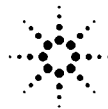


Agilent 4288A Firmware Installation Program

Operation Manual

First Edition



Agilent Technologies

Agilent Part No.

March 2001

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Manual Printing History

The manual's printing date and part number indicate its current edition. The printing date changes when a new edition is printed. (Minor corrections and updates that are incorporated at reprint do not cause the date to change.) The manual part number changes when extensive technical changes are incorporated.

March 2001 First Edition

Safety Summary

The following general safety precautions must be observed during all phases of operation, service, and repair of this instrument. Failure to comply with these precautions or with specific WARNINGS elsewhere in this manual may impair the protection provided by the equipment. In addition it violates safety standards of design, manufacture, and intended use of the instrument.

Agilent Technologies assumes no liability for the customer's failure to comply with these requirements.

NOTE

4288A comply with INSTALLATION CATEGORY II and POLLUTION DEGREE 2 in IEC61010-1. 4288A are INDOOR USE product.

NOTE

LEDs in 4288A are Class 1 in accordance with IEC60825-1.
CLASS 1 LED PRODUCT

- Ground The Instrument

To avoid electric shock hazard, the instrument chassis and cabinet must be connected to a safety earth ground by the supplied power cable with earth blade.









- **DO NOT Operate In An Explosive Atmosphere**
Do not operate the instrument in the presence of flammable gasses or fumes. Operation of any electrical instrument in such an environment constitutes a definite safety hazard.
- **Keep Away From Live Circuits**
Operating personnel must not remove instrument covers. Component replacement and internal adjustments must be made by qualified maintenance personnel. Do not replace components with the power cable connected. Under certain conditions, dangerous voltages may exist even with the power cable removed. To avoid injuries, always disconnect power and discharge circuits before touching them.
- **DO NOT Service Or Adjust Alone**
Do not attempt internal service or adjustment unless another person, capable of rendering first aid and resuscitation, is present.
- **DO NOT Substitute Parts Or Modify Instrument**
Because of the danger of introducing additional hazards, do not install substitute parts or perform unauthorized modifications to the instrument. Return the instrument to a Agilent Technologies Sales and Service Office for service and repair to ensure that safety features are maintained.
- **Dangerous Procedure Warnings**
Warnings, such as the example below, precede potentially dangerous procedures throughout this manual. Instructions contained in the warnings must be followed.

WARNING

Dangerous voltages, capable of causing death, are presenting this instrument. Use extreme caution when handling, testing, and adjusting this instrument.

Safety Symbol

General definitions of safety symbols used on the instrument or in manuals are listed below.

-  Instruction Manual symbol: the product is marked with this symbol when it is necessary for the user to refer to the instrument manual.
-  Alternating current.
-  Direct current.
-  On (Supply).
-  Off (Supply).
-  In position of push-button switch.
-  Out position of push-button switch.
-  Frame (or chassis) terminal. A connection to the frame (chassis) of the equipment which normally include all exposed metal structure.

WARNING

This warning sign denotes a hazard. It calls attention to a procedure, practice, condition or the like, which, if not correctly performed or adhered to, could result in injury or death to personnel.

CAUTION

This Caution sign denotes a hazard. It calls attention to a procedure, practice, condition or the like, which, if not correctly performed or adhered to, could result in damage to or destruction of part or all of the product.

NOTE

Note denotes important information. It calls attention to a procedure, practice, condition or the like, which is essential to highlight.

Exclusive Remedies

The remedies provided herein are buyer's sole and exclusive remedies. Agilent Technologies shall not be liable for any direct, indirect, special, incidental, or consequential damages, whether based on contract, tort, or any other legal theory.

Assistance

Product maintenance agreements and other customer assistance agreements are available for Agilent Technologies products.

For any assistance, contact your nearest Agilent Technologies Sales and Service Office. Addresses are provided at the back of this manual.

Typeface Conventions

Bold

Boldface type is used when a term is defined. For example: **icons** are symbols.

Italic

Italic type is used for emphasis and for titles of manuals and other publications.

[Hardkey]

Indicates a hardkey labeled "Hardkey."

Softkey

Indicates a softkey labeled "Softkey."

[Hardkey] - Softkey1 - Softkey2

Indicates keystrokes **[Hardkey] - Softkey1 - Softkey2**.

1 **Installing Program to PC**

This chapter provides information for the installation of 4288A firmware installation program.

Required Controller

The following controller system is required to run the adjustment program.

