



MagCore® HF48

Operation Manual



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Safety Precautions

Before use

WARNINGS and CAUTIONS stated below are intended to protect the individual from injuries and avoid damage to machines.



CAUTIONS

**Risk Of Electric Shock
Do Not Open**



CAUTION:

To reduce the risk of electric shock, do not remove the cover. Refer to qualified service technician for inner part servicing.



Warning: Electricity



General Warning. Please follow the instruction for operation, be aware of electrical hazard caused by inappropriate operation.

1. Power Supply
2. Barcode Scanner



Warning: Biological Hazard



Warning: High Temperature



Please read the instruction carefully and keep for future reference.



This product is confirmed with European Union conformity assessment regulations regarding health and safety or environmental protection.

CAUTION:

1. Handle the power supply cord carefully

Do not damage or twist the power supply cord. Damaged or twisted cord may cause electric shock or error when used. When you remove it from the outlet, be sure to remove by holding the plug and not by pulling the cord.

2. Do not open the top cover

In order to prevent electric shock, do not open the top cover.

3. Do not place anything inside

Do not place metal objects inside the MagCore® System and wipe away all spilled liquid to minimize the risk of system error and electric shock.

Note On Use:

Avoid high temperatures.

Leave space for sufficient heat dissipation during installation.



Handle the power cord carefully.

Hold the plug when unplugging the cord.



Keep the set free from moisture, liquid, and dust.



Unplug the power cord if the system will not be used again in a long time.



Do not obstruct the ventilation space.



Do not let insecticides, benzene, or thinner come in contact with the set.



Do not ever disassemble or modify the set in any way.



Do not let foreign objects in the set.



SAFETY INSTRUCTIONS

1. **Read Instructions** – All the safety and operating instructions should be read before operating the instrument.
2. **Keep the Instructions** – Please keep the safety and operating instruction manual for future reference.

3. **Cautions and Warnings** – All warning signs should be attached on the product and shown in the user's manual.

4. **Follow Instructions** – All operating and use instructions should be followed.

5. **Cleaning** – Unplug the product before cleaning. Use only 75% of EtOH to clean the surface of instrument.

6. **Attachments** – Do not attach anything on the instrument.

7. **Liquid and Moisture** – Do not use this product near water and avoid moist areas - bath tub, wash bowl, kitchen sink, laundry, swimming pool or in a moist basement.

8. **Proper Installation** – Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall and causes serious injury to a child or adult, and serious damage to the product. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with the product. Any mounting of the product should follow the manufacturer's instructions, and should use a mounting tool recommended by the manufacturer.

9. **Ventilation** – Slots and openings in the cabinet are designed for ventilation, which is required for safe operation and minimizing the chance of overheating. The product should be placed on a hard surface to ensure proper ventilation. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is ensured or instructed by the manufacturer.

10. **Power Sources** – This product should be operated only from the type of power source indicated on the label. If you are not sure of the type of power supply at your lab, consult the seller or local power company. For products intended to operate from battery or other sources, refer to the operating instructions.

11. **Grounding or Polarization** – This product may be equipped with a polarized alternating-current plug. This plug will fit into the power outlet in one way only. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.

12. **Power-Cord Protection** – Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed near or against them. Pay extra attention to the plugs, convenience receptacles, and the connecting point where the cord extends out of the product.

13. **Lightning** – Unplug the product if it will not be used again for a long period or in the case of a heavy storm. This will prevent damage to the product due to lightning and power surges.

14. **Overloading** – Do not overload wall outlets, extension cords, or integral convenience receptacles as this can result in a risk of fire or electric shock.

15. **Object and Liquid Entry** – Never push objects of any kind into this product as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.

16. **Servicing** – Do not attempt to repair this product by yourself. Refer all servicing to qualified service technician.

17. **Damage Requiring Service** – Unplug this product from the wall outlet and refer servicing to qualified service technician under the following conditions:

- a) When the power-supply cord or plug is damaged,
- b) If liquid has been spilled, or objects have fallen into the product,
- c) If the product has been exposed to rain or water,
- d) If the product does not operate normally following the operating instructions. Adjust only controls covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation,
- e) If the product has been dropped or damaged in any way, and
- f) When the product exhibits a distinct change in performance – this indicates a need for service.

18. **Replacement Parts** – When replacement is required, be sure the service technician uses replacement parts specified by the manufacturer or those with similar features as the original part. Unauthorized substitutes may result in fire, electric shock, or other hazards.

19. **Safety Check** – Upon completion of any shipment, storage, installation or maintenance service to this product, ask the service technician perform safety checks to confirm that the products is in proper operating condition.

20. **Heat** – The product should be placed away from heat sources such as radiators, heat registers, stoves, or other products that produce heat.

21. **Moving Product** – The machine requires two people lifting from both sides at the bottom edge. Do not attempt to lift by bending forward. Bend your hips and knees to squat down, keep the machine close to your body, and straighten your legs to lift.

22. **Ultraviolet(UV) radiation production** – The front door panel is made of UV resistant material. During UV Sterilization, if the front door be opened, the interlock will turn off UV lamps automatically.

Intended use

The MagCore® Nucleic Acid Extraction System is an automated nucleic acid purification system consisting of the MagCore® instrument, software, Kit (consumables and reagents).

The MagCore® Nucleic Acid Extraction System is intended to be used by professional users for the purification of nucleic acids from biological samples for in vitro diagnostic purposes.

The MagCore® Nucleic Acid Extraction Kits are intended to be used with MagCore® Nucleic Acid Extraction System.

GENERAL CONSIDERATIONS

Before Using

- Do not operate MagCore® without qualified operation training.
- Read user's manual carefully before operation.

Handling Requirements

- Do not use a kit after its expiration date.
- Do not touch the reagents with bare hands. Keep away from your skin, eyes, or mucous membranes. If contact does occur, wash the affected area immediately with large amounts of water. If you spill the reagents, dilute the spill with water before wiping it up.
- Do not allow reagents to mix with sodium hypochlorite solution or strong acids. This mixture can produce a highly toxic gas.

Precautions

The following procedure is designed to process maximum 48 samples at the same time. The MagCore® instrument can handle all numbers of samples between 1 and 48. For a detailed description of instrument setup and handling, refer to the MagCore® instrument Operator's Manual.

