

X530

**AUTOMOTIVE AIR CONDITIONER
REFRIGERANT HANDLING SYSTEM**



OPERATION MANUAL

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1 **Caution:**

Wear the glove and eye protection glass to protect the skin and eyes. Don't use this device near the fire and spark. Don't expose this device into sunshine or rain. Avoid to contact with corrosive liquid or gas. Keep good ventilation.

- △ Read the manual carefully before using this device.
- △ **Only for R134a.** Check the refrigerant type before operation.
- △ Don't refill R134a to the storage cylinder for more than 8KG, in order to avoid the accident caused by over high pressure.
- △ Don't put the hose close to rotation or heating automobile parts such as electronic fan or radiator.
- △ Check the vacuum pump oil level before use.
- △ Don't recover for more than 10 times in an hour, otherwise it will do harm to the compressor.
- △ Keep away from children when running.
- △ Only for professional expert.
- △ Don't disassemble device without permission of manufacture.
- △ Don't lie down the device.
- △ **The charge process would not work if the refrigerant in cylinder being less than 1Kg.**

2. Main Functions:

Refill : Add fresh refrigerant R134a into the storage cylinder inside the machine.

Recovery: To recover refrigerant R134a from the car A/C system, and store it in the machine after purification.

Vacuum: To get rid of the air in the A/C system

Charge: To charge refrigerant (gas) into the automotive A/C system accurately.

Automatic: Recovery + vacuum + charge

Maintenance: include all the necessary maintenance

3. Technical Parameter

Power Supply: AC 220V, 50~60HZ

Power: 750W

Working Temperature: -10-50°C

Scale Accuracy: +/- 10g

Recovery speed: 300g/min.

Vacuum Pump: 5 Pa

Cylinder capacity: 10Kg

Charge Speed: 800g/min.

Net Weight: 82KG

Machine Size: 73cm*65cm*124cm (L*W*H)

Carton Size: 76*70*140CM (L*W*H)

