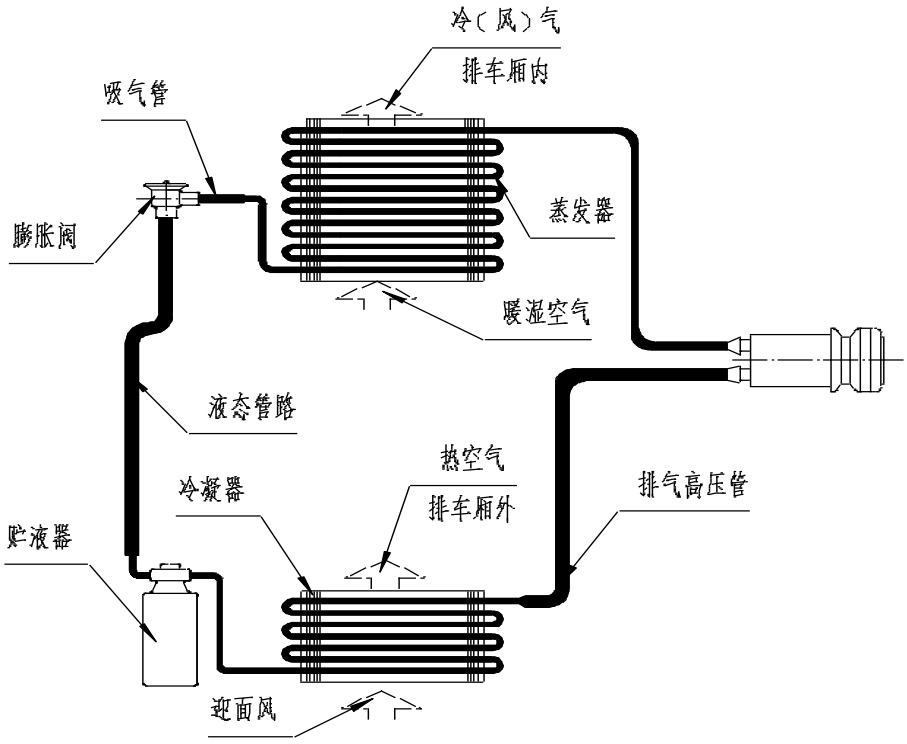
DC25

PARKING AIR CONDITIONER DC25

1. Drawing:



2. Photo:

3. Specification:

Model	DC25		
	Back mounted	Top mounted	Underlying mounted
Evaporator picture			
Condenser picture			
Cooling capacity	2500W(High speed) 1500W(Low speed)		
Voltage	DC24V		
Remote controller	Yes		
Power consumption	500-800W		
Blower air volume	650 m^3/h		
Fan air volume	1200 m^3/h		
Compressor	20cc/r, 2000/2900rpm		
Evaporator dimensions	500*340*160 mm		
Condenser dimensions	480*190*620 mm	620*480*190 mm	700*600*220 mm
Refrigerant	R134a, 0.5 kg		
Suitable vehicles	Semitrailer	All trucks、machines truck、special truck、agricultural truck	

4. Installation:

1) Please confirm whether the voltage of the air conditioner is the same as the truck voltage before installation.

2) **Drilling holes**

You can install the evaporator on one side or the back of the cabin. Usually, if there is sleeper in the cabin, you can install in on the side. There are 3 types of condenser, top mounted, back mounted and underlying mounted.

Fix the position of the condenser and evaporator, then drilling holes. Please make sure the the holes which piping and wires going through is at rear of the cabin, it is helpful to seal. The condenser should be fixed near the evaporator, so that it is easy to connect the wires and piping.

Please find a good position inside the cabin to fix evaporator, the holes size should be the according to the U type plate and the evaporator, or the drawing we offer. The same procedure for the condenser.

