

ELECTRIC VEHICLE CHARGER AND CONVERTER HIGH VOLTAGE BUS BARS : REMOVAL - REFITTING



Note, one or more warnings are present in this procedure



Locations and specifications (tightening torques, parts always to be replaced, etc.)[\(see 17E, Power electronics, Electric vehicle charger and converter assembly : Exploded view\)](#) .



CAUTION

■ To avoid all risk of damage to the systems, apply the safety and cleanliness instructions and operation recommendations before carrying out any repair :

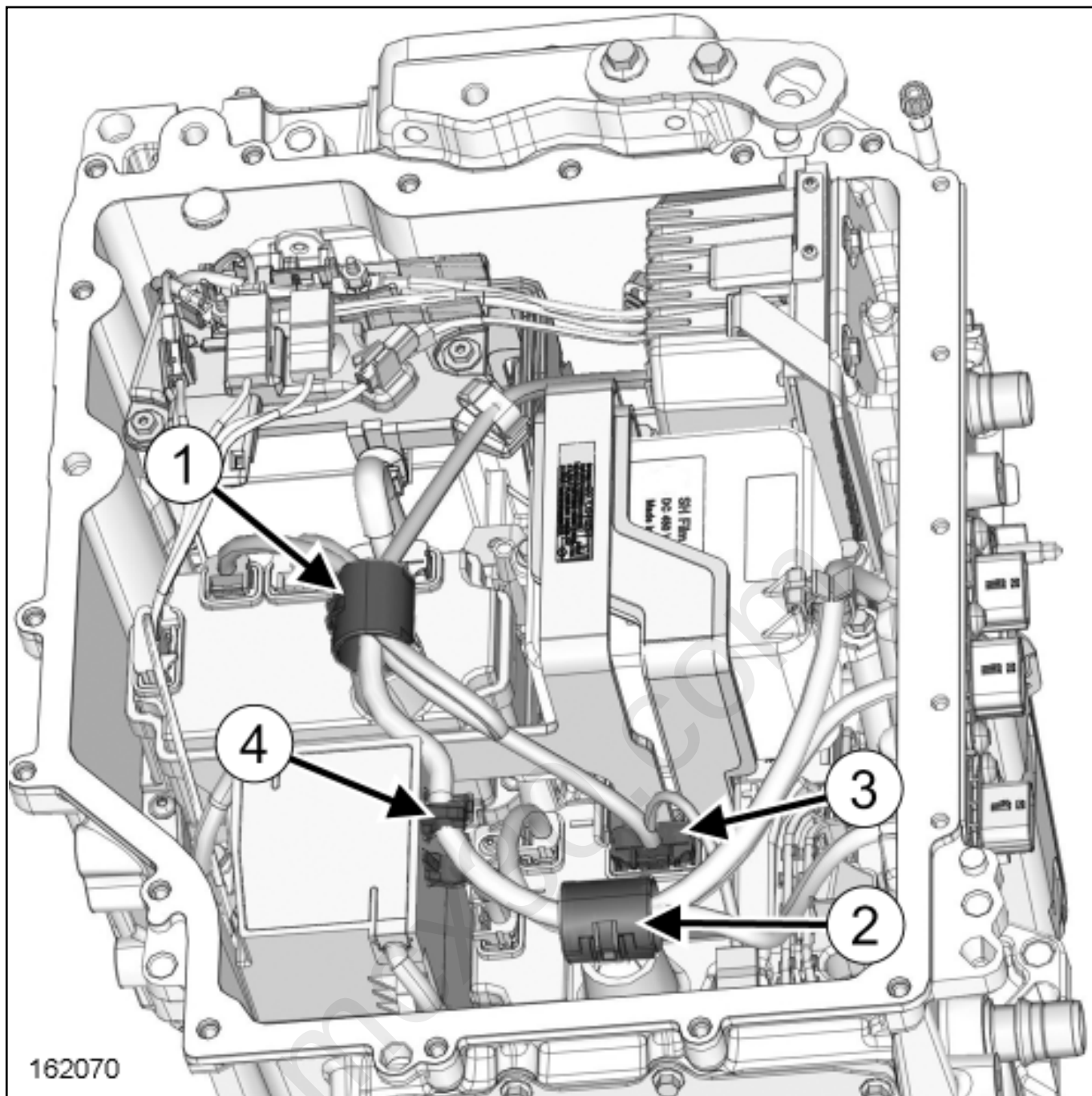
- (see **Electric vehicle power electronics : Precautions for the repair**) ,
- [Vehicle: Precautions for the repair](#) .

