



**BSARack  
Rackmount kit  
Instructions**



071-3499-00





**BSARack  
Rackmount kit  
Instructions**

**Register now!**

Click the following link to protect your product.

▶ [www.tek.com/register](http://www.tek.com/register)

[www.tek.com](http://www.tek.com)

071-3499-00

Copyright © Tektronix. All rights reserved. Licensed software products are owned by Tektronix or its subsidiaries or suppliers, and are protected by national copyright laws and international treaty provisions.

Tektronix products are covered by U.S. and foreign patents, issued and pending. Information in this publication supersedes that in all previously published material. Specifications and price change privileges reserved.

TEKTRONIX and TEK are registered trademarks of Tektronix, Inc.

### **Contacting Tektronix**

Tektronix, Inc.  
14150 SW Karl Braun Drive  
P.O. Box 500  
Beaverton, OR 97077  
USA

For product information, sales, service, and technical support:

- In North America, call 1-800-833-9200.
- Worldwide, visit [www.tek.com](http://www.tek.com) to find contacts in your area.

## Warranty

Tektronix warrants that this product will be free from defects in materials and workmanship for a period of one (1) year from the date of shipment. If any such product proves defective during this warranty period, Tektronix, at its option, either will repair the defective product without charge for parts and labor, or will provide a replacement in exchange for the defective product. Parts, modules and replacement products used by Tektronix for warranty work may be new or reconditioned to like new performance. All replaced parts, modules and products become the property of Tektronix.

In order to obtain service under this warranty, Customer must notify Tektronix of the defect before the expiration of the warranty period and make suitable arrangements for the performance of service. Customer shall be responsible for packaging and shipping the defective product to the service center designated by Tektronix, with shipping charges prepaid. Tektronix shall pay for the return of the product to Customer if the shipment is to a location within the country in which the Tektronix service center is located. Customer shall be responsible for paying all shipping charges, duties, taxes, and any other charges for products returned to any other locations.

This warranty shall not apply to any defect, failure or damage caused by improper use or improper or inadequate maintenance and care. Tektronix shall not be obligated to furnish service under this warranty a) to repair damage resulting from attempts by personnel other than Tektronix representatives to install, repair or service the product; b) to repair damage resulting from improper use or connection to incompatible equipment; c) to repair any damage or malfunction caused by the use of non-Tektronix supplies; or d) to service a product that has been modified or integrated with other products when the effect of such modification or integration increases the time or difficulty of servicing the product.

THIS WARRANTY IS GIVEN BY TEKTRONIX WITH RESPECT TO THE PRODUCT IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED. TEKTRONIX AND ITS VENDORS DISCLAIM ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. TEKTRONIX' RESPONSIBILITY TO REPAIR OR REPLACE DEFECTIVE PRODUCTS IS THE SOLE AND EXCLUSIVE REMEDY PROVIDED TO THE CUSTOMER FOR BREACH OF THIS WARRANTY. TEKTRONIX AND ITS VENDORS WILL NOT BE LIABLE FOR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES IRRESPECTIVE OF WHETHER TEKTRONIX OR THE VENDOR HAS ADVANCE NOTICE OF THE POSSIBILITY OF SUCH DAMAGES.

[W2 – 15AUG04]



---

# Table of Contents

Service safety summary .....	ii
Introduction .....	1
Warranted characteristics .....	2
Clearance requirements .....	3
Installation instructions .....	5
Minimum tool and equipment list.....	5
Assemble the rack slides and brackets and install them in the rack cabinet.....	5
Install the rack tray assembly into the rack cabinet .....	8
Install the instrument onto the rack tray.....	9

## Service safety summary

The *Service safety summary* section contains additional information required to safely perform service on the product. Only qualified personnel should perform service procedures. Read this *Service safety summary* and the *General safety summary* before performing any service procedures.

**To avoid electric shock.** Do not touch exposed connections.

**Do not service alone.** Do not perform internal service or adjustments of this product unless another person capable of rendering first aid and resuscitation is present.

**Disconnect power.** To avoid electric shock, switch off the product power and disconnect the power cord from the mains power before removing any covers or panels, or opening the case for servicing.

**Use care when servicing with power on.** Dangerous voltages or currents may exist in this product. Disconnect power, remove battery (if applicable), and disconnect test leads before removing protective panels, soldering, or replacing components.

