EVERET

ALL FOR AUTO

ITEM NO: EE-AC545

USER MANUAL

FOLLOW THE INSTRUCTIONS CAREFULLY TO GRANT THE MACHINE A CORRECT FUNCTION AND LONG SERVICE LIFE.

KEEP THE MANUAL NEAR THE MACHINE ALL TIME AND MAKE SURE ALL USERS HAVE READ THIS.

INDEX

1. Instructions:

1.1 Safety cautions

1) **ALLOW ONLY QUALIFIED PERSONNEL TO OPERATE THE MACHINE. Before operation**, read and follow the instructions and warnings in this manual. The operator must have knowledges about air conditioning and refrigeration systems, refrigerants, and the dangers of pressurized components. If the operator cannot read this manual, operating instructions and safety precautions must be read and discussed in the operator's native language.

2) **USE THE MACHINE AS OUTLINED IN THIS MANUAL.** Using the machine in a manner for which it was not designed will compromise the machine and nullify the protections provided.

3) **AVOID BREATHING IN A/C REFRIGERANT OR LUBRICANT VAPOR OR MIST**. Exposure can irritate eyes, nose, and throat. To remove refrigerant from the A/C system, use only equipment certified for the type of refrigerant being removed. Use the unit in locations with mechanical ventilation that provides at least four times ventilation per hour. If accidental system discharge occurs, ventilate the work area before resuming service.

4) **TO REDUCE THE RISK OF FIRE**, do not use the machine in the vicinity of spilled or open containers of gasoline or other flammable substances. Do not use an extension cord. Do not use the machine in the vicinity of flames and hot surfaces. Refrigerant can decompose at high temperatures and free toxic substances to the environment that can be noxious to the user.

Do not use the machine in environments containing explosive gases or vapors. Do not use this machine in ATEX classified zones or areas. Protect the machine from conditions that can cause electrical failure or other hazards relating to ambient interaction.

5) **DO NOT PRESSURE TEST OR LEAK TEST EQUIPMENT AND/OR VEHICLE AIR CONDITIONING SYSTEMS WITH COMPRESSED AIR.** Mixtures of air and R1234yf refrigerant can be combustible at elevated pressures. These mixtures are potentially dangerous and can result in fire or explosion causing personal injury and/or property damage.

6) **NEVER START THE MACHINE IF IT WILL NOT BE USED IMMEDIATELY.** Disconnect the electrical supply before a long period of inactivity or before internal maintenance is performed.

DO NOT MODIFY THE PRESSURE RELIEF VALVE OR CHANGE THE CONTROL SYSTEM SETTINGS. Using the machine in a manner for which it was not designed will compromise the machine and nullify the protections provided.

7) **HOSES CAN CONTAIN LIQUID REFRIGERANT UNDER PRESSURE**. Contact with refrigerant can cause personal injury, including blindness and frozen skin. Wear protective equipment, including goggles and gloves. Disconnect hoses using extreme caution. Ensure the phase is complete before disconnecting the machine to prevent the release of refrigeration to the atmosphere.

8) **PRESSURIZED TANK CONTAINS LIQUID REFRIGERANT**. Do not overfill the internal storage vessel (ISV). Overfilling can cause explosion resulting in personal injury or death. Do not recover refrigerants into nonrefillable containers; use only type-approved refillable containers that have pressure relief valves.。

1.2 Safety signs

	Read carefully
	Don’t use it outside when it’s raining
	Wear gloves.
	Wear protection goggles.
	Grounding protection.
	Electrical shock hazard.

2. Product details：

2.1 Functions：

1) Fully automatically recover, vacuum, charge and leak test R134a refrigerant.

2) Applied to fuel cars, hybrid cars or electric cars

3) 7 inches touch screen, fully digital display and operation prompts.

4）4 digital scales, respectively for refrigerant, PAG oil, POE oil and waste oil

5) Deep recovery function and the recovery rate is high to 95%.

6) Three charge modes: LP charge/HP charge/LP+HP Charge

7) 200,000 car models for data bank. And users can edit the databank by a SD card.

8) Built-in printer, and users can print out the service report.

9) Operation records, which the users can refer to at any time.

10) Patented new designed oil bottles, prevent any air to go in to contaminate the oil.

11) High accurate pressure sensor to detect leaks in the a/c system or in the machine.

12) Intelligent prompts for filter and vacuum pump oil changing.

2.2 Parameter：

1. Refrigerant type: R134a

2, Voltage: AC 110V

3. Power: 1100W

4. Temperature: -20℃~+60℃

5. LCD: 7 inches touch screen

6. Recovery rate: 95% or above

7. Oil bottles: 3 pcs at 350m/pc (PAG, POE, Waste oil）

8 Scale accuracy:10g

9. Scales: 4pcs（for refrigerant, PAG, POE and waste oil）

10. Recovery: 3/8HP

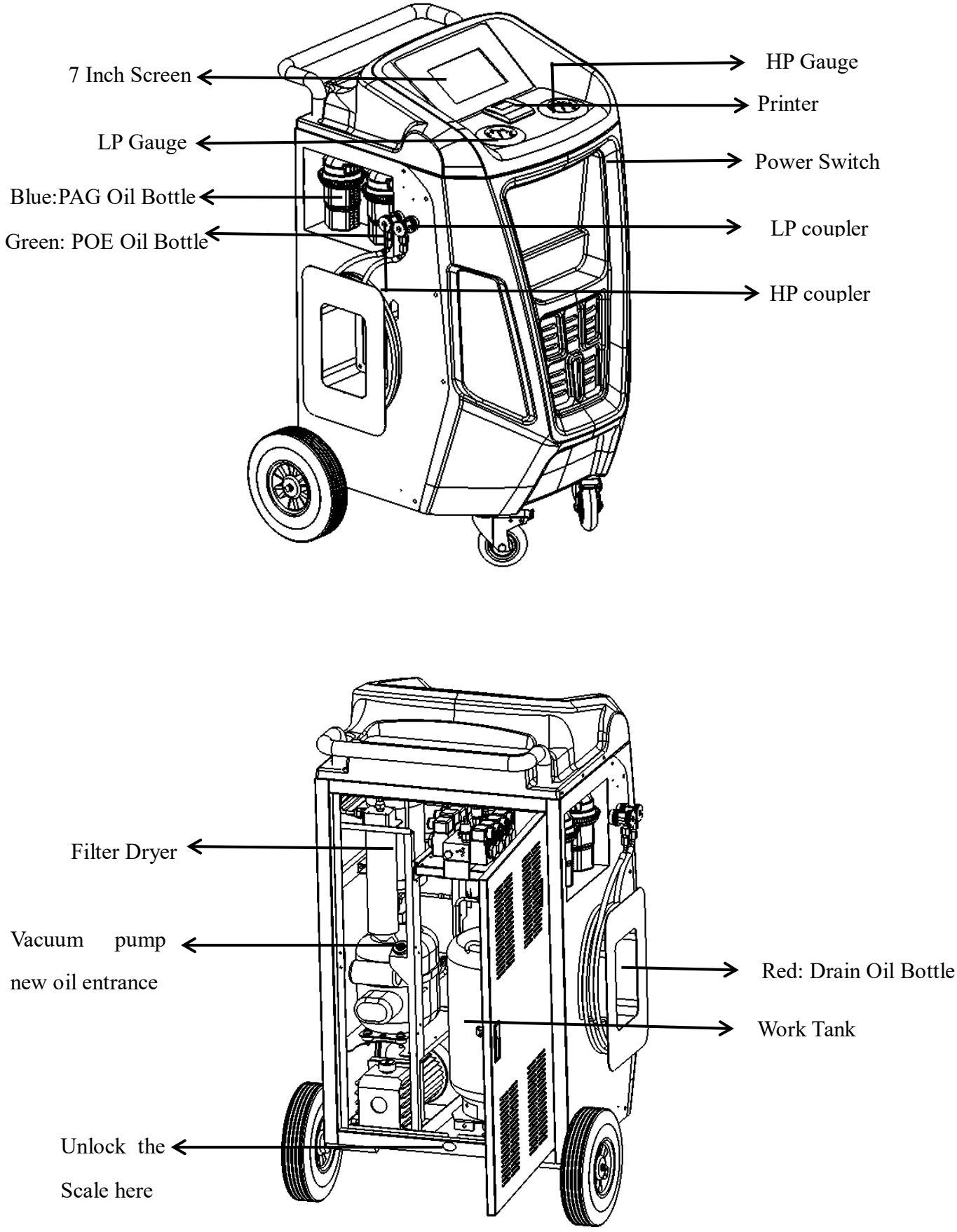
11. Vacuum: 180L/min

12. Tank capacity: 10kgs

13. Filter life:150kg

14. G.w.: 95kg

2.3 Appearance



3. How to connect to the car：

1. Connect the red and blue quick connectors to the red and blue service hoses.

2. Connect the high-side (red) and low-side (blue) service hoses to the vehicle A/C system.

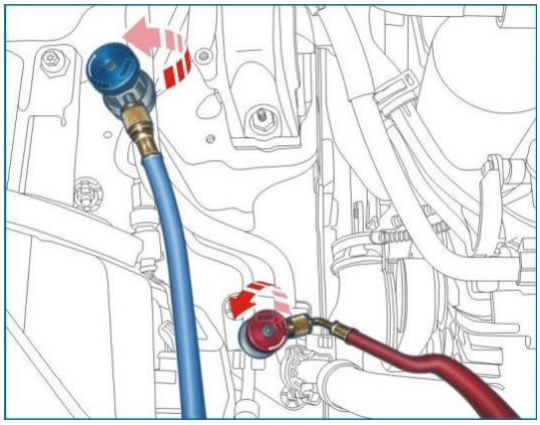
High and low side valve operation guidelines

During the operation, the system will prompt "close high and low side valves" and "open high and low side valves" for many times,which means:

"**Close high and low side valves" ：**

As shown in the picture, tighten the high and low side valves counterclockwise, which is the opposite direction of the arrows on the high and low side valves (arrows marked "open").

