Huazheng®

HZXW-16S
Petroleum Quality Analyzer

Huazheng Electric Manufacturing (Baoding) Co., Ltd

Contents

I. Introduction

We feel really appreciated for you to use our portable octane tester, it'sreally our great pleasure for having u as our client. portable octane tester adopts International advanced integrated circuit technology and Precision inductive components, its various performance and indicators all reached or overreached the domestic advanced level It can be fast, convenient, precise to test the octane value of the gasoline without any damage of the sample. Suitable for the laboratory, also can be used in field test, instrument adopts artificial intelligence technology, strong function and easy to use.

In order to making customer grasp skill of the portable octane tester asap. Please read th e user manual and other relevant material carefully, so that you can use the instrument fr equently and smoothly.

1.1 safety

● The instrument's host engine use rechargeable nimh batteries, when the instrument is not used for a long period ,user should take off the battery In order to avoiding unnecessary electricity leak, the printer can only use the special battery and Adapter (recharger) which our company provides, or it may cause damage, battery leakage. Fire or explosion. If you still got some unclear situation, you are so welcome to directly contact our company or agent

● We suggest to put the instrument in shutdown position when connect the external devic e (detector, communication cable) with the instrument, detector inside is oil loading contai ners which requires to be kept clean, after use, need to be cleaned and washed by ether, then, dry out In ventilated place, the detector's bottom is sensing circuit, prevent oil leaki ng into it while using.or it may cause circuit corrosion or cutting-out.

● Do not disassemble and assemble the instrument without authorization pls contact our company or agent for the Instrument repair matters.

● Instrument should be stored in dry and clean place also, avoid strong vibration.

1.2 Working environment

The instrument got a portable special designed box can test the engine fuel in oil field or laboratory under the conditions of measurement the Instrument's working conditions and index range mainly includes:

Working temperature (environment temperature): -5°C~+30°C

Relative humidity: 80% (≤25°C)

atmospheric pressure: 84~106 kPa

power supply: DC (AA)6V

1.3 Specification

No	parametric description	Value
1	Octane measuring range (ON) (can be adjusted by clients'requirement)	40-120
2	Allowing error of measurement per unit (maximum)	±0.5
3	Floating range of the measuring result, per unit (maximum)	±0.2
4	Measuring time (sec)	<20
5	Ccritical value V when the battery's voltage too low	5.4
6	Main enginemm (length×width×hight)	224x106x40
7	Sensor mm	60x100
8	Weight Kg (maximum)	3.5
9	Normal standby time (h)	200
10	Output mode	LCD display printer output
11	Current consumption	30ma

1.4 Main function

1.It is Suitable for measuring motor gasoline's octane value

2.Varieties of product inspection mode has been set into the instrument: such as, Gasoline octane value mode, General gasoline mode, blended gasoline mode, Methanol gasoline mode, Ethanol gasoline mode, Stone brain gasoline mode, Aromatic gasoline mode and the other five customer mode.

3.The instrument got automatic proof function, the correction feature, can use standard oil to pursue one point, two point, three point correction, can automatically revise the system error.

4.The instrument is equipped With temperature adjustment function can regulate the octane value according to certain problems

5.The instrument got EL backlit display, it's Convenient for using in dark situation

6.The instrument got directive function of the dump energy, which Can display battery's left energy

7.The instrument possesses automatic sleep; Auto power-off and some other kinds of power saving function; can be connected to the micro printer (manufacturer's designated model) to print measurement report directly.

8.The measured data can be storage management and printed.

9.The instrument is small, portable, and got high reliability, suitable for the harsh operating environment, resistance to vibration, impact and electromagnetic interference.

10.It can display measuring time.

