

Keysight Technologies

Rack Slide Kit

Installation Note

Notices

© Copyright 2012-2017 Keysight Technologies, Inc.

The information contained in this document is subject to change without notice.

Keysight Technologies makes no warranty of any kind with regard to this material, including but not limited to, the implied warranties of merchantability and fitness for a particular purpose.

Keysight Technologies shall not be liable for errors contained herein or for incidental or consequential damages in connection with the furnishing, performance, or use of this material.

Manual Part Number

N5180-90061

Edition

Edition 1, September 2017

Printed in USA/Malaysia

Published by:

Keysight Technologies, Inc.
1400 Fountaingrove Parkway
Santa Rosa, CA 95403

1CR112A Rack Slide Kit Installation Note

To Be Performed By:	(X) Keysight Service Center (X) Personnel Qualified by Keysight (X) Customer
Estimated Installation Time:	1.0 Hours

This retrofit kit provides all parts and instructions for installing the rack slide kit into a standard Keysight rack.

Contents

Quantity	Description	Part Number
1	Installation Note	N5180-90061
4	Hole Plug - Bottom Foot, Carbon Black	N9020-40007
2	Rack Slide Bracket - Offset - Centered	N5180-20231
1	Rack Slide Bracket - Offset - Right	N5180-20230
1	Rack Slide Bracket - Offset - Left	N5180-20229
6	Screw, M4 x 0.7 6L Pan Head Torx-T-20	0515-0684
4	Screw, M4 x 0.7 12L Flat Head Pozidriv	0515-1013
4	Screw, M5 x 0.8 20L Pan Head	0515-0688
4	Screw, M4 x 0.7 12L Pan Head Pozidriv	0515-0909
8	Hex Nut, M4 x 0.7 w/Lockwasher	0515-0909
1 pair	rack slides	

Tools Required

- Torx Driver T-20
- Torx Driver T-25
- Pozidriv screwdriver

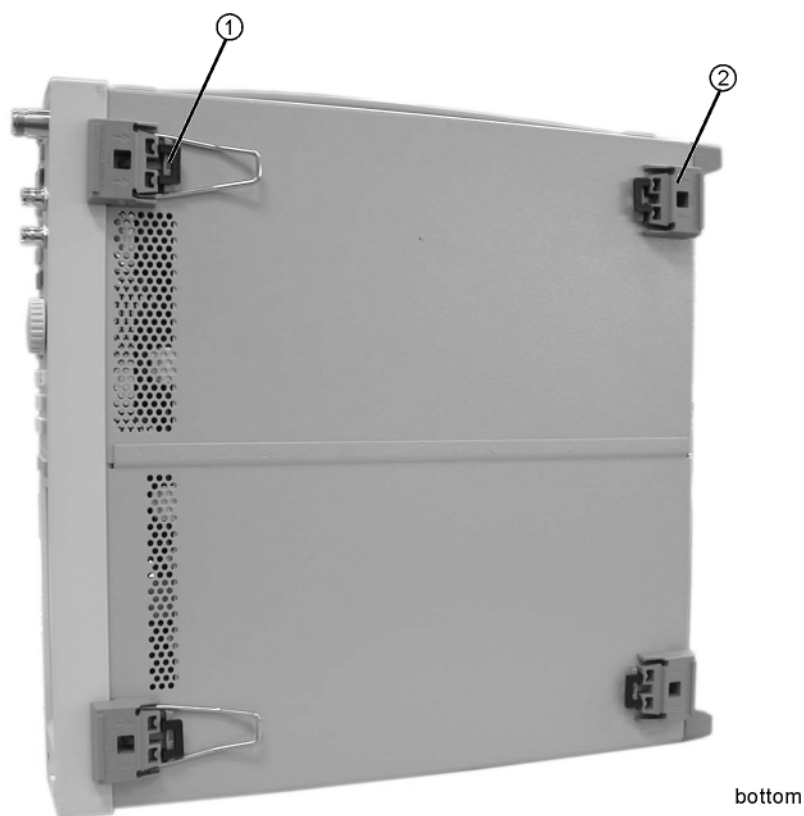
Procedure

Remove the instrument bottom feet

If it is necessary for fit issues in the rack, remove the instrument bottom feet by pulling out the black plastic locks, lifting the tabs on the feet, and sliding to disengage from the outer case. Replace each bottom foot with the supplied hole plugs.

