N4010A-02A

S E R V I C E N O T E

Supersedes:
N4010A-02

N4010A Wireless Connectivity Test Set

Serial Numbers: GB00000000 / GB99999999

N4010A Firmware Downgrade Restrictions

Parts Required:

P/N	Description	Qty.
NONE		

ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION:
INFORMATION ONLY
AUTHOR: FC PRODUCT LINE: PN
ADDITIONAL INFORMATION:

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Agilent Technologies

Situation:

Agilent occasionally releases new firmware for the N4010A to provide new features, enhance existing features, or fix reported issues (bugs). Units purchased as new will always contain the latest firmware release, and this can be an issue for customers who have qualified their manufacturing test systems or processes using a previous firmware release.

In some instances it **is** possible to downgrade the firmware to an older revision without impacting the operational stability or measurement integrity of the unit, but this is **not** always the case. There are various factors that must be taken into account before attempting to downgrade the N4010A firmware.

Solution/Action:

Agilent recommends that the N4010A should always be used with the latest firmware release.

If this is not possible, then please take note of the information contained in the following table; it explains why there are some restrictions with regards to downgrading the firmware:

Original Firmware Revision (i.e. Factory Installed Firmware)	Firmware Downgrade Restrictions	Reasons.
A.01.xx.xx	None.	Not applicable.
A.02.xx.xx	Do not downgrade to: A.01.xx.xx	The factory improved the calibration method of the N4010A to coincide with the first release of A.02.xx.xx firmware. Downgrading the instrument firmware from A.02.xx.xx to A.01.xx.xx will create a situation whereby the firmware correction algorithms & stored correction factors do not match, which could cause the unit to make inaccurate measurements. This situation can be rectified by upgrading the instrument firmware to A.02.xx.xx (or later). This procedure does not overwrite any stored correction factors, and so the unit will not need to be re-calibrated.
A.03.xx.xx	Do not downgrade to: A.01.xx.xx A.02.xx.xx	The RF Assembly in the N4010A was changed to coincide with the first A.03.xx.xx firmware release. The previous RF Assembly (N4010-61007) used 5MHz and 22MHz filters, whilst the new RF Assembly (N4010-61043) uses 22MHz and 40MHz filters. Installing A.01.xx.xx or A.02.xx.xx firmware in a unit that contains the new RF Assembly will create a situation whereby the N4010A cannot correctly identify & control the filters. The situation can be rectified by upgrading the instrument firmware to A.03.xx.xx (or later). This procedure does not overwrite any stored correction factors, and so the unit will not need to be re-calibrated.

Original Firmware Revision (i.e. Factory Installed Firmware)	Firmware Downgrade Restrictions	Reasons.
A.04.xx.xx	Do not downgrade to: A.01.xx.xx A.02.xx.xx A.03.xx.xx	The Link Sub-System (LSS) Assembly in the N4010A was changed to coincide with the first A.04.xx.xx firmware release. Previous LSS Assemblies (N4010-60003/60010) only supported Bluetooth 1.2, whilst the new LSS Assembly (N4010-60012) supports both Bluetooth 1.2 and Bluetooth 2.0 (also known as Bluetooth EDR). Installing A.01.xx.xx, A.02.xx.xx, or A.03.xx.xx firmware in a unit that contains the new LSS Assembly will create a situation whereby the N4010A can no longer support Bluetooth 2.0, and it may not be able to maintain or control a Bluetooth 1.2 link. The situation can be rectified by upgrading the instrument firmware to A.04.xx.xx (or later). This procedure does not overwrite any stored correction factors, and so the unit will not need to be re-calibrated.
		The Frequency Extension Assembly in the N4010A was changed to coincide with the first A.04.xx.xx firmware release. Mixing products in the previous Frequency Extension Assembly (N4010-61013) could adversely affect PER and RSSI measurements for some chipset architectures. This issue has been alleviated in the new Frequency Extension Assembly (N4010-61049). Installing A.01.xx.xx, A.02.xx.xx, or A.03.xx.xx firmware in a unit that contains the new Frequency Extension Assembly will create a situation whereby the N4010A cannot correctly identify the board, or control or the output power level. The situation can be rectified by upgrading the instrument firmware to A.04.xx.xx (or later). This procedure does not overwrite any stored correction factors, and so the unit will not need to be re-calibrated.

Note:
There are no restrictions with regards to upgrading the N4010A firmware. The firmware is designed such that the latest release can be installed in all units.