Convertible Container Handbook

Presented by:
Corporate Training and Development Division
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University of PODS
LEARNING FOR ALL AT THE SPEED OF NEED



INTRODUCTION

The purpose of this manual is to provide safe, step-by-step instructions for assembling the PODS Convertible Container. Read these instructions thoroughly to become familiar with the overall process and stages of assembly prior to actually beginning the assembly process; then keep this manual on hand and follow directions carefully during each step of the assembly process. Understand that overlooking or failing to comply with any safety precautions described within this manual could cause damage to the container and result in serious injury or death.

Convertible container overview

1. Interior wall
2. Exterior wall
3. Container roof
4. Anchor points
5. PodZilla lift
6. Stainless steel pulley / cable assembly
7. Rooftop anchor points

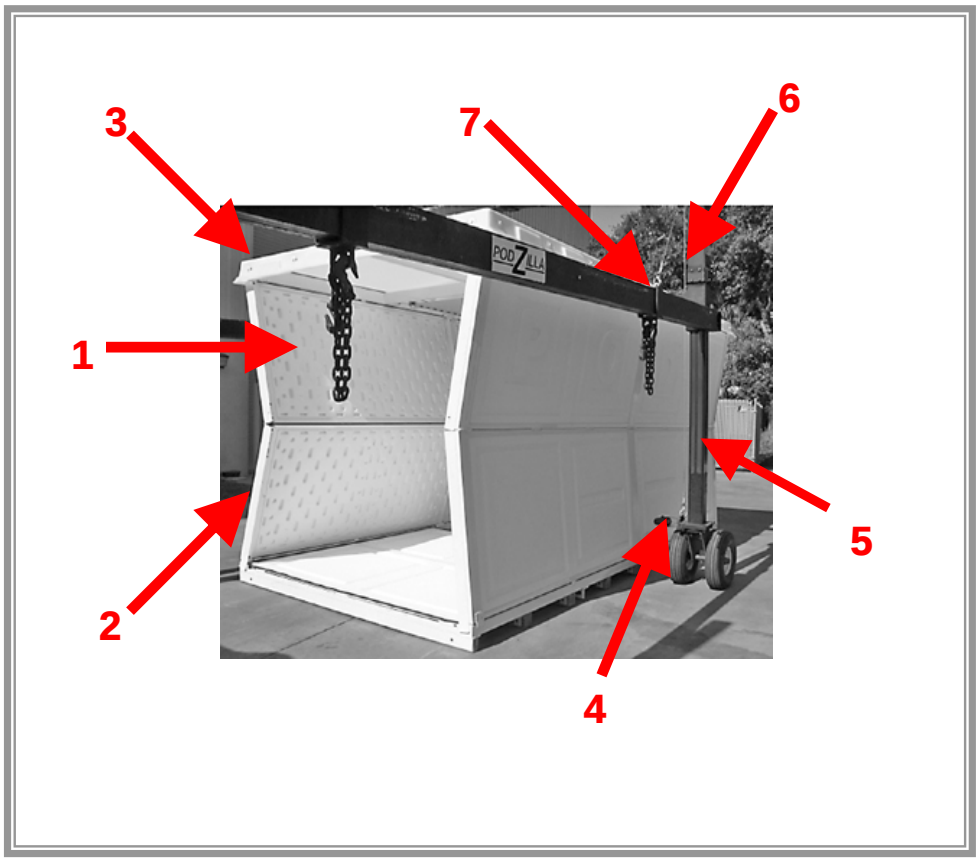


Figure 1: Convertible container overview



Equipment and hardware overview

– Forty stainless steel 1-inch hex bolts
– Four stainless steel 2-inch carriage bolts with 9/16-inch cap nuts
– Two stainless steel pulleys and cable assemblies
  - All cable and pulley assemblies must be in accordance with OSHA general safety requirements per OSHA Safety Guidelines: *Mechanical power-transmission apparatus. - 1926.307* and *Open web steel joists. – 1926.757*.
– One PodZilla eye hook assembly kit, which includes retro fittings for two separate anchor points as shown in *Figure 2* below.



Stainless steel 1-inch hex bolts



Stainless steel 2-inch carriage bolts with cap



Steel pulley and cable assembly





PodZilla eye hook assembly kit

Figure 2: Equipment and hardware



II. TOOLS AND SAFETY

Safety precautions

To avoid the risk of serious injury or death, specific safety precautions must be taken to ensure the container does not collapse on someone during assembly.

