



Note, one or more warnings are present in this procedure

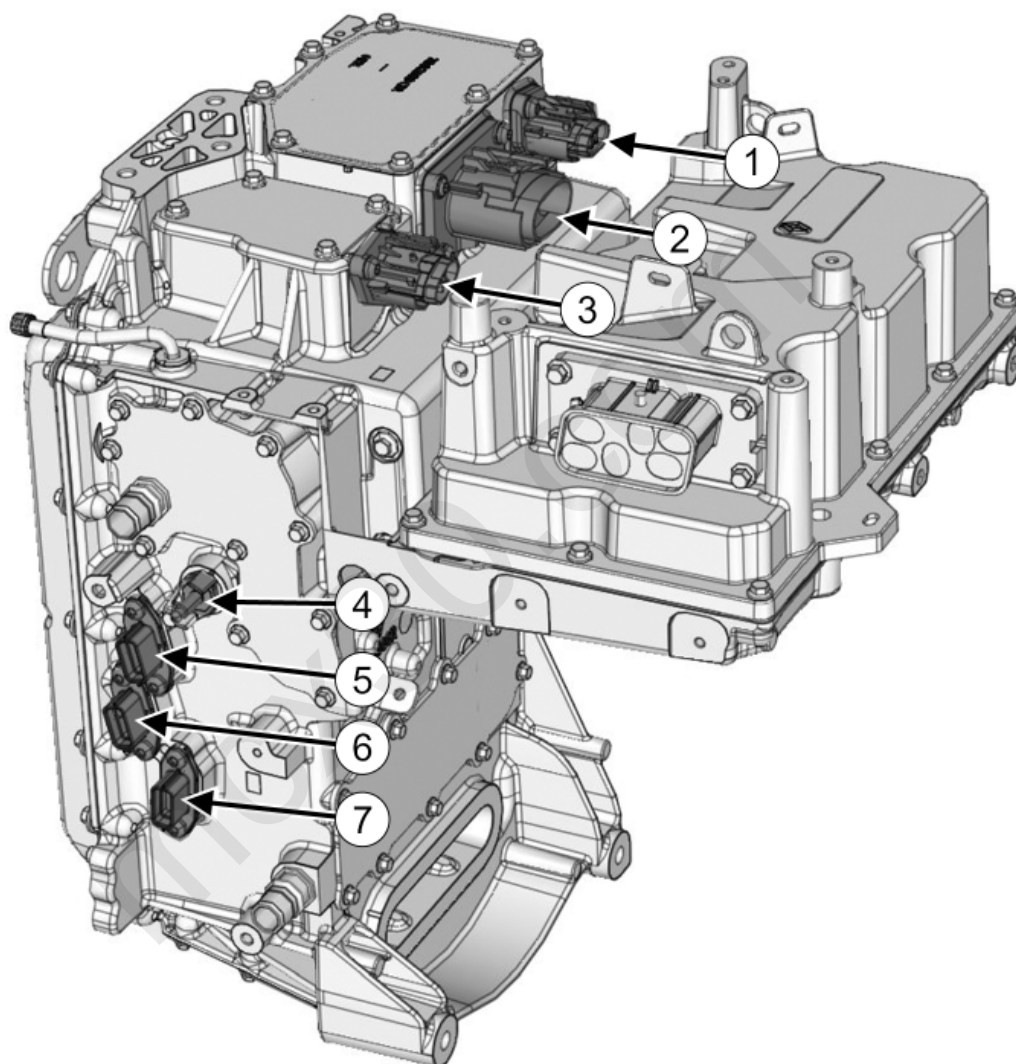


Locations and specifications (tightening torques, parts always to be replaced, etc.)[\(see 17E, Power electronics, Electric vehicle charger and converter assembly : Exploded view\)](#).



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](#) .



