dirna Bergstrom

SCANIA PGR

DINAMIC 1.1

bycool green line

Dirna Bergstrom	SCANIA
1001265102	2533321

Instrucciones de Montaje	**ES**
Mounting Instructions	**EN**
Instructions de Montage	**FR**
Montageanweisungen	**GE**
Istruzioni di Montaggio	**IT**
Montážní návod	**CZ**
Руководство по эксплуатации	**RU**

F-4218 rev.01

AENOR Calidad en Automoción IATF 16949

AENOR Empresa Registrada ISO 9001

IQNet CERTIFIED QUALITY SYSTEM

1001321985

Recomendaciones Para el montaje

- Antes de iniciar el montaje leer las instrucciones y seguirlas durante el proceso de instalacion.
- Usar las herramientas adecuadas para cada operación.

Electricidad

- Desconectar la llave de contacto.
- Desconectar la batería antes de empezar el montaje.
- Asegurar el conexionado de los componentes eléctricos, verificando su correcto encaje.

⚠ Atención

Si durante el montaje el equipo se inclina o se abate la cabina con el equipo montado, se deberá esperar un mínimo de 60 minutos, desde que el equipo quede horizontal, antes de ponerlo en marcha.

⚠ Atención

En vehículos en los que la conexión eléctrica se realice a baterías adicionales independientes de las de arranque del vehículo, es opcional, la configuración de la electrónica a nuevos parámetros de corte de batería (ver página 16).

Las indicaciones relativas a posición son:

DERECHA: Lado pasajero
IZQUIERDA: Lado conductor

Par de apriete *(N.m)*			
Rosca	Calidad Acero		Par
	8.8	10.9	
M6/100	10	13	10

Montaje de tuberías		
Par de apriete		
Tubería	Par de apriete	Herramienta
1/4”	13-15	Llave fija 14 mm
3/8”	15-17	Llave fija 19 mm

Herramientas

- Carraca con llave de paso de 10
- Destornillador de estrella TOP 10
- Llave fija de 10, 11, 14, 17, 19
- Llave allen de 5
- Llave de tubo de Ø10
- Taladradora
- Broca Ø 4, Ø 6, Ø 9
- Sierra circular Ø 19, Ø 22, Ø 48
- Tijeras
- Remachadora M6

Simbología

Frágil

Atención corte!

Riesgo eléctrico

Documentación incluída

Instrucciones de montaje	1001321985
Manual del usuario	220AA11032
Diagnosis de averías	220AA11031
Garantía	220AA10017

⚠ Advertencias

⚠ El personal instalador debe poseer una formación suficiente en Aire Acondicionado de vehículos.

⚠ **dirna Bergstrom** queda exenta de responsabilidad si se producen averías que procedan de una inadecuada manipulación ó instalación del equipo, o por modificaciones y sustituciones efectuadas sin nuestra expresa autorización por escrito.

⚠ **Equipo precargado con gas R-134a 300 grs. No manipular el circuito de gas refrigerante.**

⚠ Véase **procedimiento de garantía** del producto incluido en **Diagnosis de Averías**.

⚠ Véase **Manual de Usuario** del equipo para el correcto funcionamiento del mando a distancia y del panel de control.

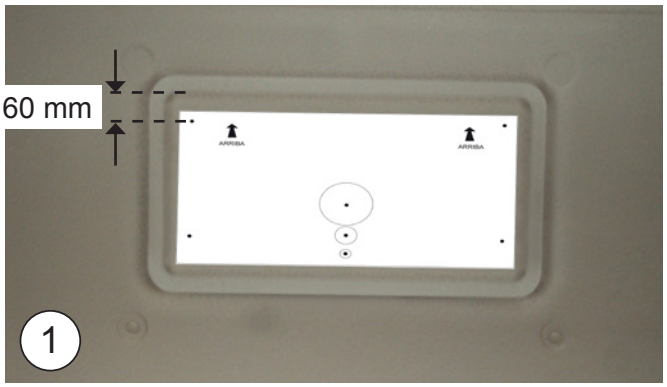
⚠ Al finalizar la instalación se debe entregar al usuario: **Manual del Usuario**, **Garantía** y **Diagnosis de averías**.

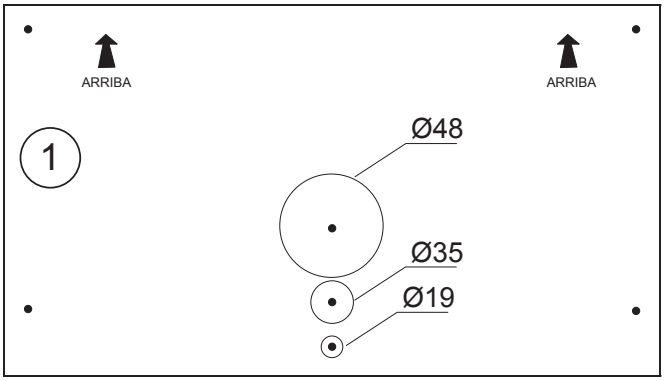
OPERACIONES PREVIAS:

- Desconectar batería.
- Desmontar el panel interior de distribución de aire de unidad evaporadora.

1 **POR INTERIOR CABINA:**

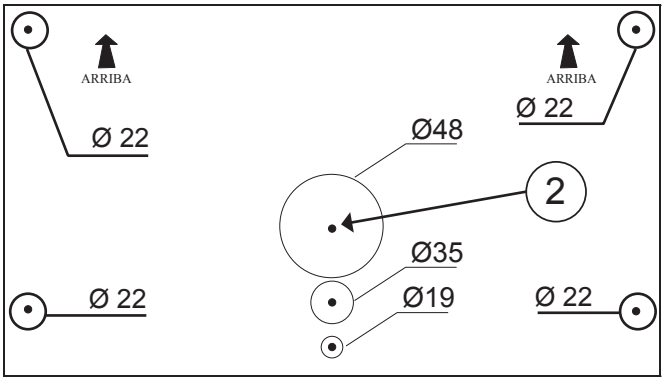
Presentar plantilla suministrada y marcar taladros.

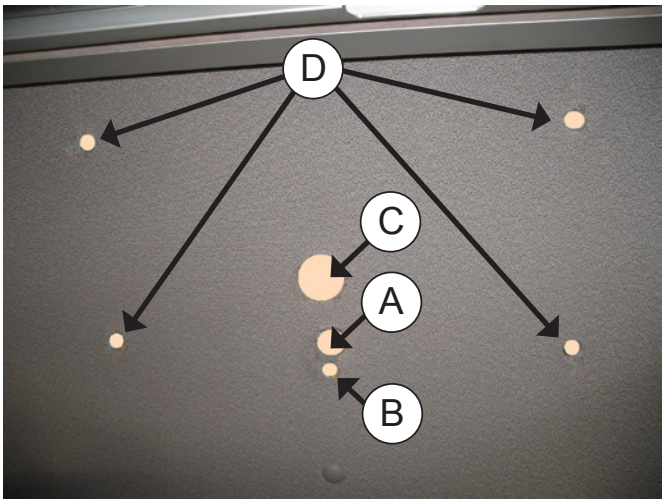




2 Dar taladro Ø4 pasante con broca larga en posición de taladro Ø48, después efectuar los siguientes taladros.

A- dar (1) Ø35 sólo en el tapizado
B- dar (1) Ø19 sólo en el tapizado
C- dar (1) Ø48 sólo en el tapizado
D- dar (4) Ø22 sólo en el tapizado



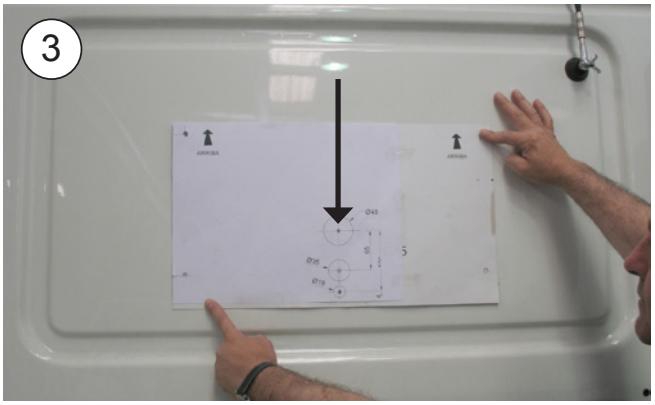


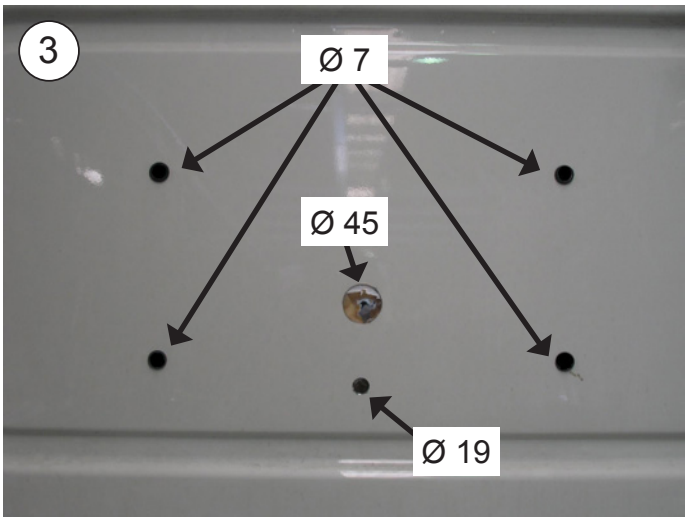
3

POR EXTERIOR CABINA:

Presentar plantilla a nivel por exterior, tomando como referencia el taladro efectuado Ø4 y marcar y dar taladros restantes.

⚠ Atención: El taladro de Ø 35 de la plantilla no se realiza.



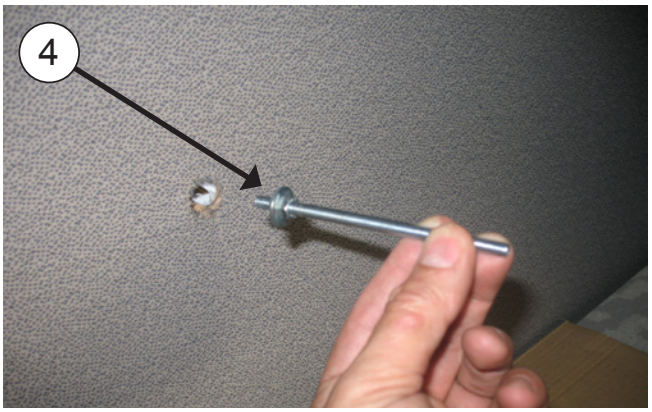


3a

Pintar taladros con producto anticorrosión suministrado.

4

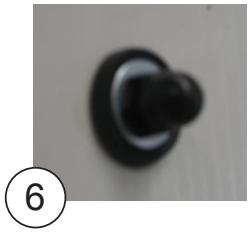
Introducir por interior esparragos M6/100x110 con tuerca y arandela como se indica.

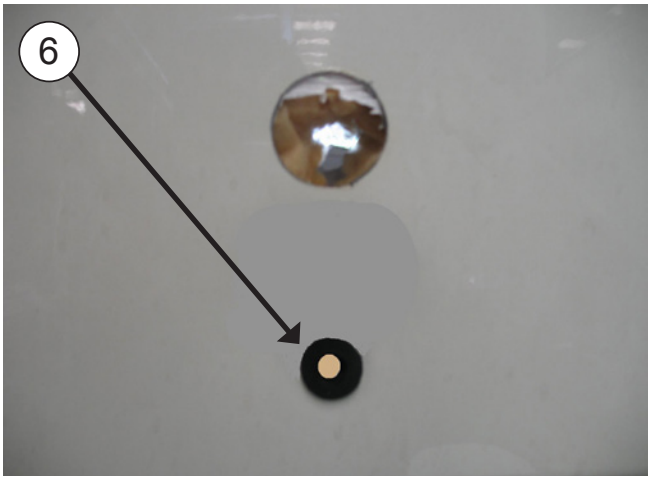


5

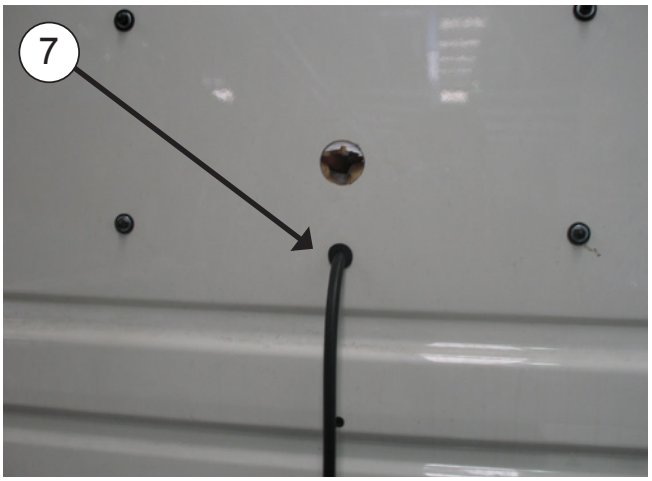
Fijar por el exterior con arandela de goma, plana y tuerca autoblocante sujetando por parte interior con llave de tubo 10.

6 Colocar tapones de tuerca y pasamuros.



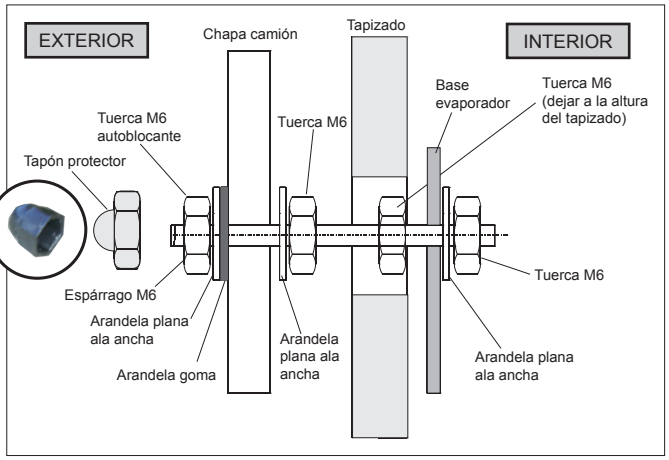


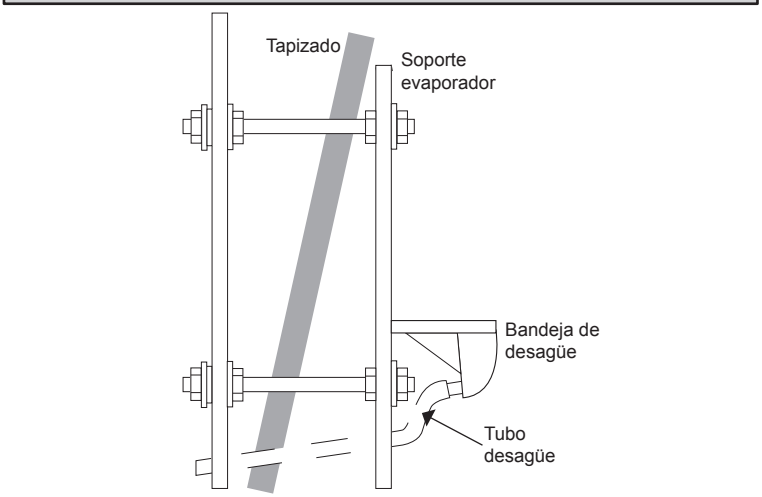
7 Pasar tubo desagüe por taladro Ø 19 con pasamuros hacia el interior de la cabina.



8 En los espárragos roscar (4) tuercas M6 con (4) arandelas planas Ø 6 quedando éstas a ras del tapizado.

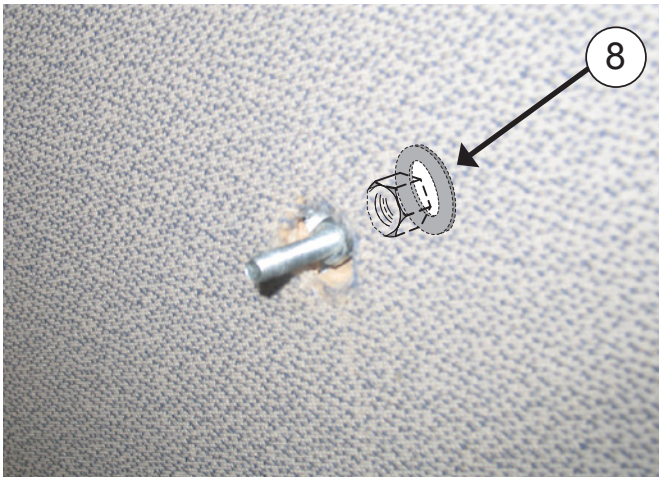
VER ESQUEMA ADJUNTO



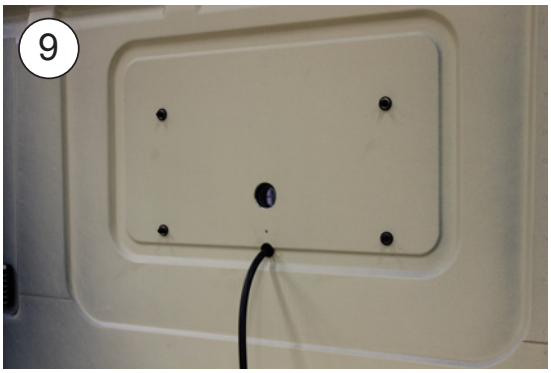


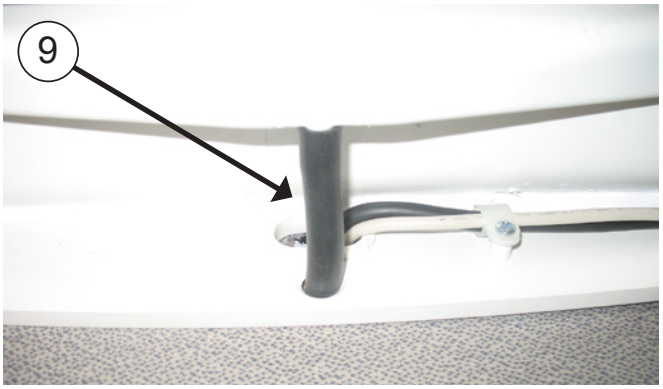
MUY IMPORTANTE

En el caso de tapizados con inclinación el conjunto evaporador tiene que quedar vertical o inclinado de la parte inferior hacia fuera para evitar que el agua de condensación caiga al tapizado.



9	Pasar tubo desagüe por taladro de la base del evaporador y conectar a la bandeja.





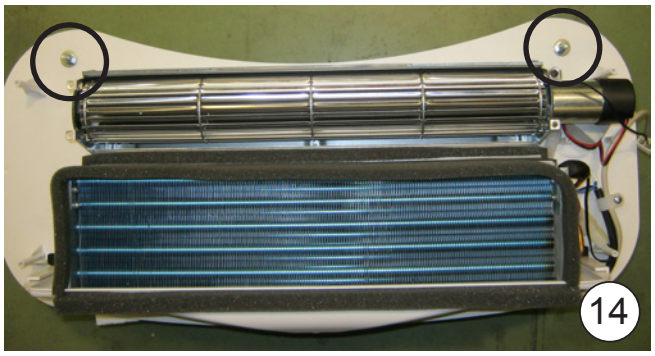
10	Pasar cableados hacia el exterior por taladro Ø 35 del tapizado y por taladro Ø 48 de chapa acompañando a racores del evaporador.

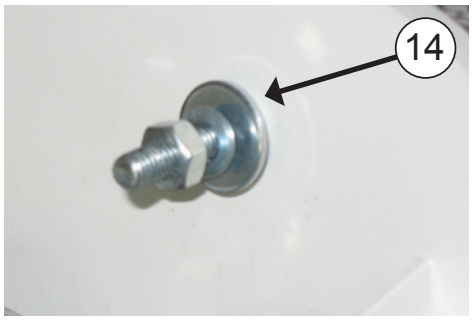
11	Colocar pasamuros suministrado.

12	Colocar junta y paso cableado.

13 Colocar protector aluminio con tuercas y apretar.

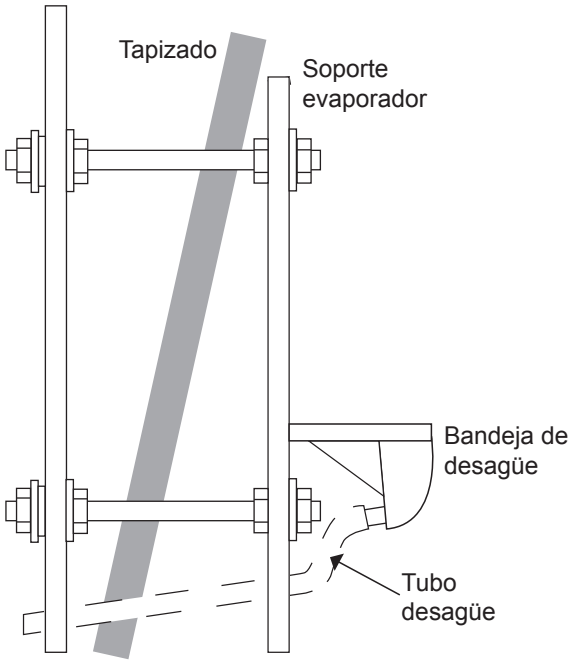
14 Introducir base evaporador sobre espárragos y Fijar con (4) arandelas planas (4) grower y (4) tuercas M6.



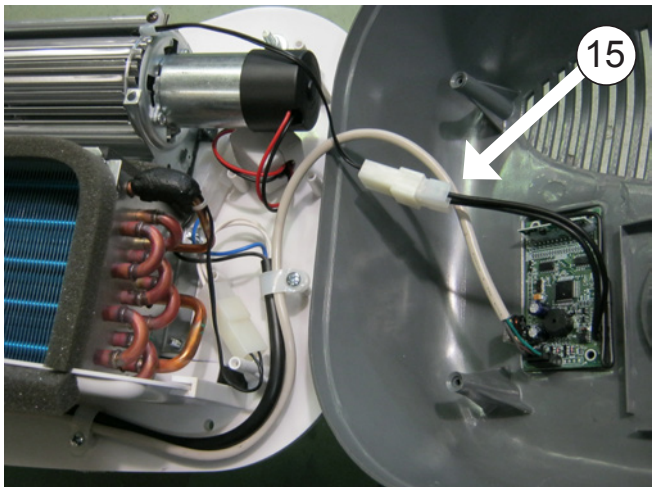


MUY IMPORTANTE

El desagüe debe quedar con la suficiente caída para evitar la caída del agua al tapizado.



15	Conectar sensor de aire de retorno y cable de comunicaciones en control electrónico.



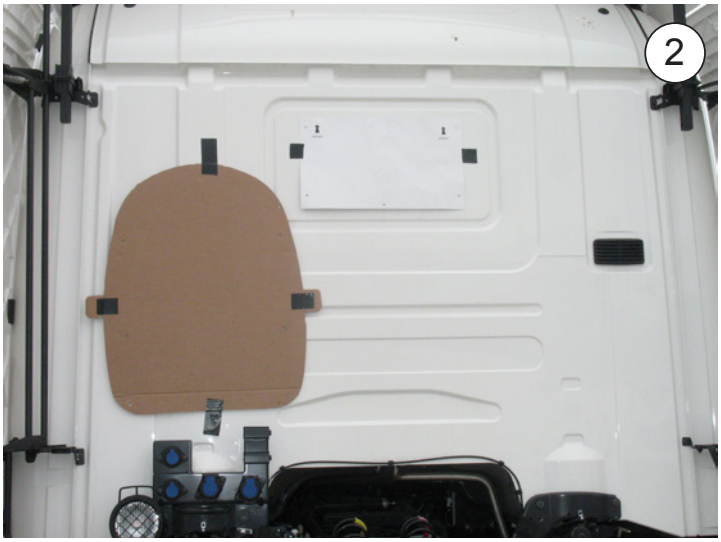
16	Volver a fijar panel interior de distribución de aire con sus tornillos, usando destornillador imantado y colocar tapones.

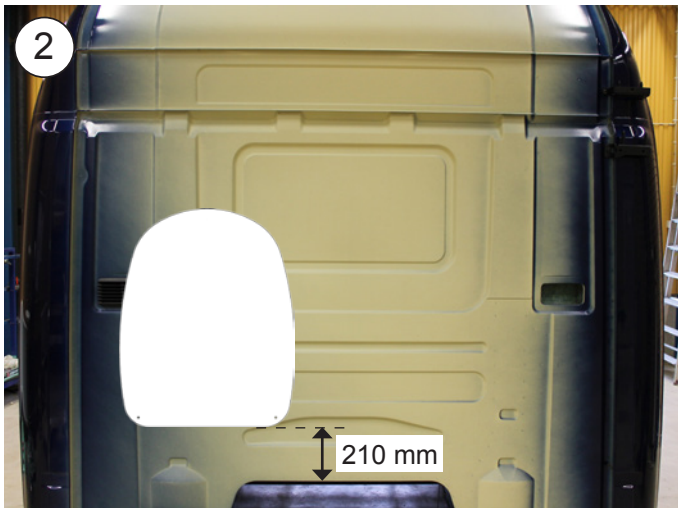
MONTAJE CONDENSADOR:

1 En vehículo, desmontar tapa y soltar el cableado del ventilador de condensador.

2 Presentar plantilla y marcar taladros.

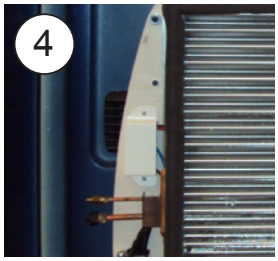
Atención: En algunos modelos existe una rejilla de salida de aire en el lado izquierdo (ver paso 5). En éste modelo de camión dejaremos una distancia de 210 mm desde la parte baja de la cabina hasta la unidad condensadora.

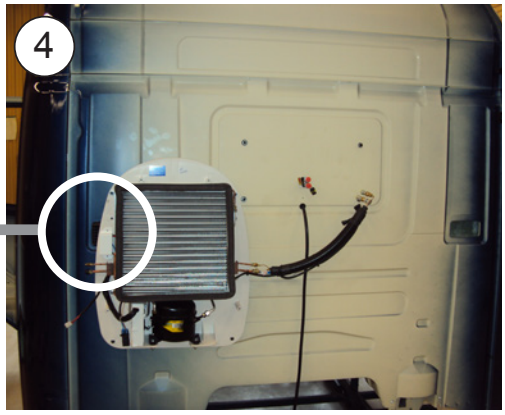




3 Dar 1º los (2) taladros inferiores a Ø 9 y colocar (2) tuercas remache M6 y espárragos M6.

4 Presentar unidad y marcar resto de taladros, menos cuando coincida en la rejilla salida aire, en este caso se dejará sin marcar dicho taladro.

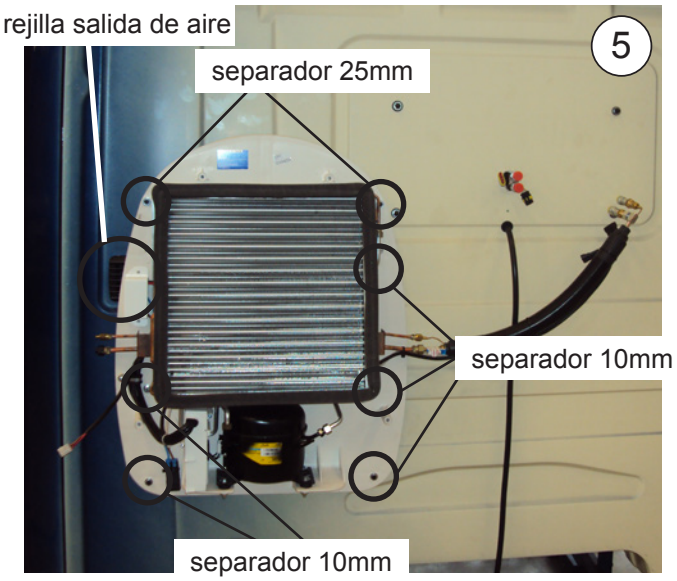


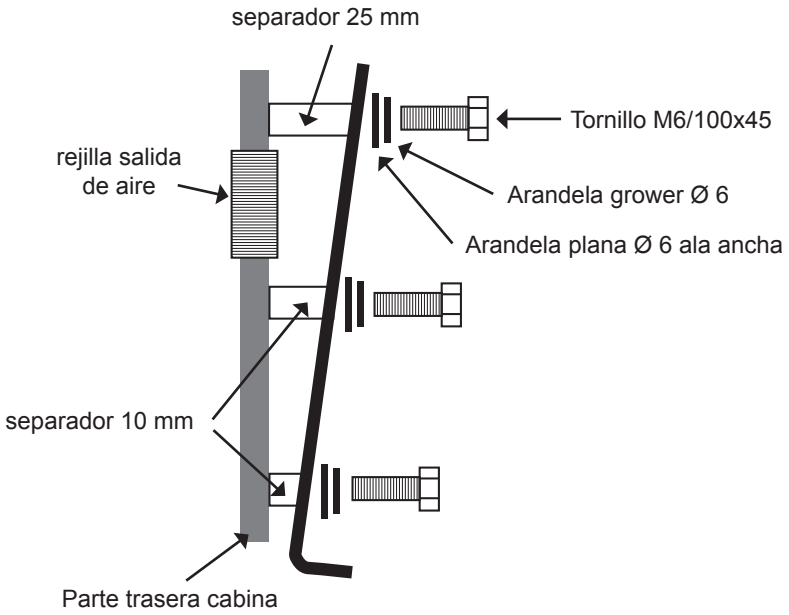


5

Para librar rejilla salida de aire, fijar unidad con (7) tornillos 6/100x45, arandela grower y plana.

(*) Por la parte trasera colocar (2) separadores de 25 mm en la zona superior y en los restantes colocar separador de 10 mm.

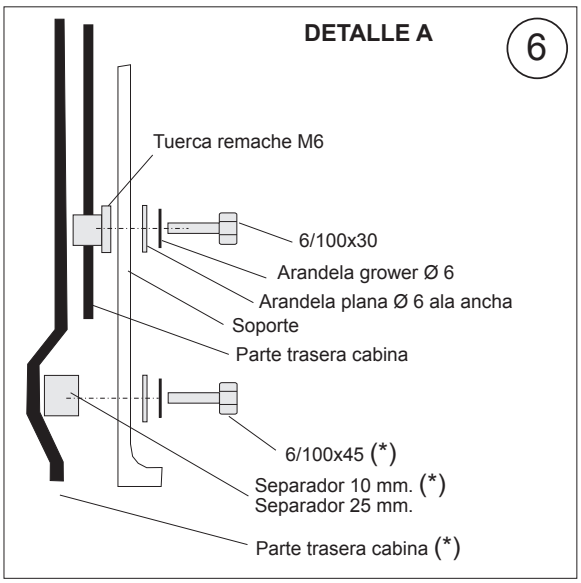




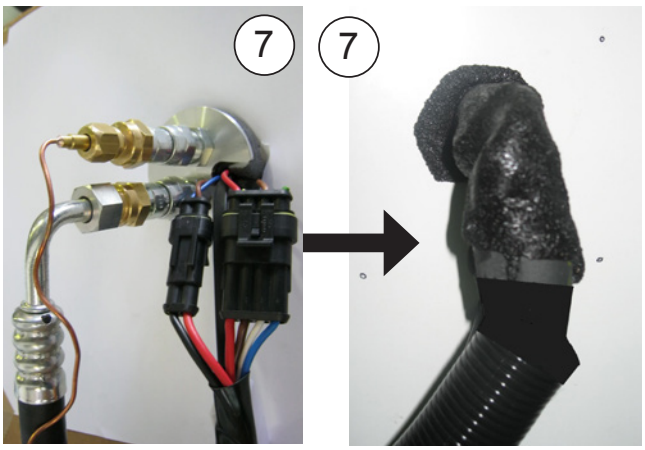
6

(*)- en los casos que no apoye en parte lisa, colocar separador de 10/20/40 mm.y tornillo 6/100x40/60/70.

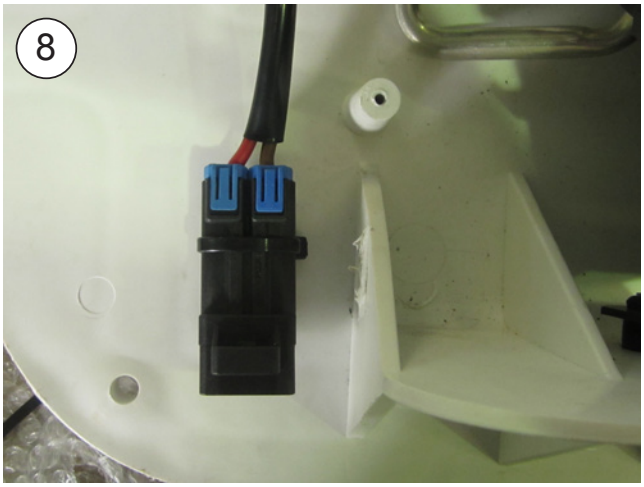
VER DETALLE A



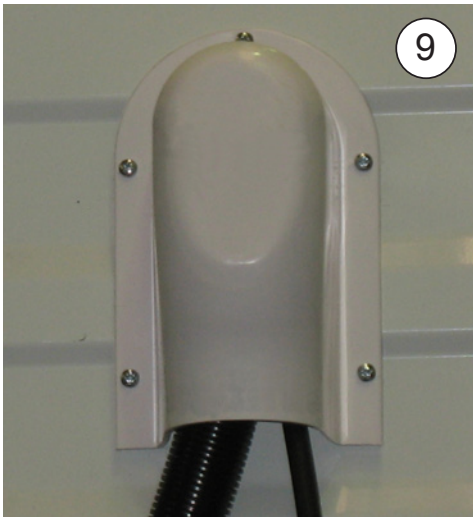
7	Conectar cableado y racores en evaporador y sellar con cinta antigoteo.



8	Conectar cableado de alimentación.



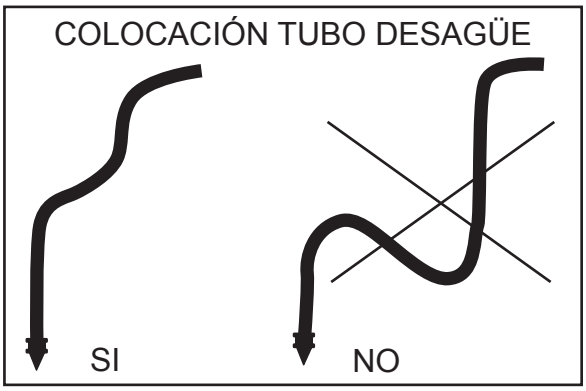
9	Presentar protector de tuberías con junta, marcar y taladrar a Ø4. Pintar con producto anticorrosión suministrado y fijar con tornillos rosca chapa 4,8x19mm.



10	Pegar soportes de plástico, fijar abrazaderas y fijar tubería, cableados y tubo desagüe (limpiar zona montaje).

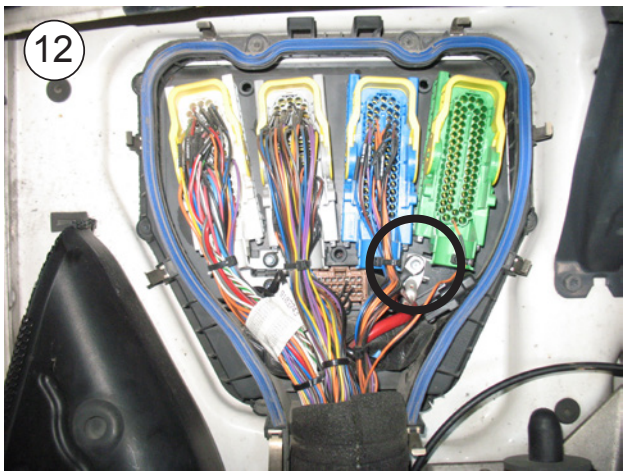
10a	Colocar válvula de drenaje.

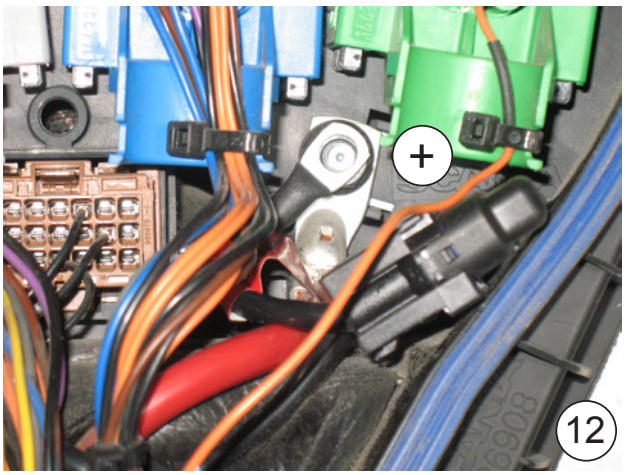
⚠	**IMPORTANTE:** El tubo de desagüe debe estar libre de estrangulamientos y debe tener suficiente inclinación para que permita la correcta evacuación del agua de condensación.

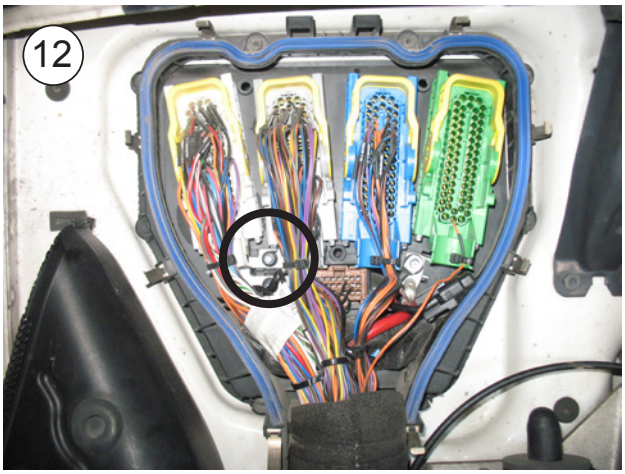


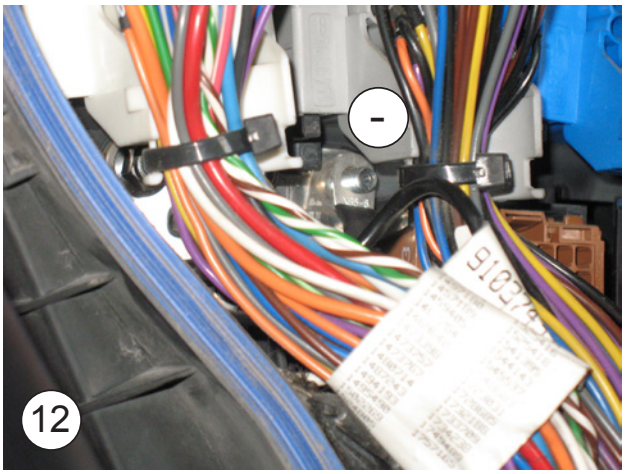
11	Colocar tapa con tornillos desmontados anteriormente. **ATENCIÓN:** No olvidar conectar la clema del ventilador del condensador.

12	Abatir cabina y pasar cableado por donde se indica hacia la caja de conexiones, fijando con abrazaderas o bridas. Conectar cableado en caja de conexiones.







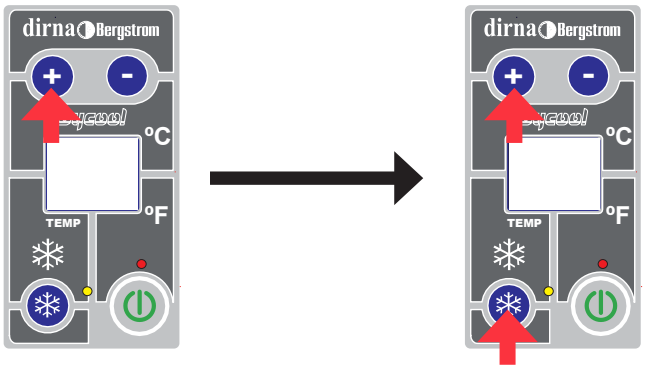


13	VISTA GENERAL DE LA UNIDAD CONDENSADORA Y TUBERÍA.

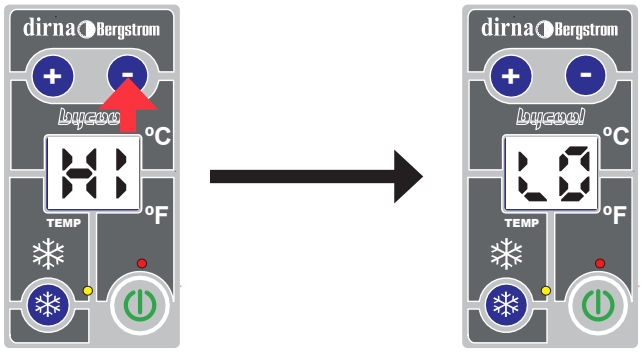
14	VISTA GENERAL DE LA UNIDAD EVAPORADORA.

