FRONTLINE® international

Service Manual

FRYQ™ oil management system

Oil Management Cooking Oil Tester

Version 2026

Frontline International Inc. • 187 Ascot Parkway, Cuyahoga Falls, OH 44223 • Phone: 330-861-1100 • Fax: 330-861-1105 • www.frontlineii.com

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Safety

WARNING!

User bears all liability encountered from failure to use the instrument properly or operate according to the operating manual. The company is not responsible. Failure to operate the instrument as required by this manual will weaken the safety performance of the instrument.

- Please install the battery correctly, according to the polarity markings on the instrument's battery. Incorrect battery installation may cause permanent damage to the instrument.
- When the instrument is not in use for a prolonged period of time, the battery should be removed as battery leakage may cause permanent damage to the instrument.
- Do not touch the hot parts, such as the probe and connecting rod, during use to prevent burns.
- The instrument should only be used within the specified range, beyond which it may be damaged.

NOTES:

- Stop using the instrument in the case of failure and contact the nearest FRONTLINE service center.
- This instrument must be repaired by personnel authorized by FRONTLINE. Use only original equipment manufacturer (OEM) parts for repairs. Using parts from other sources invalidates the quality guarantee.
- This instrument is designed and tested according to EU standard (CE). To guarantee the continuous conformance to the standard, the instrument can only be connected with equipment meeting CE requirements.

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1. GENERAL OVERVIEW

1.1 General Overview

FryQ reflects the quality of frying oil by measuring the change of total polar material (TPM) during the cooking process. It is mainly used for fast testing of frying oil at high temperature.

The instrument is factory-calibrated to ensure accuracy. To ensure the accuracy of the measurements over time, we recommend that you calibrate the instrument every 3-5 months, depending on frequency of use.

When an instrument needs to be calibrated

We recommend that you take measurements by first heating fresh frying oil to 50° C. Repeat the measurement three times, recording the TPM value for each measurement and averaging it. This value will be used as a reference for your future calibrations. If large deviations occur in the values of the same frying oil measured in the above steps after long-term use, the instrument needs to be calibrated.

Record the new oil reference value at the time of the initial measurement.

1.2 Instrument conditions of use

a. Ambient temperature: 0°C ~ +50°C
b. Ambient humidity: relative humidity <90% RH

