CoolBank

Rocovery / Recycle / Vacuum / Charge

User Guide

■ The contents of the User Manual can be changed without any notice to further develop a better products.

CoolBank X10
Smart Center

We sincerely thank you for purchasing our air conditioner equipment of Cool bank Co,. Ltd.
Please get thoroughly acquainted with this manual in advance of your use of the equipment in order to assure the safety and efficiency in using it.

Product	**Recovery / Recycle / Vacuum / Charge**		
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CoolBank

TRANSPORTATION OF QUIPMENT

(1) On installation site, please be in a company with not less than three workers in an effort to unload the equipment intact without impacts at all. (In a protective manner for electronic scale)
(2) Carry the equipment by pushing it to desired point.
(3) Unpack and confirm the equipment.
(4) Check the accessories are accurately inside.

⚠	**Caution: When loading and unloading the equipment on and from truck, please be sure to have it in a company of more than three workers of one accord in stable position-set.**

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CHAPTER 01 Notes on Installation

⚠	**To prevent user safety accident or equipment damage** **As important matters are described Be sure to use this manual after reading this instruction manual.**

1-1 Terms of Use

(1) Use indoors.

(2) Use in places where there is no direct exposure to direct sunlight.

(3) Use in places where there is no direct exposure from rain or water.

(4) When working, be sure to wear gloves and protective glasses.

(5) Please use in a well-ventilated place without fire.

(6) Use it on a flat surface with no slope.

(7) Use an electrical outlet where there is a ground connection. (Cause of equipment failure)

1-2 Power Relation

(1) Do not use with damaged power plug or loose outlet. (Risk of electric shock and fire)

(2) Do not pull out the cord part or touch the power plug with wet hands.

(3) Do not bend the power cord excessively or apply pressure with heavy objects to prevent damage. Be careful.

(4) Unplug the power plug during thunder, lightning, or when unused for a long time.

(5) Do not use multiple electrical appliances in one outlet at the same time.

(6) Keep the power plug grounded and the contact area clean.

CHAPTER 02 Products Precautions

	◇ Details of safety matters and warnings of dangers in the product are provided in this Users' Manual which please read carefully and have full understanding of before starting to use it.
	◇ Wearing protection mask is definitely required before you getting down to work. (In the event that refrigerants or oil splash into your eyes, please wash your eyes immediately with flowing water and consult a doctor.)
	◇ In getting down to work, please be sure to wear gloves. (Refrigerants are of high volatility and skins being in touch with them may get freezing damage. If it's painful enough, please consult a doctor.)
	◇ Use it in an airy place, and at start of each running please ventilate the running place.
	◇ Don't have the equipment running in a place exposed directly to rain or wateriness.
	◇ Never have the equipment running nearby fire. (R1234YF refrigerant is a slightly flammable refrigerant which may cause fire.)
	◇ Don't have the equipment exposed directly to direct-rays of the sun.
	◇ Never have the equipment running in a sloping place. (The built-in precision scaler in the equipment may have trouble in measuring weight.)

CHAPTER 03 Refrigerant Precautions

3-1 Refrigerant Precautions

(1) The refrigerants-tank as delivered is filled in a sealed state with liquidated gas of R12, R134a all with high pressure which, if heated, possibly explodes and may cause a burn.
Therefore, don't keep or install the equipment and the refrigerants-tank in a place where the direct rays of the sun may reach or where there are any possibilities of being heated.

(2) As being colorless, odorless and transparent, liquids are very stable at the normal temperature, but at a high temperature very dangerous where cautious are required.

(3) CFC influenced by a high temperature will yield poisonous gases that would be fatal to body for which please take a great caution. For that reason, in choosing a place for keeping or installing please avoid any place where the direct rays of the sun may reach or where there are any possibilities of being heated.

(4) Please take care not to mingle with other kinds of refrigerants.

(5) Never attempt to recharge into a disposable tank

(6) In the case of R1234yf refrigerant, it is weakly flammable and the refrigerant gas is directly burned. Be careful of absolute heat.

3-2 Regarding the danger of refrigerant

(1) Be sure to use the nominated refrigerants only. If a mixture with other kinds of refrigerants being used, it may cause various kinds of unexpected breakdown to car or equipment.

(2) Please avoid inhaling through breath any emitted matters (refrigerants, vacuumizer's emissions, oil emission and others).

(3) Only one kind of refrigerant is to be with tank. No mixture with other kind of refrigerant is allowed for use.

(4) Disposable tanks are designed, in the structures of themselves, to disable recharging. Any attempt to recharge may cause a critical breakdown to equipment ensuing from high pressure.

(5) Please have the work done by a qualified mechanic. Operation of mechanism should be driven by a skillful mechanic about air conditioners of cars and refrigerants.
Being the equipment connected with refrigerants and compressing, it's regarded as harmful.

⚠	**Refrigerants-tank (R12, R134a) as delivered is filled in a sealed state with high pressure liquidated gases which are hazardous things easy to explode. Hence for that, don't cause any impact to the tank or have it nearby fire**

CHAPTER 04 Product Features

4-1 Product Specialties

(1) Available for both EV and hybrid vehicles
(2) Double condensing structure prevents overpressure from rising
(3) New concept perfect recovery system applied (patent pending)
(4) Automatic discharge of waste oil and non-condensable gas.
(5) Super precision sensor applied (2/1000)
(6) Job result storage and print function.
(7) Fast transfer and extended life when using for a long period of time by installing a compressed compressor for high temperature.
(8) 2 Stage high performance vacuum pump (R1234yf model is explosion-proof vacuum pump)
(9) Application of new sealed oil container (prevention of external contamination of moisture)
(10) Pass electromagnetic wave test, voltage fluctuation test, withstand voltage test, high temperature test.
(11) New oil (PAG, POE) / waste oil, precision electronic scale measurement control
(12) 7"TFT Color LCD (Touch applied)
(13) Check all work results such as date, clock, temperature and humidity, recovery amount, and filling amount.
(14) Multi Language Support.
(15) Support Voice function.
(16) Saving and checking the operation result and error status.
(17) Convenient vehicle search function. (Data can be modified at the discretion of the operator)
(18) Screen brightness, volume adjustment function.
(19) Apply work progress LED (7 Color)
(20) Convenient system updates (USB, WIFI).
(21) Simple operation buttons and a user-friendly UI.
(22) Fully automatic operation of flush, recovery, vacuum, new oil injection, and refrigerant filling.
(23) Equipped with a strainer for blocking foreign objects.
(24) Equipped with solenoid valve for high pressure refrigerant
(25) All line blocks are semi-permanent, and refrigerant gas loss and breakdown are greatly simplified.
(26) The balance life is extended by using the electronic balance shock absorber.
(27) Plastic molded resin case prevents electric shock and looks beautiful.
(28) Durable 10", 4" casters are used.
(29) High, low pressure gauge with fine adjustment (MADE IN ITALY, EN837-1 certified)
(30) Design to prevent malfunction due to poor contact with the main PCB itself
(31) Neutronics (U.S.A) Genuine Analyzer that can measure refrigerant purity (SAE certified)

CHAPTER 05 Product Specifications

5-1 Product Specifications

PARTS	SPECFICATION	REMARKS
CONTROL	MPU*2, ARM(Quad Core)	OS Attached
DISPLAY	7" TFT Color LCD	IPS, Touch Panel
ALERT	7 Color	RGB LED
KEYBOARD	TACT TYPE	3 Keys
PRESS GAUGE	-1~16 / -1~35 BAR	80ϕ / Fine adjustment of 0 points
SOLENOID	Exclusive use for high pressure refrigerant	orifice 2ø, 3ø
BLOCK	Fine adjustment of 0 points	Special Anodized
HEAT CORE	Dual Type	PIN Copper Tube, Condenser
QUICK ADAPTER	Parker	Made in USA
FILTER DRYER	3/8" SAE Flare Type	53 sq.in 4.2ton
OIL BOTTLE	Silicone Sealed Type	Prevention of moisture and external pollution
LOADCELL	1g / 35kg	Recovery tank (shock absorption system)
	0.1g / 3kg	PAG, POE, Waste Oil
COMPRESSOR	High temperature and high pressure	220V 60Hz
VACUUM PUMP	R134a (Dual Stage)	220V 60Hz
	R1234yf (Dual Stage Explosion proof)	220V 60Hz
TANK CAPACITY	12.5Liter	KGS Certified
MAX PRESSURE	25Bar	Safety Switch Attached
CASE	Plastic / Steel	PE,ABS / 3.2T,1.6T
SOUND	2ch Stereo	RMS 15W * 2
STORAGE	USB / TF / FLASH	DDR 5G
NETWORK	Wi-Fi / Gigabit Lan	Bluetooth (Option)
USE TEMP	10 ~ 45℃	Low temperature Injection possible
POWER	AC 220V / 60HZ	50Hz (Option)
WEIGHT	95kg	-
DIMENSION	600(W)*1200(H)*780(D)	-

CHAPTER 07 Preview

6-1 Product Parts

6-2 Function Butttons

	■ Power Button (ON / OFF) Abnormal condition (press for 3 seconds)
	■ Start Button (Select or Start)
	■ Exit Button or End Button (Deselect, Home Mode, Exit Mode)

CHAPTER 06 Preview

6-3 Product Parts (Back)

	■ **Power Button & Fuse Holder** When replacing the fuse, disconnect the power cord and replace the fuse by removing the head of the fuse holder. ■ **Refill Tank Band** When refill hose and tank are correctly combined and fixed when fixing the tank to the equipment Adjust the band to a suitable length and secure the tank against shaking. ■ **Refill Connecter** Be careful with dirts and O-ring management.

CHAPTER 07 Home Function

7-1 Home Function

	■ Auto Button
	■ Recovery Button (Self-Mode)
	■ Vacuum Button (Self-Mode)
	■ New Oil Inject Button (Self-Mode)
	■ Charge Button (Self-Mode)
	■ Tank Fill Button (Self-Mode)
	■ Hose Remove Button (Self-Mode)
	■ Refrigerant Supplement Button (Self-Mode)
	■ FLUSH Button (Self-Mode)
	■ Hose FLUSH Button (Self-Mode)

CHAPTER 07 Home Function

7-2 Detailed Options

	■ Return to Home Button and Main Screen	
	■ Admin Setting **(Refer to Page 23-1 System Setting)**	
	■ System Setting	
	■ System Shutdown (OFF) & System Restart	
	■ Previous Screen (BACK)	
Adjust Detailed Option (Refer to each Function) 		■ Consumables Info **(Refer to Page 21-1 Filter, Oil Usage Time)**
		■ List of Work Results
		■ System Setting
		■ Vehicle References **(Refer to Page 16-2, 3 Car Specification)**
		■ List Modification **(It is indicated on the right side of each function.)**
		■ Software Update **(Refer to Page 30-1 S / W UPDATE)**

CHAPTER 08 Conform & Precautions before use

8-1 Power Check

(1) Connect power cord. (Single phase 220V/60Hz)

(2) Switch power on and check whether LCD displayer is turned on normal.