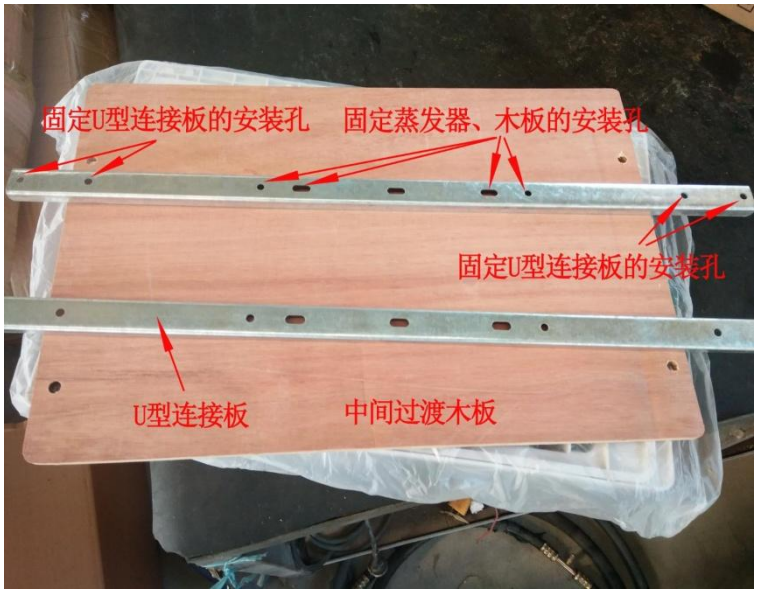
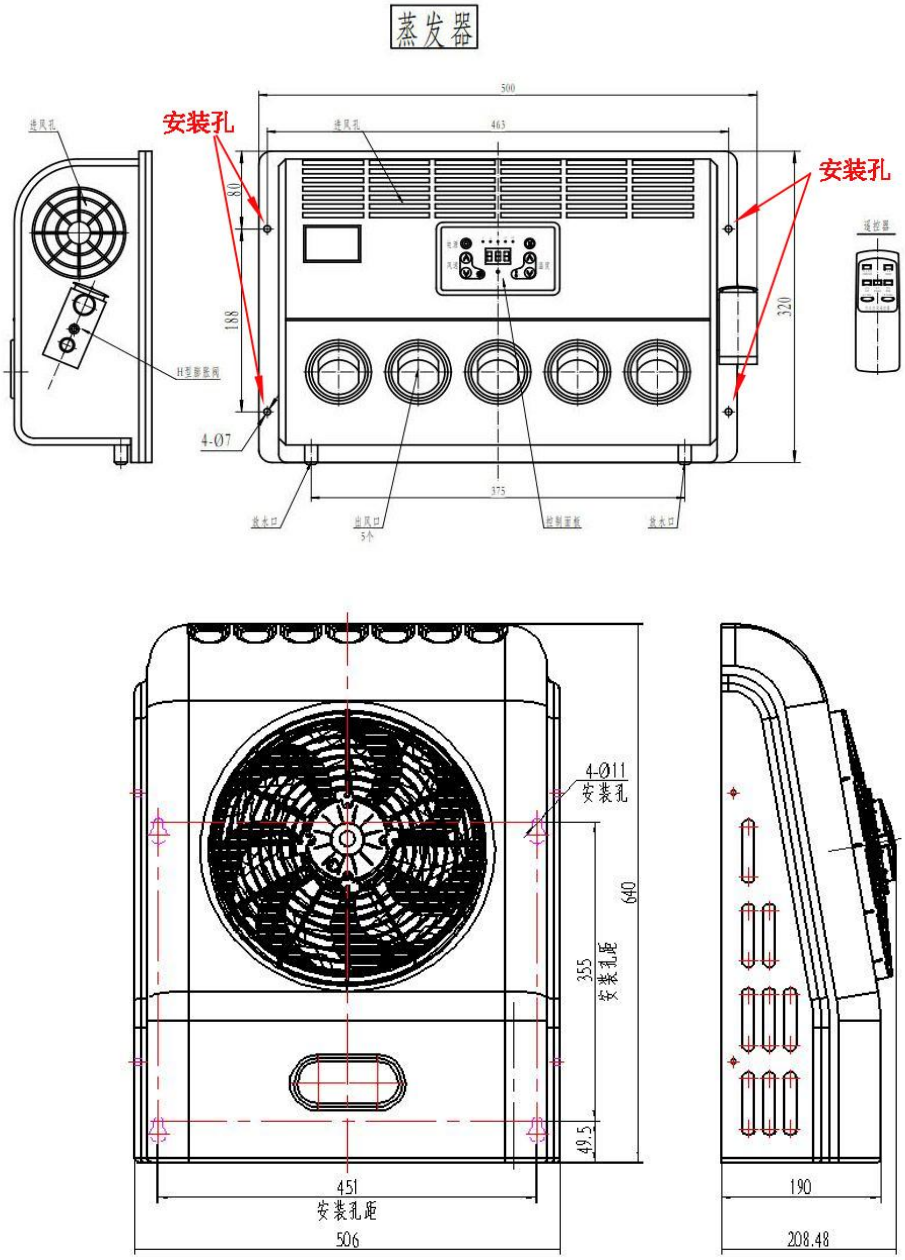


