MagCore® Automated Nucleic Acid Extractor

# MagCore® Automated Nucleic Acid Extractor Overview

	Standard □ Optional	Cost-Effective MagCore® HF16	Economic, Fast, Space Saving Mag Core® Compact	High Capacity Module  MagCore® HF48	Mostpopularwith high CP value  Mag Core HF16 Plus	Spectrophotometer Built-in MagCore® Super	Process Monitoring through your Smartphone  MagCore® Plus //
8 1-8 Samples			-				
1-16Samples						-	
48 1-48 Samples				-			
Spectrophotometer						-	
Touch Screen				-	-	-	
UV Decontamination	1	_	-			-	
Barcode Scanner						-	
Thermo Printer						-	
Built-in Programs (Upgradeablevia RS232 ports)		•	•				
Built-in Programs (Upgradeable via USB ports, Plu	g&Play)			•	-	-	
USB Output (USB flash drive not provided)					•	-	
Progress Monitoring (Wireless)							
LIMS (LaboratoryInformatic	n Management System)						

# MagCore® Automated Nucleic Acid Extractors will keep you ahead in Life Science



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MagCore® Extractor System is a simple, fast and cost-effective instrument for automated purification of nucleic acids from a diverse range of sample sources. Featuring pre-programmed protocols and our unique magnetic-bead technology, MagCore System delivers efficient and consistent nucleic acid purification.

MagCore® Extractors are bench-top instruments ensuring efficient and cross-contamination free isolation of DNA/RNA. Built-in UV lamps allow to easily and efficiently decontaminate the instruments after run.

#### **Flexibility**

MagCore® Automated Extraction System allows you to save time without sacrificing consistency and purity. You can use one instrument to purify DNA and RNA from a broad variety of sample types: from blood to mouse tails and almost everything in between.

#### **Ease Of Use**

You will be provided with everything you need to run purifications, including pre-filled cartridges, specialized disposable tips and tubes. With the user-friendly interface and our user manuals, you are quaranteed to operate with ease.

#### **Safety**

MagCore® Automated Extraction System helps minimize cros-contamination by limiting hands-on procedures and turnaround time.

MagCore® System speeds the front-end processing, enabling you to do more tests in less time. And the Instrument is compact, so it can virtually fit into any lab.

### **Built-in Programs**

All of our MagCore Extractor models have built-in protocols for all of the kits we offer. Simply run the protocol by selecting the 3-digit code printed on the kit of interest.

Free upgrade of software and protocols can be downloaded from our website (www.rbcbioscience.com) and uploaded through the instrument RS232/USB ports.

#### Diverse Sample Purification

We offer extraction kits designed for Blood, Plasma, Cell, Tissue, FFPE Tissue and Plant samples, to fit allyour research needs.

Competitive Price and Small Footprint

# Easy To Use

Apply samples to instrument



Load Accessorie.



Select the number of the cartridge.

D		
101	201	
102	202	
▲ Prev ▼ Next	Cancel	
Salort Cartridge Code		

Select Sample Volume



Push Start



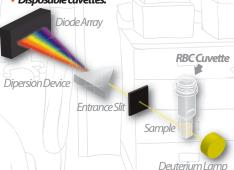
A Beep Sound can be heard after protocol is completed



### Other Features

#### Automatic Optical Density Measurement

- Built-in spectrophotometer provides O.D. A<sub>260</sub> and A<sub>280</sub> measurement of individual samples.
   (O.D. detection range: ABS < 6.)</li>
- A<sub>320</sub> Normalization
- Disposable cuvettes.



#### Thermo Printer and Barcode Scanner



#### **Progress Monitoring**













# MagCore® Automated Nucleic Acid Extractor

#### The first intrument with built-in Spectrophotometer

# MagCore® Super















#### Automatic Optical Measurements of OD Values

Built-in spectrophotometer and our optical module provide users the option to automatically measure OD values and concentration of final eluates upon completion of the nucleic acid extraction process.

#### Test Report

Test results can be saved in the instrument, downloaded through he USB port and/or printed by the thermal printer.

<u>USB Output (USB flash drive not provided)</u>

USB Output allows users to conveniently save tests reports in excel format and upload system updates with a USB flash drive.

#### **Thermal Printer**

Test reports are available in hard copy.

