YD-200 Urine Analyzer

User Manual

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Content

Chapter 1 General Description

YD-200 urine analyzer is a kind of adopt latest optoelectronic technology and microprocessor technology for Clinical urine test; it is user-friendly, and accurate. URS-11A urine strip is dedicated for YD-200. YD-200 can provide 11 items results of quantitative or semi-quantitative for Urobilinogen, Bilirubin, Ketone, Blood, Protein, Micro-albumin ,Nitrite, Leucocytes, Glucose, Specific gravity, pH, Vitamin C.

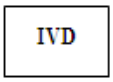
Symbol information: The symbols can be seen on the analyzer and introduction as follows:

Biohazard： Pay attention to the protection and treatment.

Shock hazard: Pay attention to the electric shock risk, avoid touching dangerous charged items.

Danger： Attention Please Refer to their requirement of user manual.

Protective earthing: Protect earthing terminal, must ensure it cont act the grounding.



IVD device

Intended use

It can provide a qualitative or semi-quantitative result of content among the personal urine sample for medical institutions.

Instrument life

Normally, instrument life is 5 years at least, if the daily maintenance does well.

Instrument store

Keep in a cool, dry place.

Chapter 2 Technical Specifications, Structure and Application Range

2.1 Technical Specifications

Testing Principle：the method of high luminous cold light source reflectivity
Monochromatic color: white

Test items:

Glucose	Bilirubn	Ketone	Gravity	Vitamin C	pH	Protein	Urobilinogen	Nitrite	Blood	Leucocytes
GLU	BIL	KET	SG	VC	pH	PRO	URO	NIT	BLD	LEU

Test speed：

Fast mode： 120 specimens/hour

Slow mode: 60 specimens/hour

Data Memory：1,000 patient results

Environment Requirements：Required temperature range is 0℃～40℃

Relative humidity ≤85%

Baud rate：1200,9600,19200,115200bps

Power Supply：AC220V/110V, 50/60Hz

Power：30VA

Net Weight：2Kg

Dimensions：L×W×H :285×237×171mm

2.2 Structure

DY-200 is made up by communication unit, control unit, power system, mechanical unit, display unit, photoelectric scanning unit, keyboard, printer and some other parts.

2.3 Intended use

It can provide a qualitative or semi-quantitative result of content among the personal urine sample for medical institutions.

It must take the dedicated urine strips. Urine strips are validity of consumables. Please pay attention to the whether it is in the period of validity and color of zone is changed. If so, the urine strips cannot be used. Urine strips is not a part of instrument. User are required to read the User's Guide before taking use of the instrument, otherwise the protection of the instrument itself could be broken, the accuracy of result could not be ensured.

Chapter 3 Installation and Functions

3.1 Name of Part（Figure3-1 3-2）

Figure 3-1

Figure 3-2

①LCD Screen：Display reminder, results and so on.
②Keyboard：Realize man-machine dialogue.
③Printer: Micro, low noise, high speed, high-definition Image of thermal internal printer.
④Strip table unit：Place the urine strip.
⑤Serial port: RS-232C outlet with 9-core.
⑥Parallel port: Outlet with 25-core for external-printer.
⑦Power supply wire port: IEC standard three-wire for power plug.
⑧Fuse socket: FUSE.
⑨Power switch:”｜” on,”○” off.

3.2 Running Environment

Environment Requirements as below chart:

Parameters	Running Environment	Store Environment
Temperature	0℃~40℃	0℃~40℃
Relative Humidity	≤85%	≤85%

Barometric Pressure	76-106Kpa	76-106Kpa
Table-board	Please put the instrument on a stable, ventilate, clean and flat table-board and with stable power supply, no strong electromagnetic interference.	

Note：put the instrument on a stable and flat table-board.

3.3 Functions keys

Name	Function
Menu（FN）	Start the pop-up menu.
Print（PRN）	Enabled Printing.
Feed Paper（FP）	Feed paper.
Back（Home）	Once pressed, the cursor will return to the head of the line.
UP（PgUp）	Make the display return to the upper page.
End（End）	Once pressed, the cursor will return to the end of the line.
↑↓→←	Cursor direction.
Down（PgDn）	Go forward to next page.
Esc（ESC）	Stop current option. Exist from current sub-menu, return to upper menu. Under “start menu”, loader goes back to inside of instrument.
Start（START）	Go to the selected sub-menu. Confirm the current correction and start-up function.

3.4 Power on

Connect the power wire, make the power like “｜”this position, display the boot screen, meanwhile each system begin to self-checking process, then the screen display ready for test picture,figure3-3 after self-checking done.

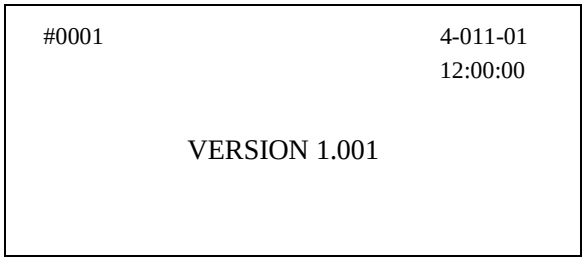


Figure 3-3

3.5 Install printing paper

3.5.1 Press the printer cover (Figure 3.3), printer cover bounce automatically, then open the printer cover, put the new roll of paper into the paper box.
3.5.2 Insert the printing paper to make the paper top to the underside of the rubber roll, press the FP button until the paper top is 3-4cm higher than the interface of instrument.
3.5.3 Unfold the printer paper, make the printer paper top goes through the exit of paper box, remove the printer cover.
Note: thermal surface of the printer paper should forward to the operator while installing paper, normally the external surface the thermal surface.