- Store the Reagent Cartridge to +15 to +25°C before use. If you use the reagents at temperatures outside the recommended range, the kit may not work well.
- Document the lot number of the kit in case of complaints or questions for RBC Bioscience Technical Service regarding any component of the kit (reagent cartridges or disposables).
- Make sure you have followed the instructions regarding type and amount of sample material. Wrong type and amount of sample material may cause clumping of MGPs which cannot be detected by the Clot Detection function of the instrument. Clumping of beads may lead to low yield and purity of nucleic acids, cross-contamination, and inhibition of downstream assays (e.g., PCR).
- After the run has finished, carefully inspect the instrument for any signs of spillage. If spillage occurred, clean the instrument as described in the Operator's Manual.
- Some buffers contain guanidinium salts which are hazardous irritants. Do not allow these to come into contact with skin, eyes, or mucous membranes. If contact does occur, wash the affected area immediately with large amounts of water. If necessary, immediately contact your laboratory supervisor and seek medical assistance. When spilling these reagents, dilute the spill with large amounts of water before attempting to clean up the spill.
- Do not allow reagents containing guanidine thiocyanate (lysis and wash buffer well) to contact sodium hypochlorite (bleach) solution or acids. These mixtures produce a highly toxic gas.
- Please notice that you may be required to report serious incidents that have occurred in relation to the device to the manufacturer and the competent authority in which the user and/or the patient is established.

Prevention of Cross-Contamination

To minimize the risk of cross-contamination and to prevent contact with potentially infectious materials, always complete the processes involving sample preparation such as pipetting of blood samples in a designated part of the benchtop or safety hood before starting PCR setup.

To further minimize the risk of contamination, always carry out sample preparation, PCR setup, and the PCR run itself in separate rooms specially designated for each phase in the workflow.

Safety Information Laboratory Procedures

Handle all samples as potentially infectious, using safe laboratory procedures. As the sensitivity and titer of potential pathogens in the sample material varies, the operator must optimize pathogen inactivation by the Lysis/Binding Buffer or take appropriate measures, according to local safety regulations.

RBC Bioscience does not warrant that samples treated with Lysis Buffer are completely inactivated and noninfectious. After sample processing is completed, remove and autoclave all disposable plastics.

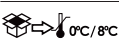
- Do not eat, drink or smoke in the laboratory work area.
- Wear protective disposable gloves, laboratory coats, and eye protection when handling samples and kit reagents.
- Do not contaminate the reagents with bacteria, viruses, or nucleases. Use disposable pipettes and nuclease-free pipette tips only to remove aliquots from reagent bottles. Use the general precautions described in the literature.
- Wash hands thoroughly after handling samples and reagents.
- Complete each phase of the PCR/RT-PCR workflow before proceeding to the next phase. For example, you should finish PCR/RT-PCR sample preparation before starting PCR/RT-PCR setup. Sample preparation, PCR/RT-PCR setup and the PCR/RT-PCR run itself should also be performed in separate locations.

Waste Handling

- Discard unused reagents and waste in accordance with country, federal, state, and local regulations.
- Safety Data Sheets (SDS) are available upon request from the local distributor.

IVD Symbols Reference

Reference symbol Description of Symbol

	CE mark
	In Vitro Diagnostic Device
	Authorized representative in the European Community
	Manufacturer
	Content sufficient for <n> tests
	Warning: electricity
	Instruction manual must be read before operating
	Consult instructions for use
	Alternate current input
	Use-by Date
	No use period
	Temperature storage conditions 15°C/30°C
	After mixing store at 0°C/8°C
	After opening store at 0°C/8°C
	Catalogue number (product code)
	Lot number
	Model
	Number of aliquots
	Included in the product
	Cartridge code number
	Sterile
	Sterilized using irradiation
	Serial Number
	Fuse

Specification

Model	HF48 / MCA4801 (under development)
Processing Capacity	Max .48 samples per batch
System Feature	1. Cartridge rack, T-Rack, Tube Rack designed for easy installation 2. Auto-cartridges locking
Power Supply	Voltage: AC 200V-220V; Frequency: 50/60Hz;
Dimension	W1000 x D800 x H1600 (mm) W39.37 X D31.49X H62.99(inches)
Net Weight	250kg / 551.25Lb

– Operation Parameters

Processing Capacity	1~48 samples per batch
Sample Volume	60/100/150/200 µl /1200 µl
Elution Volume	60/100/150/200 µl
Purity	O.D. 1.8 -2.0 A ₂₆₀ /A ₂₈₀ ratio

– Operation Environment

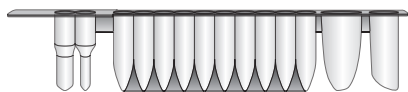
Temperatures allowed during transportation, storage, and packaging	15° C - 35° C
Temperatures allowed during operation	18° C - 30° C
Pollution Degree	Level 2

– Applications

Whole Blood DNA, Viral Nucleic Acid (DNA/RNA 200µl/400µl/1200µl), Plasma and Circulating Cell-Free DNA (1200µl), Tissue Genomic DNA, Plant Genomic DNA, Bacterial DNA, Total RNA from Whole Blood and Total RNA from Cultured Cells.

Accessories

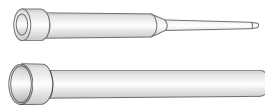
System Test Tools



Cartridge X 20

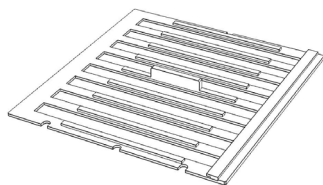


Sample Tube X 50

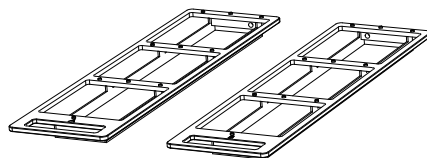


Tip / Tip Holder Set X 50

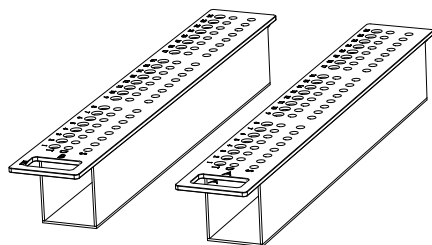
System test tools should be kept in clean places and the loss should be avoided.



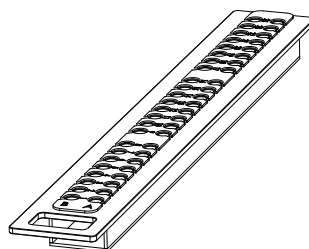
Cartridge Rack X 6



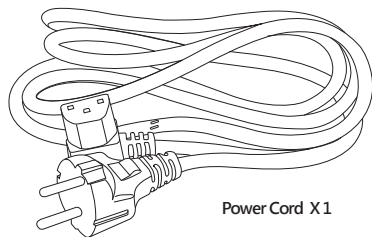
Cartridge Carrier B X 1 / Cartridge Carrier A X 1



