YILKAR

EN

Installation Instruction

YK 120 S

SSH.MT.01.02 - EN

00	27.12.2022	H.Kübra Şahin	First Publication
REVISION NO	***PUBLISH DATE***	***REVISING PERSON***	***REASON FOR REVISION***

Contents

1. Introduction

This instruction is part of the YK 90 S air conditioner. All necessary information for installation is explained and includes information on safe use of the device. Please read this installation instruction carefully in order to fully install Yılkar air conditioner.
It is recommended to be stored in a safe and clean place.

For questions, please contact the service and/or customer service.

You can scan the QR code for Yılkar Klima communication.

1.1 Warranty and Liability

Warranty conditions

YILKAR assures its customers that the products they buy are manufactured in accordance with today's technology and without any errors. All YILKAR Authorized Dealers are obliged to carry out warranty transactions regardless of which authorized dealer the vehicle is sold by.
All parts on the product are under warranty for 2 (two) years from the date of delivery in case of fabrication defects.

If the relevant warranty form indicating that the product was installed at the approved service points is not found in the business records, the date when the product was decommissioned is taken as a reference. As of the date of exit from the business, the warranty is processed for 2 years (two years).

Consumables (belt, bearing, refrigerant, workmanship, filter, dryer and compressor) are covered by warranty for 1 year or 50,000 km (whichever comes first) from the date of installation of the product.

In case the product fails during the warranty period, the time spent in repair is added to the warranty period. This period starts with the delivery of the product to the authorized service. The repair period of the product is maximum 30 days.

The warranty does not apply in the following cases:

Defects arising from the use or assembly of the product contrary to the points in the user manuals
Faulty electrical wiring
Damages and malfunctions caused by using a voltage different from the voltage written on the label of the product
If the product maintenance and repairs are not carried out on time, regularly, by the services with the necessary technical knowledge and competence and in accordance with the periodic maintenance and repair procedures (Every 50,000 km and annual maintenance is obligatory).

The ownership of the parts changed within the warranty belongs to YILKAR.
The warranty period of products replaced by spare parts is 1 (one) year from the date of installation.

1.2 Security and Legal Regulations

Read this service manual carefully before operating your YK 90 S model roof type air conditioner.

In case of problems that may occur as a result of improper use conditions, the warranty is canceled and compensation claims are not taken into account.

Please pay attention to the following rules for your own safety:

- Have repair and maintenance operations performed only by qualified personnel who have received the necessary training and authorization. You can find information about YILKAR authorized service centers on YILKAR's official website, www.yilkarklima.com.
- Do not reach into the unit and do not hold any foreign objects to the condenser and evaporator fan when the device is in operation.
- Please do not touch the condenser, evaporator or its connections with your hands. The same is true for the resistor on the fan if it will run on the unit and it has not cooled down completely.
- Replace faulty parts immediately and have any detected faults corrected.
- It is mandatory to use the necessary safety equipment in maintenance and repair operations.
- Carry out maintenance work only when the engines are turned off.
- Before turning on the air conditioning unit, disconnect the battery.

1.2.1 ECE-R 10

ECE R10 – Electromagnetic compatibility regulation is the type approval test for European automotive electronics. It has been successfully passed various tests including RF immunity and emissions, transient immunity and emissions.
Electrically it has met the requirements for waste, explosion, fluctuating harmonics and vibration.
As a result of the tests, it was certified with the document number E13 R10 - 05 13503.

You can reach Yılkar Klima ECE-R 10 test certificate via the QR code below.

2. Definition and Technical Information

2.1 What is YK 120 S ?

YK 120 S is an innovative designed air conditioning device developed for air conditioning minibuses up to 17 seats.

The easy-to-install unit includes a condenser and an evaporator. These units must be mounted on the roof of the vehicle and connected to the compressor via hoses circulating R134a refrigerant.

With its aerodynamic design, this unit only increases the height of the vehicle by 19 cm. Thus, thanks to its design, resistance in air and fuel consumption is minimized.

It can operate in outdoor conditions at 45°. The air conditioner, which has a cooling capacity of 9-12 kW, can have a heating function with the heat exchanger device. Your air conditioner makes the waste heat generated in your vehicle's engine usable and can provide heating power to your air conditioner with its current design. In this way, the cooling of your engine is more effective, while your vehicle warms up.

YK 120 S is universal, compact and economical with all its features..

2.2 How does it work?

Vehicle roof air conditioners are heat machines that provide passenger thermal comfort by taking the heat inside the vehicle.

Vehicle roof air conditioners work with a vapor compression refrigeration cycle in thermodynamics. There are 4 main parts in this cycle. These are the compressor, condenser, evaporator and expander valve.

The refrigerant put into the heat machine is first pressurized in the compressor, and the fluid pressure is increased from approximately 1 bar to 16 bar. Afterwards, the temperature of the supercompressed and superheated gas in the condenser is taken and the fluid is liquefied under extreme pressure. The high pressure liquefied fluid coming to the expansion valve from here passes through the valve to the low pressure region and evaporates. It needs heat during evaporation. While the ambient air passed over the evaporator heats the fluid in the evaporator and causes it to evaporate, it cools the environment and provides thermal comfort to the passenger cabin.

2.3 YK 120 S Technical Data

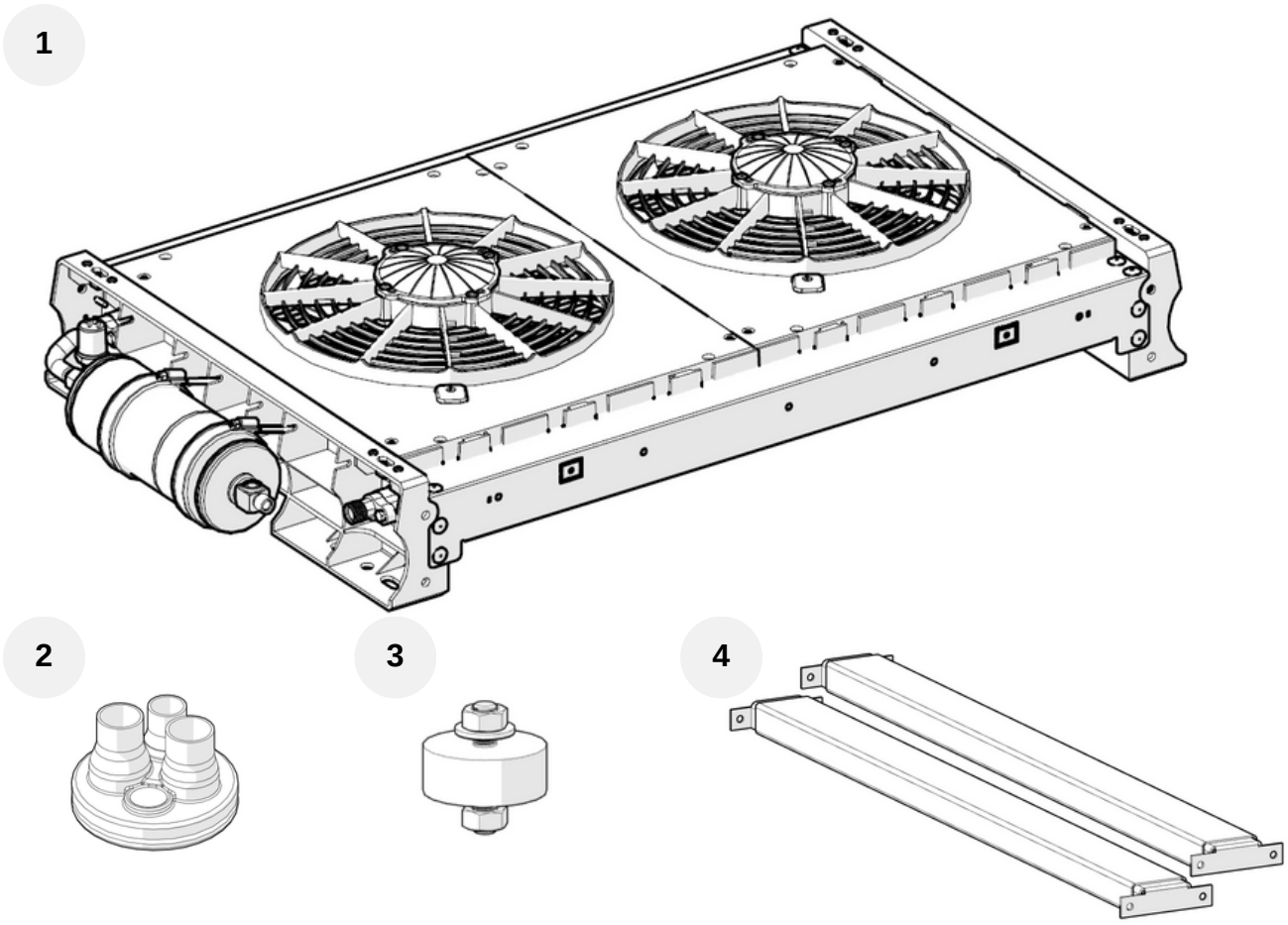
Table.1 Technical Data

Roof Type Air Conditioning Unit	**YK 120 S**
Compressor	SD5-SD7-TM16
Cooling Power	9 - 12 kW (30709 - 40945 BTU/sa) (7738 - 10318 kcal/sa))
Oil Type	PAG 100 oil
Oil Amount	250 ccm
Refrigerant / Amount	R 134 a / 1750 ± 150 gr
Evaporator Fan Flow Rate	3000 m³/h (for 3 Blower Motors)
Condenser Fan Flow Rate	3400 m³/h (for 2 Axial Fans)
Pressure Switch	Low pressure / 2 bar
	Fan Control / 15 bar
	High pressure / 25 bar
Dimensions (Length x Width x Height)	Outdoor Unit: 1200 x 1680 x 190 mm Indoor Unit: 1300 x 420 x 226 mm
Weight (Without Mounting Kit)	44,5 kg
Maximum Total Electricity Intake	65 A @12 VDC 32,5 A @24 VDC

3. Overview

3.1 YK 120 S Overview

3.1.1. YILKAR Condenser Unit



	CONDENSER UNIT- 1301	1 Piece	312.02.01301.01 (12V) 312.02.01301.21 (24V)
1	CONDENSER GROUP - 1301	1 Piece	502.11.01301.01 (12V) 502.11.01301.21 (24V)
2	AIR CONDITIONING - HOSE CONNECTION GROMET	1 Piece	504.01.YKMON.33
3	AIR CONDITIONING - WEDGE CONNECTION ASSEMBLY - 20 MM	1 SET	504.01.YKMON.01
4	U - DOUBLE - RAIL-EAR 70 CM COMPLETE	2 SET	502.51.UC005.01

3.1.2. YILKAR Evaporator Unit

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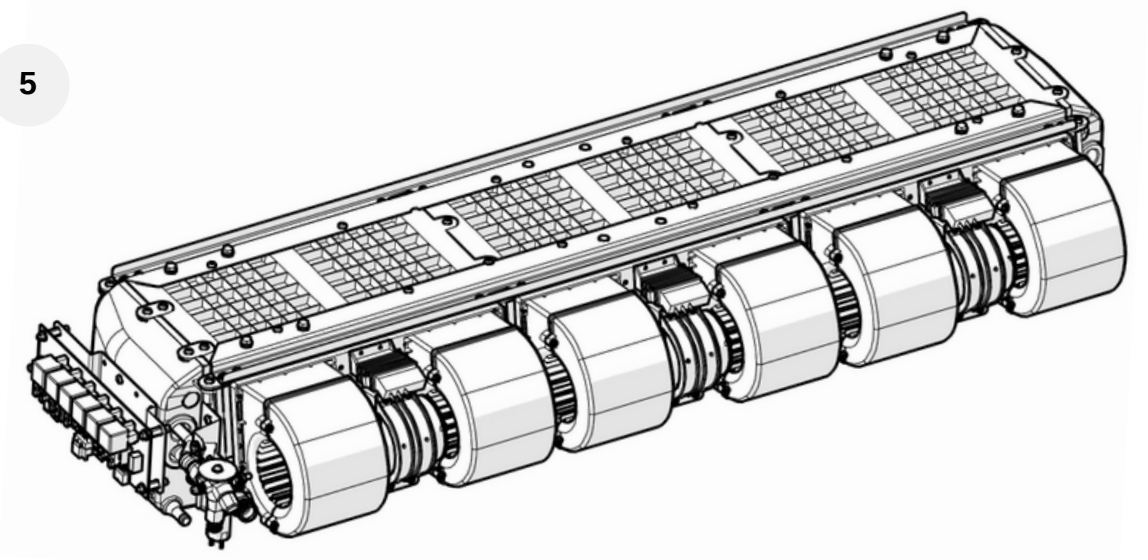

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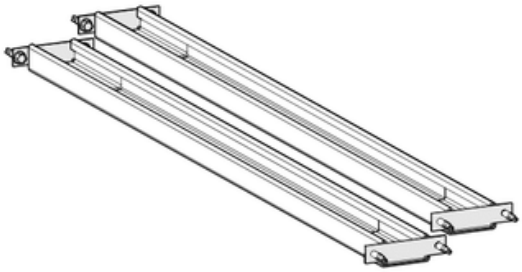

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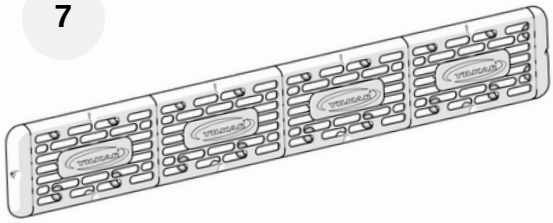

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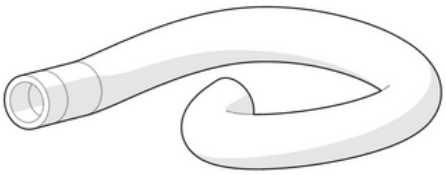

	EVAPARATOR UNIT - YK 120 S	1 Piece	311.02.YK120.01 (12V) 311.02.YK120.21 (24V)
5	EVAPARATOR GROUP - YK 120 S - 2007	1 Piece	501.21.YK120.01 (12V) 501.21.YK120.21 (24V)
6	U - DOUBLE - RAIL-EAR 70 CM COMPLETE	1 SET	502.51.UC005.01
7	AIR SUCTION GRILL COMPLETE - 4 - BLACK	1 Piece	501.24.HEIPL.11
8	HOSE - STEEL WIRE - SPIRAL 12 MM	5 m	108.02.HC00M.12

