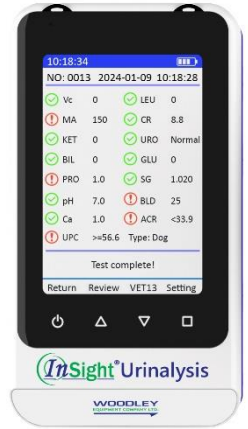
WOODLEY
EQUIPMENT COMPANY LTD.

InSight® Urinalysis

Veterinary Urine Analyser

Operator's Manual



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Copyright and Declaration

Limitation of Liability

Woodley Equipment warrants to the original purchaser that this analyser will be free from defects in materials and workmanship for a period of one year from the date of original purchase or installation.

Woodley Equipment assumes no liability in the following situations, even during the period of warranty:

- Failure due to improper maintenance of the analyser.
- The use of reagents and accessories other than those manufactured or supplied by Woodley Equipment.
- Failure due to operation of the analyser using methods other than the ones specified in this manual.
- Replacement of accessories not specified by Woodley Equipment or maintenance/repairs by personnel not approved or authorised by Woodley Equipment.

NOTE:
Woodley Equipment makes no warranties, either expressed or implied, as to product quality, performance, and value as a commodity or applicability for any particular purpose.

Technical service and troubleshooting are provided by Woodley Equipment. If the analyser is no longer operating correctly, please contact Woodley Equipment.

⚠CAUTION:
THIS ANALYSER IS FOR VETERINARY USE ONLY.

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Version: 1

Preface

This operator's manual describes in detail the installation, structure, operation and maintenance of the InSight Urinalysis Veterinary Urine Analyser.

Please carefully read through this manual before using the analyser and follow the instructions presented in this manual.

⚠CAUTION:

- This instrument uses urine as a sample which may carry pathogenic microbes that can cause infectious disease. Please wear protective gloves to prevent exposure to pathogenic microbes during operation or maintenance. If the sample comes into contact with your skin, please wash the area immediately.
- The operator must read the manual carefully before operating the analyser.

Symbols

 Consult instructions for use

 Protect from heat and radioactive sources

 Electrical and electronic products recycling

 Class II equipment

 Direct current (DC)

 Caution

 Biological hazard

 Manufacturer

 Serial number

 Keep dry

 Date of manufacture

 Expiry date

Warnings and Precautions

- The instrument power supply is 5V DC.
- Only the accompanying AC adapter should be used.
- Install the analyser in a ventilated room where the temperature is maintained between 15°C ~ 30°C and humidity is less than or equal to 80%.
- When the analyser is moved to a different environment, allow one hour for it to attain room temperature before testing.
- Leave at least 10cm of space in front of the analyser.
- Use only the InSight Urinalysis Test Strips and carefully read through the product insert before use.
- Do not use products that are not provided or recommended by Woodley Equipment.
- Turn off the power switch and unplug the power cord immediately if the analyser gives off an odour or smoke, otherwise it may cause fire, electric shock or injury. If this happens, please contact Woodley Equipment.
- Do not expose the analyser to corrosive and flammable gas, direct sunlight or wind.
- The analyser should be placed on a level, stable and vibration-free surface.
- Do not place the analyser near chemicals or near items that produce corrosive gases and electromagnetic interference.
- Do not attempt to repair the analyser unless authorised to do so by Woodley Equipment, in order to avoid damage to the analyser or personal injury.
- Keep the analyser away from magnetic sources or devices that generate electromagnetic waves.
- Keep the analyser away from liquids, dust and physical shocks or impacts.
- Before charging, please confirm that the analyser is

turned off. The battery should be fully charged in 3 hours if the power was low. Do not keep the analyser charging for longer than necessary, remove the USB cable after the analyser is fully charged. Excessive charging may affect battery life.

- After the analyser is fully charged, please do not charge it again unless the analyser has been continuously used for at least 30 minutes. Do not charge the analyser frequently, so as to avoid damage to the battery life.
- If the analyser is not in use for an extended period of time, make sure it is charged every 6 months to prevent damage to the lithium battery.
- If the analyser is discarded, it should be handled in accordance with relevant local regulations.
- Wear protective clothing when preparing and testing samples. If the sample comes into contact with your skin, please wash the area immediately.
- Used samples, test strips, strip trays, protective gloves etc. are considered biological waste and should be handled in accordance with relevant local regulations.
- The results produced by the analyser should only be applied to screening some related diseases in the group according to the detection results of urine. It should not be used directly as evidence for diagnosing diseases.
- The battery can be removed from the analyser if it will not be used for an extended period of time.
- Discard of the waste batteries in accordance with relevant local regulations.