Tip Carrier B X 1 / Tip Carrier A X 1



Elution Carrier X 1



Power Cord X 1



Lubricant X 1

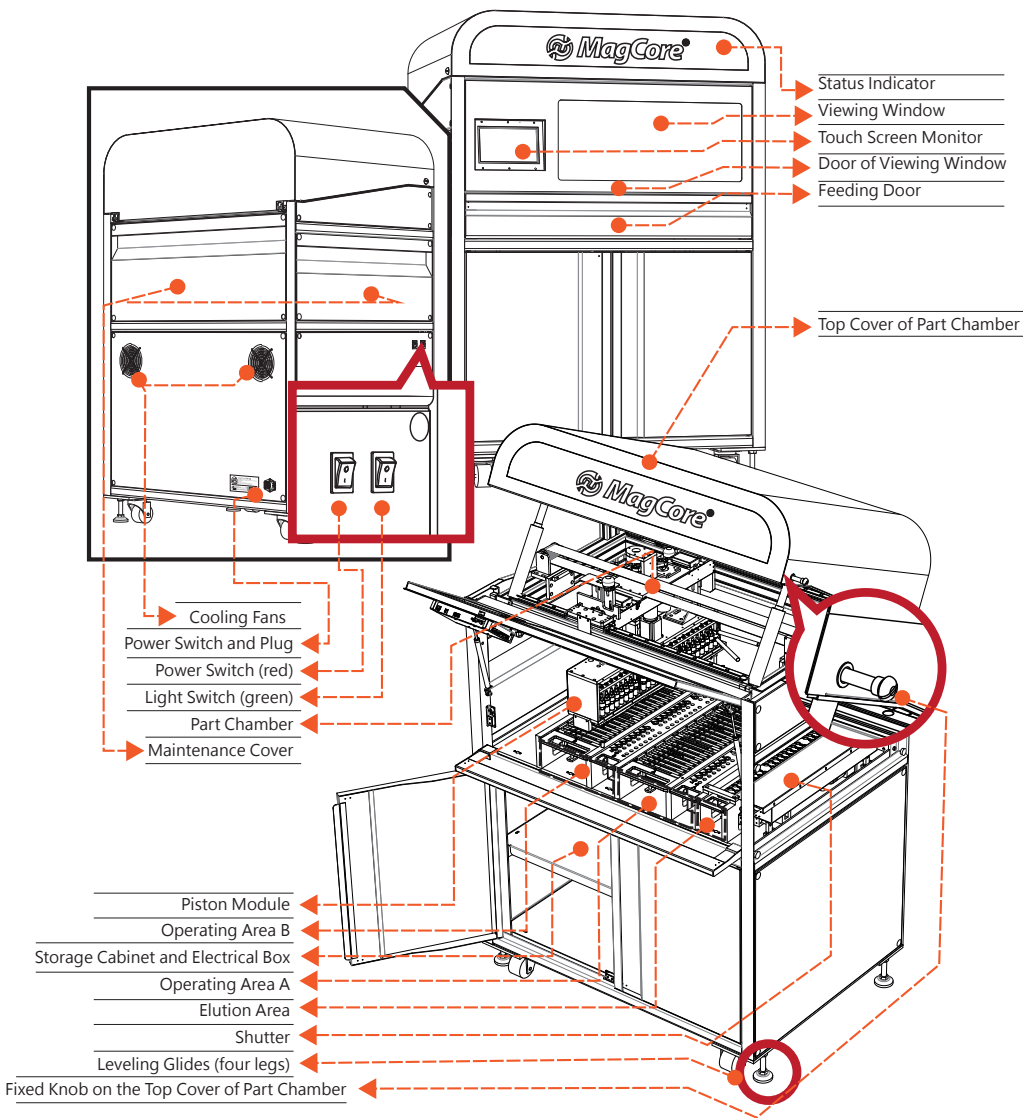


O-Ring X 24

MagCore® HF48 Tottle Weight

250kg / 551.25Lb

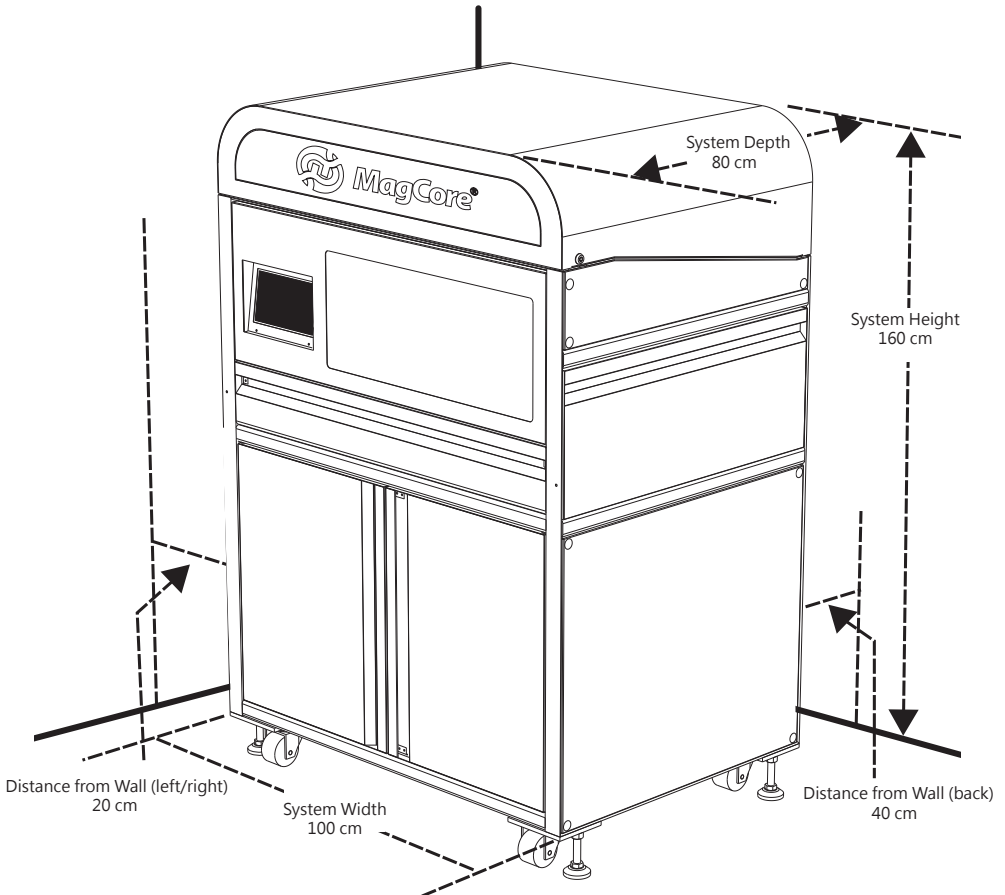
System Overview



Installation

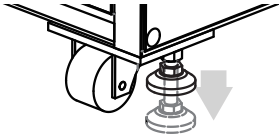
— Before Installation

Please find a location close to outlets and leave sufficient space for system installation and heat dissipation.