162461

- (1) Heating connector socket
- (2) Traction battery connector socket
- (3) Air conditioning connector socket
- (4) 12V positive terminal of electric vehicle charger
- (5) Charging plug signal connector socket
- (6) Electric vehicle charger and converter signal connector socket
- (7) Engine signal wiring connector socket

REMOVAL

1. REMOVAL PREPARATION OPERATION

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

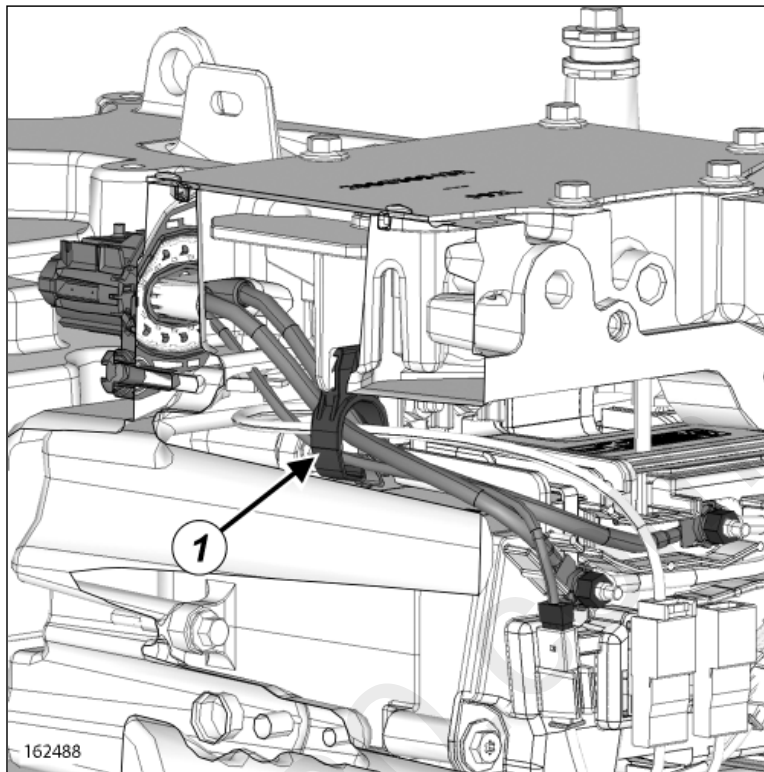
■ Remove the housing cover of electric vehicle charger and converter(see 17E, Power electronics, Electric vehicle charger and converter housings : Removal - Refitting) .

■ 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 cable retaining clip(1) of the heating connector socket.

■ Remove (see 17E, Power electronics, Electric vehicle charger and converter assembly : Exploded view) :

- the two mounting screws of the heating connector socket,
- the heating connector socket.

REFITTING

1. REFITTING OPERATION

■ Refit the heating connector socket(see 17E, Power electronics, Electric vehicle charger and converter assembly : Exploded view) .



Note:

Take care not to damage the interlock cable while refitting the connector socket.

■ Refit the two mounting screws of the heating connector socket(see 17E, Power electronics, Electric vehicle charger and converter assembly : Exploded view) .

■ Torque tighten the two mounting screws of the heating connector socket(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 the cable retaining clip of the heating connector socket.

2. FINAL OPERATION

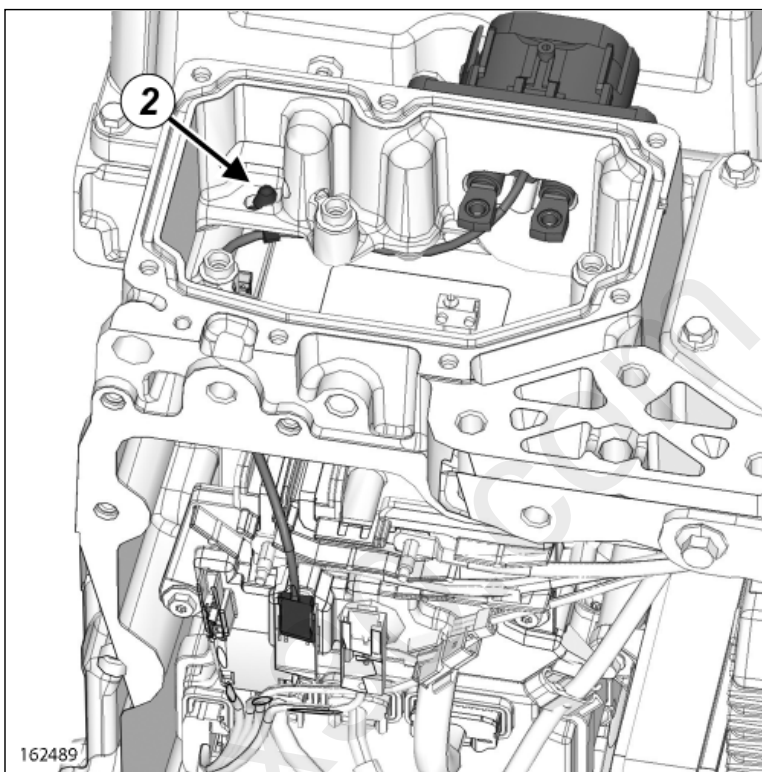
■ Proceed in the reverse order to removal.

