# ELECTRICAL POLARITY & CONTINUITY TESTER Model PT-4985

## Introduction:

The Polarity tester consists of a pair of devices, a *Generator* and an *Indicator*. They provide a simple, quick and accurate indication that wiring connections to socket outlets and light fittings are correct prior to the connection and/or inspection of power to an installation. This product is NOT a home handyman product, hence is for use only by suitably qualified or licensed electrical trade person(s)

# NOTE: ALL TESTS PERFORMED WITH THIS DEVICE MUST BE CARRIED OUT WITH THE MAINS ISOLATED BEFORE THE SWITCH BOARD

### **Connections:**

#### Make sure the switchboard is totally isolated or dead.

Connect the Red clip of the *Generator* to the active line running to breakers of the circuits to be tested.

Connect the Black clip to the main Neutral bar.

Connect the Green clip to the Earth bar.

Ensure that the Main Earth / Neutral Link is not fitted.

Turn off all breakers to start testing.

# **Operation:**

Turn on the switch on the top of the *Generator*. The Red LED labelled 'Voltage Source' should flash. Turn on the breakers to the circuits to be tested, one at a time, taking note that the Flashing LED does not increase in brightness. If all relevant breakers are on and no increase is noted, then testing can begin.

If the LED increases in brightness there is a load (eg hot water heater element) or short on the circuit. Turn off the *Generator* until the problem is resolved or isolated.





# Socket Outlet Test:

Plug the *Indicator* into the first Socket Outlet to be tested. The Green LED for Active to Earth  $(A\leftrightarrow E)$ ) should flash. Press the switch (press for neutral test) on the top of the *Indicator*. The Green LED for Neutral to Earth (N $\leftrightarrow$ E) should flash while switch pressed. **Both** Green indications show correct connections to the Socket Outlet.

See Table 1 (next page) for full description of faults.

NOTE:

- 1. If either or both Red LED's flash, check connections.
- 2. If LED's fail to light there may be an open circuit (bad connection) or a fault with the *Generator* or *Indicator*. Check that the circuit is dead then see the 'self test' section on the back of this sheet.

#### Table 1

#### Indicator Test Results

Active to Earth		Neutral to Earth		Indication
Green LED	Red LED	Green LED	Red LED	
ON	OFF	ON	OFF	All OK
OFF	ON	OFF	ON	Active & Neutral Reversed
OFF	ON	ON	OFF	Active & Earth Reversed
ON	OFF	OFF	ON	Neutral & Earth Reversed

Repeat the test above with each Socket Outlet.

## Lighting Circuit Test:

Connect Generator as previously described, Plug Indicator into Socket Outlet in view of Light to be tested. The Green LED for Active to Earth should flash.

With the light ready for power, eg globe in batten holder, turn on the light switch. The Green LED should stop flashing, indicating correct continuity.

Turn off light switch, note that the LED should flash again.

Continue to the next light and repeat procedure.

#### Self test:

#### To check the Generator:

The Generator has two (2) internal protection fuses.

NOTE: NEVER EXCEED THE FUSE RATING (100mA) WHEN REPLACING A FUSE

Turn on the Generator. Does the Red LED Flash? If not check / replace the battery in the battery holder compartment on the back of the Generator.

With the Red LED flashing, briefly touch together, first the Red and Green clips and then the Green and Black clips. A brightening of the flashing LED should be noted in each case. If not check the two (2) internal protection fuses of the Generator.

#### To check the Indicator:

The Indicator has one (1) accessible protection fuse

NOTE: NEVER EXCEED THE FUSE RATING (100mA) WHEN REPLACING A FUSE

To check the function of the pair simply connect the **Generator** clips to the **Indicator** Plug, Green to the Earth, Red to Active. Black to Neutral. Turn on the Generator.

With the Generator's Red LED flashing the Green Active to Earth should flash. Press the Indicator button, the Green Neutral to Earth LED should flash. If neither Green LED's flash check the Indicator fuse located in the fuse holder compartment on the back of the Indicator.

Reverse the Red and Black clips (eg Red to Neutral, Black to Active), the Red Active to Earth should flash. Press the Indicator button, the Red Neutral to Earth LED should flash.

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# **GENERATOR PT-4985 G**