Chapter 1 Instrument Introduction

1.1 Instrument Features

Compact and Portable – The analyser weighs 200g and can fit in the palm of your hand, making it easy to carry.

Simple Operation – Insert the strip tray into the tray conveyor and the analyser will test automatically. The test results are displayed on the screen and it can be sent to external devices through Bluetooth or USB interface.

Colour Display Screen – The colour display screen makes the display information easier to read.

Corrective Features – Eliminate the effect of chromaturia using the colour correction test pad and correct specific gravity based on pH readings.

Convenient Daily Maintenance – The strip tray can be easily detached for daily cleaning.

Automatic Identification of Test Strip – The analyser can automatically identify the type of test strip.

Automatic Memory Update – Up to 1200 samples can be stored on the analyser. When results exceed 1200, the oldest will be deleted automatically and record the new data.

Wireless Printer (Optional) – Wireless printer that connects to the analyser via Bluetooth, automatically prints test results.

Rechargeable Battery – The analyser has its own rechargeable battery and can continuously test 300 samples after it is fully charged.

1.2 Intended Use

The analyser can be used in combination with the InSight Urinalysis Test Strips for semi-quantitative or qualitative detection of biochemical components in urine samples, which can provide reference for clinical examination and diagnosis.

The parameters that can be detected are Urobilinogen (URO), Bilirubin (BIL), Ketone (KET), Blood (BLD), Protein (PRO), Leucocytes (LEU), Glucose (GLU), Specific Gravity (SG), pH, Microalbumin (MA), Creatinine (CR), Ascorbic Acid (AA), Calcium (Ca), Protein/Creatinine Ratio (UPC)* and Microalbumin/Creatinine Ratio (ACR)*.

*Calculated Parameters

The results produced by the analyser should only be applied to screening some related diseases in the group according to the detection results of urine. It should not be used directly as evidence for diagnosing diseases.

1.3 Contraindications

None.

1.4 Specifications

1.4.1 Analyser Specifications

- Test Strips: InSight Urinalysis Test Strips
- Analytes: Leucocytes (LEU), Ketone (KET), Urobilinogen (URO), Bilirubin (BIL), Protein (PRO), Glucose (GLU), Specific Gravity (SG), Blood (BLD), pH, Creatinine (CR), Microalbumin (MA), Ascorbic Acid (AA) and Calcium (Ca), Protein/Creatinine Ratio (UPC)* and Microalbumin/Creatinine Ratio (ACR)*
  *Calculated Parameters
- Measuring Principle: Reflectance photometry
- Measurement Wavelength: 470nm, 550nm, 620nm, 720nm
- Sample Supply Method: Manual dipping
- Throughput: 50±1 s/test
- Measuring Mode: Automatic single measuring mode
- Display: LCD screen with touch keys
- Memory: Up to 1200 samples
- Specific Gravity Correction: Automatically correct based on pH readings
- Chromaturia Correction: Automatically corrected by colour correction test pad

- Data Output: Test results can be transmitted to external devices via Bluetooth or USB interface
- Operating Conditions: 5°C ~ 40°C, ≤80% humidity (optimum use temperature is 23°C ~ 28°C)
- Measuring Conditions: 15°C ~ 30°C, ≤80% humidity (recommended)
- Dimensions: 130 (L) x 70 (W) x 29 (H) mm
- Weight: 200g
- Power Supply: 5V ⎓ 3A
- Power Requirements: 100V – 240V, 50/60Hz

1.4.2 Printer Specifications

- Printer: Thermal line printer
- Printer Paper: Thermal paper
- Dimensions: 110 (L) x 80 (W) x 38 (H) mm
- Weight: 180g (without thermal paper)
- Operating Voltage: 5V ⎓
- Power Supply: 5V ⎓ 3A
- Power Requirements: 100V – 240V, 50/60Hz
- Power Consumption: 13.5W

1.5 Structure and Principle

The analyser is composed of an optical-electronic sensor system, mechanism and I/V converter.

The analyser's structure is as shown in Figure 1.1.