图4.2-1


蒸发器
安装孔
安装孔
500
463
80
188
320
375
4-Ø7
4-Ø11
安装孔
640
355
安装孔距
49.5
451
安装孔距
506
190
208.48

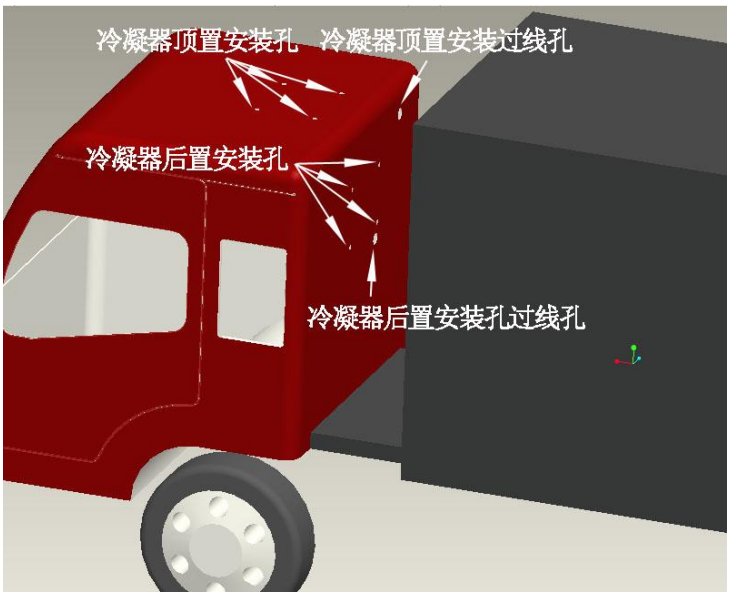


图4.2-3

4.3 Condenser installation

Put the condenser on the roof of the cabin(rooftop type) or at rear of the cabin(back mounted type), make sure the distance and size of the holes on the cabin are the same as the holes on the condenser, the ID=φ 12. Fix them with M10*60 bolts, then seal the bolts. Screw all the bolts and then seal them.

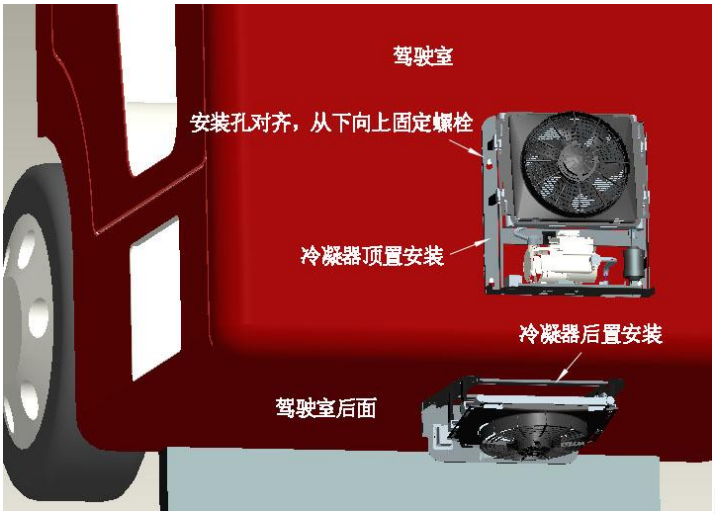


图 4.3-1

4.4 Evaporator, wire and piping installation

First: Align the 4 holes on the U plate with the holes you drilled on the cabin, then fix them.