3.6 Menu Functions

Under the boot screen (Figure 3.3), press menu option (FN), another pop-up men will be displayed, all the settings of testing, related information of hardware will be contained in this page. The contents are as below chart:

First Display	Second Display	Third Display	Function
No. Setting	In put No.:0001		Setting sample No.
Setting Sample	System testing		Standard strip testing
No.QC Liquid	0001		QC testing
	System testing		
Data Recall	Current record		the current testing result Query
	Query the sequence NO.	Input No.：0001	The sequence NO. Query
	Control query Data clear	Clear memory： YES NO	Clear the store data

Test Mode	Fast mode		Fast mode, 120tests/hour
	Slow mode		Slow continuous mode, 60tests/hour
	Slow step mode		Slow mode, 60tests/hour
Set up Menu	Set clock	Set time	Set time, date, date format
		Set date	
		Date format	
	Strip Select	URS-10A URS-11A	Strip select
	Status	Plus on	User can set up the Plus, External printer, Internal printer, PC port.
		External printer off	
		Internal printer on	
		PC port on	
	Languages	Chinese English	Languages set
	Set Output	SI Conventional	Select the unit of the format Plus system
	Baud Rate	1200 9600 19200 115200	Select the rate of the instrument port.

Chapter 4 Set up

4.1 Set Sequence Number

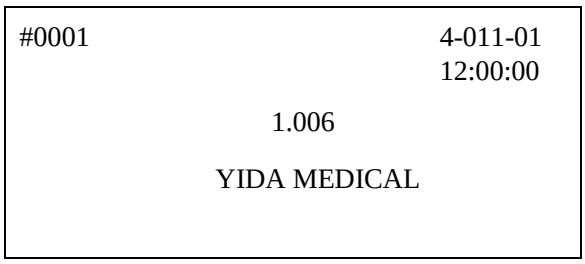


Figure 4-1

In the main screen (Figure 4-1) press the key “Menu”, the screen shows as follows:

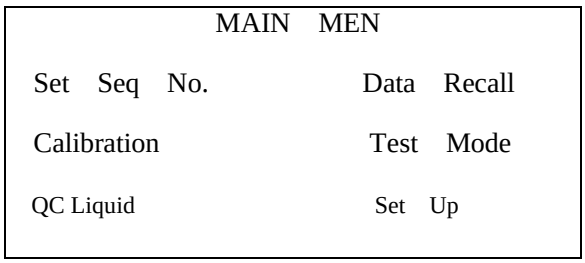


Figure 4-2

Press the key “Menu” return to the main screen (Figure 4-1).

Press the key "▲" and "▼" to move the cursor to the position of "Set Seq. No.", Press the key "START" for confirmation, and enter sequence number setup Submenu. (Figure 4-3).

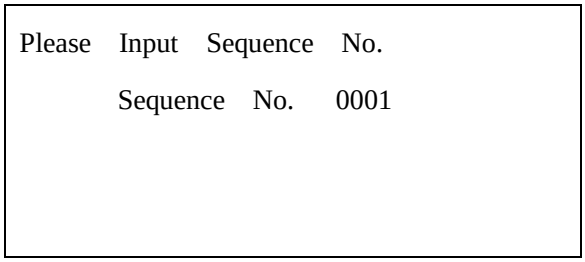


Figure 4-3

The sequence number can be any numerical value between 0001-9999, the sequence number will add 1 automatically after each test.
Cursor will stay at first digit position when the user goes to the submenu of "Set Seq. No." input the numbers by the number key. The cursor will shift to right 1 position when inputting is finished .Setting is finished, press the "START" button to return and vacancies will full filled with"0".
Press the key "Menu" to discard changes and return to the upper menu (Figure 4-2).

4.2 Data recall

In main menu (Figure 4-2), press the key "Data recall" and "Start" to confirm, the screen will show as Figure 4-4:

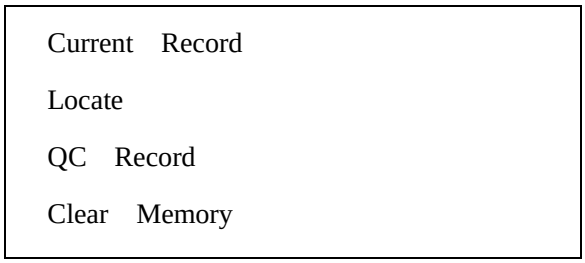


Figure 4-4

User can recall the data by Current record recall and Sequence number Recall.

4.2.1 Current record

Select Current Record and press "Current record recall" and press "START", the screen will show current records. Press the key "DOWN" could turn record page and press the

key “▲”and“▼”to select the corresponding record as Figure 4-4:. Press the key “Print” to print the showed record.