2. INSTRUMENT APPEARANCE AND WORKING PRINCIPLE

2.1 Instrument Appearance

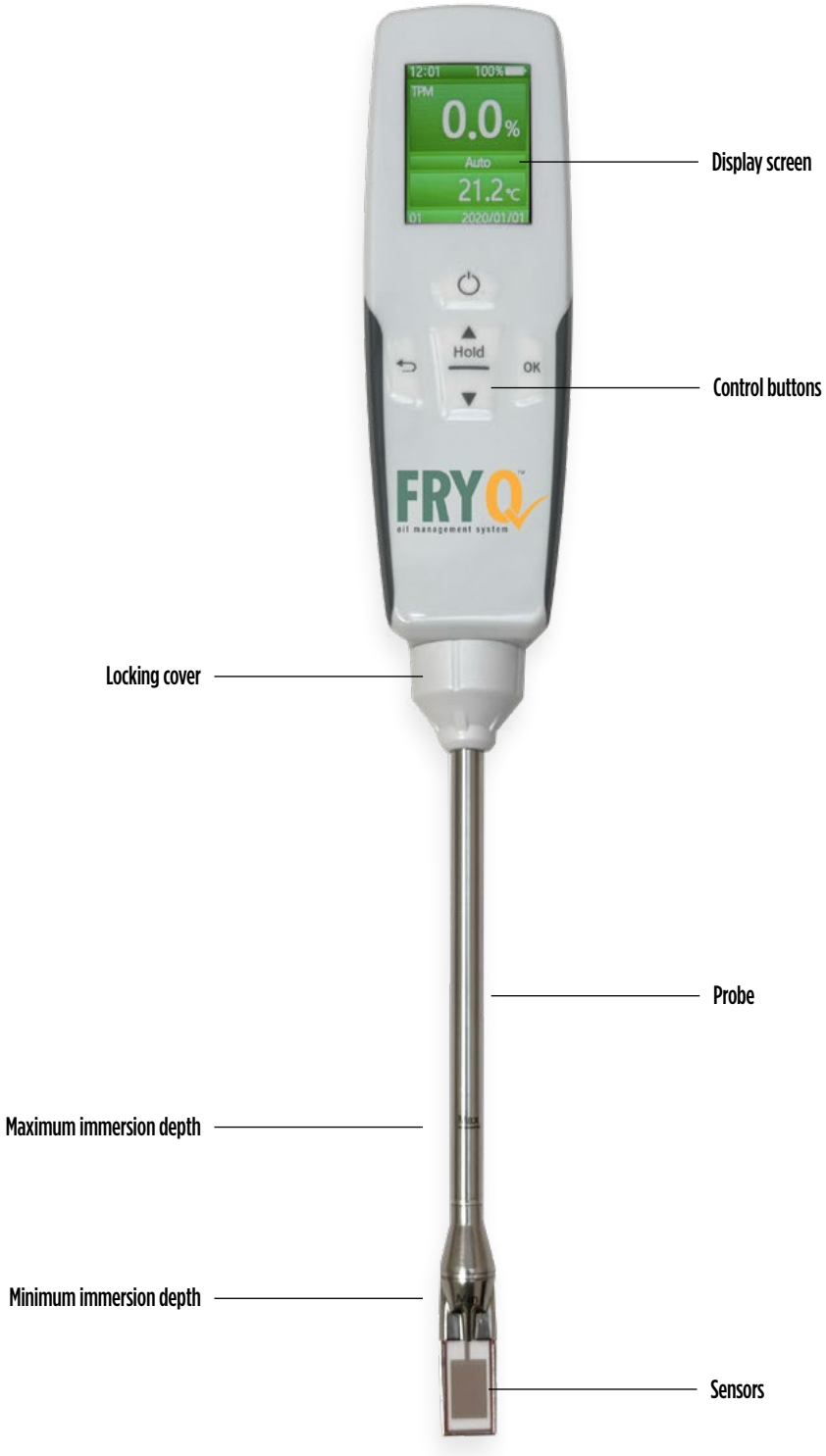

Figure 2.1.1: Front view of the FryQ instrument

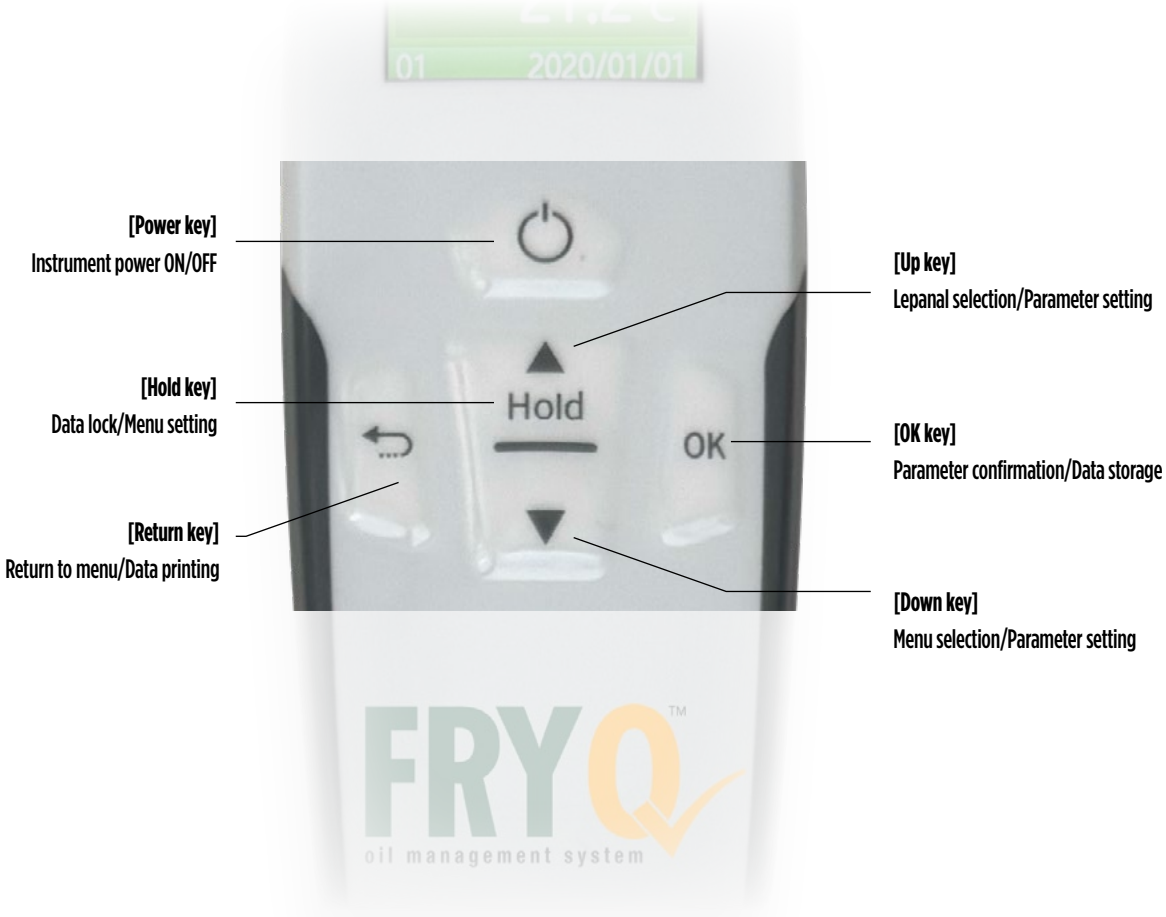

Figure 2.1.2: Key definition diagram of instrument

2.2 Working principle:

FryQ is a fast, safe, and efficient instrument for testing the quality of edible oil, with a short testing time and fast response time. No chemical reagents are used in the measurement process to ensure maximum food and environmental safety. This product detects the total polar material (TPM) in cooking oil. This product can directly measure high-temperature oil (not more than 200°C) and is suitable for all kinds of frying grease.

3. MAIN FUNCTIONS

3.1 Technical indicators

a. Temperature measurement range: 0 ~ +200°C
   Accuracy: ±1°C Resolution: 0.1 °C
b. TPM measurement range: 0 ~ 50% TPM
   Accuracy: ±2% TPM (40°C -190°C) Resolution: 0.1% TPM
c. Temperature sensor: PTC sensor
d. TPM sensor: Capacity sensor
e. Communication: Wi-Fi, Bluetooth
f. Data printing: Bluetooth printer (optional)
g. Data storage: Supports 10,000 items of measurement data storage function.
h. Alarm mode: three colors for backlit display, and buzzer alarm.
i. Response time: about 15s (50 °C)
j. Display type: TFT high-definition LCD.
k. Display specifications: 2.0 inch, 240 * 320 resolution, 5 levels of brightness adjustable.
m. Battery type: 1.5V/alkaline battery (AA LR6)* 2 pcs. [NOTE: asterisk doesn't correspond to anything]
   If using the Wi-Fi function, we recommend using 1.5V/#5 rechargeable lithium (AA) battery.
n. Battery life: approximately 500 times of measurements (factory default configuration).
   Class of Protection: IP65.

