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# **PAT CHECKBOX**

(227A910)

## **Operating Instructions**

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### CONTENTS

Introduction

Operating Instructions

Specification

Maintenance

Warranty & Repair



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### **READ INSTRUCTIONS BEFORE USE**

Due to the potential hazard with any electrical product, it is important that the user is fully familiar with the instructions covering the capabilities, applications and operations of the unit.

Check the unit regularly for damage to cable or casing.

**DO NOT PLUG THE CHECKBOX INTO THE MAINS SUPPLY.  
DO NOT TOUCH THE PAT CHECKBOX WHILE CARRYING  
OUT TESTS.**

### **INTRODUCTION**

The PAT Checkbox has been designed to provide a safe, simple and quick means of checking the calibration of the Seaward PATs, to ensure accurate testing.

The PAT Checkbox can be used with the following Seaward Type 1 PATs-

PAT1000	PAT2000	PAT1000s
PAT2000i	PAT1000x	PAC500
IT1000	PAC1000	PAC1500xi

and the following Type 2 PATs-

Supernova	Europa	EuropaPAC
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Not all the facilities on the Checkbox are required to verify all of the PATs above.

**NOTE:** The Checkbox will check other Portable Appliance Testers but it is calibrated with a flash voltage of 3kV rms and an insulation resistance test voltage of 500V DC.

### **OPERATING INSTRUCTIONS**

**NOTE:** Neon Indication. During Earth Leakage test the Neon must light. If not check the polarity of the mains into the PAT under test.

- a) Plug the Checkbox into the PAT and connect the earth clip to TP1.
- b) Carry out Earth Bond Test. Reading displayed on PAT should correspond with the value written on the rear of the Checkbox to within specified limits for the particular PAT.
- c) Move Earth Clip to TP2 and proceed with a second Earth Bond Test, again the reading displayed on the PAT should correspond with the value on the rear of the Checkbox to within specified limits for the PAT being verified.
- d) Proceed with Insulation Test, confirm the insulation reading corresponds to that on the rear of the Checkbox for Class 1 within specified limits for the PAT. For further verification the Class 2 test can be performed to the flash test point. On Type 1 PATs this is performed using the standard insulation probe, on Type 2 PATs, this is performed using the special test lead supplied with the Checkbox plugged into the PAT Main earth bond socket. Compare the reading displayed on the PAT with that for Class 2 insulation on the rear of the Checkbox.
- e) Perform the flash test if available on the PAT. Press the tip of the flash probe into the contact recessed behind the front label. Compare the reading on the PAT with that for Class 2 on the rear of the Checkbox. If the test is performed without the flash probe, the Class 1 reading applies.  
**NOTE:** A Class 2 flash test checks the operation of the whole of the flash circuit in the PAT, whereas a Class 1 flash test checks only half of it.
- f) Once complete proceed with Earth Leakage Test, confirm the earth leakage reading corresponds with that on the rear of the PAT Checkbox within specified limits for the PAT.

## **REMEMBER**

Whether or not the PAT passes or fails is immaterial, what is important is that the values the PAT displays are close to those denoted on the rear of the PAT Checkbox.

## **CHECKBOX SPECIFICATION (0° to 40°C)**

Earth Bond Reading	+/- 1%	+/- 1 digit
Insulation Reading	+/- 1%	+/- 1 digit
Flash Test Reading	+/- 1%	+/- 1 digit
Earth Leakage Reading	+/- 1%	+/- 1 digit

The readings shown were taken with 500V DC applied for the Insulation test and 3000V rms for the Class 2 flash test. There may be slight variances if the PAT Checkbox is used to check other manufacturers portable appliance testers if the test voltages used differ to these.

The transformers in any PAT to be checked by the PAT Checkbox must conform to BS415.

## **MAINTENANCE**

Ensure the unit is clean and dry before use.

Check the condition of casing and cable regularly.

Avoid storage in damp conditions and excessive temperature variations.

Return for Re-calibration every 12 months.

No user serviceable parts.

Seaward reserve the right to alter specification without prior notice.

## **WARRANTY & REPAIR**

Should this unit require repair or calibration within the UK, it should be returned to:-

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