Second: Align installation wooden plate, the mounting holes on the evaporator with the mounting holes on the U type plate, fix them with the long bolts we sent you. Screw them tightly.

图4.4-1

Third: cover the black insulating jacket on the low pressure hose, find the H type expansion valve, then one end is connect with evaporator, and the other end is connected with low pressure hose, then fix the platen near the iron joint, fix and screw them with the M6 bolts. Connect the other end of the high and low pressure hose to the high and low joint of the compressor and screw them. Finally cover the expansion valve with insulating jacket.

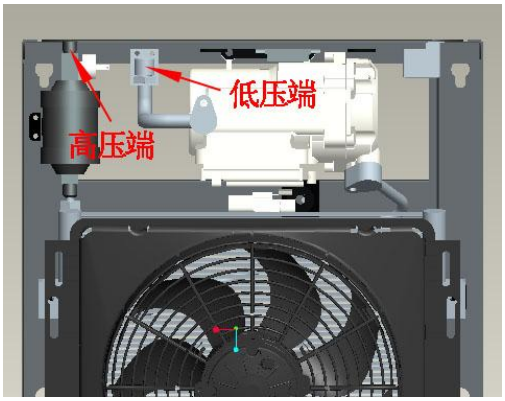


图 4.4-2

Forth: Connect wires. Connect the right joint of controller, fans and sensor.

There are only 2 joints you should connect, one is connected with battery, and one is connected with evaporator, and meanwhile, if the joint is wrong, you can plug it.

Fifth: Connect drainage pipe. Connect the drainage pipe to the bottom of the condenser, and make it come down along the wall of the cabin, it is helpful to make the water come out.