4.2.2 Sequence number Recall

Select the “Sequence number recall” and press the key “start” to confirm, the screen will show as Figure 4-5:

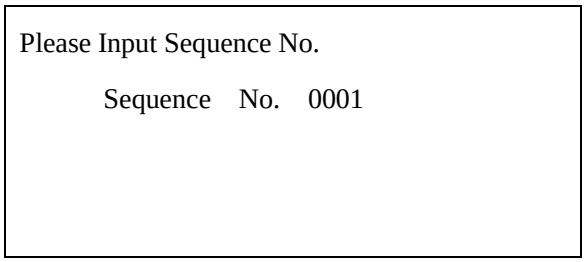


Figure 4-5

The cursor stops at the first number, enter the recall sequence number through the number key. And then, press the key “START” to check the result by the sequence number. If there is record in the instrument, the screen will display the record.
If there is no such record, the screen will display “Record Not Found!’ (Figure 4-6). Press the “back” return to Figure 4-5:

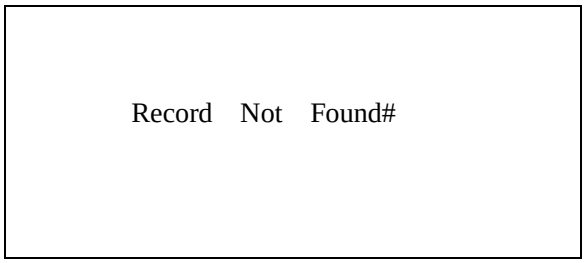


Figure 4-6

4.2.3 Quality Control Record

Analyzer could store 50 pieces QC records. Choose “QC Record” in Figure 4-4 and then press “start” key to confirm. Press the key Line could turn record page and press the key “▲” and “▼” to select the corresponding record. Press the key “Print” to print the showed record. Press “back” to return. If there is no such record, the screen will display “Record Not Found!’

4.2.4 Clear Memory

Select “Clear memory ” in Figure 4-4 , press “start” to confirm, the screen will display as Figure4-7:

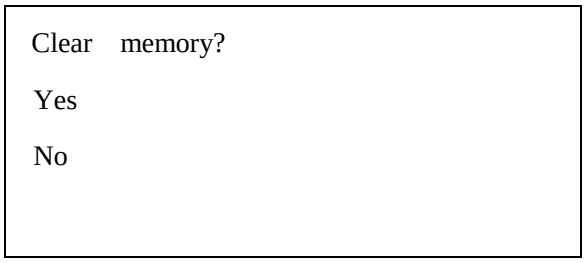


Figure4-7

Select “NO”, store the data, select “Yes”, Clear memory.

4.3 Calibration and QC liquid

“Calibration” and “QC liquid” in Chapter 5 “Testing option”.

4.4 System setting

Select “Set up Menu” in main menu (Figure 4-2), press the key “Start” to confirm, the screen shows as Figure 4-8:

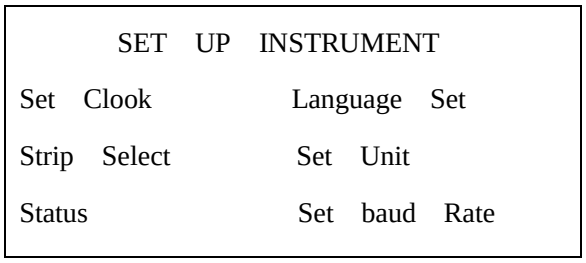


Figure 4-8

Press the key “▲” or “▼” to move the cursor to the item which the operator want to change, press the key “Start” to confirm, the screen will show the corresponding display. Press the key “BACK” to return the upper screen after setup.

4.4.1 Set clock

Select “Set Clock” in the Figure 4-8, press the key “start” to confirm, the screen shows as Figure 4-9:

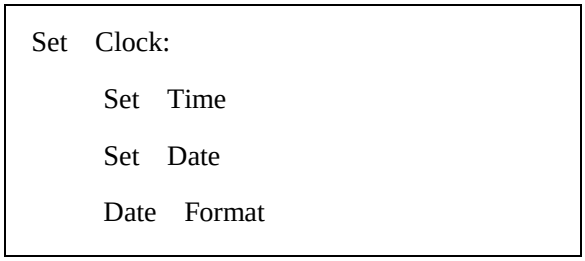


Figure 4-9

- **Set time**

Select “Set Time” in Figure 4-9, press the key “start” to confirm, the screen shows as Figure 4-10:

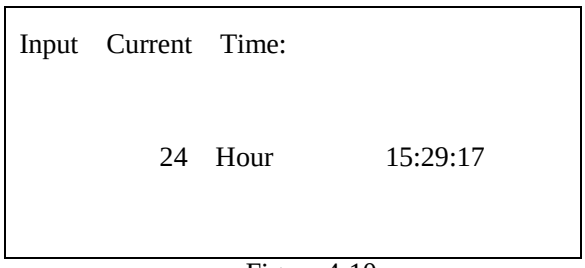


Figure 4-10

The cursor stop at the position of the first number, press the corresponding number key to enter the current time. After each entering, the cursor will move to the number next to its right. After the last number has been entered, the cursor will return to the fist number. After operation, press the key “Start” to confirm and press “Back” return to the upper menu（Figure4-9）.

