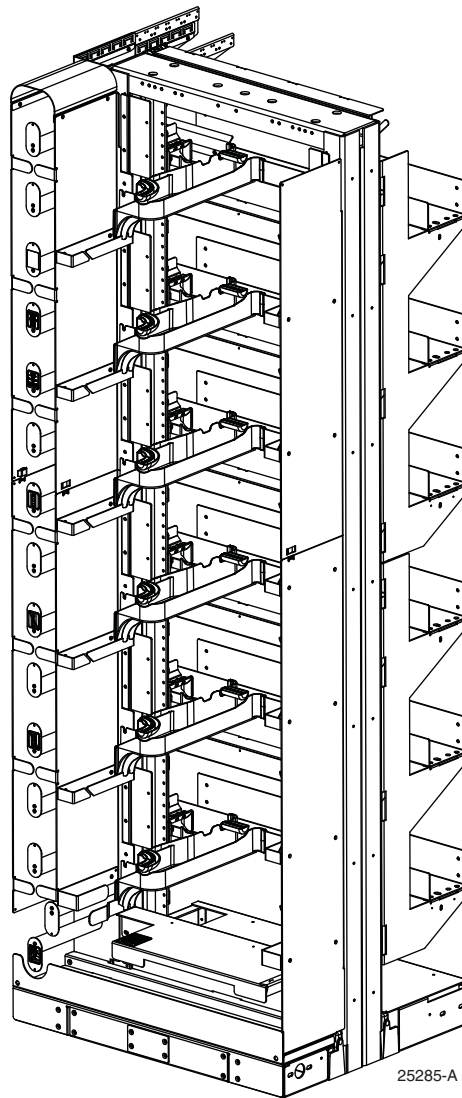


NG4access® Frame (Concrete Floor)



COPYRIGHT

© 2017, CommScope, Inc.
All Rights Reserved.

REVISION HISTORY

ISSUE	DATE	REASON FOR CHANGE
1	4/2013	Original.
4	April 2017	Reformatted to CommScope format.

TRADEMARK INFORMATION

CommScope, CommScope (logo), and NG4access are trademarks of CommScope Inc.

DISCLAIMER OF LIABILITY

Contents herein are current as of the date of publication. CommScope reserves the right to change the contents without prior notice. **In no event shall CommScope Inc. be liable for any damages resulting from loss of data, loss of use, or loss of profits and CommScope Inc. further disclaims any and all liability for indirect, incidental, special, consequential or other similar damages. This disclaimer of liability applies to all products, publications and services during and after the warranty period.**

This publication may be verified at any time on the CommScope website using the following URL:
<http://www.commscope.com/SupportCenter>



TABLE OF CONTENTS

Content	Page
About This Manual	3
Related Publications	3
Admonishments	4
General Safety Precautions	4
List of Acronyms and Abbreviations	4
1 TOOLS AND MATERIALS REQUIRED	1
2 FOOTPRINT OF FRAME AND FIBER OPTIC STORAGE PANEL (FOTSP)	4
3 MOUNTING THE FRAME ON A CONCRETE SURFACE	5
4 INSTALLING A FIBER OPTIC STORAGE PANEL (FOTSP)	16
5 GROUNDING THE FRAME	21
6 SECURING TWO FRAMES TOGETHER	21
7 CUSTOMER INFORMATION AND ASSISTANCE	24

TABLE OF CONTENTS

Content	Page
---------	------

Blank

ABOUT THIS MANUAL

This manual provides complete instructions for installing a NG4access frame on a concrete floor, grounding the frame, and securing two frames.

RELATED PUBLICATIONS

Listed below are related manuals and their publication numbers. Copies of these publications can be ordered using the following URL:

<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: Raised Floor Provides pictorial instructions for installing an NG4access frame on a raised floor and grounding the frame.</p>	90-708
<p>NG4access ODF Platform Universal 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 lineup.</p>	90-705
<p>NG4access ODF Platform Rear Side Routing Guide Provides pictorial guidelines for routing cables and installing adapter packs and 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 lineup.</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 concrete surface are specified in [Table 1](#), [Table 2](#), and [Table 3](#).

Table 1. Tools Required

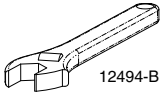
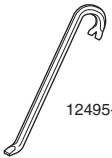

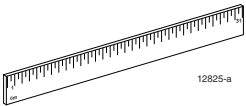
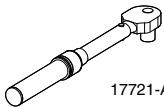
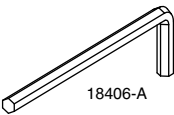
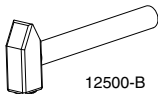
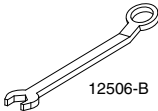
TOOL	PICTURE
Adjustable wrenches (2) 0.25 to 1 inch (8 to 25.4 mm)	 <p>12494-B</p>
Crow bar	 <p>12495-B</p>
Drill with metal and concrete drill bits 0.25 to 1 inch (8 to 25.4 mm)	 <p>12496-B</p>
Ruler or tape measure	 <p>12825-a</p>
Torque wrench 19.9 ft.-lbs. (27 Nm)	 <p>17721-A</p>
Allen wrench (5/16-inch) Note: Used for leveling frame	 <p>18406-A</p>
Hammer	 <p>12500-B</p>
Set of combination open-end/box-end wrenches 0.25 to 1 inch (8 to 25.4 mm)	 <p>12506-B</p>

Table 1. Tools Required, continued

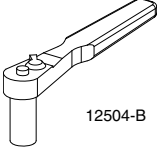
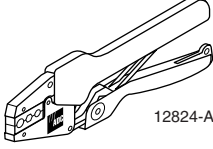
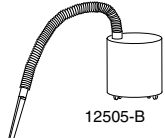
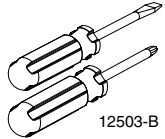
TOOL	PICTURE
Set of sockets 0.25 to 1 inch (8 to 25.4 mm)	 <p>12504-B</p>
Crimping tool 0.25 to 0.3 inches (6.35 to 7.62 mm) Note: Used for grounding frame	 <p>12824-A</p>
Vacuum	 <p>12505-B</p>
Flat tip (-) and Phillips (+) screwdrivers (#1, #2, and #3)	 <p>12503-B</p>

Table 2. Ground Wire Kit Components (Accessory)



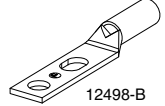
ITEM	DESCRIPTION/PICTURE
Ground cable (13 ft.)	#6 AWG (4.1 mm) solid copper wire
Nylon cable clamps (8)	 <p>18413-A</p>
12-24 x 0.5 inch screws	 <p>18414-A</p>
2-hole copper compression lug (1) with 0.75-inch hole spacing. Note: Accommodates #6 AWG wire	 <p>12498-B</p>

Table 3. Other Components Used

PART	PICTURE
<p>Concrete floor installation kit (four threaded assemblies)</p>	<p>STUD</p> <p>NOTE: ONE PIECE</p> <p>TORQUE LIMITING HEX NUT</p> <p>FLAT WASHER</p> <p>METAL SLEEVE</p> <p>EXPANDABLE CONE</p> <p>TORQUE NUT</p> <p>TOP FLANGE (SHEARS OFF)</p> <p>PLASTIC COVER</p> <p>NYLON SPACER</p> <p>18008-B</p>
<p>Hold-down washer (4) (provided with frame)</p>	<p>21899-A</p>

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

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

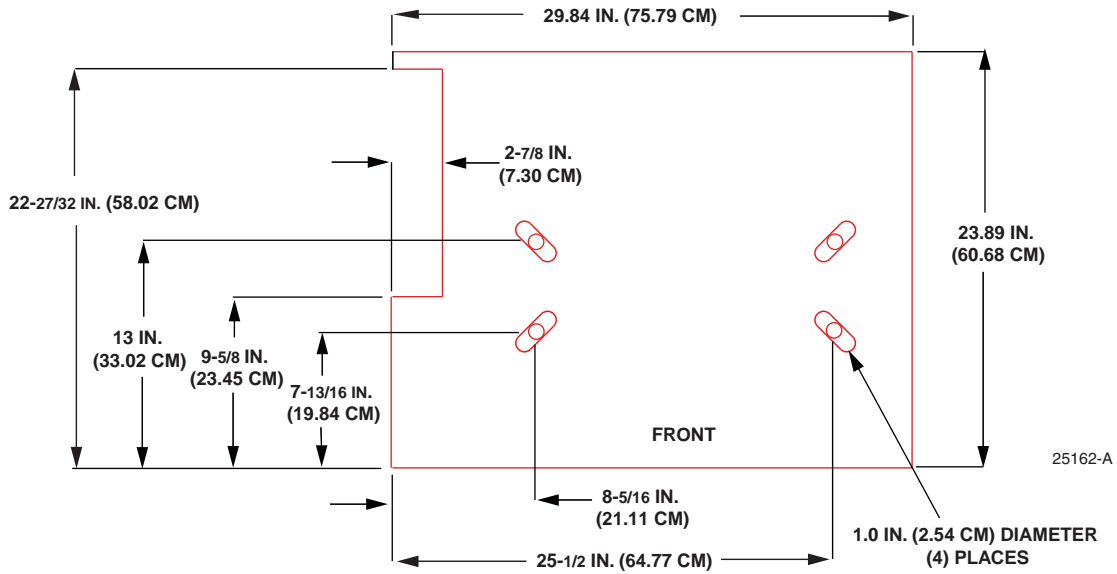


Figure 1. Frame Footprint (Optional Template Shown)

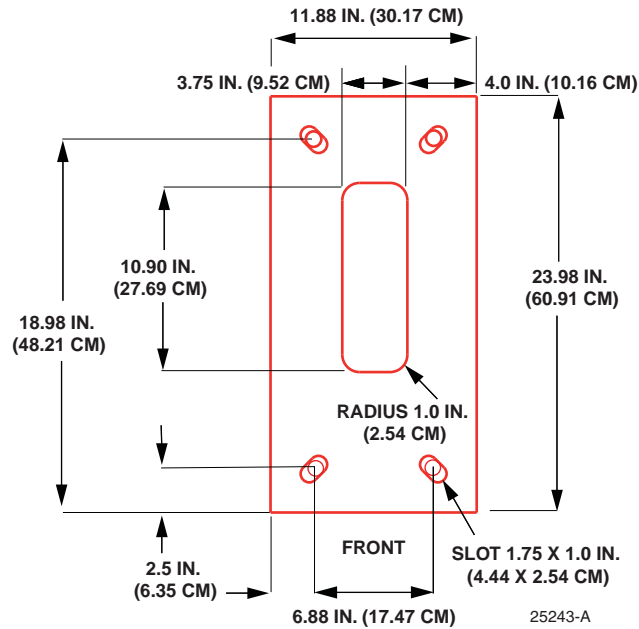


Figure 2. FOTSP Footprint

3 MOUNTING THE FRAME ON A CONCRETE SURFACE

To mount the frame on a concrete surface, use the following procedure.