⚠ En vehículos en los que la conexión eléctrica se realice a baterías adicionales independientes de las de arranque del vehículo, es opcional, la configuración de la electrónica a nuevos parámetros de corte de batería, según se indica a continuación.

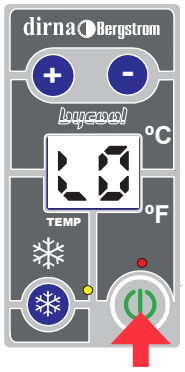
1 Con el equipo apagado apretar el botón + y manteniendo pulsado este, pulsar botón ❄ hasta que suenen tres pitidos, al soltar ambos botones aparecerá "**HI**" en el display del panel de control, haciendo referencia al corte de batería alto (22,8 V).



2 Una vez que aparezca "**HI**" presionar la tecla - .



3 El display pasará a mostrar "**Lo**" haciendo referencia a corte de batería bajo (19 V). Pulsar tecla ⏻ para confirmar.

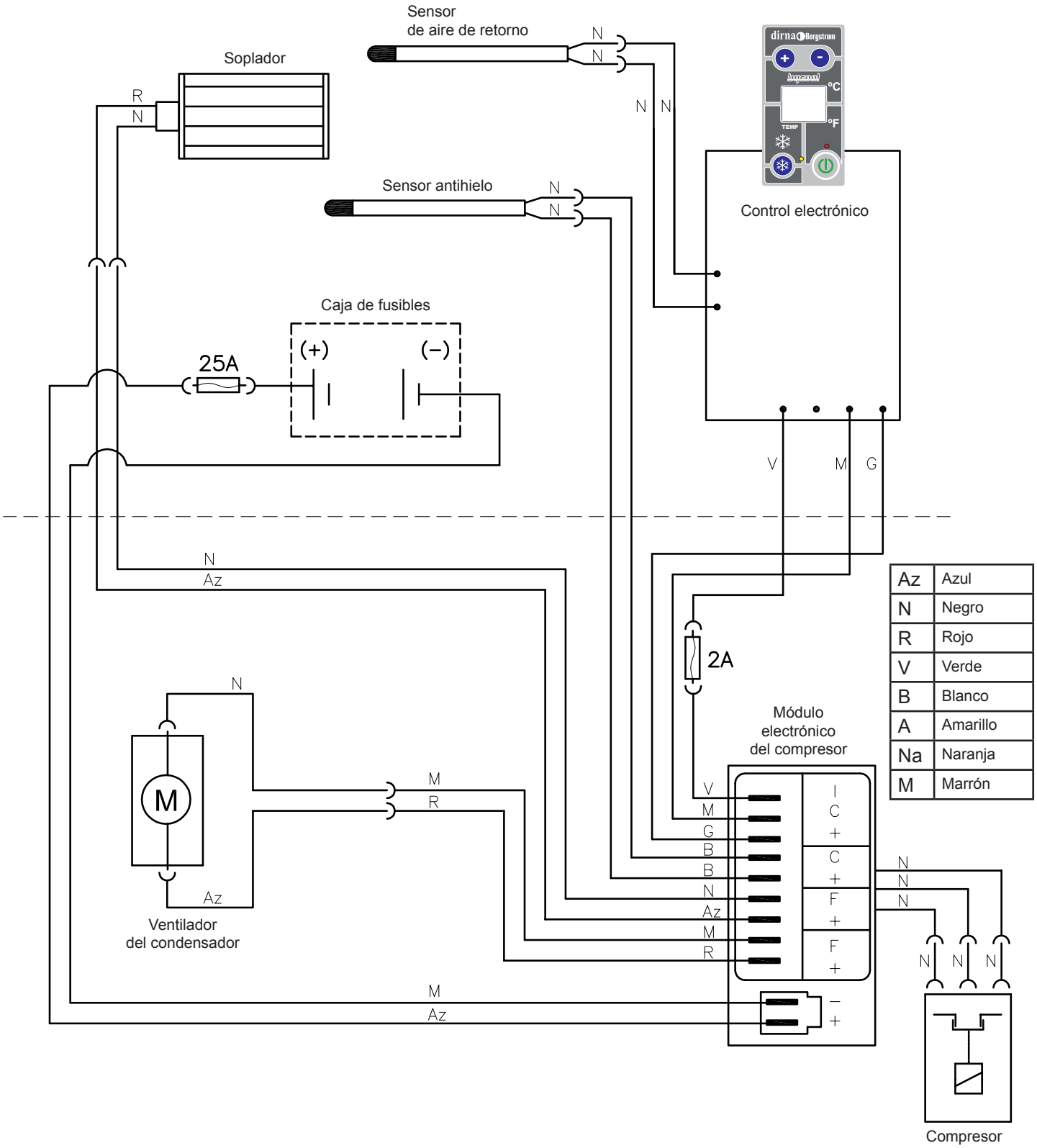


4 Para volver a configuración inicial repetir la **operación 1**, seleccionar "HI" con tecla + y confirmar con tecla ⏻ .

Esquema Eléctrico

¡AVISO IMPORTANTE!

Precaución de no invertir las polaridades al conectar la alimentación en el equipo. Si esto sucediera, el panel de control no se enciende y el equipo no funciona.



Assembly Recommendations

- Before starting assembly, please read instructions and follow them during installation process.
- Use the adequate tools for each operation.

Electricity

- Disconnect ignition key.
- Disconnect battery before starting assembly.
- Make sure electric components are securely connected, checking their correct fitting.

⚠ Warning

If, during assembly, the unit becomes slanted or the cabin drops with the unit mounted, wait for at least 60 minutes from the moment the unit is horizontal before starting up.

⚠ Warning

Vehicles in which the electrical connection is to additional independent batteries as opposed to the vehicle ignition batteries, the electronics can be configured to new battery cut-out parameters as an option (see page 32).

Indications concerning position are:
RIGHT: Passenger side
LEFT: Driver side

Driving torques *(N.m)*			
Fillet	Steel Quality		Wrench opening
	8.8	10.9	
M6/100	10	13	10

Hoses assembly		
Driving torques *(N.m)*		
Hose size	Fitting Driving Torque	Tool
1/4”	13-15	Wrench 14mm.
3/8”	15-17	Wrench 19mm.

Tools

- Ratchet wrench of 10
- Cruciform screwdriver TOP 10
- Wrench of 10, 11, 14, 17, 19
- Allen key of 5
- Socket wrench of Ø10
- Drill
- Broach Ø 4, Ø 6, Ø 9
- Circular saw Ø 19, Ø 22, Ø 48
- Scissors
- Riveter M6

Symbology

Fragile

Beware of cuts!

Electrical hazard

Documentation included

Mounting instructions	1001321985
User’s guide	220AA11032
Troubleshooting	220AA11031
Warranty	220AA10017

⚠ Warnings

⚠ The installing personnel must have a sufficient training in vehicles air conditioning.

⚠ **dirna Bergstrom** shall not be responsible for breakdowns or damages coming from an inadequate handling or installation of the equipment or from modifications and substitutions carried out without our express and written authorisation.

⚠ **Unit pre-loaded with R-134a gas. Do not tamper with the refrigerant gas circuit.**

⚠ Please see product warranty procedure included in **Troubleshooting.**

⚠ Please see equipment **User’s Guide** for its correct functioning of the remote control and control panel.

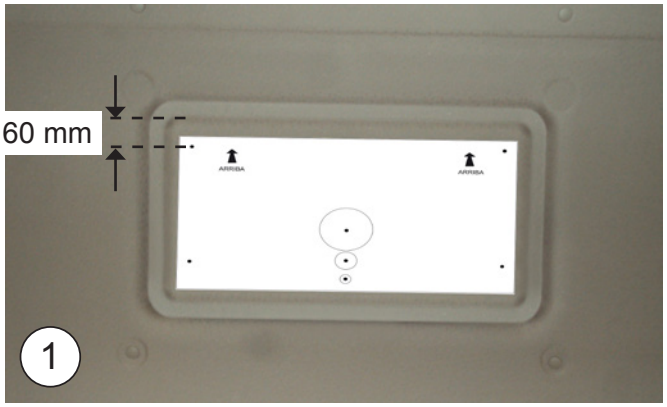
⚠ Once installation is finished, the following documents must be handed over to the user: **User’s Guide, Warranty and Troubleshooting.**

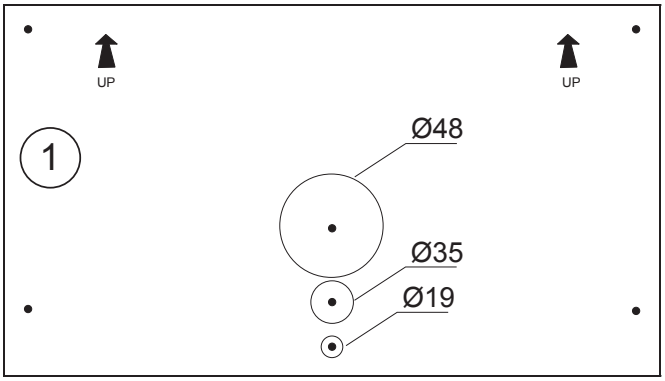
PRIOR OPERATIONS:

- Disconnect the battery.
- Take down the evaporation unit's air distribution interior panel.

1 **CABIN INTERIOR:**

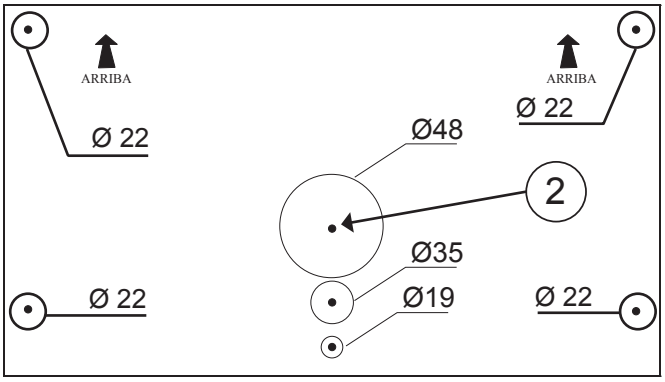
Position the template supplied and mark the boreholes.

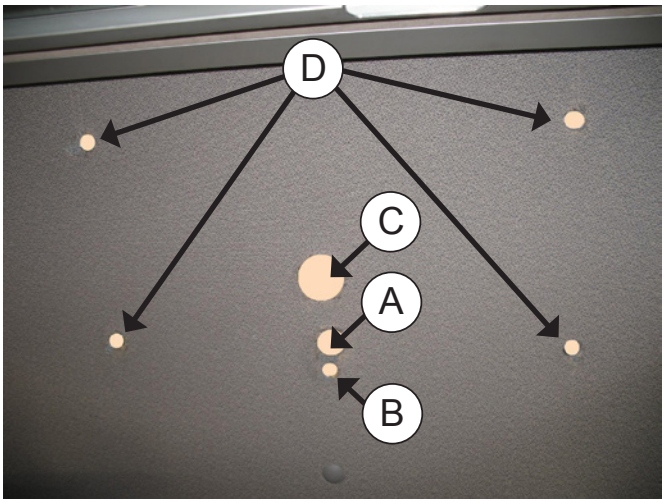




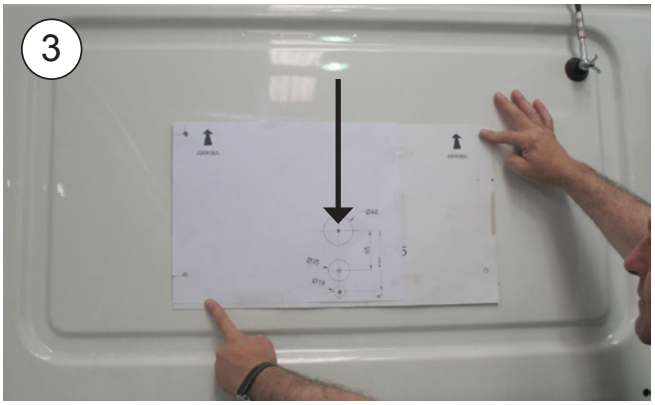
2 Make through bore Ø4 with long broach in bore position Ø48, and then make the following bores.

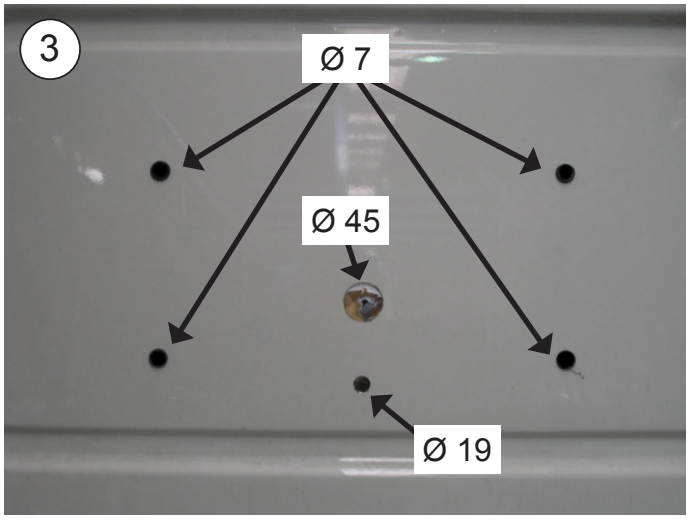
A- make (1) Ø35 borehole in upholstery only.
B- make (1) Ø19 borehole in upholstery only.
C- make (1) Ø48 borehole in upholstery only.
D- make (4) Ø22 borehole in upholstery only.





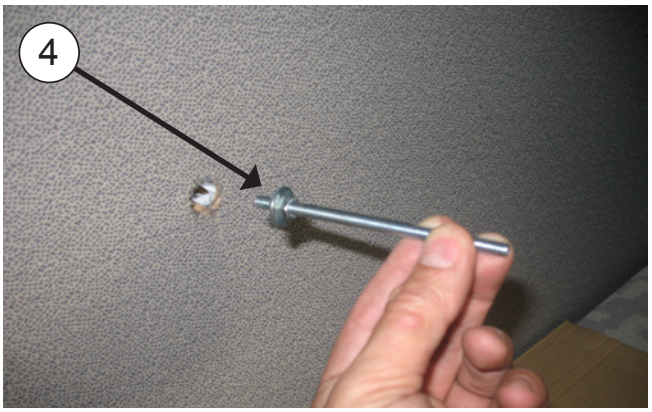
3	**CABIN EXTERIOR:** Position the template level on the outside, taking as reference the Ø4 bore made, mark and make the remaining bores. ⚠ Caution: The template Ø35 borehole is not necessary.





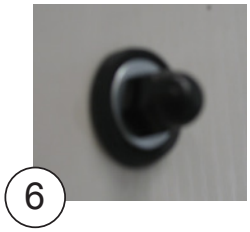
3a	Paint the boreholes with the supplied rustproofing product.

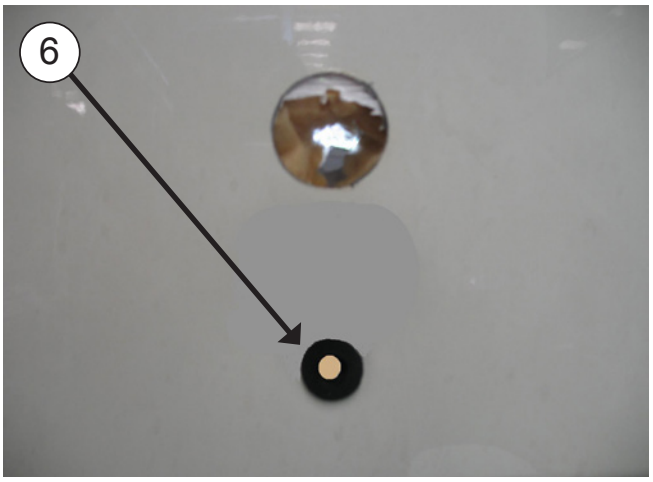
4	Position M6/100x110 studs in the interior with a nut and washer as indicated.



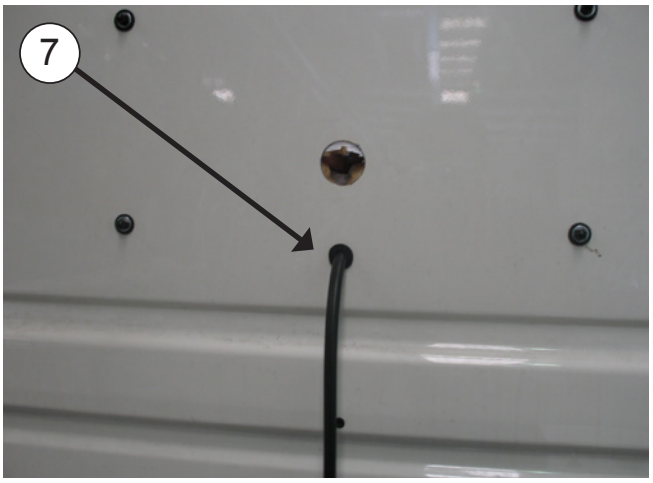
5	Secure the exterior with a rubber washer, a flat washer and a self-locking nut, securing it at the bottom with a socket wrench of 10.

6 Position the bushing and nut covers.



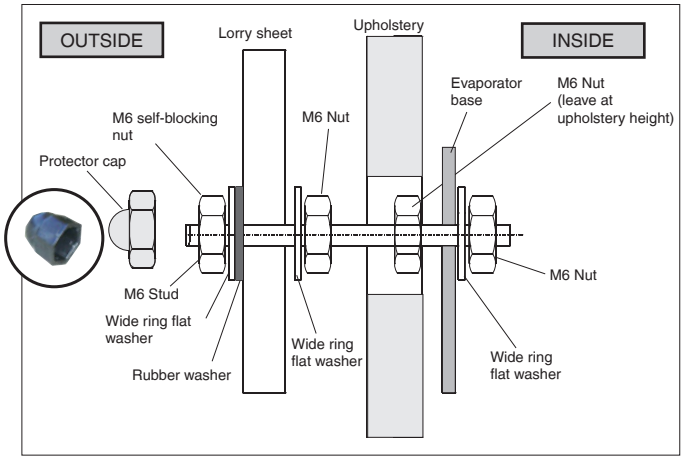


7 Use bushing to pass the wastewater pipe through the Ø19 borehole to the inside of the cabin.



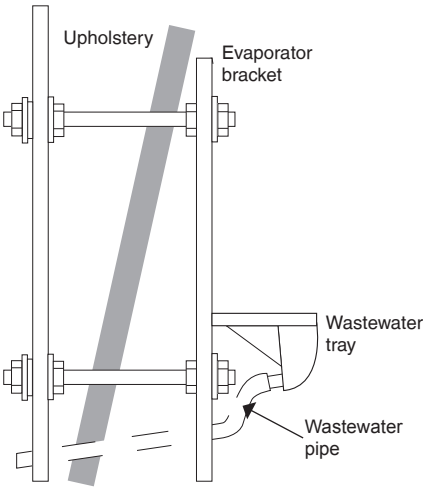
8 On the studs, screw on (4) M6 nuts with (4) Ø6 flat washers, which should be level with the cover.

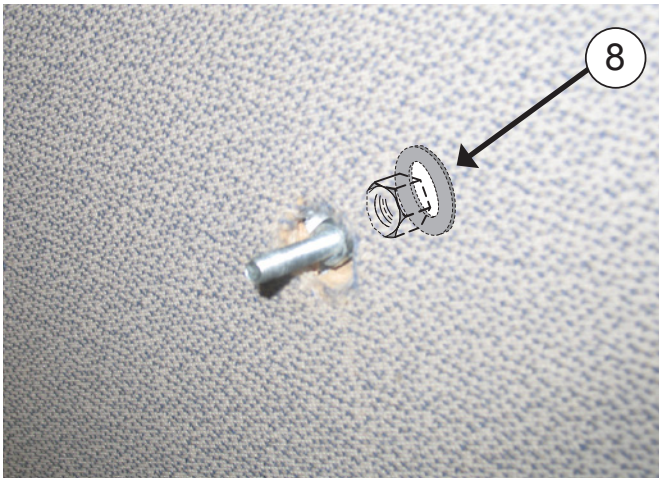
SEE ATTACHED DIAGRAM



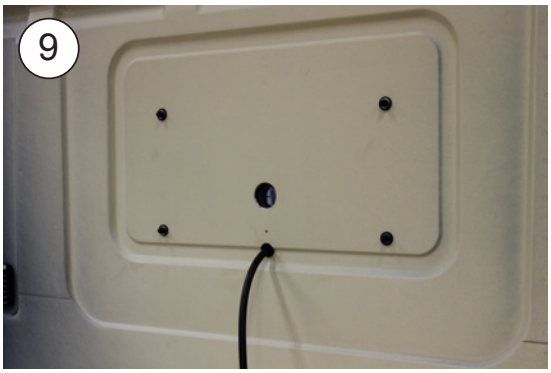
VERY IMPORTANT

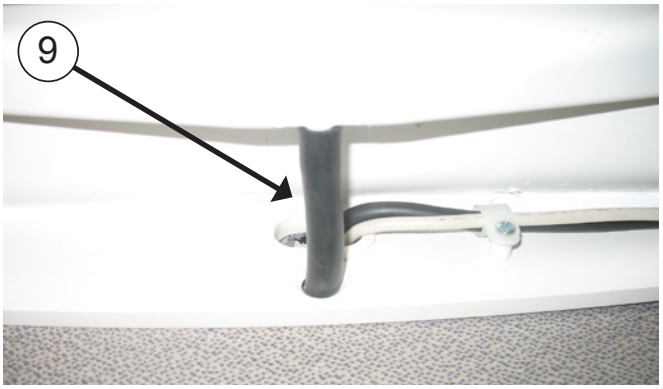
In the case of slanting upholstery, the evaporator unit must be vertical or sloping from the lower section to the outside in order to prevent the condensation water from dripping onto the upholstery.





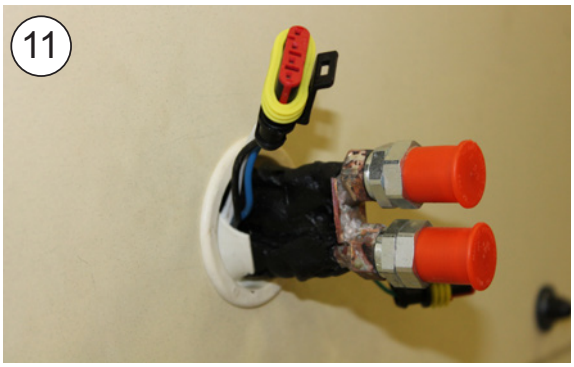
9	Pass the wastewater pipe through the bore of the evaporator base and connect to the tray.





10	Pass the cabling to the outside through the Ø35 upholstery borehole and the Ø48 metal borehole, using the evaporator couplings.

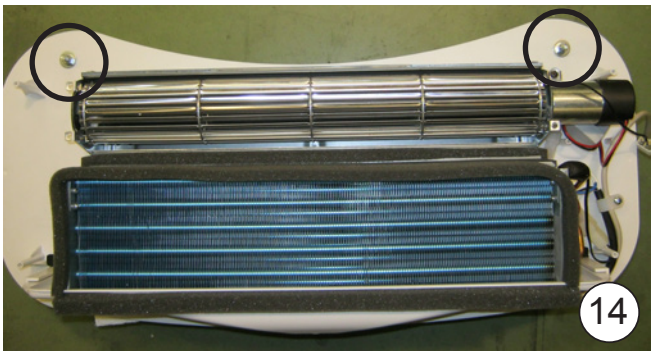
11	Position the supplied bushing.

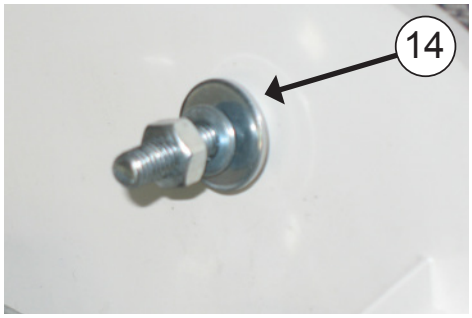


12	Position the seal and cable run.

13	Position the aluminium protector with the nuts and tighten.

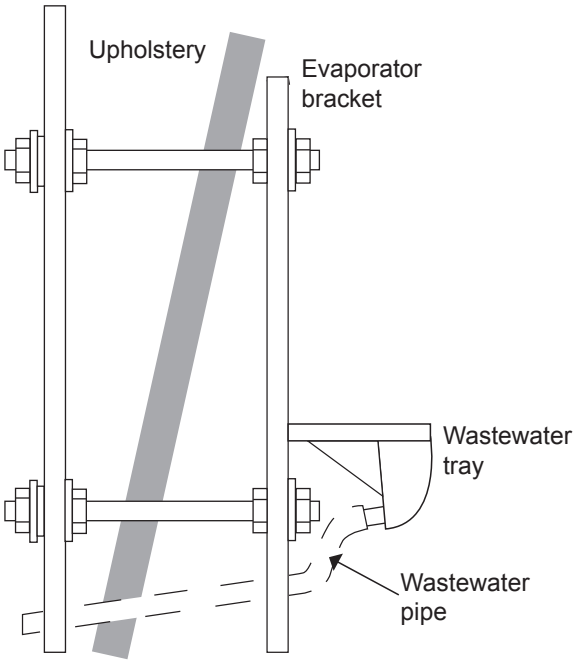
14	Position the evaporator base on the studs and secure with (4) flat washers, (4) grower washers and (4) M6 nuts.



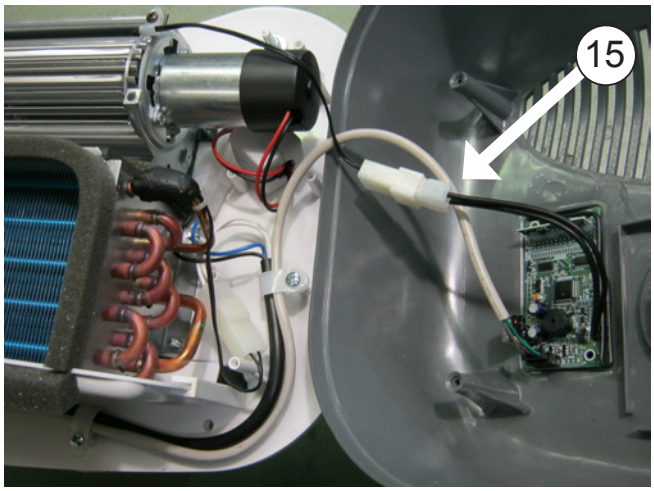


VERY IMPORTANT

The wastewater run-off must be sufficient to prevent water from dripping onto the upholster.



15	Connect the return air sensor and communications cable in the electronic control.



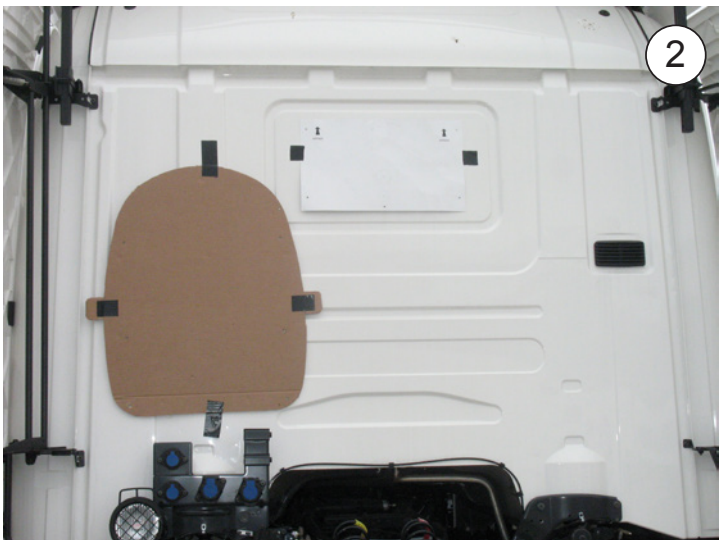
16	Refasten the air distribution interior panel with its screws using a magnetic screwdriver and insert plugs.

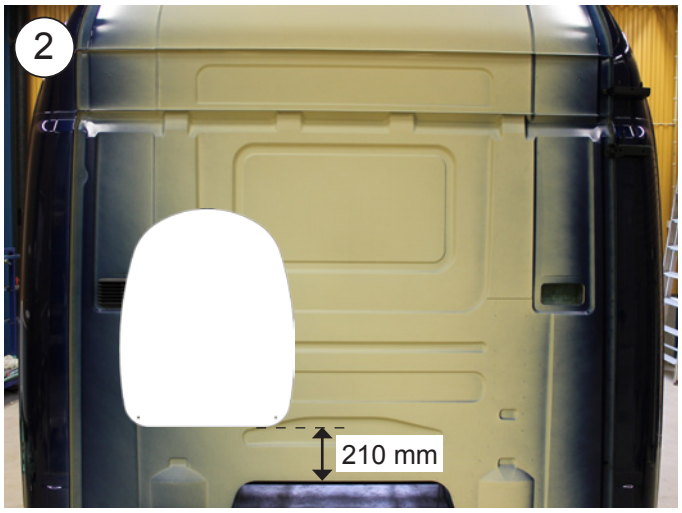
CONDENSER ASSEMBLY:

1 Remove the cover and release the condenser fan cable in the vehicle.

2 Position the template and mark the boreholes.

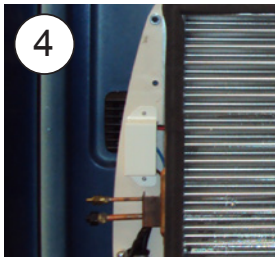
Caution: In some models there is an air output grille on the left side (see step 5). In this truck model, leave a distance of 210 mm from the bottom of the cabin to the condenser unit.

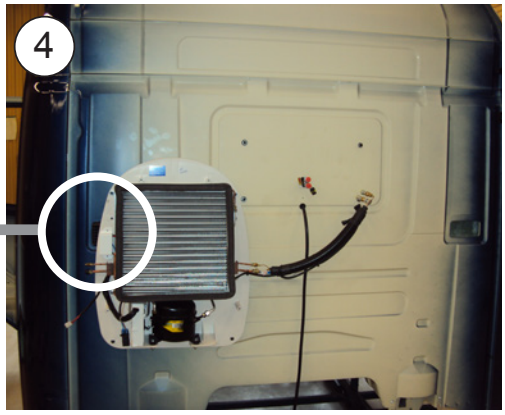




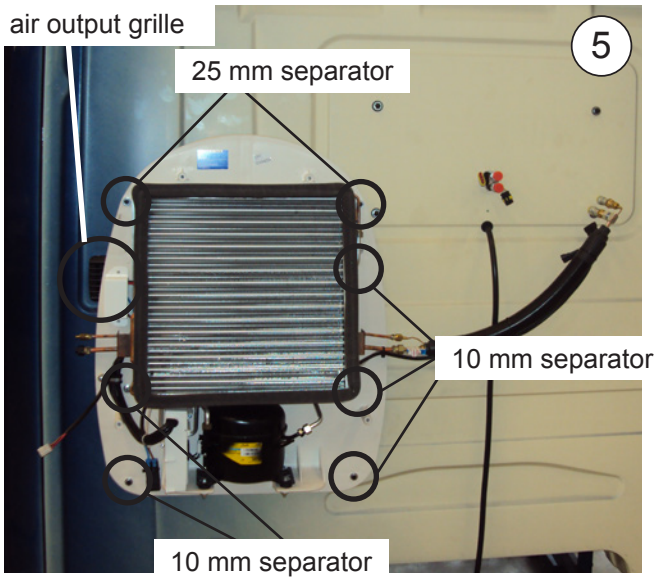
3	Make the 1st of the (2) lower boreholes at Ø9 and position (2) M6 rivet nuts and M6 studs.

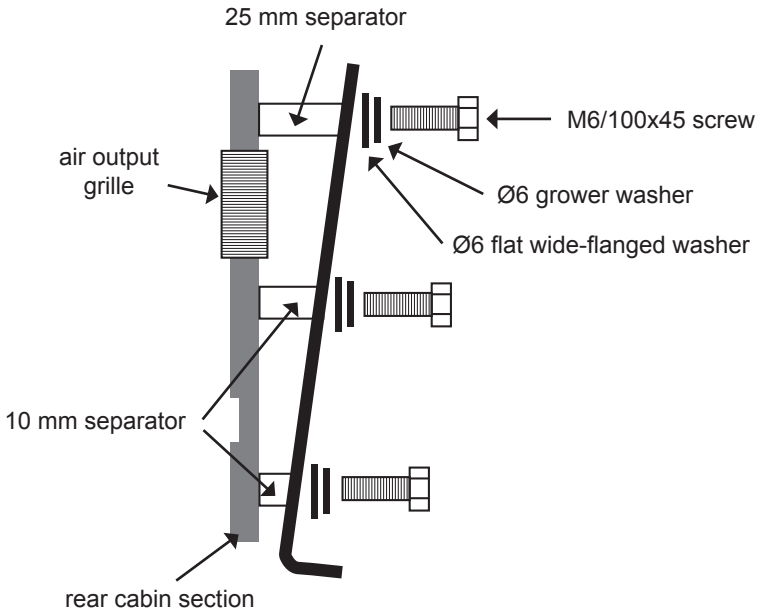
4	Position the unit and mark the other boreholes; do not mark the borehole if it coincides with the air output grille.



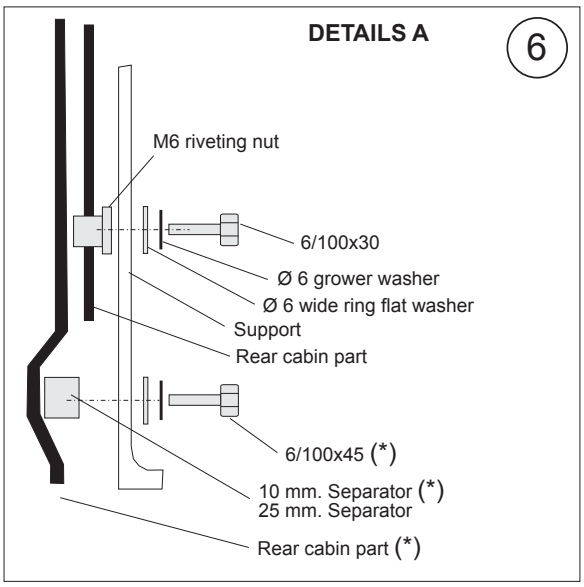


5	Secure the unit with (7) 6/100x45 screws, grower and flat washer without blocking the air output grille. (*) In the rear section, position (2) 25 mm separators in the upper area and a 10 mm separator in the others.

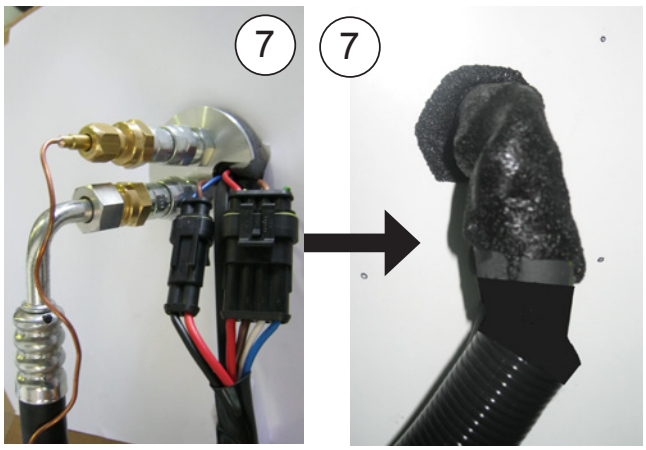




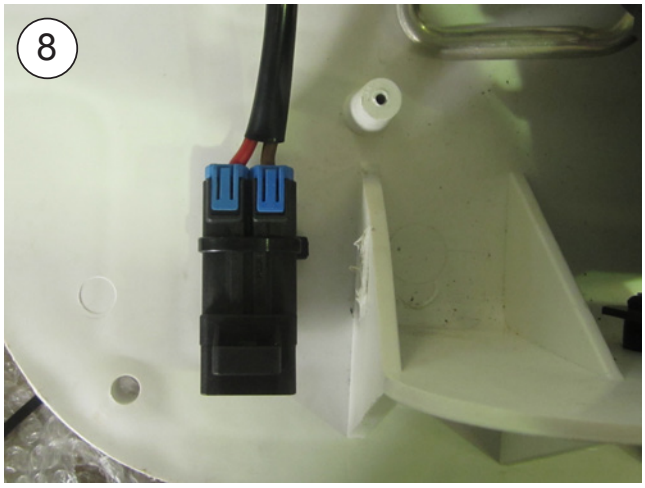
6	(*)- when not supported on the smooth section, use a 10/20/40 mm separator and 6/100x40/60/70 screw. **SEE DETAILS A**



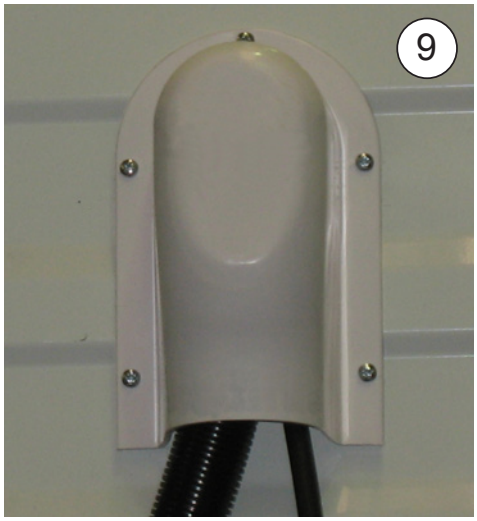
7	Connect cabling and adapters in the evaporator and seal with drip-proof tape.



8	Connect the power cabling.



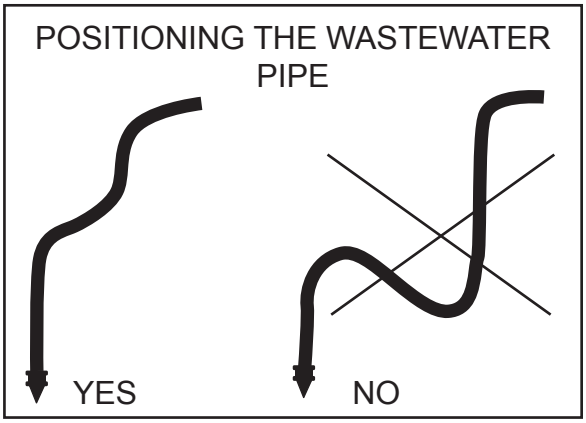
9	Position the pipe protector with seal; mark and bore at Ø4. Paint with the supplied rustproofing product and secure with 4.8x19mm selftapping screws.



10	Stick the plastic supports, fixing clamps and secure the pipe, cabling and wastewater pipe (clean the assembly area).

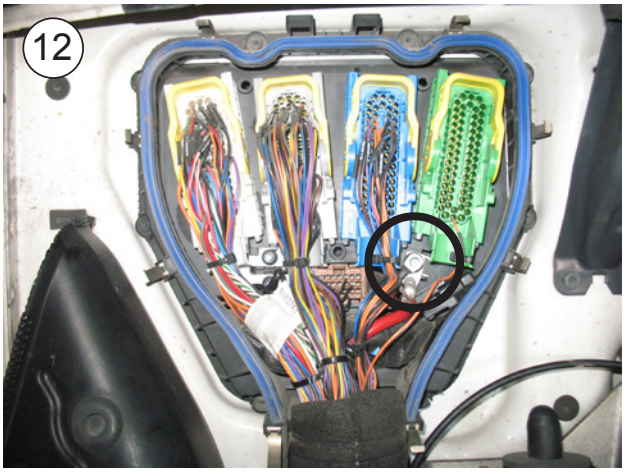
10a	Position the drain valve.

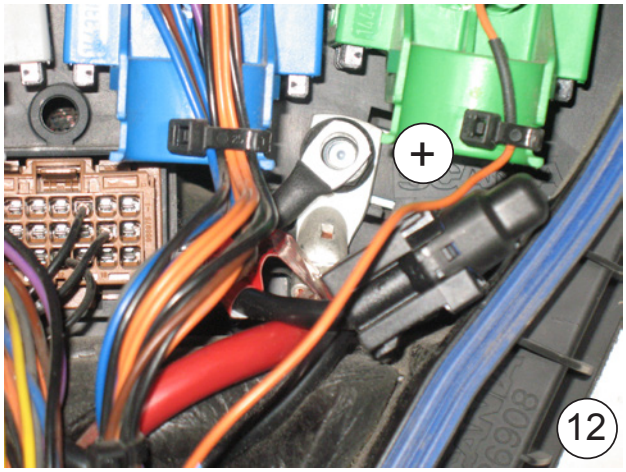
⚠	**IMPORTANT:** The wastewater pipe must not be twisted and must be sloped to allow the correct discharge of the condensation water.

