Information Only Service Note

N5173B X-Series EXG µWave Signal Generator

Serial Numbers: ALL

The Problem – Assembly Hardware IDs versus Firmware Revision

Parts Required:

P/N   Description   Qty.

NONE

ADMINISTRATIVE INFORMATION

[[]] Calibration Required	PRODUCT LINE: 15
X Calibration NOT Required	AUTHOR: MM

ADDITIONAL INFORMATION:

Situation:

The assemblies in the X-Series family of signal generators have gone through a few changes over the years. These changes have typically been made to either improve reliability or replace lower level components that have been discontinued. When changes such as this are made the part number of the assembly will typically be changed. Some changes also require that the instrument firmware be updated to recognize and control them properly. In these cases, the instrument firmware may need to be updated when the assembly is replaced during servicing. If the firmware is not updated in these cases, instrument configuration errors may be seen, installed options may not function properly, service software may give errors, and self-test errors can occur.

There has been a recent change to both the A3 RF assembly and the A7A1 Microwave ALC Control board that requires an instrument firmware update. The part numbers of these two assemblies have not changed due to this change. However, the assembly's Hardware ID (HWID) has changed, and this will be used to determine if a firmware update is required.

Solution/Action:

Under normal circumstances it is always recommended that the latest firmware be installed in Keysight products to maintain the most current functionality and performance, as well as proper operation. However, there are times when the customer does not want their instrument firmware to be updated.

Table 1 and Table 2 lists the assembly part numbers and Hardware IDs that could be installed in an N5173B signal generator, along with any minimum firmware revision requirement for them. These are the part numbers and HWIDs that can be found on the **Utility**, **Instrument Info**, **Installed Board Info** screen of the instrument, as shown in Figure 1.

Table 1 – A3 RF Assembly versus Firmware

Assembly Part Number	Hardware ID	Minimum Firmware Requirement
N5180-60173	0003	Any
	000B	B.01.96
N5180-69173	0003	Any
	000B	B.01.96

Table 2 – A7A1 Microwave ALC Control Board versus Firmware

Board Part Number	Hardware ID	Minimum Firmware Requirement
N5180-60172	0001	Any
	0002	B.01.96

For the latest information on the correct kit part number to order when replacing one of these assemblies, see Chapter 14, Replacement Parts in the instrument service guide (N5180-90059.pdf).

Figure 1 – Installed Board Information Screen

To download the latest version of the EXG firmware go to http://www.keysight.com/find/exg_firmware

Revision History:

Date	Service Note Revision	Author	Reason for Change
01 April 2022	01	Mike Medley	Original release