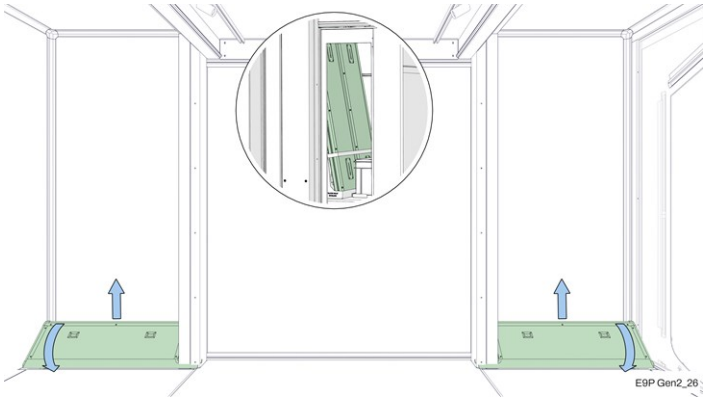
Follow the procedure below.

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. Raise both front floor panels.

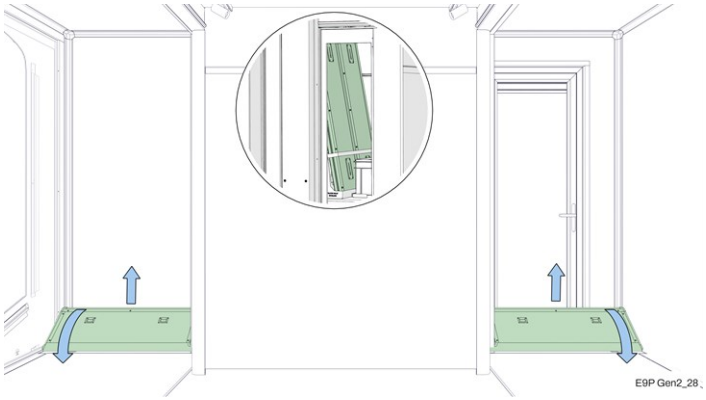
The floor panels are stored in the technical compartment and can be accessed via the internal door.



3. Raise both rear floor panels.

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

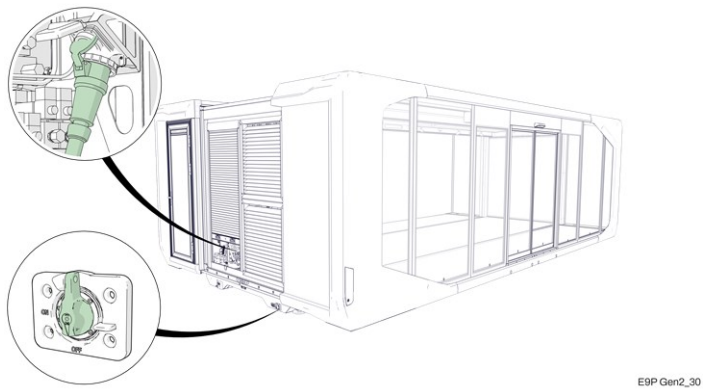
The floor panels are stored in the technical compartment and can be accessed via the internal door.



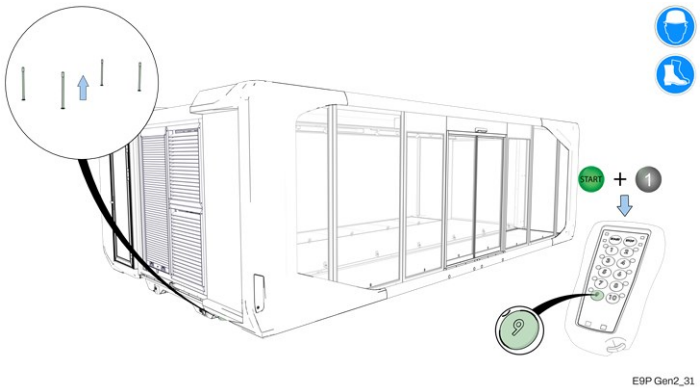
4. Disconnect the extension cord and store the cable in the technical area through the access door on the inside. The master battery switch should remain "ON".

Close the roller door of the technical area

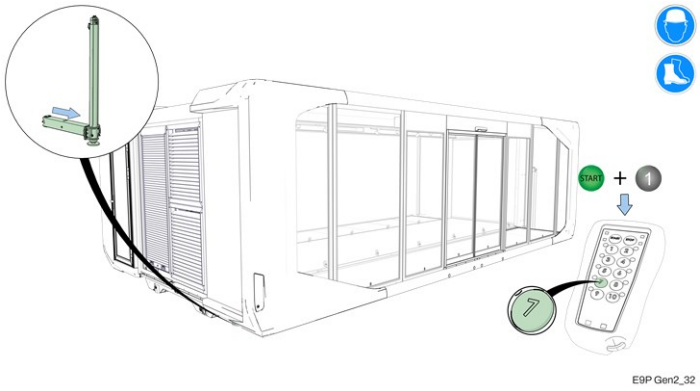
Close all access doors and place the keys in the key safe (See "Key Safe on page 3")



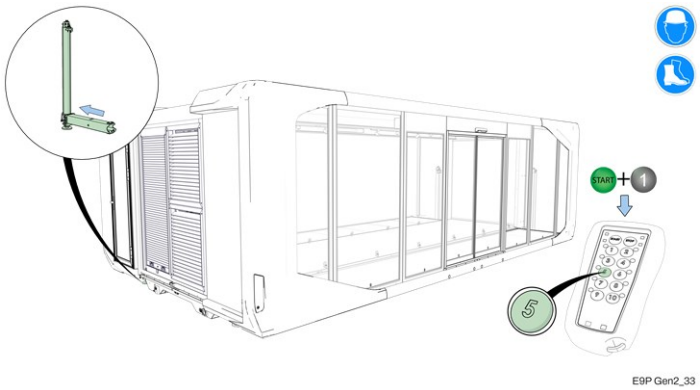
5. Press the indicated button to retract the piston rods of the lifting cylinders.



