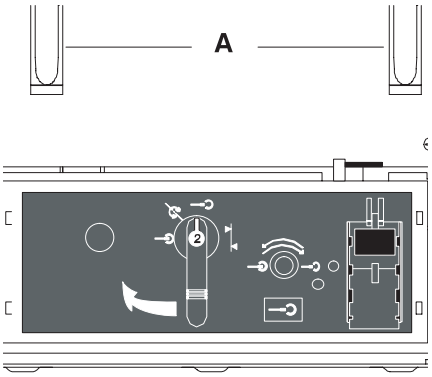
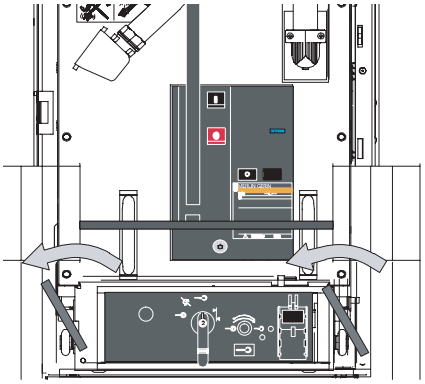
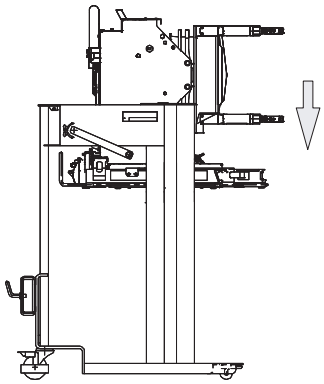


Change the position of selector switch **2** to and then, using handles **A**, remove the mobile part.
Bring it up against to be butted against the **ERT**.
Change the position of selector switch **2** back to .

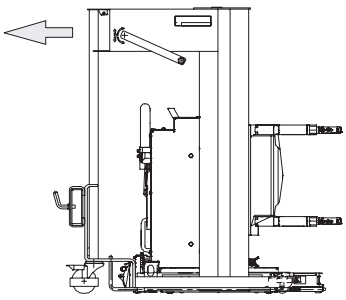
Note: moving the circuit-breaker on the **ERT** must be done near the ground.



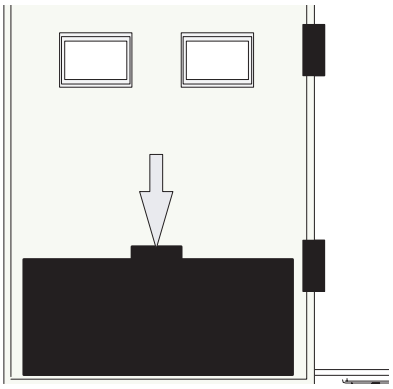
Disconnect the ERT by turning the 2 notching operating mechanism handles towards the left then pulling them.



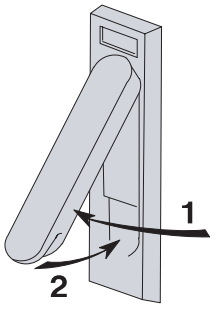
Unblock the **ERT** castors.
Remove the **ERT** then place the mobile part on the ground by activating the handle.



Remove the **ERT**.

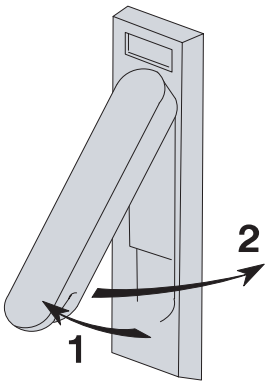


Before closing the access door to the mobile part, pull down the panel.

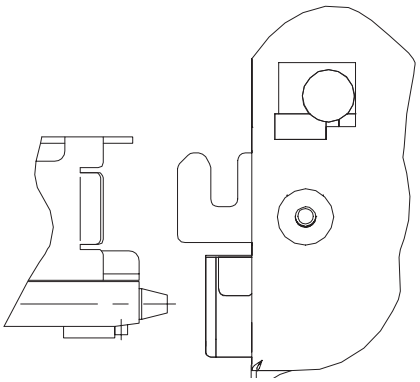


Close the access door to the mobile part by turning the handle towards the left, then pushing it.

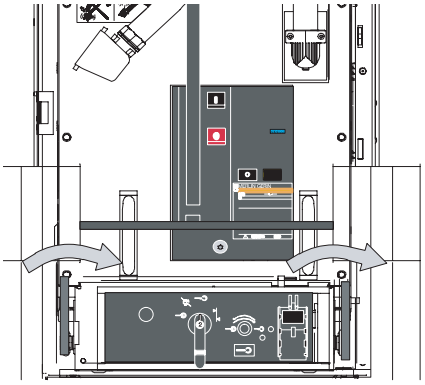
insertion



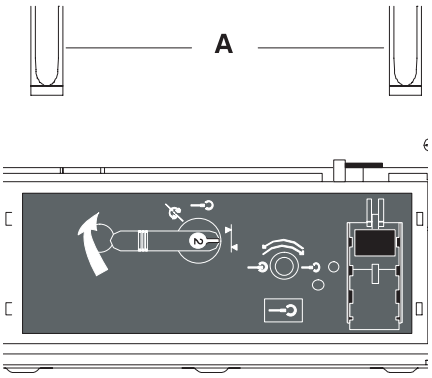
Open the access door to the mobile part by pulling then turning the handle towards the right.



Bring the **ERT** into position. (the pins entered into the holes intended for this on the cubicle).
Block the 2 **ERT** castors.



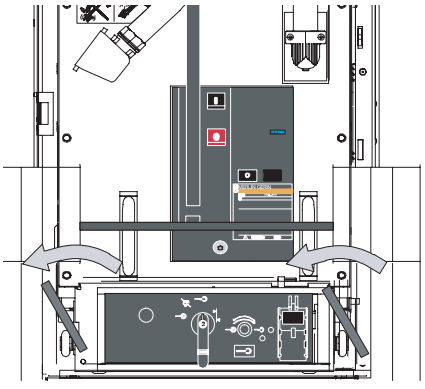
Lock the latching mechanism by pushing in, then turning towards the right the 2 ERT notching operating mechanism handles (check latching mechanism).



Change the position of selector

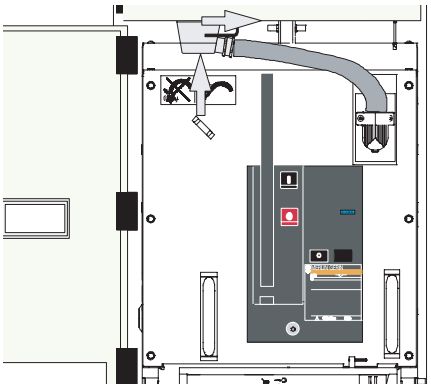
switch **2** to .

Push the mobile part into the cubicle until butted against it then change the position of selector switch **2** back to .



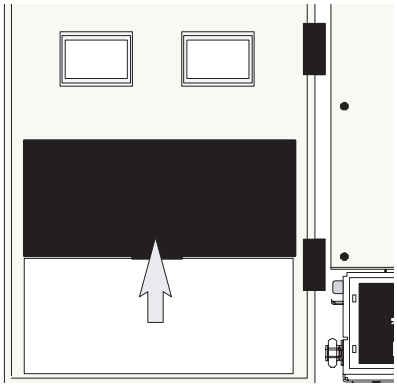
Disconnect the **ERT** by turning then pulling the 2 notching operating mechanism handles to the left.

Unblock the 2 **ERT** castors and remove it.

