

INFORMATION ONLY – DOES NOT COMMUNICATE
A MODIFICATION OR SAFETY CONDITION

53181A-03B

S E R V I C E N O T E

Supersedes:
53181A-03A

53181A 225 MHz Counter

**Serial Numbers: 0000A00000 / 9999A99999
US00000000 / US99999999
KR00000000 / KR99999999
MY00000000 / MY99999999
SG00000000 / SG99999999**

Option Upgrades

Situation:

Some up-grades options for the 53181A Counter can be added by customers (experienced technicians). Other up-grade options must be installed by technical specialists at Agilent Service Centers.

Some 53181A Counters (especially older instruments) require replacement of major subassemblies to be compatible with some of these up-grade options. In some cases these up-grades become expensive enough that purchase of a new unit with the desired options becomes the best alternative to obtain the desired features.

ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION:

INFORMATION ONLY

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ADDITIONAL INFORMATION:

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PRINTED IN U.S.A.



November 11, 2005

Solution/Action:

The following information is arranged in “Option number order” and will identify which options can be added, which options may not be present in the counter at the same time, and identifies the parts required to add an up-grade option.

Installation instructions for all option up-grades that can be installed by customers are contained in the “Agilent 53131A/132A/181A Assembly-Level Service Guide”, part number 53131-90039.

Option 001 Medium Stability Timebase Assembly (Customer installable)

Special Requirements: To install this option requires that the 53181A have a firmware revision 3402 or greater (instructions given at the end of this document to determine the firmware revision). Only one timebase option can be added to a 53181A (either Option 001, or Option 010, or Option 012).

Parts Required:

P/N	Description	Qty.
53132-60016	A6 Timebase Support Board	1
1813-0931	Oven Oscillator	1
0515-0430C	TORX 10 Screws	3

Option 010 High Stability Timebase Assembly (Customer installable)

Special Requirements: To install this option requires that the 53181A have a firmware revision 3402 or greater (instructions given at the end of this document to determine the firmware revision). Only one timebase option can be added to a 53181A (either Option 001, or Option 010, or Option 012).

Parts Required:

P/N	Description	Qty.
53132-60016	A6 Timebase Support Board	1
10811-60160	Oven Oscillator	1
0515-0430C	TORX 10 Screws (H2)	3
2360-0331	Pozidriv Screws (H7)	2

Option 012 Ultra-High Stability Timebase Assembly (Customer installable)

Special Requirements: To install this option requires that the 53181A have a firmware revision 3402 or greater (instructions given at the end of this document to determine the firmware revision). Only one timebase option can be added to a 53181A (either Option 001, or Option 010, or Option 012).

Parts Required:

P/N	Description	Qty.
53132-60016	A6 Timebase Support Board	1
10811-60260	Oven Oscillator	1
0515-0430	TORX 10 Screws (H2)	3
2360-0331	Pozidriv Screws (H7)	2

Option 015 1.5 GHz Channel Assembly (Parts ordered and installed only by Agilent Service Center)

Special Requirements: The 53181A can only have one of the following Options: Option 015, Option 030, Option 050, Option 124.

Parts Required:

P/N	Description	Qty.
53181-67003	Retrofit Kit 1.5 GHz	1

Note: Instruments with serial numbers greater than 3418AXXXXXX or starting with US, KR, MY, or SG only require the parts listed above.

Additional Parts required for Serial Number 3418AXXXXXX and below

For units with Option 002:

53131-00010	Chassis	1
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For units NOT containing Option 002:

53131-00001	Chassis	1
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Additional Parts required for Serial Number 3409AXXXXXX and below

53181-80005	Firmware	1
53181-80006	Firmware	1
53181-80007	Firmware	1
53181-80008	Firmware	1

Option 030 3.0 GHz Channel Assembly (Parts ordered and installed only by Agilent Service Center)

Special Requirements: The 53181A can only have one of the following Options: Option 015, Option 030, Option 050, Option 124.

Parts Required:

P/N	Description	Qty.
53181-67004	Retrofit Kit 3.0 GHz	1

Note: Instruments with serial numbers greater than 3418AXXXXXX or starting with US, KR, MY, or SG only require the parts listed above.

Additional Parts required for Serial Number 3418AXXXXXX and below

For units with Option 002:

53131-00010	Chassis	1
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For units NOT containing Option 002:

53131-00001	Chassis	1
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Additional Parts required for Serial Number 3409AXXXXXX and below

53181-80005	Firmware	1
53181-80006	Firmware	1
53181-80007	Firmware	1
53181-80008	Firmware	1

Option 050 5.0 GHz Channel Assembly (Parts ordered and installed only by Agilent Service Center)

Special Requirements: The 53181A can only have one of the following Options: Option 015, Option 030, Option 050, Option 124. This option cannot be installed or combined with Option 002 DC Power Input Assembly.

Parts Required:

P/N	Description	Qty.
53181-67001	Retrofit Kit 5.0 GHz	1

Note: Instruments with serial numbers greater than 3711AXXXXX or starting with US, KR, MY, or SG only require the parts listed above.

Additional Parts required for Serial Number 3711AXXXXX and below

53181-60004	PC Assembly Motherboard	1
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Additional Parts required for Serial Number 3418AXXXXX and below

53131-00001	Chassis	1
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Option 060 Rear Terminals -- (Customer Installable)

Note: Option 060 for the 53181A connects front and rear terminals in parallel for input 1. Input 2 associated with Option 015 or Option 030 can be configured as rear terminal only or front terminal only. Input 2 associated with Option 050 or Option 124 can only be configured as a front terminal.

Special Requirements: This option cannot be installed or combined with Option 002 DC Power Input Assembly.

Parts Required:

P/N	Description	Qty.
8120-6150	Coaxial cable assembly (W2)	1
2190-0068	BNC washer (H6)	1
2940-0256	BNC nut (H3)	1

Option 124 12.4 GHz Channel Assembly (Parts ordered and installed only by Agilent Service Center)

Special Requirements: The 53181A can only have one of the following Options: Option 030, Option 050, Option 124. This option cannot be installed or combined with Option 002 DC Power Input Assembly.

Parts Required:

P/N	Description	Qty.
53181-67002	Retrofit Kit 12.4 GHz	1

Note: Instruments with serial numbers greater than 3711AXXXXX or starting with US, KR, MY, or SG only require the parts listed above.

Additional Parts required for Serial Number 3711A02841 and below

53132-60014	PC Assembly Motherboard	1
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Additional Parts required for Serial Number 3418AXXXXX and below

53131-00001	Chassis	1
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Instructions for Determining the 53181A Firmware Revision Code:

Start with the 53181A connected to the line and the 53181A Power Switch set to standby (STBY). Press and hold down the “UTILITY” button. Then set the Power Switch to “ON”. The “Firmware Revision Number “ will be displayed until the “UTILITY” button is released.