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

2. REMOVAL OPERATION



- ❑ Unclip the cable retaining clip(2) of the traction battery connector wiring of the housing of electric vehicle charger and converter.
- ❑ Remove ([see 17E, Power electronics, Electric vehicle charger and converter assembly : Exploded view](#)) :
 - the four mounting screws of the traction battery connector socket,
 - the traction battery connector socket.

REFITTING

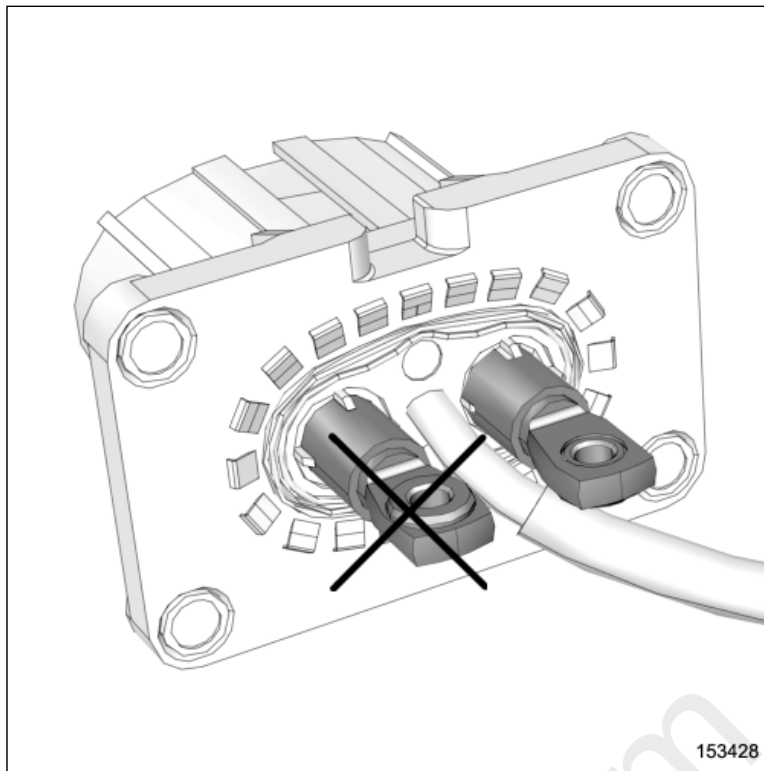
1. REFITTING OPERATION

- ❑ Refit the traction battery connector socket([see 17E, Power electronics, Electric vehicle charger and converter assembly : Exploded view](#)) .



Note:

Take care not to damage the interlock cable while refitting the connector socket.



Note:

Make sure that the connecting brackets are correctly orientated.

- ❑ Refit the four mounting screws of the traction battery connector socket([see 17E, Power electronics, Electric vehicle charger and converter assembly : Exploded view](#)) .
- ❑ Torque tighten in crosswise the four mounting screws of the traction battery connector socket([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.
- ❑ Clip the cable retaining clip of the traction battery connector socket.

