mecc alte

Totally Focused. Totally Independent.

User manual

Anti-condensation Heater

ECP 32 - 34
ECO 38 - 40 - 43 - 46

Operating and maintenance instructions

Code: Heater
Revision: 2
Data: 06/26

Translation of original language

CE

The world's largest independent producer of alternators 1 – 5,000kVA

Index

Contenuti

1 General information: purpose of the manual 3
1.1 Intended Users 3
1.2 Professional Profiles Involved 3
1.3 Manual use and storage 3
1.4 How to consult the manual 4
1.4.1 Description of the symbols/pictographs in the manual 4
1.5 Support 5
2 Heater kit overview 6
2.1 Main components 7
2.1.1 Series ECP32-ECP34 7
2.1.2 Series ECO38-ECO40-ECO43-ECO46 8
3 Installation instructions 9
3.1 Installation Setup 9
3.1.1 Assembly (Series ECP32-ECP34-ECO38) 10
3.1.2 Assembly (Series ECO40-ECO43) 12
3.1.3 Assembly (Series ECO46) 14
3.2 Assembly drawings 17
4 Disassembly and disposal 18
4.1 How to dispose of the packing materials 18

Mecc Alte S.p.A. - Full or partial reproduction prohibited, if not authorized

1 General information: purpose of the manual

This manual defines the operations for the correct installation of the anti-condensation heater kit on MECC ALTE alternators

This document and/or its parts may not be reproduced or disclosed to third parties without the prior consent of MECC ALTE S.p.A.

MECC ALTE S.p.A. is not responsible or liable for any damages suffered by people or things as a result of improper use not indicated in this manual and by failure to comply with the specifications of the technical characteristics table pertaining to every model.

1.1 Intended Users

This manual is intended for the authorized personnel adequately trained to operate this kind of product.

Warning

The operators must not carry out operations reserved to maintenance technicians or to specialized technicians. The Manufacturer disclaims all responsibility for damages suffered as a result of failure to comply with this warning.

1.2 Professional Profiles Involved

Below we describe the professional profiles who may operate the alternator based on the kind of activity to be carried out.

Electrical Maintenance Operator

A qualified technician in charge with all the electrical works of connection, adjustment, maintenance and repair. Authorized to carry out operations with the power on.

1.3 Manual use and storage

Warning

Read this manual carefully before starting up the alternator or carrying out any operation on it. If you do not read it you might not be able to recognize potential hazardous situations that may lead to death or serious injuries inflicted to yourself or to others.

This manual is intended to provide all the information required for a correct use of the alternator and its most autonomous and safest possible management.
It is mandatory for all the users and the maintenance technicians to carefully read the instructions contained in this manual and in all possible annexes, before carrying out any operation on the product.
In case of doubts on the correct interpretation of the information reported in the documentation, please contact the manufacturer for clarifications.

Caution

Keep this manual and all its annexes in good condition, legible and complete in all its parts. Keep the documentation close to your alternator, in an accessible place known to all the operators and maintenance technicians and, more generally, to everyone who for various reasons should operate the alternator.

Warning

Keep the manual in its original condition. It is forbidden to rewrite, change or remove pages from the manual and their contents. The manufacturer disclaims all responsibility for any potential damages to people, animals or things as a result of failure to comply with the instructions and with the operational modalities described in this manual.

Caution

In case the manual is lost or damaged ask for a copy from the Manufacturer indicating its identification data: document name, code, revision number and issue date.

1.4 How to consult the manual

- The manual is divided in chapters, paragraphs and subparagraphs listed in the table of contents: an easy way to find any topic of interest.
- The symbols used provide direct knowledge on the kind of information expressed by each symbol. For instance the symbol:


This symbol indicates a NOTE.

1.4.1 Description of the symbols/pictographs in the manual

Below you will find the various symbols used in the manual to highlight information of particular importance or the intended recipients of the specific pieces of information.


Danger
The risks described in this manner indicate a HIGH LEVEL of hazard that, unless avoided, could cause severe injuries or death.


Warning
The risks described in this manner indicate an INTERMEDIATE LEVEL of hazard that, unless avoided, could cause severe injuries or death.

Caution
The risks described in this manner indicate a LOW LEVEL of hazard that, unless avoided, could cause minor or moderate injuries.


This symbol indicates a NOTE; a fundamentally important piece of information or in-depth explanation.


This symbol indicates a CROSS REFERENCE; the presence of a module, of a drawing or of an annexed document that should be consulted and, if required, filled in.

1.5 Support

For any inquiry on the use, the maintenance or a request of replacement parts, the buyer must contact the Manufacturer directly (or the help desk if present), specifying the alternator identification data indicated on the nameplate.
The Customer may resort to the technical and commercial support provided by the area representatives or by foreign branches, which are in direct contact with MECC ALTE S.p.A. and have their addresses and contact data indicated on the back cover.
In case of fault or an insurmountable inconvenience, the Customer may contact directly the headquarters using the following data:

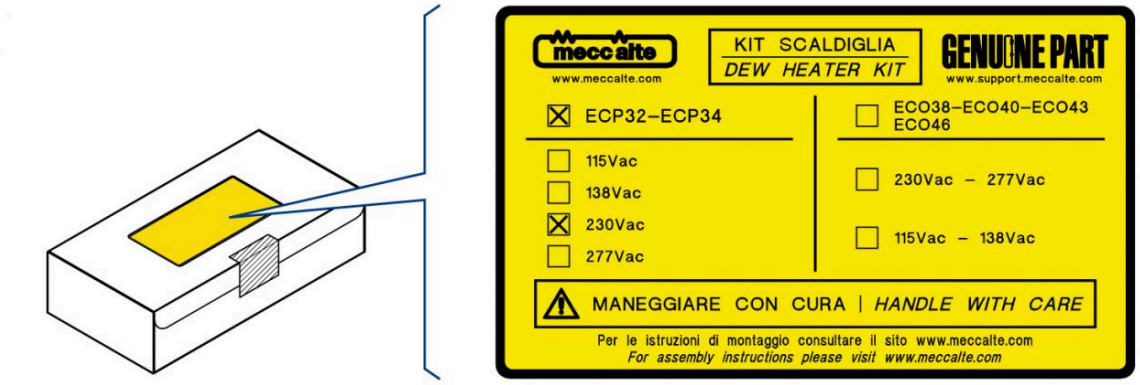
PHONE NUMBER (Landline):	+ 39 0444 396111
E-MAIL:	aftersales@meccalte.it
WEBSITE:	www.meccalte.com
MAILING ADDRESS:	MECC ALTE S.p.A Via Roma 36051 Creazzo, Vicenza Italy

2 Heater kit overview

The anti-condensation heater kit contains all the necessary for a correct installation.

See listed components at paragraph 2.1

At the receiving of the kit verify on the box label that technical characteristics correspond to what ordered.



The heater is a device that, opportunely feeded, allows to remove the condensation inside the alternator.

Caution

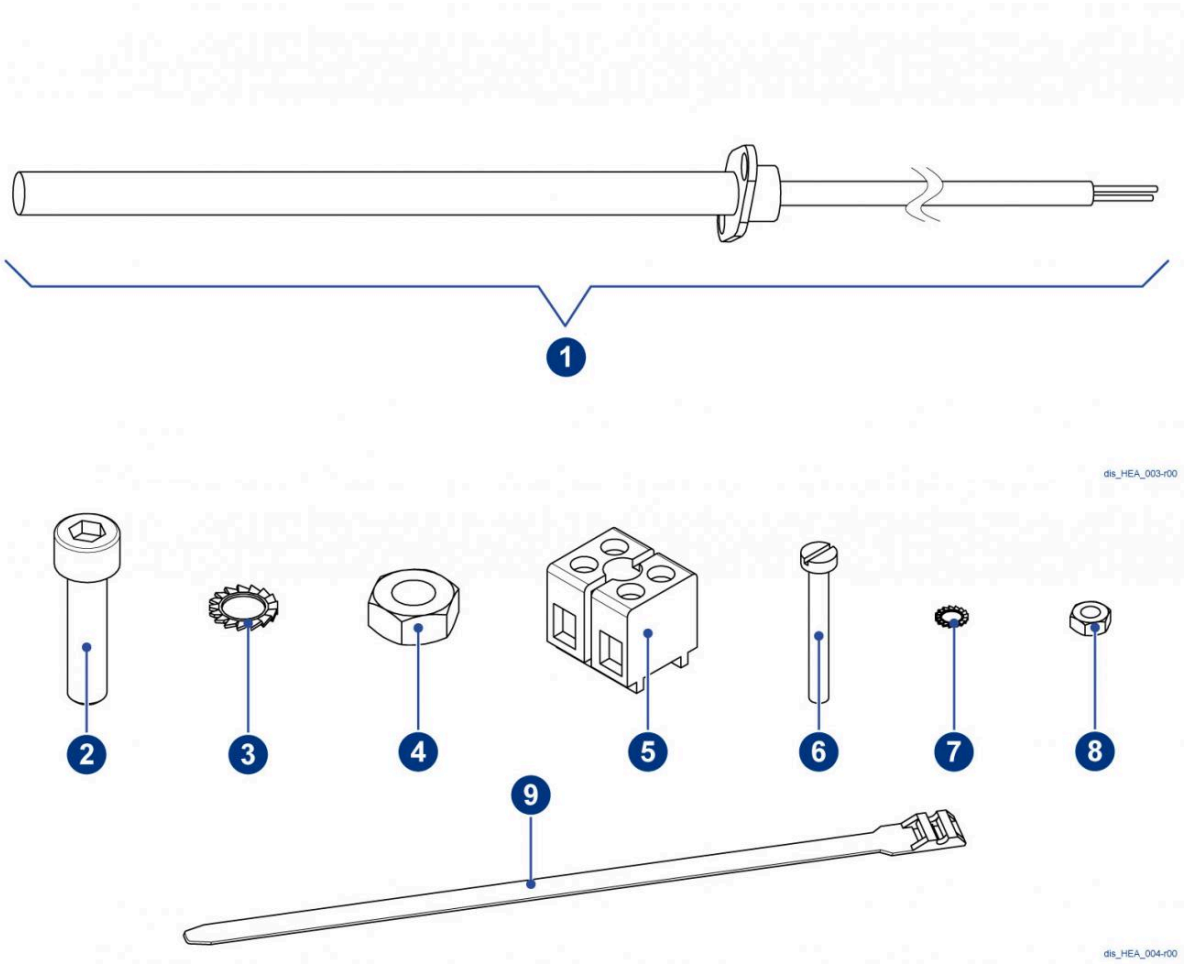
We recommend to use this device every time the alternator did not work for long periods or every time presence of condensation /humidity on the winding is supposed.

Caution

Heater has to work for at least 24 hours, before the alternator starting which has to be done only after the measure of the insulation resistance of the windings.

