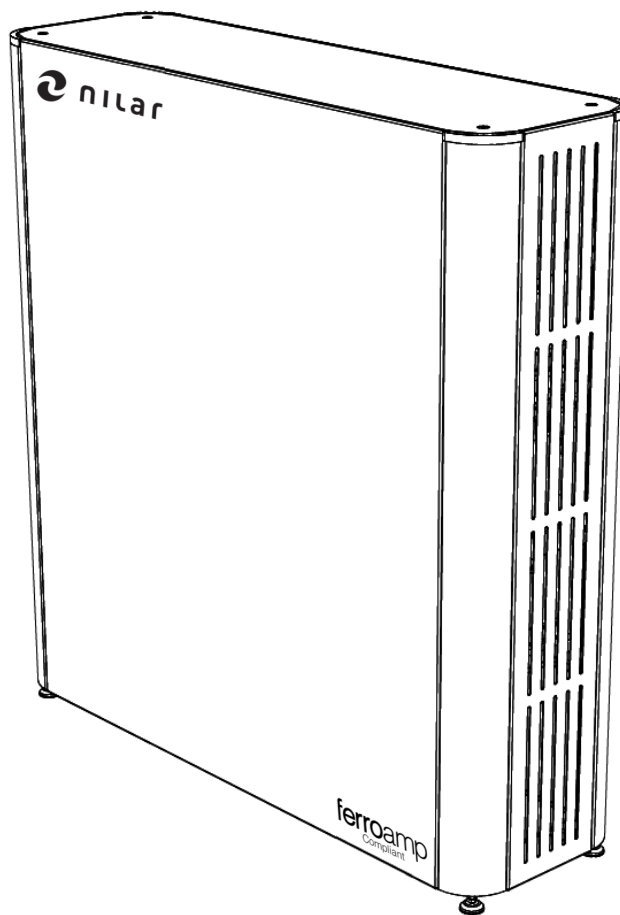


Nilar EC Home Box 5,76 kWh

FERROAMP



Valid for products:

21-0001 & 21-0002



Important information

Read carefully

Keep this information for further reference

THIS QUICK GUIDE IS ONLY INTENDED TO BE USED BY INSTALLATION PERSONNEL WITH PREVIOUS INSTALLATION EXPERIENCE AND FULL UNDERSTANDING OF THE PROCEDURE AND SAFETY WARNINGS EXPLAINED AND DESCRIBED IN THE MORE EXTENSIVE **INSTRUCTION MANUAL HOME BOX (73-H006)!**

IF UNCERTAINTY ARISES, ALWAYS REFER TO **INSTRUCTION MANUAL HOME BOX (73-H006)!**

THE INSTRUCTION MANUAL CAN BE DOWNLOADED AT : <https://www.nilar.com/partner-login/>

WARNING

This product contains powerful battery packs (NiMH) and is supplied by multiple hazardous electrical sources. Beware of stored and residual energies.

Obey local regulations for live working when casing/door is open.

Wear electrically insulated gloves when handling battery packs. Battery surfaces may carry hazardous voltage due to lowered insulation resistance. Do not place battery packs on conductive surfaces.

Risk for electric shock and arcing if product is used incorrectly.

The battery packs cannot be turned off electrically. Please note:

- Work only with one battery pack terminal at the time.
- Rupture disc may release electrolyte during abnormal use. We therefore recommend wearing safety glasses.

Risk for electrical hazards if product is exposed to rain or moisture.

Do not operate the product with suspected failures. If you suspect that the product is damaged, have it inspected by qualified service personnel.

Do not block or cover the rupture disc outlet on the battery pack.

If a fire occurs, it can be extinguished by using CO₂. Ensure that fire extinguishers are available.

CAUTION

If a battery pack is damaged mechanically, the following may occur:

- High heat generation on the surface of the battery cells.
- Electrolyte may escape.
- Eventual smoke from the battery packs can irritate the skin, eyes and respiratory system.

Therefore, follow these guidelines:

- Do not open the battery packs.
- Do not modify or mechanically damage the battery packs.
- Operate the Nilar Home Box only within the allowed operating range.
- Do not short-circuit the battery packs.
- Do not continue to use the battery packs after identified as faulty.

It is required that a smoke alarm, preferably with connected surveillance function, is installed in close and strategical connection with the installation of the product. Furthermore, the installation of a gas alarm that warns in case of high levels of hydrogen is recommended.

Always install the product in a well-ventilated location.

To avoid potential hazards, use this product only as specified.

Do not operate the product with covers removed. If covers are removed during e.g. repair, do not touch any exposed connections.

The product shall not be exposed to liquids (not even dripping or splashing) and objects filled with liquids must not be placed on or close to the product.

Remove personal metal items such as rings, bracelets, necklaces, and watches when physically handling the product since it can result in a short-circuit current causing severe burn.

Keep product surfaces clean and dry.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Always use PPE during handling and installation of product. At minimum this includes safety shoes with steel toe, safety glasses, and electrically insulated gloves:



WARNING & CAUTION SYMBOLS

The following warning and caution symbols are used throughout the document:



WARNING
HAZARDOUS
VOLTAGE

WARNING
CRUSH HAZARD

GENERAL
CAUTION

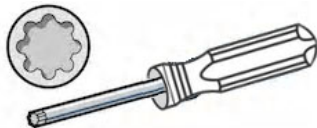


CAUTION
HEAVY
WEIGHT

TOOLS & ACCESSORIES

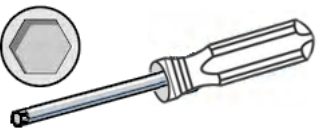
TXD 2

Torx screwdriver, size 20



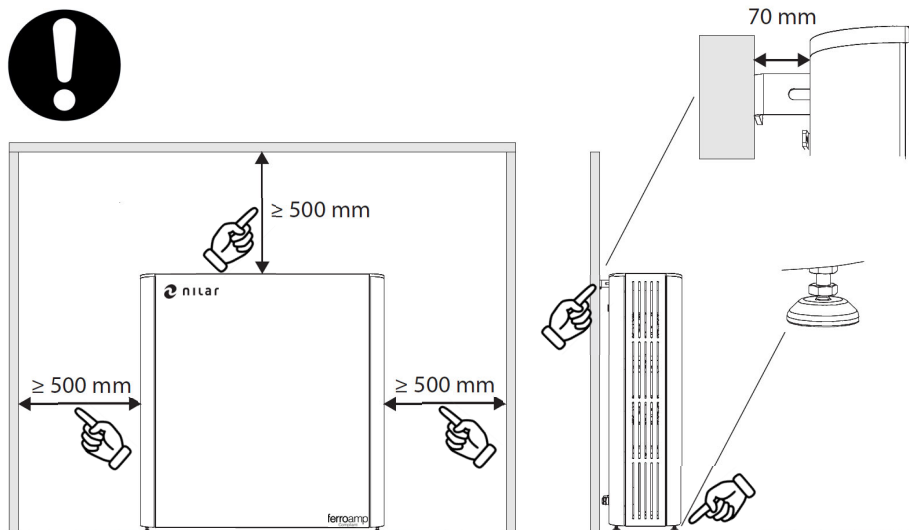
HXD 2

Hex screwdriver, size 4



1

1

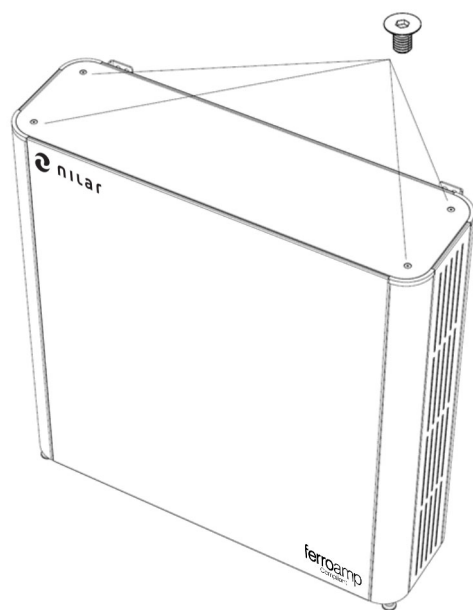


DO NOT ATTACH THE HOME BOX TO THE WALL UNTIL INSTALLATION HAS REACHED STEP 14 IN THIS INSTALLATION GUIDE

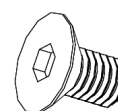
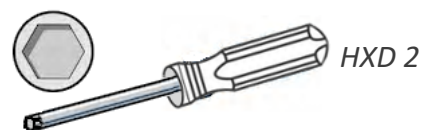
Ensure appropriate space for the Home Box.