1. During the assembly process, keep the container anchored at the rooftop anchor points to ensure the container will not collapse inward.
2. There are 44 fasteners need to be installed for container setup or removed for container breakdown.
3. Select a level location with minimal obstacles.
4. Minimum clearance on both sides of the container and truck must be 12 feet.



Tools required for assembly

It is important to use the proper tools to assemble the convertible container. Improper or improvised tools risk injury to workers, as well as damage to the container. The following required tools are pictured in *Figure 3*.

- One Makita ¼-inch 18V impact driver—or equivalent
- One pry bar/hex head Allen key
- One 3/8-inch drive, 9/16-inch socket
- One 3/8 drive adapter/extension—for converting a hex receptacle to standard socket
- Mechanic's form-fitting gloves
- OSHA approved safety glasses
- Carrying pouch for assembly bolts
- Two spreader bar assemblies
- OSHA Type 1A Ansi-rated step ladder—follow these guidelines when purchasing and using a step ladder:
  - The ladder must be able to support at least four times the maximum intended load—except extra-heavy-duty metal or plastic ladders, which must be able to sustain 3.3 times the maximum intended load.
  - Specific Type 1A step ladders with a 300-pound maximum work load rating and larger than normal top platform should be considered. A top platform step with larger surface area then that of typical smaller 24-inch step ladders is recommended. An example of this type of surface area is located on the Cosco brand step ladder, model 4ZB17.
  - Rungs must be skid-resistant and shaped to prevent a foot from sliding off.
  - Folding stepladders must have a metal spreader and locking device to hold the front and back sections in an open position during use.
  - Ladders must not be tied or fastened together to provide longer sections unless they are specifically designed for such use.
  - Never use a ladder for any purpose other than the one for which it was designed.
- This PODS Convertible Container Instruction Manual

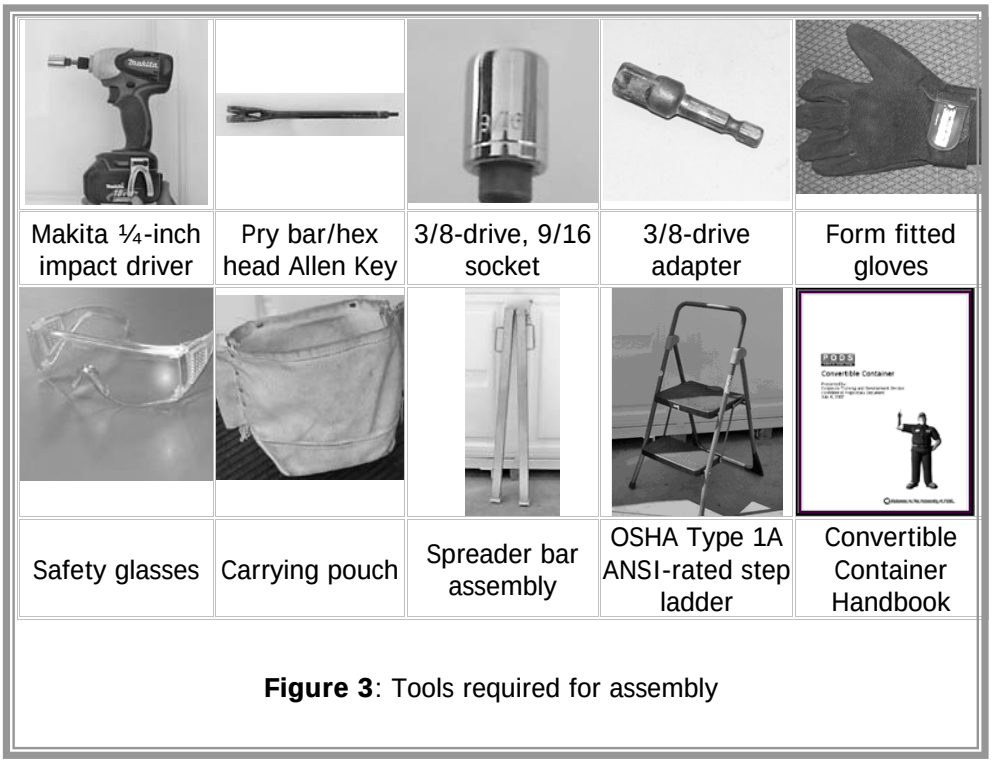


Figure 3: Tools required for assembly



III. OFF-LOADING THE CONTAINER

Assembly time

The estimated time for safe assembly of this container is roughly 10-15 minutes. Even under proper conditions for delivery and assembly, proficiency will vary between drivers, depending on individual skill and experience. Safety is the top priority under any condition and in all circumstances. Additionally, if there is insufficient assembly room, assembly time will increase.