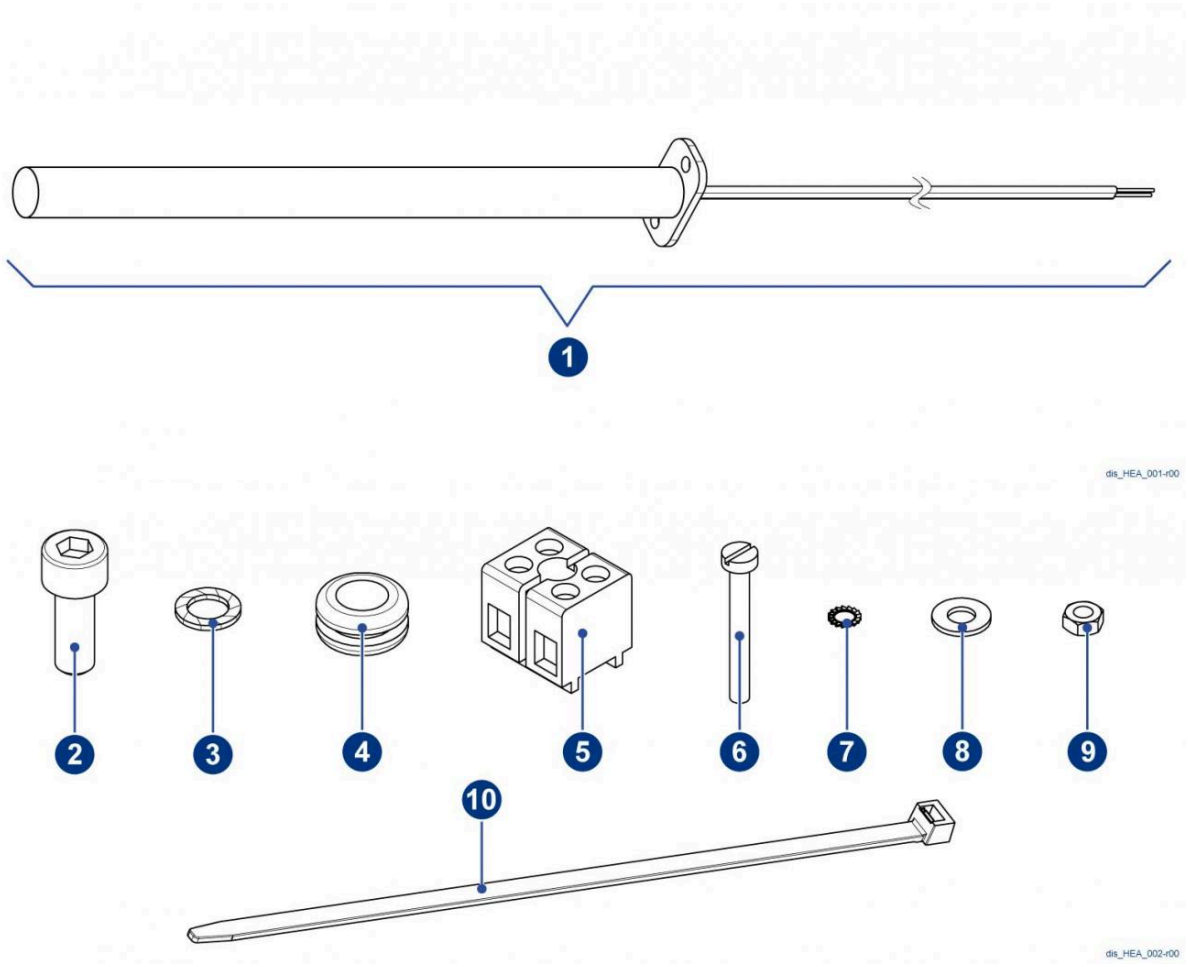
2.1 Main components

2.1.1 Series ECP32-ECP34



1. Heater
2. Screw TCCEI M5x20 UNI 5931 (x2)
3. Serrated washer D.5 (x2)
4. Hexagonal nut M5 UNI 5587 (x2)
5. Terminal block MK-3/12 KRG - 2 PIN
6. Screw TC M3x20 UNI 6107
7. Serrated washer D.4 UNI 6798
8. Hexagonal nut M3 UNI 5587
9. Black serrated cable tie 45/90 (x5)

2.1.2 Series ECO38-ECO40-ECO43-ECO46



1. Heater
2. Screw TCCEI M6x16 UNI 5931 (x2)
3. SCHNORR safety washer D.6 (x2)
4. Rubber cable grommet D.10 Black
5. Terminal block MK-3/12 KRG - 2 PIN
6. Slotted cheese head screw M3x25 UNI EN ISO 1207
7. Serrated washer D.3 UNI 8842 (x2)
8. Flat washer D.4 UNI 6592
9. Hexagonal nut M3 UNI 5587
10 Natural nylon cable tie 3.5x140 White (x6)

.

3 Installation instructions

Warning

The final installer is in charge with assembling all the safeguards (disconnect switches, safeguards against direct and indirect contact, safeguards against overcurrent and overvoltage, emergency stop and so on) required to make the machine and the user system comply with the European and International Safety Regulations.

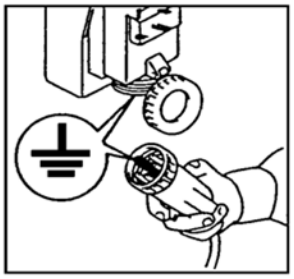
The installation operations of the heater must be carried out by qualified personnel.

