# Fluke 6200 and 6500

# Test more appliances per day

The Fluke 6200 and 6500 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 compromizing results.

# Lightweight all-in-one PAT testers

The new Fluke PAT testers are designed and built with same rugged reliability as all Fluke test and measurement instruments. Lightweight (appr. 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

- · Dedicated key for each test for 'one-touch' testing
- Pre-set pass/fail levels to save time
- · Large backlit 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 and 6500 PAT testers perform all the tests required for class I and class II appliances. Both models conform to safety standard EN61010. For manual testing and low volume applications, choose the cost-effective 6200 PAT model. If you need a more powerful instrument to test large numbers of appliances, the 6500 is the right choice with its wide range of pre-set tests, Compact Flash memory for storing and transferring test results and professional test modes.



# 6500

As 6200 but also with:

- Integral QWERTY keyboard for rapid data entry
- Additional Compact Flash memory card for back-up data storage and 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

# Fluke simplifies portable appliance testing

# Compact and lightweight...

Efficient to work with and easy to carry around
and has 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 the Compact Flash memory card (6500)



# 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. They're extremely light, weighing approximately 3 kg (without case) and have integral carrying handles for extra convenience.

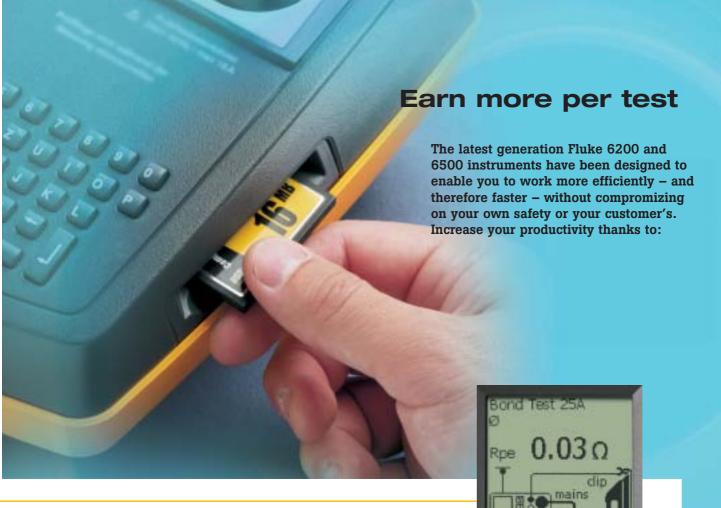
# **Performs all PAT tests**

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

- Earth bond low (low/high current)
- Insulation 500 V
- Leakage (PE current, touch current, substitute current)
- Can test 110 V appliances (earth bond, insulation) via the 110 V adapter (Fluke TA700)







# 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)

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 15).

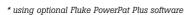
# Double memory (6500)

The 6500 stores in excess of 1000 test results in its main memory. These can be written to the Compact Flash card for back-up.

A Compact Flash memory card stores alphanumeric data and test results using ultra-reliable solid-state memory. The card can be sent to the office for generating customer reports\* while the instrument continues with another card in the field. The 6200 has a built-in internal memory for storing results for use in reports.

# One-touch testing

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









# The introduction of the Fluke 6200 and 6500 PAT testers represent a significant step forward in the practice of appliance safety testing and reporting. Via its subsidiary companies, Fluke has acquired many years' experience in providing PAT testing solutions. The ergonomic and easy-to-use design of the new 6000 Series PAT testers embraces all of this experience to bring you the best instruments available and deliver real end-user benefits.

# Large backlit display

The graphics display on the 6500 shows informative help screens and detailed data formats to enhance the user friendliness of the instrument. The 6200 has a large static display to make it easy to read. Backlighting aids viewing in dimly lit areas.



# **Quick connections**

The single mains socket for the test appliances minimizes 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 intensive use.



# 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 and 6500 are easier to carry around in the field.



# Features by model

Measurement functions	6200	6500
L N Mains Volts	•	•
Outside Limits Indicators	•	•
Null out facility for earth bond lead	•	•
Protective Earth Resistance PE (200mA)	•	•
Protective Earth Resistance PE (25A)	•	•
Insulation 500V dc	•	•
Protective Earth Conductor Current	•	•
Touch Current	•	•
Substitute Leakage Current	•	•
Appliance Power kVA	•	•
Appliance Load Current	•	•
Seven Segment Custom LCD	•	
Graphical LCD		•
Back Light	•	•
Compact Flash Card receptacle		•
Downloads to a PC		•
External printer output (serial port)	•	•
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		•
230V BS1363 Test socket / 230V Mains BS1363 input power plug	•	•

# **Specifications**

# General Specifications (model 6200 and 6500)

Size	200 mm (L) x 275 mm (W) x 100 mm (H)
Weight	3 kg
Power Supply	230 V + 10 % - 15 %, 50 Hz $\pm$ 2 %
Power Consumption	13 W typical (idle)
(Tester)	60 W max. during 25A Bond Test
Operating temperature	0 to 40 °C
Storage	
Temperature	-10 to 60 °C

