

# Keysight 1180CZ Testmobile Scope Cart and Accessories

Installation Guide

# 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 AXle 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








## 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

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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.



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## Description

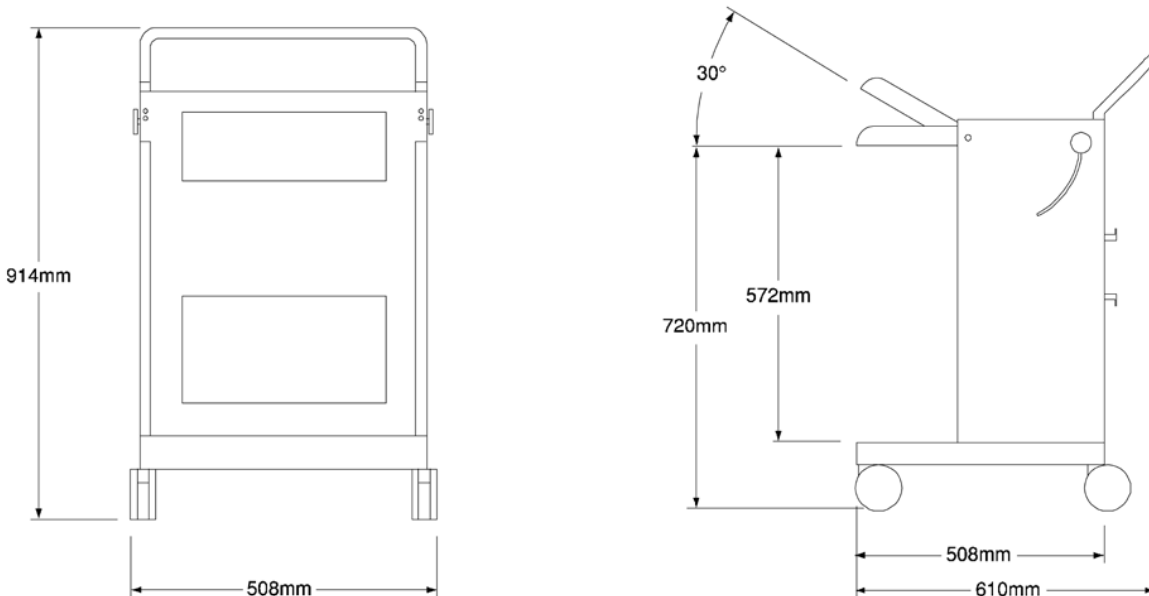
The Keysight Technologies Model 1180CZ Testmobile scope cart provides convenient mobility for your instruments. It allows you to easily view and use the instrument while seated at a workstation or bench. You can tilt the instrument up to 30 degrees for viewing comfort. A nylon strap is provided to secure the instrument to the cart. The Keysight 1180CZ casters have mar-resistant hard rubber tires. One pair of wheels has locking brakes. The tilt tray is designed to be used with instruments that weigh up to 29.5 kg (65 lbs).

## Initial Inspection

Inspect the shipping container for damage. If there is apparent damage to the shipping container or packaging materials, do not discard these materials until the Testmobile cart has been inspected for damage. If it has been damaged in shipment, notify the carrier and the nearest Keysight Technologies Sales/Service office.

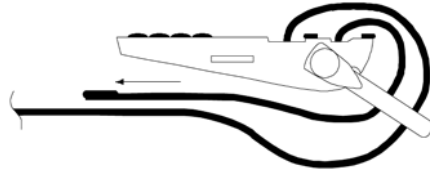
## Assembly Instructions

The Keysight 1180CZ is shipped virtually assembled except for its retaining strap, handle and casters.



## Assemble the Retaining Strap

Attach the retaining strap on the slots of the instrument tray. Thread the strap through the buckle. Attach the power strip (optional).



Inserting the strap in the fastener.

