

Installation Note

**Installation Instructions for Adding the RF/ESD Limiter to the
Agilent Technologies 8713B and 8714B RF Network Analyzers**

For Upgrade Kit 08713-60016

Or for use when received as part of an exchange assembly



Part Number 08713-90016

Printed in USA July 2001

Supersedes: November 1996

Notice.

The information contained in this document is subject to change without notice.

Agilent Technologies makes no warranty of any kind with regard to this material, including but not limited to, the implied warranties of merchantability and fitness for a particular purpose. Agilent shall not be liable for errors contained herein or for incidental or consequential damages in connection with the furnishing, performance, or use of this material.

© Copyright Agilent Technologies 1996, 2001

All Rights Reserved. Reproduction, adaptation, or translation without prior written permission is prohibited, except as allowed under the copyright laws.

1400 Fountaingrove Parkway, Santa Rosa, CA 95403-1799, USA

PRODUCT AFFECTED:

Agilent 8713B and 8714B RF Network Analyzers

SERIAL NUMBERS:

All

Description

These instructions are provided for one of three reasons:

- You have ordered the RF limiter upgrade kit (part number 08713-60016)
- You have received a new or exchanged A5 receiver board assembly
- You have received a new or exchanged A4 source board assembly

A limiter has been added to the 8713B and 8714B to help reduce failures of the A4 source assembly due to excessive RF power and ESD. This limiter will provide a 5 to 10 times improvement in susceptibility to overloads. The limiter (part number 5086-7988) is provided in a small SMA package, similar to an SMA attenuator. Due to the physical layout of the assemblies, the limiter is placed at the RF input of the A5 receiver assembly instead of on the source assembly directly. Since this input comes directly from the A4 source, it effectively protects the source.

Note

If a limiter is already installed on your analyzer's current receiver board, you do not need to read any further. You may keep the enclosed RF limiter in case your existing unit fails due to excessive RF power or ESD.

Tools Required

TORX drivers: size 10 and 15

5/16-in open end wrench

Equipment Required

Refer to the analyzer's *Service Guide* to determine any equipment required to verify the analyzer after replacing any of the items included in this kit.

Installation Kit Parts List

Agilent Part Number 08713-60016

Quantity	Description	Part Number
1	cable assembly	08713-20044
1	cable assembly ¹	08713-20045
1	cable assembly	08713-20046
1	RF limiter ¹	5086-7988

¹ See "*" in the "Installation Procedure" below.

Safety Considerations

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.

Installation Procedure

This section contains brief instructions for the installation of the RF limiter. For convenience, disassembly instructions are listed on a label attached to the bottom of each analyzer. If necessary, more complete documentation and illustrations are contained in your analyzer's *Service Guide* that was shipped with your instrument.

*** If this kit was received as part of a replacement A5 receiver assembly...** then the RF limiter and one of the cables from this kit have already been installed at the RF input port of the receiver board. If your analyzer does not have the AM delay option (1DA or 1DB), or the attenuator option (1E1) installed, then you need only install the new receiver assembly. If either, or both, of these options are installed, you will need to transfer the option assemblies from the old board to the new one. One of the semi-rigid RF cables will need to be changed to accommodate the RF limiter. All required cables are included.

If this kit was received with a replacement A4 source assembly, or if the kit was ordered separately... it will be necessary to install the limiter on the A5 receiver board. To do this:

1. Remove the A5 receiver assembly.
2. Completely remove the RF cable going to A5J3 (source input).
3. Attach the RF limiter. Select from the RF cables provided in this kit, and install the one that will properly replace the cable you just removed.

Verification

After the installation of the limiter, the analyzer should be re-calibrated by performing all the adjustments documented in your analyzer's *Service Guide*. If this note was received as part of the RF limiter retrofit kit (part number 08713-60016), then only adjustments 104 through 109 need be performed.

For Additional Information

For more information, contact your nearest Agilent Sales and Service Office.

By internet, phone, or fax, get assistance with all your test & measurement needs.

Table 1-1. Contacting Agilent

Online Assistance: www.agilent.com/find/assist

United States (tel) 1 800 452 4844	Japan (tel) (81) 426 56 7832 (fax) (81) 426 56 7840	New Zealand (tel) 0 800 738 378 (fax) 64 4 495 8950
Canada (tel) 1 877 894 4414 (fax) (905) 206 4120	Latin America (tel) (305) 269 7500 (fax) (305) 269 7599	Asia Pacific (tel) (852) 3197 7777 (fax) (852) 2506 9284
Europe (tel) (31 20) 547 2323 (fax) (31 20) 547 2390	Australia (tel) 1 800 629 485 (fax) (61 3) 9210 5947	