

24 ft tall Guard Tower

Installation Instructions



Perimeter Security Products

DIVISION OF SPIRIT OF AMERICA CORPORATION

60-432-7158 Phone 260-459-0929 Fax 800-860-2855 Toll-free <u>www.perimetersecurityproducts.com</u>

Contents

Components	3
Introduction	4
Preparation	5
Floor Panel Installation	6
Wall Assembly	8
Ladder Assembly	11
Tie Down Cables and Brackets	11
Roof Assembly	14
Joist Stringer Assemblies	14
Rafter Installation	15
Roof Sheeting Installation	16
Double Stack Containers	18
Final Ladder Assembly	19
Ballast/Fill Material	20
Additional Comments	20

Note: Read the entire set of instructions prior to beginning the installation of the 24 Ft Guard Tower.

PROPRIETARY DATA THIS DOCUMENT AND THE INFORMATION DISCLOSED HEREIN ARE THE PROPERTY OF CREATIVE BUILDING PRODUCTS. NO PART OF THIS DOCUMENT IS TO BE REPRODUCED WITHOUT THE WRITTEN PERMISSION OF CREATIVE BUILDING PRODUCTS. NO INFORMATION DISCLOSED HEREIN IS TO BE TRANSMITTED TO ANOTHER OR USED FOR ANY PURPOSE OTHER THAN THAT FOR WHICH THIS DOCUMENT IS PROVIDED.

Components

The following items are shipped inside of the Tricon Conex Boxes. Items packaged with the Standard Guard Tower include:

- 1. 2 Tricon Conex Box Shipping Container
- 2. 2 Floor Panels (Front and Rear)
- 3. 1 4' Wall Sections long 8' long
- 4. 2 4' Wall Sections short 6.5' long
- 5. 1-4' Wall Sections long with walk-thru installed -8' long
- 6. 2 Joist Stringer (metal)
- 7. 6 Treated 4 x 4 x 96 (rafters)
- 8. 5 Treated 4 x 4 x 84 (4 corner posts and 1 rafter)
- 9. 4 Plywood Roof Panels 48" x 48"
- 10. 1 Plywood Roof Panels 24" x 96" with Hinged Access Door
- 11. 4 Anchor Bracket Corner
- 12. 4 Eye Bolts
- 13. 4 Anchor Cable Assemblies
- 14. 1 Sheet of Rubber Roofing
- 15. 4 Vertical Twist Lock Stackers (see image below)
- 16. Hardware Misc
- 17. Tools Misc





Introduction

The 24 ft tall Guard Tower includes one Guard Tower and two Tricon Conex Boxes. We recommend installing the Guard Tower components on top of one of the Conex Boxes and then placing the Conex box and Guard Tower on top of the 2nd Conex Box.

The Guard Tower itself is manufactured with four separate wall units that allow quick and easy assembly on top of the standard Tricon Conex Box. Once placed on the Conex Boxes, the 24 ft tall Guard Tower will provide an eye level of approximately 22 feet, giving the guards a greater view of the perimeter or area of threat. Once in position, the walls are filled from the top using sand as ballast. The sand filled walls provide the guards inside with 360 degrees of protection from 9mm, 5.56, and 7.62 threats. 12" dumps are provided for easy removal of the ballast allowing the 24 ft tall Guard Tower to be repositioned as needed.

The overhead cover is 3/4" plywood. Lights, sensors, and antenna can be installed if desired. Access onto the cover can be reached via a hatch type access panel that is pre-installed for convenience. The Standard Guard Tower eliminates the time and the mess associated with using sandbags. This product is a recoverable asset that can be broken down and stored inside the Conex Box base.

Preparation

Each 24 ft tall Guard Tower consisting of stacking 2 Tricon Conex shipping containers. All of the components will be shipped inside one of the Tricon Containers and it will have a unique serial number for the Guard Tower.

It is suggested that the contents of the container be removed, set aside, and readied for assembly. Verify that all components are accounted for, especially if the tower has been assembled and disassembled in the past.

Be sure to close the doors prior to assembly.

