Implantable Animal Thermometer
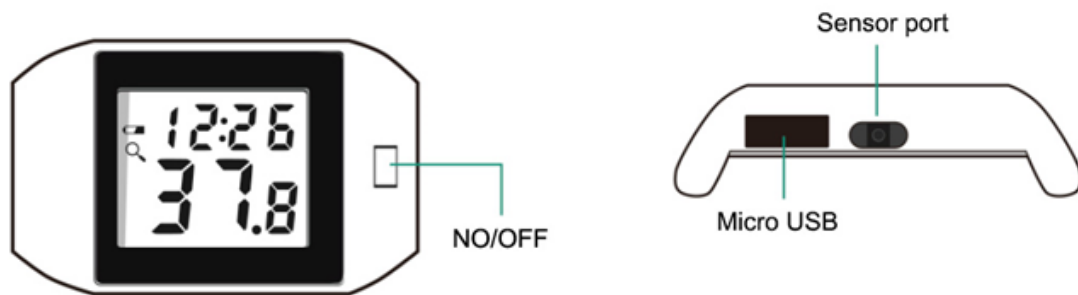
Model：SH260U

Operation Instruction

Thank you for buying our implantable animal thermometer SV260U, which can measure and record the animal's body temperature in real time and in a sober and free State. Its main application areas: Rabbit, pet, livestock and other animals of the continuous monitoring of body temperature, medicine, pharmaceutical field of animal clinical trials.

SV260U thermometer is composed of a temperature telemetry implant terminal and a thermometer, which is miniature, sealed, waterproof, dustproof, can be wear on the animal's body, the body temperature sensor is implanted into the animal, no infection mutation and stress response, and the animal body temperature is monitored and recorded in real time. Equipped with PC application software Rtview, download and analyze temperature record data stored in thermometer.

1、 Product Outlook

— LCD Display

·The time display on Upper part when power ON, the bottom part display temperature measurement value

·Icon meaning in upper left corner of screen： ---Battery low voltage, flashing for charging status

·LCD Display：HI—Sensor short circuit or body temperature measurement value exceeds 43℃

Er—Sensor probe is not plugged in or the sensor cable is disconnected

DL—Memory Clear to "zero" Operation

CL—Memory Clearing to Zero completed

Lo—temperature measurement is lower than 32℃。

—Key operation

ON/OFF： In the shutdown state, the long press button for 3-second thermometer to turn ON , in the ON state, long press button 3 seconds & thermometer to shut down. When the measured value is above 43 ℃ or lower than 32 ℃ for exceeds 15 minutes, the thermometer will automatically shutdown.

Clear data：In the ON state, short press button, LCD display "DL", within 10 seconds press short button again, LCD display "CL", indicating that the data has been cleared, if 10 seconds without a key action returned to normal display status.

Reset: Short Press the reset button, the thermometer reset, the thermometer time restore to the factory settings, other parameter settings do not affect.

Note: When the thermometer is connected with the "Rtview" software, the key function is automatically invalid.

2、 Functional characteristics

- A chip implanted in an animal to measure temperature continuously
- Liquid crystal display clock and body temperature measurement value
- Temperature telemetry implant terminals can be unplugged and replaced
- Temperature sampling interval of every 1 minutes
- Storage interval of 1-60 minutes to store 2400 sets of data
- Parameter settings: Identity number, clock, storage interval, identity number, compensation value, c/f conversion
- Temperature measurement range: 32.0~43.0°C, ±0.1°C
- USB port to download memory record data to PC/computer
- Supporting PC application software analysis and management of measurement data
- Built-in rechargeable battery, charge can be used for 90 days

3、 Installation Guide

—**Temperature meter charge**

The thermometer should be recharged before use, pull the rubber cover of the USB socket on the side of the thermometer, connect the charger & recharge the thermometer and charge for about 4 hours. In the "ON" state, when the thermometer battery is lowered, the battery low voltage icon   d**isplay, please charge asap, plug the USB cable into the USB slot and charge through the computer or the power adapter. Otherwise, the display will not boot properly after the shutdown. The icon when the thermometer is charging.** Otherwise, the display will not boot properly after the shutdown. When the thermometer is charged, the icon flashes, the icon disappears after the electricity is filled, and the general charge is 4 hours.

