

Additional information to Technical Instructions Manual AMTNoT085-02 - § 8.4

- All locking-out operations must be performed according to the General Safety Instructions booklet for Electrical Applications and any particular rules for the network concerned.
- Respect the locking-out procedures (wearing of gloves, etc.) for any intervention with energised equipment.
- The operations described below are carried out on de-energised equipment.

1.1 Conventional symbols



Code for a product recommended and marketed by Schneider Electric



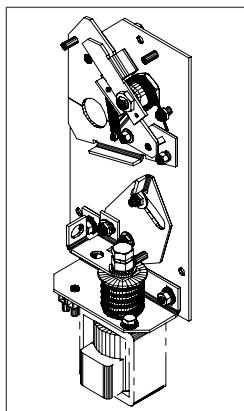
Value of the tightening torque
Example: 1.6 N.m



CAUTION! Remain vigilant
Precautions to be taken to avoid any accident or injury

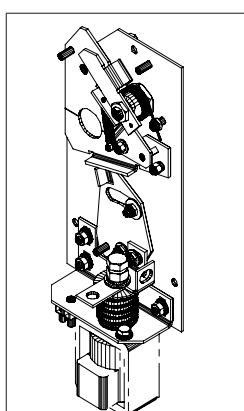


INFORMATION - ADVICE
Your attention is drawn to a specific point for installation or operation.



1.2 Two possible mountings: tripping coil or undervoltage coil

- Tripping coil (mounting represented with an interlocking by key lock).



- Undervoltage coil (mounting represented with an interlocking by key lock).



Before beginning the replacement operations, it is imperative to check:

- The presence of all of the elements and tooling required,
- The correct characteristics of the coil,
- The correspondence of the mounting of the tripping coil or that of an undervoltage coil

1.3 Parts and documents supplied

The following is supplied:

- 1 support plate + fixing and connection threaded fasteners + an electrical coil.
- 1 bundle of LV connecting wires,
- 1 electrical diagram,
- The present Technical Instructions.

1.4 Preparation of the functional unit

Interven-tion	Duration	Busbars	Cables	Circuit breaker	Earthing switch
Normal	4 hrs	de-energised	de-energised	withdrawn	open
Possible	4 hrs	energised	de-energised	withdrawn	open

Locking out the functional unit

All locking out operations must be carried out in accordance with the special rules for the network concerned.

Tooling required:

- 1 flat-blade screwdriver;
- 1 hammer
- 1 drill + a drill bit of 6.8 mm Ø
- 1 pin punch of 4.5 mm
- 1 Allen key size 8 mm
- 1 open-ended spanner size 8; 13
- 1 ratchet handle + 150 mm extension + socket sizes 13; 16
- 1 torque wrench

Parts and documents required:

- 1 equipped support plate (beware of the power supply current to the coil and its mounting)
- 1 bundle of LV wires for the electrical connections
- 1 electrical diagram,
- The present instructions(AMTNoTT098-02)

- Extract the circuit breaker in accordance with the instructions AMTNoT085-02 - § 11.2.
- Remove the cable access panel.



- Fit an earthing block on to the HV cable ends.

- Open the earthing switch in accordance with instructions AMTNoT085-02 - § 7.2.



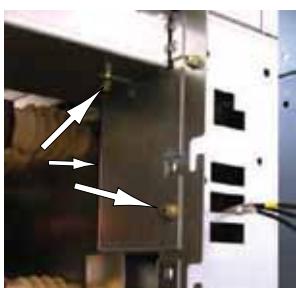
- Dismantle and extract the front metal panel (5 H M8x20 screws).



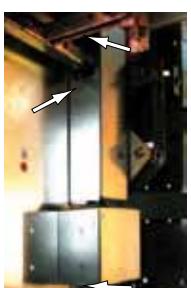
Mounting the coil on the earthing switch (contd.)



- Unscrew the 7 fixing points from the front vertical strip. They are accessible from the inside.
- Slightly remove the metal strip and disconnect the voltage presence wires.
- Completely remove the vertical strip.



- Dismantle and remove the protective cover from the voltage presence box (2 HM8x20 screws + 1 HM6x20 screw).



- Dismantle and remove the vertical wiring duct (2 HM6x20 screws + 1 HM6 nut).



1.5 Removal of the earthing switch and plate

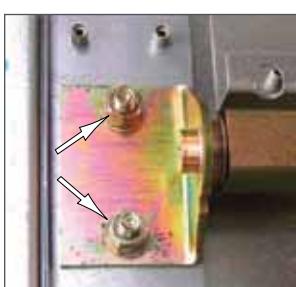
- Disconnect the vertical tie-rod fixed to the upper part of the plate (self-locking nut + spacer + washer).



- Disconnect the earthing braid from the earthing switch (HM10 nuts + washer).

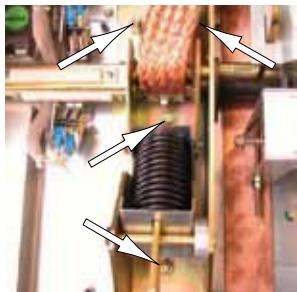


Before continuing the dismantling operations, provide for a person to firmly retain the earthing switch.



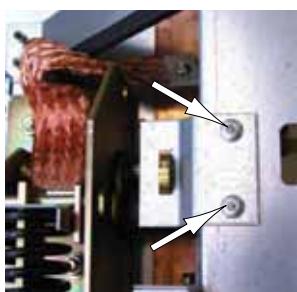
- Unscrew the 2 HM10 fixing nuts from the rear bearing on the earthing switch.
- Remove the bearing.

