STAGING DIMENSIONS
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ASSEMBLY INSTRUCTIONS FOR:

STAGING DIMENSIONS

PORTABLE STAGING PRODUCTS AND ACCESSORIES

Assembly Instructions
Staging Dimensions
Portable Staging Products
and Accessories

- **Portable Stage Decks**
- **Fixed Height Legs**
- **Adjustable Height Legs**
- **Leg Clamps**
- **Diagonal Leg Braces (Cross Bracing)**
- **Rolling Riser Legs**
- **Wunderstructures**
- **Locator Plates and Nodes**
- **Stair Units - Fixed or Adjustable**
- **Guardrails**
- **Chairstops**
- **Stage Skirting**
- **Storage Carts**
- **Multi-Tier Seating or Choral Risers**
- **Closure Panels**
- **Ramps**

Congratulations on your purchase of a quality stage system from Staging Dimensions. On the following pages you will find detailed instructions to aid you in the set up of your staging components. Please read thru these instructions completely prior to beginning installation. Also, make sure to have all drawings or diagrams provided available when you begin set up. Our engineers have designed each component to be assembled with ease while using a minimum amount of labor and tools. Our first and foremost concern is your safety while using our products, therefore, please read the following pages carefully. Should you have any questions or difficulties please contact Staging Dimensions, toll free at 866-591-3471. In the unlikely event damage has occurred during shipping, do not attempt to install the damaged components. Contact Staging Dimensions, immediately for assistance.

ASSEMBLY INSTRUCTIONS

UNPACKING

Completely unpack all of the boxes and pallets and check all items against the packing slip. Organize the components so they are accessible during the installation process. The 5/16 red handle allen keys enclosed with these instructions are the most important tool necessary for setting up your stage. All carts will require the use of a 9/16 deep well socket for assembly. We recommend a minimum of two people for the unpacking and installation process, however, depending on the size of the stage you may require additional assistance.

Hardware including fixed and adjustable height legs, leg clamps, locator plates, guardrail and stair clamps and all thread handles will be located in the cavity of the deck that is closest to the pallet or bottom deck.

STAGE DECKS WITH FIXED OR ADJUSTABLE HEIGHT LEGS

To position your first deck and to build your stage you must be familiar with the Dual Lock™ system. Every standard stage deck is equipped with a series of Dual Locks™, installed in the aluminum frame surrounding the deck. A 4' x 8' deck has three male and three female locks for the purpose of locking the decks together. On the eight foot side the locks are positioned two feet in from each corner. One eight foot side will be all male locks and the other side will be all female. There will be one lock dead center on each four foot side, one end will be male and the other female. Lock quantities and positioning will vary on custom stage decks.

Male Dual Lock™



Female Dual Lock™



STAGE DECKS WITH FIXED OR ADJUSTABLE HEIGHT LEGS CONTINUED

Once you set your first deck you must follow the same pattern throughout the entire set up. If you set the first deck with the male locks to the right, then each consecutive deck must also have the male locks to the right.

To install legs:

- **Set deck upside down (cavity showing) or stand it up on the 8' side with corner extrusion pockets exposed.**
- **Insert your fixed or adjustable leg into the pocket and tighten the thumbscrew until secure.**
- **To increase or decrease the height on adjustable legs engage the button lock, turn the round leg pipe and pull it out or push it in until you reach the desired height. Twist round leg pipe back until button lock engages again. If surface is relatively level make sure all of the adjustable legs are set at the same height prior to using them in the decks.**
- **Continue until all four legs are secure.**

Corner Pocket



Leg Insertion











STAGE DECKS WITH FIXED OR ADJUSTABLE HEIGHT LEGS CONTINUED

- **Position your finished deck at one of the corners of your stage**
- **Repeat leg insertion on next deck**
- **Place the 2nd deck next to the first deck making sure your Dual Locks™ are lined up correctly (male to female).**
- **Adjust the leveling foot on the each leg until deck is level.**
- **Use the 5/16 Allen Key to engage the Dual Locks™ and lock the first two decks together.**
- **If you are using leg clamps please refer to leg clamp installation section NOW.**
- **The drawing below illustrates how to set up a 24' x 20' stage.**

