

Thank you for choosing
EZ-ACCESS Modular Ramps.
Please visit
www.ezaccess.com
or contact us at 1-800-451-1903
for all of your ramping needs.

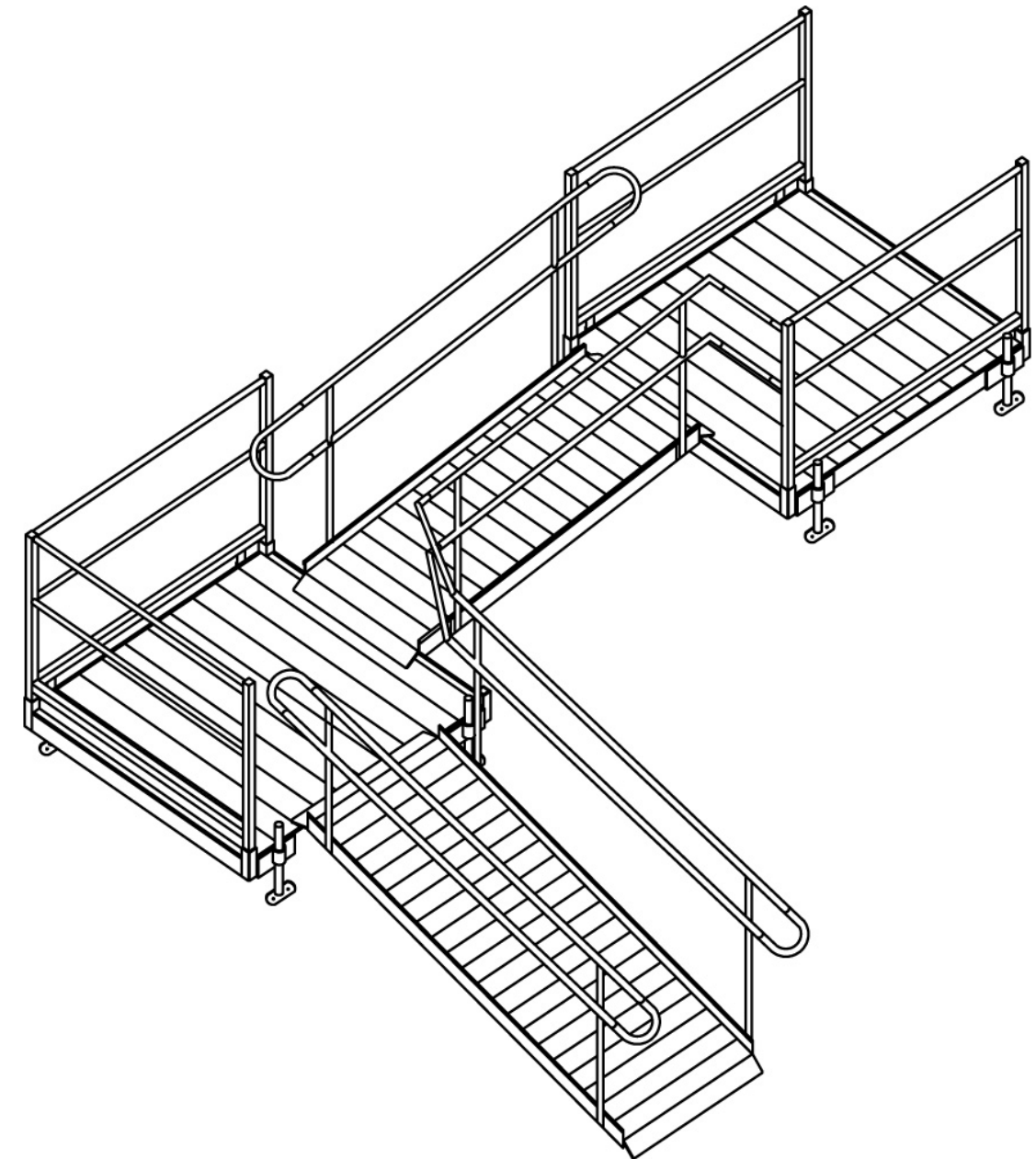
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6421 REV A 05-21-09



INSTALLATION GUIDE



Proudly made in the USA

Patent Pending

INSTALLATION GUIDE

FOR EZ-ACCESS® MODULAR RAMP SYSTEMS

ATTENTION INSTALLER:

- 850 lb. weight capacity
- Read all instructions, including 'PERIODIC MAINTENANCE AND SAFETY', prior to ramp assembly.
- Please leave INSTALLATION GUIDE with the end user.

ATTENTION END USER:

- 850 lb. weight capacity
- Please read and become familiar with the 'PERIODIC MAINTENANCE AND SAFETY' section of this manual.
- Fill out and return warranty information.

TOOLS TYPICALLY REQUIRED:

- ✓ 1/2" SOCKET OR 1/2" WRENCH
- ✓ 9/16" SOCKET OR 9/16" WRENCH
- ✓ 5/16" DRILL BIT (IF BRACE ASSEMBLIES ARE USED)
- ✓ 1/8" DRILL BIT
- ✓ 5/16" MASONRY DRILL BIT (USED WHEN INSTALLING TO CONCRETE PORCH, STEP, ETC.)
- ✓ 5/32" ALLEN WRENCH (SUPPLIED AS NEEDED)
- ✓ 3/16" ALLEN WRENCH (SUPPLIED AS NEEDED)
- ✓ #2 PHILLIPS HEAD SCREW DRIVER
- ✓ BOX KNIFE
- ✓ 25' TAPE MEASURE
- ✓ HAMMER
- ✓ LEVEL
- ✓ RUBBER Mallet
- ✓ FILE
- ✓ POWER DRILL
- ✓ HACKSAW (FOR OPTIONAL HANDRAIL KITS)
- ✓ DIGGING TOOLS (IF AN OBSTACLE NEEDS TO BE REMOVED)
- ✓ TWO ABLE-BODIED PERSONS NEEDED FOR INSTALLATION

VIEW PACKING LIST: Each ramp system is shipped with a packing list. Be sure to check that all items and tools are present before starting installation.

15) FINAL CHECKS:

- Ensure that all fasteners are in place and secure.
- Walk on the assembled system, checking for any undue movement.
- Remove any debris and metal chips.
- Ensure that the level and slope has not shifted during installation.
- Check that all handrail ends are covered (either with loops or with end caps).
- CONGRATULATIONS! Your EZ-ACCESS® Modular Ramp System is assembled.

16) PERIODIC MAINTENANCE AND SAFETY:

- Caution should be used at all times. Proper maintenance and upkeep to the ramp surface is vital.
- IMPORTANT: USE ONLY WITH A QUALIFIED HELPER.**
- Always use your lap belt.
- It is important that you refer to your equipment's Owner Guide for the proper degree of incline/decline and chair direction before attempting ramp use. Never exceed its recommendations.
- Periodically check and tighten any loose fasteners to ensure safety.
- At all times, keep the ramp clear of dirt, leaves, and other debris that may accumulate on the surface. Simply sweeping the ramp or using a garden hose will usually suffice, but, if needed, a damp cloth or soft brush with soap and water can be used (avoid alkaloid detergents). **Rinse well and use extra caution when the ramp surface is wet.**
- If ramp surface is covered with ice and/or snow, remove before use. Snow accumulation should be shoveled and the tread surface swept clean. Calcium Chloride salt substitute may be used to melt snow or ice accumulation on the ramp, however, after the snow and/or ice threat has cleared, be sure to clean the tread surface with soap and water (avoid alkaloid detergents) to remove Calcium Chloride residue. **Rinse well and use extra caution when the ramp surface is wet.**
- Do not play on or near ramp.
- Do not use handrails or ramp to support planters, decorations, etc.
- Ramp surface may become slippery when wet.
- If any part of the ramp is damaged or loose, **DO NOT USE UNTIL REPAIRS CAN BE MADE BY A CERTIFIED INSTALLER OR OTHER QUALIFIED PERSON.**



WARRANTY REGISTRATION

EZ-ACCESS®, A DIVISION OF HOMECARE PRODUCTS, INC. • 700 MILWAUKEE AVE N • ALGONA WA 98001-7408

TYPE EZ-ACCESS MODULAR RAMP	MANUFACTURED DATE SEE LABEL ON SIDE OF RAMP
NAME	PHONE
ADDRESS	CITY, ST, ZIP
NAME OF DEALER	DEALER'S CITY, ST, ZIP
PRICE	DATE PURCHASED
WHERE WILL RAMP BE USED?	
WHAT INFLUENCED YOUR PURCHASE OF THIS RAMP?	
<input type="checkbox"/> FRIEND RECOMMENDED	<input type="checkbox"/> DEALER RECOMMENDED
<input type="checkbox"/> OTHER (PLEASE EXPLAIN)	<input type="checkbox"/> WEBSITE
	<input type="checkbox"/> ADVERTISING/MAGAZINE

Please mail warranty information within 10 days of purchase.

WARRANTY & REGISTRATION

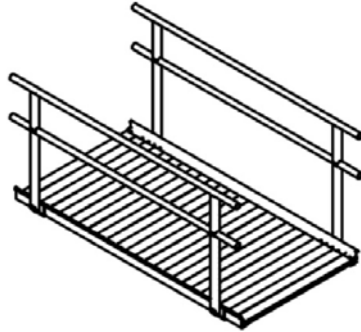
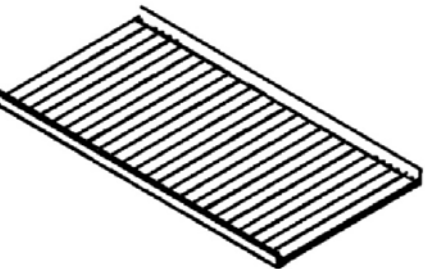
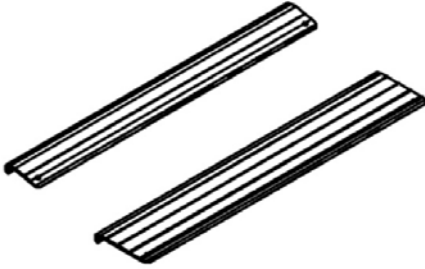
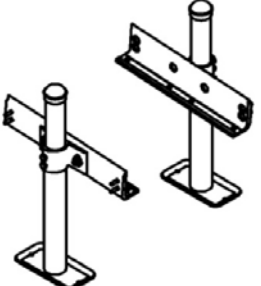
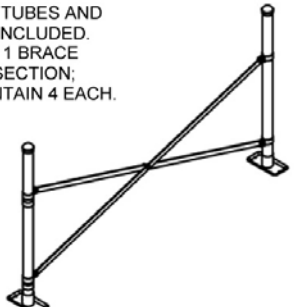
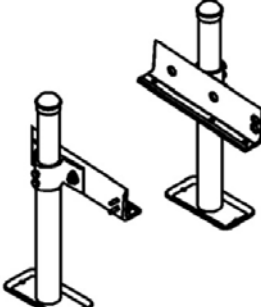
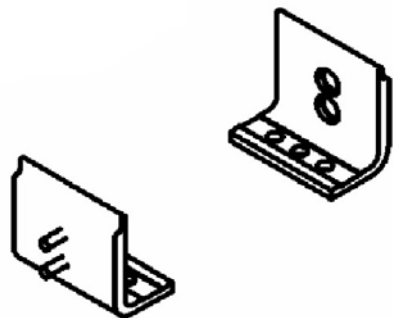



