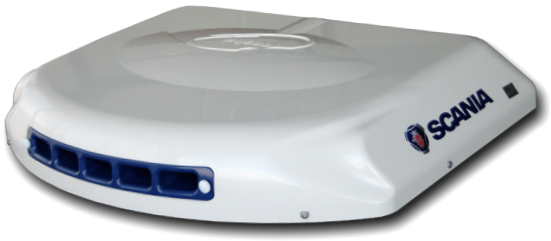
dirna Bergstrom

SCANIA PGR

FLAT



bycool blue line

Dirna Bergstrom	SCANIA
0912380000	2238018

Instrucciones de Montaje ES

Mounting Instructions EN

Instructions de Montage FR

Montageanweisungen GE

Istruzioni di Montaggio IT

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

Al instalar el equipo evaporativo en el techo se debe proteger la parte superior de la cabina con un paño o manta protectora para evitar posibles arañazos. Al instalar **Bycool Flat** en el techo hay que tener en cuenta que, normalmente, las cabinas que vienen provistas de escotilla, tienen una estructura suficiente para soportar el peso del equipo. Sin embargo, cuando no ocurra así y sea necesario realizar corte en el techo ó incluso si en el caso de llevar escotilla el material no es lo suficientemente resistente (caso de techo de fibra, plástico, etc...) es el instalador el que debe decidir, **bajo su responsabilidad**, sobre la necesidad de reforzar el techo para evitar posibles deformaciones, roturas, entradas de agua, etc... habilitando los medios para que esto no ocurra.

Herramientas

Juego de Llaves Torx
Juego de Llaves Allen
Llave fija 10, 13, 14
Tijeras
Flexómetro

Documentación incluída

Instrucciones de montaje	220.AA3.5210
Manual del usuario	220.AA7.0003
Diagnosis de averías	220.AA7.0004
Garantía	220.AA1.0010

Simbología

Frágil

Atención corte!

Riesgo eléctrico

⚠ Advertencias

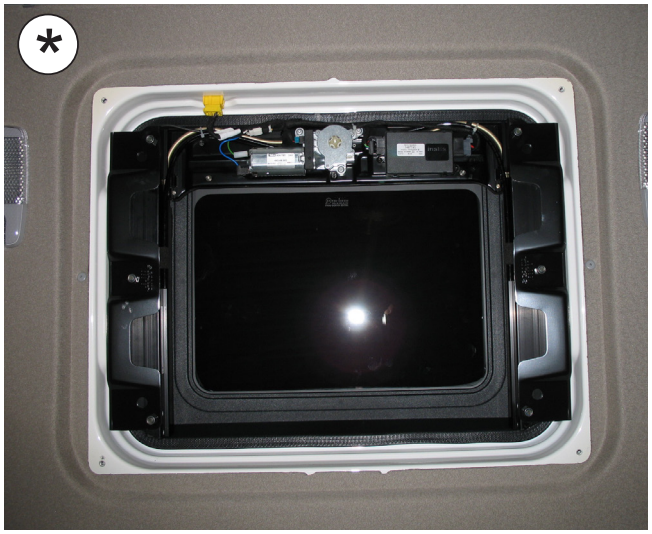
⚠ La pieza nº 20 del listado de Piezas Suministradas debe se sustituída cada 12 meses.

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

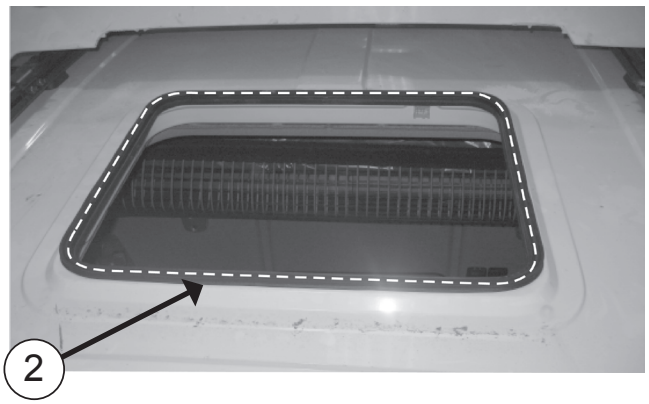
⚠ Véase **procedimiento de garantía** del producto incluido en **Diagnosis de Averías**.

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

1 Desmontar tapa escotilla, los elementos de fijación y entregar éstos al cliente (*).



2 Pegue la junta EPDM alrededor del hueco de escotilla (*mirar el detalle para cortar los bordes finales de unión de la junta*).

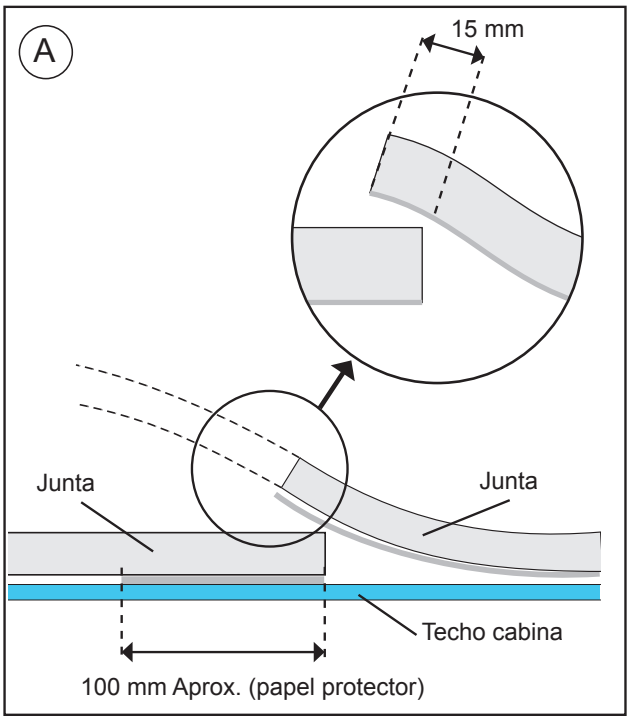


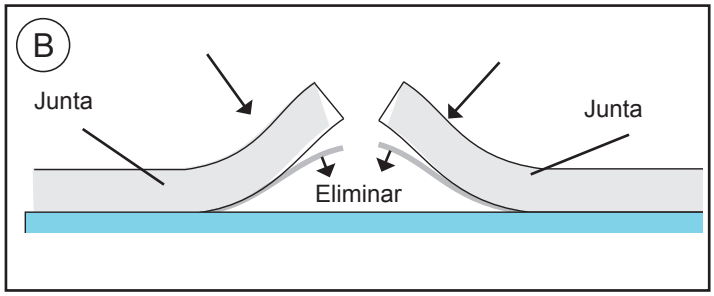
COMO CORTAR LA JUNTA EPDM PARA EVITAR FILTRACIÓN DE AGUA EN LA CABINA

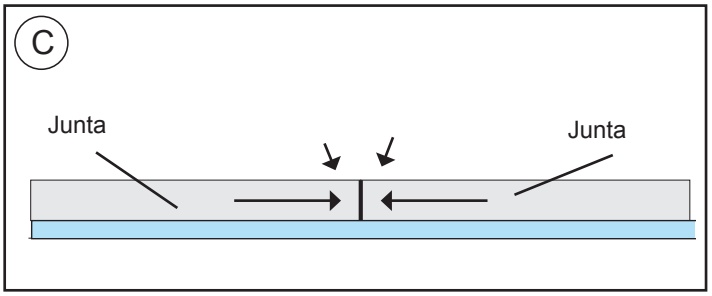
A- Pegar la junta, manteniendo 100 mm de papel protector por cada lado.

B- Quita los dos piezas de papel.

C- Pegue presionado ambos finales.

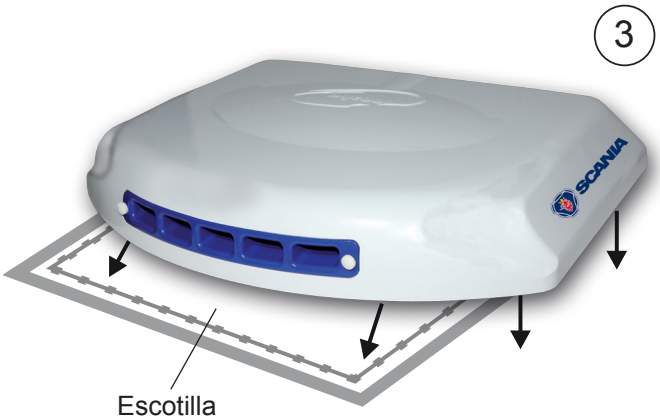






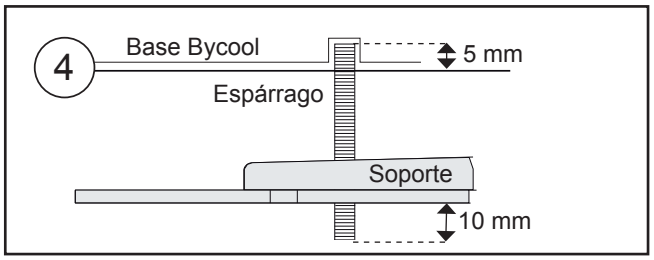
3 **EXTERIOR CABINA:**

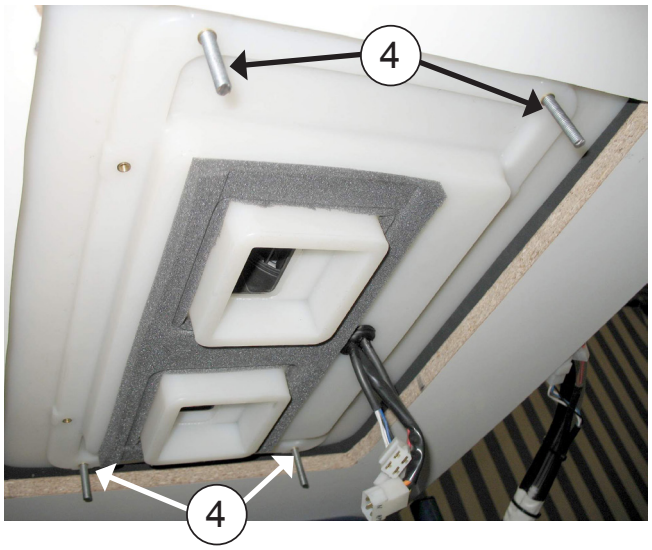
Posicionar el Bycool en el hueco de la escotilla.



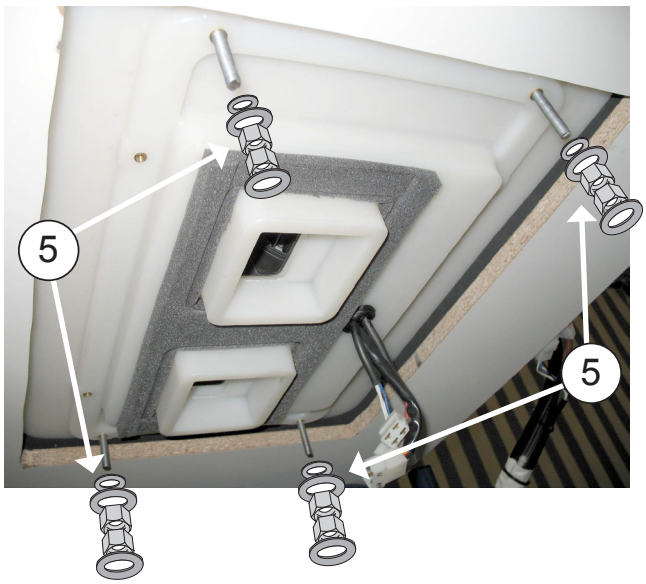
4 **INTERIOR CABINA:**

Roscar 5 mm aproximadamente (4) espárragos 8/125x100 ó 120, la medida se elegirá tras presentar los soportes de sujección y teniendo en cuenta que los espárragos deben sobresalir de los mismos por la parte inferior unos 10 mm.



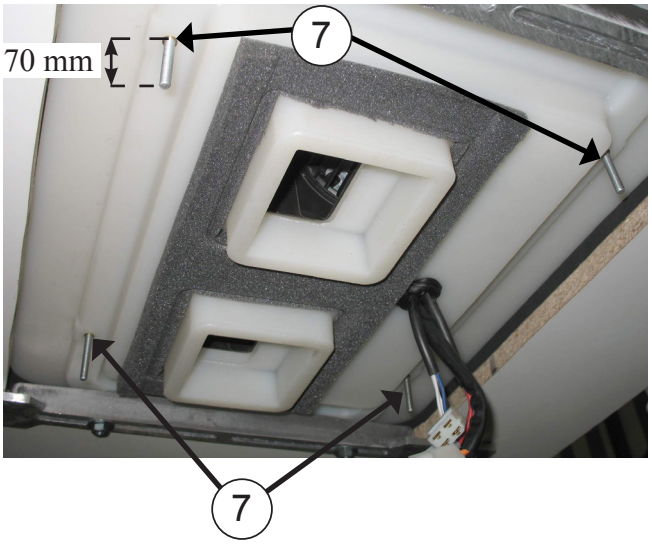


5 Colocar (1) arandela Ø 7 de goma, (1) arandela plana Ø 8 ala ancha, (2) tuerca M8 y (1) arandela plana Ø 8 ala ancha , en cada uno de los espárragos anteriores.



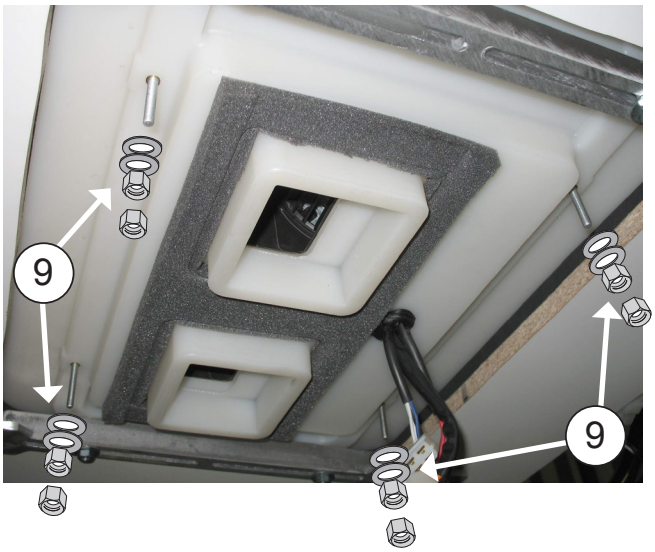
6 Colocar (2) soportes sujeción, con (1) arandela y (1) tuerca autoblocante M8, **sin llegar a apretar**.

7 Roscar 10 mm (4) espárragos M6 x 80, donde se indica.

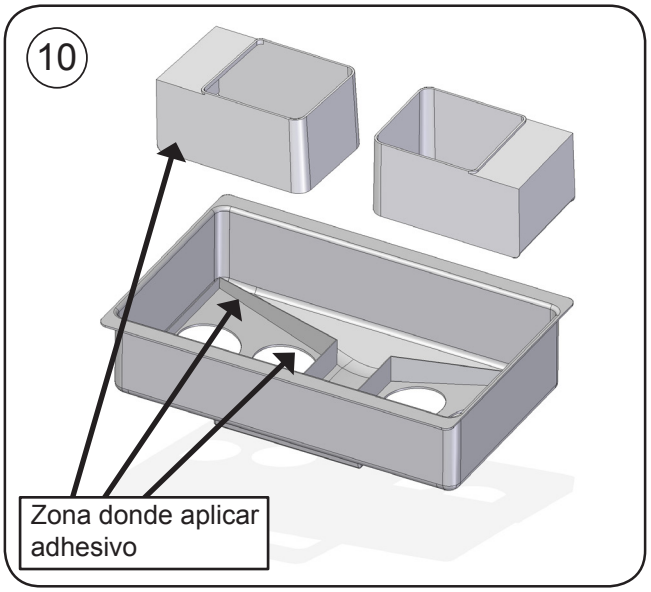


8 Colocar (1) arandela Ø6 de goma, (1) arandela plana Ø6 ala ancha y (1) tuerca M6, sobre cada uno de los espárragos de M6. **Apretar tuerca**.

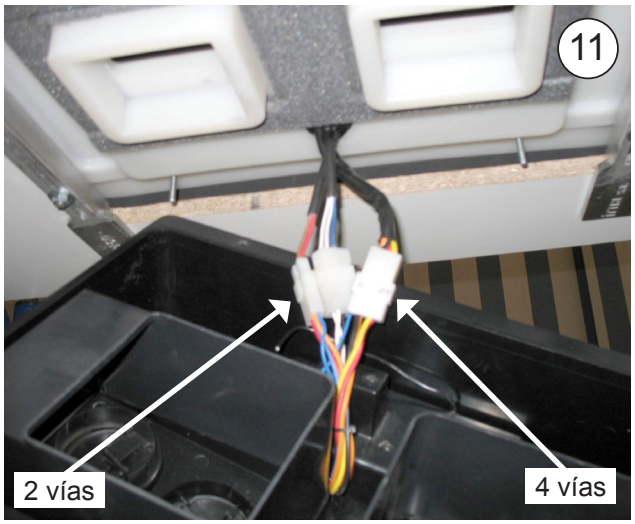
9 Colocar (1) tuerca M6 **sin apretar** en cada espárrago.



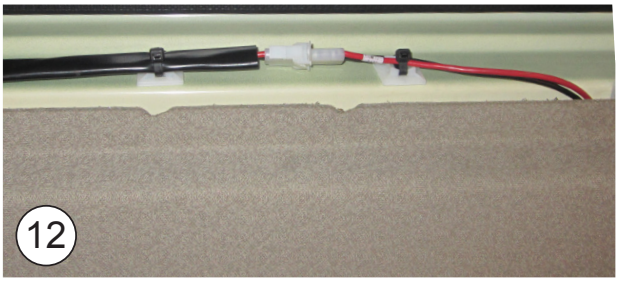
10 Pegar los canalizadores al panel interior de distribución de aire utilizando LOCTITE superglue 3 o similar, para facilitar el montaje del conjunto y asegurar los flujos de aire fríos por las lumbreras.



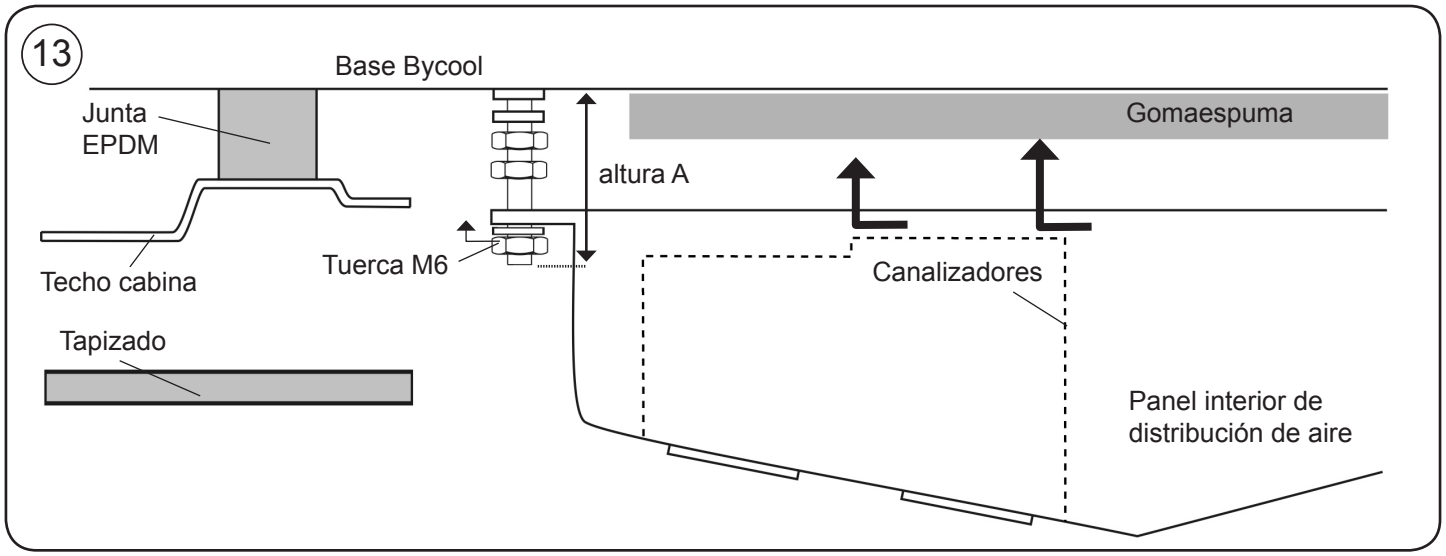
11 Conectar las (2) cajas de 4 vías y (1) de 2 vías, del panel interior de distribución de aire, con las del **Bycool**.



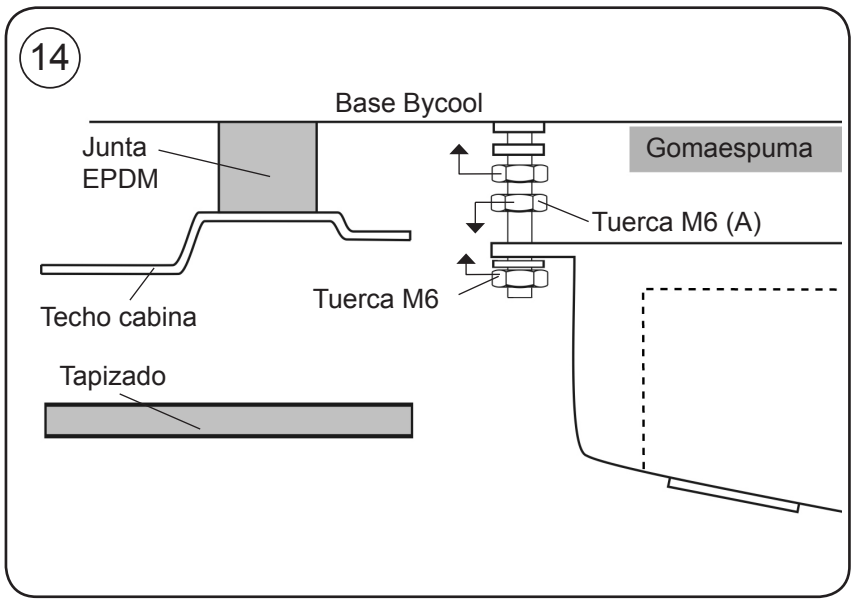
12 Conectar clema del cable de alimentación con clema original.



13 Colocar panel interior de distribución de aire en los espárragos anteriores con (1) arandela M6 ala ancha y (1) tuerca M6 en cada espárrago. Apretar tuercas hasta que los canalizadores hagan tope en goma espuma superior del equipo.
Importante: Los canalizadores deben hacer tope contra la goma espuma para evitar fugas de aire.



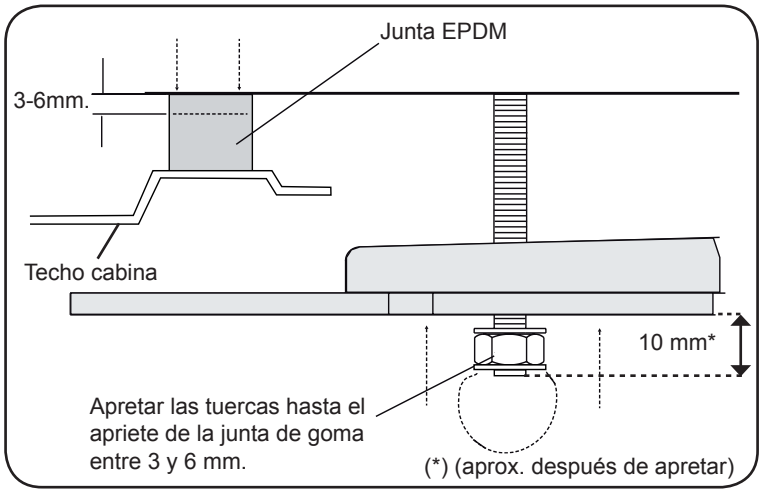
14 Apretar tuerca (A) del esquema hasta hacer tope con la parte superior del panel interior de distribución de aire.

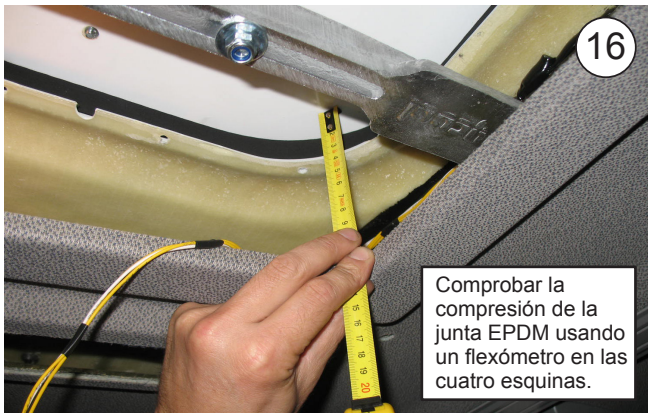


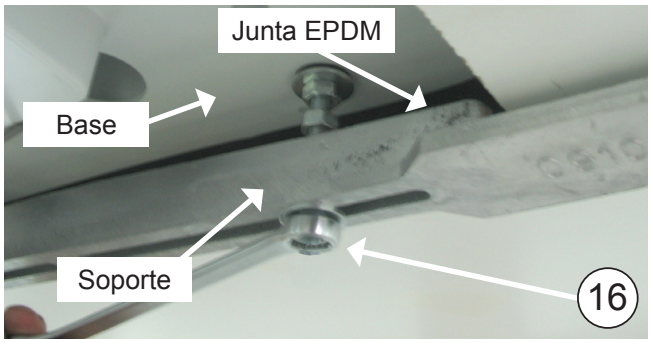
15 Presentar consola y centrar el equipo en el sitio más conveniente del techo de la cabina. Una vez centrado quitar consola.

16 Fijar los soportes de sujección apretando las tuercas hasta el apriete de la junta de EPDM exterior del equipo entre 3 y 6mm.

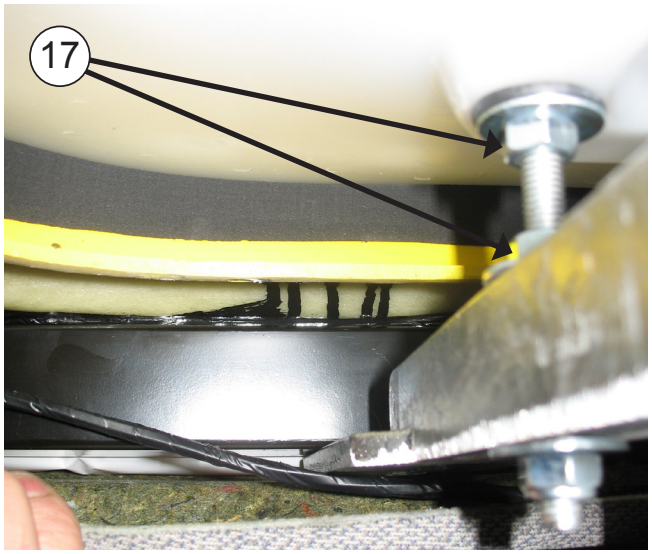
Importante: Para evitar posibles filtraciones de agua al interior de la cabina se debe asegurar el apriete de la junta EPDM con la base del Bycool tal y como se indica en el **esquema**.



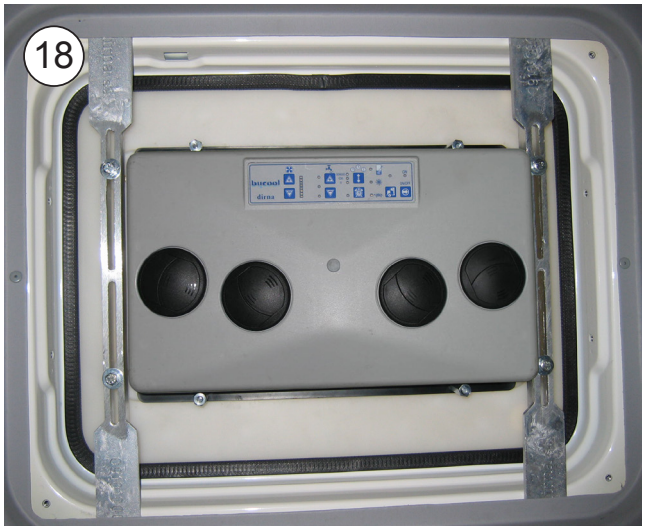


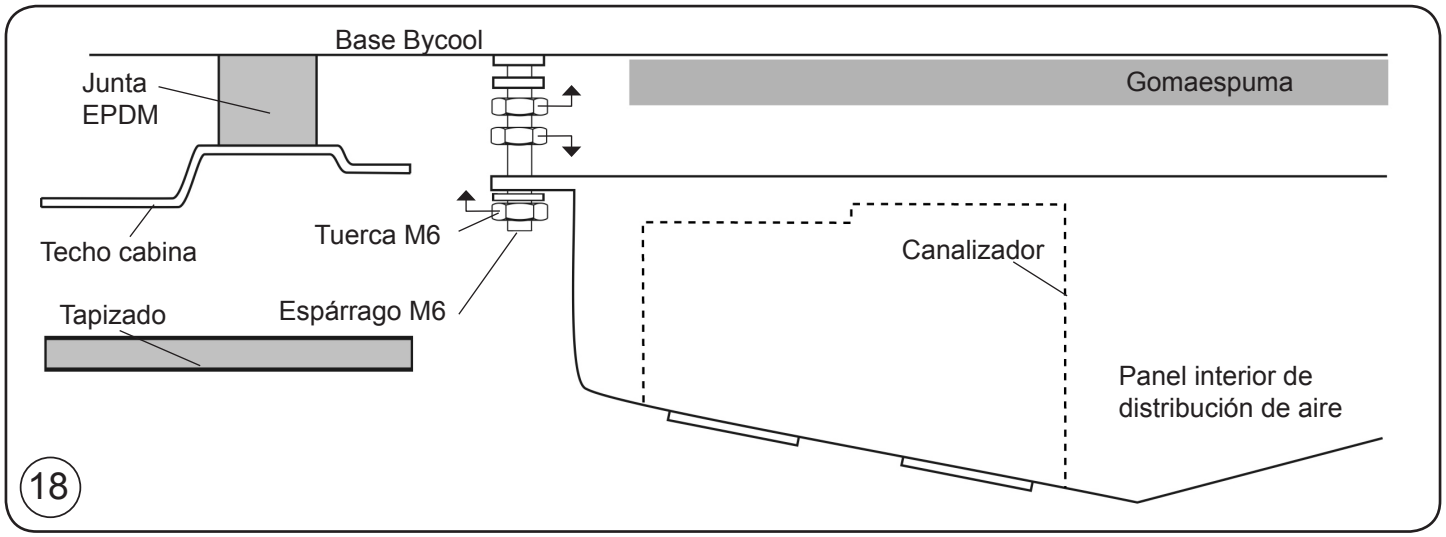


17 Apretar (4) tuercas M8 al soporte y (4) a la base del Bycool.



18 Vista general después del apriete de soportes.

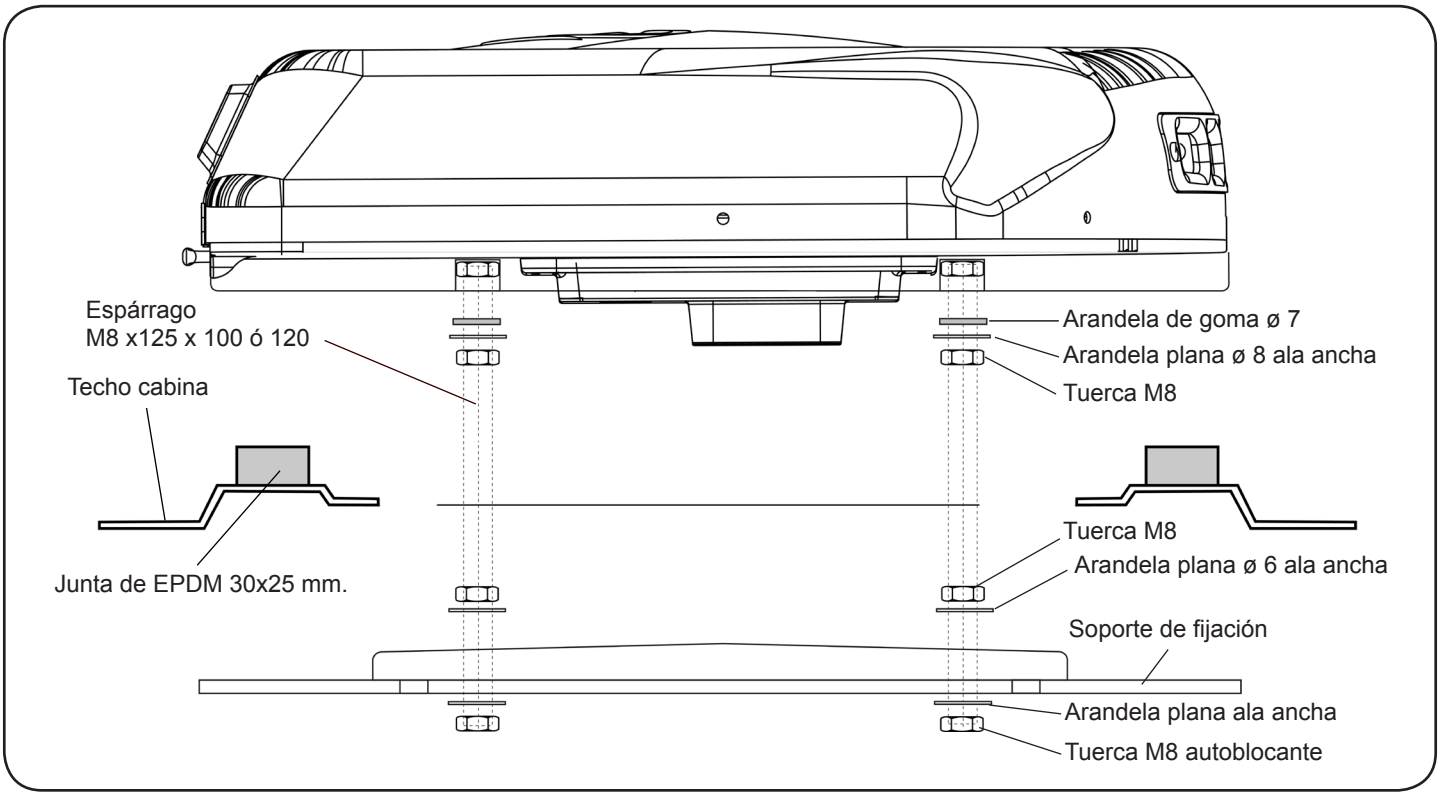




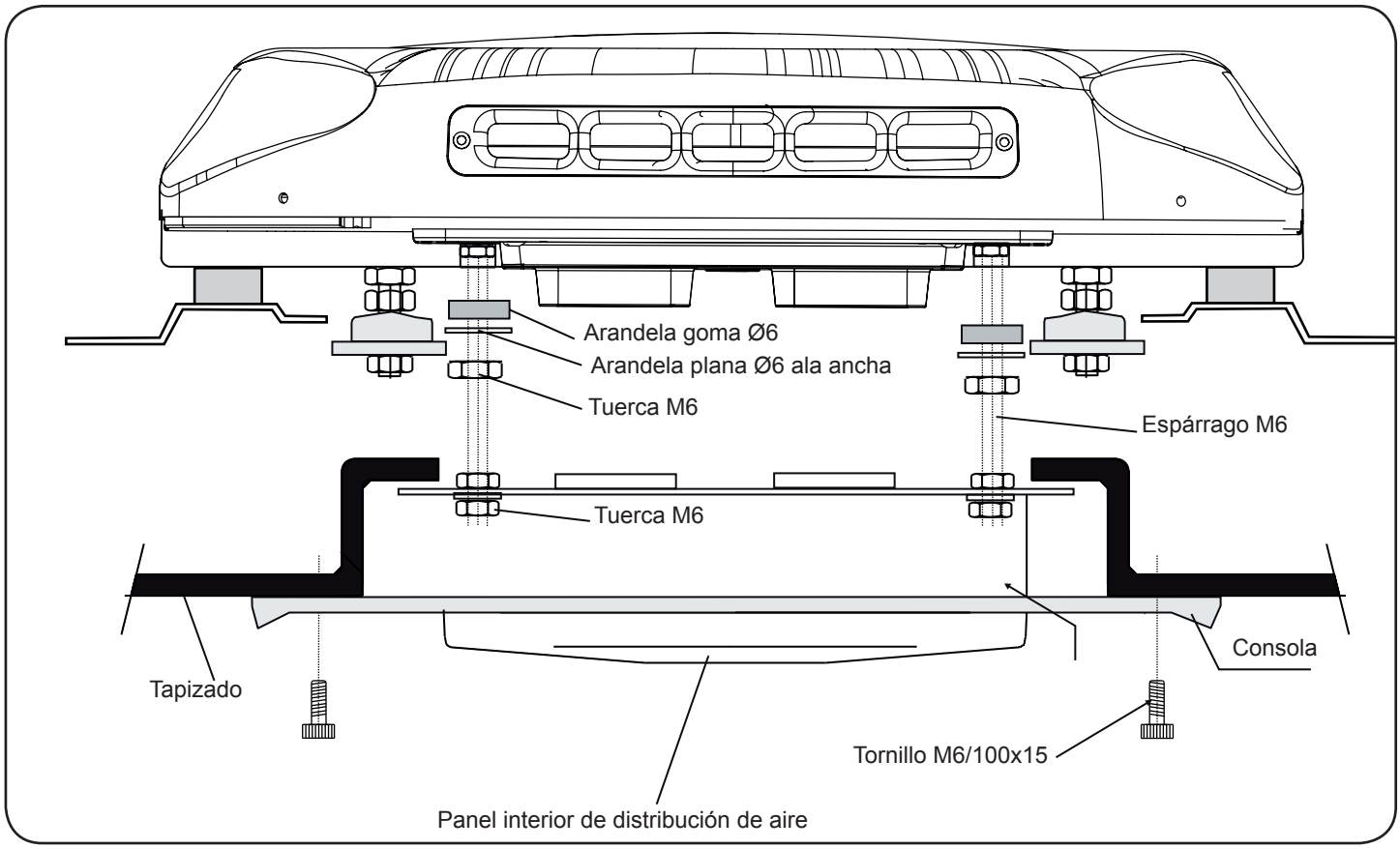
19 Colocar la consola con (4) tornillos M6/100x15 suministrados.

