

110V Appliances

Using the Megger PAT4DV/3, the PAT300 series and PAT400 series, the testers need to be supplied by 110 V in order to perform an operations or leakage tests on 110 V appliances. This way, the PAT testers are lighter and cheaper to make, therefore better for the customer!

There is an adaptor (p/n 1000-766 pictured below) that will adapt your mains lead on your PAT tester so you can plug it into 110 V supply. So, with the PAT300s and 400s, you can just plug the fixed mains lead into this adaptor, then into the 110 V supply. The PAT4DV/3, you have the option of buying the 110 V mains lead (p/n 6220-631) or using the adaptor.



Testing Procedures

A visual inspection is the most important part of inspecting and testing appliances, and it is not any different when testing 110 V appliances. Tests that should be performed on 110 V appliances would include an earth bond test and an insulation test at 250 V. An operation/load test and leakage test can also be performed.

Care should be taken when performing an operation or leakage test, as this will power up the appliance. A lot of the time 110 V appliances are hand tools, which if care is not taken, could potentially harm once powered up.

Extension Leads

110 V leads tend to be found with different polarities; therefore we do not check the polarity of 110 V leads. If we did, we would probably be failing 50% of them. To check an extension lead, we need to check the earth is complete. Therefore, link the other end of the lead back into the tester so a bond or continuity test can take place. An adaptor, such as the one pictured can be used for this. The yellow plug connects into the extension lead, while the black IEC socket links back into the tester.



Testing 110V Transformers

110 V transformers plug into 230 V supply, therefore can be tested under a 230 V test group code that are pre-programmed into many of the Megger PAT testers. Typical tests for transformers would include a visual inspection, earth bond test and an insulation resistance test.

When performing an earth bond test, you would normally connect the bond probe into the earth pin of the 110 V socket.

The insulation test can be performed using a 500 V DC test voltage, due to being supplied by 230 V.