► **Note:** Storage spools may loosen during shipment. Check storage spools for looseness. Tighten spool cover screws if spools are loose.

1. Determine the frame location and ensure that the front and rear aisles at that location meet the recommended minimum widths shown in [Figure 3](#).

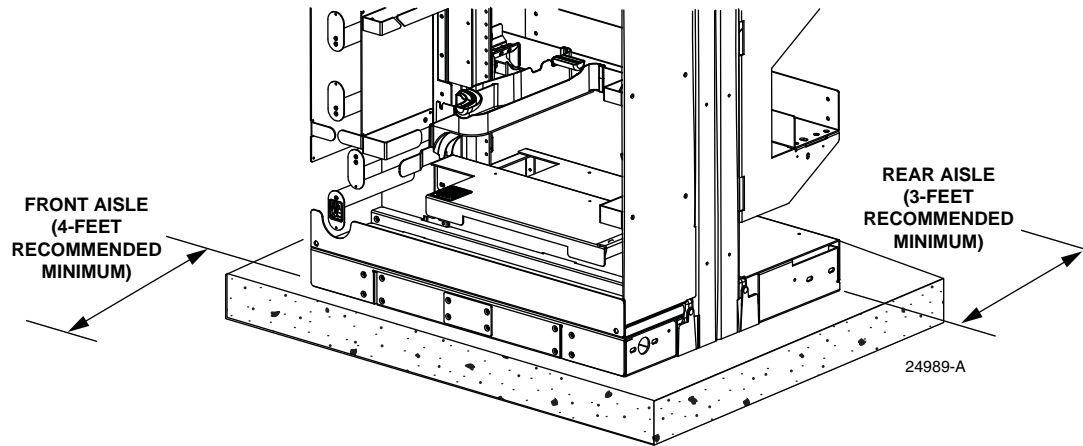


Figure 3. Determining Frame Location

2. Place the isolation pad on the concrete floor at the location just chosen, and use it as a template to mark the concrete for the four mounting holes as shown in [Figure 4](#). If optional FOTSP will also be installed, mark the location for the FOTSP, also, as shown.

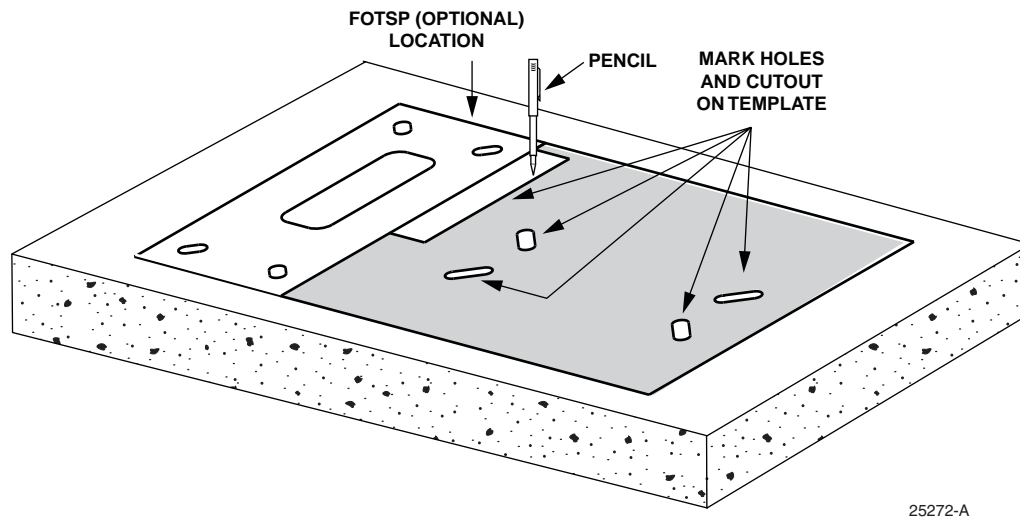


Figure 4. Marking Concrete

3. Set aside the isolation pad and drill four mounting holes in the concrete at the marks just made, as shown in [Figure 5](#).

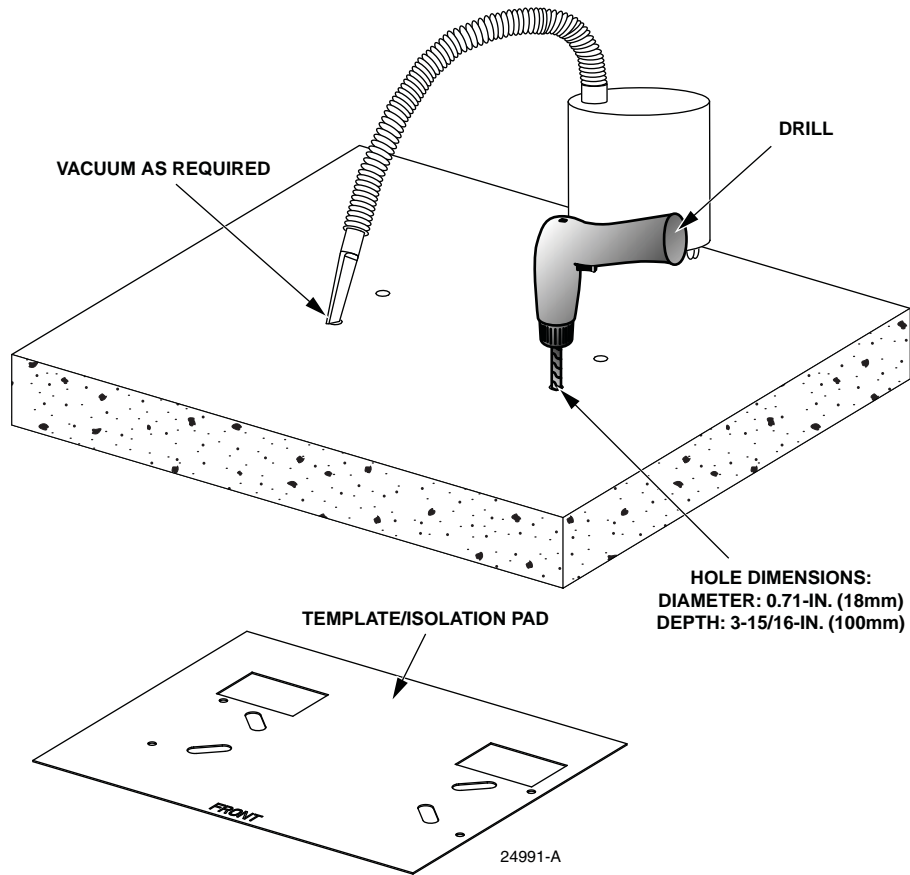


Figure 5. Drilling Mounting Holes

4. Thread the washer and torque nuts onto the threaded rod, as shown in [Figure 6](#). Insert the anchor bolt assembly into the hole. The washer should touch the top of the anchor sleeve. Tap the anchor bolt assembly with a hammer until the washer touches the concrete.

