

4-Unit Model Shown

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Visit the Tuba and Sousaphone Mobile Storage Rack web page at wengercorp.com for more information.

Note: Please read and understand these instructions before proceeding.
Note: If you need additional information, contact Wenger Corporation using the information below.

Important User Information

General

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In no event will Wenger Corporation be liable for technical or editorial omissions made herein, nor for direct, indirect, special, incidental, or consequential damages resulting from the use or defect of these instructions. The manufacturer reserves the right to change this product at any time.

The information in this document is not intended to cover all possible conditions and situations that might occur. The end user must exercise caution and common sense when assembling or installing Wenger Corporation products. If any questions or problems arise, call the Wenger Corporation at (800) 4WENGER (493-6437) or +1-507-455-4100 worldwide.

Manufacturer

The Tuba and Sousaphone Mobile Storage Rack is manufactured by:

Wenger Corporation
555 Park Drive
Owatonna, MN 55060
(800) 4WENGER (493-6437) • +1 (507) 455-4100
wengercorp.com

Intended Use

- This product is intended for indoor use in normal ambient temperature and humidity conditions – it must not be exposed to prolonged outside weather conditions.
- This product is intended to be assembled and used only as described in these instructions.
- This product is intended to store typical tuba and sousaphone type instruments only.

Warranty

Warranty information is available at wengercorp.com.

Safety Precautions

Throughout this document you may find cautions and warnings which are defined as follows:

- **WARNING:** Failure to follow the instruction could result in serious injury or damage to property.
- **CAUTION:** Failure to follow the instruction could result in minor injury or damage to property.

Read all of these safety instructions before starting the assembly.

CAUTION

Make sure anyone assembling, installing or using this product has read and understands these instructions.

CAUTION

Failure to comply with Warnings and Cautions in this document or on the equipment can result in damage to property or serious injury.

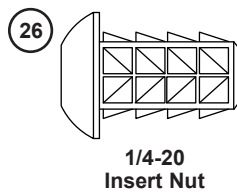
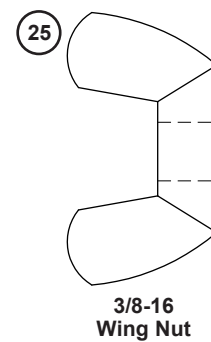
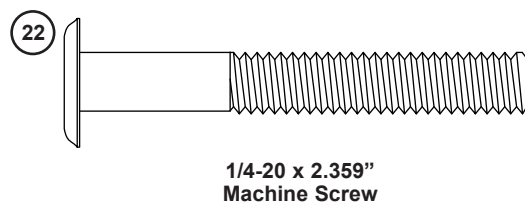
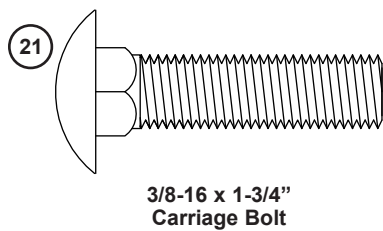
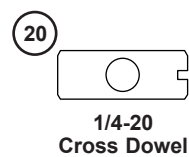
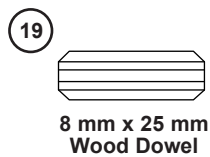
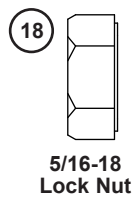
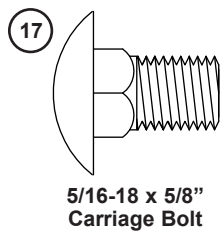
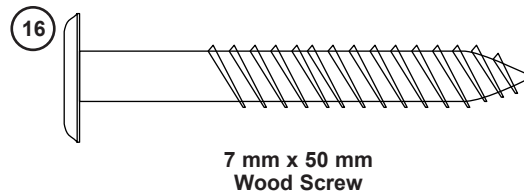
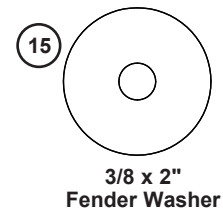
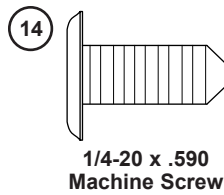
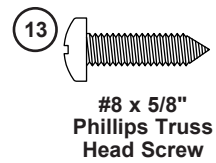
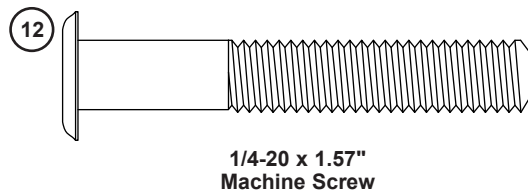
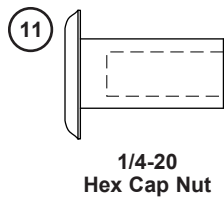
CAUTION

To help avoid damage and injury, two people are recommended for assembly.

Required Tools

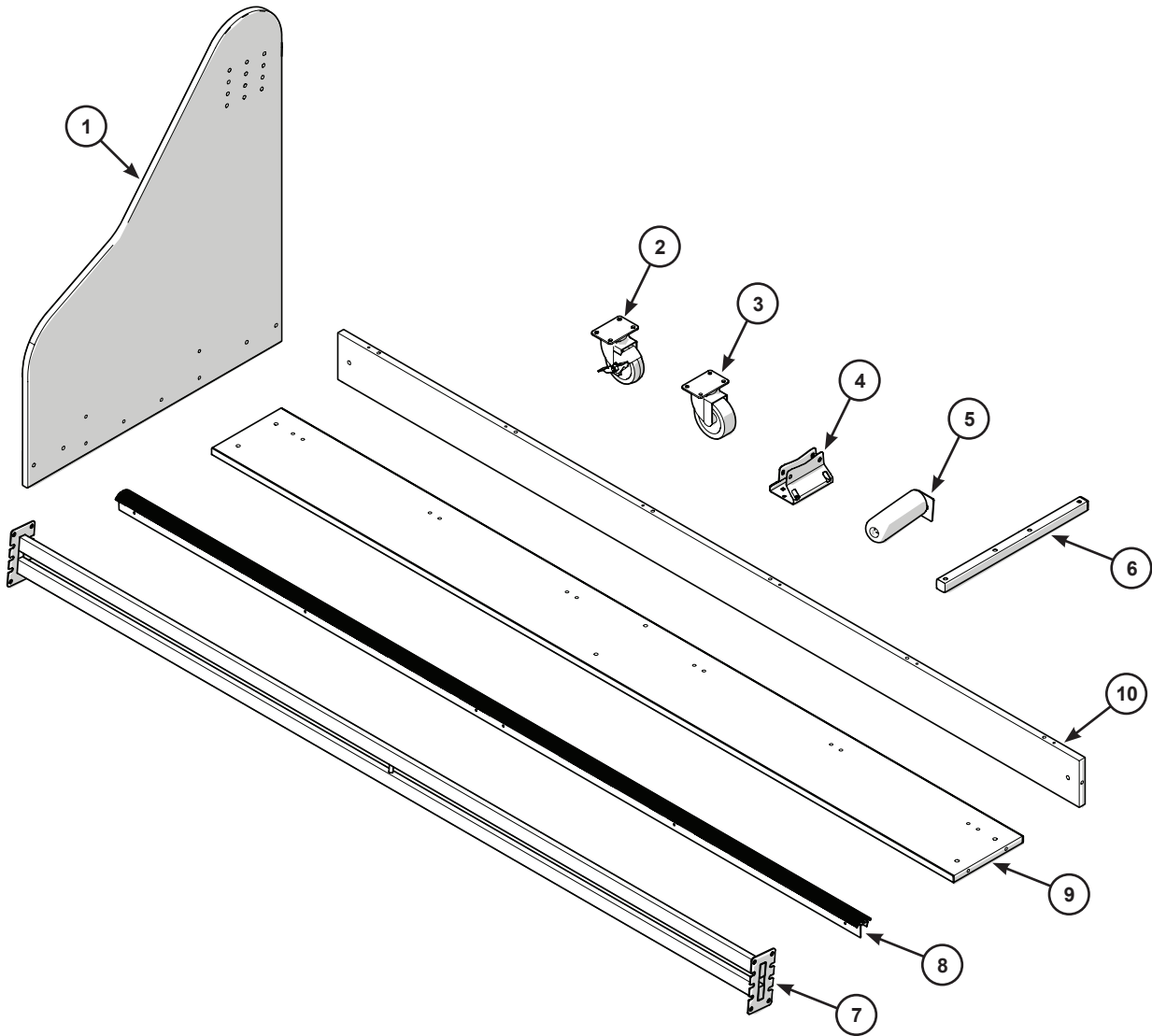
- Plastic mallet
- Phillips head screwdriver or phillips head insert bit
- Variable speed drill (to drive hex socket screws)
- 1/2" (13 mm) Open end wrench
- 5/32" (4 mm) Hex insert bit or allen wrench (supplied)
- 5 mm Hex wrench (supplied)

