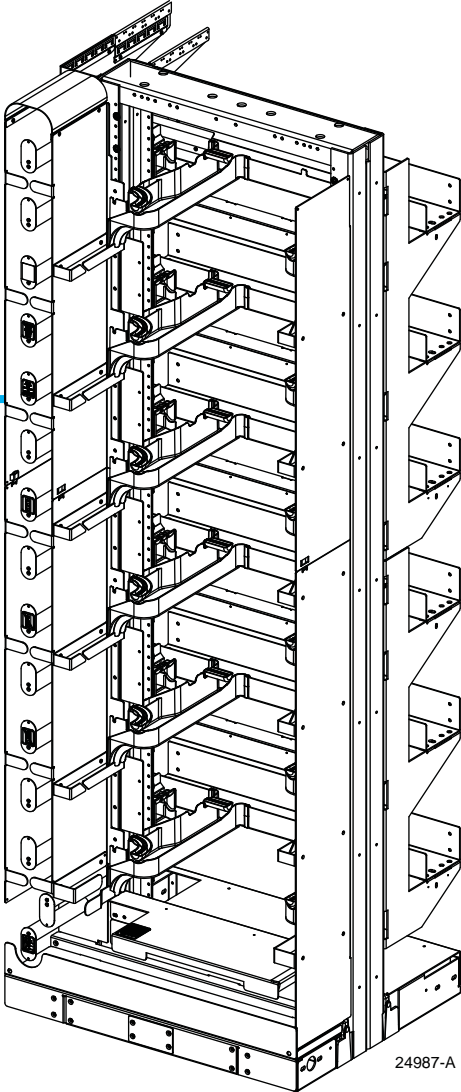


NG4access® Frame

Installation Manual (Raised Floor)



24987-A

TECP-90-708
Issue 5, April 2017

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REVISION HISTORY

ISSUE	DATE	REASON FOR CHANGE
1	9/2012	Original.
2	12/2012	Added instructions for installing Raised Floor Cable Clamp Bracket Kit.
3	7/2013	Added instructions for installing the Fiber Optic Storage Panel (FOTSP) and the Auxiliary Cable Spool Bracket Kit.
4	July 2016	Reformatted for CommScope.
5	April 2017	Corrected Material ID on cover.

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ABOUT THIS MANUAL

This manual provides complete instructions for installing a NG4access frame on a raised floor. Included are instructions for grounding the frame and joining two frames in a lineup.

RELATED PUBLICATIONS

Listed below are related manuals and their publication numbers. Copies of these publications can be ordered by contacting the CommScope Technical Assistance Center at:

<http://www.commscope.com/SupportCenter>

Title/Description	Publication Number
<p>NG4access ODF Platform Application and Planning Manual Contains an NG4access overview and information for planning a NG4access application.</p>	90-701
<p>NG4access Frame Installation Manual: Concrete Floor Provides pictorial instructions for installing an NG4access frame on a concrete floor and grounding the frame.</p>	90-702
<p>NG4access ODF Platform Standard Chassis Installation Manual Provides installation instructions for the NG4access standard chassis.</p>	90-703
<p>NG4access ODF Platform Splice Chassis and Splice Tray Installation Manual Provides installation instructions for the NG4access standard chassis.</p>	90-704
<p>NG4access ODF Platform Patch Cord Routing Guide Provides pictorial guidelines for routing patch cords on a lineup consisting of one or more NG4access frames. This manual consists of laminated cards that hang on the front of the frame.</p>	90-705
<p>NG4access ODF Platform Rear Side Routing Guide Provides pictorial guidelines for routing cables and installing cabled modules on the rear side of a lineup consisting of one or more NG4access frames. This manual consists of laminated cards that hang on the rear of the frame.</p>	90-706

ADMONISHMENTS

Important safety admonishments are used throughout this manual to warn of possible hazards to persons or equipment. An admonishment identifies a possible hazard and then explains what may happen if the hazard is not avoided. The admonishments — in the form of Dangers, Warnings, and Cautions — must be followed at all times. These warnings are flagged by use of the triangular alert icon (seen below), and are listed in descending order of severity of injury or damage and likelihood of occurrence.



Danger: *Danger is used to indicate the presence of a hazard that **will** cause severe personal injury, death, or substantial property damage if the hazard is not avoided.*



Warning: *Warning is used to indicate the presence of a hazard that **can** cause severe personal injury, death, or substantial property damage if the hazard is not avoided.*



Caution: *Caution is used to indicate the presence of a hazard that **will** or **can** cause minor personal injury or property damage if the hazard is not avoided.*

GENERAL SAFETY PRECAUTIONS



Danger: *Infrared radiation is invisible and can seriously damage the retina of the eye. Do not look into the ends of any optical fiber. Do not look directly into the optical adapters of the adapter packs. Exposure to invisible laser radiation may result. An optical power meter should be used to verify active fibers. A protective cap or hood **MUST** be immediately placed over any radiating adapter or optical fiber connector to avoid the potential of dangerous amounts of radiation exposure. This practice also prevents dirt particles from entering the adapter or connector.*

LIST OF ACRONYMS AND ABBREVIATIONS

The following acronyms are used in this manual:

FOT	Fiber Optic Terminal
IFC	Intra Facility Cable
OSP	Outside Plant

1 TOOLS AND MATERIALS REQUIRED

The tools and materials required for mounting the NG4access frame on a raised floor are specified in [Table 1](#) and [Table 2](#).

Table 1. Tools Required

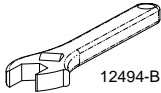


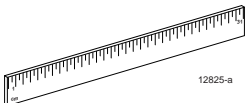
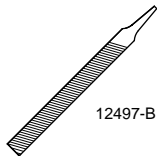
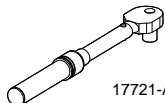
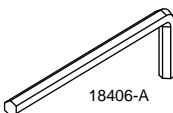
TOOL	PICTURE
Adjustable wrenches (2) 0.25 to 1 inch (8 to 25.4 mm)	 <p>12494-B</p>
Crow bar	 <p>12495-B</p>
Drill with metal and concrete drill bits	 <p>12496-B</p>
Ruler or tape measure	 <p>12825-a</p>
File	 <p>12497-B</p>
Torque wrench Note: Capable of 60 ft.-lbs. (81 Nm)	 <p>17721-A</p>
Allen wrench (5/16-inch) Note: Used for leveling frame	 <p>18406-A</p>

Table 1. Tools Required, continued

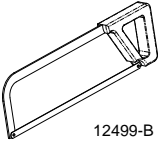
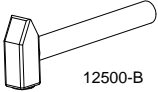
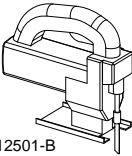
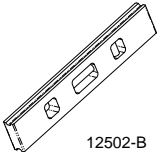
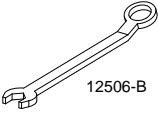
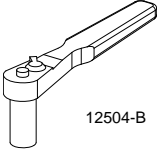
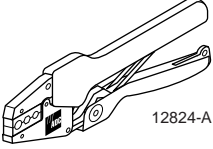
TOOL	PICTURE
Hacksaw	 <p>12499-B</p>
Hammer	 <p>12500-B</p>
Jigsaw: with blades for cutting floor tile and metal	 <p>12501-B</p>
Level	 <p>12502-B</p>
Set of combination open end/box wrenches 0.25 to 1 inch (8 to 25.4 mm)	 <p>12506-B</p>
Set of sockets 0.25 to 1 inch (8 to 25.4 mm)	 <p>12504-B</p>
Crimping tool 0.25 to 0.3 inches (6.35 to 7.62 mm) Note: Used for grounding frame	 <p>12824-A</p>

Table 1. Tools Required, continued

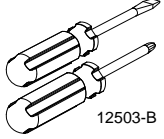
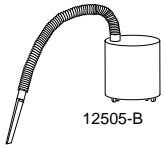
TOOL	PICTURE
Flat tip and Phillip screwdrivers (#1, #2, and #3)	 <p>12503-B</p>
Vacuum	 <p>12505-B</p>

Table 2. Ground Wire Kit Components (Accessory)



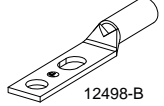
ITEM	DESCRIPTION/PICTURE
Ground cable (13 ft.)	#6 AWG (4.1 mm) solid copper wire
Nylon cable clamps (8)	 <p>18413-A</p>
12-24 x 0.5 inch screws	 <p>18414-A</p>
2-hole copper compression lug (1) with 0.75-inch hole spacing. Note: Accommodates #6 AWG wire	 <p>12498-B</p>

Table 3. Other Components Used

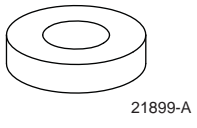
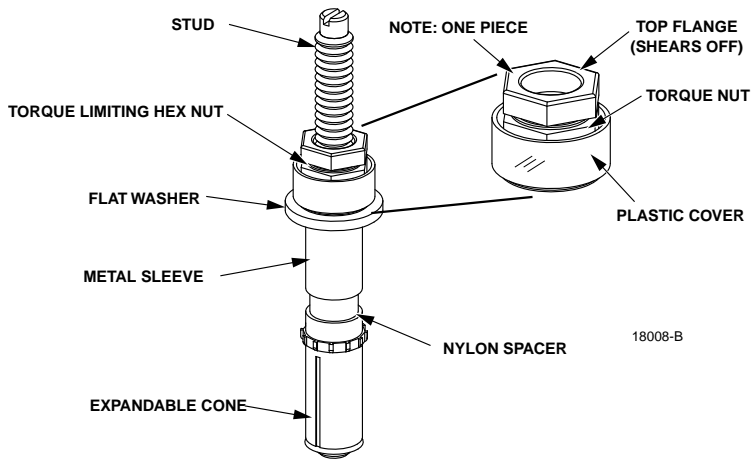
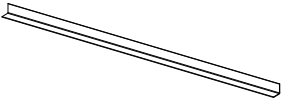

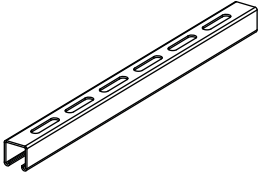

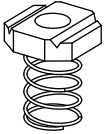


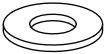

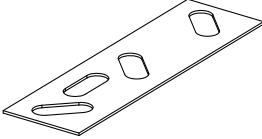
ITEM	PICTURE
Hold-down washer (4) (provided with frame)	
Concrete floor frame installation kit (four anchor bolts)	
Zone 2/Zone 4 Raised Floor Mounting Kit	Refer to Table 4
Raised Floor Cable Clamp Bracket Kit (separately ordered)	This kit is required if cables will be routed into the frame from under the floor. For more information, refer to Section 5 on Page 35
Large Cable Clamp Kit (separately ordered)	This kit is required, in addition to the Raised Floor Cable Clamp Bracket Kit if large cables will be routed into the frame from under the floor. Large cables are defined as having an Outside Diameter (OD) of 0.8 in. (2.03 cm) up to 1.03 in. (2.61 cm). For more information, refer to Section 5 on Page 35

Table 4. Raised Floor Mounting Kit Components

ITEM	PICTURE	ITEM	PICTURE
Edge protector (1) 72 in.		Threaded rod (4) 5/8"-11 x 30" long	
Unistrut 10 ft. long		Plastic shoulder washer (4) (Note: Not used)	
Unistrut nut with spring (4)		Wood screw (16)	
Hex nut heavy (12) 5/8" x 11		Flat washer (12) 5/8"	
Split lock washer (12) 5/8"		Hold down plate (2) Note: Not used	

2 FOOTPRINT OF FRAME AND FIBER OPTIC STORAGE PANEL (FOTSP)

Figure 1 shows the frame footprint. Figure 2 shows the FOTSP footprint. The FOTSP is installed adjacent to the frame on the left side of the frame looking from the front.

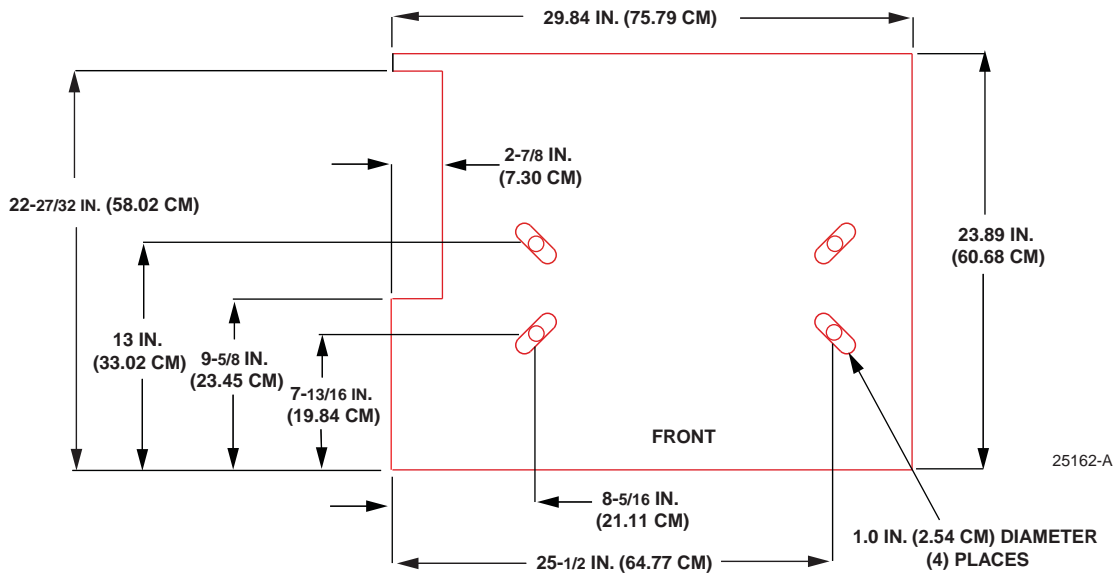


Figure 1. Frame Footprint (Optional Template Shown)

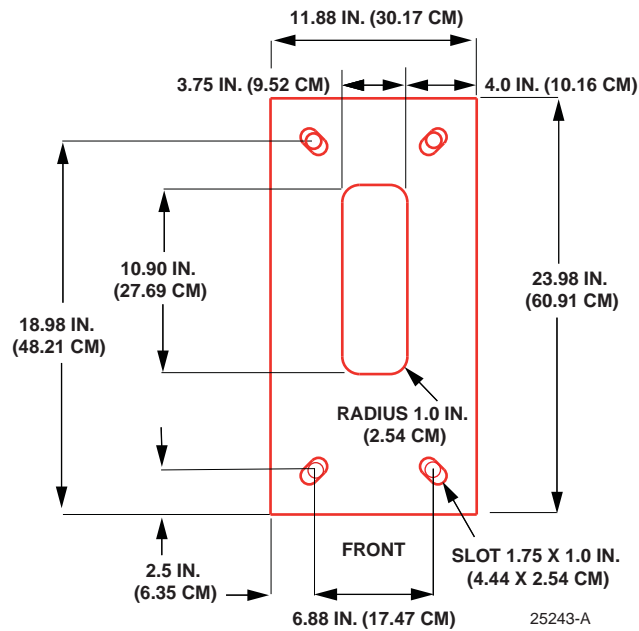


Figure 2. FOTSP Footprint

3 MOUNTING THE FRAME ON A RAISED FLOOR

To mount the frame on a raised floor, use the following procedure.

1. Unpack the frame.
 2. Set out the frame and optional template/isolation pad as shown in [Figure 3](#).
- **Note:** Storage spools may loosen during shipment. Check storage spools for looseness. Tighten spool cover screws if spools are loose.

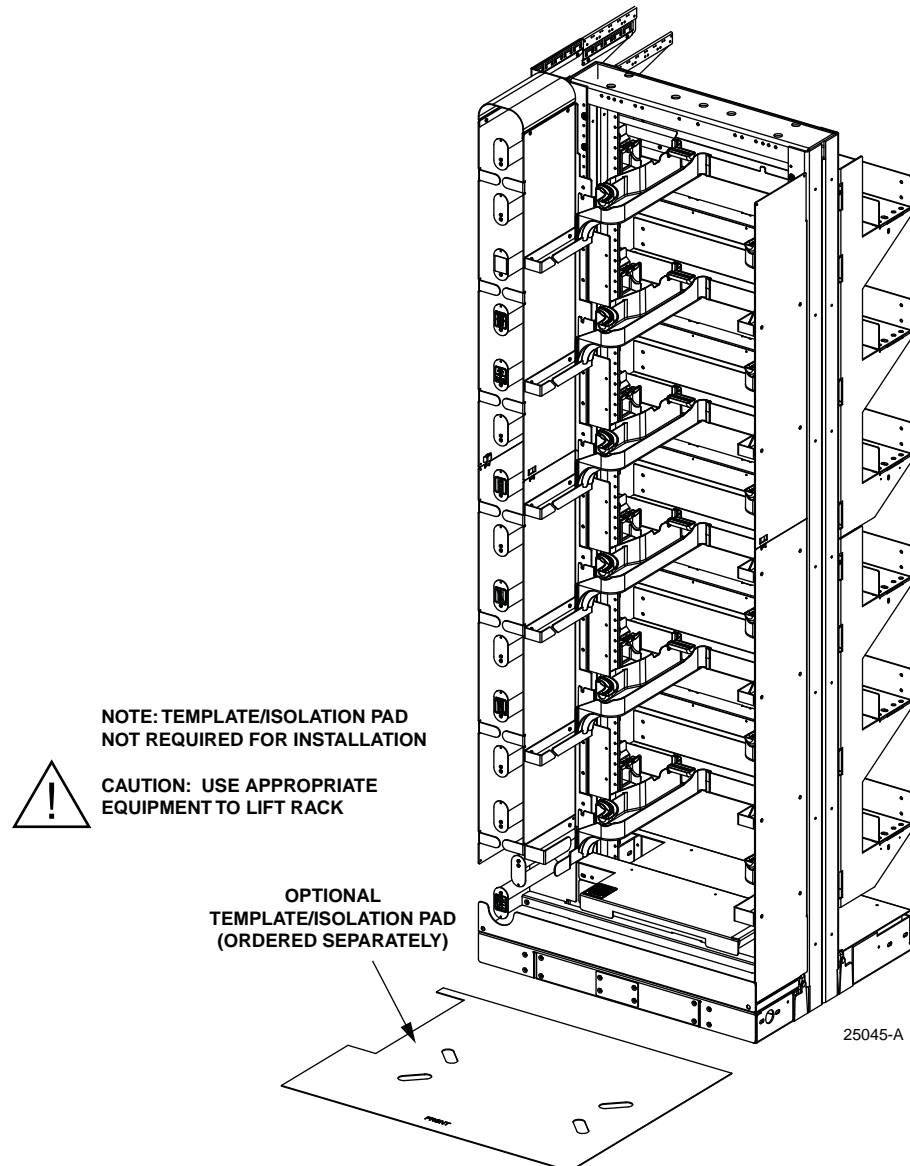


Figure 3. Setting Out Frame and Optional Template/Isolation Pad

3. Determine the frame location taking note of the clearance requirements shown in [Figure 4](#). Place the optional template/isolation pad on the floor tiles and mark the tile as shown. If installing without a template, refer to [Section 2 on Page 6](#) for installation dimensions.

► **Note:** If optional FOTSP is present, see [Figure 5](#).

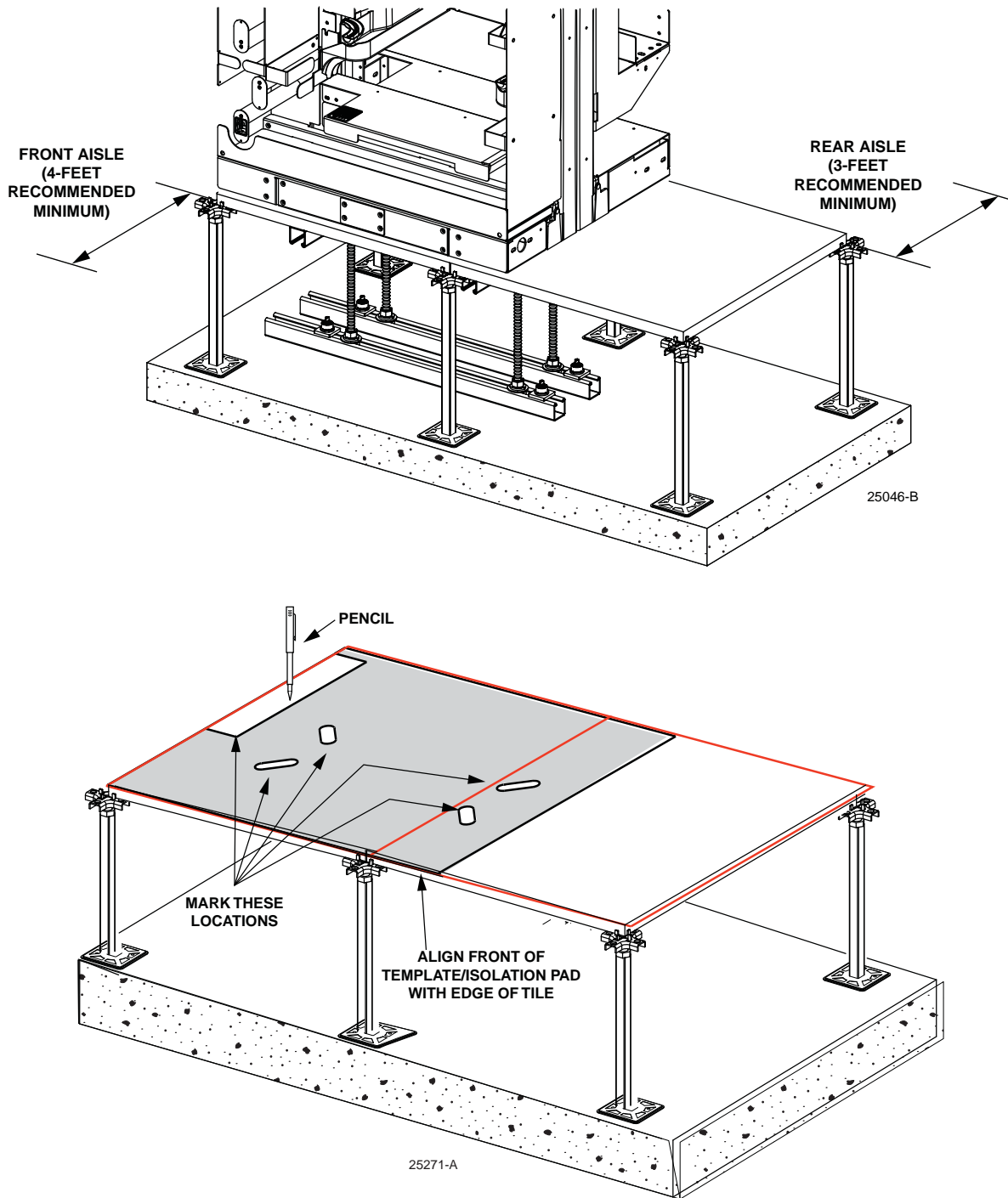


Figure 4. Determining Frame Location

4. If FOTSP will be installed, also mark out and cut out a hole for the FOTSP to the left of the frame template. [Figure 5](#) shows an example.