**Verify safety after repair.** Always recheck ground continuity and mains dielectric strength after performing a repair.

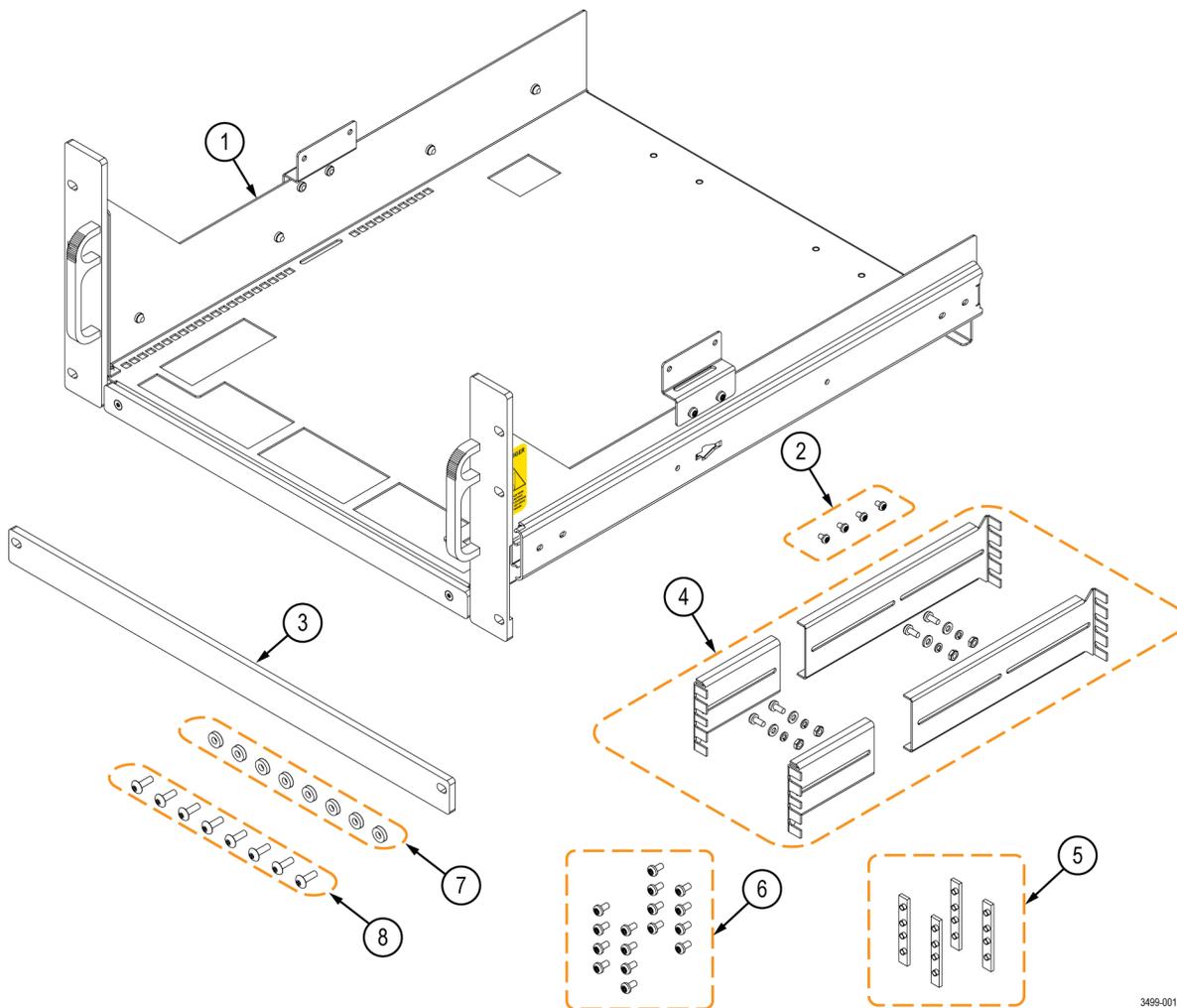
# Introduction

This document describes the installation of the BSARACK rackmount kit for BERTScope products. The kit instructions are a collection of parts that, once installed, configure the instrument for mounting into a standard 19-inch instrument rack.

