

Installation Note

**HP 85462A & HP 85422E
Receiver RF Section Firmware Kit**

ABCDE

**HP Part No. 5962-5100
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Edition 1

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Acknowledgement

Microsoft is a registered trademark and Windows is a trademark of Microsoft Corporation.

Symbols and Trademarks

L	The instruction documentation symbol. A product is marked with this symbol when it is necessary to refer to instructions in the documentation.
CE	A registered trademark of the Europe. (If accompanied by a year, it is the year in which the design was proven.)
ISM1-A	The symbol for an Industrial Scientific and Medical Group 1 Class A product.
CSA	A registered trademark of the Canadian Standards Association.

Firmware History

HP 85462A

94.09.08

This (current) version of firmware (KIT PN: 5063-1621) consists of:

U6 85462-80016
U7 85462-80017
U23 85462-80018
U24 85462-80019

Reasons for upgrade:

Fix “bug” to allow DEFINE USER KEY to work correctly.

94.08.12

KIT PN: 5063-0689 version of the firmware consists of:

U6 85462-80012
U7 85462-80013
U23 85462-80014
U24 85462-80015

Reasons for upgrade:

- Improvement of the cal routine for 9 kHz CISPR IFBW
- Change 1 Mhz 3 db IFBW to 1 Mhz 6 dB IFBW
- Addition of log sweep capability

94.09.08

The first released version of the firmware consists of:

U6 85462-80016
U7 85462-80017
U23 85462-80018
U24 85462-80019

HP 85422E

94.09.08

The current version of firmware (KIT PN: 5063-1621) consists of:

- U6 85462-80016
- U7 85462-80017
- U23 85462-80018
- U24 85462-80019

Reasons for upgrade:

Fix “bug” to allow DEFINE USER KEY to work correctly

94.08.12

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- U6 85462-80012
- U7 85462-80013
- U23 85462-80014
- U24 85462-80015

Safety Considerations

Warning

- Protective earth ground on this equipment must be maintained to provide protection from electric shock.
 - This is a Safety Class 1 product (provided with a protective earthing ground incorporated in the power cord). The mains plug shall only be inserted in a socket outlet provided with a protective earth contact. Any interruption of the protective conductor, inside or outside the instrument, is likely to make the instrument dangerous. Intentional interruption is prohibited..
 - For continued protection against fire hazard, replace line fuse only with same type and rating ([F 5A/250V]). The use of other fuses or material is prohibited.
 - No user-servicable parts are inside this instrument. The cathode-ray tube is dangerous to handle. Refer servicing to qualified personnel.
 - X-rays generated by this instrument are sufficiently screened. Die in diesem gerat entstehende rontgenstrahlung ist ausreichend abgeschirmt. Acell. Voltage/Besehl. SPG<20kV
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Caution