Off-load the PODS convertible container

Follow the steps illustrated in *Figure 4* below to off-load the container from the truck, as follows:

1. Remove the convertible container from the truck bed using the PodZilla lift chains, as with any type A or B container.
2. Remove the truck and lower the convertible container to the ground.
3. Remove the lift chain hooks.
4. Attach lift chain hooks to the slider mechanism on the PodZilla.
5. Move the PodZilla lift to align the anchor points located near the guide wheels with the anchor points on the top sides of the container.
6. Attach the lift cable by hooking the pulleys to the rooftop anchor points located on the upper rear spreader beam of the PodZilla.
7. Attach one end of the cable to the bottom anchor point located near the guide wheels of the PodZilla.
8. Complete the cable attachment by connecting the remaining cable hooks to the anchor point located on the roof of the convertible container.







Step 1: Remove container from truck	Step 2: Lower container	Step 3: Remove lift chain	Step 4: Attach hooks







Step 5: Align anchor points	Step 6: Attach lift hook to spreader bar	Step 7: Attach hook to lift	Step 8: Attach hook to container

Figure 4: Off-loading the container



IV. ASSEMBLY

Raise the roof

Once the container is off the truck, it can be raised as follows:

1. Verify all cable hooks are clear of the guide wheels (See *Figure 5* below).
2. After confirming all cable hooks to be free, raise the container roof slowly and evenly until the container is completely open. DO NOT lift the container off of the ground.
3. Ensure the container is fully raised to allow proper alignment of the fasteners. When the container is in its fully raised position, the exterior walls may be slightly uneven; this is NORMAL.





Step 1:
Verify all cables are clear of wheels



Step 2:
Raise container roof



Step 3:
Fully raised container

Figure 5: Steps for raising the roof



Install and lock the spreader bar assembly; front panels

1. Locate the slide lock at each side of the container.
2. Locate the left and right edge of the spreader bar on the left and right edge of the inner wall of the convertible container.
3. Press down on the spreader bar to spread out the inner walls of the convertible container.
4. Push down on the handles of the spreader bar and verify the latch assembly is in the locked position.

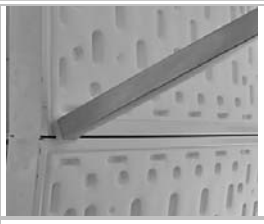
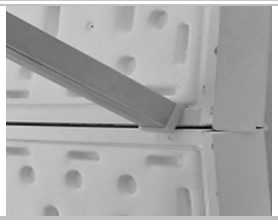
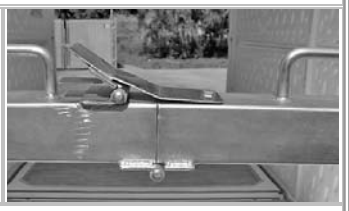
		
Step 1: Locate slide lock	Step 2: Place left and right edge of spreader on inner walls of container at joint	
		
Step 3: Press down	Step 4: Push down on handles and verify latch is locked in position.	

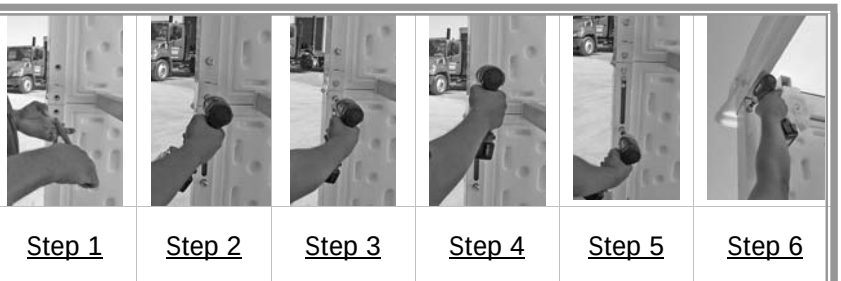
Figure 6: Installing and locking the spreader bar assembly