If required, adjust the support legs of the Home Box to level.

2

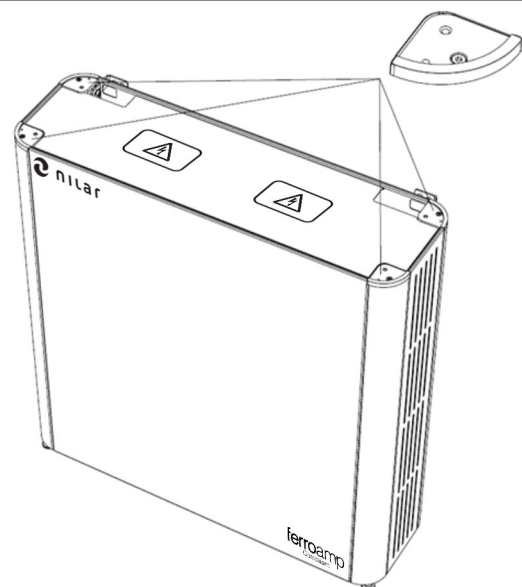


Unscrew and remove the cover lid.



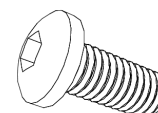
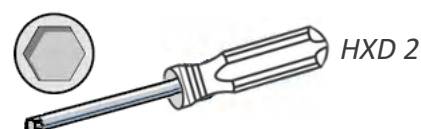
x 4

3

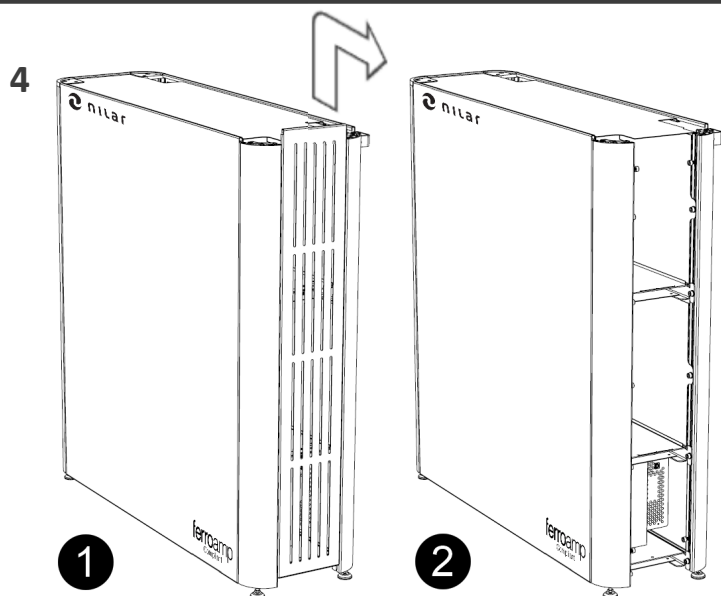


PLEASE READ THE WARNING STICKERS ON THE TOP PLATE BEFORE PROCEEDING

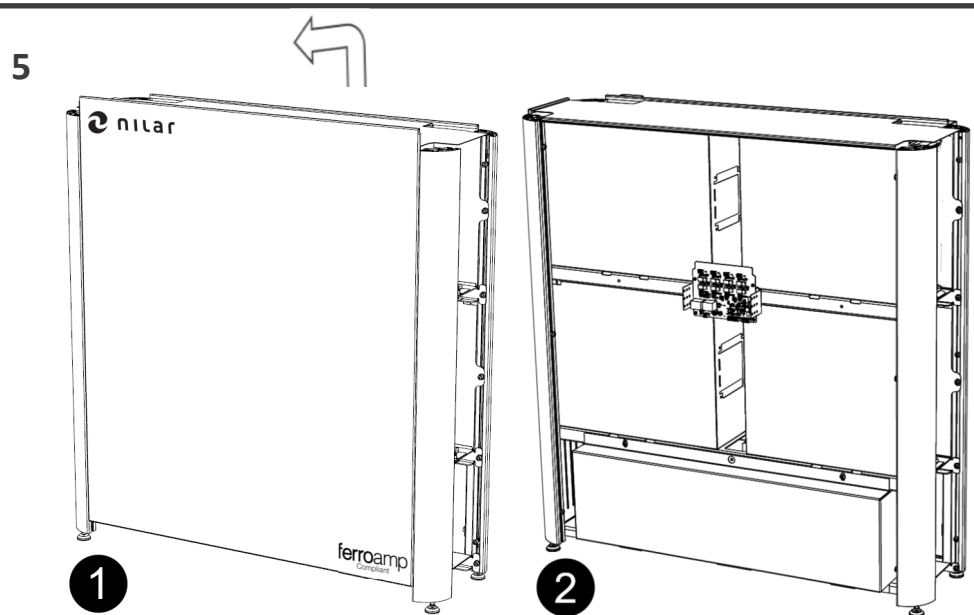
Unscrew and remove the corner tops.



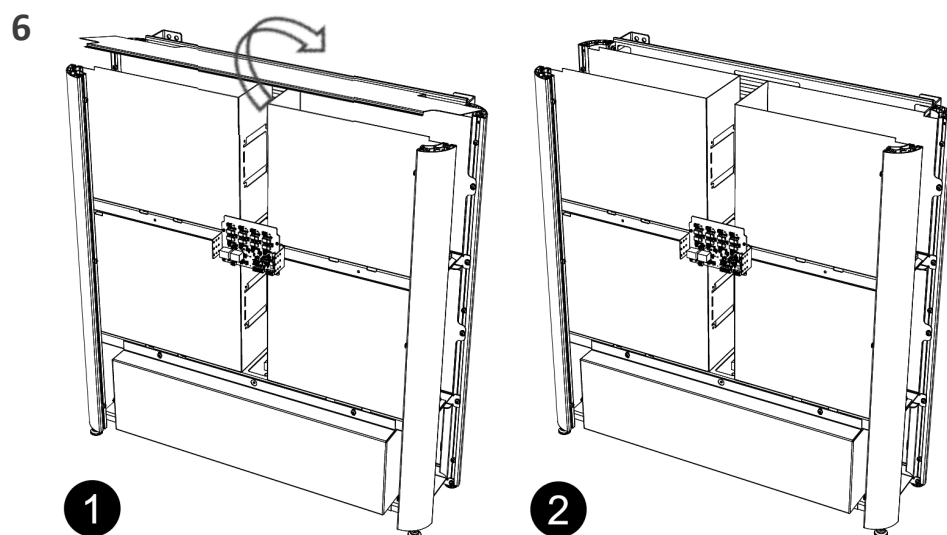
x 4



Slide the side plates upwards to unhook them and lift them thereafter outwards.

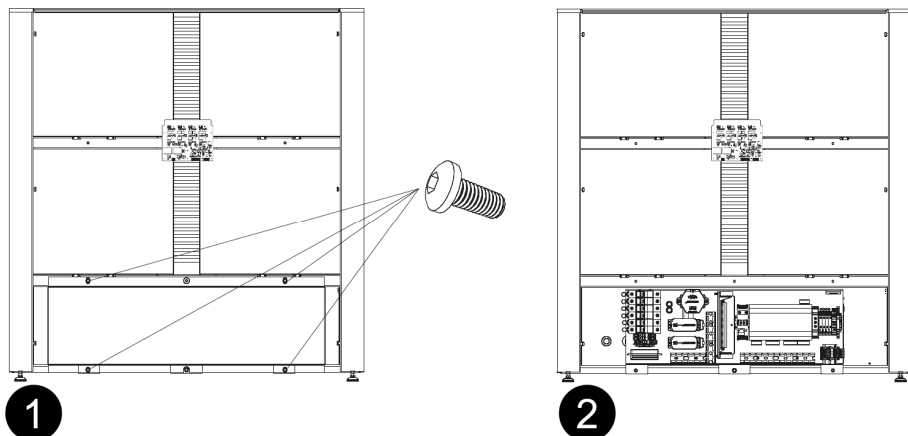


Slide the front plate upwards to unhook it and lift it thereafter outwards.