3.2 Other specifications

a. Dimension (L ×W × H): 347mm×50.5mm×37.5mm
b. Net weight: 218 g (without battery, with case)
c. Shell material: food-grade ABS/PET

4. INSTALLATION AND ADJUSTMENT

4.1 Unpacking inspection

After the instrument is unpacked, the host and accessories should be checked to see if there is any damage, if any damage, please contact the manufacturer. (Please retain damaged parts.)
The main components of the OS280 Cooking Oil Tester out of the box include.

a. OS280 Cooking Oil Tester 1 set
b. Product manual 1 pc
c. AA battery 2 pcs
d. Screwdriver(Phillips) 1 pc
e. Certificate of competency 1 pc

4.2 Installation conditions

After the instrument is unpacked, the host and accessories should be checked to see if there is any damage, if any damage, please contact the manufacturer. (Please retain damaged parts.)
The main components of the OS280 Cooking Oil Tester out of the box include.

a. Two AA batteries are required for the power supply of the instrument. The batteries
b. The instrument should be used away from large electrical equipment, no vibration in the workplace, no corrosive liquids, no strong electromagnetic field interference.

4.2 Installation steps

a. Use the matching screwdriver to open the battery cover before using it for the first time and install the battery correctly as indicated by the battery polarity.
b. Remove the probe protector before use and wipe the sensor clean with test paper.

5. USAGE AND OPERATION

5.1 Features

FryQ probe is inserted into the frying oil. The analyzer measures and calculates the concentration of polar components in the frying oil to determine the degree of oil degradation and whether oil is suitable for further use. Data is displayed on integrated LCD screen and can be transmitted to other devices through the Wi-Fi or Bluetooth interface.

5.2 Security control measures

FryQ should be used away from large electrical equipment. Do not use near vibration, corrosive liquid, strong electromagnetic field interference or in high temperatures.

5.3 Instrument Operation

5.3.1 Instrument Switch On/Off

1. Startup.

Take the instrument out of the packing box, remove the probe-protective cover, wipe the instrument sensor with a napkin, press the power key to power up the instrument. The display will light up.

2. Shutdown.

At the end of measurement, press and hold the power key to turn off the instrument, wait for the probe temperature to decrease, wipe the instrument sensor clean with a napkin, put the probe sensor protection kit in place, and put the instrument back in the box.

5.3.2 Instrument Switch On/Off

1. The probe must be wiped clean with a napkin before each data measurement.
2. Press the power key to turn on the instrument and begin measurement mode.
3. Insert probe into frying oil so that the surface of the oil is higher than the minimum intrusion depth. Do not exceed maximum intrusion depth. Shake the instrument gently to make the temperature rise more rapidly.
4. When the hold character appears on the screen, the instrument has finished measuring.
5. After taking out the instrument, record the current measurement value. Press the hold key to unlock the data lock. The instrument will resume the real-time measurement state. The above measurement process can be repeated 2-3 times. Take the average value of these measurements as the final result.
6. After measurement, press and hold the power key to turn off the instrument. Wait until the probe temperature is close to room

5.3.3 Display the parameter description

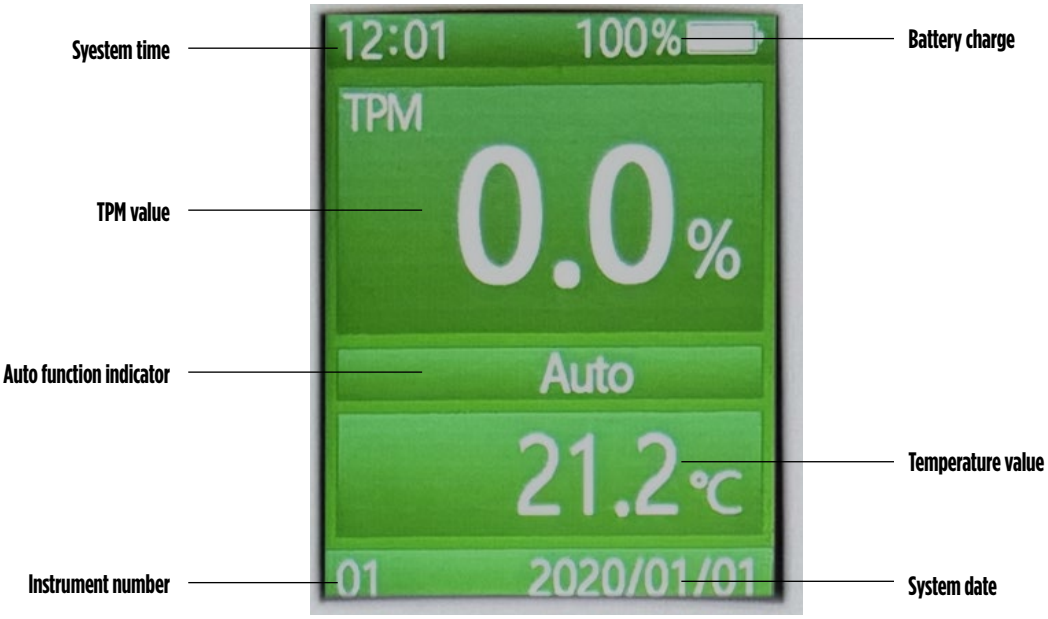

Figure 5.3.1: Rendering of measurement interface

5.4 Instrument Settings

5.4.1 Menu settings

1. Press and hold the hold key to enter the setting menu interface under the measurement interface. You can adjust the position of the selected cursor through the up key and down key. Press the OK key to enter the next level menu.

Figure 5.3.2: Page 1 menu

Figure 5.3.3: Page 2 menu

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AUTO Menu
This function enables or disables the automatic locking of measurement data. Factory defaults it on.