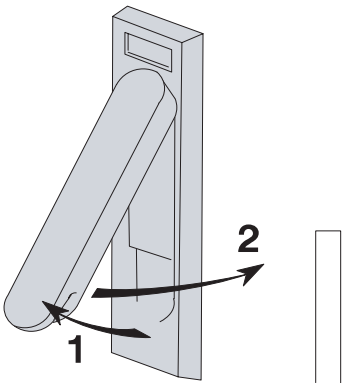


Plug in the LV socket, to do so, push and keep pressing the red button located under the lock pressed down.
Push the lock.

Connect the cord and notch it.



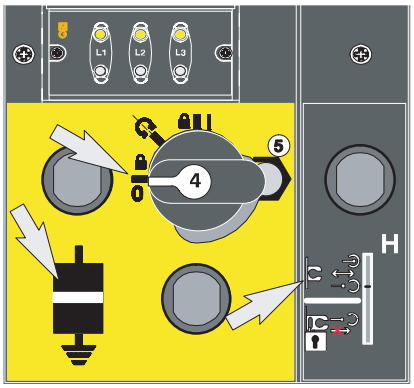
Before closing the access door to the mobile part, lift the panel, and ensure that it is well notched at the top.



Close the access door to the mobile part by turning the handle to the left then pushing it.

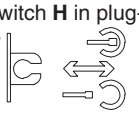
Plugging in the mobile part

Starting status

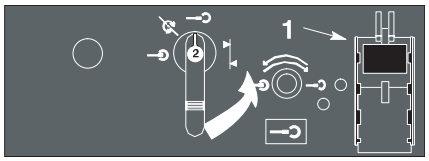


Door closed

Selector switch **4** to 
(open earthing switch)

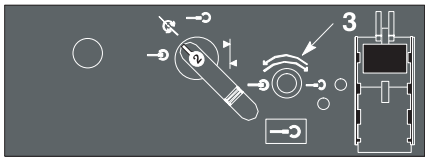
Selector switch **H** in plug-in or drawout position to 

Operation



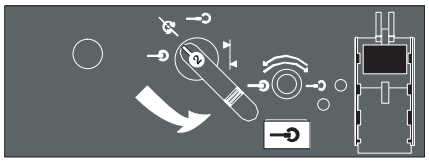
Lower the protective flap of push-button **1**.
Press push-button **1**, and while keeping it pushed down.
Change the position of selector switch **2**

to . 



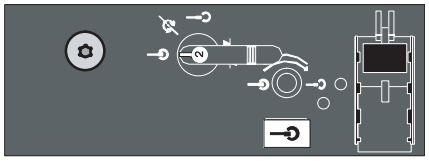
Insert the crank into opening **3**.

Plug in the mobile part by turning the crank (45 turns) clockwise until the position indicator changes status.

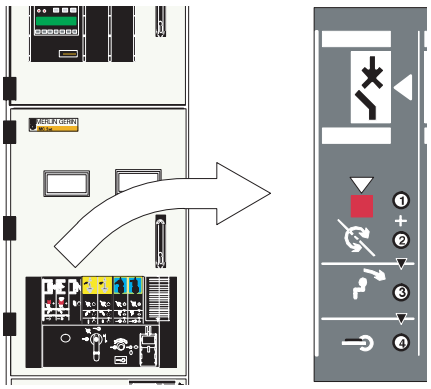


Change the position of selector switch **2**

to  .



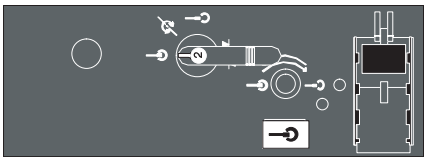
In the case of a circuit-breaker or a contactor, the electric operation for charging the downstream part of installation is now possible.



The pictogram with a black background on the front plate is a reminder of the operations.

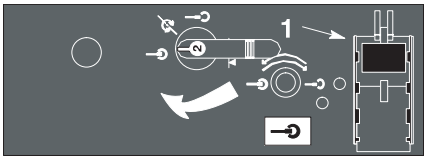
Withdrawing the mobile part

Starting status

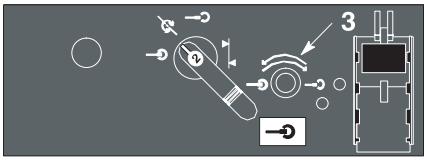


The mobile part in the plugged-in position.

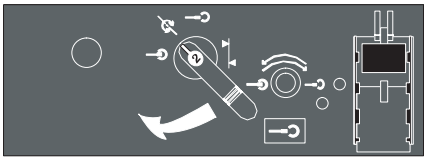
Operation



Press push-button **1** (which sends an order for the mechanical opening of the circuit-breaker).
While keeping it pushed down, change the position of selector switch **2** to  .

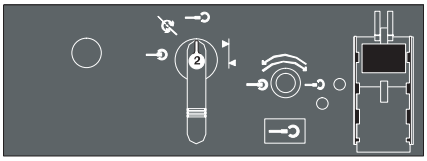


Insert the crank into opening **3**.
Withdraw the mobile part by turning the crank (45 turns) anti-clockwise until the position indicator changes status.

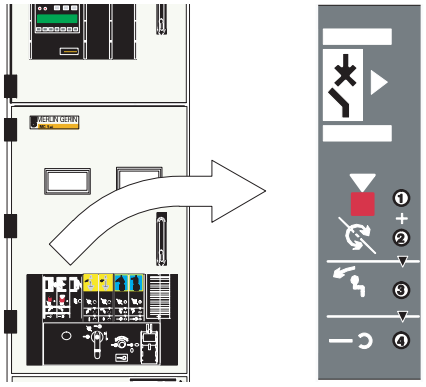


Change the position of selector switch **2**

to  .



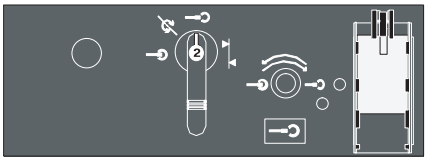
The mobile part is withdrawn.
The cubicle is in the disconnected position.

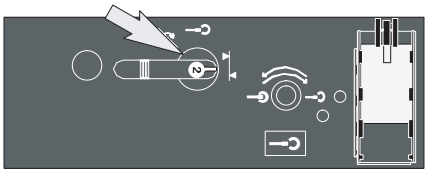


The pictogram with a black background on the front plate is a reminder of the operations.

Closing the earthing switch

Starting status



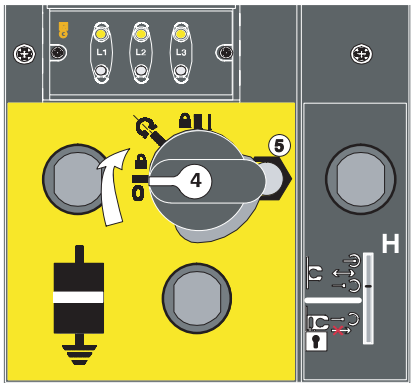


The mobile part is in a disconnected position or in an extracted position, that is, absent from the cubicle.

Check that the voltage presence lights are not lit.

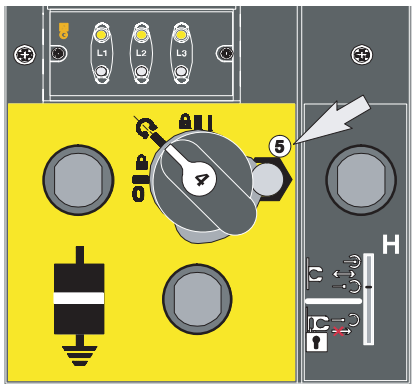
Any potential locks must enable the operation to be carried out.

