Order Number _____ Serial Number _____

PRODUCT TEST MANUAL

2L10K16

120-125V BATTERY EARTH FAULT

Issue Level	Date	Summary of changes
A	21/07/10	Initial issue
B	15/09/10	Update to include operate time test
C	15/11/11	Update to sensitivity value

Due to RMS continuous product improvement policy this information is subject to change without notice.

Author	Checked & Registered	.pdf file created	Released
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1. DESCRIPTION OF OPERATION

The 2L10 is designed to provide alarm indication if the station battery becomes earthed. The single relay is wired such that it will detect an earth fault on either the positive or negative sides of the battery supply.

2. SPECIFICATIONS

Auxiliary supply	125VDC (120-125)
Operation Indicators	Not fitted.

3. TEST EQUIPMENT REQUIRED

DC power supply
Digital Multimeter

4. ASSOCIATED DRAWINGS

161-010-116 Wiring diagram

5. HIGH VOLTAGE TESTING

a) Apply 2kV 50Hz test for 1 minute between terminal Groups A and B.

b) Apply three 5kV 1/50 impulses of each polarity between terminal Groups A and B.

Group A	**Group B**
ALL	CASE EARTH
25, 27-28	1- 6

C) Apply 1kV 50Hz test for 1 minute between terminal Groups A and B.

Group A	**Group B**
1,2	3,4

6. CALIBRATION & TEST PROCEDURE

a) Check for 20k±1k load resistance between terminals 25 (+) and 27 (-).

Check ☐

b) Apply 125VDC auxiliary supply between terminal 25 (+) and 27 (-).

c) Switch terminal 25 (+125V) to terminal 28 (Battery Earth) and measure operate time at contacts 1-3 & 2-4. It should be < 35ms.

Switch terminal 27 (-125V) to terminal 28 (Battery Earth) and measure operate time at contacts 1-3 & 2-4. It should be < 35ms.

Check ☐

d) Connect terminal 25 (+) to terminal 28 (Battery Earth) via a 6k5 resistor. RL1-1 (1-3) and RL1-2 (2-4) should pick up for supply voltages of 120V and 125V. Adjust contact pressure or armature travel to achieve this.

Check ☐

e) Connect terminal 27 (-) to terminal 28 (Battery Earth) via a 6k5 resistor. RL1-1 and RL1-2 should pick up for supply voltages of 120V and 125V. Adjust contact pressure or armature travel to achieve this.

Check

7. GENERAL & FUNCTIONAL

a) Check that the relay is electrically sound and mechanically robust as per Standard Inspection & Test Schedule 903-000-026.

PASS

TESTED BY :_____DATE :_____

8. CONNECTION DIAGRAM