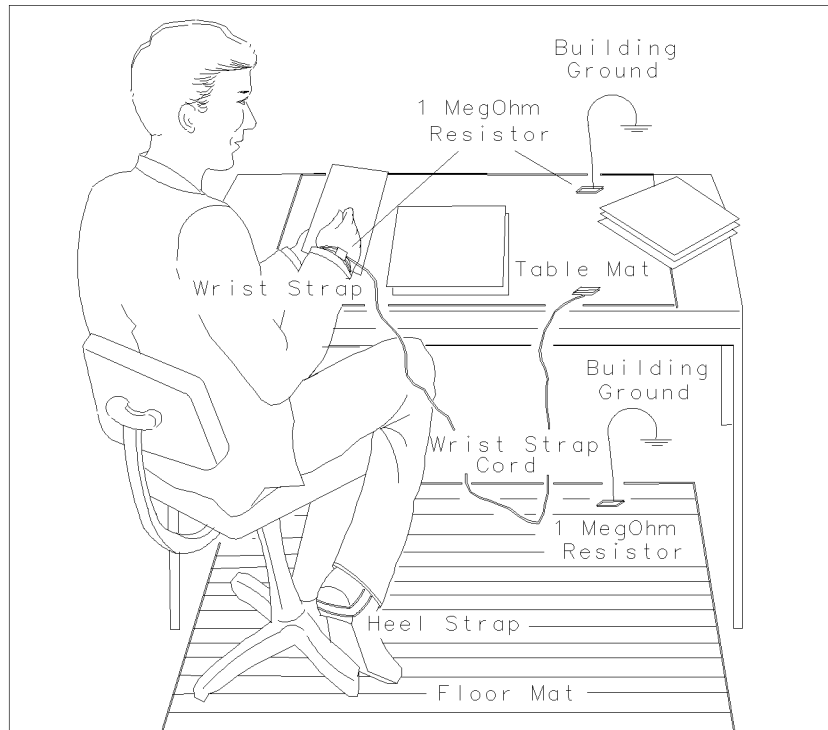
- Before switching on this instrument, make sure that the line voltage selector switch is set to the voltage of the power supply and the correct fuse is installed.
 - For continued protection against fire hazard, replace the fuse only with a fuse of the same type and rating.
 - Always use the three-prong AC power cord supplied with the instrument. Failure to ensure adequate earth grounding by not using this cord may cause instrument damage.
 - Equipment damage may result from incorrect usage.
 - Both metric and inch hardware are used in this instrument.
 - Only clean the instrument cabinet using a damp cloth.
-

Protection from Electrostatic Discharge

Electrostatic discharge (ESD) can damage or destroy electronic components. All work on electronic assemblies should be performed at a static-safe work station. Figure 1-1 shows an example of a static-safe work station using two types of ESD protection:

- Conductive table-mat and wrist-strap combination.
- Conductive floor-mat and heel-strap combination.

Both types, when used together, provide a significant level of ESD protection. Of the two, only the table-mat and wrist-strap combination provides adequate ESD protection when used



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Figure 0-1.

Handling of Electronic Components and ESD

The possibility of unseen damage caused by ESD, is present whenever components are transported, stored, or used. The risk of ESD damage can be greatly reduced by close attention to how all components are handled.

- Perform work on all components at a static-safe work station.
- Keep static-generating materials at least one meter away from all components.
- Store or transport components in static-shielding containers.

Caution	Always handle printed circuit board assemblies by the edges. This will reduce the possibility of ESD damage to components and prevent contamination of exposed plating.
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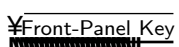
Test Equipment Usage and ESD

- Before connecting any coaxial cable to an instrument connector for the first time each day, momentarily short the center and outer conductors of the cable together.
- Personnel should be grounded with a 1M Ω resistor-isolated wrist strap before touching any instrument connector and before removing any assembly from the instrument.
- Be sure that all instruments are properly earth-grounded to prevent build-up of static charge.

For Additional Information about ESD

For more information about proeventing ESD damage, contact the Electrical Overstress/Electrostatic Discharge (EOS/ESD) Association, Inc. The ESD standards developed by this agency are sanctioned by the American National Standards Institute (ANSI).

Typeface Conventions

	Represents a key physically located on the instrument.
	Indicates a “softkey,” a key whose label is determined by the firmware of the instrument.
Screen Text	Indicates text displayed on the instrument’s screen.

HP 85462A & HP 85422E Receiver RF Section Firmware Kit

This kit consists of the following:

Installation note	5962-5100		
EEROM U6	85462-80016	94.09.08	
EEROM U7	85462-80017	94.09.08	
EEROM U23	85462-80018	94.09.08	
EEROM U24	85462-80019	94.09.08	

To effectively complete the upgrading of the instrument, you will also need:

- Reference Manual 5962-5082 August 1994
- TORX hand driver & T8/T10 bits 8710-1426
- A thin, flat blade screwdriver to assist in removal of the EEROMs and, if necessary, another flat blade screwdriver to remove the interconnect blocks between the Receiver RF Section and the RF Filter Section.