1. EZ-ACCESS, a division of Homecare Products, Inc., (herein referred to as Manufacturer), warrants that the equipment shall be free from defects in material and workmanship under normal use and service for a period of 3-years from the date of original purchase. This limited warranty applies to the original purchaser only and is non-transferable. This limited warranty is applicable to defective metal structure components only (excludes powder coated finish, applied non-skid tread, etc.) No part of this warranty will apply to any equipment which has been subject to misuse, vandalism, negligence, alteration, improper loads, accident, improper installation, or which has been repaired outside Manufacturer's place of business in any way as in the reasonable judgment of Manufacturer, to adversely affect its performance and reliability, nor to normal deterioration due to wear, tear and exposure, corrosion, or damage caused by rain, fire, earthquake or other natural causes or acts of nature.
2. Manufacturer's obligation and purchaser's sole remedy under this warranty is limited to, at Manufacturer's option, repairing or replacing equipment which is returned to its place of business and which, upon examination, shall disclose to Manufacturer's reasonable satisfaction to have been defective. Manufacturer will make the repair or replacement of defective components at its own expense. If Purchaser discovers a defect, he/she must call Manufacturer at 253-249-1101 to request a Return Authorization (RA) to return the merchandise to Manufacturer.
3. If Manufacturer determines, in its sole discretion, to replace the equipment with either a new or repaired unit, purchaser shall be responsible for a charge prorated on the following basis: The purchaser will be allowed a credit against the purchase price of equivalent equipment at the time of return to Manufacturer, in proportion to the percentage of the warranted service life remaining at the time of such return. Purchaser will be responsible to pay the balance of the purchase price of equivalent equipment. Manufacturer reserves the right to require payment prior to delivery of the repaired/replaced equipment. In calculating available credit, the remaining warranted service life will be rounded up or down to the nearest whole year. YEARS 0-1: Unit repaired or replaced; YEARS 1-2: Repair or 50% \$ credit (current purchase price multiplied by credit percentage); YEARS 2-3: Repair or 25% \$ credit (current purchase price multiplied by credit percentage). This limited warranty does not cover removal or reinstallation. Manufacturer reserves the right to require Purchaser to pay for all shipping charges (Government purchases exempt).
4. **DISCLAIMER: THE WARRANTIES AND REMEDIES CONTAINED HEREIN ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING ANY LIABILITY ARISING UNDER ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, STATUTORY OR OTHERWISE. HOWEVER, THAT IF ANY IMPLIED WARRANTY CANNOT BE DISCLAIMED IN ANY TERRITORY WHERE A PRODUCT IS SOLD, THE DURATION OF SUCH IMPLIED WARRANTY IS LIMITED TO THE DURATION OF THE LIMITED WARRANTY DESCRIBED IN THE FIRST PARAGRAPH.**
5. MANUFACTURER SHALL NOT BE LIABLE UNDER ANY CONTRACT, NEGLIGENCE, STRICT LIABILITY OR OTHER LEGAL OR EQUITABLE THEORY FOR ANY DIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES, RESULTING FROM THE USE, MISUSE OR INABILITY TO USE THE EQUIPMENT, OR ARISING OUT OF ANY BREACH OF THIS LIMITED WARRANTY, EVEN IF MANUFACTURER HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. THE SOLE REMEDY FOR A BREACH OF THE FOREGOING LIMITED WARRANTY IS REPLACEMENT OF THE DEFECTIVE OR NON-CONFORMING EQUIPMENT OR PART. THE MAXIMUM LIABILITY OF MANUFACTURER UNDER THIS WARRANTY IS LIMITED TO THE PURCHASE PRICE OF THE EQUIPMENT COVERED BY THE WARRANTY.
6. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which may vary from State to State. Manufacturer reserves the right to change or improve its products without any obligation to change or improve any Product previously manufactured by it.

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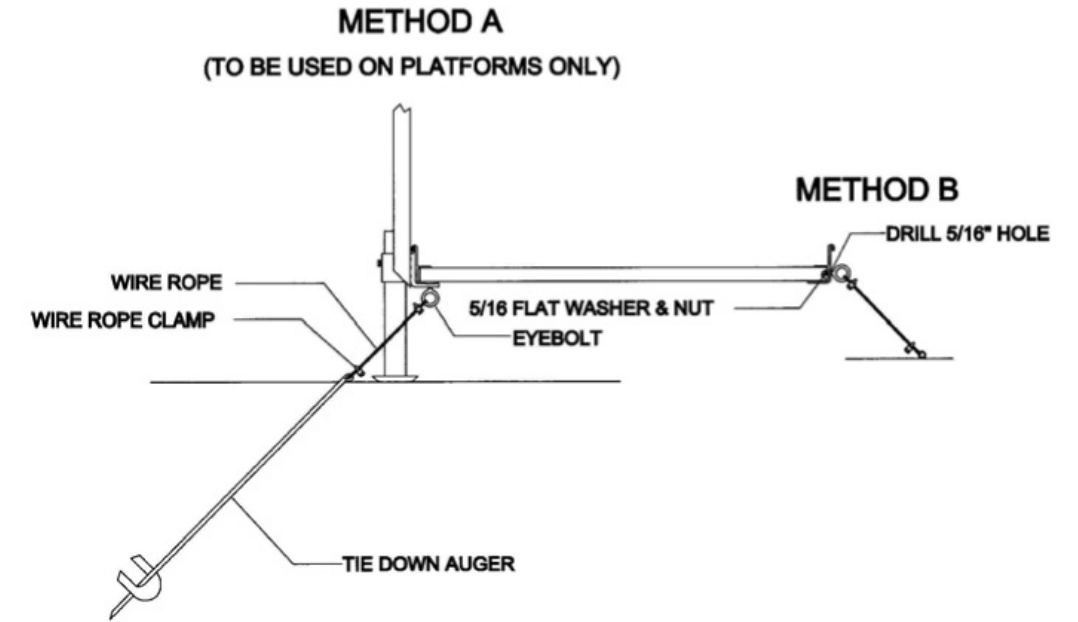
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BASIC SYSTEM COMPONENTS: Because each ramp configuration will differ from one another, your system may or may not contain all of these basic system components:

	
<p>MODULAR RAMP WITH HANDRAIL</p>	<p>MODULAR RAMP WITHOUT HANDRAILS</p>
	<p>NOTE: SUPPORT TUBES AND BASE FEET NOT INCLUDED.</p> 
<p>TOP & BOTTOM TRANSITION PLATE (PAIR)</p>	<p>RAMP SUPPORT ASSEMBLY</p>
<p>NOTE: SUPPORT TUBES AND BASE FEET NOT INCLUDED. RAMP CONTAINS 1 BRACE ASSEMBLY PER SECTION; PLATFORMS CONTAIN 4 EACH.</p> 	<p>NOTE: SUPPORT TUBES AND BASE FEET NOT INCLUDED.</p> 
<p>BRACE ASSEMBLY</p>	<p>TOP SUPPORT ASSEMBLY</p>
	
<p>RAMP HANDRAIL END BRACKET (PAIR)</p>	<p>HANDRAIL END LOOPS (PAIR)</p>

ITEMS NOT SHOWN ACTUAL SIZE

FIG. 44



- A) **RAMP**
- i) Refer to FIG. 44, METHOD B.
 - ii) Install one TIE DOWN KIT per each 10-feet of ramp (e.g., 8' of ramp requires one TIE DOWN KIT, but 12' of ramp requires two). See FIG. 43 for acceptable locations.
 - iii) Drill a 5/16" hole below the tread surface and between the ribs underneath the treads in each of the side rails at the center of the ramp.
 - iv) In this drilled hole, install one of the 5/16" eyebolts and secure to the ramp using one 5/16" flat washer and one 5/16" nut.
 - v) Install the tie down anchor augers into the ground, inline with the eyebolts and perpendicular to the ramp at an approximate angle of 30 degrees. Use a 1/2" steel rod (or similar item) through the eye of the anchor auger to turn the anchor auger into the ground. Keep turning the auger until only the eye is exposed.
 - vi) Secure one end of the wire rope to one of the eyebolts using the supplied 3/16" wire rope clamps. Thread the other end of the wire rope through the eye of the anchor auger and secure the wire rope to itself using the supplied 3/16" wire rope clamps. **NOTE:** Ensure that the wire rope has been pulled taut and all slack has been removed prior to securing it to the anchor auger.
 - vii) Cut the excess wire rope as required using a cable cutter or other appropriate tool. Wrap vinyl electrical tape at the cut end to keep the wire rope from fraying.
 - viii) Repeat on the opposite side of ramp section.
- B) **PLATFORM**
- i) Refer to FIG. 44, METHOD A.
 - ii) Install one TIE DOWN KIT per Platform.
 - iii) Install eyebolts by removing the 5/16" x 1 1/2" bolt, then inserting the eyebolt in its place (see FIG. 43 for acceptable locations).

14) **INSTALL OPTIONAL HURRICANE TIE-DOWN KIT:**

The installer, based on field conditions, will determine the exact location of the tie downs. As a rule, they should be positioned opposite one another and near the center of ramp as shown in FIG. 43. (METHOD A, as shown in FIG. 44 is to be used for securing platforms only.)

The Tie Down Installation Kit meets the requirements of Section 6.0 of ASCE 7-02 (wind loads) for ensuring that all EZ-ACCESS Ramp systems are properly restrained against hurricane strength winds.

Install the EZ-ACCESS® Modular ramp system ramp system to establish layout and locations. It may be necessary to temporarily reposition components in order to install anchor augers.

⚠ WARNING: Prior to installing the anchor augers into the ground, ensure that any underground electrical conductors, natural gas lines, water/drain lines, and/or other interferences are located and will not hinder the installation.

⚠ WARNING: The tie down installation should be completely inspected for any loose wire ropes, fasteners, anchor augers, etc. after being subjected to strong winds.

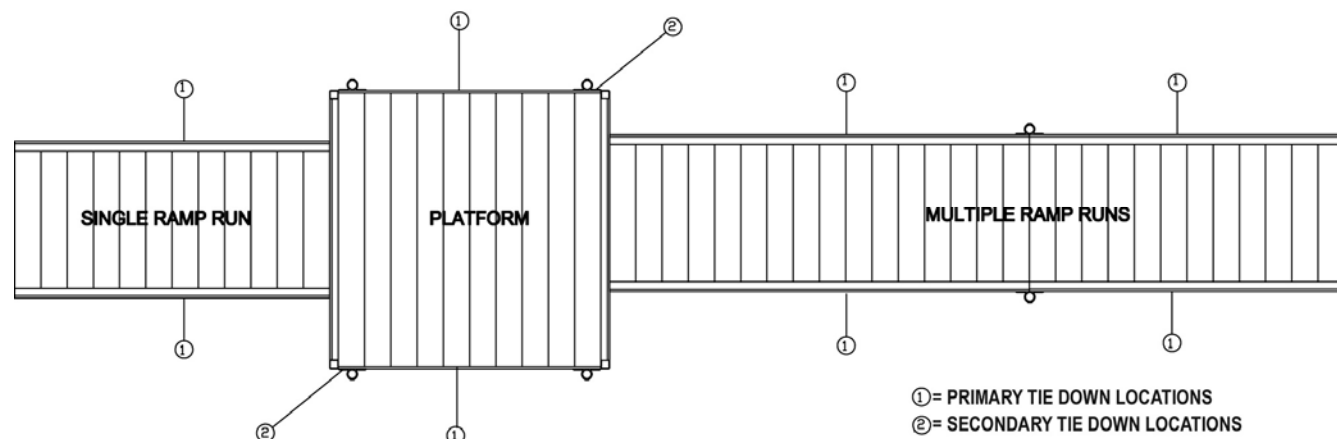
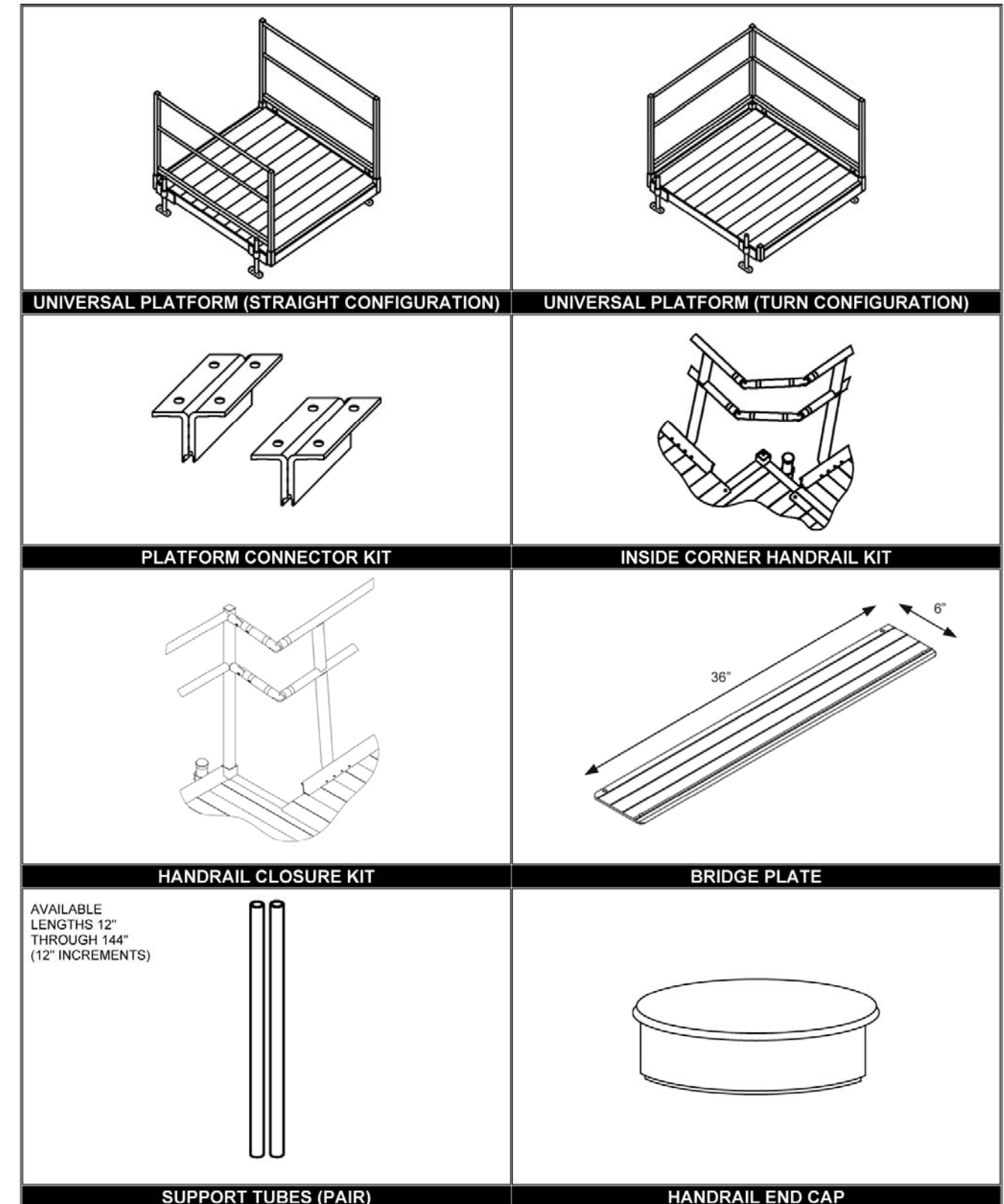