Supplied Hardware



Parts List

Item	Qty	Description	Item	Qty	Description	Item	Qty	Description
1	2	End Panel	10	2	Bottom Rail Panel	19	*	8 mm x 25 mm Wood Dowel
2	2	Swivel Caster Brake	11	9	1/4-20 Hex Cap Nut	20	13	1/4-20 Cross Dowel
3	2	Swivel Caster	12	5	1/4-20 x 1.57" Machine Screw	21	*	3/8-16 x 1-3/4" Carriage Bolt
4	4	Caster Mount Bracket	13	*	#8 x 5/8" Phillips Truss-head Screw	22	13	1/4-20 x 2.359" Machine Screw
5	*	Cradle	14	33	1/4-20 x 0.59" Machine Screw	23	1	5/32 Hex Bit Insert
6	1	Support Tube	15	*	3/8 x 2" Fender Washer	24	1	5 mm Hex Wrench
7	1	Upper Support Weldment	16	*	7 mm x 50 mm Wood Screw	25	*	3/8-16 Wing Nut
8	2	Rack Extrusion	17	17	5/16-18 x 5/8" Carriage Bolt	26	29	1/4-20 Insert Nut
9	2	Bottom Support Panel	18	17	5/16-18 Lock Nut			



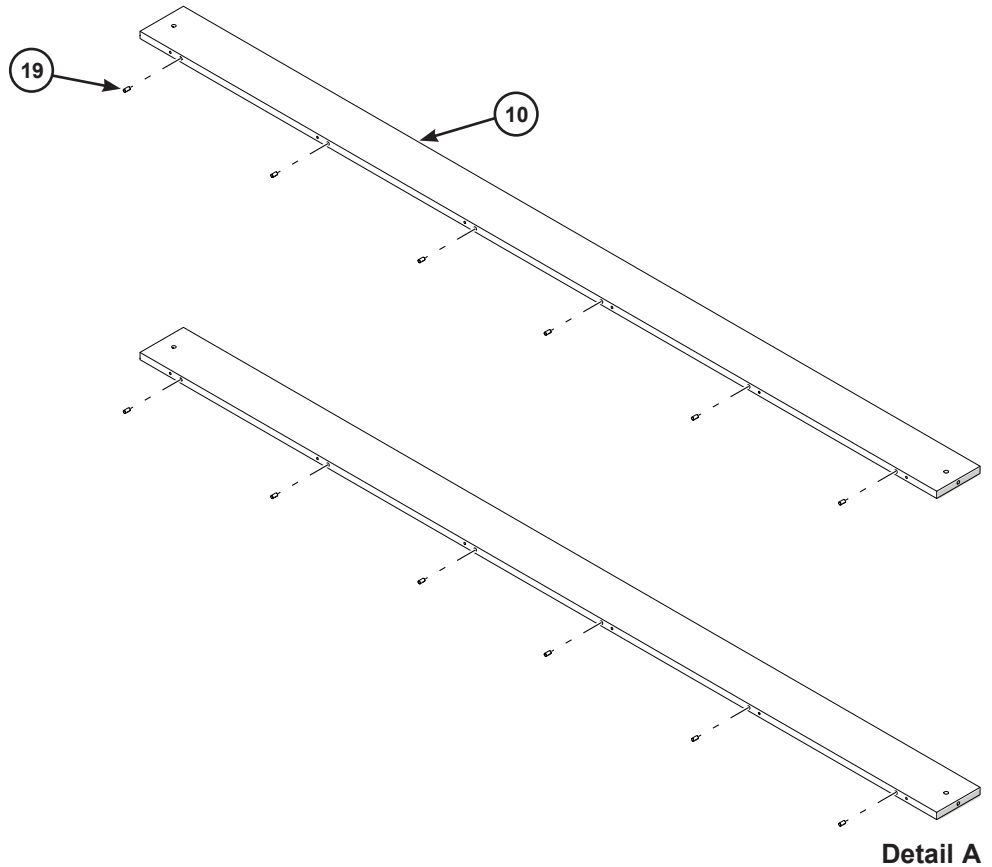
**Quantities may vary, extra hardware can be discarded*

Assembly

NOTICE

This assembly procedure is shown using the 4-unit model, the procedure for the 3-unit model is similar.

1. Insert 8 x 25 mm wood dowels (19) into the larger holes in the bottom edge of both bottom rail panels (10). **(Detail A)**
Six dowels are used with the 4-unit model and four dowels are used with the 3-unit model.



Assembly (continued)