1. Disconnect the power cord.
2. Refer to **Figure 1**. With the signal generator on its side, pry the black slot tabs (1) out from the four bottom feet (2).
3. Remove the four feet by lifting the foot tab and sliding the foot in the direction of the arrow printed on the foot.

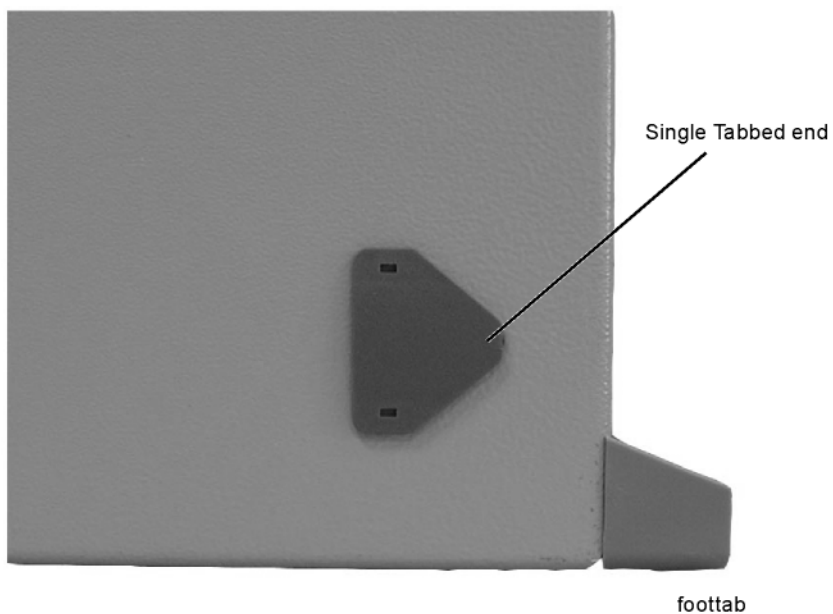
Figure 1 Bottom View¹



1. Light color instrument displayed for better visibility.

4. Install the bottom hole plug feet by placing the single tabbed end of the foot (see **Figure 2**) into its hole first, then gently press the remaining tabs into the other holes, one at a time, until they click.

Figure 2 Bottom Hole Plug¹



Remove the instrument strap handles

Remove the handles from both sides of the instrument using a Torx -20 driver.

Install inner slide rails

Decide which set of spacers to use

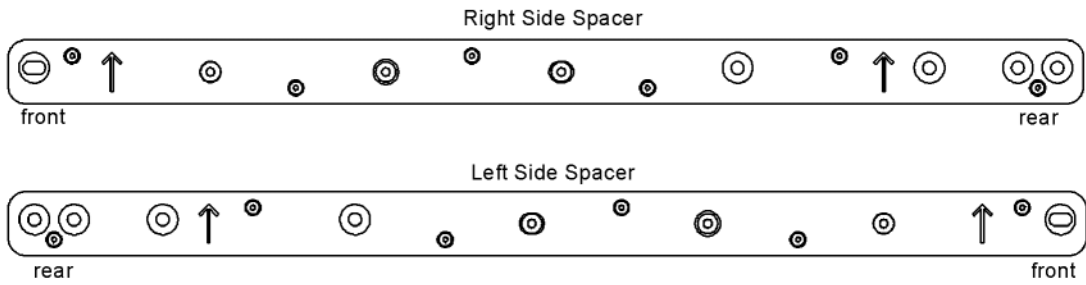
Keysight instruments are designed with the strap handle holes in two different locations. The holes will either be centered on the height of the front panel casting, or they will be offset by 1.6 mm. This rack slide kit includes two different sets of spacers, one set for the centered holes and one set for the offset holes.