► **Note:** The optional FOTSP is only shown in this illustration in the frame installation procedure. For the separate FOTSP installation procedure, refer to [Section 4 on Page 30](#).

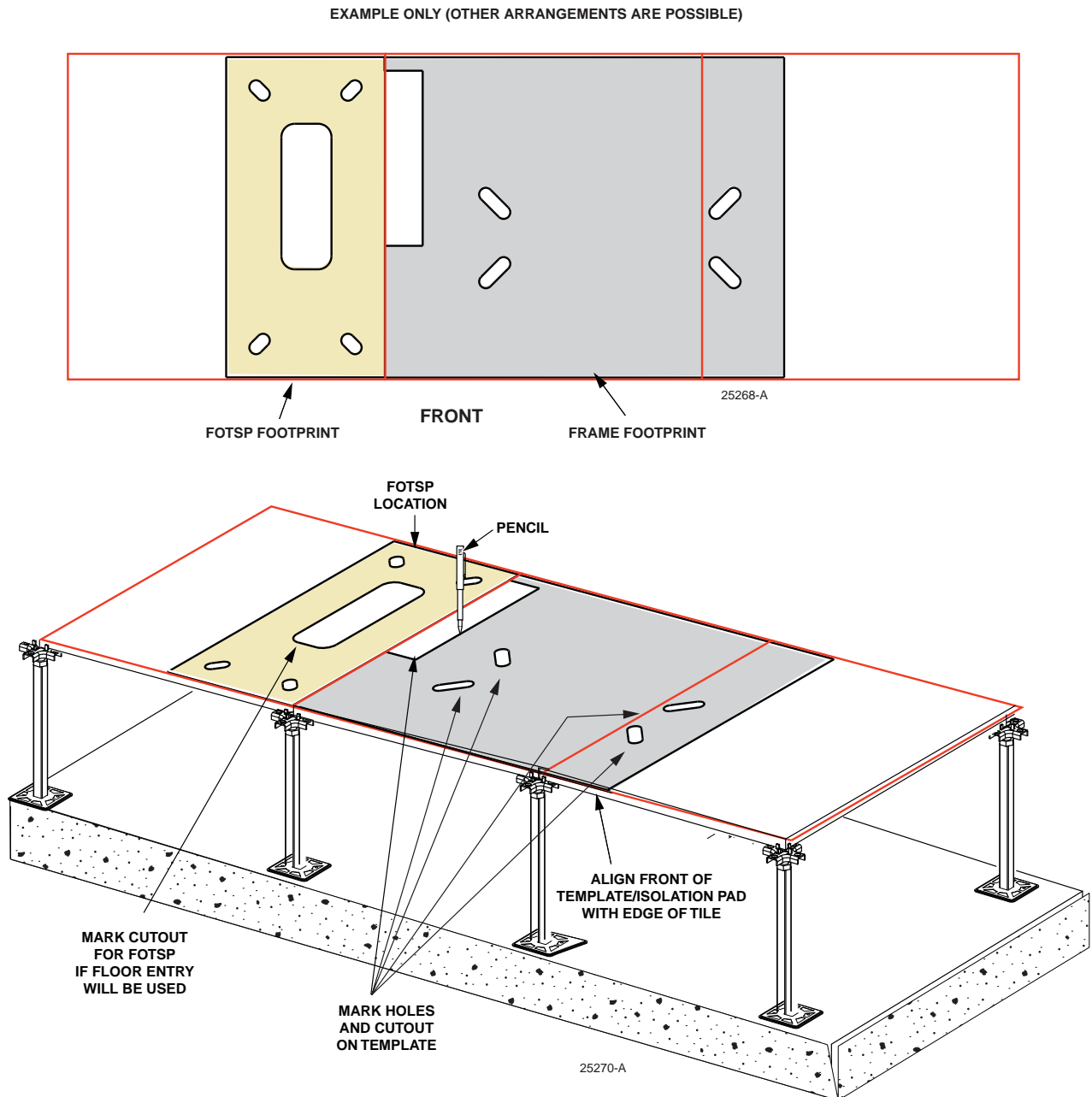


Figure 5. FOTSP and Frame Footprints on Floor Tiles

5. Remove and cut the tiles, file all edges, and set the floor tiles on the pedestals, as shown in Figure 6.

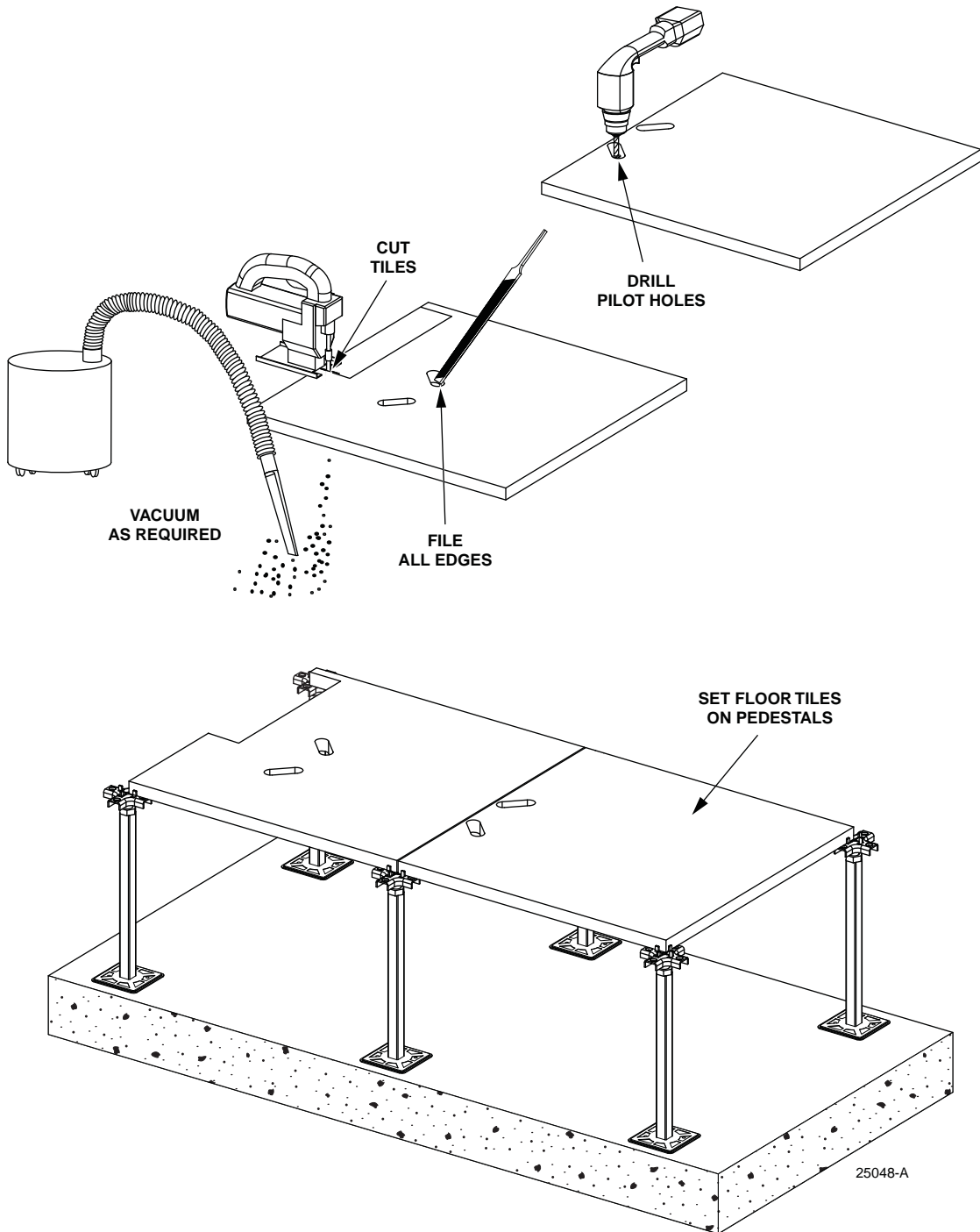


Figure 6. Setting Floor Tiles on Pedestal

6. Cut threaded rod to floor height +1-5/8in. (+/- 3/8 in.) (four places). Refer to [Figure 7](#).

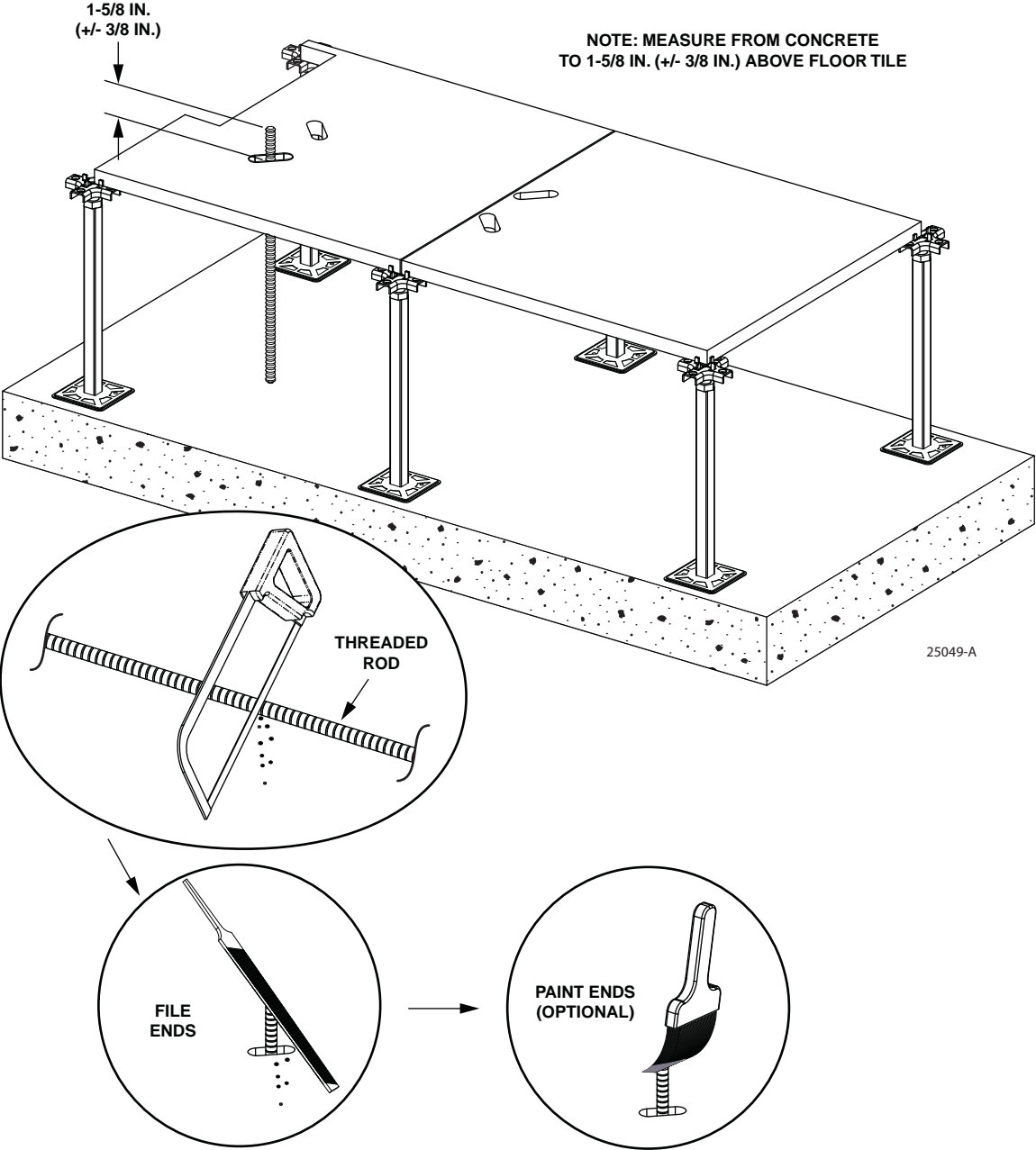


Figure 7. Cutting Threaded Rod

7. Cut the unistrut to the required length, as shown in [Figure 8](#).

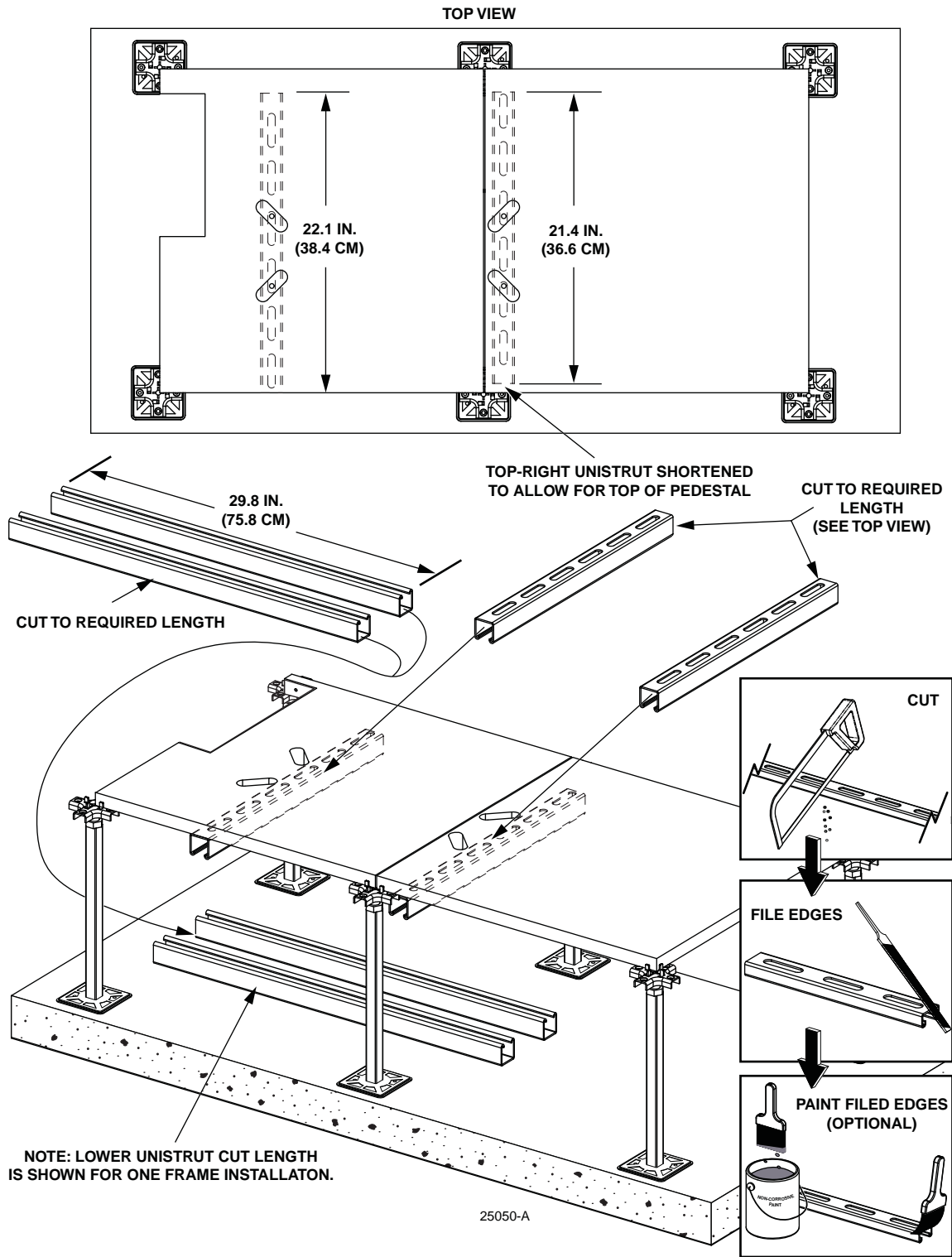


Figure 8. Cutting Unistrut

- 8. Assemble the washer and hex nut onto the threaded rod and insert the threaded rod in the floor tile. Plumb the threaded rods from front to back and mark concrete. Repeat these steps using the same threaded rod for the three remaining slots. Refer to [Figure 9](#).

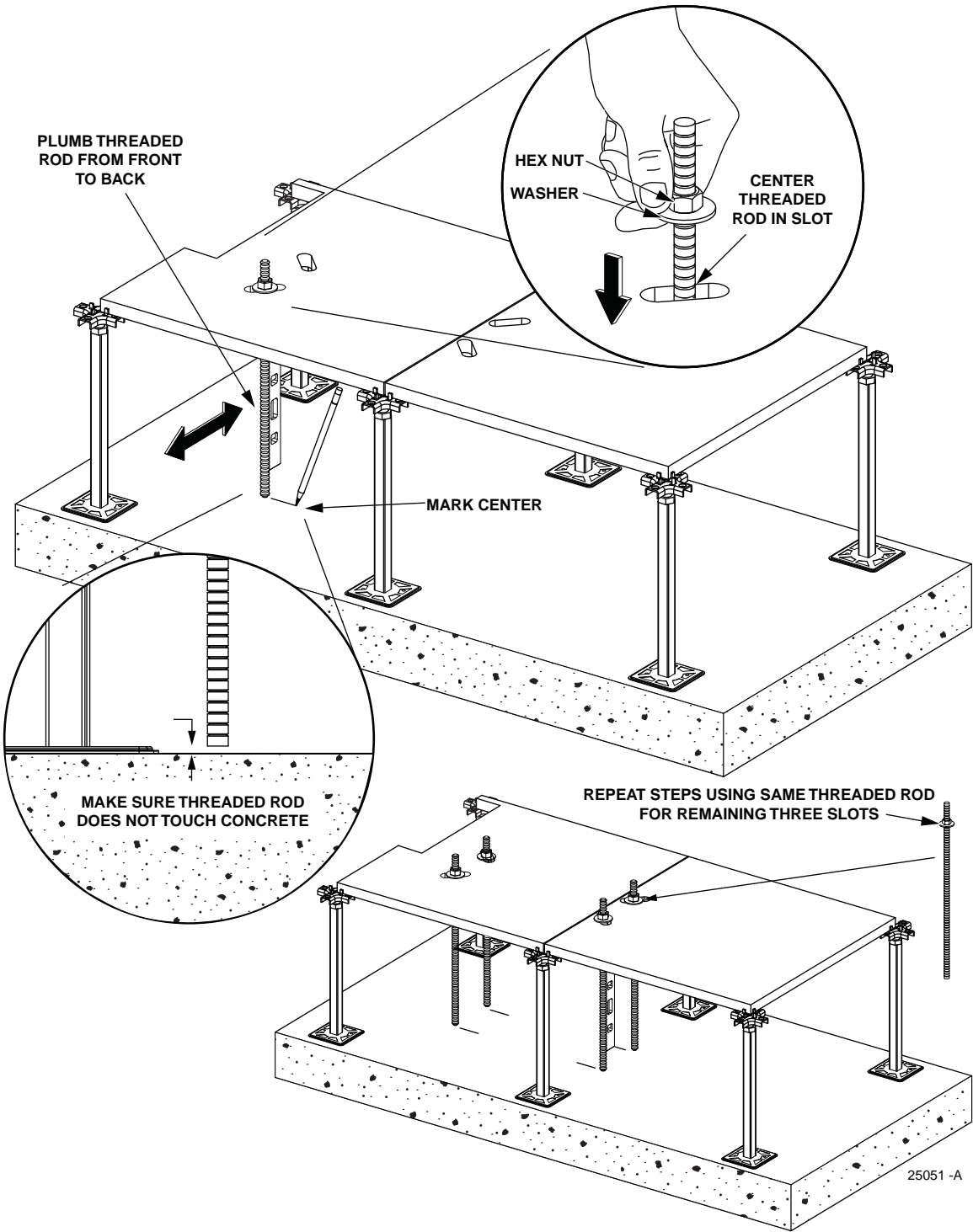


Figure 9. Marking Concrete With Threaded Rod

9. Remove the threaded rod assembly and set the floor tiles aside. Use a ruler or straight edge to draw lines on the concrete. Refer to [Figure 10](#).