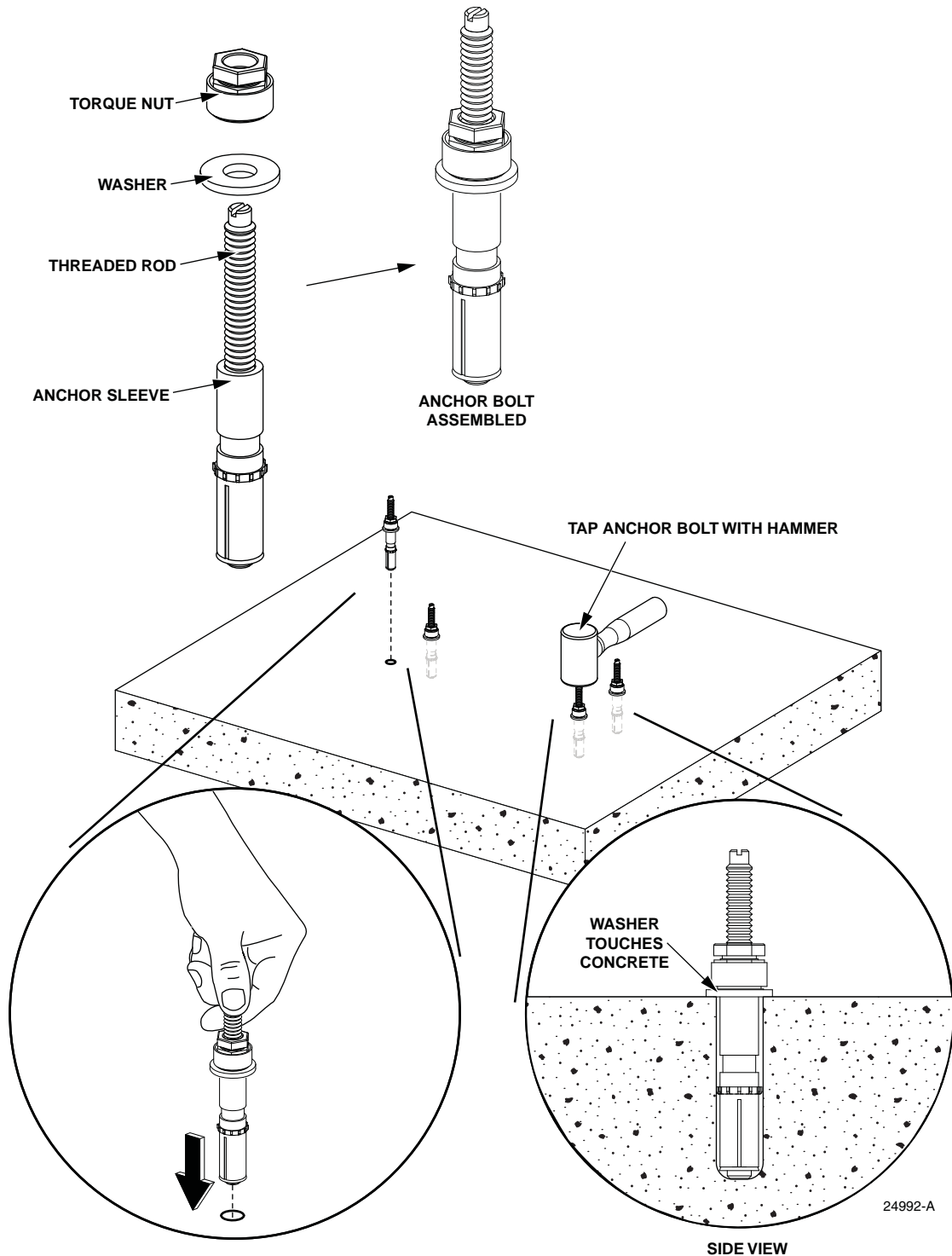


Figure 6. Installing Washer and Torque Nut on Threaded Rod

5. Pre-torque the anchor bolt to approximately 30 foot-pounds (41 Newton meters). Refer to [Figure 7](#).

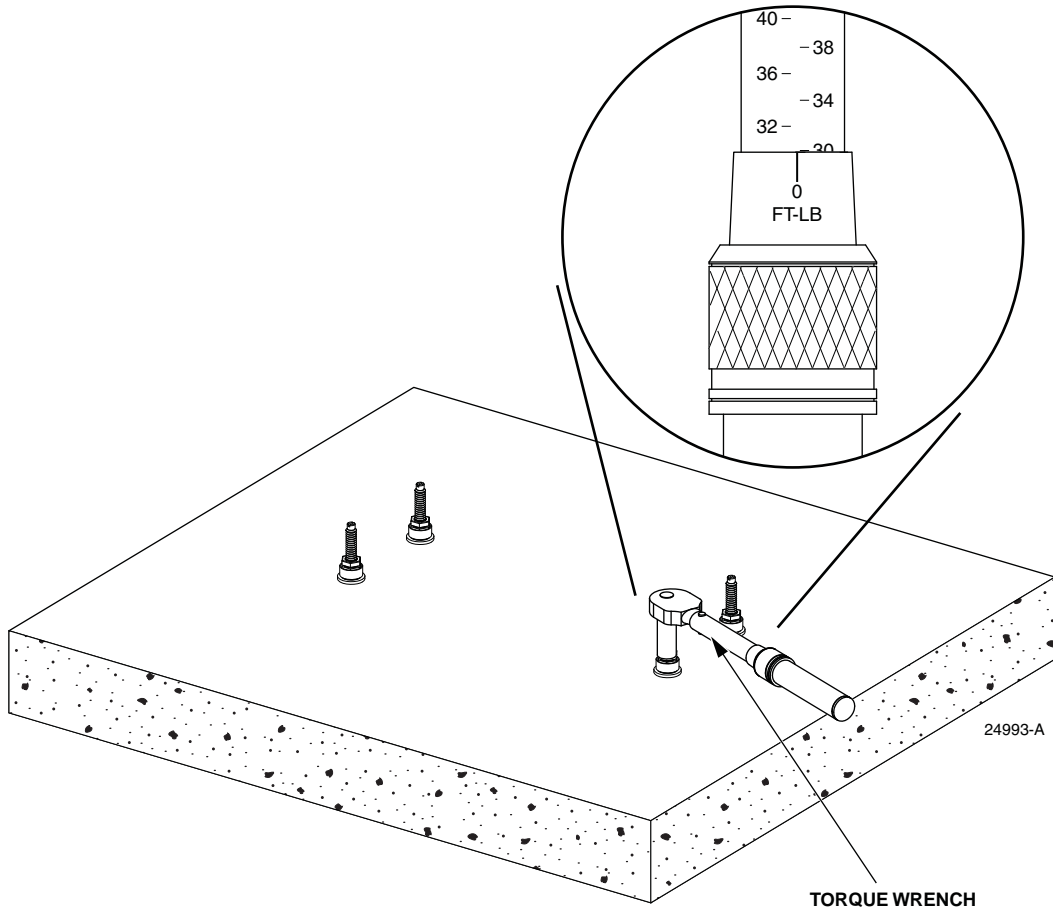


Figure 7. Pre-torquing Anchor Bolt

- 6. Loosen the torque nuts several turns, and then remove the torque nut and washer, as shown in Figure 8.

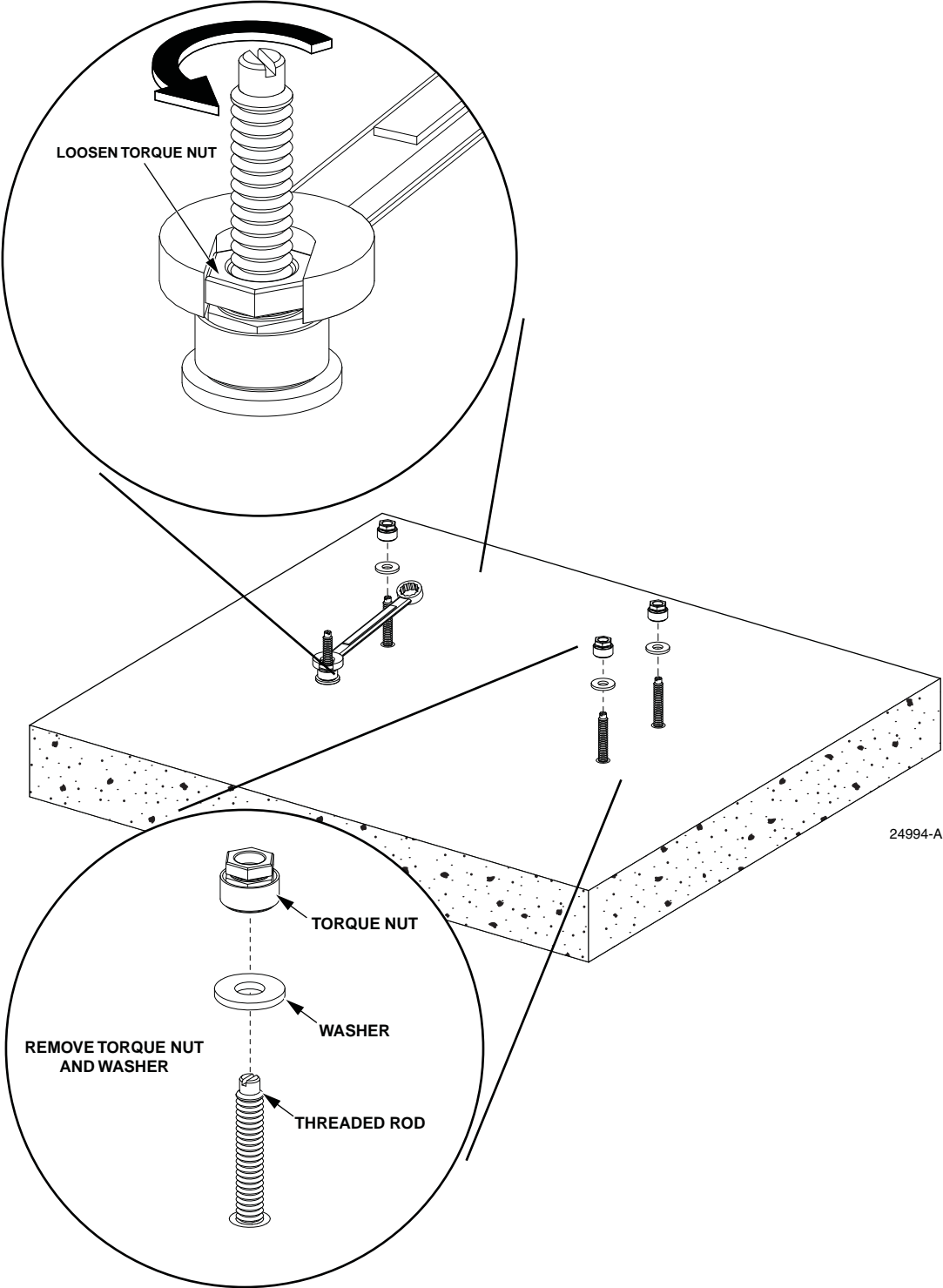


Figure 8. Removing Torque Nut and Washer



Caution: A NG4access frame weighs approximately 350 lbs. (159 Kg.) Do not attempt to lift or move the rack without using appropriate lifting equipment (Figure 9).