If you are mounting your instrument into the rack using the rack mount flange kit (accessory 1CM110A or 1CP104A) you will need to use the offset spacers.

If you are not using the front flange mounts and are placing the instrument into a rack with existing instruments, you will likely need to use the centered spacers.

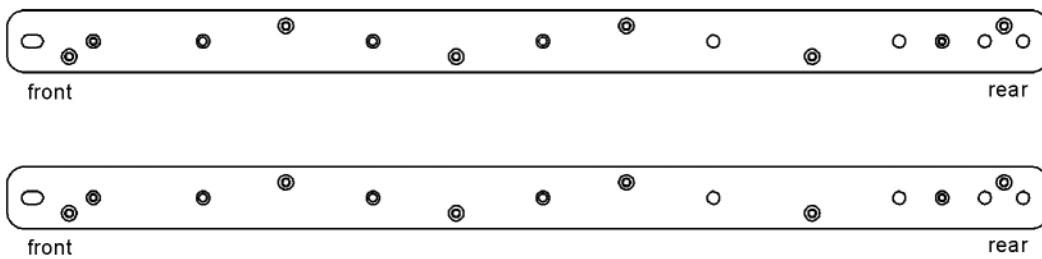
Figure 3 shows the pair of offset spacers. Figure 4 shows the centered spacers.

Figure 3 Offset Spacers



innerspacers_offset

Figure 4 Centered Spacers

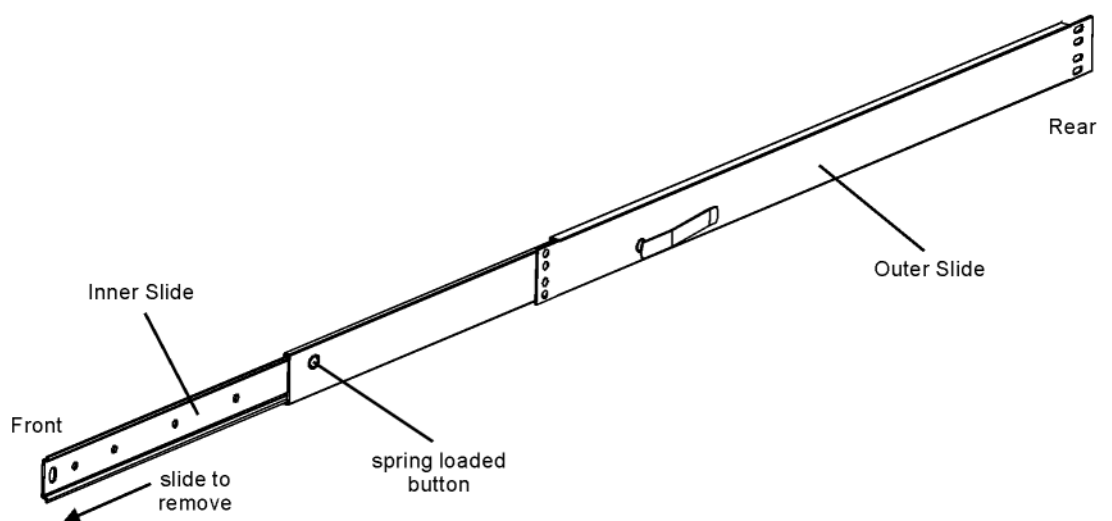


innerspacers_centered

Attach spacers to inner slide rails

1. Remove both rack slide halves from the packaging.
2. Place one slide near the right side of the instrument (as you face the instrument) and the other slide to the left of the instrument. This positioning will help you keep the slide sections in the correct order when you disassemble the slides in the next step.
3. Refer to **Figure 5**. Pull the slides fully open. Press the spring loaded button while pulling off the last section (inner slide). Do this on both slides.

