



Plate Centrifuge

Catalog #: NG040

Manual



Manual version: 5.0

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Warning

FastGene® Plate Centrifuge has been tested and found to comply with safety limits for the CE regulation. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. It is strongly recommended for the user to read the following points carefully before operating this equipment.

1. Read and follow carefully the manual instructions.
2. Do not alter the equipment. Failure to follow these directions could result in personal and/ or laboratory hazards, as well as invalidate equipment warranty.
3. Use a properly grounded electrical outlet with correct voltage and current handling capacity.
4. Disconnect from power supply before maintenance and servicing. Refer servicing to qualified personnel.
5. Never use this instrument series without having the safety cover correctly in position.
6. Do not use the unit if there is any sign of damage to the external tank or cover. Replace damaged parts.
7. Do not use in the presence of flammable or combustible material; fire or explosion may result. This device contains components which may ignite such materials.
8. Refer maintenance and servicing to qualified personnel.
9. Ensure that the system is connected to electrical service according to local and national electrical codes. Failure to properly connection may create fire or shock hazard.
10. Use appropriate materials and operate correctly to avoid possible hazards of explosion, implosion or release of toxic or flammable gases arising from overheated materials.
11. The unit shall be operated only by qualified personnel.

Safety information

Use high level of precaution against any electrical device. Before connecting the electrical supply, check to see if the supply voltage is within the range stated at the rating label, and see to it that the device be seated firmly. Place the unit in a safe and dry location; it must NOT touch the surrounding. Follow the safety precautions for chemicals / dangerous materials. If needed, please contact qualified service representative or info@nippongenetics.eu.

Environmental conditions

Ensure the instrument is installed and operated strictly in the following conditions:

1. Indoor use only
2. ≤95% RH (non-condensing)
3. 75 kPa – 106 kPa
4. Altitude must not exceed 2000 meters
5. Ambient to 40°C operating temperature
6. Pollution degree: 2
7. Mains supply voltage fluctuations up to ±10% of the normal voltage

Avoiding electrical shock

Follow the guidelines below to ensure safe operation of the unit.

FastGene® Plate Centrifuge has been designed to use with shielded wires thus minimizing any potential shock hazard to the user. NIPPON Genetics EUROPE recommends against the use of unshielded wires.

To avoid electrical shock:

1. In the event of solution accidentally spilled into the instrument, it must be dried out for a period of time, at least 2 hours, and restored to NORMAL CONDITION before each operation.
2. NEVER connect or disconnect wire leads from the power jacks when the power is on.
3. WAIT at least 5 seconds after stopping a run before handling output leads or connected apparatus.
4. ALWAYS make sure that hands, work area, and instruments are clean and dry before making any connections or operating the equipments.
5. ONLY connect the power cord to a properly grounded AC outlet.

Avoiding damage to the instrument

1. Do not attempt to operate the device if it is damaged.
2. Protect this unit from physical damage, corrosive agents and extreme temperatures (direct sunlight, etc.).
3. For proper ventilation and safety concerns, keep at least 10 cm of space behind the instrument, and at least 5 cm of space on each side.
4. Use high level of precautions against the damages on the unit.
5. Do not operate the unit out of environmental conditions addressed above.
6. Prior to apply any cleaning or decontamination method other than manufacturer's recommendation, users should check with the manufacturer's instruction to see if the proposed method will damage the equipment.

Equipment operation

Follow the guidelines below to ensure safe operation of the unit:

1. Check the displayed temperature figure and external temp. Probe to see if it is overheating, and check if it will function in the case of a single fault at least once per day.
2. NEVER access dangerous chemicals or other materials to prevent possible hazard of explosion and damage.
3. A temporary conductivity caused by condensation might occur even though this series is rated Pollution Degree 2 in accordance with IEC 664.

Battery replacement notice

The product may contain an internal manganese dioxide.

There is risk of fire and burns if the battery pack is not handled properly.

