



Box Content List

Customer Purchase Order Number

679910

Keysight Sales Order Number

4332319

Box Number

F03K4704897

Delivery Number

3057076959

Dear Valued Customer,

Thank you for selecting Keysight Technologies products. This document is a listing of the ordered items that were packed into this individual box. Please validate the contents in the box against the **items with quantity** listed before discarding the packing material.

If an item is missing or has been damaged, please refer to the contact as shown in the 'Direct Inquiries To' section of the Packing List.

Product Number/Description	Quantity /UOM
33520B Waveform generator 33500B Series, 30 MHz, 2-channel 33520B-CFG001 Keysight Production Configuration Number for 33520B Serial Number:MY62000121	1 EA
Configured Product Specific Item(s): 5185-1605 Envelope-Calibration Certificate (230 mm x 153 mm)	1 EA
Included Item(s): 8120-6825 Cable-Assembly Power Cord 18AWG 498G-Plug C13-Socket 3-Conductor 125VAC PVC	1 EA
9320-6667 China RoHS Addendum for Function Generator	1 EA
8121-1074 Cable-Assembly USB A-B Connector 4-conductor 2m-LG PVC Black	1 EA
5969-5101 Form-Determining Recalibration Due Date	1 EA
5185-8500 Document, Safety Information	1 EA
75010-92000 Notice-BenchVue License Included	1 EA



* 9 3 2 0 - 6 6 6 7 *

函数信号发生器 FUNCTION GENERATOR

部件名称 Part Name	有毒有害物质或元素 Toxic or Hazardous Substances and Elements					
	铅 Pb	汞 Hg	镉 Cd	六价铬 CrVI	多溴联苯 PBB	多溴二苯醚 PBDE
金属机架和面板 Metal chassis and panels	X	O	O	O	O	O
金属扣件 Metal fasteners	X	O	O	O	O	O
印制电路板 Printed circuit assemblies	X	O	O	O	O	O
电源组件 Power supply assemblies	X	O	X	O	O	O
显示器 Display	X	X	O	O	O	O
风扇 Fan	X	O	O	O	O	O
电缆 Cables	X	O	O	O	O	O

本表格依据SJ/T 11364的规定编制。

The table is made according to SJ/T 11364.

O: 表示该有毒有害物质在该部件所有均质材料中的含量均在 GB/T 26572 标准规定的限量要求以下。

X: 表示该有毒有害物质至少在该部件某一均质材料中的含量超出GB/T 26572 标准规定的限量要求。

O: Indicates that this toxic or hazardous substance contained in all of the homogeneous materials for this part is below the limit requirement in GB/T 26572.

X: Indicates that this toxic or hazardous substance contained in at least one of the homogeneous materials used for this part is above the limit requirement in GB/T 26572.

如果上述表单多于一个, 请参考您的订单或者装箱单从上述表格中找到适合您的产品的列表。

If more than one table is shown above, reference your order or packing list to determine which is applicable to your product.

若您需要了解有关本产品的生产日期信息, 请联系您是德科技销售代表。

If you have a question about the manufacturing date for your product, ask your Keysight representative

有关如何与是德科技联系的信息, 请参考产品使用手册。

For Keysight contact information, please reference your product manual.

根据中国《电子电器产品污染控制管理办法》的规定, 是德科技已经为本产品标识了显示其环保使用期限的数字。该数字是对本产品在使用和正常操作条件下的使用寿命的评估, 其使用和操作条件已经在产品使用手册上做出了明确的规定和说明。该数字仅为与《管理办法》为目的的活动提供参考; 并不意味着并担保本产品在环保使用期限过期前免于损坏。该环保使用期限不代表任何担保或保证。该环保使用期限数字不改变任何创立的担保; 并且不影响与该产品销售相关的任何方面、任何项目及条件。您使用的是德科技产品可能包含一些可替换的零部件(包括驱动器、电源、鼠标、显示器或者电池等非是德科技制造的产品), 他们的环保使用期限比是德科技产品本身的环保使用期限短。对于这些非是德科技制造的零部件标识其环保使用期限数字, 其本身标的EPUP有高的优先权, 是德科技对非是德科技制造的产品的环保使用期限没有任何主张也不负任何责任。

In accordance with the requirements of China's Administrative Measure on the Restriction of Hazardous Substances Usage in Electrical and Electronic Products (the "Measure"), Keysight has labeled this product with a number identifying its Environment-Protection Use Period ("EPUP") This number reflects an estimate of the expected life of the product under the normal use and operating conditions as defined in the product user manual which is distributed with the product. Use of the number is only for purposes related to the Measure and does not imply or guarantee that the product is free from defects prior to the EPUP expiration date. No warranties or guarantees are implied by use of the EPUP number. Use of the EPUP number does not alter any warranties found in, nor affect in any way, the terms and conditions associated with the purchase of this product.