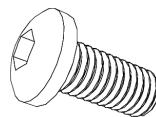
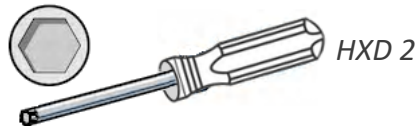


Tilt the top plate upwards a few degrees and thereafter lift it off.

7

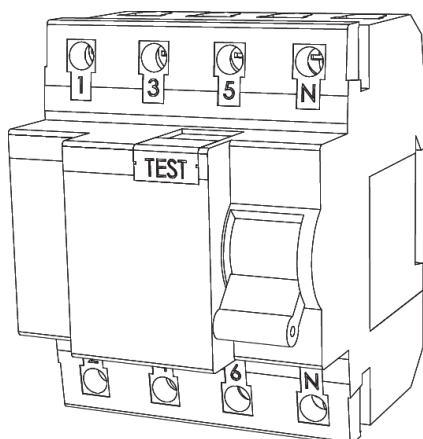


Unscrew and remove the BMS cover.



x 4

8



Type B		✓
Type B+		✓
Type AC		✗
Type A		✗
Type F		✗



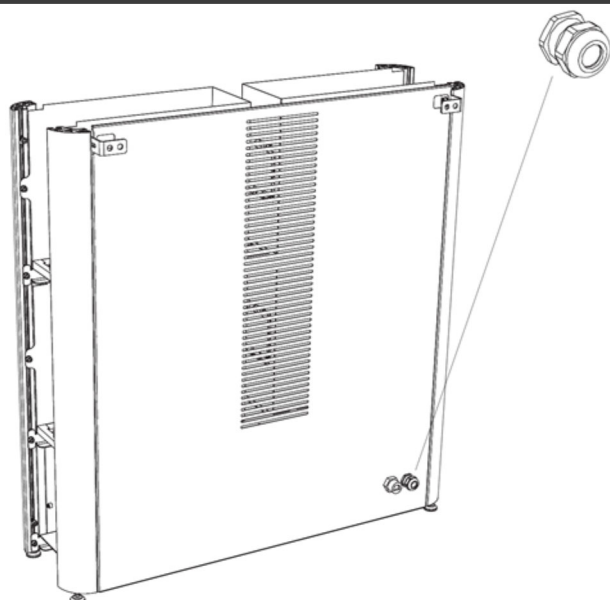
ONLY AUTHORIZED ELECTRICIANS ARE ALLOWED TO CARRY OUT THE INSTALLATION.



REGARDING EXAMPLES OF RCD-INSTALLATIONS, PLEASE SEE MAIN MANUAL

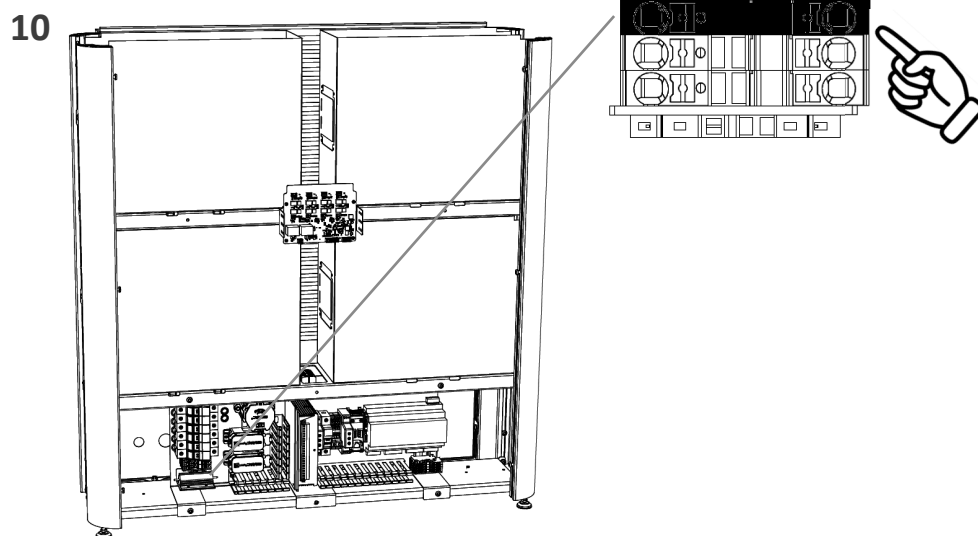
Always install a type B or B+ Residual Current Device (RCD), not supplied by Nilar. If an RCD of another classification (type AC, A or F) is already installed, it needs to be replaced with a type B or B+ RCD.

9



THE FERROAMP ENERGYHUB SYSTEM MAY STILL PROVIDE HAZARDOUS VOLTAGE AND RESIDUAL ENERGY. ALTHOUGH IT IS SWITCHED OFF OR MAY APPEAR SWITCHED OFF.

Route the Ferroamp EnergyHub power cable through the cable entry of Nilar Home Box.

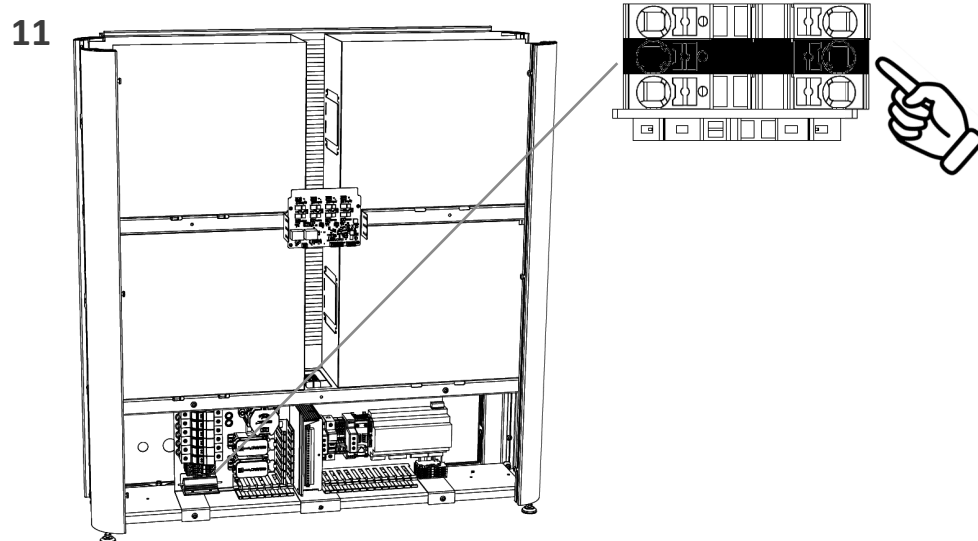


THE POSITIVE (+) WIRE OF THE INCOMING POWER CABLES MUST ALWAYS BE EXTERNALLY PROTECTED BY A 10A DC-FUSE (1000VDC)



CONDUCTOR CROSS-SECTION
MAX 6 mm² (Cu)

Positive (+) wire of power cable connects to the positive terminal (+) of the Nilar BMS.

