CE

dirna Bergstrom

bycool

blue line

FLAT

Agrícola 12V

Instrucciones de Montaje

Mounting Instructions

Instructions de Montage

Montageanweisungen

Istruzioni di Montaggio

Ordens de assembléia

ES	Spanish
EN	English
FR	French
GE	German
IT	Italian
PT	Portuguese

AENOR ER Calidad en Automoción IATF 16949

AENOR ER Empresa Registrada ISO 9001

IQNet

F-4218 rev.01

220AA70035

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.**

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

DOCUMENTACIÓN QUE EL EQUIPO INCLUYE:

- **Instrucciones de Montaje: 220.AA7.0035**
- **Manual del Usuario: 220.AA7.0003**
- **Diagnosis de Averías: 220.AA7.0004**
- **Garantía: 220.AA1.0010**

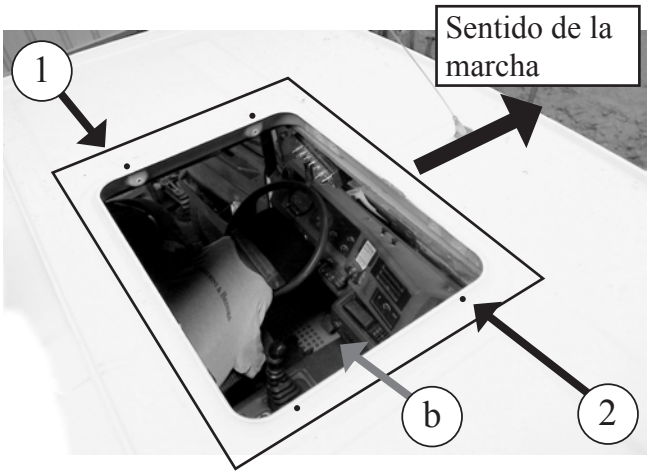
ATENCIÓN :

Al instalar el equipo evaporativo en el techo se debe proteger la parte superior de la cabina con un paño ó 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.

ADVERTENCIAS :

- La pieza nº 17 del listado de Piezas Suministradas debe se sustituída cada 12 meses.
- **dirna, s.a.** queda exenta de responsabilidad si se producen averías que procedan de una inadecuada manipulación ó instalación del equipo, ó 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 Presentar plantilla suministrada sobre el techo y en el sentido de marcha del vehículo, con los taladros a los lados.

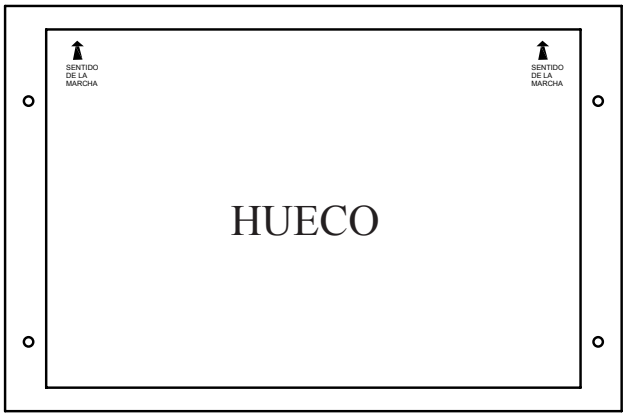


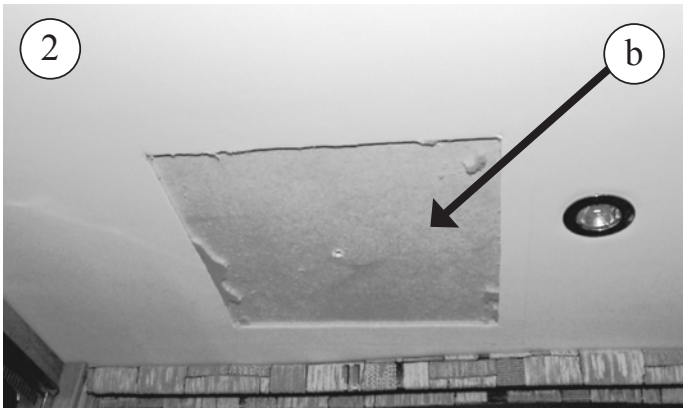
2 Marcar el corte y los (4)taladros y proceder a dar los mismos de Ø10.

A- Por el interior de la cabina volver a presentar la plantilla, sobre los (4)taladros, para marcar el corte sobre el tapizado y realizarlo con un cuter, evitando así roturas y/o rasgaduras.

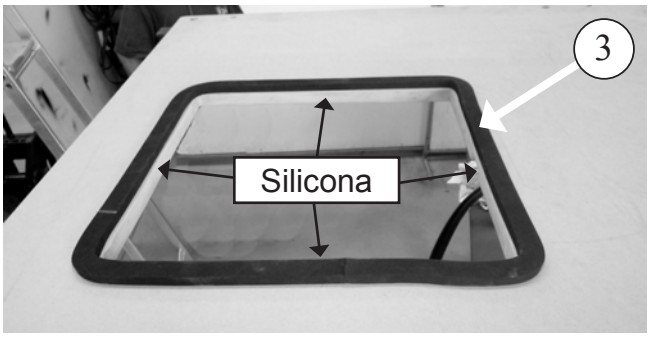
B- Desde el exterior dar, corte marcado anteriormente.

Plantilla





3 Pegar junta de montaje alrededor del corte y sellar con silicona interiormente.



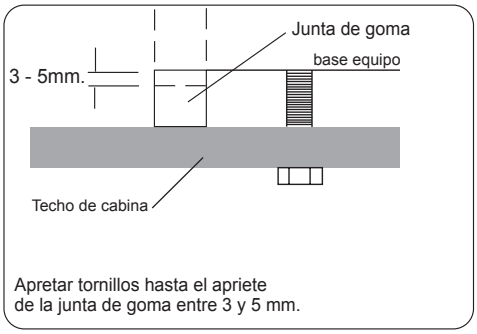
4 Posicionar evaporativo sobre el techo.

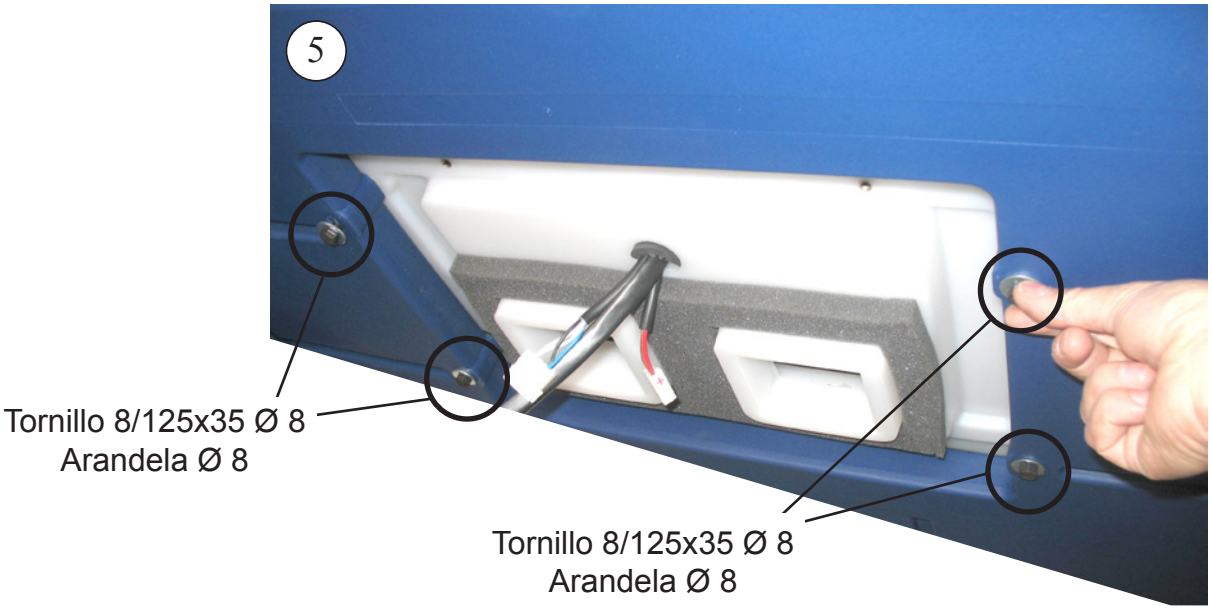
5

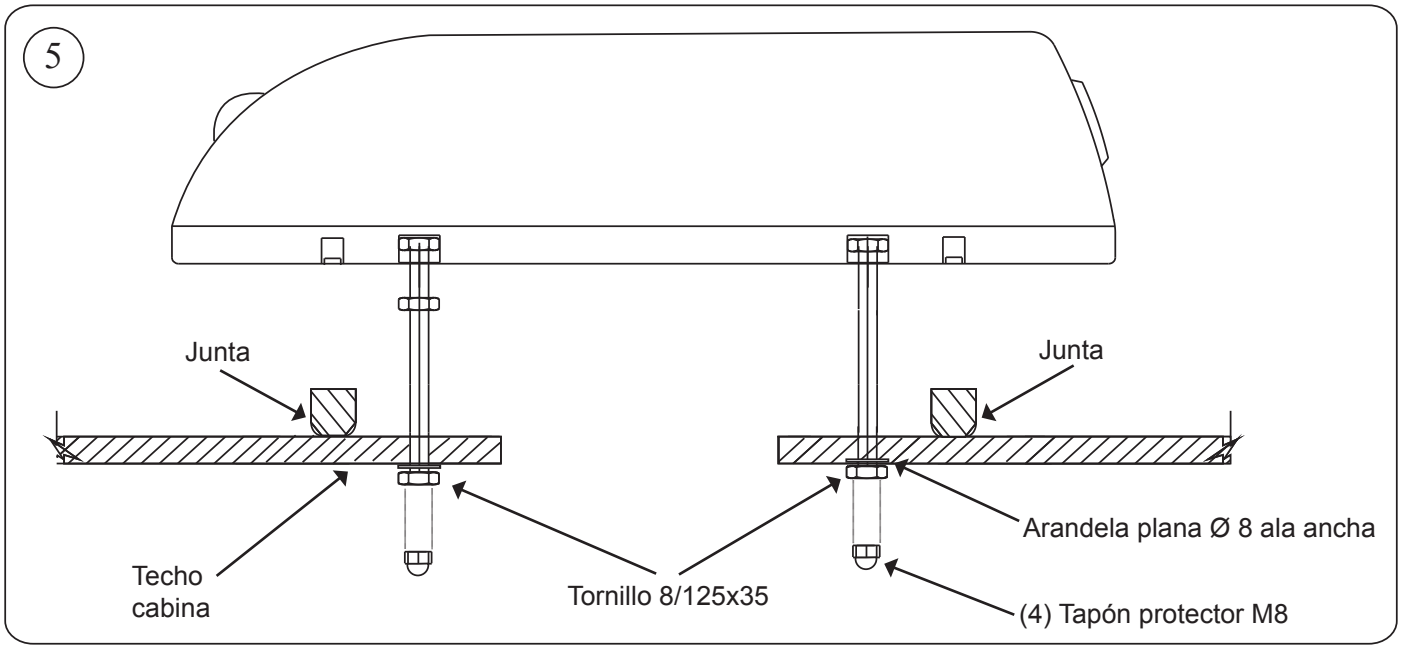
Por el interior de la cabina, fijar el conjunto c/ (4)tornillos 8/125x35, (4)arandelas planas Ø8 ala ancha.

Apretar tornillos hasta que la junta quede oprimida entre 3 y 5 mm. - par de apriete 4÷5 N.m - (*VER DETALLE*)-.

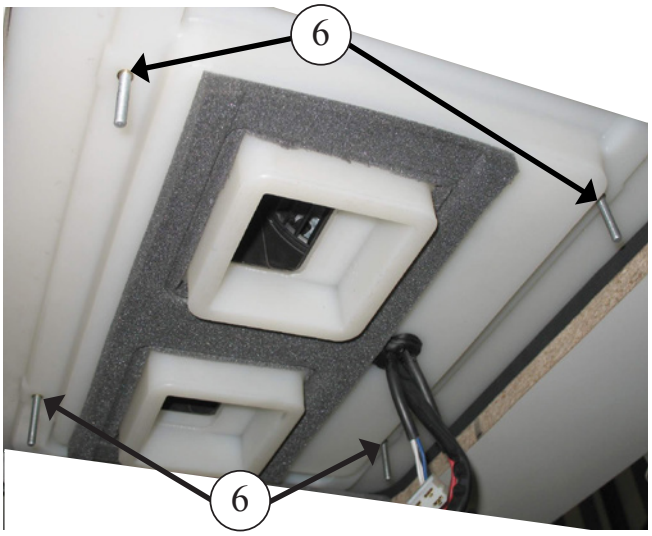
Detalle



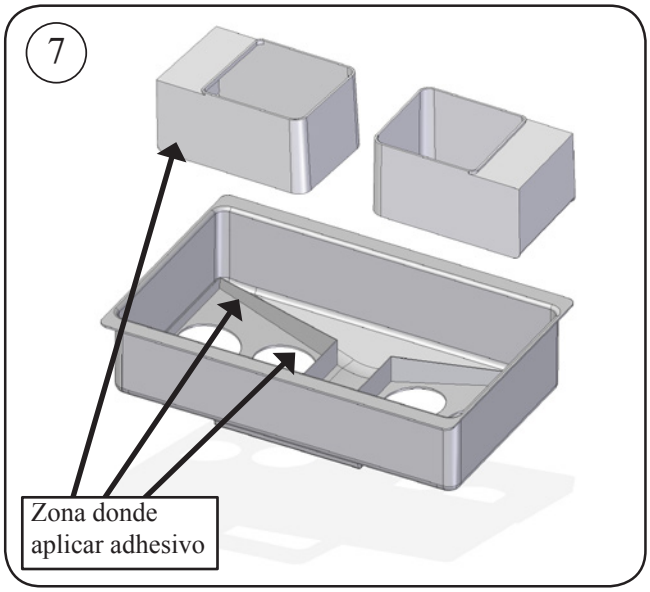




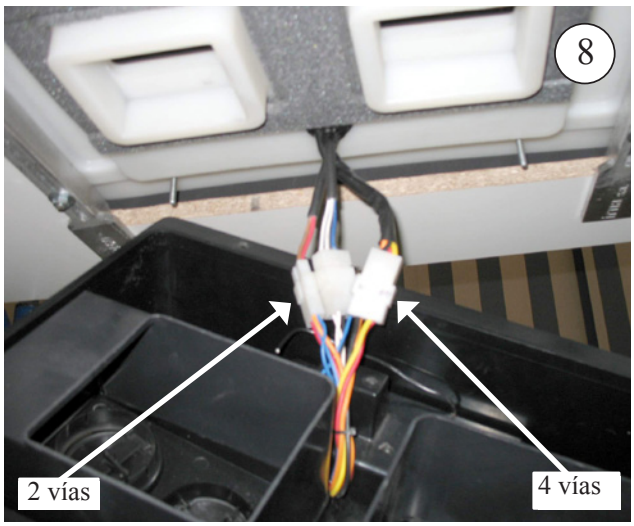
6 Roscar 10 mm (4) espárragos M6 x 55, donde se indica.



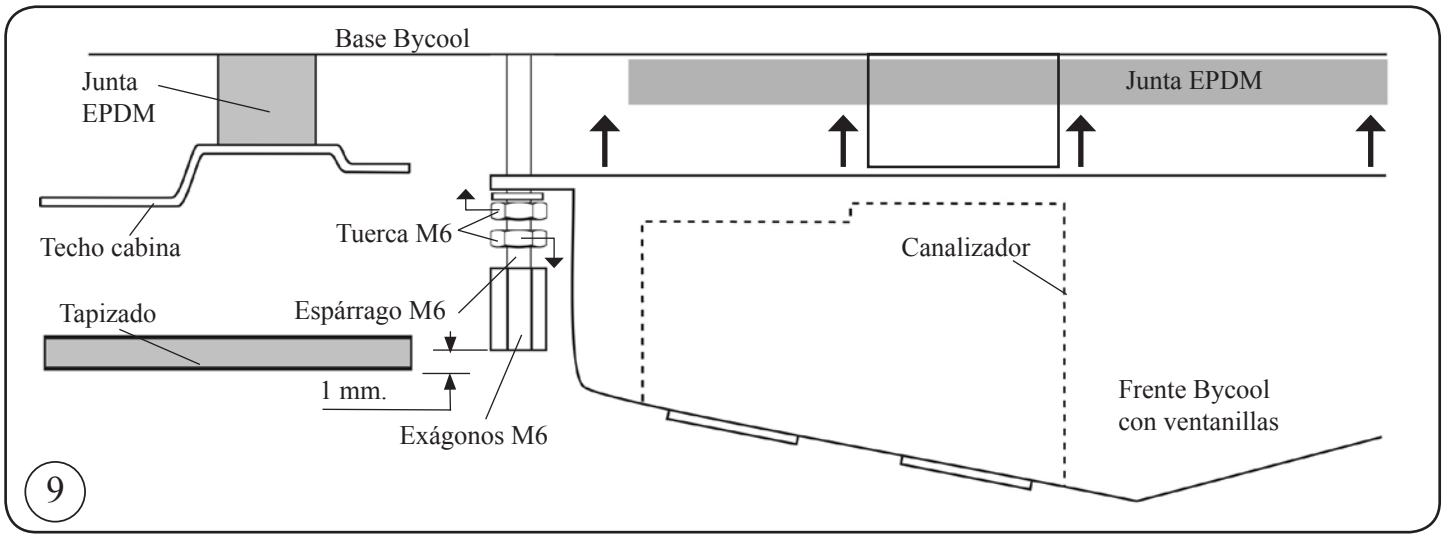
7 Pegar los canalizadores al frente utilizando LOCTITE superglue 3 ó similar, para facilitar el montaje del conjunto y asegurar los flujos de aire fríos por las ventanillas.



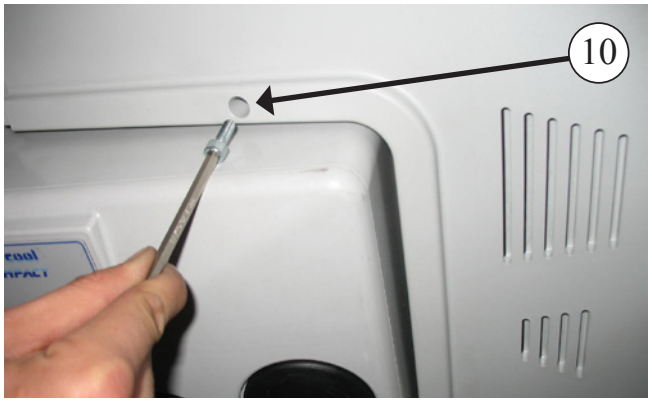
8 Conectar las (2) cajas de 4 vías y (1) de 2 vías, del frente, con las del **Bycool**.



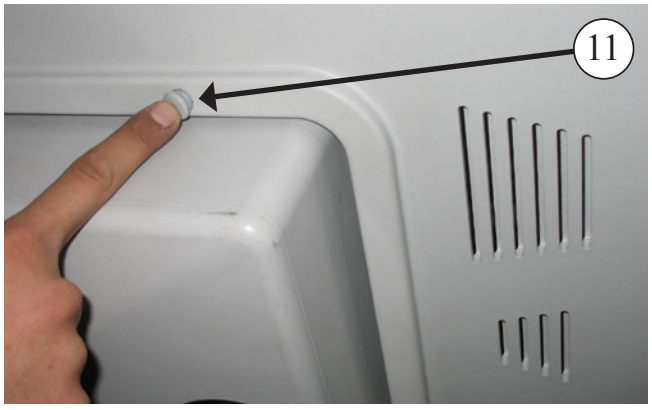
9 Posicionar frente en espárragos M6 hasta hacer tope con base de Bycool, fijar como se indica en esquema.



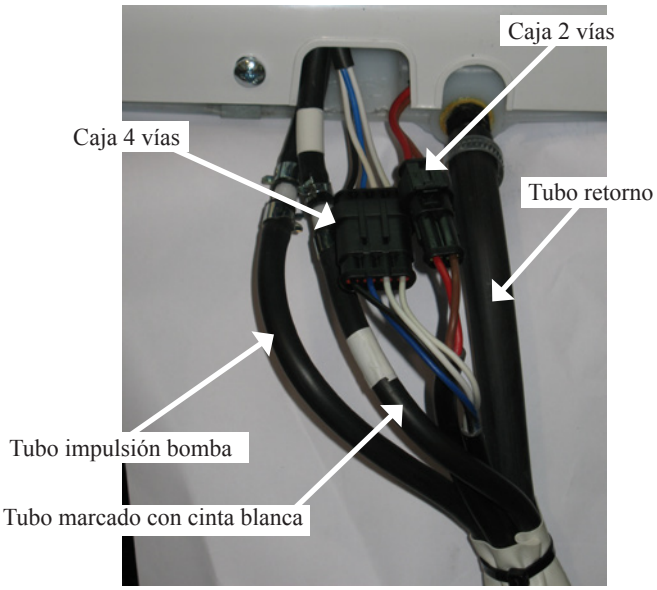
10 Colocar la consola con (4) tornillos M6/100x15 allen.



11 Cubrir los (4) tornillos M6/100x15 allen con los embellecedores redondos de M6 de plástico.



12 Conectar cajas cableados y tubos, por la parte trasera del Bycool según se indica.

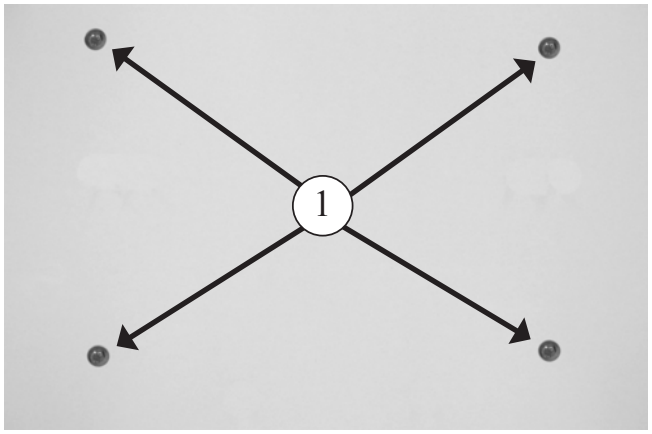


13 Pasar y fijar con bridas conjunto cableados con tubos hasta la ubicación donde se vaya a instalar el depósito de agua.

Importante: El tubo de desagüe tiene que tener caida y hay que evitar bucles y estrangulamientos para facilitar el retorno del agua al depósito.

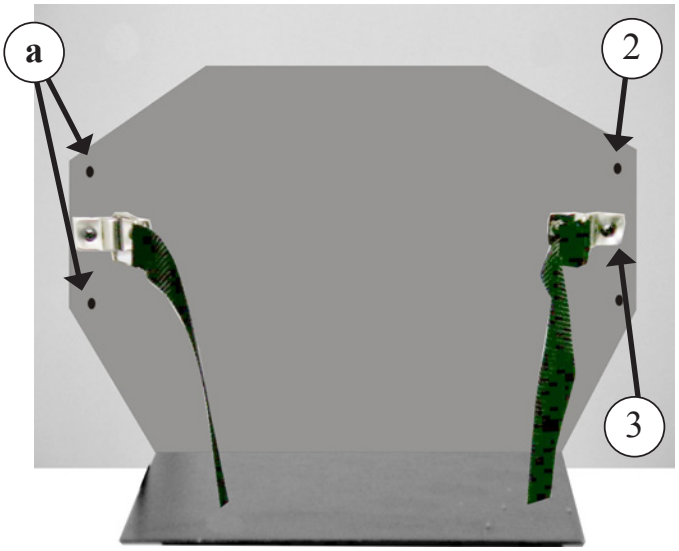
INSTALACIÓN DEL DEPÓSITO DE AGUA

1 Presentar el depósito con el soporte, en la parte mas idónea y marcar los (4)taladros extremos de fijación **(a)**. Realizar dichos taladros de Ø9 y colocar (4) tuercas remache ala ancha M6.



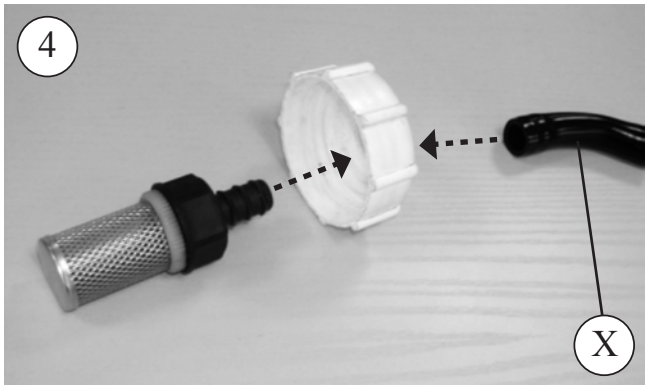
2 Fijar soporte c/(4)tornillos 6/100x25 y (4) arandelas planas de Ø6 ala ancha.

3 Fijar las (2) cintas a los taladros del soporte, c/ (4) tuercas M5/80 autoblocantes y (4)arandelas planas ala ancha.



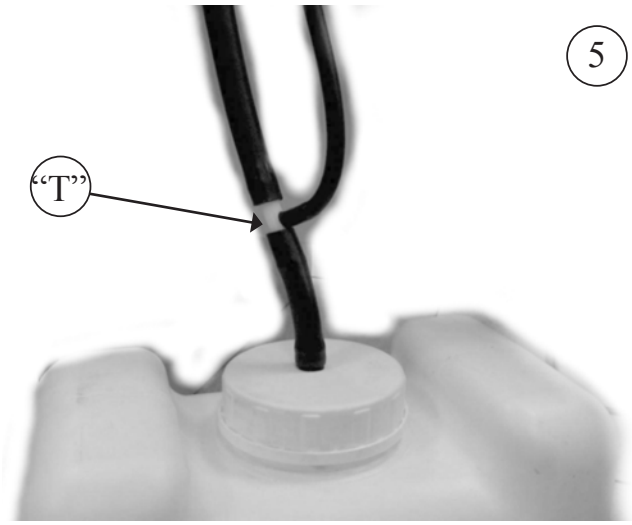
OPERACIONES EN EL DEPÓSITO

4 Montar filtro en tubo c/espiga, introducir en el tapón y conectar a tubo de plástico X (retorno). Volver a roscar tapón en el depósito.