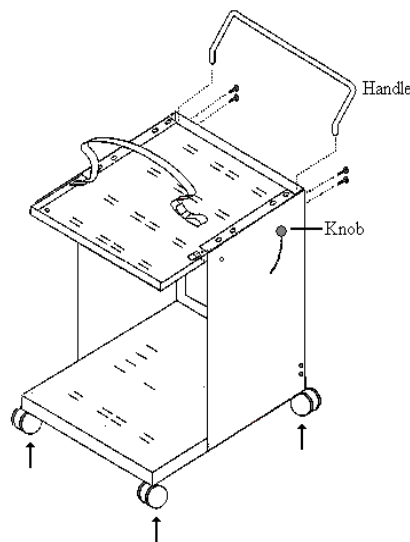
## Assemble the Tubular Handle and Casters

Place the handle in the rear top of the cart and secure with the screws provided. Insert the casters in the corner holes on the underside of the cart.

Item	Quantity	Description
1	4	Caster, 4 inch diameter (2 with breaks, 2 without)
2	4	Pan Head screws, 10-32x0.75 inch
3	1	Handle, Tubular
4	2	Knob

### NOTE

Use a T-25 Torx driver to attach the handle with the 10-32 screws. Install the casters by pushing them into the caster brackets in the four corners of the base.



The knob on each side is used to lock the position of the tilt tray. However, these knobs are not installed in the unit as shipped (to protect the knobs from damage). Instead, packing screws lock the tray for shipment. Remove the packing screws (discard) on each side and replace it with the knob provided. Tighten the knobs to lock the tray.

## Instrument Mounting

### WARNING

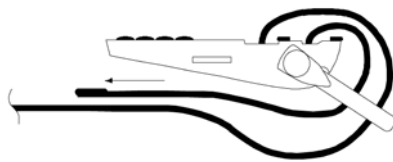
Observe load and center-of-gravity limits. Do not sit or stand on cart. Max load, top tray: 29.5 kg (65 lbs.) Max load, total: 59.0 kg (130 lbs.)

Center the instrument on the tilt tray. Some instruments may have feet that have features to engage the slots in the surface of the tilt tray. If your instrument has such features, engage them to secure the instrument on the tray.

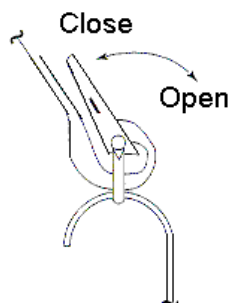
### CAUTION

It is recommended that you do not place the metal front legs of the instrument in an upright position. Allow the instrument to rest on all four anti-skid hard rubber feet secured with the tabs in the slots.

Place the retaining strap over the top of the instrument and engage the fastener in the hook on the right side of the stand (as viewed from the front). Hold the fastener in the hook, thread the strap through the fastener, and pull up the excess.



Lock the fastener by closing it as shown below:





**CAUTION**

Do not force the fastener closed. If it is difficult to close the fastener, loosen the strap and allow slightly more slack. When adjusted properly, the fastener should close with little effort.

## Operating the Tilt Tray

The tilt tray is adjustable from 0 to 30 degrees. This allows you to select a comfortable viewing angle. The cart is equipped with a knob on each side of the cabinet used to tighten and secure the desired angle of the tilt tray.

**CAUTION**

Make sure that the instrument is properly secured with the strap before tilting the tray to avoid possible instrument damage.

## To Set the Tilt Tray

Loosen the knobs on each side of the cabinet. Set the desired angle. Tighten both knobs to secure the tray position.

## Specifications

Item	Specification
Dimensions:	914 mm H x 508mm W x 610mm D (36 in H x 20in W x 24 in D)
Wheel Size	102mm (4 inches) diameter. Locks on one pair of wheels.
Tilt angle of tray:	30 degrees maximum
Load limits of tray:	29.5 kg (65 lbs.)
Load limits of cart:	59.0 kg (130 lbs.)

## Replaceable Parts

Contact your Keysight Technologies Sales/Service Office for information on obtaining replacement parts.



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