

Installation Note

Bootrom Upgrade Kit for Agilent Technologies ESA Spectrum Analyzers



Agilent Technologies

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Bootrom Upgrade Kit for ESA Spectrum Analyzers

Products Affected:	E4402B E4403B E4404B E4405B E4407B
Serial Numbers:	US00000000/US99999999
Options:	none
To Be Performed By:	(X) Agilent Technologies Service Center (X) Personnel Qualified by Agilent Technologies (X) Customer
Estimated Installation Time:	1.0 Hours

Introduction

This kit contains all parts and instructions to install the bootrom upgrade.

Installation Kit Parts List

Bootrom Upgrade Kit Contents

Item	Quantity	Description	Part Number
1	1	Bootrom Chip	none
2	1	ROM extractor tool	none
3	1	Installation Note	none

Tools Required

- T-10 TORX screwdriver
- T-15 TORX screwdriver

Installation Procedure

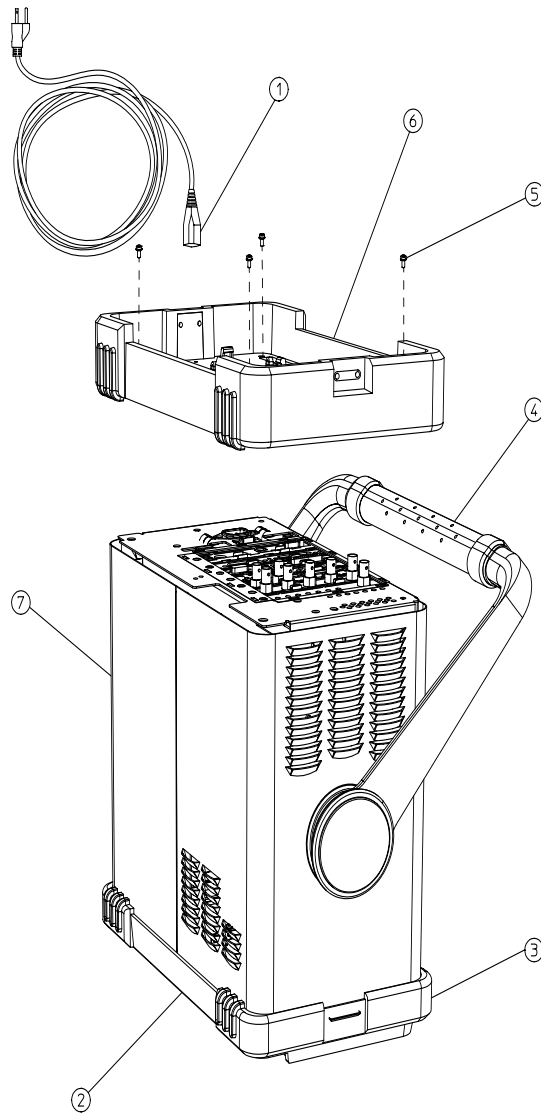
WARNING Before you disassemble the instrument, turn the power switch OFF and unplug the instrument. Failure to unplug the instrument can result in personal injury.

CAUTION Electrostatic discharge (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.

Remove Rear Frame and Outer Cover

1. Disconnect the ac power cord from the spectrum analyzer.
2. Carefully place the analyzer on the work surface with the front frame, (2) and (3), facing down. Refer to Figure 1.
3. Position the handle (4) as shown in the figure.
4. Remove the four screws (5) that hold the rear frame (6) and outer case (7) in place.
5. Lift the instrument rear frame (6) and outer case (7) off towards the rear of the instrument.

