# Keysight 46298S Work Surface

Installation Guide



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#### Safety Information

### CAUTION

A CAUTION denotes a hazard. It calls attention to an operating procedure or practice that, if not correctly performed or adhered to, could result in damage to the product or loss of important data. Do not proceed beyond a CAUTION notice until the indicated conditions are fully understood and met.

### WARNING

A WARNING denotes a hazard. It calls attention to an operating procedure or practice, that, if not correctly performed or adhered to, could result in personal injury or death. Do not proceed beyond a WARNING notice until the indicated conditions are fully understood and met.

# Safety Information

The following general safety precautions must be observed during all phases of operation of this instrument. Failure to comply with these precautions or with specific warnings or operating instructions in the product manuals violates safety standards of design, manufacture, and intended use of the instrument. Keysight Technologies assumes no liability for the customer's failure to comply with these requirements.

#### General

Do not use this product in any manner not specified by the manufacturer. The protective features of this product must not be impaired if it is used in a manner specified in the operation instructions.

#### Before Applying Power

Verify that all safety precautions are taken. Make all connections to the unit before applying power. Note the external markings described under "Safety Symbols".

#### Ground the Instrument

Keysight chassis' are provided with a grounding-type power plug. The instrument chassis and cover must be connected to an electrical ground to minimize shock hazard. The ground pin must be firmly connected to an electrical ground (safety ground) terminal at the power outlet. Any interruption of the protective (grounding) conductor or disconnection of the protective earth terminal will cause a potential shock hazard that could result in personal injury.

#### Do Not Operate in an Explosive Atmosphere

Do not operate the module/chassis in the presence of flammable gases or fumes.

#### Do Not Operate Near Flammable Liquids

Do not operate the module/chassis in the presence of flammable liquids or near containers of such liquids.

#### Cleaning

Clean the outside of the Keysight module/chassis with a soft, lint-free, slightly dampened cloth. Do not use detergent or chemical solvents. Do Not Remove Instrument Cover

Only qualified, service-trained personnel who are aware of the hazards involved should remove instrument covers. Always disconnect the power cable and any external circuits before removing the instrument cover.

#### Keep away from live circuits

Operating personnel must not remove equipment covers or shields. Procedures involving the removal of covers and shields are for use by servicetrained personnel only. Under certain conditions, dangerous voltages may exist even with the equipment switched off. To avoid dangerous electrical shock, DO NOT perform procedures involving cover or shield removal unless you are qualified to do so.

# DO NOT operate damaged equipment

Whenever it is possible that the safety protection features built into this product have been impaired, either through physical damage, excessive moisture, or any other reason, REMOVE POWER and do not use the product until safe operation can be verified by servicetrained personnel. If necessary, return the product to an Keysight Technologies Sales and Service Office for service and repair to ensure the safety features are maintained.

# DO NOT block the primary disconnect

The primary disconnect device is the appliance connector/power cord when a chassis used by itself, but when installed into a rack or system the disconnect may be impaired and must be considered part of the installation.

#### Do Not Modify the Instrument

Do not install substitute parts or perform any unauthorized modification to the product. Return the product to an Keysight Sales and Service Office to ensure that safety features are maintained.

#### In Case of Damage

Instruments that appear damaged or defective should be made inoperative and secured against unintended operation until they can be repaired by qualified service personnel

# CAUTION

Do NOT block vents and fan exhaust: To ensure adequate cooling and venti-lation, leave a gap of at least 50mm (2") around vent holes on both sides of the chassis.

Do NOT operate with empty slots: To ensure proper cooling and avoid dam-aging equipment, fill each empty slot with an AXIe filler panel module.

Do NOT stack free-standing chassis: Stacked chassis should be rack-mounted.

All modules are grounded through the chassis: During installation, tighten each module's retaining screws to secure the module to the chassis and to make the ground connection.