Mounting the coil on the earthing switch (contd.)



- Unscrew the 4 HM10 fixing nuts from the front bearing on the earthing switch.

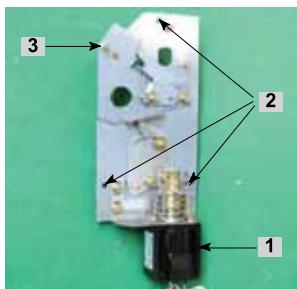
Slowly extract the earthing switch with great precaution because the spring is compressed.



- If a mechanical interlocking is present, punch out the central part of the 2 fixing rivets.
- Drill the rivets with a 6.8 mm drill bit to remove them completely.
- Disconnect the connecting tie-rods and remove the mechanical interlocking

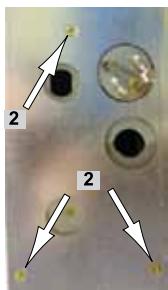


- On the front facing panel of the functional unit, punch out the central part of each of the 3 fixing rivets on the plate.
- Drill the rivets with a 6.8 mm drill bit to completely remove them.
- Extract the plate from the interior of the functional unit.



Legend :

- Undervoltage coil for this mounting
- 3 fixing screws
- Fasteners for the tie-rod connection



1.6 Preparation of the new plate

- Equipped plate.

If any interlocking by mechanical locks are present it is necessary to replace the locks on the new plate.

After the drilling operations, carefully clean the inside and outside of the functional unit.

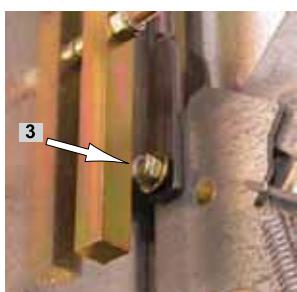
1.7 Mounting the new plate

- Present the new plate via the interior of the functional unit and fix it (2) by 3 FHC5x20 screws + ES5 washers + L5 washers + M5 nuts.
- The head of the countersunk screw must be on the outside of the functional unit.

Mounting the coil on the earthing switch (contd.)



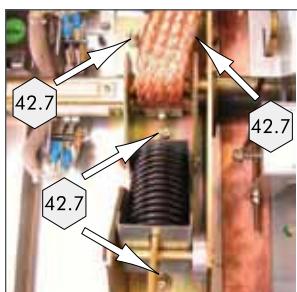
- In accordance with the electrical diagram, connect the power wires for the coil (1).
- Pass the power supply wires into the vertical wiring duct, then follow the circuit for raising the wires as far as the box.



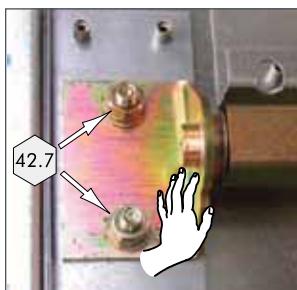
- Connect up the vertical tie-rod (3) (spacer + flat washer + self-locking nut).



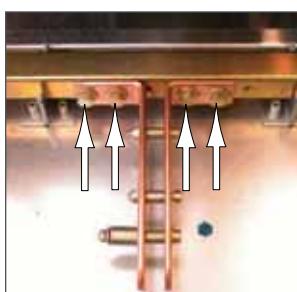
- Present the blue strip.
- Reconnect the voltage presence wires in accordance with the phase markings.



- Position the earthing switch.
- Screw in and tighten the 4 nuts on the front bearing.



- Position the rear bearing and maintain it firmly by hand against the shaft.
- Screw in and tighten the 2 nuts.

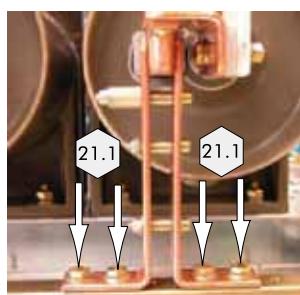


- Unscrew all of the fixing screws on the 3 knife blades on the earthing switch.

Mounting the coil on the earthing switch (contd.)



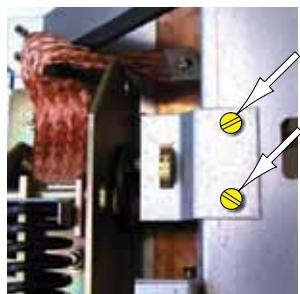
- Depending on the mounting, maintain the coil pressed down (or not).



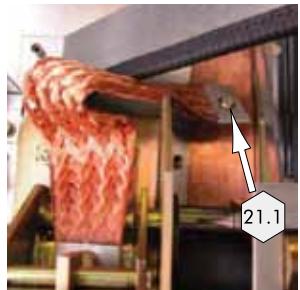
- Close the earthing switch.
- Tighten the 4 fixing screws on each knife blade.



If the coil assembly is an undervoltage coil, it is imperative to supply power to this coil in order to carry out operations on the earthing switch.



- In the case of mechanical interlocking, fix the maintaining lug by
 - 2 FHC5x20 screws,
 - + 2 ES5 washers,
 - + 2 L5 washers,
 - + 2 M5 nuts.
- Connect the linkage.



- Fix and tighten the earthing braid on the earthing switch.
- Remount:
 - The protective covers for the voltage presence indicators,
 - The vertical wiring duct for the wiring.



- Remount the sheet metal panel and fix it by 5 HM8x20 screws.

1.8 Mechanical and electrical tests

Whenever the assembly is completed, proceed with carrying out several mechanical and electrical operation tests.

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