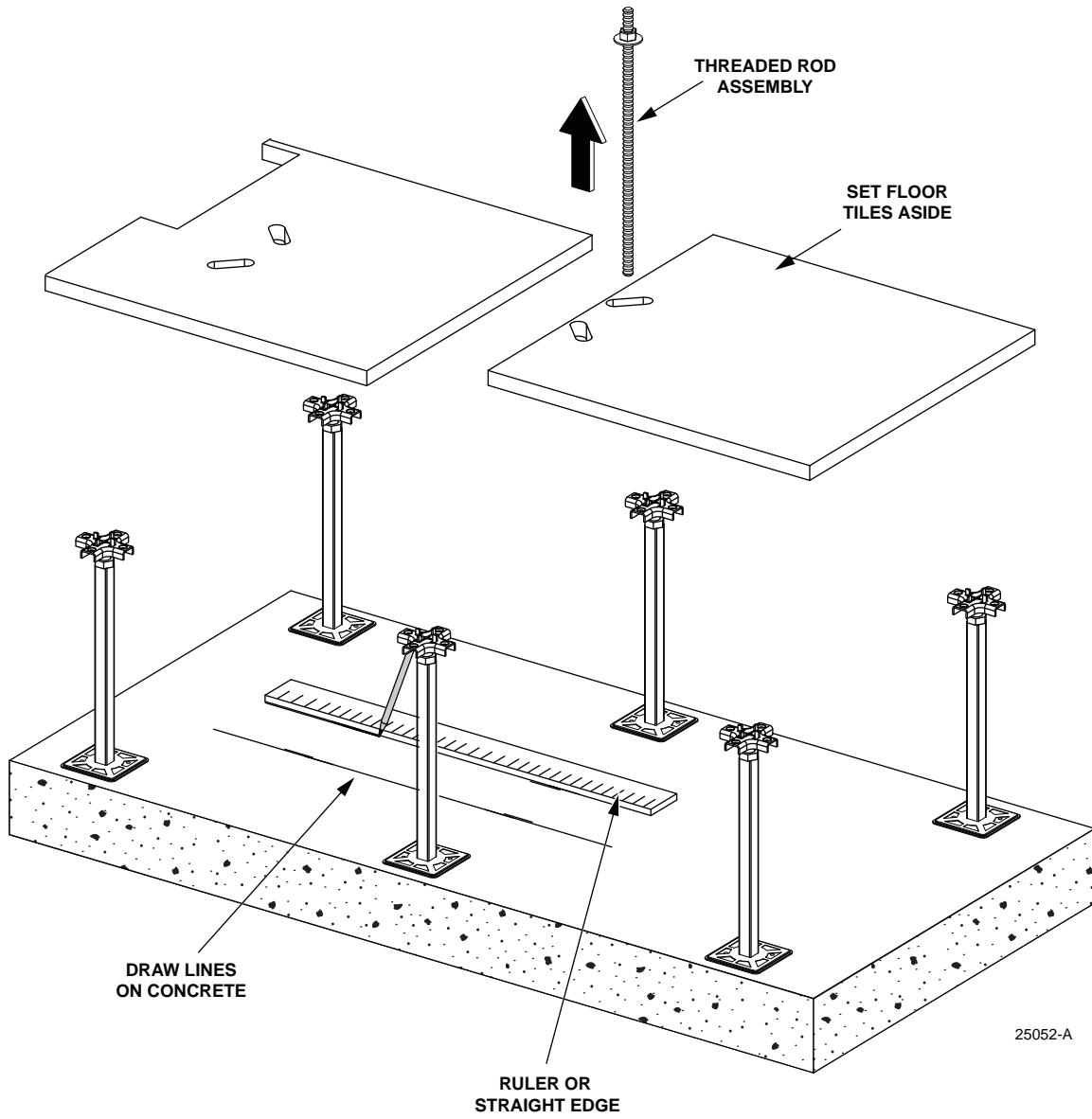
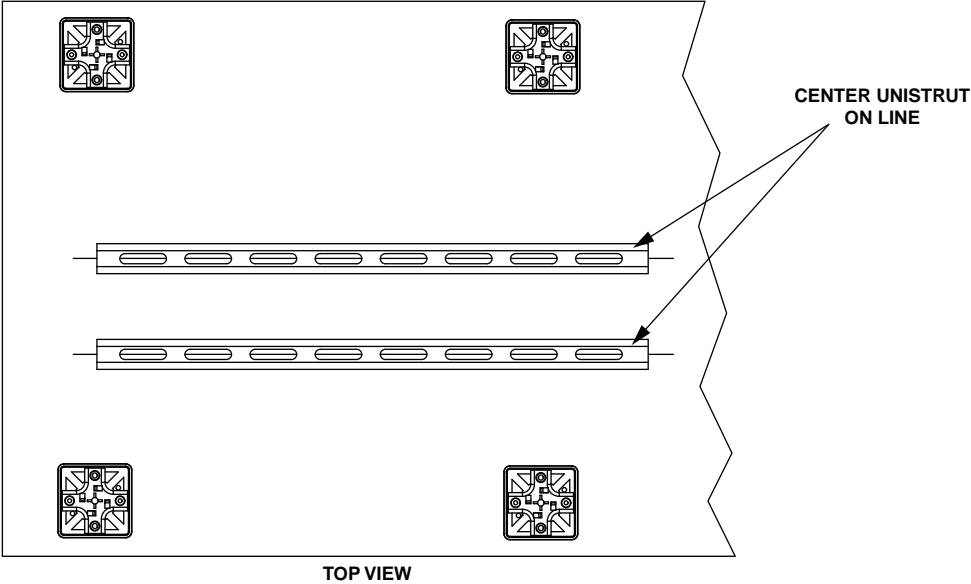


Figure 10. Marking Concrete

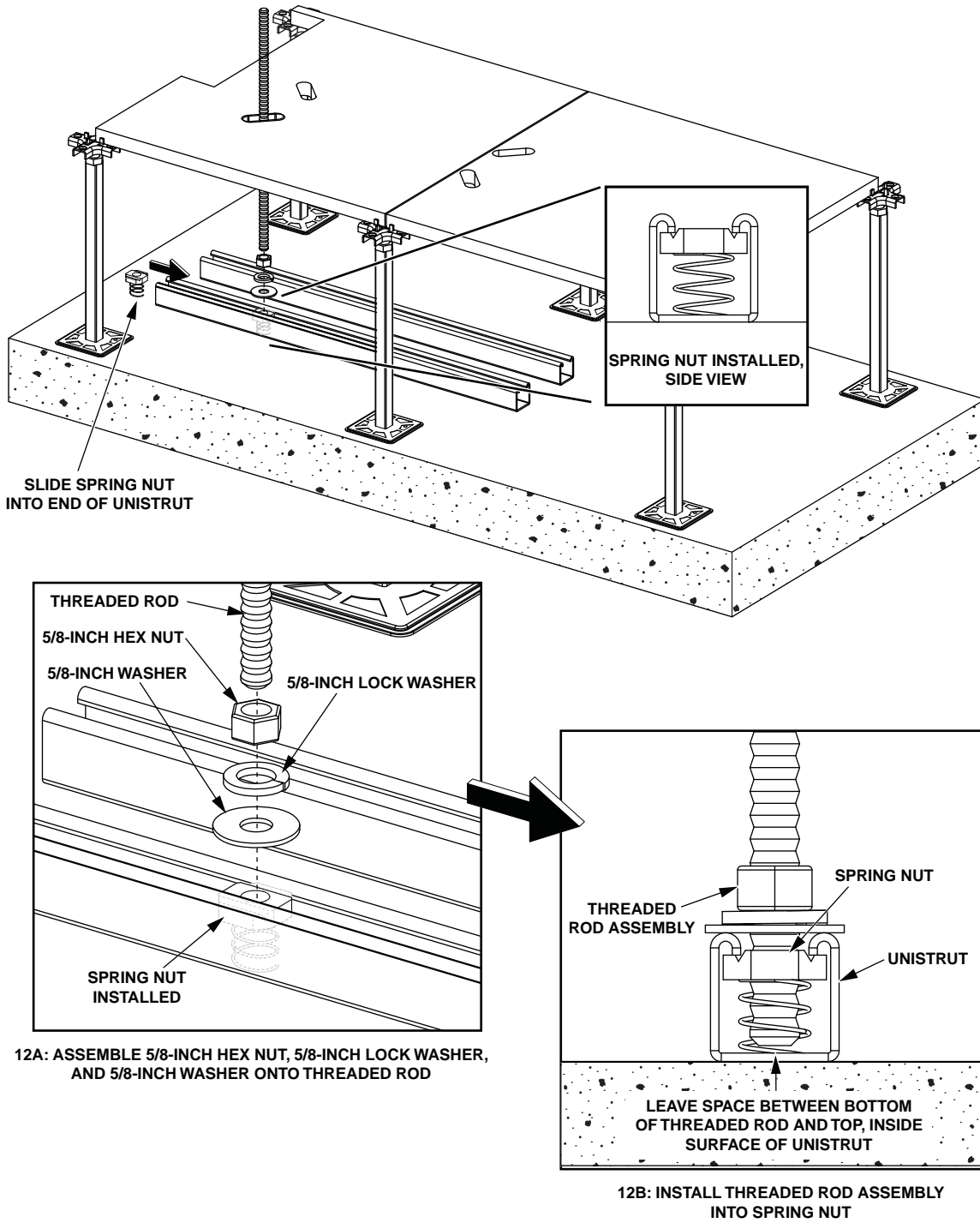
10. Center unistruts over lines on concrete. Refer to [Figure 11](#).



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Figure 11. Centering Unistruts on Lines

11. Set the floor tiles on the pedestals. Install a spring nut in each unistrut. Assemble the 5/8-inch hex nut, 5/8-inch lock washer, and 5/8-inch washer onto the threaded rod (12A). Install the threaded rod assembly (12B) into the spring nut. Refer to [Figure 12](#).



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Figure 12. Setting Floor Tiles on Pedestals

12. Plumb the threaded rod assembly and mark anchor plate location on concrete. Install three remaining threaded rod assemblies in the same manner. See [Figure 13](#).

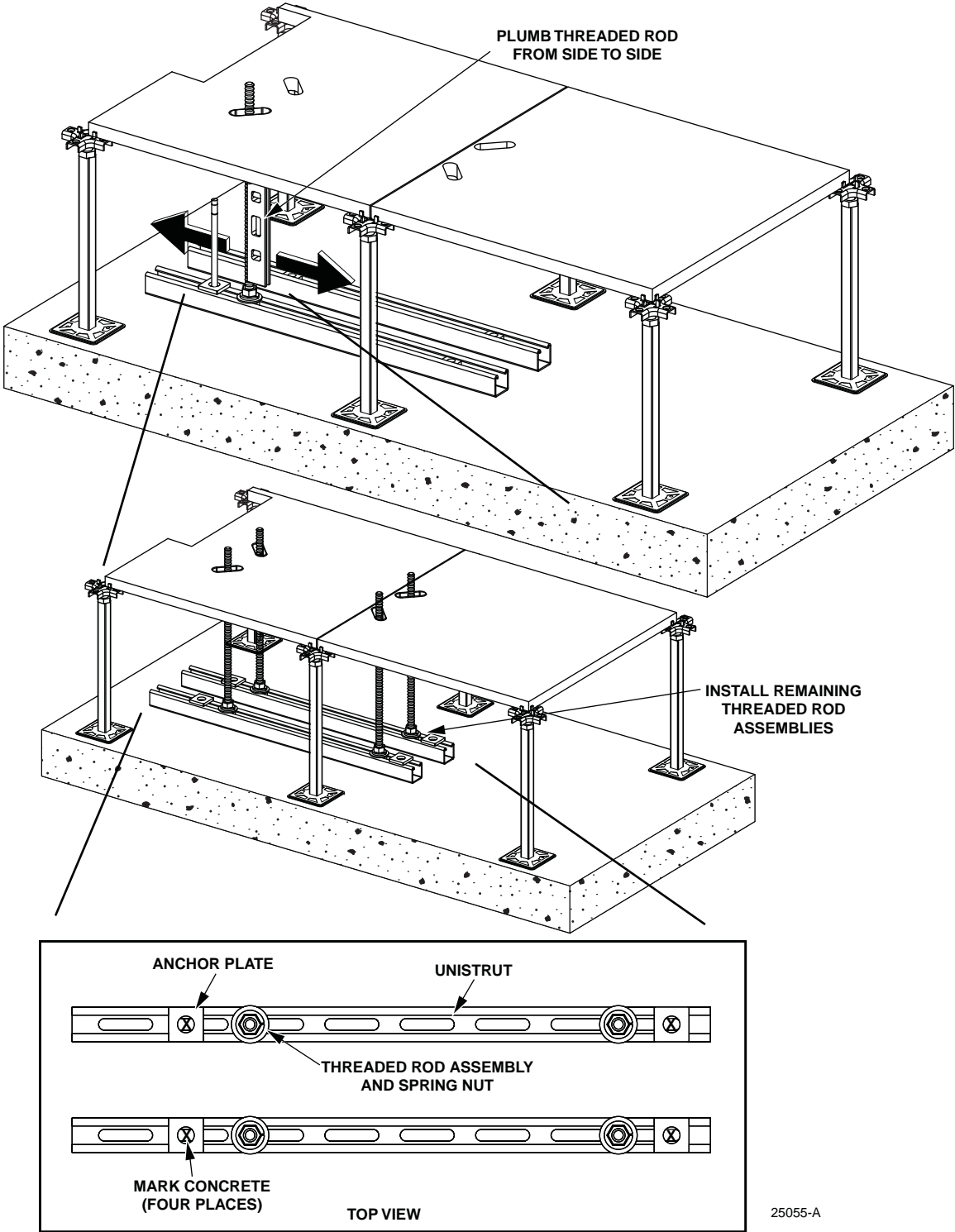


Figure 13. Installing Threaded Rod Assemblies

13. Set the floor tiles and unistrut assemblies aside and drill holes at the anchor bolt locations. Refer to [Figure 14](#).

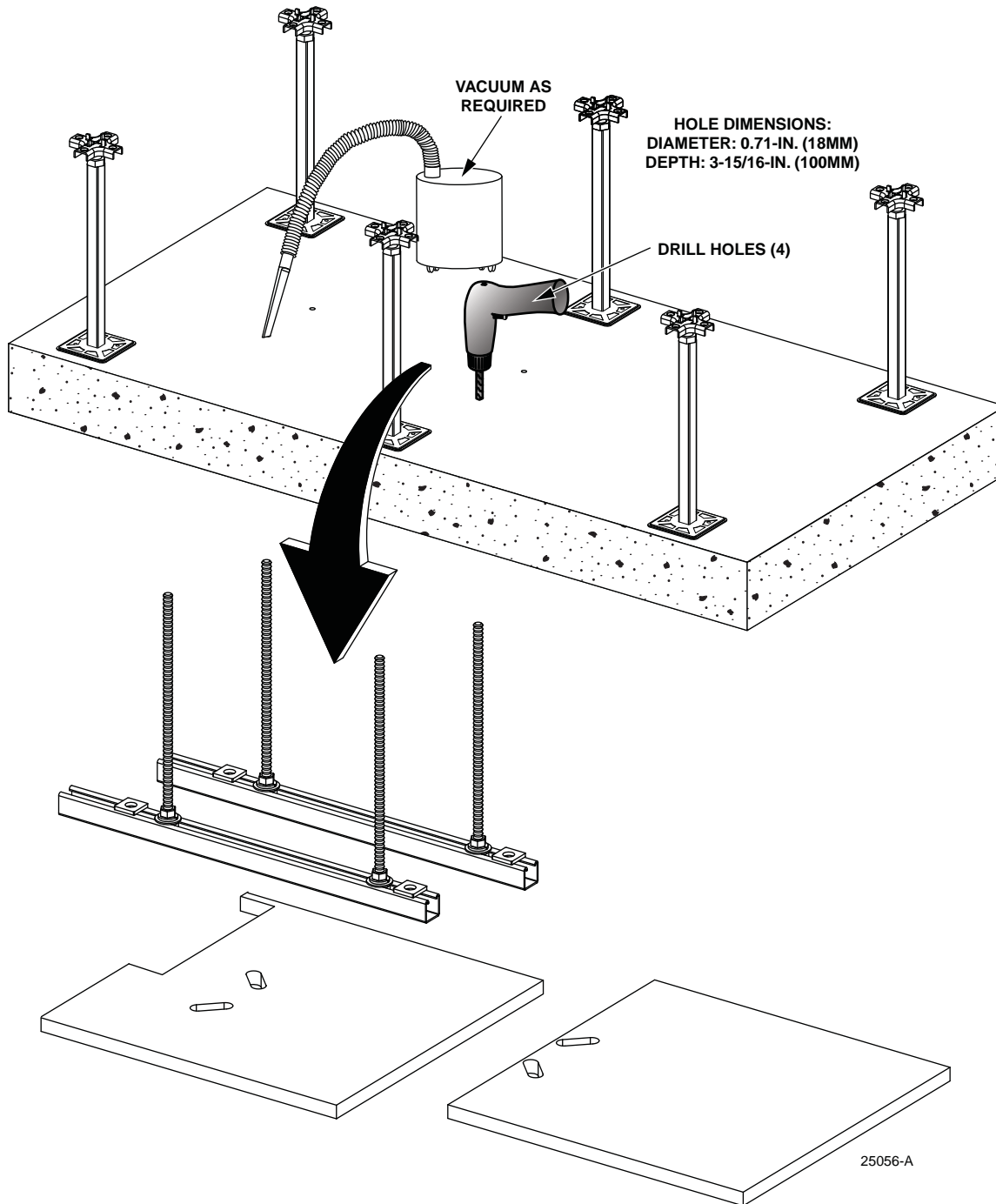


Figure 14. Drilling Holes

14. Thread the washer and torque nut onto the threaded rod of the anchor bolt. The washer should touch the top of the anchor sleeve. Insert the anchor bolt assembly into the hole just drilled. Using a hammer, tap the anchor bolt assembly into the hole until the washer touches the concrete. Refer to [Figure 15](#).

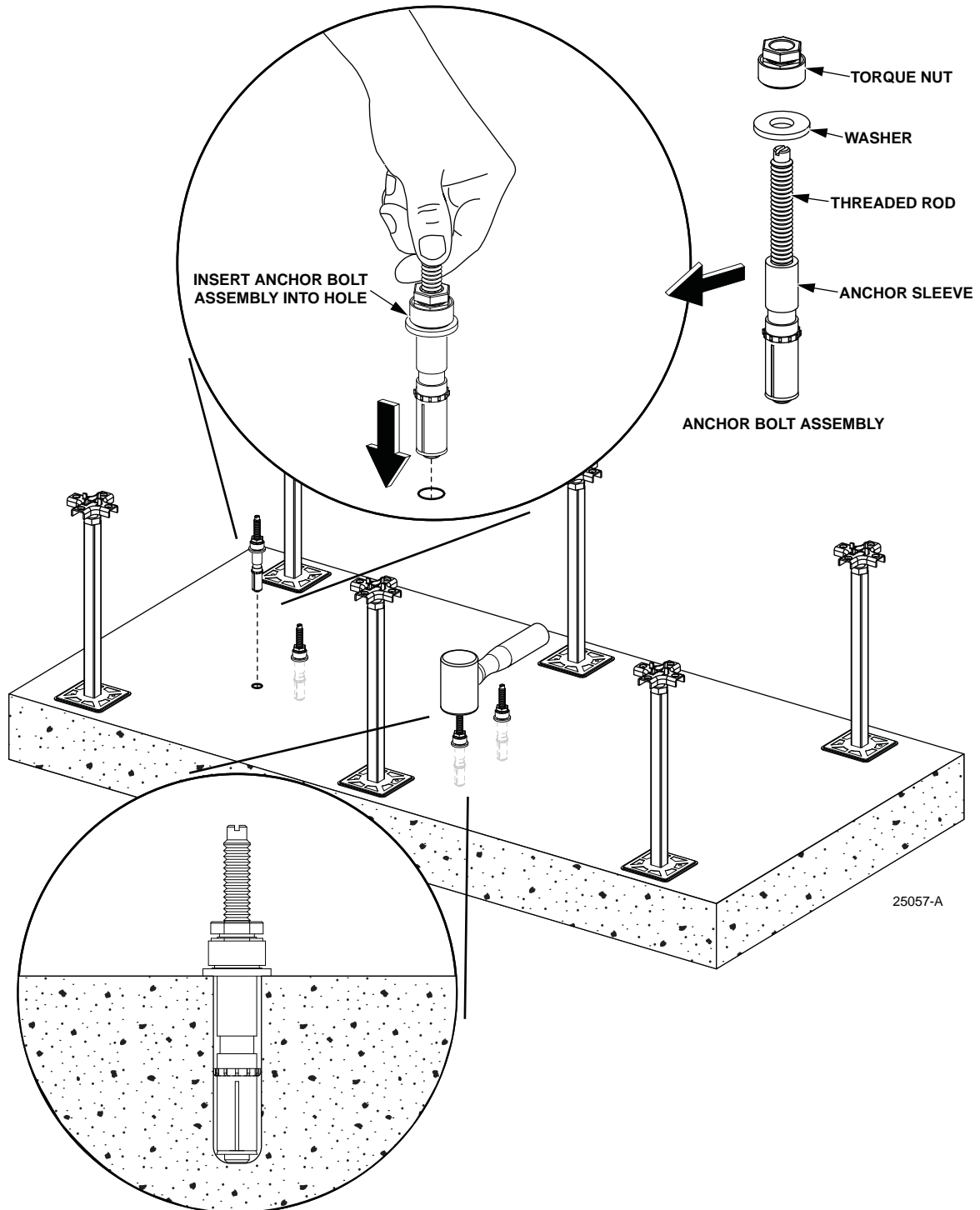


Figure 15. Setting Anchor Bolts

15. Pre-torque the anchor bolts approximately 30 ft-lbs (41 Newton meters) (16A). Loosen the torque nut several turns (16B). Then remove the torque nut and washer (16C). Refer to [Figure 16](#).

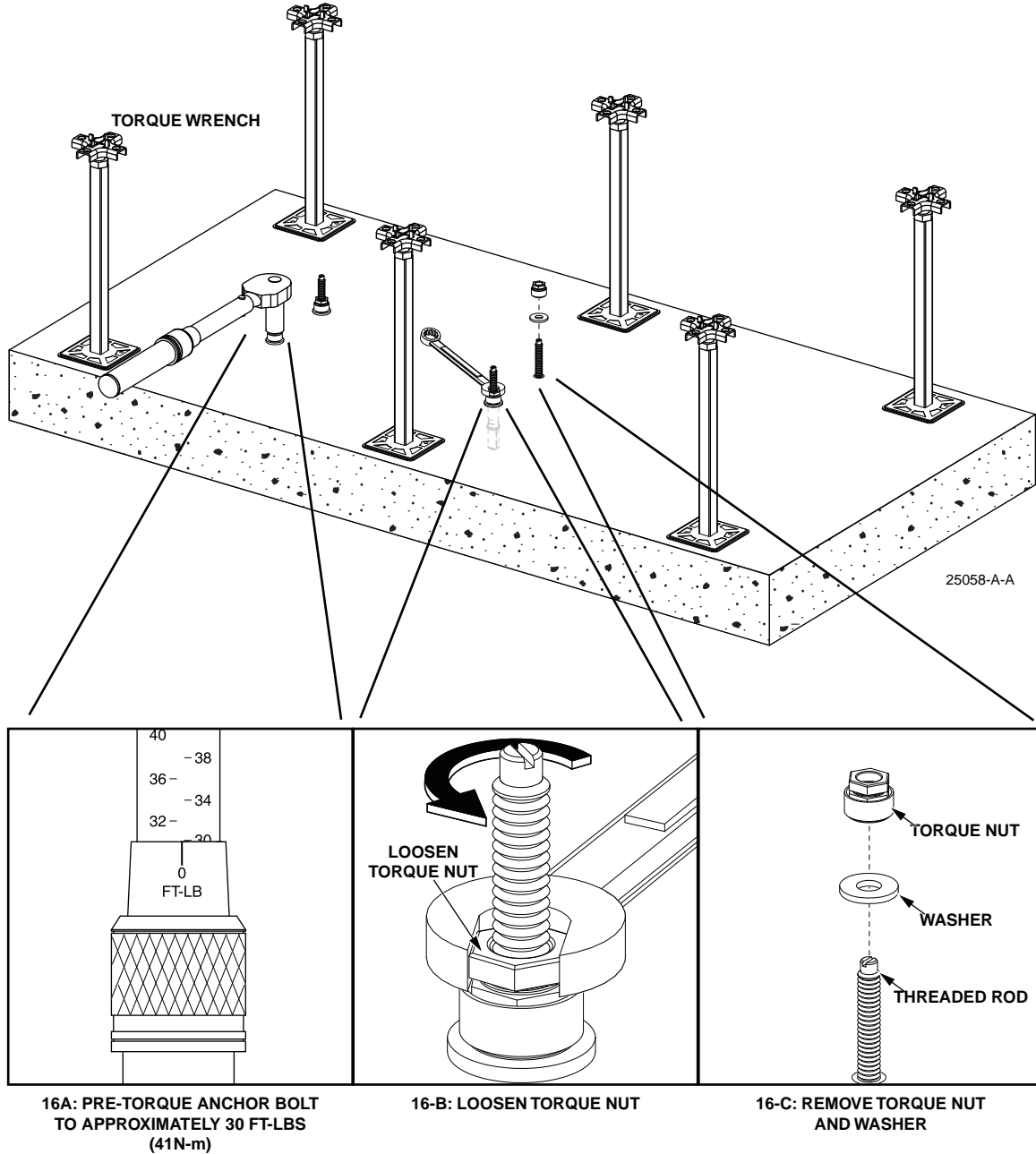


Figure 16. Pre-torquing Anchor Bolts

- 16. Position the unistrut assemblies over the anchor bolt threaded rods. Assemble the anchor plate, flat washer, and torque nut onto the threaded rod (17A). Tighten torque nut until top flange shears off (four places) (17B). The torque nut will be correctly set at 60 ft-lbs (81 Newton meters) (17C). Refer to Figure 17.

