

# MagCore® Automated Nucleic Acid Extractor



## MagCore® Automated Nucleic Acid Extractor Overview



Discontinued Discontinued

Cost-Effective  
**MagCore® HF16**

Economic, Fast, Space Saving  
**MagCore® Compact**

High Capacity/Module  
**MagCore® HF48**

Most popular with high CP value  
**MagCore® HF16 Plus**

Spectrophotometer Built-in  
**MagCore® Super**

Process Monitoring through your Smartphone  
**MagCore® Plus II**

■ Standard □ Optional

| 8 Sample  | 1-8 Samples   |   |   |   |   |   |
|---|---|---|---|---|---|---|
| 16 Sample   | 1- 16 Samples   | ■ |   |   | ■ | ■ |
| 48 Sample   | 1-48 Samples  |   |   | ■ |   |   |
| Spectrophotometer   | Spectrophotometer   |   |   |   | ■ |   |
| Touch Screen  | Touch Screen  |   |   | ■ | ■ | ■ |
| UV Decontamination  | UV Decontamination  | ■ | ■ | ■ | ■ | ■ |
| Barcode Scanner   | Barcode Scanner   |   |   | □ | □ | □ |
| Thermo Printer  | Thermo Printer  |   |   |   | ■ |   |
| Built-in Programs<br>(Upgradeable via RS232 ports)          | Built-in Programs<br>(Upgradeable via RS232 ports)          | ■ | ■ |   |   |   |
| Built-in Programs<br>(Upgradeable via USB ports, Plug&Play) | Built-in Programs<br>(Upgradeable via USB ports, Plug&Play) |   |   | ■ | ■ | ■ |
| USB Output<br>(USB flash drive not provided)                | USB Output<br>(USB flash drive not provided)                |   |   |   | ■ | ■ |
| Progress Monitoring<br>(Wireless)                           | Progress Monitoring<br>(Wireless)                           |   |   |   |   | ■ |
| LIMS (Laboratory Information Management System)             | LIMS (Laboratory Information Management System)             |   |   |   | □ | ■ |

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



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 guaranteed to operate with ease.

## Safety

MagCore® Automated Extraction System helps minimize cross-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](http://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 all your research needs.

## Competitive Price and Small Footprint

## Easy To Use

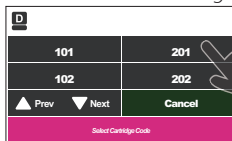
Apply samples to instrument



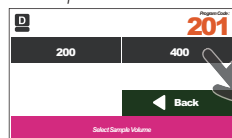
Load Accessories



Select the number of the cartridge



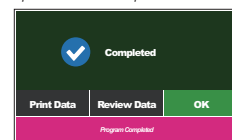
Select Sample Volume



Push Start



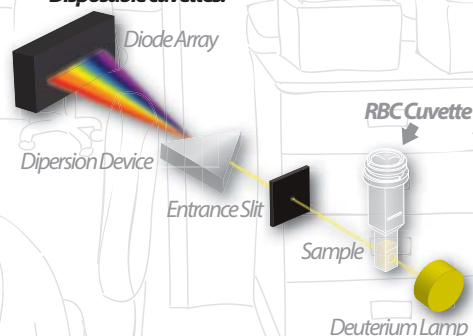
A Beep Sound can be heard after protocol is completed



## Other Features

### Automatic Optical Density Measurement

- Built-in spectrophotometer provides O.D.  $A_{260}$  and  $A_{280}$  measurement of individual samples. (O.D. detection range: ABS <6.)
- $A_{260}$  Normalization
- Disposable cuvettes.



### ThermoPrinter and Barcode Scanner



### Progress Monitoring



### Laboratory Information Management System (LIMS)



FDA (10055336) registered and CE-IVD certified (Instruments & Reagents)  
Manufactured in accordance with quality system requirements that comply with ISO 13485 standards and QSR

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# MagCore® Automated Nucleic Acid Extractor

**Full traceability and mobile monitoring on your smartphone**

## MagCore® Plus II

MagCore Plus II is the newest robotic bench-top workstation for a fast and high-yield nucleic acid purification from virtually all molecular diagnostic, biological, clinical and forensic sample types. With small footprint, light weight, user friendly interface, and a broad range of entirely built-in programs with free upgrades, 1-16 samples can be isolated simultaneously at your fingertip. The instrument simplifies your daily routine providing full traceability of kits and samples, through real-time mobile monitoring and a complete report that can be downloaded on a computer at the end of each run.



### Worldwide Patented Magnetic Beads

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



### Ideal for both DNA/RNA extraction

Built-in protocols are created for extracting nucleic acids from a wide range of samples, including whole blood, plasma (circulating free nucleic acid), tissue, bacteria, virus, plant and forensic.



### Throughput up to 16 samples per run

From cartridge piercing to final eluate, all steps are performed by the instrument, that allows running 1 to 16 samples at one time, for a time-saving and flexible performance.



### Full traceability of the samples and kits

A report in .csv format is generated at the end of each run and contains all relevant data: user's name, sample and kit barcode, protocol number, sample and elution volume, start and end time. The file, opened on a computer, can be subsequently processed by a LIMS.



