

TECHNICAL DATA SHEET

LPI[®] Lightning Strike Recorder LSR2

Features

- 7 Digits
- Up to 9,999,999 counts
- Testable using LSR-Tester



Product Description

LPI[®] Lightning Strike Recorder (LSR2) is a lightning event counter. The LSR2 is simply mounted at any location along the down-conductor route. Its purpose is to record the number of lightning strikes captured by the lightning air terminal and conveyed by the down-conductor.

The LSR2 operates by sensing current by means of an inductive pick up loop. The loop passes along the inside surface of the bottom of the enclosure. This loop detects lightning current impulses on the down-conductor and sends a trigger to the counter, which turns the counter over to register the event. The Recorder is mounted in a polycarbonate enclosure rated IP 67.

Installation/ Operating Instruction

The LSR2 can be installed at any location on the down-conductor route between the air terminal and the earthing system. Where possible, avoid installing the LSR2 in a position where it is exposed to direct sunlight. This can be achieved by installing the LSR2 in a suitable mounting cabinet.

The LSR2 should be mounted in line with the down-conductor as shown in Figure 1. If using flat down-conductor use the plastic spacer provided, as per Figure 2. To remove or relocate the LSR, use a small flat bladed screwdriver to release the clip on the latching mechanism on the cable tie.



Figure 1



Figure 2

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LPI® Lightning Strike Recorder Tester LSR-TESTER**Product Description**

LPI® Lightning Strike Recorder Tester (LSR-TESTER) is a high current device designed to trigger a reading on an LPI Lightning Strike Recorder (LSR1 or LSR2, hereafter simply referred to as “LSR”).

The tester is light, compact, and is powered by 8 x AA NiMH rechargeable batteries.

Features

- Ideal for maintenance and testing of LPI® Lightning Strike Recorders
- Simple operation
- Portable



Figure 3: Step 1



Figure 4: Step 2



Figure 5: Step 3

1. To test the LSR, the supplied ‘pulse cable’ is positioned parallel to the down-conductor, through the mounting saddles as shown in Figure 3.
2. Complete the loop around the LSR, making sure that pulse cable is positioned vertically across the top of the LSR as shown in Figure 4.
3. Holding down the red button initiates the impulse circuit charging and firing process. Correct charging operation is indicated by the illumination of the red LED, as shown in Figure 5.
4. After a period of 10-15 seconds an audible ‘clunk’ should be heard. This indicates that the charging process has finished and a current pulse has been sent through the pulse cable. If the LSR and LSR Tester are working correctly, the strike count on the LSR will increase by one (1).

If the LED fails to light when pressing the red button, or if no ‘clunk’ is heard after a period longer than 30 seconds then the batteries need to be recharged using the supplied charger. The charger unit has two indication LEDs to indicate charger power and charging status.

Press and hold the charging button for up to 1 second to start charging the battery. The LED will indicate RED.

Once a battery has been fully charged, the charging LED will turn GREEN.

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Technical Data

Product Code: LSR2

Description	Lightning Strike Recorder
Current Sensitivity	1500 A 8/20 μ s
Operating Range	Min. 1500 A, 8/20 μ s Max. 220 kA, 8/20 μ s
Display	Mechanical 7-digit display* (non-resettable)
Dimensions	100 (L) x 100 (H) x 55 mm (D)
Weight	0.56 kg
Mounting	Releasable UV resistant plastic cable ties Suitable for up to \varnothing 40 mm cable or 50 x 5 mm flat tape
Construction	Polycarbonate Enclosure
Colour	Light Grey
Environment	IP 67 (IEC 529)
Working Temperature	-15°C to 65°C

Product Code: LSR-TESTER

Description	Lightning Strike Recorder Tester
Impulse Output	2 kA Peak Simulated Lightning Impulse
Open Circuit Output	55 Volts
Time Between Impulses	20 seconds
Display	Red "Testing" LED Indicator
Dimensions	190 (L) x 100 (W) x 35 mm (H)
Mounting	Portable Unit No mounting required
Construction	Polycarbonate Enclosure, IP 30 rating
Colour	Light Grey
Weight	0.58 kg
Working Temperature	-15°C to 65°C
Batteries	8 x AA 2000 mAh NiMH Rechargeable Recharge time up to 16 hours

Note: Handling, transportation and shipment of the LSR2 may result in slight displacement of the digits of the mechanical counter inside the unit. This aspect does not affect the performance of the counter. However, the digits can be easily realigned by turning the LSR2 upside down and tapping it lightly on a solid object.

Warranty

This product is guaranteed to be free from materials and workmanship defects for a period of 5 years from the date of shipment from the manufacturer.

As lightning is a natural event containing unpredictable energy levels, 100% protection is not guaranteed. These energy levels may exceed the product rating. In this case the manufacturer's liability is limited to repair or replacement at the manufacturer's discretion.

This warranty does not offer any cover for consequential damage, loss of operation or loss of profit.

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