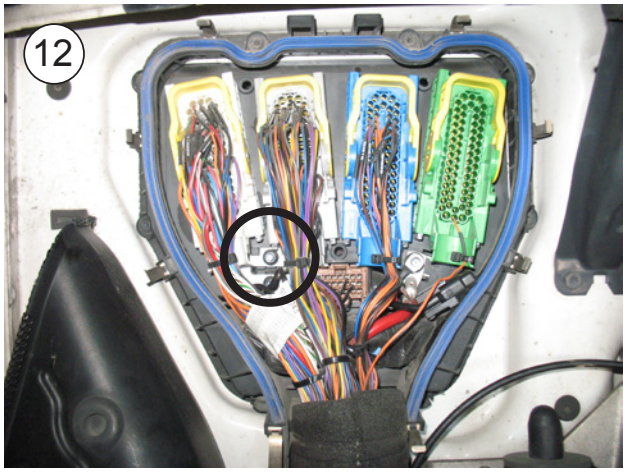


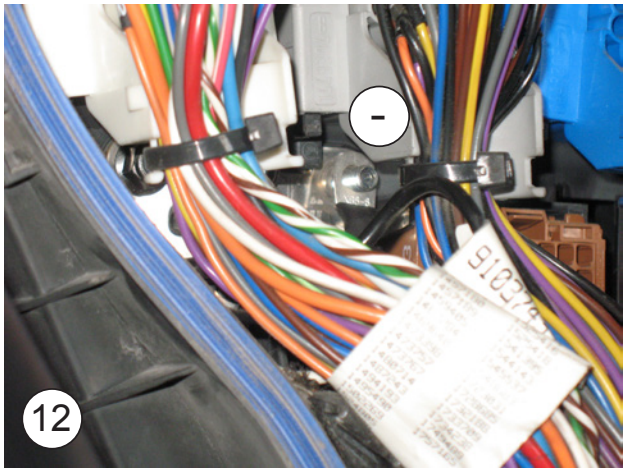
11	Position the cover with the previously removed screws. **CAUTION: Do not forget to connect the cable clamp for the condenser fan.**

12	Tilt the cabin and pass the cabling as indicated towards the connections box, securing with clamps or flanges. Connect the cabling to the connections box.







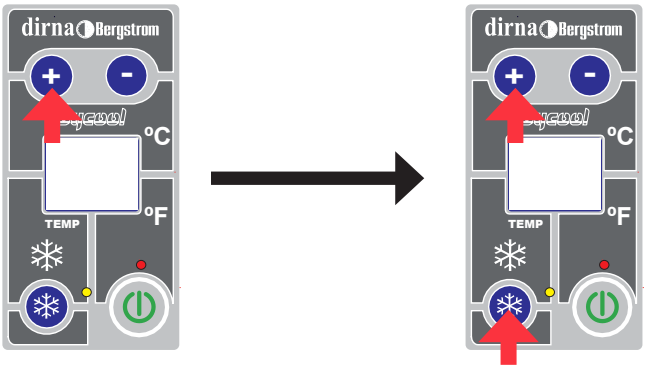


13	OVERVIEW OF THE CONDENSATION UNIT AND PIPING.

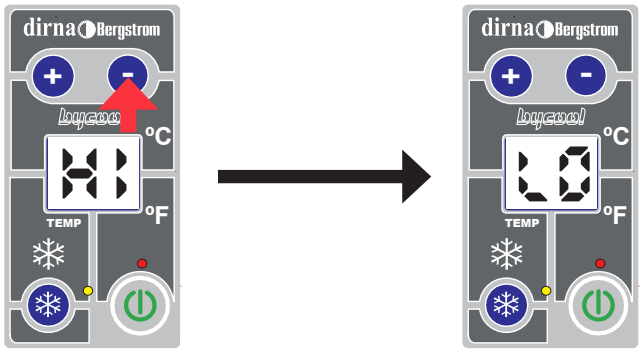
14	OVERVIEW OF THE EVAPORATOR UNIT.

⚠ Vehicles in which the electrical connection is to additional independent batteries as opposed to the vehicle ignition batteries, the electronics can be configured to new battery cut-out parameters as follows.

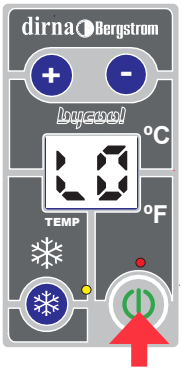
1 With the unit off press button + and keep it pressed, press button ❄ until three beeps sound, on releasing both buttons "**HI**" will appear on the control panel display, referring to the high battery cut-off (22.8 V).



2 Once "**HI**" appears press the - key.



3 The display will show "**Lo**" referring to the low battery cut-off (19 V). Press ⏻ key to confirm.

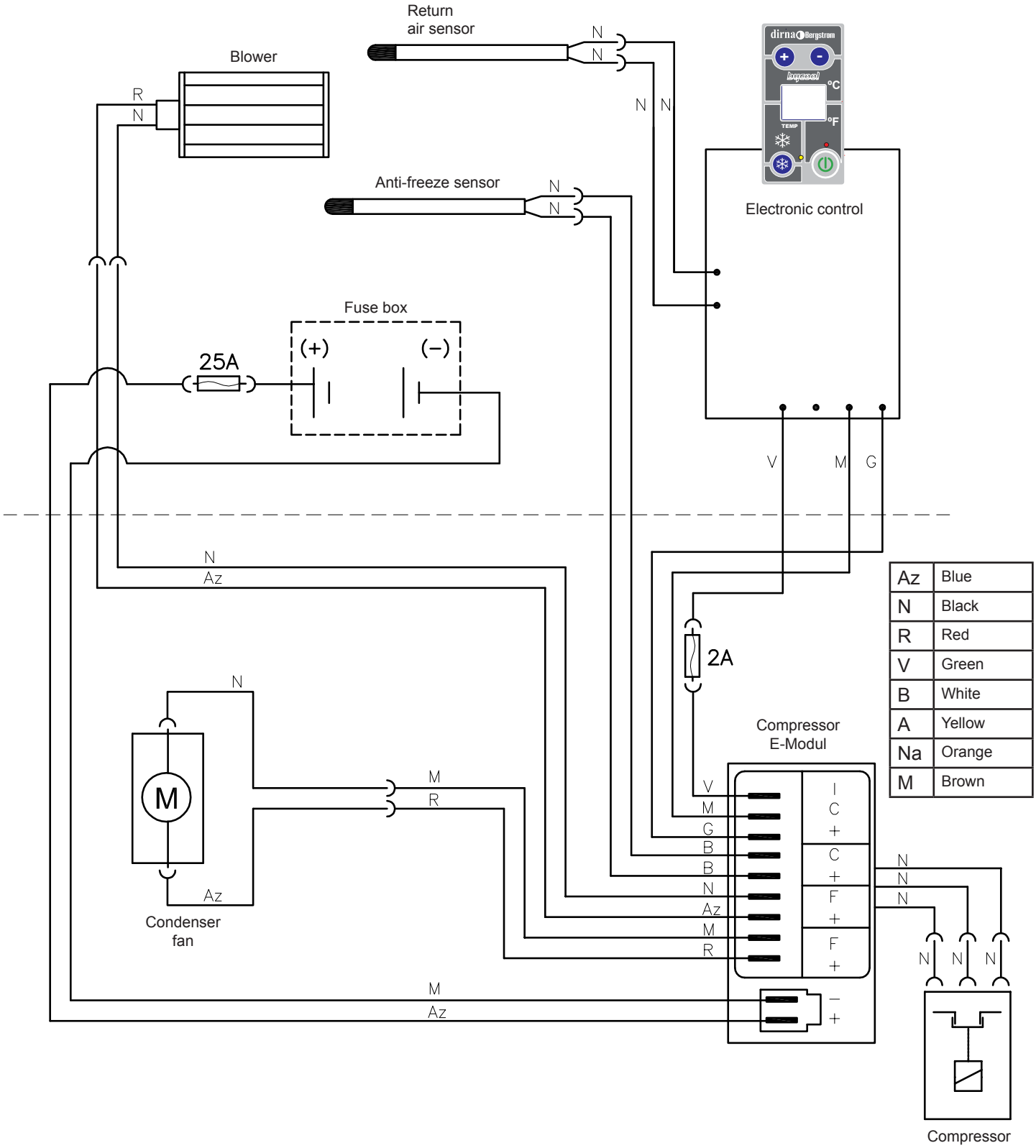


4 To return to the initial configuration repeat **operation 1**, select "HI" with button + and confirm with button ⏻ .

Wiring diagram

IMPORTANT WARNING!

Take care not to invert polarities when connecting the unit to the power supply. If this happens, the control panel does not come on and the unit does not work.



Recommendations Pour Le Montage

- Avant de commencer le montage de l'appareil, prière de lire les instructions et de les suivre attentivement.
- Utiliser les outils convenant à chaque opération.

Electricity

- Déconnecter la clé de contact.
- Déconnecter la batterie avant de commencer le montage.
- Vérifier le câblage des composants électriques et leur correcte installation.

⚠ Attention

Si pendant le montage, l'équipement s'incline ou si la cabine est repliée avec l'équipement monté, une fois que ce dernier récupère sa position horizontale, il faudra attendre au moins 60 minutes avant de le remettre en marche.

⚠ Attention

Dans les véhicules où le branchement électrique est réalisé aux batteries supplémentaires indépendantes des batteries de démarrage du véhicule, la configuration de l'électronique à de nouveaux paramètres de coupure de batterie est optionnelle (voir page 48).

Les indications relatives aux positions sont:

DROITE: Côté passager
GAUCHE: Côté conducteu

Couple de serrage *(N.m)*			
Filet	Qualité d'acier		Clef
	8.8	10.9	
M6/100	10	13	10

Montage de tuyaux		
Couple de serrage *(N.m)*		
Tuyaux	Couple de serrage	Clef
1/4"	13-15	Clef fixe 14mm.
3/8"	15-17	Clef fixe 19mm.

Outils

- Cylindre à cannelures et vanne d'arrêt de 10
- Tournevis en étoile TOP 10
- Clé plate de 10, 11, 14, 17, 19
- Clé allen de 6
- Clé à tube de Ø10
- Perceuse
- Broche Ø 4, Ø6, Ø9
- Scie circulaire Ø 19, Ø 22, Ø 48
- Ciseaux
- Riveteuse M6

Symbologie

Fragile

Attention aux coupures!

Risque électrique

Documentation included

Instructions de montage	1001321985
Guide de l'utilisateur	220AA11032
Solution des problèmes	220AA11031
Garantie	220AA10017

⚠ Garantie

⚠ L'installateur devra posséder la formation pertinente en air conditionné sur véhicules.

⚠ **dirna Bergstrom, s.l.** ne sera pas responsable des dommages ou des bris dérivés d'une installation ou d'une manipulation incorrecte ni des modifications réalisées sans autorisation expresse par écrit.

⚠ **Équipement préchargé en gaz R-134a. Ne pas manipuler le circuit de gaz réfrigérant.**

⚠ Voir **la procédure de garantie** du produit au **Diagnostic de problèmes**.

⚠ Voir le **Guide de l'Usager** de l'appareil pour le fonctionnement correcte de la télécommande et du tableau de commande.

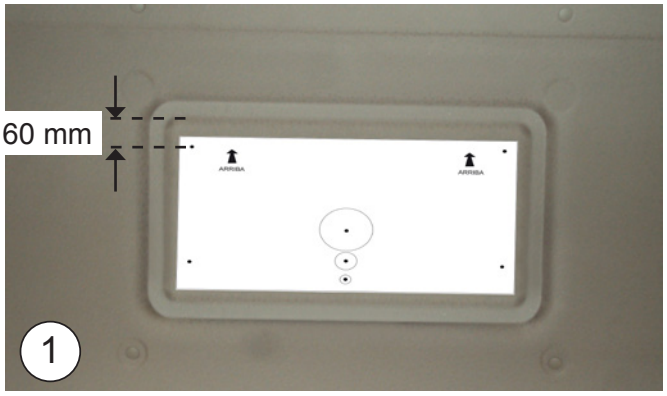
⚠ Après l'installation, vous devez fournir à l'utilisateur: **Manuel d'utilisation**, **garantie** et **diagnostic de pannes**.

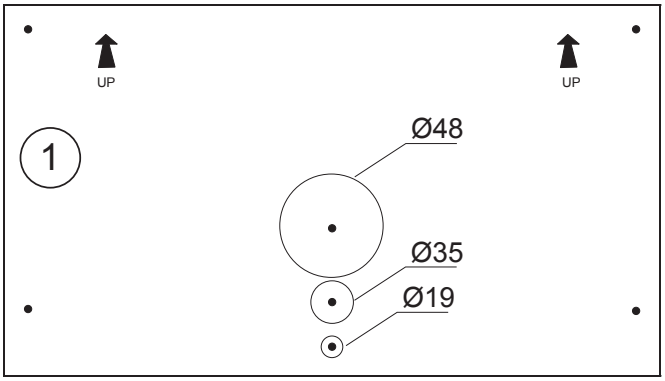
OPERATIONS PREVUES:

- Démonter batterie.
- Démonter le panneau intérieur de distribution d'air de l'unité d'évaporation.

1 **PAR L'INTERIEUR DE LA CABINE:**

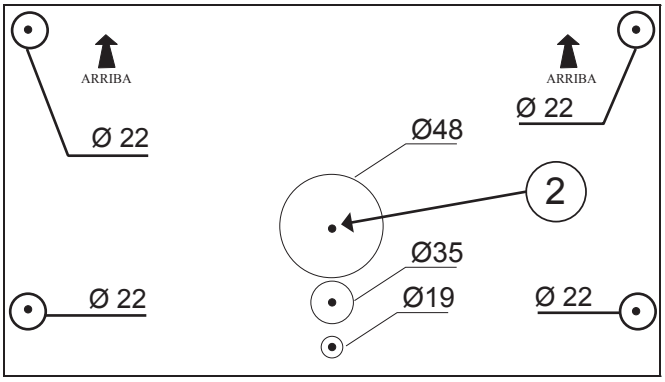
Présenter le modèle fourni et marquer les perçages.

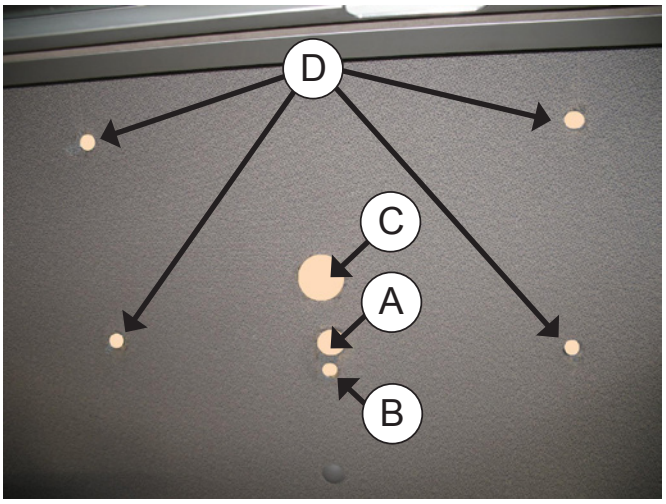




2 Procéder au perçage Ø4 en traversée avec une broche longue en position de perçage Ø48, ensuite effectuer les perçages suivants.

A- Perçage (1) Ø35 seulement dans la tapisserie.
B- Perçage (1) Ø19 seulement dans la tapisserie.
C- Perçage (1) Ø48 seulement dans la tapisserie.
D- Perçage (4) Ø22 seulement dans la tapisserie.



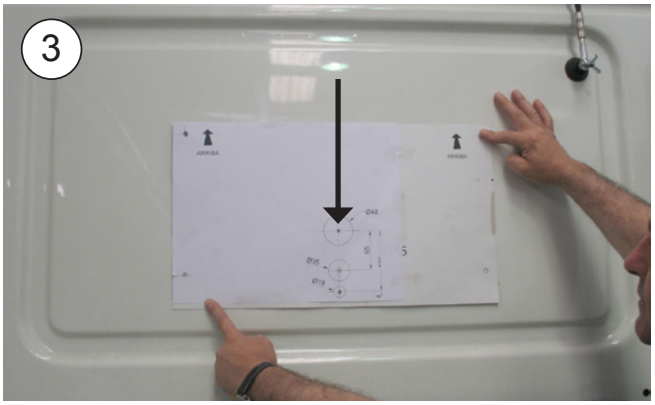


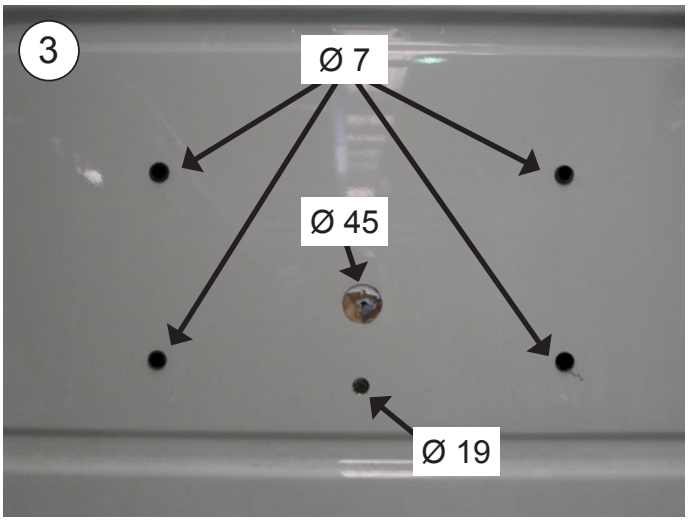
3

PAR L'EXTERIEUR DE LA CABINE:

Présenter modèle au niveau par l'extérieur, en prenant pour référence le perçage effectué Ø4 et marquer et effectuer les perçages restant.

⚠ Attention : le trou de Ø 35 du modèle n'est pas réalisé.



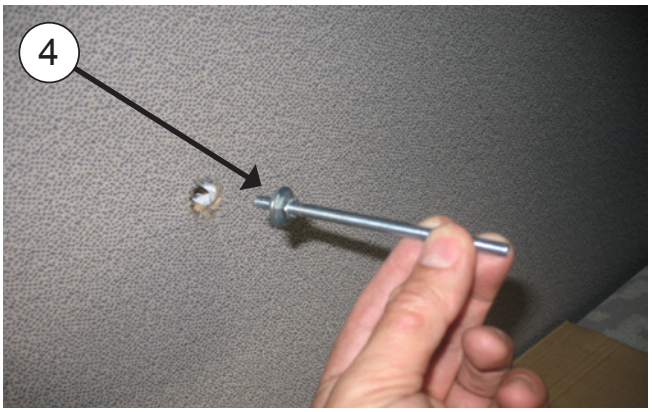


3a

Peindre les trous avec le produit anticorrosion fourni.

4

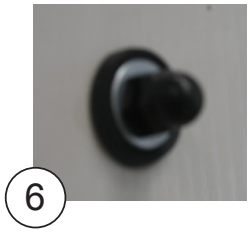
Introduire par l'intérieur des goujons M6/100x110 avec écrou et rondelle comme indiqué.

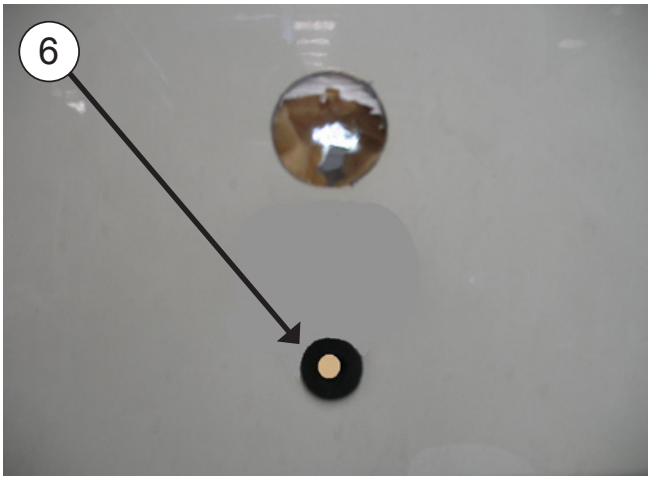


5

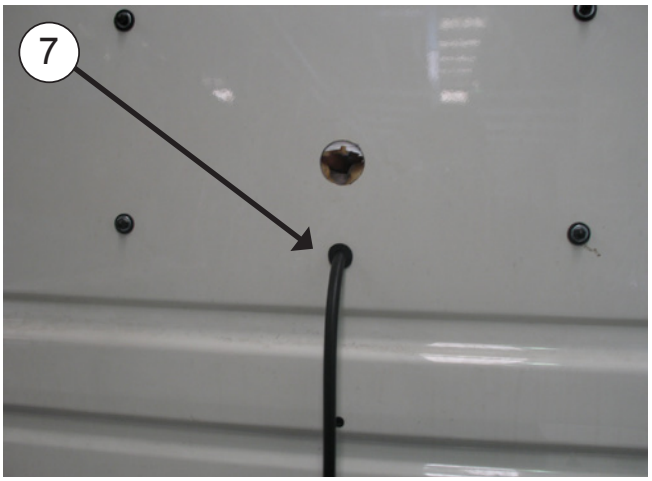
Fixer par l'extérieur avec une rondelle en caoutchouc, plane et écrou auto-serrant en fixant par la partie intérieure avec la clé à tube 10.

6 Placer les bouchons d'écrous et traversées.



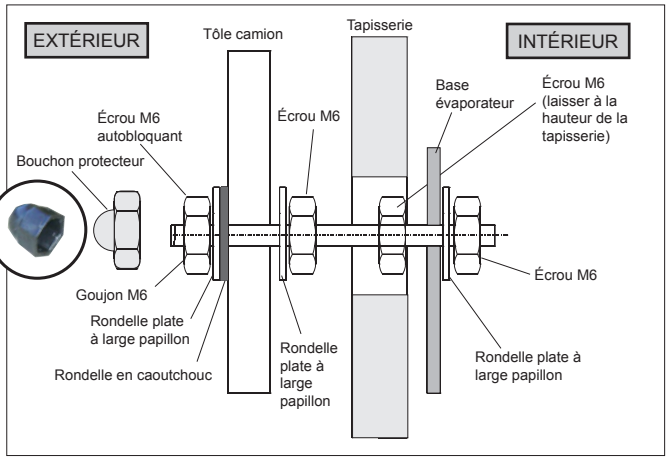


7 Passer le tuyau d'évacuation par le perçage Ø19, la traversée vers l'intérieur de la cabine.



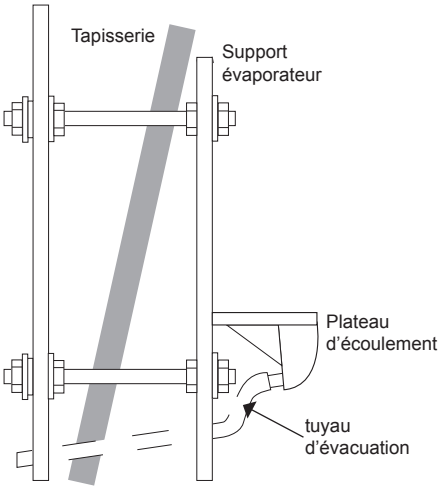
8 Sur les goujons, serrer (4) écrous M6 avec (4) rondelles planes Ø 6 en les laissant à ras de la tapisserie.

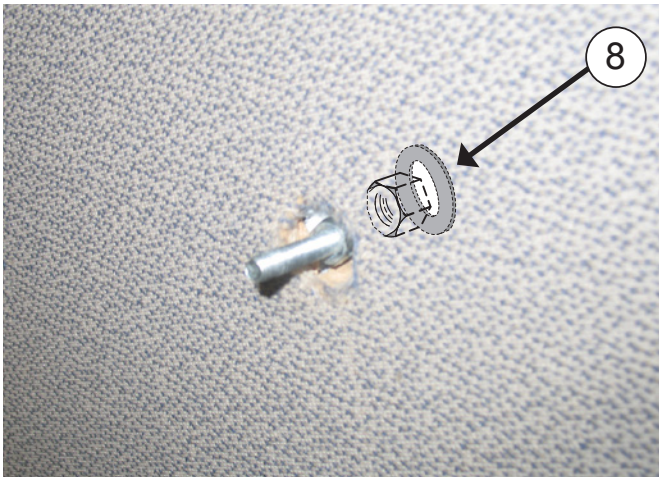
VOIR SCHEMA JOINT



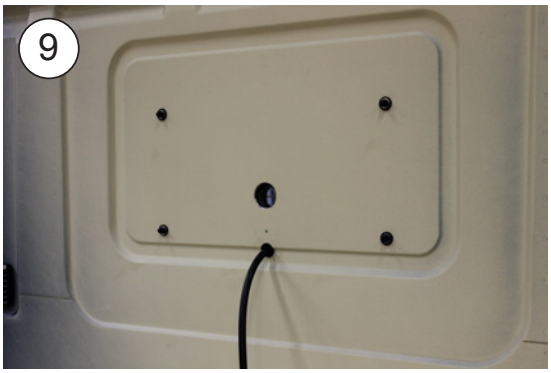
TRÈS IMPORTANT

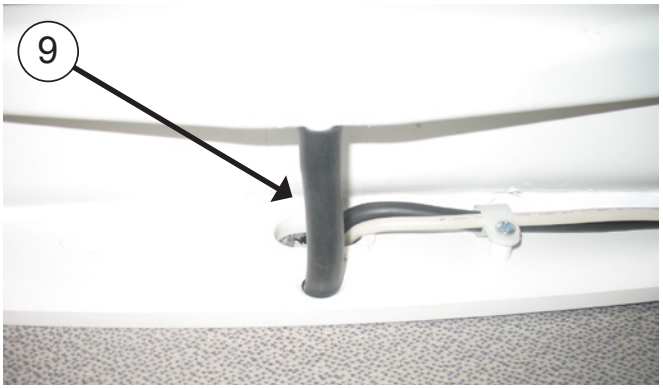
Dans le cas des tapisseries qui présentent une inclinaison, l'ensemble évaporateur doit rester vertical ou incliné depuis la partie inférieure vers l'extérieur, pour éviter que l'eau de condensation ne tombe sur la tapisserie.





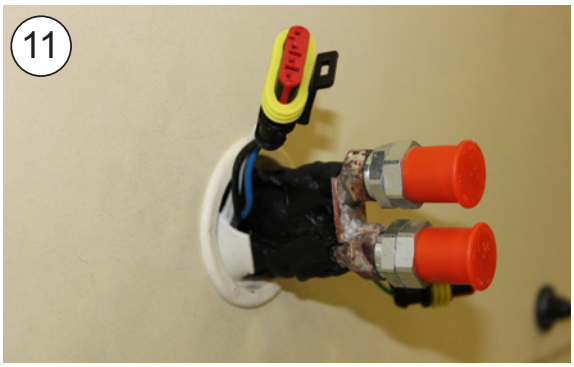
9	Passer le tuyau d'évacuation par le perçage de la base de l'évaporateur et connecter le bac.





10	Passer les câblages vers l'extérieur à travers le trou Ø 35 de la tapisserie et à travers le trou Ø 48 en tôle en accompagnant les raccords de l'évaporateur.

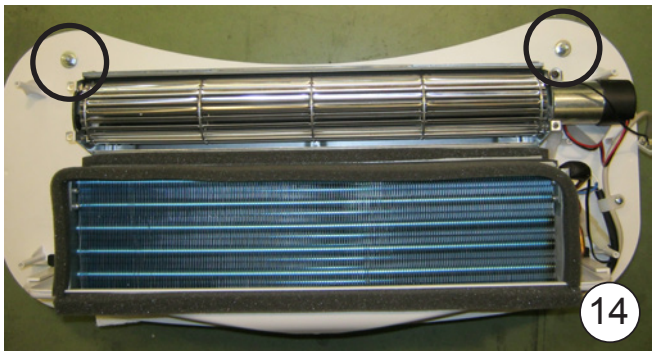
11	Placer la traversée fournie.

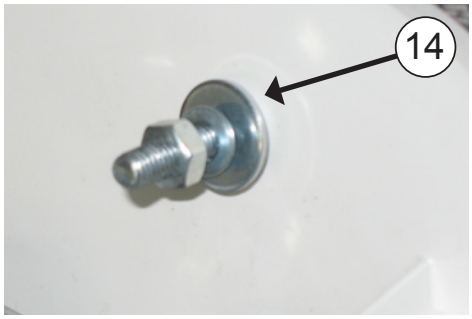


12	Placer le joint et le passage du câblage.

13 Placer le protecteur en aluminium avec des écrous et serrer.

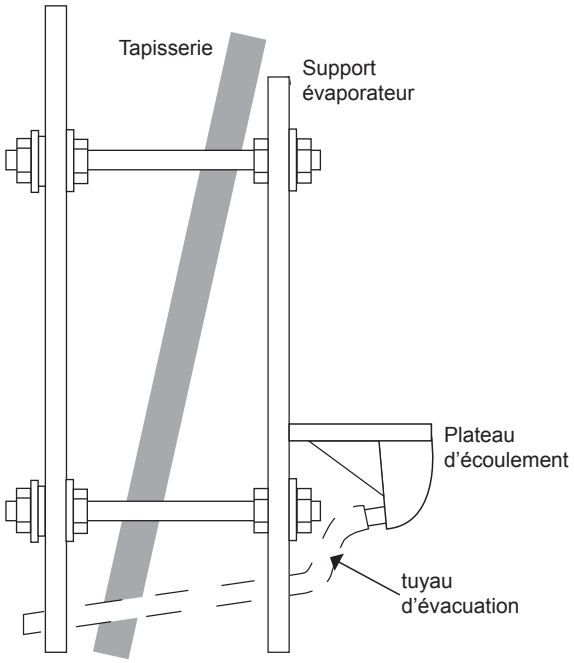
14 Introduire la base évaporateur sur goujons et fixer avec (4) rondelles planes (4) grower et (4) écrous M6.



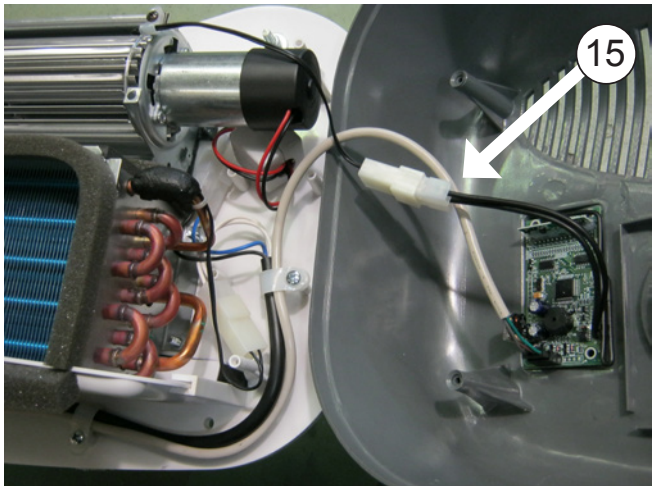


TRÈS IMPORTANT

L'écoulement doit présenter une chute suffisante pour éviter que l'eau atteigne la tapisserie.



15 Connecter le capteur d'air de retour et le câble de communication au contrôle électronique.



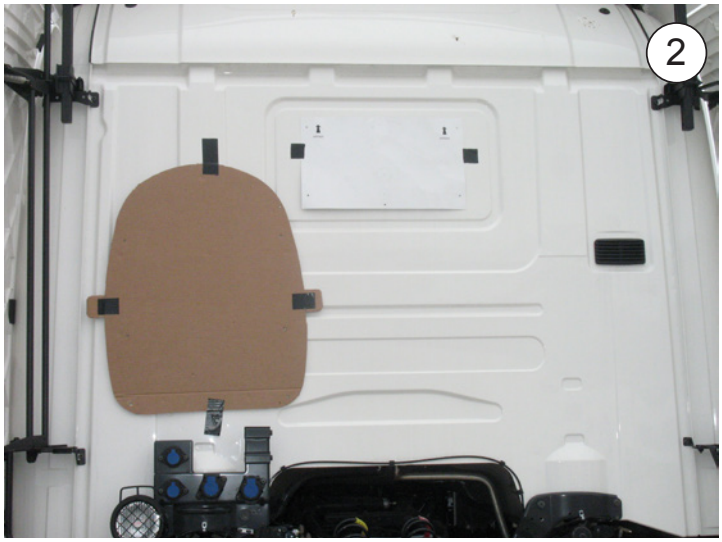
16 Fixer à nouveau le panneau intérieur de distribution d'air avec des vis, en utilisant un tournevis aimanté et placer des bouchons.

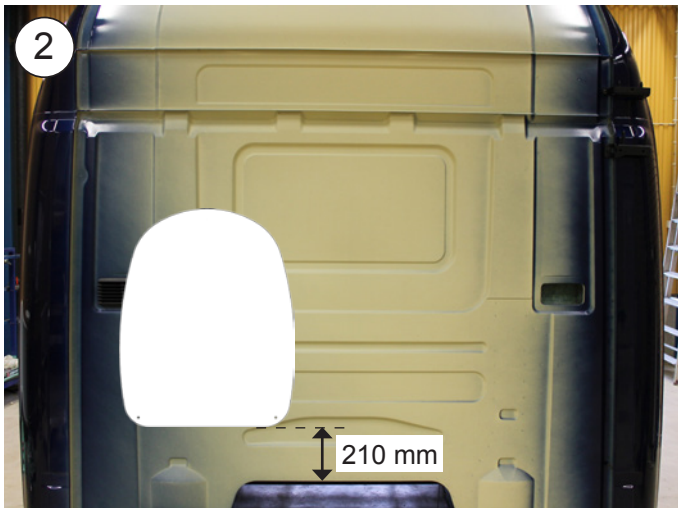
MONTAGE DU CONDENSATEUR:

1 Dans le véhicule, démonter le couvercle et lâcher le câblage du ventilateur du condenseur.

2 Présenter le modèle et marquer les trous.

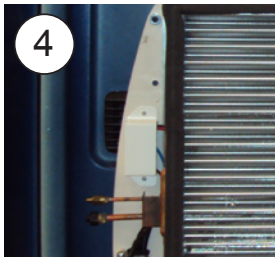
Attention : sur certains modèles, il existe une grille de sortie d'air sur le côté gauche (voir étape 5). Sur ce modèle de camion, nous laisserons une distance de 210 mm depuis le bas de la cabine jusqu'à l'unité de condensation.

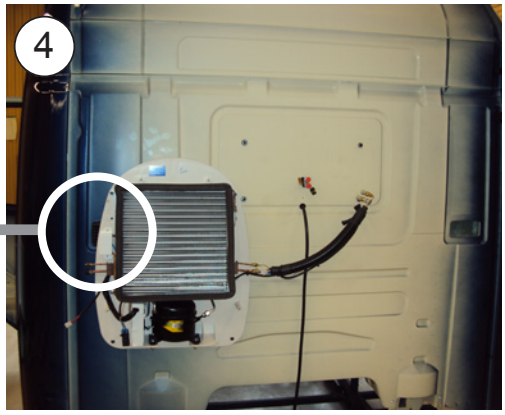




3 Faire d'abord les (2) perçages inférieurs de Ø 9 et placer ensuite (2) écrous rivet M6 et goujons filetés M6.

4 Présenter l'unité et marquer le reste des trous, sauf lorsqu'elle coïncide avec la grille de sortie d'air. Dans ce cas, il ne faudra pas marquer de trous.

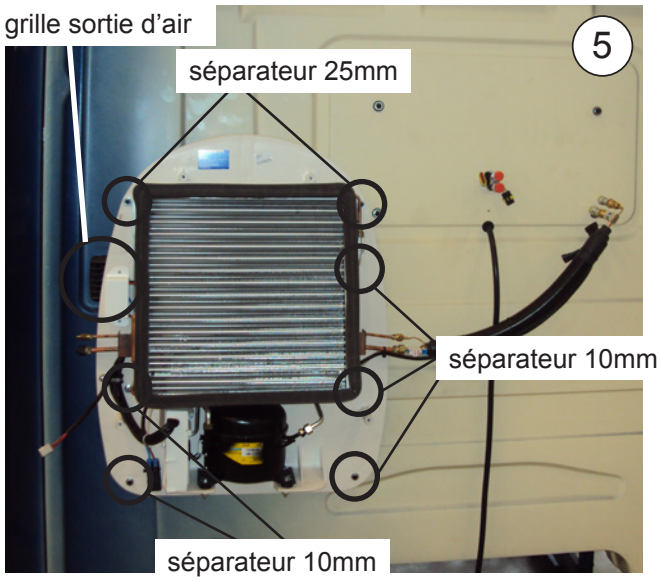


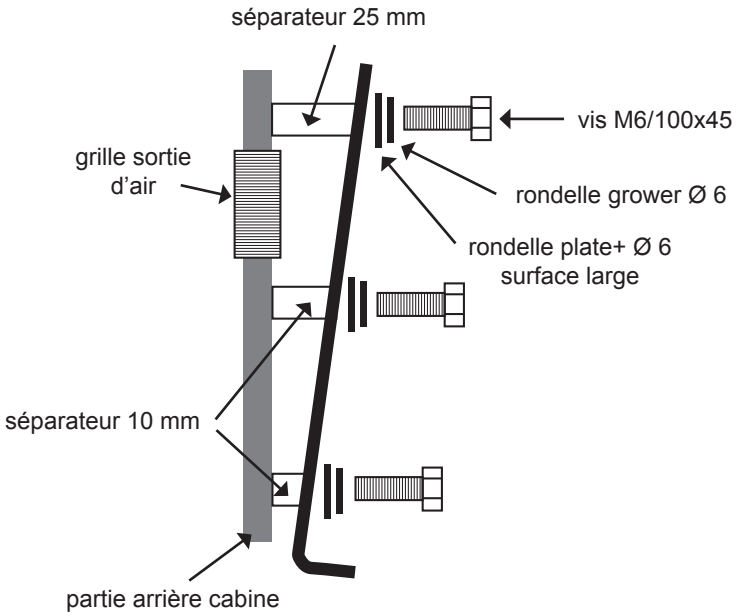


5

Pour libérer la grille de sortie d'air, fixer l'unité avec (7) vis 6/100x45, une rondelle grower et plate.

(*) À travers la partie arrière, fixer (2) séparateurs de 25 mm dans la zone supérieure et sur le reste, placer un séparateur de 10 mm.

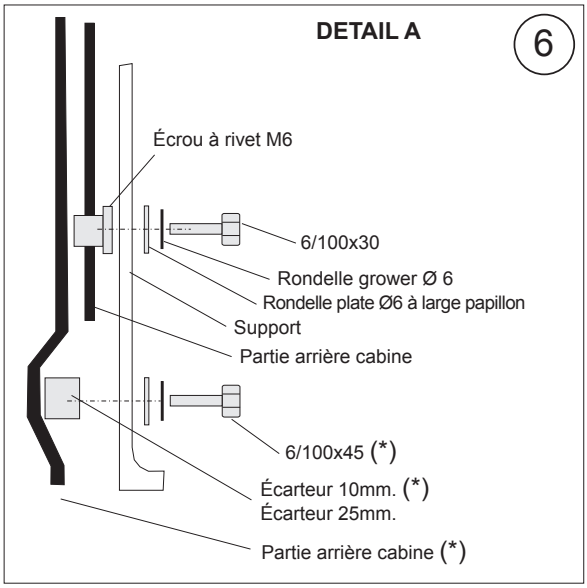




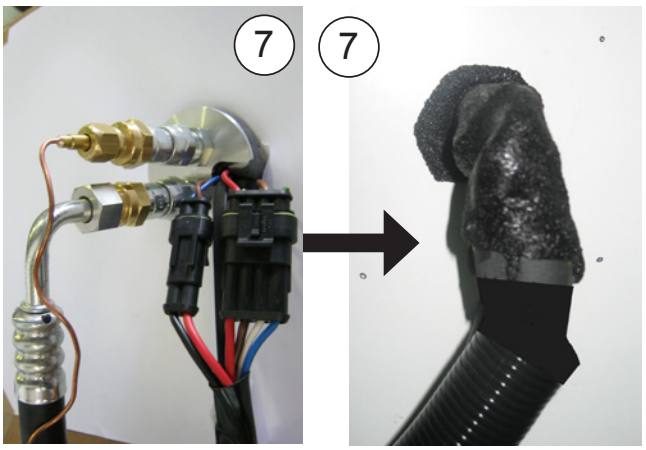
6

(*)- Dans les cas où l'appui ne se fait pas sur la partie lisse, placer un séparateur de 10/20/40 mm et une vis 6/100x40/60/70.

