PAT testing at a Repair Cafe

You have PAT training but not done it at a Repair Cafe? You're doing two things: safety testing repaired items, and meeting insurance and liability rules.

Record keeping is essential

The *item ID* is the booking code, so we can cross-check the records.

Fill in one full line on the page per item tested.

Visual test first

Check appropriate fuse in mains plug (usually 3, 5 or 13 A) and all cord grips and strain reliefs. Replace plug or fuse if needed.

No need to replace *undamaged* plug with uninsulated L,N pins, but most this old are damaged. No need to fail for a securely and safely repaired mains flex.

For separate power supplies (laptops, toys) only the power supply part needs to be tested.

The tester

This may be stored with one cell of its battery removed. Install that if necessary! Battery powered; the IEC plug is for testing extension leads, not to power the meter. To start, press *and hold* the two buttons for 2+ seconds.

All tests (Class **I**, class **II** and class **IIFE**) need to use the earth test probe.

The test

Class **II** (double insulated) *must use the tester earth lead* to any exposed metal (drill chuck) and to any likely failure points such as joints or repaired cracks in a plastic casing. Repeat test at various points as appropriate.

Test class **IIFE** and items with surge suppressors at 250 V, not 500 V. Test as class II if the tester doesn't have a button for IIFE.

Pass? The green sticker is optional, and ask the repairee where it should go (on the plug, on the bottom, round the back).

Fail? Always a red sticker and advice. Don't disable the item or insist it is immediately recycled.

Quick reference for pass limits

DC insulation	Class I	≥	1.0 MΩ
DC insulation	Class II	≥	2.0 MΩ
Leak current	I_{leak}	≤	5 mA
Earth resistance		≤	0.1Ω + R
R	0.5 mm²		39.0 mΩ/m
R	0.75 mm²		26.0 mΩ/m
R	1.0 mm²		19.5 mΩ/m
R	1.25 mm²		15.6 mΩ/m
R	1.5 mm²		13.3 mΩ/m