图4.4-3

Sixth: Tie the wire and all piping together with the band

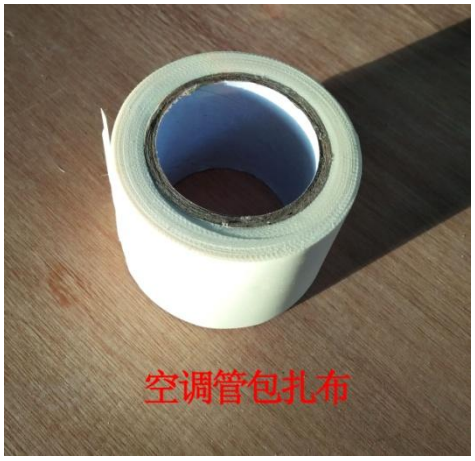


图 4.4-4

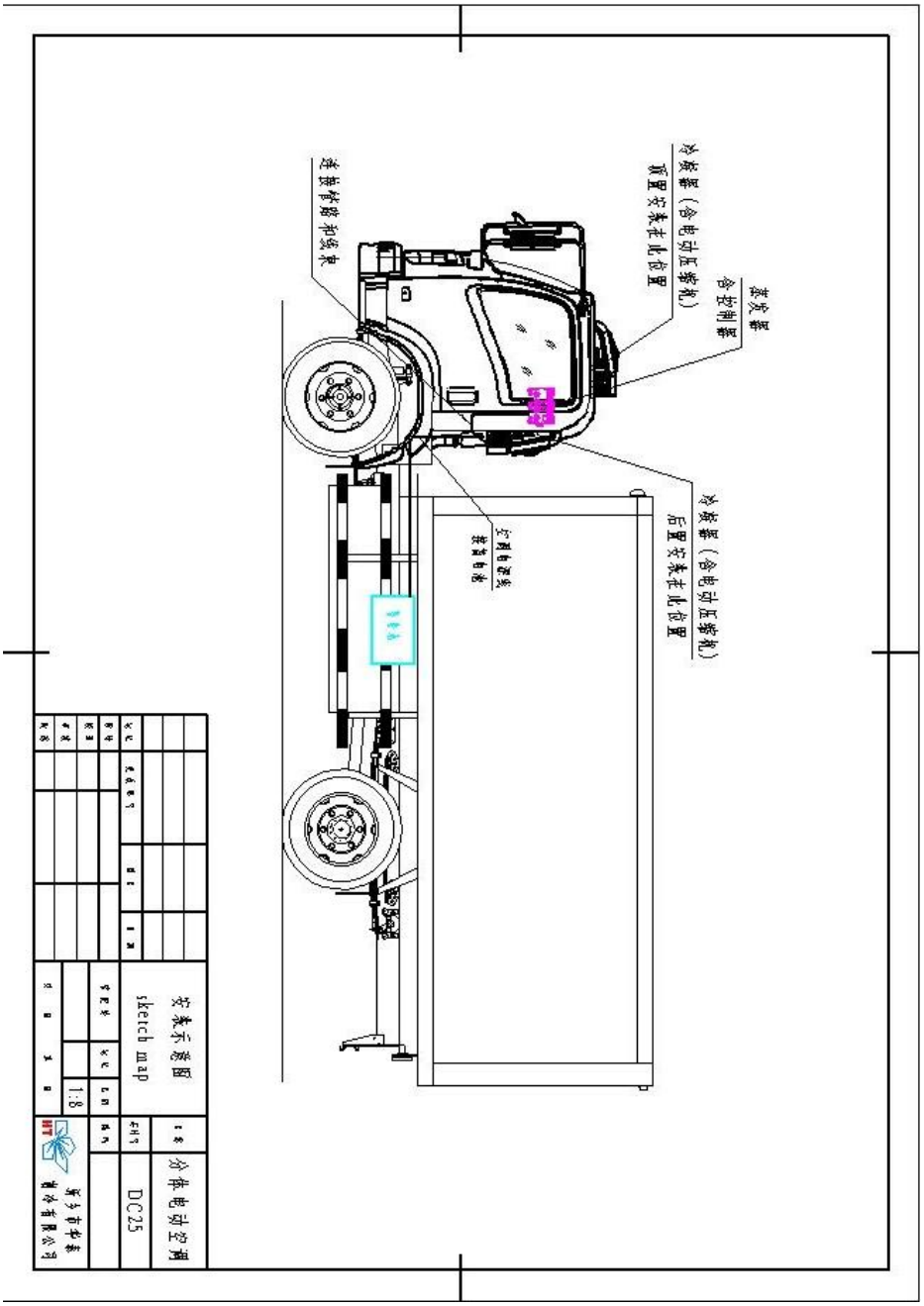
Seventh: Fill all the hole with foam then seal them.

4.5 vacuumize, fill refrigerant and try air conditioner.

Evaporator is installed at side of the cabin

Evaporator is installed on the back inside of the cabin.

4.6 Install condenser shell after testing it.



5、Operating manual

5.1 Open: Press 

on the controller

Temperature setting: press 

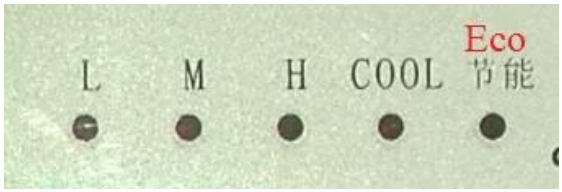
on the controller, you can add or reduce setting temperature.

Air volume setting: Press 

on the controller to find the right speed you want.

Operating mode: Press 

on the controller; you can change the operating mode.



5.2、Protecting voltage setting

You can set the protecting voltage 20-24V according to your vehicle, press  longer and stop, you can enter protecting voltage setting, it shows U2.0(Means 2.0+20=22V, if less than 22V, the system will stop. The default is 2.0), then press  once, it will add 0.5, the max is 4.0. then 0-4.0 circulate. After confirm the data you want, and then press  It will be ok.

5.3、Temperature return difference setting

When it works normally, long press  , you will enter temperature return difference setting, shows H：-X (X is temperature return ,default is 5℃), then press  the data will increase 1℃, max is 9℃, 3-9℃ cycle in turn. When finish setting, press  Enter cooling mode, save the data and enter normally working mode.