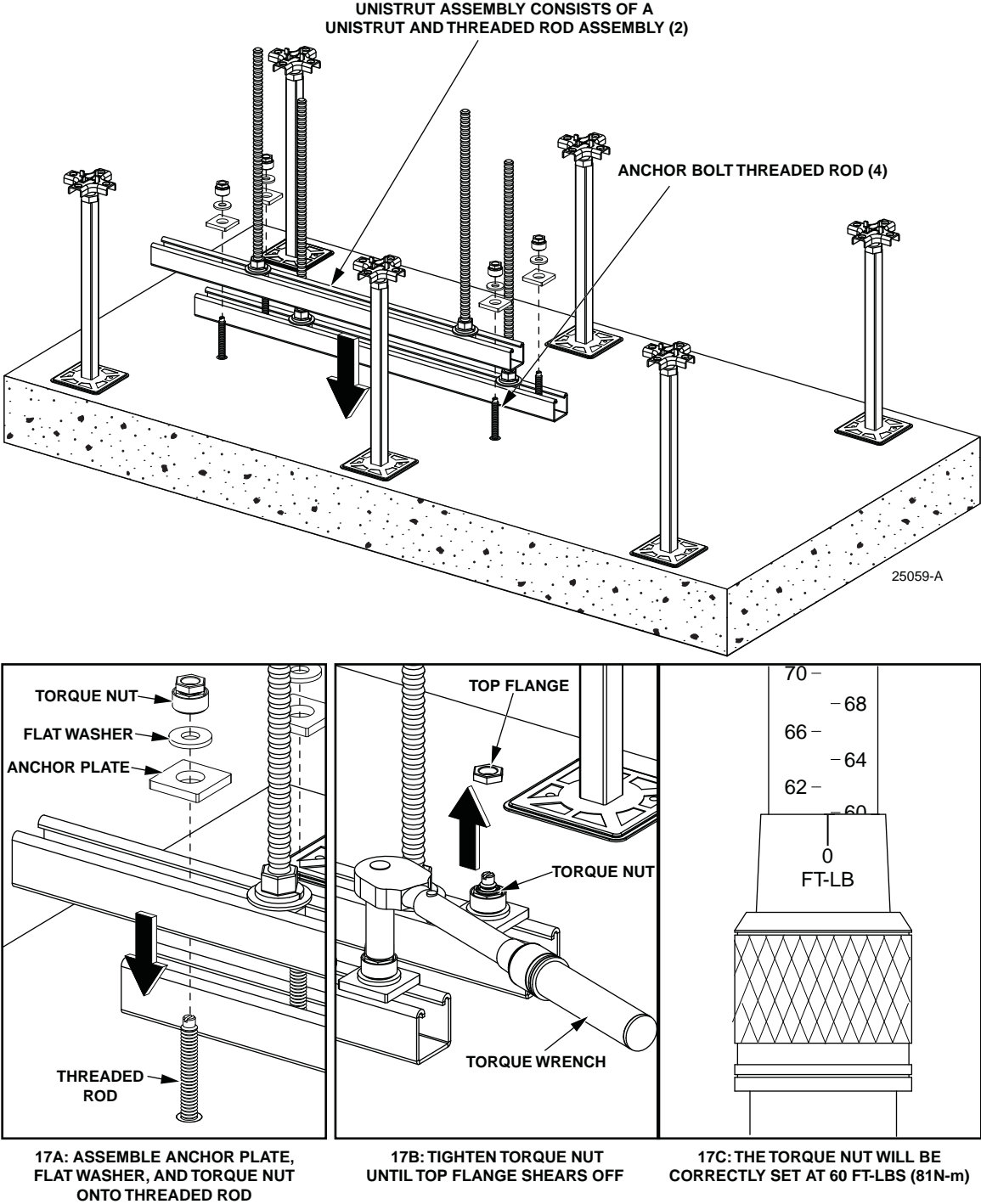


Figure 17. Positioning Unistrut Assemblies

17. Assemble hex nuts, split lock washers, flat washers, unistruts, and floor tiles onto threaded rods. Refer to [Figure 18](#).

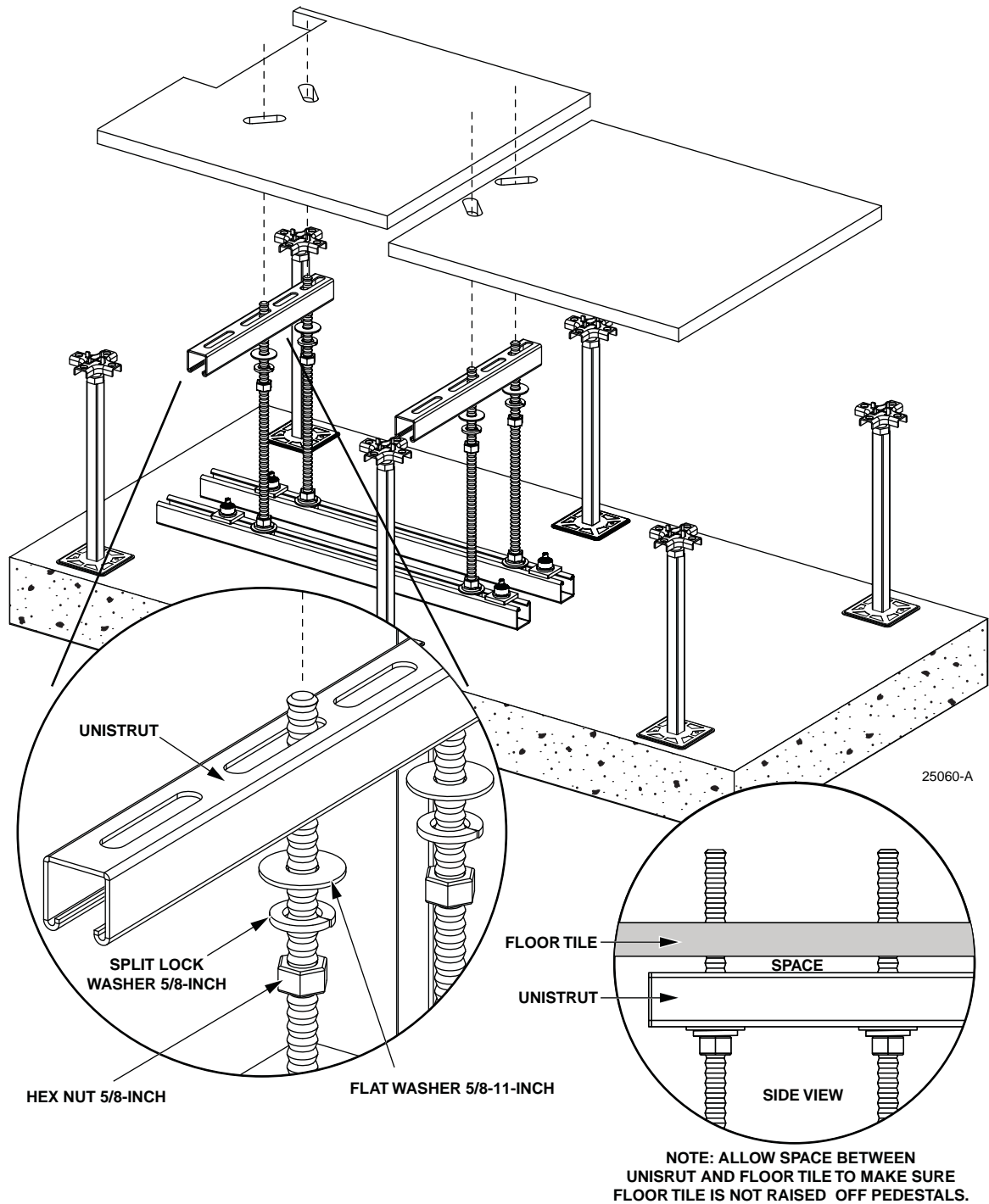


Figure 18. Placing Floor Tiles on Threaded Rods

18. Cut out edge protectors to the required length for the slots in the floor tile. Secure the edge protectors to the floor tiles using self-drilling screws (provided). Refer to [Figure 19](#).

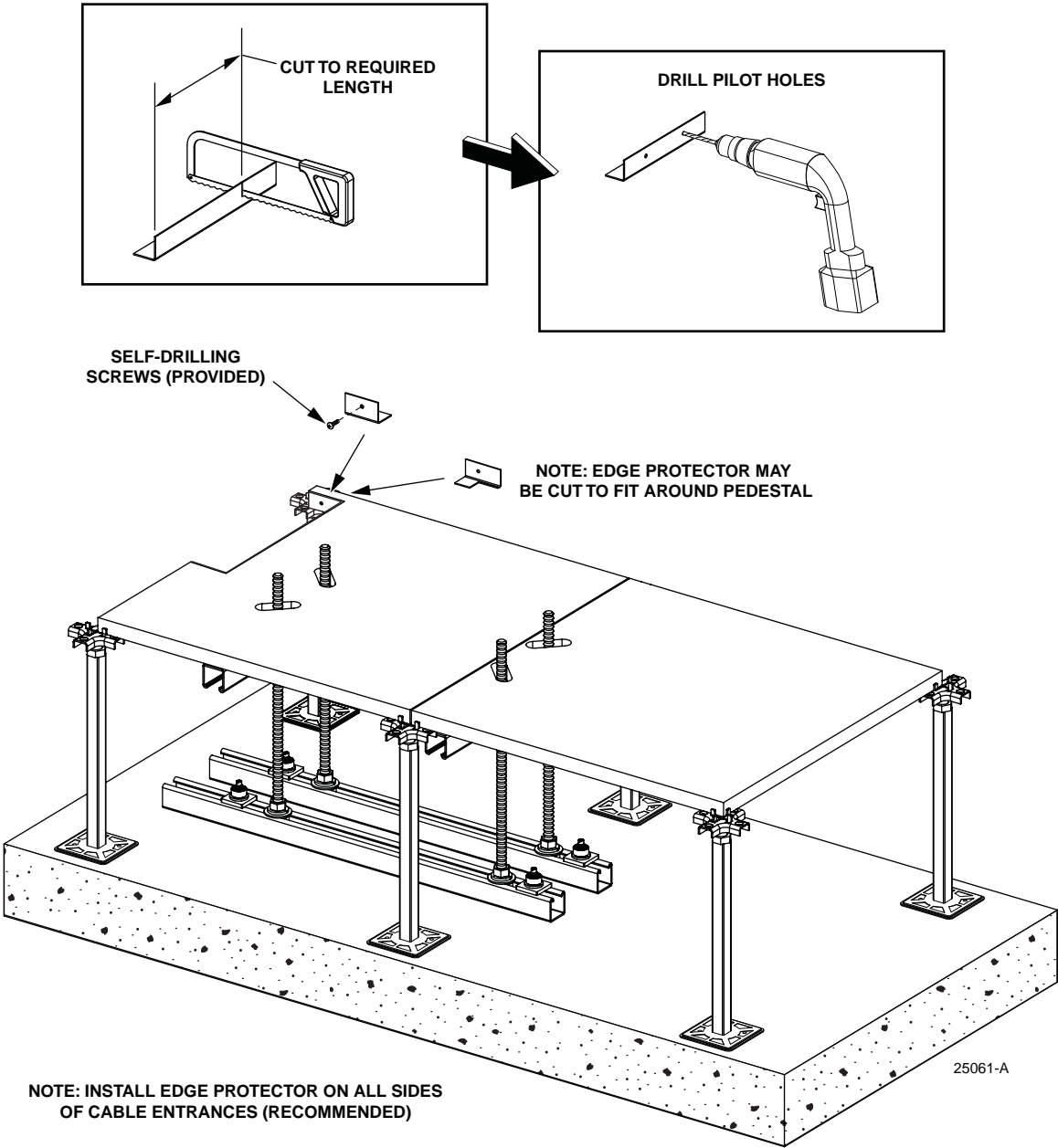


Figure 19. Installing Edge Protectors

19. Plumb threaded rod assemblies (4) and tighten hex nuts (4). Refer to [Figure 20](#).

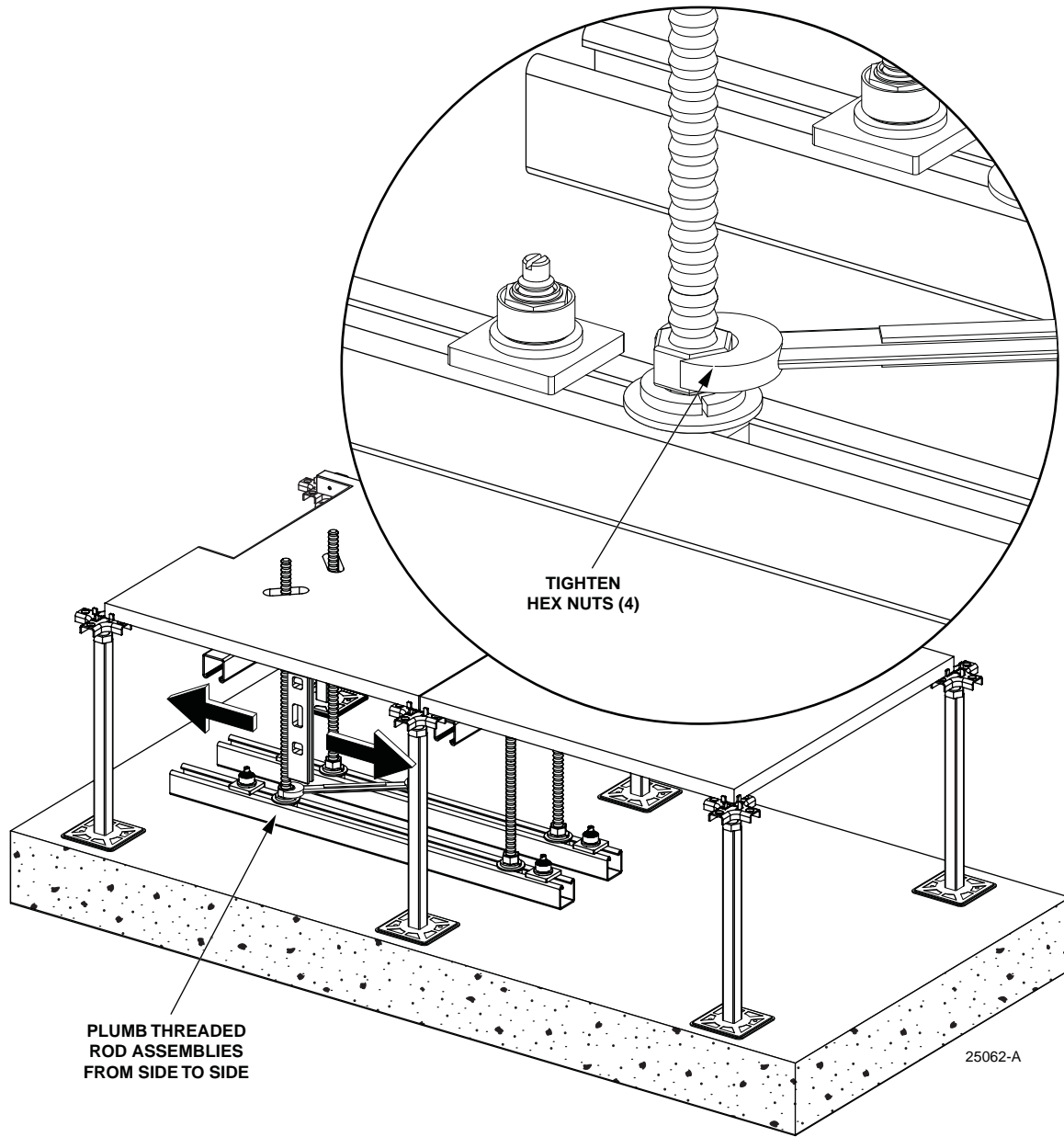


Figure 20. Plumbing Threaded Rods

20. Hand tighten the hex nuts to raise unistruts to floor tile. Refer to [Figure 21](#).

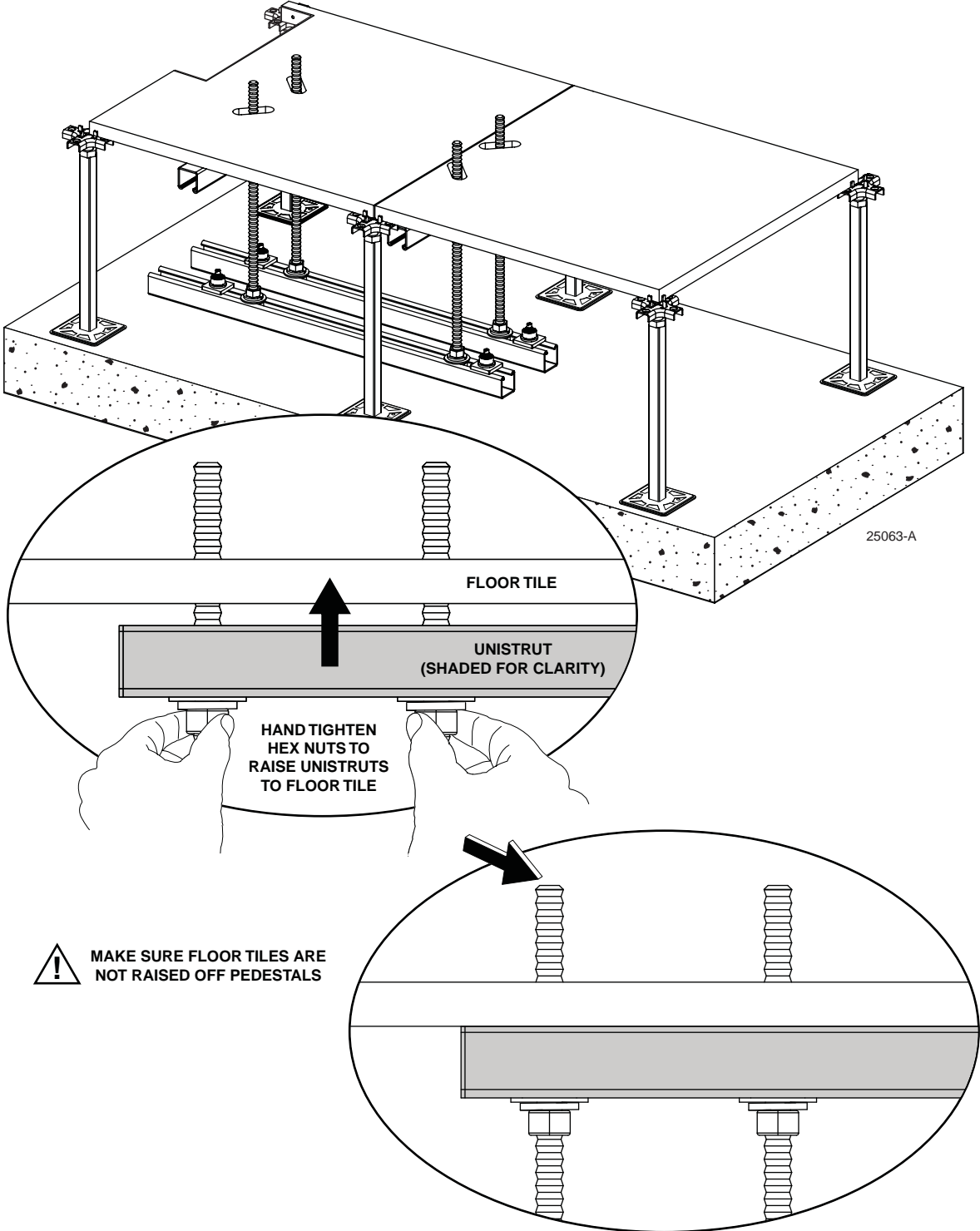


Figure 21. Raising Unistruts to Floor Tile

21. Remove the frame front and rear troughs to access mounting slots. Refer to [Figure 22](#). (*Caution: Do not attempt to lift or move the frame without appropriate equipment.*)

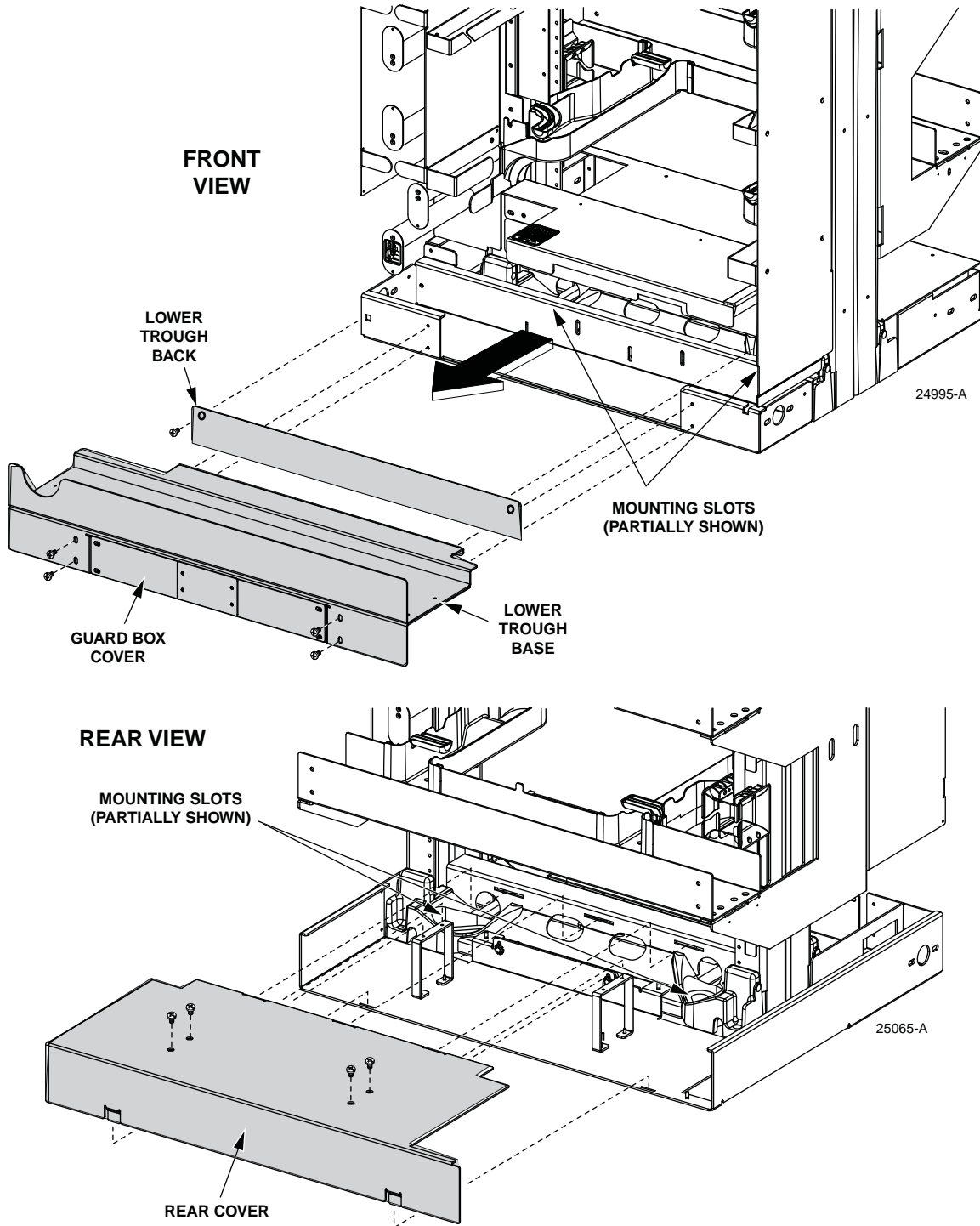


Figure 22. Removing Troughs

22. Position the frame on the optional template/isolation pad and floor tile. Install hardware (four places). Do not fully tighten (23A). Use 5/16-inch allen wrench and adjust set screws (4) to level rack. Refer to [Figure 23](#).

