

# HP EPM Power Meters HP ECP-series Power Sensors

## Configuration Guide

HP EPM-441A Power Meter (single channel)

(order number E4418A)

HP EPM-442A Power Meter (dual channel)

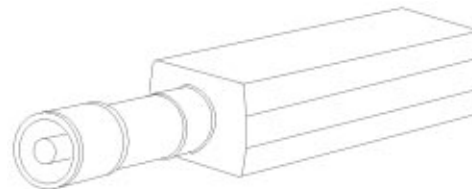
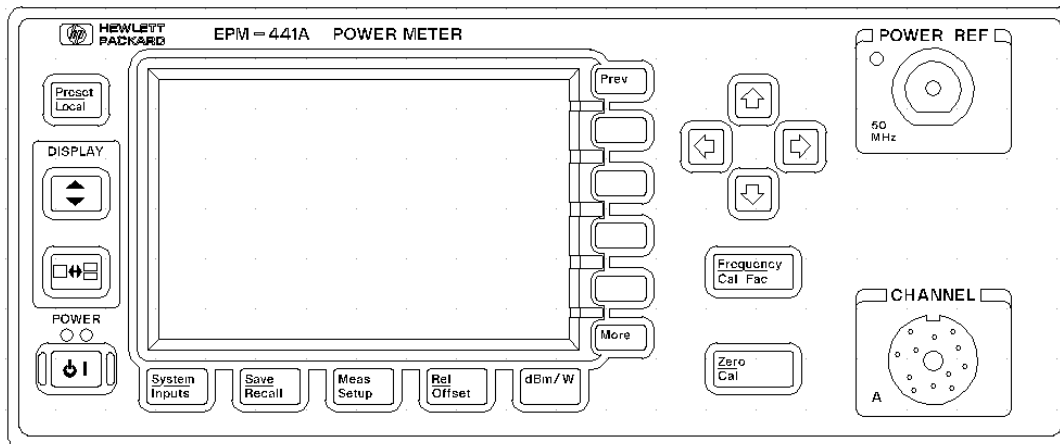
(order number E4419A)

HP ECP-E18A Power Sensor (10 MHz to 18 GHz)

(order number E4412A)

HP ECP-E26A Power Sensor (50 MHz to 26.5 GHz)

(order number E4413A)



### Introduction

This configuration guide describes standard configurations, options and compatible accessories. For full specifications, see *EPM-441A Power Meter*, *EPM-442A Power Meter*, *ECP-E18A Power Sensor* and *ECP-E26A Power Sensor Technical Data* (HP literature number 5965-6382E). Contact your Hewlett-Packard representative at the offices listed on the back of this guide if you need more information.

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## Standard Power Meters

The standard HP EPM-441A and EPM-442A power meters include:

- Single-channel power meter (HP EPM-441A), **order E4418A.**  
or Dual-channel power meter (HP EPM-442A), **order E4419A.**
- Input sensor connector(s) on front panel.
- Reference calibrator connector on front panel.
- English-language *User's Guide and Programming Guide.*
- Supplied Accessories:  
Power sensor cable (1.5 meter (5 ft) **HP 11730A**). One per HP EPM-441A and two per HP EPM-442A.  
Power cord (plug matches destination requirements).

## ECP-series Power Sensors

The standard HP ECP-E18A and ECP-E26A Power Sensors include:

- Power sensor 10 MHz to 18 GHz (HP ECP-E18A), **order E4412A.**  
or Power sensor 50 MHz to 26.5 GHz (HP ECP-E26A), **order E4413A.**
- English-language *Operating and Service Manual.* (Also available as HP part number E4412-90001.)

## Compatibility

The EPM power meters are compatible with HP 8480-series sensors and ECP-series sensors. The ECP-series sensors are only compatible with EPM power meters.

## Hardware Options

- Supplies parallel rear-panel sensor input(s). (Power reference calibrator output is on front panel.) **Option 002.**
- Supplies parallel rear-panel sensor input(s). (Power reference calibrator output is on rear panel.) **Option 003.**
- Deletes the HP 11730A sensor cable, **Option 004.**
- Supplies a one-instrument rackmount kit, **Option 908.**  
Allows one instrument to be rack-mounted into a standard 19 inch rack. Also available as HP part number 5063-9239.
- Supplies a two-instrument rackmount kit, **Option 909.**  
Allows two instruments to be rack-mounted side-by-side into a standard 19 inch rack. Also available as HP part numbers 5063-9212 and 5061-9694.

## Special Options

Special options are available. Contact your Hewlett-Packard representative for more information.

## Documentation

- Deletes the manual set, **Option 0B0.**
- Provides the *Service Manual*, **Option 915.**  
(Also available as HP part number E4418-90006.)
- Provides an extra *User's Guide and Programming Guide*, **Option 916.**  
(*HP EPM-441A User's Guide* is also available as HP part number E4418-90000.)  
(*HP EPM-442A User's Guide* is also available as HP part number E4419-90000.)  
(*Programming Guide* is also available as HP part number E4418-90008.)

## Localization Options

For the EPM power meters, these options provide a localized *User's Guide* (replacing the English version) at no extra charge. For the ECP-series sensors, these options provide a localized *Operating and Service Manual* at no extra charge.