The following table and figure show the parts list for the rackmount kit.

Table 1: Parts list

Item number	Quantity	Part number	Description
-	1	BSARACK	Rackmount kit: BERTScope Series, consisting of the following items:
-	1	071-3499-xx	Technical manual: Instructions, this document
1	1	650-5549-00	Rackmount kit; BERTScope series, preassembled
2	4	212-0001-00	Screw, mach; 8-32 x 0.25, PNH, Steel, zinc plated, T20 TORX
3	1	386-7984-00	Plate, filler, rackmount
4	1	351-1140-00	Bracket kit, two (2) front and two (2) rear brackets, with hardware
5	4	220-0285-00	Nut bar strip, 10-32 (x4) 2.63 long, 0.12 thick
6	16	212-0260-00	Screw, mach; 10-32 x 0.375, PNH, Steel, zinc plated, T25 TORX
7	8	210-1596-00	Flat washer, #12 x 0.5 outer diameter X 0.12 thick
8	8	212-0577-00	Screw, mach; 10-32 x 0.625, TRH, Steel, zinc plated head, Phillips



3499-001

Figure 1: Rackmount kit parts

## Warranted characteristics

When the instrument is installed according to the instructions in this document, the rack-mounted instrument meets all warranted requirements listed in the instrument specification except for those listed in Environmental Requirements.

Instruments mounted using methods other than those described in these instructions may not meet their warranted requirements.

See *Specifications* in the user manual that apply to your instrument.

Cooling air enters from the bottom-front and both sides. You must provide adequate cool air to meet the ambient temperature requirements.

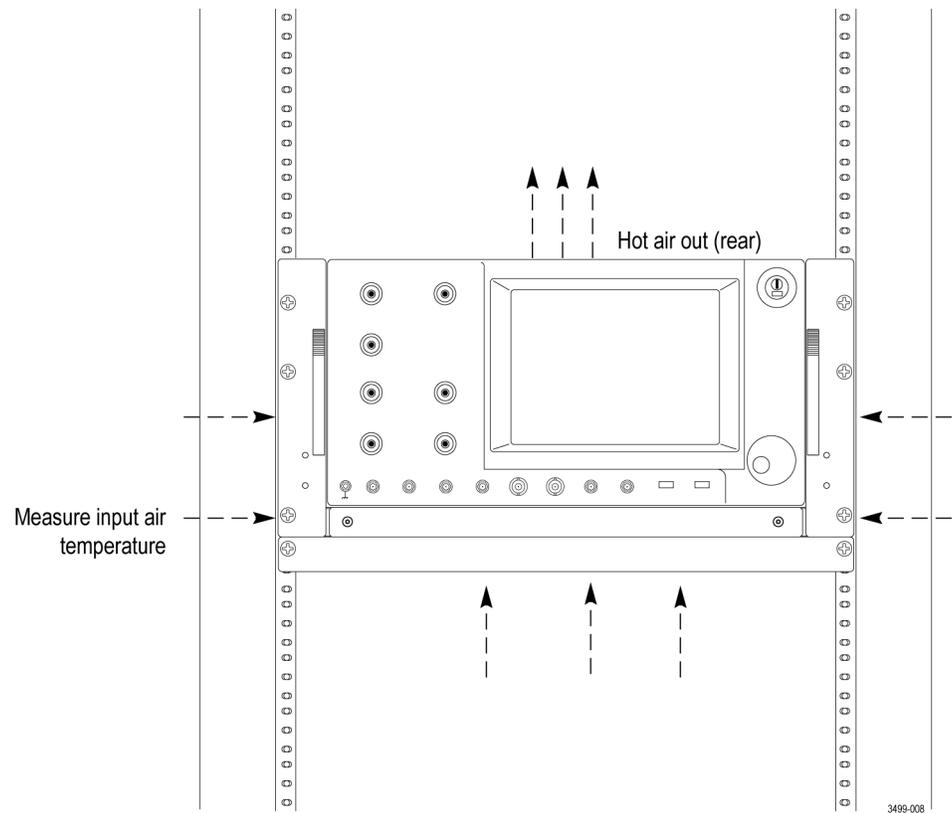


Figure 2: Instrument cooling

## Clearance requirements

The rack in which the rack-adapted instrument is mounted must provide the following clearance requirements:

- A minimum of 10.5 inches (266.7 mm) of vertical space
- A minimum of 19 inches (482.6 mm) between the left and right front rails of the rack
- A minimum depth of 25 inches (635 mm)



**CAUTION.** Failure to adhere to the clearance requirements can result in overheating and cause instrument faults or failure. Air temperature at the instrument's intake air vents must be maintained within the specified ambient temperature range (+10 °C to +35 °C) during instrument operation. Always adhere to the clearance requirements to provide the rack-mounted instrument with enough clearance for air circulation and accommodation of the power cord, cables, and mounting hardware.