Your Keysight product may contain replaceable assemblies/components (including disk drive, power supply, mouse, display, or battery, which are not manufactured by Keysight) which have a shorter EPUP number than that which is indicated on the product itself. In cases where the assembly, component, or part is labeled with an EPUP which differs from the one indicated by Keysight, the EPUP on the assemblies/component or part takes precedence. Keysight makes no claims concerning, and takes no responsibility for the EPUP numbers reflected on goods which are not manufactured by Keysight.

Revision: G



Keysight Technologies (M) Sdn Bhd (463532-M)
Bayan Lepas Free Industrial Zone
11900 Penang Malaysia



Determining the Recalibration Due Date

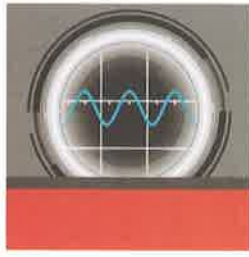
The certificate of Calibration accompanying this product states the date this unit was calibrated according to Keysight Technologies' procedures. We have determined that the calibration of this product is not affected by storage prior to its initial receipt by the customer. The recalibration of this unit should be based on when the product is put into service, plus the recommended calibration interval.

Keysight Technologies' recommended calibration interval is explained in the appropriate product manuals. To determine the date for recalibration, the customer should use the appropriate start date, and apply either Keysight Technologies' calibration interval, or an interval that satisfies their own organization's internal quality system requirements.

The recalibration due date can be noted on the calibration label provided.

A handwritten signature in black ink, appearing to read "Kang Chia Chiek".

Kang Chia Chiek
Quality Manager



BenchVue License Included with your Purchase

A BenchVue software license is now included with your instrument purchase. BenchVue makes it simple to connect, control instruments, and automate test sequences. You can quickly move past the test development phase and access results faster than ever before.



Simply download BenchVue software, connect your instrument, then follow the on-screen directions to enable your license.

Download BenchVue Software Platform, along with the App for the instrument you purchased at www.keysight.com/find/BenchVueDownload

For more information visit www.keysight.com/find/IncludedBenchVue



English	Safety Information	1
Deutsch	Sicherheitshinweise	5
Español	Información de seguridad	9
Français	Informations relatives à la sécurité	13
Italiano	Informazioni sulla sicurezza	17
Русский	Информация о безопасности	21
日本語	安全情報	25
한국어	안전 정보	29
简体中文	安全信息	33
繁體中文	安全資訊	37



5185-8500

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.

Product manuals are provided with your instrument on CD-ROM and/or in printed form. Printed manuals are an option for many products. Manuals may also be available on the Web. Go to www.keysight.com and type in your product number in the Search field at the top of the page.

General

Do not use this product in any manner not specified by the manufacturer. The protective features of this product may be impaired if it is used in a manner not 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 instrument's external markings described under "Safety Symbols".

Ground the Instrument

If your product is 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.

Fuses

See the user's guide or operator's manual for information about line-fuse replacement. Some instruments contain an internal fuse, which is not user accessible.

Do Not Operate in an Explosive Atmosphere

Do not operate the instrument in the presence of flammable gases or fumes.

Do Not Remove the 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.

Cleaning

Clean the outside of the instrument with a soft, lint-free, slightly dampened cloth. Do not use detergent or chemical solvents.