24988-A

Figure 9. Caution

7. Remove the front and rear troughs to access the mounting slots (Figure 10).

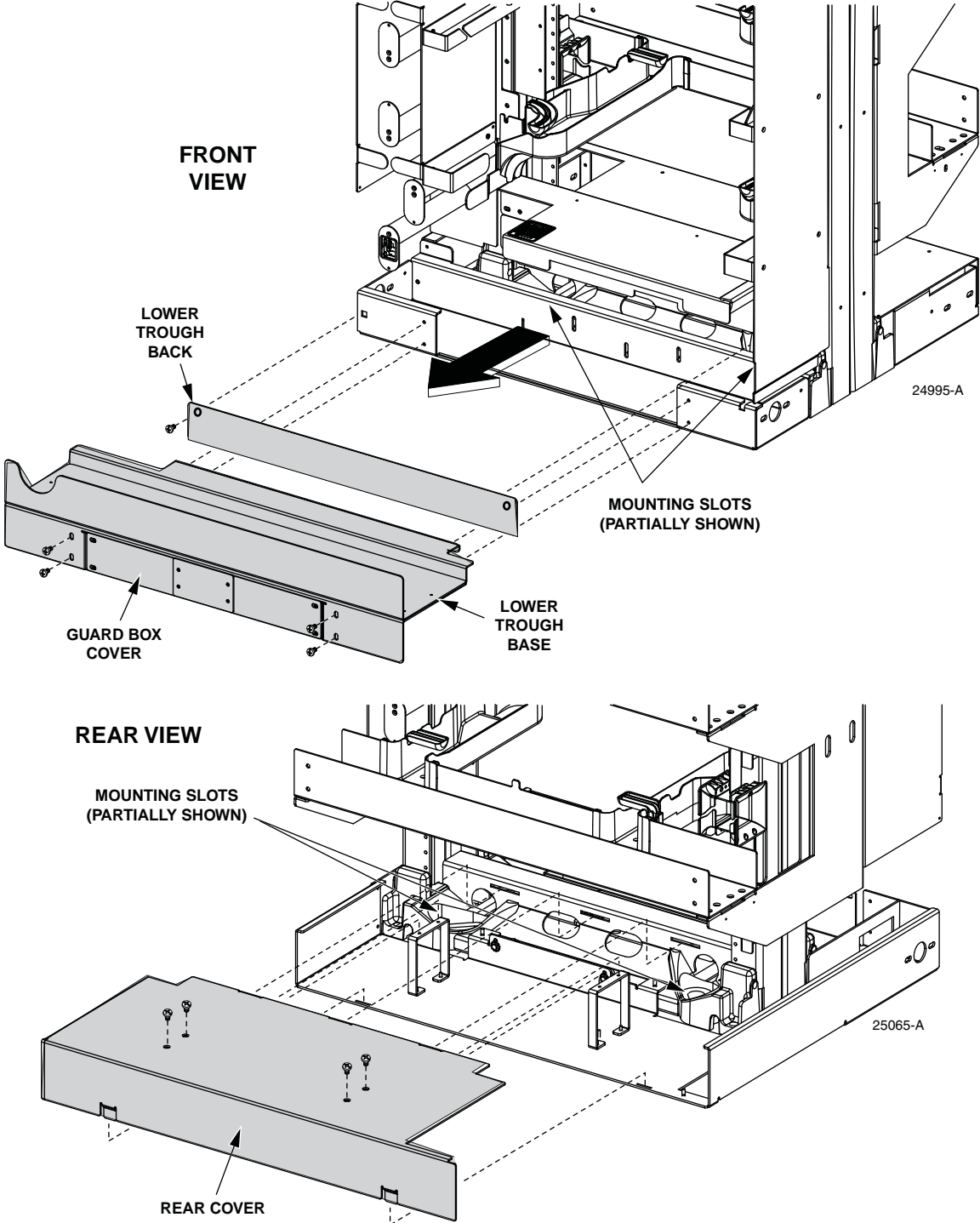


Figure 10. Removing Troughs

8. Position the isolation pad and frame on the concrete, as shown in [Figure 11](#).

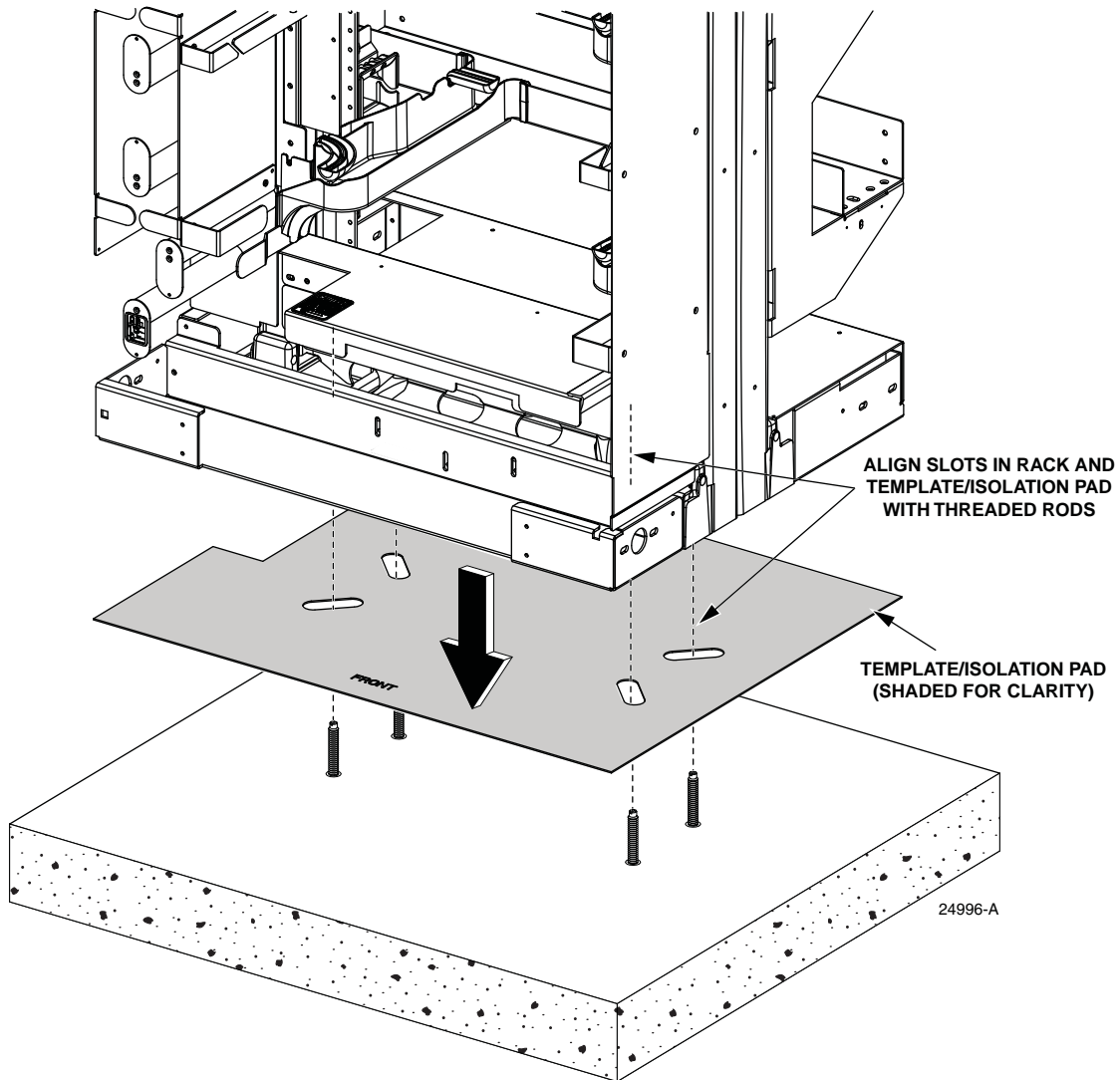


Figure 11. Positioning Isolation Pad and Frame

9. Assemble the hardware provided onto the threaded rods (in four places), but do not tighten the torque nut fully. Refer to [Figure 12](#).

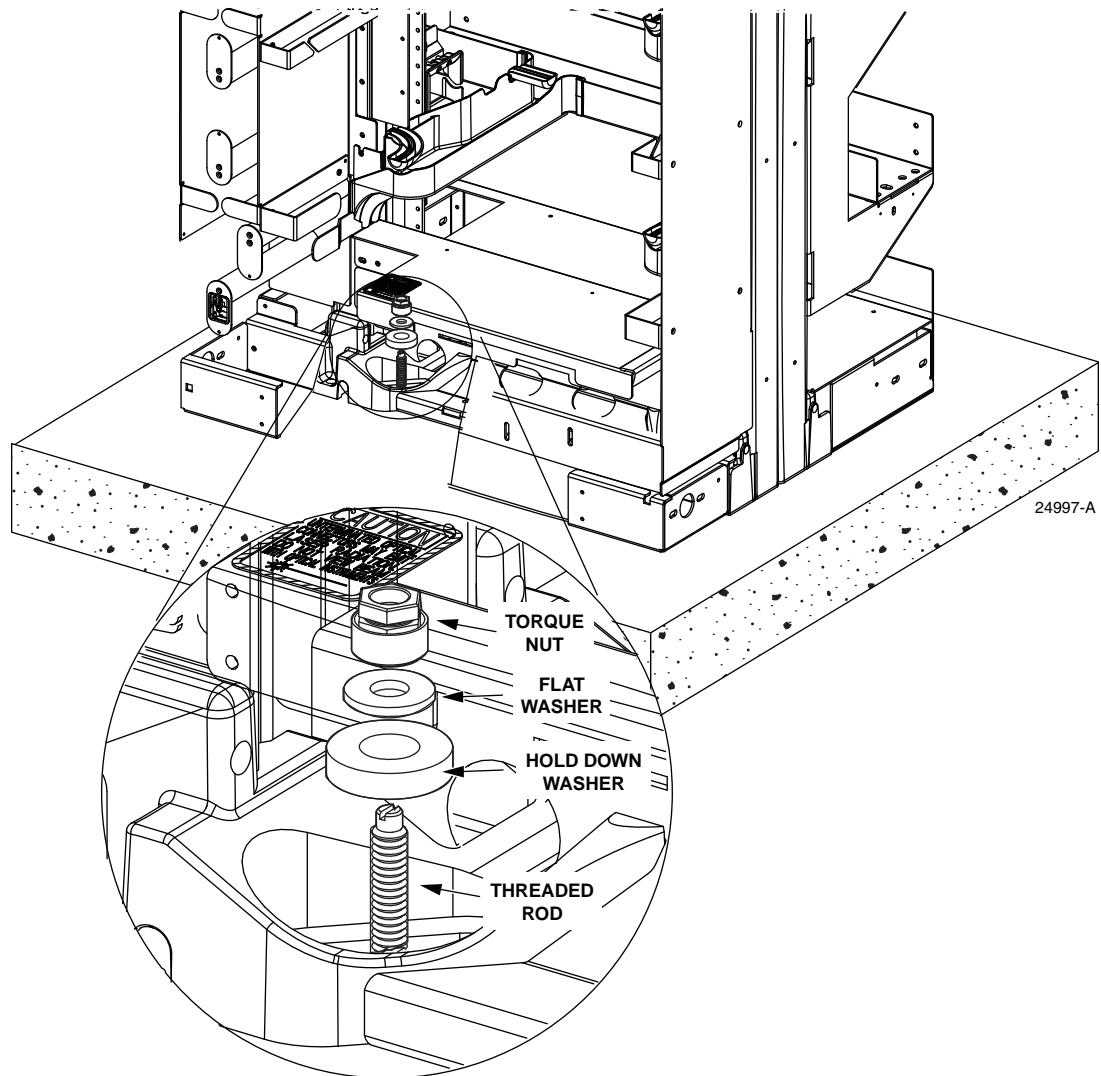


Figure 12. Assembling Hardware Onto Threaded Rods

- Using a 5/16-inch allen wrench, adjust the set screws to level the rack. Refer to [Figure 13](#).