8-2 Hose connection with car

(1) Check with condition of air-conditioner of car

(2) Connect high/low pressure hose with high pressure line and low pressure line of car. As their sizes are regularized, it's easy to check and connect. (red hose-high pressure, blue hose-low pressure)

8-3 Preparation for work

(1) Refill relevant oils into New Oil tank and empty with Waste Oil tank

(2) Check through LCD displayer on remaining quantity of refrigerants.
(Recommended minimum quantity 3000g)

(3) In advance of work, check whether the condition of air conditioner of car is normal.

8-4 How to check the vehicle air conditioner

(1) Confirming that the high/low pressure quick adapter of cool bank is off, make connection to car.

(2) After the connection, turn the Quick Adapter on.

(3) Starting engine of car, run the air conditioner with air blast at second or third grade.

(4) Judge from sound of car's engine whether the air conditioner is normally running on the car. (In normal, tickling along with on-and-off sounds regularly)

	Cool bank runs all of its functions at non-drive of car's engine (car's engine off)

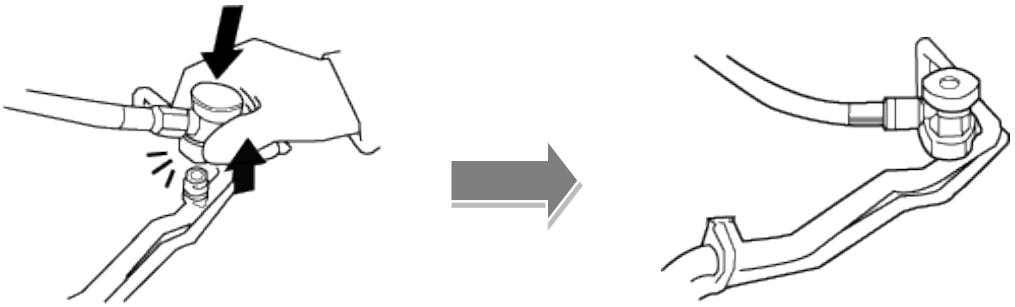
CHAPTER 09 Using Quick Adapter

	High and low pressure service ports have different sizes. **Check the connector size and connect to a port that meets the specifications.**

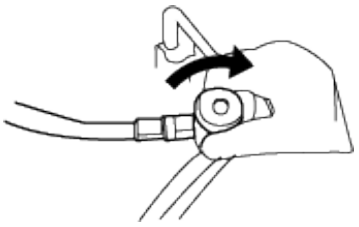
(1) How to connect the coupler (same means of coupling as for both of high/low pressure connecters)
- Check on whether the upper fixed handle is completely open.

(2) Put the circular fixing part at the bottom of the quick adapter upward.

(3) Set the center point of round hole aligned with service nipple of car's air conditioner and then insert steadily downwards.



(4) Being inserted, fasten it by rotating to the direction as indicated on the Quick Adapter to the end.



◇ **When detaching the quick adapter after work, rotate completely the fixed screw of quick adapter to the opposite direction and then lift up completely the fixed bracket of lower end and pull and drag to detach it.**

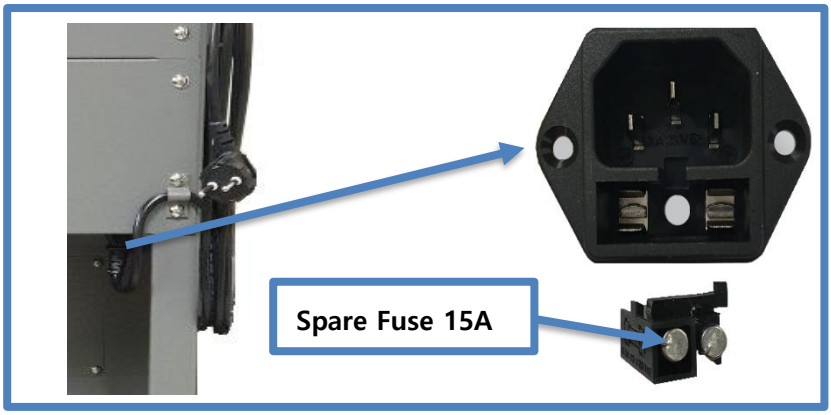
CHAPTER 10 LED & Fuse Holder

10-1 Name of Each Light (LED & Fuse Holder)

(1) LED Color Info

Red	Warning,Error
Yellow	Activating
Green	Complete
White	Booting
Magenta	Software Update
Cyan	Ready to Activating
Blue	Notice

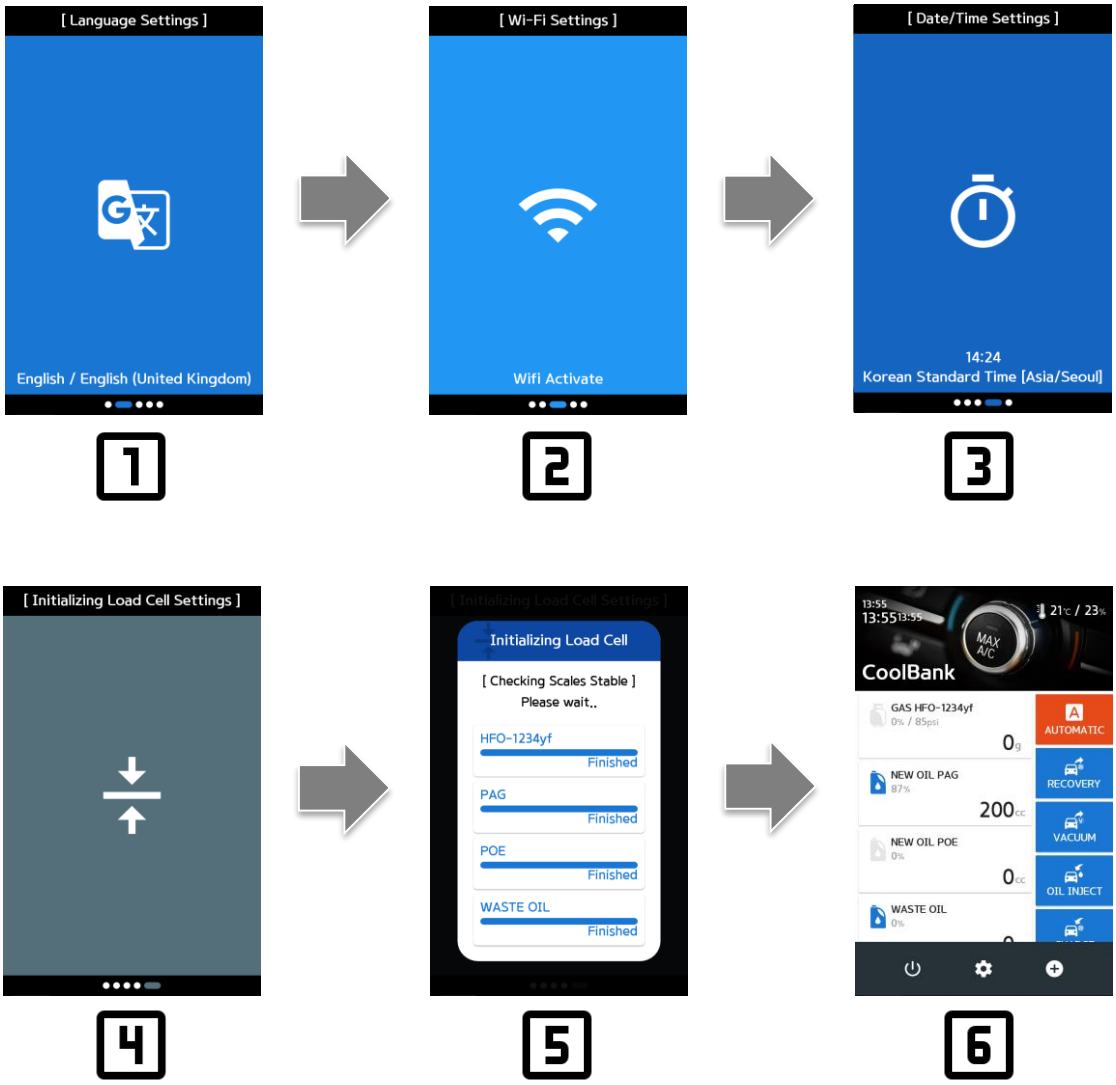
(2) Fuse Holder (Power Cord)



■ **Fuse holder** - When replacing the fuse, disconnect the power cord and replace the fuse by removing the head of the fuse holder.
(There is a spare fuse inside the fuse holder head)

CHAPTER 11 Product Initial Setting

11-1 Product Initial Setting Intro (START)



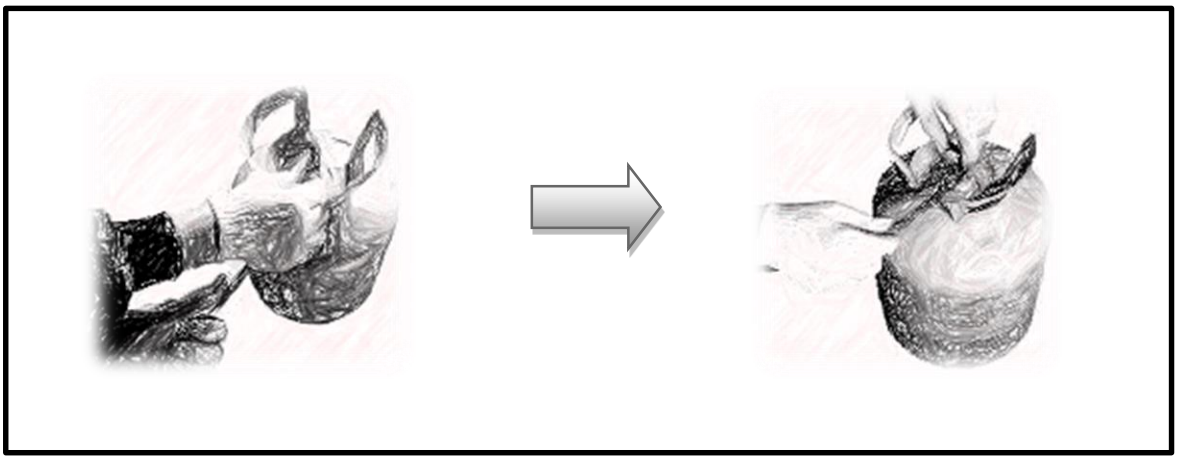
	1. **Language Setting** **(Korean, English, Chinese multi-language support available)** 2. **Wi-Fi Setting (Connect the Wi-Fi close by)** 3. **Date & Time Setting** 4. **Electronic Balance Setting** 5. **Electronic Balance Initialization** 6. **Home**
	■ Touch the center of the screen to set the menu. ■ Touch ▶ (Start button) to proceed.