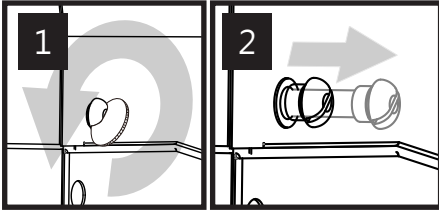
Please use the leveling glides to fine-tune the elevation level.

– Install MagCore



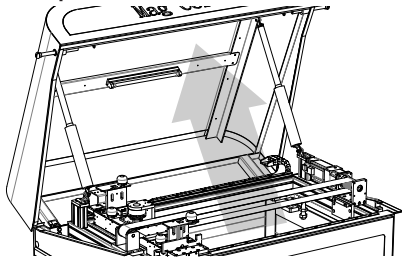
Place the system in a suitable location and use the leveling glides to fine-tune the elevation. Remember to tighten the screws.

▼ Next Step



Rotate and pull out the knobs on both sides of the top cover of part chamber using coins.

▼ Next Step

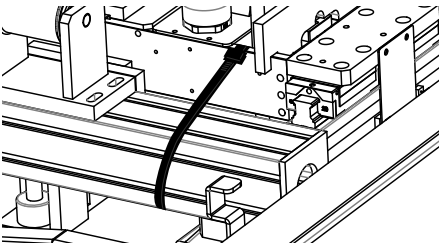


Open the top cover of part chamber.



Please note the weight of the top cover of part chamber. Two people are required to lift it up.

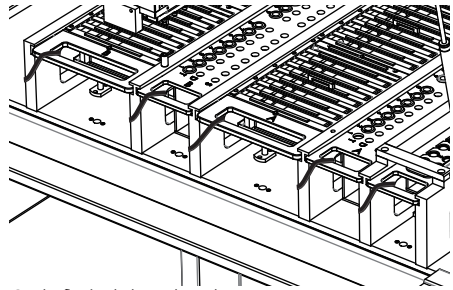
▼ Next Step



Cut the fixation belt and close the top cover of part chamber.

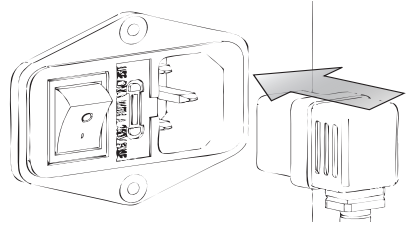
▼ Next Step

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Cut the fixation belts on the racks.

▼ Next Step

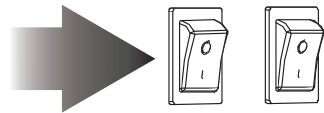


Plug in the power cord and turn on the main power.



Please make sure that the voltage of the outlet is between 220V and 240V. Keep your hands dry. Please also make sure that the machine is turned off when you insert the plug.

▼ Next Step



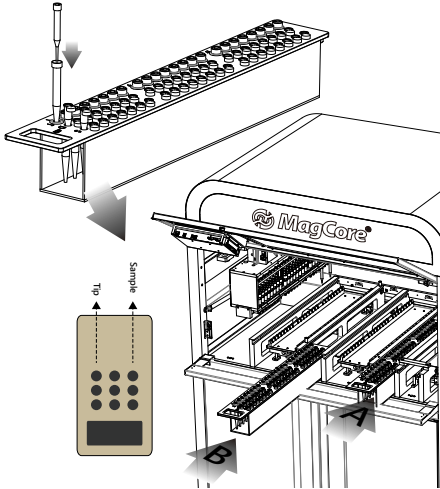
Turn on the power and the system will start initializing setup automatically.



Please set the local time (refer to page 19) for the first installation, and perform the “Piston Test” (page 15).

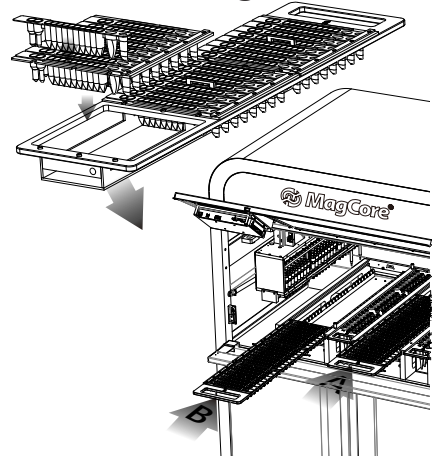
Please finish reading the operation manual before operating.

– Install Tip and Sample Tube



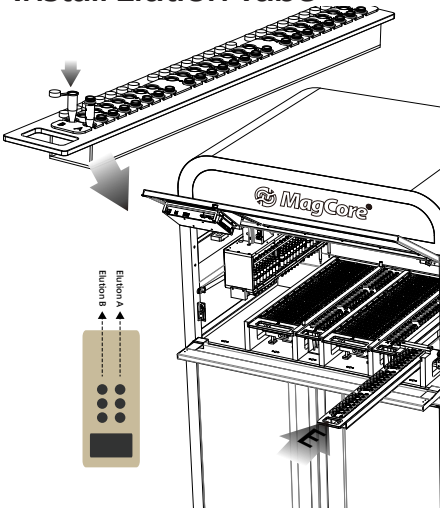
Insert Tips and Sample Tubes into the slots in the Tip Carrier. Then place the Tip Carriers into Operating Area A and B as illustrated.

– Install Cartridge



Insert Cartridge into Cartridge Rack. Then place the entire set of Cartridge Carrier in the slots in Operating Area A and B as illustrated.

– Install Elution Tube

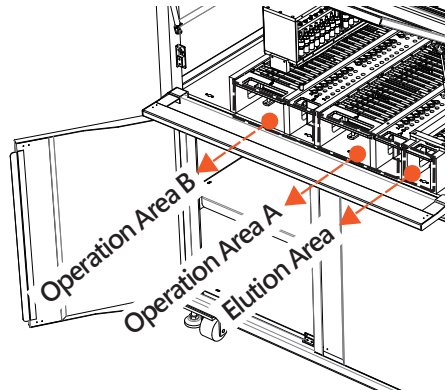


Place Elution Tubes into their corresponding positions and place Elution Carrier in the elution slot.



Warning :

Carrier of Operating Area A can only be used in area A; Carrier of area B can only be used in area B. Incorrect use may cause system error.



