

Keysight E4461B E4462B E4463B

Front Door Kit for
E7590A 1.3 Meter Instrument Rack
E3661B 1.6 Meter Instrument Rack
E3662B 2.0 Meter Instrument Rack

Assembly Instructions

Notices

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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 service-trained 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 service-trained 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 ventilation, 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 damaging 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 specification. Exceeding safe operating conditions 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 temperatures may exceed safe handling conditions 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








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Products display the following symbols:

-  Warning, risk of electric shock
-  Refer to manual for additional 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.
- CAT I IEC Measurement Category I, II, III, or IV
- CAT II
- CAT III
- CAT 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 European 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) 전자파적합기기로서 판매자 또는 사용자는 이 점을 주의하시기 바라 며 , 가정외의 지역에서 사용하는 것을 목적으로 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.



Contents

Contents	6
General Information	6
Tools Needed	6
Installation Procedure.....	7
Preparing the Front Door Assembly	7
Attaching the Front Door to the Rack	9

Contents

The Front Door Kit contains the following parts:

Item	Qty	P/N	Description
1	1	E4461-60003	Front Door E7590A
		E4462-60003	Front Door E3661B
		E4463-60003	Front Door E3662B
2	2	3110-0198	Door Hinges
3	2	E3661-00003	Hinge Support Bracket
4	8	0535-0031	Nut, Hex M3x0.5 w/External Lock Washer
5	6	2680-0278	Screw, Torx <input type="checkbox"/>
6	6	2740-0003	Nut, Hex 10-32, w/Lock Washer
7	1	3110-0197	Slam Latch--Right-opening door (standard)*
8	1	E3661-00004	Latch Catch
9	2	0403-0780	Bumper

NOTE

Part numbers are listed for reference use only. These parts are not set up as replacement parts. For kit content errors, contact your local Keysight Sales Representative.

This kit comes with a slam latch to mount the door to open on the right. If you want to install the door to open from the left, you must order another latch. That part number is: 3110-0196 (Slam Latch – Left-opening door). Contact your local Keysight Sales Office to obtain this part.

General Information

This installation note provides all information required to install a front door kit on an Keysight Instrument Rack. To accommodate all rack sizes, this kit is available in five models.

Part Number	Description	Applicable Rack Model
E4461B	1.3 Meter Front Door Kit	E7590
E4462B	1.6 Meter Front Door Kit	E3661
E4463B	2.0 Meter Front Door Kit	E3662

Tools Needed

- M3 wrench or crescent wrench for M3 nut
- M4 wrench or crescent wrench for M4 nut or 10-32x0.5" nut
- Torx T25 screwdriver

Installation Procedure

CAUTION Pull out the Anti-Tip Stabilizer before installing heavy equipment.

Preparing the Front Door Assembly

NOTE The front door assembly may be shipped already assembled. If so, skip this section and go to the next section, “Attaching the Front Door To the Rack.”

1. Slip the nylon washers over the threaded studs on the door frame assembly (nylon washers are not used with the perforated door). Then place the Plexiglas/perforated panel against the frame so the threaded studs slide through the holes in the panel. Secure the panel with the washers and nuts as shown in the diagram in Figure 1.

CAUTION Do not overtighten the nuts. Use just enough tension to snug the nuts, but be careful not to break the Plexiglas.

2. Attach the two hinge plates (with the spring-loaded pins) to the front door assembly with the M3 nuts, as shown in Figure 2.
3. Attach the remaining part of the hinge assembly to the hinge brackets. Do not over tighten the nuts.
4. Attach the latch to the front door assembly. Insert the bolt through the latch bracket and into the latch itself, as shown in Figure 1.