Do Not Modify the Instrument

Do not install substitute parts or perform any unauthorized modification to the product. Return the product to a Keysight Sales and Service Office for service and repair 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

A **CAUTION** notice denotes a hazard. It calls attention to an operating procedure, practice, or the like 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** notice denotes a hazard. It calls attention to an operating procedure, practice, or the like 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 Symbols



Direct current



Alternating current



Both direct and alternating current



Three phase alternating current



Earth ground terminal



Protective earth ground terminal



Frame or chassis ground terminal



Terminal is at earth potential



Neutral conductor on permanently installed equipment



Line conductor on permanently installed equipment



On supply



Off supply



Standby supply. Unit is not completely disconnected from AC mains when power switch is in the standby position



In position of a bi-stable push switch



Out position of a bi-stable push switch



Caution, risk of electric shock



Caution, hot surface



Caution, refer to accompanying documentation

CAT I

IEC Measurement Category I

CAT II

IEC Measurement Category II

CAT III

IEC Measurement Category III

CAT IV

IEC Measurement Category IV

Installing the Instrument

Before connecting to power, check the following to ensure they are correct for your application (see the user's guide or operator's manual for further information):

Line voltage switch (if applicable)

Line fuse (if applicable)

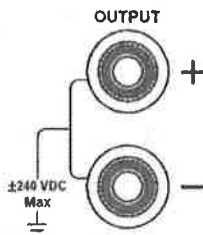
Line cord

Before connecting a load or device under test, read the operating instructions in the manual.

Power Supply Safety

Power supplies can output high currents and voltages. Make sure that the load or device under test can safely handle the output current and voltage. Also, make sure that the connection leads can safely withstand the expected currents and are insulated for the expected voltages.

Power supply outputs may be connected so as to float relative to earth ground. Isolation or floating voltage ratings are indicated on the instrument, near the output connectors:



In this example, the output terminals may be floated at ± 240 VDC relative to earth ground. Observe all safety markings and protection limits. Do not float the power supply output on the line-voltage mains.

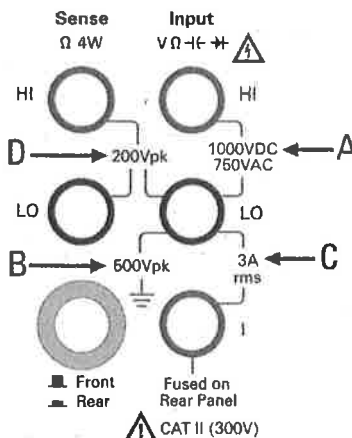
Voltage/Current Measurement Safety

Multimeters and other instruments capable of measuring high voltages and currents are subject to specific safety concerns because of the circuits to which they may be connected. To safely use these instruments, you need to understand the markings on the instrument near the input terminals, which include the Protection Limits and the IEC Measurement Category.

Protection Limits

Keysight multimeters and other voltage measurement instruments provide protection circuitry to prevent damage to the instrument and to protect against the danger of electric shock, provided the Protection Limits are not exceeded. To ensure safe operation of the instrument, do not exceed the Protection Limits shown on the input terminals.

The input terminals and safety markings for a typical multimeter are shown below.



The terminals and Protection Limits for our example multimeter (a Keysight 34410A/11A) are identified in the figure, and are described below:

HI and LO Input Terminals. The HI and LO input terminals are used for voltage, resistance, capacitance, and diode test measurements. Two Protection Limits are defined for these terminals:

- **HI to LO Protection Limit.** The Protection Limit from HI to LO ("A" in the figure above) is 1000 VDC or 750 VAC, which is also the maximum voltage measurement. This limit can also be expressed as 1000 Vpk maximum.
- **LO to Ground Protection Limit.** The LO input terminal can safely "float" a maximum of 500 Vpk relative to ground. This is Protection Limit "B" in the figure.

As is implied by these limits, the Protection Limit for the HI input terminal is a maximum of 1500 Vpk relative to ground.

Current Input Terminal. The current input ("I") terminal has a Protection Limit of 3A (rms) maximum current flowing to the LO input terminal. This is Protection Limit "C" in the figure. Note that the current input terminal will be at approximately the same voltage as the LO terminal.

Sense Terminals. The HI and LO sense terminals are used for four-wire resistance measurements. The Protection Limit is 200 Vpk for each of the following terminal pairings ("D" in the figure):

LO sense to LO input

HI sense to LO input

HI sense to LO sense

The IEC Measurement Categories

The symbol **CAT II (300V)** in the figure at left means that the HI and LO input terminals may be connected to line-voltage mains under IEC Measurement Category II conditions, further limited to line voltages up to 300 volts.