The footprint of the Tricon Conex Boxes is about 7' x 8'. Clear and level the ground where the box will be placed. The ground should be firm. Position the box in the desired location. The doors should be located towards the non-threat side.



PROPRIETARY DATA THIS DOCUMENT AND THE INFORMATION DISCLOSED HEREIN ARE THE PROPERTY OF CREATIVE BUILDING PRODUCTS. NO PART OF THIS DOCUMENT IS TO BE REPRODUCED WITHOUT THE WRITTEN PERMISSION OF CREATIVE BUILDING PRODUCTS. NO INFORMATION DISCLOSED HEREIN IS TO BE TRANSMITTED TO ANOTHER OR USED FOR ANY PURPOSE OTHER THAN THAT FOR WHICH THIS DOCUMENT IS PROVIDED.

Floor Panel Installation

The floor of the 24 ft tall Guard Tower is made by installing two preassembled 48" x 77 $\frac{1}{2}$ " panels.

The front strip is thinner than the back strip.

The panels have corner brackets on the outer corners to hold the wall panels in place. The front panel does NOT have a board under the brackets and does have a lip on the seam edge that will support the rear panel.



The rear floor panel has a wood strip under the plywood below the bracket and does not have a lipped edge on the seam side.



PROPRIETARY DATA THIS DOCUMENT AND THE INFORMATION DISCLOSED HEREIN ARE THE PROPERTY OF CREATIVE BUILDING PRODUCTS. NO PART OF THIS DOCUMENT IS TO BE REPRODUCED WITHOUT THE WRITTEN PERMISSION OF CREATIVE BUILDING PRODUCTS. NO INFORMATION DISCLOSED HEREIN IS TO BE TRANSMITTED TO ANOTHER OR USED FOR ANY PURPOSE OTHER THAN THAT FOR WHICH THIS DOCUMENT IS PROVIDED.

Place the front floor panels on as shown with the front and sides of the panel lined up with the lifting corner blocks on the shipping container.



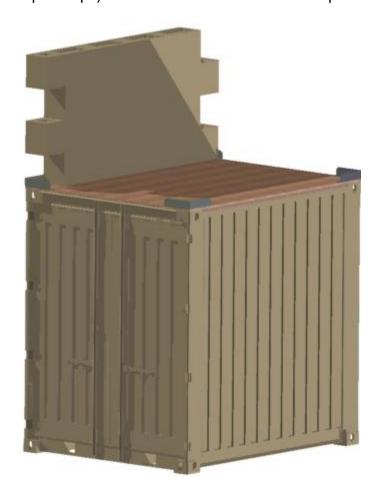
Position the rear floor panel such that it is snug and flush on the sides. Fasten the rear floor to the front floor panel down the seam using screws.



PROPRIETARY DATA THIS DOCUMENT AND THE INFORMATION DISCLOSED HEREIN ARE THE PROPERTY OF CREATIVE BUILDING PRODUCTS. NO PART OF THIS DOCUMENT IS TO BE REPRODUCED WITHOUT THE WRITTEN PERMISSION OF CREATIVE BUILDING PRODUCTS. NO INFORMATION DISCLOSED HEREIN IS TO BE TRANSMITTED TO ANOTHER OR USED FOR ANY PURPOSE OTHER THAN THAT FOR WHICH THIS DOCUMENT IS PROVIDED.

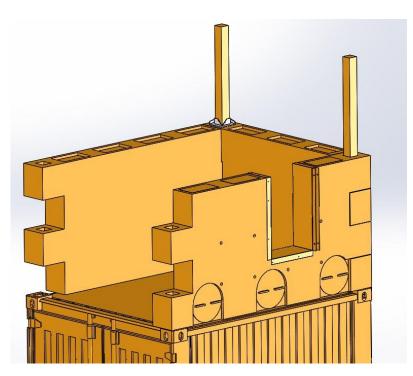
Wall Assembly

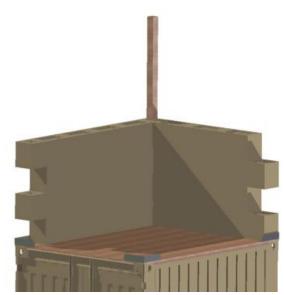
There are four wall sections on the Standard Guard Tower, two longer and two shorter. One of the longer sections has a walk-thru in the middle of the wall. Locate the wall with walk-thru on non-threat side. The two longer sections are the sides and the two shorter sections make up the front and rear walls. Place one long wall section on the left side with the fill holes up and the dumps (circular shaped caps) located toward the outside and pushed back as shown.



