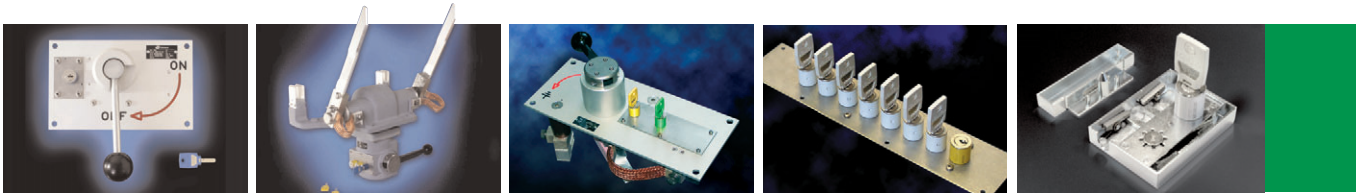


Vehicle safe electrical grounding based on **key Interlocking**



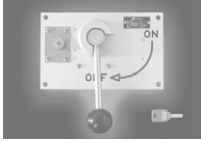
Safety based on key interlocking

To guarantee the electrical grounding of the vehicle, with respect of highest and most reliable standards for the safety of maintenance personnel, Sécheron offers a system based on key interlocking.

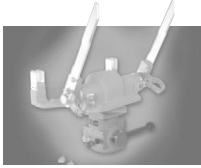
Starting from the pantograph (capturing the current at the catenary), down to the propulsion converter (powering the traction motors), there are several security devices that must be installed on the roof and inside the vehicle in order to isolate and ground the equipment linked to the high voltage. The philosophy is based on a simple step by step principle that enables the manipulation of a safety device only once the previous one in the traction chain has been operated and locked in the grounding position. This principle is achieved through a cascade of security keys and associated locks as shown in the following diagrams.