Wi-Fi Menu
Used to set the Wi-Fi communication function of the instrument on and off. Factory default is off, you need to turn it on manually when using, or turn on the Wi-Fi boot from the boot menu.

Bluetooth Menu
Used to set the Bluetooth communication and Bluetooth printer function of the instrument on and off. Factory default off. To use it, you need to turn it on manually, or turn Bluetooth auto-boot on from the boot menu.

History Data Menu
Used to view the saved historical measurement data, when the Bluetooth printer is turned on and successfully connected, the historical data can be printed out in the default format via the Print menu in the sub menu.

Temperature Standard Menu
Used to set the temperature unit, sub-menu has Celsius, Fahrenheit, after selection, the temperature unit will switch automatically, factory default Fahrenheit.

TPM Resolution Menu
Used to set the display resolution of TPM, the sub-menu can choose 0.1%, 0.5%, after selection, the display resolution of TPM will be automatically switched. The factory defaults it as 0.1%.

Screen Brightness Menu
Used to set the brightness of the display, the sub-menu can choose 1-5 level brightness, 1 level of the darkest, 5 levels of the brightest, you can choose a suitable brightness according to the use of the environment, the factory defaults 2 levels of brightness.

Calibration Menu
Used to calibrate the instrument's temperature and TPM, this function is only when there is a deviation in the instrument's measurement data and the instrument needs to be calibrated. The instrument has been calibrated at the factory.

TPM Alarm Menu
This function is used to set the upper limit and lower limit of the instrument TPM this function corresponds to the background color change of the display. The display background is green when the TPM value is below the lower limit, the display background is yellow when the TPM value is between the lower limit and the upper limit, and the display background is red when the TPM value is above the upper limit. The factory default lower limit is 22% TPM and the upper limit is 27% TPM.

System Setting Menu
A series of menus for setting system data and settings, with sub menus as follows:

- **System Time Settings**
  Used to set the system time of the instrument. Enter the menu according to the order of year, month, day, hour and minute. The default for seconds is zero and does not need to be set. When replacing the instrument battery, a new battery should be put into the instrument as soon as possible to avoid excessive time causing a time reset, after which the system time needs to be reset.

2. Menu Description (continued)

- **Buzzer Settings**
  When the buzzer is on, it will emit various system sounds; when it is off, the buzzer will not emit any sound.
- **Auto Power Settings**
  Set whether the instrument can be turned off automatically. When the instrument is turned on, it will shut down automatically after 5 minutes without any key operation. When off, the instrument will remain on until either manual shutdown or low battery system active shutdown.
- **Startup Settings**
  The sub-menu includes Wi-Fi auto-start and Bluetooth auto-start, which can set function items to start automatically. When the instrument is turned on, the corresponding functions will be turned on automatically; when the instrument is turned off, the corresponding functions need to be turned on manually after the instrument is turned on.

Instrument Setting Menu

A series of menus for setting instrument system data and settings, with sub menus as follows:

- **Delete Historical Data**
  For clearing historical measurement data already saved by the instrument. Selecting this action will clear all the saved history measurement data. This function does not support deleting single history records. Use with caution.
- **Developer Options**
  Used to set whether a PIN is required to enter the instrument calibration menu. To enter this menu, you need to correctly enter the PIN password. After entering, select open sub-menu, the instrument calibration menu PIN code enable; select close sub-menu, the instrument calibration menu PIN code close.
- **Reset**
  Used to restore all parameters to their factory settings without losing historical measurement data.
- **About**
  This is used to display information such as instrument version.

5.5 Interface operation

5.5.1 Data storage

When the data measurement is finished and the hold character appears on the display, press the OK key to save the current measurement data, including the system date, time, temperature value and unit, and TPM value. The instrument can store up to 10,000 measurement records. When the history is cleared by the setting menu, all the history saved by the instrument will be cleared, so please use this function carefully.

5.5.2 Set the instrument number

When taking data measurements, if you need to measure multiple fryers with one instrument, you can adjust the instrument number for differentiation. The instrument number can be set in the measurement interface using the up key and down key. After modification, the lower left corner of the instrument display will be updated to show the instrument number. This operation is only valid for the first power on. After the power off and restart, the instrument number returns to the value set by the APP.

5.5.3 Wi-Fi communication arrangement

The instrument Wi-Fi has a built-in HTTP Server, which can be configured through the browser of a PC or other smart terminal such as a mobile phone. No other configuration tool or APP is required. The factory Wi-Fi works in AP mode by default. The active hotspot name of the Wi-Fi module is “Doit_Wi-Fi_xxxxxx”, where “xxxxxxx” is the last six digits of the module’s MAC address.

Enter WEB configuration interface

Turn on the power of the instrument, long press the hold key to enter the menu, select Wi-Fi menu, press OK key to enter the Wi-Fi sub-menu. Select the ON option, press OK key to confirm, and then return to the measurement interface. When the Wi-Fi icon is blinking, it means that the Wi-Fi hotspot is on normally. Use a PC or smartphone/tablet with a wireless card (supports Android and IOS, Windows Phone, etc.) to connect to the hotspot. No password needed for Hotspot.

