

# 3 PHASE APP/ EXTENSION/RCD

## QUICK REFERENCE GUIDE



***Warning the AERO2032 is only to be used for testing purposes and only with appropriate appliance and RCD testers.***

### LIMITED WARRANTY AND LIMITATION OF LIABILITY

The AERO2032 should be free from defects in material and workmanship for 12 months from the date of purchase. This warranty does not cover, neglect, misuse, alteration, damage from accident, contamination, or abnormal conditions of operation and or handling. To obtain service during the warranty period, contact Appliance Testing Supplies and turn authorisation form, with a description of the problem and appropriate details.

No other warranties, such as fitness for particular purpose, are expressed or implied. The manufacturer is not liable for any special, indirect, incidental or consequential damages or losses arising from any cause or theory.

### Warning

Personal injury or damage to the device can occur if you attempt to make tests and measurements with connecting leads in an incorrect manner or connection point.

Ensure and check the test leads are correctly connected and safety covers are appropriately in place, move the rotary switch with caution ensuring position and method of testing.

### Safety Information

The use of electricity implies the risk of electric shock. The user can minimise the risk by taking the following precautions.

A "Warning" statement identifies hazardous conditions and actions that could cause bodily harm or death.

A "Caution" statement identifies conditions and actions that could damage the Meter or equipment under test. To avoid possible electric shock or personal injury, follow these guidelines:

- Do not use the AERO2032 or its leads if they appear damaged
- Always use proper terminals, switch positions, safety covers and connections
- Verify mains is applied to circuit by a known good meter
- Do not apply more than the rated voltage, as marked on enclosure, between terminals or between any terminal and earth ground
- Do not apply or connect to any load other than the appliance/RCD tester
- Use caution with voltages that could be present on this equipment. These HIGH voltages can pose a shock hazard
- Disconnect circuit power and observe caution at all times
- When using connecting leads or equipment, keep your clear from any exposed wiring
- Remove and unplug leads and replace any safety caps (if required) before changing any configuration
- Use proper protective equipment, as required by local or national authorities when working in hazardous areas
- Do not use equipment around explosive gas or vapor sources
- Comply with local and national safety requirements when working in hazardous locations
- Use only specified accessories and appliance testers or the safety protection may be effected

## Operating Instructions

**The use of these devices must be strictly operated as per the following**

### instructions

NOTE: this test does not require a live supply only appliance tester, test voltages

1. Connect AERO2032 IEC lead via a connecting cable plugged into Appliance Tester
2. Plug Extension lead into male and female ends on AERO2032 for 20A select L1B
3. Press and hold test button on side of AERO2032
4. Initiate Appliance tester earth continuity test followed by Insulation resistance test
5. When step 3 tests are complete repeat after selecting L2B
6. When step 4 tests are complete repeat after selecting L3B

If testing 32A lead, proceed as described above but select L1A through L3A

Unplug IEC lead from 3 pin plug lead when tests are complete.

Record Results

Earth resistance tests is not to exceed 1.0 ohm

Insulation Resistance test value must exceed 1M ohm @500V DC

7. Press the ESC to start a new test.

## Appliance testing method

**Do NOT plug in any 3 phase leads into power socket no Live connection required for this test**

1. Plug 3 phase appliance in to AERO2032
2. Connect earth lead from appliance tester to device under test (DUT)
3. Connect AERO2032 to via 3 pin surface socket of AERO2032 to appropriate connection of appliance tester
4. Conduct earth test. Value should be less than 1.0 Ohm
5. Conduct insulation resistance test selecting L1, L2, L3. A=32A B=20A Socket. Pressing the Test button each selected phase test. Value = >1M Ohm @ 500Vdc
6. Unplug appliance and appliance tester from AERO2032
7. Record values

## RCD Testing **WARNING this is a Live mains connected test**

1. Plug RCD tester into 3 pin Surface Socket on AERO2032
2. Perform Button test on RCD. If successful proceed to next step.  
NOTE: If button test fails do not continue to test

3. Select L1B for 20A RCD devices or L1A for 32A devices
4. Plug appropriate 20A or 32A Lead into RCD protected outlet
5. Identify the correct RCD type then set RCD to match type
6. Initiate RCD 0 Deg test on RCD tester
7. Observe trip time if passed
8. Reset RCD
9. Change RCD tester 180 Deg initiate test on RCD tester
10. Observe time taken to trip record longest time
11. Select L2B for 20A RCD devices or L2A for 32A devices
12. Repeat points 6 to 10
13. Select L3A for 20A RCD devices or L3B for 32A devices
14. Repeat points 6 to 10

15. When tests on each phase is complete Switch off 3 phase outlet and then unplug

Observe results

Button test. RCD should trip without undue delay on pressing button.

**Type 1 RCD** each phase should trip at the rated trip current of 10mA in less than 40mS

**Type 2 RCD** each phase should trip at the rated trip current of 30mA in less than 300mS