Close the A/C system quick connector

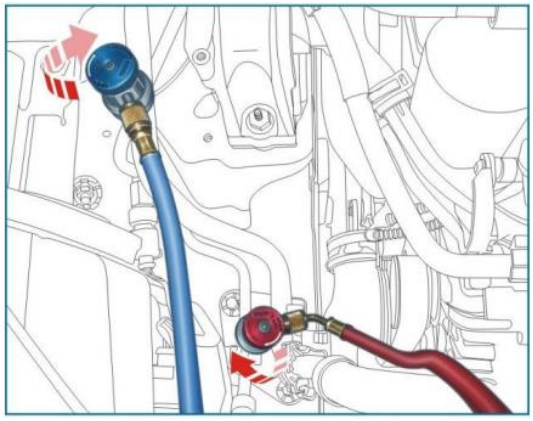


Tighten the A/C system quick-connector counterclockwise

"Open the high and low side valves" ：

As shown in the picture, tighten the high and low side valves clockwise, which is the direction of the arrows on the high and low side valves (arrows marked "open")

Open the A/C system quick connector

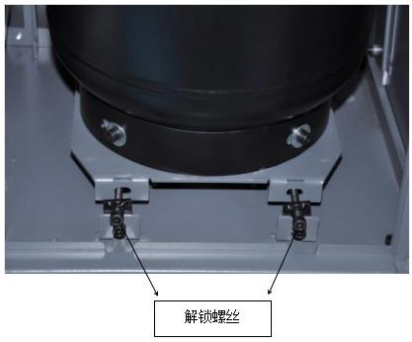


4. Initial Setup：

Please follow the steps to install a new machine.

4.1 Unlock the scale

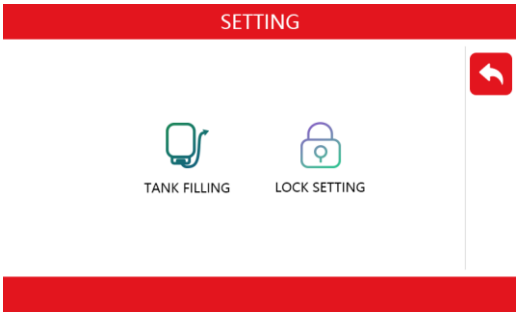
Use a hexagon tool to loosen the protection screws below：



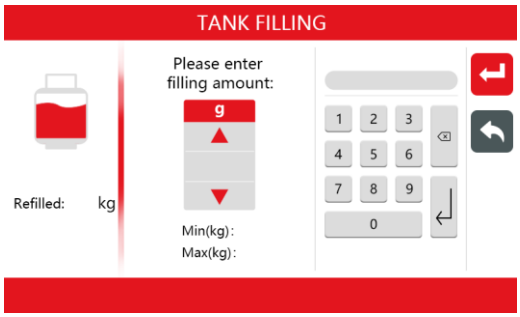
4.2 Please refill 3-6kgs refrigerant into the new machine before charge.

1) Choose the menu “Maintenance”.

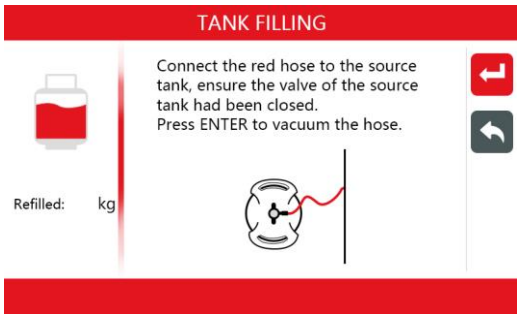
2) Choose “Tank Filling”.



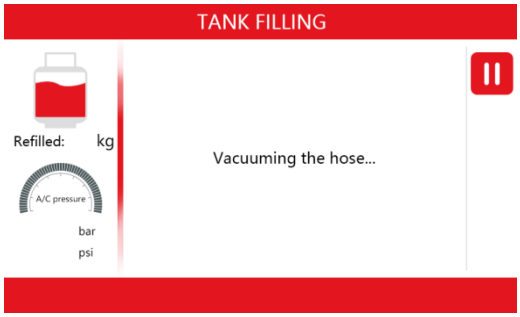
3) Set the amount for refill and press  .



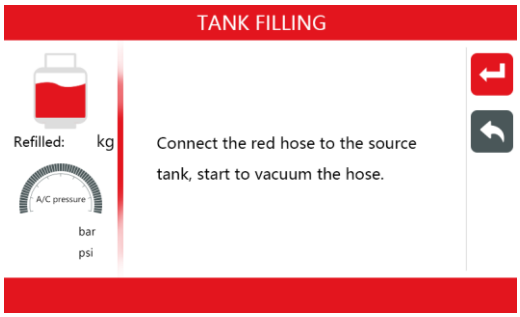
4) Follow the instruction and press  .



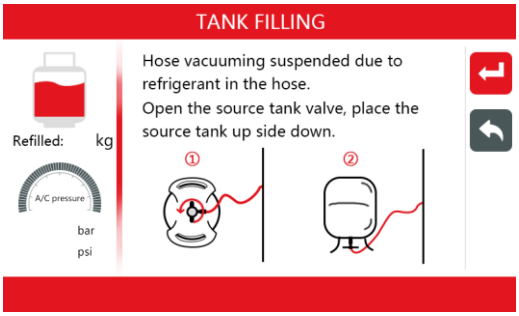
5) Doing vacuum, please wait.



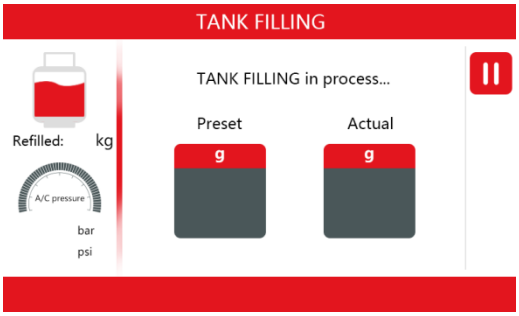
6) Follow the instruction to next step. Press  .



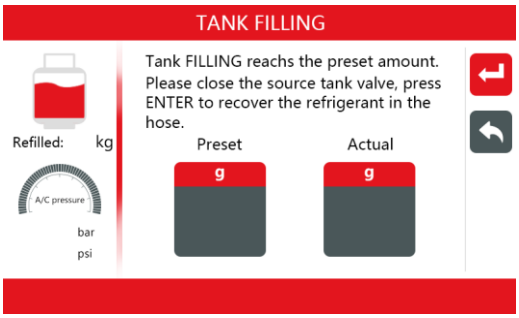
7) Vacuum completed, press  to next step.



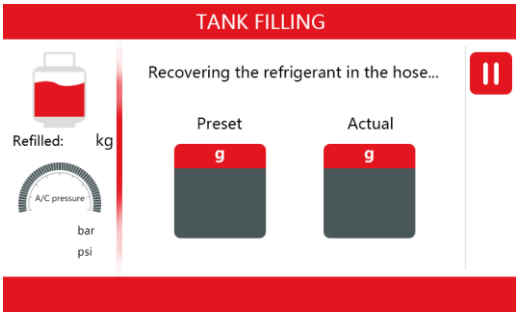
8) Refilling, please wait.



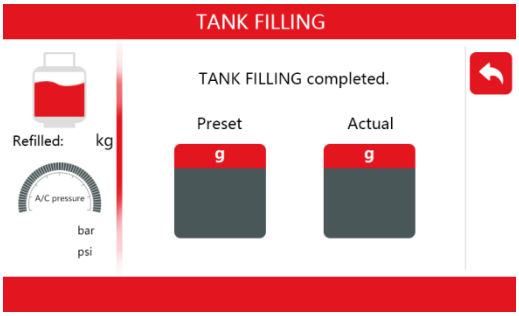
9) Refilling amount completed, close valve and press  to recover residue in hoses.



10) Recovering residue, please wait.



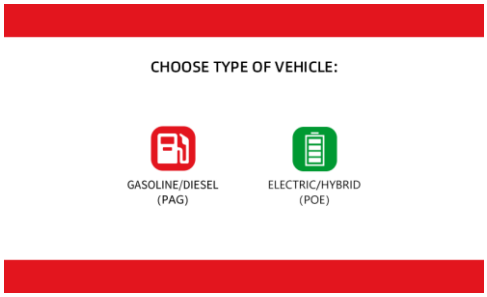
11) Tank filling completed. You can use the machine.



5. Internal Flushing:

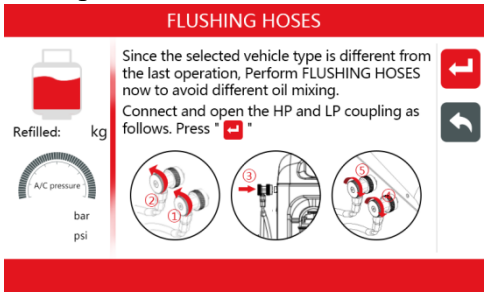
This is the function to prevent the mixing of the PAG and POE oil in the internal system of the machine.

A.) When you open the machine, please choose the type of vehicle.

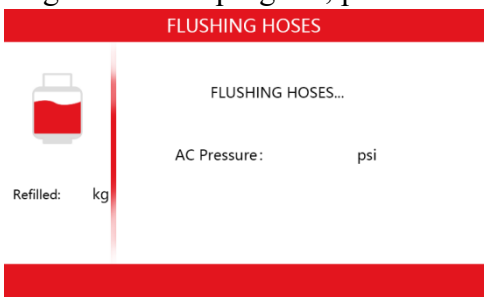


If the refrigerant and oil type selected this time is the same as that selected in the previous operation, you can go to the next step directly.