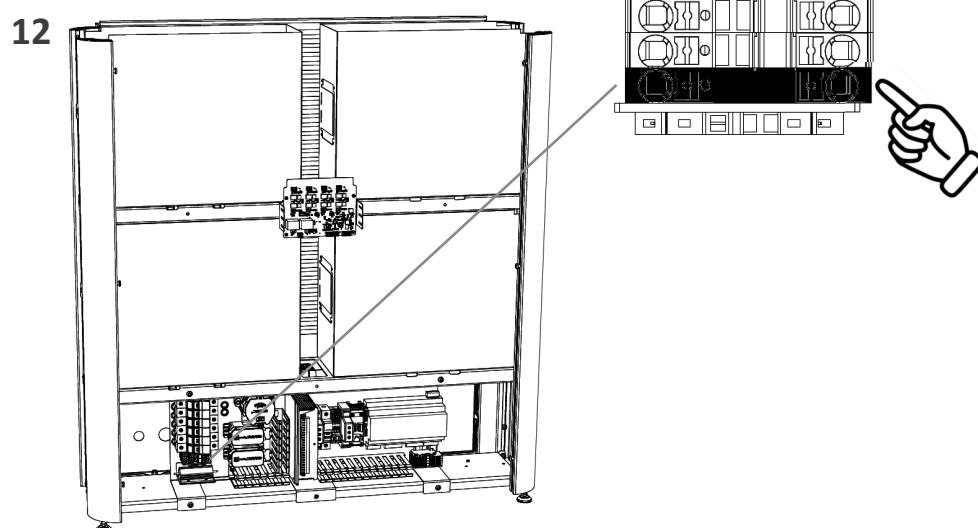


THE NEGATIVE (-) WIRE OF THE INCOMING POWER CABLES MUST ALWAYS BE EXTERNALLY PROTECTED BY A 10A DC-FUSE (1000VDC)



CONDUCTOR CROSS-SECTION
MAX 6 mm² (Cu)

Negative (-) wire of power cable connects to the negative terminal (-) of the Nilar BMS.

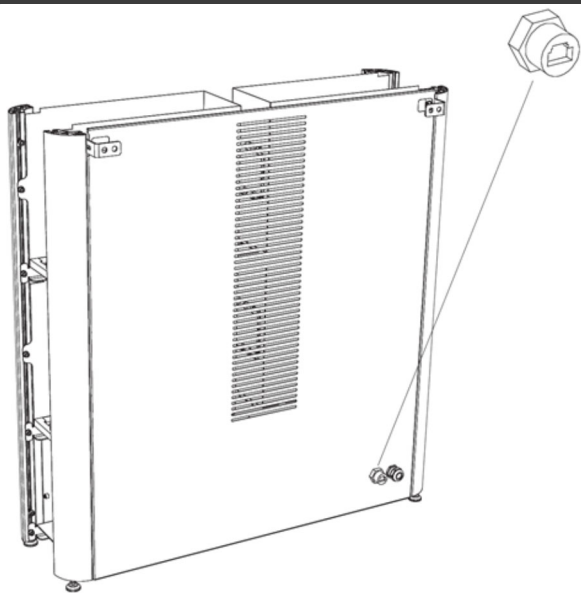


CONDUCTOR CROSS-SECTION
MAX 6 mm² (Cu)

The protective earth (PE) wire of the power cable is to be connected to the protective earth (PE) terminal of the Nilar BMS.

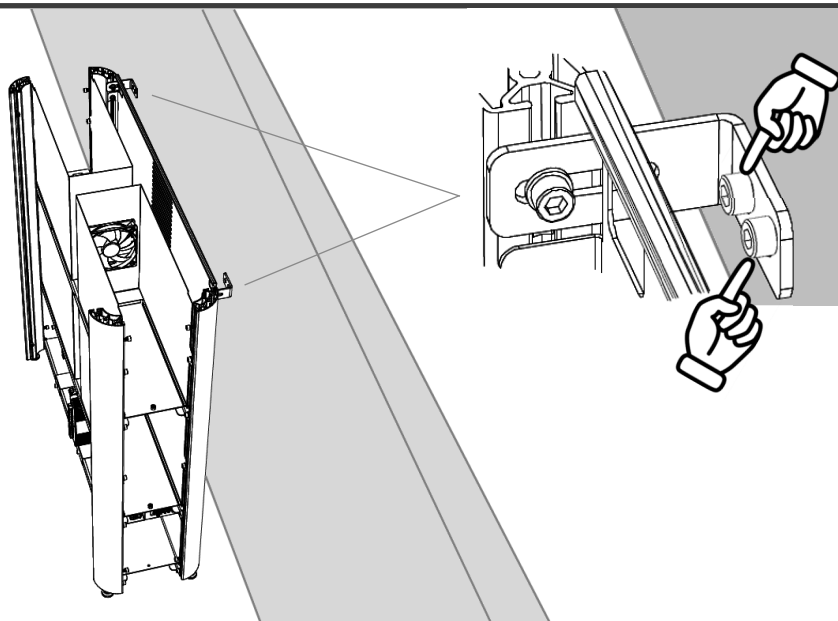
5

13



Connect an internet cable to the RJ45 port on the backside of the cabinet.

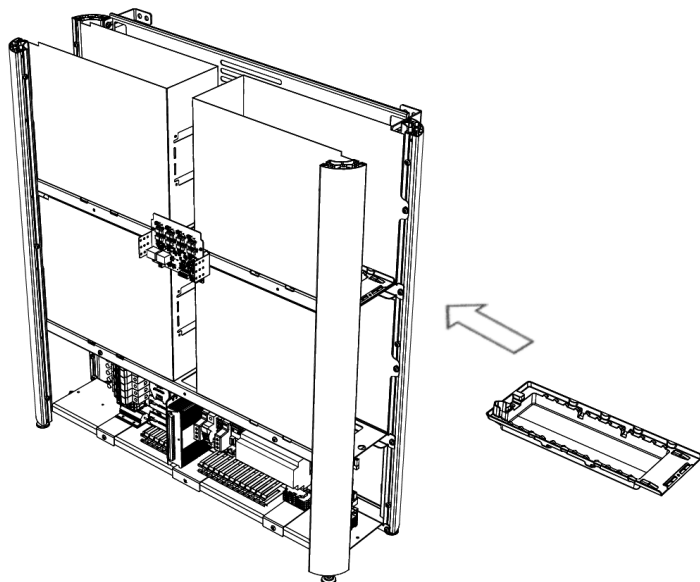
14



THE HOME BOX MUST ALWAYS BE ATTACHED TO A STABLE WALL. TYPE AND LENGTH OF SCREWS DEPEND ON MATERIAL IN WALL AND THE SCREWS ARE NOT SUPPLIED WITH NILAR HOME BOX.

Fixate the Home Box by attaching the mounting brackets with (2) screws each onto a stable wall.

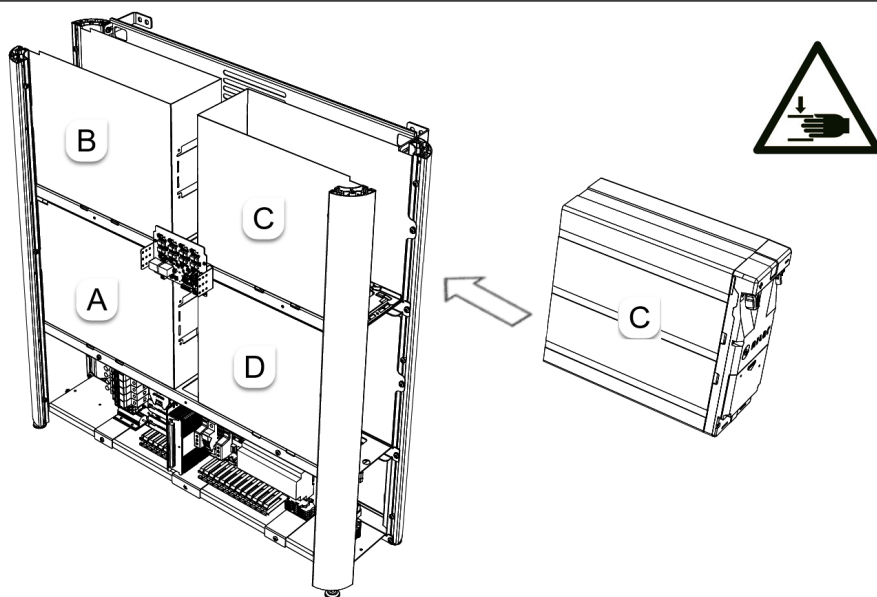
15



NEVER INSTALL BATTERY PACKS WITHOUT INSULATION TRAYS.

Place the insulation trays on the shelf slots of the Home Box

16



REMOVE BOTH LIFTING STRAPS FROM THE BATTERY PACKS.



