

Dear Client,

Thank you for purchasing our UHV-665 Automatic Acid Value Tester. Please read the manual in detail prior to first use, which will help you use the equipment skillfully.



Our aim is to improve and perfect the company's products continually, so there may be slight differences between your purchase equipment and its instruction manual. You can find the changes in the appendix. Sorry for the inconvenience. If you have further questions, welcome to contact with our service department.



The input/output terminals and the test column may bring voltage, when you plug/draw the test wire or power outlet, they will cause electric spark. PLEASE CAUTION  
RISK OF ELECTRICAL SHOCK!

## **SERIOUS COMMITMENT**

All products of our company carry one year limited warranty from the date of shipment. If any such product proves defective during this warranty period we will maintain it for free. Meanwhile we implement lifetime service. Except otherwise agreed by contract.

## **SAFETY REQUIREMENTS**

Please read the following safety precautions carefully to avoid body injury and prevent the product or other relevant subassembly to damage. In order to avoid possible danger, this product can only be used within the prescribed scope.

*Only qualified technician can carry out maintenance or repair work.*

--To avoid fire and personal injury:

### **Use Proper Power Cord**

Only use the power wire supplied by the product or meet the specification of this produce.

### **Connect and Disconnect Correctly**

When the test wire is connected to the live terminal, please do not connect or disconnect the test wire.

### **Grounding**

The product is grounded through the power wire; besides, the ground pole of the shell must be grounded. To prevent electric shock, the grounding conductor must be connected to the ground.

Make sure the product has been grounded correctly before connecting with the input/output port.

### **Pay Attention to the Ratings of All Terminals**

To prevent the fire hazard or electric shock, please be care of all ratings and labels/marks of this product. Before connecting, please read the instruction manual to acquire information about the ratings.

### **Do Not Operate without Covers**

Do not operate this product when covers or panels removed.

### **Use Proper Fuse**

Only use the fuse with type and rating specified for the product.

### **Avoid Touching Bare Circuit and Charged Metal**

Do not touch the bare connection points and parts of energized equipment.

### **Do Not Operate with Suspicious Failures**

If you encounter operating failure, do not continue. Please contact with our maintenance staff.

### **Do Not Operate in Wet/Damp Conditions.**

### **Do Not Operate in Explosive Atmospheres.**

### **Ensure Product Surfaces Clean and Dry**

## —**Security Terms**

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Warning: indicates that death or severe personal injury may result if proper precautions are not taken

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Caution: indicates that property damage may result if proper precautions are not taken.

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Thank you for choosing Automatic Acid Value Tester. Please read the operation manual carefully before using it.

## 1. Summarization

Automatic Acid Value Tester is designed as the special instrument for laboratories. It has features such as small volume, light weight, high precision, easy operation and environment friendly etc. It adopts high performance micro processor and HDD technology. It can test different samples simultaneously, automatically rotate the sample cup, automatically titrate the sample, automatically stop testing and automatically print the testing result. In the meantime, it avoids the direct contact between the operator and the chemical reagent. It is widely used in the laboratories of army, electricity and petroleum sectors.

## 2. Technical specification

- Monitor screen:
- Precision: Acid between 0.001—0.1mgKOH/g 0.01mgKOH/g  
Acid between 0.1—0.5mgKOH/g 0.03mgKOH/g  
Acid between 0.5—1.0mgKOH/g 0.07mgKOH/g
- Resolution: 0.001mgKOH/g
- Testing scope: 0.001—1.000mgKOH/g
- Testing method: Neutralization
- Number of testing sample: 6
- Power supply: AC220V  $\pm$  10% 50Hz
- Environment temperature: -20°C—50°C
- Environment humidity:  $\leq$  75%
- Dimension: LxBxH 440 x280 x 200mm
- Printer: Thermal printer (40 lines)
- Power: 60W

·Weight: 10KG

### 3.Main Features

(1 ) High electromagnetic compatibility (EMC)

The instrument is anti-jamming of the fluctuation of power line and environment electromagnetism. It is suitable to the standard of IEC801.

(2) Easy operation

It adopts menu operation method of computer, which is clear and familiar. 3-cup structure is convenient and swift.

(3) Safe and reliable

The reagent is put in the special bottle and is not contacted with air during the testing, avoiding the influence of the reaction between CORRECT and carbon dioxide. The operator does not contact with the reagent by hand, avoiding the harm to human body caused by the reagent and chemicals at the maximum degree.

