

THS 1 Home HealthScan

USER MANUAL

Model: EQ-HS100

Notes

THS 1 Home HealthScan is a detection device based on Loop-Mediated Isothermal Amplification (LAMP) reaction spectroscopy, specially developed for home health monitoring.

We guarantee that the THS 1 Home HealthScan you use has passed comprehensive testing and meets all the usage requirements specified in this manual.

The use of this instrument must comply with the guidelines and safety warnings provided in this user manual; otherwise, any damage or malfunction will not be covered by the product warranty.

Built-in Software: All software related to this product is provided to customers as a service component, which is an essential tool for the normal operation of the instrument.

Software Ownership: We hold the exclusive copyright of the software and grant customers a non-exclusive right to use the software.

Software Modification: To improve operational performance and reliability, we reserve the right to modify software functions or designs with or without prior notice to customers. We own all intellectual property rights of all modified software versions.

Responsibility: We shall not be liable for any direct, indirect or incidental damages arising from failure to comply with the operating procedures in this manual or improper use of the THS 1 Home HealthScan. Only our professional technical personnel or authorized agencies can inspect or provide spare parts for the instrument. We shall not be liable for any damages caused by unauthorized disassembly or replacement of spare parts by users. Our liability is limited to repairing the instrument and replacing genuine accessories. We shall not be responsible for interpreting test results or any consequences arising from the application of such results. Please read this user manual carefully before using the THS 1 Home HealthScan to ensure optimal test results.

CHAPTER 1 SAFETY PRECAUTIONS

Before using the THS 1 Home HealthScan (Model: EQ-HS100), users must carefully read and follow all safety instructions!

1.1 Operational Requirements

The THS 1 Home HealthScan (Model: EQ-HS100) shall only be operated by trained and proficient personnel.

- ▶ Strictly follow the safety instructions marked on the instrument.
- ▶ Only genuine spare parts and accessories provided by our company or authorized agents can be used for replacement.
- ▶ Do not open the instrument during operation, as this will cause permanent damage to the instrument.
- ▶ The instrument must be installed in a clean and well-ventilated indoor environment, away from corrosive gases, strong magnetic interference, and direct sunlight or strong light sources.
- ▶ Wear safety goggles and protective gloves when handling toxic, corrosive or infectious substances.
- ▶ Before stopping the equipment for maintenance or handling, remove all samples and disinfect the instrument surface thoroughly.
- ▶ Only professional technicians from the instrument manufacturer can perform maintenance and repair work; users are not allowed to open the instrument or replace any components without permission. Instrument damage caused by unauthorized operation is not covered by the warranty.
- ▶ If dangerous substances leak onto the equipment surface or into the equipment interior, take appropriate disinfection measures immediately. Do not use cleaning agents or disinfectants that may react chemically with equipment components or internal materials and cause danger. If you have any doubts about the compatibility of cleaning or disinfection products with the equipment, please consult the manufacturer or its authorized agent.

1.2 Electrical Safety

- ▶ The electrical safety protection class of the instrument is Class II (IEC standard).
- ▶ To prevent electric shock hazards, the instrument must be charged with a USB charger that meets CCC certification standards.
- ▶ Do not allow the power cord to come into contact with the hot surfaces of the instrument.

- ▶ Do not clean the instrument when it is powered on.
- ▶ Turn off the power when the instrument is not in use for an extended period.

CHAPTER 2 OVERVIEW

2.1 Product Name

THS 1 Home HealthScan

2.2 Model/Specification

EQ-HS100

2.3 Product Features

- ▶ Compact size and light weight for easy portability.
- ▶ Equipped with high-definition touch screen for simple and fast operation.
- ▶ Intuitive software interface with guided operation for ease of use.

2.4 Intended Use

Based on the Loop-Mediated Isothermal Amplification (LAMP) technology principle, this product is used in conjunction with the matching LAMP test reagent card for qualitative detection of target samples for home health monitoring.