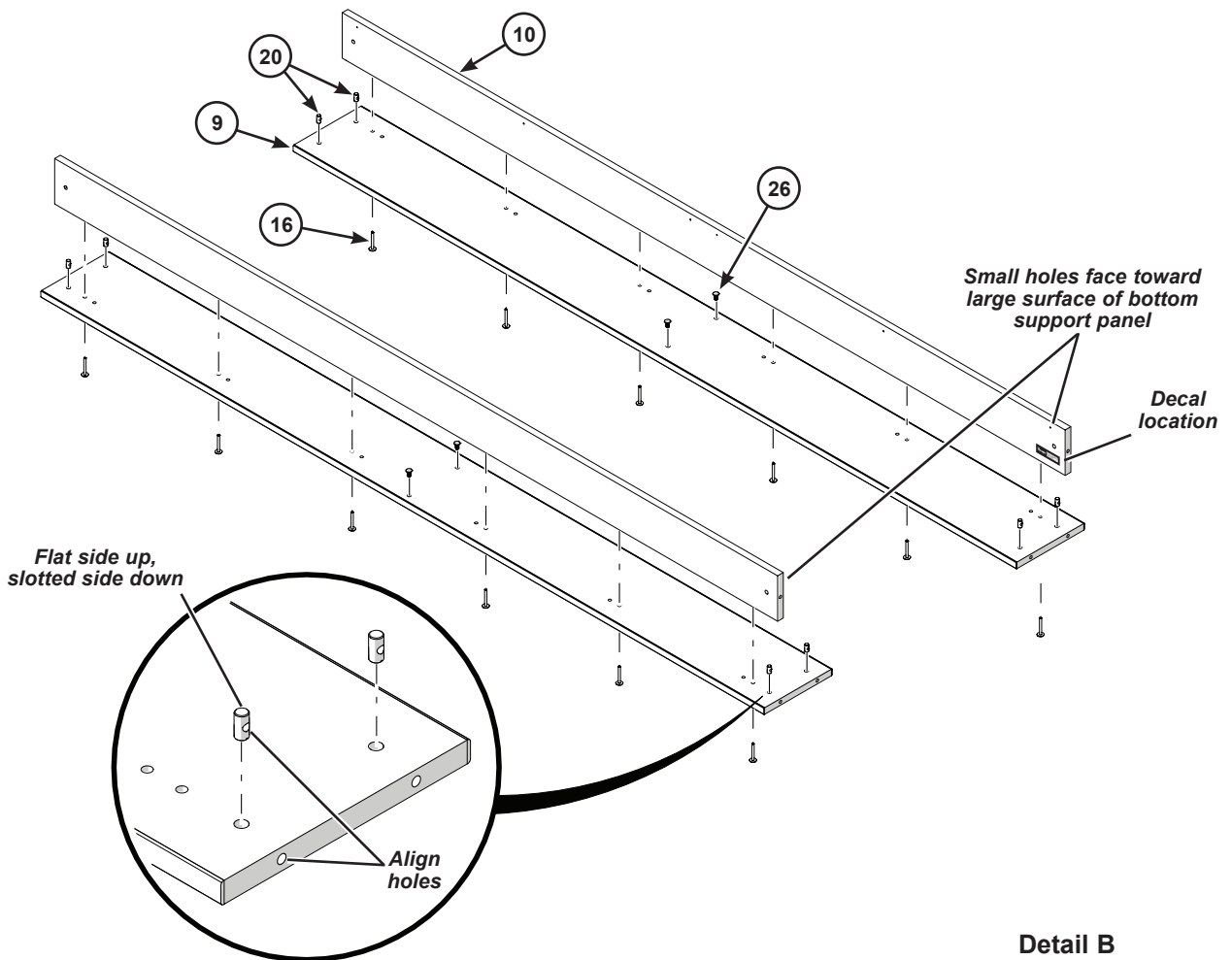
2. Assemble the two bottom support assemblies.
 - a. Lay both bottom support panels (9) flat so the dowel holes are facing up. With a plastic mallet, pound an 1/4-20 insert nut (6) into the two center holes in both bottom support panels. **(Detail B)**
 - b. Fit two 1/4-20 cross dowels (20) with the flat side up and the slotted side down into each end of both bottom support panels.

NOTICE

Be sure to clean out any wood shavings from the holes before installing the cross dowels.

Align the hole in each cross dowel with the hole in the end of the bottom support panel. **(Detail B)**

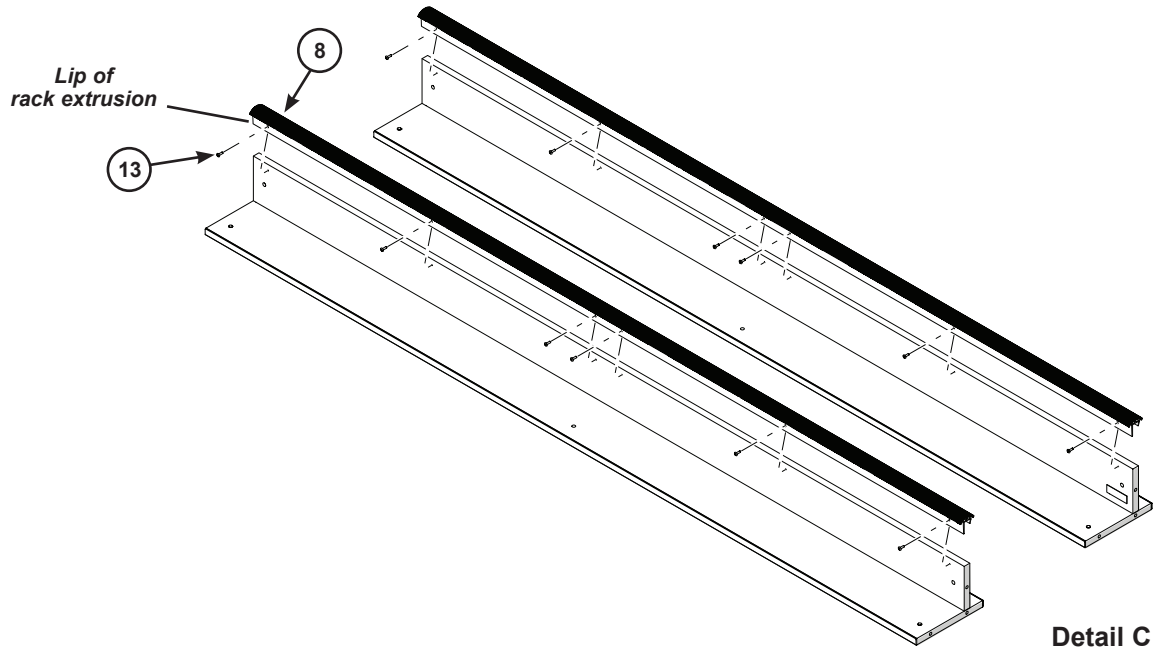
- c. Place one bottom rail panel (10) onto each bottom support panel fitting the wood dowels into the matching holes as shown.
The small holes along the top of both bottom rail panels must face toward larger surface of the bottom rail panel and the decal on one bottom rail panel should be facing toward the larger surface of the bottom support panel. **(Detail B)**
- d. Attach the panels together using 7 x 50 mm wood screws (16) as shown. **(Detail B)**
Six screws are used with the 4-unit model and four screws are used with the 3-unit model.



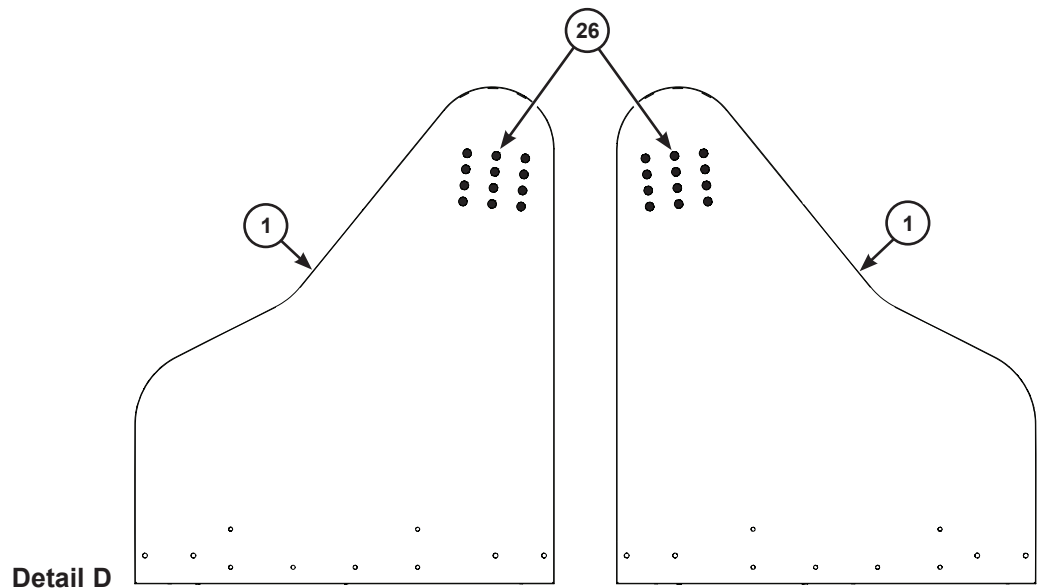
Detail B

Assembly (continued)

3. Attach one rack extrusion to each of the bottom support assemblies.
 - a. Place one rack extrusion (8) over each bottom support assembly and align the sets of the pre-drilled holes. The rack extrusion must not extend beyond the edge of the bottom support assembly. **(Detail C)**
 - b. Secure the rack extrusion using #8 x 5/8" phillips truss head screws (13). **(Detail C)**
Six screws are used with the 4-unit model and three screws are used with the 3-unit model.