### Real-Time Mobile Monitoring

During the run, the instrument HMI can be accessed via Wi-Fi from your smartphone/tablet through our App, to see real-time information about the run processing status, remaining time and errors. Android and iOS compatible.



### UV Decontamination

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



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

MagCore® Plus II features built-in protocols for all the extraction kits we offer and is equipped with a USB port for free protocol and software upgrades.



### Barcode Scanner (optional)

For sample and kit tracking and monitoring and an easier organization of the test results.



## Easy To Use

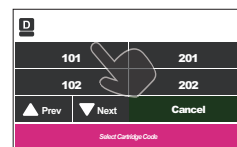
Load Samples And Install Accessories



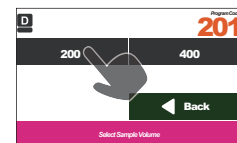
Input user's name



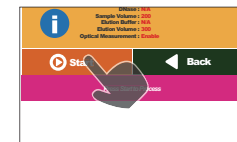
Select the code of the cartridge



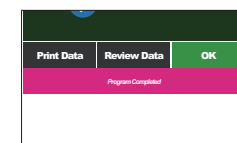
Select Sample Volume And Eluate Volume



Press Start



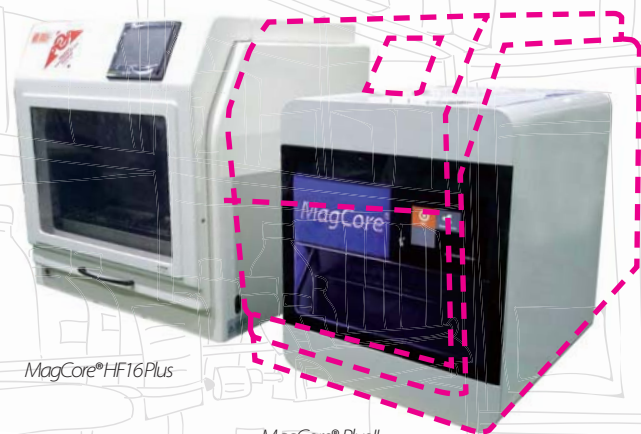
A Beep Sound can be heard when the program completes



Open the run report on your computer



Same throughput, smaller size



Barcode Scanner (optional)



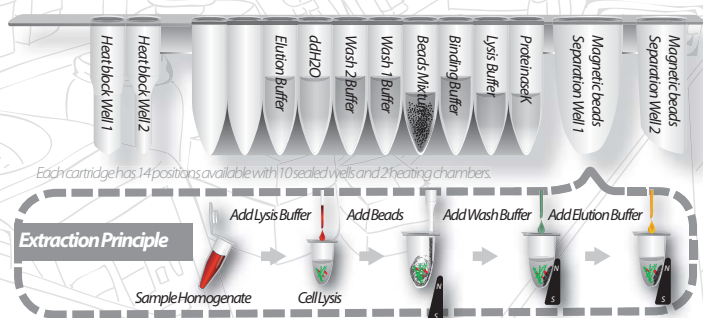
Laboratory Information Management System (LIMS)  
Unidirectional LIMS device, Ethernet cable



Mobile Monitoring with Android and iOS App



## Cartridge Design and Extraction Principle



## Specification

|                   |  |
|-------------------|--|
| Model             | Plus II  |
| System Method     | Cellulose coated magnetic beads  |
| System Components | <ol style="list-style-type: none"> <li>1. Pipetting Unit: X and Y-axis movement for sample transfer and dispense.</li> <li>2. Electric Control: PLC module and ARM-based main board embedded in</li> <li>3. UV Light: power 8w, life duration 1,000hrs</li> <li>4. Heating Block: RT-90°C</li> <li>5. Display Screen: 7-inch color touch panel</li> <li>6. Accessories: T-racks, cartridge racks, barcode scanner</li> </ol> |
| Power Supply      | Voltage: AC 100V~240V; Frequency: 50/60Hz  |
| Dimension         | W600 x D600 x H600 (mm) / W23.62 x D23.62 x H23.62 (inches)  |
| Net Weight        | 70kg / 154.35lbs   |

## Operating Parameters

|                     |  |
|---------------------|--|
| Processing Capacity | 1-16 samples per batch   |
| Processing Time     | 30-90 minutes (depends on sample type and method)  |
| Sample Volume       | 200 µl / 400 µl / 1,200 µl / 3ml / 4ml   |
| Elution Volume      | 30 µl / 60 µl / 100 µl / 150 µl / 200 µl   |
| Yield               | Average 6 µg Genomic DNA from 200 µl human whole blood   |
| Purity              | DNA: OD <sub>260</sub> /OD <sub>280</sub> ratio 1.8 ± 0.1<br>RNA: OD <sub>260</sub> /OD <sub>280</sub> ratio 2.0 ± 0.2 |
| Pipetting Accuracy  | 500 µl ≤ 4%  |

## Operating Environment

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



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