Leveling Foot



Engage Male Dual Lock



24' x 20' Stage Set Up

Deck #1	Deck #2	Deck #3
Deck #4	Deck #5	Deck #6
Deck #7	Deck #8	Deck #9
Deck #10	Deck #11	Deck #12
Deck #13	Deck #14	Deck #15

LEG CLAMPS

We recommend the use of leg clamps for added stability on any stage that is set at a height of 24" or higher. Leg clamps are also used to tie together multi-tier riser systems (see section on multi-tier riser systems). Leg clamps are available in 2-way or 4-way options and should be positioned the half way point between the ground and the bottom of the stage deck. They are designed for use with fixed height legs, adjustable height legs and wunderstructures. It is best to install leg clamps as you are setting up each deck instead of waiting until the end and crawling under the stage to complete this task.

To install:

- **Unscrew the plastic wing nut**
- **Remove the top metal plate from the 3/8" bolt**
- **Place the remaining metal plate (with the bolt attached and spacer if this is a 4-way clamp) behind the legs you are clamping**
- **Make sure the bolt is facing you and is positioned in between the stage legs.**
- **Place the top metal plate back on the bolt and tighten the plastic wing nut until secure.**

2-Way Leg Clamp



4-Way Leg Clamp



2-Way Leg Clamp Installed



4-Way Leg Clamp Installed



DIAGONAL LEG BRACES (CROSSBRACING)

We recommend the use of diagonal leg braces (DLB) for added stability on any stage that is set at a height of 36" or higher where fixed or adjustable legs are used. DLB's are also used on multi-tier risers to tie the tiers together. DLB's lengths are determined by your stage height, are designed to be used in addition to leg clamps and are used on both the 8' and 4' side of the stage decks. They are constructed using 1 1/4" square steel tube with clamps at both ends. If you have purchased adjustable height DLB's you may need to remove the clamp and bolt completely and reposition it in a different location on the steel tube to achieve the proper spacing. The lower the height of the stage; the shorter the distance between clamps. When moving the clamps on the steel tube to accommodate a shorter stage height it is normal to have over-hang extending out from the clamps. If your stage height is over 36" diagonal leg brace should be double to form an "X" on each deck (see photo #3). This is achieved by placing one DLB on the outside of the legs and one DLB on the inside of the legs. If your stage system requires DLBs)you will receive a drawing showing the exact placement necessary to achieve the highest level of stability.

To install:

- **Unscrew the plastic wing nut until the clamp can rotate on the Bolt.**
- **Place the clamp around the top of the leg (approximately 6" down from top of the deck) and return clamp to its original place.**
- **Tighten the plastic wing nut until secure.**
- **Repeat procedure at the bottom of the leg (approximately 6" up off the ground)**

Diagonal Leg Brace Clamp



4' & 8' Single Diagonal Leg Brace



Double Diagonal Leg Brace



Adjustable Diagonal Leg Brace



ROLLING RISER LEGS

When using rolling riser legs MAKE SURE THAT THE CASTERS AND PLATES ARE UNDER THE STAGE DECKS NOT PROTRUDING. Rolling riser legs are available in heights ranging from 12" – 24" and are sold as single (see photo #1) or double units (see photo #2). Single rolling riser legs are constructed using a nipple with button lock, one 4" total lock caster and one rolling riser leg pipe or sleeve (see photo #3). Doubles are constructed with two nipples with button locks, one 4" total lock caster and two rolling riser leg pipes or sleeves.

Single units are placed on the outside corners of the stage and the double units are placed where two decks join together. When you install a double rolling leg you will have a piece of pipe sticking out from the first deck. This is where you will install your second deck to continue your riser. Again, make sure your Dual Locks™ line up properly, once the decks are secure on the rolling legs lock them together with the 5/16 Allen Key. For an 8' x 8' riser you would need four (4) singles and two (2) doubles.