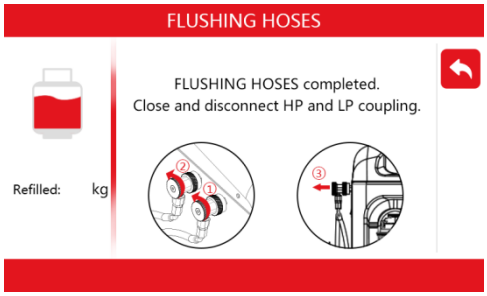
B.) If the selected vehicle type is different from the last vehicle, system will automatically prompt. Press ↵ to the next step.



C.) Flushing Hoses is in progress, please wait.

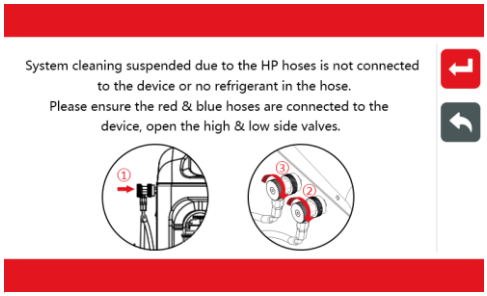


D.) Flushing hoses completed. Close and disconnect HP and LP coupling. Click ↩ to exit.

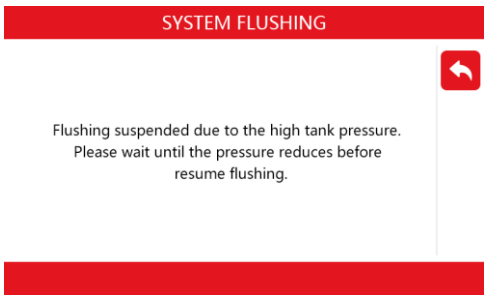


Internal Flushing Troubleshooting

A.) System cleaning suspended due the the HP hoses is not correct to the device or no refrigerant in the hose. Please follow the promot, press ↵ to continue.



B.) Flushing suspended due to the high tank pressure. Please wait until the pressure reduces. Click ↩ to exit.

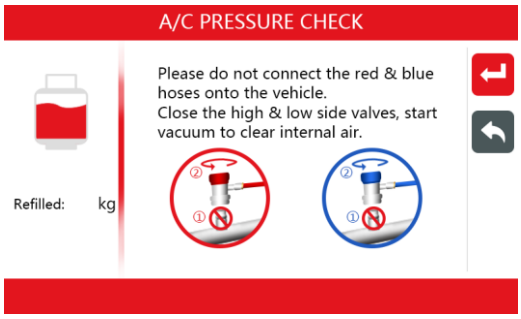


6. Operation Introduction:

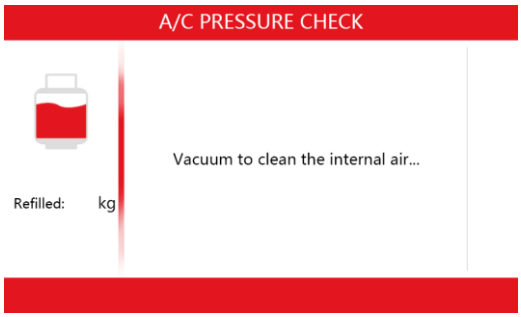
6.1 A/C Pressure Check

1) Choose first menu “A/C PRESURE CHECK”.

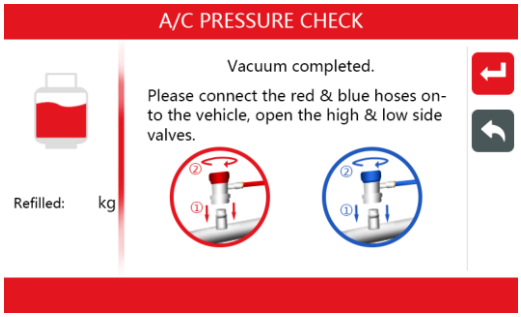
2) Please operate according to the prompt. Press to the next step.



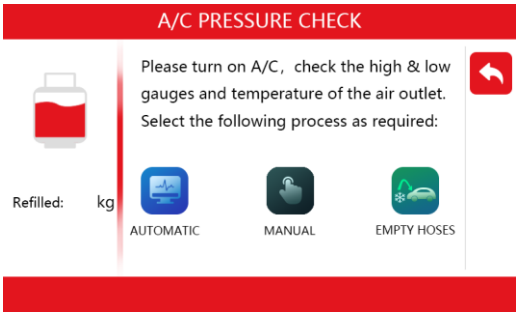
3) Cleaning the hoses, please wait.



4) Hose cleaning completed.



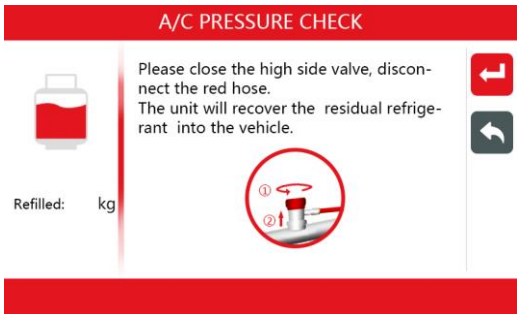
5) Select the following process as required.



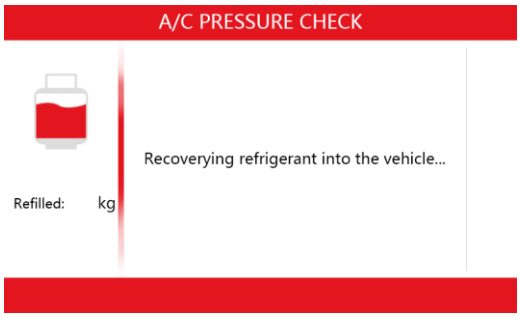
6) For "AUTOMATIC", please refer to **"Fully Automatic Operation".**

7) For "MANUAL", please refer to **"Manual Operation".**

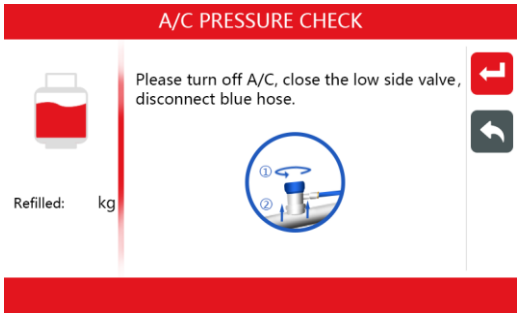
8) Recovering the refrigerant in the hoses, please operate according to the prompt. Press .



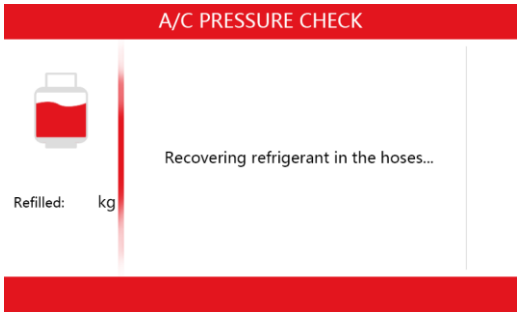
9) Recovering is in progress, please wait.



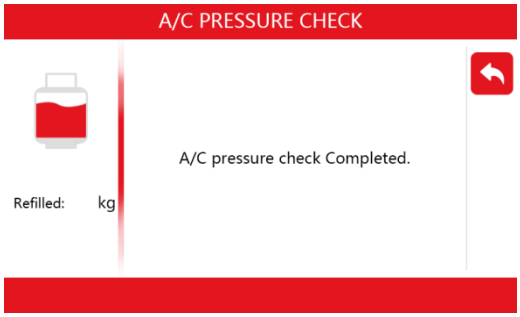
10) Please operate according to the prompt. Press  to the next step.



11) Recovering is in progress, please wait.



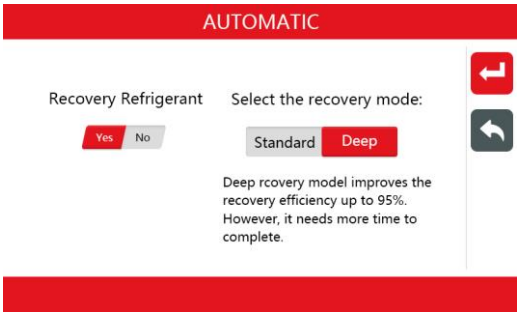
12) A/C pressure check completed. Press  to exit.



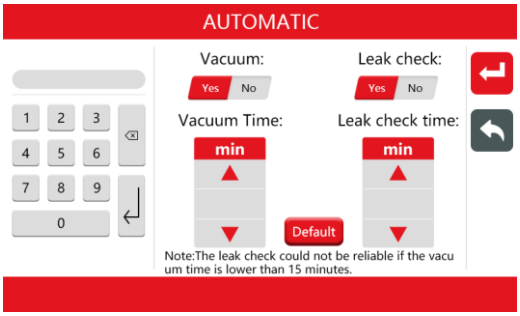
6.2 Full Automatic Operation:

1) Choose “AUTOMATIC”

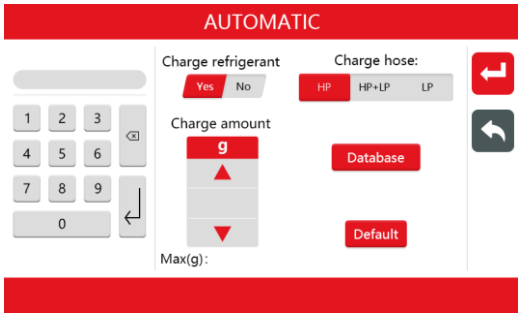
2) Select whether to recovery the refrigerant, select the recovery model. Press ↵ to the next step.