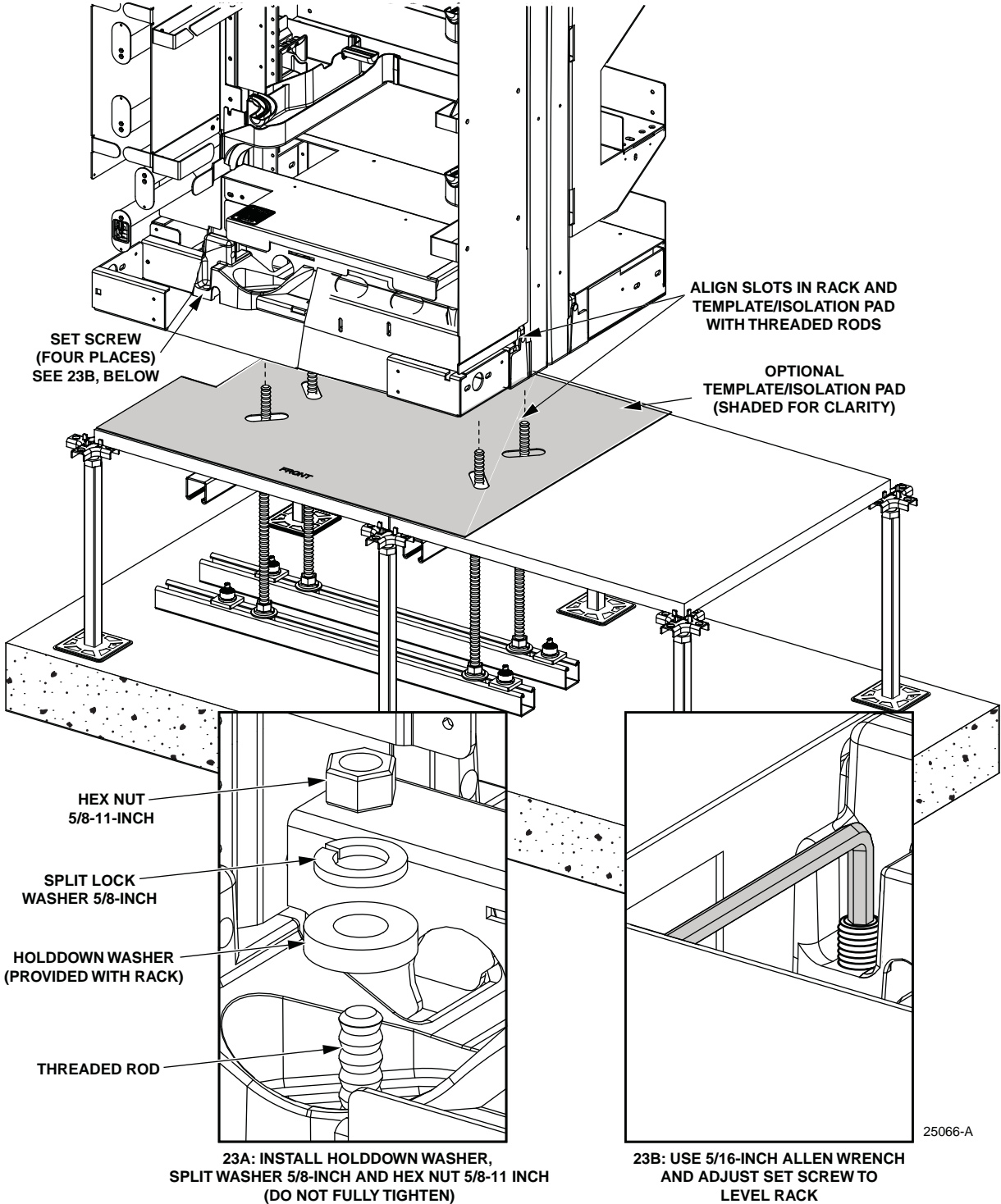


Figure 23. Positioning Frame on Optional Template/Isolation Pad and Floor Tile

23. Use wrench to tighten hex nuts under floor tile. Do not fully tighten. Refer to [Figure 24](#).

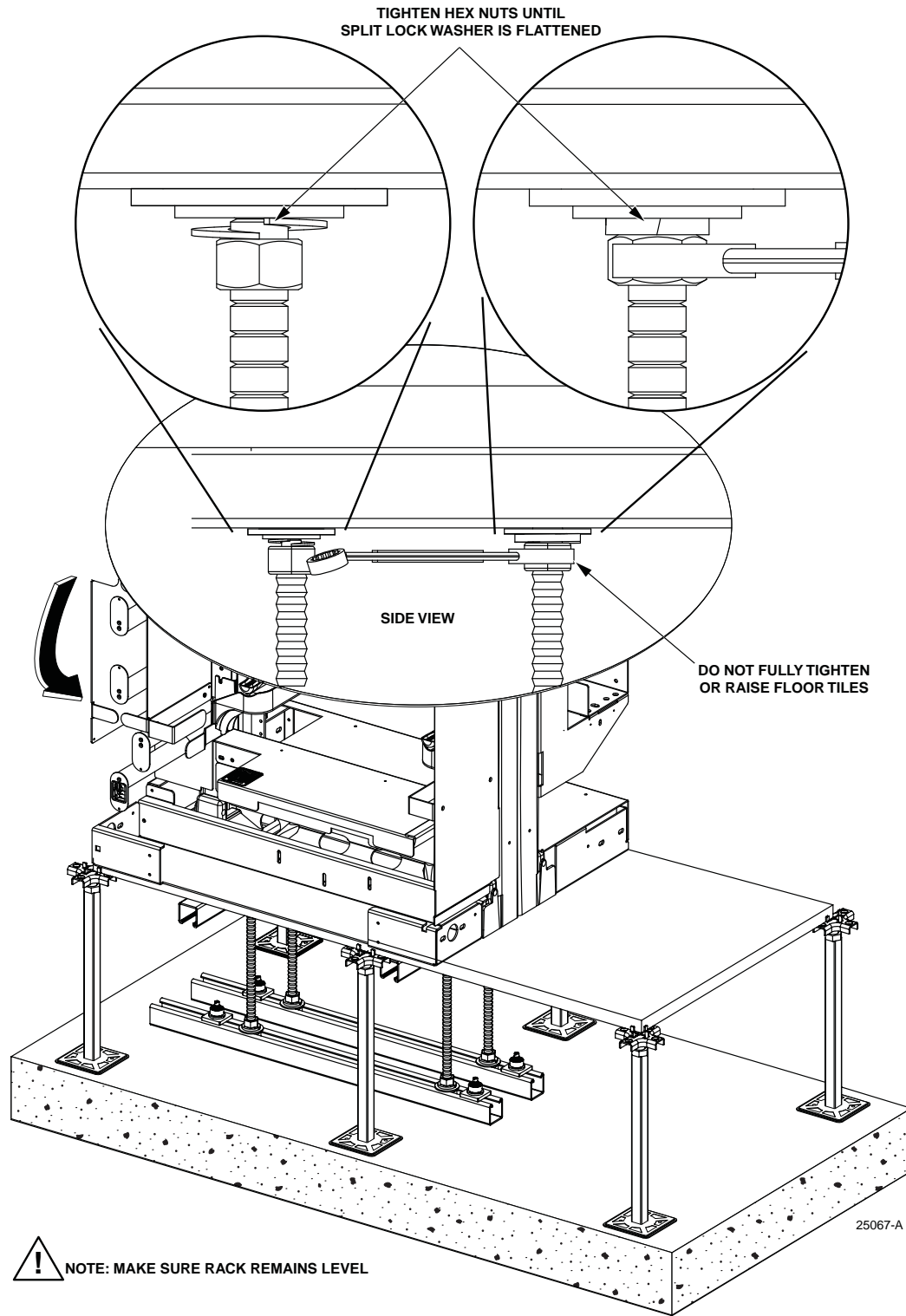


Figure 24. Tightening Hex Nuts 1

24. Use wrench (5/8-inch) to tighten hex nuts above floor tile (four places). Then fully tighten hex nuts under floor tile. Refer to [Figure 25](#).

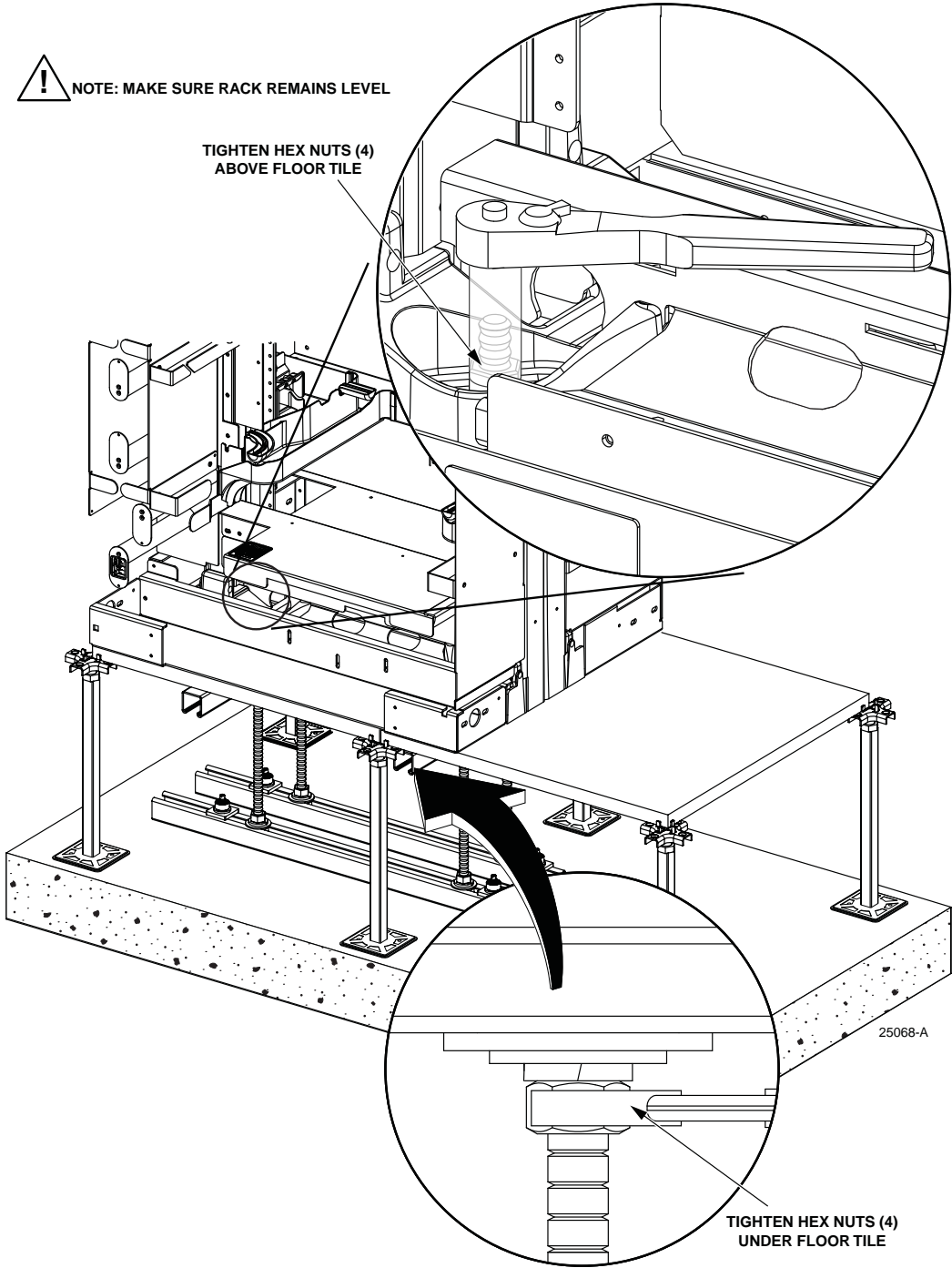


Figure 25. Tightening Hex Nuts 2

25. If cables will be routed into the frame from under the floor:

- a. Install the Raised Floor Cable Clamp Bracket Kit (separately ordered). For instructions on how to install the kit, refer to [Section 5 on Page 35](#).
 - b. If the cables from under the floor will be routed into a splice chassis, install a spool bracket assembly. For instructions, refer to [Section on Page 46](#).
26. Re-install front and rear trough as shown in [Figure 26](#).
 27. Ground the frame. Refer to [Section 9 on Page 49](#).

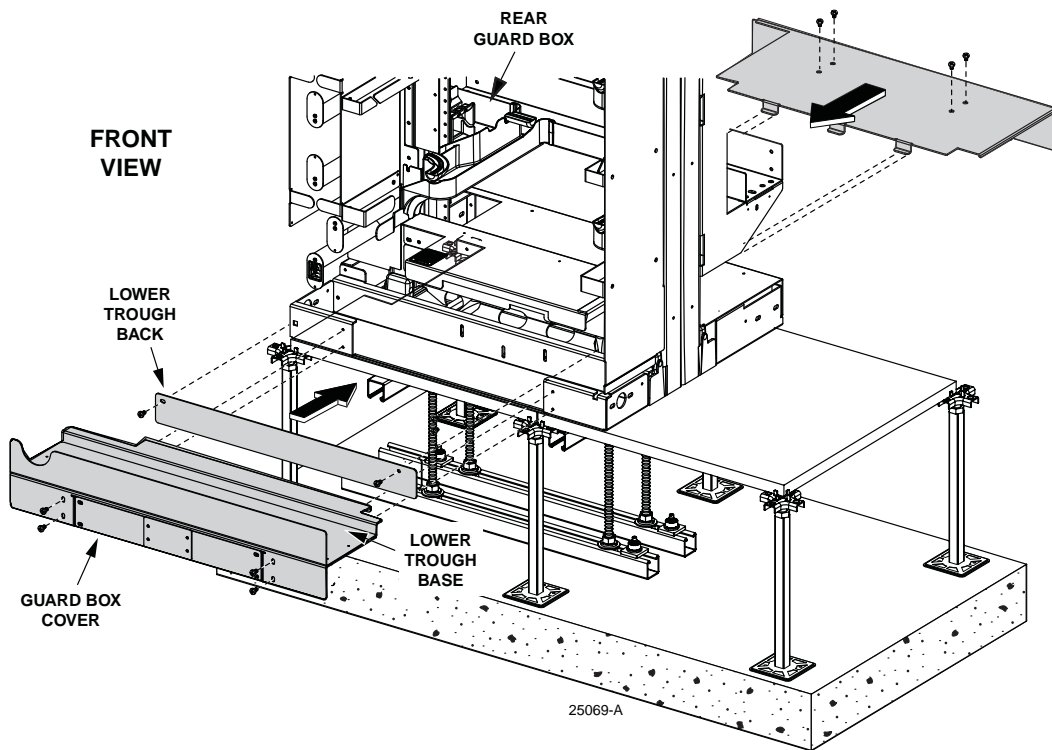


Figure 26. Re-installing Troughs

4 INSTALLING A FIBER OPTIC STORAGE PANEL (FOTSP)

A Fiber Optic Storage Panel (FOTSP), installed onto the left side of the NG4access frame as looking from the front, provides storage space on the rear for Fiber Optic Terminal Equipment patch cords. The FOTSP is 12 inches wide. For a view of the frame and FOTSP footprints, refer to [Section 2 on Page 6](#). Use the following procedure to install a FOTSP.

1. If the front trough covers, front guard box, and the rear guard box, are present on the frame, remove them. [Figure 26](#) above shows the same components, but being installed.
2. If cables will enter the FOTSP from under the floor, saw out a cable entry hole, referring to [Figure 2 on Page 6](#) for hole location and dimensions.
3. Unpack the FOTSP and set it up next to the frame, with the cross-frame troughs on the rear side corresponding to the location of the cross-frame troughs on the frame.

4. Remove the FOTSP front cover, referring to [Figure 27](#).

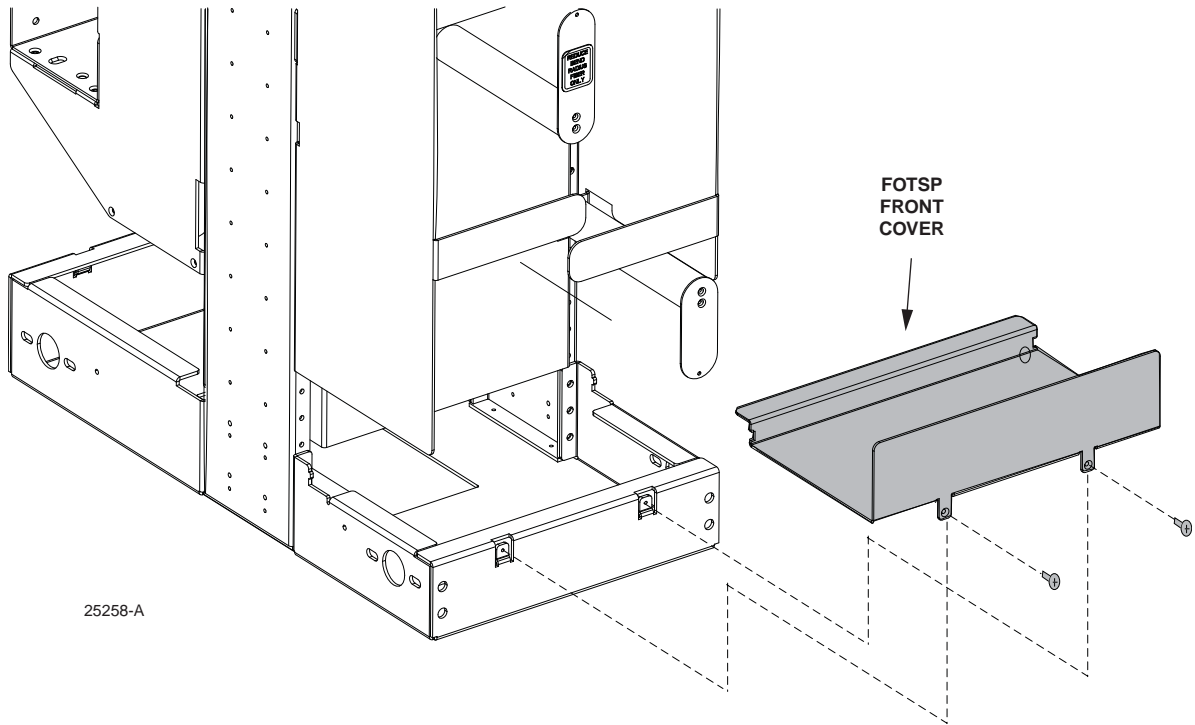


Figure 27. Removing FOTSP Front Cover

5. Remove the FOTSP back cover and cover plate ([Figure 28](#)).

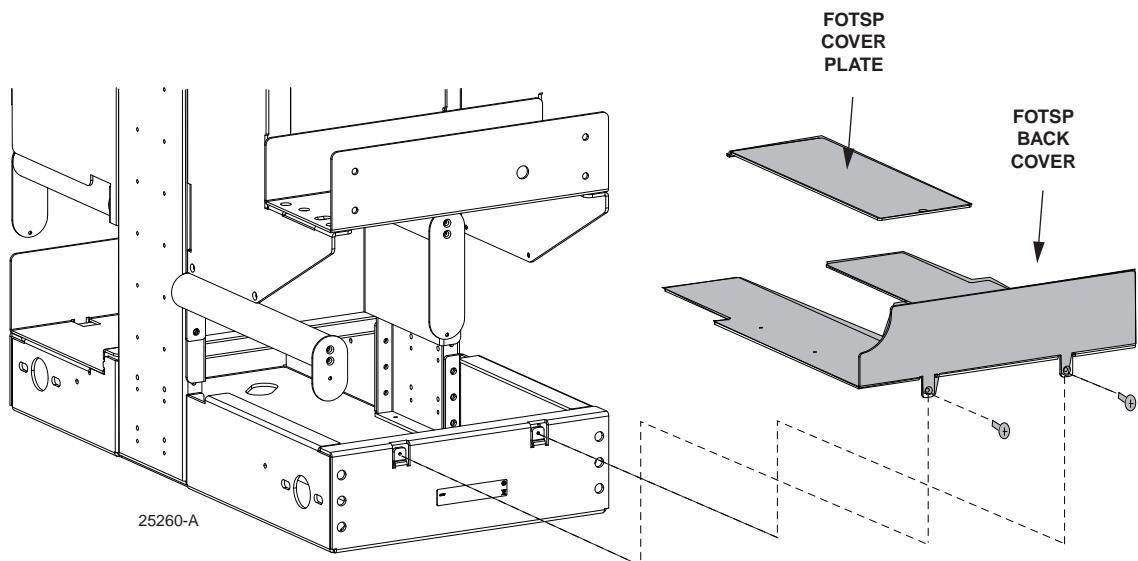


Figure 28. Removing FOTSP Back Cover and Cover Plate

- Secure the FOTSP to the NG4access frame by installing tie brackets in two places and trough ties in six places as shown in Figure 29.

► **Note:** Refer also to the detailed views in Figure 30 and Figure 31.

