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MS2650/2660 series Spectrum Analyzer

Wireless Measurement Solutions

Issue Number: WP-C5AZ02082917-00

Service Note

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SOFTWARE VERSION UP

MODEL: MS265** and MS266**

SERIAL: N/A

The software of **MS265** and MS266** series Spectrum Analyzer** have been updated several times. The version up includes upgrade of functions and fixing of bugs. (Summary of the version up is shown in the attached sheets.)

We will distribute latest version of the software to customer service offices with no charge.

The software will be shipped with two memory cards. The Initial Program Loader is in 512K bytes memory card. (CSCJ-512K-SM-464) Other software (Main,Libs,Meas and ADB) is in 2M bytes memory card (CSCJ-002M-SM-464)

Update summary of MS265*B, MS266*B Series

ROM	Reason of update*	Date of update	Summary of the update
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Main	Libs	Meas	ADB			
1.1	1.0	1.1	1.0	A	28 Mar 97	The error message “ Range limits 0 999” has been corrected to “ Range limits 1 999” .
1.2	1.0	1.2	1.1	A	3 Apr 97	Stuff on the display cannot be erased by PTA function. Some times keys on the panel would not be controlled when they were pressed during boot up. TV Monitor offset frequency command was not supported.
1.3	1.0	1.3	1.2	A	11 Apr 97	ACP Inband method showed ERROR at the first time measurement after power on
1.4	1.1	1.4	1.3	A	30 May 97	HP2225 mode printing does not control some compatible printers .
				B	30 May 97	Change into TV Monitor activates TV Sound automatically.
1.5	1.2	1.5	1.4	C	24 Jul 97	PTA manages Text file Read/Write function.
1.6	1.3	1.5	1.4	B	25 Aug 97	Printing time has been shorter.
				A		Some types of 2M bytes SRAM cannot be formatted.
1.7	1.3	1.6	1.4	C	9 Sep 97	Peak Search function had been expanded.
1.8	1.3	1.7	1.5	B	3 Dec 97	ACP Channel Separation can be measured up to 1GHz. Default off set frequency at PAL TV Monitor is changed to 2.46MHz from 2.62MHz.
1.8	1.3	1.8	1.5	A	8 Dec 97	Spectrum is unstable at less than 1MHz of Zone Sweep.
						TVLINE command for remote control is denied because of improper parameter check. *RST command for remote control does not initialize log unit.

* A:Bug B:Change the function C:Add the fuction

Update summary of MS265*C,MS266*C Series

ROM				Reason of update*	Date of update	Summary of the update
Main	Libs	Meas	ADB			
1.1	1.0	1.1	1.1	C	1 Jul 97	EMC 20dB Band Width calibration at is added.

1.1	1.0	1.2	1.1	A	4 Jul 97	Level Cal at QP On changes the trace after the calibration.
1.2	1.1	1.3	1.2	B	26 Aug 97	Printing time has been shorter.
				A	26 Aug 97	Some types of 2M bytes SRAM cannot be formatted.
1.2	1.1	1.4	1.2	A	29 Aug 97	Sweep Time Auto function at Q/P On, QP/Average sets sweep time improperly .
1.3	1.1	1.5	1.3	C	29 Sep 97	Peak Search function had been expanded.
1.4	1.1	1.6	1.4	B	3 Dec 97	ACP Channel Separation can be measured up to 1GHz. Default off set frequency at PAL TV Monitor is changed to 2.46MHz from 2.62MHz.
1.4	1.1	1.7	1.4	A	8 Dec 97	Spectrum is unstable when less than 1MHz of Zone Sweep had been solved.
1.5	1.1	1.8	1.5	A	4 Mar 98	TVLINE command for remote control is denied because of improper parameter check. *RST command for remote control does not initialize log unit.

* A:Bug B:Change the function C:Add the fuction

MS265, MS266** series software installation procedure**

This instruction explains how to update MS265*B,C and MS266*B,C series spectrum analyzer software.

Any calibrations and adjustments are not required after the update.

