

# **Agilent Technologies N9010/20/30AK-REA**

## **Installation Guide**

Refer to Agilent X Series Signal Analyzers  
Option HDD Additional Removable Hard Disk Drive  
Part Number: N9030-90008



**Agilent Technologies**

**Manufacturing Part Number: N9030-90019**

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## Warranty Statement

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## Safety Notes

The following safety notes are used throughout this document. Familiarize yourself with each of these notes and its meaning before performing any of the procedures in this document.

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<b>WARNING</b>	<b>Warning denotes a hazard. It calls attention to a procedure which, if not correctly performed or adhered to, could result in injury or loss of life. Do not proceed beyond a warning note until the indicated conditions are fully understood and met.</b>
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<b>CAUTION</b>	Caution denotes a hazard. It calls attention to a procedure that, if not correctly performed or adhered to, could result in damage to or destruction of the instrument. Do not proceed beyond a caution sign until the indicated conditions are fully understood and met.
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## Definitions

- *Specifications* describe the performance of parameters covered by the product warranty (temperature –0 to 55 °C, unless otherwise noted.)
- *Typical* describes additional product performance information that is not covered by the product warranty. It is performance beyond specification that 80% of the units exhibit with a 95% confidence level over the temperature range 20 to 30 °C. Typical performance does not include measurement uncertainty.
- *Nominal* values indicate expected performance or describe product performance that is useful in the application of the product, but is not covered by the product warranty.
- *Characteristic Performance* describes performance parameter that the product is expected to meet before it leaves the factory, but is not verified in the field and is not covered by the product warranty. A characteristic includes the same guard bands as a specification.



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# Contents

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# **N9010/20/30AK-REA**

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## Description

The Agilent N9010/20/30AK Option REA provides the capability to relocate the instrument disk drive from the internal drive drawer, to an external customer supplied enclosure. This is accomplished by installing an eSATA drive adapter into the CPU rear panel slot, normally occupied by the internal disk drive. An eSATA cable (also customer supplied) connects the eSATA adapter to the external drive enclosure. The purpose is to allow easier access to the drive, especially rack mounted instruments or secure locations. The CPU in the N9010A and N9020A instrument must be equipped with a removable disk drive. Early N9010A or N9020A instruments without removable disk drives will require installation of Option AK-PC2 (CPU with removable drive). All N9030A instruments have removable disk drives.

For additional information, please go to: <http://www.agilent.com/find/security>

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**IMPORTANT** For further information refer to Agilent X Series Signal Analyzers, Option HDD Additional Removable Hard Disk Drive (N9030-90008).

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Description	Item
Products Affected:	N9010/20/30A with removable hard drive
Serial Numbers:	N9010A with Option PC2
To Be Performed By:	<input type="checkbox"/> Agilent Service Center <input type="checkbox"/> Personnel Qualified by Agilent <input checked="" type="checkbox"/> Customer
Estimated Installation Time:	2.0 Hours
Estimated Adjustment and Verification Time:	0 Hours



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## Verifying the Shipment

Inspect the shipping container. If the container or packing material is damaged, it should be kept until the contents of the shipment have been checked mechanically and electrically. If there is physical damage please notify the nearest Agilent Technologies office. Refer to [“Agilent Support, Services, and Assistance” on page 12](#). Keep the damaged shipping materials (if any) for inspection by the carrier and an Agilent Technologies representative.

**Table 1 N9010/20/30AK-REA Content List**

Description	Agilent Part Number	Qty
Tray Assy eSATA	W1312-60070	1
N9010/20/30AK Installation Guide	N9030-90019	1

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## Customer Furnished Equipment (CFE)

- eSATA Cable
- 2.5 inch SATA HDD enclosure

### Tools Required

- Torx Driver T-10
- USB Mouse
- USB Keyboard

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## Utilities, Adjustments, and Performance Verification Tests

### Utilities Required

None

### Adjustments Required

None

### Performance Testing Required

None

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## Hard Drive Disk Replacement Procedure