### 4.Operation Instruction

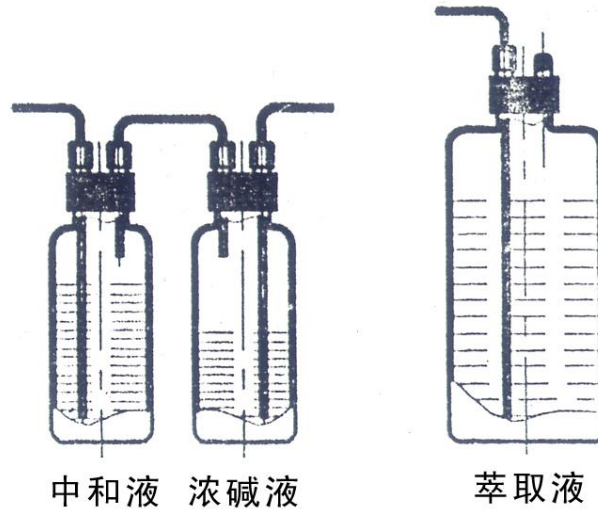
(1) The instrument is put on a stable working table.

(2) Press the CORRECT pump clip and the soft tube into CORRECT pump.

(3) Press the titration pump clip and the soft tube into titration pump. Make sure that the position button of the clips should be in the line of the red reticle.

(4) Take out the titration solution, the stainless tube and the extract liquid. Add strong liquor into the aspirator bottle. Insert the stainless tube into the titration solution and the strong liquor separately. Replace the tube lid and the perfusion tube of extract liquid attached with the instrument. Screw the lid tightly (as chart 2). Check and make sure that there is airtight seal of each interface.

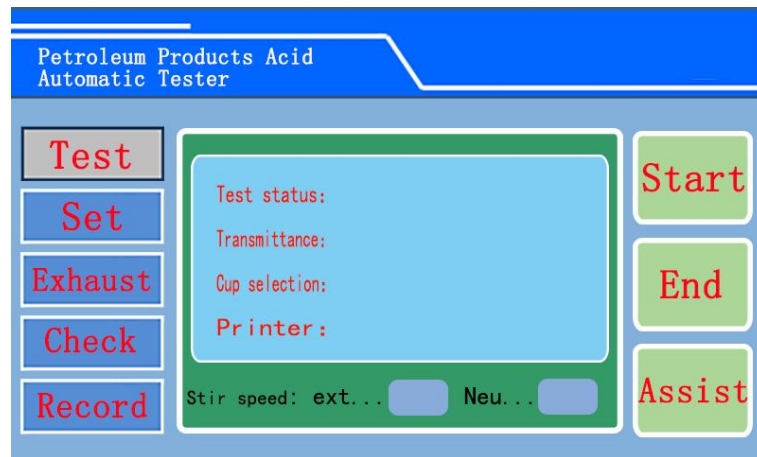
中和液 CORRECT  
浓碱液 strong liquor  
萃取液 extract liquid



- (5) Connect single-phase AC power with power socket. (Remark : The power socket should have ground wire and be well connected to the ground.)
- (6) Take a certain amount of testing sample. Put the sample cup into the instrument.
- (7) Put a stirrer into the testing sample.
- (8) Switch on the power. The monitor displays :

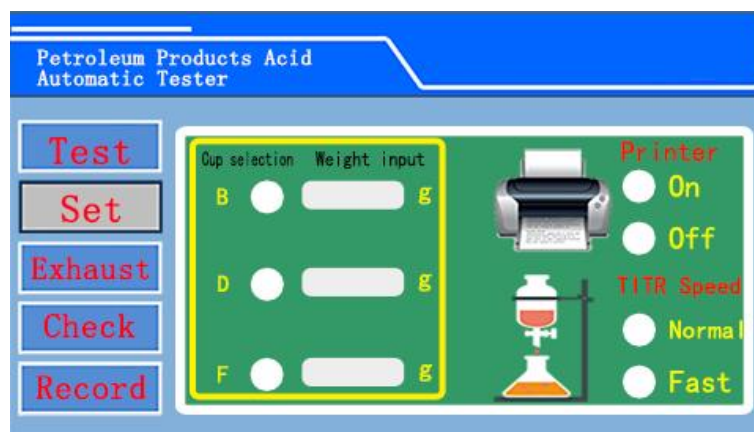


1) Test interface:



- a. If the light transmittance is displayed as 0 during the neutralization process, please reduce the sample amount for testing;
- b. The stirring speed during extraction can be adjusted according to the viscosity of the sample during the test;
- c. It is not easy to adjust the stirring speed too fast during neutralization. Do not block the detection light source with the stirring rotary socket, otherwise it will affect the test results.