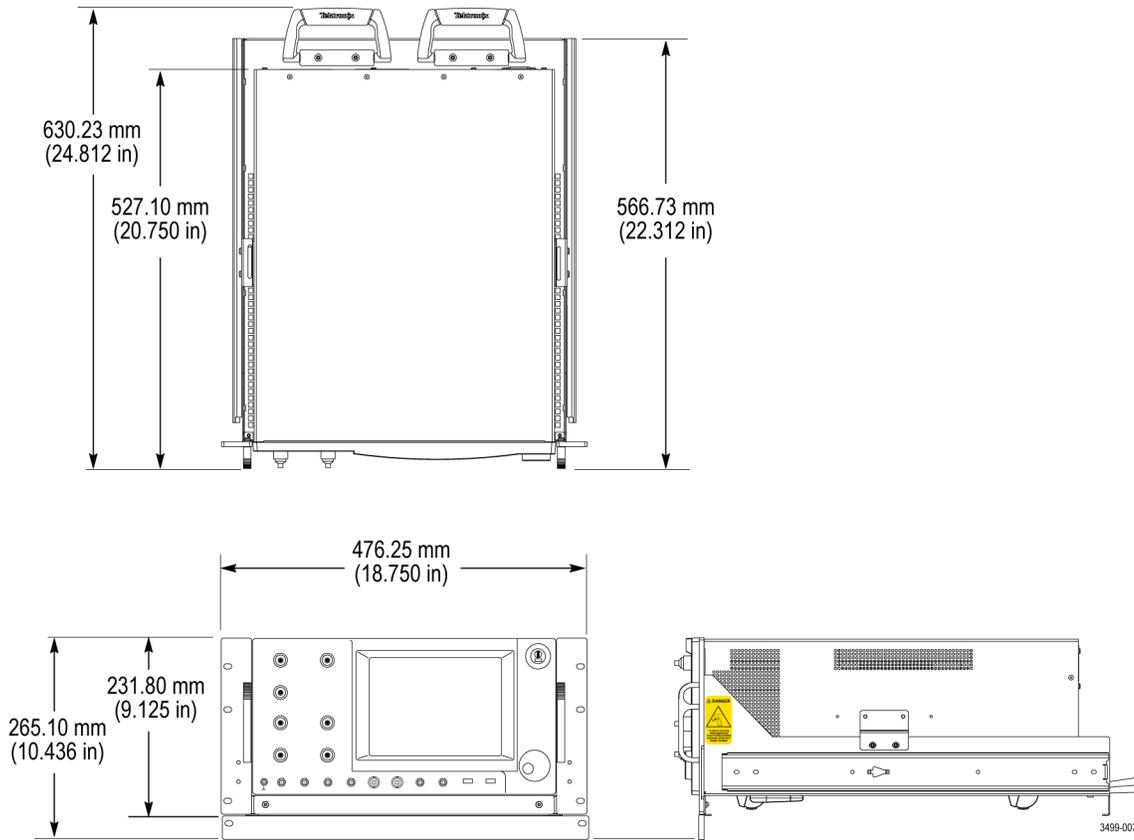


Figure 3: Instrument dimensions with clearance requirements in the rack

# Installation instructions

This section contains the procedures needed to rack mount a BERTScope instrument. The following steps are involved in the installation process:

- Install the slide bracket kit and hardware to the rack.
- Install the rack tray into the rack cabinet.
- Install the instrument onto the rack tray.
- Attach remaining hardware to the instrument and rack assembly and then secure the instrument in place.

## Minimum tool and equipment list

The following table lists the readily-available tools for the installation process.