6. Press the indicated button to extend the right-hand lifting cylinders.



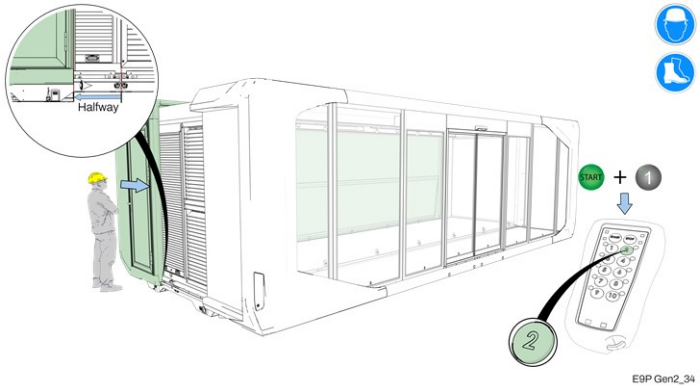
7. Press the indicated button to extend the left-hand lifting cylinders.



8. Press the indicated button to retract the left slide out halfway.

Stop as soon as deformations occur during sliding. Fix the cause of the deformations before retracting the slide out further.

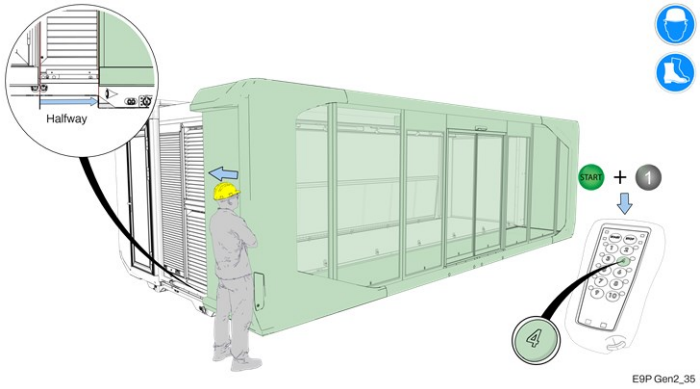
Once the lifting cylinders are extended, the slide-out cannot be fully retracted due to the safety interlock.



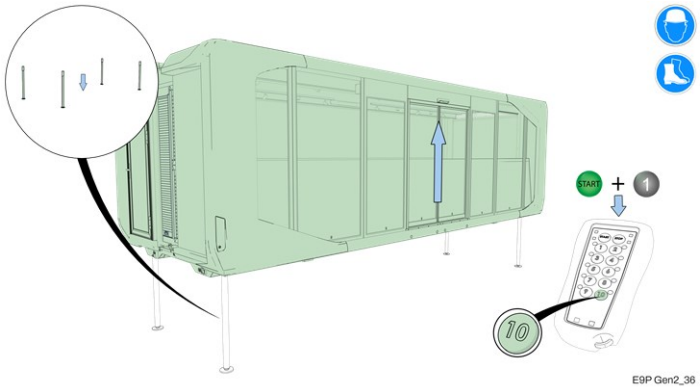
9. Press the indicated button and retract the right slide out halfway.

Stop as soon as deformations occur during sliding. Fix the cause of the deformations before retracting the slide out further.

Once the lifting cylinders are extended, the slide-out cannot be fully retracted due to the safety interlock.

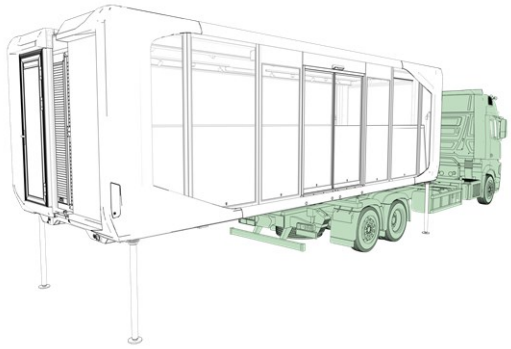


10. Press the indicated button to lift the container to its maximum height.

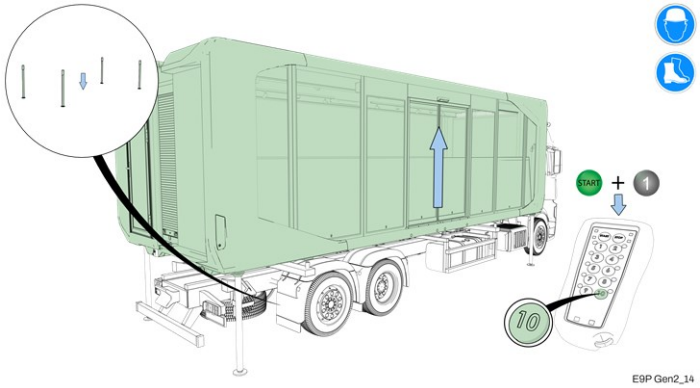


11. Drive the container truck under the Pod.

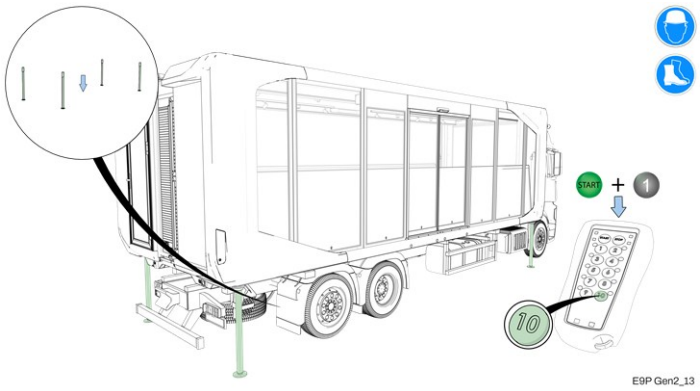
Position the twist locks exactly under the pod's take-up points