PROPRIETARY DATA THIS DOCUMENT AND THE INFORMATION DISCLOSED HEREIN ARE THE PROPERTY OF CREATIVE BUILDING PRODUCTS. NO PART OF THIS DOCUMENT IS TO BE REPRODUCED WITHOUT THE WRITTEN PERMISSION OF CREATIVE BUILDING PRODUCTS. NO INFORMATION DISCLOSED HEREIN IS TO BE TRANSMITTED TO ANOTHER OR USED FOR ANY PURPOSE OTHER THAN THAT FOR WHICH THIS DOCUMENT IS PROVIDED.

Add one of the shorter wall sections to the back and add a 4" x 4" x 96" (8') post thru the holes of both wall sections locking them together as shown in the following image.

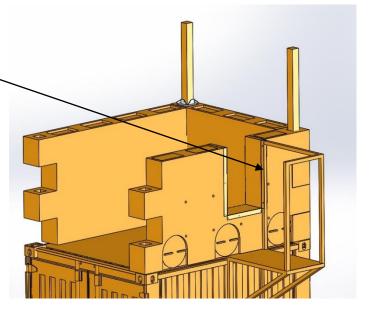




Continue by adding the long wall segment with walk-thru installed to the right and a second post in the back. These segments should be pretty easy to install. Note, the walk-thru opening should be on non-threat side.

Slide Platform Assembly in place so that the vertical tube is inserted into channel on outside edge of the walk-thru area. (see detail) Attach platform to walk-thru with (2) 3x/8 x 2-1/4" bolt and nuts.

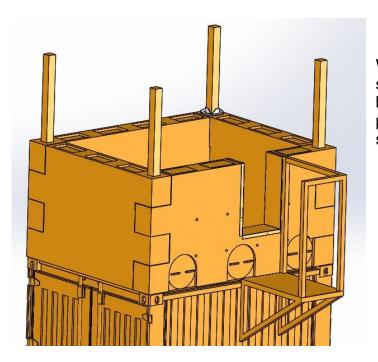
Attach platform to sidewall of container with self-drilling screws provided. Note: it is important that it solid and thus needs to be rigidly attached to the container.



PROPRIETARY DATA THIS DOCUMENT AND THE INFORMATION DISCLOSED HEREIN ARE THE PROPERTY OF CREATIVE BUILDING PRODUCTS. NO PART OF THIS DOCUMENT IS TO BE REPRODUCED WITHOUT THE WRITTEN PERMISSION OF CREATIVE BUILDING PRODUCTS. NO INFORMATION DISCLOSED HEREIN IS TO BE TRANSMITTED TO ANOTHER OR USED FOR ANY PURPOSE OTHER THAN THAT FOR WHICH THIS DOCUMENT IS PROVIDED.

The last wall segment, a short one, will take lifting the fronts of the first and third wall sections, a little jogging of the first, third, and last wall sections to get the fourth wall section locked into position.





When the four walls are in place surrounded by the four corner brackets, add the last two 4" x 4" posts tying all of the wall segments together.

Ladder Assembly

The ladder kit is a standard part of the Standard Guard Tower package unless the optional stair kit was purchased. It may be desired to assemble and install the ladder kit once the guard tower walls are in place to give easier access for the remaining guard tower assembly.

Lay the ladder kit components out and bolt together using the hardware and tools included.

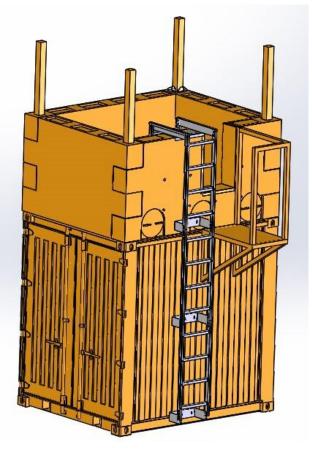




When the ladder kit is assembled, it can be put in place. The following photo shows a ladder kit being installed during the assembly of a Standard Guard Tower.