CHAPTER 12 Tank Fill

◆ All functions of this equipment are performed in the refrigerant container inside the equipment.
Basically more than a certain amount refrigerant is required to work. Tank Fill is the operation of transferring refrigerant from an external container to an internal container when the refrigerant is insufficient or absent.

12-1 How to mount external refill tank

(1) Connect the external refill container containing refrigerant to the transfer hose and connection port at the back of the equipment, and open the valve.



(2) Mounting condition

1) HFC-R134a Refill Tank

In the state that the hose is well connected, turn the handle part of the external refill container face down, and adjust the length of the tank fixing band mounted on the machine to install it on the machine.

2) HFO-R1234yf Refill Tank

Connect the hose to the Liquid valve and mount it upside down.

	Combine the external refill container and the equipment's refill connection valve and open the valve. **Make sure to check gas is not leaking apply soap bubbles to check leakage.**

CHAPTER 12 Tank Fill

⚠	**Before starting Tank Fill make sure that the external refill tank is well installed to the machine.**

12-2 Tank Fill START

🔔	1. From the home screen, press the gas transfer (Tank Fill) button on the right to exit. 2. When the specified gas transfer (Tank Fill) amount is completed, the process goes to line recovery. 3. When the line recovery work is completed, the gas transfer work is finished.
🔔	◇ Tank Fill conditions – an external refill container is installed, In the home screen, if the capacity of the internal container is set (5000g) or less it will do the job. (Refer to Chapter 22 Internal Tank Setting for how to change the setting value)

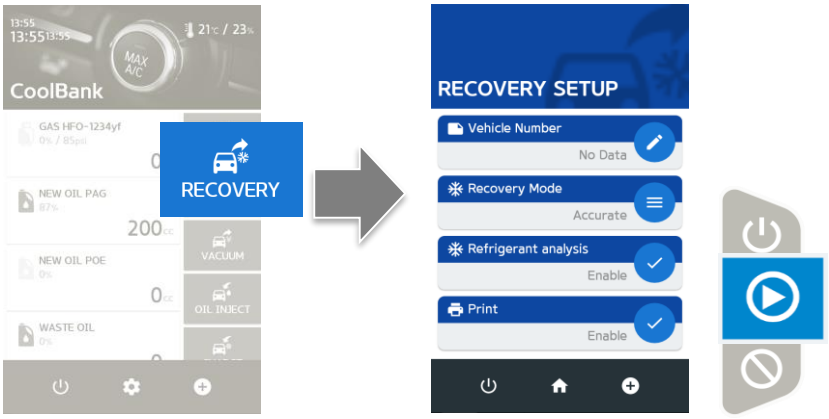
CHAPTER 13 Recover Mode/Analyzing

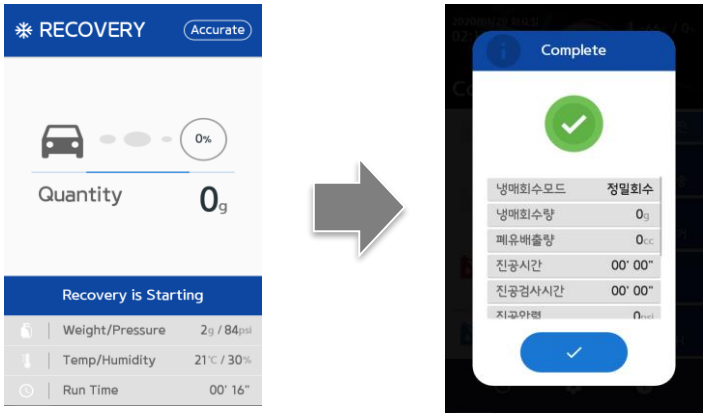
13-1 Recover Mode START

	◇ **The recovered refrigerant goes through the filter of the equipment, separates waste oil, moisture, and foreign substances and liquefies them and stores them in an internal container.** ◇ **If the maximum amount of gas is recovered in the internal tank, recovery will not performed for safety reasons. (Consult the manufacturer for the maximum recovery)** ◇ **In models equipped with a refrigerant analysis / differentiation function, a refrigerant sample is taken from the hose connected to the vehicle, and after analyzing the refrigerant, the abnormality of the set refrigerant purity is completed, and recovery will start (Refrigerant purity more than 95%)** ◇ **If the low pressure rises above 0 psi after completion of the recovery, recover it once again. (This symptom is caused by freezing of the car line)** ◇ **The timer is released when the pressure exceeds the reference pressure during the end timer operation.** ◇ **You can increase or decrease the time using the up and down buttons while the end timer is running.**
	◆ **Check the air condition of the vehicle by connecting a high/low pressure hose to the vehicle.** ◆ **Always wear safety glasses and gloves to protect your eyes and skin from refrigerant liquids and gases when working on the equipment. (Do not contact with flammable liquids or gases)** ◆ **Do not mix different refrigerants in one tank.** ◆ **Please follow the safety rules when working.** ◆ **Ventilate your work area thoroughly.**
	■ **Precision recovery** It is set as the default and is used when precise recovery is required. (Recommended) ■ **Fast recovery** Fast recovery is possible. (However, there may be errors in the amount of collection)

CHAPTER 13 Recover Mode/Analyzing

13-2 Recover Mode START





	1. Press the Recovery Button on the main screen. 2. The value can be cheanged by the user. 3. When the setting is completed, press ▶ (Start button) to start refrigerant recovery. 4. The recovery amount is displayed during the process and ends automatically when the recovery is over. 5. When the recovery is completed, the refrigerant recovery result is displayed on the screen and all Refrigerant recovery mode is complete. (When refrigerant is recovered, the waste oil introduced into the equipment is automatically discharged)

CHAPTER 14 Vacuum Mode

14-1 Vacuum Mode START

◆ This function removes air and moisture by vacuuming the line before injecting air conditioning refrigerant into the car.

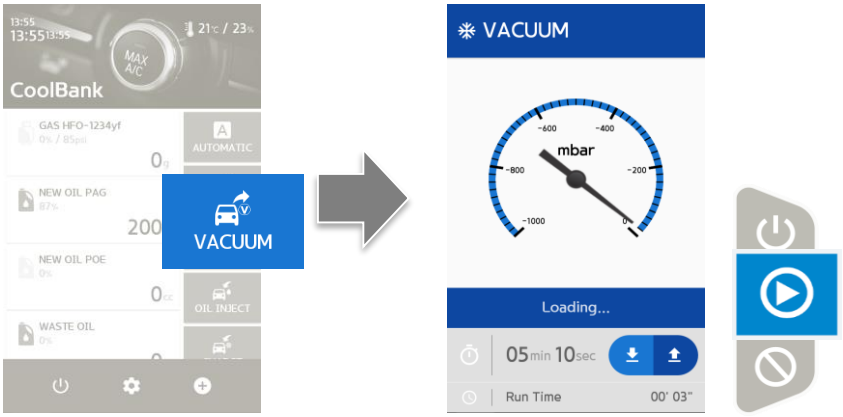
	◆ **Before injecting car air conditioning refrigerant this function is to remove air and moisture by vacuuming the line.** ◆ **When the pressure inside the car line rises during vacuuming The equipment judges that there is residual refrigerant, and the vacuum operation is stopped with the message "recover it again". At this time, perform the recovery operation again before performing the vacuum operation.**
	The vacuum reference inspection value is set to -20mbr.

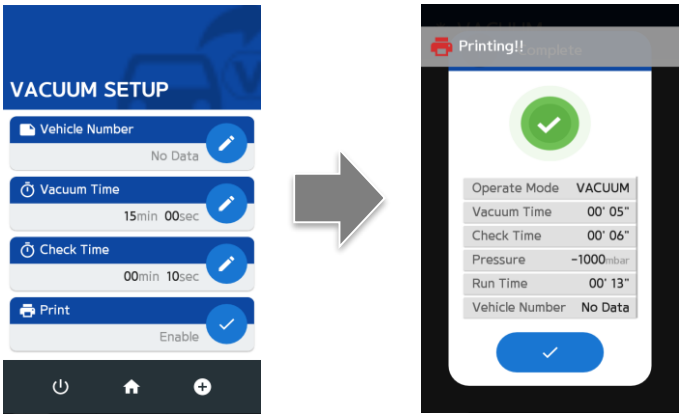
14-2 Vacuum Mode START

	1. **Press the Vacuum Button on the main screen to enter the setting screen.** 2. **The value can be cheanged by the user.** 3. **When the setting is completed, press ⊙ (Start button) to start refrigerant recovery.** 4. **During the work, you can adjust the time with the arrow buttons** 5. **When the vacuum is completed, the vacuum result is displayed on the screen and all vacuum operations are finished.**

CHAPTER 14 Vacuum Mode

14-3 Vacuum Mode START





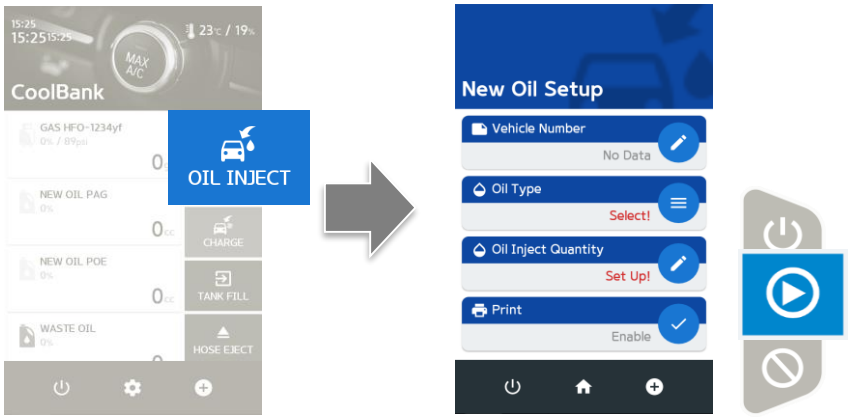
⚠	**After setting the vacuum time and vacuum inspection time, the setting times will set continuously as user has entered.**

CHAPTER 15 New Oil Inject

◆ The New Oil Inject is a injecting process after completing vacuum mode in the vehicle lines.