12. Press the indicated button to lower the Pod onto the container truck.

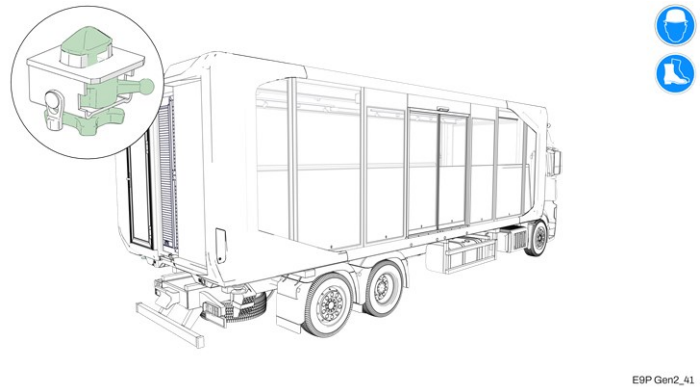


13. Press the indicated button to fully retract the piston rods of the lifting cylinders.

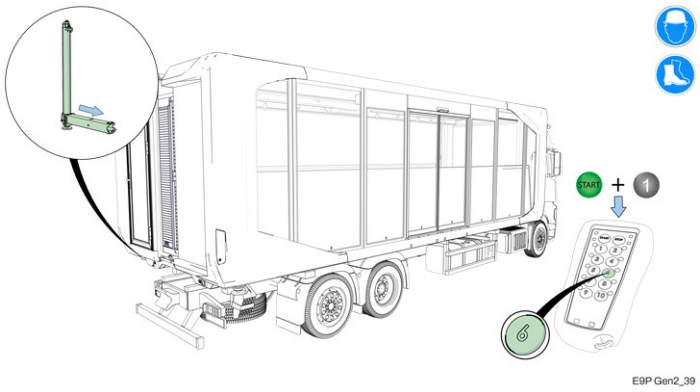


E9P Gen2_13

14. Lock the Pod using twist locks.

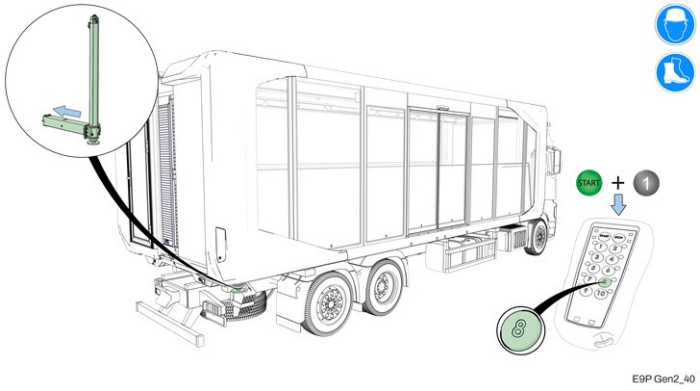

E9P Gen2_41

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



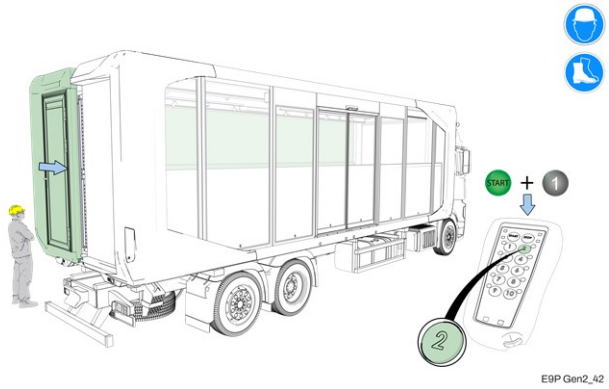
E9P Gen2_39

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

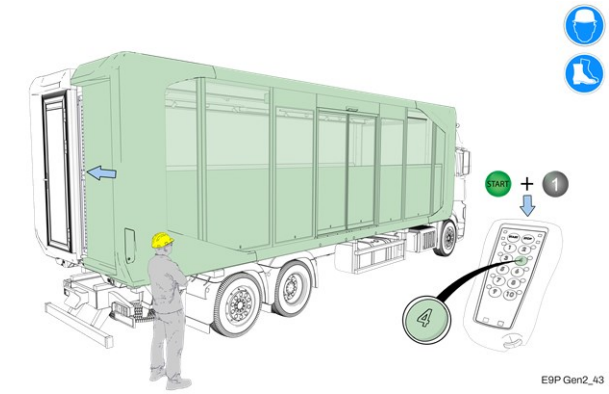


E9P Gen2_40

17. Press the indicated button to fully retract the left-hand slide out

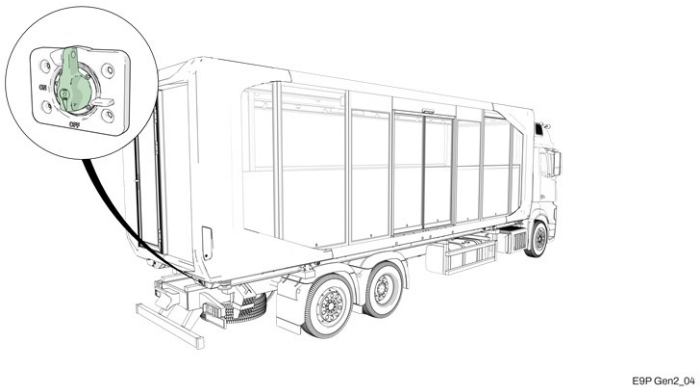


18. Press the indicated button to fully retract the right-hand slide out.



19. Turn the main switch to the "OFF" position.

Lock the battery master switch with a padlock to prevent unauthorised use.

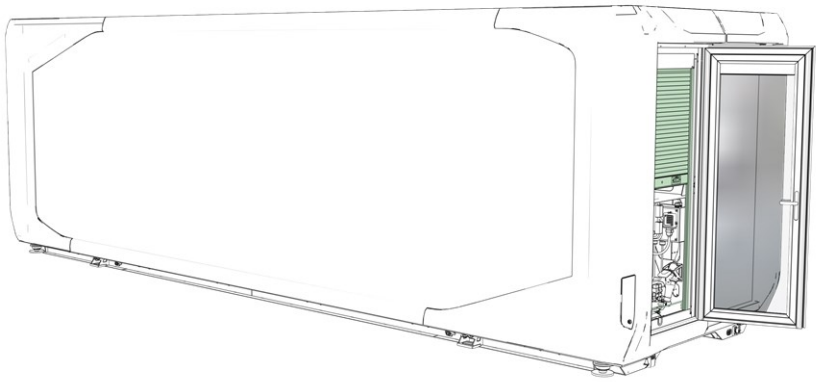


6. Emergency Operation

In this chapter, you will find information on how to access the Expandable Pod in case of a technical malfunction.

6.1 Accessibility Expandable Pod in case of malfunction

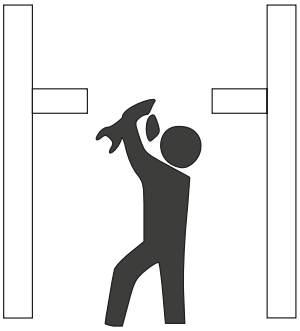
The Expandable Pod is accessible in most cases even in the event of a technical malfunction.



