



## Rackmount Slides and Rails Kit Instructions

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# General Safety Summary

Review the following safety precautions to avoid injury and prevent damage to this product or any products connected to it.

To avoid potential hazards, use this product only as specified.

While using this product, you may need to access other parts of a larger system. Read the safety sections of the other component manuals for warnings and cautions related to operating the system.

## To Avoid Damage to Equipment and Personal Injury

**Do Not Exceed Rackmount Weight Ratings.** Do not put more weight on rackmount than is listed in the specifications.

**Use Proper Hardware.** Do not interchange rack slides or rails with other hardware or injury may result. Use only rails specified for the slides and mounting screws.

**Use Care When Installing and Removing Product From Rack.** Use two people to install and remove product from rack, one on each side. Avoid pinching fingers and hands when installing and removing. Do not force the product into the rails when installing. Gently pull the product out when removing.

**Use Only With Specified Products.** Do not use rackmount on products for which it was not intended. Refer to individual product manuals for details or contact Tektronix Customer Service when in doubt.



# Kit description

The rackmount kit is a collection of parts that, once installed, configures specific products for mounting into a standard 19-inch equipment rack. This document describes how to install the rackmount kit onto various products.

## Supported product specifications

The rails and slides in these kits are made for Tektronix products that do not exceed 25 lbs (11.34 kg) in weight.

## Kit parts list

The following tables list the parts contained in this kit. The associated figures show what the parts look like. You may have received only the slides part of the kit, only the rails part of the kit, or both, depending on what you ordered. If your kit was shipped with your instrument, the slides may already be installed.

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**NOTE.** A replacement package of screws, bar nuts, levers, and bushings is available to order from Tektronix. Request part number 016-2031-xx.

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Table 1: Slides assembly parts list (See Figure 1.)

Figure and index no.	Qty.	Name and description
1-1	2	BRACKET, RACK, CHASSIS-SIDE
1-2	2	BRACKET, RACK, LEVER, CHASSIS-SIDE
	2	BUSHING, RACK, CHASSIS-SIDE
1-3 <sup>1</sup>	2	SCREW, MACHINE; 8-32 X 0.5, FLH, 100 DEG, STL, ZN PL, PHIL (English)
	6	SCREW, MACHINE; 8-32 X 0.375, PNH, STL, ZN PL, PHIL (English)
1-4 <sup>1</sup>	2	SCREW, MACHINE; M4X10MM L, FLH, STL, ZN PL, PHIL (metric)
	6	SCREW, MACHINE; M4 X 8MM L,PNH, STL, ZN PL, PHIL (metric)

<sup>1</sup> Some instruments require metric screws to install the slides, other instruments require English screws. See Table 3 on page 5 to determine which screw type applies to your instrument.