4. Lay both end panels (1) flat as shown below and use a rubber mallet to insert a 1/4-20 insert nut (26) into each of the twelve holes at the top of each end panel. **(Detail D)**
Do this only to the one side of the end panel that is facing up.

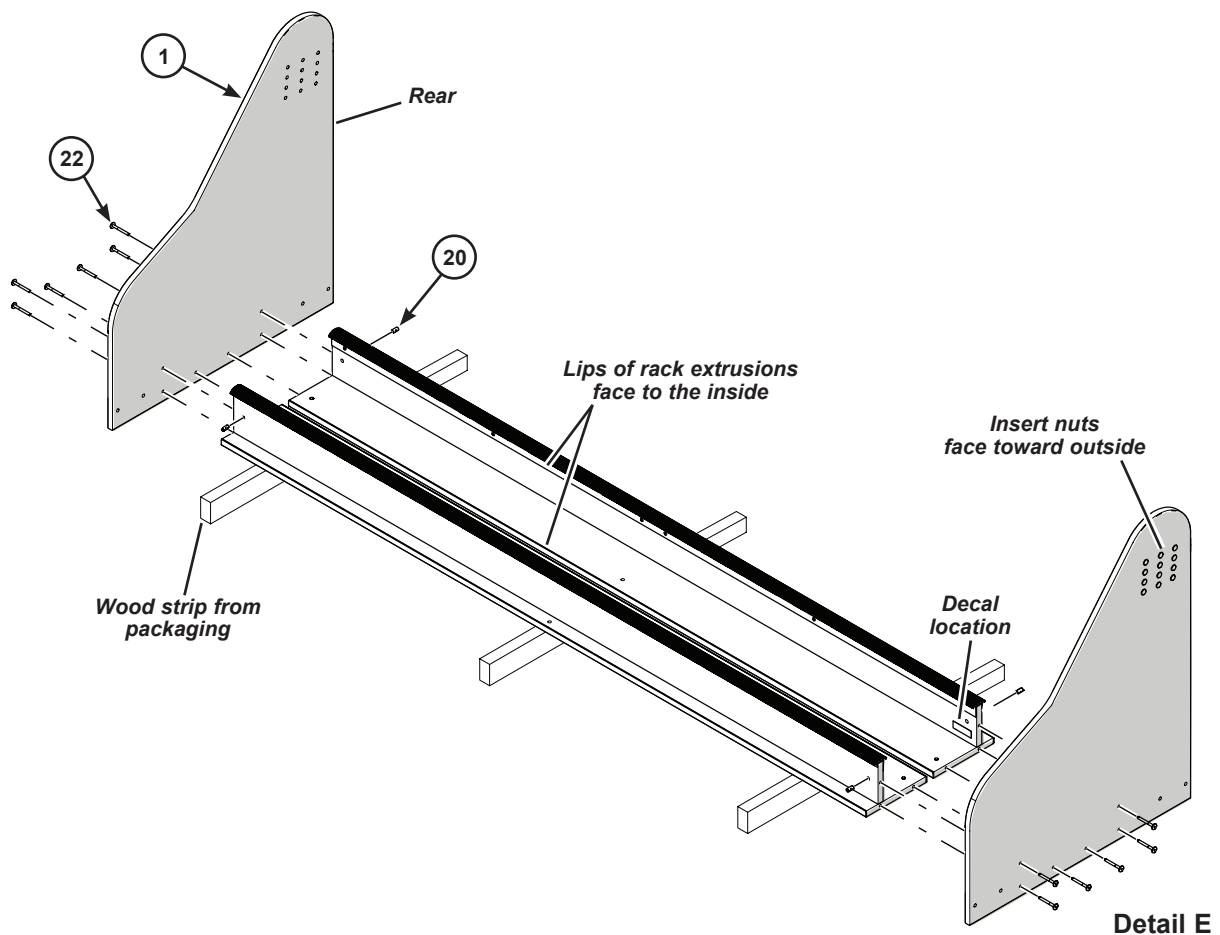


Assembly (continued)

5. Attach the two bottom support assemblies to the end panels.
Wood strips from the packaging can be used under the bottom support assemblies to raise them off of the floor for this step.
 - a. Fit one 1/4-20 cross dowel (20) with the **flat side facing to the inside and the slotted side facing to the outside** into each end of both bottom support panels.
Align the hole in each cross dowel with the hole in the end of the bottom support assembly. **(Detail E)**
 - b. With the lip of both extrusion racks facing towards the inside, attach both of the bottom support assemblies to each end panel (1) using three 1/4-20 x 2.359 machine screws (22) on each side (two in the bottom support panel and one into the cross dowel in the bottom rail panel) as shown.
The bottom support assembly with the decal should be attached at the rear position. **(Detail E)**

NOTICE

The insert nuts installed in the end panels must face toward the outside on both sides.



Assembly (continued)

6. Attach the upper support weldment.

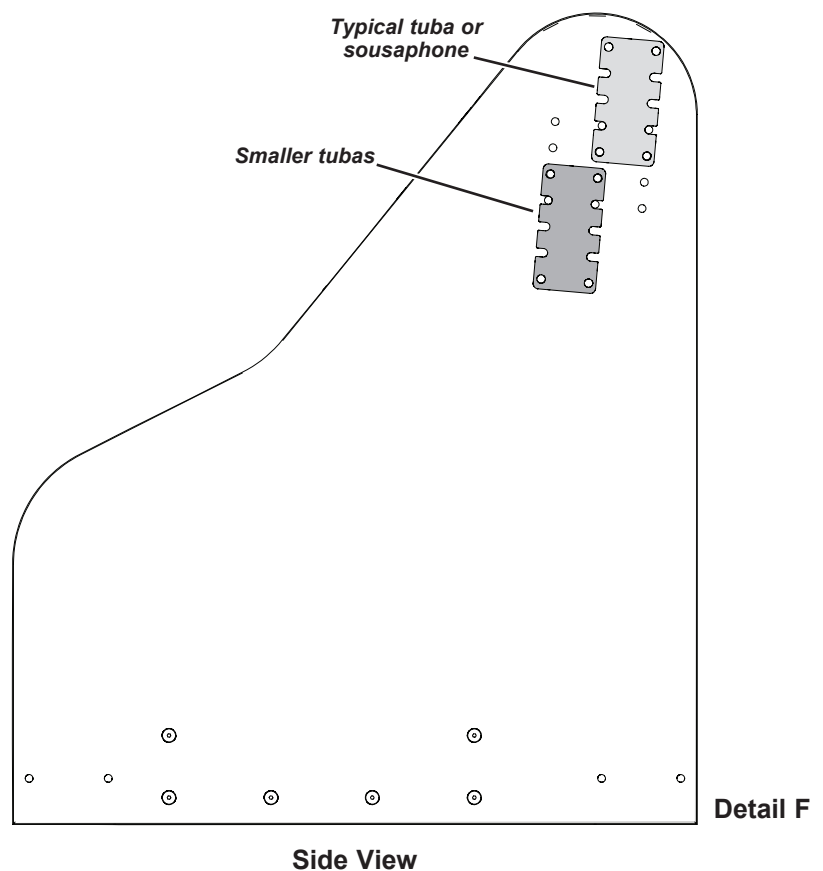
- a. Determine the best location for the upper support weldment that will best support the instruments that will be stored.

