

S E R V I C E N O T E

SUPERSEDES: None

87510A Gain-Phase Analyzer

Firmware Revision: 2.01 and below

Firmware update fixes incorrect "EXTERNAL REFERENCE LOCKED" message or incorrect GPIB response for the command "EXTRLOCK?"

To Be Performed By: Agilent-Qualified Personnel

Parts Required:

| Part No. | Qty. | Description |
|-------------|------|--------------------|
| 87510-86051 | 1 | ROMSET A1 REV 2.11 |
| 87510-86052 | 1 | ROMSET A2 REV 2.11 |

Continued

DATE: October 1995

ADMINISTRATIVE INFORMATION

| | | | |
|---------------------------------|---|---|---|
| SERVICE NOTE CLASSIFICATION: | | | |
| MODIFICATION RECOMMENDED | | | |
| ACTION CATEGORY: | <input type="checkbox"/> IMMEDIATELY <input checked="" type="checkbox"/> ON SPECIFIED FAILURE <input type="checkbox"/> AGREEABLE TIME | STANDARDS: | Labor 1.0 Hour |
| LOCATION CATEGORY: | <input type="checkbox"/> CUSTOMER INSTALLABLE <input type="checkbox"/> ON-SITE <input checked="" type="checkbox"/> SERVICE CENTER | SERVICE INVENTORY: | <input type="checkbox"/> RETURN <input type="checkbox"/> SCRAP <input type="checkbox"/> SEE TEXT |
| AVAILABILITY: | PRODUCT'S SUPPORT LIFE | USED PARTS: | <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> SCRAP <input type="checkbox"/> SEE TEXT |
| AUTHOR: KI | ENTITY: 3355 | AGILENT RESPONSIBLE UNTIL: October 1997 | |
| | | ADDITIONAL INFORMATION: | |

Situation:

1. “EXTERNAL REFERENCE LOCKED” message is displayed on the display when external reference signal is supplied into EXT REFINPUT connector and locked. However, even after cutting external reference signal supply from EXT REF INPUT connector, “EXTERNAL REFERENCE LOCKED” message may not disappear on the display.
2. “EXTRLOCK?” query returns “1” when external reference signal is supplied into EXT REF INPUT connector and locked. However, even after cutting external reference signal supply from EXT REF INPUT connector, “EXTRLOCK?” query still returns “1” instead of “0”.

Solution/Action:

The problem is caused by a firmware bug of revision 2.01 and below. Replacing the ROMs on the A1/A2 boards with new ROMs (REV 2.02 and above) solves the problem.

Procedure:

1. Turn the 87510A ON and confirm the firmware revision on the display is 2.01 or below.
2. Turn the 87510A OFF.
3. Remove the top cover and the shield plate.
4. Remove the A1 and A2 boards.
5. Replace the ROMs on the A1 board with the following new ROMS:

| Reference Designator | Part Number |
|----------------------|-------------|
| A1U43 | 87510-85811 |
| A1U44 | 87510-85812 |
| A1U45 | 87510-85813 |
| A1U46 | 87510-85814 |
| A1U47 | 87510-85815 |
| A1U48 | 87510-85816 |

(included in 087510-86051)

6. Replace the ROMs on the A2 board with the following new ROMs:

| Reference Designator | Part Number |
|-----------------------------|--------------------|
| A2U1 | 87510-85421 |
| A1U2 | 87510-85422 |

(included in 087510-86052)

7. Reinstall the A1 board.
8. Turn the 87510A ON and confirm that the “REV2.11” is displayed and the “POWER ON TEST FAILED” message is NOT displayed.
9. Turn the 87510A OFF.
10. Reinstall the shield plate and the top cover.