FIG. 43



ITEMS NOT SHOWN ACTUAL SIZE

1) **INSTALLING PLATFORMS:** If your system does not include a platform, skip to 'INSTALL RAMP SECTIONS' of this instruction guide. Generally, we suggest installing all platforms and ramps before installing handrails (see 'HANDRAIL INSTALLATION').

A) There are three types of platforms (you may be installing one or more of these types). All three require the same procedure for assembly except for FIG. 3 which requires an additional platform connector kit.

FIG. 1 5' x 5' Universal Platform (straight configuration)

FIG. 2 5' x 5' Universal Platform (turn configuration)

FIG. 3 5' x 4' Universal Platform (2 shown combined to make 5' x 8' turn back platform)

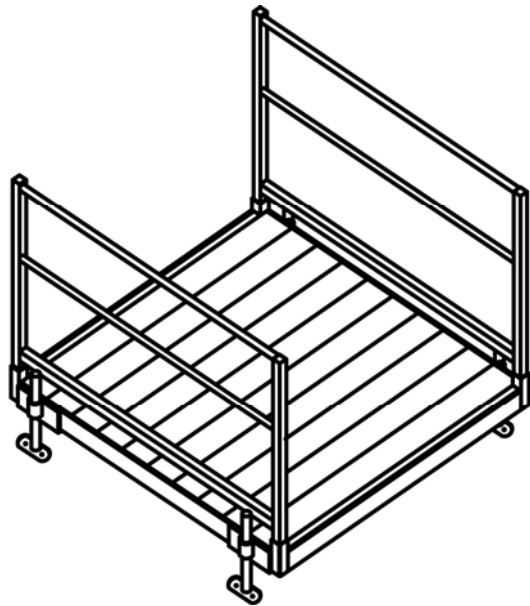


FIG. 1

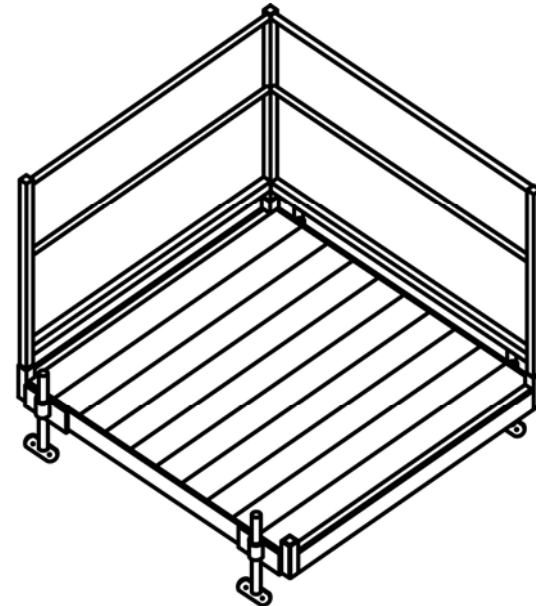


FIG. 2

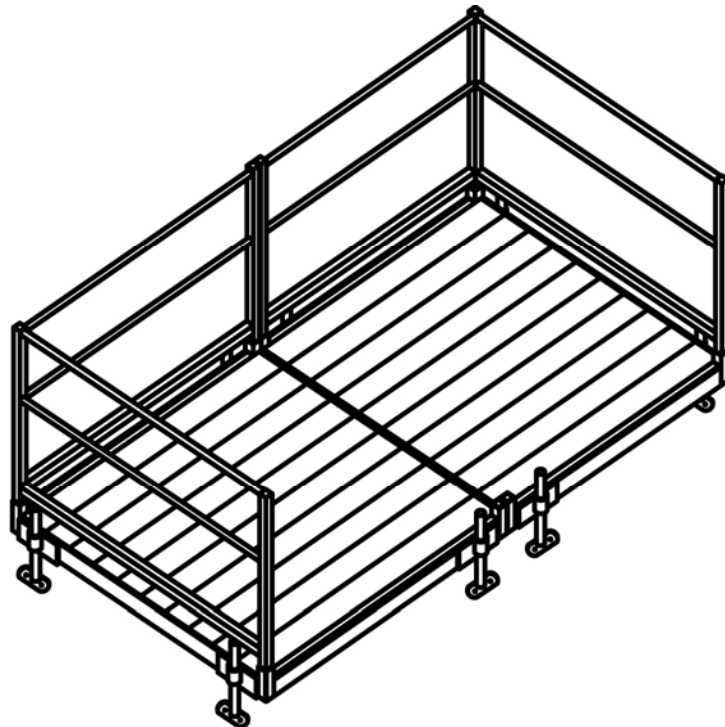


FIG. 3

13) **INSTALL OPTIONAL LIGHTNING ROD GROUNDING KIT:**

A) The Lightning Rod Grounding Kit provides a path for lightning strikes into the ground.

⚠ WARNING: Prior to installing the grounding rod, ensure that any underground electrical conductors, natural gas lines, water/drain lines, and/or other interferences are located and will not hinder the installation.

- i) Install the EZ-ACCESS® Modular ramp system.
- ii) Drive the grounding rod straight into the ground as close as possible (at least within 1½') to one of the support tubes, leaving approximately 2" exposed.
- iii) Install the hose clamp around support tube. Place #8 copper wire under hose clamp and tighten so that wire is in good contact with support tube.
- iv) Install 5/8" grounding rod clamp to grounding rod. Place #8 wire between clamp and rod, then tighten clamp.

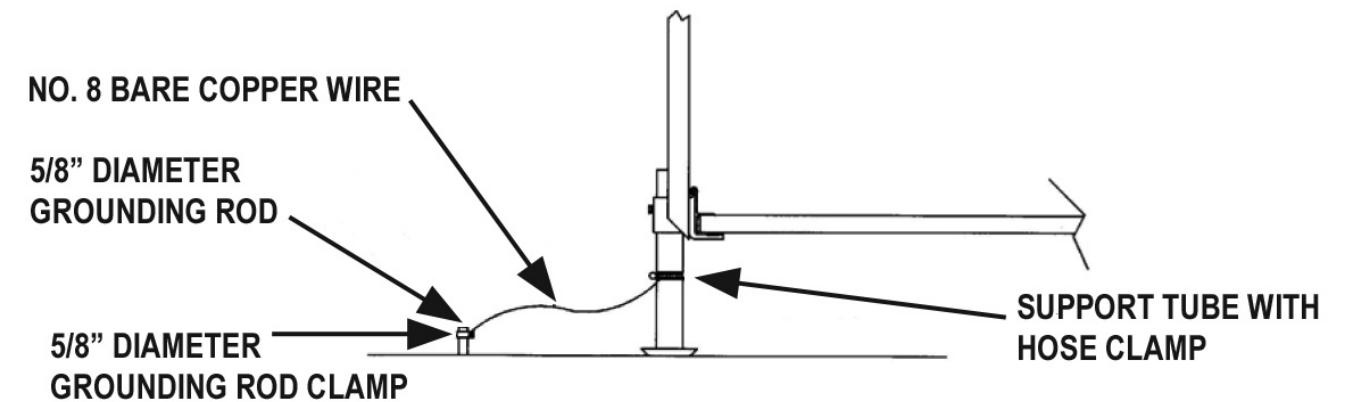


FIG. 42

12) **INSTALL OPTIONAL TOP SUPPORT ASSEMBLY:**

- A) The top support assembly provides supplemental support at the upper end of the ramp. When used, the top support assembly replaces the Ramp Handrail End Brackets.
- i) Attach top support brackets with two each 5/16" x 1 1/2" bolts and two each 5/16" flat washers.
- NOTE:** There is a left and right top support bracket. The two 3/8" studs aligned horizontally should be toward the end of the ramp (FIG. 39).
- B) The following steps are done AFTER the ramp is resting on a supporting surface and the top transition plate is installed. **IMPORTANT:** Read "INSTALLING A SINGLE RAMP" and "ANCHOR TOP TRANSITION PLATE" sections and ensure all steps are completed before proceeding with the steps that follow.
- i) Install support tube bracket on each top ramp support bracket using two each 3/8" nylock nuts into the threaded holes and two each 3/8" flat washers. **DO NOT TIGHTEN** (FIG. 40).
- ii) Install two each 3/8" x 1/2" hex bolts into the threaded holes on the support tube bracket.
- iii) Slide support tube into support tube bracket and onto base foot.
- iv) Level support tube and then tighten 3/8" nylock nuts to secure support tube bracket (FIG. 41).
- v) Adjust height as needed, and then tighten bolts.
- vi) Place end caps on support tube.

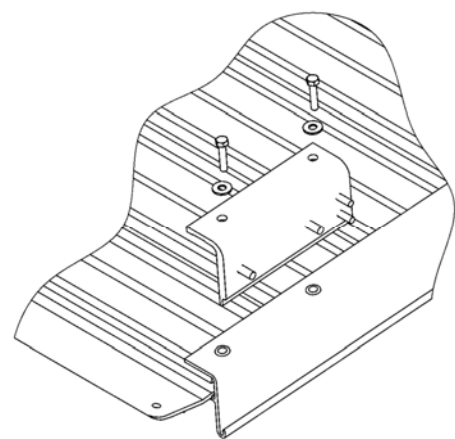


FIG. 39

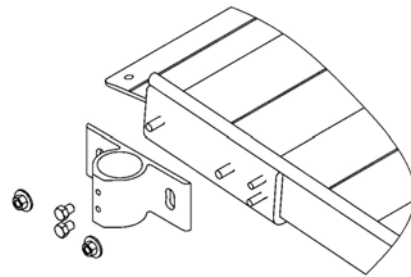


FIG. 40

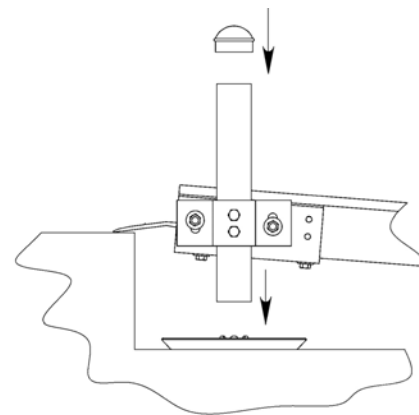


FIG. 41

B) **INSTALL SADDLE BRACKETS TO PLATFORM:**

- i) Place the surface of the platform face down, onto cardboard or a lawn so that the platform is not damaged (scratched or dented).
- ii) Each platform has two different configurations at each corner into which the platform saddle brackets and support legs can be installed. To account for obstacles, either position can be used as long as one platform saddle bracket is installed in each corner.
- iii) Position the platform saddle bracket over the threaded inserts located on each outside corner of the platform (FIG. 4).
- iv) Slide the platform saddle brackets into position (one end of the bracket will slide into the groove). **NOTE:** If there are space limitations, the saddle brackets can be installed under the platform as shown in FIG. 7 (if necessary, support tubes can be cut to fit).
- v) Using a 1/2" socket wrench, attach a platform saddle bracket to the platform with two 5/16" x 1 1/2" bolts and two 5/16" flat washers. **DO NOT OVER TIGHTEN** (FIG. 5). Repeat this step for all four platform saddle brackets. **NOTE:** The 4 x 4, 5 x 4, and 5 x 5 platforms each use 4 (four) platform saddle brackets.
- vi) Once installed, start two each 3/8" x 1/2" bolts into the threaded holes in each platform saddle bracket (FIG. 6) in order to secure the support tube.