E9P Gen2_58

Fig. 6-1

1. Unlock and open the door in the slide-out.
2. Unlock and open the roller shutter door.



7. Periodic Maintenance

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

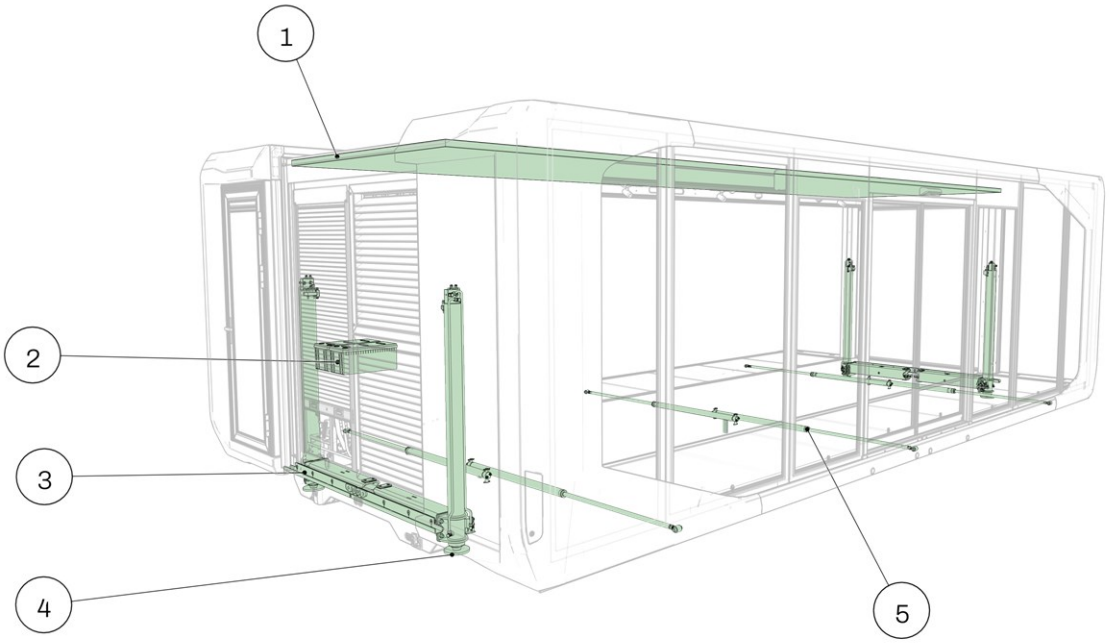
7.1 Maintenance Schedule

In the table below, the components that require periodic maintenance are listed.

Expandable B.V. advises adhering to the maintenance intervals indicated in the table and using only products with the specified specifications. Order your required products from Expandable B.V. +31 (0)85 890 21 88 in a timely manner.

Check	Work	Daily / Before use	Responsible Party
Sliding sleeves ③	Check for pollution / remove	x	Driver / Operator
Non-retractable Roof ①	Check for pollution / remove	x	Driver / Operator
Oil leakage	Check / Report	x	Driver / Operator
Hydraulic cylinders Lifting / Slide outs / Leveling ④ - ⑤	Check / Report	x	Driver / Operator
Door Locks	Check / Report	x	Driver / Operator
Battery Voltage ②	Check / Report	x	Driver / Operator
Body Damage	Check / Report	x	Driver / Operator
Service		**Interval**	
Expandable Service 1		2000 Km/ 2 Weeks	Service Workshop
Expandable Service 2		30.000 Km/ Every 3 Months	Service Workshop
Expandable Service 3		60.000 Km / Every 60 Months	Service Workshop
Expandable Service 4		120.000 Km / Every 12 Months	Service Workshop

Table 7-1 Maintenance Schedule



E9P Gen2_61

Points of interest during daily maintenance

1 Non-retractable Roof	4 Hydraulic lifting cylinders
2 Batteries	5 Hydraulic slide out cylinders
3 Sliding sleeves	

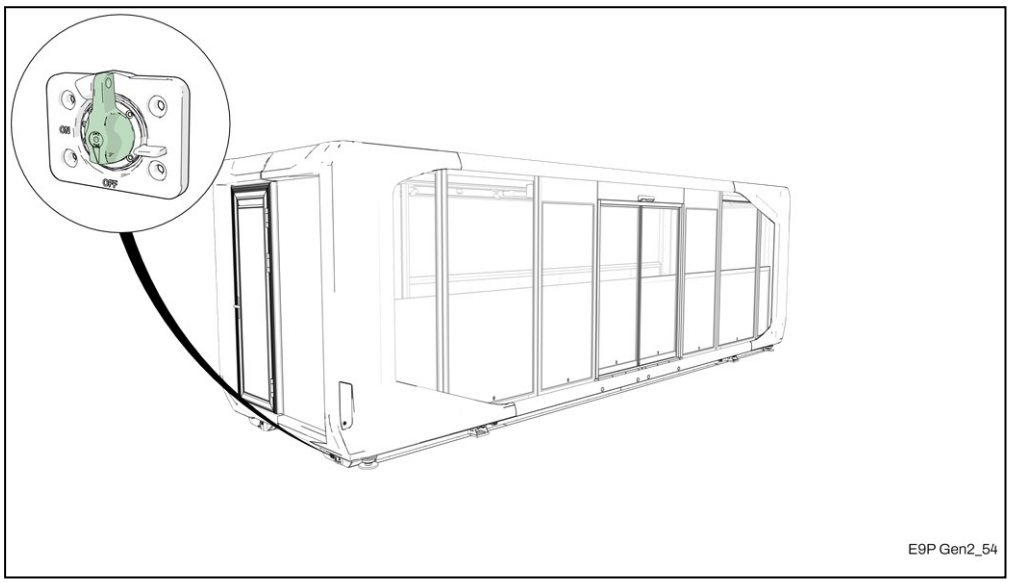
7.1.1 Oil Level

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;