6、Attention

6.1、Please don't disassembly air conditioner at random, to avoid refrigerant leaking.

6.2、To check whether there is looseness or damage in the wire regularly, to avoid electric leakage or short circuit.

6.3、Clean the condenser surface periodically, to avoid effecting cooling function

6.4、When changing parts, please refer to the table, refrigerant oil RL68H

Part	Oil charge（CC）
Compressor	70-80
Hose	10-20
drier	15-25

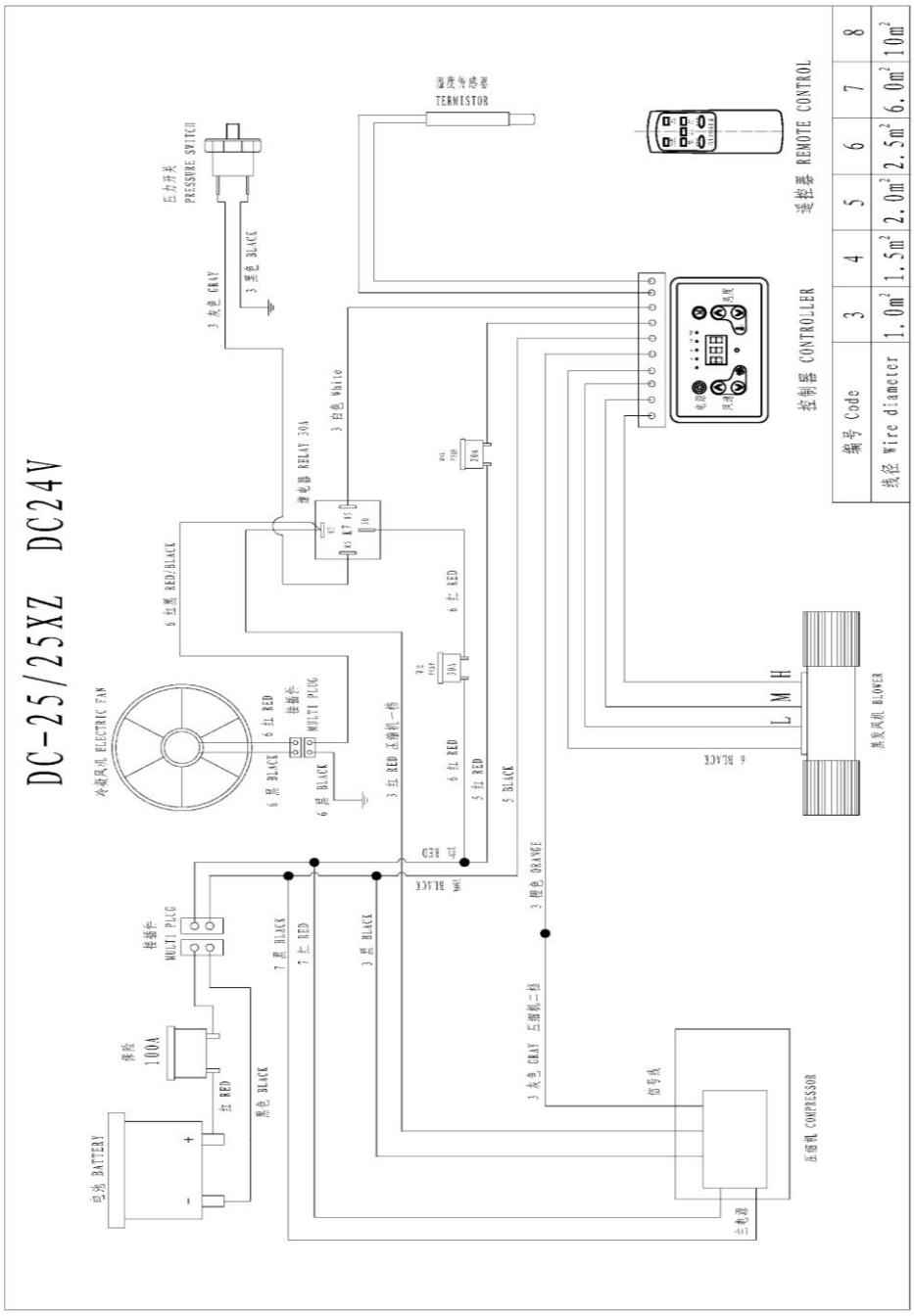
7、Fault diagnosis and troubleshooting

7．1 No cooling

<table>
<tr><td rowspan="6">No cooling</td><td rowspan="3">Evaporator fan is normal</td><td rowspan="2">Condenser fan is abnormal</td><td>compressor is normal</td><td>Check whether the joint is fall or not, whether the ground connector is well, whether the fan is broken or not.</td></tr>
<tr><td>Compressor is abnormal</td><td>Check the temperature control, relay is good or not.</td></tr>
<tr><td>Condenser fan is normal</td><td>Compressor is abnormal</td><td>Check clutch is good or not, whether the belt is loose or not</td></tr>
<tr><td rowspan="2">Evaporator fan is abnormal</td><td>Condenser fan and compressor are good</td><td colspan="2">Check the speed control switch is broken or not, whether the fan wire is disconnect or not, whether the ground connect is well or not.</td></tr>
<tr><td>Condenser fan is normal and compressor is abnormal</td><td colspan="2">Check whether fuse is broken or not, check the relay wire is loose or not.</td></tr>
<tr><td rowspan="2">Compressor is normal</td><td rowspan="2">Condenser and evaporator fan are normal</td><td colspan="2">Charge too much R134a, check whether it is normal by pressure gage</td></tr>
<tr><td colspan="2">Didn’t use for a long time, the R134a leaks, check it with pressure gage</td></tr>
<tr><td rowspan="2">Cooling is not enough</td><td rowspan="2">Compressor is normal</td><td>Condenser and evaporator fan are normal, condenser and evaporator are normal too.</td><td colspan="2">Reservoir inlet and outlet reverse
Check whether the expansion valve is blocked by ice or dirt, change reservoir.
change R134a</td></tr>