If the number entered is less than 10, add “0” to its front.

- **Set Data**

Select “Set date” in Figure 4-9, press the key “Start” to confirm, the screen shows as Figure 4-11:

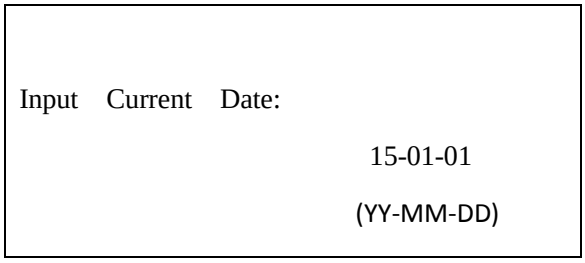


Figure 4-11

The cursor stop at the position of the first number（as Figure shows “YY/MM/DD”）, user can input the corresponding number by number key, press back to discharge changes and return to upper menu. After each entering, the cursor will move to the number next to its right. After the last number has been entered, the cursor will return to

the fist number. After operation, press the key “Start” to confirm and return to the upper menu.

If the number entered is 1 digit, add “0” to its front.

Note: YY/MM/DD-year/month/date、MM/DD/YY-month/date/year、DD/MM/YY-date/month/year.

- **Data Format**

Select “Date Format” in Figure4-9, press the key “start” to confirm, the screen shows as Figure 4-12:

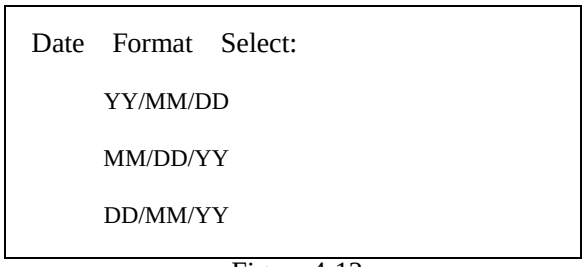


Figure 4-12

Press the key “▲” or “▼” to select the format.

Press the key “start” to confirm and return to the upper menu.

Press the key “back” to discard changes and return to the upper menu.

4.4.2 Strip Select

Select “Strip Select” in Figure 4-8, press the key “start” to confirm, the screen shows as Figure 4-13:

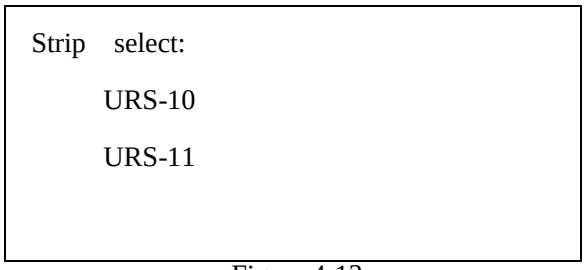


Figure 4-13

YD-200 Urine Analyzer can select 10-items and 11-items urinalysis strips. Other strips could not be used.

Note: Intended urine strips for YD-200 are YD URS-10A、URS-11A. To ensure the correct results, please do not use other urine strips.

4.4.3 Set Status

Select “Status” in Figure4-8, press the key “start” to confirm, the screen shows as Figure4-14:

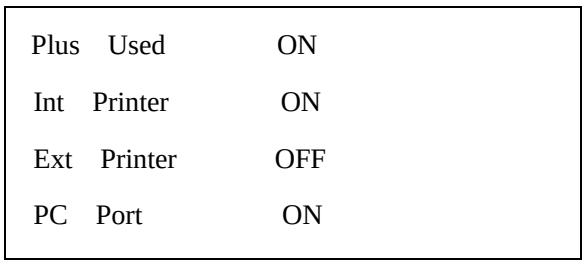
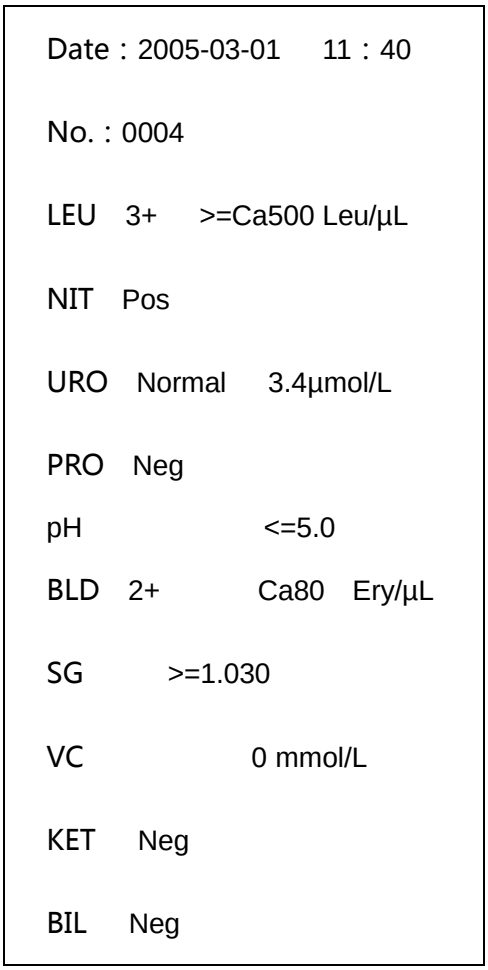
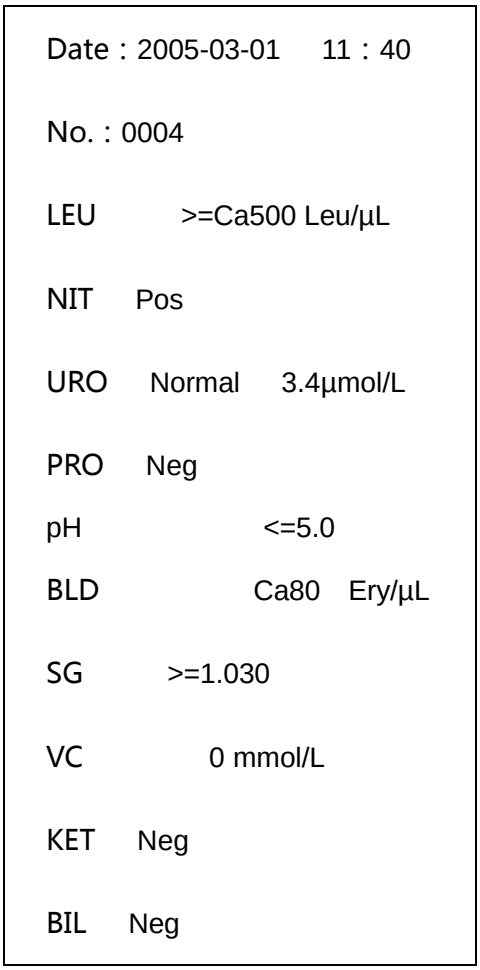