#### Laboratory Information Management System (LIMS)

Test results are automatically saved after optical measurements. You can save up to 1,600 tests in LIMS. Data can be easily transferred to a printer or computer in the same network and the report file can be subsequently processed by a LIMS.



#### Worldwide Patented Magnetic Beads

Cellulose-coated magnetic beads, coupled with our patented binding and separation technology, quarantee high quality extracts.



#### Ideal for both DNA/RNA Extraction

Built-in protocols are created for extracting nucleic acids from whole blood, plasma, tissue cell, plant cell, bacteria cell and virus samples.



#### **UVDecontamination**

The equipped UV lamp minimizes the risk of cross-contamination and ensures user and product safety.



#### High Capacity of 16 Samples

The instrument and protocols allow running up to 16 samples at one time, providing time-saving and flexible operation.



#### Built-in Programs (Upgradeablevia USB ports, Plug&Play)

MagCore Super has built-in protocols for all of the extraction kits we offer. Simply run the protocol by selecting the 3-digit code printed on the kit of interest. MagCore® is equipped with a USB port. Free upgrade of software or protocols can be downloaded from our website (www.rbcbioscience.com).



#### Touch Screen with User-Friendly Interface

An integrated 7-inch full-color touch screen with user-friendly interface offersease in operation. Only one touch is required to run your daily work.



#### Barcode Scanner

It enables sample tracking and monitoring throughout the entire purification process and helps organize test results.



#### Progress Monitoring

Remote (wireless) HMI device automatically transfers the data to you Android smartphone.



#### Load Samples



Install Accessorie



Select the code of the cartridae.

D		
101		201
102		202
A Prev	<b>▼</b> Next	Cancel
Select Cartridge Code		

Select Sample Volume



Press Start

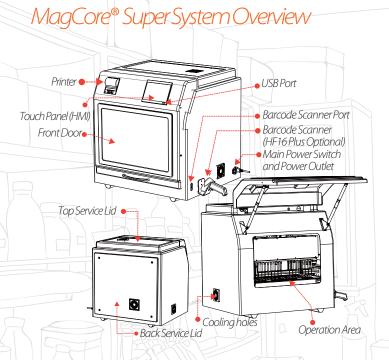


A Beep Sound can be heard after the program is complete!









# Automatic Optical Scanning and Retrieval

• The optical module provides O.D.  $A_{260}$  and  $A_{280}$  measurement of individual samples.(O.D. detection range: ABS < 6.)



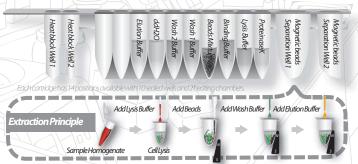




Process Monitori (Wireless-Android Only) (optional)



# Cartridge Design and Extraction Principle



## pecification

Model	Super
System Method	Cellulose coated magnetic beads
System Components	<ol> <li>Pipetting Unit: X and Y-axis movement for sample transfer and dispense.</li> <li>Electric Control: PLC module and ARM-based main board embedded in</li> <li>UV Light: power 8w, life duration 1,000hrs</li> <li>Heating Block: RT-90° C</li> <li>OD Detection Range: ABS 0 - 2.5</li> <li>Detection Source: D2 lamp</li> <li>Detection Wavelength: 260nm, 280nm</li> <li>Display Screen: 7-inch color touch panel</li> <li>Accessories: T-racks, cartridge racks, cuvette racks, barcode scanner, thermal printer</li> </ol>
Power Supply	Voltage: AC 100V~ 240V; Frequency: 50/60Hz
Dimension	W760xD700xH770 (mm) / W29.92xD27.55xH30.31 (inches)
Net Weight	78kg/171.99lbs

## Operating Paramenters

# Operating Environment

Processing Capacity	1-16 samples per batch			
3	30-90 minutes (depends on ample type and method)	Temperatures allowed during transportation, storage, and packaging	15℃-35℃	
•	200 μl/400 μl/1,200 μl	transportation, storage, and packaging	_	
Elution Volume	30µl/60µl/100µl/150µl/200µl			
	Average 6µg Genomic DNA from 200µl human whole blood	Temperatures allowed during operation		
Purity	DNA:O.D A <sub>260</sub> / <sub>280</sub> ratio 1.8 ± 0.1 RNA:O.D A <sub>260</sub> / <sub>280</sub> ratio 2.0 ± 0.2	Pollution Degree		
Pipetting Accuracy	500µl ≤ 4%			