	■ **The New Oil Inject will not work if the vehicle line is not vacuum state.** ■ **In New Oil Inject if the user wants smooth operation, you must do vacuuming operation.**

15-1 New Oil Inject START



	1. **Press the Vacuum Button on the main screen to enter the setting screen.** 2. **When the setting is completed, press ⓘ (Start button) to start New Oil Inject.**
	When refilling the new oil, please be aware of air going in and dirt substances and cap must be locked tight. **(may cause malfunction)**
	When the temperature is low, such as in winter, the viscosity of the oil increases, the injection will not work properly. **In this case, use a product with low oil viscosity.**

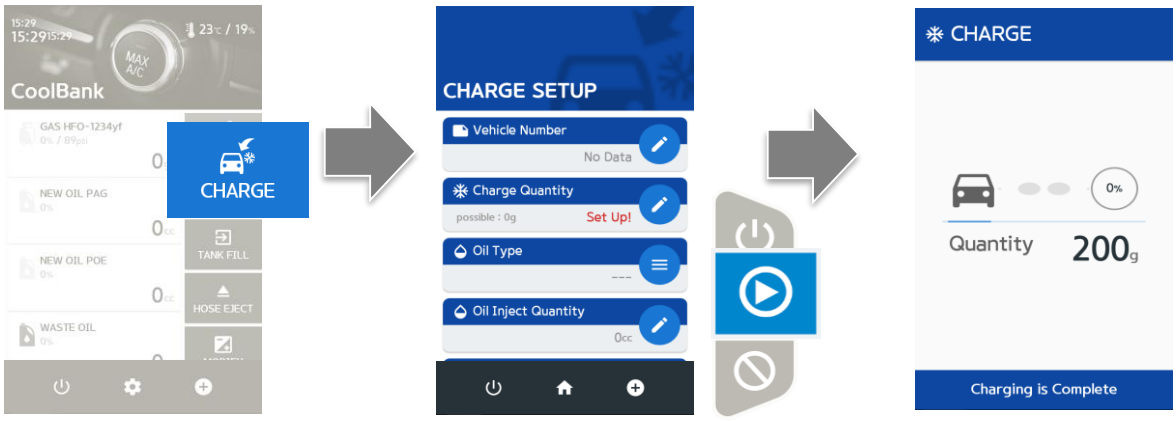
CHAPTER 16 Charge Mode

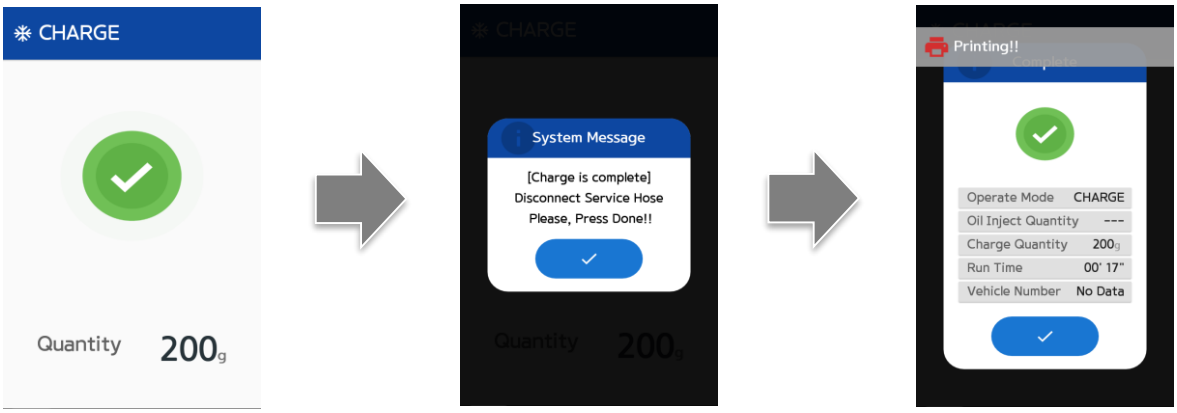
◆ The function is used to charge refrigerant into the vehicle aircon line.

	◆ **Connect the high / low pressure hose to the vehicle to check the condition of the air conditioner.** ◆ **Fill in according to the prescribed amount of refrigerant for each vehicle and perform charging.** ◆ **This equipment can be charged when the residual amount of refrigerant in the internal container is 1000g or more.** ◆ **We recommend over 3000g for smooth operation.** ◆ **(When charging Ex. 700g, it is possible to charge when there is more than 1000 + 700 = 1700g remaining)**
	◆ **For smooth charging and comfortable cooling performance. the working place must fresh.** ◆ **This equipment is charged with liquid refrigerant. After air conditioner operation** **Excessive refrigerant charge can damage the air conditioner compressor, so charge it only when necessary.** ◆ **Never impact the device while charging mode is in progress,** **This equipment is a very sensitive electronic scale system recognizing the amount of refrigerant and charging according to the amount of charge input by the user** **Therefore, if the equipment receives shock or vibration, there is an error in the charging value may occur.**
	■ **Enter vehicle number: input or not** ■ **New oil injection amount: Check after using numeric keys** ■ **New oil type: Check after selecting PAG oil or POE oil** ■ **Refrigerant charging mode: Check after selecting low pressure charging or high low pressure charging** ■ **Refrigerant charge amount: Check after using numeric keys** ■ **Printer: Enabled or not used User can select arbitrarily**

CHAPTER 16 Charge Mode

16-1 Charge Mode Start



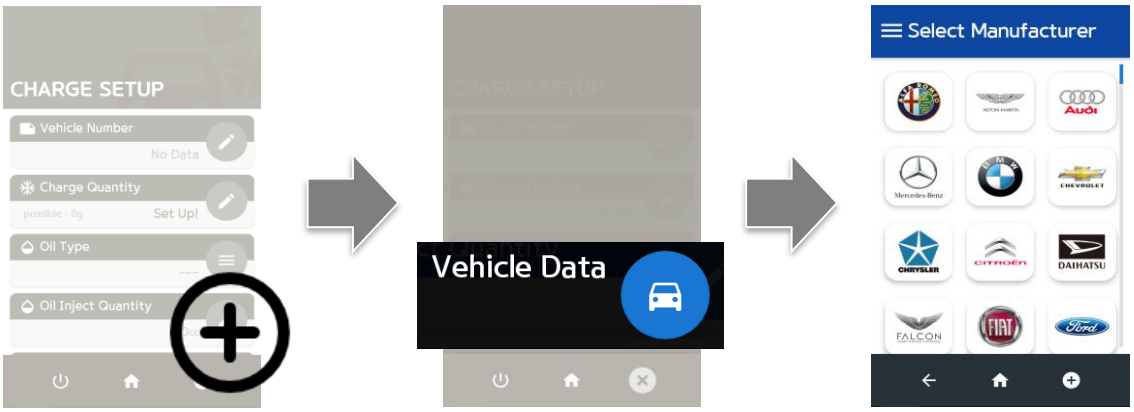


	1. Press the Charge Button on the main screen. 2. The value can be changed by the user. 3. When the setting is completed, press ▶ (Start button) to start Charge Mode. 4. If new oil injection amount is not set, it will automatically start the operation. 5. Charge Mode starts and when it reaches to the charge set amount the charge will be completed. 6. Remove the service hose, refrigerant amount and oil amount will displayed on the screen and all Refrigerant recovery mode is complete.

CHAPTER 16 Charge Mode

16-2 Car Specification Setting

◆ This equipment is currently marketed and made in Korea at the time the equipment is shipped. Refrigerant injection volume specifications by manufacturer and vehicle type are stored inside the equipment.
(S / W UPDATE function can be used to update, refer to the 30-1 Software Update page)



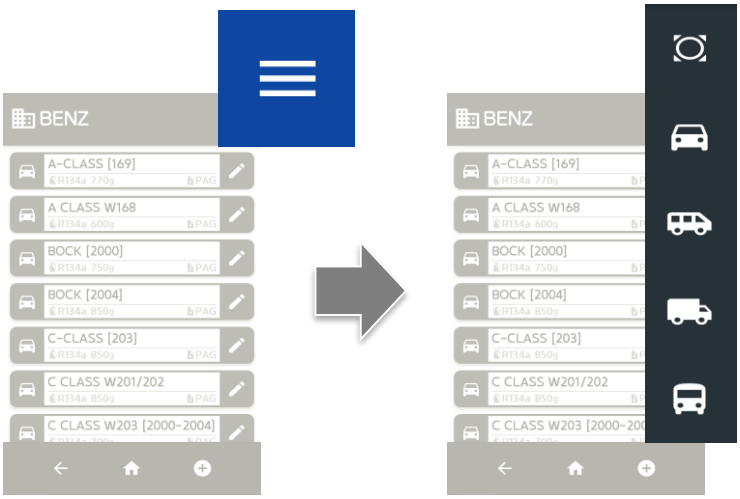
	1. Press the Adjust Optional button. **2. When selecting a vehicle specification, the saved vehicle specification is will displayed.**

CHAPTER 16 Charge Mode

16-3 Selecting Car Specification

	Users can modify, add, or delete specifications arbitrarily.

16-4 Vehicle type search



	◆ SEDAN
	◆ SUV, RV
	◆ TRUCK
	◆ BUS

	Press the menu function on the upper right corner the vehicle model image will displayed and select the vehicle model you want.

CHAPTER 17 Refrigerant Supplement

◆ This function is used when the user recharges or recovers the air-conditioning refrigerant.

17-1 Refrigerant Supplement

	1. Press the Adjust Button on the main screen. 2. Refrigerant is recovered only through the high pressure port. 3. Refrigerant is replenished only through the low pressure port.
	◆ This equipment is supplemented with liquid refrigerant. After running the air conditioner, replenishing the excess refrigerant use only a small amount of refrigerant supplementation in a short period of time as it can damage the air conditioner compressor. ◆ When car air conditioning is running the user can revise by looking at the gauge.

CHAPTER 18 Auto Mode

18-1 Auto Mode Start

◆ Automatic mode is a mode in which all functions of recovery, vacuum, oil injection, and filling are performed automatically.

	■ **In automatic mode, the default oil injection volume is set automatically, and the user can set it by itself.** ■ **The vacuum time is set to the time specified in the vacuum setting.**

◆ Check the air condition of the vehicle by connecting a high / low pressure hose to the vehicle.