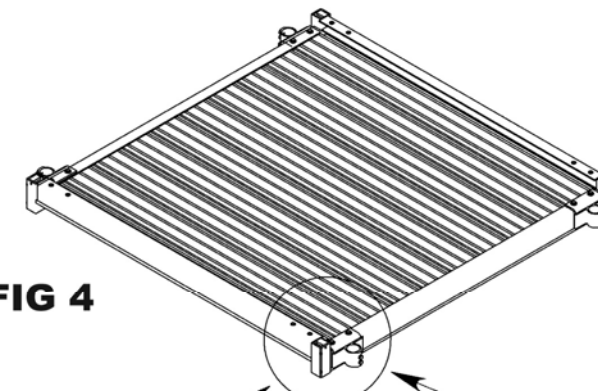


FIG 4

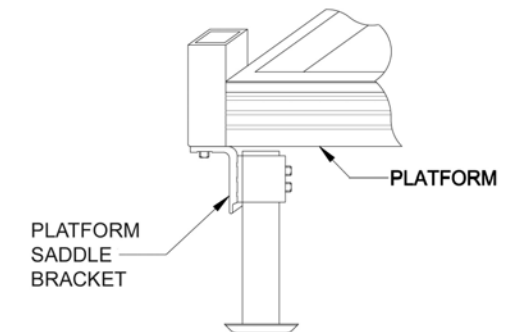


FIG 7

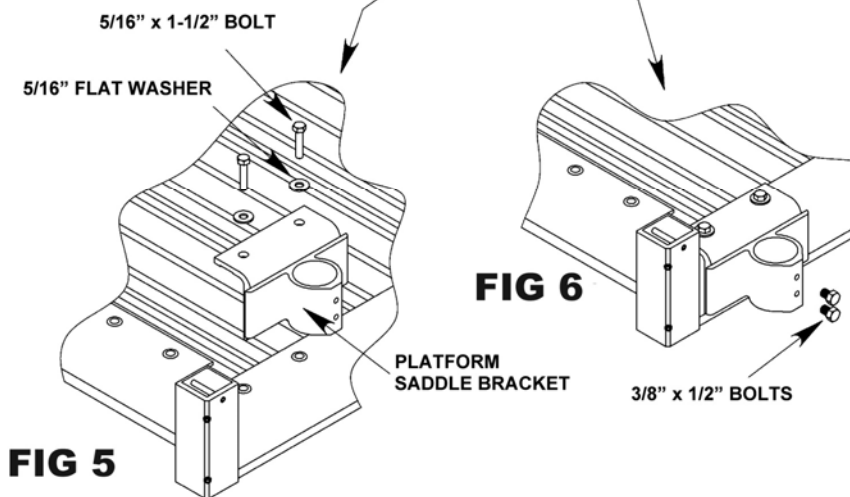


FIG 5

FIG 6

3/8" x 1/2" BOLTS

C) **CONNECTING TWO PLATFORMS TOGETHER:**

- i) Place the surface of the platform face down, onto cardboard or a lawn so that the platform is not damaged (scratched or dented).
- ii) Places edges to be joined against one another.
- iii) Attach platform connector saddle bracket (two each) into existing threaded inserts using 5/16" x 1 1/2" hex bolts (four per bracket) and 5/16" flat washers (four per bracket) as shown in FIG. 8. **DO NOT OVER TIGHTEN.**
NOTE: Any two platforms with the same width can be connected. However, generally two 5' x 4' platforms are connected to make a turn back platform.
- iv) FIG. 9 shows completed assembly. CAUTION: Although platforms are now connected, four support tubes must be installed per platform.

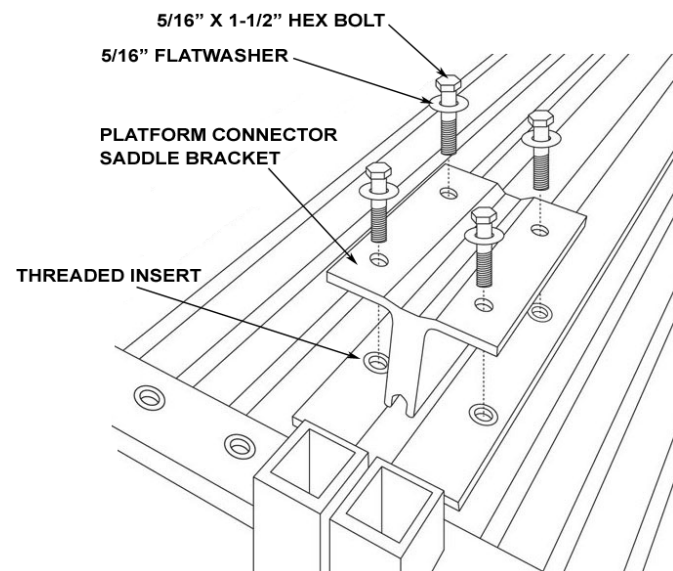


FIG. 8

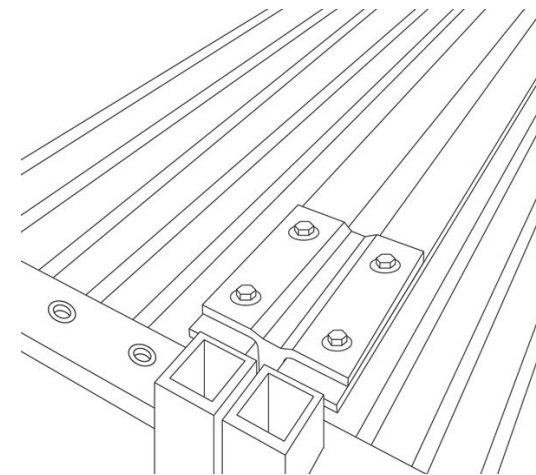


FIG. 9

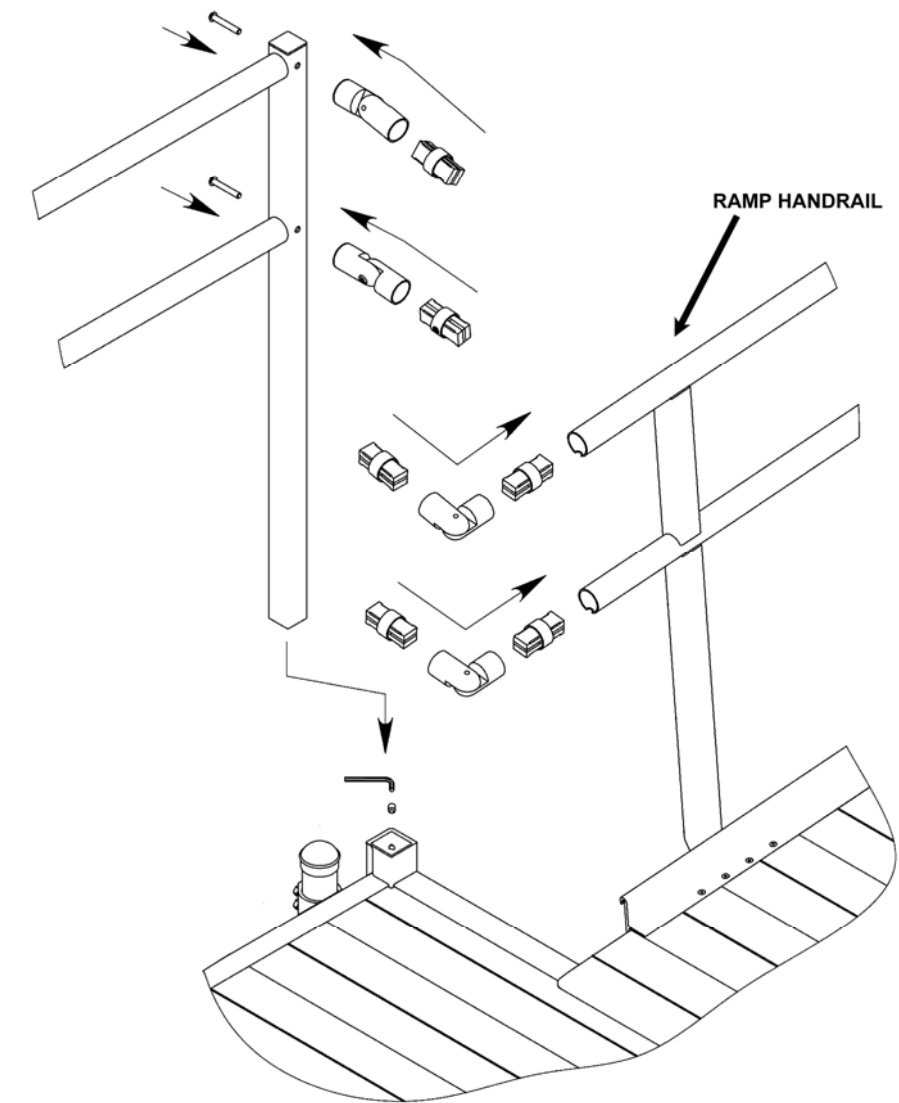


FIG. 36

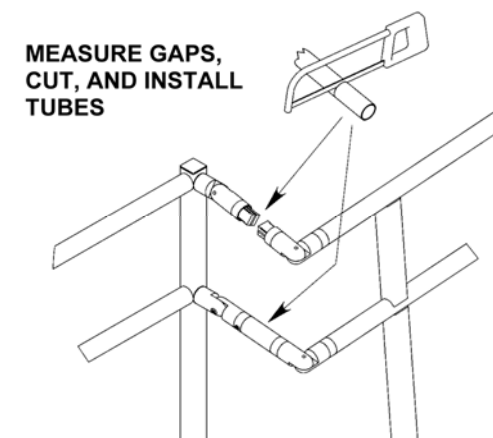


FIG. 37

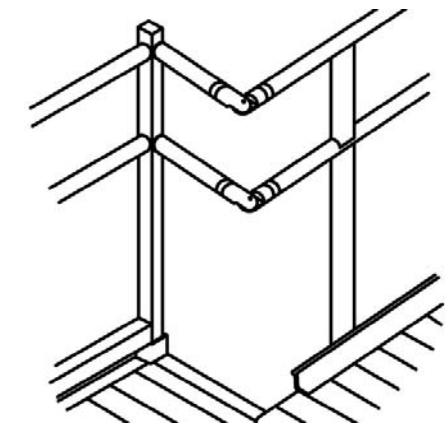


FIG. 38

11) **INSTALL OPTIONAL HANDRAIL CLOSURE KIT:**

- A) This kit will connect the handrails on a platform to the handrails on one side of the ramp.
- i) If needed, drop square tube post into corner pocket on platform and tighten two set screws with supplied 3/16" allen wrench (FIG. 33).
 - ii) Using an adjustable elbow with a threaded insert in one end, pass 5/16" x 2" buttonhead screw through the hole in square tube into threaded insert on adjustable elbow. Tighten lightly (FIG. 34).
 - iii) Insert ring joiner into each end of other elbows (FIG. 35).
 - iv) Insert ring joiner/adjustable elbow assembly into tube end on ramp handrail and position both assemblies until they are aligned (FIG. 36).
 - v) Measure the distance between the ring portions of the ring joiner assemblies. **HELPFUL HINT:** Use the supplied 5/32" and 3/16" allen wrenches to lightly tighten the ring joiner/adjustable elbow assembly so they hold their position while measuring.
 - vi) Cut round tube to the length measured (FIG. 37).
 - vii) Using a metal file, smooth any sharp edges from the cutting.
 - viii) Insert cut tube into place and tighten all setscrews on ring joiners and adjustable elbows (FIG 38).

NOTE: If difficult to install, disassemble adjustable elbows.

