

LPI® Lightning Strike Recorder - LSR-1

Features

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



Product Description

LPI® Lightning Strike Recorder (LSR1) is a lightning event counter. The LSR1 is simply mounted at any location along the down-conductor route. Its purpose is to record the number of strikes captured by the lightning air terminal and conveyed by the down-conductor.

The LSR1 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 Lightning Strike Recorder (LSR1) can be installed at any location on the down-conductor route between the air terminal and the earthing system. Where possible, avoid installing the LSR1 in a position where it is exposed to direct sunlight. This can be achieved by installing the LSR1 in a suitable mounting cabinet.

The LSR 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

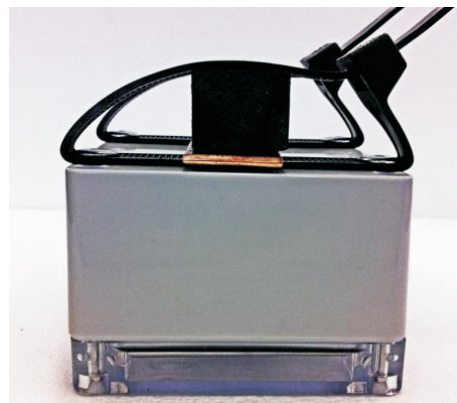


FIGURE 2

LPI® Lightning Strike Recorder Tester - LSR Tester

Product Description

LPI® Lightning Strike Recorder Tester (LSR1-TESTER MKII) is a high current device designed to trigger a reading on an LPI Lightning Strike Recorder (LSR).

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

Features

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

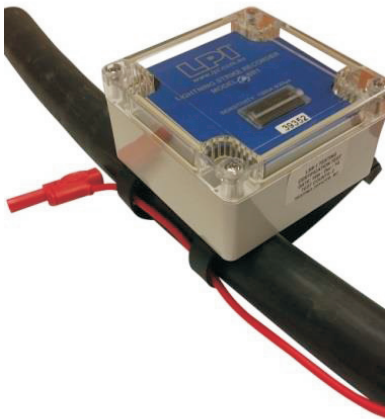


Figure 3: Step 1



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 then 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 battery/charge status.

Red	Green	Status
		Charging, Battery Flat
		Charging, Battery has sufficient charge for a quick test
		Charging (Red LED dimmed) Tester suitable for normal use

Technical Data

Product Code: LSR-1

Product Code: LSR1-TESTER MKII

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

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

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.