5

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

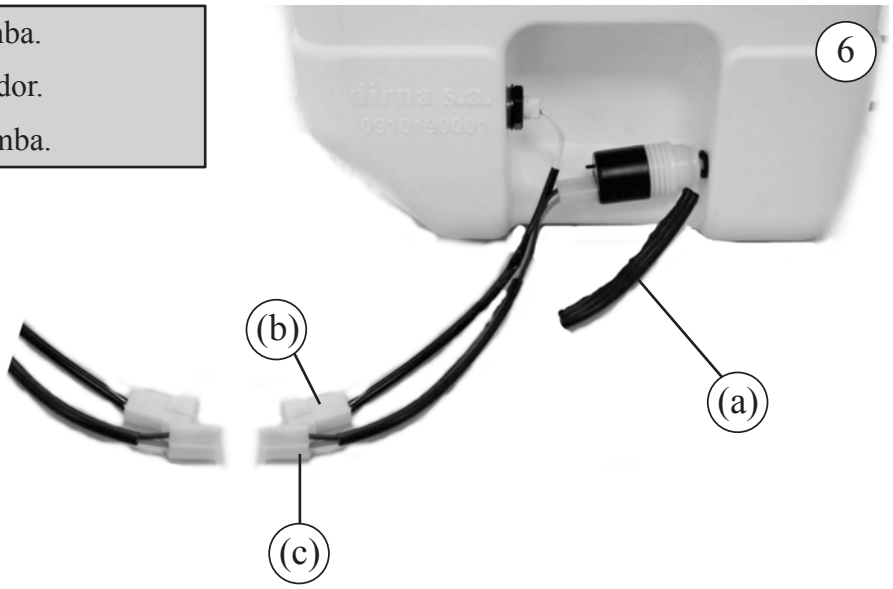


6

a- Conectar tubo impulsión bomba.

b- Conectar caja 2 vías del flotador.

c- Conectar caja 2 vías de la bomba.



7

El tubo de desagüe debe tener caída y no horizontabilidad, bucles ni estrangulamientos, para facilitar la caída de agua al depósito, evitando su acumulación en bandeja, posterior derrame al exterior y al no retornar, posterior vacío de agua del depósito.

IMPORTANTE: NO CORTAR cableado sobrante y sujetarlo (enrollado), detrás del depósito de agua.

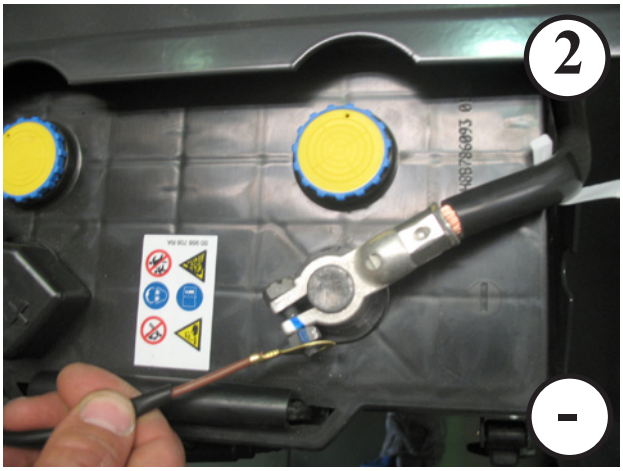
En caso de error y cortar, volver a conectar en posición orig.para evitar daños irreversibles en el control electrónico.

Instrucciones detalladas sobre la instalación del cableado de alimentación

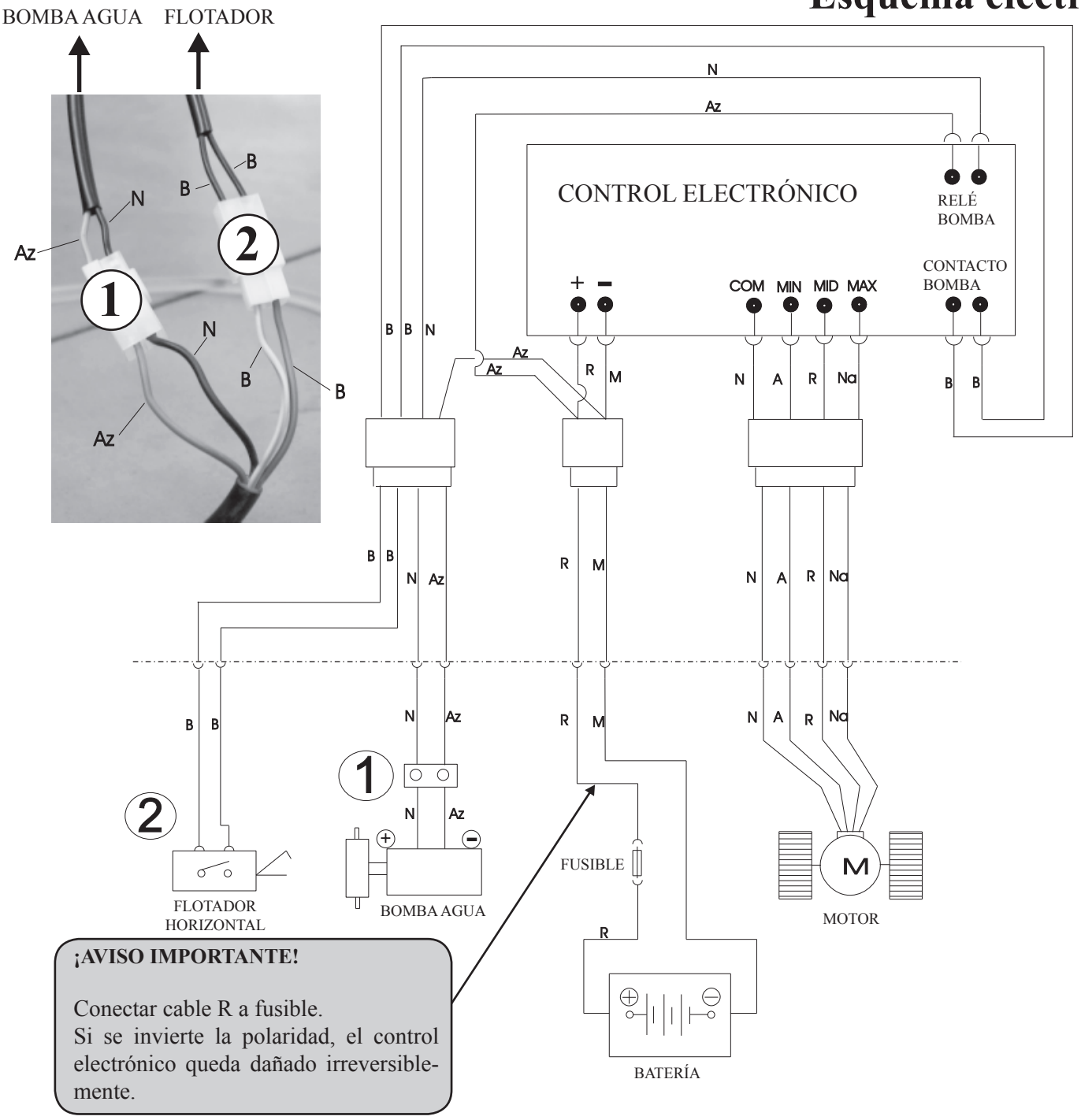
1- Llevar el cable de alimentación del equipo hasta la batería del vehículo, fijandolo con bridas; se debe utilizar el mismo paso del cableado original. Al conectar el equipo a la batería éste hará un test en todos sus leds, y se apagará.

IMPORTANTE: Debido al complejo sistema de regulación electrónica del equipo, la toma de corriente debe realizarse directamente a la batería del vehículo, no a cualquier otro punto que dé servicio a otros accesorios del vehículo teniendo la precacuión de no invertir la polaridad al realizar la conexión (2). Si se invierte la polaridad se pueden ocasionar daños irreparables en la electrónica no cubiertos por la garantía.

IMPORTANTE: Para la puesta en marcha consultar el Manual del Usuario.



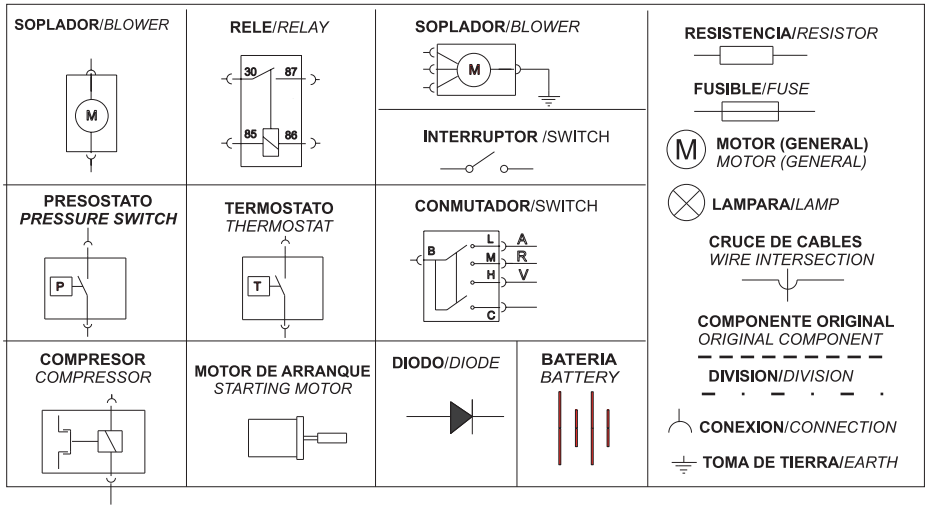
Esquema eléctrico



¡AVISO IMPORTANTE!

Conectar cable R a fusible.
Si se invierte la polaridad, el control electrónico queda dañado irreversiblemente.

SIMBOLOGIA/*CONVENTIONAL SIGNS*



COLORES/*COLOURS*

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

RECOMMENDATIONS FOR ASSEMBLY

•Before starting the assembly read the instructions and follow them during the installation process.

• Use suitable tools for each operation.

ELECTRICITY

• Switch off the ignition key.

• Disconnect the battery before starting the assembly.

• Secure the connection of the electrical components by checking that they fit correctly.

Tools
Torque Wrench set
Allen Wrench Set
Spanner 10
Spanner 13
Spanner 14
Scissors
Tape Measure

DOCUMENTATION WHICH COMES WITH THE EQUIPMENT:

• Assembly Instructions: 220.AA7.0035
• User Manual: 220.AA7.0003
• Troubleshooting: 220.AA7.0004
• Guarantee: 220.AA1.0010

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 :

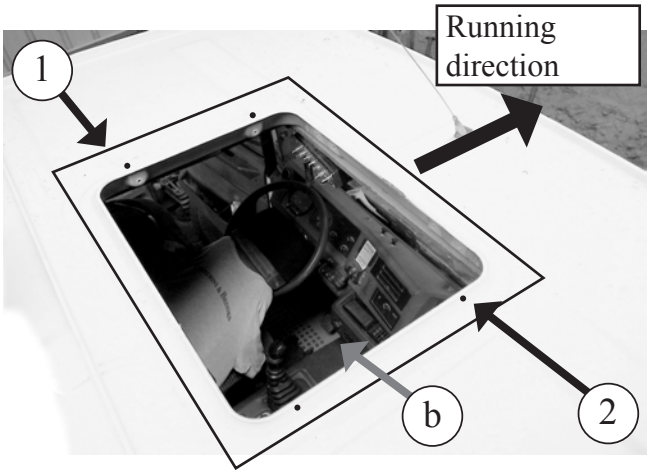
• Part no. 17 from the List of Parts Supplied must be replaced every 12 months.

• **Dirna, s.a.** will not be held responsible for any faults arising from inappropriate handling or installation of the equipment, or due to modifications or replacements carried out without our written authorisation.

• See **guarantee procedure** for the product included in **Troubleshooting**.

• See the equipment **User Manual** for the correct operation of the remote control and the control panel.

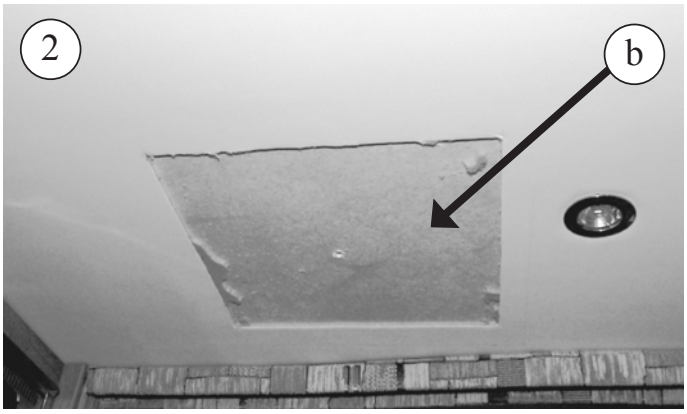
1 Place the supplied template on the top section in the running direction of the vehicle, with the boreholes at the sides.



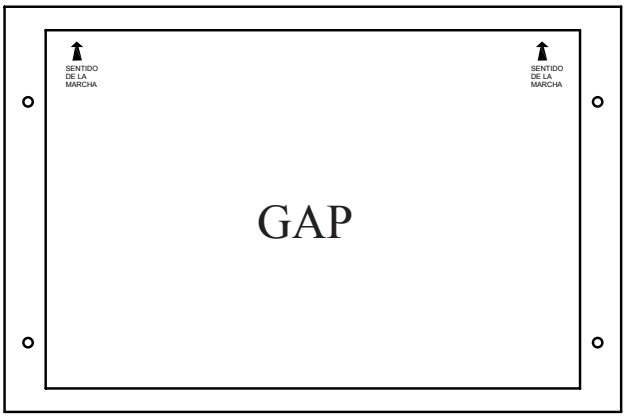
2 Mark the cut and the (4) boreholes, and bore at Ø10.

A- Position the template on the (4) boreholes inside the cabin, in order to mark the cut on the upholstering and then use the cutter, thus avoiding breakage and/or tearing.

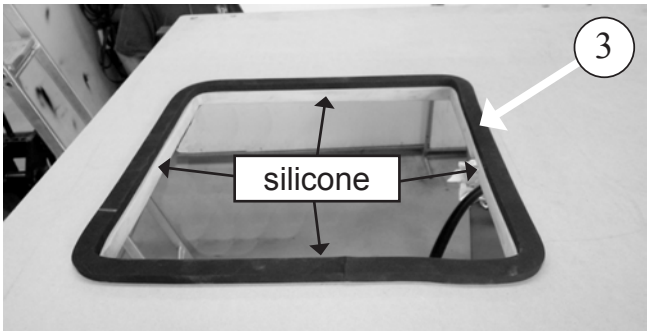
B- From the outside cut at the previously made marking.



Template



3 Attach the assembly seal around the cut and seal the inside with silicone.



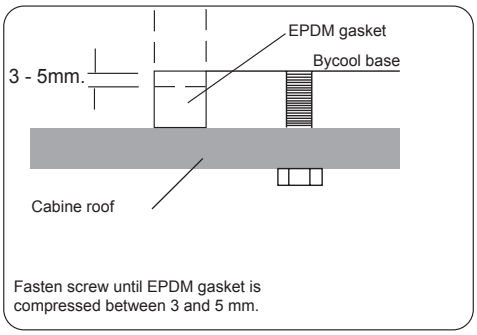
4 Position the evaporation unit on the top section.

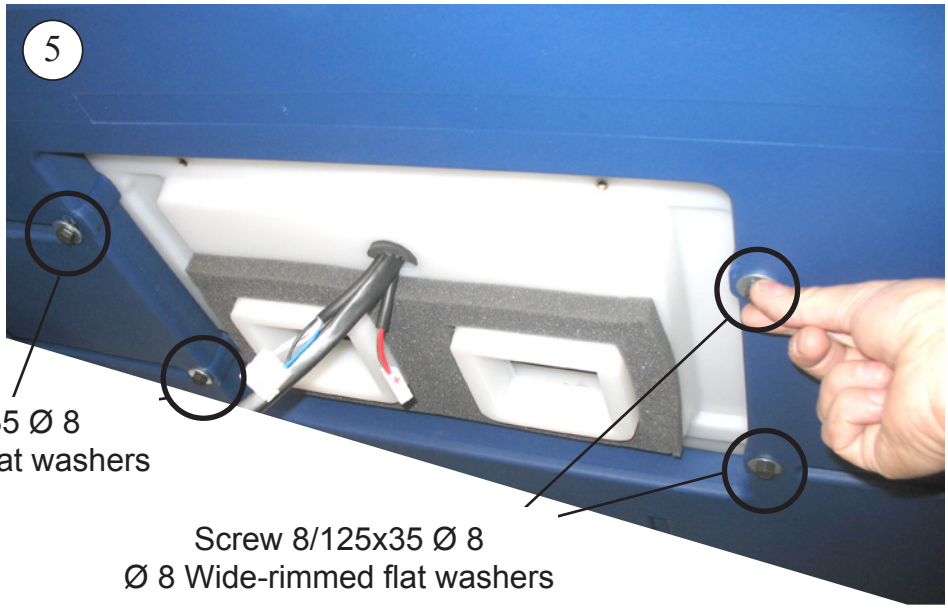
5

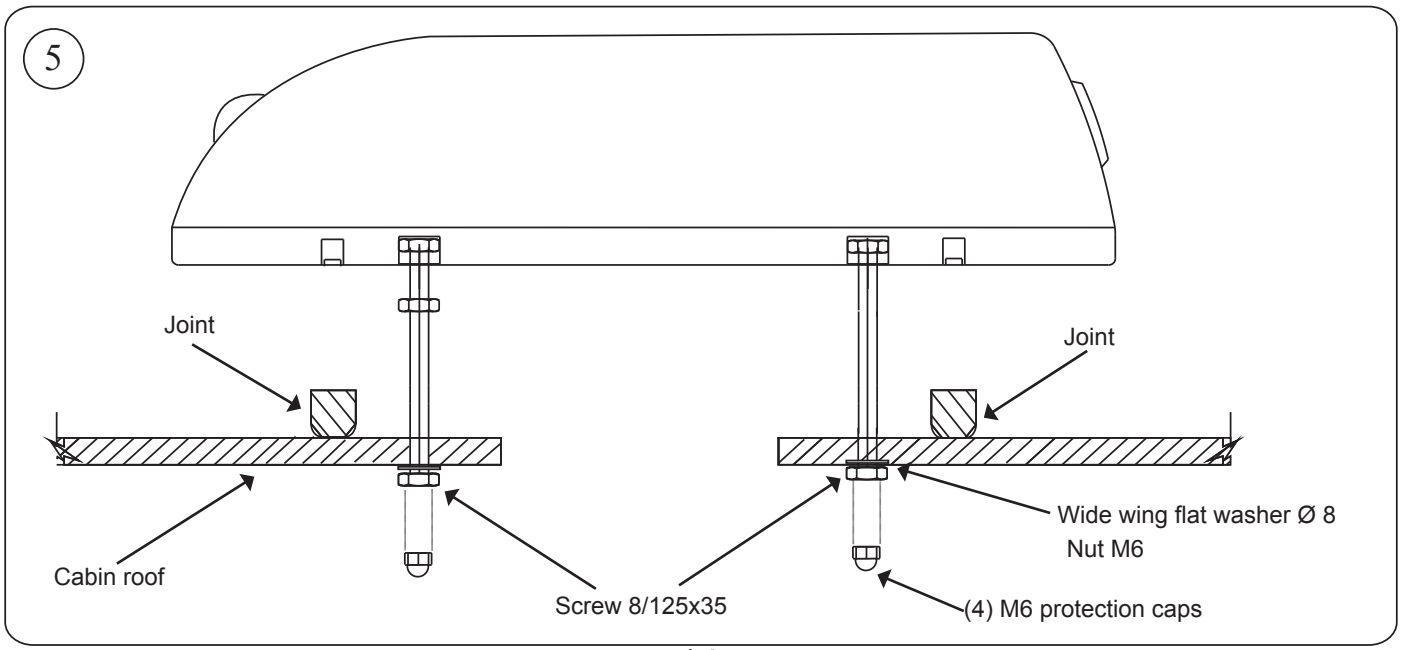
On the inside of the cabin secure the unit with (4) 8/125x35 screws, (4) Ø8 wide-rimmed flat washers.

Tighten the screws until the seal is pressed down between 3 and 5 mm. - torque 4÷5 N.m - (*SEE DETAILS*)-.

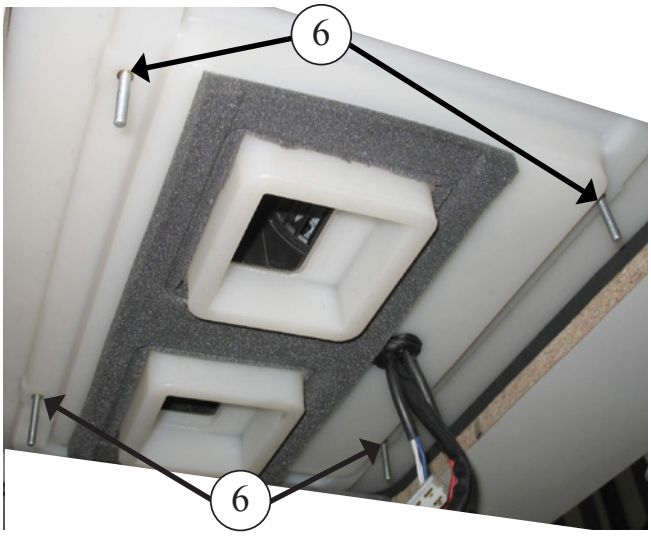
Details



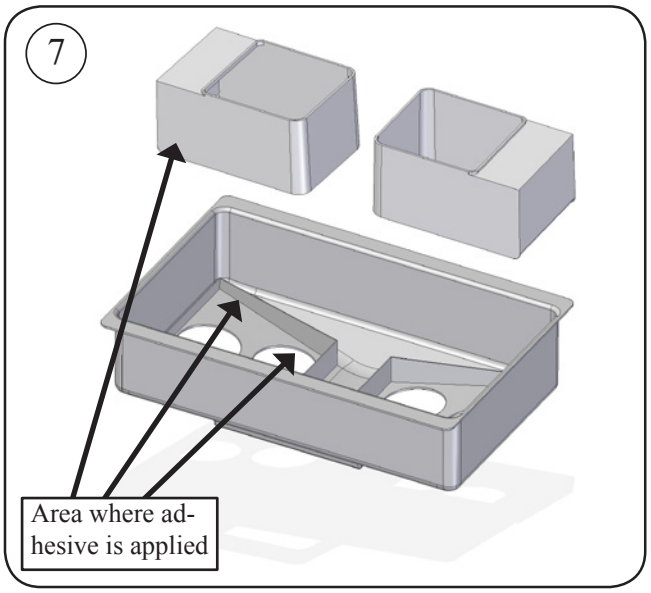




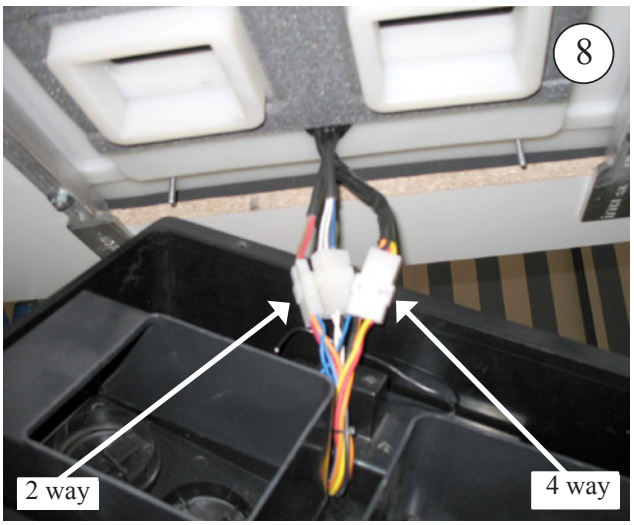
6 Thread (4) stud bolts M6 x 55, 10 mm where indicated.



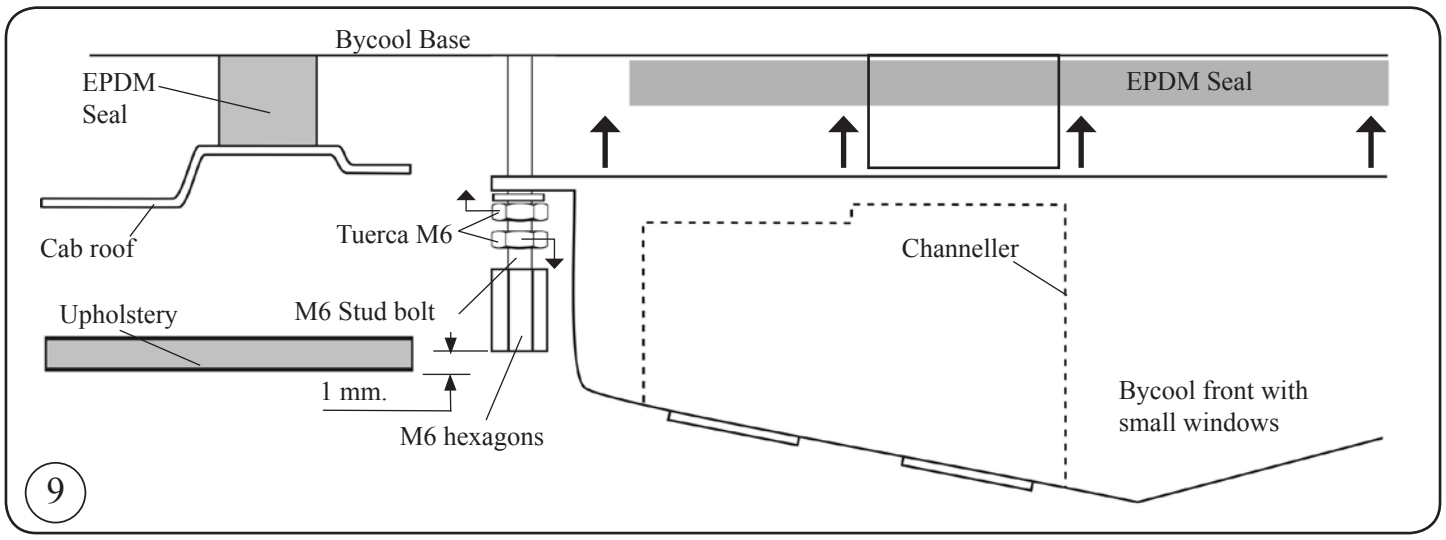
7 Stick the channellers on the front using LOCTITE superglue 3 or similar, to facilitate the assembly of the unit and ensure the cold air flows through the small windows.



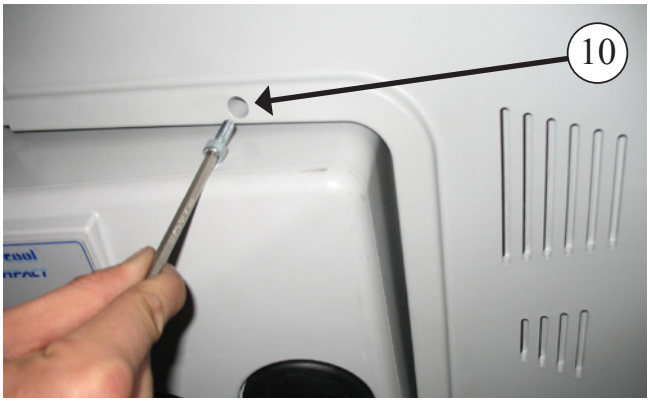
8 Connect the (2) four-way boxes and (1) two-way box, of the front, with those from the **Bycool**.