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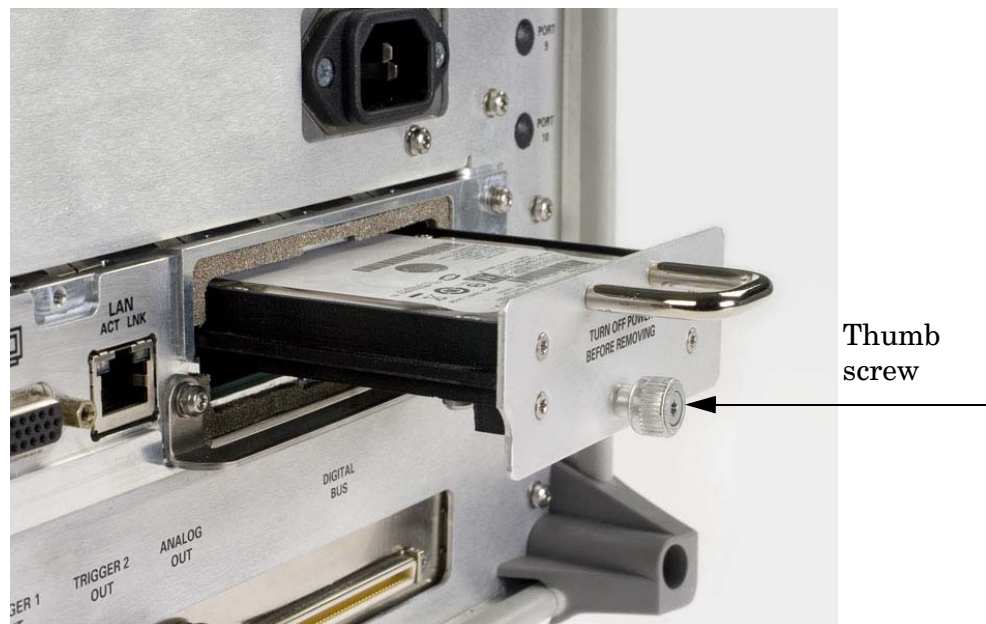
**CAUTION** Follow the appropriate Electrostatic Discharge (ESD) procedures. ESD can damage or destroy electronic components. All work on electronic assemblies should be performed at a static-safe workstation. Refer to the documentation that pertains to your instrument for information about static-safe workstations and ordering static-safe accessories.

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### Removing the Hard Disk Drive

1. Turn the instrument off and remove the AC power cord.
2. Using a T-10 torx driver, loosen the rear panel thumb screw and remove the existing disk drive carrier assembly from the instrument.

**Figure 1** Hard Disk Drive Removal



3. Remove the 2.5 inch hard disk drive from its tray assembly hard drive (W1312-60069), by removing the 4 screws. It is recommended that you keep the tray assembly for use when returning the instrument for calibration or repair.
4. Install the hard drive into the SATA HDD enclosure (CFE). Follow the instructions that are included with the enclosure.

**Figure 2** SATA Tray Assembly



5. Mount the 2.5 inch SATA HDD enclosure in the desired location. Follow the instructions that are included with the enclosure.
6. Install the removable tray assembly eSATA (W1312-60070) in the instrument. Torque to 9 in-lb.
7. Connect the eSATA cable (CFE) from the removable tray assembly eSATA to the enclosure.
8. Provide power per the enclosure instructions.
9. Install the instruments AC power cord and turn on the instrument.

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## Safety and Regulatory Information

### Introduction

Review this product and related documentation to familiarize yourself with safety markings and instructions before you operate the instrument. The documentation contains information and warnings that must be followed by the user to ensure safe operation and to maintain the product in a safe condition.

### Before Applying Power

Verify that the premises electrical supply is within the range of the instrument. The instrument has an autoranging power supply.

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**WARNING** To prevent electrical shock, disconnect the **Agilent Technologies N9010/20/30AK-REA** from mains electrical supply before cleaning. Use a dry cloth or one slightly dampened with water to clean the external case parts. Do not attempt to clean internally.

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### Connector Care and Cleaning

If alcohol is used to clean the connectors, the power cord to the instrument must be removed. All cleaning should take place in a well ventilated area. Allow adequate time for the fumes to disperse and moist alcohol to evaporate prior to energizing the instrument.

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**WARNING** Keep isopropyl alcohol away from heat, sparks, and flame. Store in a tightly closed container. It is extremely flammable. In case of fire, use alcohol foam, dry chemical, or carbon dioxide; water may be ineffective.

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### Declaration of Conformity

A copy of the Declaration of Conformity is available upon request, or a copy is available on the Agilent Technologies web site at:

*<http://regulations.corporate.agilent.com/DoC/search.htm>*

### Statement of Compliance

This instrument has been designed and tested in accordance with CAN/CSA 22.2 No. 61010-1-04, UL Std No. 61010-1 (Second Edition), and IEC 61010-1 (Second Edition).

## General Safety Considerations

### Cautions

Cautions applicable to this instrument.

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**CAUTION** The Mains wiring and connectors shall be compatible with the connector used in the premise electrical system. Failure, to ensure adequate earth grounding by not using the correct components may cause product damage, and serious injury.