Note: The thermometer can be used for around 1 months (the default storage interval is 15 minutes), if the thermometer is not used for a long period should be recharge in every three months, otherwise it is necessary to return to the manufacturer paid maintenance.

—**Set Thermometer parameters**

Set the thermometer parameters to connect the USB cable to the thermometer and PC, the Rtview application from our special-made USB cable. Click the parameter Settings icon on the PC page set thermometer clock, storage interval (1 min ~60 mins, default 15 mins), Temperature

compensation value (temperature telemetry implanted terminal mark has compensation value), Temperature unit (°C or °F, default °C), identity number (20 decimals), memory zero.

—Wearable thermometer

Place the thermometer on the rabbit's back, two metal rings on the rabbit's front legs, and then use the temperature telemetry to implant the terminal plug into the DC socket on the side of the thermometer.

4、 Implantable temperature Telemetry chip

Step 1： Put the big Rabbit out on the special Baoding rack, the rabbit head face himself

Step 2： Wipe the scapula of the big rabbit with 75％ alcohol cotton. (pictured on below the scapular part)

Step 3：Put the enameled wire wrapped in the heat shrinkable tube on the needle of the implant, try to pull the wire straight, cannot be too tight.
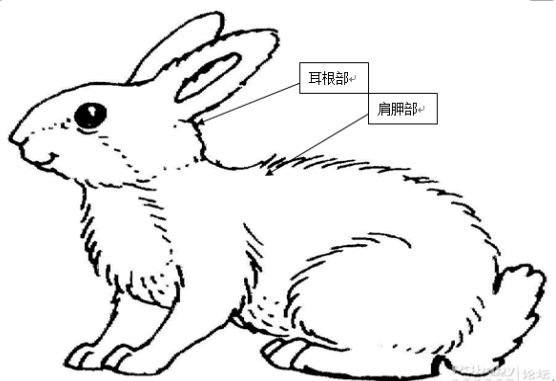
Step4：One hand hold the wired implant, the other hand lift the skin of the scapula of the Big Rabbit, the implant needle from the middle of the skin. The part of the tail and the big rabbit transverse plane into 30 degrees to 45 degrees of implantation.
After the needle is implanted in the end, press the lever on the implant two times.

Step 5： Put down the rabbit skin, use the hand of the rabbit skin to grasp the line of the wound, the other hand slowly pull out the needle. Note that the line should not be brought out,
If the wire is taken out, then need to re-operate.

Step 6：Drop 3-4 drops of medical glue at the implant position. Before dropping the glue, try to peel the rabbit hair, expose the wound, drip the medical glue , the wound heals faster.

Step 7：Back strap, the wire and temperature processor interface connected, press the Power-on key, temperature processor on the temperature display, then the

耳根部↵
肩胛部↵

For completion.