Figure4-14

In this menu, the operator can change the status of “Plus Used”, “Int Printer”, “Ext Printer”, “PC Port”.

Plus Used: When the “plus Used” is “ON”, the test result will print the “+” together with the relative test value under the current unit select (Figure 4-15). When the plus system is “OFF”, the “+” will not print out (Figure 4-16).





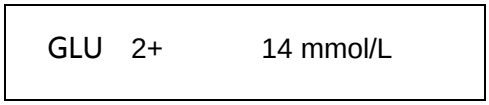


Figure 4-15

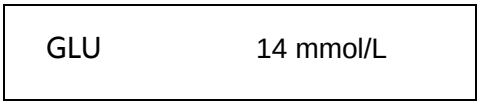


Figure 4-16

- **Internal Print:** When "Int. printer" is "ON", the internal printer will print the result, otherwise it will not print.

- **External Print:** When "Ext. printer" is "ON", the external printer will print the result, otherwise it will not print.

- **Computer Interface:** when "PC Port" is "ON", analyzer can transmit data to computer; otherwise it could not.

4.4.4 Set Language

In Figure 4-8, select the "Language Set", press the key "Start" to confirm, the screen will show as Figure 4-17:

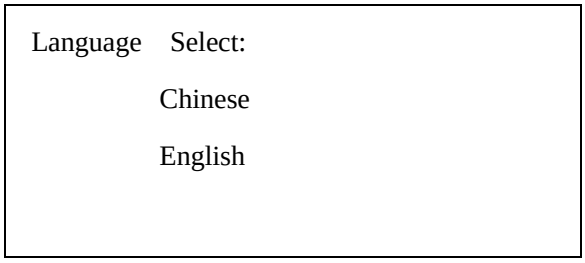


Figure 4-17

Press the key "▲" and "▼" to select language, press the key "start" to confirm and return the upper menu.

4.4.5 Data Output Unit

In Figure 4-8, choose "Data Output Unit", press "Start" the screen will show the option one by one as Figure 4-18:

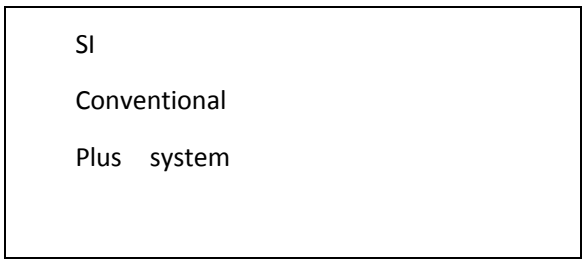


Figure 4-18

Press the key "▲" and "▼" to select language, press the key "start" to confirm and return the upper menu.

4.4.6 Baud rate select

In Figure 4-8, select “Baud Rate Select” and press the key “start”, the screen will show as Figure 4-19:

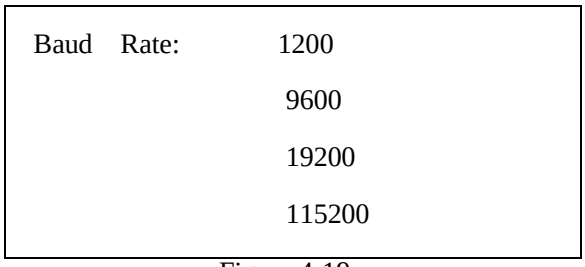


Figure 4-19

Baud Rate: It is used to set up the transmission speed of urine analyzer. In Figure 4-19, press the key “▲” and “▼” to select Baud Rate, press the key “start” to confirm and return the upper menu.