Figure 1. Rear Frame and Outer Case Removal

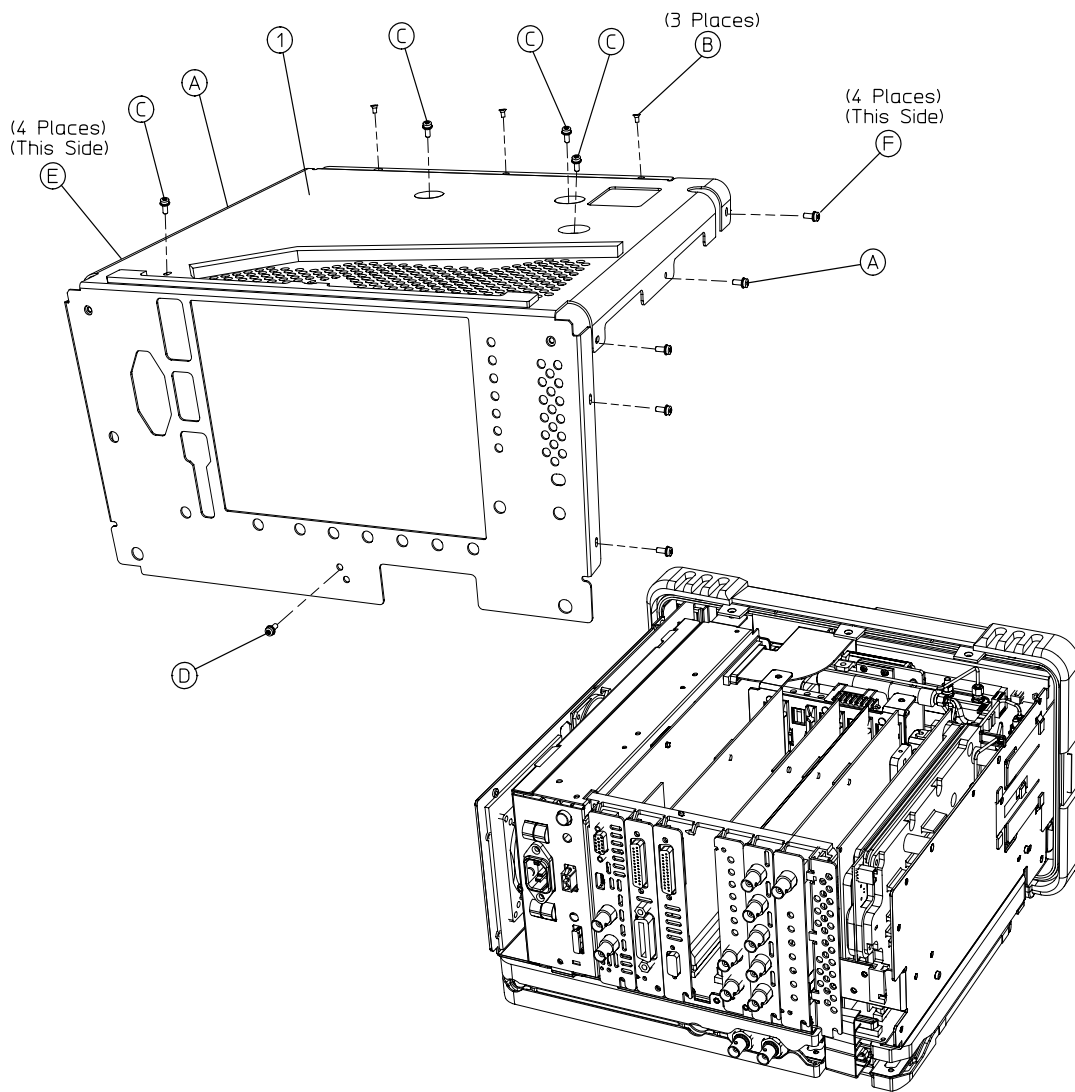


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Remove Inner Shield

6. Using the chassis cover installation instructions printed on top of the inner shield, remove the 18 screws (A,B,C,D,E,F) attaching the inner shield (1) to the chassis (15 screws if you have the tracking generator Option). Refer to Figure 2.
7. Remove the inner shield from the chassis.

Figure 2. Inner Shield Removal



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Remove and Replace the Bootrom Chip