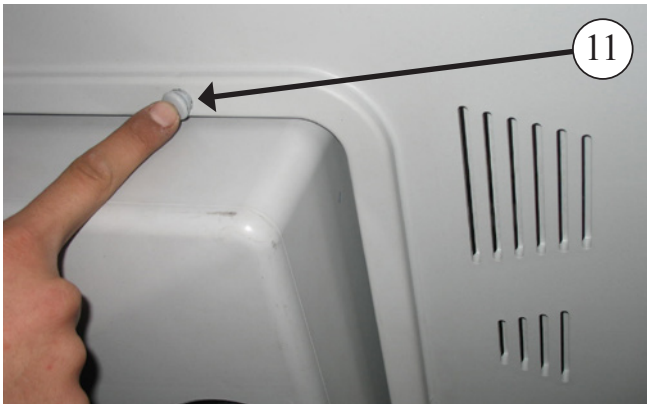
9 To place front i grub screw M6 to reach the end with Bycool base, fixing like it is indicated at the drawing.



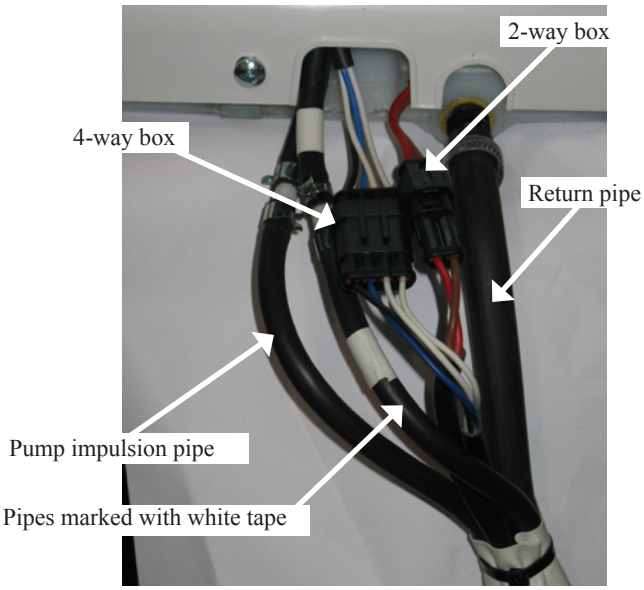
10 Fix the console with (4) Allen screws M6/100x15.



11 Cover the (4) M6/100x15 Allen screws with the round M6 plastic screw covers.



12 Connect cabling boxes and pipes, through the rear part of the Bycool as indicated.

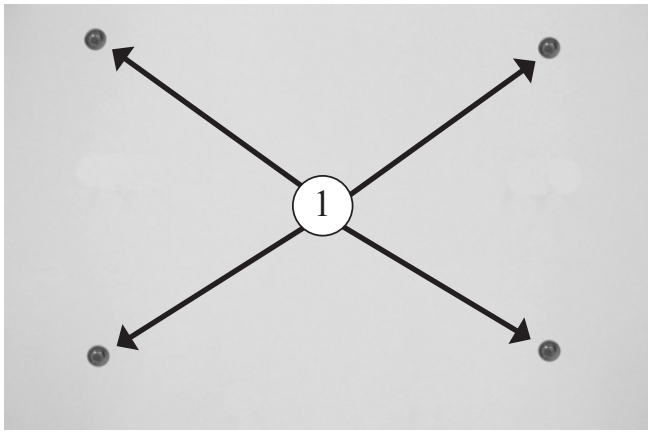


13 Pass the cabling with tubes and secure with flanges, through to the location where the water tank is to be installed.

Important: The outflow tube must be vertical, without any loops or constrictions, in order to allow the water to return to the tank.

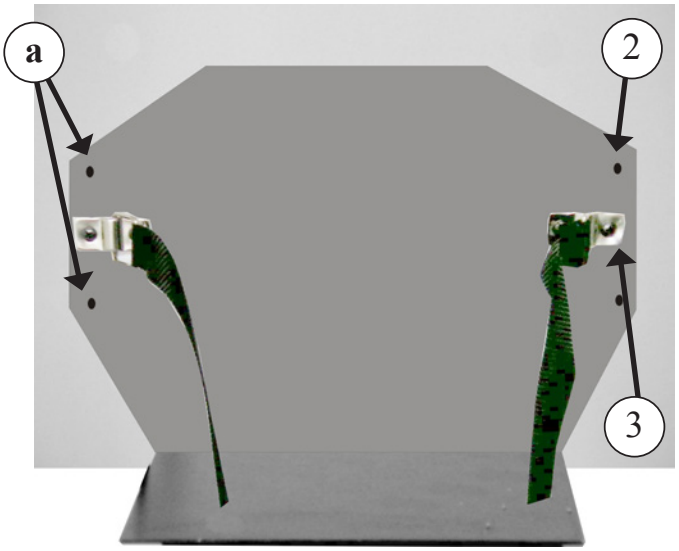
WATER TANK INSTALLATION

1	Place the tank and the support in the most appropriate section and mark the (4) end attachment boreholes **(a)**. Make the Ø9 boreholes and position (4) M6 wide-rimmed rivet nuts.



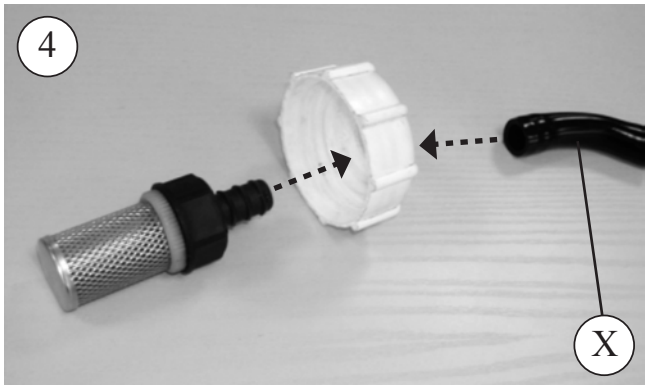
2	Fijar soporte c/(4)tornillos 6/100x25 y (4) arandelas planas de Ø6 ala ancha.

3	Secure the (2) belts to the support bores, with (4) M5/80 self-locking nuts and (4) wide-rimmed flat washers.

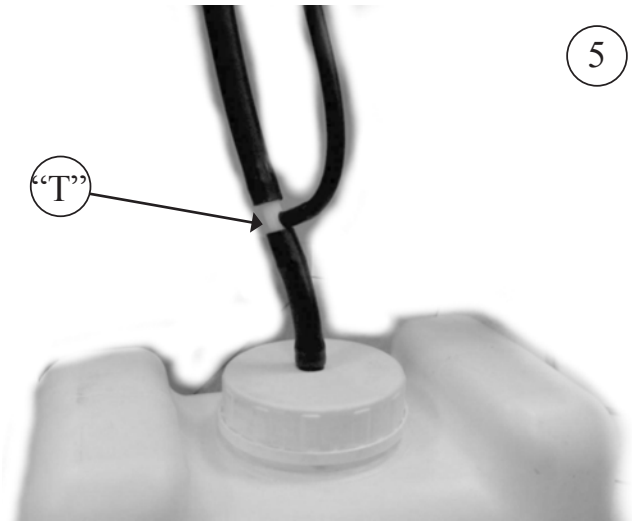


OPERATIONS IN THE TANK

4	Assemble the filter in the tube with a stud, introduce in the cap and connect to an X plastic tube (return). Replace the cap on the tank.



5 Place the cap on the tank.
Cut at 100 mm, insert the "T" and connect the smallest section tube to this **marked with Y tape** (ensure that the radius of the curve is sufficient so as to prevent constrictions).

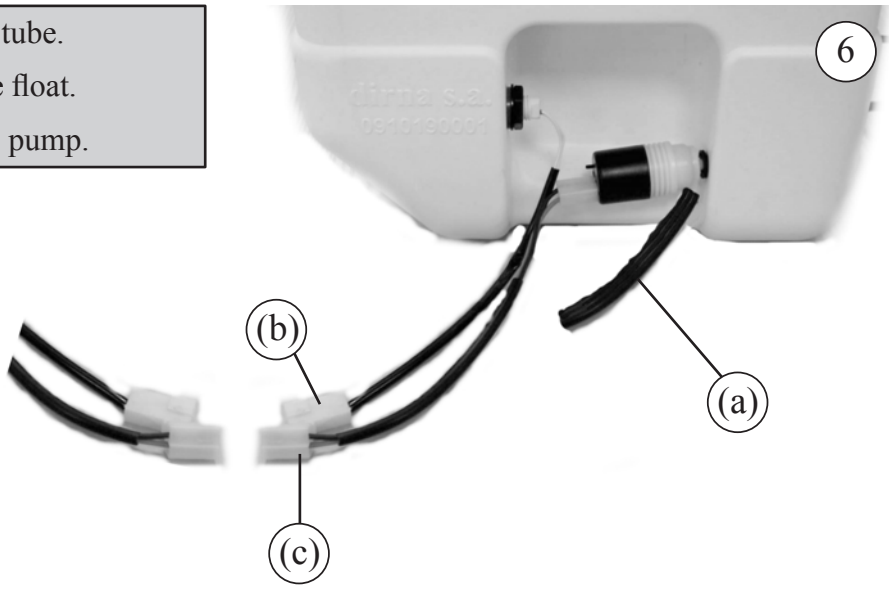


6

a- Connect the pump impulsion tube.

b- Connect the 2-way box of the float.

c- Connect the 2-way box of the pump.



7 The outflow tube must be vertical, without any horizontal sections, loops or constrictions, in order to allow the water to fall into the tank whilst preventing accumulation in the tray and subsequent spillage to the exterior, thus emptying the tank of water.

IMPORTANT: DO NOT CUT the excess cabling and secure it (rolled up) behind the water tank.

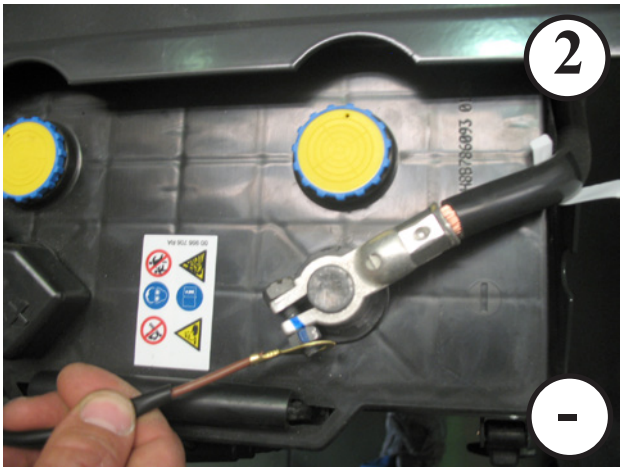
In the event of error, connect in the original position in order to prevent irreparable damage in the electronic control.

Detailed instructions on the installation of power supply cables

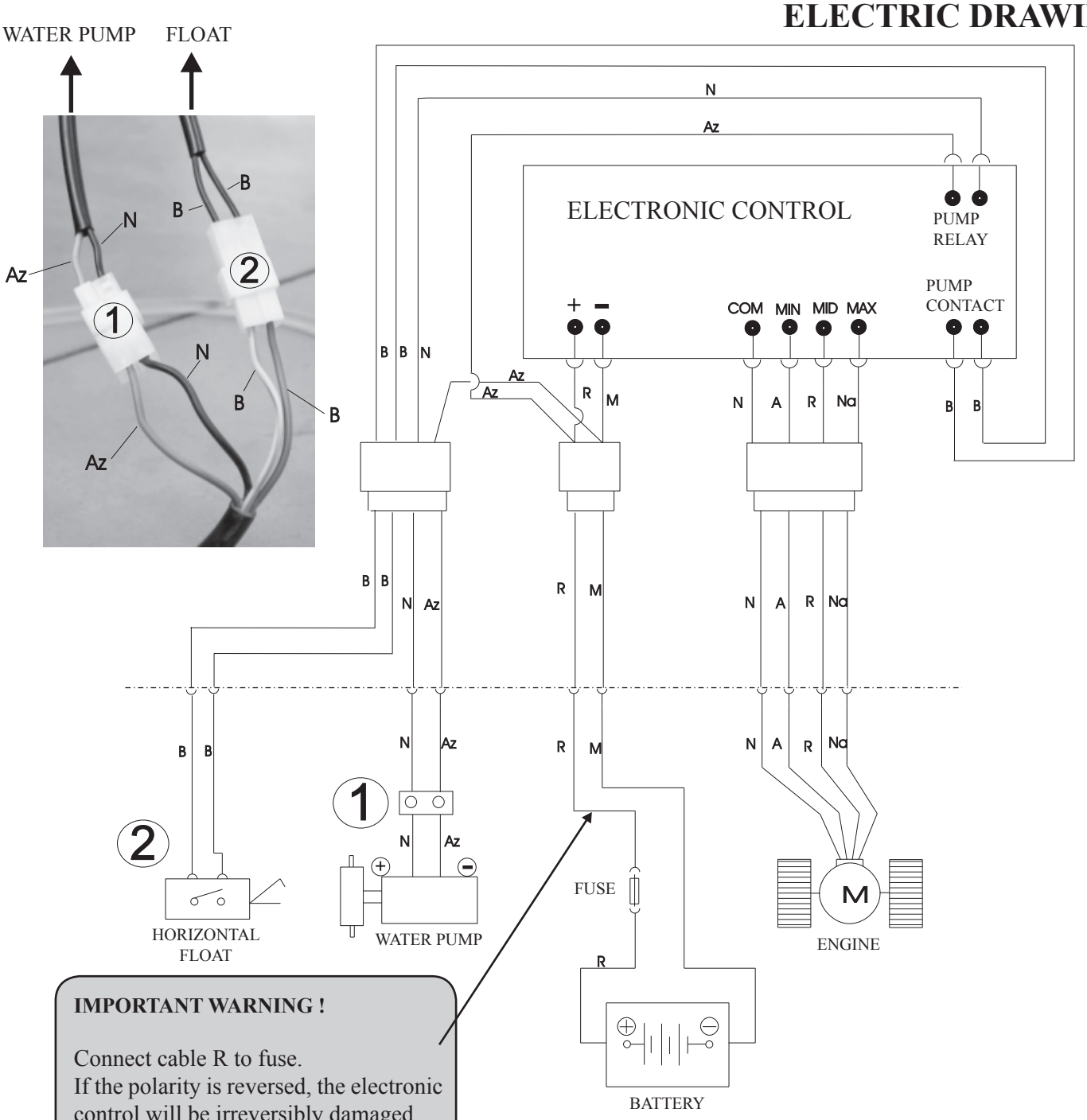
1- Take the power cable of the equipment through to the vehicle battery and secure with flanges; use the same passage as the original cabling. When the equipment is connected to the battery, this will carry out a test of all the LEDs and will then go off.

IMPORTANT: Due to the complex system of electronic regulation of the equipment, the current connection must be made directly to the vehicle battery and not to any other point which services other accessories of the vehicle, taking the precaution to not invert the polarity when making the connection (2). Inverting the polarity may result in irreparable damage to the electronics, which is not covered by the warranty.

IMPORTANT: Check the User Manual before starting up.



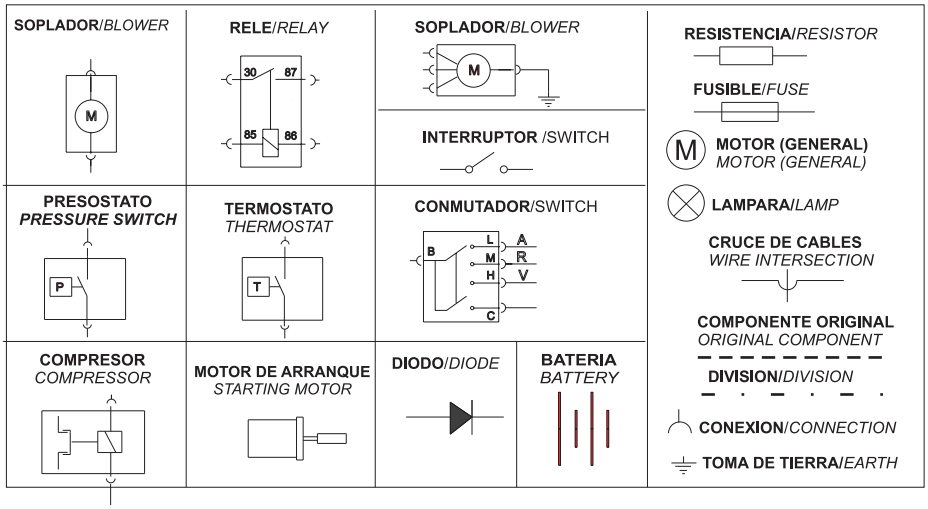
ELECTRIC DRAWING



IMPORTANT WARNING !

Connect cable R to fuse.
If the polarity is reversed, the electronic control will be irreversibly damaged.

SIMBOLOGIA/*CONVENTIONAL SIGNS*



COLORES/*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.

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

DOCUMENTATION FOURNIE AVEC L´ÉQUIPEMENT:

• Instructions de Montage: 220.AA7.0035
• Manuel de l´Usager: 220.AA7.0003
• Diagnostic de Pannes: 220.AA7.0004
•Garantie: 220.AA1.0010

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.

AVERTISSEMENTS :

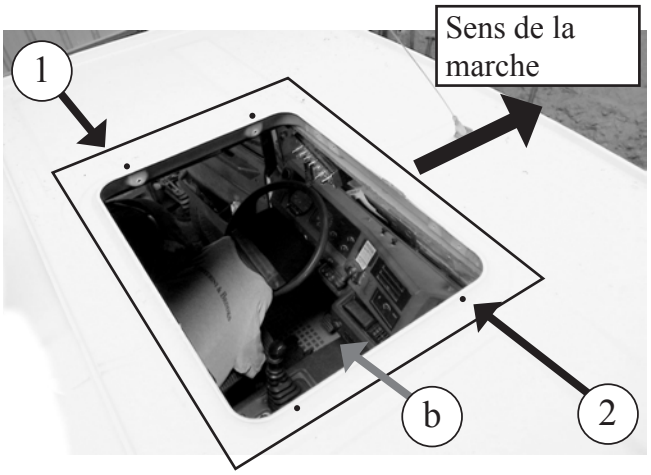
• La pièce nº 17 de la liste des Pièces Fournies doit être remplacée tous les 12 mois.

• **dirna, s.a.** 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 Présenter le patron fourni sur le plafond et dans le sens de la marche du véhicule, avec les trous sur les côtés.

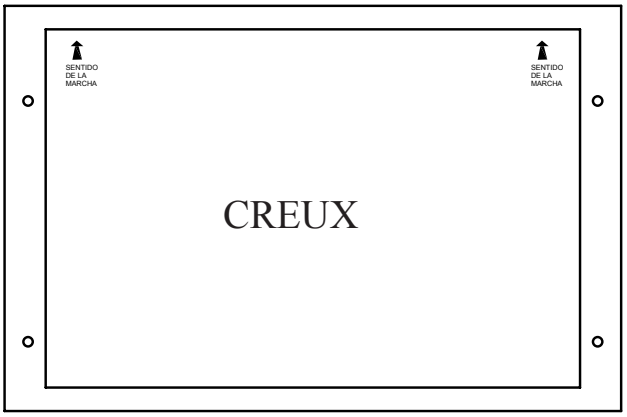


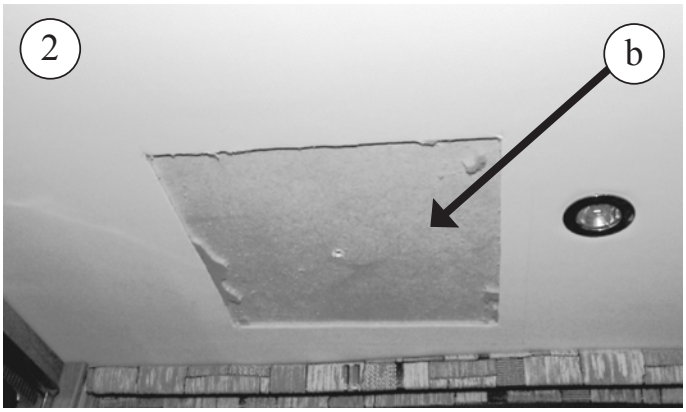
2 Marquer la coupe et les (4) trous et procéder au perçage de ces derniers (Ø10).

A- À l'intérieur de la cabine, présenter à nouveau le patron sur les (4) trous, pour marquer la coupe sur la tapisserie et procéder à l'aide d'un cutter, afin d'éviter les déchirures.

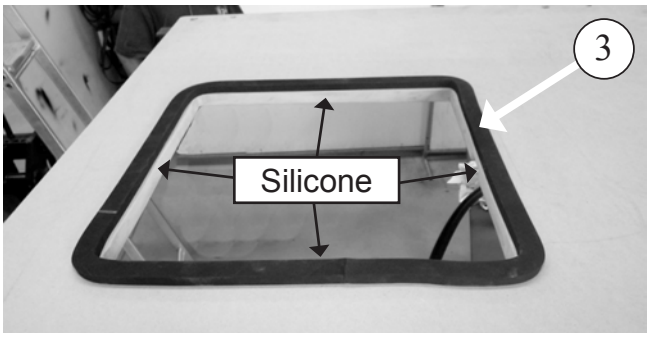
B- À l'extérieur, couper selon le marquage préalablement effectué.

Patron

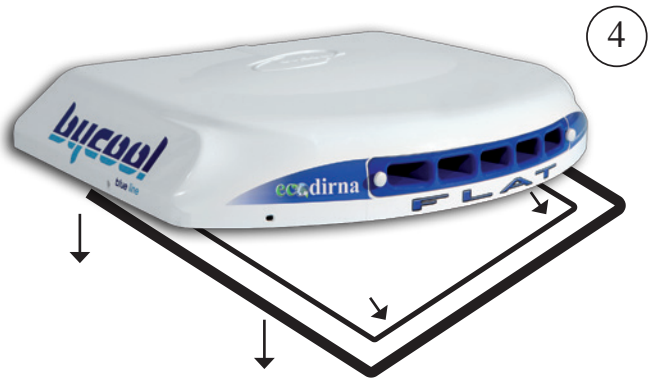




3 Coller le joint de montage autour de la coupe et sceller intérieurement avec de la silicone.



4 Placer l'évaporatif sur le plafond.

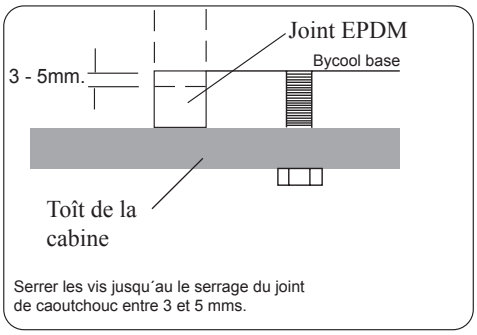


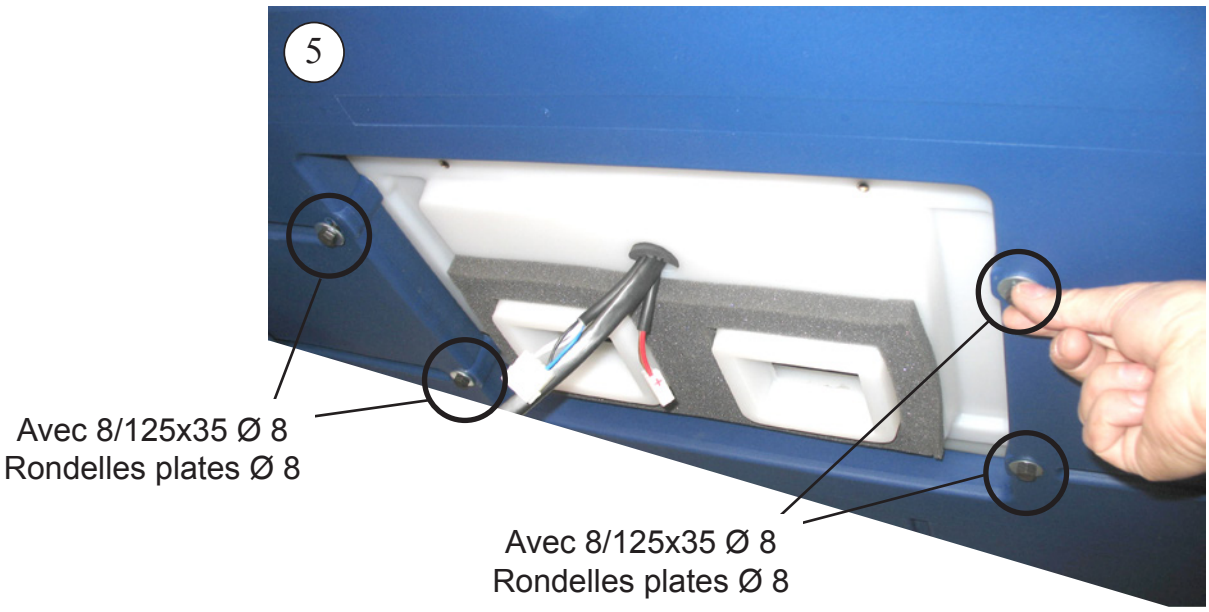
5

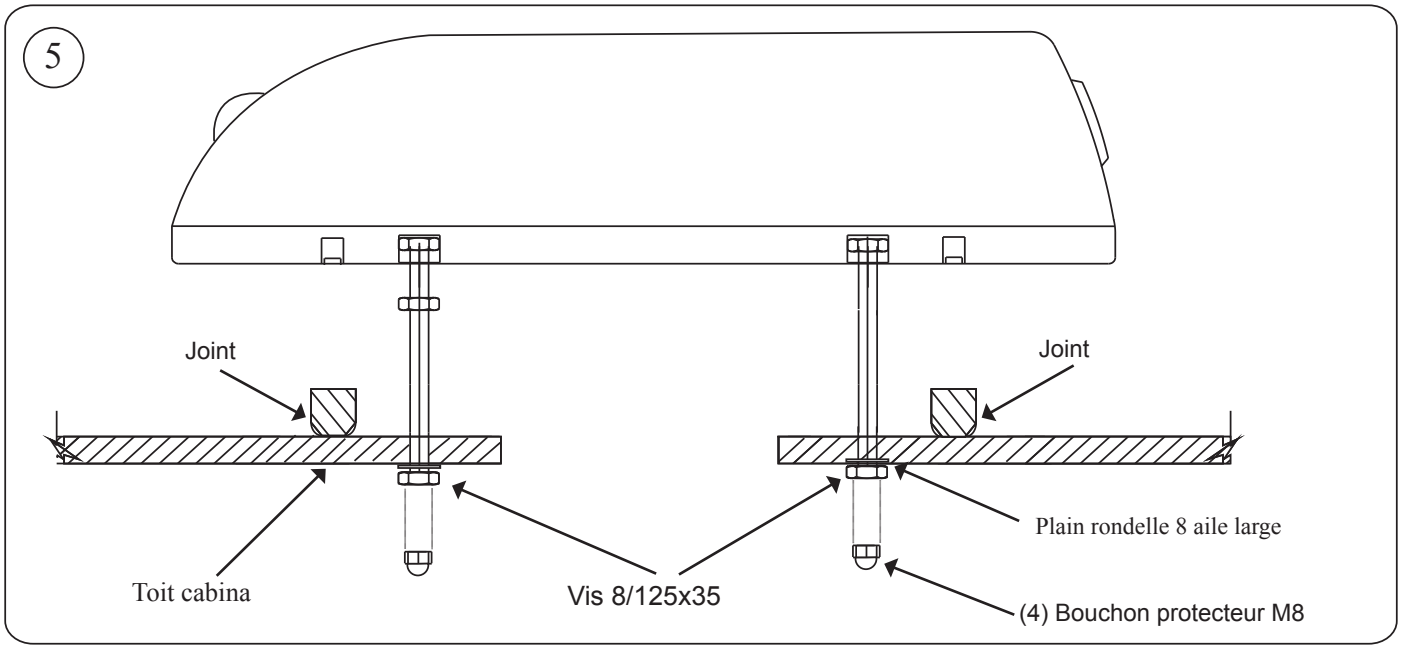
À l'intérieur de la cabine, fixer l'ensemble avec (4) vis 8/125x35, (4) rondelles plates Ø8 surface large.