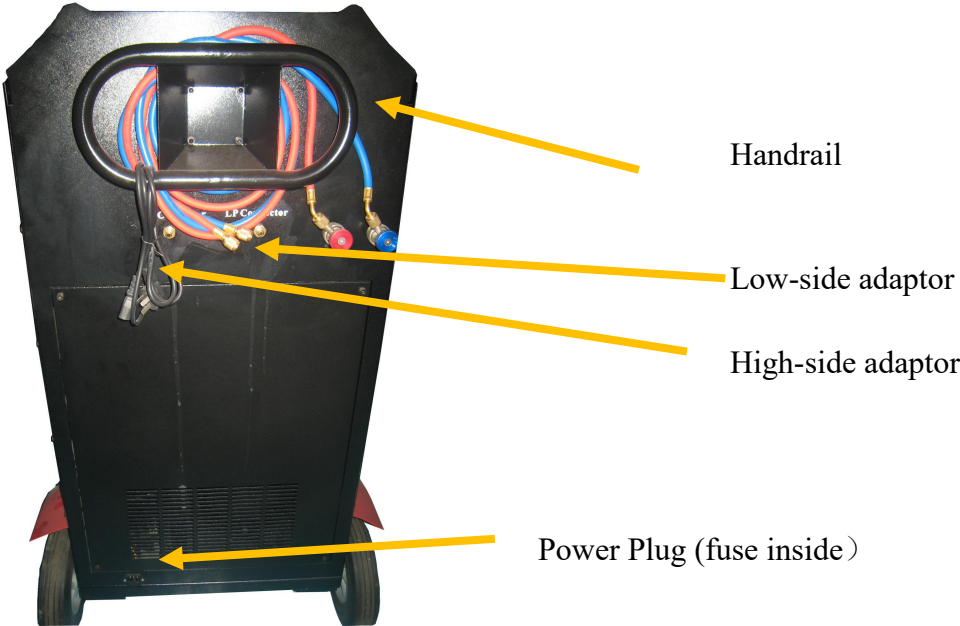
4. Structure

4.1 Appearance

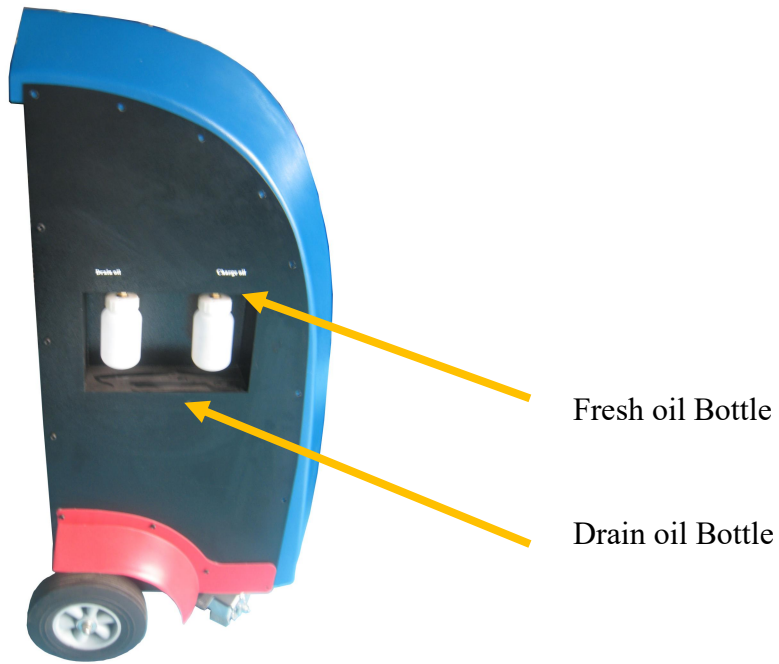
Picture 1: Front View



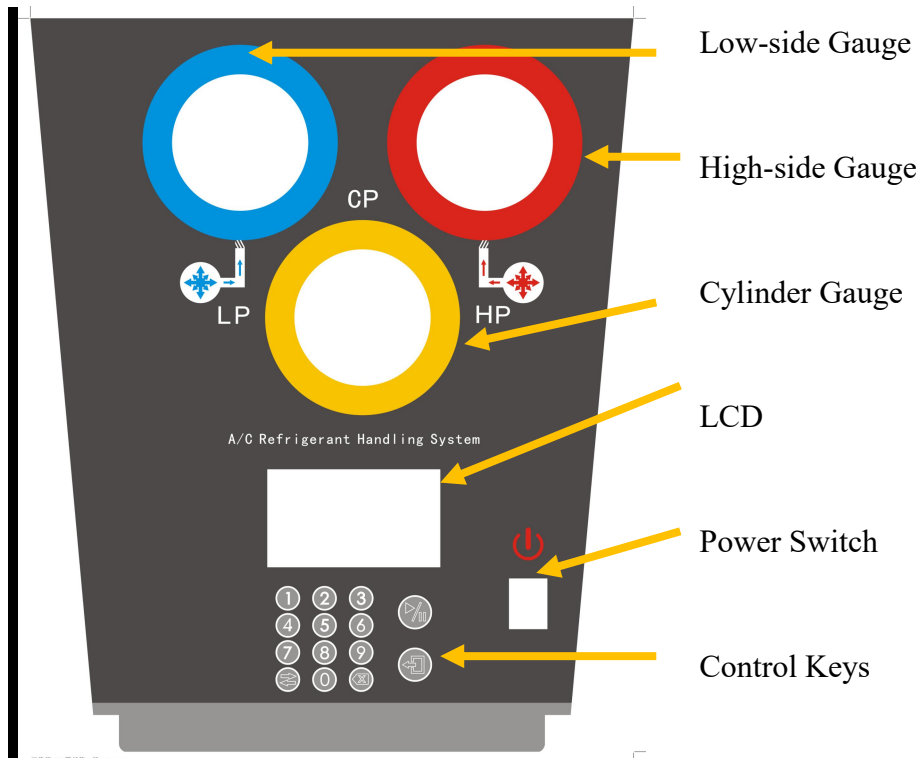
Picture 2 Back View






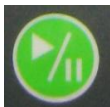

Picture 3 Side View



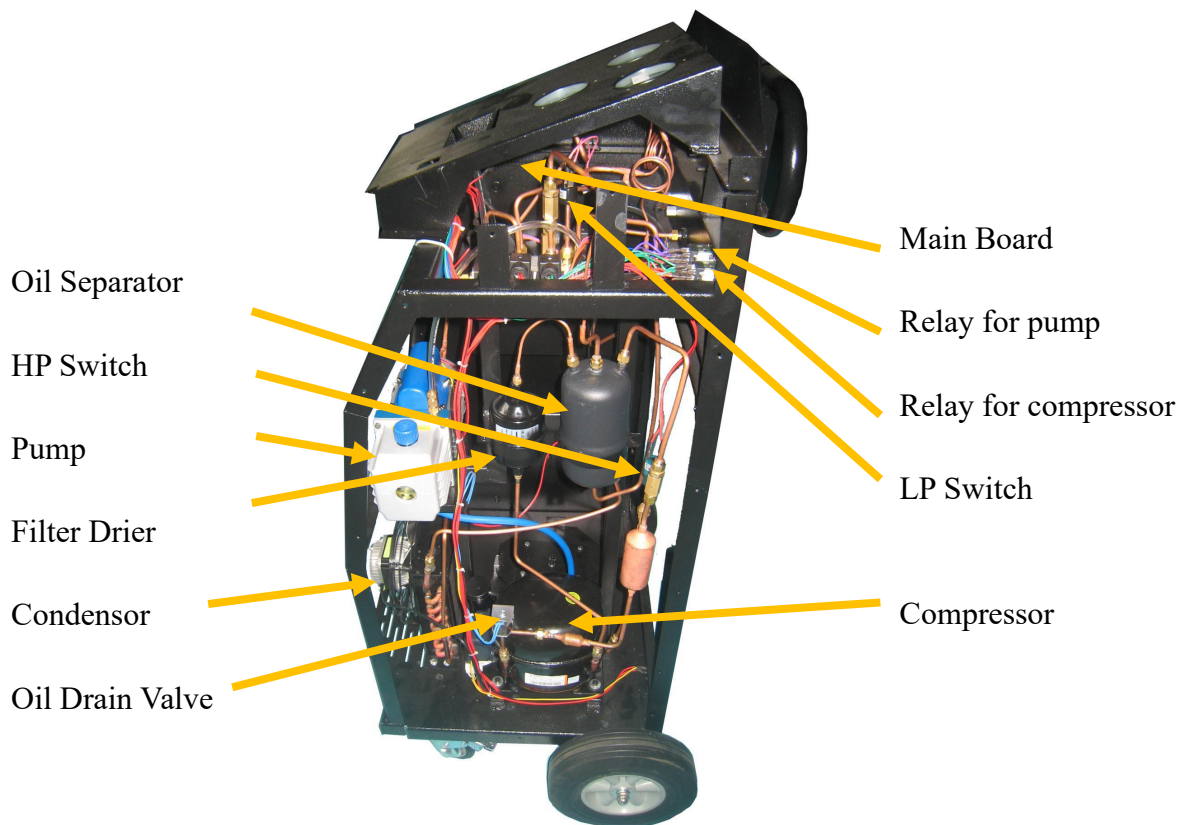
4.2 Control Panel:



Picture 4: Control Keys

1		Numbering Keys (0~9)
2		Cancel
3		Select
4		Start/Stop
5		Exit

4.3 Inner Structure:



5. Basic Operation

5.1 Connection to the car A/C system (see below picture)

(Low-side hose connects to low-side end of A/C; High-Side hose connects to High-side end of A/C)

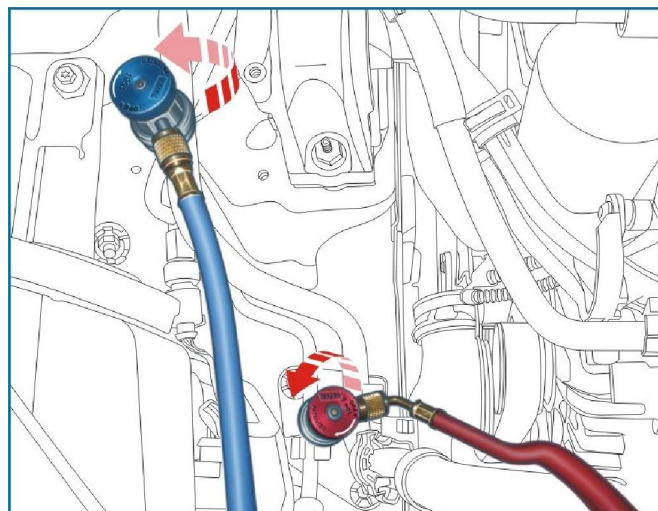


5.2 How to connect the adaptors/hoses

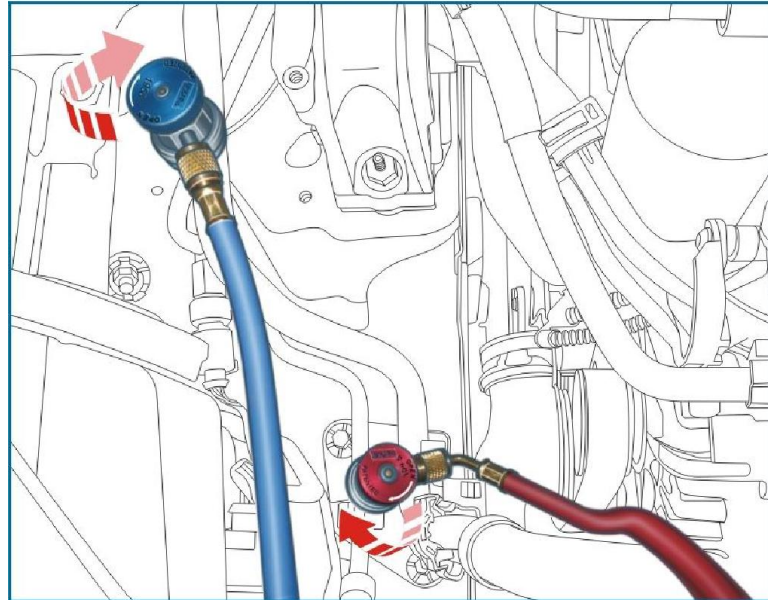
During operation, LCD will prompt out message close of open quick adaptors frequently. Please refer to below picture for operation.

“CLOSE quick adaptors”. ” :

See below picture. Close the high-side and low-side quick adaptors anti-clockwise.



“OPEN high-side and low-side quick adaptors” at clockwise

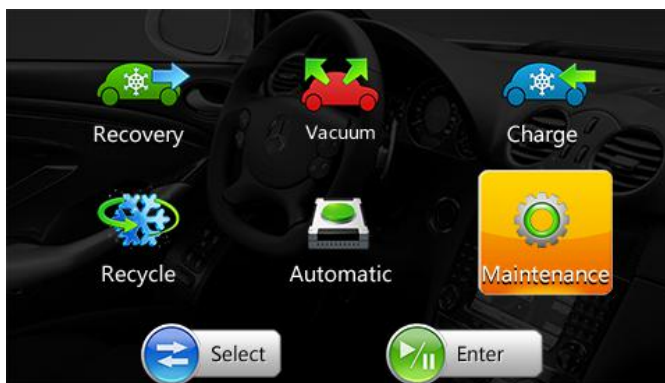


5.3 Refill

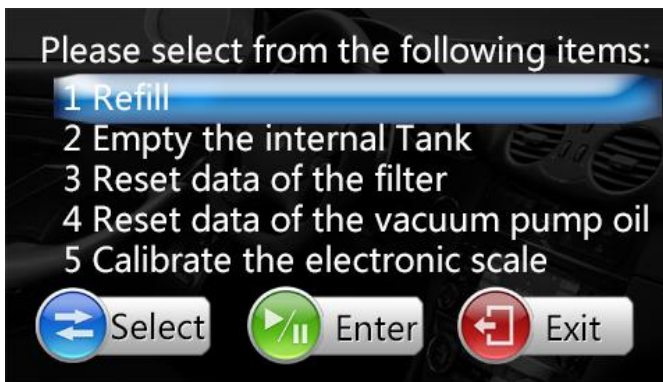
There is no any refrigerant inside the new machine. So before running a new machine, please refill 2~6KGS fresh R134A refrigerant into storage cylinder which locates inside the machine.


Please follow the instructions to refill:

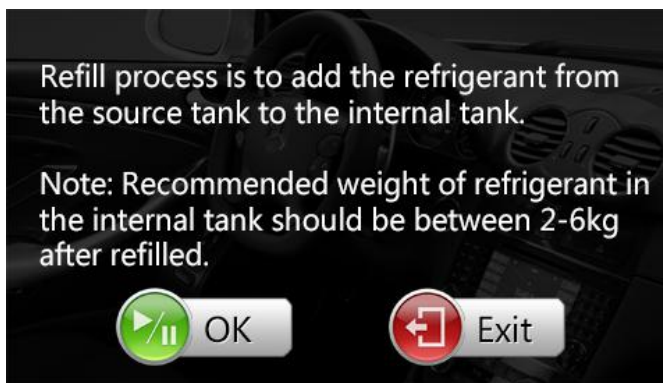
1. Connect the blue hose to the LP Connector at the back of machine.
2. Connect the blue quick adaptor on blue hose to the external tank connector
3. **Close** the red quick adaptor on the red hose, in order to seal the high-side end
4. Switch on the machine, and select “Maintenance” and then “Enter”



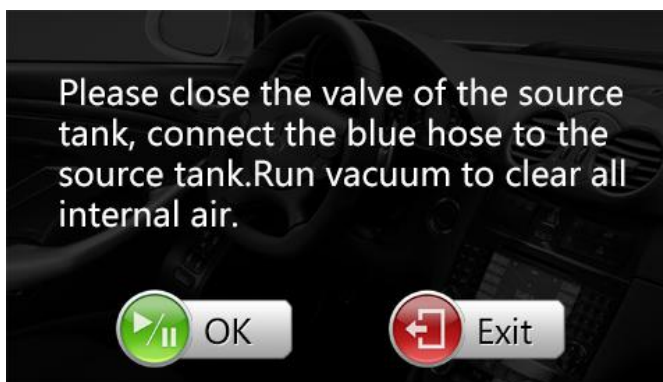
5. When display following message, press  to confirm.