20 Colocar 8 embellecedores de plástico.

Vista explosionada hasta la fijación de los soportes



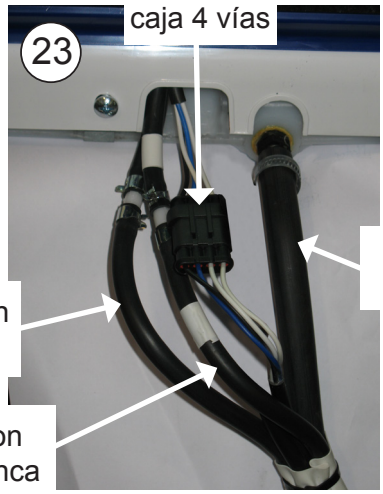
Vista explosionada hasta la fijación de las consolas



21 Vista general del panel interior de distribución de aire con la consola.

22 Vista superior del Bycool.

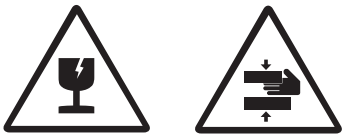
23 Detalle de la conexión del conjunto de los tubos con el Bycool.



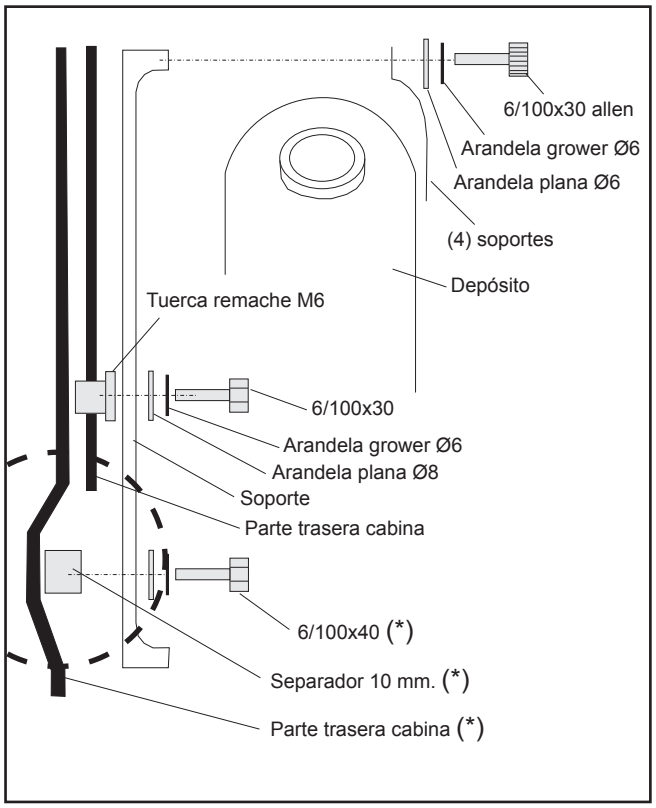
Operaciones a realizar para el montaje del depósito de Agua:

24 Posicionar soporte depósito en la parte baja más adecuada de la zona trasera de la cabina.

25 Marcar y taladrar Ø 9 en cabina teniendo en cuenta que la posición vertical del soporte. Mínimo (6) taladros de sujeción.

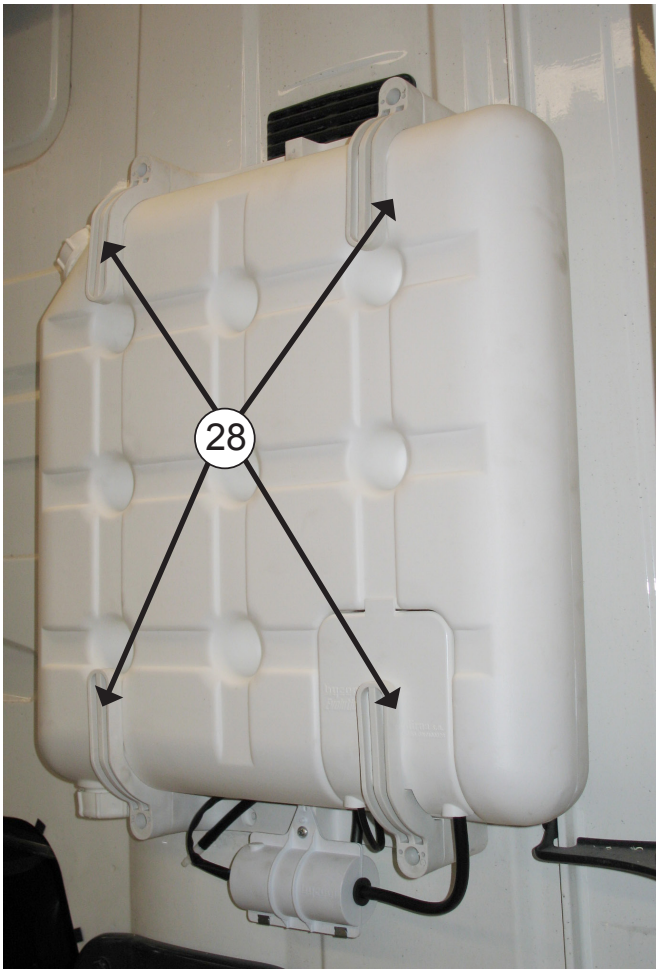


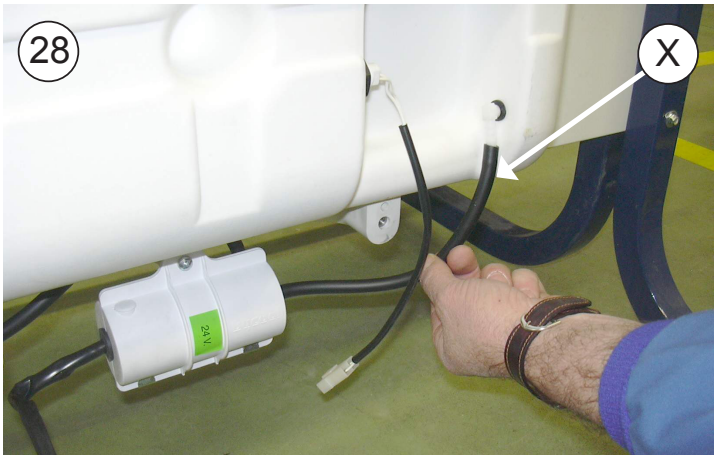
26 Colocar tuercas remache de M6 y fijar el soporte con tornillos 6/100x30.
(*) - En los casos que no apoye en parte lisa, colocar separador de 10mm y tornillo 6/100 x 40.

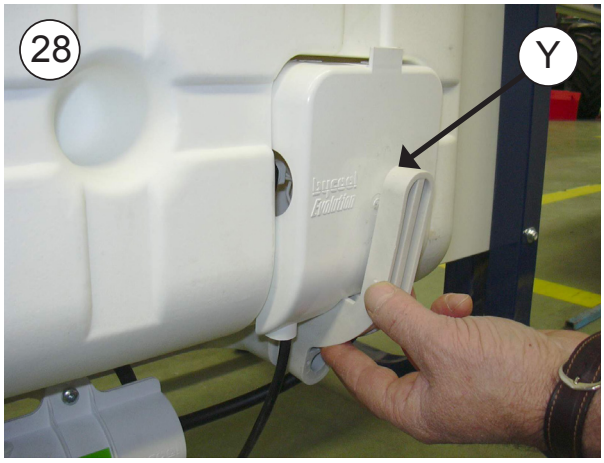


27 Fijar conjunto bomba al depósito con (2) tornillos rosca chapa 5.4x19 mm.

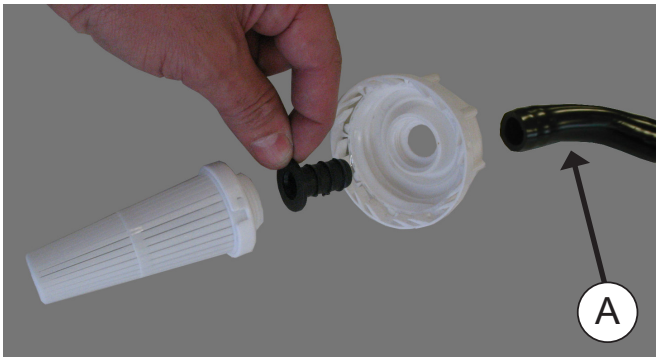
28 A continuación conectar tubo de bomba (X) a depósito y fijar depósito (*eligiendo mejor posición del tapón de llenado, derecha o izquierda, para facilitar el mismo*) con soportes suministrados. El soporte con resalte se coloca en caso de montar el depósito con el tapón de llenado (Y) al lado izquierdo.







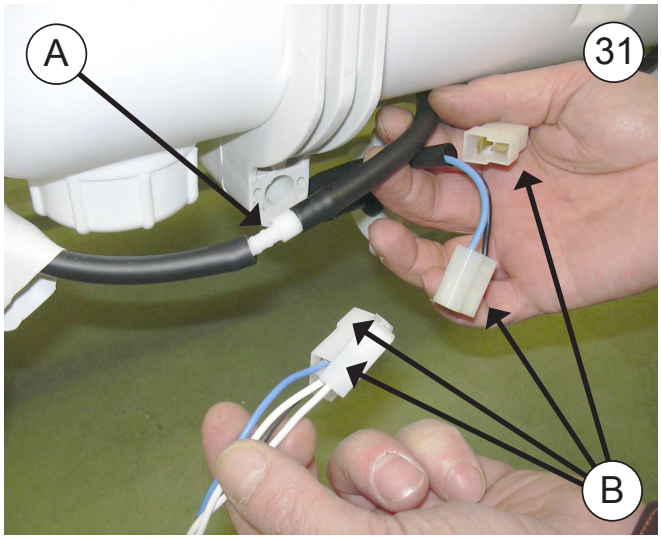
29 Montar filtro en tubo con espiga, introducir en el tapón y conectar a tubo de retorno Ø18 x Ø12 (A).



30 Colocar tapón en el depósito, cortar a 100mm; intercalar “T” y conectar a ésta el tubo de menor sección, **marcado con cinta blanca** y **cerciorarse que el radio de la curva sea suficiente para evitar estrangulamientos**.

31 Conectar cableado con funda a las cajas del evaporativo y tubo entrada de agua.

A. Conectar a la bomba el tubo de impulsión que viene desde el evaporativo.
B. Conectar cableado bomba y el de nivel.



32 TUBO DE DESAGÜE

(*) Manera correcta de instalación, donde el tubo de desagüe tenga caída evitando bucles y estrangulamientos, para facilitar la caída de agua al depósito.

(**) Manera incorrecta. No realizar.

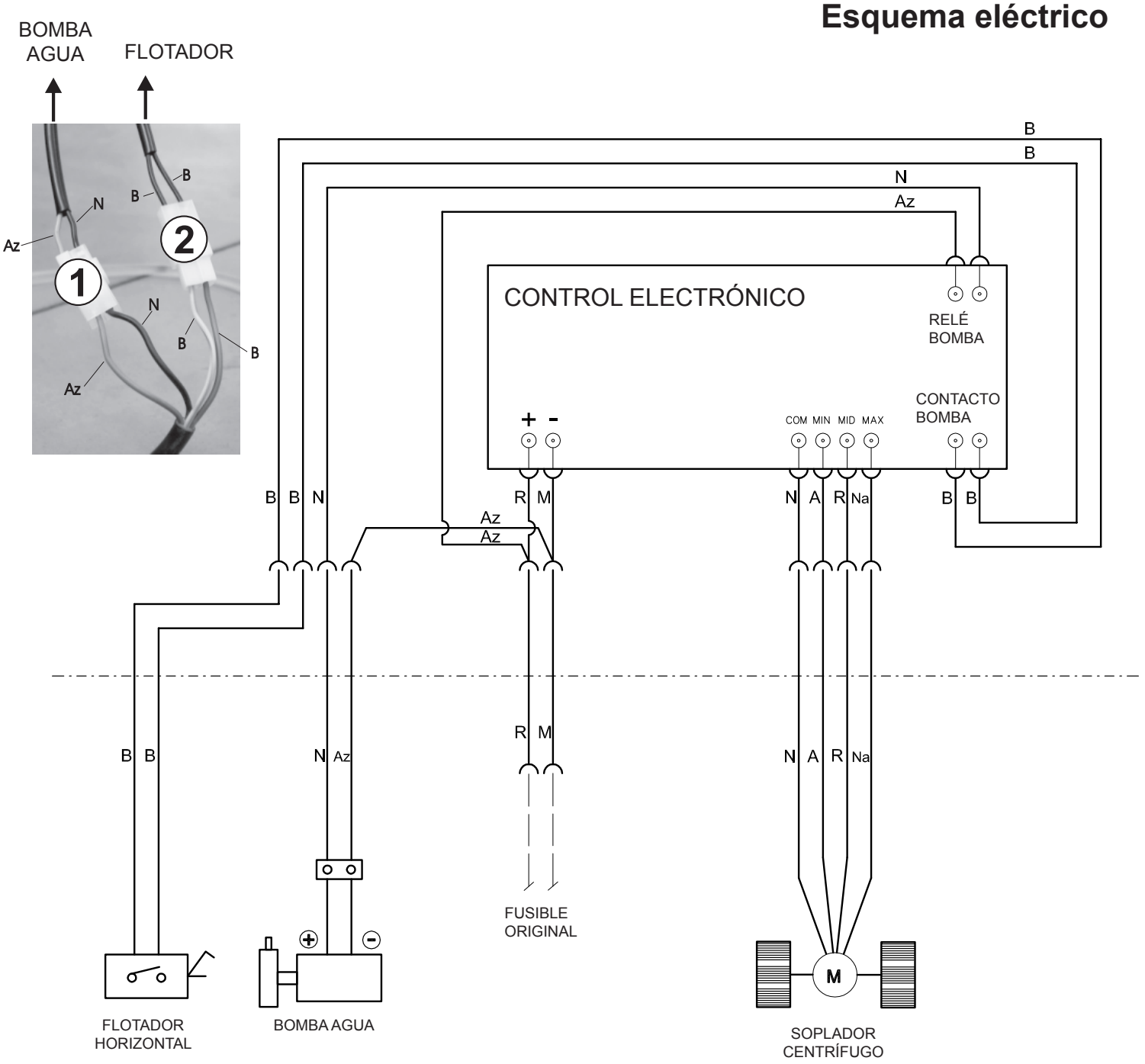
IMPORTANTE:

El acondicionador evaporativo funciona tomando aire del exterior que es introducido en la cabina. Es esencial que este aire no se estanque en el interior, lo que produciría un exceso de humedad. Todas las cabinas de vehículos modernos van dotados de rejillas de renovación de aire, por los que sale el aire necesario. Por ejemplo, para la calefacción.

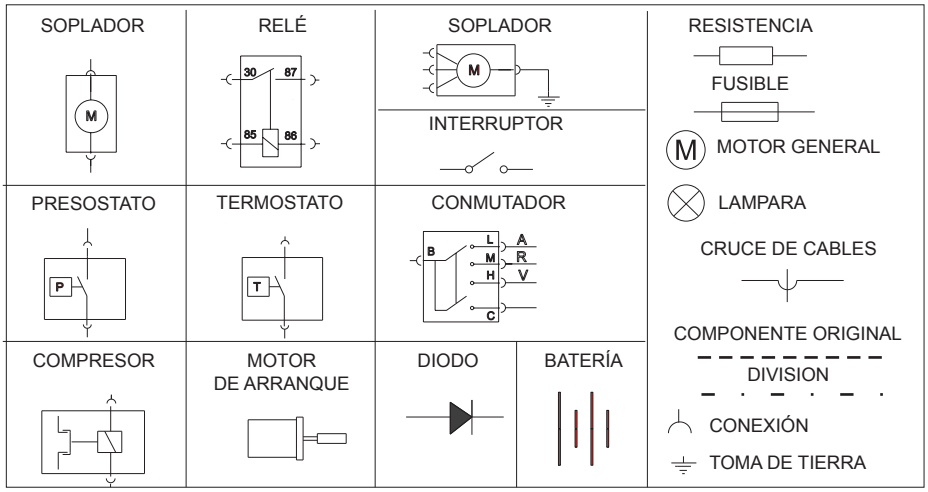
El instalador deberá cerciorarse de la existencia de estas rejillas y, en caso de no existir, deberá instalarlas.

Por su parte, el usuario deberá vigilar periódicamente que estas rejillas no están obstruidas por suciedad.

Esquema eléctrico



SIMBOLOGÍA



COLORES

A	Amarillo
Az	Azul
B	Blanco
G	Gris
Na	Naranja
N	Negro
R	Rojo
Ro	Rosa
V	Verde
Vi	Violeta
M	Marrón
Mo	Morado

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.

Tools

Torx wrenches set
Allen wrenches set
Open-jawed spanner 10, 13, 14
Scissors
Flexo-meter

Documentation included

Mounting instructions	220.AA3.5210
User's guide	220.AA7.0003
Troubleshooting	220.AA7.0004
Warranty	220.AA1.0010

Symbology

Fragile

Beware of cuts!

Electrical hazard

⚠ Warning

When installing the evaporative unit in the ceiling, protect the upper part of the cabin with a cloth or sheet to prevent scratching. When installing **Bycool Flat** in the ceiling, bear in mind that cabins are normally fitted with a hatch and have a structure which can withstand the weight of the unit. However, if this is not so and it is necessary to open up the ceiling, or should the hatch material not be sufficiently resistant (e.g. fibre, plastic, etc) the installer must decide, **under his sole responsibility**, on the need to reinforce the ceiling in order to prevent deformation, breakage, incoming water, etc, and use the means necessary to this end.

⚠ Warnings

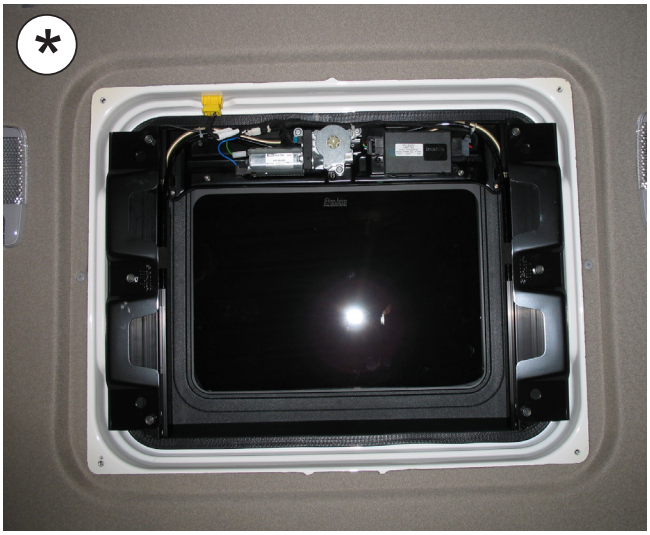
⚠ Piece 20 of the listing of provided pieces must be replaced every 12 months.

⚠ **Dirna Bergstrom, s.l.** 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.

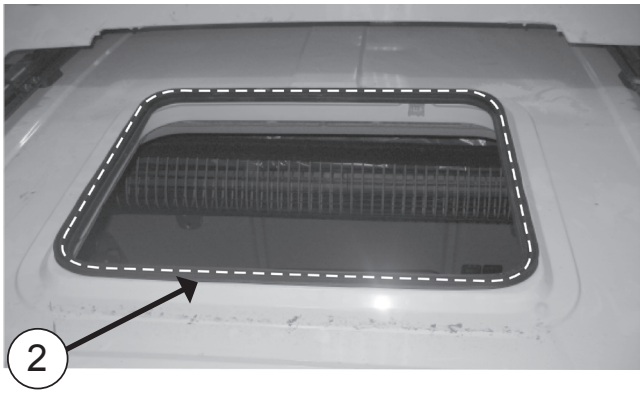
⚠ Please see product **warranty procedure** included in **Troubleshooting**.

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

1 Dismantle sun hatch, fastening elements and hand over to client (*).



2 Glue EPDM gasket around hatch hole (*see detail for cutting end join edges).*

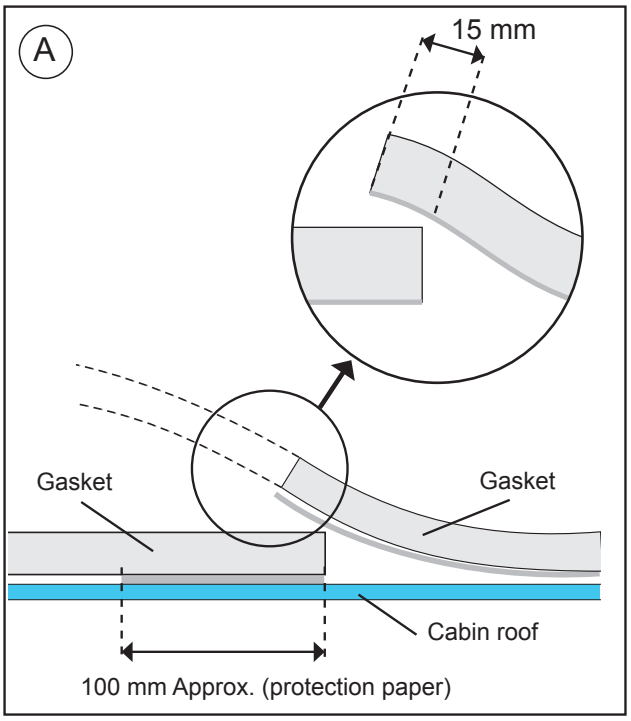


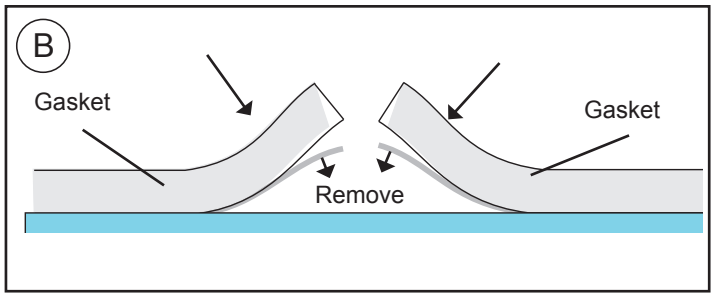
HOW TO CUT EPDM GASKET TO AVOID WATER FILTRATION INTO THE CABIN

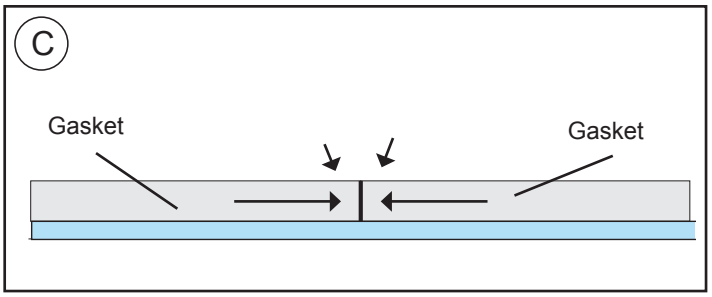
A- Glue gasket, keeping 100 mm of protection paper at each side.

B- Remove the two pieces of paper.

C- Glue by pressing both ends.

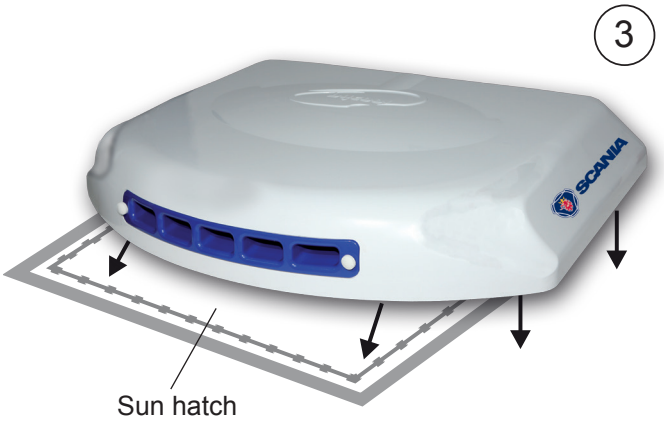




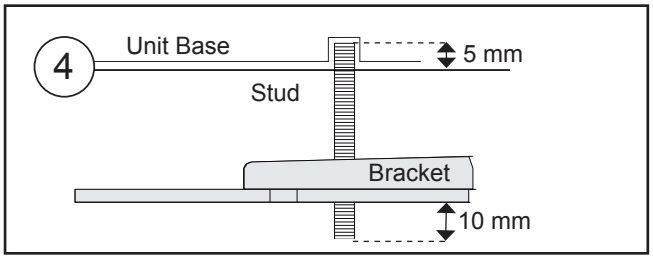


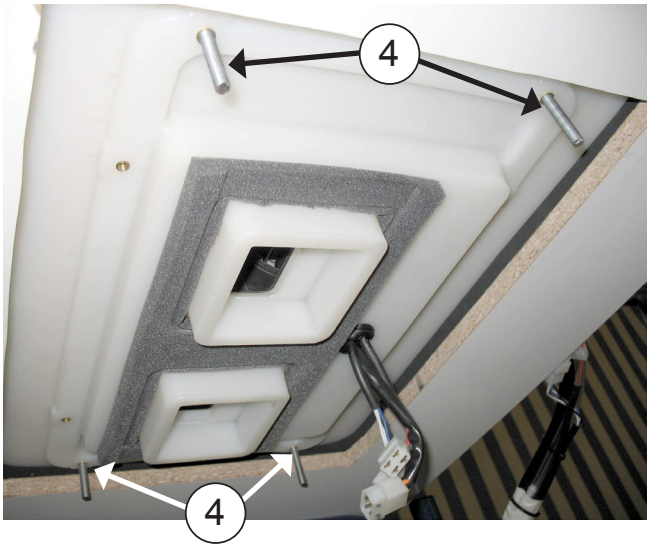
3 **OUTSIDE CABIN:**

Position **Bycool** in sun hatch hole.

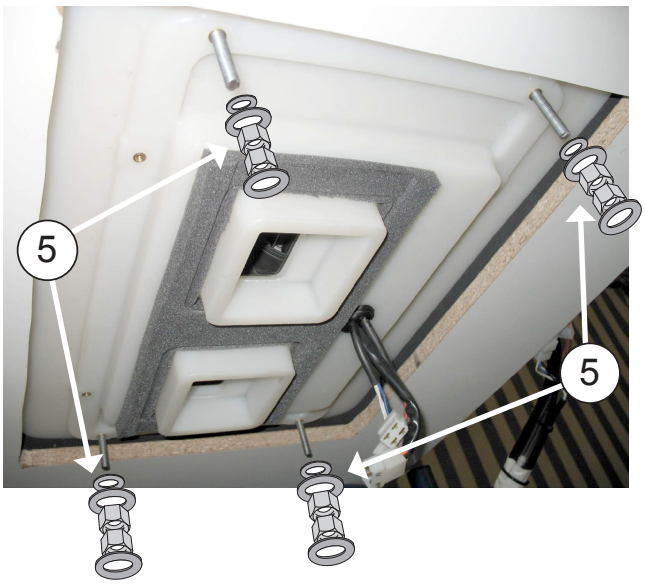


4 **INSIDE CABIN:**
Screw about 5 mm (4) 8/125x100 or 120 mm studs, the exact measure is chosen after the fastening supports have been presented and taking into account that studs must stick out of lower part about 10 mm.



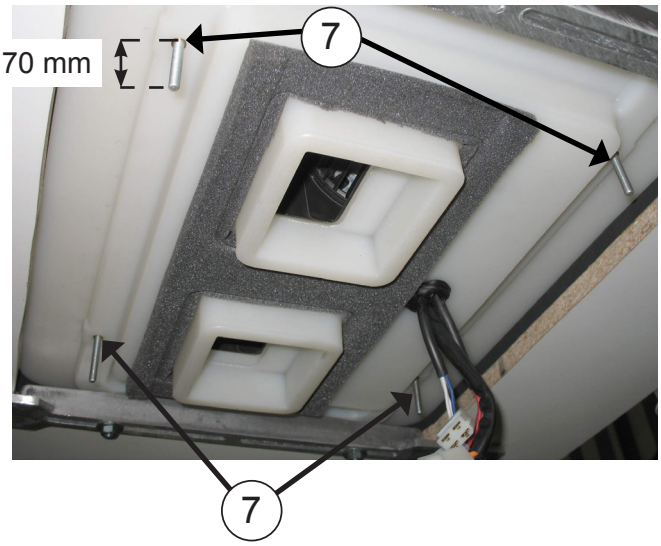


5 Place (1) Ø 7 rubber washer, (1) Ø 8 wide wing flat washer, (2) M8 nuts and (1) Ø 8 wide wing flat washer on each of the previously mentioned studs.



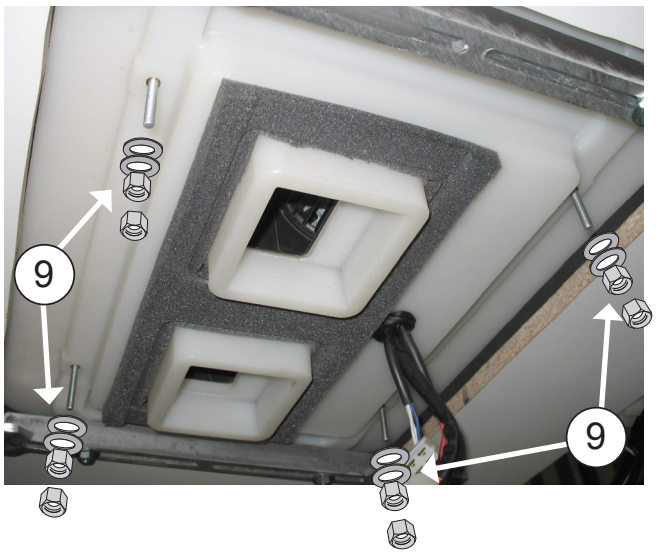
6 Place (2) fastening supports, with (1) washer and (1) M8 self-blocking nut, **without tightening**.