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**CAUTION** Always use the three prong AC power cord supplied with this product. Failure to ensure adequate earth grounding by not using this cord may cause product damage and the risk of electrical shock.

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**CAUTION** This product is designed for use in Installation Category II and Pollution Degree 2.

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**CAUTION** Verify that the premise electrical voltage supply is within the range specified on the instrument.

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**CAUTION** Ventilation Requirements: When installing the instrument in a cabinet, the convection into and out of the instrument must not be restricted. The ambient temperature (outside the cabinet) must be less than the maximum operating temperature of the instrument by 4 °C for every 100 watts dissipated in the cabinet. If the total power dissipated in the cabinet is greater than 800 watts, forced convection must be used.

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## Servicing

Warnings applicable to this instrument.

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**WARNING**     **Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended. Discard used batteries according to manufacturer's instructions.**

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**WARNING**     **This is a Safety Class I product (provided with a protective earthing ground incorporated in the power cord). The mains plug shall be inserted only into a socket outlet provided with a protective earth contact. Any interruption of the protective conductor, inside or outside the product is likely to make the product dangerous. Intentional interruption is prohibited.**

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**WARNING**     **For continued protection against fire hazard replace line fuse only with same type and rating. The use of other fuses or material is prohibited.**

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**WARNING**     **These servicing instructions are for use by qualified personnel only. To avoid electrical shock, do not perform any servicing unless you are qualified to do so.**

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**WARNING**     **The opening of covers or removal of parts is likely to expose the user to dangerous voltages. Disconnect the instrument from all voltage sources while it is being opened.**

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**WARNING**     **This product is designed for use in Installation Category II and Pollution Degree 2.**

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**WARNING**     **No operator serviceable parts inside. Refer servicing to qualified personnel.**

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**WARNING**     **If this product is not used as specified, the protection provided by the equipment could be impaired. This product must be used in a normal condition (in which all means for protection are intact) only.**

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## Regulatory Information

This section contains information that is required by various government regulatory agencies.

### Instrument Markings



The instruction documentation symbol. The product is marked with this symbol when it is necessary for the user to refer to the instructions in the documentation.



This symbol indicates that the instrument requires alternating current (ac) input.



This symbol indicates separate collection for electrical and electronic equipment, mandated under EU law as of August 13, 2005. All electric and electronic equipment are required to be separated from normal waste for disposal (Reference WEEE Directive, 2002/96/EC).



This symbol indicates that the power line switch is ON.



This symbol indicates that the power line switch is in the STANDBY position.



This symbol indicates that the power line switch is in the OFF position.



This symbol is used to identify a terminal which is internally connected to the product frame or chassis.



The CE mark is a registered trademark of the European Community. (If accompanied by a year, it is when the design was proven.)



The CSA mark is a registered trademark of the CSA International. This instrument complies with Canada: CSA 22.2 No. 61010-1-04.



This is a symbol of an Industrial Scientific and Medical Group 1 Class A product.



This is a marking to indicate product compliance with the Canadian Interference-Causing Equipment Standard (ICES-001).



Direct Current.



The instrument has been designed to meet the requirements of IP 2 0 for ingress and operational environment.



This is a required mark signifying compliance with an EMC requirement. The C-Tick mark is a registered trademark of the Australian Spectrum Management Agency.



China RoHS regulations include requirements related to packaging, and require compliance to China standard GB18455-2001.



This symbol indicates compliance with the China RoHS regulations for paper/fiberboard packaging.

## Battery Collection

Do not throw batteries away but collect as small chemical waste, or in accordance with your country's requirements. You may return the battery to Agilent Technologies for disposal. Refer to [“Agilent Support, Services, and Assistance” on page 12](#) for assistance.

## Compliance with German Noise Requirements

This is to declare that this instrument is in conformance with the German Regulation on Noise Declaration for Machines (Laermangabe nach der Maschinenlaermverordnung-3. GSGV Deutschland).

Acoustic Noise Emission/Geraeuschemission	
LpA<70 dB	Lpa<70 dB
Operator Position	am Arbeitsplatz
Normal Operation	normaler Betrieb
per ISO 7779	nach DIN 45635 t. 19

## EMC Information

Complies with European EMC Directive 2004/108/EC

- IEC/EN 61326-1
- CISPR Pub 11 Group 1, class A
- AS/NZS CISPR 11
- This ISM device complies with Canadian ICES-001.  
Cet appareil ISM est conforme a la norme NMB du Canada.