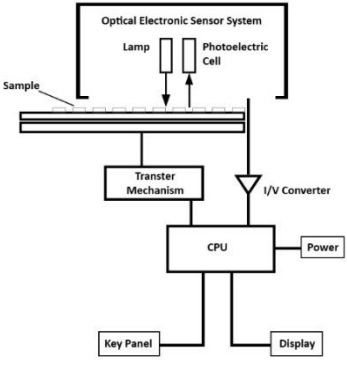

Figure 1.1

The Optical Electronic Sensor System consists of a light source and a light receptor. The light from the light source shines on the reagent pads on the strip. The absorbance and reflectance vary with the colour development of the reagent pad i.e., the degree of colour development is proportional to the concentration of the analyte in urine. If the colour of the reagent pad is darker, more light is absorbed and less light is reflected, and vice versa.

The reflected light is transmitted into the Optical Electronic Sensor System where the optical signals are transformed into electric signals. Then, the electric signals are transformed by the I/V converter and processed by the CPU. Finally, the test results are displayed on the colour display.

1.6 Appearance and Components

1.6.1 Analyser

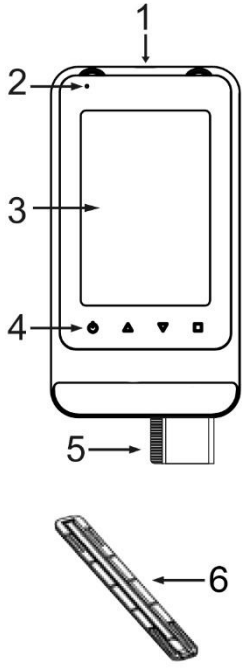

Figure 1.2

1.6.2 Printer

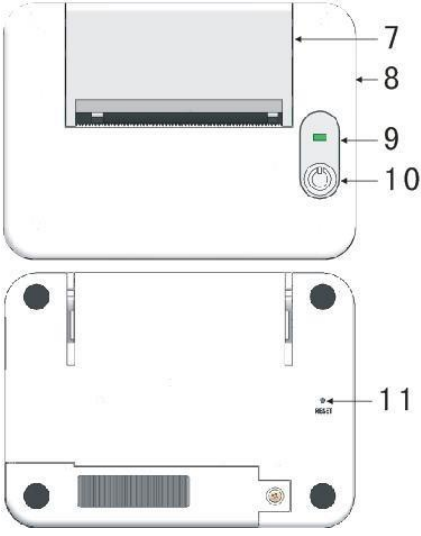

Figure 1.3

No.	Item	Function
1	USB interface	• For charging. Charging voltage is 5V DC. • For transmitting data.
2	Analyser indicator light	• When the red LED light is on, it means the analyser is charging. • When the red LED light turns off, it means the analyser has finished charging.
3	Display screen	• Displays operational information such as test results etc.
4	Touch keys	• Used for operating the analyser.
5	Tray conveyor	• Used to place the strip tray.
6	Strip tray	• Used to place the test strip.
7	Printer cover	• Open the cover to load a roll of printer paper.
8	Printer USB interface	• Connect the power.
9	Printer indicator light	• When the green LED light is on, it means that the printer is switched on and working.
10	Printer power switch	• Press and hold the button for 3 seconds to start the printer. • When turned on, hold and press the button for 3 seconds to turn the

		printer off.
11	Printer reset key	• The printer will reset after you press the button.

Chapter 2 Installation

2.1 Unpacking the Analyser

Please check the analyser and accessories following the steps below:

1. Carefully unpack the shipping carton and take out the analyser and accessories.
2. Check the contents against the packing list to ensure everything is included in the package. Also, check for any visible signs of damage.
3. Please notify Woodley Equipment if any items are missing or damaged.

2.2 Instructions for Use

NOTE:
It is the manufacturer's responsibility to provide equipment electromagnetic compatibility information to the customer or user.

NOTE:
It is the user's responsibility to ensure that a compatible electromagnetic environment for the equipment can be maintained in order for the device to perform as intended.

⚠ CAUTION:

Instructions for the equipment for self-testing:

- Use of this device in a dry environment, especially if synthetic materials are present (synthetic clothing, carpets etc.) may cause damaging electrostatic discharges that may cause erroneous results.
- Do not use this device in close proximity to sources of strong electromagnetic radiation, as these may interfere with the proper operation.