To build an 8' x 8' rolling riser:

- **Set 1st deck upside down (cavity showing) or stand it up on the 8' side with corner extrusion pockets exposed.**
- **Insert (2) single rolling legs into corner pockets so that the plates are under the deck on the 8' side of the deck. Tighten thumbscrew until secure (see photo #1).**
- **Insert (2) double rolling legs into corner pockets opposite the single legs. Tighten thumbscrew until secure (see photo #2).**
- **Flip deck over so that it is resting on legs and lock brakes on wheels(see photo #3).**
- **Set 2nd deck upside down (cavity showing) or stand it up on the 8' side with corner extrusion pockets exposed.**
- **Insert (2) single rolling legs into corner pockets on the 8' side of the deck.**

Photo #1 **Photo #2** **Photo #3**







ROLLING RISER LEGS (continued)

- **Flip deck and position on top of exposed double rolling riser leg pipes (see photo#4 & 5). Tighten thumbscrews until secure (see photo #8).**
- **Lock the decks together with the 5/16 allen key. Unlock brakes and position risers.**

Photo #4



Photo #5



Photo #6



Locked Caster

Photo#7

Unlocked



Caster

Photo # 8



LOCATOR PLATES & NODES

Locator plates and nodes are included with your Wunderstructure purchase. You will receive four (4) quad locator plates for each Wunderstructure. You will need to create some of the locator plates as singles but can keep the majority of them as quads and rotate the position of the locator plate on the wunderstructure to suit your needs or you can create different locator plates for different locations as show below. Keep in mind that if you maintain the single/quad only inventory when creating stages the locator plate will protrude outside of the deck frame but this is easily covered with skirting. You will need a 9/16 socket to modify locator plates. If you are modifying the locator plates it is recommended that you spray paint a mark on the completed locator plates for easy identification. Example: red = single, green = double left, blue = double right, black = quad.

To Assemble Locator Plates:

- **Remove nut from bolt extending out of node. Slide bolt thru bore hole on locator plate. Tighten nut back onto bolt.**
- **Single Node Placement – Position #1.**
- **Double Left Placement – Position #1 & #2.**
- **Double Right Placement – Position #1 & #3.**
- **Quad Node Placement – All positions.**

Locator Plate **Node & Bolt Assembly**

Top **Bottom**







Locator Plate with Node Positions

Single Node **Double Left** **Double Right** **Quad**









WUNDERSTRUCTURES

Wunderstructures are designed for use in all terrain situations and in a bridging system so that you do not need a wunderstructure for each staging panel. Standard 4′ x 8′ Wunderstructures are available in the following height ranges; 24″ - 36″, 36″ – 56″, 48″ – 78″ and 78″ – 108″ high, they can be stationary or rolling and can also be custom built to accommodate smaller staging platforms. Wunderstructures fold flat for easy storage and transportation.

To set up Wunderstructures:

- **Stand wunderstructure up with screw feet on ground (see photo #1).**
- **Pull legs apart until Wunderstructure forms an "X" (see photo #2).**
- **Swing the support arm out (see photo #3) lock money claw on upright pipe on both sides of Wunderstructure (see photo #4).**

Photo #1

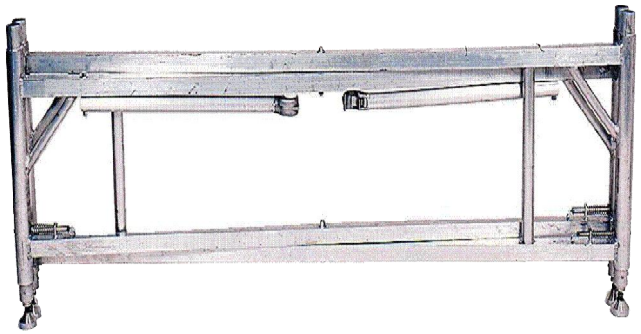


Photo #2



Photo #3



Photo #4



<u>WUNDERSTRUCTURES</u> - Installation Continued:

- **Pull back on the black knob to release plunger on inner leg tube. Adjust inner leg tube until desired height is achieved. Release knob and make sure plunger inserts securely into bore hole on inner leg (see photo #4 & #5).**
- **Adjust the leveling foot on the each leg until Wunderstructure is level.**
- **Position prepared locator plates on top of wunderstructure and tighten thumbscrew until secure (see photo #6).**
- **Follow above instructions and set up 2nd Wunderstructure approximately 4' from first Wunderstructure (see photo #7).**
- **Take first deck and place on top of first Wunderstructure (see photo #8). Take 2nd deck and place on 2nd Wunderstructure. Take third deck and place in open area between decks (see photo #9).**
- **Continue process until stage is complete. The drawing on the next page shows Wunderstructure and locator plate placement for a 60' x 40' stage.**