Figure 5 Slide Separation



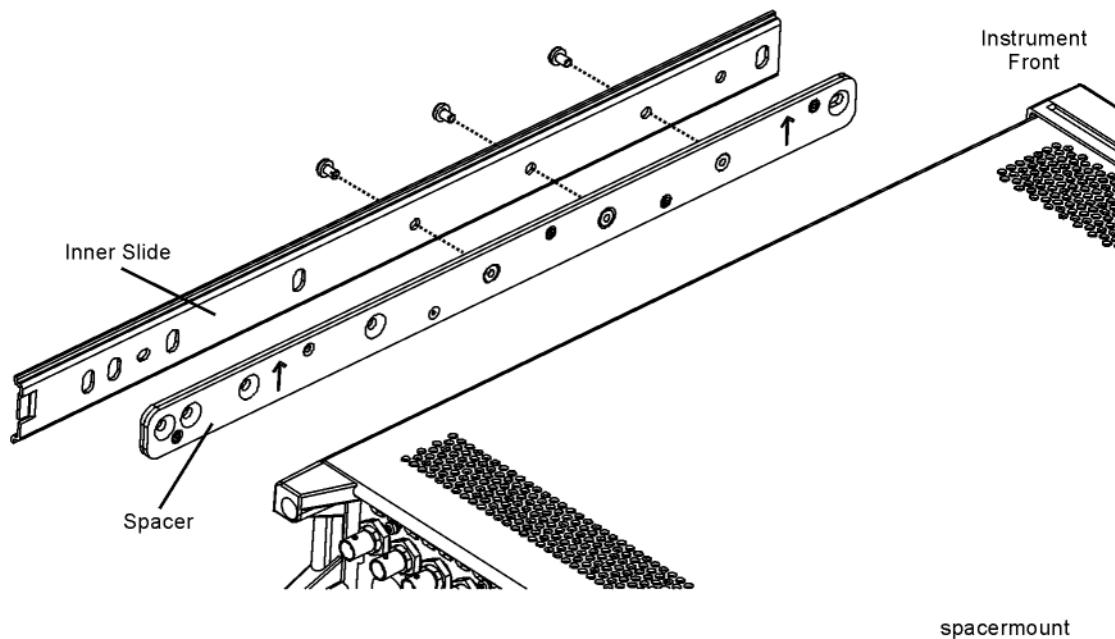
completeslide

4. Attach the appropriate spacer to the instrument side of the inner slide using three M4 x 0.7 mm LG screws (0515-0684) as shown in **Figure 6**.

If you are using the centered spacers - both spacers are the same and can be used on either side.

If you are using the offset spacers - there is a right side spacer and a left side spacer. Refer to **Figure 3**. Place the right side spacer in position on the right side inner rail. Make sure the arrows are visible and facing up. **Figure 6** shows the right side offset spacer being attached to the right side inner rail. Repeat the procedure for the left side inner rail and spacer.

Figure 6 Spacer Attached to Inner Slide



5. Refer to **Figure 7**. Attach the inner slides/spacers to the instrument on each side by inserting two M5 x 20 mm screws through the slide and through the spacer and secure to the instrument using a Torx-25 driver. Torque to 21 in-lbs.