Warning :

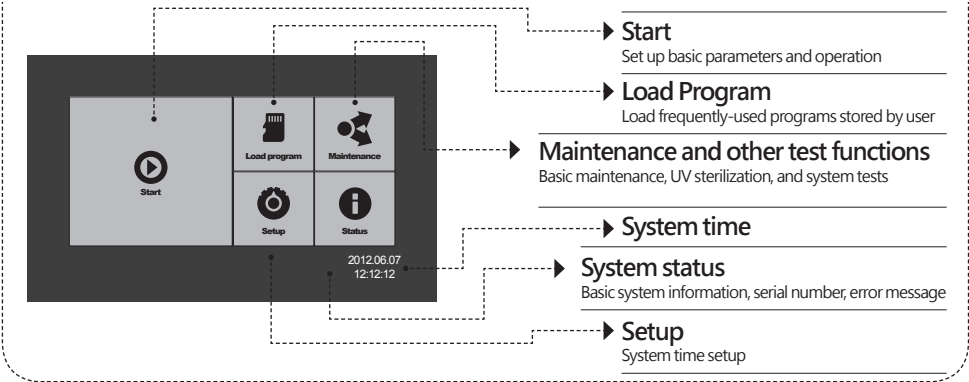
DO NOT use other types of centrifuge tubes to replace the Sample Tubes provided. Poor extraction results or error may occur due to tubes having different heights.

Touch Panel and User Interface

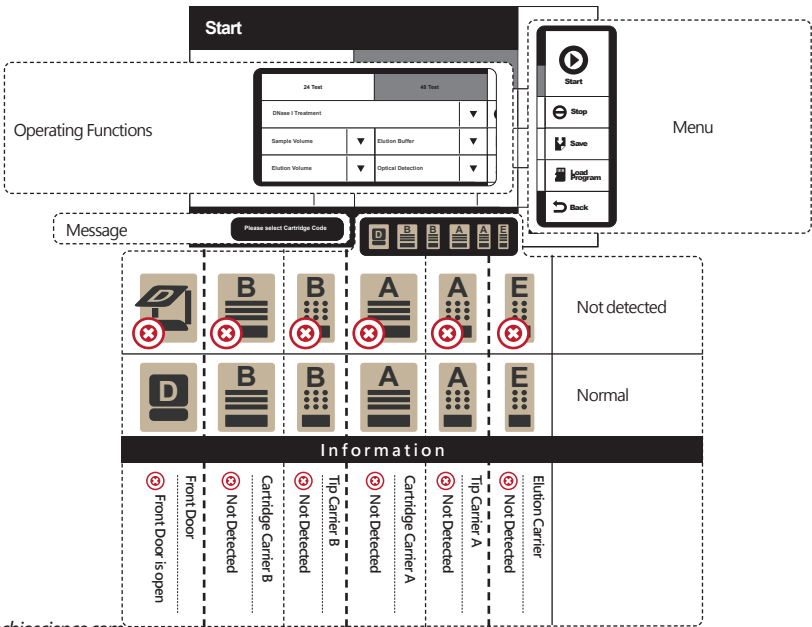


MagCore® HF48 provides 8.9-inch full-color touch screen and user-friendly interface. You can monitor the progress of extractions with the status and time displayed on the screen.

– Main Menu



– Panel

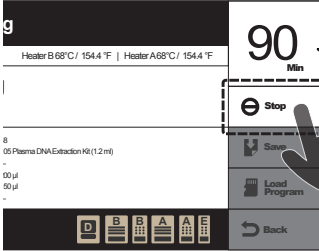


Emergency Stop and Warning



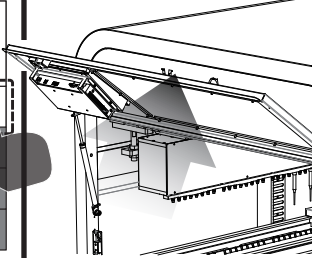
Please read about how to stop the system in case of emergency.

Method 1



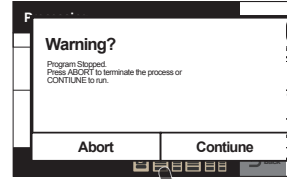
Press Stop key to stop all operations immediately in case of emergency.

Method 2



The system will stop all operations immediately if the front door is opened.

Resume



Select Continue to resume to previous operations or Abort to end all operations.



Warning :

Please do not place your hands near the operation areas when the system is under operation for safety reasons.

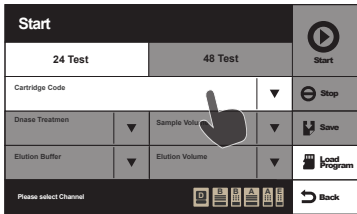
- Start



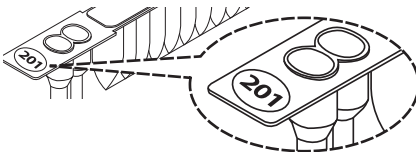
Press Start in the main window.

▼ Next Step

Select 24 or 48 test channels.



Select Cartridge code.



Please reconfirm the code you selected and input all parameters.

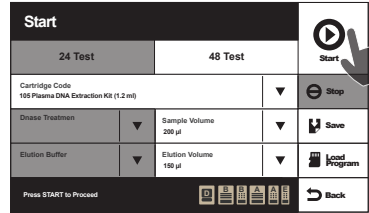
▼ Next Step



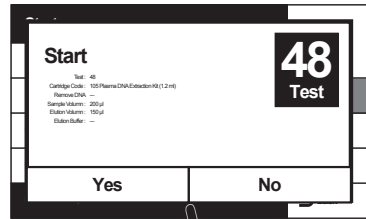
Confirm that the icon  does not appear in the status bar. If the icon shows, operation is disabled. Please solve the error to continue. (Refer to page 8 for Warning Signs)

▼ Next Step

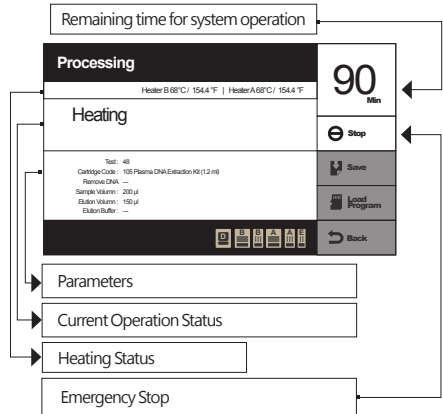
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After you finish inputting and press Start, a confirmation window will show up. Please press Yes to operate the system if the parameters are correct. Please press No to modify incorrect parameters.



▼ Next Step



You may monitor the extraction progress and check the remaining time on the screen. The system will display Complete page after completion.



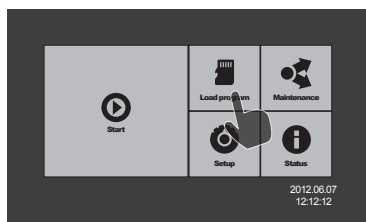
Please do not open the viewing window or feeding door during operation if there is no emergency to prevent error or poor extraction results.



Load program

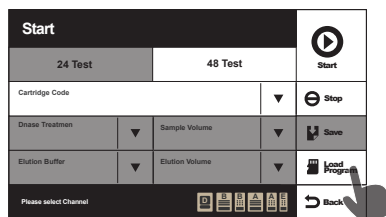
Load Program

You can save frequently used programs with names you prefer for your convenience.