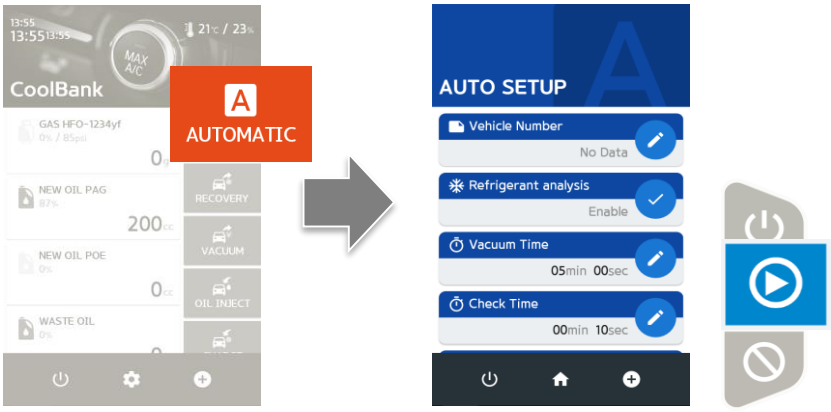
	◇ **When there is pressure in the line: proceeds in the order of recovery-vacuum-charge** ◇ **If there is no pressure in the line: proceeds in the order of vacuum-charge**

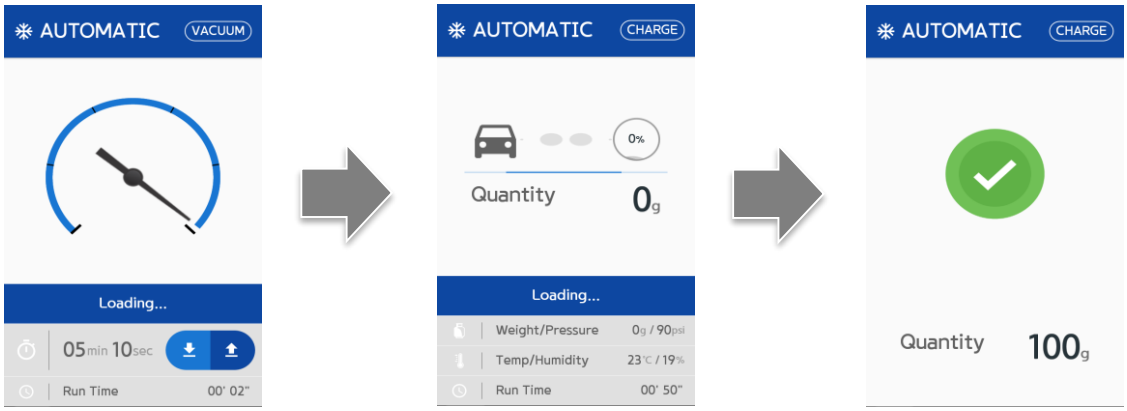
◆ When the Auto Mode setting is completed, click the Start Button. Auto Mode will start.

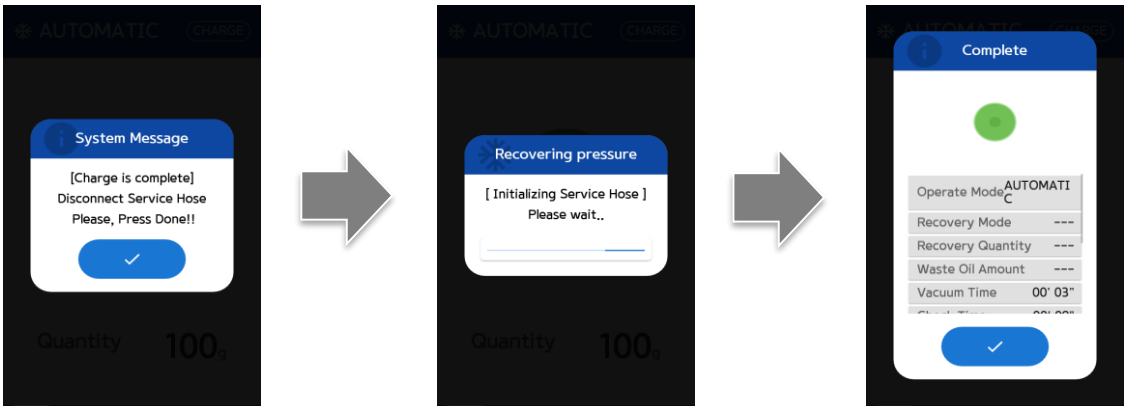
	◇ **If there is pressure in the line: proceeds in the order of recovery-vacuum-charge** ◇ **When there is no pressure in the line: It proceeds in the order of vacuum-charge. 3 minutes time or vacuum time can be adjusted by the arrow mark.**
	1. **When the Recover Mode is completed, a Vacuum Mode will start.** 2. **When the Vacuum Mode is completed, the Charge Mode will start.** 3. **If the equipment receives shock or vibration, the error in the charge value may occur.** 4. **When the Charge Mode is completed, the message of the service hose disconnecting system will appear. You can remove the service hose.** 5. **Remove the service hose and press the check button on the screen, When the service hose is removed, all the residual pressure in the hose will recovered.** 6. **When the residual pressure recovery operation is completed, all Auto Mode are completed.** 7. **Press the Auto Mode Button on the main screen.** 8. **Value can be changed by the user.** 9. **When the setting is completed, press ▶ (Start button) to start Recover Mode.**
	◇ **Change the charge amount: Use the menu on the right** **Select vehicle model (injection amount): use the menu on the right** **(see page 26)**

CHAPTER 18 Auto Mode

18-2 Auto Mode Start







CHAPTER 19 FLUSH Mode

19-1 FLUSH Mode

Recommended Flush vehicle

(1) Symptoms of excessively low fuel consumption when operating the air conditioner
(2) Vehicles where air conditioning parts have been replaced even once
(3) Vehicles that opened the pipeline even if the air conditioner parts were not replaced
(4) Vehicles suspected of having air or moisture
(5) Vehicles with deteriorated air conditioning oil
(6) Vehicles with high or low air conditioning oil
(7) Vehicles burned or burned by compressor
(8) Compressor noise vehicles

	■ **Be sure to empty the waste oil bottle before using the FLUSH Mode.** ■ **After completing the FLUSH Mode, be sure to you need to inject new oil amount that has been discharged before. (Recommended)** ■ **The FLUSH Mode requires at least 5000g of refrigerant in the internal container to be used.** ■ **The flush function uses the refrigerant in the inner tank and it gives high pressure and low pressure to the air conditioner line. Alternatively, it is a function to clean the air conditioner line and remove waste oil and sludge by applying pressure to the low pressure line and circulating to the opposite port at the same time.**
	◇ **The FLUSH Mode can be used more effectively in summer than in winter.** ◇ **The FLUSH Mode is used by setting the number of times, and the maximum number of times is 10 times used.** ◇ **The FLUSH Mode takes about 15 minutes to work when set once, After completing the work, it is necessary to inject refrigerant and new oil.** ◇ **Recommended outside temperature for flush: 20 ~ 25 degrees**
	◇ **Too much use of the flush function can cause fatal damage to the vehicle.** **(If possible, do not use it repeatedly beyond the maximum number of uses)** ◇ **Do not stop or turn off the power while the flush function is in progress.**

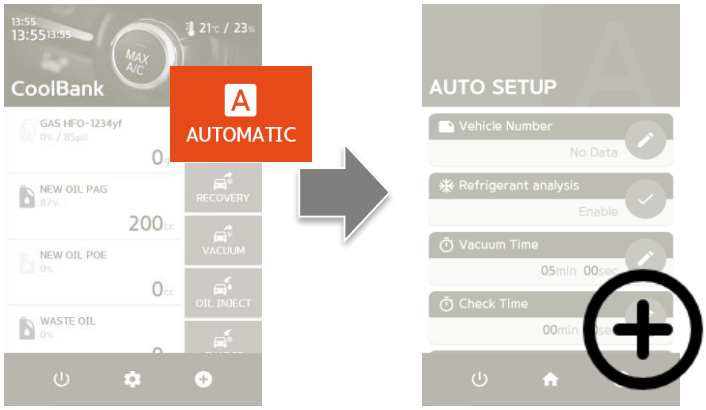
CHAPTER 19 FLUSH Mode

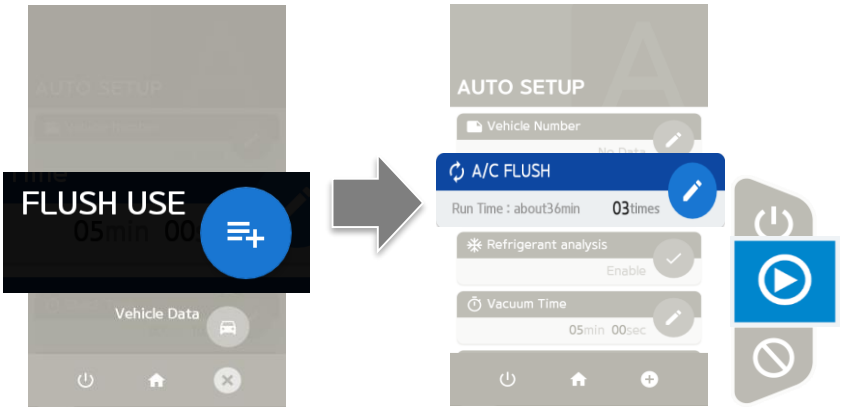
19-2 FLUSH Mode Start

	1. Press FLUSH Button on the main screen. 2. The value can be changed by the user. 3. When the setting is completed, press (Start button) to start FLUSH Mode. 4. While FLUSH Mode is running it drains waste oil automatically, and once the set time is finished FLUSH recovery will starts as shown on the display. At this time all the remaining refrigerant gas will recover to the machine. 5. When the FLUSH is completed, all FLUSH operations are finished.

CHAPTER 20 FLUSH Auto Mode

20-1 FLUSH Auto Mode Start

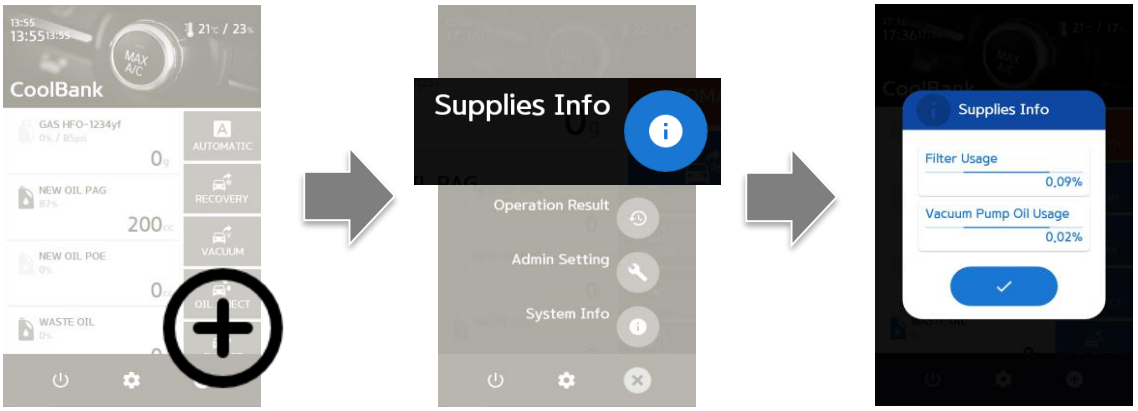




	1. Press the Auto Button on the main screen. 2. Select Options> Use FLUSH at the bottom right of the setup screen. 3. When the setting is completed, press ▶ (Start button) to start FLUSH Auto Mode.

