

# PAT4 DV/3 and DVF/3 Portable Appliance Tester



- **Fast Testing**
- **Tests 110 V, 230 V and IT equipment**
- **Full Test capabilities (Flash Test on PAT4DVF only)**
- **Compatible with latest IEE Code of Practice**
- **Extension Lead Testing**
- **QWERTY keyboard**
- **10-Year Real Time Clock**
- **Integral Database**
- **Parallel Printer Port**
- **RS232 Communication**
- **Backlight**

## DESCRIPTION

The Mk3 Versions of PAT4 are compatible with all issues of the IEE Code of Practice for In-service Inspection and Testing of electrical equipment.

PAT4DV/3 & PAT4DVF/3 speed testing by working the way you work. PAT4 is quicker to start, test, download and upload. Full Appliance and Client details are stored along with test results. New Appliances may be added as and where you find them.

The combination of Quick Boot, Auto Restart, Real Time Clock, Group Test Codes, Quick Check and Instant Certification will save you up to 50% of your time, resulting in increased efficiency, improved productivity and increased profits for your company compared to other testers.

PAT4 is engineered to maintain data integrity and traceability with storage for up to 1000 assets, 1000 sets of current test results, 1000 sets of historical test results, 10 clients, 20 locations and 50 group test codes at the same time.

PAT4 is designed to minimise the time taken to test electrical appliances. We believe that PAT4 is the fastest downloading portable appliance tester available on the market today.

### **Boots up in 5 seconds!**

Some pats take 30 seconds or more to start up, time that could be used carrying out tests. PAT4 quick boots in only 5 seconds.

### **Auto restart facility!**

You need to move your pat as you test appliances. PAT4 auto restart returns you to the point you were at when you switched off, in only 5s.

### **Clock set for 10 years!**

No need to set the clock every time you restart PAT4. PAT4's real-time clock stays correct for ten years.

Each test is time and date stamped to provide traceability.

### **Plain & Simple Operation!**

The PAT4 has a full QWERTY keyboard for rapid data entry.

### **No complicated test codes!**

Many pats use complicated codes to control test routines. PAT4 uses group test codes in plain English that define test routines, test duration and pass bands.

### **Direct entry of new details!**

PAT4 allows you to enter new appliance and repair details directly into memory, complete with location, description, voltage and group test code. All details may be downloaded to PowerSuite for Windows™ or other suitable software. No more work is needed.

### **Built in Fuse Check!**

If you suspect a blown fuse you no longer need a multimeter. PAT4 has a built in fuse check.

## QUICK CHECK

When repairs have been completed, PAT4 will carry out a single test to check the effectiveness of the repair. There is no need to complete a full test routine when only a quick check is required.

## USER SELECTABLE TEST DURATION

To prevent test results varying because of different test durations, you can set the test duration for each test.

## OPTIONAL USER DEFINED ACCESS

PAT4 gives you options to restrict access to the operation of the instrument for up to 10 authorised users. Each user can be allocated their own name and password.

## REPAIR CODES

PAT4 can reference up to 99 repair codes allowing you to quickly record repair details against appliance tests. When used with PowerSuite, this information will allow charges to be made for appliance repairs.

## DEGRADATION WARNING

PAT4 incorporates a historic data facility, which enables previous test results, uploaded from PowerSuite, to be viewed at the time of testing. This enables you to identify degradation in the appliance since its last test.

## AUTO OR MANUAL MODE

Pass / Fail decisions can be made manually or you can set limits for each test and let PAT4 make the decision based on the measurement.

## SEARCH ROUTINES

Powerful in-built search routines allow you to search PAT4's database by Asset ID, Retest due date, Test Group Code, by Room within Location and by Location within Client.

## CLIENTS AND LOCATIONS

PAT4 uniquely holds details of Clients and Locations. Unique Appliance IDs and details are held separately for each client. Thus, appliances may be tracked easily if they move between locations.

## NOTE:

Please refer to the Megger Applications Department for recommended alternative 'results printers'

## SPECIFICATIONS

### Circuit Test

**Open Circuit Voltage:** 15 V a.c. typical  
**Short Circuit Current:** 100 mA a.c. typical

### Insulation Test

**Range:** 0 - 50 MΩ  
**Accuracy:** 5.0% ± 100 kΩ (≤ 20 MΩ)  
**Compliance:** 500 V d.c. at 0.5 MΩ  
**Pass Band Options:** 0.25, 0.3, 0.5, 1, 2, 4, 5, 7, 8, 10, 20, 50 MΩ

### Earth Bond Test

**Range:**  
 0 mΩ - 999 mΩ Resolution 1 mΩ  
 1000 mΩ - 1999 mΩ Resolution 10 mΩ  
**Accuracy:**  
 0 mΩ <R> 499 mΩ 5.0% ± 5 mΩ  
 500 mΩ <R> 1999 mΩ 5.0% ± 50 mΩ

**Open Circuit Voltage:** 10 V a.c. typical  
**Test Current:** 10 A or 25 A into 0.1 Ω typical  
**Pass Band Options:** 50, 100, 200, 300, 400, 500, 600, 750, 800 mΩ, 1.5, 2.0 Ω