**Table 2: Tools required for rackmount installation**

<b>Name</b>	<b>Description</b>
No. 2 Phillips or Pozidriv tip	Phillips or Pozidriv-driver tip for number 2 screw heads
T-15 Torx tip	Torx®-driver tip for T-15 size screw heads
T-20 Torx tip	Torx®-driver tip for T-20 size screw heads

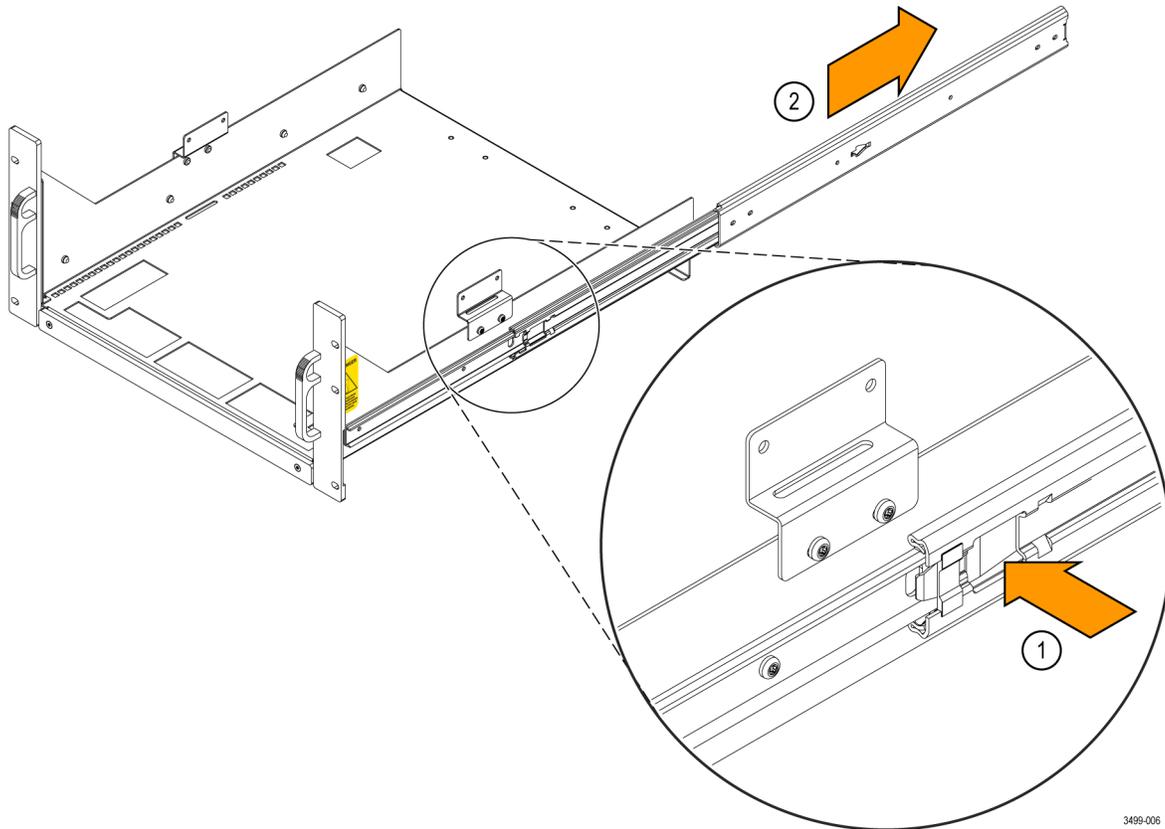
These instructions are for personnel who are familiar with servicing the product. Contact your local Tektronix Service Center or Tektronix Factory Service for installation information.

## Assemble the rack slides and brackets and install them in the rack cabinet

Complete the following steps to remove the outer member of the rack slides from the pre-assembled rack tray and install the rack slides with the brackets in the rack cabinet.