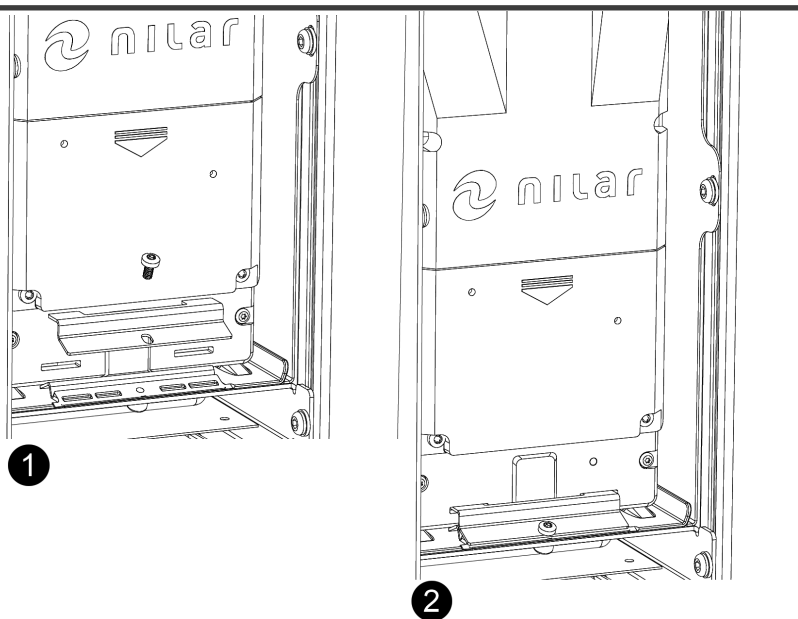
ID-MARKING IN SHELF SLOT OF CABINET MUST MATCH ID-MARKING ON BATTERY PACK



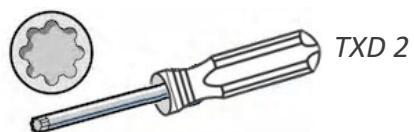
IT IS RECOMMENDED TO USE LIFTING AIDS

Carefully lift/slide the battery packs into their dedicated shelf slots.

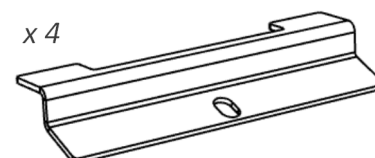
17



Fixate the battery packs to the insulation tray with the screws. Repeat for all battery packs.

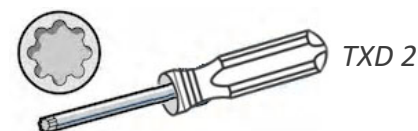
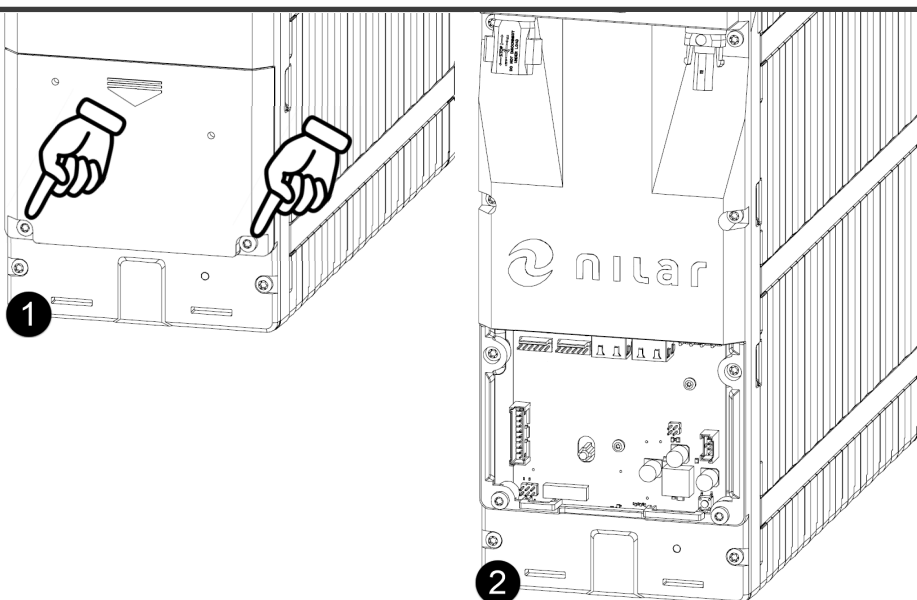


x 4



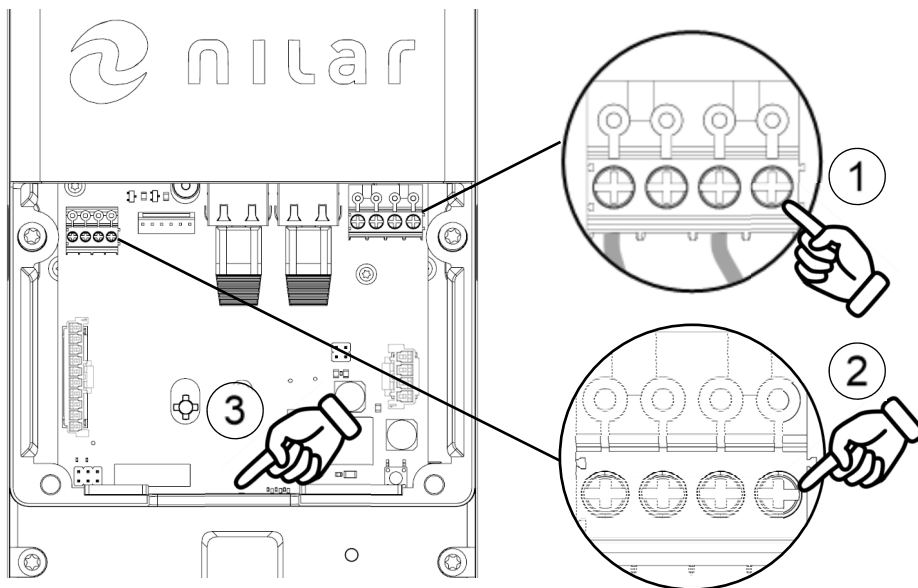
x 4

18



x 2

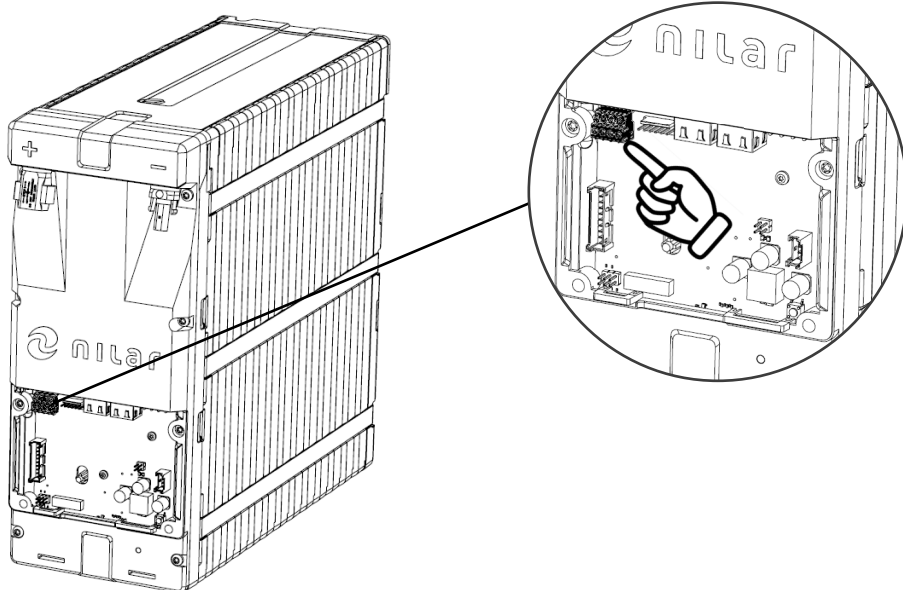
19



BE CAREFUL TO CONNECT
THE IMU CONNECTORS WITH
THE CORRECT ORIENTATION

Make sure that the clamping screws/springs for the 24VDC power supply ① and the Current sensor ② are visible on the front side of the connectors and that the cables are pointing towards the cable entry ③.