2. FINAL OPERATION

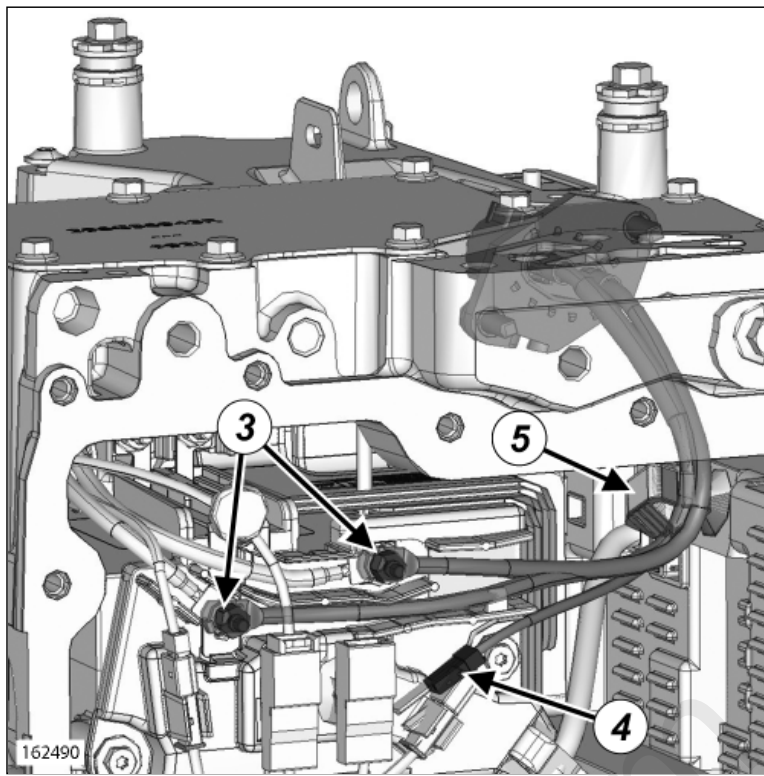
- ❑ Proceed in the reverse order to removal.

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](#)) .

2. REMOVAL OPERATION



- ❑ Unscrew the two captive nuts(3) of connection between the heating connector socket and the air conditioning connector socket.
- ❑ Free the wiring of the air conditioning connector socket from the cable retaining clip(5) on the direct current converter module.
- ❑ Fit a grommet tools around the wiring of the air conditioning connector socket.
- ❑ Remove (see 17E, Power electronics, Electric vehicle charger and converter assembly : Exploded view) :
 - the two mounting screws of the air conditioning connector socket,
 - the air conditioning connector socket leaving the grommet tools in the housing wiring.



Note:

Take care not to damage the interlock cable while refitting the connector socket.

REFITTING

1. REFITTING OPERATION

- ❑ Wrap the wiring of the air conditioning connector socket.
- ❑ Fit the grommet tools on the air conditioning connector socket.
- ❑ Refit the air conditioning connector socket using the grommet tools.



Note:

Take care not to damage the interlock cable while refitting the connector socket.

- ❑ Refit (see 17E, Power electronics, Electric vehicle charger and converter assembly : Exploded view) :
 - the air conditioning connector socket,
 - the two mounting screws of air conditioning connector socket.
- ❑ Torque tighten the two screws of air conditioning connector socket(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.
- ❑ Put the wiring of the air conditioning connector socket on the cable retaining clip on the direct current converter module.
- ❑ Screw the two captive nuts of connection between the heating connector socket and the air conditioning connector socket.
- ❑ Torque tighten the two captive nuts of connection between the heating connector socket and the air conditioning connector socket(see 17E, Power electronics, Electric vehicle charger and converter assembly : Exploded view) .

- Mark always the captive nuts using a paint marker of a color different from the original.