1. Check that the main power switch on the rear panel is OFF.

1. Loose and remove four screws on the rear panel. (Fig. 1)
2. Loose four screws on both side of the front. (Fig. 2)
3. Pull the cover toward the rear and remove it.
4. Place the short jumper on PMC side. (Fig. 3)
5. Insert the CARD1 into the up side of the memory card slot.
6. Insert the CARD2 into the down side of the memory card slot.
7. Turn the instrument power ON. Then new firmware will be loaded.
The installation will take about 2 minutes.
8. Turn the instrument power OFF when “ Load Complete!!” message is displayed on the bottom of the screen.
9. Place the short jumper on ROM side. (Fig. 3)
10. Press **Preset** key and turn the instrument switch ON. Hold the **Preset** key until you will see the measurement screen.
11. The firmware update is completed. Place the cover and tight the four screws on the rear panel. (Fig. 1)
12. Tight the four screws on the side of the front. (Fig. 2)

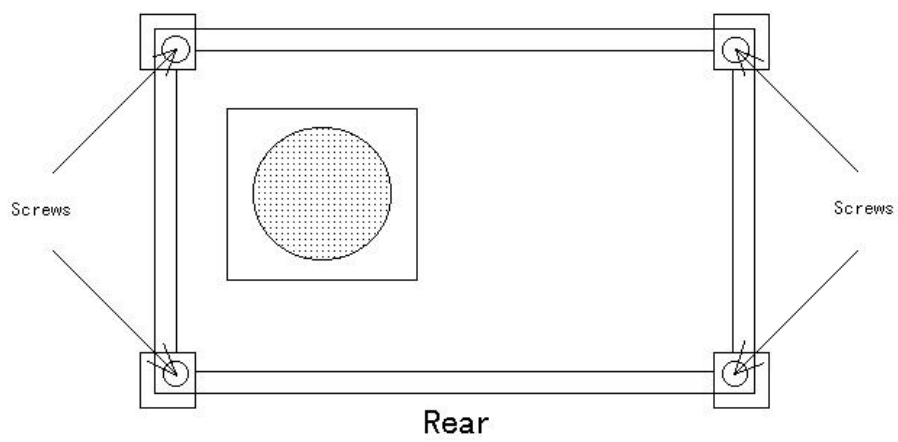


Fig. 1

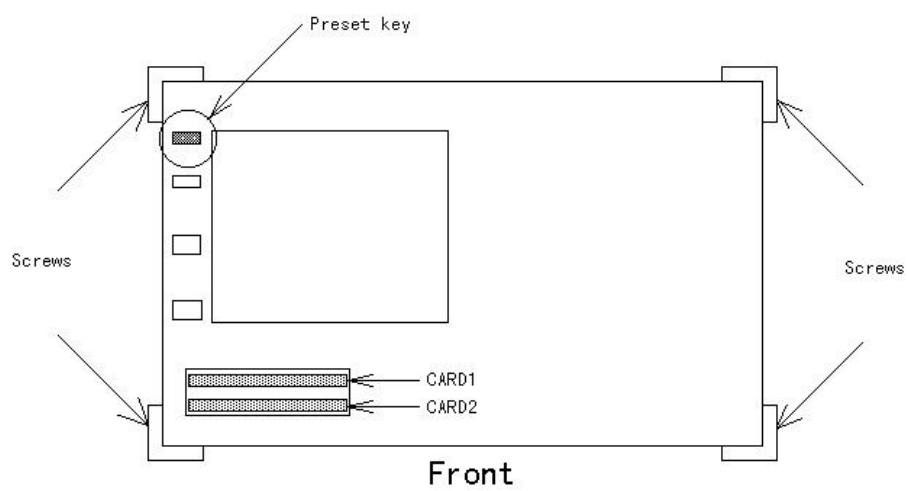


Fig. 2

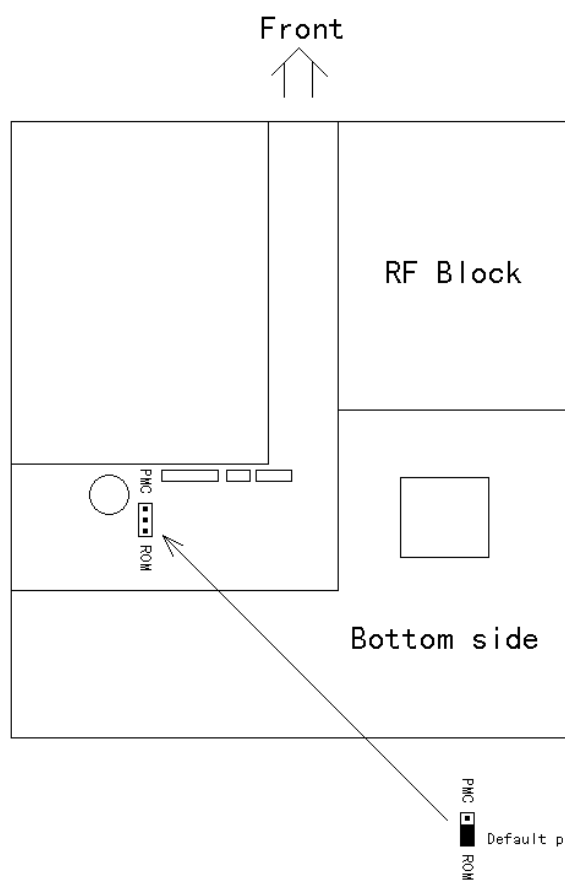


Fig. 3



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DISPLAY PROBLEM

MODEL: MS265 and MS266****

**SERIAL: MS2651B MT26179 or below, MS2653B MT08581 or below
MS2661B MT28580 or below, MS2663B MT13975 or below
MS2661C MT44079 or below, MS2663C MT21780 or below
MS2665C MT14579 or below**

Display on the screen of listed instruments might be disturbed when a handy mobile telephone is used in front of the instruments. RF signal from the telephone affects synchronous signal of the driver circuit of the LCD. The LCD driver which includes the synchronous circuit is placed in the front panel assembly. Therefore the circuit picks up the RF signal easily. To solve the problem, the synchronous circuit is separated from the LCD driver and placed in the CPU PCB. This solution requires replacement of two PCBs, A02 FRONT BOARD and A03 CPU. If your customer complains about the problem above, please replace the two PCBs A02 FRONT BOARD and A03 CPU. Anritsu will provide the PCBs with no charge for the complaint. The parts number of the new PCBs are below. All models use same PCBs. Replacement of CPU requires compensation of frequency response.