2.5 Application Fields

- ▶ Home health monitoring
- ▶ Personal health indicator detection

2.6 Product Service Life

The service life of this product is 5 years, determined based on failure data analysis of key components. During use, users shall maintain, service and repair the product in accordance with the requirements of this manual. Products that can still maintain basic safety and effectiveness after maintenance, service or repair can continue to be used normally.

2.7 System Parameters

Basic Performance Parameters

Item	Parameter	Item	Parameter
Overall Dimensions	190×170×56mm (L×W×H)	Weight	850g
Power Supply	Built-in lithium battery 12V,	Noise Level	40 dB

	3000mAh		
Input Interface	USB Type-C 12V, 15V	Communication Interface	USB, WIFI, Bluetooth
Throughput	2 channels	Display Screen	Touch screen, 800×480 resolution

Operating Environment Parameters

Item	Parameter	Item	Parameter
Operating Temperature	0~40°C	Operating Relative Humidity	≤85%
Transport & Storage Temperature	-20~50°C	Transport & Storage Relative Humidity	≤85%

CHAPTER 3 INSTRUMENT INSTALLATION

The installation of THS 1 Home HealthScan is simple and can be completed by customers themselves with the following steps.

3.1 Transportation and Storage

- ▶ The product must be transported in its original packaging to prevent damage during transit.
- ▶ The packaged product should be stored in an environment with temperature - 20°C~50°C, relative humidity ≤85%, and free of corrosive gases.
- ▶ The instrument is packed in a carton with horizontal fixation and pearl cotton cushioning around to prevent vibration damage during transportation.
- ▶ The storage area should be clean, tidy, well-ventilated and moisture-proof.

3.2 Unpacking

- ▶ The product is packed in a carton with pearl cotton lining. After unpacking, first check for missing or damaged items.
- ▶ After inspection, the instrument can be transported by hand or with a stable cart.
- ▶ Do not use the product if the outer packaging is obviously damaged during transportation; contact the seller immediately.
- ▶ Check the completeness of accessories according to the packing list (included in the manual).
- ▶ Inform the freight company and our customer service immediately if any instrument or accessories are damaged or lost during transportation.

3.3 Item List

Name	Quantity
THS 1 Home HealthScan Main Unit	1 unit
Matching Magnet	1 piece
User Manual	1 copy
Certificate of Conformity	1 copy
USB Data Cable	1 piece
Packing List	1 copy

Contact the seller immediately if any items are missing or damaged.

3.4 Hardware Installation

► Place the THS 1 Home HealthScan on a stable horizontal surface to ensure stable operation.

► Operating Conditions:

Ambient Temperature: 0°C~40°C (Use air conditioning if temperature is not within this range)

Relative Humidity: 20%~85% (to prevent condensation)

► Storage Conditions:

Ambient Temperature: -20°C to 50°C

Relative Humidity: ≤85%

► Do not install the instrument in areas with excessive humidity, high temperature, direct sunlight or drastic temperature changes, as these conditions may affect instrument performance and lifespan.

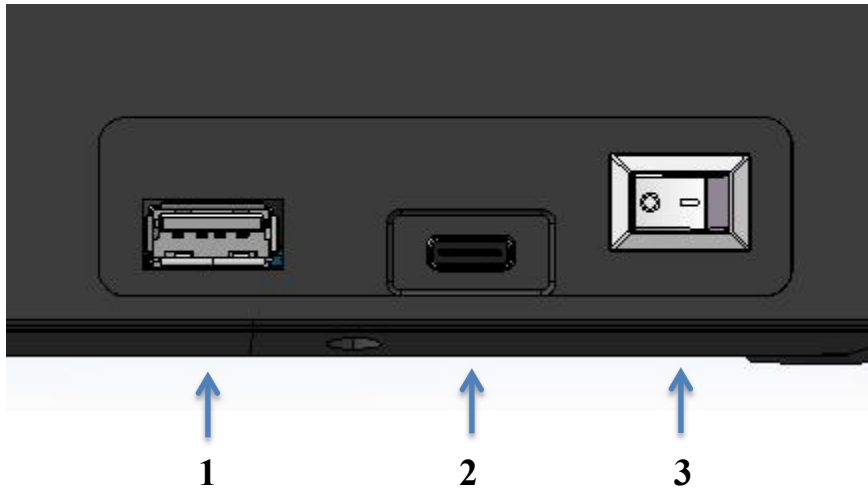
3.5 Computer Configuration Requirements

THS 1 Home HealthScan is equipped with client software for exporting test records and generating reports.