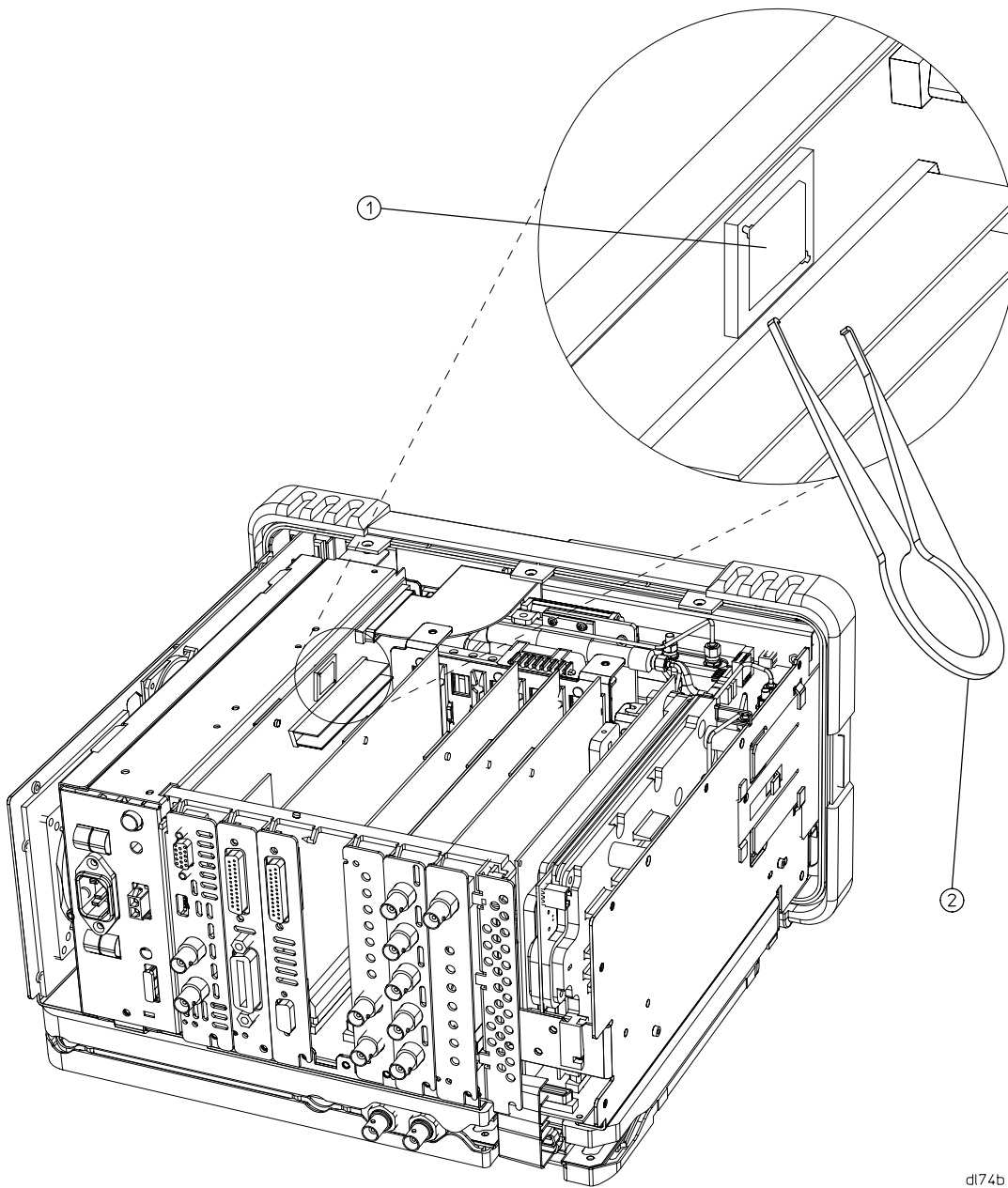
8. Place the instrument rear panel toward you as shown in Figure 3.
9. Remove the bootrom extractor tool and the bootrom chip in the ESD bag labelled: "Bootrom Upgrade."
10. Insert your index finger through the ring at the top of the bootrom extractor tool. Insert the tool tips into the extraction slots of the socket until the tool bottoms on the socket.
11. Gently squeeze the extractor tool arms together using the thumb and middle finger. Apply only enough force to ensure that the hooks remain beneath the edges of the ROM chip. Discard the old bootrom chip.

NOTE Do not change the spacing distance of the the tool by bending or altering the extractor arms.

12. Insert the new bootrom into the socket being careful to note the chip orientation; it is polarized to fit into the socket one way only. Be sure to press the new chip firmly and completely into the socket.
13. Insert the power cord and turn on the analyzer. Press **System** , **More 1 of 3**, **Show System** and make sure the sixth line in the list indicates bootrom revision 310. If everything looks okay, then turn the instrument off, remove the power cord, and re-install all covers.

If there is a problem, turn the power off and re-insert the ROM; chances are that it is not making contact. If it still fails, remove the new bootrom and re-insert the old bootrom. If the instrument works with the old bootrom, then contact the division (707 577-6801) or send an e-mail to MID.SA.Support.
14. Locate the firmware installation note and floppy disks and follow those instructions to upgrade the instrument firmware.

Figure 3. Vibration Support



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