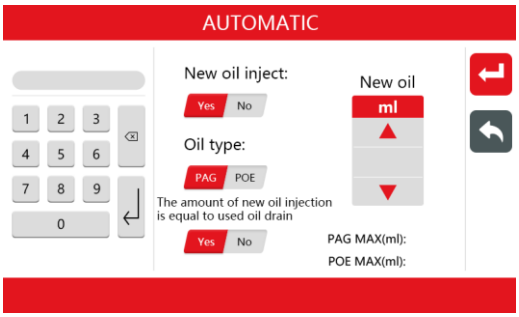
3) Select whether to vacuum or not, and set the vacuuming time, leak check and time of leak detection. Press ↵ to the next setp.



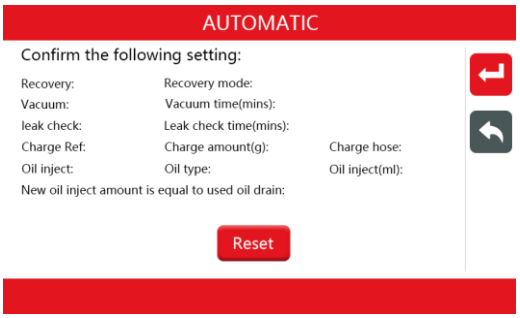
4) Set the parameter for charge.



5) Select whether to add compressor oil, set the oil type and amount. Select whether the new oil filling amount the oil draining amount. Press ↵ to the next step.

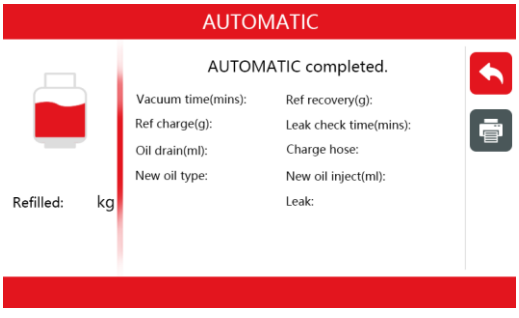


6) Confirm that all settings are correct and then press ↵. If the setting is wrong, please press “Reset” to return to enter the desired value.



7) Please operate according to the prompt.

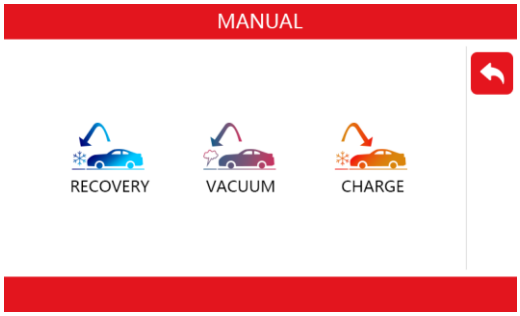
8) Fully automatic operation completed. Data can be observed. Press 🖨 to print out the data, or press ↩ to return to the MAIN MENU.



6.3 Manual operation

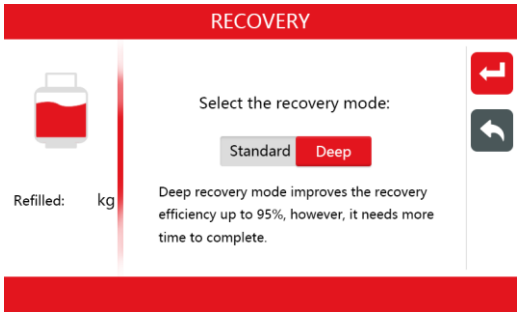
Choose “A/C PRESSURE CHECK” from the MAIN MENU.

Select the function as required.

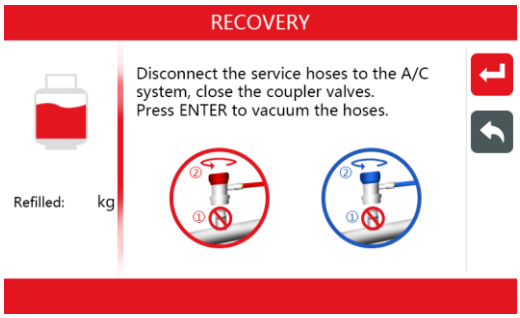


6.3.1 Recovery

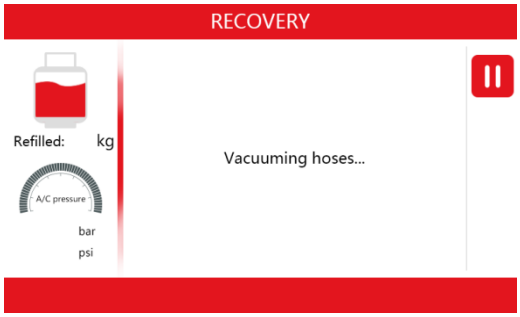
1) Select the mode of recovery, press  to next.



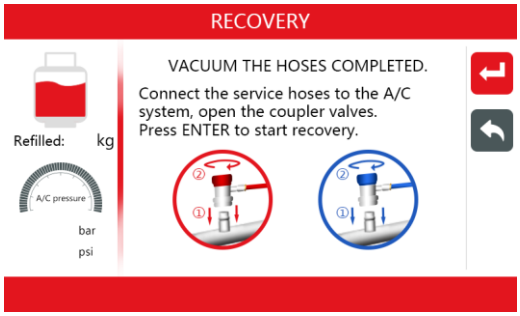
2) Please operate according to the prompt and press  to next.



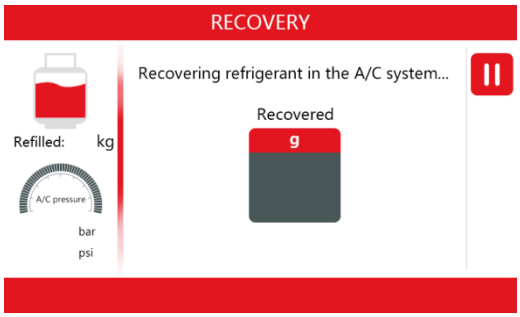
3) Vacuuming is in progress, please wait...



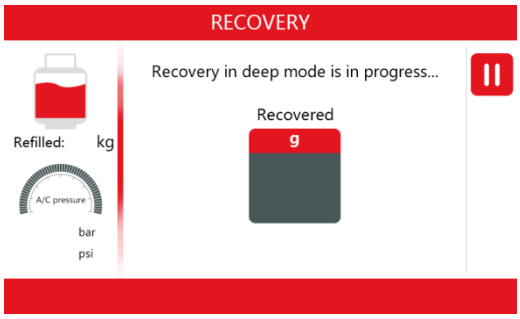
4) Vacuum completed. Please follow the prompt to operate.



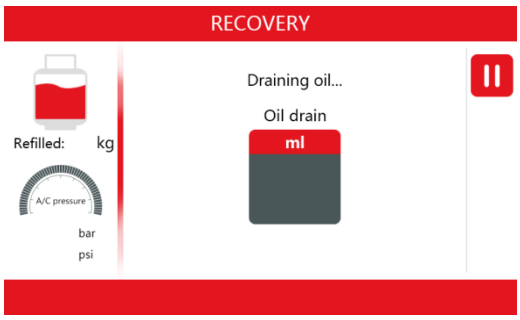
5) Recovering, please wait...



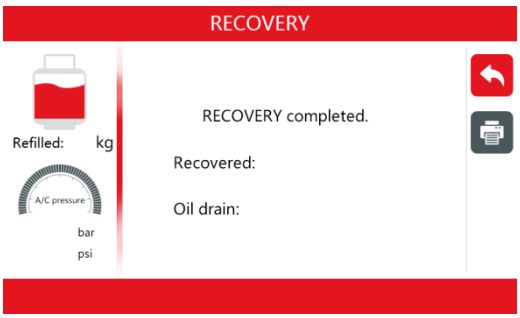
6) If choose the mode of deep recovery, it takes more time. Please be patient.



7) Recovery completed. Draining the oil, please wait...

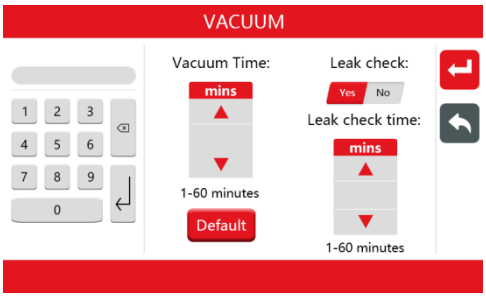


8) Recovery completed. The recovered amount and the oil draining data will be displayed. Press to print the data or press to exit.

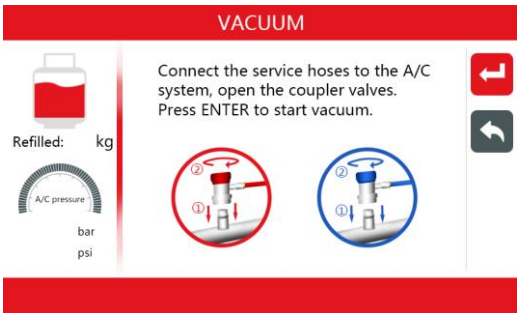


6.3.2. Vacuum

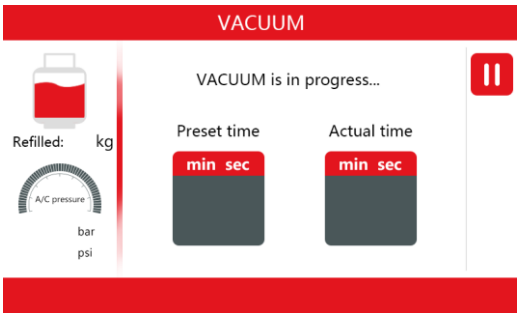
1) Set the desired vacuum time. Please select whether to leak check, if yes, set desired the leak check time. Or click "Defaults". Then press to continue.