When finished with the installation procedure, make sure that the customer receives the new Reference Manual, if necessary.

Installation Procedure

Warning

- These servicing instructions are for use by qualified personnel only. To avoid electrical shock, do not perform any servicing unless you are qualified to do so.
- The opening of covers or removal of parts is likely to expose dangerous voltages. Disconnect the instrument from all voltage sources while it is being opened.
- The power cord is connected to internal capacitors that may remain live for 5 seconds after disconnecting the plug from its power supply.

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1. Disconnect the instrument from AC power.

Caution

To prevent damage to the front-frame, use a soft cloth or towel between the work surface and the front-frame.

2. Place the instrument on the work surface with its front panel down.
3. Remove the four rear-feet screws using a Torx screwdriver. Also remove the four bottom feet, if necessary.
4. Pull the cover off towards the rear.

Figure INSTCVR here.

Figure 1-1.

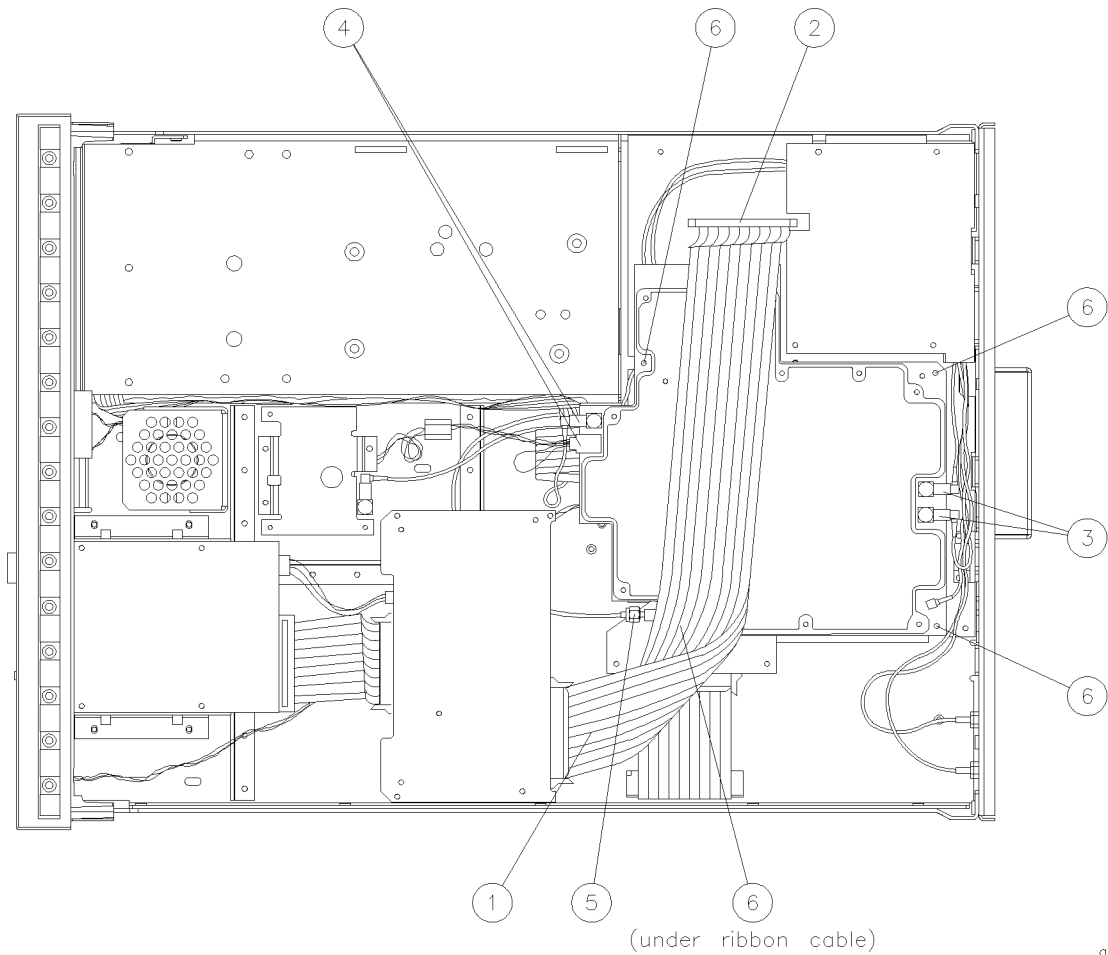
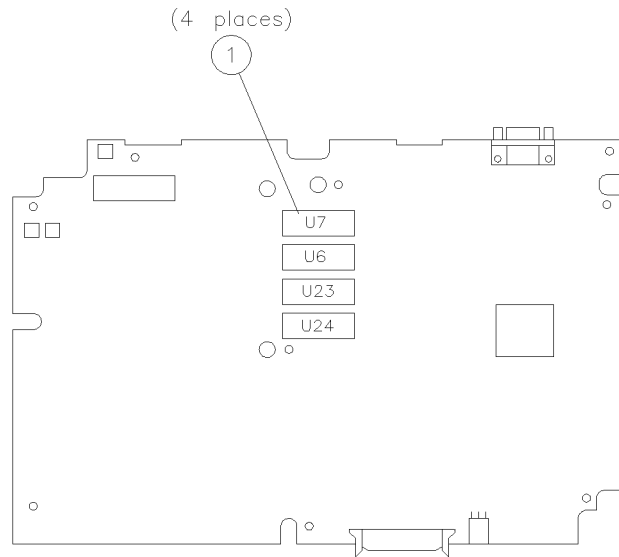