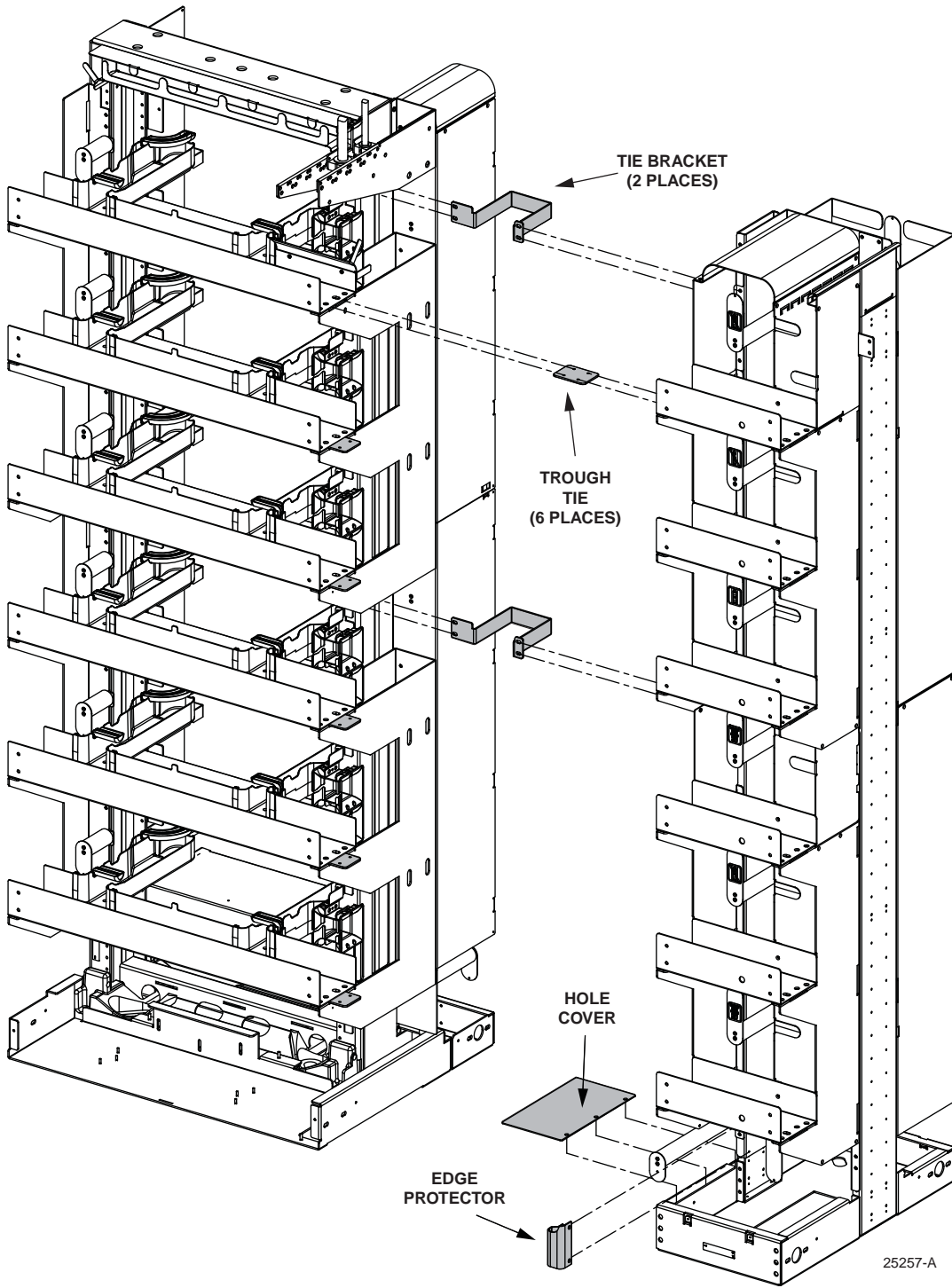


Figure 29. Installing Brackets

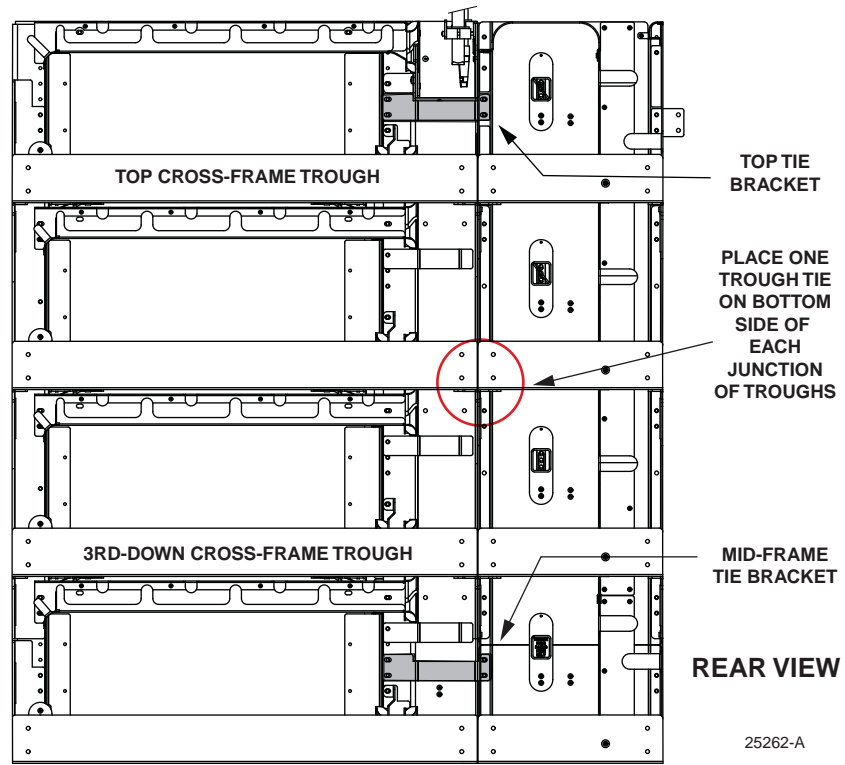


Figure 30. Rear View of Bracket Locations

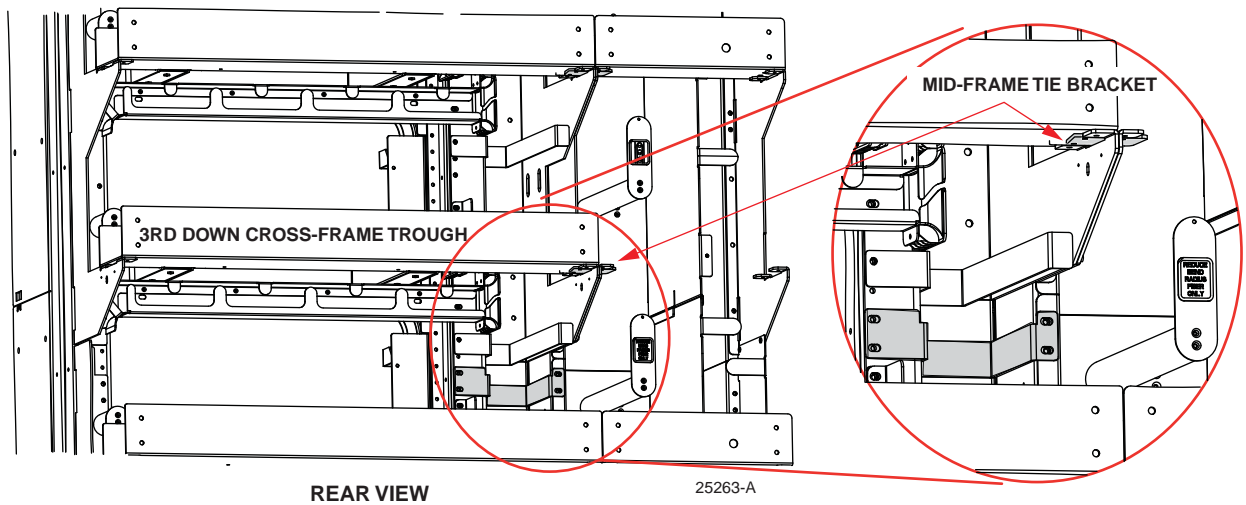


Figure 31. Rear View With Frame Tilted to Show Brackets Under Trough

7. To secure the bases of the frame and FOTSP together, install two hex bolts on the rear of the frame as shown in [Figure 32](#), then, as noted, install two hex bolts in the analogous location on the front of the frame.

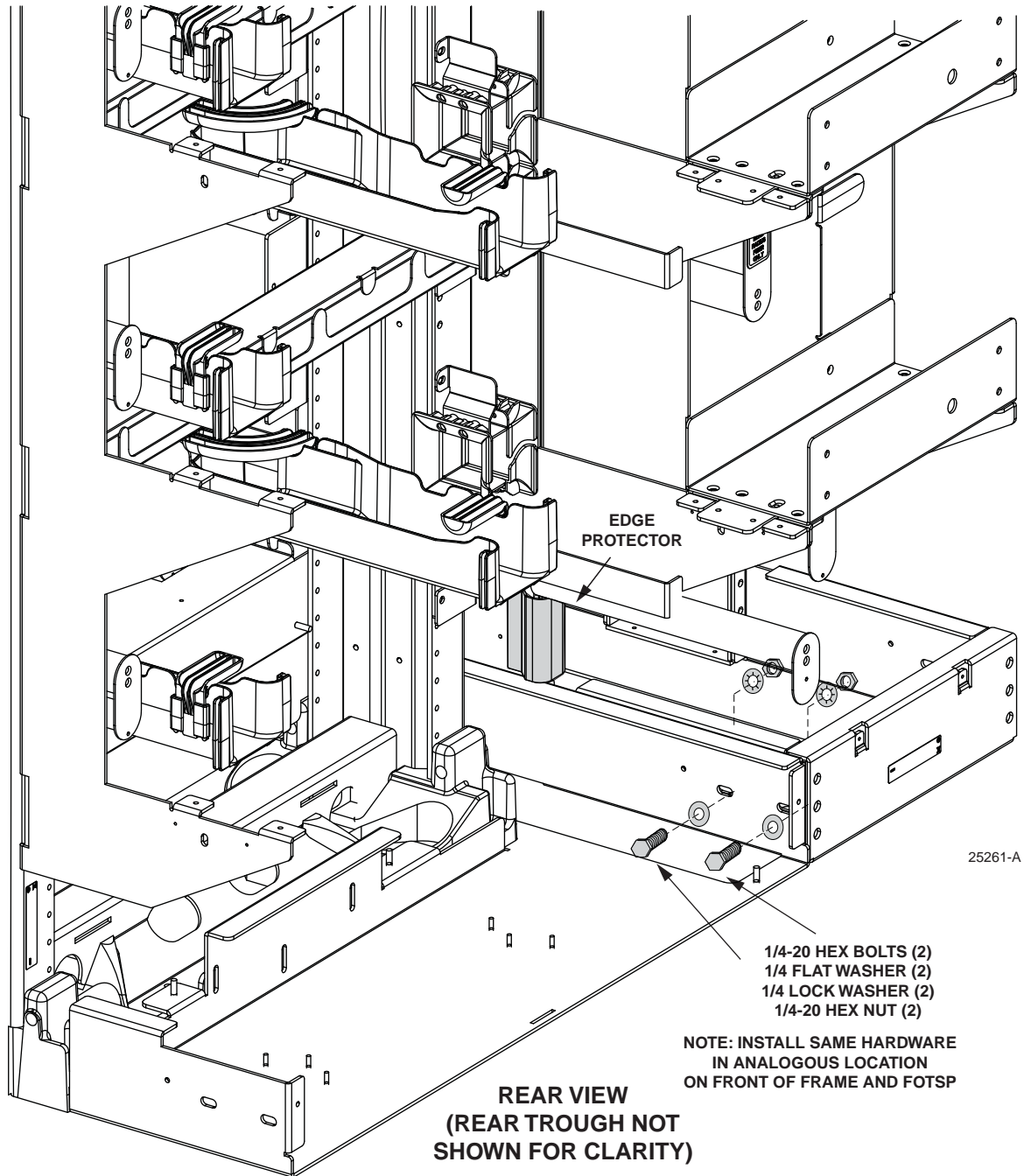


Figure 32. Bolting Together Frame and FOTSP Bases

8. Install the edge protector on the FOTSP in the location shown in [Figure 32](#).
9. Install the hole cover in the location shown in [Figure 29 on Page 32](#).
10. Re-install the front and rear troughs, as shown in [Figure 26 on Page 30](#).
11. Re-install FOTSP front and rear guard boxes (reverse of steps 3 and 4, and reverse of what is shown in [Figure 27 on Page 31](#) and [Figure 28 on Page 31](#)).

5 INSTALLING A RAISED FLOOR CABLE BRACKET

If cables will be brought into the frame from under the raised floor, a Raised Floor Standard Cable Clamp Bracket (available from CommScope) must be installed on the rear side of the frame in the bottom right corner.

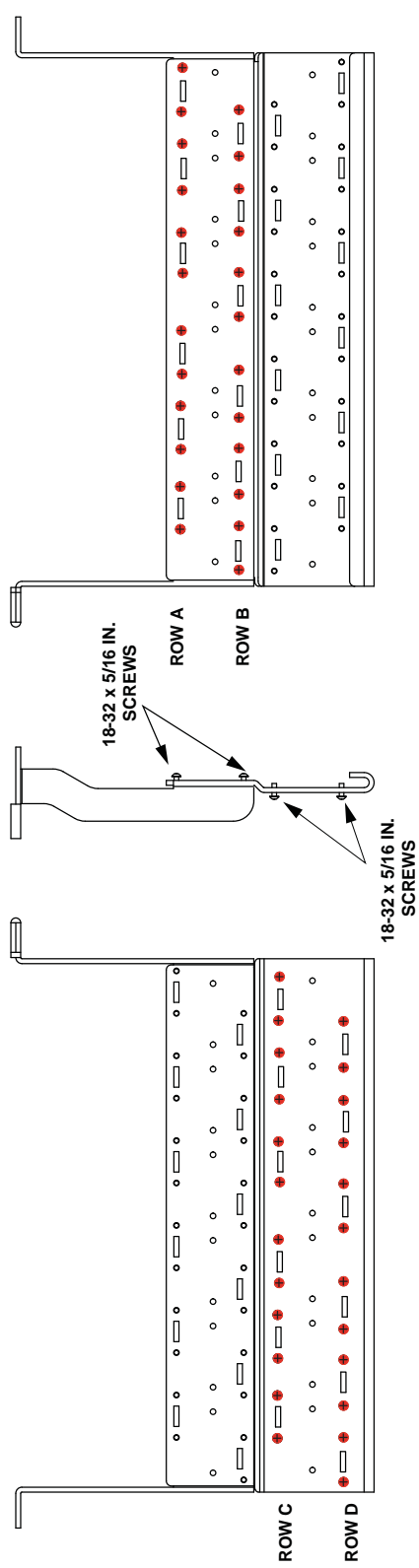
The kit is designed for **standard** size cables, with an Outside Diameter (OD) of up to 0.8 in. (20.3 mm). If **large** cables are to be installed, with an OD in the range from 0.8 to 1.03 in. (20.3 to 26.16 mm), a large cable kit (NG4-ACCRFCLMP3) is also required.

This procedure covers both **standard** and **large** cables, and assumes that the installer has the kit or kits required.

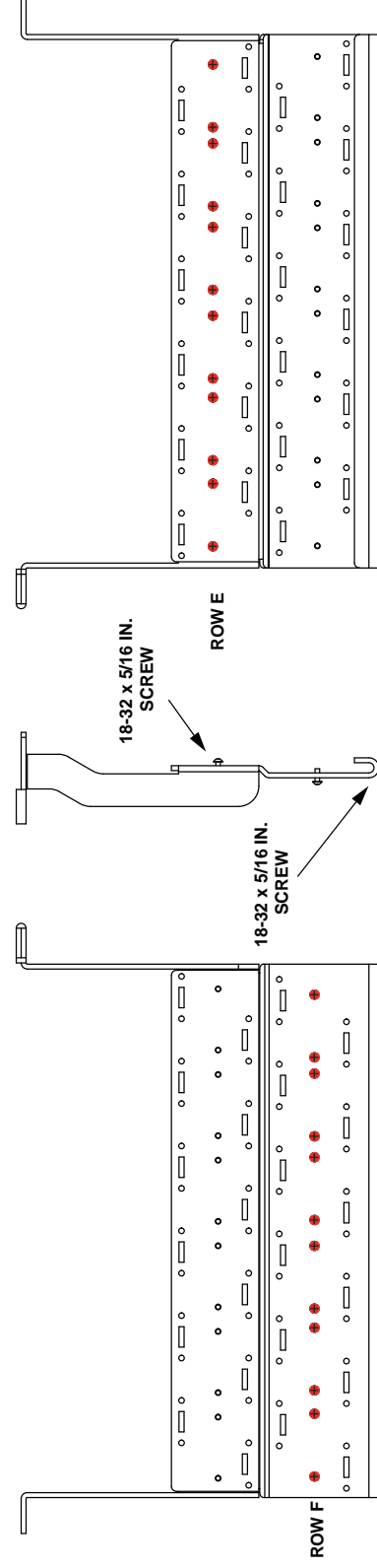
Use the following procedure to install a raised floor cable clamp bracket.

1. Determine whether the cables to be installed are **standard** or **large** as defined above. Set out the bracket plate (largest piece in the kit) and identify the hole pattern to be used for mounting cables, referring to [Figure 33 on Page 36](#). There are separate hole patterns for **large** and **standard** cables.

STANDARD CABLE GROMMET PLACEMENT



LARGE CABLE GROMMET PLACEMENT



NOTE: DO NOT DRIVE THE SCREW HEADS TIGHT AGAINST THE BRACKET. ALLOW SUFFICIENT SPACE BETWEEN THE SCREW HEADS AND BRACKET FOR THE CABLE CLAMPS TO BE HUNG ON THE SCREWS.

25125-A

Figure 33. Grommet Placement on Bracket

- 2. Install 8-32 x 5/16 inch pan head screws as shown in [Figure 33](#), [Figure 34](#), and [Figure 35](#). Leave enough space between the screw heads and bracket for the cable clamps to be hung on the screws in a later step.

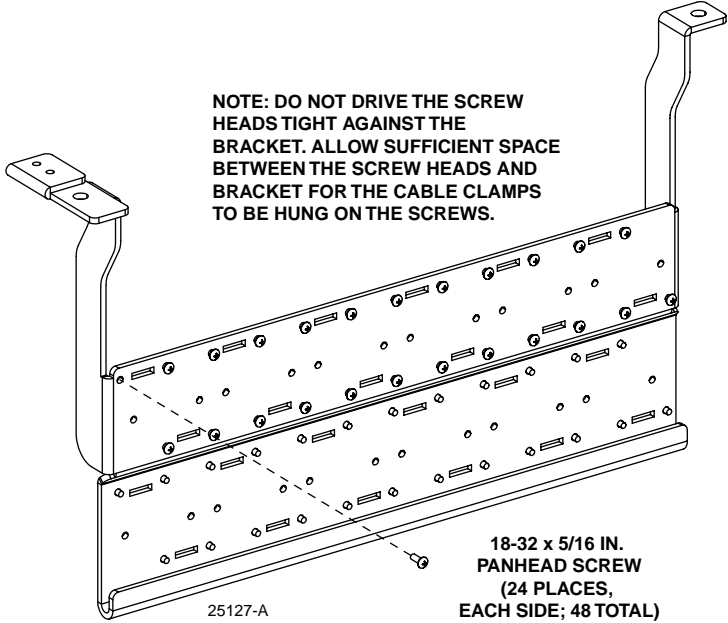


Figure 34. Standard Cable Screw Placement

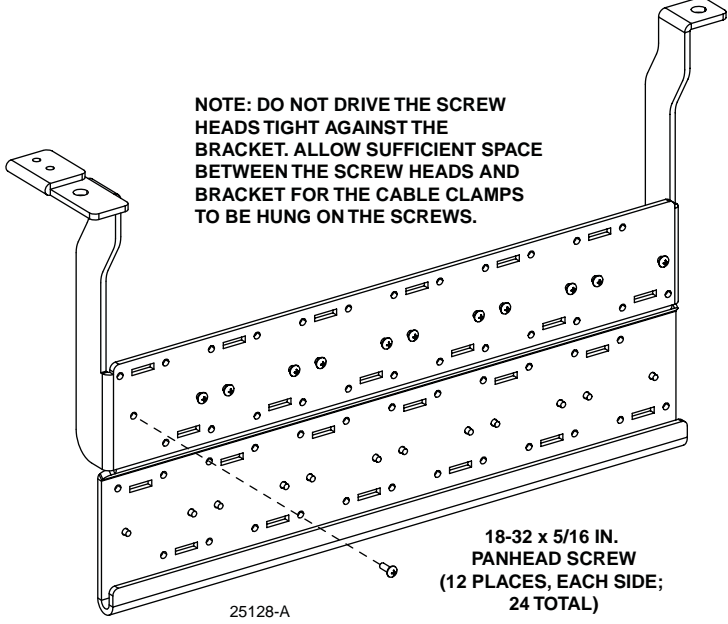


Figure 35. Large Cable Screw Placement

3. If the frame has a splice chassis:

- a. Remove the splice chassis cover (if present) from the bottom rear of the NG4access frame, as shown in [Figure 36](#). To do this, remove the two #8 pan head screws and two star washers securing the cover to the frame. Set aside these items for re-installing the cover later.

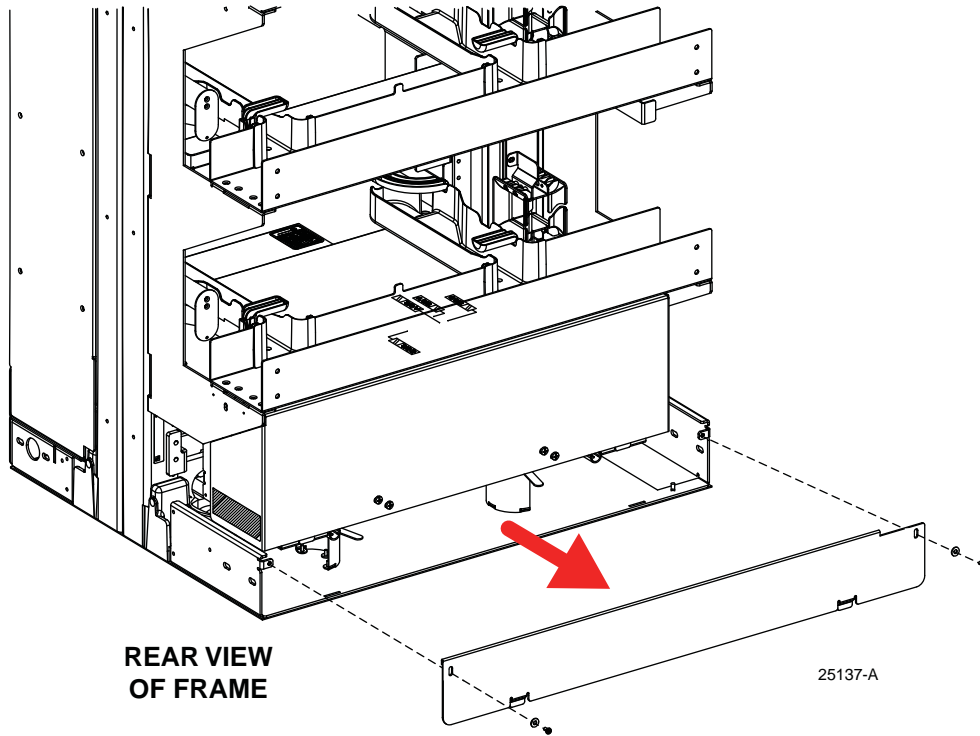


Figure 36. Removing Front Plate from Frame

- b. Fully slide out the splice chassis (if present), as shown in [Figure 37](#).

