Electrical Safety Toolbox Talk

Key points, do's and don'ts, and questions with answers. The attendance sign-off sheet is on the last page.

Asked to show your toolbox talk records? The Site Book keeps each talk and its signatures with the job, on Pro: **thesitebook.co.uk/features/toolbox-talks**

Key points to cover

- Always assume cables and electrical equipment are live until proven otherwise by a competent person
- Use 110V (CTE) reduced voltage tools on site — 230V tools are not suitable for construction environments
- Check overhead power lines before using cranes, MEWPs, tipper lorries, or scaffolding near them
- Locate underground cables using up-to-date utility plans and a cable avoidance tool (CAT) before digging
- Portable electrical equipment must be kept in a safe condition — on site that means regular inspection and testing (PAT)
- RCDs (residual current devices) provide additional protection but do not eliminate the risk of electric shock

Do's and don'ts

Do

- Use 110V tools and check for the yellow CTE plug
- Use a CAT and Genny before any excavation work
- Maintain safe distances from overhead power lines as per HSE guidance (minimum exclusion zones)
- Check RCDs are working by pressing the test button daily
- Report any tingling sensations or shocks from equipment immediately

Don't

- Never use 230V domestic tools on a construction site
- Never run cables through water or across walkways without protection
- Never attempt electrical repairs unless you are a competent electrician
- Never bypass or remove fuses, circuit breakers, or RCDs
- Never use metal ladders near live electrical equipment or overhead lines

Questions to check understanding

Ask each question and let the crew answer before you read out the answer.

Q1. What voltage should portable tools operate at on a construction site?

Answer: 110V via a centre-tapped earth (CTE) transformer. This limits the maximum voltage to earth to 55V, which significantly reduces the risk of a fatal shock.

Q2. What equipment should you use before digging to locate underground cables?

Answer: A cable avoidance tool (CAT) and signal generator (Genny), together with up-to-date utility drawings. The CAT detects electromagnetic signals from buried cables and pipes.

Q3. What should you do if someone receives an electric shock?

Answer: Do not touch the casualty. Isolate the electrical supply if you can do so safely (switch off, pull the plug). Call 999. If the supply cannot be isolated, use a non-conductive item to separate the person from the source. Begin CPR if they are unresponsive and not breathing.

Q4. What is the minimum safe distance from an overhead power line?

Answer: There is no single figure. HSE guidance GS6 says to plan and manage any work within 10 metres of an overhead line and to keep plant out of a safety zone at least 6 metres from the outermost wire on each side of the line. Always ask the line owner for the safe clearance distance before work starts.

Attendance sign-off sheet: Electrical Safety Toolbox Talk

Everyone who attended prints their name and signs to confirm they received this talk.

Date _____ **Time** _____

Site or location _____ **Presented by** _____

No.	Name (print)	Company	Signature
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Presenter's signature _____

This is general guidance for UK construction sites. Check it against your own risk assessment, method statement and the site before you deliver it. Toolbox talk from The Site Book, reviewed 26 October 2026. Read it online at thesitebook.co.uk/toolbox-talks/electrical-safety.