

S E R V I C E N O T E

SUPERSEDES: E4418A-06A

E4418A EPM Series Power Meter

Serial Numbers:GB0000000/GB9999999
US0000000/US99999999

Hardware upgrade information**Duplicate Service Notes:**

E4419A-07A

To Be Performed By: Agilent-Qualified Personnel
Suitably qualified Customer

Parts Required:

P/N	Description	Quantity
E4418-60021	EPM HW Upgrade kit	1
11683A	Range calibrator	1
11730A	Power Sensor cable	1

Continued

DATE: November 1999

ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION:

MODIFICATION AVAILABLE

ACTION CATEGORY:		PERFORMANCE ENHANCEMENT SERVICE/RELIABILITY ENHANCEMENT
AGREEABLE TIME		
LOCATION CATEGORY:	CUSTOMER INSTALLABLE ON-SITE SERVICE CENTER	AVAILABLE UNTIL: November 2001
AUTHOR: JW	ENTITY: E600	ADDITIONAL INFORMATION:



Situation:

The E4418A requires new hardware pn E4418-80023 and firmware version (A1.04.00 or above) to be fitted in order to make it compatible with the E9300 series sensor. The new E9300 series power sensor requires EPM "A" model single channel power meters to have firmware version A1.04.00 and U13 (pn E4418-80003) on the A6 Measurement Assy to be replaced with pn E4418-80023. These changes are required to allow the E9300 series power sensor to operate with the EPM "A" model power meter.

Solution / Action:

The new parts allow the user to utilise the new E9300 power sensors. These sensors are capable of performing the following:-

Wide Dynamic range measurements of all modulated signals, Accurate measurement of signals with high peak to average ratios. Flat calibration factors give accurate measurement of multi-tone signals.

Installation Procedure

EEPROM Replacement

Replacing the EEPROM requires removal of the power meter cover.

With the cover removed, the EEPROM can be replaced. The power meter is then reassembled and the measurement path verified.

Outer Cover Removal

1. Ensure all power and sensor cables are disconnected from the power meter.

WARNING:

The power meter contains potentially hazardous voltages.

2. Using a T15 screw driver, loosen the captive screws in the rear bezel and remove the power meter chassis from the cover as shown in Figure 1, "Outer Cover Removal".

Figure 1. Outer Cover removal

EEPROM Replacement

1. Identify and using the IC extraction tool, remove the EEPROM U13
2. Correctly orientate the EEPROM supplied and insert it into the IC socket.

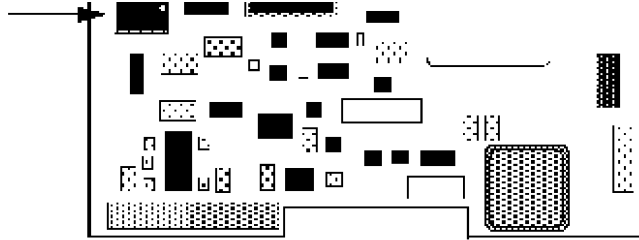


Figure 2 U13 location on Measurement Assy

Cover Replacement

1. Refit the power meter cover. Take care to avoid snagging any loose cables.
2. Replace rear bezel and using a T15 screw driver, tighten the captive screws. The assembly of the power meter is now complete.

Power Meter Verification

After performing the EEPROM upgrade now ensure the power meter passes the Power On self tests and Instrument Self Tests.

1. Reconnect the power cord and switch the power meter on.
2. On the power meter press .
System Inputs, More, Self Test, Instrument Self Test
3. Verify all tests pass.
4. If any Meas Assy tests fail, switch off the power meter and proceed as follows:
 - a. Remove the power cord and remove the cover as described in "Cover Replacement"
 - b. Ensure the EEPROM, flex circuit and measurement assemblies are correctly located.
 - c. Refit the cover and retest the power meter.

When all Instrument Self Tests pass verify the DSP program loaded in the EEPROM is the correct version as follows:

5. Press to exit the Instrument Self Test menu. Done
6. Press System/inputs,More,Service,Version.
Check the DSP Revision A.01.11 As shown below

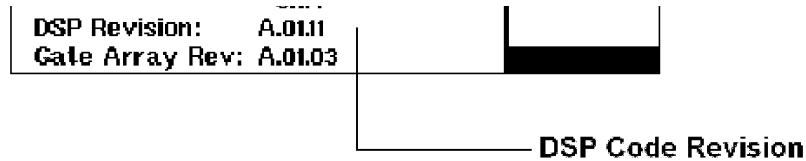


Figure 3. DSP Revision Check

7. Press Done to exit the Version screen.

Measurement Path Verification

Self Test

1. Re-connect the power cord and press to power up the power meter.
2. Ensure the power meter passes all the power-up self tests before proceeding.

Perform Zero Test and Instrument Accuracy Tests from the Service Guide pn E4418-90023.

The retrofit and verification are now complete.

You should now install the latest instrument firmware. This can be achieved by accessing the following URL:

<http://www.tmo.hp.com/tmo/datasheets/English/HPE4418B.html>

Click on the E4418B Technical support hyperlink and then click the firmware upgrade link. Follow the on-screen instructions to perform the upgrade.