Danger

The alternator must be stationary during the heater assembly.

3.1 Installation Setup

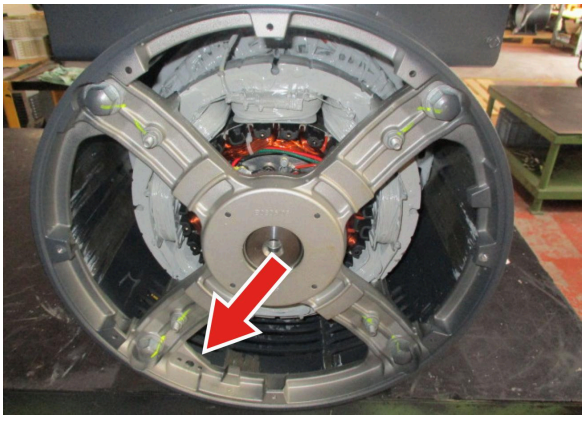
The alternator must be grounded before installation.Please ensure that the grounding system is effective and it complies with the directives of the country where the alternator will be installed.



dis_ECO_034-r00

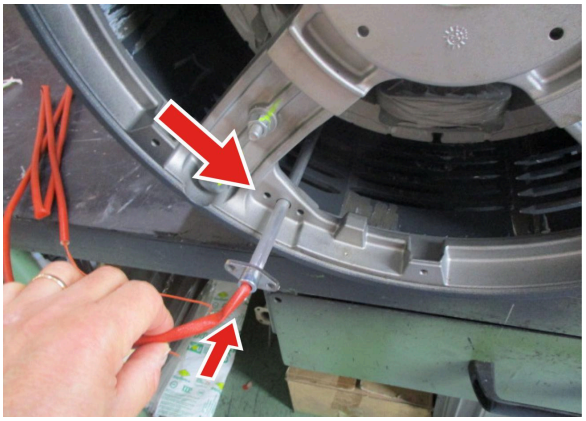
3.1.1 Assembly (Series ECP32-ECP34-ECO38)

Detailed assembling procedure



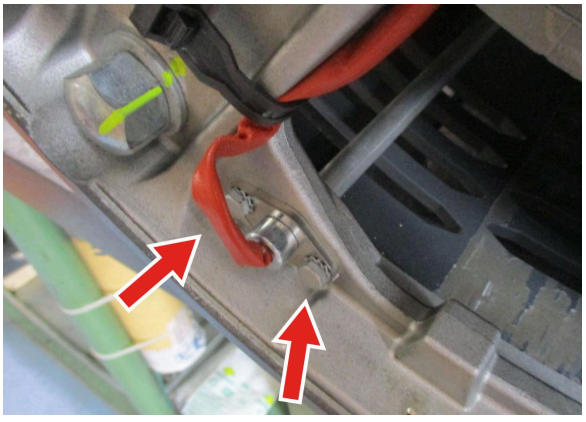
Remove the cover protection and locate the relevant heater insertion hole in the cover.

See also Drawing n.1 par. 3.2



Insert the heater into the appropriate hole as shown in the figure.

See also Drawing n.1 par. 3.2



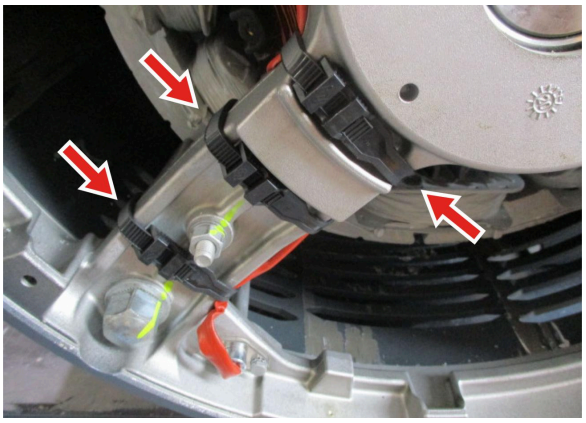
Secure the heater (ECP32-34) with:

- 2 Screws M5x20 TCCEI UNI 5931
- 2 Serrated washers D.5

Secure the heater (ECO38) with:

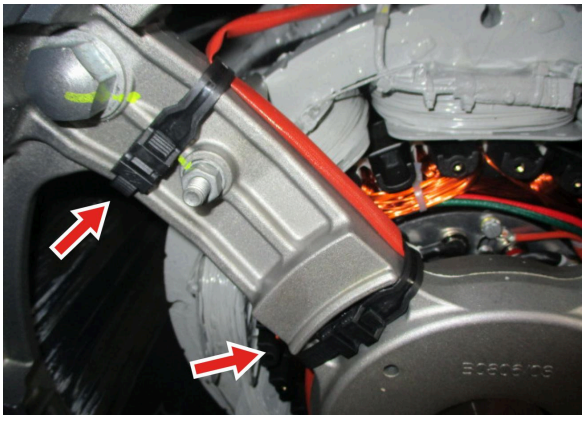
- 2 Screws M6x16 TCCEI UNI 5931
- 2 SCHNORR washers D.6

Apply a 9Nm ±7% tightening torque.