Operation



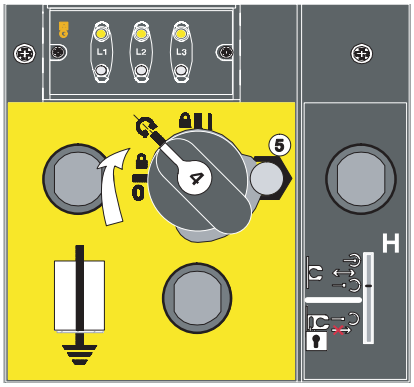
Change the position of selectorswitch **4**

to , by pulling it and turning it towards the right.



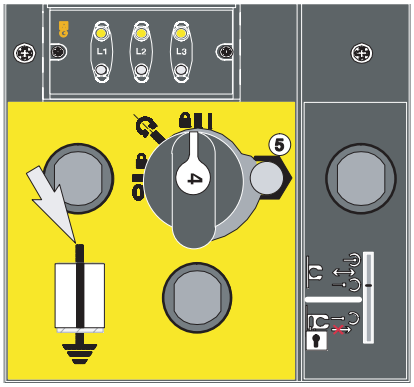
Insert the crank into the pin of operating axis **5**, and turn it clockwise until the position indicator changes status.

Closing is accompanied by a noise (sudden closing).



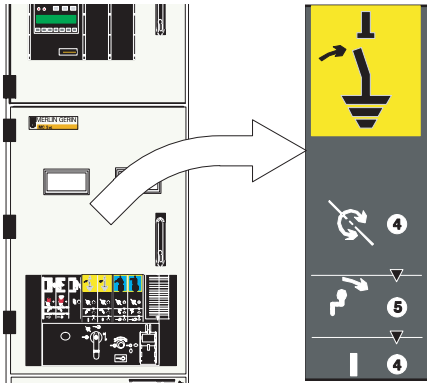
Change the position of selector switch **4**

to ▮, by pulling it and turning it towards the right.



The earthing switch is in the closed position.

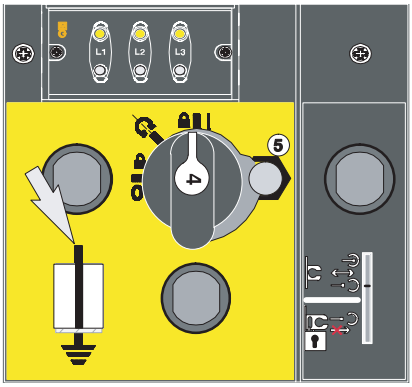
The MV cable heads are short-circuited and earthed.



The pictogram with a yellow background on the front plate, is a reminder of the operations.

Opening the earthing switch

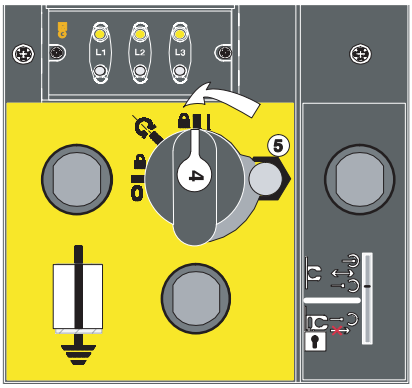
Starting status



Closed earthing switch

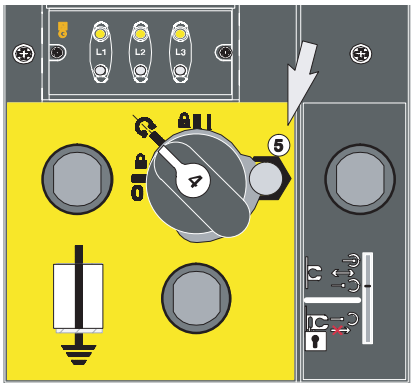
Any potential locks must enable the operation to be carried out.

Operation

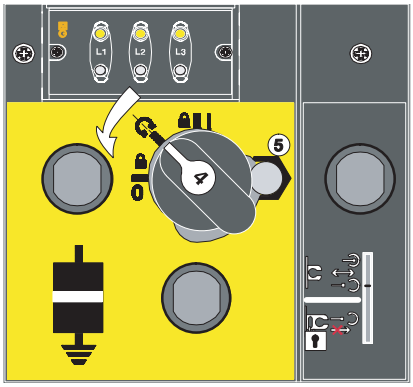


Change the position of selector switch **4**

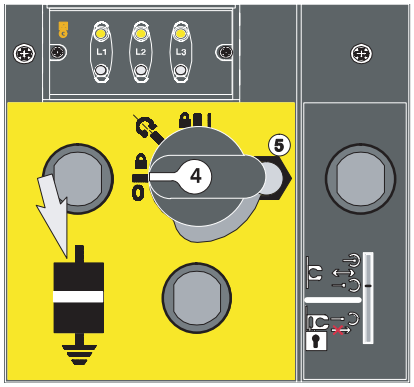
to , by pulling it and turning it towards the left.



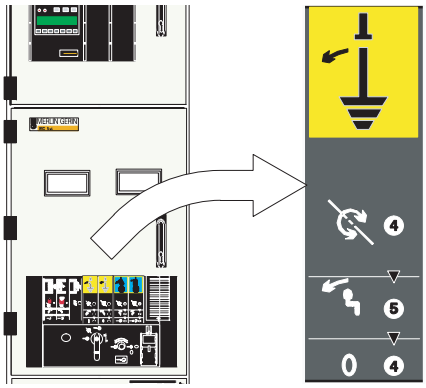
Insert the crank into operating axis **5**, and turn it anti-clockwise until the position indicator changes status.
The change of status is accompanied by a sudden closing noise.



Change the position of selector switch **4** to  by pulling it and turning it towards the left.



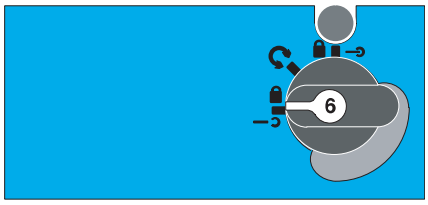
The earthing switch is in the open position.



The pictogram with a yellow background on the front plate, is a reminder of the operations.

Plugging in VT fuses

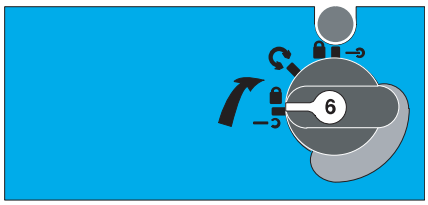
Starting status



Assembled lower panel

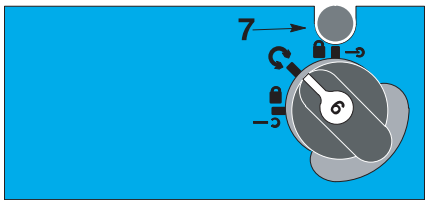
Selector switch **6** to 

Operation

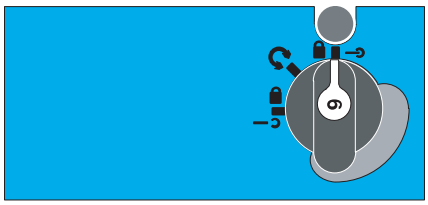


Change the position of selector switch **6**

to  , by pulling it and turning it towards the right.