2. FINAL OPERATION

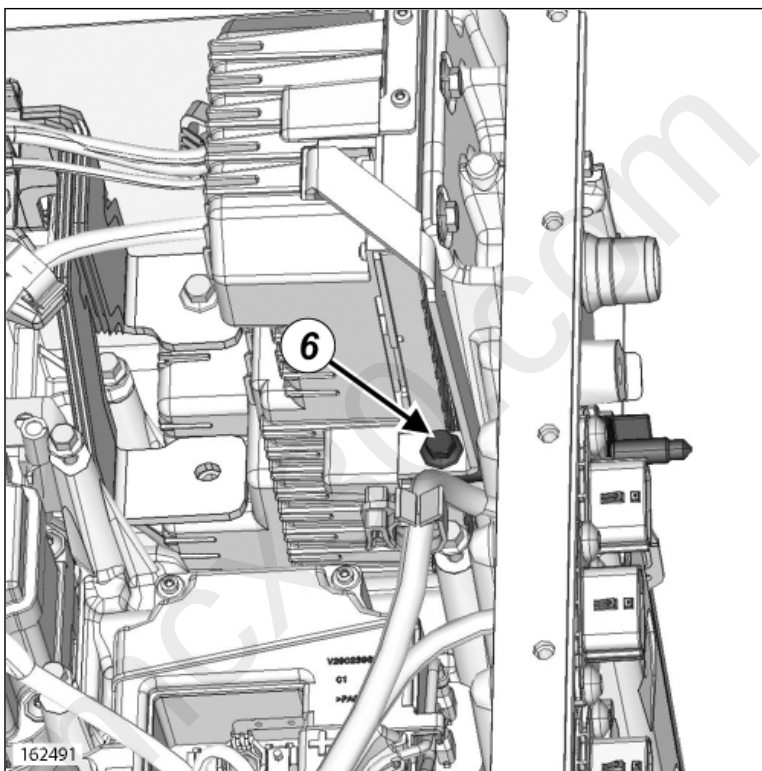
- Proceed in the reverse order to removal.

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 input engine capacitance module(see 17E, Power electronics, Electric vehicle charger and converter electronic power modules : Removal - Refitting) .

2. REMOVAL OPERATION



- Remove (see 17E, Power electronics, Electric vehicle charger and converter assembly : Exploded view) :
 - the connecting screw(6) between the 12V positive terminal of electric vehicle charger and converter and the direct current converter module.
 - the mounting screw of the 12V positive terminal of electric vehicle charger and converter,
 - the 12V positive terminal of electric vehicle charger and converter.



Note:

Take care not to damage the interlock cable while refitting the connector socket.

REFITTING

1. REFITTING OPERATION

- Refit (see 17E, Power electronics, Electric vehicle charger and converter assembly : Exploded view) :
 - the 12V positive terminal of electric vehicle charger and converter,
 - the mounting screw of the 12V positive terminal of electric vehicle charger and converter.
- Torque tighten the mounting screw of the 12V positive terminal of electric vehicle charger and converter(see 17E, Power electronics, Electric vehicle charger and converter assembly : Exploded view) .
- Mark always the screw using a paint marker of a color different from the original.

- ❑ Refit the connecting screw between the 12V positive terminal of electric vehicle charger and converter and the direct current converter module.
- ❑ Torque tighten the connecting screw between the 12V positive terminal of electric vehicle charger and converter and the direct current converter module.([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.

2. FINAL OPERATION

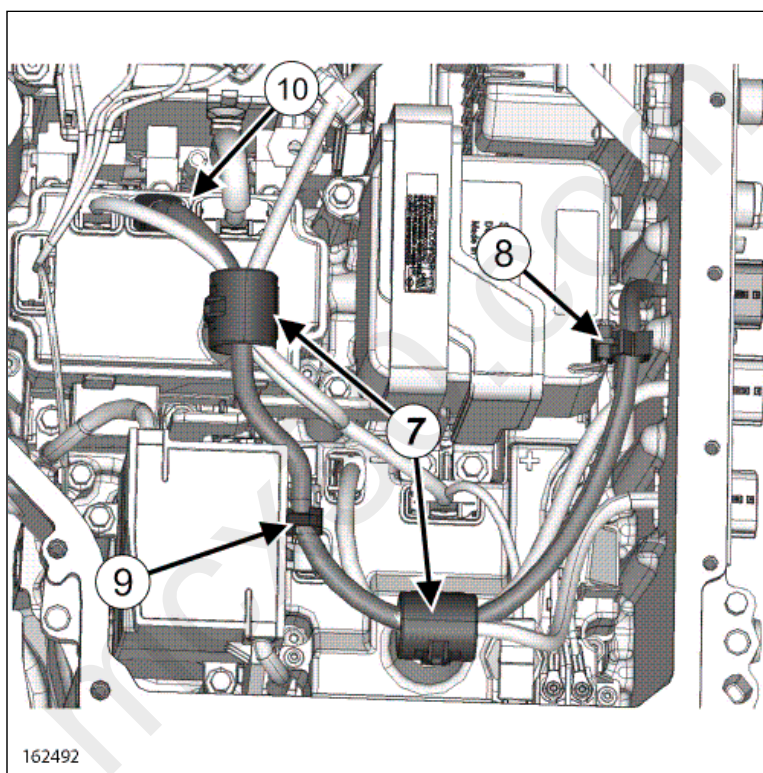
- ❑ Proceed in the reverse order to removal.