Instructions for the equipment for professional use:

- The equipment complies with the emission and immunity requirements of IEC 61326-1 and IEC 61326-2-6.
- This equipment has been designed and tested to CISPR 11 Class A. In a domestic environment, it may cause radio interference, therefore you may need to take measures to mitigate the interference.
- The electromagnetic environment should be evaluated prior to operation of the device.
- Do not use the analyser in close proximity to sources of strong electromagnetic radiation (e.g., unshielded intentional RF sources), as these can interfere with the proper operation.

⚠CAUTION:

This device complies with Part 15 of the FCC Rules. Operation is subject to the following conditions: this device may not cause harmful interference and this device must accept any interference received, including interference that may cause undesired operation.

⚠CAUTION/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 on and off, the user is encouraged to try to correct the interference using 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.

⚠CAUTION:
To comply with the limits of the Class B digital device, pursuant to Part 15 of the FCC Rules, this device is to comply with Class B limits. All peripherals must be shielded and grounded. Operation with non-certified peripherals or non-shielded cables may result in interference to radio.

MODIFICATION:
Any changes or modifications not expressly approved by Woodley Equipment will void the warranty of the analyser.

2.3 Charging Operation

⚠CAUTION:

- There is a non-removable, rechargeable battery inside the analyser. Do not remove the battery without approval from Woodley Equipment, as the process of disassembling the battery may damage the analyser. If you need to replace the battery, please contact Woodley Equipment.
- Make sure the USB socket voltage is DC 5V. If the voltage of the USB power socket is higher than DC 5V, the analyser may not work properly, become damaged or even cause a fire, explosion or other hazards.
- Do not keep the analyser charging for longer than necessary, remove the USB cable after the analyser is fully charged. Excessive charging may affect battery life.
- The analyser heats up when it is charging. This is normal and will not affect the service life or performance of the analyser.
- Do not use the analyser while the battery is charging, as it may affect the battery life.

- It takes 3 hours for an uncharged battery to charge fully. If the battery is still not charged after this time (the battery should not be charged for more than 24 hours) and the charging status indicator has not changed, indicating that the analyser may have a fault. Please disconnect immediately and contact Woodley Equipment.
- If the battery or USB cable has been damaged or the analyser is not charging properly, contact Woodley Equipment. Never use a damaged battery or power adapter.
- If the analyser is not used for an extended period time, the battery power will gradually decrease. It is recommended to charge it once every six months to avoid the battery being completely exhausted and the battery cannot be charged.
- The battery is a consumable. The charge and discharge cycle is about three hundred times. The battery power will gradually decrease with the number of charges, the charging time and working time will also be shortened. When the working time of the analyser is noticeably shorter than normal, the battery may need to be replaced. Please contact Woodley Equipment.

2.3.1 Instrument Charging Operation:

1. Confirm the analyser battery power is insufficient and the analyser is turned off.
2. Connect one end of the USB cable to the analyser USB port and the other end to the AC adapter USB port.
3. Connect the AC adapter plug to AC 100V ~ 240V, 50/60Hz.
4. The analyser indicator light will light up meaning it is charging. When the light turns off, it means the

analyser has finished charging.

5. After the analyser has finished charging, please remove the AC adapter from the electrical outlet and disconnect the USB cable from the analyser.

2.4 Connecting the Printer

1. Connect one end of the USB cable to the adapter (the adapter is connected to the power supply), one end to the USB port on the printer and one end to the analyser, as shown in Figure 2.1. The printer must be connected to the power supply when in use.
2. Connect the analyser and printer using supplied cables.

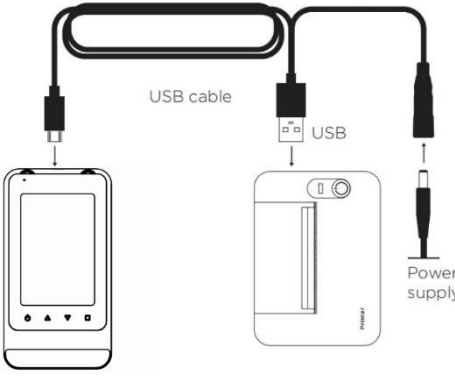

Figure 2.1

2.5 Loading Printer Paper

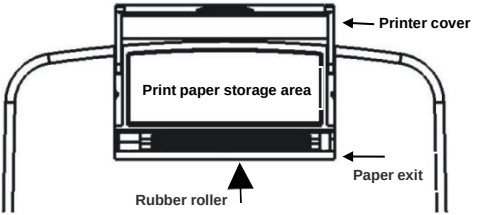

Figure 2.2

1. Open the printer cover upwards, as shown in Figure 2.2.
2. Load the paper roll and close the printer cover.

⚠CAUTION:

- Thermal printer paper is needed. If installed backwards, the characters will not be printed.
- Leave enough length of printer paper when installing so that the paper extends from the printer.
- Ensure the printer paper is replaced when it has run out.
- Before loading the printer paper, check that the printer paper is completely dry. If the printer paper has any moisture, it will need to be changed to avoid a paper jam.
- Please reinstall the printer paper if there is a paper jam.

Chapter 3 Usage Precautions

3.1 Sample Usage Precautions

- **Take precautions when collecting samples**
  Urine samples may carry pathogenic microbes that can cause infectious diseases. Take the utmost care when handling urine. Wear protective gloves to avoid exposure to urine samples.

- **Use fresh urine samples (test within one hour after collection)**
  Samples must be tested within one hour. If the test cannot be performed within one hour, store the sample in the refrigerator (between 2°C – 8°C) to avoid deterioration.

- **Samples should attain room temperature before testing**
  Allow the refrigerated samples to reach room temperature before testing. Otherwise, the test results may not be accurate. Samples that have been recently collected should also reach room temperature before testing or the test results may not be accurate.

- **Mix each sample well before measurement. Do not centrifuge.**
  If centrifugal separation is carried out, some components in the urine sample will precipitate and some test items will not get accurate test results.

- **Sample volume should be enough to entirely soak all reagent pads on the test strip.**
  Do not perform a test if there is not enough sample volume.

- **Only use the collected sample.**
  Do not add preservatives, disinfectant or detergent to the sample.

- **Keep the sample away from direct sunlight.**
  Samples exposed to direct sunlight may cause inaccurate test results.

- **Samples containing ascorbic acid may affect test results.**
  When testing a sample which contains ascorbic acid, it may make the blood and glucose readings falsely low.

- **Drug-administered urine and visual haematuria can affect test results.**
  Drug-administered urine and visual haematuria may cause inaccurate test results.

3.2 Test Strips Usage Precautions

- **Use InSight Urinalysis Test Strips.**
  Only use the InSight Urinalysis Test Strips and carefully read the product insert before use**.**

- **Check the test strips before use.**
  Check the expiration date of the test strips before use. Do not use expired test strips or test strips that have discoloured pads, even if they are still within the expiration date.

- **Test strips should be prepared before testing.**
  Only take out the required number of test strips from the bottle before collecting samples and close the bottle immediately. Exposing the test strips to air for an extended period of time will deteriorate

the composition of the test strip.

- **Do not touch the reagent pads on the test strips.**
  Do not touch the reagent pads on the test strips as it may affect test results.

- **Keep the desiccant.**
  Do not discard the desiccant in the test strip bottle before using all of the test strips. Otherwise, the test strips may not be usable as they will absorb the moisture in the air.

3.3 Analyser Usage Precautions

- The analyser should be used on a clean, level and stable platform. It should be kept away from direct sunlight, strong magnetic field interference and liquids.
- Avoid exposing the analyser to prolonged excessive humidity and high temperatures. It should be used in a suitable environment, preferably with air conditioning. The temperature and humidity should be in accordance with the requirements of the analyser. To ensure the accuracy of the test results, keep the temperature and humidity of the environment consistent with the requirements of the test strips used.

⚠CAUTION:
The accuracy of the test results cannot be guaranteed if the analyser's operating environment fails to meet the requirements of the test strip used.

- The analyser should not be near direct sunlight, other heat sources or radioactive sources. Avoid areas with excessive dust and avoid placing the

analyser on a vibrating surface.

- Observe the battery power of the analyser during use.

⚠CAUTION:

- If tests are performed when the analyser has low battery charge, the accuracy of the test results cannot be guaranteed.
- Please do not wait for the battery to run out of charge before charging, it may affect battery life.

Please observe the battery icon on the analyser display screen to confirm the battery power. When the analyser indicates that the battery is low, please charge the battery.

Chapter 4 Using the Analyser

4.1 Shutdown Procedure

4.1.1 Turning the Analyser On

Press and hold the power button ⏻ for 3 seconds to turn the analyser on.