- Supplies German *User's Guide*, **Option ABD**.  
(Also available as HP part number E4418-90001 for HP EPM-441A.)  
(Also available as HP part number E4419-90001 for HP EPM-442A.)  
*Operating and Service Manual* also available as HP part number E4412-90003 for ECP-series sensors.
- Supplies Spanish *User's Guide*, **Option ABE**.  
(Also available as HP part number E4418-90002 for HP EPM-441A.)  
(Also available as HP part number E4419-90002 for HP EPM-442A.)  
*Operating and Service Manual* also available as HP part number E4412-90005 for ECP-series sensors.
- Supplies French *User's Guide*, **Option ABF**.  
(Also available as HP part number E4418-90003 for HP EPM-441A.)  
(Also available as HP part number E4419-90003 for HP EPM-442A.)  
*Operating and Service Manual* also available as HP part number E4412-90002 for ECP-series sensors.
- Supplies Japanese *User's Guide*, **Option ABJ**.  
(Also available as HP part number E4418-90005 for HP EPM-441A.)  
(Also available as HP part number E4419-90005 for HP EPM-442A.)  
*Operating and Service Manual* also available as HP part number E4412-90006 for ECP-series sensors.
- Supplies Italian *User's Guide*, **Option ABZ**.  
(Also available as HP part number E4418-90004 for HP EPM-441A.)  
(Also available as HP part number E4419-90004 for HP EPM-442A.)  
*Operating and Service Manual* also available as HP part number E4412-90004 for ECP-series sensors.

## Warranties

One-year return-to-HP service warranty for EPM power meters and ECP-series sensors is standard at no extra charge.

## Certificate Options

- Supplies ANSI/NCSL Z540-1-1994 Certificate of Calibration (supersedes MIL-STD-45662B), **Option 1BN**.
- Supplies ANSI/NCSL Z540-1-1994 Certificate of Calibration with data (supersedes MIL-STD-45662B), **Option 1BP**.
- Supplies commercial calibration certificate with test data, **Option UK6**.

## Accessories Available

- **HP power sensor cables:**
  - 1.5 meters (5 ft) **HP 11730A**.
  - 3 meters (10 ft) **HP 11730B**.
  - 6.1 meters (20 ft) **HP 11730C**.
  - 15.2 meters (50 ft) **HP 11730D**.
  - 30.5 meters (100 ft) **HP 11730E**.
  - 61 meters (200 ft) **HP 11730F**.
- **Accessory pouch:**  
Holds accessories supplied or ordered: **HP 34161A**.
- **Basic instrument transit case:**  
Protects the power meter during transit: **HP 34131A**.

## Auxiliary Equipment

- **Range calibrator:**  
The **HP 11683A range calibrator** verifies the accuracy and linearity of the HP EPM power meters. Outputs corresponding to meter readings of 3, 10, 30, 100 and 300  $\mu\text{W}$  and 1, 3, 10, 30 and 100 mW are provided. Calibration uncertainty is  $\pm 0.25\%$  on all ranges.

## Literature Reference

EPM Power Meters and E-Series Power Sensors	Technical Specifications	5965-6382E
EPM Power Meters and E-Series Power Sensors	Awareness Brochure	5965-6380E
EPM Power Meters and E-Series Power Sensors	Computer Based Training	5965-6383E
HP Power Meters and Sensors	Power Products Selection Guide	5965-6629E
Fundamentals of RF and Microwave Power Measurements	Application Note 64-1A	5965-6630E

For more information on Hewlett-Packard Test and Measurement products, applications, services, and for a current sales office listing, visit our web site, <http://www.hp.com/go/tmdir>. You can also contact one of the following centers and ask for a test and measurement sales representative.

**United States:**

Hewlett-Packard Company  
Test and Measurement Call Center  
P.O. Box 4026  
Englewood, CO 80155-4026  
1 800 452 4844

**Canada:**

Hewlett-Packard Canada Ltd.  
5150 Spectrum Way  
Mississauga, Ontario  
L4W 5G1  
(905) 206 4725

**Europe:**

Hewlett-Packard  
European Marketing Centre  
P.O. Box 999  
1180 AZ Amstelveen  
The Netherlands  
(31 20) 547 9900

**Japan:**

Hewlett-Packard Japan Ltd.  
Measurement Assistance Center  
9-1, Takakura-Cho, Hachioji-Shi,  
Tokyo 192, Japan  
Tel: (81-426) 56-7832  
Fax: (81-426) 56-7840

**Latin America:**

Hewlett-Packard  
Latin American Region Headquarters  
5200 Blue Lagoon Drive  
9th Floor  
Miami, Florida 33126  
USA  
(305) 267 4245/4220

**Australia/New Zealand:**

Hewlett-Packard Australia Ltd.  
31-41 Joseph Street  
Blackburn, Victoria 3130  
Australia  
1 800 629 485

**Asia Pacific:**

Hewlett-Packard Asia Pacific Ltd.  
17-21/F Shell Tower, Times Square,  
1 Matheson Street, Causeway Bay,  
Hong Kong  
Tel: (852) 2599 7777  
Fax: (852) 2506 9285

**Data Subject to Change**

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