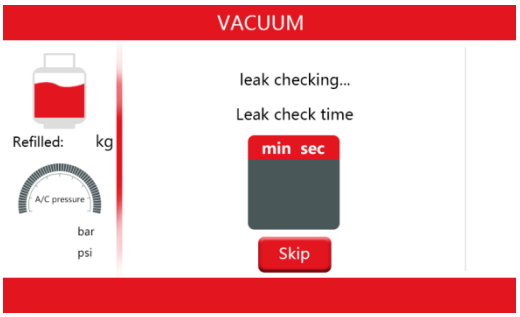
2) Please operate according to the prompts and press .



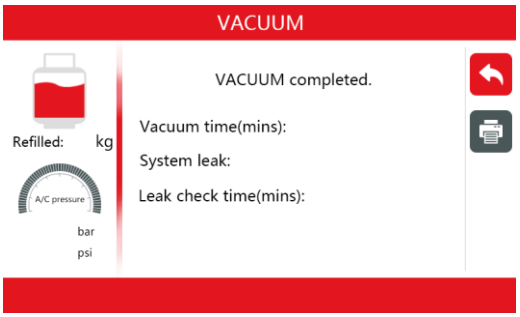
3) Vacuum in process, please wait.



4) If you choose to leak check, the vacuuming program will go into the leak check program.

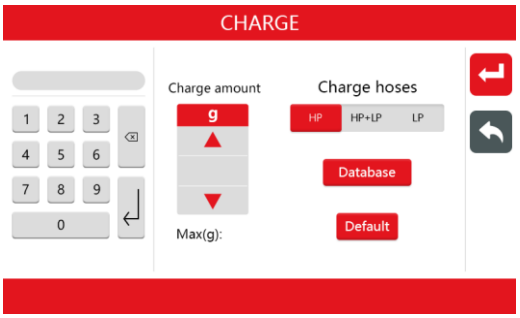


5) Vacuum completed. The vacuum time,leak check time and whether it leak can be observed. Press to print out the data, or press to return to the MAIN MENU.

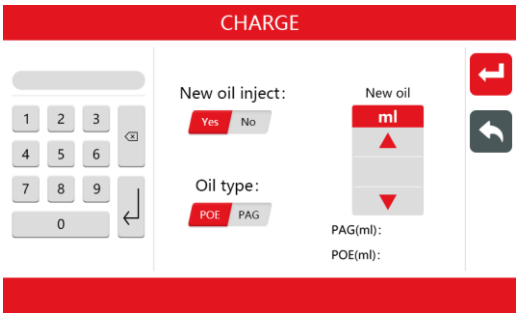


6.3.3 Charge

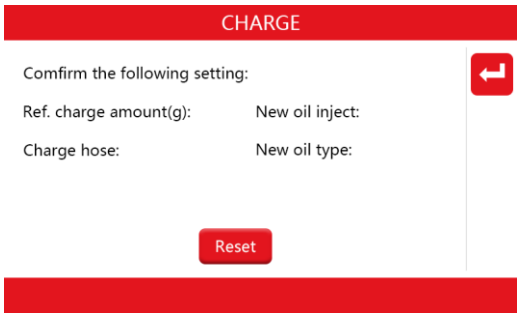
1) Select charge mode. Press to go to the next step after setting.



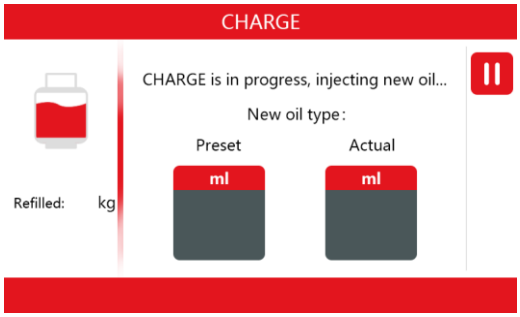
2) Select whether to add compressor oil and UV dye, oil type. Set the amount of oil inject. Press to continue.



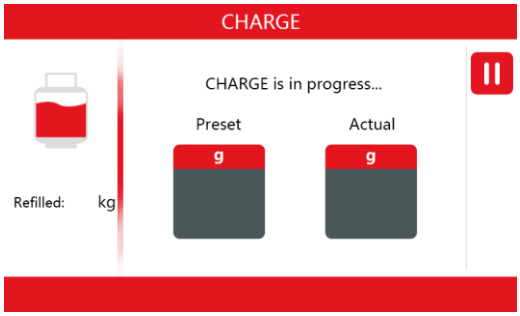
3) Please click  to go to next step after confirming that the parameters. If you want to modify it, click "Reset" .



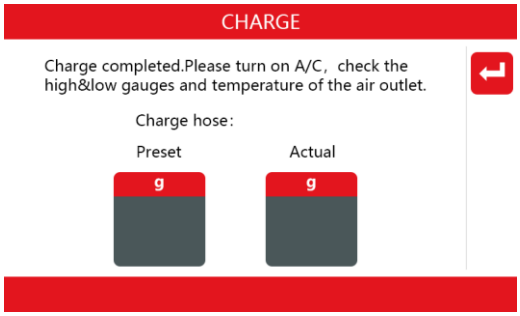
4) Injecting new oil, please wait.



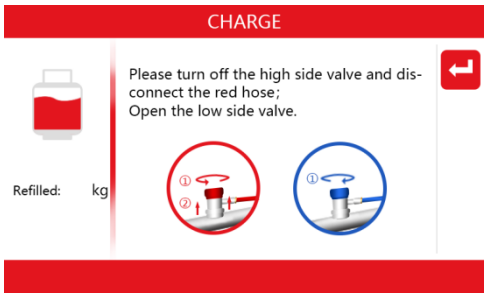
5) CHARGE is in progress.



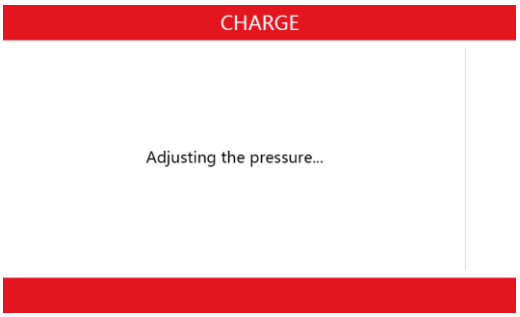
6) Please operate according to the prompts, then press  .



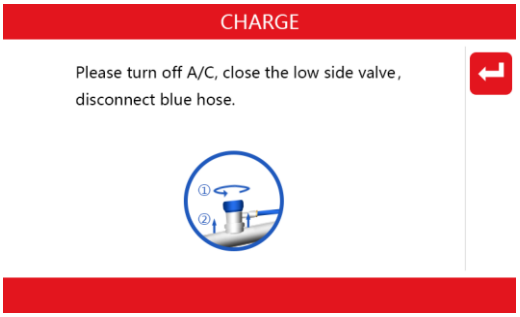
7) Please operate according to the prompts, then press  .



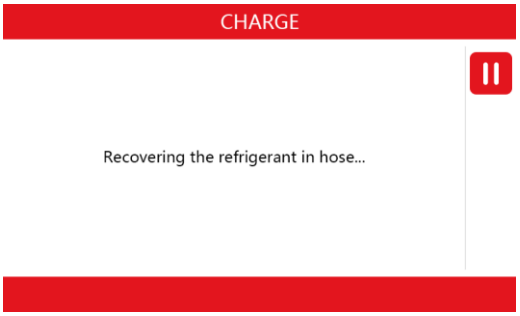
8) Balancing the pressure, please wait.



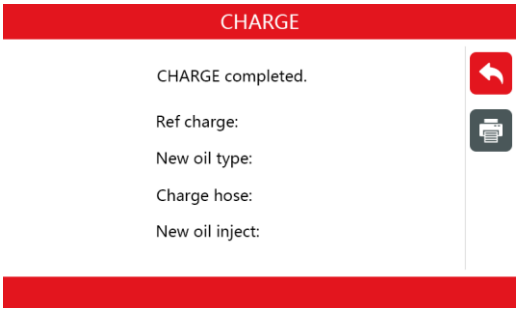
9) Please operate according to the prompts, and then press  to continue.



10) Recovering the refrigerant in the hose, please wait.



11) CHARGE completed, data can be observed. Press  to print out the data, or press  to exit.

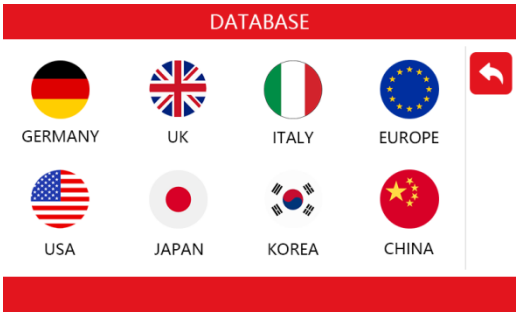


7. Data Bank:

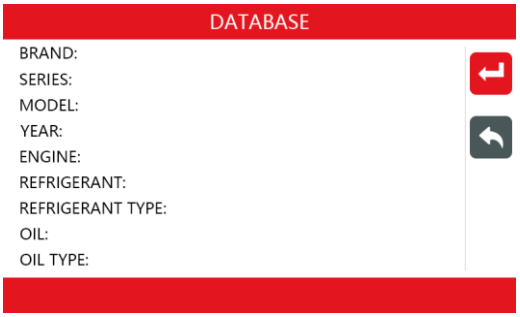
Select “RESEARCH”.

Select “DATABASE”.

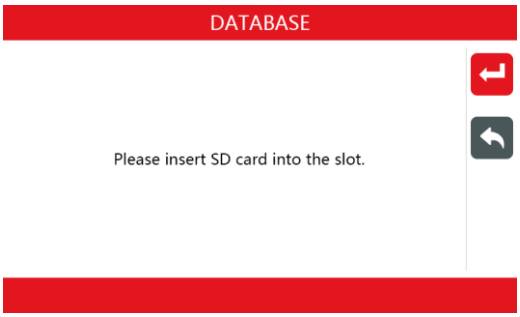
1. Check data according to the country series of each model.



