

**ZX-BS Automatic Closed
Cup Flash Point Tester**



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Thank you for choosing our closed cup flash point automatic determination instrument (the machine with electric ignition mode). before using the instrument, please carefully read the instructions for use.

1. Summary

ZX-BS Closed automatic flash point Tester is mainly used for determination of petroleum products closed cup flash point value, the instrument adopts the ARM microprocessor technology, color LCD, resistive touch screen technology, English menu, human-computer interaction, with power failure memory function; automatic ignition, display, and print results, automatic cooling function lock; accurate measurement, good repeatability, stable and reliable performance, simple operation. Widely used in electric power, petroleum, chemical industry, commodity inspection, research and other departments.

2. Technical parameters

Display device	color LCD display
Operation mode	touch screen
Measurement range	40~350℃
Temperature test	platinum resistor
Repeat	> 110 +/-2℃, <110 +/-1℃
Ignition mode	electric ignition
Information storage	1000 analysis results
Cooling method	forced air cooling
Printer	thermal printer
Standards	ASTM D93
Power supply	220V +/-50Hz, 11V +/- 2.5HZ
Power	less than 350VA
Using environmental temperature	10 ~35℃, humidity≤ 85%

3. Working principle

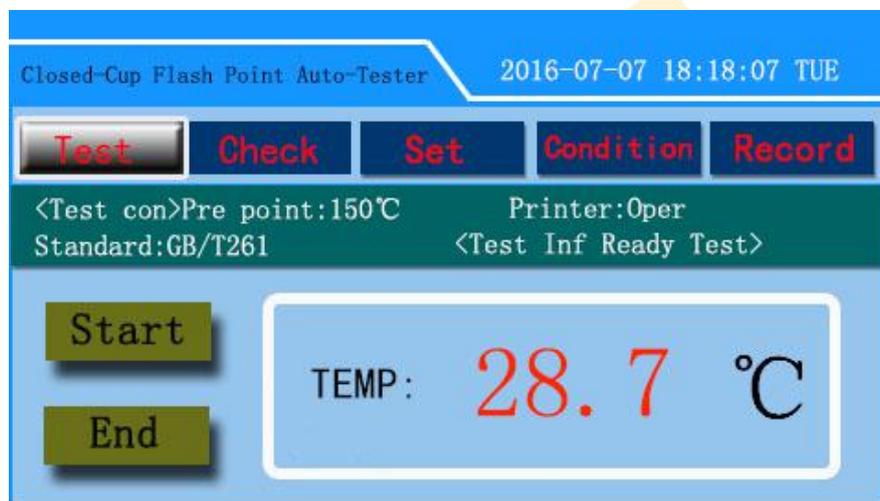
This Instrument heating Follows ASTM D93, GB/T261-2008 provided temperature rise curve, auto ignition, data locking, displaying results and cooling after the temperature approach the flash point.

4. Using method

4.1 Test operation

4.1.1 Turns Power on, the instrument test arm automatic lifts, and there is a prompt voice, instrument name and version number will display on the screen.

4.1.2 click on the screen at any position to display test interface:



Click "start", the test arm falls off, start testing; click "end", stop testing, test arm up. "Conditions" display setting of test conditions, including expected flash point, printer switch settings, test in the application of the standard. The process information of the test information is displayed on the test information.

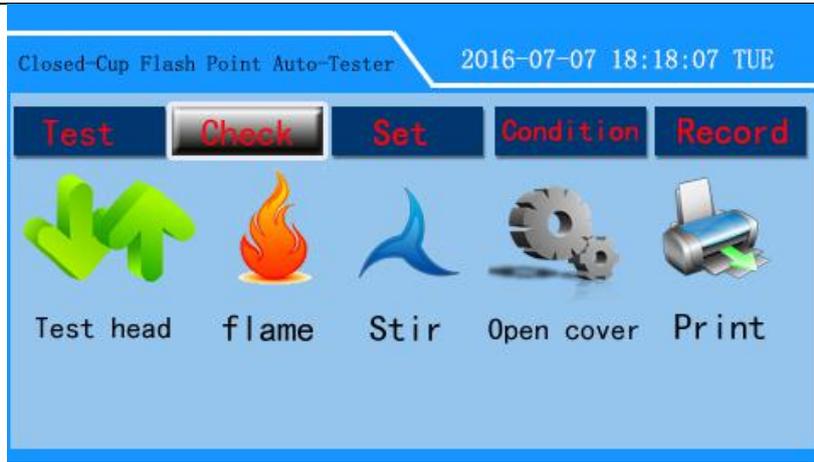
In the test interface, click "check", "set", "condition", "record" and so on, can enter the corresponding function interface.

4.2 Check interface

The interface can perform the self check operation of the instrument.

Click the "test head", and the test arm assembly is raised. Click "flame", and light the fire. Click "stir", start stirring again, close the stir again. Click "open cover", start running and the cover is open, then return to original position. Click "print" to start printer check, the printer will print the test results (not the real test results), to verify that the printer is working correctly.