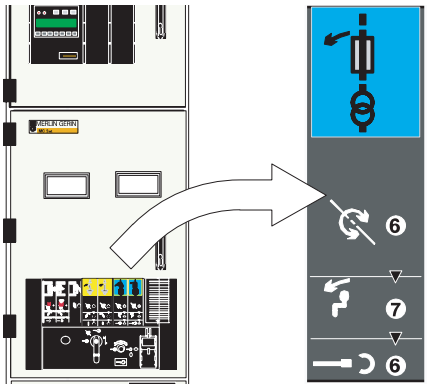


Insert the crank into operating axis **7**, and turn it clockwise until it is plugged in. Plug-in is completed when resistance can be felt (stop).



Change the position of selector switch **6**

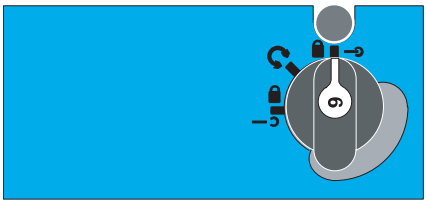
to  , by pulling it and turning it towards the right.



The pictogram with a blue background on the front plate, is a reminder of the operations.

Withdrawing VT fuses

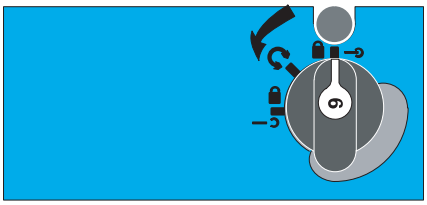
Starting status



Assembled lower pane

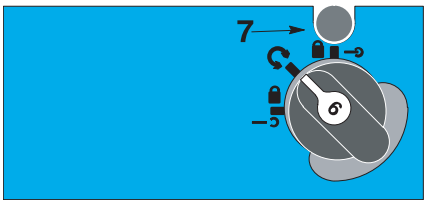
Selector switch **6** to 

Operation

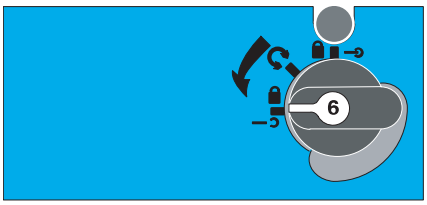


Change the position of selector switch **6**

to  , by pulling it and turning it towards the left.

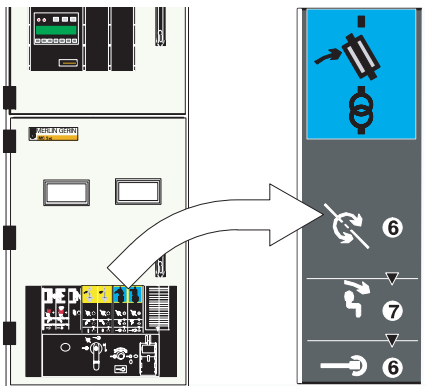


Insert the crank into operating axis **7**, and turn it anti-clockwise until drawout.



Change the position of selector switch **6**

to  , by pulling it and turning it towards the left (this authorises the removal of the fuse access panel).



The pictogram on the front panel, is a reminder of the operations.

Padlocking and preventing access using padlocks

Number of possible padlocks per cubicle type

Nota : used padlocks Ø 6 to 8 mm.

3 padlocks on the plug-in prevention selector switch.

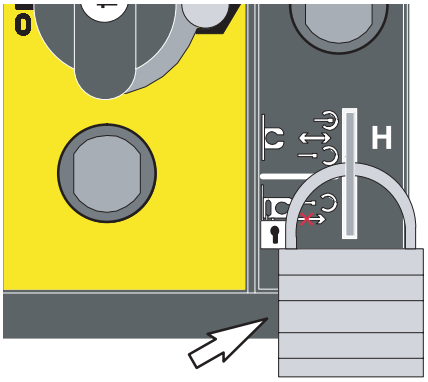
1 padlock on the protective flap of the mechanical opening push-button of the mobile part.

3 padlocks on the earthing selector switch in the opened or closed position.

3 padlocks on the selector switch of plug-in or drawout VT fuses.

1 padlock on the operating mechanism of each of the plug-in contact flaps

Preventing the plug-in of a mobile part



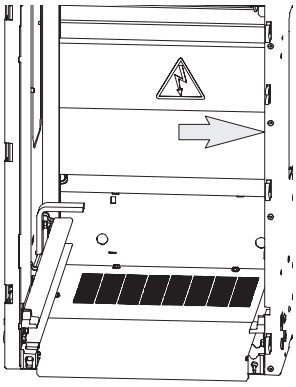
Place 1 to 3 padlocks on the plug-in prevention selector switch H.

Plug-in prevention in 

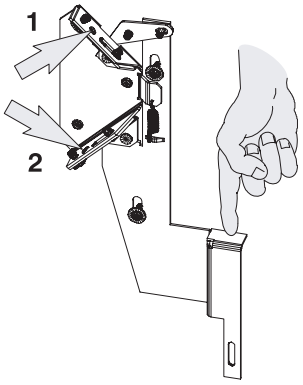
Preventing the opening of a compartment flap on the withdrawable part (option)

Close with padlock

On the operating mechanism of the plug-in contact flaps, when they are closed.



The flap operating mechanism is located inside the cubicle, on the right side.

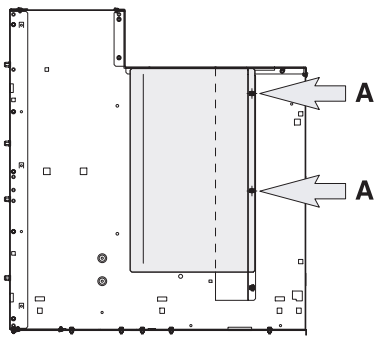


Press on the flap guide, and place the slides (1 and 2, 1 or 2) then place the padlocks in the holes.

40 kA/1s internal arc withstand:

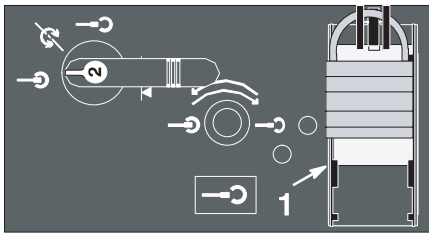
to get to the shutters mechanism, you must remove the metal sheet closing (2 screws **A**).

The metal sheet must be installed before to insert the circuit-breaker.



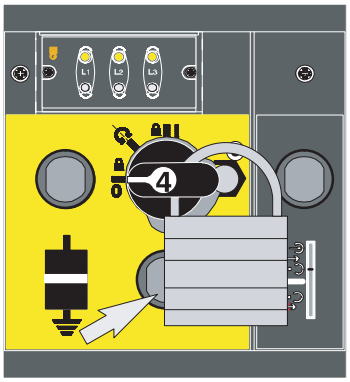
Preventing the mechanical opening order of a withdrawable part in an operational position

Can also serve as an additional plug-in and drawout lock out.

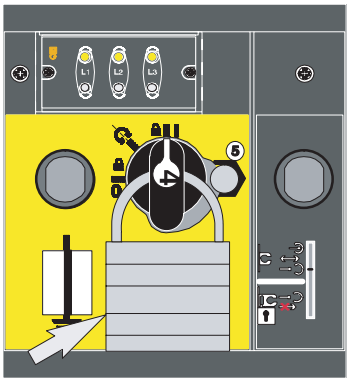


Place 1 padlock on the mechanical opening push-button protective flap **1**.

Padlocking the earthing switch

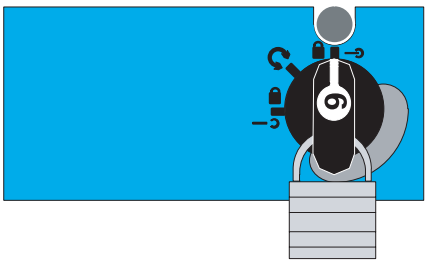


Open earthing switch:
place 1 to 3 padlocks on selector switch **4** to prevent closure.