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](#)) .

2. REMOVAL OPERATION



- ❑ Open the cable retaining clip(7) of the rectifier module and the inverter module.
- ❑ Free the wiring of the charging plug signal connector socket from :
 - the input engine capacitance module(8) ,
 - the inductance module(9) .
- ❑ Unclip the charging plug signal connector socket(10) from the rectifier module.
- ❑ Remove ([see 17E, Power electronics, Electric vehicle charger and converter assembly : Exploded view](#)) :
 - the two mounting screws of the charging plug signal connector socket,
 - the charging plug signal connector socket.

REFITTING

1. REFITTING OPERATION

- ❑ Refit ([see 17E, Power electronics, Electric vehicle charger and converter assembly : Exploded view](#)) :
 - the charging plug signal connector socket,
 - the two mounting screws of the charging plug signal connector socket.
- ❑ Torque tighten the two mounting screws of the charging plug signal connector socket([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.
- Clip the charging plug signal connector socket on the rectifier module.
- Check the electrical connection with a push-pull test(see [Electric vehicle power electronics : Precautions for the repair](#)) .
- Put the wiring of the charging plus signal connector socket in the cable retaining clip of :
 - the input engine capacitance module,
 - the inverter module,
 - the inductance module,
 - the rectifier module.

Close the cable retaining clip of the rectifier module and the inverter module.

2. FINAL OPERATION

Proceed in the reverse order to removal.

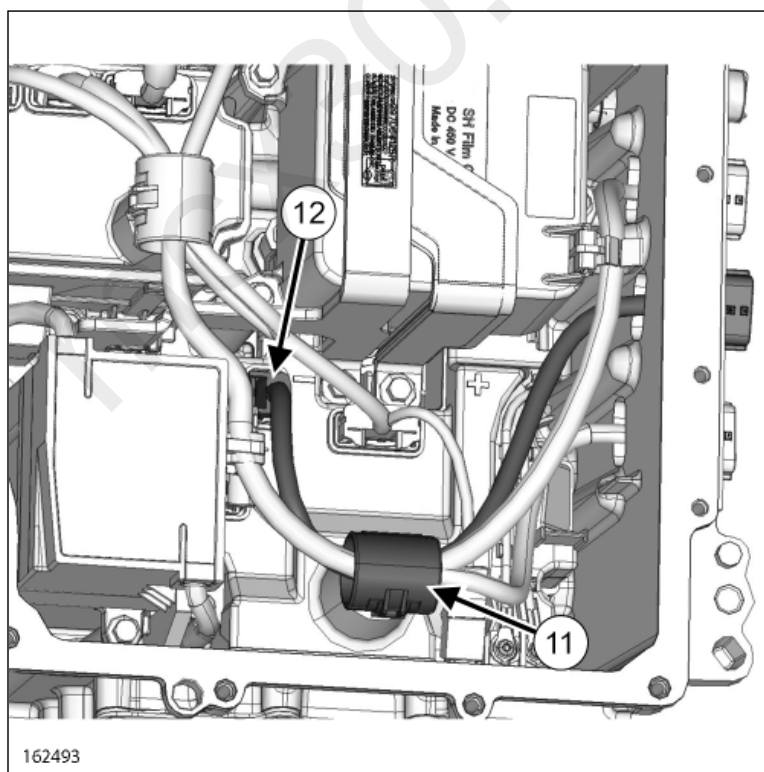
REMOVAL

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](#)) .