The analyser display screen will light up and display the welcome interface, the system self-test and the tray conveyor will extend from the front of the analyser.

The functions of each icon on the analyser are as follows:

Icon	Function
08:12:59	Displays the time on the analyser.
	Indicates that the Bluetooth is connected to external devices.
	Indicates that the analyser is connected to an external power supply.
	Displays the current status of the battery.
	Indicates that the parameter is waiting to be tested.
	Indicates that the test results are normal.

	Indicates that the test results are not within the normal range.

4.1.2 Turning the Analyser Off

Press and hold the power button for 3 seconds to turn the analyser off.

The tray conveyor will retract inside the analyser and the display will be turned off.

⚠CAUTION:
The analyser will automatically turn off if it is inactive for five minutes.

4.2 Routine Measurement

4.2.1 Precautions

Please read the following information carefully before collecting any samples.

☣BIOLOGICAL HAZARDS:

- Wear protective clothing to avoid exposure to pathogenic microbes.
- Dispose of used samples, test strips and gloves according to local regulations.

⚠CAUTION:

- The analyser should be placed on a level, stable and vibration-free surface.
- Do not touch the tray conveyor when it is moving.
- Verify that the environment is compliant with the requirements before testing.
- Do not move the analyser during testing.

Otherwise, erroneous test results may occur or the test strip may become stuck inside the analyser.

4.2.2 Preparing Samples

Please collect a sufficient urine sample.

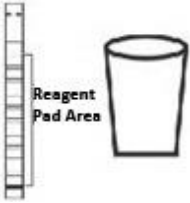

Figure 4.1

⚠CAUTION:

- The sample volume must be enough to soak all the reagent pads entirely on the test strip.
- Do not centrifuge samples as it may cause some items to have inaccurate results.

4.2.3 Preparing Test Strips

Please refer to the product insert of the test strips for specific information about how to use the test strips.

⚠CAUTION:
Do not use test strips that have expired or discoloured test strips, even if they are within their expiry date. This may cause inaccurate test results.

4.2.4 Measuring Samples

After preparing the sample and test strip, soak the test strip in the sample. Then, perform the test. Follow the steps below to perform a test.

⚠CAUTION:

- To avoid hindering the movement of the tray conveyor, leave at least 10cm of space in front of the analyser.

1. **Verify that the analyser is in the main interface and prepare the test strip and sample.**

2. **Prepare some blotting papers for later use.**
   Used to remove excess sample from the test strip.

3. **Soak the test strip in the sample.**

   ⚠CAUTION:

   - Make sure all of the test strip is soaked in the sample. If the reagent block is not fully soaked, some of the parameters may have inaccurate results.
   - The test strip should be soaked for approximately 2 seconds. If the immersion time is too short, the test strip will not be fully coloured. If it is soaked for too long, it will cause the reagent component to flow out.

4. **Remove the test strip from the sample, gently touch the edge of the test strip to the vial to allow excess urine to drip off.**

5. **Place the test strip on the strip tray.**
   It is important to ensure that the test strip is fully placed in the tray groove and that the test strip has one side of the reagent block facing up.

6. **Insert the strip tray into the tray conveyor of the analyser and the analyser will test automatically.**
   The handle end of the test strip should be on the outside of the analyser.

   ⚠**CAUTION:**
   - The handle end of the test strip should be on the outside of the analyser. If the test strip is placed in the wrong direction, the analyser will prompt an error message.
   - Be sure to place the strip tray on the tray conveyor correctly. Incorrect position of the strip tray will affect the accuracy of test results.

7. **Test results will be displayed after the strip tray has been released from the front of the analyser.**
   The results will be transmitted to external devices via the Bluetooth interface if connected.

8. **Take out the test tray.**

4.2.5 After Test Completion

1. Used test strips, absorbent paper and other waste should be discarded.
2. Clean the strip tray.

 **BIOLOGICAL HAZARDS:**

- Dispose of waste in accordance with relevant local regulations.

Chapter 5 Analyser Check

5.1 Check

There are two check strips that come with the analyser. Use either one to check the performance of the analyser and compare the obtained results with the range printed on the check strip container.

If the obtained results fall outside the range, use another check strip to repeat the test. If you continue to get out-of-range results, the analyser may not be working to specification. Stop using the analyser and contact Woodley Equipment.

We suggest you perform the check or quality control (quality control material can be purchased from Woodley Equipment), if:

- you are using a urine test strip from a new vial.
- there is a new operator of the analyser.
- the test results appear abnormal.