You will need to install the ladder on the sidewall of the container with the walk-thru cutout and platform. The ladder will be located directly beside the platform so that when ascending the ladder, you can easily step off of the ladder and onto the platform and then into the Guard Tower though the walk-thru opening. The finished assembly will look something like the image below.





When the ladder is in place, attach the ladder securely to the Tricon Conex shipping container with the self-drilling screws provided.

Note, once you have completed the assembly of the Guard Tower onto the Tricon Conex container, you will be stacking it onto a second Tricon Conex container. Once that is complete, you will need to add 2 more 4 ft sections of ladder.

Tie Down Cables and Brackets

To achieve the wind and seismic ratings, the guard tower must be cabled to the container below. This is done using a corner bracket on each corner as shown.

The brackets are slipped over the posts and attached to the post with nails. Note: this needs to be done before attaching joist to top of post.

Add the eye bolt and nut to each bracket. Each eye bolt then gets a cable and two cable clamps. Thread the cable through the eye bolt and down through holes in the upper shipping container corner blocks.



Double the cable ends near the eye bolt, take out the slack, snug, and fasten as shown. With the cable clamps in place, tighten the nut on the eye bolt to remove any play in the cables. See photos showing the cable tying the bracket on top of the Guard Tower wall to the top corner lug of container.





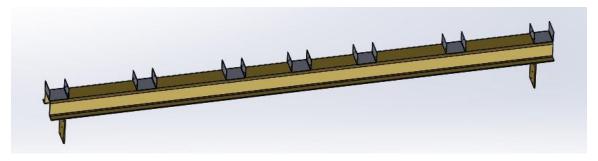
PROPRIETARY DATA THIS DOCUMENT AND THE INFORMATION DISCLOSED HEREIN ARE THE PROPERTY OF CREATIVE BUILDING PRODUCTS. NO PART OF THIS DOCUMENT IS TO BE REPRODUCED WITHOUT THE WRITTEN PERMISSION OF CREATIVE BUILDING PRODUCTS. NO INFORMATION DISCLOSED HEREIN IS TO BE TRANSMITTED TO ANOTHER OR USED FOR ANY PURPOSE OTHER THAN THAT FOR WHICH THIS DOCUMENT IS PROVIDED.

Roof Assembly

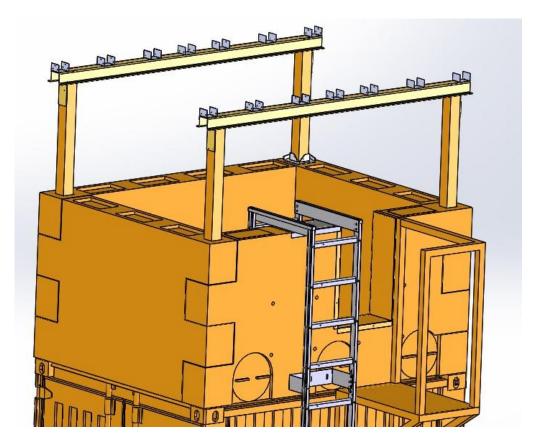
The next assembly is the roof. This will entail adding the joist stringer assemblies, rafters, sheeting, and rubber roof material.

Joist Stringer Assemblies

There are two metal joist stringer assemblies. The bracket orientations are symmetrical on these joist stringers assemblies.