In the process of the implementation of each component, the corresponding operation information is displayed in the lower part.

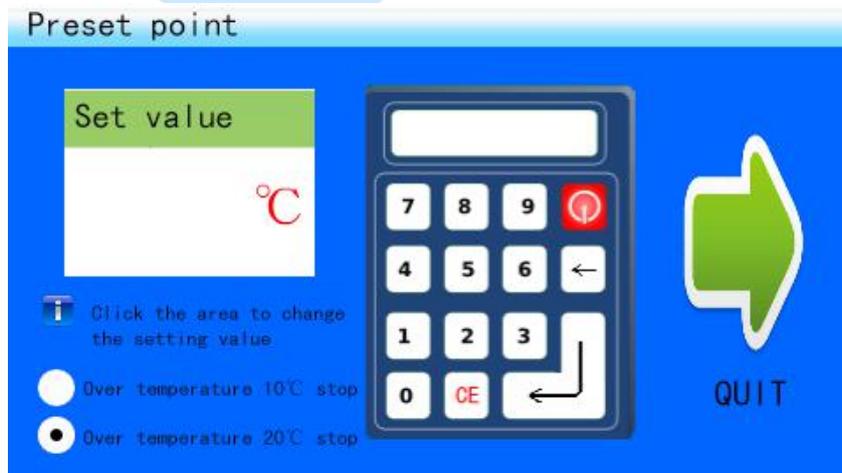


4.3 Set interface



The interface can set expected flash point and the atmospheric pressure value: click "Expected flash" or "Atmosphere(kPa)" corresponding "change" into the expected flash point or pressure setting interface:

4.3.1 Expected flash point setting



The interface, click "set value" region, keyboard expected flash point set value input box will show cursor, digital input and and confirm input by touch enter. To delete a

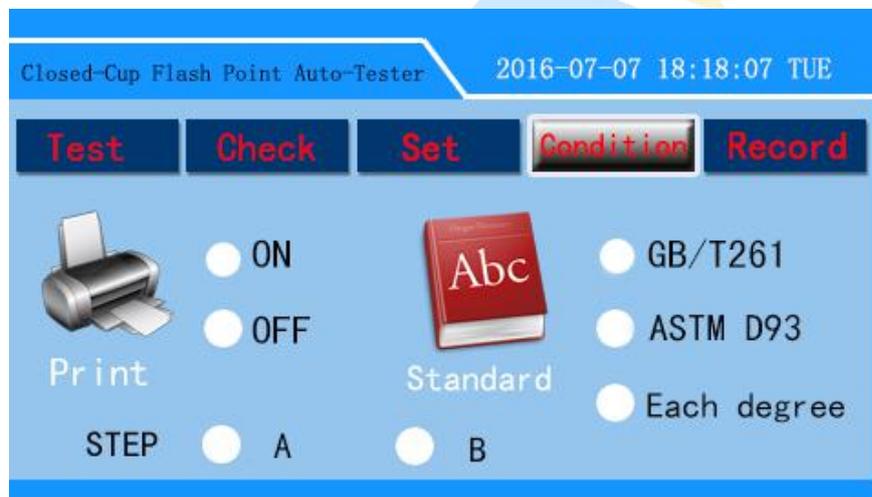
digital input, you can click "←". Click upper right corner "X" to exit expected flash point setting interface.

Bottom left "over temperature 10 °C stop" or "over temperature 20 °C stop" is used to decide test condition, if conforms to the national standard method (over temperature 10 °C terminate the test) or non national standard method (more than set temperature 20 °C to terminate the test)

4.3.2 Atmospheric pressure setting

The different atmospheric pressure of the test region will lead to different closed cup flash point value of the test specimens. To get the accurate value under standard atmospheric conditions, we need accurate pressure value for setting.