There should always be a minimum of four screws at each end attaching the upper support weldment to the end panel.

For sousaphones, place the upper support weldment towards the back upper set of holes. Depending on how the bell is oriented on the sousaphone, the instrument will be the most stable if it is supported slightly turned where it rests against the bottom supports and leaning to the side away from the bell opening and facing backwards.

For small tubas, the upper support weldment should be placed lower so it will be under the bell of the shortest instrument.

Some experimentation may be required to find the best placement.



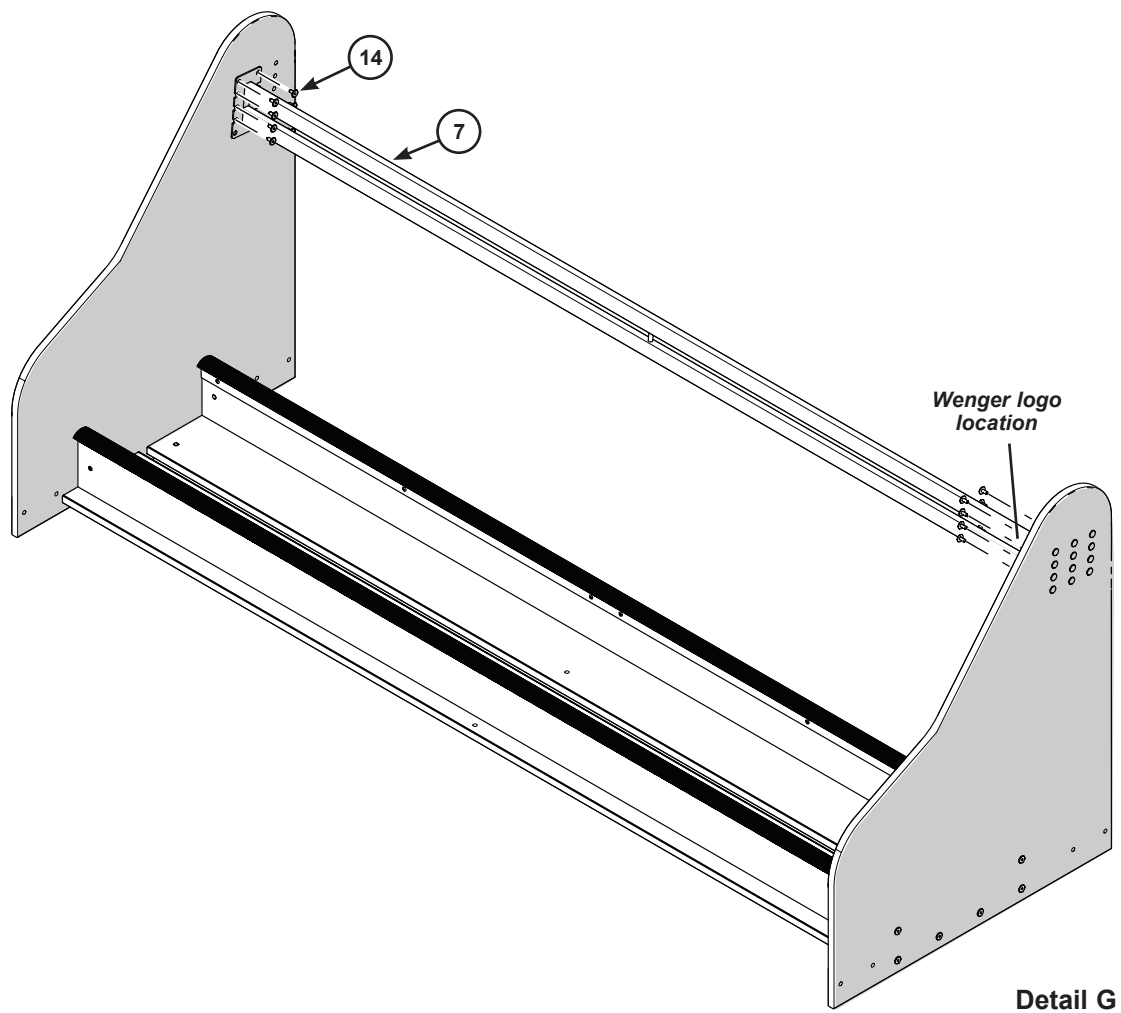
Assembly (continued)

- b. Once placement has been determined, attach the upper support weldment (7) to both end panels using four to six 1/4-20 x .590 Machine screws (14) into the already installed 1/4-20 insert nuts on each side. (Detail G)

The Wenger logo on the upper support weldment should face front.

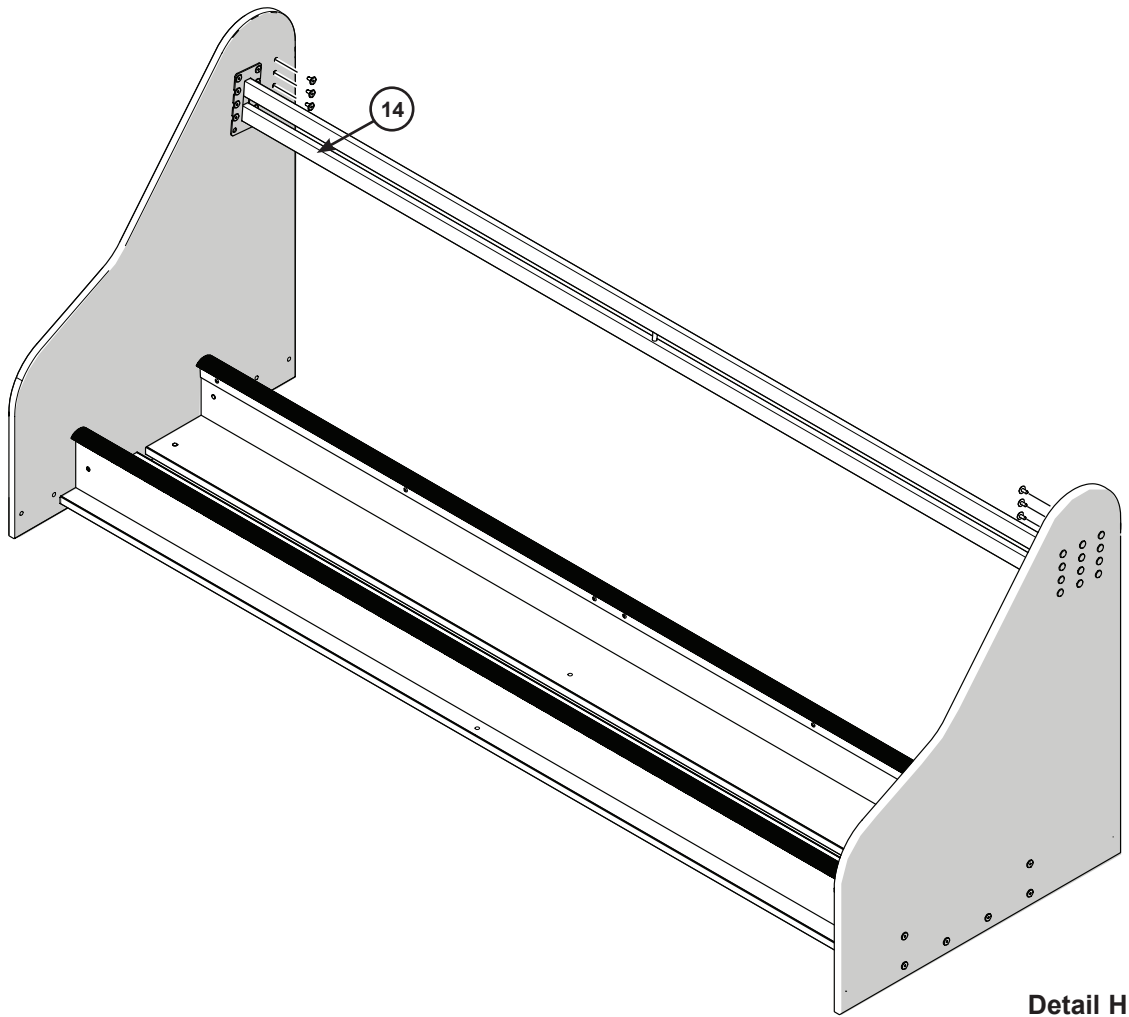
NOTICE

To prevent scratching the end panels, two people should be used to position and attach the upper support weldment.