4.5 Test mode

In Figure 4-2, choose “test mode”, press “start” the screen will show as Figure 4-20:

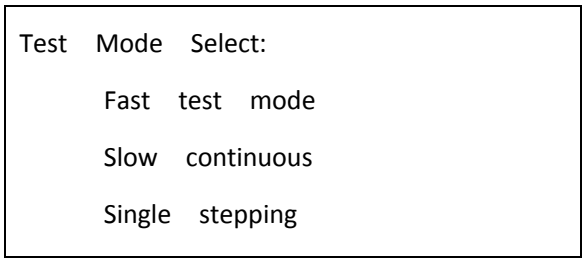


Figure 4-20

Fast mode: in Figure 4-20, press the key “▲” and “▼” to select test mode, press the key “Start” to confirm and return the upper menu as Figure 4-2 .

Under fast mode, put the next strip on the table without pressing other key after testing one strip. The fast mode is suitable for the continuous test of large quantity of urine samples; the test rate for each strip is 30 seconds.

Under slow continuous mode, put the next strip on the table without pressing other key after testing one strip. The test rate for each strip is 60 seconds.

Under slow mode: the instrument will stop after complete one test. Press the key “Start” if the next test is conducted. The slow mode is suitable for the non-continuous test; the test rate for each strip is 60 seconds.

Chapter 5 Testing options

5.1 Strip Select

Selected urine strip is URS-11 for YD-200 urine analyzer factory default. （Figure 5-1）.

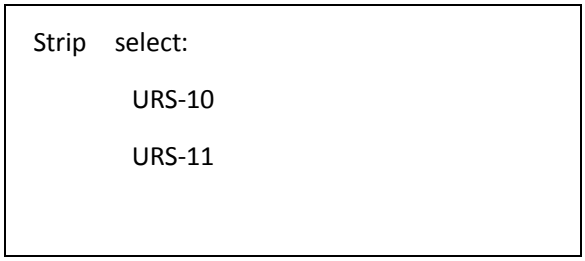


Figure 5-1

5.2 Test Mode

YD-200 support three test mode, they are “Fast mode” slow continuous test mode, slow test mode.

5.2.1 Slow Continuous Test：

There is non-overlap of testing time between neighbor samples, test runs one by one, each test could be conducted after press “START”. The slow mode is suitable for the non-continuous test; the test speed can reach up to 60 samples per hour.

5.2.2 Fast Continuous Test Mode:

The reaction time is controlled by software; there is overlap testing time between neighbor samples, in order to enhance the test rate. User should follow the indicator of the analyzer to dip the sample, drain off, put the urine strip and some other operations. Test speed of fast continuous test mode is fast, suitable for ward, physical examination which have an amount of being tested samples. Continuous test mode contains fast test mode and slow test mode, their test speeds are 120tests/hour and 60tests/hour.

5.3 Output Unit

Refer to 4.4.5 “Data output unit” instruction to set up the unit; factory default is international system unit.

Chapter 6 Worktable（Switch-off）

Suggest the user power off the analyzer follow the process as below：

6.1 Under the prepared pic as figure 4-1, press the key “back” to make the

worktable move to the inside of analyzer.

6.2 Make the power to this position"○", and cut off the power.

Note: Instrument adopts automatic reclaim-worktable technology, if there is no any operation with the analyzer the worktable will reclaim automatically. Then shut off.

Chapter 7 Test method

7.1 Conventional Urine Analysis

Warning

● Urine sample may have potential infectivity; please wear protective gloves when testing, cleaning, or doing maintenance to the instrument.

● Please dispose the urine sample and the abandoned strip according to the local lab regulation.

This chapter introduces the method that the urine analyzer conducts the conventional urine analysis. Before the test, please carefully read the "Chapter 4 Functions and Setup of the YD-200 Urine Analyzer".

● When the instrument did not pass the self-testing, the screen displays the error information code.

● Do not place the instrument in the place where there is direct projection of the sunshine.

● Please check the type of the strip before test, in order to avoid the mistaken test result caused by the mistaken strip type.

● Do not use the strip which has passed the expiration date or deterioration.

7.1.1 Checkup the Strip Table

Make sure the strip table and the white benchmark is clean and without any foreign matter. The test slot, collect slot and the white benchmark can be cleaned according to the relative content in the "Chapter 9 Cleaning and Maintenance".

7.1.2 Startup the Instrument

After the instrument is installed, turn on the power switch, the system is conducting self-testing. The screen display as follows (Figure 7-1) and the strip table moves out.

Figure 7-1

After the calibrating, the screen displays as followed:（Figure 7-2）:

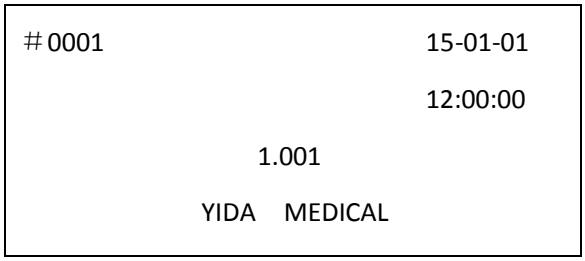


Figure 7-2

7.1.3 Operation Method

The test includes the fast test mode, the slow mode test and the slow continuous test mode.