1. Locate the pre-assembled rack tray from the kit contents (Item 1) and place it on an open and clean working surface.

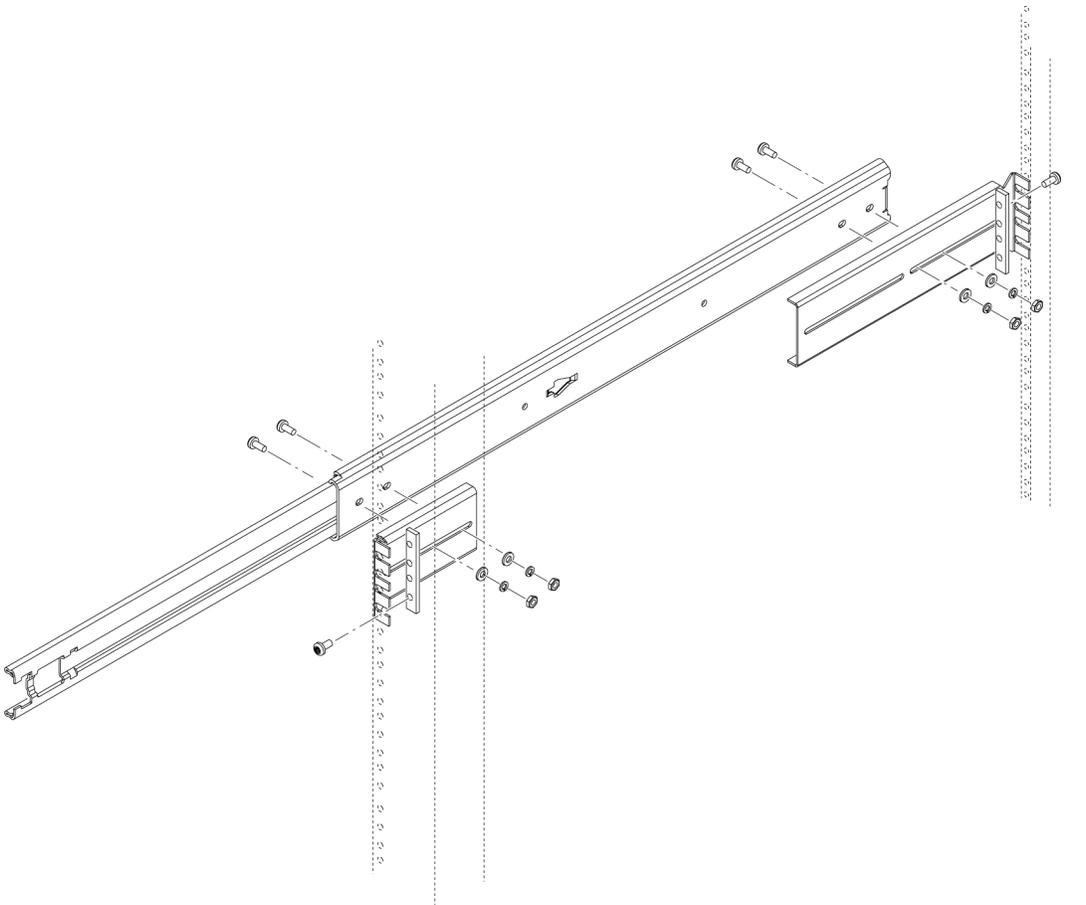
2. Refer to the following figure and remove the outer members of the rack slide assemblies from both sides of the pre-assembled rack tray. (First push the button latch near the bottom rear edge of each rack slide assembly to disengage the rack slide from the rack tray. Then remove the rack slide assembly.)



3469-006

Figure 4: Removing the rack slides from the rack tray

3. Complete the following steps to install the brackets to the outer members of the rack slides and then install the rack slides in the rack cabinet. Refer to the following figure as needed.