3.1.3. YILKAR Fiber Cover

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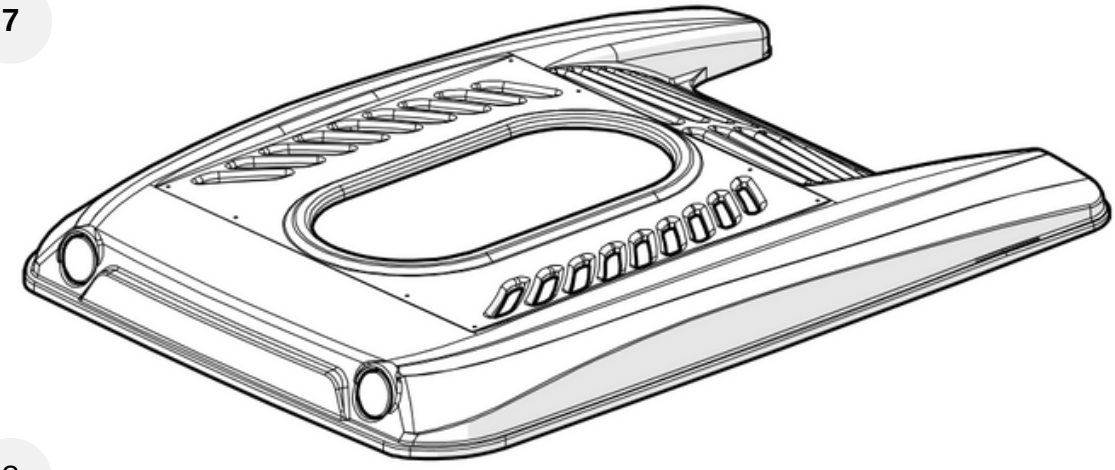

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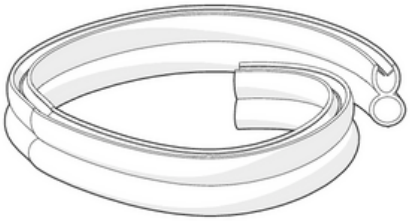
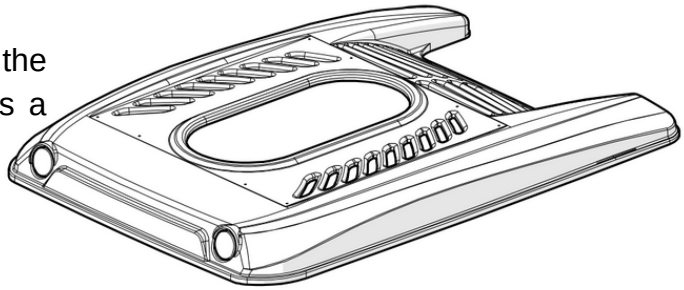


	FIBER - COVER - 1301 - MEDIUM	1 ADT	321.01.01301.02
9	FIBER - RAW - COVER - 1301 - MEDIUM	1 ADT	504.11.01301.02
10	WICK - LUGGAGE RUBBER	1ADT	103.02.FT001.01

3.2 General Description

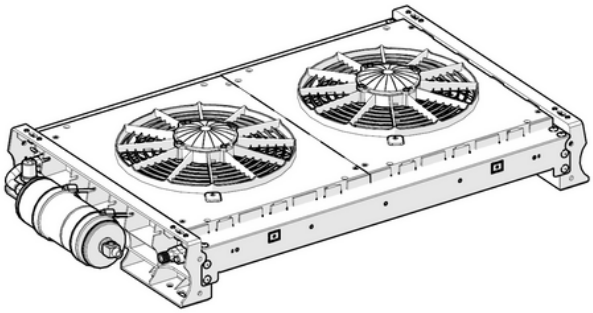
1 Fiber Cover

The cover made of fiber material is mounted on the condenser unit on the vehicle roof and acts as a condenser protection.



2 Condenser

It is the air conditioning system element in which the high pressure R134a refrigerant gas taken from the compressor in the condenser air conditioning system becomes liquid by giving heat to the environment.

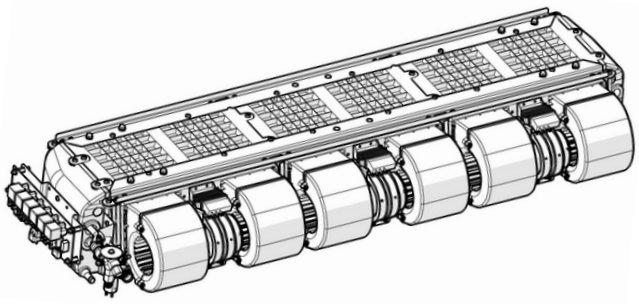


3 Valve

It is an air conditioning system element that provides the phase change by reducing the refrigerant pressure.

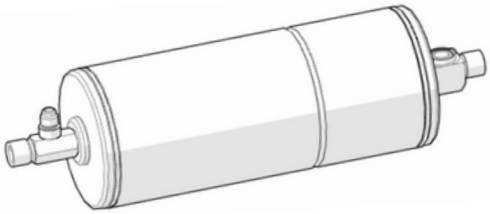
4 Evaporator

Evaporator is an air conditioning system element that evaporates the R134a refrigerant coming from the condenser with the help of a valve and thus cools the ambient air.

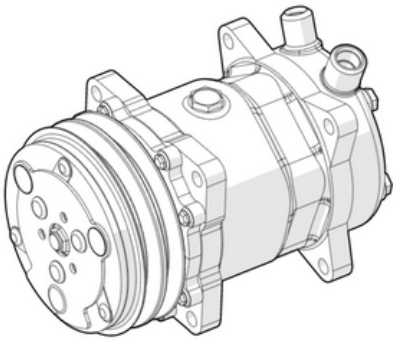


5 Compact Filter

Compact filter is a filter system that keeps the impurities and moisture in the system positioned at the condenser outlet.

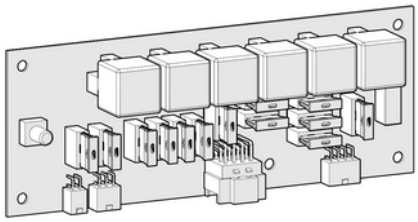


6 Compressor



It is the pump of the system that compresses the R134a air conditioner gas in the compressor air conditioning system and increases its pressure.

7 Relay Board



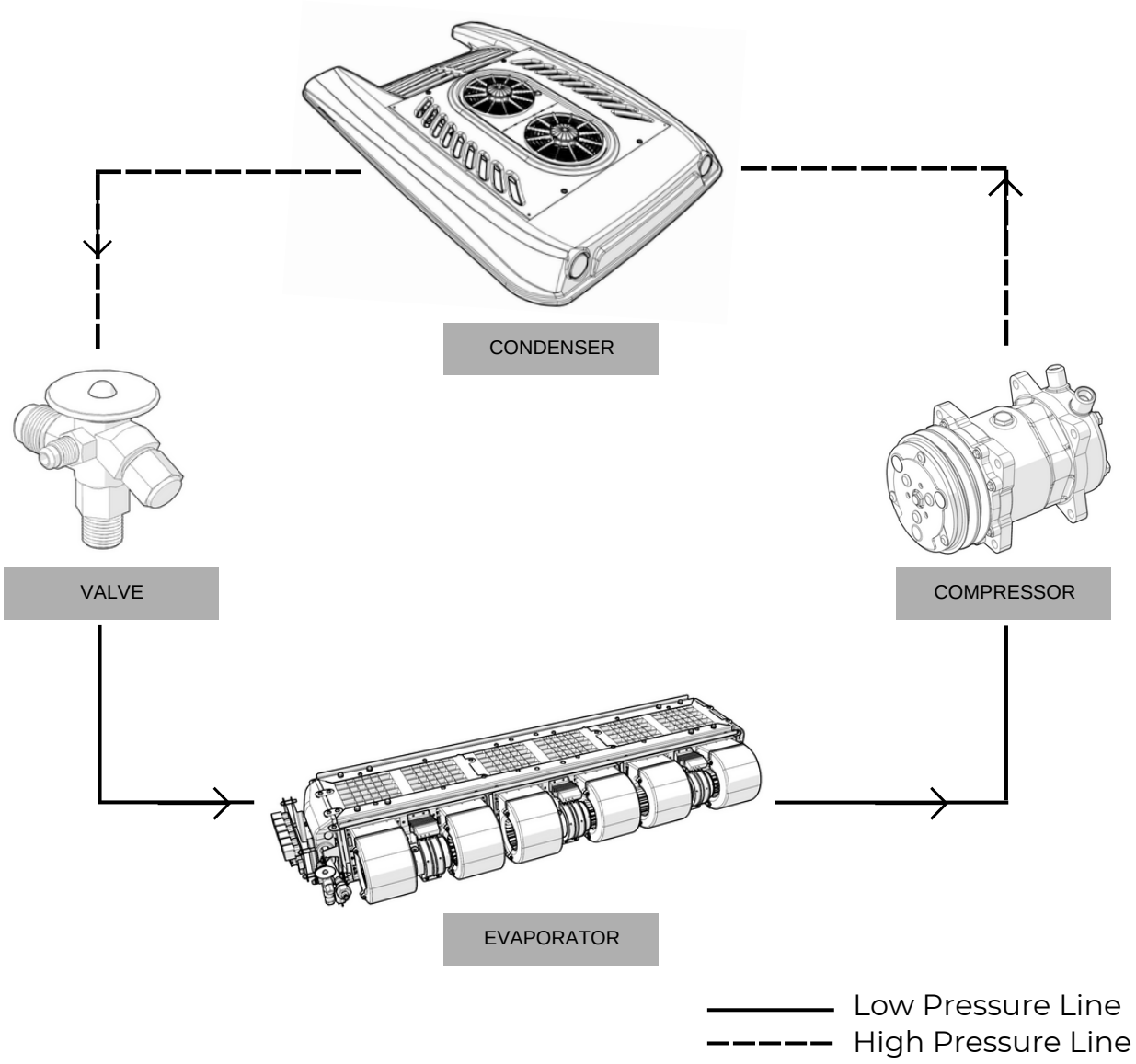
The relay switches on and off the current path with the help of current and voltage values in the air conditioning system. In this way, it ensures the regular operation of the air conditioner. There are 12V and 24V options for the air conditioning system.

8 Air Conditioner Hoses

There are 5/8" 5/16" and 13/32" hoses in compliance with SAE-J 2064 type-E standards in the air conditioning system. Thanks to these hoses, R134a refrigerant circulates between the air conditioner elements.

4. Yılkar YK 120 S Installation

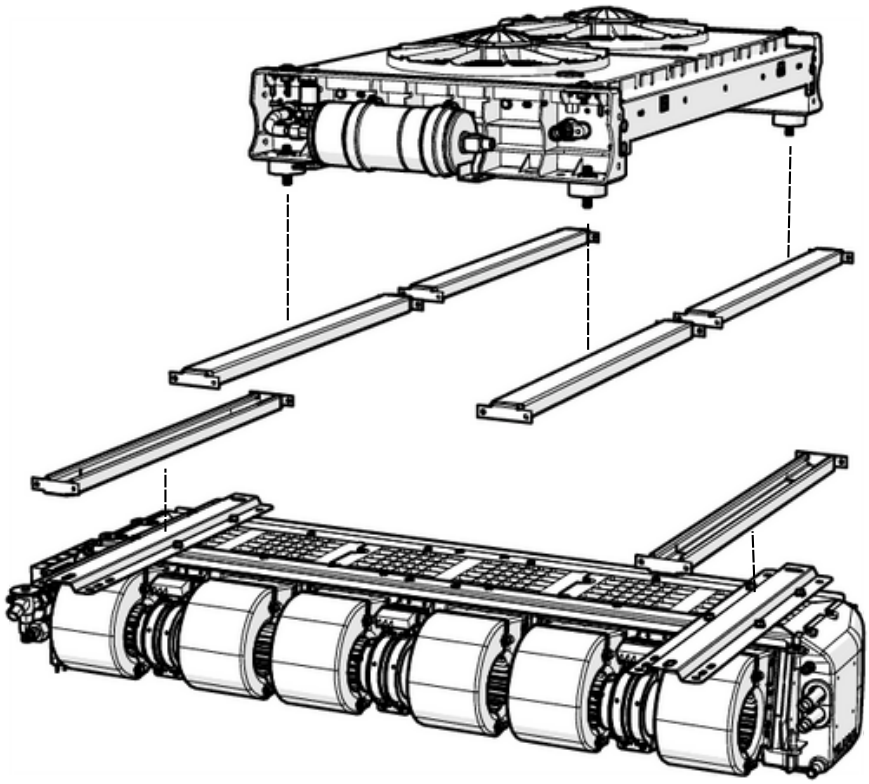
4.1 General Assembly Diagram



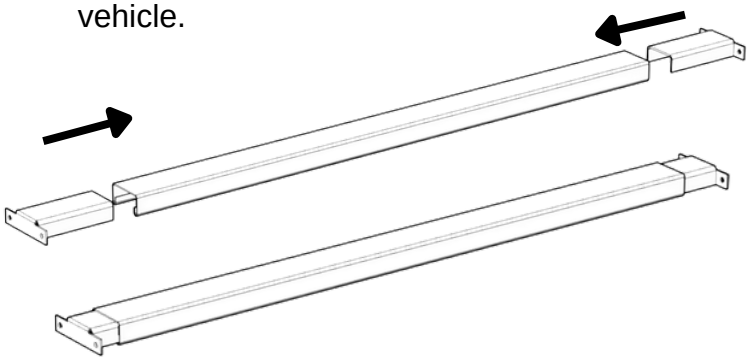
In the above assembly diagram, the flow direction of the R134a refrigerant and the low-high pressure zones are shown on the components connected to each other by hoses in the air conditioner system.

4.2 YK 120 S U Connection Profiles Mounting

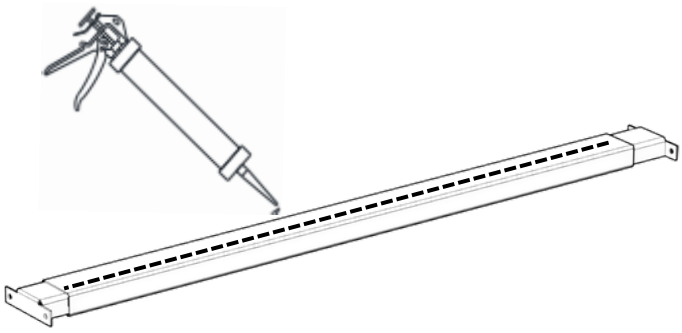
Connection plates are the first mounting parts used to fix the condenser and evaporator to the vehicle roof and to each other. Remove the fiber cover and evaporator plastic covers just before this procedure.



Assembly Step 1:
First of all, cut the U-connection profiles to the dimensions suitable for the roof of your vehicle.