The computer for installing the software must meet the following minimum configuration requirements:

System Requirement	Minimum Specification
Operating System	Windows 10 or later
Processor	Dual core or above
Memory (RAM)	1GB or above
Hard Disk Space	8GB or above

3.6 Device Interface Description



1. ► USB Interface: For connecting USB flash drive (data storage and export)
2. ► USB Type-C Interface: For device charging and data connection with computer
3. ► Power Switch: For power on/off operation

3.7 Instrument Operation Protection

Some samples processed by the instrument may contain potential biological hazards. Handle all samples with care in accordance with relevant safety regulations. Wear appropriate personal protective equipment including safety glasses, latex gloves and lab coats when operating. Follow special environmental requirements if specified for sample processing.

The user shall take necessary preventive measures to ensure safe operation and avoid direct contact with potential infection sources.

Sample waste disposal must comply with all national, provincial and local health and safety regulations. Infectious waste must be properly autoclaved before disposal at designated locations.

3.8 Notes on Use

- Do not open the chamber door during the detection process!
- Connect the power charger for long-duration testing!
- Do not turn off the power switch directly during testing. To stop detection in advance, click "Stop" on the touch screen and confirm before turning off the power.
- If the instrument runs continuously for 8 hours, it must be shut down and powered off for 2 hours for cooling. Continuous 24-hour operation will significantly shorten the instrument lifespan.

CHAPTER 4 INSTRUMENT OPERATION INSTRUCTIONS

4.1 Power On

After turning on the power, the boot screen will be displayed. The instrument will initialize for about 5 seconds and then automatically jump to the main operation page.

4.2 Main Page



There are 4 main function buttons at the top of the main page with the following functions:

- ▶ View Tasks: View real-time information of ongoing tests on each channel
- ▶ History: View all completed test results and related information
- ▶ System Settings: Configure display language, system time, screen brightness and standby time
- ▶ Device Information: View instrument model, serial number and software version information

Two detection channels are displayed at the bottom of the main page, each with a "New Task" button for initiating test operations.

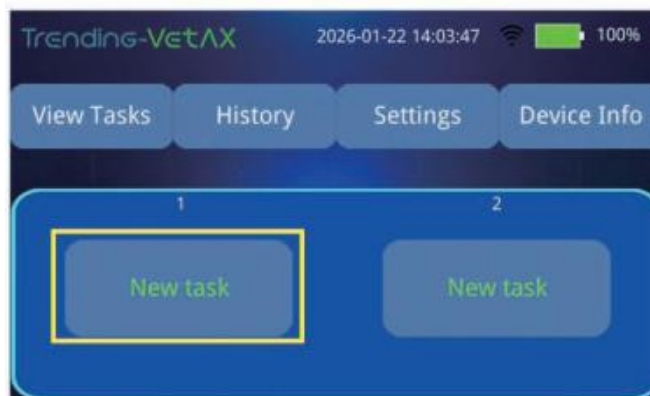
4.3 Detection Operation Method

4.3.1 Insert the Reagent Card



Before inserting the reagent card, ensure that the sample has been loaded and the matching magnet has been correctly placed in the reagent card slot. Open the instrument chamber door, insert the reagent card inward and press gently downwards until a "click" sound is heard (indicating proper installation). The "New Task" button will appear on the screen; click it to start setting up the detection task.

4.3.2 Create a New Detection Task



1. Click the "New Task" button. The screen will prompt you to confirm proper reagent card insertion. Click "Yes" to enter the task editing page after confirmation.