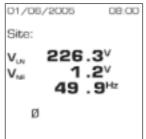
Relative Humidity	
	non condensing < 10 °C
	95% from 10 to 30 °C
	75% from 30 to 40 °C
Operating Altitude	0 up to 2000 m
Sealing	IP-40 (enclosure)
	IP-20 (connectors)
EMC	complies with EN61326-1, criteria B
EMI Immunity	3 V/m
Safety	Complies with EN61010-1 2nd edition
	CAT II, 300 V, pol 2

# **Test Specifications**

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

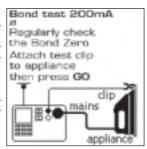
# **Power-on Test**

Display Range	90 V to 264 V
Accuracy at 50 Hz	$\pm$ ( 2% + 3 counts)
Resolution	0.1 V (1V - model 6200)
Input Impedance	$> 1 \text{ M}\Omega$ // 2.2 nF
Maximum Input	300 V
Mains Voltage	



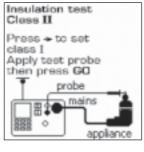
# Earth Bond Test (Rpe)

Display Range	0 to 19.99 Ω
Accuracy (after	$\pm$ ( 2.5% + 4 counts)
Bond Test zeroing)	
Resolution	0.01Ω
Test Current	200 mA ac -0% +40%
	into $1.99\Omega$
	25 A ac ± 20 % into 25
	mΩ at 230 V
Open Circuit Voltage	> 4 V ac, < 24 Vac
Bond Test Zeroing	can subtract up to $1.99\Omega$
•	



# Insulation Test (R<sub>iso</sub>)

Display Range	0 to 299 MΩ
Accuracy	$\pm$ (5% + 2 counts) from
_	0.1 to 300 MΩ
Resolution	0.01 MΩ (0 to 19.99 MΩ)
	0.1 M $\Omega$ (20 to 199.9 M $\Omega$ )
	1 MΩ (200 to 299MΩ)
Test Voltage	500 V dc -0 % +10 % at
· ·	500 kΩ load
Test Current	$>$ 1 mA at 500 k $\Omega$ load,
	$<$ 15 mA at $0\Omega$
Auto discharge	< 0.5 s for 1 μF
time	·
Max. Capacitive	operational up to 1 µF
Load	



# Load/ Leakage Test: Load Current

Display Range	0 to 13 A
Accuracy	± (4% + 2 counts)
Resolution	0.1 A

The appliance under test is energized at mains potential.

# Load/Leakage Test: Load Power

Display Range	0 to 999 VA
	1.0 kVA to 3.2 kVA
Accuracy	$\pm$ (5% + 3 counts)
Resolution	1 VA (0 to 999 VA)
	0.1 kVA (1.0 kVA to 3.2 kVA)

The appliance under test is energized at mains potential.

# Load/Leakage Test: Leakage Current

Display Range	0.25 to 19.99 mA
Accuracy	$\pm$ (4% + 4 counts)
Resolution	0.01 mA

The appliance under test is energized at mains potential.

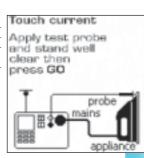
# PELV Test

Accuracy at 50 Hz	$\pm$ ( 2% + 3 counts)
Overload protection	300 Vrms
Warning threshold	25 Vrms

# **Touch Current Test**

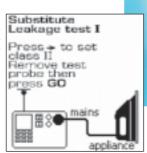
Display Range	0 to 1.99 mA ac
Accuracy	$\pm$ (4% + 2 counts)
Resolution	0.01 mA
Internal Resistance	2 k Ω
(via probe)	
Measuring method	Probe

The appliance under test is energized at mains potential.



# **Substitute Leakage Current Test**

Display Range	0 to 19.99 mA ac
Accuracy	$\pm$ (2.5% + 3 counts)
Resolution	0.01 mA
Test Voltage	35 V ac ± 20%





# **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 customised & professional client reports. You can add your own logo if desired. The software is easy to use and comes supplied on a CD Rom complete with a detailed user manual.

Accessory items (included with product)	6200	6500
Test lead	•	•
Test probe	•	•
Crocodile clip	•	•
Mains cord	•	•
Storage case	•	•
Accessories (Optional)	6200	6500
EXTL100,EXTENSION LEAD TEST ADAPTOR	•	•
SP-SCAN-15, Barcode scanner		•
SP1000, MINI PRINTER	•	•
PASS56OR, APPLIANCE PASS LABELS	•	•
FAIL 100s, APPLIANCE FAIL LABELS	•	•
APP1000, BARCODE APPLIANCE NUMBER		•
LABELS 0 - 1000		
IRP1, REGISTER FOR PAT ( LOG BOOK)	•	•
Fluke PowerPat Plus software	•*	•
TA700 110V adaptor	•	•

<sup>\*</sup> Requires manual data entry



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

# Fluke 6200 UK/Kit

# Contains:

- 6200 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 UK/Kit

# Contains:

- 6500 Mainframe
- EXTL 100, Extension lead test adaptor
- SP Scan 15, Barcode scanner
- Fluke PowerPat plus Software
- Pass 560R, Appliance pass labels
- Fail 100s, Appliance fail labels
- APP 1000, Barcode appliance number labels