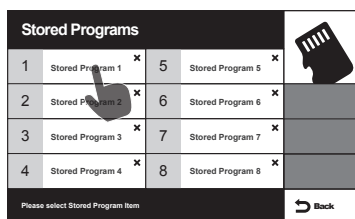
Press Load Program to enter the Stored Programs page.

Or



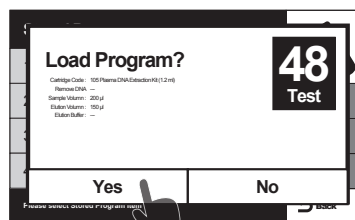
Press Load Program after pressing Start to enter the Stored Programs page.

Please select one of your saved programs.



▼ Next Step

Check whether the parameters are correct and press Yes.



▼ Next Step

- Save Programs

You may save up to 8 programs with names you prefer for your convenience.

Please press Save key to enter Stored Programs page after all parameters have been selected on Start page.

▼ Next Step

Please click to modify.

▼ Next Step

Confirm if the parameters are correct.

▼ Next Step

Enter the name you want to save and press Enter.

- Delete Programs

You may delete your saved program as well.

Please press Load Programs to enter Stored Programs page after entering Start page.

▼ Next Step

Please select an item you want to delete by pressing X.

▼ Next Step

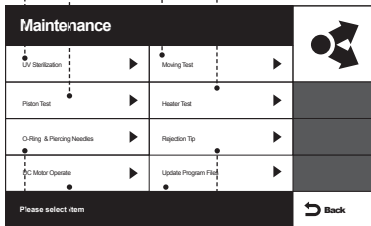
Press Yes to delete the program.



Maintenance

Easy Maintenance

Easy maintenance includes the maintenance items which can be done by users. These items include sterilization, cleaning, system tests, error message report, etc. Users must perform these items regularly to ensure that the system can function normally.



UV Sterilization

UV Sterilization

Piston Test

Piston draining and leakage test

Moving Test

Moving Test for all axes

Heater Test

Temperature test for heater

Update Program Files

Update programs

Rejection Tip

Return tips to original positions

O-Ring and Piercing Needles

Replace O-Ring and clean piercing needles

DC Motor Operate

Raise or lower the protective cover on Elution area and motor in operating area A and B

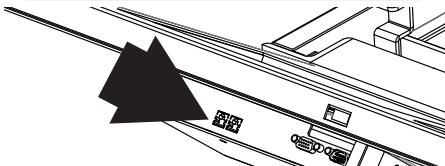
Update Program Files

Copy new programs into your USB Flash Drive.

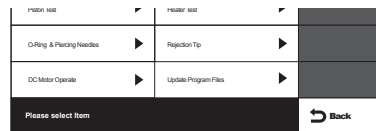
* Confirm if "48ExtractorUpdateProgram" is successfully saved in your USB Flash Drive.



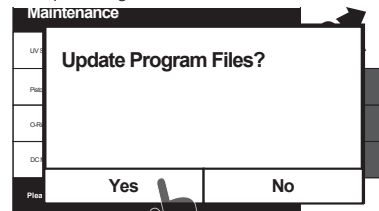
Please **DO NOT** modify anything in 48ExtractorUpdateProgram.



Open the door of viewing window, insert your USB Flash Drive into the USB slot on the back of the control panel, and press Export key to export data to your USB Flash Drive.

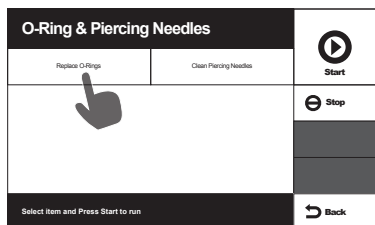


Select Update Program Files.



Press Yes to start the update and the window will close automatically after the update is complete.

– Replace O-Rings



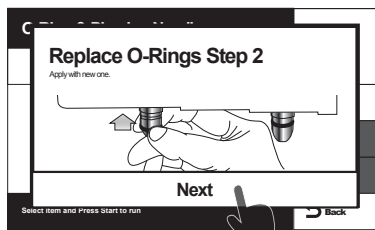
Select Replace O-Rings and press START.

▼ Next Step



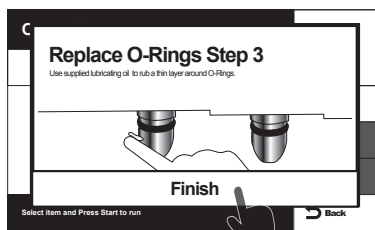
Follow the instructions: use a sharp blade to cut off old O-rings. Then press Next.

▼ Next Step



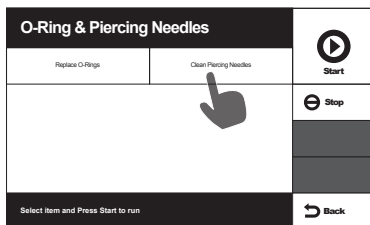
Apply new O-rings.

▼ Next Step



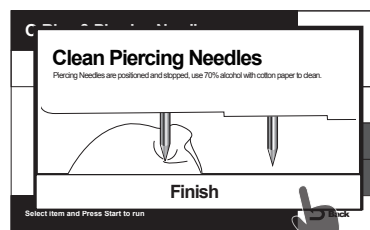
Press Finish after applying lubricant.

– Clean Piercing Needles



Select Clean Piercing Needles and press START.

▼ Next Step

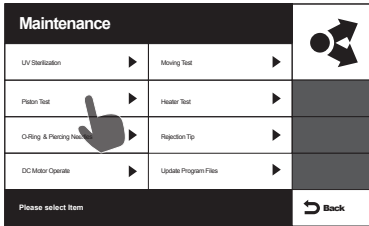


Please prepare a cotton paper with 70% alcohol to clean.



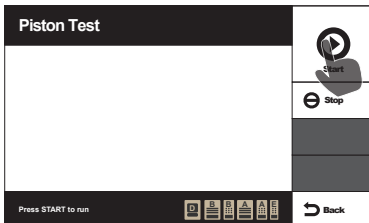
Please **DO NOT** USE other detergents except 70% alcohol to clean. Piercing needles are very sharp, please be careful not to cut yourself.

– Piston Test



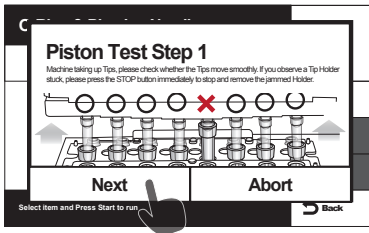
Select Piston test in the Maintenance menu.

▼ Next Step



Please place the “system test tool” in advance in operating areas (refer to page 7), and put 1ml water in all Sample Tubes. Press Start to begin the test.

