

S E R V I C E N O T E

SUPERSEDES: NONE

83712B Synthesised Signal Generator

Serial Numbers: See below

Synthesised Signal Generator failure symptoms:

- 1) Power cycles on and off
- 2) Unit will not shut down when power switch is turned off

Duplicate Service Notes:

83711B-01 Serial Numbers: US34490550/US34490555 and US37100556/US37100629
 83712B-01 Serial Numbers: US34490430/US34490436 and US37100437/US37100489
 83731B-01 Serial Numbers: US34490452/US34490473 and US37100474/US37100514
 83732B-01 Serial Numbers: US34490635/US34490656 and US37100657/US37100785

To Be Performed By: Agilent-Qualified Personnel**Parts Required:**

P/N	Description	Quantity
0160-4835	0.1uF Capacitor	2

Continued

DATE: December 1998

ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION:			
MODIFICATION RECOMMENDED			
ACTION CATEGORY:	☐ IMMEDIATELY ☒ ON SPECIFIED FAILURE ☐ AGREEABLE TIME	STANDARDS: LABOR 0.5 Hours	
LOCATION CATEGORY:	☐ CUSTOMER INSTALLABLE ☐ ON-SITE ☒ SERVICE CENTER	SERVICE INVENTORY: ☐ RETURN ☐ SCRAP ☒ SEE TEXT	USED PARTS: ☐ RETURN ☒ SCRAP ☐ SEE TEXT
AVAILABILITY:	PRODUCT'S SUPPORT LIFE		AGILENT RESPONSIBLE UNTIL: December 2000
AUTHOR: SN	ENTITY: 5362		ADDITIONAL INFORMATION:

Situation:

The 83711B, 83712B, 83731B and 83732B may have the failure symptoms:

- 1) Power cycles on and off
- 2) Unit will not shut down when power switch is turned off. This problem caused by a 0.1uF capacitor, 0160-4835 that was damaged during assembly. The process has been changed to avoid this problem in the future

Solution / Action:

The following document explains the steps to follow to fix the following symptoms with 83711B, 83712B, 83731B and 83732B Microwave Sources:

1. Power cycles on and off
2. Unit will not shut down when power switch is turned off

Preparation:

Note: Be careful not to drop solder on any part of the power supply! This procedure requires the following tools: -Small Philips head screw driver -Soldering Iron and solder wick -0.1 uF Capacitor Part number 0160-4835

Procedure 1:

Check the power supply serial number. This is printed on a sticker in the middle of the power supply top cover. If the serial number is in the range KR55102050 to KR55102290 proceed to procedure 2. If the serial number does not fall in this range, no rework is required.

If the instrument is cycling on and off, proceed to procedure 3. If the instrument will not shut down when turned off, proceed to procedure 4.

Procedure 2: *Rework of faulty capacitors.*

Unplug the instrument from power line, remove the power supply from instrument and remove the six screws that secure the outer cover of the supply. At the front of the power supply, behind the external jacks is a stand up board, 5062-3439. See Image 1. 1. Remove C28 & C31, and replace with Part number 0160-4835. 2. Use ink pen to add a letter M at end of the Power Supply serial number to indicate the Power Supply has been modified.

Note: It may not be necessary to remove the top plate to perform this change, however it makes it easier to work on the board.

Procedure 3: *Cycling Power Supply*

Unplug the instrument from power line, remove the power supply from instrument and remove the six screws that secure the outer cover of the supply. At the front of the power supply, behind the external jacks is a stand up board, 5062-3439. See Image 1.

Note: It may not be necessary to remove the top plate to perform this change, however it makes it easier to work on the board.

1. Lay the instrument up side down on a flat surface
2. Remove plastic ties that fasten the power supply external wire harness to the instrument
3. Jumper the bottom lead of C32 to A Gnd.
4. Lay the power supply on the instrument and connect the wire harness to the power supply.

5. With the Cover still off, reconnected line cord and apply line voltage to the power supply.
 - a. If the instrument powers up normally, replace C31 with Part number 0160-4835. Also remove C28 and replace with Part number 0160-4835 to avoid the "Refuses to power off" problem. Use ink pen to add a letter M at end of the Power Supply serial number to indicate the PS has been modified
 - b. If the instrument still cycles on and off, replace power supply assembly.

Procedure 4: *Instrument refuses to power off*

Unplug the instrument from power line, remove the power supply from instrument and remove the six screws that secure the outer cover of the supply. At the front of the power supply, behind the external jacks is a stand up board, 5062-3439. See Image 1.

Note: It may not be necessary to remove the top plate to perform this change, however, it makes it easier to work on the board.

1. Remove C28 and replace with Part number 0160-4835
2. Also remove C31 and replace with Part number 0160-4835 to avoid the "Cycling power" problem
3. Use ink pen to add a letter M at end of the Power Supply serial number to indicate the Power Supply has been modified

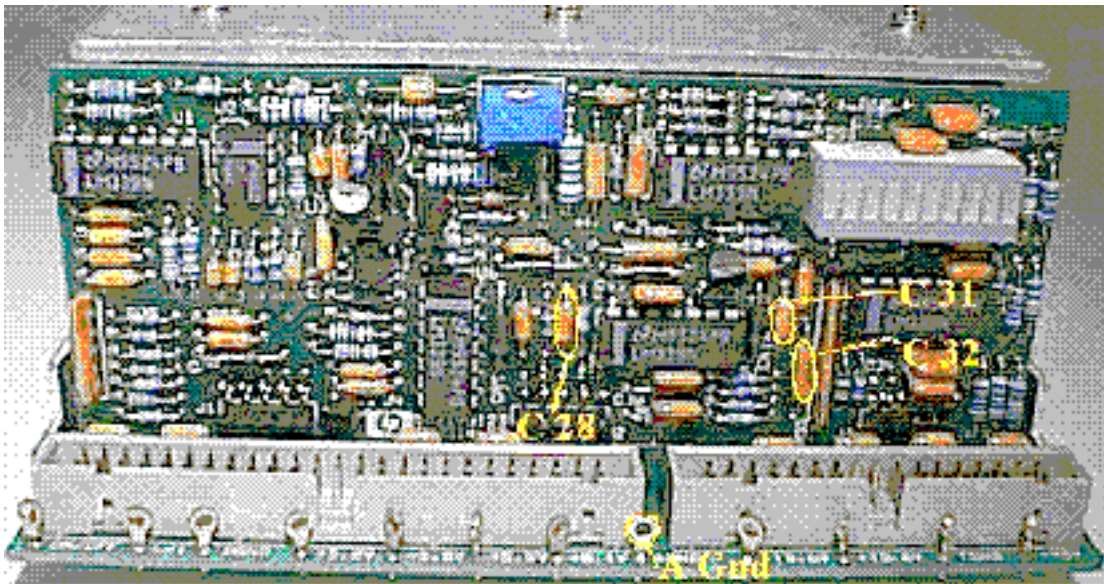


Image 1