Serrer les vis jusqu'à ce que le joint soit opprimé entre 3 et 5 mm.- couple de serrage 4÷5 N.m - (*VOIR DÉTAIL*)-.

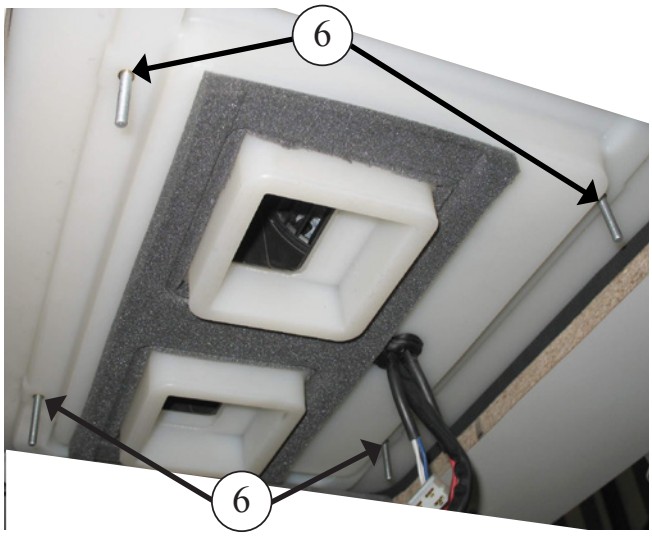
Détail



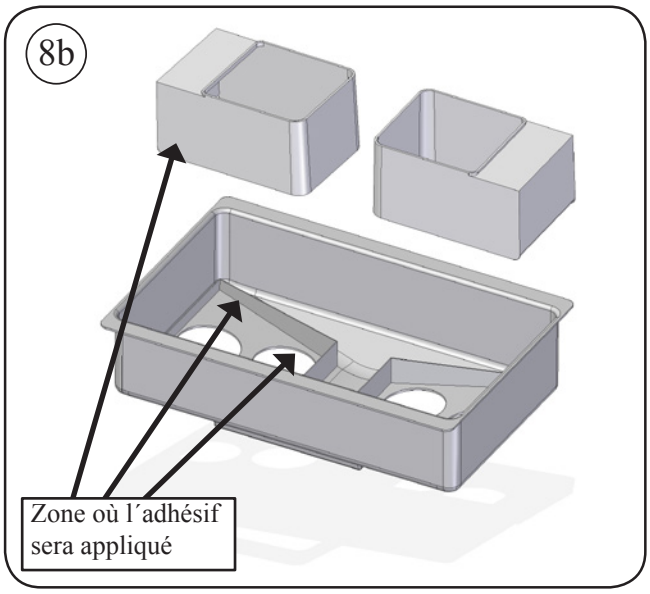




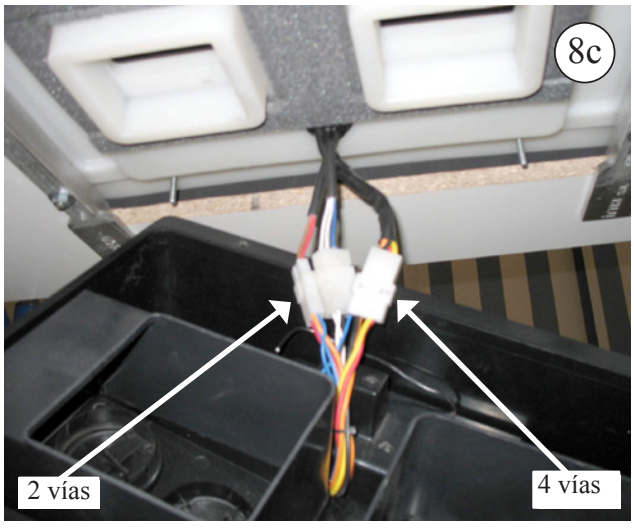
6	Visser (4) perches M6 x 55 10 mm, à l´endroit indiqué.



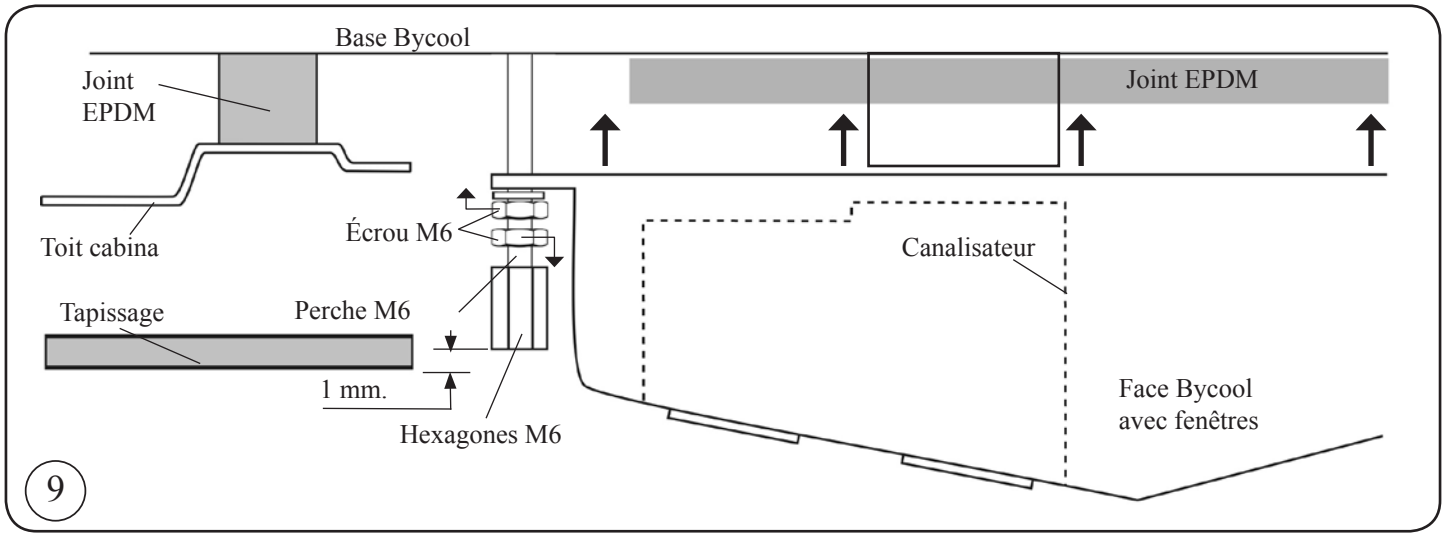
7	Coller les canalisateurs sur le devant en utilisant du LOCTITE superglue 3 ou similaire, afin de faciliter le montage de l´ensemble et assurer les flux d´air froid par les fenêtres.



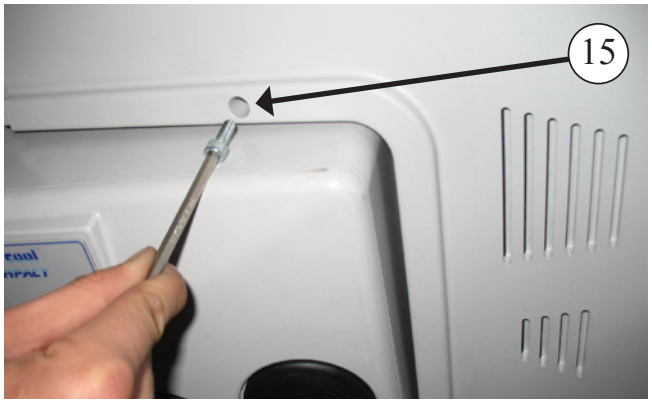
8	Connecter les (2) boîtes de 4 voies et (1) de 2 voies, de la partie avant, avec celles du **Bycool.**



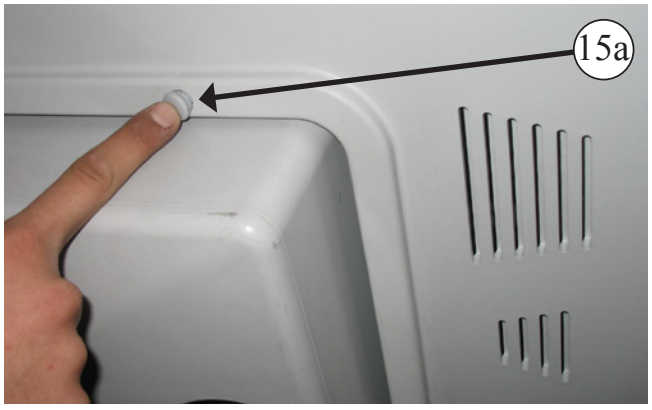
9 Positioner le front en asperges M6 jusqu´au faire le butoir avec la base du Bycool, fixer comme indiqué sur le schema.



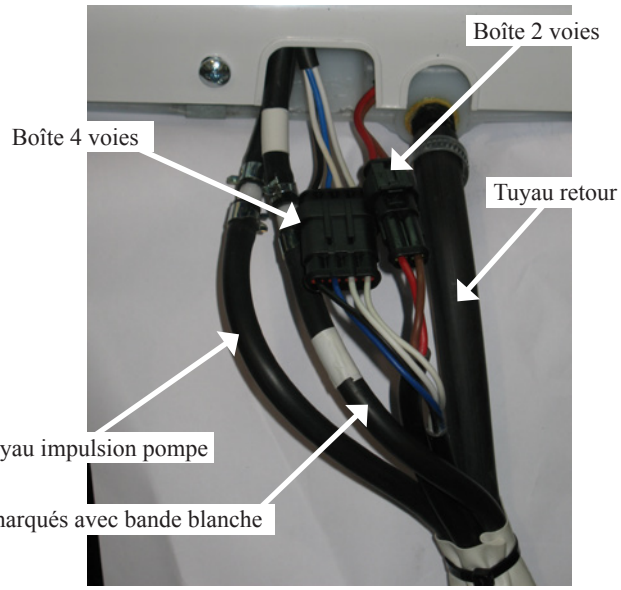
10 Placer la console avec (4) vis M6/100x15 allen.



11 Couvrir les (4) vis M6/100x15 allen avec les enjoliveurs ronds de M6 en plastique.



12 Connecter les boîtes de câblages et tuyaux par la partie arrière du Bycool, en suivant les indications.

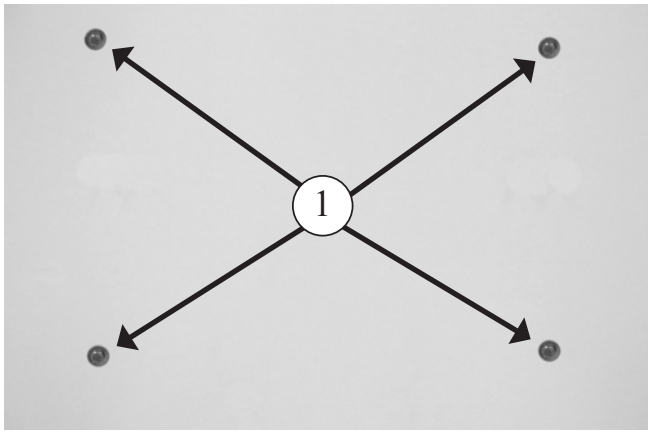


13 Passer et fixer avec des brides l'ensemble de câblages avec des tuyaux jusqu'à l'emplacement où va être installé le réservoir d'eau.

Important: Le tuyau d'écoulement doit être muni d'une chute et il faut éviter les boucles et les étranglements pour faciliter le retour de l'eau au réservoir.

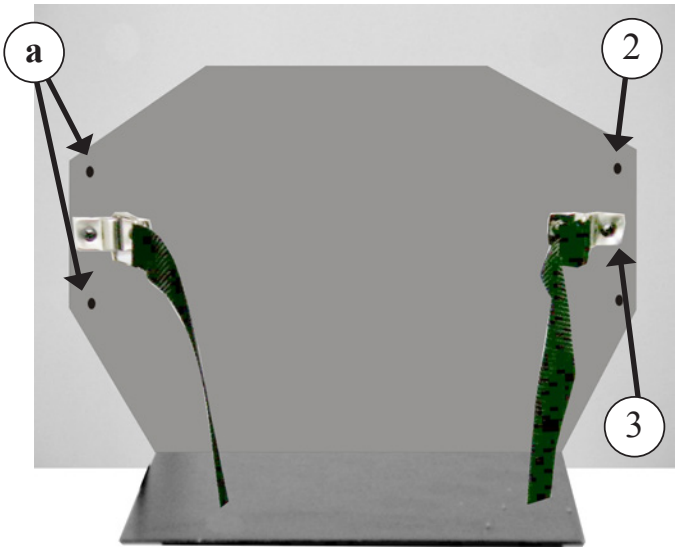
INSTALLATION DU RÉSERVOIR D'EAU

1 Présenter le réservoir avec le support sur la partie la plus adéquate et marquer les (4) trous extrêmes de fixation **(a)**. Effectuer ces trous de Ø9 et placer (4) écrous rivetés à surface large M6.



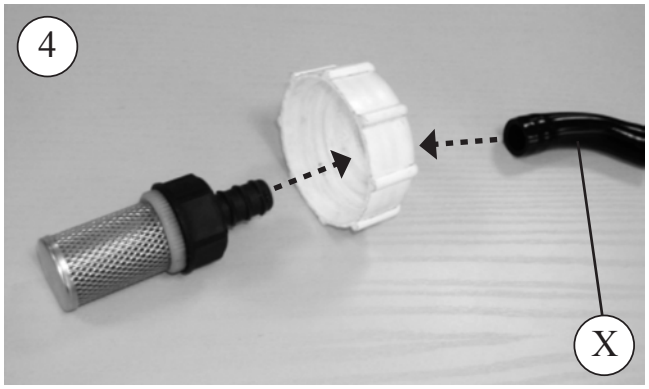
2 Fixer le support avec (4) vis 6/100x25 et (4) rondelles plates de Ø6 surface large.

3 Fixer les (2) bandes aux trous du support avec (4) écrous M5/80 autobloquants et (4) rondelles plates surface large.



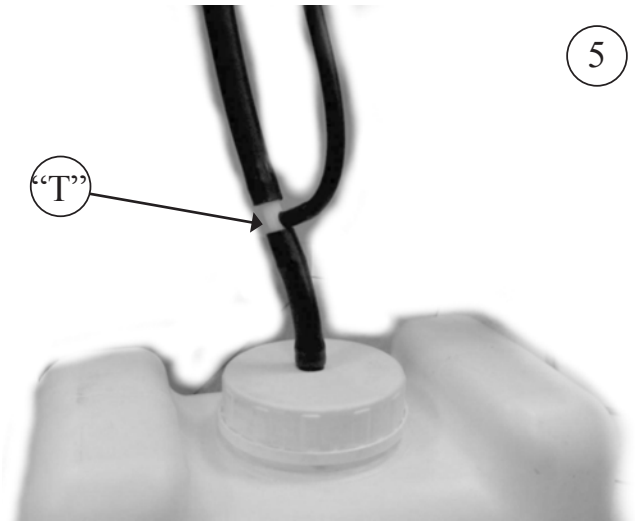
OPÉRATIONS DANS LE RÉSERVOIR

4 Monter le filtre dans le tuyau avec un tenon, introduire dans le bouchon et connecter au tuyau en plastique X (retour). Placer à nouveau le bouchon dans le réservoir.



5

Placer le bouchon dans le réservoir.
Couper à 100 mm et intercaler le « T », puis le connecter au tuyau de moindre section, marqué avec une bande Y (vérifier que le rayon de la courbe soit suffisant pour éviter des étranglements

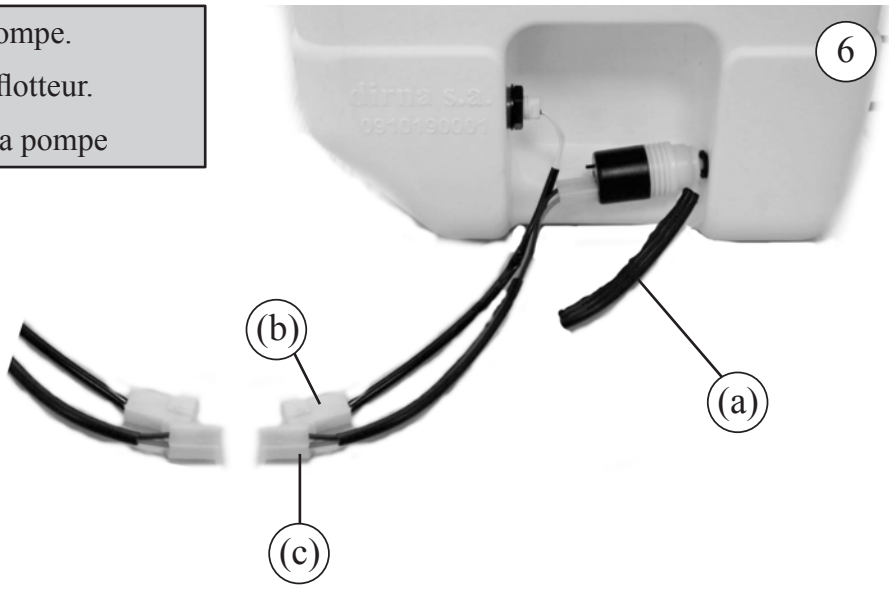


6

a- Connecter tuyau impulsion pompe.

b- Connecter boîtier 2 voies du flotteur.

c- Connecter boîtier 2 voies de la pompe



7

Le tuyau d'écoulement doit avoir une chute et ne peut pas présenter d'horizontalité, de boucles ou d'étranglements pour faciliter le passage de l'eau au réservoir, de façon à éviter son accumulation dans le plateau, ce qui provoquerait un écoulement à l'extérieur et la vidange du réservoir.

IMPORTANT : NE PAS COUPER le câblage restant et le fixer (enroulé) derrière le réservoir d'eau.

En cas de coupe par erreur, connecter à nouveau sur la position d'origine pour éviter des dommages irréversibles sur le contrôle électronique

Instructions détaillées sur l'installation du câblage d'alimentation

1- Porter le câble d'alimentation de l'équipement jusqu'à la batterie du véhicule, en le fixant avec des brides ; il faut utiliser le même passage que le câblage d'origine. En connectant l'équipement à la batterie, celui-ci effectuera un test sur tous ses leds et s'éteindra.

IMPORTANT: Étant donné la complexité du système de régulation électronique de l'équipement, la prise de courant devra s'effectuer directement à la batterie du véhicule et non à un toute autre point fournissant un service à d'autres accessoires du véhicule, en prenant soin de ne pas inverser la polarité au moment de réaliser la connexion (2). Si la polarité est inversée, des dommages électroniques irréparables peuvent être causés et ne seront pas couverts par la garantie.

IMPORTANT1: Pour la mise en marche, consulter le Manuel d'Utilisation.

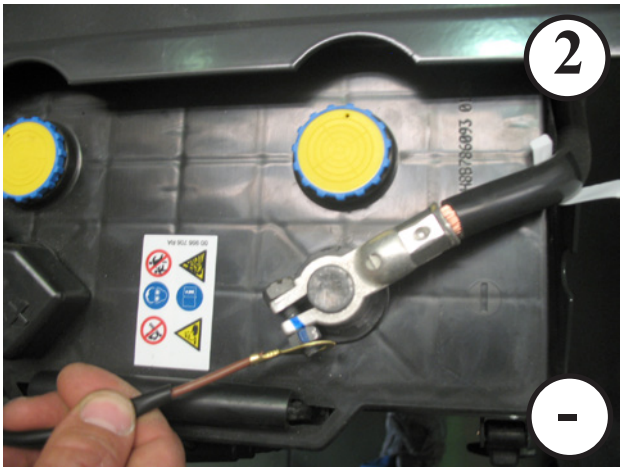
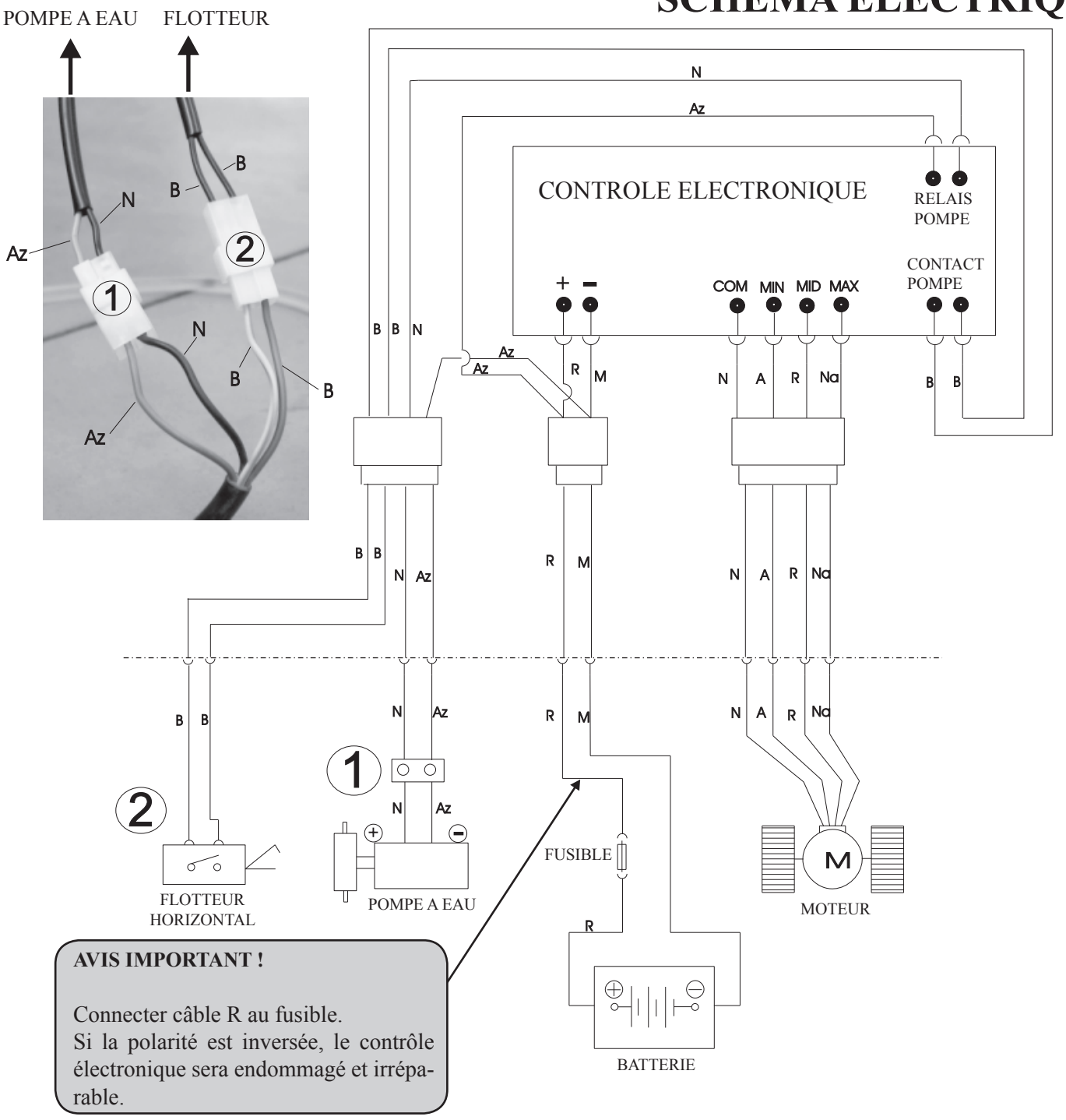


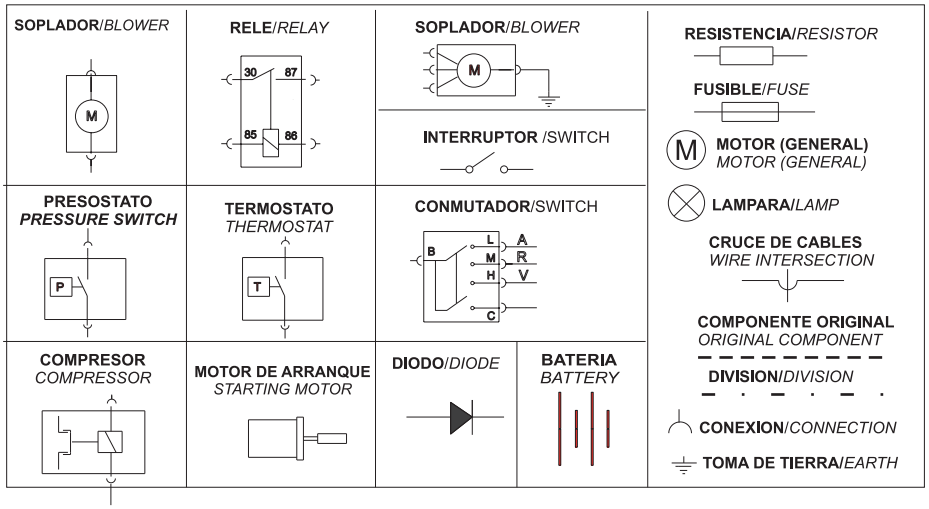
SCHÉMA ÉLECTRIQUE



AVIS IMPORTANT !

Connecter câble R au fusible.
Si la polarité est inversée, le contrôle électronique sera endommagé et irréparable.

SIMBOLOGIA/*CONVENTIONAL SIGNS*



COLORES/*COLOURS*

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.**
- **Vewenden Sie für jeden Arbeitsgang die geeigneten Werkzeuge.**

ELEKTRIZITÄT

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

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

DER ANLAGE BEIGEPACKTE DOKUMENTATION:

- **Montageanweisungen: 220.AA7.0035**
- **Benutzerhandbuch: 220.AA7.0003**
- **Fehlerdiagnose: 220.AA7.0004**
- **Garantie: 220.AA1.0010**

WICHTIGER HINWEIS:

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.

HINWEISE:

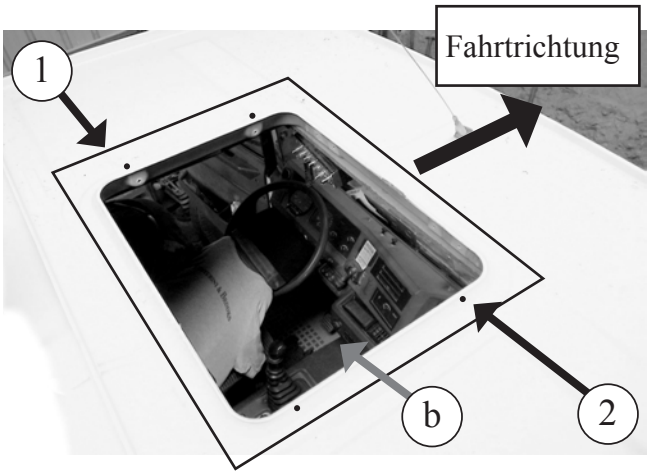
•Teil 17 der Liste der Lieferteile muss alle 12 Monate ausgestaucht werden.