<tr><td>Fans are normal, others are normal too</td><td colspan="2">Check whether the condenser surface is blocked by dirt</td></tr>
</table>

7．2 Other faulty

	Description	Reason	Shooting
1	It is cooling at first, but cooling is not enough after a period, there is bubble through reservoir sight glasses, high pressure read is low	Drive a long time on the bad road, the connector is loose, or the system is leaks.	Check the leak point, screw the loose part, charge R134a
2	System doesn't cooling, the air from air outlet is hot air, there is no temperature difference from inlet and outlet of the expansion valve, the low pressure is too low.	Use wrongly, expansion valve temperature sensor leak, make the valve hole close	Change expansion valve, recharge R134a
3	The air from air outlet is not cold, compressor is hot. Low pressure is almost 0, high pressure is high	There is dirt in the system, expansion valve filter is blocked. There is thin ice in the expansion valve	Start the system Intermittently, when the blocked is not heavy. Or you can remove expansion valve and clean it by alcohol. Empty the system and recharge R134a
4	Cooling is not enough, evaporator frost, high and low pressure are both low	Expansion valve throttling hole is useless	Empty the system, change expansion valve, recharge R134a
	The cooling capacity reduces gradually after a period, high pressure his high, and low pressure is low.	Reservoir desiccant saturation, expansion valve throttling is blocked by ice	Empty the system, change reservoir , recharge R134a
6	Start the system, only air, but the air is not cold, the high and low pressure don't change	Temperature control is poor contact, or compressor clutch coil is broken	Check whether the temperature control is broken or not by multimeter, change compressor clutch.
7	Compressor start and stop frequently, the box is not cold	Compressor pressure is high, current is high and too hot	Check whether the voltage is normal or not, the wire is loose or not etc


DC-25/25XZ DC24V
TERMISTOR
PRESSURE SWITCH
REMOTE CONTROL
CONTROLLER
ELECTRIC FAN
MULTI PLUG
RELAY 30A
BLOWER
BATTERY
COMPRESSOR
Code
Wire diameter
1.0m²
1.5m²
2.0m²
2.5m²
6.0m²
10m²