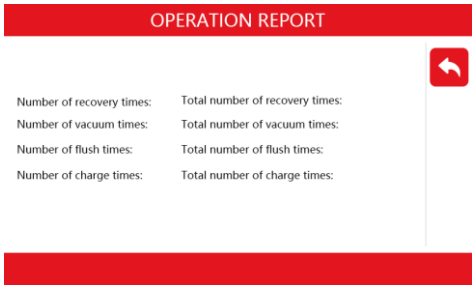
1-1) Check all the information.



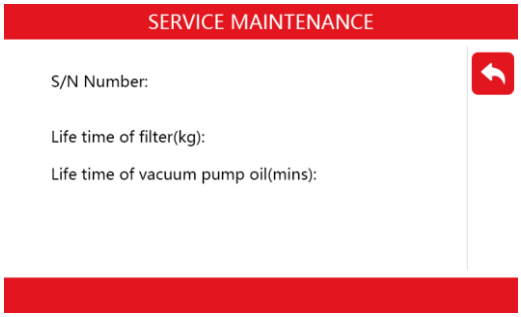
2. Upload the database for manufacturer update, users do not need to operate.



3. The service report can be ovserved.



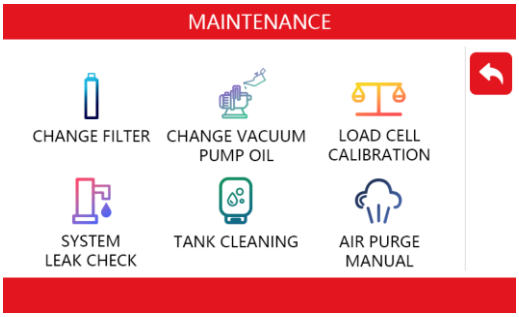
4. Maintenance information can be observed.



8. Maintenance:

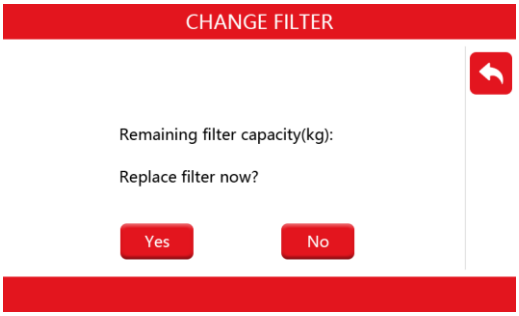
Choose “MAINTENANCE” in MAIN MENU.

Choose the function as required.

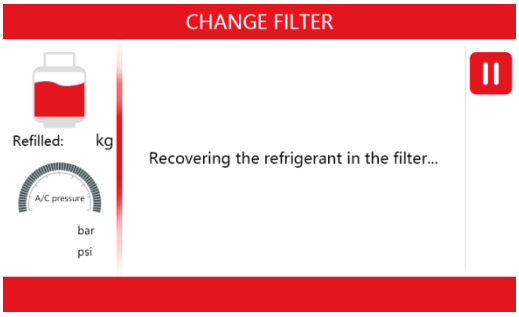


8.1 CHANGE FILTER

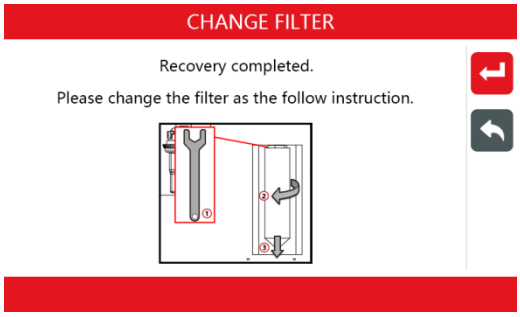
1) The remaining filter capacity can be queried. If needed to replace, then press “Yes”



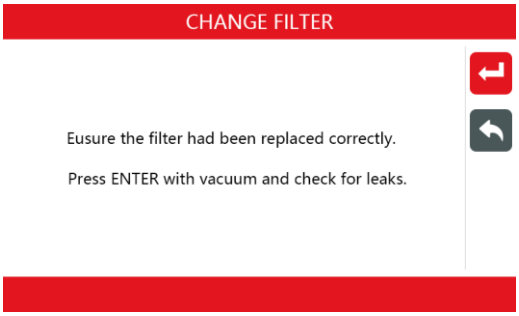
2) Recovering the refrigerant in the filter.



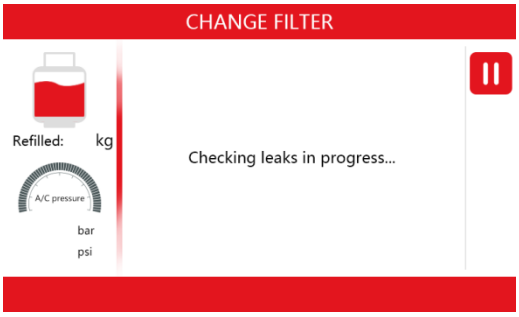
3) Please operate according to the prompts, press .



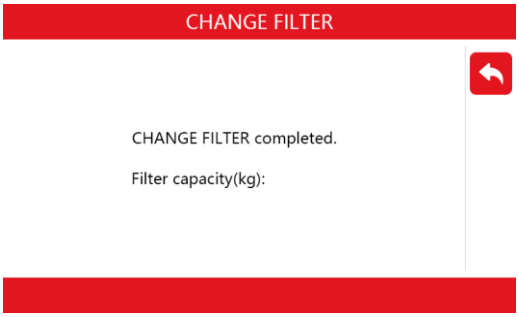
4) Please operate according to the prompts and press .



5) Leak checking is in progress, please wait.

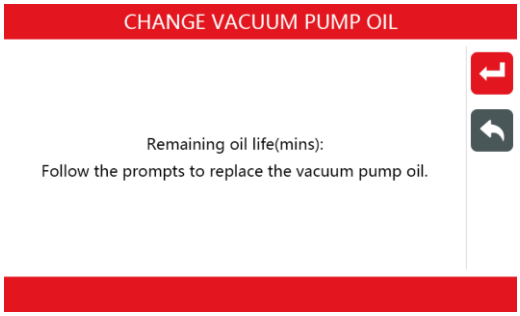


6) Press to exit.

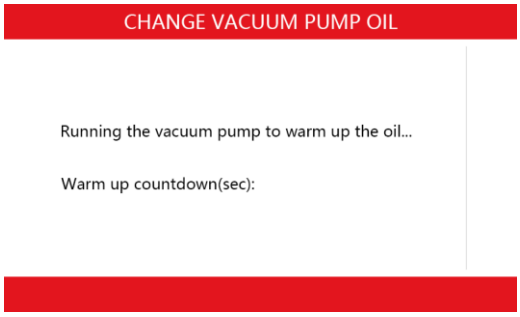


8.2 CHANGE VACUUM PUMP OIL

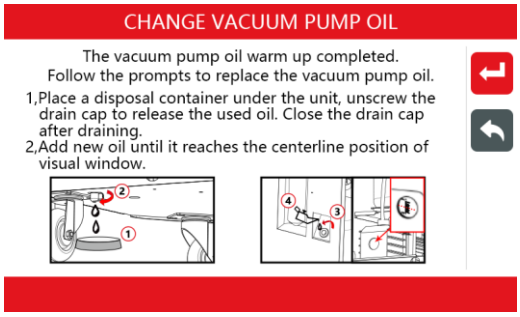
1) Remaining oil life can be queried， please press to change oil, press to exit if you do not need to change.



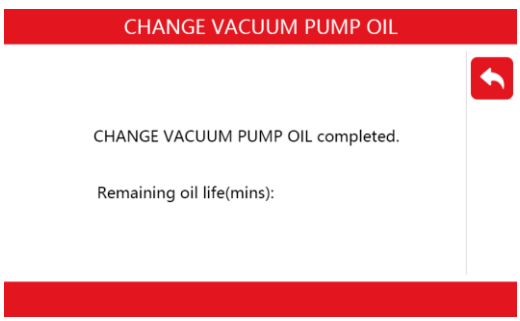
2) Running the vacuum pump to warn up the oil. Please wait.



3) Please operate according to the prompts, press .

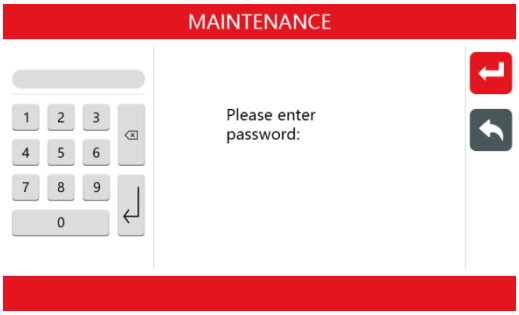


4) CHANGE VACUUM OIL completed. Remaining oil life will be displayed, press to exit.

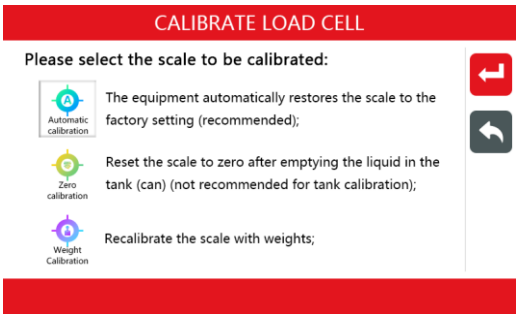


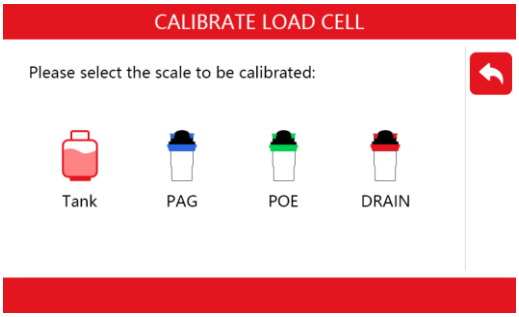
8.3 LOAD CELL CALIBRATION

1) Please enter the password.