• **dirna, s.a.** 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.

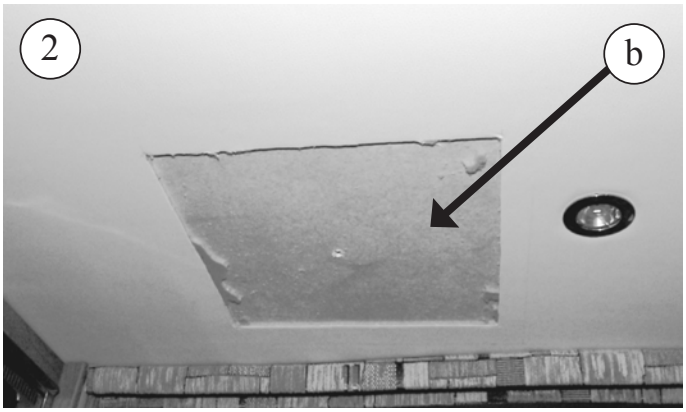
1 Mitgelieferte Vorlage in Fahrtrichtung auf das Dach legen, wobei die Bohrlöcher sich an den Seiten befinden müssen.



2 Den Schnitt und die (4) Bohrlöcher markieren und diese mit Ø10 bohren.

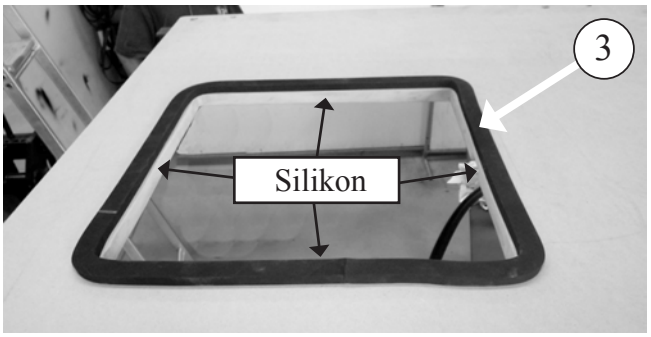
A- Jetzt die Vorlage vom Kabineninnenraum her auf die (4) Bohrlöcher legen, um den Schnitt auf dem Bezug zu markieren und mit einem Cutter durchzuführen, wodurch Brüche bzw. Kratzer vermieden werden.

B- Von Außen her den zuvor markierten Schnitt durchführen.



Vorlage

3 Montagedichtung um den Schnitt herum aufkleben und von Innen mit Silikon versiegeln.



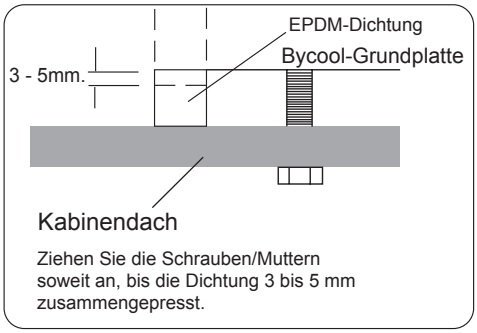
4 Verdunsteranlage auf das Dach legen.

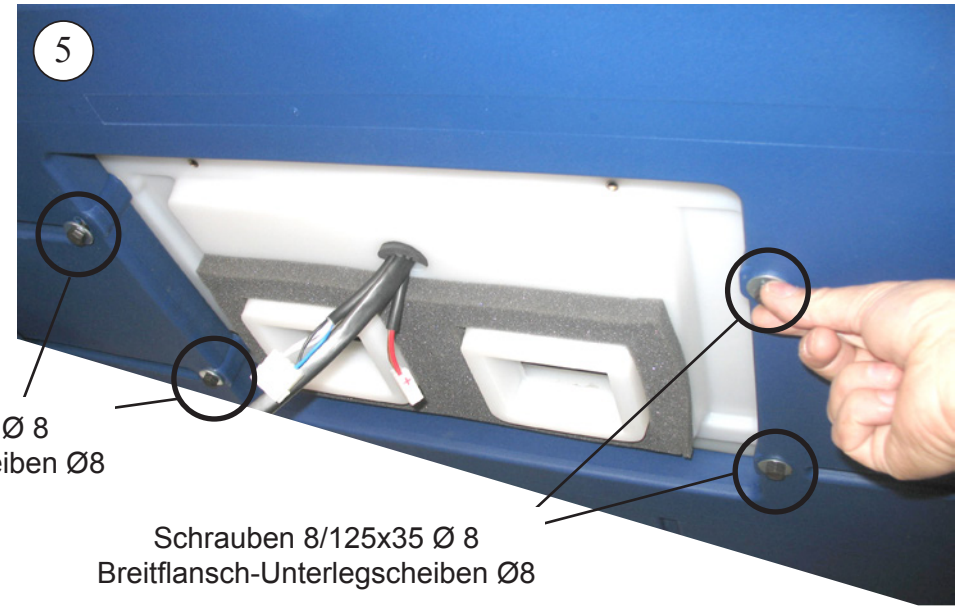
5

Vom Kabineninnenraum her die Einheit mit (4) Schrauben 8/125x35, (4) Breitflansch-Unterlegscheiben Ø8.

Die Schrauben anziehen, bis die die Dichtung auf zwischen 3 und 5 mm zusammengedrückt ist. - Anzugsmoment 4÷5 N.m - (*SIEHE DETAILANSICHT*).

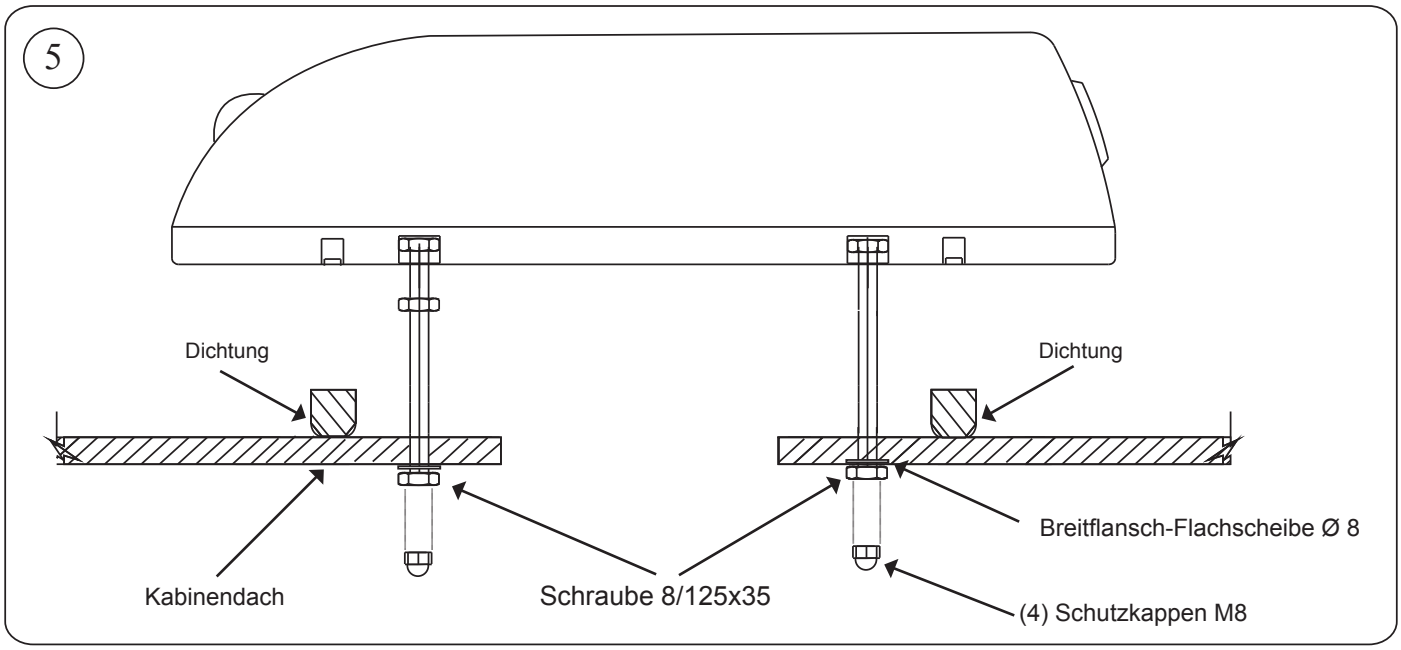
Detailansicht



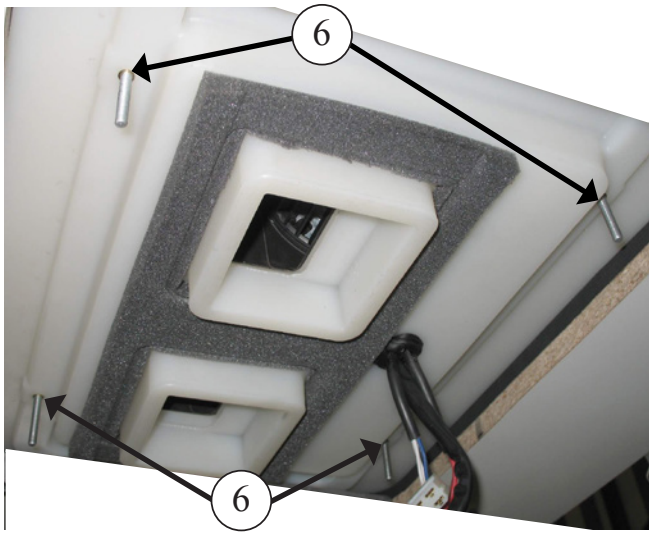


Schrauben 8/125x35 Ø 8
Breitflansch-Unterlegscheiben Ø8

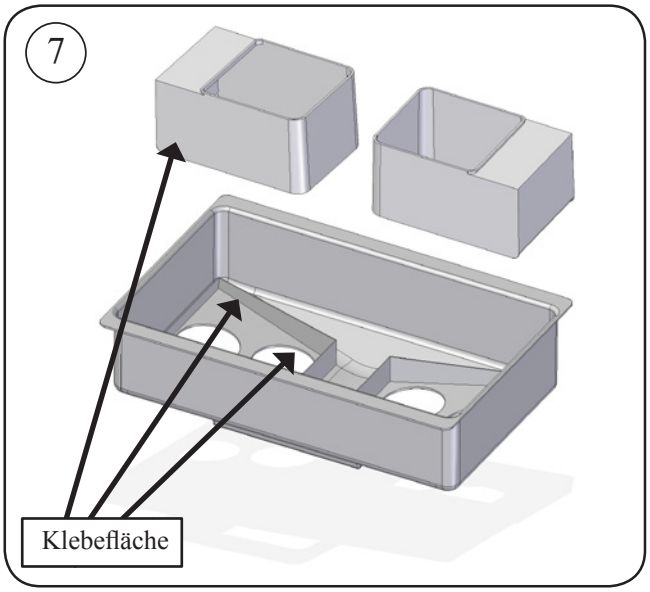
Schrauben 8/125x35 Ø 8
Breitflansch-Unterlegscheiben Ø8



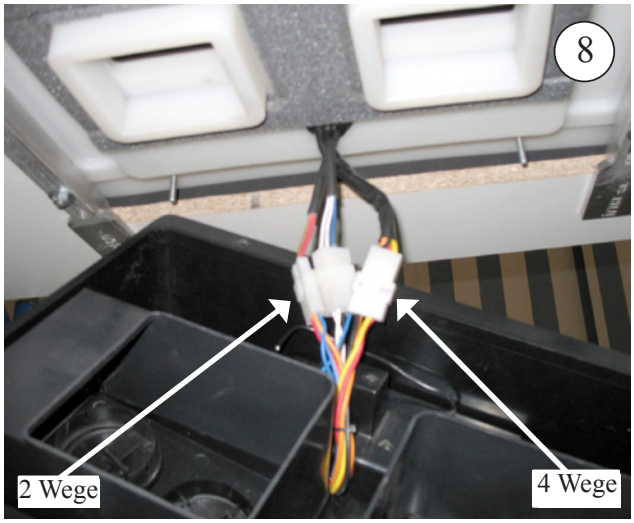
6 (4) Stiftschrauben M6 x 55 10 mm an der angegebenen Stelle eindrehen.



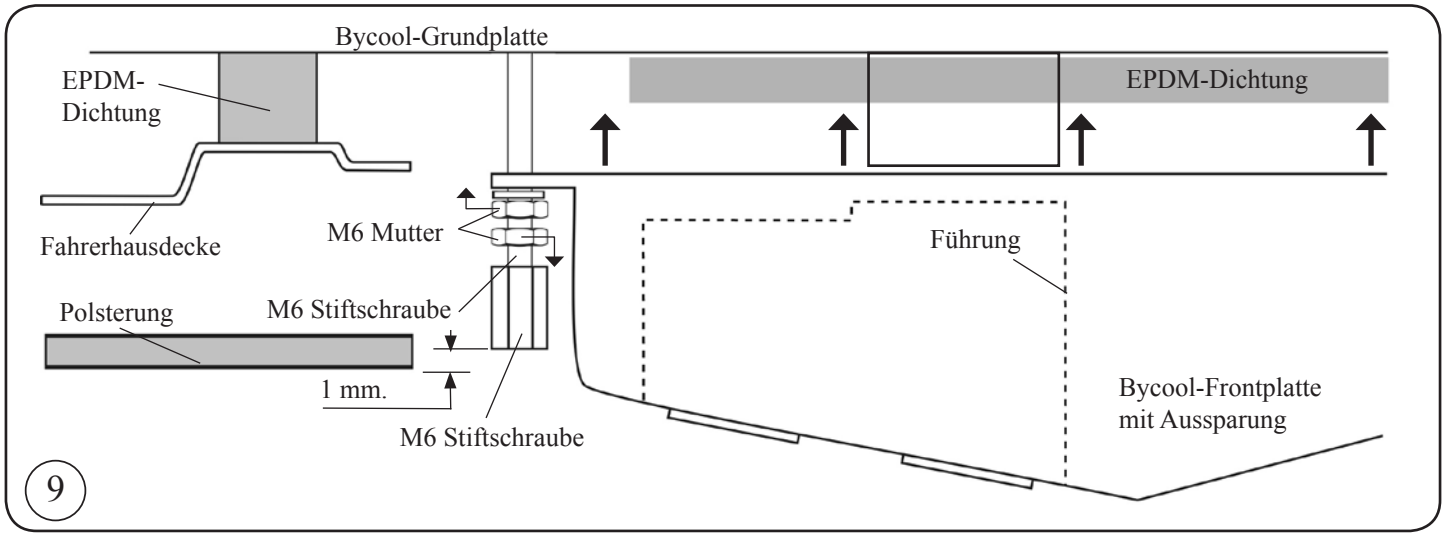
7 Führungen an der Frontseite mit LOCTITE superglue 3 o.ä. verkleben, um die Montage der Anordnung zu erleichtern und die Kaltluftströme durch die Aussparrungen zu gewährleisten.



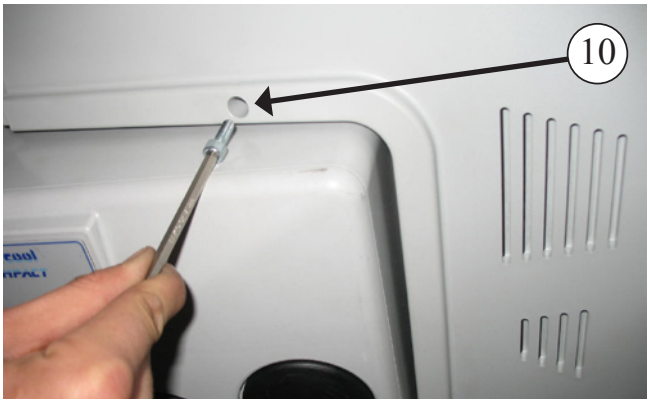
8 Die (2) Vierwegekästen und (1) Zweiwegekasten der Frontseite mit den Kästen der **Bycool-Anlage** verbinden.



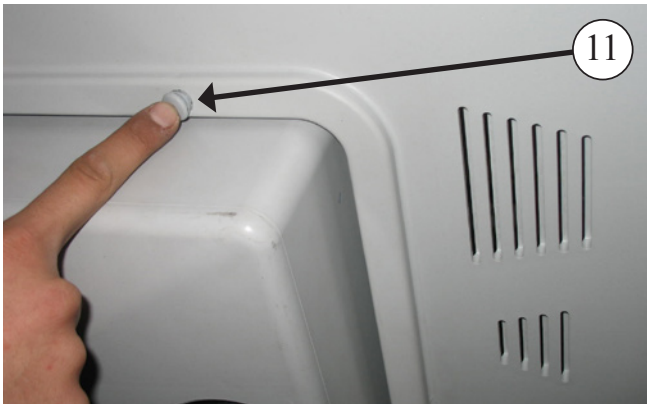
9 Die Vorderseite des Verdampfers auf die Stiftschrauben M6 legen, bis die Bycool-Grundplatte berührt wird. Dann befestigen wie in der Abbildung gezeigt.



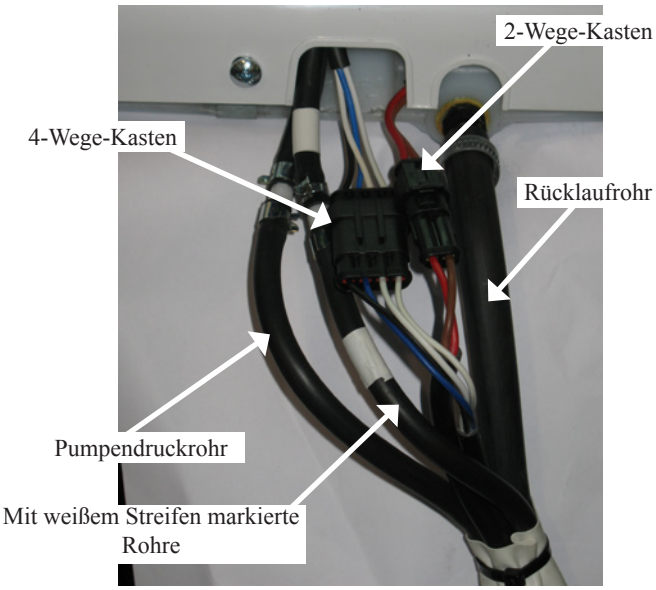
10 Konsole mit (4) Inbusschrauben M6/100x15anbringen.



11 Die (4) Inbusschrauben M6/100x15 mit runden Kunststoffzierkappen M6 abdecken.



12 Verkabelte und verrohrte Kästen von hinten, wie dargestellt, an der Bycool-Anlage befestigen.

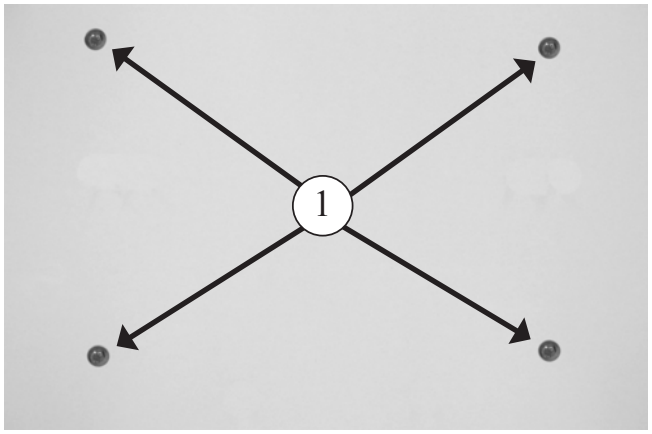


13 Kabel und Schläuche bis zu der Stelle, an der der Wassertank installiert werden soll, führen und mit Kabelbindern befestigen.

Achtung: Das Entwässerungsrohr muss ein Gefälle haben und es sind Schleifen und Abquetschungen zu vermeiden, damit der Rückfluss des Wassers zum Tank erleichtert wird.

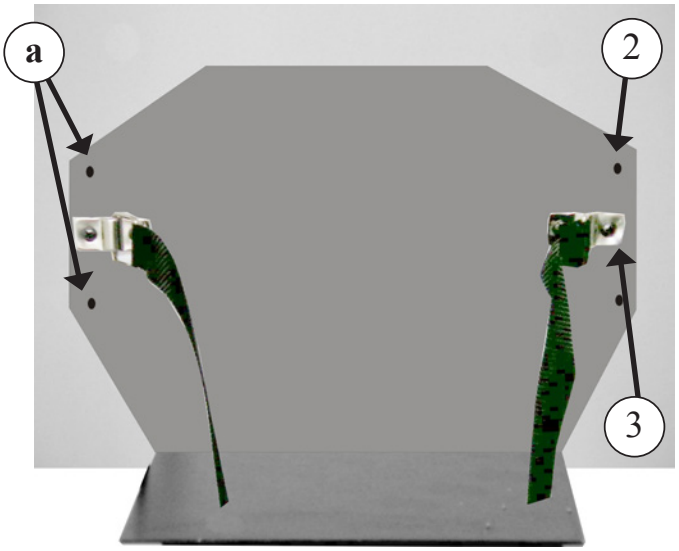
INSTALLATION DES WASSERTANKS

1 Den Tank mit seiner Halterung an einem dafür geeigneten Platz aufstellen und die (4) äußeren Befestigungslöcher **(a)** markieren. Diese Löcher Ø9 bohren und (4) Breitflansch-Nietmuttern M6 anbringen.



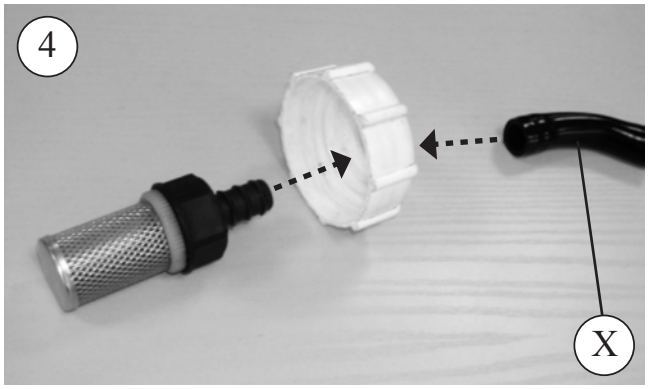
2 Halterung mit (4) Schrauben 6/100x25 und (4) Breitflansch-Unterlegscheiben Ø6 fixieren.

3 Die (2) Bänder an den Bohrlöchern der Halterung befestigen, und zwar mit (4) selbstsichernden Muttern M5/80 und (4) Breitflansch-Unterlegscheiben.



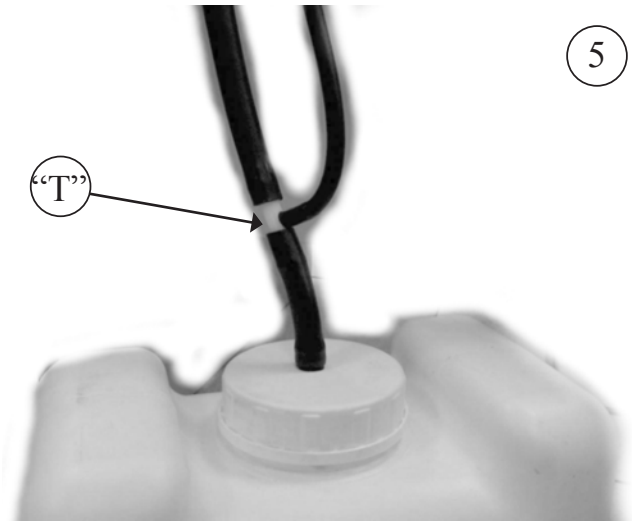
ARBEITEN AM TANK

4 Filter im Schlauch mit Zapfen montieren, durch die Kappe stecken und an den Kunststoffschlauch X (Rückfluss) anschließen. Kappe wieder auf den Tank drehen.



5

Kappe auf dem Tank anbringen. Bei 100 mm abschneiden, "T" dazwischensetzen und den **mit Band Y markierten** Schlauch mit dem geringeren Querschnitt daran anschließen (sicherstellen, dass der Radius der Kurve ausreichend ist, um das Abquetschen des Schlauchs zu vermeiden.

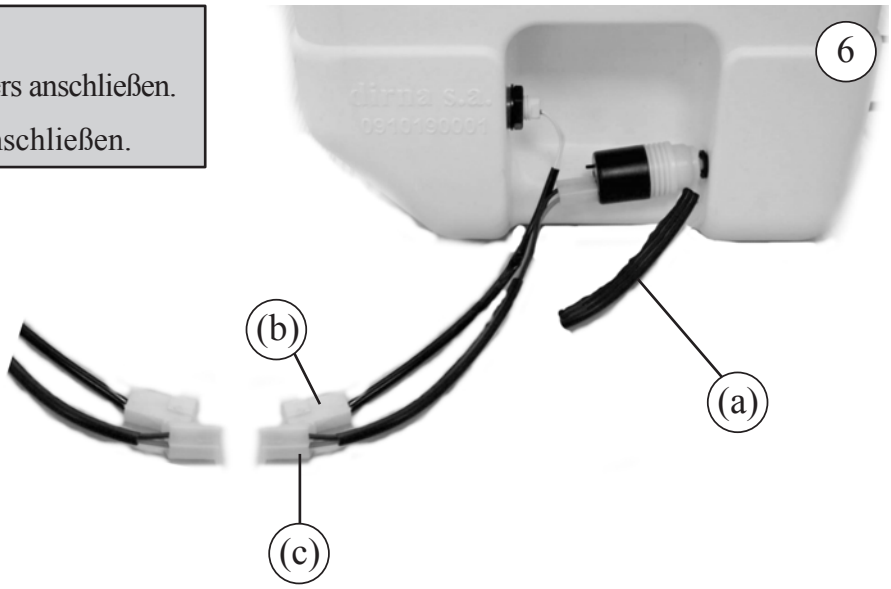


6

a- Auslassschlauch anschließen.

b- 2-Wege-Kasten des Schwimmers anschließen.

c- 2-Wege-Kasten der Pumpe anschließen.



7

Damit das Wasser den Tank erreichen kann, muss der Auslassschlauch Gefälle haben und darf nicht horizontal liegen, Schleifen bilden oder abgequetscht werden. Andernfalls würde sich das Wasser im Auffangbehälter ansammeln und überlaufen und nicht in den Tank zurückfließen

ACHTUNG: Das überstehende Kabel **NICHT ABSCHNEIDEN**, sondern (eingerollt) hinter dem Wassertank befestigen.