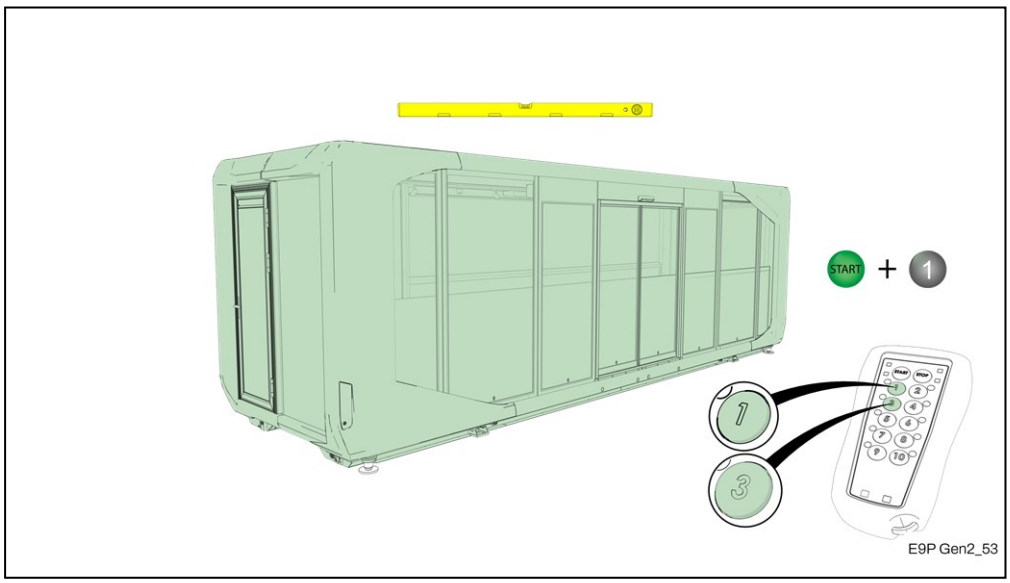
- *Make sure the container is level.*
- *Ensure that the slide outs are fully retracted.*

Procedure

Follow the procedure given below.

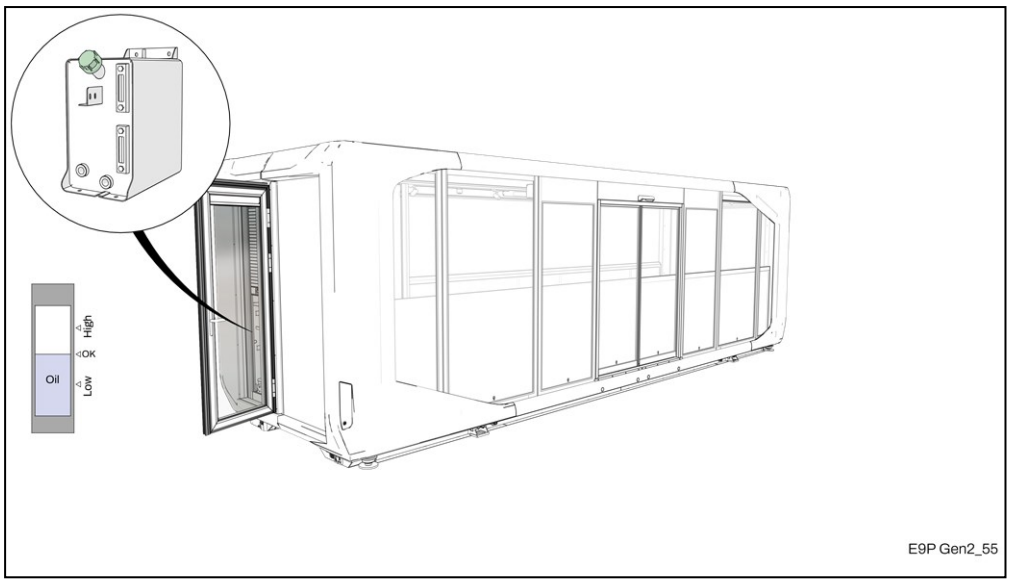


1. ⇧Turn the battery master switch to the "ON" position.



2. ⇧Press the indicated buttons to level Expandable Pod.

The piston rods must touch ground before levelling.



3. ⇧Open the access door and the roller shutter door.
4. Ensure that the oil level is halfway up the upper sight glass, otherwise refill hydraulic oil (See "Refilling Oil on the next page")
5. Close and lock the roller shutter door.
6. Turn the battery master switch to the "OFF" position and lock it with a padlock.

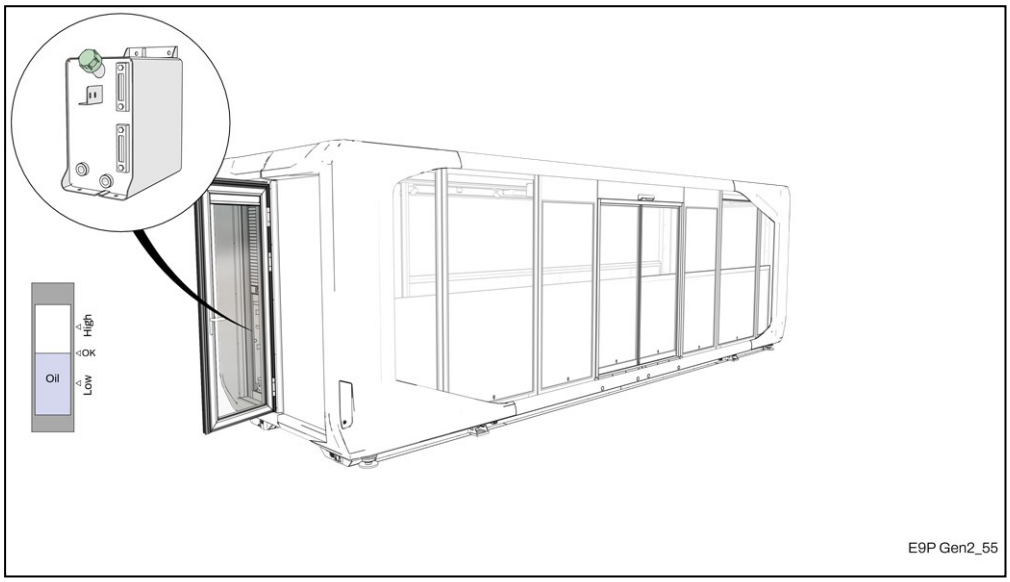
7.1.1.1 Refilling Oil

When the hydraulic oil level is too low, it must be refilled.