### Earth Continuity Test

**Range:**  
 0 mΩ - 999 mΩ Resolution 1 mΩ  
 1.00 Ω - 9.99 Ω Resolution 10 mΩ  
**Accuracy:**  
 0 mΩ <R> 999 mΩ 5.0% ± 5 mΩ  
 1.00 Ω <R> 9.99 Ω 5.0% ± 10 mΩ  
**Open Circuit Voltage:** 4 V d.c. typical  
**Test Current:** 200 mA typical constant current (R ≤ 1 Ω)  
**Pass Band Options:** 50, 100, 200, 500, 750 mΩ, 1.0, 1.5, 2.0, 2.5, 5, 7.5, 10 Ω

### Operation Test (Energised from 230 V supply)

**Range:** 0 - 3.0 kVA  
**Accuracy:**  
 0 <VA > 99 VA 5.0% ± 5 VA  
 100 <VA > 999 VA 5.0% ± 10 VA  
 1.0 <kVA > 3.0 kVA 5.0% ± 100 VA  
**Reference:** Reading corrected to 230 V  
**Pass Band Options:** 50, 100, 200, 350, 500, 700, 1000, 1200, 1500, 2000, 2500, 3000 VA

### Operation Test (Energised from 110 V supply)

**Range:** 0 - 1.6 kVA (3 kVA short term)  
**Accuracy:**  
 0 <VA > 99 VA 5.0% ± 5 VA  
 100 <VA > 999 VA 5.0% ± 10 VA  
 1.0 <VA > 1.6 kVA 5.0% ± 100 VA  
**Reference:** Reading corrected to 110 V

**Pass Band Options:** 50, 100, 200, 350, 500, 700, 1000, 1200, 1500, 2000, 2500, 3000 VA

**Earth Leakage Test**

**Range:** 0 - 15 mA  
**Accuracy:**  $\pm 5.0\% \pm 100 \mu\text{A} @ 50 \text{ Hz} \pm 20\% @ 60 \text{ Hz}$

**Reference:** Reading corrected to 253/121 V (As if 10% High Supply)

**Pass Band Options:** 0.25, 0.5, 0.75, 1.0, 1.5, 2.0, 3.5, 5.0, 7, 7.5, 10, 15 mA

**Flash Test**

**Range:** 0 - 3 mA

**Accuracy:**  $\pm 5\% \pm 200 \mu\text{A}$

**Output Voltage:** Class 1 1500 V a.c. (typical)  
 Class 2 3000 V a.c. (typical)

**Output Current:** < 3.5 mA @ 253/121 V

**Pass Band Options:** 0.2, 0.3, 0.4, 0.5, 0.6, 0.75, 1.0, 1.2, 1.5, 2.0, 2.5, 3.0 mA

**Fuse Test**

**Open Circuit Voltage:** 5 V d.c. typical

**Test Current:** 500 mA short circuit typical

**Indication:** Audible using internal buzzer

**Extension Lead Test  
 Bond test (10 or 25 A)  
 Insulation test**

**Polarity test indicates:** Correct polarity  
 Crossed connections L/N  
 Short circuit L/N  
 Open circuit L/N

**On Board Database Specifications**

**Clients:** 10

**Locations:** 20

**Test Groups:** 50

**Users:** 10

**Appliances:**

1000 with the following data fields: ID, description, group, serial no, room, VA rating, last and next test dates, retest frequency and fuse rating + previous test results

**Supply Voltage**

**Mains supply:** 230 V: 207 - 253 V 50/60 Hz  
 110 V: 99 - 121 V 50 Hz

**Communications**
**9 way male 'D' RS232 connector:**

Interface to PC and optional Bar Code Scanner

**25 way female 'D' connector:**

Connection to parallel printer

**Safety Specifications**

The PAT4 complies with IEC 61010-1

**Electromagnetic Compatibility**

In accordance with IEC61326-1

**Physical Specifications**
**Weight (unpacked inc. std. accessories):**

6.0 kg (PAT4 DV/3)

6.9 kg (PAT4 DVF/3)

**Width (Including Handle and Lid):** 375 mm

**Depth:** 330 mm

**Height:** 200 mm

**ORDERING INFORMATION**

Item	Order Code	Item	Order Code
Portable Appliance Tester	PAT4 DV/3	"Safe Block" Adaptor Lead	6331-230
Portable Appliance Tester with Flash Test	PAT4 DVF/3	Adaptor for 110 V plug to 110 V socket Ext. Lead	6220-639
<b>Included Accessories</b>			
User Guide	6172-706	Adaptor for 13A plug to 13A socket Ext. Lead	6220-632
Earth Bond Test Lead	6231-043	110 V., 16 A. IEC supply Lead	6220-631
Mains Lead (230 V. 16 A.)	6121-282	Parallel Printer Lead	25970-024
Flash Test Probe (DVF only)	5310-401	"PAT Testing " Video (ii)	6131-999
Serial PC Download Lead	25955-025	"PowerSuite" Software	Various
<b>Optional Accessories</b>			
Bar Code Scanner 72mm	6231-623	Results Printer	25995-017
PAT Testing Labels	6171-418	Continuous Label Roll for 25995-017	25995-016
Earth Bond Probe	6320-225	Test labels (roll of 500)	6171-418
		1200 clear adhesive label covers (2"x1")	6220-610
		Barcode labels (4 rolls of 600 labels)	6121-570