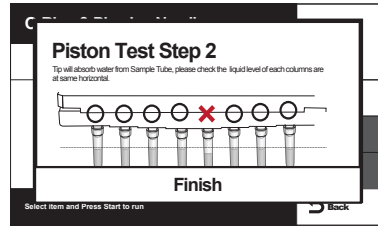
▼ Next Step



The purpose of this step is mainly to test whether the instrument can withdraw tips smoothly.

The display shows Piston Test Step 1, please note that the illustration shown on screen is only an example. Please check if the instrument can withdraw tips smoothly. If yes, press Next. If you find any tip stuck in its tip holder, press Abort to stop the test and replace the tip/tip holder. Run the test again and if the problem persists, contact your local distributor for technical support.

▼ Next Step

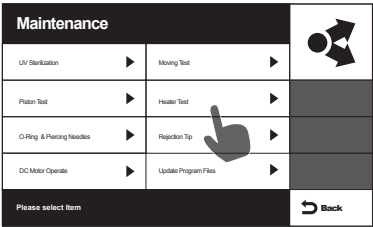


The purpose of this step is to test if there is any leakage from the tips.

The system will absorb water from Sample Tubes. Please check if the liquid level is the same across all tips. If yes, press Finish. If the liquid level is not the same throughout, please press Finish first, then replace the O-ring of the leaking tip and test again. If the problem persists, please contact your local distributor for technical support.

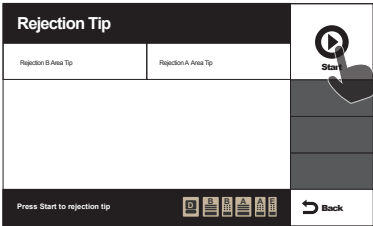
- Rejection Tip

This function is for the system to return tips to their original locations after emergency stop or operation interruption due to power outage.



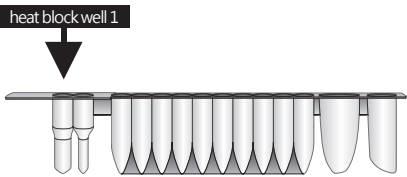
Select Rejection Tip in the Maintenance menu

▼ Next Step



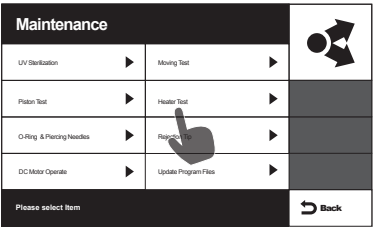
Please select Start to begin. After the process is completed, the system will return to initial position automatically.

- Heater Test



Please place a cartridge into each Cartridge Rack and add 500µl of water into heat block well 1. Insert a thermometer into heat block well 1 to measure the temperature.

▼ Next Step

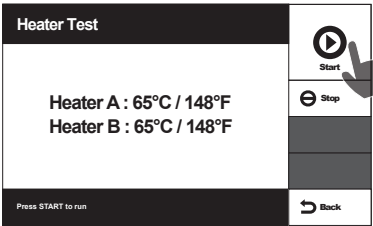


Select Heater Test in the Maintenance menu.

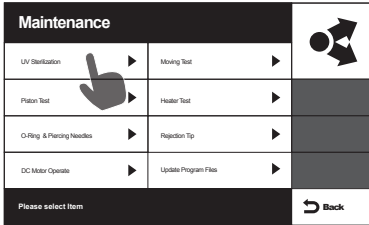
Press Start. The screen will show the supposed heating temperature by calculation. Please compare with the value on your thermometer to see if they are the same.
Please press Stop if you want to stop the test.



The acceptable range of temperature is between 60° C and 70° C.

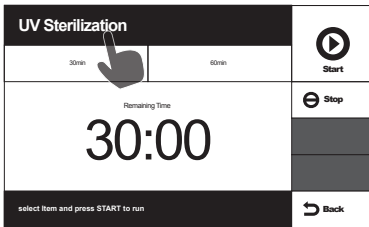


– UV Sterilization



Select UV Sterilization in the Maintenance menu.

▼ Next Step

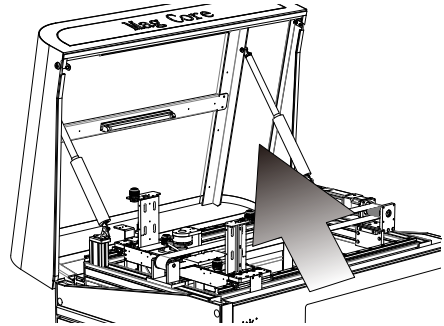


You may select to run sterilization for 30min or 60min. Press START. The screen will show the remaining time.

Please press Stop to stop if you want to stop sterilization.



– Replace UV Lamp

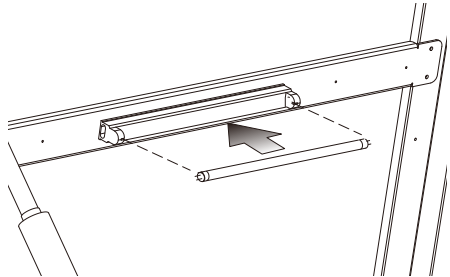


Open the top cover of the Part Chamber.



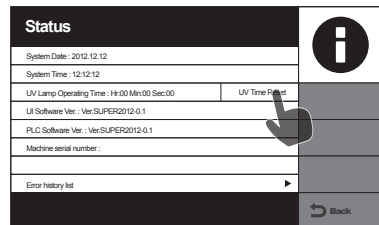
Please note that due its weight, the top cover of the part chamber requires two people to lift it.

▼ Next Step



Replace the old UV lamp with a new one.

▼ Next Step



Select Status in the main menu and press UV Time Reset key to reset the hours of UV lamp.

Please test to see if the UV lamp is normal after replacement.

– Moving Test

Maintenance		
UV Sterilization ▶	Moving Test ▶	
Plasma Test ▶	Heater Test ▶	
O-Ring & Piercing Needles ▶	Rejection Tip ▶	
DC Motor Operate ▶	Update Program Files ▶	
Please select item		

Select Moving Test in Maintenance menu.

▼ Next Step

▶ V axis motor running test

M axis motor running test ◀

▶ X axis motor running test

Y axis motor running test ◀

Moving Test		
■ X Axis Moving Test ▶	Y Axis Moving Test ▶	
■ V Axis Moving Test ▶	M Axis Moving Test ▶	
■ ALL Axis Moving Test ▶		
Please select item		

▶ Moving tests for all axes

Select the axis to test and press Start. The motor will run continuously until you press Stop.

– DC Motor Operate

Maintenance		
UV Sterilization ▶	Moving Test ▶	
Plasma Test ▶	Heater Test ▶	
O-Ring & Piercing Needles ▶	Rejection Tip ▶	
DC Motor Operate ▶	Update Program Files ▶	
Please select item		

Select DC Motor Operate in Maintenance menu.