:The fast test mode

The test can be conducted continuously, the test rate for each strip is 30 seconds (the first strip is 60 seconds), and the operation methods are as follows:

(1) Press the key “Start” around 2 seconds in main screen, the instrument make a tone for dipping the strip into the urine sample. On hearing the warning tone, dip the reagent area of the strip into the urine sample which is fresh, fully mixed and not centrifugal, then place the strip on the center of the strip table, and push it forward until the strip touch the end of the strip table (this one is marked as the first strip).

(2) On hearing next warning tone, dip another strip into the urine sample, and then move out the strip quickly and put it on the absorbent paper to wait to be tested (this one is marked as the second strip).

(3) On hearing the warning tone for the third time, the fist strip has been tested and their test results is printed out, the strip table moves out, dip another strip and put it on the absorbent paper, removes the first strip from the strip table and put the second strip

on the table to conduct test.

(4) When hearing the warning tone, repeat the operation in (3).

If want to stop the test, please take the following measures:

Press the key "Enter" before the strip table come out.
Remove the strip from the strip table.

Slow test mode

The test rate for each strip is 60 seconds, the operation methods are as follows:

Under the main screen, press the key "Start", on hearing the warning tone, dip the strip into the urine sample and put it on the strip table according to the procedure in slow mode, wait for 40 seconds, the instrument start testing. After the test complete, print out the test result, the strip table moves out and screen display the main interface, press START to test the next sample.

Slow continuous test mode

The test rate for each strip is 60 seconds, the operation methods are as follows:

First step:

Under the main screen, press the key "Start", on hearing the warning tone, dip the strip into the urine sample and put it on the strip table, wait for 40 seconds, the instrument start testing. After the test complete, print out the test result, the strip table moves out.

Second step:

On hearing the warning tone at second time, dip the second strip into the next urine sample and put it on the strip table, wait for 40 seconds, the instrument start testing. After the test complete, print out the test result, the strip table moves out.

Third step:

On hearing the warning tone later, repeat the Second step to operate.

The tested strip must be placed in the right place before the strip table moves.

If no strip is placed on the testing slot, the instrument will automatically stop testing. The display will show information as in the following picture（ Figure 7-3）.
The strip table moves out. Touch the key "Start" to continue the test.

Figure 7-3

·During the test process, the keyboard is ineffective, press any key will get no response.

·During the test process, do not hit the strip table.

7.2 Quality Control Monitoring

7.2.1 Calibration Strip Test

·Do not dip the calibration strip into water or any other liquid when testing.

·In the process of test, make sure the calibration strip do not deviate the test position.

·There is one calibration strips accompany with the instrument.

·If the calibration strip has besmirched or damaged, please contact with the supplier, do not continue to use this calibration strip to test the urine analyzer.

In order to make sure to get correct test result, it is recommended to test the urine analyzer by the calibration strip every one or two weeks.

Test Method:

Select “Calibration” in Figure 4-2, put the calibration strip on the center of the strip table, and push it forward until the strip touch the end of the strip table, press the key “start” the urine analyzer will conduct the test. Screen will show as follows (Figure 7-4):

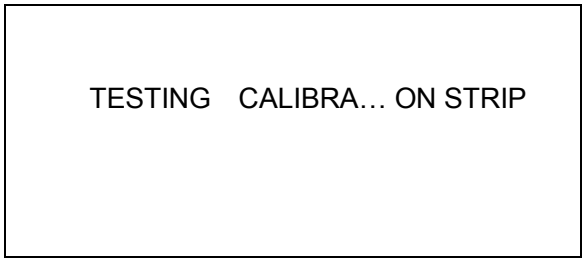


Figure 7-4

If the urine analyzer has passed the test, the test result is “Calibration OK” ,

otherwise the result is "Calibration Not OK".

7.2.2 Quality Control Liquid Test

In order to make sure the correctness of the test result, the positive and negative quality control liquor should be often used to test the urine analyzer and the reagent strip.
The quality control monitoring might be conducted under the following conditions:

(1) At the time before daily test.
(2) At the time when replace another tube of strips.
(3) At the time when the operator is changed.
(4) At the time when there is query in the test result.

Test Method:
In the main menu (Figure 4-2), select "QC liquid", put the strip that dipped by QC on the strip table and press "START" as follows (Figure 7-5):

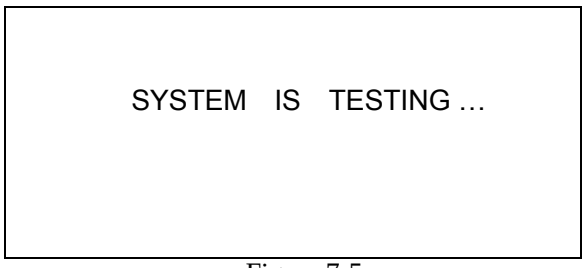


Figure 7-5

After the testing, the QC result will be displayed. Refer to the QC result in the manual.