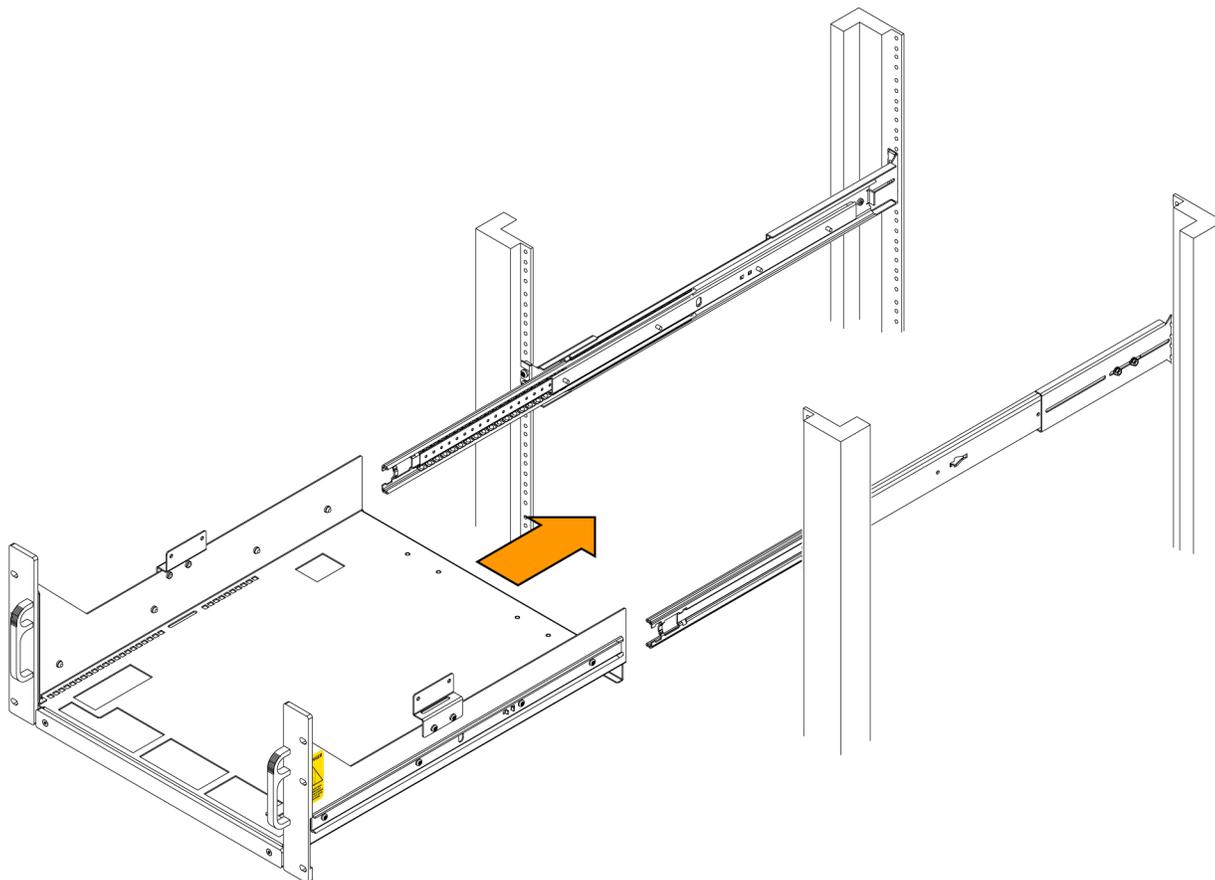
**Figure 5: Installing the rack slides and brackets to the rack cabinet**

- a. Use four screws with flat washers, lock washers, and nuts from the bracket kit (Item 4) to secure the front and rear brackets to one of the rack slide assemblies. Repeat for this step for the other rack slide assembly.
- b. Use four machine screws (Item 6) to secure one of the rack slides with the rear bracket to the rack cabinet.
- c. Use four machine screws (Item 6) and the nut bar (Item 5) to secure rack slide to the front of the rack cabinet.
- d. Repeat the steps b and c to install the other rack slide assembly in the rack cabinet.

## Install the rack tray assembly into the rack cabinet

Complete the following steps to install the rack tray assembly into the rack cabinet:

1. Grab the rack tray assembly and slide it into rack slides in the cabinet as shown in the following figure.



**Figure 6: Slide the rack tray assembly into the rack slides in the rack cabinet**

2. Push the rack tray into the cabinet until it locks in place.

## Install the instrument onto the rack tray

Complete the following procedures to install the instrument onto the rack tray. Refer to the figure for an overview of the final installation process. (See Figure 7.)