7 Screw 10 mm deep (4) M6 x 80 studs, where indicated.

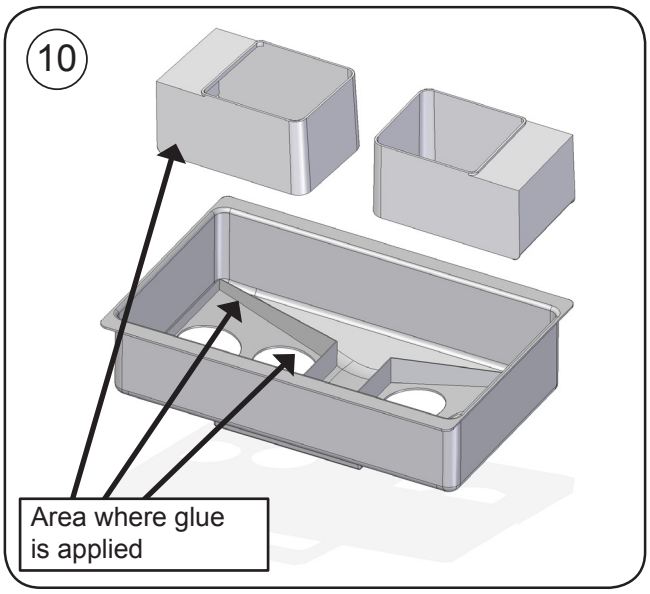


8 Place (1) Ø6 rubber washer, (1) Ø6 wide wing flat washer and (1) M6 nut, on each M6 studs. **Tighten nut**.

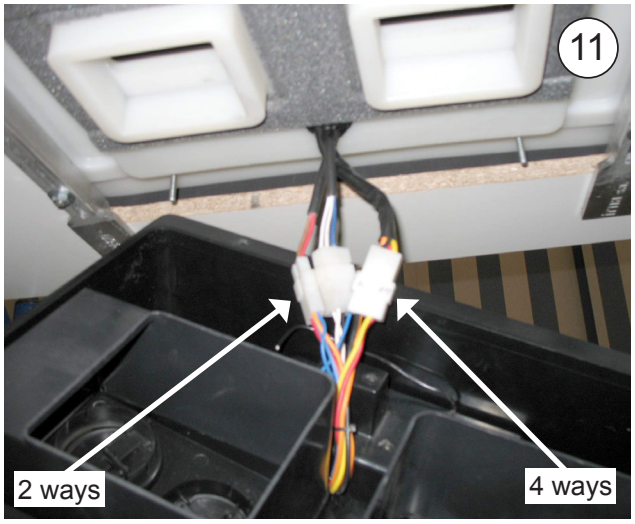
9 Place (1) M6 nut, **without tightening** in studs.



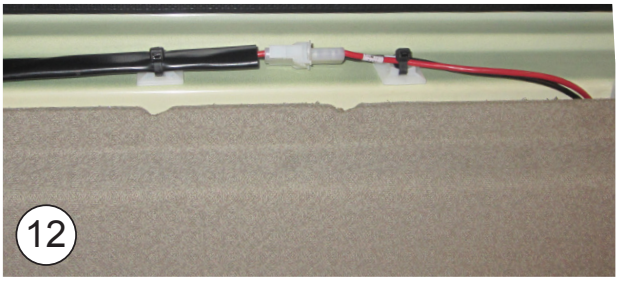
10 Attach the ducts to the interior air distribution panel using LOCTITE Superglue 3 or similar, in order to facilitate the assembly of the equipment and ensure the flows of cold air through the louvres.



11 Connect the (2) 4-way boxes and (1) 2-way box of the interior air distribution panel to those of the **Bycool**.

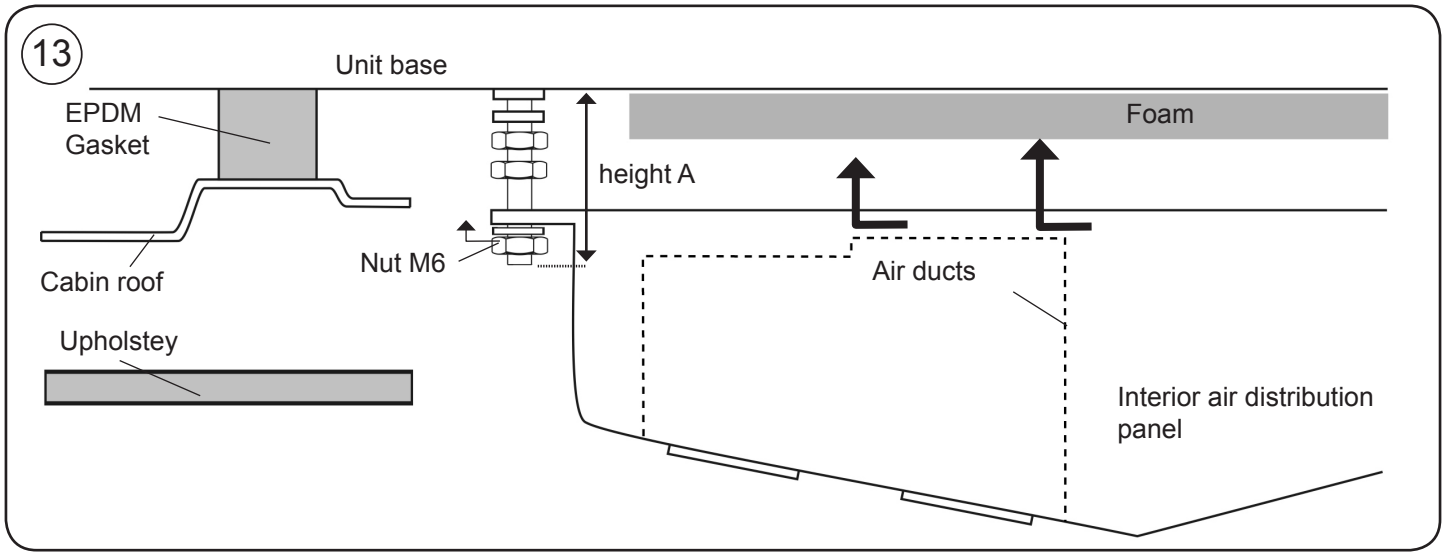


12 Connect the power cable terminal to the original terminal.

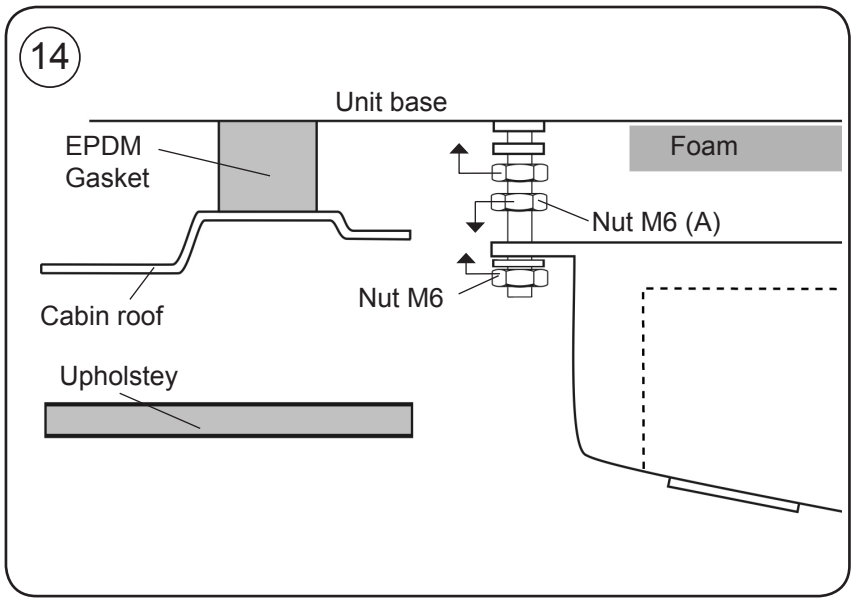


13 Position the interior air distribution panel on the front studs with (1) M6 wide-rimmed washer and (1) M6 nut on each stud. Tighten the nuts until the ducts come up against the unit's upper foam.

Important: Air ducts must touch foam gasket to avoid air leaks.



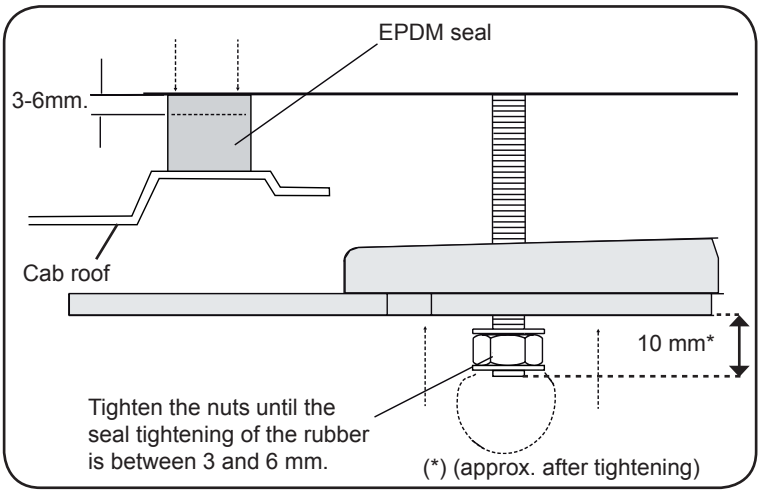
14 Tighten nut (A) of the schematic against the top part of the interior air distribution panel.

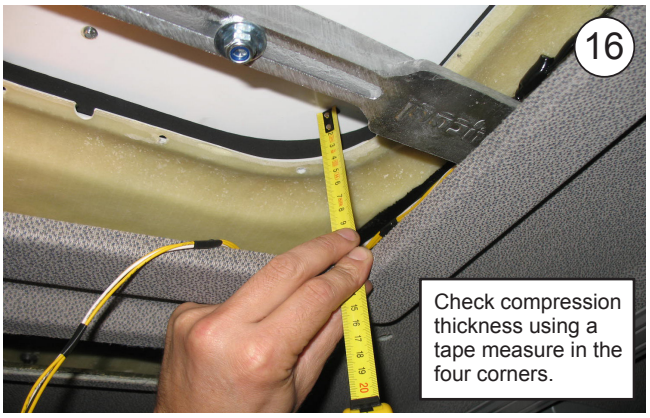


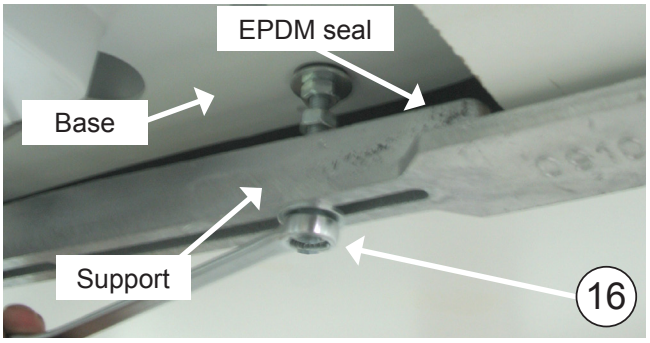
15 Place console and centre equipment in the most convenient place of cabin roof. Once centred, remove console for later installation.

16 Fasten the fastening supports by tightening the nut until the outer EPDM seal tightening of the equipment is between 3 and 6mm.

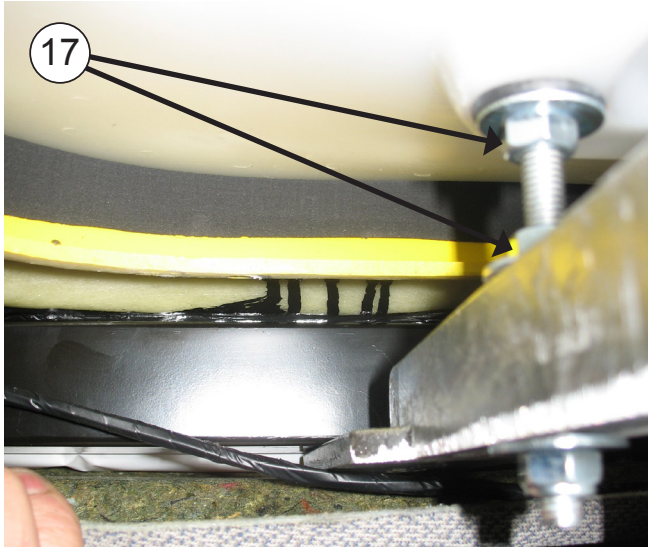
Important: To avoid possible water leaks into the inside of the cab the EPDM seal tightening must be adjusted with the base of the Bycool as indicated in the drawing.



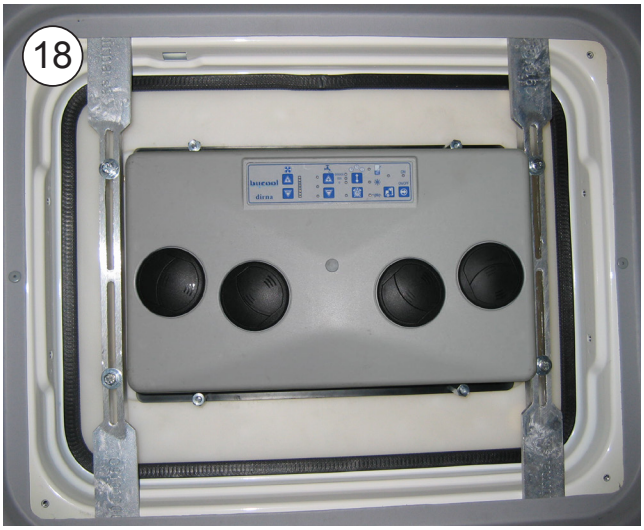


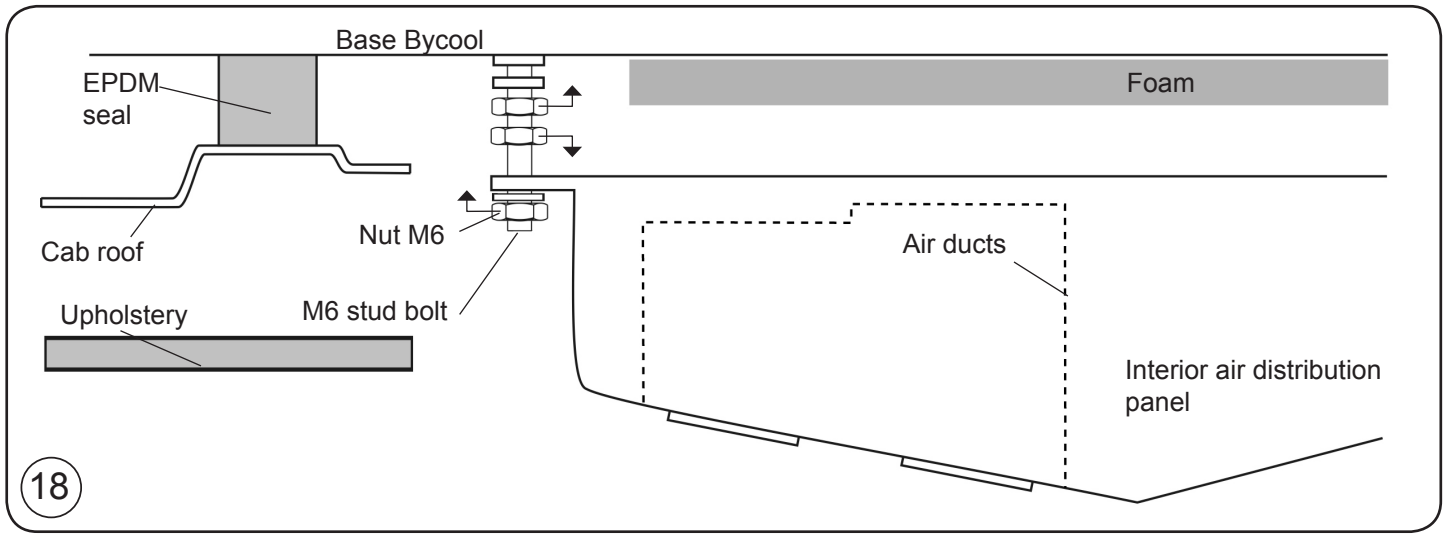


17 Screw (4) M8 nuts to the support and (4) to the base of the Bycool.



18 General view alfter the right of the supports.

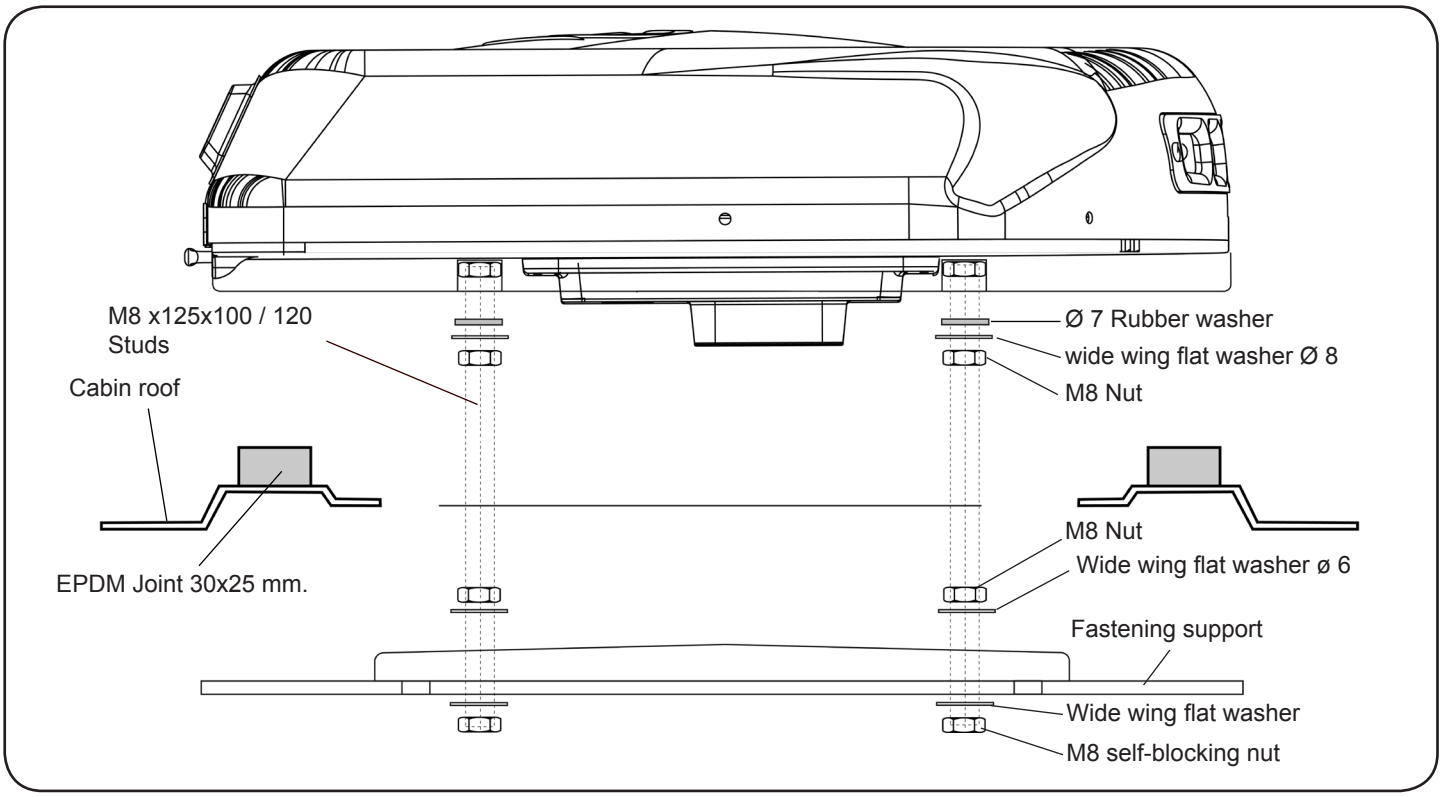




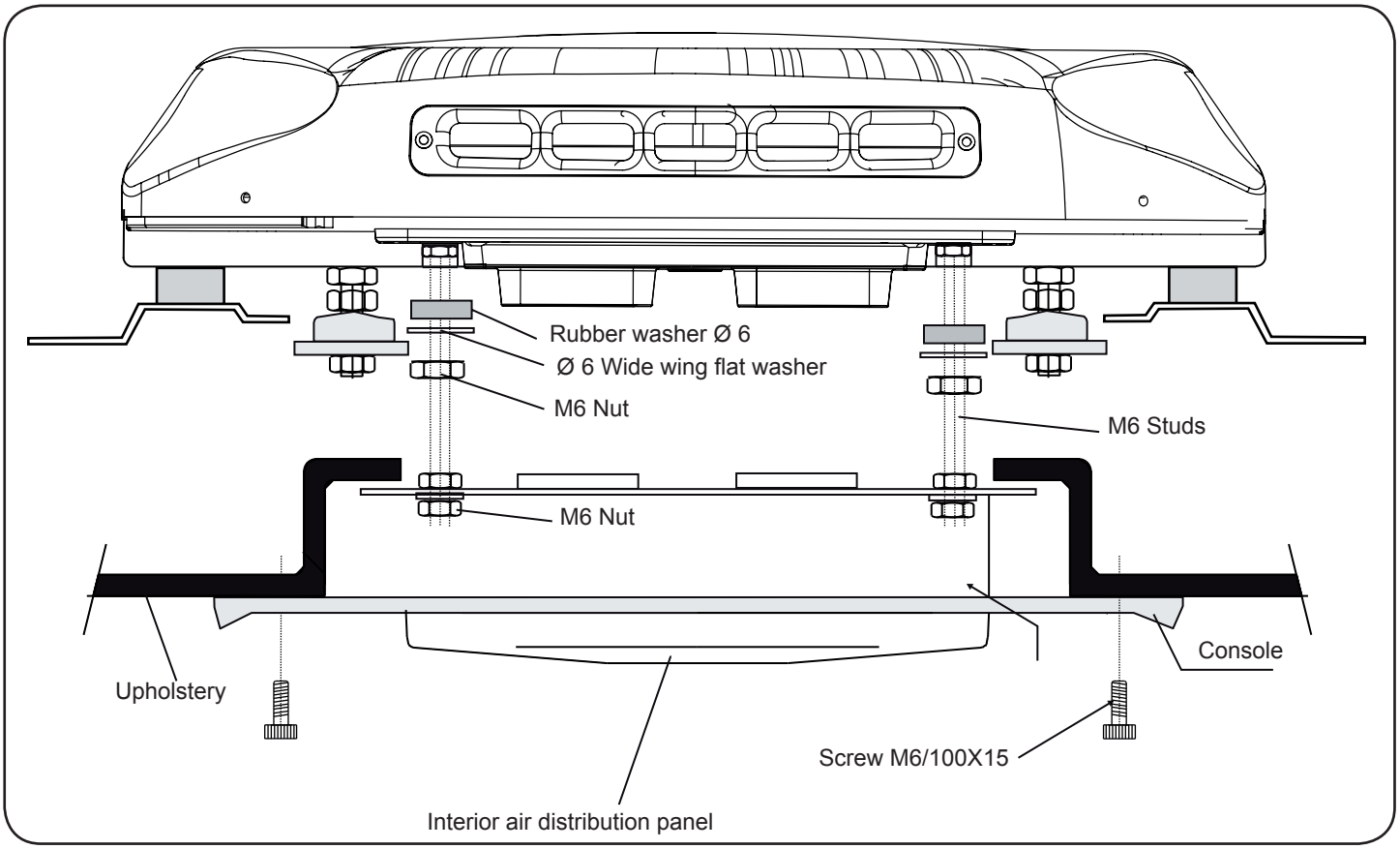
19 Fix the console with (4) Allen screws M6/100x15.

20 Cover the (8) M6/100x15 Allen screws with the round M6 plastic screw covers.

Exploded side view to supports fastening



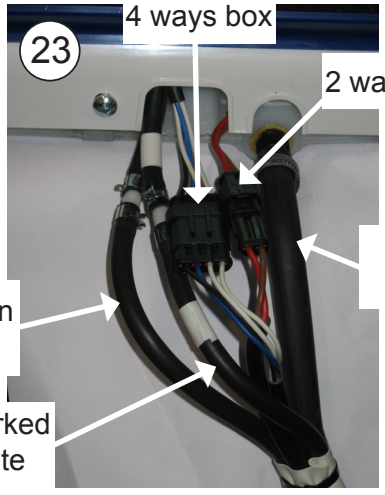
Exploded rear view to consoles fastening



21 Overview of the interior air distribution panel with the console.

22 Upper view of Bycool.

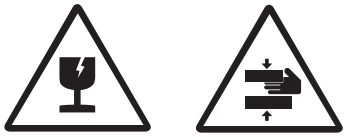
23 Detail of the connection of the set of the tubes with Bycool.



Operations to be carried out to assemble water tank:

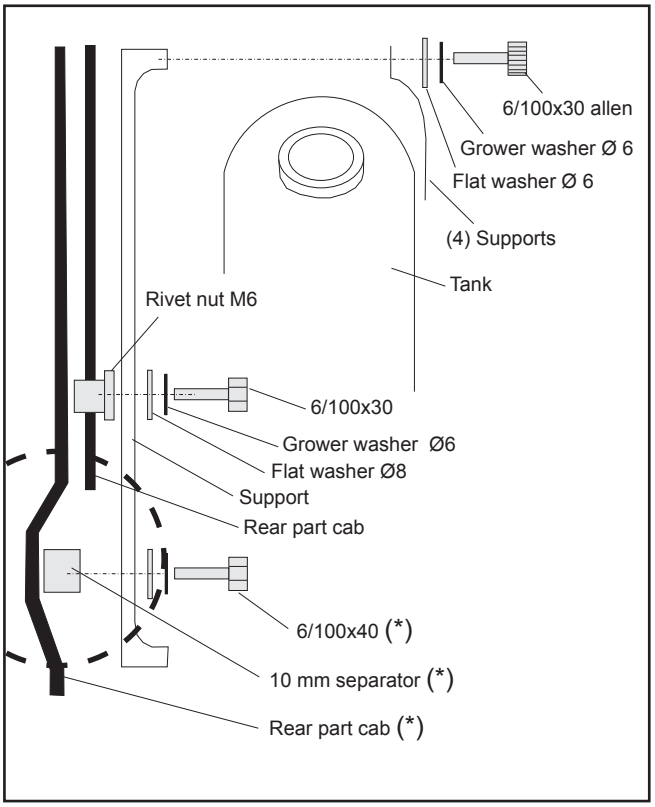
24 Position tank support on lower part of rear cabin area, where it is most adequate.

25 Mark and drill cabin at Ø 9, taking into account vertical position of support. Minimum of 6 holes to fasten.



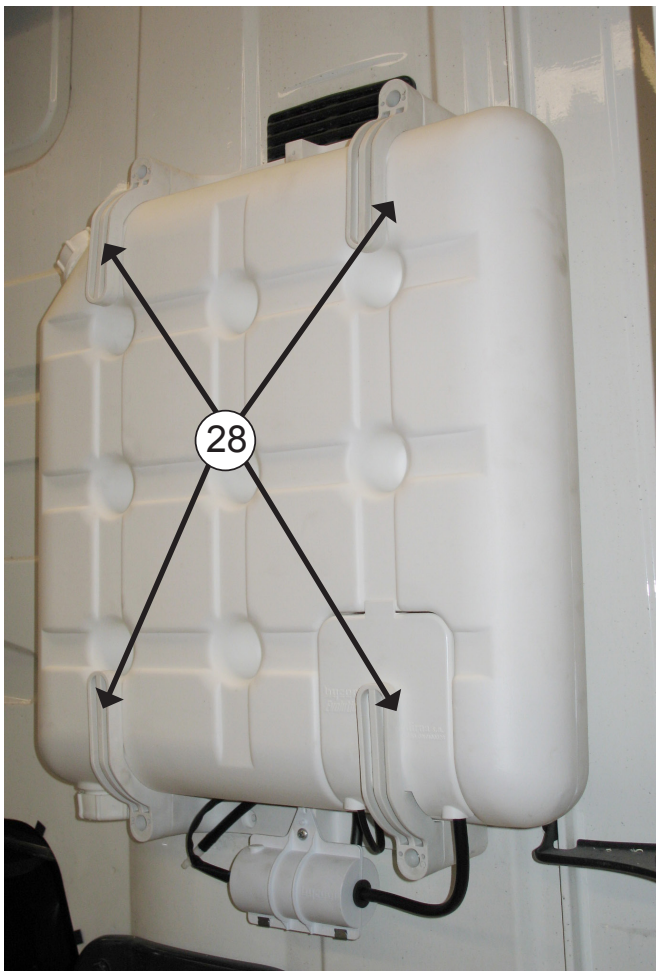
26 Place M6 riveting nuts and fasten support using 6/100x30 screws.

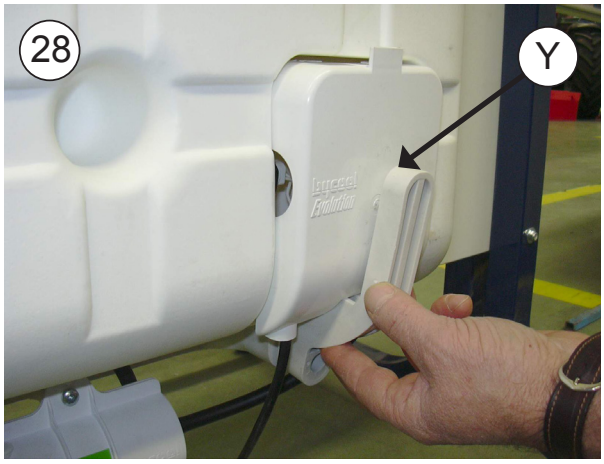
(*) - in case it does not rest on smooth part, place 10mm.separator and 6/100x40.



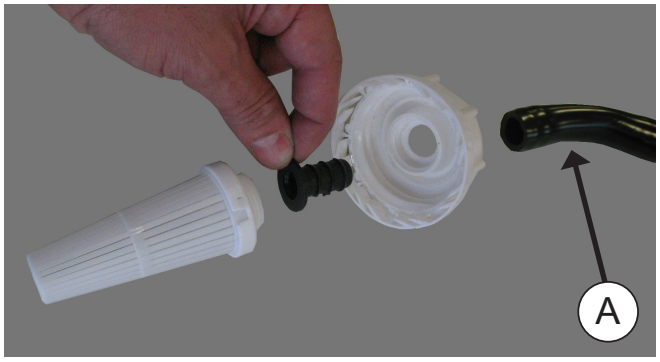
27 Fixer l´ensemble de la pompe au réservoir avec (2) vis filet plaque 5.4x19 mm.

28 Then connect the pump pipe (x) to the tank and fasten tank (*choosing the best position for the filling plug, right or left, to enable this*) with supports supplied. The support with the projection is placed, if the tank is assembled with the filling plug, (Y) to the left-hand side.





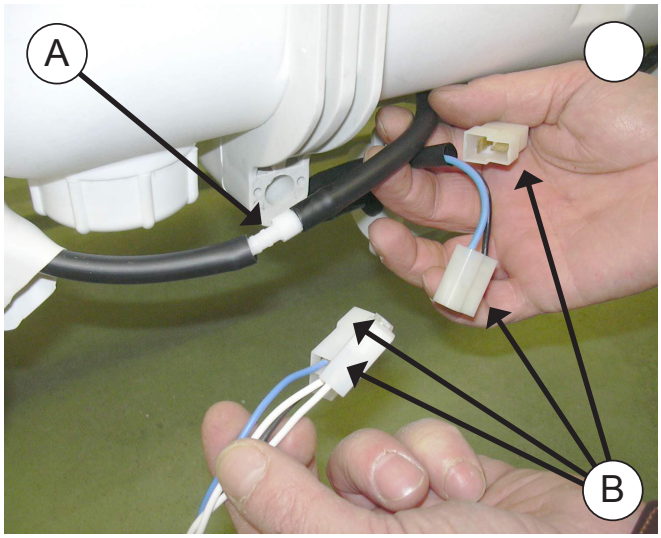
29 Assemble filter on hose with stem, introduce in cap and connect to Ø18xØ12 return hose (A).



30 Place cap on tank. Cut at 100mm, insert “T” and connect to it smaller section hose, **marked with white tape Y (check that curve radius is enough to avoid stranglings).**

31 Connect wiring with sheath to evaporative cooler boxes and water inlet hose.

A. Connect impulsion hose coming from evaporative cooler to pump.
B. Connect pump wiring and level wiring.



32 WIRING KIT WITH TUBES

(*) Adecuate installation and routing, whith the tubes drop inclined, avoiding siphons, loops and choking, in order to make easier the water returning to the tank.
(**) Wrong way.