Chapter 8 Record Query

The instrument can store 1000 pieces of records; each record includes data as time, sequence number, test result and so on. After each test, the instrument stores the test result automatically. If the storage records exceed 1000, the instrument will display "Memory full, please clear the records!" , Test could not be conducted if the records are not cleared.
According to the chapter 4.2 Data recall includes Current record recall and Sequence number Recall.

Chapter 9 Maintenance

9.1 Routine maintenance and attentions

1.1 The product should avoid direct sun light when it is running, avoid to effect the

accuracy of test .

1.2 The front of table which move out could not put anything, avoid to clash , due to test could not runs normally.

1.3 The instrument can be wiped by soft dry cloth, if the surface of the instrument is dirty, wipe it with the water. Do not use any organic solvent such as petrol, thinner lacquer, benzene compounds which may erode the analyzer to wipe it.

1.4 Do not clean the LCD with water, LCD can be wiped by soft and no abrasion cloth or paper.

Note：Do not operate under high-temperature environment, because of the characteristics of the test paper, avoid to effect the accuracy of result .（suitable temperature is 10－30℃）.

9.2 Worktable cleaning

Daily Cleaning method of Worktable：

When the screen displays the main interface (figure 3.3) and the worktable move out maximally, worktable can be wiped by soft cloth with distilled water or soft absorbent paper.

Note：Do not use anything to swipe which can destroy the instrument. If there is some Urine alkali on the worktable, wipe them thoroughly by the cotton bar dipped with 0.1 mol/L NaOH solution. Clean the residual NaOH solution by absorbent paper.

Chapter 10 Malfunction Information List

No.	Trouble State	Cause of the trouble	Solutions
1	Nothing was shown on the screen.	Power supply does not switch on. CPU trouble.	(1) Check if the power supply works. (2) If method 1 cannot solve the problem, please contact with supplier.
2	Strips table moving Trouble.	Engine moving suffocated.	(1) Check if there is fraise in front of strip table. (2) Check if there is fraise in mechanical part. (3) Press “Start” to retest.
3	Clock trouble.	Clock chip trouble or no electricity of the battery.	Change a new clock chip and battery.

4	Screen shows "No strip".	No strip in the strip table.	(1) Place reagent strip. (2) Press "Start" to retest.
5	Screen shows "Strip mistake".	(1) Strip placing Incorrect. (2) Strip does not dip sample totally.	(1) Take out some new strips and place in the right position. (2) Immerge strips into sample totally (3) Press "Start" to retest.
6	White benchmark Trouble.	White benchmark dirty.	(1) Wipe the white benchmark. (2) Restart the analyzer to self-testing. (3) If methods 1 and 2 do not work, contact with supplier.
7	Ambient light abnormal.	Analyzer is exposed in sunlight.	(1) Keep the analyzer away from direct sunlight. (2) Restart the analyzer.
8	Printing paper missing.	No printing paper Installed.	Set a roll of printing paper.
9	Test result of the calibration strip is "Calibration Not OK".	White benchmark dirty. LED aging. Calibration strip dirty.	(1) Wipe white benchmark. (2) Replace strip table. (3) Replace calibration strip.
10	Memory is full.	Memory has reached 1000 pieces.	Clear the memory
11	101	Luminotron Malfunction.	Please contact with supplier.

Appendix A Output Value of YD-200 Urine Analyzer

Item	Plus system unit	International unit
Leucocytes （LEU）	- ± 1+ 2+ 3+	Neg 15 cells/μL 70 cells/μL 125 cells/μL 500 cells/μL
Nitrite （NIT）	- +	Neg Pos
Urobilinogen （URO）	normal 1+ 2+ >=3+	3.3 μ mol/L 33 μ mol/L 66 μ mol/L 131 μ mol/L
Protein （PRO）	- ± 1+ 2+ >=3+	Neg 0.15 g/L 0.3 g/L 1.0 g/L 3.0 g/L
PH	5.0 6.0 6.5 7.0 7.5 8.0 8.5 9.0	5.0 6.0 65 7.0 7.5 8.0 8.5 9.0
Blood （BLD）	- ± 1+ 2+ 3+	Neg 10 cells/μL 25 cells/μL 50 cells/μL 250 cells/μL
Specific Gravity （SG）	<=1.005 1.010 1.015 1.020 1.025 >=1.030	<=1.005 1.010 1.015 1.020 1.025 >=1.030
VC （VC）	- ± 1+ 2+ 3+	0 mmol/L 0.6 mmol/L 1.4 mmol/L 2.8 mmol/L 5.6 mmol/L

Item	Plus system unit	International unit
Ketone （KET）	-	Neg
	±	0.5 mmol/L
	1+	1.5 mmol/L
	2+	4.0 mmol/L
	3+	8.0 mmol/L
Bilirubin （BIL）	-	0 μ mol/L
	1+	17 μ mol/L
	2+	50 μ mol/L
	3+	100 μ mol/L
Glucose （GLU）	-	0 mmol/L
	±	2.8 mmol/L
	1+	5.5 mmol/L
	2+	14 mmol/L
	3+	28 mmol/L

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