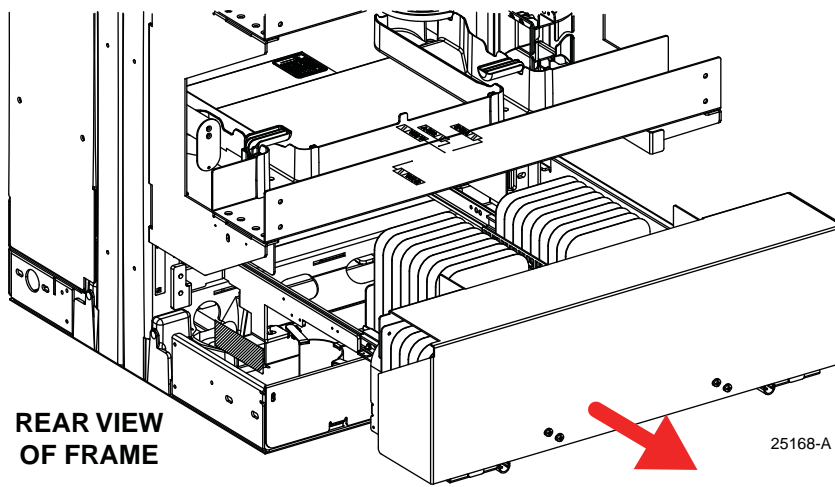


Figure 37. Sliding Out the Splice Chassis

4. If the frame does not have a splice chassis, remove the cover shown in [Figure 38](#).

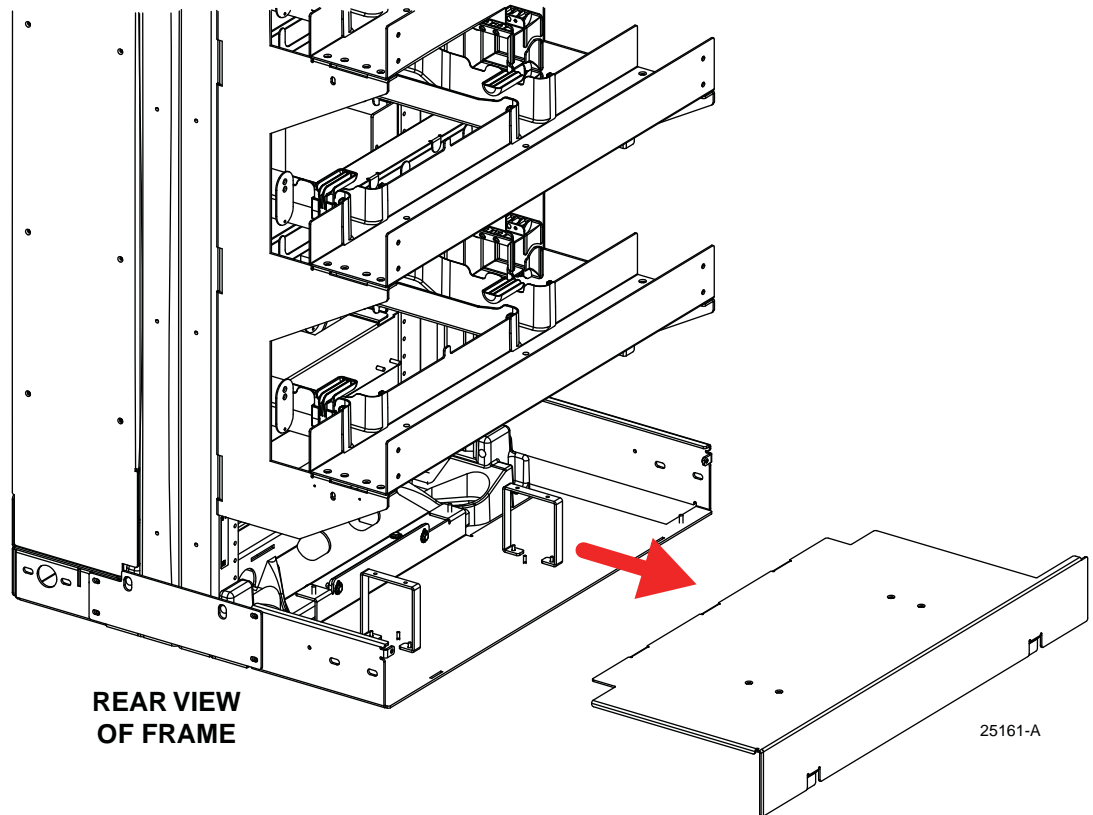


Figure 38. Removing Rear Cover on a Non-Splice Frame

5. Place the cable bracket into the cable entry hole, and position the holes in the bracket on the threaded studs, as shown in [Figure 39](#). Install a #10 washer and #10 nut on each threaded stud. Tighten to 16 inch lbs. (1.8 Newton meters).

► **Note:** This illustration shows a frame without a splice chassis.

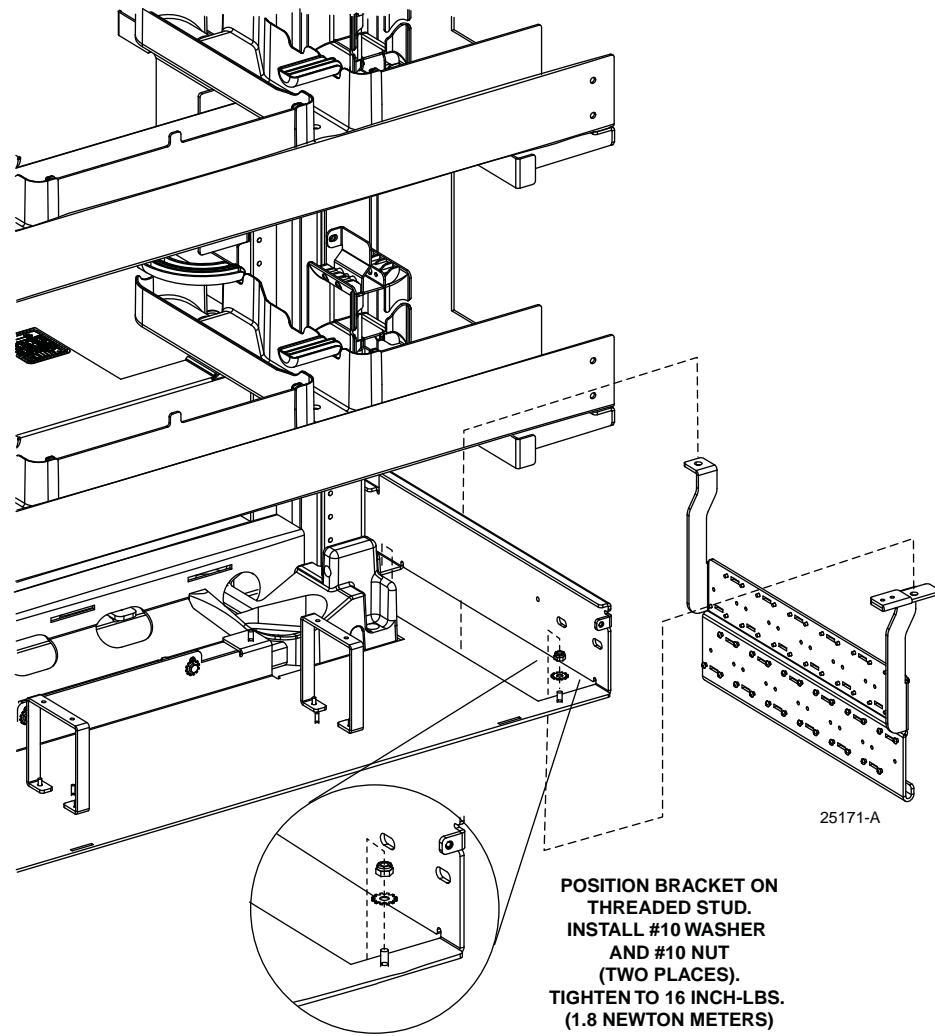


Figure 39. Installing Bracket in Frame

6. Route the cables to be installed through the entry hole, taking care to position each cable on the correct side of the raised floor cable breakout per the cable clamp locations shown in [Figure 33 on Page 36](#).
- **Note:** The Row locations shown in this same figure ([Figure 33 on Page 36](#)) will also be used to figure out the DIM 'A' values when breaking out the cables in the next step.
7. Prepare each cable as follows, referring to [Figure 40](#):
 - a. Pull the cable up through the hole.
 - b. If the cable being installed is an NG4access cable terminated with one or more cabled module(s), obtain the appropriate DIM 'A' length from [Table 5](#) based on where the cable clamp will be installed on the bracket, measure out this length from the factory breakout on the cable, and mark the cable at this location as shown in [Figure 40](#). This is where the cable clamp should be placed on the cable.

- **Note:** There is no need for further breakout as all NG4access cables with cabled modules are of one standard length.

Table 5. Row Position vs. DIM 'A'

CABLE SIZE	ROW POSITION*	DIM 'A'
Standard	A	3-1/16 in. (80.96 mm)
Standard	B	4-11/16 in. (119.06 mm)
Standard	C	5-7/16 in (138.11 mm)
Standard	D	7-3/32 in. (180.18 mm)
Large	E	3-7/8 in. (98.42 mm)
Large	F	6-5/16 (160.34 mm)

* per Figure 33 on Page 36

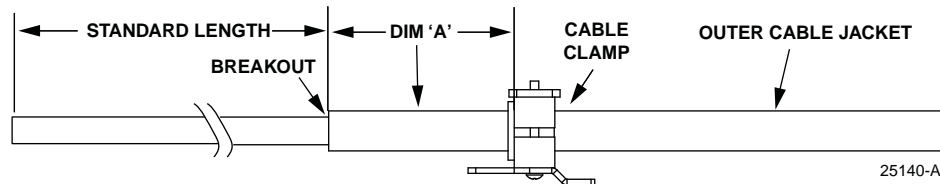


Figure 40. Cabled Module Assembly Cable Clamp Position and Breakout

- c. If the cable being installed is designated for the splice chassis, obtain the appropriate DIM 'A' length from Table 5 based on where the cable clamp will be installed on the bracket, and measure an additional length of 210 in. (533.4 cm), as shown in Figure 41. This is where the cable clamp should be placed on the cable. For cable routing instructions, refer to NG4access ODF Platform Splice Chassis and Splice Tray User Manual (TECP-90-704).

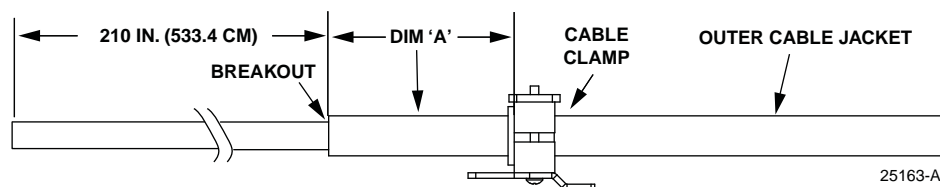


Figure 41. Splice Cable Clamp Position and Breakout

8. If the cable diameter is 0.8 in (2.0 cm) or less, assemble the “standard” cable clamp at the cable clamp position (see Figure 42). There are different sizes of grommets, measured by their inside diameters of 0.4, 0.5, 0.6, and 0.7 in. (1.0, 1.27, 1.52, and 1.78 cm). Select the grommet with an **inside** diameter that is one size smaller than the **outside** diameter of the cable. After assembling the components on the mounting screws, tighten the screws until the yokes make contact, then tighten the screws four additional revolutions.

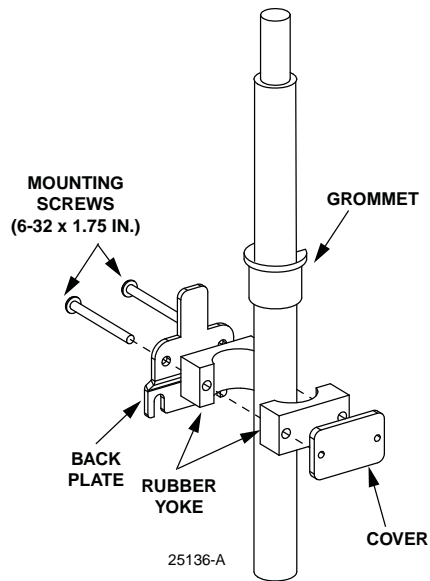


Figure 42. Standard Cable Clamp Exploded View

9. If the cable diameter is greater than 0.8 in (2.03 cm) and less than 1-1/32 inch (2.62 cm), assemble the “large” cable clamp at the cable clamp position (see [Figure 43](#)). There are different sizes of grommets, measured by their inside diameters of 0.8, 0.9, and 1.0 in. (2.03, 2.29, and 2.54 cm). Select the grommet with an **inside** diameter that is one size smaller than the **outside** diameter of the cable. After assembling the components on the mounting screws, tighten the screws until the yokes make contact.

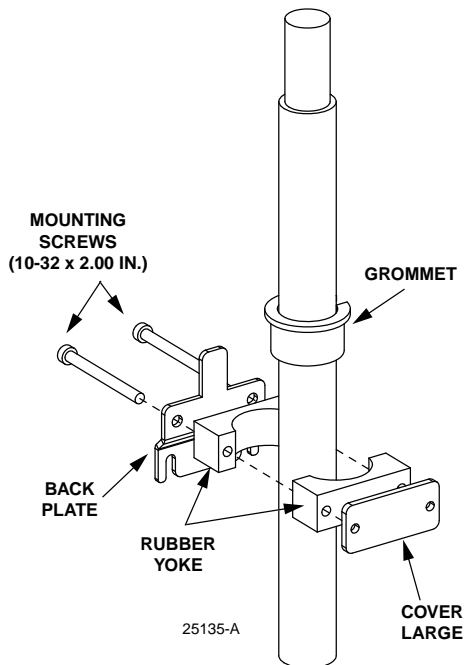


Figure 43. Large Cable Clamp Exploded View

- ▶ **Note:** Do not continue to tighten as instructed for the standard cable clamp in [Step 8](#).
 - ▶ **Note:** If large cables are being installed, the last four cable clamps may need to be assembled on the cable below the raised floor.
10. Beginning at the back of the cable clamp bracket (in the middle of the frame), hang the cable clamps by positioning the hanging slots on the mounting screws, as shown in [Figure 44](#). Be sure to position the clamps on the correct mounting screws as indicated in [Figure 45](#). Work from the back of the bracket towards the rear of the frame. After hanging a cable clamp on the mounting screws, tighten the mounting screws until secure.

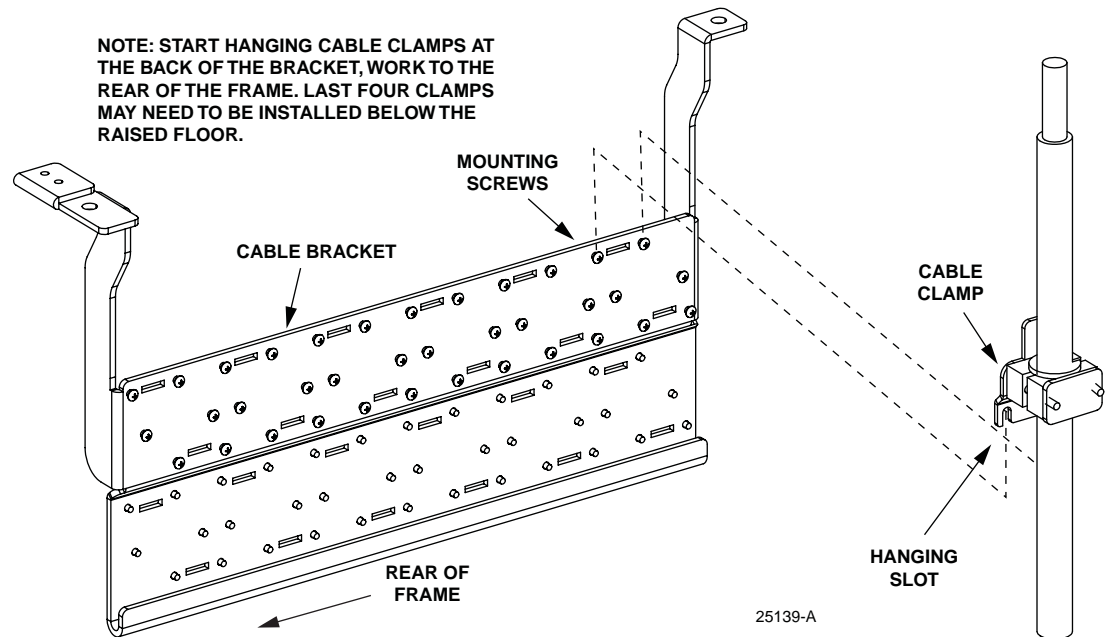


Figure 44. Hanging Cable Clamps on Bracket

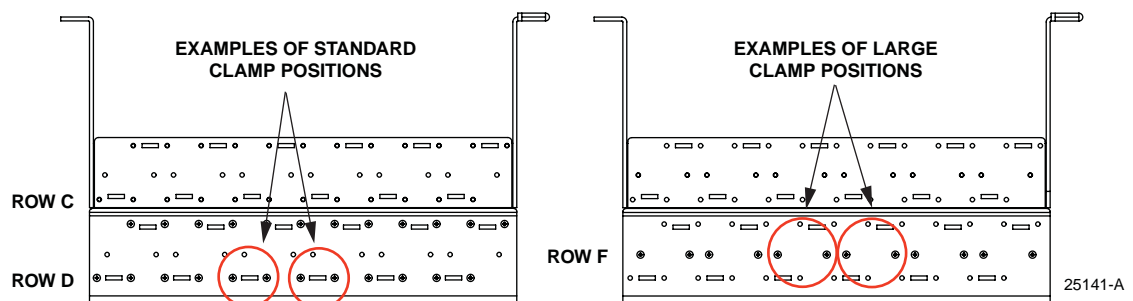


Figure 45. Correct Placement of Cable Clamps

11. If the frame does not have a splice chassis, re-install the cover for non-splice applications (removed in [Step 4 on Page 39](#)).

► **Note:** See TECP-90-713 for instructions on installing auxiliary cable spools for use with NG4access cabled module assemblies routed into the frame from the raised floor bracket.

6 INSTALLING A SPOOL BRACKET ASSEMBLY (FOR FRAME WITH SPLICE CHASSIS)

If the frame on which the bracket was just installed has a splice chassis, the Spool Bracket Assembly (provided with the Raised Floor Standard Cable Clamp Bracket Kit) must also be installed.

Use the following procedure.

1. Install the protection plate (second largest piece in the Raised Floor Standard Cable Clamp Bracket Kit) in the location shown in [Figure 46](#). Secure the plate using the mounting screws provided. Torque to 16 in.-lbs. (1.8 Newton meters).

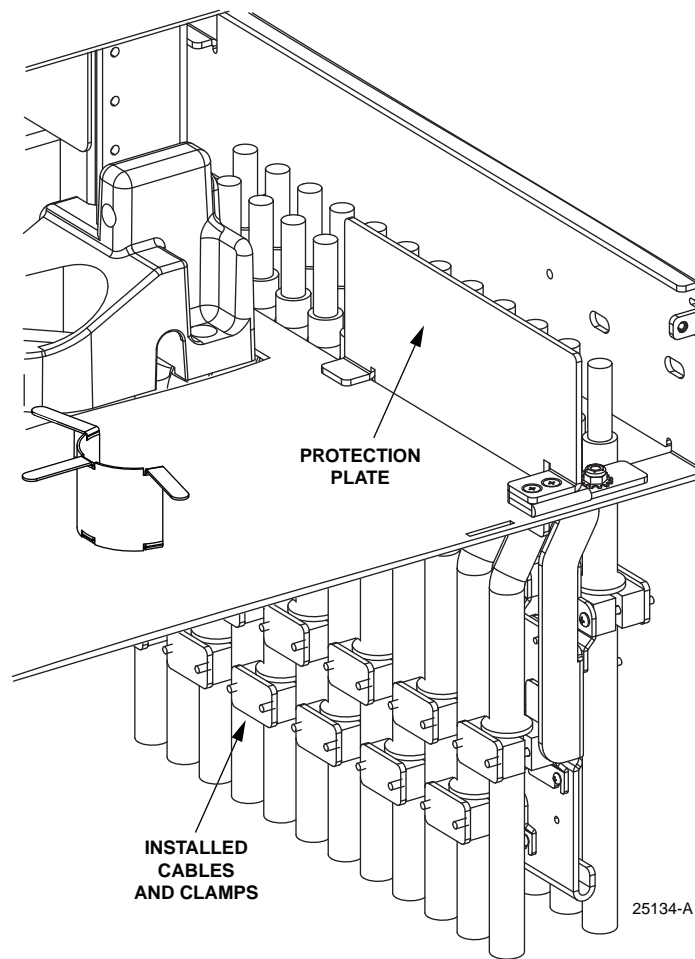


Figure 46. Installing Bracket in Frame

- Remove and discard #12 washer and screw securing vertical cable guide next to the bottom chassis, as shown in Figure 47. Discard screw, washer, and cable guide.

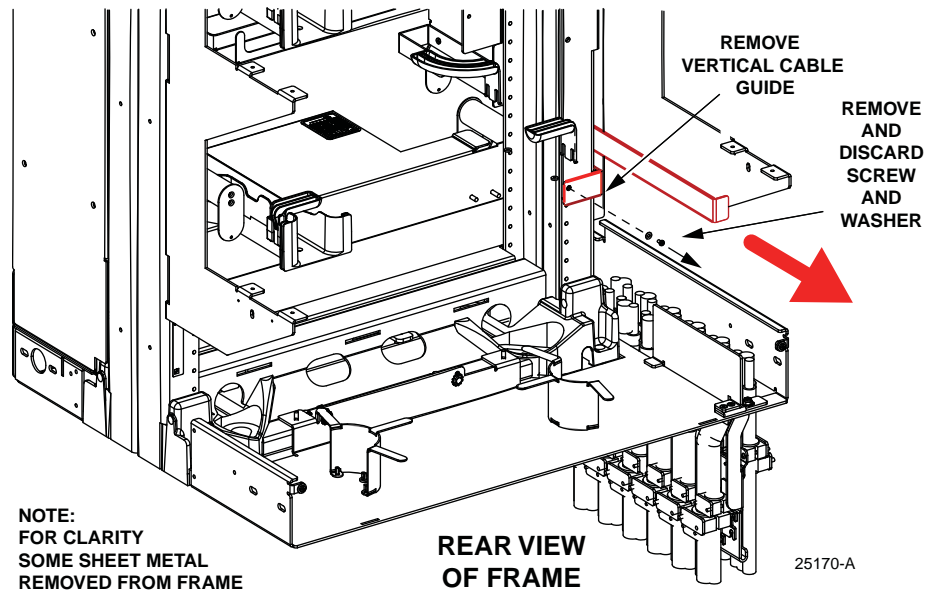


Figure 47. Removing Vertical Cable Guide

- Locate the spool bracket assembly that came with the Standard Cable Bracket Kit, and install the bracket in the location from which the vertical cable guide was just removed as shown in Figure 48. Install the two screws and washers provided using the hole from which the standard bracket screw was just removed and the hole above it. Torque to 18 inch-pounds (2.03 Newton meters).