Figure 1-2.

9. Position the counter lock assembly to expose the ROMs, U7, U6, U23 and U24.
10. Install the 4 ROM chips in their processor board sockets. (1)

2 Installation Procedure



procroms

Figure 1-3.

11. Re-position the counter lock assembly in the instrument and replace the 4 screws that attach the counter lock assembly to the instrument. (6)
12. Re-connect the 2 cables, if necessary to the front edge of the counter lock assembly (4)
13. Re-connect the large ribbon cable to the processor board. (2)

Caution

To prevent damage when replacing the instrument cover, remember the following:

- a. Place a soft cloth or towel between the work surface and the front-frame.
 - b. Ensure that cables do not bind between the instrument cover and its internal assemblies.
-

14. Place the instrument on the work surface with its front panel down.
15. Replace the instrument cover assembly by matching the seam on the cover with the bottom of the instrument.
16. Fit the leading edge of the cover completely into the slot on the back of the front-frame assembly. The cover should fit snugly against the EMI gasket in the slot.
17. Replace and tighten the four rear-feet screws using a Torx screwdriver.

Verification Procedure

1. Connect AC power to the instrument and turn ON the LINE switch. After instrument completes the power on initialization, you will notice that:

HP-IB address has been set to 0. The display message: “Using Defaults Cal Needed” is shown.
2. Use the menu CONFIG and select More 1 of 3, and DEFAULT CONFIG to reset user-configuration values to factory values, including the HP-IB address, (See Table 4-5 on page 4-55 of Reference Manual for these values), or
3. Use the menu CONFIG, and select More 1 of 3, and RECEIVER ADDRESS. Enter the correct HP-IB address (Default is 18).
4. Connect a short cable between TRACKING GENERATOR OUTPUT and RF INPUT. Use the following to CAL the Receiver RF Section:
 - a. The CALIBRATE menu, and select More 1 of 3, More 2 of 3, and CAL TRK GEN key to calibrate the Tracking Generator.
 - b. The CALIBRATE menu, and select More 1 of 3, and CAL FREQ.
 - c. The CALIBRATE menu, and select More 1 of 3, and CAL AMP.
 - d. The CALIBRATE menu and select CAL STORE.
 - e. The CALIBRATE menu, and select More 1 of 3, More 2 of 3, and CAL YTF. (This only applies to HP85462A Receiver RF Section.)