



Safety Alert

95 – Volt Sticks

Date

10 August 2021

Did you know?

- A volt stick must be well maintained and used correctly to be an effective tool.
- Volt sticks do not detect DC voltages.

A faulty volt stick can lead to a serious incident!

What is a volt stick?

A volt stick or a non-contact tester is a testing device that detects the presence of AC voltages in a cable or piece of equipment, without the need to make direct contact with conductive material.

A built-in sensor at the tip of the tester detects the presence of voltage when touching a conductor, outlet or supply cord, without the need to penetrate or cut the insulation. When the tip glows red and the unit beeps (not all brands will beep), you know that there is potentially a voltage present.

Correct use of a volt stick

Volt sticks should never be used to confirm that a circuit is correctly isolated, that is a job for a tradesperson (or final year apprentice under direct supervision) with a multimeter. Volt sticks are used as a final safety check for an individual to confirm that what they are about to touch isn't energised.

To ensure that you get an accurate reading from your volt stick, the best practice is to:

- Check your volt stick on a known live source. If your volt stick has an audible beep and the audible beep fails to sound or the tip doesn't brightly light up, you may need to change the batteries.
- Ensure that the object you are testing is separated from other conductors or equipment so that there is no doubt about what you are testing.
- Move your volt stick close to the object you want to test. Be careful and stay clear of any potentially live parts.
- Run the volt stick slowly along both sides of the cable or around the object, checking it is de-energised.
- If a voltage is present, your volt stick will light up and (if applicable) beep. Alert your tradesperson so they can do further tests.



- If your volt stick has indicated that the cable or object does not have voltage, test your volt stick again on a known live source to ensure it is working correctly.

Repeat these steps until you are satisfied that you have correctly identified that there is no voltage present before commencing work.

Maintenance of a volt stick

To ensure your volt stick is in the best possible condition to work correctly, there are a few maintenance steps that should be followed:

- Store your volt stick in a safe place where it won't get damaged (e.g. not in the bottom of your toolbox). The tip at the end of your tester is easily damaged and will be ineffective if it's broken.
- Replace your batteries regularly. Low batteries can give you an incorrect indication on your volt stick
- Always test your volt stick before use.

EGT apprentices are expected to use their volt stick to test before you touch to confirm all equipment to be worked on is de-energised before starting work.

Feedback

For further information regarding this Safety Alert, please contact EGT on (08) 6241 6100 or speak with your Field Officer.