2. The following information can be set or filled in the task editing page:

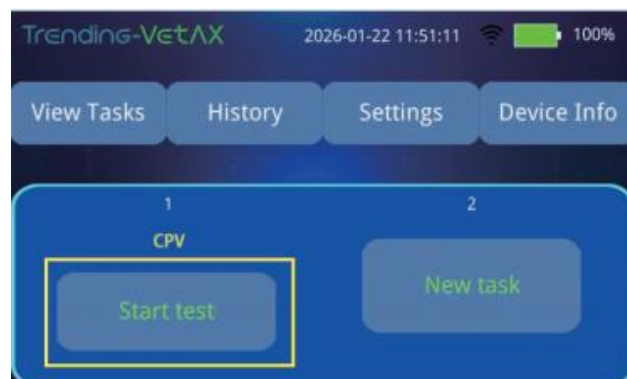
1	Salmonella (Sal)	1	CPV-CDV
2	Listeria Monocytogenes (LM)	2	CPV-CCoV
3	Escherichia Coli (E.coli)	3	CPIV-CDV
4	Escherichia coli O157:H7 (EHEC)	4	FPV-FCoV
5	Equine Influenza (EIV)	5	FCV-FHV
6	Canine coronavirus (CCoV)	6	Salmonella-Listeria Mono (Sal-LM)
7	Canine Parvovirus (CPV)	7	Salmonella-E.coli (Sal-E.coli)
8	Canine Distemper (CDV)	8	Listeria Mono-E.coli (LM-E.coli)
9	Canine Parainfluenza (CPIV)	9	E.coli-E.coli O157:H7 (E.coli-EHEC)
10	Feline coronavirus Virus (FCoV)	10	Listeria Mono-E.coli O157:H7 (LM-EHEC)
11	Feline Parvovirus (FPV)	11	Listeria spp.-Saureus (L.spp-SA)
12	Feline Calicivirus (FCV)	12	Listeria spp.-E.coli (L.spp-E.coli)

► **Test Type:** Click the drop-down arrow to select test items (single test on left, combined test on right). The screen will return to the editing page automatically after selection.

► **Sample Type:** Click the drop-down arrow to select the appropriate sample type (oral swab, fecal/anal swab, skin swab, blood, etc.)

► **Additional Information:** Fill in optional information such as tester name, customer name, contact information, remarks, etc. as needed

3. Click the "Save" button after verifying all information to complete the task setup for the selected channel.



4. Repeat the above steps to set up the second channel if needed, then click "Start Detection" to begin the test process.



5.

5. During testing, the screen displays the test item name and remaining time for each channel. Do not move the instrument during the detection process to ensure accurate results.

6. To stop an ongoing test, click the "Stop Detection" button for the corresponding channel. A confirmation prompt will appear (note: canceling detection will render the reagent card unusable). Confirm to cancel the test.



7. After completion, the screen automatically displays the test results for each channel. Result interpretation: "P" means the target analyte is detected; "N" means the target analyte is not detected.

8. After testing, remove the magnet from the reagent card for reuse and proper storage. Used reagent cards and consumables are disposable and should be discarded properly in accordance with biosafety regulations to prevent contamination.

4.3.3 Browse Ongoing Detection Task Information

View Tasks

Test Type: Salmonella (Sal)

Sample Type: Oral Swab

Name:

Contact:

Tester:

Facility:

Comments:

Channel: 1:Left 2:Right

Return

Click the "Task Browse" button on the main page to view detailed information of ongoing tests. Click the "Channel" drop-down arrow at the bottom of the page to switch between different detection channels and view their respective task information.