Windows PC	PC-AT Compatible, RAM:≥64MBytes, CPU Pentium 200 MHz or faster
OS	Micorsoft® Windows NT®(≥4.0), Windows 95®, Windows 98®
Software	Agilent SICL(Standard Instrument Control Library)
GPIB Card	82350A, 82341C/D

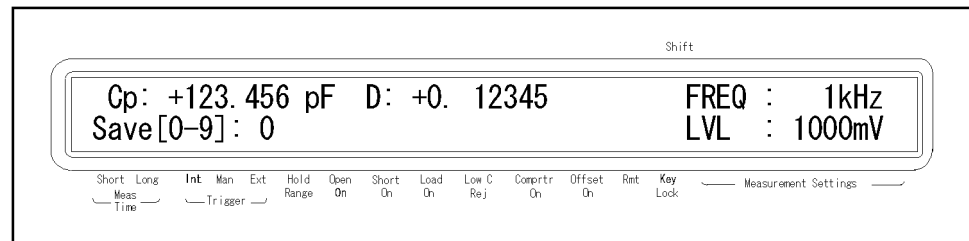
Installation Procedure

1. Make a new folder for installing the firmware installation program.
2. Make a copy of the install program `loader.exe` and the firmware `fw_XXXX.m` (XXXX means a firmware revision) in the above folder.

Firmware Update

Update the 4288A firmware according to the following procedure.

- Step 1.** Connect the Windows PC to the 4288A with the GPIB Cable.
- Step 2.** The current setting is erased after the firmware update. If necessary, store the current setting according to the following procedure
 1. Press blue-**[Rcl]** key on the 4288A front panel. The save location entry screen appears as shown in the following figure.

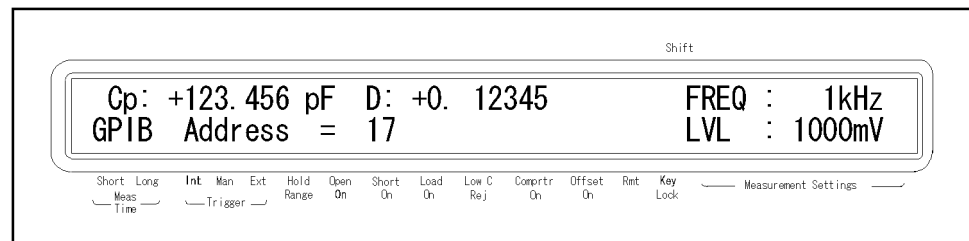


4288aaj032

2. Input the save location you desire, then press **[Enter]** key.

- Step 3.** Confirm the GPIB address of the 4288A according to the following procedure.

1. Press blue-**[Lcl]** key on the 4288A front panel. The GPIB address entry screen appears with the current GPIB address as shown in the following figure.



4288apj002

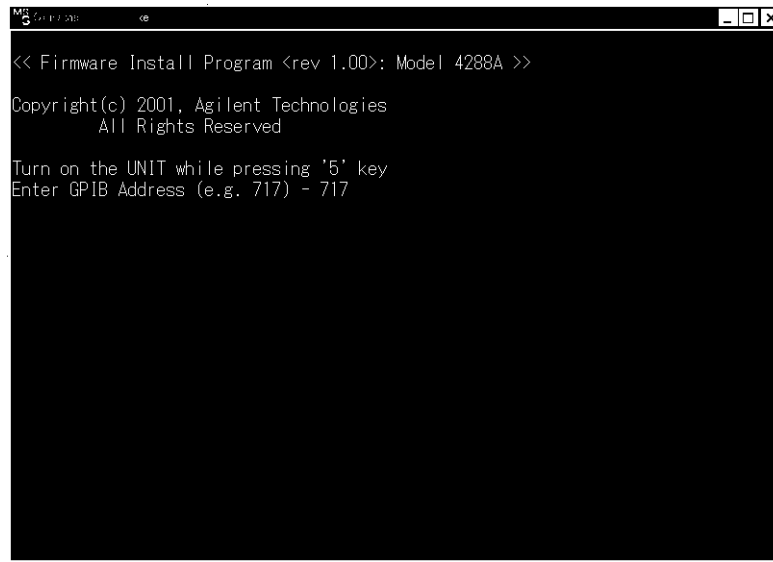
2. Press **[Enter]** key to exit the GPIB address entry screen.

- Step 4.** Turn off the 4288A.

- Step 5.** Turn on the 4288A while pressing **[5]** key on the front panel.

Installing Program to PC Firmware Update

Step 6. Run loader .exe by clicking twice the icon, then following widow appears.



```
MS-DOS [C:\Program Files\Agilent\Loader] loader.exe
<< Firmware Install Program <rev 1.00>: Model 4288A >>

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Turn on the UNIT while pressing '5' key
Enter GPIB Address (e.g. 717) - 717
```

Step 7. Input the GPIB address of the 4288A with 3 digits. The first digits of the logical address of the controller. If the default value 717 is used, press 'Enter' key only.