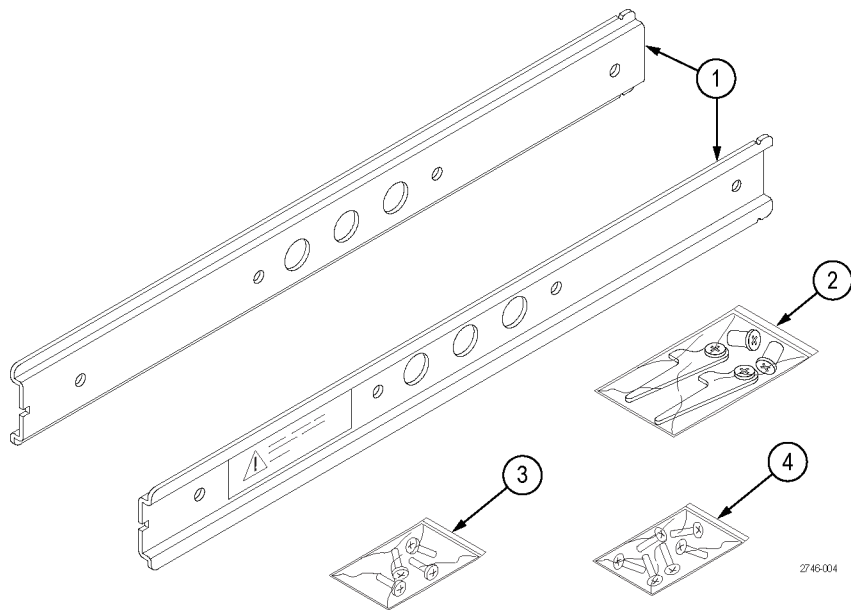
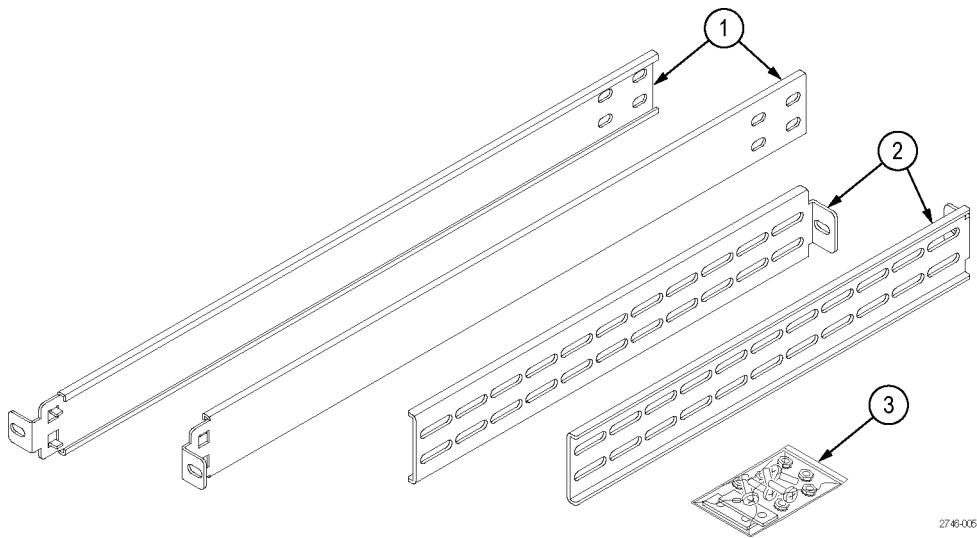


Figure 1: Slides assembly parts



Table 2: Rails assembly parts list (See Figure 2.)

Figure and index no.	Qty.	Name and description
2-1	2	BRACKET, RACK, STATIONARY
2-2	2	BRACKET, RACK, REAR CABINET
2-3	2	BRACKET, RACK, BAR NUT
	8	SCREW, MACHINE; 10-32 X 0.625,TRH, ZINC PLATED STEEL, PHIL
	4	NUT ASSY; 10-32 X 0.375 HEX, ZINC PLATED STEEL, LOCK WASHER



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Figure 2: Rails assembly parts

## Installation instructions

This section provides instructions for doing the following:

- Installing the slides onto your product if they are not already installed
- Installing the rails into a standard 19-inch equipment rack
- Installing the instrument into the rails in the rack



**WARNING.** *To avoid personal injury and instrument damage, do not use slides provided with other instruments from other kits (for example, General Devices, Chassis Trak C-300) with the rails from this kit. The locking feature will not function, resulting in product falling out of the rack when it is removed from the rack.*

**Do not mix parts from different rackmount kits.** *Mixing the items will result in an instrument that is not secured properly and could fall out of the rack, causing personal injury or instrument damage.*

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## Equipment list

The following tools are required to install the kit hardware:

- #2 Phillips screwdriver
- 3/8 inch wrench



**WARNING.** *To prevent the rackmounted instrument from tipping forward onto the operator, install the instrument so that the operator will be able to access all of its rear-panel connectors without pushing down on the instrument. Verify that the rack does not become unstable with the instrument fully extended. Do not leave the instrument extended when finished accessing the rear panel.*

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## Installing the slides

### Screw selection

For the slides installation, this kit provides two sets of screws: one metric and one English. Both screw types are provided because some instruments require metric screws to attach the slides, other instruments require English screws. In addition, some instruments require four screws to attach the slides and others require three screws.

Use the following table to identify the type and number of screws to use for your instrument.