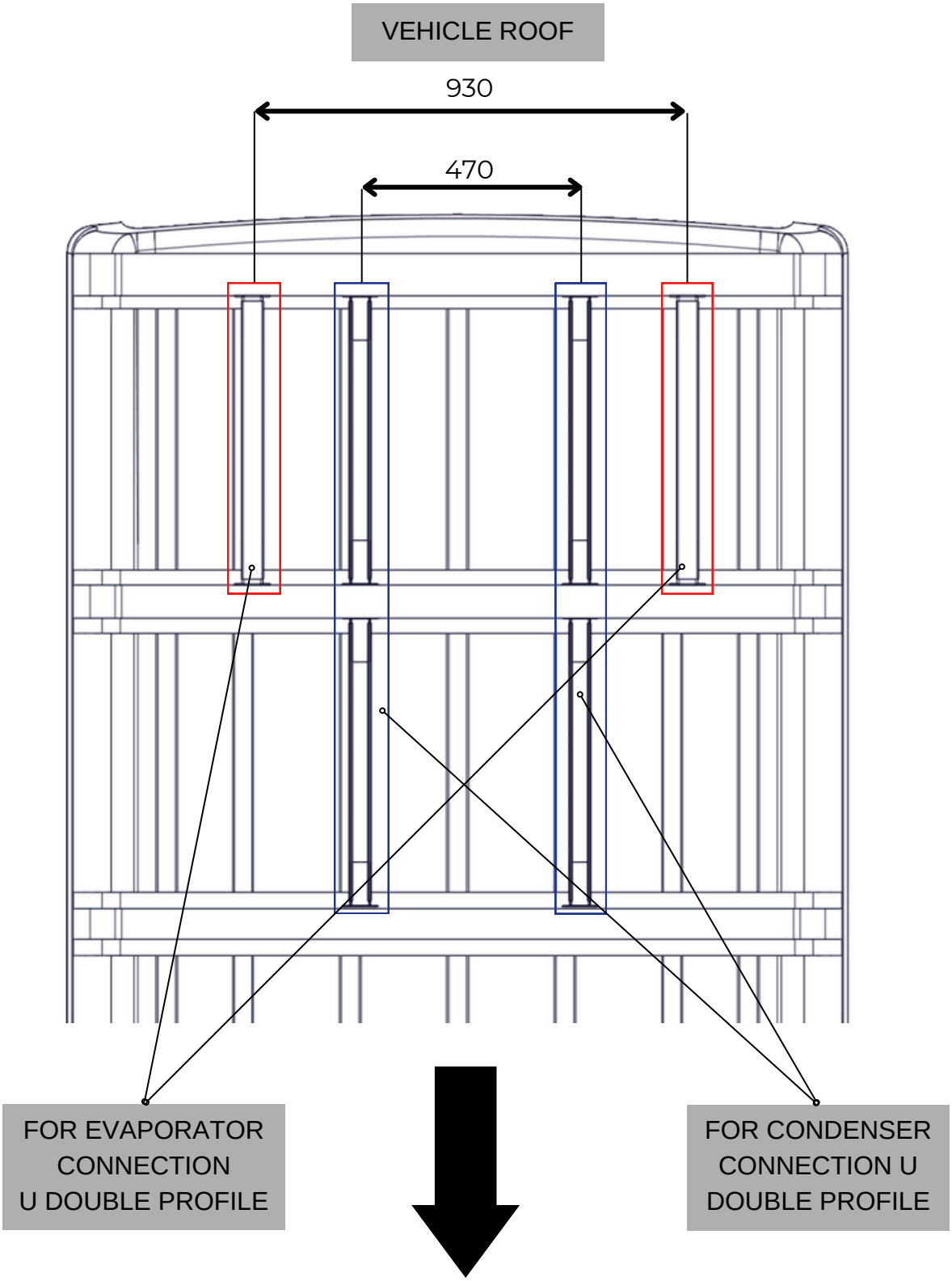
Assembly Step 2:
Assemble the U profiles by interlocking the rail-ear parts.



Assembly Step 3:
Spray the SIMSON ISR 70-03 white sealant included in the mounting kit on the evaporator and condenser U-profiles facing the vehicle body..

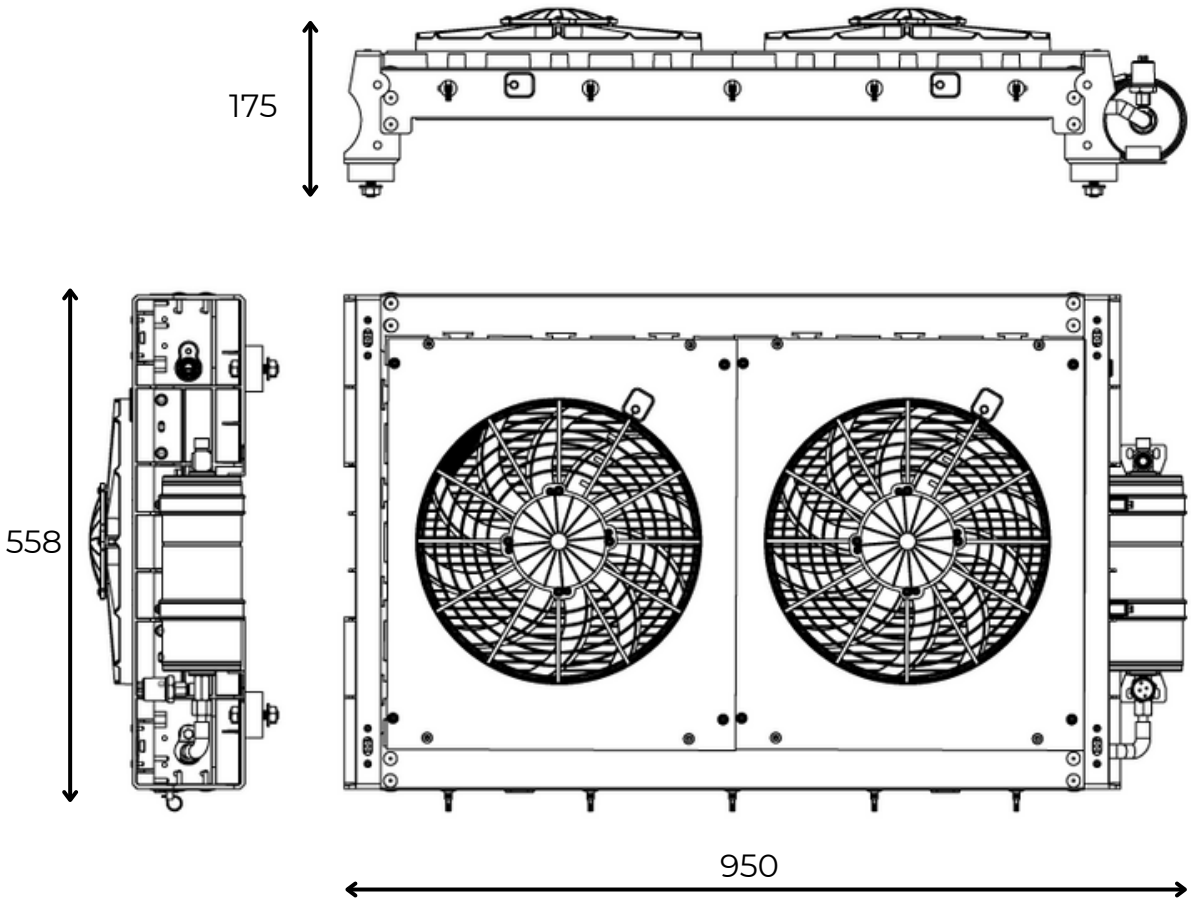
Assembly Step 4:

The position of the U connection profiles to be used for the condenser and evaporator should be marked on the ceiling in the vehicle as shown below and mounted to the ceiling with a drill-tipped trapezoidal M5x25 screw. 16 connection screws are used for this connection.



4.3 YK 120 S Outdoor Unit Installation

4.3.1 YK 120 S Outdoor Unit Dimensions



4.3.2 Outdoor Unit Positioning and Roof Mounting

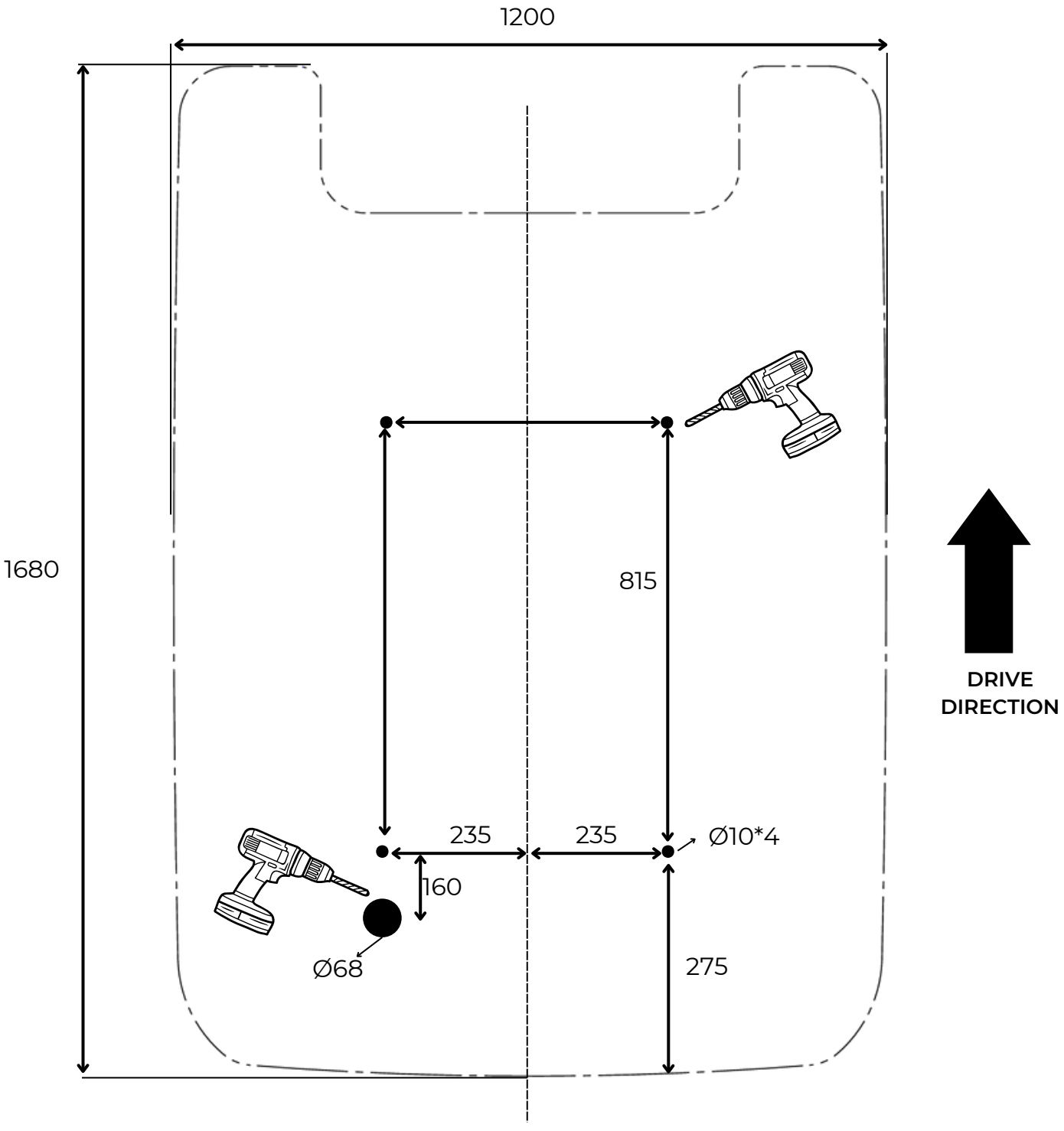
To fix the air conditioner, it is necessary to drill 5 holes in the roof of the vehicle.
(4 for connecting wedges, 1 for hose passage)

Before making any cuts on the vehicle, remove the vehicle's battery; Make sure that there is no electrical cable in the part where you will drill the ceiling holes.

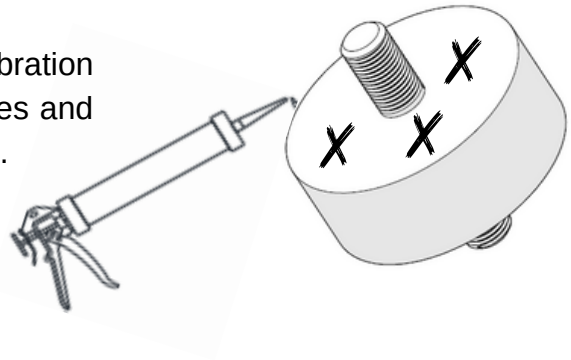
Assembly Step 5:
Determine the location of the condenser to be mounted on the vehicle with the central line on the vehicle in accordance with the mounting criteria.

Assembly Step 6:
For YK 120 S, mark the places to be drilled, the details of which are given in the technical drawing, on the vehicle by referring to the fiber cover dimensions. Drill the marked places with suitable tools and equipment.

ROOF TOP VIEW

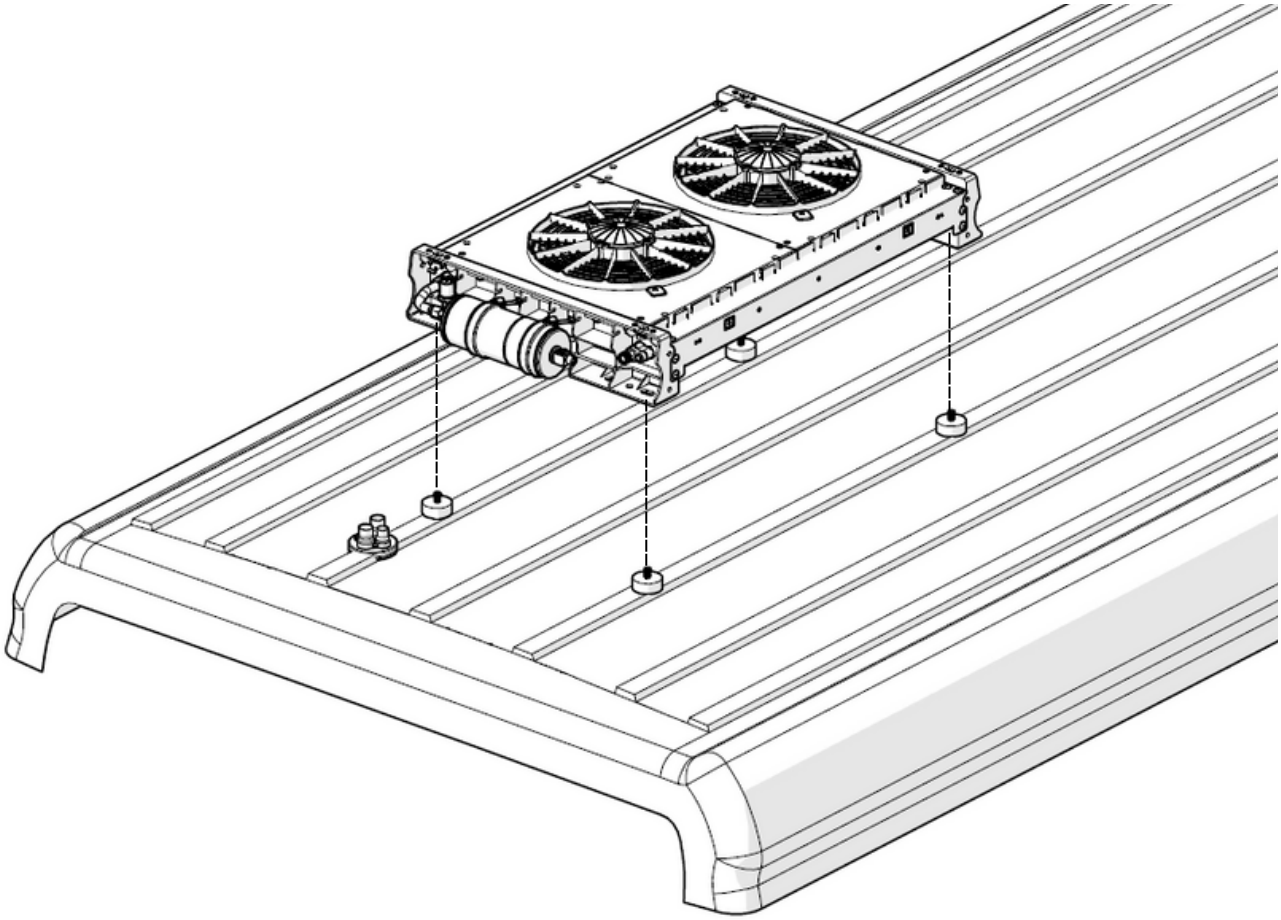


Assembly Step 7:
Mount the mounting wedges used for vibration damping on the vehicle roof to the drilled holes and insulate with SIMSON ISR 70-03 white mastic.

