

Installation Note

Agilent CSA Spectrum Analyzer Tracking Generator Upgrade Kit (Options TG3 and TG6)



Agilent Technologies

**Part Number N1996-90009
Printed in USA February 2007**



N1996-90009

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Tracking Generator (Options TG3 and TG6)

Product Affected:	N1996A Spectrum Analyzer
Serial Numbers:	All
Options:	TG3 - Tracking Generator, 3 GHz TG6 - Tracking Generator, 6 GHz
To Be Performed By:	(X) Agilent Technologies Service Center (X) Personnel Qualified by Agilent (X) Customer
Estimated Installation Time:.....	0.5 Hours
Estimated Adjustment and Verification Time:	1.5 Hours
Additional Recommended Task:	Agilent recommends a full calibration be performed to verify instrument specifications.

Introduction

This kit contains the parts and instructions to install either Option TG3 or Option TG6. No tools are required.

Use of the tracking generator also requires that the N8995A Stimulus/Response Measurement Suite be installed and licensed.

To ensure that this newly installed option is functioning properly, the procedure that follows includes the requirement of performing certain adjustments and performance verification tests. However, the completion of these tests does not guarantee that the instrument meets all advertised specifications.

Software is required to perform the required adjustments and to automate the performance verification testing. Information on how to obtain this software can be found at:
www.agilent.com/find/calibrationsoftware.

While Agilent does recommend that a full calibration be performed after the installation of this upgrade, the end user must ultimately determine whether they want this service or not. If a full calibration is required, arrangements regarding the level of calibration must be made between the end user and the calibration provider.

Installation Kit Parts List

Description	Item Number
Tracking Generator Installation Note	this note
Option Upgrade Entitlement Certificate	--

Procedure

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.

Obtaining a License Key and Activating the Option

The entitlement certificate supplied in this kit allows you to obtain a license key from our Agilent website so you can enable this upgrade option. Once you have retrieved the license key, you can begin the process of activating the option.

1. Press **System, System Stats, Rev Info**. Note the GUI Revision, this is the firmware revision.
2. If the firmware revision is <A.02.00:
 - a. Press **System, Option Manager, Install an Option, From List**.
 - b. Use the knob to highlight the option to be installed, in this case, either “TG3 - Tracking Generator, 3 GHz” or “TG6 - Tracking Generator, 6 GHz”, and press **Select**.
3. If the firmware revision is ≥A.02.00:
 - a. Press **System, Option Manager, Install an Option, Type Option**.
 - b. Use the alpha editor and numeric keypad to enter either “TG3” or “TG6”, as appropriate.
4. Press **Install Option**. Use the alpha editor and numeric keypad to enter the 12-character license key (for example, 71FC56566F42) for the option that you want to activate. Press **Enter** when done.
5. If you entered the license key correctly, you will see a screen which says, “**Option installed successfully!**”. Press **Finish** and then cycle power on the analyzer for the new option to be activated.
6. When the analyzer has been re-booted, press **System, Option Manager, Installed Options** to verify that the desired option, Option TG3 or TG6, is listed.
7. If the N8995A Stimulus/Response Measurement Suite is already installed and licensed, press **Mode** and verify that the **Stimulus/Response** softkey is present. If the N8995A is not installed and licensed, the tracking generator will not be functional.

Perform Adjustments and Performance Tests

Adjustments Required

The adjustments listed below are required following this upgrade installation. These adjustments can only be performed using the software outlined in the Introduction of this installation note. Also, the N8995A Stimulus/Response Measurement Suite must be installed and licensed to run the TG Flatness and Return Loss calibration procedures. The adjustments must be performed in the order that they are listed below. They must also be done prior to running any performance verification testing.

- IF Adjustment
- Amplitude Adjustment
- TG Flatness Adjustment
- Return Loss Calibration

Performance Testing Required

The performance tests listed below are the minimum recommended set that will verify the upgrade just installed is functioning correctly. Performing these tests alone does not guarantee that the instrument meets all advertised performance specifications. The performance verification procedures can be performed using the software outlined in the Introduction of this installation note.

- Frequency Response
- Displayed Average Noise Level
- Tracking Generator Output Power

NOTE	A full calibration is required to ensure the instrument meets all advertised performance specifications.
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