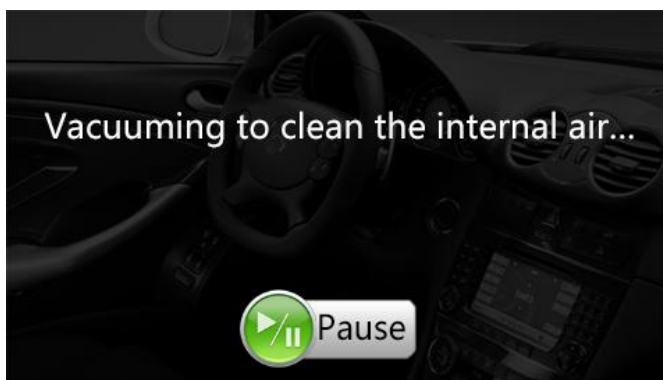
6. You will see below message, please press  to continue.



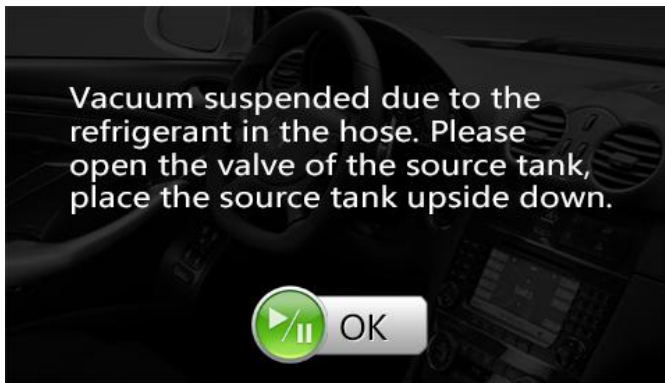
7. Please vacuum the hoses. It will prevent the air going into the external source tank.



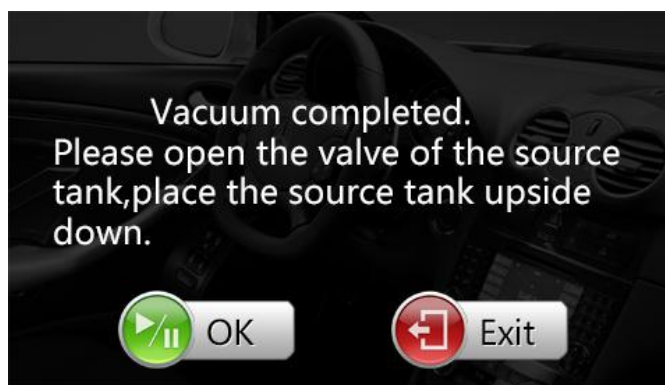
8. Vacuum in process:




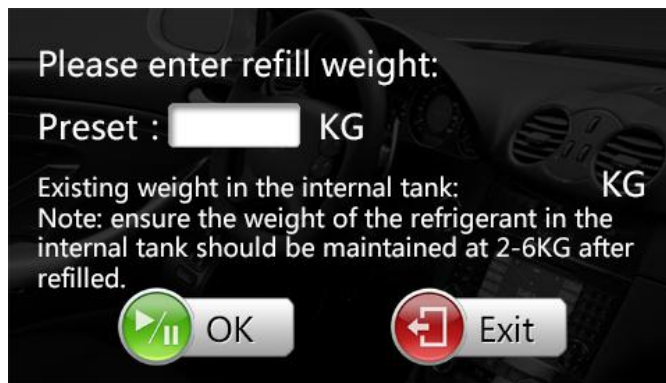
9. Vacuum can be suspended if any gas (R134a) inside the hose. Follow instructions to handle.



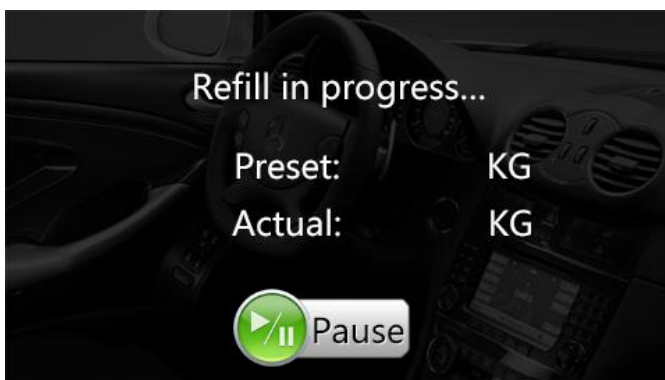
10. When vacuum completed, it warns and please press OK. to next step.



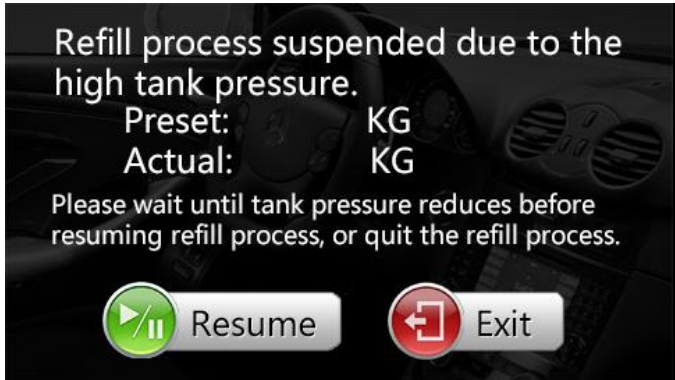
10. Please set the amount below, and press  to start refilling.



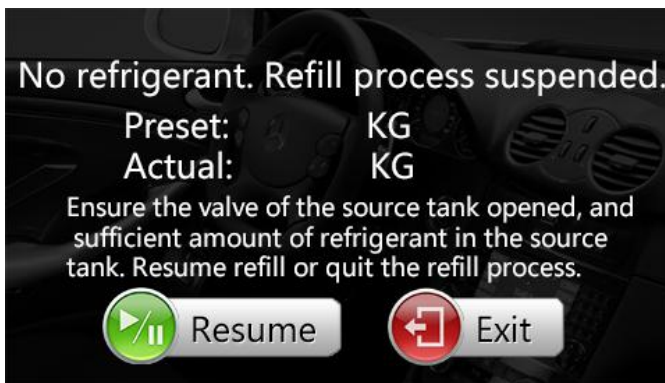
11. Refill in progress



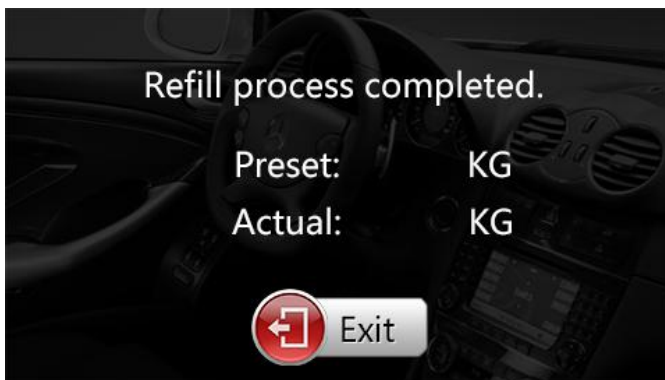
12. If the tank being in high pressure or nearly full, “Refill” will be stopped and please follow instructions to exit. **But this case will not happen in new machine, since the inside storage tank being empty.**




Another case is that there is no gas inside the external tank, and refilling process can be suspended.

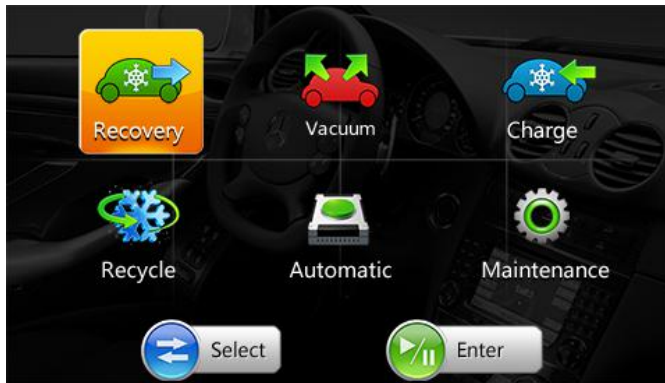


13. Refill process completed, press  to exit and come back to main menu.

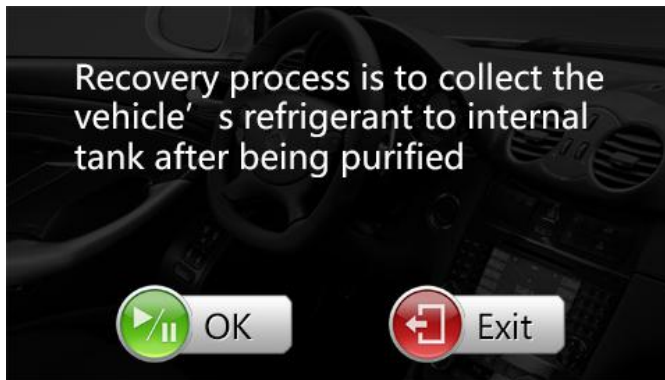


5.4 Recovery

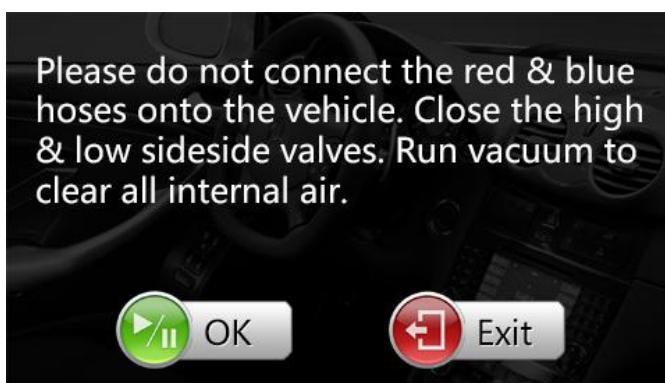
1. Turn on the machine, choose “Recovery”, press  to enter:



2. Press  to continue.




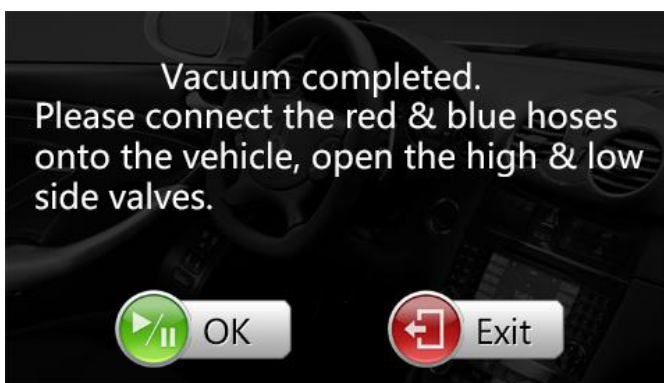
3. When you see the message, please follow and press  to vacuum first.




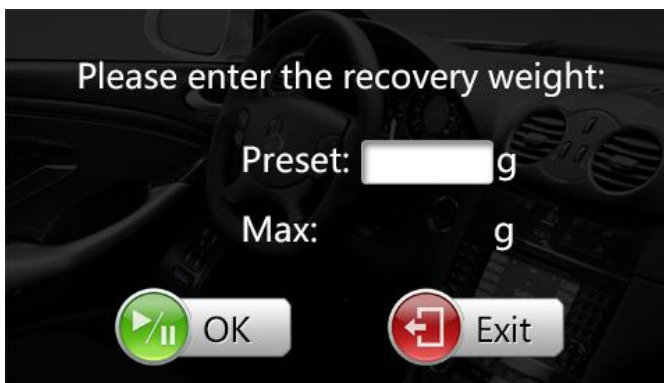
4. Doing vacuum.



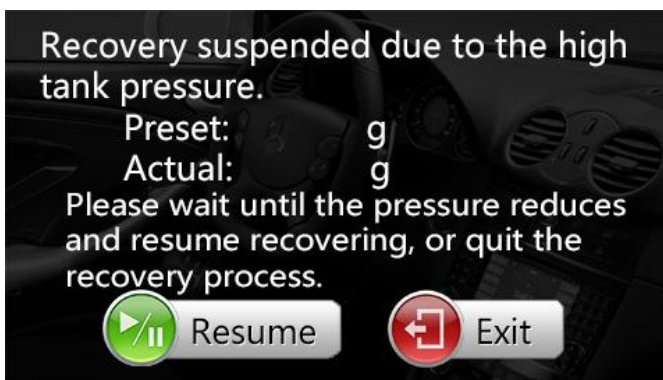
5. Vacuum ends and please press  to next step.




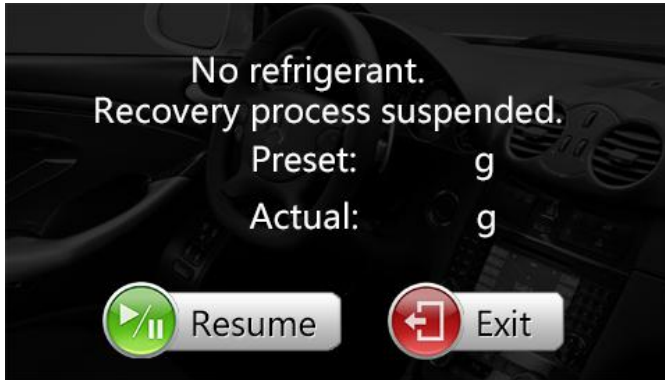
6. Set the amount and press  to recover.



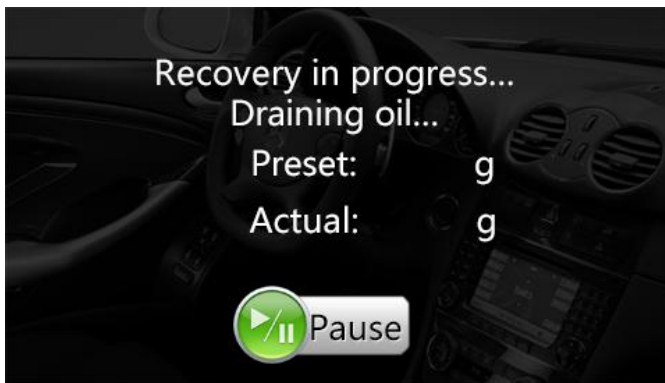
7. If the tank is full or temperature too high, please follow message to exit or continue.



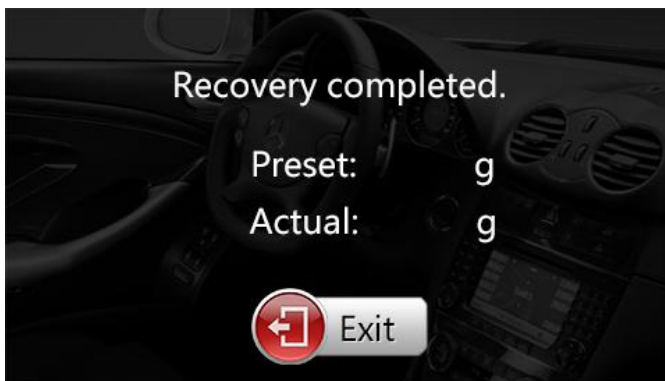
8. When there is little gas inside the car A/C system, or you forget to open the R134a quick adaptors, it warns as below. Please open the quick adaptors and try to “Resume” recovery, or press  to exit.



9. Oil will be drained after recovery.




10. After that, it is completed. Press  and come back to main menu.

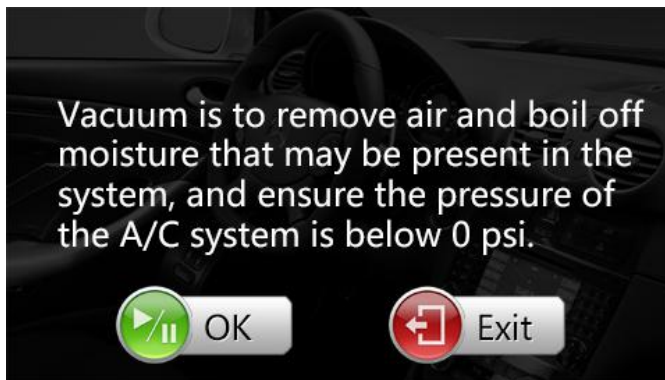



5.5 Vacuum

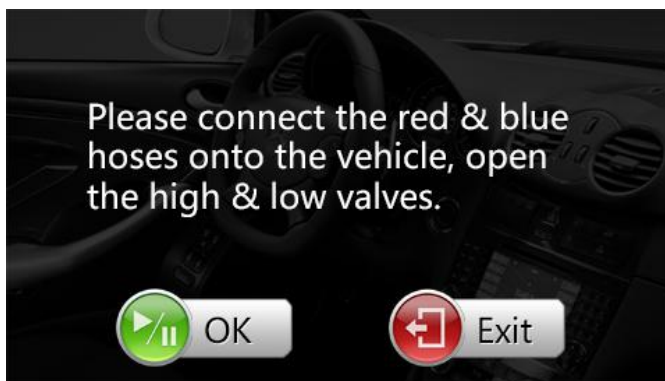
1. Choose “Vacuum” and “Enter”.




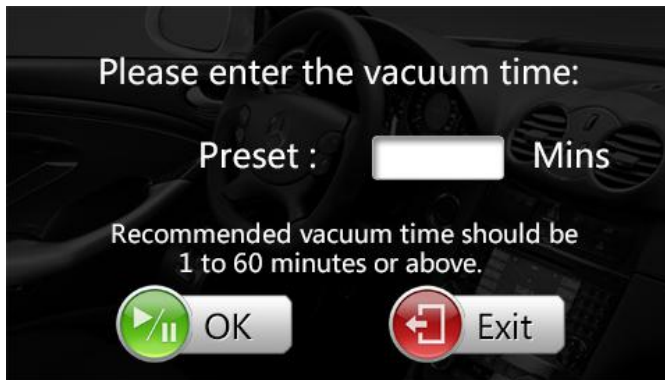
2. Press  to next after reading the message



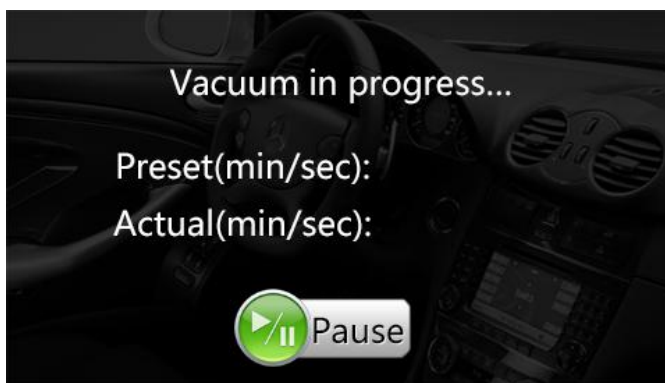
3. When you see this message, please follow the instruction. You can find the operation instructions in this manual. After connecting the hoses, and open the valves, please press  to go ahead.