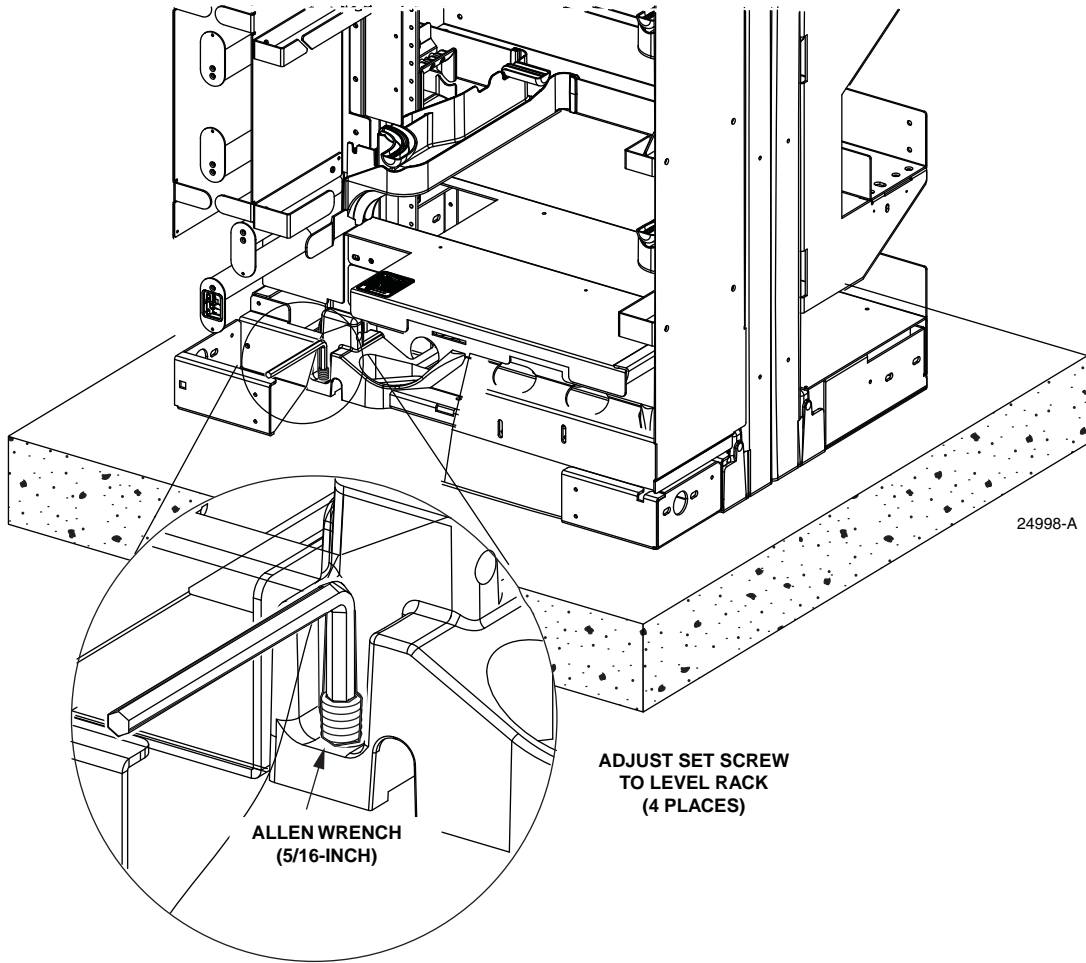


Figure 13. Adjusting Set Screws to Level Rack

11. Tighten the torque nut until the top flange shears off (in four places) (Figure 14).

► **Note:** The torque nut will be correctly set at 60 foot-pounds (81 Newton meters) when set as described.

