



***POCKET* Nucleic Acid Analyzer**

User Manual

Manufacturer:

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Symbols

 Conformité Européenne

 EU authorized representative


 Date of manufacturing

 Manufacturer

 Catalogue number

 Serial number

 Direct current

 Caution, consult instructions for use.



WEEE

symbol

This product is produced in compliance with the European Union's Waste Electrical & Electronic Equipment (WEEE) Directive 2012/19/EU.

Section 1. Introduction

The **POCKIT™ Micro** Nucleic Acid Analyzer (**POCKIT Micro**) is developed based on the insulated isothermal PCR technology (iiPCR), which works on the Rayleigh-Bernard convection created by a single heating source at the bottom of capillary tubes to drive PCR.

POCKIT Micro, equipped with one optical channel, is intended to provide qualitative DNA detection by iiPCR. Up to four reactions are completed around 30 minutes and the test results are directly displayed on the monitor.

Section 2. General Information

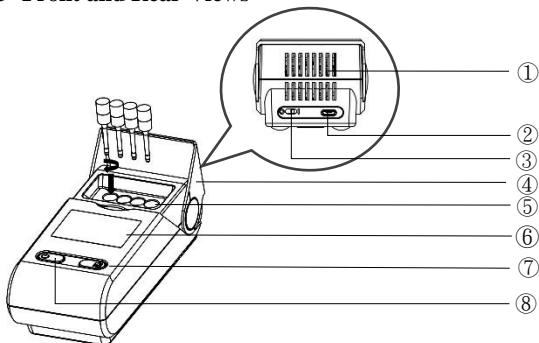
2.1 Product Components



- **POCKIT™ Micro Nucleic Acid Analyzer** × 1
- User Manual × 1 copy

2.2 Specification

- Dimensions: 63 mm (W) × 50 mm (H) × 152 mm (L)
- Net Weight: 380 g
- Power Supply:
 - ✓ Input: 100-240V, 50/60Hz, 0.2A
 - ✓ Output: DC 5V 1A (micro USB mount)
- Operation Ambient Temperature: 15-35°C
- Operation Altitude: Up to 2000 meters
- Transportation Condition: -29-50°C, 55±20% RH
- Storage Condition: 10-40°C, 30-80% RH
- Throughput: 1-4 reactions per run.

2.3 Front and Rear Views



| No | Item | Description |
|----|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| ① | Cooling vents | Release the heat generated during the reaction. |
| ② | Power socket | To connect the power cord. |
| ③ | Main switch | To turn on/off the main power. |
| ④ | Lid | Prevent light interference in the reaction chamber. |
| ⑤ | Reaction well | Accommodate the R-tubes to perform the amplification. |
| ⑥ | Screen monitor | A screen monitor where users view machine status and the results. |
| ⑦ |  Button | Press to start the reaction. |
| ⑧ |  Button | Wake up/sleep mode button. |

Section 3. Important Notes

Check the device upon receiving. If any items are missing or damaged, please contact your local distributor or GeneReach immediately for replacement. Do not use any damaged items as this may lead to poor performance of the test or harm the user.

3.1 Safety Information

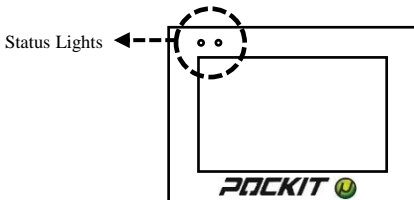
- Do not touch any plug and electric switch with wet hands. Make sure to keep the device away from water.
- Pack the device carefully before moving and delivering. Vibration or crash may cause damage.
- Do not look directly into the LED light in the reaction wells.
- Only use consumables and accessories provided from GeneReach.
- Make sure the ambient temperature during reaction is kept at 15-35°C.
- Do not disassemble the device (including changing battery) when any problem occurs. Contact your local distributor or GeneReach directly for troubleshooting.

- To ensure safety, the batteries will be cut off automatically due to overcharge/ over discharge/ overcurrent protection.

Section 4. Operation

4.1 Charge the POCKIT Micro

- (1) Use the included charger to charge the **POCKIT Micro**.
- (2) **POCKIT Micro** has two status lights. Red is displayed when charging, and green is displayed when fully charged.



*Note: Always switch off **POCKIT Micro** while charging.

*Note: Before the first use, be sure to charge the battery for 10-12 hours.

*Note: Make sure the red status light is displayed while charging.

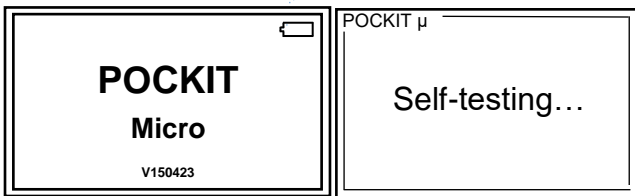
*Note: Make sure **POCKIT Micro** is properly charged before use. Due to risks of current instability in

different areas, DO NOT run the reaction while charging the battery to ensure smooth operation.

*Note: If the charging status lights do not work, please re-plug the power cord. If the same problem occurs again, please contact your local distributor or GeneReach for assistance.


4.2 Switch on

Switch on the main power located in the back. The device performs will initiate self-testing, and "System Ready" will show on the screen after few minutes.



*Note: If self-testing runs longer than 15 minutes, the system shows “System Time Out” on the screen. Please see Troubleshooting for more details.

4.3 Sleep Mode


(1) **POCKIT Micro** will enter its sleep mode automatically after 10 minutes without activities, or by pressing  button.