▼ Next Step

▶ Operation Area B UP

Operation Area B DOWN ◀

▶ Operation Area A UP

Operation Area A DOWN ◀

DC Motor Operate		
■ Operation Area A UP	Operation Area A DOWN	
■ Operation Area B UP	Operation Area B DOWN	
■ Shutter Open	Shutter Close	
Please select item		

▶ Shutter Open

Shutter Close ◀

All consumables are fixed in place when test is stopped. You can operate the DC motor through this function if you need to raise or lower the drip pan. Refer to the page 7 for corresponding locations of operation areas.

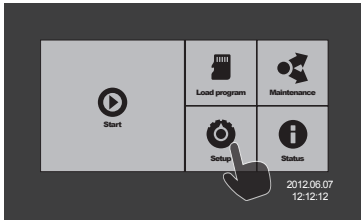
Select the area you want to move up or down and press Start. It will stop automatically when the motor moves to end.



Setup

You may set timing here.

– System Timing Setting



▼ Next Step

12 or 24 hour display format

► Year Setting

Time Setting		
Year: 2012	24h	
Month: 12	Hour: 12	
Day: 03	Minute: 12	
Back		

► Day Setting

Hour Setting

► Month Setting

Minute Setting

▼ Next Step

Select the items you wish to change.

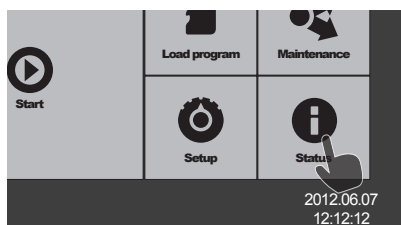
Enter setting value and press Enter.



Status

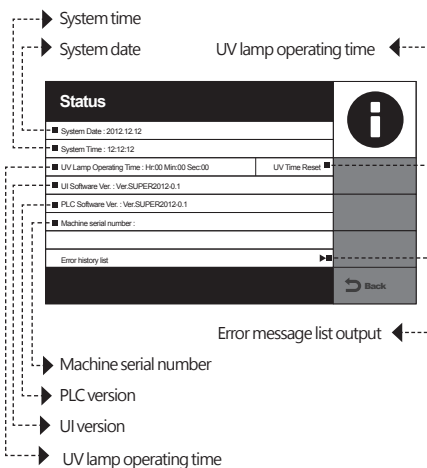
System Status

The system information records UI version, PLC version, system serial number, UV lamp operating time, and machine error list.



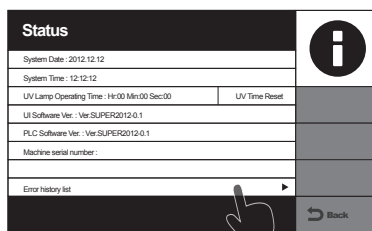
Select Status in the main menu.

Next Step

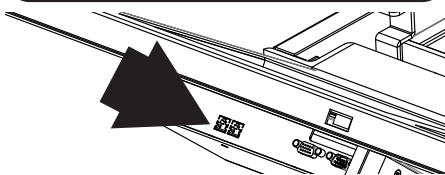


Export Error Record File

You may export error messages to provide engineers data to analyze and solve system problems.

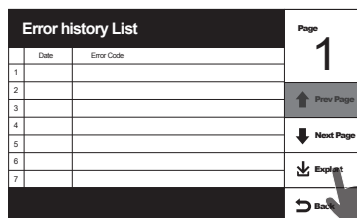


Next Step



Open the door of the viewing window, insert your USB Flash Drive into the slot on the back of the control panel, and press Export key to export data to USB Flash Drive.

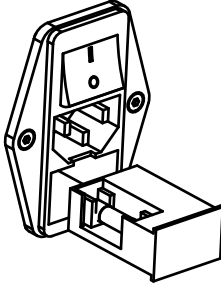
Next Step



After file is saved, the system will generate a .csv file in your USB Flash Drive which can be opened by Excel. Please provide the file for engineers to determine and solve errors in the system.

Others

— Replace Fuses



250V 5A



Please use only the fuses specified for replacement. Using fuses with higher amps may cause danger of burning.

Turn off the power and unplug the power plug. Use a straight screwdriver to remove the fuse holder and replace the fuse.

Please plug in the power plug and turn on the power after the fuse is replaced. Please unplug the power plug immediately and contact your local distributor for assistance if burning occurs.

— Barcode Scan

You can use the barcode scanner to input your sample's code into the test report.

Start		Barcode Scan		Start
24 Test		48 Test		
Cartridge Code			▼	Stop
Dilute Treatment	▼	Sample Volume	▼	Save
Elution Buffer	▼	Elution Volume	▼	Load Program
Please select Channel				Back

▼ Next Step

Select [Barcode Scan] function and enter [Barcode Scan] Mode.

Barcode Scan				Start
1	×	9	×	
2	×	10	×	Stop
3	×	11	×	
4	×	12	×	Save as
5	×	13	×	
6	×	14	×	Delete All
7	×	15	×	
8	×	16	×	Back
Select site Number first, then Scan Sample Barcode. Press START to continue.				

Choose the corresponding slot of your sample and scan your sample's code, after the completion code is displayed on the touch panel, place the sample into the slot; if you have more than one sample, please repeat the above barcode scanning manner.

▼ Next Step

Barcode Scan				Start
1	×	9	×	
2	×	10	×	Stop
3	×	11	×	
4	×	12	×	Save as
5	×	13	×	
6	×	14	×	Delete All
7	×	15	×	
8	×	16	×	Back
Select site Number first, then Scan Sample Barcode. Press START to continue.				

Press [BACK] to return to start the process.

Troubleshoots

Trouble	Possible Causes	Recommendations
Liquid dropped on Cartridge carrier or Tip carrier	Suction leakage, due to damaged or worn out O-rings	Please refer to system test and check if the liquid level is the same throughout tips.
Wrong liquid quantity moved	1. Suction head might be bent. 2. Worn out O-ring 3. Reagent is stored for too long.	1. Check suction head. 2. Please refer to system test and check if the liquid level is the same throughout tips. 3. Renew your reagents.
Liquid level floods over tip filter	1. Wrong sample materials. 2. Wrong sample tubes.	1. Please refer to MagCore® kit manual. 2. Please use the provided sample tubes.
No piercing	V motor or connector is not working normally.	Restart the system. Please contact technical support if the problem persists.
No axis movement	Motor or connector is not working normally.	Restart the system. Please contact technical support if the problem persists.

Document Revision History

Date	Changes
October 2022 EN-MagCore® HF48 Operation Manual-1.0.0	Updated the following sections: General Considerations; Document Revision History Update to comply with the requirements of the IVD Regulation (EU) 2017/746.



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