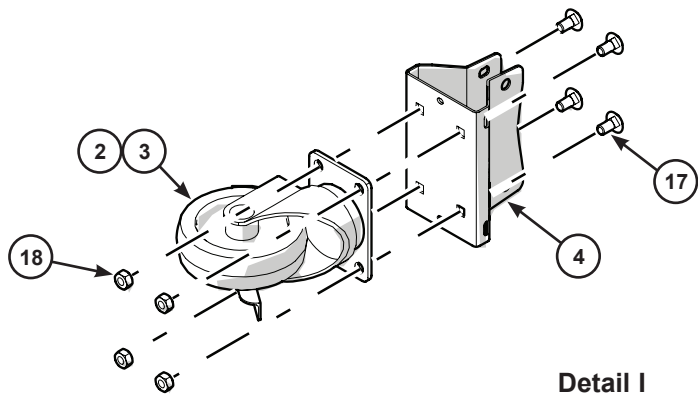


Assembly (continued)

7. Plug the remaining unused upper holes in both end panels by placing a 1/4-20 x .590 machine screw (14) into the insert nuts. **(Detail H)**

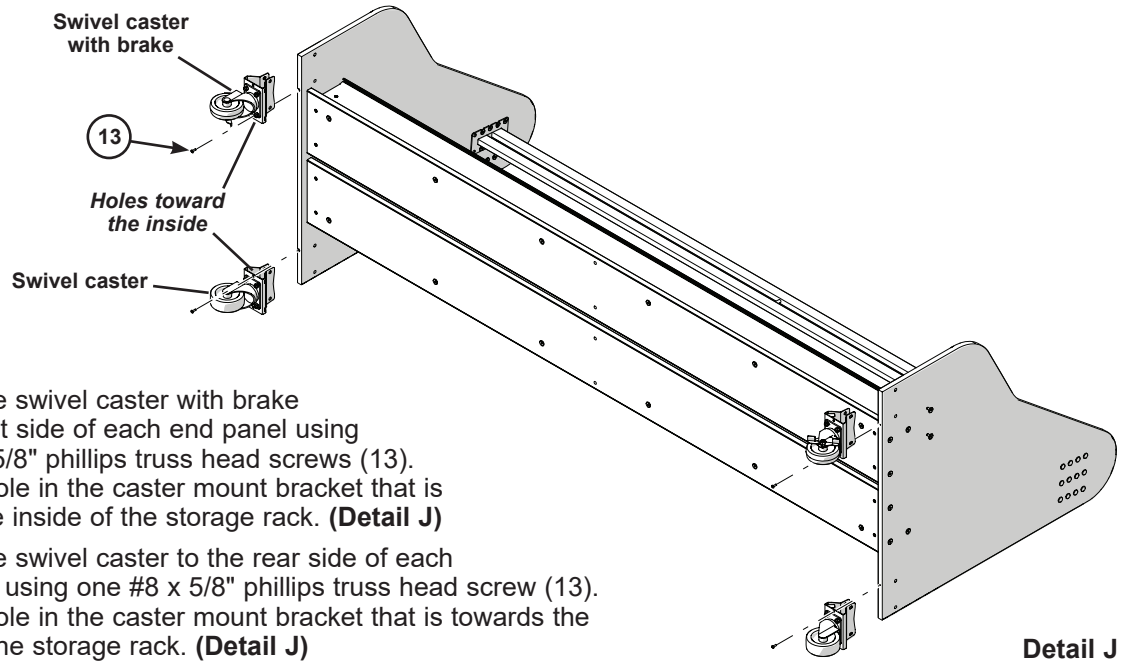


8. Pre-assemble the casters, two swivel brake casters (2) and two swivel casters (3) each to a caster mount bracket (4) using four 5/16-18 x 5/8" carriage bolts (17) and 5/16-18 lock nuts (18) as shown. **(Detail I)**

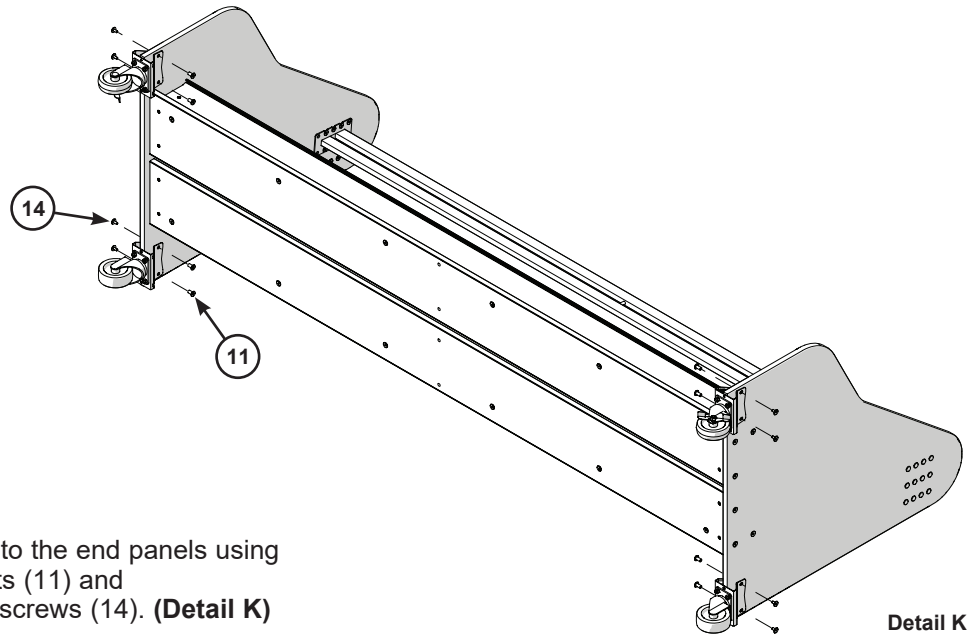


Assembly (continued)