5.5.3 Wi-Fi communication arrangement

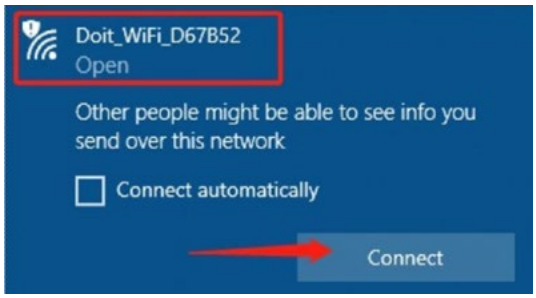

Figure 5.5.3

5.5.3. 1 Wi-Fi Hotspot

Once connected, use your browser to enter the IP address: 192.168.4.1. After opening it, you will see STATUS as shown below:

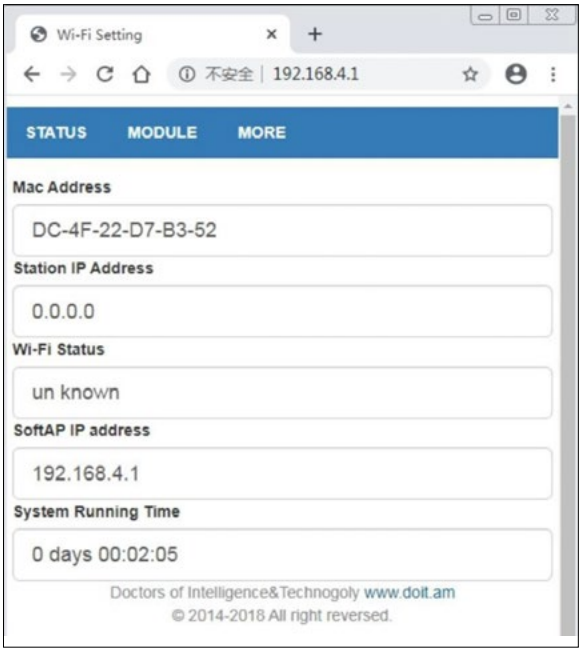

Figure 5.5.3.2 WEB Placement Interface

Wi-Fi communication

Enter Wi-Fi configuration interface.

Select the Wi-Fi menu under the MODULE menu to enter the Wi-Fi configuration interface.

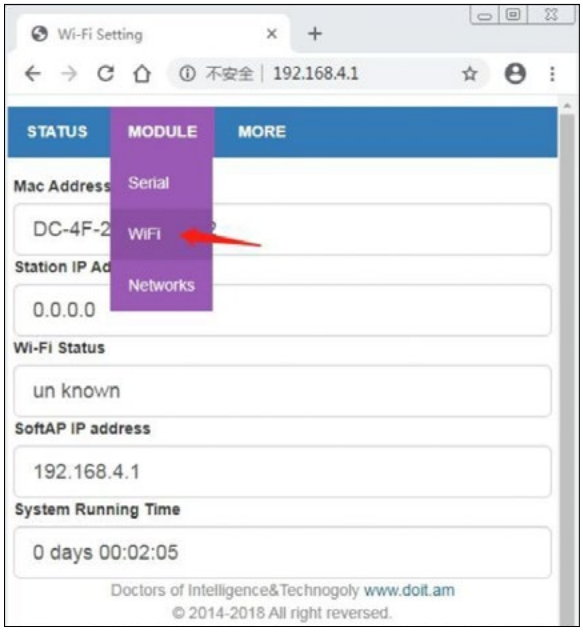

Figure 5.5.3.3 Entering Wi-Fi configuration interface

Wi-Fi configuration STA mode

If the instrument is already enabled in STA mode, you can skip the following steps and go directly to the next step. Configure the screen to enable Station Settings and save it. Restart the WIFI module afterwards.

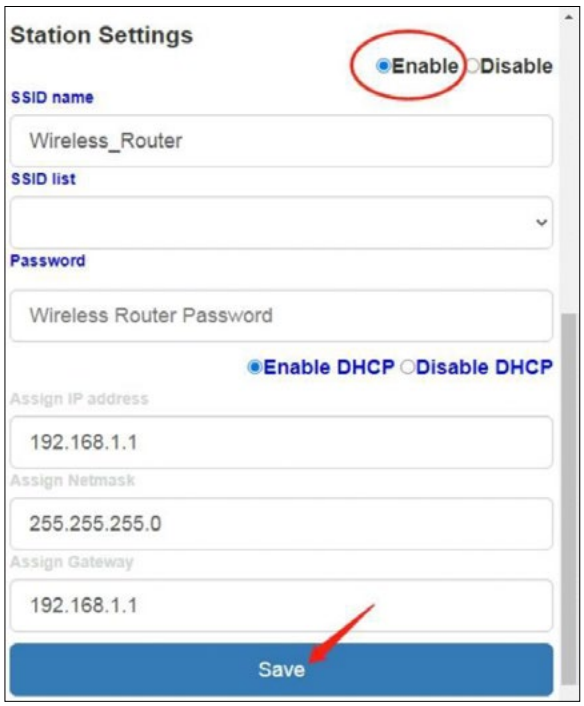

Figure 5.5.3.4 Enable STA Mode

Figure 5.5.3.5 Parameter saved successfully

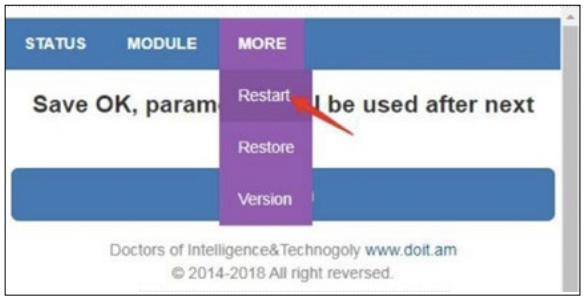

Figure 5.5.3.6 Rebooting the WIFI module

Figure 5.5.3.7 Successful WIFI module reboot

Station Settings

Set the SSID and password of the wireless router you want to connect to.
When the WIFI configuration page opens, the WIFI module automatically scans the surrounding hotspots and displays them in the SSID List list to select the SSID to connect to.

