

FLUKE®

THE LOW WEIGHT, SMALL SIZE, ONE-TOUCH SOLUTION



**Portable
appliance
testing**

**The Fluke 6000-2
PAT Testers**

Fluke 6200-2 and 6500-2

TEST MORE

APPLIANCES

PER DAY

The Fluke 6200-2 and 6500-2 PAT testers verify the electrical safety and operation of portable appliances in accordance with relevant guidelines and regulations. With powerful auto test capabilities and simplified controls—including 'one touch' test routines—they increase the number of tests you can perform per day without compromising results.



Lightweight all-in-one PAT testers

The Fluke PAT testers are designed and built with the same rugged reliability as all Fluke test and measurement instruments. Lightweight (approx. 3 kg) and compact, they will withstand the tough demands of working in the field. Packed with all the features you need for testing portable appliances on-site, Fluke PAT testers provide a complete all-in-one solution.



6200-2

- Dedicated key for each test for 'one-touch' testing
- Pre-set pass/fail levels to save time
- Large display for easy reading
- Single mains socket for appliance connection
- Separate IEC socket for easy mains/extension lead testing
- Detachable test leads for quick field replacement
- Integral carrying handle

A choice of automatic and manual PAT testers

The user-friendly Fluke 6200-2 and 6500-2 PAT testers perform all the tests required for class I and class II appliances. Both models conform to safety standard EN61010-1. For manual testing and low volume applications, choose the cost-effective 6200-2 PAT model. If you need a more powerful instrument to test large numbers of appliances, the 6500-2 is the right choice with its wide range of pre-set tests, memory for storing, USB for transferring test results and professional test modes.



6500-2

As 6200-2 but also with:

- Integral QWERTY keyboard for rapid data entry
- Memory for back-up data storage and USB port for transfer to PC
- Large backlit graphics display
- Pre-set, auto-test sequences for user convenience
- Integral site, location and description codes for faster data processing
- Memory review facility for more on-site control

Portable appliance testing MADE SIMPLE

Compact and lightweight

Efficient to work with and easy to carry around—and with extra space in the hard case for accessories.

One touch simplicity

Pre-set and user-definable test routines are initiated from a single button—to speed up test procedures and save you time on site.

A better way of working

Rapid data entry via a QWERTY keyboard (or optional Fluke barcode scanner) and fast data transfer from the main memory or via USB (6500-2).



Separate hard case

The compact Fluke PAT testers are supplied with a hard carrying case that not only offers protection during transit but also includes extra storage space for accessories and other tools. The PAT testers are extremely light, weighing approximately 3 kg (without case) and have integral carrying handles for extra convenience.



Performs all PAT tests

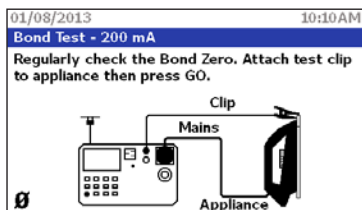
Suitable for testing both 230V and 110V appliances, the 6200-2 and 6500-2 models run all the required safety tests:

- Earth bond low (low/high current)
- Insulation 500 V, 250 V
- Leakage (PE current, touch current, substitute current)
- Can test 110 V appliances (earth bond, insulation) via the 110 V adapter kit



LESS TIME PER TEST

The latest generation Fluke 6200-2 and 6500-2 instruments have been designed to enable you to work more efficiently—and therefore faster—without compromising on your own safety or your customer's. Increase your productivity thanks to:



Fast professional testing mode

The professional testing mode enables you to conduct more tests faster and more efficiently than ever before.

Rapid data entry (6500-2)

With a full QWERTY keyboard, alphanumeric data entry is faster, easier and more convenient. The integral site, location and description codes further speed up data entry on site, and contribute to more efficient testing and results management. Data can also be entered using the Fluke barcode scanner (Fluke SPSCAN 6000).

One-touch testing

Tests are selected on the 6200-2 and 6500-2 with just one button. This greatly simplifies testing.