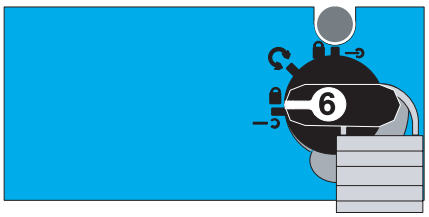


Closed earthing switch:
place 1 to 3 padlocks on selector switch **4** to prevent opening.
This also prevents the plug-in of a mobile part.

Padlocking the operation of VT fuses



plugged-in fuses:place 1 to 3 padlocks on selector switch **6** to prevent drawout.
This also prevents removalof the front panel.



Withdrawn fuses:place 1 to 3 padlocks on selector switch **6** to prevent plug-in.

Locking using locks (option)

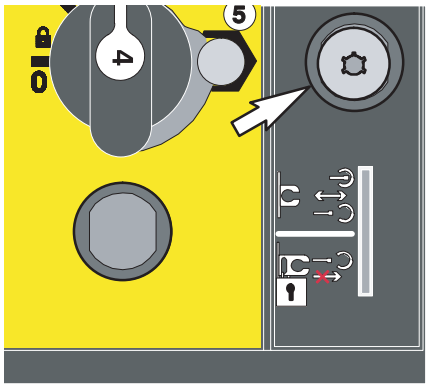
Number of possible locks

Mobile part in a drawn out position:
1 lock on the cubicle (2 O) or (2 C) or (1 O and 1 C) or (1 O) or (1 C): on earthing switch.

Disconnector carriage (withdrawable busbar bridges):
1 lock in the plugged-in position (on the disconnector).

Locking on a cubicle

Locking the plug-in prevention of a mobile part.

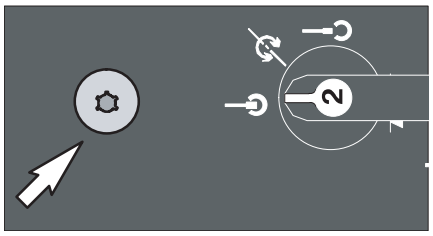


The wrench is only released when plug-in prevention is locked.

Locking the disconnector carriage in the plug-in position

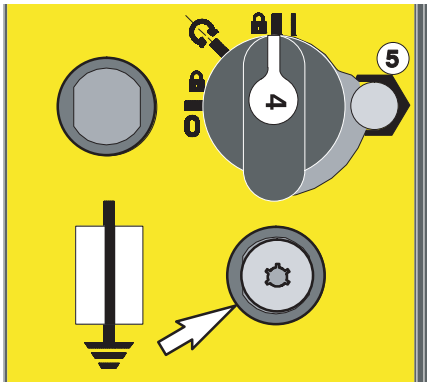
Closed disconnector

Plugged in disconnector carriage

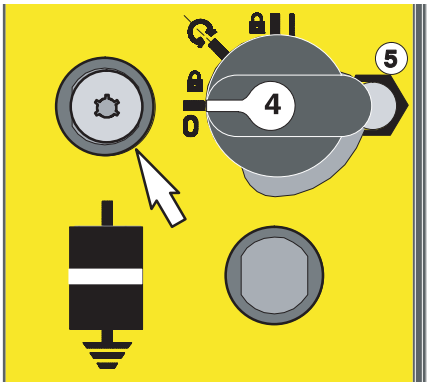


The wrench is only released when the mobile part is in the plug-in and locked position.

Locking the earthing switchwith a lock

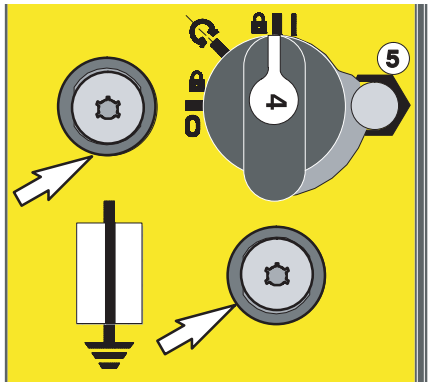


1 lock in closed position



1 lock in open position

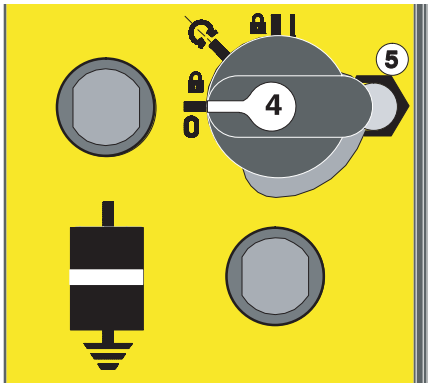
Locking the earthing switchwith two locks



(2 O) or (2 F) or (1 O et 1 F) or (1 O) or (1 F).

Locking using an electromagnet (option)

Locking the earthing switch

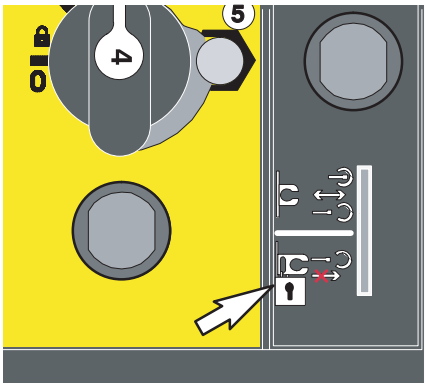


The electromagnet automatically locks the earthing switch in the "open" and "closed" position.

A push-button located on the low voltage compartment authorises the operation of selector switch 4, if switchboard configuration is certain.

Locking on a cubicle

Electromagnetic locking prevents the plug-in of a mobile part.



The electromagnet automatically locks plug-in padlocking when it is activated.

A push-button located on the low voltage compartment authorises unlocking, if switchboard configuration is certain.

Corrective maintenance

Forward

Corrective maintenance operations allow for defective subassemblies to be replaced.

The operations mentioned in the summary table here after can be carried out by the customeror by Schneider Electric After Sales agents.

For any other intervention,call upon the nearest Schneider group agents.

After each operation, carry out electric tests in compliance with the standards in force.

Careful: during replacement, all the following accessories must absolutely be replaced by new equipment.

- Nylstop (self-locking nut)
- Contact washer
- Stop rings
- Mechanical pin.