Example: Electrical multiple unit

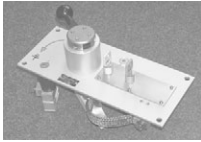
BSV
Pantograph
interlocking box



BTE 15/25.04
Roof earthing switch



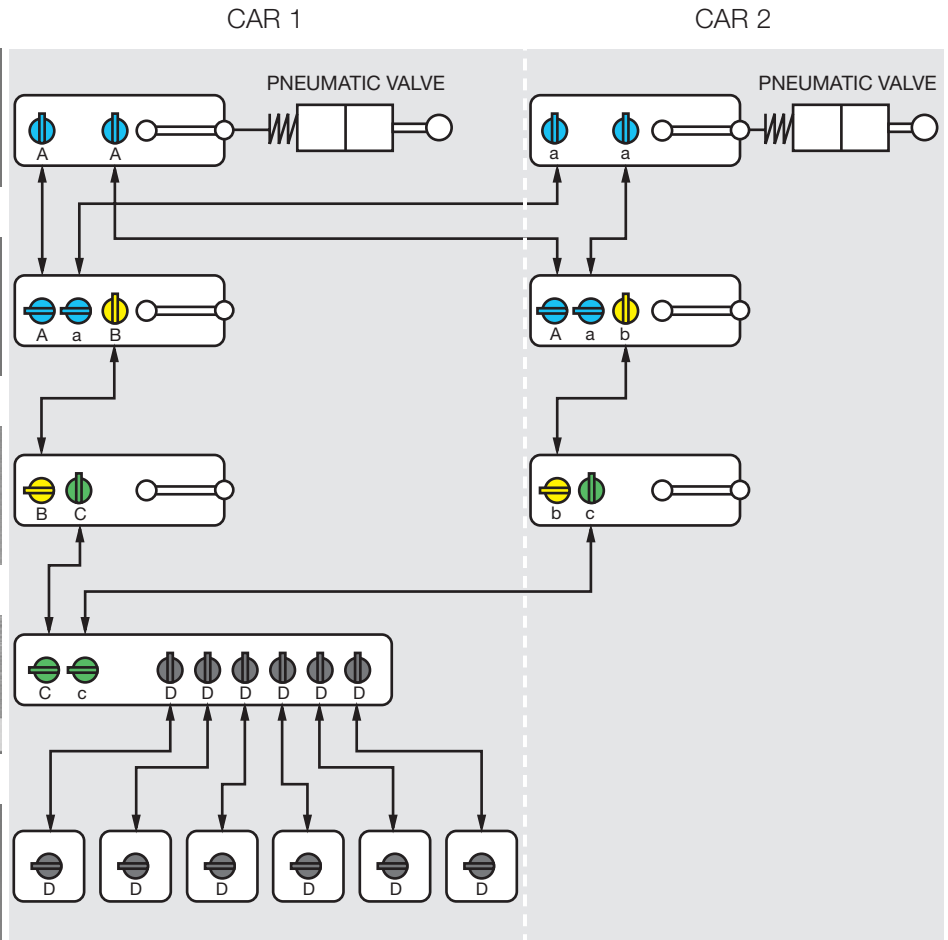
BTE 03.04
Indoor earthing switch



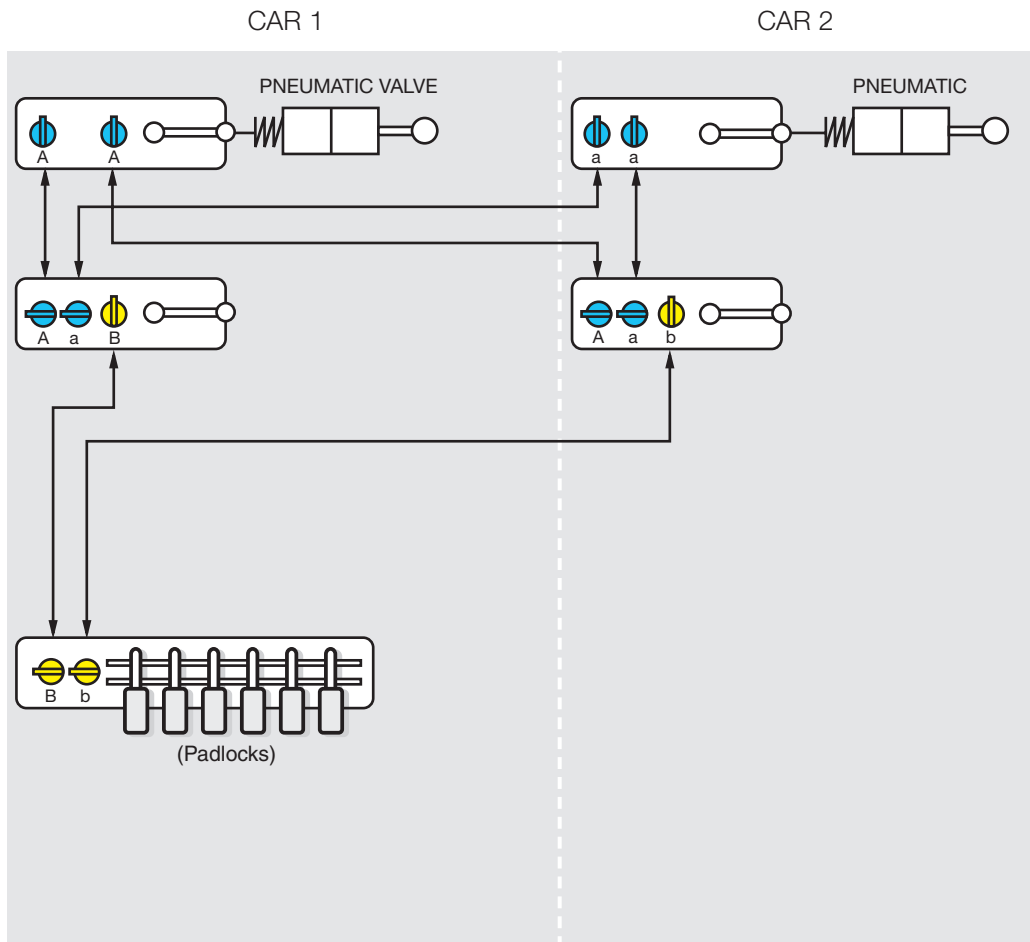
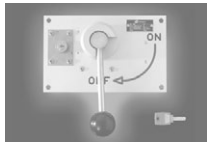
**KEY
MULTIPLIER/
HOLDER**