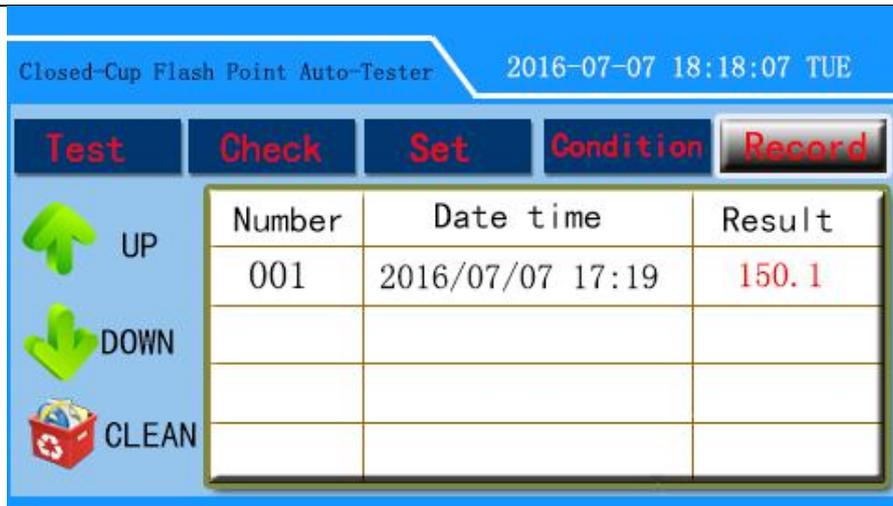
4.4 Conditional interface



The interface is used to set the printer's opening, closing and testing standard, when set to "every degree", after the start of the test sample when temperature rise about 5 °C , the cover will open and ignite every time temperature increase 1 °C to test whether there is flash fire, it is applicable when the flash point of the specimen is not known.

Click on the appropriate area to set the conditions of the printer or the application of the standard, test procedures, etc..

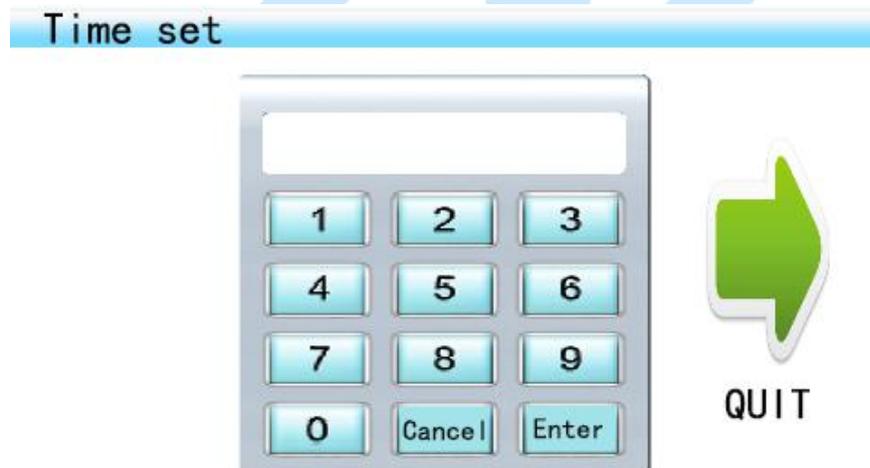
4.5 Record interface



The interface displays the test sample test record. "up", "down" button to page up or down the query, "clean" button to empty all the data records. When click "clean" there will pop out confirmation window to avoid misoperation

4.6 Time set interface

In the interface of real time display, click the time display area to enter the time setting interface:



To adjust the date, time, click interface above the time display area, the keyboard input to revise time display (year, month, days, hour, minute, seconds position to use "?" to substitute, just follow the sequence. After input click Enter button to complete the change. If you quit, please click Cancel".

4.7 Sample testing

4.7.1 use either petroleum or gasoline to clean the sample cup, pour sample into the sample cup till calibration mark, then put the sample cup in the apparatus heating area. At the test interface, click "start", the test head automatically falls,

the instrument begins heat up test. When test out flash point, the instrument will automatically rise the test head, display and print the value of flash point. If you need to end the test during the test, click "end".

4.7.2 when the sample preset temperature is too low or the sample temperature is too high the test will automatically cut out, there pops out "Expected flash point set value is too low" or "sample temperature too high". Sample test range is 20 °C ahead of preset value and 18 °C behind the preset temperature.

4.7.3 when the sample temperature exceeds preset temperature 20 °C without flash, the instrument will automatically terminate the test.

5. Note

5.1 Notes during the test

5.1.1, the instrument for ignition device, operated under the hood (not open fan).

5.1.2, the temperature sensor made of glass, and other items do not collide with.

5.1.3, every time for the sample must be clean, sample cup, the sample heating point, do not have other items into, or will not be able to test.

5.1.4, the test of the first part of the mechanical automatic transmission, do not use hand force action, otherwise it will cause mechanical damage.

5.1.5, when the instrument fails to work properly, should first check the signal line is good, and then the instrument's self check function to check, if there is a problem please contact us, do not self demolition repair.

5.2 Maintenance

5.2.1, the sensor part of the instrument is easy to attach grease, it will affect the accuracy of detection, so always use gasoline or petroleum ether to clean the sensor, cleaning should be very gentle and carefully.

5.2.2, Don't use corrosive cleaning agents to clean, to avoid damage to the paint surface. When there is no use for long time, put the sample cups into in the heating oven, under "check" column, select "test head" then confirm to make the dead down.

Packing list

Instrument name: **Closed-Cup Flash Point Auto-Tester**

NO.	Accessory name	Number	Unit	Remarks
1	Sample cup	1	Pcs	
2	AC power line	1	Pcs	220V
3	Printing paper	1	Roll	Thermal
4	An instruction manual	1	Copy	
5	Inspection Report	1	Copy	
6	Warranty card	1	Copy	

*After receipt please check the packing box carefully, If there is any discrepancy, please contact the manufacturer immediately.