322U14223 A02 FRONT BOARD

322U14225 A03 CPU

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POWER SUPPLY COMPATIBILITY

MODEL: MS265 and MS266****

SERIAL:

Power supply unit of MS265** and MS266** series has been changed. This redesigned power supply 34Z112975 is meeting EN610000-3-2:1995 Harmonics Current Emission. The new power supply can be replaced instead of old type power supply 34Z106720. On our basic plan, an old type defective power supply should be replaced with an old type power supply. But when 34Z106720 is not stocked, 34Z112975 power supply will be delivered instead of 34Z106720 power supply. That case, the exchange price of 34Z106720 power supply will be applied for the replacement. The other hand 34Z112975 power supply must be replaced with 34Z112975. 34Z106720 power supply should not be installed instead of 34Z112975. Type of power supply and satisfied specification is shown below.

**34Z106720 Power Supply EN55011:1991, Group 1, Class A
EN50082:1992**

**34Z112975 Power Supply EN55011:1991, Group 1, Class A
EN50082:1992
Harmonic Current Emission EN61000-3-2:1995**

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26, Feb. 99

POWER SUPPLY COMPATIBILITY (revised)

MODEL: **MS265** and MS266****

SERIAL:

The information in the service note A-PCC02077 was not correct information about compatibility. The power supply 34Z112975 is not compatible with 34Z106720.

So that 34Z106720 should be replaced by 34Z106720 not 34Z112975.

Now we have some stock of 34Z106720 for urgent repair.

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8,Jun.99

SOFTWARE BUG

MODEL: MS2651B, MS2661B and MS2663B

SERIAL: See attached list

MS2651B, MS2661B and MS2663B with software issue number 1.50 has problem that can choose only US TV and Japan TV.

This problem will be occurred when option 21 or 24 is installed.

Listed instruments require software version up when install option 21 or 24

APC will supply memory cards for version up. Each service center should order the memory cards when install option 21 or 24 to the listed instruments locally.

The version up does not require both calibration and adjustment.

