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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

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BP290/BP291

Li-ion Battery Pack

Instruction Sheet

Introduction

BP290 and BP291 are Li-ion battery packs for use in the Fluke 190 Series II ScopeMeter Test Tools, the Fluke 430-II Power Quality Test Tools, and other portable Fluke test tools. Check the users manual of your test tool for compatibility. Within the battery pack, a microcontroller keeps record of the charge condition of the battery and an LED indicator is provided that informs you about the actual charge condition. The indicator has four LEDs and a test button.

The battery charges when installed in the test tool or with the external charger EBC290. To replace the battery in your test tool, see the users manual for the test tool.

These battery packs have been tested in accordance with and comply to:

- UN Manual of Tests and Criteria Part III Subsection 38.3 (ST/SG/AC.10/11/Rev.5) – also known as the UN T19.T8 tests
- IEC62133
- DOT/IATA

Contacting Fluke

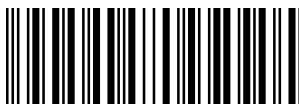
To contact Fluke, call one of the following telephone numbers:

- Technical Support USA: 1-800-44-FLUKE (1-800-443-5853)
- Calibration/Repair USA: 1-888-99-FLUKE (1-888-993-5853)
- Canada: 1-800-36-FLUKE (1-800-363-5853)
- Europe: +31 402-675-200
- Japan: +81-3-6714-3114
- Singapore: +65-6799-5566
- Anywhere in the world: +1-425-446-5500

PN 4707531

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Or, visit Fluke's website at www.fluke.com.

To register your product, visit <http://register.fluke.com>.

To view, print, or download the latest manual supplement, visit <http://us.fluke.com/user/support/manuals>.

Safety Information

A Warning identifies conditions and procedures that are dangerous to the user. A Caution identifies conditions and procedures that can cause damage to the Product or the equipment under test.







⚠⚠ Warning

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

- **Read all safety information before you use the battery.**
- **Use the battery only as specified, or the protection supplied by the battery can be compromised.**
- **Remove the battery if not used for an extended period of time, or if stored in temperatures >50 °C. If the battery is not removed, battery leakage can damage the test tool.**
- **The battery door must be closed and locked before you operate the test tool.**
- **Carefully read all instructions in this instruction sheet.**
- **Do not use the battery around explosive gas, vapor, or in damp or wet environments.**
- **Do not use the battery if it operates incorrectly.**
- **Examine the case before you use the test tool. Look for cracks or missing plastic. Carefully look at the insulation around the terminals.**
- **Do not use the battery if it is damaged.**
- **Remove all probes, test leads, and accessories from the test tool before the battery door is opened.**
- **Batteries contain hazardous chemicals that can cause burns or explode. If exposure to chemicals occurs, clean with water and get medical aid.**
- **Do not disassemble the battery.**
- **Use only Fluke approved power adapters to charge the battery.**
- **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.**
- **Use only specified replacement parts.**

Symbols

The table below lists the symbols used on the Product and in this instruction sheet.

Symbol	Description
	Risk of Danger. Important information. See Instruction Sheet.
	WARNING. HAZARDOUS VOLTAGE. Risk of electric shock.
	Conforms to European Union directives.
	Certified by CSA Group to North American safety standards.
 Li-ion	This product contains a Lithium-ion battery. Do not mix with 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.

Before You Start

Your shipment includes:

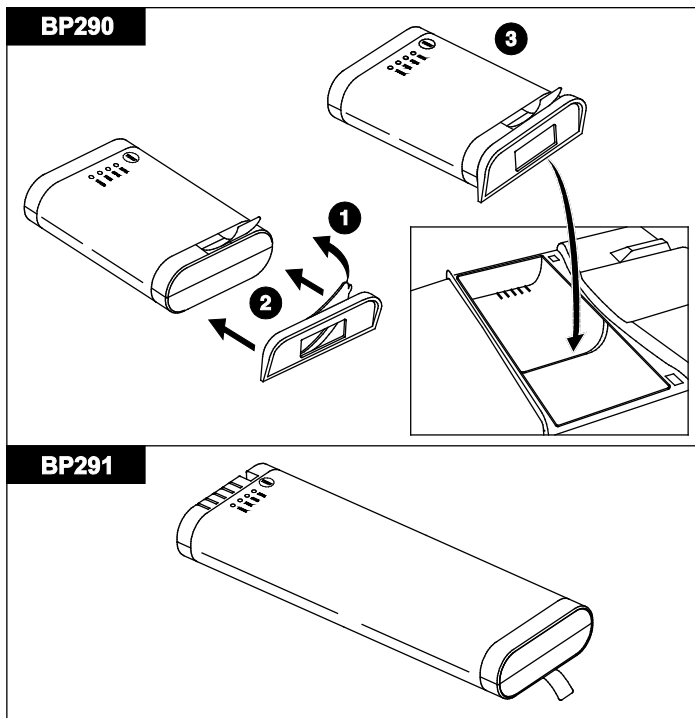
- BP290 or BP291 Battery Pack
- Support plate with self-adhesive tape (for BP290 only)
- Instruction Sheet (this document)

Carefully check the contents of your shipment. If content is damaged or missing, contact your distributor or the nearest Fluke sales or service office.

Instructions

To use the BP290 with a 190 Series II ScopeMeter or 430-II Power Quality Analyzer:


1. Carefully check for proper positioning of the support plate before you remove the protective layer from the self-adhesive side of the support plate. See ❶ in figure.
2. Install the support plate on the battery pack ❷.
3. Place the battery with the support plate into the groove of the battery compartment. Press firmly to make sure the battery is placed correctly ❸.



The BP291 does not need any modification before you install the battery pack into the test tool.

The battery pack has an indicator with four LEDs (25 %, 50 %, 75 %, and 100 % charge) and a test button.

To check the battery charge:

1. Push . The LEDs light to show the battery charge level.

If all four LEDs are on, the battery charge is at 100 % of capacity.

Specifications

Battery

BP290.....	Li-ion, 10.8 V, 2500 mAh, 27 Wh configuration 3ICR19/66
BP291.....	Li-ion, 10.8 V, 5000 mAh, 54 Wh configuration 3ICR19/66-2

Equivalent lithium content

BP290.....	2.34 g
BP291.....	4.68 g

Safety..... Pollution Degree 2

Temperature

Operating.....	0 °C to +50 °C (charging may slow or stop at environmental temperatures >40 °C)
Storage.....	-20 °C to +60 °C
Recommended Storage Temperature.....	<35 °C

Humidity 0 °C to 10 °C noncondensing
10 °C to 30 °C @ 95 % (±5 %) rh
30 °C to 40 °C @ 75 % (±5 %) rh

Altitude 3000 m

Weight

BP290.....	175 g
BP291.....	330 g

Dimensions

BP290.....	22 mm x 85 mm x 59 mm
BP291.....	22 mm x 150 mm x 59 mm

Service Centers

To locate an authorized service center, go to www.fluke.com.

LIMITED WARRANTY AND LIMITATION OF LIABILITY

This Fluke product will be free from defects in material and workmanship for one year from the date of purchase. This warranty does not cover fuses, disposable batteries, or damage from accident, neglect, misuse, alteration, contamination, or abnormal conditions of operation or handling. Resellers are not authorized to extend any other warranty on Fluke's behalf. To obtain service during the warranty period, contact your nearest Fluke authorized service center to obtain return authorization information, then send the product to that Service Center with a description of the problem.

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