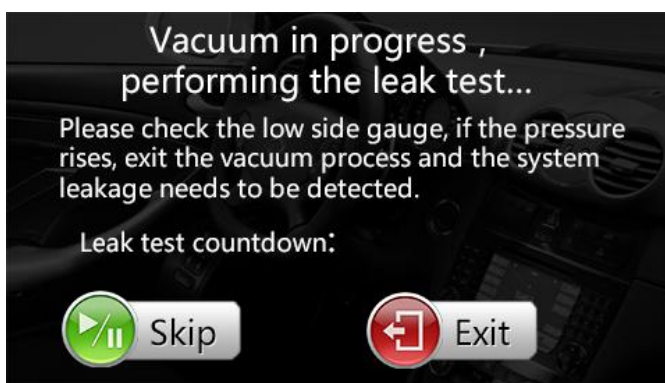
4. Set the time, press 




5. In progress



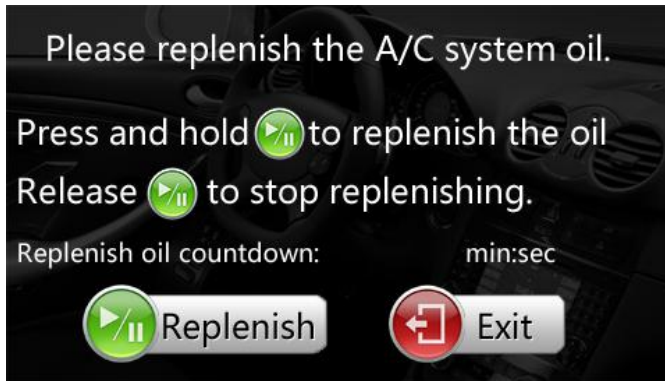
6. When it reaches the time that you have set, it will perform the leak test. If the users being sure that there is no any leak, please press  to skip this process.



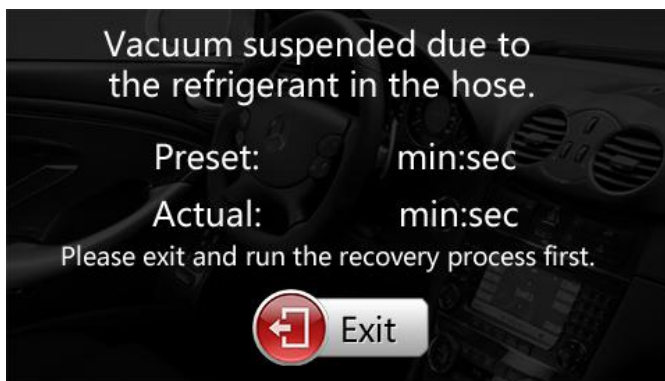
7. After leak test, it will ask to add fresh oil. Please keep pressing  for a while to inject the oil. Pay attention: The oil amount you need to inject should be according to the amount that it has been drained.


The oil you input into the “fresh oil bottle” should be the same as what you want to input into the A/C system.

Shall it find leaks during the process of “leak test”, please exit and check where it leaks.



8. When vacuum failed, it will prompt out message. Please Exit.

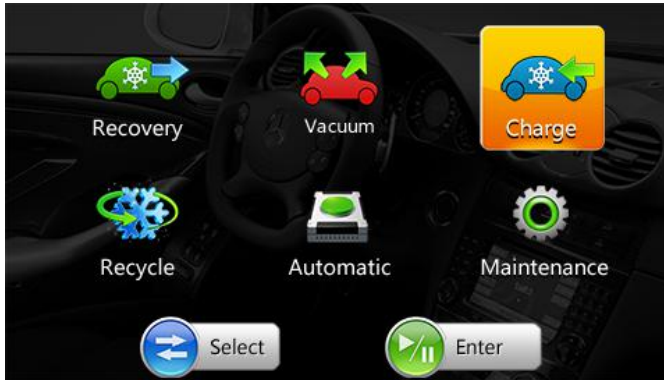


9. When vacuum completed, please press 

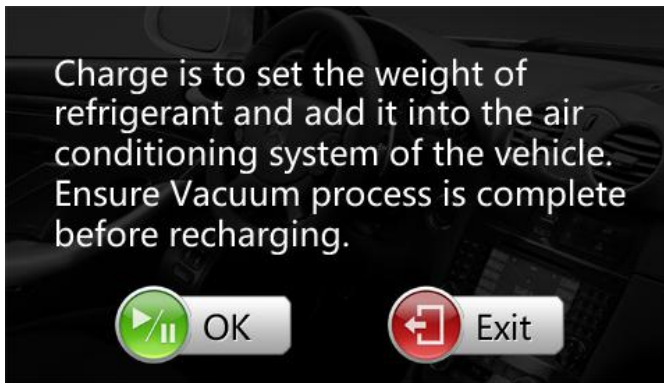


5.6 Charge

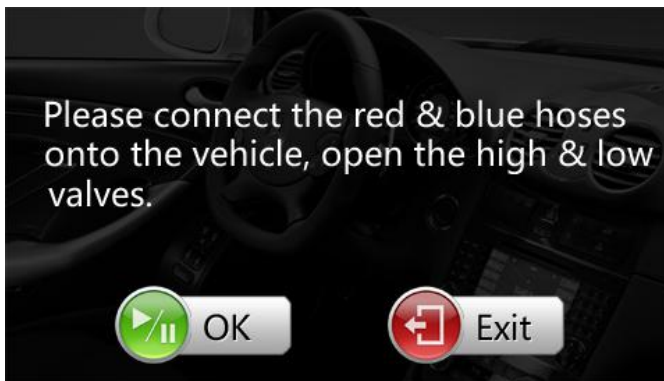
1. Choose “Charge”.



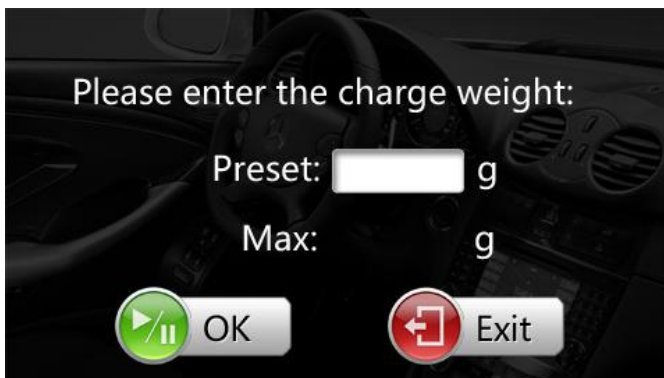
2. Press to next step



3. Follow instructions and then press to next step



4. Set amount and go ahead



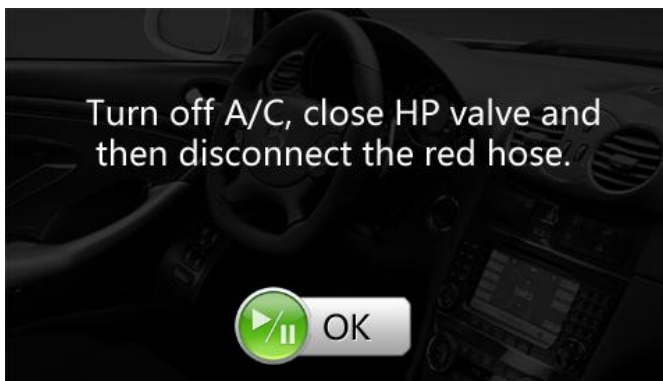
5. In progress



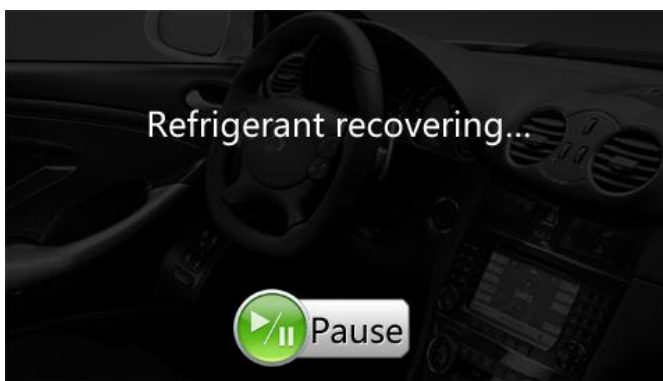
6. After charging, it reads as below. Please check accordingly and then go ahead



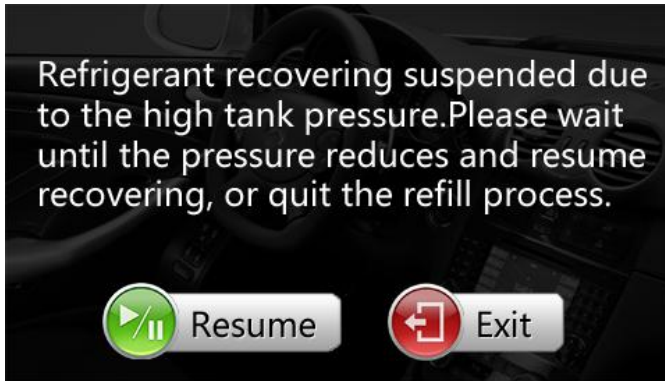
7. When you see the warning, please follow



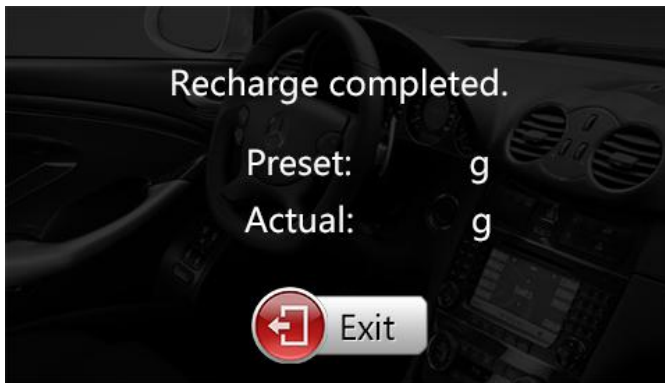
8. After removing the hoses from the car, system will recover the residue gas from hoses automatically.