FIG. 33

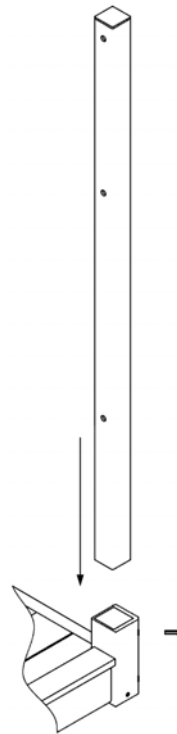


FIG. 34

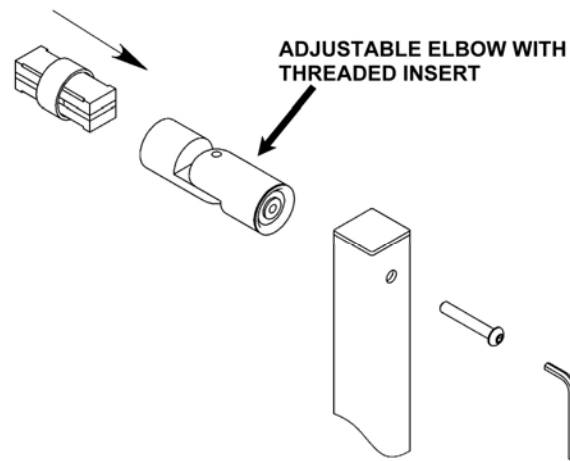


FIG. 35

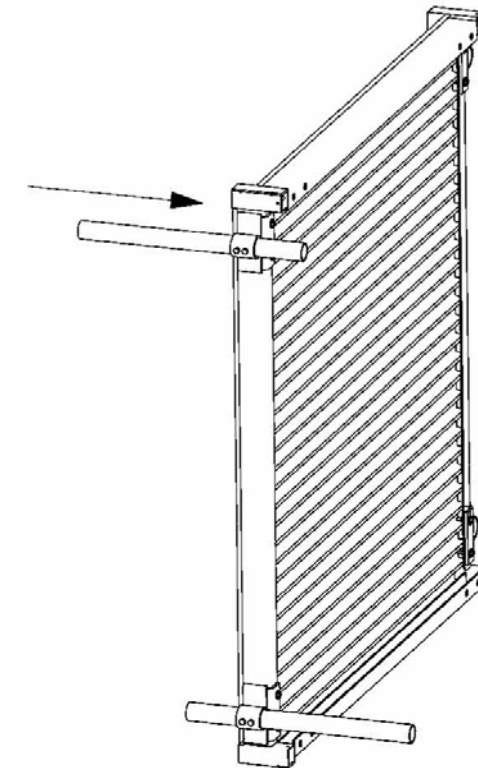
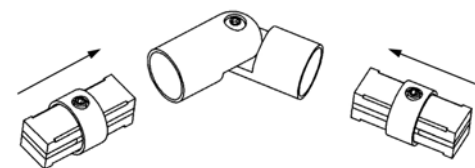


FIG. 10

D) **ATTACH SUPPORT TUBES TO PLATFORM SADDLE BRACKETS:**

- i) Tip the platform on its side. Have one person support the platform while the other person slides the support tubes into the platform saddle brackets. Adjust the support tubes to the approximate height needed (FIG. 10).

- ii) Using a 9/16" socket wrench, secure each of the support tubes with one of the two bolts on each platform saddle bracket (the second bolt will be tightened after final height adjustments are complete). The universal platform configured as a turn back platform (FIG. 3) will have eight tubes to adjust.

CAUTION: Do not attempt to walk on the platform without both bolts in each platform saddle bracket tightened securely.

- iii) Place the platform with support tubes attached into the upright position. **IMPORTANT:** Do not let the weight of the platform bear on the support tubes while tipping the platform upright as it may bend the outer rail.

E) **INSTALL BASE FEET AND ADJUST HEIGHT:**

- i) Slip the base foot under each support tube (FIG. 11).
NOTE: If installing on soft soil it may be necessary to set the base foot on a concrete pad or stepping stone.
- ii) Adjust the final height of the platform.
 - a. Adjust each leg one at a time by loosening the bolt in the platform saddle bracket. Using a level, adjust the platform height and retighten (FIG. 12).
- iii) Once the final height has been adjusted, tighten the second bolt in each platform saddle bracket.
- iv) Ensure that all bolts are secure.

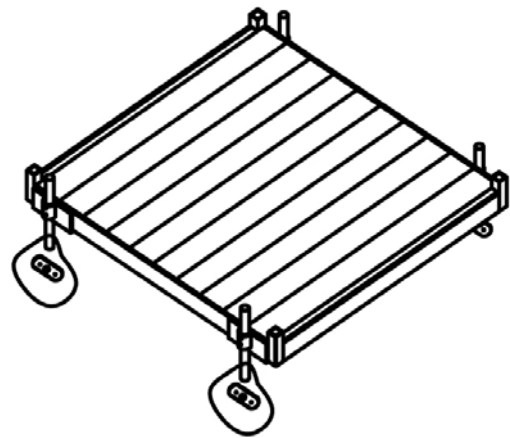


FIG. 11

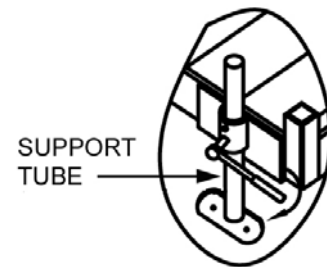


FIG. 12

F) **INSTALL PLATFORM BRACE ASSEMBLY:**

- i) Install platform brace assemblies on all support tubes when the walking surface is 36" or more above the ground. The platform brace assemblies are normally installed on all four sides (FIG. 13).
- ii) Platform brace assemblies need to be cut to desired length and 5/16" holes to attach the brace bands will need to be drilled at both cut ends.
- iii) Ensure that all platform brace assemblies are secured before using platform.

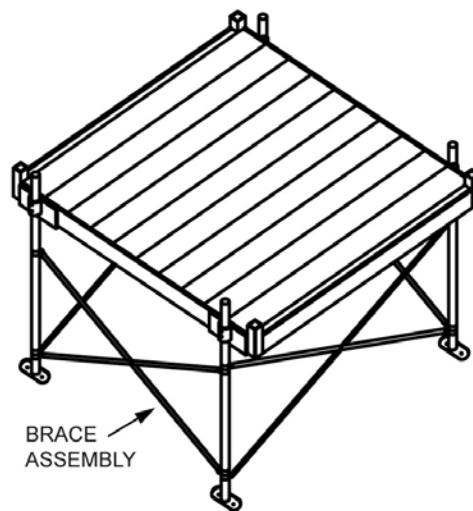


FIG. 13

- v) Cut round tube to the length measured (FIG. 31).
- vi) Using a metal file, smooth any sharp edges from the cutting.
- vii) Insert cut tube into place and tighten all set screws on ring joiner/adjustable elbows assemblies (FIG. 32).
NOTE: If difficult to install, disassemble adjustable elbows and reconfigure.

10) **INSTALL CORNER POCKET PROTECTIVE CAP:**

- A) Some platform configurations will have unused corner pockets on which corner pocket protective cap will need to be installed (FIG. 32a).

FIG. 31

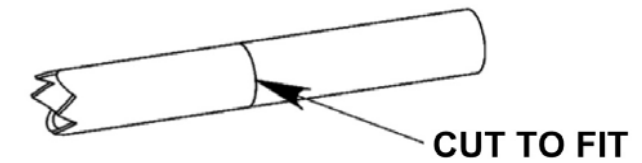


FIG. 32

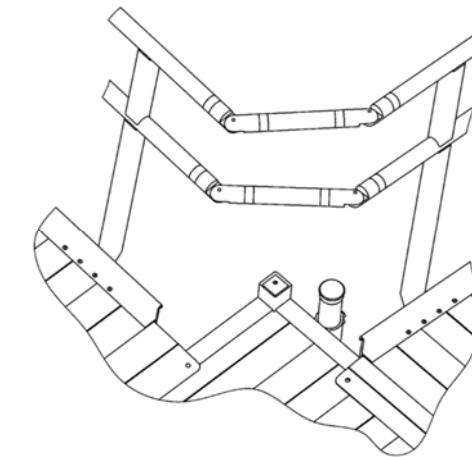
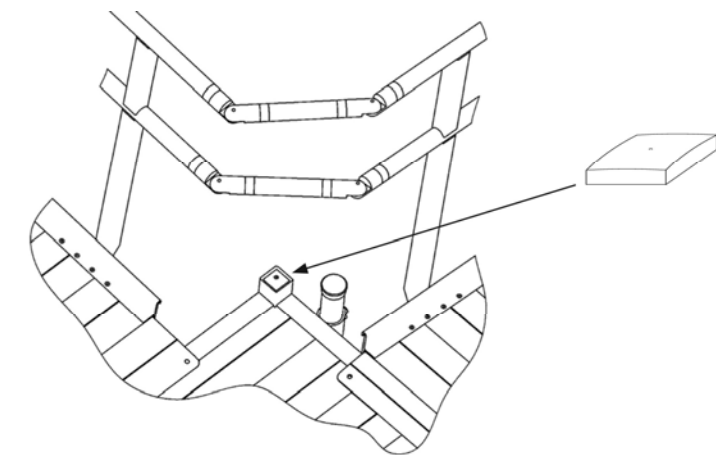


FIG. 32a



7) **INSTALL LOOPS:**

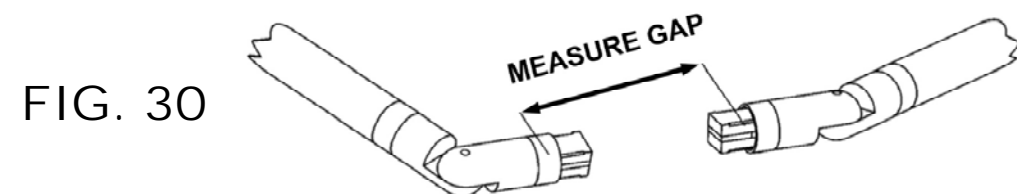
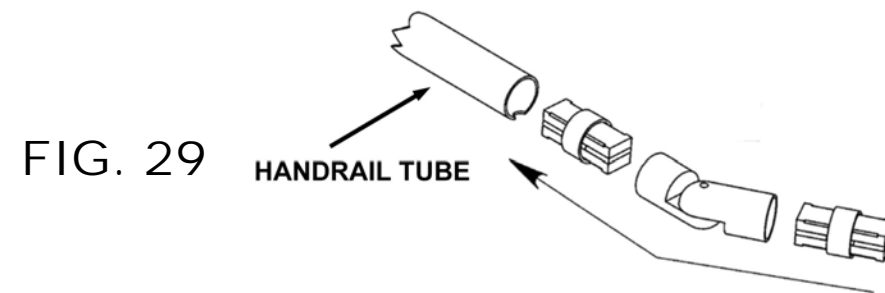
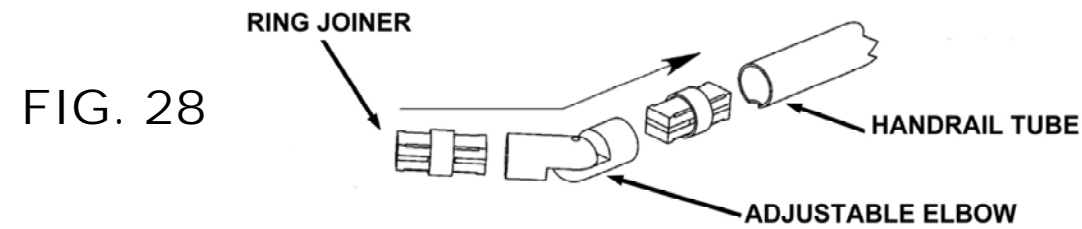
- A) Install loops using same procedure as handrail with joiner assemblies.

8) **INSTALL END CAPS:**

- A) Use end caps when there are any remaining open ends on the handrails.
 - i) Push them in by hand or by using a rubber mallet, then twist caps once they are in place.

9) **INSTALL OPTIONAL INSIDE CORNER HANDRAIL KIT:**

- A) Because each installation is unique, the components must be cut at the job site.
 - i) Slide a ring joiner into both ends of the adjustable elbow (FIG. 28).
 - ii) Slide a ring joiner/adjustable elbow assembly into each ramp handrail tube (FIG. 29).
 - iii) Position both assemblies until they are aligned (FIG. 30).
 - iv) Measure the distance between the two ring portions of the ring joiner/adjustable elbow assembly.
HELPFUL HINT: Use the supplied 5/32" and 3/16" allen wrenches to lightly tighten the ring joiner/adjustable elbow assembly so they hold their position while measuring.