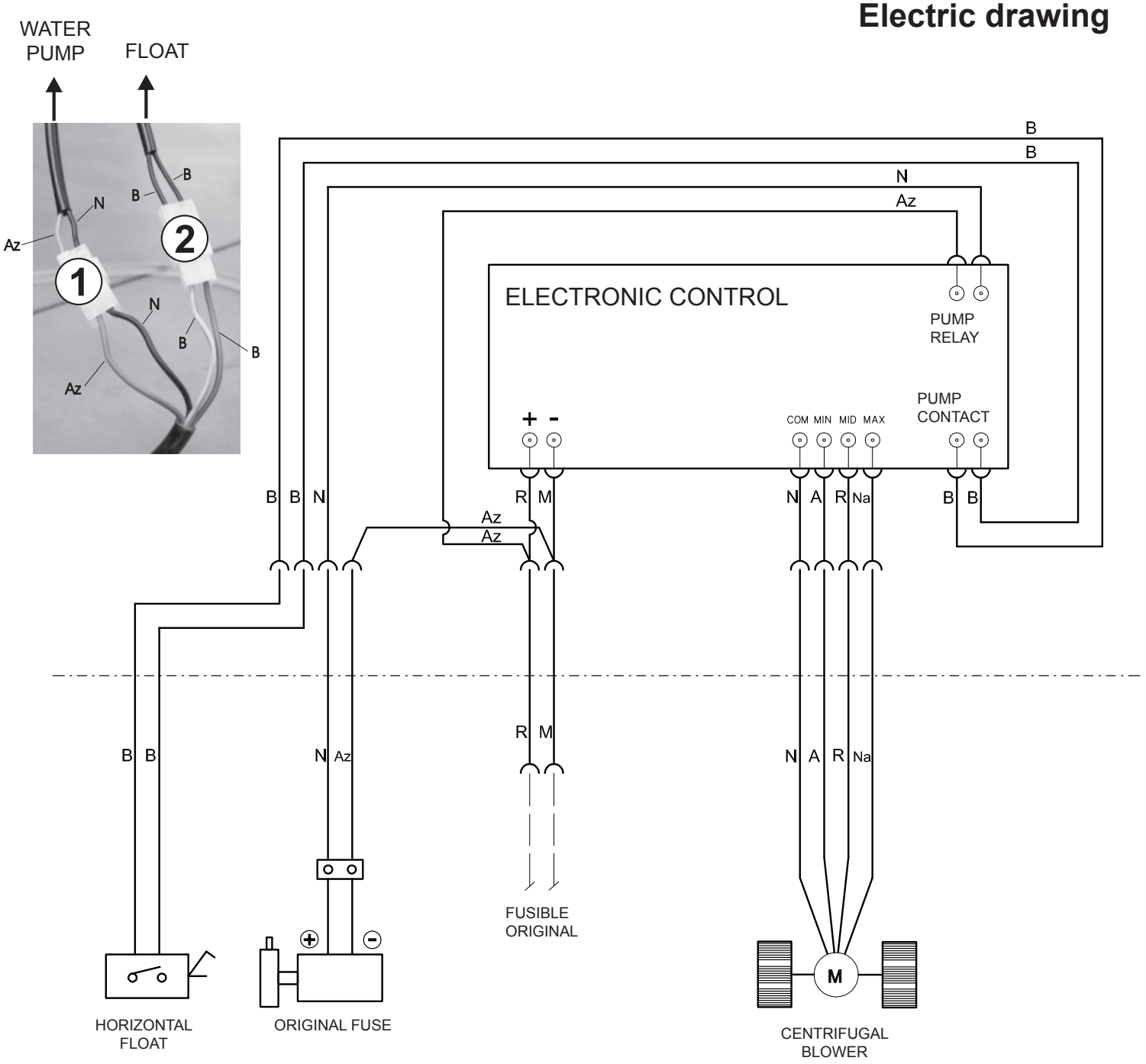
IMPORTANT:

Evaporative air conditioner works by taking air from outside and introducing it in cabin. It is essential that air does not stagnate inside, which would produce an excess of humidity. All modern cabins of vehicles are equipped with air inlets, through which required air comes out as, for instance, in the case of heating.

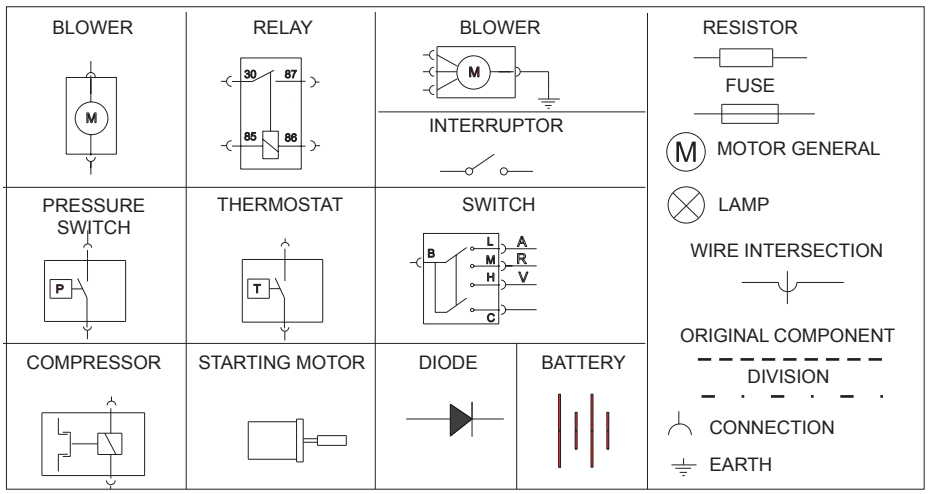
Assembler will have to check that these air inlets do exist and, in case they do not, he will have to mount them.

As for the user, he will have to periodically make sure that these air inlets are not blocked by dirt.

Electric drawing



CONVENTIONAL SIGNS



COLOURS

A	Yellow
Az	Blue
B	White
G	Grey
Na	Orange
N	Black
R	Red
Ro	Pink
V	Green
Vi	Violet
M	Brown
Mo	Purple

Recommandations pour le montage

- Lire les instructions avant de commencer le montage, et les suivre pendant tout le procédé d´installation.
- Utiliser des outils adaptés à chaque opération.

Électricité

- Déconnecter la clé de contact.
- Déconnecter la batterie avant de commencer le montage.
- Assurer le raccordement des composants électriques en vérifiant que l´emboîtement est correct.

⚠ Attention

Lorsque l'équipement évaporatif est installé sur le plafond, il faut protéger la partie supérieure de la cabine avec un chiffon ou un tissu protecteur pour éviter les éraflures. Lorsque le **Bycool Flat** est fixé au plafond, il faut savoir que, normalement, les cabines qui sont munies d'une écoutille possèdent une structure suffisante pour supporter le poids de l'équipement. Cependant, si ce n'est pas le cas, et s'il est nécessaire d'effectuer une coupure dans le plafond et le matériel n'est pas assez résistant, même s'il incorpore une écoutille (plafond en fibre, plastique, etc.), l'installateur devra décider, **sous sa responsabilité**, le besoin ou pas de renforcer le plafond pour éviter de possibles déformations, cassures, entrées d'eau, etc., en utilisant les moyens nécessaires pour que cela ne se produise pas.

Outils

Jeu de Clés Torx
Jeu de Clés Allen
Clé fixe 10, 13, 14
Ciseaux
Flexomètre

Documentation Fournie

Instructions de Montage	220.AA3.5210
Manuel de l´Usager	220.AA7.0003
Diagnostic de Pannes	220.AA7.0004
Garantie	220.AA1.0010

Symbologie

Fragile

Attention aux coupures !

Risque électrique

⚠ Avertissements

⚠ La pièce nº 20 de la liste des Pièces Fournies doit être remplacée tous les 12 mois.

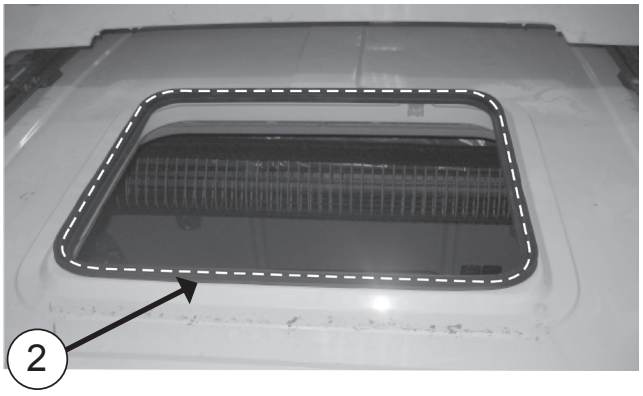
⚠ **Dirna Bergstrom, s.l.** est exempte de toute responsabilité en cas de pannes dues à une manipulation ou à une installation incorrectes de l´équipement, ou bien à cause de modifications ou de remplacements réalisés sans notre autorisation expresse par écrit.

⚠ Voir **procédé de garantie** du produit inclus dans **Diagnostic de Pannes**.

⚠ Voir **Manuel de l´Usager** de l´équipement pour le fonctionnement correct de la télécommande et du panneau de contrôle.

1 Démonter le couvercle de l´écoutille, les éléments de fixation et les remettre au client (*).

2 Collez le joint EPDM autour du creux de l´écoutille (regarder le détail pour couper les bords d´union du joint).

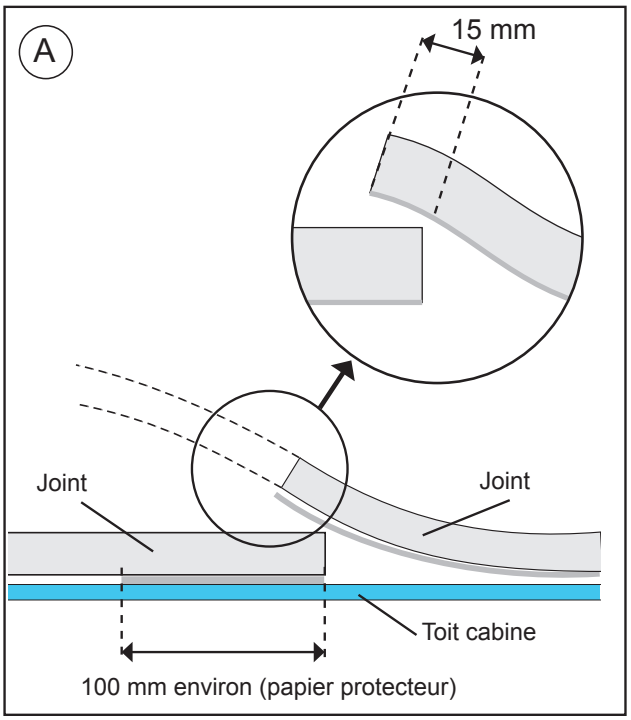


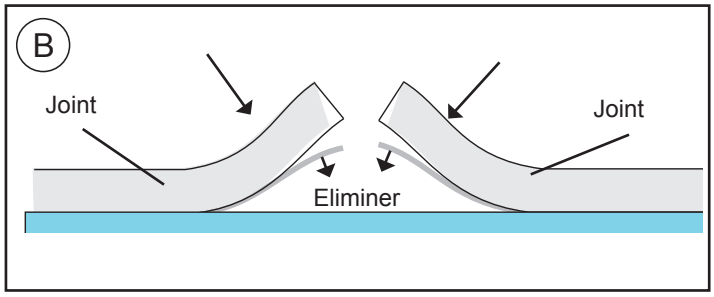
COMMENT COUPER LE JOINT EPDM POUR ÉVITER LA FILTRATION DE L´EAU DANS LA CABINE

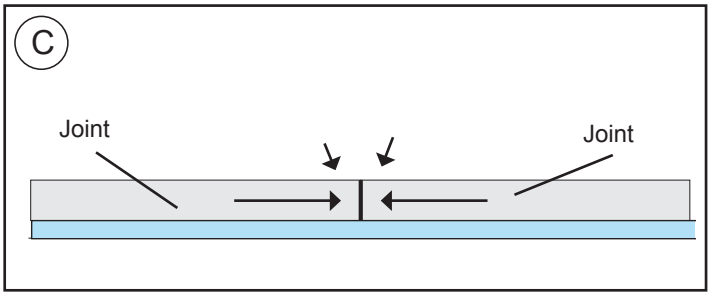
A- Coller le joint, tout en maintenant 100 mm de papier protecteur de chaque côté.

B- Enlever les deux pièces en papier.

C- Coller en faisant pression sur les deux bouts.

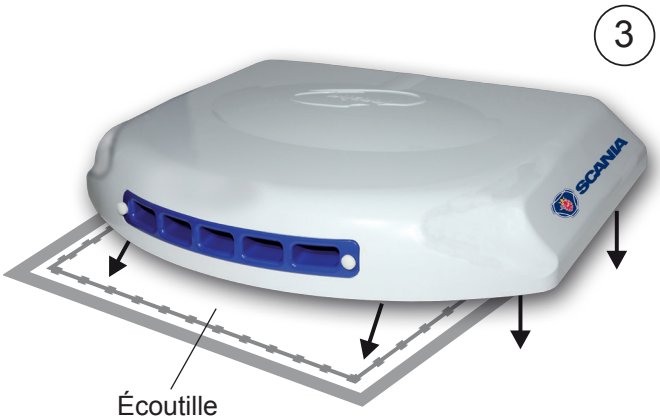




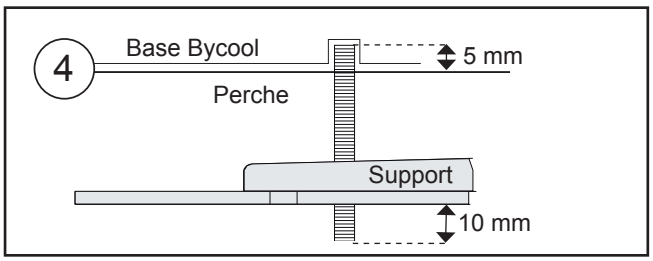


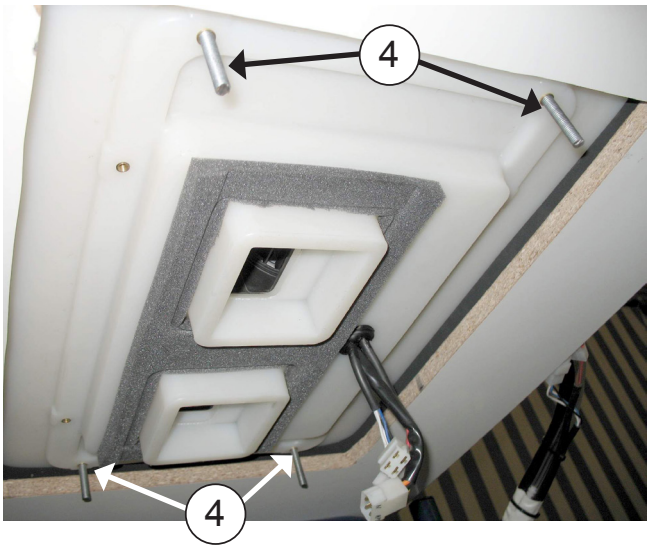
3 **EXTÉRIEUR CABINE:**

Placer le Bycool dans le creux de l´écoutille.

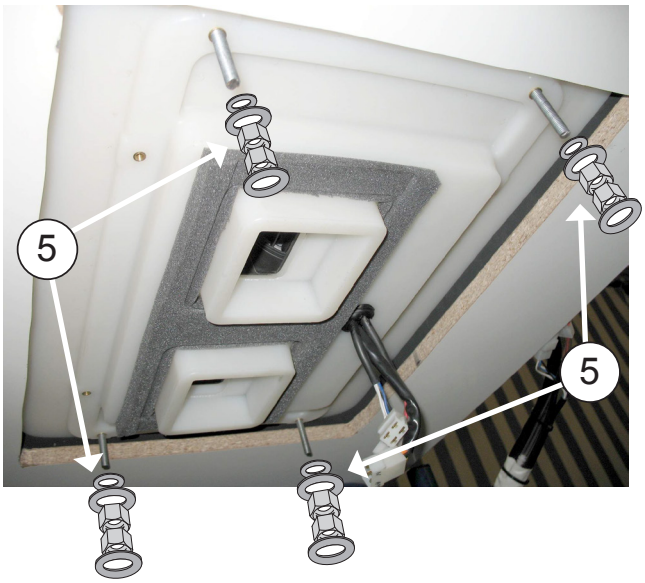


4 **INTÉRIEUR CABINE:**
Visser (4) perches 8/125x100 ou 120 environ 5 mm, la mesure sera choisie après présenter les supports de fixation et en tenant compte que les perches doivent ressortir environ 10 mm de ceux-ci par la partie inférieure.



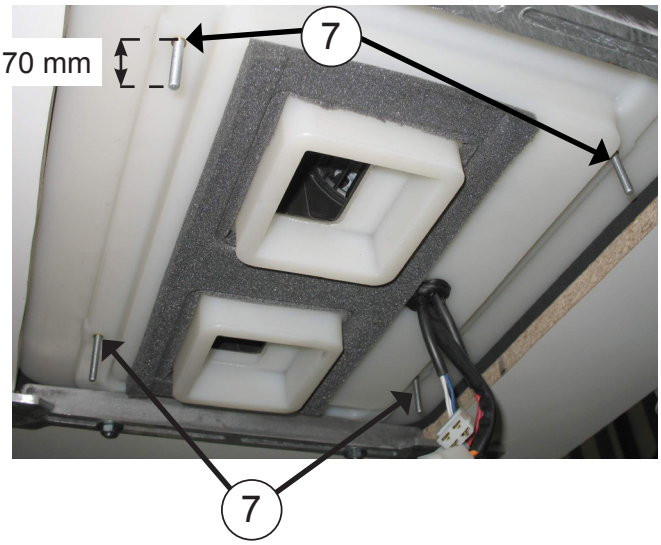


5 Placer (1) rondelle Ø 7 en caoutchouc, (1) rondelle plate Ø 8 surface large, (2) écrou M8 et (1) rondelle plate Ø 8 surface large, sur chacune des perches précédentes.



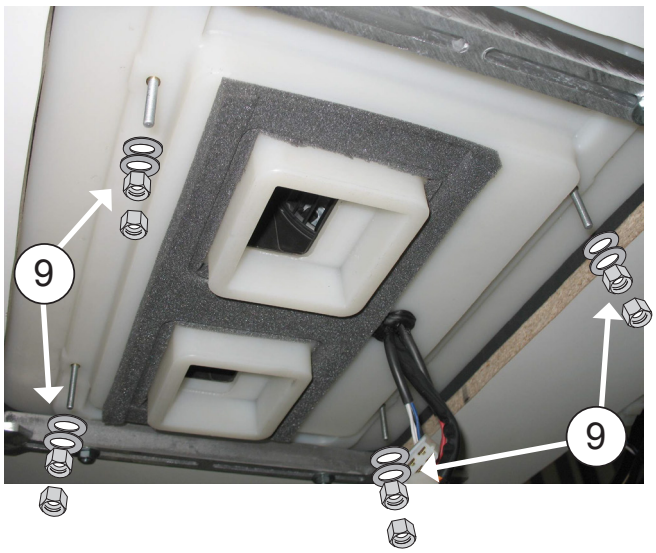
6 Placer (2) supports de fixation, avec (1) rondelle et (1) écrou autobloquant M8, **sans serrer.**

7 Visser (4) perches M6 x 55 ou 80 10 mm, à l´endroit indiqué.

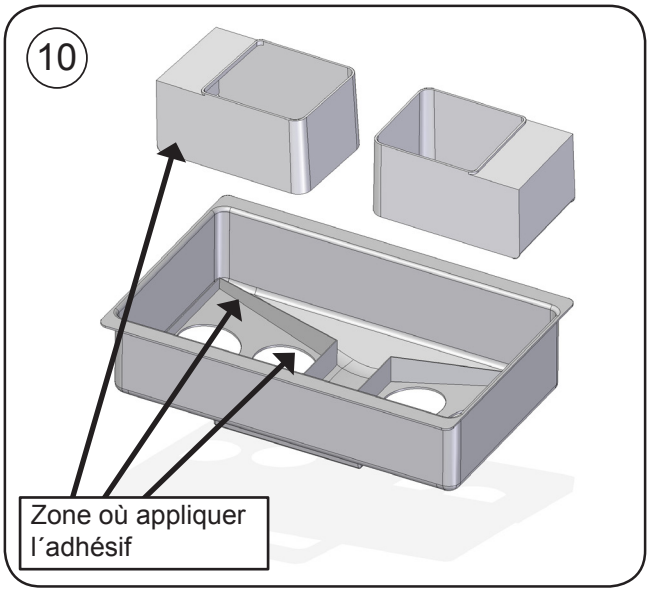


8 Placer (1) rondelle Ø6 en caoutchouc, (1) rondelle plate Ø6 surface large et (1) écrou M6, sur chacune des perches de M6. **Serrer l´écrou.**

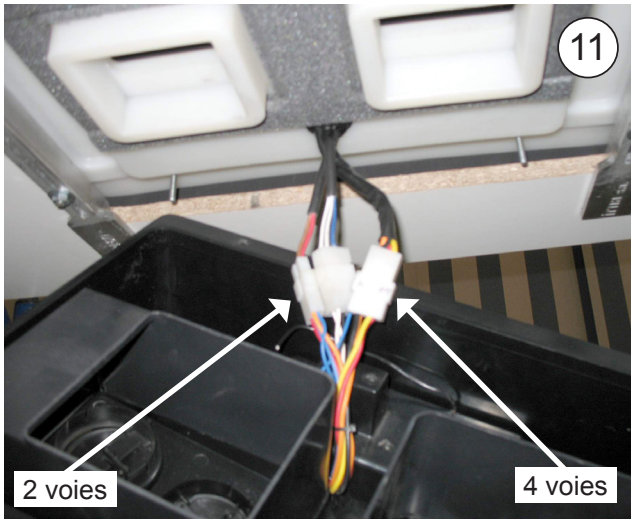
9 Placer (1) écrou M6 **sans serrer** sur chaque perche.



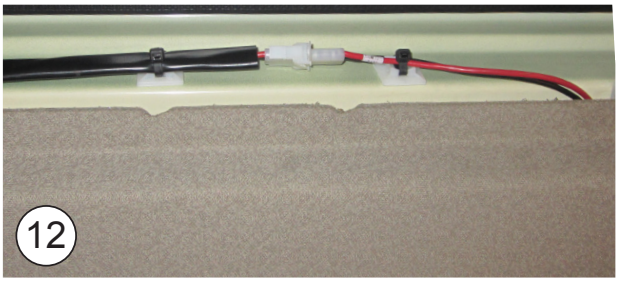
10 Coller les canaliseurs au panneau intérieur de distribution avec de la superglue 3 LOCTITE ou semblable, pour faciliter le montage de l'ensemble et assurer les flux d'air froid par les orifices.



11 Brancher les (2) boîtes de 4 voies et (1) de 2 voies, du panneau intérieur de distribution d'air, avec celles de **Bycool**.

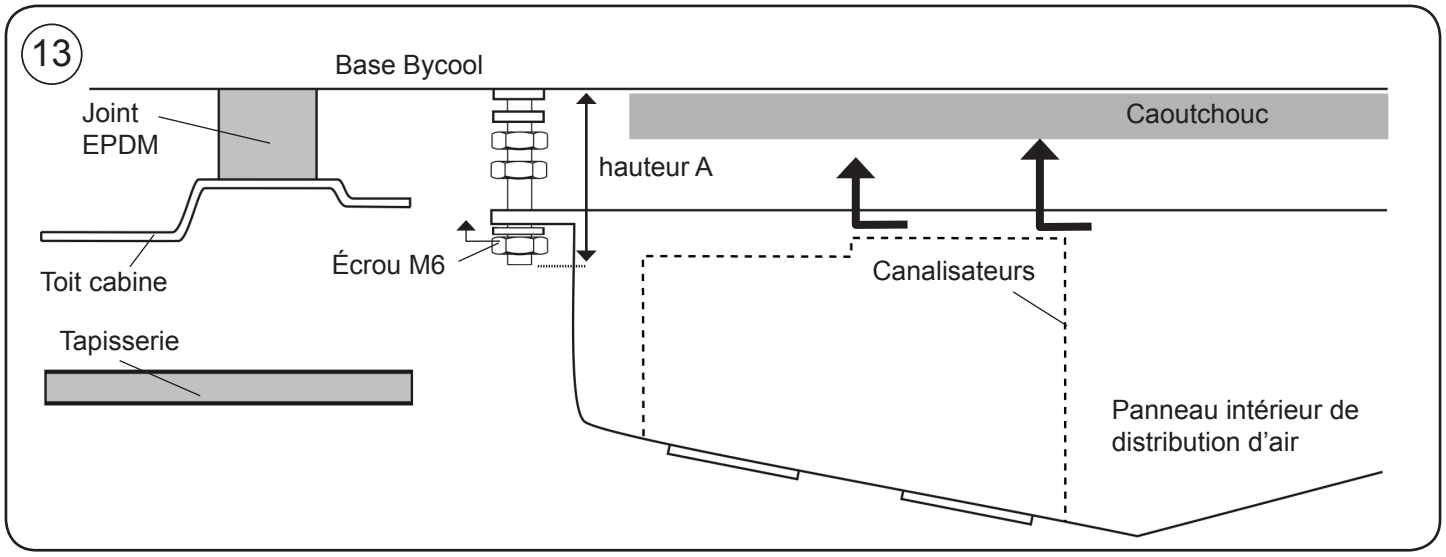


12 Connecter la borne du câble d'alimentation à la borne d'origine.

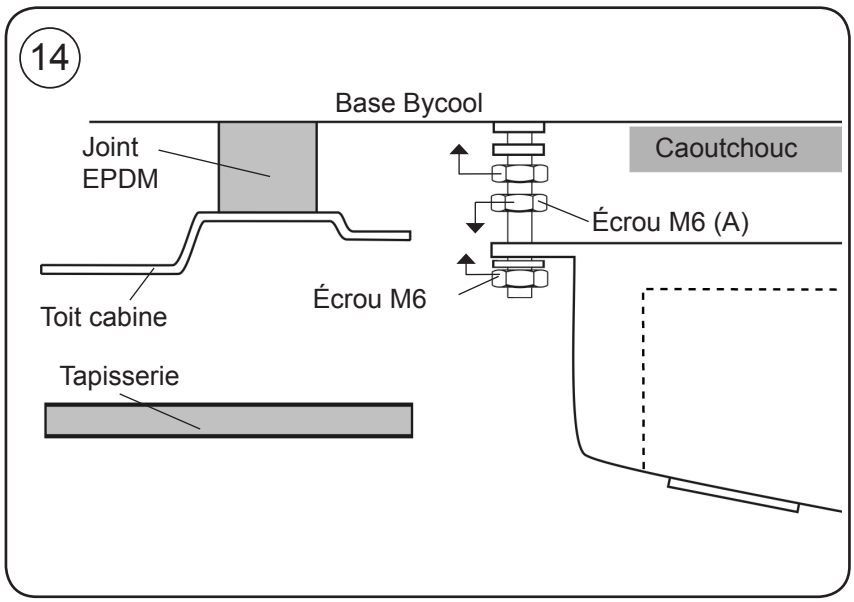


13 Placer le panneau intérieur de distribution d'air dans les tiges antérieures avec (1) rondelle M6 à larges bords et (1) écrou M6 dans chaque tige. Serrer les écrous jusqu'à ce que les canaliseurs butent contre le caoutchouc supérieur de l'appareil.

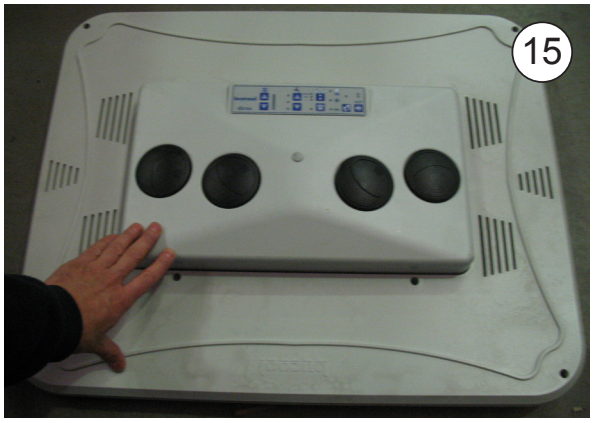
Important: Les canalisateurs doivent toucher le caoutchouc mousse pour éviter les fuites d´air.



14 Serrer l'écrou (A) jusqu'à buter contre la partie supérieure du panneau intérieur de distribution d'air.

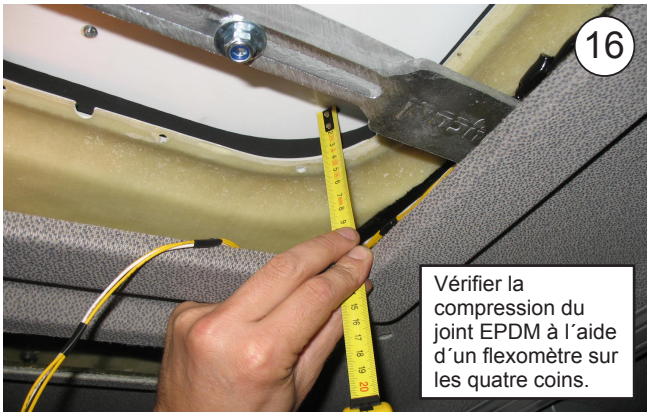


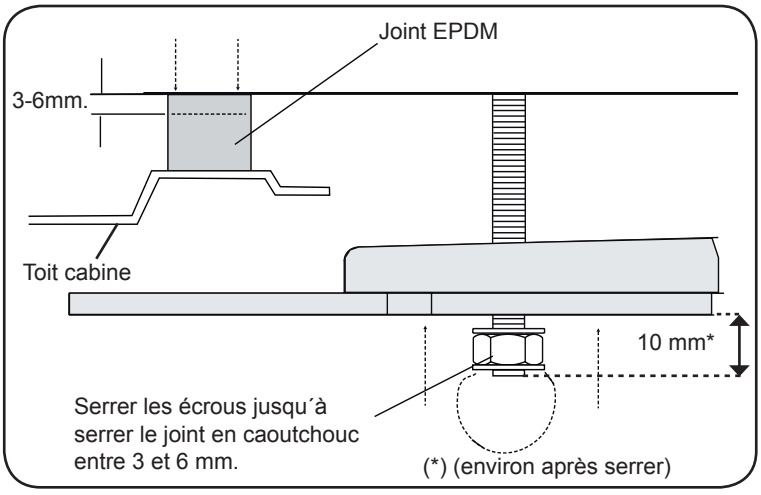
15 Présenter la console et centrer l´équipement à l´endroit le plus approprié du toit de la cabine. Une fois centré, retirer la console.

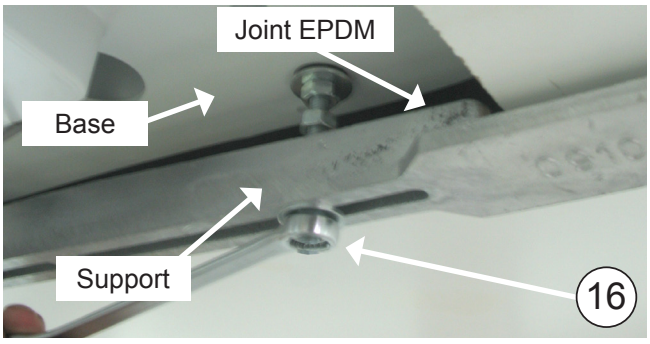


16 Fixer les supports de fixation en serrant les écrous jusqu´à serrer le joint de EPDM extérieur de l´équipement entre 3 et 6mm.

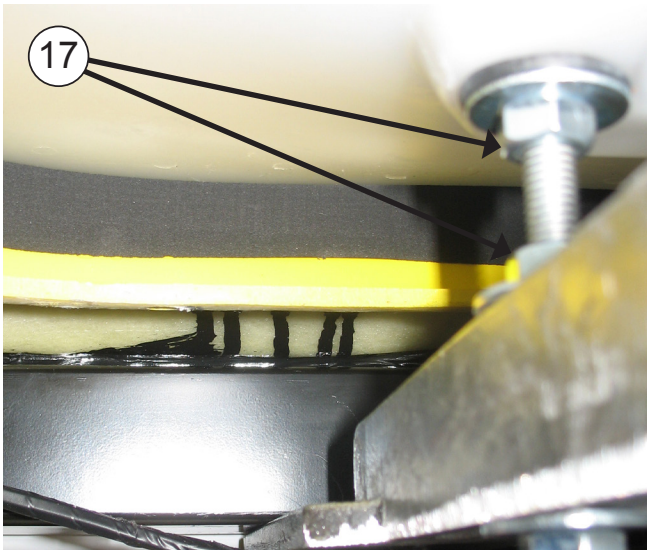
Important: Pour éviter de possibles filtrations d´eau à l´intérieur de la cabine, vous devez assurer la fixation du joint EPDM avec la base du Bycool comme il est indiqué sur le schéma.