Step 8. The firmware revision list appears.



```
MS-DOS [C:\Program Files\Agilent\Loader] loader.exe
<< Firmware Install Program <rev 1.00>: Model 4288A >>

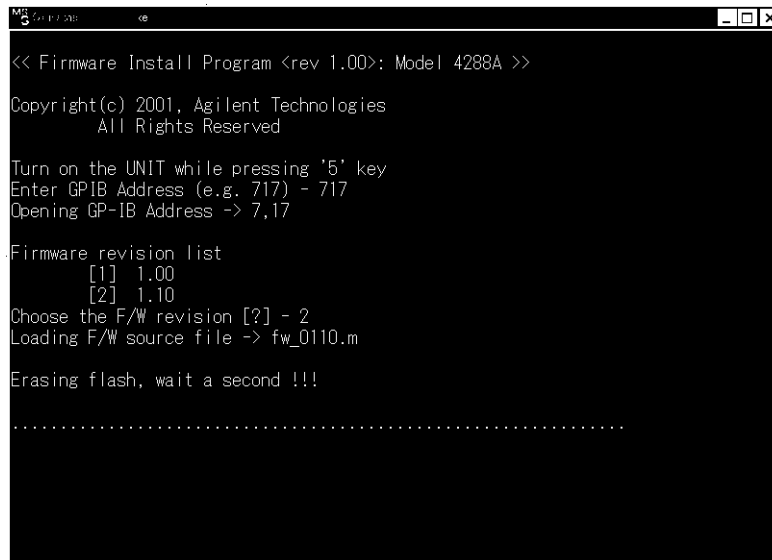
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Turn on the UNIT while pressing '5' key
Enter GPIB Address (e.g. 717) - 717
Opening GP-IB Address -> 7,17

Firmware revision list
[1] 1.00
[2] 1.10
Choose the F/W revision [?] - 2
```

Step 9. Choose the one to install. Press 'Enter' key when the latest version is installed, then the

firmware update starts.



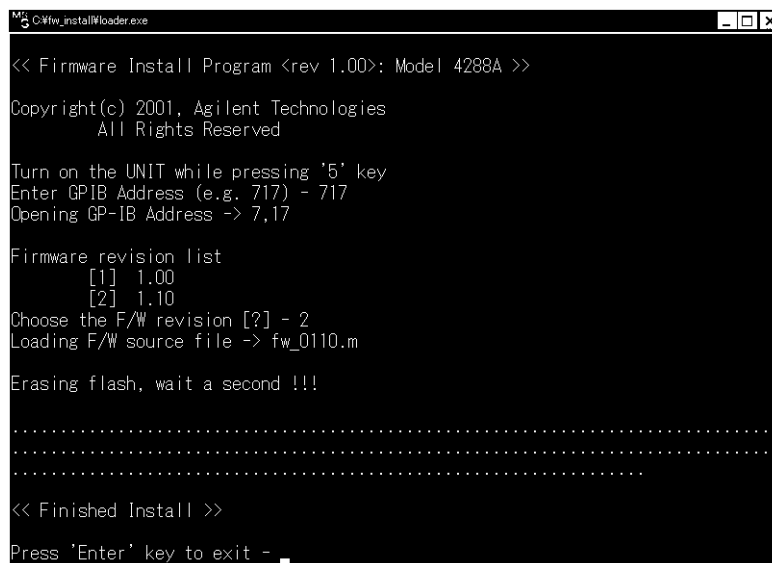
```
<< Firmware Install Program <rev 1.00>: Model 4288A >>
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Turn on the UNIT while pressing '5' key
Enter GPIB Address (e.g. 717) - 717
Opening GP-IB Address -> 7,17

Firmware revision list
  [1] 1.00
  [2] 1.10
Choose the F/W revision [?] - 2
Loading F/W source file -> fw_0110.m

Erasing flash, wait a second !!!
.....
```

Step 10. Press 'Enter' key to exit the firmware installation program. after the firmware install finish.



```
<< Firmware Install Program <rev 1.00>: Model 4288A >>
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Turn on the UNIT while pressing '5' key
Enter GPIB Address (e.g. 717) - 717
Opening GP-IB Address -> 7,17

Firmware revision list
  [1] 1.00
  [2] 1.10
Choose the F/W revision [?] - 2
Loading F/W source file -> fw_0110.m

Erasing flash, wait a second !!!
.....

<< Finished Install >>
Press 'Enter' key to exit -
```

Step 11. Confirm that the message “Cycle Power to RUN !” is displayed in the 4288A LCD, then turn off the LCD.

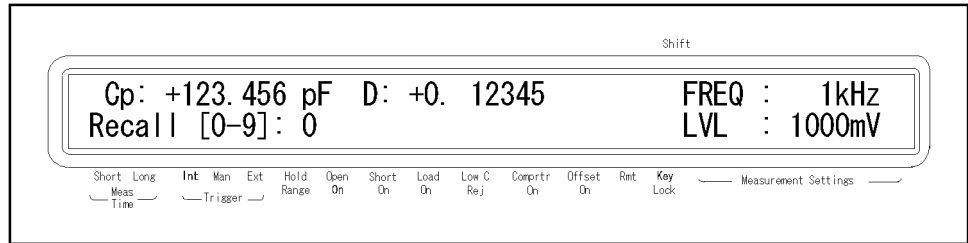
Step 12. Turn on the 4288A. The firmware revision is displayed after the self-test.

Step 13. Restore the setting according to the following procedure if it is stored in Step 2.

1. Press **[Rcl]** key on the 4288A front panel. The recall location entry screen appears as

Installing Program to PC Firmware Update

shown in the following figure.



4288aoj033

2. Input the recall location the previous setting is stored.