Secure container front panels

When following these instructions to tighten steel bolts in the convertible container, always hand thread the bolts before tightening them with the impact gun:

1. Slide the locking mechanism upwards to secure the top and bottom panels on both left and right sides.
2. Locate, install and tighten a 1-inch stainless steel bolt into the top middle boss* on both the left and right sides.
3. Locate, install and tighten a 1-inch stainless steel bolt into the top bottom boss on both the left and right sides.
4. Locate, install and tighten a 1-inch stainless steel bolt into the top boss on both the left and right sides.
5. Locate, install and tighten a 1-inch stainless steel bolt into the bottom boss on both the left and right sides.
6. Locate, install and tighten a 1-inch stainless steel bolt into the highest boss on both sides.
7. Locate, install and tighten a 1-inch stainless steel bolt into the lowest boss on both sides.
8. Locate and feed the bolt through the 2-inch carriage on both left and right sides.



Step 1 | Step 2 | Step 3 | Step 4 | Step 5 | Step 6



Step 7 | Step 8: Feed the bolt through the carriage.

Figure 7: Securing front panels of the convertible container

*Boss = Threaded inlet for a fastener

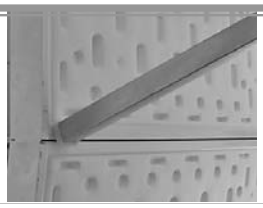


Install and lock the spreader bar assembly; rear panels

1. Locate the slide lock at each side of the container.
2. Touch the left and right edge of the spreader bar to the left and right edges of the inner wall of the convertible container.
3. Depress the spreader bar to spread and straighten the inner walls of the convertible container.
4. Press down on the handles of the spreader bar and verify the latch assembly is in the locked position.



Step 1: Slide lock





Step 2: Left and right inner walls



Step 3: Depress spreader bar





Step 4: Press down on handles and verify locked position

Figure 8: Installing the spreader bar assembly; rear panels



Secure container rear panels

In executing the instructions below and all assembly steps of the PODS convertible container, all bolts should be hand threaded before tightening with the impact gun:

1. Slide the locking mechanism upward to secure top and bottom panels on both the left and right sides.
2. Locate, install and tighten a 1-inch stainless steel bolt into the top middle boss on both sides.
3. Locate, install and tighten a 1-inch stainless steel bolt into the top bottom boss on both sides.
4. Locate, install and tighten a 1-inch stainless steel bolt into the top boss on both sides.
5. Locate, install and tighten a 1-inch stainless steel bolt into the bottom boss on both sides.
6. Locate, install and tighten a 1-inch stainless steel bolt into the highest boss on both sides.
7. Locate, install and tighten a 1-inch stainless steel bolt into the lowest boss on both sides.
8. Locate and feed the bolt through the 2-inch carriage on both left and right sides.

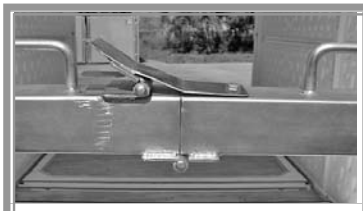


Figure 9: Securing rear panels of the convertible container



Remove the spreader bar assembly; rear panels

Follow the step-by-step instructions and illustrations (*Figure 10*) for removing the spreader bar assembly from the front panel. Apply the steps to remove the spreader bar assembly from the rear panels.



Step 1:
Locate latch assembly



Step 2:
Press down to release



Step 3:
Pull up spreader bar

Figure 10: Removing the spreader bar assembly

Install and lock the spreader bar assembly; center panels

See the step-by-step instructions and illustrations (*Figure 8*) for installing and locking the spreader bar assembly to the rear panels. Apply the steps to install and lock the spreader bar assembly to the center panels.

Secure container center panels

See the step-by-step instructions and illustrations *(Figure 9*) for securing container rear panels. Apply the same steps for securing the container center panels, with the elimination of step 8.

Remove spreader bar assembly; center panels and front panels

Follow the step-by-step instructions and illustrations (*Figure 10*) for removing the spreader bar assembly from the front panel. Apply the steps to remove the spreader bar assembly from the center panels.