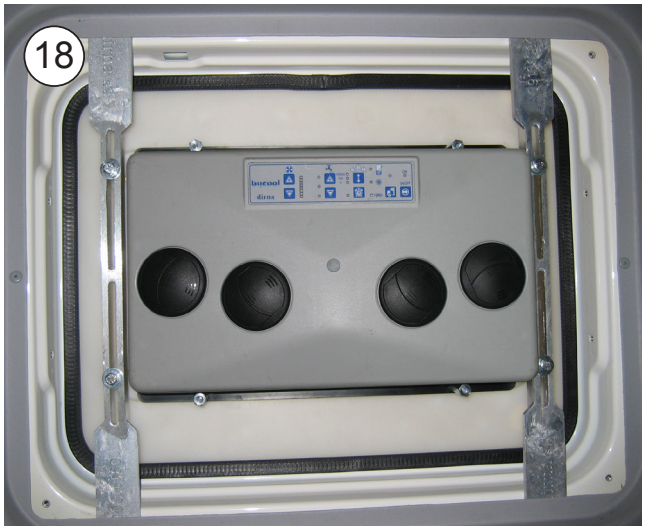


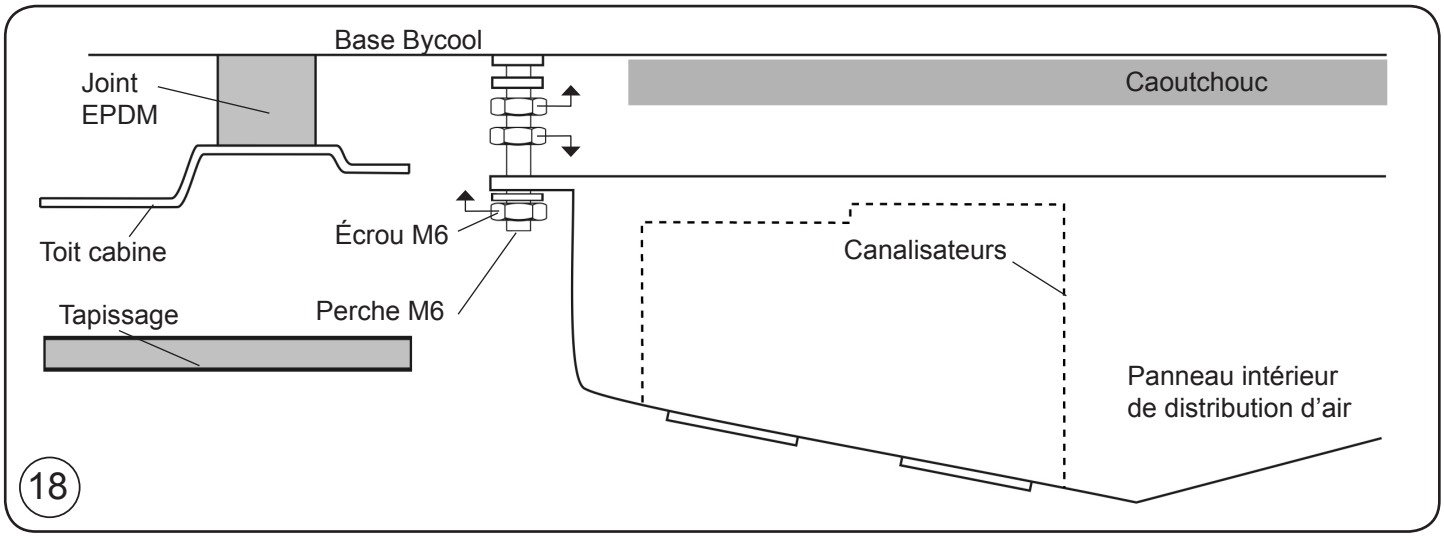


17 Serrer (4) écrous M8 au support et (4) à la base du Bycool.



18 Vue générale après redouble des supports.

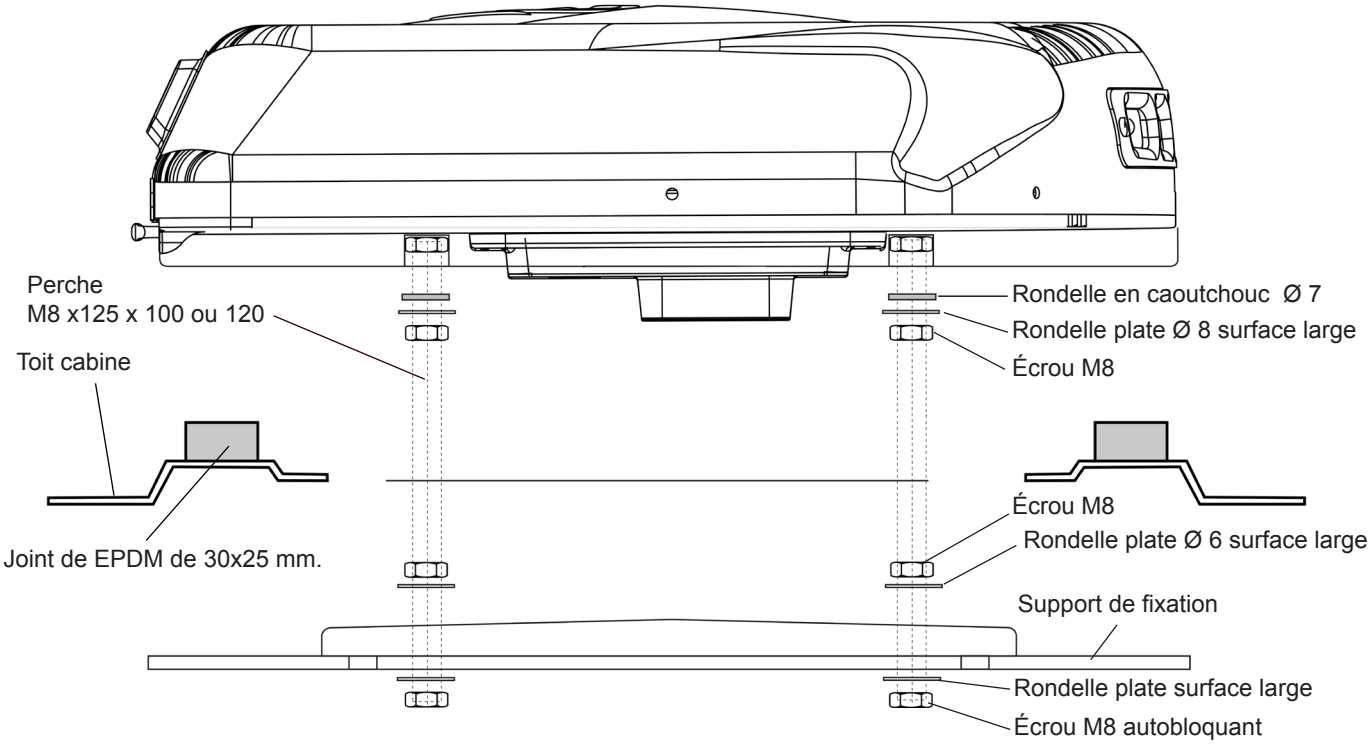




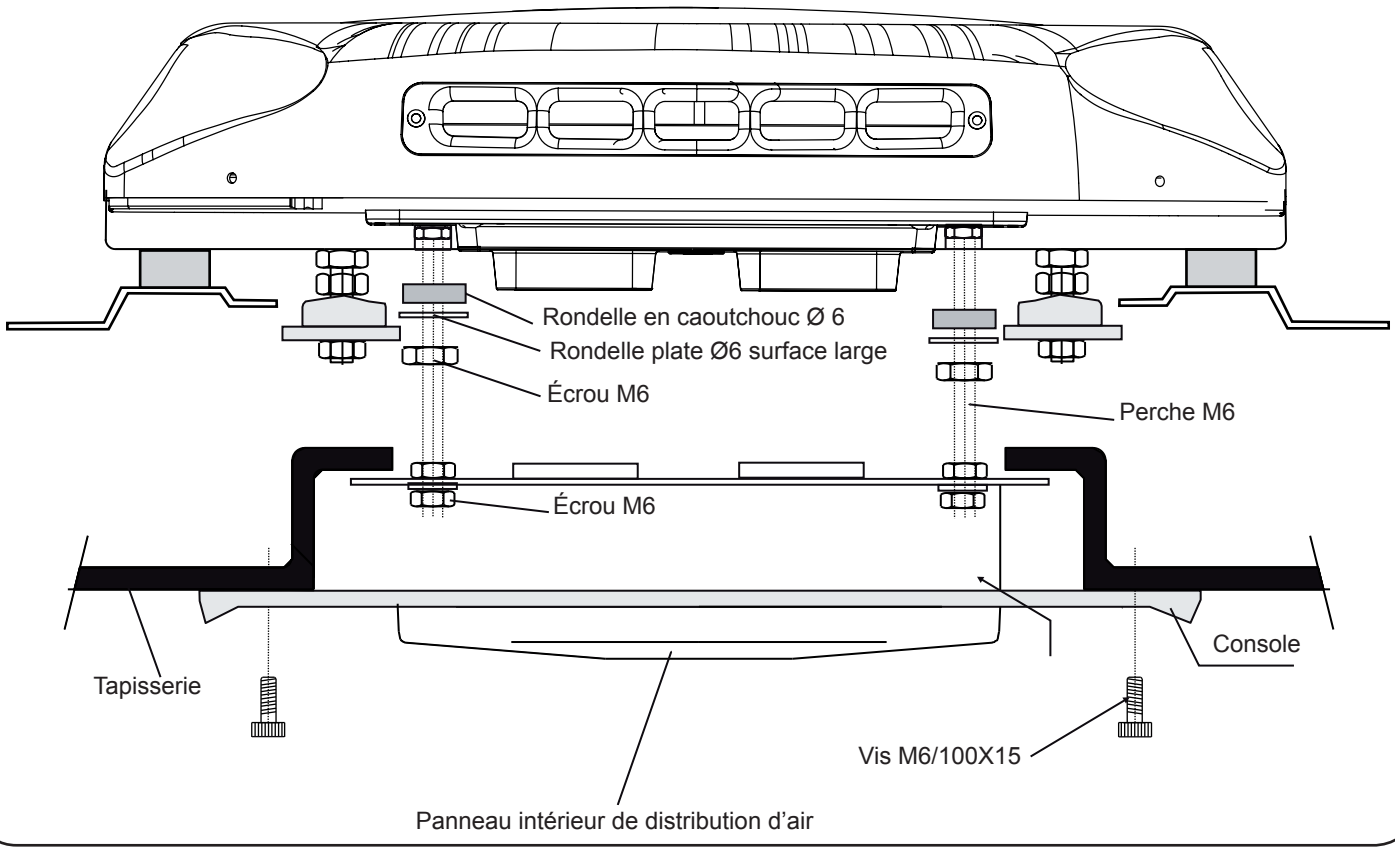
19 Placer la console avec (4) vis M6/100x15.

20 Couvrir les vis de 8 enjoliveurs ronds de M6 plastique.

Vue agrandie jusqu´à fixation des supports



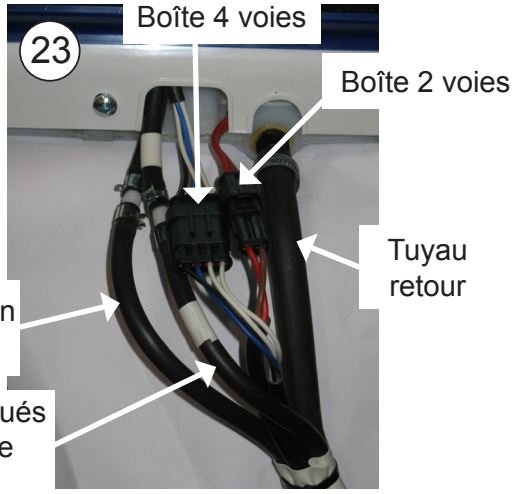
Vue agrandie jusqu´à fixation des consoles



21 Vue générale du panneau intérieur de distribution d'air avec la console.

22 Vue supérieure du Bycool.

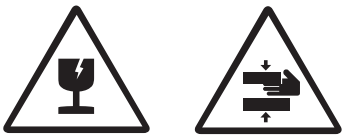
23 Détail de la connexion de l´ensemble des tuyaux avec le Bycool.



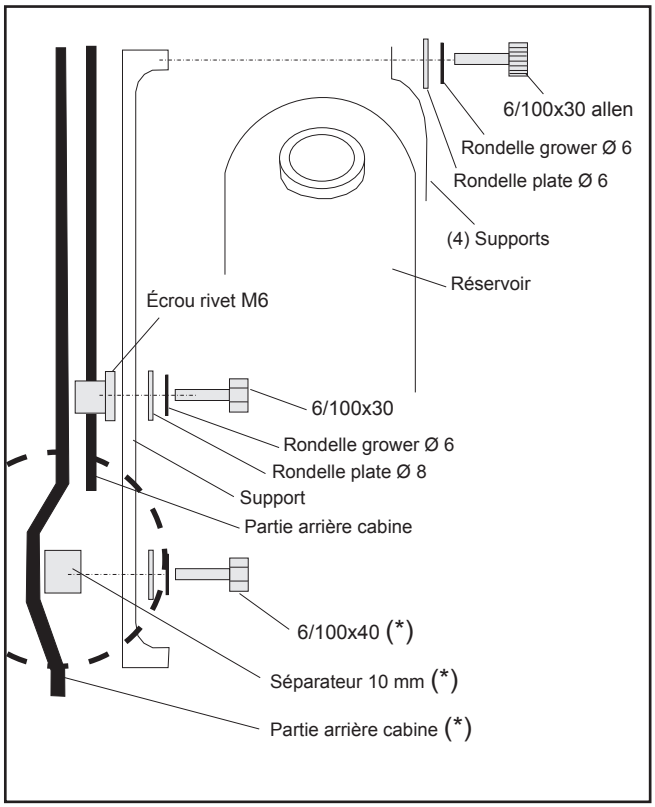
Opérations à suivre pour le montage du réservoir d´Eau:

24 Placer le support réservoir dans la partie basse la plus convenable de la zone arrière de la cabine.

25 Marquer et percer Ø 9 dans la cabine en tenant compte de la position verticale du support. Minimum (6) perçages de fixation.

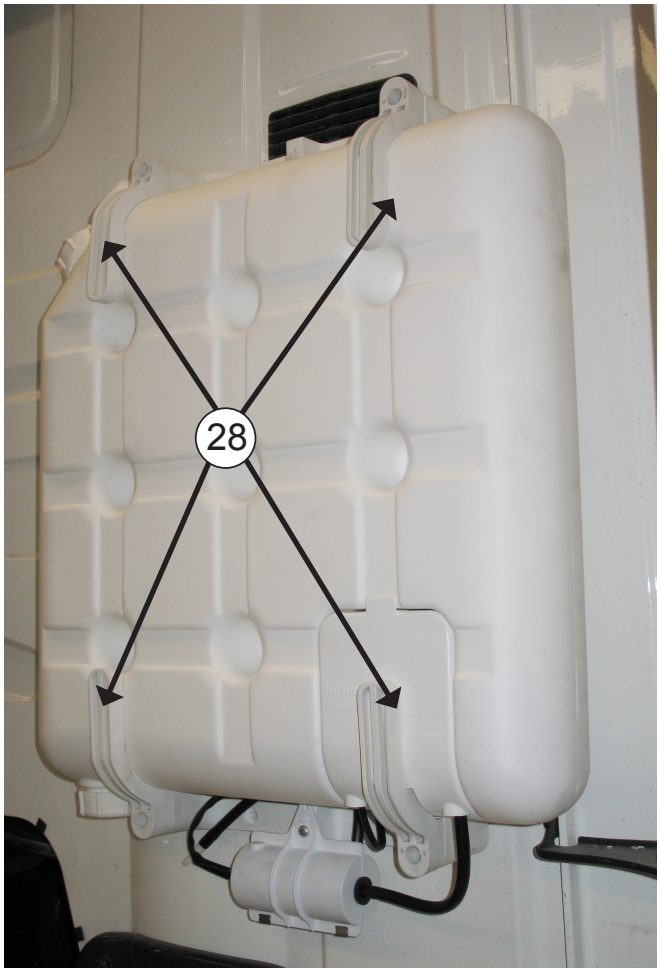


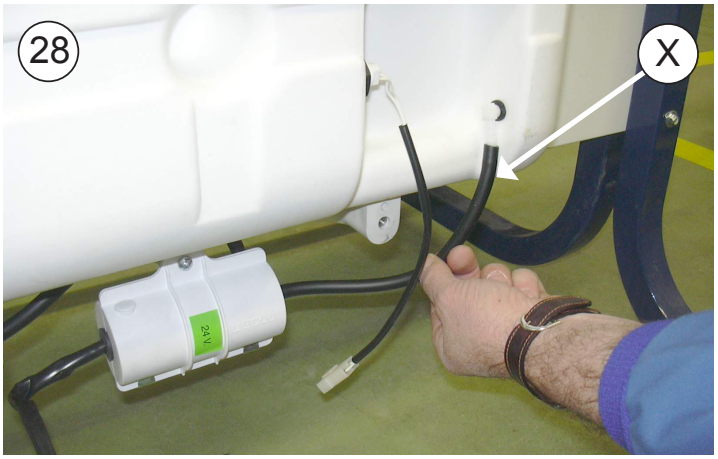
26 Placer des écrous rivet de M6 et fixer le support avec des vis 6/100x30.
(*) – S´il n´y a pas d´appui sur la partie lisse, placer le séparateur de 10mm et la vis 6/100 x 40.

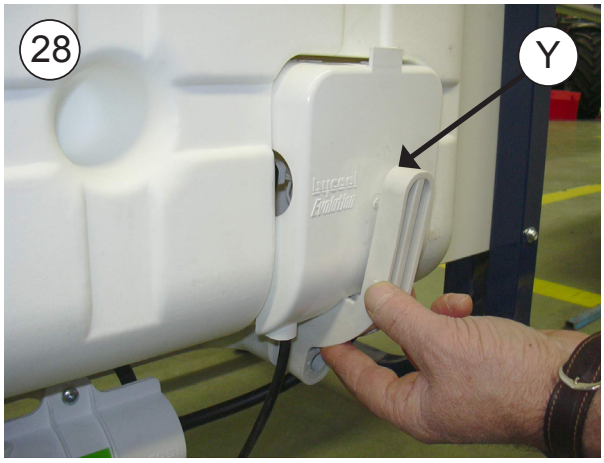


27 Fixer l´ensemble de la pompe au réservoir avec (2) vis filet plaque 5.4x19 mm.

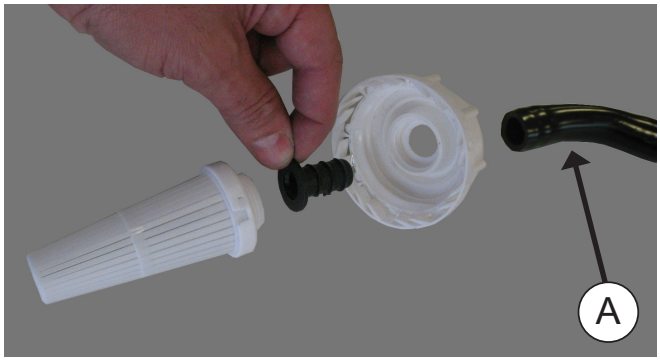
28 Connecter ensuite le tuyau de pompe (X) au réservoir et fixer le dépôt (*en choisissant la meilleure position du bouchon de remplissage, droite ou gauche, pour le faciliter*) avec des supports fournis. Le support avec ressortant se place en cas de montage du réservoir avec le bouchon de remplissage (Y) sur le côté gauche.







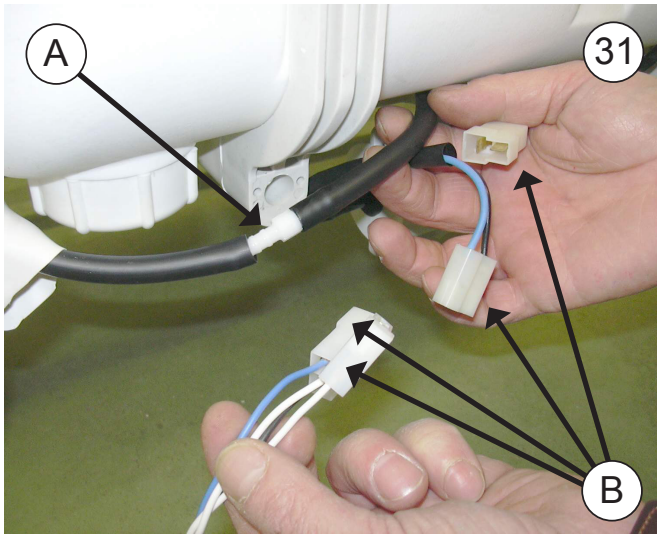
29 Monter filtre sur tuyau avec cheville, introduire dans le bouchon et connecter au tuyau de retour Ø18 x Ø12 (A).



30 Placer le bouchon dans le réservoir, couper à 100 mm; intercaler “T” et connecter le tuyau avec la plus petite section à celle-ci, **marquer avec une bande blanche et s´assurer que le rayon de la courbe est suffisant pour éviter des étranglements.**

31 Connecter le câblage avec l´étui aux boîtes de l´évaporateur et au tuyau d´eau.

A. Connecter le tuyau d´impulsion qui vient de l´évaporateur à la pompe.
B. Connecter le câblage de la pompe et du niveau.



32 CÂBLAGE AVEC TUBES

(*) Installation correcte, qui permet que le tuyau d´écoulement ait une tombée tout en évitant les boucles et les étranglements, afin de faciliter la tombée de l´eau dans le réservoir.

(**) Installation incorrecte. Ne pas réaliser.

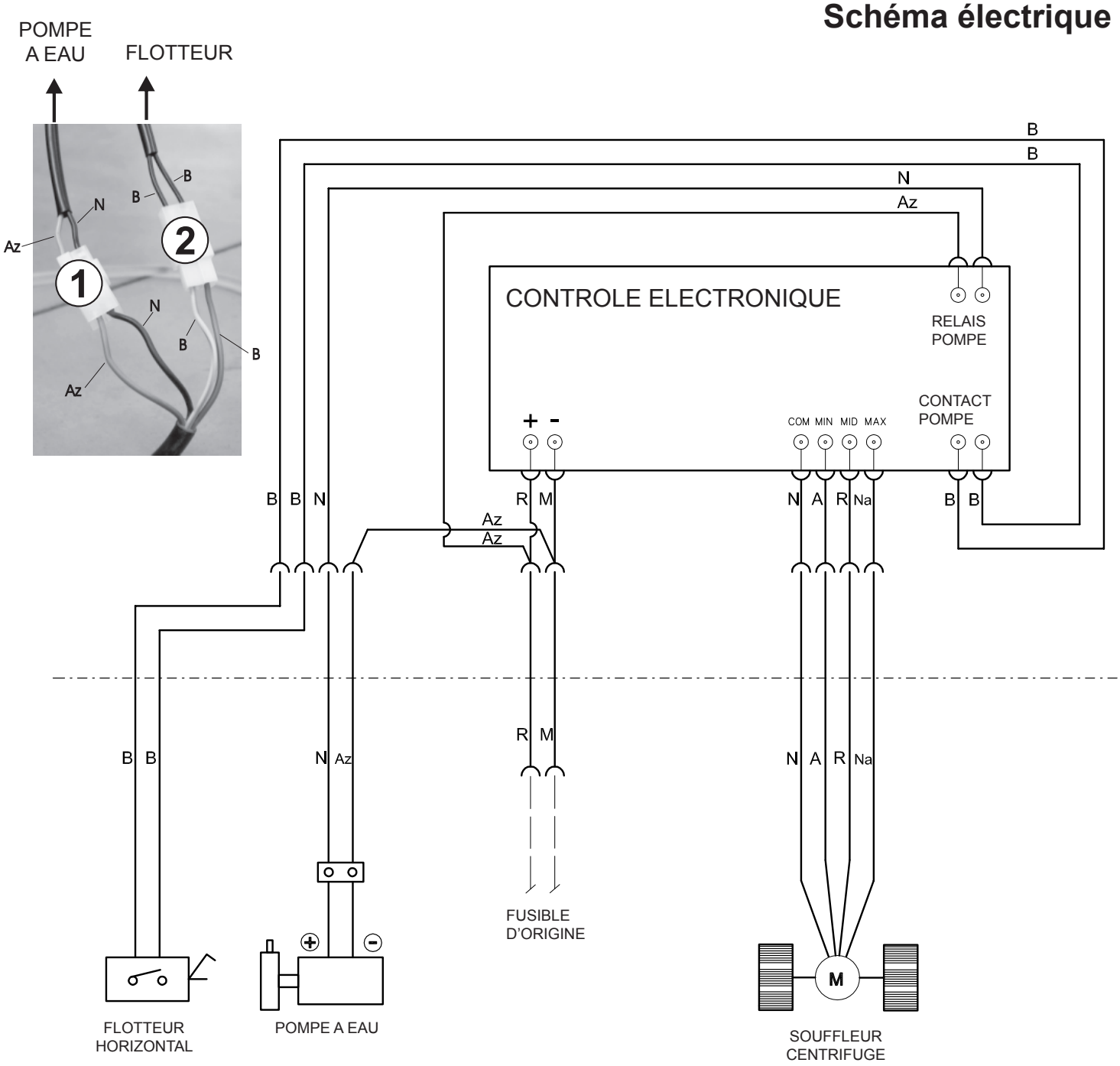
IMPORTANT:

L´actionneur d´évaporation fonctionne en prenant l´air de l´extérieur qui est introduit dans la cabine. Il est important que cet air ne reste pas en suspens à l´intérieur, car cela produirait un excès d´humidité. Toutes les cabines des véhicules modernes sont munies de grilles de renouvellement de l´air, à travers lesquelles l´air nécessaire sort. Par exemple, pour le chauffage.

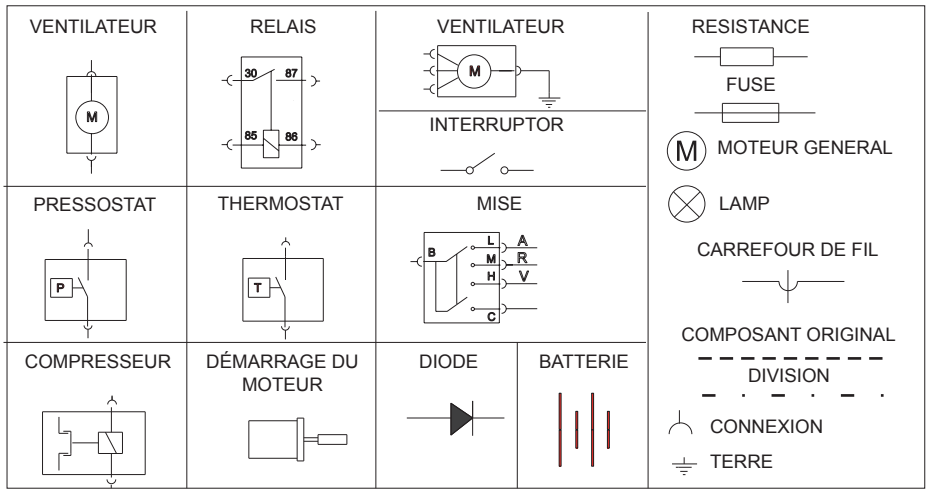
L´installateur devra s´assurer de l´existence de ces grilles et, dans le cas contraire, il devra les installer.

De son côté, l´usager devra surveiller régulièrement que ces grilles ne soient pas bouchées par la saleté.

Schéma électrique



SIGNES CLASSIQUES



COULEURS

A	Jaune
Az	Bleu
B	Blanc
G	Gris
Na	Orange
N	Noir
R	Rouge
Ro	Rose
V	Vert
Vi	Violet
M	Marron
Mo	Violet

Empfehlungen Zur montage

- Bevor Sie mit der Montage beginnen, lesen Sie diese Anweisungen sorgfältig und befolgen Sie sie im Verlauf der Installation.
- Verwenden Sie für jeden Arbeitsgang die geeigneten Werkzeuge.

Elektrizität

- Zündschlüssel ziehen.
- Vor Beginn der Montage Batterie abklemmen.
- Überprüfen Sie die Anschlüsse auf korrekten Sitz.

⚠ Achtung

Wird die Verdampferanlage im Kabinendach installiert, muss der obere Teil der Kabine mit einem Tuch oder einer Decke gegen eventuelle Kratzer geschützt werden. Bei der Installation des **Bycool Flat** an der Decke ist zu berücksichtigen, dass die Konstruktion von Kabinen mit Luke normalerweise ausreicht, um das Gewicht der Anlage zu tragen. Sollte die Kabine jedoch keine Luke haben und die Decke aufgeschnitten werden müssen oder, bei vorhandener Luke das Material nicht ausreichend widerstandsfähig sein (bei Decken aus Faser, Kunststoff usw.), obliegt es dem Installateur **unter seiner Verantwortung** über die Notwendigkeit zu entscheiden, die Decke anhand entsprechender Mittel zu verstärken, um evt. Verformungen, Brüche, Eindringen von Wasser usw. zu verhindern.

Werkzeuge

Satz Torx-Schlüssel
Satz Inbusschlüssel
10er, 13er, 14er Gabelschlüssel
Schere
Biegeprüfgerät

Mitgelieferte unterlagen

Montageanweisungen	220.AA3.5210
Benutzerleitfaden	220.AA7.0003
Fehlerdiagnose	220.AA7.0004
Gewährleistung	220.AA1.0010

Symbolik

Fragile

Achtung Gericht!

Elektrische Gefährdung

⚠ Warnhinweise

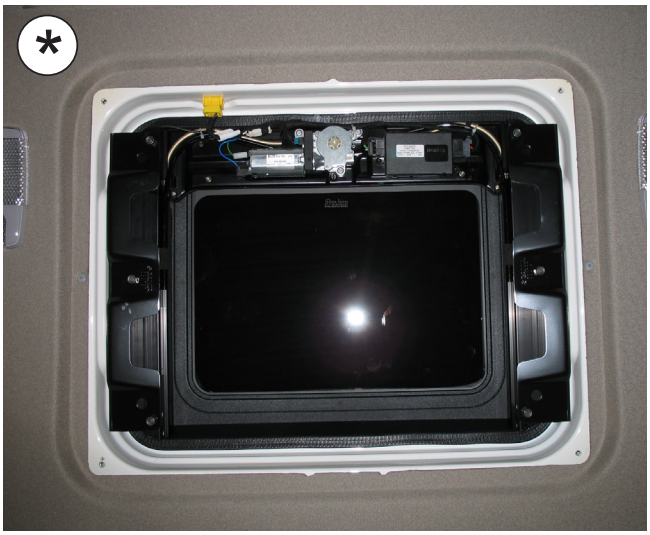
⚠ Teil 20 der Liste der Lieferteile muss alle 12 Monate ausgestaucht werden.

⚠ **Dirna Bergstrom, s.l.** übernimmt keine Haftung bei Schäden durch unsachgemäßen Umgang mit der Anlage oder deren falschen Einbau oder durch ohne unsere ausdrückliche schriftliche Zustimmung vorgenommene Änderungen und ausgetauschte Komponenten.

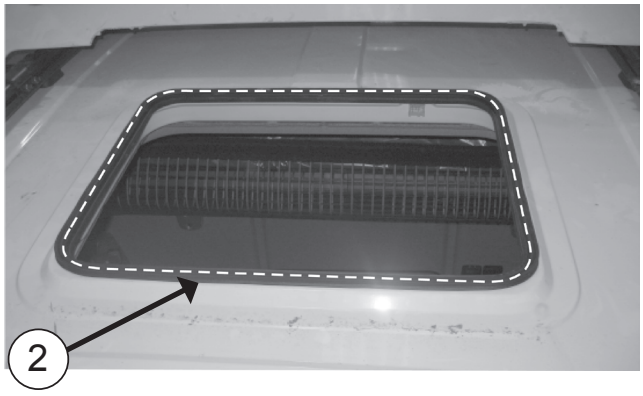
⚠ Bitte beachten Sie **Gewährleistungsverfahren** des Produktes einschließlich **Fehlerdiagnose**.

⚠ Zum korrekten Einsatz der Fernbedienung und der Steuertafel verweisen wir auf das **Benutzerhandbuch** der Anlage.

1	Aussparungsdeckel und Befestigungsteile abnehmen und dem Kunden übergeben (*).



2	Kleben Sie die EPDM –Dichtung um die Lukenöffnung (*beachten Sie die Hinweise zum Beschneiden der Abschlussverbindungskanten der Dichtung*).

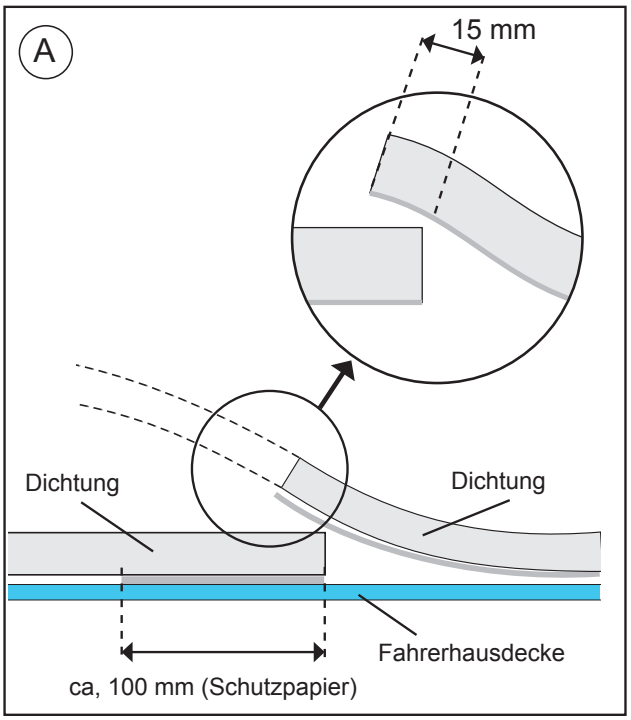


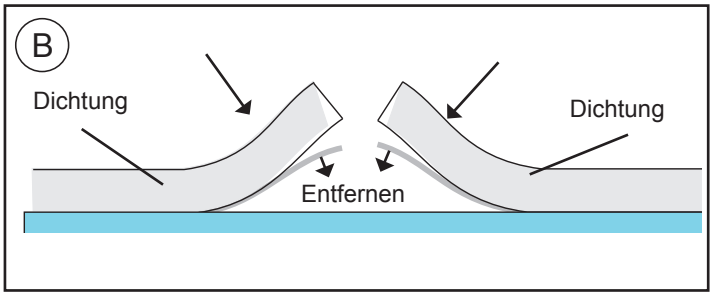
SO WIRD DIE EPDM-DICHTUNG BESCHNITTEN, UM DAS EINSICKERN VON WASSER IN DAS FAHRERHAUS ZU VERMEIDEN

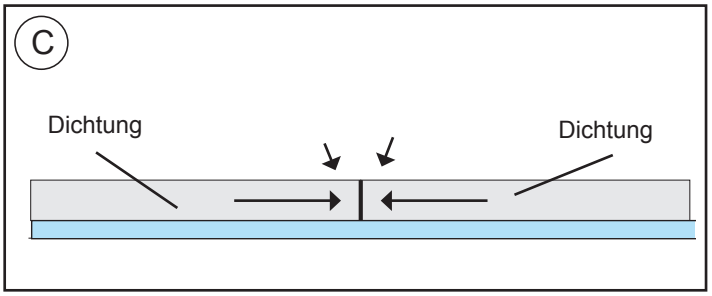
A- Dichtung so verkleben, dass 100 mm Schutzpapier an jeder Seite überstehen.

B- Entfernen Sie die beiden Papierstücke.

C- Drücken Sie die beiden Endstücke an.