REMOVAL

1. REMOVAL PREPARATION OPERATION

- Remove the electric vehicle charger and converter[\(see 17E, Power electronics, Electric vehicle charger and converter: Removal - Refitting\)](#) .
- Remove the housing cover of electric vehicle charger and converter[\(see 17E, Power electronics, Electric vehicle charger and converter housings : Removal - Refitting\)](#) .

2. REMOVAL OPERATION



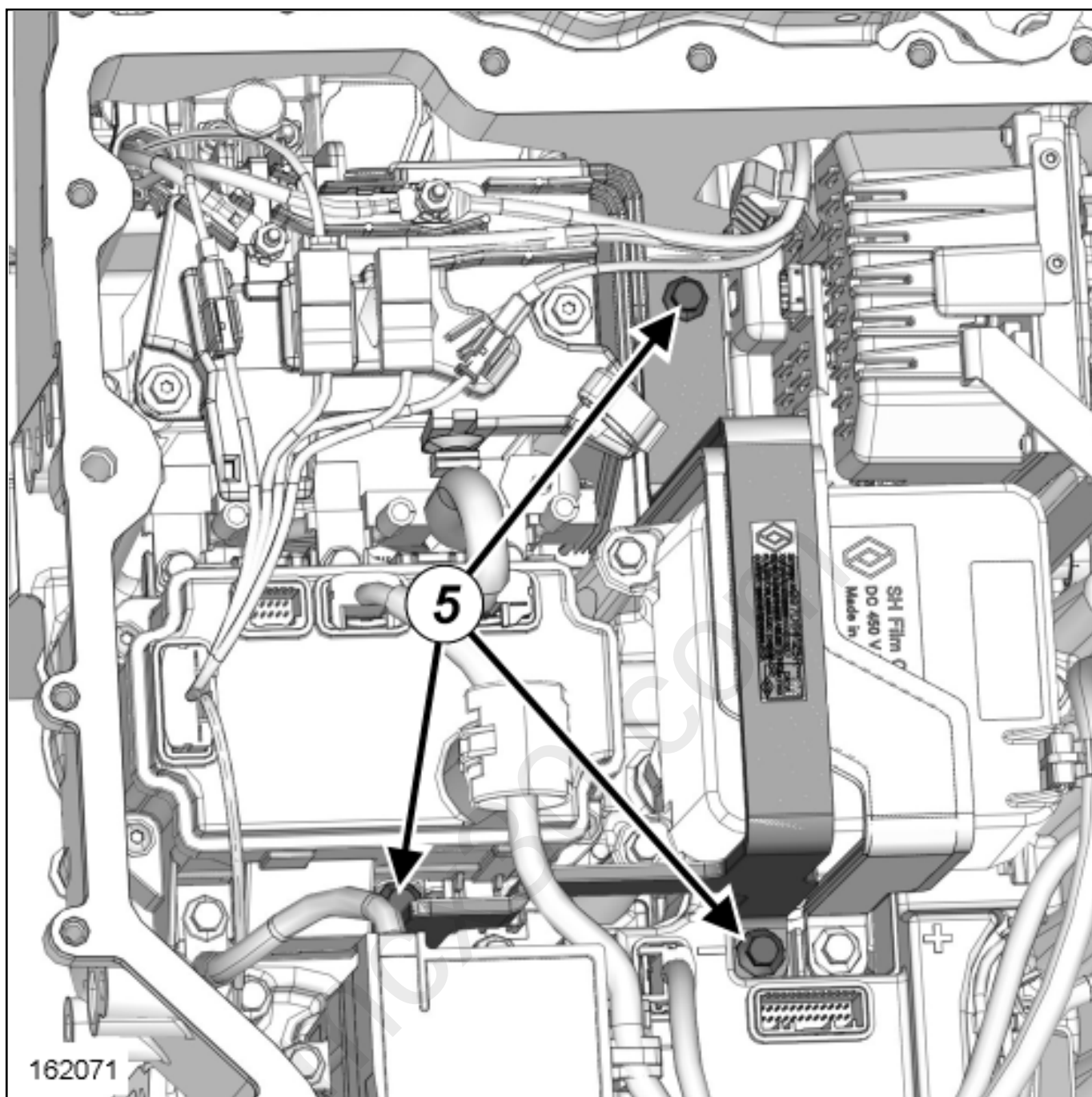
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■ Open :