To reduce the risk of personal injury:

1. Do not attempt to recharge the battery.
2. Do not expose to temperatures higher than 40°C (104°C).
3. Do not disassemble, crush, puncture, short external contacts, or dispose of in fire or water.
4. Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instructions.
5. Replace only with the spare designated for this product.
6. Please understand the positive and negative mark. Do not use the battery positive and negative wrong.

Symbols

The symbols used on the FastGene® Plate Centrifuge are explained below.



Indicates an area where a potential shock hazard may exist.
Consult the manual to avoid possible personal injury or instrument damage.

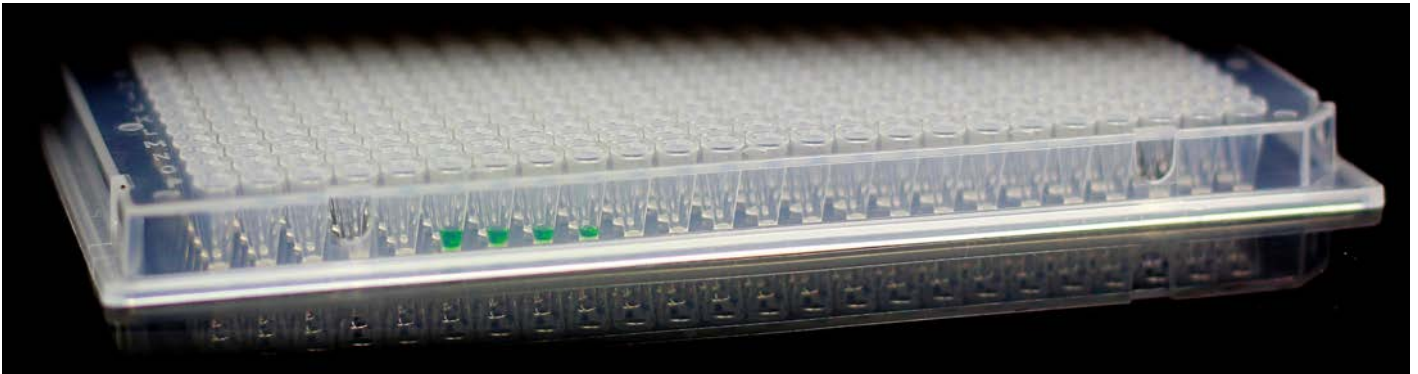


ATTENTION: Hot surface!



Indicates disposal instruction.

DO NOT throw this unit into a municipal trash bin when this unit has reached the end of its lifetime. To ensure utmost protection of the global environment and minimize pollution, please recycle this unit.



Potential risk and preventive measure

Risk assessment table

Potential risk / Frequency	Frequent	Likely	Possible	Rare	Unlikely
Bruise			√		
Burn				√	
Scald				√	
Drop				√	
Power cord plug wrong				√	

Preventative measures of risk

Potential Risk	Preventive measures
Bruise	Do not put the machine near the table edge.
Burn	Cover the lid or wear insulated gloves.
Scald	Cover the lid to avoid spray water or wear insulated gloves.
Drop	Place the unit on a flat and dry surface
Power cord plug wrong	Observe correct adapter plug.

Introduction

The FastGene® Plate Centrifuge is designed to meet the requirement of accurate and simply centrifugation of 96 or 384 well plates, small foot print and ease of use.

FastGene® Plate Centrifuge is capable of up to 480 x g. The microprocessor controller helps providing precise spinning control, whether you need a PCR or an ELISA plate being centrifuged.

Small foot print

Only a small lab bench space is needed.

Quick start

Allows a one hand operation.

Product specifications

Display	LCD (illuminated)
Maximum centrifugation force	480 x g
Timer	0-10 min
Dimension	L360 x W290 x H140mm
Weight	5,3 kg

Rated Voltages

AC input 200V - 240V~; 2A, 50/60 Hz / DC input: +12V / 5A, 60W max.