Plenty of memory (6500-2)

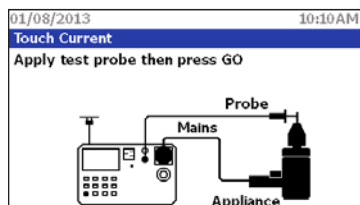
The 6500-2 stores in excess of 1000 test results in its main memory. These can be written to the USB drive for back-up.

Data can be sent to the office for generating customer reports while the instrument continues with a cleared memory in the field. The 6200-2 has a built-in internal memory for storing results for use in reports.

*using optional FlukeDMS software

Large display

The graphics display on the 6500-2 shows informative help screens and detailed data formats to enhance the user friendliness of the instrument. The 6200-2 has a large static display to make it easy to read.



Built-in handle and separate hard case

The strong, lightweight enclosure features an integral carrying handle and fits neatly into the separate hard case (supplied as standard). Unlike typical PAT testers with large cumbersome integral cases, the Fluke 6200-2 and 6500-2 are easier to carry around in the field.

Designed for LONG LIFE and HIGH THROUGHPUT

The introduction of the Fluke 6200-2 and 6500-2 PAT testers represents a significant step forward in the practice of appliance safety testing and reporting. The ergonomic and easy-to-use design of the 6000-2 Series PAT testers embraces all of this experience to bring you the best instruments available and deliver real end-user benefits.



Quick connections

The single mains socket for the test appliances minimises plug swapping, while the built-in IEC socket simplifies the testing of separate mains and extension leads.



Pluggable test leads

The test leads are detachable so they can be easily replaced in the field if they become damaged or worn due to extensive use.

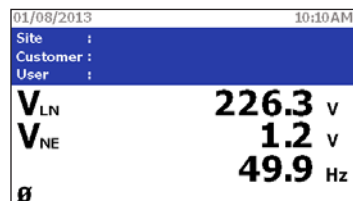
Features and specifications

			
Measurement functions		6200-2	6500-2
LN mains volts		•	•
Outside limits indicators		•	•
Null out facility for earth bond lead		•	•
Protective earth resistance PE (200 mA)		•	•
Protective earth resistance PE (25 A)		•	•
Insulation 500 V dc		•	•
Insulation 250 V dc			New
Protective earth conductor current		•	•
Touch current		•	•
RCD test			New
Substitute leakage current		•	•
Appliance power kVA		•	•
Appliance load current		•	•
Seven segment custom LCD		•	•
Color dot matrix display			New
Back light		•	•
USB port for printing		New	New
USB flash drive port (storage and download)			New
External printer output		•	•
Front panel QWERTY key pad			•
IEC lead test		•	•
Auto-testing			•
Pass/Fail level programmable indicators			•
Data storage			•
Limited data storage		•	
Polarity checks			•
Graphical help menu on line			•
Programme mode			•
Real time clock			•
Front panel results management			•
230 V test socket/230 V mains input power plug		•	•
110 V appliance test compatible with adapter			New

Mechanical and general specifications		
Size (LxWxH)		200 mm x 275 mm x 114 mm
Weight		3.13 kg
Power supply		230 V +10 % -15 %, 50 Hz $\pm$ 2 Hz or (6500-2 only: 110 V +10 % -15 %, 50 Hz $\pm$ 2 Hz)
Power consumption (Tester)		13 W typical (idle) 60 W max. during 25 A Bond Test
Storage	Temperature	-10 °C to 60 °C
	Corrosion	70 °C @ 95 % RH for 5 days max.
Operating temperature		0 °C to 40 °C
Operating altitude		0 up to 2000 m
Relative humidity		Non condensing < 10 °C 95 % from 10 °C to 30 °C 75 % from 30 °C to 40 °C
Sealing		IP40 (enclosure), IP20 (connectors)
EMC		Complies with EN61326-1, Portable
EMI immunity		3 V/m
Safety rating		Complies with EN61010-1 3rd edition CAT II, 300 V, pol 2 German version only: DIN VDE0404-1 and DIN VDE0404-2 IEC/EN 61557, part 1, 2, 4, 6, 10 CAT II, 300 V, pol 2