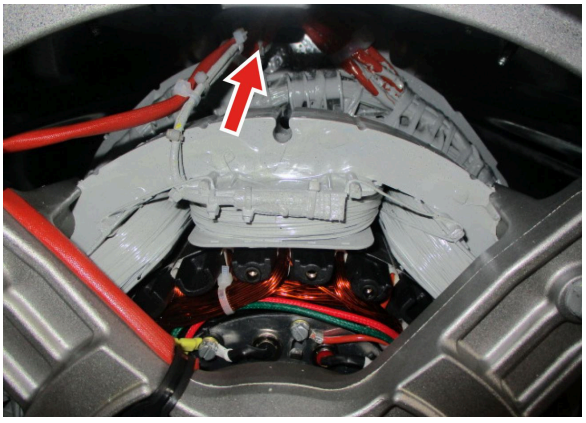
Secure the heater cable to the spokes of the rear cover with the serrated cable ties 45/90 at the points shown in the figure.

Cables must never be under tension along the routing path.

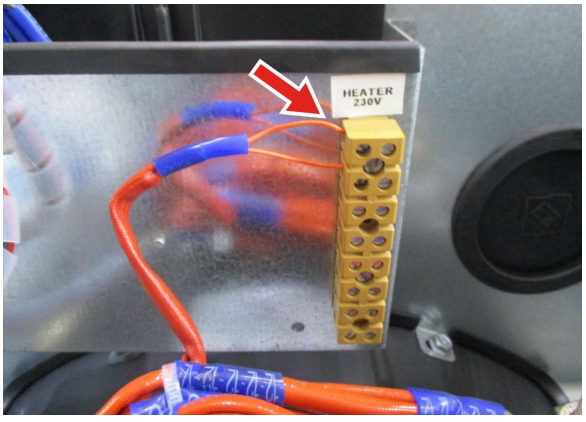


Secure the heater cable to the spokes of the rear cover with the serrated cable ties 45/90 at the points shown in the figure.

Cables must never be under tension along the routing path.



Route the heater cable through the rubber cable grommet to feed it into the terminal box.



Fix the the MK-3/12 KRG - 2 Pin terminal board with:

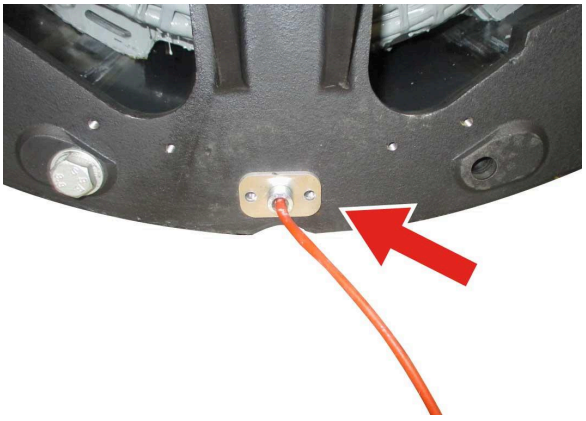
- Screw TCCI M3x20 UNI EN ISO 1207 (ECP32-34)
- Screw TCCI M3x25 UNI EN ISO 1207 (ECO38)
- Serrated washer D.3 UNI 8842
- Hexagonal nut M3 UNI 5587

Insert the two wires of the heater into the previously fixed terminal board.

Mecc Alte S.p.A. - Full or partial reproduction prohibited, if not authorized

3.1.2 Assembly (Series ECO40-ECO43)

Detailed assembling procedure



Remove the protective rubber and insert the heater into the hole.

Fix the heater with:

- 2 Socked head screw M6x16 UNI 5931
- 2 Socked head screw M6x16 UNI 5931

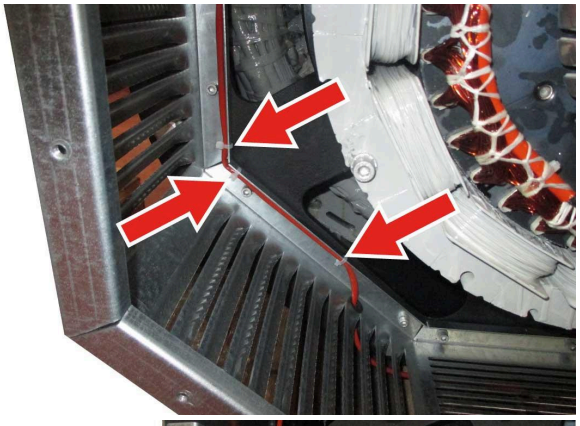
Apply a 9Nm ±7% tightening torque.

See also Drawing n.1 par. 3.2



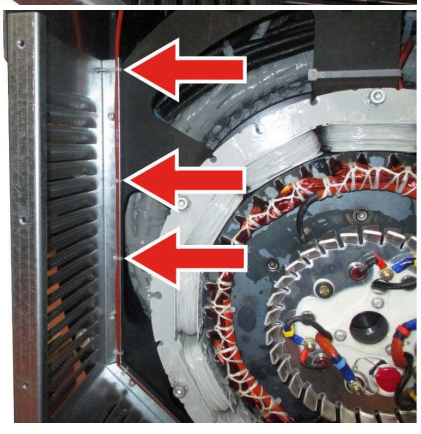
Insert the black rubber grommet D.10 to let the heater cable pass through as shown in figure.