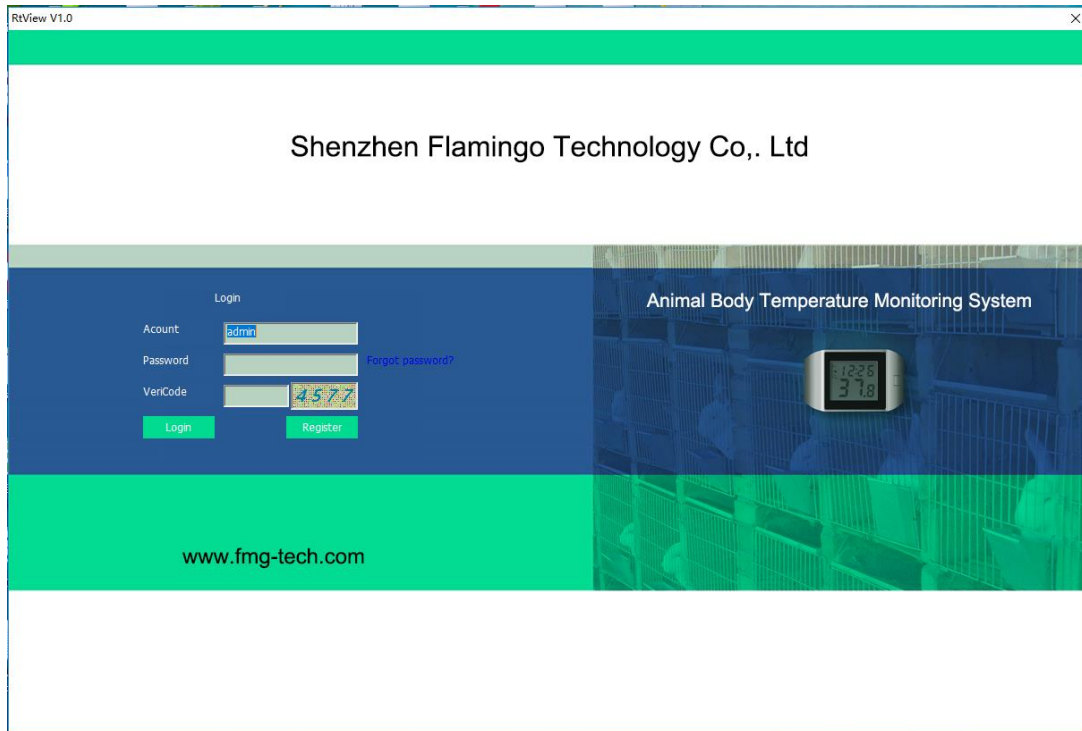# 5、 Application software -RtView

－USB Drive Installation

The thermometer and the computer through the USB connection, must install the USB serial

port drive- Rtview software inside, clicks runs "USB-serial.exe"program，Install USB serial Port driver.
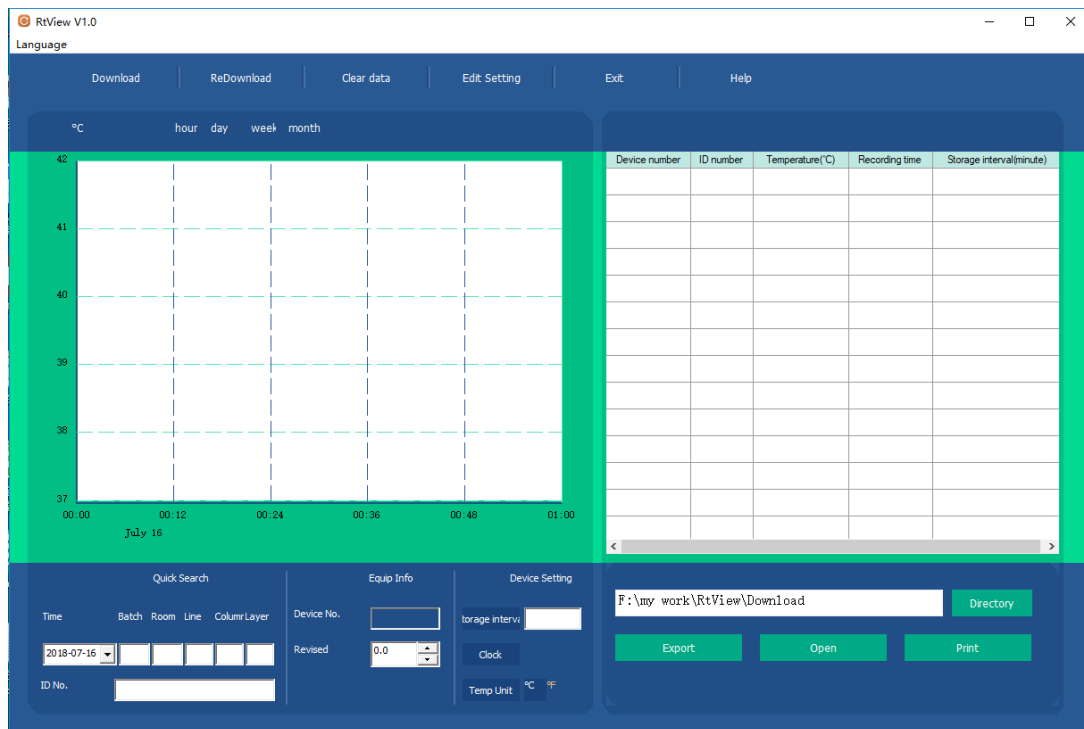
－RtView Softwares