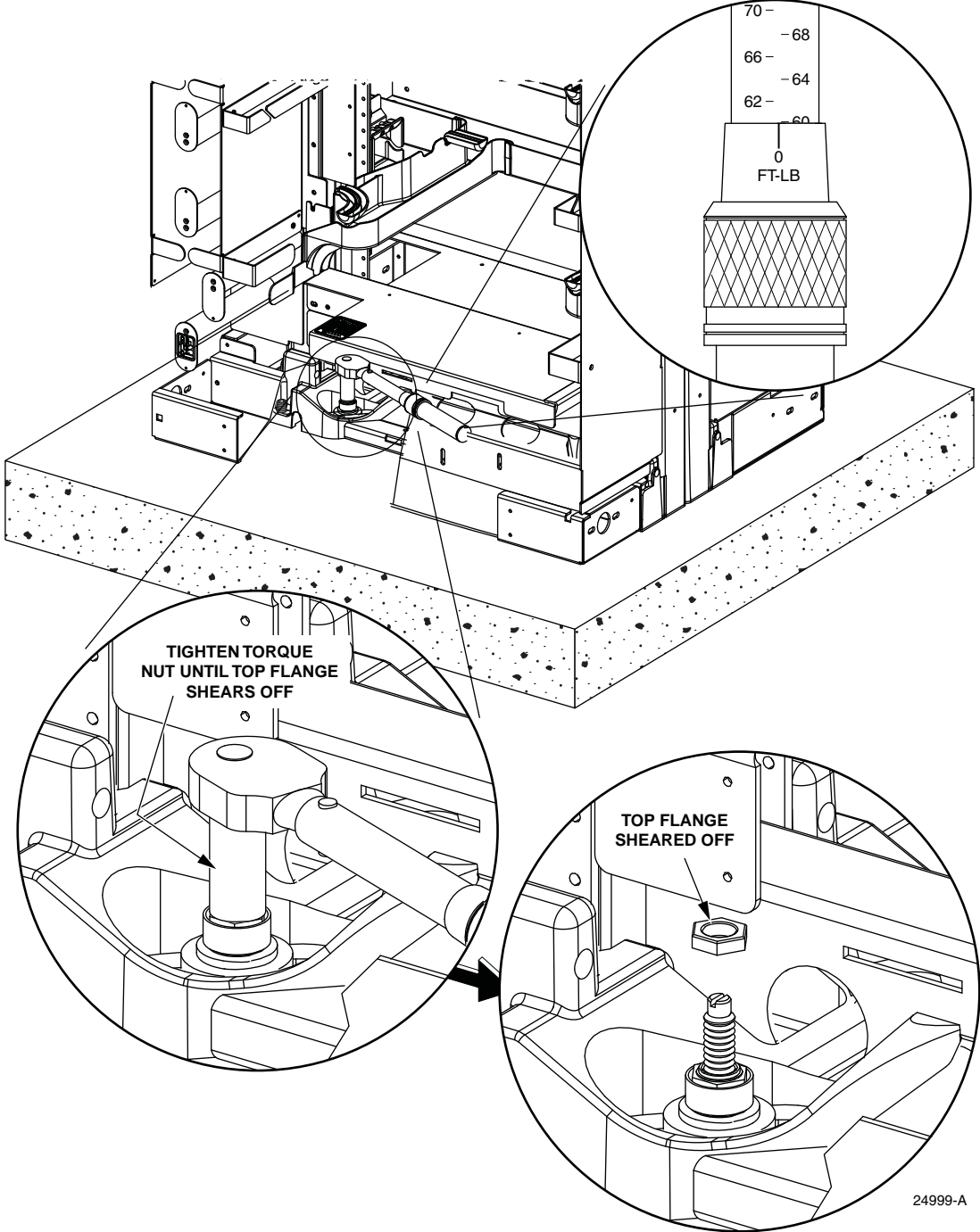


Figure 14. Tightening Torque Nut

12. Re-install the front and rear troughs, as shown in [Figure 15](#).

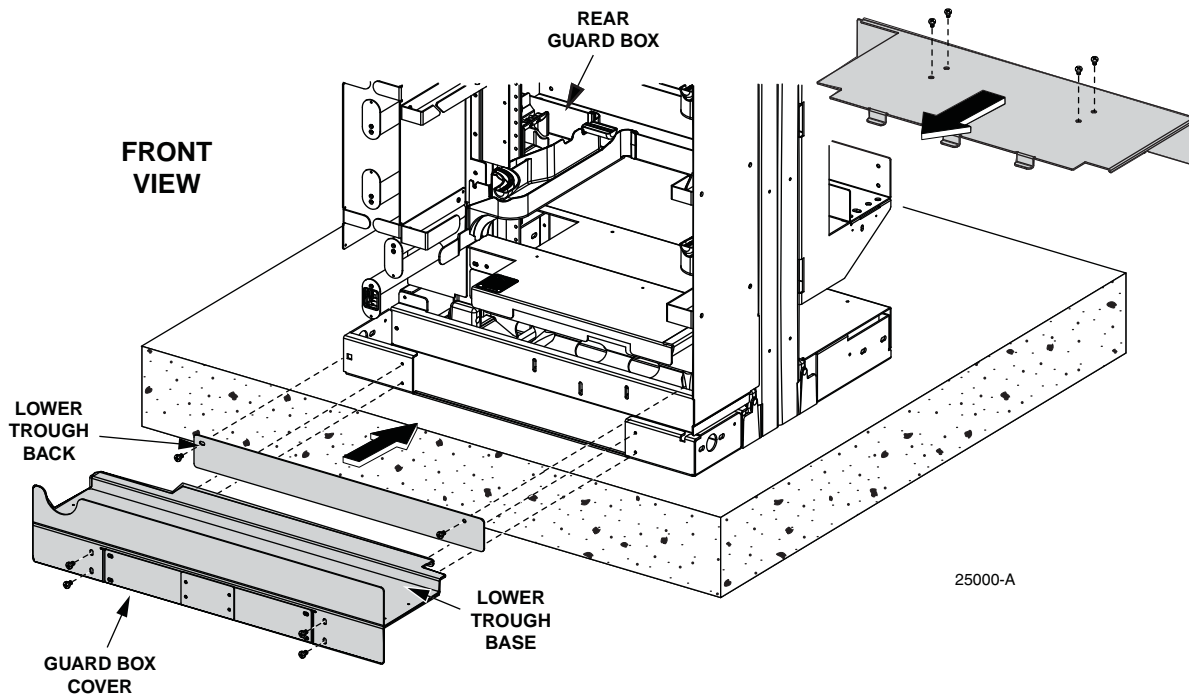


Figure 15. Re-installing Front and Rear Troughs

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 4](#). Use the following procedure to install a FOTSP.

1. If the front trough covers and guard box, and the rear guard box, are present on the frame, remove them. [Figure 15](#) 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 4](#) 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 16](#).

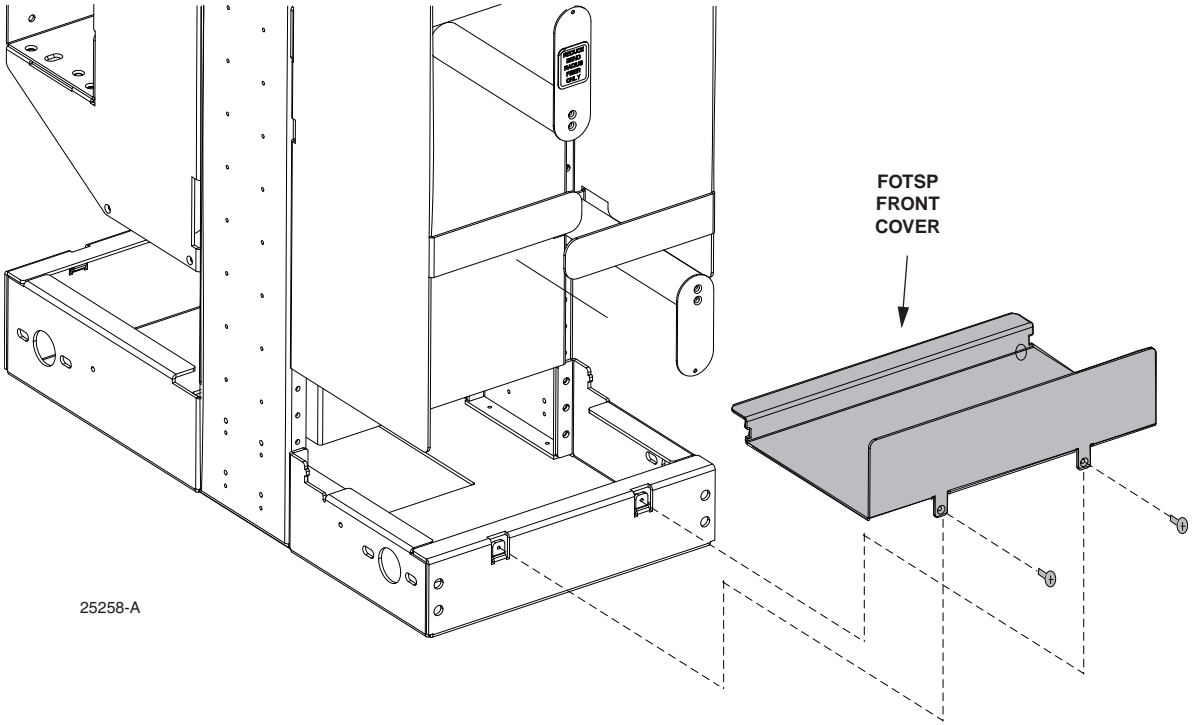


Figure 16. Removing FOTSP Front Cover

5. Remove the FOTSP back cover and cover plate (Figure 17).

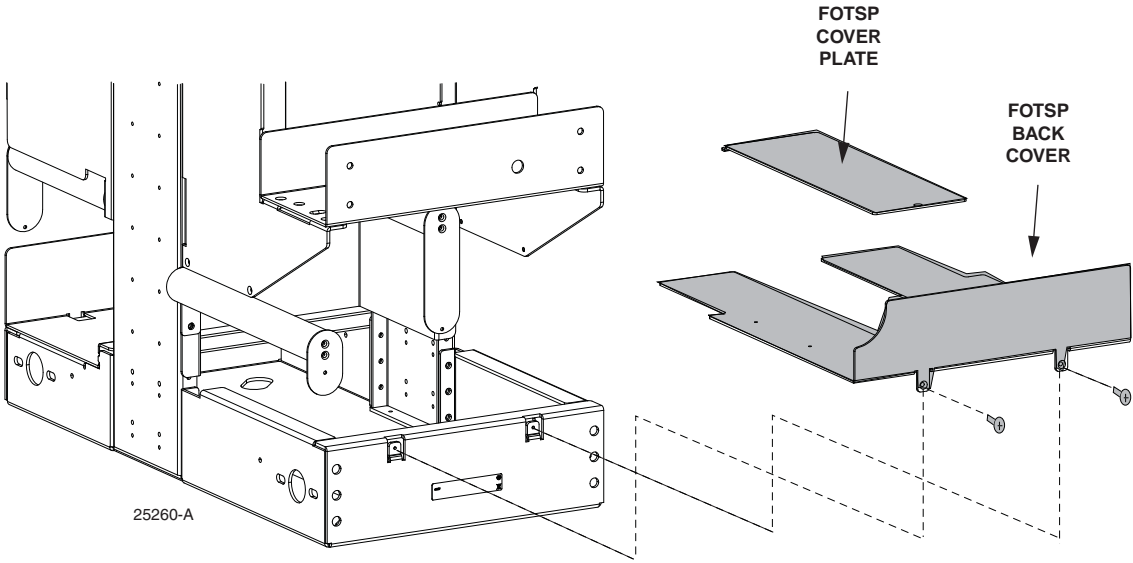


Figure 17. Removing FOTSP Back Cover and Cover Plate

- Secure the FOTSP to the NG4access frame by installing tie brackets in two places and trough ties in six places as shown in Figure 18.

► **Note:** Refer also to the detailed views in Figure 19 and Figure 20.