II. Instrument Structure

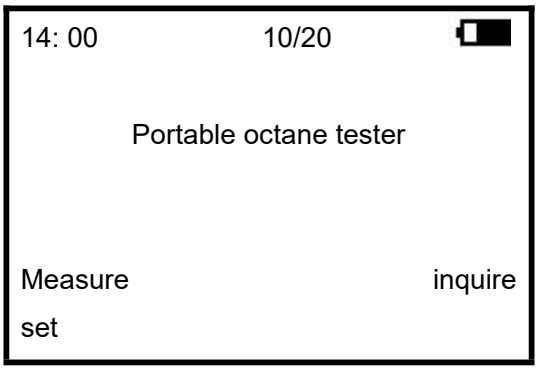
2.1 Instrument plan

2.2 Button instruction

power	Power	homepage	Homepage
backlight	Backlight	OK	Conform
paper feeding	Paper feeding	◀	Left
▲	Up	▶	Right

	Down		

2.3 Menu structure



III. Preparation Before Measurement

3.1 Instrument preparation

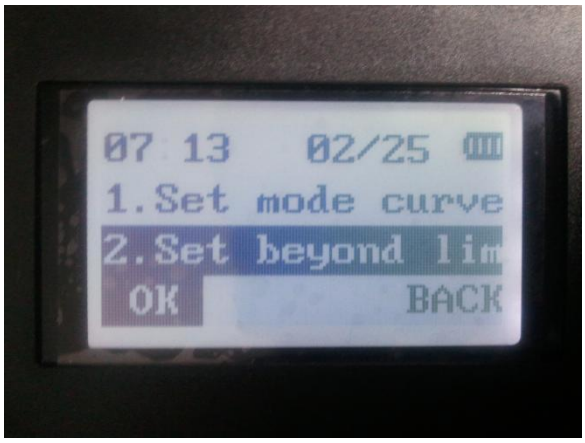
For the new purchased instrument, please check instrument and accessories carefully based on the packing list, if the accessories are incomplete, please contact our company promptly.

3.1.1 Only gasoline can be put into the instrument's Detection unit.

3.1.2 The ambient temperature should be -5°C~+30°C, while operating the instrument. If the operating temperature is too low, liquid crystal display (LCD) will be frozen, on the other side. If the environment temperature is too high, the measured data will be serious distorted.

3.1.3 Don't use the instrument in strong electrostatic environment. In case to avoid interference detection unit electronic circuit.

3.1.4 Ensure the anode and cathode of power supply be put in the right position. The user can see the battery's positive and negative direction on the back panel. In cold environment, in order to ensure the accuracy of test results, user has to place the instrument in a -5°C~+30°C's room for more than 2 hours before starts the test.



Manu 1

Manu 2

3.2 Operating steps

(1) Open the box, take out the instrument and place the testing components on a horizontal table. The position of host machine is unlimited which can be taken in hands or placed on a table.

(2) Ensure that no other impurity sediment or oil slick in the sensor container.

(3) Use glass cylinder to measure 75~100ml sample liquid, then, pour it into the detection container, until detection container was completely full.

(4) Connect the sensor plug with the host machine. (Connector’s red point should be upward, insert the red dot which corresponds to the centre jack.)

(3) Press the "OK" button to open the instrument, the instrument automatically enter into the main screen, then enter into measuring octane value number interface, press“ Up" or "down" button for choosing, ,then, Click on the "OK" button to enter into the oil pattern interface, then press the "up" or "down" button to Choose the measured oil’s model, Click the "ok" button to enter into” Please confirm the injection sample preparing test page”, then, Click the "ok" button to proceed the oil testing.

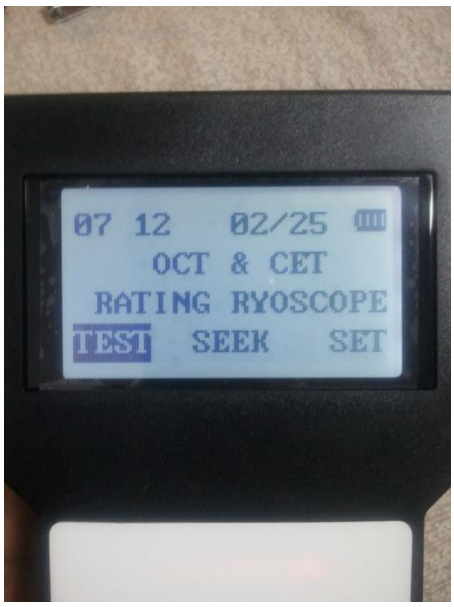
(4) The instrument shows measuring data after twenty seconds, if testing containers got no oil sample; the display will exceed lower line, If got, It will show the testing value.