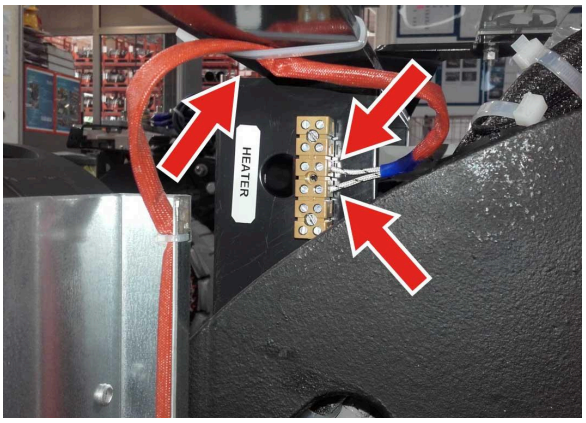
The cables must never present tensile stresses in the path from the heater to the V-closure but always have an adequate radius of curvature without ever touching the screw and staying correctly distanced from it.



Identify the holes on the V closure inner fold, in order to fasten heater cable using the 3,5x140 nylon cable tie as shown in the figure.

The cables must never present tensile stresses in the path of the V closure inner fold.





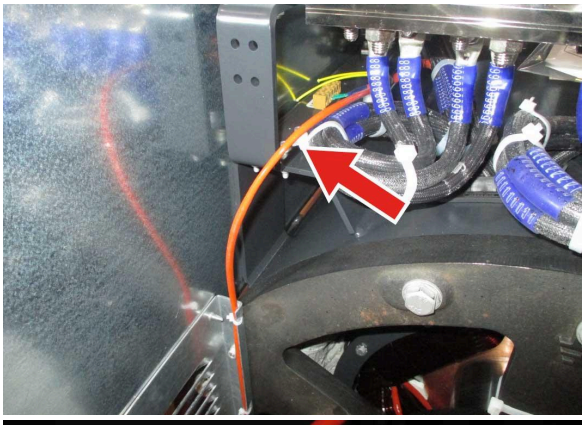
Only Series ECO40

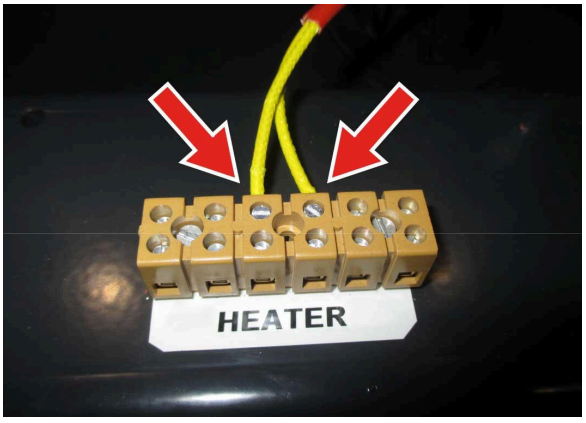
Pass the cables as shown in figure.

Fix the the MK-3/12 KRG - 2 Pin terminal board with:

- Slotted cheese head screw M3x25 UNI EN ISO 1207
- Slotted cheese head screw M3x25 UNI EN ISO 1207

Insert the two wires of the heater into the previously fixed terminal board.





Only Series ECO43

Pass the cables as shown in figure.

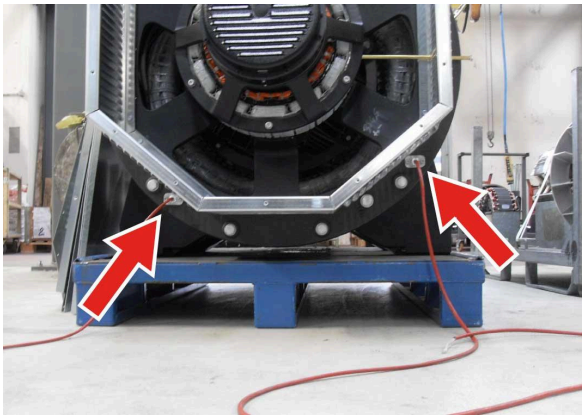
Fix the the MK-3/12 KRG - 2 Pin terminal board with:

- Slotted cheese head screw M3x25 UNI EN ISO 1207
- Slotted cheese head screw M3x25 UNI EN ISO 1207

Insert the two wires of the heater into the previously fixed terminal board.

3.1.3 Assembly (Series ECO46)

Detailed assembling procedure



Remove the protective rubber and insert the heater into the hole.

Fix the heater with:

- 2 Socked head screw M6x16 UNI 5931
- 2 Socked head screw M6x16 UNI 5931

Apply a 9Nm ±7% tightening torque.