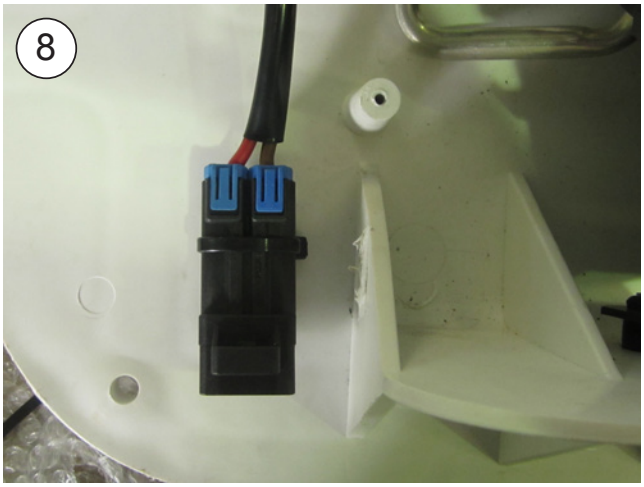
VOIR DETAIL A



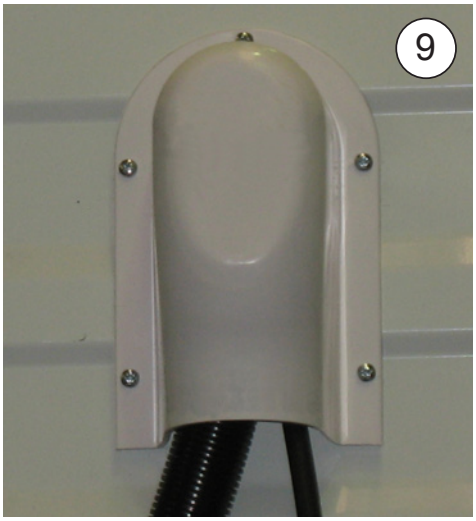
7	Connecter le câblage et les raccords sur l'évaporateur et sceller avec ruban anti-égouttement.



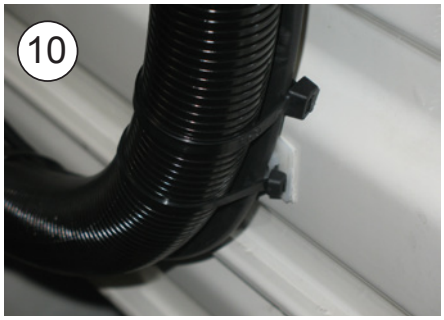
8	Connecter le câblage d'alimentation.



9	Présenter le protecteur de tuyaux avec le joint, marquer et percer à Ø 4. Peindre avec le produit anticorrosion fourni et fixer avec des vis taraudeuses de 4,8x19mm.

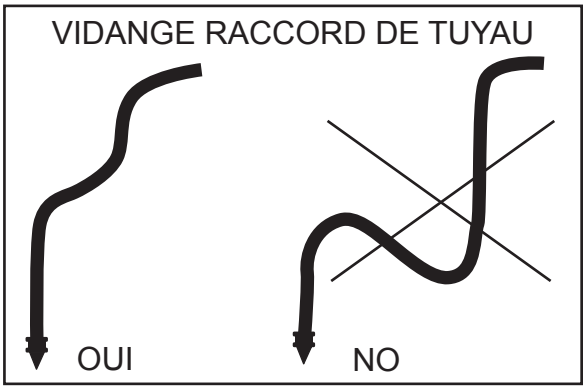


10 Coller les supports en plastique, brides de fixation et fixer la tuyauterie, les câblages et le tuyau d'évacuation (nettoyer zone de montage).



10a Placer vanne de drainage.

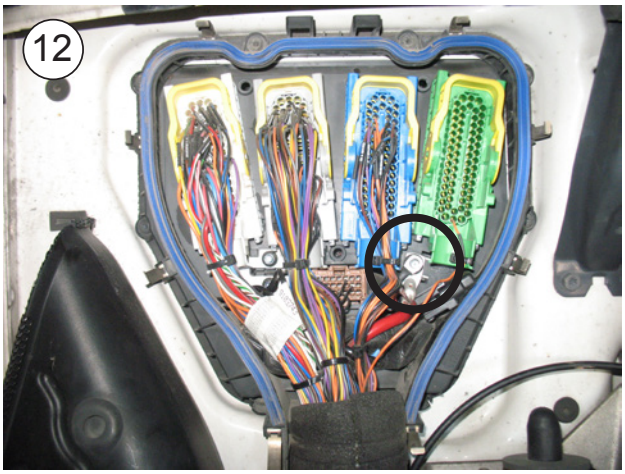
IMPORTANT: Le tuyau d'écoulement ne doit présenter aucun étranglement et il doit avoir une inclinaison suffisante pour permettre une évacuation correcte de l'eau de condensation.

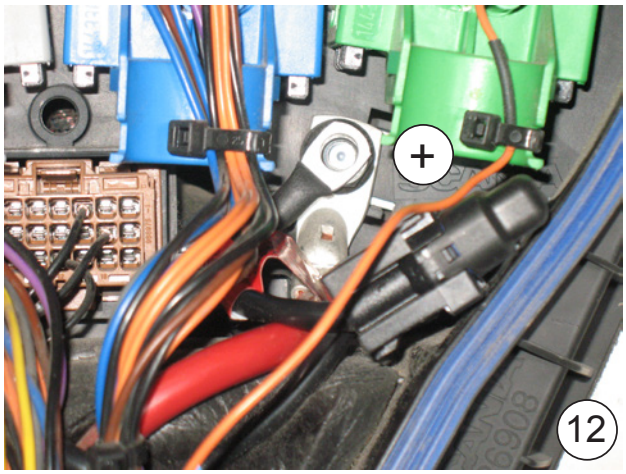


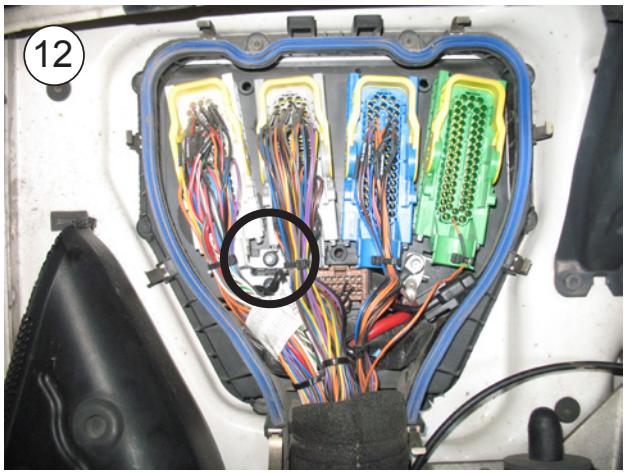
11 Placer le couvercle à vis démonté précédemment.

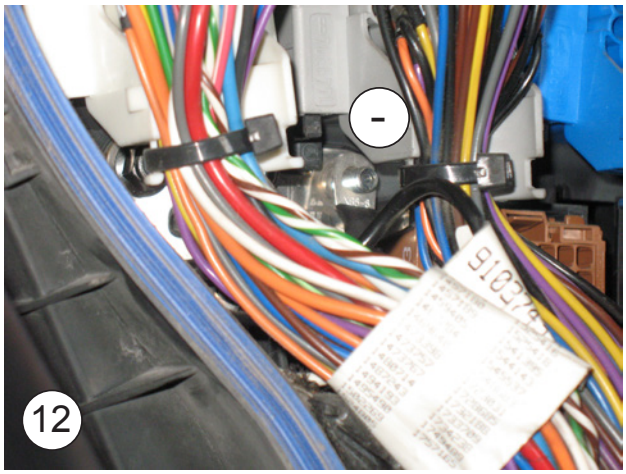
ATTENTION : n'oubliez pas de connecter la borne du ventilateur du condenseur.

12	Rabattre la cabine et passer le câblage selon les indications vers la boîte de connexions, en le fixant avec des anneaux de serrage ou des brides. Connecter le câblage à la boîte de connexions.







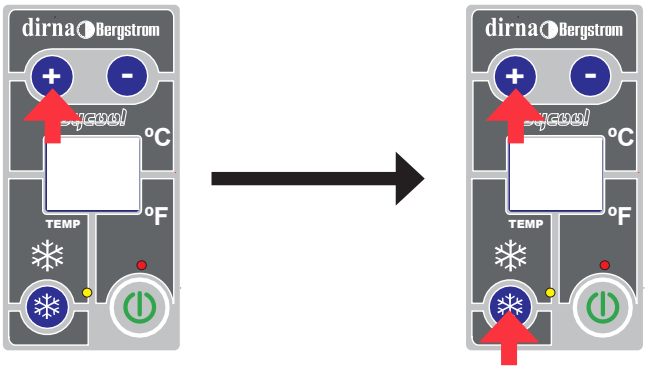


13	VUE GENERALE DE L'UNITÉ DE CONDENSATION ET TUYAUTERIE.

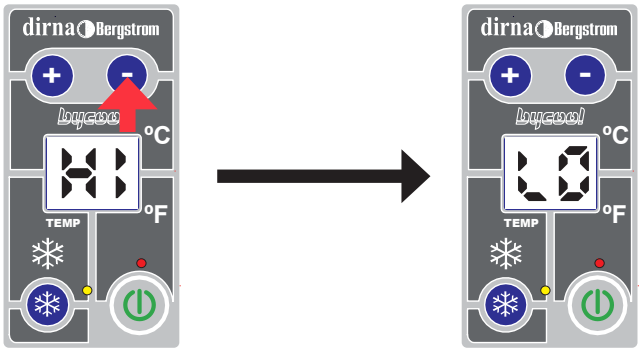
14	VUE GÉNÉRALE DE L'UNITÉ ÉVAPORATRICE.

⚠ Dans les véhicules où le branchement électrique est réalisé aux batteries indépendantes des batteries de démarrage du véhicule, la configuration de l'électronique à de nouveaux paramètres de coupure de batterie est optionnelle, comme indiqué ci-après.

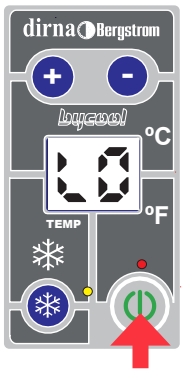
1 Quand l'appareil est arrêté, appuyez sur le bouton + et tout en le maintenant, appuyez sur le bouton ❄ jusqu'à entendre trois sifflements ; en relâchant les deux boutons, "**HI**" apparaîtra à l'affichage du panneau de commande, se rapportant à la coupure de batterie haute (22,8 V).



2 Quand "**HI**" apparaît, appuyez sur la touche - .



3 "**Lo**" s'affiche alors se rapportant à la coupure de batterie basse (19 V). Appuyez sur la touche ⏻ pour valider.

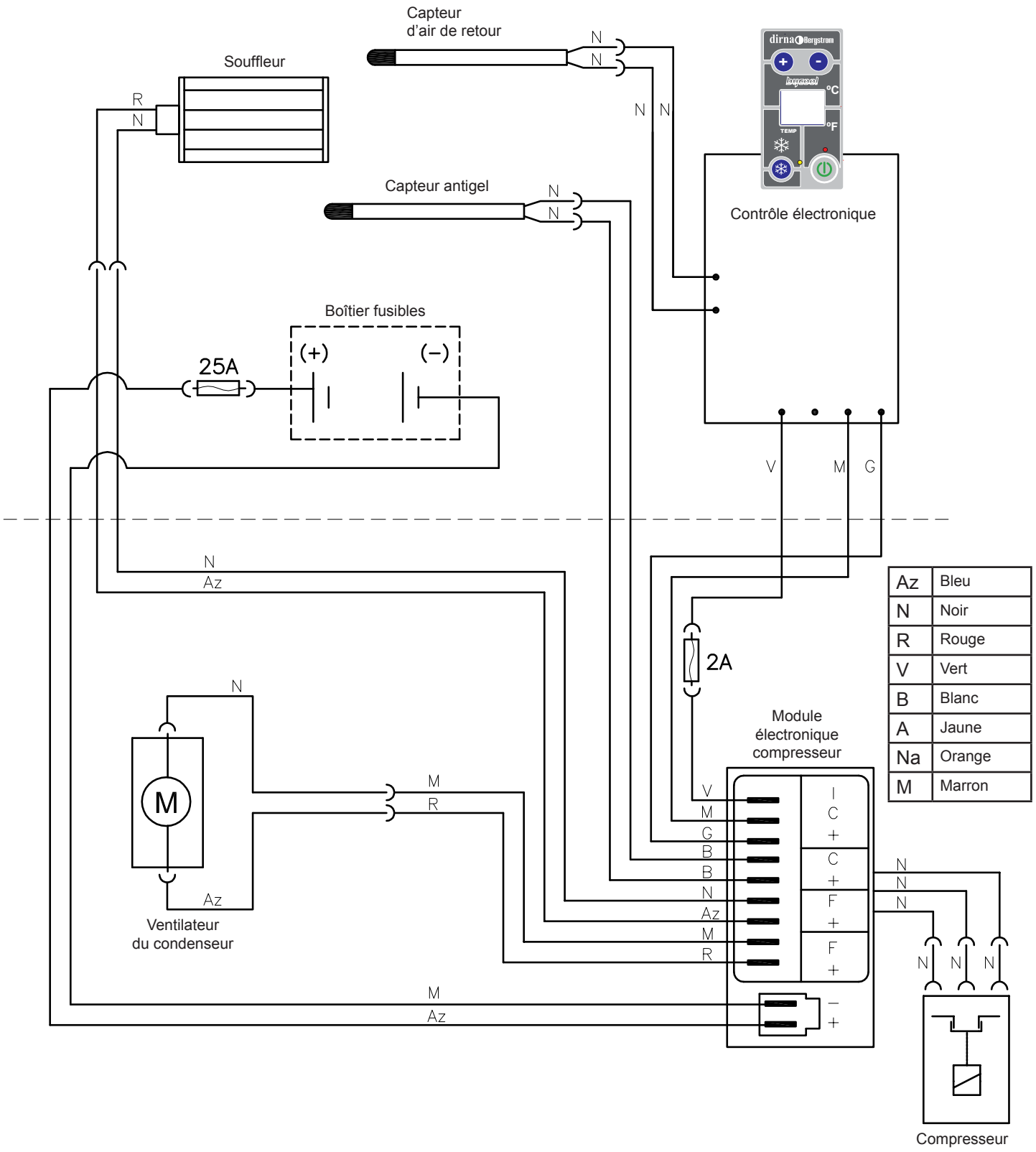


4 Pour revenir à la configuration initiale recommencez **l'operation 1**, select "HI" with button + and confirm with button ⏻ .

Schéma Électrique

AVIS IMPORTANT

Attention de ne pas inverser les polarités au moment de connecter l'alimentation à l'équipement. Si cela se produisait, la plaque de commande ne s'allumerait pas et l'équipement ne fonctionnerait pas.



Empfehlungen Zur montage

- Vor und während der Montage bitte diese Anweisungen lesen und beachten.
- Benutzen Sie für jeden Arbeitsschritt die geeigneten Werkzeuge.

Elektrizität

- Zündschlüssel abziehen.
- Vor Montagebeginn die Batterie abklemmen.
- Den ordnungsgemäßen Anschluss und die korrekte Installation der Elektrokomponenten überprüfen.

⚠ Achtung

Sollte das Gerät während des Einbaus ins Schwanken geraten oder die Kabine umkippen, muss man von dem Moment, wo sich das Gerät wieder in waagerechter Stellung befindet, mindestens 60 Minuten abwarten bis es in Betrieb genommen werden kann.

⚠ Achtung

Bei Fahrzeugen, bei denen der elektrische Anschluss zu vom Anlassen des Motors unabhängigen Zusatzbatterien erfolgt, kann die Elektronik optional hinsichtlich der neuen Parameter für das Abschalten der Batterie konfiguriert werden (siehe Seite 64).

Angaben zur Position:
RECHTS: Beifahrerseite
LINKS: Fahrerseite

Anzugsdremoment *(N.m)*			
Gewinde	Stahlqualität		Maulweite
	8.8	10.9	
M6/100	10	13	10

Schläucheanleitung		
Fitting Driving Torque		
Schläuche	Fitting Driving Torque	Werkzeug
1/4”	13-15	14er-Maulschlüssel
3/8”	15-17	19er-Maulschlüssel

Werkzeuge

- Knarre mit Absperrhahn 10
- Kreuzschraubendreher TOP 10
- Schraubenschlüssel 10, 11, 14, 17, 19
- Innensechskantschlüssel 6
- Rohrschlüssel Ø10
- Bohrmaschine
- Bohrer Ø 4, Ø6, Ø9
- Kreissäge Ø 19, Ø 22, Ø 48
- Schere
- Nietmaschine M6

Symbologie

Fragile

Attention aux coupures !

Risque électrique

Mitgelieferte unterlagen

Montageanweisungen	1001321985
Benutzerleitfaden	220AA11032
Fehlerdiagnose	220AA11031
Garantie	220AA10017

⚠ Warnhinweise

⚠ Der Installateur muss im Bereich Fahrzeug-Klimaanlagen ausreichend geschult sein.

⚠ **dirna Bergstrom, s.l.** übernimmt keine Verantwortung für Schäden oder Brüche aufgrund einer nicht ordnungsgemäßen Installation oder Bedienung des Geräts oder den Austausch von Teilen bzw. Umbauten, die ohne die erforderliche schriftliche Genehmigung durchgeführt wurden.

⚠ **Das Gerät ist mit R – 134a Gas vorgeladen. Bitte nicht mit dem Kühlgaskreislauf herumhantieren.**

⚠ Siehe **Garantieverfahren** des Produkts in der **Fehlerdiagnose**.

⚠ Siehe **Benutzerleitfaden** des Geräts für den ordnungsgemäßen Betrieb der Fernbedienung und des Bedienfelds.

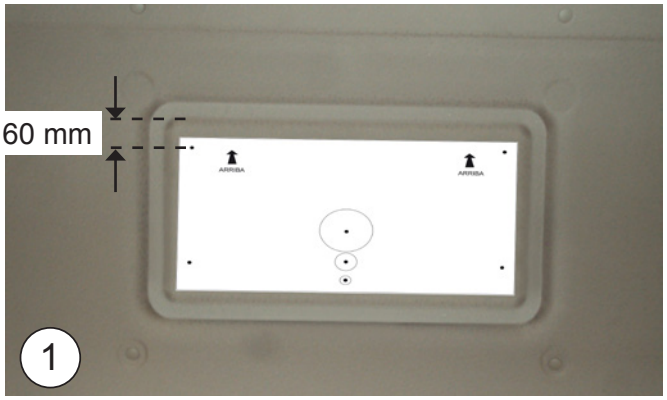
⚠ Die folgenden Unterlagen müssen dem Benutzer nach der Installation ausgehändigt werden: **Benutzerleitfaden**, **Garantie** und **Fehlerdiagnose.**

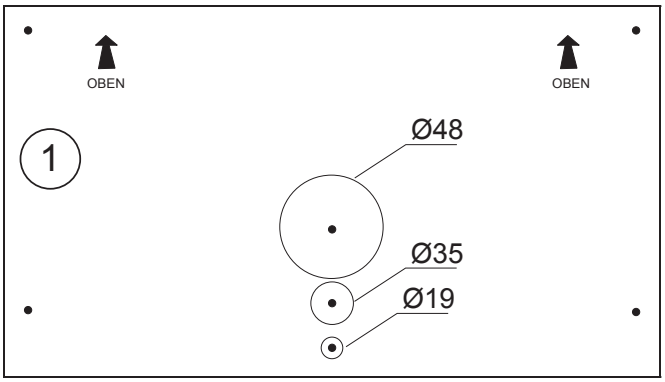
VORBEREITENDE TÄTIGKEITEN:

- Batterie abschalten.
- Innere Luftverteilertafel des Verdampfers abnehmen.

1 **AUF DER KABINENINNENSEITE:**

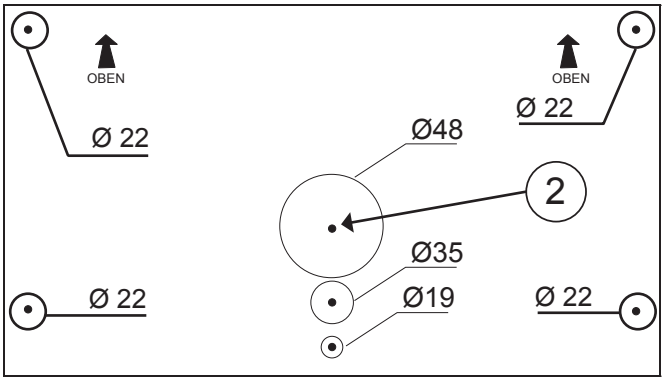
Mitgelieferte Vorlage auflegen und Bohrlöcher markieren.

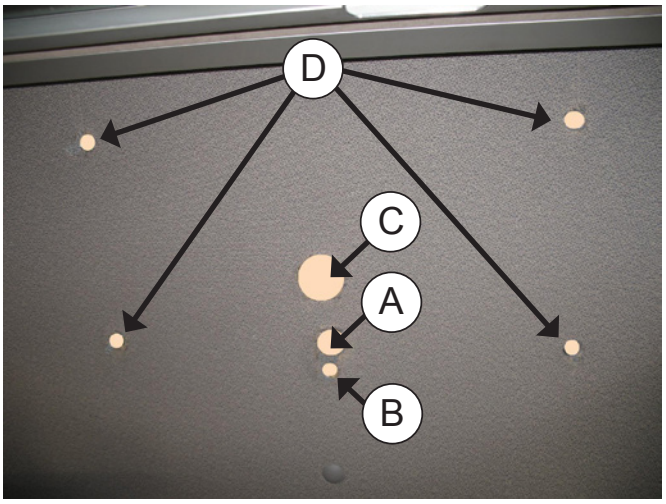




2 Durchgangsbohrung Ø4 mit langem Bohrer in Position der Bohrung Ø48 durchführen, danach die folgenden Bohrungen durchführen.

A- (1) Ø35 nur im Bezug durchführen
B- (1) Ø19 nur im Bezug durchführen
C- (1) Ø48 nur im Bezug durchführen
D- (4) Ø22 nur im Bezug durchführen



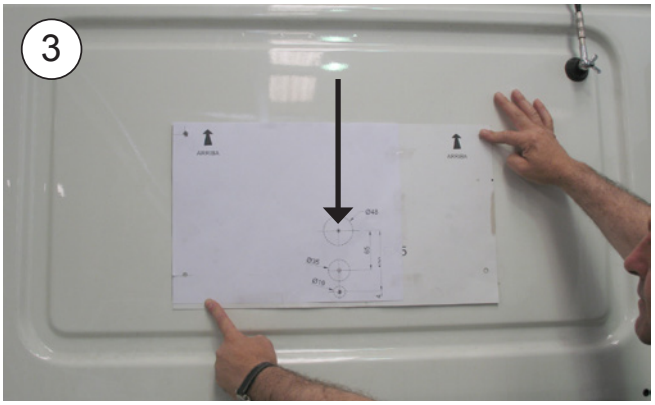


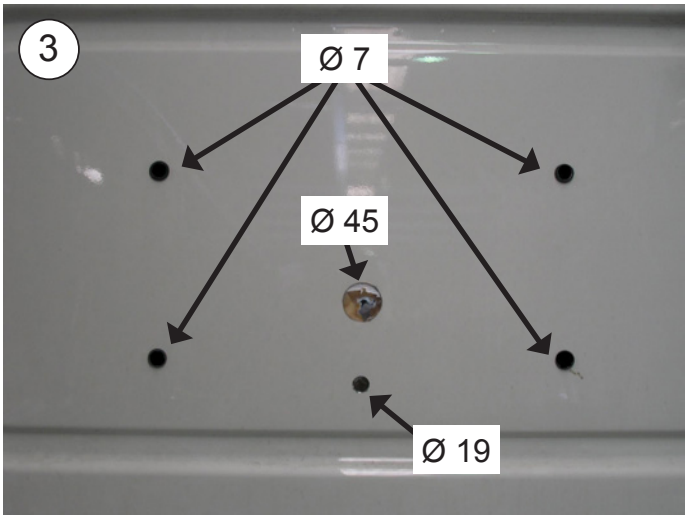
3

AUF DER KABINENAUSSENSEITE:

Vorlage auf gleicher Höhe von der Außenseite auflegen, dabei als Referenz die durchgeführte Ø4 Bohrung nehmen, markieren und die restlichen Bohrungen durchführen.

⚠ **Achtung:** Das Bohrloch Ø 35 der Vorlage wird nicht ausgeführt.



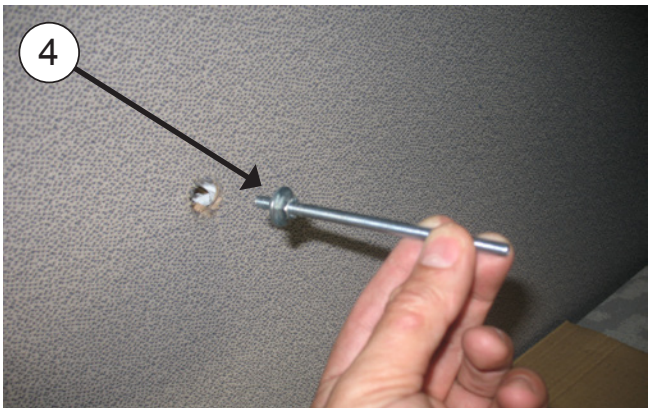


3a

Bohrlöcher mit mitgeliefertem Rostschutzmittel streichen.

4

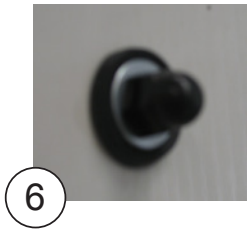
Von Innen her Stiftschrauben M6 mit Mutter und Unterlegscheibe wie angegeben einführen.

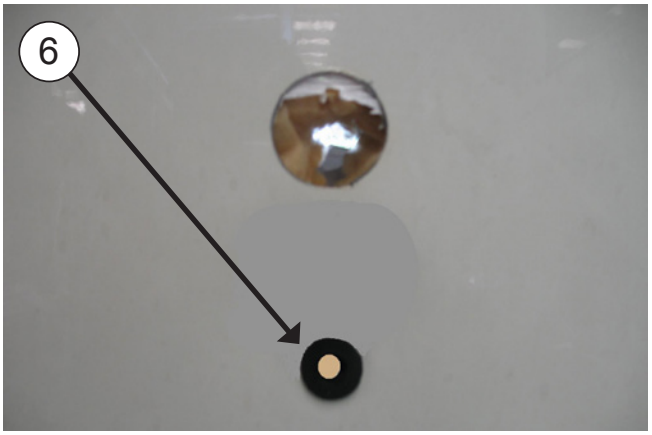


5

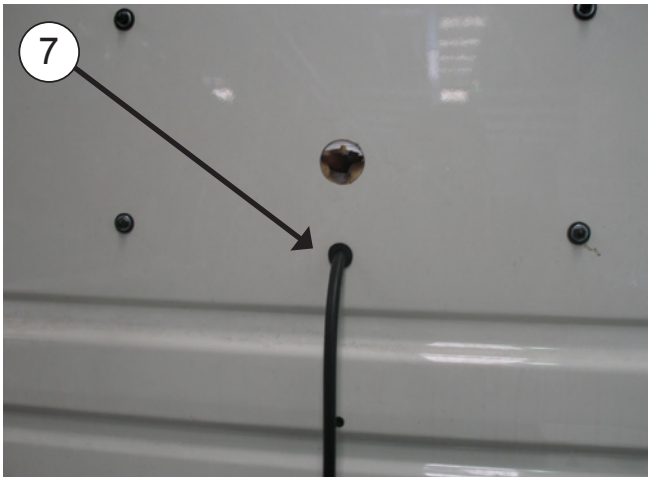
Von Außen her mit Gummiunterlegscheibe, Flachscheibe und selbstsichernder Spannmutter befestigen, dabei von Innen her mit Rohrschlüssel 10 halten.

6 Mutterkappen und Wanddurchführung anbringen.



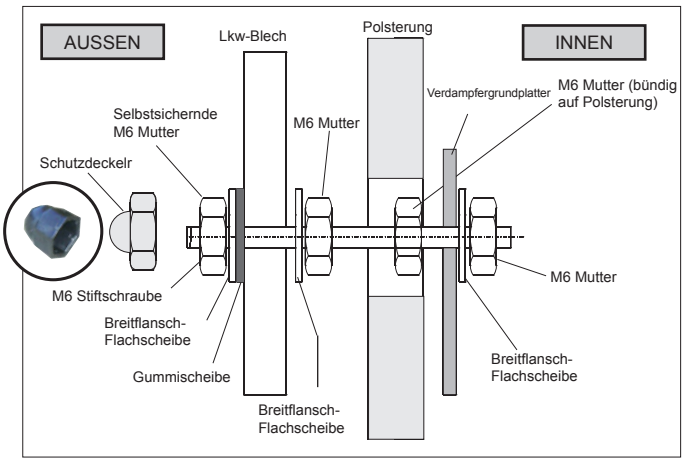


7 Abflussschlauch durch Bohrung Ø19, und Wanddurchführung ins Innere der Kabine führen.



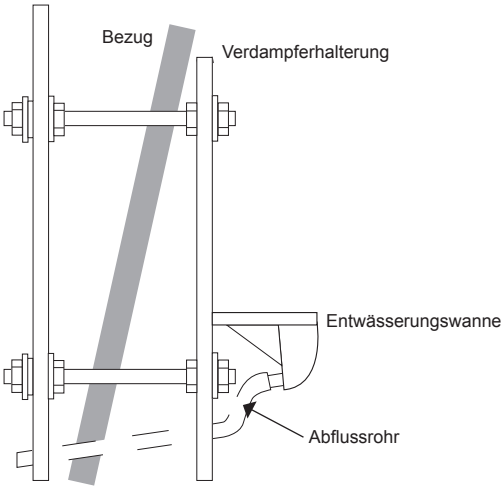
8 (4) Muttern M6 mit (4) Flachscheiben auf die Stiftschrauben schrauben, wobei die Flachscheiben sich auf Höhe des Bezugs befinden müssen.

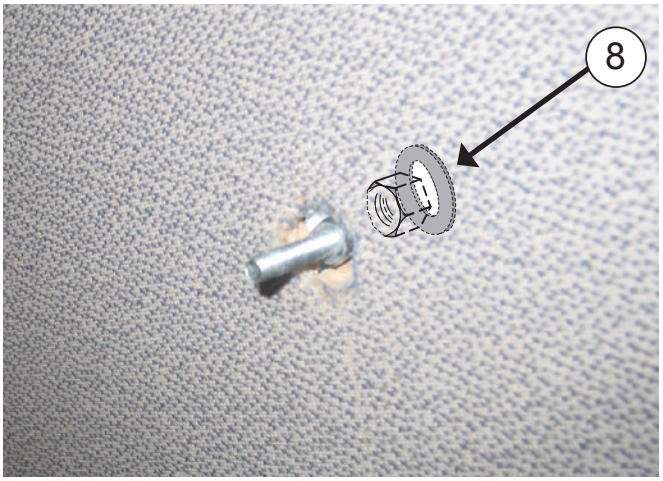
SIE BEILIEGENDE ZEICHNUNG



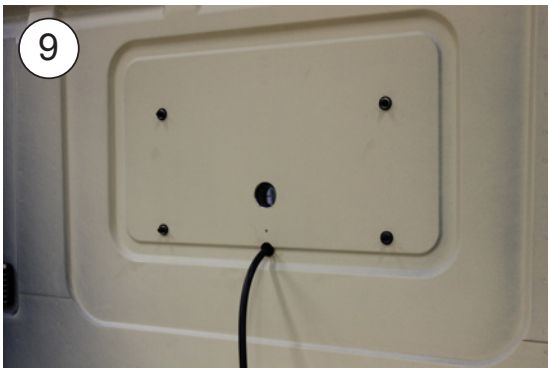
WICHTIGER HINWEIS

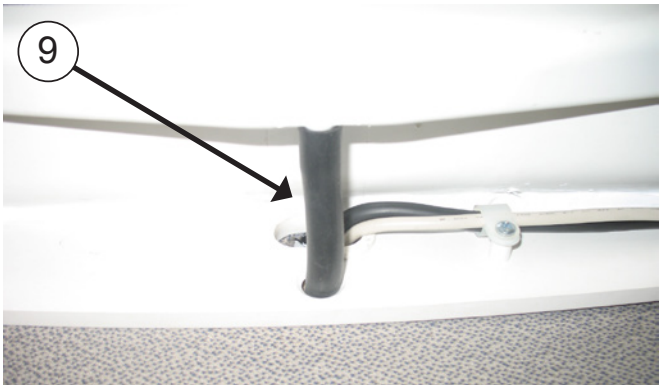
Bei schrägen Bezügen muss die Verdampfergruppe senkrecht oder schräg von unten nach außen liegen, damit dass Kondenswasser nicht auf den Bezug läuft.



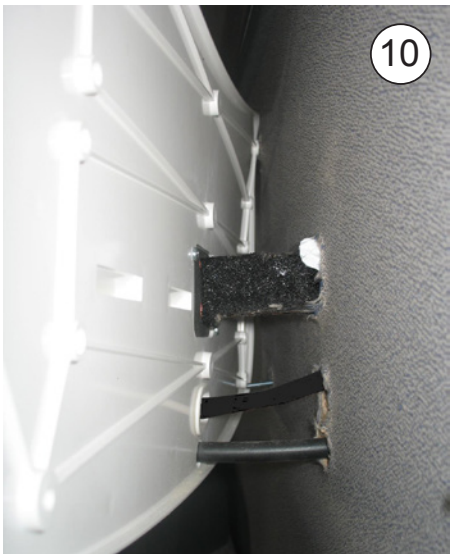


9 Abflussschlauch durch die Bohrung der Verdampferbasis führen und an den Behälter anschließen.

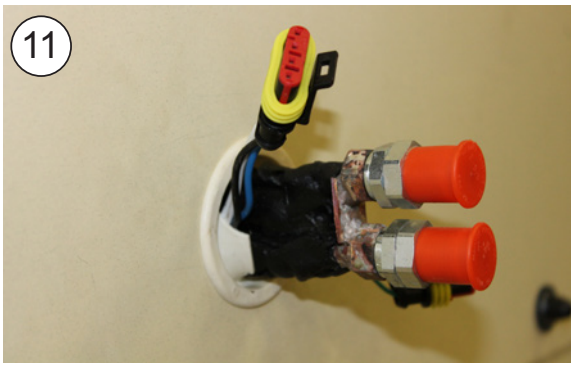




10 Kabel zusammen mit den Verdampferstutzen durch das Bohrloch Ø 35 der Verkleidung und das Bohrloch Ø 48 des Fahrzeugblechs führen.



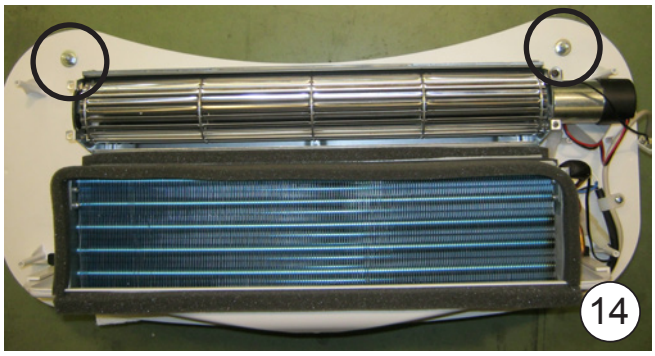
11 Mitgelieferte Wanddurchführung anbringen.

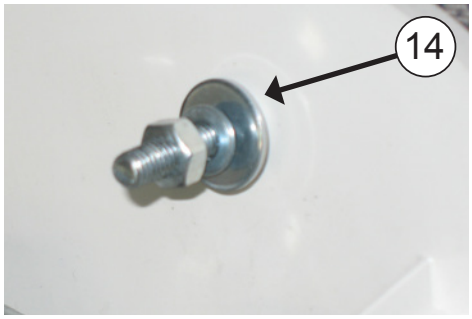


12 Dichtung und Kabeldurchführung anbringen.

13 Aluminiumschutz mit Muttern anbringen und anziehen.

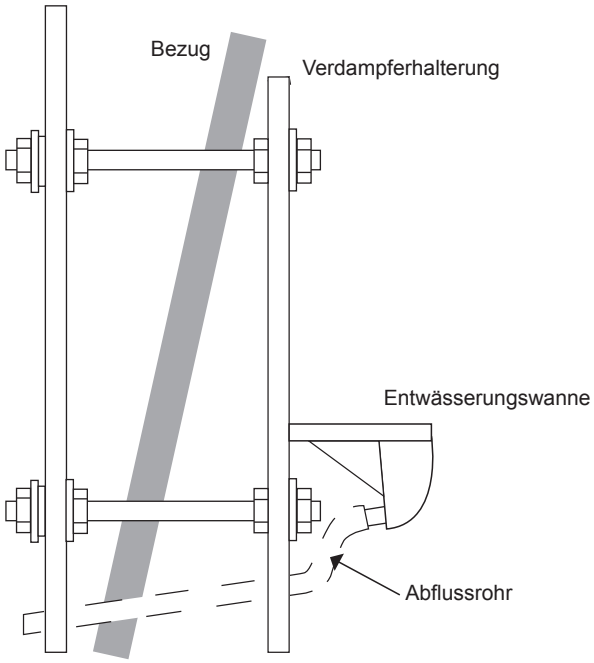
14 Verdampferbasis auf Stiftschrauben stellen und mit (4) Grower-Scheiben (4) und (4) Muttern M6 befestigen.



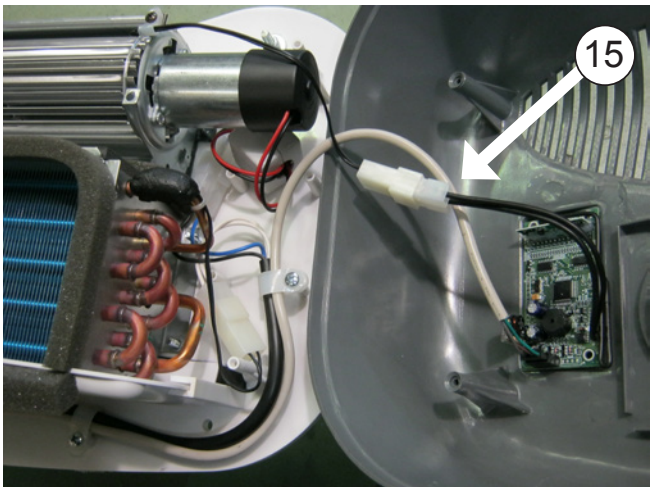


WICHTIGER HINWEIS

Der Abfluss muss ein ausreichendes Gefälle haben, damit das Wasser nicht auf den Bezug laufen kann.



15	Abluftsensor und Kommunikationskabel an der Elektroniksteuerung anschließen.



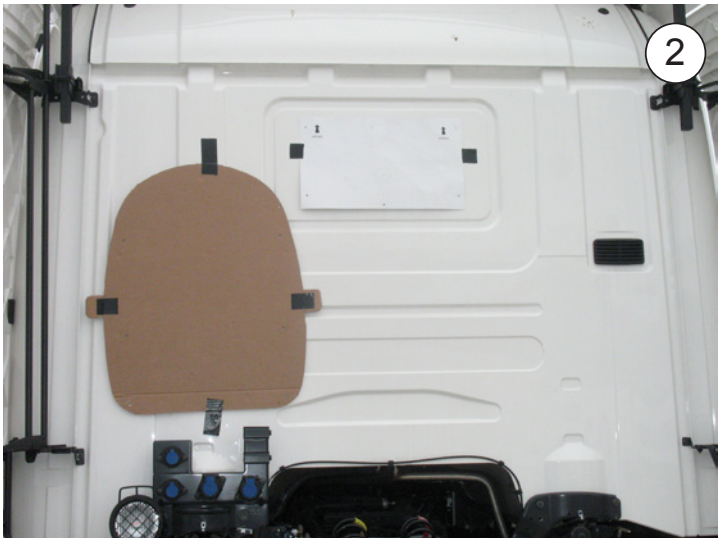
16	Innere Luftverteilertafel anhand eines Magnetschraubendrehers mit ihren Schrauben wieder anbringen und Kappen aufsetzen.