If an instrument is marked CAT I (IEC Measurement Category I), or it is not marked with a measurement category, its inputs must not be connected to line-voltage mains. To protect against the danger of electric shock, instruments marked CAT II provide overvoltage protection for line-voltage mains connections under IEC Measurement Category II conditions. Instruments marked CAT III or CAT IV provide protection for IEC Measurement Category III or IV conditions, respectively. These categories are defined below.

IEC Measurement Category I (CAT I) refers to devices that are isolated from line-voltage mains. Do not connect the inputs of a CAT I instrument to line-voltage mains. Category I instruments often are not marked with the CAT I symbol, as this is not required. Refer to the user's guide or operator's manual for further information.

IEC Measurement Category II (CAT II) refers to electrical devices (such as small appliances) that are connected to line-voltage mains at an outlet on a branch circuit. The HI and LO inputs of a CAT II instrument may safely be connected to mains in such devices, or to the branch outlet itself. However, a CAT II instrument may not be connected to mains in permanently installed electrical devices such as the service panel, sub-panel disconnect boxes, or permanently wired motors.

IEC Measurement Category III (CAT III) refers to equipment permanently connected to line-voltage mains, and extends from the output side of the circuit breakers in the service panel through all of the building wiring and sub-panels. Category III includes motors and equipment that is permanently wired to the building installation. The HI and LO inputs of a CAT III instrument may safely be connected to line voltage mains for such circuits and equipment, but may not be connected to mains on the input side of the service panel breakers.

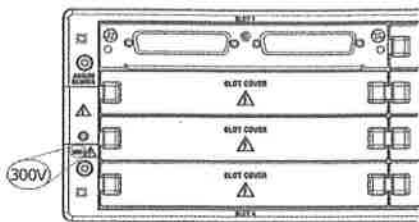
IEC Measurement Category IV (CAT IV) refers to the *building entrance*, which is generally defined as the circuitry and equipment between the output of the electrical meter and the service panel, inclusive of the input side of the service panel breakers.

Modular Chassis Instrument Safety

Modular switching units and similar instruments have special safety considerations.

Chassis Markings Apply to Modules

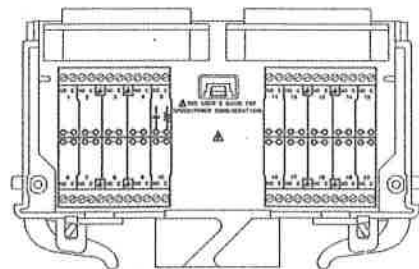
Safety markings such as protection limits marked on the main chassis apply to all modules installed (such as switching modules). For example, the **300V** safety rating on the rear panel of the Keysight 34980A Multifunction Switch/Measure Unit (shown below) applies to all installed modules, unless the module has a lower voltage rating.



Note also that switching and multiplexer instruments are classified as Category I devices, even though they are not necessarily so marked. These instruments must not be connected to line-voltage mains. They are to be used to measure voltages and currents only in circuits that are isolated from line-voltage mains.

Wiring Terminal Blocks

Many instruments provide *terminal blocks* for convenient wiring of connections to the device under test (DUT). A 34980A terminal block is shown below.



Refer to the appropriate user's guide or operator's manual for additional safety information before wiring a terminal block.

VXI Test Equipment

VXI test equipment is similar to the modular chassis instruments described above. However, each VXI module actually is an instrument by itself, although it is designed to plug into a VXI mainframe to obtain power and connectivity. The following safety information applies to all VXI test equipment.

1. Observe all safety markings on the VXI mainframe and on each VXI module.
2. Make sure that your configuration does not exceed the power capacity of the VXI mainframe. Refer to the VXI mainframe documentation for information about mainframe power capacity. Also, refer to the VXI module documentation for information about module power requirements.
3. VXI switching and multiplexer modules, like other such instruments, are designed for IEC Category I measurements. Such modules must not be connected to line-voltage mains.
4. VXI multimeters may be rated for other IEC measurement categories. Refer to the instrument markings and documentation for further information.
5. VXI modules are manufactured in a wide variety of designs, supplied by several manufacturers. Always read the user's guide or operator's manual for specific safety considerations.

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, or see www.keysight.com/environment/product for more information.