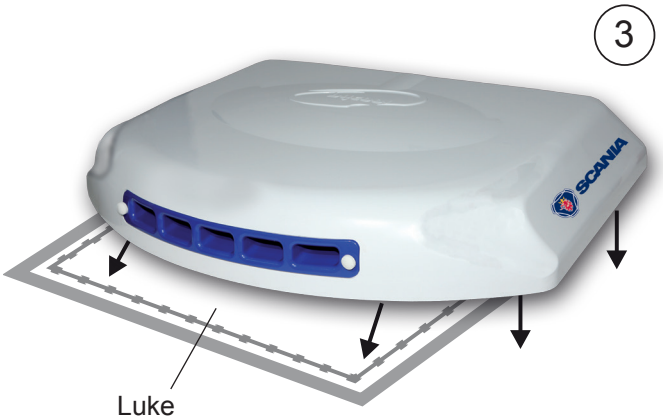




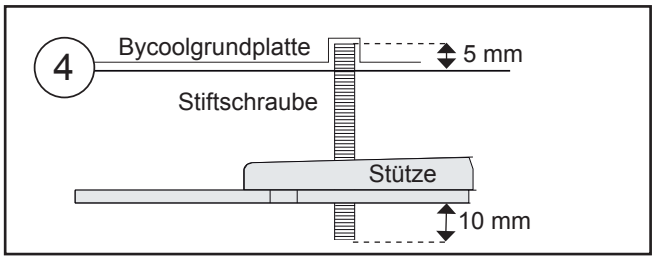


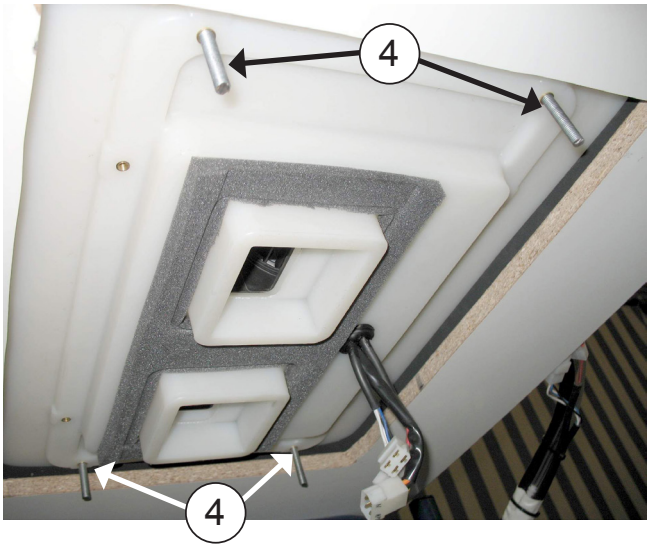
3 **FAHRERHAUS, AUSSEN:**

Bycoolanlage in der Lukenöffnung positionieren.

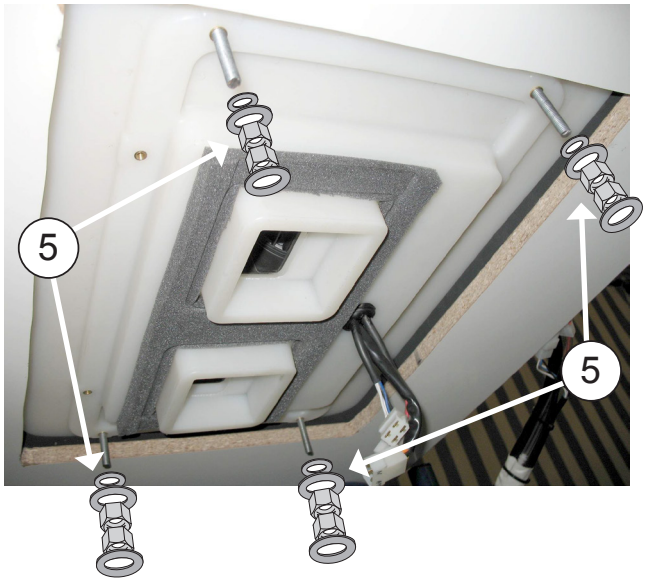


4 **FAHRERHAUS, INNEN:**
(4) Stiftschrauben 8/125x100 oder 120 ca. 5 mm eindrehen; das Maß wird nach der Positionierung der Befestigungsstützen gewählt, wobei zu berücksichtigen ist, dass die Stiftschrauben nach unten 10 mm überstehen müssen.



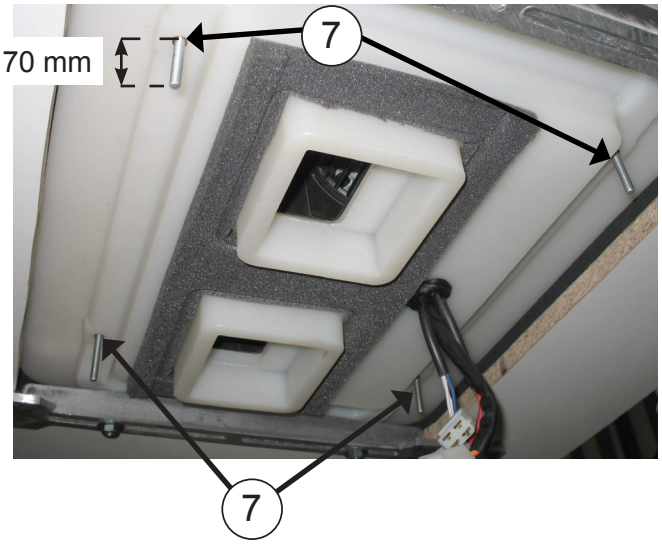


5 An jeder der obigen Stiftschrauben (1) Gummischeibe Ø 7, (1) Breitflanschflachscheibe Ø 8, (2) Muttern M8 und (1) Breitflanschflachscheibe Ø 8 einlegen.



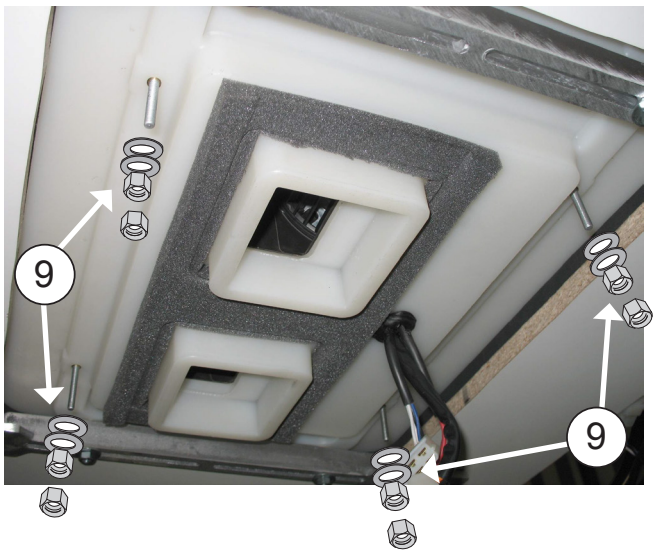
6 (2) Befestigungsstützen mit (1) Scheibe und (1) selbstblockierenden M8-Mutter eindrehen, jedoch **ohne sie anzuziehen.**

7 (4) Stiftschrauben M6 x 80 10 mm an der angegebenen Stelle eindrehen.

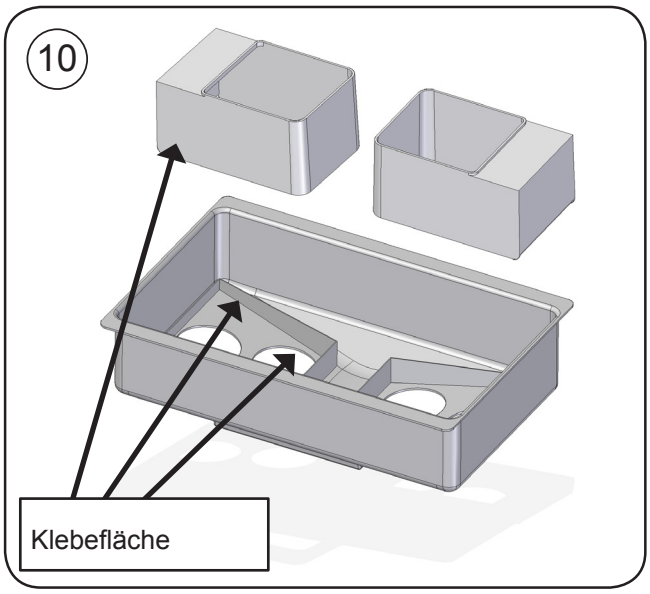


8 (1) Gummischeibe Ø6,(1) Breitflanschscheibe Ø6 und (1) Mutter M6 auf jede der Stiftschrauben M6 legen. **Mutter festziehen.**

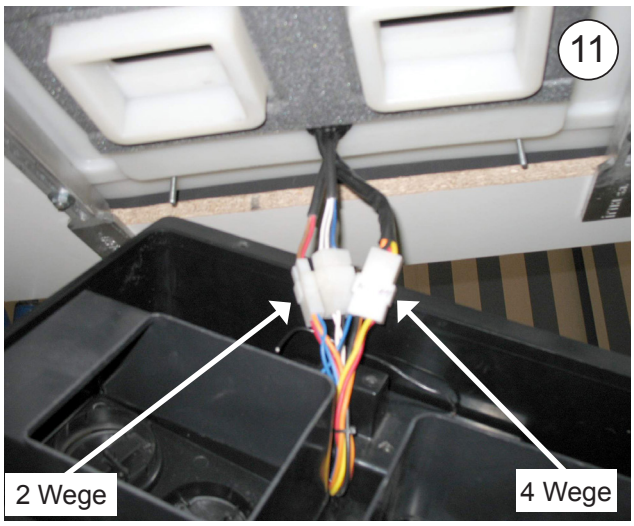
9 An jeder Stiftschraube (1) Mutter M6 einlegen, **ohne diese jedoch anzuziehen.**



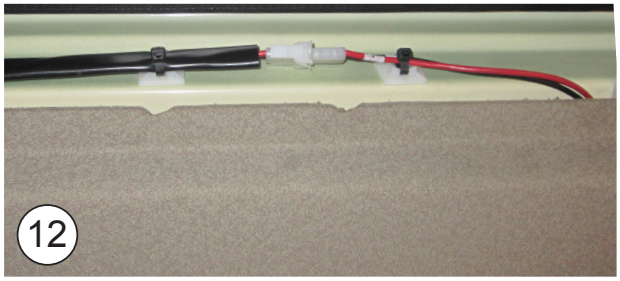
10 Kabelführungen mit LOCTITE Superglue 3 oder ähnlich an die innere Luftverteilertafel ankleben, um die Montage der Einheit zu erleichtern und die Kaltluftströme durch die Durchlassgitter zu garantieren.



11 Die (2) 4-Wege-Kästen und (1) 2-Wege-Kasten der inneren Luftverteilertafel mit denen des **Bycool** verbinden.

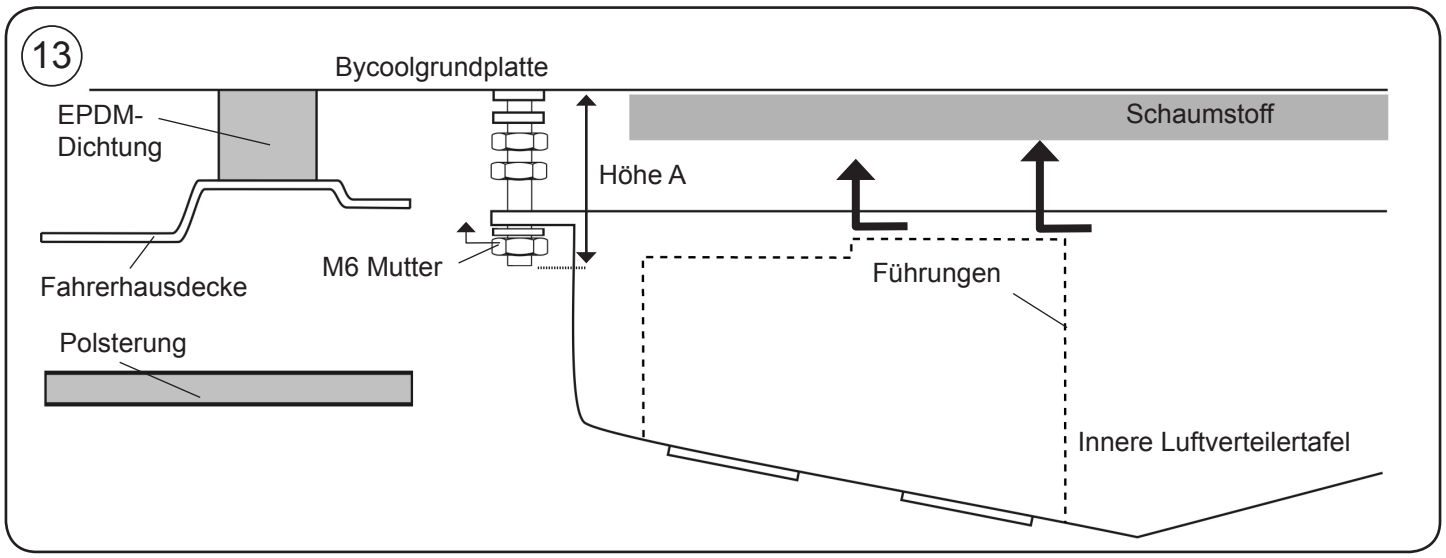


12 Klemme des Netzkabels an die Originalklemme anschließen.

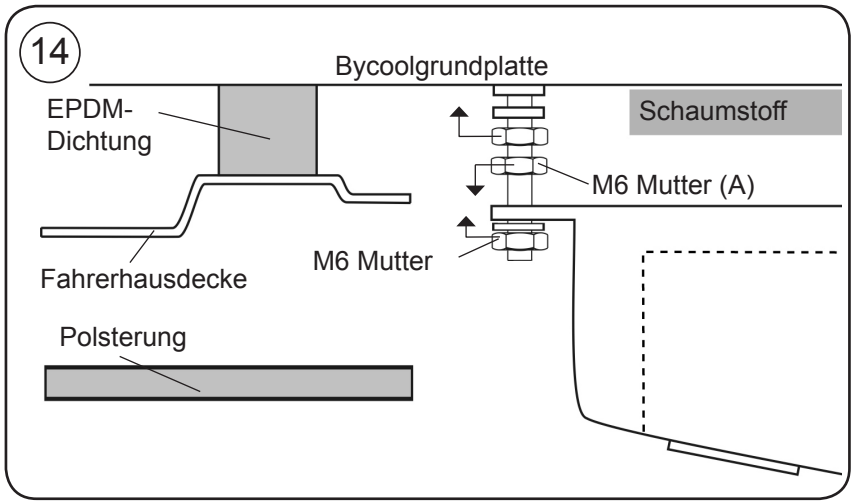


13 Innere Luftverteilertafel an den vorgenannten Stiftschrauben mit jeweils (1) Breitflansch-Unterlegscheibe M6 und (1) Mutter M6 anbringen. Muttern anziehen, bis die Kabelführungen am oberen Schaumgummi der Anlage anliegen.

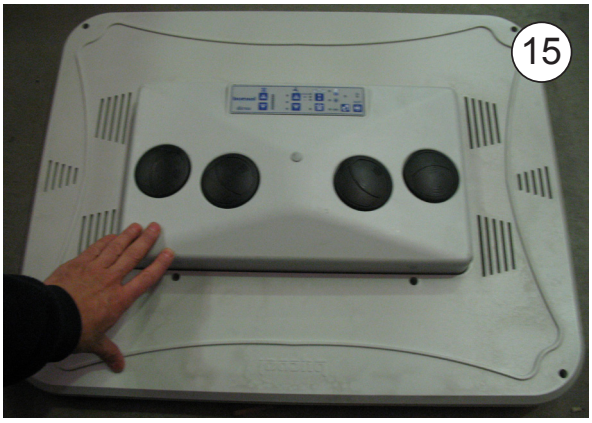
Wichtig: Die Führungen müssen an das Schaumgummi anschlagen, um Luftleckagen zu vermeiden.



14 Mutter (A) des Schemas anziehen, bis diese an das Oberteil der inneren Luftverteilertafel stößt.

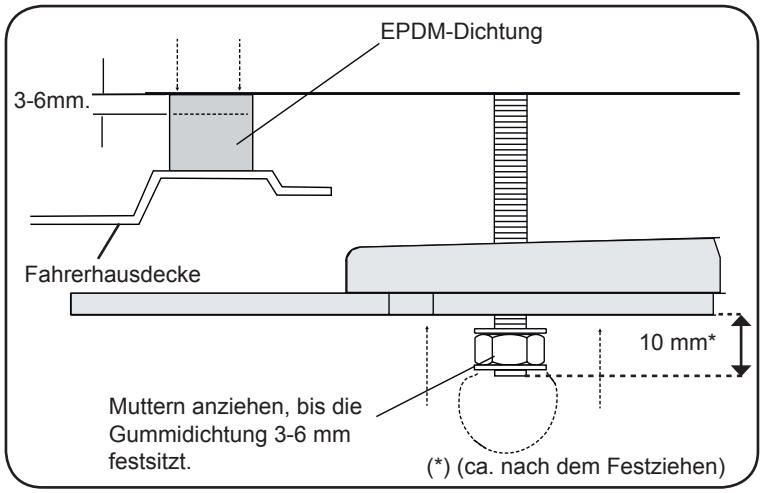


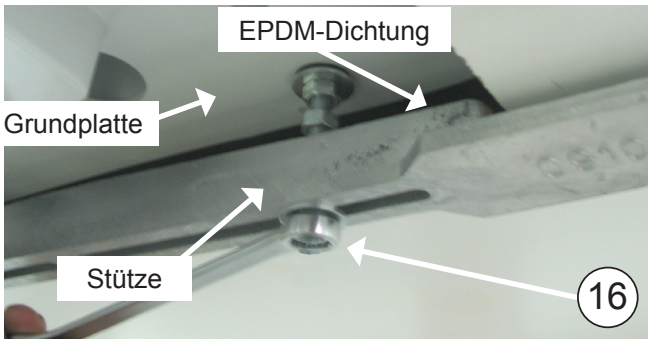
15 Konsole positionieren und Anlage an der am besten geeigneten Stelle der Fahrerhausdecke zentrieren Nach dem Zentrieren Konsole wieder abnehmnen.



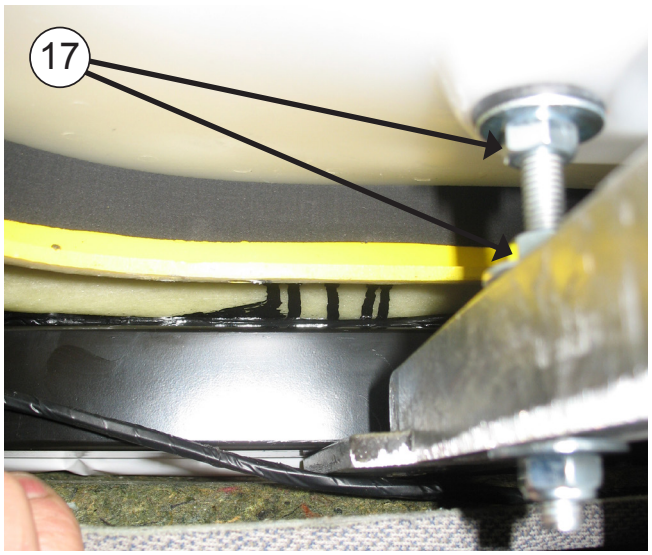
16 Bringen Sie die Befestigungsstützen an, indem Sie die Muttern anziehen, bis die EPDM-Außendichtung 3-6 mm.

Wichtig: Als Schutz gegen eventuelle Einsickerungen von Wasser in das Fahrerhausinnere muss die EPDM-Dichtung, wie auf der Skizze angegeben, auf der Grundplatte der Bycool-Anlage sicher angezogen sein.

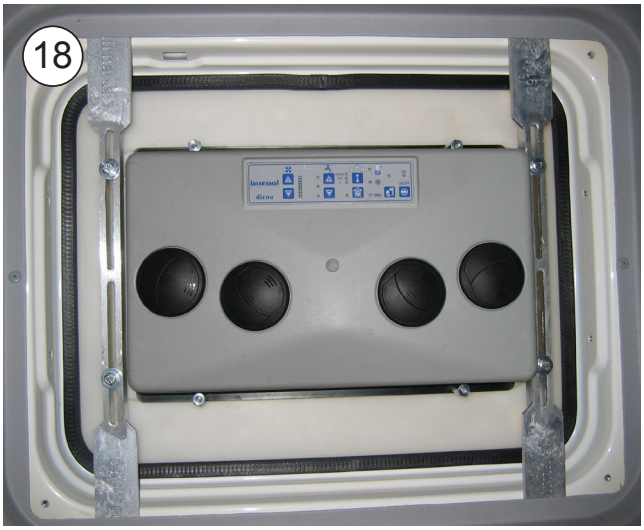


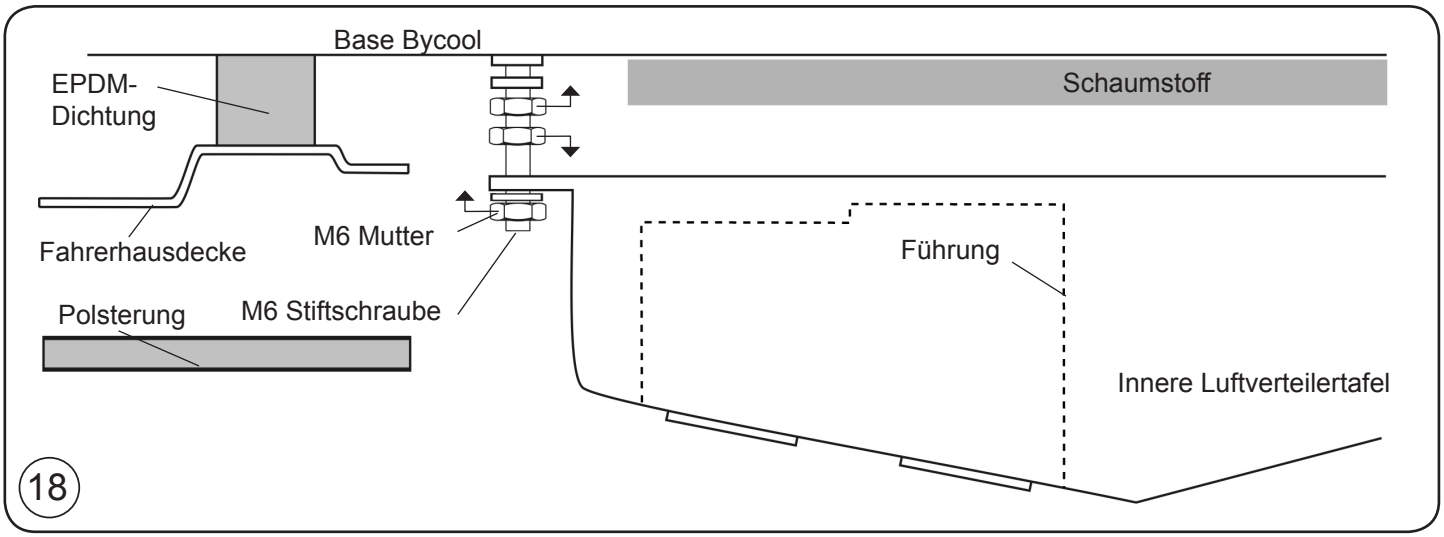


17 (4) Muttern M8 an der Stütze und (4) an der Bycoolgrundplatte festziehen.



18 Gesamtbild nach der festauziehung der ständer.

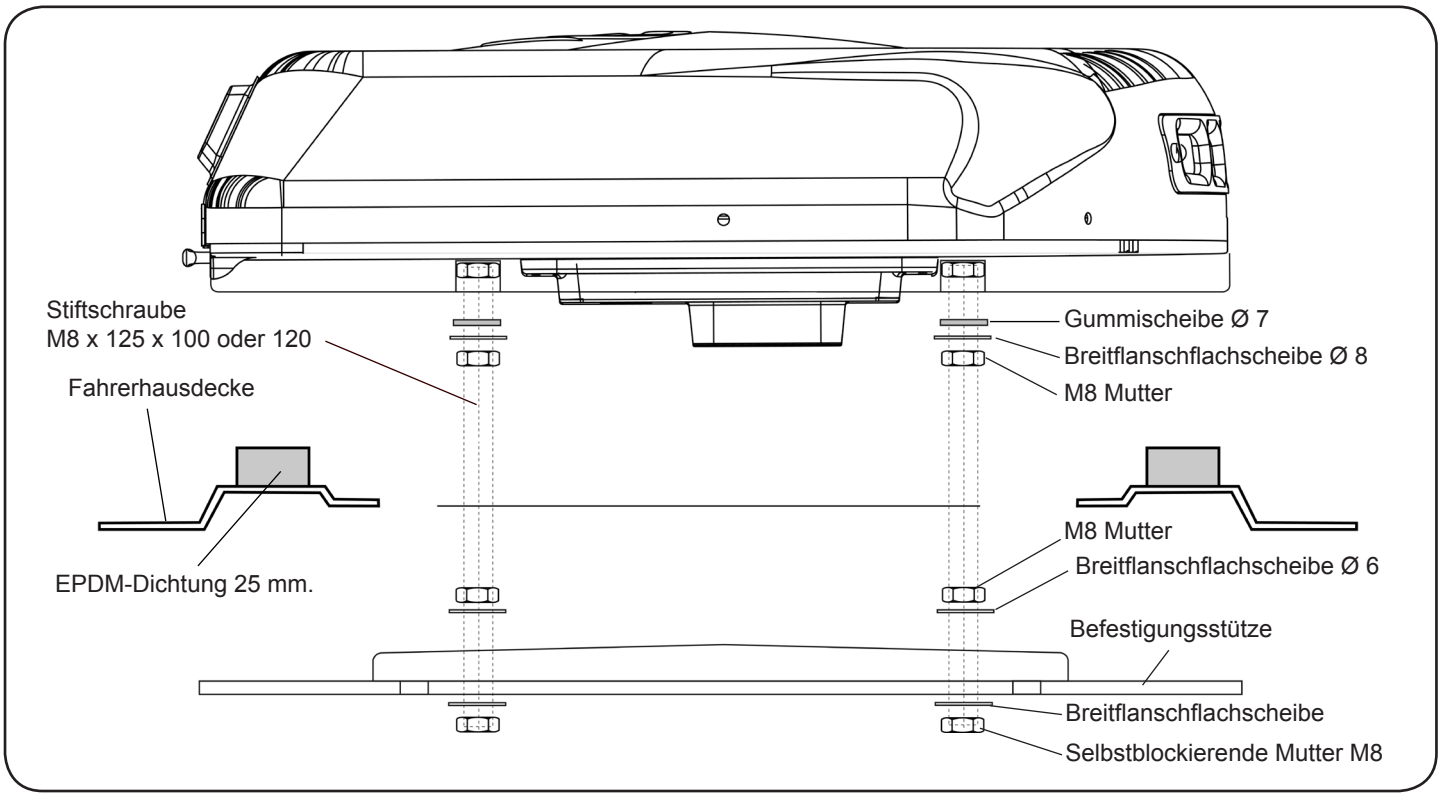




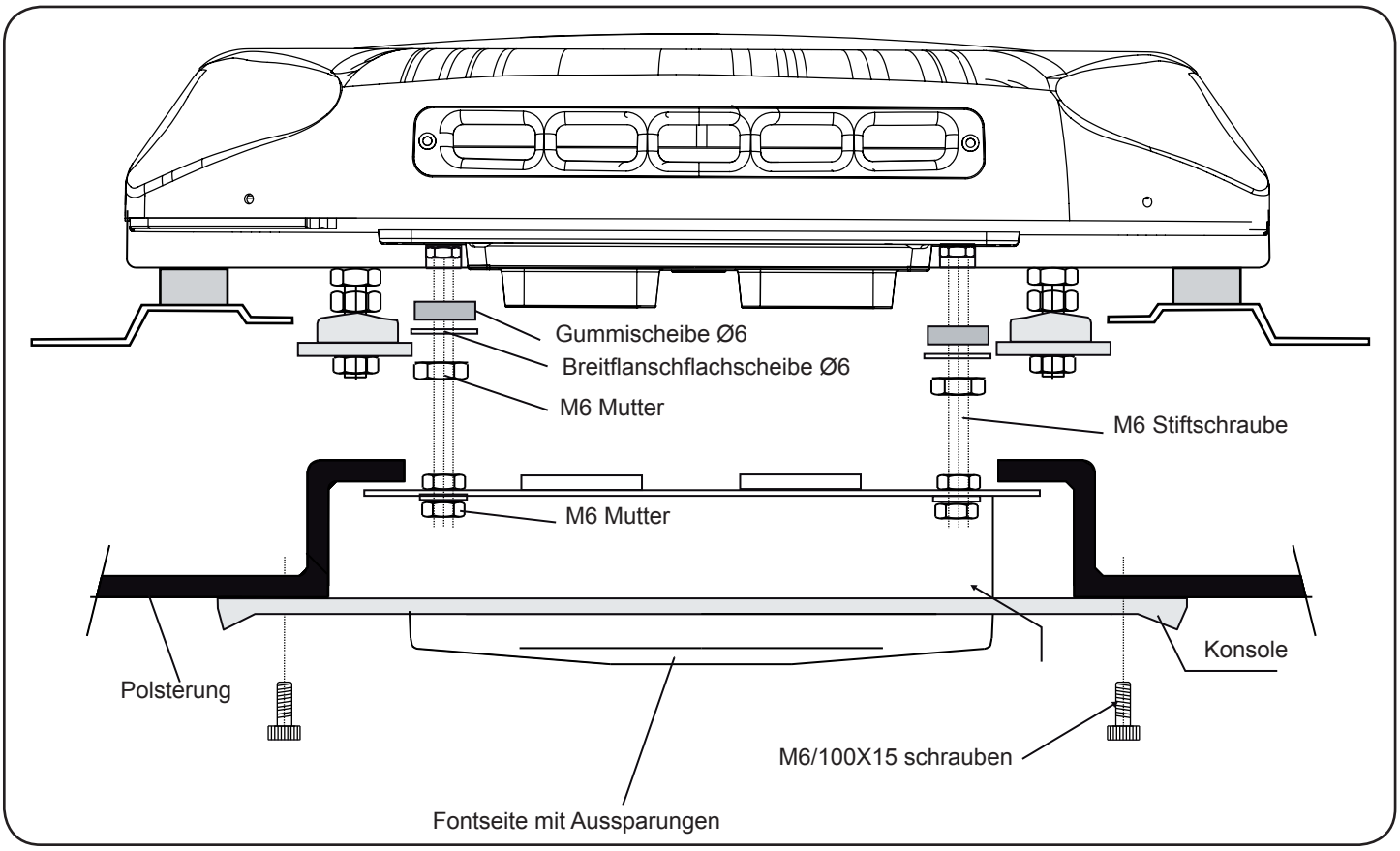
19 Schrauben sie die konsole unit (4) M6/100x15 schrauben fest.

20 Decken sie die schrauben unit 8 runde schraubebedeckungen von M6 aus plastik.

Übersichtsbild bis zur befestigung der stützen



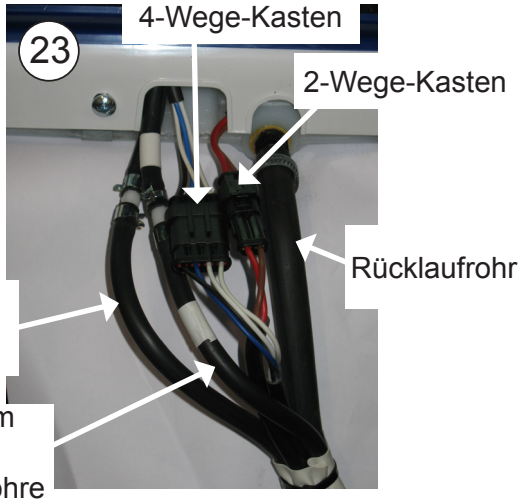
Übersichtsbild bis zur befestigung der konsolen



21 Gesamtansicht der inneren Luftverteilertafel mit der Konsole.

22 Obere Ansicht der Bycoolanlage.

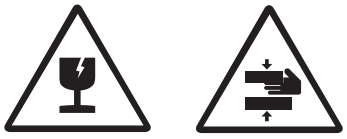
23 Einzelheit Anschluss der Rohranordnung an die Bycoolanlage.



Vorgehensweise zum Einbau des Wasserbehälters:

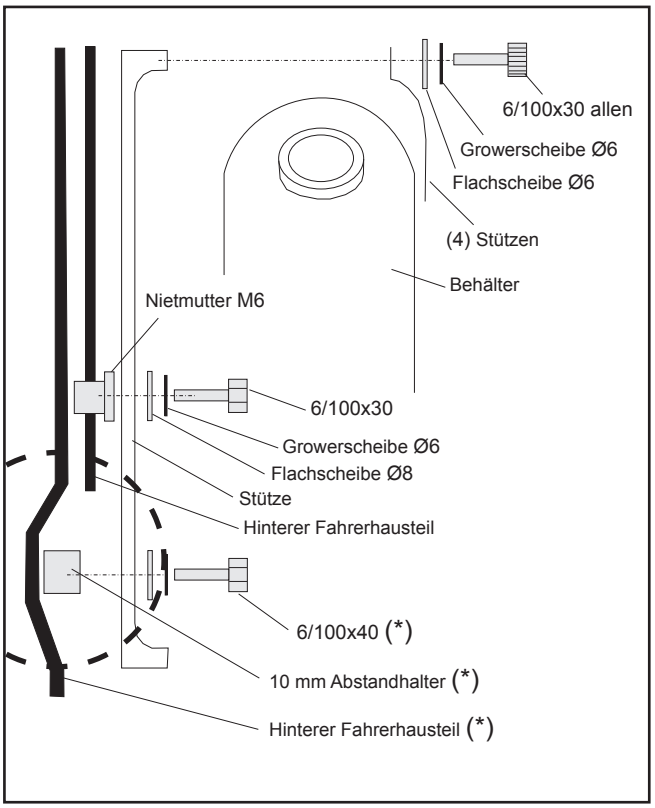
24 Behälterstütze an einem geeigneten, ziemlich weit unten liegenden Punkt im hinteren Bereich des Fahrerhauses positionieren.

25 Ø 9 im Fahrerhaus markieren und bohren. Beachten Sie dabei die senkrechte Position der Stütze. Mindestens (6) Befestigungsbohrungen anbringen.



