EPM Firmware Revision Information

Feature	Notes	Refer to EPM "B" series Manual
Zero/Cal Lockout	Feature can be activated to prevent measurements being made until connected sensor is zeroed and calibrated	User Guide: Chapter 2 "Zeroing and Calibrating the Power Meter; Zero /Cal Lockout
Sensor Information over GPIB	Ability to read sensor model, serial number and last calibration date (for E-series sensors only) over GPIB	Programming Guide: Chapter 14 " Service subsystem"
V8486A sensor linearity correction	Applies linearity correction for V8486A V-band sensor	User Guide: Chapter 2 "Zeroing and Calibrating the Power Meter; Calibration Procedure using Agilent 8480 series sensors"
Filter length setting	The digital filter can be set to any number between 1 and 1024, to set the optimal averaging for a particular measurement	User Guide: Chapter 2 " Setting Averaging"
Step detect on/off	Step detection (which re-initializes the filter upon detection of a step increase/decrease in power) can be turned on or off. Step detect may be turned off to prevent pulsed signals re-initializing the filter.	User Guide: Chapter 2 "Setting Averaging; Step Detection"

All of the above features were provided in Firmware Versions A1.03.00 and A2.03.00

Feature	Notes	Refer to EPM "B" series Manual
E-series E9300 power sensor compatibility	Enables EPM series power meters to use the E-series E9300 power sensors. EPM "B" (E4418B/19B) power meters with serial prefix US3847 or GB 3841 will require firmware revision A1.04.00/A2.04.00 for Agilent E9300 sensor operation. Please note that EPM "A" power meters (E4418A/19A) also require a simple hardware upgrade. Please contact your local Agilent Technologies Service Center or sales representative for information on this HW upgrade.	Not applicable. E-series E9300 power sensor information is contained in the E9300 Operating and Service Guide (p/n E9300-90001: English language version)

The above feature was provided in Firmware Revisions A1.04.00 and A2.04.00

Feature	Notes	Refer to EPM "B" series Manual
436A code compatibility	Only provided in single channel power meter.	436A compatibility information will be added to E4418B shipments. Will be included in E4418B Users Guide as soon as possible

The above feature was provided in Firmware Revision A1.05.00
436A compatibility information is available in a User's Guide Flyer (E4418-90047).

Feature	Notes	Refer to EPM "B" series Manual
E-series E93000 "B" and "H" power sensors compatibility	Enables EPM series power meter to use the "B" and "H" versions (high power) in the E9300 sensor family. Please note that EPM "A" power meters (E4418A/19A) also require a simple hardware upgrade. Please contact your local Agilent Technologies Service Center or sales representative for information on the HW upgrade	Not applicable. E-series E9300 power sensor information is contained in the E9300 Operating and Service Guide (p/n E9300-90016: English language version).
Longer life battery with option 001	Enables EPM series power meters to use the new battery supplied with option 001	Not applicable. Refer to the flyer "Battery Information", p/n E4418-90054

The above features are provided in Firmware Versions A1.06.00 and A2.06.00. (Note: firmware revision A2.05.00 was not used).

Feature	Notes	Refer to EPM "B" Series Manual
GPIB problem fixed for 436A, 437B, and 438A emulation modes.	Corrected a problem that made it possible for remote zero or calibration tasks to never be reported as complete.	User Guide: Chapter 3 "System/Inputs Menu" Compatibility information for HP436A emulation mode is located in the User's Guide Flyer E4418-90047
Service query command improved to remove ambiguity.	Query "SERV:SENS:<etc>" now returns "UNKNOWN" whilst data is being read from the sensor. Prior to this update, the command would return details of the last sensor connected.	Programming Guide: Chapter 14 "Service Subsystem"
Calibrator self test improved.	Added a 1.5 second delay when switching on the power ref for the calibrator self test. Without the delay, an unsettled reading could cause the self test to fail.	User Guide: Chapter 2 "Self Test"
Setup information added for self test confidence check.	This test would frequently fail because the cal factor or measurement frequency had not been set.	User Guide: Chapter 2 "Self Test"
E4419A recorder output fixed for instances when a sensor is not connected.	A channel that does not have a sensor attached to it cannot be routed to the recorder output. Prior to this update, routing a channel to the recorder output without connecting a sensor to it would cause the power meter to hang-up.	User Guide: Chapter 2 "Recorder Outputs"
E4419A recorder output 'B'	Corrected a problem that exists in Firmware Versions A2.03.00,	User Guide: Chapter 2 "Recorder Outputs"

maximum power setting fixed	A2.04.00, and A2.06.00. Prior to this update, recorder output 'B' was permanently set for a maximum power of 100mW.	
Triggering problem fixed for HP438A emulation mode.	For sensor 'A' measurement, the TR1/TR2 command will trigger channel 'A' only. For sensor 'B' measurement, the TR1/TR2 command will trigger channel 'B' only. Prior to this update, the TR1/TR2 command could trigger both channels if a math function was selected.	User Guide: Chapter 3 "System/Inputs Menu"

The above features are provided in Firmware Versions A1.07.00 and A2.07.00.

Feature	Notes	Refer to EPM "B" Series Manual
RS422 Serial Interface	RS422 serial communications interface can be enabled or disabled to reflect the hardware fitted.	Not applicable. Full details are available in Service Notes E4418B-09 and E4419B-09

The above features are provided in Firmware Versions A1.08.00 and A2.08.00.

Feature	Notes	Refer to EPM "B" Series Manual
Zero/Cal Information Retained Following A Power Cycle	Corrected a problem that causes the power meter to lose user calibration data for E930x sensors following a power cycle. This calibration data is generated by the power meter during the zero and cal process, and is not related to the calibration data stored in the sensor EEPROM. Also note that this problem did not affect any sensors other than the E930x family	User Guide: Chapter 2 "Zeroing and Calibrating the Power Meter"

Several options for upgrading your firmware exist:

Option 1

Order the firmware upgrade kit p/n E4418-61035 from your local sales representative. This kit includes the required PC-formatted (DOS) floppy disks and installation instructions. This firmware upgrade kit does not include manuals, cables or connectors. This procedure requires a PC running Windows 95 or Windows NT 4.0[1] with a GPIB interface and the VISA library installed.

Option 2

Download the free firmware upgrade program, firmware, and installation note provided. Installation Note E4418-90043 provides detailed instructions for installing the PC version of the firmware into your EPM series power meter. This procedure requires a PC running Windows 95 or Windows NT 4.0[1] with a GPIB interface and the VISA library installed.

Option 3

Order an upgrade of your EPM series power meter firmware to be carried out at your local service center.

Instructions for Downloading Upgrade Program and Firmware

Place an empty, formatted disk in drive A. Click on the hyperlink "setupload.exe" provided at the right. When the download window appears, select drive A and press the "Save" button. Place another empty formatted disk in drive A and repeat the above procedure for the version of firmware which you require. Then, to decompress the firmware, click the "Start" button and select the "Run" option. Enter a:\e4418_a10801.exe or a:\e4419_a20801.exe as applicable, then click "OK". On the WinZip Self-Extractor window which pops up, click "Unzip".

Instructions for Installing the Upgrade Program

Place the program disk in drive A. Click the "Start" button and choose the "Run" option. Enter A:\setupdload.exe and press "OK". This will install Agilent EPM Dload for Windows 95, NT[1] on your PC.

Instructions for Carrying Out the Firmware Upgrade

Click the "Start" button and choose "Program", "Agilent EPM and EPM-P Dload", "Agilent EPM and EPM-P Dload for Windows 95, NT". Follow the instructions in Installation Note E4418-90043 or in the program's Help system

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