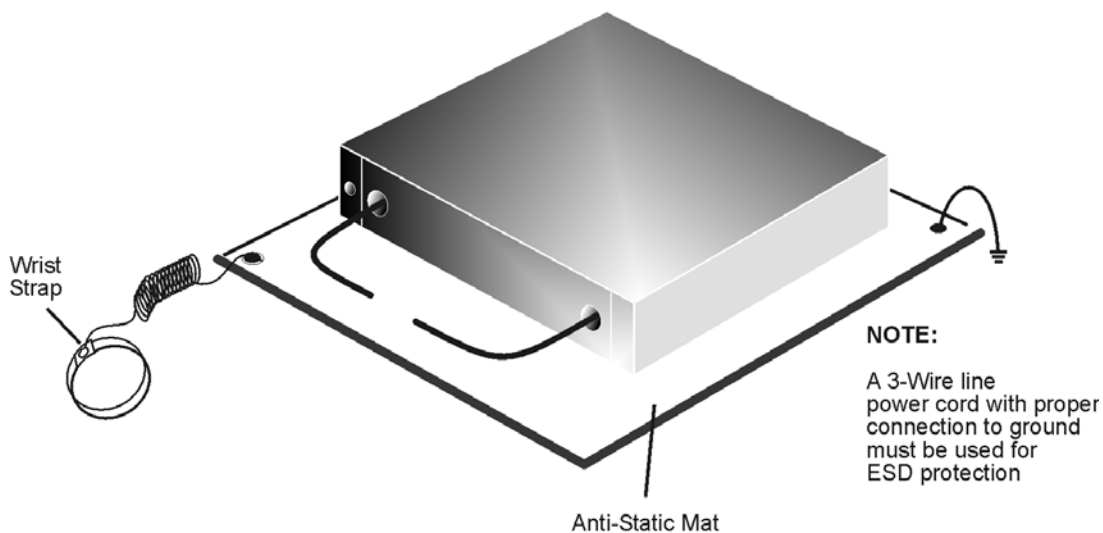


## Electrostatic Discharge Protection

Protection against electrostatic discharge (ESD) is essential while removing assemblies from or connecting cables to the network analyzer. Static electricity can build up on your body and can easily damage sensitive internal circuit elements when discharged. Static discharges too small to be felt can cause permanent damage. To prevent damage to the instrument:

- *always* have a grounded, conductive table mat (9300-0797) in front of your test equipment.
- *always* wear a grounded wrist strap (9300-1367) with grounding cord (9300-0980), connected to a grounded conductive table mat, having a 1 M $\Omega$  resistor in series with it, when handling components and assemblies or when making connections.
- *always* wear a heel strap (9300-1126) when working in an area with a conductive floor. If you are uncertain about the conductivity of your floor, wear a heel strap.
- *always* ground yourself before you clean, inspect, or make a connection to a static-sensitive device or test port. You can, for example, grasp the grounded outer shell of the test port or cable connector briefly.
- *always* ground the center conductor of a test cable before making a connection to the analyzer test port or other static-sensitive device. This can be done as follows:
  1. Connect a short (from your calibration kit) to one end of the cable to short the center conductor to the outer conductor.
  2. While wearing a grounded wrist strap, grasp the outer shell of the cable connector.
  3. Connect the other end of the cable to the test port and remove the short from the cable.

**Figure 3 ESD Protection Setup**



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## Agilent Support, Services, and Assistance

### Service and Support Options

The analyzer's standard warranty is a one-year return to Agilent Technologies service warranty.

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**NOTE** There are many other repair and calibration options available from the Agilent Technologies support organization. These options cover a range of service agreements with varying response times. Contact Agilent for additional information on available service agreements for this product.

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### Contacting Agilent

Assistance with test and measurements needs and information or finding a local Agilent office are available on the Web at:

*<http://www.agilent.com/find/assist>*

You can also purchase accessories or documentation items on the Internet at:

*<http://www.agilent.com/find>*

If you do not have access to the Internet, contact your field engineer.

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**NOTE** In any correspondence or telephone conversation, refer to the Agilent product by its model number and full serial number. With this information, the Agilent representative can determine the warranty status of your unit.

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### Shipping Your Analyzer to Agilent for Service or Repair

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**IMPORTANT** Agilent Technologies reserves the right to reformat or replace the internal hard disk drive in your analyzer as part of its repair. This will erase all user information stored on the hard disk. It is imperative, therefore, that you make a backup copy of your critical test data located on the analyzer's hard disk before shipping it to Agilent for repair.

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If you wish to send your instrument to Agilent Technologies for service or repair:

- Include a complete description of the service requested or of the failure and a description of any failed test and any error message.
- Ship the analyzer using the original or comparable antistatic packaging materials.
- Contact Agilent for instructions on where to ship your analyzer.