Installation Note

**Agilent Technologies 8712ET/ES and 8714ET/ES
Installation Instructions for the CPU Board:
Part Number 08714-60175 (new) and
Part Number 08714-69175 (rebuilt-exchange)**

Notice.

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Products Affected:	8712ET/ES and 8714ET/ES RF Network Analyzers
Serial Numbers:	All
To Be Performed By:	(X) Agilent Technologies Service Center (X) Customer or Personnel Qualified by Agilent (X) Agilent Personnel On-site
Estimated Installation Time:	30 minutes

Description

This document details a special procedure for installing the CPU board in the 8712ET/ES and 8714ET/ES RF network analyzers. This special procedure is necessary if the existing CPU BootROM IC is version E.01.00, or part number 08714-80012.

Parts List

Quantity	Description	Part Number
1	A2 CPU Board (new) — *or* — A2 CPU Board (rebuilt-exchange)	08714-60175 08714-69175
1	BootROM IC (U335)	08714-80014
1	IC Extraction Tool (not used in this special procedure)	—

NOTE The manuals mentioned in this document can be accessed on the internet by searching for the part number of the manual at the following Web site:

http://www.agilent.com

For example, to access the *Service Guide,* go to the Web site and search for "08714-90017".

Installation Procedure

1. If your CPU board is nonoperable so that you cannot access instrument information by pressing `SYSTEM OPTIONS` **Service** **Instrument Info** , go to Step 6. Otherwise, continue with the following steps.

2. With the existing CPU board still installed, turn on the analyzer and store the correction constants to a floppy disk. For instructions, refer to Chapter 8 of the analyzer's *Service Guide*.

3. Press `SYSTEM OPTIONS` **Service** **Instrument Info** . Locate the BootROM version in the instrument information table on the analyzer's display.
   •If the BootROM version is E.01.01 or later, disregard the remainder of this document and discard the BootROM shipped with the replacement CPU board. Follow the replacement instructions for the CPU board in Chapter 3 of the analyzer's *Service Guide* (part number 08714-90017).
   •If the BootROM version is E.01.00, continue with the following steps.

4. From the instrument information table on the analyzer's display, record the analyzer's serial number and note if Option 100 (SRL and Fault Location) is installed. If Option 100 is installed, record the keyword from a sticker on the bottom edge of the rear frame, below the power-cord connector. If the keyword is not available from the sticker, contact your nearest Agilent Technologies sales or service office to get a replacement keyword. See "Contacting Agilent" on page 6.

5. Press `SYSTEM OPTIONS` **LAN** **LAN Port Setup** **Ethernet Address**. Record the analyzer's ethernet address. If the ethernet address is not displayed or cannot be accessed, contact your nearest Agilent Technologies sales or service office to get a replacement address. *Do not copy an ethernet address from another instrument* (ethernet addresses are unique for all network interfaces in the world). See "Contacting Agilent" on page 6.

6. Remove the CPU assembly. For instructions, refer to Chapter 3 of the analyzer's *Service Guide* (part number 08714-90017). Find the section titled "A2 CPU Board Assembly Replacement" and follow steps 1–5.

7. *For nonoperable CPU boards only:*
   Locate the BootROM IC (U335) on the existing CPU board.

   • If the part number printed on the IC is 08714-80013 or 08714-80014, disregard the remainder of this document and discard the BootROM shipped with the replacement CPU board. Complete the replacement instructions for the CPU board in Chapter 3 of the analyzer's *Service Guide*.

   • If the part number printed on the IC is 08714-80012:

      ✓ Find the analyzer's serial number label located on the instrument's rear panel. Using the information printed on the label, record the analyzer's serial number.

      ✓ Using the information printed on the serial number label, note if Option 100 is installed. If Option 100 is installed, record the keyword from a sticker on the bottom edge of the rear frame, below the power-cord connector. If the keyword is not available from the sticker, contact your nearest Agilent Technologies sales or service office to get a replacement keyword. See "Contacting Agilent" on page 6.

✓ Contact your nearest Agilent Technologies sales or service office to get a replacement ethernet address. *Do not copy an ethernet address from another instrument* (ethernet addresses are unique for all network interfaces in the world). See "Contacting Agilent" on page 6.

✓ Continue with the following steps.

8. Locate the new BootROM IC (part number 08714-80014) shipped with the replacement CPU board. Install the BootROM IC in the U335 location on the replacement CPU board.

9. Refer again to the *Service Guide* section titled "A2 CPU Board Assembly Replacement" in Chapter 3. Begin with step 7 and complete all instructions, including those in "Installing the CPU Board Assembly."

10. Turn on the analyzer and wait for the prompt to load the correction constants from a floppy disk. If the disk is available, insert it into the analyzer's disk drive and follow the remaining analyzer prompts. If the disk is not available, it will be necessary for you to perform the required adjustments when you're done with this CPU board installation procedure. The adjustments are described in Chapter 3, Table 3-1, of the analyzer's *Service Guide*.

11. Press (SYSTEM OPTIONS) **Service** **Instrument Info** . Verify that the analyzer's serial number now is listed as "??????????" due to the new BootROM. If a different serial number is displayed, contact your nearest Agilent Technologies sales or service office.

IMPORTANT In the following step, a program is used to install the analyzer's serial number. When entering the serial number portion of the program, be sure to use:

- the correct serial number for your analyzer (recorded in Step 4 or Step 7)
- apostrophes around the serial number
- upper-case letters
- a blank space after SNUM

If you make a mistake, you must contact your nearest Agilent Technologies sales or service office to get a special password for reprogramming the serial number.

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12. Using the IBASIC editor, enter the following program to install the analyzer's serial number.

```
10 OUTPUT 800; "DIAG:SNUM 'US345600123'"

20 END
```

NOTE For detailed instructions on using the IBASIC editor, see Chapter 5 in the *HP Instrument BASIC User's Handbook Supplement* (part number 08714-90019).

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13. After the program has been entered, press **Run** to execute.

14. Using the IBASIC editor, enter the following program to clear the analyzer's ethernet address. When entering the program, you must match upper/lower-case letters as shown.

```
10 OUTPUT 800; "SYST:COMM:LAN:EADD 'SimonSaysBeCareful'"

20 END
```

15. After the program has been entered, press **Run** to execute.

16. Using the IBASIC editor, enter the following program to install the analyzer's ethernet address (recorded in Step 5 or Step 7). The actual ethernet address is *not* case sensitive.

```
10 OUTPUT 800; "SYST:COMM:LAN:EADD '080009FA1234'"

20 END
```

17. After the program has been entered, press **Run** to execute.

18. If Option 100 is to be installed, press (SYSTEM OPTIONS) **System Config** **Options Setup** **Install Options**. To enable the option, enter the keyword that was recorded in Step 4 or Step 7. To enter the keyword, it is fastest and easiest to use a keyboard connected to the analyzer's DIN KEYBOARD connector on the analyzer's rear panel. If you don't have a keyboard, you can use the analyzer's arrow keys or the front panel knob and the **Select Char** key to select and enter characters from the top of the analyzer's display. Press **Enter** when done.

19. Cycle power on the analyzer, and then press (SYSTEM OPTIONS) **Service** **Instrument Info**. Verify the analyzer's configuration is correct.

IMPORTANT   If you were not able load the analyzer's correction constants as instructed in Step 10, you must now perform the required adjustments that are described in Chapter 3, Table 3-1, of the analyzer's *Service Guide*.

Contacting Agilent

Online assistance: www.agilent.com/find/assist

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