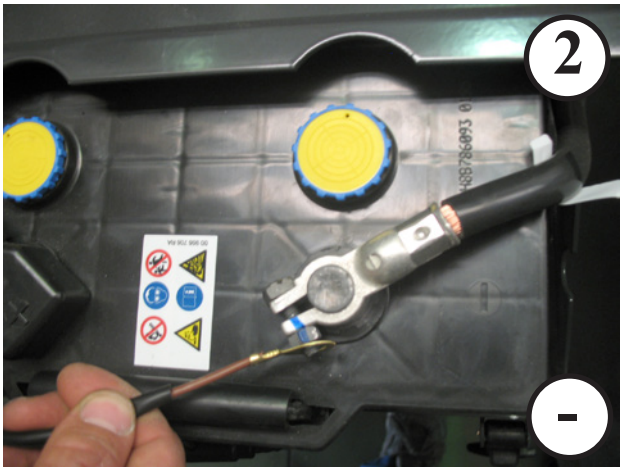
Sollte das Kabel dennoch abgeschnitten werden, muss dieses wieder in der Originalposition angeschlossen werden, um bleibende Schäden am der Elektroniksteuerung zu vermeiden.

Detaillierte Anleitung für die Installation der Speisekabel

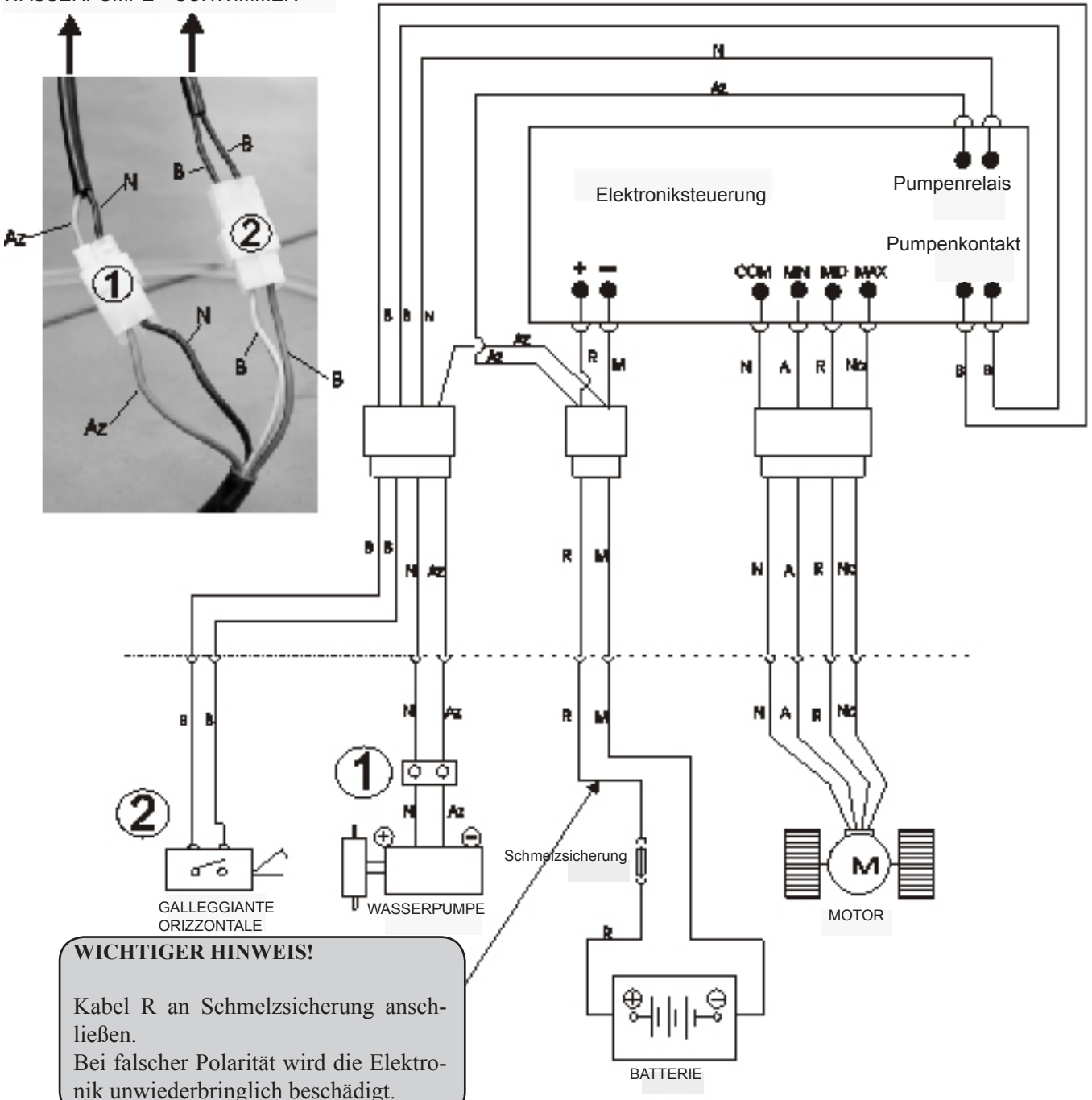
1- Zuleitungskabel der Anlage bis zur Fahrzeugbatterie führen und dabei mit Kabelbindern fixieren. Es muss derselbe Verlauf wie bei der Originalverkabelung verwendet werden. Beim Anschluss der Anlage an die Batterie führt die Anlage einen Test aller Leds durch und schaltet sich aus.

ACHTUNG: Aufgrund des komplexen elektronischen Steuerungssystems der Anlage muss die Stromversorgung direkt von der Fahrzeugbatterie und nicht von einem anderen Versorgungspunkt für sonstiges Fahrzeugzubehör aus erfolgen, wobei darauf zu achten ist, dass beim Anschluss die Polaritäten nicht vertauscht wird (2). Wird die Polarität vertauscht, kann es zu irreparablen Schäden an der Elektronik kommen, welche nicht durch die Garantie abgedeckt sind.

ACHTUNG: Für die Inbetriebnahme sehen Sie bitte im Benutzerhandbuch nach.



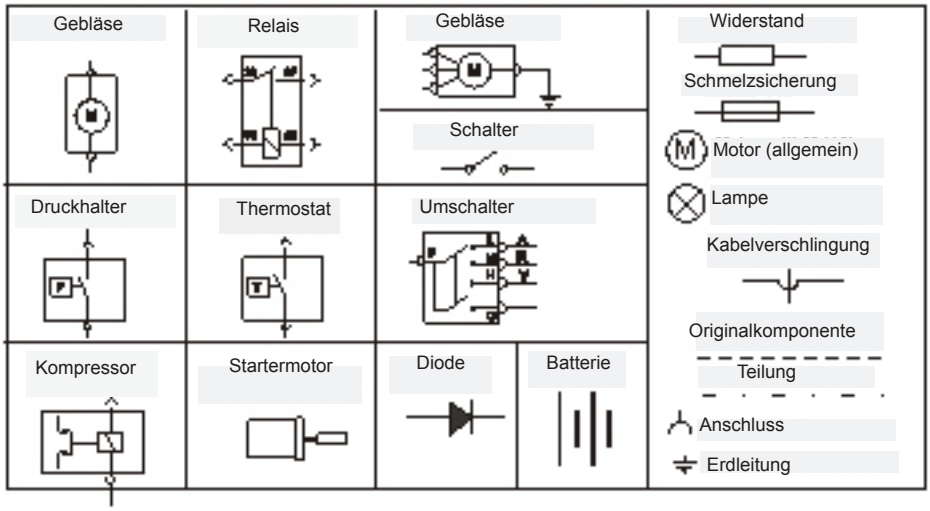
ELEKTRISCHES SCHALTSCHEMA



WICHTIGER HINWEIS!

Kabel R an Schmelzsicherung anschließen.
Bei falscher Polarität wird die Elektronik unwiederbringlich beschädigt.

SYMBOLE *ICONVENTIONAL SIGNS*



COLEURS/*COLOURS*

A	GELB
Az	BLAU
B	WEIß
G	GRAU
Na	ORANGE
N	SCHWARZ
R	ROT
Ro	ROSA
V	GRÜN
Vl	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
Chiave fissa 13
Chiave fissa 14
Forbici
Flessometro

DOCUMENTAZIONE INCLUSA NEL DISPOSITIVO:

- **Istruzioni di Montaggio: 220.AA7.0035**
- **Manuale dell'Utente: 220.AA7.0003**
- **Diagnosi di Guasti: 220.AA7.0004**
- **Garanzia: 220.AA1.0010**

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:

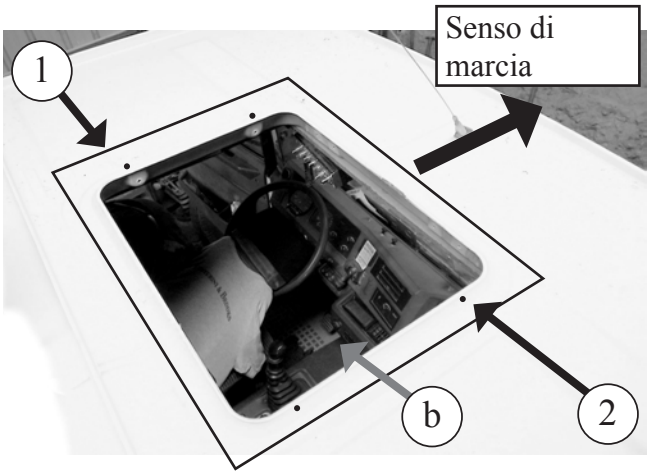
• Il pezzo N. 20 dell'elenco di Pezzi Forniti si deve sostituire ogni 12 mesi.

• **dirna, s.a.** 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 Appoggiare la dima in dotazione sul tettino e nel senso di marcia del veicolo, con i fori sui lati.

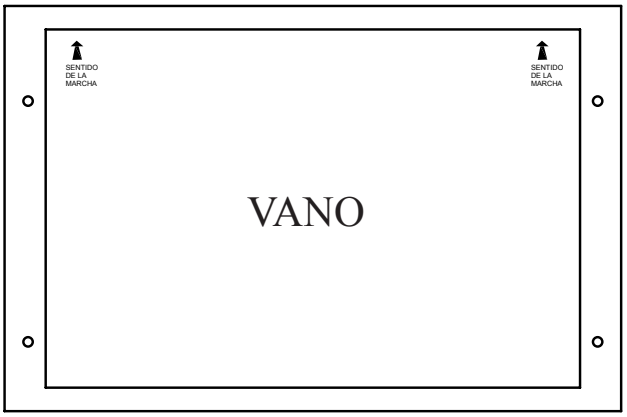


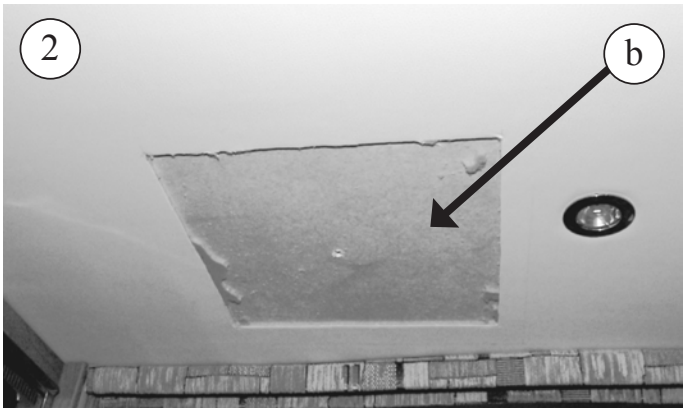
2 Segnare il taglio e i (4) fori di Ø 10 e praticare i fori.

A- Dall'interno della cabina, appoggiare la dima sui (4)fori, per segnare il taglio sulla tappezzeria e tagliare con un cutter, evitando così rotture e/o strappi.

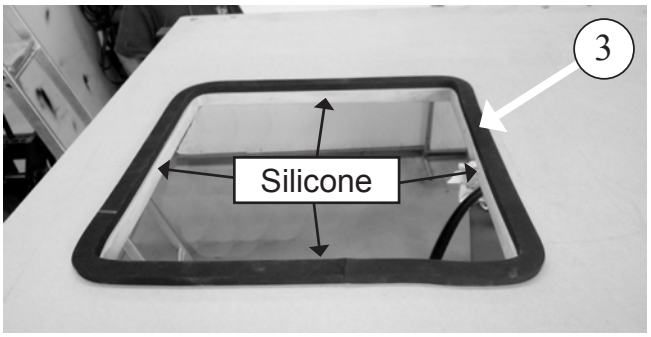
B- Dall'esterno, eseguire il taglio segnato in precedenza.

Dima





3 Incollare la guarnizione di montaggio intorno al taglio e sigillare internamente con silicone.



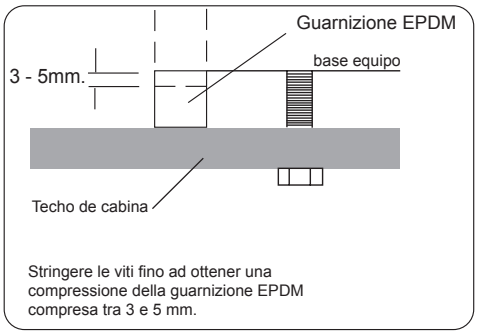
4 Posizionare l'unità evaporante sul tettino.

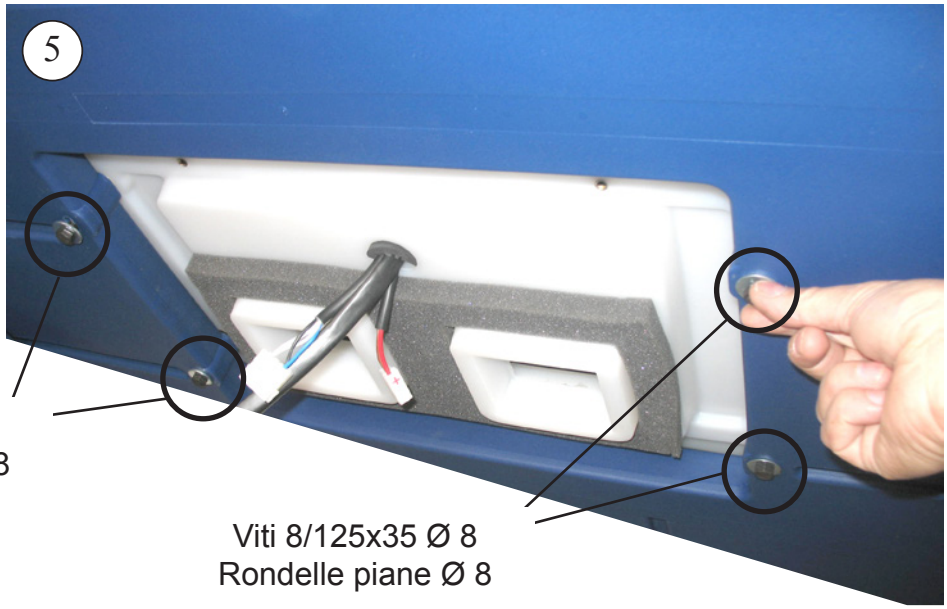
5

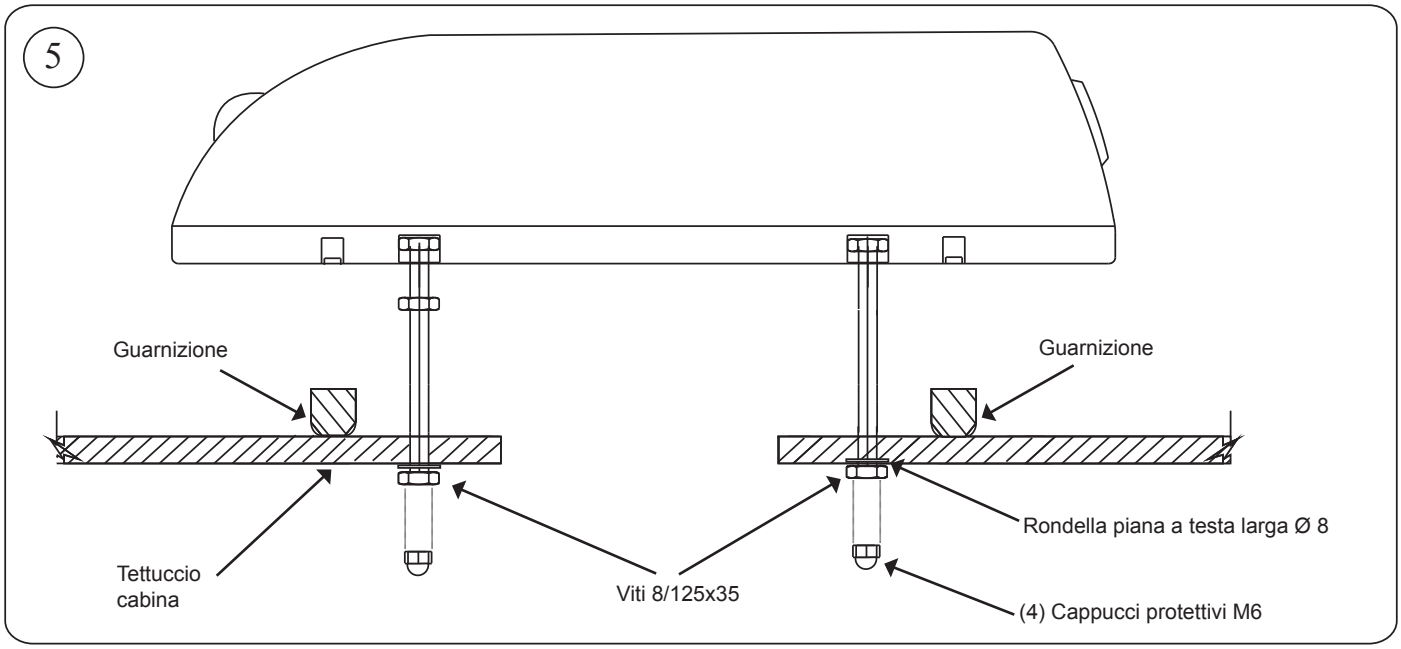
Dall'interno della cabina, fissare l'insieme con (4) viti 8/125x35, (4) rondelle piane Ø 8 a testa larga.

Stringere le viti fino a schiacciare la guarnizione da 3 a 5 mm. - coppia di serraggio 4÷5 Nm - (*VEDI PARTICOLARE*)-.

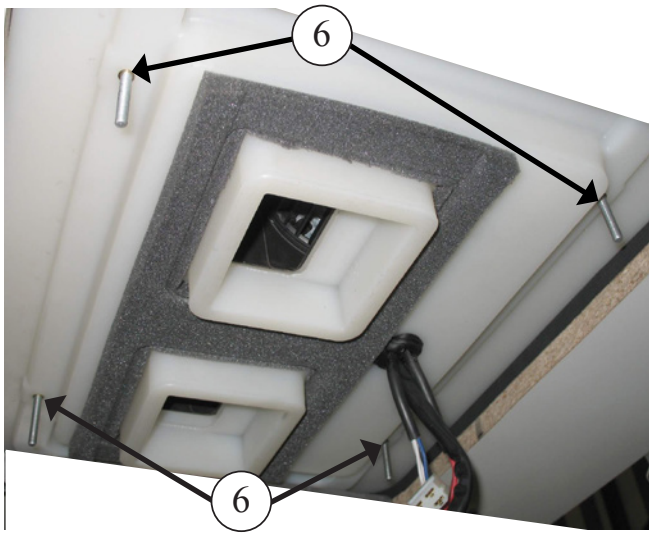
Particolare



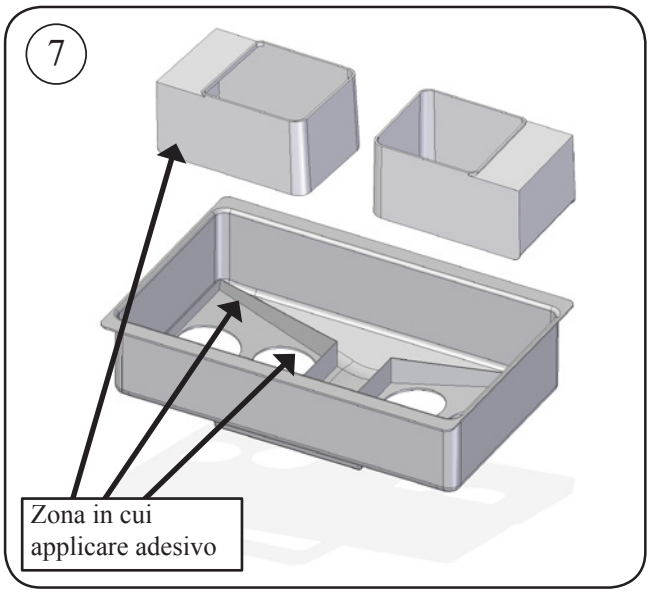




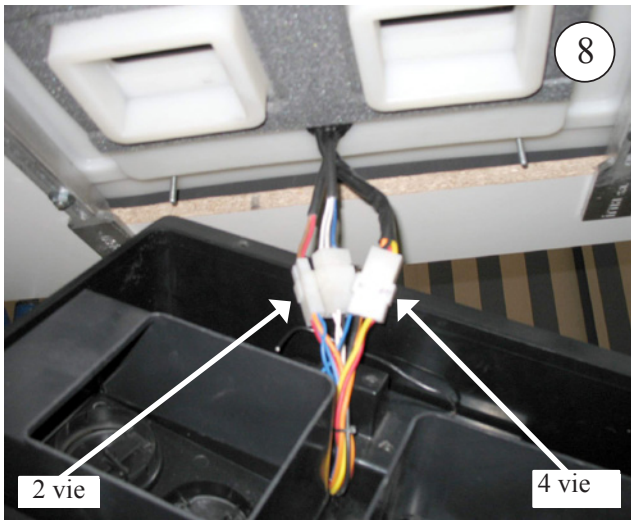
6 Filettare 10 mm (4) viti prigioniere M6 X 55, dove indicato.



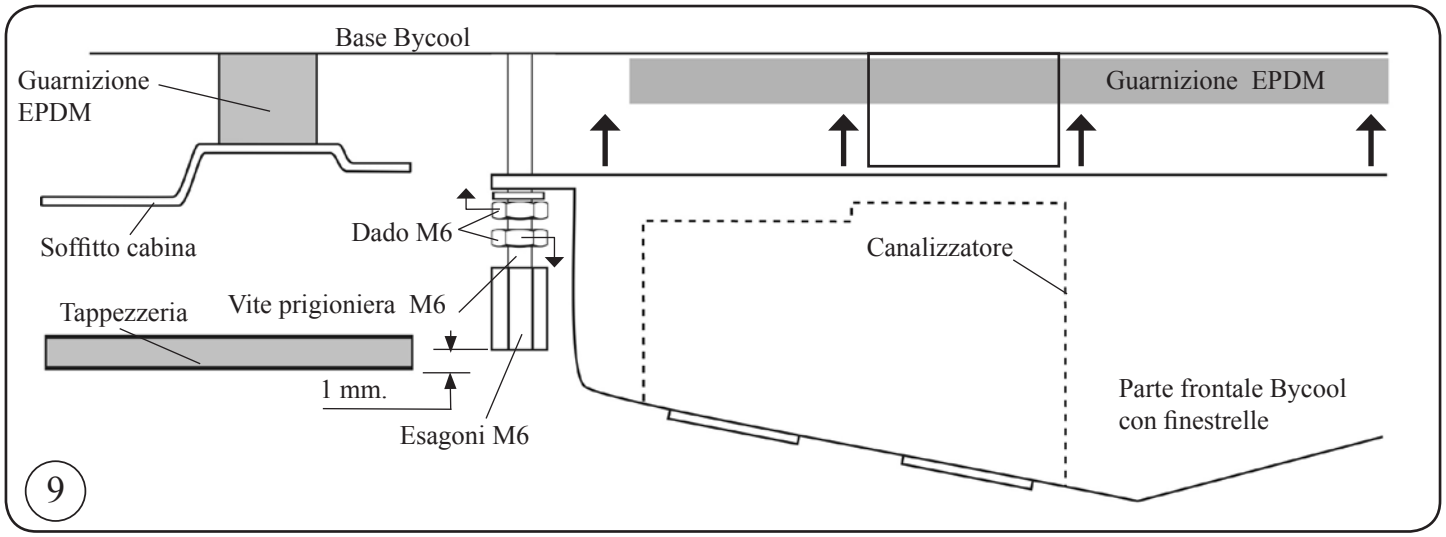
7 Incollare i canalizzatori sulla parte frontale utilizzando LOCTITE superglue 3 o simile, per agevolare il montaggio dell'insieme e garantire i flussi d'aria fredda dagli sportelli.



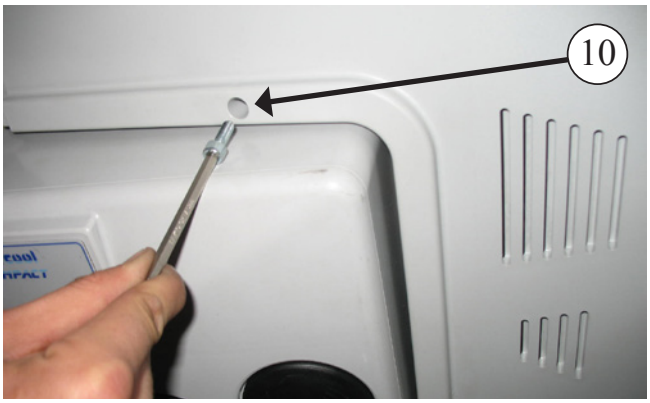
8 Collegare le (2) scatole a 4 vie e (1) a 2 vie, della parte frontale, con quelle del **Bycool**.



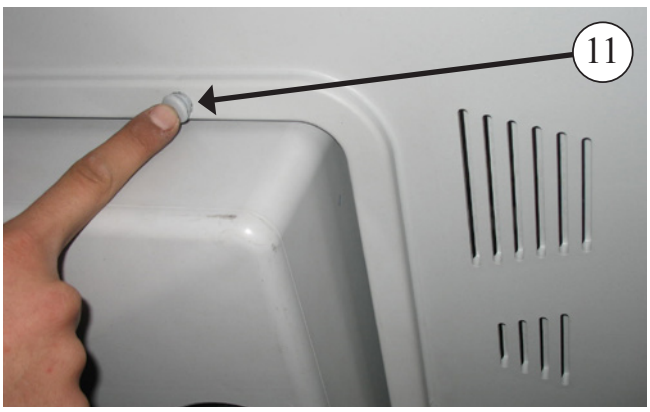
9 Posizionare il frontalino sulle viti prigioniere M6 fino a battuta con la base di Bycool, fissare come indicato nello schema.



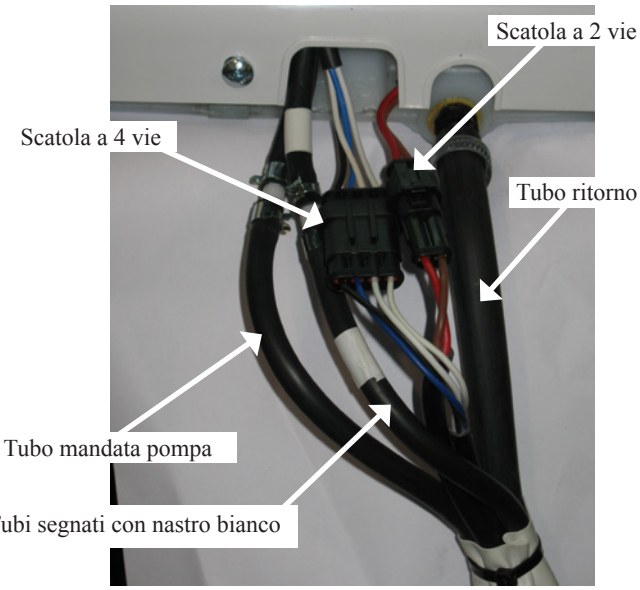
10 Collocare la consolle con (4) viti M6/100x15 a brugola.