Test specifications

The accuracy specification for the display range is defined as $\pm$ (% reading + digit counts) at $23\text{ }^{\circ}\text{C} \pm 5\text{ }^{\circ}\text{C}$, $\leq 75\%$ RH. Between $0\text{ }^{\circ}\text{C}$ and $18\text{ }^{\circ}\text{C}$ and between $28\text{ }^{\circ}\text{C}$ and $40\text{ }^{\circ}\text{C}$, accuracy specifications may degrade by $0.1 \times$ (accuracy specification) per $^{\circ}\text{C}$. The measurement range meets the service operating errors specified in EN61557-1: 1997, EN61557-2: 1997, EN61557-4: 1997, EN61557-6: 1997, DIN VDE0404-2.



Power-on test

The test indicates reversed L-N, missing PE, and measures the mains voltage and frequency.

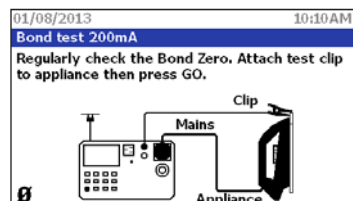
Display range: 90 V to 264 V

Accuracy at 50 Hz: $\pm (2\% + 3 \text{ counts})$

Resolution: 0.1 V (1V - model 6200)

Input impedance: $> 1 \text{ M}\Omega // 2.2 \text{ nF}$

Maximum input mains voltage: 264 V



Earth bond test (R_{pe})

Display range: 0 to 19.99 Ω

Accuracy (after Bond Test zeroing):

$\pm (2.5\% + 4 \text{ counts})$

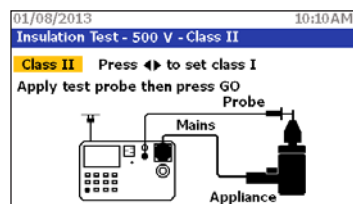
Resolution: 0.01 Ω

Test current: 200 mA ac $-0\% +40\%$ into 1.99 Ω

25 A ac $\pm 20\%$ into 25 m Ω at 230 V

Open circuit voltage: $> 4 \text{ V ac}$, $< 24 \text{ V ac}$

Bond test zeroing: Can subtract up to 1.99 Ω



Insulation test (R_{iso})

Display range: 0 to 299 M Ω

Accuracy: $\pm (5\% + 2 \text{ counts})$ from 0.1 M Ω to 50 M Ω

$\pm (10\% + 2 \text{ counts})$ from 50 M Ω to 299 M Ω

Resolution: 0.01 M Ω (0 to 19.99 M Ω)

0.1 M Ω (20 M Ω to 199.9 M Ω)

1 M Ω (200 M Ω to 299 M Ω)

Test voltage: 500 V dc $-0\% +25\%$ at 500 k Ω load or

(6500-2 only) 250 V dc $-0\% +25\%$ at 250 k Ω load

Test current: $> 1 \text{ mA}$ at 500 k Ω load, $< 15 \text{ mA}$ at 0 Ω

Auto discharge time: $< 0.5 \text{ s}$ for 1 μF

Max. capacitive load: Operational up to 1 μF

Touch current test

Display range: 0 to 1.99 mA ac

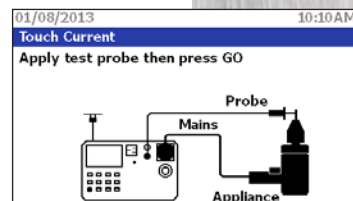
Accuracy: $\pm (4\% + 2 \text{ counts})$

Resolution: 0.01 mA

Internal resistance (via probe): 2 k Ω

Measuring method: Probe

The appliance under test is energized at mains potential.