**Table 3: Rack slides: Screw type and number of screws for each instrument type**

Instrument type	Screw type	Number of screws
ECO80x0	Metric	4
SPG600		
TG700		
TG8000		
SPG700	Metric	3
SPG8000		
SPG8000A		
PRISM MPX		
ECO422D	English	4
WVRxxxx		
IPM400A	English	3
MTM400A		
QAM400A		
RFM300		

**Procedure** Perform this procedure to attach the slides to the instrument.

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**NOTE.** *The slides may already be installed on your instrument. If they are, skip this procedure and go to Installing the Rails. (See page 9.)*

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1. Identify the right rear and left rear of each slide. A warning label will be on the outside side of each slide. (See Figure 3.) (See Figure 4.)
2. Make sure that the rear of the slide is nearest to the rear of the instrument. The front of each slide has a notch in the center edge.
3. Align the mounting holes on the right slide to the mounting holes on the right side of the instrument.
4. Using a screwdriver with a #2 Phillips tip, attach the right slide to the right side of the instrument by doing the following:



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**CAUTION.** *Be careful to select the correct screw type for your instrument (metric or English) (See Table 3.). If the screws do not insert easily, do not use excessive force or you may damage the threads. In this case, you are probably using the wrong screw type.*

*Whether your instrument requires the metric or English screws, the screws used in this step are the shorter screws provided in the package (0.375 in or 8 mm).*

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- a. **ECO422D, ECO80x0, SPG600, TG700, TG8000, and WVRxxxx only:** Depending on your instrument (See Table 3.), insert the metric or English screws into the first three mounting holes.
- b. **IPM400A, MTM400A, QAM400A, RFM300, SPG700, SPG8000, SPG8000A and PRISM MPX only:** Depending on your instrument (See Table 3.), insert the metric or English screws into the first two mounting holes.
- c. Place the lever, with the long handle facing the front of the slide and the short hook facing downward, over the remaining mounting hole. (See Figure 3.) (See Figure 4.)
- d. Depending on your instrument, insert a metric or English screw into the bushing for the lever.
- e. Insert the bushing and screw into the lever so that the lever is attached to the slide and the slide is secured to the instrument.

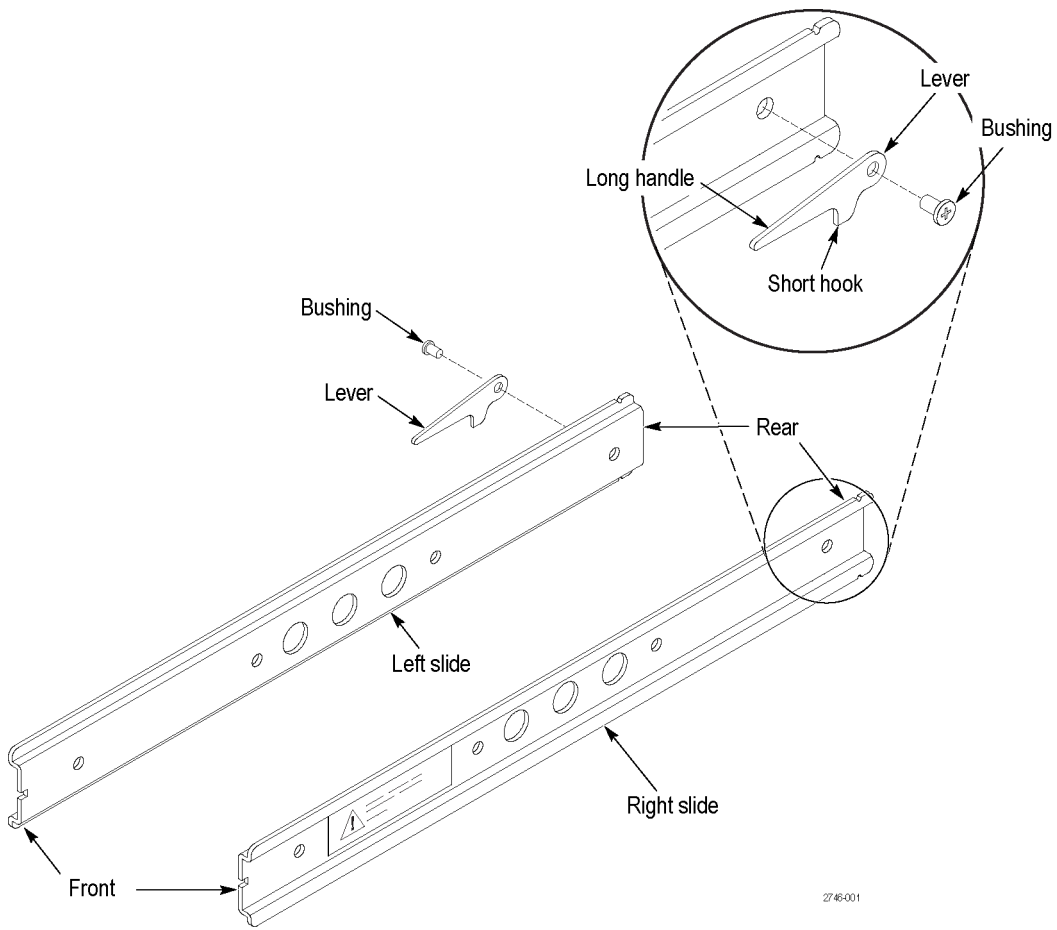


Figure 3: Attaching the slide levers (all instruments except the SPG700, SPG8000, SPG8000A and PRISM MPX)