Photo #4



Photo #5



Photo #6



Photo #7



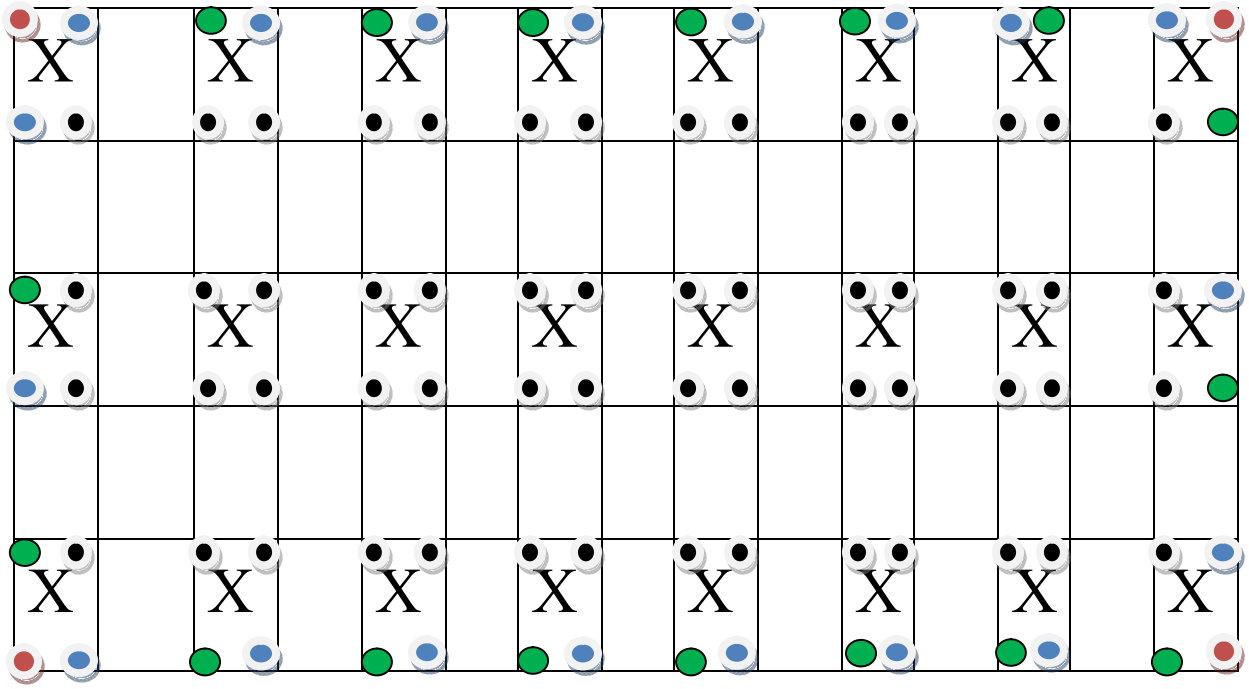
Photo #8



Photo #9



60' x 40' STAGE



= Stage Deck

X = Wunderstructure

= Single Node Locator Plate

= Double Left Node Locator Plate

= Double Right Node Locator Plate

= Quad Node Locator Plate

STAIRS – FIXED AND ADJUSTABLE WITH HANDRAILS

Fixed and adjustable stair units attach to stage decks in the same manner. Each stair unit with handrails is shipped with two (2) bottom clamps (see photo #1) and two (2) all thread handles (see photo #2) which are used to attach the stair unit to the extrusion on the deck.

To install fixed stair units with handrails:

- **Position the stair units in the installation location with the steel top plate (see phone #3) resting on the deck surface.**
- **Insert the stair unit handrail in the sockets on the left and right side of the stairs making sure the handrail is inserted in both the top and bottom sockets. (see photo #4).**
- **Take the bottom clamp and place it so that the square tube protrusion is behind the extrusion side rail and slip the circular tube portion INTO the receiver located below the steel top plate (see photo #5).**
- **Take the all thread handle and insert it into the hole located in the circular part of the bottom clamp (it will slide thru the clamp). Once the all thread handle passes thru the clamp you need to begin turning it and threading it into the nut which is welded into the bottom of the upright on the handrail. Continue threading until TIGHT (see photo #6)**

Photo #1



Photo #2



Photo #3



Photo #4



Photo #5



Photo #6



STAIRS – FIXED & ADJUSTABLE WITH HANDRAILS - Installation Continued

- **Tighten the thumbscrews located on the base of the stair unit to secure the handrail at the bottom locations (see photo #7).**
- **Adjust the leveling feet on the stair base as necessary (see photo #8).**