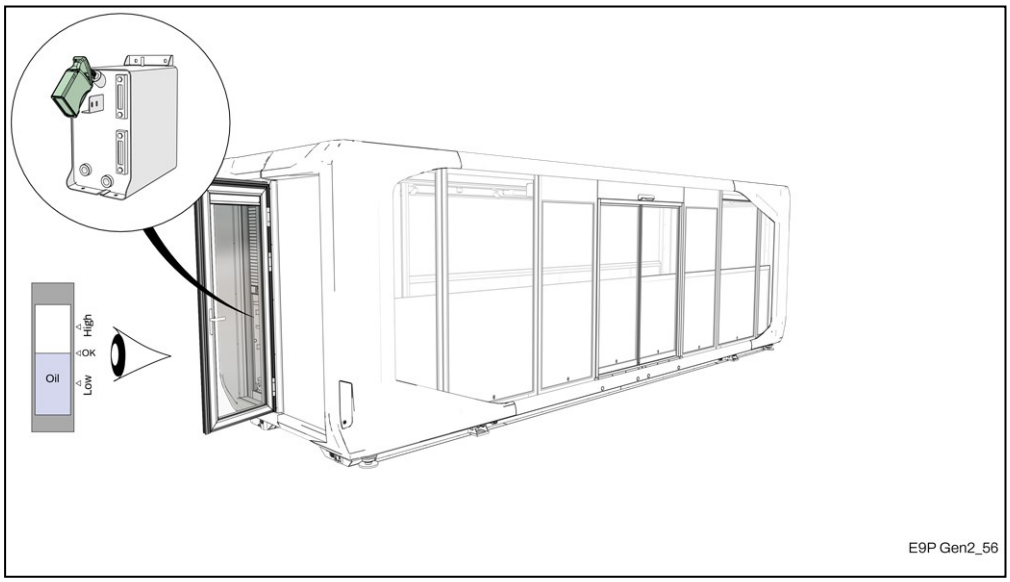
Hydraulic oil can only be refilled through the roller shutter door of the technical area.

Procedure

Follow the procedure given below.



1. ⇧Remove the tank cap.



2. ⇧Refill oil (See "Maintenance Schedule on page 33") and check the level through the top sight glass.

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

3. Screw the tank cap back onto the tank.

8. Safety & Environment

The following sections contain information on the safe use of the Expandable Pod. Also described is how to act when the has reached the end of its service life.

8.1 Environment

Once the Expandable Pod has reached the end of its lifespan for any reason, it must be dismantled and disposed of in accordance with local and/or national regulations.

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

8.2 Safety During Use

The use of a Expandable Pod may involve risks.

Always consult the relevant regulations (e.g., traffic laws, company procedures, safety and health regulations) applicable in the country where the Expandable Pod is being used.

General instructions for using a Expandable Pod:

- *Never set up the Expandable Pod on terrain that exceeds the allowable slope values.*
- *Never use or place a Expandable Pod on public roads unless it has been established that the entire 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 driver of the truck is ALWAYS responsible for the use of a Expandable Pod.*
- *Only manoeuvre the Expandable Pod when NO people or animals are in the immediate vicinity of the moving parts of the trailer.*
- *NEVER crawl under the Expandable Podif it rests only on the pistons of the hydraulic lift cylinders.*

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

9. General Information

In the following paragraphs, you will find general information regarding this User manual and the product manufactured by Expandable B.V..

9.1 Cleaning

Use a mild detergent and remove the detergent with water from the hose at low pressure. Expandable B.V. recommends NOT cleaning the Expandable Pod with aggressive or corrosive detergents. Using a pressure washer or cleaning in a car wash is strongly discouraged. This is to avoid loosening 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 accompanying documentation regarding the Expandable Pod must be provided to the customer.

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

⚠	*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 thatthey are clearly visible to the users.
User manual	The user manual of the Expandable Pod is handed over to the customer upon delivery. Inform the customer that the user manual should be kept with the Expandable Pod.
Warranty	Warranty on products from Expandable B.V. can be found in the delivery terms.

Table 9-1 Delivery Documents

9.3 Terrain Conditions

Your Expandable Pod should preferably be made ready for use and transport on terrain that is level both longitudinally and laterally. Some slope of the terrain is allowed as long as the slope angles do not exceed the maximum allowable values shown in Table (see "Table 9-2"). The maximum allowable slope angles both longitudinally and laterally are shown below:

	Slope Angle
Longitudinal	2°
Lateral	3°

Table 9-2 Slope Angles

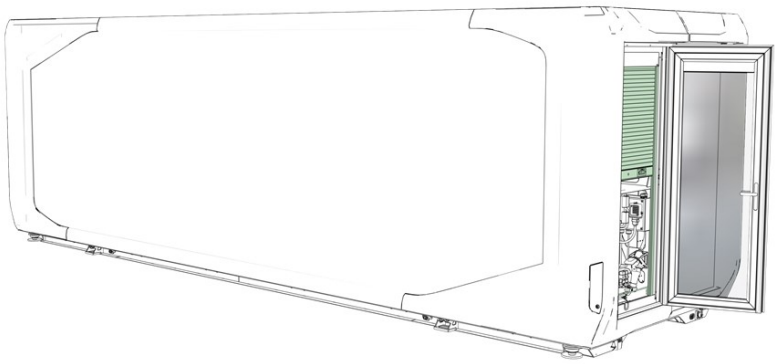
Always determine before making the Expandable Pod ready for use whether the terrain is sufficiently load-bearing to support the weight of the Expandable Pod plus the interior and use the supplied outrigger plates under the lifting cylinders.

9.4 Access to the Technical Area

The technical area is located at the rear of the Expandable Pod and is normally accessible in both the transport and usage positions for small repairs or diagnostics. In such cases, open the access door and the roller shutter door.
For larger repairs such as condenser replacements, sometimes a panel inside the Expandable Pod must be removed.
In the technical area, you will find:

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

Repairs and/or diagnostics may only be carried out by qualified technicians or, for simple tasks, under the guidance of the Expandable B.V. service staff.



E9P Gen2_58

Access to the technical area in transport position

Fig. 9-1

In the image below, the positions of the main components in the technical area are shown.