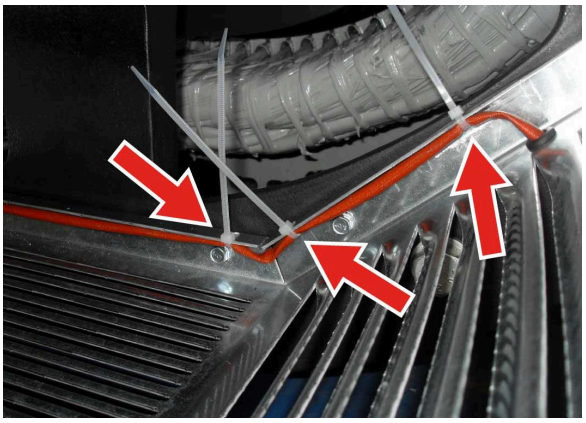
See also Drawing n.1 par. 3.2

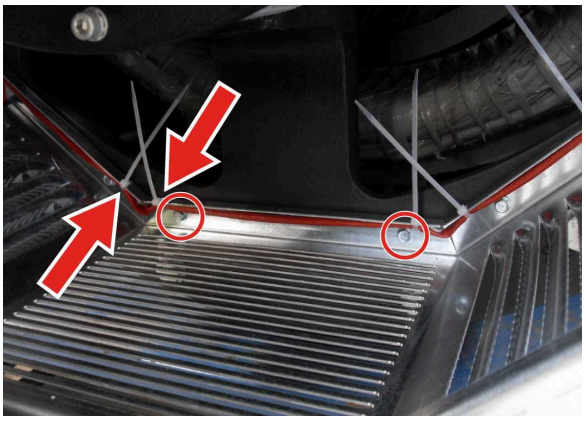


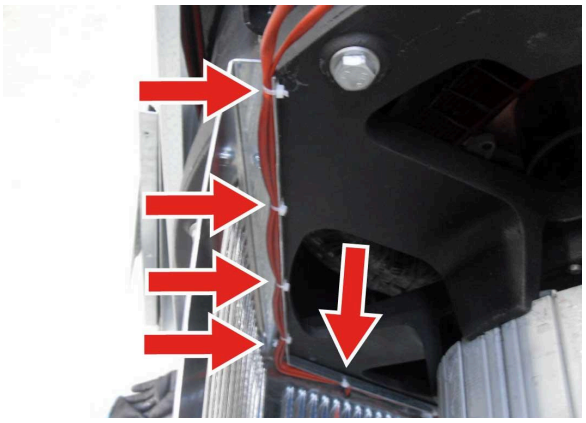
Insert the black rubber grommet D.10 to let the heater cable pass through as shown in figure.



The cables must never present tensile stresses in the path from the heater to the V-closure but always have an adequate radius of curvature without ever touching the screw and staying correctly distanced from it.

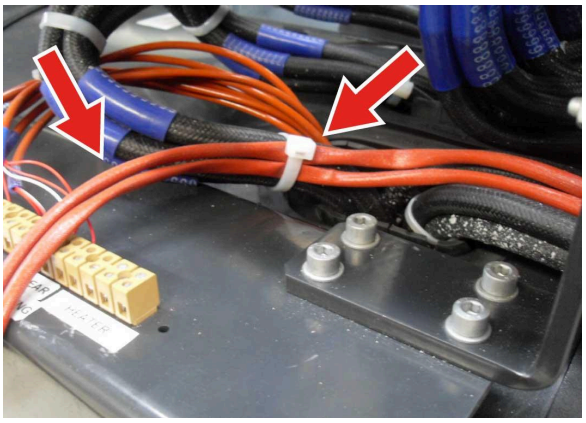


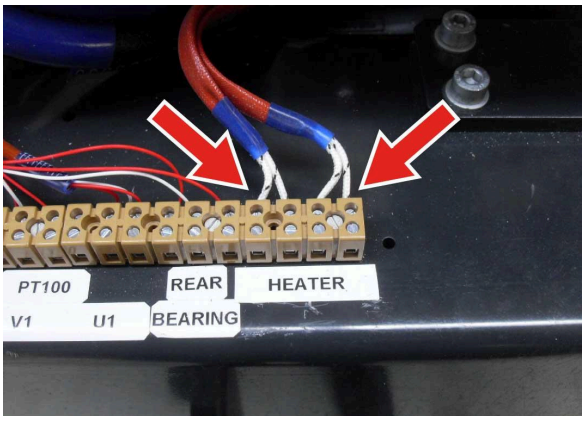




Identify the holes on the V closure inner fold, in order to fasten heater cable using the 3,5x140 nylon cable tie as shown in the figure.

The cables must never present tensile stresses in the path of the V closure inner fold.





Pass the cables as shown in figure and fix the cables to the cable assembly.