Substitute leakage current

Display range: 0 to 19.99 mA ac

Accuracy: $\pm (2.5\% + 3 \text{ counts})$

Resolution: 0.01 mA

Test voltage: 100 V ac $\pm 20\%$

Operational error: 10 %

RCD Test: trip current (6500-2 only)

Operational error: $\pm 10\%$

Nominal: 30 mA

Accuracy: $\pm 5\%$

RCD Test: trip time (6500-2 only)

Standard requirement:

61557 Part 6; tolerance of rated test

current 0 % to $+10\%$

Operational error: $\pm 10\%$

RCD type: AC general purpose 30 mA

Display range: 310 ms

Resolution: 0.1 ms

Accuracy: 3 ms

Trip time limit at 100 % (30 mA): 300 ms

Trip time limit at 500 % (150 mA): 0 ms

Load/Leakage test: load current

UK Display range: 0 to 13 A

Accuracy: $\pm (4\% + 2 \text{ counts})$

Resolution: 0.1 A

The appliance under test is energized at mains potential.

AU Display range: 0 to 10 A

Accuracy: $\pm (4\% + 2 \text{ counts})$

Resolution: 0.1 A

The appliance under test is energized at mains potential.

Load/Leakage test: load power display range 230 V mains

UK: 0.0 VA to 3.2 kVA

AU: 0.0 VA to 2.4 kVA

Accuracy: $\pm (5\% + 3 \text{ counts})$

Resolution: 1 VA (0 to 999 VA), 0.1 kVA ($> 1.0 \text{ kVA}$)

The appliance under test is energized at mains potential.

Load/Leakage test: Leakage current

Display range: 0.25 mA to 19.99 mA

Accuracy: $\pm (4\% + 4 \text{ counts})$

Resolution: 0.01 mA

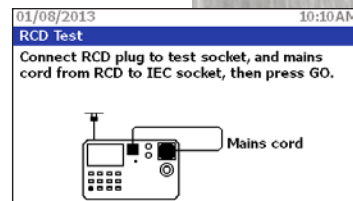
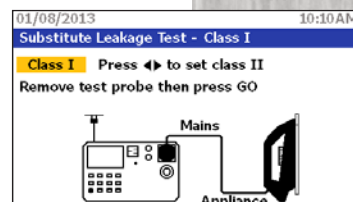
The appliance under test is energized at mains potential.

PELV test

Accuracy at 50 Hz: $\pm (2\% + 3 \text{ counts})$

Overload protection: 300 V rms

Warning threshold: 25 V rms



Accessories

DMS software (optional)

Fluke DMS software substantially extends the capability of your PAT Tester. Fluke DMS is a powerful windows based PAT data management and reporting software that is ideal for applications where a large number of appliance test are required or where you need to submit customized and professional client reports. You can add your own logo if desired. The software is easy to use and comes with a detailed user manual.

Accessory items (included with product)	6200-2	6500-2
Test lead	•	•
Test probe	•	•
Crocodile clip	•	•
Mains cord	•	•
Storage case	•	•
USB stick		•
USB cable		•
Accessories (Optional)		
EXTL100, Extension Lead Test Adaptor	•	•
SPSCAN6000, Barcode Scanner		•
SP6000, Mini Printer	•	•
PASS560R, Appliance Pass Labels	•	•
FAIL100s, Appliance Fail Labels	•	•
APP1000, Barcode Appliance Number	•	•
LABELS 0 - 1000	•	•
IRP1, Register for pat (log book)	•	•
FlukeDMS Software	•*	•
110 V Adaptor	•	•
*Requires manual data entry		

Special PAT Kits

If you need a complete PAT tester solution, two purpose made kits are available.



Fluke 6200-2 UK/Kit contains:

- 6200-2 Mainframe
- EXTL 100, Extension Lead Test Adaptor
- Pass 560R, Appliance Pass Labels
- Fail 100s, Appliance Fail Labels
- IRP1, Register for PAT (Log Book)

Fluke 6500-2 UK/Kit contains:

- 6500-2 Mainframe
- EXTL 100, Extension Lead Test Adaptor
- SP Scan 15, Barcode Scanner
- Fluke FlukeDMS Software
- Pass 560R, Appliance Pass Labels
- Fail 100s, Appliance Fail Labels
- APP 1000, Barcode Appliance Number Labels

(Kit configuration and contents vary by region.)

Fluke. *The Most Trusted Tools in the World.*

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Data subject to alteration without notice.
Printed in U.S.A. 11/2013 6000095A_EN
Pub_ID: 10891-eng
Rev. 03

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