9. Tip the storage rack onto the rear side.
10. Attach the caster assemblies.



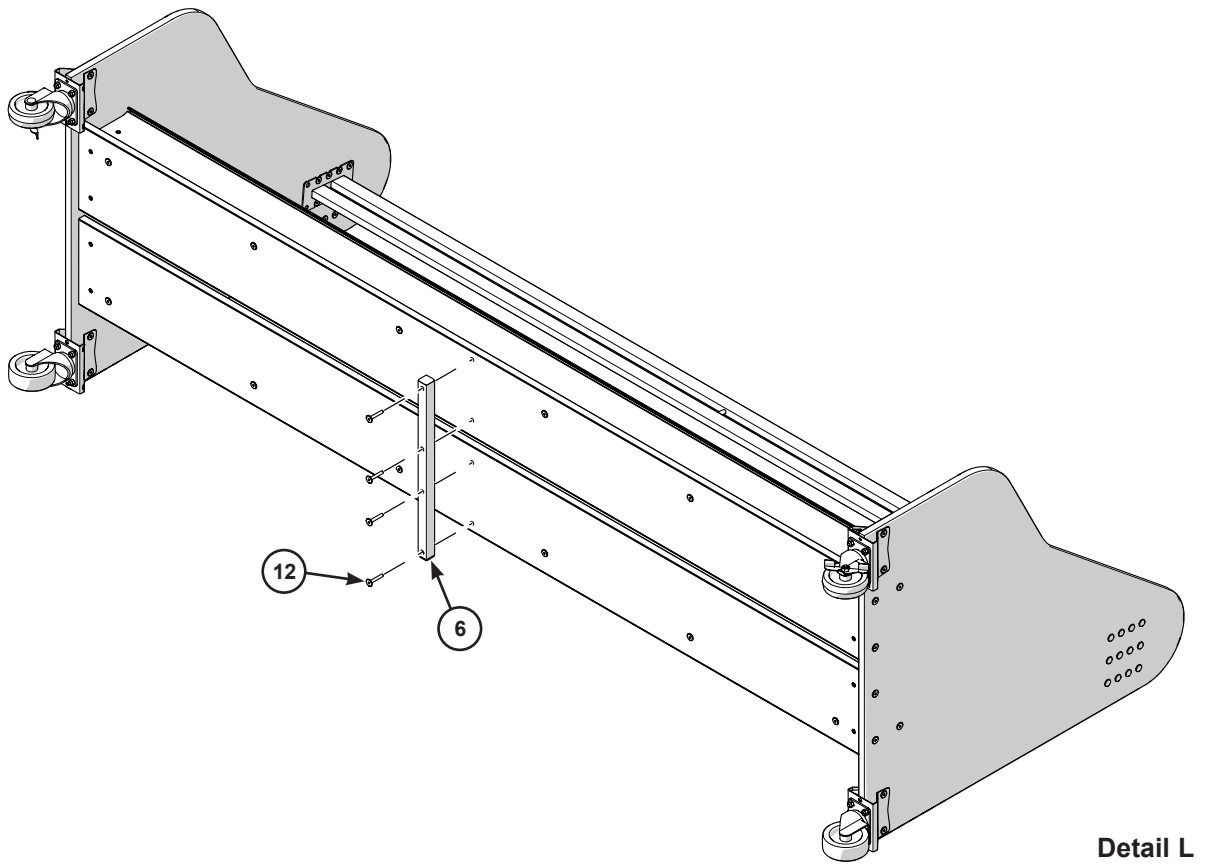
- a. Attach one swivel caster with brake to the front side of each end panel using one #8 x 5/8" phillips truss head screws (13). Use the hole in the caster mount bracket that is toward the inside of the storage rack. **(Detail J)**
- b. Attach one swivel caster to the rear side of each end panel using one #8 x 5/8" phillips truss head screw (13). Use the hole in the caster mount bracket that is towards the inside of the storage rack. **(Detail J)**



- c. Secure all four casters to the end panels using four 1/4-20 hex cap nuts (11) and 1/4-20 x .590 machine screws (14). **(Detail K)**

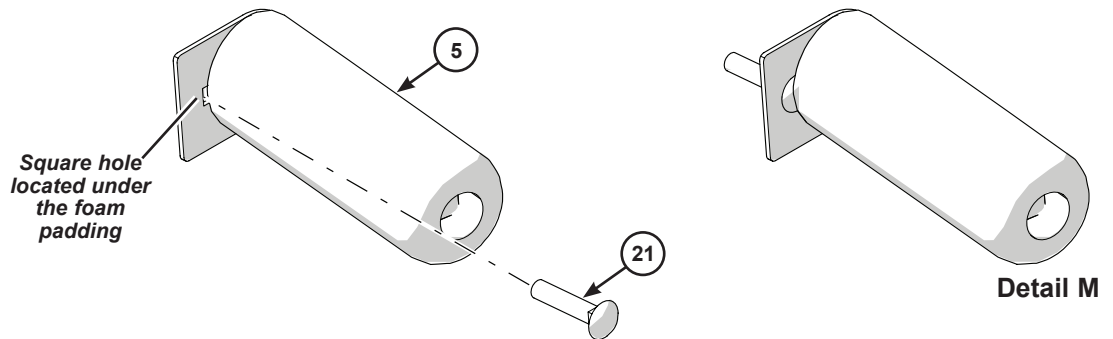
Assembly (continued)

11. Attach the support bar (6) to the underside of the bottom support panels using four 1/4-20 x 1.57" machine screws (12) into the already installed insert nuts. **(Detail L)**



12. Assemble the cradles by sliding one 3/8-16 x 1-3/4" carriage bolt (21) into the square hole at the base of each cradle (5) as shown.

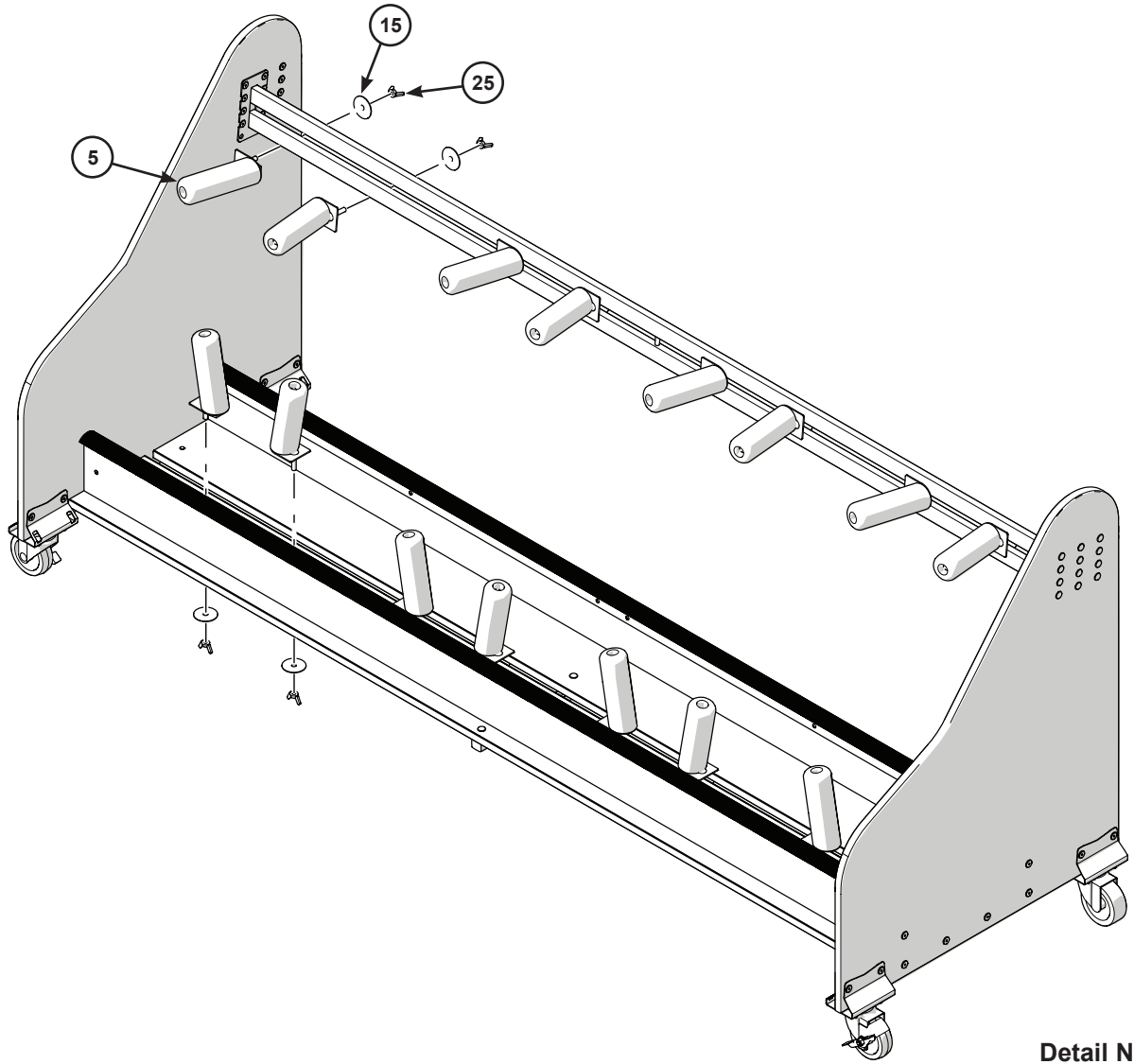
The foam padding may need to be pushed in to fit the carriage bolt. **(Detail M)**