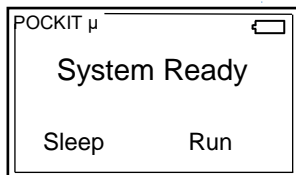
(2) To wake up **POCKIT Micro**, press the  button again.

***Note: If the main power is switched off during sleep mode, make sure to wait for at least 1 minute before switching on the device.**

4.4 Run ii-PCR Reaction

***Note: DO NOT operate under direct sunlight.**

(1) Place the R-tubes into the reaction well. Close the lid and press  to start the reaction.



*Note: DO NOT run the reaction while charging the battery to ensure smooth operation.

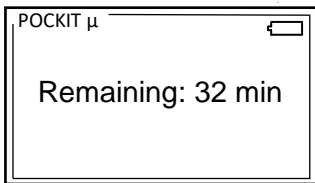
*Note: Make sure the R-tubes are completely fit into the reaction chamber and the lid is closed tightly before starting the reaction.


*Note: DO NOT open the lid during the reaction.

*Note: DO NOT look directly into LED lights in the reaction wells.

*Note: DO NOT operate the **POCKIT Micro** next to any air vents, to prevent the ambient temperatures to fluctuate greater than 5°C during the reaction.

(2) The screen displays the remaining reaction time.



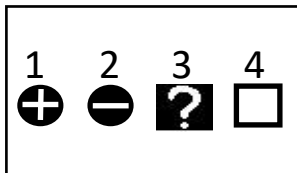
 **Caution:** Should any of the circumstances below occur, the results are unreliable:

- The lid is opened during the **POCKIT Micro** reaction.
- The reaction is not performed at ambient temperatures in the range of 15-35°C.
- The ambient temperatures fluctuate greater than 5°C during the reaction.

4.5 Display the Result

- (1) When the reaction is done, there is a beep tone from **POCKIT Micro**.
- (2) Results are displayed on the screen after the reaction.
Please see an example below.

*Note: Please record the result data immediately when the reaction is done, to avoid losing the data in case the device runs out of battery.



4.6 Results Interpretation

| Results | Description |
|--------------------------|------------------|
| + | Positive |
| — | Negative |
| <input type="checkbox"/> | No R-tube inside |
| ? | Undetermined |
| ! | Warning |

***Note:** Please interpret the results according to the user manual of the iiPCR reagent used.


***Note:** When you see a “!” symbol: Prepare and run a new reaction in the same reaction well. Make sure the operating procedures are followed correctly. If any further problems occur, please contact your local distributor or GeneReach for assistance.

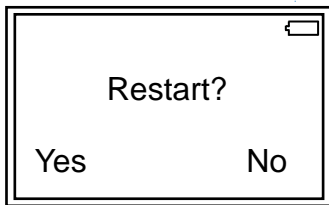
***Note:** After the reaction, DO NOT touch the bottom of a R-tube because it might be hot.

*Note: After the reaction, DO NOT open the cap of R-tube, as that may lead to contamination.

*Note: After the reaction, discard the tubes and all consumables immediately.

4.7 Restart POCKIT Micro

- (1) After the iiPCR reaction, press  button to restart.

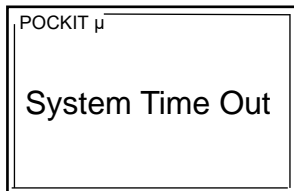
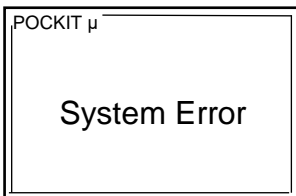
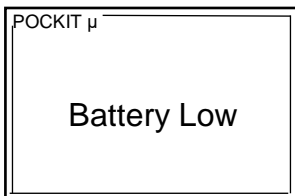


- (2) Press “**Yes**” to confirm, or press “**No**” to return to the screen showing the last reaction results.

4.8 Error Messages

If any error messages listed below are shown, please see

Troubleshooting.



Section 5. Cleaning and Maintenance

5.1 General Care


Use only clean and damp paper towel to wipe off any stains. Do not disassemble **POCKIT Micro** for cleaning as it voids the warranty. Do not use solvents, detergents or bleach to clean the **POCKIT Micro** surfaces.

***Note:** Before cleaning, wear gloves and always switch off the **POCKIT Micro**.

5.2 Dealing with Spills

- Wipe off visible spills with paper towels immediately. Contact your local distributor or **GeneReach** directly for further assistance.
- Irradiate the outside of the device with the lid open by UV light for 15 minutes for decontamination, if available.

Troubleshooting

| Problems | Comments and Suggestions |
|----------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| (a) System Time Out | Restart the device. |
| (b) System Error | Restart the device. |
| (c) Battery Low | Switch off the device, and make sure the POCKIT Micro is charged for at least one hour before use. |
| (d) "  " symbol shown after the run | Prepare and run a new reaction in same reaction well. Make sure the operating procedures are followed correctly. |
| (e) No display on screen. | Check whether the device is in the sleep mode first. If not, switch off the device, and charge the POCKIT Micro . |

*If any further problems occur, please contact your local distributor or GeneReach for assistance.

GeneReach Biotechnology Corp.
Limited One (1) Year Warranty

| | |
|--------------------------------------|---------------------------|
| Product Name: POCKIT Micro | Serial No.: pm |
| Model: | Date of Purchase: |
| Customer Name: | Distributor Confirmation: |
| Telephone: | |
| Address: | |

*Please refer to the website (www.genereach.com) for more details.