11 Coprire le (4) viti M6/100x15 a brugola con gli elementi decorativi rotondi M6 in plastica.



12 Collegare casse cablaggi e tubi, dalla parte posteriore del Bycool come viene indicato.

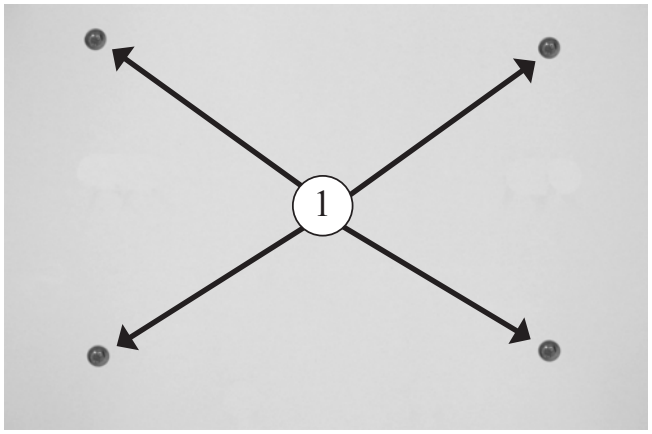


13 Fare passare e fissare con le flange l'insieme dei cablaggi con i tubi fino alla posizione in cui sarà installato il serbatoio dell'acqua.

Nota bene: Il tubo di scarico deve essere in pendenza e bisogna evitare nodi e strozzature per agevolare il ritorno dell'acqua al serbatoio.

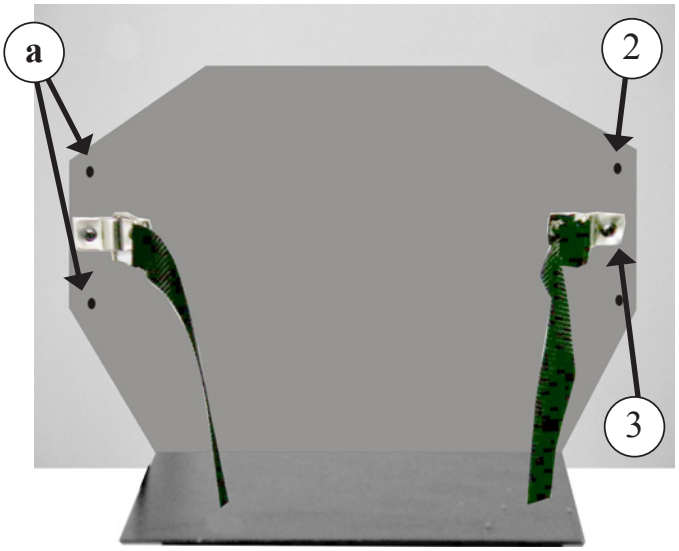
INSTALLAZIONE DEL SERBATOIO DELL'ACQUA

1 Appoggiare il serbatoio, con il supporto, sulla zona più adatta e segnare i (4) fori di fissaggio **(a)**. Eseguire questi fori di Ø 9 e posizionare (4) dadi a rivetto a testa larga M6.



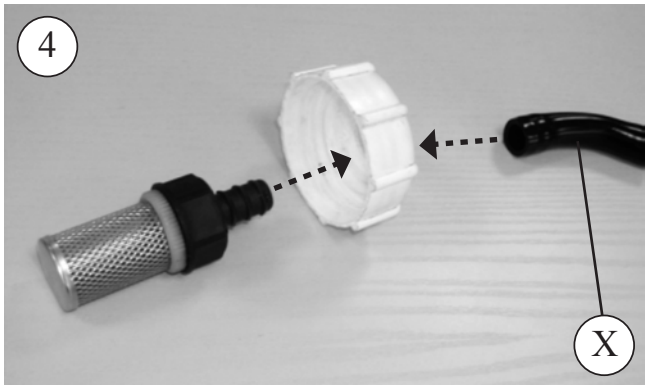
2 Fissare il supporto con (4) viti 6/100x25 e (4) rondelle piane a testa larga di Ø 6.

3 Fissare le (2) cinghie ai fori del supporto con (4) dadi M5/80 autobloccanti e (4) rondelle piane a testa larga.

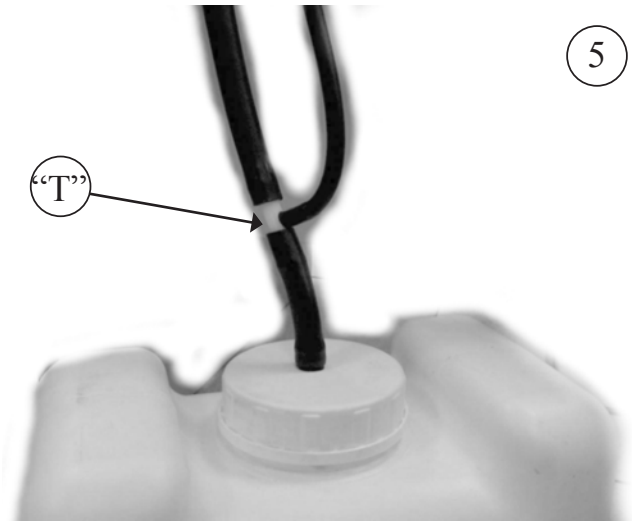


OPERAZIONI SUL SERBATOIO

4 Montare il filtro sul tubo con lo spinotto, inserirlo nel tappo e collegare al tubo di plastica X (ritorno). Riavvitare il tappo sul serbatoio.



5 Dopo aver inserito il tappo sul serbatoio, tagliare a 100 mm, interporre una "T" e collegare a quest'ultima il tubo con la sezione minore, **contrassegnato con il nastro bianco Y** (accertarsi che il raggio della curva sia sufficiente per evitare strozzature).

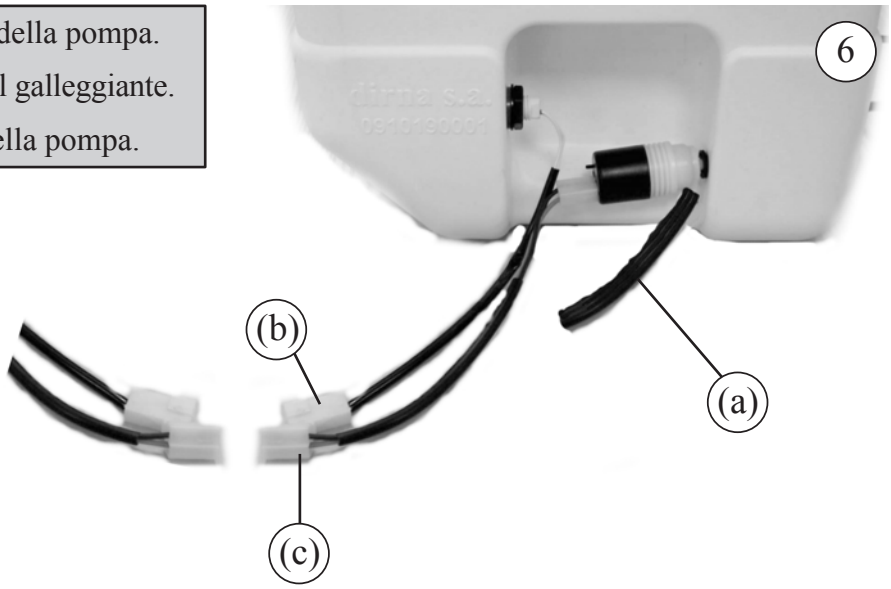


6

a- Collegare il tubo di mandata della pompa.

b- Collegare la scatola a 2 vie del galleggiante.

c- Collegare la scatola a 2 vie della pompa.



7 Il tubo di scarico deve essere in pendenza, quindi non deve essere orizzontale e non deve presentare nodi né strozzature, per agevolare la caduta dell'acqua al serbatoio, evitandone l'accumulo nel vassoio, la successiva fuoriuscita all'esterno e, mancando il ritorno, lo svuotamento del serbatoio.

NOTA BENE: NON TAGLIARE il cablaggio che avanza e fissarlo (arrotolato) dietro al serbatoio dell'acqua.

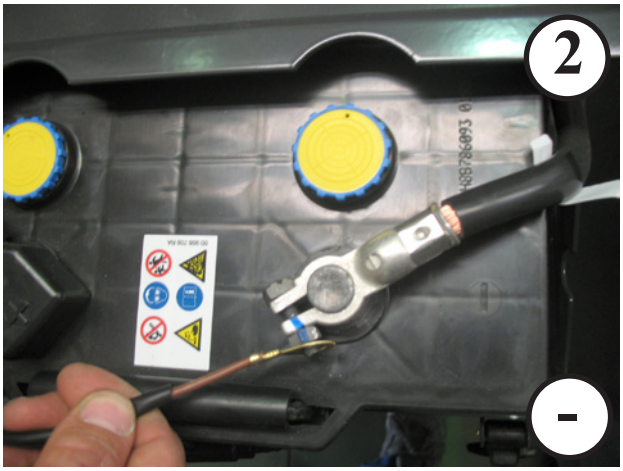
In caso di errore, ricollegare nella posizione originale per evitare danni irreversibili al controllo elettronico.

Istruzioni dettagliate per l'installazione del cablaggio di alimentazione

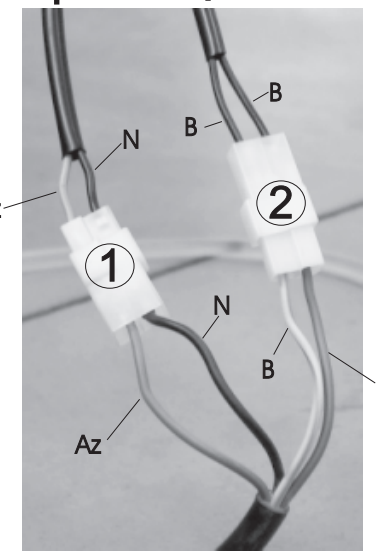
1- Condurre il cavo di alimentazione dell'impianto fino alla batteria del veicolo, fissandolo con le flange; si deve usare lo stesso passaggio del cablaggio originale. Quando si collega l'impianto alla batteria, lo stesso esegue un test di tutti i led e poi si spegne.

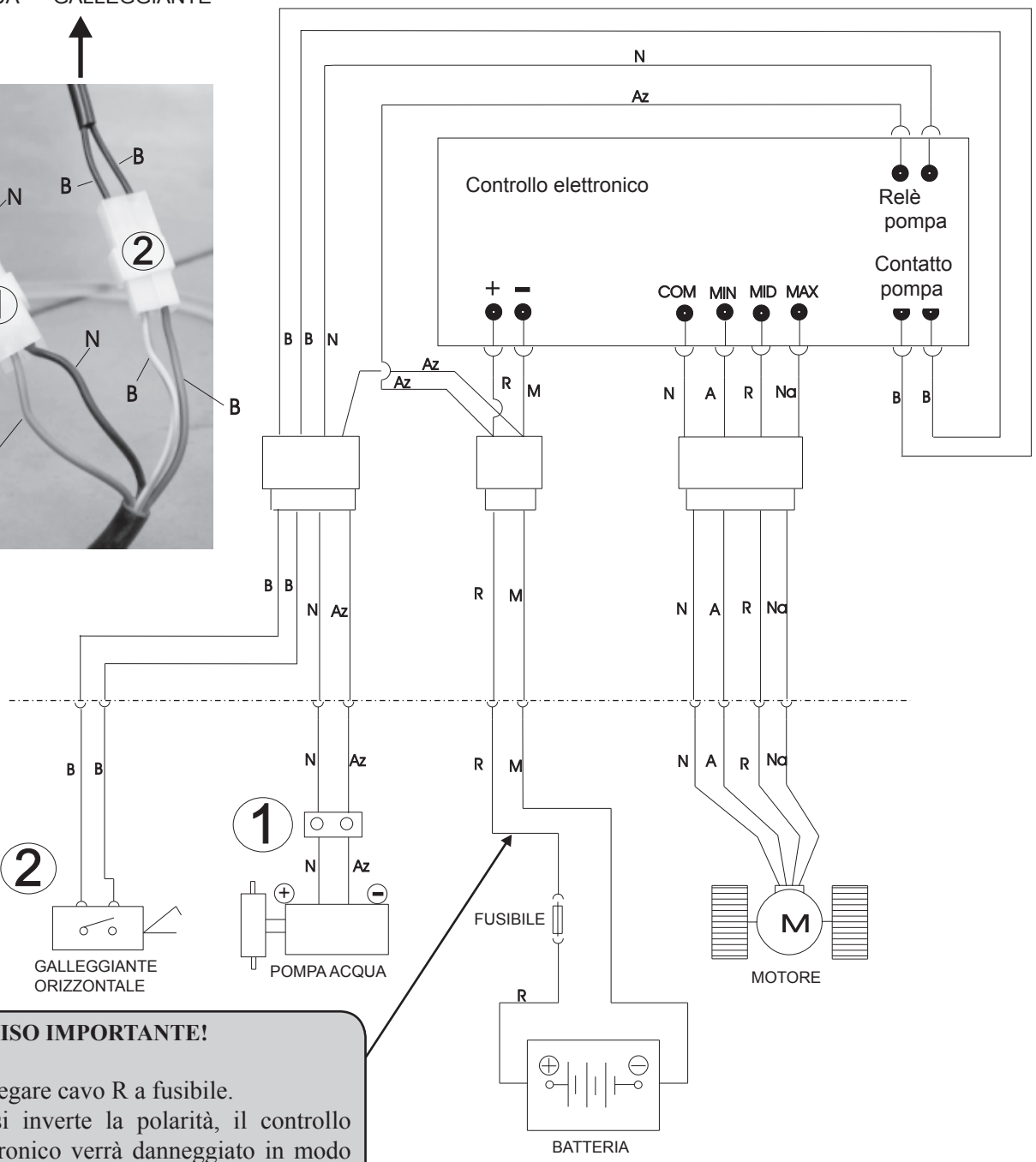
NOTA BENE: Dato il complesso sistema di regolazione elettronica dell'impianto, la corrente deve essere presa direttamente dalla batteria del veicolo, non da qualsiasi altro punto che eroga ad altri accessori del veicolo, facendo attenzione a non invertire la polarità effettuando la connessione (2). Se si inverte la polarità si possono causare danni irreparabili all'elettronica, che la garanzia non copre.

NOTA BENE: Per l'avviamento, vedi il Manuale dell'utente.



SCHEMA ELETTRICO

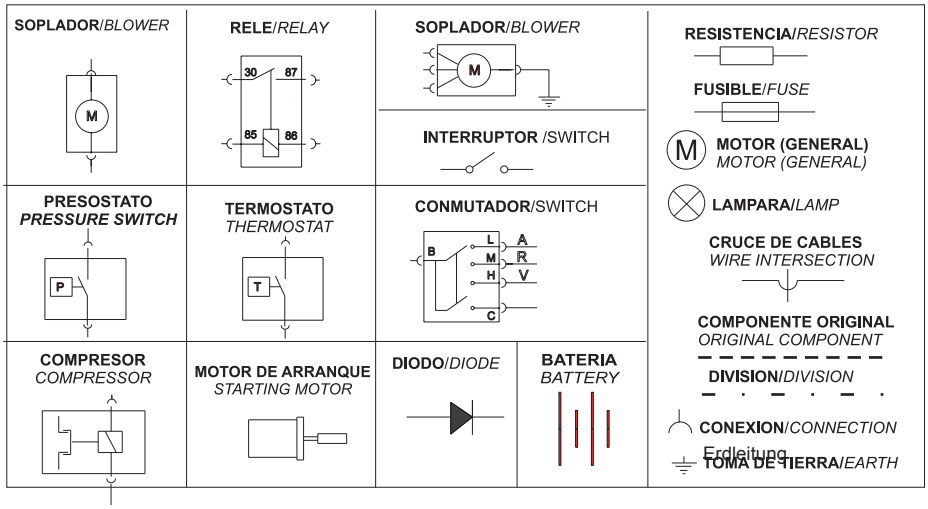




AVVISO IMPORTANTE!

Collegare cavo R a fusibile.
Se si inverte la polarità, il controllo elettronico verrà danneggiato in modo irreversibile.

SIMBOLOGIA/*CONVENTIONAL SIGNS*



COLORES/*COLOURS*

A	GIALLO
Az	BLU
B	BIANCO
G	GRIGIO
Na	ARANCIONE
N	NERO
R	ROSSO
Ro	ROSA
V	VERDE
Vi	VIOLETTO
M	MARRONE
Mo	VIOLA

RECOMENDAÇÕES PARA A MONTAGEM

- **Antes de iniciar a montagem ler as instruções e segui-las durante o processo de instalação.**
- **Usar as ferramentas adequadas para cada operação.**

ELECTRICIDADE

- **Desligar a chave de contacto.**
- **Desligar a bateria antes de começar a montagem.**
- **Verificar as ligações dos componentes eléctricos, tendo atenção ao seu correcto encaixe.**

Ferramentas
Jogo de Chaves Tor
Jogo de Chaves Allen
Chave fixa 10
Chave fixa 13
Chave fixa 14
Tesoura
Flexómetro

O EQUIPAMENTO INCLUI A SEGUINTE DOCUMENTAÇÃO:

- **Instruções de Montagem: 220.AA7.0035**
- **Manual do Utilizador: 220.AA7.0003**
- **Diagnose de Avarias: 220.AA7.0004**
- **Garantia: 220.AA1.0010**

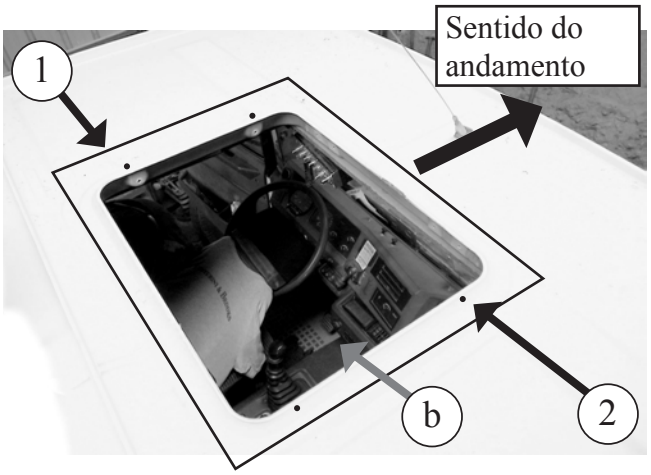
ATENÇÃO:

Ao instalar evaporativo no tecto deve-se proteger a parte superior da cabina com um pano ou manta protectora para evitar possíveis riscos. Ao instalar o **Bycool Flat** no tecto há que ter em conta que, normalmente, as cabinas que vêm providas de escotilha, têm uma estrutura suficiente para suportar o peso do equipamento. No entanto, quando assim não for e for necessário realizar um corte no tecto ou inclusive se no caso de possuir escotilha o material não for suficientemente resistente (caso de tecto de fibra, plástico, etc...) é o instalador que deve decidir, **sob a sua responsabilidade**, sobre a necessidade de reforçar o tecto para evitar possíveis deformações, roturas, entradas de água, etc... habilitando os meios para que isto não aconteça.

AVISOS:

- A peça nº 20 da listagem de Peças Fornecidas deve se substituída a cada 12 meses.
- dirna, s.a. fica isenta de responsabilidades se ocorrerem avarias que procedam de uma inadequada manipulação ou instalação do equipamento, ou por modificações e substituições efectuadas sem a nossa expressa autorização por escrito.
- Ver procedimento de garantia do produto incluído na **Diagnose de Avarias**.
- Ver **Manual de Utilizador** do equipamento para o correcto funcionamento do comando à distância e do painel de controlo.

1 Apresentar planta fornecida sobre o tecto e no sentido de andamento do veículo, com os furos nos lados.

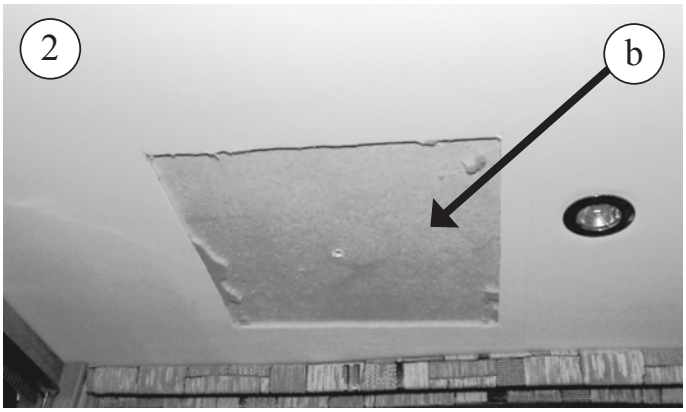


2 Marcar o corte e os (4) furos e proceder aos mesmos de Ø10.

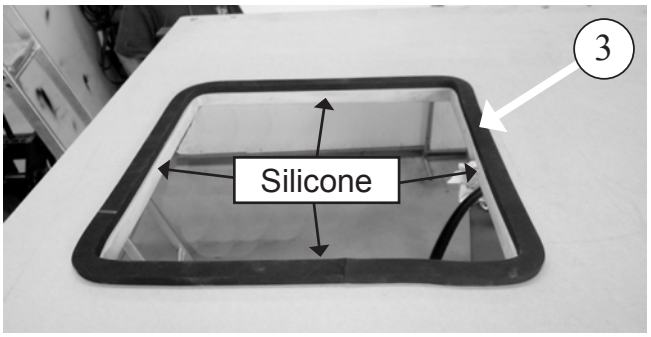
A- Pelo interior da cabina voltar a apresentar a planta, sobre os (4)furos, para marcar o corte sobre o forro e realizá-lo com um x-acto, evitando assim roturas e/ou rasgagens

B- A partir do exterior proceder ao corte marcado anteriormente.

Planta



3 Colar junta de montagem em redor do corte e vedar com silicone interiormente.



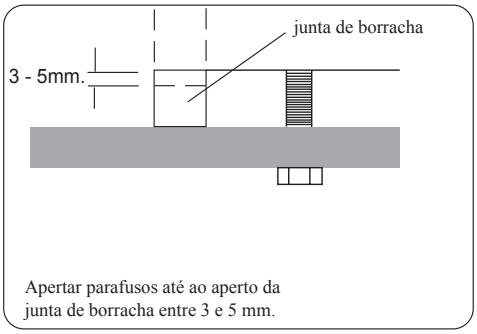
4 Posicionar evaporativo sobre o tecto.

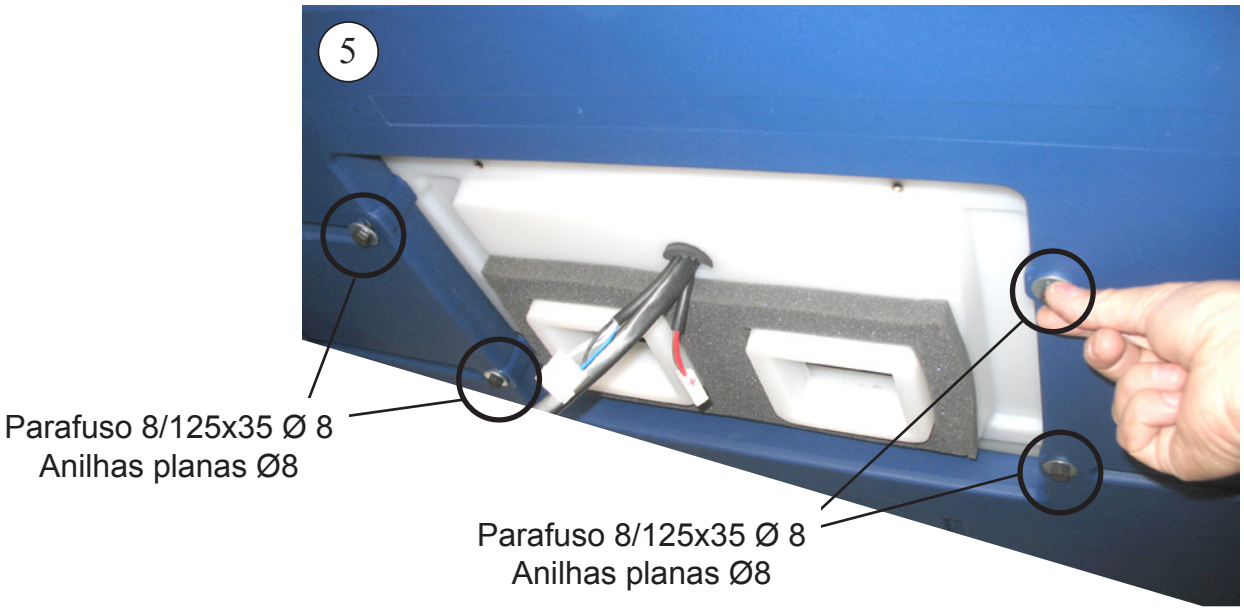
5

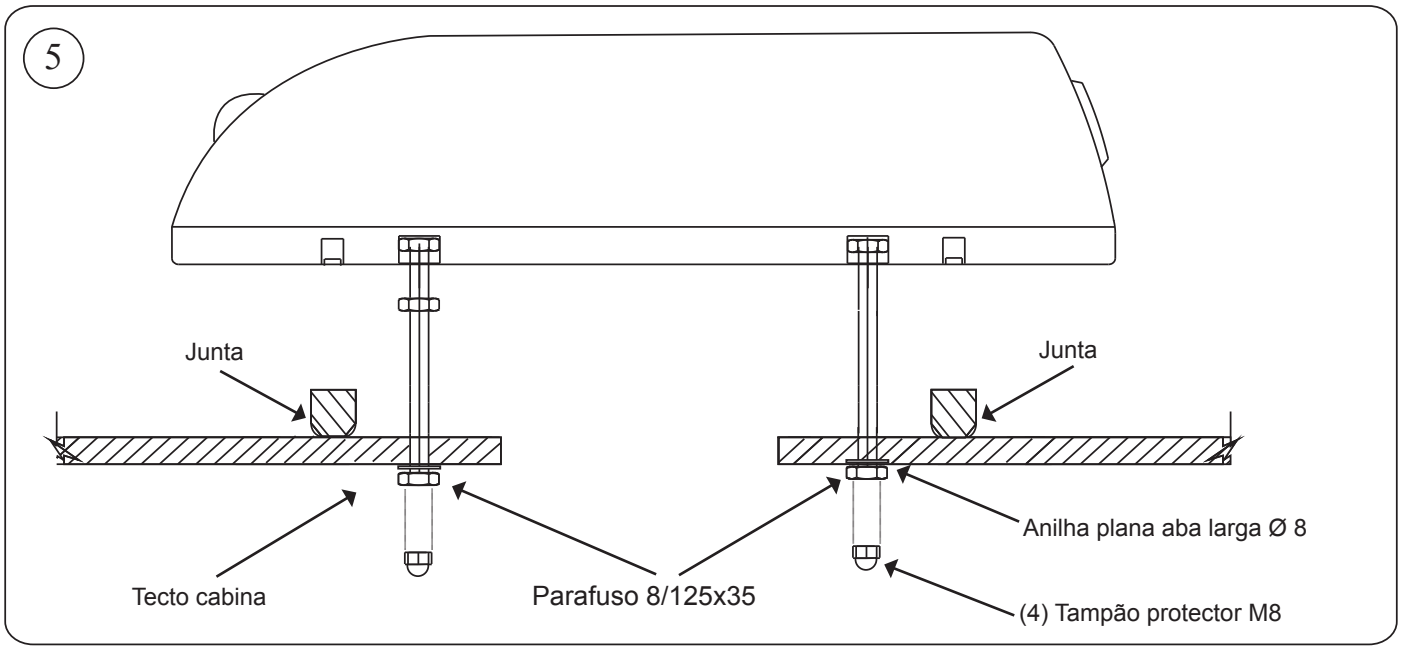
Pelo interior da cabina, fixar o conjunto c/(4) parafusos 8/125x35, (4) anilhas planas Ø8 aba larga.