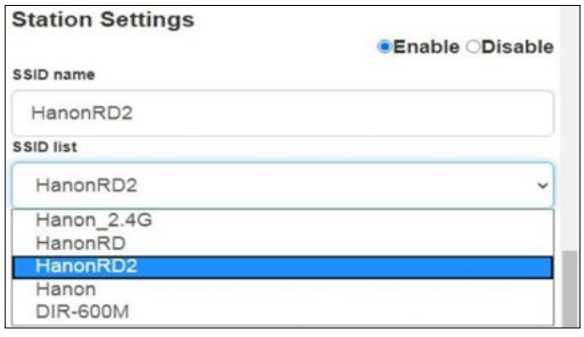

Figure 5.5.3.8 Selecting the SSID to connect to

Fill in the password corresponding to the SSID and save it. Restart the WIFI module afterwards.

Figure 5.5.3.9 Setting the SSID password

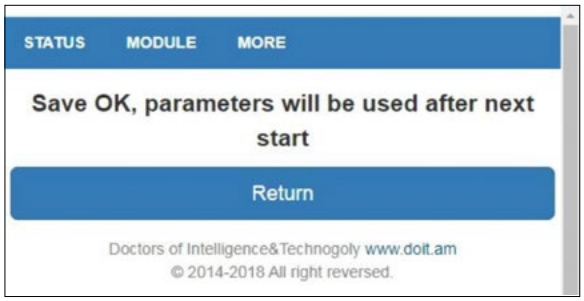

Figure 5.5.3.10 Parameter configuration saved successfully

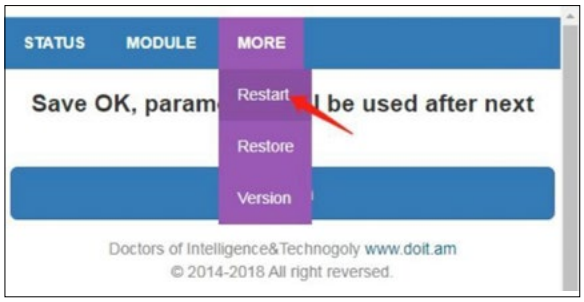

Figure 5.5.3. 11 Rebooting the WIFI module

Figure 5.5.3. 12 Successful WIFI module reboot

Network configuration (Networks)

Enter the network configuration interface

Select the Networks menu under the MODULE menu to enter the network configuration interface.

Figure 5.5.3. 13 Entering the Network Configuration Interface

WIFI Configuring TCP Client Mode

Configure the instrument WIFI to operate in TCP client mode.

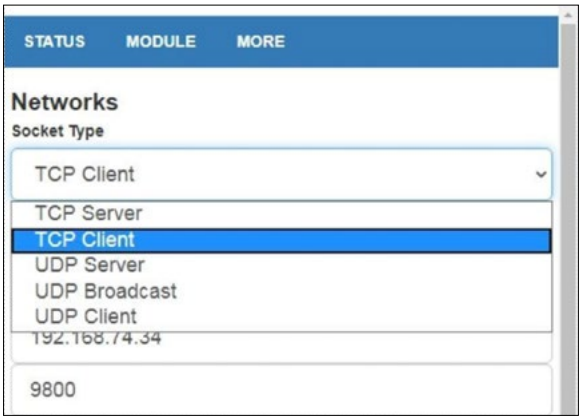

Figure 5.5.3. 14 Selecting TCP Client Mode

The instrument WIFI works in TCP client mode and saves the IP address of the server and the device communication port. Restart the WIFI module afterwards.

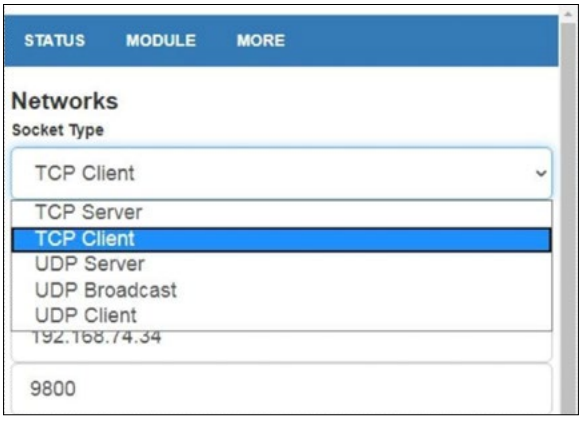

Figure 5.5.3. 15 Configuring the IP address and port of a server

Click the save button at the bottom when you filled out the form, then restart the WIFI.

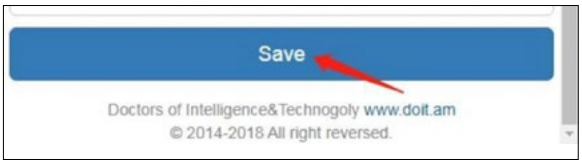

Figure 5.5.3. 16 Saving network configuration parameters

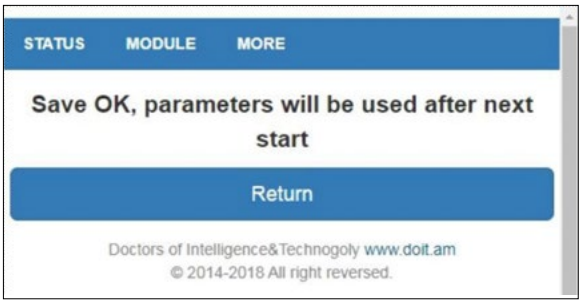

Figure 5.5.3. 17 Parameter configuration saved successfully

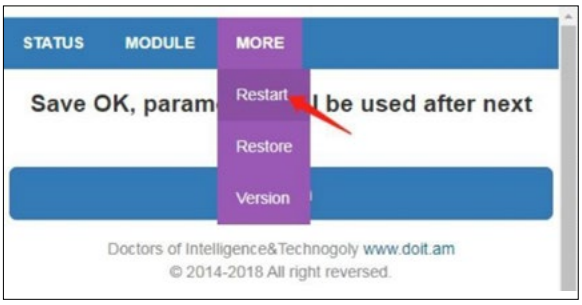

Figure 5.5.3. 18 Rebooting the WIFI module

Figure 5.5.3. 19 Successful WIFI module reboot

The instrument uploads the measurement data to the server.