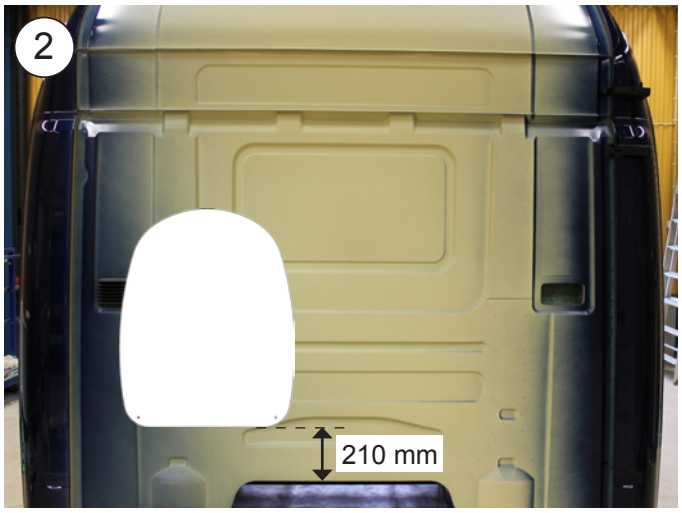
MONTAGE KONDENSATOR:

1 Am Fahrzeug, Abdeckung abnehmen und Kabel des Kondensatorlüfters lösen.

2 Schablone anlegen und Bohrungen markieren.

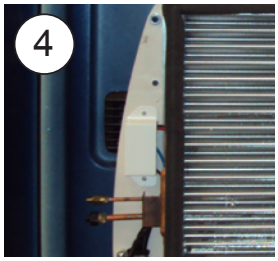
Achtung: Einige Lastkraftwagen haben ein Lüftungsgitter an der linken Seite (siehe Schritt 5). Bei diesen Lastern muss zwischen der Unterseite der Kabine und der Kühlzelle ein Abstand von 210 mm gelassen werden.

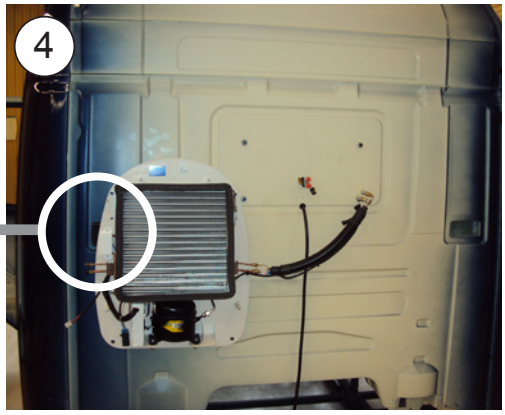




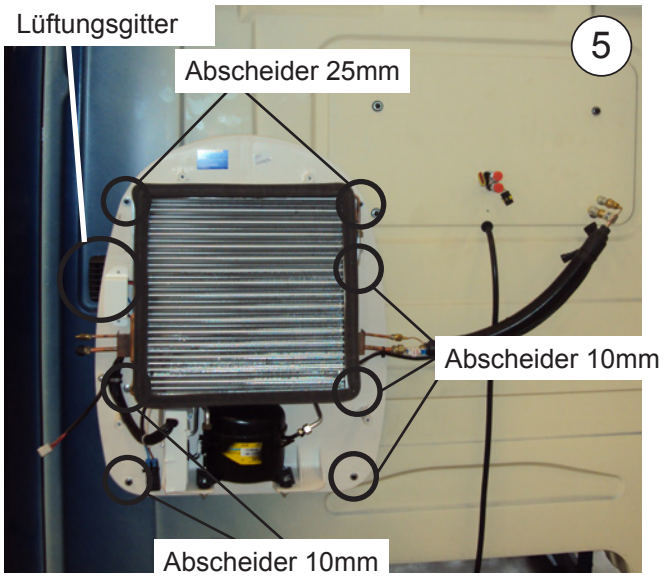
3 Zunächst die (2) unteren Bohrlöcher mit Ø 9 ausführen und (2) Nietmuttern M6 und Stiftmuttern M6 anbringen.

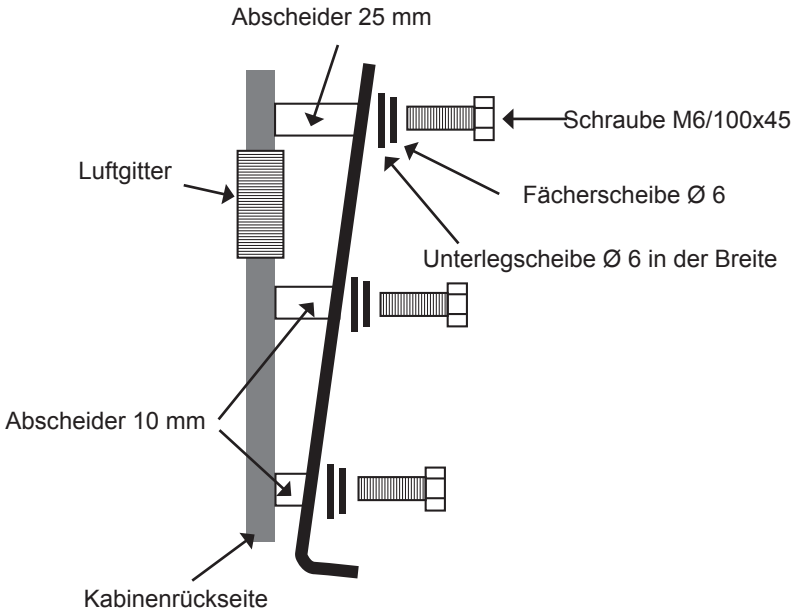
4 Die Einheit anlegen und die restlichen Bohrungen markieren außer bei dem Luftgitter, wo die Bohrung nicht markiert wird.



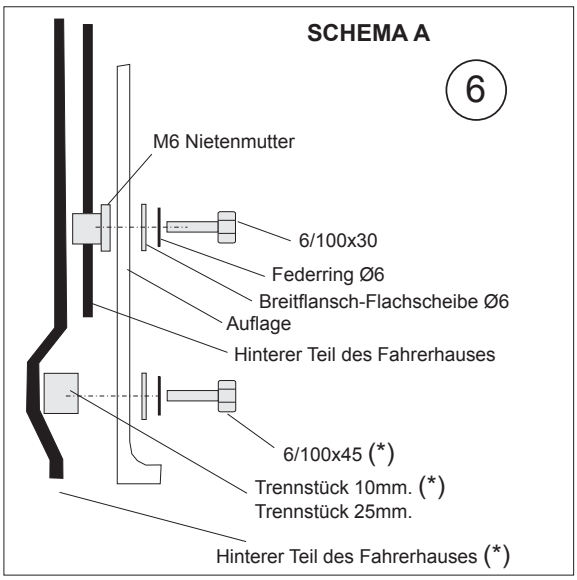


5	Um das Lüftungsgitter frei zu legen, die Einheit mit (/) /100x45 Schrauben und Unterleg-Fächerscheibe befestigen. (*) Auf der Rückseite (2) 25 mm breite Abscheider und der Oberseite und allen weiteren Seiten 10 mm breite Abscheider anbringen.

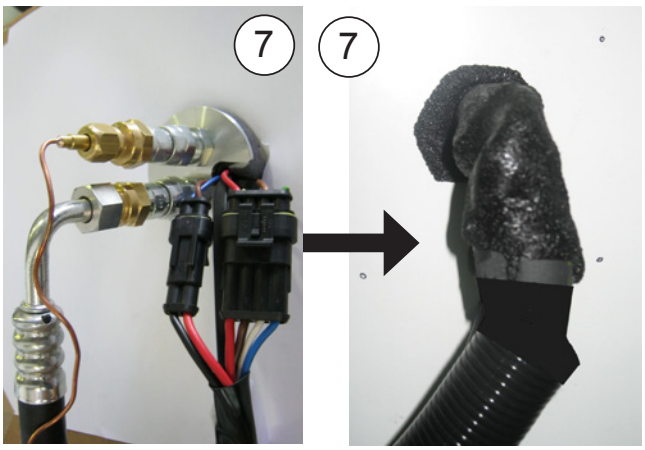




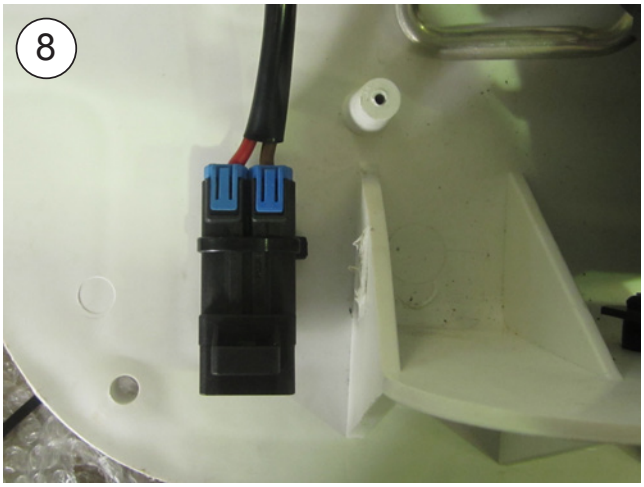
6	**(*)-** Ist die Unterlage nicht glatt, Distanzstück 10/20/40 mm und Schraube 6/100x40/60/70 anbringen. **SIEHE SCHEMA A**



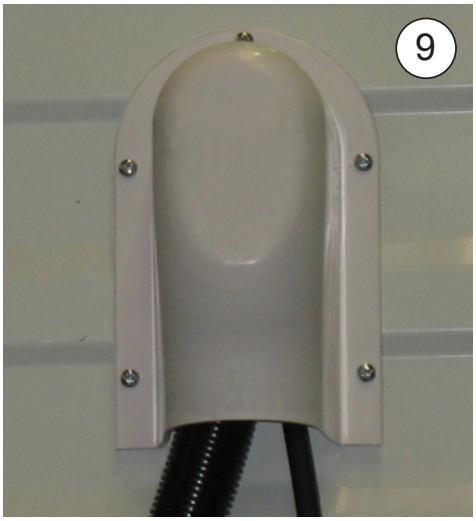
7	Kabel anschließen, Stutzen am Verdampfer anbringen und mit Tropfschutzband versiegeln.



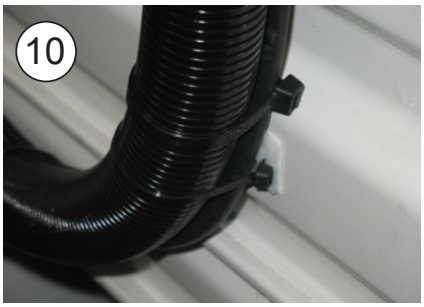
8	Netzkabel anschließen.



9	Schlauchschutz mit Dichtung auflegen, Bohrloch markieren und mit Ø 4 bohren. Mit mitgeliefertem Rostschutzmittel streichen und mit Blechschrauben 4,8x19mm befestigen.

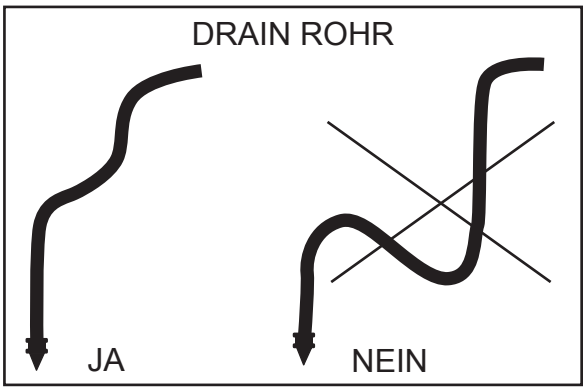


10	Kunststoffhalterungen ankleben, Befestigungsschellen und Schläuche, Kabel und Abflussschlauch befestigen (Montagebereich reinigen).



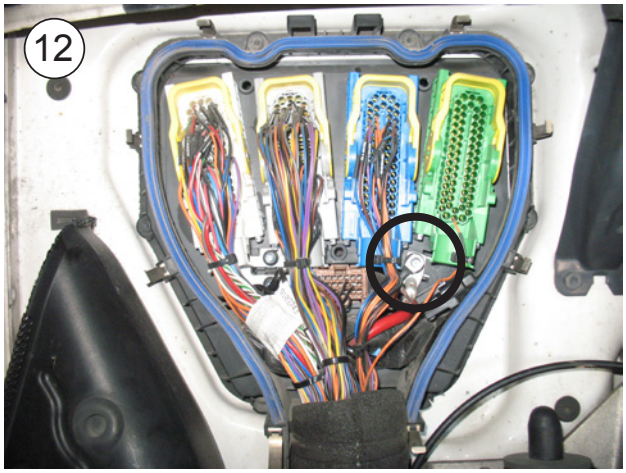
10a	Drainageventil anbringen.

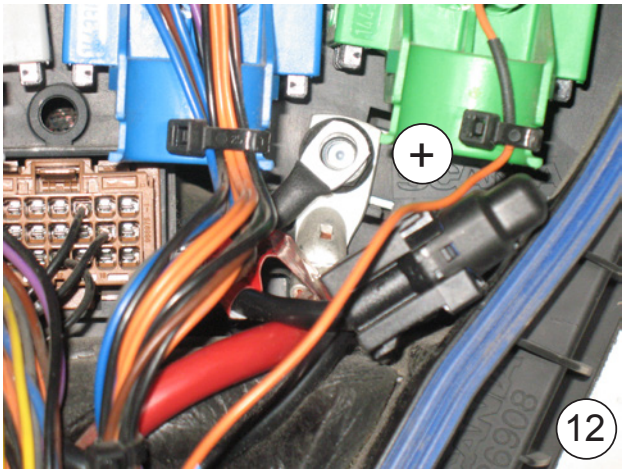
⚠	**WICHTIGER HINWEIS:** Der Entwässerungsschlauch darf nicht gequetscht werden und muss ausreichende Neigung haben, damit das Kondenswasser korrekt ablaufen kann.

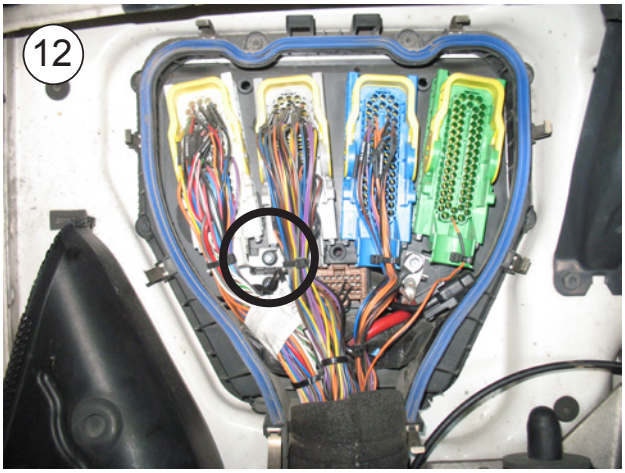


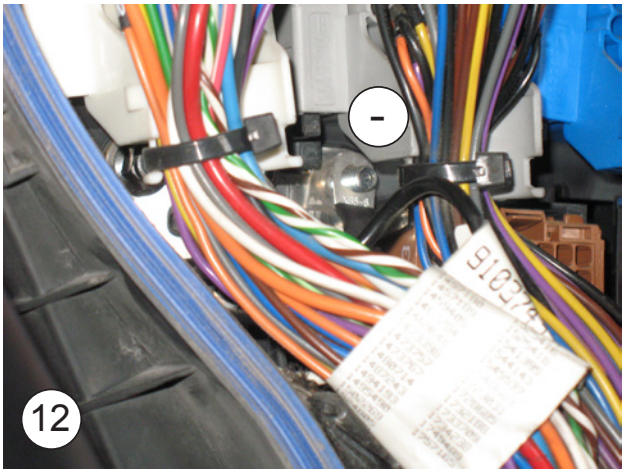
11	Abdeckung mit den zuvor abgenommenen Schrauben anbringen. **ACHTUNG: Nicht vergessen, die Klemme des Kondensatorlüfters anzuschließen.**

12 Die Kabine herunterklappen und die Verkabelung durch die markierte Stelle bis zur Anschlussdose führen und mit Schellen oder Flanschen befestigen. Dann die Kabel an die Anschlussdose anschließen.







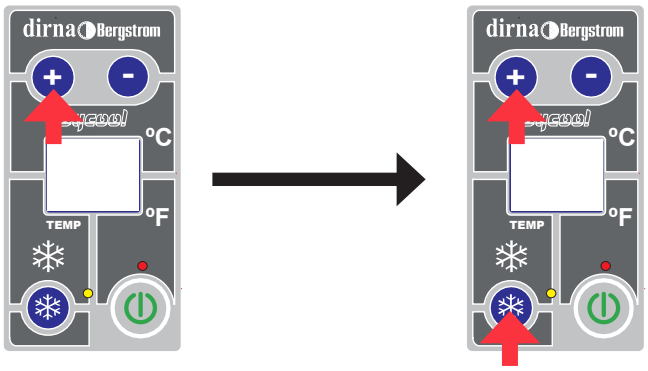


13	ALLGEMEINER ÜBERBLICK ÜBER KONDENSATOREINHEIT UND SCHLÄUCHE

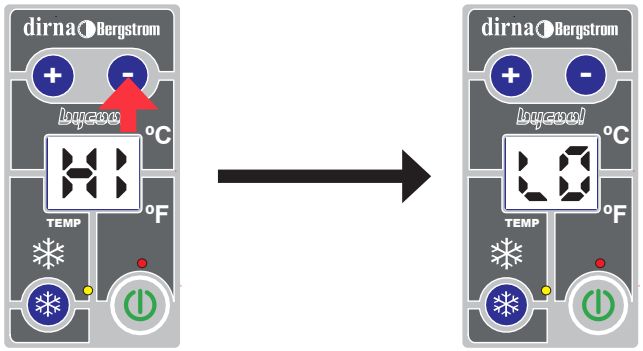
14	ALLGEMEINER ÜBERBLICK ÜBER KONDENSATOREINHEIT UND SCHLÄUCHE.

⚠ Bei Fahrzeugen, bei denen der elektrische Anschluss zu vom Anlassen des Motors unabhängigen Zusatzbatterien erfolgt, kann die Elektronik, wie im Folgenden beschrieben, optional hinsichtlich der neuen Parameter für das Abschalten der Batterie konfiguriert werden.

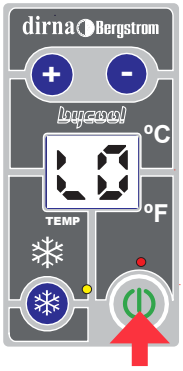
1 Bei abgeschalteter Anlage die Taste + gedrückt halten und dann gleichzeitig die Taste ❄ drücken, bis es dreimal piepst. Beim Loslassen beider Tasten erscheint auf dem Display des Bedienfelds “**HI**” und zeigt das Abschalten der Batterie bei hoher Ladung an (22,8 V).



2 Nachdem “**HI**” angezeigt wurde, die Taste - drücken.



3 Auf dem Display erscheint jetzt “**Lo**” in Bezug auf das Abschalten der Batterie bei niedriger Ladung (19 V). Mit der Taste ⏻ bestätigen.

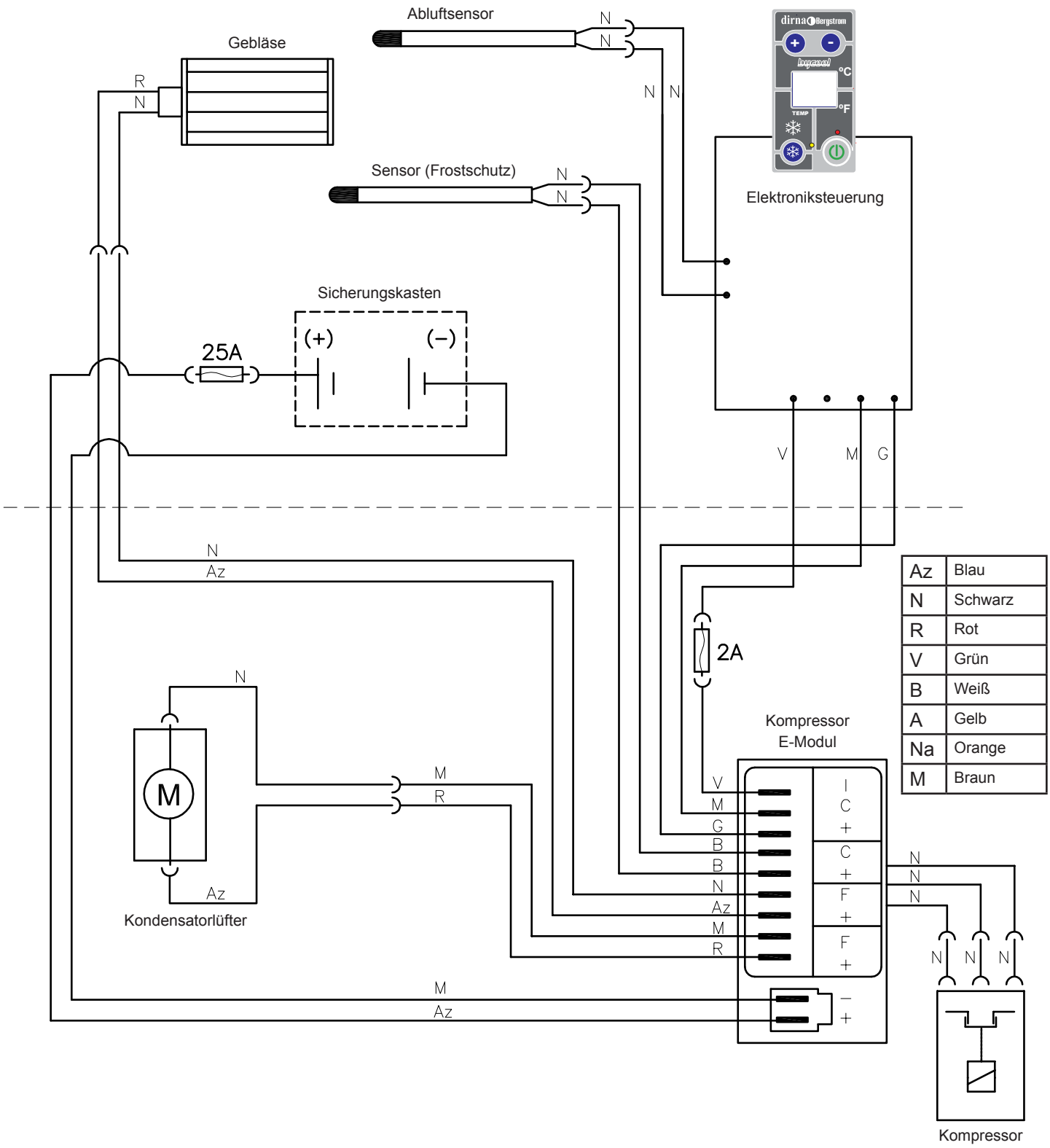


4 Um zur ursprünglichen Konfiguration zurückzukehren, **Schritt 1** wiederholen, “**HI**” mit der Taste + wählen und mit der Taste ⏻ bestätigen.

Elektrisches schaltschema

WICHTIGER HINWEIS!

Darauf achten, dass die Polaritäten beim Anschluss der Stromversorgung an das Gerät nicht vertauscht werden. Ist dies der Fall, schaltet sich das Bedienfeld nicht an und die Anlage funktioniert nicht.



Suggerimenti per il montaggio

- Prima di cominciare il montaggio, leggere attentamente le istruzioni e rispettarle nel corso dello stesso.
- Usare gli attrezzi più adatti ad ogni operazione.

Elettricitá

- Scollegare la chiave di contatto.
- Scollegare la batteria prima di cominciare il montaggio.
- Assicurarsi di aver effettuato correttamente l'installazione e il collegamento dei componenti elettrici.

⚠ Attenzione

Se durante il montaggio si inclina l'impianto o si ribalta la cabina con l'impianto montato, prima di rimettere in funzione l'impianto occorre attendere almeno 60 minuti dal momento in cui è di nuovo in posizione orizzontale.

⚠ Attenzione

Nei veicoli in cui la connessione elettrica è eseguita a batterie supplementari indipendenti da quelle di avviamento del veicolo, è opzionale l'impostazione nell'unità elettronica di nuovi parametri di disinserimento della batteria (vedi pagina 80).

Le indicazioni relative alla posizione sono:

DESTRA: lato del passeggero
SINSITRA: lato dell'autista

Coppia di serraggio *(N.m)*			
Filettatura	Qualità Acciaio		Chiave
	8.8	10.9	
M6/100	10	13	10

Montaggio da tubi		
Coppia di serraggio		
Tubi	Coppia di serraggio	Strumenti
1/4"	13-15	Chiave fissa da 14 mm
3/8"	15-17	Chiave fissa da 19 mm

Attrezzi

- Chiave a cricchetto con rubinetto di intercettazione da 10
- Cacciavite a stella TOP 10
- Chiave fissa da 10, 11, 14, 17, 19
- Chiave a brugola da 6
- Chiave a tubo da Ø 10
- Trapano
- Punta Ø 4, Ø 6, Ø 9
- Sega circolare Ø 19, Ø 22, Ø 48
- Forbici
- Rivettarice M6

Simbologia

Fragile

Attenzione alle mani

Tensione elettrica pericolosa

Documentazione allegata

Istruzioni di montaggio	1001321985
Guida dell'utente	220AA11032
Soluzione dei problemi	220AA11031
Garanzia	220AA10017

⚠ Avvertenze

⚠ L'installatore deve essere in possesso della formazione necessaria in materia di aria condizionata per veicoli.

⚠ **dirna Bergstrom, s.l.** declina ogni responsabilità per danni o rotture derivanti dall'errata installazione o dall'errato uso dell'impianto o da sostituzioni o modifiche effettuate senza la necessaria autorizzazione per iscritto.

⚠ **Impianto precaricato con gas R-134a. Non manomettere il circuito del gas refrigerante.**

⚠ Vedi la **procedura di garanzia** del prodotto in **Diagnosi dei problemi**.

⚠ Vedi la **Guida dell'utente** dell'impianto per il corretto funzionamento del telecomando e del pannello di controllo.

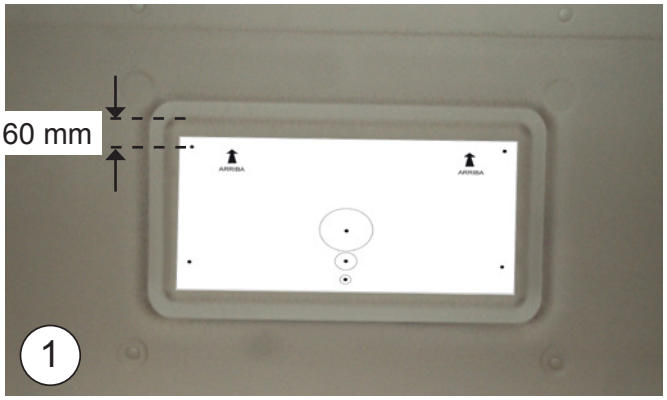
⚠ I seguenti documenti devono essere consegnati all'utente una volta conclusa l'installazione: **Guida dell'utente, Garanzia e Diagnosi dei problemi.**

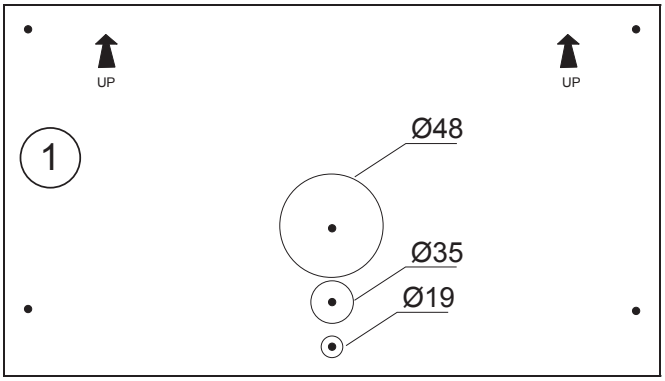
OPERAZIONI PRELIMINARI:

- Disinserire la batteria.
- Smontare il pannello interno di distribuzione dell'aria dell'unità evaporante.

1 **DALL'INTERNO DELLA CABINA:**

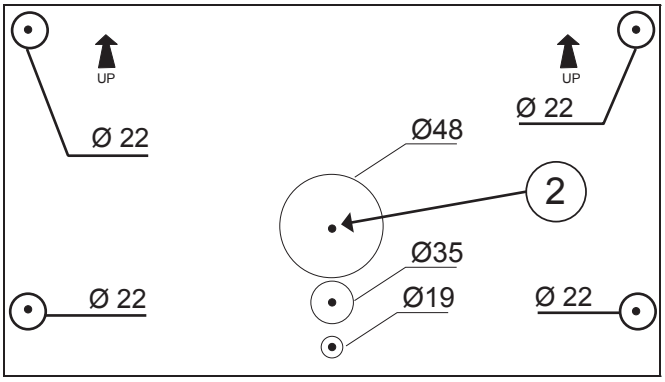
Posizionare la dima in dotazione e segnare i fori da eseguire.

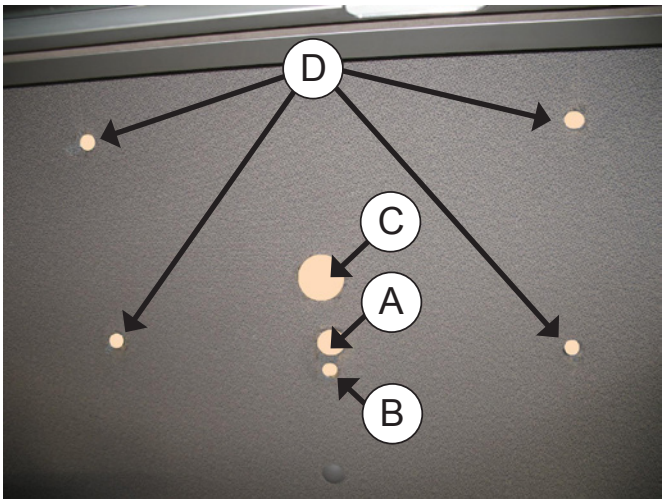




2 Praticare un foro Ø 4 passante con punta lunga nella posizione di foro Ø 48, quindi eseguire i seguenti fori:

A- (1) Ø 35 solo nella tappezzeria.
B- (1) Ø 19 solo nella tappezzeria.
C- (1) Ø 48 solo nella tappezzeria.
D- (4) Ø 22 solo nella tappezzeria.



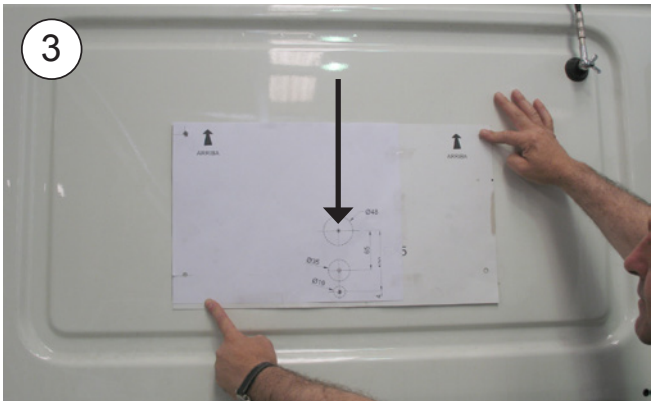


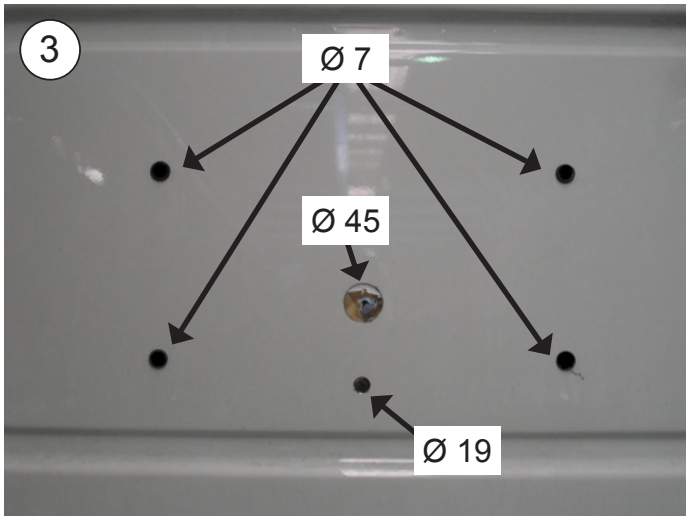
3

DALL'ESTERNO DELLA CABINA:

Posizionare la dima livellata all'esterno, prendendo come riferimento il foro effettuato Ø 4, quindi segnare ed eseguire i fori rimanenti.

⚠ **Attenzione:** non si deve eseguire il foro da ø 35 riportato sulla dima.



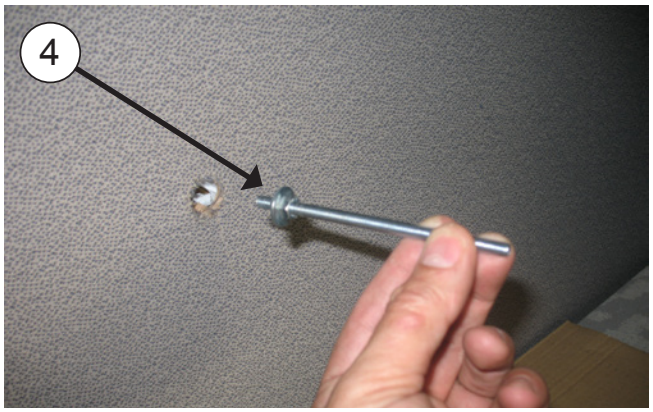


3a

Verniciare i fori con il prodotto antiruggine in dotazione.

4

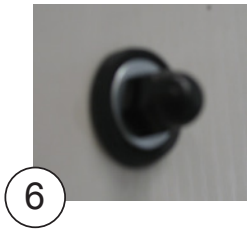
Inserire dall'interno le viti prigioniere M6 con il dado e la rondella, come indicato.

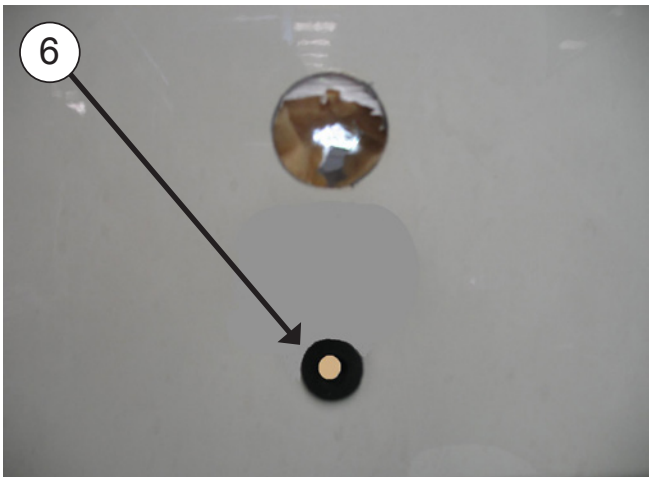


5

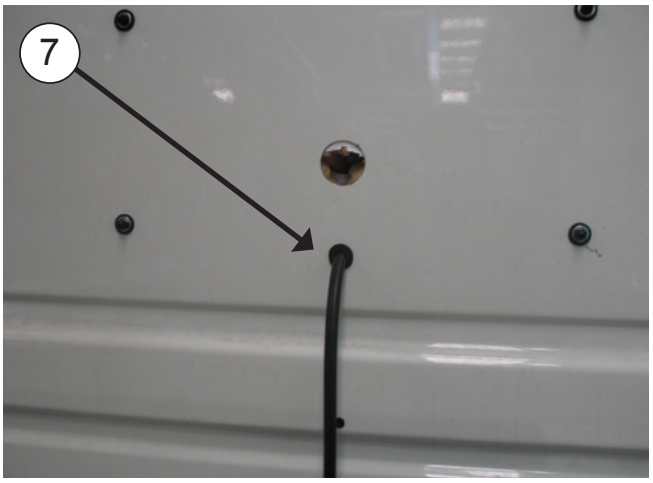
Fissare dall'esterno con la rondella piana di gomma e il dado autobloccante stringendo dall'interno con la chiave a tubo 10.

6 Inserire i tappi del dado e le guaine passamuro.



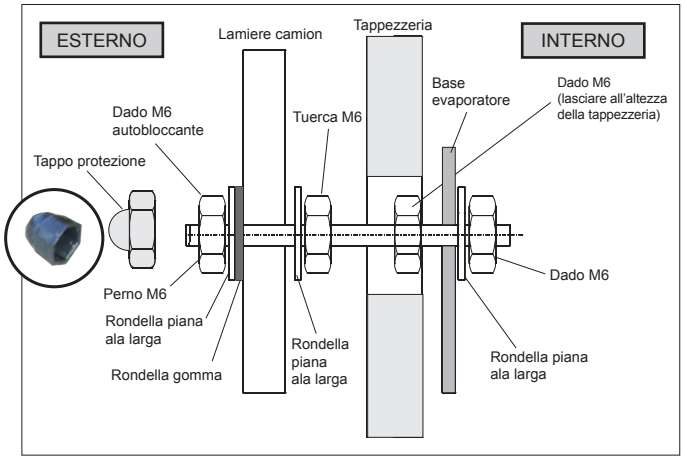


7 Fare passare il tubo di scarico nel foro Ø 19, nella guaina passamuro, verso l'interno cabina.



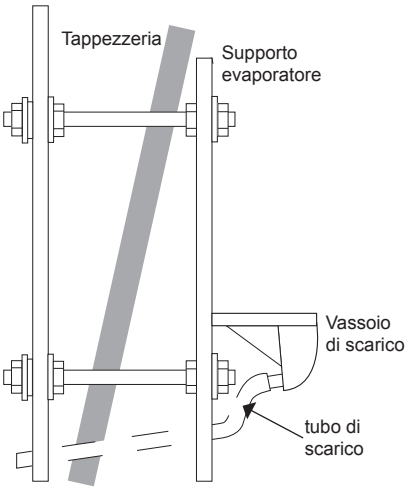
8 Sulle viti prigioniere avvitare (4) dadi M6 con (4) rondelle piane Ø 6 finché queste ultime non sono a filo della tappezzeria.

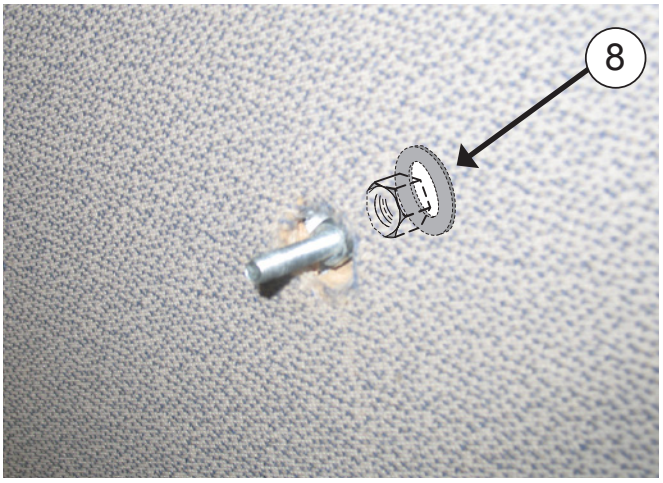
VEDI SCHEMA ALLEGATO



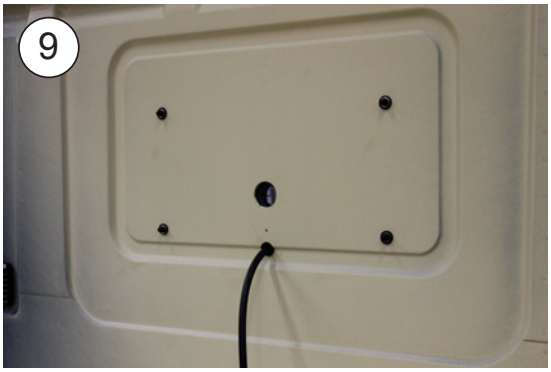
NOTA BENE

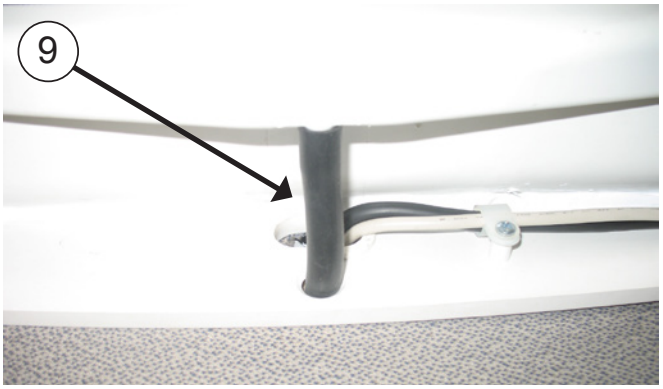
In caso di rivestimenti inclinati tappezzati, l'insieme dell'evaporatore deve essere installato verticale o inclinato con la parte inferiore sporgente per evitare che l'acqua di condensa cada sulla tappezzeria.