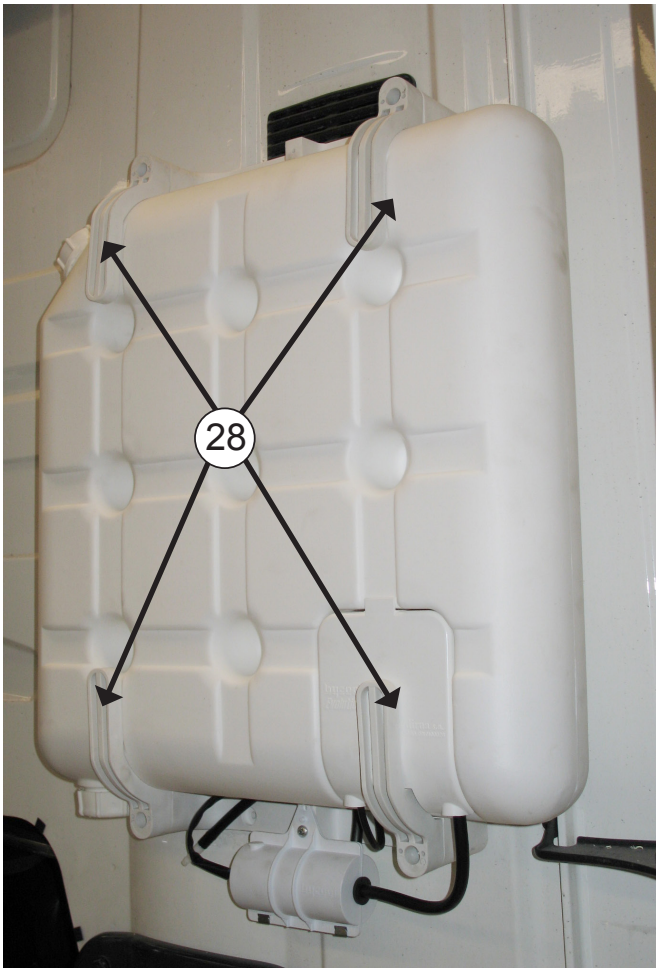
26 Nietmuttern M6 anbringen und Stütze mit Schrauben 6/100x30 befestigen.

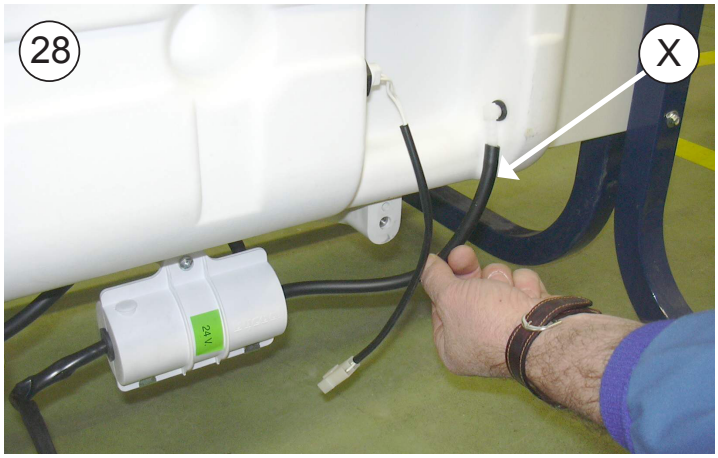
(*) – In Fällen, in denen die Stütze nicht auf einem glatten Teil aufliegt, Schraube 6/100 x 40.

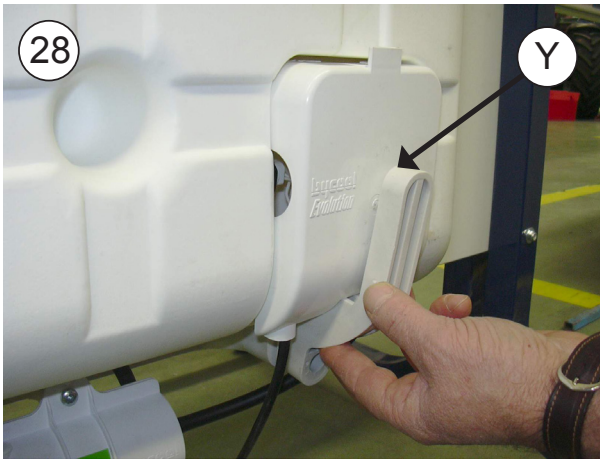


27 Pumpenanordnung am Behälter mit (2) Blechgewindeschrauben 5.4x19 mm befestigen.

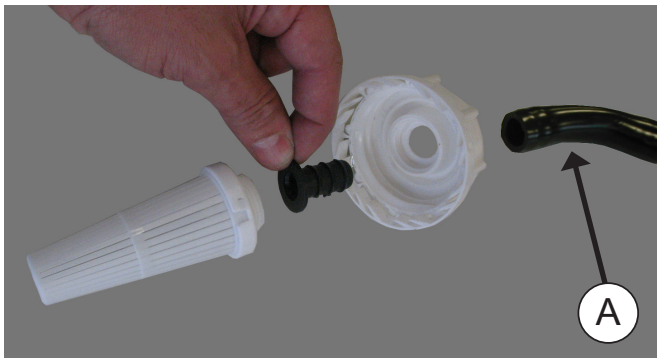
28 Anschließend Pumpenrohr (X) an Behälter anschließen und Behälter (*wählen Sie dazu die optimale Position des Füllstopfens, rechts oder links, um die Füllung zu erleichtern*) mit den mitgelieferten Stützen befestigen. Die Stütze mit Absatz wird verwendet, wenn der Behälter mit dem Füllstopfen (Y) auf der linken Seite eingebaut wird.







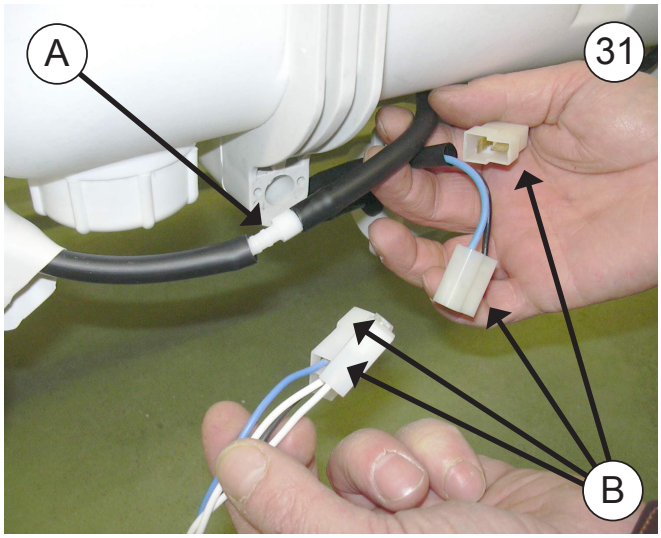
29 Filter in das Zapfenrohr einbauen, in den Stopfen einführen und an das Rücklaufrohr Ø18 x Ø12 (A). anschließen.



30 Stopfen am Behälter anbringen und auf 10 mm zuschneiden; T-Stück einschieben und daran das Rohr mit dem kleinsten Querschnitt anschließen. **Dieses ist mit weißem Streifen gekennzeichnet. Vergewissern Sie sich, dass die Biegung ausreicht, um Drosselungen zu vermeiden.**

31 Verkabelung mit Hülle an die Kästen der Verdampferanlage und des Wasserzulaufrohrs anschließen.

A. Das von der Verdampferanlage kommende Druckrohr an die Pumpe anschließen.
B. Pumpen- und Niveauverkabelung anschließen.



32 VERDRAHTUNG ZUSAMMEN MIT RÖHREN

(*) Korrekte Installation erfolgt an dem Punkt, an dem das Entwässerungsrohr Gefälle aufweist, um Schleifen und Drosselungen zu vermeiden und den Wasserzulauf in den Behälter zu erleichtern.
(**) Falsch. Darf so nicht ausgeführt werden.

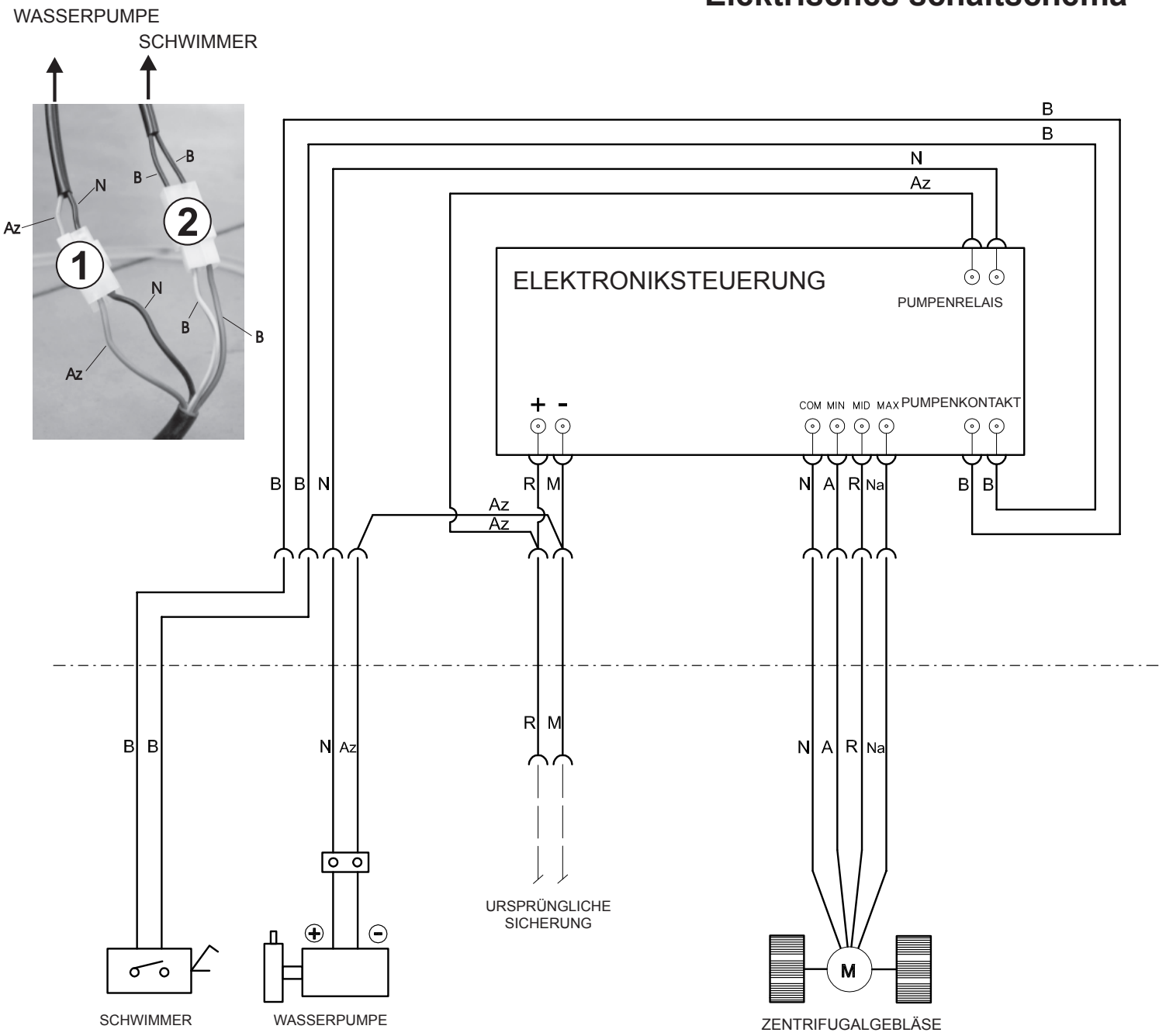
WICHTIGER HINWEIS:

Die Verdampferanlage saugt Außenluft an und leitet sie ins Fahrerhaus. Es ist außerordentlich wichtig, dass sich diese Luft nicht im Fahrerhaus staut, da sonst zu große Feuchtigkeit entstehen würde. Alle modernen Fahrzeuge besitzen Fahrerhäuser mit Lufterneuerungsgitter, durch die die erforderliche Luftmenge entweichen kann. Beispielsweise für die Heizung.

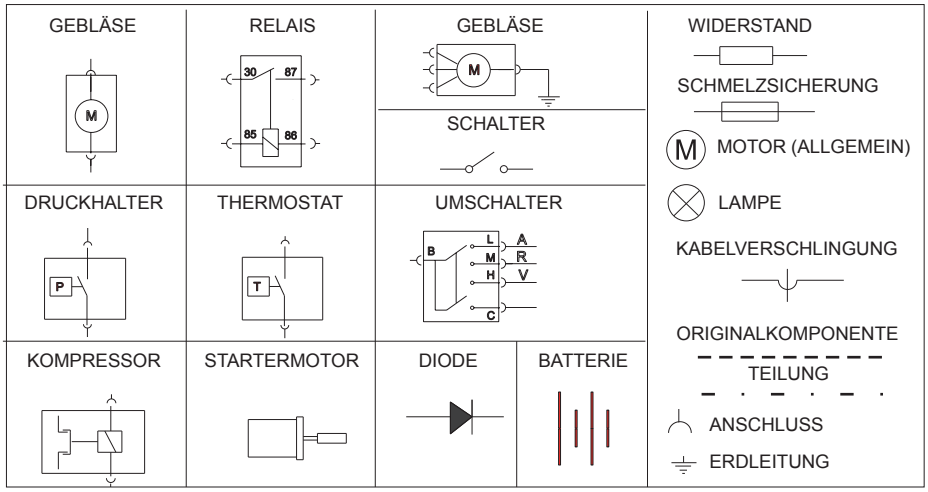
Der Installateur muss sich vergewissern, dass diese Gitter vorhanden sind. Ist das nicht der Fall, dann müssen sie eingebaut werden.

Der Benutzer muss seinerseits diese Gitter regelmäßig auf eventuelle Verstopfung durch Verschmutzung prüfen.

Elektrisches schaltschema



KONVENTIONELLEN ZEICHEN



FARBEN

A	Gelb
Az	Blau
B	Weiß
G	Grau
Na	Orange
N	Schwarz
R	Rot
Ro	Rosa
V	Grün
Vi	Lila
M	Braun
Mo	Dunkelviolett

Raccomandazioni per Il montaggio

- Prima di iniziare il montaggio leggere le istruzioni e seguirle durante il processo di installazione.
- Usare gli strumenti adeguati per ogni operazione.

Elettricità

- Scollegare la chiave di contatto.
- Scollegare la batteria prima di iniziare il montaggio.
- Garantire il collegamento dei componenti elettrici, verificandone il corretto inserimento.

Strumenti

- Set Chiavi Torsiometriche
- Set Chiavi a Brugola
- Chiave fissa 10, 13, 14
- Forbici
- Flessometro

Documentazione inclusa

Istruzioni di Montaggio	220.AA3.5210
Manuale dell'Utente	220.AA7.0003
Diagnosi di Guasti	220.AA7.0004
Garanzia	220.AA1.0010

Simbologia

Fragile

Attenzione alle mani

Tensione elettrica pericolosa

⚠ Attenzione

Quando si installa il dispositivo evaporativo sul tetto bisogna proteggere la parte superiore della cabina con un panno o una coperta di protezione, per evitare eventuali graffi. Quando si installa **Bycool Flat** sul tetto bisogna considerare che, normalmente, le cabine con tettuccio hanno una struttura sufficiente per sostenere il peso del dispositivo. Tuttavia, se così non fosse e se si dovesse realizzare un taglio sul tetto o se, pur avendo il tettuccio, il materiale non fosse sufficientemente resistente (se il soffitto è di fibra, plastica, ecc...) spetterà all'installatore decidere, **sotto la sua responsabilità**, circa la necessità di rinforzare il tetto per evitare eventuali deformazioni, rotture, infiltrazioni di acqua, ecc... con i mezzi adeguati affinché ciò non accada.

⚠ Avvertenze

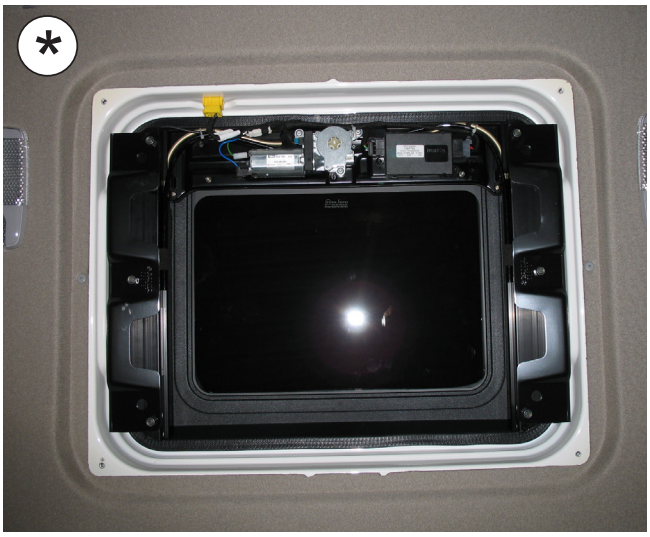
⚠ Il pezzo N. 20 dell'elenco di Pezzi Forniti si deve sostituire ogni 12 mesi.

⚠ **Dirna Bergstrom, s.l.** non assume alcuna responsabilità in caso di guasti provenienti da una manipolazione o installazione del dispositivo inadeguata, o da modifiche e sostituzioni effettuate senza la nostra autorizzazione espressa per iscritto.

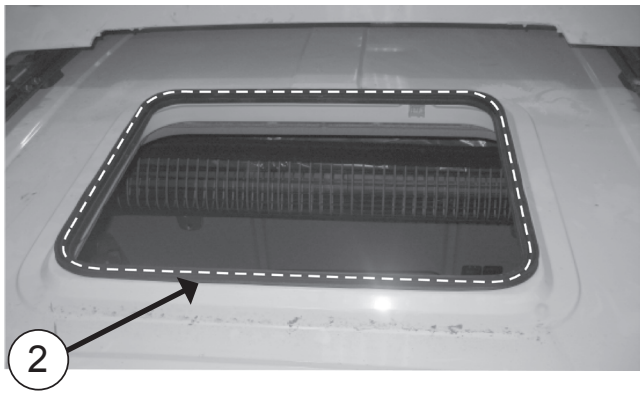
⚠ Vedi **procedimento di garanzia** del prodotto in **Diagnosi di Guasti.**

⚠ Vedi **Manuale dell'Utente** del dispositivo per il corretto funzionamento del telecomando e del pannello di controllo.

1 Smontare coperchio tettuccio, gli elementi di fissaggio e consegnarli al cliente (*).



2 Incollare la guarnizione EPDM intorno al vano del tettuccio (*osservare i particolari per tagliare i bordi finali di unione della guarnizione*).

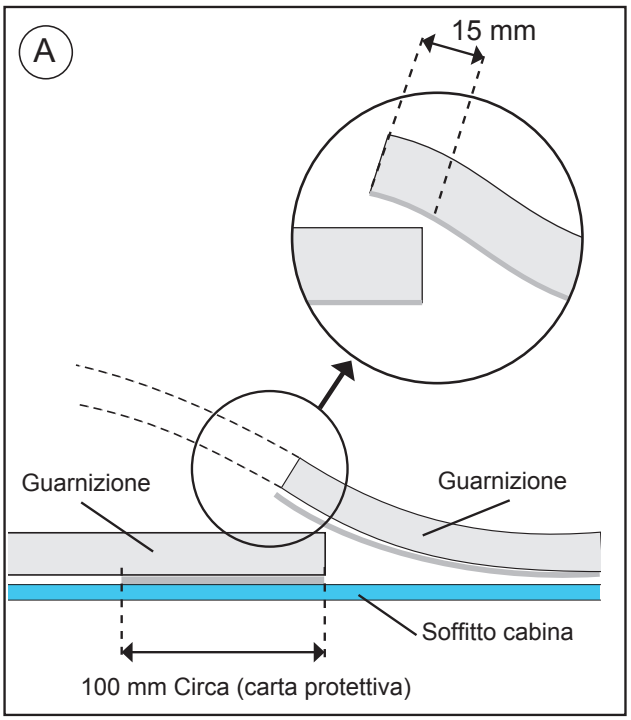


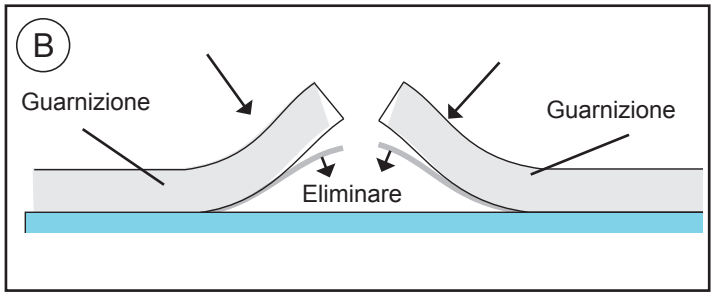
COME TAGLIARE LA GUARNIZIONE EPDM PER EVITARE LA FILTRAZIONE D'ACQUA NELLA CABINA

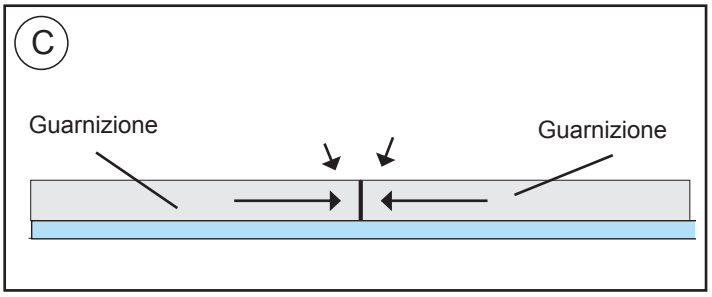
A- Incollare la guarnizione, mantenendo 100 mm di carta protettiva su ogni lato.

B- Togliere i due pezzi di carta.

C- Incollare premendo entrambe le estremità.

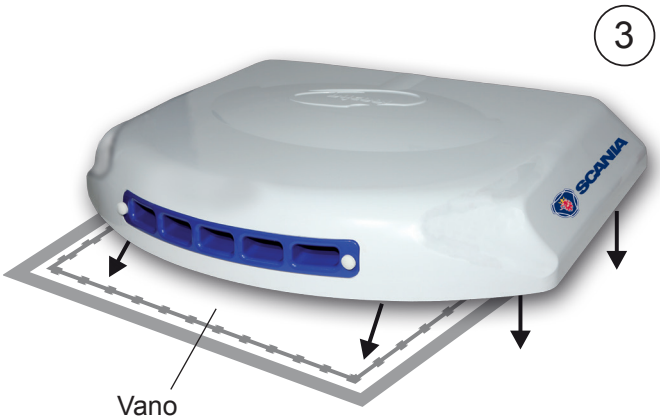




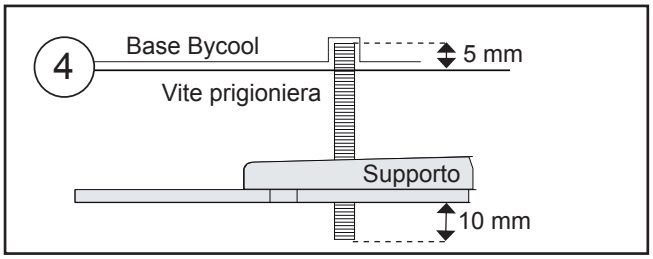


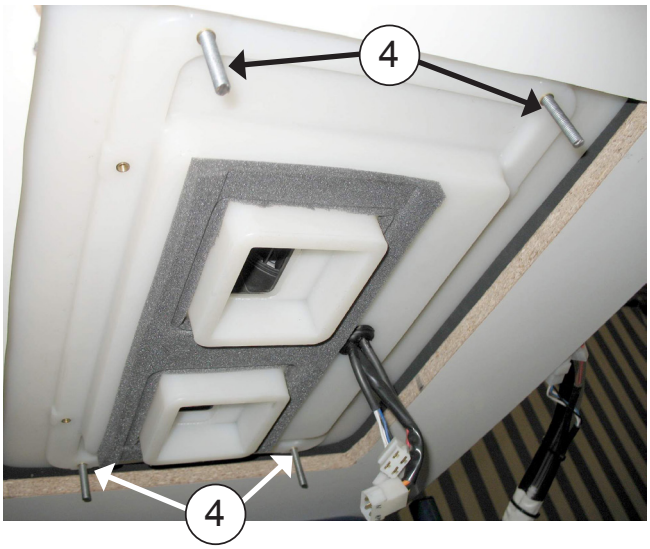
3 **ESTERNO CABINA:**

Collocare il Bycool nel vano del tettuccio.

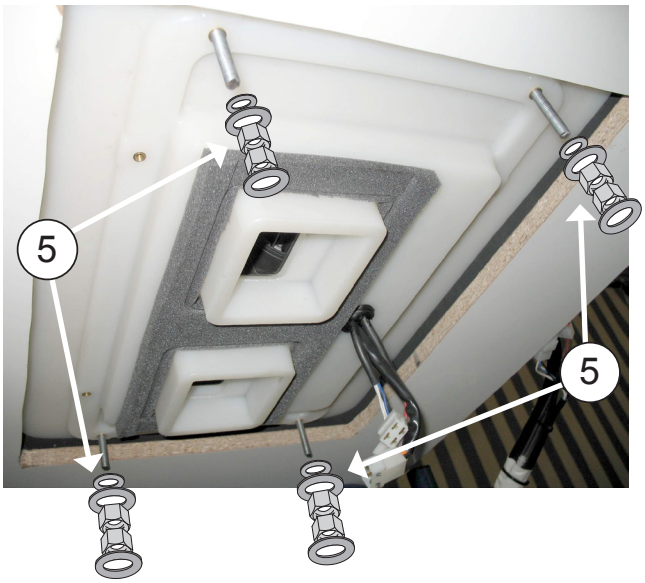


4 **INTERNO CABINA:**
Avvitare circa 5 mm (4) viti prigioniere 8/125x100 o 120, la misura verrà scelta dopo aver collocato i supporti di fissaggio e considerando che le viti prigioniere devono fuoriuscire dagli stessi dalla parte inferiore di circa 10 mm.



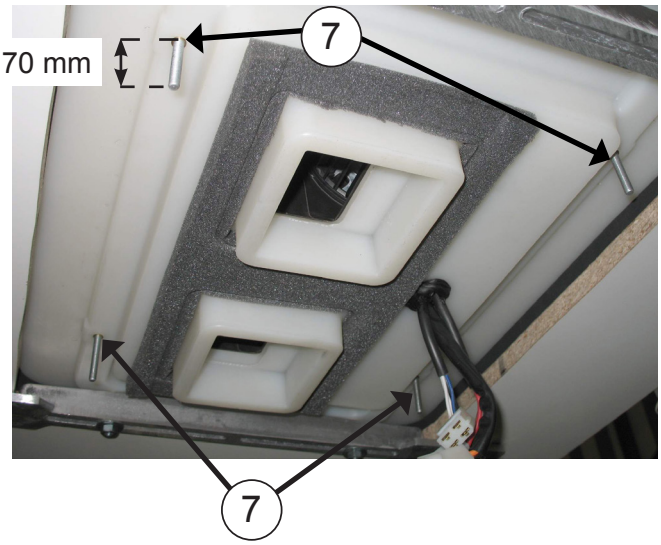


5 Collocare (1) rondella Ø 7 di gomma, (1) rondella piana Ø 8 larga, (2) dado M8 e (1) rondella piana Ø 8 larga, in ognuna delle viti prigioniere precedenti.



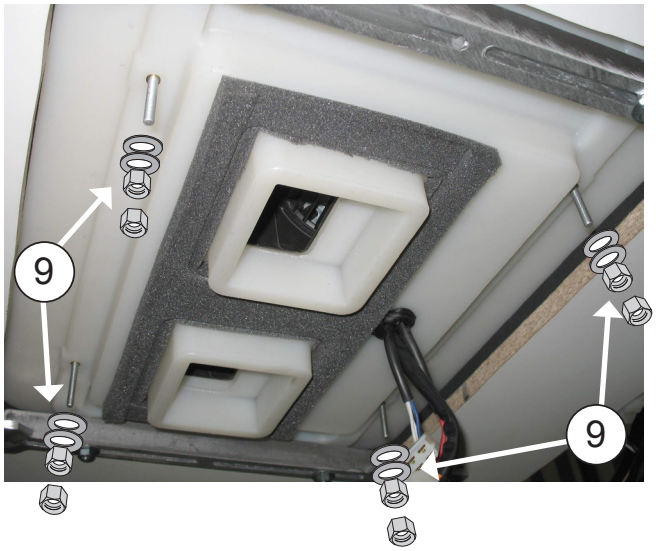
6 Collocare (2) supporti di fissaggio, con (1) rondella e (1) dado autobloccante M8, **senza stringere.**

7 Avvitare 10 mm (4) viti prigioniere M6 x 80, dove indicato.

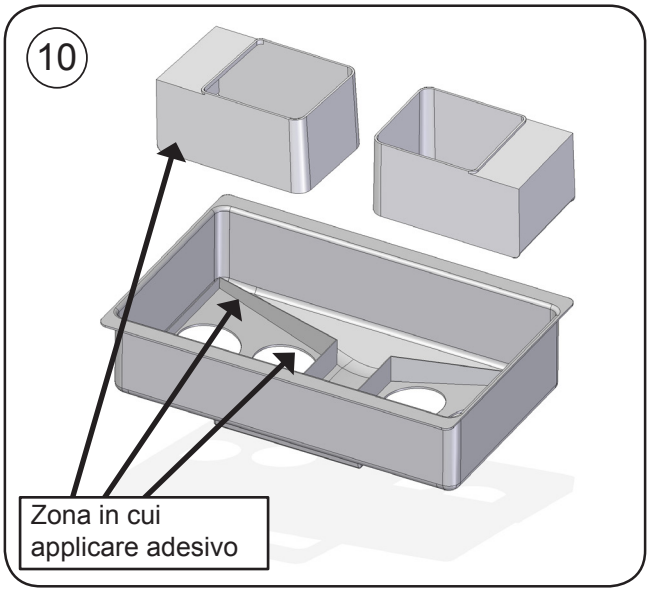


8 Collocare (1) arandela Ø6 de goma, collocare (1) rondella Ø6 di gomma, (1) rondella piana Ø6 larga e (1) dado M6, su ciascuna delle viti prigioniere M6. **Stringere il dado.**

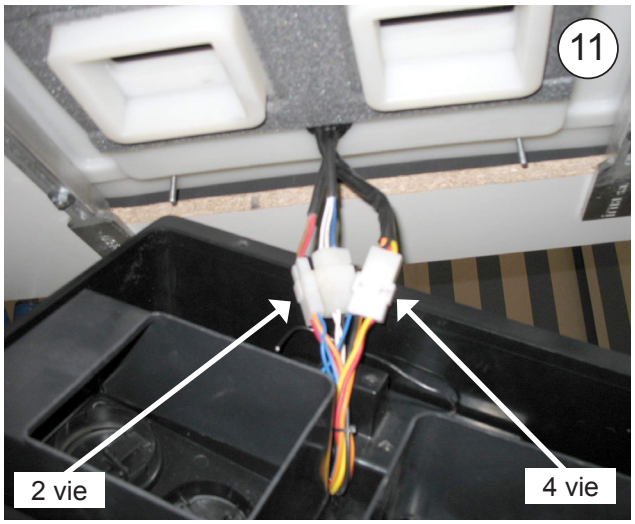
9 Collocare (1) dado M6 **senza stringere** in ogni vite prigioniera.



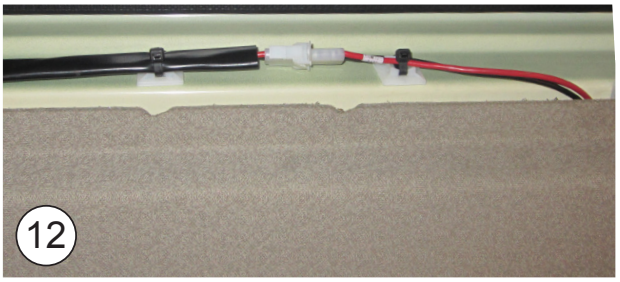
10 Incollare i canalizzatori al pannello interno di distribuzione dell'aria con LOCTITE superglue 3 o un prodotto simile, per agevolare il montaggio dell'insieme e assicurare il deflusso dell'aria fredda dalle bocchette.



11 Collegare le (2) scatole a 4 vie e (1) a 2 vie, del pannello interno di distribuzione dell'aria, con quelle del **Bycool**.