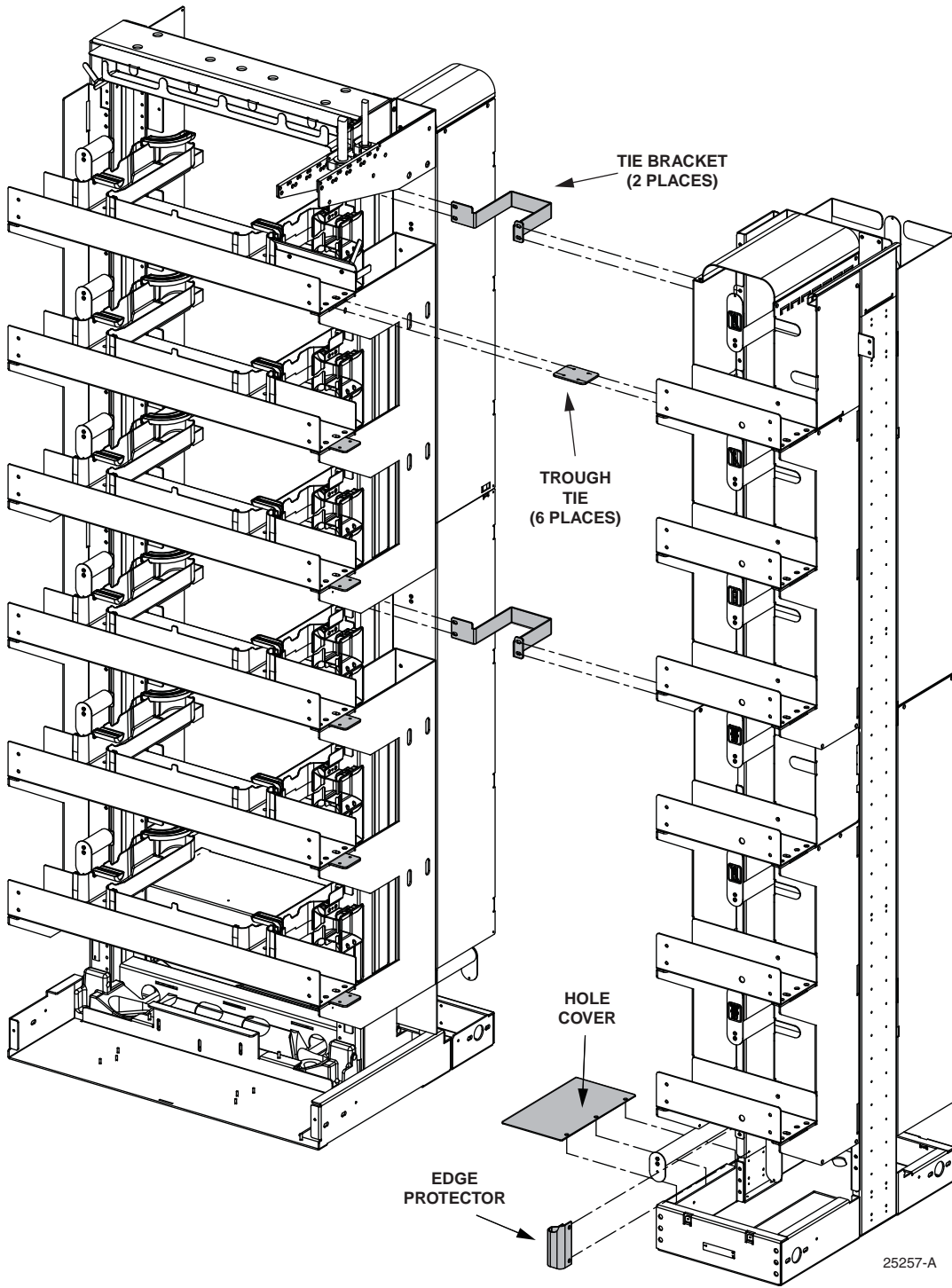


Figure 18. Installing Brackets

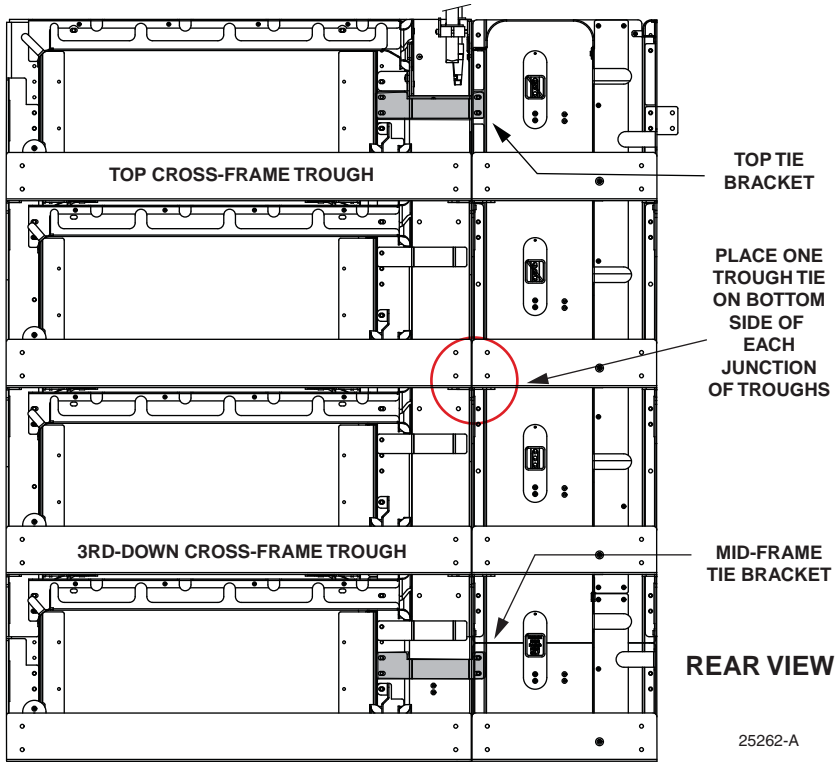


Figure 19. Rear View of Bracket Locations

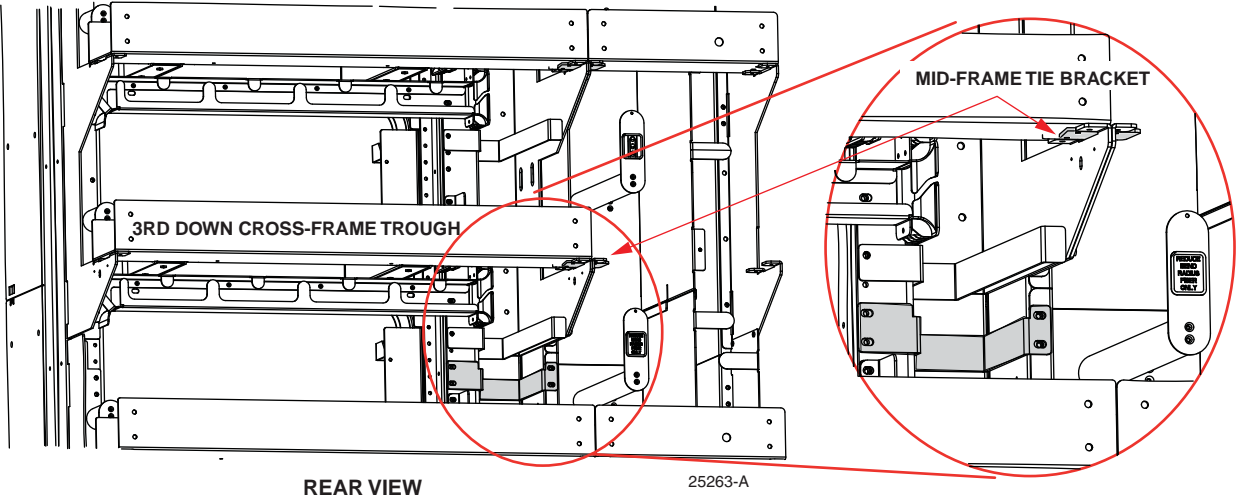


Figure 20. Rear View With Frame Tilted to Show Brackets Under Trough

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 21](#), then, as noted, install two hex bolts in the analogous location on the front of the frame.

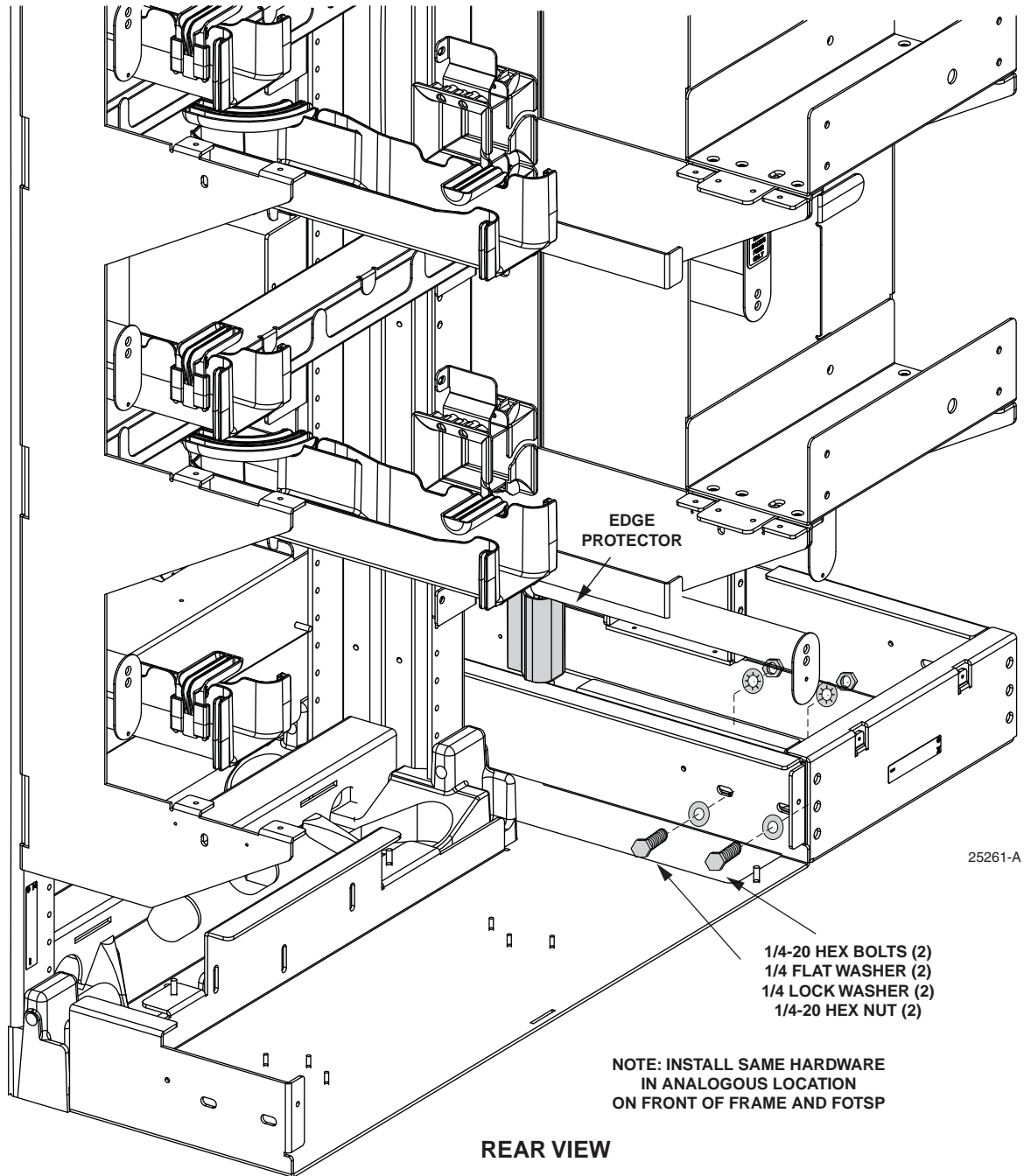


Figure 21. Bolting Together Frame and FOTSP Bases

8. Install the edge protector on the FOTSP in the location shown in [Figure 21](#).

9. Install the hole cover in the location shown in [Figure 18 on Page 18](#).
10. Re-install the front and rear troughs, as shown in [Figure 15 on Page 16](#).
11. Re-install FOTSP front and rear guard boxes (reverse of steps 3 and 4, and reverse of what is shown in [Figure 16 on Page 17](#) and [Figure 17 on Page 17](#)).

5 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 22](#). 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. Follow local practice to connect the ground wire to office ground.