After all the above steps are successfully configured, the WIFI icon on the instrument display will stop blinking, indicating that the instrument WIFI is successfully connected to the communication port of the server and starts to upload the measurement data to the server according to the fixed interval.

After the server receives the data, it parses the data according to the communication protocol format description, and the server side gets the data of the instrument.

Turn off instrument WIFI and power

After uploading the measurement data, press the [Power key] to turn off the WIFI and power off the instrument.

5.5.4 Bluetooth communication configuration

The instrument has a built-in BLE4.0 Bluetooth module, which can be turned on through the menu for Bluetooth data communication. Open the smartphone/tablet app to scan the device and connect.

Turn on Bluetooth communication

Turn on the power of the instrument, press and hold the [Hold key] to enter the menu, select the Bluetooth menu, press the [OK key] to enter the Bluetooth sub-menu, select the data communication option, press the [OK key] to confirm, then return to the measurement interface. When the Bluetooth icon is flashing, indicating that Bluetooth is on properly, scan the device using a smartphone/tablet app with Bluetooth and connect. The default Bluetooth name of the instrument is "Oil-Tester", when the connection is successful, the Bluetooth icon on the display will stop blinking and the Bluetooth icon will be fixed.

APP displays the real-time measurement data

After the Bluetooth is successfully connected, the instrument uploads the measurement data to the APP in real time according to the fixed interval, the APP resolves it according to the communication protocol format, and the APP displays the real-time measurement data.

APP displays the historical measurement data

APP sends historical data query command to the instrument according to the specified protocol format, and the instrument returns the saved historical measurement data after successfully receiving the query command. The APP parses the data content according to the protocol and displays historical measurement data.

Turn off Bluetooth and power to the instrument

After uploading the measurement data, press the [Power key] to turn off the Bluetooth and power off the instrument.

5.5.5 Bluetooth printer configuration

The instrument has a built-in BLE4.0 Bluetooth module, which can be turned on through the menu Bluetooth printer function, the module is host mode. The Bluetooth printer is directionally connected according to the MAC address of the Bluetooth printer configured to the instrument. When you first connect the Bluetooth printer, you need to use the configuration app to set the MAC address of the Bluetooth printer of the instrument, the setting address must be the same as the MAC address of the matching Bluetooth printer. When connecting the Bluetooth printer again, there is no need to set the MAC address again.

Configure the instrument Bluetooth printer MAC address

Use the APP software to configure the parameters of the instrument, follow the steps of 5.5.4 Bluetooth communication configuration, connect the instrument with the APP and use Bluetooth to establish a connection.

Click on the menu bar in the upper left corner of the APP and select the instrument setup menu to enter the instrument setup interface. (See Figure 5.5.5.1 on next page.)

Figure 5.5.5.1 Entering Instrument Setup Menu

After entering the instrument setting menu, enter the 12-digit Bluetooth printer MAC address, click on the confirmation button, when the APP prompts to set successfully, it means the Bluetooth printer MAC address is set successfully.

Figure 5.5.5.2 Bluetooth printer MAC address settings

Connecting a Bluetooth printer

First power on the Bluetooth printer and wait for the printer to finish initializing.
Turn on the power of the instrument, press and hold the [Hold key] to enter the menu, select the Bluetooth menu, press the [OK key] to enter the Bluetooth sub-menu, select the printer option, press the [OK key] to confirm, and then return to the measurement interface. At this time, the Bluetooth icon is flashing, indicating that Bluetooth is on normally, and when the display Bluetooth icon stops flashing, it indicates that the instrument has successfully connected to the Bluetooth printer.

Printing of real-time measurement data

When the printer is successfully connected to the instrument and the instrument is used for data measurement, the "Hold" character appears on the display, indicating that the data measurement is finished and the measurement data is locked.The printer prints the current measurement data once by pressing the [Return key] of the instrument. Pressing the [Return key] repeatedly allows the printer to print the current measurement data multiple times.

Printing the historical measurement data

When the instrument is successfully connected to the printer, you can print the data history of the corresponding query if the instrument already has saved history data.

Press and hold the [Hold key] to enter the menu, select the history menu, press the [OK key] to enter the history records display interface, when there are multiple history records, adjust the history data to be displayed through the [Up key] and [Down key] keys, after finding the desired history data, press the [OK key] printer to print the current history data displayed once. Press the [OK key] repeatedly, and the printer can print the current history multiple times.

Turn off Bluetooth and power to the instrument

When the data printing is complete, press the instrument [Power key] to turn off the Bluetooth and power of the instrument.

5.6 Sample Measurement

5.6.1 Preparation before measurement

Observe the following points prior to instrument measurement to obtain the most accurate results in your measurements:

1. Turn off the power to the fryer to avoid electromagnetic interference with the instrument sensor.
2. Remove the fryer and let it stand for 5 minutes to allow the suspended solids in the frying oil to fully settle.
3. Wipe the sensor clean with a napkin before each measurement and rinse the sensor well to avoid any oil on the surface. Oil on the sensor surface affects the measurement accuracy.