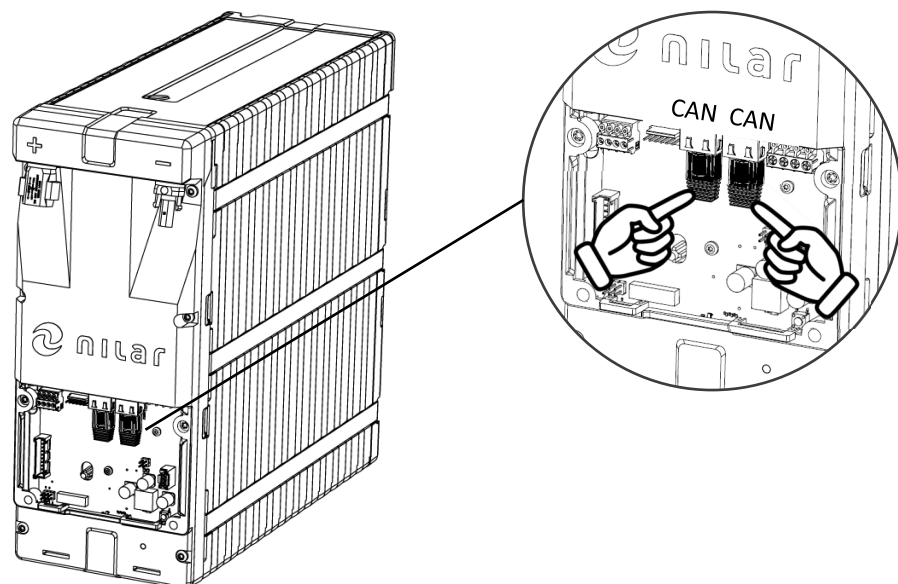
20



INSTALL AS DESCRIBED IN
INSTALLATION STEP #19

Connect the current sensor cable to battery pack 'D'.

21

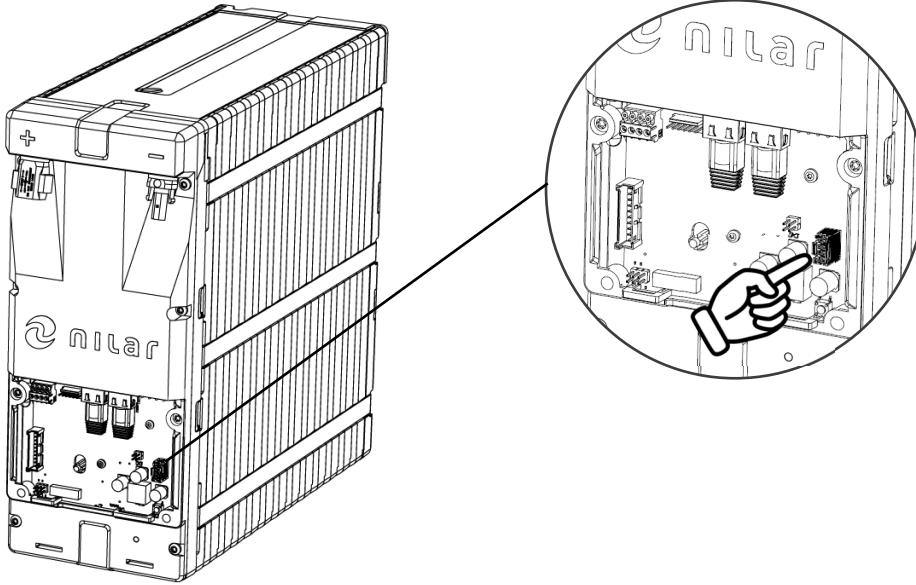


Connect the pre-routed communication cable from BMS to battery pack 'A' (RJ45).

Connect the interpack communication cables between battery pack 'A' and 'B', between 'B' and 'C' (pre-routed) and between 'C' and 'D'.

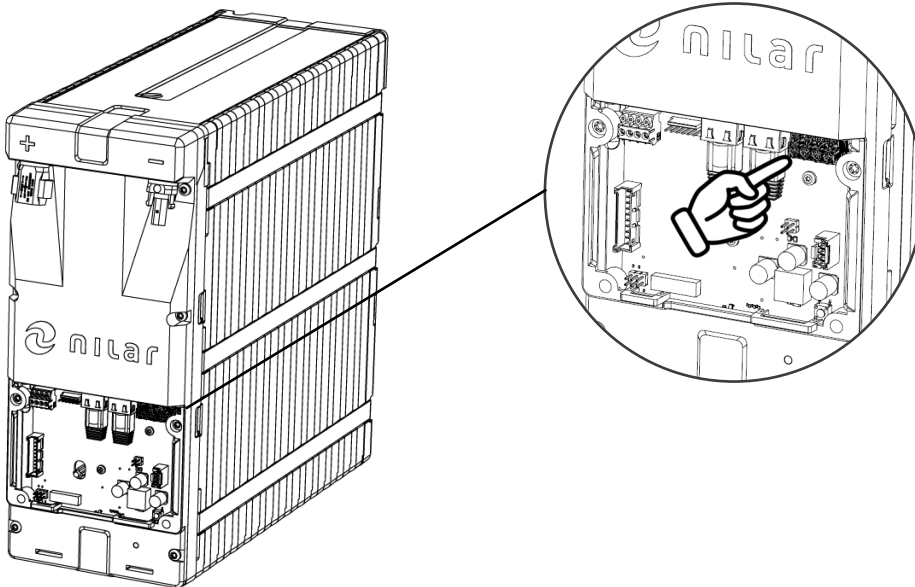
Connect the pre-routed communication cable from ESO to battery pack 'D'.

22



Connect all the fan cables to all battery packs.

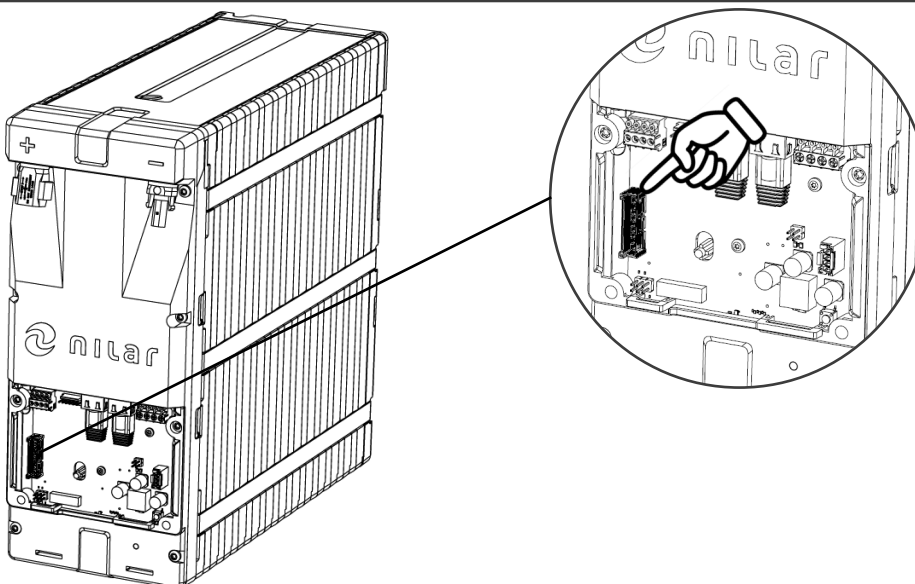
23



! *INSTALL AS DESCRIBED IN
INSTALLATION STEP #19*

Connect the pre-routed 24VDC power supply cable to each battery pack.