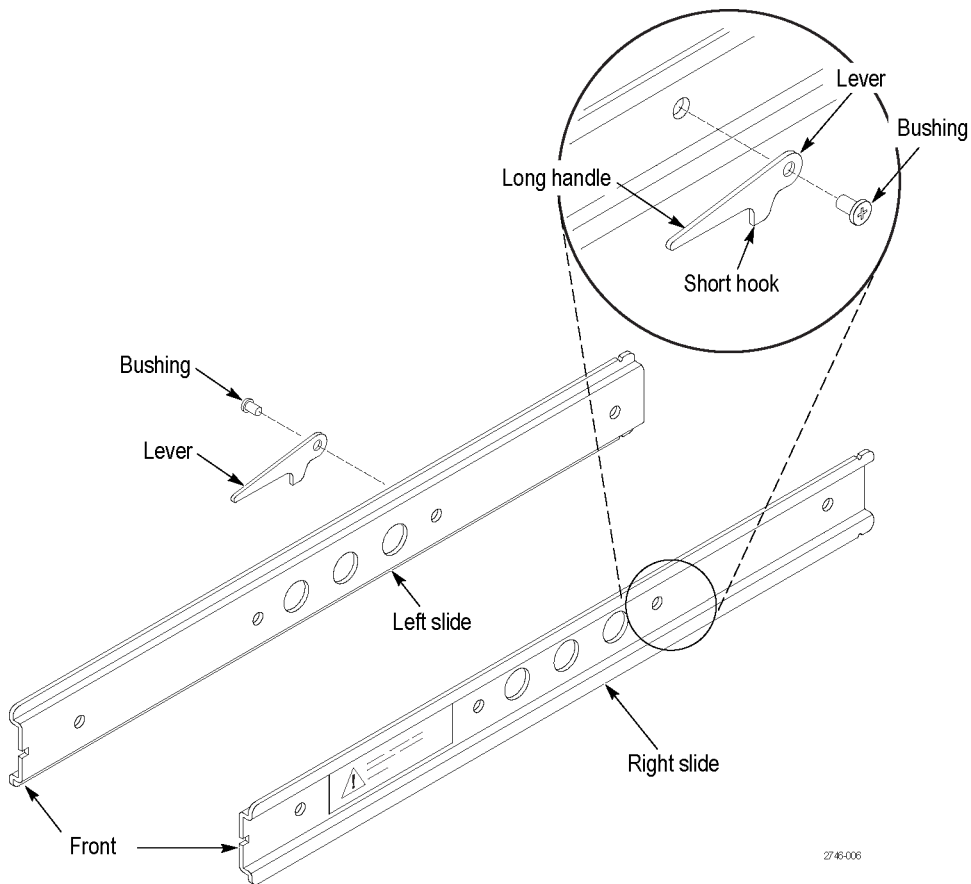


Figure 4: Attaching the slide levers (SPG700, SPG8000, SPG8000A and PRISM MPX only)

5. Rotate the instrument to face the left side and repeat this procedure to install the left slide.



**WARNING.** To reduce the risk of injury and equipment damage, make sure that levers are properly installed. An improperly installed lever can prevent the slide from locking or prevent the instrument from being removed from the rack. Make sure that the lever is installed so that the long handle is facing forward and the short hook is facing downward.

## Installing the rails

This two part procedure describes how to assemble and install the rails in the equipment rack.

### Assembling the rails

1. Measure the distance between the front and rear rail of the equipment rack.
2. Align the rear bracket to the right rail. Notice that the rear bracket has multiple pairs of mount-through holes. When aligning the bracket and rail, be sure to select a pair of holes that mount the rear bracket so that the flange-to-flange distance matches the front rail to rear rail spacing of the rackmount rack just measured in step 2. (See Figure 5.)
3. Using a screwdriver with a #2 Phillips tip, attach the rear bracket to the right rail using two 10-32 screws and a bar nut. Leave the screws loose so that you can adjust the overall length of the rail assembly in the rack.
4. Repeat this procedure to assemble the left rail assembly.