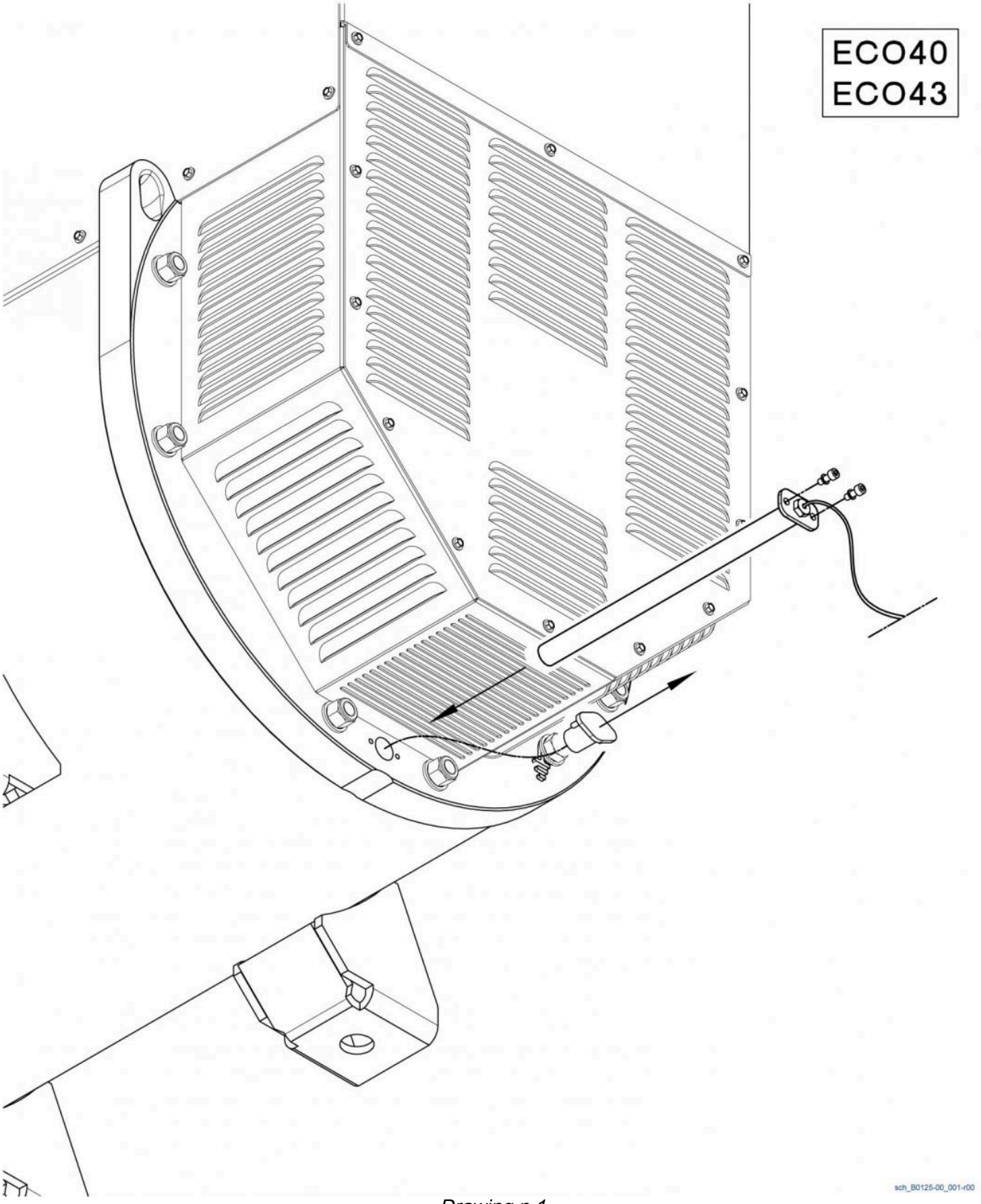
Fix the the MK-3/12 KRG - 2 Pin terminal board with:

- Slotted cheese head screw M3x25 UNI EN ISO 1207
- Slotted cheese head screw M3x25 UNI EN ISO 1207

Insert the two wires of the heater into the previously fixed terminal board.

3.2 Assembly drawings

B0125: ECO40 - ECO43 - ECO46 Heater assembly drawing



Drawing n.1

4 Disassembly and disposal

When recycling , keep in mind the nature of its various components (for instance: metals, plastic parts, rubber, oil and so on).
You will have to designate specialized companies for this purpose and , however, observe the waste management applicable laws.

Most of the materials can be recycled by specialized waste management companies. The instructions contained in this chapter are recommendations to follow for environmentally sound disposal; the user has the responsibility of observing local regulations.

4.1 How to dispose of the packing materials

Please recycle the packing materials.

Mecc Alte S.p.A. - Full or partial reproduction prohibited, if not authorized

Mecc Alte SpA (HQ)
Via Roma
20 - 36051 Creazzo
Vicenza - ITALY
T: +39 0444 396111
E: info@meccalte.it
aftersales@meccalte.it

Mecc Alte Portable
Via A. Volta
1 - 37038 Soave
Verona - ITALY
T: +39 045 6173411
E: info@meccalte.it

Mecc Alte Power Products srl
Via Melaro
2 - 36075 Montecchio
Maggiore (VI) - ITALY
T: +39 0444 1831295
E: info@meccalte.it

Zanardi Alternators
Via Dei Laghi
48/B - 36077 Altavilla
Vicenza - ITALY
T: +39 0444 370799
E: info@zanardialternatori.it

United Kingdom
Mecc Alte U.K. LTD
6 Lands' End Way
Oakham
Rutland LE15 6RF
T: +44 (0) 1572 771160
E: info@meccalte.co.uk

Spain
Mecc Alte España S.A.
C/ Rio Taibilla, 2
Polig. Ind. Los Valeros
03178 Benijofar (Alicante)
T: +34 (0) 96 6702152
E: info@meccalte.es

China
Mecc Alte Alternator Haimen LTD
755 Nanhai East Rd
Jiangsu HEDZ 226100 PRC
T: +86 (0) 513 82325758
E: info@meccalte.cn

India
Mecc Alte India PVT LTD
Plot NO: 1, Sanaswadi
Talegaon
Dhamdhere Road Taluka:
Shirur, District:
Pune - 412208
Maharashtra, India
T: +91 2137 619600
E: info@meccalte.in

U.S.A. and Canada
Mecc Alte Inc.
1229 Adams Drive
McHenry, IL, 60051
T: +1 815 344 0530
E: info@meccalte.us

Germany
Mecc Alte Generatoren GmbH
Bucher Hang 2
D-87448 Waltenhofen
T: +49 (0)831 540755 0
E: info@meccalte.de

Australia
Mecc Alte Alternators PTY LTD
10 Duncan Road, PO Box 1046
Dry Creek, 5094, South
Australia
T: +61 (0) 8 8349 8422
E: info@meccalte.com.au

France
Mecc Alte International S.A.
Z.E.La Gagnerie
16330 ST.Amant de Boixe
T: +33 (0) 545 397562
E: info@meccalte.fr

Far East
Mecc Alte (F.E.) PTE LTD
19 Kian Teck Drive
Singapore 628836
T: +65 62 657122
E: info@meccalte.com.sg

mecc alte

www.meccalte.com