To install adjustable stair units with handrails:

- **Follow above instructions for securing clamp system.**
- **Adjust the rise/run of the tread to accommodate stage height by turning the banana handle (see photo #9).**
- **Tighten the thumbscrews located on the base of the stair unit to secure the handrail at the bottom locations (see photo #7 above).**
- **Adjust the leveling feet on the stair base as necessary (see photo #8 above).**

Photo #7



Photo #8



Photo #9



Fixed Stair with Handrail



Adjustable Stair with Handrail



STAIRS – FIXED AND ADJUSTABLE WITHOUT HANDRAILS

Fixed and adjustable stair units without handrails attach to stage decks in the same manner as stair units with handrails except a stair plug (see photo #1) is used in place of the handrail up right.

To install fixed & adjustable stair units without handrails:

- **Position the stair units in the installation location with the steel top plate (see photo #2) resting on the deck surface.**
- **Insert the stair plug into the top sockets on the left and right side of the stairs thread side down(see photo #3).**
- **Take the bottom clamp and place it so that the square tube protrusion is behind the extrusion side rail and slip the circular tube portion INTO the receiver located below the steel top plate (see photo #4).**
- **Take the all thread handle and insert it into the hole located in the circular part of the bottom clamp (it will slide thru the clamp). Once the all thread handle passes thru the clamp you need to begin turning it and threading it into the nut which is welded into the bottom of the stair plug. You will need to hold the stair plug while threading the all thread handle into it (see photo #5).**
- **Continue with above directions for fixed or adjustable stair leveling.**

Photo #1



Photo #2



Photo #3



Photo #4



Photo #5



Photo #6





STEP STAIR UNITS – NO HANDRAIL

One step stair units attach to the stage deck by teardrops (see photo #1) that lock into the aluminum extrusion side rail with a T-knob wing nut (see photo #2).

To install 1-Step Stair Units Without Handrail:

- **Position the stair units in the desired location.**
- **Loosen the teardrops by unscrewing the T-knob wing nuts (see photo #3) until the teardrops are moveable.**
- **Position the teardrops in the channel in the aluminum extrusion side rail (see photo #4) & tighten the T-knob wing nuts until the teardrops are secure (see photo #4).**

Photo #1



Photo #2



Photo #3

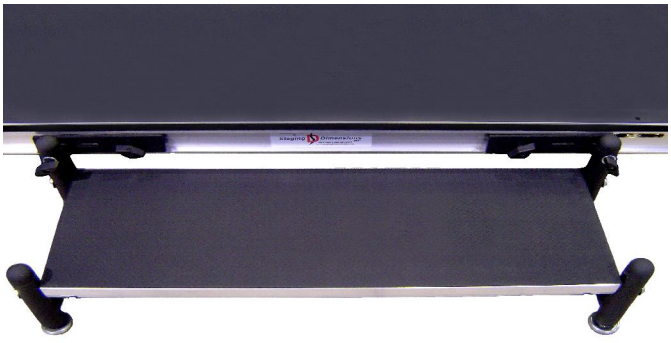


Photo #4



Photo #5





GUARDRAILS

Guardrails are available in many different designs however they all attach to the stage deck in the same method very similar to stair unit installation with the use of a bottom clamp (see photo #1)and all thread handle (see photo #2). PLEASE NOTE: Guardrail and stair unit bottom clamps ARE NOT interchangeable.

To install guardrails:

- **Position the guardrail in the desired location with the chairstop (see photo #3) resting on the deck surface.**
- **Take the bottom clamp and slip the circular tube portion INTO the receiver located at the end of the guardrail upright and place it so that the flat portion presses against the bottom of the aluminum extrusion rail (see photo #4). The lip of the bottom clamp should be facing the underside of the stage deck.**
- **Take the all thread handle and insert it into the hole located in the circular part of the bottom clamp (it will slide thru the clamp) (see photo #5). Once the all thread handle passes thru the clamp you need to begin turning it and threading it into the nut which is welded into the bottom of the upright on the guardrail. Continue threading until TIGHT. (see photo #6).**

Photo #1



Photo #2



Photo #3



Photo #4



Photo #5



Photo #6



TIERED SEATING & CHORAL RISERS

Seating and choral risers are created by locking together multiple tiers of stage decks. This can be accomplished using standard or custom decks in a variety of layouts to create "U" shaped, "V" shaped, straight or custom riser systems. Wunderstructures can be used in conjunction with fixed height legs allowing you to bridge tiers left to right and front to back. Tiers can be over-hung to minimize space. Below is a general outline on setting up a tiered riser system. Please refer to the drawing that you received with your tiered riser purchase for exact deck placement.