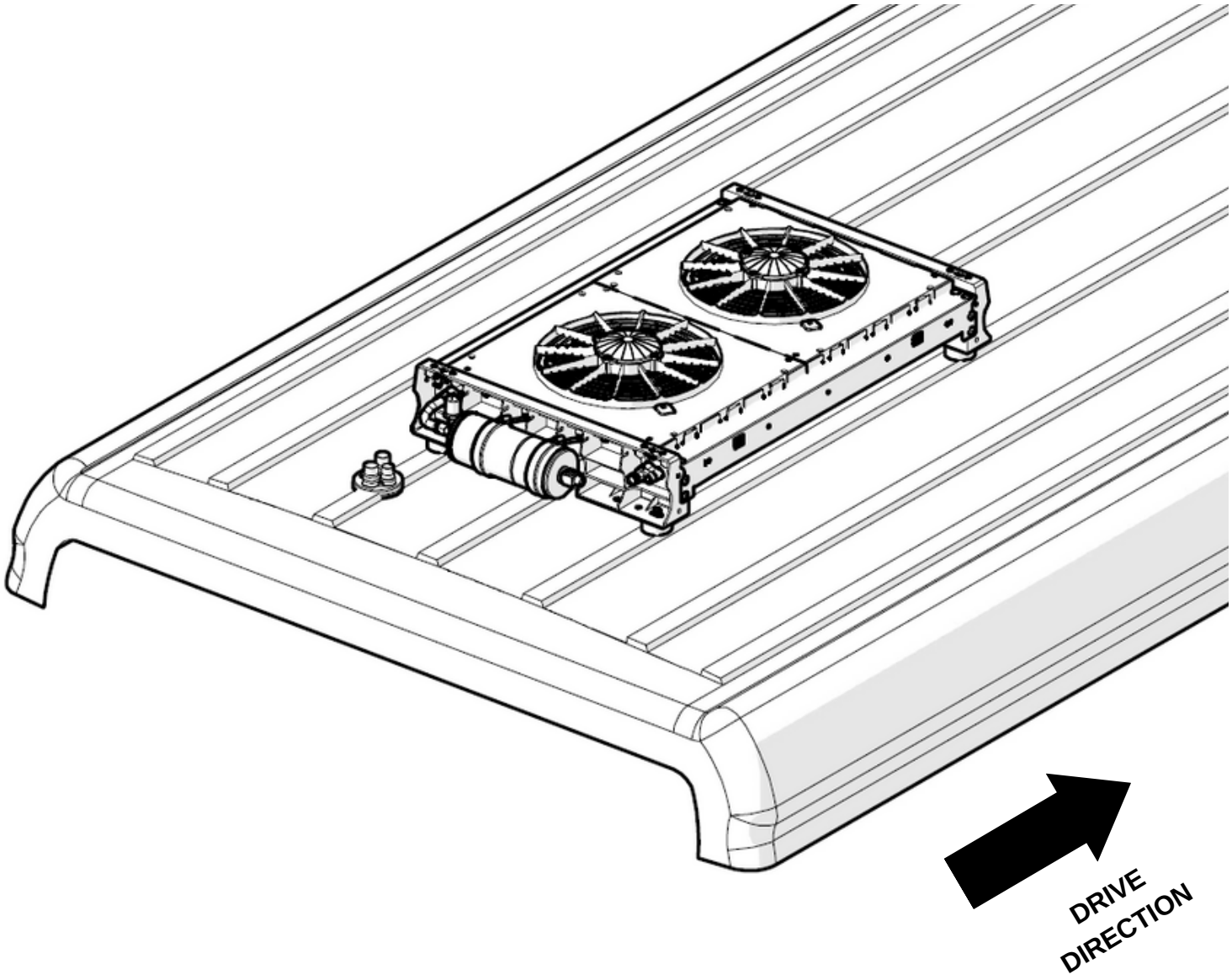


Assembly Step 8:
Assemble the hose grommet to the hole drilled for the grommet on the vehicle roof and insulate it with SIMSON ISR 70-03 white mastic.

Assembly Step 9:
Place the condenser unit of your air conditioner on the roof of the vehicle so that it coincides with the connection wedges that you insulate. To mount the unit on the vehicle roof, fasten it to the wedges with M10 nut in accordance with it.

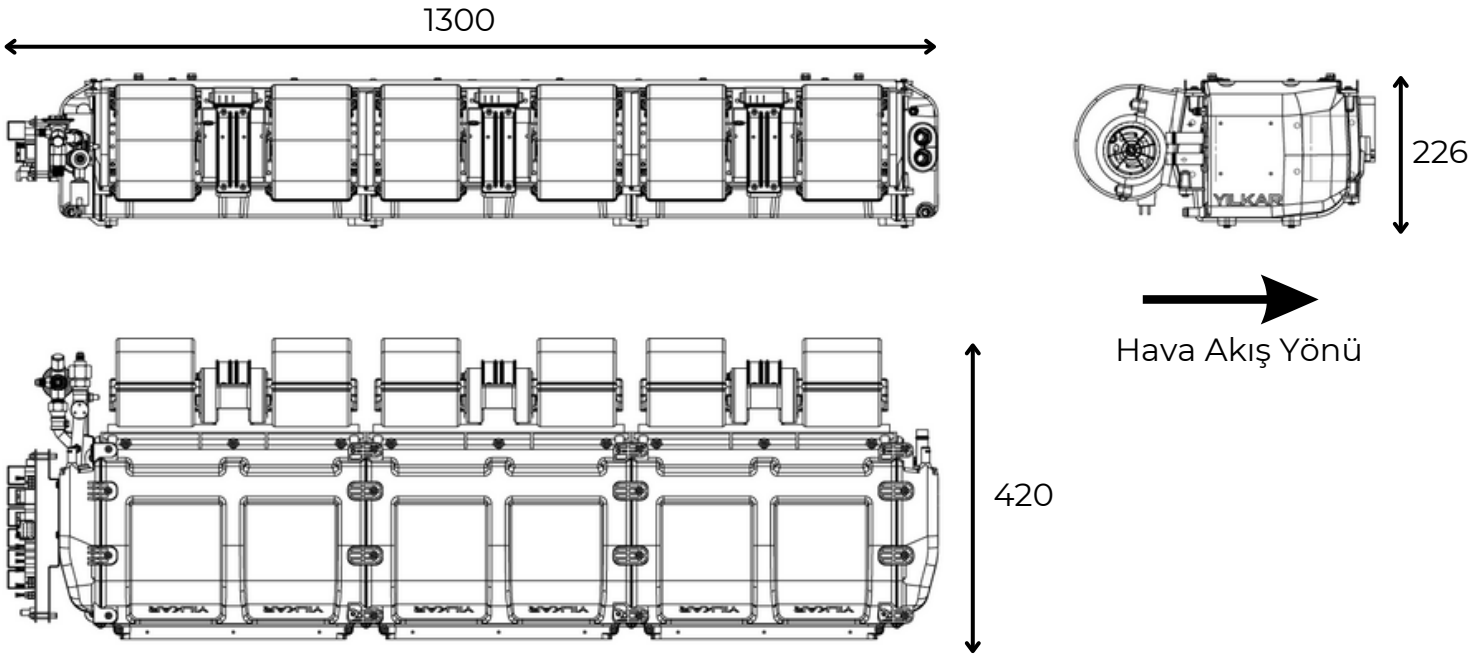


OUTDOOR UNIT
TOP VIEW



4.4 YK 120 S Indoor Unit Installation

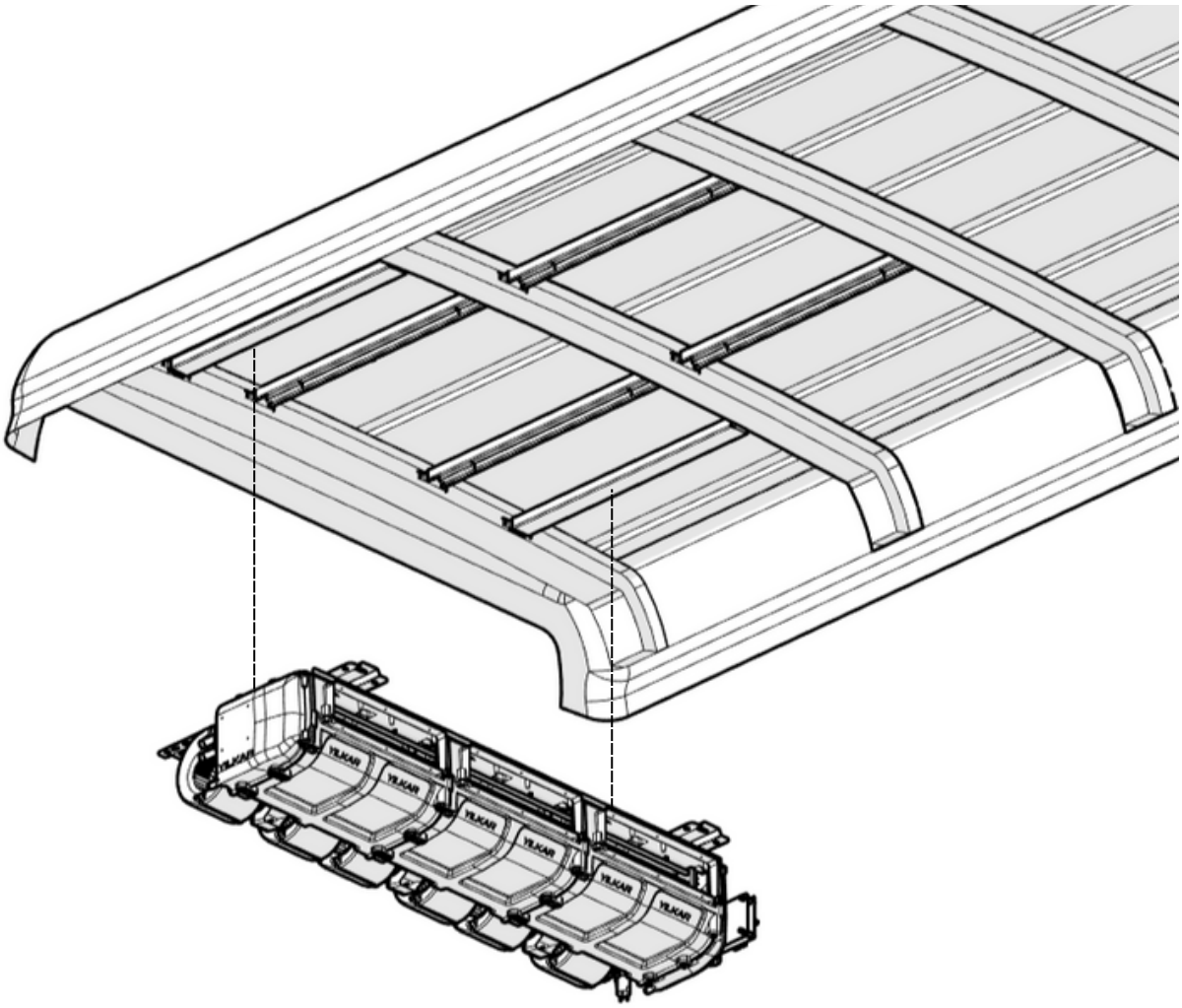
4.4.1 YK 120 S Indoor Unit Dimension



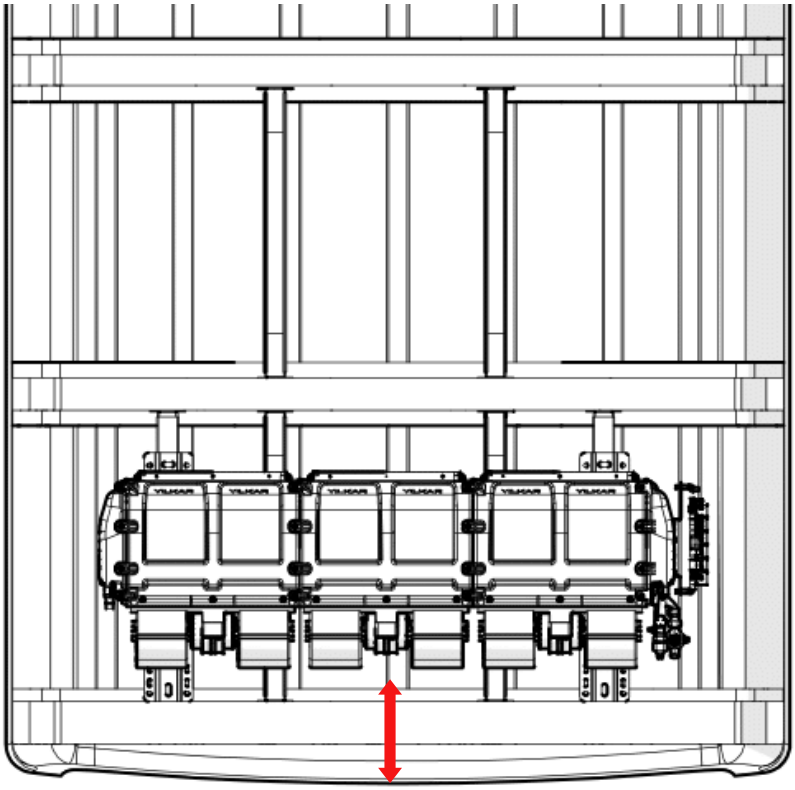
4.4.2 Indoor Unit Positioning and Roof Mounting

Assembly Step 10:
Assemble the evaporator unit to the U-profiles previously mounted on the vehicle with drill-tipped trapezoidal hexagon head M 5x25 screws.