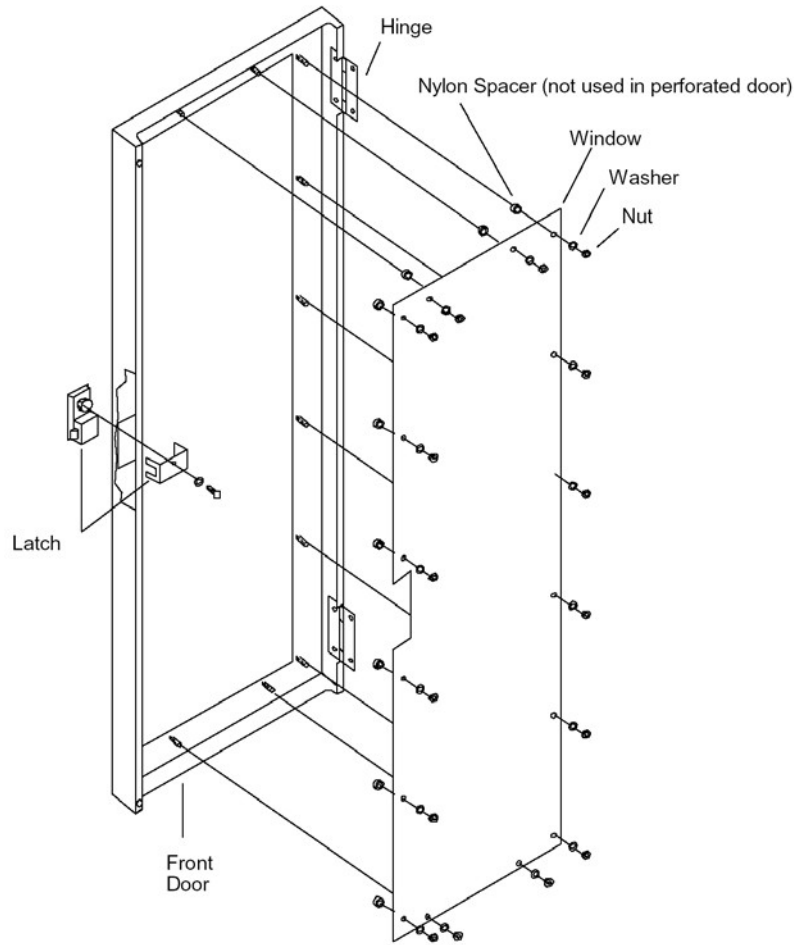


Figure 1. Front Door Kit

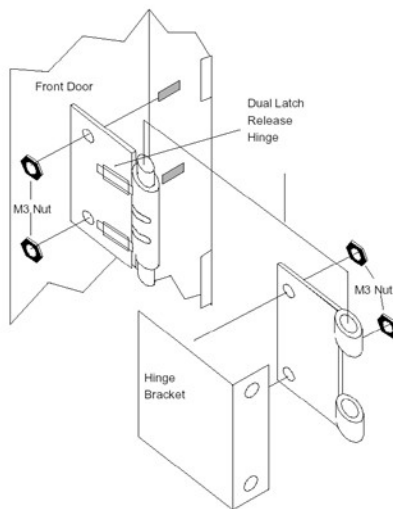


Figure 2. Hinge Assembly

Attaching the Front Door to the Rack

1. Remove both of the side panels from the rack. Save the TORX screws for later replacement of the panels.
2. Locate holes 5 and 7 from the top and bottom of the rack column. The door brackets attach in these holes. Use the outer accessory holes, not the EIA holes. See Figure 3.
3. Attach the hinge brackets (with the hinge attached) to the left rack column.
4. Move the spring-loaded pins on the hinges to their open position.
5. Attach the door to the rack. Align the hinge pins on the door with the pin holes on the bracket attached to the column. Lock the plungers into their closed position.
6. Determine the position of the latch catch bracket on the right column. You can partially close the door to locate the appropriate holes.
7. Attach the latch catch bracket to the right front column using the 10-32 screws and nuts.
8. Reinstall both of the side panels.

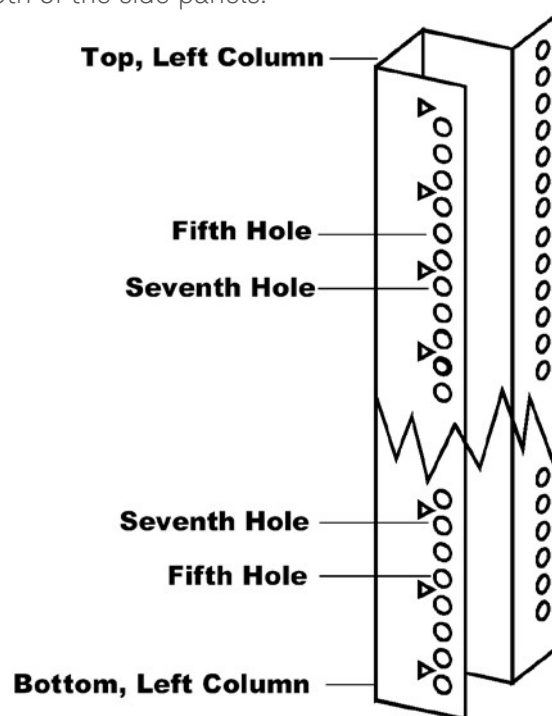


Figure 3. Column

This completes the installation of the Front Door Kit. Place this Installation Instruction with your rack documentation.

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