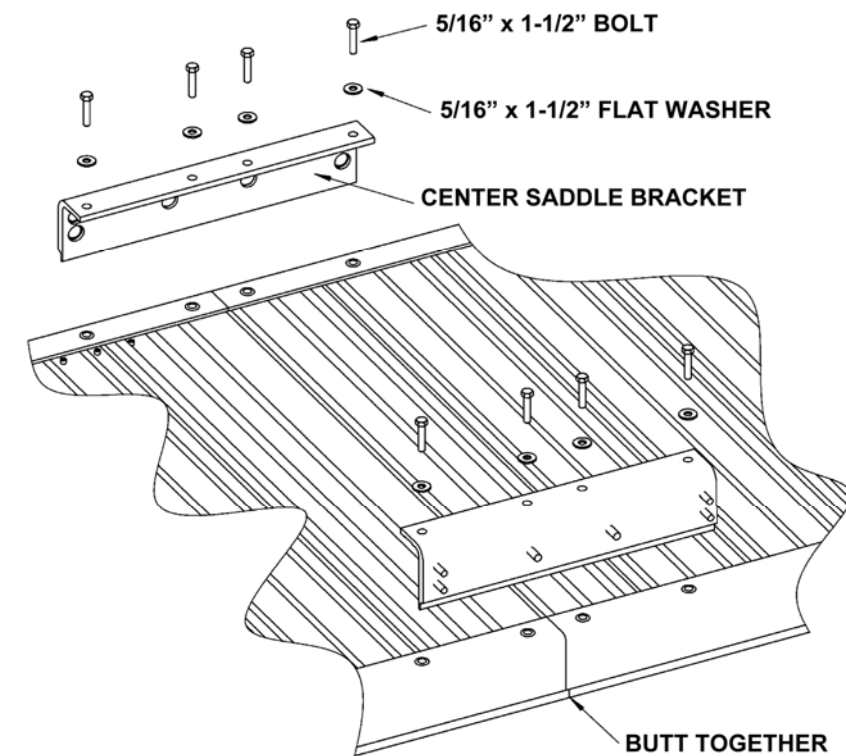
A) **INSTALL RAMP SECTION(S):**

- i) Turn the ramp sections upside down on a flat surface (so that the ramps do not get scratched or dented, it is recommended that this be done either on the lawn or on a piece of cardboard).

NOTE: If you are installing a single ramp section, skip to 'INSTALLING A SINGLE RAMP RUN'.

- ii) Butt the sections together end-to-end and ensure there is no gap.
- iii) Position the two center saddle brackets over the threaded inserts found on the end of each ramp section (FIG. 14).
- iv) One edge of the center saddle bracket will slide into the groove of the ramp section.

NOTE: Ramp sections are connected to create a ramp run using two interchangeable center saddle brackets per joint. The center saddle brackets are also where the handrails and support tube brackets are attached, and are a part of the ramp support assembly. (FIG. 14).



- v) Attach the center saddle brackets using four each 5/16" x 1 1/2" bolts and washers per center saddle bracket.
- vi) Tighten all eight bolts (four each per center saddle bracket).

NOTE: A maximum of three ramp sections may be joined in this manner.

- vii) If necessary, install optional top support assembly at this time. See 'OPTIONAL TOP SUPPORT ASSEMBLY'.

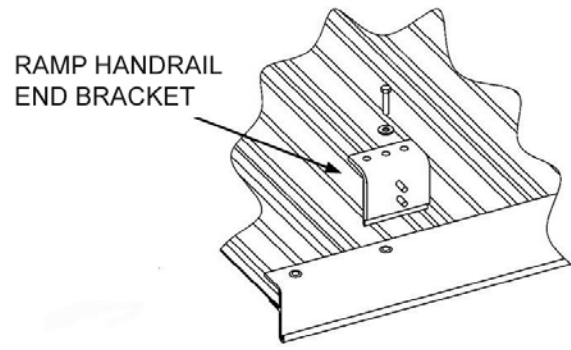


FIG. 15a

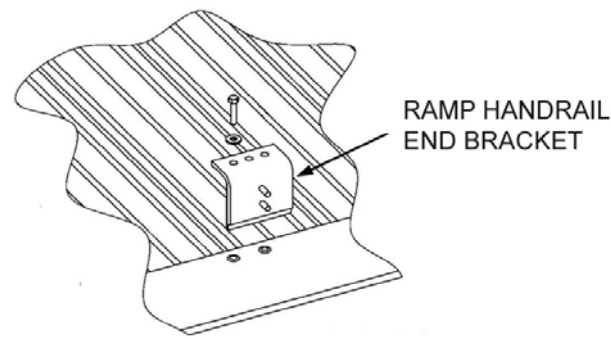


FIG. 15b

- viii) Install four ramp handrail end brackets (these will be used to attach handrails in a later step).
 - a. For 4', 6', and 8' ramps, use one at each outside corner of the ramp section using one 5/16" x 1 1/2" bolt & washer into the threaded insert second from the end of the ramp (FIG. 15a).
 - b. For 10' ramps, two additional ramp handrail end brackets are installed using one 5/16" x 1 1/2" bolt and washer at the center of each ramp section (FIG. 15b). **NOTE:** Ensure holes in ramp handrail end bracket align with threaded inserts in ramp. Install one fastener into either of the two inserts.
- ix) Turn the joined ramps to the upright position.
- x) Place the upper end of the ramp onto the supporting surface, i.e., platform, porch, etc.
- xi) Once the ramp is resting on the porch or platform, lift the upper end of the ramp and install the top transition plate (top transition plate is the smaller of the two) into what will be the upper end of the ramp. **NOTE:** When used with an MTSA, the bottom transition plate (the larger of the two) can be installed at what will be the upper end of the ramp to compensate for minor angular misalignment (about 10 degrees) between the porch, deck, or platform.
- xii) Install the bottom transition plate (larger of the two) into what will be the lower end of the ramp (FIG. 16).

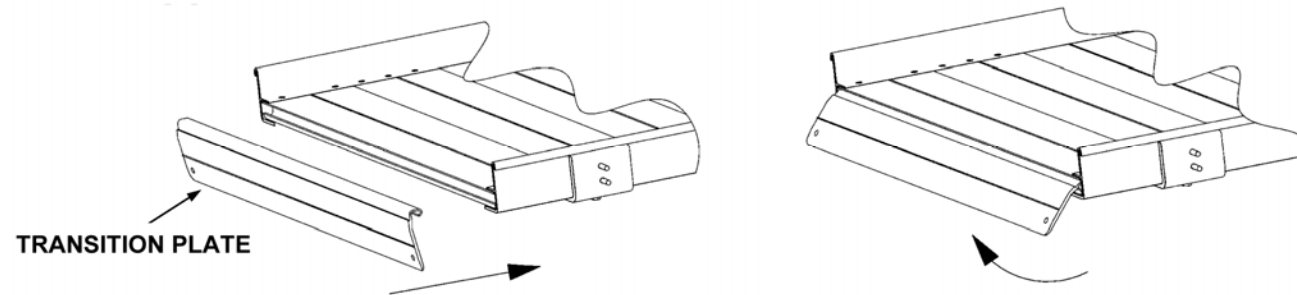


FIG. 16

6) **INSTALL PLATFORM HANDRAILS:**

NOTE: Depending on your configuration, refer to FIG. 26 and 27, as needed.

- i) Drop platform handrails into corner pockets on straight platform configuration. **NOTE:** If the handrails do not fit, it may be necessary to remove the washers between the vertical post and round tubes.
- ii) To connect handrails on turn and turn back platform configurations, remove one vertical post per platform and retain for reuse. Pass three each 5/16" x 2" buttonhead screws through the holes in square post and into threaded insert in round tube/square tube end. Tighten with supplied 3/16" allen wrench. If the handrails do not fit in the corner pocket, it may be necessary to remove/add washers between the vertical post and round tubes.
- iii) Tighten two each set screws in each corner pocket on platform with supplied 3/16" allen wrench.
- iv) Use a rubber mallet to install square plastic end caps into the top of handrail posts.
- v) Install plastic protective cap over unused corner pocket.
- vi) Using the supplied 3/16" allen wrench, tighten the setscrews on the outside of the square corner pockets.

NOTE: Straight platform handrails simply drop into the square pockets and require no assembly other than tightening the set screws (FIG. 26).