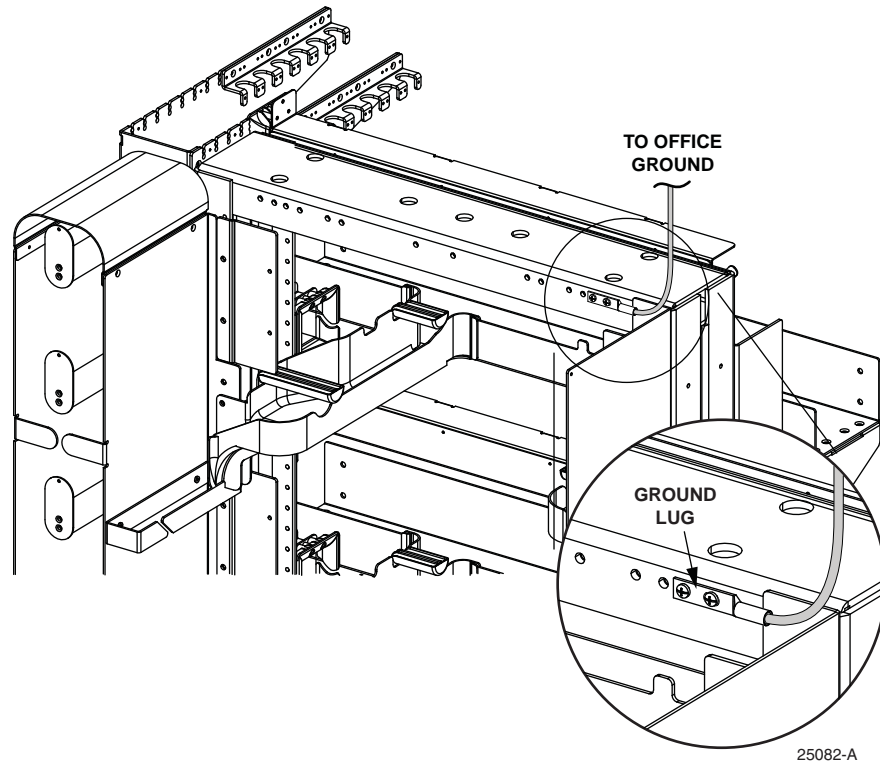


Figure 22. Grounding the Frame

6 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);
- Associated hardware.

Use the following procedure:

1. Position yourself on the rear side of the two frames and 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 as shown in [Figure 23](#). Secure the plate using four 10x32 flathead screws as shown.

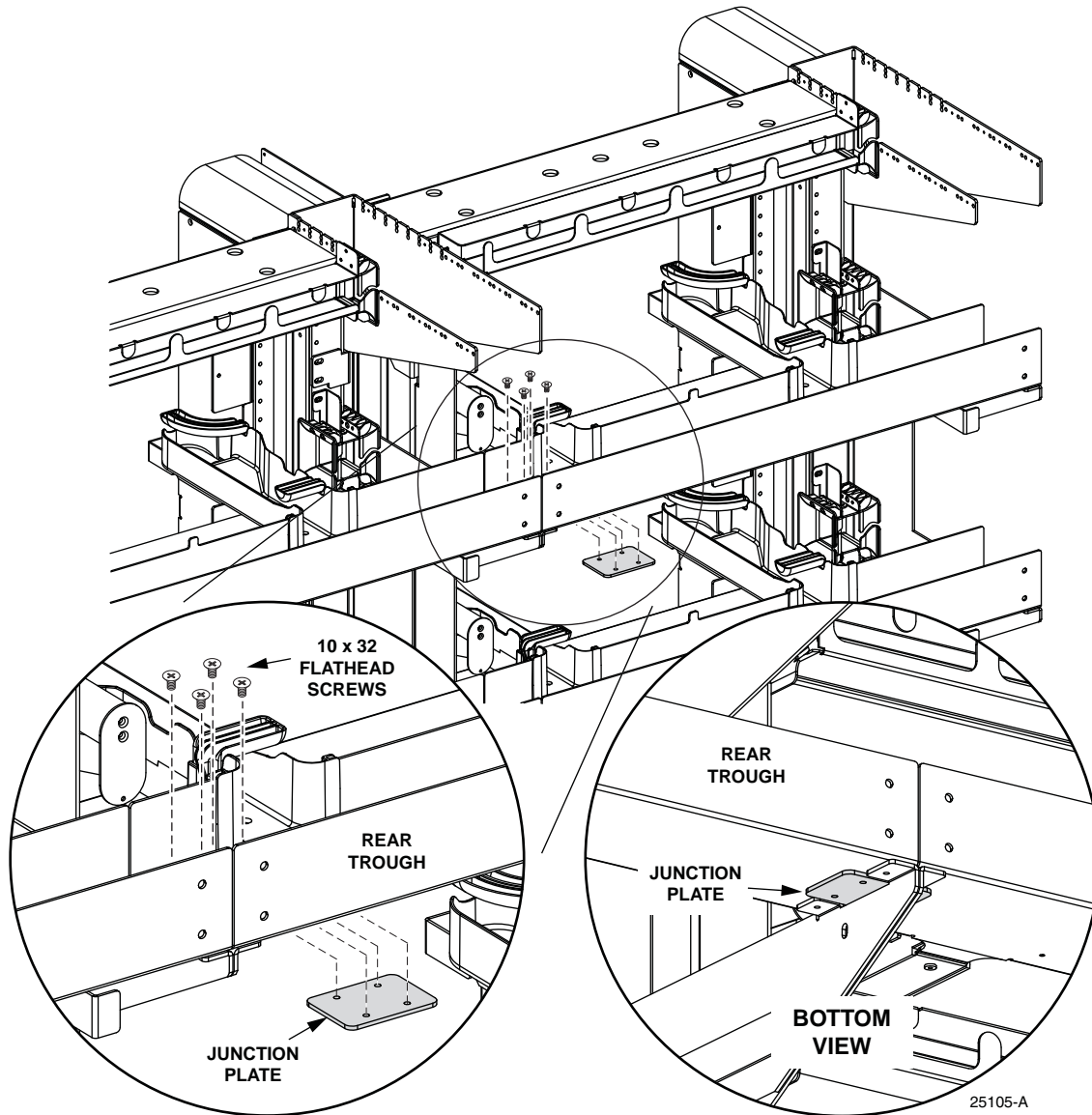


Figure 23. Installing Junction Plates (Six Places)

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 24.

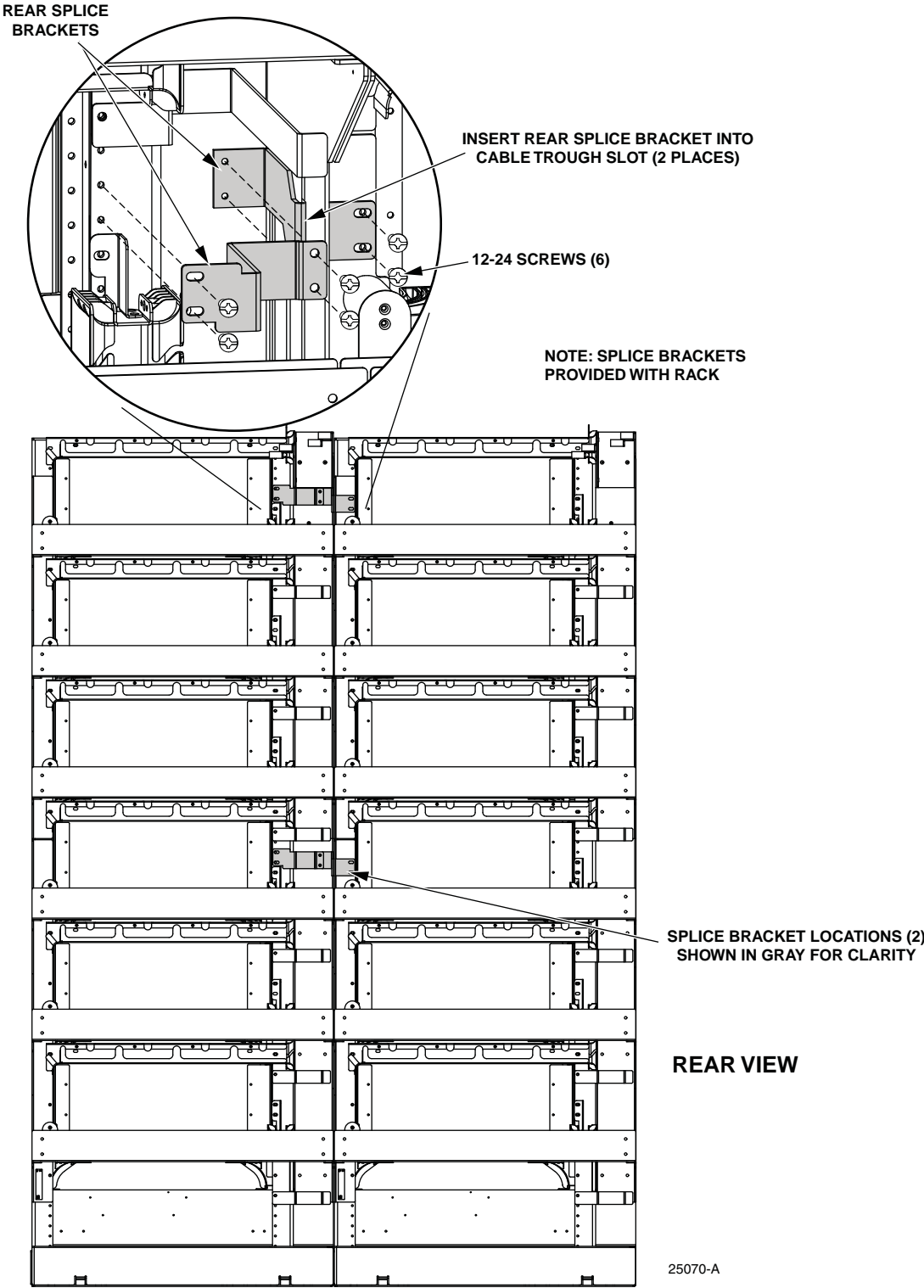


Figure 24. Installing Rear Splice Brackets

7 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>