List for products shipped with software issue number 13

MODEL	ORDER NUMBER	SERIAL NUMBER
MS2651B	1-0781-35397	MT44288
	1-0732-26513	MT44388
	1-0732-26513	MT44488
	1-8410-64415	MT44588
	1-0729-20122	MT44688
	1-0742-19219	MT44788
	1-0742-19219	MT44888
	1-0783-19625	MT44988
	1-3167-61702	MT45088
	1-0732-27366	MT45188
	1-0732-27528	MT45288
	1-0732-27528	MT45388
	1-0728-00763	MT45488
	1-0728-00755	MT45588
	1-0781-36016	MT45688
	1-0781-36016	MT45788
	1-0715-17332	MT45888
	1-8517-06649	MT45988
	1-5231-23311	MT46088
	1-0781-35834	MT46188
	1-0781-35834	MT46288
	1-0732-28443	MT46388
	1-0732-28443	MT46488
	1-0732-28443	MT46588
	1-0732-28443	MT46688
	1-0732-28443	MT46788
	1-0732-28443	MT46888
	1-0732-28443	MT46988
	1-0732-28443	MT47088
	1-0732-28443	MT47188
	1-0781-36571	MT47291
	1-0729-20262	MT47391
	1-0729-20262	MT47491
	1-0729-20262	MT47591
	1-0781-36555	MT47691
	1-5151-42336	MT47791
MS2661B	1-0781-35699	MT33888
	1-0781-35699	MT33988
	1-0513-39145	MT34288
	1-3167-63063	MT34388
MS2663B	1-0732-25894	MT15488

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8 November 1999

MISS ASSEMBLING OF EXTENDER CABLE

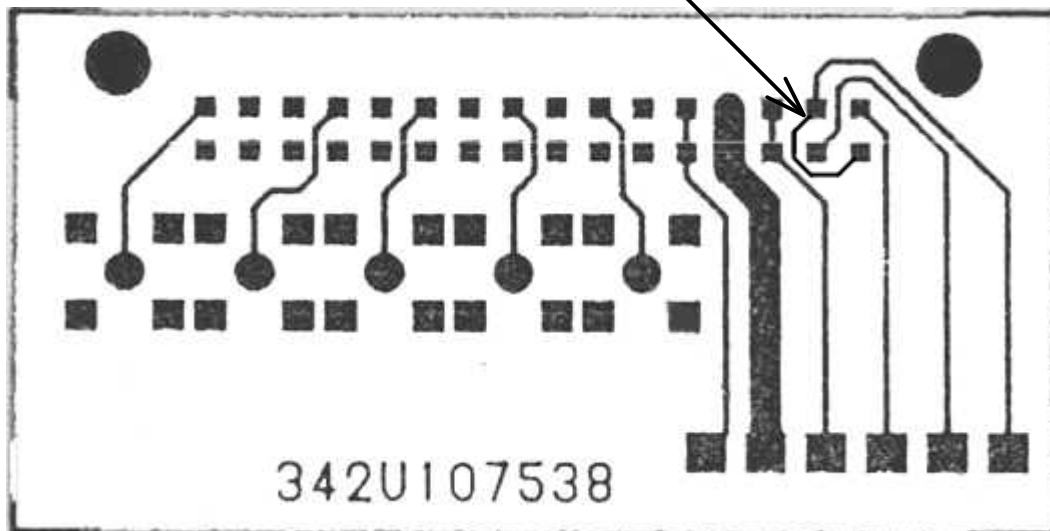
MODEL: 342J109640 EXTENDER CABLE for MS2651A/B/C,/61A/B/C

SERIAL: NON

The extender cable mentioned above can not be used for 3GHz converter due to miss assembling.

Therefore 342U107538 PCB of the extender cables that have been delivered already, should be modified as below.

Short pin 1B and pin 2A with a wire.



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11 August 1999

Exchange module program for old type Spectrum Analyzer

MODEL: MS2651A/MS2661A/MS2653A/MS2663A

SERIAL:

The exchange modules in the table attached are some of Module Price List for MS2651B/MS266**.

These modules can be used for old type Spectrum analyzer like MS2651A/MS2661A/MS2653A/MS2663A too.

So we would like to apply and offer exchange module system for these items only, although you use it for old type Spectrum analyzer.

If you want exchange one in the table, please place an order as exchange.