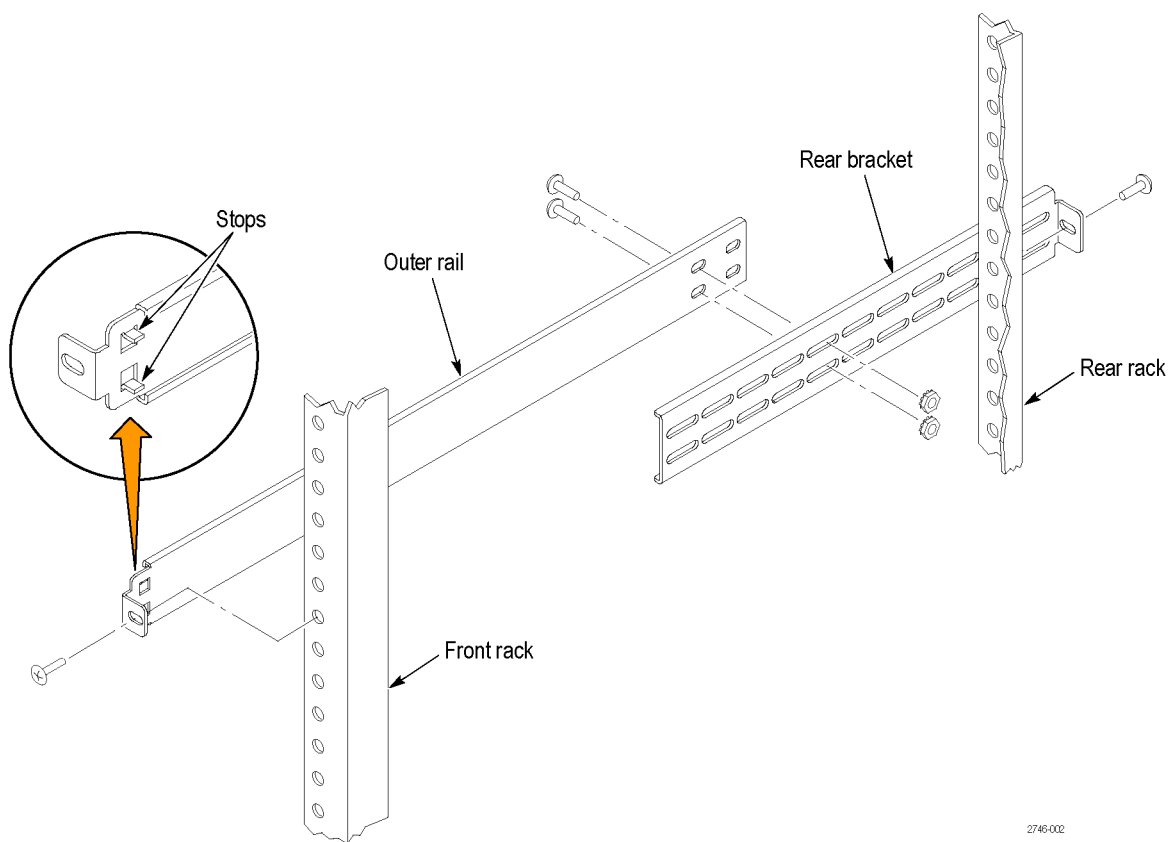


Figure 5: Assembly and mounting of rails

### Mounting the rails

1. Select a 1/2 inch spaced hole in the front rack.
2. Select the mounting method according to your rack type:
  - Mount the rails with their front and rear flanges outside the front and rear racks and add a bar nut to the installation only if the rails have untapped holes.
  - Mount the rails with their front and rear flanges inside the front and rear racks and add a bar nut. This mounting method assumes untapped holes.
3. Using the method and hardware determined from step 2, attach the right rail assembly to the equipment rack front and rear rails. The screws should be fully, but lightly, seated so that you can adjust the rack later.
4. Tighten the screws left loose when you assembled the rails, applying 28 inch-lbs of torque, to fix the front to rear flange spacing of the rail assembly.
5. Repeat this procedure to mount the left rail assembly.

## Installing the instrument into the rack

This procedure describes how to install the instrument into the equipment rack.



**WARNING.** To prevent injury during product installation, use care not to pinch hands or fingers in the rails and slides.