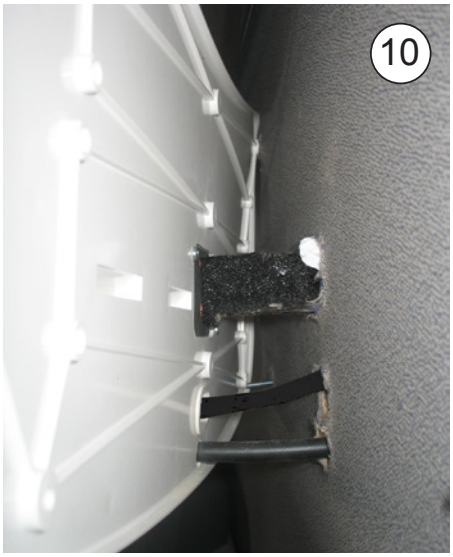


9 Fare passare il tubo di scarico nel foro della base dell'evaporatore e collegarlo al vassoio di raccolta.

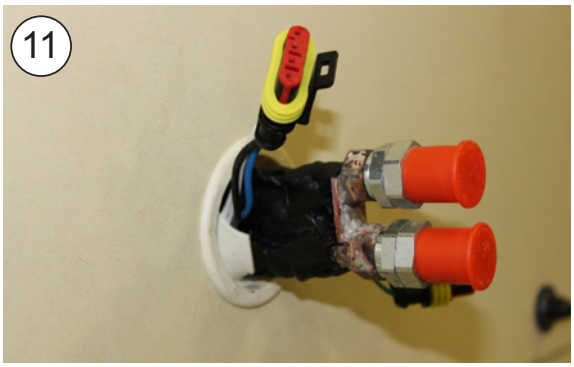




10 Far passare i cablaggi verso l'esterno dal foro ø 35 della tappezzeria e dal foro ø 48 della lamiera unitamente ai raccordi dell'evaporatore.



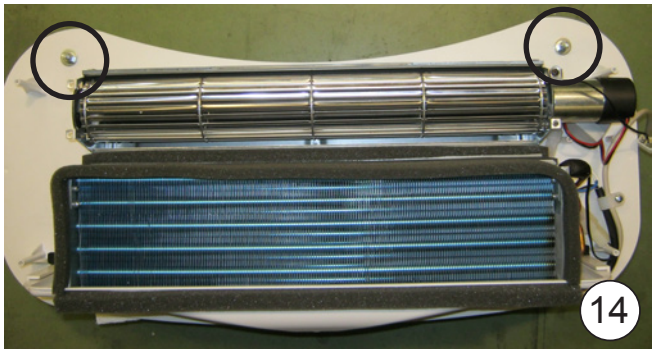
11 Montare la guaina passamuro in dotazione.

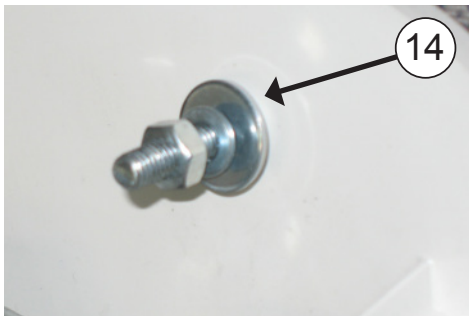


12 Inserire la guarnizione sul passaggio del cablaggio.

13 Montare la protezione in alluminio con i dadi e stringere.

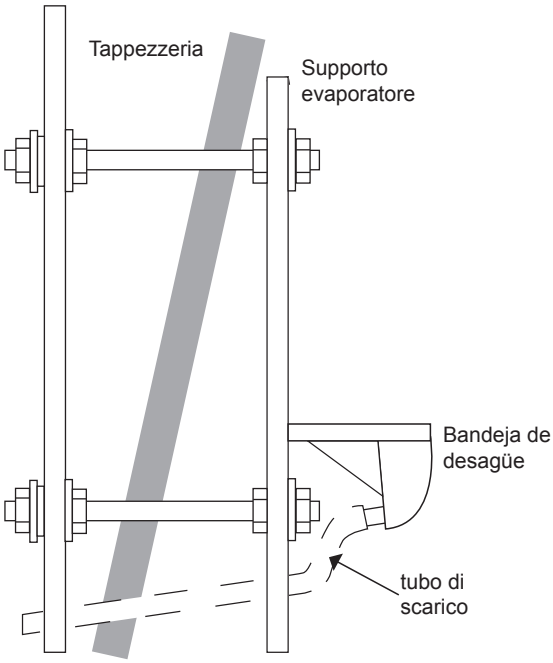
14 Inserire la base dell'evaporatore sulle viti prigioniere e fissare con (4) rondelle piane (4) grower e (4) dadi M6.



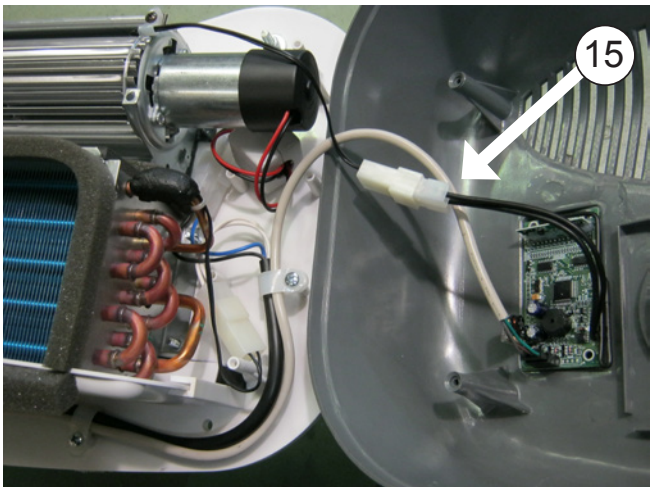


NOTA BENE

Lo scarico deve avere la pendenza sufficiente per evitare la caduta dell'acqua sulla tappezzeria.



15 Collegare il sensore dell'aria di ritorno e il cavo per comunicazioni al controllo elettronico.



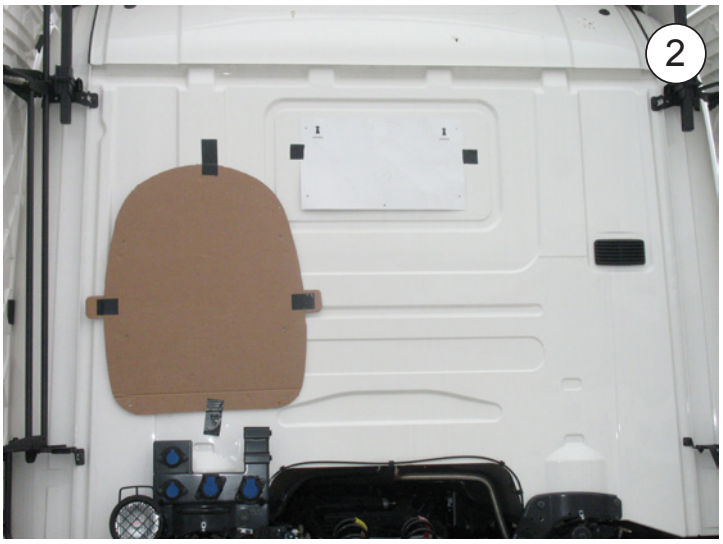
16 Fissare il pannello interno di distribuzione dell'aria con le relative viti, usando un cacciavite calamitato e inserire i tappi.

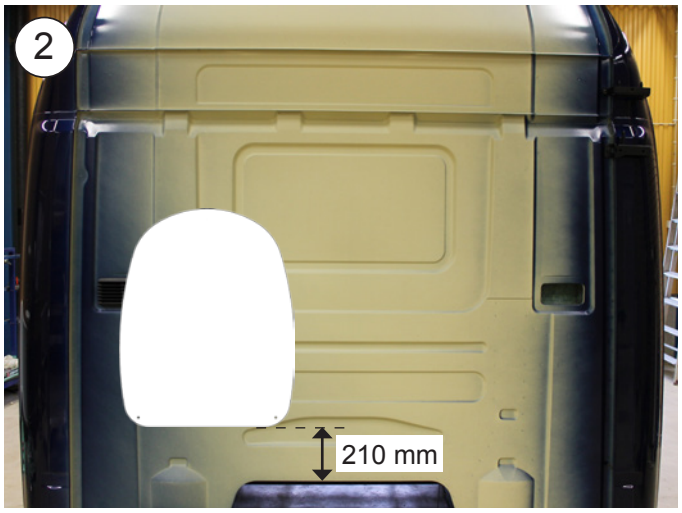
MONTAGGIO DEL CONDENSATORE:

1 Sul veicolo, smontare il coperchio e staccare il cablaggio del ventilatore del condensatore.

2 Sistemare provvisoriamente la dima e segnare i fori.

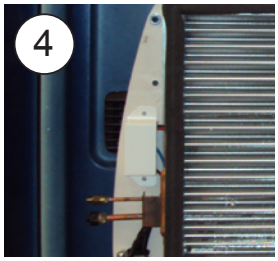
Attenzione: in alcuni modelli esiste una griglia di uscita dell'aria sul lato sinistro (vedi passo 5). In questo modello di camion occorre lasciare una distanza di 210 mm dalla parte bassa della cabina all'unità condensante.

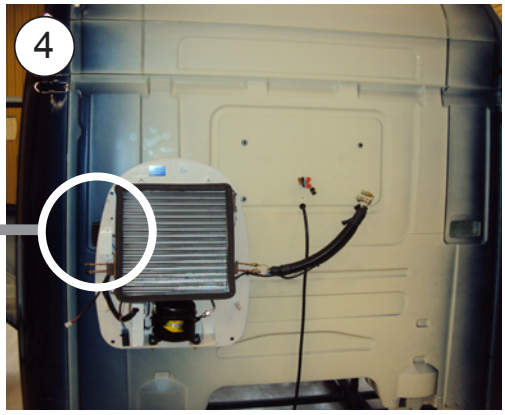




3 Praticare per primi i (2) fori inferiori Ø 9 e inserire (2) dadi a rivetto M6 e le viti prigioniere M6.

4 Sistemare provvisoriamente l'unità e segnare gli altri fori, tranne quelli eventualmente coincidenti con la griglia di uscita dell'aria, che non devono essere segnati.

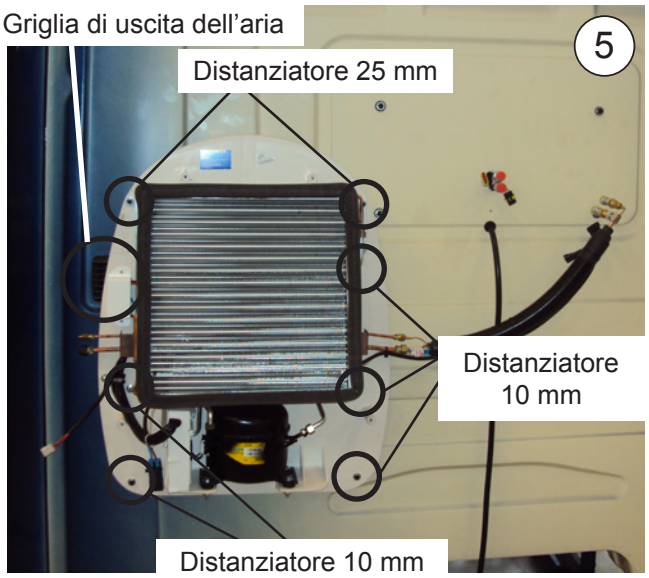


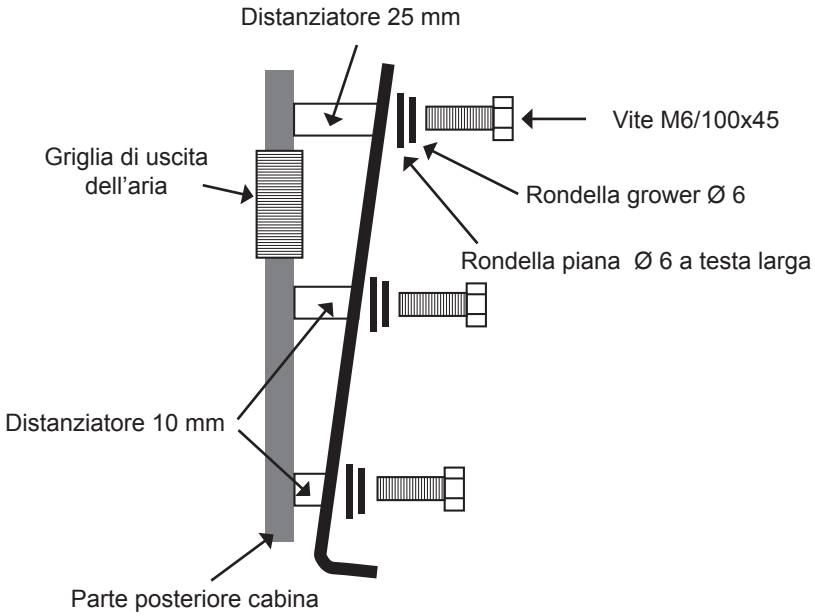


5

Per evitare la griglia di uscita dell'aria, fissare l'unità con (7) viti 6/100x45, rondella grower e piana.

(*) Dalla parte posteriore inserire (2) distanziatori da 25 mm nella zona superiore e nel resto inserire distanziatori da 10 mm.

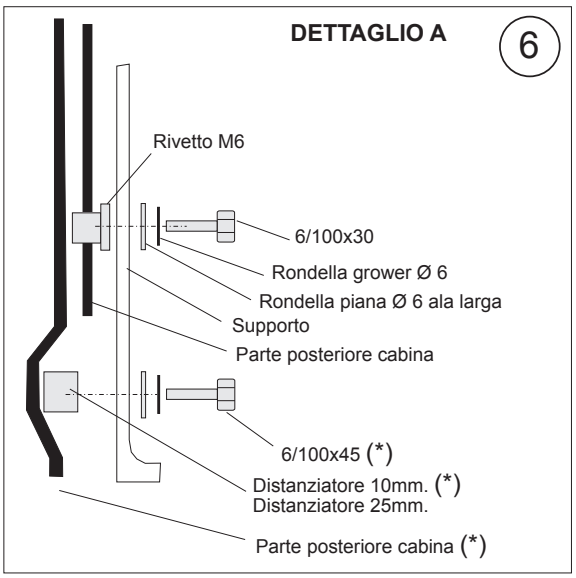




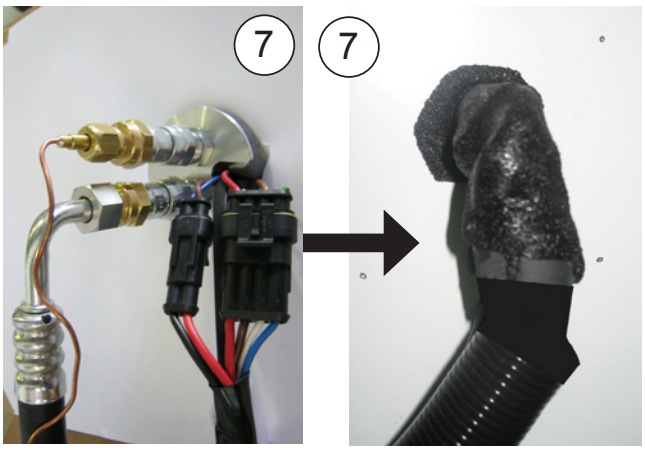
6

(*)- Se non appoggia sulla parte liscia, posizionare un separatore da 10/20/40 mm e una vite 6/100x40/60/70.

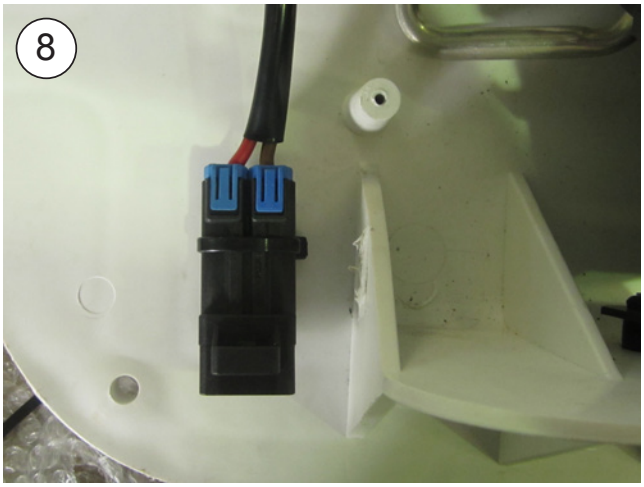
VEDI PARTICOLARE "A"



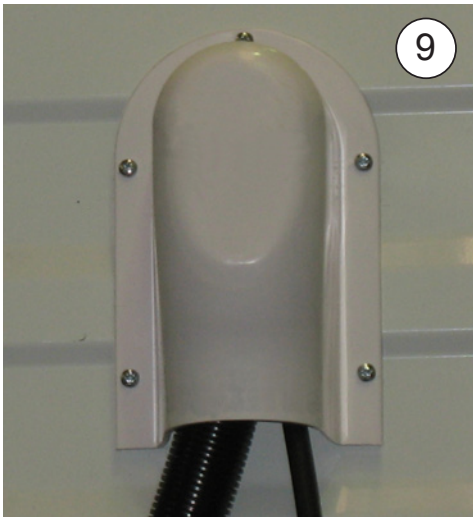
7	Collegare il cablaggio e i raccordi nell'evaporatore e sigillare con il nastro a tenuta.



8	Collegare il cablaggio dell'alimentazione.



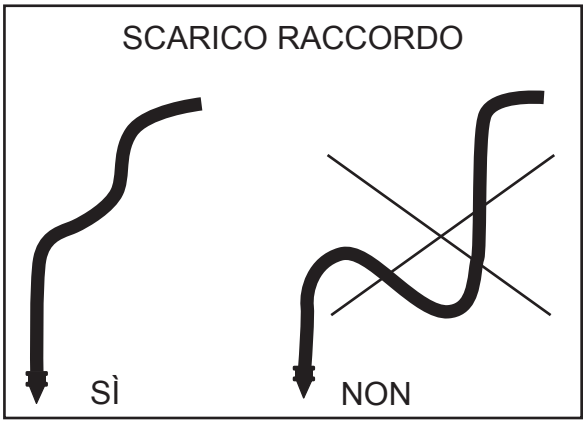
9	Posizionare provvisoriamente la protezione delle tubazioni con la guarnizione, per segnare i fori da Ø4 e praticarli. Verniciare con il prodotto antiruggine in dotazione e fissare con le viti autofilettanti 4,8x19mm.



10 Incollare i supporti di plastica, graffe di fissaggio e fissare la tubazione, i cablaggi e il tubo di scarico (pulire la zona di montaggio).

10a Inserire la valvola di drenaggio.

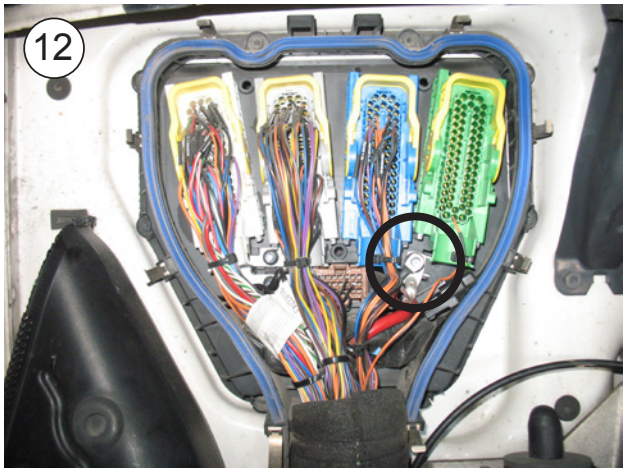
NOTA BENE: Il tubo di scarico non deve presentare strozzature e deve avere una pendenza sufficiente per consentire il corretto scarico dell'acqua della condensa.

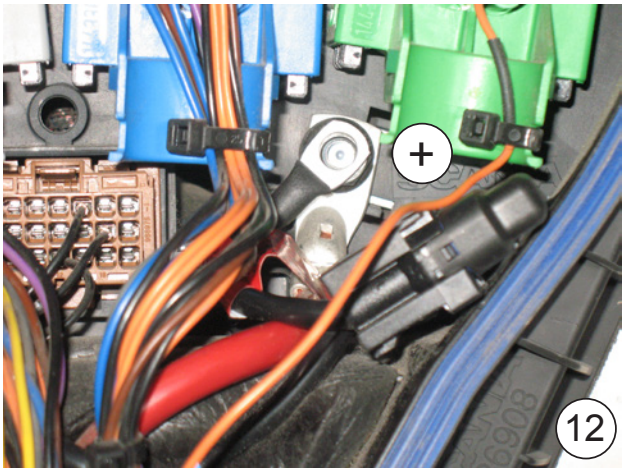


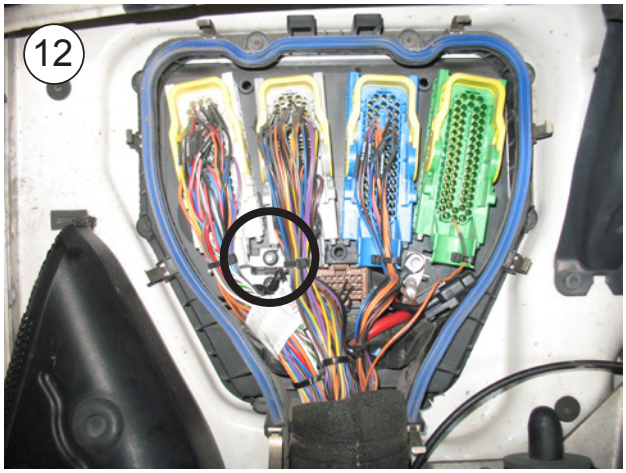
11 Montare il coperchio con le viti rimosse in precedenza.

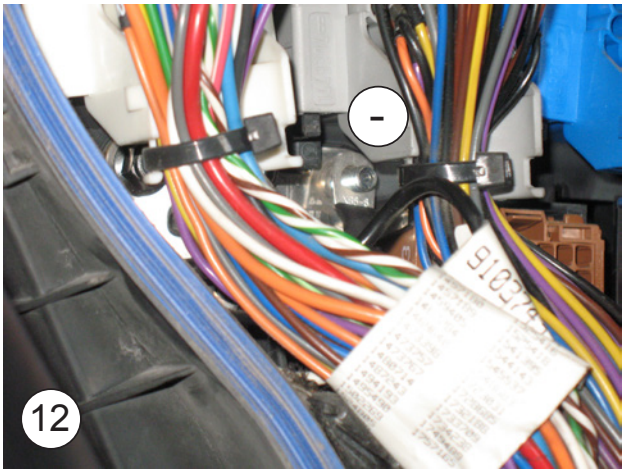
ATTENZIONE: Non dimenticare di collegare il morsetto del ventilatore del condensatore.

12 Ribaltare la cabina e far passare il cablaggio lungo il percorso indicato verso la scatola delle connessioni, fissando con fascette o flange. Collegare il cablaggio alla scatola delle connessioni.







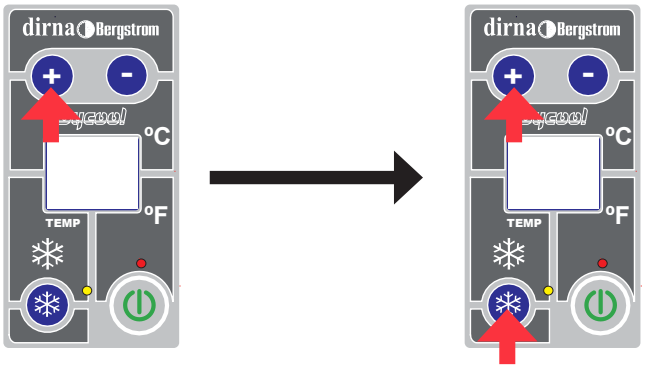


13	VISTA GENERALE DELL'UNITÀ CONDENSANTE E TUBAZIONE.

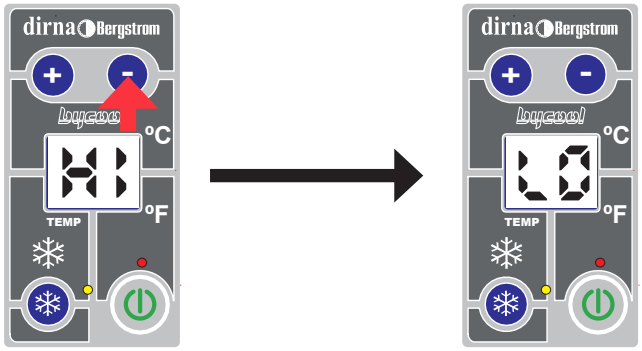
14	VISTA GENERALE DELL'UNITÀ EVAPORANTE.

⚠ Nei veicoli in cui la connessione elettrica è eseguita a batterie supplementari indipendenti da quelle di avviamento del veicolo, è opzionale l'impostazione nell'unità elettronica di nuovi parametri di disinserimento della batteria, che si esegue come illustrato di seguito.

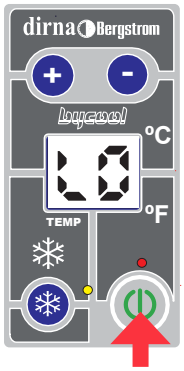
1 Con l'impianto spento, premere il pulsante + e mantenendolo premuto, premere il pulsante ❄ fino a sentire tre segnali acustici; al rilascio dei pulsanti compare "**HI**" sul display del quadro comandi ad indicare il disinserimento della batteria a un valore alto (22,8 V).



2 Quando compare "**HI**", premere il pulsante - .



3 Sul display compare poi "**Lo**" ad indicare il disinserimento della batteria a un valore basso (19 V). Premere il pulsante ⏻ per confermare.

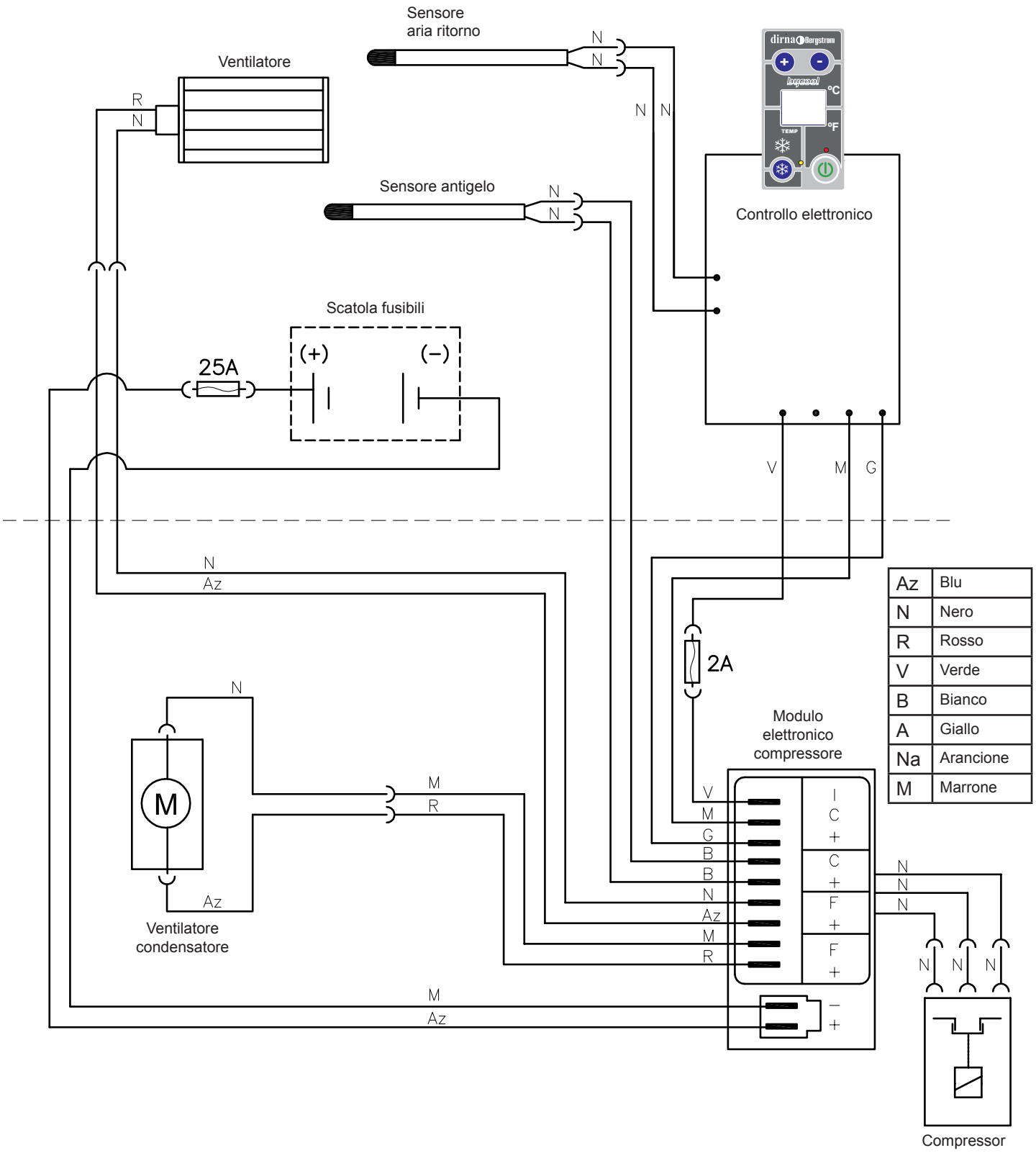


4 Per tornare all'impostazione iniziale, ripetere l'**operazione 1**, selezionare "**HI**" con il pulsante + e confermare con il pulsante ⏻ .

Schema elettrico

AVVERTENZA IMPORTANTE!

Fare attenzione a non invertire le polarità quando si alimenta l'impianto. Infatti, in tal caso il quadro comandi non si accende e l'impianto non funziona.



Az	Blu
N	Nero
R	Rosso
V	Verde
B	Bianco
A	Giallo
Na	Arancione
M	Marrone

Doporučení Pro montáž

- Než zahájíte montáž, přečtěte si pokyny a během montáže je dodržujte.
- Pro každý úkon použijte vhodné nářadí.

Elektrická energie

- Odpojte klíč zapalování.
- Než začnete s montáží, odpojte baterii.
- Zajistěte propojení elektrických komponentů, prověřte, zda jsou správně zasunuty.

⚠ Pozor

Pokud se během montáže zařízení nakloní nebo se sklopí kabina s nainstalovaným zařízením, je nutné před jeho uvedením do provozu počkat minimálně 60 minut od okamžiku, kdy se vozidlo vrátí do horizontální polohy.

⚠ Pozor

Ve vozidlech, ve kterých je elektrické připojení provedeno prostřednictvím přídavných baterií nezávislých na startování vozidla, je volitelné, konfigurace elektroniky na nové parametry výpadku baterie (viz strana 96).

Pokyny týkající se polohy jsou následující:

VPRAVO: Strana spolujezdce
VLEVO: Strana řidiče

Utahovací moment (N.m)			
Závit	Kvalita oceli		Moment
	8.8	10.9	
M6/100	10	13	10

Instalace potrubí		
Utahovací moment		
Potrubí	Utahovací moment	Nářadí
1/4”	13-15	Otevřený klíč 14 mm
3/8”	15-17	Otevřený klíč 19 mm

Nářadí

- Očkový ráčnový klíč 10
- Hvězdicový šroubovák TOP 10
- Otevřený klíč 10, 11, 14, 17, 19
- Inbusový klíč 5
- Trubkový klíč Ø 10
- Vrtačka
- Vrták Ø 4, Ø 6, Ø 9
- Kotoučová pila Ø 19, Ø 22, Ø 48
- Nůžky
- Nýtovačka M6

Symboly

Křehké

Pozor ostré!

Riziko spojené s elektrickou energií

Připojená dokumentace

Montážní návod	1001321985
Uživatelská příručka	220AA11032
Diagnostika poruch	220AA11031
Záruka	220AA10017

⚠ Upozornění

⚠ Personál provádějící montáž musí mít dostatečné vzdělání v oblasti klimatizací vozidel.

⚠ **dirna Bergstrom, s. l.** nenese žádnou odpovědnost za poškození vzniklá z důvodu nevhodné manipulace nebo instalace zařízení, nebo za úpravy a výměny provedené bez našeho výslovného písemného povolení.

⚠ **Zařízení je naplněno chladicím plynem R-134a (Nemanipulujte s okruhem s chladicím plynem).**

⚠ Viz **Reklamační řízení** k výrobku zahrnuté v **Diagnostice poruch**.

⚠ Viz **Uživatelská příručka** zařízení pro správné fungování dálkového ovládání a ovládacího panelu.

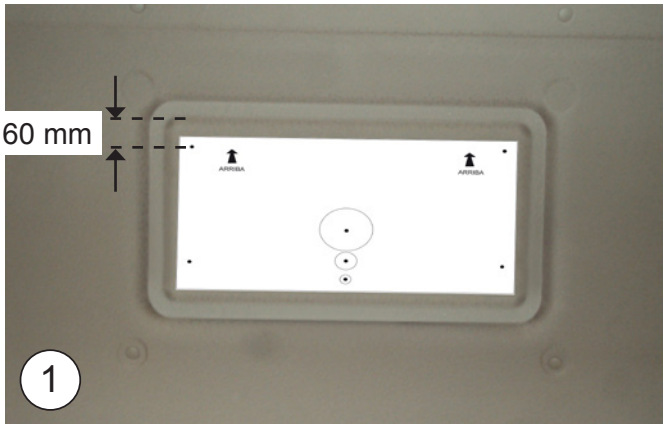
⚠ Po dokončení instalace je nutné předat **uživateli: Uživatelskou příručku, Záruční list a Diagnostiku poruch**.

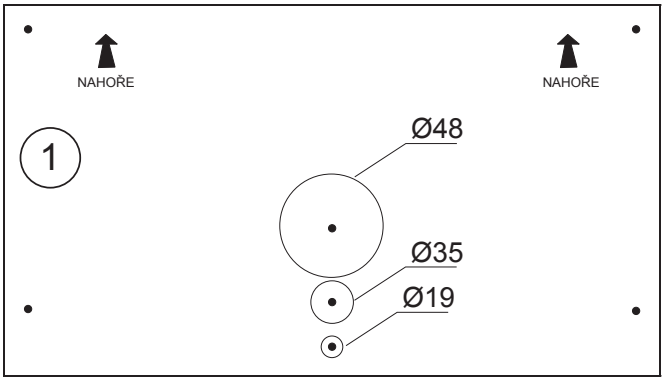
PŘÍPRAVNÉ OPERACE:

- Odpojte baterii.
- Odmontujte víko odpařovací jednotky.

1 **ZEVNITŘ KABINY:**

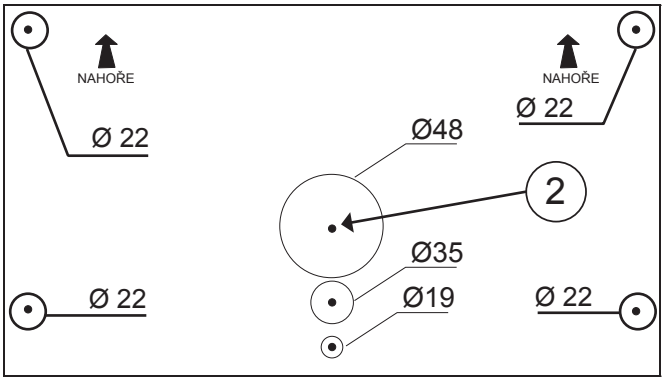
Přiložte dodanou šablonu a vyznačte místa, kde mají být vyvrtány otvory.

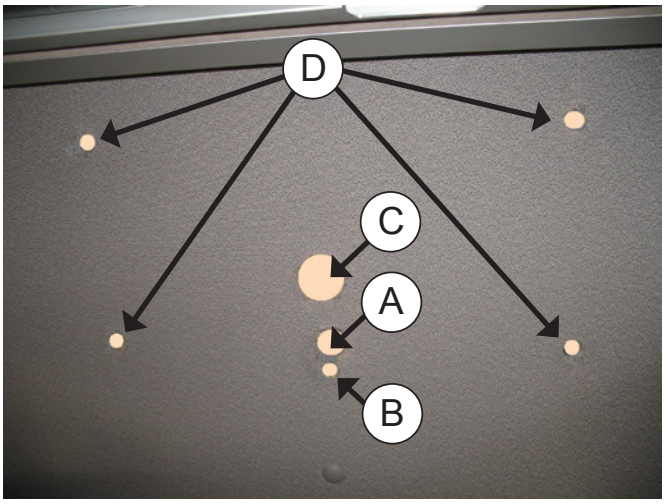




2 Pomocí dlouhého vrtáku ve vrtací poloze Ø 48 vyvrtejte skrz otvor Ø 4, poté vyvrtejte následující otvory.

A- otvor (1) Ø 35 pouze v čalounění
B- otvor (1) Ø 19 pouze v čalounění
C- otvor (1) Ø 48 pouze v čalounění
D- otvor (4) Ø 22 pouze v čalounění



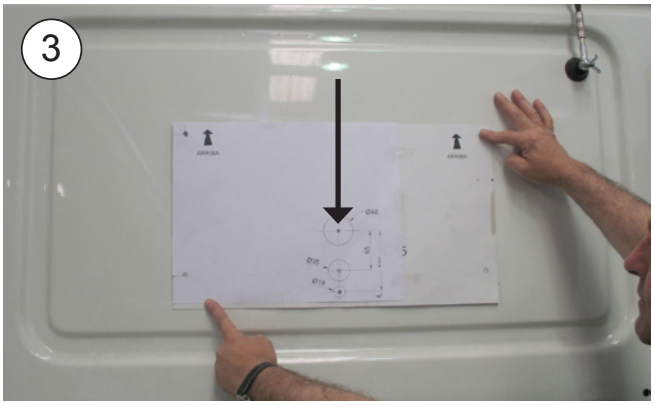


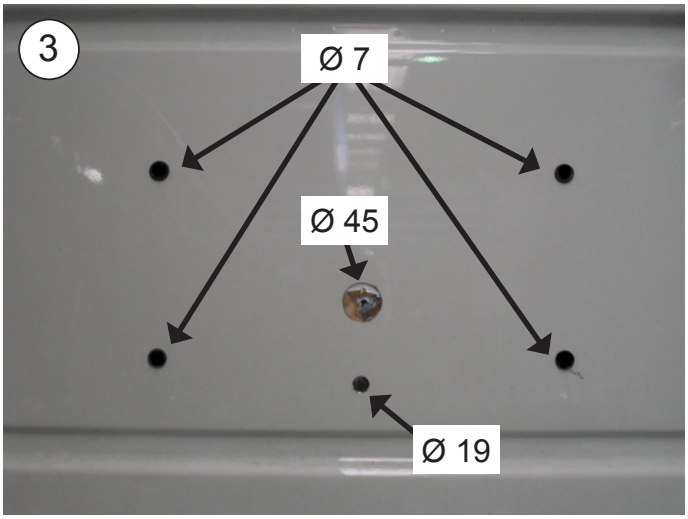
3

Z VNĚJŠKU KABINY:

Přiložte šablonu z vnější strany, jako referenční bod použijte vyvrtaný otvor Ø 4, vyznačte a vyvrtejte zbývající otvory.

⚠ Pozor: Otvor Ø 35 na šabloně se nevrtá.



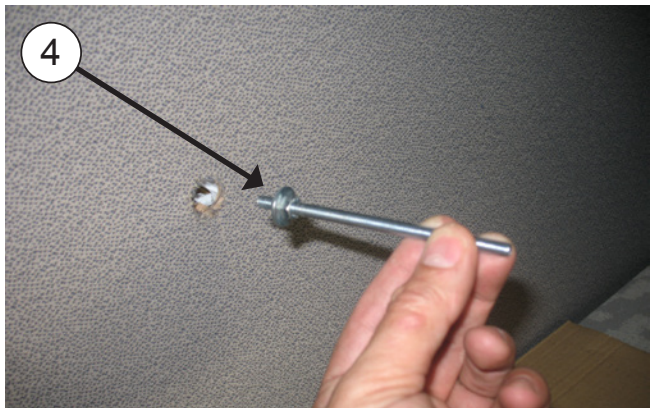


3a

Natřete vyvrtané otvory dodaným antikorozním přípravkem.

4

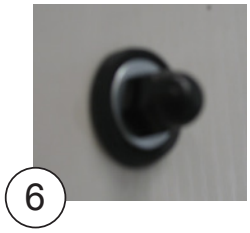
Z vnitřní strany vsuňte závitové tyče M6/100x110 s maticí a podložkou, tak jak se uvedeno.