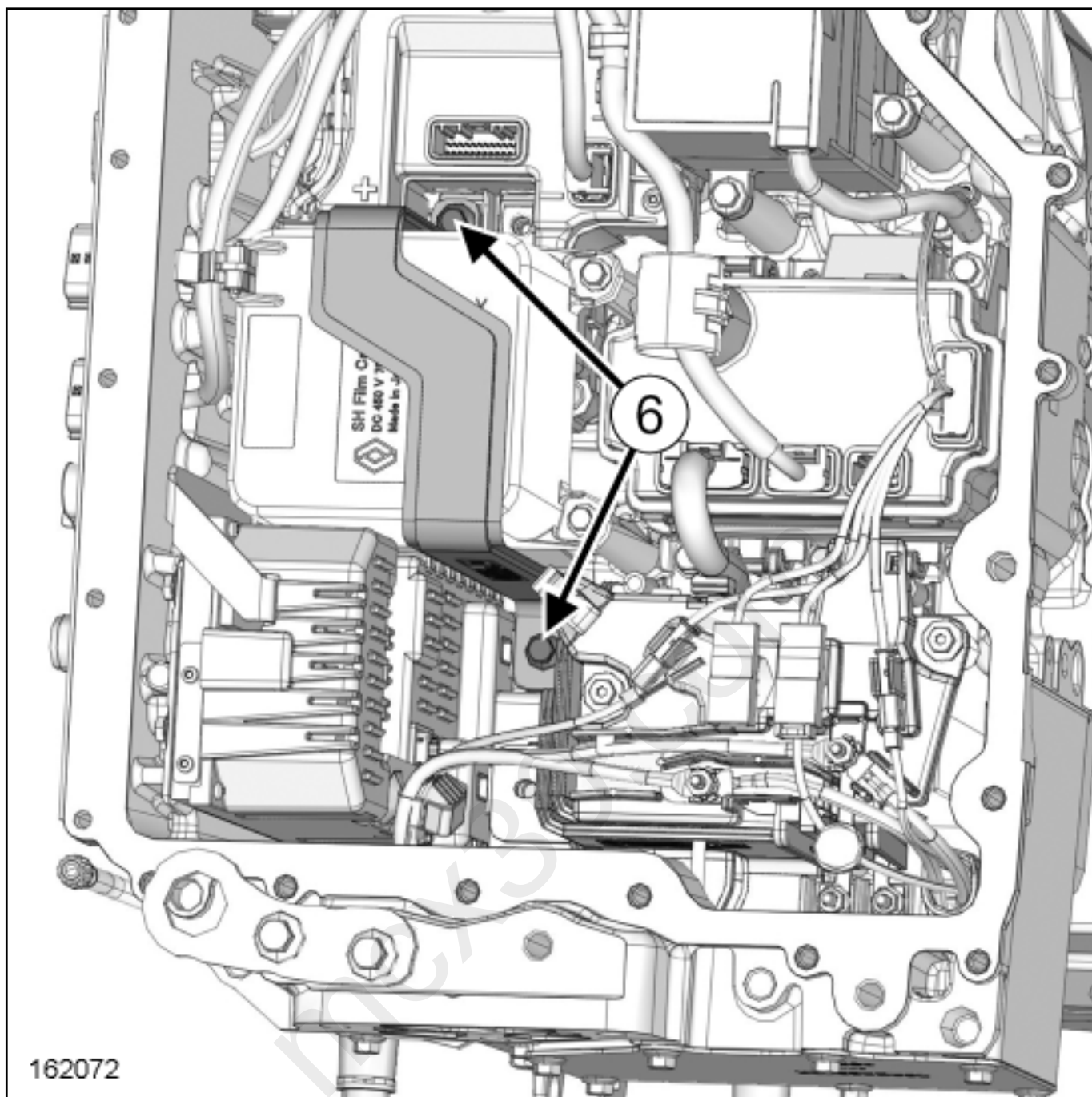
- the cable retaining clip(1) on the rectifier module,
- the cable retaining clip(2) on the inverter module.