4.3.4 View Historical Records

History

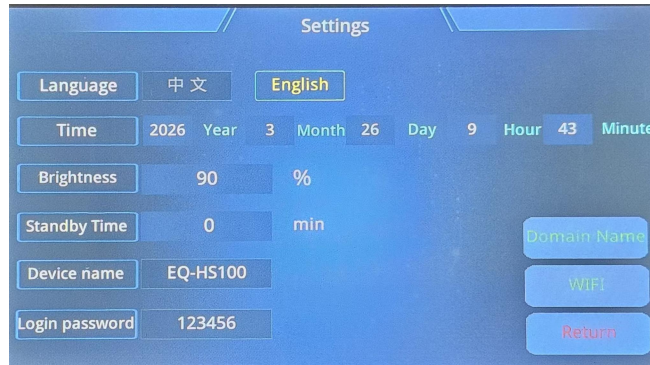
No.	Date	Client Name	Test Type	Result	Comments
51	26032515	7l	User-defined Test	N	n
52	26032515	7r	User-defined Test	P	p
53	26032516	8l	User-defined Test	P	n
54	26032516	8r	User-defined Test	P	p

« < 1 2 > » Print record Data export Return

Click the "Historical Records" button on the main page to view all completed test records, including serial number, test date, customer information, test type, results and remarks. Use the left/right arrows at the bottom of the page to navigate through multiple pages of records.

With the matching "Home HealthScan Client Software", historical records can be exported to a computer. The software also supports generating and printing formal test reports from the historical data.

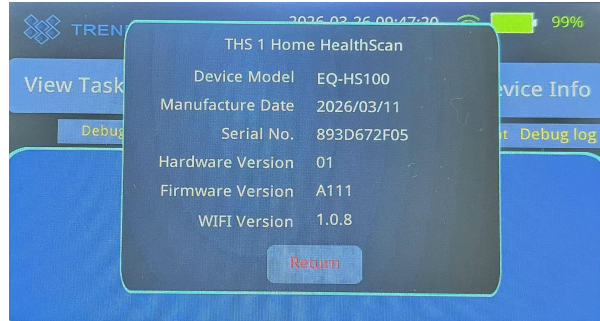
4.3.5 System Settings



Click the "System Settings" button on the main page to configure the following parameters:

- ▶ Language: Supports Chinese and English switching
- ▶ Time: Allows manual setting of year, month, day, hour and minute
- ▶ Brightness: Adjustable from 20% to 99% (lower brightness extends battery life)
- ▶ Standby Time: Adjustable from 0 to 10 minutes. The instrument will automatically enter standby mode if no operation is performed within the set time when no test is running. Setting to 0 minutes disables standby mode.

4.3.6 View Device Information



Click the "Device Information" button on the main page to view detailed instrument information including model number, serial number, software version and hardware specifications.

CHAPTER 5 INSTRUMENT MAINTENANCE AND NOTES

5.1 Instrument Cleaning

1. Surface Cleaning

Clean the instrument surface regularly with a soft cloth dampened with a small amount of clean water. Gently wipe the surface and dry thoroughly with a clean soft cloth after cleaning.

2. Cleaning Precautions

Always turn off the power and disconnect all external connections (data cables, USB drives, charger) before cleaning to prevent electrical hazards and equipment damage.

5.2 Instrument Protection

1. Do not turn the instrument on and off frequently, as this may cause damage to electrical components and shorten service life.
2. Contact our professional technical support immediately if the instrument malfunctions. Do not attempt to disassemble or repair the instrument by yourself. Unauthorized disassembly or repair will void the product warranty and may cause further damage.

FCC Caution.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

*RF warning for Mobile device:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

1. This device may not cause interference.
2. This device must accept any interference, including interference that may cause undesired operation of the device.

*RF warning for Mobile device:

This equipment complies with ISED radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body. A distance between the surrounding area and the top surface of the device is greater than 20cm.

Cet appareil contient des émetteurs/récepteurs exemptés de licence qui sont conformes aux RSS exemptés de licence d'innovation, sciences et développement économique Canada. Le fonctionnement est soumis aux deux conditions suivantes:

1. Cet appareil ne peut pas causer d'interférences.
2. Cet appareil doit accepter toute interférence, y compris les interférences qui peuvent causer un fonctionnement indésirable de l'appareil.

la distance entre l'utilisateur et le dispositif ne doit pas être inférieure à 20 cm