CHAPTER 21 Consumables

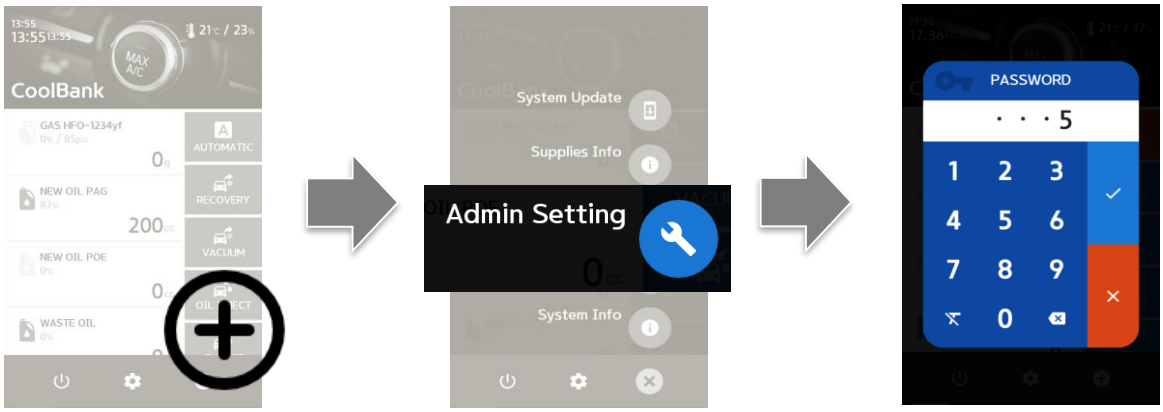
21-1 Filter & Vacuum Oil usage time

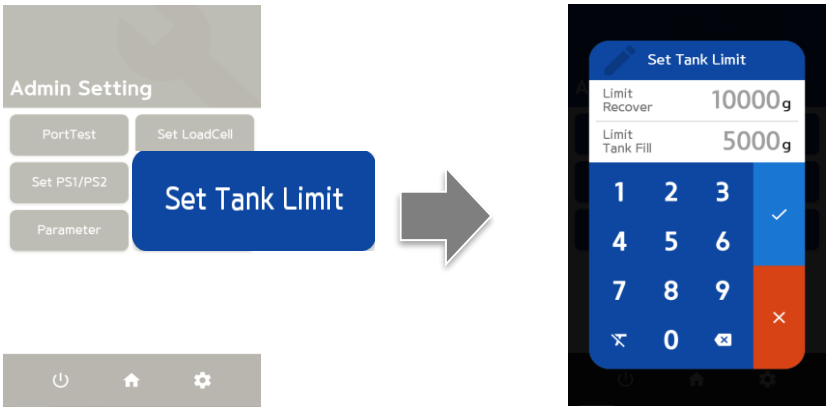


	① It displays the total amount of used Filter and Vacuum Oil that's installed in the equipment. (Please contact the manufacturer for exchange)
	◇ Recommended consumable time (1) Filter – 100 hours (2) Vacuum Oil – 100 hours (If each item exceeds the usage time, a message will appear on the display)

CHAPTER 22 Internal Tank Setting

22-1 Internal Tank Setting

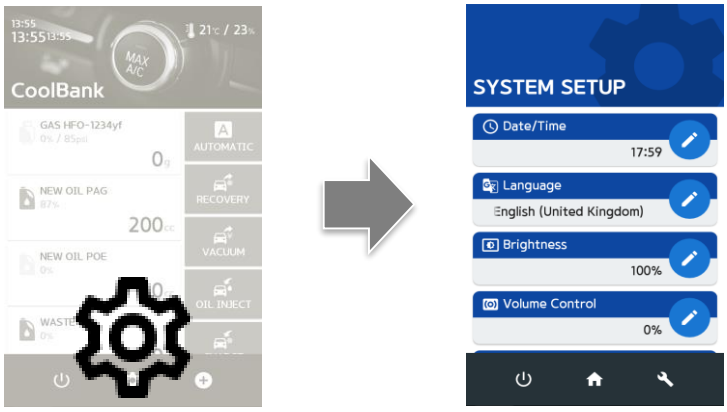




	1. On the main screen bottom right Adjust Detailed Option > Admin Setting 2. Enter user password 8845 and check button. 3. Admin Setting > Change the value on the Set Tank Limit setting screen and press the check button. Limit Tank Fill= Maximum Tank Fill Limit Recover= Maximum Recovery

CHAPTER 23 System Setting & Admin Setting

23-1 System Setting

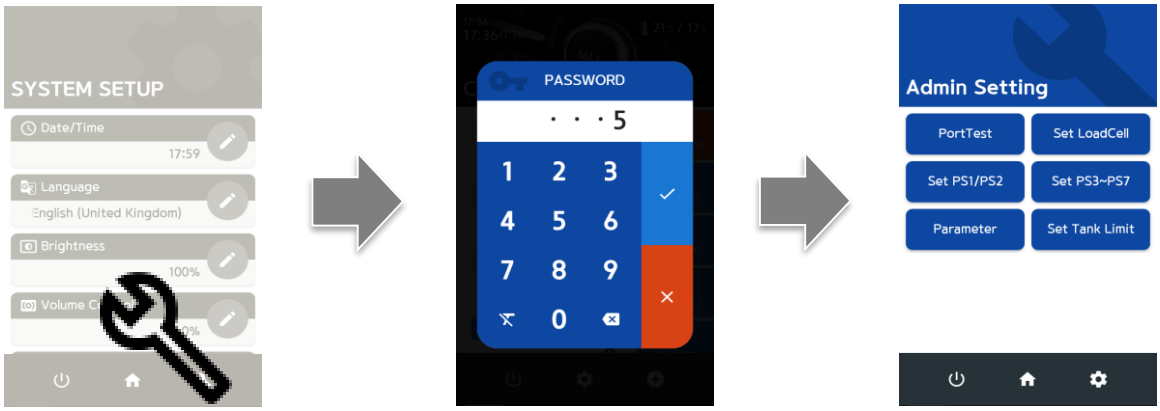


1. You can edit each detailed function by entering the system setting.
2. Date / time, language, screen brightness, volume control, voice guidance, Wi-Fi settings, New Oil Reset (PAG), New Oil Reset (POE), Waste Oil Reset, various functions such as Filter Reset and Vacuum Oil Reset can be set is well.

CHAPTER 23 System Setting & Admin Setting

23-2 Admin Setting

⚠	◆ **If you need administrator settings, please contact the manufacturer. If the user changes the setting value arbitrarily, the problem will occur when using the machine.**



PortTest	◆ Solenoid Valve Operation Check
Set LoadCell	◆ Electronic Scale Initialization **(Manufacturer inquiry)**
Set PS1/PS2	◆ Sensor Initialization
Set PS3~PS7	◆ Sensor Initialization
Parameter	◆ Machine Detailed Settings
Set Tank Limit	◆ Max Recovery amount ◆ Max Tank Fill amount

🔔	**Admin Setting Password : 8845**

CHAPTER 24 Hose Remove Mode

24-1 Hose Remove Mode

◇ **Host Remove Preparation**

② **Low pressure coupler OPEN**

③ **High pressure coupler CLOSE**

④ **Car air conditioner operation**

◇ **Host Remove Order**

② **Check the High and Low Pressure gauge flat pressure**

③ **Hose Remove (coupler remove)**

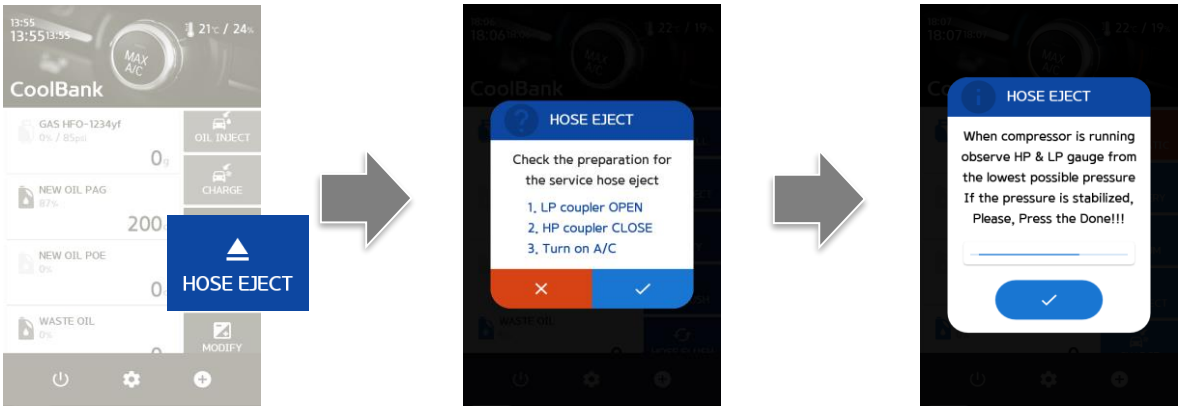
④ **Hose Residual Pressure Recovery**

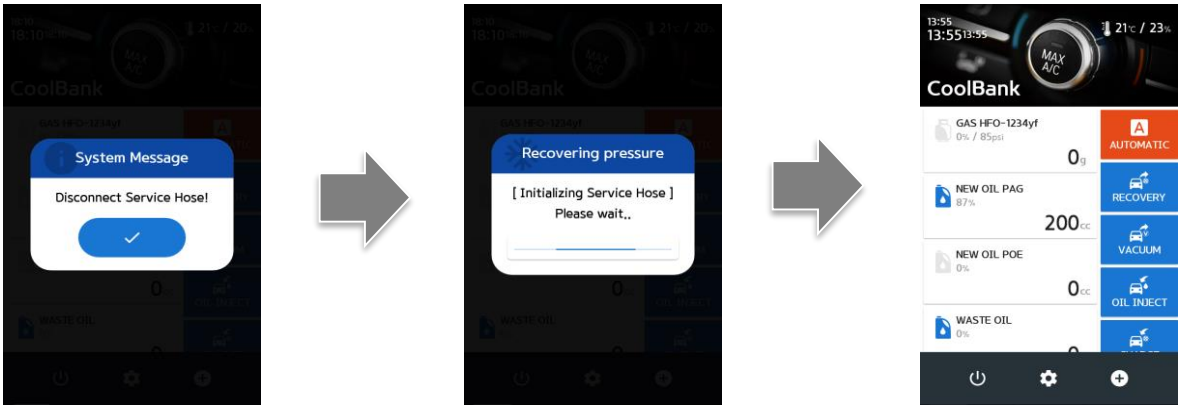
◇ **The vehicle connection hose is connected, and the low pressure hose it forms a pressure with a gaseous refrigerant, and a liquid in a high pressure hose forming pressure with refrigerant in the state. If the normal hose removal method is not used, at least 100g~150g will leak from the vehicle to the hose and it will become not enough of refrigerant gas.**