**DOORS
LOCKS**



Example: Electrical multiple units

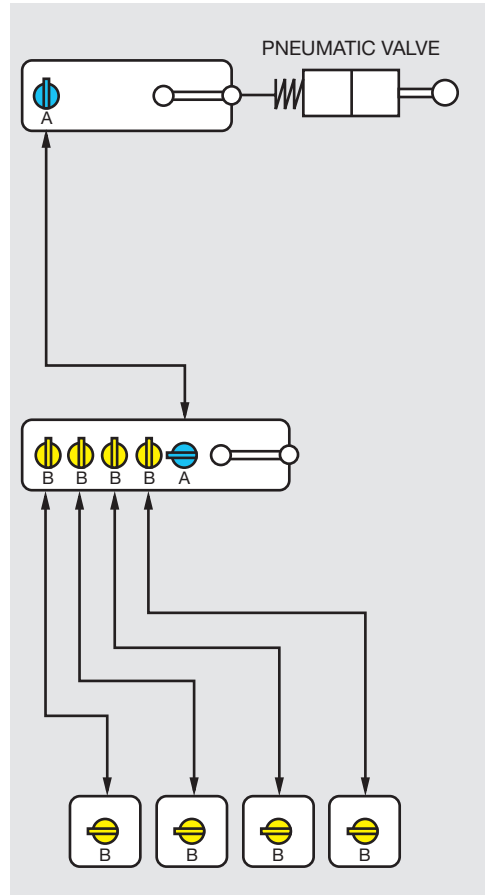
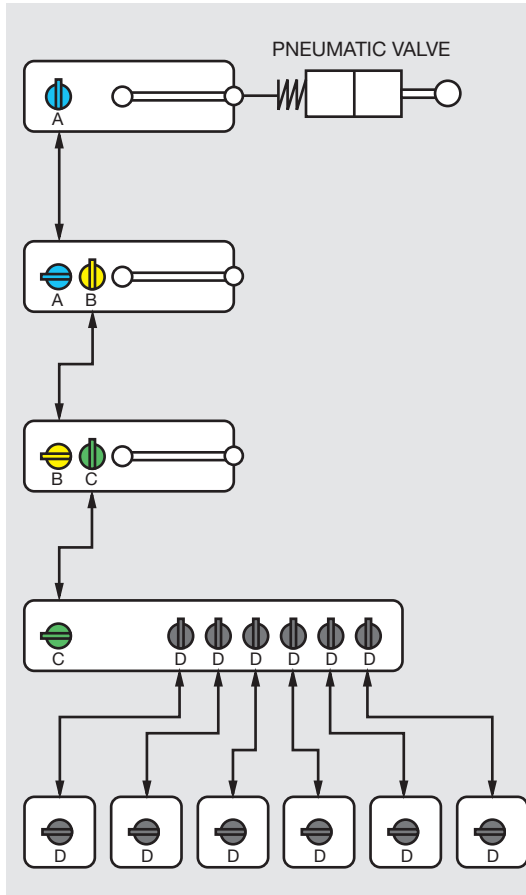
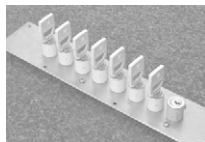


Color codes

- A Blue
- B Yellow
- C Green
- D Black
- E White

Example: AC Locomotive

Example: DC Locomotive



Color codes

- A Blue
- B Yellow
- C Green
- D Black
- E White

For other requests please contact Sécheron

SG480329BEN_A00-10.03



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