It is recommended to use insulation in the part where the evaporator is located.

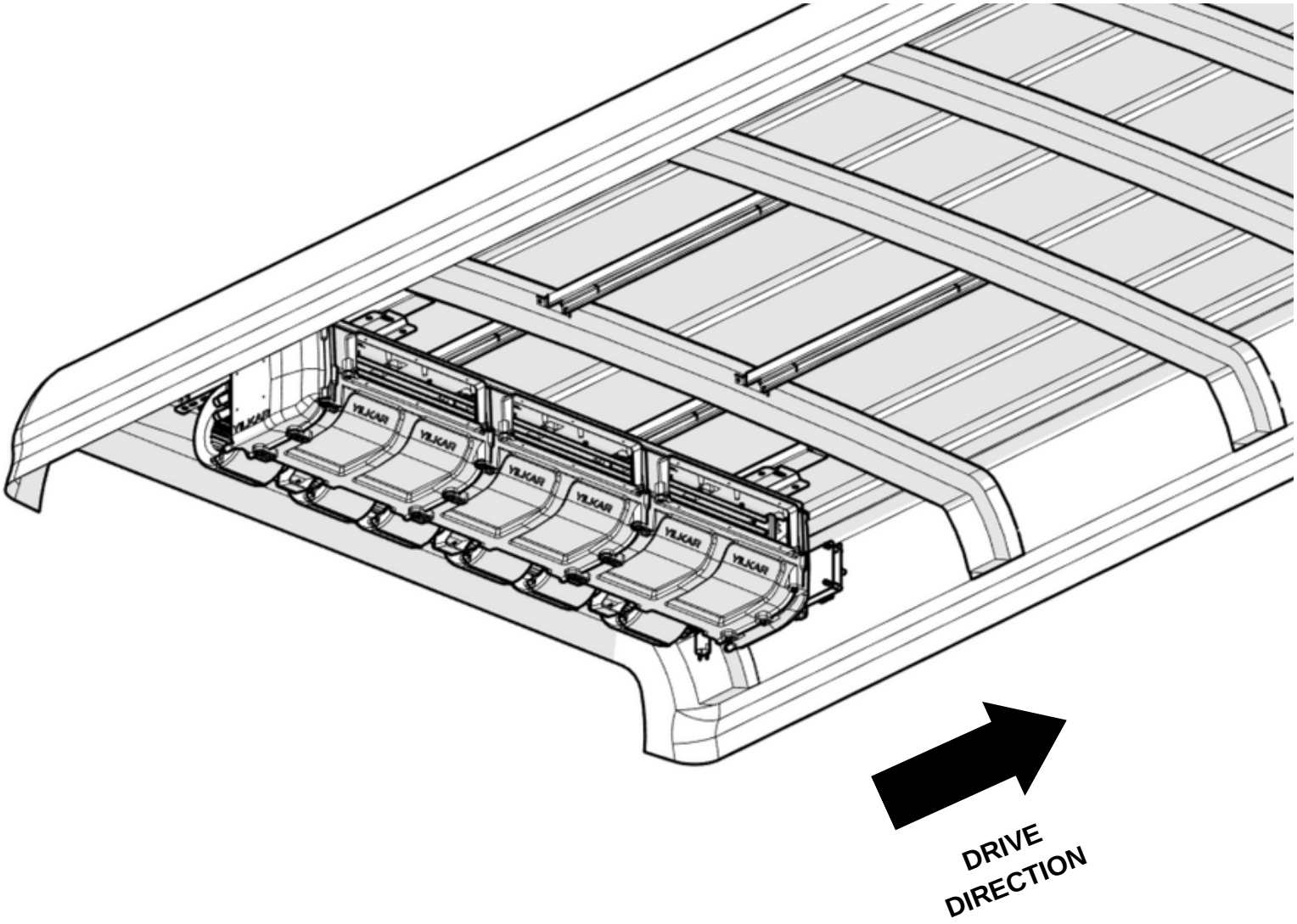


There should be minimum 10 cm space behind the blower motor of in the unit installed at the desired location.

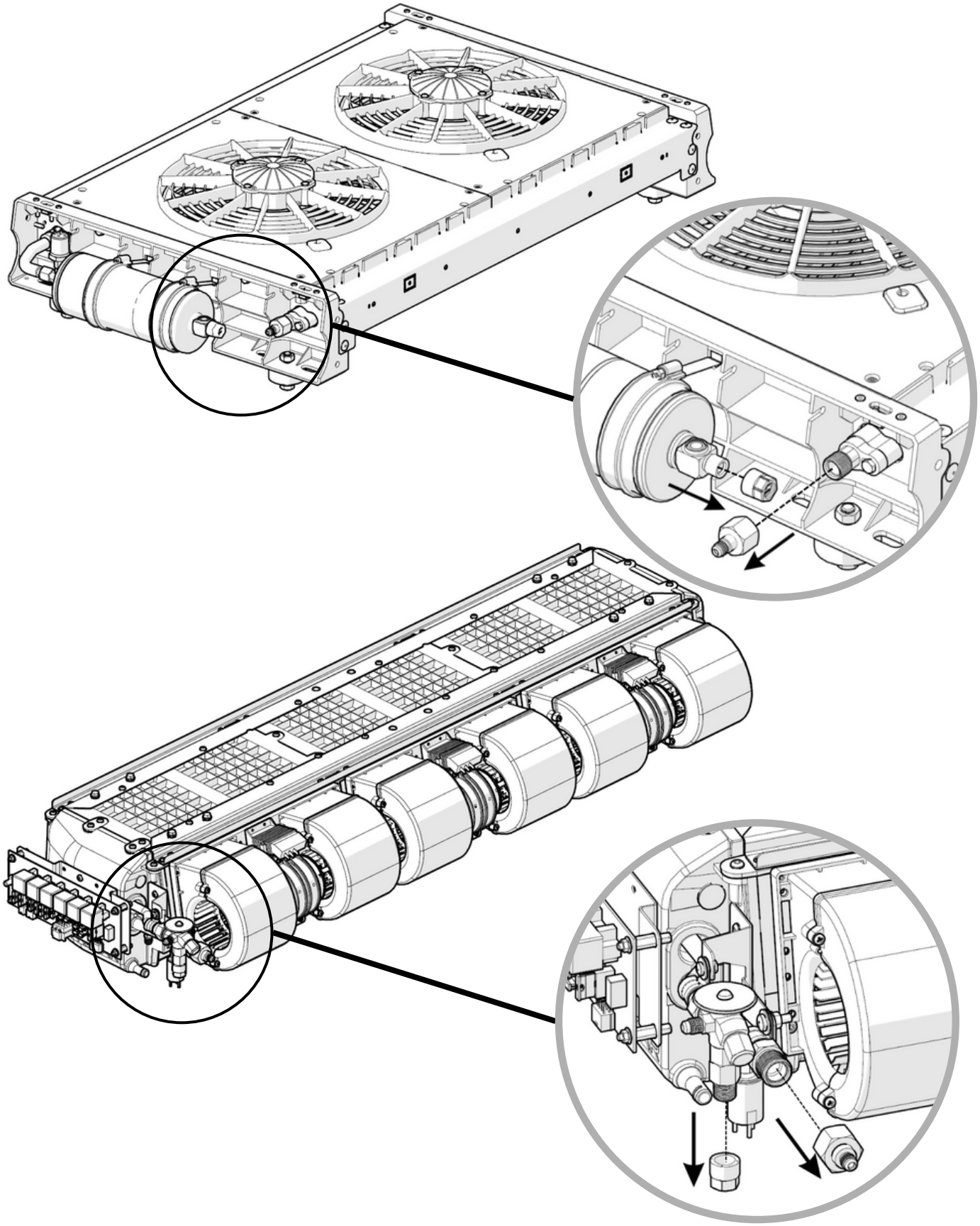


DRIVE DIRECTION

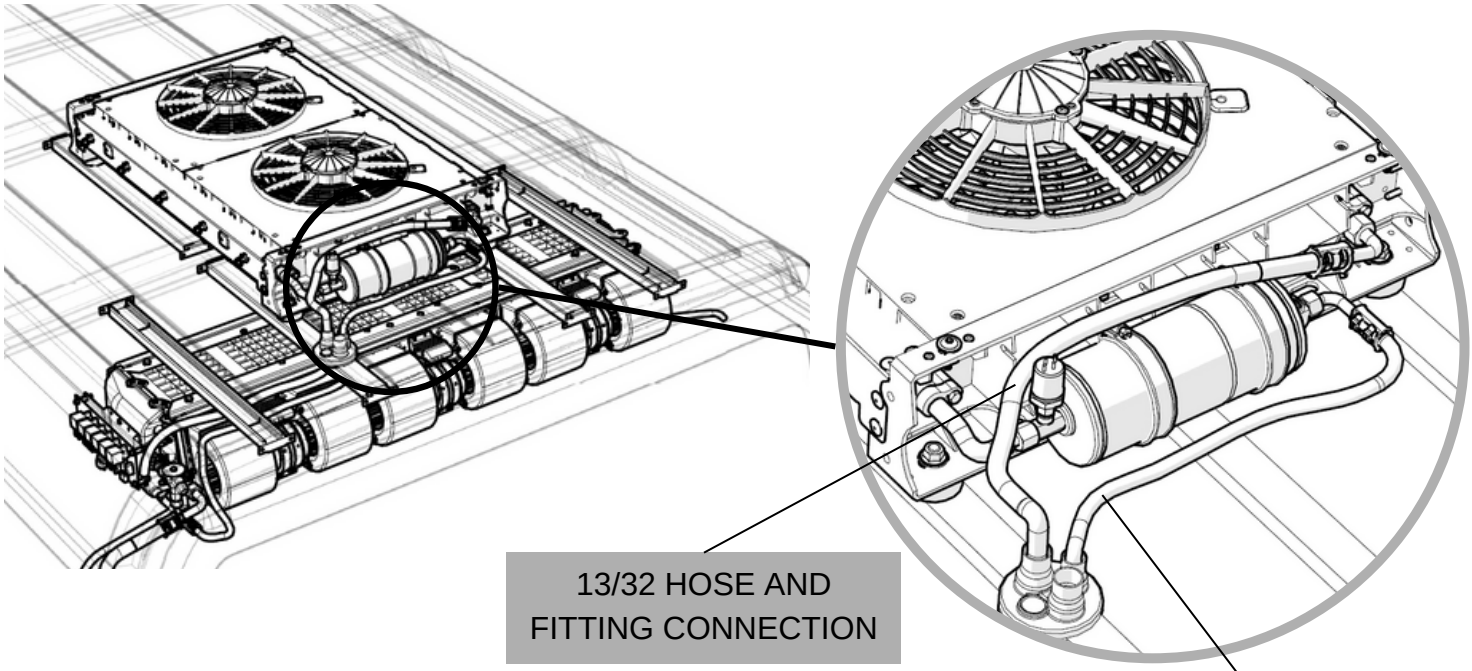
INDOOR UNIT
VIEW

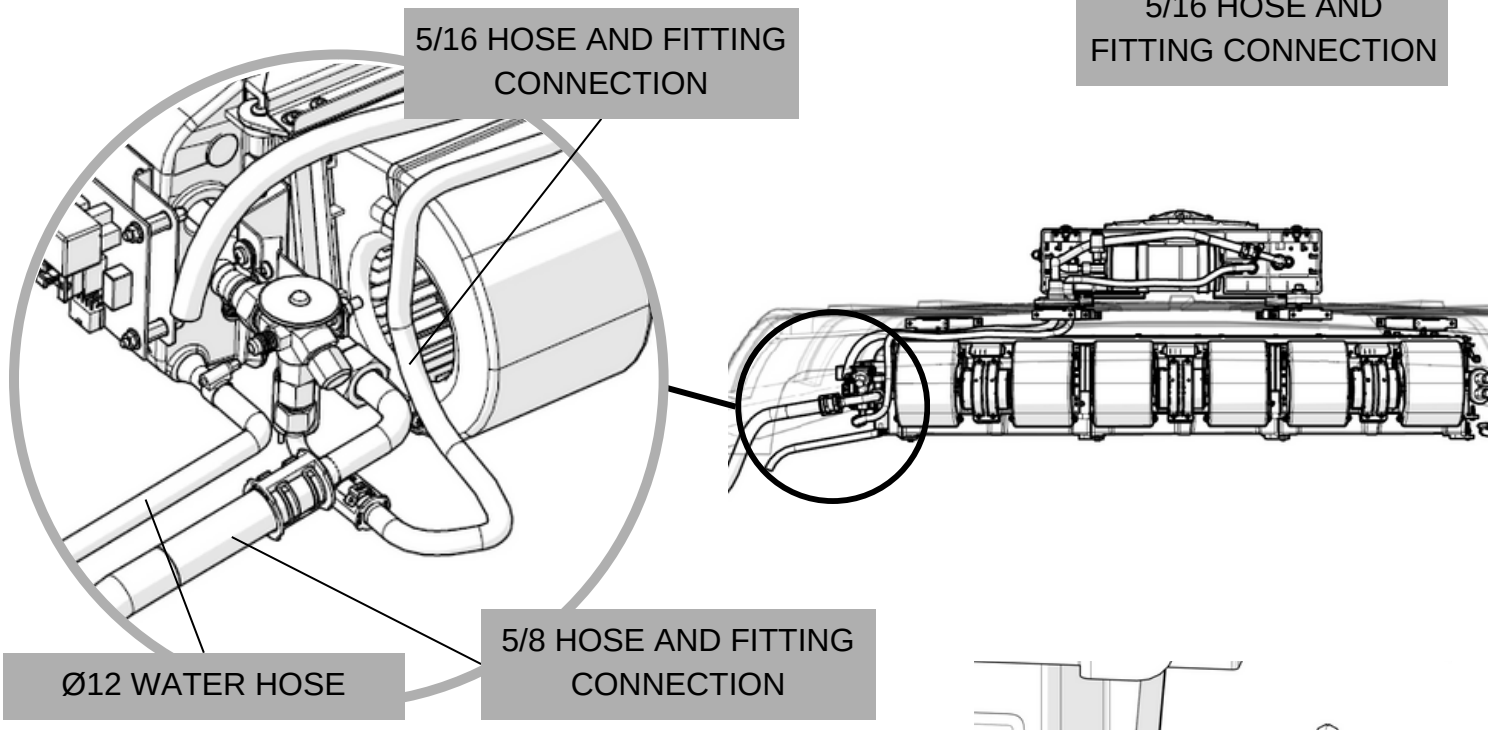


4.5 Hoses and Fitting

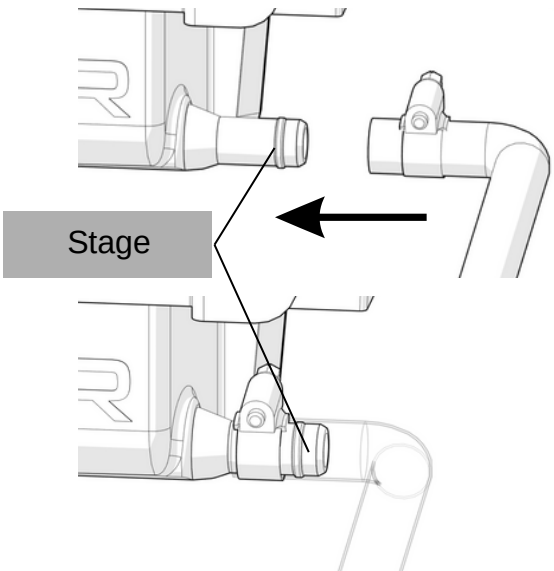


The air conditioning system is sent by the factory with a pressure of 20 bar inside. While removing the existing plugs at the connection points, it should be checked whether there is Nitrogen gas in it.