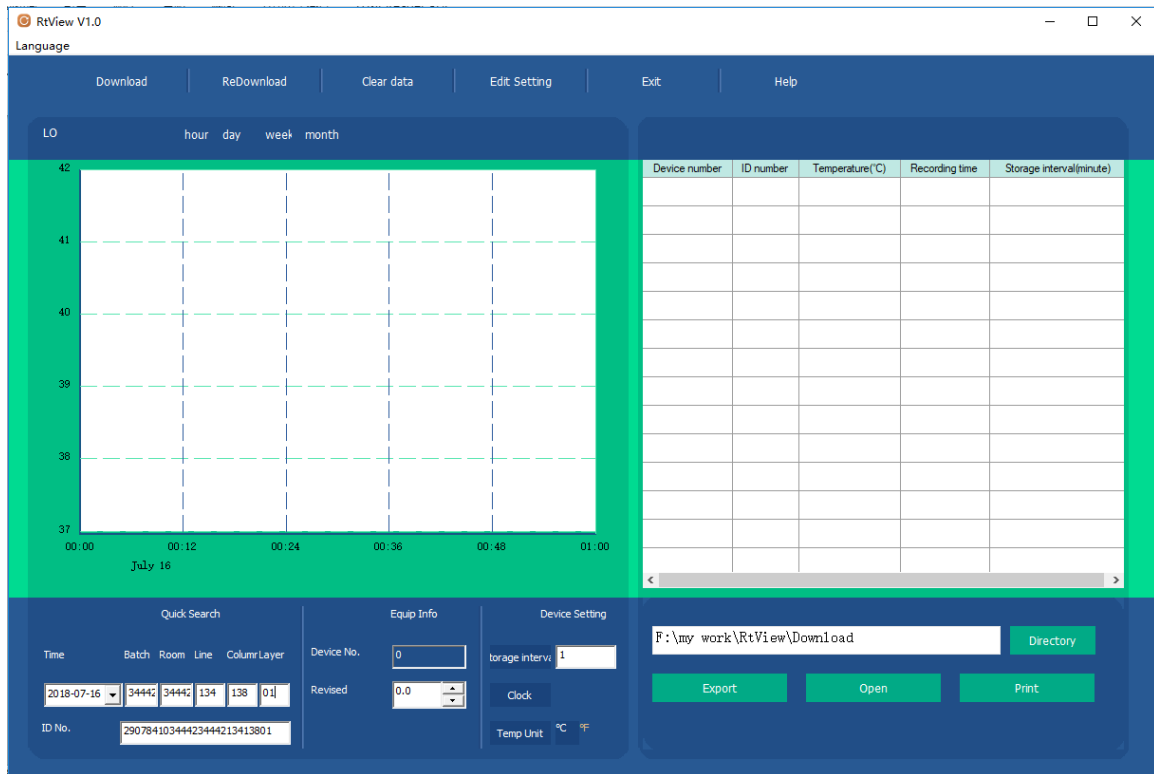The software adopts the green installation mode, and runs directly "![RtView.exe]"：Program, as below:

Enter user name：admin；**Password**：123456；**Verification Code**，Click "Login" to open the main software interface,as:

below:

一Computer and Thermometer Connection

Through USB, the thermometer is connected to the computer, the Rtview software automatically recognizes the connection thermometer, and the connection is successful as shown in the following image:

－Parameter settings

Parameter set identity number: year, month, day, batch number, room number, line number, column numbers, layer number corresponding to the box input corresponding numbers, input & "enter" to confirm, or in the identity box can directly enter the "identity number", input & "enter" key to confirm.