# WARNING

Operator is responsible to maintain safe operating conditions. To ensure safe operating conditions, modules should not be operated beyond the full temperature range specified in the Environmental and physical specifica-tion. Exceeding safe operating condi-tions can result in shorter lifespan, improper module performance and user safety issues. When the modules are in use and operation within the specified full temperature range is not maintained, module surface tempera-tures may exceed safe handling condi-tions which can cause discomfort or burns if touched. In the event of a module exceeding the full temperature range, always allow the module to cool before touching or removing modules from the chassis.

# Safety Symbols

#### CAUTION

A CAUTION denotes a hazard. It calls attention to an operating pro-cedure or practice, that, if not cor-rectly performed or adhered to could result in damage to the product or loss of important data. Do not proceed beyond a CAUTION notice until the indicated conditions are fully understood and met.

### WARNING

A WARNING denotes a hazard. It calls attention to an operating pro-cedure or practice, that, if not cor-rectly performed or adhered to, could result in personal injury or death. Do not proceed beyond a WARNING notice until the indicated conditions are fully understood and met.

Products display the following symbols:



Warning, risk of electric shock

Refer to manual for addi-

tional safety information.



Earth Ground.



Chassis Ground.



Alternating Current (AC).



Standby Power. Unit is not completely disconnected from AC mains when switch is in standby.



Antistatic precautions should be taken.

CATI CAT II CAT III CAT IV

IEC Measurement Category I, II, III, or IV

For localized Safety Warnings, Refer to Keysight Safety document (p/n 9320-6792).



The CSA mark is a registered trademark of the Canadian Standards Association and indicates compliance to the standards laid out by them. Refer to the product Declaration of Conformity for details.



Notice for Luropean Community: This product complies with the relevant European legal Directives: EMC Directive (2004/108/EC) and Low Voltage Directive (2006/95/EC).



The Regulatory Compliance Mark (RCM) mark is a registered trademark. This signifies compliance with the Australia EMC Framework regulations under the terms of the Radio Communication Act of 1992.

# ICES/NMB-001

ICES/NMB-001 indicates that this ISM device complies with the Canadian ICES-001.



This symbol represents the time period during which no hazardous or toxic substance elements are expected to leak or deteriorate during normal use. Forty years is the expected useful life of this product.



South Korean Class A EMC Declaration. this equipment is Class A suitable for professional use and is for use in electromagnetic environments outside of the home.

A 급 기기 (업무용 방송통신기자재) 이 기기는 업무용 (A 급 ) 전자파적합기 기로서 판 매자 또는 사용자는 이 점을 주 의하시기 바라 며, 가정외의 지역에서 사용하는 것을 목적으 로 합니다.



Waste Electrical and Electronic Equipment (WEEE) Directive 2002/96/EC

This product complies with the WEEE Directive (2002/96/EC) marking requirement. The affixed product label (see below) indicates that you must not discard this electrical/electronic product in domestic household waste.

Product Category: With reference to the equipment types in the WEEE directive Annex 1, this product is classified as a "Monitoring and Control instrumentation" product.

Do not dispose in domestic household waste.

To return unwanted products, contact your local Keysight office for more information.



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# Work Surface Mounting Kit

This Installation Guide explains how to install the 46298S Work Surface Mounting Kit. This kit provides a convenient work shelf utility area at the front of the rack.

The 46298S Mounting Kit contains the following items.

# Contents

Quantity	Description	Part Number
1	Work Surface	46298-00004
2	Support Rail	46298-00012
1	Filler Rail Panel - Left	46298-00010
1	Filler Rail Panel - Right	46298-00011
1	Filler Rail Panel - Left (E-Series Rack)	46298-00014
1	Filler Rail Panel - Right (E-Series Rack)	46298-00013
8	Machine screw, 10-32 x .75, Pozidrive	2680-0103
8	Lock washer, #10	2190-0012
8	Flat Washer, #10	3050-0019
2	Shoulder Screw	85043-20002
2	Sheet metal nut	0590-0804
2	Hex Nuts, 10-32	2740-0001