To Build Above Riser System:

- **Install support system for first deck in first tier location and set deck in place as shown on page 4 & 5.**
- **Install support system for 2nd deck and set 2nd tier location.**
- **Attach leg clamps connecting 1st & 2nd tier decks on both sides.**
- **Attach guardrail as shown on page 18.**
- **Attach closure panel(s) as shown on page 21.**

To Build Above Riser System:

- **Install support system for first deck in first tier location and set deck in place as shown on page 4 & 5.**
- **Measure deck to find placement for 2nd deck and mark on both sides with gaff tape.**
- **Install support system for 2nd deck and set in 2nd tier location.**
- **Measure deck to find placement for 3rd deck and mark on both sides with gaff tape.**
- **Install support system for 3rd deck and set in position.**

CHAIRSTOPS

Chairstops (photo #1 & 2) are used to prevent chair legs from moving off the stage and where guardrail is not an option.

To install Chairstops:

- **Position the chairstop in the desired location.**
- **Loosen the teardrops (see photo #3) by unscrewing the T-knob wing nuts (see photo #4) until the teardrops are moveable. Make sure to keep the washers (see photo #5) in place.**
- **Position the teardrops in the channel in the aluminum extrusion side rail (see photo #6) and turn until they a pressed tight against the top and bottom of the aluminum channel.**
- **Tighten the T-knob wing nuts until the teardrops are secure (see photo #7).**

Photo #1



Photo #2



Photo #3



Photo #4



Photo #5



Photo #6



Photo #7



CLOSURE PANELS

Closure panels (photo #1) are used in place of stage skirting to provide a hard fascia to mask the front, back or sides of a stage. They are available in a variety of heights and lengths to accommodate different stage decks.

To install Closure Panels:

- **Position the closure panel in the desired location.**
- **Line up the leg clamps (see photo #2) with the legs on the stage and snap legs into clamps**
- **Press on the Velcro at the top to make sure it is securely attached to the Velcro on the stage deck.**

Photo #1

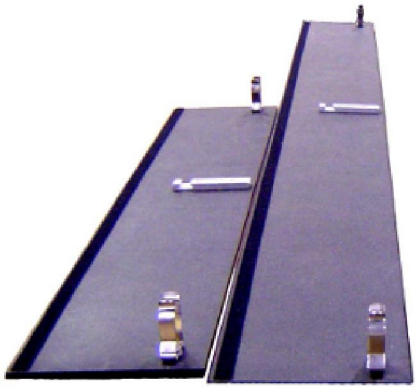


Photo #2



Milk Plexi Closure Panel



Black Luan Closure Panel





STAGE SKIRTING

Stage skirting is used to mask the front, back and sides of a stage. It is available in fixed or adjustable heights and various styles and colors. Stage skirting is sewn with Velcro at the top which matches the Velcro that is standard on all of our stage decks.

To install Stage Skirting:

- **Select the location for the skirting installation and line up the Velcro. Press the Velcro on the skirting against the Velcro on the stage deck to secure.**
- **To make changes in height on the adjustable stage skirting (see photo #2) take the bottom of the skirt where the Velcro is sewn and tack it back onto itself on one of the pre-sewn rows of Velcro at a higher height (see photo #3).**