2) Set interface :

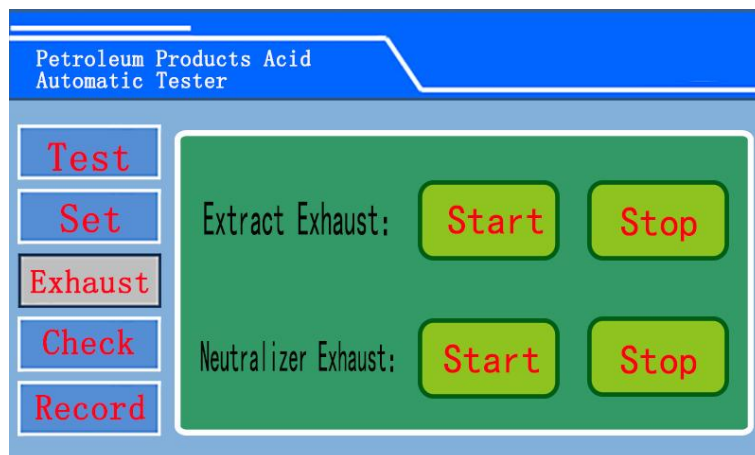


This interface can select the corresponding test cup position; input the corresponding sample weight; the printer switch status selection; the titration speed selection (when the acid value is large, the fast titration can



be selected).

### 3) Exhaust interface:



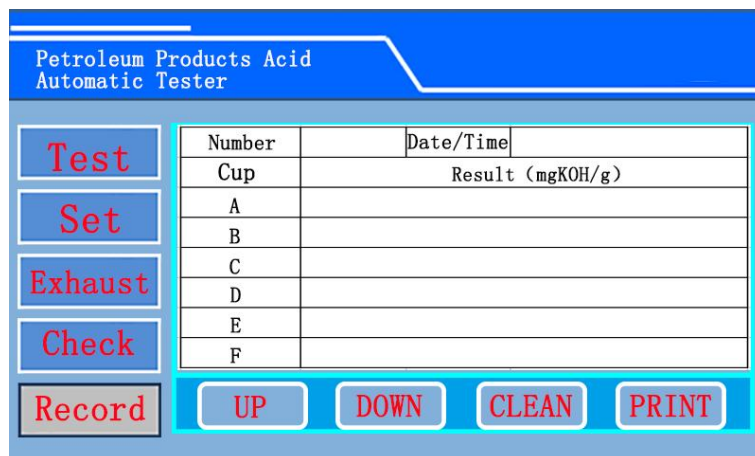
Before the test, it must be ensured that there are no bubbles in the two liquid pipes. If there are bubbles, this function can be used to exhaust.

### 4) Self-check interface:



Click the corresponding icon to perform the corresponding self-check operation.

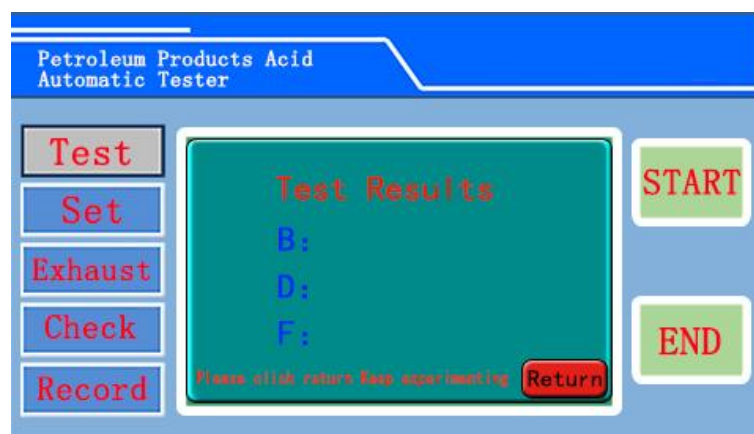
### 5) Record interface:



Click up or down to query the test record; click the print button to print the current record.

(9)、Select the corresponding cup position, enter the sample weight corresponding to the cup position, and confirm that there are no bubbles in the test pipeline (extraction pipeline and neutralization pipeline), press the "Start" menu to perform the acid value test time, the whole process is fully automatic carry out.

(10)、The test result interface will automatically pop up after the test is over:



After viewing, press the "return" button to return to the test interface to continue the test.

(11)、If you do not continue the test, please insert the hose of the neutralization liquid port of the instrument into absolute ethanol, select the neutralization liquid exhaust in the exhaust, and clean the neutralization pipeline to prevent the pipeline from being blocked. After the neutralization pipeline has been cleaned, switch to the exhaust state of the large extraction

solution and empty the extraction pipeline. After all cleaning is completed, lift the clamp of the peristaltic pump for neutralization and extraction to prevent deformation and blockage of the pipeline without a long time.

(12) 、 Turn off the power. Take out the oil cup and clean it for later use; loosen the clamps of the neutralization liquid pump and extraction liquid pump.

## 5.Points of Attention

(1) After each testing, undo the clips of the CORRECT pump and the extract liquid to prevent the extrusion and distortion of the soft tube, which will affect the following testing.

(2) There is a position button on the pump. Make sure that the position button of the clips should be in the line of the red reticle. Normally it has already been adjusted before leaving the factory. Please do not adjust again randomly, otherwise the testing result would be affected.

(3) After testing, must clean the tube with absolute ethanol to prevent jamming.

(4) When the soft tube is distorted and loose elasticity, please change it.

(5) The instrument must be well grounded.