MS2651A/61A/53A/63A Exchange Module Price List

<i>Assembly Model</i>	<i>Assembly Name</i>	<i>Drawing Number</i>	<i>Exchange Price JPY</i>	<i>Full Price JPY</i>	<i>Export License Necessity</i>	<i>Compatible with earlier version</i>	<i>Remarks</i>
322U12876	A01 MOTHER BOARD	34Y106673	N/A	11,900	No	Yes	
322U12853	A04 PMC/GPIB	34Y106693	N/A	18,200	No	Yes	
34Y112923	A05 SCAN/AD	34Y112923A	33,600	67,200	No	Yes	
322U12847	A06 IF	34Y110188	39,200	72,800	No	Yes	
322U12849	A08 LOCAL-A	34Y106679	35,000	65,000	No	Yes	
322U12930	A09 OPTION BASE	34Y106684	N/A	11,900	No	Yes	
34Y108179	3GHZ CONVERTER	34Y108179	119,000	204,000	No	Yes	
34Y108179B	3GHZ CONVERTER	34Y108179B	133,000	228,000	No	Yes	
34Y110446	A13 MICRO CONVERTER	34Y110446	36,400	67,600	No	Yes	
34Y110447	A14 1ST LO AMP	34Y110447	N/A	36,400	No	Yes	
329H13302	8GHz YTF/SW	329H13302	74,200	127,200	No	Yes	
339H37825	8GHz MIXER	339H37825	N/A	32,200	No	Yes	
339H40998	HR S-ATT	339H40998	24,500	49,000	No	Yes	
332U36333	A0501 HI-SPEED AD	34Y106688	N/A	*	No	Yes	OPTION 04
322U12979	A0901 TRIG/GATE	34Y106695	N/A	*	No	Yes	OPTION 06
322U12981	A0902 AM/FM MONITOR	34Y106699	N/A	*	No	Yes	OPTION 07
339H37893	3GHz PRE AMP ASSY	339H37893	29,400	*	No	Yes	OPTION 08
34Y106692B	A04 PMC/CENTRONICS	34Y106692B	N/A	*	No	Yes	OPTION 10
34Y113473	A0904 QP DET	34Y113473	N/A	*	No	Yes	OPTION 12.13
322U13502	A04 PMC/GPIB/PARALLEL	34Y112325	N/A	*	No	Yes	OPTION 14
322U12983	A0903 TV MONITOR	34Y106697	N/A	*	No	Yes	OPTION 15
34Y110293	TG UNIT	34Y110293	87,500	*	No	Yes	OPTION 16

* Same as local sales price

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7 February 2000

MEMORY CARD WRITING SOFTWARE FOR MS26**

We have distributed memory card writing software for MS2650/60 series.
However, the software does not run with the PC depending on the "config.sys".
To use the software correctly, you should change the "config.sys" as follows.

1. Press F8 when booting Windows 95 and choose COMMAND PROMPT ONLY mode.
2. Save current "config.sys" on a floppy disk.
3. Change the "config.sys" as shown below.
4. Reboot the PC and choose COMMAND PROMPT ONLY mode again.
5. Now the software will run correctly.
6. After memory card writing is completed, replace the "config.sys" with the one saved at the step 2.

Contents of the "config.sys".

BUFFERS=20

FILES=30

SHELL=C:\windows*1\COMMAND.COM

DEVICEHIGH=C:\windows\command*1\ANSI.SYS

*1: It should be the same directory as the required file is existing.

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22 November, 2000

Software bug

MODEL : MS2661C / 63C / 65C Spectrum Analyzer

There are following bugs in a MS2661C / 63C / 65C Spectrum Analyzer.

When the same fault occurs in a customer, Please inform to us in details.

1. Phenomenon

Rev. no. ROM Ver. (Main)1.52 (Libs)1.50 (Meas)1.54 (ADB)1.51

Updating Date : 12 Aug.1999

The C/N measured value disperses in comparison with the other companies product.

The phenomenon occurs when it was measured by the spot marker [dBc/Hz] .

Rev. no. ROM Ver. (Main)1.53 (Libs)1.50 (Meas)1.54 (ADB)1.53

Updating Date : 6 Oct.1999

The " 0 divide " error occurs

when the frequency ranging over the Band 0 and Band 1- is set.

Example

Frequency setting : Start 2Ghz Stop 4Ghz

Rev. no. ROM Ver. (Main)1.53 (Libs)1.50 (Meas)1.55 (ADB)1.53

Updating Date : 20 Oct.1999

The Channel Power Average Counter sometimes may not be reset.

Rev. no. : ROM Ver. (Main)1.54 (Libs)1.50 (Meas)1.56 (ADB)1.53
Updating Date : 6 Nov.1999

We pushed the copy key after the marker value comes down dramatically.

Rev. no. : ROM Ver. (Main)1.54 (Libs)1.50 (Meas)1.57 (ADB)1.53
Updating Date : 23 Jun.2000

The marker signal level rises 2dB over
when the "TSAMP" command is executed in the MS2663C 3GHz pre amplifier option.