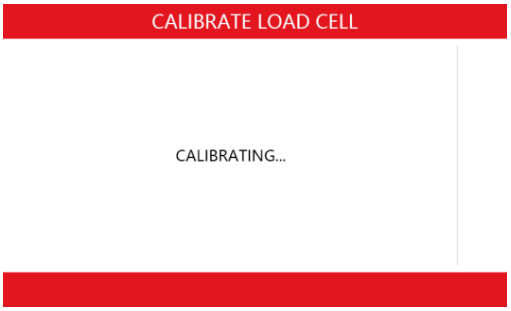


2) Please select the calibration mode.

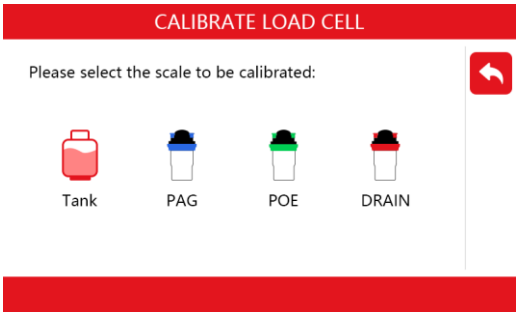




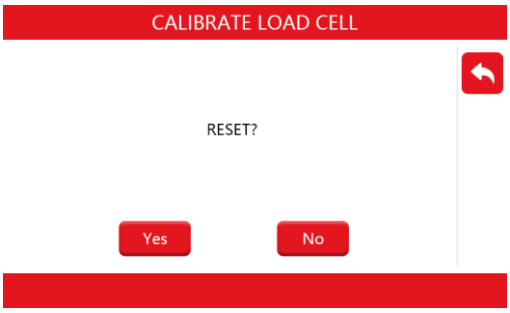
a) Automatic calibration (recommended)



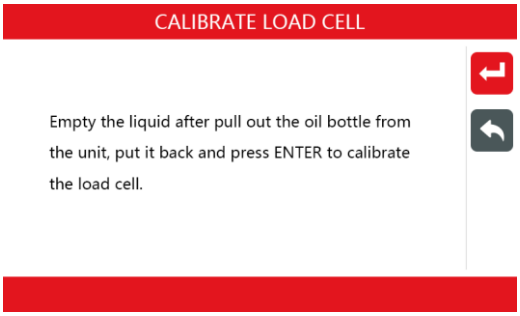
a-1) CALIBRATION completed. Press to exit.



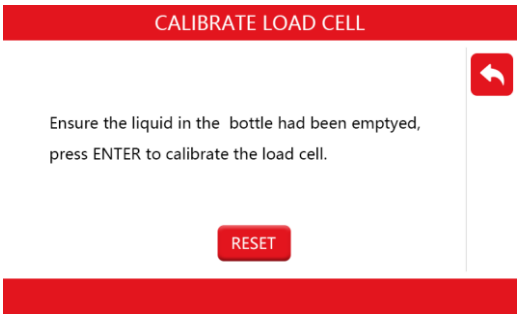
b)Zero calibration, please press “Yes”



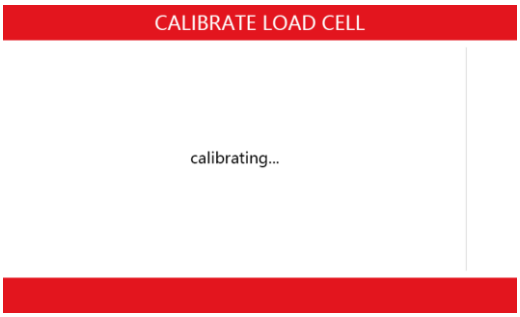
b-1) Please operate according to the prompt and press  .



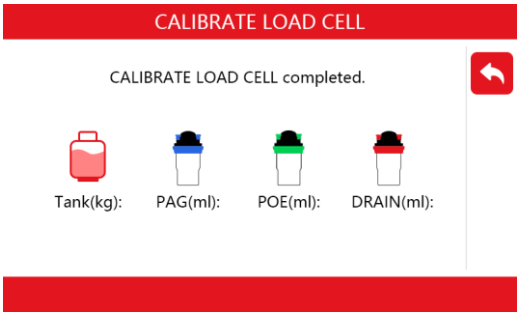
b-2) Please ensure the liquid in the bottle had been emptied, press “Reset” to calibrate the load cell.



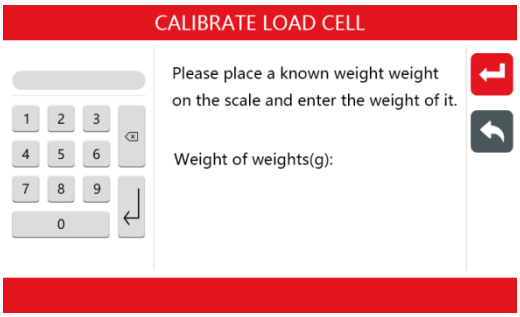
b-3) Calibrating, please wait.



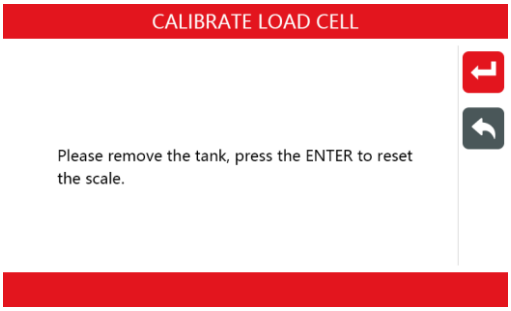
b-4) Calibrate load cell completed.



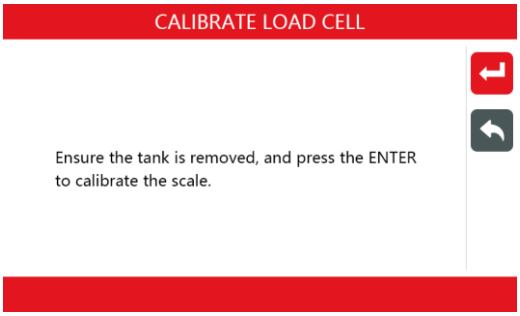
c) Weight calibration. Prepare the weights and enter the weight of it. Press  to continue.



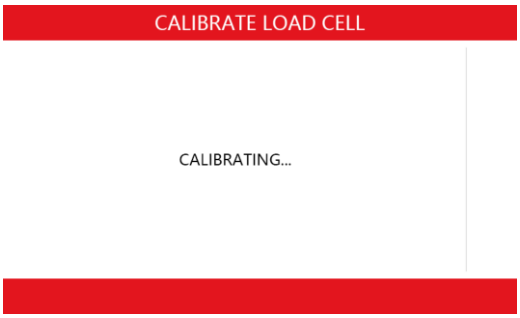
c-1) Please operate according to the prompt.



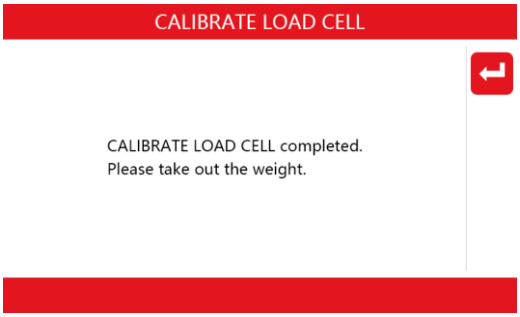
c-2) Please operate according to the prompt.



c-3）CALIBRATING, please wait.

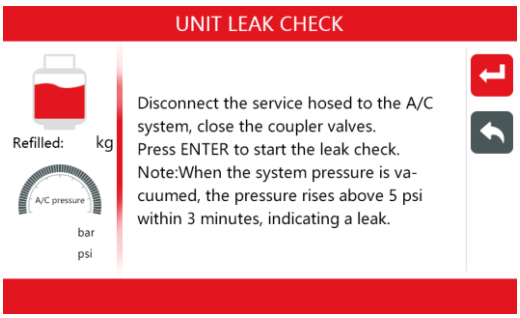


c-4）Calibrate load cell completed. Please take out the weight. Press  to exit.

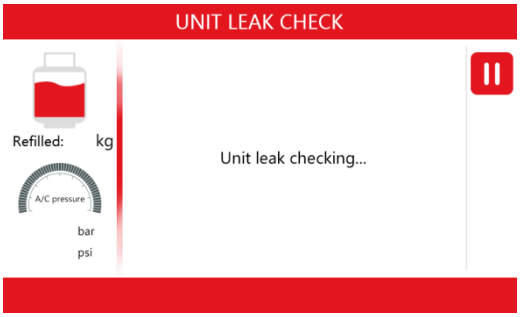


8.4 MACHINE LEAK CHECK

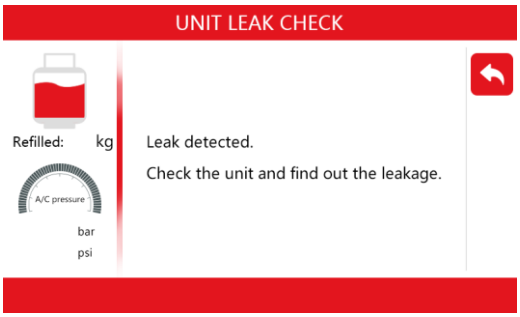
1) Follow the prompt, press  to continue.



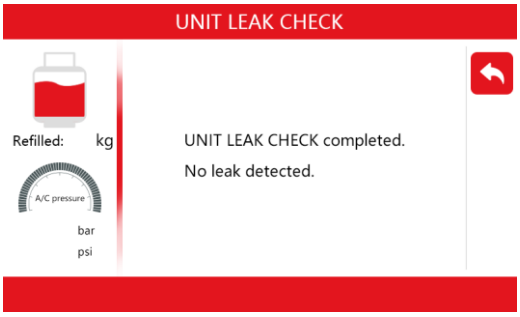
2）Unit leak checking, please wait.