**UNIVERSAL PLATFORM
STRAIGHT CONFIGURATION**

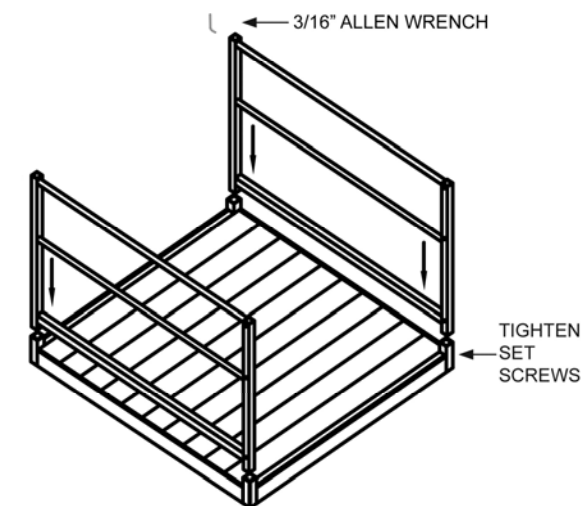


FIG. 26

**UNIVERSAL PLATFORM
TURN CONFIGURATION**

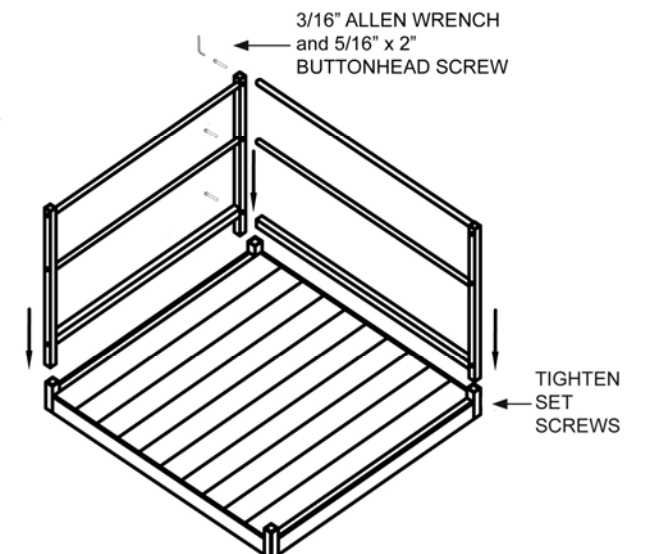


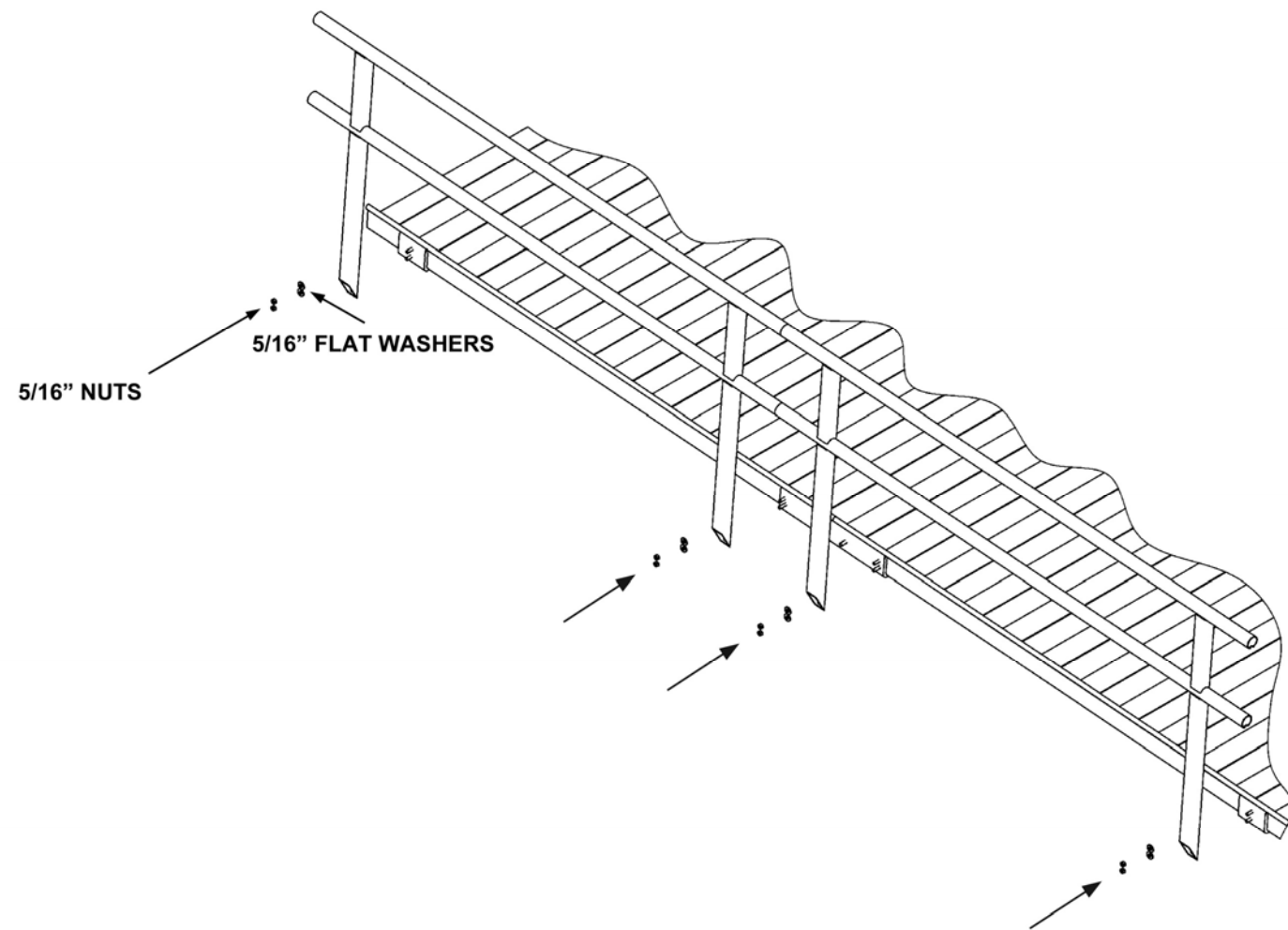
FIG. 27

5) **INSTALL HANDRAILS:**

- A) Install pre-assembled handrail section to side of ramp run (FIG. 22).
- i) The vertical posts of the handrails each have two holes that correspond with studs on the saddle brackets that were installed earlier.
 - ii) Attach handrails to these studs using two each 5/16" flat washers and two each 5/16" hex nuts per handrail post.

NOTE: If the studs do not align with the posts and are off by 6", the Ramp Handrail End Bracket was installed into the wrong threaded insert on the ramp. (See FIG. 15a for location of the correct insert).

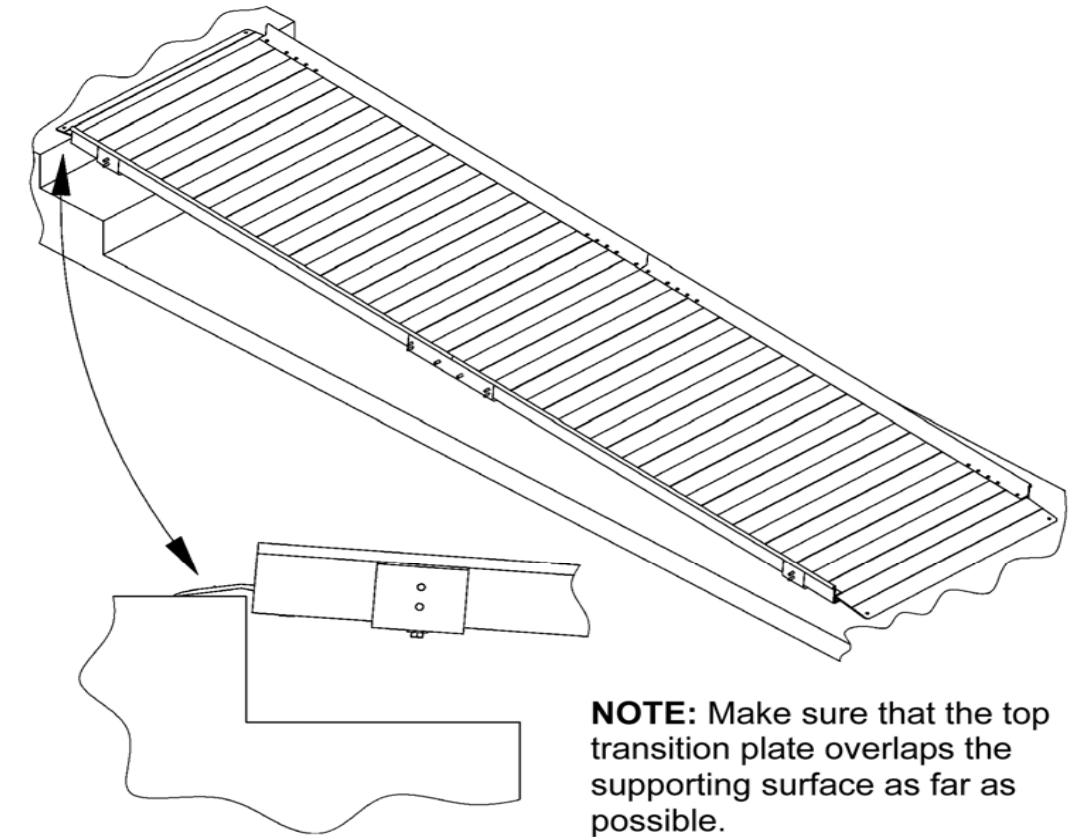
FIG. 25



a) Maneuver the ramp to its desired position (FIG. 17).
IMPORTANT: Make sure the top transition plate overlaps the supporting surface as far as possible.

CAUTION: DO NOT use the ramp until all support tubes and ramp brace assemblies (if needed) are installed and secured!

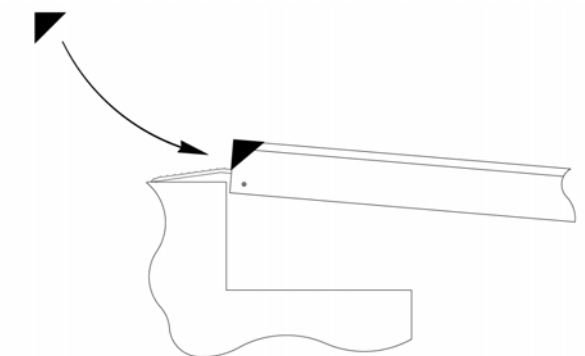
FIG. 17



xiii) So that no sharp edges are exposed, install protective caps over side rail corners as shown in FIG. 18. Place one cap on each side at both the top and bottom of ramp.

NOTE: If necessary, use silicone adhesive to bond cap to ramp.

FIG. 18



- xiv) Attach support tube bracket to the center saddle bracket using $\frac{3}{8}$ " nylock nuts and $\frac{3}{8}$ " washers (FIG. 19).
 - a. To ensure plumb support tubes, level the support tube brackets (FIG. 20).
 - b. Secure and tighten the $\frac{3}{8}$ " nylock nuts.
 - c. Start two each $\frac{3}{8}$ " x $\frac{1}{2}$ " bolts without washers into the threaded holes on each support tube bracket. DO NOT TIGHTEN.

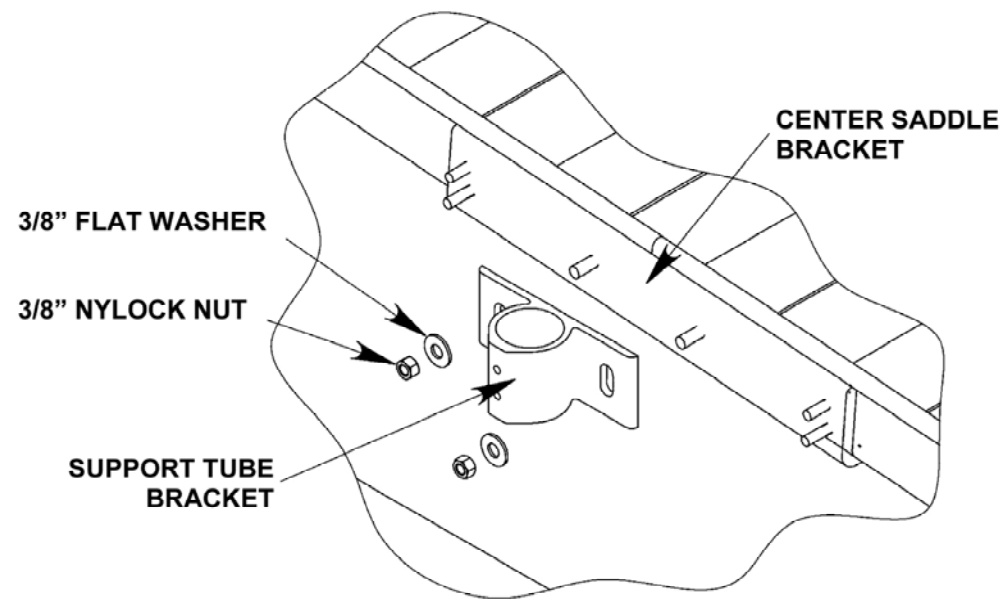


FIG. 19

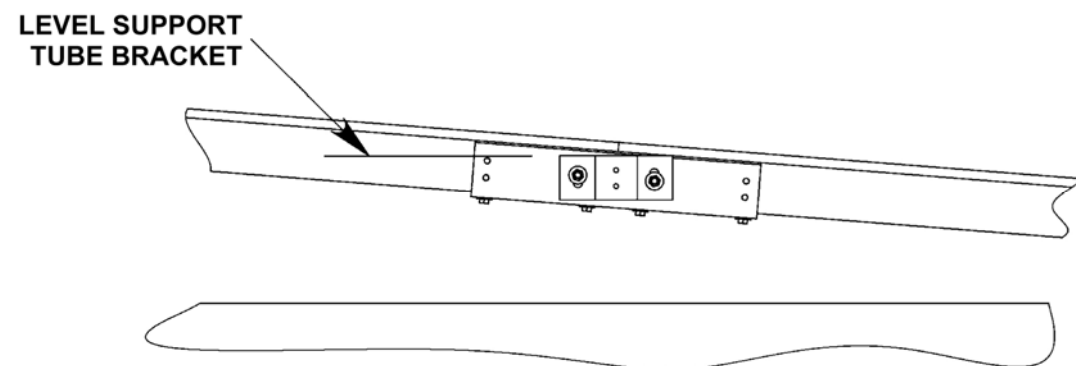


FIG. 20

4) **PRE-ASSEMBLE HANDRAILS:**

- A) One pair of handrails is required for each ramp section. Handrails are interchangeable.
- B) When used in a multiple ramp run, joiner assemblies are used to connect handrails together. Refer to FIG. 24 for following steps:
 - i) One end of the handrail tube is notched to accept the joiner assembly. Locate the notched end on each upper and lower handrail tube.
 - ii) Slide joiner assembly into the notched end of handrail tube. Repeat process for both upper and lower handrail tube.
 - iii) Slide the next handrail section over the joiner assembly.
 - iv) Ensure that the tube ends are pushed firmly towards each other.
 - v) Using the supplied $\frac{5}{32}$ " allen wrench, tighten setscrews in both joiner assemblies.
 - vi) Join all handrails together in this manner.

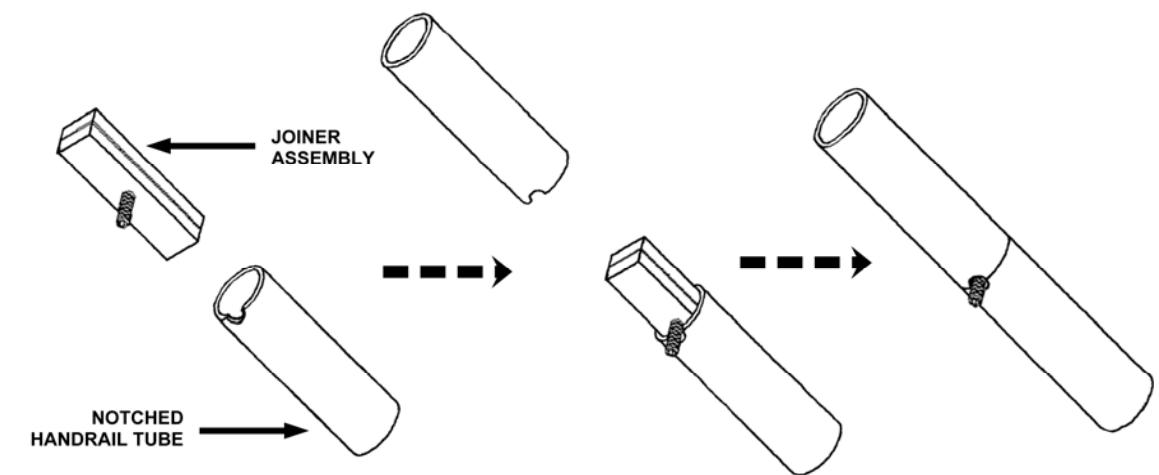


FIG. 24

2) **ANCHOR TOP TRANSITION PLATE:** The top transition plate must be anchored to a substantial surface to assure the ramp will not be dislodged. Use the pre-drilled holes at each corner of the top transition plate as guides.

