

This Information Sheet provides guidance on how to use the Primetest 100 Portable Appliance Tester. The Tester can be used to carry out electrical safety checks on portable and transportable electrical equipment with a three-pin plug following suitable training and/or instruction. The Information Sheet is part of a series of Information Sheets that supports the Safety of Electrical Equipment Policy Standard.

Background

The PrimeTest 100 is a hand held battery powered unit suitable for carrying out electrical safety checks on Class I / Class II appliances, IEC mains leads and extension leads.

This Tester is the easiest to operate and handle of the central stock of Testers, though Departments and Colleges wishing to loan the Tester will be required to replace the AA batteries from time to time.

Before using any tester it is imperative that a thorough visual inspection is undertaken to ensure the item is sound and in good working order.

The Connections

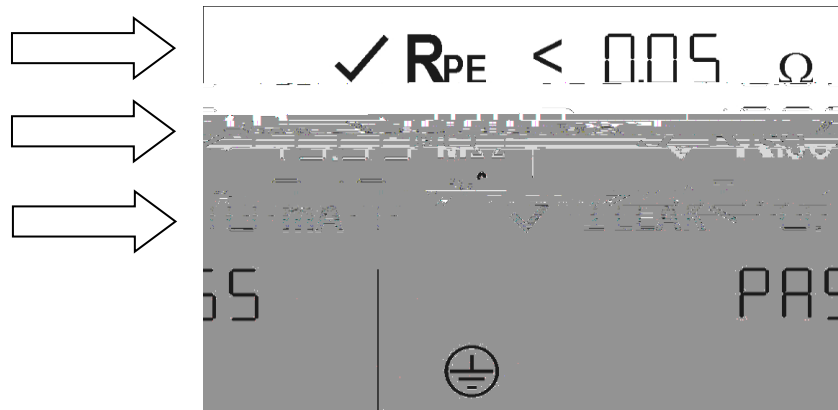
(Note: Numbers refer to numbers on pictures)

A surge protector is a device that shields computer and other electronic devices from surges in electrical power, or *transient voltage*, that flows from the power supply. It works by channeling the extra voltage into the outlet's grounding wire, preventing it from flowing through the electronic devices while at the same time allowing the normal voltage to continue along its path.

Surge Protected circuits can be found incorporated within mains extension leads and in many computer Power Supply Units (PSU).

How does this affect the Readings?

The PrimeTest 100 uses both *Insulation and Leakage Test* procedures.



As the Insulation Test will probably give an *apparent fail* due to the surge protection, you need to check the Leakage Reading is below the required limits (as per PrimeTest 100 Factory Set Pass / Fail Limits):

PrimeTest 100 Factory Set Pass / Fail Limits

The Seaward PrimeTest 100 is designed for PAT Testing portable / handheld electrical equipment. The PrimeTest 100 Factory set Pass / Fail limits are set for these types of equipment (see Table 1):

Table 1	Class 1	Class II	Cord
Earth Continuity	0.2 ohms	N/A	0.2 ohms
Insulation Resistance	1.0 Mohm	2.0 Mohm	2.0 Mohm
Leakage	0.75mA	0.25mA	N/A

As seen in Table 1, the leakage limit in the PrimeTest 100 is factory set to 0.75mA the limit for portable and hand held equipment. The limit for IT, Moveable / Stationary and Business Equipment as recommended in the IEE Code of Practice is 3.5mA.

When using the PrimeTest 100 to PAT Test Class 1 IT equipment and larger equipment such as centrifuges, fridge freezers etc, the *Leakage Test* may be greater than 0.75mA indicating a fail. In this case, refer to Table 2 for pass / fail limits for IT / Stationary / Moveable Equipment:

Table 2	Other Class 1 (eg IT, Moveable, Stationary)
Leakage	3.5mA