Summary table

Description	Execution	Comments
Replacement on FU (cubicle AD or CL)		
Busbar rating	Schneider Electric	For any intervention, call the nearest Schneider Electric agents.
Earthing switch clamps and capacitive isolators	Schneider Electric	
Plug-in pins	Schneider Electric	
Upper and lower bushing	Schneider Electric	
Increase in the number of cables	Schneider Electric	
Flaps and flap operating mechanisms	Schneider Electric	
Extraction of a cubicle	Schneider Electric	
VT fuse	Customer/ Schneider Electric	See the following page
VPIS voltage indicator box	Customer/ Schneider Electric	See the following page
CT	Customer/ Schneider Electric	See Kit no. 07897207 instructions
Anti-condensation resistor	Customer/ Schneider Electric	Consult us
Earthing switch position auxiliary contact block	Customer/ Schneider Electric	See Kit no. 07897324 instructions
Surge arrester	Customer/ Schneider Electric	Consult us
Locking using plug-in padlocking lock(s)	Customer/ Schneider Electric	See Kit no. 07897330 instructions
Plug-in padlocking electromagnetic locking	Customer/ Schneider Electric	See Kit no. 07897326 instructions
Locking using earthing switch lock(1)	Customer/ Schneider Electric	See Kit no. 07897328 instructions
Locking using earthing switch locks(2)	Customer/ Schneider Electric	See Kit no. 07897329 instructions
Earthing switch electromagnetic lockin	Customer/ Schneider Electric	See Kit no. 07897325 instructions
Locking using lock(s) for prevention of withdrawal	Customer/ Schneider Electric	Consult us
Zero frequence toroid	Customer/ Schneider Electric	See Kit no. 07897216 instructions
VT and VT compartment	Customer/ Schneider Electric	See Kit no. 07897218 instructions
High voltage contacts on VT fuses	Customer/ Schneider Electric	See Kit no. 07897219 instructions
MV handles	Customer/ Schneider Electric	See Kit no. 07897220 instructions
Cable connection bar support isolators	Customer/ Schneider Electric	Consult us
Circuit-breaker carriage position auxiliary contacts	Customer/ Schneider Electric	See Kit no. 07897222 instructions
Withdrawable VT auxiliary contacts	Customer/ Schneider Electric	Consult us
Withdrawable VT fuse blowing auxiliary contacts	Customer/ Schneider Electric	See Kit no. 07897223 instructions
Printed circuit and relay support (STPI)	Customer/ Schneider Electric	Consult us
Replacing the fans on 3600 A / 4000 A cubicles	Customer/ Schneider Electric	See page 41
Cleaning ventilation grids on 3600 A / 4000 A cubicles	Customer/ Schneider Electric	See page 17

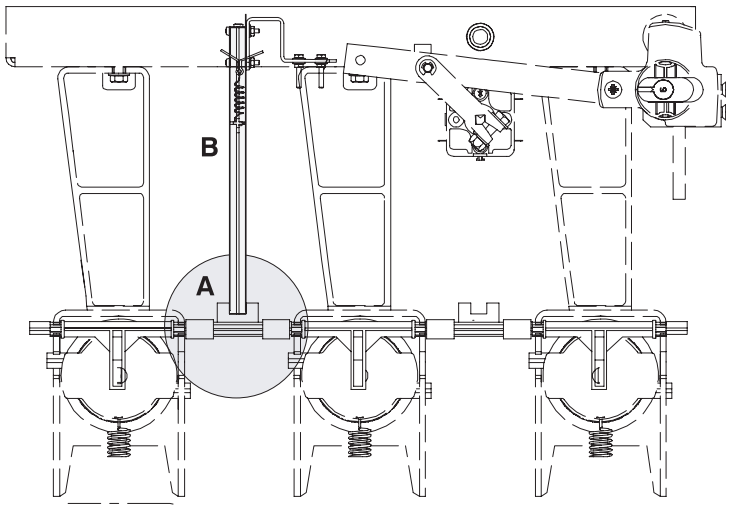
Replacement of VT compartment fuses

Starting position

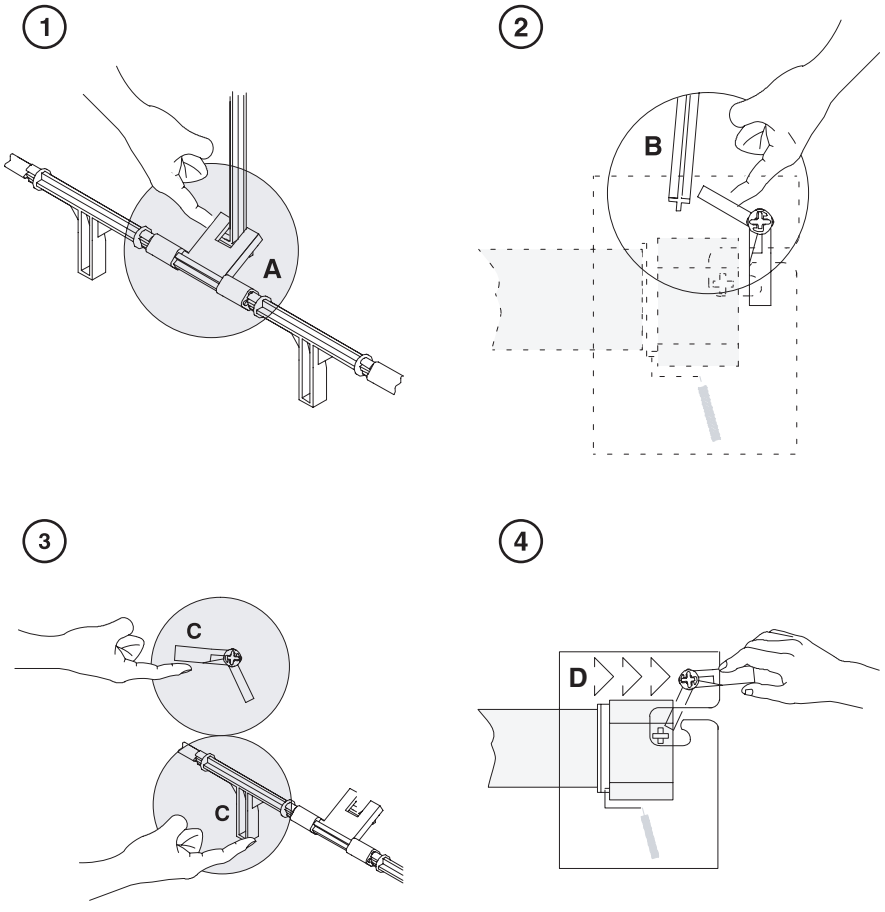
Withdrawn fuses and disconnected VT low voltage connector (see chapter "**Operating instructions**").

Remove the protective panel (see chapter "**Instructions for access to the inside of a cubicle**").

Removing

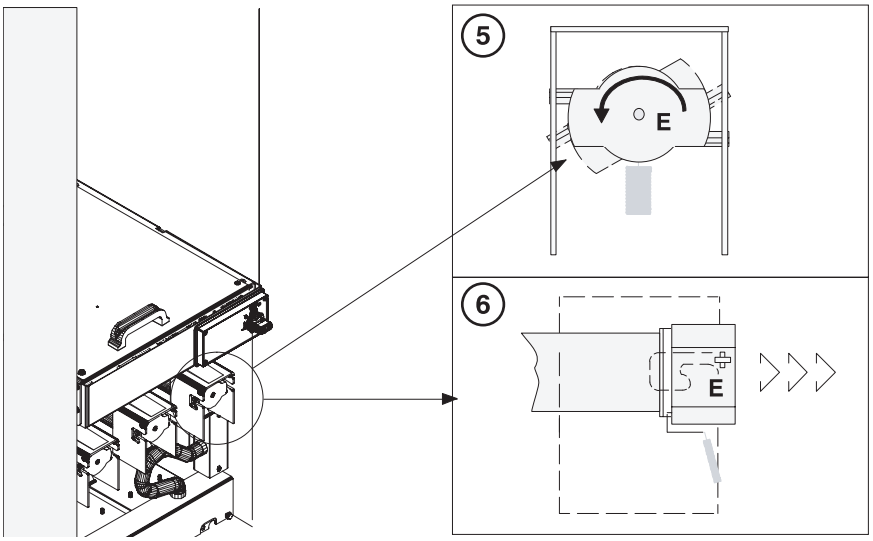


1: raise vane **A**
2: disconnect the small vertical rod **B**
3: pivot the striker pads **C** into a horizontal position
4: carefully remove the pin from the striker pads **D**.