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1. Insert the instrument left and right slides into the ends of the rack rails while tilting the long handle part of each lever upward. (See Figure 6.)

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**NOTE.** Make sure to insert the instrument slides inside the inner rack rails. You may also need to tilt rear of the instrument up or down at a slight angle to fit the slides into the rails.

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2. Push the instrument into the rack until it stops.



**CAUTION.** To prevent damage to the instrument and rackmount, do not force the instrument into the rack if it does not slide smoothly. The rails assembly may need to be adjusted to resolve the problem.

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3. Retighten any loose screws and push the instrument all the way into the rack. If the tracks do not slide smoothly, readjust the rail assemblies.
4. When adjusting is completed, tighten all rail assembly 10-32 screws using 28 inch-lbs of torque.



5. If the instrument has knob screws on the front corners, tighten them so that they are secured in the rack.
6. To remove the instrument from the rack, loosen the knob screws.

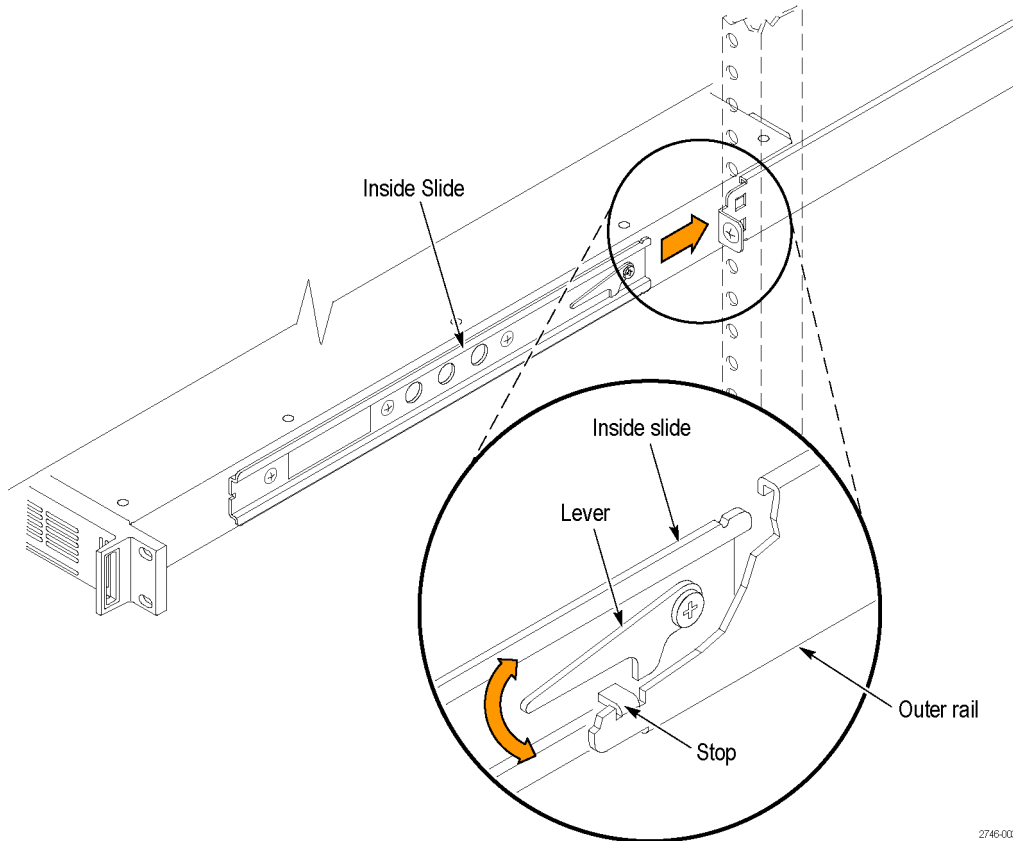


Figure 6: Installing or removing the instrument into or from the rack

## Removing the instrument from the rack

This procedure describes how to remove the instrument from the equipment rack.



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**WARNING.** *To prevent injury when removing the product from the rack, do not forcefully and abruptly pull the product from the rack. Pull with the minimum force required to move the instrument with a consistent, even motion.*

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1. Loosen the knob screws, if present, that attach the front of the instrument to the rack.
2. Gently pull the instrument toward you until you can reach the levers at the rear of the instrument.
3. Tilt both lever handles upward simultaneously to allow them to clear the stops. (See Figure 6.)
4. Pull the instrument past the stops and out of the rack.