⚠CAUTION:

- The check strip should only be used for daily checkup.
- Do not soak the check strip in any liquid.
- Keep the check strip clean.
- Compare the obtained results with the range printed on the check strip container. If the obtained results are inside the range, it means the analyser is operating correctly. If not, please check that the check strip is in normal condition.
- The range printed on the check strip container should only be used as the basis for judging

whether the analyser is in normal working condition, not as a reference for clinical diagnosis.

5.2 Check Operation

1. Insert the check strip tray into the tray conveyor of the analyser. The handle end of the test strip should be on the outside of the analyser. Make sure that the end of the strip tray touches the deepest slot of the tray conveyor. Then, the analyser will test automatically.

⚠CAUTION:

- Be sure to place the test strip on the strip holder correctly. Incorrect position of the test strip will affect the accuracy of test results.

2. Remove the check strip when the test is complete.

Chapter 6 Function Introduction

6.1 Printer Function

The analyser and printer can be connected by Bluetooth. The Bluetooth symbol will show on the analyser status bar when the printer has been successfully connected to the analyser.

6.2 Test Function

Insert the strip tray into the tray conveyor whilst on the main interface and the analyser will test automatically. After the test is complete, the results will be displayed in semi-quantitative form and output if connected.

⚠CAUTION:

- The results produced by the analyser should not be used solely for clinical diagnosis.

6.3 Test Results

The test results are as shown in Figure 6.1.

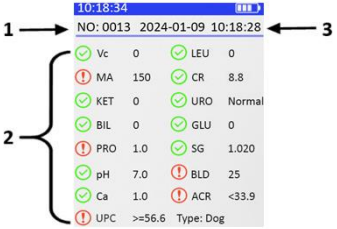

Figure 6.1

No.	Item	Content
1	Measurement number	• The sequence number of the current sample test results
2	Test results	• Test parameters and results (the system will display the corresponding test parameters based on the type of test strip used). • The test results are represented by a semi-quantitative symbol (see Appendix for a comparison table between semi-quantitative symbols and concentration values). • The test item is preceded by which indicates that the result is within the normal range. • The test item is preceded by which indicates that the result is not within the normal range.
3	Date and time	• The date and time of the current test results.

6.3.1 Output Test Result

- The results will be transmitted to external devices via the Bluetooth interface if connected.
- If the analyser is successfully connected to the printer, the test results will be printed.
- Connect to a computer through USB and export the test results to LIS software.

6.4 Reviewing Results

Click △ when on the main interface to view results history. The function of each button is as follows.

Key	Function
	Return to main interface and turn on/off.
	View previous result.
	View next result.
	For transmitting data.

6.5 Settings

Click 'Settings' on the standby screen to enter the settings menu which has the following functions:

- Species: The species that can be set include dog, cat, rabbit, horse, cattle, sheep and QC. QC is used for quality control.
- Unit: Units include Char, SI, Conv, Char+Si or Char+Conv.
- Ratio: UACR and UPCR ratios are available.
- Time: Set the system time.
- Bluetooth: The user can select whether the Bluetooth connection mode is printer mode or phone mode. If you need to connect to the mobile app, please switch to phone mode. If the printer mode is selected, press 'Con' and it will connect to the printer. Press 'Discon' and it will disconnect the

Bluetooth device.

- Language: Set the system language.
- Delete Data: Clear all data.
- Update Firmware: After clicking this button, a dialog box will appear on the screen, which displays “Connect USB cable to device and PC. Copy firmware, press Yes". When firmware is copied to the analyser, press ‘Yes,’ and the analyser program will be automatically upgraded.

Chapter 7 Maintenance

7.1 Precautions

BIOLOGICAL HAZARDS:

- To avoid exposure to pathogenic microbes, wear protective gloves while performing maintenance.
- Dispose of used test strips, fabric and protective gloves according to local regulations.

7.2 General Cleaning

Keep the analyser clean and dust-free. If cleaning is needed, clean the analyser surface with clean paper or gauze dipped in medical alcohol. Any oil, ester, silica gel and lubricant are not advisable for use on the analyser.

7.3 Cleaning the Strip Tray (Daily)

During testing, urine may adhere to the strip tray which will contaminate the test strip. Therefore, it is necessary to wash the strip tray each day when all testing is complete.