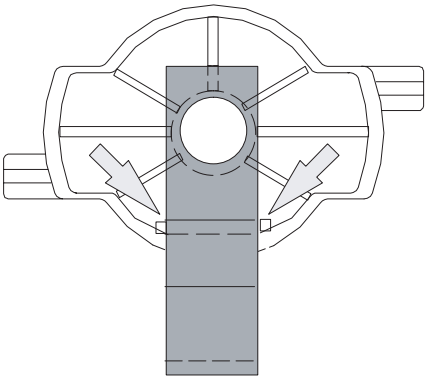


5: push wrench **E** and turn towards the left and let go. The fuse is unlocked.

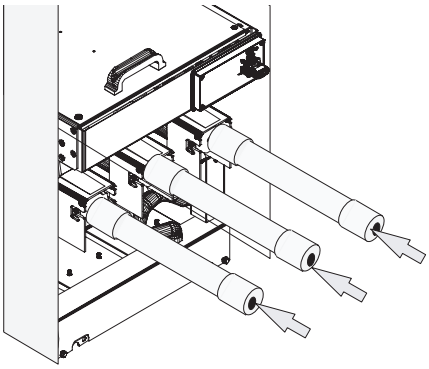
6: Remove the wrench and the fuse.



Placing



Place the spring on the wrench and check that it is butted against the bottom of the wrench and positioned between the two clips indicated by the arrows.

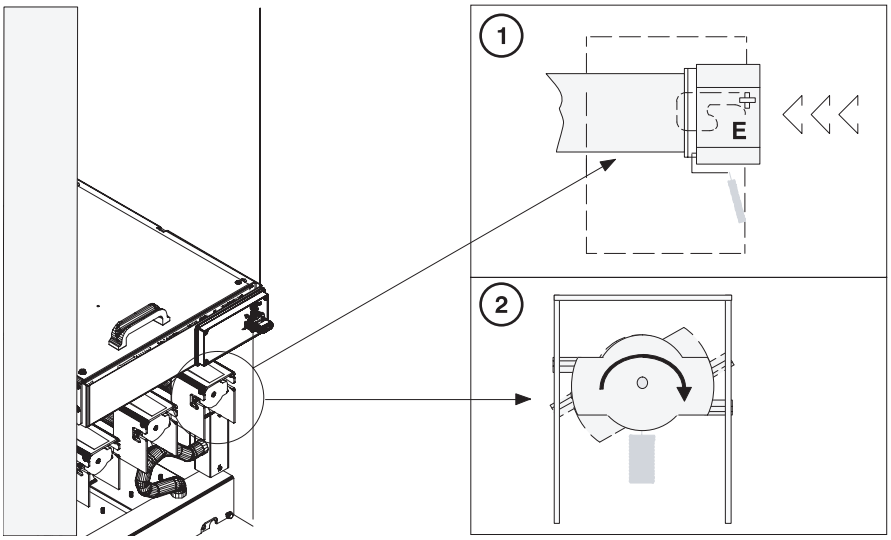


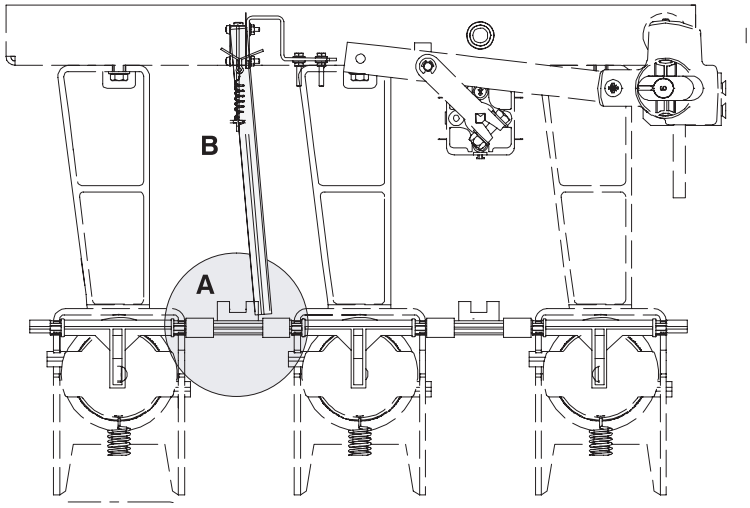
Place the fuses, with the strikers on the outside.

Fit the wrenches on the fuses (spring towards the bottom).

1: push wrench **E**

2: turn it towards the right and let go. The fuse is locked, check the wrench latching mechanism.

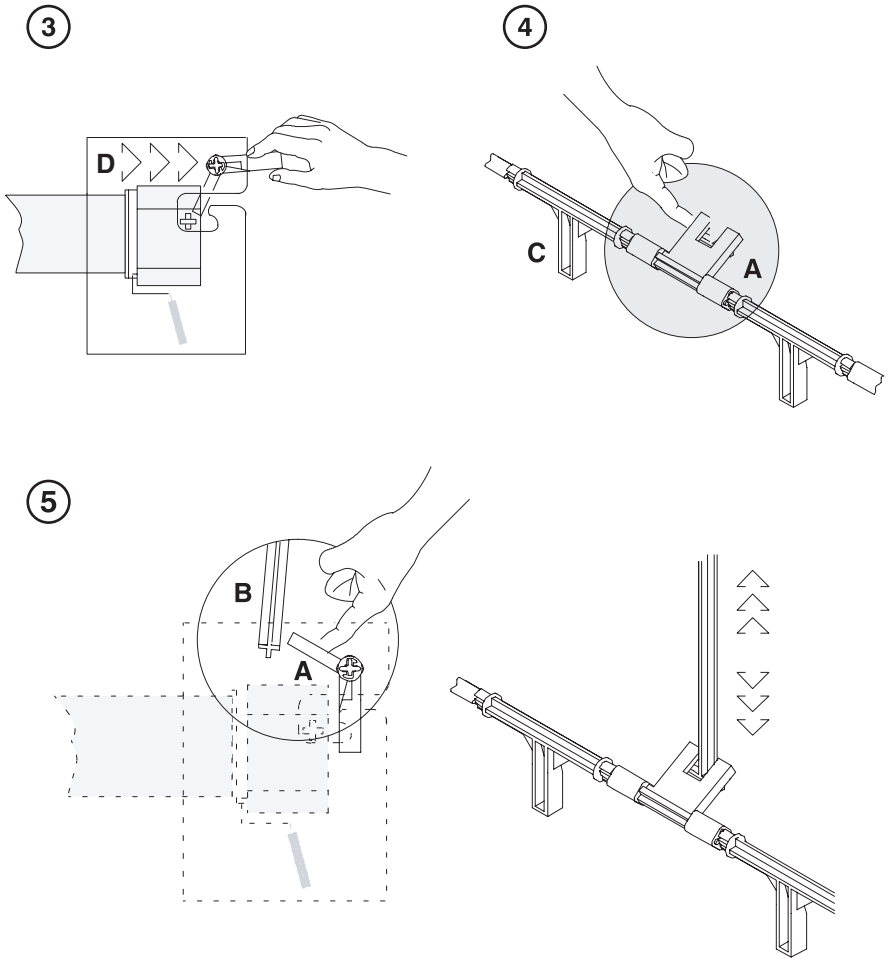




3: carefully insert the pin on the striker pads **D**.

4: raise vane **A** to place the striker pads **C** in a vertical position.

5: connect the small vertical rod **B** to ensure free operation of the small rod.



Operation

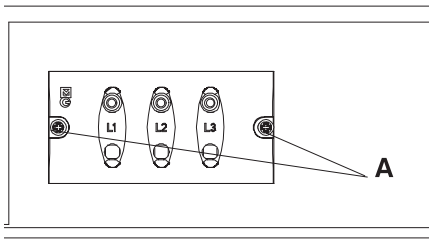
Connect the VT low voltage connector (see chapter "**Operating instructions**").