(5) Measured data can be preserved, enter the main screen’s printing option after saving the measured data. The measured data can be printed directly by the micro Printer.

(6) If the sample liquid temperature differs from ambient temperature, you can wait for a moment until the liquid temperature gradually adjustable. At present, measured data can be recorded. If the sample reference value exceeds the instrument measuring range, the

instrument will display “exceeds the lower limit” or “exceeds the upper limit”, after the measurement, user can shut off the power. If the instrument will automatically shut down, if no operation or no press any key within 1 minute.

(7) Pour out the sample liquid, using ethyl ether or gasoline to clean the machine, then, Use fabric to wipe it clean, No dust should be kept.



3.3 has a complate system

1) The has a Portable Octane Analyzer Complete system Includes: AKI, RON, MON

2) When the Analyzer testing page shows RON, the printing paper will show RON ,MON ,AKI.

3.4 Measuring attention

1) Using ether to clean the instrument after gasoline Detection
2) Since the instrument internal inspection units are very sensitive, when Tests different size oil, in order to improving the accuracy of the testing value, user must ensure the container interior clean, always ensure the sample oil got no impurity (Before the measurement ,can use filter paper to filtrate the sample oil). When measuring only one oil sample, user must use this kind of oil to wash the container; in that case, you can get the most precise result.
3) Make sure the container be filled with sample, in that case, you can get the most precise result
4) Due to the octane value can be affected by temperature, In order to ensure measurement accuracy. All test should be proceeded in constant temperature environment, when testing the same sample. Each test should be preceded in the

same temperature (When Measured results come out, it will show the internal temperature of the measuring cylinder).

5) Instrument sensor should be inserted into the centre interface; Printer should be inserted into the right interface. The left side is the power supply interface

IV. Instrument Setup

4.1 Setting the measuring mode curve

The instrument can be adjusted with one, two or three kinds of octane value known oil sample. (Minimum two kinds of oil samples are needed for the first time adjusting.) The operation steps are:

1) Connect the Instrument to the sensor and boot in settings menu, then enter setup mode curve, (the curve is a

Measure numerical slope; change the slope in order to enhance the accuracy of octane value).

2) Select octane value curve setting.

3) Select  key to change patterns (only changing one single mode for each adjusting, and no effect on the other modes).

4) Enter and choose calibration points, (calibration points is determined by the known octane value of sample, the more point's calibration, the higher numerical accuracy is), then pour the oil into the internal sensor, confirm adjusting at the same time, save the adjusting according to the instrument promoting and finish.

5) Afterwards, choose this mode to test the same kind of oil after adjusting.

4.2 Setting measuring range

When the instrument measuring range can't satisfy the needs, the measurement range of the instrument can be changed according to the customers' demand.

The operation method is:

Choose the setting model after starting up, select to enter setting mode up and down line under the Setting menu, Select and set octane value range. After entering choose corresponding mode for setting up and down the line

V. Cautions

5.1 General note

- Avoid shaking the instruments and probe;
- Avoid instruments in too damp environment;
- When plugging and pulling the probe, knead mobile cover and move it along the axis line. In order to avoid damaging the probe cable core, do not rotating the probe;
- Oil and dust will make the probe line aging and fracture gradually, after using, keep the cable clean.

5.2 Casing cleaning

Alcohol diluent is corrosive for the casing, so use a small amount of water to wipe it.

5.3 Stocking terms

Avoid vibration, strong magnetic field, corrosive medium and wet dust, store in room temperature.

VI. Packing List

No.	Item	Qty
1	Instrument host	1
2	Test probe	1
3	Thermal micro printer	1
4	Thermal printing paper	1
5	Rechargeable nimh batteries	4
6	Charger	1
7	Data connections cable	1
8	Quick start Manual and user Manual	1
9	Portable safety box	1