3) Click  to exit if there is a leak in the system.

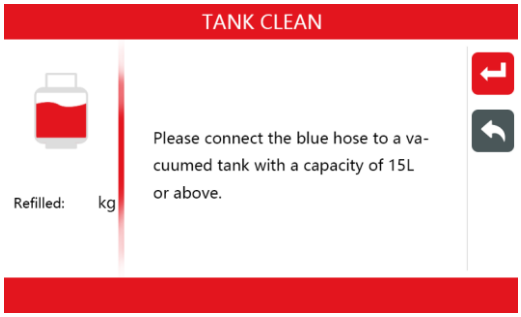


4) Unit leak check completed. No leak detected.

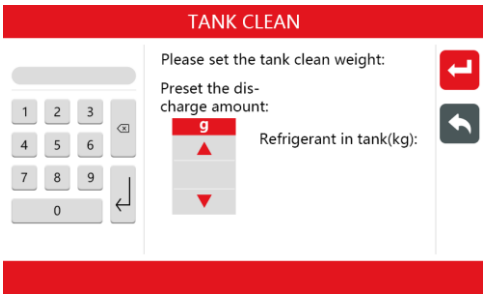


8.5 Tank Cleaning

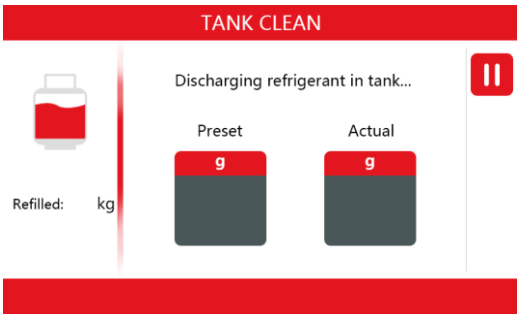
1) Please operate according to the prompt.



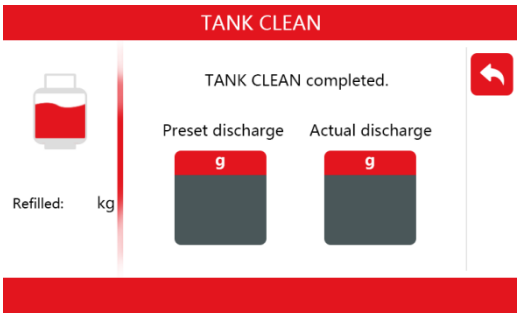
2) Set the weight needed to be cleanup. Press  .



3) Discharging refrigerant in the tank, please wait.

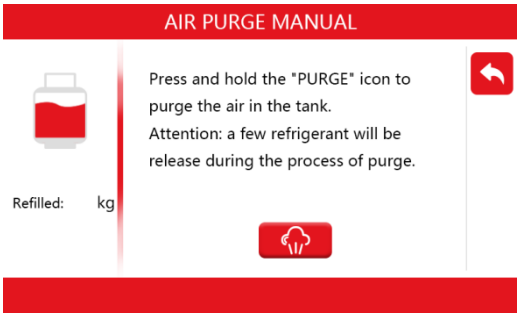


4) TANK CLEAN completed.



8.6 Manual purge

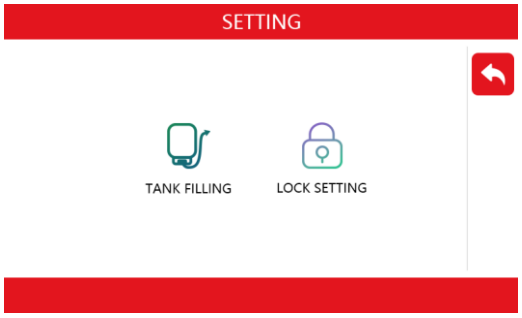
Press  to release non-condensable gas.



9. Setting:

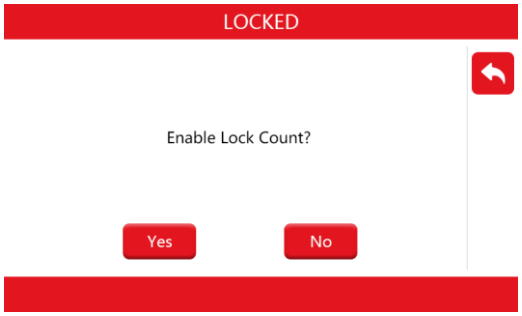
Choose “Maintenance”

Choose the functions as required.

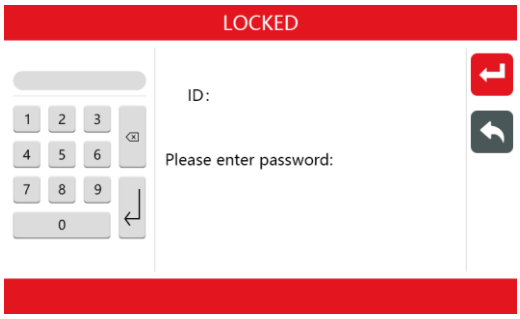


1) Refill the tank, please refer to the **Initial Setup**.

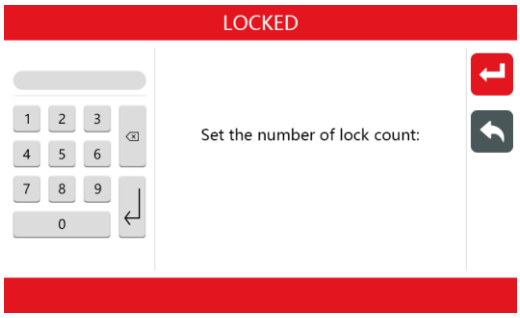
2) Lock setting. Please input the password to unlock it before operation. Normally it is not suggested to lock the machine.



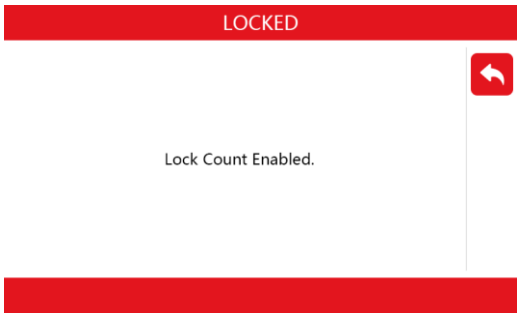
2-1）Input the management password, press .



2-2) Set the using times for locking, press to enable the setting.



2-3）Block setting successfully.



10. Trouble Shooting

Display	Cause	Solution
1.RECOVERY FAILED	1.High tank pressure: full tank or poor refrigerant quality	Enter “Maintenance” - Manual Air purge
	2.Aging or damaged compressor	Change
	3.Relay fault	Change
	4.Solenoid valve leakage	Remove dirt or replace with a new solenoid valve
	5.The main board is faulty, recovery failed, but commands such as vacuum and charge can be performed.	Repair
	6.Poor wiring	Check wiring
	7.One-way valve or recovery solenoid valve blocked	Remove dirt or replace with new valve
2.Touch screen FAILED	1. Click the touch screen, no key sound	Replace the touchscreen
	2.Smashed by an object	Replace the touchscreen
	3.The screen does not display as a black screen, it may be a problem with the power supply of the motherboard	Repair the Main board and Check the Screen
	4.There is a key tone interface but no action.	Repair the Main board
3.The electronic scale is not accurate	1.Incorrect operation to zero the recovered refrigerant	Enter“maintenance”-”load cell calibration”-”automatic calibration”
	2.The chassis screws are loose, fix the stability sensor screws, and the liquid storage tank fixing screws are loose	Re-tighten tightening screws
	3.Transportation or loose fixing screws make the wall of the liquid storage tank contact other parts of the equipment	Tighten the fixing screws of the weight after adjustment,
	4.If you disassemble and repair without permission, you should pay attention to the arrow direction of the electronic scale is downward.	If it is installed in reverse, it needs to be adjusted and corrected
	5.Damaged load cell	Change
	6.Damaged main board	Repair
4.Charge FAILED	1.The refrigerant in the internal tank is less than 1kg	Recovery more than 1KG of refrigerant to the tank
	2.Fill Mini can refrigerant to the tank.	Some technicians fill mini can of refrigerant (refrigerant with a weight of less than 1KG) to the internal tank.This approach is wrong.Internal Tank

		should be filled with a standard source tank （(usually weight 13.6KG)
	3. Filling valve is blocked or valve core is damaged	Clean or replace
	4.Damaged main board	Repair
	5.Manually close the hand valve of the internal tank	Reopen
	6.Incorrectly setting the filling amount to "zero"	Reset
5.VACUUM FAILED	1.Vacuum pump failure	Change
	2.Relay failure	Change
	3.Damaged main board	Repair
	4.Prompt that the pressure of the hose is too high and cannot be vacuum	Recovery or manually deflate the external hose to less than 0.5KG/CM2
	5.Can not maintain pressure for leak detection	1.Check A/C system for leaks 2.Whether the quick connector and hose of the refrigerant machine leak, or the leak of the vacuum pumping piping. 3.Check PAG POE and UV solenoid valve for leakage
	6.Filling valve leaks	Change
6.Smoky vacuum pump	1.The vacuum pump oil is deteriorated	Change
	2.Excessive vacuum pump oil, which accumulate vacuum pump oil in the vacuum pump for a long time when vacuuming the A/C system.	Drain oil from vacuum pump to middle scale line
	3 The connector of the pipes may be loose and ,which may cause smoke.	Check and tighten the relevant connector.
	4.The vacuum time is too long, and the heat will cause the vacuum pump oil to evaporate.	Ignore
	5.Car A/C systems keep too much gas for a long time The vacuum pump fixing screw is loose	Ignore
7.Noisy vacuum pump	The vacuum pump fixing screw is loose	Re-fasten the screws