Place protective panel (see chapter "**Instructions for access to the inside of a cubicle**").

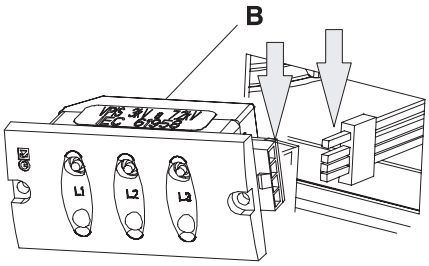
Replacing of a voltage indicator box

Removing

This operation can be carried out while the equipment is energised.



Remove the 2 fastening screws (**A**) from the voltage indicator box.



Remove the voltage indicator box (**B**) and disconnect the connector.

Placing

Check on the characteristics label (**B**) that the new box corresponds to the rated voltage of your network.

- 1.7 kV to 3 kV
- 3 kV to 7.2 kV
- 10 kV to 24 kV.

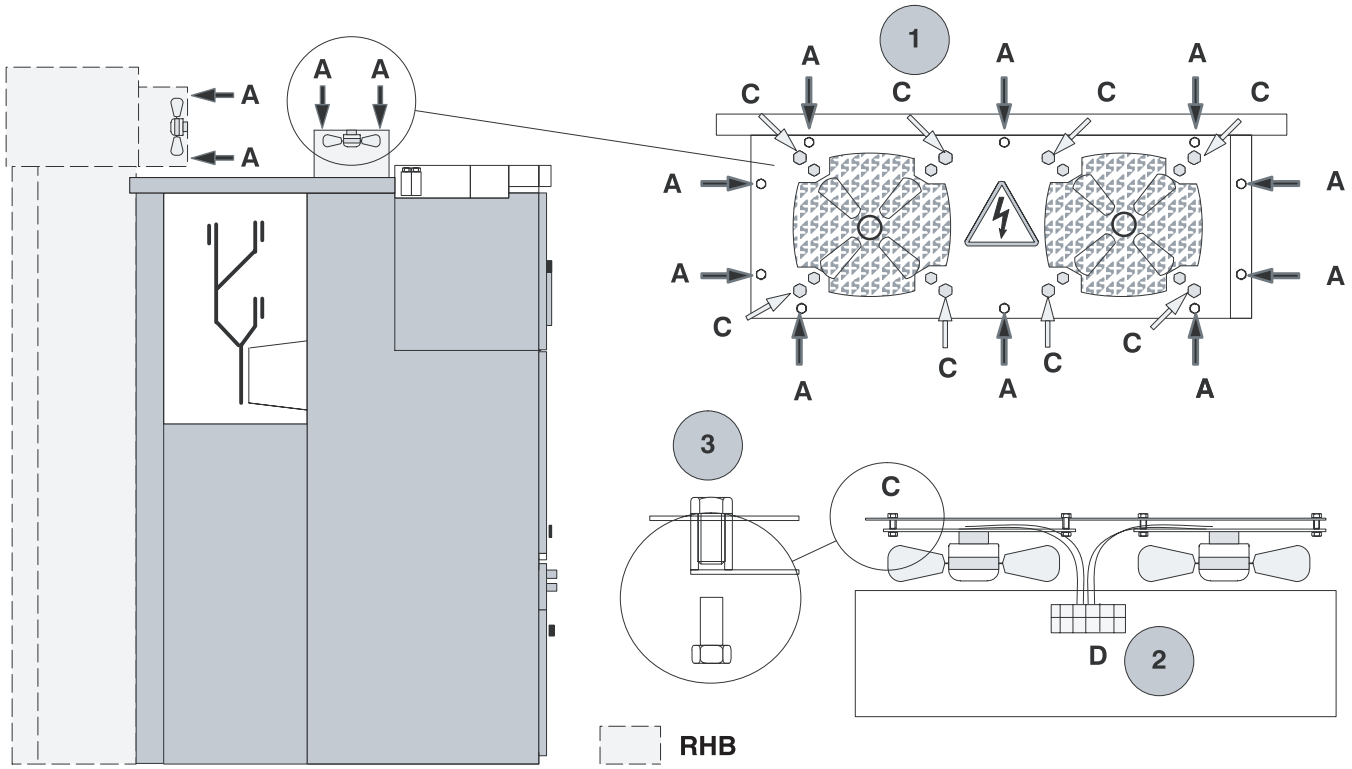
Place the new voltage indicator box in the reverse order of removal.

Tightening torque: 0.1 mdaN.

Replacing the fans on 3600 A / 4000 A cubicles

With or without capacitor

Removing withpower off.



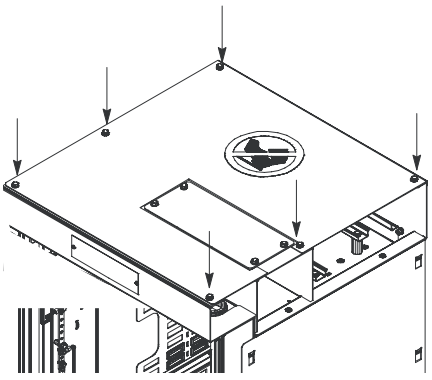
1: disassemble the 10 screws (**A**) take off the cover.

2: disconnect the wires (**D**) mark the wires when disassembling.

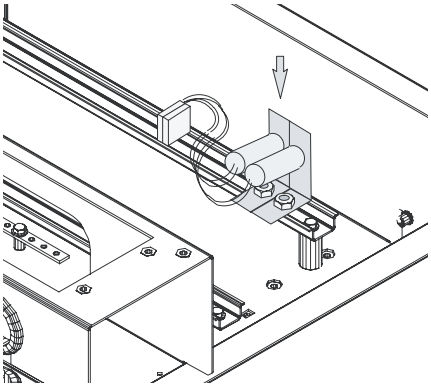
3: disassemble the 8 screws (**C**) securing the fan to the cover of compartment (**A**).

Replacing the capacitor

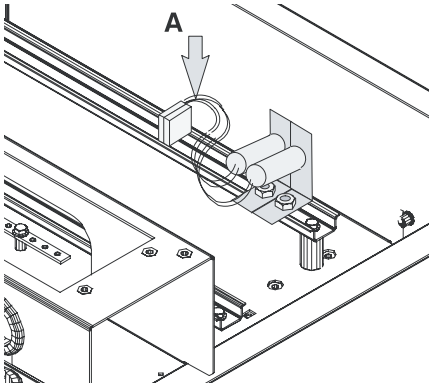
With power off.



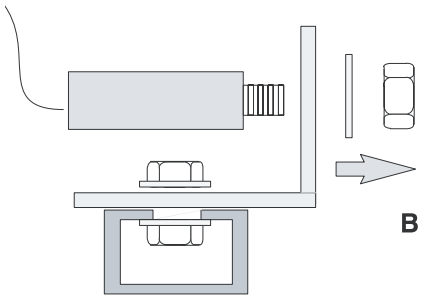
Remove the roof plate on each cubicle (6 screws).



To acc the capacitor.



Mark the wiring and disconnect (**A**).



Disassemble the nut and washer (**B**).

Putting back the new capacitor

Fit the fan and the capacitor (if necessary) in the opposite order to disassembly.

Check on the characteristics label that the new fan and capacitor match the rated voltage indicated.

- 5 1237 333FA 220 Vac
- 5 1237 333FB 110 Vac
- 5 1237 333FC 48 VD.