

E5052A Security Features

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Contacting Agilent Sales and Service Offices

Assistance with test and measurements needs and information on finding a local Agilent office is available on the internet at, <http://www.agilent.com/find/assist>. If you do not have access to the internet, please contact your field engineer.

Note: In any correspondence or telephone conversation, refer to the signal source analyzer by its model number and full serial number. With this information, the Agilent representative can determine whether your unit is still within its warranty period.

Product Declassification and Security

Model Number(s): E5052A

Product Name: Signal Source Analyzer

This document describes instrument security features and the steps to declassify an instrument through memory sanitization or removal. For additional information [please go to www.agilent.com/find/ad](http://www.agilent.com/find/ad) and click on the security instrument tab.

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Terms and Definitions

Definitions:

Clearing – Clearing is the process of eradicating the data on media before reusing the media so that the data can no longer be retrieved using the standard interfaces on the instrument. Clearing is typically used when the instrument is to remain in an environment with an acceptable level of protection.

Sanitization – Sanitization is the process of removing or eradicating stored data so that the data cannot be recovered using any known technology. Instrument sanitization is typically required when an instrument is moved from a secure to a non-secure environment such as when it is returned to the factory for calibration. (The instrument is declassified) Agilent memory sanitization procedures are designed for customers who need to meet the requirements specified by the US Defense Security Service (DSS). These requirements are outlined in the “Clearing and Sanitization Matrix” issued by the Cognizant Security Agency (CSA) and referenced in National Industrial Security Program Operating Manual (NISPOM) DoD 5220.22M ISL 01L-1 section 8-301.

Security Erase – Refers to either the clearing or sanitization features of Agilent instruments.

Instrument declassification – A term that refers to procedures that must be undertaken before an instrument can be removed from a secure environment such as is the case when the instrument is returned for calibration. Declassification procedures will include memory sanitization and or memory removal. Agilent declassification procedures are designed to meet the requirements specified by the DSS NISPOM security document (DoD 5220.22M chapter 8)

Instrument Memory

This section contains information on the types of memory available in your instrument. It explains the size of memory, how it is used, its location, volatility, and the sanitization procedure.

Summary of instrument memory - base instrument

Memory Type and Size	Writable During Normal Operation?	Data Retained When Powered Off?	Purpose/Contents	Data Input Method	Location in Instrument and Remarks	Sanitization Procedure
Main Memory (RAM) 512 MB	Yes	No	Windows Operating system memory	Operating system (not user)	Digital mother board	Cycle power
Video memory (RAM) 1 MB	Yes	No	Windows Operating system memory	Operating system (not user)	LCD interface card	Cycle power
Media Storage (Built-in Hard Disk) 10GB, 20 GB or 40 GB	Yes	Yes	Windows Operating system boot device, factory correction data, and users file including saved traces data, settings, or images.	User-saved data	As an A27 assembly in the instrument, connected to Digital mother board.	Remove
Non-volatile memory (Flash) 1MB	No	Yes	Firmware for instrument operation	Non-User Modifiable	A21 analog interface board	N/A

Memory Clearing, Sanitization and/or Removal Procedures

This section explains how to clear, sanitize, and remove memory from you instrument for all memory that can be written to during normal operation and for which the clearing and sanitization procedure is more than trivial such as rebooting your instrument.

Description and purpose	Media Storage (Built-in Hard Disk) for Windows Operating system boot device, factory correction data, and users file including saved traces data, settings, or images.
Size	10 GB, 20 GB, or 40 GB depending on vintage.
Memory clearing	Delete user files and empty recycle bin
Memory sanitization	Remove Hard Disk Drive and replace with a new or unused Hard Disk Drive. See the Information on Maintenance on E5052A User's Guide.
Memory removal	Remove Hard Disk Drive
Write protecting	N/A
Memory validation	N/A
Remarks:	

Hard Disk Removal: Because it is virtually impossible to completely and selectively erase all user data on a hard drive without also destroying the operating system, the best method for maintaining security when the E5052A must be removed from a secure area is to replace the hard drive with a "non-secure" hard drive, i.e. a drive that has never had any sensitive data placed on it.

Note: THE EQUIPMENT WITH PREFIX MY441 DOES NOT SUPPORT THE REMOVABLE HARD DISK DRIVE. If this is the case, the hard drive needs to be removed and replaced with a new or unused hard disk drive part as per the service manual. See E5052A Service Manual for more detail information on the procedure as well as the replacement parts.

User and Remote Interface Security Measures

Screen and Annotation Blanking

You can prevent frequency information from appearing on the E5052A screen and printouts.

To set security levels from the E5052A menu, go to Display, then Security Level.

When the security level is set to Frequency Blank or All Numeric Blank, the following information is blanked.

- Display annotation
- All marker readouts
- All tables
- All soft key menus
- All printouts
- Programming via GPIB or VBA

The frequency blank operation is supported on firmware revision A.02.00 or higher.

The latest firmware can be downloaded from:

<http://www.agilent.com/find/ssa> > Technical Support > Software Downloads & Utilities

USB Mass Storage Device Security

The following procedure shows how to disable a USB Mass Storage Device.

1. [Save/Recall] > Explorer...
2. Double-click "DisableUsbStorage.exe" from D:\Agilent\Service.
3. Click OK in the SUCCEEDED message window that appears. If any USB mass storage device is connected to the E5052A under this condition, the Hardware Wizard will start, but the USB mass storage device will not work.

The following procedure shows how to enable a USB Mass Storage Device.

1. [Save/Recall] > Explorer...
2. Double-click "EnableUsbStorage.exe" from D:\Agilent\Service.
3. Click OK in the SUCCEEDED message window that appears.

Note: If the program fails to run, it is possible that you have not logged in as a user in the Administrators Group. When you want to execute any of the above programs, make sure to log in as a user in the Administrators Group.

Note: For users who have E5052A with a serial prefix of MY421, these units do not contain the necessary programs in their HDD at shipment. Visit the following URL to obtain the program.

<http://www.agilent.com/find/ssa> > Technical Support > Software Downloads & Utilities > Program/Utility

Remote Access Interfaces

The user is responsible for providing security for the I/O ports for remote access by controlling physical access to the I/O ports. The I/O ports must be controlled because they provide access to all user settings, user states and the display image.

The I/O ports include RS-232, GPIB and LAN.

The LAN port provides the following services, which can be selectively disabled:

http

ftp

sockets

telnet

There is also a 'ping' service, which presently cannot be selectively disabled. The concern here might be that it is possible to discover IP addresses of connected instruments in order to query their setups over the net or break into the code.

Procedure for Declassifying a Faulty Instrument

As shipped from the factory, all the E5052As have the following instrument-specific calibration files stored on the hard disk drive. When replacing a hard disk drive, in order to achieve specified performance, these files must be copied to the new hard drive. These files are located in the directory, D:\syscal.

Perform the procedure described on the E5052A User's Guide to declassifying an E5052A if it needs to be removed from a secure area and be returned to a secure area.

The procedure can be found on Information on Maintenance on the E5052A User's Guide.

The latest manual can be also downloaded from:

<http://www.agilent.com/find/ssa> > Technical Support > Manuals & Guides