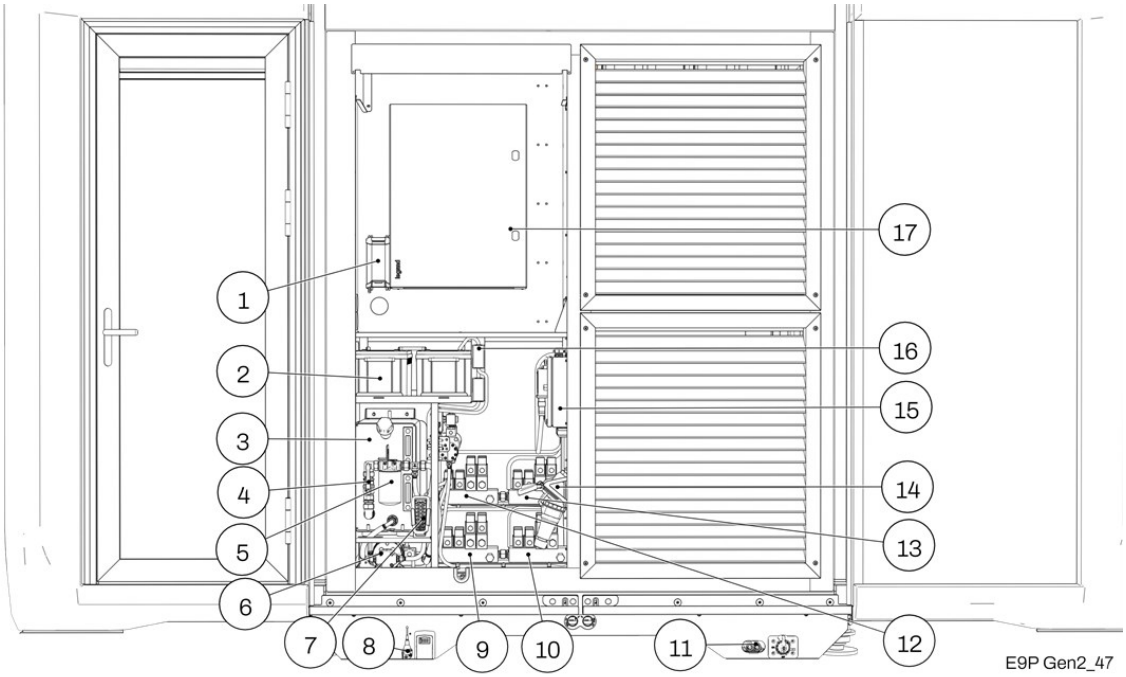


Fig. 9-2

1 Tickle charger	10 Valve slide outs
2 Batties	11 Type Y connector
3 Hydraulic Oil Tank	12 Valve slide outs
4 Oil filter	13 Valve slide outs
5 Oil Shut-off Valve	14 Shore Power Connection
6 Oil pump	15 Remote Control Receiver Control
7 Remote control support	16 Batterie fuses
8 Remote Control Receiver Antenna	17 Electrical Control Cabinet
9 Valve Horizontal movement lift cylinders	

The hydraulic filter must be replaced periodically (See "Maintenance Schedule on page 33").

9.5 Checking and Recharging Battery Voltage

The batteries are normally recharged via the built-in trickle charger as soon as the wall power is connected. The battery voltage can be checked at the battery terminals.

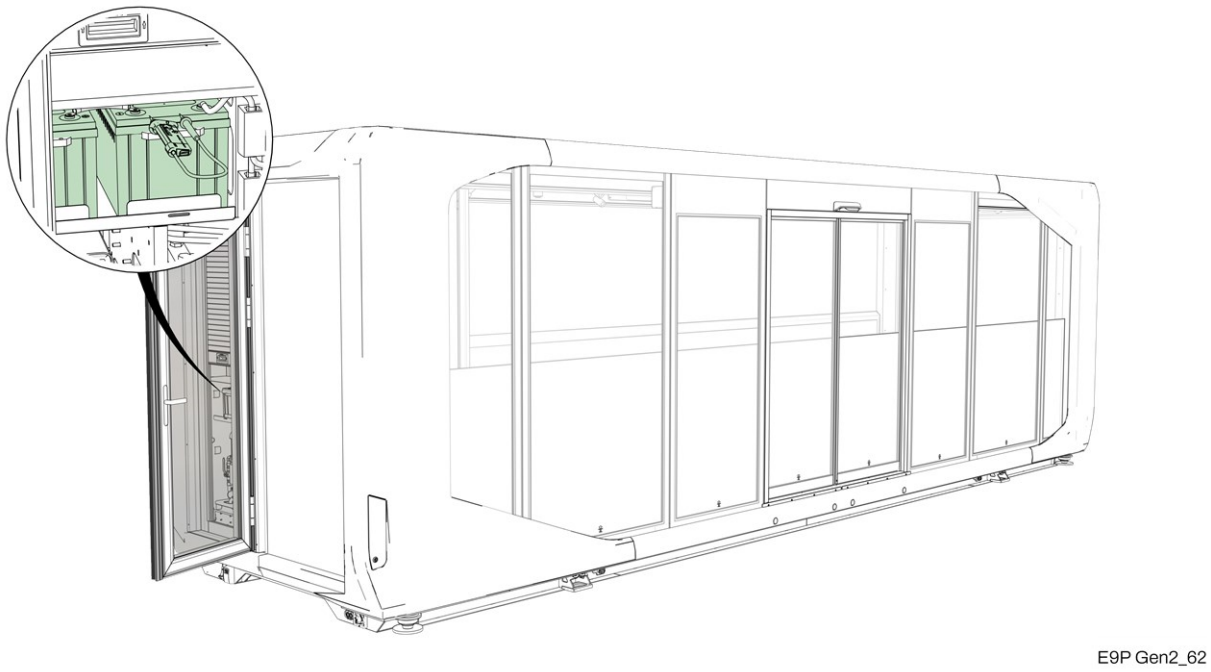


Fig. 9-3

If for some reason the voltage is too low, a charger can be connected to the type Y connector.

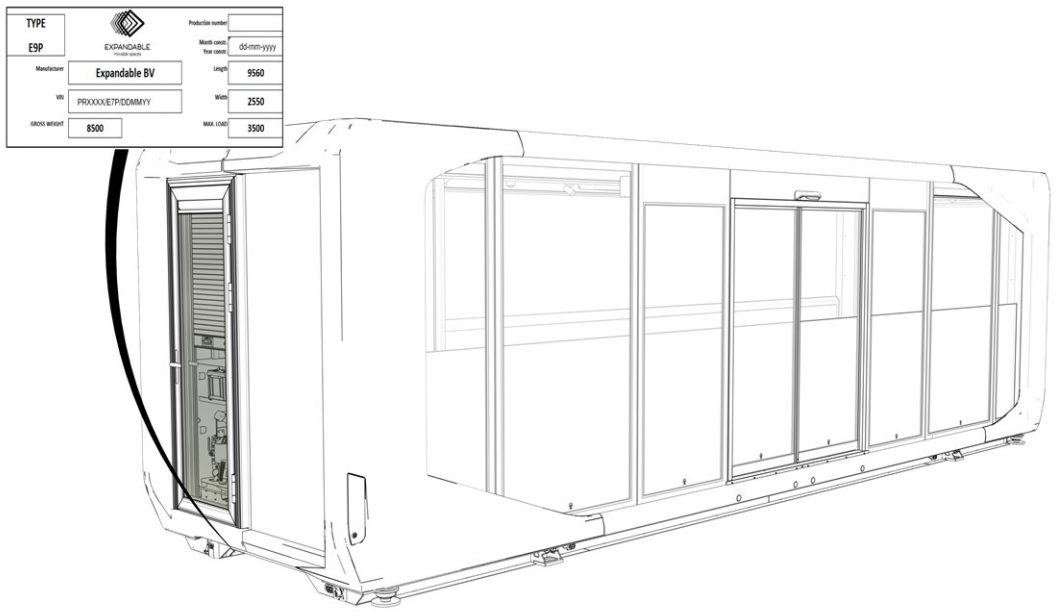
9.6 Type Sticker

On the chassis of the Expandable Pod, the type sticker shown below is affixed. This sticker provides information on:

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

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

Fig. 9-4



E9P Gen2_59

Fig. 9-5

The type sticker must always be legible. Replace the sticker as soon as it becomes illegible. In such a case, contact Expandable B.V.+31 (0)85 890 21 88 to order a new sticker. The sticker must not be replaced by a sticker made by third parties without written permission from Expandable B.V..

No changes may be made to the type sticker. Contact Expandable B.V. if the type sticker has become illegible.

9.7 Pod Specifications

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

	30ft
Maximum weight	7000-8000 Kg (59524 lbs)
Load capacity*	2000-3000 Kg (26455 lbs)
External length (Transport)	9.56 m (approx. 31ft 4")
External length (Deployed)	9.56 m (approx. 31ft 4")
External width (Transport)	2.55 m (approx. 8ft 4")
External width (Deployed)	4.83 m (approx. 15ft 8")
External height (Transport)	3.00 m (approx. 9ft 8")
External height (Deployed)	3.00 m (approx. 9ft 8")
Internal surface area in transport position	17.00 m2 (approx.182.98 sqft)
Internal surface area in usage position	42.00 m2 (approx. 452.08 sqft)
Internal volume in transport position	42.5 m3 (approx. 56 cu yd)
Internal volume in usage position	87.5 m3 (approx. 115 cu yd)
Maximum number of people on the roof when used as a roof terrace without equipment	15 (average 84 kg (185 lbs) per person)
Maximum load on middle roof	1300 Kg (2860 lbs)
Maximum weight per m^2 when in transport position	500 kg (1100 lbs)
Maximum weight per m^2 when deployed	500 kg (1100 lbs)

Table 9-3 Trailer Specifications

* According to a specific loading schedule

10.1 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
Density	HF-0, HF-1, HF-2	Swedish Standard	SS 115434 AM

Table 10-1 Oil Specifications

10.1.1 Oil Properties

	Method	Unit	Properties
ISO viscosity grade			32
Density, 15°C	D 4052	g/ml	0.87
Kinematic viscosity 40°C	D 445	mm^2/s	32.2
Kinematic viscosity 100°C	D 445	mm^2/s	5.6
Viscosity index	D 2270		111
Acid number TAN	D 974	mg KOH/g	0.3
Pour point	D 97	°C	-30
Flash point, 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
Foam, 5 min settling, seq. 1/2/3	D 892	ml	0/0/0
Rust prevention 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 10-2 The above figures are not specifications. They are typical figures obtained within production tolerances.

10.2 Properties and Specifications of Lubricant

Berulub Lubricant Properties
Suitable for low temperatures
Prevents "stick-slip" (sticking during sliding)
Extended lubrication intervals
Very good adhesion
Does not drip or melt
Resistant to hot and cold water, water vapours, lactic acid, formic acid, acetic acid or fruit acid, as well as aqueous-alkaline and acidic disinfectants or cleaning agents
Contains PTFE

Table 10-3 Berulub Lubricant Properties

	Characteristics
Base oil	Ester
Thickener	Polytetrafluoroethylene (PTFE)
NLGI grade	3
Kinematic viscosity at 40 °C	5000.0 mm²/s
Kinematic viscosity at 100 °C	340.0 mm²/s
Operating temperature range	-15.5 °C to 150 °C
Colour / Appearance	White
Propellant	Dimethyl ether

Table 10-4 Characteristics

10.3 Specifications of Electrical Components

		30ft
Battery	Type	DC250-12 (12V250Ah)
	Capacity	250Ah@10hr rate to 1.80V per cell @25 C
	Max. Discharge Current	2250A (5 sec)
	Normal Operating Temperature	25° C±5° C
	Recommended Maximum Charge Current	67.5A
Connection Voltage		12 V
Rolling Current Connection		380 V (3 x 32 A)
Socket Voltage		220 V
Light Switches		220 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
	Connection Bolt Size	3/8”-16 (accepts M10 connections)
	Moisture Ingress Protection	IP67/IP69K
	Ignition Protection	ISO 8846 & SAE J1171
Spirit Level Sensor	Moisture Ingress Protection	IP67, IP69K (with IP69K mating plug)
	Relative Humidity	0 - 95% (non-condensing, fully encapsulated housing)
	Power Supply Voltage	10 - 32 V dc
	Polarity Protection	Yes
	Power Consumption	50mA For CFM models (CANbus daisy-chained): max. internal T-junction current: 2.5A
	Operating Temperature	-40 .. +80 °C
Inductive Sensor	Operating Voltage	7....30V
	Output Type	NPN
	Output Polarity	DC
	Ambient Temperature	-40 .. +80 °C
	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 10-5 Specifications of Electrical Components

The specifications listed in the table above are a selection from the full specifications of the manufacturer. Expandable B.V. always radvises consulting

the supplied documentation from the manufacturer of the electrical components, which supersedes anything related in this manual.

10.4 Pictograms

The following pictograms are used in this manual:

	Description		Description		Description
	Important notice!		Maximum number of persons/maximum load		Delivery information.
	Danger 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 B.V..
	Wear work gloves		Wear safety clothing		Surface treatment
	Wear hearing protection		Wear safety glasses		Good

Table 10-6 Pictograms

Notes

Notes

Notes

any questions?
contact us

Expandable B.V.
Meerheide 25
5521 DZ Eersel
The Netherlands

+31(0)85 890 21 88
info@expandable.nl

EXPANDABLE
movable spaces

Part no.: 162038 EN (UK)-0
Release: 03-2026

www.expandable-trailers.com