For the water discharge hose connection, the clamps located behind the stage in the evaporator water discharge section should be tightened as shown in the figure. Water drain hoses should be inclined at least 2° so as not to obstruct the water flow.



4.5.1 Air Conditioner Hose and Fitting Connections

The hose types in compliance with SAE-J 2064 type-E standards available in Yılkar air conditioning system, the minimum bending radius of these hoses and the unions used with these hoses are given in the table below.

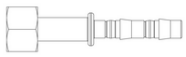
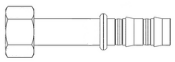
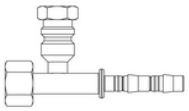
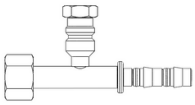
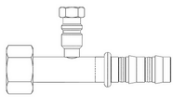
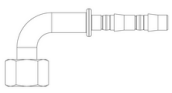
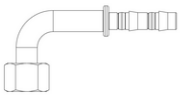
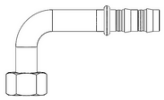
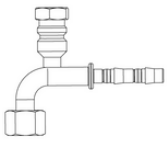
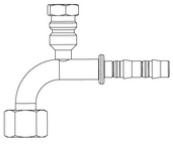
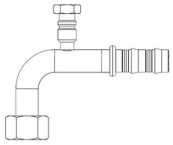
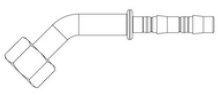
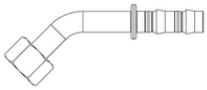
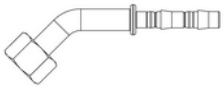
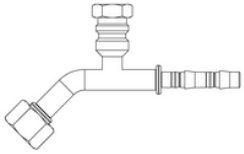
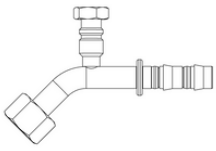
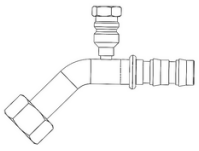
Table.2 Air Conditioner Hose Table

HOSE INSIDE DIAMETER (inc)	HOSE OUTSİDE DIAMETER (mm)	MINIMUM BENDING RADIUS (mm)
5/16"	12,9	40 mm
13/32"	16,2	50 mm
5/8"	24,0	80 mm

4.5.1.2. Fitting Sets

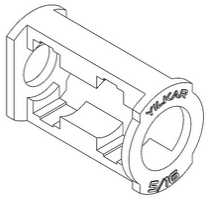
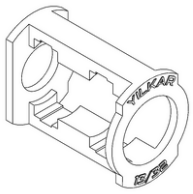
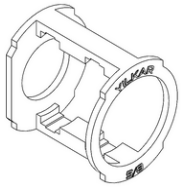
Fitting sets used in Yılkar air conditioning system are shown in the table below.

Table.3 Air Conditioner Fitting Set Table

HOSE DIAMETER / FITTING SET TYPE	5/16" (5/16" - 5/8" x18 UNF)	13/32" (13/32" - 3/4" x16 UNF)	5/8" (5/8" - 7/8" x14 UNF)
STRAIGHT FITTING			
STRAIGHT FITTING WITH PORT			
90° FITTING			
90° FITTING WITH PORT			
45° FITTING			
45° FITTING WITH PORT			

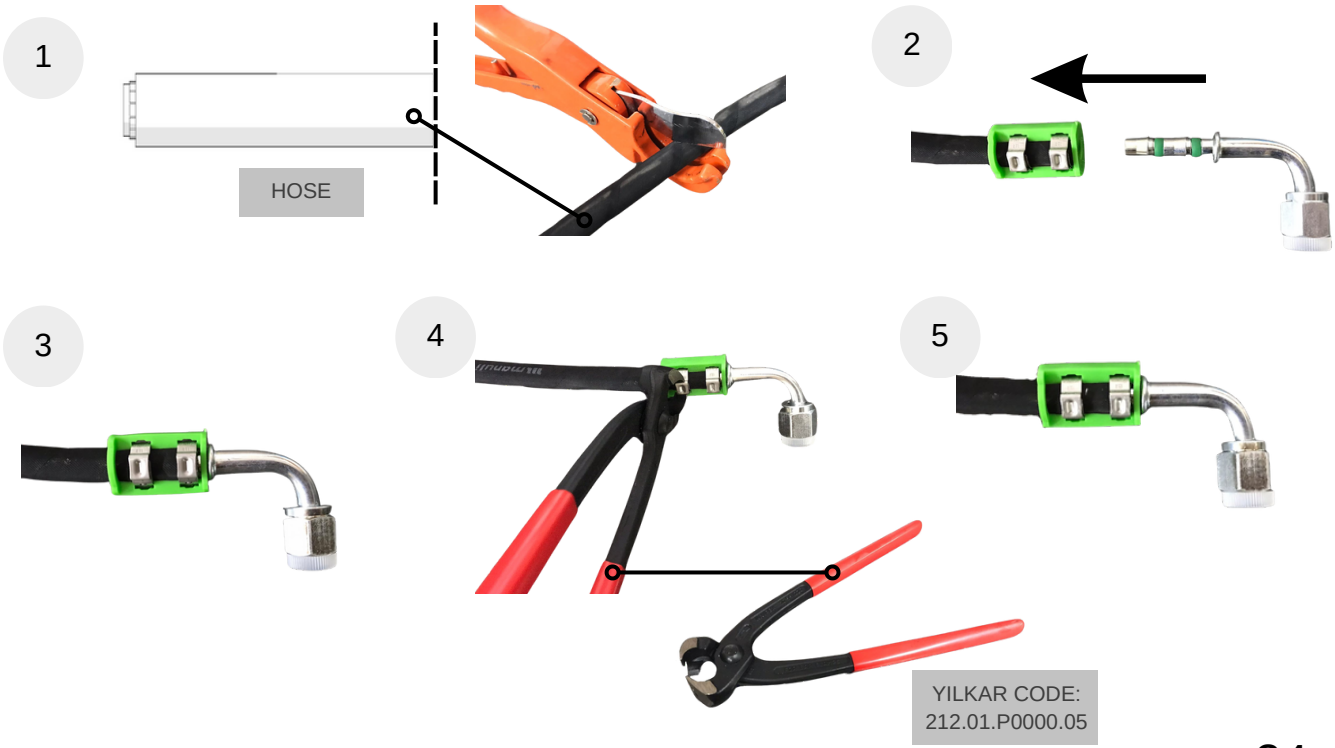
4.5.1.3. Clamp and Plastic Adapters

Table.4 Clamp and Plastic Adapters Table

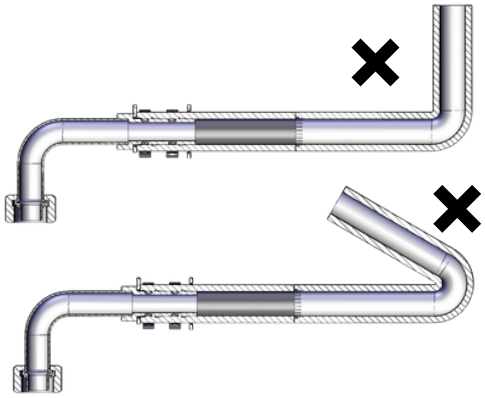
HOSE INSIDE DIAMETER	CLAMP	PLASTIC ADAPTERS
5/16"-13,8		
13/32"-17		
5/8"-25,6		

4.5.1.4. Hoses and Fitting Mounting

1-First of all, cut the hoses straight. (one)
2-Lubricate the inner part of the hose where the union will pass.
3-Put the unions on the hoses properly. (2)(3)
4-Tighten the clamps with the help of pliers. (4)(5)



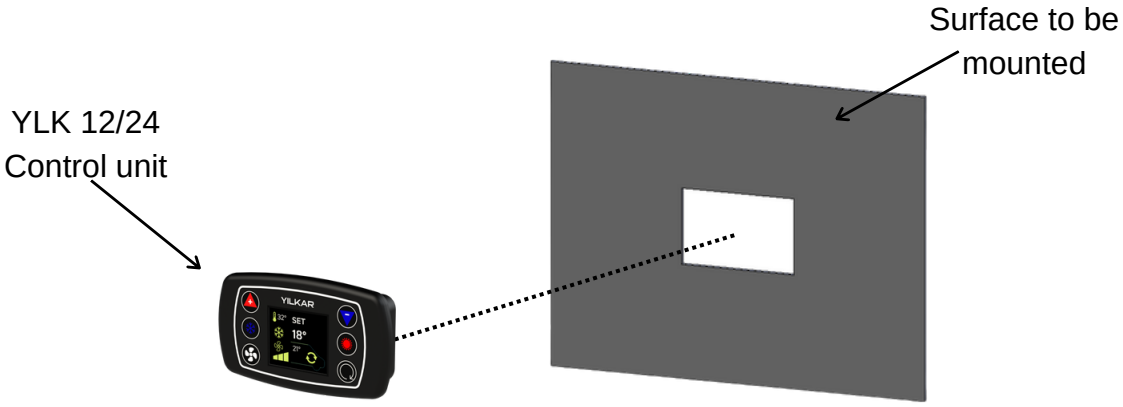
Assemble 13/32 , 5/8 and 5/16 hoses to protect them from internal and external factors. Keep away from the moving elements and hot parts of the vehicle, make the assembly by isolating it from all sharp edges and corners where the line will pass. Bend the hoses to the minimum bending radius.



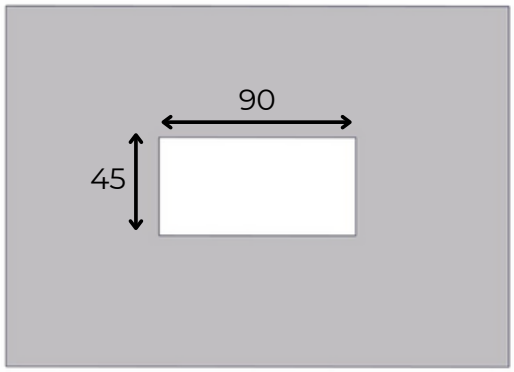
After all connections are made, fix the hoses to the vehicle with cable ties.

4.6 Electrical Connections

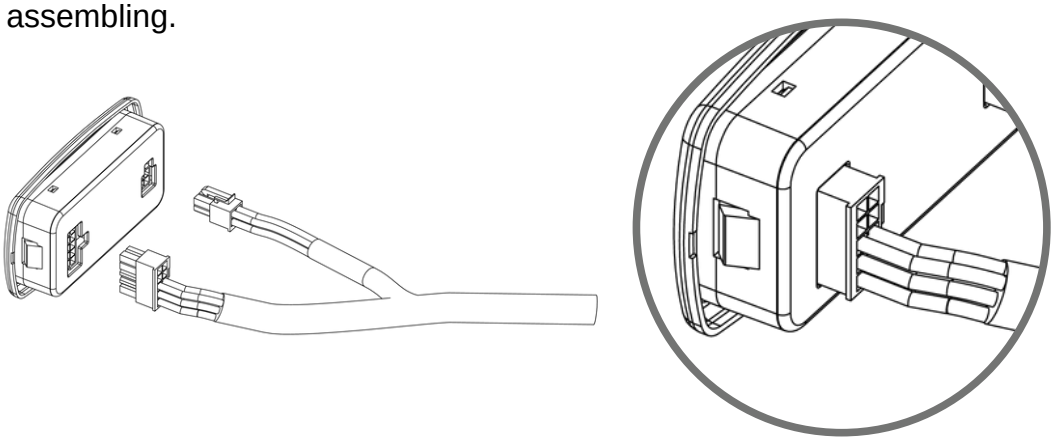
4.6.1 Control Unit Mounting



The unit location should be ergonomically chosen as a flat surface in an area accessible to the driver. Mounting surface dimensions should be 90x45 mm.



Assemble the control panel sockets to the unit as shown in the figure. Check the locks after assembling.



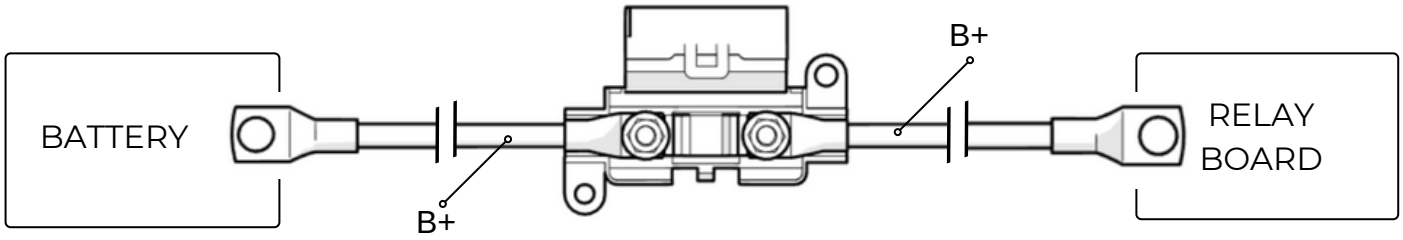
For assembly, first cut the selected surface in accordance with the unit, and then mount the unit by inserting these nails onto the surface.

To protect the air conditioner, an additional terminal box set is used. The fuse box should be installed in an easily accessible area.

Place the 80A fuse in the area of the bolts in the fuse box.