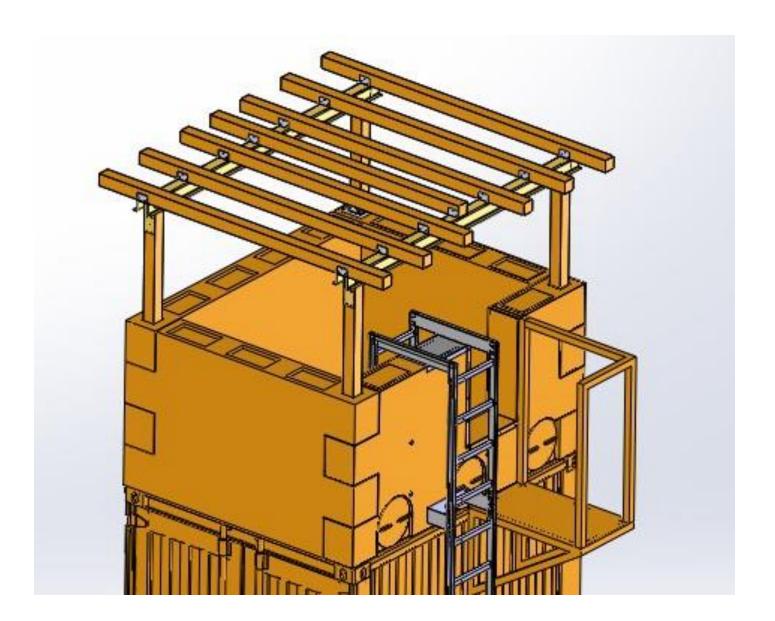


Fasten both joist stringers to the posts with nails. The orientation will be from front to back as shown.



Rafter Installation

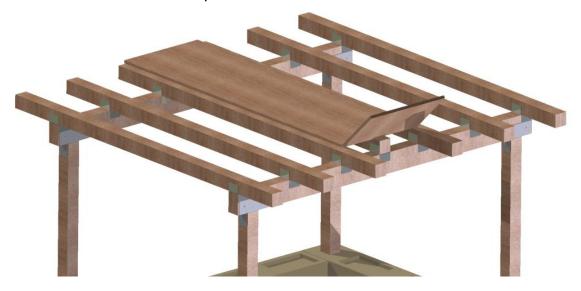
Install the remaining six $4" \times 4" \times 8"$ timbers and the shorter $4" \times 4"$ as rafters as shown. The rafters need to extend past the joist stringer assemblies on the ends by **12 3/4".** The shorter $4" \times 4"$ will be flush with the joist at one end. This is where the access panel will be located and should be on the side with the Walkthru. Orient the shorter $4" \times 4"$ to give the best access to the roof. See detail below. Attach all of the joist with nails to the steel joist. Note, there should be 3 nails on each side of 4×4 on each joist.



Roof Sheeting Installation

There are five roof panels on the Standard Guard Tower. There are four 4' x 4' sheets of 3/4" plywood and one hinged panel 24" wide and 8' long including the 14 1/2" hinged access panel.

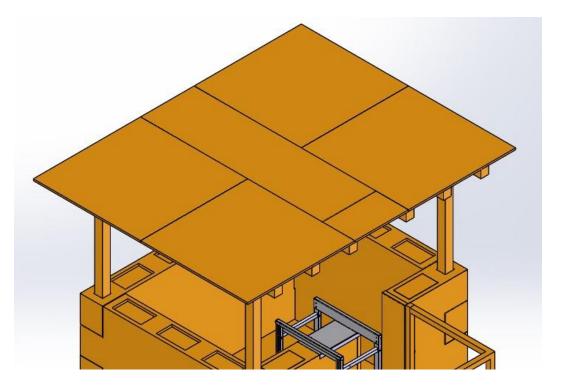
The sheeting will stick out about a foot on the front and back of the rafters and will be flush with the rafters on the sides. It is suggested to start with the 24" x 96" panel and locate it as shown centered on the rafters flush with the ends of the rafters. Make sure that the panel has the hinged end located where the middle rafter "falls short". Fasten in place to the rafters.

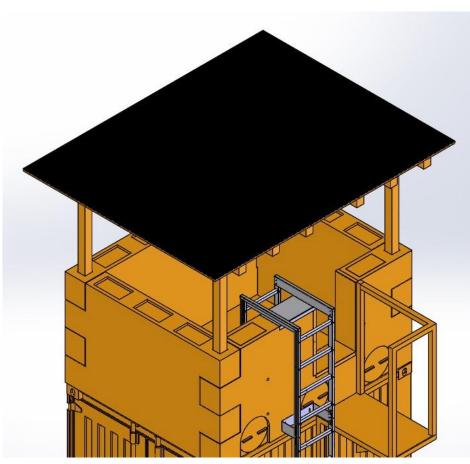


Add two of the 48" x 48" sheets as shown and fasten to the rafters.