Raise the rear wall

When executing the following instructions, Be sure to: use the 9/16 cap nuts on 2-inch carriage bolts; secure the pry bar under the door before lifting to prevent injury to your fingers; hand thread all bolts before tightening with the impact gun:

1. Identify the rear wall assembly on the floor of the convertible container.
2. Lift the rear wall from the floor using the pry bar.
3. Push the rear wall assembly upward for alignment and fastening.
4. Locate, install and tighten a 9/16-inch locking nut onto the carriage bolt—right side
5. Locate, install and tighten a 9/16-inch locking nut onto the carriage bolt—left side
6. Locate, install and tighten a 9/16-inch hex-head stainless steel bolt into the top boss—left side
7. Locate, install and tighten a 9/16-inch hex-head stainless steel bolt into the top boss—right side.



Step 1:
ID rear wall



Step 2:
Lift wall



Step 3:
Push up



Step 4:
Fasten side-R



Step 5:
Fasten side-L



Step 6:
Fasten top boss-left



Step 7:
Fasten top boss-right

Figure 11: Raising the rear wall



Raise the door frame assembly

When executing the following instructions, Be sure to: use the 9/16 cap nuts on 2-inch carriage bolts; secure the pry bar under the door before lifting to prevent injury to your fingers; hand thread all bolts before tightening with the impact gun:

CAUTION To prevent injury, use an OSHA approved ladder to perform the following steps.

1. Identify the front door frame on the floor of the convertible container.
2. Using the pry bar, lift up the door frame assembly and push toward the rear beam.
3. Move the door frame assembly past the door wheel on the left side.
4. Move the door frame assembly past the door wheel on the right side.
5. Pull out and release the right side door wheel assembly.
6. Pull out and release the left side door wheel assembly.
7. Locate, install and tighten a 9/16-inch locking nut onto the 2-inch carriage bolt—left side
8. Locate, install and tighten a 9/16-inch locking nut onto the 2-inch carriage bolt—right side
9. Locate, install and tighten a 9/16-inch hex-head stainless steel bolt into the top boss on the right side.
10. Locate, install and tighten a 9/16-inch hex-head stainless steel bolt into the top boss on the left side.



Step 1:
ID door frame



Step 2:
Lift door frame



Step 3:
Clear wheel left



Step 4:
Clear wheel right



Step 5:
Release wheel-R



Step 6:
Release wheel-L



Step 7:
Fasten left side



Step 8:
Fasten right side



Step 9:
Fasten top boss-L



Step 10:
Fasten top boss-R

Figure 12: Raising the door frame



Align the door assembly

1. Verify the left door wheel is released and locked.
2. Verify the right door wheel is released and locked.
3. Facing the front assembly, pull forward on the door, moving the door over the wheels.
4. Verify the door assembly is positioned over the left door wheel.
5. Verify the door assembly is positioned over the right door wheel.
6. Move the door into the door frame track on both sides.
7. Pull door through the frame track downward and verify ease of movement.



Step 1: Left wheel released & locked



Step 2: Right wheel released & locked



Step 3: Move door over wheels



Step 4: Door over left door wheel



Step 5: Door over right door wheel





Step 6: Move door into frame track



Step 7: Pull door down in track and verify

Figure 13: Align the door assembly

Remove and reinstall door assembly locking pins

1. Locate the locking pin at each side of the top door rail—both left and right—(see *Figure 14*).
2. Remove both locking pins by pushing upward on the pin.
3. Install a locking pin in the forward position of the frame rail toward the door assembly on both left and right sides.
4. Press the locking pins downward through the door frame rail assembly on both sides.



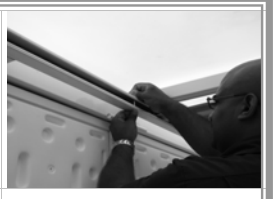
Step 1: Locate pins



Step 2: Remove pins



Step 3: Install pins



Step 4: Press down

Figure 14: Remove and reinstall door assembly locking pins



Remove the cable hook assembly

Remember to verify all hardware is fastened and in place before proceeding to the following steps:

1. Lower the PodZilla lift and remove the cable hook from the top anchor point on the container.
2. Remove the cable hook assembly from the spreader bar anchor point.
3. Remove the cable hook assembly from the anchor point near the guide wheels.
4. The assembly process



Step 1	Step 2	Step 3	Step 4

Figure 15: Remove the cable hook assembly

V. DISASSEMBLY

Note

To disassemble the convertible container, follow these instructions in reverse, beginning at the ends with the rear wall and door frame assemblies.

CAUTION

Always start the disassembly process from the center beams and never from the outer beams of the convertible container.