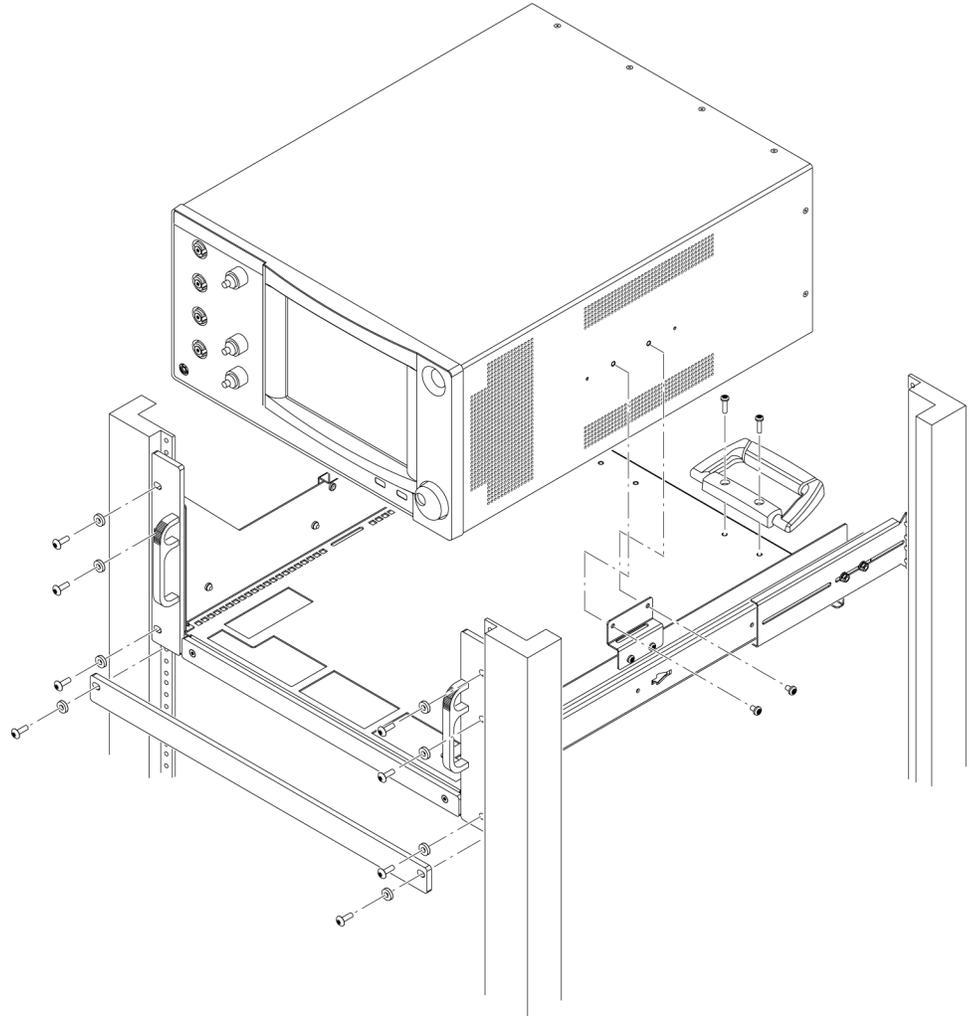


Figure 7: Final installation steps



**WARNING.** To prevent the instrument from tipping or dropping onto the installers, two or more people should install the instrument into the rack cabinet.

After completing the installation procedure, the installers should verify that the instrument and the rack cabinet will not tip forward while the instrument is in the extended position.

Do not leave the instrument extended in the rack when finished accessing the rear panel.

1. Pull the rack tray out of the rack cabinet until it locks in place.
2. Remove the handles from both sides of the instrument and secure them to the optional storage location on rear of the rack tray using the screws that you just removed.
3. With the help of another individual, carefully place the instrument on the extended rack tray, making sure that the feet of the instrument fit into the holes on the bottom of the rack tray and the brackets on the sides of the rack tray line up with screw holes of the handles that you just removed.
4. Locate the four T-20 Torx screws from the parts lists (Item 2) and install two of the screws on each side of the instrument into holes where the handles used to be.

---

**NOTE.** *The remaining steps in this document secure the rack tray to the rack cabinets. Be sure to connect the power cord and any cables to the rear of the instrument.*

---

5. Connect the instrument power cord to the rear of the instrument and any cables that may be required for certain instrument configurations.
  6. Push the rack tray all of the way into the rack cabinet.
  7. Locate three pairs of 10-32 Phillips screws (Item 8) and three washers (Item 7) from the kit and install them through the rack kit side plates and into the rack; repeat for both sides of the instrument.
  8. Locate the filler plate (Item 3) and use the two remaining 10-32 screws and washers to secure the filler plate to the rack cabinet below the rack tray.
- **End of Document**