

Labour protection laws obligate!

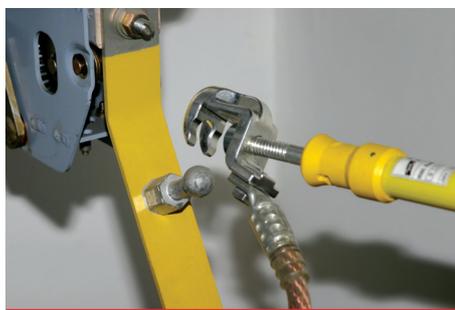
Use and maintenance of portable earthing and short-circuiting equipment

Entrepreneurs are responsible for safety and health protection in their companies. Labour protection laws oblige entrepreneurs to ensure that all necessary protective measures are taken and observed when working at electrical systems.

Therefore the relevant parts of the installation are isolated from power supply when working at electrical systems and equipment. However, simply hitting a switch for isolation from power supply is by far not enough. From isolating the system from power supply to releasing the working place, further safe information on the state of the system, measures to prevent maloperations and malfunctions, protection against maloperations and malfunctions as well as protection against risk potentials of adjacent parts of the installation is required. For this purpose the following five safety rules in accordance with EN 50 110-1 have to be observed:

- Disconnect completely
- Secure against re-connection
- Verify that the installation is dead
- Carry out earthing and short-circuiting
- Provide protection against adjacent live parts.

Every certified electrician knows that these rules can save his life. But what about the safety and reliability of devices and tools with which they gain vital information or secure sequences of operation? Every measure is only as safe as the safety devices used.



Installation of a device with universal clamp for fixed ball points 20 or 25 mm

The most important rule of the five safety rules is earthing and short-circuiting. This secures isolation of the system from power supply while works are carried out even in the case of interference voltages, surges of atmospheric origin or accidental re-start. However, this safety measure is also only as good as the device used.

Time also leaves its mark on these devices.



Approx. 30 year old set with reduction of area due to copper corrosion

Corrosion may reduce cross-sections of earthing and short-circuiting cables thus challenging safety. Only suitable safety devices can prevent dangerous voltages or electric arcs at the working place. This means that devices have to meet the purpose of application, have to be dimensioned correctly, attached according to the installation instructions and be in proper condition.



Bare conductor cable protrudes from the broken cable entry

Any damage of the cable sheath or protrusion of bare conductors presents severe damage which means that the device cannot be used anymore.

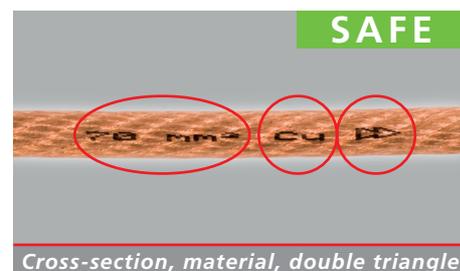


Set which is not state of the art

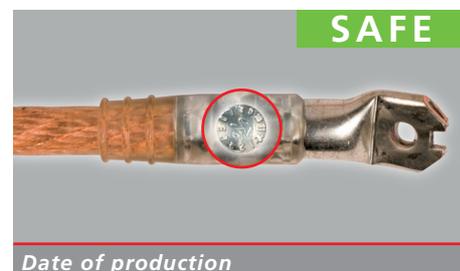
Before further use, devices the cable entries and cable structure of which cannot be examined visually (green-black colouration, break of conductor

strands at the break point) have to undergo a test concerning the reduction of area of the cable. The safety devices also have to be marked accordingly. Devices without manufacturer name, date of production, indication of cross-section, indication of material and double triangle marking at the cable do not correspond to the current standards. Before use, a safety test has to be performed for such devices according to the current standard. This does not apply to earthing and short-circuiting devices which are manufactured and tested according to the current version of IEC/EN 61230 (DIN VDE 0683-100). DEHN + SÖHNE is your reliable partner.

Do your sets have the following marks?



Cross-section, material, double triangle



Date of production



Indication of manufacturer

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