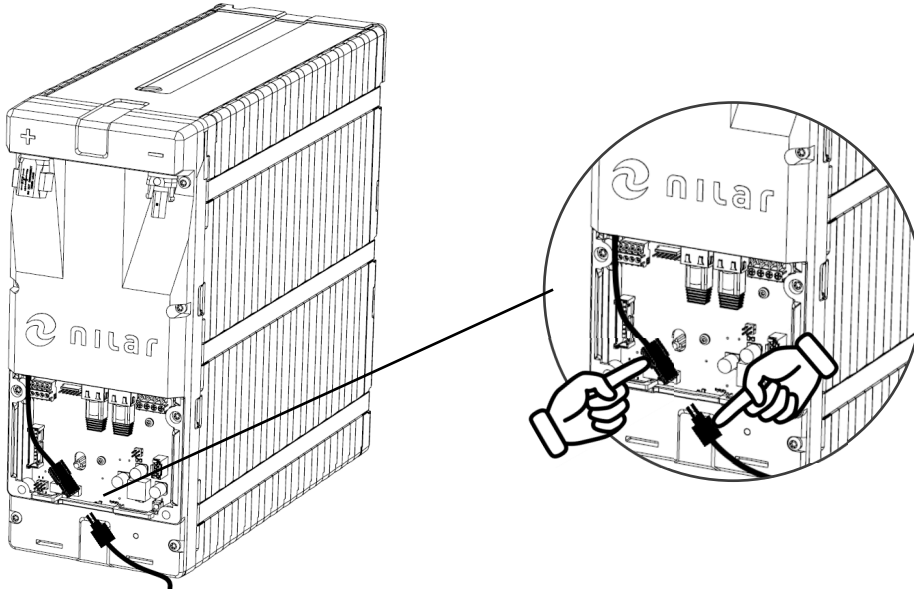
24



Connect the ambient temperature sensor cable to battery pack 'A'.

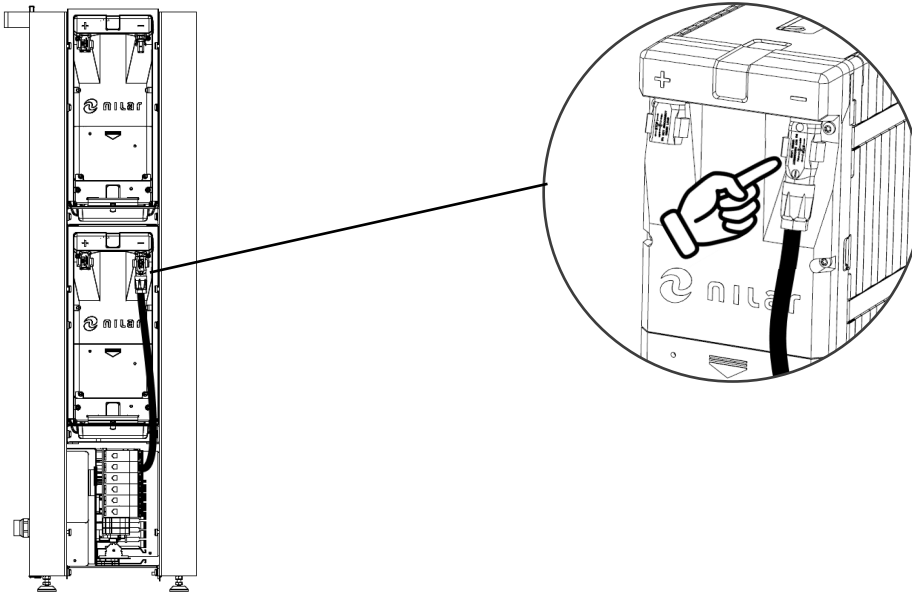
Install the cover lids back on all the battery packs and check that all cables are routed through the cable entry.

25



Connect all the pre-routed ETPU-cable connectors with all the pre-routed ETSU-cable connectors for each battery pack.

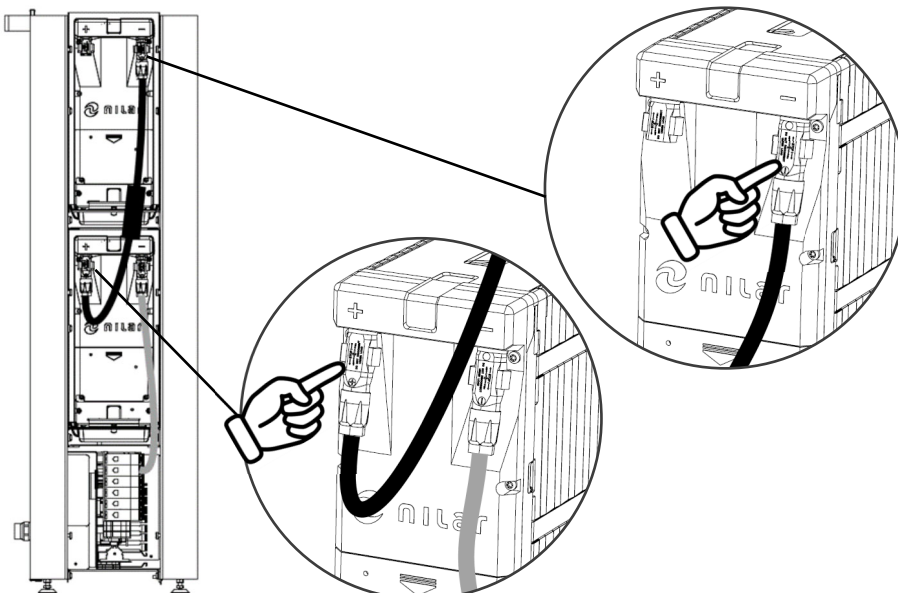
26



CHECK THAT THE FUSES ARE NOT ACTIVATED, SE INSTALLATION STEP #31

Connect the pre-routed negative (-) power cable (1 : A) into the negative (-) chassis connector of battery pack 'A'.

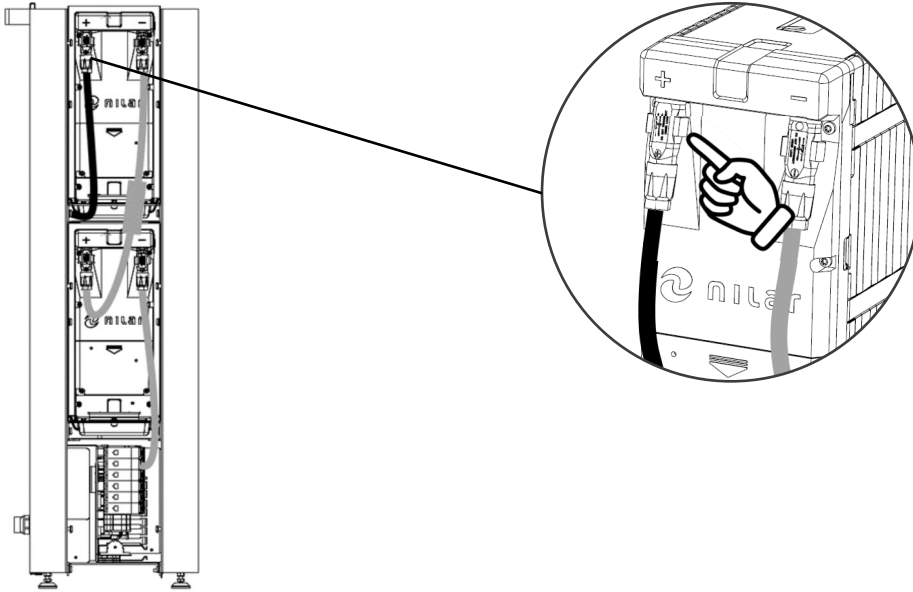
27



DO NOT CONNECT THE POSITIVE (+) AND THE NEGATIVE (-) TERMINAL ON THE SAME BATTERY PACK (= SHORT-CIRCUIT!)

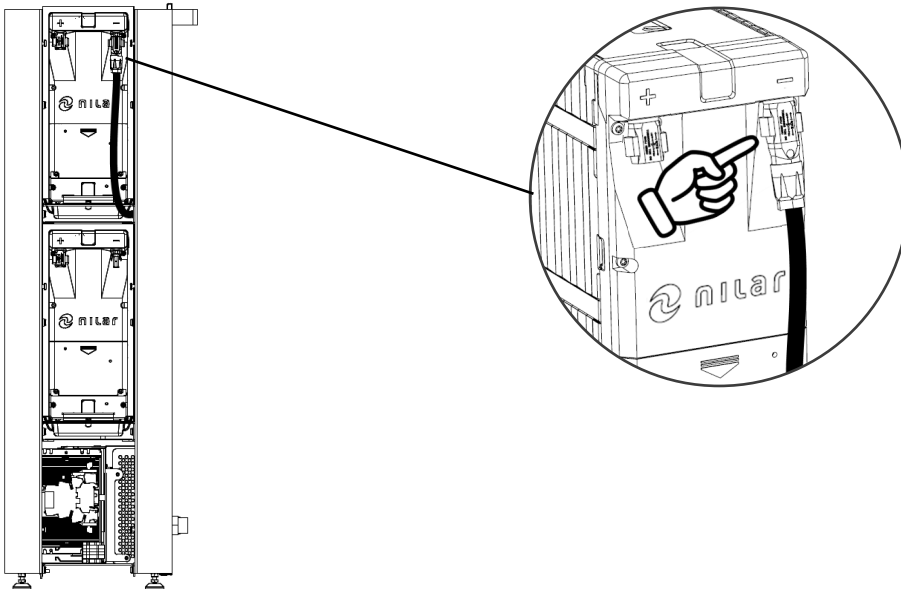
Connect the positive (+) chassis connector of battery pack 'A' to the negative (-) chassis connector of battery pack 'B' by using one, of the two, external interpack power cables.