■ Disconnect the connector(3) of the wiring between converter module and rectifier module and inverter module.

■ Free the wiring of the charging plug signal connector socket from the cable retaining clip(4) .



- Remove [\(see 17E, Power electronics, Electric vehicle charger and converter assembly : Exploded view\)](#) :
- the screws of the left bus bar(5) ,
 - the left bus bar.



- Remove [\(see 17E, Power electronics, Electric vehicle charger and converter assembly : Exploded view\)](#) :
 - the screws of the right bus bar(6) ,
 - the right bus bar.

REFITTING

1. REFITTING OPERATION

- Refit [\(see 17E, Power electronics, Electric vehicle charger and converter assembly : Exploded view\)](#) :
 - the right bus bar,

- the screws of the right bus bar.

■ Torque tighten the screws of the right bus bar([see 17E, Power electronics, Electric vehicle charger and converter assembly : Exploded view](#)) .

■ Mark always the screws using a paint marker of a color different from the original.

■ Refit ([see 17E, Power electronics, Electric vehicle charger and converter assembly : Exploded view](#)) :

- the left bus bar,
- the screws of the left bus bar.

■ Torque tighten the screws of the left bus bar([see 17E, Power electronics, Electric vehicle charger and converter assembly : Exploded view](#)) .

■ Mark always the screws using a paint marker of a color different from the original.

■ Connect the connector of the wiring between converter module and rectifier module and inverter module ([see 17E, Power electronics, Electric vehicle charger and converter assembly : Exploded view](#)) .

■ Check the electrical connection with a push-pull test(see **Electric vehicle power electronics : Precautions for the repair**) .

■ Put the wiring of the charging plug signal connector socket in the cable retaining clip of the inductance module.

■ Close ([see 17E, Power electronics, Electric vehicle charger and converter assembly : Exploded view](#)) :

- the cable retaining clip on the rectifier module,
- the cable retaining clip on the inverter module.

2. FINAL OPERATION

■ Proceed in the reverse order to removal.

REMOVAL

1. REMOVAL PREPARATION OPERATION

■ Remove the electric vehicle charger and converter([see 17E, Power electronics, Electric vehicle charger and converter: Removal - Refitting](#)) .

■ Remove the housing cover of electric vehicle charger and converter([see 17E, Power electronics, Electric vehicle charger and converter housings : Removal - Refitting](#)) .

■ Remove the upper bus bars([see 17E, Power electronics, Electric vehicle charger and converter high voltage](#)

[bus bars : Removal - Refitting](#)) .

❑ Remove the internal low voltage wiring([see 17E, Power electronics, Electric vehicle charger and converter internal wiring : Removal - Refitting](#)) .

❑ Remove the fuse box([see 17E, Power electronics, Electric vehicle charger and converter fuse box : Removal - Refitting](#)) .