Weight

Approx. 1.3 kg

Lid

Transparent Lid

Installation instructions

The FastGene® Plate Centrifuge is actually a pre-installed instrument. As long as it is placed on a sturdy and level surface in a safe, dry place, and is inserted with equally heavy plates, it is ready for operation.

Device operation instructions

Controls and features

Please refer to below figures on the following page for the location of the different keys.



Turn on the instrument

1. Place Programmable FastGene® Plate Centrifuge on a sturdy, level surface in a safe, dry place away from laboratory traffic.
2. Ensure that the AC power switch is OFF, and then plug the power cord into a grounded AC outlet of the appropriate voltage.
3. Switch the main power ON.

Operation mode: quick start mode

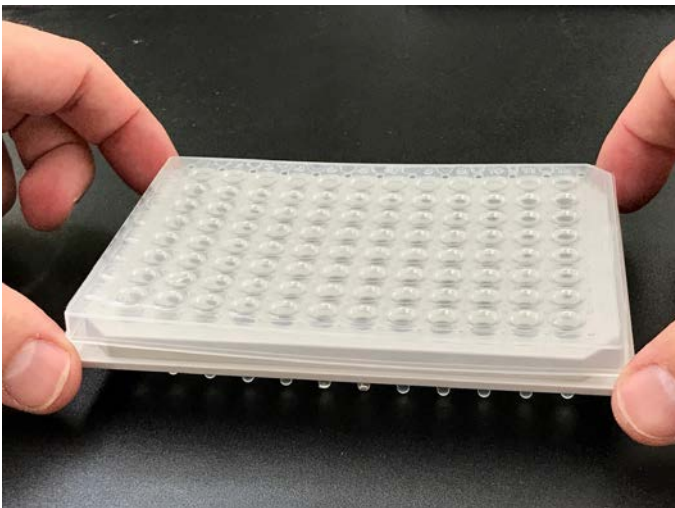
1. Switch the main power ON.
2. Press the “RUN/STOP” button to initiate the centrifugation.
3. Stop pressing the “RUN/STOP” button to finish the centrifugation.

Operation mode: time mode

1. Switch the main power ON.
2. Press the “Set” button to adjust to the desired time.
3. Press the “RUN/STOP” button to initiate the centrifugation.
4. Centrifugation will be stopped after finishing the countdown.

Usage of adapters

1. Use the adapter without grooves (A) for non-skirted and semi-skirted plates.
2. Use the adapter with grooves (B) at the side for stripes and PCR tubes.
3. Hint: Plates and stripes can be fastened in the adapter after centrifugation. For loosening, please put them on your lab space and move down the adapter. See following pictures:



Troubleshooting guide

Many operating problems may be solved by carefully reading and following the instructions in this manual accordingly. Some suggestions for troubleshooting are given below. Should these suggestions not resolve the problem, contact our SERVICE DEPARTMENT or a distributor in your region for assistance. If troubleshooting service is required, please include a full description of the problem.

Problem and solution

Problem	Recommendations
No signal on the screen	<ol style="list-style-type: none"> 1. Check the FUSE 2. Ensure that the AC power switch is ON 3. Check the power cord is properly plugged into a grounded AC outlet with the appropriate voltage
Fan Error	Contact our service department or a distributor in your region.

Maintenance

Centrifuge chamber and rotors may be cleaned with a moist cloth containing a mild soap solution.

Ordering information

Cat. No.	NG-040
Description	FastGene® Plate Centrifuge

Warranty

NIPPON Genetics EUROPE warrants apparatus of its manufacture against defects in materials and workmanship, under normal service, for one year from the shipping date to purchaser. This warranty excludes damages resulting from shipping, misuse, carelessness, or neglect. NIPPON Genetics EUROPE's liability under the warranty is limited to the receipt of reasonable proof by the customer that the defect is embraced within the terms of the warranty. All claims made under this warranty must be presented to NIPPON Genetics EUROPE within one year following the date of delivery of the product to the customer.



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