28



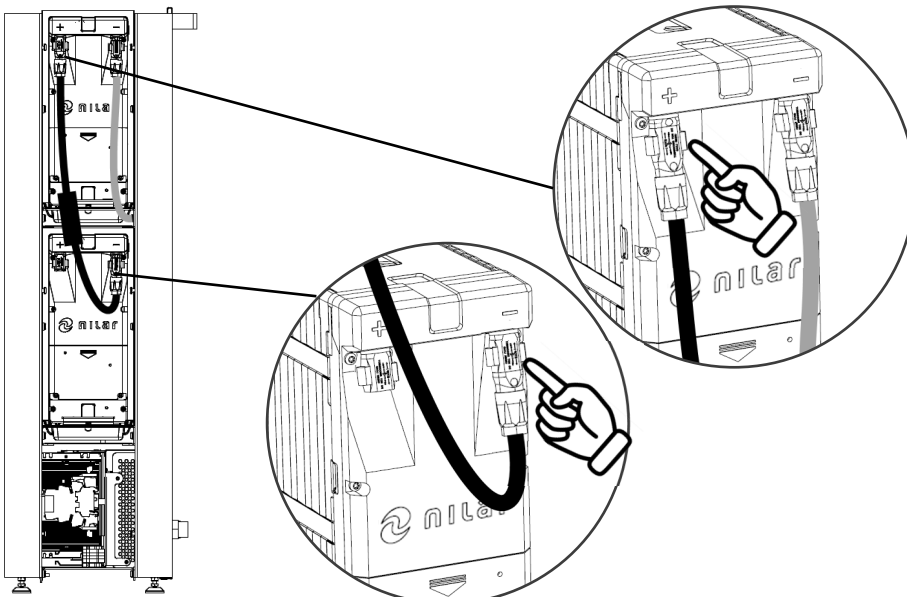
Plug the pre-routed interpack cable into the positive (+) chassis connector of battery pack 'B'.

29



Plug the other end of the pre-routed interpack cable into the negative (-) chassis connector of battery pack 'C'.

30

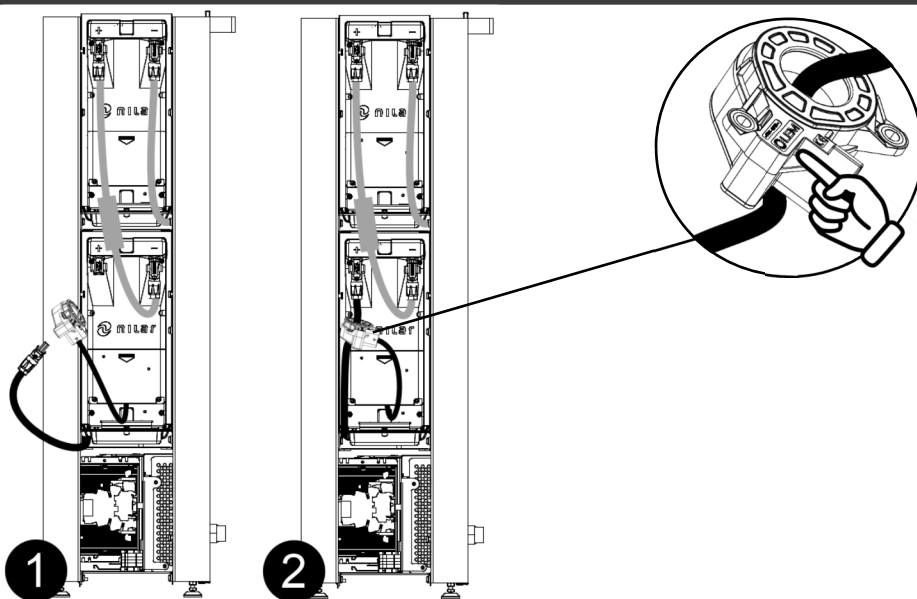


DO NOT CONNECT THE POSITIVE (+) AND THE NEGATIVE (-) TERMINAL ON THE SAME BATTERY PACK (= SHORT-CIRCUIT!)

Connect the positive (+) chassis connector of battery pack 'C' to the negative (-) chassis connector of battery pack 'D' by using the remaining external interpack power cable.

11

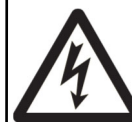
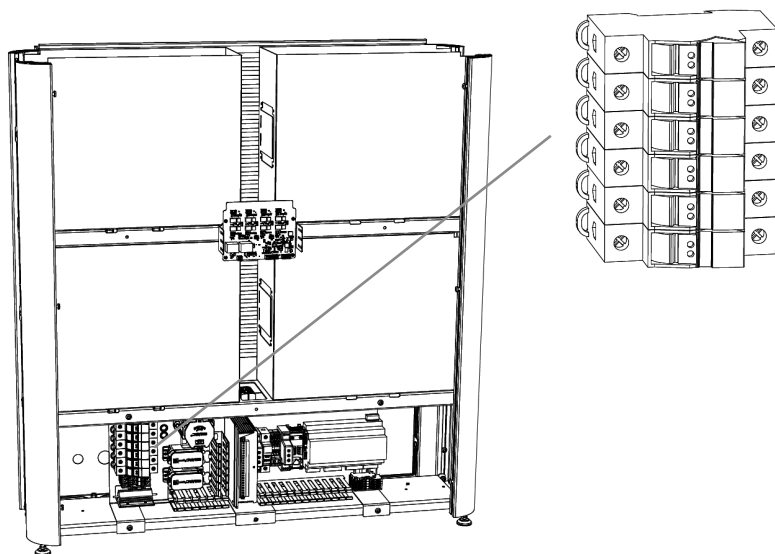
31



THE TEXT MARKING "LEM"
OF THE CURRENT SENSOR
MUST POINT TOWARDS THE
POSITIVE (+) CHASSIS
CONNECTOR

Lace the pre-routed positive (+)
power cable (1 : D) through the
current sensor and connect it to
the positive (+) chassis
connector of battery pack 'D'.

32

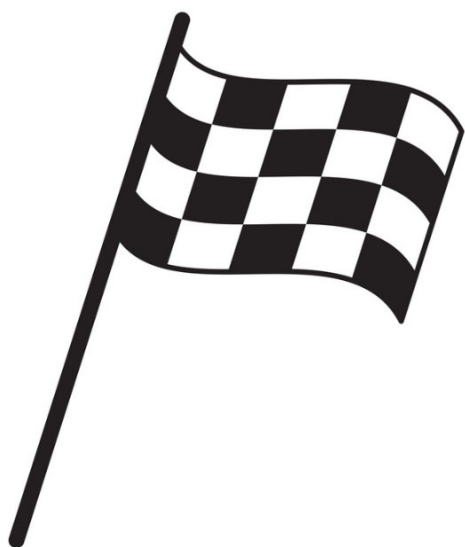


Remove the adhesive tape over
the fuse box, activate the fuses
by closing the hatches.

33



ASSEMBLE THE NILAR HOME BOX CABINET IN THE
REVERSE ORDER OF HOW IT IS DESCRIBED IN STEP
2 – 7 AND CONTACT FERROAMP FOR FURTHER
INSTRUCTIONS BEFORE TAKEN INTO OPERATION .



Nilar AB
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SE-187 30 Täby, Sweden