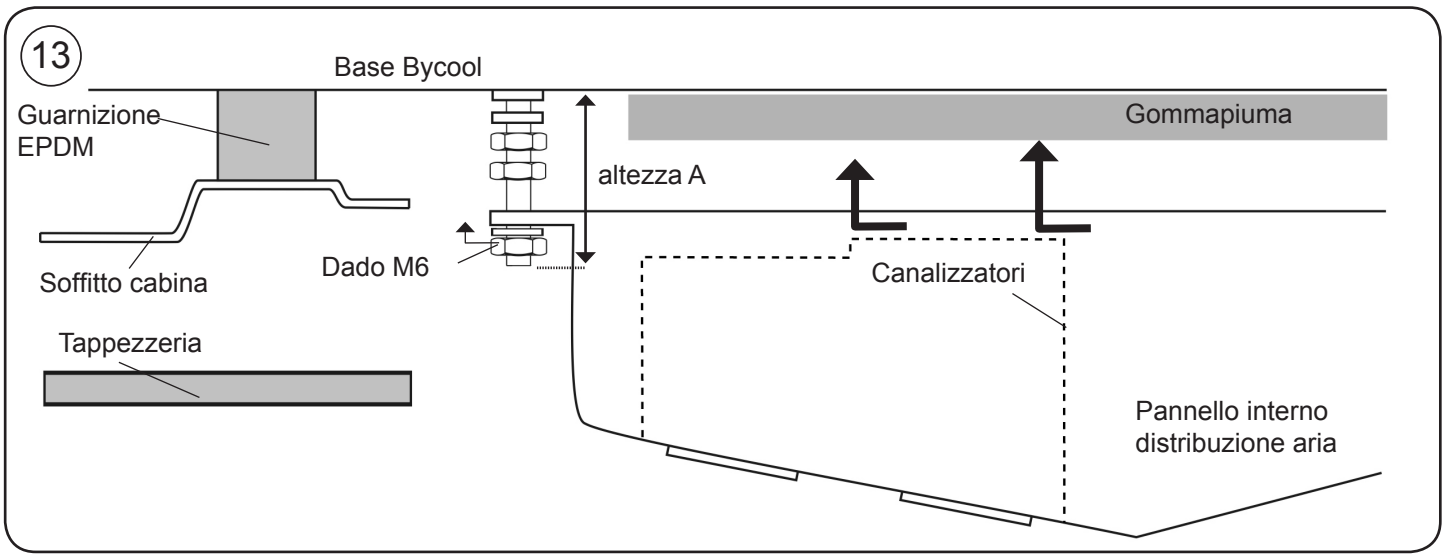


12 Collegare il morsetto del cavo di alimentazione con il morsetto originale.

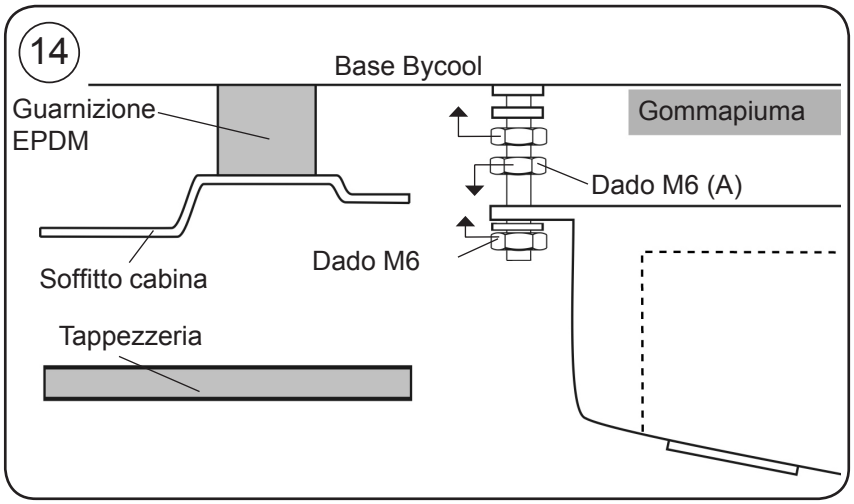


13 Montare il pannello interno di distribuzione dell'aria sulle viti prigioniere anteriori con (1) rondella M6 a testa larga e (1) dado M6 su ogni vite prigioniera. Stringere i dadi finché i canalizzatori non sono a battuta sulla gommapiuma superiore dell'impianto.

Importante: I canalizzatori devono essere collocati contro la gommapiuma per evitare fughe d'aria.



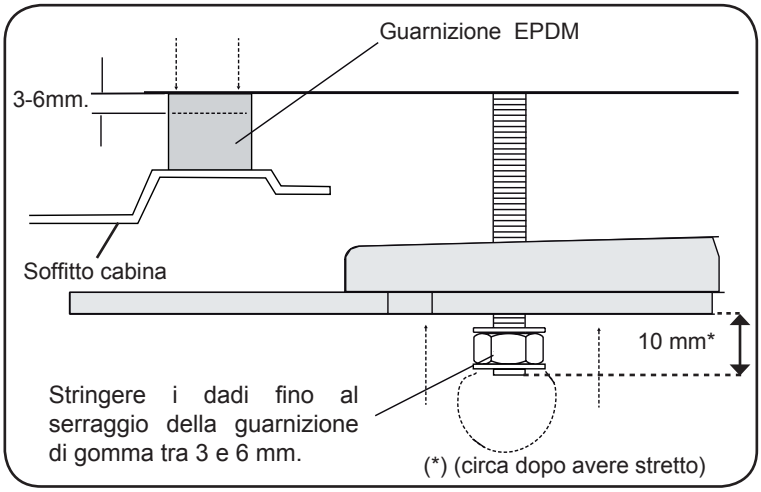
14 Stringere il dado (A) dello schema fino a battuta con la parte superiore del pannello interno di distribuzione dell'aria.

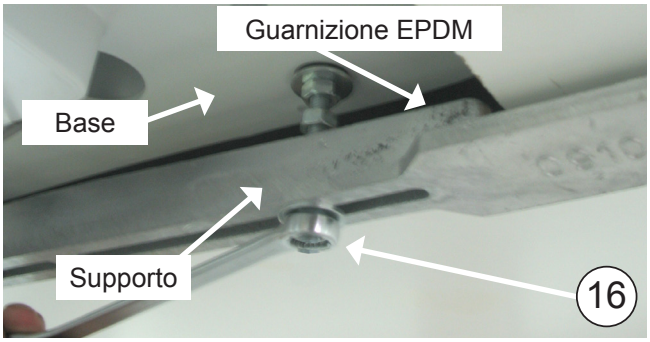


15 Collocare la consolle e centrare il dispositivo nel posto più conveniente del soffitto della cabina. Una volta centrato togliere la consolle.

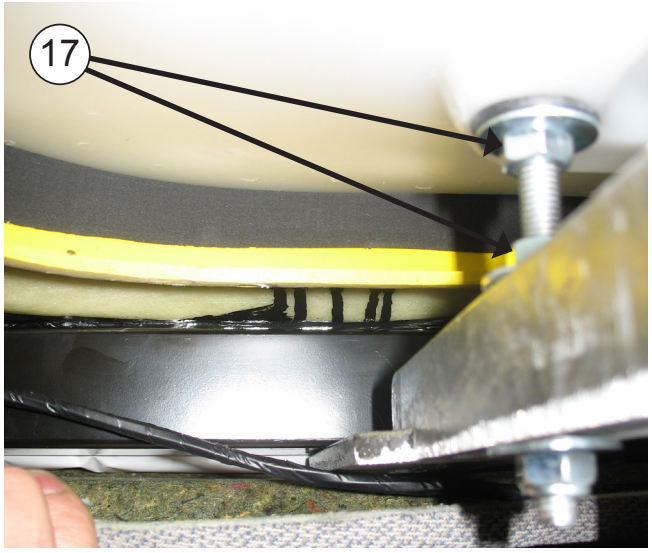
16 Fissare i supporti di fissaggio stringendo i dadi fino al serraggio della guarnizione di EPDM esterna del dispositivo tra 3 e 6 mm..

Importante: Per evitare possibili infiltrazioni d'acqua all'interno della cabina bisogna garantire il serraggio della guarnizione EPDM con la base del Bycool come indicato nello **schema.**

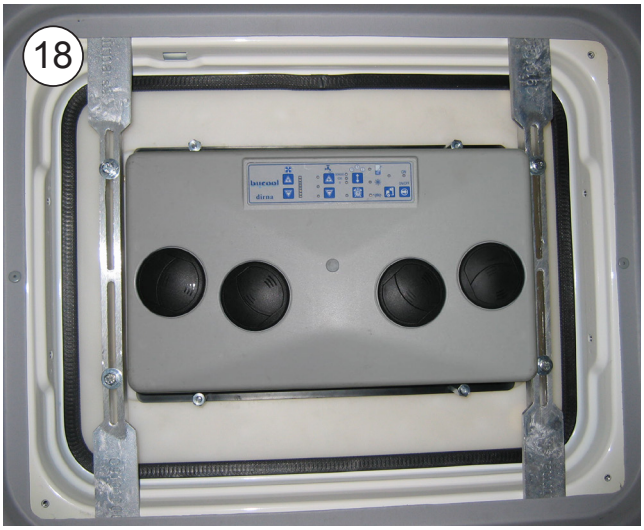


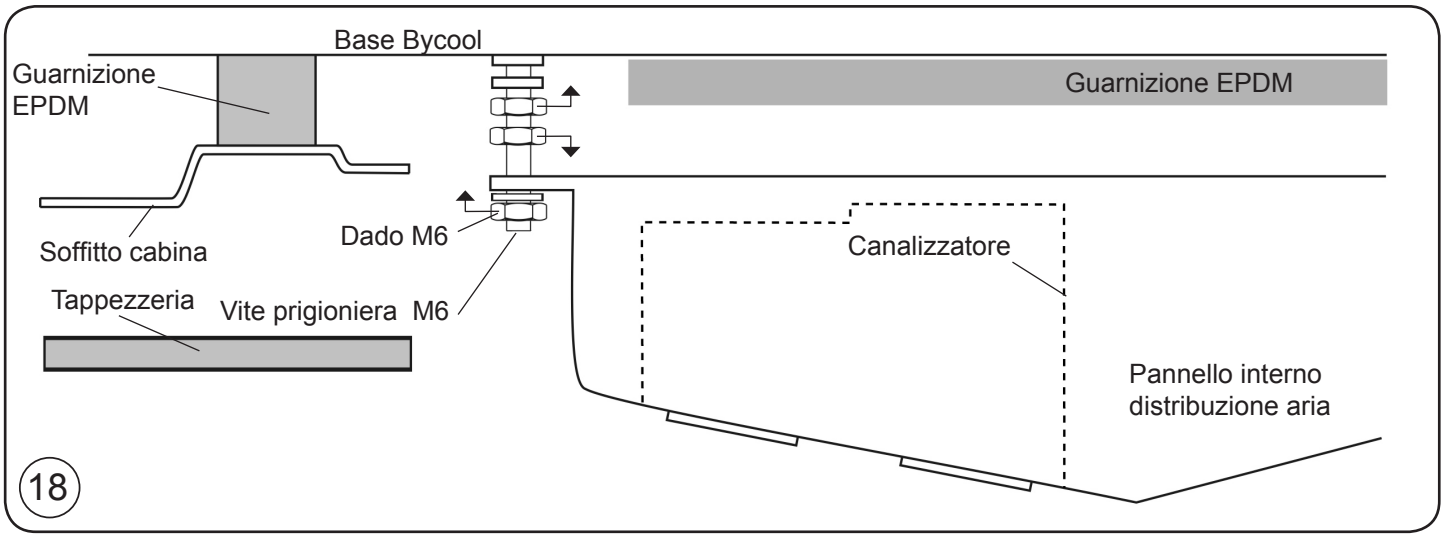


17 Stringere (4) dadi M8 al supporto e (4) alla base del Bycool.



18 Vista generale después del apriete de supporto.

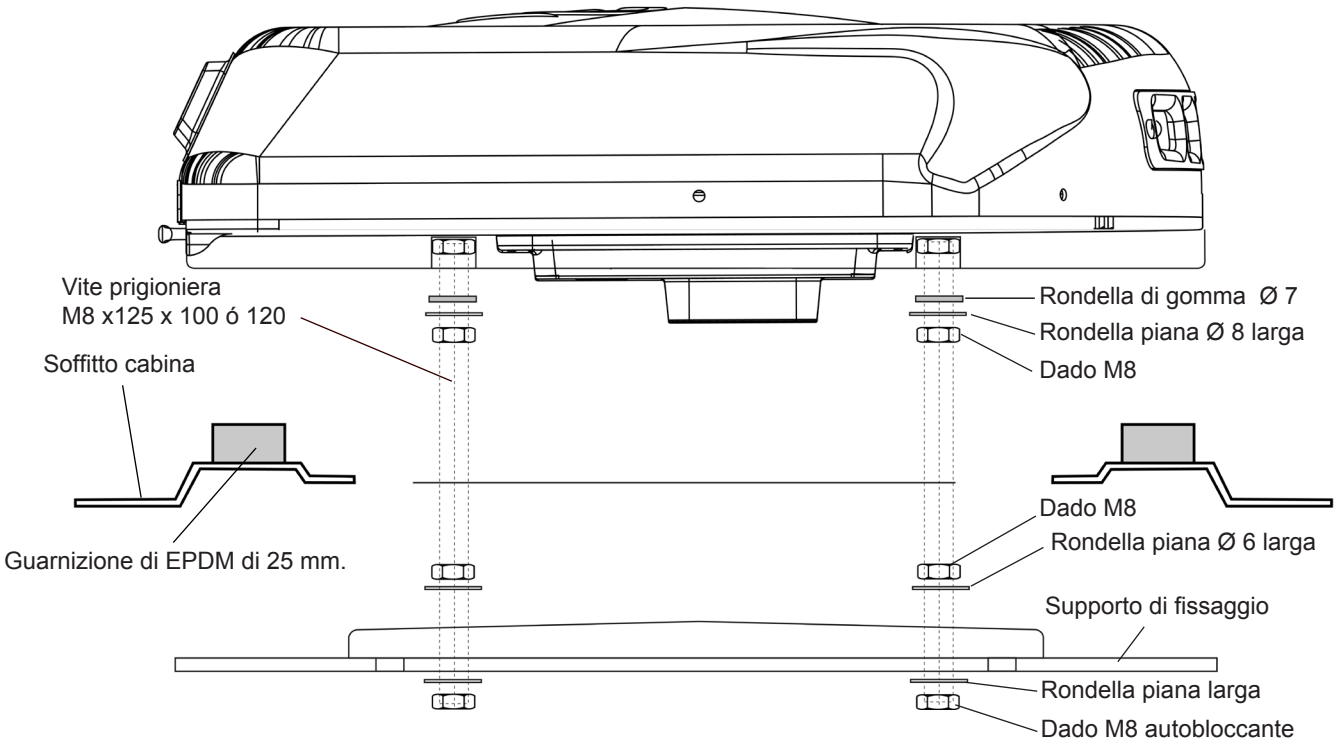




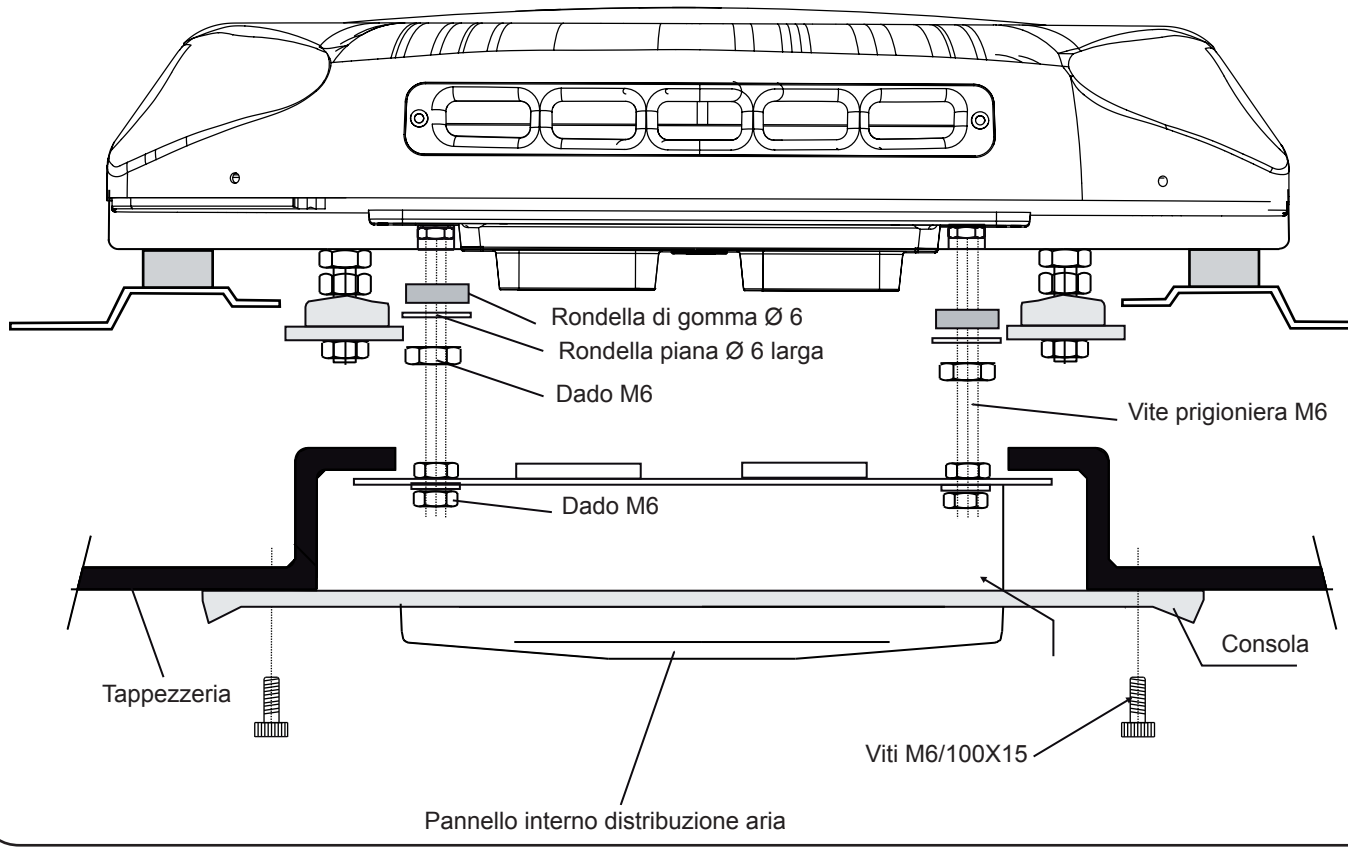
19 Collocare la consolle con (4) viti M6/100X15.

20 Coprire le (4) viti M6/100X15 con gli elementi decorativi rotondi M6 di plastica.

Vista esplosa fino al fissaggio dei supporti



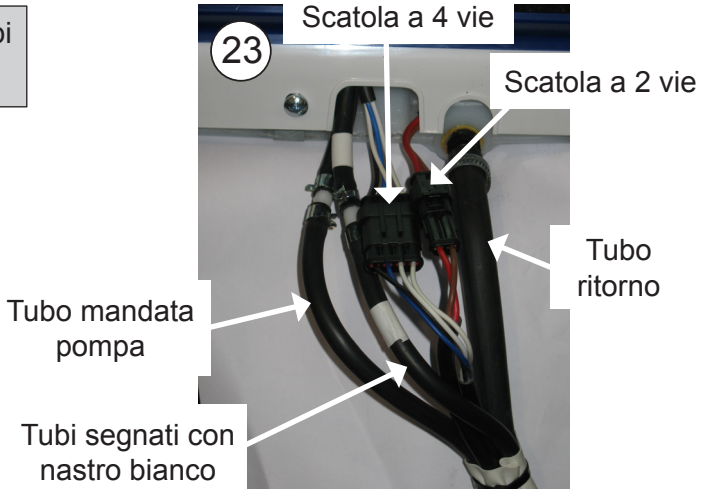
Vista esplosa fino al fissaggio delle consolle



21 Vista generale del pannello interno di distribuzione dell'aria con la console.

22 Vista superiore del Bycool.

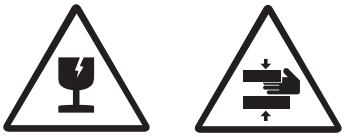
23 Particolare della connessione dell'insieme dei tubi con il Bycool.



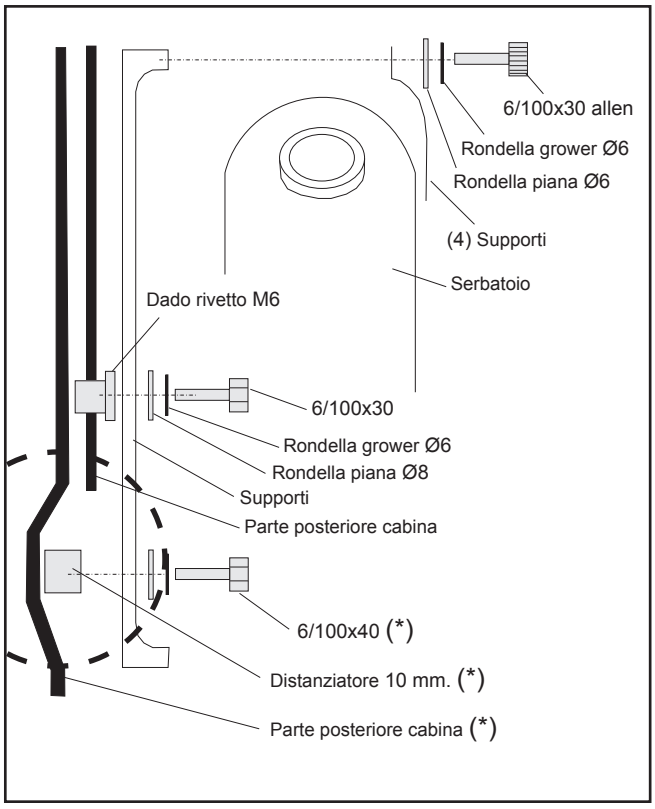
Operazioni da effettuare per il montaggio del serbatoio d'acqua:

24 Collocare il supporto del serbatoio nella parte bassa più adeguata della zona posteriore della cabina.

25 Segnare e forare Ø 9 in cabina considerando la posizione verticale del supporto. Minimo (6) fori di fissaggio.

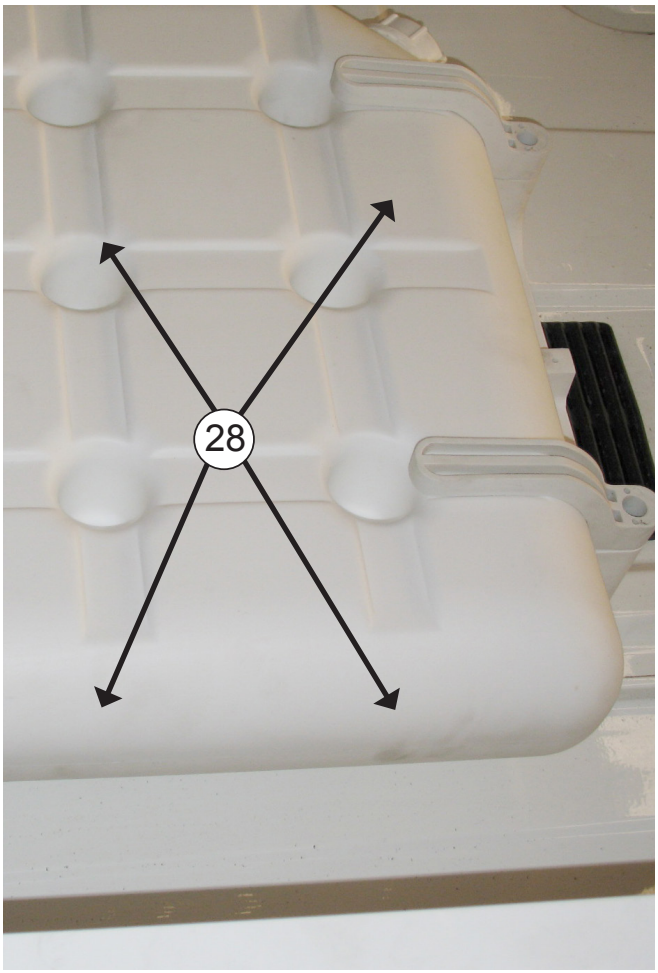


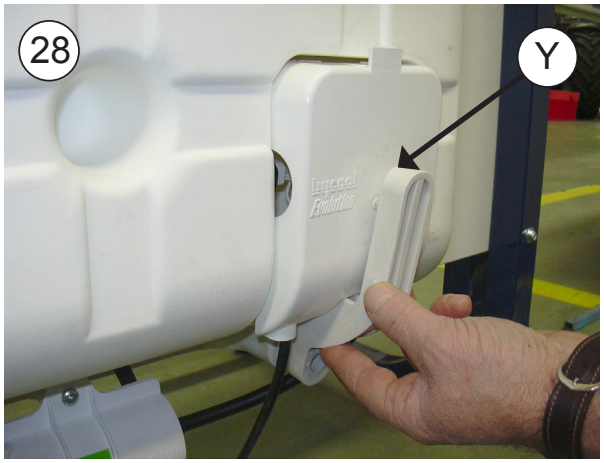
26 Collocare dadi rivetto M6 e fissare il supporto con viti 6/100x30.
(*) - Nei casi in cui non poggi su una parte liscia, collocare un separatore di 10 mm e una vite 6/100 x 40.



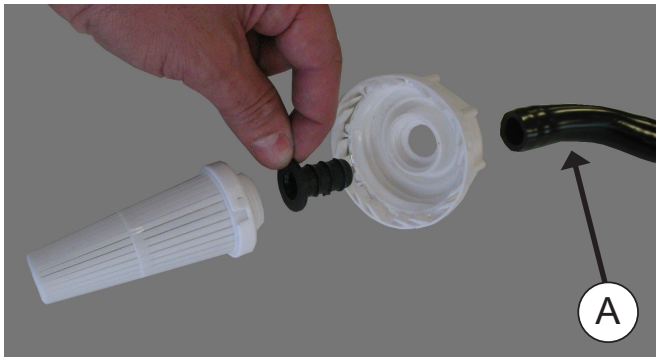
27 Fissare l'insieme della pompa al serbatoio con (2) viti da lamiera 5.4x19 mm.

28 Quindi collegare il tubo della pompa (X) al serbatoio e fissarlo (*scegliendo la posizione migliore per il tappo di riempimento, destra o sinistra, per agevolare lo stesso*) con i supporti forniti. Il supporto con aggetto viene collocato nel caso in cui si monti il deposito con il tappo di riempimento (Y) sul lato sinistro.





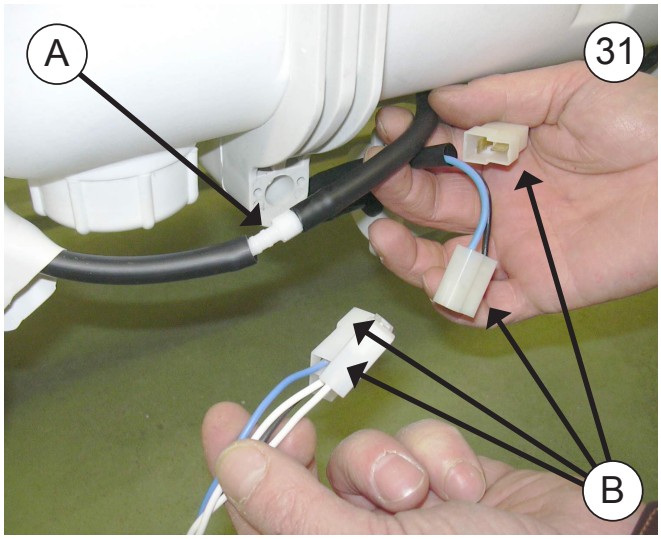
29 Montare filtro nel tubo con perno, inserire nel tappo e collegare al tubo di ritorno Ø18 x Ø12 (A).



30 Collocare il tappo nel serbatoio, tagliare a 100 mm; intercalare “T” e collegare alla stessa un tubo di sezione inferiore, **segnato con del nastro bianco e assicurarsi che il raggio della curva sia sufficiente per evitare strangolamenti.**

31 Connettere il cablaggio con guaina alle scatole dell’evaporativo e tubo entrata acqua.

A. Collegare alla pompa il tubo di mandata che proviene dall’evaporativo.
B. Collegare cablaggio pompa e quello di livello.



32 CABLAGGIO CON TUBI

(*) Modalità corretta di installazione, dove il tubo di scarico ha una certa inclinazione ed evita nodi e strangolamenti per agevolare la caduta dell'acqua verso il serbatoio.

(**) Modalità non corretta. Non fare così.

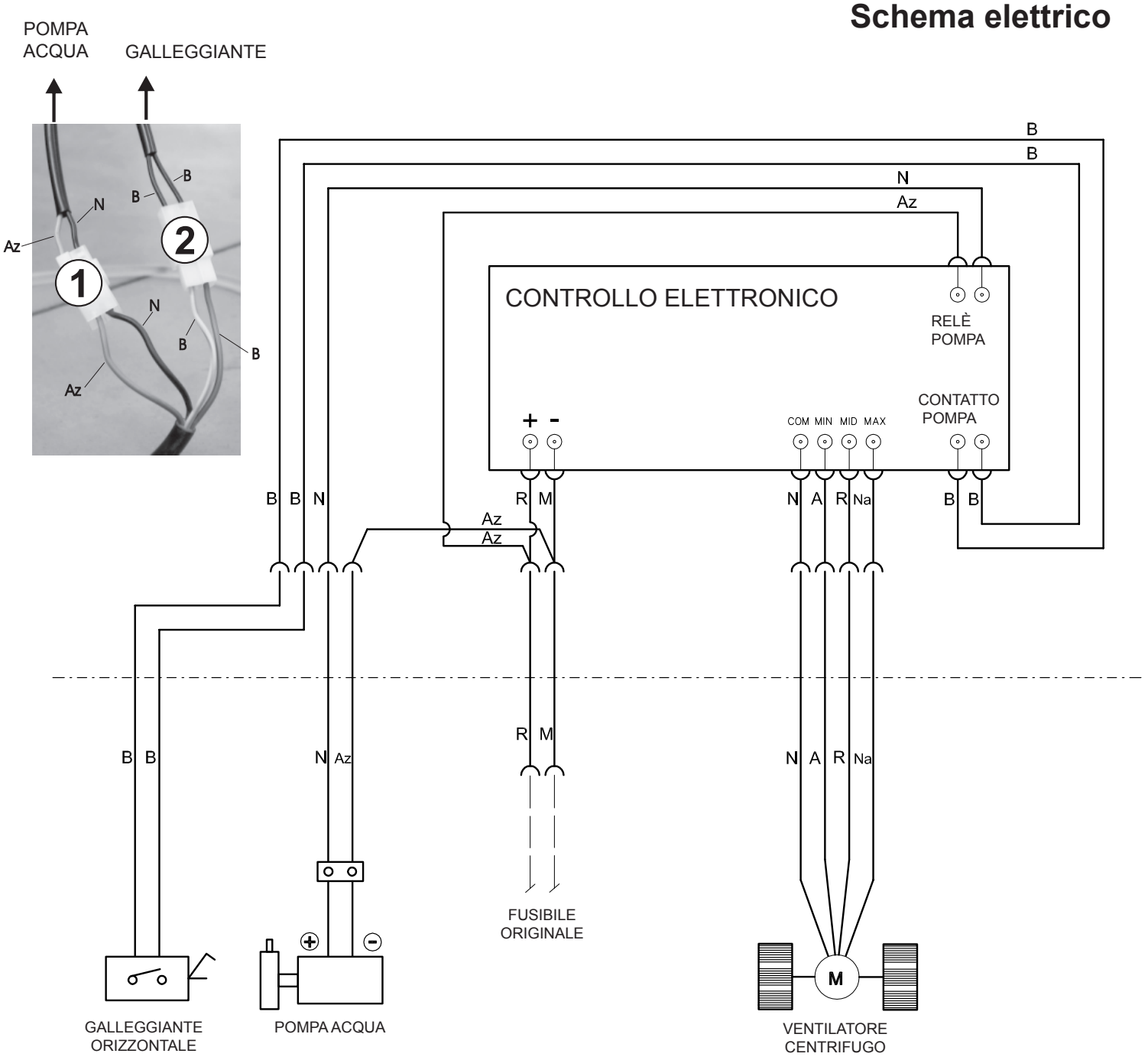
IMPORTANTE:

Il condizionatore evaporativo funziona prendendo l'aria dall'esterno che viene poi inserita nella cabina. È fondamentale che quest'aria non rimanga stagnante all'interno, cosa che darebbe origine a un eccesso di umidità. Tutte le cabine dei veicoli moderni sono dotate di griglie di ricambio dell'aria, attraverso cui esce l'aria necessaria. Ad esempio per il riscaldamento.

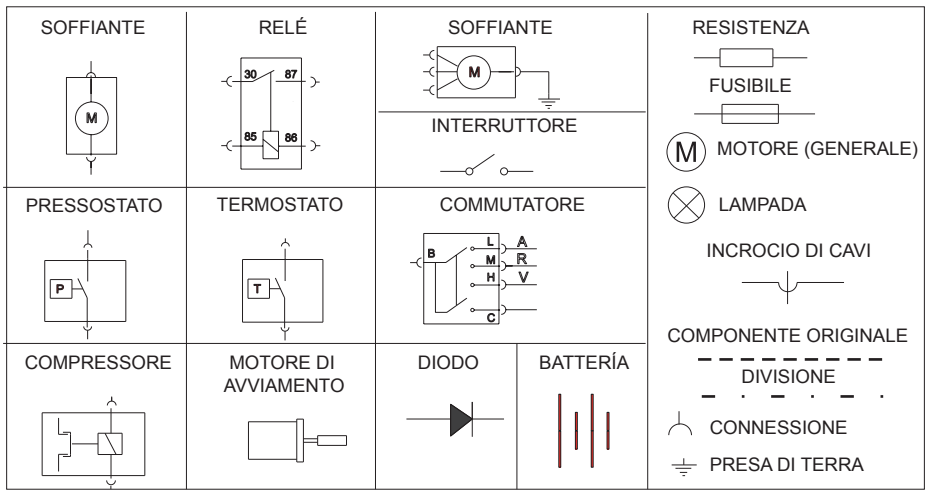
L'installatore dovrà assicurarsi dell'esistenza di questi griglie e, nel caso in cui non esistano, dovrà installarle.

Dal canto suo, l'utente dovrà controllare periodicamente che queste griglie non siano otturate dalla sporcizia.

Schema elettrico



SIMBOLI



COLORI

A	Giallo
Az	Blu
B	Bianco
G	Grigio
Na	Arancione
N	Nero
R	Rosso
Ro	Rosa
V	Verde
Vi	Violetto
M	Marrone
Mo	Viola

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dirna Bergstrom

Francisco Alonso, 6
28806 Alcalá de Henares, Madrid
SPAIN

Contact	Phone	Fax	E-Mail
Sales (Ventas Internacional)	+34 91 8770510	+34 91 8771158	sales@dirna.bergstrominc.com
Comercial Nacional	+34 91 8775841	+34 91 8836321	ventas@dirna.bergstrominc.com
Orders & Deliveries (Logística internacional)	+34 91 8775846	+34 91 8771158	export@dirna.bergstrominc.com
Orders & Deliveries (Logística nacional)	+34 91 8775840	+34 91 8836321	comercial@dirna.bergstrominc.com
Technical Assistance (Internacional)	+49 511 86679681	+49 511 86679710	technicalassistance@dirna.bergstrominc.com
Technical Assistance (Nacional)	+34 91 8775845	+34 91 883 6321	oblanco@dirna.bergstrominc.com

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