Correction Value: The revised range of values -1.0~+1.0℃, users can be set up according to needs, click on the "Enter" key to confirm.

Storage interval: The storage interval set range 1-60, the unit is minute, after entering info, clicks "Enter" the key to confirm.
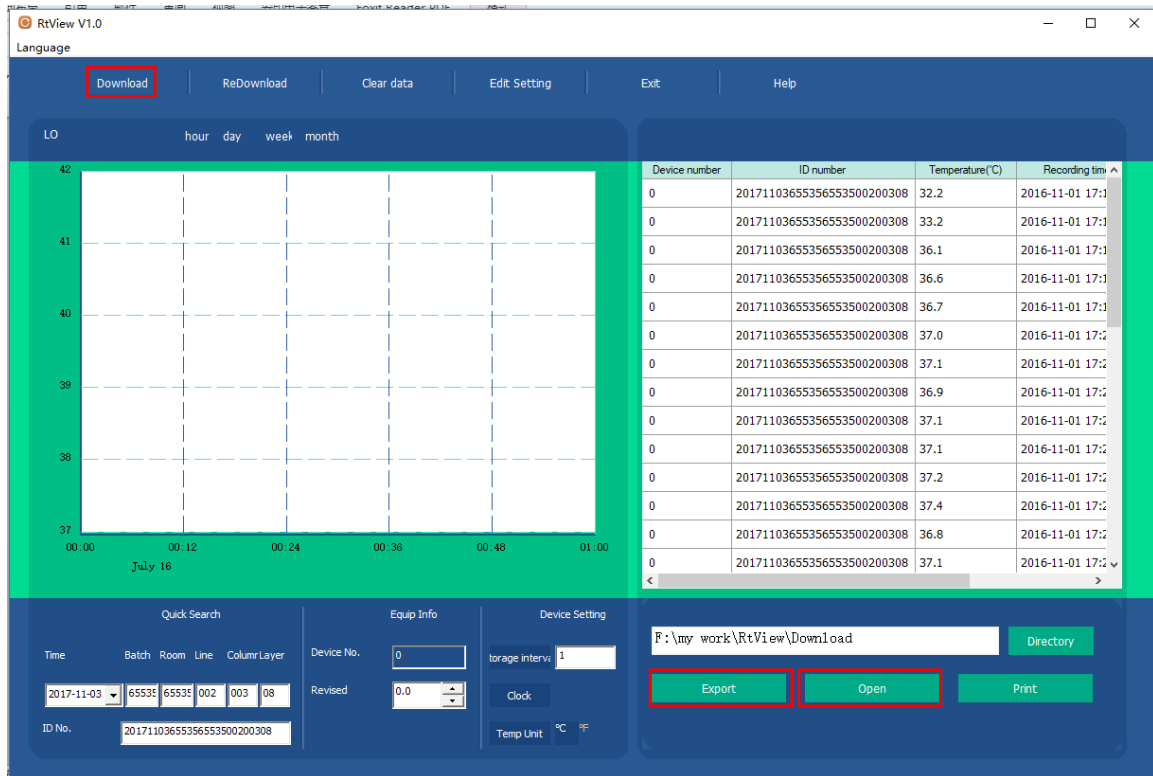
Clock: Click on the pop-up time Settings page as shown below, click "OK" to set the time to the thermometer.