9. When the tank being full or in high temperature, recovering can be stopped.



10. Charge process completed. Press




5.7 Automatic Operation


Recover+vacuum+charge

1. Choose "Automatic"



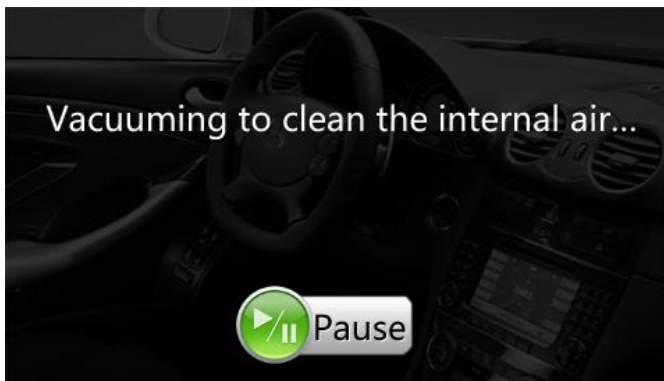
2. Choose the first menu and press 



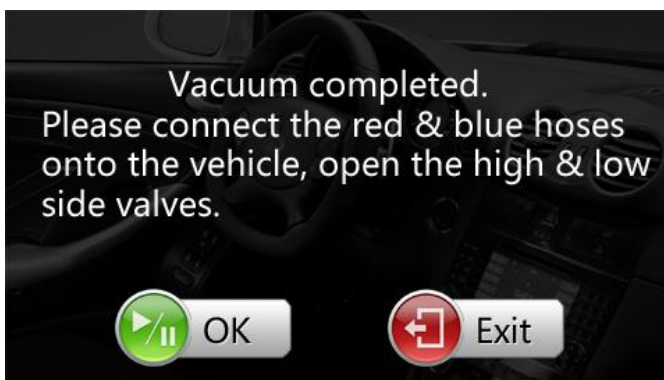
3. Please follow the instructions and then press  to vacuum.



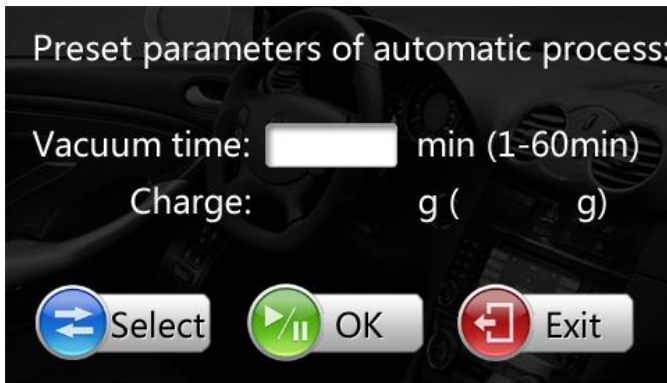
5. Doing Vacuum




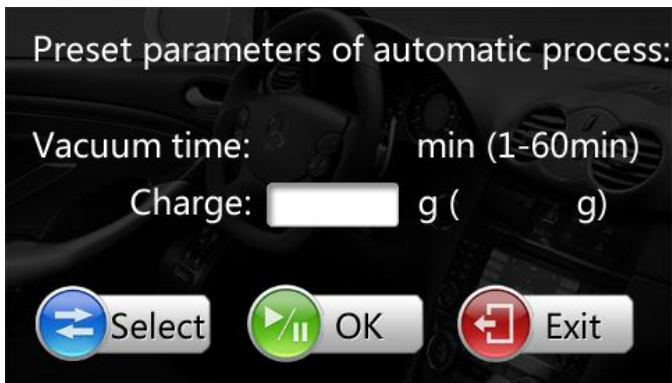
6. Vacuum done. After you have followed the instructions, then press to next step.



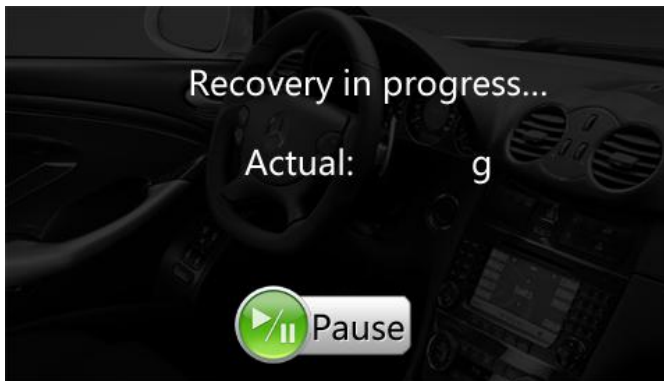
7. Set the value, and press  to shift to another parameter



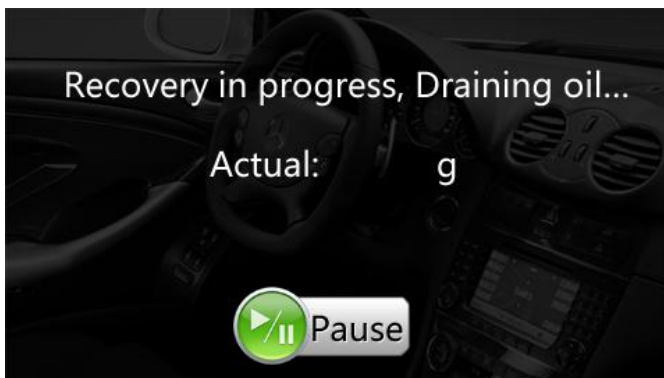
8. After setting, press  to start.



9. Recovery in progress. And actual recovery amount will be displayed at every moment.



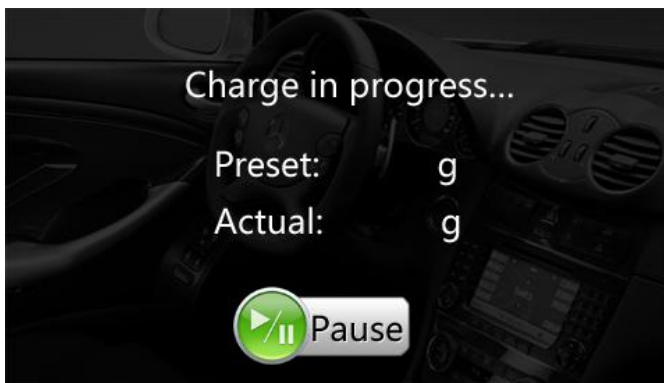
10. After recovery, oil will be drained automatically.



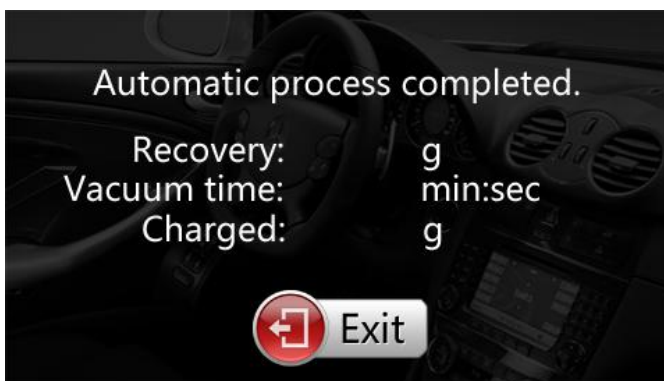
11. After oil draining, it jumps to next step “Vacuum”.