2. REMOVAL OPERATION



Open the cable retaining clip(11) of the inverter module.

Unclip the electric vehicle charger and converter signal connector socket(12) from the inverter module.

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

-
- the two mounting screws of the electric vehicle charger and converter signal connector socket,
- the electric vehicle charger and converter signal connector socket.

REFITTING

1. REFITTING OPERATION



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

-
- the electric vehicle charger and converter signal connector socket,
- the two mounting screws of the electric vehicle charger and converter signal connector socket.



Torque tighten the screws of the electric vehicle charger and converter signal connector socket.[\(see 17E, Power electronics, Electric vehicle charger and converter assembly : Exploded view\)](#)



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



Clip the electric vehicle charger and converter signal connector socket on the the inverter module.



Check the electrical connection with a push-pull test(see [Electric vehicle power electronics : Precautions for the repair](#))



Close the cable retaining clip on the inverter module.

2. FINAL OPERATION



Proceed in the reverse order to removal.

REMOVAL

1. REMOVAL PREPARATION OPERATION

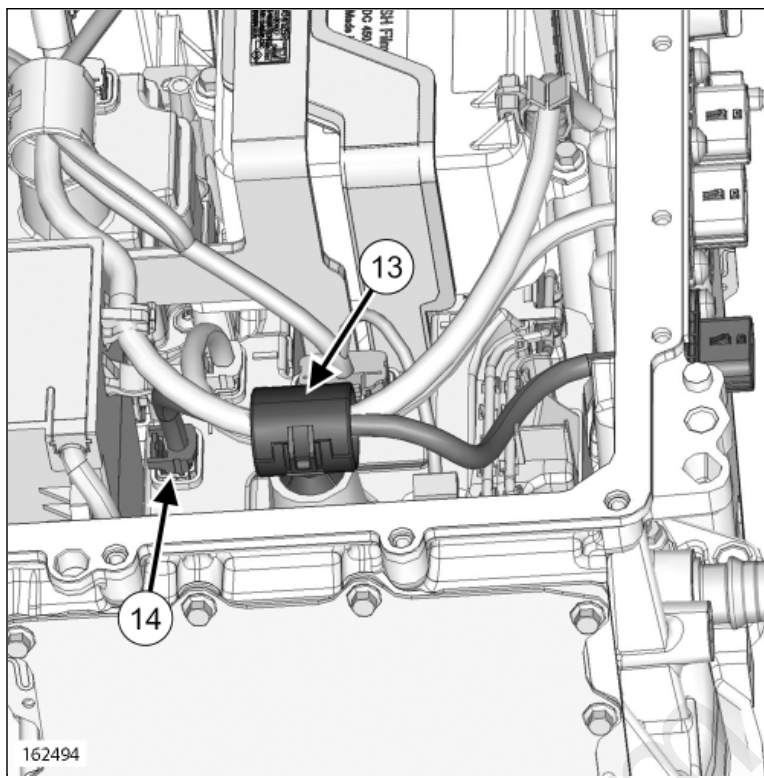


Remove the electric vehicle charger and converter[\(see 17E, Power electronics, Electric vehicle charger and converter: Removal - Refitting\)](#) .



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

2. REMOVAL OPERATION



Open the cable retaining clip(13) of the inverter module.

Unclip the engine signal wiring connector socket(14) from the inverter module.

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

-
- the two mounting screws of the engine signal wiring connector socket,
- the engine signal wiring connector socket.

REFITTING

1. REFITTING OPERATION

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

-
- the engine signal wiring connector socket,
- the two mounting screws of the engine signal wiring connector socket.

Torque tighten the two mounting screws of the engine signal wiring connector socket([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.

Clip the engine signal wiring connector socket on the inverter module.

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

Close the cable retaining clip on the inverter module.

2. FINAL OPERATION

Proceed in the reverse order to removal.



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