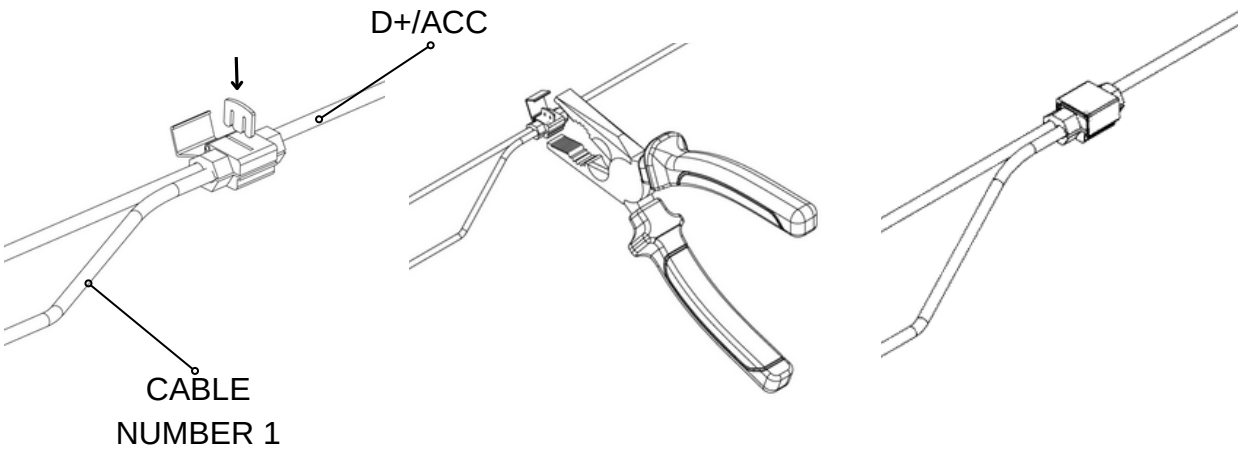
Pass the M6 wire end of the 16 mm B+ cable in the mounting kit to one side of the fuse. Place the other M8 cable end on the (+) terminal of the vehicle's battery.

Pass the M6 wire end of the 16 mm B+ wire to one side of the fuse. Place the other M8 cable end to the (+) pole of the relay board of the air conditioner.

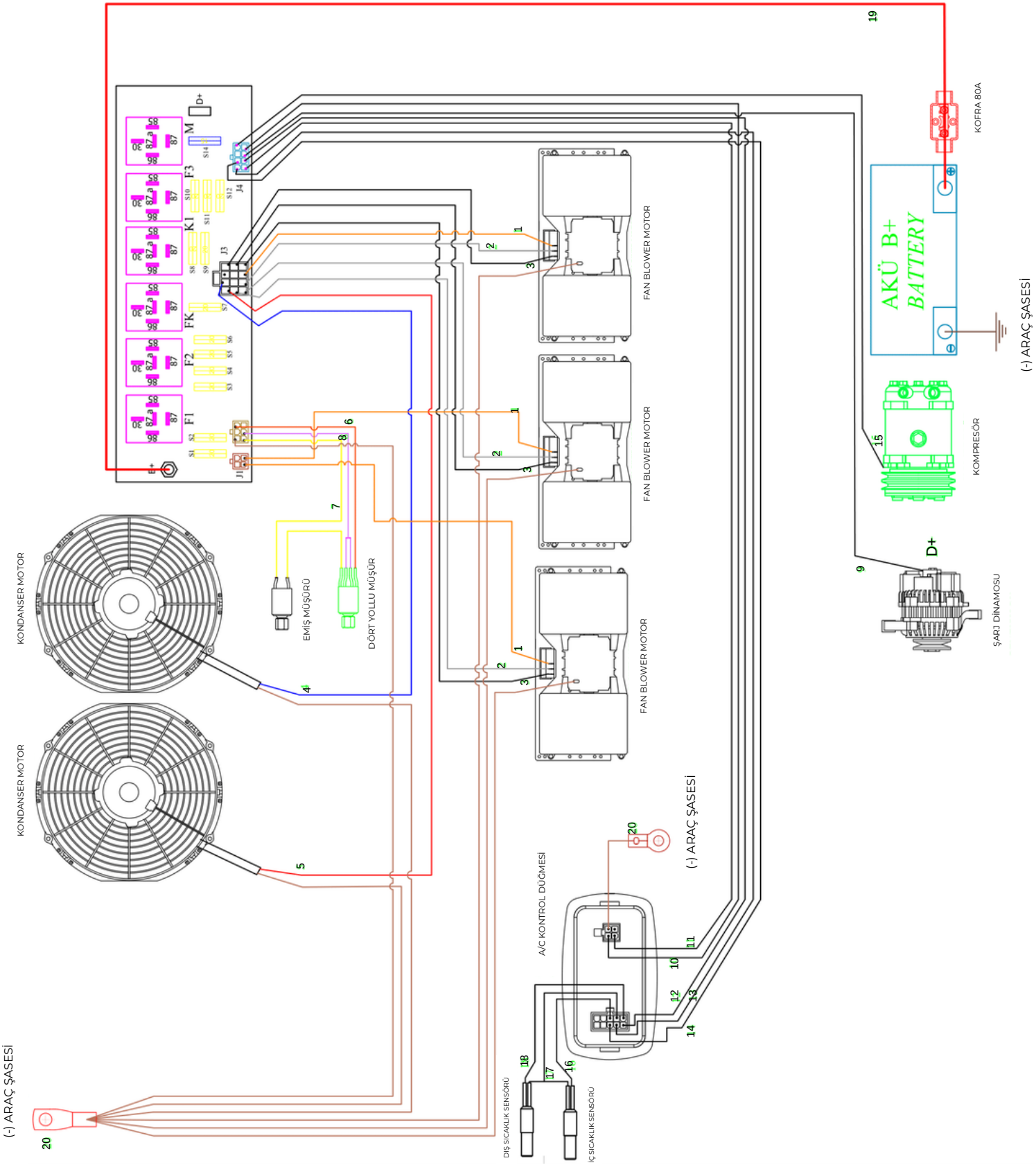


Complete the assembly of the cabinet set by attaching the nuts with M5 washer.

Finally, connect the D+/ACC signal received from the vehicle's alternator with cable 1 via single sockets.



4.6.2 Wiring and Circuit Diagram



Description	Cable Diameter and Colors
1. Fan Blower 1. Speed	Orange 1.50 mm²
2. Fan Blower 2. Speed	Grey 1.50 mm²
3. Fan Blower 3. Speed	White 1.50 mm²
4. Condanser Engine	Blue 1.50 mm²
5. Fan Controlled Motor	Red 1.50 mm²
6. Fan Control Switch	Orange 0.75 mm²
7. Switch Come Back	Yellow 0.75 mm²
8. Switch Common End	Pink 0.75 mm²
9. D+/ACC	1 NU Cable 0.50mm²
10. Power Control	2 NU Cable 0.50mm²
11. A/C	3 NU Cable 0.50mm²
12. FAN 1	4 NU Cable 0.50mm²
13. FAN 2	5 NU Cable 0.50mm²
14. FAN 3	6 NU Cable 0.50mm²
15. Compressor	7 NU Cable 0.50mm²
16. Internal Temperature Sensor Input	8 NU Cable 0.50mm²
17. Common Connection Point Sensor	9 NU Cable 0.50mm²
18. Outdoor Temperature Sensor Input	10 NU Cable 0.50mm²
19. B(+) Battery	Red 16 mm²
20. (-) Frame	Brown 1.5 mm²

4.6.3 Control Unit Owerview

The digital controller helps to activate and deactivate the air conditioner by automatically adjusted set values with the help of temperature probes in the unit.

1 Increase set temperature

2 Decrease set temperature

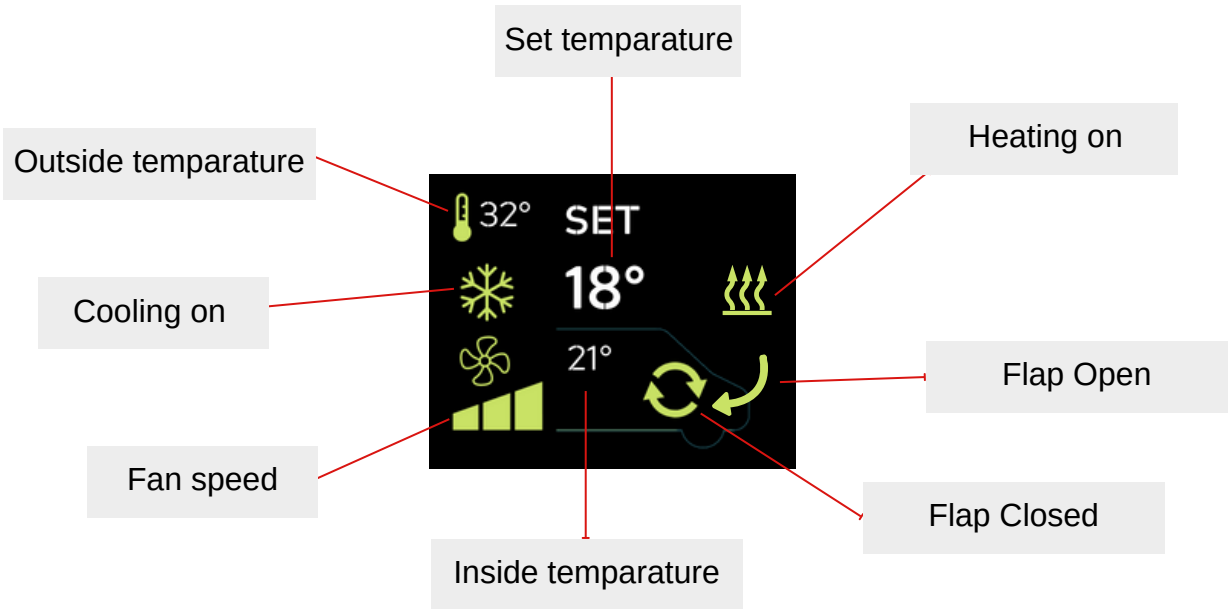
3 Changing the fan speed

4 Open / Close

5 Heating on / off (Optional)

6 Flap open / close (Optional)

7 Display screen



4.5.4 Control Unit Operating

4.5.4.1 Cooling

- To start the cooling mode, press the cooling button.
- When the snowflake sign ❄ appears on the screen, your air conditioner operates in cooling mode.

4.5.4.2 Heating (Optional)

- To start the heating mode, press the heating button.
- When the heating sign ♨ appears on the screen, your air conditioner operates in heating mode. (optional)

4.5.4.3 Ventilating

- Press the fan stage button to start the ventilation mode.
- If there is no snowflake ❄ or heating sign on the screen as a status indicator, your air conditioner will operate in ventilation mode.

Table.5 Technical Information Table

Supply Voltage	12 V - 24 V
Average Electrical Consumption	400 mA @12V @25C
Operating Temperature	- 10 C --- + 40 C

Table.5 Technical Information Table

Supply Voltage	12 V - 24 V
Average Electrical Consumption	400 mA @12V @25C
Operating Temperature	- 10 C --- + 40 C

Fault Codes

Fault code

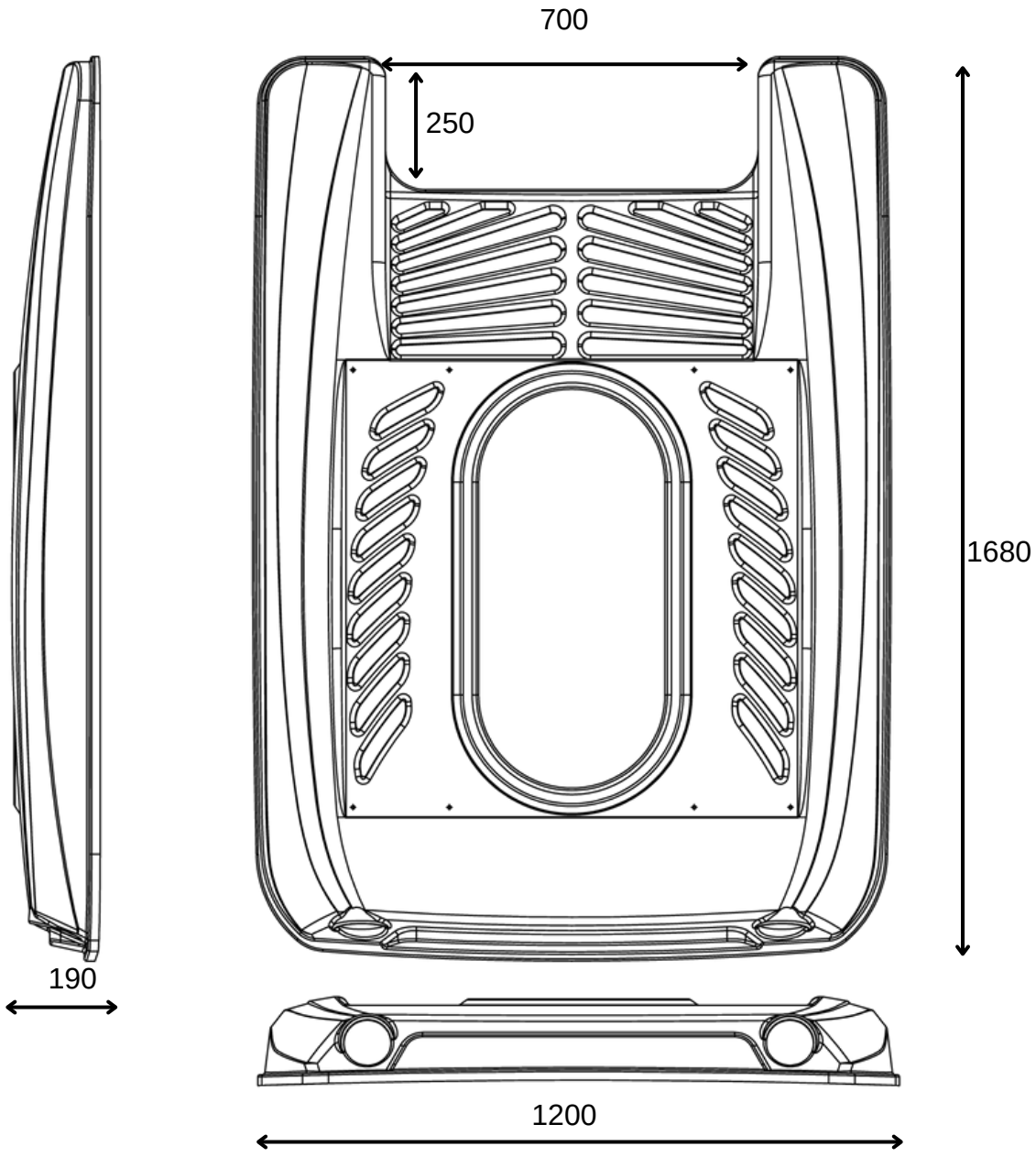
E 1 : Inside Temperature Sensor Open Circuit

Cause of Occurrence: *The cable may have been cut or the socket may have come off. The sensor may be faulty or broken.*
Device Response: *When an error occurs, the system shuts down and the error code is displayed on the screen.*
Troubleshooting:
**Check sensor cable and sockets.*
**If there is no problem with cables and sockets; replace the sensor.*

E 2 : Outside Temperature Sensor Open Circuit

Cause of Occurrence: *The cable may have been cut or the socket may have come off. The sensor may be faulty or broken.*
Device Response: *When an error occurs, the system shuts down and the error code is displayed on the screen.*
Troubleshooting:
**Check sensor cable and sockets.*
**If there is no problem with cables and sockets; replace the sensor.*

4.7 Fiber Cover Mounting



After all installations are completed, install the evaporator plastic covers and fiber cover before commissioning the air conditioner.

