

N5173B-06A

# Information Only Service Note

Supersedes:  
N5173B-06

## N5173B X-Series EXG $\mu$ Wave Analog Signal Generator

Serial Numbers: ALL

**The Problem** – Potential for Damage Caused by Safety Testing

### Parts Required:

P/N	Description	Qty.
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NONE

### ADMINISTRATIVE INFORMATION

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<input type="checkbox"/>	Calibration Required
<input checked="" type="checkbox"/>	Calibration NOT Required

PRODUCT LINE: 15
AUTHOR: MM

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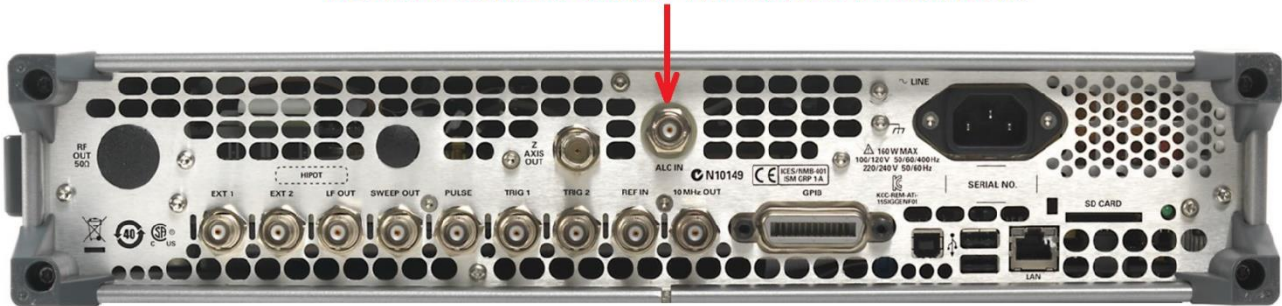
ADDITIONAL INFORMATION:

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**Situation:**

It has come to our attention that instruments have been damaged when performing incoming and outgoing safety testing on these instruments. These safety testers require that a ground wire from the tester be connected to the instrument chassis. This connection is often made to the outer conductor of one of the rear panel BNC connectors. The problem occurs when the ground wire is connected to the ALC IN rear panel BNC connector outer conductor when the test is run. Connecting the ground to this point is a problem because the ALC IN connector outer conductor is not connected to the chassis of the instrument. It is isolated from the chassis ground with a plastic washer. Not only is this an invalid point to connect the ground wire to for this test, it also sends the voltage used for the test directly into the sensitive ALC input circuitry.

**DO NOT Connect Ground Wire to ALC IN Connector**



The typical failure symptoms of an instrument that has been exposed to this is the failure of Self Tests 407, 1107, 1108, 1112 (some or all of these). The parts that will be damaged are on the A7A1 Microwave ALC Control board, so the power level accuracy test will most likely fail as well.

**Solution/Action:**

Do not connect the safety tester ground wire to the ALC IN connector shield.

It is also recommended that a static safe protective cap be put on the ALC IN connector before it is given to your logistics team so that nobody will be able to easily connect the ground wire to it when they perform a safety test. This will also help to protect it if it goes through an incoming inspection safety test once it has reached its destination.

**Revision History:**

Date	Service Note Revision	Author	Reason for Change
27 April 2021	01	Mike Medley	As Published
03 May 2021	02	Mike Medley	Revised safety test references