◇ **If you disconnect the hose when maintaining the lowest flat pressure, the remaining amount in the hose remains only a small amount (about 5 to 8 g) of refrigerant.**

CHAPTER 24 Hose Remove Mode

24-2 Hose Remove Mode





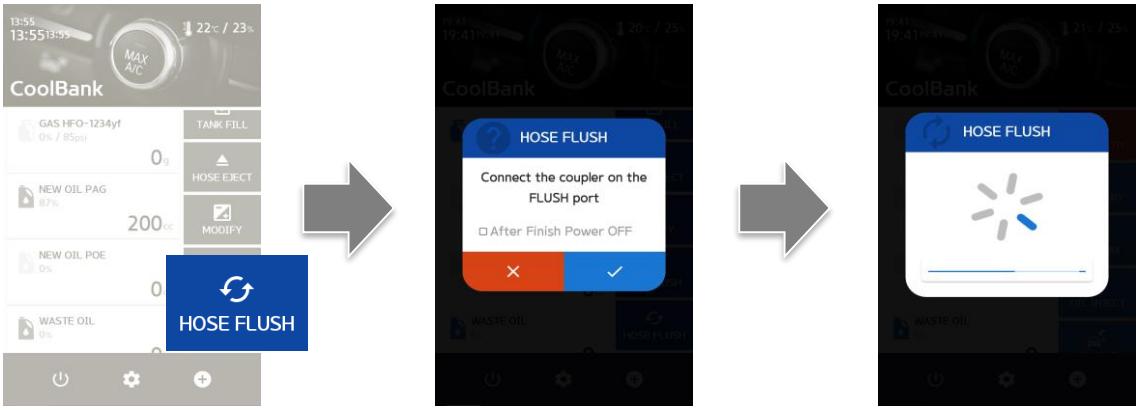
1. Press Hose Remove Button on the main screen.
2. Follow the instructions on the screen step by step.

CHAPTER 25 Hose FLUSH

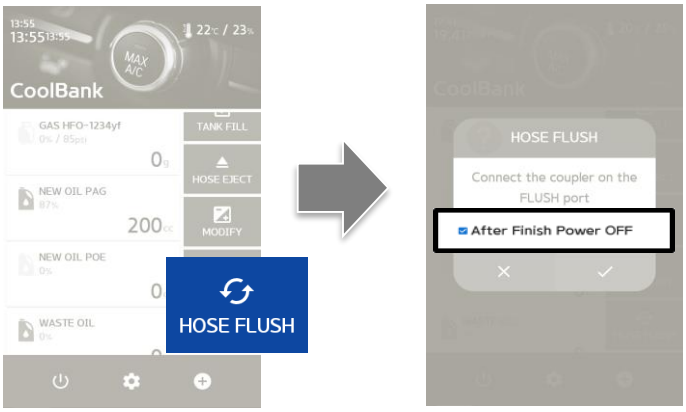
	Hose FLUSH is a function to clean the vehicle connecting hose. (Residual Oil Removal)

25-1 Hose FLUSH

◆ Hose FLUSH Mode (Normal Work)



◆ Hose FLUSH Mode (System OFF after completing the work)



	1. Connect the coupler to the FLUSH port. 2. After connecting the coupler, press the check button to proceed. -After completing the work, check the system (OFF) option to enable the automatic shutdown function.

CHAPTER 26 Analyzer Malfunction Diagnosis and Maintenance (optional)

◇ **Please refer to our website for filter purchase.**
(www.cbcoolbank.com)

26-1 Analyzer ERROR Malfunction Diagnosis and Maintenance

01- Error 1 is when the air or refrigerant analysis value is unstable.
Contact the Manufacturer

02- Error 2 is when the detection result is high or abnormal
Contact the Manufacturer

03- Error 3 is when the air measurement result is low.
Make sure the filter is installed properly.

04- Error 4 operating temperature over range.
Refrigerant analyzer operates normally above 10 ℃, and error messages 4 and 5 may be displayed as refrigerant is condensed below 10 ℃.

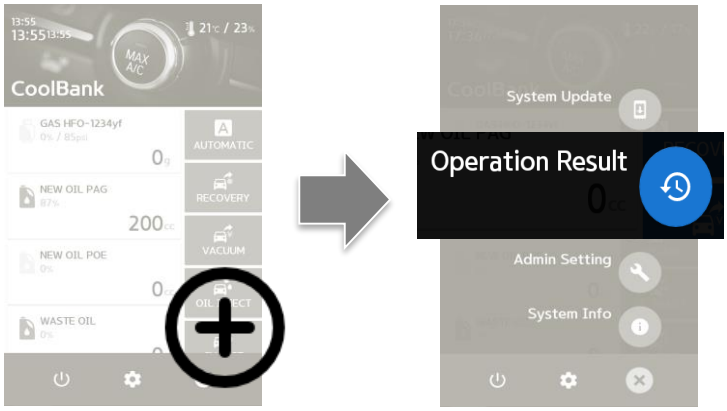
05- Error 5 when the air measurement value is high or low in the refrigerant analysis result, or the refrigerant has not flowed into the analyzer.
Solution: Check if the coupler valve is open.
Check if there is any foreign substance in the sample filter.
The filter checks the condition (rubber ring).
Check whether the high and low pressure gauge pressure is normal (above 14 psi)

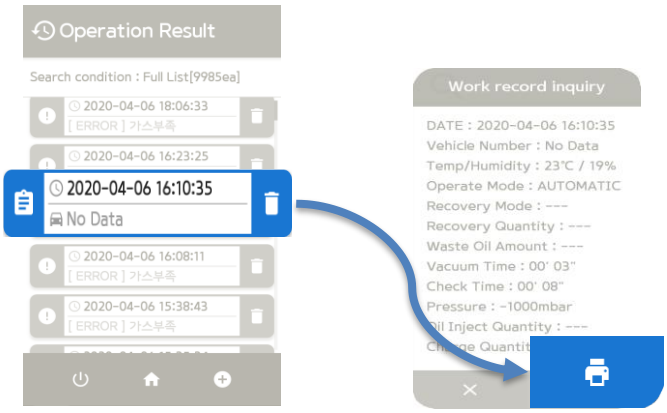
06- Error 6, Error 7
Contact the Manufacturer

CHAPTER 27 User Fault Diagnosis and Maintenance

◇ Ability to check (search) worker's usage history or equipment errors
◇ Up to 1.5 million are saved based on the recent history.

27-1 User Fault Diagnosis and Maintenance Setting





1. Press the Adjust Detailed Option Button in the bottom right on the main screen.
2. When entering the work result list function, you can check the user's work result on the display.
3. To print the job results, tap the list and press the print button.

CHAPTER 27 User Fault Diagnosis and Maintenance

If the problem is not solved after using the following methods for troubleshooting and maintenance of the user, or if it is impossible to use due to various other symptoms, please contact your nearest dealer or our service center.

27-2 Power Related

(1) Power Problem

1. Check the contact of the power outlet.
2. Check the power S / W lamp, electricity, and insulation.
3. Remove the power cord connection on the equipment side and remove the fuse holder. (Check the fuse)

(2) "The fuse is replaced, but when the power is turned on, the fuse blows again?"

1. Check the contact of the power outlet.
2. Check the lamp, power, and insulation of the power S / W.
3. Check if the fuse has the correct rated capacity. (15A)

(3) "During the recovery operation, the fuse blows out and is replaced, but the fuse blows out again"

1. Check if the fuse has the correct rated capacity. (15A)
2. After removing the front cover of the equipment, check if the valve of the inner container is closed.
3. Remove the front cover of the equipment, disconnect the connection port of the compressor harness at the bottom of the equipment, remove the pressure, and try again.
4. Remove the front cover of the equipment and check the wiring connection of the compressor harness at the bottom of the equipment.

- **If it is solved by the three repair methods, it can be used temporarily, but please contact the manufacturer for complete repair.**

(4) "When you touch the equipment, it electric you..."

1. Make sure the power cord is a grounding cord.
   - This equipment must be grounded. (Cause of failure)
2. Move the seat to a place where there is no water on the floor where the equipment is used.
   - Remove moisture or move the seat to a dry location.
3. Check if the user's hand or foot is wet.
   - If wet, use after drying.

CHAPTER 28 Vacuum Pump Maintenance and Precautions (When using an oil injection type vacuum pump)

28-1 Vacuum Pump Maintenance and Precautions

(1) Recommended use temperature of vacuum pump

1. Use at room temperature over 10 degrees.
2. Operation at low temperature may cause a pump failure due to an increase in the vacuum pump cylinder load.

(2) Check points from time to time

1. Oil level: Check whether it is the proper scale position through the flow meter.
2. Oil condition: Replace immediately if the color is faded or a foreign substance or moisture is found.
3. Severe noise, vibration, or overheating: oil check, power supply check

(3) Oil change interval of vacuum pump

1. When the exchange message appears, be sure to replace it.
2. If the color of oil is discolored, replace it.
3. After replacement, reset the vacuum pump usage in the system settings.