Add the final two 48" x 48" sheets as shown and fasten to the rafters.





Stretch the rubber roof material over the top, pulling it down and fasten it on the underside of the roof panels. Using a sharp knife slit the material at the side seams of the access panel allowing it to be raised up.

Double Stack Containers

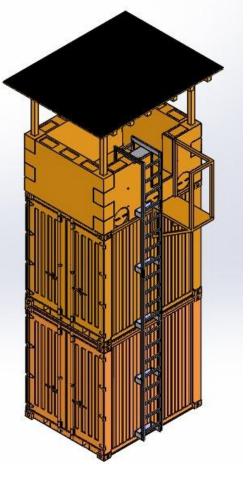
Place the 2nd Tricon Conex container (one without Guard Tower attached) in the specific location where you want the Guard Tower to be located. Verify that it is on a level / flat surface that will be able to take the load. Attach 4 of the Vertical TwistLock Stackers to the top corners of the Tricon Conex container.

top corners of the Tricon Conex container. Stack the Tricon Conex container with Guard Tower assembly onto the top of the Vertical TwistLock Stackers as shown in the detail below. Once you have the container located on top of the Vertical TwistLock Stackers, lock the container in place by rotating the knob.

Final Ladder Assembly

Assemble the 2-4' sections of Ladder to the bottom of the previously assembled Ladder Assembly. Attach the ladder brackets securely to the container with self-drilling screws provided.





Ballast/Fill Material

The 24 ft tall Guard Tower will provide stability in winds up to 55 mph without adding any additional ballast.

To achieve stability in wind loads up to 100 mph, you will need to add about 30,000 pounds of ballast. It is recommended that this ballast be placed as low as possible in the Guard Tower assembly (as much as possible in lower container). Note, concrete weights about 150 pounds per cu ft, so you would need about 200 cu ft of concrete for ballast.

To achieve stability in wind loads up to 115 mph, you will need to add about 42,000 pounds of ballast. It is recommended that this ballast be placed as low as possible in the Guard Tower Assembly (as much as possible in lower container). Note, concrete weights about 150 pounds per cu ft, so you would need about 280 cu ft of concrete for ballast.

To provide ballistic protection, the wall sections need to be filled with ballast, which will typically be sand. To add the fill material, remove the caps from the tops of the wall sections and fill with sand or similar fill material. Make sure that the fill material is worked into all corners to assure full ballistic protection. Once the ballast material is in place, the walls provide protection from weapons up to 7.62mm including armor piercing ammo.

Note, filling the sidewalls with sand will add about 8000 pounds of ballast to the Guard Tower.

Additional Comments

Congratulations on the completion of the installation of your Standard Guard Tower. Your troops, equipment, or supplies are now able to be better protected. Through this installation manual we have provided a more or less step by step method to complete the installation. Understanding these methods is very important for the quickest and most functional implementation.

If you have specific questions regarding the installation of the 24 ft tall Guard Tower, you may contact Perimeter Security Products at the following:

PERIMETER SECURITY PRODUCTS

DIVISION OF SPIRIT OF AMERICA CORPORATION

260-432-7158 Phone 260-459-0929 Fax 800-860-2855 Toll-free

www.perimetersecurityproducts.com

PROPRIETARY DATA THIS DOCUMENT AND THE INFORMATION DISCLOSED HEREIN ARE THE PROPERTY OF CREATIVE BUILDING PRODUCTS. NO PART OF THIS DOCUMENT IS TO BE REPRODUCED WITHOUT THE WRITTEN PERMISSION OF CREATIVE BUILDING PRODUCTS. NO INFORMATION DISCLOSED HEREIN IS TO BE TRANSMITTED TO ANOTHER OR USED FOR ANY PURPOSE OTHER THAN THAT FOR WHICH THIS DOCUMENT IS PROVIDED.