Figure 7 Attach Inner Slide to Instrument

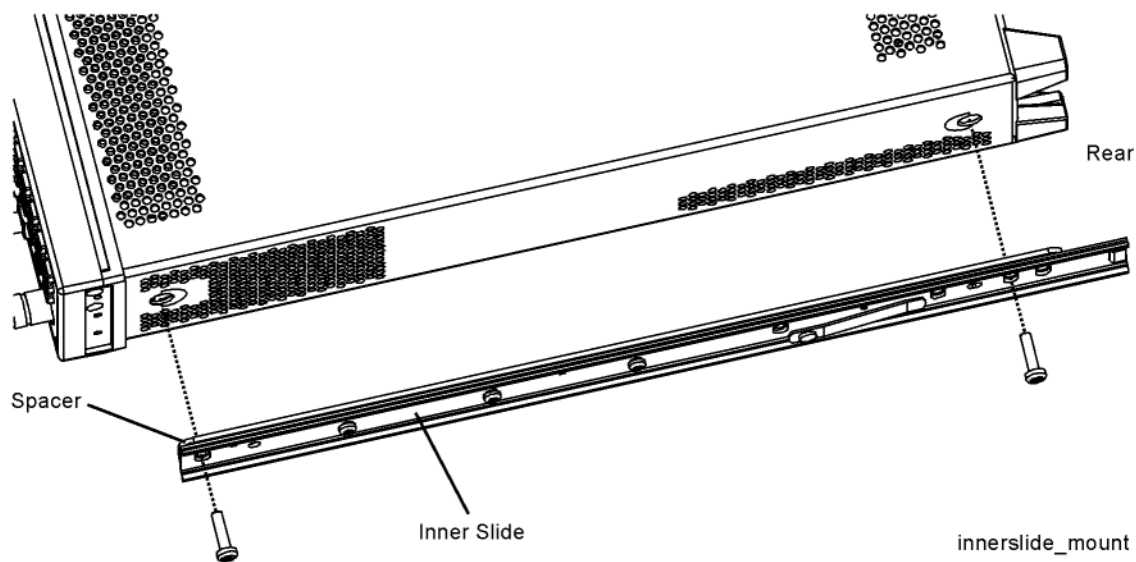
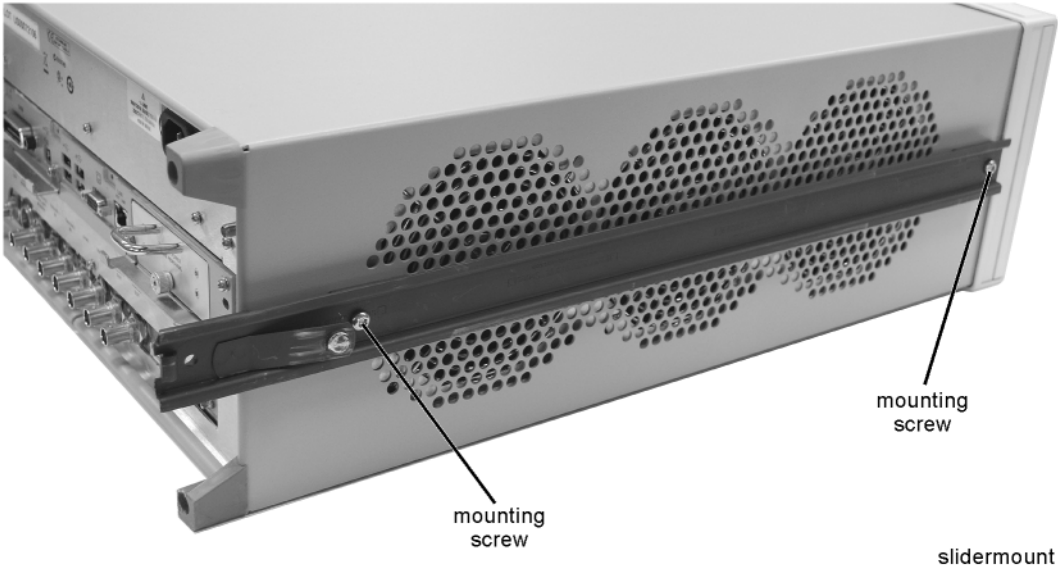


Figure 8 shows the positioning of the inner slide on the left side of the instrument.