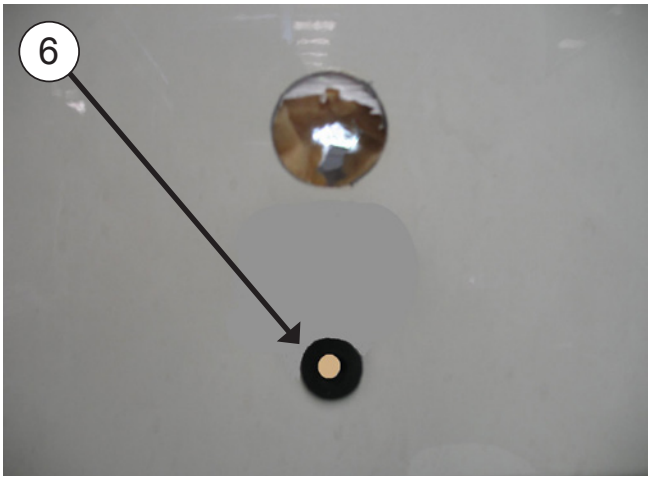


5

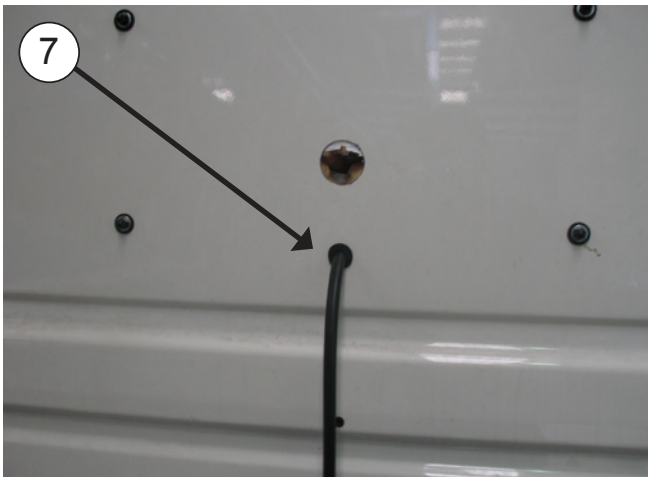
Z vnější strany upevněte pomocí ploché gumové podložky a pojistné matice, z vnitřní strany upevněte trubkovým klíčem 10.

6 Umístěte krytky matice a průchodku.



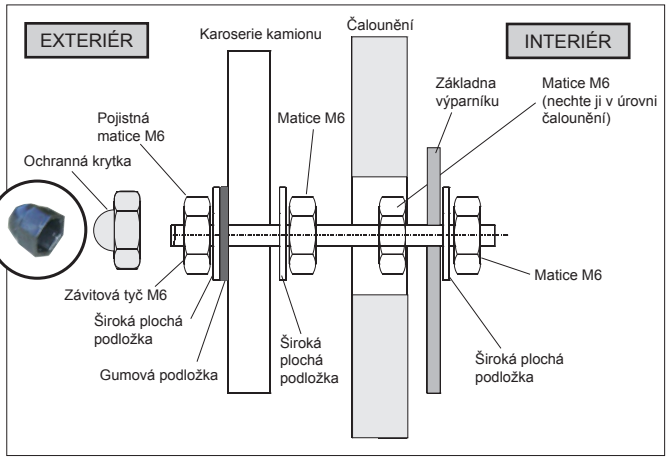


7 Vyvrtaným otvorem Ø 19 s průchodkou prostrčte odtokovou hadici dovnitř kabiny.



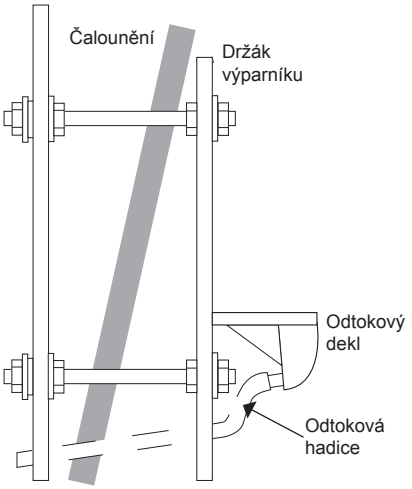
8 Na závitové tyče namontujte (4) matice M6 s (4) plochými podložkami Ø 6, tak aby zůstaly na úrovni čalounění.

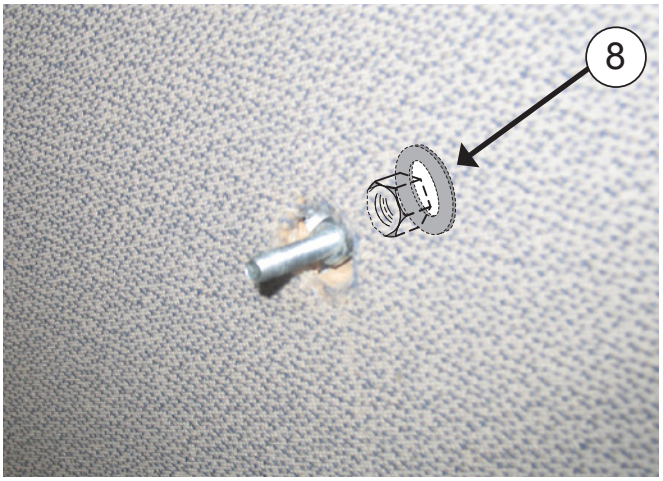
VIZ PŘILOŽENÉ SCHÉMA



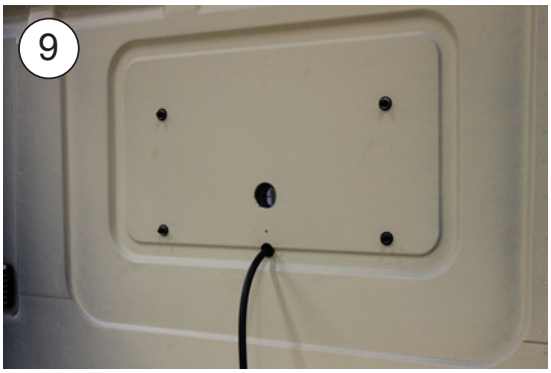
VELMI DŮLEŽITÉ

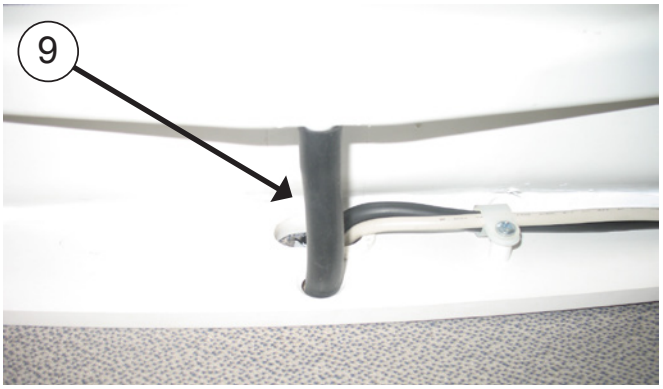
V případě, že má čalounění sklon, musí být odpařovací jednotka ve vertikální poloze nebo se sklonem směrem od spodní části, aby se zabránilo tomu, že by kondenzovaná voda stékala na čalounění.





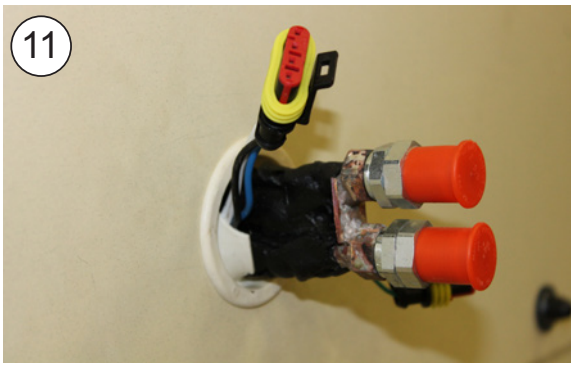
9	Prostrčte odtokovou hadici vyvrtaným otvorem ze základny výparníku a připojte ji k deklu.





10	Prostrčte kabeláž směrem ven vyvrtaným otvorem Ø 35 v čalounění a vyvrtaným otvorem Ø 48 v karoserii, spolu s přechodkami výparníku.

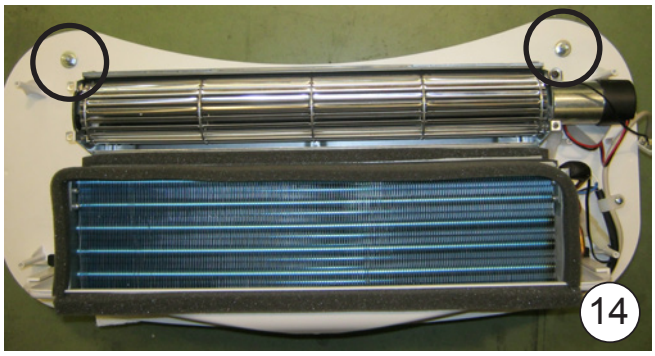
11	Instalujte dodanou průchodku.

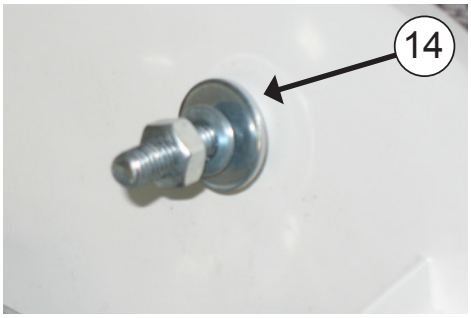


12	Instalujte těsnění a průchod kabeláže.

13 Instalujte hliníkový chránič s maticemi a utáhněte je.

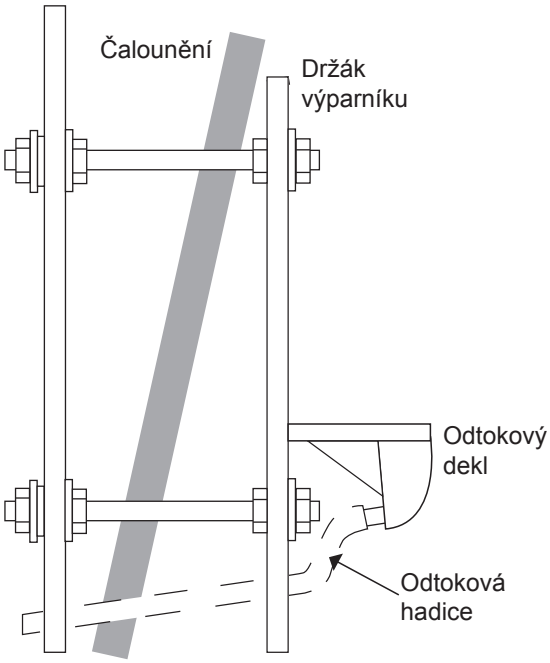
14 Nasuňte výparník na závitové tyče a upevněte pomocí (4) plochých podložek, (4) pružných podložek a (4) matic M6.



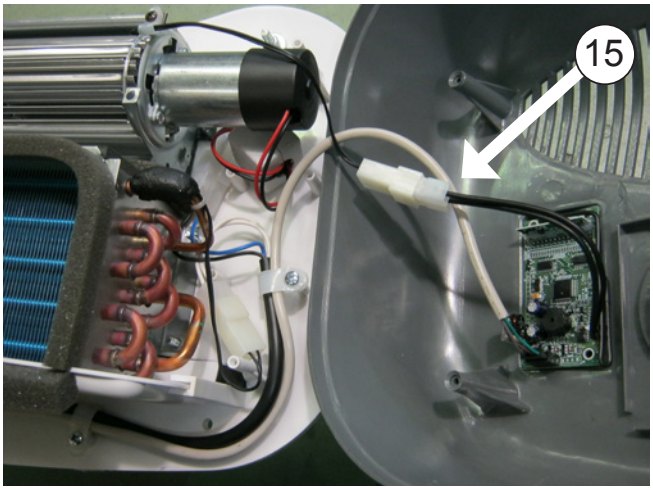


⚠ **VELMI DŮLEŽITÉ**

Odtok musí mít dostatečný spád, aby se zabránilo stékání vody na čalounění.



15	Zapojte recirkulační čidlo a komunikační kabel elektronického ovládání.



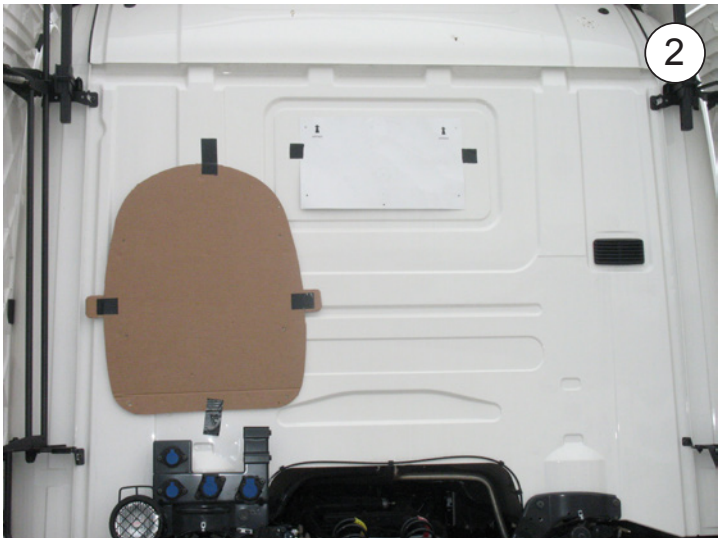
16	Znovu upevněte zpět přední stranu pomocí příslušných šroubů s použitím šroubováku s magnetickým nástavcem a umístěte krytky.

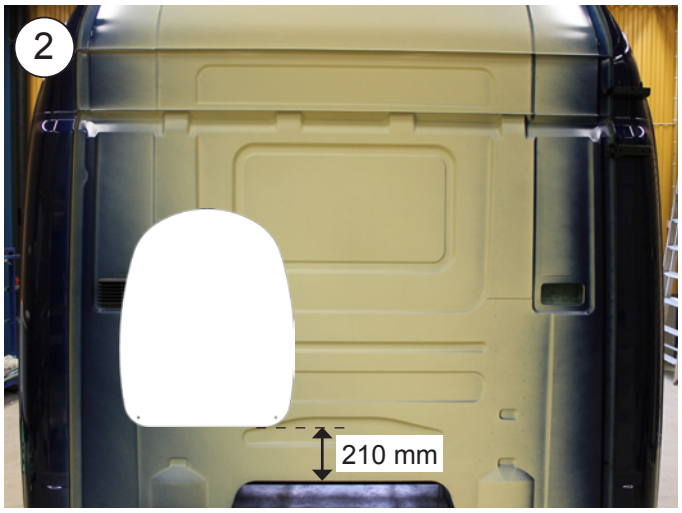
MONTÁŽ KONDENZÁTORU:

1 Ve vozidle odmontujte kryt a uvolněte kabeláž elektroinstalace.

2 Přiložte šablonu a vyznačte otvory pro vrtání.

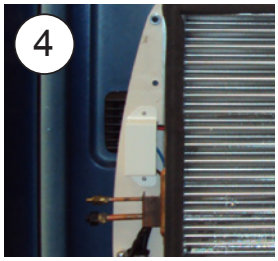
Pozor: Některé modely mají výdechovou mřížku na levé straně (viz krok 5). V tomto modelu kamionu necháme od spodní části kabiny ke kondenzační jednotce vzdálenost 210 mm.

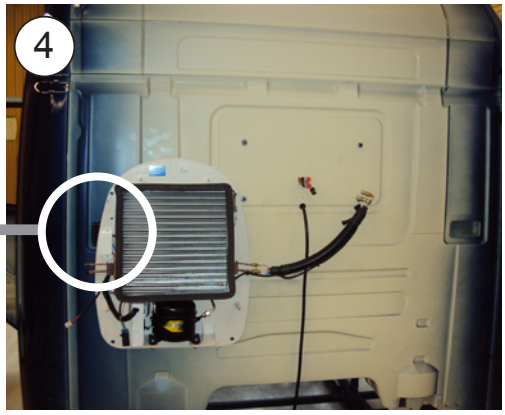




3	Zaprvé vyvrtejte (2) spodní otvory Ø 9 a umístěte (2) nýtovací matice M6 a závitové tyče M6.

4	Přiložte jednotku a označte zbytek otvorů pro vrtání, pouze v případě, že by se otvor kryl s výdechovou mřížkou, tak ho nevyznačujte.

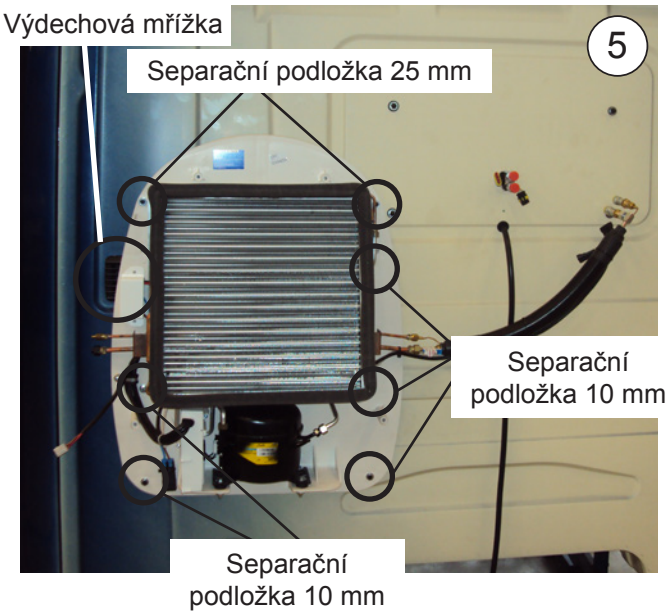


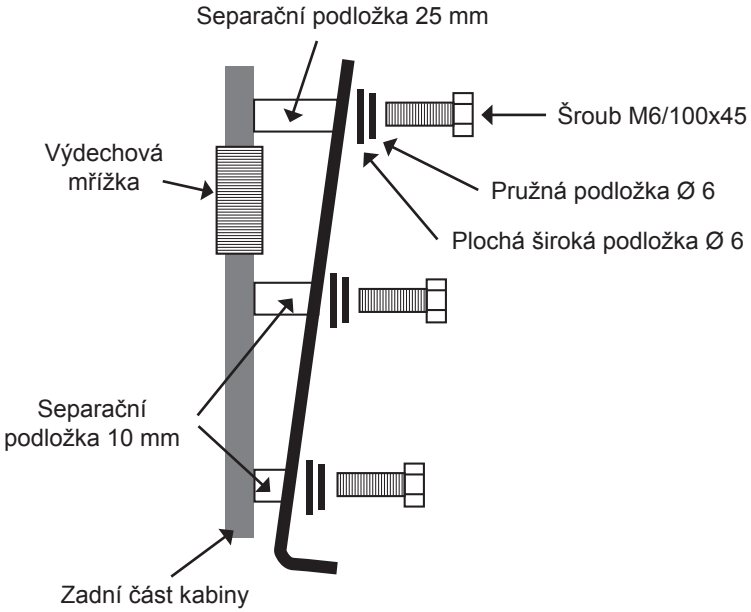


5

Pro uvolnění výdechové mřížky upevněte jednotku pomocí (7) šroubů 6/100x45, pružné a ploché podložky.

(*) Ze zadní strany umístěte (2) separační podložky 25 mm v horní části a v ostatních částech umístěte separační podložky 10 mm.

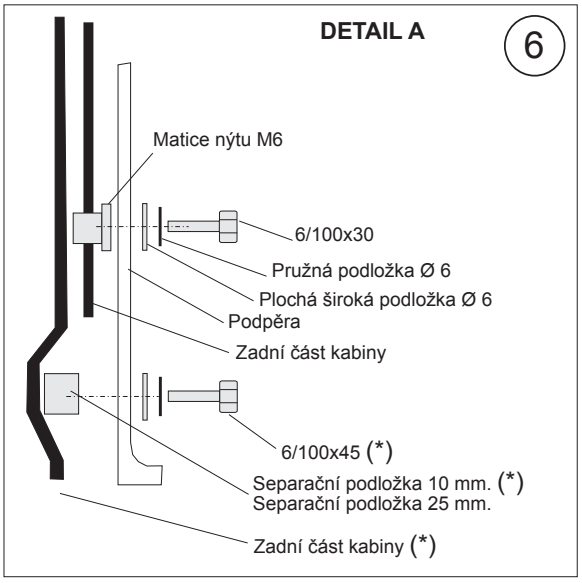




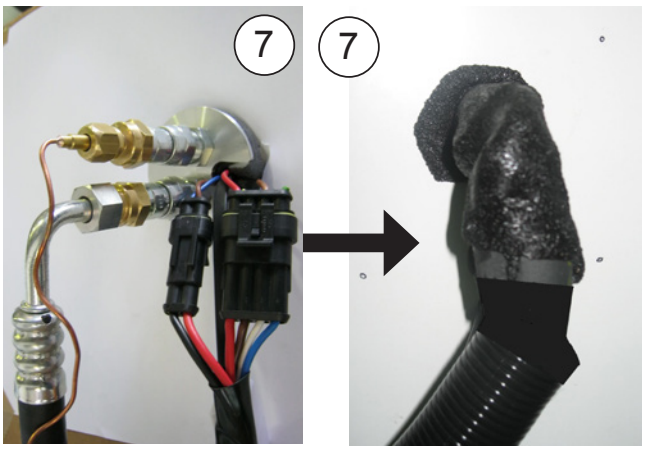
6

(*)- V případě, že nedoléhá na rovnou plochu, umístěte separační podložku 10/20/40 mm a šroub 6/100x40/60/70.

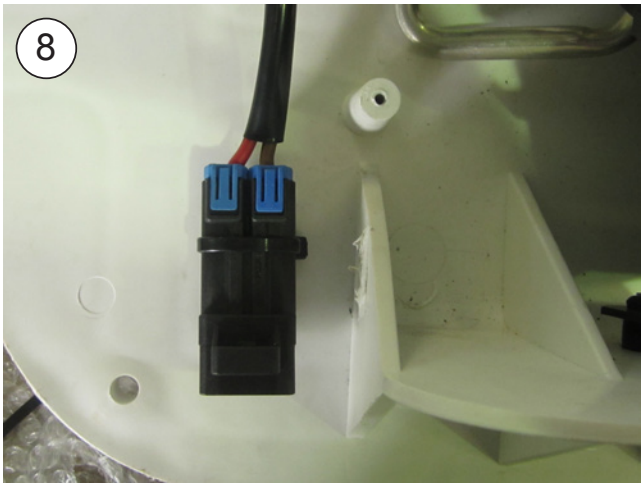
VIZ DETAIL A



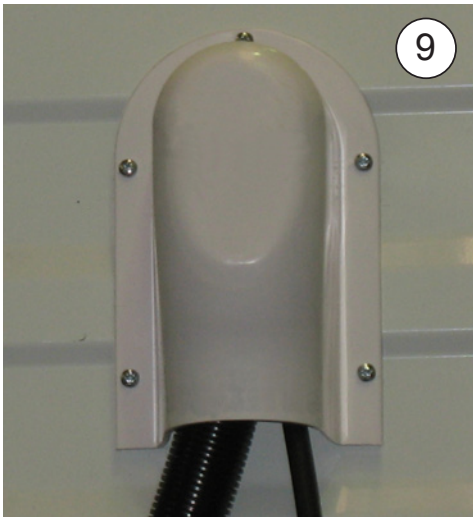
7	Zapojte kabeláž a přechodky ve výparníku a zalepte izolační páskou.



8	Zapojte napájecí kabeláž.



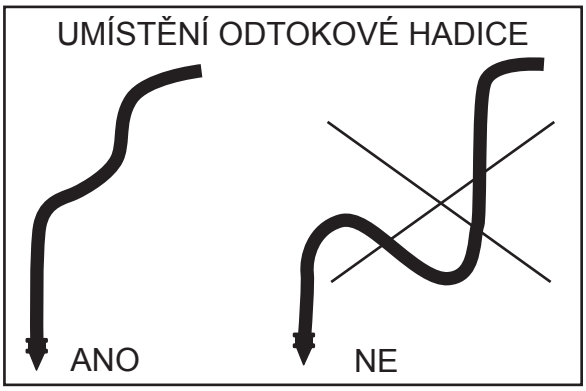
9	Přiložte chránič potrubí s těsněním, vyznačte a vyvrtejte otvor Ø 4. Natřete dodaným antikorozním přípravkem a upevněte pomocí samořezných šroubů 4,8x19mm.



10 Přilepte plastové držáky, upevněte objímky a připevněte trubky, kabeláž a odtokovou hadici (vyčistěte montážní místo).

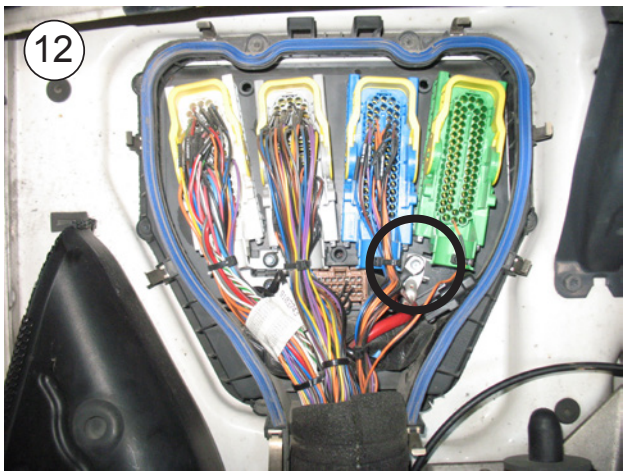
10a Instalujte odvodňovací ventil.

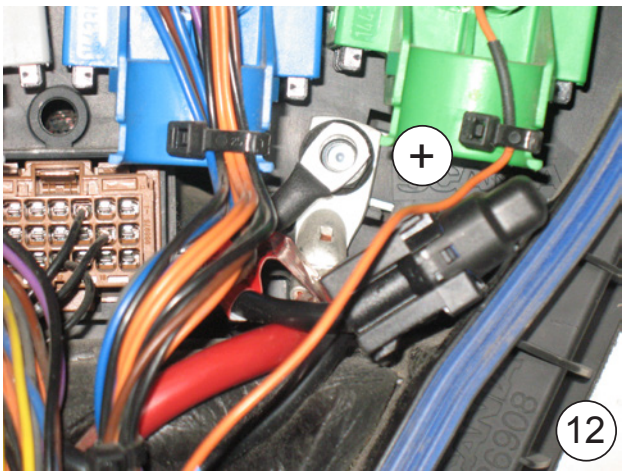
⚠ **DŮLEŽITÉ:** Odtoková hadice musí být volná, bez přiškrcených míst a musí mít dostatečný sklon, který umožní správný odtok kondenzované vody.

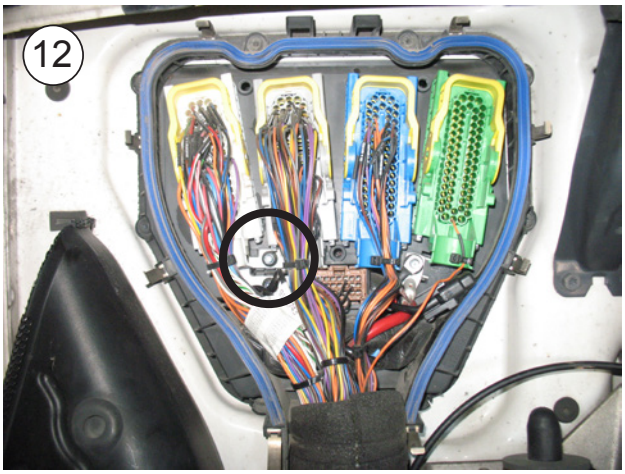


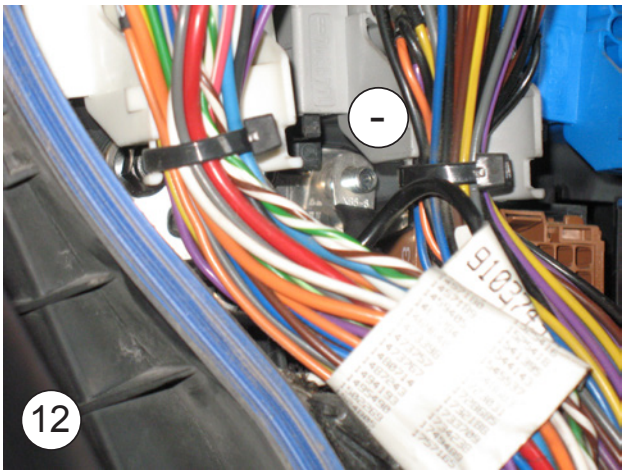
11 Instalujte víko pomocí šroubů, které jste předtím odšroubovali.

12	Sklopte kabinu a protáhněte kabeláž tak, jak je uvedeno, k zapojovací krabici, upevněte pomocí objímek nebo příchytek. Zapojte kabeláž v zapojovací krabici.







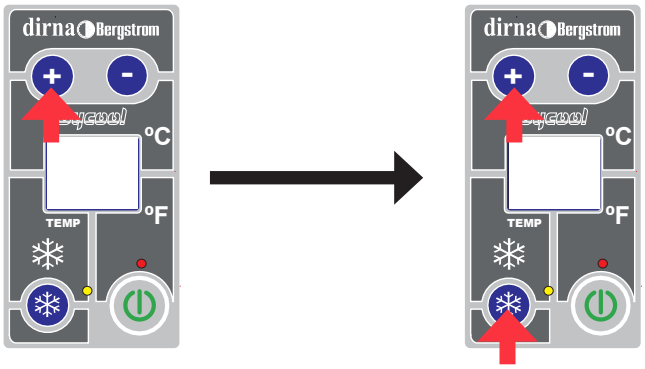


13	CELKOVÝ POHLED NA KONDENZAČNÍ JEDNOTKU A HADICE.

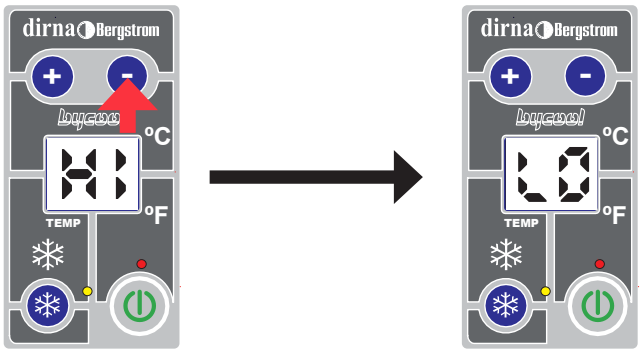
14	OBECNÝ POHLED NA KONDENZAČNÍ JEDNOTKU.

⚠ Ve vozidlech, ve kterých je elektrické připojení provedeno prostřednictvím přídavných baterií nezávislých na startování vozidla, je volitelná, konfigurace elektroniky na nové parametry výpadku baterie viz níže.

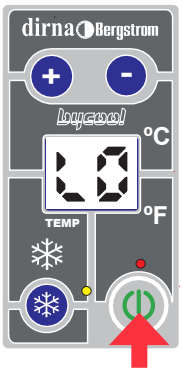
1 Při vypnutém zařízení stiskněte tlačítko + a držte ho stisknuté, stiskněte tlačítko ❄ dokud přístroj 3x nezapípá, když pustíte obě tlačítka, na displeji ovládacího panelu se objeví “**HI**” což odkazuje na vysoký výpadek baterie (22,8 V).



2 Až se objeví “**HI**”, stiskněte tlačítko - .



3 Na displeji se zobrazí “**Lo**”, což odkazuje na nízký výpadek baterie (19 V). Pro potvrzení stiskneme tlačítko ⏻

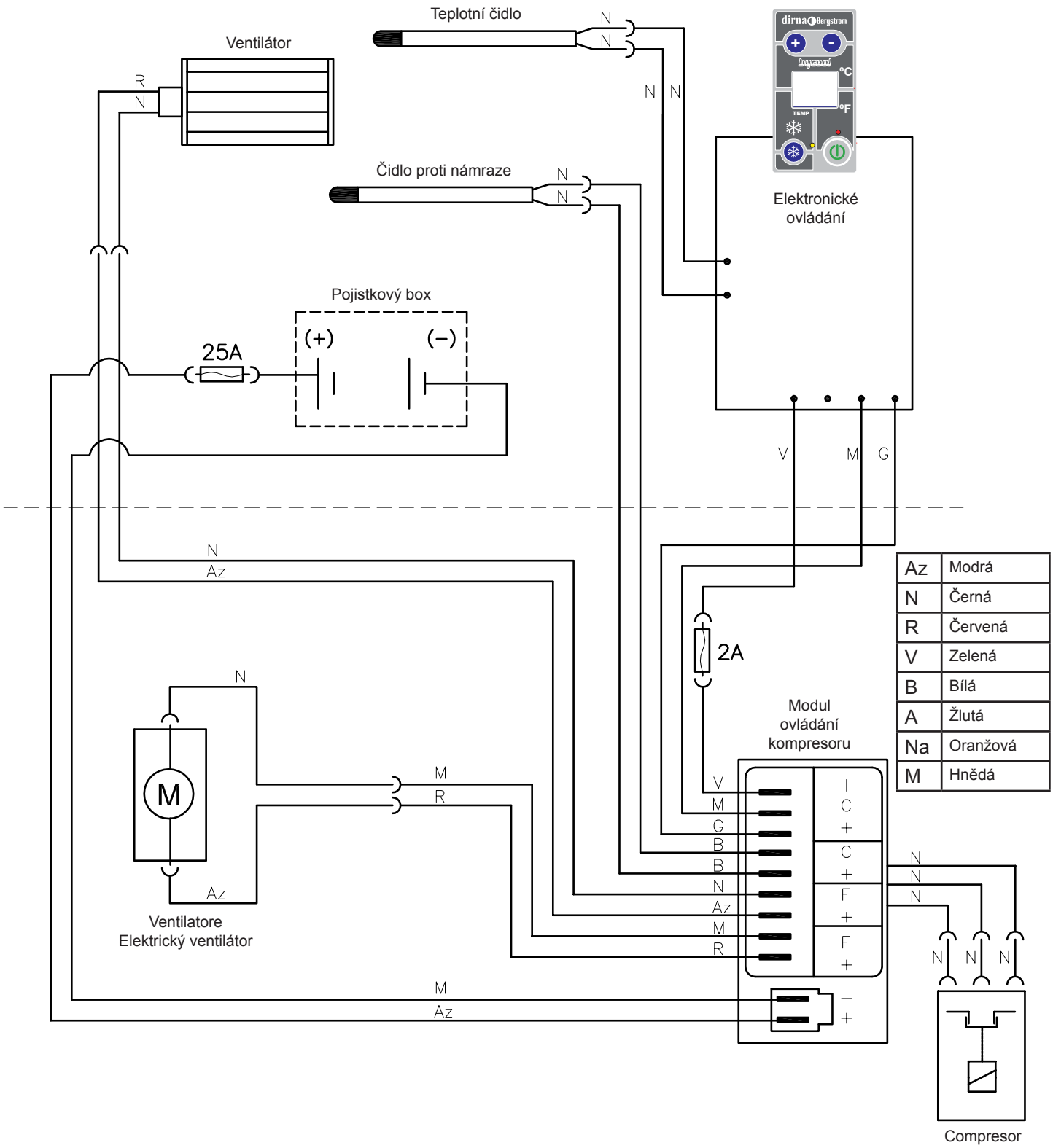


4 Abychom se vrátili k výchozí konfiguraci, zopakujeme **operaci 1**, pomocí tlačítka + a potvrdíme tlačítkem ⏻ .

Elektrické schéma

DŮLEŽITÉ UPOZORNĚNÍ!

Dejte pozor, aby při zapojení napájení zařízení nedošlo ke změně polarity. Pokud by k tomu došlo, panel se nerozsvítí, zařízení nebude fungovat.



Az	Modrá
N	Černá
R	Červená
V	Zelená
B	Bílá
A	Žlutá
Na	Oranžová
M	Hnědá

Рекомендации по монтажу

- Перед началом монтажа прочитайте инструкции и следуйте им в процессе установки.
- Для каждой операции используйте соответствующие инструменты.

Электрическая часть

- Отключите соединительное устройство.
- Перед началом монтажа отключите аккумулятор.
- Убедитесь в надежности электрических соединений, проверив правильность их подключения.

⚠ Внимание!

Если в процессе монтажа агрегат наклоняется либо уже установленный агрегат наклоняется вместе с кабиной, запускать его можно не ранее чем через 60 минут, после того как агрегат будет приведен в горизонтальное положение.

⚠ Внимание!

В автомобилях, в которых электрическое соединение производится к аккумуляторам, независимым от стартерных, дополнительно может устанавливаться конфигурация электроники на новые параметры отключения аккумулятора (см. страницу 112).

Указатели положения:

СПРАВА: сторона пассажира
СЛЕВА: сторона водителя

Момент затяжки (Н•м)			
Резьба	Марка стали		Момент
	8.8	10.9	
M6/100	10	13	10

Монтаж трубок		
Момент затяжки		
Трубка	Момент затяжки	Инструмент
1/4”	13-15	Ключ на 14 мм
3/8”	15-17	Ключ на 19 мм

Инструменты

- Гнездовой ключ с трещоткой на 10
- Отвертка звездообразная TOP 10
- Ключи на 10, 11, 14, 17, 19
- Шестигранный ключ Аллена на 5
- Торцовый ключ на Ø 10
- Дрель
- Сверла Ø 4, Ø 6, Ø 9
- Дисковая пила Ø 19, Ø 22, Ø 48
- Ножницы
- Клепальный молоток M6

Обозначения

Хрупкое

Опасность защемления пальцев!

Риск поражения электрическим током

Включенные документы

Инструкции по монтажу	220.AA1.1030
Руководство по эксплуатации	220.AA1.1032
Поиск и устранение неисправностей	220.AA1.1031
Гарантия	220.AA1.0017

⚠ Предупреждения

⚠ Персонал, осуществляющий монтаж оборудования, должен иметь соответствующую квалификацию в области систем кондиционирования воздуха для автомобилей.

⚠ **dirna Bergstrom, s.l.** снимает с себя ответственность за любой ущерб, связанный с неправильной эксплуатацией или установкой оборудования либо с модификацией оборудования, осуществленной без нашего письменного согласия.

⚠ **Оборудование заправлено охлаждающим газом R-134a. (Не трогать контур охлаждающего газа).**

⚠ См. **Гарантийные обязательства** по продукту, включенные в раздел «**Поиск и устранение неисправностей**».

⚠ См. **Руководство по эксплуатации** оборудования для правильного использования пульта дистанционного управления и панели управления.

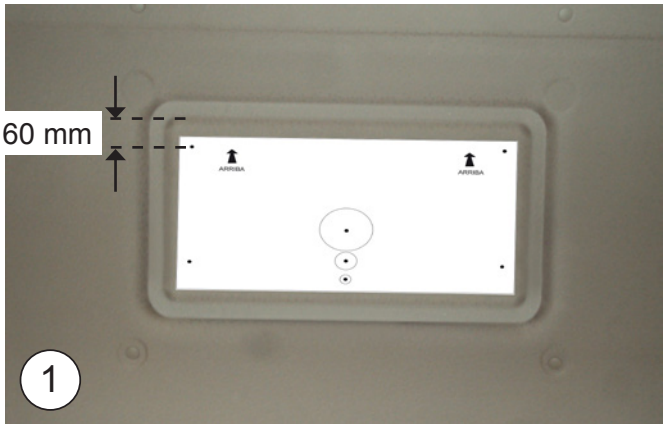
⚠ По завершении установки необходимо передать пользователю следующие документы: **Руководство по эксплуатации, Гарантийные обязательства и «Поиск и устранение неисправностей»**.

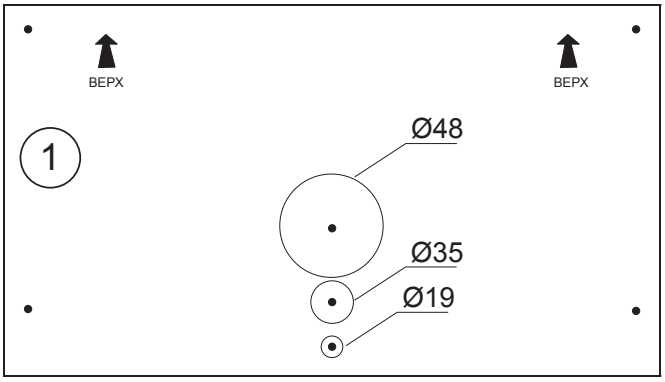
ПРЕДВАРИТЕЛЬНЫЕ ДЕЙСТВИЯ:

- Отключите аккумулятор.
- Снимите крышку блока испарителя.

1 **С ВНУТРЕННЕЙ СТОРОНЫ КАБИНЫ:**

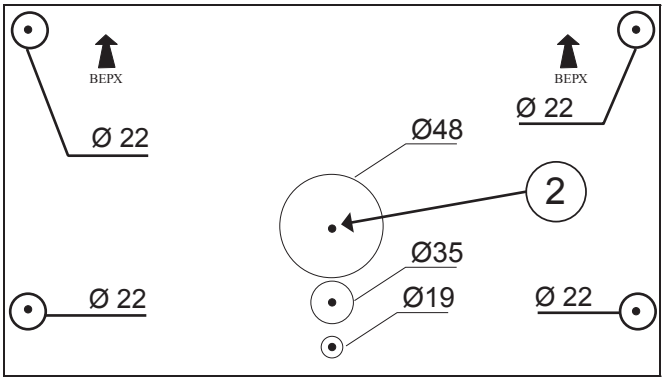
Приложите шаблон и наметьте отверстия.