5.6.2 Precautions during measurement

Observe the following points prior to instrument measurement to obtain the most accurate results in your measurements:

1. Take care that the stainless steel probe of the instrument is inserted into the frying oil deeper than the minimum Min scale and as far below the maximum Max scale as possible.
2. Avoid probes touching metal objects, e.g., frying baskets, pan walls, etc.
3. Gently shake the instrument during the measurement process, the probe can be fully close to the oil temperature, shorten the measurement time, wait for the display temperature close to the actual oil temperature, static instrument, wait for the display to appear "Hold" to end the measurement.
4. After recording the measuring value of the instrument, press hold key to unlock the data lock and repeat the measurement for many times. The mean.

5.6.3 Notes after measurement

1. After the measurement, press the [Power] key to turn off the power of the instrument.
2. After waiting for the instrument probe to approach room temperature, wipe the probe clean with a napkin and put back on the protective cover.
3. Place the instrument back in the box and store the box in a dry environment.

6. TROUBLESHOOTING

Issue	Cause	Fix
Press the [Power] key and the instrument will not turn on.	1. Battery charge too low. 2. Wrong battery polarity installation. 3. Instrument hardware damage.	1. Replace the battery with a new one. 2. Check whether the battery is installed correctly according to the polarity label of the instrument.
TPM data measurement anomalies.	1. The sensor surface is stained. 2. The probe does not reach the actual oil temperature during measurement. 3. Probe hardware damage.	1. Refer to the probe cleaning chapter to fully clean the probe. 2. Measure when gently shaking the instrument, so that the probe is fully close to the actual oil temperature. 3. Observe whether the instrument probe sensor is damaged.
WIFI connection is abnormal.	The WIFI parameter of the instrument is not set correctly.	Please refer to 5.5.3 WIFI Communication setting chapter to configure the WIFI parameters of the instrument correctly.
Bluetooth communication anomaly.	Check whether the instrument correctly opens the Bluetooth data communication function.	Refer to the 5.5.4 Bluetooth Communication Configuration section.
The Bluetooth printer not printing correctly.	Check whether the instrument is correctly configured Bluetooth printer MAC address.	Please refer to 5.5.5 Bluetooth printer configuration chapter to correctly configure the Bluetooth printer MAC address.

Table 6.1 Troubleshooting

7. ROUTINE MAINTENANCE

7.1 Cleaning probes

1. Wait until the instrument probe is close to room temperature before cleaning to avoid high temperature burns.
2. Clean with neutral detergent and water.
3. Gently wipe the probe with a cotton cloth, then rinse the probe in clean water.
4. Wipe the surface of the probe clean of moisture with a napkin.
5. For surface grease that is difficult to remove, allow the probe to come into contact with hot oil, then repeat steps 1-4 until the probe is clean.

7.2 Cleaning the casing

1. Before cleaning the instrument case, make sure that the power is off and that the instrument battery cover and probe locking cover are tightened. 2. Avoid probes touching metal objects, e.g., frying baskets, pan walls, etc.
2. Wipe the surface of the instrument housing with a neutral detergent on a damp towel.
3. Rinse the instrument housing with clean water.
4. Wipe the instrument clean with a dry towel or paper napkin.
5. Wait for the apparatus to dry sufficiently and return it to the box for storage.

7.3 Calibration Instruments

7.3.1 Calibration procedure

1. Prior to calibration, the instrument probe should be cleaned according to Section 7.1 and wiped clean with a napkin.
2. Put the calibration oil bottle into a beaker containing 100°C hot water and heat it through water, turn on the power, measure the temperature of the calibration oil with the instrument and reach about 50°C, then take it out and dry it on the table for use.
3. Immerse the probe in calibration oil. If the depth of intrusion is higher than the minimum scale line, shake the instrument so that the probe is fully close to the oil temperature. The end of the measurement is compared to the instrument to measure values and calibration oil values, if there are large differences, the following calibration procedures.
4. Press and hold the [Hold Key] (>3 seconds) to enter the setup menu, select the instrument calibration menu by [Up Key] and [Down Key], press the [OK Key] to enter the sub-menu, select the TPM calibration menu, press the [OK Key] to enter the calibration interface. Adjust the displayed value to be consistent with the standard value of the calibration oil by using the [Up key] and [Down key], then press the [OK key] to save and exit. Then return to the main measurement screen via the [Return key].
5. When measuring the calibration oil repeatedly, the instrument should be the same or close to the value of the calibration oil, then the instrument calibration is complete.
6. Power off the instrument and return it to the box for storage.

7.3.2 Security recommendations

1. The standardized oil values are affixed to the bottle label. Use as soon as possible after opening the cap.
2. Calibrations should be performed only by trained personnel.

8. STORAGE AND TRANSPORT

1. Secure instrument during transport to prevent damage.
2. Handle instrument with care to avoid vibration, collision, impact, and drops.
3. Do not expose instrument to rain or snow. Always transport in an enclosed compartment.
4. Do not store or transport near corrosive gases or strong electric or magnetic fields.
5. Do note transport equipment mixed with items that may affect or damage the equipment.
6. The instrument should be maintained or checked every 3 months while in storage.
7. Avoid water splashes, rain, direct sunlight, and salty air. Follow temperature and humidity requirements for storage.

9. FACTORY INSTRUCTIONS

Observe the following points prior to instrument measurement to obtain the most accurate results in your measurements:

1. Out of warranty.
2. Damage caused by improper use.
3. Without the manufacturer's permission, disassembled themselves to cause damage.
4. Damage caused by improper transport and storage.

10. CONSUMABLES AND SPARE PARTS

1. 1.5V/alkaline batteries (AA LR6).
2. Users need to provide their own towels, napkins, cleaning agents, etc., for cleaning instruments.
3. The user needs to purchase the calibration oil for the instrument calibration.

11. ENVIRONMENTAL NOTIFICATION

This electronic equipment should not be discarded with unsorted general trash. Improper disposal can be hazardous to the environment and human health. Please refer to local waste disposal regulations for collection and disposal of equipment.

Notes

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