12. After vacuum, it jumps to “Charge”.



13. After charge, all the automatic process has been done. Please exit.

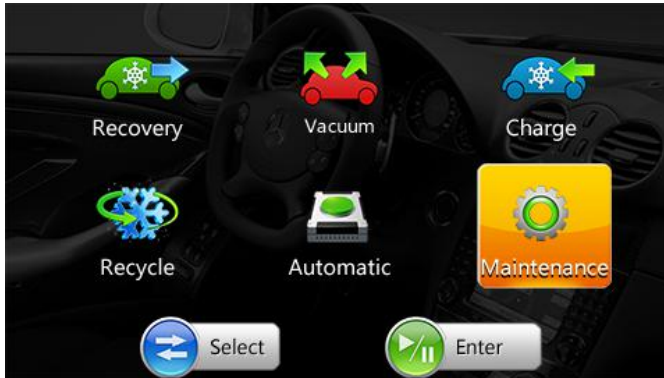



6. Maintenance

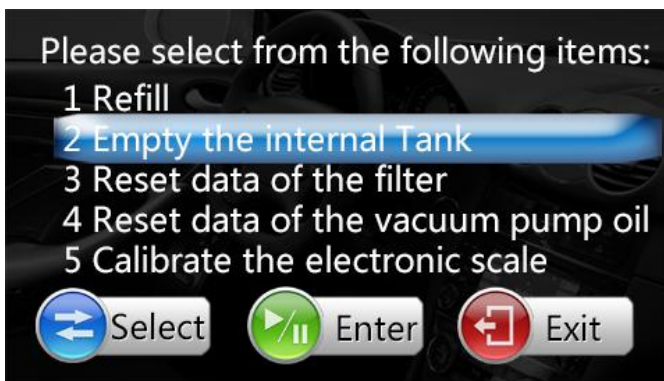
6.1 Empty the internal tank


When the internal tank is full, please discharge the gas. Steps as below:

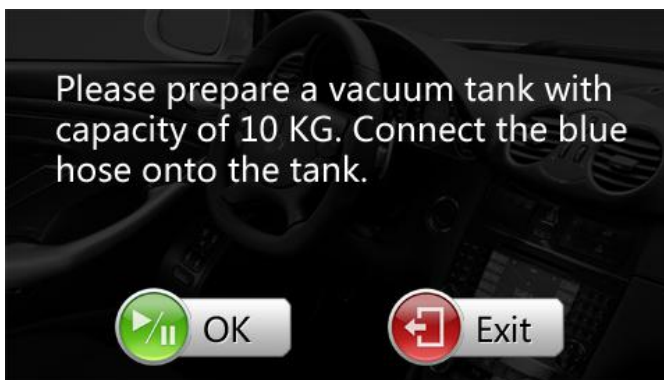
1. Select “Maintenance”



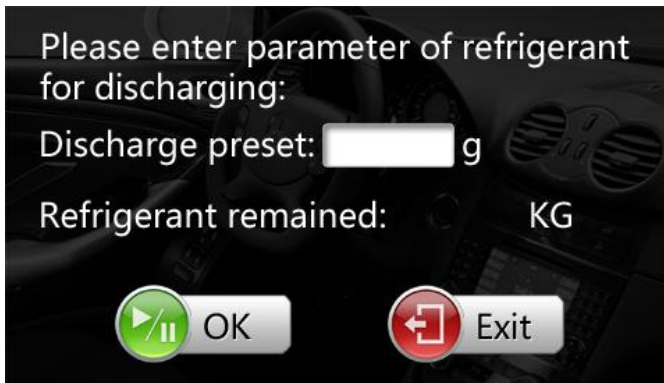
2. Choose the menu, press  to continue.



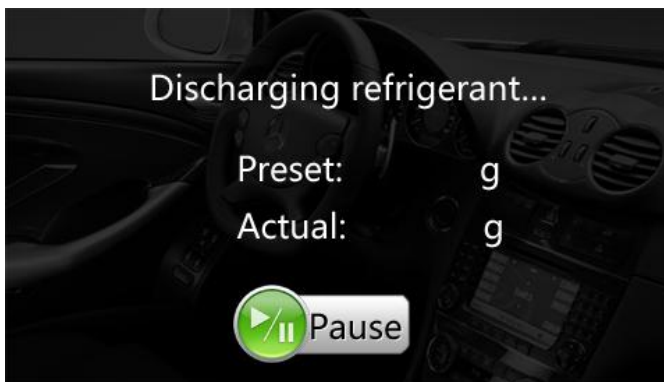
3. Connect an external tank and press 




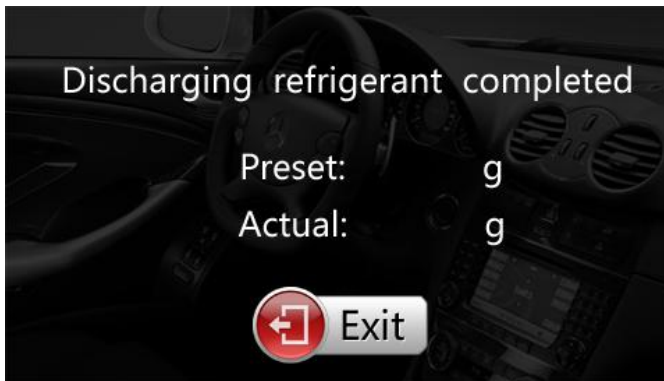
4. Set the amount you want to discharge, and then go ahead



5. Discharging



6. Discharging has been done. Press 



6.2 Reset the data of filter drier

The lifetime of filter drier is 100KG. When its lifetime running out, the system will ask you to change a new one, when you turn on the machine, it warns and it will refuse to do any recovery or recharging.



1.) How to change a new filter:

(1) Check the “LP Gauge” and “HP Gauge” on top of machine. When it is more than 150kpa, please recover the residue gas from the hoses.

(2) Open the side door and you can find the “Filter Drier”. Remove the old one and replace a new one. Pay attention to the direction of the filter drier.



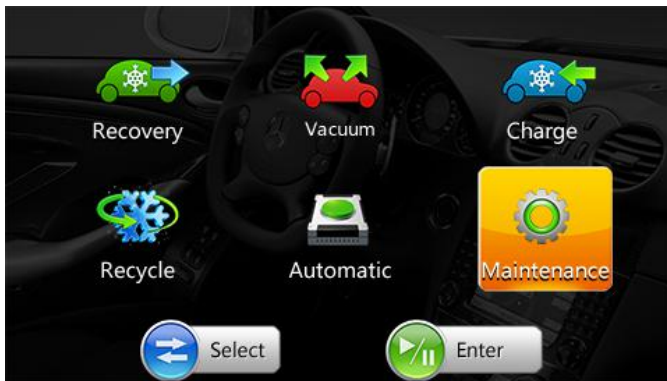
Filter Drier

(3) Direction: This arrow down.

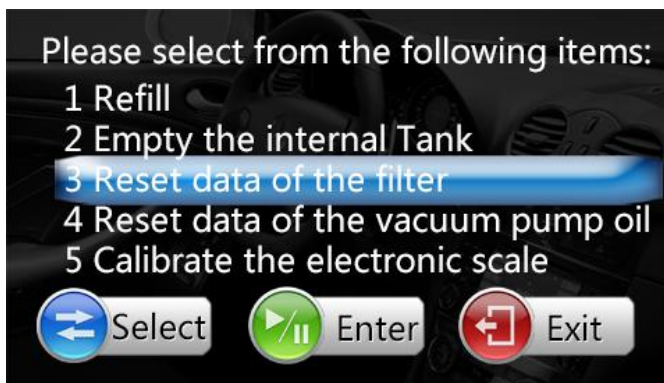


2.) After replacing, turn on the machine and run to “Reset the data of filter”

1. Maintenance



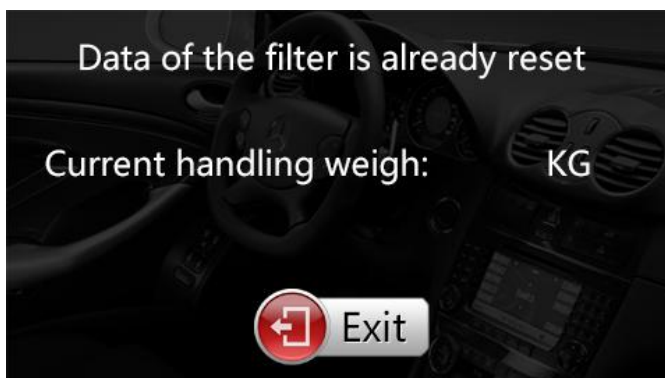
2. Choose this menu.



3. Make sure the filter has been replaced properly, and then go ahead



4. You will find that the filter life has come back to 100KG..



6.3 Reset data of vacuum pump oil

1) In the following cases, you need to drain the pump oil and add fresh oil:

- (a) When the oil level is below the line, you must add some oil. When it is much higher than the line level, please drain some. It should be between the “Minimum” and “Maximum”.
- (b) The lifetime of pump oil is 600minutes. When it warns to replace the oil, then please follow to do so.



- (c) When the oil color is like milk, please drain it and add fresh oil.

2) How to drain pump oil and add fresh oil:

- (1) Please run the vacuum process for at least 1 minute before replacing oil.
- (2) Open the back door of the machine.



- (3) Open the cover on top of the pump.



Cover

(4) Get a tank ready for the waste pump oil, use spanner to twist the screw under the pump and drain the oil to the tank.



(5) After all oil drained, use spanner to fix the screw.

(6) Add fresh oil from the top of the pump.



(7) Please be careful that the oil should be at this level.