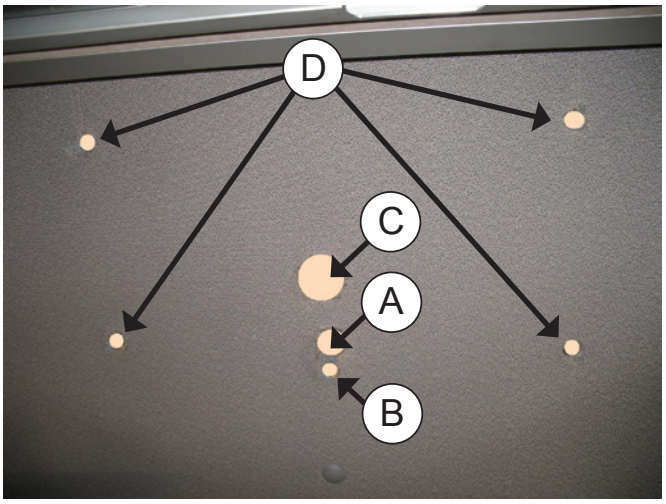




2 Проделайте сквозное отверстие Ø 4 длинным сверлом на месте отверстия Ø 48, затем просверлите следующие отверстия:

A- (1) Ø 35 (только в обивке)
B- (1) Ø 19 (только в обивке)
C- (1) Ø 48 (только в обивке)
D- (4) Ø 22 (только в обивке)



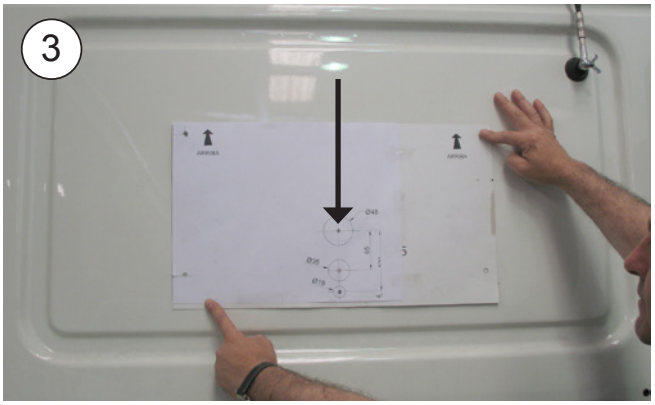


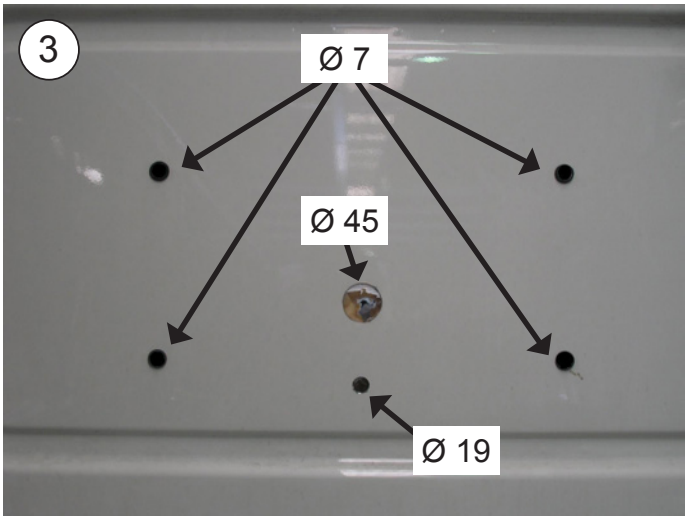
3

С ВНЕШНЕЙ СТОРОНЫ КАБИНЫ:

Ровно приложите шаблон с внешней стороны, ориентируясь на просверленное отверстие Ø 4, наметьте и просверлите остальные отверстия.

⚠ Внимание: отверстие Ø 35 шаблона пропустите.



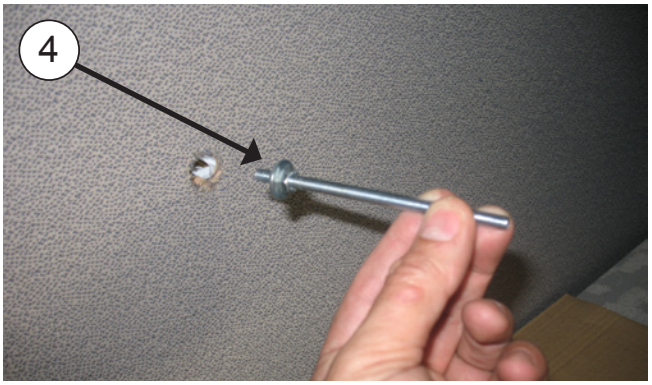


3a

Обработайте отверстия антикоррозионным составом (прилагается).

4

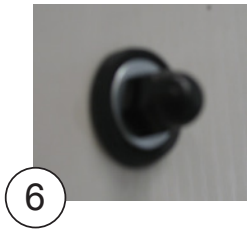
С внутренней стороны вставьте шпильки M6/100 x 110 с гайкой и шайбой, как показано на рисунке.

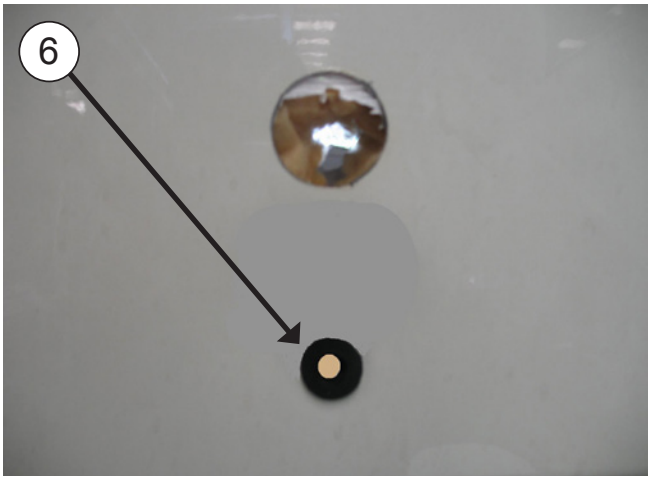


5

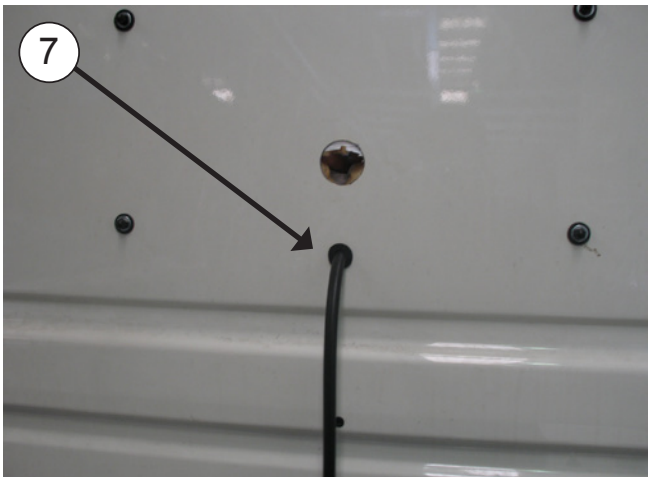
С внешней стороны закрепите с помощью резиновой шайбы, плоской шайбы и самостопорящейся гайки, удерживая изнутри торцовым ключом на 10.

6 Установите гаечные колпачки и сквозные втулки.



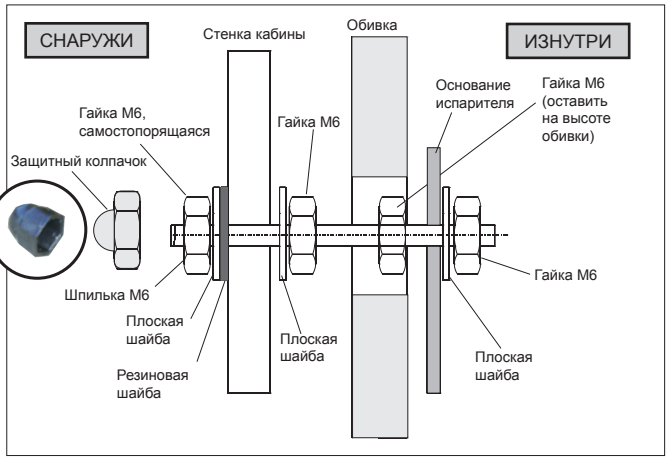


7 Проведите дренажную трубку через отверстие Ø 19 с втулкой внутрь кабины.



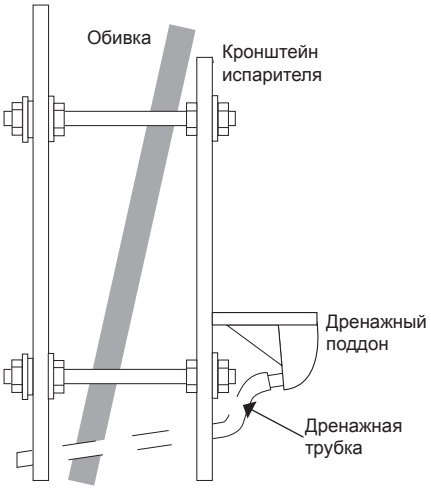
8 На шпильки накрутите (4) гайки M6 с (4) плоскими шайбами Ø 6, так чтобы они располагались на уровне обивки.

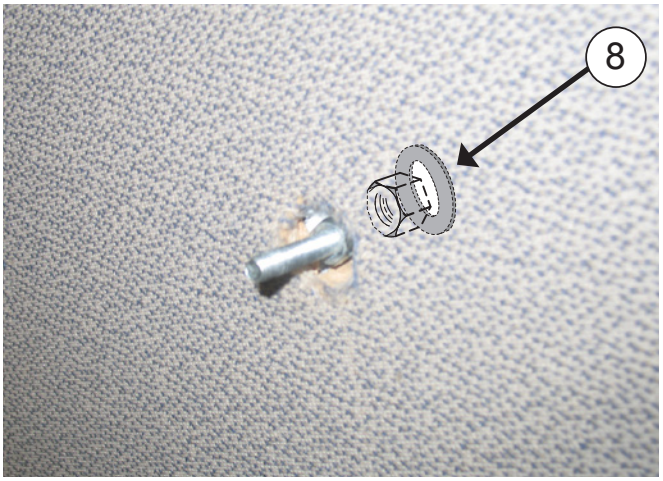
СМ. СХЕМУ



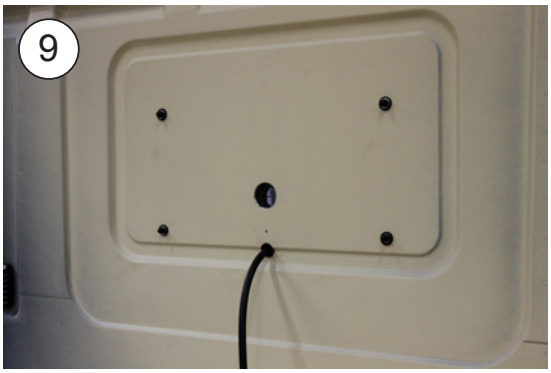
ОЧЕНЬ ВАЖНО!

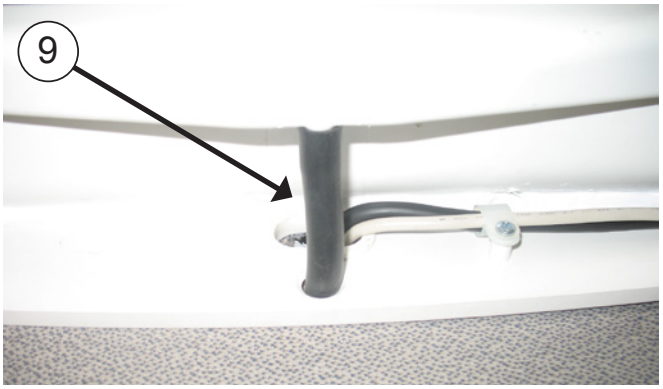
В случае наклонной обивки блок испарителя должен располагаться вертикально либо отклоняться нижней частью, так чтобы конденсат не попадал на обивку.





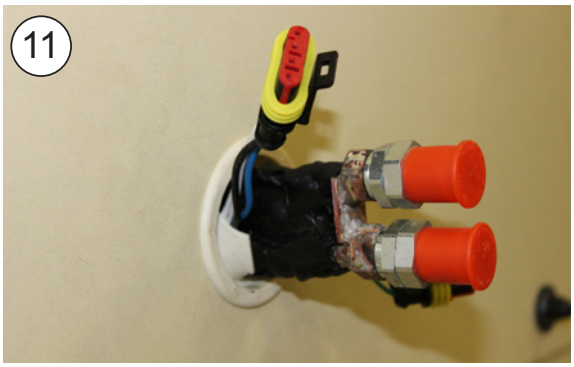
9	Проведите дренажную трубку через отверстие в основании испарителя и подключите ее к поддону.





10	Проведите кабели наружу через отверстие Ø 35 обивки и через отверстие Ø 48 стенки вместе с фитингами испарителя.

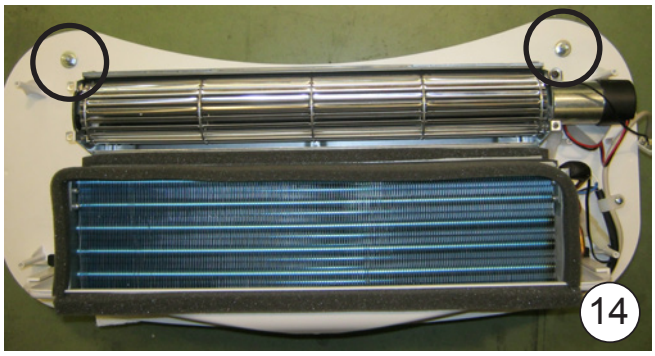
11	Установите втулки (входят в комплект поставки).

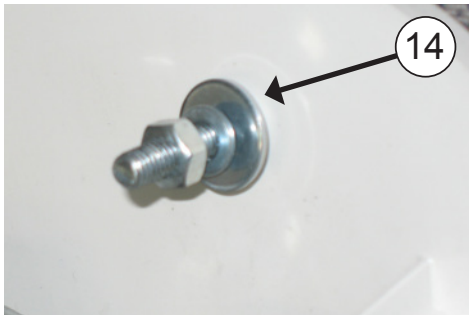


12	Поставьте прокладку и кабельную втулку.

13 Установите алюминиевый протектор с гайками и закрутите их.

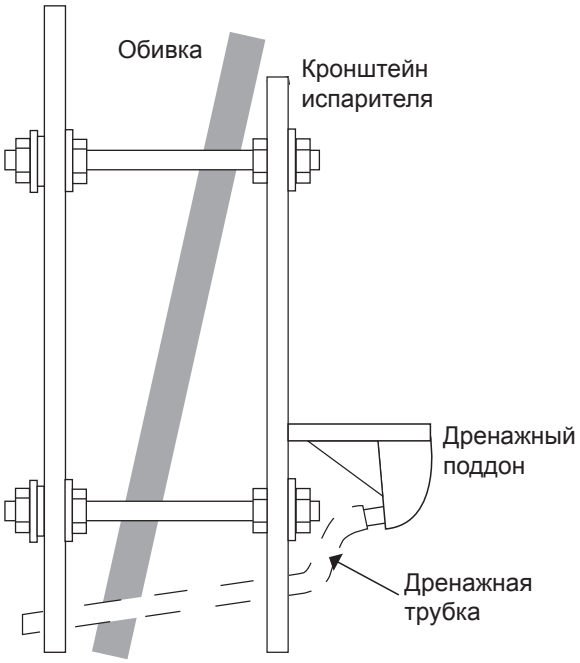
14 Наденьте основание испарителя на шпильки и закрепите с помощью (4) плоских шайб, (4) гроверных шайб и (4) гаек М6.



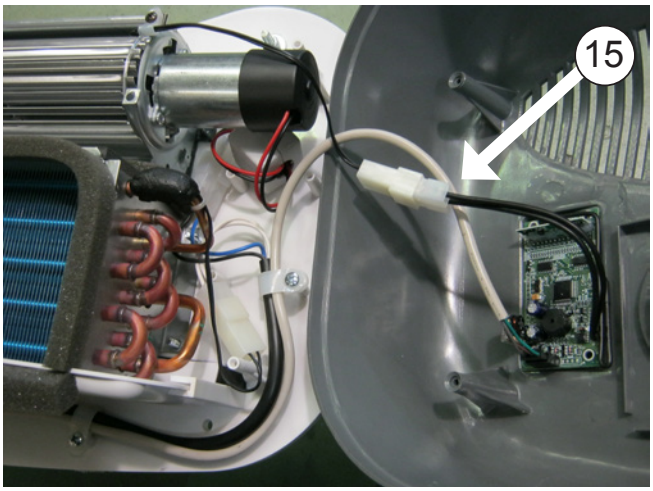


ОЧЕНЬ ВАЖНО!

Дренаж должен располагаться с достаточным уклоном, так чтобы вода не попадала на обивку.



15	Подключите датчик рециркуляции и кабель связи к электронному блоку управления.



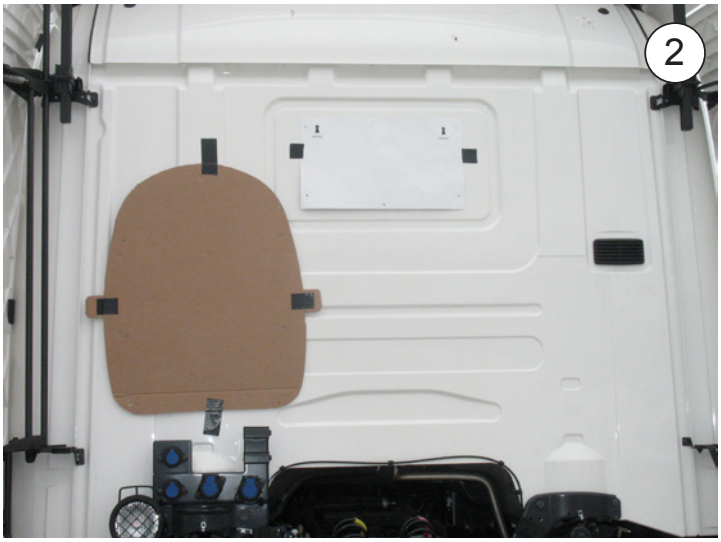
16	Закрепите лицевую панель болтами с помощью магнитной отвертки и поставьте заглушки.

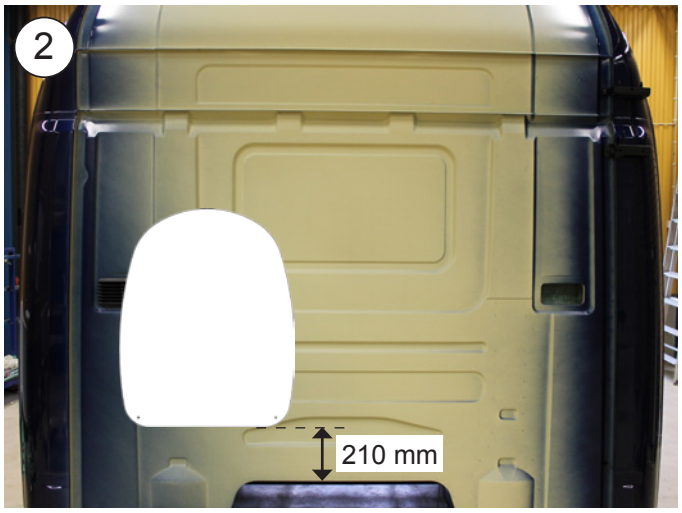
МОНТАЖ КОНДЕНСАТОРА:

1 Находясь внутри автомобиля, снимите крышку и отключите кабель электродвигателя.

2 Приложите шаблон и наметьте отверстия.

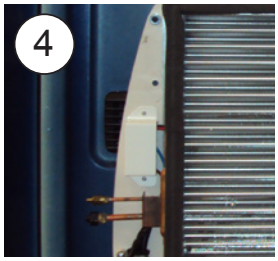
Внимание: на некоторых моделях грузовиков с левой стороны установлена решетка для выхода воздуха (см. шаг 5). На этих моделях оставляем расстояние в 210 мм между нижней частью кабины и блоком конденсатора.

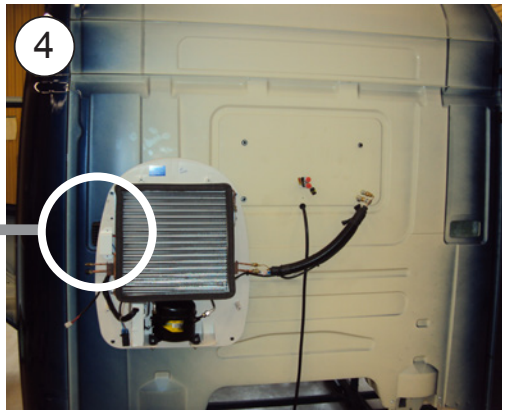




3	Проделайте (2) нижних отверстия Ø 9, установите в них (2) резьбовые заклепки M6 и шпильки M6.

4	Приложите блок и наметьте остальные отверстия, кроме тех, которые попадают на решетку для выхода воздуха.

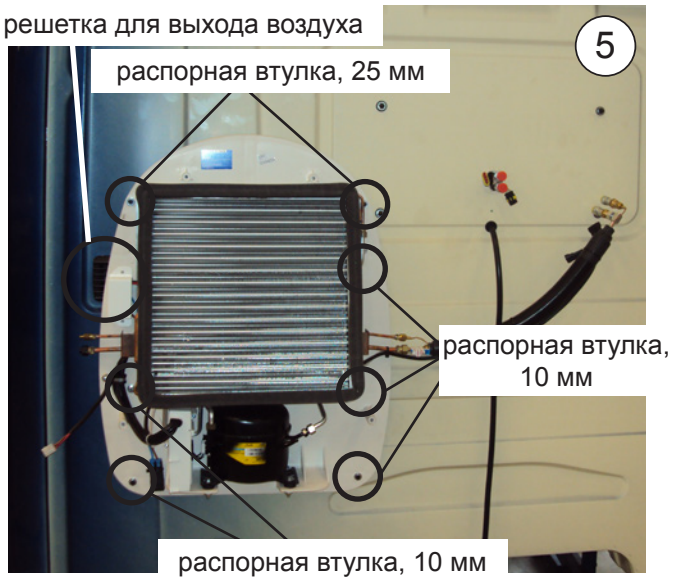


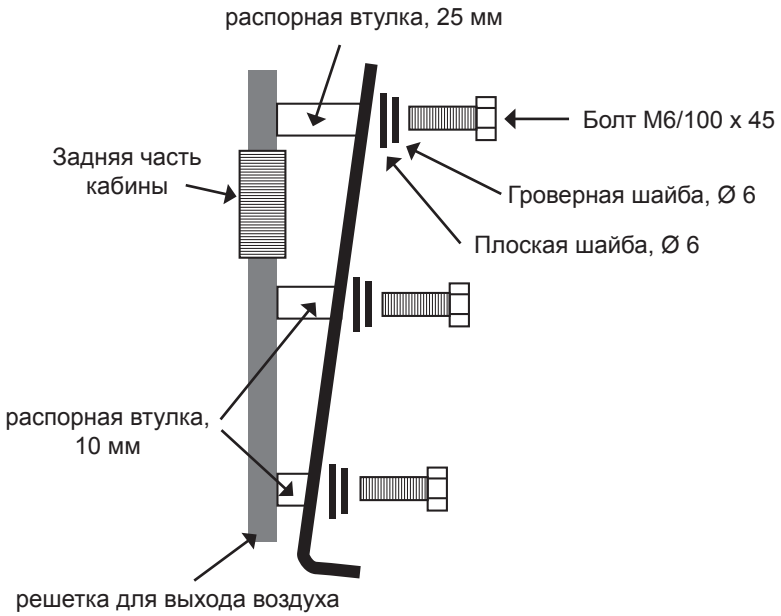


5

Чтобы освободить выходную решетку, закрепите блок (7) болтами 6/100 x 45 с гроверными и плоскими шайбами.

(*) В задней части установите (2) распорные втулки на 25 мм сверху и втулки на 10 мм в других местах.

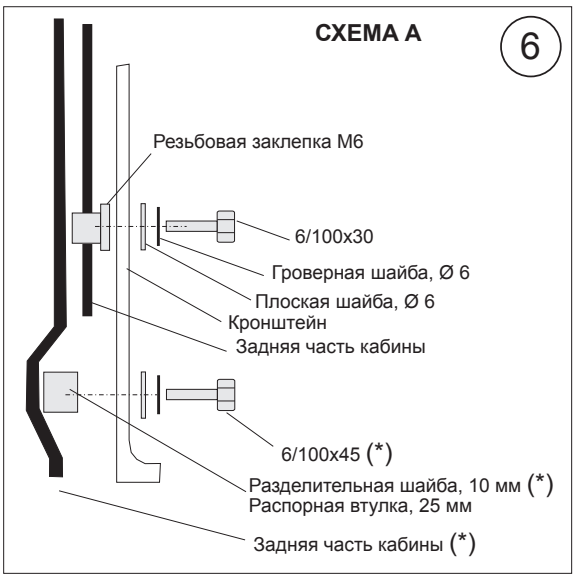




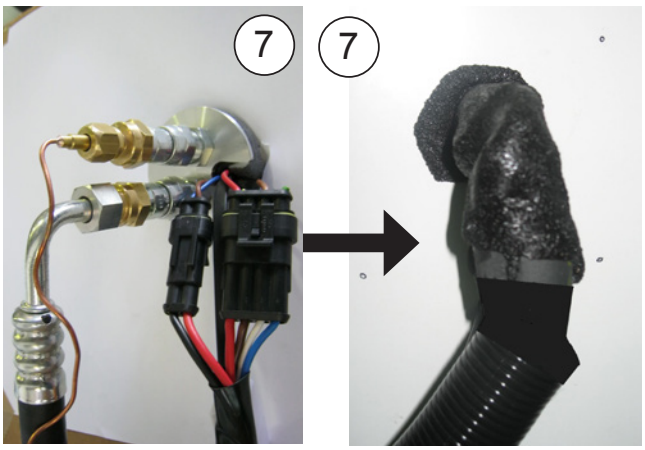
6

(*)- В случае неровной поверхности используйте распорные втулки на 10/20/40 мм и болты 6/100 x 40/60/70.

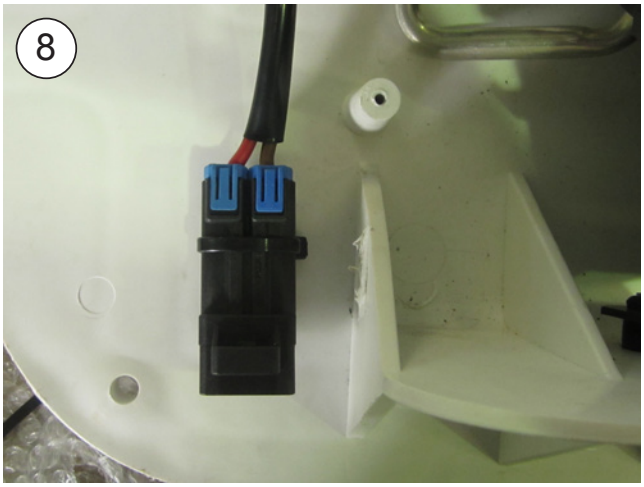
СМ. СХЕМУ А



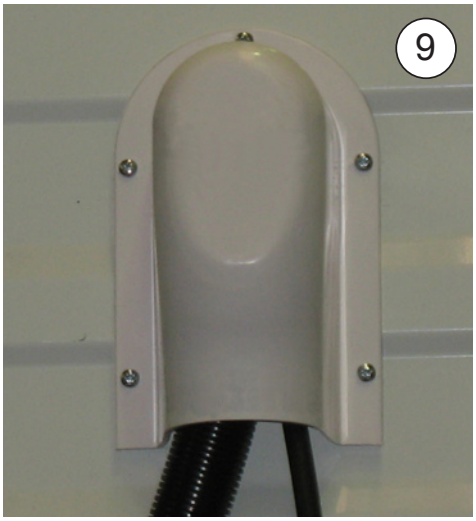
7	Подключите кабели и фитинги к испарителю и обмотайте герметичной изолентой.



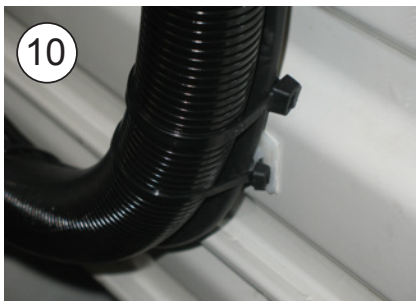
8	Подключите кабель питания.



9	Приложите защитный кожух трубопровода, отметьте и просверлите отверстия Ø 4. Обработайте отверстия антикоррозионным составом и закрепите кожух с помощью саморезов 4,8 x 19 мм.

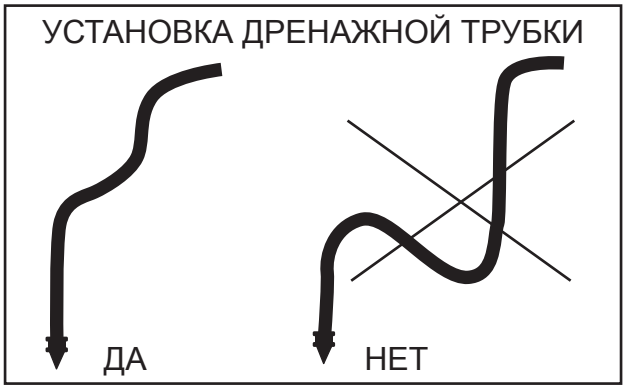


10 Приклейте пластмассовые держатели, поставьте хомуты и закрепите трубки, кабели и дренажную трубку (предварительно очистив монтажную зону).



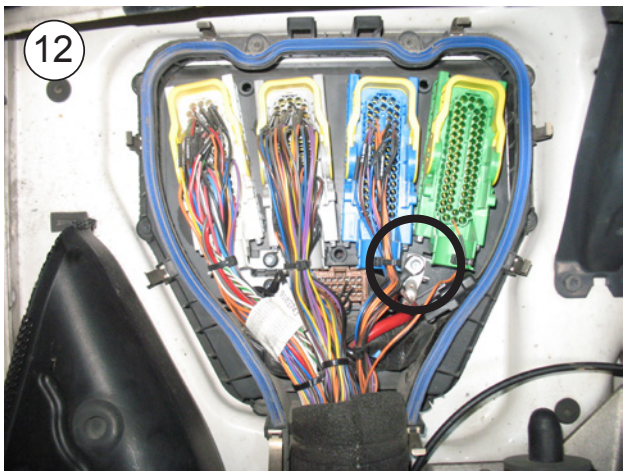
10a Установите дренажный клапан.

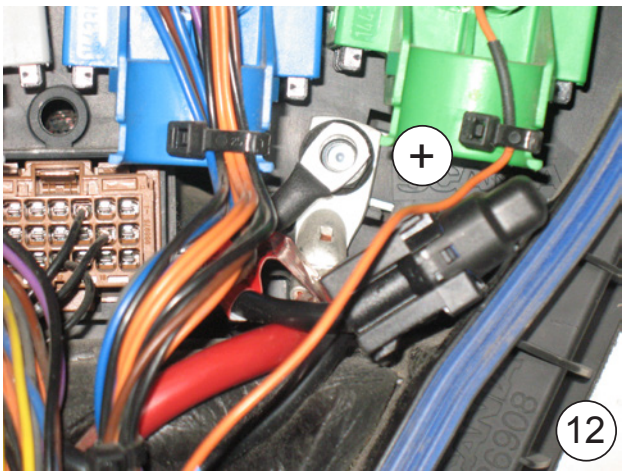
ВАЖНО: дренажная трубка должна устанавливаться без перегибов и с достаточным уклоном для беспрепятственного прохождения конденсата.

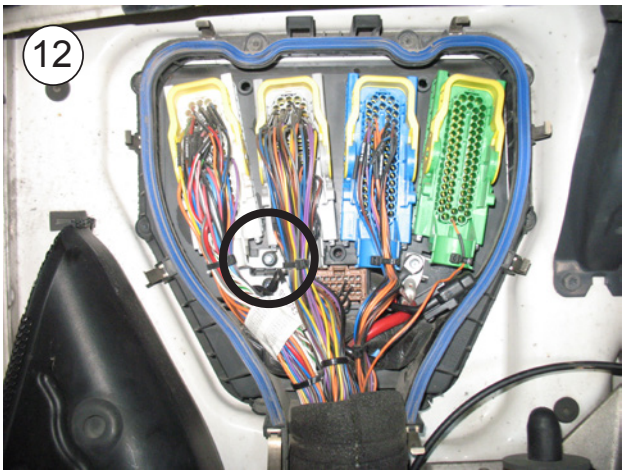


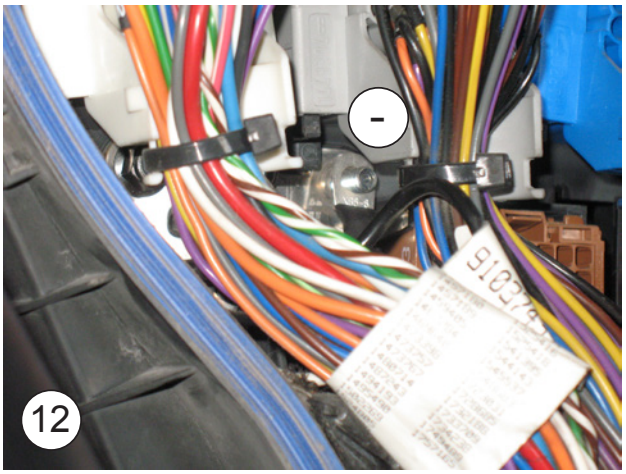
11 Установите крышку, закрутив удаленные ранее болты.

12 Наклоните кабину и проведите кабель, как показано на рисунке, к соединительной коробке, закрепив его хомутами или скобами. Подключите кабель к соединительной коробке.







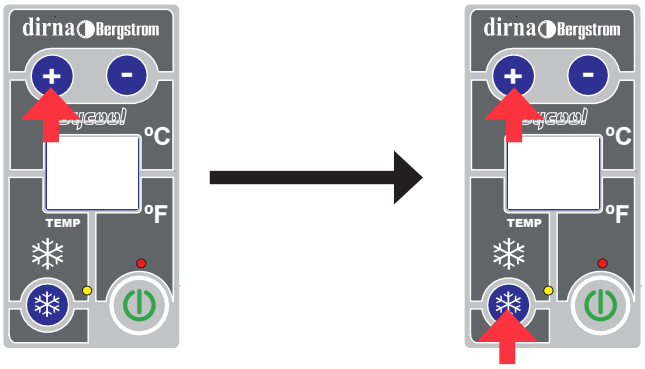


13	ОБЩИЙ ВИД КОНДЕНСАТОРА С ТРУБКАМИ.

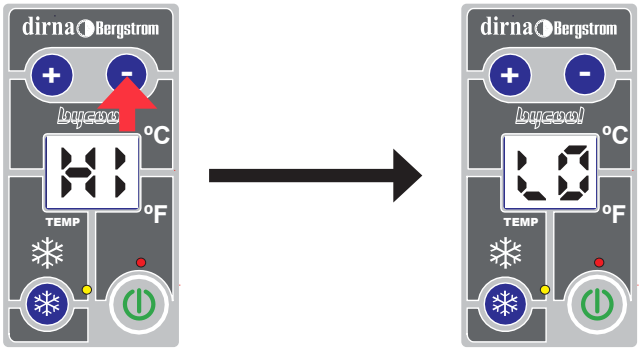
14	ОБЩИЙ ВИД БЛОКА ИСПАРИТЕЛЯ.

⚠ В автомобилях, в которых электрическое соединение производится к аккумуляторам, независимым от стартерных, дополнительно может устанавливаться конфигурация электроники на новые параметры отключения аккумулятора, как показано ниже.

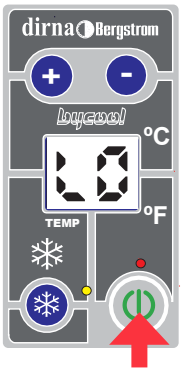
1 При выключенном оборудовании нажмите кнопку + и, удерживая ее нажатой, нажмите кнопку ❄, пока не услышите три прерывистых звуковых сигнала; при отпускании обеих кнопок на дисплее панели управления появится “**HI**”, что означает отключение заряженного аккумулятора (22,8 В).



2 После появления “**HI**” нажмите клавишу - .



3 На дисплее отобразится “**Lo**”, что означает отключение разряженного аккумулятора (19 В). Для подтверждения нажмите клавишу ⏻ .

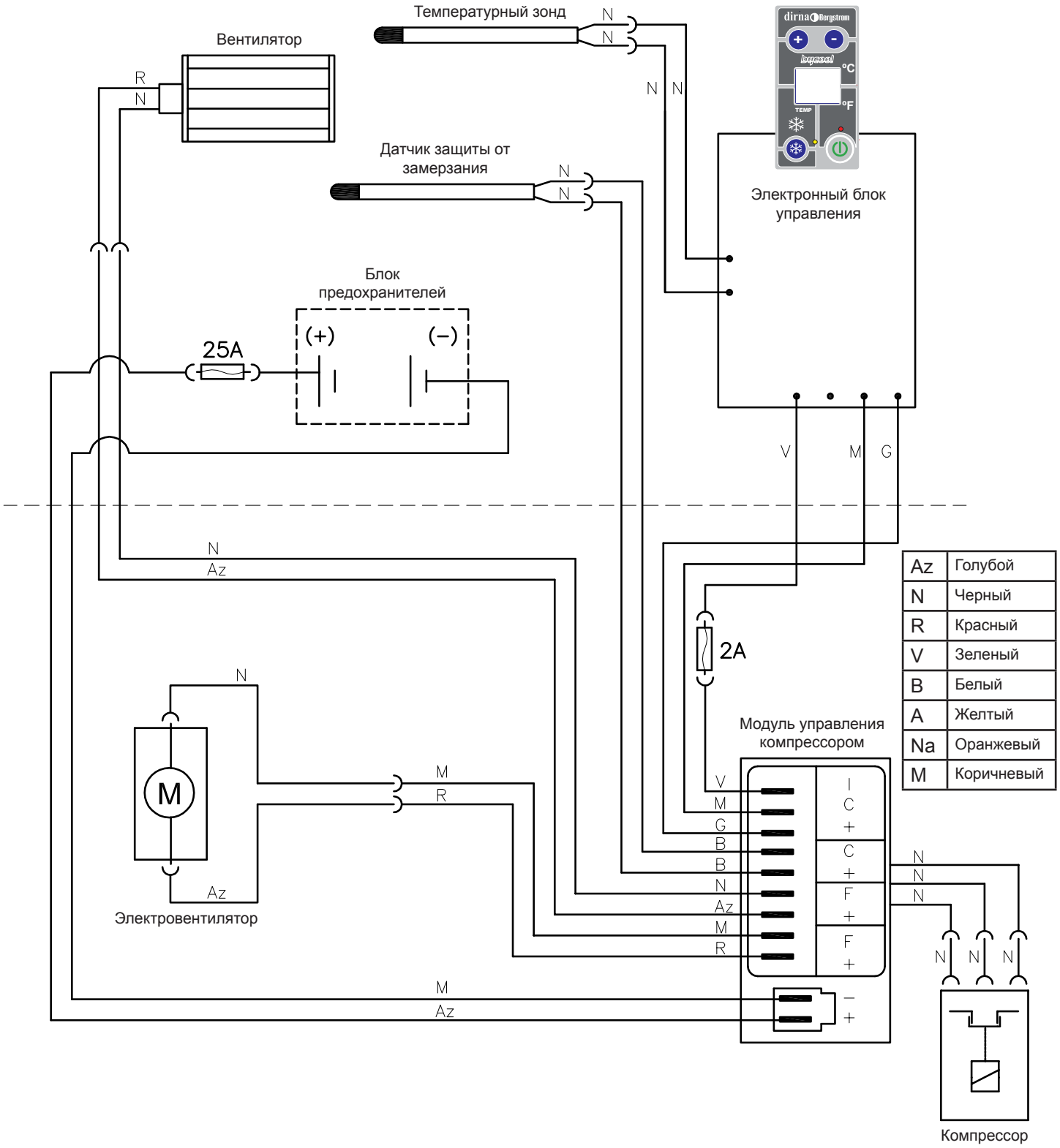


4 Чтобы вернуться в начальную конфигурацию, повторите **операцию 1**, с помощью клавиши + выберите “HI” и подтвердите с помощью клавиши ⏻ .

Электросхема

ВАЖНОЕ УВЕДОМЛЕНИЕ!

Осторожно, чтобы не перепутать полярность при включении питания компьютера. Если это произойдет, то контрольная панель не включается, а компьютер не работает.



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Md:	22/07/2019

d

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