Temperature unit: The software has Celsius and Fahrenheit temperature unit conversion function, the default degree Celsius (℃). Click on the "Temperature Unit" pop-up drop-down menu to select Celsius and Fahrenheit units, and then click the "Enter" key to confirm.
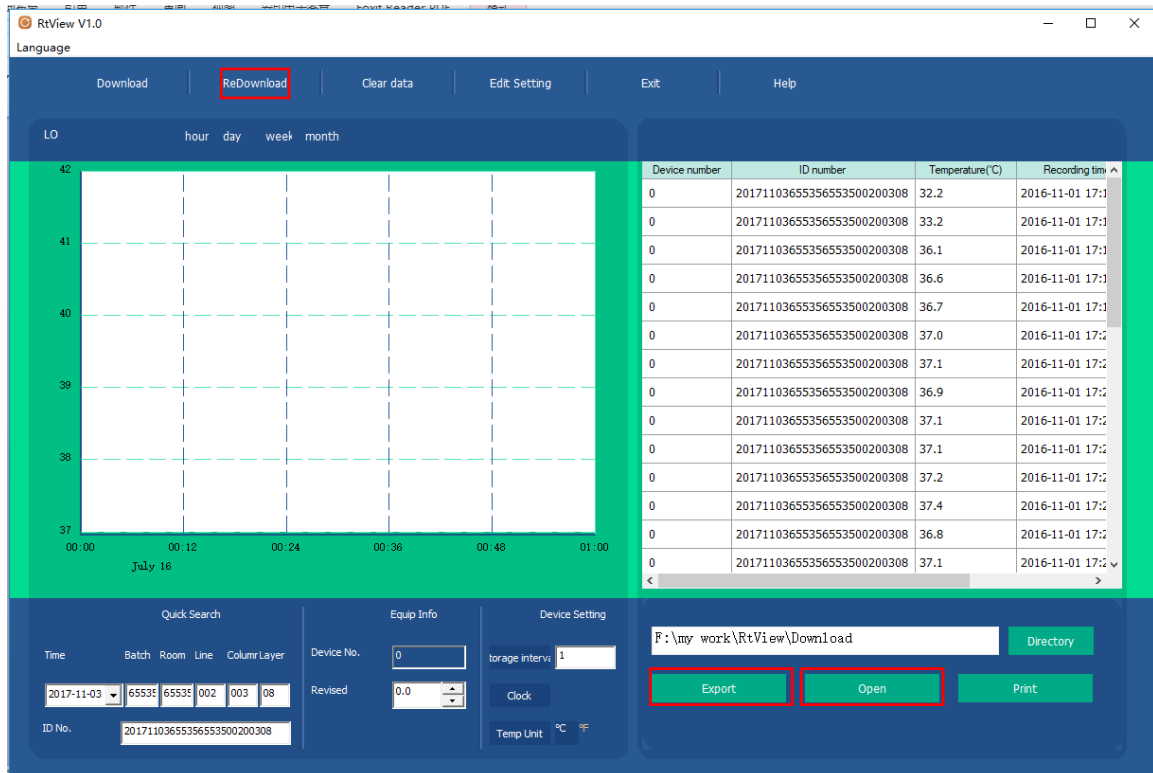
－**Data download**

Upload the history of the thermometer to the Rtview software, click "Export Excel" to save the data to the "Download" file, click "Open" to open the exported temperature record table.

一 Download again

Upload all the historical data of the thermometer to the Rtview software, click "Export Excel" to save the data to the "Download" file, and click "Open" to open the exported temperature record sheet.

一 Empty history data

Click "Empty History" to erase all historical data in the thermometer, zero data.

Note: Before using this feature, make sure that the data for the thermometer has been downloaded and saved

-Edit settings

"Edit Settings" for future extensions, this version of software does not apply.

-Device exit

Click "Device Exit" to force a USB communication connection to safely pull out of the thermometer.

-Help

Click Help to view the basic information of the software.

-Export Directory

Click "Export Directory" to change the path of the temperature data table, which is stored in the "Download" file by default.

-Export Excel

Click "Export Excel" to save the data to "Download" or the user-specified folder;-Open

Tap open to open the exported temperature record sheet.

-Print

Click "Print" to open the exported thermometer, and then click on the Excel table Print button to print the temperature record sheet.

-Software exit

Click "" To close the exit Rtview software.

6、About Our Company

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