

# 1742/1746/1748

## 3 Phase Power Quality Logger

### *Safety Information*



**2-Year Limited Warranty.**

See the Users Manual for the full warranty.

Go to [www.fluke.com](http://www.fluke.com) to register your Product, read the User Manual, and find more information.

A **Warning** identifies conditions and procedures that are dangerous to the user.

#### **Warning**

**To prevent possible electrical shock, fire, or personal injury:**

- **Read all safety information before you use the Product.**
- **Do not alter the Product and use only as specified, or the protection supplied by the Product can be compromised.**
- **Comply with local and national safety codes. Use personal protective equipment (approved rubber gloves, face protection, and flame-resistant clothes) to prevent shock and arc blast injury where hazardous live conductors are exposed.**
- **Examine the case before you use the Product. Look for cracks or missing plastic. Carefully look at the insulation around the terminals.**
- **Replace the mains power cord if the insulation is damaged or if the insulation shows signs of wear.**
- **Use Product-approved measurement category (CAT), voltage, and amperage rated accessories (probes, test leads, and adapters) for all measurements.**



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- Do not use test leads if they are damaged. Examine the test leads for damaged insulation and measure a known voltage.
- Do not use the Product if it is altered or damaged.
- The battery door must be closed and locked before you operate the Product.
- Do not work alone.
- Do not make connections on hazardous live conductors in damp or wet environments.
- Do not use the Product around gas or vapor without the use of appropriate accessories.
- Protect the Product against direct solar radiation.
- De-energize the circuit or wear personal protective equipment (PPE) when you remove test leads and current probes installed outdoors because the insulation properties can be compromised by dust and moisture.
- Do not apply or remove test leads or current probes on energized circuits under wet conditions.
- All protection caps need to be attached or the ingress protection derates to IP40.
- Keep the seal on the battery door and interface protection cap clean.
- Do not exceed the Measurement Category (CAT) rating of the lowest rated individual component of a Product, probe, or accessory.
- Keep fingers behind the finger guards on the probes.
- Do not touch voltages >30 V ac rms, 42 V ac peak, or 60 V dc.
- Do not use a current measurement as an indication that a circuit is safe to touch. A voltage measurement is necessary to know if a circuit is hazardous.
- Do not apply more than the rated voltage, between the terminals or between each terminal and earth ground.
- Measure a known voltage first to make sure that the Product operates correctly.
- De-energize the circuit or wear personal protective equipment in compliance with local requirements before you apply or remove the flexible current probe.
- Disconnect from mains and measurement circuits before the battery door is opened.
- Do not use Ethernet or USB accessories when the Product is installed in environment with wires or exposed metal parts with hazardous live voltage such as in cabinets.
- Do not touch the metal parts of one test lead when the other is still connected to hazardous voltage.
- Do not short the battery terminals together.
- Do not disassemble or crush battery cells and battery packs.
- Do not put battery cells and battery packs near heat or fire. Do not put in sunlight.
- Have an approved technician repair the Product.

## Caution

Replace the rechargeable battery after 5 years of moderate use or 2 years of heavy use. Moderate use is defined as recharged twice a week. Heavy use is defined as discharged to cutoff and recharged daily.

## **Safety Specifications**

### 3 Phase Power Quality Logger

#### Temperature

Operating ..... -25 °C to +50 °C (-13 °F to +122 °F)  
*warm up the Product to -10 °C (+32 °F)  
before you turn on power*

Storage..... -25 °C to +60 °C (-13 °F to +140 °F)

#### Operating Humidity..... IEC60721-3-3: 3K6:

-25 °C to +30 °C (-13 °F to +86 °F): ≤100 %

40 °C (104 °F): 55 %

50 °C (122 °F): 35 %

#### Altitude

Operating..... 2000 m (up to 4000 m derate to 1000 V  
CAT II/600 V CAT III/300 V CAT IV)

Storage..... 12 000 m

**Battery** ..... Li-ion 3.7 V, 8.5 Wh, customer-replaceable

#### Temperature

Storage..... -20 °C to +50 °C (-4 °F to +122 °F)

Charge..... 0 °C to 45 °C (32 °F to 113 °F)

### **Safety**

General..... IEC 61010-1: Pollution Degree 2

Measurement ..... IEC 61010-2-030: CAT IV 600 V /  
CAT III 1000 V

Power Supply ..... Overvoltage Category IV,  
Pollution Degree 2

#### Mains Adapter

MA-C8 ..... CAT II 300 V

## **Electromagnetic Compatibility (EMC)**

International..... IEC 61326-1: Industrial

CISPR 11: Group 1, Class A

*Group 1: Equipment has intentionally generated and/or uses conductively-coupled radio frequency energy that is necessary for the internal function of the equipment itself.*

*Class A: Equipment is suitable for use in all establishments other than domestic and those directly connected to a low-voltage power supply network that supplies buildings used for domestic purposes. There may be potential difficulties in ensuring electromagnetic compatibility in other environments due to conducted and radiated disturbances.*

*Emissions that exceed the levels required by CISPR 11 can occur when the equipment is connected to a test object.*

Korea (KCC)..... Class A Equipment (Industrial  
Broadcasting & Communication  
Equipment)

*Class A: Equipment meets requirements for industrial electromagnetic wave equipment and the seller or user should take notice of it. This equipment is intended for use in business environments and not to be used in homes.*

USA (FCC) ..... 47 CFR 15 subpart C.

## **Wireless Radio with USB/WiFi or USB/WiFi + BLE Adapter** (optional accessory)

Frequency Range..... 2412 MHz to 2462 MHz

Output Power ..... <100 mW

## Symbols

Symbol	Description
	WARNING. RISK OF DANGER.
	WARNING. HAZARDOUS VOLTAGE. Risk of electric shock.
	Consult user documentation.
	Double Insulated
	Earth
	Battery
<b>CAT II</b>	Measurement Category II is applicable to test and measuring circuits connected directly to utilization points (socket outlets and similar points) of the low-voltage MAINS installation.
<b>CAT III</b>	Measurement Category III is applicable to test and measuring circuits connected to the distribution part of the building's low-voltage MAINS installation.
<b>CAT IV</b>	Measurement Category IV is applicable to test and measuring circuits connected at the source of the building's low-voltage MAINS installation.
	Conforms to European Union directives.
	Certified by CSA Group to North American safety standards.
	Conforms to relevant South Korean EMC standards.
	Conforms to relevant Australian EMC standards.
	Conforms to the Appliance Efficiency Regulation (California Code of Regulations, Title 20, Sections 1601 through 1608), for small battery charging systems.
 <b>Li-ion</b>	This product contains a Lithium-ion battery. Do not mix with the solid waste stream. Spent batteries should be disposed of by a qualified recycler or hazardous materials handler per local regulations. Contact your authorized Fluke Service Center for recycling information.
	This product complies with the WEEE Directive marking requirements. The affixed label indicates that you must not discard this electrical/electronic product in domestic household waste. Product Category: With reference to the equipment types in the WEEE Directive Annex I, this product is classed as category 9 "Monitoring and Control Instrumentation" product. Do not dispose of this product as unsorted municipal waste.