Photo #1

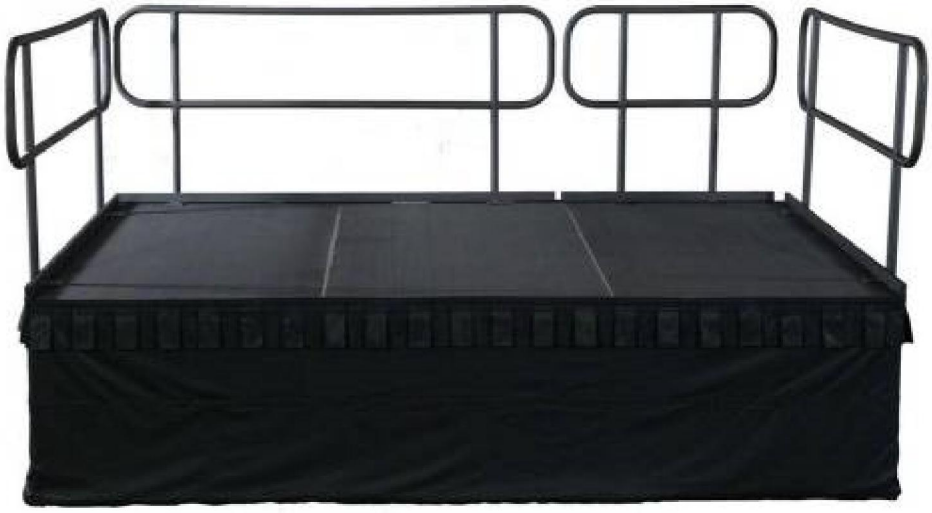


Photo #2



Photo #3





FLAT STORAGE CARTS

Standard flat storage carts are available for decks, guardrails, wunderstructures and stair units and are all assembled the same. You will need a 9/16 socket (deep well socket works best) to attach the casters to the caster plates.

To assemble flat storage carts:

- **Position the 4′ x 8′ steel frame on end (photo #1) and lean against a table or deck.**
- **Take one (1) caster (see photo #2) and (4) 9/16 nuts provided. Line up the plate on the caster with the plate welded on the steel frame and slide caster over the bolts protruding from the caster plate. (see photo #3).**

Photo #1



Photo # 2



Photo #3



FLAT STORAGE CARTS (continued)

- **Use 9/16 socket to tighten nuts onto bolts until secure (see photo #4 & 5). Repeat until all casters are installed.**
- **To install the flat deck handle remove the pins (see photo #6) slide the handle extension tubes into cart base tube and re-insert pins (see photo #7).**

Photo #4



Photo #5



Photo #6



Photo #7





VERTICAL STORAGE CARTS

Standard vertical storage carts are available for decks, guardrails, wunderstructures and stair units and are all assembled the same. You will need a 9/16 socket (deep well socket works best) to assemble all vertical carts.

To assemble vertical storage carts:

- **Begin by placing the base upside down on the floor (photo #1)**
- **Take one (1) caster (see photo #2) and (4) 9/16 nuts provided. Line up the plate on the caster with the plate welded on the steel frame and slide caster over the bolts protruding from the caster plate. (see photo #3).**
- **Use 9/16 socket to tighten nuts onto bolts until secure (see photo #4). Repeat until all casters are installed.**
- **Select the left upright (see photo #5). Line up with the pre-drilled holes on the left and right side of the cart base. Slide the bolts into the holes until they pass thru the mounting plate on the upright (see photo #6). Attach nut and use 9/16 socket to tighten until secure. Repeat with right side.**

Photo #1



Photo #2



Photo #3



Photo #4



Photo #5



Photo #6



VERTICAL STORAGE CARTS (continued)

- **Select the top rail (see photo #7)and mount on top of the uprights until bolt holes line up. Slide the bolts into the holes until they pass thru the both the uprights and top rail mounting brackets (see photo #8). Attach nuts and use 9/16 socket to tighten bolts until secure.**
- **Slide two claw arms over the left side bolt sticking out of the top rail and secure with T-Knob Wing Nut (see photo #9). Repeat on right side.**

Photo #7



Photo #8



Photo #9



Photo #10





VERTICAL STORAGE CART BASKETS

Vertical storage cart baskets are an option for vertical deck carts that can be ordered with new carts or will fit on existing carts. Baskets arrive completed assembled and only need to be installed on deck carts. You will need a 9/16 socket (deep well socket works best) to attach baskets to carts.

To install vertical storage cart baskets:

- **Remove bolts from top rail (see photo #1)**
- **Slide basket onto top rail and line up holes on frame with holes on basket (see photo #2).**
- **Slide the bolts into the holes (see photo #3). Attach nut and use 9/16 socket to tighten bolts until secure. Repeat in all (4) locations (2 @ top 2 on side).**

Photo #1



Photo #2



Photo #3



Photo #4



Photo #6