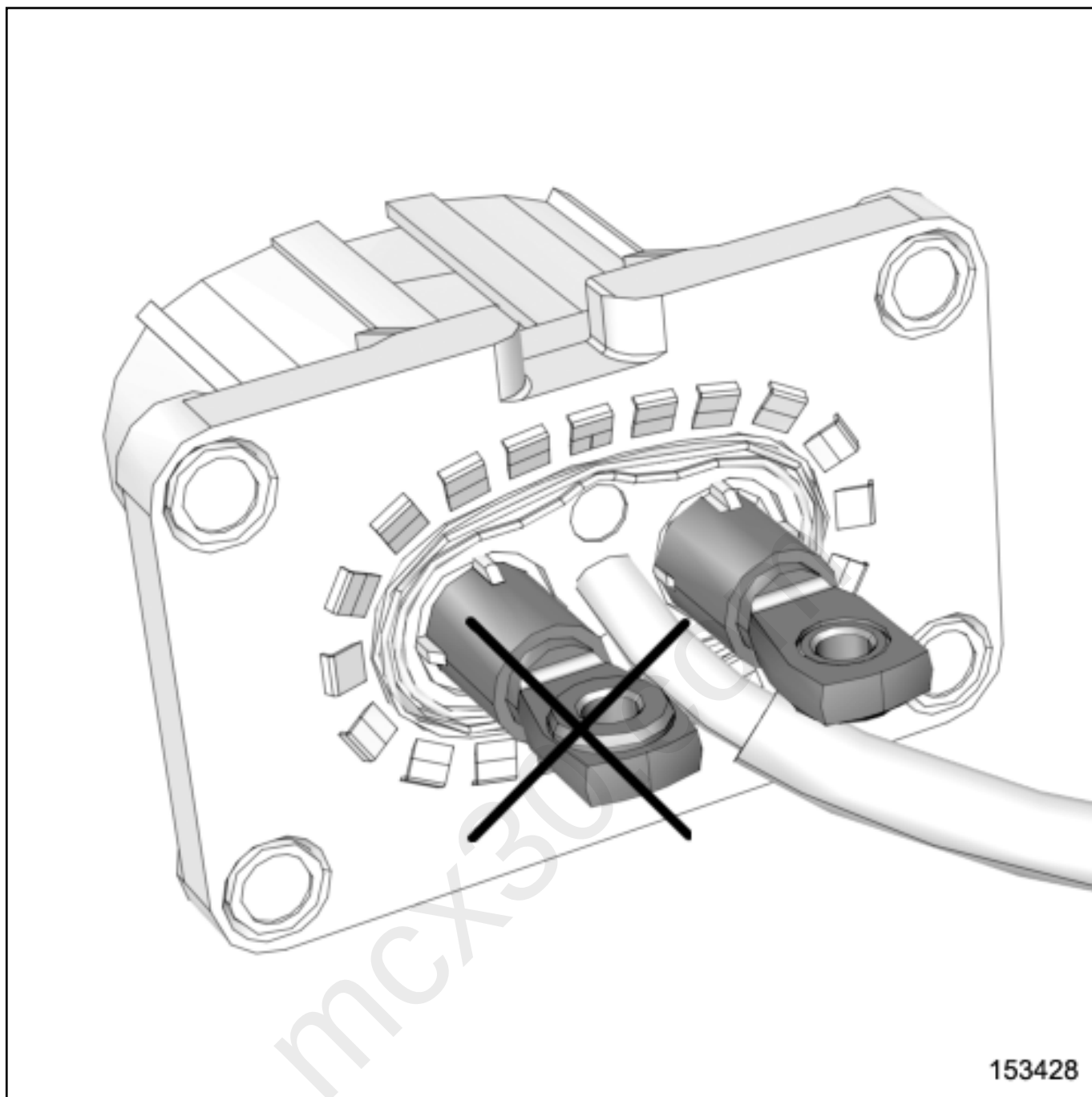
2. REMOVAL OPERATION

❑ Remove the lower bus bar([see 17E, Power electronics, Electric vehicle charger and converter assembly : Exploded view](#)) .

REFITTING

1. REFITTING OPERATION

❑ Implement the lower bus bar above the electrical connecting lugs from the traction battery connector.



Note:

Make sure that the connecting brackets are correctly orientated.

2. FINAL OPERATION



Remove the fuse box ([see 17E, Power electronics, Electric vehicle charger and converter fuse box](#)).

Removal - Refitting) .



Remove the internal low voltage wiring([see 17E, Power electronics, Electric vehicle charger and converter internal wiring : Removal - Refitting](#)) .



Remove the upper bus bars([see 17E, Power electronics, Electric vehicle charger and converter high voltage bus bars : Removal - Refitting](#)) .



Remove the housing cover of electric vehicle charger and converter([see 17E, Power electronics, Electric vehicle charger and converter housings : Removal - Refitting](#)) .



Refit the electric vehicle charger and converter([see 17E, Power electronics, Electric vehicle charger and converter: Removal - Refitting](#)) .



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