# Tools Needed

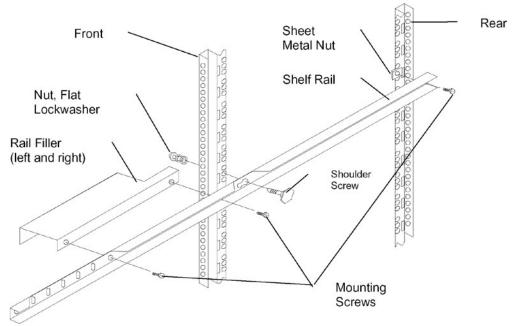
- Torx T25 screwdriver
- 5/16" wrench

# General Considerations

Installation of the Work Surface Mounting Kit may require that some computer equipment be moved forward in the cabinet or removed completely. Make sure that the anti-tip tray is extended before moving equipment in or out of the cabinet.

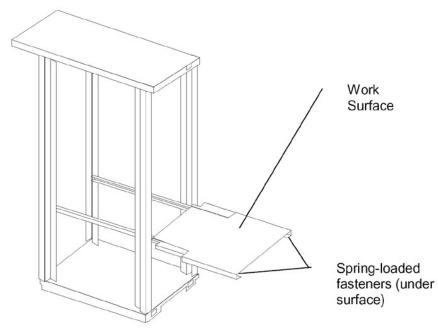
Ballast may be required if heavy objects are to be placed on the work shelf. See Appendix A of the User's Manual for a worksheet to determine how much ballast is required.

# Installing the Rails



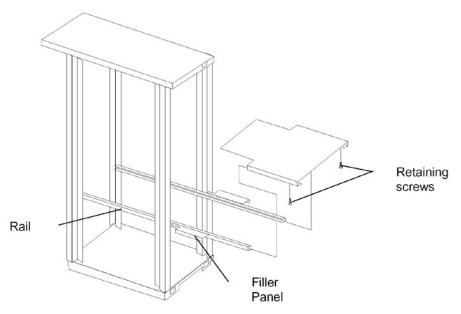
- 1. Determine the location for the work shelf. If instruments are already installed at this position, they must be removed. Reinstall them at another location according to instructions provided with the instruments.
- 2. Position the shelf rail as shown in Illustration 1. Note the mounting hole locations for the next step.
- 3. Attach the sheet metal nut to the inside rear column at the location noted in the previous step. When properly installed, the captive nut on the sheet metal nut is behind the column. Thus the mounting screw penetrates through the column hole before engaging the captive nut on the sheet metal nut.
- Insert the shoulder screw in the front column at the location noted in step #2. Mount it with the flat washer, lock washer, and hex nut. Tighten with a 5/16" wrench. Be sure to select column holes such that the work surface will be level.
- 5. Engage the head of the shoulder screw in the slot of the support rail.
- 6. Slide the rail firmly to the rear of the rack.
- 7. Line up the hole in the support rail with the sheet metal nut. Insert the machine screw through the lock washer, flat washer, and rail into the sheet metal nut.
- 8. Tighten the screw with the screwdriver.
- 9. Mount the rail filler panel using the machine screws, lock washers, and flat washers. Note that the kit includes 2 sets of filler panels, one set for E-series racks and the other set for all other racks. Use the appropriate set for your rack.
- 10. Repeat the procedure for the other rail.

# Installing the Work Surface



- 1. Slide the work surface onto the rails.
- 2. Adjust the work surface position by pulling the spring-loaded fasteners (located under the work surface) out from the rail. Locate the work surface in the desired position and release the fasteners. Make sure the fasteners engage in the adjustment holes to fix the work surface firmly in the desired position.

Securing the Work Surface



- 1. Insert and tighten the retaining screws into the bottom of the work surface. These screws prevent the work surface from accidentally being pulled off of the rails.
- 2. Test the operation of the shelf. It should move smoothly to each of the six possible working positions.

This completes installation of the Keysight 46298S Work Surface Kit.



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