Apertar parafusos até que a junta fique oprimida entre 3 e 5 mm. - par de aperto 4÷5 N.m - (*VER DETALHE*)-.

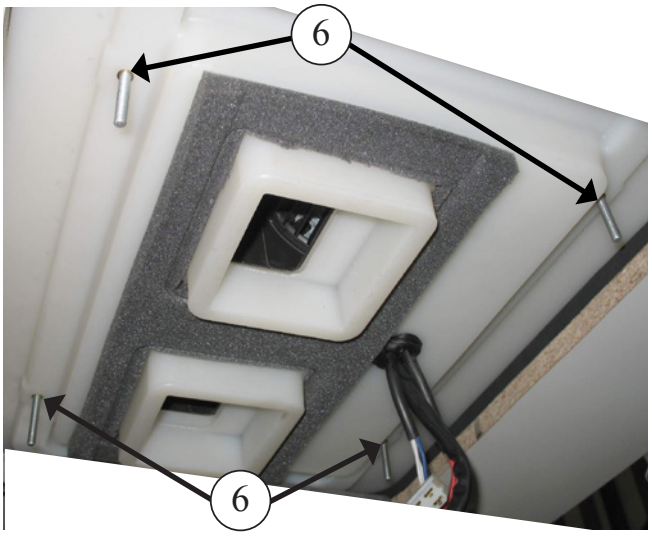
Detalhe



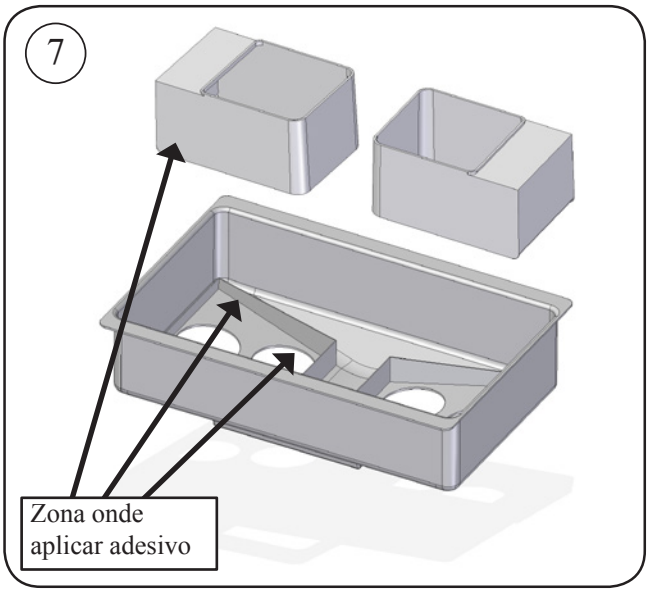




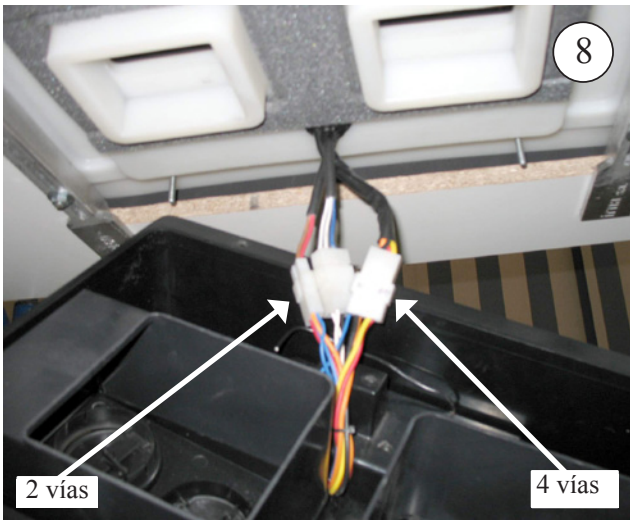
6 Roscar 10 mm (4) pernos M6 x 55, onde é indicado.



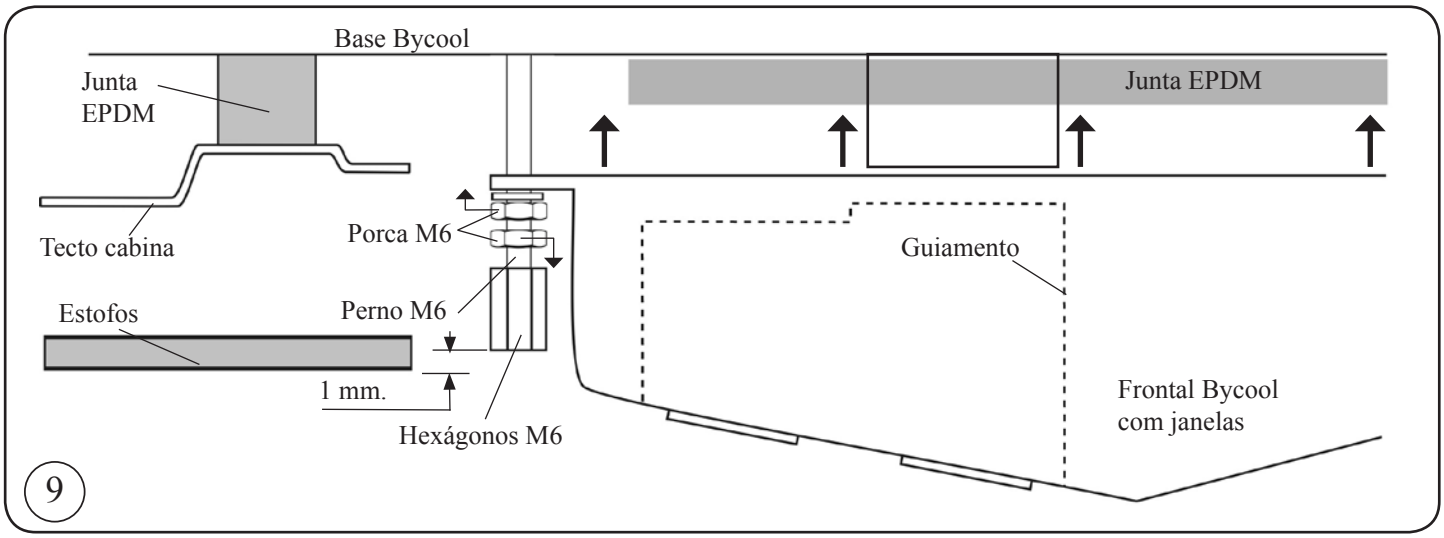
7 Colar os guiamentos no frontal utilizando LOCTITE superglue 3 ou semelhante, para facilitar a montagem do conjunto e assegurar os fluxos de ar frios pelas janelas.



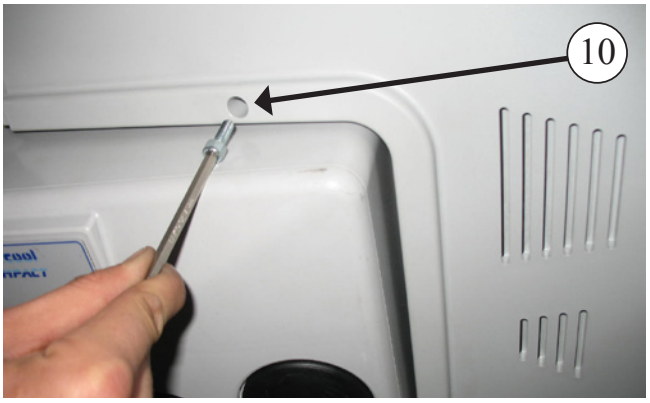
8 Conectar as (2) caixas de 4 vias e (1) de 2 vias, da frente, com as do **Bycool**.



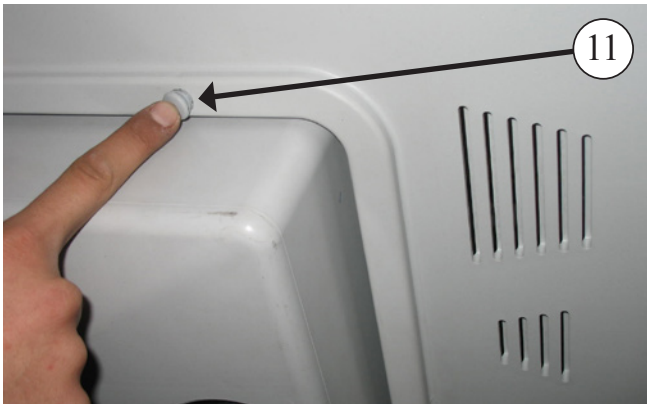
9 Posicionar frontal nos pernos M6 até chegar ao topo com a base de Bycool, fixar como é indicado no esquema.



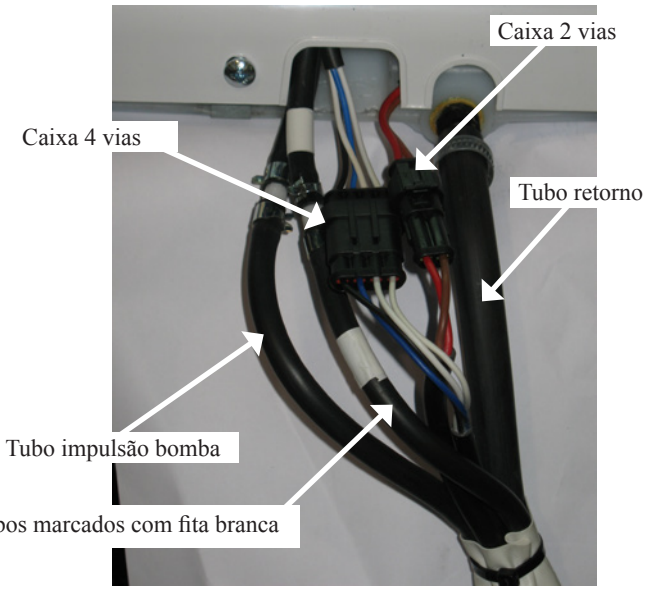
10 Colocar a consola com (4) parafusos M6/100x15 allen.



11 Cobrir os (4) parafusos M6/100x15 allen com as tampas redondas de M6 de plástico.



12 Ligar caixas com cablagens e tubos, pela parte traseira do Bycool segundo se indica.

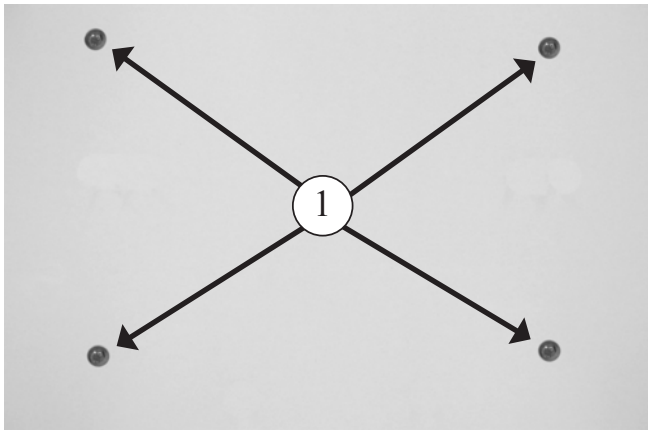


13 Passar e fixar com bridas conjunto cablado com tubos até a localização onde se vai instalar o depósito de água.

Importante: O tubo de desaguamento deve ter queda e há que evitar bucles e estrangulamentos para facilitar o retorno da água ao depósito.

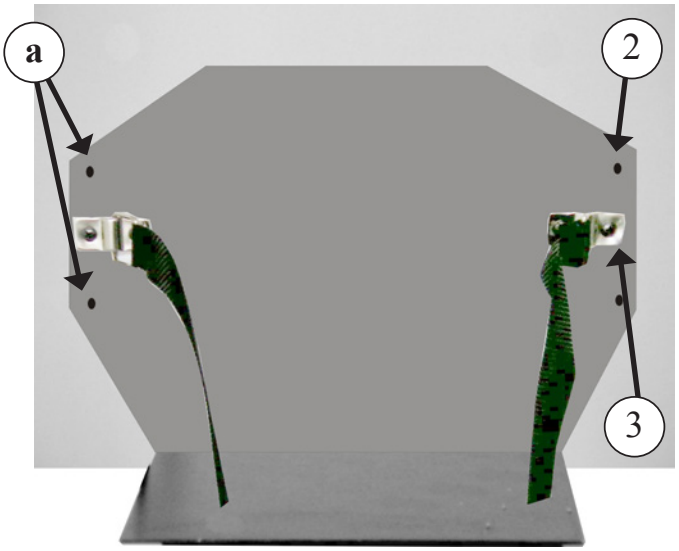
INSTALAÇÃO DO DEPÓSITO DE ÁGUA

1 Apresentar o depósito com o suporte, na parte mais ideal e marcar os (4)furos extremos de fixação **(a)**. Realizar os referidos furos de Ø9 e colocar (4) porcas rebite aba larga M6.



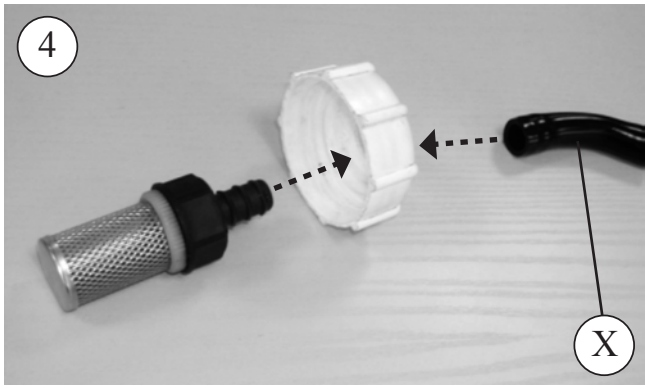
2 Fixar suporte c/(4)parafusos 6/100x25 e (4) anilhas planas de Ø6 aba larga.

3 Fixar as (2) cintas aos furos do suporte, c/ (4) porcas M5/80 autoblocantes e (4)anilhas planas aba larga.



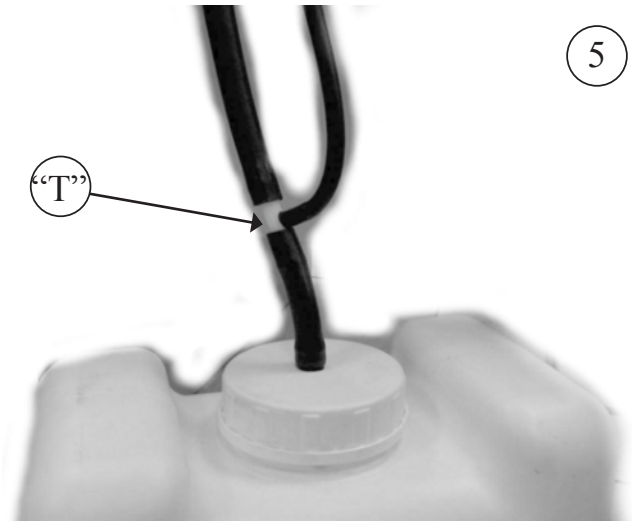
OPERAÇÕES NO DEPÓSITO

4 Montar filtro em tubo c/espiga, introduzir no tampão e ligar ao tubo de plástico X (retorno). Voltar a roscar tampão no depósito.



5

Colocar tampão no depósito.
Cortar a 100 mm. intercalar "T" e ligar a esta o tubo de menor secção, **marcado com cinta Y** (verificar se o raio da curva seja suficiente para evitar estrangulamentos.

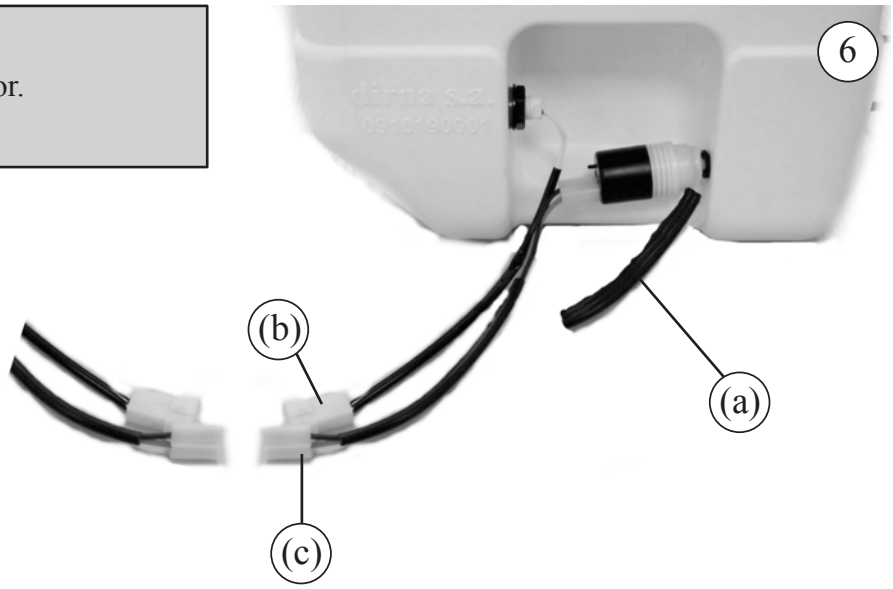


6

a- Ligar tubo impulsão bomba.

b- Ligar caixa 2 vias do flutuador.

c- Ligar caixa 2 vias da bomba.



7

O tubo de desaguamento deve ter queda e não horizontabilidade, bucles nem estrangulamentos, para facilitar a queda de água para o depósito, evitando a sua acumulação em bandeja, posterior derramamento ao exterior e ao não retornar, posterior vazio de água do depósito.

IMPORTANTE: NÃO CORTAR cablagem excedente e fixá-lo (enrolado), por trás do depósito de água.

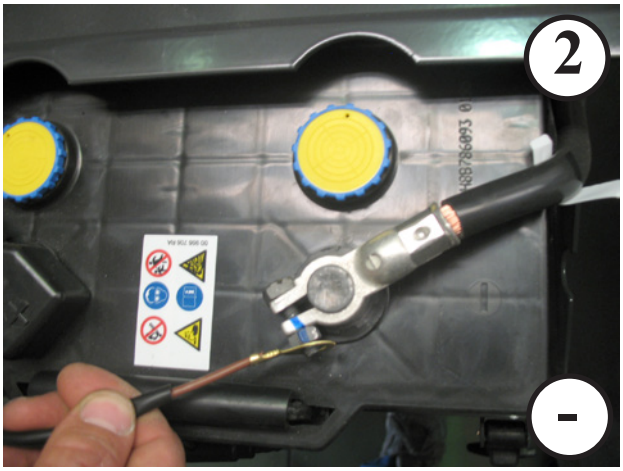
Em caso de erro e cortar, voltar a ligar em posição orig.para evitar danos irreversíveis no controlo electrónico.

Instruções detalhadas sobre a instalação da cablagem de alimentação

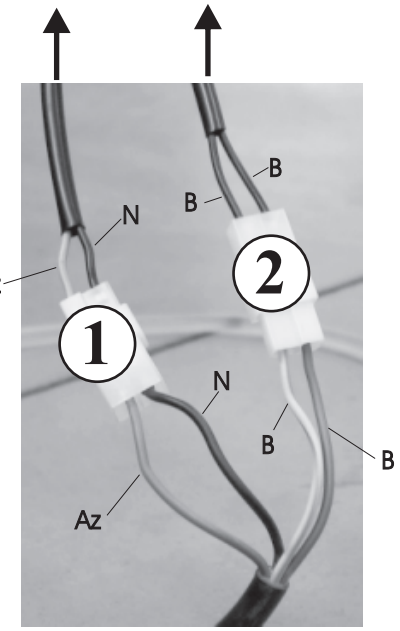
1- Levar o cabo de alimentação do equipamento até à bateria do veículo, fixando-o com bridas; deve-se utilizar o mesmo passo da cablagem original. Ao ligar o equipamento à bateria este fará um teste em todos os seus leds, e desligar-se-á.

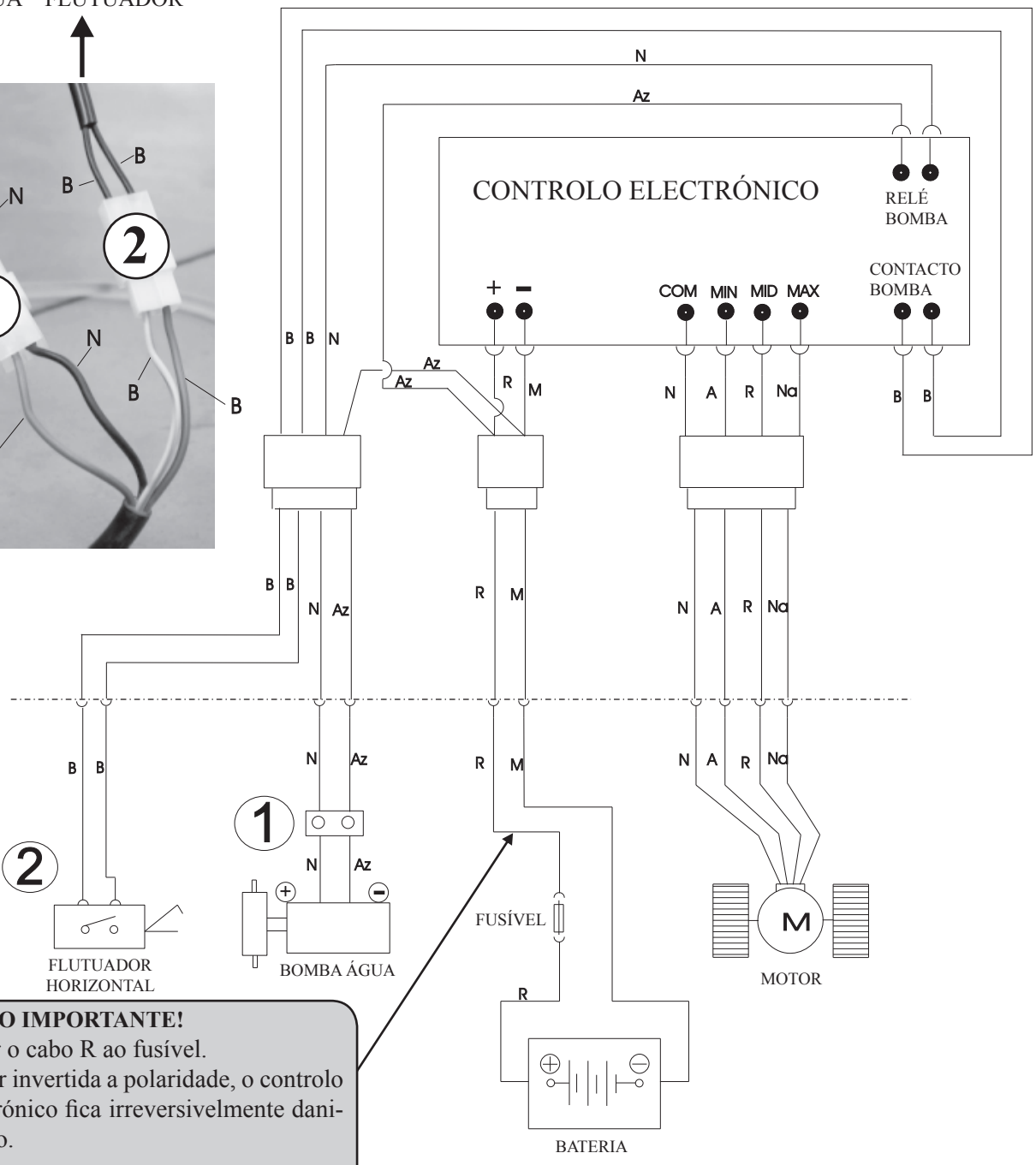
IMPORTANTE: Devido ao complexo sistema de regulação electrónica do equipamento, a tomada de corrente deve ser realizada directamente à bateria do veículo, não a qualquer outro ponto que dê serviço a outros acessórios do veículo tendo a precaução de não inverter a polaridade ao realizar a ligação (2). Se se inverter a polaridade podem ser provocados danos irreparáveis na electrónica não cobertos pela garantia.

IMPORTANTE: Para a colocação em funcionamento consultar o Manual do Utilizador.



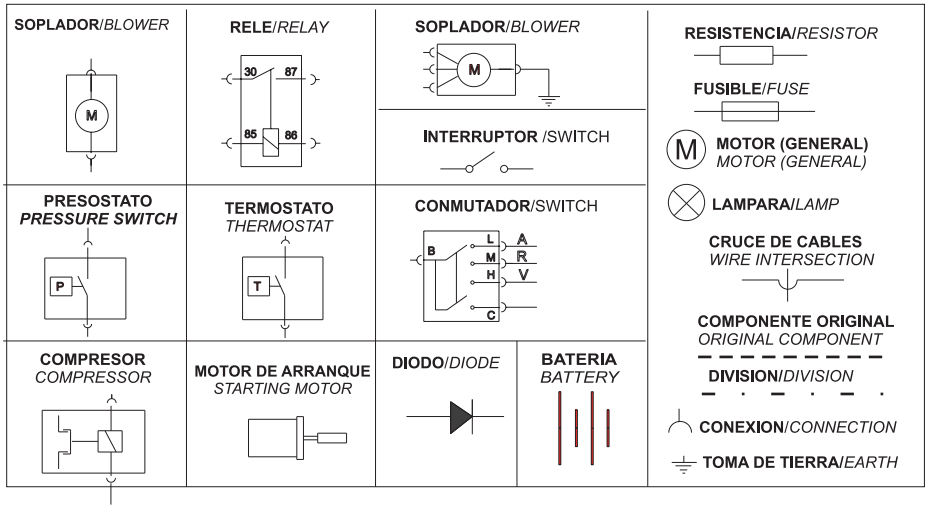
Esquema eléctrico





AVISO IMPORTANTE!
Ligar o cabo R ao fusível.
Se for invertida a polaridade, o controlo electrónico fica irreversivelmente danificado.

SIMBOLOGIA/*CONVENTIONAL SIGNS*



COLORES/*COLOURS*

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

Ed:	07/07/2010
Md:	22/10/2018

b

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