

Lightning Protection Inspection

A lightning protection inspection and test record: system and protection level, air terminations, down conductors, bonds and joints, each earth electrode's resistance, surge protection, damage and repairs.

1. System

Project

Client

Site *

Site address

Test date *

Time

Engineer *

Earth tester and calibration date

Lightning protection level (from the system records) (choose one)

☐ I ☐ II ☐ III ☐ IV ☐ Not known (older BS 6651 system)

Has the building had a lightning strike since the last inspection?

☐ Yes ☐ No

If applicable: Record when the strike happened and any damage seen, so the affected parts can be checked.

When, and what damage was seen (if applicable)

BS EN 62305-3 covers the inspection and maintenance of lightning protection systems. GOV.UK guidance for schools says it recommends inspection and testing at least annually, with joints and bonds checked for corrosion and electrical continuity. BS 6651, the earlier standard, was withdrawn in 2008. BS EN 62305-3, Annex E (Table E.2), gives the maximum intervals by lightning protection level: levels I and II, visual inspection every year and complete inspection every 2 years; levels III and IV, visual inspection every 2 years and complete inspection every 4 years. Critical systems need a complete inspection every year. Inspect after any lightning strike.

Walk Cam: roof and elevations

Walk Cam video walk-through: available in the SiteSurvey app only.

Weather capture

Digital form: use Record current conditions. On paper, record date/time, temperature (°C), wind (mph and direction), conditions and source. Keep observed conditions separate from forecast estimates.

2. Visual inspection

Air terminations and roof conductors (choose one)

☐ OK ☐ Defect ☐ Not applicable

What is wrong? (if applicable)

Down conductors and fixings (choose one)

☐ OK ☐ Defect ☐ Not applicable

What is wrong? (if applicable)

Joints, bonds and test clamps (choose one)

☐ OK ☐ Defect ☐ Not applicable

What is wrong? (if applicable)

Bonding to roof plant and metalwork (choose one)

☐ OK ☐ Defect ☐ Not applicable

What is wrong? (if applicable)

Surge protection devices (choose one)

☐ OK ☐ Defect ☐ Not applicable

What is wrong? (if applicable)

Drawings and test records available (choose one)

☐ OK ☐ Defect ☐ Not applicable

What is wrong? (if applicable)

Photos (photos: attach, or note the file names)

Visual items with a defect (worked out automatically in the app)

3. Earth electrodes

Resistance limit for each test point (ohms)

From the system design, the records or the test specification. BS EN 62305-3 recommends a low earthing resistance, below 10 ohms where possible, measured at low frequency.

Earth electrodes (copy this block for each one)

Test point *

Test point position

Mark current location at the test clamp or inspection pit, so the next test finds the same point.

Resistance (ohms) *

Previous reading (ohms)

Change since the last test (ohms) (if applicable; worked out automatically in the app)

Against the limit (if applicable; worked out automatically in the app)

Result (choose one)

☐ Pass ☐ Fail

Notes (if applicable)

Photo of the test point (photos: attach, or note the file names)

Test points recorded (worked out automatically in the app)

Above the limit (worked out automatically in the app)

Higher than last time (worked out automatically in the app)

Highest reading (ohms) (worked out automatically in the app)

Electrodes failed (worked out automatically in the app)

If applicable: One or more test points read above the limit you entered. Check the clamp and the electrode, and record the repair or further testing below.

Overall result * (choose one)

☐ Satisfactory ☐ Repairs needed

Repairs needed (if applicable)

Defects found (copy this block for each one)

Component * (choose one)

- ☐ Air termination
- ☐ Roof conductor
- ☐ Down conductor
- ☐ Joint, bond or test clamp
- ☐ Earth electrode
- ☐ Bonding to plant or metalwork
- ☐ Surge protection device
- ☐ Records
- ☐ Other

Defect

Priority (choose one)

- ☐ Urgent ☐ High ☐ Medium ☐ Low

Who will put it right

Due by

Photos (photos: attach, or note the file names)

Defects recorded (worked out automatically in the app)

Urgent (worked out automatically in the app)

Next inspection due

Days to the next inspection (if applicable; worked out automatically in the app)

If applicable: The next inspection date is before the test date. Check the date.

If applicable: The next inspection is further away than the BS EN 62305-3 maximum for a complete inspection at this protection level. Check the date.

Site contact name

Site contact signature

Completed by *

Signature