(4) How to change oil

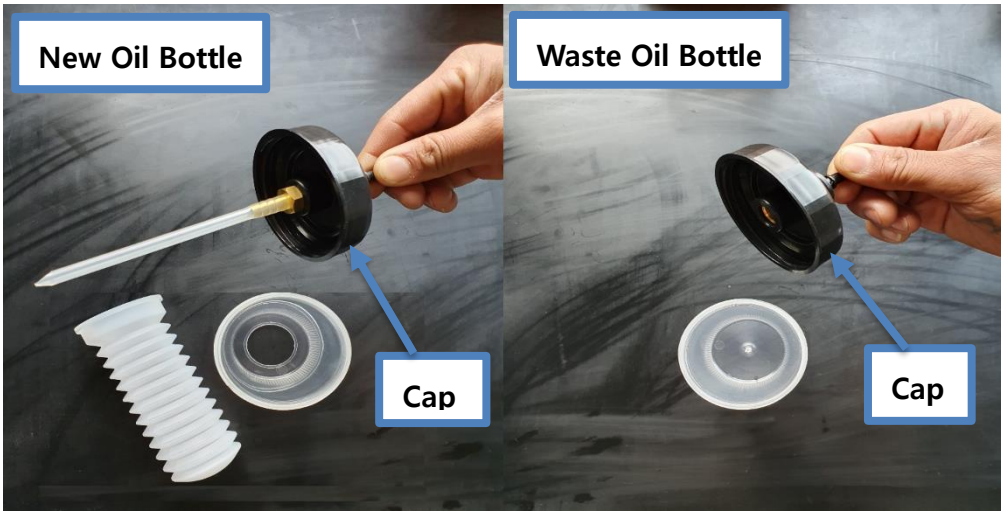
1. Warm up the pump for 10 minutes with vacuum. (Oil heating)
2. Open the inlet plug on the side of the pump, and open the outlet on the bottom to drain the oil.
3. After the oil is completely drained, lubricate to the middle of the pump flow meter scale.

(5) Cause of Pump failure

1. **When a large amount of moisture in sucked into the pump** :
   vacuum level is lowered and pump is damaged by corrosion.
2. **When acid liquid is sucked into the pump** :
   pump corrosion, oil chemical reaction, vacuum level lowered.
3. **When substance goes into the pump** :
   pump inner stuck and operating failure.
4. **When Operating in overheat** :
5. Vacuum deterioration due to oil deterioration, pump damage due to oil fixation
6. **When operating at high pressure**:
   Increased oil consumption, pump wear, oil fixation

CHAPTER 29 Oil Bottle Care and Tips

	◇ **New Oil Bottle –** when charging a new oil beware of substances going into the bottle. ◇ **Waste Oil Bottle –** when draining waste oil, high pressure and waste oil will drain together so when waste oil is filled up to middle, empty it and use. **(When attaching or detaching the container, be sure not to apply excessive force)**

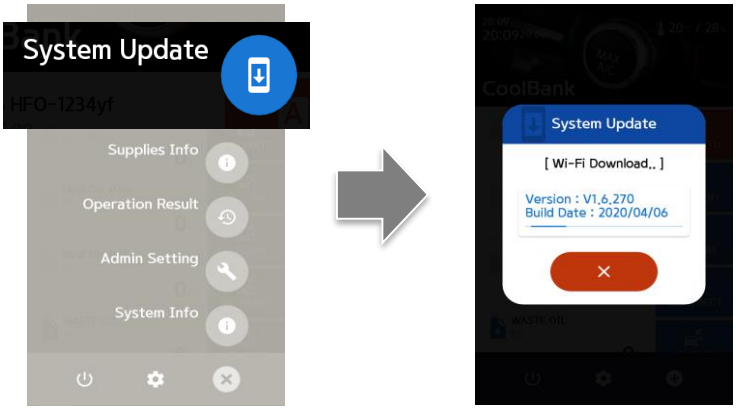


New Oil Bottle – Make sure that the cap and silicone packing are tightly closed to prevent air (moisture) from entering.

Foreign Object Removal– When a foreign object is identified, remove it as shown in the figure.

CHAPTER 30 Software & Updates

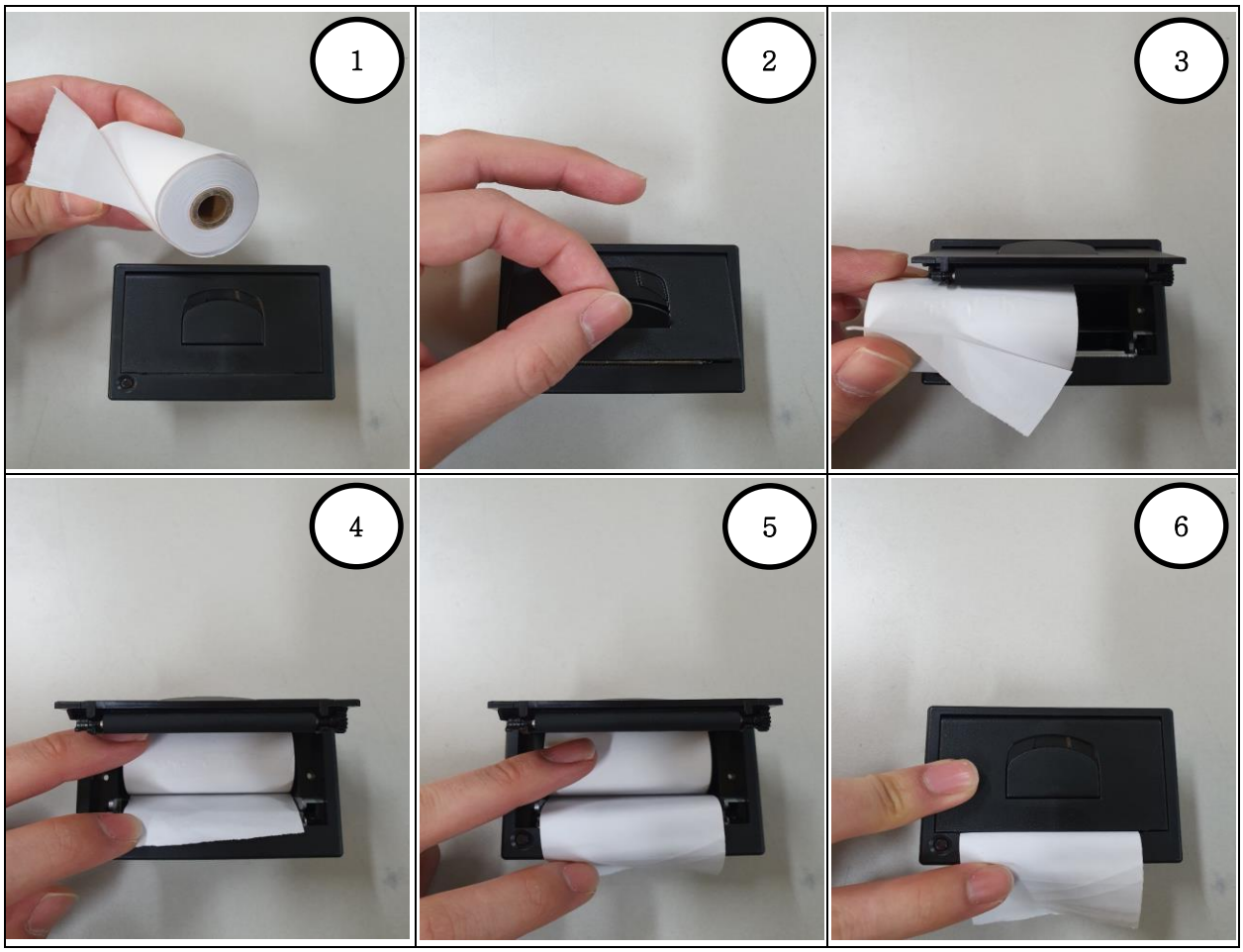
30-1 S/W UPDATE



	1. Press the Adjust Detailed Option Button in the bottom right on the main screen > System Update 2. Search for the latest version and automatic download will start. 3. When the app installation screen appears, click the Install button. 4. When the download is completed, the system restarts.

CHAPTER 31 Printer Usage

31-1 How to insert printer paper



- Check the paper direction as shown in the picture.
- Open the printer open lever and open it up.
- Insert paper. (Check direction)
- After inserting the paper, remove the paper more than 3 cm from the printer and close the cover.

【 Product Warranty 】

(This warranty is used only in Korea and is not re-issued, so please keep it with the instruction manual.)

Date of Purchase		Model	
Purchasing Agent		SERIAL NO.	
Quality Guarantee Period	1 years	Parts Retention Period	5 years
This equipment is for indoor installation and storage.			

Product Warranty Regulations

Consumer Damage Types		**Reward History**	
		Within the quality guarantee period	**After quality assurance period**
When a functional malfunction occurs in normal use	When major repairs are required within 10 days of purchase	Free Repair or product exchange (Excluding consumables)	Not Applicable
	Damage caused during transportation and product installation when purchasing a product		
	In case of failure up to 3 times with the same defect	Free Repair	Paid Repair
	In case of failure more than 4 times due to the same defect	Free Repair or Product Exchange (Excluding consumables)	Paid Repair
	5th failure due to different defects		Paid Repair

However, compensation for secondary losses and failures in the following cases are not guaranteed.

(1) Failure and damage caused by negligence of use, maintenance, inspection and storage
(2) Failure or damage caused by changes or modifications affecting the equipment of the product
(3) When consumable parts have reached the end of their service life (batteries, abrasive parts, rubber parts, quick adapters, filters, oils, etc.)
(4) Failure and damage caused by external factors such as fire, earthquake, flood damage, and other natural disasters
(5) Failure or damage caused by not using the specified genuine parts
(6) Failure or damage caused by repair by someone other than the head office or designated partner
(7) Failures, damages and accidents caused by self (consumer) installation, disasters
(8) Failure and damage caused by outdoor installation and storage
(9) When visiting service is requested for usage problems that are not malfunctioning
(10) At the time of purchase, when the installation is completed by customer's request
(11) When the place of purchase and the source are unclear (Ex. Stolen product, product sold outside the designated agent, etc.)

60-7, Bangchungmal-gil 35beon-gil, Jangan-myeon, Hwaseong-si, Gyeonggi-do, Republic of Korea
Post Code: 18581
TEL.031-298-5358 FAX.031-298-5359

Cool Bank Co., Ltd.

CoolBank X10

1. Consumers who purchase this product are responsible for free service rights and paid services at the same time they are purchased.
2. The quality assurance for this product is covered by the warranty described in the product warranty.
3. The warranty period for this product is 1 year from the date of purchase.
4. Consumables are excluded from the warranty.
5. The warranty period is calculated from the date of purchase, so please get the date of purchase.
   (If the purchase date cannot be confirmed, the warranty period is added from the date 3 months have passed since the date of manufacture)
6. This warranty is not reissued.
7. In the case of supply by separate contract (procurement, HOST, etc.), the warranty is applied according to the main contract.
8. Main parts retention period-5 years
9. When requesting a repair, please keep this warranty as the purchase date must be presented for sufficient service.

60-7, Bangchungmal-gil 35beon-gil, Jangan-myeon, Hwaseong-si, Gyeonggi-do,
Republic of Korea Post Code: 18581
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Cool Bank Co., Ltd.