The "TSAMP" is an exclusive command.

The "TSAMP" command is the RF band section sweeps with the pre amplifier ON
and the micro band section sweeps with the pre amplifier OFF
in a multi band sweep.

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8 December, 2000

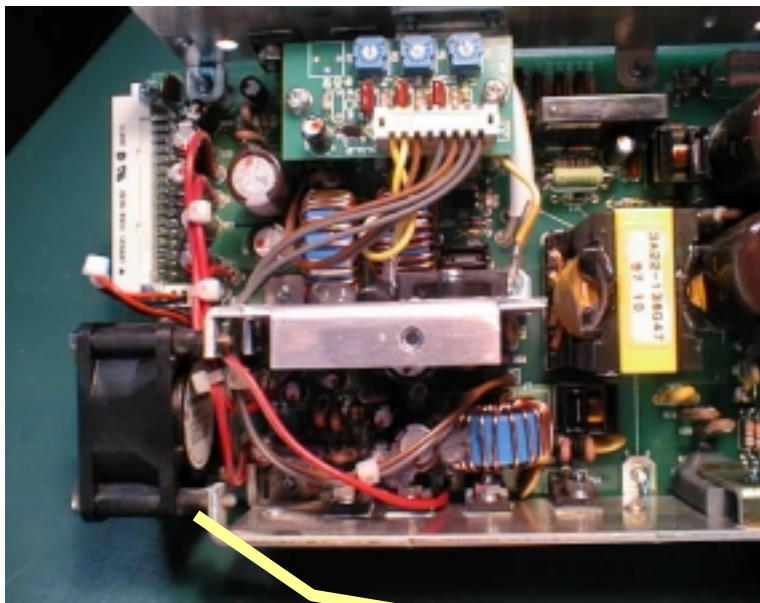
Vibration of Fan

MODEL : MS2651/61 53/63 65/67 Spectrum Analyzer

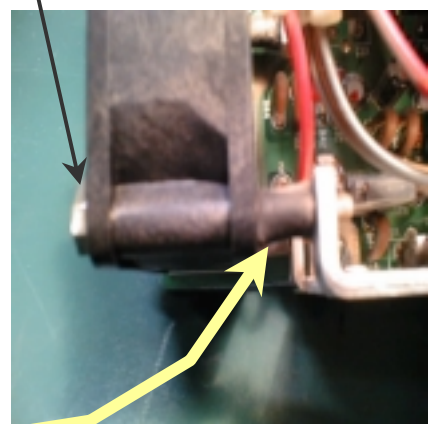
The following faults happened in a MS26** series Spectrum Analyzer.
Please adjust it if the same problem occurs.

1. Phenomenon

The vibration of the FAN (34Z112975 for power supply unit) is big.
Because the tightening of the screw was too strong (0.5kgfcm)
the vibration was transmitted to the package.



put the lock paints



2 . solution

Loosening (0.1kgfcm) the tightening of the screw and put the lock paints.

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Sep. 26, 2001

Drop of a Tilt handle Screw

The information in this article applies to:

- MS2663 series Spectrum Analyzer
- MS2683A Spectrum Analyzer
- MS8608A / 09A Digital Mobile Radio Transmitter Tester
- MS8901A Digital Broadcast Signal Analyzer

Symptoms

The screw, which has stopped the tilt handle is dropped and installation becomes unstable. It is danger when a tilt handle dropped.

Cause

The installation screw for the tilt handle loosened.

Although fastened with standard torque (12.6kg ~ 17kgf.cm), in order that a handle is a movable part, so it loosened. Rock Paint had not painted.

Resolution

Lock tightness No.262 are applied to a screw.



Drop of a Tilt handle Screw

Lock tightness No.262



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Dec. 04, 2001

Power supply unit problem

The information in this article applies to:

- MS2651*/2661* Spectrum Analyzer
- MS2663*/2665* Spectrum Analyzer
- MS2667*/2668* Spectrum Analyzer

Symptoms

A fuse becomes open and it stops operating.

Cause

A diode may break due to the difference in the transformer characteristic.

Resolution

The undermentioned photograph is an improvement power supply unit (With a red mark).

On occasions when the power supply unit before improvement breaks down, (no red mark) please return to ATSUGI factory immediately.

It exchanges free of charge.