Assembly (continued)

13. Attach cradles (5) to the bottom of the storage rack.
Two cradles are required for each instrument and should point away from each other in a "V" formation as shown.

Attach each cradle using one 3/8 x 2" fender washer (15) and 3/8-16 wing nut (25). **(Detail N)**



14. Tip the storage rack upright onto the casters and attach the remaining cradles to the upper support weldment as shown.
-

Operation

This storage rack has been designed to store multiple sizes of tubas, sousaphones or a combination of the two. Instruments should be placed so they lean slightly backwards against the cradles on the upper support weldment. Instruments should be placed on the bottom supports. Adjust the cradles by loosening the wing nuts and sliding each cradle to hold the instrument snugly.

There are four cradles per instrument, two on top and two on the bottom. It is recommended that two people do the adjustment, one to hold the instrument and the other to find the best position for the cradles.

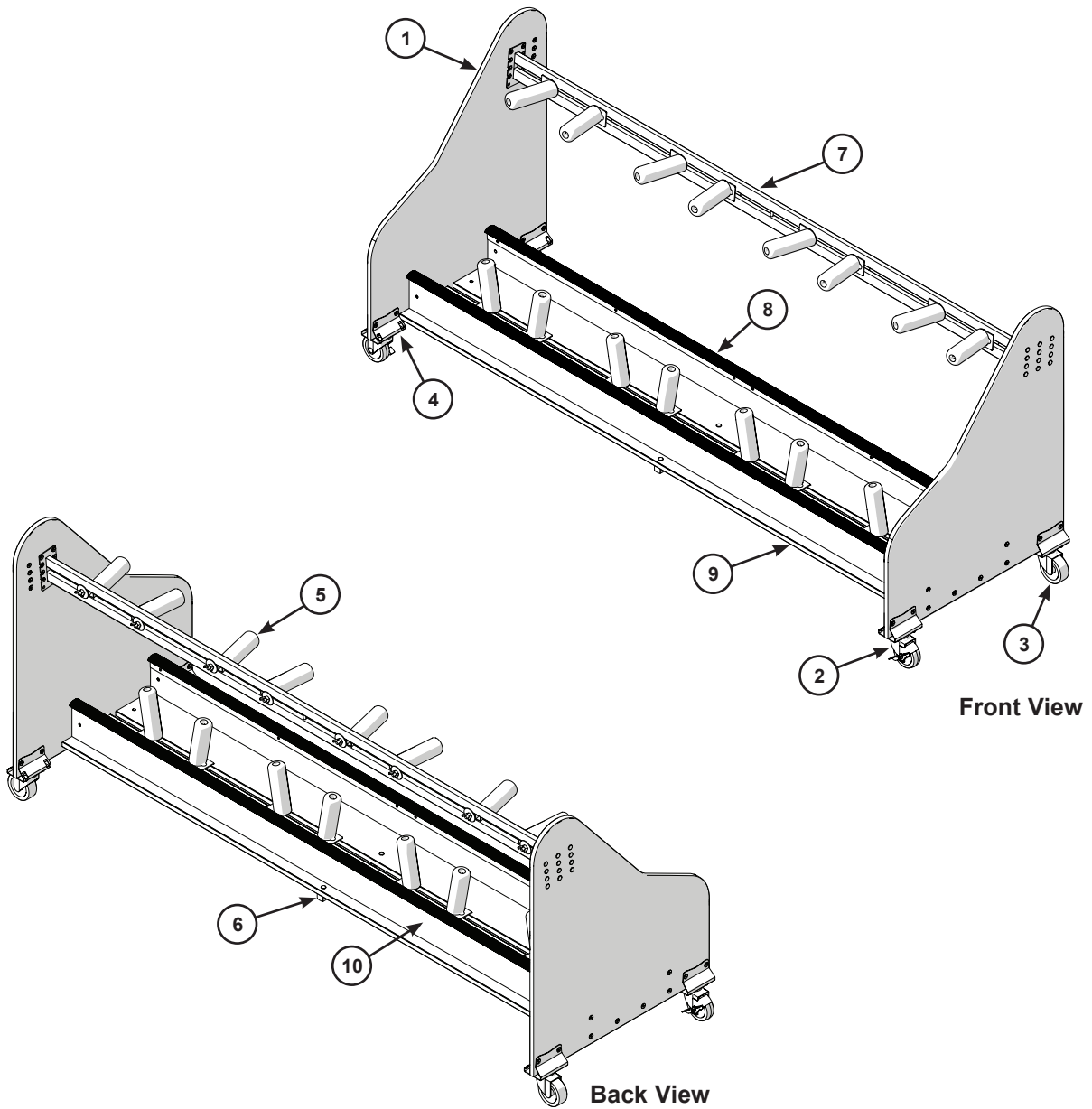
Sousaphones store best at an angle with top and bottom cradles not in alignment. It may take some experimentation to get the proper fit. Once the best fit is found, tighten the wing nuts and no additional adjustments should be necessary.

Lock the front braking swivel casters when the storage rack is in the desired location. Unlock the casters to move the rack to a different location.

If there are instruments on the storage rack while it is being moved, more than one person is required to safely move the storage rack through tight spaces. Use caution when pushing the storage rack against a wall or moving through doorways as some parts may extend beyond the back. Move the storage rack slowly and carefully while holding the instruments in place to prevent them from hitting each other.

Replacement Parts

Item	Qty	Description	Item	Qty	Description	Item	Qty	Description
1	2	End Panel	10	2	Bottom Rail Panel	19	*	8 mm x 25 mm Wood Dowel
2	2	Swivel Caster Brake	11	9	1/4-20 Hex Cap Nut	20	13	1/4-20 Cross Dowel
3	2	Swivel Caster	12	5	1/4-20 x 1.57" Machine Screw	21	*	3/8-16 x 1-3/4" Carriage Bolt
4	4	Caster Mount Bracket	13	*	#8 x 5/8" Phillips Truss-head Screw	22	13	1/4-20 x 2.359" Machine Screw
5	*	Cradle	14	33	1/4-20 x 0.59" Machine Screw	23	1	5/32 Hex Bit Insert
6	1	Support Tube	15	*	3/8 x 2" Fender Washer	24	1	5 mm Hex Wrench
7	1	Upper Support Weldment	16	*	7 mm x 50 mm Wood Screw	25	*	3/8-16 Wing Nut
8	2	Rack Extrusion	17	17	5/16-18 x 5/8" Carriage Bolt	26	29	1/4-20 Insert Nut
9	2	Bottom Support Panel	18	17	5/16-18 Lock Nut			



*Quantities may vary, extra hardware can be discarded