1. Turn on the power and wait for the analyser to complete self-check.
2. Remove the strip tray from the tray conveyor.
3. Clean the strip tray using mild detergent and wash the adhered urine off with running water. Use soft fabric to dry the strip tray.
4. Put the strip tray on the tray conveyor.

Chapter 8 Storage and Handling

8.1 Handling

Transport the InSight Urinalysis in the original packaging and avoid moisture, sunlight and damage.

Transportation Conditions: -20°C ~ 55°C, ≤95% RH, 75kPa ~ 106kPa

8.2 Storage

The analyser should be stored in a ventilated room.

Storage Conditions: -20°C ~ 55°C, ≤95% RH, 75kPa ~ 106kPa

Chapter 9 Troubleshooting

Error messages will appear on the display if there is something wrong with the analyser. Please refer to the following table if any error messages appear. If the problem is still not resolved, please contact Woodley Equipment.

⚠CAUTION:

- If an error message appears, clear the error and retest the sample using a new test strip.

Error Code	Possible Cause	Solution
T-1	Test sensor error	• Check whether the strip tray is falling off. • Restart the analyser. • If the problem is still not resolved, contact Woodley Equipment.
T-2	Strip motor error	• Check if the strip tray is installed correctly. • If the problem is still not resolved, contact Woodley Equipment.
T-3	Strip type error	• Confirm that you are using InSight Urinalysis Test Strips. • If the problem is still not resolved, contact Woodley Equipment.
T-4	No strip	• Place a test strip on the strip tray. • If the problem is still not resolved, contact Woodley Equipment.

Chapter 10 Appendix

The analyser test results and the density contrast comparison table.

Item	Semi-Quantitative Symbol and Concentration								
LEU	Semi-Quantitative	-	+-	+1	+2	+3			
	leu/μl (Conv.)	0	15	70	125	500			
	CELL/μl (SI)	0	15	70	125	500			
KET	Semi-Quantitative	-	+-	+1	+2	+3			
	mg/dL (Conv.)	0	5	15	40	80			
	mmol/L (SI)	0	0.5	1.5	4.0	8.0			
URO	Semi-Quantitative	Normal (Norm)		+1	+2	+3			
	mg/dL (Conv.)			2.0	4.0	8.0			
	μmol/L (SI)			33	66	131			
BIL	Semi-Quantitative	-		+1	+2	+3			
	mg/dL (Conv.)	0		0.5	2.0	6.0			
	μmol/L (SI)	0		8.6	33	100			
PRO	Semi-Quantitative	-	+-	+1	+2	+3			
	mg/dL (Conv.)	0	15	30	100	300			
	g/L (SI)	0	0.15	0.3	1.0	3.0			
GLU	Semi-Quantitative	-	+-	+1	+2	+3	+4		
	mg/dL (Conv.)	0	50	100	250	500	1000		
	mmol/L (SI)	0	2.8	5.5	14	28	55		
SG	Semi-Quantitative	1.000	1.010	1.015	1.020	1.030	1.040	1.045	1.050	1.060
BLD	Semi-Quantitative	-	+-	+1	+2	+3			
	mg/dL (Conv.)	0	0.03	0.075	0.24	0.6			
	CELL/μl (SI)	0	10	25	80	200			
pH	Semi-Quantitative	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0
VC	Semi-Quantitative	-	+-	+1	+2	+3			
	mg/dL (Conv.)	0	10	25	50	100			
	mmol/L (SI)	0	0.6	1.4	2.8	5.6			
CR	mg/dL (Conv.)	10	50	100	200	300			
	mmol/L (SI)	0.9	4.4	8.8	17.6	26.4			
Ca	mg/dL (Conv.)	4.0	10	20	30	40			
	mmol/L (SI)	1.0	2.5	5.0	7.5	10			
MA	mg/dL (Conv.)	1.0	3.0	8.0	15.0				
	mmol/L (SI)	10	30	80	150				
ACR (MA/CR)	Semi-Quantitative	Normal (Norm)		+1	+2				
	mg/g (Conv.)	<30		30-300	>300				
	mg/mmol (SI)	<3.4		3.4-33.9	>33.9				
UPC (PRO/CR)	Semi-Quantitative	Normal (Norm)		+1	+2	+3			
	mg/g (Conv.)	<150		150	300	≥500			
	mg/mmol (SI)	<17.0		17.0	33.9	≥56.6			