Figure 8 Inner Slide Mounting¹



Install the outer slide in the instrument rack

6. Assure the left and right side outer slides are identified before attaching to the instrument rack. To do this, install the outer slide onto the inner slide to test the fit. The spring loaded buttons on the slides are offset, and you must check carefully to determine that the spring loaded buttons will align with the holes in the slides. This is very important because the buttons and associated holes act as stops to prevent the rack slide from coming apart unexpectedly.
7. Refer to **Figure 9**. Attach the outer slides to the instrument rack using the unistrut nuts and two M4 x 0.7 12 mm LG flat head screws in the front and two M4 x 0.7 12 mm LG pan head screws in the rear.
To determine which slide holes to use (inside or outside) refer to the equation and example below.

Equation

Measure the height of your instrument (without feet) in inches or mm.
Use the equation below to determine your instrument height in Rack Units.
One rack unit is 1.75 inches or 44.5 mm.

$$\text{Instrument height} / 1.75 \text{ inches (or 44.5 mm)} = \# \text{ of Rack Units}$$

Example

Instrument measured height is 3.5 inches

$$3.5 \text{ inches} / 1.75 \text{ inches} = 2 \text{ Rack Units (even number of rack units)}$$

For instruments with an even number of rack unit height use the inside holes on the slides.
For instruments with an odd number of rack unit height use the outside holes on the slides.

Tighten hardware - recommended 21 in-lbs.

Figure 9 Outer Slide Mount Into Rack

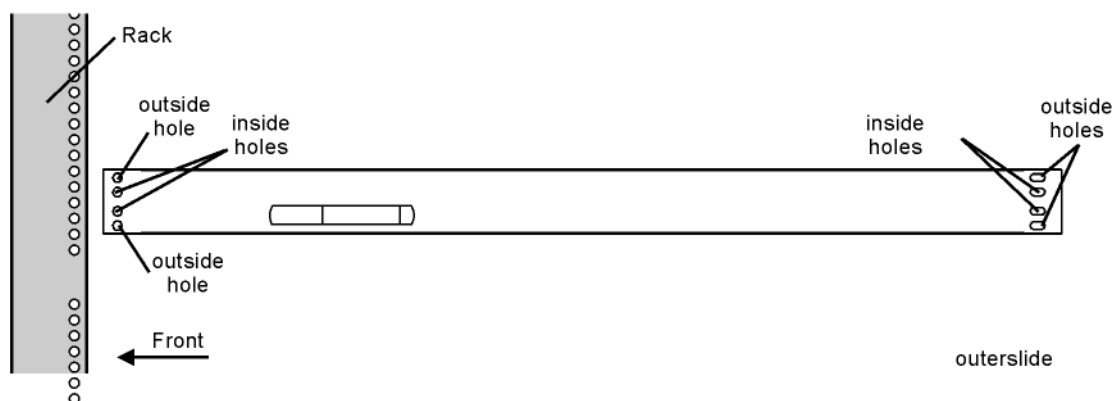


Figure 10 shows a rack with the side panel removed. The front of the instrument will face to the left in the picture when the instrument is installed in the rack.

Figure 10 Outer Slide in Rack



Install the instrument into the instrument rack

CAUTION

For some instruments this next step may require two or more persons.

8. See **Figure 11**. Extend the outer slides until they snap into place. Carefully lift the instrument and mate the outer slides with the inner slides on the instrument. Push the spring loaded buttons on both inner slides in while pushing the instrument into the rack until the button on the inner slide engages the hole in the outer slide. The instrument will now be secured in the rack slides.

Figure 11 Instrument Extended on Slides¹



9. Press the spring loaded buttons on the inner slide again and slide the instrument into the rack. It is normal to experience some resistance as the instrument is slid into the rack.

For assistance, contact your nearest Keysight Technologies Sales and Service Office. To find your local Keysight office access the following URL, or if in the United States, call the following telephone number:

<http://www.keysight.com/find/assist>

1-800-829-4444 (8 am - 8 pm ET, Monday - Friday)



This information is subject to change without notice.

© Keysight Technologies 2012-2017

Edition 1, September 2017

N5180-90061

www.keysight.com