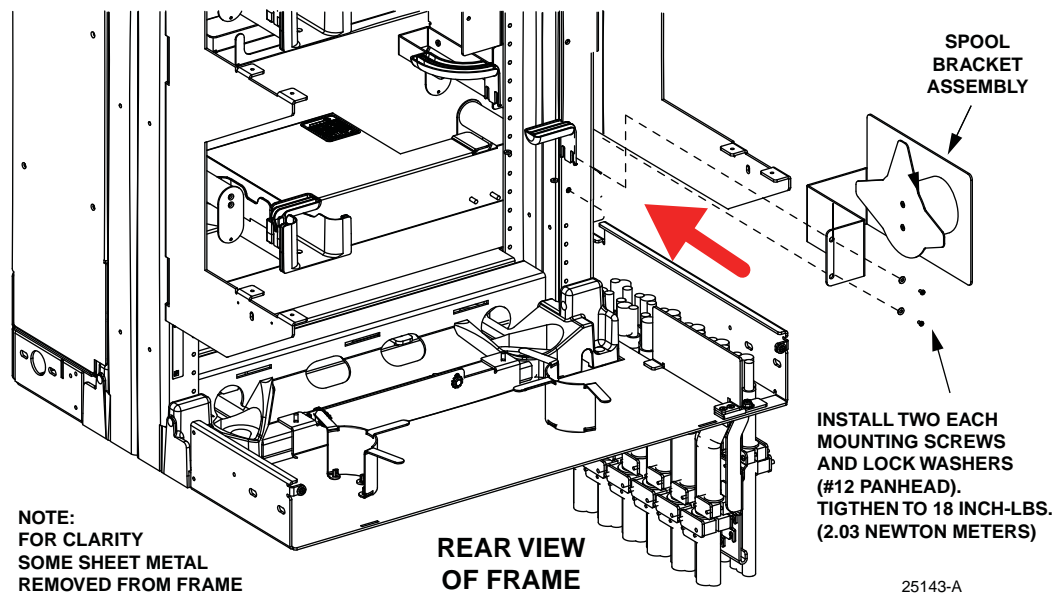


Figure 48. Installing Spool Bracket

- **Note:** When routing a cable from the cable clamp bracket to the splice chassis, bring the cable up in front of the spool and loop the cable back and over the spool then down into the area below the splice chassis as shown in [Figure 49](#).

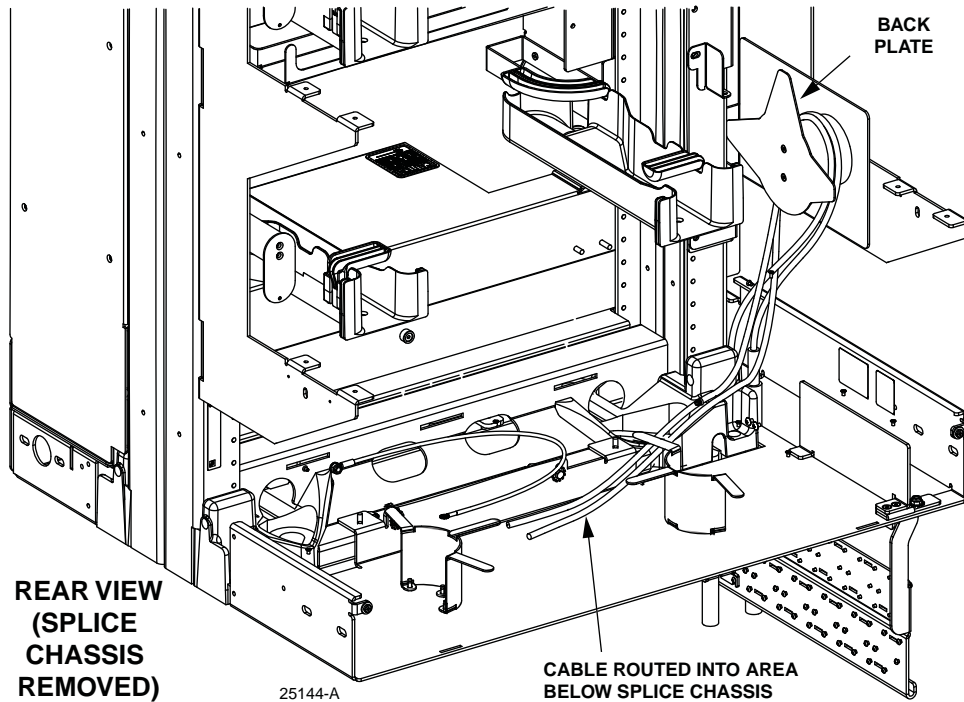


Figure 49. Routing Cables On Spool Bracket

- **Note:** For instructions on routing the cables into the splice chassis and splice chips, refer to NG4access ODF Platform Splice Chassis and Splice Tray User Manual (TECP-90-704). This procedure only covers the spool bracket.
4. Slide the splice chassis back into the frame.
 5. Re-install the front plate removed in [Step 3 on Page 38](#).

7 INSTALLING AUXILIARY CABLE SPOOLS (FOR FRAMES WITHOUT SPLICE CHASSIS)

If the frame on which the bracket was just installed does not have a splice chassis (cables will be routed to the universal chassis), auxiliary cable spool brackets (separately ordered) must also be installed. The purpose of these spools is to provide a means for looping the cables over before they are routed into the universal chassis. One kit is required for each universal chassis on the right rear side only. Before the kit can be installed, the vertical cable guide in that location must be removed.

Use the following procedure.

1. On the rear side of the frame, remove the vertical cable guide by removing one #12 screw and washer holding the bracket in place. Set aside the screw and washer for use in installing the new bracket. Refer to [Figure 50](#).

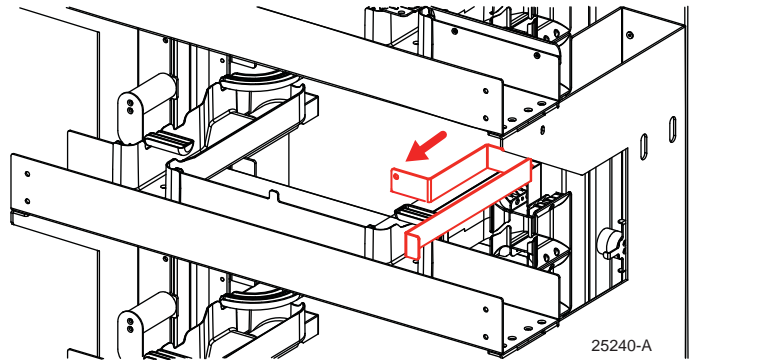


Figure 50. Removing the Vertical Cable Guide

2. Install the auxiliary cable spool bracket in the location from which the vertical cable guide was just removed. Refer to [Figure 51](#) and [Figure 52](#).

► **Note:** Top chassis mounting holes are different than for other chassis in frame. Mount as shown in [Figure 52](#).

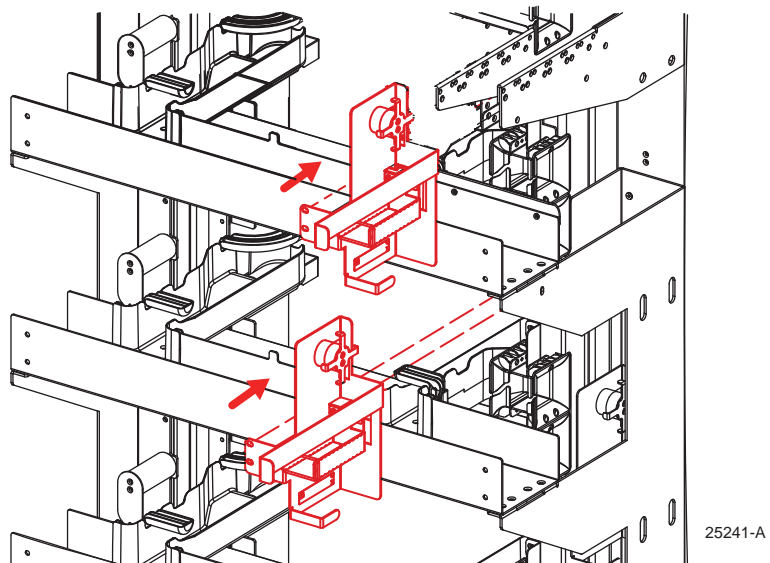


Figure 51. Installing the Auxiliary Cable Spool Bracket

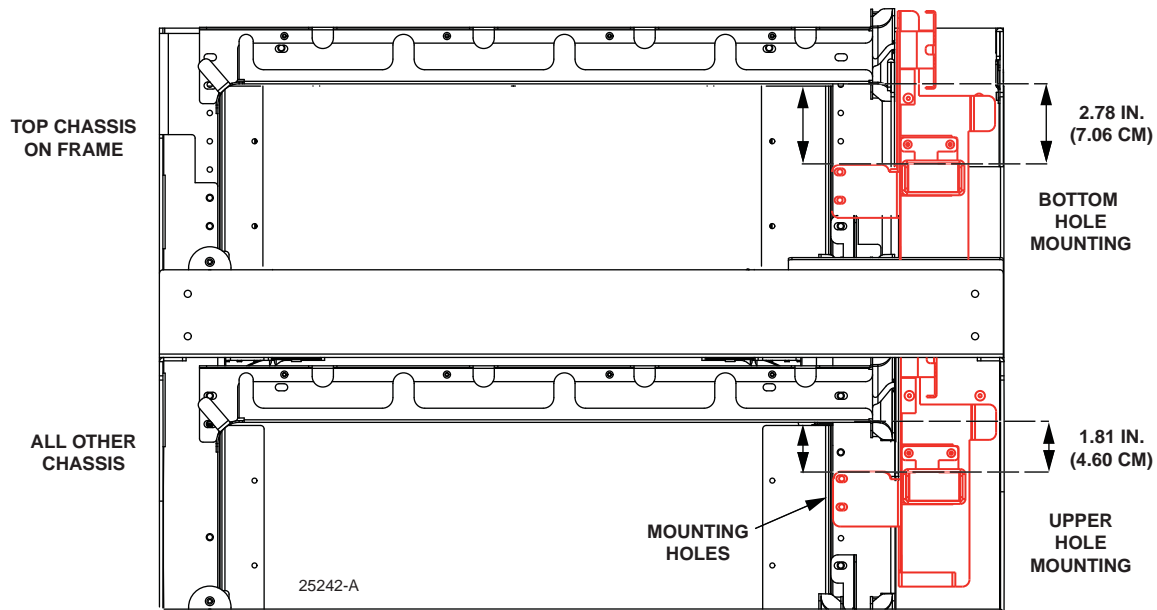


Figure 52. Rear View of Bracket Locations (Top Two Chassis)

8 GROUNDING THE FRAME

Standard grounding is accomplished by connecting a compression lug to a grounding point on the top member of the frame, as shown in [Figure 53](#).

Any 2-hole location with the correct hole spacing may be used. Use a 2-hole #10 compression lug with 3/4 inch (1.905 cm) spacing.

Scrape the paint to expose bare metal and apply deoxidant in the grounding location. For a grounding wire, use only 6 AWG or thicker copper wire.

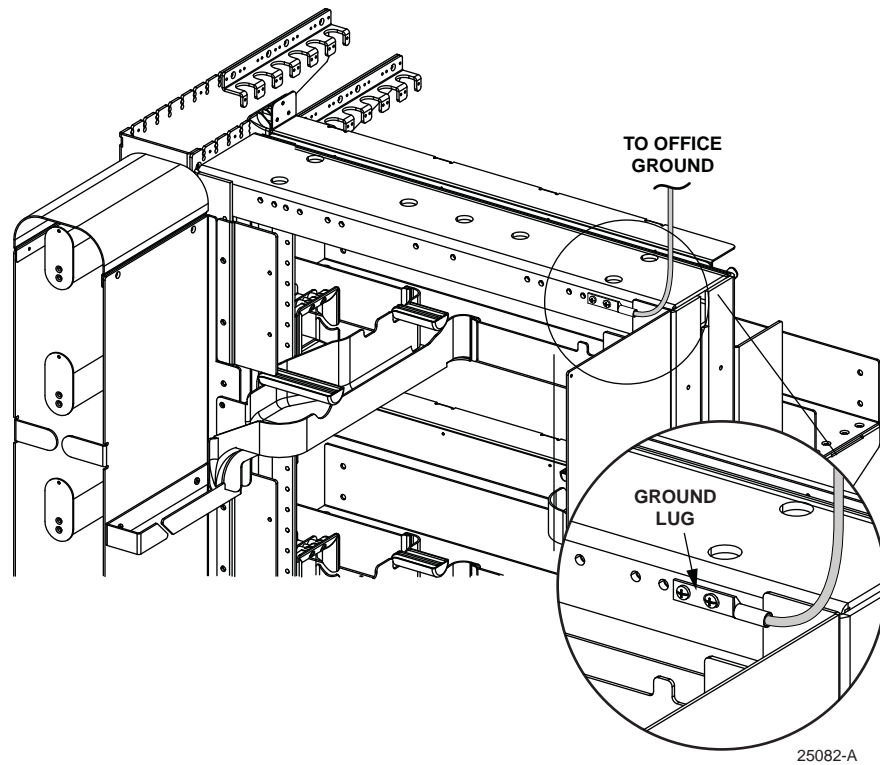


Figure 53. Grounding the Frame

9 SECURING TWO FRAMES TOGETHER

When a NG4access frame is installed adjacent to an existing NG4access frame, the frames must be secured together. This is done using the following items shipped with the frame: junction plates (6); rear splice brackets (4); and associated hardware.

Use the following procedure:

1. Position yourself on rear side of the two frames. Locate the place where the two top horizontal troughs interface with one another. Install a junction plate spanning the two troughs on the bottom side (Figure 54). Secure using four 10x32 flathead screws.

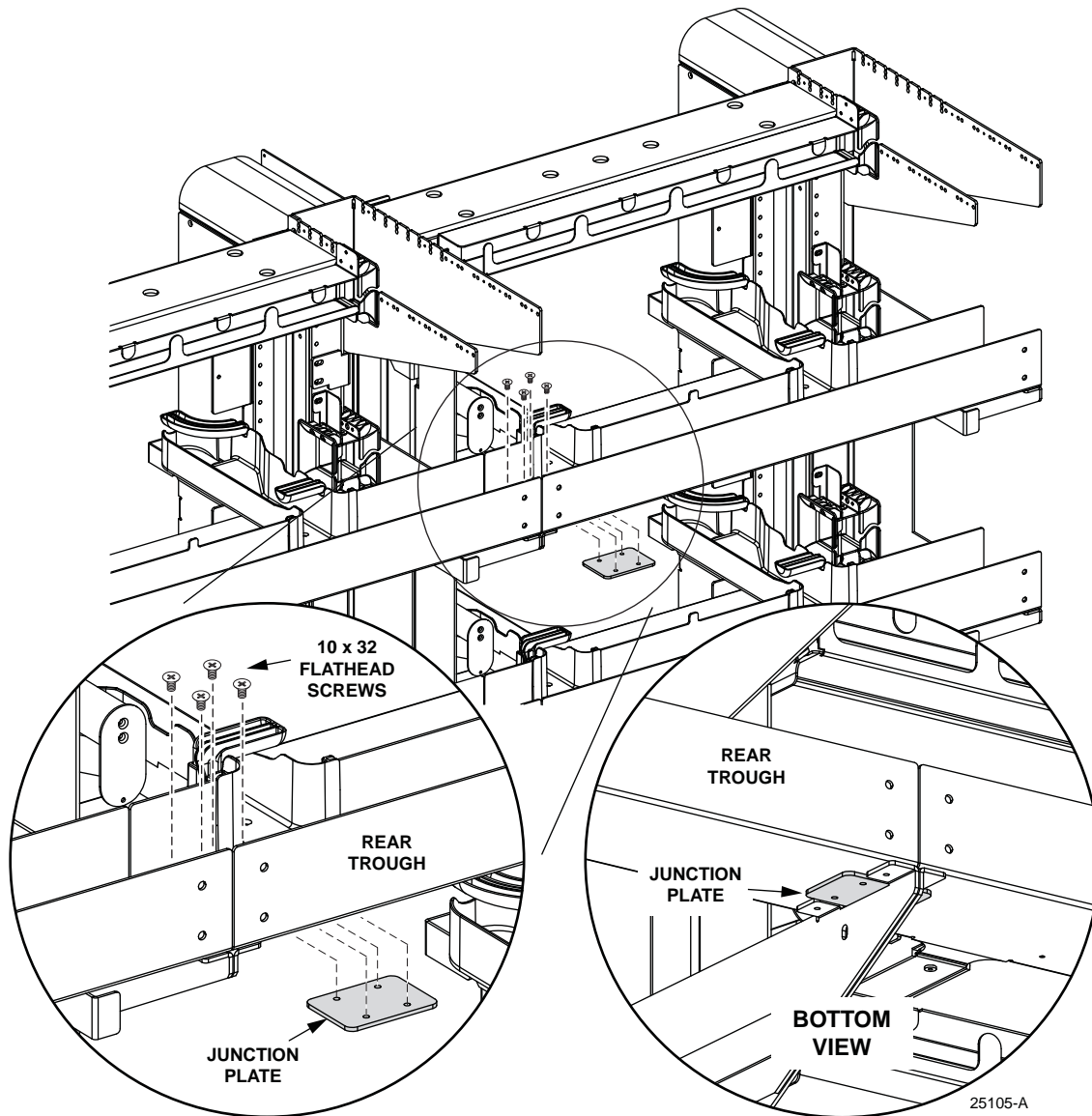


Figure 54. Installing Junction Plates (Six Places)

2. Continue down the frames installing junction plates in a like manner for each of the remaining five levels of rear horizontal trough.
3. Install rear splice brackets. There are two sets of two brackets installed in the two locations shown in [Figure 55](#).

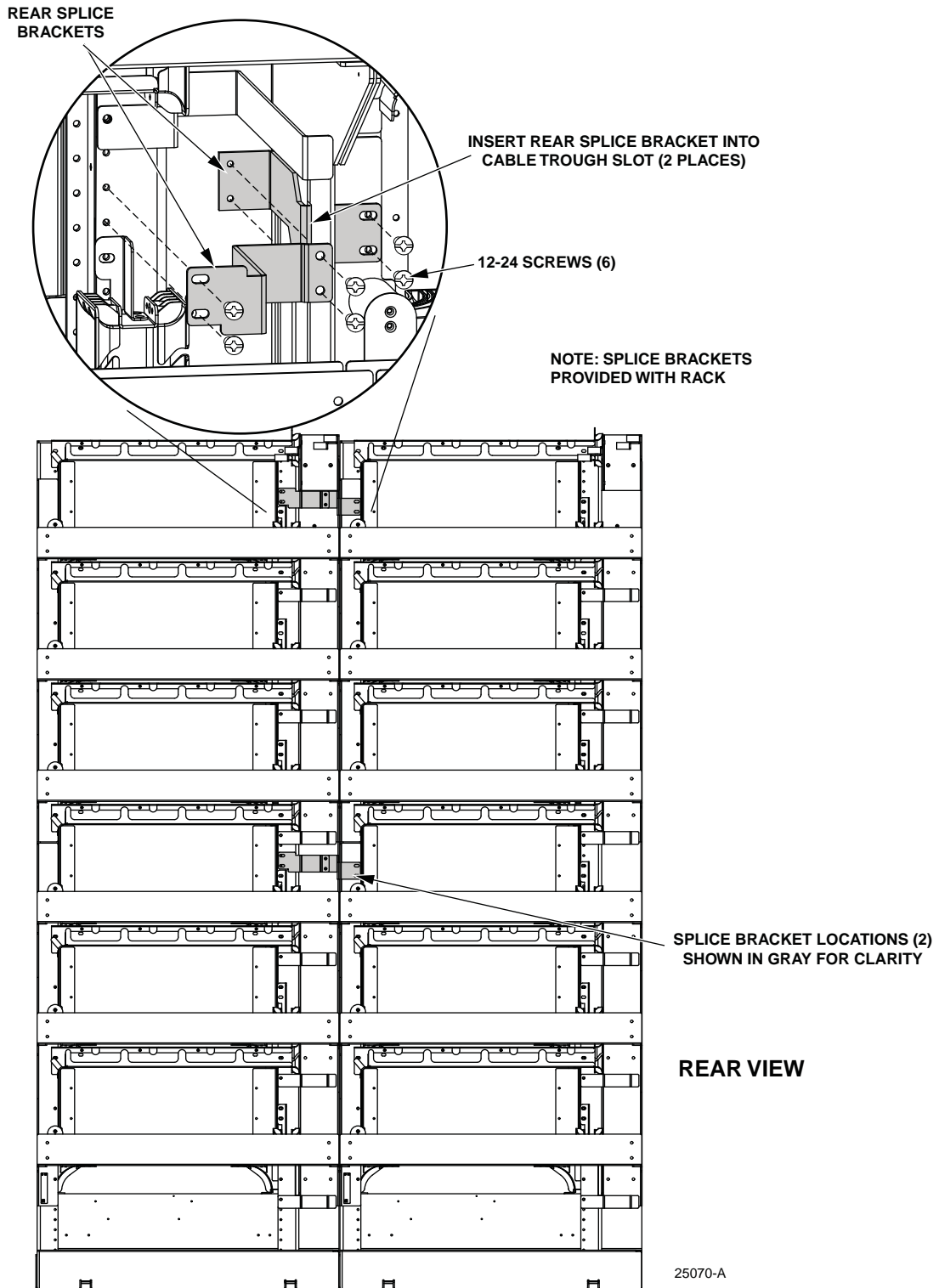


Figure 55. Installing Rear Splice Brackets

10 CUSTOMER INFORMATION AND ASSISTANCE

- To find out more about CommScope® products, visit the web at www.commscope.com/
- For technical assistance, customer service, or to report any missing/damaged parts, visit <http://www.commscope.com/SupportCenter>