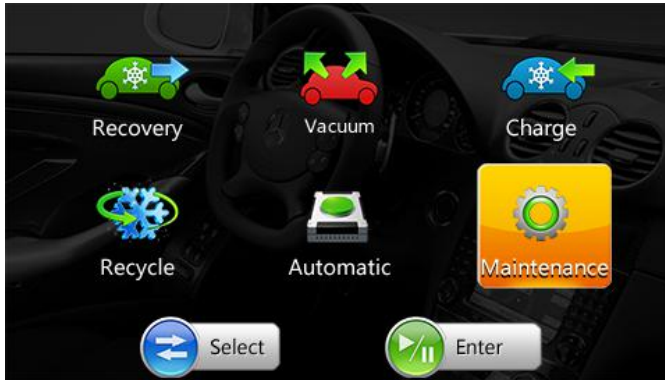


(8) After that, fix the cover on top of the pump

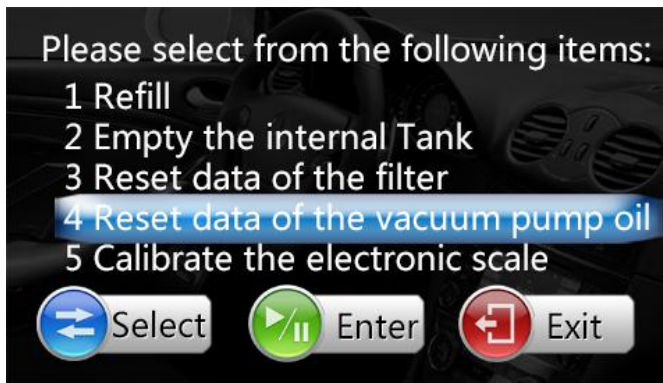
(9) After adding new pump oil, please restart the machine.

3) Reset the data of pump oil:

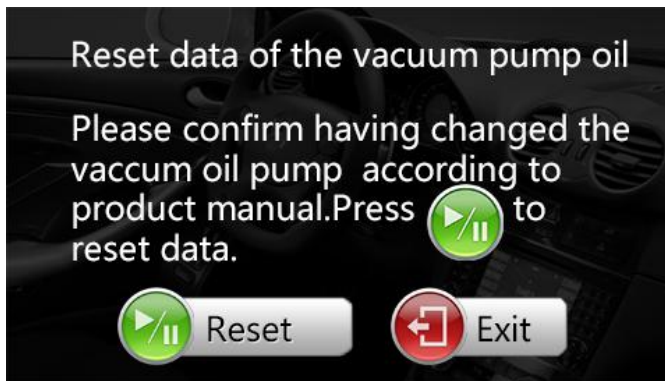
1. Turn on, press  to choose,



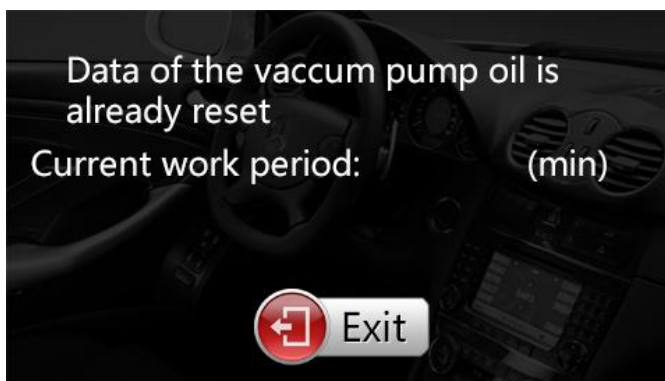
2. Choose the 4th menu,



3. When you read below information, make sure if you have changed the pump oil, and then press to next



4. When reset pump oil data, the lifetime of the oil will come to be 600 minutes.



- 5.

6.4 Calibrate the electronic scale

After replacing the storage cylinder, or you find the scale being not accurate after long-time's using, please calibrate the electronic scale.

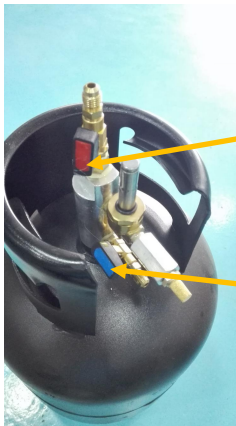
1) Take out the storage cylinder:

(1) Open the back cover, you will see the cylinder:



Storage Cylinder

(2) Close the manual valve on the cylinder, please refer to the picture:



Charge valve (red)

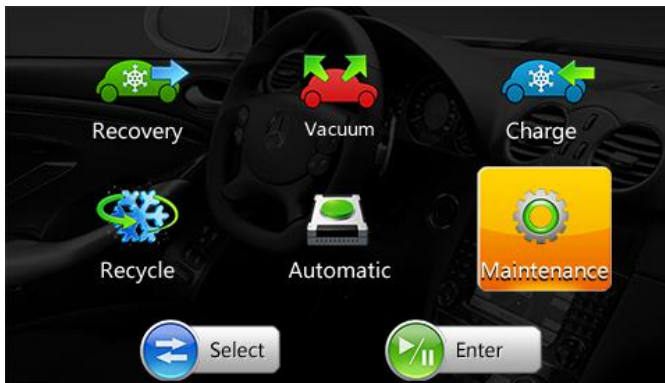
Recovery valve (blue)

(3) Open the yellow cover of the air purge valve, and take out the black body of valve.

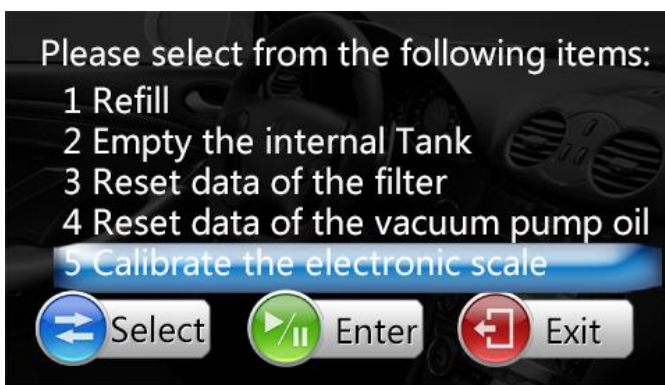


Solenoid valve (for air purge)

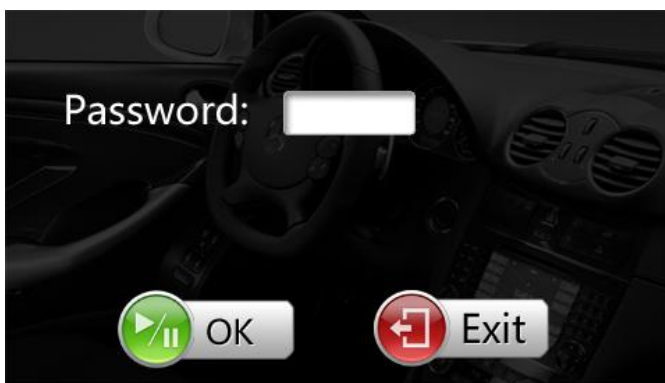
- (4) Remove the screws under the cylinder, and then take out the cylinder.
- (5) Choose “Maintenance”




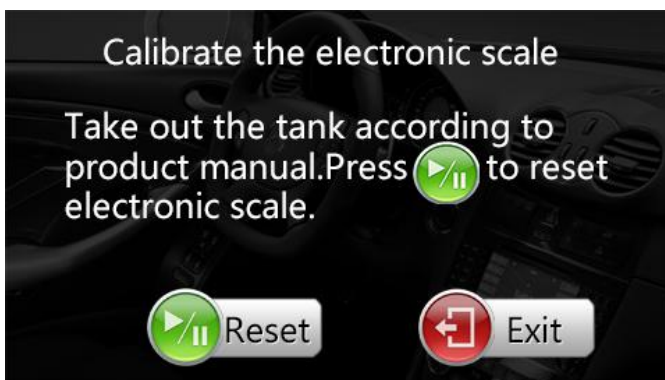
- (6) Choose “Calibrate the electronic scale”



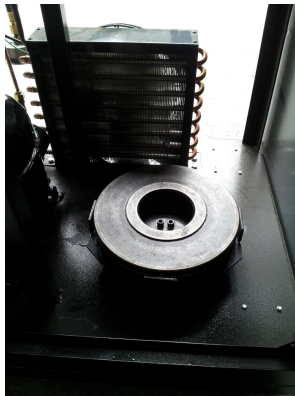
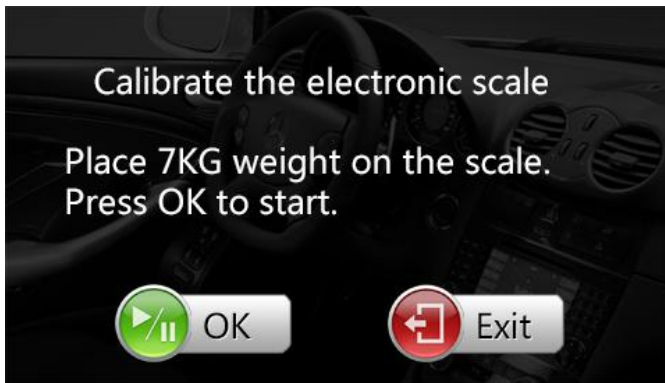
- (7) Enter the password (please contact distributor for this code):




- (8) After input password, press  to go ahead.



(9) Follow below instruction to put 7KG weight onto the scale tray.



(9) Press  to calibrate

(10) Calibration done, press  to exit. And then fix the cylinder by screws.