A) IF RESTING ON A WOODEN SURFACE:

i) Drill two 1/8" holes into the wooden surface and secure by installing a #10 x 1 1/2" stainless screw and #10 stainless washer into each hole (FIG. 23).

B) IF RESTING ON A CONCRETE SURFACE:

i) Using a marker, transfer the hole locations from the top transition plate to the concrete surface then remove the top transition plate.

ii) Using a 5/16" masonry bit, drill two 1 1/2" deep holes at the marked surface.

iii) Lightly set lead concrete anchor into holes with a hammer.

iv) Re-attach the top transition plate and align over the drilled holes.

v) Secure the top transition plate by installing a #10 x 1 1/2" stainless screw and #10 stainless washer into each hole.

C) IF RESTING ON AN ALUMINUM PLATFORM:

i) Drill two 1/8" holes and secure by installing a #10 x 1 1/2" stainless screw and #10 stainless washer into each hole.

NOTE: If the hole you are drilling is not coming out between two ribs on the underside of the platform, drill a new 1/8" hole through the top transition plate and platform in a position that will allow the screws to be installed between the ribs.

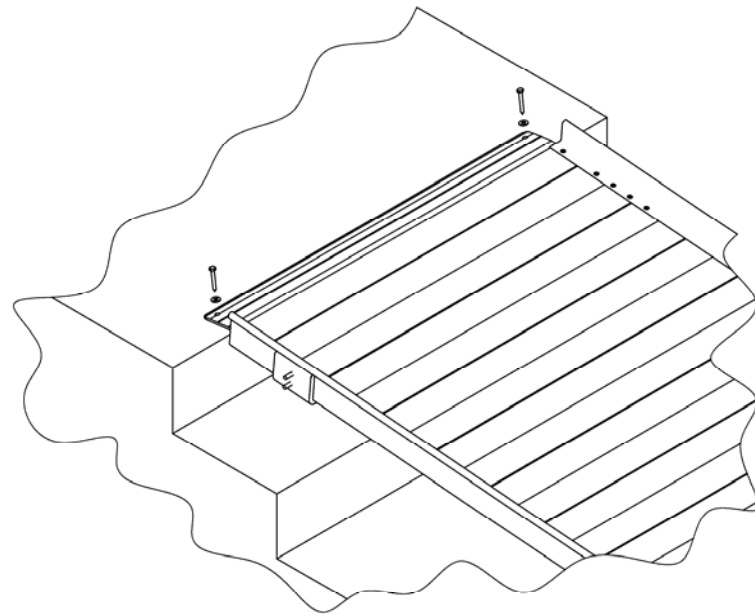


FIG. 23

3) **ANCHOR BOTTOM TRANSITION PLATE:**

A) If the bottom transition plate (end of ramp system) is resting at ground level, then anchoring the ramp is optional.

B) If a bottom transition plate is resting on any type of raised area (i.e., a platform), it must be anchored using the same procedures as used to 'ANCHOR TOP TRANSITION PLATE'.

xv) Place a base foot under each support tube bracket, then slide support tube through the bracket and onto the base foot (FIG. 21).

NOTE: If used on very soft soil it may be necessary to set the base foot on a concrete pad.

xvi) Adjust the legs one at a time.

a) Raise the ramp sections (at the center saddle bracket) to take any sag out of the ramp run.

b) Tighten the two bolts in each support bracket.

c) Place end cap on support tube (FIG. 21).

NOTE: Adjusting sections can be accomplished by having someone sight down the ramp while another person adjusts the ramp height.

IMPORTANT: Ensure that the ramp sections are parallel to each other. If they are not, it may be difficult to install the handrails.

d) Double check that all bolts are tight, the support tubes are plumb, and the ramp sections are aligned parallel to one another.

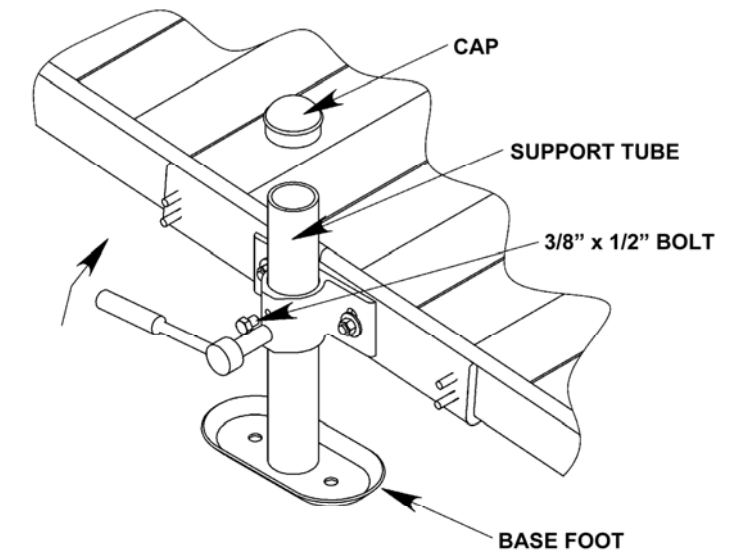
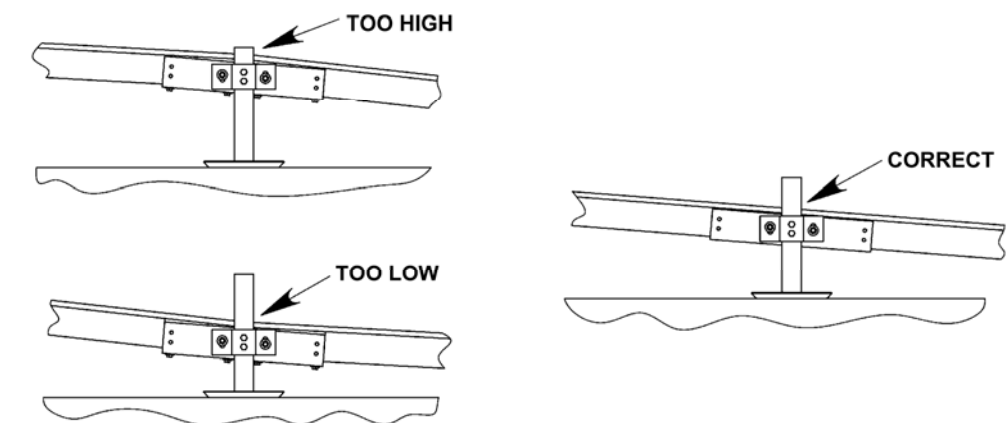
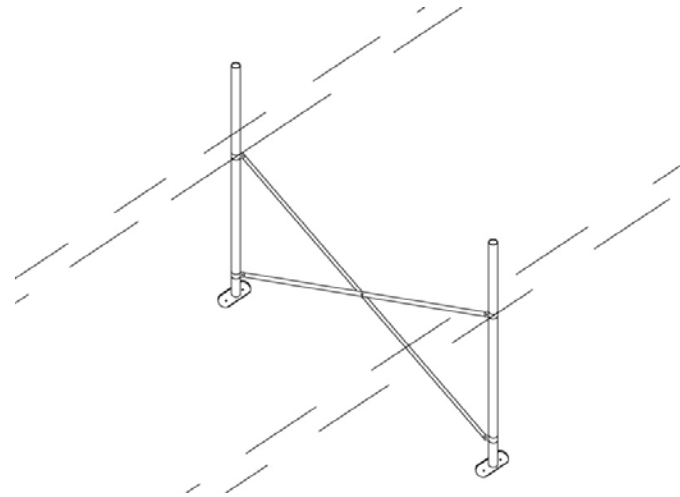


FIG 21



- e) If the ramp tread surface is over 36" in height, connect the brace assembly under the ramp as shown in FIG. 22.
- f) The brace assembly ends will need to be cut to desired length, and 5/16" holes to attach the brace bands will need to be drilled at both cut ends.
- g) Ensure that all platform brace assemblies are secured before using platform.

FIG 22



H) **INSTALLING A SINGLE RAMP RUN:**

- i) Turn the ramp section upside down on a flat surface. Do this on cardboard or a lawn so that the ramp is not damaged (scratched or dented).
- ii) Install four ramp handrail end brackets (these will be used to attach handrails in a later step).
 - a) For 4', 6', and 8' ramps, use one at each outside corner of the ramp section using one 5/16" x 1 1/2" bolt & washer into the threaded insert second from the end of the ramp (FIG. 15a).
 - b) For 10' ramps, two additional ramp handrail end brackets are installed using one 5/16" x 1 1/2" bolt and washer at the center of each ramp section (FIG. 15b).

NOTE: Ensure holes in ramp handrail end bracket align with threaded inserts in ramp. Install one fastener into either of the two inserts.

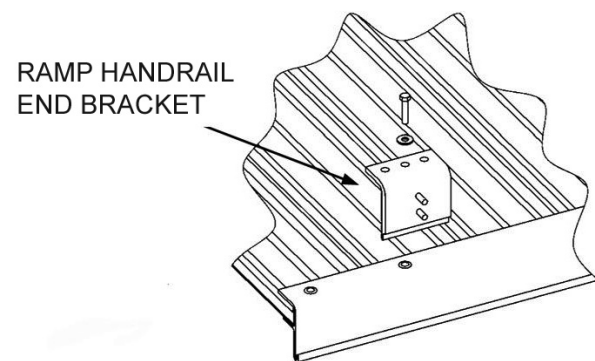


FIG. 15a

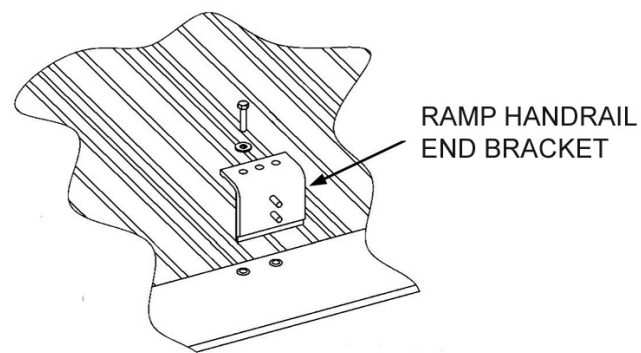


FIG. 15b

- iii) Turn the ramp over to the upright position.
 - a) Place the upper end of the ramp onto the supporting surface, i.e., platform porch, etc.
- iv) Once the ramp is resting on the porch or platform, lift the upper end of the ramp and install the top transition plate into what will be the upper end of the ramp and the bottom transition plate into what will be the lower end of the ramp (FIG. 16).
 - NOTE:** The bottom transition plate is the larger of the two.
 - a) Maneuver the ramp to its desired position (FIG. 17).

FIG. 16

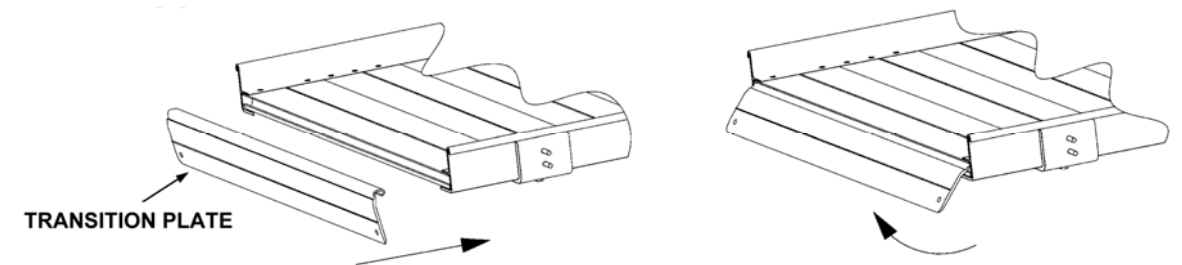


FIG. 17