Before installing the fiber cover of the air conditioner, make sure that the rubbers of the cover are fully inserted, then place it parallel to the vehicle roof so that it fits over the condenser.

After making sure that you have placed it properly, mount it to the condenser with M6x25 bolts with torx head washer.

5. Commissioning the Air Conditioner

1. **Leakage Control of the System with Nitrogen;**

After giving Nitrogen gas to the system, leakage control is done with soapy water. The points to look at at this stage are the record connections. It should be observed whether there are air bubbles at the connection points.

2. **Vacuuming the System with a Vacuum Pump;**

The system is vacuumed by the vacuum pump connected by the compressor. This process ensures that the air and moisture remaining in the system are discharged from the system with the vacuum pump before the refrigerant gas is supplied. This should be done for at least 30 minutes.

3. **Gas Charge to the System;**

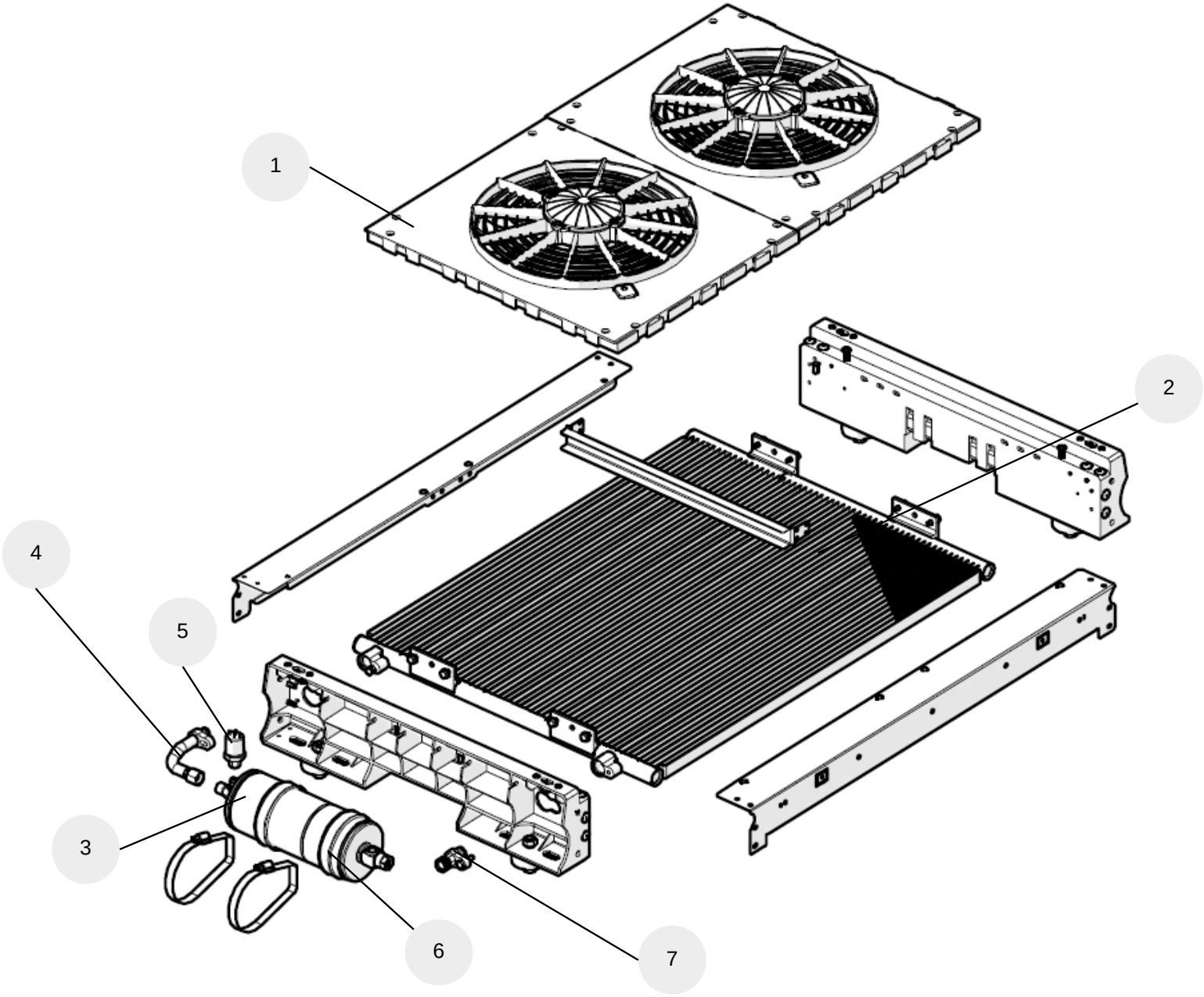
R134a gas is charged to the system from the refrigerant charge records. See Technical Data Table.1 for charge amount.

4. **Operation from the Control Panel;**

Finally, the vehicle is started and the air conditioner is operated from the control panel.

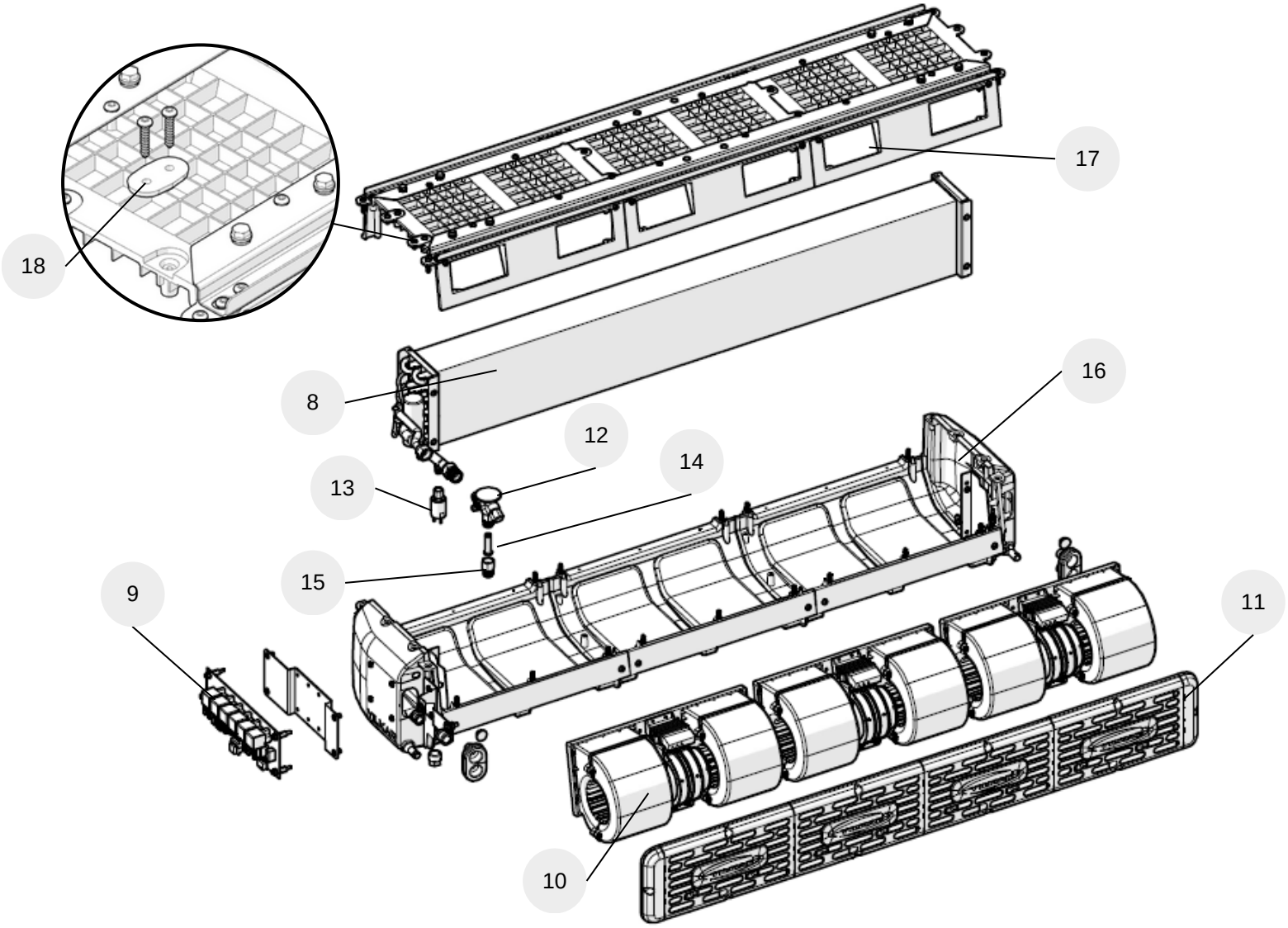
6. Spare Parts

6.1 Condenser Spare Parts



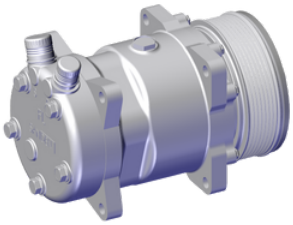
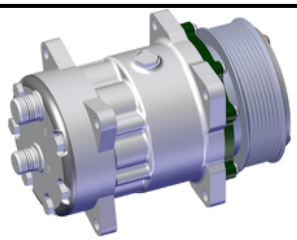
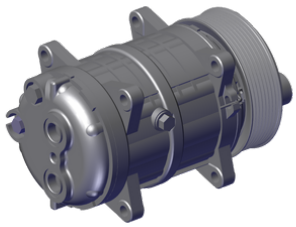
1	CONDENSER MOTOR GROUP - 1301 - S IMPELLER x2 PIECES	502.11.01301.01 (12V) 502.01.01301.21 (24V)
2	CONDANSER BATTERY- ALM PIPE PARALLEL - 750X552X20 x1 PIECE	104.02.11005.02
3	COMPACT FILTER - Ø89 - ALM X1 PIECE	104.09.CD002.89
4	PIPE - 1301 5/8X18 U OUTLET TANK INLET QUICK X1 PIECE	101.12.01301.04
5	SENSOR - COMPLETE - 2/15/25 BAR 4 Way X1 PIECE	331.04.MDPP4.01
6	GROMMET - Ø 89 - COMPACT WAREHOUSE X2 PIECES	103.07.GR000.89
7	3/4"X16 UNF QUICK STRAIGHT INION x1 PIECE	108.07.21001.96

6.2 Evaporator Spare Parts



8	ALM EVAPORATOR BATTERY x1 PIECE	104.01.11013.01
9	RELAY BOARD ASSEMBLY - YLK610 - 2015 / 2016 x1 PIECE	331.04.RLK01.01 (12V) 331.04.RLK01.02(24V)
10	FAN - BLOWER - BASKURT 700 X3 PIECES	105.10.BL12N.B1 (12V) 105.10.BL24N.B1 (24V)
11	AIR SUCTION GRILL PLASTIC - 4 - BLACK x1 PIECE	501.24.HEIPL.11
12	VALVE - BLOCK - XINJING - 2220-01 x1 PIECE	104.04.4SN00.01
13	SENSOR - LOW PRESSURE - YL 0,5-1,5 BAR X1 PIECE	105.07.MDYL2.02
14	ORIFIS SANHUA NO:5 X1 ADET	104.05.1SN01.50
15	INION - 5/8X18 U OR X1 ADET	108.07.11001.01
16	WATER BOTTLE COMPLETE -- YK 120 - 2007 X1 ADET	501.01.YK120.01
17	PLASTIC 2007 TOP X3 PIECES	103.06.02007.01
18	PLASTIC 2007 INTERCONNECTION X4 PIECES	103.06.02007.05

6.3 Other Spare Parts

 FIBER - COVER - 1301 - MEDIUM x1 PIECE 321.01.01301.02	 SACLI GEÇME FİTİL (5 m) 103.02.FT001.01
 DIGITAL AIR CONDITIONER CONTROL PANEL x1 PIECE 105.01.KU010.01	 TERMINAL BOX x1 PIECE 503.92.KFSET.01
 COMPRESSOR - SANDEN SD5S14 x1 PIECE 504.03...	 COMPRESSOR - SANDEN SD7H15 x1 PIECE 504.03...
 COMPRESSÖR - VALEO TM16 x1 PIECE 504.03...	

Yedek parça sipariş ederken dikkat edilmesi gereken konular;

Bu katalog, belirtilen üniteye ait mevcut yedek parçalar bilgilerinize sunulmaktadır. Bu parçalar ünitenin kullanıldığı araca göre ölçü, adet ve çeşitlilik açısından farklılık gösterebilmektedir.

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1. Açık adresiniz
2. Aracınızın ruhsat fotokopisi
3. İstenilen sevkiyat biçimi
4. Ünitenin tam tanımı ve seri numarası
5. Talep edilen yedek parçaya ait parça no. ve miktarı

7. Usage and Maintenance Recommendations

- Perform routine maintenance of the system to improve the operation of the air conditioner.
- Before opening the cover of the air conditioner for maintenance and cleaning operations, disconnect the vehicle's battery.
- Protect electrical components while cleaning the system. At the beginning of each season, inspect all components of the system, including electrical components.
- Twice a year, check the tension of the compressor follower belt; If it is old, replace it with a new one.
- When working close to heat exchangers, be careful not to injure yourself with the pointed ends of the fins.
- Do not forget that cleaning the condenser and inspecting the correct blowing are very important operations. Insects, feathers or other foreign objects can accumulate on the fins, reducing the effectiveness of the heat exchanger. A very dirty and unventilated condenser reduces the performance of the air conditioning system and shortens the life of the compressor, causing the compressor or its electromagnetic connection to fail. If the air conditioner is used in a very dusty environment, perform more frequent maintenance.
- Check the condenser coil regularly and, if necessary, clean it using compressed air without damaging the aluminum fins..
- Inspect the operation of the condenser electric fans. When the air conditioner is started, one of its engines starts. The second fan is activated when the temperature rises, thanks to the control switch.
- It is necessary to regularly clean the dust filters in the exterior air intake chamber and the air intake chamber in the driver's compartment.
- Avoid using the air conditioner for a long time, run the unit for half an hour at least once a month, even during winter. This lubricates some components and prevents them from drying out during extended periods of inactivity.
- We recommend replacing the dryer in case any major repairs are required. This is absolutely essential if the system is left on for a long time or if there is internal moisture.
- All repairs and interventions for refrigerant gas filling or discharging should be done in Auto air conditioner authorized garages and by experienced personnel.
- It uses R134a refrigerant in the air conditioning system.
- Keep the windows and doors of the vehicle closed while the air conditioner is operating.
- 1500 km after the installation of the air conditioner, make a general inspection, especially check whether the compressor and the fasteners on it are tightened.

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